No. 11569

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Friday 1st December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.
Pressure: M.S.L.	977.1 mb	981.8 mb	987.3 mb	991.6 mb	994.7 mb	1001.6 mb	1006.6 mb	1007.3 mb	999.6 mb
Pressure: Surf	967.1 mb	980.2 mb	986.4 mb	983.0 mb	992.7 mb	997.3 mb	990.6 mb	996.7 mb	998 mb
Pressure: Freezing	Surface, 967 mb	928 mb	893 mb	955 mb	844 mb	759 mb	742 mb	745 mb	865 mb

Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots	Pressure mb
Surf	027	31	29	285	12	014	33	31	230	05	02	39	37	250	13	023	39	34			006	50	40	240	30	012	47	42	210	25	044	48	44	270	18	029	50	50	205	30	03	47	42			Surf
1000	-6.1					-4.9					-3.5					-2.2					-1.4					0.5					1-8					01.9					-0.1					1000
950		31	27	262	21		33	29	269	24		38	34	252	29		33	31				45	35	246	41		43	38	229	46		44	40	243	37		46	46	231	45		42	37			950
900	21-5	27	21	267	21	21-8	28	23	267	25	24-6	33	29	262	27	25-5	26	25			27-1	39	30	252	53	28-8	37	33	240	53	30-2	39	36	250	48	30-6	42	42	237	46	28-2	36	34			900
850		19	14	271	23		22	17	270	28		27	22	273	35		21	20				33	26	256	59		34	29	253	59		34	30	253	54		39	39	249	45		30	29			850
800	51-6	14	05	272	24	53-1	15	11	266	28	55-3	21	16	271	45	55-8	15	11			58-1	26	21	258	57	53-8	31	21	262	58	61-3	31	15	256	56	61-8	35	35	252	45	55-9	12	5	25		800
750		08	-5	276	27		08	-6	260	29		15	09	267	52		07	-1				21	07	256	62		31	10	260	58		33	06	256	60		32	32	247	51		22	15			750
700	84	30	-13	281	31	86	40	-5	255	32	89-0	10	03	264	58	89-1	02	-2			92-4	21	-9	257	71	94-7	25	06	258	61	96-3	27	05	258	61	96-8	27	27	249	51	93-5	22	-24			700
650		-8	-25	276	34		-6	-12	254	34		03	-8	265	72		-6	-10				13	-29	262	76		18	00	259	67		18	03	267	64		23	22	251	49		17	-9			650
600	122	-17	-34	276	33	124	-15	-21	258	39	127	-5	-11	253	76	126	-9	-24			131	06	-27	262	83	134	11	-5	263	69	136	12	03	268	70	137	16	15	263	72	133	10	-12			600
550		-76	-42	282	40		-24	-30	259	40		-15	-19	253	85		-11	-36				-1	-17	263	93		03	-11	266	67		08	-1	267	79		10	08	265	69		04	-17			550
500	164	-39	-54	279	45	166	-24	-40	256	37	170	-22	-31	258	90	170	-16	-47			176	-8	15	264	101	179	-6	-15	267	73	181	-1	-9	270	79	182	02	-1	267	70	178	-3	-15			500
450		-51		274	51		-46		247	36		-24	-40	260	102		-18	-45				-13	-26	264	108		-13	-20	265	84		12	-20	270	79		-10	-16	268	76		-11	-17			450
400	213	-62		271	44	215	-53		253	45	222	-29	-46	261	131	222	-28	-45			229	-29	-35	265	117	232	-24	-33	267	88	234	-25	-36	274	90	236	-19	-24	278	93	231	-22	-35			400
350		-61		258	36		-48		258	60		-38	-50	267	153		-40					-41		268	112		-40	-47	274	92		-35	-51	276	93		-32	-38				-35	-49			350
300	274	-58		247	48	278	-47		259	67	287	-48				287	-51				295	-53				296	-52		274	102	299	-53		272	90	301	-47				296	-49			300
250		-52		253	42		-52		262	67		-54					-64					-67										-68		273	96		-66					-65			250
200	361	-54		262	33	367	-51		267	54	374	-60				372	-72				378	-76									383	-83		268	83	386	-82				381	-78			200
170		-59		265	41		-56		260	52		-62					-71					-78										-87					-88					-76			170
150		-61		265	31		-57		260	54		-62					-69					-80										-88					-83					-76			150
130		-64		254	33		-58		260	51		-64					-72					-73										-81					-81					-73			130
110		-65		253	30		-60		263	40		-65					-76					-77										-77					(142)					-74			110
100	509	-68		253	30	516	-65		265	39						516	-74				515	-75									523	-86									524	-78			100
90		-69		259	30												-73					-77										-80										-72			90
80		-74		264	34												-72					-74				(65)	-74					-79										-71			80
70		-74		264	36												-73																												70
60																	-71																												60
	Isothermal 967-942 mb 31°					Isothermal 980-933 mb 33°					Isothermal 986-963 mb 39°					Inversion 618 mb 42°-587 mb 7°; Isothermal 457-441 mb 18°					Inversion 742 mb 20°-720 mb 24°					Inversion 815 mb 28°-792 mb 32°; Isothermal 792-760 mb 32°					Inversion 812 mb 30°-763 mb 35°					Isothermal 772-745 mb 32°					Inversion 758 mb 21°-737 mb 25°					
Tropopause	I 380 mb -65° 22900'					I 415 mb -56° 20700'					II 215 mb -60° 35800'					I 203 mb -75° 37000'					I 191 mb -77° 38800'					NR.					I 177 mb -80° 40800'					I 170 mb -88° 41900'					I 200 mb -78° 37100'					Tropopause

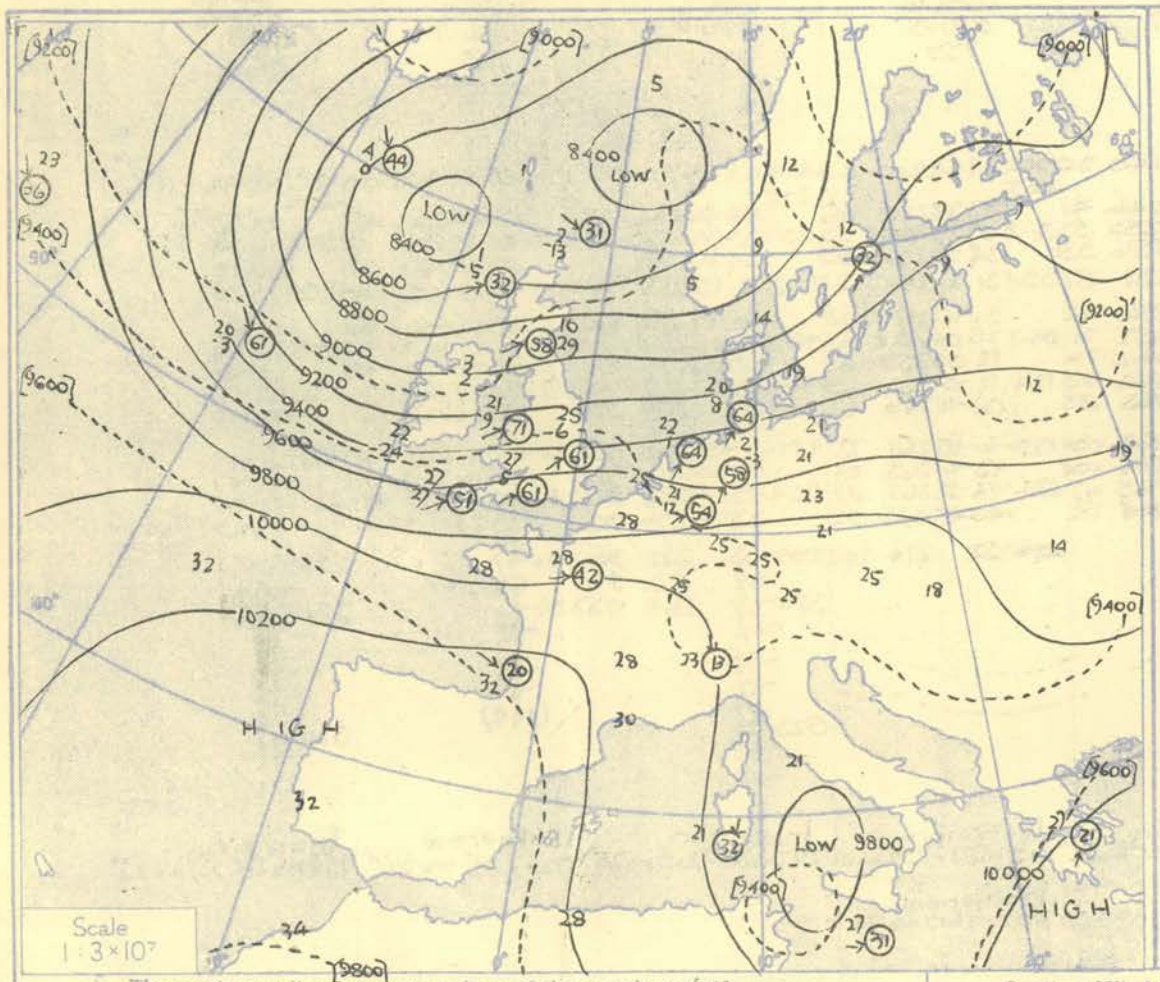
09hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne		Tropopause
Pressure: Time	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	G.M.T.	
Pressure: M.S.L.	977.6 mb	977.8 mb	985.0 mb	990.1 mb	992.6 mb	993.9 mb	997.3 mb	999.7 mb	mb	
Pressure: Surf	967.6 mb	976.2 mb	984.1 mb	981.4 mb	990.5 mb	989.7 mb	981.7 mb	989.2 mb	mb	
Pressure: Freezing	950 mb	950 mb	935 mb	958 mb	908 mb	780 mb	762 mb	807 mb	mb	

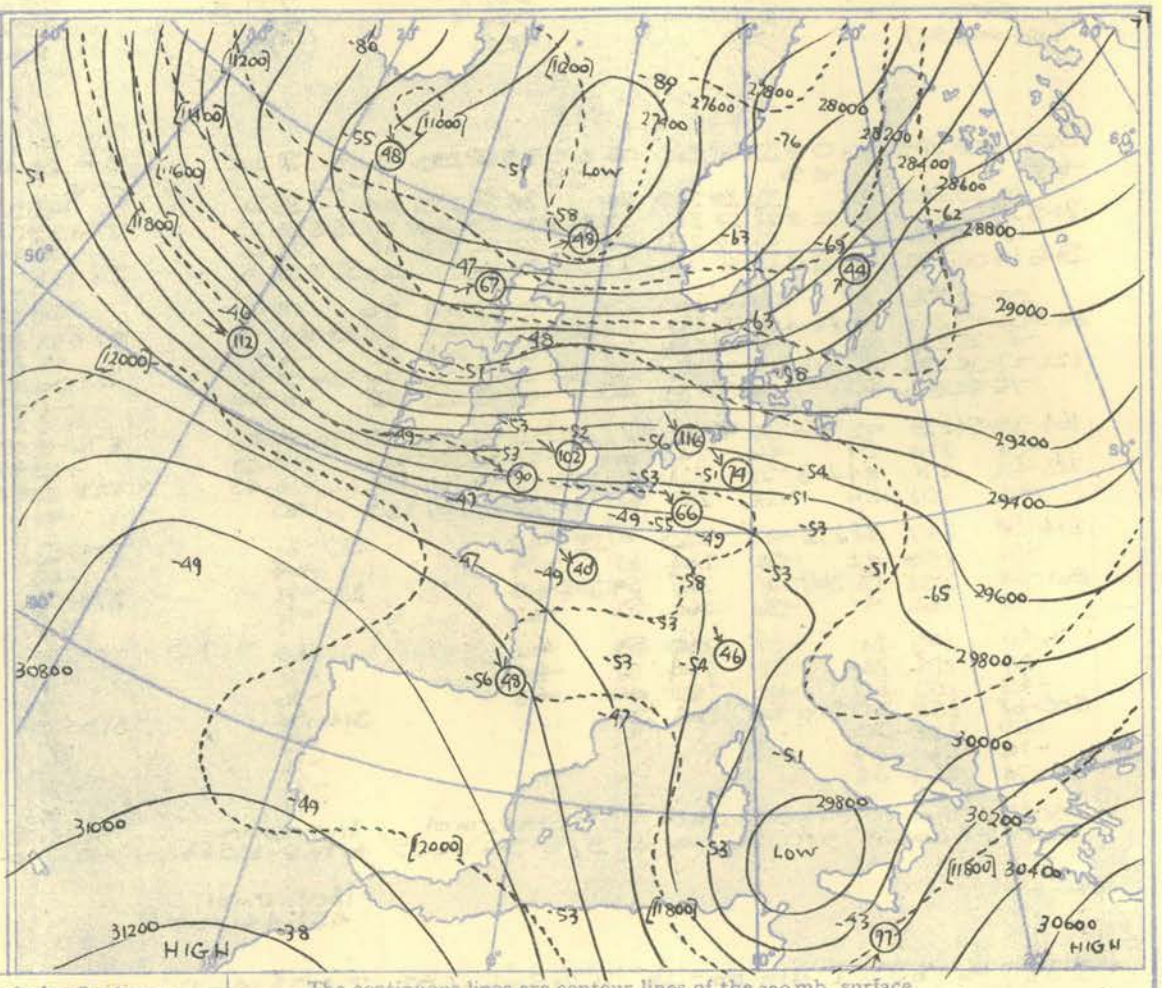
Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Pressure mb
Surf	027	31	31	340	02	04	34	32			02	32	31	260	14	023	35	30			006	40	39	290	10	012	50	47	210	28	044	51	51	230	18	029	50	50	270	20						Surf
1000	-5.9					5.8					-4.0					-2.6					-1.9					-1.6					-0.7															1000
950		32	31	264	14		32	28				31	29	252	29		31	26				36	34	287	26		47	43	227	48		50	50	240	51		41	41	280	18						950
900	21-7	29	25	270	16	21-9	28	21			23-6	27	23	262	32	25-1	28	21			26-0	31	28	277	32	27-8	45	40	237	55	28-0	46	44	250	46	28-3	39	39	268	36						900
850		22	18	272	17		21	14				22	17	266	34		22	17				27	24	269	46		38	34	248	61		40	39	256	46		35	35	245	41						850
800	51-5	14	08	273	15	52-1	16	07			55-7	16	08	269	33	55-5	15	10			56-7	23	20	256	52	58-4	33	31	256	59	59-5	35	34	255	44	59-5	31	31	246	43						800
750		09	-1	274	17		09	03				10	02	274	33		10	05				17	13	247	63		27	23	264	68		31	29	251	54		29	29	255	67						750
700	85-2	02	-8	274	19	85-5	02	-2			87-0	05	-6	285	33	89-0	04	-2			90-7	11	06	246	67	93-3	26	22	259	74	94-6	27	23	257	75	94-3	23	22	255	71						700
650		-7	-23	273	20		-6	-9				-3	-17	253	33		-3	-17				10	-19	257	79		18	14	250	72		21	18	262	84		17	17	258	72						650
600	122	-13	-27	273	18	122	-14	-18			125	-11	-25	256	34	126	-11	-34			129	06	-32	261	102	133	12	07	250	73	134	16	09	261	79	134	09	05	258	76						600
550		-25	-36	278	20		-23	-27				-21	-34	253	34		-19	-43				02	-36	264	106		05	00	255	76		06	01	255	79		02	-9	261	86						550
500	165	-37	-46	278	25	165	-34	-39			167	-33	-43	250	37	163	-18	-45			174	-5	-15	264	120	178	-3	-9	256	79	179	-2	-34	257	84	178	-7	-17	259	87						500
450		-43		273	32		-45					-39	-50	272	66		-20	-42				-12	-24	254	136		-12	-19	257	86		-13	-40	258	89		-18	-25								450
400	213	-58		279	29	214	-54				218	-35	-49	262	94	222	-25	-47			227	-23	-38	257	133	231	-23	-31	262	104	233	-24	-47	259	104	231	-25	-35								400
350		-60		281	23		-51					-40	-45	259	106		-37	-56				-38	-50					-38	-47	258	103		-37	-51	260	100		-38	-43								350
300	275	-62		254	27	277	-49				282	-50		258	112	286	-51				292	-52				296	-50		267	121	297	-53		263	126	299	-55									300
250		-53		256	34		-51					-60		258	106		-53					-71					-65		258	104		-68		261	116		-70									250
200	363	-54		258	36	365	-55				369	-60		257	73	373	-64				377	-73				381	-76		264	101	382	-74				380	-87									200
170		-56		263	38		-60					-66		267	63		-64					-72					-80					-77					-90									170
150		-58		262	32		-57										-65					-71					-82					-78					-53									150
130		-60		258	34		-63					-61					-68					-70					-81					-76					-65									130
110	(111)	-63					-68					-65					-67					-68					-79				(114)	-72					-82									110
100						513	-65					-71				518	-66				521	-71				532	-77										-83									100
90							-67										-67																													90
80							-66										-68																													80
70							-70																																							70
60							-69																																							60
	Inversion 968 mb 31°-931 mb 33°										Inversion 462 mb 41°-425 mb 34°; Isothermal 425-407 mb 24°					Inversion 540 mb 21°-467 mb 17°					Inversion 675 mb 7°-642 mb 11°; 500 mb 5°-450 mb 4°					Isothermal 930-910 mb 46°; 750-705 mb 27°										Inversion 792 mb 31°-779 mb 32°										
Tropopause	I 378 mb -61° 22600'					I 408 mb -54° 21000'					II 239 mb -62° 35000'; I 462 mb -41° 18300'					II 284 mb -57° 29800'					I 228 mb -73° 35000'					II 214 mb -76° 36700'					I 237 mb -71° 34800'					I 178 mb -94° 40300'					Tropopause

Friday 1st December. 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



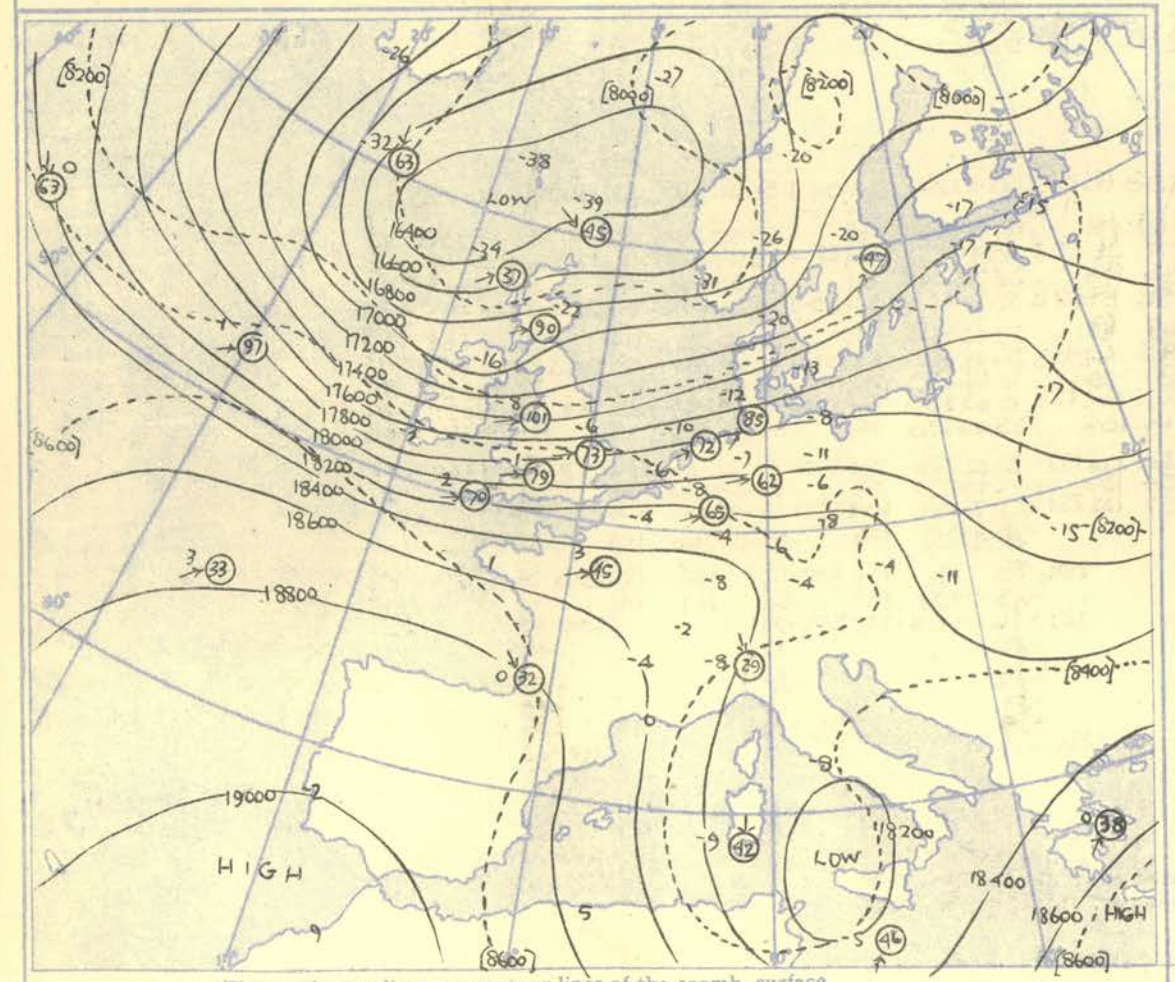
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



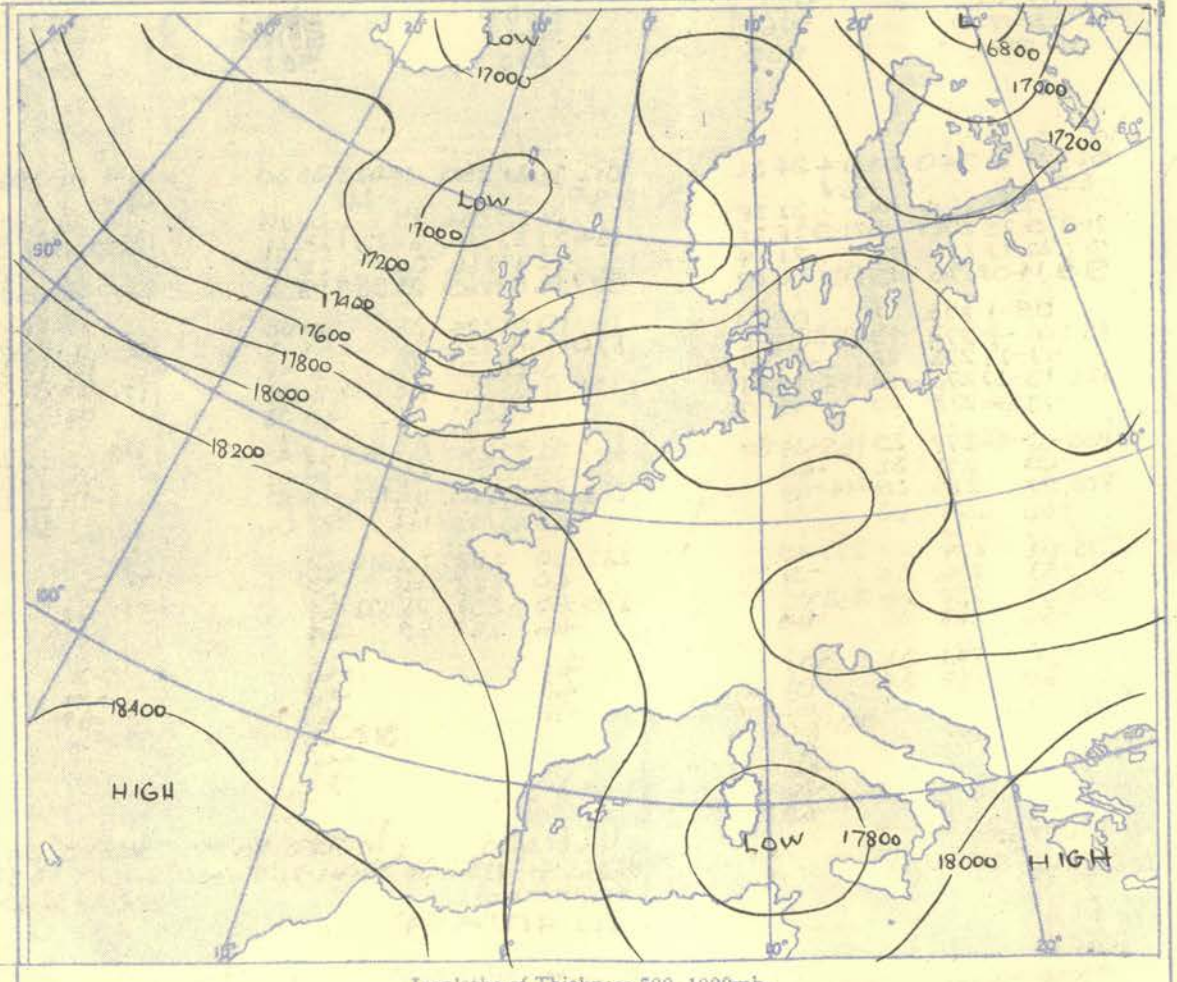
The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 0 knots



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

December 1st 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	55.5°N 16.0°W			43.2°N 17.0°W			39.5°N 12.2°W			53.1°N 1.3°E		
Pressure: Time	15hrs			13hrs			14hrs			1445hrs		
M.S.L.	997 mb			1015 mb			1020 mb			991 mb		
Surf	990 mb			1011 mb			1016 mb			983 mb		
Freezing	855 mb			710 mb			700 mb			883 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf	—	49	22	—	61	61	—	60	56	0.5	39	39
1000	-0.7			4.1			5.4			-2.4		
950		41	25		58	55		58	29		34	34
900		36	19		53	53		55	41	25.5	33	33
850		31	08		48	48		50	38		30	29
800		25	-		41	36		47	32	56.3	26	-
750		18	-		37	37		40	36		19	-
700	92.3	11	-	101	31	-	103	32	-	90.3	17	-
650		04	-		25	-		27	-		12	-
600		-4	-		19	-		20	-	129	13	-
550		-8	-		13	-		14	-		04	-
500	175	-12	-	186	01	-	183	03	-	175	-4	-
450											-15	-
400										228	-26	-
350											-38	-
300										292	-53	-
250												
200												
170												

55.5°N 16.0°W:
Cloud
4/8Cb 910-530
Surf wind NW 28-33kts

43.2°N 17.0°W:
Cloud
6/8Sc 940-780
4/8Cb 850-THR
7/8As 930-570
8/8Cs approx. 400
Icing:- Light rime or frost in cloud 750-370mb
Surf wind SW. 17-21kts

39.5°N 12.2°W:
Cloud
4/8Cs NR.
Surf wind Calm.

53.1°N 1.3°E:
Cloud
3/8St 960-952
8/8Sc 921-875
7/8Sc 855-700
8/8Ns 635-345
Inversion 650mb 12° 600mb 13°
Isothermal 950-900mb 34°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Downham Market		Wick		Shoeburyness		Lerwick				Weather Watcher 54.7°N 11.2°W		Weather Observer 57.5°N 10.1°W		Place
Time	03hrs		05hrs		11hrs		15hrs		21hrs		20hrs		20hrs		Time
Type	Pilot		Radar												Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.			210	12	220	24	300	07			330	32	020	40	Surf.
1,000			230	27	230	50	283	13			340	38	010	50	1,000
2,000			240	26	230	58	283	15			340	39	010	49	2,000
3,000			250	16	240	65	284	16			340	37	010	48	3,000
4,000			250	09	250	66	278	17			340	35	010	46	4,000
5,000			260	06	260	63	269	16			330	34	010	48	5,000
6,000			240	10	260	59	262	15			330	39	010	48	6,000
8,000			240	23	250	59	259	16			330	46	010	48	8,000
10,000					250	77	264	17			320	47	010	48	10,000
14,000							308	17			330	52	010	33	14,000
18,000					250	80	322	14			340	47	360	39	18,000
24,000					260	99	347	13			340	56	330	33	24,000
30,000							268	26			350	44	320	36	30,000
40,000	270	98					263	32	272	31	330	46			40,000
50,000	275	60					257	33	287	31	320	25			50,000
							254	35	(44000')						
							(53000')								

NEPHOSCOPE OBSERVATIONS

Place											Place
Time Type											Time Type
Dir. Vel.											Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	52.3N 19.6W					52.4N. 19.8W					52.5N 20.5W				
Time G.M.T.	03h.					09h.					15h.				
Pressure M.S.L. mb	1004					1003					1009				
Surf mb	1004					1003					1009				
Freezing mb	915					905					880				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	38	280	33		46	42	310	33		49	43	330	22
1000	1.1	44	38			0.9	45	39			2.4	47	42		
950		37	31	302	42		37	26	316	44		41	39	337	38
900	29.1	29	24	307	43	28.9	31	21	318	46	30.1	35	30	341	30
850		22	20	310	39		28	10	318	46		28	25	339	31
800	59.5	17	12	305	43	59.4	21	01	323	46	61.3	20	19	328	33
750		20	01	302	49		16	-12	337	50		20	04	321	33
700	93.6	20	-03	289	61	93.3	11	-29	341	62	95.4	13	-03	311	30
650		17	-09	270	81		04	-36	331	62		05	-12	310	29
600	133	13	-13	268	88	131	-03	-45	325	55	134	-02	-19	309	26
550		08	-10	267	90		-10	-53	309	55		-13	-30	289	28
500	178	01	-12	264	97	175	-17	-57	292	63	177	-25	-41	282	28
450		-06	-17	260	108		-21	-54	276	84		-37		290	28
400	232	-17	-29	273	106	227	-30	-57	262	108	227	-47		308	33
350		-30	-43	274	107		-38	-58	276	119		-51		302	43
300	298	-46		267	112	292	-50		263	109	290	-52		283	57
250		-64		267	114		-59		294	91		-56		265	84
200	383	-79		261	104	378	-66		281	86	377	-62		274	72
170		-81		263	102		-66		271	72		-64		277	67
150		-77		273	68		-63		276	65		-66		276	64
130							-74		271	64		-65		285	58
110							-75		277	64		-71		292	53
100						522	-75		287	54	523	-72		292	49
90							-75		279	42		-70		292	42
80							-75		290	39		-71		292	39
70						(77mb)	-74					-73		292	37
60												-72		292	36
												-73		292	42
												-75		292	38
Tropopause	I 178 mb -83° 40,700'					II 203 mb -66° 37,500'					II 203 mb -62° 37,500'				

52.3N 19.6W:
Inversion 805 mb 16° - 775 mb 22°
Isothermal
1004 - 1000 mb 44°
750 - 687 " 20°
611 - 583 " 13°
471 - 460 " -04°

52.4N 19.8W:
Inversion
872 mb 27° - 850 mb 28°
478 " -26° - 468 " -19°
Isothermal
244 - 236 mb -60°

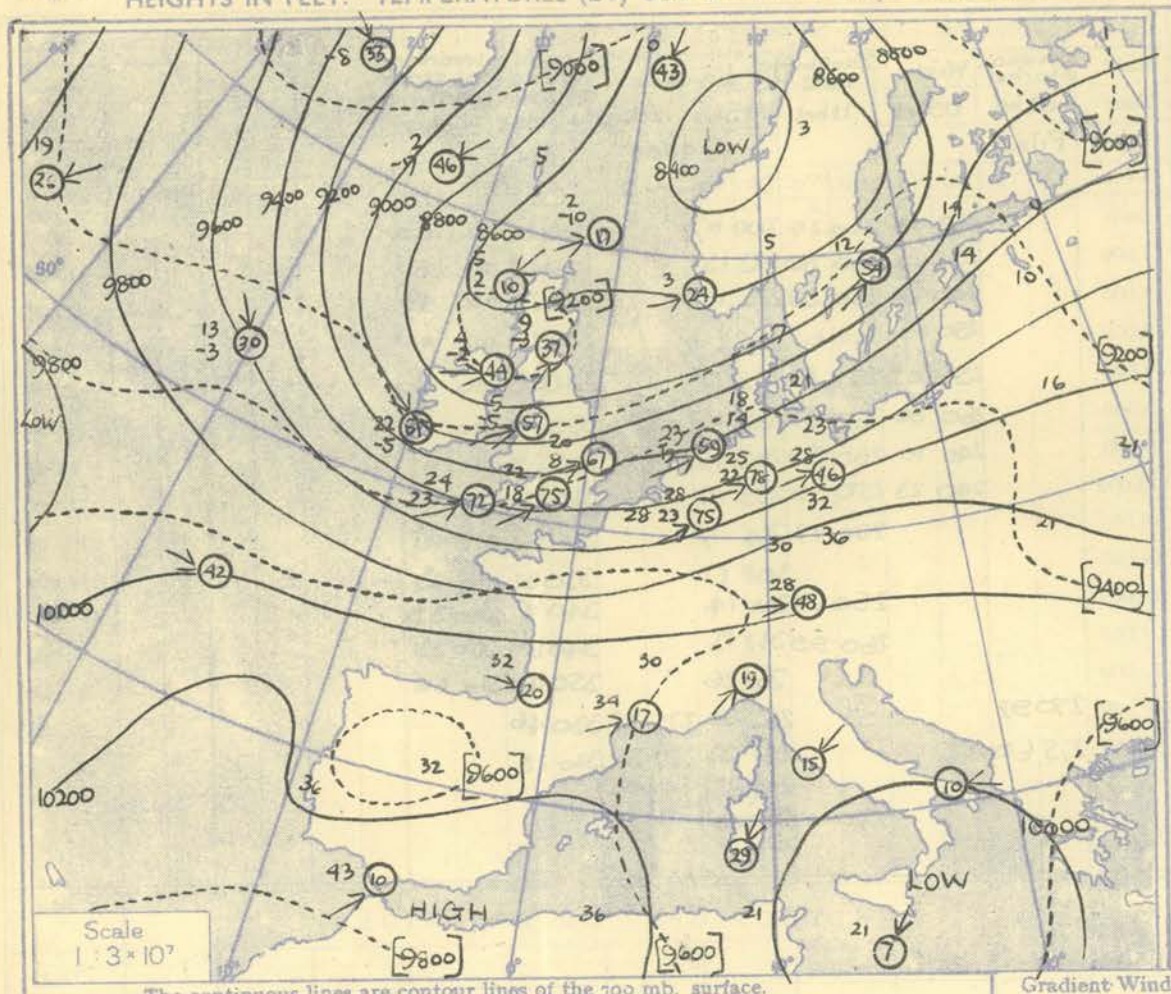
52.5N 20.5W:
Inversion
800 mb 20° - 784 mb 24°

Ship	WEATHER EXPLORER					WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52.4N. 20.5W					60.7N. 15.4W					60.9N. 14.8W				
Time G.M.T.	21h					03h.					09h.				
Pressure M.S.L. mb	1013					973					984				
Surf mb	1013					973					984				
Freezing mb	900					920					920				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	41	340	25		39	38	340	26		39	37	360	35
1000	3.6	46	40	347	27	-7.4					-4.4				
950		39	36	345	27		36	31	356	28		35	34	360	39
900	31.8	32	31	340	27	20.5	29	24	249	28	23.5	29	29	360	44
850		25	20	344	24		23	19	338	32		24	20	008	45
800	62.3	19	16	344	25	50.8	16	12	333	42	54.0	17	16	026	48
750		15	04	344	24		10	06	343	39		11	09	030	51
700	96.1	10	-07	344	24	84.3	04	00	347	44	87.5	03	00	029	56
650		02	-19	345	21		-04	-09	351	42		-05	-09	023	52
600	134	-06	-28	333	25	122	-12	-17	358	45	121	-13	-18	025	50
550		-16	-37	322	32		-22	-27	004	53		-23	-30	035	50
500	177	-27	-47	320	33	164	-32	-37	022	63	167	-33	-41	032	42
450		-37	-57	323	34		-44		017	60		-44		017	38
400	228	-46		330	40	214	-52		360	54	217	-56		018	54
350		-56		333	49		-54		360	35		-64		018	73
300	290	-59		320	44	276	-55		354	48	277	-71		014	73
250		-59		299	39		-53		340	39		-57		009	68
200	376	-65		303	51	364	-55		311	21	(210mb)	-49			
170		-66		295	54		-57		305	20					
150		-66		299	49		-59		297	18					
130		-70		308	39	(138mb)	-60								
110		-73		303	39										
100	521	-75		297	37										
90		-76		293	47										
80		-75		285	31										
70	(75mb)	-74													
60															
Tropopause	II 333 mb -58° 26,600'					II 400 mb -52° 21,400'					I 311 mb -74° 27,000'				

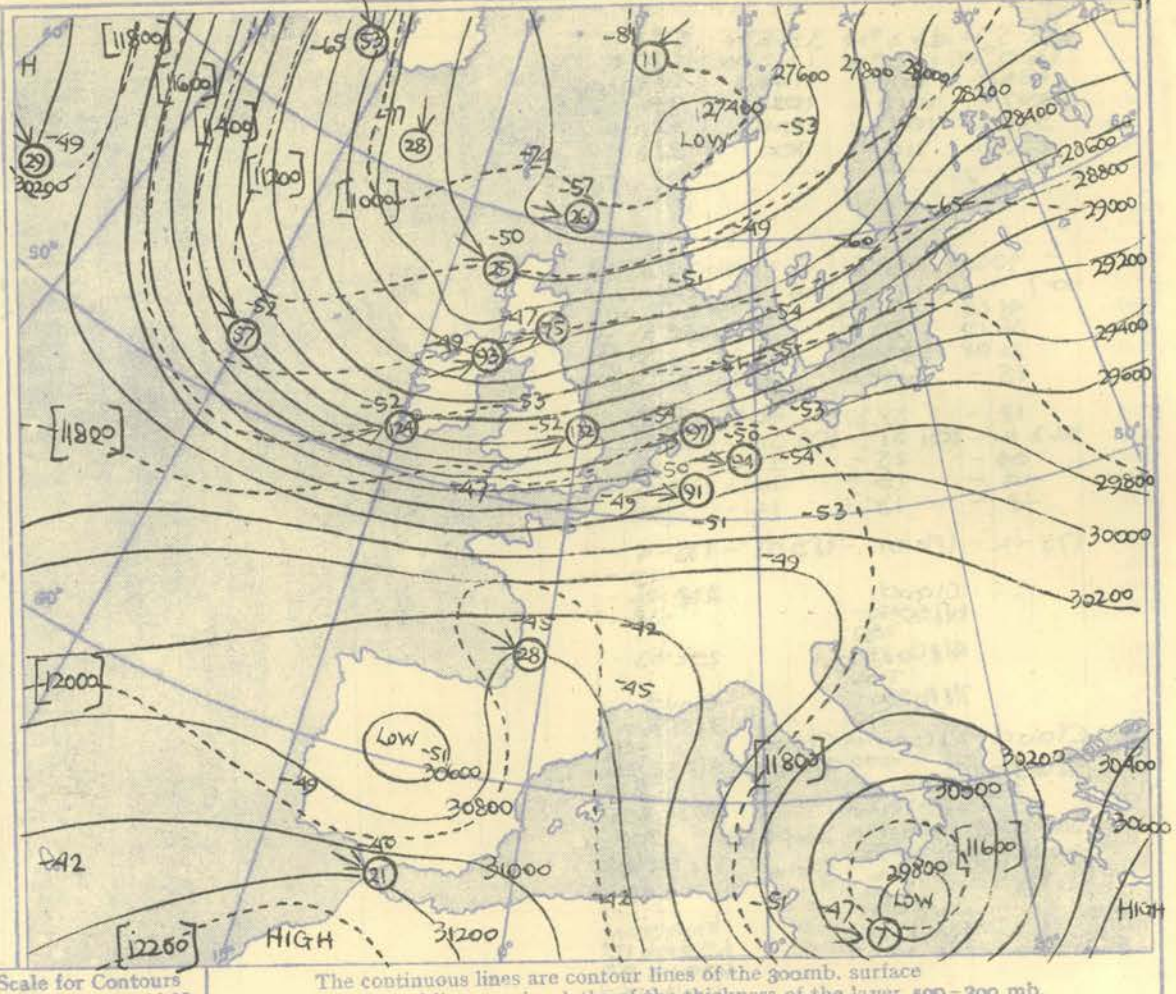
Ship	WEATHER RECORDER					WEATHER RECORDER					WEATHER OBSERVER					Ship
Lat/Long	61.0N 14.5W					61.1N 14.3W					57.0N 10.1W					Lat/Long
Time G.M.T.	15h.					21h.					03h					Time
Pressure M.S.L. mb	994					1004					978					M.S.L.
Surf mb	994					1004					978					Surf
Freezing mb	950					990										Freezing
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf		37	35	010	35		35	32	010	38		39	34	350	35	Surf
1000	-1.7					1.0	34	31			-5.8					1000
950		32	28	020	51		27	22	017	32		36	34	343	37	950
900	26.0	27	22	020	52	28.5	20	13	015	41	22.1	30	29	345	36	900
850		19	11	020	52		15	07	013	45		24	24	348	26	850
800	56.1	13	00	022	51	58.2	06	-02	012	43	52.5	19	18	350	30	800
750		08	-11	024	50		-01	-10	002	38		14	12	348	33	750
700	89.4	02	-17	023	46	90.8	-07	-21	342	44	86.2	08	06	347	33	700
650		-07	-25	019	45		-14	-34	345	44		-01	-03	347	34	650
600	127	-16	-33	012	42		-21	-41	353	30	124	-10	-12	348	30	600
550		-26	-42	004	45		-28	-47	350	20		-20	-22	347	32	550
500	169	-33	-48	349	48		-37	-56	322	33	167	-30	-32	347	32	500
450		-41		340	38		-47		307	46		-42		346	28	450
400	218	-54		327	32		-56		312	42	217	-47		346	30	400
350		-68		334	22		-65		307	33		-49		335	29	350
300	279	-77		352	28		-71		332	31	280	-51		326	27	300
250		-71		349	39		-68		340	35	(293mb)	-52				250
200	363	-63		344	38		-63		340	40						200
170		-64		331	32		-66		336	44						170
150		-64		315	39		-67		318	47						150
130		-60		315	42		-67		307	43						130
110		-63		317	36		-67		306	41						110
100	509	-66		311	40		-67		326	46						100
90		-69		298	51		-67		335	42						90
80		-72		296	42		-70		335	33						80
70		-75					-74		335	29						70
60							-77		335	28						60
							-79									
Tropopause	I 285 mb -81° 29,000'					I 312 mb -72° 27,000'					N.R.					Tropopause

61.0N 14.5W:
Inversion
318 mb -77° - 306 mb -76°

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

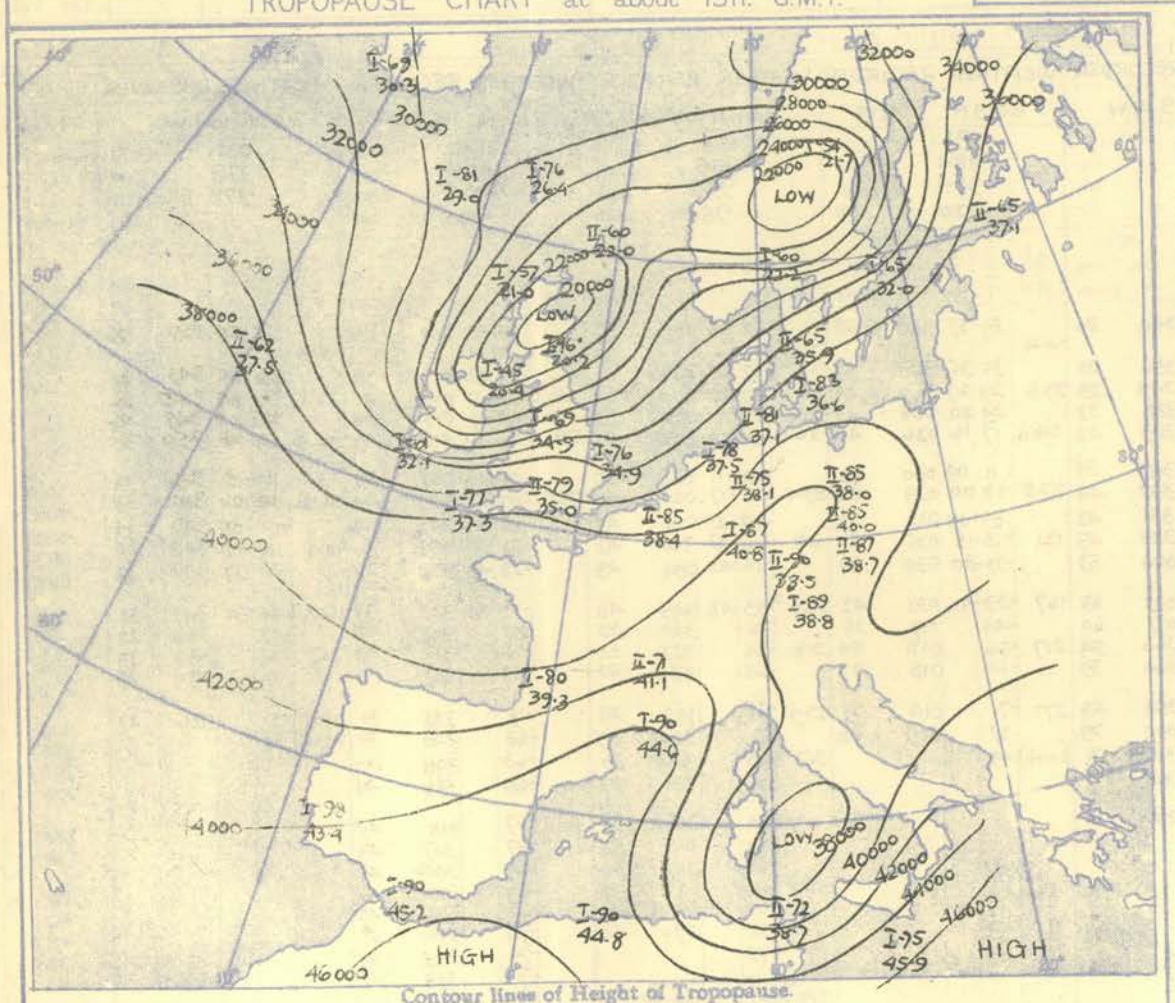


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool west of the Faroes moved east as far as Norway whilst a further cold trough developed south from Iceland. A strong ridge moved slowly east into the Atlantic from Eastern Canada. The westerly thermal jet moved slowly South across England and the North Sea.

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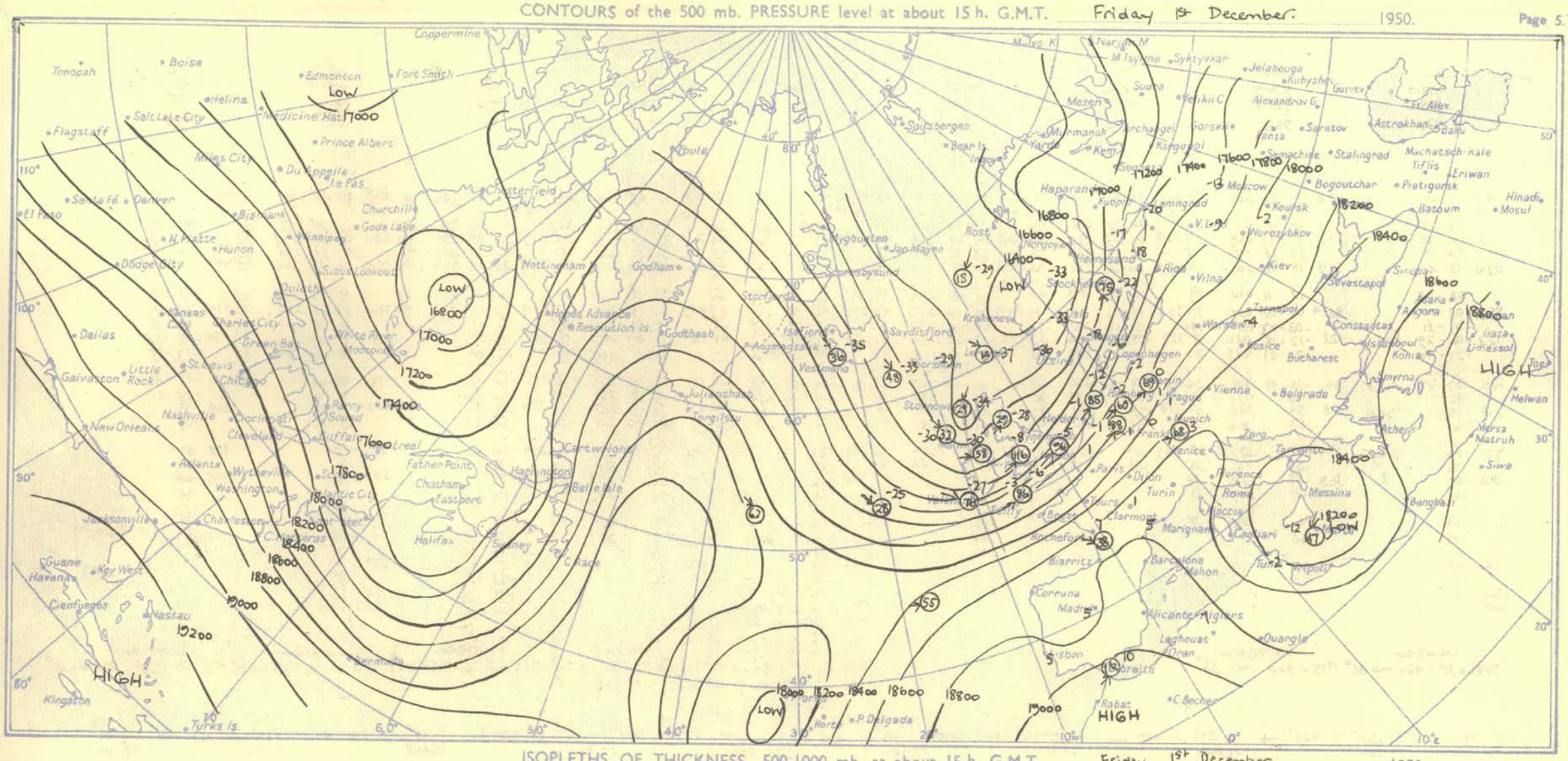
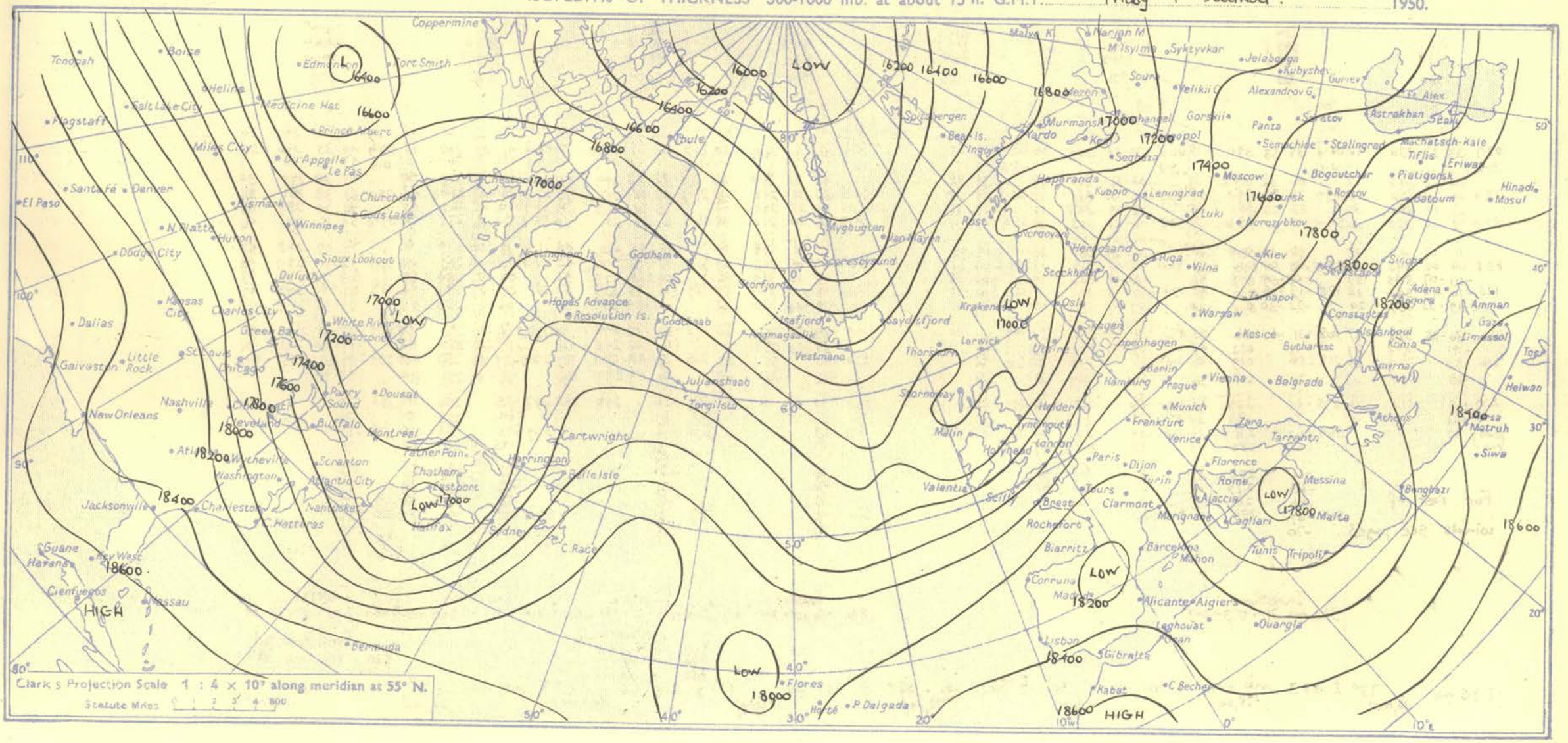
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
Nelson K. Johnson, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Friday 1st December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Friday 1st December. 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	978·0 mb	976·9 mb	980·6 mb	985·5 mb	989·2 mb	992·8 mb	994·8 mb	999·8 mb	997·8 mb
Pressure: Surf	968·0 mb	975·3 mb	979·7 mb	976·9 mb	987·1 mb	988·4 mb	978·9 mb	989·3 mb	996 mb
Pressure: Freezing	938 mb	950 mb	920 mb	940 mb	896 mb	875 mb	841 mb	855 mb	900 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	31	29			00·4	33	32	300	10	00·2	39	31	220	28	02·3	37	33	250	16	00·6	43	34	220	15	01·2	42	42	260	04	04·4	46	44	240	18	02·9	46	44	293	12	00·3	47	35			Surf
1000	-5·8					-5·1										-3·9					-2·9					-2·0					-1·4					-0·2					-6					1000
950		33	27				32	31	011	15		36	28	225	42		33	30	250	33		39	31	240	21		39	36	273	24		42	40	251	35		42	39	273	30		40	27			950
900	21·8	28	22			21·5	27	27	009	13	22·8	29	22	232	45	23·9	29	24	248	47	25·2	33	26	256	39	26·2	36	32	270	33	26·9	36	35	259	42	28·1	37	35	272	30	27·6	32	23			900
850		22	14				23	23	006	12		24	18	235	46		25	15	259	48		26	20	260	45		29	27	267	37		30	28	267	42		31	30	270	33		26	18			850
800	52·0	15	10			51·8	18	18	006	09	53·3	20	12	234	43	54·3	16	09	266	46	55·7	19	14	262	49	57·0	25	23	256	56	57·8	26	18	269	48	59·0	26	25	268	45	58·1	20	13			800
750		08	-02				12	11	010	09		15	03	230	40		11	06	268	48		12	07	260	56		20	18	253	54		26	14	263	64		25	23	266	60		13	08			750
700	85·4	02	-10			85·4	05	02	030	10	87·0	09	-03	222	37	87·9	04	-01	272	44	89·3	05	-05	261	57	91·2	20	08	258	67	92·4	22	18	251	75	93·6	24	23	255	72	91·8	08	-05			700
650		-03	-07				-03	-09	036	14		02	-08	225	36		-04	-14	274	42		-03	-08	268	62		15	10	253	83		16	12	255	80		19	18	257	77		00	-15			650
600	123	-16	-29	For		123	-12	-18	026	15	125	-08	-17	234	32	125	-12	-22	274	45	127	-11	-17	263	68	130	11	09	245	92	131	09	04			133	11	09	256	81	130	-08	-30			600
550		-21	-40				-22	-21	027	20		-17	-25	236	30		-20	-29	278	54		-08	-24	256	92		04	01	249	93		01	-04				05	02	256	83		-17	-33			550
500	165	-37	-54	winds		166	-34	-39	028	29	168	-28	-36	230	29	168	-30	-40	282	58	171	-08	-27	253	116	175	-05	-10	249	96	176	-06	-11			178	-03	-08	263	86	173	-27	-47			500
450		-48					-46		021	20		-40	-47	239	30		-41		274	62		-19	-26	250	134		-16	-21	251	93		-16	-23				-11	-16				-25	-51			450
400	214	-58		see		215	-54		345	15	218	-43		251	49	218	-41		264	68	223	-25	-32	249	137	228	-25	-31	255	115	229	-27	-34			232	-21	-34			224	-33				400
350		-61					-53		284	21		-43		257	62		-41		252	87		-36	-46	253	125		-37	-42	248	120		-38	-47				-33	-39				-39				350
300	275	-57		page		277	-50		280	25	282	-47		254	75	282	-49		254	93	288	-53				293	-52		252	132	294	-56				297	-47				388	-52				300
250		-56					-55		278	36		-50		254	75		-58		244	89		-66					-69		257	127		-70					-66					-60				250
200	362	-59		3		363	-58		278	36						389	-61				314	-66				378	-76		253	98	378	-79				382	-76				375	-64				200
170		-61					-59		267	31							-61					-66					-78		249	85		-80					-77					-68				170
150		-64					-61		266	38							-64					-66					-76		251	66		-75					-78					-66				150
130		-65					-65										-65					-71					-75		247	72		-74					-72					-67				130
110		-67															-66					-75					-76					-75					-71									110
100	508	-68																			518	-75				520	-72				519	-73				525	-71								100
90		-68																				-78	Max wind:				-73					-73					-71									90
80	(82 mb)	-69																				-80	249° 169 kts.				-74					-71														80
70																					(75 mb)	-70	390 mb 23,900'																						70
60																																															60
	Inversion 968 mb 31° - 960 mb 34°					Isothermal 975 - 960 mb 33°															Inversion 573 mb -15° - 558 mb -07° 530 " -09° - 508 " -06° Isothermal 750 - 730 mb 12°					Inversion 728 mb 18° - 700 mb 20° 660 " 14° - 638 " 17°					Inversion 788 mb 25° - 765 mb 27°					Inversion 768 mb 22° - 746 mb 26°					Inversion 471 mb - 28° - 450 mb - 25°					
Tropopause	II 386 mb - 60° 22,000'					I 409 mb - 57° 21,000'					I 430 mb - 46° 20,200'					I 425 mb - 45° 20,400'					I 225 mb - 69° 34,890'					I 229 mb - 76° 34,900'					I 230 mb - 79° 35,000'					I 210 mb - 78° 37,300'					I 258 mb - 61° 32,100'					Tropopause

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	978·1 mb	985·1 mb	980·1 mb	987·8 mb	986·3 mb	993·3 mb	995·8 mb	1000·5 mb	mb
Pressure: Surf	968·2 mb	983·5 mb	979·8 mb	979·1 mb	984·2 mb	988·9 mb	979·7 mb	991·9 mb	mb
Pressure: Freezing	950 mb	923 mb	926 mb	930 mb	900 mb	895 mb	875 mb	879 mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	33	33	330	12	00·4	38	33	340	15	00·2	34	33	280	06	02·3	37	35			00·6	41	36	240	20	01·2	40	37	220	15	04·4	41	37	260	18	02·9	46	35	260	20						Surf
1000	-5·8					-4·0					-5·2					-3·3					-3·7					-1·8					-0·8					0·5										1000
950		32	32	335	22		36	32	342	33		33	31	309	18		34	32				37	31	240	36		38	33	249	40		40	35	261	37		43	35	275	38						950
900	22·0	29	29	350	23	23·9	29	26	343	27	22·6	29	25	312	17	24·5	29	28			24·3	32	28	242	45	26·2	33	28	256	40	27·3	35	27	266	46	27·8	35	30	281	36						900
850		23	22	353	30		23	22	351	25		22	19	343	17		23	22				25	25	298	49		25	21	265	39		30	22	269	48		28	24	287	41						850
800	52·3	18	16	353	30	54·4	18	16	356	29	52·9	16	13	355	19	55·0	17	17			54·9	21	20	260	48	56·8	21	13	291	44	58·2	24	14	273	50	59·6	24	18	291	46						800
750		11	08	347	29		12	10	004	35		10	07	356	20		10	09				14	13	259	50		18	02	275	44		18	00	274	50		19	02	288	47						750
700	85·8	04	00	345	29	88·0	05	00	010	39	86·0	04	02	339	17	88·5	04	01			88·6	07	05	265	54	90·7	12	-15	276	44	92·3	13	-14	269	46	93·7	12	-10	287	50						700
650		-03	-07	343	27		-03	-09	012	42		-03	-05	306	14		-02	-08				00	-03	264	48		04	-21	275	42		08	-21	259	62		07	-26	279	53						650
600	123	-10	-13	346	24	125	-12	-19	013	45	124	-10	-13	261	11	126	-10	-17			126	-09	-15	259	54	129	-05	-27	265	52	131	05	-27	256	76	132	02	-40	270	67						600
550		-19	-22	337	24		-22	-30	013	38		-17	-20	243	17		-20	-28				-19	-26	260	58		-10	-34	254	76		06	-27	253	96		01	-48	267	81						550
500	166	-30	-38	328	27	168	-31	-40	006	48	167	-26	-30	242	21	169	-31	-40			169	-29	-35	259	66	173	-12	-40	248	100	176	-06	-20	252	105	177	-07	-21	262	95						500
450		-41		342	27		-42		022	44		-37	-41	220	27		-42					-34	-43	258	77		-16	-43	248	126		-17	-23	252	112		-17	-24	273	102						450
400	216	-52		357	28	218	-56		019	43	217	-50		236	25	219	-54				220	-45		254	84	225	-28	-49	247	129	229	-27	-34	253	113	229	-27	-36	275	81						400
350		-66		007	27		-70		018	45		-50		259	28		-51					-42		251	108		-40	-57	247	127		-38	-46	251	114		-38	-48								350
300	277	-68		318	16	278	-64		329	30	280	-50		268	36	281	-48				283	-44		255	93	289	-56		248	135	293	-55		250	115	294	-54								300
250		-63		291	18		-59		278	30		-55		271	41		-53					-51					-69					-69		253	129		-70								250
200	(224 mb)	-62				364	-62		287	26	368	-54		272	48	369	-55				371	-63				374	-74				377	-78		253	160	378	-78								200
170							-60		286	44		-55		268	47							-65					-73					-73		259	83		-76								170
150							-61		280	39		-59		265	45							-67					-74					-73		258	63		-75								150
130							-63		279	38		-61		264	53							-73					-71					-72		259	59		-77								130
110		For rest of					-66		286	39		-61		268	51							-73					-72					-78		256	58		-75								110
100		winds see page 3				511	-67		286	28	516	-62									516	-71				517	-73				520	-75		259	54	520	-77								100
90							-70															-72					-74				(93 mb)	-73					-78								90
80																																					(85 mb)	-78								80
70																																														70
60																																														60
						Inversion 983 mb 38° - 975 mb 39°															Inversion 816 mb 20° - 800 mb 21°					Inversion 500 mb - 12° - 488 mb - 10° Isothermal 820 - 783 mb 21° 573 - 550 " - 10° 530 - 500 " - 12°					Inversion 614 mb 04° - 560 mb 08°					Inversion 600 mb 02° - 571 mb 08° Isothermal 830 - 800 mb 24°										
Tropopause	I 315 mb - 73° 26,600'					I 383 mb - 74° 25,500'					II 400 mb - 50° 21,700'					I 390 mb - 56° 22,300'					II 403 mb - 48° 21,700'					I 208 mb - 75° 36,600'					II 244 mb - 71° 33,700'					I 225 mb - 75° 35,500'										Tropopause

H.M.S.O. Press, MO, Dunstable.

No. 11570

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. December 2nd. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.
Pressure: M.S.L.	982.1 mb	996.8 mb	989.5 mb	997.1 mb	994.4 mb	995.4 mb	1001.5 mb	1006.0 mb	1006.6 mb
Pressure: Surf	972.1 mb	995.1 mb	988.6 mb	988.4 mb	992.2 mb	990.3 mb	985.3 mb	995.5 mb	1005 mb
Pressure: Freezing	913 mb	933 mb	946 mb	900 mb	900 mb	912 mb	888 mb	882 mb	885 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	37	31	015	33	0·4	36	31	010	15	0·2	36	31			02·3	37	32		
1000	-4·8					-0·9					-2·9					-0·8				
950		37	30	344	47		33	24	357	34		33	28				35	30		
900	23·1	30	23	351	47	26·8	27	19	348	37	24·9	28	23			27·1	32	28		
850		23	16	358	43		20	12	346	31		23	18				27	23		
800	53·4	15	11	355	42	56·9	14	06	346	33	55·3	19	14			57·8	22	16		
750		11	00	352	39		08	00	348	30		12	07	See p3 for winds			16	07		
700	86·9	03	-5	349	33	90·2	01	-10	341	28	89·0	05	00			91·7	09	-4		
650		-5	-12	349	30		-6	-13	340	27		-2	-7				01	-17		
600	124	-12	-13	347	24	127	-13	-24	331	23	127	-11	-16			130	-8	-23		
550		-20	-27	326	19		-22	-32	302	21		-21	-26				-18	-34		
500	167	-31	-37	326	19	170	-30	-43	294	20	169	-32	-38			173	-27	-46		
450		-41		323	21		-40	-52	304	32		-43					-38	-57		
400	217	-53		320	16	220	-52		296	29	219	-56				223	-50			
350		-68		323	14		-64		299	24		-69					-66			
300	277	-73		306	24	281	-74		303	26	280	-60				283	-67			
250		-64		283	27		-61		293	36		-61					-56			
200	362	-61		275	23	366	-58		289	31	366	-60				368	-60			
170		-64		276	24		-65		291	35		-61					-63			
150		-63		273	26		-62		292	40		-63					-65			
130		-63		270	28		-61		291	36		-63					-65			
110		-67		263	30		-63		290	28		-68					-69			
100	(69)	-66				513	-67		276	25						514	-72			
90							-68													
80							-70													
70		Isothermal																		
60		972 mb 37° - 950 mb 37°																		
Tropopause	I 306 mb -81° 27300'					I 305 mb -75° 27700'					I 335 mb -70° 25500'					II 345 mb -67° 25500'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	0·6	43	37	300	30	01·2	39	31	250	20	4·4	39	36	270	15	02·9	46	36	280	07	0·3	47	40		
1000	-1·6					-1·3					0·4					01·6					1·8	46	40		
950		39	35	298	44		36	29	267	48		37	33	281	33		42	34	293	24		40	35		
900	26·5	32	27	303	46	26·6	31	23	276	52	28·4	33	28	282	42	29·9	35	28	302	23	30·0	34	30		
850		25	14	311	44		25	17	288	55		29	16	280	48		28	22	308	27		28	24		
800	57·1	18	09	313	44	57·2	19	11	286	57	59·1	23	-1	283	60	60·6	24	13	307	31	60·6	22	19		
750		11	03	310	43		13	03	283	60		17	-9	285	60		20	-4	304	35		15	10		
700	90·6	04	-3	303	43	90·9	07	-5	279	56	93·0	09	-12	287	51	94·7	13	-16	298	35	94·4	07	-1		
650		-4	-12	299	45		-1	-12	278	54		02	-29	283	56		05	-25	285	41		-2	-10		
600	128	-12	-23	296	52	129	-10	-23	272	54	131	-6	-40	280	60	133	-2	-33	280	46	132	-11	-18		
550		-21	-36	294	54		-20	-36	273	51		-15	-38	273	68		-12	-45	279	45		-22	-29		
500	171	-33	-49	296	53	171	-29	-46	269	64	174	-24	-47	263	84	176	-20	-51	268	61	175	-33	-41		
450		-45		293	54		-33	-51	260	90		-26	-48	261	114		-19	-40	259	108		-43			
400	220	-45		286	57	222	-32	-53	261	116	226	-30	-45	260	136	229	-29	-42	255	64	225	-53			
350		-50		275	75		-39	-59	261	136		-41		259	144		-42		259	77		-52			
300	283	-53		273	93	287	-50		259	141	290	-53		264	135	292	-59				287	-60			
250		-54		274	87		-58		261	117		-68		262	138		-72					-65			
200	371	-62		267	53	372	-68		256	102	376	-68		256	98	376	-77				372	-70			
170		-65		274	69		-67		251	102		-73		261	84		-76					-72			
150		-63		275	56		-67		253	72		-74		261	72		-74					-73			
130		-63		261	58		-71					-75					-77					-71			
110		-67					-72					-75					-78					-75			
100		-69				517	-72				518	-71				518	-78				515	-76			
90		-68					-69					-73					-80					-77			
80		-68					-71					-72					-79					-76			
70		-67					-72										-77					-75			
60		-66					-75									(66)	-78				(66)	-76			
		-68																							
	Max wind 29500' 283 mb 274° 105 kts					Inversion 467 mb -33° - 400 mb -32° Isothermal 991 - 976 mb 39°					Inversion 493 mb -25° - 463 mb -19°					Inversion 820 mb 25° - 800 mb 24° 511 mb -20° - 456 mb -18° Isothermal 955 - 917 mb 46° Max wind 21000' 454 mb 268° 116 kts					Inversion 392 mb -33° - 359 mb -31°				
Tropopause	I 425 mb -48° 29700'					II 283 mb -54°					I 229 mb -71° 34700'					II 224 mb -78° 35600'					II 273 mb -65° 30700'				

09 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne
Pressure: Time	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.
Pressure: M.S.L.	991.1 mb	1001.2 mb	999.3 mb	1005.0 mb	1001.8 mb	1003.8 mb	1005.5 mb	1007.1 mb
Pressure: Surf	980.9 mb	999.5 mb	998.4 mb	996.3 mb	999.7 mb	999.3 mb	989.0 mb	996.5 mb
Pressure: Freezing	973 mb	980 mb	950 mb	949 mb	900 mb	800 mb	893 mb	875 mb

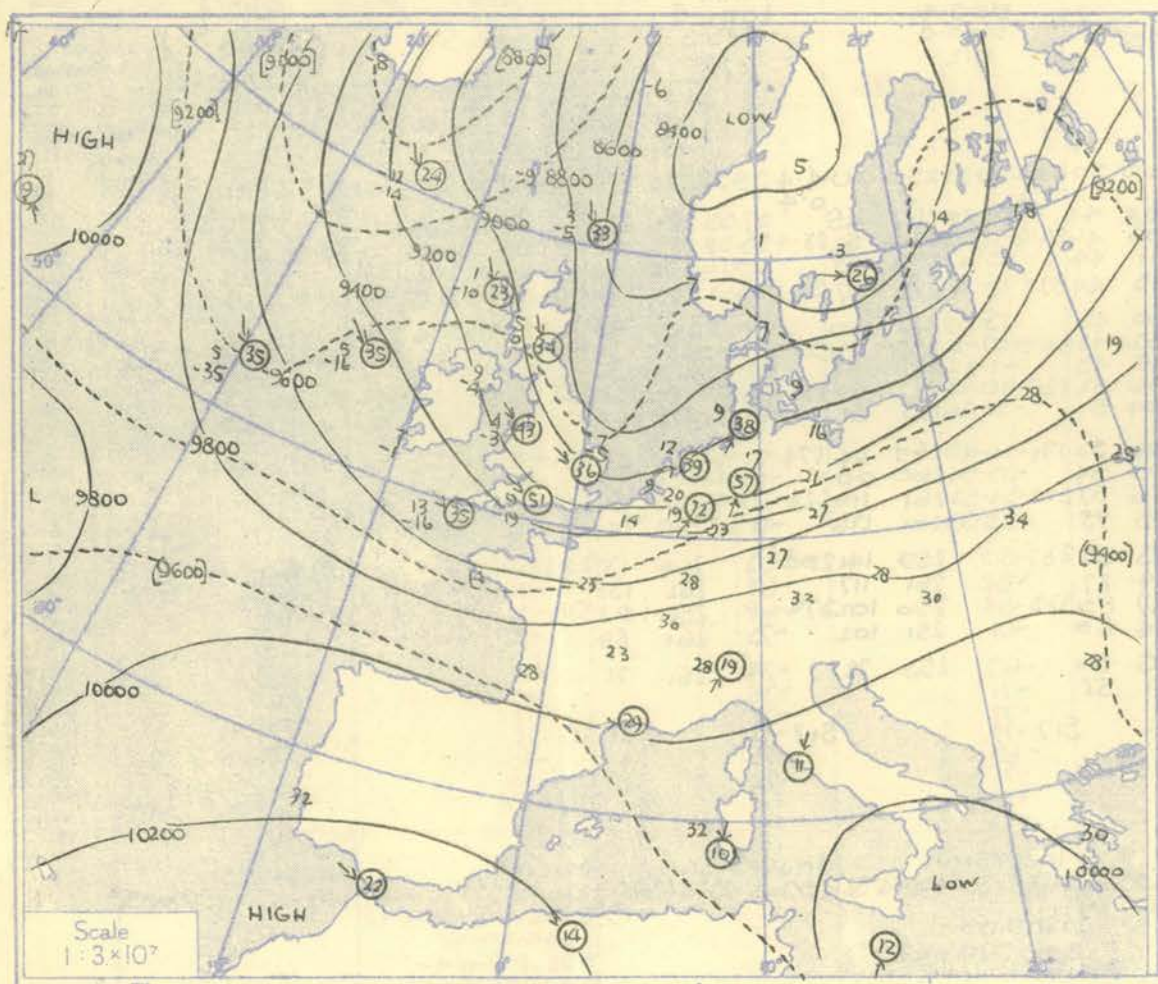
Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	34	30	360	30	0·4	34	29			0·2	35	27	310	12	02·3	33	32	340	06
1000	-2·3					0·3					-0·2					01·3				
950		29	25	329	32		28	21				32	24	310	21		32	27	340	23
900	25·2	24	21	333	30	27·8	22	18			27·5	26	18	325	28	29·0	26	23	340	26
850		19	17	340	28		16	10				20	12	329	26		20	13	334	23
800	55·3	13	08	341	27	57·7	10	04			57·7	14	05	324	25	59·0	14	03	324	28
750		08	02	331	27		03	-6				08	-1	316	23		08	-5	310	24
700	88·6	02	-3	327	24	90·7	-5	-15			91·1	02	-8	302	22	92·6	01	-11	292	25
650		-6	-16	316	18		-14	-22				-5	-15	283	26		-6	-16	278	25
600	126	-16	-32	276	18	127	-23	-29			128	-13	-24	274	30	130	-15	-29	278	30
550		-24	-43	271	24		-32	-41				-21	-33	275	41		-26	-47	280	34
500	168	-35	-55	263	26	169	-41				171	-30	-43	273	43	172	-36	-55	278	43
450		-45		259	26		-50					-42		273	35		-47		270	50
400	218	-58		254	28	218	-59				221	-54		269	37	221	-55		254	55
350		-72		243	26		-62					-67		257	32		-65		274	41
300	277	-79		250	25	278	-65				281	-69		267	37	282	-65		272	50
250		-69		254	27		-59					-61		270	46		-61		272	50
200	361	-67		263	25	365	-61				367	-59		276	39	368	-62		280	48
170		-68		284	35		-65					-62		277	39		-61		266	53
150		-67		277	24		-65					-63		278	47		-60		268	40
130		-74		280	25		-64					-64		278	40		-64		273	38
110		-74		288	32		-67					-65		278	39		-70		283	36
100	505	-73		291	35	511	-69				514	-68		277	28					
90							-69													
80							-69													
70							-72													
60																				
		Isothermal 383 - 350 mb -62°														Inversion 996 mb 33° - 970 mb 34°				
Tropopause	I 317 mb -61° 26500'					I 315 mb -68° 26800'					II 343 mb -68° 25200'					I 354 mb -64° 23000'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots
Surf	0·6	42	38	280	02	01·2	34	31	220	10	4·4	36	34	270	05	02·9	46	36	293	02
1000	-1·6					0·5					01·1					1·5				
950		38	33	293	15		37	31	251	30		37	31	283	22		43	35	296	15
900	28·5	32	27	304	13	29·0	32	26	304	32	29·4	33	23	290	22	30·3	36	28	298	14
850		25	20	308	15		26	19	303	36		28	13	291	18		29	20	296	13
800	59·1	20	13	316	15	59·6	22	11	311	30	60·1	25	03	296	18	61·1	22	08	284	20
750		13	03	309	17		18	03	304	33		19	-13	289	20		18	-3	275	20
700	92·8	08	-7	283	20	93·4	09	-4	302	30	94·2	11	-22	274	22	95·1	11	-14	276	22
650		00	-14	280	28		03	-11	308	30		04	-28	274	22		04	-28	277	23
600	131	-8	-22	278	33	131	-5	-24	302	34	132	-5	-38	269	22	133	-6	-40	277	23
550		-18	-31	275	33		-16	-37	302	40		-15	-46	264	34		-15	-48	270	33
500	174	-29	-43	281	30	175	-27	-47	298	44	176	-23	-53	265	48	176	-21	-50	269	68
450		-31		277	34		-29	-59	288	50		-25	-58	260	82		-17	-51	282	94
400	223	-33		266	37	225	-46		268	80	227	-29	-55	256	103	229	-27	-36	251	113
350		-62		269	56		-44		260	123		-42		255	115		-45		253	110
300	288	-56		268	129	291	-57									292	-60		259	118
250		-61		265	96		-63		266	117		-71					-70		259	122
200	374	-62		260	24	376	-68									377	-66		265	86
170		-64		268	58		-69										-71			
150		-66		266	63		-73										-71			
130		-68		267	62		-66										-70			
110		-68		270	55		-66										-70			
100	517	-64		273	21	520	-67		270	43	(112)					(120)				
90		-65					-69		274	43										
80	(96)						-67		261	42										
70							-70													
60																				
	Inversion 1000 mb 42° - 989 mb 43° Max wind 30500' 274 mb 261° 87 kts					Inversion 999 mb 34° - 979 mb 37° Isothermal 979 - 941 mb 37°					Inversion 969 mb 36° - 969 mb 39° 857 mb 27° - 827 mb 28° 459 mb -30° - 433 mb -26°					Inversion 800 mb 22° - 780 mb 23° 513 mb -22° - 466 mb -17° Isothermal 466 - 450 mb -17°				
Tropopause	I 317 mb -61° 26500'					I 315 mb -68° 26800'					II 343 mb -68° 25200'					I 354 mb -64° 23000'				

Pressure mb	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	0·3	47	40		
1000	1·8	46	40		
950		40	35		
900	30·0	34	30		
850		28	24		
800	60·6	22	19		
750		15	10		
700	94·4	07	-1		
650		-2	-10		
600	132	-11	-18		
550		-22	-29		
500	175	-33	-41		
450		-43			
400	225	-53			
350		-52			
300	287	-60			
250		-65			
200	372	-70			
170		-72			
150		-73			
130		-71			
110		-75			
100	515	-76			
90		-77			
80		-76			
70		-75			
60	(66)	-76			
	Inversion 392 mb -33° - 359 mb -31°				
Tropopause	II 273 mb -65° 30700'				

Saturday 2nd December 1950.

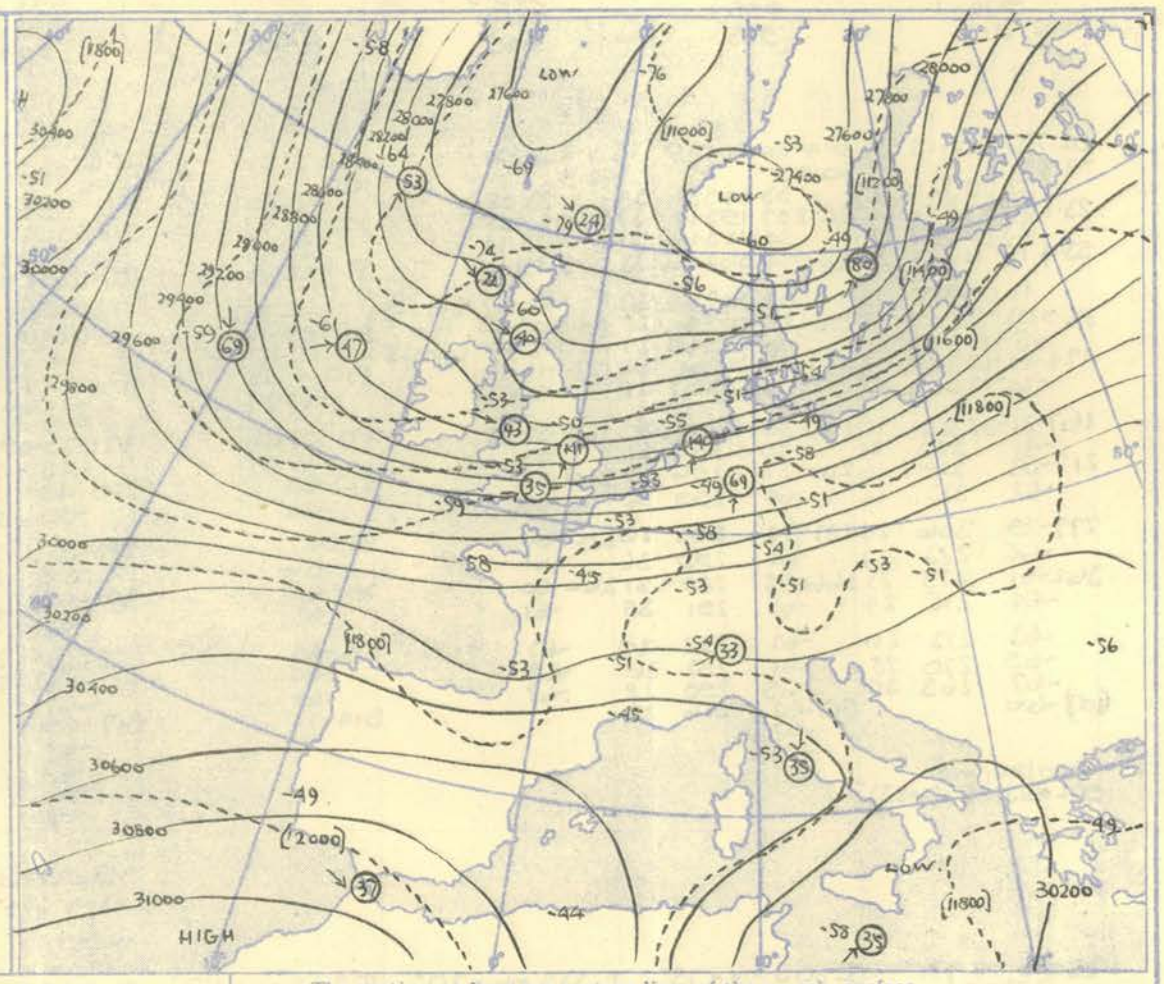
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



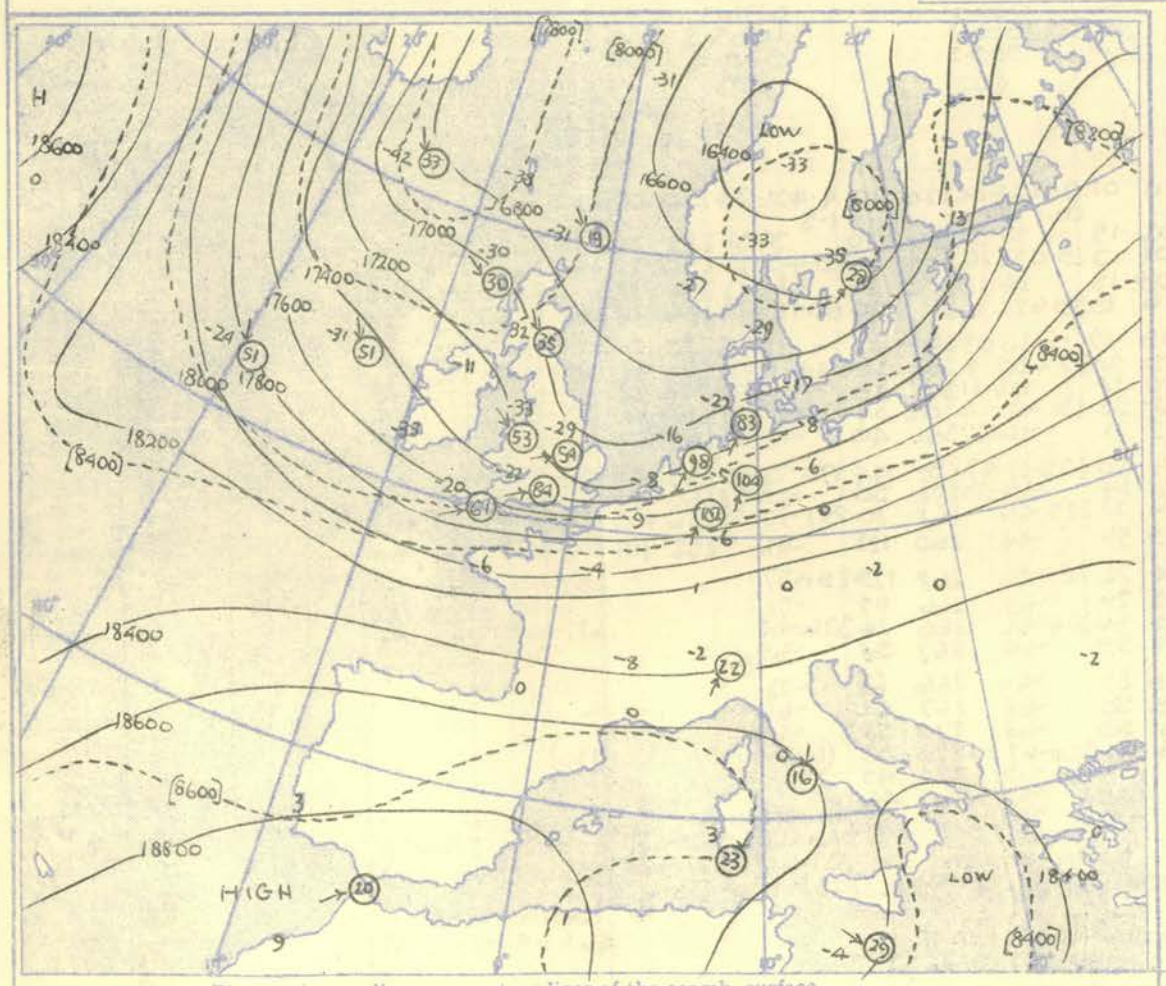
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 — 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

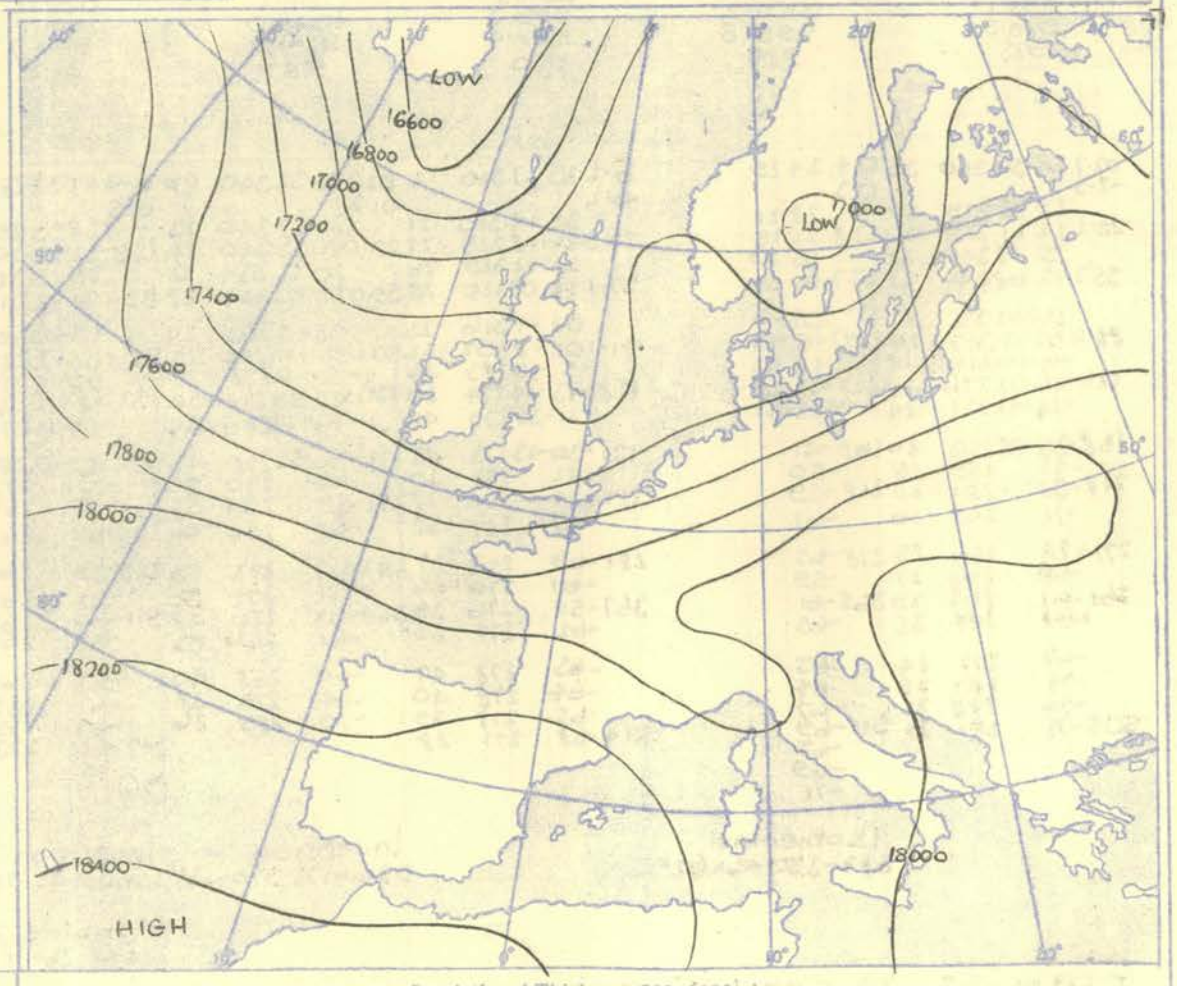
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 - 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	48.2N 20.5W			49.5N 14.7W			53.1N 01.3E			55.5N 16.0W		
Time	1330h.			15.15h.			14.45h			15.15h.		
Pressure M.S.L.	1019.1 mb			1013.5 mb			1004 mb			996.9 mb		
Pressure Surf	105.5 mb			1009.9 mb			1002 mb			989.7 mb		
Pressure Freezing	900 mb			910 mb			918 mb			860 mb		
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Height ft./100	°F. Temp.	Dew °F.	Height ft./100	°F. Temp.	Dew °F.	Height ft./100	°F. Temp.	Dew °F.
Surf	01.0	51	33	01.0	45	41	0.5	46	37	02.0	49	21
1000	05.2			03.6			1.1			-0.7		
950		39	34		38	37		37	32			
900	33.3	31	29	31.6	31		29.1	29	29		41	26
850		25			24			30	21	27.5	36	23
800	63.8	24		62.0	18		59.8	24	18		01	09
										58.3	25	
750		21			13			16			18	
700	98.1	17		95.6	05		93.7	09		92.3	11	
650		11			-03			01			04	
600	13.7	03		13.3	-11		13.2	-09		13.0	-04	
550		-01			-15			-19			-08	
500	18.1	-11		17.6	-25		17.4	-30		17.5	02	
450								-42				
400							22.4	-50				
350								-51				
300							28.7	-60				

Notes:
- 48.2N 20.5W: Cloud. 4/8 Sc 880-840mb
- 49.5N 14.7W: Cloud 2/8 Cb. 910-550mb; 4/8 Cu 910-780 mb
- 53.1N 01.3E: Cloud 8/8 Sc 900-860mb; Inversion 900 mb 29° 850 " 30°; Isothermal 400-350mb 50°
- 55.5N 16.0W: Cloud 4/8 Cb. 910-530 mb; Inversion 550 mb -08° 500 - 02°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Leuchars		W. Watcher 54.5N 12.2W		Rineanna		Collinstown		Downham		Leeming	
Time	03h.		03h.		09h.		15h.		20.30h.		20.15h.	
Type												
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	290	15	030	20	340	05	280	13	290	04	280	08
1,000	325	27	030	31	360	16	330	13	295	04	310	16
2,000	332	27	020	31	010	25	340	12	294	05	330	15
3,000	345	31	020	28	010	32	330	14	287	05	340	13
4,000	352	38	020	24	010	27	330	13	287	05	320	13
5,000	353	45	010	22	360	21	330	13	286	06	290	12
6,000	353	46	010	21	350	14	320	11	283	06	280	13
8,000	353	40	360	23	330	21	300	17	279	08	290 (9,000')	16
10,000	352	34	360	28			290	25	273	12		
14,000	321	34	340	26			270	26	255	25		
18,000	331	35	300	40					260	39		
24,000	329	36	260	41					238	96		
30,000	289	40	260	47					248	95		
40,000	266 (39,000')	45	300	40					268	58		
50,000			290 280 (54,000')	41 36					262	54		

NEPHOSCOPE OBSERVATIONS

Place									
Time Type									
Dir. Vel.									

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

WEATHER RECORDER — 60.9N. 14.0W — 03h. G.M.T.; M.S.L. 1007 mb; Surf 1007 mb; Freezing Surf

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		32	32	010	20
1000	1.7	30	30	010	20
950		22	22	004	28
900	28.8	14	14	004	33
850		09	09	005	27
800	58.2	03	03	003	21
750		-04	-06	358	21
700	90.6	-12	-14	338	24
650		-21	-25	319	27
600	127	-31	-34	323	30
550		-37	-42	330	31
500	168	-42		328	33
450		-49		324	39
400	217	-57		323	42
350		-63		336	48
300	277	-64		348	53
250		-62		345	50
200	363	-63		347	47
170		-64		333	49
150		-69		335	50
130	(143mb)	-71			

Inversion 506 mb -43° - 500mb -42°
Isothermal 987 - 975 mb 25°
Tropopause: I 320 mb -65° 26,300'

WEATHER RECORDER — 61.1N 13.9W — 09h G.M.T.; M.S.L. 1009 mb; Surf 1009 mb; Freezing Surf

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		32	31	350	28
1000	2.2	31	28		
950		25	16	358	31
900	29.4	18	02	359	30
850		12	-05	358	28
800	59.0	05	-10	357	21
750		-03	-18	357	21
700	91.6	-09	-25	337	17
650		-16	-32	312	11
600	129	-25	-42	320	15
550		-31	-49	333	25
500	170	-37	-57	333	42
450		-44		335	46
400	219	-49		330	48
350		-53		328	63
300	282	-52		333	78
250		-53		353	68
200	369	-59		349	50
170		-63		348	50
150		-64		346	47
130		-65		328	43
110		-69		326	42
100	515	-70		318	42
90		-73		321	33
80		-75		318	44
70	(73mb)	-77			

Tropopause: II 372 mb -52° 33,600'

WEATHER RECORDER — 61.3N 13.8W — 15h G.M.T.; M.S.L. 1011 mb; Surf 1011 mb; Freezing Surf

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		29	17	360	30
1000	2.7	28	16	353	33
950		21	11	353	38
900	29.8	14	05	350	36
850		07	-02	347	30
800	59.1	01	-07	344	25
750		-06	-16	343	21
700	91.4	-13	-26	341	20
650		-19	-25	342	22
600	128	-25	-41	345	29
550		-31	-48	346	39
500	169	-36	-43	347	49
450		-44		343	57
400	219	-50		342	65
350		-55		349	80
300	281	-57		352	80

Inversion 350 mb 55° - 340mb 54°
Isothermal 417 - 400 mb -50°
Tropopause: I 320 mb -58° 26,600'

WEATHER RECORDER — 60.8N 13.9W — 21h. G.M.T.; M.S.L. 1014 mb; Surf 1014 mb; Freezing Surf

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		31	23	350	28
1000	3.5	28	19	348	33
950		20	10	358	33
900	30.5	14	04	009	33
850		07	-02	005	30
800	59.9	00	-09	353	27
750		-07	-18	349	28
700	92.1	-14	-29	009	27
650		-20	-37	020	31
600	128	-26	-44	360	34
550		-32	-52	356	38
500	170	-37	-56	359	46
450		-45		356	61
400	219	-48		352	78
350		-54		352	94
300	282	-62		358	105

Inversion 426 mb -49° - 400mb -48°
Tropopause: N.R.

WEATHER EXPLORER — 52.3N 20.5W — 03h. G.M.T.; M.S.L. 1017 mb; Surf 1017 mb; Freezing 890 mb

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		46	42	335	29
1000	4.5	44	40	349	31
950		37	25	350	31
900	32.5	30	20	348	31
850		23	12	341	32
800	63.0	16	-02	335	32
750		11	-16	332	34
700	96.5	05	-35	331	35
650		01	-43	326	36
600	134	-07	-51	322	38
550		-15	-57	327	42
500	177	-24	-57	338	51
450		-33	-60	348	64
400	228	-43		352	72
350		-54		354	79
300	291	-59		353	69
250		-61		345	55
200	377	-63		311	52
170		-66		302	62
150		-63		302	55
130		-67		303	42
110		-71		306	39
100	523	-73		307	41
90		-76		306	44
80		-74		300	41
70		-74		301	39
60		-75		302	38
(50)		-74		295	34
(45)		-75			

Inversion 695mb - 680 mb 04°
Tropopause: I 311 mb -60° 26,200'

WEATHER EXPLORER — 52.2N 20.5W — 09h. G.M.T.; M.S.L. 1017 mb; Surf 1017 mb; Freezing 920 mb

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	43	348	23
1000	4.7	43	38	360	40
950		36	33	360	36
900	32.6	29	28	360	38
850		22	21	360	37
800	63.0	16	12	009	37
750		10	02	013	40
700	96.5	10	-04	007	42
650		03	-11	085	39
600	135	-04	-19	001	45
550		-11	-25	353	49
500	178	-20	-31	360	56
450		-30	-41	359	64
400	229	-37	-48	346	78
350		-47		360	103
300	293	-57		360	93
250		-68		360	87
200	377	-72		360	62
170		-73		360	57
150		-73		360	51
130		-70		360	33
110		-73		360	38
100	521	-75		360	29
90		-77		360	29

Isothermal 755 - 700 mb 10°
Tropopause: I 218 mb -74° 36,000'

WEATHER EXPLORER — 52.4N. 20.5W — 15h. G.M.T.; M.S.L. 1020 mb; Surf 1020 mb; Freezing 940 mb

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	38	350	25
1000	5.3	41	33	008	20
950		33	21	004	25
900	33.1	27	16	004	27
850		20	10	005	27
800	63.3	14	02	357	27
750		09	-09	348	29
700	96.7	08	-17	347	32
650		05	-22	348	36
600	135	-02	-24	351	41
550		-06	-31	353	50
500	179	-12	-32	356	66
450		-20	-35	357	81
400	231	-29	-42	357	80
350		-42		000	87
300	295	-57		357	93
250		-74		349	99
200	379	-77		357	80
170		-75		358	54
150		-73		002	52
130		-75		008	40
110		-78		354	36
100	521	-79		338	31
90		-74		329	33
80		-76		316	39
70		-78		007	40
60		-77		314	42
		-74		269	50
		-76		282	50

Inversion 720 mb 06° - 700mb 08°
Tropopause: I 208 mb -80° 37,100'

WEATHER EXPLORER — 52.6N 19.7W — 21h. G.M.T.; M.S.L. 1020 mb; Surf 1020 mb; Freezing 935 mb

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	38	355	21
1000	5.4	43	35	344	22
950		35	23	338	23
900	33.2	27	16	339	25
850		20	10	343	33
800	63.4	13	-01	343	39
750		13	-17	340	32
700	97.0	09	-25	344	36
650		03	-24	346	42
600	135	01	-21	345	48
550		-03	-23	344	54
500	179	-09	-27	345	59
450		-18	-36	345	54
400	232	-28	-47	341	63
350		-40	-61	340	74
300	296	-54		345	76
250		-69		345	89
200	381	-78		345	73
170		-73		343	63
150		-74		340	54
130		-75		327	48
110		-75		322	45
100	523	-73		318	44
90		-71		311	36
80		-74		300	33
70		-75		298	48
60		-74		314	34
		-77			
(49mb)		-77			

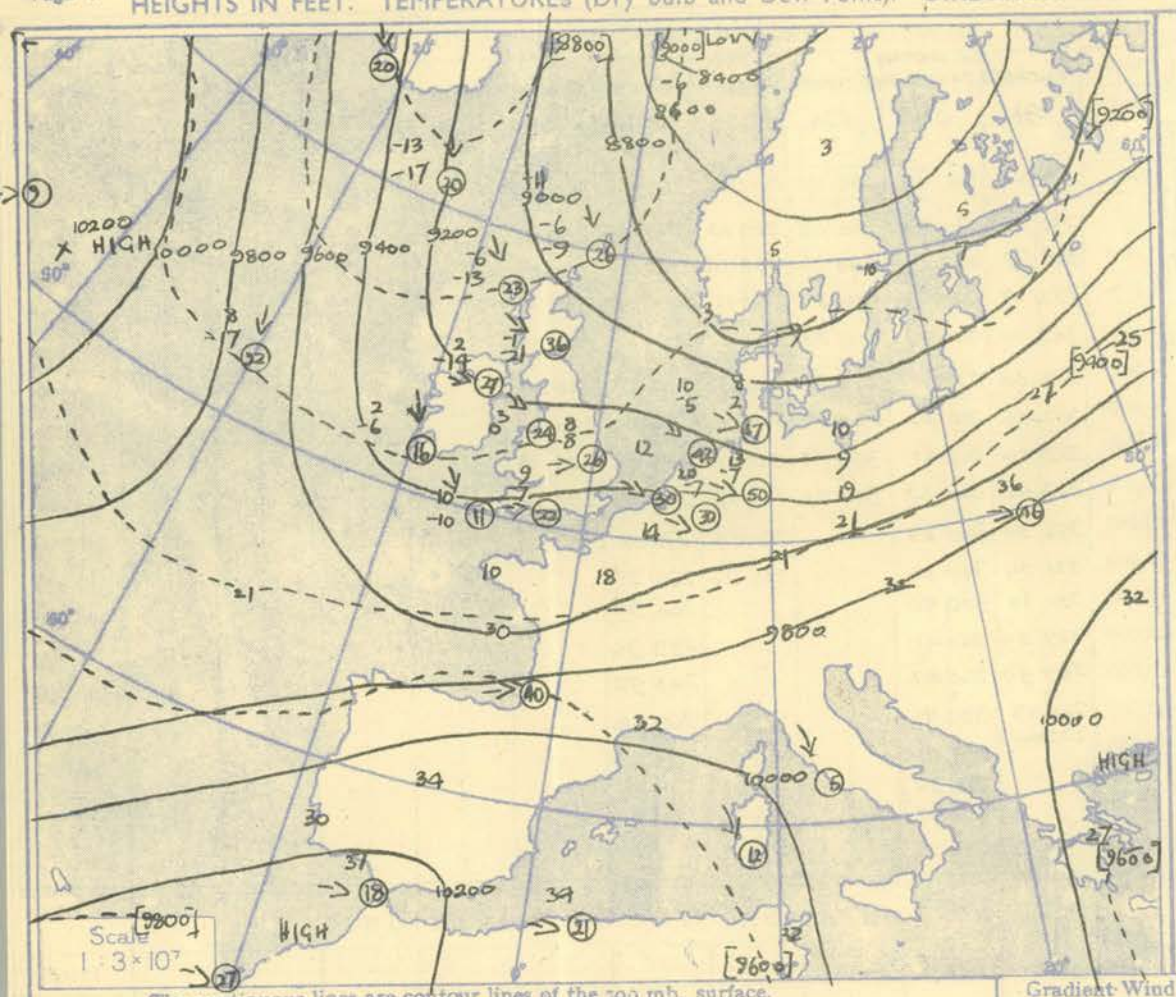
Inversion 789 mb 12° - 757mb 14°
Tropopause: I 198 mb -79° 38,300'

WEATHER WATCHER — 54.3N 12.5W — 03h. G.M.T.; M.S.L. 1006 mb; Surf 1006 mb; Freezing 900 mb

Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	30		
1000	1.5	47	30		
950		40	28		
900	29.7	32	24		
850		24	17		
800	60.2	16	05		
750		11	01		
700	93.7	05	-16		
650		-02	-22		
600	131	-11	-29		
550		-21	-35		
500	174	-31	-42		
450		-42			
400	224	-53			
350		-64			
300	285	-61			
250		-68			
200	371	-57			
170		-60			
150		-63			
130		-67			
110		-67			

Tropopause: I 344mb -66° 25,400'

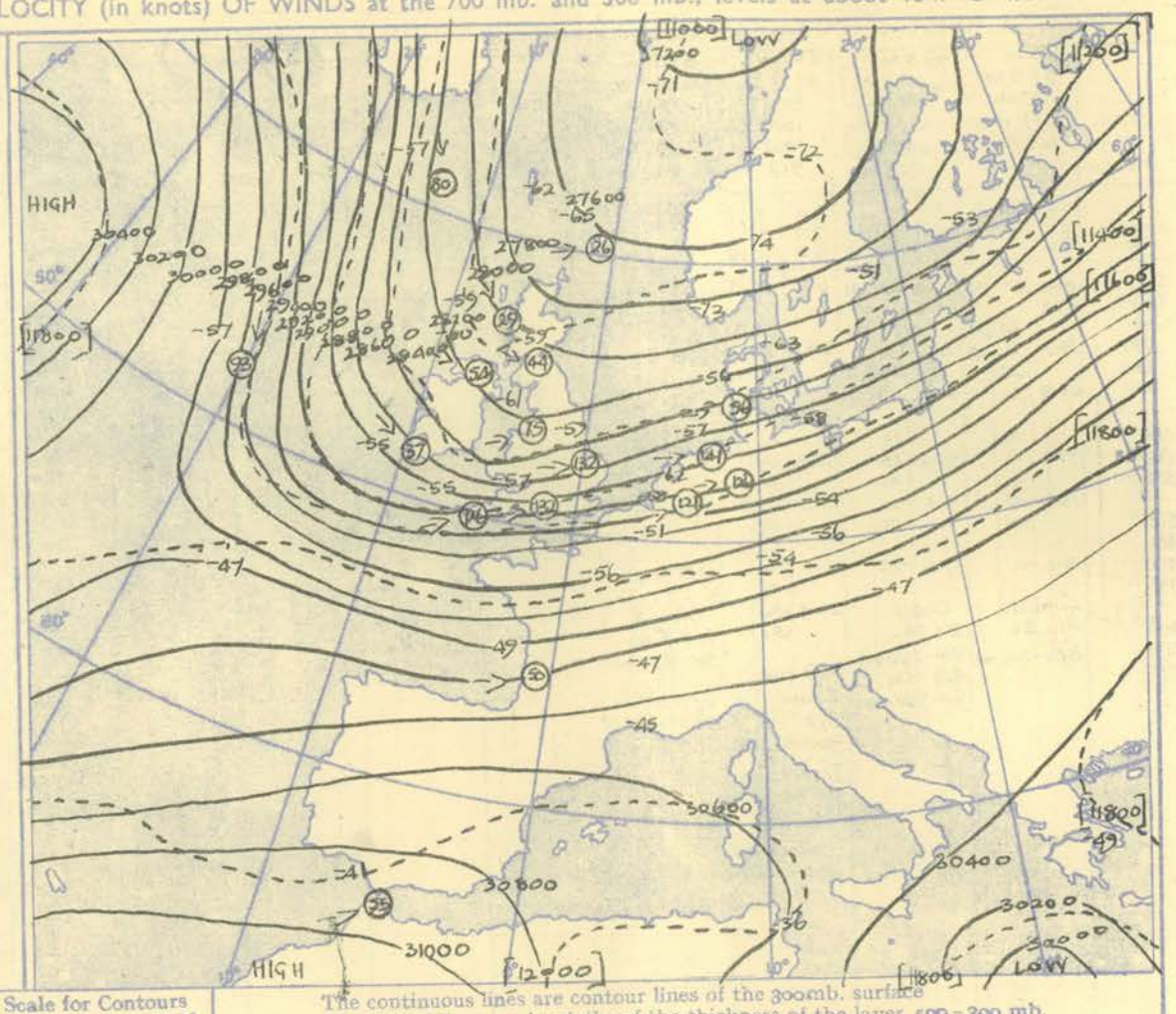
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

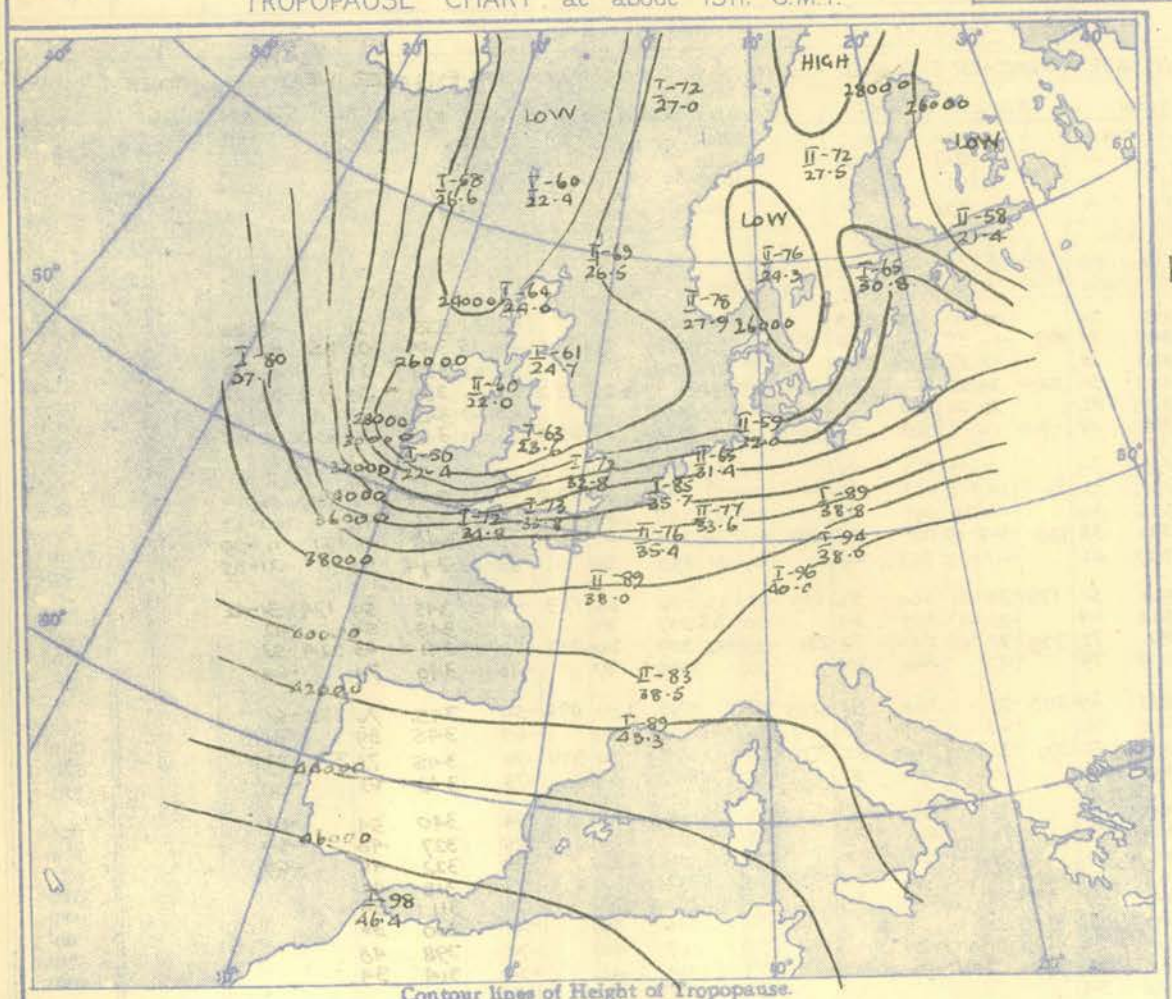
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold trough extending south from Iceland moved east and intensified the very cold air reaching Scotland later. At the same time the ridge over the west Atlantic also developed and as a result the thermal pattern became a strongly meridional one.

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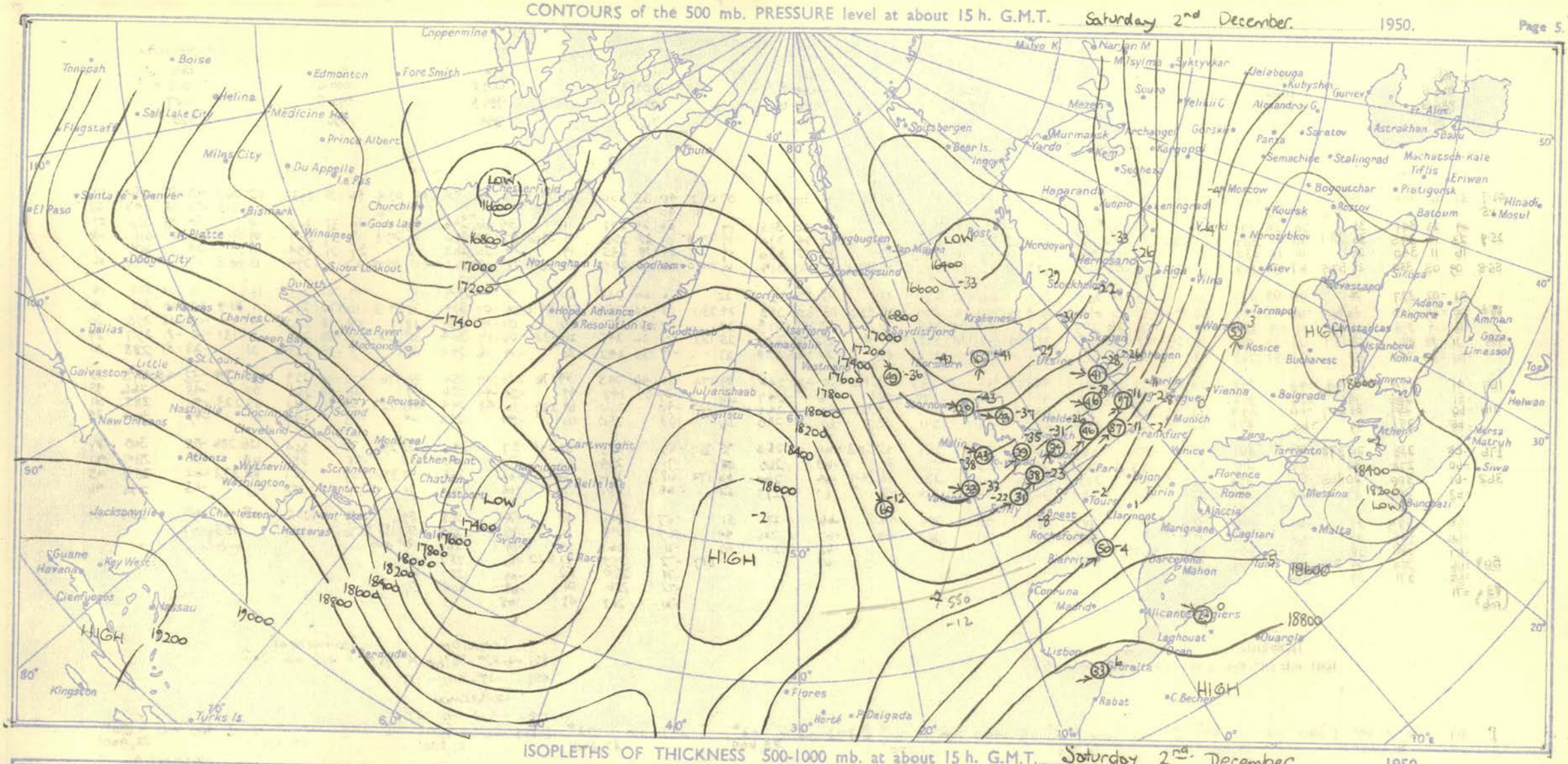
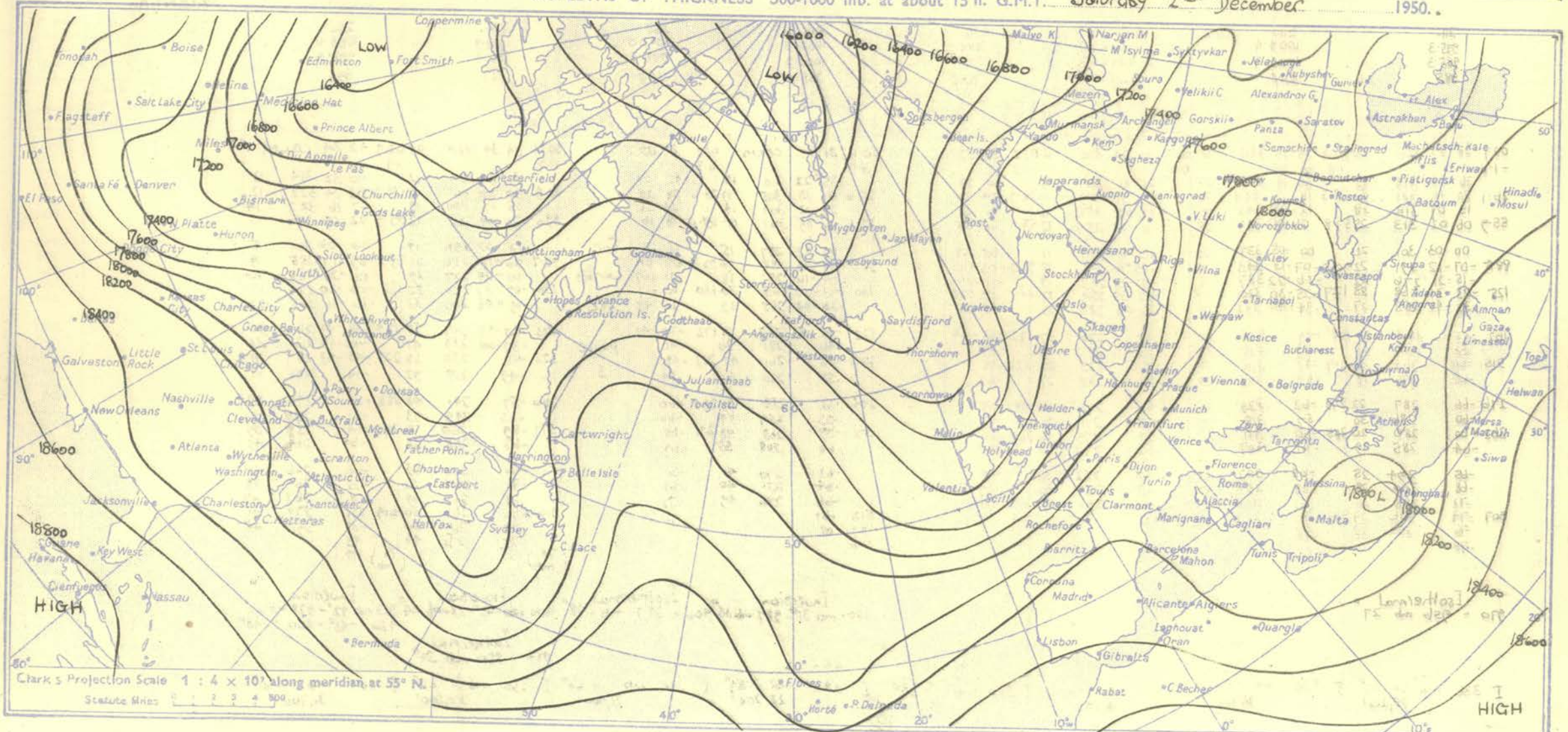
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Saturday 2nd December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 2nd December 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. ... day ... 19...

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Pressure: Time	Pressure: M.S.L.	Pressure: Surf	Pressure: Freezing	Tropopause
LERWICK	15h	994·5 mb	984·3 mb	984 mb	I 317 mb - 69° 26,500′
STORNOWAY	15h	1003·0 mb	1001·3 mb	978 mb	I 360 mb - 64° 24,000′
LEUCHARS	15h	1002·0 mb	1001·1 mb	969 mb	I 352 mb - 61° 24,700′
ALDERGROVE	15h	1006·4 mb	997·8 mb	950 mb	I 400 mb - 60° 22,000′
LIVERPOOL	15h	1004·1 mb	1002·0 mb	939 mb	I 373 mb - 63° 23,600′
DOWNHAM MARKET	15h	1003·3 mb	1001·0 mb	912 mb	I 247 mb - 72° 32,800′
LARKHILL	15h	1005·5 mb	989·3 mb	894 mb	I 238 mb - 73° 33,800′
CAMBORNE	15h	1006·0 mb	995·5 mb	890 mb	I 229 mb - 72° 34,800′
VALENTIA.	15h	1008·1 mb	1007 mb	920 mb	I 400 mb - 50° 22,400′

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	32	30	010	20	00·4	34	26	360	12	00·2	36	26	290	14
1000	1·5					0·5	34	26			0·5				
950		29	23	341	33		29	25	345	24		30	20	282	27
900	25·9	23	16	345	33	28·1	23	19	334	35	28·1	25	13	301	26
850		16	11	340	29		16	12	335	28		19	03	302	25
800	56·8	09	03	330	29	57·9	07	03	332	29	58·2	14	-08	297	28
750		02	-02	327	28		00	-05	327	24		08	-13	294	30
700	38·6	-06	-09	316	26	30·7	-06	-13	319	23	91·4	-01	-21	291	36
650		-13	-19	298	21		-14	-18	302	17		-08	-26	289	38
600	125	-21	-28	281	12	127	-23	-27	288	13	129	-17	-32	285	39
550		-30	-36	280	07		-33	-37	282	18		-26	-40	283	42
500	167	-41		190	10	169	-43		292	20	171	-37	-50	282	44
450		-51		264	15		-55		298	18		-47		279	42
400	216	-60		257	21	217	-60		294	27	220	-52		270	43
350		-65		251	29		-63		292	32		-61		264	46
300	276	-65		258	26	278	-59		301	29	281	-59		269	44
250		-60		278	30		-57		310	30		-57		268	39
200	362	-61		300	20	365	-58		298	33	369	-57		275	33
170		-62		299	27		-62		296	27		-61		283	36
150		-64		289	27		-64		304	28		-59		287	38
130		-66		292	27		-64		303	29		-61		285	23
110		-67		288	28		-70		289	30		-65			
100	508	-66		284	24	511	-70		297	33					
90		-68		271	27		-70								
80	(83 mb)	-71													
70															
60															

Inversion 1001 mb 34° - 995 mb 35°

Isothermal 408 - 400 mb -52°

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	38	32	320	07	00·6	41	36	360	07	01·2	40	35	250	06
1000	1·7					1·1					1·5	40	35		
950		32	28	326	15		34	30	335	17		36	29	272	11
900	29·3	25	21	329	12	29·0	28	24	330	17	29·4	31	25	252	11
850		18	11	314	15		22	19	330	17		34	19	235	19
800	59·0	12	01	292	18	59·2	15	10	314	19	60·0	22	12	239	22
750		06	-11	276	23		09	05	299	22		16	00	246	20
700	92·6	02	-14	270	27	92·6	03	00	288	24	93·9	08	-08	254	26
650		-09	-25	268	30		-05	-09	279	24		00	-15	251	22
600	130	-18	-30	278	35	130	-15	-18	270	25	132	-10	-26	245	26
550		-27	-38	286	42		-26	-30	274	27		-19	-35	242	30
500	172	-38	-50	282	43	172	-35	-39	262	29	174	-31	-46	245	34
450		-50		270	48		-46		247	36		-39	-53	248	49
400	221	-60		262	54	221	-58		244	46	225	-46		250	69
350		-58		271	38		-61		250	62		-53		250	111
300	282	-60		268	45	283	-61		253	75	287	-59		253	82
250		-55		276	39		-63		260	68		-71		254	112
200	369	-61		280	38	369	-64		260	66	372	-68		256	76
170		-64		276	48		-61		275	52		-66		260	70
150		-66		284	44		-66		271	51		-67		256	63
130		-67		282	44		-67		266	49		-69		258	60
110							-66		271	42		-71		263	51
100						515	-67				517	-72		259	47
90												-74		250	52
80												-72		256	59
70												-70		268	43
60															

Inversion 1001 mb 31° - 987 mb 38°

Isothermal 400 - 387 mb - 48°

Pressure mb	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	43	40	CALM		02·9	46	38	293	02	00·3	42	35	050	01
1000	1·6					1·6					2·2	42	35	047	02
950		39	36	296	06		40	33	303	10		35	28	026	07
900	29·6	37	30	256	11	29·8	33	27	307	09	30·1	30	23	016	08
850		26	23	262	12		27	21	294	11		24	17	006	11
800	60·1	23	09	263	18	60·4	22	11	294	13	60·5	17	10	346	14
750		18	-01	264	19		17	-01	295	13		10	02	328	14
700	94·1	09	-07	259	22	94·3	10	-10	290	11	93·9	02	-06	310	16
650		01	-19	259	28		04	-18	262	10		-05	-12	298	20
600	132	-06	-27	264	35	132	-05	-28	239	10	131	-14	-21	297	24
550		-14	-36	260	36		-15	-37	255	23		-23	-31	288	30
500	178	-23	-47	254	38	176	-22	-45	259	31	174	-33	-41	275	33
450		-28	-49	256	69		-26	-48	251	57		-43		266	45
400	227	-30	-43	244	106	227	-30	-50	242	98	223	-50		285	31
350		-44		248	120		-43		244	118		-49		306	34
300	291	-57		249	132	296	-55		244	126	286	-55		305	39
250		-70		249	135		-68		251	104		-58		289	42
200	375	-66		259	101	376	-69		251	85	373	-62		289	45
170		-68		263	70		-67		256	73		-63		270	46
150		-70		258	59		-69		255	65		-65		284	54
130		-68		267	58	(133 mb)	-70				(133 mb)	-67			
110		-69		261	50										
100	620	-70		257	46										
90		-69		257	40										
80		-68		264	57										
70		-68													
60															

Inversion 823 mb 22° - 787 mb 24°; 458 " -29° - 442 " -27°

Isothermal 442 - 414 mb -27°

Isothermal 454 - 415 mb -26°

21h G.M.T.

Station	Pressure: Time	Pressure: M.S.L.	Pressure: Surf	Pressure: Freezing	Tropopause
LERWICK	21h	995·3 mb	985·3 mb	985 mb	I 336 mb - 61° 25,200′
STORNOWAY	21h	1004·4 mb	1002·7 mb	Surf mb	I 330 mb - 64° 25,700′
LEUCHARS	21h	1002·4 mb	1001·6 mb	Surf mb	I 325 mb - 64° 26,200′
ALDERGROVE	21h	1004·7 mb	995·8 mb	Surf mb	I 350 mb - 65° 24,900′
LIVERPOOL	21h	1002·9 mb	1000·9 mb	908 mb	I 382 mb - 57° 23,200′
DOWNHAM MARKET	21h	1003·0 mb	998·6 mb	945 mb	I 240 mb - 66° 33,400′
LARKHILL	21h	1002·8 mb	986·4 mb	927 mb	I 250 mb - 65° 32,500′
CAMBORNE	21h	1008·0 mb	993·4 mb	890 mb	I 263 mb - 68° 31,700′
VALENTIA.		mb	mb	mb	

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	28	27	330	13	00·4	29	25	340	10	00·2	30	24	320	12
1000	1·2					1·0	29	25			0·6				
950		26	22	318	32		24	19	346	27		28	21	318	18
900	26·1	20	14	321	30	28·2	18	13	344	30		23	11	339	17
850		13	07	318	28		12	05	345	30		18	02	358	16
800	55·9	06	02	313	25	57·8	06	00	339	28		11	-08	354	12
750		00	-03	301	21		00	-05	337	22		03	-11	329	11
700	88·5	-07	-12	291	22	90·5	-07	-13	343	21		-03	-14	296	15
650		-15	-21	276	22		-16	-22	337	18		-13	-25	293	19
600	125	-23	-31	268	23	127	-25	-30	330	17		-22	-35	289	27
550		-32	-42	253	27		-34	-40	333	19		-32	-43	284	32
500	167	-42		243	27	168	-45		325	18		-43		270	37
450		-52		264	23		-52		315	33		-52		272	37
400	215	-60		263	20	217	-58		310	36		-58		273	25
350		-65		276	18		-62		322	28		-61		262	27
300	276	-66		287	22	278	-62		324	30		-62		272	30
250		-60		286	30		-57		315	32		-59		271	33
200	362	-60		280	20	365	-60		321	35		-59		275	36
170		-64		285	19		-61		307	42		-62		277	33
150		-65		294	25		-64		302	33		-64		282	36
130		-68		300	28		-68		291	32		-65		289	30
110		-72		288	26		-73		308	30		-70		291	32
100	507	-74		276	27	510	-76		302	27		-73			
90		-76		264	23		-78								
80		-78													
70															
60															

Isothermal 970 - 956 mb 27°

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	32	32			00·6	31	29	CALM		01·2	37	35		
1000	1·3					0·8					0·8				
950		30	27				35	22	310	15		32	29		
900	28·9	24	20			28·6	31	15	305	15	28·6	28	25		
850		17	15				23	12	304	14		23	21		
800	58·8	11	05			59·1	16	09	303	15	59·0	18	16		
750		05	-08				09	02	297	15		13	11		
700	91·9	-03	-10			92·5	04	-13	288	16	92·7	05	01		
650		-11	-14				-04	-16	282	18		-01	-07		
600	130	-19	-23			130	-13	-22	265	30	130	-10	-17		
550		-28	-32				-23	-33	265	32		-20	-28		
500	172	-38	-44			172	-34	-43	253	31	173	-32	-41		
450		-49					-46		251	36		-41			
400	221	-58				222	-56		261	42	223	-48			
350		-65					-55		250	52		-54			
300	282	-55				284	-55		253	59	285	-60			
250		-57					-55		257	54		-66			
200	369	-61				371	-59		265	48	371	-65			
170		-60					-60		268	55		-67			
150		-69					-63		270	41		-70			
130		-69					-64		271	40		-69			
110		-73					-66		276	49		-72			
100						518	-67								
90						(97 mb)	-68								
80															
70															
60															

For winds see page 3.

Inversion 1001 mb 31° - 987 mb 38°

Isothermal 400 - 387 mb - 48°

Pressure mb	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	34	34	330	09	02·9	42	34	CALM						
1000	0·7					1·1									
950		34	34	339	12		40	32	314	13					
900	28·5	30	26	311	08	29·2	33	24	328	12					
850		25	17	300	09		27	16	322	14					
800	59·0	20	09	301	12	59·9	22	09	315	15					
750		12	-02	296	17		16	-06	301	15					
700	92·7	06	-17	286	21	93·8	09	-17	285	14					
650		00	-24	277	29		00	-24	285	16					
600	130	-09	-37	273	32	132	-08	-30	274	17					
550		-19	-48	266	33		-16	-36	268	22					
500	173	-29	-57	247	35	175	-28	-41	266	30					
450		-37	-60	239	47		-40	-50	253	33					
400	223	-45		235	68	225	-40	-53	247	51					
350		-49		238	92		-44		250	81					
300	286	-57		241	108	288	-54		248	89					
250		-65		245	93		-61		255	76					
200	372	-69		250	74	375	-64		259	59					
170		-68		258	66		-67		266	49					
150		-70		261	52		-68		266	46					
130		-71		264	51		-70		269	54					
110		-68		265	49		-71		263	47					
100	516	-70		266	50	519	-71		278	48					
90		-75		269	50		-68		291	45					
80		-75		271	44		-73								
70	(75 mb)	-75				(78 mb)	-74								
60															

Inversion 400 mb -45° - 386 mb -44°

Isothermal 986 - 950 mb 34°

Inversion 993 mb 72° - 978 mb 48°; 430 - -43° - 400 " -40°

HMSO Press, MD., Dunstable

No. 1154

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Sunday 3rd December 1950 Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure: Time 03hrs G.M.T. | M.S.L. 988·3 mb | Surf 978·1 mb | Freezing Surface, 278 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	31	29	270	16
1000	-3·1				
950		28	25	256	30
900	243	22	17	261	28
850		16	11	265	27
800	54·1	11	06	266	27
750		03	-6	264	24
700	87·1	-3	-14	276	22
650		-13	-21	292	17
600	124	-21	-29	296	12
550		-32	-41	318	16
500	165	-43		343	29
450		-54		357	34
400	214	-65		008	30
350		-65		002	29
300	274	-67		325	16
250		-64		335	15
200	360	-58		292	22
170		-68		288	16
150		-70		288	17
130		-68		294	18
110		-76		302	24
100	504	-74		238	28
90		-74			
80		(83)			
70					
60					

Tropopause: II 400 mb -65° 21400'

STORNOWAY

Pressure: Time 03hrs G.M.T. | M.S.L. 1000·7 mb | Surf 1000·0 mb | Freezing 1000·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	32	30	300	30
1000	042	32	30		
950		25	25	304	41
900	27·8	21	21	305	37
850		15	14	310	36
800	57·7	10	09	318	42
750		05	04	324	44
700	90·8	-3	-5	331	45
650		-12	-14	333	46
600	128	-20	-22	335	51
550		-30	-33	342	51
500	169	-41		003	55
450		-52		015	64
400	218	-59		022	63
350		-65		355	33
300	279	-64		342	29
250					
200					
170					
150					
130					
110					
100					
90					
80					
70					
60					

See p3 for remainder of winds

Tropopause: I 328 mb -68° 26000'

LEUCHARS

Pressure: Time 03hrs G.M.T. | M.S.L. 1001·9 mb | Surf 1001·0 mb | Freezing 1001·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·2	26	21	280	10
1000	0·4				
950		23	17	287	17
900	27·6	19	05	322	20
850		14	02	321	21
800	57·5	09	-4	311	21
750		01	-13	309	15
700	90·0	-7	-20	307	18
650		-16	-27	307	20
600	127	-25	-35	293	27
550		-35	-45	300	23
500	168	-44		298	28
450		-50		293	30
400	217	-60		290	26
350		-60		288	25
300	278	-64		285	22
250		-61		283	24
200	364	-59		285	22
170		-63		282	21
150		-65		282	27
130		-63		283	29
110					
100					
90					
80					
70					
60					

Inversion 522mb 5°-512mb -3°

Tropopause: I 372 mb -67° 23300'

ALDERGROVE

Pressure: Time 03hrs G.M.T. | M.S.L. 1005·2 mb | Surf 996·1 mb | Freezing 996·1 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	023	29	28		
1000	01·4				
950		28			
900	28·9	22			
850		16			
800	58·9	10			
750		03			
700	91·8	-4			
650		-12			
600	129	-20			
550		-30			
500	170	-41			
450		-50			
400	219	-59			
350		-60			
300	281	-57			
250		-55			
200	368	-53			
170		-62			
150		-64			
130		-67			
110		-73			
100	514	-70			
90		-70			
80		-73			
70					
60					

Inversion 996mb 29°-962mb 30°

Tropopause: III 400 mb -59° 21900'

LIVERPOOL

Pressure: Time 03hrs G.M.T. | M.S.L. 1000·6 mb | Surf 998·6 mb | Freezing 980 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	33	30	calm	
1000	0·2				
950		30	26	313	05
900	27·7	26	22	309	08
850		20	16	301	10
800	57·8	15	10	295	13
750		08	03	292	17
700	91·2	02	-5	293	19
650		-6	-13	283	17
600	128	-14	-22	268	14
550		-23	-31	262	15
500	171	-33	-42	261	21
450		-44		256	24
400	220	-55		255	32
350		-60		262	40
300	282	-52		263	41
250		-53		265	40
200	370	-56		269	43
170		-56		271	38
150		-60		272	37
130		-63		269	39
110		-65		275	43
100	517	-64			
90		-67			
80		(94)			
70					
60					

Isothermal 409 -385mb -55°

Tropopause: I 350 mb -60° 25000'

DOWNHAM MARKET

Pressure: Time 03hrs G.M.T. | M.S.L. 1001·8 mb | Surf 996·3 mb | Freezing 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	30	29	310	02
1000	0·3				
950		32	23	338	12
900	27·9	27	21	339	12
850		23	08	338	11
800	58·2	16	-7	333	08
750		10	-15	322	12
700	91·6	02	-26	314	13
650		-3	-15	250	16
600	129	-13	-21	274	22
550		-23	-31	260	27
500	171	-34	-40	251	34
450		-44		246	43
400	221	-52		253	66
350		-51		267	70
300	283	-52		253	75
250		-56		243	67
200	377	-58		248	57
170		-62		257	45
150		-67		259	45
130		-65		260	38
110		-68		253	36
100	517	-70			

Inversion 994mb 30°-934mb 34°
Isothermal 892-875 mb 26°
700-677 mb 2°

Tropopause: II 390 mb -53° 22600'

LARKHILL

Pressure: Time 03hrs G.M.T. | M.S.L. 1001·7 mb | Surf 984·5 mb | Freezing 985 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	4·4	32	32	360	08
1000	0·4				
950		29	27	352	13
900	28·0	28	21	358	10
850		24	13	343	09
800	58·4	18	04	313	05
750		11	02	296	11
700	91·9	04	-7	283	13
650		-4	-13	288	20
600	129	-13	-26	269	25
550		-22	-30	260	31
500	172	-32	-41	259	29
450		-44		254	34
400	221	-53		250	52
350		-50		246	70
300	284	-53		246	82
250		-62		249	72
200	370	-63		263	55
170		-65		257	46
150		-71		261	49
130		-72		267	52
110		-71		270	48
100	515	-72		263	35
90		-73		269	40
80		-77		267	43
70		-77		264	50
60					

Inversion 941mb 28°-925mb 30°

Tropopause: II 417 mb -53° 21300'

CAMBORNE

Pressure: Time 03hrs G.M.T. | M.S.L. 1003·1 mb | Surf 992·4 mb | Freezing 910 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	29	24	360	10
1000	0·9				
950		32	27	345	18
900	28·9	31	27	335	20
850		25	19	321	22
800	59·4	19	11	316	22
750		14	04	307	23
700	95·1	07	-4	291	22
650		-1	-10	278	24
600	131	-10	-18	271	28
550		-19	-29	268	31
500	174	-29	-41	266	35
450		-40	-49	261	41
400	224	-40	-52	272	51
350		-46		266	80
300	287	-51		262	64
250		-58		274	53
200	375	-60		275	54
170		-64		274	43
150		-67		277	52
130		-64		276	47
110		-70		276	44
100	520	-74		276	46
90		-72			
80		-70			
70		-74			
60		(61)			

Inversion 992mb 39°-973mb 40°
Isothermal 450-400mb 40°
350-326mb -46°

Tropopause: I 264 mb -57° 31500'

Valentia

Pressure: Time 03hrs G.M.T. | M.S.L. 1005·5 mb | Surf 1007 mb | Freezing 975 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·3	34	30	020	04
1000	2·3	34	30	016	05
950		30	25	343	19
900	29·9	24	17	340	26
850		18	10	338	28
800	60·0	12	03	340	28
750		05	-7		
700	98·1	-2	-13		
650		-11	-22		
600	130	-20	-32		
550		-24	-37		
500	173	-26	-43		
450		-32	-48		
400	223	-40	-56		
350		-51			
300	286	-57			
250		-63			
200	372	-62			
170		-63			
150		-67			
130		-72			
110		-73			
100	516	-78			
90		-74			
80		-74			
70					
60					

Isothermal 1009-1000 mb 34°
536-520mb -25°

Tropopause: I 318 mb -59° 27300'

LERWICK

Pressure: Time 09hrs G.M.T. | M.S.L. 994·0 mb | Surf 983·8 mb | Freezing 984 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	32	30		
1000	01·6				
950		31	22		
900	25·9	25	20		
850		18	15		
800	55·9	10	08		
750		04	02		
700	88·9	-1	-17		
650		-7	-22		
600	126	-16	-40		
550		-26	-43		
500	168	-38	-50		
450		-50			
400	217	-62			
350		-74			
300	276	-77			
250		-69			
200	362	-61			
170		-64			
150		-68			
130		-72			
110		-70			
100	506	-73			
90		-76			
80		-78			
70		(83)			
60					

See p3 for winds

Isothermal 707-687 mb -1°

Tropopause: I 319 mb -80° 26300'

STORNOWAY

Pressure: Time 09hrs G.M.T. | M.S.L. 1004·8 mb | Surf 1003·1 mb | Freezing 966 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·4	26	24		
1000	1·2	26	23		
950		20	15		
900	28·7	24	11		
850		17	05		
800	58·6	10	01		
750		02	-12		
700	91·6	-3	-19		
650		-9	-25		
600	129	-18	-32		
550		-27	-38		
500	170	-38	-48		
450		-50			
400	219	-61			
350		-65			
300	280	-65			
250		-62			
200	366	-55			
170		-65			
150		-66			
130		-66			
110		-66			
100		-68			
90	512	-65			
80					
70					
60					

Isothermal 750-737 mb 2°

Tropopause: II 392 mb -68° 22400'

LEUCHARS

Pressure: Time 09hrs G.M.T. | M.S.L. 993·6 mb | Surf 992·7 mb | Freezing 993 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·2	25	25	280	18
1000	51·8				
950		27	27	277	30
900	25·7	24	23	317	33
850		20	15	337	38
800	55·8	15	14	348	45
750		09	07	354	46
700	89·0	01	-4	354	40
650		-6	-12	353	38
600	126	-14	-19	353	40
550		-25	-29	356	46
500	165	-36	-45	358	46
450		-49		004	61
400	217	-63		002	57
350		-71		358	50
300	277	-72		346	32
250		-66		309	29
200	362	-65		317	26
170		-69		296	22
150		-70		298	27
130		-70		310	28
110		-73		322	25
100	506	-75		316	22
90		-77			
80					
70					
60					

Tropopause: II 355 mb -70° 24200'

ALDERGROVE

Pressure: Time 09hrs G.M.T. | M.S.L. 1007·2 mb | Surf 998·2 mb | Freezing 998·2 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	023	29	27		
1000	01·9				
950		26	23		
900	29·3	22	21		
850		17	16		
800	59·4	12	11		
750		06	04		
700	92·6	00	-4		
650		-8	-13		
600	130	-16	-26		
550		-25	-30		
500	172	-35	-40		
450		-46			
400	221	-55			
350		-65			
300	282	-61			
250		-61			
200	369	-58			
170		-58			
150		-60			
130		-62			
110					
100					
90					
80					
70					
60					

Inversion 997mb 29°-975mb 33°

Tropopause: I 355 mb -66° 24200'

LIVERPOOL

Pressure: Time 09hrs G.M.T. | M.S.L. 1002·9 mb | Surf 1000·4 mb | Freezing Surface mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	23	20	calm	
1000	0·7				
950		28	20	329	16
900	28·1	23	08	331	21
850		18	-5	334	21
800	58·1	12	-23	332	25
750		06	-27	323	29
700	91·2	-2	-31	322	29
650		-12	-42	323	28
600	128	-22	-51	311	25
550		-31	-57	288	26
500	170	-40	-60	278	29
450		-49		298	29
400	219	-57		311	24
350		-61		293	22
300	280	-58		289	32
250		-59		278	35
200	367	-58		280	36
170		-61		281	45
150		-61		283	46
130		-64		282	40
110		-67		282	46
100	514	-67		275	43
90		-68			
80		-68			
70		(86)			
60					

Inversion 1001mb 21°-978mb 30°

Tropopause: I 368 mb -62° 23700'

DOWNHAM MARKET

Pressure: Time 09hrs G.M.T. | M.S.L. 1001·9 mb | Surf 997·4 mb | Freezing 970 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	29	25	295	05
1000	0·6				
950		30	24	326	13
900	28·0	25	16	318	08
850		20	05	279	08
800	58·1	15	05	254	15
750		07	-1	249	21
700	91·3	-1	-7	248	24
650		-8	-14	245	23
600	128	-16	-22	248	26
550		-25	-32	247	27
500	171	-36	-44	252	30
450		-47		254	39
400	220	-55		255	39
350		-53		251	40
300	284	-57		251	46
250		-56		247	52
200	369	-55		250	50
170		-58		265	52
150		-61		265	52
130		-63		255	43
110		-65		261	47
100	516	-67		278	40
90		-68			
80		-68			
70		(86)			
60					

Inversion 986mb 31°-970mb 32°

Tropopause: I 372 mb -59° 23500'

LARKHILL

Pressure: Time 09hrs G.M.T. | M.S.L. 1002·7 mb | Surf 986·1 mb | Freezing 970 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	4·4	31	30	calm	
1000	0·7				
950		30	29	331	15
900	28·2	25	23	312	13
850		20	18	300	10
800	58·3	15	13	293	16
750		07	05	272	14
700	91·7	02	00	269	16
650		-6	-11	280	13
600	129	-11	-19	277	15
550		-22	-29	265	19
500	171	-32	-40	264	24
450		-43		258	39
400	222	-48		262	44
350		-45		257	48
300	284	-53		260	50
250		-52		265	50
200	372	-53		268	52
170		-56		265	44
150		-61		270	49
130		-60		275	51
110		-64		266	50
100	515	-66		272	50
90		-66		279	44
80		-67		272	40
70					
60					

Inversion 941mb 28°-925mb 30°

Tropopause: II 417 mb -53° 21300'

CAMBORNE

Pressure: Time 09hrs G.M.T. | M.S.L. 1006·5 mb | Surf 995·7 mb | Freezing 940 mb

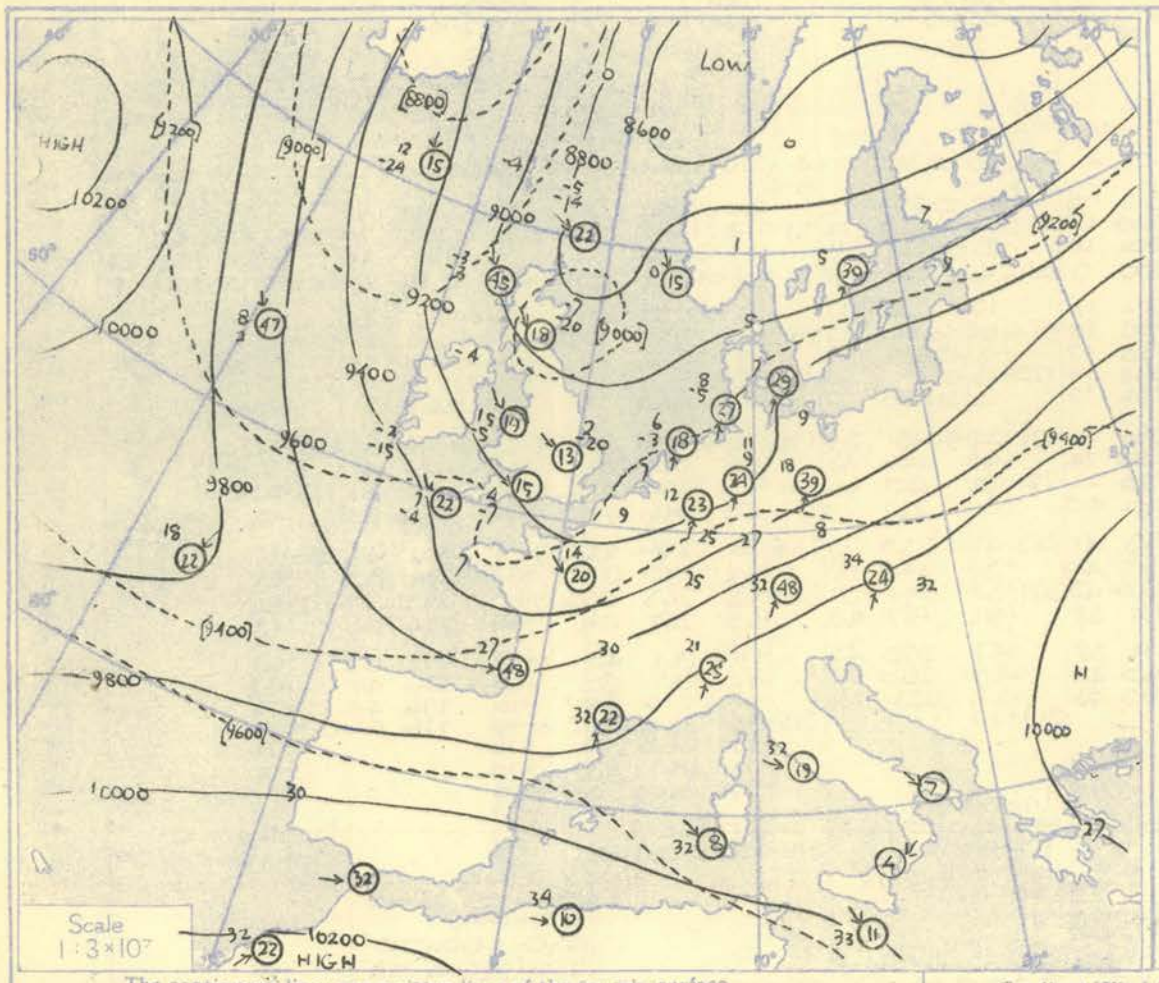
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	38	24	350	12
1000	01·7				
950		33	32	334	26
900	29·5	29	17	337	28
850		(29	16	331	25
800	59·7	18	03	323	25
750		07	-3	314	27
700	92·5	-3	-17	313	31
650		-10	-31	318	34
600	130	-20	-39	310	31
550		-28	-43	299	31
500	172	-31	-55	291	29
450		-36	-59	292	61
400	222	-40	-60	305	69
350		-48			
300	286	-53			
250		-58			
200	373	-57			
170		-60			
150		-63			
130		-68			
110		-68			
100	515	-68			
90		(93)			
80					
70					
60					

Isothermal 468-435 mb -36°

Tropopause: II 315 mb -58° 27500'

Sunday 3rd December. 1950.

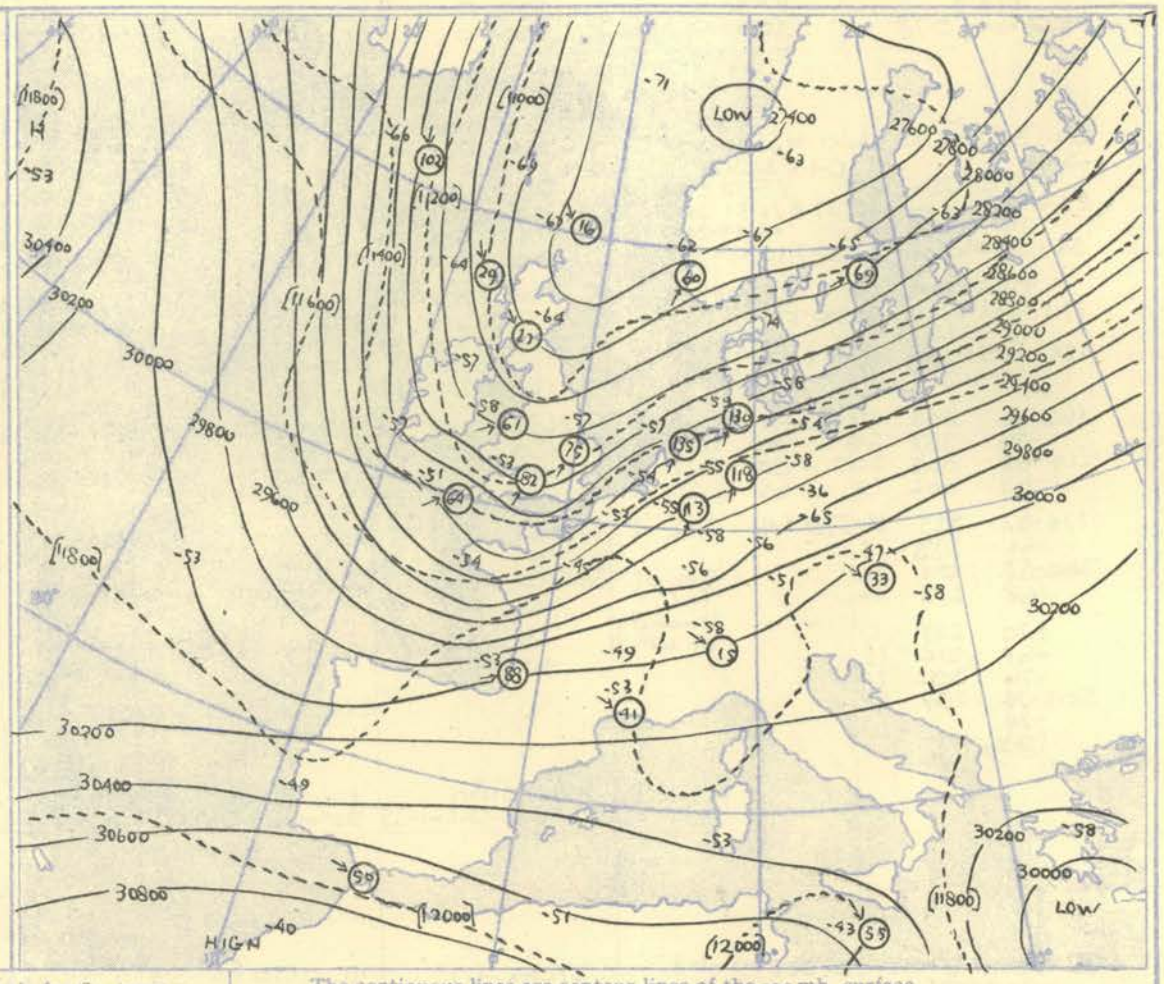
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



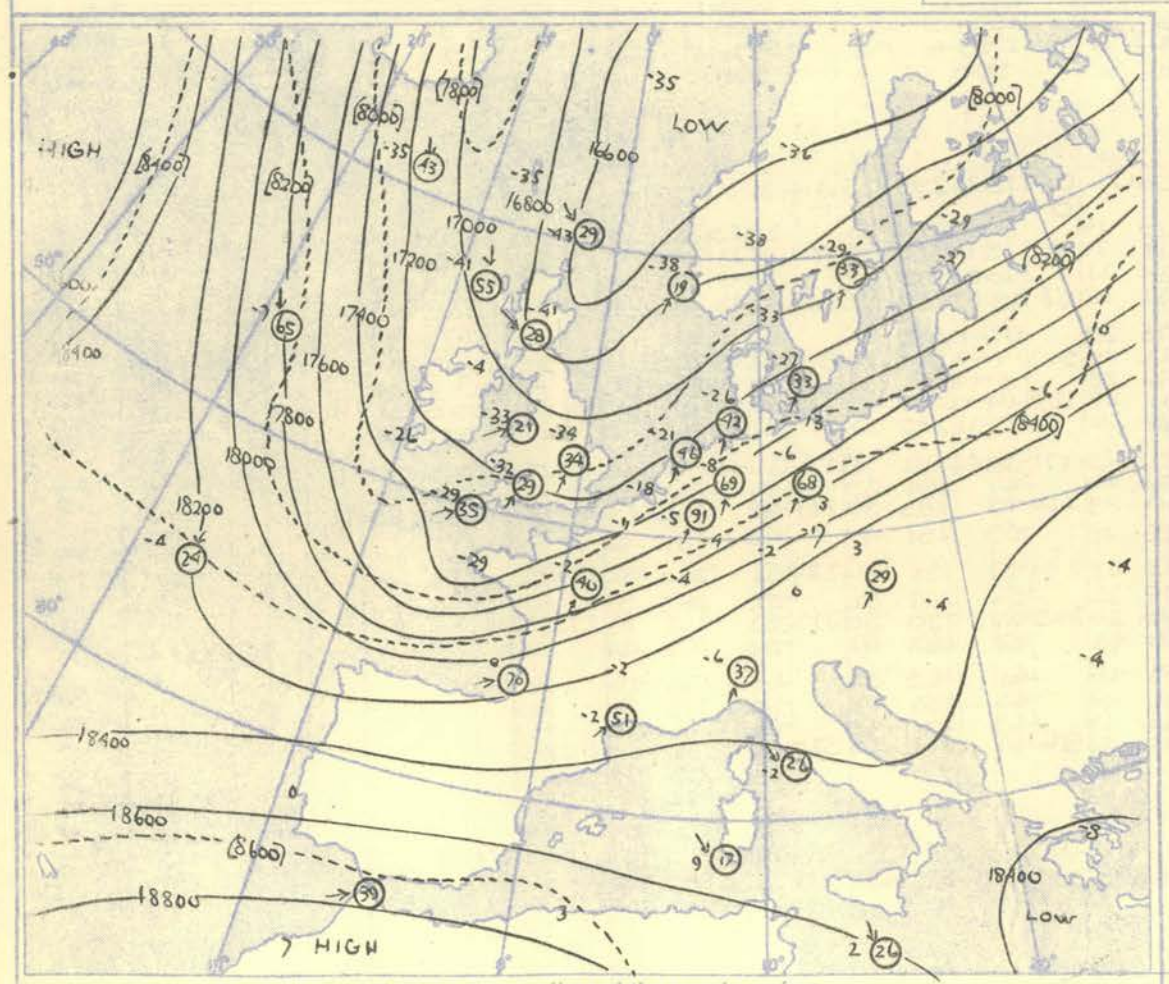
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

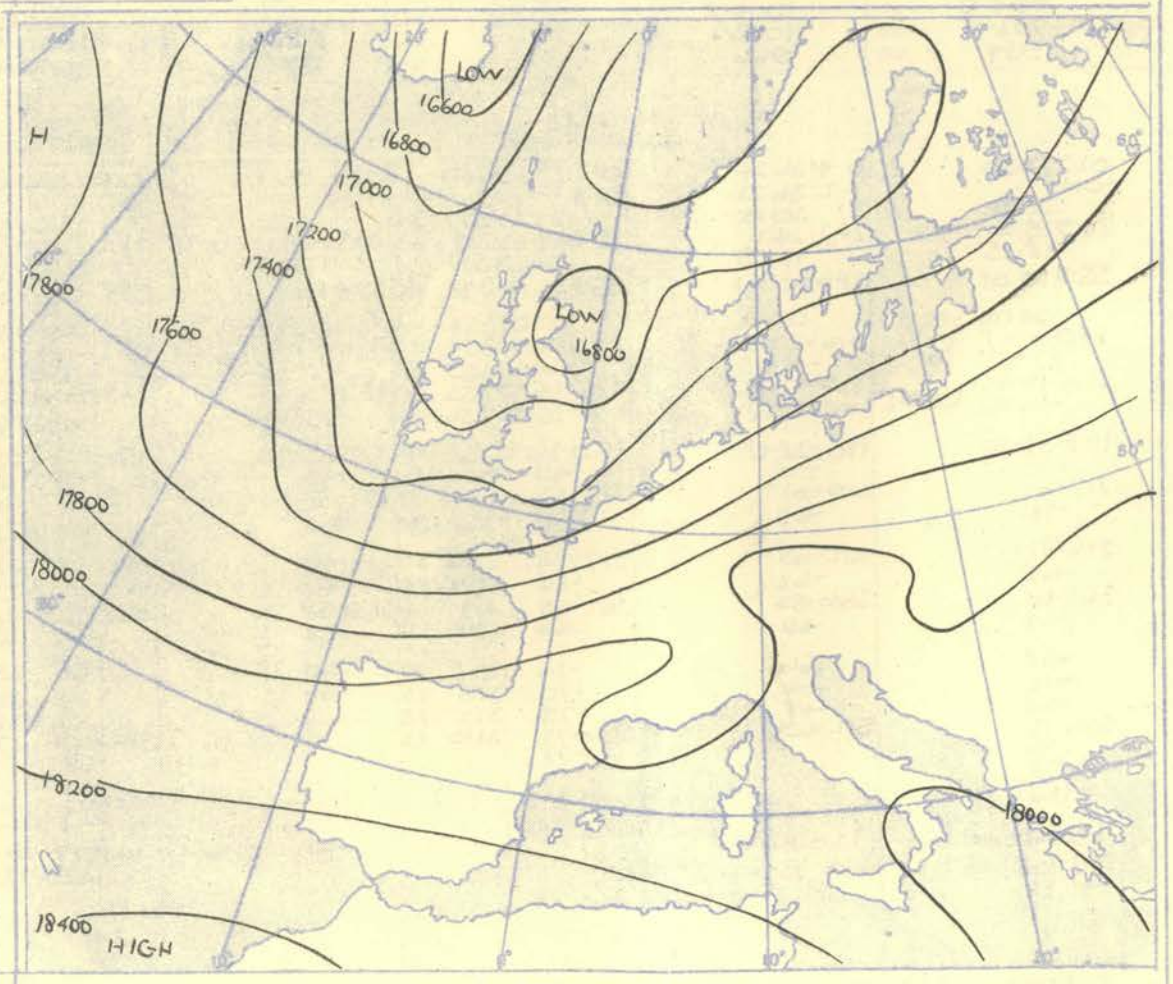
100 50 40 30 20 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43.2N. 7.0W			39.5N. 12.2W.		
Pressure Time	13h.			14h.		
Pressure M.S.L.	1018 mb			1010 mb		
Pressure Surf	1015 mb			1006 mb		
Pressure Freezing	875 mb			710 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		52	43		58	55
1000	50	51		2.6	57	
950		40	33		49	49
900		35	33		48	48
850		29	19		45	42
800		24			39	39
750		26			37	
700	98.5	21		982	31	
650		20			21	
600		12			15	
550		03			06	
500	183	-06		184	-02	

43.2N. 7.0W	39.5N. 12.2W.
Surface Wind. N'Ely 22-27 kts	Surface Wind E'ly 17-21 kts.
Cloud.	Cloud
3/8 Cu 920-900mb	8/8 Ns 960-800mb
6/8 Sc 1000-860mb	6/8 As 530-510mb
Inversion 800 mb 24° 750 " 26°	8/8 As 500-450mb

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Stornoway		Lerwick		W. Watcher 53.8N 19.1W		Leuchars	
Time	03h.		09h		09h.		21h.	
Type								
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			020	34	360	35	300	17
1,000			346	42	360	35	307	22
2,000			348	44	360	32	314	24
3,000			354	45	360	27	324	26
4,000			358	43	350	26	328	24
5,000			003	39	350	27	336	25
6,000			009	37	350	29	338	25
8,000			009	33	340	39	340	24
10,000			360	30	340	44	318	21
14,000			335	24	340	48	305	22
18,000			006	12	340	58	291	20
24,000			349	14	340	57	310	18
30,000	334	33	325	21	350	58	324	31
40,000	334	33	314	06	340	61	317	33
50,000	316 (49,000')	36	263 (48,000')	15			317 (49,000')	30

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

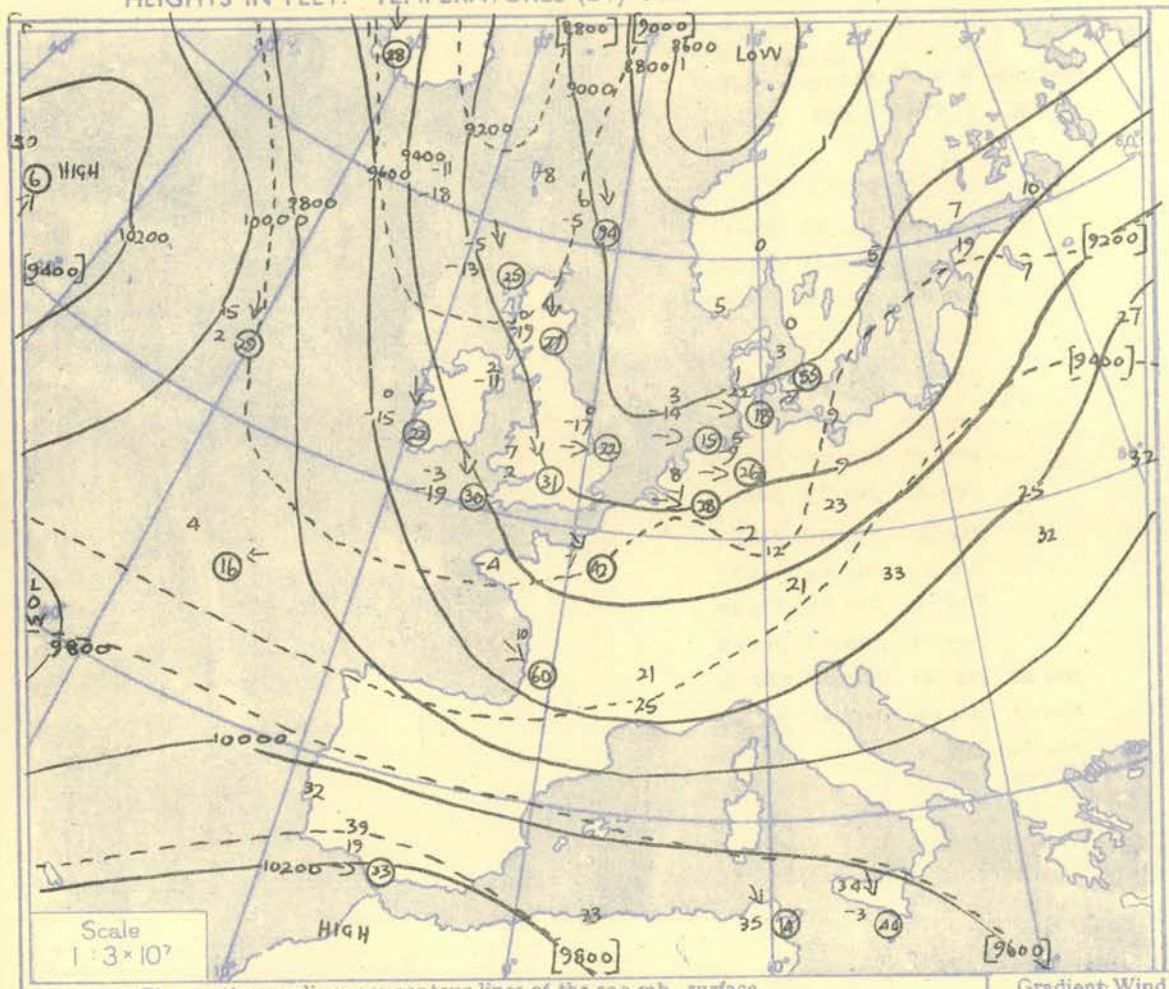
Ship	WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	53.8N	18.4				52.7N	19.3W			
Pressure Time	03h G.M.T.					09h G.M.T.				
Pressure M.S.L.	1019 mb					1024 mb				
Pressure Surf	1019 mb					1024 mb				
Pressure Freezing	955 mb					950 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		42	38	360	25		42	37		
1000	5.0	39	35	001	39	6.4	39	35		
950		31	29	358	33		32	28		
900	32.7	25	23	356	32	34.1	25	12		
850		21	20	352	30		17	14		
800	63.0	15	13	349	24	64.2	10	10		
750		10	08	351	31		12	04		
700	96.4	08	02	333	47	97.8	13	-05		
650		04	-08	321	63		09	-06		
600	135	03	-10	317	66	136	03	-09		
550		00	-14	387	62		-03	-12		
500	179	-07	-20	342	65	181	-10	-20		
450		-19	-30	342	66		-22	-32		
400	232	-32	-42	341	63	233	-35	-44		
350		-41		341	65		-48			
300	(343 mb)	-43				296	-64			
250							-83			
200						378	-77			
170							-73			
150							-83			
130						(142 mb)	-73			
110										
100										
90										
80										
70										
60										
	Isothermal 733 - 700 mb 08° 581 - 550 " 00°					Inversion 778 mb 10° - 712 mb 14° Isothermal 808 - 778 mb 10°				
Tropopause	NR.					I 244 mb - 85° 34,000'				

Ship	WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52.6N	19.9W				52.4N	19.9W			
Pressure Time	15h G.M.T.					21h G.M.T.				
Pressure M.S.L.	1026 mb					1026 mb				
Pressure Surf	1026 mb					1026 mb				
Pressure Freezing	930 mb					930 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	38	330	15		44	43	320	20
1000	6.9	41	35	350	17	6.8	41	40	322	22
950		35	32	350	19		34	33	324	45
900	34.8	28	27	351	21	34.7	26	27	327	22
850		21	20	352	22		22	24	338	20
800	65.1	13	12	350	13	64.0	17	16	340	23
750		18	10	349	26		16	11	338	29
700	98.9	15	02	348	29	98.8	16	10	337	29
650		11	00	346	36		11	07	336	22
600	137	05	-04	343	46	137	05	02	334	44
550		-03	-13	343	51		-04	-06	332	55
500	182	-12	-22	344	51	182	-12	-13	327	57
450		-20	-28	344	48		-21	-23	326	55
400	234	-28	-36	343	51	230	-31	-34	329	82
350		-43		343	62		-44		334	95
300	298	-60		340	79	298	-62		340	93
250		-76		343	79		-78		333	108
200	381	-79		342	75	381	-75		336	68
170		-71		343	58		-71		336	56
150		-71		343	49		-73		331	56
130		-73		328	46		-74		340	51
110							-76		338	42
100						523	-77		337	43
90							-79		334	40
80							-80		332	36
70							-82		332	40
60							-83			
						(054 mb)	-84			
	Inversion 800 mb 13° - 750mb 18°					Isothermal 771 - 700 mb 16°				
Tropopause	I 226mb -85° 35,600'					I 245mb -80° 33,800'				

Ship	WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	61.0N	13.9W				61.0N	13.7W			
Pressure Time	03h G.M.T.					09h G.M.T.				
Pressure M.S.L.	1014 mb					1014 mb				
Pressure Surf	1014 mb					1014 mb				
Pressure Freezing	Surf mb					Surf. mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		30	20	350	26		31	23	350	30
1000	3.6	28	19			3.5	28	18	343	36
950		20	13	350	28		18	16	342	34
900	30.7	14	08	349	27	30.4	11	04	342	31
850		08	02	352	24		05	-02	336	30
800	60.1	00	-09	355	22	59.6	-01	-07	323	26
750		-05	-15	360	20		-08	-14	326	24
700	92.4	-12	-24	005	15	91.8	-13	-22	334	31
650		-18	-35	359	11		-17	-29	340	38
600	129	-24	-49	343	13	128	-21	-32	340	42
550		-31	-58	332	19		-23	-34	341	60
500	171	-35	-58	339	43	171	-26	-37	342	69
450		-37	-60	340	67		-33	-45	341	77
400	221	-45		352	86	221	-44		339	79
350		-56		355	90		-56		340	85
300	283	-66		359	102	283	-67		343	88
250		-73		350	81		-78		357	72
200	367	-70		344	72	367	-72		360	54
170		-71		343	61	(196 mb)	-73			
150		-72		351	56					
130		-74		354	53					
110		-76		361	52					
100	510	-77		337	54					
90		-78		336	50					
80		-80		330	40					
70		-81		330	40					
60		-82		322	35					
	(056 mb)	-82								
	Isothermal 500 - 474mb -35°					Isothermal 708 - 687mb -13° 613 - 575 .. -21°				
Tropopause	II 270mb -72° 30,500'					I 250mb -78° 32,300'				

Ship	WEATHER OBSERVER					WEATHER OBSERVER				
Lat/Long	61.0N	14.0W				61.1N	13.9W			
Pressure Time	15h G.M.T.					21h G.M.T.				
Pressure M.S.L.	1015 mb					1016 mb				
Pressure Surf	1015 mb					1016 mb				
Pressure Freezing	Surf mb					Surf. mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		31	23	350	25		32	30	020	30
1000	3.9	28	24			4.2	28	27		
950		20	20				20	20		
900	30.8	12	10			31.2	14	14		
850		06	02				08	08		
800	60.0	02	-02			60.6	02	02		
750		-07	-08				-05	-05		
700	92.3	-11	-18			93.1	-06	-13		
650		-13	-26				-11	-23		
600	129	-16	-26			130	-14	-26		
550		-17	-27				-18	-29		
500	172	-25	-34			173	-26	-38		
450		-34	-42				-34	-43		
400	223	-44				223	-44			
350		-54					-55			
300	285	-64				285	-64			
250		-68				(259 mb)	-69			
200	370	-66								
170		-69								
150		-66								
130		-71								
110		-72								
100	515	-73								
90		-75								
80	(087 mb)	-76								
70										
60										
	Isothermal 705 - 691mb -11° 585 - 540 .. -17°									
Tropopause	II 300mb -64° 28,500					N.R.				

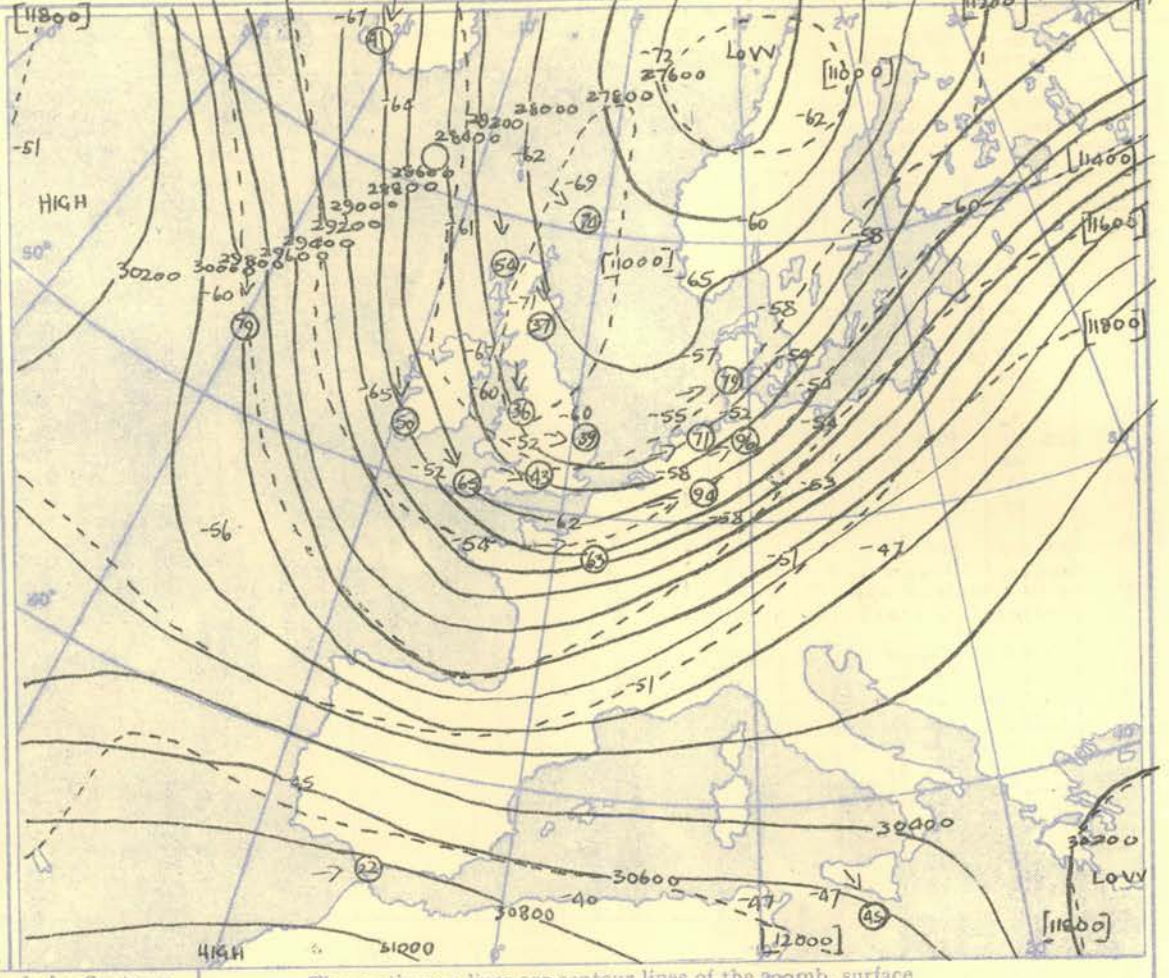
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

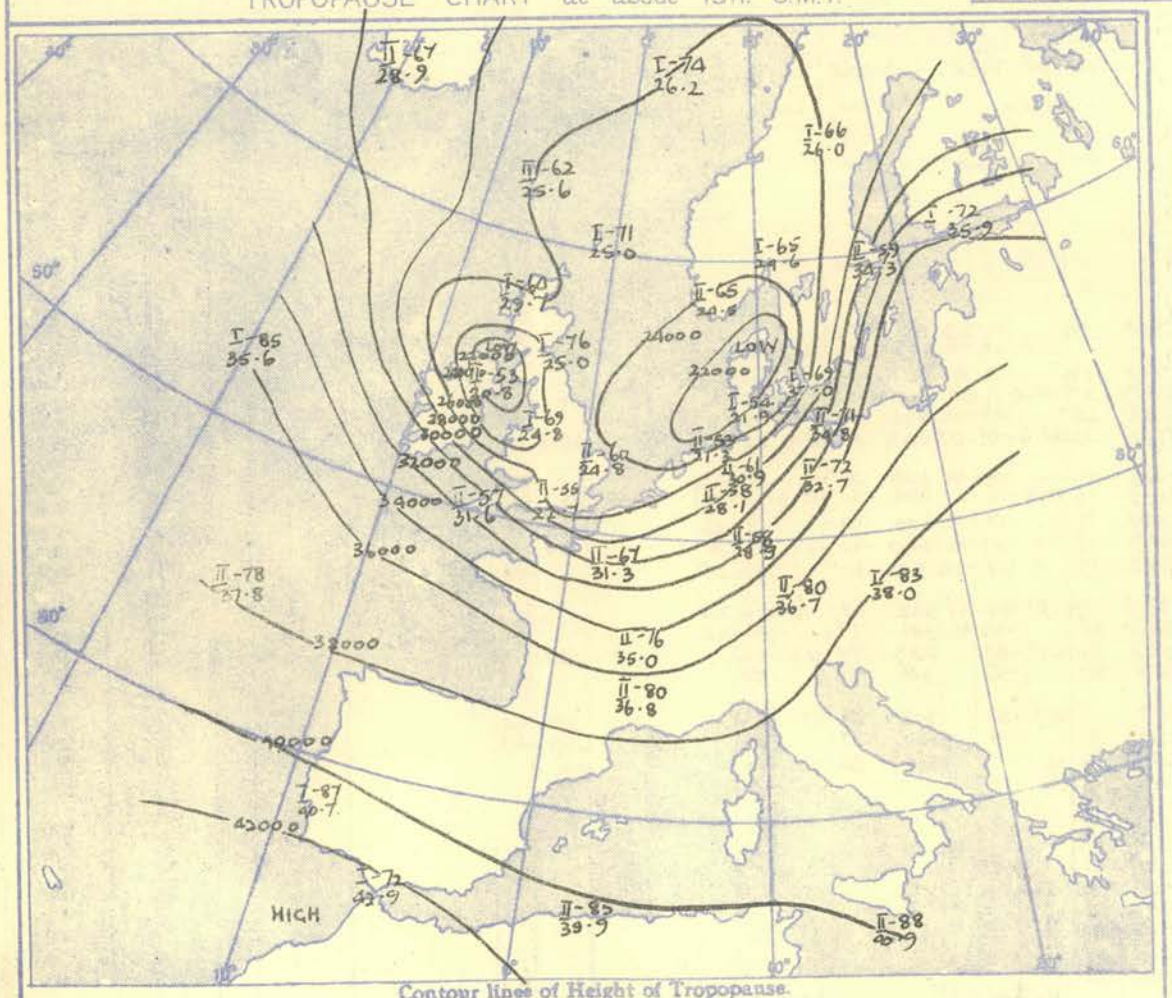
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The temperature ascents from stations in the British Isles show that the air is unusually cold at all levels. It exceeds the recorded extreme for December.

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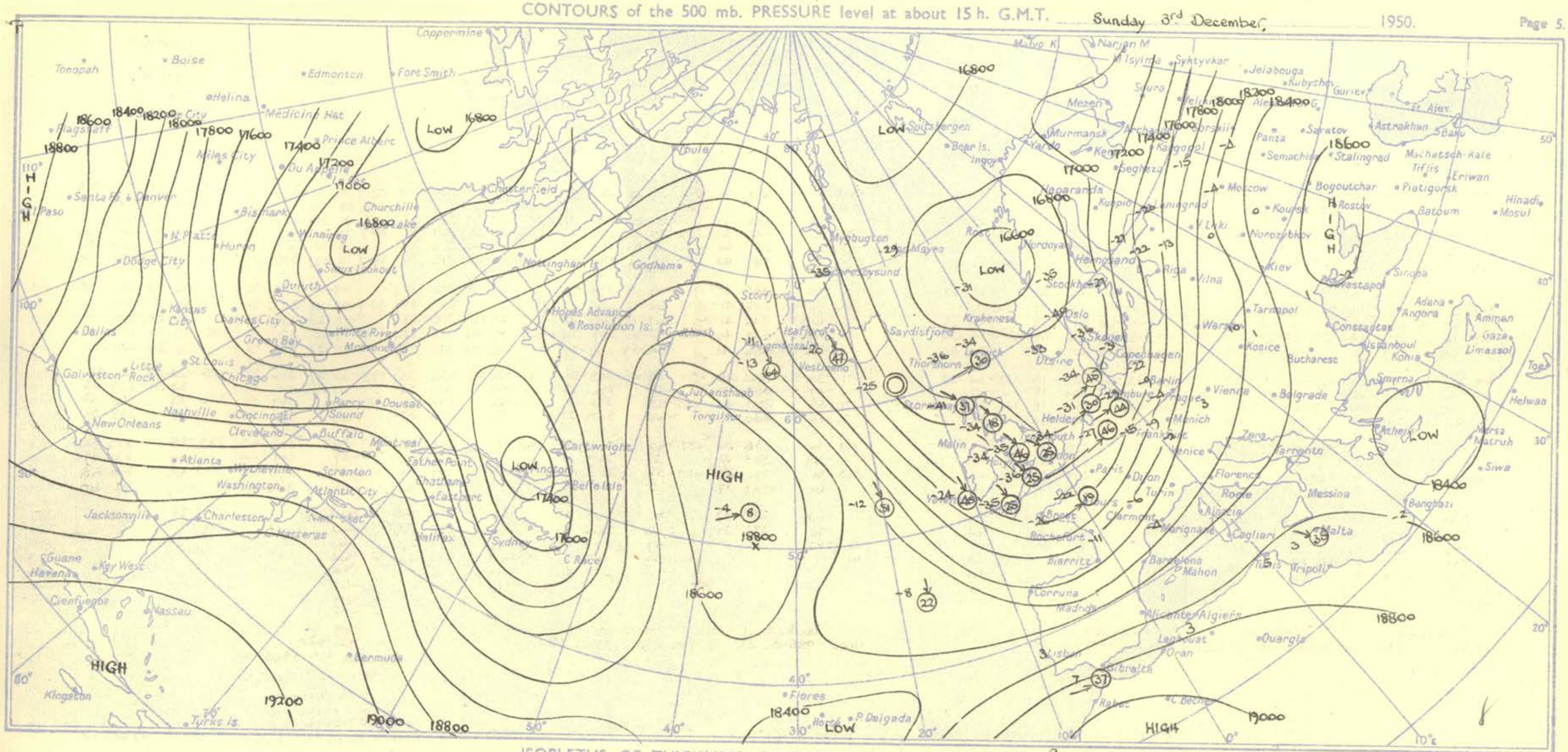
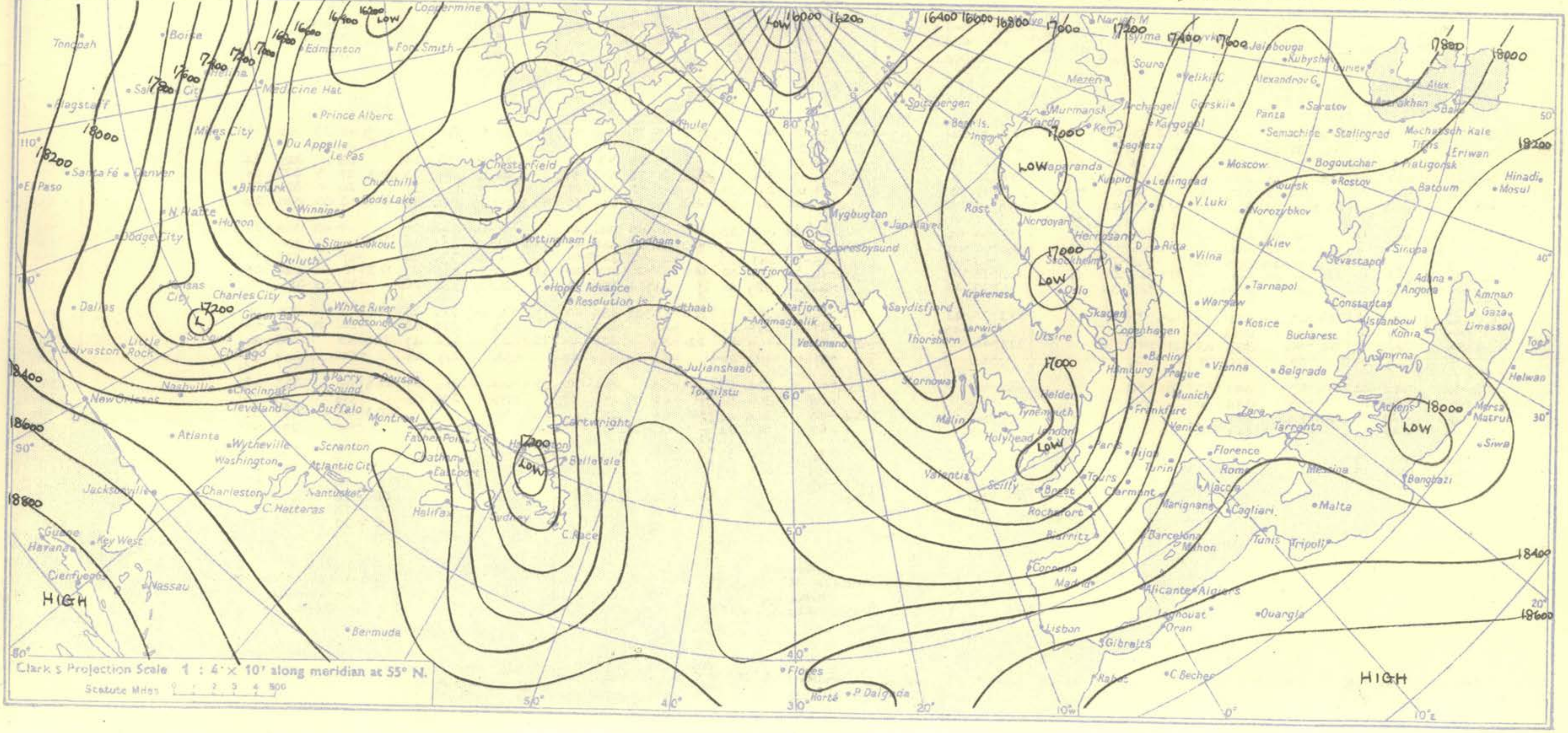
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Sunday 3rd December, 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 3rd. December 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL [illegible]

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	15h.	996·8 mb	986·6 mb	960 mb
STORNOWAY	15h.	1005·7 mb	1004·0 mb	1004·0 mb
LEUCHARS	15h.	1001·6 mb	1000·7 mb	960 mb
ALDERGROVE	15h.	1009·4 mb	998·0 mb	948 mb
LIVERPOOL	15h.	1001·6 mb	999·5 mb	936 mb
DOWNHAM MARKET	15h.	1002·4 mb	997·9 mb	948 mb
LARKHILL	15h.	1005·4 mb	988·9 mb	989 mb
CAMBORNE	15h.	1011·2 mb	1000·3 mb	958 mb
VALENTIA	15h.	1015·5 mb	1015 mb	965 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	31	30	325	14	004	32	24	330	15	002	35	25	010	20	023	37	27		
1000	009					015	32	23			004	35	25			020				
950		31	26	329	21		25	18	338	36	031	20	356	36			32	20		
900	266	25	15	346	18	287	18	11	341	34	281	28	13	006	41	298	27	19		
850		18	08	346	18		12	06	346	31		21	06	004	40		19	13		
800	566	12	06	333	20	583	05	-02	349	25	583	14	00	006	36	600	13	05		
750		06	02	329	16		00	-07	336	23		07	-06	350	33		08	-02		
700	898	00	-05	319	14	900	-05	-13	333	25	920	00	-19	337	27	930	02	-11		
650		-07	-19	288	12		-11	-20	335	27		-05	-23	329	23		-06	-23		
600	127	-14	-31	275	14	128	-23	-28	325	27	129	-13	-28	314	25	131	-14	-34		
550		-25	-39	269	21		-35	-39	307	29		-23	-27	307	21		-24	-45		
500	169	-34	-47	248	30	169	-41		302	37	171	-34	-46	327	18	173	-34	-57		
450		-45		226	30		-43		312	36		-48		309	18		-47			
400	218	-57		216	26	219	-49		320	42	220	-63		310	18	222	-55			
350		-69		231	23		-56		328	51		-75		314	24		-59			
300	279	-69		298	14	281	-61		329	54	280	-71		328	37	284	-67			
250		-68		337	15		-61		325	48		-65		338	37		-63			
200	365	-59		318	21	267	-62		335	44	366	-60		302	25	369	-65			
170		-60		312	15		-63		335	30		-68		304	27		-66			
150		-65		322	15		-65		333	35		-63		307	30		-64			
130		-66		290	10		-68		329	39		-64		288	26		-64			
110		-67		255	15		-72		321	30		-71		301	30		-67			
100	511	-68		270	20	512	-74									515	-68			
90		-70		298	21												-69			
80	(983 mb)	-71															-71			
70																				
60																				

Inversion 987 mb. 31° – 962 mb. 32°

Inversion 513 mb. -42° – 473 mb. -41°

Inversion 943 mb. 30° – 925 mb. 31°

Pressure mb	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	006	37	30	350	10	012	33	28	235	10	044	32	28	320	10	029	35	32	360	05	003	37	27	020	08
1000	004					006					014					031	35	32			042			010	10
950		33	24	347	27		30	26	217	21		29	21	316	24		31	27	346	21		30	21	347	15
900	282	26	21	346	33	282	25	20	289	25	289	25	12	322	27	307	25	20	341	23	318	24	16	343	15
850		20	16	347	40		19	03	288	25		20	00	323	25		18	10	339	26		19	11	344	16
800	584	14	10	347	43	582	13	-06	280	24	590	14	-07	316	28	607	12	02	338	29	619	12	-02	352	20
750		08	03	348	42		07	-11	275	26		07	-13	312	31		07	-10	345	30		06	-07	347	23
700	916	01	-05	348	41	914	00	-17	255	22	922	00	-20	311	31	939	-03	-19	343	30	950	00	-15	340	22
650		-05	-15	342	41		-07	-19	300	22		-09	-30	312	33		-12	-24	332	23		-07	-24	340	13
600	129	-14	-27	347	40	126	-16	-36	299	24	129	-19	-36	324	27	131	-17	-25	321	12	132	-13	-32	337	16
550		-24	-41	356	44		-24	-39	303	27		-26	-44	336	23		-25	-33	311	12		-18	-39	337	33
500	171	-35	-53	354	46	171	-35	-46	305	25	171	-36	-55	330	25	173	-35	-47	316	25	175	-24	-43	341	45
450		-47		353	49		-45		296	22		-44		308	24		-37	-54	315	27		-33	-51	339	48
400	220	-59		353	44	220	-53		281	21	221	-52		292	23	223	-41		307	51	226	-43		342	56
350		-68		340	35		-60		265	27		-55		276	32		-43		303	62		-55		337	50
300	281	-60		328	36	282	-62		263	39	283	-52		274	43	287	-52		302	65	288	-65		330	50
250		-58		308	31		-58		269	38		-56		278	49		-57		301	64		-69		321	49
200	368	-61		292	48	369	-58		267	53	370	-58		277	57	374	-57		298	62	373	-68		314	58
170		-61		288	37		-62		268	45		-58		272	50		-59		303	48		-67		311	60
150		-63		287	39		-61		267	46		-62		274	54		-60				(156 mb)	-68			
130		-62		293	39		-66		266	45		-66		278	53		-62								
110							-69		268	48		-66		277	47		-66								
100	(126 mb)	-62				515	-68		262	46	517	-68		277	46	521	-64								
90							-68		267	46		-69		266	51		-64								
80							-71					-70					-67								
70																	-69								
60																	-70								
																	-69								

Isothermal 1000 – 985 mb. 37°

Inversion 998 mb. 33° – 981 mb. 34°

Inversion 1000 mb. 35° – 989 mb. 36°
480 mb. -37° – 430 mb. -36°
Isothermal 500 – 474 mb. -35°
310 – 291 mb. -52°

Tropopause	I 344 mb. -71° 25,000'					I 278 mb. -64° 27,700'					I 246 mb. -76° 25,000'					II 426 mb. -53° 20,800'					I 352 mb. -69° 24,800					II 350 mb. -60° 24,800'					II 388 mb. -55° 22,700					II 250 mb. -57° 31,600'					II 281 mb. -69° 30,200'				

21h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	21h.	997·6 mb	987·4 mb	987 mb
STORNOWAY	21h.	1006·1 mb	1004·4 mb	1004·4 mb
LEUCHARS	21h.	1003·8 mb	1002·9 mb	1003·8 mb
ALDERGROVE	21h.	1009·0 mb	1000·0 mb	1000 mb
LIVERPOOL	21h.	1005·6 mb	1003·5 mb	945 mb
DOWNHAM MARKET	21h.	1003·2 mb	998·9 mb	968 mb
LARKHILL	21h.	1007·6 mb	991·0 mb	991 mb
CAMBORNE	21h.	1013·0 mb	1002·2 mb	941 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	32	30	010	28	004	32	29	360	15	002	27	24			023	32	30		
1000	007					016	32	29			010	27	23			032				
950		30	25	337	36		25	22	338	30		24	20				28	26		
900	267	23	19	342	37	290	19	18	340	30	282	19	12			298	23	21		
850		18	11	342	31		12	12	347	28		13	05				17	13		
800	568	11	03	335	28	587	04	03	350	25	578	07	-02			599	11	05		
750		04	-04	333	17		-04	-06	358	22		01	-08				04	-04		
700	877	-03	-06	342	13	912	-12	-14	356	25	910	-06	-15			930	-02	-09		
650		-09	-19	003	12		-21	-24	005	22		-14	-21				-10	-16		
600	123	-18	-28	345	12	127	-31	-35	017	19	127	-23	-28			130	-18	-26		
550		-27	-40	260	12		-41		003	22		-30	-35				-27	-35		
500	169	-36	-57	228	28	168	-48		352	29	169	-37	-43			172	-35	-44		
450		-49		227	28		-51		353	35		-43					-39	-49		
400	218	-59		335	13	216	-56		353	33	219	-49				222	-46			
350		-71		049	19		-58		340	37		-56					-54			
300	278	-70		042	34	278	-59		347	42	281	-53				285	-61			
250		-69		350	21		-58		344	37		-55					-66			
200	362	-62		347	18	365	-68		342	37						370	-66			
170		-65		342	16		-67		329	42							-63			
150		-64		330	19												-66			
130		-66		333	19												-69			
110		-73															-72			
100																515	-72			
90																				
80																				
70																				
60																				

For winds see page 3.

Pressure mb	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	006	34	28	340	02	012	35	28	300	17	044	32	31	270	10	029	40	29	360	14
1000	015	35	28			009					020					035	40	29		
950		33	22	327	19		30	25	319	34		31	28	323	24		38	21	325	24
900	231	26	19	319	27	286	26	22	333	37	296	26	20	339	33	313	27	15	325	24
850		19	03	311	28		21	17	340	37		21	11	341	37		20	10	326	23
800	592	12	-05	311	27	588	16	12	346	37	597	15	05	340	36	615	14	05	335	20
750		05	-04	313	25		10	05	346	40		08	-06	345	29		07	-03	335	22
700	924	-01	-08	295	29	922	03	-03	336	42	931	03	-15	339	24	947	00	-12	330	18
650		-08	-15	287	33		-05	-12	329	45		-06	-22	331	24		-08	-26	328	11
600	130	-16	-23	274	30	130	-13	-21	327	45	130	-16	-30	325	27	132	-13	-51	328	08
550		-26	-33	284	42		-23	-34	326	45		-26	-39	324	26		-22	-55	331	13
500	172	-36	-46	284	52	172	-33	-42	335	42	173	-36	-50	322	25	174	-33	-60	329	31
450		-47		295	42		-46		337	44		-43		323	34		-34	-51	328	46
400	221	-53		309	44	221	-59		331	44	222	-43		324	47	225	-42		318	36
350		-57		316	52		-61		332	48		-53		317	53		-50		309	39
300	282	-64		324	52	282	-65		314	42	284	-64		310	59	288	-60		295	48
250		-68		315	55		-62		299	42		-58		296	50		-68		295	48
200	368	-58		304	40	368	-64		282	46	(220 mb)	-57				373	-64		292	52
170		-67		306	34		-60										-64		294	55
150		-70		299	39		-63										-65		293	57
130		-69		303	49		-66										-68		289	51
110	(117 mb)	-69					-68										-70		277	51
100						514	-70									518	-72		296	47
90							-68										-73			
80																(083 mb)	-74			
70																				
60																				

Inversion 1004 mb. 34° – 986 mb. 37°
Isothermal 435 – 420 mb. -51°

Inversion 500 mb. -33° – 490 mb. -30°
Isothermal 1002 – 993 mb. 40°

Tropopause	I 320 mb. -75° 26,400'					III 537 mb. -44° 15,200'					I 336 mb. -58° 25,600'					II 273 mb. -67° 30,200'					I 266 mb. -73° 30,700					I 385 mb. -62° 23,000'					I 413 mb. -50° 19,700' / I 280 mb. -67° 29,700'					II 257 mb. -68° 32,000'				

H.M.S.O. Press, M.O., Dunstable.

No. 11372

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Monday 4th December 1950.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.
Pressure: M.S.L.	994.8 mb	1007.6 mb	1005.0 mb	1009.4 mb	1005.0 mb	1006.2 mb	1007.4 mb	1012.5 mb	1012.9 mb
Pressure: Surf	994.7 mb	1005.9 mb	1002.1 mb	1000.4 mb	1002.9 mb	1001.7 mb	991.8 mb	1011.7 mb	1012 mb
Pressure: Freezing	940 mb	973 mb	Surface mb	— mb	Surface mb	967 mb	950 mb	935 mb	965 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height Ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	027	35	34	015	26	004	34	26	360	10	002	29	25	320	18	2·3	28	27			06	29	27	calm		014	31	31	280	11	029	33	25	315	12	0·2	35	32	Surf
1000	-1·0					020	34	25			0·8	29	25			2·4	28	27			01·3	30	27			02·2					03·3	33	25			3·5	34	31	1000
950		33	32	355	48		30	15	358	27		22	16	331	21		27	25				28	25	318	18							34	26	286	29		31	28	950
900	26·2	27	26	357	45	29·3	23	15	352	25	28·1	21	19	003	22	29·3	22	26			25·8	22	15	331	22	29·1	24	13	295	17	29·8	27	17	283	20	31·1	27	29	900
850		22	18	356	43		16	08	350	25		15	13	021	26		16	13				16	09	331	20		26	19	291	25		20	09	291	27		25	21	850
800	56·4	18	14	355	45	53·2	40	09	346	23	58·0	08	06	023	26	53·3	10	06			58·7	10	06	326	24	53·3	15	03	280	22	53·9	14	-1	284	20	61·2	13	03	294	27	61·4	17	13	800
750		11	08	357	40		03	-3	347	17		00	-2	019	27		04	-2				03	-3	318	23		08	03	281	25		07	-3	277	35		06	-2	295	27		10	07	750
700	89·9	04	01	002	37	92·4	-2	-16	348	12	91·0	-7	-10	020	24	92·3	-3	-13			91·6	5	-3	300	30	92·6	00	-5	280	24	93·2	00	-11	266	33	94·4	05	-11	288	28	94·8	03	-1	700
650		-4	-10	004	36		-10	-28	028	03		-14	-19	042	26		-8	-15				-13	-19	252	27		-8	-13	280	25		-10	-21	259	34		-7	-23	280	28		-6	-12	650
600	127	-13	-19	005	35	129	-19	-35	062	18	127	-23	-29	057	28	130	-20	-34			128	-21	-29	282	33	130	-16	-22	273	32	130	-18	-29	255	40	132	-11	-22	292	25	132	-11	-18	600
550		-22	-30	354	33		-27	-39	062	30		-31	-36	075	31		-30	-44				-31	-38	273	33		-25	-33	272	30		-26	-37	257	42		-14	-35	302	33		-17	-25	550
500	170	-33	-42	352	27	171	-37	-49	060	44	169	-41		080	38	172	-38	-52			170	-40	-48	271	33																		500
450		-44		358	29		-46		048	50		-51		074	34		-41					-48	282	39																		450
400	219	-55		012	37	221	-54		045	51	218	-60		004	22	221	-48				219	-52		273	51																		400
350		-65		022	43		-62		026	53		-61		019	20		-54					-56		231	54																		350
300	280	-73		014	32	282	-62		012	50	279	-63		358	27	284	-55				281	-61		230	54	284	-60		284	54	284	-63		287	49	287	-70		296	41	288	-65		300
250		-67		006	27		-61		006	41		-63		335	23		-56					-62		294	44		-64		280	46		-68		285	46		-68		302	43		-65		250
200	364	-65		003	22	367	-65		345	43	365	-62		336	24	351	-61				367	-60		308	41	370	-63		288	43	369	-63		287	50	372	-63		295	43	375	-64		200
170		-67		353	25		-61		346	36		-65		335	27		-61					-65		300	38		-53		285	39		-63		286	44		-64		293	42		-66		170
150		-68		342	23		-68		346	35		-69		321	27		-60										-58		283	52		-65		282	42		-67		291	52		-65		150
130		-71		332	21		-71		342	37							-62										-63		273	39		-68		281	44		-68		292	47				130
110		-73		326	27		-74		338	38							-65										-65		280	42		-72		281	50		-69		299	45				110
100	503	-75		320	25	514	-75		336	34							-68										-65		285	41	517	-73		283	52	517	-70		294	45				100
90		-77		310	24		-78		321	33							-69										-64		274	34		-74		290	50		-71							90
80		-78					-80																									-70		295	49		-73							80
70																																(75)	-71											70
60																																											60
	Isothermal 985–960 mb 35°						Inversion 950 mb 22° – 928 mb 24°					Inversion 1000 mb 28° – 950 mb 30° Isothermal 517–480 mb 38°					Inversion 1003 mb 29° – 993 mb 31° 432 mb 52° – 415 mb 50° 375 mb 56° – 362 mb 55° Isothermal 350–338 mb 56°					Inversion 1002 mb 30° – 967 mb 32°					Inversion 992 mb 31° – 967 mb 33° Isothermal 530–515 mb 29°										
Tropopause	I 309 mb –74° 27300′			I 325 mb –66° 26200′			II 393 mb –61° 22100′			I 360 mb –55° 24300′			I 283 mb –63° 25400′			I 266 mb –67° 30900′			I 310 mb –64° 27700′			I 281 mb –75° 30000′			I 281 mb –68° 30200′			Tropopause

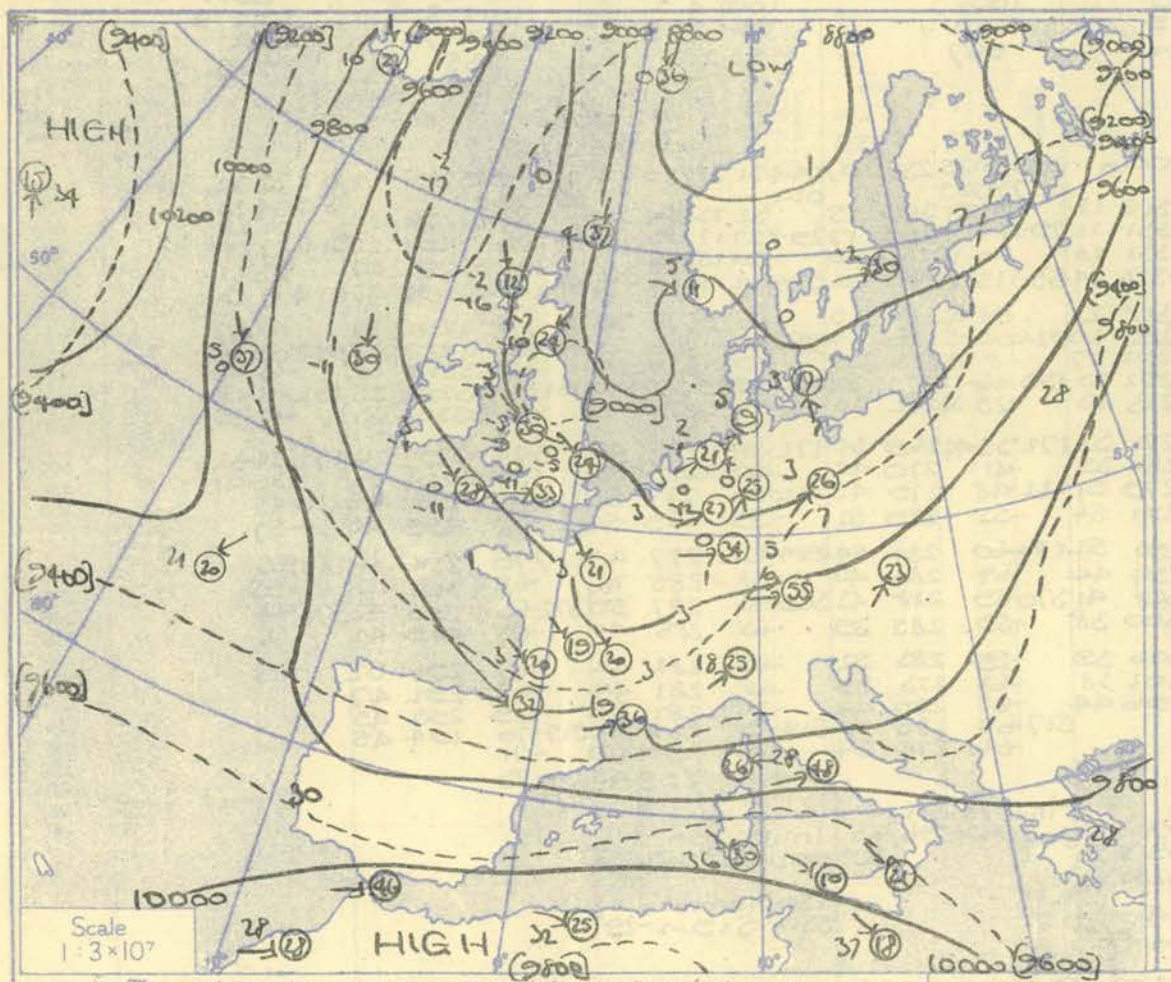
09hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne
Pressure: Time	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.
Pressure: M.S.L.	999·3 mb	1010·5 mb	1004·4 mb	1010·9 mb	1005·7 mb	1006·4 mb	1008·2 mb	1010·5 mb
Pressure: Surf	983·2 mb	1008·8 mb	1003·5 mb	1001·9 mb	1003·6 mb	1001·5 mb	991·5 mb	999·6 mb
Pressure: Freezing	932 mb	953 mb	951 mb	965 mb	Surface mb	— mb	991 mb	984 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	027	35	30	010	28	004	37	29			002	36	26	330	12	2·3	27	24			0·6	27	25	calm		012	28	28	330	03	043	28	27	270	03	025	34	29	360	10	Surf
1000	-02					028	37	29			1·0	36				2·8	28	24			1·5					01·7					02·0					02·8					1000
950		34	27	343	43		31	18				32		325	27		31	21				26	23	339	21		28	24	307	20		29	24	307	20		28	25	331	23	950
900	27·5	28	23	351	46	30·4	25	16			29·0	25		356	45	30·5	26	19			28·7	20	18	332	24	28·0	21	20	317	19	29·4	23	22	303	20	30·4	26	23	318	20	900
850		21	17	349	45		(18	12				21		004	56		18	06				15	11	330	25		15	14	309	15		18	14	306	21		15	16	295	20	850
800	57·8	18	08	347	42	60·4	11	07			59·3	16		008	55	60·6	13	09			58·5	03	04	329	28	59·0	10	06	291	15	59·4	11	00	298	23	60·6	13	08	292	25	800
750		12	-6	347	38		06	-1				09		014	49		06	-21				02	-6	335	30		04	00	280	18		08	00	295	25		08	02	290	28	750
700	91·3	04	-11	348	33	93·5	01	-15			93·0	03		020	42	93·8	-1	-22			91·4	-6	-16	329	29	92·0	-3	-13	282	13	92·4	-3	-13	288	25	93·7	02	-6	287	34	700
650		-7	-12	347	28		-5	-25				-2		014	39		-8	-28				-13	-25	005	30		-12	-19	271	15		-12	-24	274	29		-6	-14	292	40	650
600	129	-13	-20	342	20	131	-14	-31			130	-11		005	30	131	-16	-36			128	-19	-27	023	44	129	-21	-25	263	23	129	-19	-34	264	36	131	-14	-22	233	42	600
550		-24	-29	355	18		-24	-44				-20		025	33		-27	-46				-29	-36	027	51		-30	-34	261	28		-24	-49	272	40		-21	-31	299	40	550
500	171	-32	-37	348	22	173	-31	-49			173	-30		042	35	173	-36	-50			170	-39	-47	025	52	171	-38	-42	266	31	171	-38	-57	276	47	174	-27	-39	300	43	500
450		-42		339	26		-55	-55				-42		032	32		-45					-50		021	41		-42		270	37		-39	-60	273	52		-34	-46	286	48	450
400	221	-53		346	27	223	-50				223	-55		048	34	222	-54				219	-55		327	23	220	-51		271	43	221	-48		272	62	224	-43		288	51	400
350		-63		358	27		-63					-62		051	39		-62					-59		337	25		-59		270	41		-37		277	64		-38		285	48	350
300	281	-75		360	30	284	-69									283	-63				281	-60		314	30	282	-57		272	35	283	-62		283	61	287	-65		291	47	300
250		-69		358	34		-68										-63					-60		321	35		-59		284	32		-63		287	44		-62		294	39	250
200	366	-64		358	31	369	-66									370	-63				361	-58		314	30	369	-57		275	36	369	-60		287	35	373	-62		257	44	200
170		-66		352	27		-65										-61					-64		303	33		-62		284	38		-64		280	39		-60		301	42	170
150		-67		345	25		-67										-62					-65		309	38		-64		281	35		-68		286	44		-61		298	38	150
130		-65		332	19		-65										-64					-67		308	40		-66		285	45		-69		290	46		-64		295	36	130
110		-74					-73										-67					-69		302	32		-64		282	42		-65		288	38		-67		297	42	110
100	(101)	-74				514	-74										-69				513	-71				515	-64					-67		286	37							100
90							-74										-72																-69		280	41							90
80																	-73																-72		275	44							80
70																	-76																-76										70
60																	-76																										60
	Inversion 989 mb 35° – 977 mb 37° 815 mb 17° – 800 mb 18°			Isothermal 1005 – 972 mb 37°						Inversion 1002 mb 27° – 974 mb 33°					Isothermal 432–409 mb 54°					Inversion 1004 mb 27° – 971 mb 28°					Inversion 1002 mb 28° – 934 mb 36° 460 mb 44° – 450 mb 42° Isothermal 511–485 mb 38°					Inversion 991 mb 28° – 766 mb 36°					Inversion 555 mb –22° – 545 mb –21°					
Tropopause	II 296 mb –76° 28500′			I 308 mb –69° 27800′			NR.			I 330 mb –64° 26200′			I 360 mb –60° 24200′			I 344 mb –66° 25100′			I 284 mb –65° 23400′			I 300 mb –65° 28800′						Tropopause

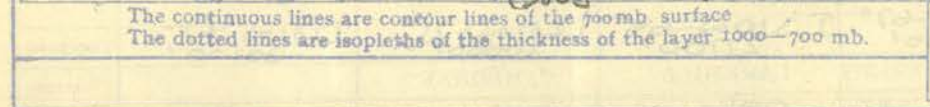
December 4TH 1950.

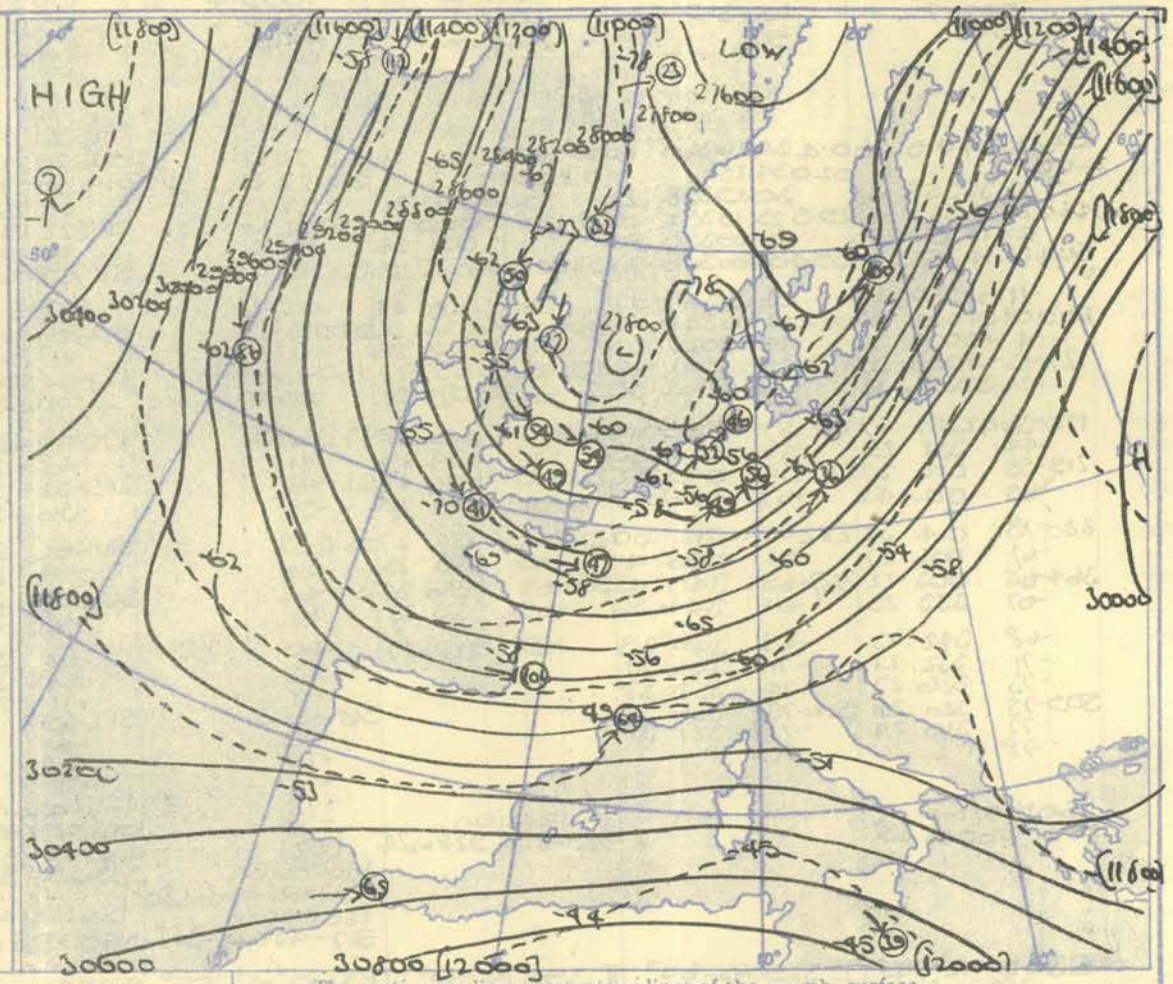
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



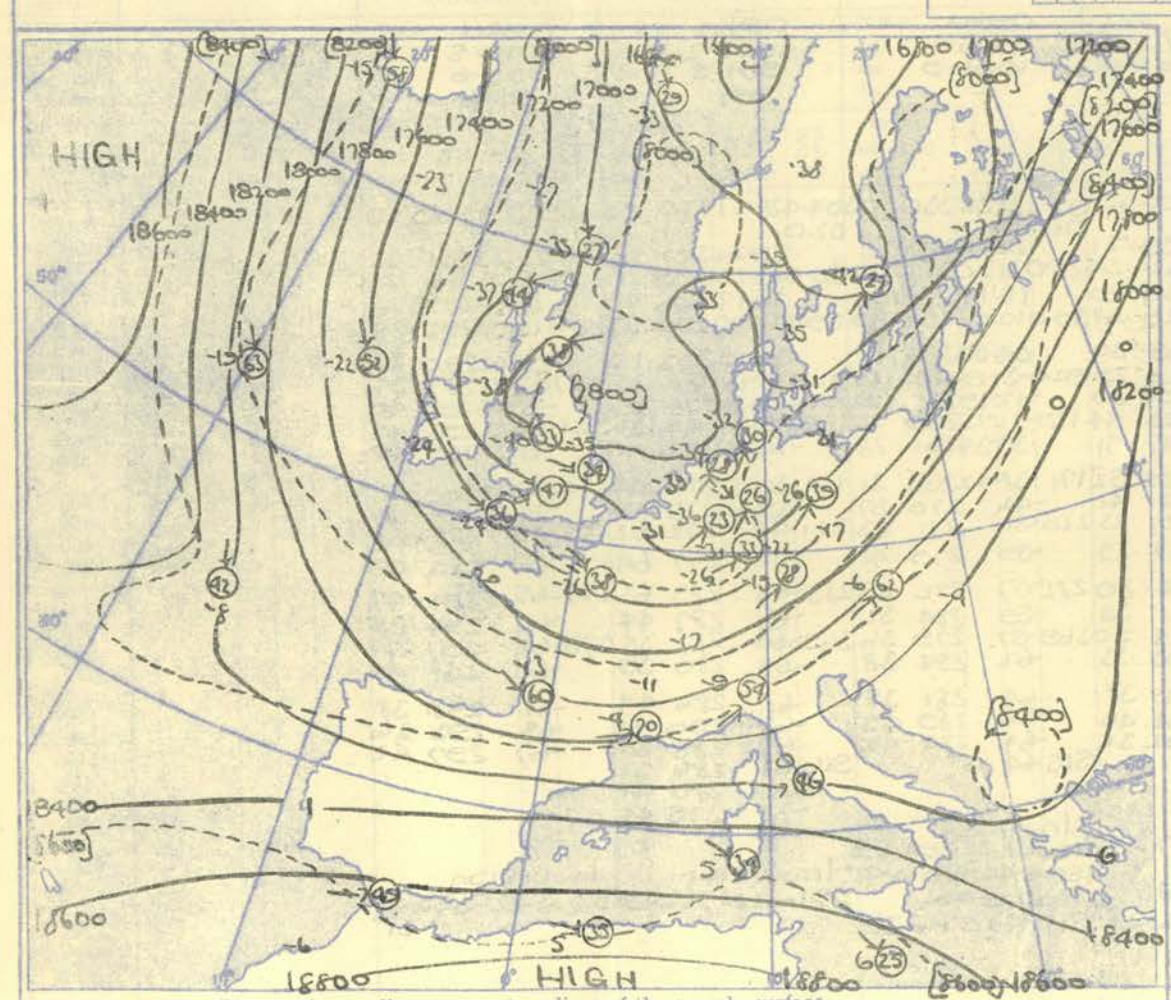
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

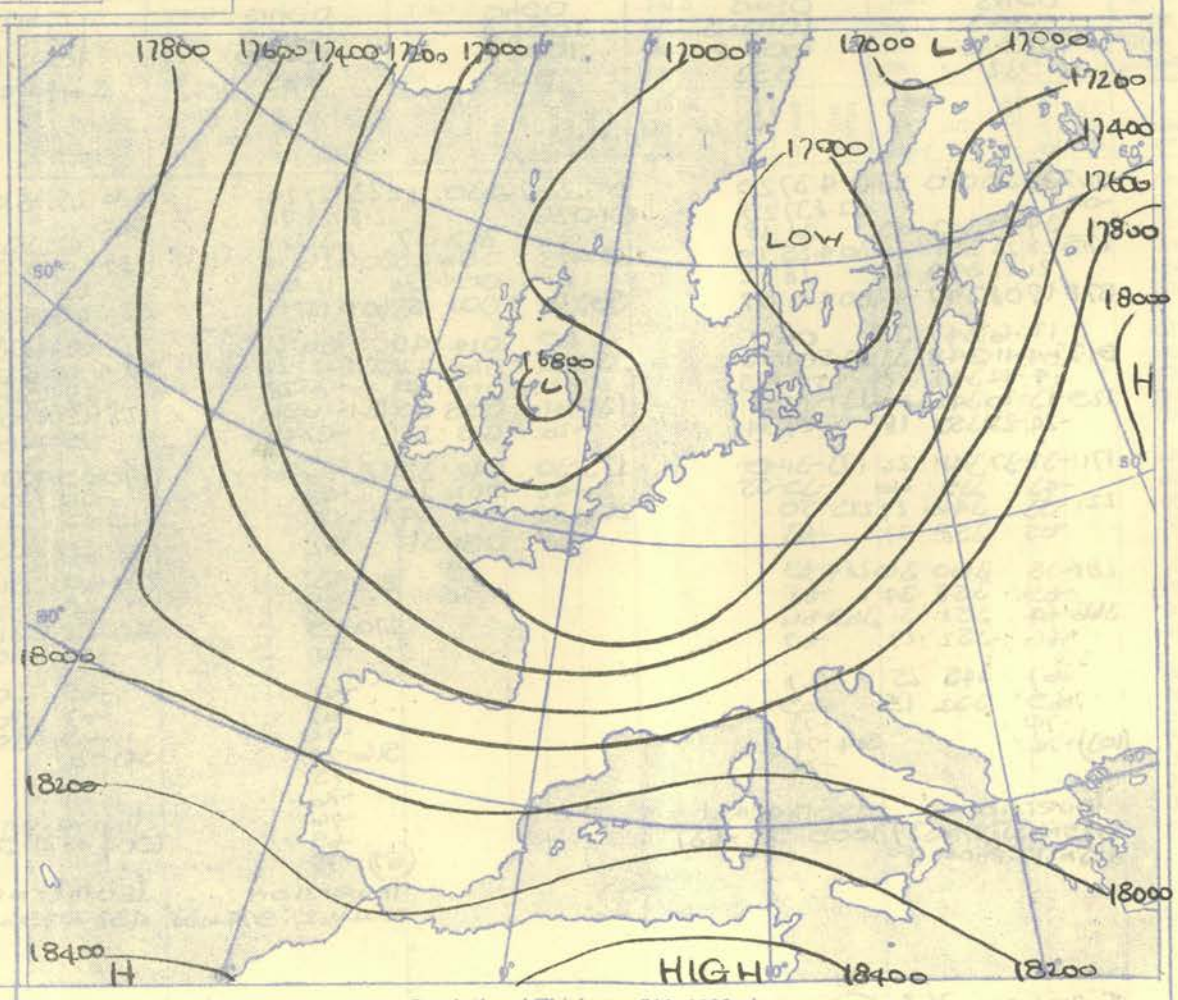




The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43.2 N 17.0 W.			39.5 N. 12.2 W.			53.1 N. 01.3 E.		
Pressure Time	13h.			14h.			1430h.		
M.S.L.	1019 mb			1011 mb			1004 mb		
Surf	1015 mb			1007 mb			1002 mb		
Freezing	985 mb			860-730 mb			972 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		32	36		56	41	0.5	37	16
1000	5.0	49		2.9	53		1.1		
950		41	37		45	37		29	27
900		31	29		39	32	28.6	24	16
850		27	27		32	32		19	12
800		29	16		38	08	58.7	13	
750		26	12		34	23		07	
700	98.6	22	13	97.7	29		91.9	-02	
650		16			21			-10	
600		07			13		12.9	-17	
550		-01			06			-25	
500	182	-06		182	-05		17.1	-33	
450								-45	
400							22.1	-68	
350									
300									
250									
200									
170									
	Surface Wind N'Ely 17-21kts Cloud 6/8 Sc 900-750mb 1/8 CS NR. Inversion 850mb 27°- 800 - 29°			Surface Wind NEly 17-21Kts Cloud. 7/8 Sc 870-810mb. 2/8 As 520-500mb - 2/8 Cs NR. Isothermal 860-850mb 32° Inversion 850mb 32°- 800 - 38°			Cloud 7/8 Sc 950-900 Contrails Faint persistent 450-400mb		

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Stornoway		W. observer 61.0N 14.0W	
Time	15h.		21h.	
Type				
Feet	Dir.	Vel.	Dir.	Vel.
Surf.	350	15	310	10
1,000	348	30	280	10
2,000	349	34	290	12
3,000	349	33	310	13
4,000	349	33	320	18
5,000	348	32	320	18
6,000	347	26	330	18
8,000	341	25	340	24
10,000	338	32	350	33
14,000	343	35	350	39
18,000	356	46	360	66
24,000	006	58	360	93
30,000	003	56	360	117
40,000	357	45	350	54
50,000	342	41	350	48
	345 (52,000')	40		

NEPHOSCOPE OBSERVATIONS

Place										
Time Type										
Dir. Vel.										

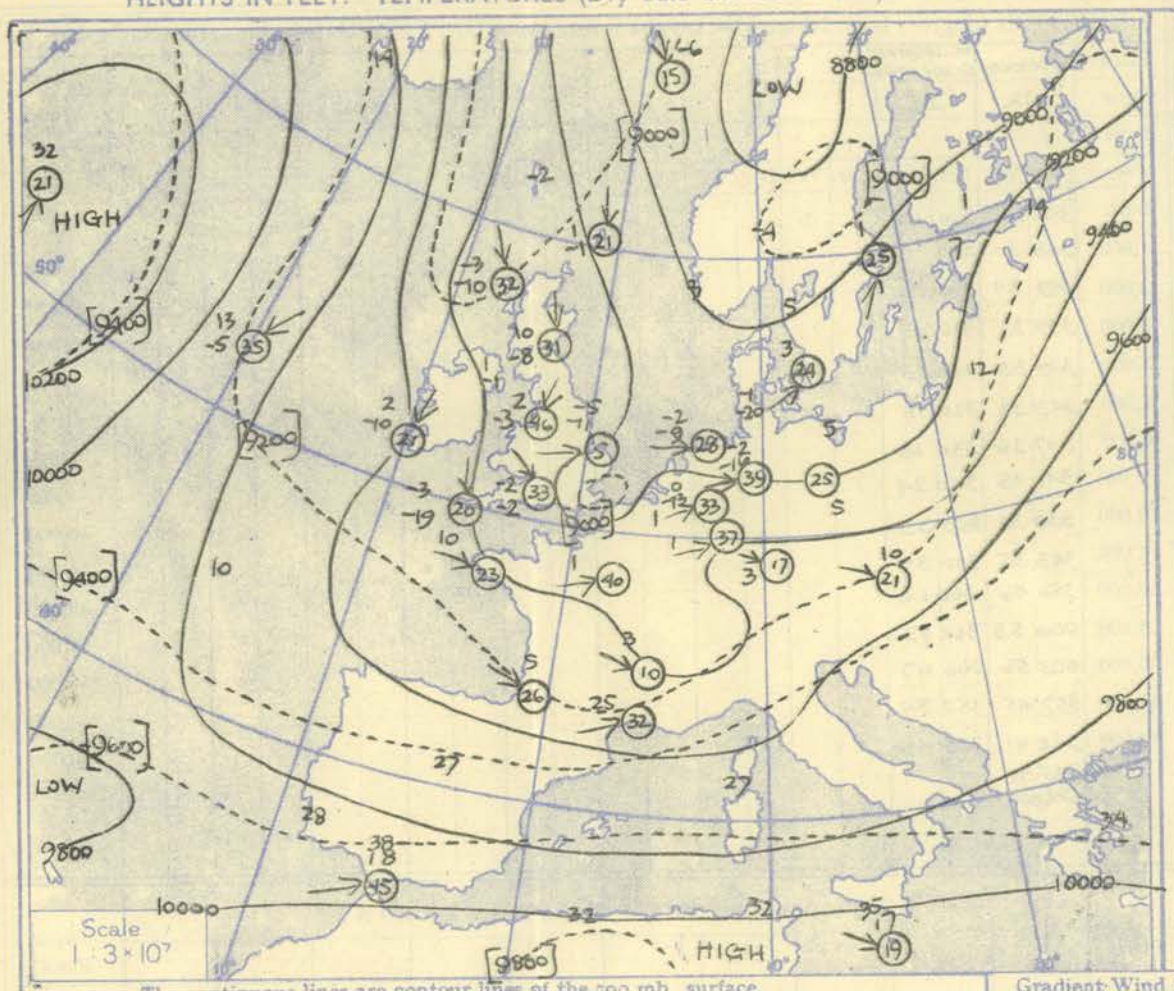
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER				
Lat/Long	60.9N 14.1W					61.0N 14.0W					61.1N. 13.9W				
Pressure Time	03h. G.M.T.					09h. G.M.T.					15h. G.M.T.				
M.S.L.	1018 mb					1019 mb					1021 mb				
Surf	1018 mb					1019 mb					1021 mb				
Freezing	1010 mb					1005 mb					1000 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		33	24				35	25	355	15		35	27	010	20
1000	4.7	31	25			5.4	31	23			5.4	32	25		
950		24	14				24	18				24	16		
900	31.9	17	05			32.3	16	12			32.6	17	09		
850		09	01				09	08				11	05		
800	61.3	02	-04			61.8	05	05			62.2	07	-02		
750		-04	-13				06	01				08	-14		
700	94.0	-02	-17			94.8	01	-07			95.4	04	-18		
650		-01	-20				-04	-12				-03	-24		
600	131	-09	-31			132	-09	-18			133	-09	-25	336	40
550		-16	-37				-15	-24				-16	-31	345	41
500	175	-23	-42			175	-23	-32			176	-23	-38	345	54
450		-32	-50				-33	-42				-32	-48	345	56
400	225	-42				226	-45				227	-39	-54	347	83
350		-54					-55					-49		346	84
300	288	-65				288	-63				290	-60		002	138
250		-71					-72					-72		358	129
200	372	-65				373	-69				374	-77		342	85
170		-69					-72					-77		346	64
150		-73					-74					-75		353	60
130		-76					-79					-76		358	60
110		-79					-82				(125mb)	-76			
100		-80					-83								
90		-81					-82								
80	(83mb)	-85					-82								
70															
60															
	Inversion 758 -5°- 730mb 0° 678 -5°- 650 .. -1°					Inversion 785mb 03°- 750mb 06°					Inversion 800mb 07°- 750mb 08° Isothermal 822- 800 mb 07° 750-742 .. 08°				
Tropopause	I 255mb -72° 32,100'					II 250mb -72° 32,700'					I 213 mb -78° 36,000'				

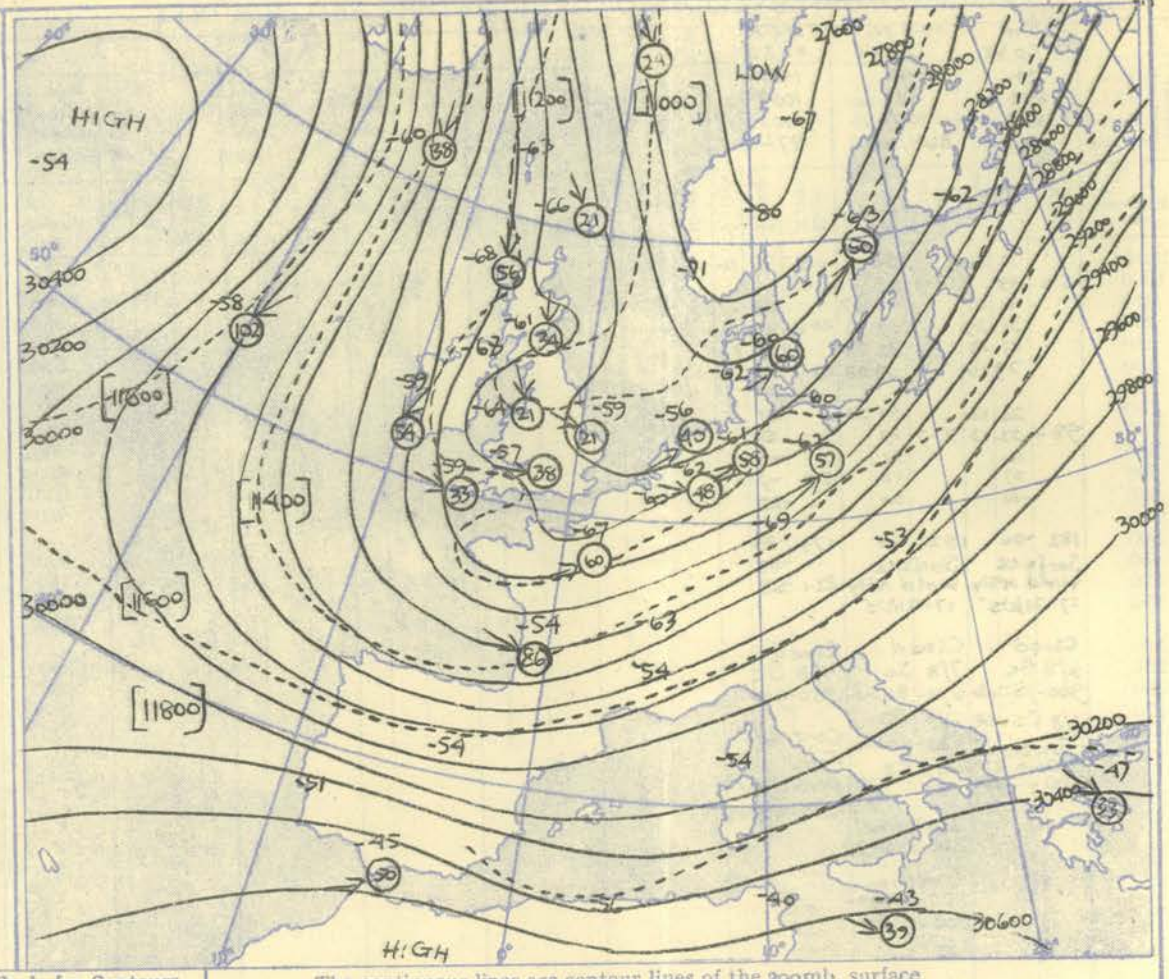
Ship	WEATHER OBSERVER					WEATHER EXPLORER					WEATHER WATCHER				
Lat/Long	60.9N. 13.9W					54.1N. 13.5W					52.5N. 20.0W				
Pressure Time	21h. G.M.T.					03h. G.M.T.					03h. G.M.T.				
M.S.L.	1021 mb					1014 mb					1024 mb				
Surf	1021 mb					1014 mb					1024 mb				
Freezing	980 mb					930 mb					920 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		37	27				39	36	008	31		45	41	340	18
1000	5.6	34	24			3.8	38	32	008	31	6.4	42	38	332	24
950		28	20				35	23	007	27		35	30	343	26
900	33.0	20	12			31.6	26	15	006	25	34.3	30	23	346	26
850		17	00				19	09	360	24		24	19	346	32
800	62.9	13	-08			61.9	14	04	356	23	64.8	18	13	346	32
750		10	-10	See Page 3 for Winds			08	-04	349	22		12	07	340	33
700	96.3	07	-11			95.2	-01	-11	345	30	98.4	5	00	339	37
650		04	-17				-03	-17	343	40		04	-01	339	45
600	13.4	-01	-21			133	-06	-23	339	44	13.6	-01	-08	348	54
550		-09	-28				-13	-29	334	46		-09	-14	333	56
500	178	-17	-28			176	-22	-37	329	52	180	-19	-24	337	63
450		-25	-37				-32	-46	327	60		-27	-34	339	77
400	230	-35	-49				-43		333	53	232	-36	-45	327	83
350		-46					-56		334	55		-50		321	94
300	293	-59				(332mb)	-59				294	-62		335	86
250		-75				(308mb)	-65					-69		336	72
200	376	-81									379	-71		336	69
170		-81										-70		331	52
150		-89										-72		331	53
130		-76										-73		330	48
110		-79									(120mb)	-76			
100	517	-80													
90		-80													
80		-84													
70		-88													
60		-91													
		-94													
		-96													
	Isothermal 760- 742mb 10°					Isothermal 968-950 mb 35° 694-678 .. 00° 661-625 .. -03°					Inversion 690mb 03°- 665mb 04° Isothermal 665-625mb 04°				
Tropopause	I 208mb -87° 36,800'					N.R. 308mb 28,300'					II 241mb -70° 34,000'				

Ship	WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52.5N 20.1W					52.4N 20.2W					52.4 N. 20.W				
Pressure Time	09h. G.M.T.					15h. G.M.T.					21h. G.M.T.				
M.S.L.	1026 mb					1026 mb					1028 mb				
Surf	1026 mb					1026 mb					1028 mb				
Freezing	930 mb					930 mb					940 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	42	010	15		45	32	005	18		44	37	020	13
1000	6.9	42	39	010	18	6.8	41	29	010	17	7.8	41	34	020	11
950		35	33	014	21		35	25	010	19		34	28	015	12
900	34.8	28	27	014	27	34.6	27	20	008	21	35.7	27	22	358	15
850		23	22	014	25		21	13	007	24		23	15	348	18
800	65.2	18	16	002	22	64.8	15	06	007	24	66.0	20	06	350	26
750		14	11	353	28		15	05	008	29		17	-06	349	30
700	98.9	10	07	353	33	98.6	13	-05	008	35	100	15	-26	349	39
650		05	01	348	36		07	-18	009	42		10	-32	352	48
600	137	-02	-08	346	43	137	01	-26	010	46	139	05	-37	357	45
550		-09	-16	354	51		-07	-30	010	54		-03	-35	357	52
500	181	-17	-24	354	57	181	-15	-37	008	57	183	-06	-33	001	70
450		-27	-35	357	70		-23	-45	009	62		-18	-47	004	79
400	232	-38	-46	358	69	233	-33	-54	009	82	236	-29	-56	014	82
350		-51		007	79		-44		014	65		-41		018	92
300	295	-62		359	87	296	-58		112	102	30.0	-55		012	97
250		-68		358	85		-68		110	108		-70		012	91
200	380	-71		007	62	381	-73		020	85	384	-81		010	81
170		-72		008	45		-70		015	70		-86		004	64
150		-72		004	46		-70		014	57		-76		353	51
130		-75		002	54		-68		015	45		-77		358	54
110		-77					-72		012	42		-77		358	51
100		-78				525	-73		012	41	525	-78		352	46
90		-79					-72		008	39		-79		333	44
80		-81					-71		001	42		-81		333	44
70		-82					-72		347	44		-79		319	42
60		-83					-74		326	53		-80		318	40
		-94					-77		306	59		-81		317	38
	(45mb)	-84				(42mb)	-81				(49mb)	-82			
						Inversion 784mb 14°- 750mb 15°					Isothermal 212- 200mb - 81°				
Tropopause	II 250mb -68° 33,400'					II 232mb -73° 35,000'					I 175mb- 88° 41,200'				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

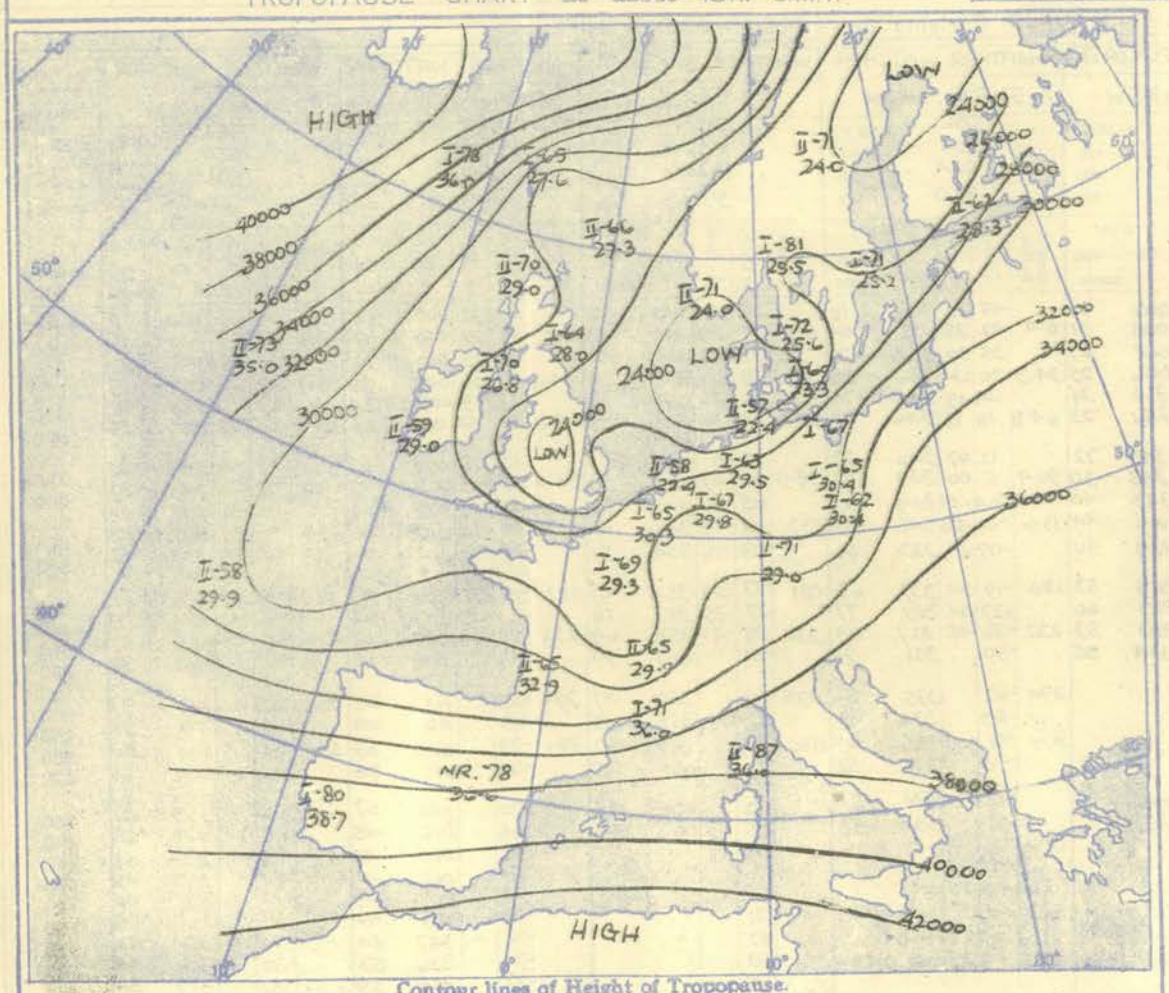


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The Atlantic thermal wedge has maintained its intensity, while a pool of very cold air moved rapidly Southwards over Great Britain, penetrating much further South than during any previous December for which records exist.

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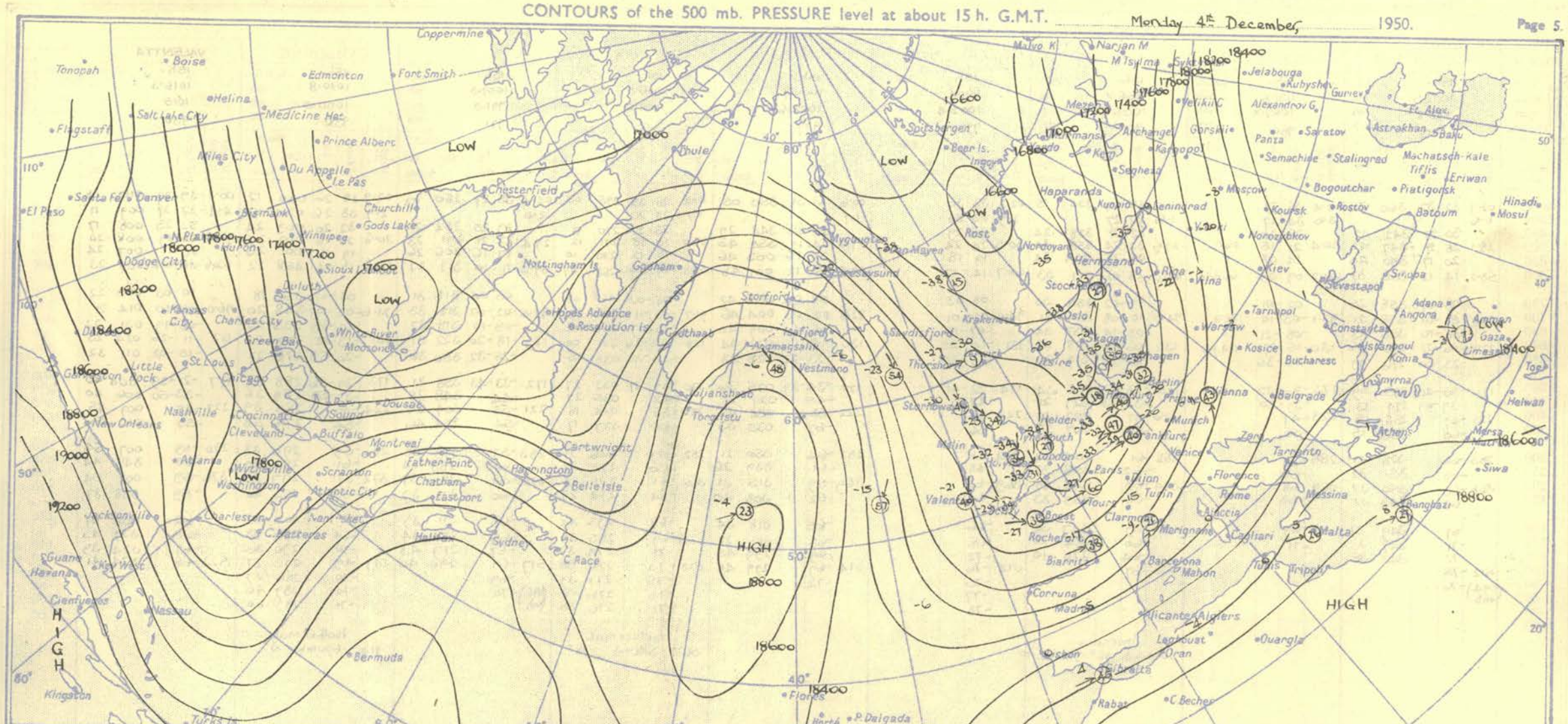
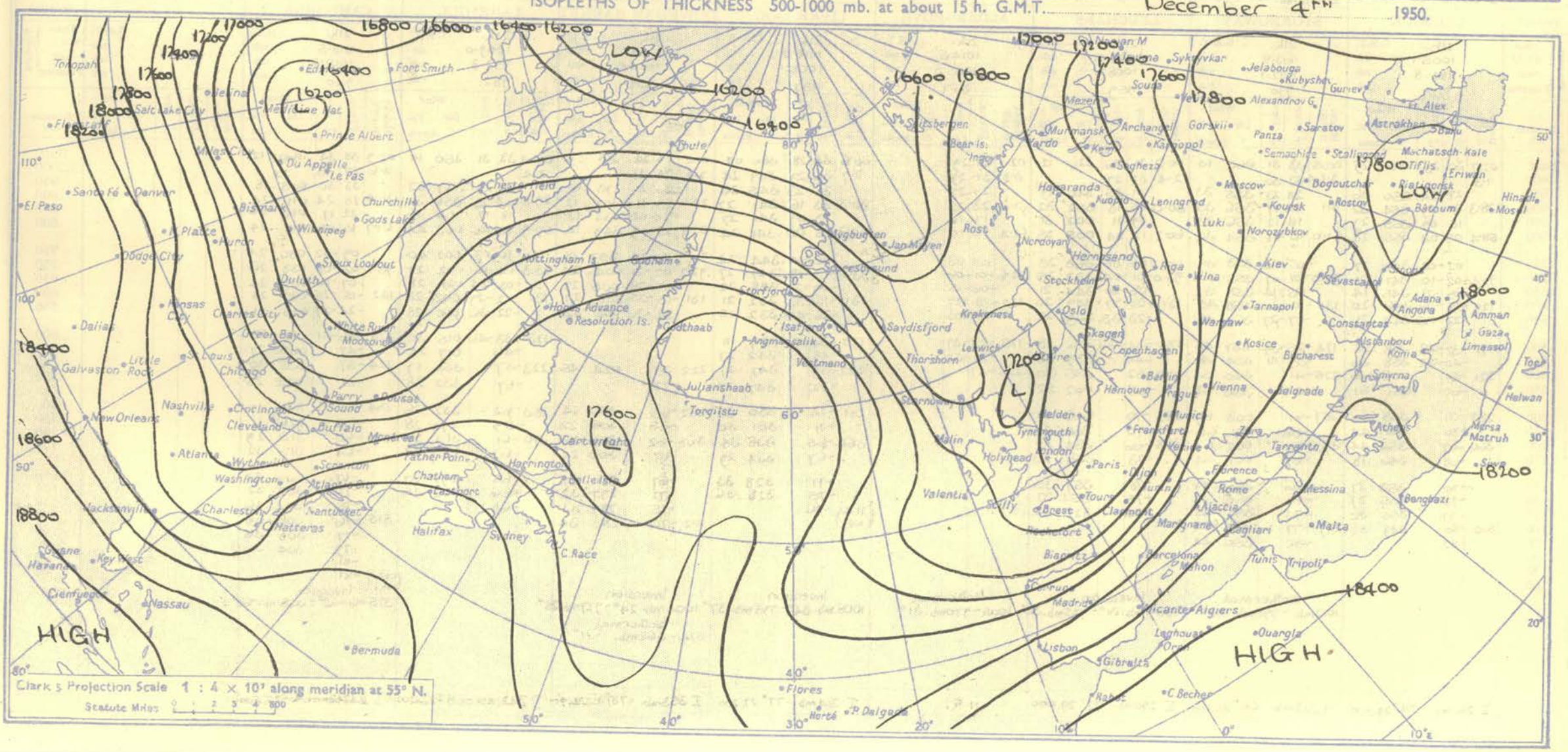
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Monday 4th December, 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. December 4TH 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h. G.M.T.

LERWICK — Time 15h. G.M.T.; Pressure M.S.L. 1002·5 mb; Surf 992·2 mb; Freezing Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	32	32	360	31
1000	0·6				
950		30	27	342	42
900	28·1	25	21	347	42
850		20	17	350	45
800	58·2	14	12	356	37
750		08	07	358	25
700	91·5	01	-01	358	21
650		-08	-10	355	13
600	129	-16	-21	290	06
550		-23	-30	276	09
500	171	-30	-40	295	09
450		-39	-49	279	13
400	221	-49		288	15
350		-60		333	15
300	283	-66		328	21
250		-68		351	32
200	368	-63		350	32
170		-64		349	32
150		-67		349	37
130		-71		347	33
110		-72		342	38
100	512	-75			
90	(094 mb)	-76			

Tropopause: II 315mb. -66° 27,300'

STORNOWAY — Time 15h. G.M.T.; M.S.L. 1011·5 mb; Surf 1009·8 mb; Freezing 980 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	29		
1000	3·0	34	27		
950		28	20		
900	30·4	21	18	For	
850		14	08		
800	60·2	09	03	winds	
750		02	-01		
700	93·1	-03	-10	see	
650		-08	-21		
600	130	-15	-27	page	
550		-22	-35		
500	173	-30	-42	3.	
450		-39	-50		
400	223	-47			
350		-55			
300	285	-68			
250		-68			
200	369	-68			
170		-68			
150		-69			
130		-71			

Tropopause: II 292mb. -70° 29,000'

LEUCHARS — Time 15h. G.M.T.; M.S.L. 1006·4 mb; Surf 1005·5 mb; Freezing 900 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	36	27	320	15
1000	1·6	37	27		
950		37	27	338	24
900	29·6	32	24	353	30
850		27	18	004	34
800	60·3	23	07	001	33
750		17	-02	358	30
700	94·0	10	-08	354	31
650		03	-14	337	34
600	132	-06	-20	328	32
550		-15	-26	319	26
500	175	-28	-33	315	34
450		-33	-43	329	21
400	226	-47		002	19
350		-59		007	25
300	288	-61		004	34
250		-62		358	33
200	374	-58		348	29
170		-58		355	33
150		-59		347	34
130		-60		314	20
110		-64		270	10
100	521	-67			

Inversion 1006mb. 36°-975mb. 40°

Tropopause: I 310mb. -64° 28,000'

ALDERGROVE — Time 15h. G.M.T.; M.S.L. 1011·4 mb; Surf 1002·4 mb; Freezing 973 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	33	30		
1000	2·9	33	30		
950		30	29		
900	30·5	24	24		
850		19	18		
800	60·7	14	12		
750		08	03		
700	94·0	01	-01		
650		-07	-15		
600	131	-14	-23		
550		-23	-32		
500	174	-32	-41		
450		-42			
400	223	-56			
350		-66			
300	284	-68			
250		-68			
200	369	-62			
170		-64			
150		-66			
130		-68			
110		-72			
100	514	-76			
90		-75			
80		-77			
70		-78			

Tropopause: I 322mb. -70° 26,800'

LIVERPOOL — Time 15h. G.M.T.; M.S.L. 1006·7 mb; Surf 1004·6 mb; Freezing 977 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	33	31	350	05
1000	1·7				
950		30	26	344	29
900	29·3	24	19	354	40
850		21	16	003	46
800	59·5	15	12	001	48
750		08	04	358	47
700	92·8	02	-03	004	46
650		-06	-11	009	40
600	130	-14	-17	022	44
550		-23	-27	028	38
500	172	-34	-39	025	36
450		-45		029	37
400	222	-58		034	42
350		-67		035	33
300	282	-64		350	21
250		-61		339	26
200	369	-59		315	31
170		-62		308	30
150		-65		318	34
130		-68		315	27
110		-69		299	45
100	514	-69		299	41
90		-72			

Tropopause: I 362mb. -68° 24,300'

DOWNHAM MARKET — Time 15h. G.M.T.; M.S.L. 1006·5 mb; Surf 1002·0 mb; Freezing Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	28	25	295	05
1000	1·7	28	25		
950		25	22	270	12
900	29·0	20	18	271	12
850		15	12	270	10
800	58·8	09	04	263	07
750		03	-02	261	05
700	91·7	-05	-11	260	05
650		-13	-17	263	04
600	128	-22	-26	331	09
550		-28	-38	039	15
500	170	-34	-47	033	27
450		-43		035	27
400	220	-55		014	18
350		-60		327	17
300	282	-59		306	21
250		-60		293	27
200	368	-61		271	29
170		-64		294	29
150		-68		293	34
130		-69		285	38
110		-71		279	37
100	513	-73		276	38
90		-75		277	39
80		-73		276	51
70		-71		276	58

Isothermal 567-540mb. -28°

Tropopause: II 330mb. -62° 26,100'

LARKHILL — Time 15h. G.M.T.; M.S.L. 1007·5 mb; Surf 991·0 mb; Freezing 971 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	35	27	280	09
1000	2·0				
950		29	25	284	21
900	29·4	22	21	291	23
850		17	16	306	26
800	59·4	11	10	313	27
750		05	04	316	31
700	92·5	-02	-02	318	33
650		-08	-10	318	32
600	129	-18	-20	322	31
550		-25	-32	350	36
500	172	-33	-43	358	31
450		-44		348	25
400	221	-55		304	30
350		-54		284	46
300	283	-57		278	38
250		-60		283	34
200	370	-58		286	37
170		-60		291	39
150		-63		291	39
130		-65		288	34
110		-67		279	43
100	517	-67		290	40
90		-69			
80	(086 mb)	-70			

Tropopause: I 380mb. -53° 23,300'

CAMBORNE — Time 15h. G.M.T.; M.S.L. 1010·8 mb; Surf 1000·0 mb; Freezing 950 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	38	26	030	12
1000	2·9	38	26	030	12
950		32	20	003	24
900	30·6	25	16	002	24
850		19	11	001	23
800	60·6	12	04	358	22
750		04	-07	350	18
700	93·6	-03	-19	348	20
650		-10	-33	335	22
600	131	-13	-41	277	22
550		-20	-53	276	27
500	173	-29	-56	288	34
450		-39	-59	289	36
400	224	-49		285	39
350		-54		279	58
300	286	-59		290	33
250		-61		292	40
200	372	-57		297	35
170		-58		304	40
150		-59		302	33
130		-64		293	38
110		-70		290	36
100	519	-69		292	37
90		-70		286	39
80		-70		289	40
70		-71		289	50

Isothermal 713-690mb. -3°

Tropopause: II 285mb. -61° 29,600'

VALENTIA — Time 15h. G.M.T.; M.S.L. 1016·3 mb; Surf 1015 mb; Freezing 950 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	39	29	010	08
1000	4·4	37	37	009	11
950		32	23	008	17
900	32·4	26	19	008	20
850		20	11	007	24
800	62·6	16	04	007	23
750		10	-03	005	22
700	96·0	02	-10	014	21
650		-06	-19	031	22
600	133	-11	-26	024	23
550		-15	-32	011	32
500	177	-21	-39	008	40
450		-33	-50	006	40
400	227	-45		009	45
350		-53		010	56
300	290	-59		007	54
250		-60		349	44
200	376	-59		007	54
170		-59		338	37
150		-62		335	37
130		-65		327	43
110		-67		324	39
100	523	-68		324	41

Tropopause: II 300mb. -59° 29,000'

21h. G.M.T.

LERWICK — Time 21h. G.M.T.; M.S.L. 1005·1 mb; Surf 994·8 mb; Freezing Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	30	29	010	29
1000	1·3				
950		27	24	350	36
900	28·3	21	19	354	32
850		15	09	355	29
800	58·4	09	04	356	28
750		02	-02	347	27
700	91·4	-02	-10	341	21
650		-08	-21	345	14
600	129	-15	-28	346	20
550		-22	-35	344	21
500	171	-32	-48	348	23
450		-40	-52	358	36
400	221	-50		008	46
350		-60		051	51
300	282	-71		358	50
250		-70		351	44
200	366	-67		354	44
170		-68		346	38
150		-70		353	37
130		-73		355	37
110		-77		355	36
100	510	-80		349	32
90		-82			

Tropopause: I 282mb. -74° 29,500'

STORNOWAY — Time 21h. G.M.T.; M.S.L. 1013·8 mb; Surf 1012·1 mb; Freezing 990 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·5	33	31	360	10
1000	3·6	33	30		
950		28	23	355	33
900	31·1	22	17	356	35
850		16	12	356	33
800	61·0	10	07	354	31
750		05	00	353	31
700	94·0	-01	-07	355	34
650		-05	-14	358	39
600	131	-10	-20	358	45
550		-17	-27	360	48
500	174	-25	-34	357	43
450		-33	-41	354	46
400	225	-41		360	54
350		-54		360	58
300	287	-61		003	69
250		-66		001	66
200	373	-67		002	63
170		-67		001	54
150		-66		360	49
130		-68		360	45
110		-74		357	45
100	517	-77		352	44
90		-80		350	44

Isothermal 1012mb.-995mb. 33°

Tropopause: II 262mb. -66° 31,300'

LEUCHARS — Time 21h. G.M.T.; M.S.L. 1009·5 mb; Surf 1008·6 mb; Freezing 959 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	31	26	320	12
1000	2·4	32	27		
950		31	25	340	29
900	30·0	25	18	352	32
850		19	11	002	31
800	60·2	12	04	005	35
750		06	01	360	25
700	93·0	-01	-04	357	25
650		-08	-20	344	21
600	131	-15	-27	349	20
550		-23	-35	349	22
500	173	-34	-46	326	28
450		-44		339	35
400	222	-52		355	50
350		-63		002	52
300	283	-70		003	42
250		-70		360	41
200	368	-66		354	32
170		-73		358	23
150		-78		357	35
130		-75		354	37
110		-76		327	24

Inversion 1009mb. 31°-975mb. 35°

Tropopause: II 290mb. -72° 29,000'

ALDERGROVE — Time 21h. G.M.T.; M.S.L. 1014·5 mb; Surf 1005·5 mb; Freezing Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	31	29		
1000	3·8	31	29		
950		29	27		
900	31·3	23	22		
850		17	16		
800	61·4	12	10		
750		05	03		
700	94·6	-01	-06		
650		-06	-15		
600	132	-13	-27		
550		-21	-40		
500	175	-29	-47		
450		-37	-55		
400	225	-47			

Isothermal 1005-970mb. 31°

Tropopause: N.R.

LIVERPOOL — Time 21h. G.M.T.; M.S.L. 1010·2 mb; Surf 1008·1 mb; Freezing 957 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	34	28	360	07
1000	2·7	36	29	349	24
950		31	23	345	26
900	30·3	23	16	341	27
850		19	09	341	27
800	60·3	13	00	341	24
750		06	-10	344	24
700	93·5	-01	-18	347	27
650		-09	-27	388	32
600	131	-16	-33	332	21
550		-26	-40	332	13
500	173	-36	-46	329	18
450		-48		342	27
400	222	-59		347	27
350		-72		347	27
300	281	-74		350	33
250		-71		351	30
200	366	-65		338	34
170		-67		334	29
150		-71		328	33
130		-75		328	36
110	(114 mb)	-76			

Inversion 1008mb. 34°-995mb. 37°

Tropopause: I 314mb. -77° 27,200'

DOWNHAM MARKET — Time 21h. G.M.T.; M.S.L. 1008·6 mb; Surf 1004·0 mb; Freezing Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	24	24	215	04
1000	2·2	24	23		
950		26	21	293	10
900	29·6	23	11	307	12
850		20	02	333	12
800	57·8	15	-09	349	14
750		07	-14	357	18
700	93·2	02	-21	004	24
650		-05	-28	008	27
600	131	-15	-35	011	27
550		-24	-36	014	32
500					
450					
400	222	-59		024	45
350		-72			
300	282	-65		350	24
250		-65		308	22
200	368	-62		314	26
170		-67		300	24
150		-67		281	27
130		-72		297	32
110		-75		289	33
100	512	-76		283	34

Inversion 1004mb. 24°-977mb. 28°
Isothermal 574-562mb. -21°

Tropopause: I 353mb. -73° 24,900'

LARKHILL — Time 21h. G.M.T.; M.S.L. 1009·0 mb; Surf 992·3 mb; Freezing 982 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	33	31	350	10
1000	2·4				
950		29	27	347	32
900	29·8	24	23	358	36
850		18	17	004	36
800	59·9	13	10	003	44
750		16	03	002	40
700	93·3	04	-10	002	27
650		-03	-24	001	28
600	131	-12	-29	003	28
550		-22	-36	010	28
500	173	-33	-46	015	30
450		-46		017	24
400	223	-57		356	19
350		-67		332	28
300	283	-62		332	26
250		-59		299	28
200	370	-61		313	27
170		-63		279	32
150		-65		291	37
130		-66		302	45
110		-61			

Tropopause: II 342mb. -68° 26,000'

CAMBORNE — Time 21h. G.M.T.; M.S.L. 1013·5 mb; Surf 1002·6 mb; Freezing 940 mb.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	38	34	360	12
1000	3·6	37	33		
950		33	30	003	18
900	31·4	28	24	011	24
850		22	17	013	26
800	61·7	15	08	017	24
750		09	-02	030	24
700	95·1	02	-08	033	26
650		-07	-16	031	24
600	132	-15	-25	039	25
550		-24	-37	048	21
500	175	-36	-51	052	23
450		-47		065	27
400	224	-57		035	30
350		-62		024	25
300	284	-65		343	27
250		-65		326	31
200	370	-62		315	29
170		-64		313	32
150		-67		309	33
130		-71		302	32
110		-75		304	36
100	515	-76		308	36
90		-77		303	36
80		-79		304	36
70		-81			
60	(068 mb)	-81			

Inversion 375mb. -62°-365mb. -60°

Tropopause: I 342mb. -64° 25,600'

HMSO Press, MO, Dunstable

No. 11573.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Tuesday 5th December. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
Pressure: M.S.L.	1007·3 mb	1016·5 mb	1011·8 mb	1016·2 mb	1009·5 mb	1009·1 mb	1012·2 mb	1015·3 mb	1020 mb
Pressure: Surf	997·0 mb	1014·8 mb	1010·9 mb	1007·2 mb	1011·6 mb	1004·6 mb	995·5 (Surf) mb	1004·6 mb	1020 mb
Pressure: Freezing	Surf.	980 mb	Surf.	952 mb	981 mb	937 mb		933 mb	950 mb

Pressure mb	LERWICK Height ft./100	LERWICK °Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	99·7	32	30	015	26	00·4	35	31	350	15	00·2	28	25	290	06	2·3	32	35		
1000	01·9					04·1	34	30			03·0	29	26			4·2	33	26		
950		29	20	347	33		29	20	003	29		27	24	343	23		32	24		
900	29·3	23	14	348	37	31·8	23	16	001	30	30·4	21	20	352	26	31·9	25	17		
850		10	11	351	38		18	13	349	30		17	13	002	33		19	12		
800	59·2	09	05	353	36	61·8	13	07	343	28	60·4	10	08	010	36	62·1	14	08		
750		03	-05	355	31		07	-02	353	27		03	01	019	34		09	03		
700	92·1	-04	-10	354	24	95·0	01	-11	003	28	94·0	-05	-10	002	24	96·5	03	-09		
650		-08	-23	351	27		-06	-20	002	35		-12	-19	353	25		-02	-23		
600	129	-15	-32	351	33	132	-12	-25	358	42	130	-17	-27	346	35	133	-10	-31		
550		-23	-40	350	39		-18	-31	003	46		-20	-33	357	40		-19	-41		
500	172	-31	-48	349	42	175	-27	-38	005	48	173	-30	-44	008	36	176	-29	-50		
450		-40	-59	353	49		-36	-45	360	51		-40	-55	007	42		-34	-54		
400	212	-50		354	53	226	-47		360	55	223	-53		007	43	226	-43			
350		-61		256	57		-57		360	55		-62		003	44		-54			
300	283	-71		353	60	287	-57		360	77	284	-68		003	51	289	-63			
250		-66		352	60		-58		003	78		-65		004	52		-63			
200	368	-65		351	46						369	-67		001	50	374	-66			
170		-65		352	40							-65		359	34		-63			
150		-70		349	39															
130		-75		344	36							-67		355	34		-64			
110		-77		345	44							-70		349	36		-69			
100	511	-79		343	38							-75		343	40		-66			
90		-81		348	36						513	-77		353	34	520	-68			
80		-84		352	36											(93 mb)	-67			
70		-84																		
60																				

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °Temp. °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots	Pressure mb
Surf	00·6	26	20	Calm		01·2	30	28	310	16	04·4	28	25	360	06	02·9	40	29	330	20	00·3	34	30			Surf
1000	03·0	28	21	010	15	02·4	30	28			03·2					04·1	40	28			5·5	36	30			1000
950		29	13	352	24		32	29	342	28		30	23	349	29		34	21	343	27		32	27			950
900	30·4	23	13	343	27	30·0	27	24	340	26	30·6	26	14	341	24	31·9	27	18	353	27	33·2	26	21			900
850		16	08	336	27		21	19	327	20		20	08	337	23		20	11	348	24		20	15			850
800	60·4	10	05	330	25	60·2	15	14	323	20	60·7	13	-01	333	19	62·0	14	-01	342	21	63·4	15	10			800
750		03	-06	322	50		09	08	319	15		07	10	328	18		09	-14	344	23		11	04			750
700	93·4	-01	-28	322	31	93·6	02	-01	314	11	93·9	02	-18	323	22	95·4	02	-24	343	18	96·8	00	-06			700
650		-06	-50	326	30		-04	-16	310	16		-05	-28	319	25		-05	-29	343	18		-03	-15			650
600	131	-14	-46	327	30	131	-11	-28	308	28	131	-14	-29	311	22	133	-14	-35	346	12	134	-08	-22			600
550		-24	-55	331	33		-21	-38	300	30		-24	-37	302	18		-23	-41	347	07		-15	-28			550
500	173	-32	-59	330	38	174	-31	-44	293	28	174	-34	-46	309	17	175	-34	-50	346	10	178	-26	-38			500
450		-41		336	41		-43		295	27		-45		319	19		-45		352	20		-33	-46			450
400	223	-50		341	40	223	-55		304	25	223	-57		324	26	225	-52		004	27	228	-42				400
350		-61		347	38		-65		323	21		-65		336	28		-59		022	36		-54				350
300	284	-73		353	39	284	-69		328	27	284	-64		329	23	286	-65		008	32	291	-61				300
250		-69		354	40		-62		328	28		-63		316	27		-69		340	27		-59				250
200	368	-65		344	33	370	-59		314	25	369	-61		311	29	372	-59		332	23						200
170		-64		340	30		-64		308	27		-63		305	33		-62		318	24						170
150		-69		335	30		-66		307	33		-66		301	35		-66		318	30						150
130		-74		330	28		-67		304	30		-70		301	33		-66		312	45						130
110		-78		335	34		-71		305	31		-72		302	30		-70		311	28						110
100	512	-78				515	-72		301	36	515	-72		297	28	517	-72		308	24						100
90		-78										-75		294	34		-72		306	30						90
80		-77										-78		296	37		-77		305	30						80
70																	-78		306	33						70
60																	-78		303	42						60
																	-79		295	42						
																	-79									

Isothermal 693 - 671 mb -05° | Isothermal 600 - 583 mb -12° | Inversion 10 11 mb 28° 976 mb 31° Isothermal 566 - 550 mb -20° | Inversion 1007 mb 32° - 975 mb 34° | Inversion 1009 mb 26° - 981 mb 32° | Inversion 966 mb 30° - 943 mb 33° Isothermal 1005 - 966 mb 30° | Inversion 995·5 mb 28° - 950 mb 30° (47 mb)

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	I 300 mb -71° 28,300'	I 320 mb -61° 27,200'	II 304 mb -68° 28,000'	II 294 mb -64° 29,300'	I 290 mb -75° 29,000'	I 313 mb -69° 27,400'	II 335 mb -67° 26,000'	II 327 mb -64° 26,800'	I 275 mb -64° 30,900'

09h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
Pressure: Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.
Pressure: M.S.L.	1009·5 mb	1017·7 mb	1014·0 mb	1017·8 mb	1014·8 mb	1011·2 mb	1014·4 mb	1016·6 mb
Pressure: Surf	999·1 mb	1016·0 mb	1013·1 mb	1008·7 mb	1012·6 mb	1007·2 mb	997·5 (Surf) mb	1005·7 mb
Pressure: Freezing	986 mb	961 mb	982 mb	967 mb	1013·0 mb	Surf.		934 mb

Pressure mb	LERWICK Height ft./100	LERWICK °Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	31	27	005	27	00·0	35	34			00·2	30	24	300	06	2·3	27	24		
1000	02·5					04·6	35	34			03·6	31	26			4·6	28	25		
950		28	21	337	33		31	28				28	25	358	30		30	25		
900	22·9	20	12	341	36	32·3	25	22			31·0	23	18	001	34	32·2	24	16		
850		14	09	340	33		20	18				18	14	004	39		18	10		
800	59·6	08	-02	346	29	62·5	15	10			61·0	11	07	009	36	60·3	10	06		
750		02	-06	350	33		09	03				04	-01	011	31		06	00		
700	92·5	-04	-19	347	39	95·9	03	-06			94·0	00	-11	012	30	96·4	07	-07		
650		-11	-25	346	40		00	-11				-05	-18	007	31		-03	-13		
600	129	-14	-36	353	42	134	-05	-17			131	-12	-25	003	30	133	-12	-22		
550		-23	-46	349	48		-13	-23				-19	-31	002	39		-19	-29		
500	172	-31	-47	349	51	177	-23	-31			174	-27	-39	007	38	176	-29	-38		
450		-40	-52	349	57		-33	-43				-37	-48	008	44		-39	-48		
400	222	-50		349	64	228	-37	-49			224	-49		003	48	226	-50			
350		-61		351	64		-08					-60		001	49		-58			
300	223	-70		358	75	291	-62				286	-66		005	59	287	-63			
250		-70		358	67		-69					-65		008	57		-67			
200	367	-65				376	-69				371	-66		360	61	372	-68			
170		-70					-69					-67		356	46		-68			
150		-72					-69					-67		352	41		-69			
130		-72					-72					-73		344	43		-68			
110		-75					-75					-72		002	39		-68			
100	511	-78				519	-76				515	-74		351	36					
90	1095	-79					-77					-78		354	27					
80	mb)						-77					-79								
70							-77													
60																				

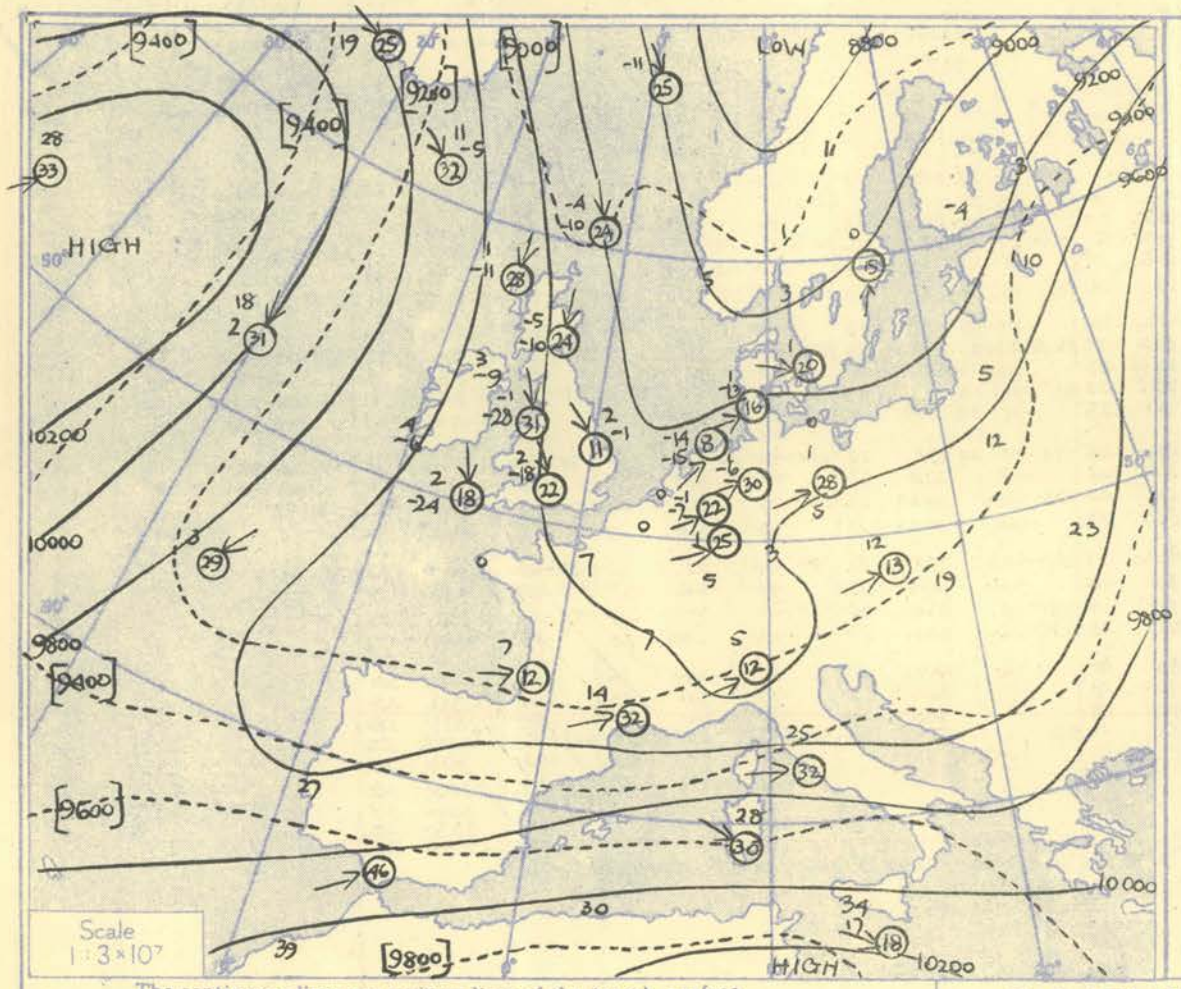
Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	Pressure mb
Surf	00·6	22	14	Calm		01·2	26	22	300	10	04·4	27	24	350	03	02·9	39	35	340	05	Surf
1000	03·8	28	18	342	20	03·0	26	22			03·7					04·4	39	28			1000
950		26	16	355	24		28	26	329	27		26	19	342	21		34	24	341	22	950
900	31·1	20	11	003	24	30·4	24	22	334	21	31·0	22	14	334	20	32·2	27	19	354	22	900
850		16	05	358	25		19	10	332	18		17	09	335	21		20	10	359	24	850
800	60·9	09	-04	349	28	60·5	13	04	356	15	60·9	11	03	339	22	62·4	12	01	353	27	800
750		02	-09	350	34		07	-02	001	20		04	-06	334	24		05	-06	346	25	750
700	93·8	-03	-21	005	31	93·7	-01	-18	013	22	94·0	-01	-19	326	26	95·6	00	-15	345	26	700
650		-11	-33	005	27		-09	-18	027	24		-07	-29	316	26		-03	-24	346	23	650
600	131	-16	-40	360	34	131	-16	-21	028	22	131	-13	-36	315	28	133	-10	-33	347	18	600
550		-22	-47	006	40		-25	-33	022	15		-22	-43	317	30		-20	-41	015	42	550
500	173	-31	-56	011	42	173	-34	-44	016	13	174	-29	-50	315	30	176	-30	-49	349	21	500
450		-42		003	40		-43		007	16		-38	-58	321	30		-40	-57	360	22	450
400	223	-52		008	59	223	-52		346	17	224	-49		327	33	226	-48		010	27	400
350		-63		016	47		-59		333	24		-59		327	36		-58		004	32	350
300	284	-69		011	51	284	-62		346	23	286	-63		338	31	288	-62		006	30	300
250		-63		356	49		-64		333	25		-60		335	26		-59		359	33	250
200	369	-65		348	32	370	-69		327	30	372	-67		324	32	374	-59		362	36	200
170		-66		353	34		-61		321	26		-55		324	26		-63		341	28	170
150		-67		343	31		-63		322	29		-61		318	24		-64		330	27	150
130		-73		353	31		-67		323	29		-66		321	28		-67		327	26	130
110		-79		332	30		-72		312	26		-67		316	29		-72		332	31	110
100	514	-78				516	-75		308	24	519	-69		300	31	520	-73		317	31	100
90							-75		301	29		-69		300	33		-73				90
80							-76					-71		304	32						80
70												-75									70
60											065	-77									60

Inversion 999 mb 31° - 986 mb 32° | Inversion 419 mb -36° - 406 mb -35° Isothermal 1016 - 991 mb 35° | Inversion 1013 mb 30° - 982 mb 32° Isothermal 723 - 694 mb 00° | Inversion 1009 mb 27° - 967 mb 32° 761 04° - 750 06° | Inversion 1013 mb 22° - 991 mb 31° Isothermal 728 - 705 mb -02° | Inversion 992 mb 25° - 950 mb 28° (65 mb) Inversion 997·1 mb 27° - 984 mb 29° Isothermal 700 - 687 mb 0° 664 - 645 -3° | Inversion 350 mb -58° - 303 mb 57°

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
	I 294 mb -71° 28,700'	I 228 mb -71° 34,700'	I 283 mb -68° 29,800'	I 222 mb -72° 35,100'	I 306 mb -70° 28,000'	I 289 mb -65° 29,800'	I 323 mb -64° 27,000'	I 284 mb -66° 29,900'

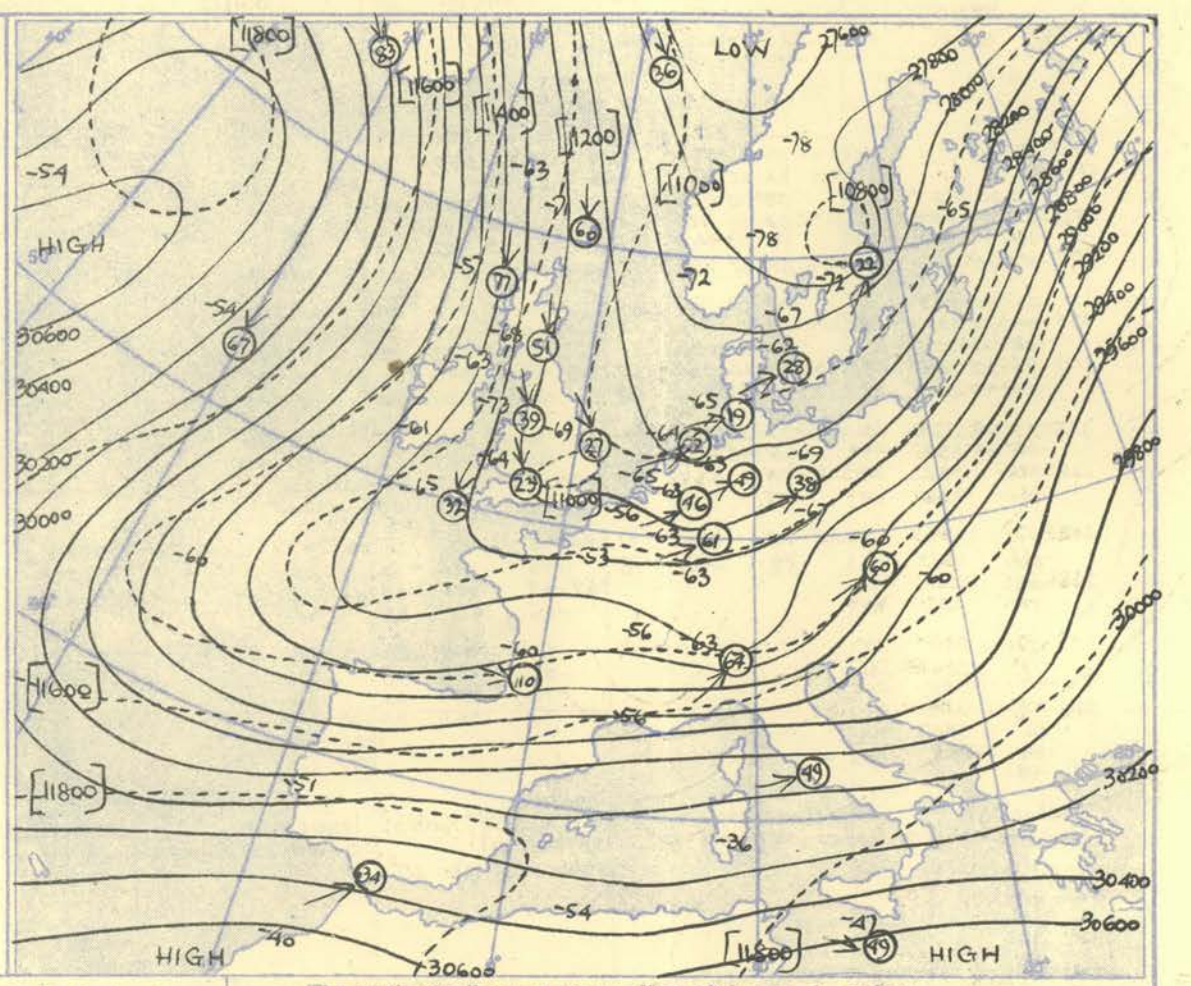
Tuesday 5th. December 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.

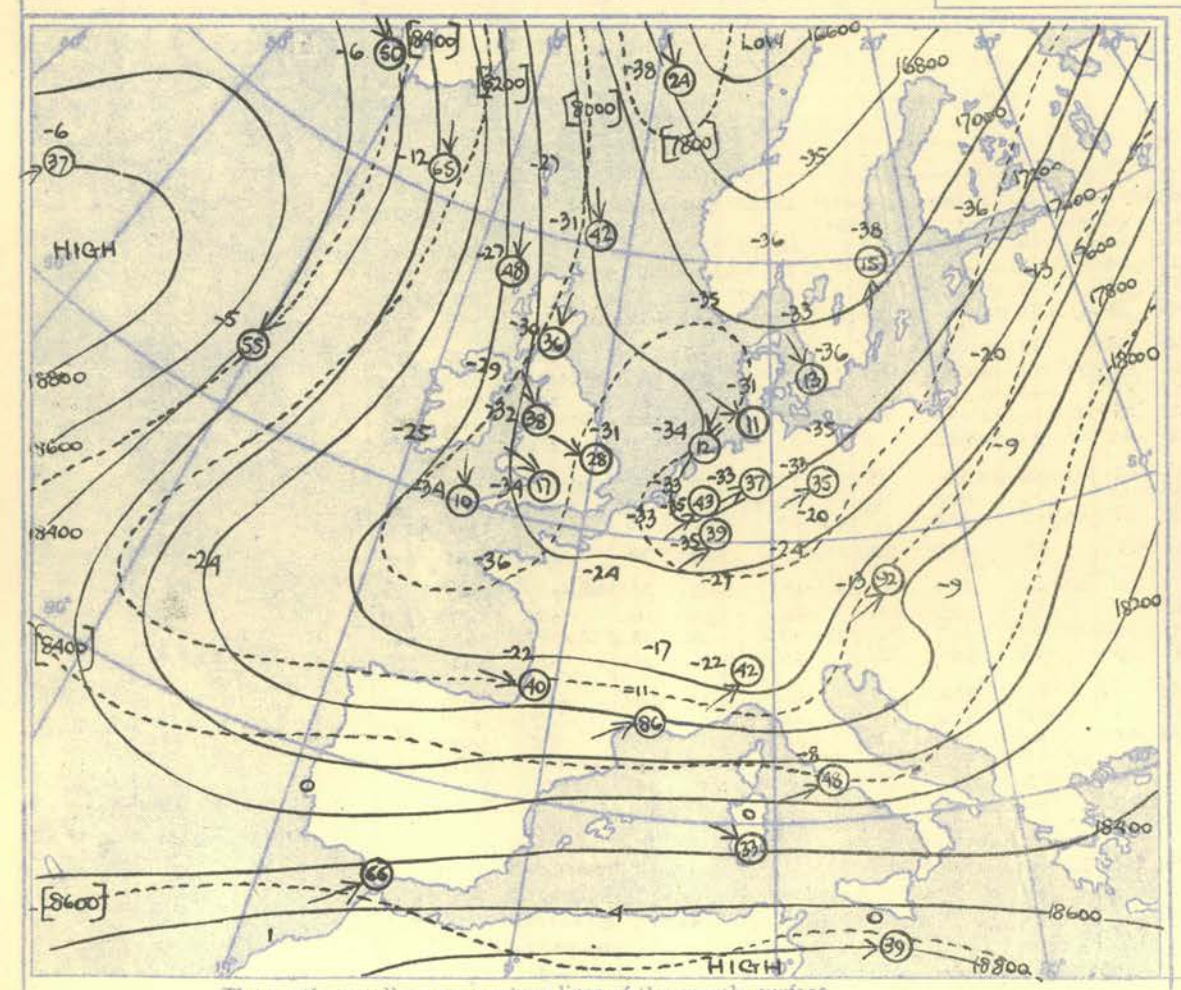


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

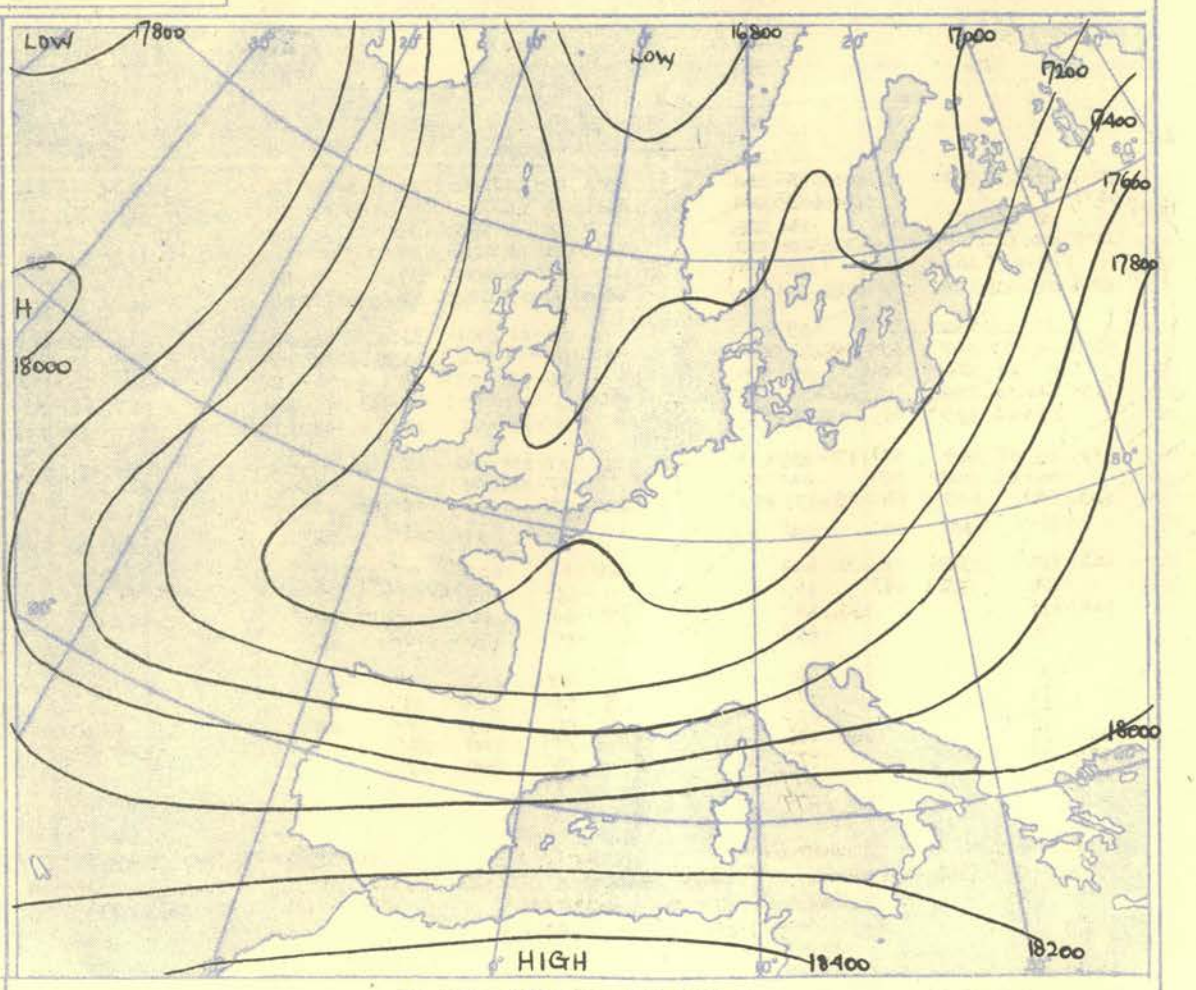
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

Tuesday 5th December 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	61N 14W			60.5N 03.3W			53°1N 01.3E		
Pressure Time	1230L			1415L			1445L		
M.S.L.	1019 mb			1013 mb			1010 mb		
Surf	1015 mb			1009 mb			1008 mb		
Freezing	700 mb			600 mb			934 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		51	47		53		0.5	40	33
1000	5.1	49		3.4	52		2.7		
950		44	24		49			NR.	
900		38	24		50		30.4	28	
850		34	16		48			20	
800		37	13		47		60.6	16	
750		35	-01		46			10	
700	99.9	32		100	40		94.0	02	
650		29			37			-06	
600		29			32		131	-13	
550		28			29			-22	
500	188	24		188	26		174	-31	
450								-41	
400							224	-51	
350								-60	
300							286	-65	
250									
200									
170									

61N 14W:
Inversion
850mb 34°-
800.. 37°
Isothermal
650- 560mb
29°
3/8 Sc Cloud.
940-880mb
7/8 Sc 840-820mb.
7/8 As 550-THR.
Surf wind.
N.W. 17-21Kts

60.5N 03.3W:
Inversion.
950mb 49°-
900.. 50°
Cloud
7/8 Cu
930-750mb
3/8 As
570-550mb.
Surf wind.
N.W. 17-21Kts.

53°1N 01.3E:
Cloud.
6/8 Sc
980-953mb
5/8 Sc
940-847mb

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	W. Observer 61.0N 13.8W		Shoebury		Ronaldsway		Pembroke.	
Time	09L		11L		1415L		15L	
Type								
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	320	18	030	08	350	09	280	05
1,000	310	22	320	20	350	22	350	11
2,000	310	22	320	21	350	21	010	14
3,000	310	24	320	19	360	24	010	23
4,000	310	28	330	21	340	17	020	21
5,000	310	29	330	21	350	17		
6,000	310	30	330	18	360	20	350	33
8,000	320	30	350	23			350	28
10,000	330	31	360	22				
14,000	340	46	340	19				
18,000	330	53	320	22				
24,000	330	71	320	24				
30,000	340	95	310	21				
40,000	340	108	300	25				
50,000			300	31				

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

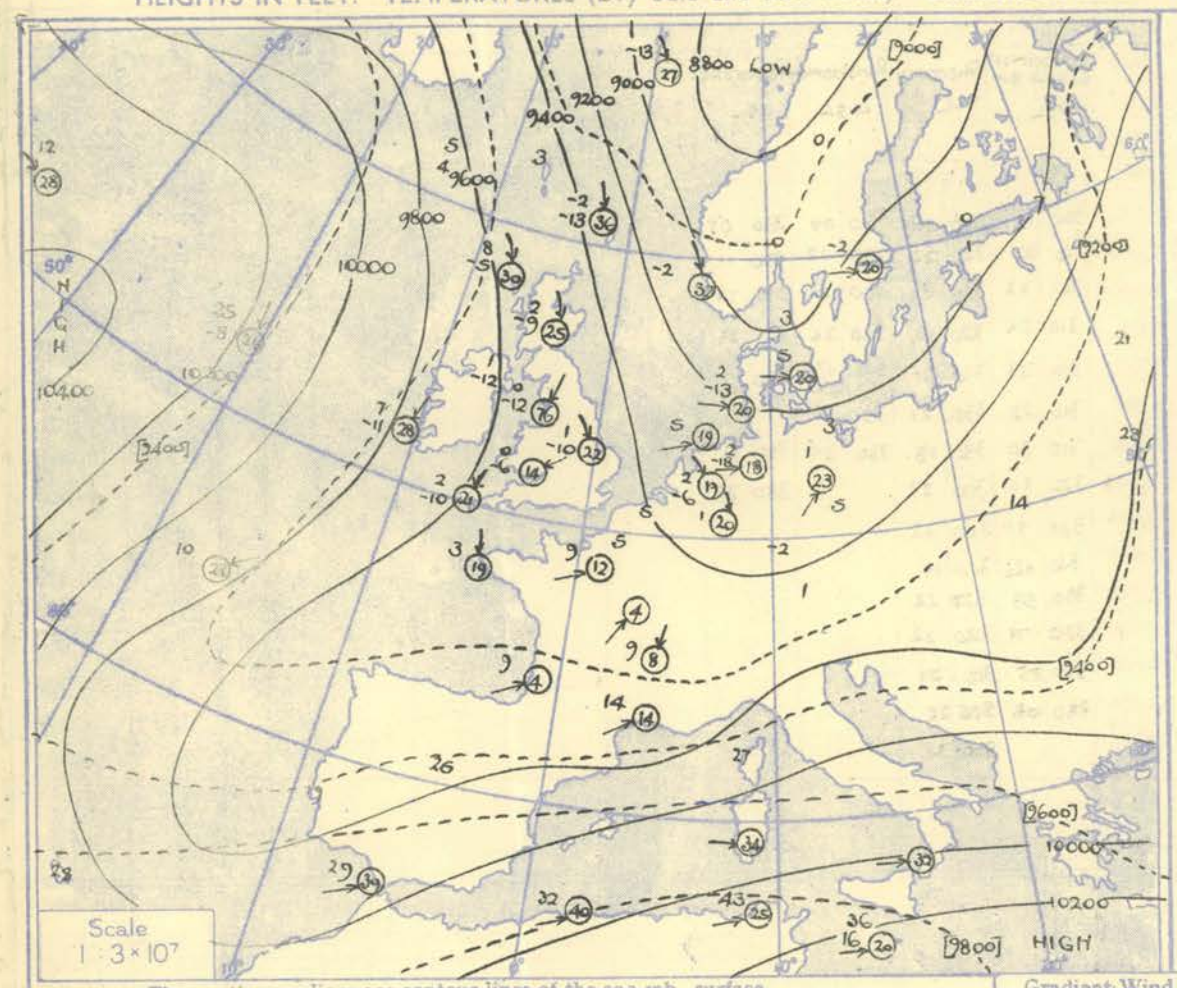
Ship	WEATHER WATCHER.	WEATHER WATCHER.	WEATHER WATCHER.	WEATHER WATCHER.	WEATHER OBSERVER.	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER.
Lat/Long	52.4N 20.1W.	52.6N 20.W.	52.5N 20.1W.	52.5N 20.0W.	60.9N 13.9W.	61.0N 13.8W.	61.0N 13.9W	61.1N 14.2W.
Pressure Time G.M.T.	03L	09L	15L	21L	03L	09L	15L	21L.
M.S.L. mb	1029	1029	1029	1028	1020	1017	1016	1014
Surf mb	1029	1029	1029	1028	1020	1017	1016	1014
Freezing mb	925	900	883, 780	900, 835, 770.	950	940	925	925

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	38	340	05		45	43	320	10		46	38	330	10		46	44	320	12
1000	7.6	41	35	336	06	7.8	42	38	325	10	7.8	44	37	322	11	7.5	43	42	324	14
950		36	31	332	06		37	32	322	14		39	32	324	11		37	36	324	15
900	35.5	29	25	331	09	35.8	31	25	318	15	35.9	34	27	326	15	35.5	32	30	325	18
850		23	19	334	13		28	12	320	17		36	19	328	19		33	08	333	20
800	65.9	23	15	337	16	66.4	27	-02	333	23	66.9	34	-02	336	24	66.4	32	-03	338	21
750		20	06	345	24		25	-01	342	26		30	07	345	25		31	-18	340	24
700	100	18	02	351	31	101	20	00	352	33	102	25	-08	352	26	101	28	-30	345	27
650		14	-02	004	41		15	-02	358	43		23	-30	355	30		22	-37	350	31
600	139	10	-05	011	51	140	10	-12	368	41	141	17	-43	359	36	141	13	-38	356	36
550		05	-07	020	55		04	-28	358	46		10	-33	002	42		06	-35	009	33
500	184	-05	-15	007	55	185	-06	-39	360	55	187	02	-39	004	48	186	-06	-42	008	35
450		-15	-23	359	64		-17	-42	001	61		-09	-51	007	54		-18	-49	355	45
400	237	-28	-37	360	66	238	-30	-48	358	65	241	-21	-54	014	50	239	-30	-56	350	45
350		-40	-50	002	68		-44		358	66		-35	-58	017	50		-40	-60	344	37
300	301	-34		008	67	301	-58		008	54	306	-49		007	50	303	-56		351	43
250		-71		016	75		-73		009	52		-63		354	57		-72		356	45
200	385	-88		008	69	285	-89		359	52	391	-78		357	48	386	-87		002	38
170		-87		014	61		-90		003	48		-82		360	42		-87		010	41
150		-82		006	50		-82		004	50		-78		003	42		-83		006	43
130		-80		006	47		-79		001	46		-71		007	38		-87		355	37
110		-82		007	45		-82		358	39		-71		013	33		-82		355	35
100						524	-81		357	36		-71				525	-81		355	36
90							-81		358	38	(102mb)						-80		355	36
80							-80										-79		355	28
70						(87mb)														
60																				

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		46	32	320	15		44	37				44	41	320	18		43	41	312	14
1000	1.5	38	32	318	15	4.7	42	35			4.3	42	35			3.8	41	39	306	15
950		32	29	316	19		34	26				35	31				35	33	308	16
900	32.9	26	26	312	21	32.5	26	18			32.1	28	23			31.6	29	27	312	16
850		22	18	311	23		24	11				23	12				25	20	308	18
800	63.3	22	06	311	28	67.8	19	00			62.6	24	14			62.1	23	13	304	22
750		15	00	313	30		15	00	For			19	08				17	09	299	25
700	97.1	11	-05	315	32	96.6	10	-03			96.7	15	04			96.2	19	-01	298	30
650		05	-08	319	36		05	-07	winds			11	03				14	-03	302	42
600	135	-01	-08	324	43	135	01	-19			135	05	-04			135	09	08	305	51
550		-08	-13	331	51		-05	-30	See			-02	-09				01	-22	314	52
500	179	-12	-24	340	65	179	-13	-25	page		180	-12	-18			180	-10	-25	315	56
450		-21	-35	343	77		-23	-33				-23	-29				-23	-30	316	60
400	231	-32	-41	346	96	231	-36	-49	3.		232	-34	-53			232	-35	-40	316	65
350		-43		348	98		-49					-46					-48		322	66
300						294	-62				295	-59				295	-62		330	66
250							-77					-74					-77		329	72
200						377	-90				378	-93				378	-91		329	86
170							-84					-83					-84		331	56
150							-83					-84					-80		326	37
130							-80					-81					-79			
110							-83					-80								
100						515	-83				(122mb)									
90							-84													
80							-88													
70							-91													
60							-92													

	WEATHER WATCHER. 03L	WEATHER WATCHER. 09L	WEATHER WATCHER. 15L	WEATHER WATCHER. 21L	WEATHER OBSERVER. 03L	WEATHER OBSERVER 09L	WEATHER OBSERVER 15L	WEATHER OBSERVER. 21L
	Isothermal. 850 - 800mb 23°	Inversion. 865mb 27°- 835mb 29°	Inversion 879mb 31°- 857mb 36° Isothermal. 857- 850mb 36°	Inversion 892mb 31°- 850mb 33° 820- 31°- 790.. 33°	Inversion 867mb 21°- 845mb 23° Isothermal. 845- 805mb 23° 553- 530.. -08°	Inversion. 885mb 23°- 850mb 24°	Inversion 850mb 23°- 838mb 26°	Inversion 857mb 24°- 825mb 26° 750- 17°- 708- 19° Isothermal. 708 - 700mb 19°
Tropopause	I 190mb -92° 39.600	I 180mb -93° 41.000	I 182mb -83° 41.000	I 196mb -89° 39.105	NR.	II 204mb -90° 37.200	I 200mb -93° 37.800	I 200mb -91° 37.800

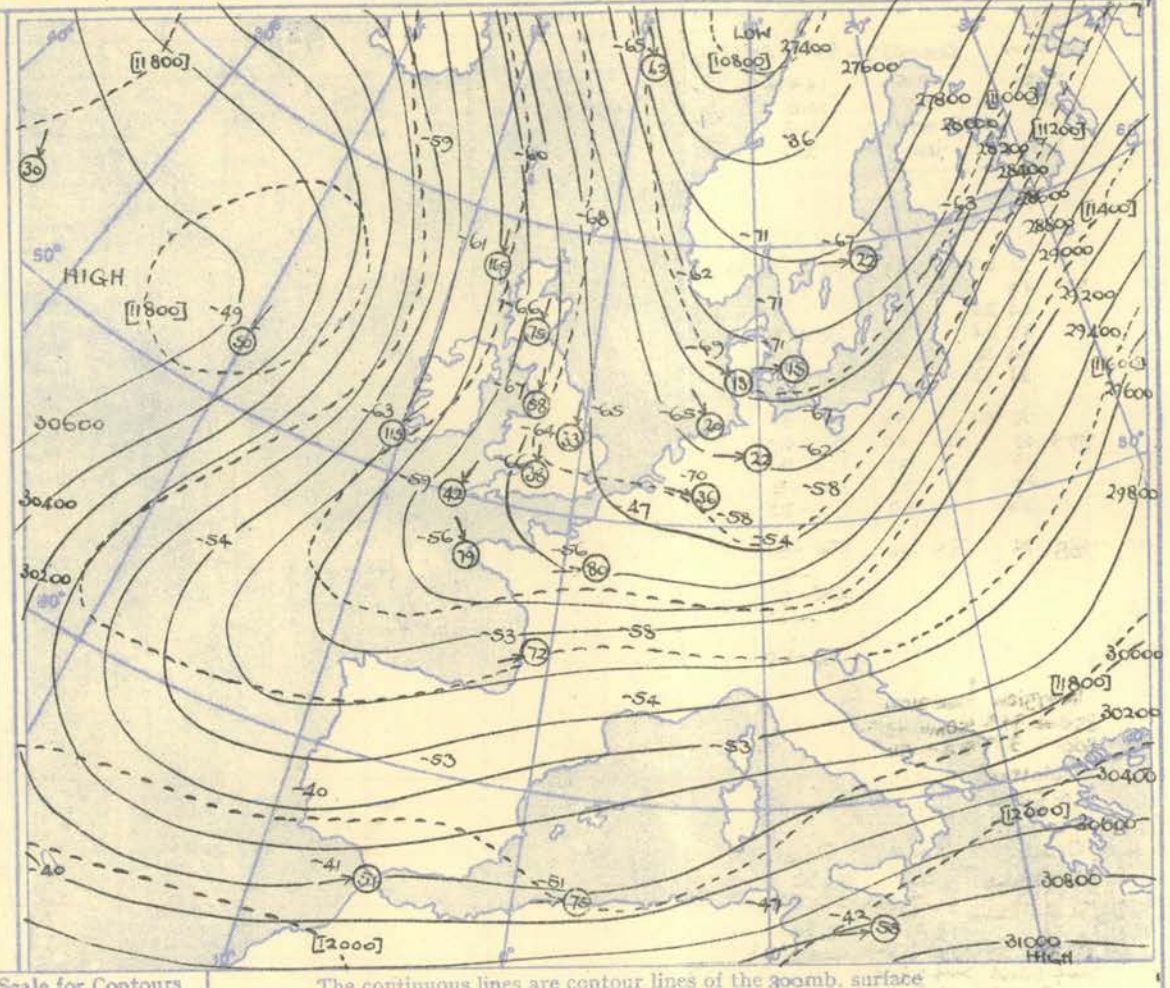
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

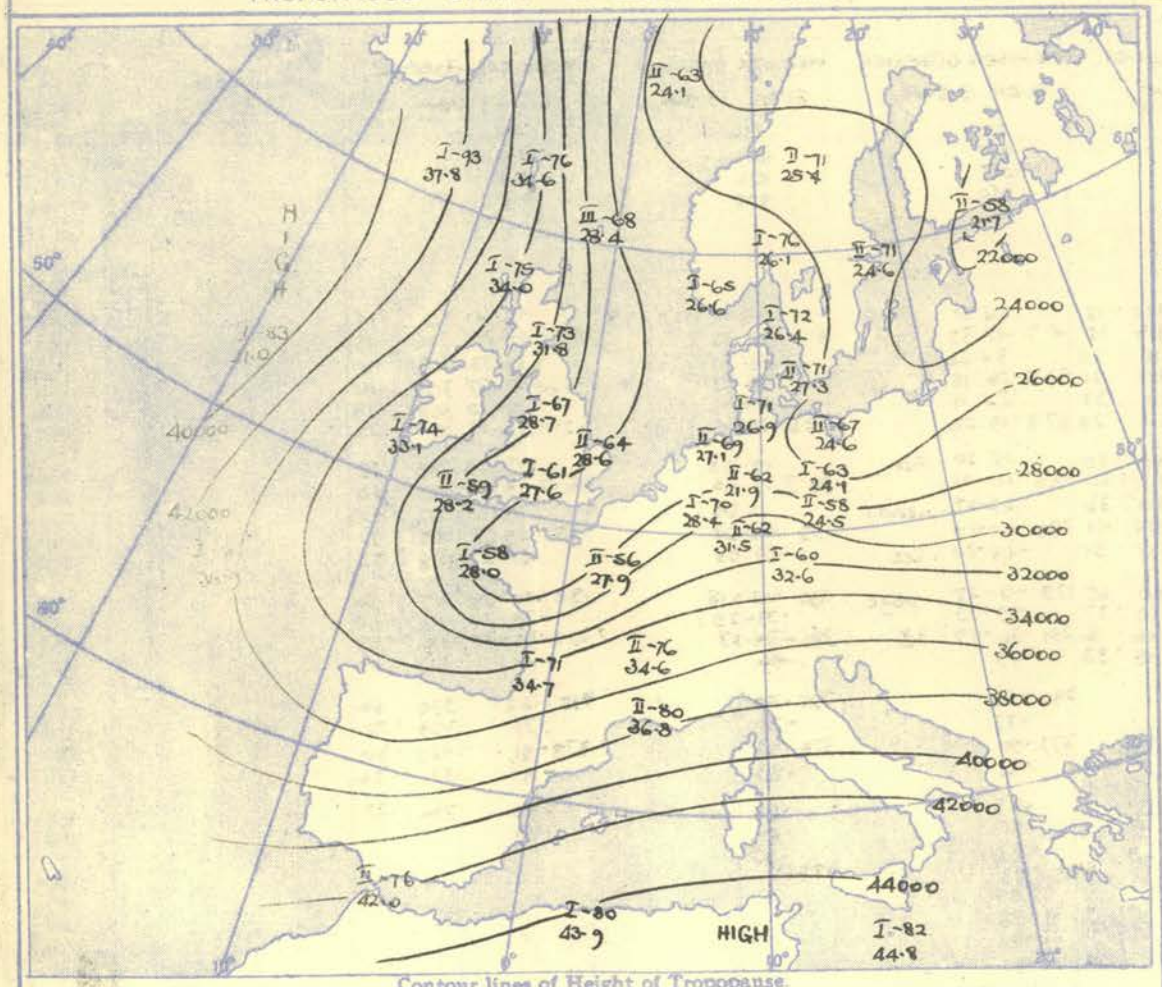
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The thermal trough over the Western Atlantic has warmed out as it has moved steadily eastwards, while the wedge in advance of it, although moving east in its northern section, has not declined.

The strong northeasterly current at all levels to the southwest of Ireland is carrying cold air towards the Azore - Portugal region.

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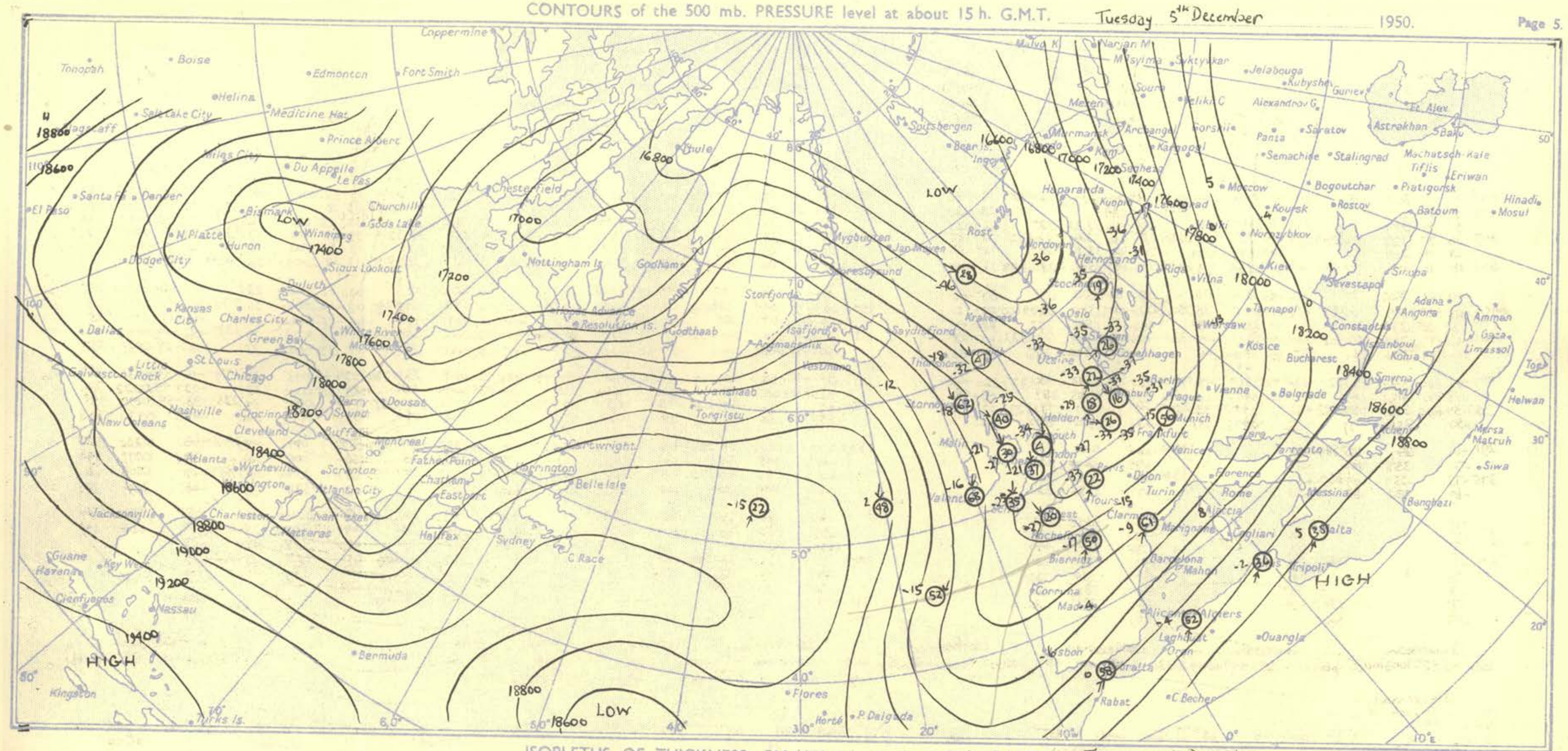
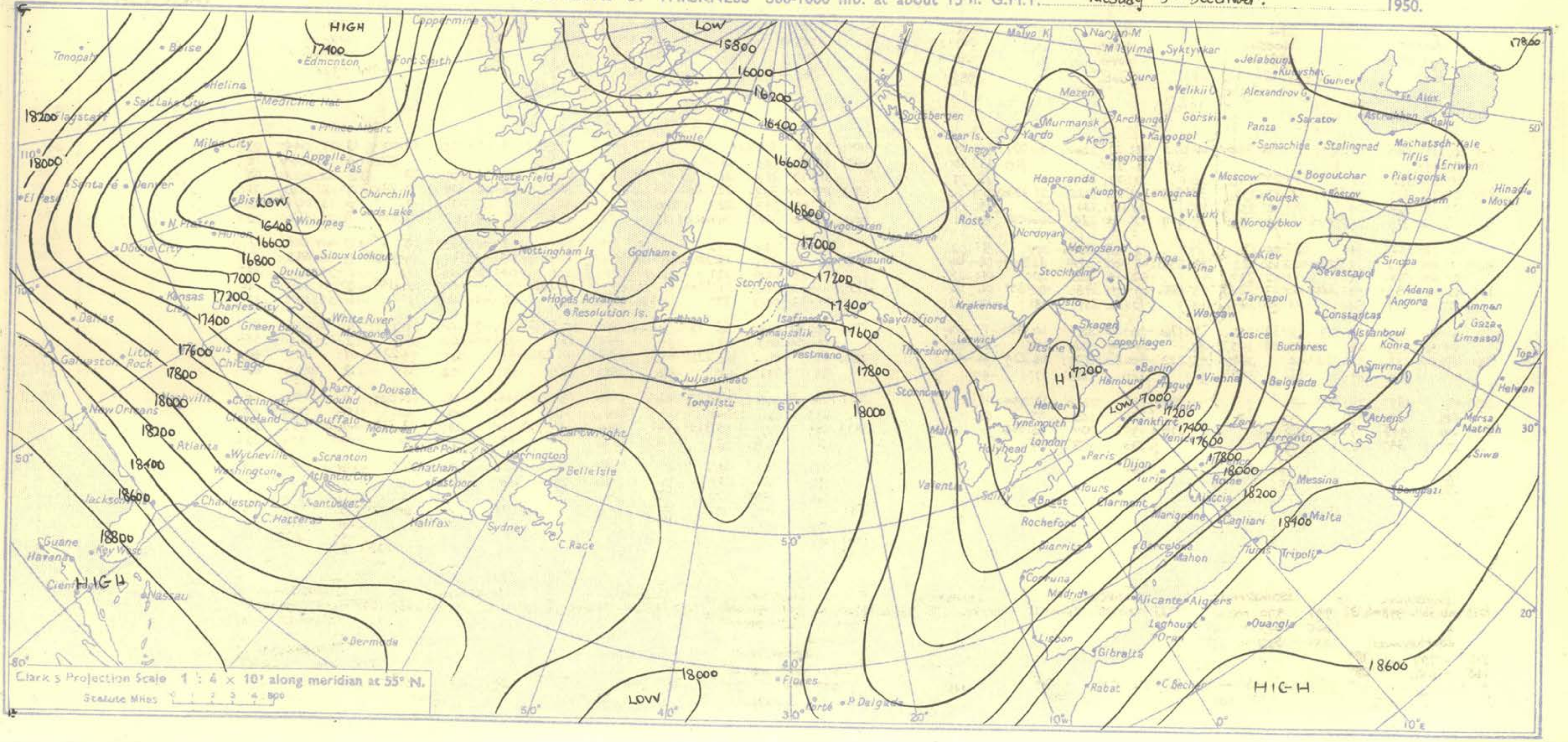
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Tuesday 5th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 5th December. 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	1016·5 mb	1009·8 mb	1015·1 mb	1019·3 mb	1016·2 mb	1013·0 mb	1015·8 mb	1017·8 mb	1021·2 mb
Pressure: Surf	1014·8 mb	999·4 mb	1014·2 mb	1010·2 mb	1014·1 mb	1008·4 mb	999·0 mb	1006·9 mb	1020 mb
Pressure: Freezing	955 mb	999 mb	957 mb	958 mb	978 mb	Surf. mb	999 mb	950 mb	950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	30	300	05
	2·5				
1000	4·3	37	32		
950		31	27	327	16
900	31·9	26	23	327	15
		21	16	324	18
850					
800	62·1	16	11	317	24
750		10	03	324	27
700	95·7	08	-05	339	30
		02	-10	338	36
650					
600	134	-06	-17	338	40
550		-11	-24	356	51
500	177	-18	-30	353	62
450		-28	-39	353	64
400	228	-39	-50	358	65
350		-50		359	77
300	291	-61		357	105
250		-72		358	109
200	375	-73		357	69
170		-69		352	58
150		-69			
130		-69			
110		-70			
100	519	-71			513
90		-73			
80		-74			
70		-79			(78 mb)
60		-80			-84

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	32	31	350	16
	3·9	35	24		
1000					
950		28	18	331	29
900	29·9	23	14	331	30
		16	08	329	31
850	59·8	09	03	350	33
800					
750		06	-03	336	31
700	92·8	-02	-13	341	36
650		-11	-19	339	44
600	130	-20	-25	333	45
550		-22	-30	340	41
500	172	-32	-42	339	47
450		-40	-50	349	60
400	222	-46		348	83
350		-57		349	93
300	284	-68			
250		-67			
200	369	-65			
170		-68			
150		-70			
130		-70			
110		-72			
100	513	-75			
90		-79			
80		-83			
70	(78 mb)	-84			
60	-86				

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	35	24	330	14
	3·9	35	24		
1000					
950		31	20	323	25
900	31·5	25	14	339	26
		21	10	353	27
850					
800	61·8	13	07	350	31
750		08	-01	350	31
700	95·0	02	-09	350	25
		-03	-16	350	27
650					
600	133	-06	-22	349	32
550		-16	-31	346	35
500	176	-25	-38	348	40
450		-32	-45	005	69
400	227	-41		010	78
350		-53		010	80
300	289	-66		010	75
		-69		360	62
250					
200	374	-66		002	60
170		-67		355	38
150		-68		343	32
130		-72		347	39
110		-75		342	40
100	518	-77		339	36
90		-79		334	22
80		-80		327	22
70		-84		318	28
60		-89			

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	35	30		
	5·0	35	30		
1000					
950		31	22		
900	32·7	24	18		
		18	13		
850					
800	62·8	13	08		
750		07	-01		
700	96·0	01	-12		
		-08	-19		
650					
600	133	-10	-25		
550		-17	-32		
500	177	-26	-40		
450		-31	-45		
400	273	-41			
350		-55			
300	286	-64			
		-61			
250					
200	372	-59			
170		-61			
150		-62			
130		-67			
110		-71			
100	518	-73			
90		-76			
80		-78			
70	(76 mb)	-79			
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	34	23	340	10
	4·3	34	23	340	15
1000					
950		29	19	351	20
900	31·8	24	12	358	21
		20	04	001	19
850					
800	61·9	13	00	006	18
750		07	-04	009	18
700	95·1	00	-12	009	26
		-04	-22	007	28
650					
600	132	-11	-29	010	29
550		-19	-38	010	34
500	175	-27	-48	004	30
450		-36	-54	005	38
400	226	-47		011	44
350		-55		014	56
300	287	-67		012	58
		-65		008	54
250					
200	373	-62		360	40
170		-63		347	30
150		-66		337	28
130		-69		330	30
110		-70		323	34
100	518	-71		331	34
90		-74		335	33
80		-78		327	34
70	(76 mb)	-79			
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	31	25	310	16
	3·4	31	25		
1000					
950		31	26	292	26
900	31·1	26	21	350	22
		20	13	348	21
850					
800	61·2	15	06	339	21
750		08	-02	338	23
700	94·5	01	-10	337	22
		-05	-15	325	17
650					
600	132	-12	-21	329	09
550		-21	-30	032	05
500	175	-30	-40	016	04
450		-42		014	23
400	224	-48		022	40
350		-58		020	45
300	286	-64		001	33
		-61		352	33
250					
200	372	-59		336	28
170		-61		326	28
150		-62		325	24
130		-67		322	30
110		-71		316	29
100	518	-73		322	28
90		-76		326	30
80		-78		325	30
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	31	24	010	07
	4·1				
1000					
950		26	19	346	20
900	31·4	23	14	359	18
		19	07	008	17
850					
800	61·5	15	02	013	12
750		08	-02	020	12
700	94·8	00	-06	027	14
		-06	-15	028	17
650					
600	132	-13	-26	007	25
550		-19	-35	004	31
500	175	-26	-42	007	33
450		-36	-53	009	38
400	225	-45		014	41
350		-56		008	44
300	287	-60		356	38
		-57		352	30
250					
200	374	-61		332	27
170		-60		329	31
150		-62		323	26
130		-66		314	24
110		-68		319	31
100	520	-69		315	34
90		-73		324	35
80		-74		323	35
70		-74		310	28
60		-74			

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	39	32	010	05
	4·7	38	30		
1000					
950		32	25	010	16
900	32·4	25	19	012	17
		19	12	005	18
850					
800	62·5	13	08	003	21
750		08	02	006	23
700	95·8	03	-10	009	21
		-04	-21	006	21
650					
600	133	-11	-29	003	29
550		-17	-35	009	31
500	176	-25	-44	013	35
450		-37	-55	010	37
400	227	-47		008	37
350		-54		017	36
300	289	-59		019	42
		-59		009	36
250					
200	375	-61		346	30
170		-62		339	39
150		-65		326	20
130		-69		328	24
110		-69		328	28
100	521	-73		325	27
90		-73		339	31
80	(85 mb)	-72			

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	41	36	040	03
	5·7	38	34	030	07
1000					
950		32	29	012	13
900	33·5	25	21	009	12
		21	15	003	16
850					
800	66·1	17	10	351	21
750		11	-02	360	25
700	97·2	07	-11	012	28
		02	-17	011	35
650					
600	135	-06	-19	009	40
550		-13	-27	013	55
500	179	-16	-36	018	68
450		-25	-43	022	70
400	231	-36	-52	019	93
350		-49		017	106
300	293	-63		020	115
		-74		017	94
250					
200	377	-70		010	60
170		-68		349	38
150		-65		350	26
130		-71		006	13
110		-73			
100	522	-73			
90		-76			
80		-77			
70		-80			
60		-82			

Surface Inversion 1015 mb 35° – 1005 mb 38°
Isothermal 741 – 709 mb 09°; 567 – 548 mb –11°

Surface Inversion 600 mb –20° – 575 mb –19°
Isothermal 533 – 504 mb –05°

Surface Isothermal 1010 – 1000 mb 35°
690 – 667 mb –02°

Surface Isothermal 1014 – 1000 mb 34°
443 – 422 mb –43°

Surface Isothermal 1008 – 940 mb 31°
898 – 875 mb 21°

Surface Inversion 550 mb –13° – 527 mb –11°

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
	I 236 mb – 75° 28,400'	II 300 mb – 65° 34,000'	I 260 mb – 73° 31,800'	NR.	I 300 mb – 67° 28,733'	II 300 mb – 64° 28,600'	I 316 mb – 61° 27,600'	I 310 mb – 59° 28,200'	I 250 mb – 74° 33,100'

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1014·5 mb	1008·6 mb	1014·9 mb	1019·2 mb	1018·0 mb	1016·4 mb	1017·8 mb	1020·0 mb	mb
Pressure: Surf	1012·8 mb	998·3 mb	1014·0 mb	1010·1 mb	1015·9 mb	1011·8 mb	1001·0 mb	1009·0 mb	mb
Pressure: Freezing	925 mb	Surf. mb	Surf mb	952 mb	962 mb	Surf. mb	1001 mb	934 mb	mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	36	34	300	05
	3·8	37	34		
1000					
950		34	30	340	23
900	31·8	29	23	329	30
		23	19	323	24
850					
800	62·1	18	15	319	35
750		16	08	322	34
700	95·9	11	00	332	38
		08	-02	341	43
650					
600	134	02	-10	343	48
550		-07	-16	347	54
500	178	-16	-26	352	55
450		-24	-36	353	56
400	230	-34	-47	356	83
350		-47		358	89
300	293	-62		359	99
		-74		357	97
250					
200	377	-74		348	78
170		-71		347	52
150		-73			
130		-75			
110		-75			
100	520	-75			
90		-76			
80		-80			
70		-84			
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	31	30	360	14
	2·3				
1000					
950		29	25	330	30
900	29·8	23	17	323	35
		17	08	321	39
850					
800	59·8	11	-02	320	37
750		05	-09	320	37
700	92·9	02	-14	322	37
		-11	-21	327	41
650					
600	130	-15	-27	338	45
550		-21	-34	343	61
500	173	-25	-39	346	78
450		-34	-49	345	82
400	223	-44		345	95
350		-56		348	93
300	285	-69			
		-72			
250					
200	369	-68			
170		-69			
150		-73			
130		-73			
110		-77			
100	512	-81			
90		-83			
80					
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	32	27	260	09
	3·8	32	28		
1000					
950		31	27	307	19
900	31·5	26	22	325	21
		20	17	331	25
850					
800	61·7	12	10	334	26
750		12	07	334	29
700	95·0	05	-07	334	32
		-02	-12	333	30
650					
600	133	-09	-15	343	42
550		-12	-23	351	48
500	176	-20	-30	353	60
450		-29	-39	356	63
400	227	-40	-50	359	66
350		-50		003	77
300	290	-65		006	78
		-74		002	75
250					
200	374	-75		001	62
170		-76		355	45
150		-64			
130					
110					
100					
90					
80					
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	32	30		
	5·0	33	30		
1000					
950		32	27		
900	32·6	27	20		
		19	15		
850					
800	62·8	15	14		
750		13	02		
700	96·4	06	-09		
		01	-12		
650					
600	134	-06	-20		
550		-10	-22		
500	178	-19	-29		
450		-27	-39		
400	229	-34	-46		
350		-42			
300	294	-48			
		-55			
250					
200	350				
170					
150					
130					
110					
100					
90					
80					
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	26	16	CALM	
	4·7	34	22	333	21
1000		31	17	333	21
950					
900	32·3	24	10	333	22
		18	06	343	22
850					
800	62·3	13	00	348	24
750		06	-07	347	25
700	95·5	01	-16	351	26
		-05	-23	004	27
650					
600	133	-11	-27	360	31
550		-19	-33	002	37
500	176	-24	-41	014	50
450		-34	-50	013	62
400	226	-45		011	63
350		-57		012	67
300	288	-70		011	65
		-69		011	60
250					
200	373	-69		359	43
170		-67		346	36
150		-68		354	46
130		-72		320	28
110		-76		339	33
100	519	-77		331	27
90		-77			
80					
70	(89 mb)	-78			
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	26	22	300	12
	4·3				
1000					
950		30	25	344	26
900	31·8	26	22	351	24
		20	15	354	25
850					
800	62·1	15	10	353	24
750		07	02	344	20
700	95·3	00	-07	337	20
		-06	-17	340	21
650					
600	133	-12	-26	347	23
550		-20	-36	346	22
500	175	-29	-41	349	25
450		-37		345	26
400	225	-48		348	10
350		-56		002	52
300	287	-66		006	58
		-66		001	47
250					
200	373	-64		344	33
170		-64		336	31
150		-67		325	26
130		-71		320	28
110		-75		312	27
100	517	-78			
90					
80					
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	28	23	350	08
	4·6				
1000					
950		29	21	360	28
900	32·0	24	20	359	18
		18	13	025	17
850					
800	62·0	15	09	012	11
750		09	-03	335	07
700	98·3	02	-13	349	09
		-04	-23	358	12
650					
600	133	-11	-34	007	20
550		-18	-41	007	30
500	176	-26	-47	009	33
450		-36	-54	010	34
400	226	-45		015	44
350		-53		020	58
300	289	-61		017	63
		-62		006	34
250					
200	375	-64		342	32
170		-62		334	26
150		-65		318	27
130		-68		303	19
110		-71		318	23
100	520	-75		314	20
90				315	30
80					
70	(72 mb)	-81			
60					

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	33	27	045	02
	5·2	34	25	044	12
1000		33	22	023	18
950					
900	33·0	27	18	010	21
		20	13	006	22
850					
800	63·1	13	03	011	25
750		08	-09	013	27
700	96·5	06	-16	012	27
		-01	-25	013	28
650					
600	134	-08	-31	021	30
550		-16	-38	017	33
500	177	-25	-46	014	36
450		-32	-53	022	53
400	228	-41		028	62
350		-52		024	62
300	291	-64		023	62
		-64		024	48
250					
200	376	-69		352	29
170		-66		346	28
150		-66		347	21
130		-71		328	21
110		-73		316	22
100	520	-75		314	29
90		-76		315	24
80		-79		322	11
70					
60	(72 mb)	-81			

Surface Inversion 1013 mb 36° – 998 mb 38°
Isothermal 816 – 797 mb 18°; 665 – 650 mb 08°

Surface Isothermal 998 – 970 mb 31°
650 – 629 mb –11°
550 – 522 mb –21°

Surface Inversion 775 mb 08° – 758 mb 12°

Surface Inversion 1010 mb 32° – 980 mb 34°

Surface Inversion 1016 mb 26° – 996 mb 36°
287 – 272 – 284 mb –21°
Isothermal 720 – 687 mb 01°

Surface Inversion 1012 mb 26° – 950 mb 30°

Surface Inversion 1001 mb 28° – 966 mb 30°

Surface Inversion 1009 mb 33° – 990 mb 36°
466 mb –320 – 455 mb –30°
Isothermal 730 – 712 mb 07°

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
	I 216 mb – 81° 30,700'	I 268 mb – 75° 36,100'	I 250 mb – 74° 32,800'	NR.	I 274 mb – 72° 30,700'	I 293 mb – 67° 29,100'	I 292 mb – 62° 29,500'	II 308 mb – 63° 28,500'	

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DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Wednesday 6th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure: Time 03hrs G.M.T.; M.S.L. 1007·1 mb; Surf 996·8 mb; Freezing Below Surface mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	31	30	350	19
1000	01·8				
950		28	24	336	20
900	29·2	22	19	337	31
850		16	13	333	30
800	59·1	09	06	327	31
750		07	-7	327	36
700	92·4	02	-17	330	49
650		-2	-23	334	44
600	130	-5	-29	337	54
550		-12	-28	343	60
500	173	-20	-35	342	64
450		-27	-40	341	73
400	225	-39	-48	340	73
350		-52		341	58
300	281	-67		342	85
250		-78		340	83
200	371	-67		341	63
170		-70		333	48
150		-71			
130		-70			
110		-74			
100	514	-76			
90		-79			
80		-80			
70					
60					

Isothermal 287-750 mb 7°

Tropopause: I 255 mb -75° 32100'

STORNOWAY

Pressure: Time 03hrs G.M.T.; M.S.L. 1012·1 mb; Surf 1010·4 mb; Freezing 926 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	03·2	38	34	Calm	
1000					
950		38	31	320	15
900	31·1	29	23	314	17
850		24	20	309	22
800	61·6	19	15	307	36
750		17	08	317	29
700	95·5	14	01	324	32
650		09	-2	323	34
600	134	02	-5	326	42
550		-5	-11	329	48
500	178	-12	-18	331	56
450		-23	-29	338	53
400	230	-35	-41	337	69
350		-50		333	69
300	293	-66		330	78
250		-84		336	88
200	370	-81		348	66
170		-78		343	51
150		-78		341	39
130		-81		339	48
110		-82		334	56
100	515	-82			

Inversion 1010 mb 32°-995 mb 40° 778 mb 17°-763 mb 18° 550 mb 5°-540 mb 4°

Tropopause: II 250 mb -84° 33000'

LEUCHARS

Pressure: Time 03hrs G.M.T.; M.S.L. 1012·1 mb; Surf 1011·2 mb; Freezing 943 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·2	34	30	260	08
1000	03·1	34	30	271	19
950		33	29	290	20
900	30·8	28	24	313	23
850		23	20	333	30
800	61·2	18	15	330	37
750		12	10	318	38
700	95·4	11	00	335	36
650		08	-10	342	41
600	133	00	-14	347	44
550		-7	-26	347	45
500	177	-15	-28	362	52
450		-22	-34	354	62
400	229	-33	-45	351	74
350		-47		352	75
300	293	-61		356	82
250		-75		356	87
200	376	-76		350	84
170		-72		350	39
150		-72		341	43
130		-72			
110					
100					
90					
80					
70					
60					

Inversion 1011 mb 34°-975 mb 36°

Isothermal 743-670 mb 11°

Tropopause: I 227 mb -63° 35100'

ALDERGROVE

Pressure: Time 03hrs G.M.T.; M.S.L. mb; Surf mb; Freezing mb

No Radio-Sonde Ascent

Tropopause: —

LIVERPOOL

Pressure: Time 03hrs G.M.T.; M.S.L. 1016·9 mb; Surf 1014·8 mb; Freezing 942 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	26	21	Calm	
1000	04·5	40	33	291	15
950		33	24	300	18
900	32·3	25	19	306	21
850		19	13	322	25
800	62·4	12	06	334	31
750		06	-2	344	32
700	95·1	00	-10	346	30
650		-5	-18	352	32
600	133	-8	-26	360	40
550		-17	-34	360	46
500	176	-26	-40	001	49
450		-36	-50	004	57
400	227	-46		009	65
350		-60		018	83
300	288	-75		016	87
250		-88		014	79
200	369	-82		353	47
170		-80		348	35
150		-77		345	34
130		-82		344	25
110		-89		322	30
100	508	-89		326	30
90		-88		327	32
80		-90		324	29
70		-94		312	27
60		-97		312	31
		-100			

Inversion 1015 mb 26°-1000 mb 40° 761 mb 6°-730 mb 7°

Isothermal 638-60

Tropopause: II 258 mb -88° 31700'

DOWNHAM MARKET

Pressure: Time 03hrs G.M.T.; M.S.L. 1016·8 mb; Surf 1012·5 mb; Freezing 919 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	23	15	270	09
1000					
950		29	19	324	22
900	31·9	25	14	333	23
850		20	08	323	21
800	62·1	14	01	326	18
750		09	-7	343	17
700	95·4	04	-15	347	22
650		-3	-15	351	27
600	133	-11	-21	349	28
550		-16	-31	354	40
500	176	-23	-38	358	50
450		-33	-47	004	60
400	227	-44		007	69
350		-56		003	73
300	289	-67		010	63
250		-68		360	45
200	374	-63		333	30
170		-65		298	27
150		-72		294	28
130		-68		295	28
110		-76		297	27
100	513	-79		298	24

Inversion 1012 mb 25°-973 mb 32°

Tropopause: I 297 mb -68° 29000'

LARKHILL

Pressure: Time 03hrs G.M.T.; M.S.L. 1018·9 mb; Surf 1001·7 mb; Freezing 1001·9 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	24	23	Calm	
1000	04·8	24	23		
950		28	23	346	13
900	32·1	24	16	349	16
850		20	10	345	16
800	62·2	14	03	343	18
750		06	-5	344	18
700	95·4	01	-10	351	22
650		-02	-12	358	26
600	135	-9	-17	002	30
550		-13	-22	006	40
500	176	-20	-29	012	45
450		-29	-38	017	52
400	228	-38	-47	016	58
350		-49		014	63
300	291	-63		014	63
250		-64		009	43
200	316	-66		341	27
170		-63		329	22
150		-63		318	22
130		-68		314	22
110		-68		310	23
100	521	-70		309	25
90		-73			
80					
70					
60					

Inversion 1002 mb 24°-968 mb 29° 580 mb 11°-565 mb 10° 713 mb 8°-700 mb 9° 625 mb 0°-600 mb 1°

Isothermal 714-678 mb 1°

Tropopause: II 300 mb -63° 29100'

CAMBORNE

Pressure: Time 03hrs G.M.T.; M.S.L. 1021·0 mb; Surf 1009·9 mb; Freezing 1005, 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	31	25	Calm	
1000	05·5	35	28	015	09
950		32	23	011	14
900	32·1	27	21	014	17
850		21	09	013	23
800	63·4	16	08	014	22
750		12	-4	013	18
700	97·0	09	-15	017	25
650		03	-19	015	30
600	135	01	-24	018	36
550		-8	-31	019	42
500	179	-18	-38	023	46
450		-26	-46	024	48
400	231	-37	-51	026	50
350		-49		026	57
300	295	-63		033	74
250		-69		026	59
200	378	-73		017	34
170		-70		340	30
150		-73		336	21
130		-76		352	20
110		-74		339	16
100	521	-76		306	26
90		-76		308	35
80		-80		309	23
70		-82		313	21
60					

Inversion 1010 mb 31°-997 mb 37° 713 mb 8°-700 mb 9° 625 mb 0°-600 mb 1°

Valentia

Pressure: Time 03hrs G.M.T.; M.S.L. 1022·7 mb; Surf 1022 mb; Freezing Surface, 927 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·3	30	27	050	08
1000	05·5	36	28	013	09
950	06·1	36	29	360	08
900		32	23	011	14
850		26	21	318	17
800	34·0	22	19	325	19
750		21	15	327	15
700	63·7	17	07	331	13
650		16	01	014	22
600	97·5	12	-6	014	23
550		09	-13	012	27
500	136	04	-19	013	29
450		-4	-28	017	39
400	180	-11	-31	021	41
350		-22	-38	017	45
300	233	-33	-48	018	50
250		-47		018	57
200	296	-60		016	60
170		-77		016	58
150	360	-78		358	30
130		-71		351	31
110		-69		353	21
100		-71		340	23
90		-72		343	18
80	522	-72		322	16
70		-73		313	18
60		-74			
		-78			
		-75			
	(68)				

Inversion 1010 mb 33°-984 mb 39° 700 mb 12°-680 mb 14°

Isothermal 800-756 mb 17°

Tropopause: I 245 mb -79° 33700'

LERWICK

Pressure: Time 09hrs G.M.T.; M.S.L. 1006·1 mb; Surf 995·8 mb; Freezing Below Surface mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	30	29	360	04
1000	01·5				
950		28	24	332	18
900	28·2	22	19	329	17
850		14	12	327	17
800	58·7	10	06	327	19
750		11	-6	327	29
700	92·1	07	-10	326	32
650		01	-8	326	34
600	130	-7	-8	328	35
550		-12	-13	327	38
500	173	-19	-21	330	46
450		-28	-33	330	51
400	225	-39	-44	332	57
350		-49		334	69
300	288	-65		327	79
250		-80			
200	371	-72			
170		-70			
150		-74			
130		-73			
110	(124)	-74			

Inversion 996 mb 30°-980 mb 31° 806 mb 9°-770 mb 11°

Isothermal 770-750 mb 11°

Tropopause: I 244 mb -82° 33000'

STORNOWAY

Pressure: Time 09hrs G.M.T.; M.S.L. 1008·0 mb; Surf 1006·3 mb; Freezing 885 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Wind* Dir. °	Wind* Vel. knots
Surf	04·4	37	36				
1000	02·1	37	36				
950		38	37				
900	30·1	33	32				
850		28	25				
800	60·8	22	18				
750		17	07				
700	94·7	14	-12				
650		09	00				
600	133	04	-24				
550		-4	-25				
500	177	-13	-26				
450		-25	-34				
400	229	-37	-46				
350		-47					
300	293	-63					
250		-83					
200	375	-80					
170		-80					
150		-75					
130		-80					
110		-80					
100	515	-80					
90		-81					
80		-82					
70		-83					
60		-82					
		-82					
		-81					
	(30)	-80					

Inversion 1006 mb 37°-987 mb 40°

Isothermal 693-627 mb 8°

Tropopause: I 234 mb -89° 34200'

LEUCHARS

Pressure: Time 09hrs G.M.T.; M.S.L. 1009·4 mb; Surf 1008·6 mb; Freezing 923 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·2	36	32		
1000	02·6	36	32		
950		35	32		
900	30·3	29	27		
850		24	22		
800	60·7	20	17		
750		16	11		
700	95·0	15	09		
650		12	04		
600	133	04			
550		-2			
500	178	-10			
450		-22			
400	230	-37			

Seaps for winds.

Inversion 736 mb 14°-673 mb 15°

Isothermal 1009-957 mb 36°

NR

ALDERGROVE

Pressure: Time 09hrs G.M.T.; M.S.L. 1014·3 mb; Surf 1005·5 mb; Freezing 900 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	38	35		
1000	03·8	37	33		
950		36	33		
900	31·7	32	28		
850		28	25		
800	62·4	22	18		
750		18	-8		
700	96·5	19	-25		
650		16	-31		
600	136	10	-48		
550		00	-55		
500	180	-10	-52		
450		-22	-43		
400	232	-35	-49		
350		-48			
300	295	-61			
250		-75			
200	379	-77			
170		-68			
150		-69			
130		-72			
110		-75			
100		(111)			

Inversion 580 mb 36°-557 mb 37° 530 mb 16°-500 mb 19° 302-288 mb -65°

Tropopause: I 212 mb -87° 36600'

LIVERPOOL

Pressure: Time 09hrs G.M.T.; M.S.L. 1014·5 mb; Surf 1012·4 mb; Freezing 929 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	40	37		
1000	05·9	40	37		
950		38	32		
900	31·7	29	26		
850		23	20		
800	62·0	18	13		
750		13	03		
700	95·7	11	-9		
650		05	-13		
600	134	-2	-13		
550		-7	-14		
500	178	-16	-23		
450		-26	-33		
400	229	-39	-45		
350		-50			
300	292	-66			
250		-72			
200	376	-70			
170		-69			
150		-69			
130		-68			
110		-70			
100	521	-71			

Isothermal 1012-1000 mb 40° 302-288 mb -65°

Tropopause: I 235 mb -74° 34300'

DOWNHAM MARKET

Pressure: Time 09hrs G.M.T.; M.S.L. 1015·6 mb; Surf 1011·1 mb; Freezing 943 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	29	27	240	07
1000	04·1				
950		33	30	306	27
900	31·8	28	28	312	25
850		22	22	312	26
800	62·1	15	15	310	27
750		08	06	325	26
700	95·4	02	02	336	28
650		03	-8	347	33
600	133	-3	-14	345	35
550		-10	-22	346	38
500	177	-17	-29	352	45
450		-26	-35	356	47
400	229	-38	-45	356	58
350		-52		355	-58
300	291	-66		358	66
250		-70		353	48
200	376	-67		325	31
170		-67		318	26
150		-71		319	31
130		-66		317	25

Inversion 1011 mb 29°-978 mb 35° 706 mb 1°-678 mb 1°

Tropopause: II 285 mb -69° 29900'

LARKHILL

Pressure: Time 09hrs G.M.T.; M.S.L. 1018·7 mb; Surf 1001·7 mb; Freezing 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	24	21	270	07
1000	04·7				
950		32	25	323	18
900	32·7	27	20	338	21
850		22	16	347	22
800	62·6	17	08	352	22
750		12	02	352	24
700	96·2	08	-7	356	26
650		04	-16	359	29
600	134	-1	-21	357	32
550		-7	-28	356	39
500	178	-15	-39	004	42
450		-28	-44	009	44
400	230	-38	-52	009	46
350		-48		008	53
300	293	-62		006	62
250		-73		010	54
200	377	-69		335	27
170		-66		335	30
150		-68		331	21
130		-68		322	26
110		-69		321	28
100	522	-71		312	29
90		-72		307	24
80		-72			
70					
60					

Inversion 1302 mb 24°-1257 mb 35°

Isothermal 778-763 mb 15° 728-681 mb 8°

CAMBORNE

Pressure: Time 09hrs G.M.T.; M.S.L. 1020·9 mb; Surf 1010·1 mb; Freezing 930 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	33	32	Calm	
1000	05·5	35	33		
950		35	26	335	11
900	32·4	29	19	342	13
850		23	10	355	14
800	63·7	17	07	012	15
750		16	01	014	22
700	97·5	12	-6	014	23
650		09	-13	012	27
600	136	04	-19	013	29
550		-4	-28	017	39
500	180	-11	-31	021	41
450		-22	-38	017	45
400	233	-33	-48	018	50
350		-47		018	57
300	296	-60		016	60
250		-77		016	58
200	380	-78		358	30
170		-71		351	31
150		-69		353	21
130		-71		340	23
110		-72		343	18
100	522	-72		322	16
90		-73		313	18
80		-74			
70		-78			
60		-75			
	(68)				

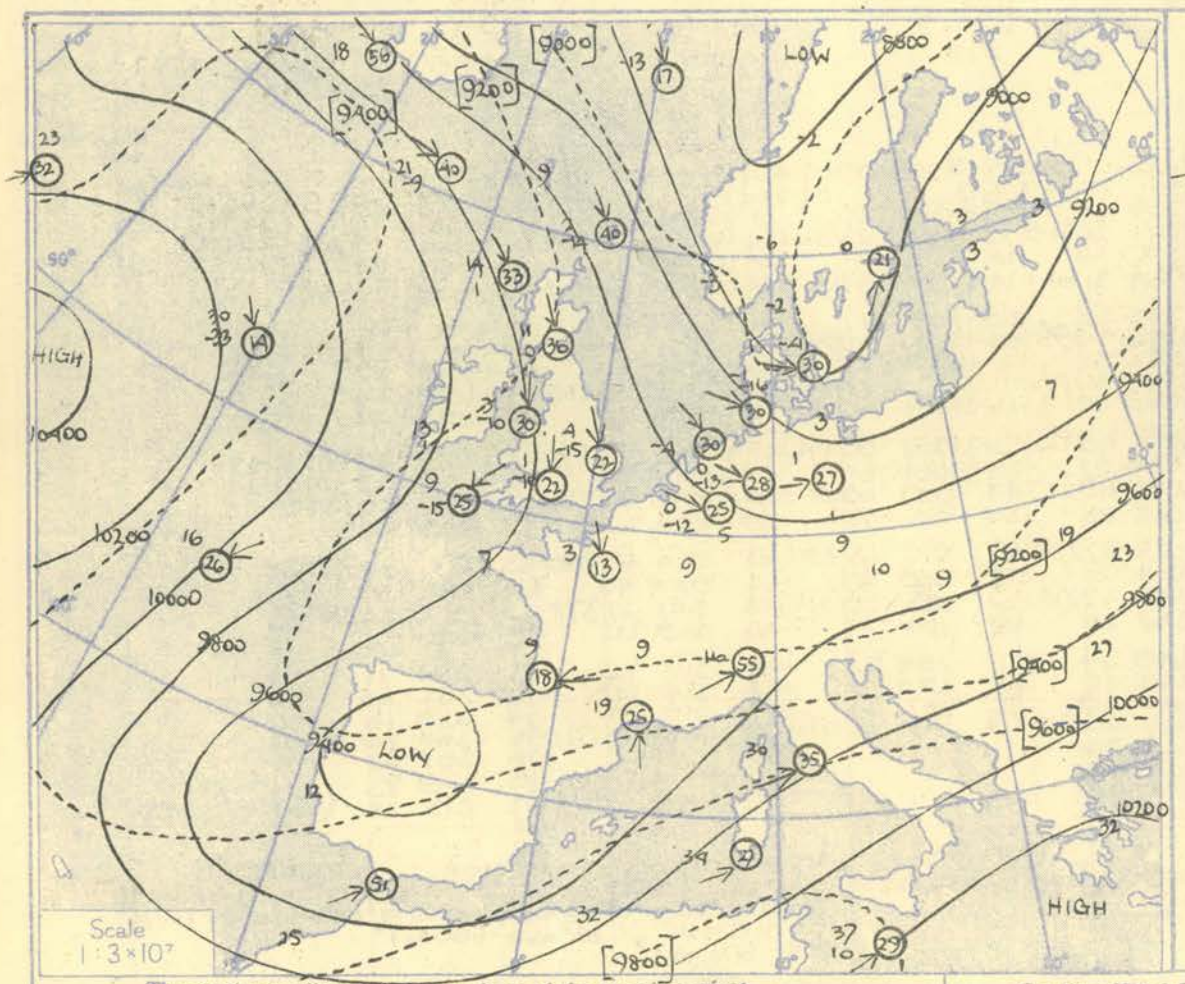
Inversion 1010 mb 33°-984 mb 39° 700 mb 12°-680 mb 14°

Isothermal 800-756 mb 17°

Tropopause: I 246 mb -79° 33700'

Wednesday 6th. December 1950.

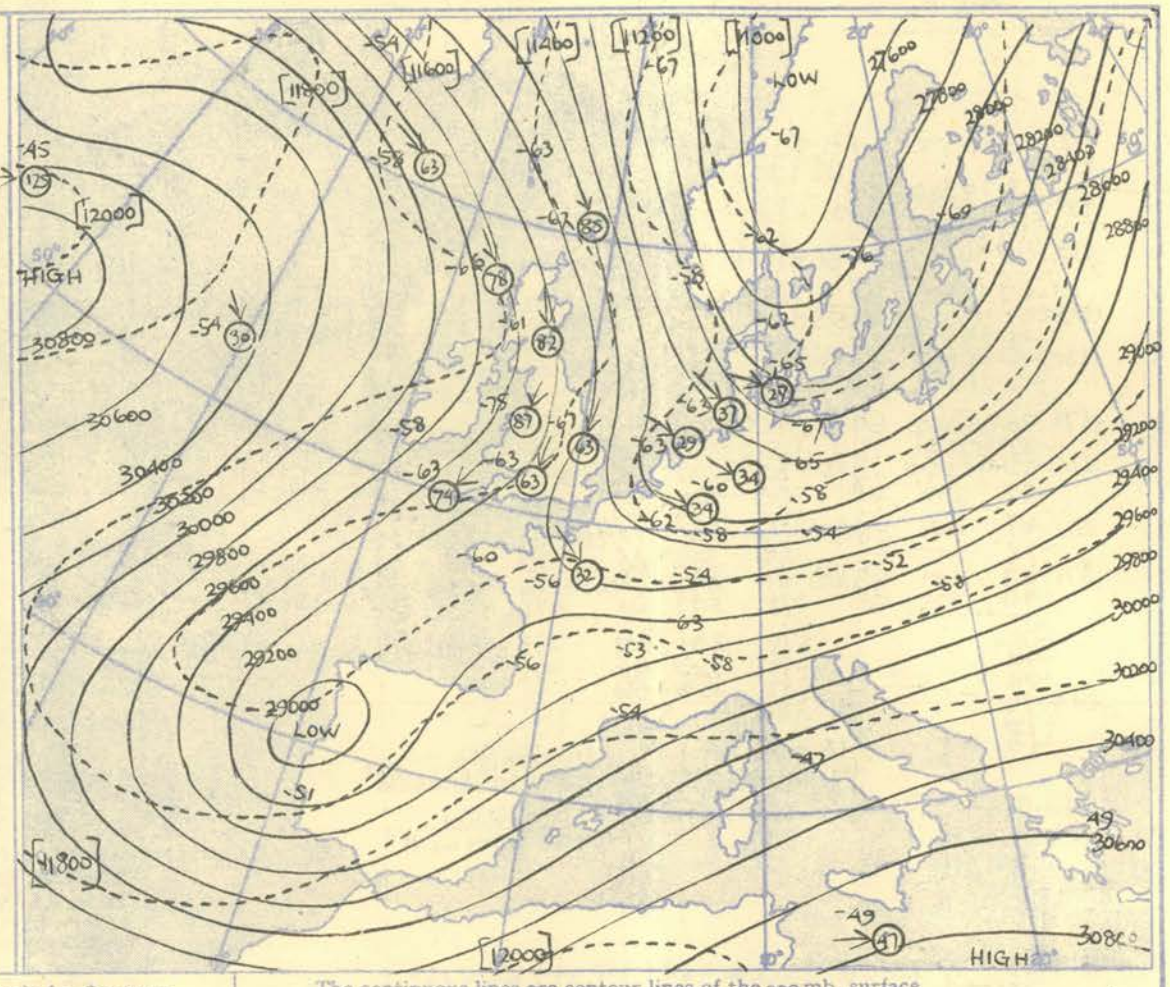
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



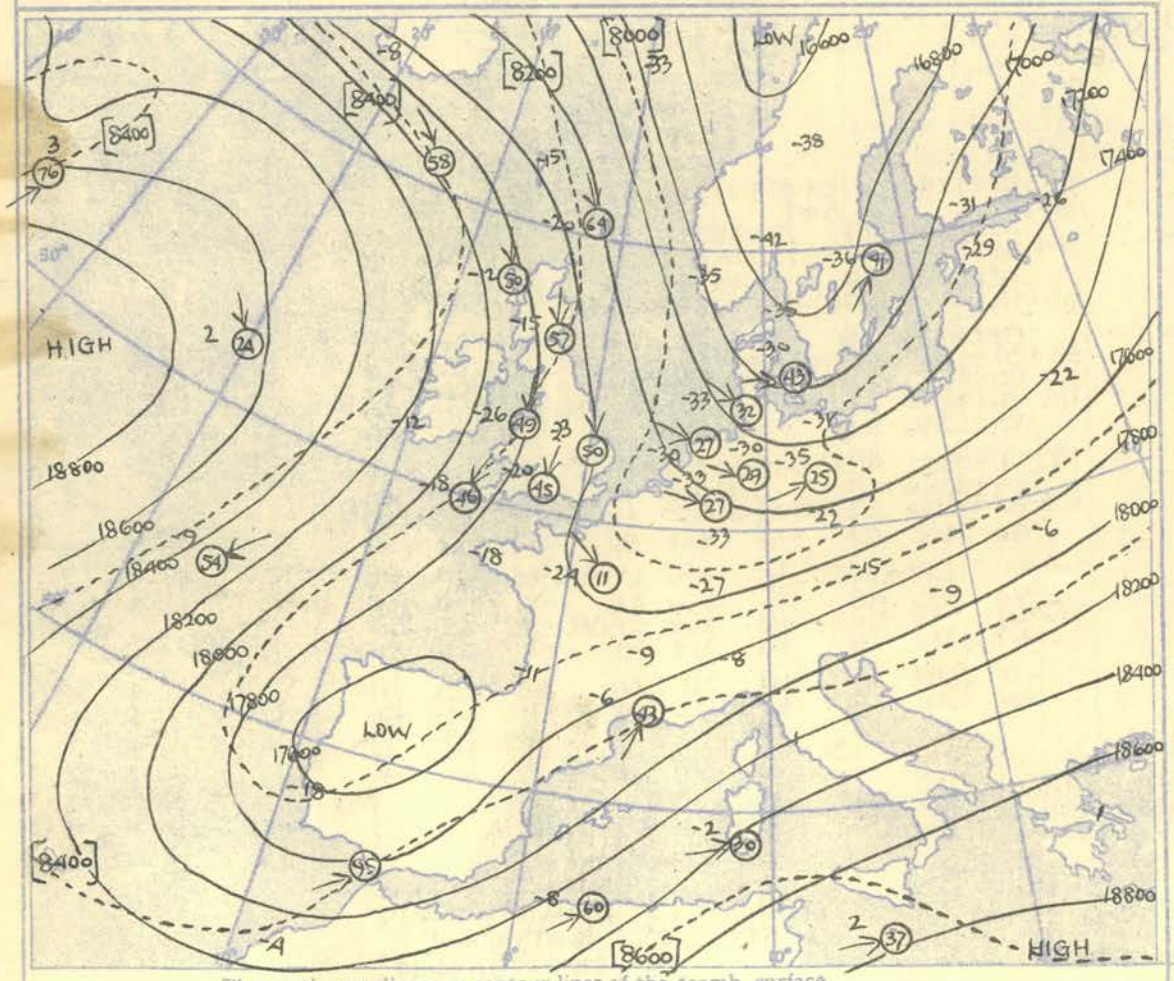
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

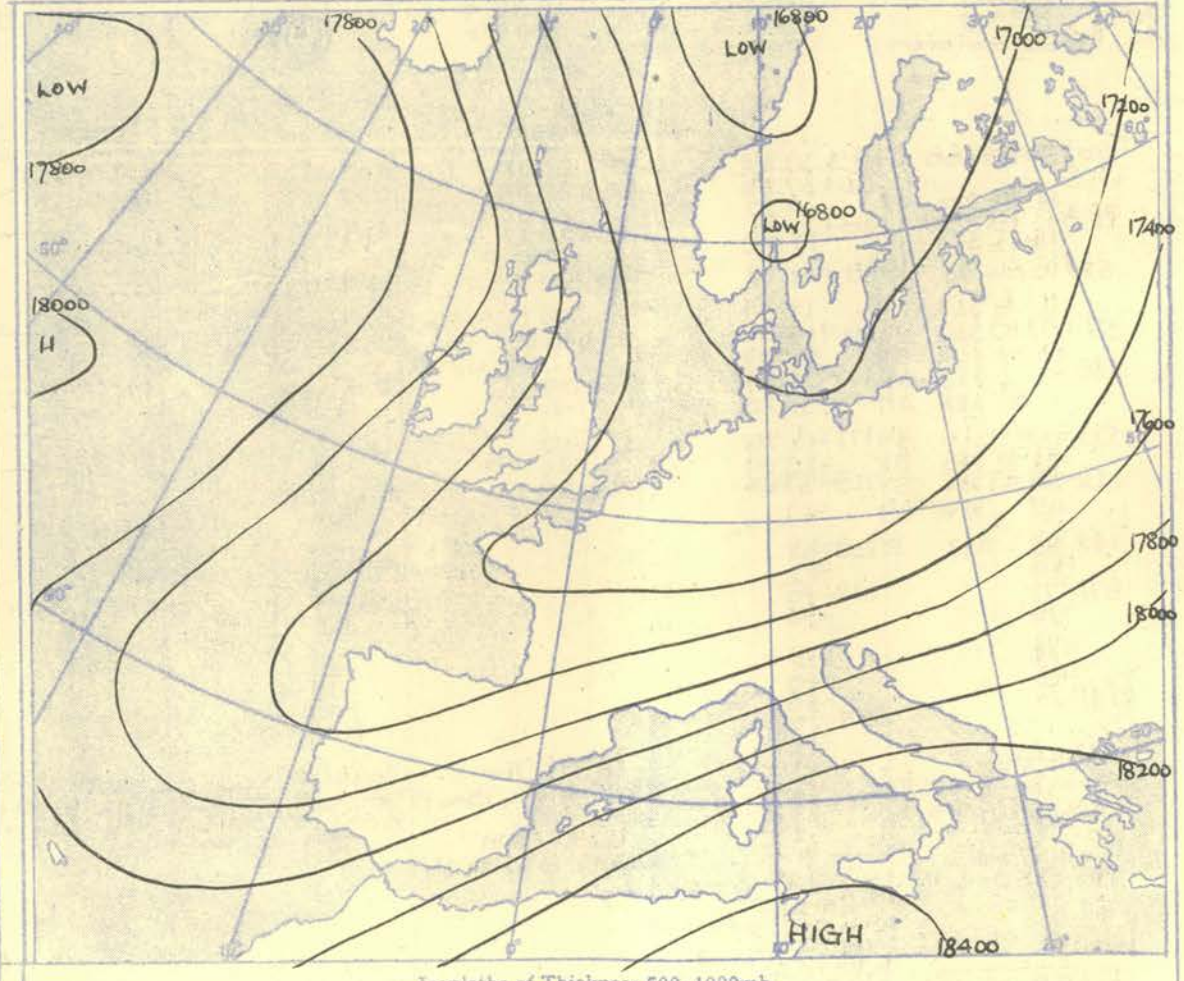
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	53½N 01·3E		
Pressure Time	1445h.		
M.S.L.	1011 mb		
Surf	1009 mb		
Freezing	915 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.
Surf	0·5	39	31
1000	2·9		
950		37	35
900	30·7	30	30
850		26	
800	61·2	17	
750		15	
700	95·0	13	
650		04	
600	133	-01	
550		-08	
500	177	-16	
450		-26	
400	229	-38	
350		-47	
300	292	-61	
250			
200			
170			

Cloud.
3/8 Cu
770-757mb.
7/8 Ac
780-756mb.
Inversion
953mb 36°
975 " 39°

NR.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Leuchars		Liverpool		Shannon		Shoebury		Lympne		Downham.	
Time	09h		09h		09h.		11h.		16h		21h.	
Type	Pilar.		Pilar.									
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	270	10	290	10	220	07	230	08	240	08	200	12
1,000	279	13	287	24	270	08	280	23	280	16	260	33
2,000	292	17	292	26	280	19	290	21	300	21	270	23
3,000	308	21	298	23	300	20	300	22	310	13	270	22
4,000	318	25	300	25	300	24	300	23	360	35	270	20
5,000	323	25	307	25			310	23			270	24
6,000	323	28	319	26			330	25			270	21
8,000	319	28	324	32			320	23			280	27
10,000	317	29	321	30			330	26			280	33
14,000	331	39	338	40			340	35			290	37
18,000	335	57	345	45			350	36			300	36
24,000	339	64	351	57							320	55
30,000	341	67	356	63			350	51			320	69
40,000	335	45	340	38			320	24			320	39
50,000	335	35	334	28			290	20			320	25
	326 (55·000)	30	294 (55·000)	27			300 (55·000)	22			310	32 (60·000).
											300	22 (65·000).
											310	23 (70·000).

NEPHOSCOPE OBSERVATIONS

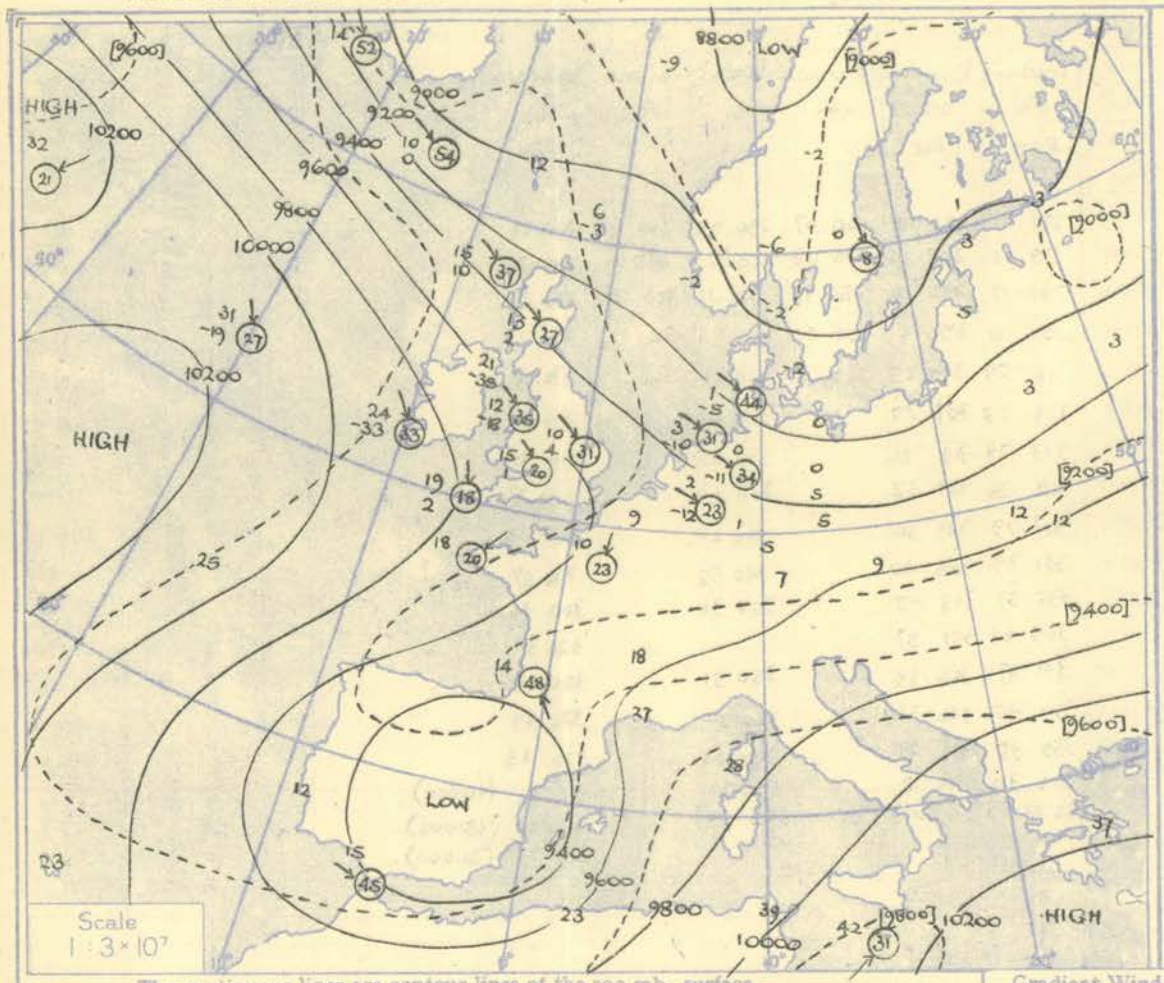
Place											
Time Type											
Dir. Vel.											

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

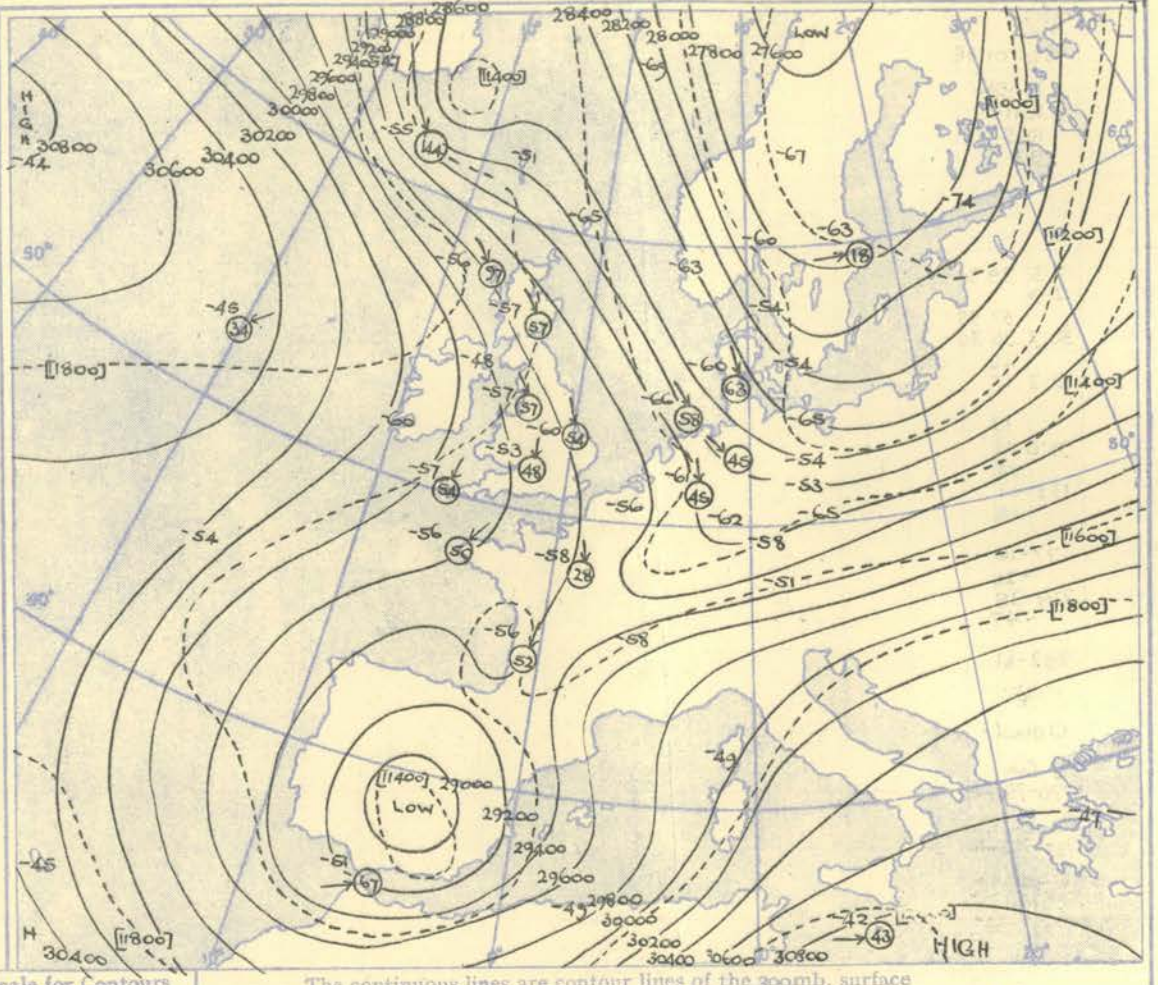
Ship	WEATHER OBSERVER.					WEATHER OBSERVER.					WEATHER OBSERVER.					WEATHER OBERVER.				
Lat/Long	60·9N. 13·9W					60·9N 14·0W.					61·0N 14·1W.					61·0N 14·3W.				
Pressure Time	03L G.M.T.					09L G.M.T.					15L G.M.T.					21L G.M.T.				
M.S.L.	1010 mb					1001 mb					993 mb					992 mb				
Surf	1010 mb					1001 mb					993 mb					992 mb				
Freezing	900 mb					890. mb					905 mb					875 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	41	280	15		44	39	300	28		45	40	295	27		45	37	310	34
1000	2·8	42	39	286	20	1					-19					-22				
950		38	35	286	24		39	31	280	40		37	31	286	36		41	34	308	38
900	30·8	32	28	285	25	28·3	33	24	278	42	26·1	35	25	286	39	26·0	35	20	309	40
850		27	23	284	25		21	-05	280	46		25	18	285	51		29	14	309	38
800	61·4	24	19	236	31	58·9	22	12	276	42	56·6	20	09	288	44	56·7	24	07	309	36
750		26	02	289	35		21	-05	280	45		15	02	292	48		18	00	309	37
700	95·9	21	-09	294	40	93·1	18	-06	280	42	90·4	10	00	294	54	90·8	13	-04	309	53
650		15	-11	301	44		10	-04	282	40		03	-08	297	54		13	-04	310	68
600	135	08	-14	309	51	132	02	-09	282	51	129	-02	-11	297	75	130	07	-08	313	87
550		-01	-22	313	57		00	-07	282	61		-05	-21	301	86		04	-08	315	86
500	179	-11	-31	307	58	176	-07	-16	288	60	173	-14	-22	305	101	175	-02	-14	317	87
450		-23	-40	299	62		-16	-26	295	68		-20	-30	305	102		-12	-24	313	91
400	231	-37	-53	298	64	229	-26	-38	267	69	225	-29	-41	310	123	228	-22	-33	216	114
350		-47		299	58		-39	-50	300	84		-41		307	129		-34	-44	313	119
300	295	-58		301	63	293	-55		312	100	289	-55		300	144	293	-47		317	111
250		-78		308	68		-74		315	112		-70		305	120		-62		317	129
200	378	-78		317	60	378	-75		315	104	373	-74		312	96	379	-73		315	107
170		-77		316	55		-77		318	87		-75		317	72		-71		313	76
150		-78		317	61		-77		320	76		-77					-73		314	67
130		-76		323	51		-75					-78					-77		316	79
110		-79		335	52	(144mb)					(140mb)						-78		316	60
100	579	-79		343	49											521	-77		317	52
90		-80		338	42												-77		317	38
80		-83															-79		320	30
70																	-81		321	27
60																	-83		321	33
																	-84		321	45
																	-89		320	45
																(37mb)	-91			
	Inversion. 813mb 22°-785mb 28° Isothermal. 352-340mb -47°					Inversion 800mb 21°-763mb 23° 600" 2°-586" 4° Isothermal. 722-700mb 18°					Inversion 612mb -04°-592mb -1°					Isothermal. 700-650mb 13° 610-585" 7°				
Tropopause	I242mb -81°. 33·800					I 222mb -80°. 35·500					I239mb -73°. 33·600					I192mb -75° 38·800				

Ship	WEATHER WATCHER.					WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52·5N 20·0W.					52·4N 20·0W.					52·6N 20·0W					52·5N 19·9W				
Pressure Time	03L G.M.T.					09L G.M.T.					15L G.M.T.					21L G.M.T.				
M.S.L.	1027 mb					1026 mb					1024 mb					1022 mb				
Surf	1027 mb					1026 mb					1024 mb					1022 mb				
Freezing	715 mb					920, 720 mb					710 mb					700 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	41	300	10		43	40	300	15		45	43	270	20		49	45	290	25
1000	7·3	42	38	294	09	6·8	40	38	303	16	6·4	42	38	273	25	6·0	46	43	288	27
950		37	33	292	11		35	35	295	17		37	33	285	24		41	40	294	33
900	35·2	33	29	295	12	34·7	34	26	291	17	34·5	39	17	285	25	34·3	46	26	301	34
850		39	-10	308	14		41	08	291	17		44	-01	288	26		45	13	303	36
800	66·4	35	-24	314	15	66·1	39	03	295	16	66·1	41	-25	296	26	66·1	46	10	306	37
750		35	-29	326	15		39	-05	283	16		38	-27	315	24		39	06	308	35
700	101	30	-33	330	14	101	30	-09	326	19	101	31	-19	314	27	102	31	02	314	39
650		23	-38	314	13		24	-15	344	20		24	-30	312	32		27	01	315	38
600	141	15	-44	309	15	141	18	-22	344	20	141	15	-44	314	33	142	20	-05	325	35
550		09	-49	315	17		09	-28	336	25		06	-45	310	30		09	-10	326	36
500	187	-02	-57	316	24	187	-02	-34	327	28	186	-02	-50	304	29	187	01	-07	328	30
450		-15	-56	317	30		-14	-42	317	39		-11	-53	308	31		-02	-13	328	26
400	240	-24	-57	320	33	240	-23	-49	315	40	240	-20	-59	318	24	241	-20	-23	323	28
350		-38	-58	320	32		-36	-59	319	43		-31	-55	356	22		-32	-36	337	40
300	304	-54		321	30	305	-51		342	37	305	-45		019	34	306	-47		358	36
250		-70		354	36		-64		015	54		-63		025	42		-63		003	31
200	389	-81		346	35	390	-78		024	82	391	-82		020	61	392	-79		011	40
170		-82		341	34		-87		025	69		-89		025	72		-87		012	33
150		-81		347	31		-82		016	49		-85		030	60		-92		006	31
130		-78		344	29		-81		359	37		-81		029	48		-89		356	27
110		-77		341	29		-79		349	35		-80		013	35		-82		342	30
100	529	-80		341	27	530	-79		348	33	530	-81		006	32	530	-84		348	28
90		-81		344	26		-80		348	30		-78		359	25		-84		353	22
80		-82		345	25							-75		349	25		-81		002	22
70		-83		345	27							-74		348	20		-84		357	17
60		-81		336	29							-76		348	17		-81		337	24
		-81									(56mb)	-76					-83		335	25
	(53mb)															(45mb)	-84			
	Inversion 900mb 33°-868mb 39° 407" -26°- 400" -24° Isothermal. 868-828mb 39° 800-750" 35°					Inversion 915mb 31°- 878mb 42°					Inversion 928mb 34°-844mb 45°					Inversion 930mb 40° 900mb 46° 850" 45°. 812- 48°				
Tropopause	I190mb -83° 39·900					I170mb -87° 42·400					I164mb -92° 43·200					I150mb -92° 45·300				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

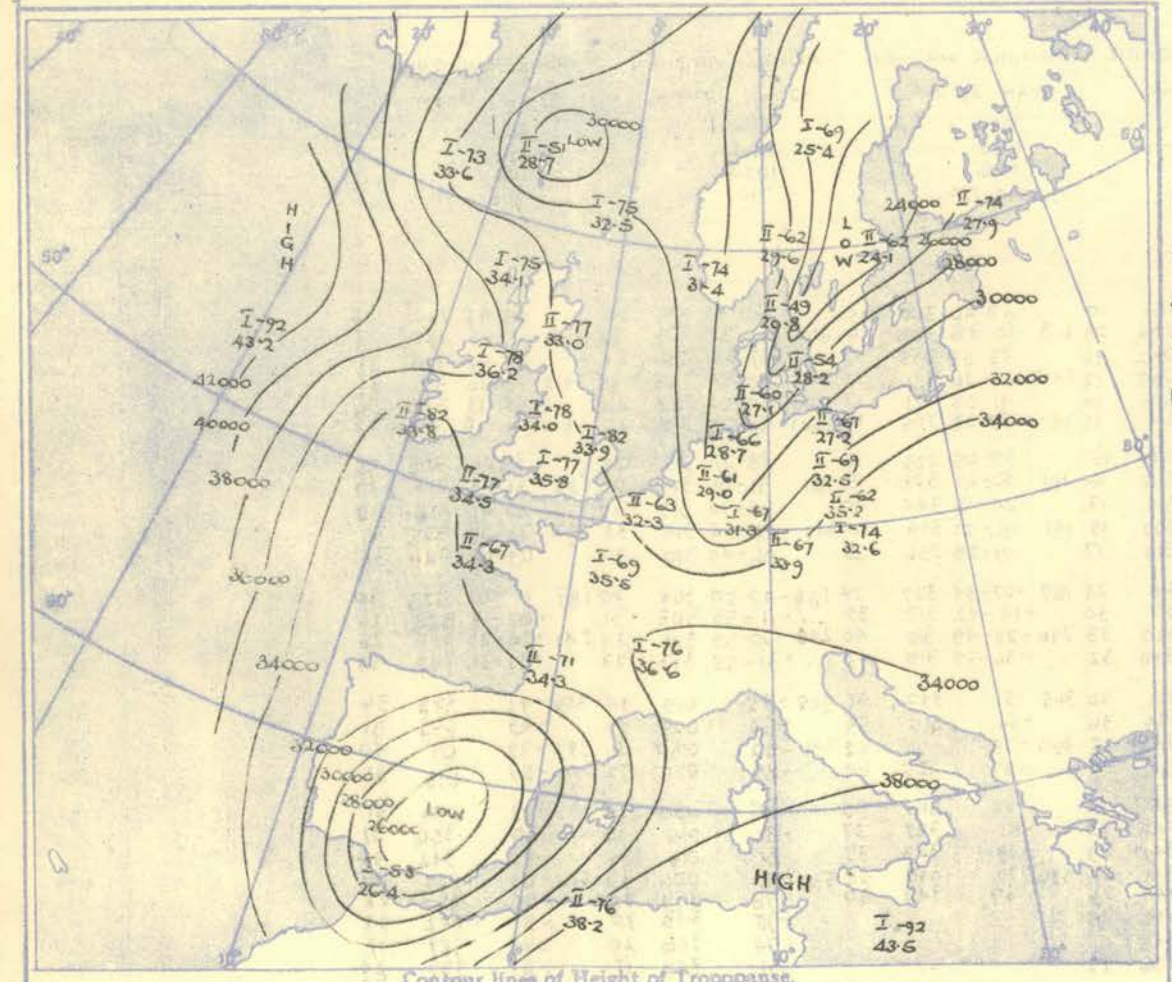


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Warmer air has spread southeastwards over the British Isles at all levels, breaking the abnormally cold spell of the last 3 days. While the main feature in the Atlantic is a wedge covering most of the ocean, there is evidence in the temperature and wind ascents during the day in position 52°N. 35°W. that there still exists a remnant, in the form of a cold pool, of the cold trough which moved eastwards from Newfoundland on the 4th.

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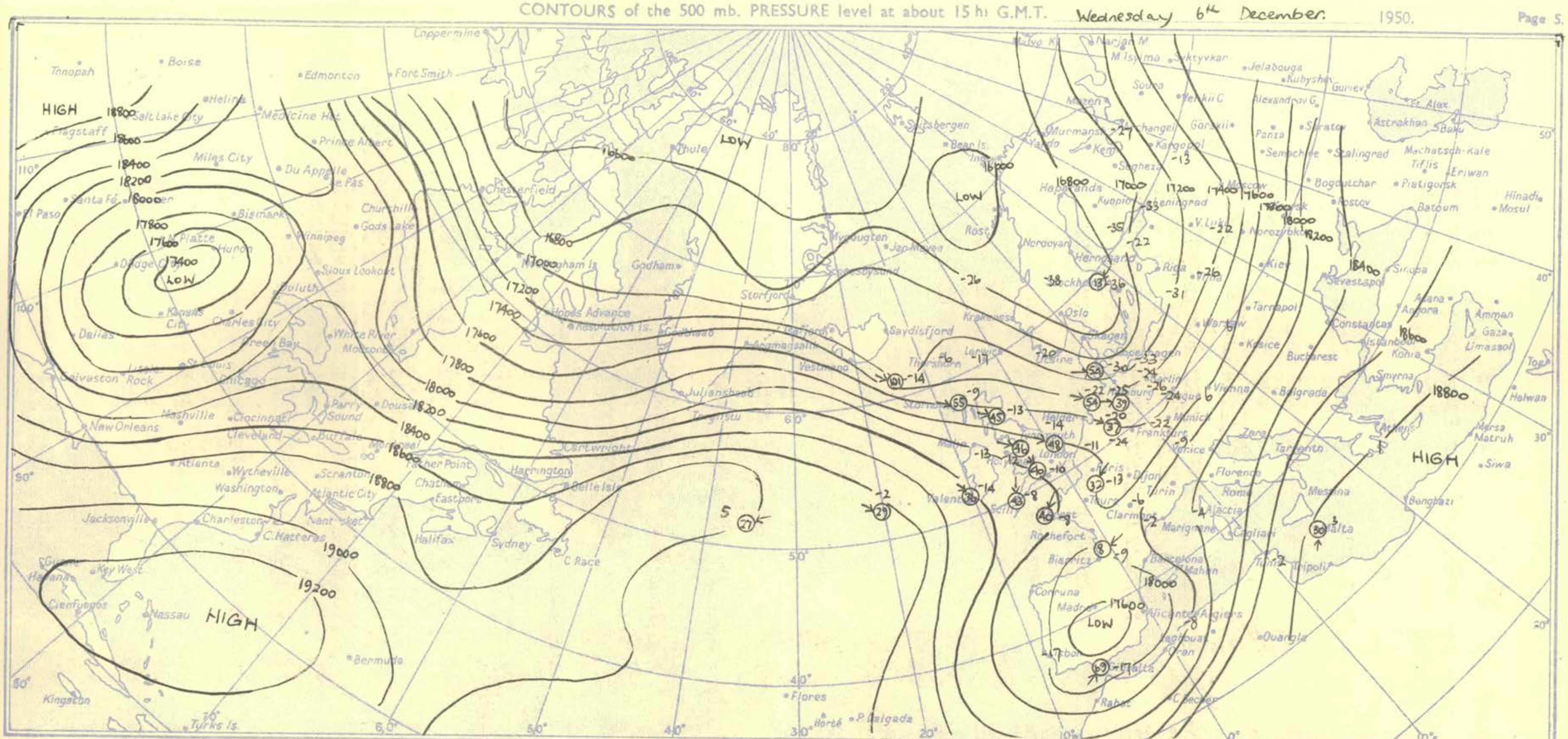
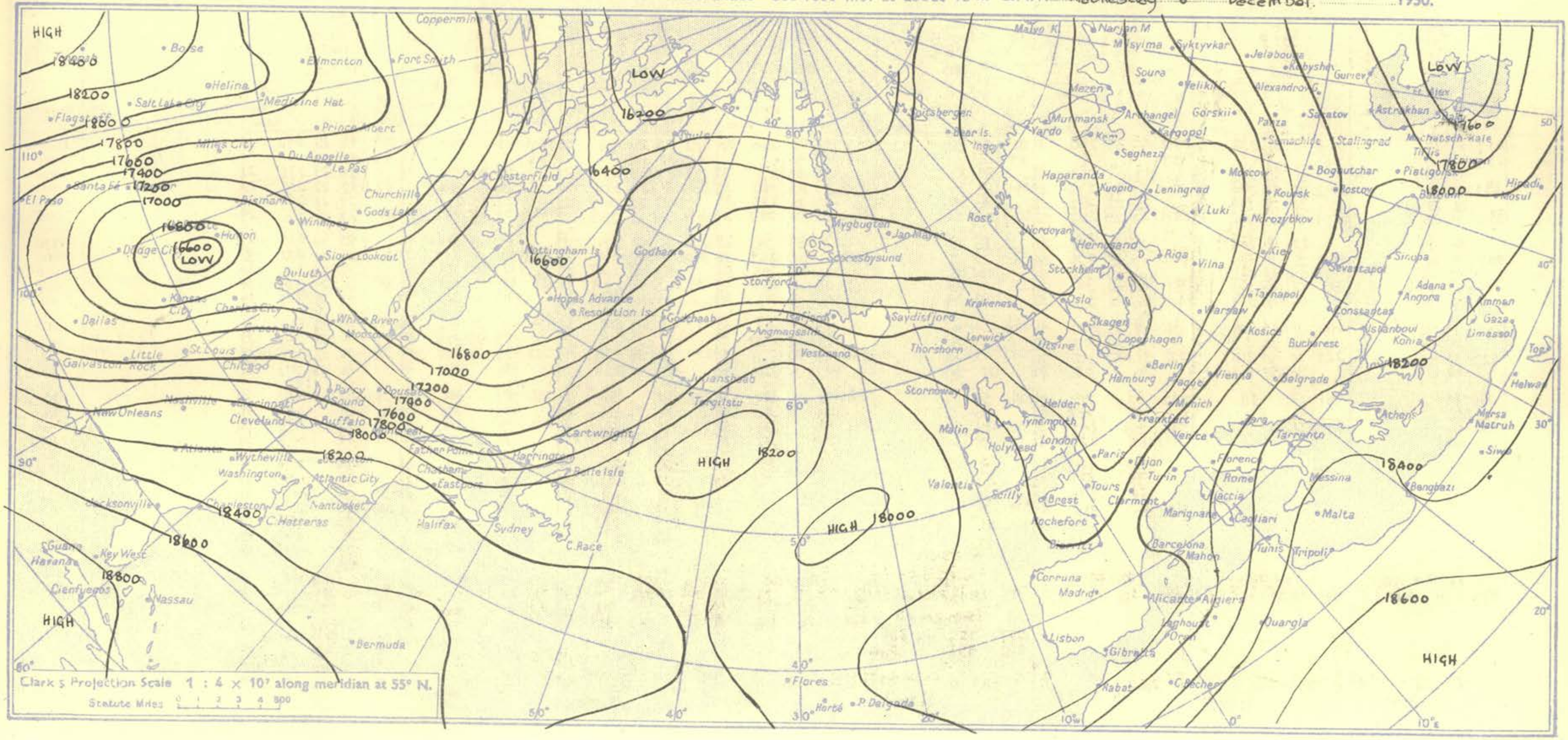
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Wednesday 6th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Wednesday 6th December. 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia	Station
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	Pressure: Time
M.S.L.	1000·5 mb	1001·1 mb	1004·5 mb	1010·9 mb	1011·2 mb	1013·0 mb	1016·3 mb	1019·5 mb	1017·9 mb	M.S.L.
Surf	990·3 mb	999·4 mb	1003·6 mb	1001·6 mb	1009·2 mb	1008·5 mb	999·9 mb	1008·6 mb	1017 mb	Surf
Freezing	958 mb	889 mb	911 mb	900 mb	912 mb	910 mb	916 mb	935 mb	905 mb	Freezing

Pressure mb	Lerwick Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Liverpool Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Valentia Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	33	32			00·4	38	37	280	10	00·2	38	37	260	09	02·3	37	35			00·6	42	39	260	18	01·2	35	31	210	12	04·4	40	32	300	11	02·9	43	35	260	08	00·3	46	43	300	13	Surf
1000	01·1					00·3					01·1	38	37			02·8	37	36			03·0	41	38	266	27	03·4					04·3					05·3	42	33			04·9	44	41	298	15	1000
950		31	18				39	38	260	31		38	37				37	36				36	34	277	27		36	32	293	28		35	30	294	23		34	26	303	15		38	35	293	22	950
900	27·6	24	15			28·3	33	31	265	40	29·1	31	24	284	29	30·7	32	30			31·1	31	30	284	26	31·4	31	28	299	25	32·3	31	27	307	25	33·2	27	21	300	16	32·9	31	29	292	26	900
850		18	09				30	27	269	40		25	15	287	24		28	25				25	25	296	31		25	21	302	23		26	20	314	21		22	18	303	11		27	24	296	27	850
800	57·6	16	03			59·1	25	21	276	39	59·7	20	04	298	27	61·4	23	15			61·6	19	19	281	36	61·9	19	14	310	29	62·7	19	10	320	17	63·6	21	09	322	14	63·6	29	07	314	30	800
750		10	-02				21	17	279	37		19	-01	299	27		26	-10				14	03	288	33		16	12	313	29		17	08	324	18		21	04	339	20		28	-16	322	33	750
700	91·1	06	-03			93·3	15	10	280	37	94·0	13	02	303	27	95·9	21	-35			95·4	12	-18	304	35	95·7	10	04	312	31	96·7	15	01	320	20	97·9	19	02	349	18	98·3	24	-23	322	33	700
650		05	-05				09	04	280	39		08	03	309	29		13	-46				10	-15	317	35		05	-03	314	31		11	00	328	23		13	02	349	25		16	-26	327	33	650
600	129	-01	-12			132	03	-02	276	42	132	01	-02	310	33	135	05	-28			134	06	-26	320	39	134	01	-07	324	34	135	06	-03	339	27	137	08	-04	353	29	137	06	-27	334	36	600
550		-08	-20				-04	-10	278	46		-06	-09	309	42		04	-15				-02	-27	322	44		-05	-15	331	36		+01	-10	345	33		01	-24	360	37		-04	-29	337	38	550
500	173	-17	-30			176	-09	-15	297	55	176	-13	-15	308	45	179	-13	-18			178	-12	-30	322	46	178	-14	-21	338	40	180	-10	-18	351	40	182	-08	-31	004	48	182	-14	-37	333	36	500
450		-28	-40				-18	-25	303	65		-21	-24	313	50		-18	-23				-23	-38	323	48		-25	-32	338	46		-20	-31	355	43		-21	-40	005	46		-22	-08	336	35	450
400	224	-40	-52			229	-28	-35	306	72	228	-30	-34	323	55	232	-28	-33			230	-33	-47	322	51	230	-36	-44	341	45	232	-32	-41	358	47	233	-33	-48	358	38	234	-29	-41	006	47	400
350		-50					-41		312	79		-42		329	63		-40	-46				-43		334	50		-48		341	42		-43		355	44		-45		360	45		-44				350
300	287	-65				293	-56		317	97	292	-57		324	57	296	-58				294	-57		334	57	293	-60		347	54	296	-53		006	48	297	-57		018	54	297	-60				300
250		-75					-71		312	93		-77		328	69		-73					-74		343	62		-77		349	47		-71		009	50		-73		017	53		-79				250
200	371	-65				378	-67		314	68	376	-77		331	63	380	-75				378	-72		336	40	376	-74		333	37	381	-73		345	37	381	-76		006	43	380	-84				200
170		-67					-65		323	53		-72		333	57		-73					-71		330	39		-70		326	31		-73		347	30		-73		006	29		-79				170
150		-69					-68					-73		324	36		-72					-68		327	35		-70		322	28		-71		333	28		-71		354	25		-78				150
130		-69					-71					-74		328	30		-71					-70		328	24		-73		315	27		-70		321	22		-75		321	23		-77				130
110		-73										-74		324	25 (121)		-70					-72		320	21		-70		309	26		-78		327	27		-72		341	20		-78				110
100	516	-76									519	-76		335	28 mb						522	-70		305	21	520	-79		302	26	524	-72		321	24	524	-69		316	20	521	-79				100
90		-78										-78		333	30							-70					-76		296	30		-74		310	22		-72		305	16		-79				90
80	(85 mb)	-79										-80		324	29												-94		299	32		-74		300	26		-70		319	20						80
70												-82															-77		304	29		-71		302	28		-73		295	11						70
60												-80																				-74		316	24		-77		342	24						60
																																-77		308	29	(53 mb)	-79									
	Inversion 990 mb 33°-977 mb 35°					Inversion 999 mb 38°-987 mb 41°										Inversion 1002 mb 37°-958 mb 38° 799 " 22°-765 " 21° 490 " -5°-480 " -14°					Inversion 717 mb 11°-700 mb 12°					Inversion 1008 mb 35°-974 mb 39° 766 " 14°-750 " 16°					Inversion 708 mb 14°-696 mb 15°					Isothermal 833 - 715 mb 21°					Inversion 850 mb 27°-800 mb 29°					
	Isothermal 829 - 800 mb 16° 780 - 735 " 10° 670 - 642 " 05° 400 - 388 " -40°																				Isothermal 700 - 672 mb 12°																																				
Tropopause	I 250 mb -75° 32,500'					I 238 mb -73° 34,100'					II 250 mb -71° 33,000'					I 218 mb -78° 36,200'					I 242 mb -78° 34,000'					I 240 mb -82° 33,900'					I 223 mb -77° 35,800'					II 237 mb -77° 34,500'					II 245 mb -82° 33,800'					Tropopause

21h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia	Station
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.	Pressure: Time
M.S.L.	994·5 mb	992·8 mb	997·7 mb	1005·7 mb	1007·1 mb	1010·3 mb	1013·7 mb	1015·8 mb	mb	M.S.L.
Surf	979·5 mb	991·1 mb	996·8 mb	996·9 mb	1003·0 mb	1005·8 mb	997·1 mb	1005·0 mb	mb	Surf
Freezing	928 mb	865 mb	850 mb	880 mb	898 mb	910 mb	928 mb	900 mb	mb	Freezing

Pressure mb	Lerwick Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Liverpool Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Valentia Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	37	37			00·4	41	38	230	15	00·2	40	39	290	11	02·3	38	36			00·6	41	40	260	20	01·2	33	30	190	09	04·4	33	31	260	05	02·9	43	36	293	10						Surf
1000	-2·8					2·0					-0·7					1·5					1·9	40	40			2·7	33	32			3·6					4·2	43	36								1000
950		35	35				41	38	293	34		37	34	253	33		38	37				37	37	271	35		35	33	277	27		35	31	281	23		39	33	279	22						950
900	25·1	30	30			26·2	36	33	296	39	27·4	37	33	272	35	29·5	34	32			29·9	32	32	282	35	30·5	31	28	276	27	31·5	29	26	290	27	32·3	32	27	286	23						900
850		26	25				30	27	299	38		32	28	282	36		36	28				27	26	284	34		25	22	267	27		24	20	292	28		27	22	299	27						850
800	55·6	21	20			57·1	26	23	294	42	58·4	27	24	282	42	60·4	25	23			60·6	22	21	287	36	61·0	22	12	262	25	61·9	23	09	287	25	63·1	27	14	310	24						800
750		16	14				22	18	294	41		22	19	278	41		20	18				15	07	295	35		15	07	271	27		19	00	288	22		25	-01	329	27						750
700	89·5	11	08			91·5	15	11	300	42	93·0	17	13	276	39	94·7	22	17			94·5	13	-04	287	38	94·9	14	04	289	30	96·1	15	-21	305	25	97·7	24	-09	331	31						700
650		02	-02				07	02	296	43		11	07	276	39		16	08				11	00	293	51		09	-02	294	29		12	-30	308	32		19	-25	309	30						650
600	128	-04	-09			130	-01	-06	298	43	131	05	01	291	44	134	11	03			133	08	02	309	45	133	02	-05	294	33	135	08	-43	304	36	137	11	-29	328	30						600
550		-13	-19				-06	-19	309	52		00	-08	301	50		02	-04				01	-06	311	45		-07	-10	301	35		-02	-23	302	31		01	-29	325	30						550
500	171	-24	-30			174	-11	-32	308	64	176	-08	-13	302	46	179	-04	-10			178	-09	-19	319	38	177	-14	-17	308	34	179	-11	-25	312	36	182	-09	-18	327	31						500
450		-34	-48				-16	-38	313	94		-19	-24	307	49		-14	-21				-17	-25	323	55		-21	-24	318	39		-17	-36	326	36		-14	-28	349	35						450
400	222	-47				227	-25	-44	316	113	228	-31	-37	315	71	232	-25	-33			230	-29	-37	320	63	229	-33	-36	327	49	233	-27	-39	335	40	235	-24	-32	355	89						400
350		-54					-40	-55	317	120		-48		315	90		-38	-46				-43		326	60		-47		326	51		-41		347	44		-36	-45	001	42						350
300	284	-62				291	-56		311	115	292	-62		317	91	296	-54				294	-60		332	70	293	-62		336	63	296	-57		345	57	299	-52		003	52						300
250		-60					-63					-70		325	96		-70					-79		342	93		-76		336	65		-79		355	75		-69		009	66						250
200	370	-60				377	-66				376	-66		327	57	380	-83				377	-76		339	51	376	-72		331	45	379	-75		338	92	384	-81		013	76						200
170		-65										-68		322	47		-75					-75		335	39		-74		318	29		-74		331	30		-84		008	51						170
150		-70										-73		326	46		-78					-76		327	37		-74		312	29		-72		326	26		-84		358	41						150
130		-73										-76		327	42		-77					-76		327	37		-74		317	32		-75		321	23		-79		355	38						130
110		-73										-78		328	33		-79										-74		318	25		-75		320	20		-77		354	20						110
100											519	-80		311	30	522	-81									519	-75		305	27	522	-75		317	18	534	-80		352	18						100
90																	-81										-77		323	21							-80		355	16						90
80																	-79										-81		311	26							-78		349	15						80
70																	(72 mb)	-78																			-77		334	16						70
60																																					-80							60
	Isothermal 979 - 962 mb 37°					Inversion 991 mb 41°-965 mb 43°					Isothermal 950 - 900 mb 37°					Inversion -144 mb 19°-728 mb 23°					Inversion 747 mb 14°-727 mb 16° 680 " 11°-665 " 12° 624 " 08°-610 " 09°					Inversion 1006 mb 33°-967 mb 35° 740 " 19°-712 " 16° 250 "-76°-237 "-79°					Inversion 997 mb 33°-973 mb 37° 823 " 21°-800 " 23° 730 " 18°-700 " 19° 505 " -11°-492 " -10°					Inversion 825 mb 24°-798 mb 28° 750 " 25°-733 " 26°										
																Isothermal 997 - 952 mb 38° 519 - 498 " -04°										Isothermal 672 - 669 mb 11°										Isothermal 1005 - 971 mb 43° 733 - 715 " 26°										
Tropopause	II 288 mb -64° 29,100'					II 293 mb -58° 29,600'					I 242 mb -71° 33,600'					I 201 mb -84° 37,900'					I 243 mb -80° 34,000'					I 217 mb -79° 36,000'					I 235 mb -83° 34,700'					I 208 mb -79° 37,500'										Tropopause

H.M.S.O. Press, M.O., Dunstable.

No. 11575

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Thursday 7th December. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h	986·3 mb	976·4 mb	900 mb
STORNOWAY	03h	992·8 mb	991·1 mb	895 mb
LEUCHARS	03h	991·6 mb	990·7 mb	872 mb
ALDERGROVE	03h	1000·4 mb	991·7 mb	863 mb
LIVERPOOL	03h	1000·1 mb	998·0 mb	867 mb
DOWNHAM MARKET	03h	1004·2 mb	999·8 mb	910 mb
LARKHILL	03h	1007·8 mb	991·5 mb	892 mb
CAMBORNE	03h	1011·1 mb	1000·4 mb	875 mb
VALENTIA	03h	1010·7 mb	1009 mb	

Pressure mb	LERWICK Height ft./100	LERWICK Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	38	37			00·4	40	35	290	15	00·2	40	36	290	15	02·3	43	41		
1000	-03·6					-0·21					-02·3					00·8				
950		37	36				38	33	326	34		40	36	297	30		40	38		
900	24·3	32	31			26·0	33	29	326	39	25·8	35	31	308	33	28·3	36	34		
850		29	27				26	22	324	43		30	29	317	36		30	28		
800	55·0	23	21			56·5	22	18	322	36	56·7	24	19	322	35	59·2	25	23		
750		18	16				16	08	323	36		18	14	322	37		22	18		
700	89·0	11	09			90·4	11	-07	319	38	90·7	11	07	319	38	93·5	20	13		
650		04	-01				03	-18	318	40		04	00	318	37		16	06		
600	127	-05	-12			128	-06	-26	322	44	129	-05	-08	314	41	133	13	02		
550		-14	-20				-15	-34	327	55		-14	-17	315	40		09	-02		
500	170	-26	-32			172	-14	-37	328	90	172	-19	-27	316	47	178	00	-12		
450		-37	-44				-20	-44	328	112		-26	-42	323	63		-11	-25		
400	221	-50				220	-29	-50	331	123	224	-34	-52	324	82	233	-22	-32		
350		-53					-41		332	121		-42		326	96		-34	-43		
300	283	-53				288	-50		330	124	288	-50		321	94	297	-48			
250		-53					-59					-57		328	76		-60			
200	371	-57				375	-63				375	-61		327	63	383	-64			
170		-61					-69					-66		326	60		-78			
150		-66					-69					-68		338	57		-78			
130		-68					-76					-74		338	58		-77			
110		-69					-79					-73		330	46		-76			
100	517	-73				519	-80									525	-76			
90		-77					-82										-75			
80		-81					-84										-74			
70		-84															-77			
60	(63 mb)	-86															-81			
																	-82			
																	-84			
																30 mb)	-87			

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA Temp. °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	43	42	260	25	01·2	35	33	210	15	04·4	38	37	250	12	02·9	45	43	270	15	00·3	48	45		
1000	00·0					01·2					02·1					03·0	45	43			2·9	47	45		
950		39	38	267	39		37	36	257	34		38	36	260	26		40	40				43	43		
900	28·2	35	35	279	42	29·1	31	30	263	33	30·0	33	32	268	33	31·2	35	33			31·2	38	38		
850		31	31	293	42		27	26	265	33		28	27	264	36		29	25				32	32		
800	59·1	27	27	307	42	59·7	22	20	268	39	60·7	24	22	266	37	62·0	24	20			62·3	31	31		
750		23	23	308	40		17	15	278	31		21	19	279	36		23	19	For Winds			29	26		
700	93·6	19	19	302	40	93·7	13	10	289	35	94·9	17	14	295	37	96·4	22	18			97·1	25	17		
650		14	14	297	51		10	07	293	40		16	13	306	35		17	13				19	05		
600	133	09	08	309	51	132	06	02	294	39	134	10	06	309	34	136	11	06	See		137	13	04		
550		01	-01	308	54		-01	-05	295	45		02	-03	307	38		05	00				06	-07		
500	177	-06	-11	315	58	177	-09	-13	298	40	179	-06	-13	310	39	181	-03	-09	Page 3.		182	-02	-13		
450		-16	-33	323	64		-19	-23	305	57		-15	-23	323	46		-13	-20				-12	-24		
400	230	-25	-36	323	70	229	-29	-34	311	65	232	-26	-35	328	49	234	-24	-32			235	-24	-37		
350		-39	-48	330	84		-45		315	60		-41		331	54		-37	-45				-37	-46		
300	295	-55		339	90	293	-62		316	69	296	-57		333	65	298	-51				300	-52			
250		-69		322	89		-71		324	75		-74		337	70		-69					-72			
200	379	-78		336	84	377	-70		323	52	380	-75		340	60	383	-83				383	-89			
170		-73					-70		322	28		-76		340	39		-87					-85			
150		-73					-72		321	27		-75		325	30		-77					-80			
130		-73					-72		318	22	(134 mb)	-76					-80				(138 mb)	-82			
110		-78					-73		300	21							-80								
100						521	-74		300	24						523	-80								
90																	-79								
80																	-77								
70																	-78								
60																									

Inversion 550mb -15° - 525mb -11° Isothermal 991 - 965mb 40° 750 - 735 .. 16°

Inversion 250 mb -57° - 239mb -56° Isothermal 991 - 945mb 40° 560 - 538 - -14°

Inversion 1000mb 35° - 950 mb 37° 660 .. 10° - 639 - 11°

Inversion 968 mb 37° - 950mb 38° 700 - 17° - 682 .. 18° Isothermal 770 - 746 mb 21°

Inversion 787mb 23° - 770mb 25° 750 .. 23° - 730 .. 25°

Inversion 790 mb 30° - 773mb 31° Isothermal 850 - 813 mb 32°

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Tropopause	II 386 mb -53° 22,900'	II 230 mb -61° 34,500'	II 229 mb -60° 34,600'	II 226 mb -64° 34,800'	I 203 mb -79° 37,600'	I 250 mb -71° 33,100'	II 248 mb -75° 33,400'	I 190 mb -85° 39,400'	I 189 mb -92° 39,500'

09h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h	993·7 mb	983·8 mb	901 mb
STORNOWAY	09h	999·0 mb	997·3 mb	966 mb
LEUCHARS	09h	995·4 mb	994·5 mb	875 mb
ALDERGROVE	09h	1003·6 mb	993·2 mb	890 mb
LIVERPOOL	09h	998·1 mb	996·0 mb	880 mb
DOWNHAM MARKET	09h	997·5 mb	993·2 mb	869 mb
LARKHILL	09h	1002·7 mb	986·6 mb	863 mb
CAMBORNE	09h	1007·5 mb	996·9 mb	846 mb
VALENTIA				

Pressure mb	LERWICK Height ft./100	LERWICK Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	41	38			00·4	40	38			00·2	39	34	310	14	02·3	42	37		
1000	-01·7					-00·3					-01·2					00·5				
950		40	36				39	34				39	32	318	24		40	34		
900	26·4	32	29			27·8	31	28			26·9	35	30	345	33	28·7	34	28		
850		28	21				25	24				28	24	359	36		27	21		
800	57·1	23	16			58·3	21	17			57·6	24	17	001	36	59·3	23	12		
750		19	11				19	07				18	07	360	36		22	-03		
700	91·2	14	04			92·4	13	-09			91·6	11	01	360	33	93·6	20	-08		
650		08	-05				08	-27				04	-11	359	36		19	-13		
600	130	-01	-17			131	06	-35			130	-05	-22	007	36	133	16	-03		
550		-09	-26				00	-31				-14	-30	346	41		09	-07		
500	173	-18	-27			176	-06	-29			173	-20	-39	344	48	178	-02	-17		
450		-27	-47				-15	-41				-23	-48	348	95		-13	-26		
400	225	-37	-57			228	-27	-48			225	-26	-52	354	96	232	-23	-36		
350		-43					-39	-57				-36	-59	355	147		-35	-47		
300	288	-56				293	-52				290	-49		351	142	296	-52			
250		-60					-66					-59		351	96		-65			
200	375	-61				378	-76				377	-58				381	-79			
170		-65					-76					-68					-81			
150		-65					-69					-72					-71			
130		-64					-71					-72					-73			
110		-71					-77					-70					-77			
100	520	-75				521	-76				521	-75				523	-79			
90		-79					-79				Max. Wind						-82			
80	(082 mb)	-82					-82				27,700' 314 mb						-85			
70							-84				351° 156 kts.						-81			
60							-87													

	LIVERPOOL Height ft./100	LIVERPOOL Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA Temp. °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	44	40	320	18	01·2	38	37	230	14	04·4	41	41	260	15	029	48	47	293	08					
1000	-00·5					-00·6					00·9					02·1									
950		41	36	323	36		38	37	285	39		39	38	279	33		44	43	292	31					
900	27·7	34	30	322	38	27·0	35	34	295	40	29·0	36	35	291	37	30·5	38	36	307	31					
850		28	24	320	30		30	29	302	42		32	31	297	38		32	30	316	32					
800	58·4	22	15	317	42	58·2	24	23	300	34	59·8	27	26	301	37	61·5	29	26	332	34					
750		17	05	318	40		18	17	297	33		24	22	306	42		31	24	336	39					
700	92·3	10	-07	319	46	92·3	12	11	295	33	94·0	17	15	308	45	96·0	25	17	337	45					
650		03	-16	325	48		04	03	297	38		12	11	303	44		27	21	340	45					
600	130	-02	-24	319	60	130	-00	-06	294	50	133	08	-01	311	45	136	15	08	344	46					
550		-05	-30	326	78		-13	-16	283	60		02	-09	319	50		08	-01	346	46					
500	176	-09	-30	330	110	174	-19	-27	289	58	178	-07	-17	320	59	181	-02	-11	343	47					
450		-17	-37	327	117		-28	-43	311	61		-16	-24	319	65		-12	-21	343	48					
400	227	-24	-50	341	123	225	-37	-55	314	59	231	-26	-34	328	84	235	-23	-38	346	56					
350		-39	-59	339	135		-46		313	69		-40	-52	335	104		-37	-50							
300	292	-64		336	120						295	-54		339	106	299	-52								
250		-66										-67		339	099		-69								
200		-65									380	-69		335	084	384	-81								
170		-73										-70		340	045		-84		358	56					
150		-75										-73		346	039		-81		006	40					
130		-78										-71		338	036		-83		014	32					
110												-72		329	20		-82		091	35					
100											524	-73		330	18	523	-81								
90												-72		327	17										
80												-70		327	16										
70											(073 mb)	-72													
60																									

Inversion 984 mb 41° - 970 mb 42° Isothermal 970 mb 42° - 953 mb 40° Isothermal 830 - 800 mb 24°

Inversion 997 mb 40° - 970 mb 42° 800 .. 21° - 775 - 22°

Inversion 995 mb 39° - 953 mb 40° Isothermal 817 mb 22° - 783 mb 24° Isothermal 993 - 969 mb 42° 690 - 644 .. 19°

Inversion 993 mb 38° - 977 mb 39°

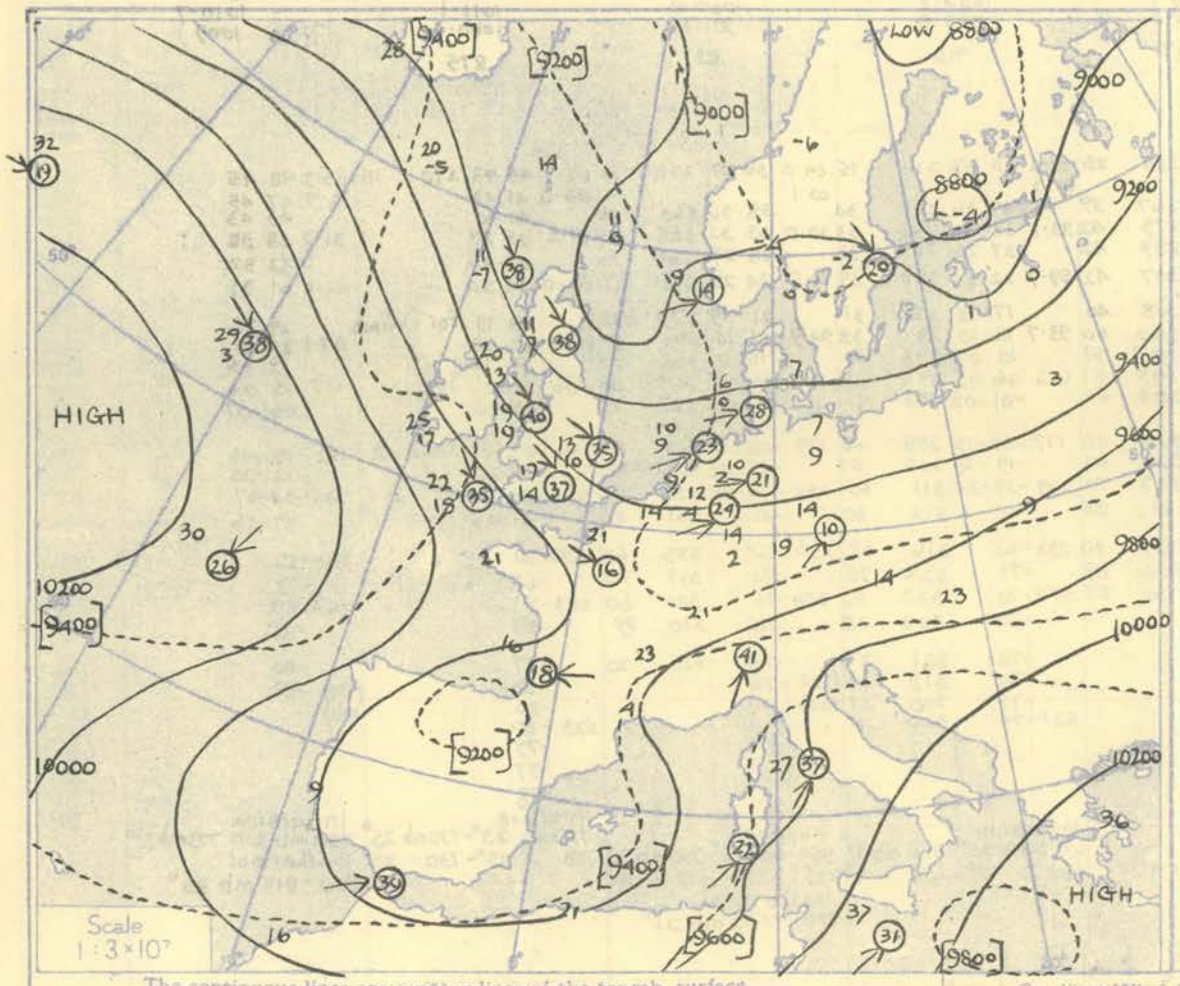
Inversion 780 mb 25° - 770 mb 26° 660 .. 11° - 636 .. 12° Isothermal 412 - 405 mb -24°

Inversion 793 mb 38° - 778 mb 28°

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Tropopause	I 290 mb -58° 29,500'	II 230 mb -71° 35,000'	II 139 mb -74° 45,200' I 232 .. -62° 34,400'	II 196 mb -81° 28,500'	I 227 mb -70° 35,100'	N.R.	II 225 mb -72° 35,600'	I 85 mb -85° 40,000'	

Thursday 7th December 1950.

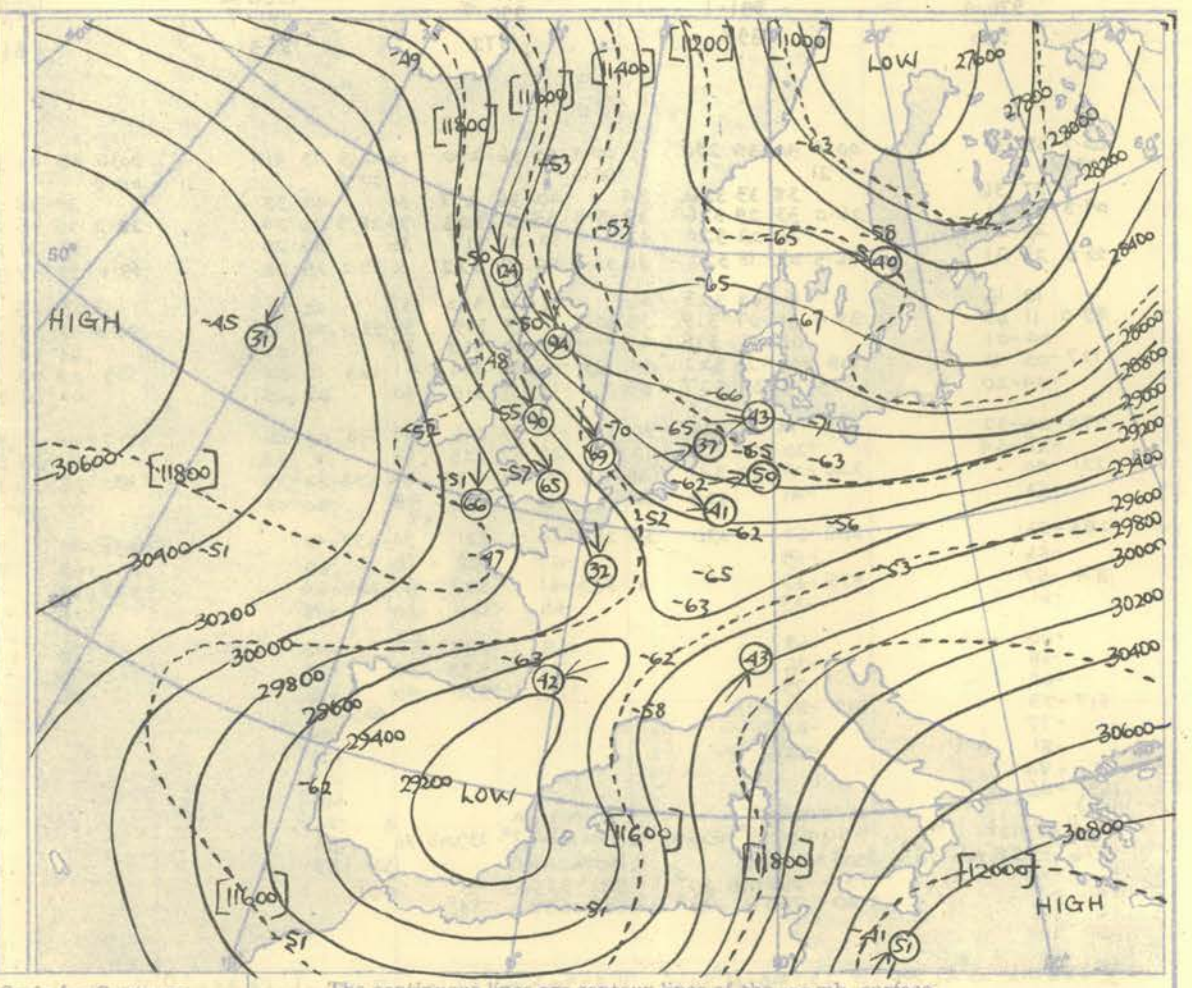
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h. G.M.T.



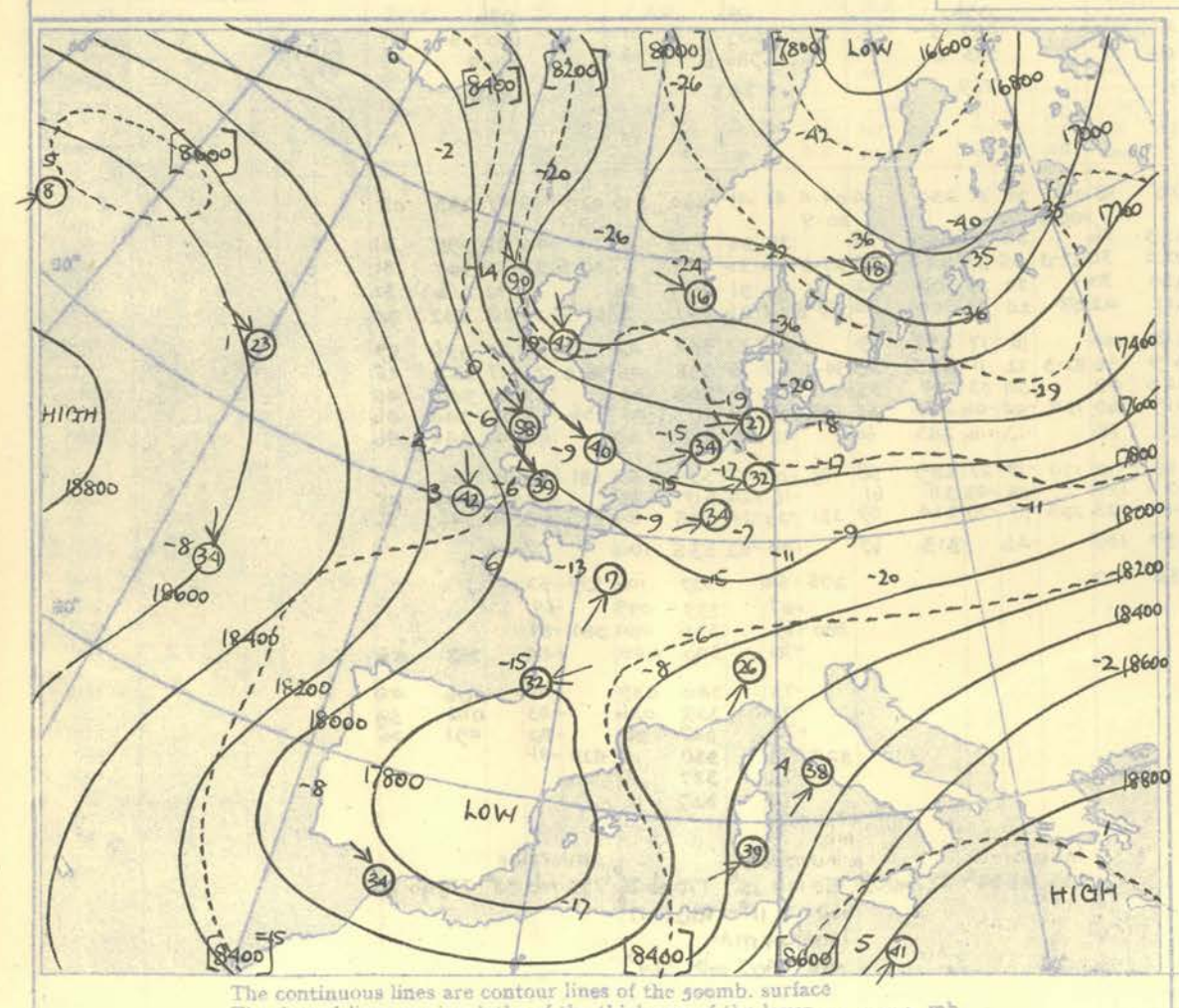
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

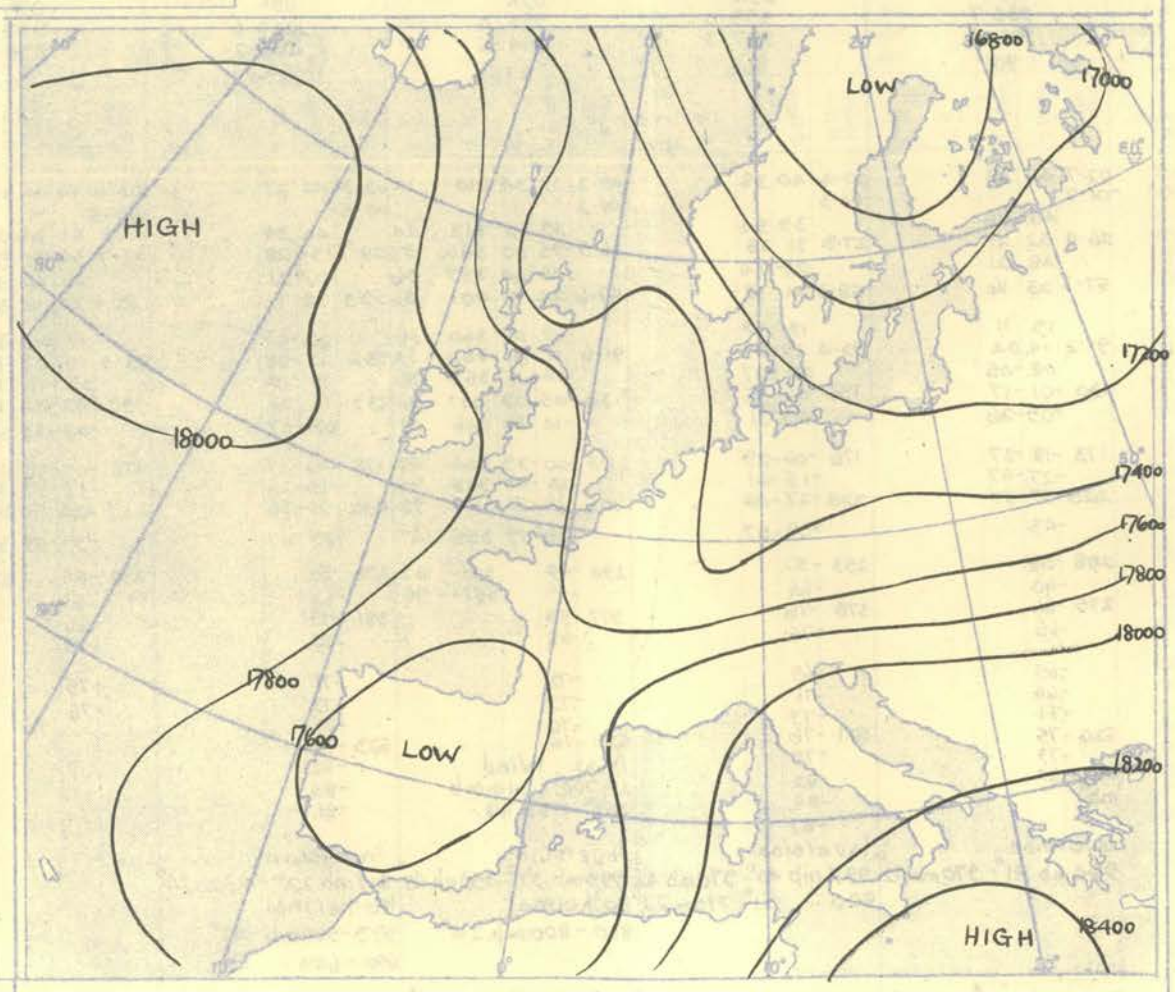
100 80 40 30 20 15 0 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700—500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	59.0N 19.0W			61.0N 07.0W			43.2N 17.0W			41.5N 14.5W			53.1N 01.3E		
Pressure Time	11 45h			14h			13h			15h			14 30h		
Pressure M.S.L. mb	1006.1			999.0			1027			1019			996		
Pressure Surf mb	1002.5			995.4			1023			1013			994		
Pressure Freezing mb	750			900 and 835			860 and 730			830			879		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf	01.0	47	47	01.0	45			54	49		44	38	0.5	44	35
1000	00.4			-00.4			7.2	50		5.0			-1.0		
950		39	39		38			44	41		44	43			
900	28.6	33	33	27.7	30			35	35		39	36	27.1	35	33
850		39	37		31			31	31		38	31		28	28
800	59.9	36	28	58.6	27			39	24		29	29	57.8	23	
750		31	25		24			34	25		31	31		16	
700	94.9	27	20	93.2	21		10.2	28	20	99.5	25		91.7	07	
650		21			17			19			17			01	
600	135	15		132	06			11			07		130	-07	
550		06			03			02			03			-15	
500	180	-04		177	-07		186			184	-04		173	-25	
450														-34	
400													224	-33	
350														-38	
300													288	-43	
250															
200															
170	Cloud 2/8 Sc 960-870mb 1/8 Cs [illegible] Inversion 900mb 33°- 850- 39°			Cloud 4/8 Sc. 930-890mb 7/8 Sc 760-700.. 8/8 As. 590-500- Inversion 900mb 30°- 850- 31°.			Cloud. 8/8 Sc. 900-850mb 2/8 Cs Approx. 400mb Surf Wind N 16-22 kts. Inversion 850 mb 31°- 800 .. 39°			Cloud. 5/8 Cu. 910-730 mb Surf. Wind N. 22-27 kts Inversion 800mb 29°- 750 .. 31° Isothermal Surf-950mb 44°.			Cloud 8/8 Sc. 923-790mb Inversion. 450mb-34°- 400 .. -33°		

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Camborne		Weather Watcher. 52.5N 20W		Castle Archdale		Lympne		Liverpool		Coltishal		Shoeburyness	
Time	03h		09h		09h		15h		15h		15h		15h	
Type	Pilar								Pilar					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	270	15	280	25	300	19	320	12	340	20	310	10	310	09
1,000	280	30	280	30	310	27	330	30	341	32	330	23	330	23
2,000	286	30	280	30	330	35	340	35	342	31	340	27	340	29
3,000	286	29	280	29	340	42	340	33	344	32	340	25	340	31
4,000	287	30	290	29			300	33	346	31	340	26	340	30
5,000	293	30	290	31					346	31	340	27	340	29
6,000	308	33	290	34					347	32			340	29
8,000	319	33	290	36					352	35			350	29
10,000	326	35	290	23					360	42			350	20
14,000	326	42	240	17					354	76			350	34
18,000	344	42	240	19					354	95			350	45
24,000	349	48	290	18					354	96			360	83
30,000	356	66	290	10					354	116			350	78
40,000	008	63	330	10					354	117			300	51
50,000	344	17	290	16					(32,000')					
	343	29	320	16										
	(53,000')		(54,000')											

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	NONE REPORTED.
Dir. Vel.	

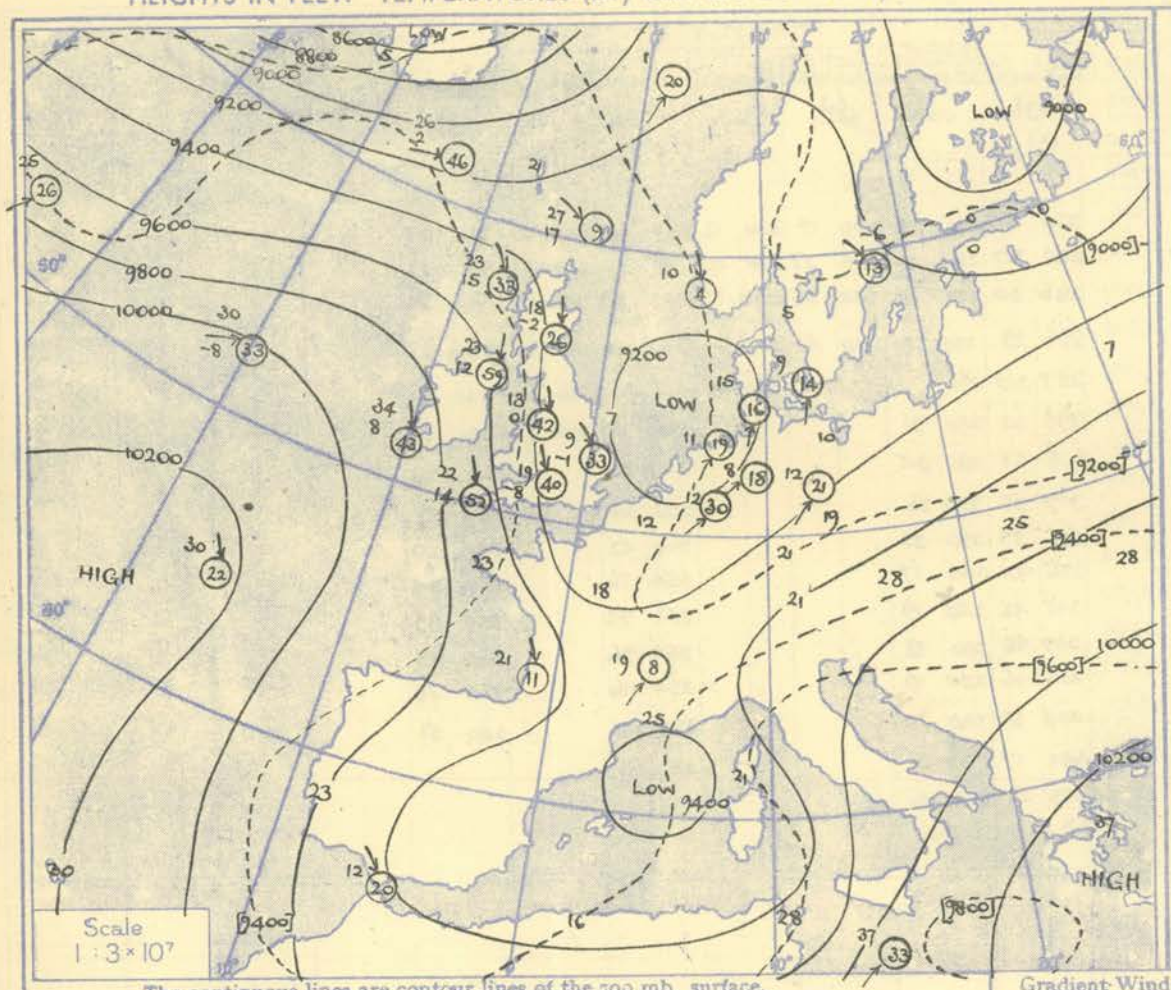
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER				
Lat/Long	60.9N. 14.1W.					60.9N. 14.0W.					60.9N. 13.7W.					60.8N. 13.8W.				
Pressure Time G.M.T.	03h.					09h.					15h.					21h.				
Pressure M.S.L. mb	996					996					993					993				
Pressure Surf mb	996					996					993					993				
Pressure Freezing mb	910					880 + 790					865					900				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	35	335	20		47	42				46	43	260	33		45	38	280	28
1000	-1.0					-1.0					-2.1					-1.9				
950		38	31				41	35				41	40	256	42		39	37	265	33
900	27.0	31	29			27.2	35	30			26.1	36	35	259	48	26.1	32	32	265	36
850		26	22				33	26				30	29	262	53		25	25	265	40
800	57.7	30	08			58.3	33	26			56.9	28	21	265	55	56.6	19	19	265	45
750		24	-02				29	23				29	09	264	51		26	09	265	48
700	92.1	20	-05			93.2	24	13			91.7	26	02	264	46	91.0	22	-01	262	51
650		16	06				19	-04				19	-05	263	51		16	-08	262	59
600	131	13	06			133	12	-09			131	13	-13	267	57	130	09	-16	259	66
550		06	01				04	-08				07	-20	264	62		00	-23	259	68
500	177	-02	-09			178	-06	-16			176	-02	-29	262	71	175	-02	-28	261	74
450		-11	-18				-16	-24				-13	-37	267	76		-21	-35	262	81
400	230	-23	-29			230	-26	-33			230	-20	-43	269	85	227	-33	-44	262	96
350		-36	-41				-35	-45				-34	-54	271	12		-46		262	96
300	(311 mb)	-56				295	-49				295	-48		253	40	290	-60		262	94
250							-64					-63					-73		262	120
200						381	-82				380	-75				373	-90		262	100
170							-86					-78					-94		262	86
150							-84					-83					-87		262	63
130							-73					-83					-88		262	51
110							-77					-74					-89		262	47
100											521	-75				511	-88		262	45
90												-80					-89		262	34
80												-85					-93		262	30
70												-85					-97		262	32
60												-84					-100		262	30
											(050)	-88				(050)	-94		262	30
											(040 mb)	-88				(040 mb)	-89			
	Inversion 843mb. 25°-800mb. 30° 700 mb. 20°-695 mb. 21° Isothermal 725 - 700mb. 20° 642 - 618 mb. 15°					Inversion 872mb. 31°-825mb. 35°					Inversion 823mb. 27°-770mb. 30° Isothermal 420-400mb. -20°					Inversion 800mb. 19°-767mb. 27°				
Tropopause	N.R.					I 170mb. -86° 41,400'					II 197mb. -76° 38,400'					II 191mb. -92° 38,300'				

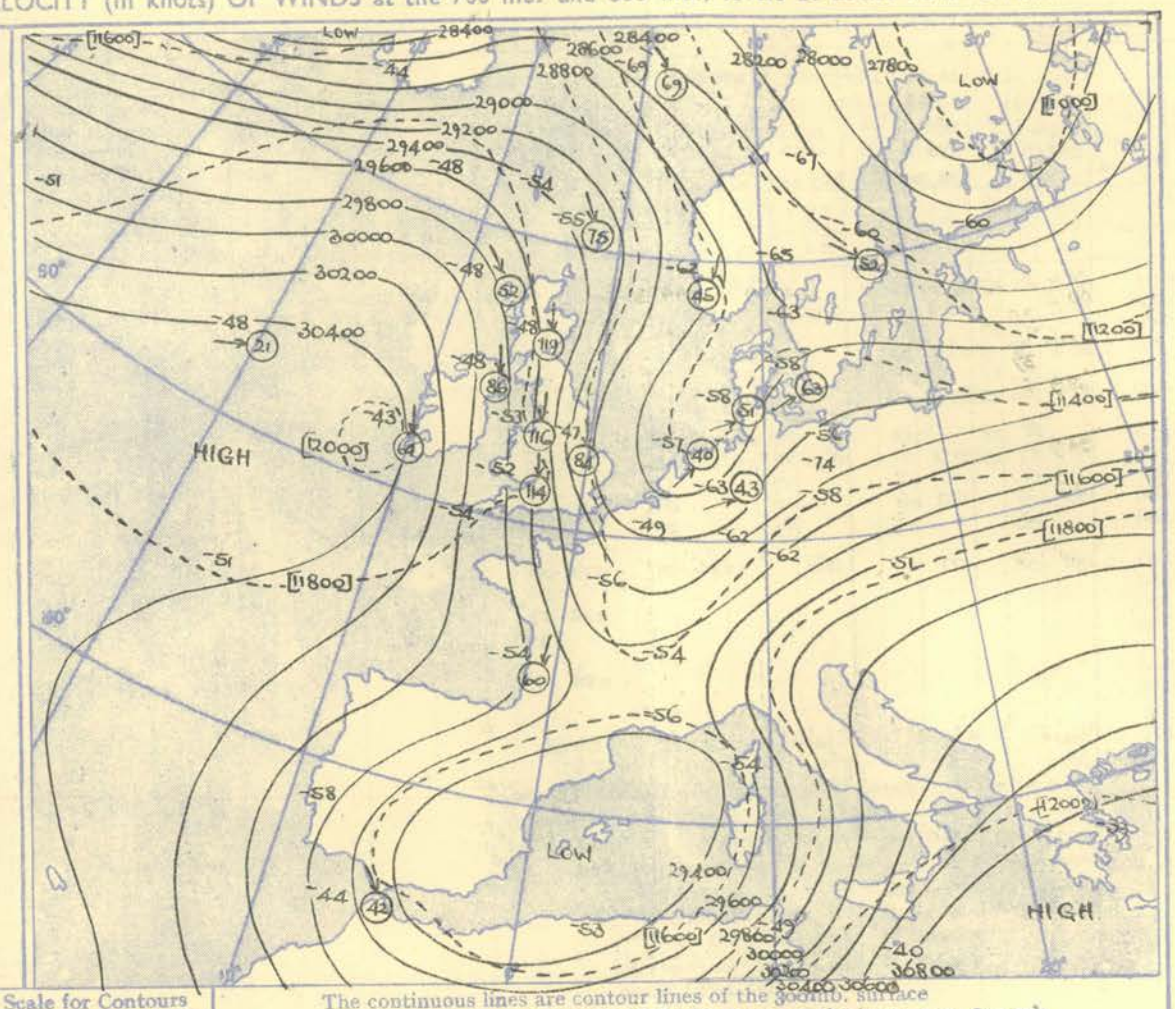
Ship	WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52.5N. 19.9W.					52.5N. 20.0W.					52.5N. 19.8W.					52.5N. 20.0W.				
Pressure Time G.M.T.	03h.					09h.					15h.					21h				
Pressure M.S.L. mb	1020					1021					1019					1017				
Pressure Surf mb	1020					1021					1019					1017				
Pressure Freezing mb	720					730					720					780				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		49	46	290	24		49	48				51	49	245	24		50	45	260	11
1000	5.5	47	44	291	33	5.8	47	46			5.1	48	45	269	24	4.6	49	44	259	18
950		41	38	292	34		41	41				42	38	269	27		46	42	260	22
900	33.9	45	32	296	32	34.2	47	40	For		33.4	39	35	268	38	33.1	42	36	260	25
850		47	22	303	34		42	30				40	30	267	42		39	32	256	31
800	65.7	41	19	308	40	65.9	41	25	winds		64.9	39	21	263	36	64.5	34	26	255	32
750		36	12	304	40		34	14				35	05	260	31		29	19	251	32
700	101	29	03	300	38	101	29	11	see		100	30	-08	261	33	99.4	26	13	252	41
650		22	02	295	33		25	08				25	-14	254	28		22	-01	250	33
600	141	19	04	287	29	141	19	-01	top		140	20	-21	238	24	139	16	-06	240	35
550		10	01	290	25		11	-03				11	-32	238	24		09	-10	237	33
500	187	01	-08	299	23	187	03	-01	of		186	02	-43	247	28	185	01	-23	230	39
450		-09	-16	323	20		-08	-14				-09	-47	249	29		-09	-37	214	38
400	240	-20	-28	340	24	240	-21	-26	page.		239	-22	-51	254	27	238	-20	-44	205	39
350		-32	-42	359	35		-32	-40				-35	-58	257	22		-34	-53	203	35
300	305	-45		359	31	306	-46				305	-48		256	21	303	-52		208	30
250		-62		002	28		-62					-66		160	18		-67		206	49
200	393	-76		003	39	391	-79				390	-80		141	16	388	-80		202	37
170		-86		001	38		-90					-92		219	17		-89		198	36
150		-93		008	36		-95					-85		239	22		-83		198	27
130		-93		354	28		-88					-79		255	20		-79		203	21
110		-88		342	24		-82					-79		260	17		-83		209	09
100	529	-87		328	19	529	-83				529	-81		260	15	527	-82		215	09
90		-86		328	18		-86					-83		260	15		-83		216	12
80		-86		328	14	(086 mb)	-87					-80		252	16		-81			
70		-87										-77		252	18					
60	(665 mb)	-87										-78		252	18					
	Inversion 940mb. 40°-923mb. 46° 887 mb. 45°-866mb. 48° Isothermal 900-887mb. 45° 656-623mb. 22°					Inversion 942 mb. 40°-900mb. 47° Isothermal 846-800mb. 41°					Inversion 920mb. 38°-824mb. 41°									
Tropopause	I 138mb. -98° 47,100'					I 150mb. -95° 44,700'					I 170mb. -92° 42,300'					I 170mb. -89° 42,300'				

Thursday 7- December, [illegible] 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

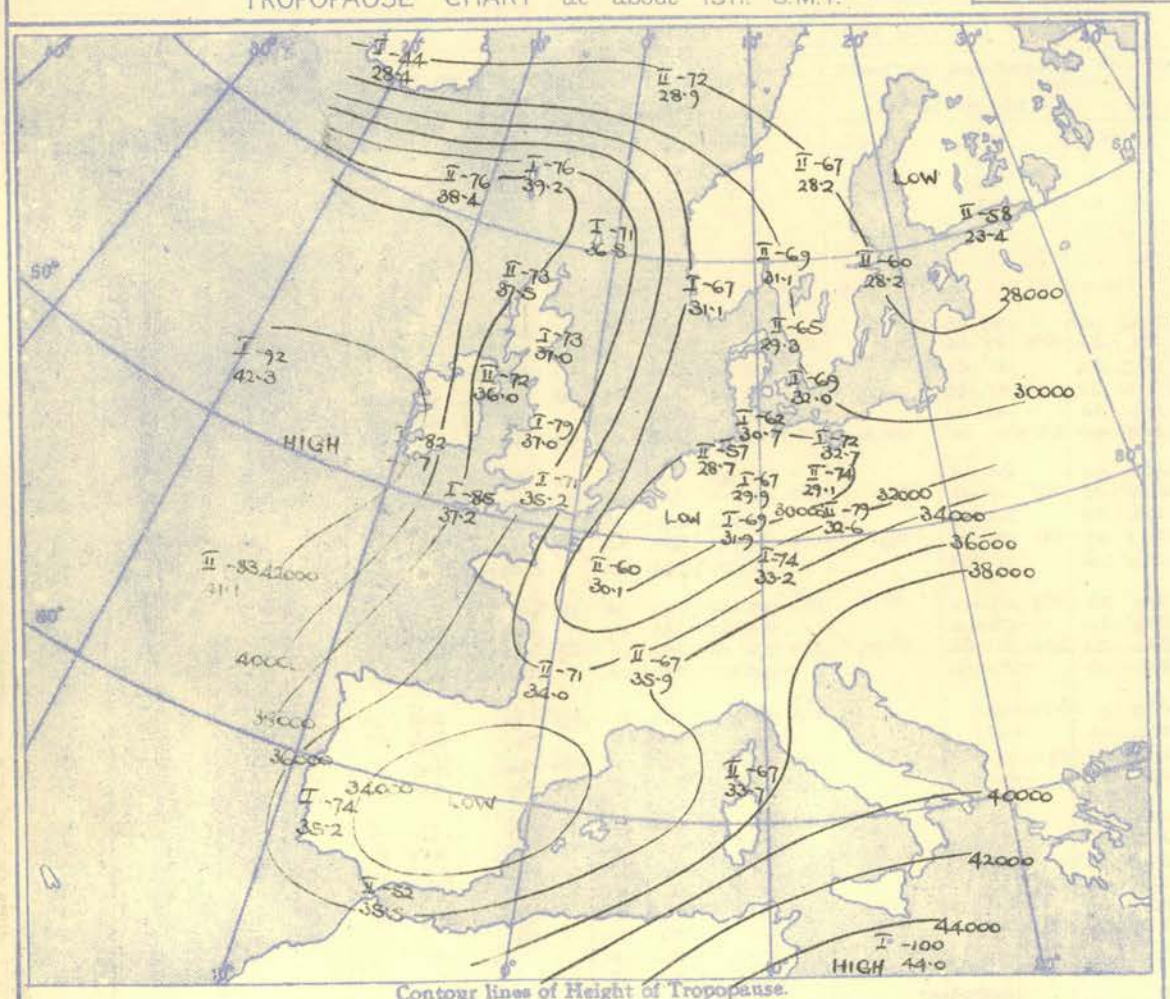


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over Spain moved southeastwards. The Scandinavian cold trough moved a little eastwards. The warm ridge south of Iceland moved eastwards to west of Ireland.

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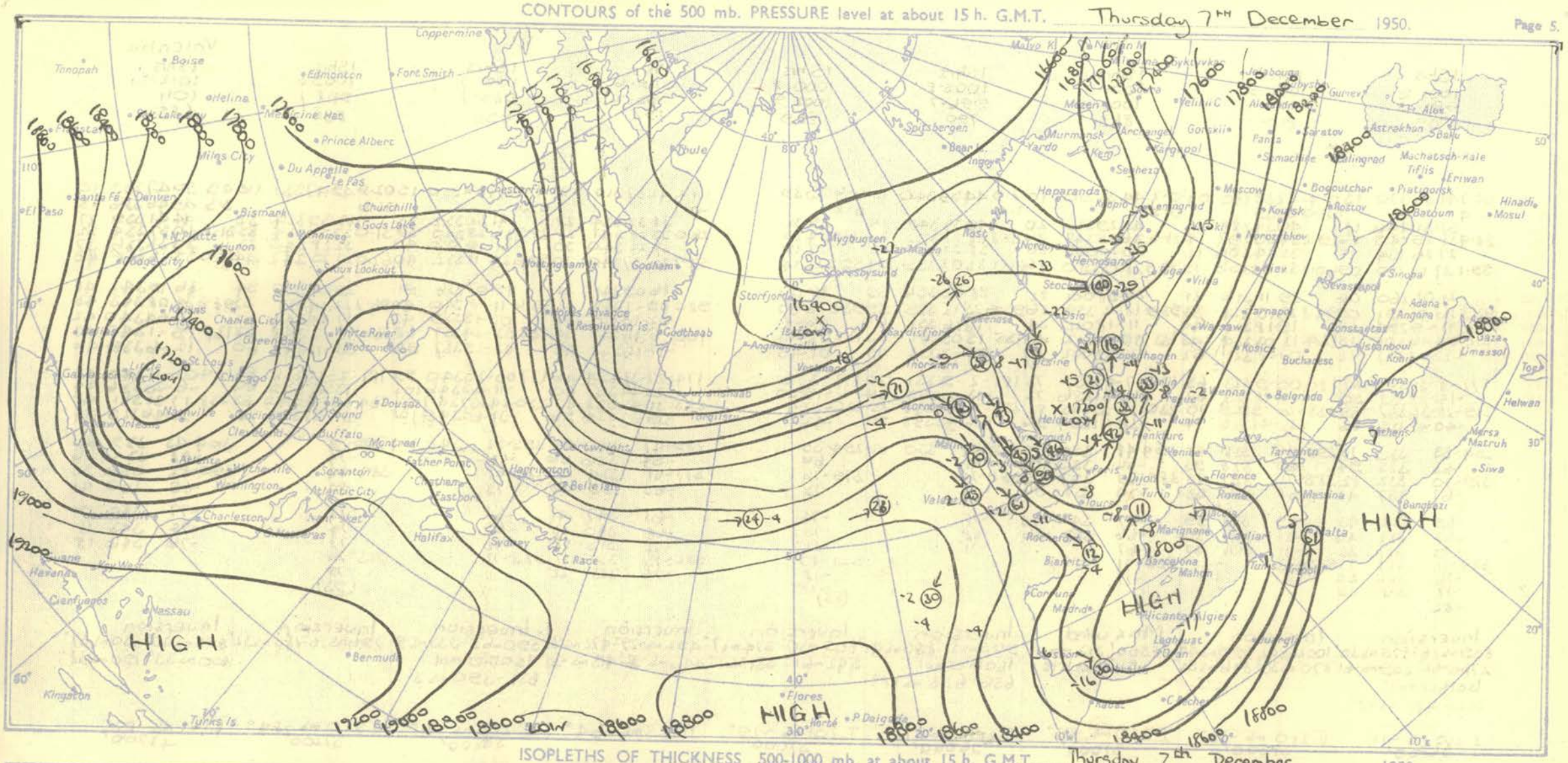
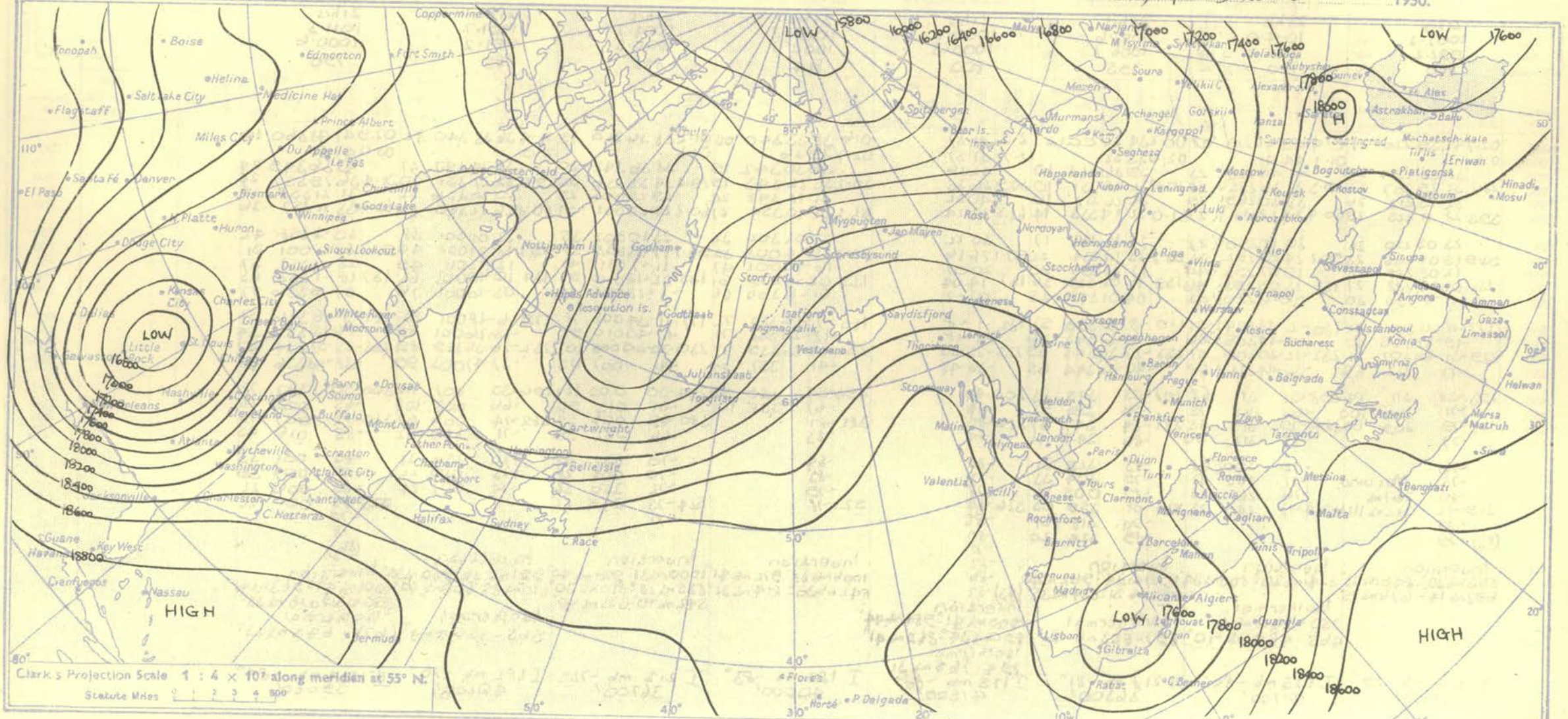
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Thursday 7TH December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Thursday 7th December 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia
Pressure: Time	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.
Pressure: M.S.L.	1001·6 mb	1003·9 mb	1001·5 mb	1005·8 mb	1000·8 mb	999·6 mb	1001·7 mb	1005·3 mb	1012·2 mb
Pressure: Surf	981·5 mb	1002·2 mb	1000·6 mb	996·7 mb	1002·9 mb	995·2 mb	985·1 mb	998·7 mb	1011 mb
Pressure: Freezing	909 mb	810 mb	863 mb	790 mb	885 mb	892 mb	855 mb	850 mb	685 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Valentia Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	41	36	170	13	01·4	42	38	180	03	0·2	44	35	310	10	2·3	44	39	340	15	0·6	46	39			01·2	42	37	310	13	4·4	44	36	330	15	02·9	45	47	335	10	0·3	50	47	335	10	Surf
1000	0·4					01·0	43	39			0·3					1·6					0·8					-0·1					0·5					02·6					3·3	49	46	336	13	1000
950		37	32	145	18		40	39	288	11		41	29	325	20		40	33	340	24		39	32				38	32	334	28		41	32	332	33		42	39	324	32		44	41	339	27	950
900	28·4	31	29	143	16	29·2	34	30	293	14	28·6	36	25	347	26	29·8	38	28	333	27	28·9	34	23			28·0	33	28	341	28	28·7	36	28	340	39	31·0	37	33	334	33	31·8	40	37	334	32	900
850		27	26	154	11		33	24	304	12		30	20	005	26		38	21	004	32		27	19				27	22	340	30		31	19	335	40		32	28	340	33		38	32	336	37	850
800	59·1	27	17	210	09	60·1	32	06	306	15	59·5	28	15	010	26	61·1	33	08	359	44	59·5	22	14			58·7	22	17	340	30	59·6	24	11	332	40	62·0	27	23	342	44	63·0	35	26	338	40	800
750		21	01	260	06		29	11	316	21		24	08	001	22		28	03	356	33		18	06				16	09	341	31		19	07	336	41		25	24	330	54		36	13	342	41	750
700	93·3	16	01	291	09	94·8	23	15	321	33	93·9	18	-2	359	26	95·5	23	12	355	59	93·5	13	00			92·5	09	-13	44	33	93·6	11	-8	340	40	96·7	22	(-4	33)	53	98·3	34	08	343	43	700
650		11	-9	296	13		19	18	320	40		11	-18	012	34		18	16	351	60		06	-8				02	-16	350	34		03	-15	339	43		17	04	344	62		27	04	340	42	650
600	132	08	-16	300	18	134	13	03	324	43	133	06	-27	012	40	135	15	05	351	63	132	02	-13			130	-6	-16	351	34	132	03	-24	337	68	136	13	-2	348	63	138	15	-13	340	43	600
550		-2	-24	82)	22		07	-8	321	52		-3	-33	002	57		08	-7	352	75		02	-15				-17	-46	358	40		08	-25	337	99		08	-11	341	60		12	-6	339	46	550
500	177	-8	-31	342	37	180	00	-9	323	63	177	-7	-42	357	73	181	-2	-9	351	70	177	-3	-26			174	-27	-39	354	46	177	00	-35	340	99	181	-2	-22	338	61	184	03	-11	340	43	500
450		-14	-25	335	50		-10	-48	325	67		-16	-31	356	72		-13	-21	353	64		-15	30				-32	-44	357	60		-11	-43	346	102		-13	-33	349	66		-6	-20	336	44	450
400	229	-28	-36	337	55	233	-26	-39	325	70	230	-28	-39	355	81	234	-24	-32	348	80	230	-27	40			228	-31	-46	358	83	230	-24	-57	347	97	234	-26	-46	349	63	238	-17	-32	331	48	400
350		-40	-47	333	66		-35	-42	326	74		-38	-48	354	96		-36	-45	348	96		-42					-39	-53	354	96		-31	-60	349	108		-38	-53	354	78		-30	-46	325	54	350
300	294	-55		330	79	298	-48		328	82	299	-48		330	115	299	-48		330	86	294	-55				289	-47		355	84	293	-52		348	114	295	-54				304	-43		339	64	300
250		-62		335	94		-60		328	93		-62		330	106		-64				-66						-54		356	66		-64					-59					-58		334	56	250
200	379	-70		333	82	385	-73		327	75	380	-69		351	73	385	-74				379	-76				377	-61		334	42	381	-68				382	-84				390	-82		338	58	200
170		-61		337	47		-68		336	52		-70		338	56		-79				-75						-65		335	44		-75					-80					-68		345	41	170
150		-69		330	43		-69		335	39		-67		346	43		-78				-74						-61		347	41		-68					-77					-77		340	29	150
130		-67		331	43		-68		315	30		-66		337	36		-88				-75						-68		340	23		-69					-79					-79		343	18	130
110		-70		327	38		-71		301	27		-67					-71				-61						-72		313	18		-74					-78					-76		346	18	110
100	524	-72		327	33	529	-73				523	-71									-80					522	-73		333	18	523	-71				523	-79									100
90		-76		322	33							-77									-78						-74		323	22							-75									90
80		-77		318	35																-77															(95)									80
70		-82																			(85)																								70
60																																															60

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia
Inversion	855 mb 26°-825 mb 30° 271 mb -62°-259 mb -61° Isothermal 312 - 488 mb -80°	1002 mb 42°-990 mb 44° 870 mb 30°-846 mb 33°	28500' 313 mb 331° 123 kts	905 mb 31°-880 mb 41° Isothermal 656 - 625 mb 18°	605 mb 30°-574 mb 37° 542 mb 1°-531 mb 2°	492 mb -29°-472 mb 28° 445 mb -38°-413 mb -30°	590 mb 3°-555 mb 9° Isothermal 631 - 590 mb 5°	796 mb 26°-785 mb 32°	850 mb 35°-830 mb 37° 800 mb 35°-790 mb 38°
Tropopause	I 210 mb -75° 36800'	II 210 mb -75° 37500'	I 210 mb -73° 37000'	II 225 mb -72° 36000'	I 208 mb -75° 37000'	III 185 mb -64°	I 229 mb -71° 35200'	I 210 mb -84° 37200'	I 161 mb -87° 43700'

21hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	
Pressure: Time	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	G.M.T.
Pressure: M.S.L.	1002·3 mb	1004·0 mb	1000·6 mb	1009·8 mb	1007·8 mb	1004·7 mb	1001·7 mb	1011·3 mb	mb
Pressure: Surf	992·2 mb	1002·3 mb	1006·7 mb	1000·5 mb	1005·7 mb	1000·3 mb	991·2 mb	1000·6 mb	mb
Pressure: Freezing	840 mb	770 mb	795 mb	800 mb	874 mb	888 mb	885 mb	790 mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	42	39	220	17	0·4	45	42	278	08	00·2	39	32	calm		2·3	41	37			0·6	38	35	340	03	01·2	38	36	310	15	4·4	36	33	340	12	02·9	47	41	360	10						Surf
1000	0·6					01·1	44	41			02·0	35	32			2·7	41	37			02·1	39	36			01·3					2·0					03·0	47	41								1000
950		38	34	194	24		41	40	253	23		39	36	328	10		42	39				39	30	342	19		38	36	342	30		37	34	347	27		43	36	345	24						950
900	26·7	32	29	207	25	29·3	37	36	255	28	30·0	32	28	331	10	30·9	36	35			30·2	35	26	343	19	29·8	34	32	336	35	29·9	33	27	351	30	31·4	36	29	355	28						900
850		32	23	218	26		33	30	269	25		32	26	332	10		40	32				31	18	348	24		29	29	001	25		30	26	356	32		31	21	358	28						850
800	59·5	28	11	228	25	60·4	34	28	281	27	61·0	32	19	333	14	62·3	32	24			61·1	31	10	354	27	60·2	25	20	001	27	60·8	26	12	360	26	62·4	33	11	357	36						800
750		23	05	250	26		30	18	250	27		28	12	333	17		30	22				27	03	302	32		23	10	002	35		22	01	001	38		30	-1	358	42						750
700	93·9	13	04	266	23	95·2	24	03	282	33	95·8	23	14	334	22	97·1	26	16			93·7	15	14	003	33	94·7	17	03	008	37	95·1	18	01	004	44	97·3	25	-5	001	51						700
650		12	08	285	25		15	07	253	44		17	13	333	30		20	07				16	-10	001	47		11	-7	011	47		12	-12	011	49		23	01	357	57						650
600	133	06	00	288	27	135	13	03	253	46	135	11	08	339	36	137	14	04			133	08	-4	339	61	133	02	-18	010	51	134	10	-15	008	63	137	18	-1	355	65						600
550		-1	-8	295	30		06	-6	295	42		04	01	345	43		07	-2				01	-6	360	66		-8	-28	008	59		03	-26	001	76		07	-5	356	77						550
500	177	-11	-21	301	42	180	-2	-13	304	51	180	-5	-9	350	53	182	-1	-8			180	-7	-14	357	72	177	-11	-24	008	78	179	-6	-18	001	80	182	-3	-16	356	57						500
450		-19	-37	305	47		-11	-18	306	56		-16	-26	343	56		-11	-18				-18	-25	358	71		-18	-40	010	92		-13	-26	001	85		-14	-25	356	54						450
400	229	-31	-45	310	51	233	-22	-30	309	57	233	-27	-34	343	55	235	-23	-30			232	-30	-36	355	77	230	-30	-50	008	102	232	-26	-36	359	89	235	-25	-37	354	57						400
350		-43		312	66		-35	-44	311	68		-40	-52	344	63		-36	-42				-41		351	82		-41		007	115		-37	-47	003	99		-38	-48	356	68						350
300	295	-58		311	84	298	-51		311	68	297	-55		345	83	300	-49				296	-54		359	99	294	-50		005	122	296	-50		001	116	300	-50		337	28						300
250		-71		314	100		-63		312	75		-70		338	53		-64				-67		358	101		-61		013	90		-66		005	108		-65		001	76						250
300	317	-79		309	60	324	-79		315	85	321	-84		347	57	326	-80				321	-81				320	-69		004	54	322	-74		006	67	325	-82		007	75						200
170		-77					-84		312	50		-86		345	41		-84				-83						-66		351	50		-71		346	52		-88		016	45						170
150		-76					-79		300	38		-83		325	31		-80				-84						-70		357	48		-70		356	31		-80		001	33						150
130		-75		Max wind			-71		285	32		-79		304	33		-74				-83						-70		004	28		-73		010	22		-78		004	38						130
110		-80		267 mb			-76		261	23		-87		005	18		-78				-79						-72		350	24		-74		007	24		-83		006	22						110
100	519	-82		312 mb 111 kts		524	-77		245	23	526	-88		359	03	526	-84				521	-78				524	-75		345	22								-83		001	12						100
90		-87										-90		318	21		-87										-77										-79									90
80												-89		324	20		-90																				-78									80
70																	-92																				(86)									70
60																	-86																												60

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
Inversion	865 mb 30°-846 mb 33° 692 mb 14°-676 mb 15°	824 mb 30°-800 mb 34° Isothermal 550 - 540 mb 6° 465 - 454 mb -10°	1001 mb 34°-962 mb 40° 853 mb 31°-834 mb 35° Isothermal 857 - 853 mb 31°	1000 mb 41°-984 mb 44° 890 mb 34°-865 mb 41° Isothermal 794 - 765 mb 31°	1006 mb 38°-972 mb 41° 842 mb 30°-814 mb 32°	1000 mb 38°-970 mb 40° 835 mb 28°-810 mb 30° 542 mb 10°-533 mb -9°	951 mb 36°-960 mb 38° 620 mb 8°-600 mb 10° Isothermal 565 - 550 mb 5°	Inversion 1001 mb 47°-963 mb 49° 850 mb 31°-826 mb 33° Isothermal 677 - 645 mb 23°
Tropopause	II 200 mb -79° 37700'	I 175 mb -86° 41100'	II 218 mb -81° 36300'	I 175 mb -88° 41600'	I 182 mb -83° 40000'	I 213 mb -72° 36700'	I 182 mb -76° 40200'	II 184 mb -84° 39000'

HMSO Press, MO, Dunstable.

No. 1576. **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Friday 8th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
Pressure: M.S.L.	1001·6 mb	1005·2 mb	1008·7 mb	1011·9 mb	1011·7 mb	1009·4 mb	1010·9 mb	1014·0 mb	1017·4 mb
Pressure: Surf	991·5 mb	1003·6 mb	1008·8 mb	1002·5 mb	1009·6 mb	1006·1 mb	994·4 mb	1003·4 mb	1016 mb
Pressure: Freezing	850 mb	820 mb	782 mb	780 mb	792 mb	839 mb	800 mb	764 mb	866 mb

Pressure mb	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	42	42	220	24	00·4	46	44	290	08	00·2	36	33	CALM		02·3	45	43			00·6	32	30	CALM		01·2	41	39	330	12	04·4	35	32	340	12	02·9	47	43	360	10	00·3	47	45	Surf
1000	0·4					1·4	46	45			2·5	37	33			3·2	45	44			3·1	36	34			2·6					2·9					3·8	46	42			4·7	46	43	1000
950		39	39	223	36		43	42	262	32		39	34	284	13		42	41				36	30	336	13		40	35	012	25		38	31	353	24		40	36	342	23		41	38	950
900	28·6	36	36	236	35	29·7	37	36	270	36	30·6	35	31	295	16	31·5	37	35			31·1	33	21	340	15	30·7	32	29	019	25	30·9	33	28	007	30	32·0	34	30	348	24	33·0	36	34	900
850		32	32	243	35		34	33	275	35		35	31	298	19		40	36				36	08	347	16		33	25	020	26		30	19	007	33		28	29	354	27		40	31	850
800	59·6	27	27	251	32	60·8	31	28	274	35	61·8	34	20	305	24	62·9	35	32			62·2	33	-18	354	18	61·7	30	04	015	33	61·8	32	11	005	35	63·3	38	20	355	29	64·2	35	20	800
750		23	23	256	36		27	22	273	35		28	23	310	28		28	25				29	14	358	25		26	-09	011	32		28	-08	001	36		31	17	003	32		32	14	750
700	94·1	19	19	249	39	96·6	26	14	270	37	97·0	21	18	312	27	91·8	23	13			96·9	24	14	358	34	96·3	20	-19	011	32	96·5	23	-34	002	41	98·3	29	11	356	37	99·2	26	05	700
650		13	13	251	46		21	13	279	42		18	14	318	22		18	09				19	06	356	37		15	-28	016	36		17	-38	005	51		22	07	352	40		22	-03	650
600	133	08	02	265	41	135	15	05	282	43	136	11	07	318	25	37	13	03			136	12	03	354	36	35	10	-35	015	47	136	12	00	005	55	138	18	-03	350	42	139	19	-09	600
550		04	-16	274	45		09	-06	280	43		06	01	318	30		08	+10				05	-10	350	42		04	-41	014	55		05	-06	004	60		06	-03	347	47		13	-15	550
500	178	-06	-25	279	48	181	00	-07	281	41	181	-03	-09	324	36	182	-03	-15			181	-04	-13	354	42	180	-04	-25	013	58	181	-05	-15	004	63	183	+02	-11	346	48	185	06	-21	500
450		-18	-32	288	54		-10	-17	283	46		-13	-19	322	36		-12	-22				-14	-29	355	45		-13	-36	013	61		-13	-23	005	63		+12	-21	355	47		-04	-28	450
400	230	-28	-37	288	58	234	-23	-31	288	47	234	-23	-32	325	40	236	-24	-34			235	-24	-36	357	48	233	-23	-45	014	68	234	-23	-38	007	70 86	236	-22	-31	359	45	239	-16	-36	400
350		-41		296	65		-34	-48	287	60		-37	-47	327	48		-38	-47				-39	-48	354	55		-36	-54	013	78		-35	-47	008	75		-34	-43	353	54	(390)	-18		350
300	295	-54		295	77	299	-50		287	67	299	-50		330	55	300	-53				299	-53		355	59	298	-48		014	86	299	-48		011	82	302	-48		007	54	mb			300
250		-68		300	102		-63		295	65		-67		330	63		-65					-65		354	71		-60		016	95		-60		018	89		-62		002	64				250
200						384	-80		298	60	384	-82		333	61	385	-82				384	-81		003	60	385	-78		017	63	385	-76		018	63	387	-78		013	59				200
170							-87					-73		321	35		-91					-83		001	44		-79		009	46		-82		010	57		-89		004	39				170
150																											-73		008	36		-79		010	50				003	28				150
130							-86					-86		304	30		-89					-82		347	24		-78		004	18		-73		008	31		-89		012	27				130
110							-79					-79		290	31		-80					-75		329	12		-74		395	09		-76		005	15		-78							110
100							-82					-82		266	31		-81					-78		273	18		-74		325	06		-77		001	09		-80							100
90											523	-84		268	35	524	-83				524	-82				527	-74		318	09	526	-78		355	08								90
80							-84					-84		281	24		-83										-77		316	12		-78		344	07								80
70							-85					-85		260	12		-84										-81					-83		389	07								70
60							-90					-87		258	16		-85										-84					-80											60
							-93							268	22		-87															-79										
														260	39																											

Inversion: 735 mb 26°-721 mb 27° | Inversion: 1009 mb 36°-979 mb 40°, 969 " 37°-937 " 41°, 802 " 33°-824 " 37° | Inversion: 1003 mb 45°-987 mb 46°, 905 " 36°-877 " 43° | Inversion: 1010 mb 32°-994 mb 41°, 880 " 32°-861 " 37° | Inversion: 882 mb 30°-850 mb 33°, 200 " -78°-192 " -76° | Inversion: 994 mb 35°-962 mb 40°, 870 " 28°-825 " 33° | Inversion: 892 mb 35°-845 mb 39° | Inversion: 888 mb 35°-850 mb 40°

Tropopause	NR.	I 170 mb -87° 41,600'	I 171 mb -94° 41,500'	I 162 mb -94° 42,600'	I 175 mb -89° 41,000'	I 180 mb -82° 38,500'	I 185 mb -83° 40,000'	Isothermal 845-810 mb 39° II 170 mb -89° 42,000'	Isothermal 800-782 mb 35°	Tropopause

09h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia	Station
Pressure: Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.	Time
Pressure: M.S.L.	1003·3 mb	1007·7 mb	1011·7 mb	1015·1 mb	1015·1 mb	1015·3 mb	1015·6 mb	1017·2 mb	mb	Pressure: M.S.L.
Pressure: Surf	993·3 mb	1006·0 mb	1010·8 mb	1004·6 mb	1013·0 mb	1010·0 mb	999·0 mb	1006·6 mb	mb	Pressure: Surf
Pressure: Freezing	373 mb	827 mb	840 mb	769 mb	789 mb	778 mb	766 mb	755 mb	mb	Pressure: Freezing

Pressure mb	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	°F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	44	41	270	14	00·4	46	44			00·2	40	39	270	10	02·3	44	43			00·6	32	31			01·2	40	39	310	06	04·4	34	31	360	07	02·9	47	46	360	05				Surf
1000	09					2·1	46	43			3·1	42	41	250	22	3·8	44	42			4·0	37	34			4·1					4·1					4·6	47	46						1000
950		41	37	263	30		42	41				45	41	255	13		39	33				41	37				38	34	014	19		39	34	031	20		42	40	344	19				950
900	29·1	36	31	266	32	30·4	36	33			31·4	39	35	278	12	31·9	35	24			32·2	34	33			32·1	30	26	020	20	32·1	32	30	024	21	32·9	37	34	351	18				900
850		30	25	263	36		34	30				33	30	289	19		38	20				39	32				34	17	030	20		38	23	018	26		40	34	004	20				850
800	59·9	24	21	255	38	61·5	30	27			62·5	29	20	288	20	63·2	36	08			63·5	34	28			63·0	35	08	029	23	63·3	35	16	017	26	64·3	36	25	360	22				800
750		25	02	256	37		25	24				29	07	270	15		30	00				27	22				28	-05	025	24		30	-07	018	32		31	15	345	23				750
700	94·3	23	-28	265	37	96·0	18	14			97·0	25	05	263	18	98·1	24	-06			98·8	23	03			97·8	24	-12	024	27	98·1	24	-14	016	34	99·4	27	08	348	21				700
650		20	-40	274	37		20	13				19	04	267	19		19	-14				19	07				17	-17	027	30		18	10	010	33		20	05	347	23				650
600	134	11	-47	272	41	135	15	04			137	15	04	287	21	137	13	-24			138	13	03			137	13	+03	027	34	137	13	04	010	36	139	17	-06	344	30				600
550		04	-46	271	45		07	-06				08	-11	291	27		08	-36				06	-09				05	-10	018	43		13	+05	011	41		12	-21	340	36				550
500	179	-06	-36	274	51	181	-02	-26			182	00	-13	294	29	183	00	-55			188	-03	-13			182	-03	-22	016	45	183	-01	-11	010	45	185	01	-33	340	38				500
450		-18	-29	279	58		-11	-34				-06	-28	306	30		-10	-52				-14	-25				-14	-29	016	45		-10	-20	009	45		-09	-44	352	34				450
400	231	-30	-39	278	51	234	-22	-45			236	-18	-39	304	34	236	-23	-56			236	-23	-46			235	-25	-40	013	40	236	-21	-31	013	50	238	-15	-53	003	33				400
350		-41		282	72		-35	-57				-32	-50	305	33		-38	-58				-38	-58				-37	-52	015	37		-32	-37	013	52		-30	-57	003	31				350
300	295	-54		284	85	299	-49				302	-47		300	37	301	-49				301	-53				300	-52		020	52	302	-45		024	57	304	-44		349	40				300
250		-70		278	75		-64					-63		298	48		-62					-68					-66		030	54		-60		012	58		-60		350	36				250
200	375	-81				384	-77				387	-79		292	35	387	-78				385	-83				385	-82		360	42	388	-76		010	47	390	-77		009	21				200
170		-87					-83					-88		271	33		-86					-93					-71		352	23		-86		3	82		-83		336	27				170
150		-77																				-81										-89		008	23	155							150
130		-79					-80					-92		274	19							-75					-68		350	19		-78		360	15	(mb)	-90						130
110		-78					-75															-77					-71		026	08		-76		026	07								110
100	520	-79					-76															-79					-72					-79		279	06								100
90	97	-79				525	-75														525	-79								528	-79		304	09								90
80	(mb)						-78																									-75										80
70							-80																									-78										70
60																																-82										60
																																-79										

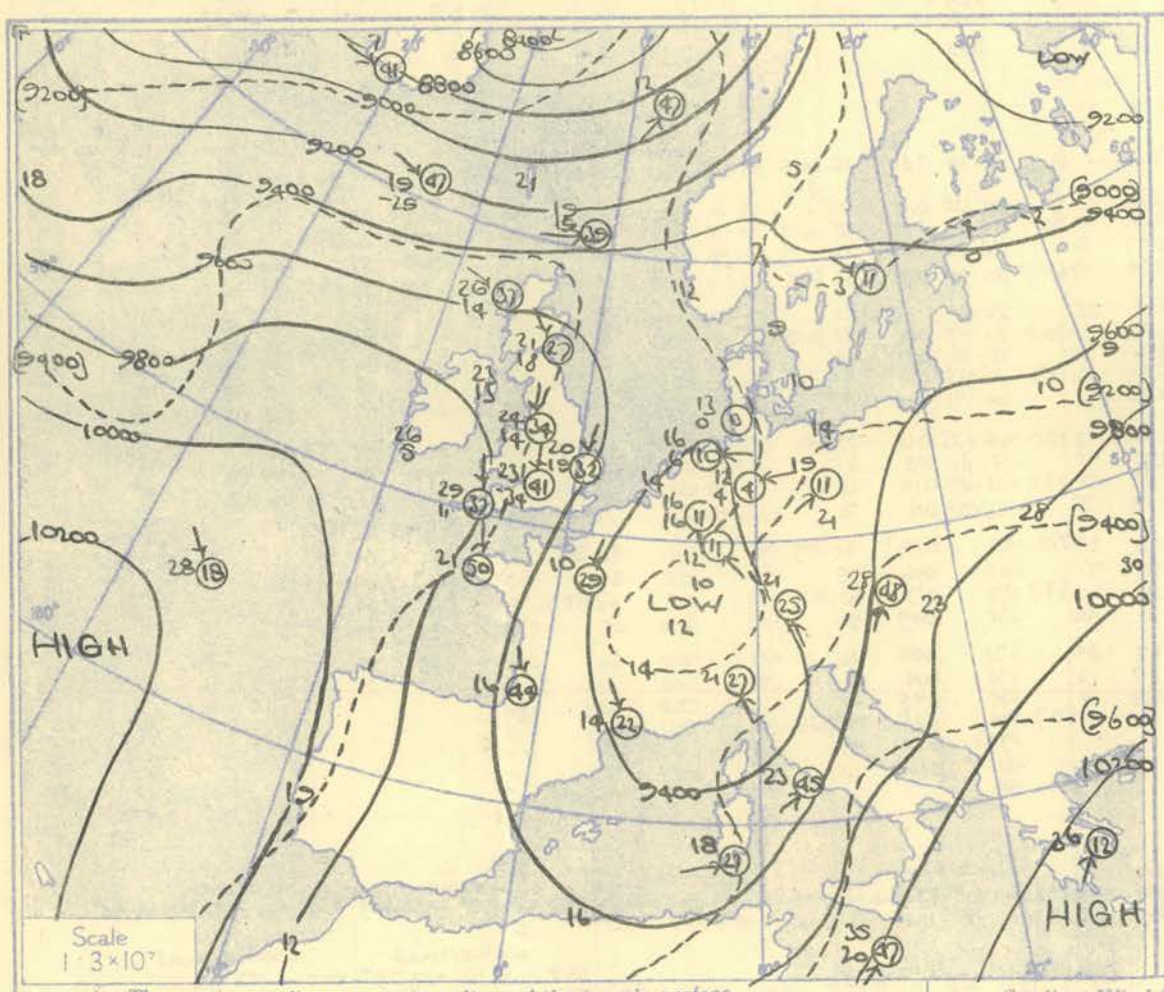
Inversion: 784 mb 22°-750 mb 25° | Inversion: 1006 mb 46°-991 mb 47°, 700 " 18°-662 " 21° | Isothermal: 504-492 mb 00° | Inversion: 1011 mb 40°-971 mb 47°, 780 " 28°-731 " 30° | Inversion: 900 mb 35°-870 mb 37° | Inversion: 1013 mb 32°-986 mb 43°, 892 " 33°-840 " 40° | Inversion: 1011 mb 40°-981 mb 42°, 878 " 27°-843 " 36° | Inversion: 899 mb 34°-960 mb 40°, 900 " 32°-860 " 39° | Inversion: 872 mb 35°-845 mb 41°

Tropopause	I 170 mb -87° 41,100'	I 165 mb -84° 42,300'	I 153 mb -94° 44,000'	I 163 mb -88° 42,700'	I 165 mb -95° 42,400'	I 200 mb -82° 38,500'	I 154 mb 44,100'	NR.		Tropopause

Tropopause: NR. (Lerwick, 03h); I 170 mb -87° 41,600' (Stornoway); I 171 mb -94° 41,500' (Leuchars); I 162 mb -94° 42,600' (Aldergrove); I 175 mb -89° 41,000' (Liverpool); I 180 mb -82° 38,500' (Downham Market); I 185 mb -83° 40,000' (Larkhill); Isothermal 845-810 mb 39° II 170 mb -89° 42,000' (Camborne); Isothermal 800-782 mb 35° (Valentia).

6TH December 1950.

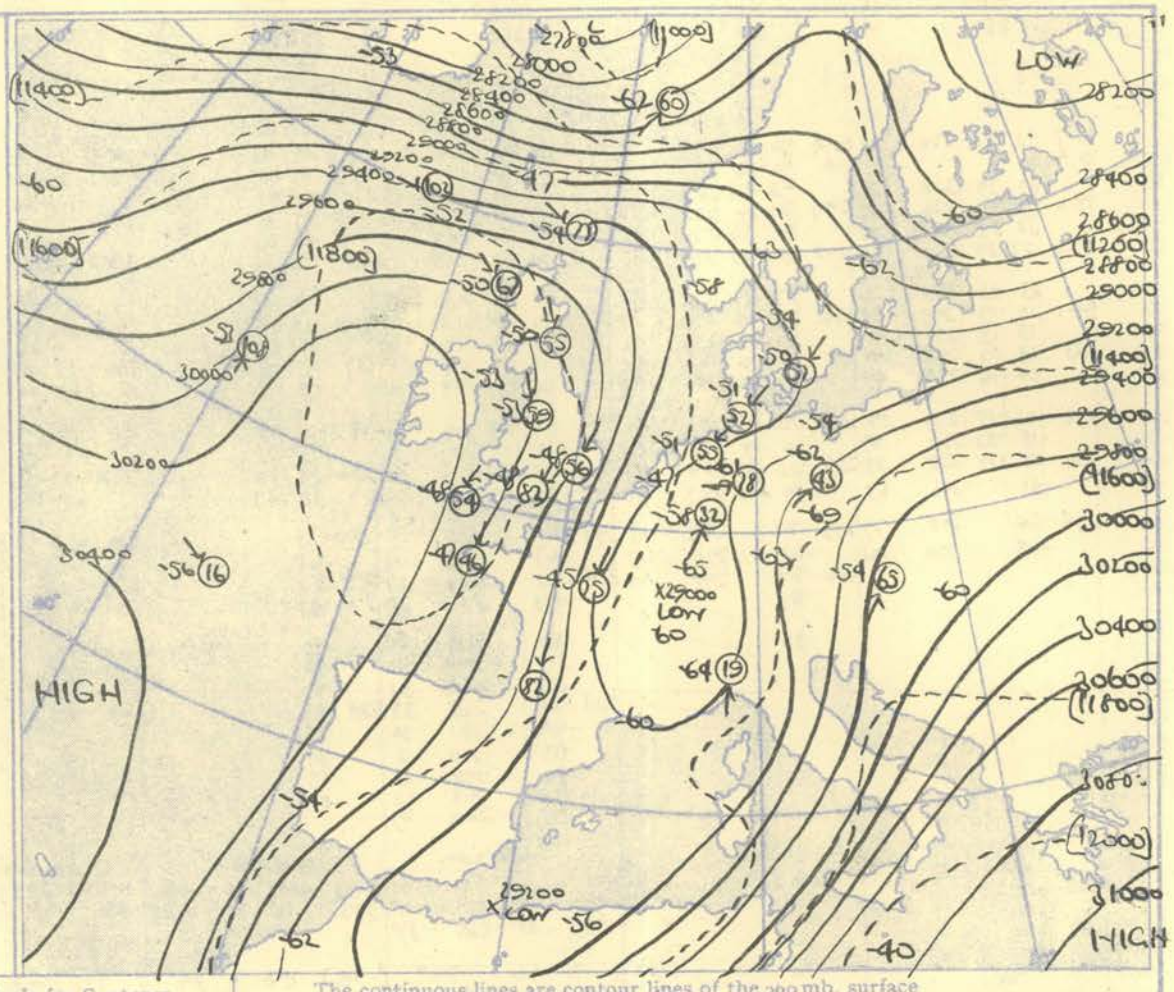
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



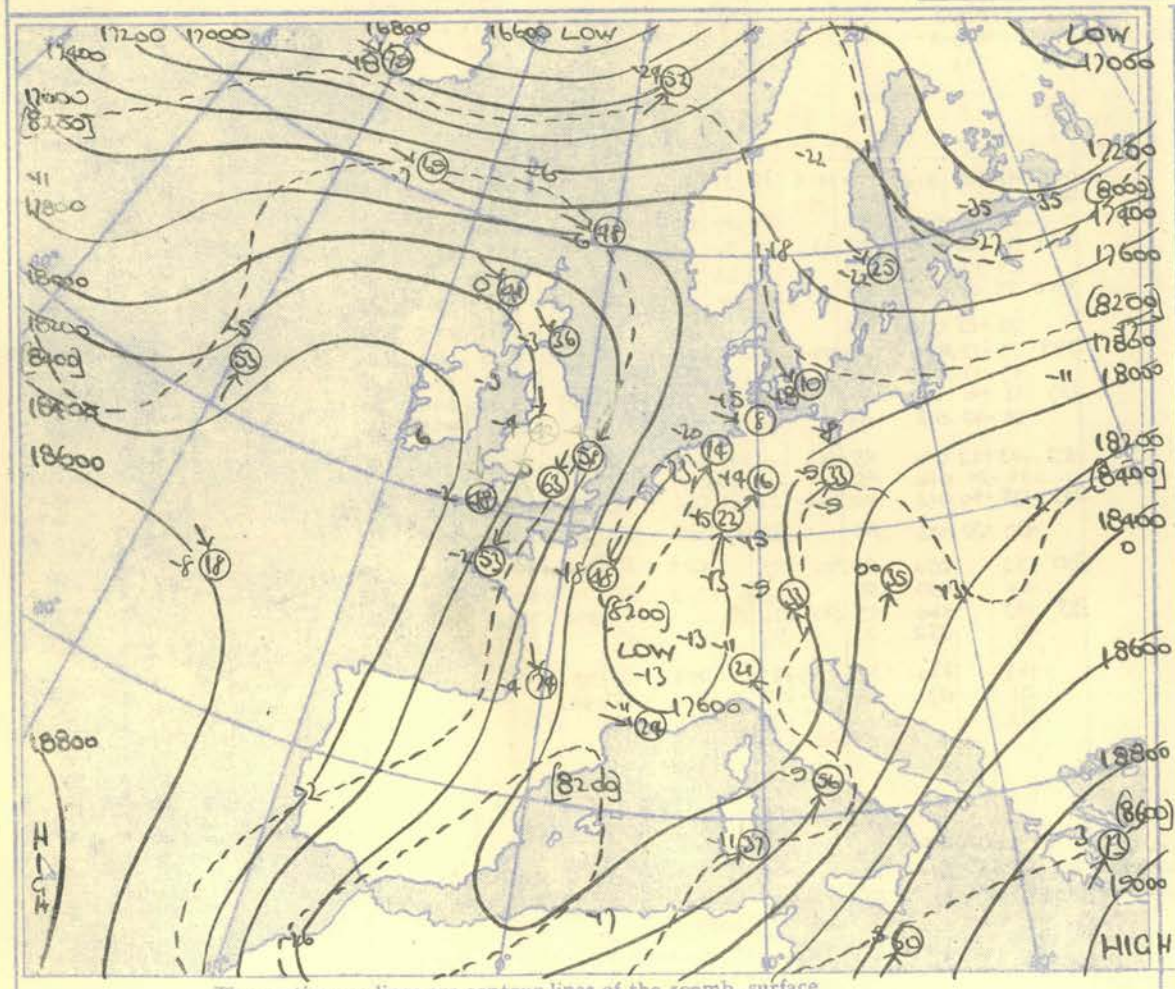
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

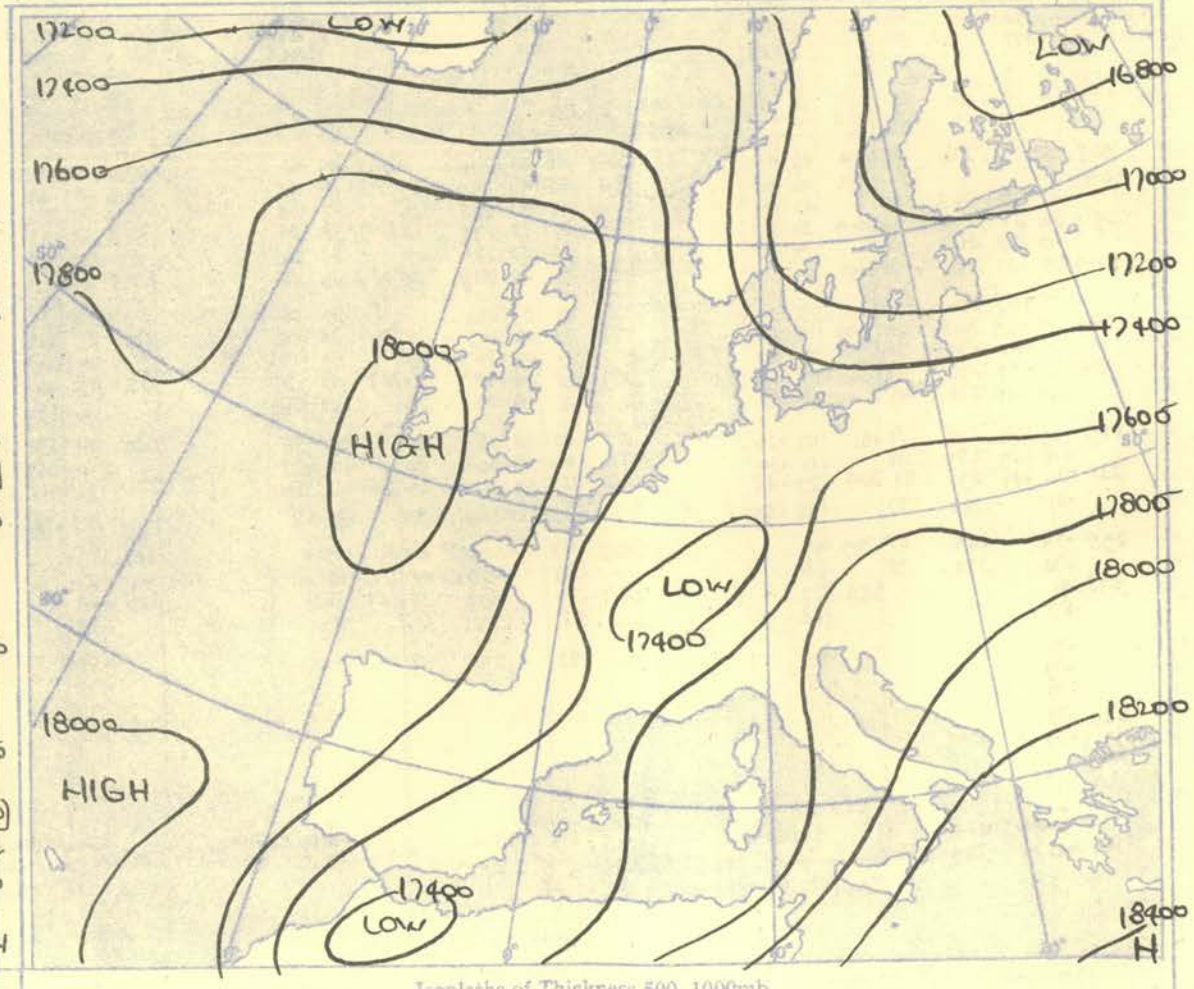
100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700–500 mb.



Isopleths of Thickness 500-1000mb.

Friday 8th December. 1950. Page 3

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure mb	53·2ON 12·0W Height ft./100	°F.	Dew °F.	49°N 17°50W Height ft./100	°F.	Dew °F.	53·1N 01·3E Height ft./100	°F.	Dew °F.	Height ft./100	°F.	Dew °F.	Height ft./100	°F.	Dew °F.	Height ft./100	°F.	Dew °F.	Height ft./100	°F.	Dew °F.	Pressure mb
Time	1015h			1315h			15h															Time
M.S.L.	1016·7 mb			1018·9 mb			1017 mb			mb			mb			mb			mb			M.S.L.
Surf	1015·0 mb			1015·3 mb			1015 mb			mb			mb			mb			mb			Surf
Freezing	850 mb			770 mb			780 mb			mb			mb			mb			mb			Freezing
Surf	01·0	49	49	01·0	54	49	05	44	36													Surf
1000	04·5			05·2			4·5															1000
950		93	41		45	41		37	36													950
900	32·8	36	36	33·7	40	35	32·7	41	19													900
850		31	31		33	33		40	24													850
800	63·7	30	24	64·8	34	23	64·0	35	07													800
750		26	19		29	11		27														750
700	98·3	21		99·7	23		98·9	26														700
650		14			17			21														650
600	137	10		139	11		138	13														600
550		01			03			05														550
500	182	-08		184	-07		184	-06														500
450								-11														450
400							237	-21														400
350								-33														350
300							302	-51														300
250																						250
200																						200
170	Cloud.			Cloud			Cloud.															170
	2/8 St.			1/8 Sc			8/8 Sc.															
	8/8 1000-840 mb			N.R			8/8 930-880 mb															
	1/8 Sc			Inversion			Inversion															
	8/8 890-840 -			850 mb 33° -			950 mb 37° -															
	2/8 Ac N.R.			800 - 34°			900 - 41°															
	4/8																					

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Feet	Place: Liverpool Dir.	Vel.	Place: Camborne Dir.	Vel.	Place: Larkhill Dir.	Vel.
	Time: 09h. Type: Pilar		Time: 15h. Type: Pilar		Time: 21h. Type: Pilar	
Surf.	Calm				Calm	
1,000	327	05			278	06
2,000	334	09			283	07
3,000	339	12			288	08
4,000	001	11			289	09
5,000	012	14			292	12
6,000	358	16			288	13
8,000	338	16			277	10
10,000	330	15			282	10
14,000	331	15			287	15
18,000	334	17			281	14
24,000	341	28			267	20
30,000	326	33			256	21
40,000	318	19			252	16
50,000	278	16	026	15		
			L.Y. (60,000')			

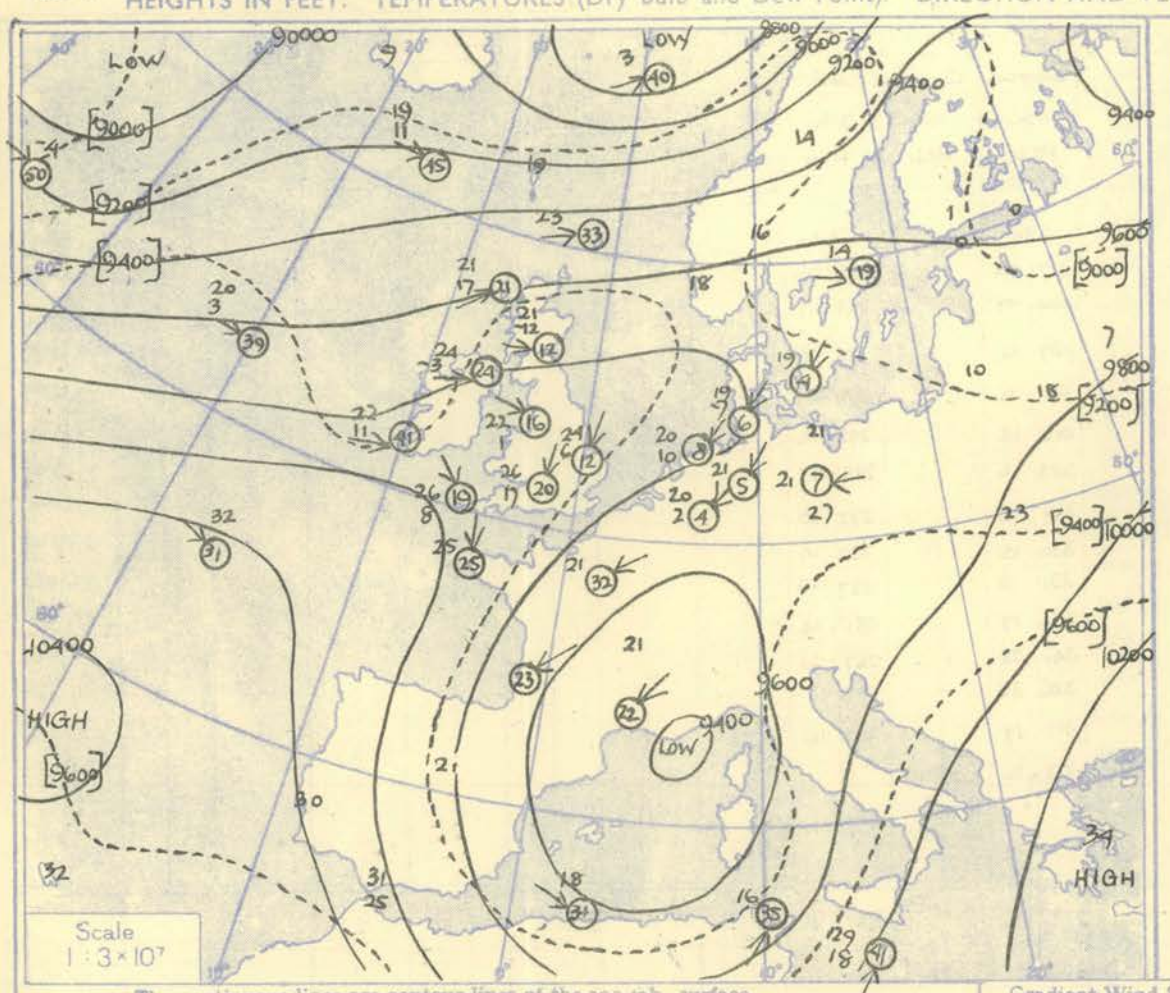
NEPHOSCOPE OBSERVATIONS

	Place	Time Type	Dir. Vel.
Place			
Time Type			
Dir. Vel.			

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Pressure mb	WEATHER OBSERVER 60·9N 14·2W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER OBSERVER 61·0N 14·0W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER OBSERVER 60·9 N. 13·8W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER OBSERVER 61·0N 14·3W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER WATCHER 52·4 N 20·0W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER WATCHER 52·6 N 19·9W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER WATCHER 52·5N 19·8W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	WEATHER WATCHER 52·4N 20·0W Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Vel. knots	Pressure mb
Time	03h. G.M.T.					09h. G.M.T.					15h. G.M.T.					21h. G.M.T.					03h. G.M.T.					09h G.M.T.					15h. G.M.T.					21h. G.M.T.					G.M.T.					Time
M.S.L.	995 mb					998 mb					1001 mb					1001 mb					1015 mb					1009 mb					1008 mb					1009 mb					mb					M.S.L.
Surf	995 mb					998 mb					1001 mb					1001 mb					1015 mb					1009 mb					1008 mb					1009 mb					mb					Surf
Freezing	900 mb					910 mb					890 mb					860 mb					800 mb					832 mb					800 mb					780 mb					mb					Freezing
Surf		43	38	270	22		45	35	270	25		46	36	250	16		47	41				51	49	210	13		50	48	200	16		51	48	250	25		52	50	210	20						Surf
1000	-1·4					-5					02	46	37			3					4·0	49	46	215	23	2·4	50	49	208	24	2·2	50	46	250	30	2·3	51	50							1000
950		38	30	266	30							39	31	247	16							45	38	216	24		47	46	213	25		44	38	258	34		47	45	223	34						950
900	26·7	32	24	267	31	27·5	30	24	262	28	28·3	33	26	243	17	28·6	36	30			32·4	40	33	218	25	30·9	41	40	221	26	30·5	38	31	263	36	30·9	43	40	228	35						900
850		26	19	267	37		24	20	259	27		26	19	243	20		31	24				35	27	231	26		34	33	235	28		35	24	270	36		39	34	235	34						850
800	57·2	20	15	268	44	57·9	20	12	257	32	58·9	24	15	243	31	59·5	26	18			63·6	32	20	239	29	62·0	29	28	237	29	61·7	32	18	271	42	62·3	34	26	238	39						800
750		20	02	268	48		19	01	255	40		23	15	258	41		21	05				26	14	247	29		24	23	230	28		25	10	272	39		29	19	238	44						750
700	91·3	19	-29	269	47	92·0	17	-07	254	40	93·3	19	11	275	45	93·8	18	01			98·3	21	13	248	32	96·5	18	08	225	21	96·3	20	03	271	39	97·2	23	08	238	42						700
650		17	-43	268	60		14	-13	253	44		13	05	272	42		11	02				17	08	235	35		11	00	219	32		16	-03	270	40		17	-06	238	42						650
600	131	12	-38	264	67	131	07	-11	255	45	132	06	-02	257	38	133	03	-06			137	11	01	222	32	135	03	-06	209	31	135	10	-11	273	41	136	11	-13	240	46						600
550		02	-38	264	74		-2	-8	254	48		-02	-12	257	43		-05	-14				03	-09	212	40		-04	-13	208	33		01	-20	274	47		02	-11	236	55						550
500	175	-07	-25	262	69	175	-13	-19	251	48	177	-11	-21	256	48	177	-14	-24			183	-05	-19	203	52	179	-17	-25	208	34	180	-10	-29	280	55	181	-06	-18	238	60						500
450		-17	-27	261	78		-22	-30	249	51		-20	-33	254	53		-25	-36				-14	-31	204	53		-28	-34	204	33		-18	-36	280	63		-18	-31	241	60						450
400	228	-28	-36	261	84	227	-37	-47	249	60	229	-32	-45	249	51	228	-36	-46			235	-25	-44	205	51	231	-37	-43	195	35	233	-29	-45	276	64	234	-29	-42	241	65						400
350		-39	-48	261	89		-53		251	69		-45		234	60		-48					-38	-37	199	60		-38	-47	193	39		-42		265	81		-43		241	66						350
300	292	-52		261	102	290	-65		247	69	292	-58		225	82	291	-63				300	-53		203	65	295	-41		210	43	297	-56		266	75	298	-58		245	81						300
250		-67		263	103		-77		247	63		-70		203	87		-76					-69		199	71		-51		238	48		-64		261	72		-71		246	105						250
200	377	-77		263	99	373	-85		239	62	377	-77		213	65	375	-76				385	-78		196	62	384	-60		260	51	382	-70		247	57	382	-83		258	78						200
170		-81		260	57		-84		236	66		-74		226	61		-70					-80		183	48		-67		255	52		-70		228	52		-73		265	61						170
150		-83		257	55		-81		236	58		-72		235	63		-69										-69		247	46		-67		229	51		-72		266	58						150
130		-75		261	58		-80		245	34		-70		239	48		-69										-72		242	37		-68		230	41		-73		271	51						130
110		-77		262	51		-82		250	37		-70		237	46		-72										-74		230	27		-76		236	35		-76		276	42						110
100	518	-79		262	42	512	-82		250	37	520	-70		237	42	518	-74										-72		225	25		-73		240	35		-80		279	34						100
90		-80		262	36		-86		250	30		-72		237	39		-76										-76		232	21		-69		245	30		-79		284	28						90
80		-80		262	34		-93		250	36		-76		237	30		-78										-75					-70		254	24		-77		289	24						80
70		-86										-81		237	33		-80															-68					-75									70
60	(62Mb)	-88				(72Mb)	-95					-79		237	44		-84																												60
	Inversion					Inversion						-81		237	46	(58Mb)	-86																												
	776 mb 17° - 733 mb 21°					808 mb 19° - 793 mb 21°					(43Mb) -83																																			
						Isothermal					Inversion																																			
						293 - 772 mb 21°					820 mb 22° - 800 mb 24°																																			
						750 - 723 " 19°																																							
						650 - 644 " 14°																																							
Tropopause	I 176 mb -82° 40,400'					I 191 mb -87° 38,200'					I 237 mb -74° 34,200'					I 235 mb -81° 34,100'					II 185 mb -81° 40,000'					II 130 mb -72° 47,900'					II 223 mb -69° 35,900'					I 196 mb -84° 38,600'										Tropopause

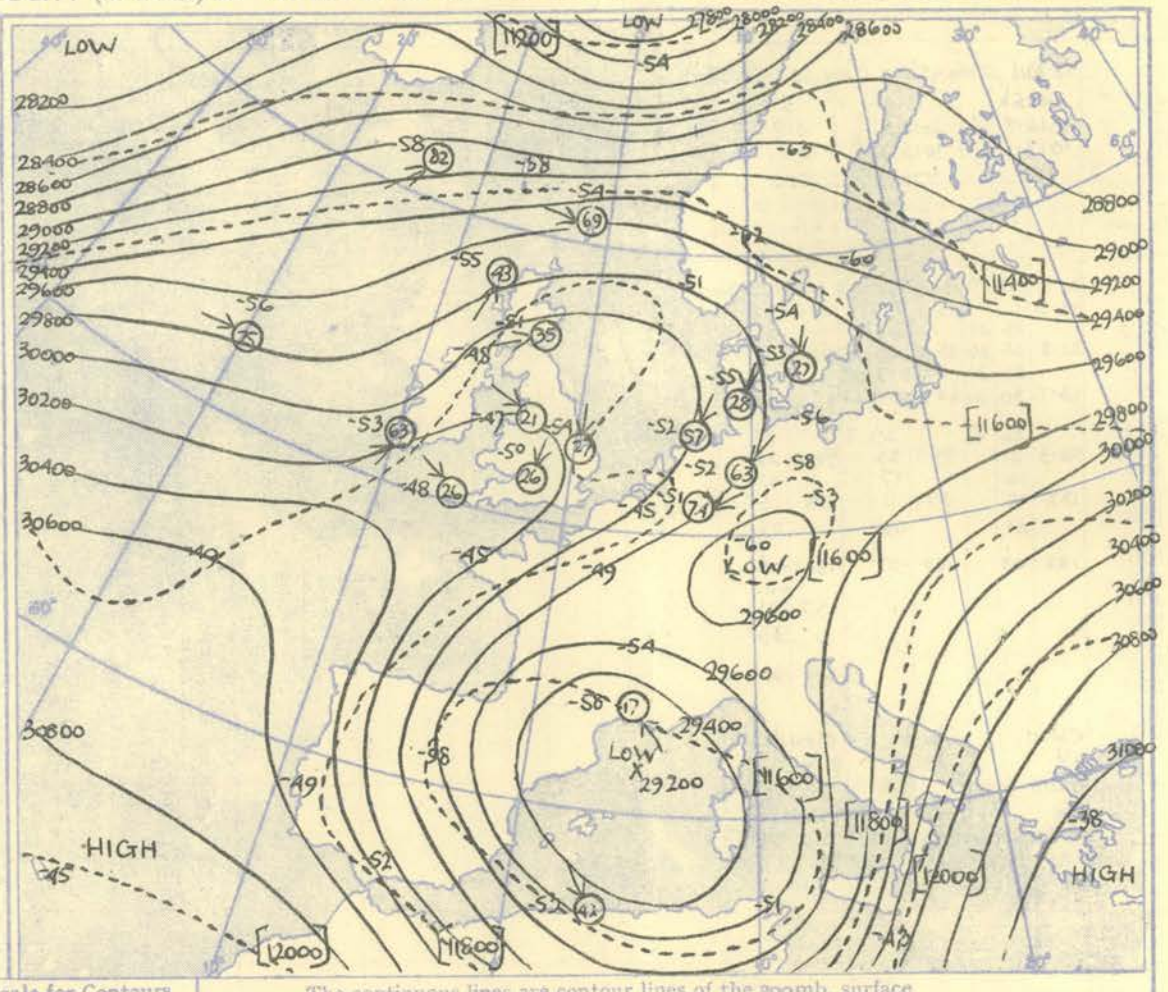
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew-Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

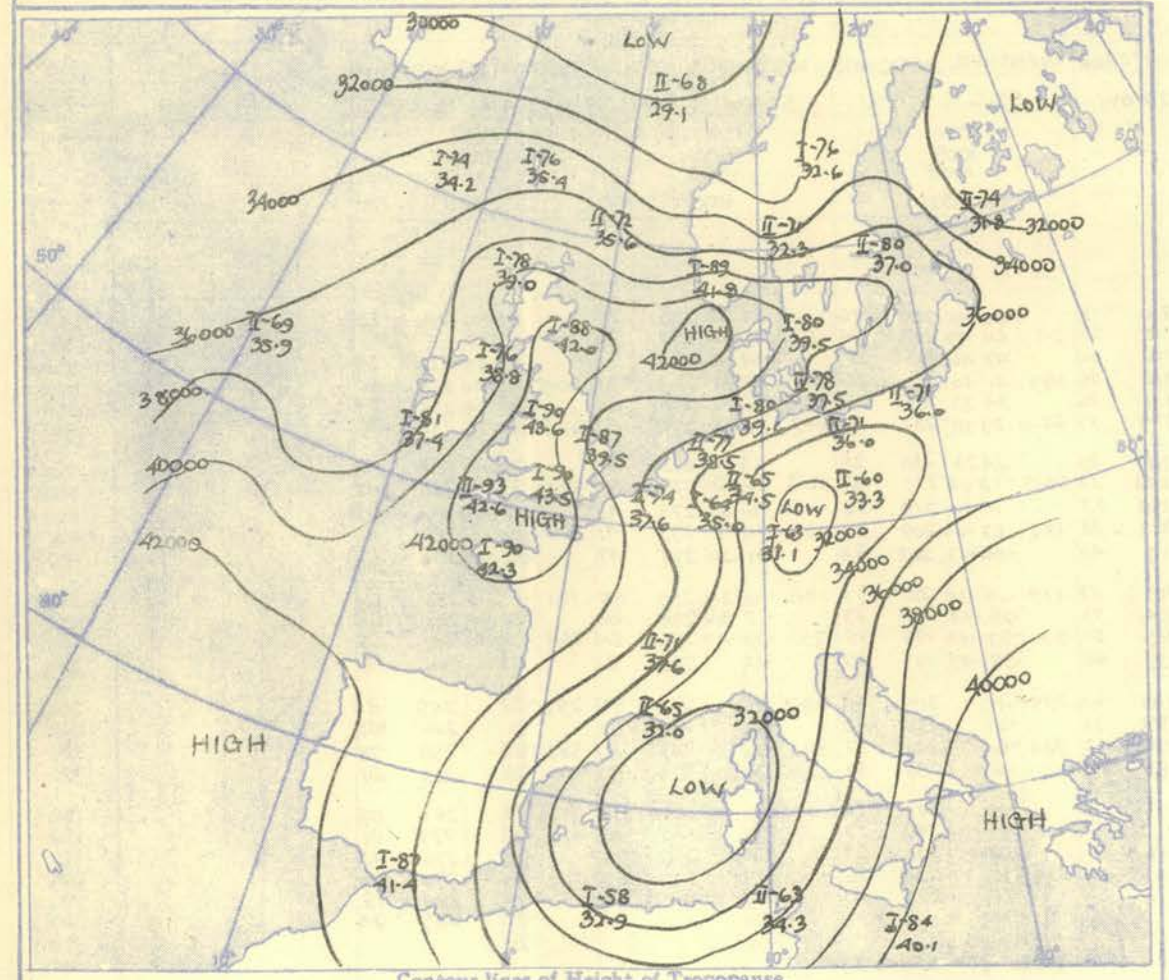
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A cold trough persisted from West Germany to western Mediterroneon. A new cold pool spread down into the Atlantic South of Greenland. There was a peculior structure to the small warm sector west of Ireland; this had a cold trough over it aloft.

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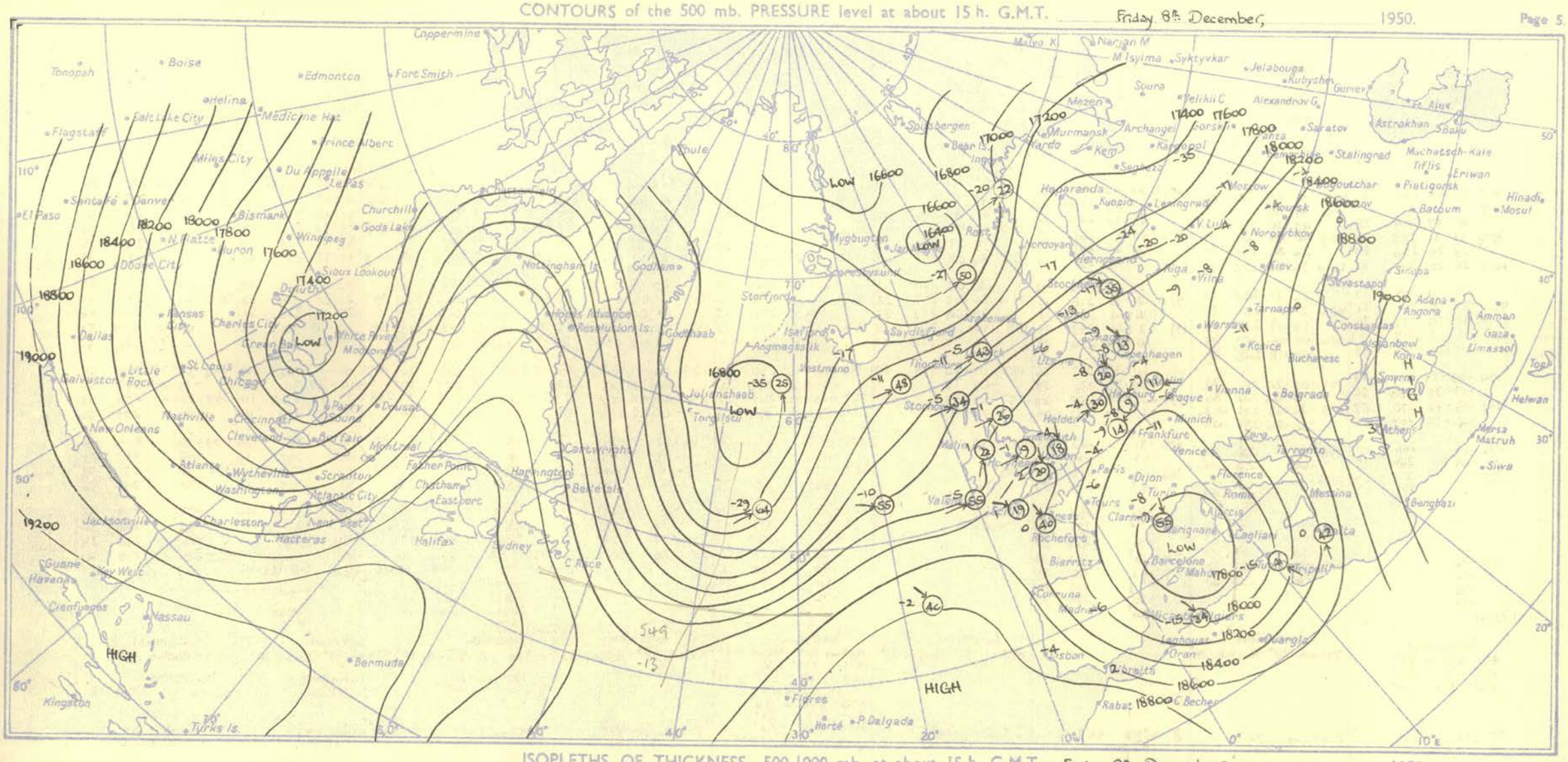
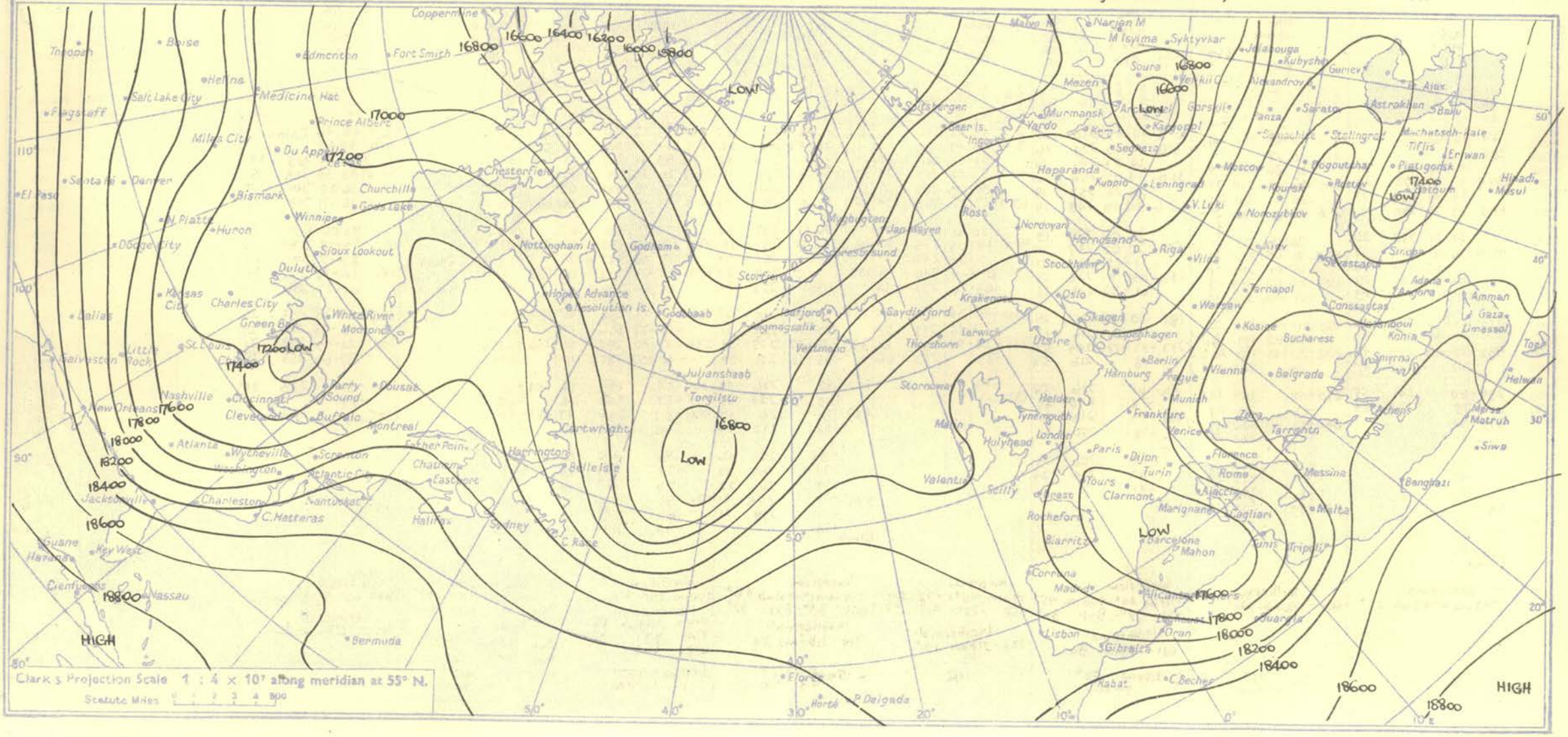
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Friday 8th December, 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Friday 8th December, 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

15h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1006·5 mb	996·5 mb	879 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
Surf	2·7	45	43	240	16
1000	1·7				
950		41	37	249	28
900	30·0	34	31	253	30
850		29	25	256	38
800	60·8	24	20	260	39
750		24	-11	269	33
700	95·3	23	-15	271	33
650		15	09	272	39
600	134	12	00	268	42
550		03	-10	262	39
500	179	-05	-23	264	43
450		-17	-35	268	50
400	232	-28	-42	270	57
350		-40	-56	269	61
300	296	-54		266	69
250		-68		268	75
200	381	-76		272	66
170		-79		273	57
150		-76			
130		-76			
110		-76			
100	523	-76			
90		-76			
80		-78			
70		-79			
60	(72mb)				

Isothermal.
850 - 838 mb 29°
800 - 713 " 24°
640 - 610 " 14°

Tropopause: II 231 mb - 72° 35·600'

STORNOWAY

15h.

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1009·6 mb	1008·0 mb	840 mb

Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
00·4	47	45	280	04
2·6	47	45		
	43	40	240	21
30·9	40	35	236	23
	34	30	224	26
62·0	26	22	224	25
	26	21	243	24
96·6	21	17	256	21
	14	07	248	20
136	08	-09	248	24
	04	-18	248	29
181	-05	-24	248	34
	-15	-36	240	36
233	-26	-48	241	44
	-40	-56	238	48
298	-55		234	43
	-69		238	56
383	-76		238	56
	-69		253	43
	-71		253	34
	-74		239	37
	-75		254	37
523	-75		262	28
	-76		262	33

Inversion
791 mb - 25° 763 mb. 28°

Tropopause: I 192 mb - 78° 39·000'

LEUCHARS

15h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1012·8 mb	1011·9 mb	823 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
01·2	44	42	240	13
3·3	44	43	245	20
	43	40	249	24
31·6	40	33	261	18
	34	28	269	14
62·7	31	19	254	13
	28	06	244	12
97·0	21	-12	246	12
	16	-14	250	17
131	12	-20	253	25
	10	-30	254	23
182	-01	-33	257	26
	-09	-38	255	23
235	-20	-49	253	28
	-36	-59	247	28
300	-51		252	35
	-63		261	45
386	-76		256	54
	-87		259	52
	-84		264	47
	-77		257	30
	-81		255	30
526	-81		256	33
	-82		258	30
	-76		257	36
	-78		264	23
	-80			

Tropopause: J 167 mb - 88° 42·000'

ALDERGROVE

15L

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1015·3 mb	1005·8 mb	764 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
2·3	45	43	240	10
4·1	45	43		
	41	38	250	15
52·3	36	33	253	16
	35	23	253	13
63·5	36	08	251	08
	30	05	250	13
98·4	24	-03	257	24
	20	-08	242	25
138	14	-28	244	24
	06	-25	240	21
183	01	-40	238	22
	-09	-38		
237	-22	-33		
	-35	-47		
302	-48			
	-61			
388	-76			
	-65			
	-68			
(154mb)				

Inversion
879 mb 33° - 815 mb 37°

Tropopause: I 200 mb - 76° 38·800'

LIVERPOOL

15L

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1016·5 mb	1014·4 mb	800 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
0·6	39	38	200	02
4·4	41	40	236	09
	41	40	264	08
32·6	36	34	257	08
	36	33	249	08
63·7	32	24	263	09
	24	21	272	12
98·3	22	01	275	16
	19	-05	272	15
138	15	-19	284	12
	08	-37	285	11
183	-01	-45	280	09
	-08	-50	280	11
237	-18	-60	269	10
	-35	-58	265	14
302	-47		276	21
	-62		280	26
388	-80		267	31
	-88		274	25
	-85		279	14
	-78		273	13
	-79		268	17
528	-80		258	24
	-80		269	27
	-80		283	25
	-76			

Inversion.
1014 mb 39° - 980 mb 44°
873 " 33° - 830 " 36°
668 " 18° - 657 " 33°
Isothermal.
850 - 830 mb 36°
750 - 717 " 24°
631 - 608 " 16°

Tropopause: I 157 mb - 90° 43·600'

DOWNHAM MARKET

15h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1008·2 mb	1013·8 mb	782 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
1·2	43	39	330	06
4·9	41	36	016	06
	35	31	013	05
32·8	29	27	013	07
	38	25	013	08
64·1	34	13	012	09
	29	04	011	11
98·9	24	06	011	12
	19	00	014	15
138	14	-04	028	12
	06	-12	033	20
183	-04	-21	017	18
	-13	-32	012	20
236	-24	-40	008	23
	-40	-55	016	23
301	-54		360	27
	-68		355	30
385	-84		344	22
	-76		323	12
	-69		297	11
	-74		278	12
	-74		267	11
527	-78		262	12

Inversion
893 mb 28° - 850 mb 38°

Tropopause: I 191 mb - 87° 39·500'

LARKHILL

15h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1017·2 mb	1000·8 mb	750 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
4·2	42	37	010	02
4·6				
	38	32	360	07
32·6	33	26	010	09
	40	17	017	12
64·0	36	08	020	13
	32	15	016	16
99·1	26	17	005	20
	21	11	002	17
139	16	02	013	15
	10	-05	015	18
184	02	-12	010	20
	-10	-24	005	20
238	-19	-40	008	23
	-33	-51	010	24
307	-50		357	26
	-63		353	28
389	-80		347	22
	-87		344	24
	-88		353	19
	-82		344	07
	-78		285	07
528	-77		290	10
	-78		293	12
	-79		260	01
	-81		253	12
	-81		285	15
(55mb)	-77			

Inversion
893 mb 32° - 876 mb 40°
Isothermal.
876 - 850 mb 40°

Tropopause: I 158 mb - 90° 43·500'

CAMBORNE

15L

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1008·2 mb	1018·9 mb	770 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
2·9	48	47	Calm	
5·0	47	47		
	41	40	310	09
33·3	35	34	321	10
	36	35	323	09
64·5	35	27	327	08
	30	11	314	13
99·5	26	08	314	19
	20	00	320	21
139	15	-10	321	18
	09	-24	316	24
185	01	-17	316	19
	-10	-28	311	14
238	-27	-39	290	10
	-35	-51	298	16
303	-48		294	26
	-66		297	12
388	-82		278	14
	-91		315	13
	-86		308	06
	-76		283	14
	-81		269	14
	-81			
(109mb)				

For rest of winds see page 3.

Inversion
875 mb 33° - 836 mb 38°
Isothermal.
757 - 738 mb 30°

Tropopause: I 160 mb - 93° 42·600'

VALENTIA

15h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	10·7·4 mb	1016 mb	860 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
0·3	50	44	220	08
4·7	48	41	227	10
	42	32	241	16
32·7	36	29	241	22
	31	27	240	28
63·7	31	19	236	33
	29	-01	235	38
98·4	22	11	239	41
	16	00	240	46
137	08	-10	244	53
	01	-23	246	54
182	-05	-29	246	55
	-15	-37	243	51
235	-27	-47	238	55
	-40		233	56
299	-53		233	63
	-68		237	55
384	-79		251	53
	-81		249	36
	-77		239	33
	-82		225	30
	-78		236	24
525	-81		239	21
	-85			

Isothermal.
850 - 800 mb 31°
Inversion.
800 mb 31° - 779 mb 32°

Tropopause: I 209 mb - 81° 37·400'

LERWICK

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1008·1 mb	998·1 mb	836 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
Surf	2·7	46	46	250	21
1000	022				
950		41	40	249	31
900	30·4	37	36	258	29
850		34	34	264	27
800	61·5	28	28	261	29
750		22	21	258	30
700	95·8	20	16	252	27
650		12	07	246	29
600	135	05	01	245	28
550		-01	-12	254	29
500	179	-09	-26	256	32
450		-17	-32	251	39
400	232	-30	-42	239	47
350		-45		242	49
300	295	-60		241	55
250		-75		238	64
200	379	-80			
170		-81			
150		-78			
130		-77			
110		-80			
100	520	-82			
90		-84			
80		-86			
70		-87			
60	(77mb)				

Isothermal.
753 mb - 735 mb 22°

Tropopause: I 222 mb - 82° 35·750'

STORNOWAY

21h.

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1009·8 mb	1008·2 mb	865 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
00·4	45	43	280	07
2·7	45	42		
	41	38	223	19
30·9	36	33	228	22
	30	27	230	24
61·8	26	21	230	21
	26	18	227	21
96·3	21	05	213	21
	15	01	211	20
135	08	02	219	19
	+01	-08	220	19
180	-11	-19	208	25
	-23	-32	199	30
232	-35	-43	192	45
	-45		203	58
295	-58		205	61
	-68		217	57
380	-72		236	47
	-73		244	41
	-75		236	36
	-78		242	32
	-80		246	39
522	-79		251	45

Isothermal.
800 - 750 mb. 26°

Tropopause: I 227 mb - 73° 35·300'

LEUCHARS

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1013·4 mb	1012·5 mb	892 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
0·2	44	42	230	10
3·6	41	42	229	16
	39	33	249	21
31·8	33	32	258	21
	28	24	252	19
62·6	30	09	249	19
	26	05	248	19
97·0	20	02	235	20
	12	-05	222	21
136	08	-11	228	25
	01	-20	233	25
181	-10	-28	225	28
	-19	-36	216	42
233	-33	-43	209	51
	-48		216	52
296	-63		226	54
	-78		240	45
379	-79		249	37
	-78		250	33
	-79		256	33
	-82		260	24
	-81			

Inversion
1018 mb 44° - 995 mb 45°
853 " 28° - 831 " 30°
Isothermal.
831 - 788 mb 30°

Tropopause: I 239 mb - 80° 34·200'

ALDERGROVE

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1014·7 mb	1005·3 mb	859 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
2·5	44	42	240	10
3·9	43	42		
	41	37	241	17
32·2	37	32	255	22
	31	29	265	21
63·1	27	25	262	24
	20	10	258	22
97·4	18	05	245	27
	10	-04	240	27
136	01	-14	240	31
	-09	-26	256	34
180	-16	-36	245	44
	-22	-45	229	57
233	-24	-51	234	61
	-39		233	66
	-48			
(316mb)				

Inversion
492 mb - 18°, 482 mb - 17°
450 " - 22° - 417 " - 21°
Isothermal.
424 - 410 mb 19°

NR.

LIVERPOOL

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1017·1 mb	1015·0 mb	795 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
0·6	41	40	210	05
4·5	44	43	212	06
	42	40	254	10
32·9	38	35	263	11
	33	30	244	15
64·1	33	30	232	23
	26	22	233	24
98·8	22	07	251	18
	18	-07	261	19
138	11	-15	249	22
	05	-23	252	24
183	-02	-44	245	27
	-10	-36	228	31
237	-22	-37	225	33
	-35	-48	221	34
302	-49		226	42
	-63		224	45
387	-79		241	42
	-83		245	36
	-82		251	26
	-74		265	22
	-79		261	22
528	-79		259	21
	-80		249	21
	-78			
(82mb)				

Inversion.
1015 mb 41° - 991 mb 46°
850 " 33° - 832 " 37°
Isothermal.
710 - 687 mb 22°

Tropopause: I 156 mb - 87° 43·700'

DOWNHAM MARKET

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1020·1 mb	1015·7 mb	790 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
1·2	39	37	150	03
5·3	39	35	305	03
	35	31	307	03
33·2	29	28	316	03
	38	18	322	05
64·4	33	19	317	06
	27	17	323	07
99·2	21	10	332	08
	17	08	327	04
138	12	03	292	06
	04	-04	279	07
183	-05	-13	288	07
	-16	-27	266	09
236	-27	-40	292	09
	-40	-52	285	10
300	-54		298	13
	-67		300	14
385	-82		299	12
	-88		293	13
	-82		270	12
	-78		262	18
	-79		267	18
524	-81		256	15
	-82		257	14
	-82		280	19

Inversion.
900 mb 29° - 870 mb 38°
Isothermal.
1016 - 989 mb 39°
870 - 837 " 38°
677 - 660 " 18°

Tropopause: I 171 mb - 90° 40·900'

LARKHILL

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	1020·0 mb	1003·3 mb	770 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
4·4	35	33		
5·2	38	36		
	38	33		
33·2	34	28		
	39	17		
64·4	36	21		
	29	20		
99·3	23	08		
	18	02		
139	13	-21		
	06	-25		
184	-03	-33		
	-13	-45		
236	-23	-55		
	-37	-60		
301	-52			
	-65			
387	-80			
	-87			
	-87			
	-82			

For winds see page 3.

Inversion
1003 mb 35° - 993 mb 40°
890 " 33° - 855 " 39°
Isothermal.
855 - 829 mb 39°
664 - 642 " 18°

Tropopause: I 162 mb - 85° 42·900'

CAMBORNE

21h

Pressure	Time	M.S.L.	Surf	Freezing
	G.M.T.	16203 mb	1010·1 mb	743 mb

Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
2·9	48	46	Calm	
5·6	48	45		
	44	41	295	13
34·0	38	34	308	15
	36	29	301	15
65·3	36	17	293	15
	33	00	289	18
100	28	-07	289	21
	22	-07	291	24
140	14	-15	292	23
	05	-27	288	24
185	-02	-28	283	26
	-13	-38	280	25
238	-24	-49	279	21
	-37	-60	253	28
303	-51		248	30
	-59			
(255mb)				

Inversion
862 mb 35° - 850 mb 36°
Isothermal.
850 - 786 mb 36°

NR

H.M.S.O. Press, M.O., Dunstable.

No. 11577

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

Saturday 9th December. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h	1009·9 mb	999·8 mb	840 mb
STORNOWAY	03h	1009·9 mb	1008·3 mb	859 mb
LEUCHARS	03h	1014·0 mb	1013·1 mb	848 mb
ALDERGROVE	03h	1016·0 mb	1006·5 mb	873 mb
LIVERPOOL	03h	1017·9 mb	1015·8 mb	875 mb
DOWNHAM MARKET	03h	1021·3 mb	1016·9 mb	793 mb
LARKHILL	03h	1021·1 mb	1004·4 mb	755 mb
CAMBORNE	03h	1021·7 mb	1011·0 mb	732 mb
VALENTIA	03h	1018·9 mb	1018 mb	810 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	46	45	240	16	00·4	46	45	210	06	00·2	44	41	230	10	02·3	44	42	220	15	00·6	43	41	190	05	01·2	38	35	190	07	04·4	34	33	CALM		02·9	48	47	CALM		00·3	50	46	220	08	Surf
1000	2·6					2·7	47	46			3·7	43	41	217	21	4·3	44	42			4·8	43	40	200	12	5·7	39	35	251	09	5·5	35	34			5·8	48	47	240	24	5·1	50	46	241	12	1000
950		43	39	241	19		42	39	242	29		40	38	242	24		39	38	265	14		41	35	255	11		37	33	257	09		40	39	280	14		44	40	253	20		49	40	267	17	950
900	31·0	39	35	238	18	31·0	37	34	242	29	31·9	36	34	258	23	32·4	35	34	276	17	33·0	34	31	278	19	33·7	31	28	259	10	33·7	35	34	282	13	34·2	40	36	270	21	33·6	38	34			900
850		34	30	230	20		31	30	243	27		32	30	275	17		29	28	277	20		30	27	279	25		27	28	265	13		30	27	282	14		36	33	282	21		35	31			850
800	62·1	28	25	225	24	61·9	27	23	244	25	62·9	25	23	277	16	63·3	26	22	279	21	63·9	27	23	274	26	64·9	33	28	262	14	64·7	33	29	287	18	65·5	33	29	287	18	64·7	31	19			800
750		22	18	224	23		22	20	245	20		20	17	273	18		21	12	288	24		22	20	262	25		26	22	260	16		31	01	276	20		30	22	288	18		27	05			750
700	96·4	17	12	224	25	96·3	16	12	245	20	97·0	16	04	248	23	97·5	19	03	293	27	98·2	15	11	283	29	99·0	22	09	250	19	99·5	25	-07	278	18	100	26	11	289	21	99·3	22	-07			700
650		11	02	239	21		11	07	250	22		09	00	238	24		12	-05	313	36		08	-12	261	33		16	02	255	19		19	-14	276	21		20	-04	296	25		18	-20			650
600	135	04	-11	237	21	135	04	00	270	20	136	00	-08	234	22	136	05	-12	319	37	137	01	-25	274	40	139	10	-06	263	20	139	12	-19	286	26	140	13	-26	304	30	139	15	-32			600
550		-02	-11	231	22		-05	-08	266	23		-07	-13	242	23		-05	-23	314	48		-07	-35	275	48		04	-19	260	22		03	-27	285	29		05	-36	300	39		05	-26			550
500	179	-11	-17	232	34	179	-14	-18	267	26	179	-17	-22	254	23	180	-16	-33	322	51	181	-09	-39	256	54	184	-04	-32	252	24	184	-04	-37	283	27	185	-04	-47	299	40	184	-05	-32			500
450		-22	-32	227	26		-24	-32	289	21		-29	-34	288	28		-27	-42	324	53		-18	-47	255	58		-15	-28	250	25		-16	-46	297	27		-16	-42	299	44		-16	-37			450
400	232	-33	-42	225	30	231	-37	-46	299	25	261	-31	-41	199	63	232	-39	-56	327	66	234	-32	-54	246	53	237	-28	-36	250	29	237	-27	-38	277	26	238	-28	-50	295	42	237	-28	-43			400
350		-46		222	39		-52		305	34		-40	-63	204	65		-51		328	77		-47		237	54		-40	-50	235	28		-39	-59	268	29		-41		293	47		-41				350
300	295	-66		219	53	294	-56		281	36	295	-51		211	49	294	-61		321	57	297	-61		226	57	301	-54		229	28	301	-53		248	30	301	-56		293	44	291	-56				300
250		-73		222	56		-64		252	27		-57		223	46		-64		296	46		-67		231	47		-66		229	32		-64		245	27		-68		280	36		-71				250
200	379	-74		245	46	379	-70		231	27	382	-72		245	30	380	-73		278	37	381	-79		244	42	386	-77		236	36	387	-76		252	26	387	-78		263	35	384	-84				200
170		-75		253	46		-77		230	41		-78		232	36		-74		271	35		-77		247	38		-82		255	26		-78		266	26		-85		264	33		-78				170
150		-76		244	45		-75		250	45		-74		248	35		-75		266	35		-77		252	28		-81		264	21		-74		272	21		-83		263	28		-77				150
130		-77		243	40		-77		255	39		-77		255	34		-77		253	44		-81		251	28		-75		264	21		-74		251	17		-78		265	17		-77				130
110		-79		258	37		-80		251	44		-76		259	34		-80		273	26		-80		250	26		-77		250	20		-76		245	16		-80		267	16		-77				110
100	520	-80		258	36	521	-82				524	-76		260	34	521	-82		260	34	522	-83		246	25	527	-78		249	21	528	-75		256	16	527	-81		245	21	525	-78				100
90		-82		252	36		-82					-81		260	33		-80					-83		249	21		-79		265	23		-75		247	16		-80		241	20		-82				90
80		-85		242	35		-82					-85		251	33		-81					-63					-82		269	20		-75		241	18		-79		242	18		-79				80
70		-89										-84		261	31																	-77					-78					-78				70
60												-79																				-79										-80				60
	Inversion 1000 mb 46°-983 mb 47° Isothermal 887 - 875 mb 37° 665 - 642 " 11°					Inversion 1008 mb 46°-1000 mb 47°					Inversion 440 mb -32°-400 mb -31° 290 " -54°-278 " -52° Isothermal 865 - 848 mb 32° 750 - 720 " 20°					Inversion 731 mb 19°-709 mb 20° Isothermal 1007 - 987 mb 44° 928 - 916 " 36° 822 - 807 " 26°					Inversion 1016 mb 43°-985 mb 49° 820 " 27°-811 " 28° 525 " -13°-505 " -08° Isothermal 279 - 256 mb -66°					Inversion 1017 mb 38°-970 mb 40° 900 " 31°-885 " 36° 858 " 36°-838 " 38° 740 " 24°-726 " 26° Isothermal 885 - 858 mb 36°					Inversion 1004 mb 34°-980 mb 42° 850 " 30°-828 " 35° 770 " 31°-755 " 32°					Inversion 1011 mb 48°-988 mb 49°					Isothermal 1018 - 1000 mb 50° 787 - 767 " 29°					
Tropopause	II 240 mb - 76° 34,200'					I 321 mb - 68° 27,200'					I 182 mb - 77° 40,000'					I 272 mb - 64° 31,600'					I 195 mb - 81° 38,600'					I 180 mb - 85° 40,700'					I 185 mb - 79° 40,300'					I 162 mb - 86° 42,800'					I 214 mb - 85° 37,400'					Tropopause

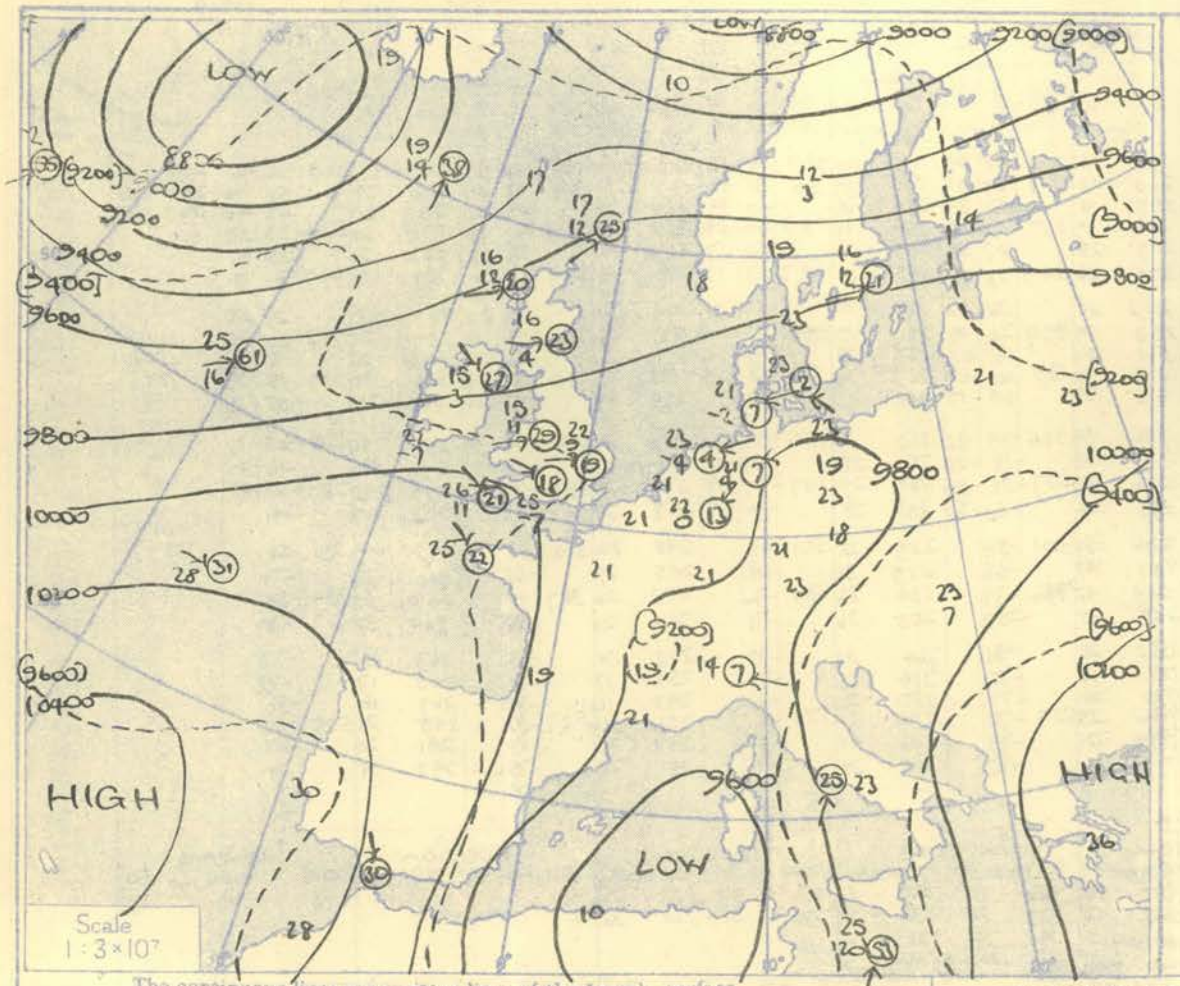
09h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h	1010·4 mb	1000·3 mb	860 mb
STORNOWAY	09h	1009·9 mb	1008·3 mb	815 mb
LEUCHARS	09h	1015·3 mb	1014·4 mb	822 mb
ALDERGROVE	09h	1017·2 mb	1007·7 mb	793 mb
LIVERPOOL	09h	1019·3 mb	1017·2 mb	850 mb
DOWNHAM MARKET	09h	1022·1 mb	1017·7 mb	879 mb
LARKHILL	09h	1022·4 mb	1005·8 mb	850 mb
CAMBORNE	09h	1023·0 mb	1012·3 mb	800 mb
VALENTIA		mb	mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	44	43	220	08	00·4	47	45			00·2	37	36	270	02	02·3	45	44			00·6	43	42	260	05	01·2	37	36	220	08	04·4	38	38	200	06	02·9	48	47	270	05						Surf
1000	2·8	44	41			2·7	46	45			4·1	41	40	242	15	4·6	46	44			5·7	45	44	262	12	5·9	42	39	290	15	5·9	39	39			6·2	47	46	272	18						1000
950		42	40	218	16		41	41				42	39	259	18		47	39				41	38	278	14		39	34	297	16		41	39	260	11		44	40	294	16						950
900	31·0	35	34	216	18	31·0	37	35			32·3	35	31	269	17	33·1	40	34			34·0	35	33	286	15	34·0	32	30	311	15	34·0	36	36	286	14	34·6	38	30	306	16						900
850		31	27	228	12		33	29				34	28	253	13		38	28				32	28	280	18		31	27	308	16		32	30	297	18		34	20	300	16						850
800	62·0	27	22	231	11	62·1	31	12			63·3	27	20	255	10	64·5	38	15			66·0	31	12	281	21	64·9	30	25	289	17	65·0	28	14	302	17	65·8	32	08	302	15						800
750		21	16	203	13		26	06				23	14	274	09		33	-08				28	07	293	24		23	18	287	19		28	-08	312	17		31	-01	304	16						750
700	96·2	16	11	187	14	96·7	20	-04			98·0	20	09	283	16	99·5	27	-04			99·7	22	01	300	30	99·3	21	-09	289	22	99·7	25	-22	322	26	101	27	-01	303	18						700
650		10	02	199	10		15	-07				15	03	296	30		22	-06				16	-06	305	32		15	-15	297	27		18	-31	320	24		21	-18	311	23						650
600	135	09	-09	235	08	136	10	-18			137	08	-02	302	32	139	15	-16			139	09	-14	306	35	138	08	-20	269	37	135	10	-40	322	29	140	16	-22	316	32						600
550		-04	-15	247	08		03	-24				00	-12	316	36		08	-28				00	-24	304	38		02	-30	312	48		01	-47	321	35		07	-23	317	37						550
500	179	-14	-26	276	09	181	-07	-30			181	-09	-25	316	52	185	-01	-45			183	-10	-32	316	45	183	-08	-38	303	50	184	-07	-53	323	35	185	-03	-33	318	36						500
450		-16	-39	292	10		-20	-42				-19	-32	315	60		-14	-55				-22	-40	321	48		-19	-38	304	54		-18	-60	319	33		-15	-37	321	38						450
400	231	-40	-56	289	11	253	-53	-54			234	-31	-44	323	60	238	-27	-59			235	-34	-52	319	57	236	-30	-57	301	45	236	-32	-60	311	35	238	-26	-46	322	48						400
350		-52		276	15		47					-46		332	58		-40					-47		309	59		-45		285	41		-46		309	36		-39	-58	328	55						350
300	293	-59		257	20	296	-61				297	-58		311	62	302	-56				299	-59		314	69	299	-55		276	38	299	-61		325	54	303	-55		333	63						300
250		-69		243	25		-73					-67		317	64		-72					-69		325	63		-64		254	36		-69		325	39		-71		327	68						250
200	377	-79		249	38	379	-85				382	-76		285	33	386	-78				383	-75		293	37	384	-73		251	41	384	-79		300	31	387	-79		315	51						200
170		-73		247	38		-95					-73		266	33		-73					-73		282	32		-74		270	23		-82		290	22		-84		309	40						170
150		-75		243	37		-75					-74		281	26		-70					-73		279	28		-70		268	20		-79		285	21		-76		296	24						150
130		-77		252	41		-75					-77					-72					-74		276	24		-74		253	22		-78		274	20		-77		282	25						130
110		-80					-76										-72					-77		242	20		-74		262	22		-81		258	22		-78		293	25						110
100						521	-76										-73				526	-74		244	22	527	-77		259	18	524	-80		262	16	528										100
90							-77															-74		244	27		-76		221	17		-80		218	09										90
80							-78														(85 mb)											-83		248	19										80
70							-80																									-78													70
60																																														60
	Isothermal 1000 - 976 mb 44°					Isothermal 856 - 825 mb 33°					Inversion 1014 mb 37°-994 mb 42° 879 " 32°-857 " 35° Isothermal 994 - 954 mb 42°					Inversion 1008 mb 45°-955 mb 48° 858 " 38°-827 " 40°					Inversion 1017 mb 43°-990 mb 46° Isothermal 840 - 785 mb 31° 257 - 245 " -69°					Inversion 1018 mb 37°-992 mb 44° 900 " 32°-884 " 33° Isothermal 873 - 800 mb 30°					Inversion 1006 mb 38°-976 mb 43° 285 " -63°-271 " -62° Isothermal 814 - 750 mb 28°					Inversion 210 mb -81°-191 mb -71° Isothermal 965 - 950 mb 44° 871 - 840 " 34°										
Tropopause	I 192 mb - 80° 28,500'					I 200 mb - 85° 37,300'					II 216 mb - 77° 36,500'					I 206 mb -82° 37,500'					II 238 mb - 75° 35,500'					II 192 mb -74° 38,300'					II 220 mb - 79° 36,500'					I 164 mb - 85° 37,300'										Tropopause

9th December 1950.

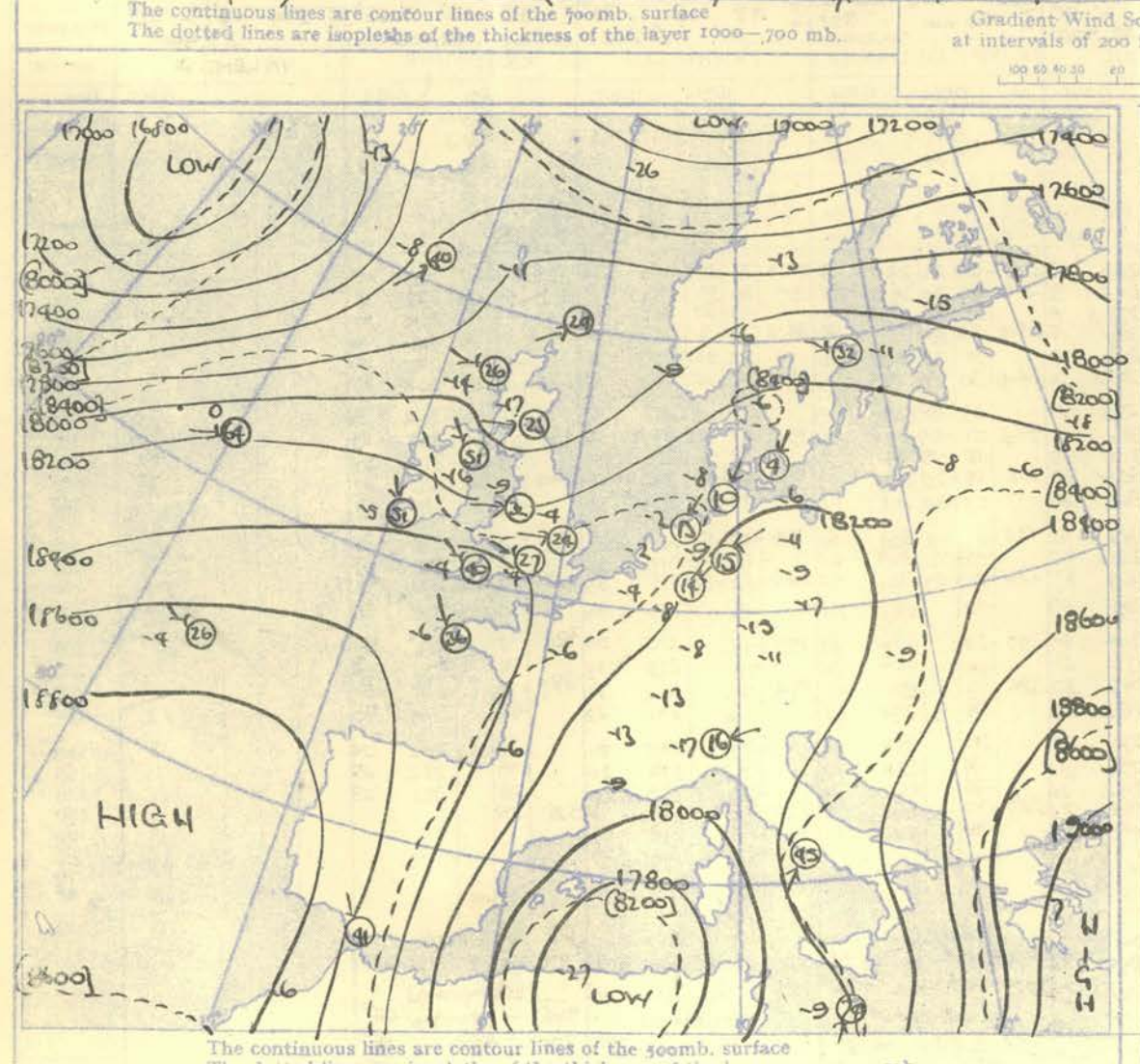
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



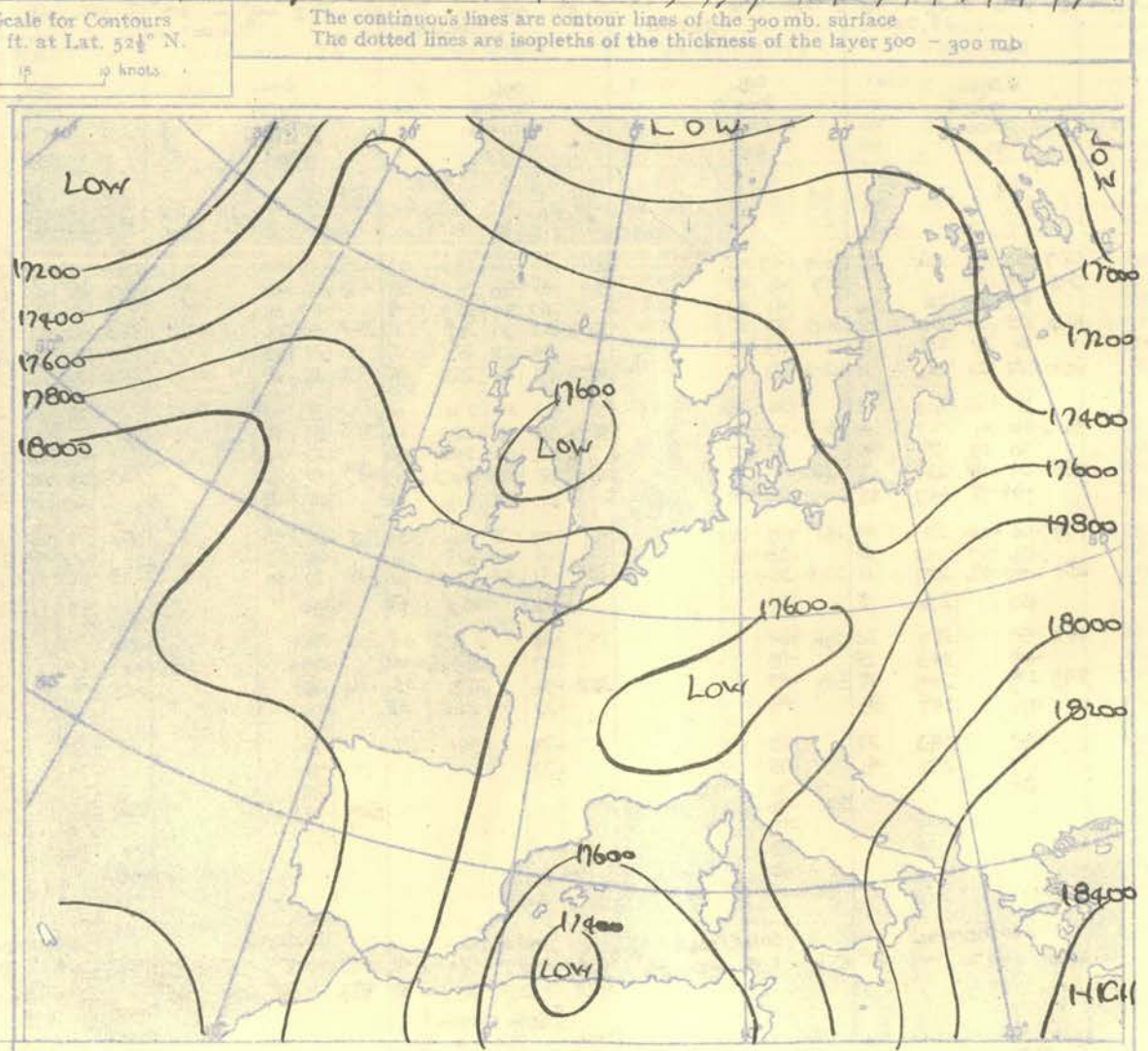
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700—500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2N 17·0W			39·5N 12·2W			53·1N 01·3E		
Pressure Time	12h			14h			15h		
M.S.L.	1029 mb			1028 mb			1020 mb		
Surf	1025 mb			1025 mb			1018 mb		
Freezing	685 mb			690 mb			819 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		54	50		65	60	05	47	43
1000	7·7	51		7·7	58		5·4		
950		45	45		45	43		41	41
900		39	39		38	36	33·6	36	36
850		40	19		50	39		33	29
800		43	13		44	27	64·7	30	23
750		38	12		40	21		26	25
700	10·3	34	23	10·3	33		9·9	23	16
650		27	27		25			17	14
600		21			16		139	10	
550		20			08			04	
500	190	10		189	-03		184	-08	
450								-17	
400							236	-29	
350								-43	
300							300	-54	
250									
200									
170									

Cloud 7/8 Ns. 940-860mb 8/8 Cl N.R. Surf Wind S.W. 11-16 kts. Inversion 900mb 39°- 800 .. 43°

Cloud. 7/8 Sc 8/8 920-880mb Surf Wind N.E. 7-10 kts Inversion 900 mb 38°- 850 .. 50°.

Cloud 7/8 Sc. 8/8 961-865mb Isothermal 850mb. 823 mb 33°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Wick		Weather Watcher 52·5N 20·1W		Downham Market	
Time	09h		21h			
Type						
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	200	10	260	28		
1,000	230	22	250	28		
2,000	250	14	250	33		
3,000	230	08	260	39		
4,000	210	14	260	43		
5,000	220	18	250	30		
6,000	220	18	260	34		
8,000	230	22	260	44		
10,000	250	26	250	51		
14,000	250 (9,000')	23	250	60		
18,000			250	58		
24,000			250	71		
30,000			240	93	320	
40,000			240	94	310	29
50,000			240 (44,000')	76	270	15

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	NONE REPORTED.
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

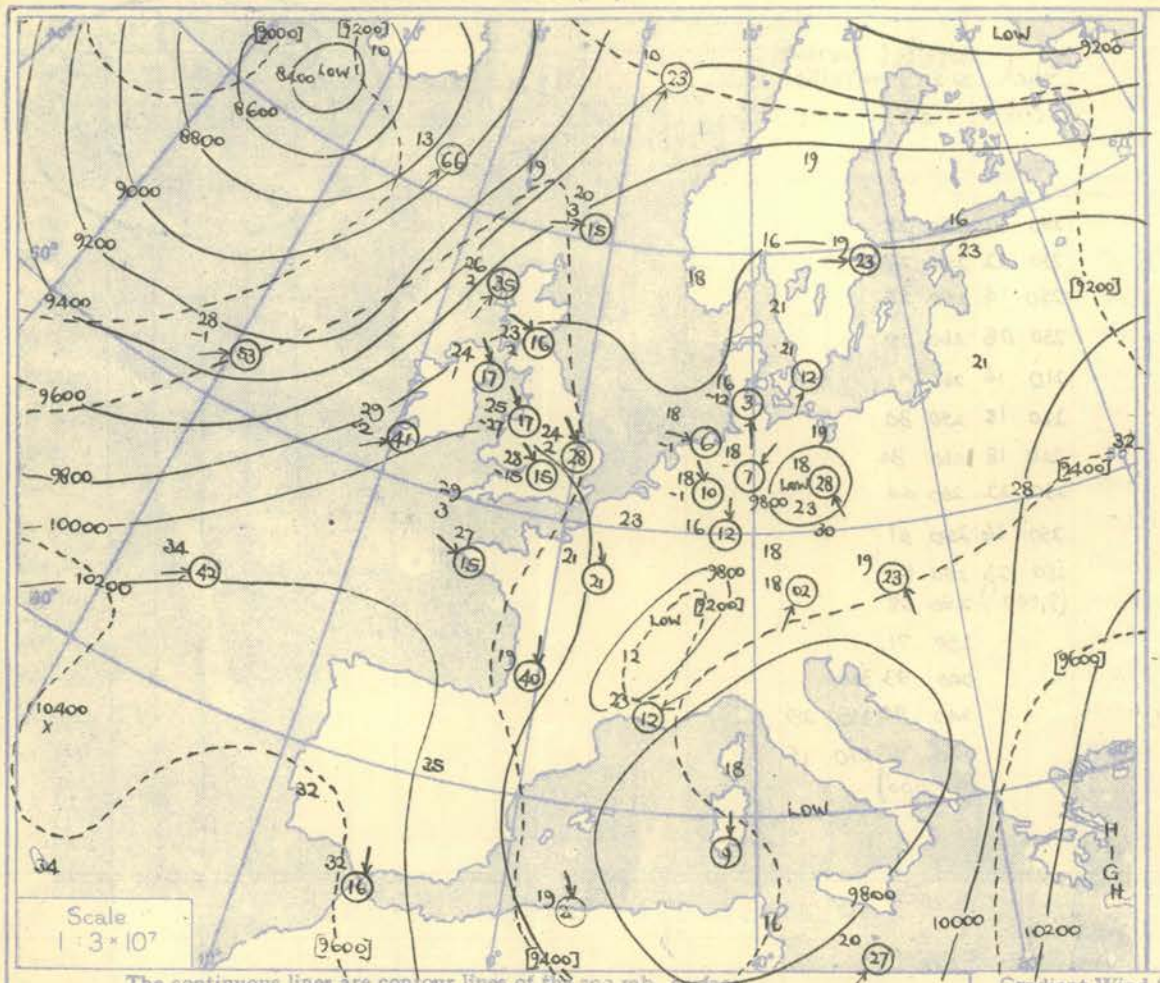
Ship	WEATHER OBSERVER						WEATHER OBSERVER					
Lat/Long	61·0N. 14·0W.						60·9N. 13·8W.					
Pressure Time	03h. G.M.T.						09h. G.M.T.					
M.S.L.	998 mb						999 mb					
Surf	998 mb						999 mb					
Freezing	840 mb						840 mb					
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots		Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	
Surf		41	46	165	22			45	42	245	23	
1000	-6						-2·6					
950		42	42	167	33			40	37	219	33	
900	27·6	38	31	179	39		25·6	35	32	212	42	
850		33	32	183	43			33	30	201	48	
800	58·5	28	24	185	43		56·6	29	26	200	58	
750		24	19	187	39			24	21	195	60	
700	93·0	19	14	186	38		91·0	20	18	191	62	
650		12	09	185	41			14	10	191	63	
600	132	06	01	187	43		130	07	02	189	78	
550		-02	-08	190	44			-02	-07	187	75	
500	176	-08	-14	194	40		175	-10	-16	192	77	
450		-21	-26	202	47			-21	-27	196	79	
400	228	-35	-44	210	63		227	-34	-40	200	85	
350		-48		229	63			-49		202	86	
300	291	-64		232	68		289	-65		209	89	
250		-79		235	67			-82		203	84	
200	374	-74		216	52		373	-75		219	75	
170		-69						-73		222	54	
150		-69						-70		222	52	
130		-73						-72		221	46	
110		-74						-76		221	42	
100	(102 mb)	-76					515	-78		219	39	
90							(093 mb)	-79				
80												
70												
60												
	Isothermal 800-790mb. 28°											
Tropopause	I 250mb. -79° 33,100'						I 245mb. -84° 33,300'					

Ship	WEATHER OBSERVER						WEATHER OBSERVER					
Lat/Long	60·9N. 14·0W.						61·0N. 14·0W.					
Pressure Time	15h. G.M.T.						21h. G.M.T.					
M.S.L.	989 mb						980 mb					
Surf	989 mb						980 mb					
Freezing	890 mb						930 mb					
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots		Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	
Surf		43	33	240	38			38	35	115	10	
1000	-2·9						-5·5					
950		39	32	218	29			34	34	145	05	
900	25·2	33	30	218	30		22·4	28	28	145	05	
850		27	24	218	36			24	24	145	05	
800	55·8	22	20	218	36		52·8	20	20	168	09	
750		17	13	215	45			18	18	166	22	
700	89·7	13	09	207	66		86·9	14	14	162	41	
650		09	06	202	72			12	12	162	59	
600	128	04	01	203	77		126	07	06	177	47	
550		00	-04	201	87			00	-02	182	62	
500	173	-07	-13	205	99		170	-09	-11	187	72	
450		-14	-21	213	100			-19	-21	193	74	
400	226	-24	-32	218	119		223	-30	-33	189	82	
350		-37	-44	215	102			-43		183	100	
300	291	-50		222	120		287	-55		180	110	
250		-64		224	93			-66		179	85	
200	377	-68		223	82		372	-65		180	82	
170		-64		229	62			-68		196	52	
150	(155 mb)	-62						-68		210	52	
130								-69		223	42	
110								-71		235	45	
100							517	-73		231	39	
90								-76		230	48	
80								-81		226	52	
70								-81		242	38	
60								-82				
							Isothermal 800-776mb. 20° Max wind:- 279mb. 180° 129kts.					
Tropopause	I 214mb. -70° 36,400'						II 256mb. -66° 32,100'					

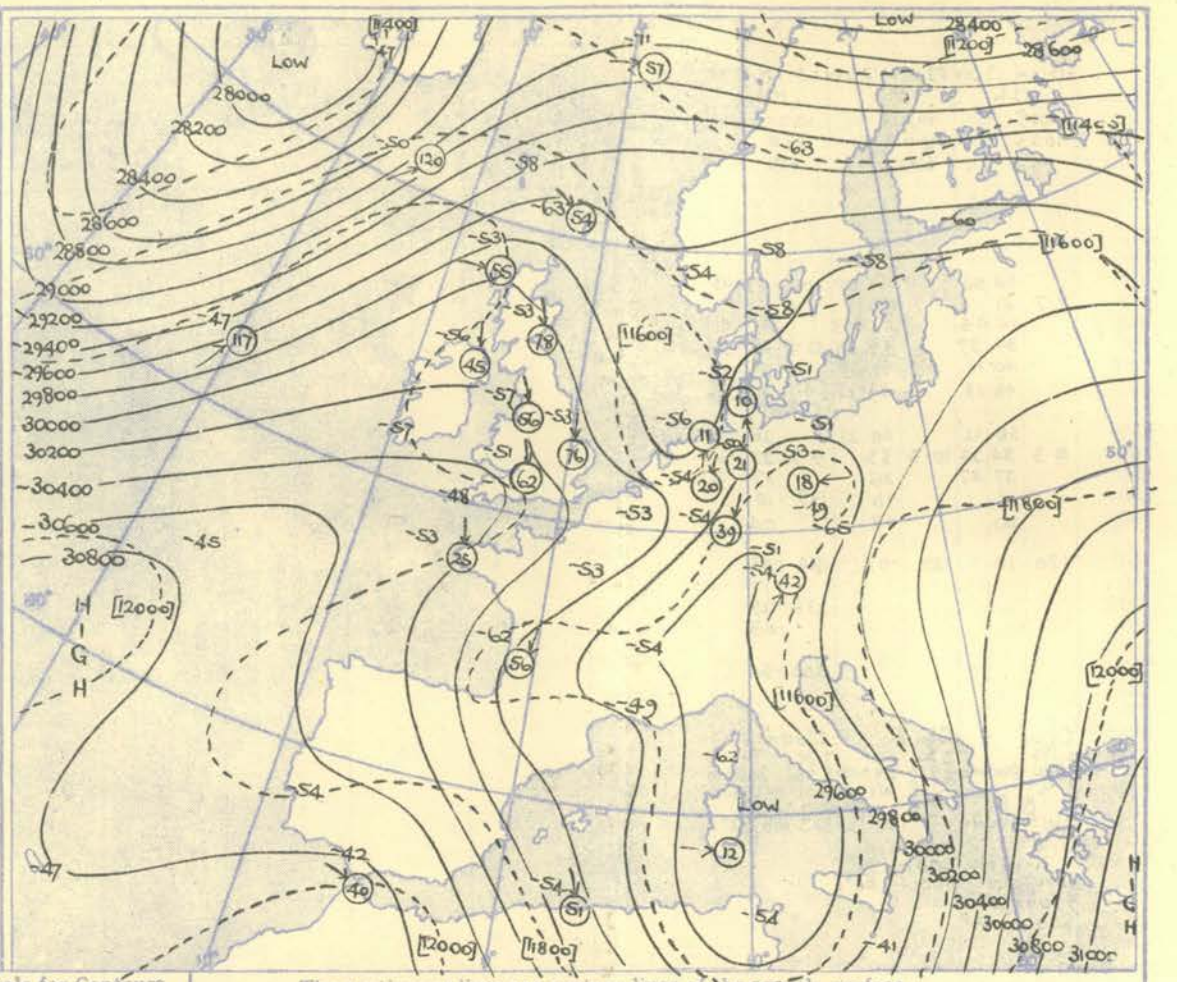
Ship	WEATHER WATCHER						WEATHER WATCHER					
Lat/Long	52·9N. 19·9W.						52·5N. 19·9W.					
Pressure Time	03h. G.M.T.						09h. G.M.T.					
M.S.L.	1006 mb						998 mb					
Surf	1006 mb						998 mb					
Freezing	760 mb						780 mb					
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots		Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	
Surf		58	52	200	28			53	52	190	35	
1000	1·5	53	52				-5					
950		49	46	209	51			49	46	190	52	
900	30·2	44	41	216	53		28·2	45	41	193	58	
850		40	36	219	54			40	36	203	60	
800	61·7	37	31	225	56		59·7	35	27	214	64	
750		31	24	232	59			28	23	218	66	
700	96·8	25	16	235	61		94·5	26	17	215	65	
650		22	-09	229	66			19	05	211	59	
600	136	15	-21	230	70		134	12	-01	211	70	
550		08	-31	230	70			07	-02	209	69	
500	182	00	-25	230	64		179	01	-05	213	75	
450		-09	-22	225	66			-08	-15	211	78	
400	236	-18	-30	224	79		233	-19	-27	215	78	
350		-30	-42	226	85			-33	-41	215	87	
300	301	-43		229	94		298	-50		222	92	
250		-59		231	96			-67		221	104	
200	388	-76		241	90		(235 mb)	-73				
170		-78		252	95							
150		-76		258	86							
130		-77		259	70							
110		-69		256	57							
100	530	-71		252	26							
90		-72		249	50							
80		-72		241	46							
70		-73		236	44							
60		-73		235	40							
		-73										
	Inversion 686mb. 23°-662mb. 24° Isothermal 1006 - 1000mb. 53°											
Tropopause	I 185mb. -81° 40,400'						N.R.					

Ship	WEATHER WATCHER						WEATHER WATCHER					
Lat/Long	52·5N. 20·0W.						52·5N. 20·0W.					
Pressure Time	15h. G.M.T.						21h. G.M.T.					
M.S.L.	992 mb						1001 mb					
Surf	992 mb						1001 mb					
Freezing	890 mb						900 mb					
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots		Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	
Surf		41	40	300	36			43	38	260	23	
1000	-2·4						4					
950		36	33	301	46			38	31			
900	25·9	33	29	303	42		28·4	32	23	For winds see top of page.		
850		32	28	304	37			25	16			
800	56·9	32	28	293	27		58·9	17	10			
750		31	27	267	37			12	02			
700	91·9	28	21	255	53		92·4	07	-02			
650		19	11	230	100			-01	-10			
600	131	13	05	219	125		130	-06	-18			
550		07	-07	218	112			-10	-27			
500	177	01	-22	215	112		174	-18	-38			
450		-07	-37	213	112			-26	-46			
400	231	-18	-50	208	119		226	-31	-52			
350		-30	-57	201	122			-40	-60			
300	296	-47		206	117		290	-44				
250		-58		213	108			-52				
200	383	-64		211	79		378	-59				
170		-65		212	76			-57				
150		-66		216	62		(156 mb)	-57				
130		-60		208	41							
110		-58		209	40							
100	530	-62		216	37							
90		-67		220	35							
80		-68		221	35							
70		-70		222	38							
60	(064 mb)	-71										
	Isothermal 890 - 800mb. 32° 750 - 723 mb. 31° 619 - 600 mb. 13°											
Tropopause	II 200mb. -64° 38,300'						I 200mb. -59° 37,800'					

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

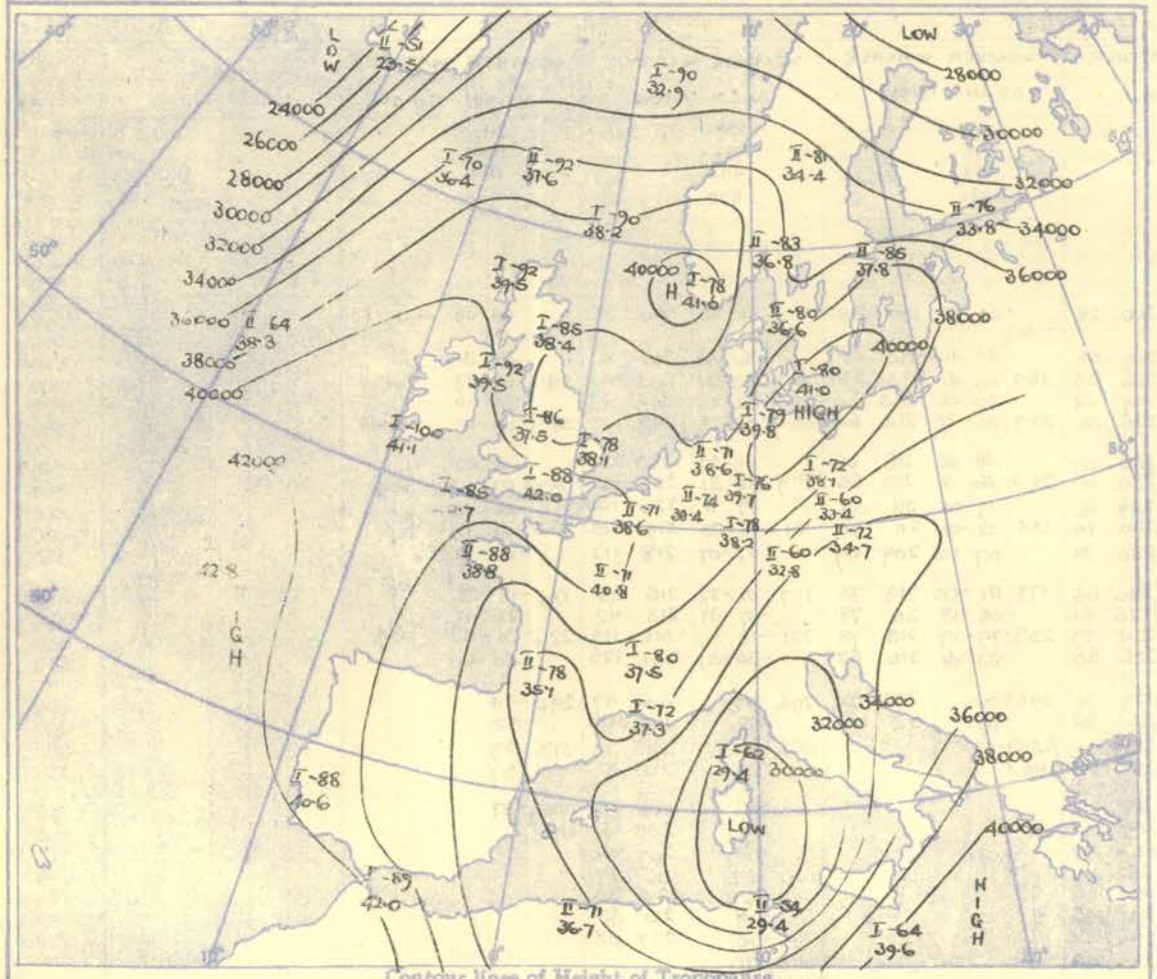


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A general slow eastward movement of the upper troughs and ridges.

No special features.

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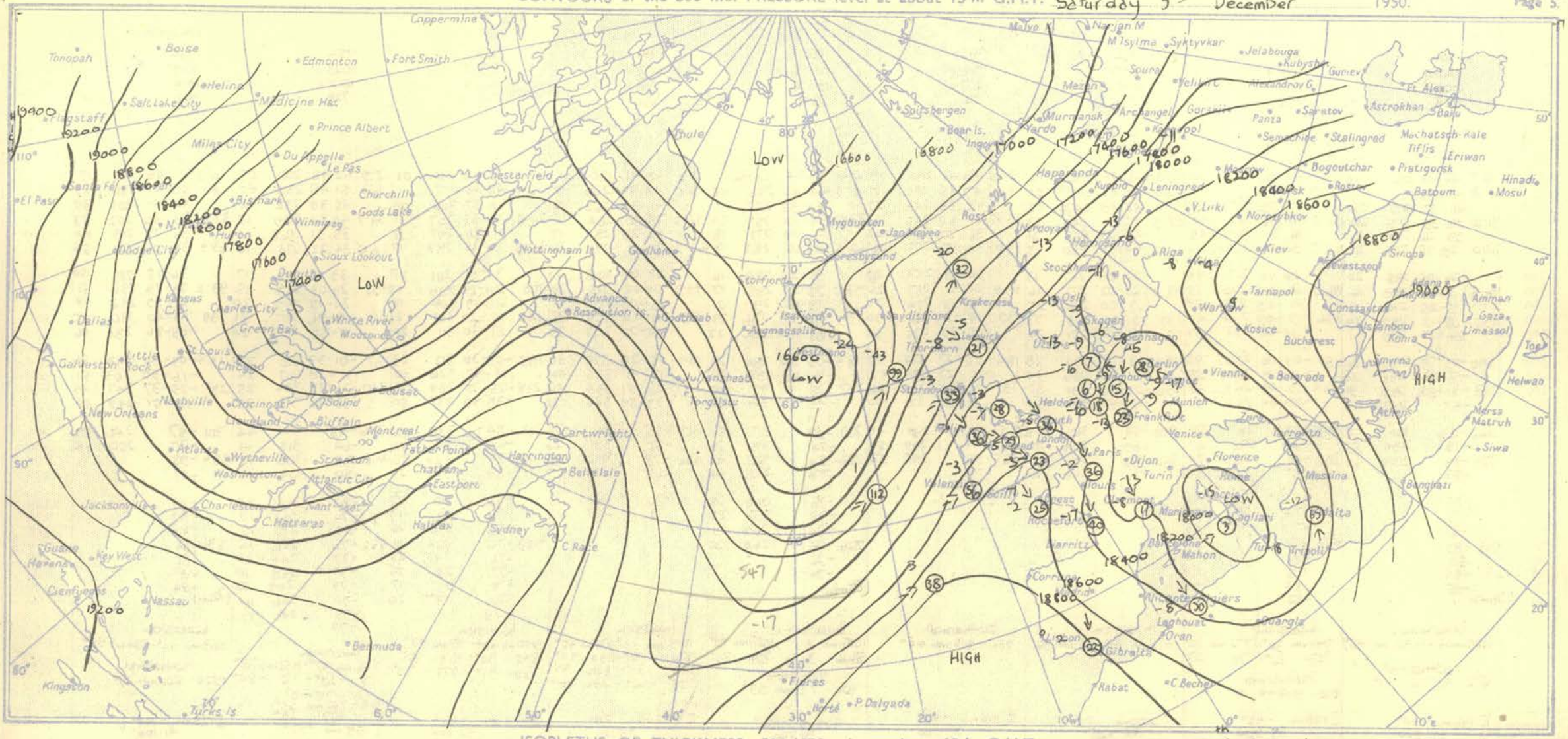
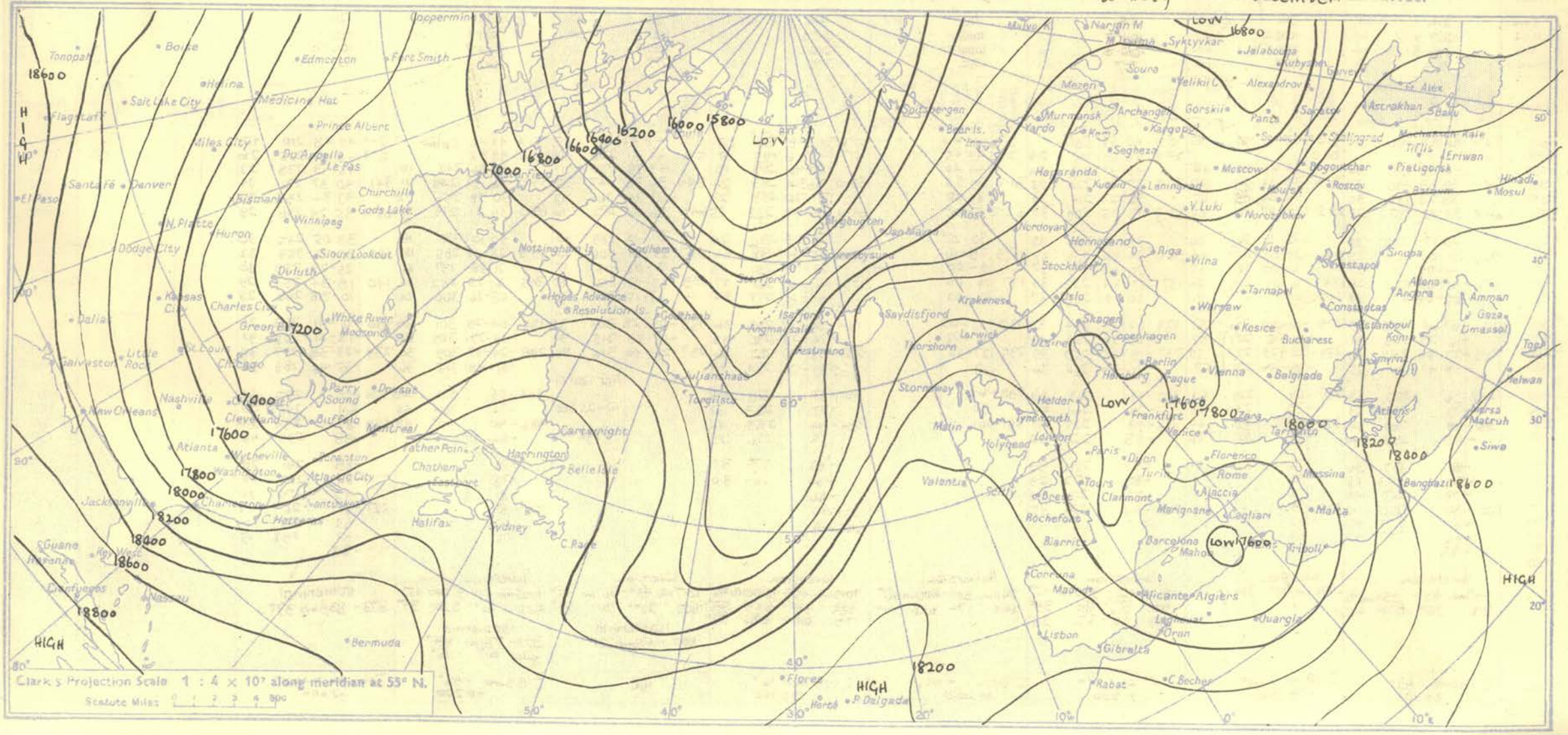
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Saturday 9th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 9th December 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. ... December ... 1950.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	1010·3 mb	1008·4 mb	1015·3 mb	1016·1 mb	1019·6 mb	1022·2 mb	1022·7 mb	1023·3 mb	1015·1 mb
Pressure: Surf	1000·2 mb	1006·7 mb	1014·5 mb	1007·0 mb	1017·6 mb	1017·8 mb	1006·3 mb	1012·6 mb	1014 mb
Pressure: Freezing	828 mb	775 mb	773 mb	770 mb	880 mb	800 mb	733 mb	729 mb	720 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·7	44	43	220	14	0·4	49	46	190	20	0·2	46	44	240	12
1000	2·8	44	43			2·3	48	45			4·1	45	42	245	21
950		41	37	215	26		43	39	205	39		42	38	247	22
900	31·0	36	33	215	26	30·5	40	36	212	40	32·3	35	31	249	23
850		33	26	213	26		36	31	221	45		34	28	255	21
800	62·0	29	15	224	22	61·7	30	26	222	44	63·4	34	12	260	15
750		24	08	235	20		29	18	222	40		29	08	267	13
700	96·5	20	03	263	16	96·6	26	02	226	35	98·0	23	02	277	16
650		15	-05	276	15		21	-09	235	37		17	00	280	25
600	135	08	-15	283	16	136	13	-08	244	45	137	12	-04	279	27
550		04	-27	289	17		04	-08	237	51		07	-12	271	24
500	180	-05	-35	295	21	181	-03	-08	238	33	183	-03	-26	272	28
450		-18	-53	298	28		-12	-19	236	38		-15	-32	286	34
400	233	-31	-58	298	31	234	-22	-29	242	41	236	-25	-36	291	37
350		-47		297	43		-37	-44	258	47		-39	-47	304	54
300	296	-63		301	54	299	-53		265	55	300	-53		310	78
250		-78		299	53		-71		259	67		-69		299	70
200	379	-89		289	61	383	-90		268	74	384	-85		296	52
170		-83					-87		265	58		-76		246	21
150		-85					-76		247	43		-77			
130		-77					-78		246	33					
110		-81					-75		251	38					
100	518	-82				523	-78								
90		-83					-80								
80		-84					-81								
70		-85					-82								
60	(74mb)						-82								

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	48	44	240	15	0·6	48	44	Calm		1·2	43	41	180	07
1000	4·5	47	43	240	21	5·3	49	44	256	15	6·0	44	43	262	12
950		42	35	243	22		42	35	257	17		41	34	262	12
900	33·8	41	30	245	27	33·6	35	25	257	21	34·2	34	31	264	14
850		36	20	247	27		31	19	272	18		32	28	281	15
800	65·0	34	17	250	26	64·6	33	08	283	18	65·2	32	11	296	20
750		30	13	254	25		30	-24	288	16		28	06	304	22
700	99·9	24	01	257	24	99·5	25	-27	295	17	99·9	24	02	315	28
650		20	-18	256	23		19	-16	291	21		18	-06	320	31
600	139	14	-30	261	30	139	12	-27	286	23	139	12	-14	324	36
550		08	-30	275	36		05	-40	280	22		04	-22	327	35
500	184	-06	-27	274	35	184	-05	-59	284	29	184	-05	-28	325	36
450		-15	-27	295	42		-16	-53	298	28		-17	-41	335	40
400	237	-26	-38	292	46	237	-28	-52	317	40	237	-27	-51	334	56
350		-40	-52	279	40		-43		319	46		-39	-59	346	72
300	302	-56		299	48	301	-57		317	56	301	-53		341	76
250		-74		299	58		-74		315	59		-65		331	60
200	385	-90		297	56	384	-84		302	40	386	-73		312	36
170		-79					-78		278	30		-68		289	17
(980mb)							-78		282	23		-70		261	18
150							-75		273	25		-73		255	23
130							-74		264	19					
110						526	-74		260	20					
100							-74								
90							-74								
80						(85mb)									
70															
60															

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	4·4	46	44	280	02	2·9	52	48	200	05	0·3	51	48	180	17
1000	6·1	45	43			6·3	51	48	232	45	4·1	50	47	188	23
950		40	37	306	08		45	39	232	14		44	41	203	35
900	34·4	39	33	307	11	34·7	40	34	239	12	32·6	38	30	202	43
850		31	30	297	13		38	31	268	14		36	22	203	40
800	65·5	34	14	283	17	66·0	34	22	274	16	63·9	39	01	221	54
750		31	01	281	17		33	15	282	17		36	-15	231	50
700	99·9	28	-15	298	15	102	29	03	288	18	99·2	29	-28	236	41
650		20	-19	304	18		24	-15	295	20		21	-39	235	48
600	140	14	-20	307	21	141	18	-26	297	21	139	13	-40	230	57
550		07	-30	311	20		11	-35	293	24		08	-36	231	56
500	185	-03	-39	312	23	187	-01	-33	310	23	184	-03	-30	233	56
450		-14	-47	326	30		-11	-28	317	24		-16	-30	263	51
400	238	-25	-25	339	38	240	-21	-33	324	25	237	-25	-37	247	49
350		-38	-59	337	50		-33	-46	317	39		-40	-51	249	48
300	303	-54		339	62	306	-48		314	44	301	-57		246	59
250		-68		334	64		-64		313	49		-75		250	64
200	387	-77		326	38	391	-83		308	47	384	-95			
170		-88		310	29		-80		304	34		-97			
150		-73		310	27		-82		292	30		-89			
130		-74		294	17		-74		283	19		-83			
110		-78		270	16		-75		279	15		-84			
100	529	-76		254	18	532	-76		256	14	531	-84			
90		-76		243	23		-77		244	20		-85			
80		-77		257	24		-77		258	28		-87			
70		-79		257	17		-73		269	22		-94			
60		-76		247	20		-70		246	16	(72mb)				
		-78					-73		240	18					
							-77								

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	1000mb 44°-981mb 45°	794mb 30°-775mb 32° 727- 26°- 713·· 27°	872mb 31°-835mb 36°	954-912mb 42°	1018mb 48°-1001mb 49° 866·· 30°- 828·· 33°	1018mb 43°-975mb 45° 870·· 30°-832·· 34° 813·· 31°- 800·· 32° 255·· -66°- 246·· -64°	950mb 40°-931mb 43° 845·· 30°- 814·· 35° 760- 31°- 733·· 32°	866mb 37°-850mb 38° 185·· -89°- 170·· -80°	863mb 34°-824mb 39°
Isothermal	872-837mb 33°	921-908mb 41°			828-773mb 33°			789-735mb 33° 710-677·· 29°	824-800mb 34°
Tropopause	I 196mb -90° 38·300	I 188mb -92° 39·500	I 200mb -85° 38·400	I 190mb -92° 39·500	I 209mb -86° 37·500	I 205mb -78° 38·100	I 178mb -88° 42·000	I 155mb -85°	I 175mb -100° 41·100

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1007·9 mb	1000·0 mb	1011·7 mb	1008·1 mb	1017·2 mb	1021·7 mb	1021·1 mb	1021·1 mb	mb
Pressure: Surf	996·8 mb	998·4 mb	1010·8 mb	1000·3 mb	1015·2 mb	1017·3 mb	1004·7 mb	1010·4 mb	mb
Pressure: Freezing	783 mb	837 mb	767 mb	750 mb	775 mb	775 mb	744 mb	727 mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·7	45	43	190	24	0·4	49	47	180	35	0·2	42	38	Calm	
1000	1·8					00·0					3·1	43	38	207	24
950		42	39	185	34		44	43	177	44		42	37	217	24
900	30·1	39	33	190	33	28·4	39	38	189	50	31·4	37	31	220	25
850		38	23	197	30		34	34	196	55		38	27	214	29
800	61·5	34	22	197	28	59·5	28	27	200	62	62·7	38	15	209	33
750		29	17	202	29		26	21	206	66		31	16	206	33
700	96·3	23	07	209	29	94·1	25	07	208	66	98·0	24	06	208	37
650		19	-09	211	27		21	-08	207	65		25	-03	218	37
600	136	11	-09	220	28	134	16	05	212	56	137	17	-34	222	39
550		02	-09	229	28		09	01	217	51		10	-19	228	37
500	181	-07	-14	228	29	179	-01	-09	218	54	183	02	-17	244	39
450		-16	-23	223	31		-11	-15	223	57		-09	-20	253	43
400	233	-27	-34	232	32	233	-24	-29	227	59	237	-18	-25	269	39
350		-39	-47	241	35		-38	-44	222	57		-30	-39	264	36
300	297	-56		250	43	297	-54		229	61	302	-49		263	39
250		-73		257	53		-73		234	69		-72		261	44
200	381	-89		267	54	381	-88		231	60	386	-93		265	47
170		-83		250	40		-85		227	56		-88		256	32
150		-81		232	36		-76		240	51		-83		250	33
130		-80		243	43		-76					-82		252	29
110		-79		247	43		-76					-82		251	33
100	520	-80		250	+2	521	-79				524	-83		254	35
90		-81		257	+0		-82					-85			
80		-82		257	41		-82								
70		-83													
60															

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	49	44			0·6	45	43	180	05	1·2	43	42	140	05
1000	2·6	49	45			4·7	48	46	195	15	5·8	44	41	236	09
950		44	40				42	40	212	19		43	35	239	11
900	31·0	39	33			33·0	36	34	233	24	34·1	36	30	247	12
850		34	25				37	30	239	27		37	24	261	12
800	62·2	37	05			64·2	35	19	232	25	64·9	26	16	272	16
750		32	-07				29	09	230	24		31	12	283	10
700	97·3	28	-16			99·0	25	04	238	36	99·7	25	01	306	10
650		19	-05				23	-09	251	29		21	-02	313	17
600	137	14	09			139	16	-16	262	27	139	15	-07	312	25
550		08	02				07	-21	258	32		07	-15	317	29
500	182	-02	-09			184	-04	-27	263	36	185	-05	-28	303	30
450		-14	-22				-14	-29	272	42		-15	-33	315	31
400	235	-27	-34			237	-25	-37	282	36	237	-26	-40	316	34
350		-43					-39	-50	284	39					
300	299	-61				301	-57		278	43					
250		-80					-77		283	51					
200	381	-101				384	-94		285	44					
170							-84		276	39					
150							-83		275	35					
130							-80		264	30					
110							-80								
100							-80								
90						(003mb)									
80															
70															
60															

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	4·4	43	42	Calm		2·9	49	48	210	10					
1000	5·6	43	42			5·7	48	47	225	26					
950		42	36	242	10		45	43	228	22					
900	33·9	36	31	248	11	34·1	40	37	231	21					
850		30	29	256	12		37	34	234	25					
800	65·0	34	21	273	17	65·4	35	24	236	29					
750		32	10	275	18		33	05	245	30					
700	99·9	28	-03	285	18	100	30	-12	253	32					
650		21	-18	297	16		25	-28	259	30					
600	395	16	-23	282	20	140	18	-34	257	29					
550		08	-26	300	24		10	-38	262	28					
500	185	-04	-29	301	36	186	-01	-41	263	26					
450		-13	-29	305	30		-13	-41	255	31					
400	238	-24	-37	309	30	239	-23	-38	277	34					
350		-37	-48	315	36		-35	-45	283	36					
300	304	-53		311	46	304	-50		292	44					
250		-72		304	54		-69		294	50					
200	386	-90		307	48	389	-87		294	60					
170		-86					-98		293	49					
150		-79					-88		291	28					
130		-78					-84		272	13					
110		-81					-82		272	20					
100	526	-81				527	-81		266	23					
90		-81					-82		287	19					
80		-78					-82		292	15					
70							-82								
60															

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	997mb 45°- 984mb 46° 918·· 38°- 872- 41°	770mb 25°-724mb 28°	1011mb 42°- 982mb 45° 900·· 37°- 810·· 39° 683·· 22°- 656·· 26°	840mb 33°-800mb 37° 640·· 17°- 630·· 19°	1015mb 45°-1000mb 48° 885·· 34°- 833- 38° 712·· 24°- 685·· 27°	1017mb 43°-967mb 45° 805·· 22°- 791·· 33°	1005mb 43°-970mb 45° 850·· 30°- 820·· 34°		
Isothermal						682-633mb 21°	820-778mb 34° 626-617·· 18°	873-838mb 37°	
Tropopause	I 190mb -92° 39·100	I 185mb -92° 39·700	I 187mb -97° 39·900	I 190mb -106° 39·200	I 193mb -96° 39·100	NR	I 185mb -92° 40·200	I 165mb -100° 42·600	

For rest of Winds See Page 8

HMSO Press, MO, Dunstable

No. 11578.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

Sunday 10th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Pressure	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
	M.S.L.	995·9 mb	990·4 mb	1001·9 mb	1001·3 mb	1011·0 mb	1018·4 mb	1017·7 mb	1016·2 mb	1007 mb
	Surf	985·9 mb	988·8 mb	1001·1 mb	992·7 mb	1009·0 mb	1014·0 mb	1001·4 mb	1005·5 mb	876 mb
	Freezing	783 mb	873 mb	830 mb	872 mb	800 mb	766 mb	780 mb	688 mb	

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	46	43			00·4	45	42	250	18	00·2	49	43	210	25	02·6	48	46		
1000	-1·2					-2·6					0·5	49	43			0·6				
950		42	39				41	36	243	38		45	41	206	49		42	41		
900	27·1	37	33			25·6	35	29	241	42	29·0	39	35	209	53	28·9	36	33		
850		35	29				29	22	234	46		33	29	219	56		29	23		
800	58·3	33	27			56·3	26	19	219	58	60·0	31	27	230	55	59·8	29	24		
750		29	-12	For			21	13	212	66		29	25	219	50		22	14		
700	93·1	25	-27			90·5	17	11	204	63	94·9	23	18	214	52	94·1	17	08		
650		18	-34	winds			11	05	206	70		23	19	224	56		13	02		
600	132	09	-08			129	04	-02	207	78	135	17	12	223	57	133	08	-04		
550		08	02	See			04	-05	199	90		10	04	226	57		-03	-11		
500	178	-01	-08			174	-05	-27	200	91	180	02	-03	225	61	177	-12	-17		
450		+11	-21	page			-16	-42	207	96		-08	-15	228	59		-22	-26		
400	231	-22	-33			227	-28	-44	208	99	234	-20	-28	225	60	229	-33	-38		
350		-36	-49	3.			-38	-50	203	105		-35	-43	232	73		-45			
300	296	-54				292	-51		202	118	299	-51		232	67	293	-51			
250		-73					-69		209	117		-71		238	79					
200	379	-84				377	-70				383	-71								
170		-80					-75					-87								
150		-78					-76					-84								
130		-77					-73					-78								
110		-77					-75					-76								
100	520	-79				519	-76				523	-80								
90		-83										-84								
80		-87										-82								
70		-88																		
60	(77 mb)																			

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE
Inversion	872 mb 34° - 843 mb 36° 588 " 09° - 571 " 11°	578 mb 01° - 550 mb 04°	687 mb 21° - 663 mb 24°	850 mb 29° - 820 mb 32°
Isothermal	600 - 588 mb 09°	741 - 721 mb 20° 850 - 831 " 29°	800 - 780 mb 31°	635 - 620 mb 12°
Tropopause	I 215 mb - 86° 36,500'	I 243 mb - 73° 33,800'	I 191 mb - 94° 39,200'	NR.

Pressure mb	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	47	44	190	14	01·2	44	42	190	11	04·4	44	44	210	12	02·9	50	46	240	15	00·3	47	48		
1000	3·0	46	43	198	25	4·9	45	42	222	23	4·8					4·4	49	45			1·9	47	42		
950		44	41	215	34		42	36	220	24		42	42	212	27		45	41	222	30		43	37		
900	31·4	39	36	227	42	33·2	36	33	222	22	33·1	40	40	227	32	32·9	42	33	233	40	30·3	36	32		
850		34	31	224	43		31	24	244	21		36	36	234	34		40	23	238	38		29	25		
800	62·5	32	29	212	30	64·3	33	15	249	22	64·3	32	31	237	33	64·4	38	11	247	30	61·1	24	10		
750		26	23	213	34		30	06	295	19		31	12	240	32		37	12	248	33		27	-21		
700	97·3	26	25	233	39	99·2	28	-06	253	19	99·2	29	-12	248	32	99·8	34	02	247	36	95·6	23	-34		
650		23	22	243	45		22	-12	264	22		24	-29	252	31		26	06	247	40		19	-41		
600	137	17	16	290	96	139	15	-21	265	24	139	18	-39	260	35	140	19	15	247	42	135	10	-12		
550		16	09	246	48		06	-27	273	25		10	-52	265	36		11	07	253	43		07	-01		
500	183	01	-01	249	49	184	-04	-28	275	29	185	-01	-56	264	34	186	03	00	255	47	180	00	-04		
450		-09	-11	242	52		-14	-30	281	30		-13	-54	270	36		-06	-10	259	47		-09	-15		
400	237	-20	-23	246	51	237	-23	-37	290	31	238	-21	-54	280	35	239	-16	-20	260	49	234	-19	-24		
350		-34	-37	255	54		-38	-50	297	36		-35	-58	293	36	(385	-20					-32	-38		
300	302	-51		256	59	302	-53		300	40	303	-51		299	38	mb					299	-48			
250		-72		267	56		-70		312	55		-70		299	44							-68			
200	385	-91				386	-90		312	51	387	-89		307	49						384	-80			
170		-94					-85		282	25		-90		293	39							-77			
150		-91					-83		274	24		-86		272	27							-73			
130		-85					-80		249	15		-84		255	21							-73			
110		-81					-80		248	16		-81		259	19							-74			
100	523	-82				525	-81				525	-83		261	18						526	-75			
90		-82										-84		264	21							-77			
80		-83										-83		262	26							-80			
70		-84										-89													
60																									

	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	776 mb 25° - 695 mb 26°	1014 mb 44° - 977 mb 46° 850 " 31° - 823 " 34° 792 " 32° - 776 " 33°	817 - 780 mb 32° 768 - 717 " 31°		800 mb 240 - 740 mb 09° 576 " 06° - 562 " 08°
Isothermal	833 - 808 mb 32°	739 - 704 mb 29°		810 - 768 mb 38°	
Tropopause	I 187 mb - 96° 39,800'	I 196 mb - 92° 39,000'	I 179 mb - 95° 40,800'	NR	I 219 mb - 82° 36,300'

09h G.M.T.

Station	Pressure	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
	M.S.L.	990·0 mb	990·2 mb	997·0 mb	1000·2 mb	1002·2 mb	1011·7 mb	1011·7 mb	1009·6 mb	mb
	Surf	980·1 mb	988·6 mb	996·1 mb	991·6 mb	1000·2 mb	1007·3 mb	995·5 mb	999·0 mb	mb
	Freezing	893 mb	905 mb	887 mb	900 mb	820 mb	748 mb	818 mb	728 mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	40	37			00·4	42	32			00·2	43	41	240	11	02·6	40	37		
1000	-2·6					-2·7					-0·8					0·3				
950		39	33				38	29				40	36	236	30		37	33		
900	25·4	33	32			25·9	31	23			27·3	34	29	240	38	28·3	32	27		
850		27	24				24	16				27	21	240	40		25	14		
800	55·9	20	16			55·8	19	06			58·0	24	19	241	40	58·9	21	02		
750		19	18	For			13	00				22	18	235	39		16	-02		
700	89·9	14	13			89·5	08	-04			92·3	17	14	217	43	92·8	10	-11		
650		09	07	winds			-01	-12				12	08	213	60		07	-18		
600	128	02	00			127	-09	-20			131	05	00	212	67	131	-02	-30		
550		-07	-09	See			-18	-29				-05	-17	215	66		-09	-39		
500	172	-11	-13			170	-26	-38			176	-05	-14	211	82	175	-17	-46		
450		-21	-23	page			-35	-48				-15	-23	209	90		-24	-56		
400	225	-28	-31			221	-42				289	-25	-34	219	94	227	-28	-50		
350		-39	-43	3.			-44					-38	-48	224	103		-38	-58		
300	289	-55				285	-48				293	-53		212	108	291	-54			
250		-73					-53					-71					-61			
200	373	-75				372	-61				377	-73				378	-64			
170		-72					-62					-73					-65			
150		-72					-63													
130	(137 mb)	-73					-69													
110							-70													
100						518	-71													
90							-73													
80							-74													
70																				
60																				

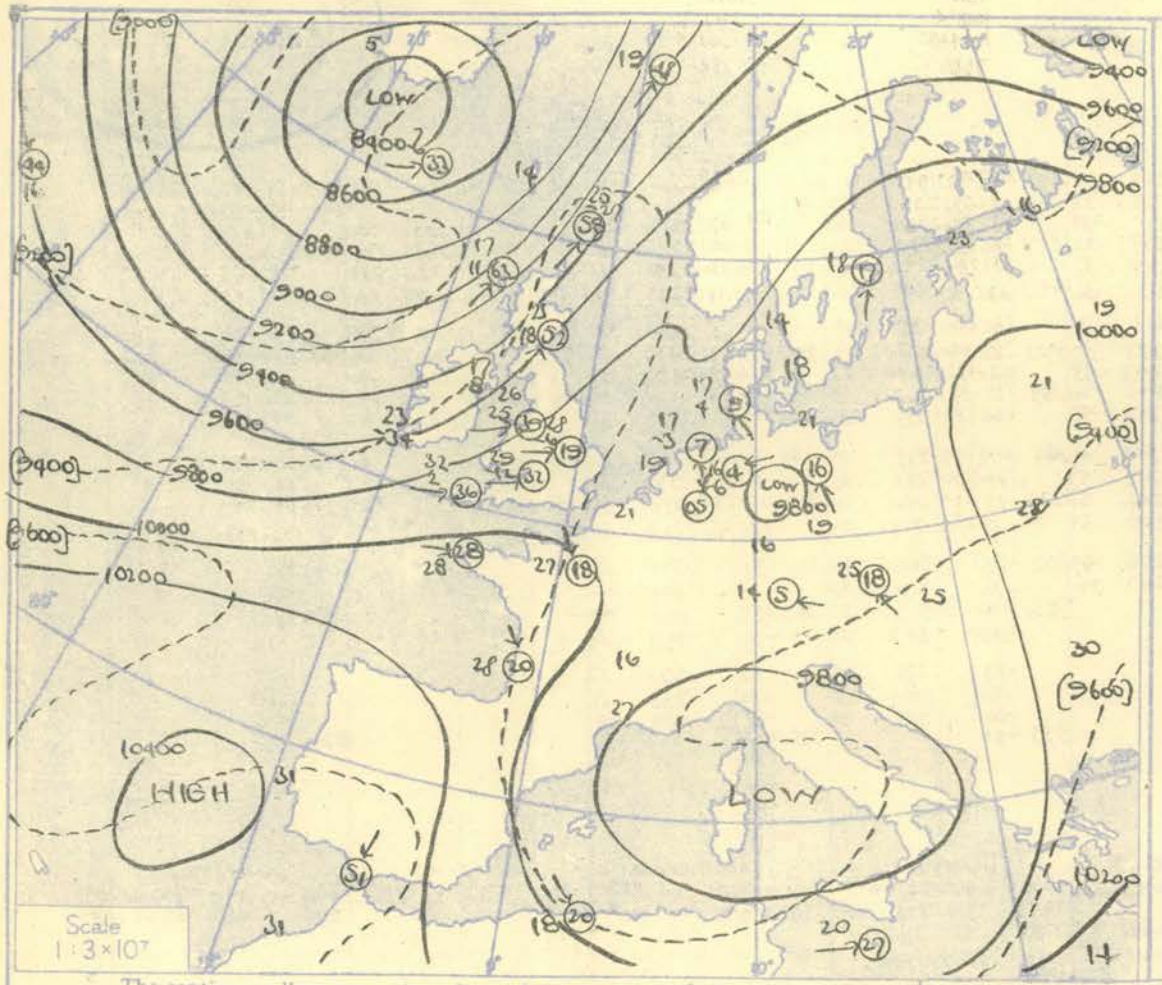
	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE
Inversion	980 mb 40° - 973 mb 41° 786 " 18° - 759 " 20°		550 mb 05° - 504 mb 04°	665 mb 06° - 650 mb 07°
Isothermal				
Tropopause	I 235 mb - 78° 34,000'	I 367 mb - 45° 24,000'	II 285 mb - 77° 34,500'	II 271 mb - 60° 31,400'

Pressure mb	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	48	47			01·2	46	45	170	17	04·4	47	46			02·9	50	50	225	15					
1000	0·6	48	47			3·2					3·1					2·6									
950		45	42				44	43	207	36		43	42				47	47	226	43					
900	29·1	41	39			31·5	38	38	220	45	31·5	38	38			31·2	45	45	242	49					
850		35	35				35	35	223	44		36	36				41	41	252	45					
800	60·3	31	31			62·7	34	13	228	39	62·7	33	33			62·7	37	37	246	42					
750		27	26	For			32	27	228	37		31	31	For			34	34	239	52					
700	95·0	21	20			97·8	27	26	234	38	97·7	27	27			98·0	29	29	240	59					
650		17	15	winds			22	21	343	42		21	20	winds			24	23	243	66					
600	134	13	10			137	16	15	250	47	137	15	13			138	17	15	246	69					
550		08	04	See			10	06	247	48		08	04	See			10	07	241	62					
500	180	00	-04			183	01	-04	248	48	188	-01	-06			184	02	-02	242	64					
450		+10	-15				+09	-15	250	46		-11	-17				-08	-13	247	64					
400	233	-23	-28	page		237	-21	-28	253	45	236	-22	-29	page		237	-21	-26	241	65					
350		-36	-42	3			-35	-41	256	44		-36	-43	3			-32	-37	251	71					
300	298	-50				302	-49		266	51	301	-51				303	-46								
250		-70					-67		265	56		-69					-66								
200	383	-77				386	-88		264	56	385	-90				388	-87								
170		-70					-92		267	52		-97					-89								
150		-70					-82					-92					-79								
130		-70										-85					-77								
110		-73										-77					-77								
100	526	-70														528	-78								
90	(193 mb)	-68															-76								
80																	-73								
70																									
60																									

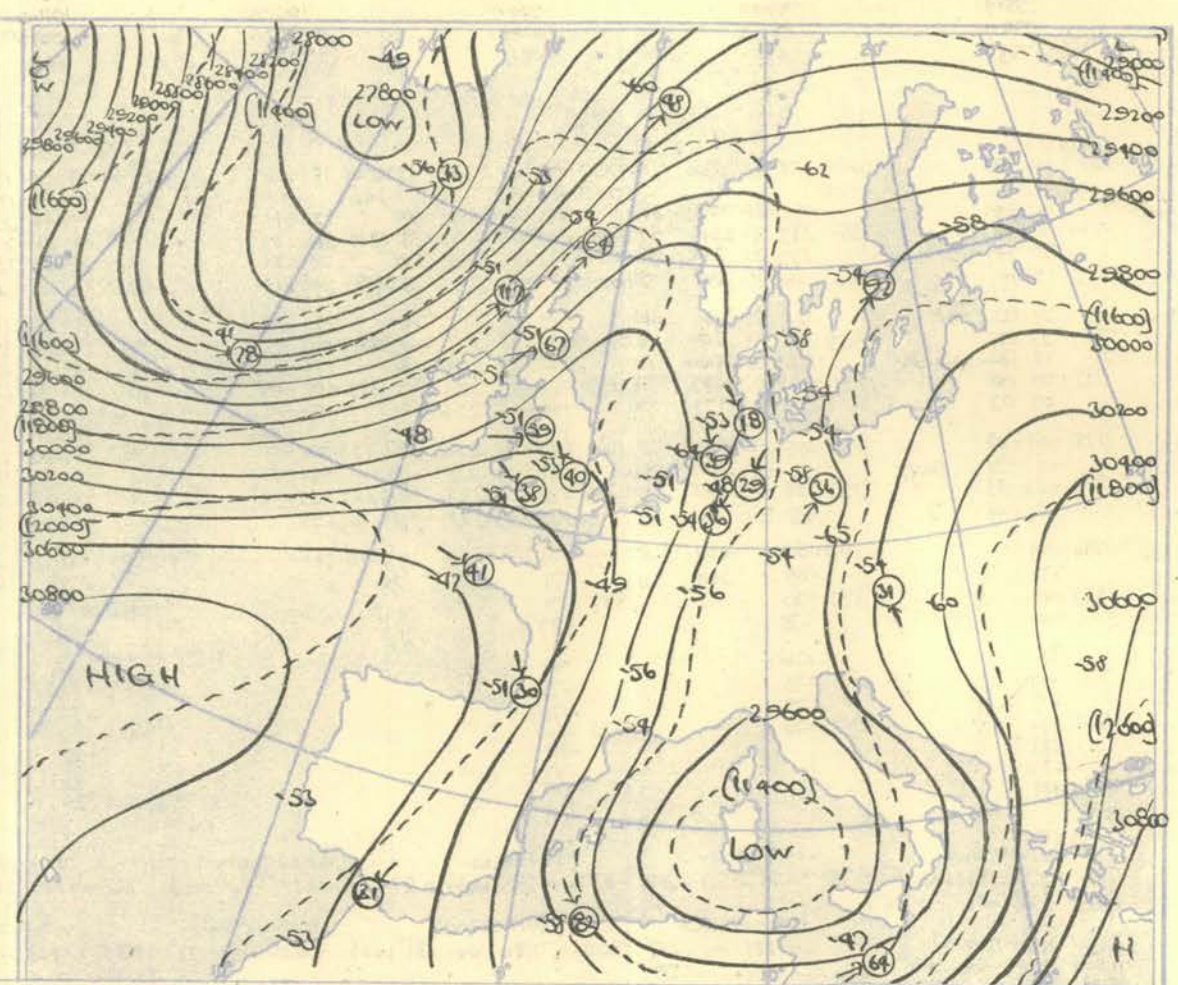
	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion					
Isothermal	833 - 808 mb 32°	836 - 765 mb 34°	885 - 858 mb 37°	915 - 897 mb 45° 810 - 782 " 37°	
Tropopause	I 217 mb - 80° 36,700'	II 190 mb - 92° 39,600'	II 184 mb - 97° 40,200'	II 205 mb - 93° 38,000'	

18th December 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



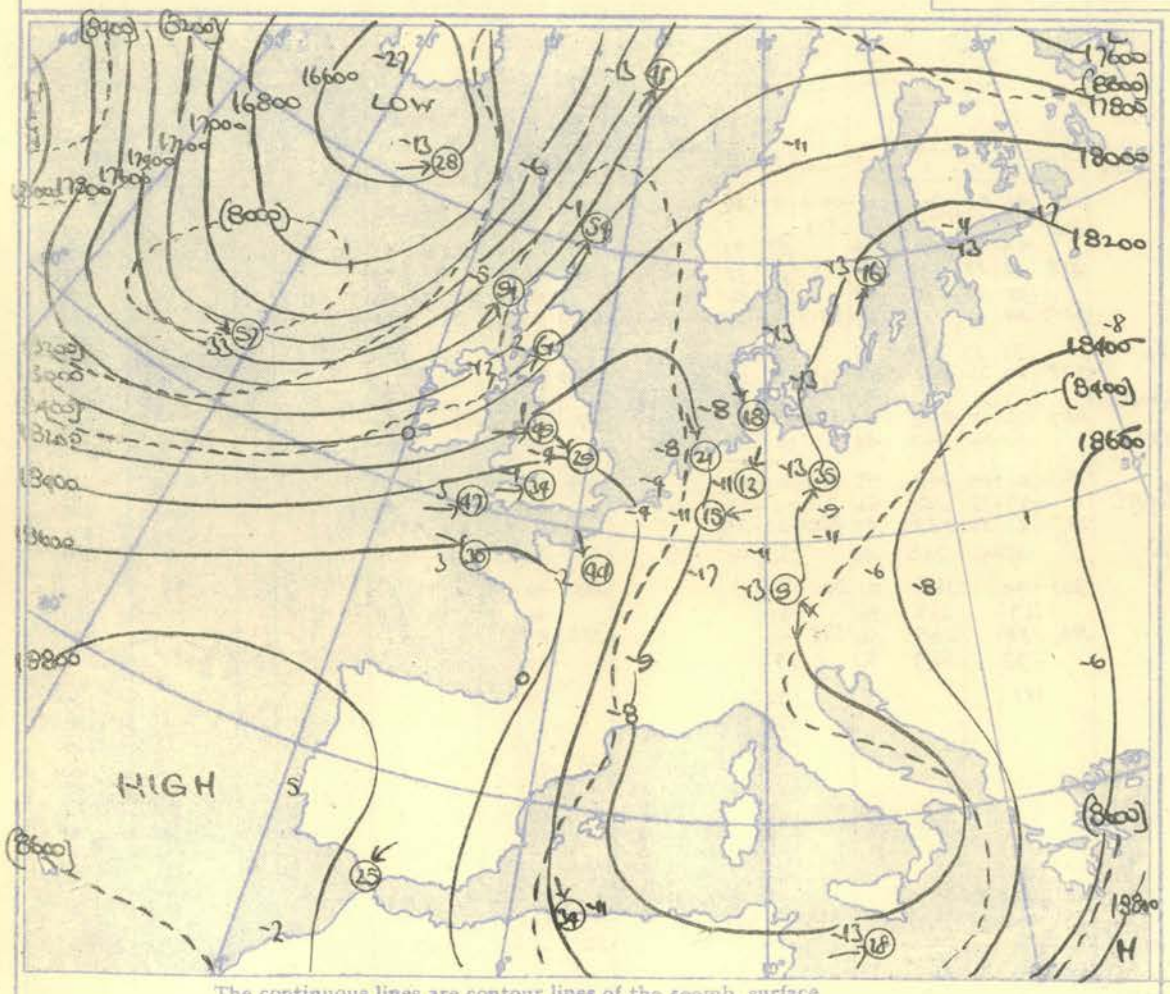
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 – 700 mb.



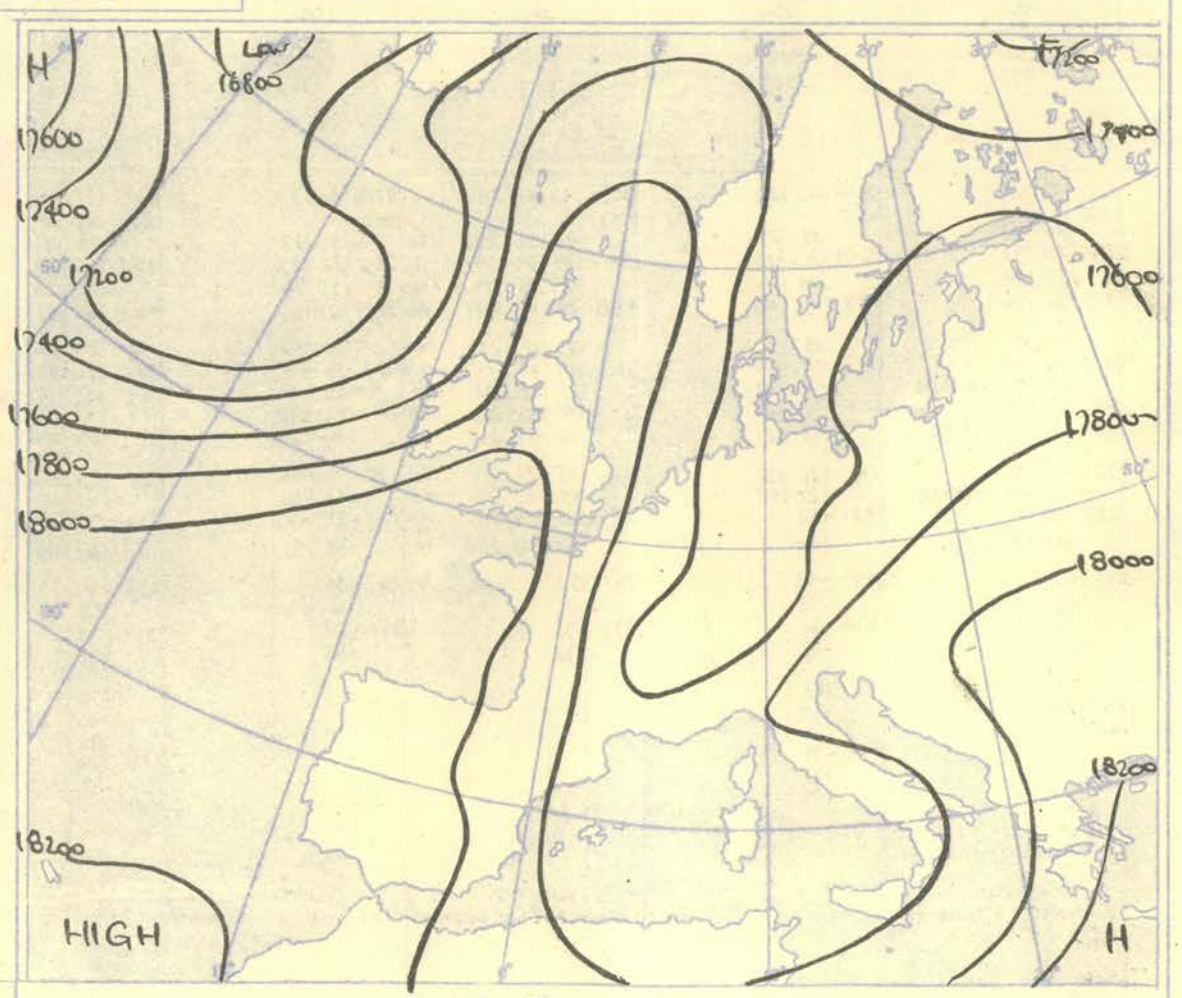
The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000 mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	48·2N 20·5W			49·5N 14·7W			43·2N 17·0W			39·5N 12·2W		
Time	13L			1415L			1245L			1415L		
Pressure M.S.L.	1020 mb			1011 mb			1021 mb			1027 mb		
Pressure Surf	1016 mb			1007 mb			1018 mb			1024 mb		
Pressure Freezing	760 mb			890 mb			710 mb			680 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		45	36		45	41		60	57		57	47
1000	5·3			2·9			6·0			7·2		
950		36	30		38	32		55	55		45	42
900		30	24		33	33		51	51		42	38
850		24	15		25			47	47		51	20
800		16	12		21			41	41		47	23
750		11			13			36	36		41	23
700	97·1	05		95·3	06		102	30	30	103	34	17
650		03			-02			23	23		28	
600		-06			-08			17	16		72	
550		-14			-15			09			13	
500	179	-16		176	-25		188	-01		189	04	
450												
400												
350												
300												
250												
200												
170												

48·2N 20·5W — Cloud:- 4/8 Cu 930 - 820 mb. 2/8 As 940 - 750 mb. 3/8 Sc 810 - 790 mb. Moderate ice in cloud. 790 - 760 mb. Surface wind NW 17 - 28 Kts.

49·5N 14·7W — Cloud:- 2/8 Cb 940 - 620 mb. 5/8 Cu 930 - 800 mb. Light rime or frost in cloud 840 - 820 mb. Surface wind NW 11 - 16 Kts.

43·2N 17·0W — Cloud:- 5/8 Sc 960 - 950 mb. 8/8 Sc 920 - 780 mb. 8/8 As 690 - 660 mb. 8/8 Cc NR. Surface wind SW 22 - 28 Kts.

39·5N 12·2W — Cloud:- 8/8 Sc 920 - 900 mb. 7/8 Cs NR. Surface wind SW. 11 - 16 Kts.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Lerwick		Weather Watcher 52·5N 20·0W		Lerwick		Larkhill		Liverpool		Stornoway		Dublin		Leuchars					
Time	03L		03L		09L		09h		09h		09h		15h		15h					
Type	RADAR				RADAR		PILAR		PILAR						PILAR					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	190	40	280	25	260	29	200	20	190	18	260	29	250	14						
1,000	177	55	280	36	235	39	206	33	198	28	230	39	250	34						
2,000	184	55	270	36	235	35	215	42	218	39	230	35	270	34						
3,000	188	57	270	35	230	30	227	47	226	44	230	30	280	29						
4,000	191	60	270	35	226	31	238	47	238	46	230	31	280	27						
5,000	192	61	270	34	226	34	245	43	239	44	230	34	270	27						
6,000	193	60	270	36	226	40	243	37	238	48	230	40	270	30						
8,000	193	57	270	40	195	47	228	43	236	54	190	47	280	30						
10,000	192	61	270	41	191	53	238	50	230	47										
14,000	192	59	260	49	199	72	246	56	221	69	190	53								
18,000	207	54	260	57	187	91	244	57	237	111	200	72								
24,000	211	59	260	78	198	96	241	78	242	84	200	96								
30,000	214	64	250	78	209	108	241	94	239	81	210	108								
40,000	221	49	240	52			(27,000')		(26,000')						228	54				
50,000	246	41	260	57											233	40				
	240	35													(45,000')					
	(54,000')																			

NEPHOSCOPE OBSERVATIONS

Place										
Time Type	NONE	REPORTED.								
Dir. Vel.										

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	Weather Observer					Weather Observer				
Lat/Long	61·0N 14·0W					60·9N 14·2W				
Time G.M.T.	03h					09h				
Pressure M.S.L.	970 mb					965 mb				
Pressure Surf	970 mb					965 mb				
Pressure Freezing	890 mb					885 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	33	245	26		44	39	205	20
1000	-8·0					-9·5				
950		40	31	238	30		42	37	202	25
900	20·2	33	26	231	33	18·7	34	30	204	27
850		25	18	224	35		27	24	209	32
800	50·7	19	09	224	30	49·3	21	18	214	34
750		13	00	230	35		17	10	218	33
700	84·3	07	-06	234	33	83·1	08	02	223	32
650		-02	-22	235	30		00	-08	224	29
600	122	-09	-24	239	30	121	-07	-16	220	27
550		-14	-25	242	27		-16	-26	215	27
500	165	-23	-32	244	28	164	-28	-36	215	18
450		-34	-42	250	26		-38	-44	215	13
400	216	-44		224	13	214	-50		215	14
350		-42		197	38		-60		215	14
300	280	-47		203	33	277	-50		217	13
250		-51		208	39		-50		227	12
200	384	-56		204	48	365	-52		232	12
170		-62		198	45		-58		233	18
150		-63		201	48		-60		233	22
130		-70		211	09		-63		233	21
110		-71		220	28		-67			
100	614	-72		220	27					
90		-76		217	30					
80		-75		220	31					
70		-81		230	42					
60										
Tropopause	II 404 mb -44° 21,300'					I 388 mb -52° 22,200'				

Weather Observer 09h: Isothermal 603 - 497 mb -28°

Ship	Weather Observer					Weather Observer				
Lat/Long	61·0N 14·0W					61·1N 14·2W				
Time G.M.T.	15h					21h				
Pressure M.S.L.	971 mb					980 mb				
Pressure Surf	971 mb					980 mb				
Pressure Freezing	885 mb					915 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	33	350	30		40	31	360	20
1000	-7·9					-5·3				
950		40	31	350	30		36	25	349	21
900	20·3	34	25	348	26	22·6	30	22	350	28
850		28	20	344	36		24	16	352	33
800	51·0	22	14	341	34	53·0	18	10	354	28
750		17	07	340	34		12	04	348	27
700	84·9	12	01	336	39	86·6	06	-03	336	23
650		03	-08	335	30		-03	-13	322	25
600	123	-05	-15	333	26	124	-11	-22	308	26
550		-13	-23	328	21		-18	-39	295	24
500	166	-28	-32	326	21	167	-26	-36	306	27
450		-35	-44	318	14		-36	-45	310	24
400	217	-46		226	14	218	-44		328	18
350		-52		284	13		-56		341	15
300	280	-50		313	19	280	-61		002	23
250		-48		325	20		-57		342	28
200	369	-51		311	16	367	-58		328	30
170		-52		288	10		-60		291	27
150		-55		282	17		-63		299	24
130		-62		287	23		-67		308	27
110		-67		294	26		-71		304	27
100	517	-70		277	31	513	-73		006	28
90		-73		255	41	(096 mb)	-74			
80		-77		256	39					
70		-76		244	48					
60	(062 mb)	-77								
Tropopause	I 360 mb -56° 24,100'					I 293 mb -62° 28,500'				

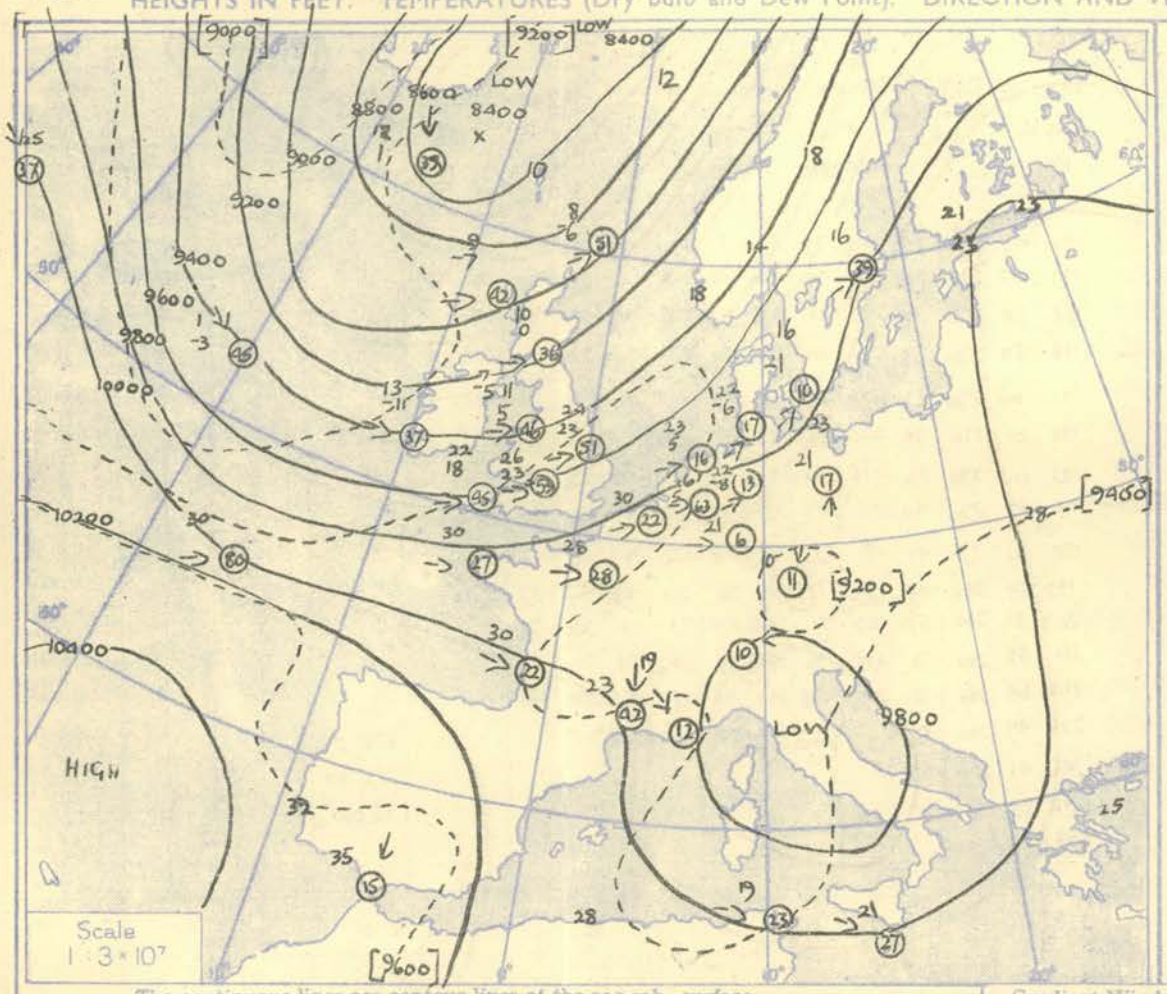
Ship	Weather Watcher					Weather Watcher				
Lat/Long	52·5N 20·0W					52·5N 20·0W				
Time G.M.T.	03h					09h				
Pressure M.S.L.	1002 mb					1005 mb				
Pressure Surf	1002 mb					1005 mb				
Pressure Freezing	910 mb					915 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	26				43	33	330	21
1000	0·5					1·4	42	31	288	30
950		37	25				36	22	290	38
900	28·5	30	23	For Winds		29·4	30	21	291	46
850		22	15				22	15	290	46
800	58·9	19	02			59·7	18	07	286	45
750		11	-08	See Top			11	-08	281	40
700	92·4	04	-14			92·2	05	-07	274	43
650		-04	-17	of Page.			-03	-14	270	47
600	129	-14	-26			131	-08	-33	270	44
550		-23	-33				-15	-40	268	39
500	172	-33	-44			174	-23	-46	271	48
450		-37	-52				-35	-56	278	50
400	223	-37	-55			225	-45		273	48
350		-38	-58				-53		269	59
300	287	-41				287	-48		267	58
250							-47		263	48
200						377	-51		275	53
170							-53		275	63
150							-58		275	61
130							-58		275	59
110							-63		275	50
100						525	-65		275	49
90							-69		275	48
80							-74		275	51
70							-74		283	44
60							-77			
Tropopause	I 440 mb -40° 20,000'					I 350 mb -53° 25,300'				

Ship	Weather Watcher					Weather Watcher				
Lat/Long	52·5N 20·2W					52·5N 20·1W				
Time G.M.T.	15h					21h				
Pressure M.S.L.	1006 mb					1010 mb				
Pressure Surf	1006 mb					1010 mb				
Pressure Freezing	925 mb					920 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	36	298	30		41	36	300	34
1000	1·7	42	36			2·6	40	38		
950		35	32	301	42		36	33	314	45
900	29·6	28	28	299	42	30·5	29	27	318	49
850		20	19	298	42		22	22	317	50
800	59·7	13	11	296	42	60·9	16	16	317	48
750		08	05	295	43		10	08	316	46
700	92·9	01	-03	291	45	94·3	06	-03	316	55
650		-07	-13	291	46		05	-13	316	65
600	130	-12	-18	293	51	132	00	-23	316	76
550		-20	-30	295	44		-04	-28	322	87
500	173	-25	-36	294	42	177	-12	-34	323	82
450		-32	-44	292	51		-23	-42	321	86
400	224	-43		291	57	229	-34	-51	324	89
350		-48		310	57		-48		324	95
300	287	-49		335	67	292	-54		324	98
250		-51		326	63		-59		320	93
200	375	-54		311	58	379	-62		324	86
170		-56		307	61		-66		328	67
150		-59		306	65		-67		325	57
130		-59		304	49		-67		322	52
110		-66		287	44		-71		322	52
100	523	-68		281	45	624	-71		312	52
90		-69		267	43		-75		322	52
80		-73		271	76		-79		323	51
70	(075 mb)	-74					-80		322	52
60							-79			
						(057 mb)	-79			
Tropopause	II 385 mb -46° 23,000'					II 258 mb -59° 32,500'				

Weather Watcher 15h: Isothermal 650 - 632 mb -07°

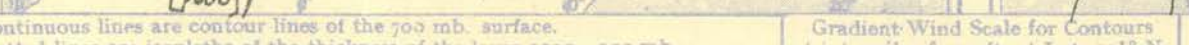
Weather Watcher 21h: Isothermal 700 - 676 mb 06°

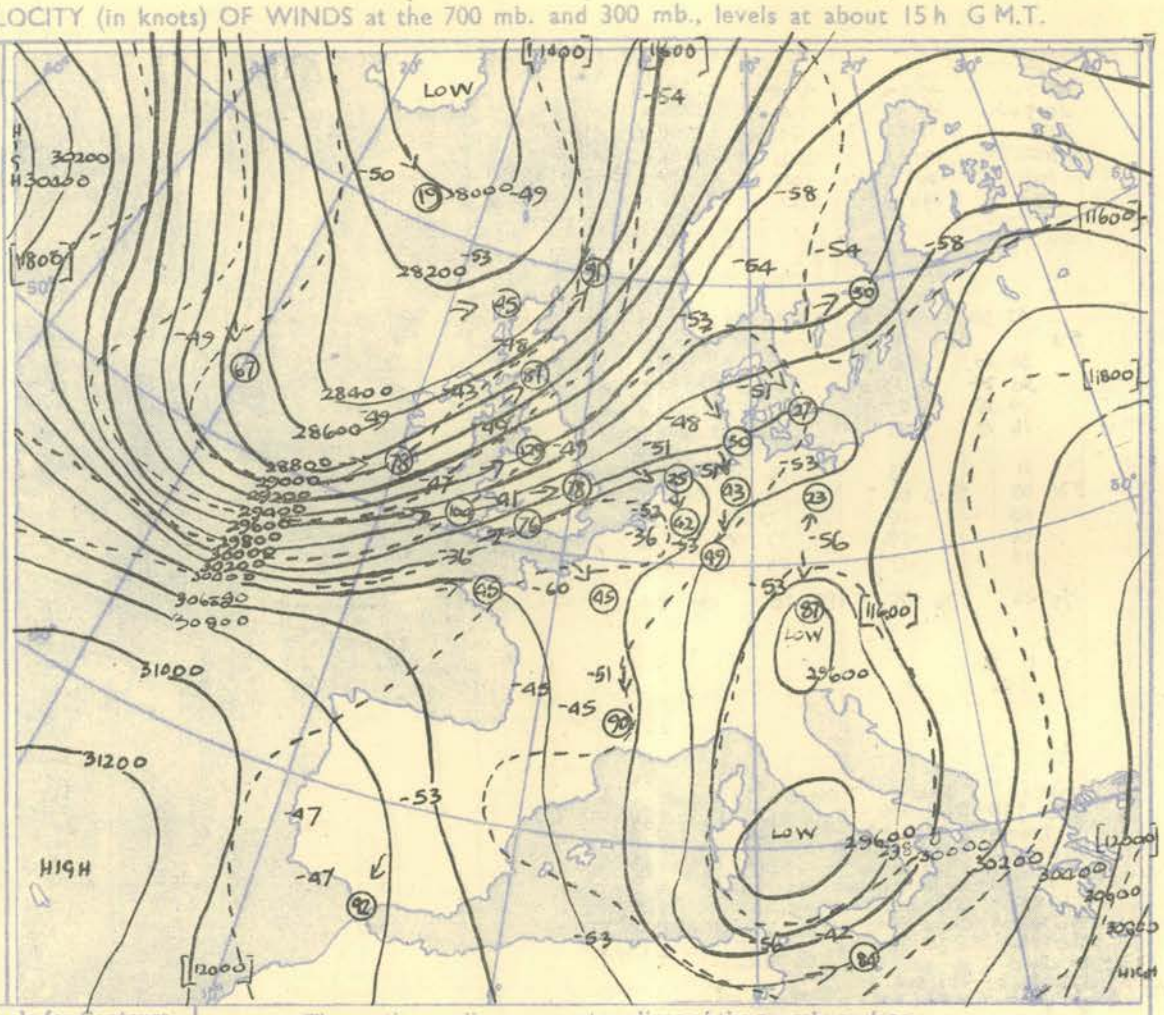
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

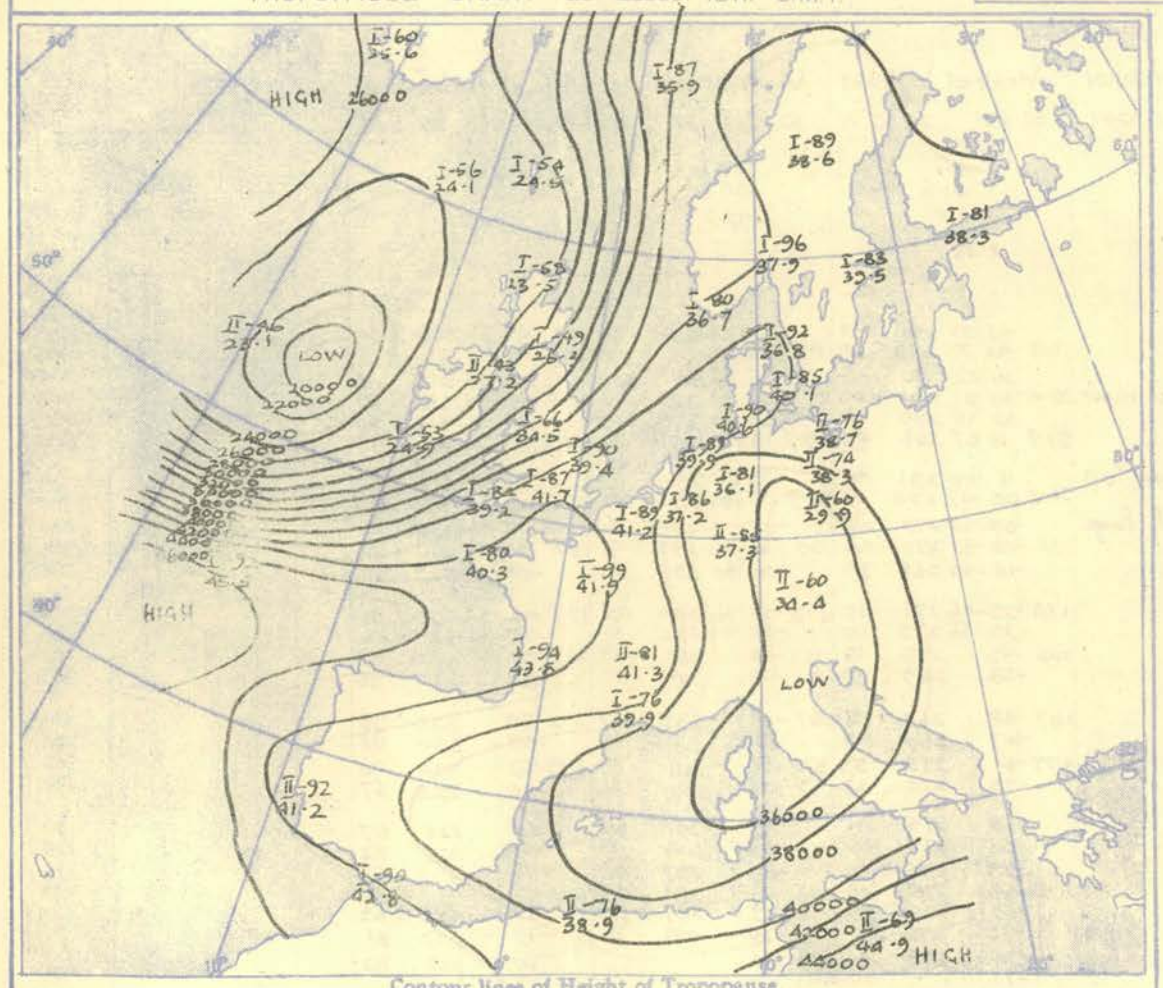
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.





The continuous lines are contour lines of the 300mb. surface.
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge over the British Isles and the cold trough west of Iceland both moved eastwards during the day. A marked cold pool developed west of Ireland with a strong jet to its south and east associated with the cold front which crossed England during the day.

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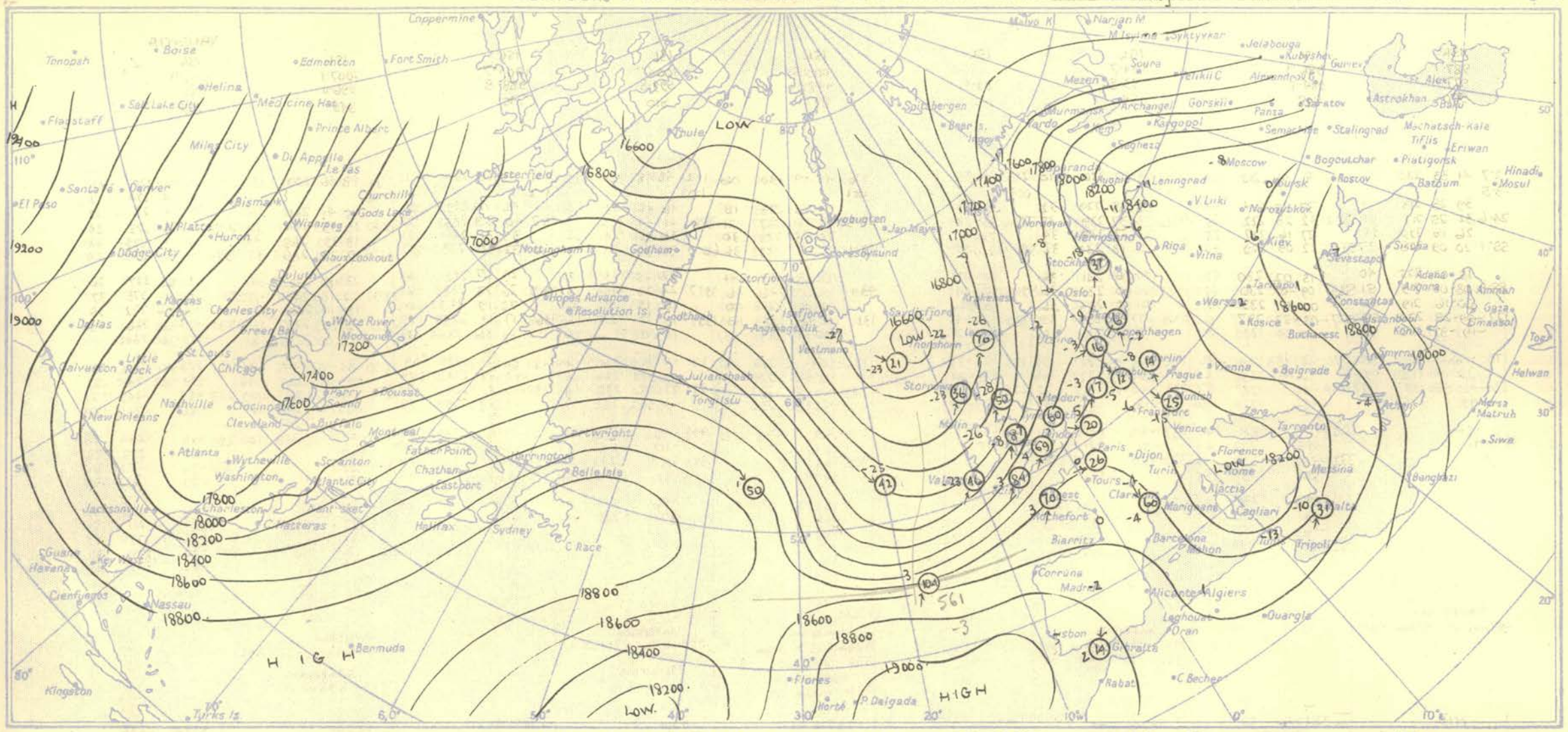
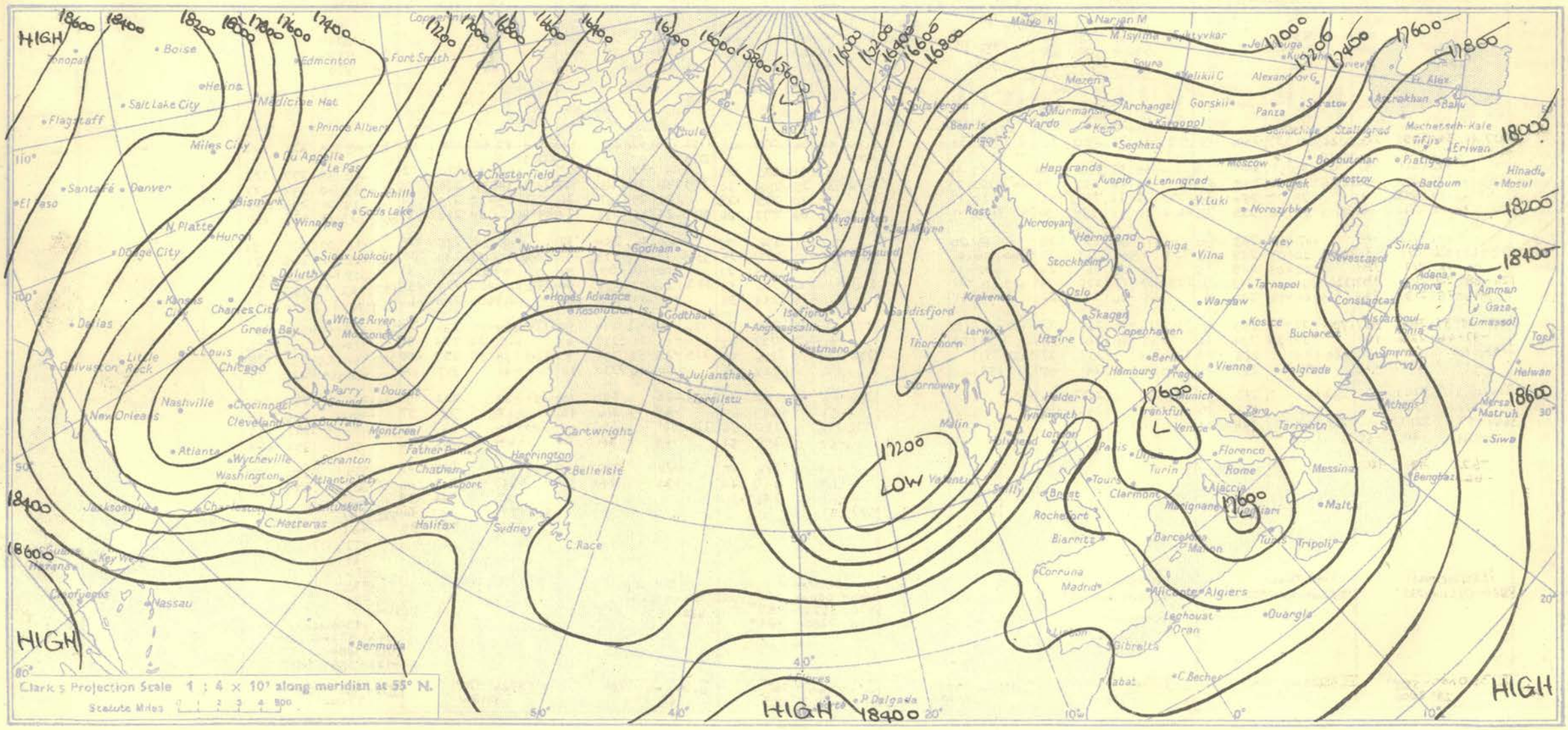
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Sunday 10th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. 10TH December 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	Station
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	Time
M.S.L.	987·1 mb	986·1 mb	994·7 mb		1000·3 mb	1004·1 mb	1004·7 mb	1007·1 mb	1003·3 mb	M.S.L.
Surf	977·1 mb	984·5 mb	993·8 mb	989·5 mb	998·3 mb	999·8 mb	988·8 mb	996·0 mb	1002 mb	Surf
Freezing	900 mb	898 mb	859 mb	912 mb	879 mb	810 mb	795 mb	845 mb	905 mb	Freezing

Pressure mb	LERWICK Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·7	41	33	220	26	0·4	41	36	210	20	0·2	42	37	250	10	2·3	39	36		
1000	-3·5					-3·8					-1·5					0·3				
950		39	28	213	33		37	30	214	36		38	38	229	32		35	31		
900	24·6	32	25	217	30	24·2	32	23	222	25	26·6	38	37	239	37	27·6	30	24		
850		26	16	225	33		27	16	227	25		31	23	243	39		25	17		
800	55·1	20	09	228	37	54·8	22	09	229	42	57·5	26	13	242	36	58·2	20	09		
750		15	02	225	40		15	02	230	43		18	06	241	36		14	01		
700	88·9	08	-06	219	51	88·7	09	-07	230	42	91·5	10	00	239	36	92·0	07	-05		
650		00	-16	219	51		01	-17	233	42		01	-05	234	36		00	-06		
600	127	-09	-28	220	55	127	-05	-23	237	42	129	-07	-15	229	39	130	-06	-15		
550		-19	-37	215	56		-14	-30	239	39		-17	-24	225	45		-16	-27		
500	170	-26	-41	201	70	170	-23	-38	241	36	172	-28	-34	227	50	173	-26	-35		
450		-30	-48	188	90		-34	-49	256	34		-34	-40	223	66		-29	-41		
400	221	-40	-58	187	87	220	-45		267	37	223	-40	-50	217	75	224	-32	-49		
350		-49		188	91		-56		254	36		-48		216	81		-39	-57		
300		-54				283	-53		231	45	287	-48		219	81	289	-43			
250	(317mb)						-48		222	45		-51		219	67		-45			
200						372	-53		222	42	378	-59		235	45					
170							-56		231	45										
150							-58		231	48										
130							-61		230	55										
110							-63		252	36										
100						520	-65		256	29										
90							-72													
80																				
70																				
60																				

For rest of winds see page 3.

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	0·6	45	39	230	06	1·2	48	48	190	15	4·4	49	48	250	12	2·9	48	46	250	15	0·3	44	36	270	12	Surf
1000	0·1					1·2					1·2					1·8					0·9	43	34	270	12	1000
950		40	33	233	18		46	46	223	38		46	42	249	26		45	41	260	33		37	29	272	22	950
900	28·3	35	28	237	21	29·6	41	41	232	40	29·7	40	33	255	27	30·2	39	33	264	30	28·9	31	26	275	24	900
850		29	25	251	30		36	36	243	36		35	31	241	31		33	33	265	30		24	17	274	28	850
800	59·1	25	17	253	36	60·9	31	31	242	35	61·0	32	30	233	37	61·3	27	23	268	35	59·6	18	11	275	29	800
750		18	08	251	41		26	25	233	42		29	27	232	48		23	18	262	37		12	-03	277	26	750
700	93·1	11	05	246	46	95·7	24	23	226	51	95·9	26	23	233	53	95·7	22	18	240	45	98·1	05	-11	273	37	700
650		04	01	238	50		20	18	228	60		22	19	232	60		18	14	239	54		-01	-24	272	35	650
600	131	00	-12	238	63	135	16	12	235	72	136	17	13	235	65	135	12	07	237	69	131	-07	-25	268	35	600
550		-10	-17	231	67		09	03	236	63		11	06	234	63		05	00	238	81		-15	-30	260	41	550
500	176	-08	-14	223	87	181	-01	-08	230	60	181	04	-03	239	69	180	-03	-07	245	84	174	-23	-41	262	46	500
450		-15	-18	229	109		-10	-19	226	63		-05	-13	238	69		-09	-15	247	116		-33	-52	245	52	450
400	228	-25	-29	227	114	234	-21	-30	235	69	235	-14	-23	242	77	234	-19	-27	248	109	225	-43		245	51	400
350		-35	-39	232	125		-33	-42	240	77		-26	-35	239	78		-32	-41	248	101		-52		246	59	350
300	283	-43		235	129	299	-49		238	78	302	-41		243	76	299	-47		248	104	288	-49		244	78	300
250		-64					-67		244	83		-58		247	87		-67					-50		255	78	250
200	379	-64				384	-87		243	82	388	-76		242	100	384	-82				376	-56		253	68	200
170		-64					-81		240	58		-86		237	93		-76					-59		252	59	170
150		-69					-76		245	44		-78		251	68		-72					-60		260	57	150
130		-66					-73		245	42		-76					-75					-65		271	51	130
110		-69										-74					-72					-71		273	45	110
100	524	-71									529	-73				526	-74				523	-70		272	39	100
90		-70										-72					-75					-72		272	40	90
80		-69										-72					-76									80
70		-71										-73					-78									70
60		-72										-74														60
	(65mb)																									

Inversion
873mb 25°- 810mb 26°
550" -10°- 536" -5°
Isothermal.
628- 600mb 00°

Inversion
750mb 26°- 729mb 27°
Isothermal.
631- 614mb 18°

Inversion.
996mb 48°- 982mb 49°
Isothermal.
739- 693mb 22°

Tropopause	NR	I 342mb -58° 25·500	I 335mb -49° 26·300	I 324mb -43° 27·200	I 237mb -66° 34·500	I 190mb -90° 39·400	I 174mb -87° 41·700	I 192mb -84° 39·200	I 357mb -53° 24·900	Tropopause

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		Station
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.	Time
M.S.L.	983·4 mb	983·6 mb	994·5 mb		996·5 mb	1000·8 mb	1002·8 mb	1004·1 mb	mb	M.S.L.
Surf	973·5 mb	981·9 mb	990·6 mb	986·3 mb	998·6 mb	996·5 mb	986·7 mb	993·6 mb	mb	Surf
Freezing	900 mb	890 mb	904 mb	900 mb	905 mb	873 mb	886 mb	879 mb	mb	Freezing

Pressure mb	LERWICK Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·7	41	34	205	26	0·4	41	37	230	15	0·2	36	33	250	10	2·3	37	33		
1000	-4·5					-4·5					-2·7					-1·1				
950		39	32	201	37		39	35	241	38		36	33	250	30		35	31		
900	23·6	32	27	203	40	23·6	34	31	249	33	25·7	32	29	252	29	26·8	32	23		
850		26	19	208	41		28	25	264	33		25	22	253	32		25	17		
800	54·1	22	12	212	40	54·3	23	20	258	32	56·2	20	13	254	30	57·3	19	11		
750		15	-01	214	39		17	13	265	32		15	04	254	28		13	00		
700	87·9	09	-06	217	38	88·2	10	03	258	32	90·0	07	-04	263	27	91·0	06	-07		
650		01	-13	213	38		02	-03	249	35		-01	-08	267	26		-02	-14		
600	126	-08	-20	210	39	126	-06	-11	243	36	128	-07	-17	270	23	129	-11	-23		
550		-16	-25	219	34		-14	-18	250	41		-15	-26	270	24		-19	-31		
500	169	-25	-34	230	38	170	-22	-29	263	41	171	-24	-35	265	27	171	-27	-39		
450		-37	-46	226	40		-32	-38	256	36		-35	-47	260	25		-38	-50		
400	219	-48		232	40	220	-44		258	39	221	-48		257	27	222	-51			
350		-58		222	42		-57		257	40		-58		241	46		-59			
300	281	-52		202	54	282	-61		233	34	284	-48		223	46					
250		-53		206	42		-54		233	30		-45		236	65					
200	369	-57		213	44	370	-53		246	34										
170		-58		221	45															
150		-62		219	40															
130		-66																		
110																				
100																				
90																				
80																				
70																				
60																				

Isothermal.
824- 812mb 23°

Inversion
982mb 41°- 970mb 42°

Inversion
991mb 36°-972mb 38°
Isothermal.
803- 781mb 20°

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	0·6	40	36	270	08	1·2	44	42	210	10	4·4	42	40	270	10	2·9	45	38	270	12	Surf
1000	-0·4					0·3					0·8					1·1					1000
950		38	31	270	25		41	39	245	27		40	34	270	21		42	35	277	25	950
900	27·6	31	25	268	30	28·3	36	35	260	27	28·9	34	30	273	25	29·4	35	30	293	27	900
850		25	20	273	28		29	29	267	26		29	25	275	29		28	21	296	28	850
800	58·1	20	09	273	26	59·3	24	24	273	34	59·6	24	20	262	27	60·2	23	13	277	30	800
750		12	-01	274	25		18	16	256	33		18	14	255	29		18	09	271	34	750
700	91·7	05	-10	277	23	93·3	13	11	229	37	93·6	13	09	238	30	94·2	12	-04	266	37	700
650		-01	-17	264	22		10	10	219	51		07	02	228	37		05	-19	260	39	650
600	130	-01	-21	240	33	132	06	05	224	60	132	02	-02	223	59	132	-02	-27	250	37	600
550		-11	-30	234	33		-01	-02	228	68		-03	-08	228	66		-10	-37	246	42	550
500	173	-21	-38	230	37	176	-09	-12	229	80	176	-09	-15	228	76	176	-17	-43	248	54	500
450		-31	-47	227	42		-17	-21	227	90		-18	-24	224	90		-25	-47	242	56	450
400	224	-39	-54	226	50	229	-28	-32	231	99	229	-28	-35	227	100	228	-34	-55	238	78	400
350		-45		222	72		-40	-46	230	99		-41		237	114		-36	-59	236	75	350
300	288	-48		224	82	293	-53		220	100	293	-52		222	95	292	-46		234	105	300
250		-53		237	69		-68		216	93		-67		227	97		-51		233	88	250
200	376	-56		230	56	378	-71		230	64	369	-70		237	75	381	-58		243	93	200
170		-59		245	51		-69		241	60		-69		245	56		-56		252	68	170
150		-63		248	47		-70		232	44		-71		248	49		-59		253	58	150
130		-67		247	44		-72		242	37		-73		242	46		-63		255	55	130
110		-66		246	36							-77		243	38		-66				110
100	523	-67									511	-77		247	36	528	-67				100
90												-77		263	39		-69				90
80																	-72				80
70																	-74				70
60																	-76				60
																	-78				
																	-80				
																(45mb)					

Isothermal.
660- 600mb -01°
378- 325" -45°
300- 280" -48°

Isothermal.
703- 692mb 13°
650- 636" 10°

Isothermal.
994- 972mb 45°
718- 706" 13°
402- 358" -34°

Tropopause	I 350mb -58° 24·800	I 320mb -64° 26·800	I 350mb -58° 25·450	I 331mb -63° 26·100	I 239mb -56° 33·700	II 224mb -72° 35·500	I 237mb -70° 33·300	II 211mb -58° 37·000		Tropopause

H.M.S.O. Press, MO, Dunstable

No. 1579. **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Monday 11th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Time	M.S.L.	Surf	Freezing	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK	03h	979·5 mb	969·6 mb	867 mb	Surf	02·7	41	37	220	32
					1000	-5·6				
					950		40	36	226	48
					900	22·6	35	30	232	46
					850		31	21	243	40
					800	53·5	25	14	242	39
					750		18	06	237	37
					700	87·5	11	02	236	37
					650		03	-06	239	39
					600	126	-05	-14	242	36
					550		-14	-24	240	39
					500	169	-24	-38	237	43
					450		-35	-47	236	45
					400	219	-46		236	47
					350		-59		238	49
					300	381	-58		221	41
					250		-55		215	36
					200	368	-59		218	38
					170		-57		232	37
					150		-59		232	34
					130		-66		231	28
					110		-74		229	35
					100	514	-74		228	36
					90		-77		228	30
					80	(87 mb)	-80			
					70					
					60					
					Tropopause	I 340 mb -72° 25,500'				
STORNOWAY	03L	985·7 mb	984·0 mb	887 mb	Surf	00·4	36	34	CALM	
					1000	3·8				
					950		39	34	287	15
					900	24·2	34	27	286	21
					850		27	22	278	24
					800	54·9	21	16	274	21
					750		14	09	269	20
					700	88·6	07	-05	256	24
					650		01	-13	253	30
					600	126	-08	-22	251	31
					550		-18	-29	239	28
					500	169	-25	-34	237	23
					450		-36	-48	227	16
					400	220	-49		226	16
					350		-62		230	19
					300	281	-63		257	18
					250		-58		272	24
					200	368	-57		263	20
					170		-61		270	22
					150		-65		291	25
					130		-69		264	24
					110		-72		266	30
					100	513	-74		266	25
					90		-76		263	27
					80		-79		263	30
					70		-82			
					60					
					Tropopause	I 320 mb -68° 26,800'				
LEUCHARS	03h	989·7 mb	988·8 mb	923 mb	Surf	00·2	37	34	230	03
					1000	-2·8				
					950		36	32	238	28
					900	25·1	30	26	253	27
					850		25	23	259	27
					800	55·6	18	15	258	25
					750		14	06	252	23
					700	89·3	07	-14	246	21
					650		00	-21	233	18
					600	127	-10	-30	201	18
					550		-20	-38	204	19
					500	170	-28	-45	208	21
					450		-39	-54	199	25
					400	220	-50		205	25
					350		-61		208	23
					300	282	-56		214	29
					250		-57		230	30
					200	369	-57		245	32
					170		-61		238	26
					150		-63		245	28
					130		-65		253	25
					110					
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 327 mb -67° 28,200'				
ALDERGROVE	03h	993·6 mb	984·5 mb	901 mb	Surf	02·6	36	33		
					1000	-1·5				
					950		34	30		
					900	26·3	29	25		
					850		24	19		
					800	56·8	17	09		
					750		12	01		
					700	90·4	07	-04		
					650		00	-11		
					600	128	-09	-19		
					550		-19	-29		
					500	171	-28	-37		
					450		-38	-48		
					400	221	-49			
					350		-58			
					300	283	-55			
					250		-53			
					200	321	-57			
					170		-57			
					150		-57			
					130					
					110					
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 362 mb -58° 24,300'				
LIVERPOOL	03h	996·0 mb	993·9 mb	913 mb	Surf	00·6	39	33	260	10
					1000	-1·1				
					950		37	31	265	25
					900	28·6	31	27	266	26
					850		27	22	267	26
					800	57·3	18	11	271	27
					750		14	08	273	27
					700	91·0	06	-06	269	27
					650		-02	-13	267	25
					600	129	-11	-22	268	23
					550		-21	-33	265	27
					500	171	-29	-38	257	29
					450		-37	-45	253	30
					400	221	-50		255	33
					350		-60		242	31
					300	284	-49		246	36
					250		-52		247	39
					200	372	-54		256	45
					170 (190) mb		-54			
					150					
					130					
					110					
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 350 mb -60° 25,000'				
DOWNHAM MARKET	03h	998·8 mb	994·4 mb	909 mb	Surf	01·2	38	37	260	07
					1000	-0·3				
					950		37	26	291	16
					900	27·7	31	20	289	14
					850		25	14	290	15
					800	58·3	19	09	286	15
					750		12	-01	280	21
					700	91·9	06	-08	268	33
					650		01	-15	255	29
					600	130	-05	-25	247	31
					550		-13	-36	237	42
					500	173	-23	-44	220	47
					450		-33	-52	207	58
					400	224	-38	-57	199	85
					350		-44		204	93
					300	288	-52		209	93
					250		-59		219	74
					200	375	-58		222	49
					170		-60		237	44
					150		-65		248	32
					130		-71		250	37
					110		-72		255	39
					100	520	-75		259	37
					Tropopause	II 250 mb -59° 32,700'				
LARKHILL	03h	1000·8 mb	984·3 mb	900 mb	Surf	04·4	33	32		
					1000	0·2				
					950		37	34		
					900	28·1	32	17		
					850		26	12		
					800	58·6	20	06		
					750		15	-04		
					700	92·4	08	-11		
					650		01	-18		
					600	130	-07	-25		
					550		-15	-36		
					500	173	-24	-45		
					450		-34	-54		
					400	224	-45			
					350		-45			
					300	287	-46			
					250		-51			
					200	376	-52			
					170		-56			
					150		-61			
					130		-65			
					110		-68			
					100	523	-73			
					90		-75			
					80					
					70					
					60					
					Tropopause	I 384 mb -47° 23,300'				
CAMBORNE	03h	1003·2 mb	992·5 mb	920 mb	Surf	02·9	41	36	270	12
					1000	0·8				
					950		37	33	280	24
					900	28·8	30	27	285	26
					850		25	22	287	27
					800	59·3	18	13	291	31
					750		12	07	284	36
					700	92·9	06	-05	277	36
					650		-01	-08	274	33
					600	131	-11	-19	272	33
					550		-22	-30	265	30
					500	173	-28	-44	264	33
					450		-40	-55	263	40
					400	223	-50		270	40
					350		-45		273	48
					300	287	-42		265	52
					250		-47		267	42
					200	377	-55		270	50
					170		-55		272	48
					150		-56		263	39
					130		-64		263	51
					110 (112 mb)		-69			
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 383 mb -53° 23,400'				
VALENTIA	03L	1002·7 mb	1001 mb	910 mb	Surf	00·3	41	35	340	16
					1000	7	41	35	338	17
					950		36	30	324	27
					900	28·6	30	25	326	28
					850		24	17		
					800	59·0	18	08		
					750		12	03		
					700	92·6	05	-04		
					650		-02	-16		
					600	130	-10	-23		
					550		-18	-29		
					500	173	-27	-44		
					450		-33	-52		
					400	224	-44			
					350		-50			
					300	287	-48			
					250		-49			
					200	375	-57			
					170		-57			
					150		-55			
					130		-62			
					110		-68			
					100	523	-71			
					90		-70			
					80		-73			
					70 (74 mb)		-76			
					60					
					Tropopause	II 381 mb -48° 23,300'				

Inversion 984 mb 36°-950 mb 39°

Inversion 989 mb 37°-969 mb 38°

Inversion 371 mb -45°-389 mb-42°

Isothermal 994 - 959 mb 38°

Inversion 984 mb 33°-960 mb 38°

Isothermal 800 - 785 mb 20°

Inversion 542 mb -23°-525 mb-22°

Isothermal 1001 - 1000 mb 41°

09h G.M.T.

Station	Time	M.S.L.	Surf	Freezing	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK	09h	985·1 mb	975·2 mb	900 mb	Surf	02·7	38	33	310	10
					1000	-3·9				
					950		38	31	287	21
					900	24·0	32	28	283	18
					850		24	18	272	20
					800	54·5	19	12	264	21
					750		16	-04	254	25
					700	88·2	08	-09	249	25
					650		01	-08	241	23
					600	126	-08	-14	226	23
					550		-18	-26	222	27
					500	169	-29	-42	214	27
					450		-37	-49	212	27
					400	219	-47		209	30
					350		-59		208	32
					300	281	-64		214	27
					250		-58		200	24
					200	367	-59		230	18
					170		-62		214	21
					150		-65		226	24
					130		-68		242	24
					110		-72		255	25
					100	513	-75			
					90	(97 mb)	-76			
					80					
					70					
					60					
					Tropopause	I 319 mb -65° 26,700'				
STORNOWAY	09L	992·7 mb	991·0 mb	930 mb	Surf	00·4	37	33		
					1000	2·0				
					950		34	31		
					900	25·8	29	26		
					850		23	22		
					800	56·2	16	15		
					750		10	09		
					700	89·7	03	01		
					650		-05	-10		
					600	127	-12	-18		
					550		-20	-25		
					500	170	-30	-35		
					450		-39	-44		
					400	220	-48			
					350		-56			
					300	282	-63			
					250		-66			
					200	367	-62			
					170		-63			
					150		-65			
					130		-67			
					110		-71			
					100	513	-74			
					90		-76			
					80		-78			
					70		-78			
					60					
					Tropopause	I 292 mb -64° 28,900'				
LEUCHARS	09h	990·4 mb	989·5 mb	890 mb	Surf	00·2	36	34	270	05
					1000	-2·8				
					950		37	31	319	17
					900	25·4	33	27	329	22
					850		27	22	337	20
					800	56·1	21	17	339	17
					750		15	13	317	12
					700	89·9	10	07	274	09
					650		02	-02	287	13
					600	128	-07	-12	298	19
					550		-16	-22	306	20
					500	171	-26	-33	316	20
					450		-38	-45	306	11
					400	221	-47		287	13
					350		-56		274	05
					300	283	-59		273	12
					250		-55		259	11
					200	371	-56		258	17
					170		-59		243	19
					150		-61		255	25
					130		-62		266	21
					110		-66		262	22
					100	518	-66			
					90					
					80					
					70					
					60					
					Tropopause	I 310 mb -60° 27,600'				
ALDERGROVE	09h	993·6 mb	985·0 mb	920 mb	Surf	02·6	35	34		
					1000	-1·7				
					950		33	31		
					900	26·1	30	27		
					850		25	21		
					800	56·7	19	14		
					750		14	09		
					700	90·5	07	-01		
					650		-01	-10		
					600	128	-10	-23		
					550		-19	-29		
					500	171	-29	-40		
					450		-40	-48		
					400	221	-50			
					350		-56			
					300	283	-56			
					250		-57			
					200	370	-56			
					170		-59			
					150					
					130					
					110					
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 371 mb -56° 23,800'				
LIVERPOOL	09h	995·1 mb	993·0 mb	912 mb	Surf	00·6	38	36	250	08
					1000	-1·3				
					950		35	32	279	23
					900	26·6	30	28	288	25
					850		25	24	290	24
					800	57·1	19	17	292	27
					750		13	09	302	24
					700	90·7	06	00	304	22
					650		-02	-09	303	14
					600	128	-10	-19	301	13
					550		-19	-29	297	11
					500	171	-30	-36	301	08
					450		-40	-48	288	14
					400	221	-49		296	23
					350		-58		290	25
					300	283	-52		291	21
					250		-55		288	17
					200	371	-56		259	24
					170		-57		272	22
					150		-60		266	23
					130		-63		266	31
					110		-66		262	42
					100	518	-68		269	36
					94 mb		-69			
					Tropopause	I 330 mb -59° 26,300'				
DOWNHAM MARKET	09h	998·1 mb	993·6 mb	912 mb	Surf	01·2	33	32	200	10
					1000	-0·5				
					950		35	31	268	20
					900	27·4	31	24	269	19
					850		25	19	265	20
					800	57·9	19	14	260	20
					750		12	06	258	20
					700	91·5	05	-03	264	24
					650		-03	-12	267	21
					600	129	-13	-20	268	20
					550		-21	-29	270	21
					500	172	-29	-39	271	13
					450		-40	-50	271	14
					400	222	-53		268	19
					350		-53		229	21
					300	284	-51		218	30
					250		-54		216	33
					200	372	-57		229	29
					170		-60		232	30
					150		-63		258	26
					130		-67		252	30
					110		-72		252	34
					100	518	-73		249	27
					Tropopause	I 380 mb -58° 23,300'				
LARKHILL	09h	999·2 mb	983·5 mb	919 mb	Surf	04·4	33	32	250	05
					1000	0·0				
					950		35	32	287	20
					900	27·7	30	22	289	23
					850		24	14	285	27
					800	58·1	18	04	283	24
					750		12	-03	287	29
					700	91·7	05	-01	283	23
					650		-03	-15	274	22
					600	129	-12	-29	266	24
					550		-21	-31	255	25
					500	172	-31	-40	261	27
					450		-39	-49	272	26
					400	222	-48		281	24
					350		-54		277	25
					300	285	-49		272	25
					250		-50		262	30
					200	373	-52		268	31
					170		-56		270	28
					Tropopause	I 361 mb -55° 24,400'				
CAMBORNE	09h	1002·7 mb	992·0 mb	904 mb	Surf	02·9	41	36	270	10
					1000	0·7				
					950		38	34	293	30
					900	28·7	31	27	307	28
					850		24	16	308	30
					800	59·2	18	06	308	30
					750		12	-04	311	32
					700	92·9	05	-12	306	34
					650		-02	-20	298	31
					600	131	-11	-30	292	36
					550		-21	-39	289	36
					500	173	-30	-49	288	36
					450		-39	-59	298	36
					400	223	-47		308	46
					350		-56		303	55
					300	286	-52		303	54
					250		-54		299	49
					200	373	-57		293	49
					170		-59		292	42
					150 (166 mb)		-60			
					130					
					110					
					100					
					90					
					80					
					70					
					60					
					Tropopause	I 350 mb -56° 27,300'				
VALENTIA										

Inversion 975 mb 38°-964 mb 40°

Inversion 990 mb 36°-945 mb 38°

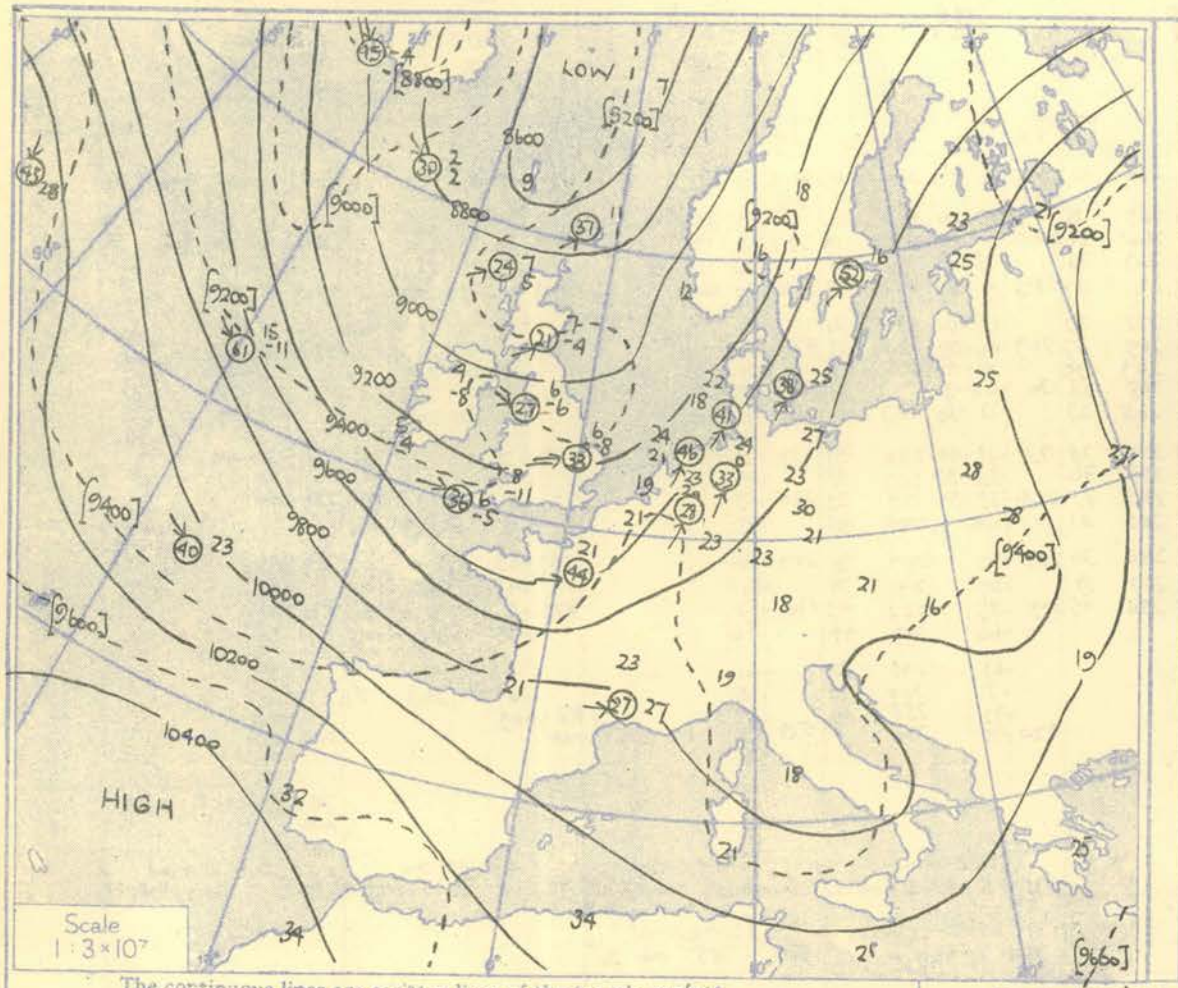
Inversion 993 mb 38°-983 mb 39°

Inversion 994 mb 33°-960 mb 36°

Inversion 983 mb 33°-950 mb 35°

Monday 11th December 1950.

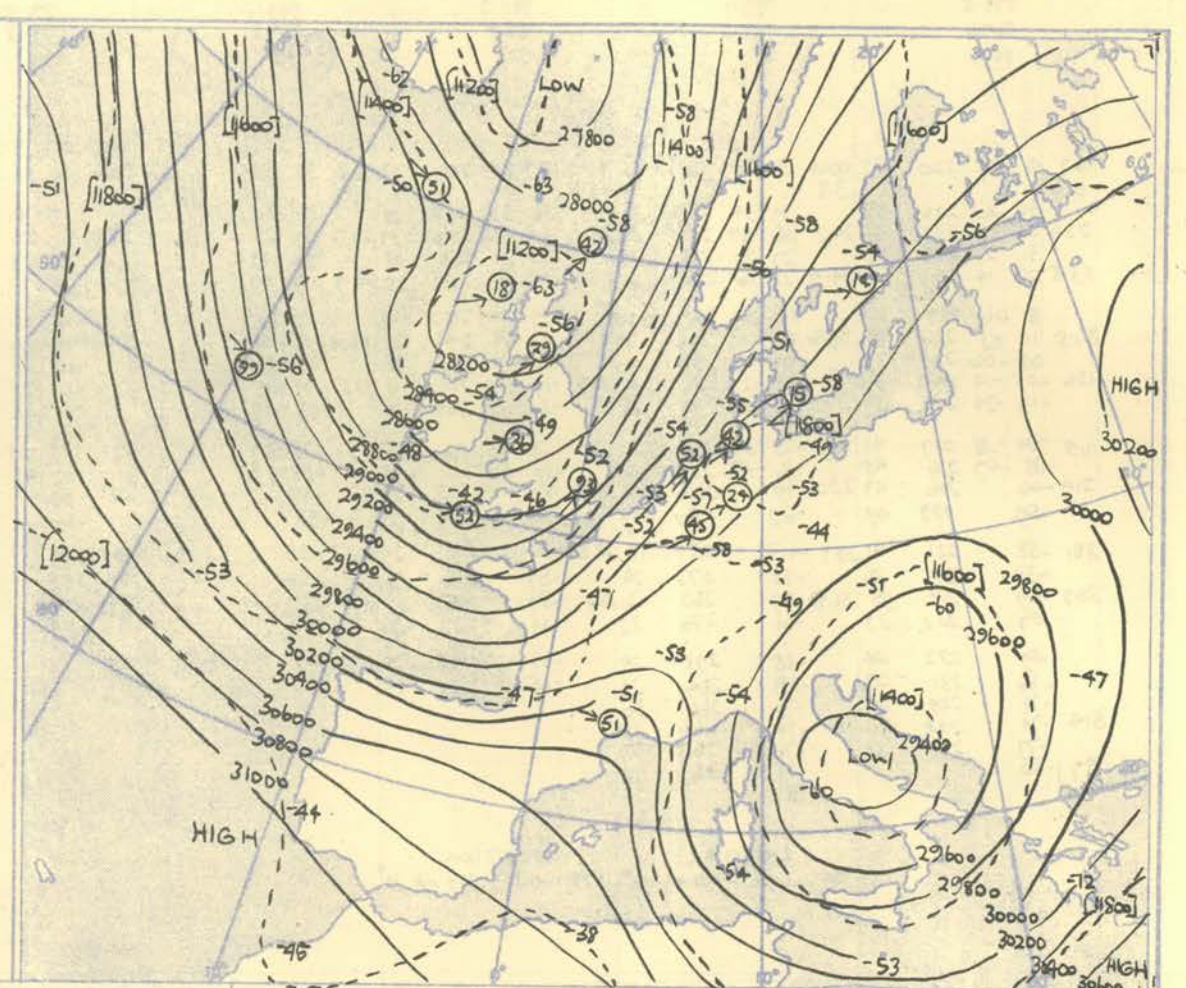
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



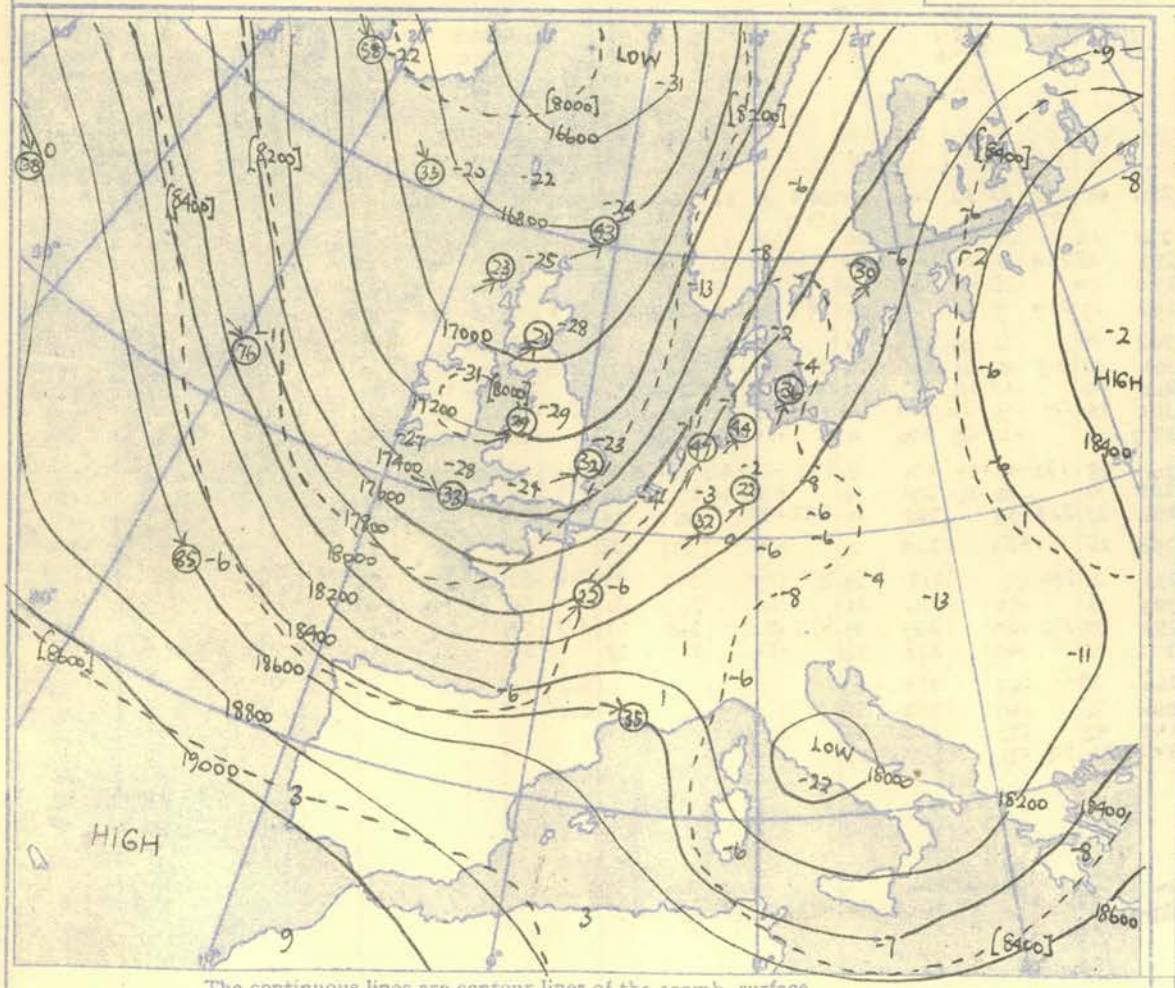
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

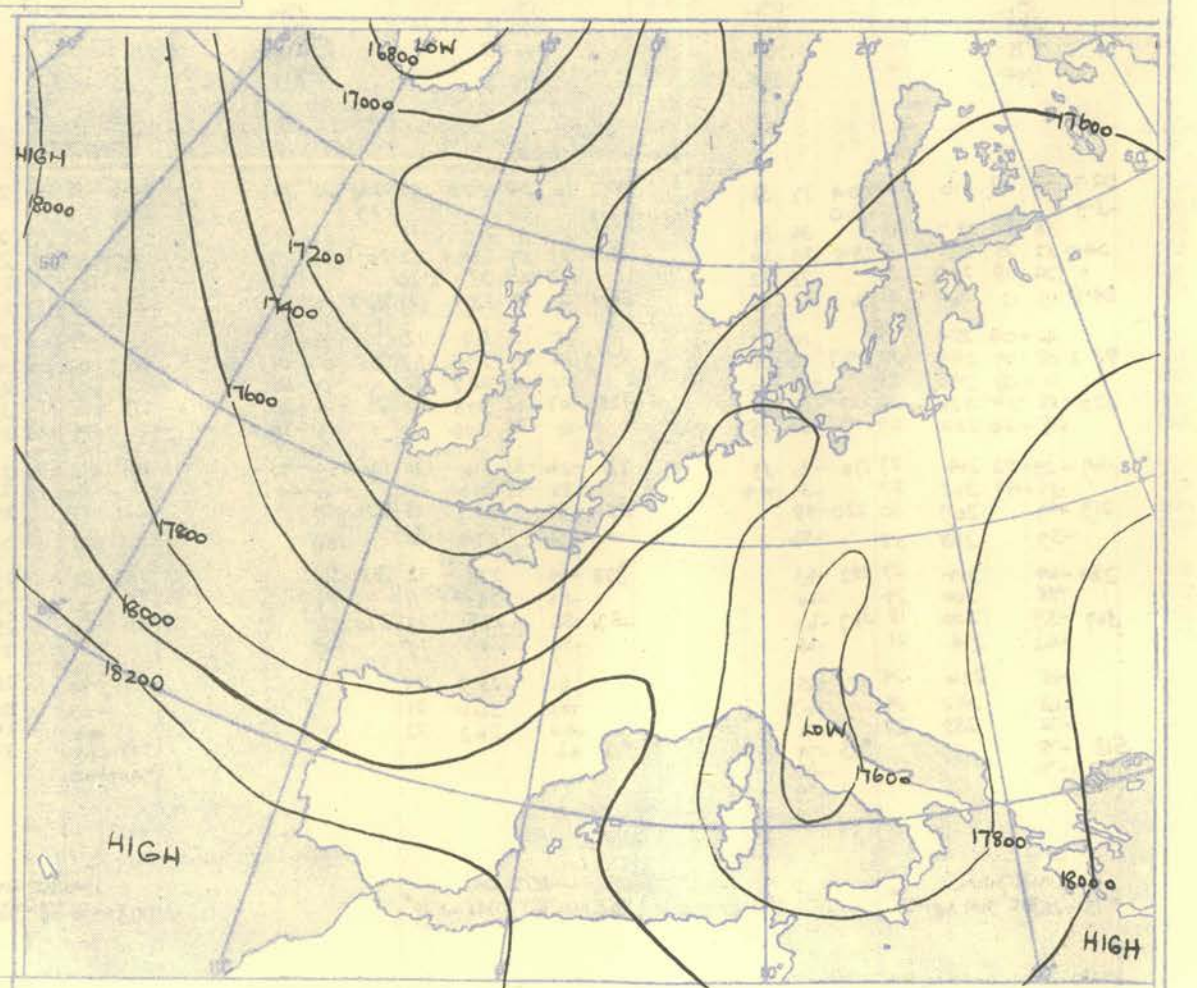
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700–500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	57° 23 N 17° 14'W			56°18N 11°28°W			53°1N 01°3E.		
Pressure: Time	1445L			1615L			15L		
M.S.L.	1013 mb			1007 mb			995 mb		
Surf	1009 mb			1003 mb			993 mb		
Freezing	960 mb			960 mb			905 mb		
Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew
Surf	1·0	39	29	1·0	35	33	0·5	42	36
1000	3·4			1·9			1·3		
950		31	27		31	31			
900	31·0	23		29·4	23		26·6	31	31
850		16			16			24	
800	60·9	12		59·3	09		57·0	18	
750		09			05			12	
700	94·3	08		92·4	02		90·6	07	
650		07			-03			-02	
600	133	02		130	-07		128	-09	
550		-09			-15			-19	
500	176	-18		173	-24		171	-30	
450								-41	
400							221	-51	
350								-55	
300							283	-57	
250									
200									
170									

Col. 1	Col. 2	Col. 3
Cloud.	Cloud.	Cloud.
5/8 Cu 940-840mb	7/8 Sc 940-780mb	5/8 Sc 950-800mb
4/8 Sc 830-800mb	1/8 Cu 940-730mb.	2/8 As 800-750mb
1/8 As NR		7/8 As 408-375mb

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Gibraltar.		Shoebury		Ronaldsway	
Time	03h		10h		15h	
Type						
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			240	08	310	20
1,000			270	16	330	26
2,000	300	27	280	15	330	26
3,000			280	14	340	32
4,000			270	16	340	34
5,000			270	14	340	36
6,000			260	24	340	40
8,000			260	25	340	32
10,000	320	21	260	28		
14,000			250	26		
18,000	300	14	250	28		
24,000			250	19		
30,000	350	37	230	27		
40,000	350	57	240	27		
50,000			250 (49,000)	32		

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Weather Observer — 61·1N 14·1W — 03h G.M.T. — M.S.L. 989 mb — Surf 989 mb — Freezing 949 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		35	29	015	28
1000	-2·9				
950		33	29	356	27
900	24·7	27	26	349	33
850		22	22	340	31
800	54·9	15	15	338	30
750		08	08	327	27
700	88·2	02	02	314	30
650		-04	-05	310	42
600	126	-07	-09	311	49
550		-12	-15	313	37
500	169	-20	-15	310	33
450		-28	-33	316	35
400	221	-38	-43	304	36
350		-45		304	45
300	284	-50		305	51
250		-51		307	43
200	372	-52		318	37
170		-54		328	35
150		-56		327	34
130	(136 mb)	-58			

Isothermal 965 - 950 mb 33°, 368 - 354 .. -44°

Tropopause: I 278 mb -52° 30,100'

Weather Observer — 60·9N 13·9W — 09h G.M.T. — M.S.L. 996 mb — Surf 996 mb — Freezing Surf.

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		32	28	315	32
1000	-1·2				
950		26	17	331	37
900	26·2	19	11	326	23
850		13	05	324	27
800	55·9	09	00	324	22
750		03	-06	319	22
700	88·9	-03	-15	325	34
650		-08	-23	328	42
600	127	-15	-32	333	48
550		-19	-39	337	55
500	169	-26	-49	336	60
450		-32	-59	332	76
400	219	-40	-60	332	81
350		-51		334	78
300	282	-55		334	63
250		-54		331	44
200	370	-57		332	44
170		-60		331	48
150		-64		331	49
130		-67		331	39
110		-71		331	38
100	515	-73		331	42
90		-76		331	39
80	(086 mb)	-79			

Tropopause: I 341 mb -53° 25,600'

Weather Observer — 61·0N 14·2W — 15h G.M.T. — M.S.L. 1003 mb — Surf 1003 mb — Freezing Surf

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		32	25	330	30
1000	09	31	25		
950		24	20	318	31
900	28·1	18	17	315	35
850		13	12	310	28
800	57·8	12	07	306	21
750		07	-02	308	24
700	91·0	01	-08	312	28
650		-04	-15	314	41
600	129	-07	-16	314	43
550		-11	-18	317	50
500	172	-20	-27	322	61
450		-32	-40	325	73
400	223	-43		330	82
350		-48		334	91
300	286	-54		332	87
250		-57		321	84
200	373	-61		324	62
170		-67		324	62
150		-69		324	55
130	(133 mb)	-64			

Inversion 568 mb -11° - 555mb -10°
Isothermal 660 - 625mb -4°, 304 - 294 .. -54°

Tropopause: I 272mb -59° 30,700'

Weather Observer — 61·1N 14·3W — 21h G.M.T. — M.S.L. 1005 mb — Surf 1005 mb — Freezing Surf

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		33	28	325	15
1000	1·3	32	28		
950		26	26	328	15
900	28·6	20	20	335	15
850		13	13	333	13
800	58·3	05	05	330	13
750		05	-04	332	18
700	91·4	05	-10	328	21
650		00	-14	324	28
600	129	-04	-19	328	36
550		-10	-24	329	49
500	173	-18	-31	331	64
450		-29	-39	333	66
400	224	-41		332	69
350		-54		330	75
300	287	-62		322	91
250		-70		319	86
200	371	-68		315	76
170		-68		303	71
150	(155 mb)	-68			

Inversion 778 mb 02° - 737mb 07°
Isothermal 737 - 715mb 07°

Tropopause: II 253mb -70° 32,400'

Weather Watcher — 52·5N 19·9W — 03h G.M.T. — M.S.L. 1016 mb — Surf 1016 mb — Freezing 920 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	35	310	30
1000	4·2	43	34	314	36
950		36	27	314	43
900	32·1	29	22	314	44
850		22	15	313	45
800	62·5	15	09	311	49
750		19	-04	307	55
700	96·4	15	-11	307	61
650		07	-08	310	63
600	135	01	-07	317	64
550		-03	-10	318	70
500	179	-11	-19	314	76
450		-24	-32	317	73
400	231	-38	-47	315	83
350		-49		318	93
300	294	-56		319	99
250		-65		320	90
200	379	-71		327	87
170		-65		328	78
150		-72		329	69
130		-76		323	60
110		-77		318	54
100	522	-77		318	54
90		-77		318	51
80		-81		318	45
70		-84			

Inversion 784 mb 13° - 761 mb 19°
Isothermal 761 - 722 mb 19°

Tropopause: II 235 mb -68° 34,600'

Weather Watcher — 52·5N 20·W — 09h G.M.T. — M.S.L. 1018 mb — Surf 1018 mb — Freezing 890 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	38	310	26
1000	4·9	45	38	312	29
950		38	31	313	34
900	33·0	33	28	314	35
850		29	24	302	39
800	63·7	24	18	312	40
750		20	14	312	44
700	97·9	19	13	310	54
650		15	07	312	57
600	137	11	-01	314	62
550		05	-11	317	69
500	182	-05	-22	319	85
450		-16	-34	320	99
400	235	-24	-43	319	98
350		-34	-52	323	93
300	300	-48		322	108
250		-64			
200	386	-71			
170	(175 mb)	-70			

Inversion 750 mb 20° - 730 mb 21°
Isothermal 760 - 750 mb 20°

Tropopause: II 230mb -69° 35,700'

Weather Watcher — 52·6N 20·2W — 15h G.M.T. — M.S.L. 1020 mb — Surf 1020 mb — Freezing 890 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	41	300	23
1000	5·4	45	39	313	23
950		39	32	313	25
900	33·5	33	26	314	51
850		27	20	313	32
800	64·1	28	20	314	32
750		28	05	316	40
700	98·7	25	-01	318	53
650		21	-03	320	58
600	138	13	-06	323	65
550		05	-11	325	66
500	183	-03	-14	326	63
450		-15	-23	323	72
400	236	-23	-35	325	79
350		-36	-51	325	97
300	301	-51		326	103
250		-66		326	109
200	386	-83		321	111
170		-78		330	82
150		-75		336	73
130		-71		328	60
110		-71		324	48
100	528	-72		324	46
90		-76		324	37
80		-76		324	46
70		-79		324	52
60		-81		324	46
		-82		324	27
	(045 mb)	-82			

Inversion 825 mb 24° - 800mb 28°
Isothermal 800 - 750mb 28°

Tropopause: I 210 mb -85° 37,500'

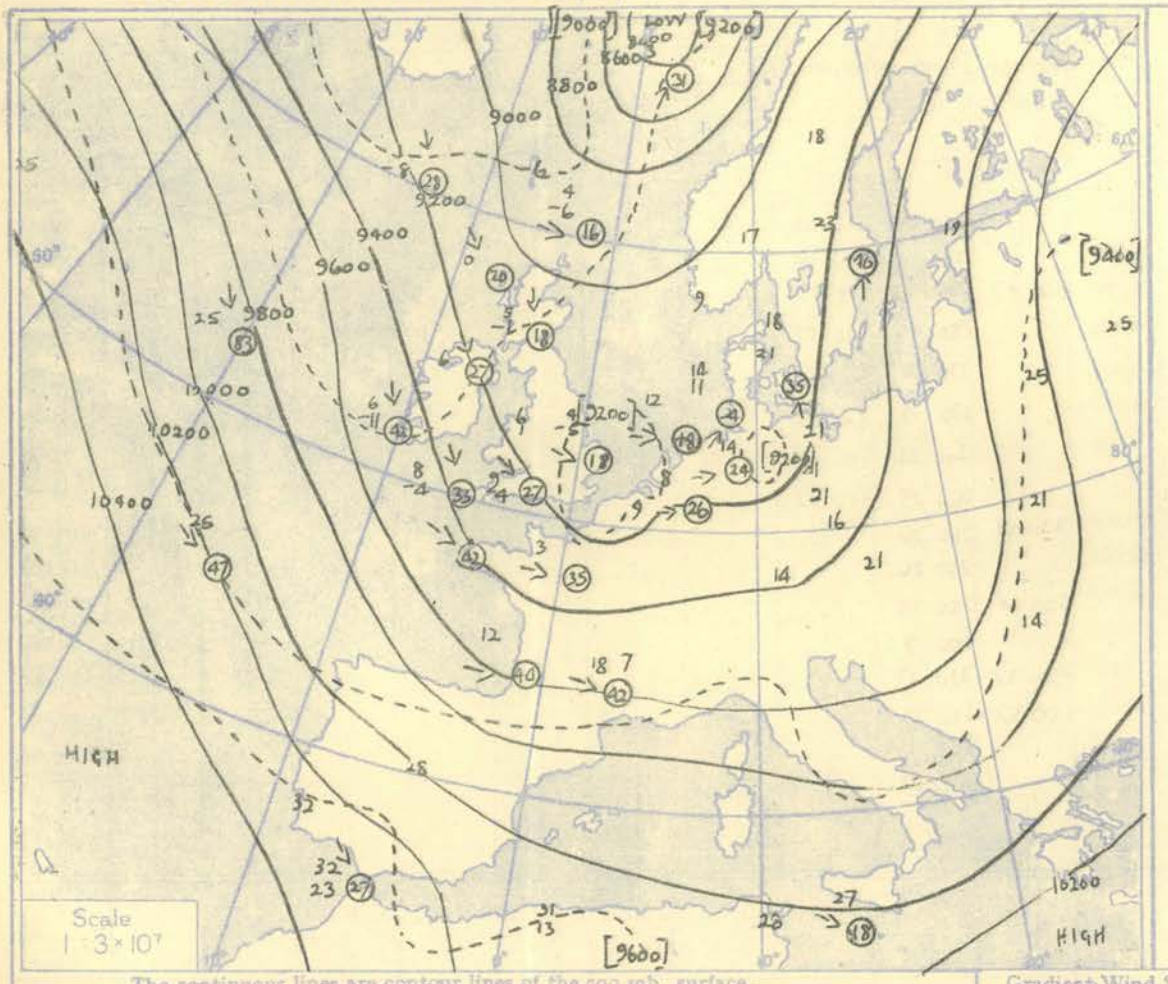
Weather Watcher — 52·5N 20·3W — 21h G.M.T. — M.S.L. 1022 mb — Surf 1022 mb — Freezing 790 and 875 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	43	320	21
1000	6·0	46	39	316	24
950		39	33	312	28
900	34·2	34	29	310	28
850		30	20	312	33
800	65·2	33	-10	316	40
750		27	03	318	42
700	100·0	25	13	329	48
650		20	-15	340	64
600	139	14	-20	337	67
550		09	-11	330	69
500	185	02	-12	326	81
450		-09	-22	323	83
400	239	-21	-31	315	83
350		-34	-44	321	85
300	304	-48		314	85
250		-64		316	104
200	389	-86		321	93
170		-97		321	86
150		-92		321	80
130		-85		321	68
110		-83		321	63
100	526	-83		321	64
90		-87		321	47
80		-86			
70		-87			
60		-89			
		-92			
		-94			

Inversion 854 mb 29° - 822mb 34°, 735 .. 25° - 711 .. 26°
Isothermal 822 - 806 mb 34°

Tropopause: I 165 mb -98° 42,900'

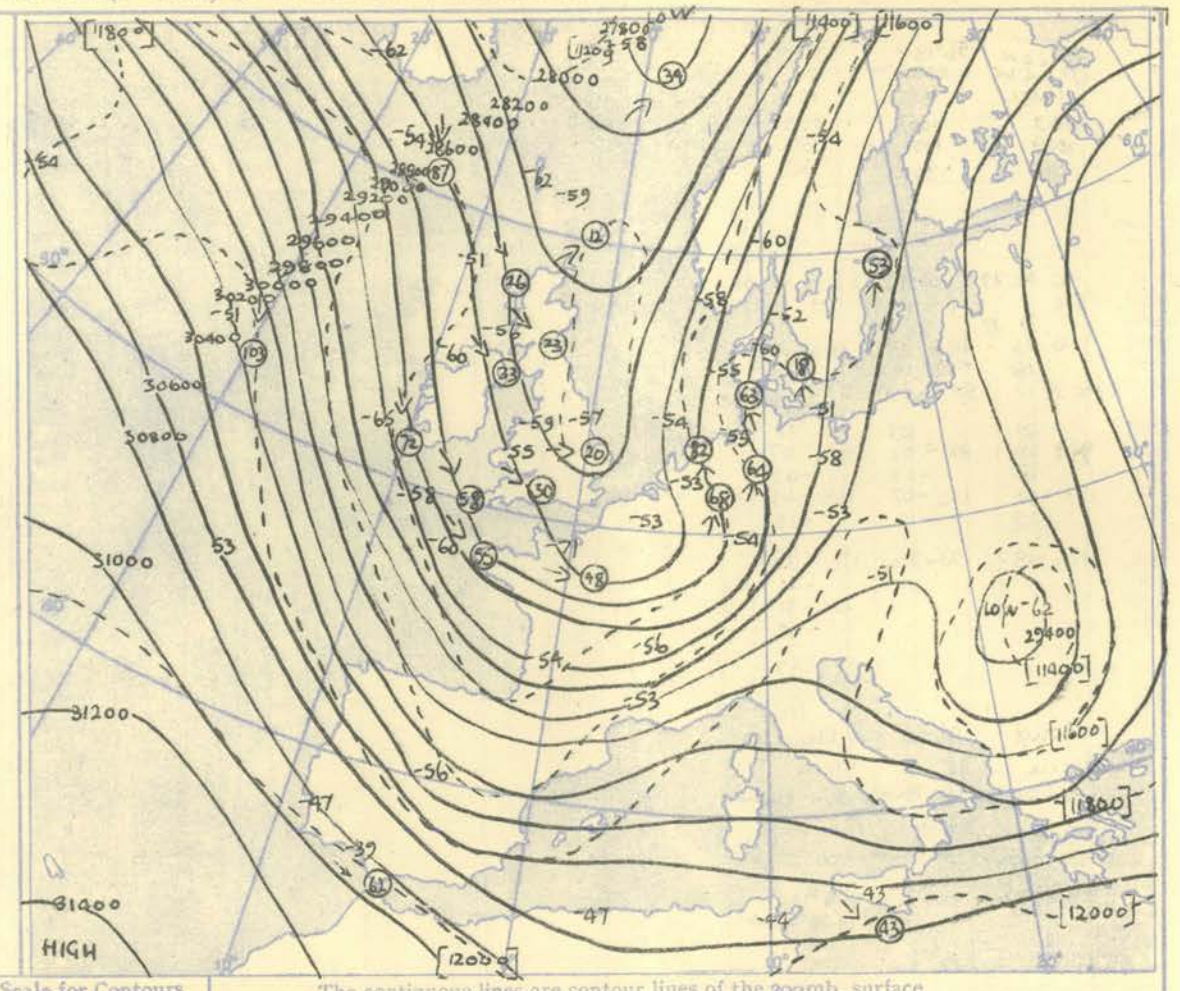
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

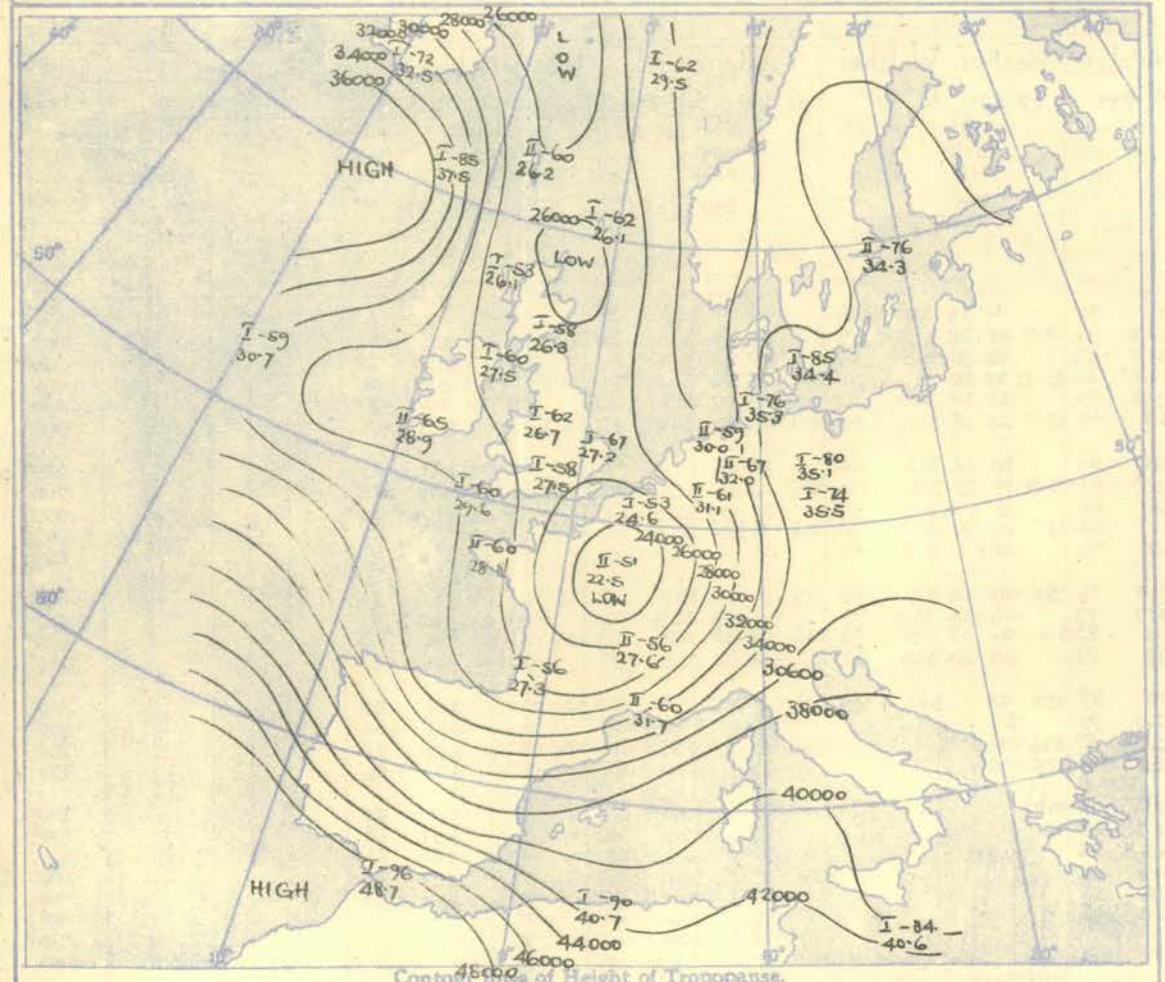
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The tongue of cold air was advected southeastwards to the Alps and strong dynamical warming occured over Central Atlantic associated with an extension southeastwards of the surface anticyclone.

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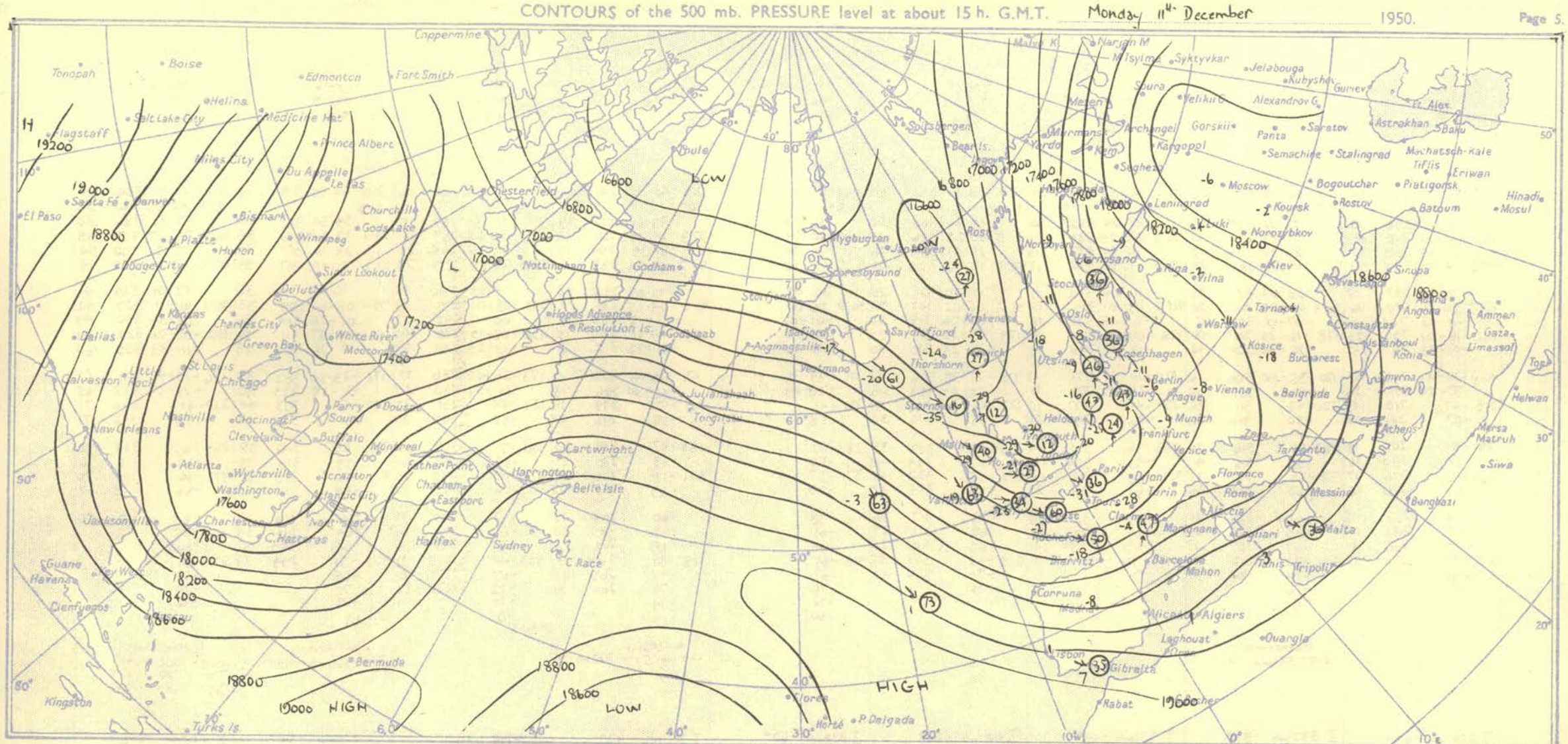
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Monday 11th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Monday 11th December. 1950.

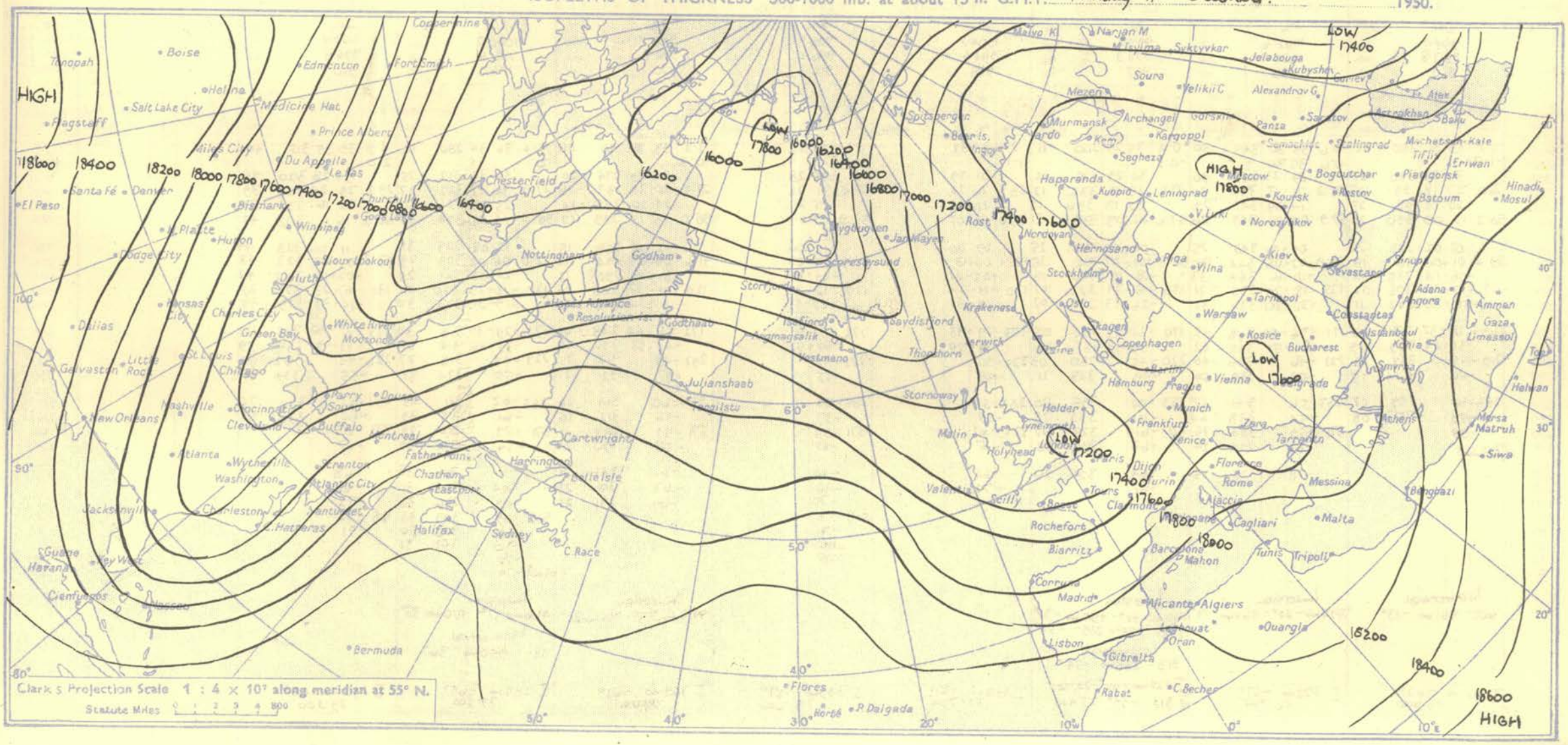


Fig 6.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15L

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia	Station
Pressure: Time	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	15L G.M.T.	Time
Pressure: M.S.L.	990·2 mb	997·5 mb	993·7 mb	998·9 mb	995·3 mb	997·9 mb	999·1 mb	1003·6 mb	1009·9. mb	M.S.L.
Pressure: Surf	980·1 mb	995·8 mb	992·8 mb	988·8 mb	993·2 mb	993·1 mb	983·0 mb	992·9 mb	1009 mb	Surf
Pressure: Freezing	939 mb	940 mb	910 mb	925 mb	919 mb	923 mb	915 mb	900 mb	920 mb	Freezing

Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Pressure mb
Surf	2·7	36	38	340	09	0·4	36	28	350	08	0·2	40	33	310	08	2·6	38	36	360	20	6·6	42	37			Surf
1000	-2·6					0·7					-1·5					-1·4					-1·3					1000
950		33	30	326	24		33	26	339	33		37	28	330	10		35	31	360	24		36	33			950
900	25·1	28	24	310	18	2·0	27	23	340	33	26·5	32	25	347	11	27·5	30	25	346	27	26·7	30	29			900
850		21	15	299	16		20	15	336	32		24	20	357	13		25	21	335	26		24	21			850
800	55·3	14	10	290	13	57·1	14	09	332	28	57·0	17	13	352	13	58·0	18	16	328	21	57·2	19	15			800
750		10	00	287	15		08	04	328	25		11	06	332	13		12	09	325	24		14	09			750
700	88·8	04	-06	270	16	90·4	00	-05	312	20	90·2	05	-01	329	18	91·7	06	02	322	27	90·9	06	01			700
650		-11	-13	244	16		-07	-12	306	17		-01	-08	323	18		-02	-06	319	30		-01	-06			650
600	126	-10	-21	222	22	128	-16	-22	310	18	128	-09	-19	315	18	129	-09	-13	319	28	129	-09	-12			600
550		-19	-33	211	25		-25	-30	308	14		-19	-32	298	15		-18	-24	310	30		-19	-25			550
500	169	-28	-41	203	27	170	-35	-40	306	16	171	-29	-41	273	12	172	-27	-35	316	40	171	-29	-35			500
450		-37	-50	211	26		-41		302	18		-38	-52	275	11		-35	-45	323	48		-38	-45			450
400	219	-47		210	15	220	-43		311	26	221	-47		277	15	223	-41		320	51	222	-46				400
350		-57		241	09		-50		316	26		-56		291	21		-53		315	34		-58				350
300	281	-59		201	12	283	-51		316	26	283	-56		314	23	285	-60		322	33	283	-59				300
250		-58		230	16		-52		315	41		-53		304	18		-63		324	43		-55				250
200	368	-62		226	17	371	-59		331	27	371	-55		312	18	372	-57		320	47	371	-57				200
170		-62		276	15		-63		330	26		-61		296	20		-58		324	40		-58				170
150		-64		253	15		-66		320	21		-63		301	15		-59		317	36		-58				150
130		-71		242	17		-69		304	21		-66		285	19		-60		310	27		-63				130
110		-75		260	21		-67		307	27		-68		284	21		-65		309	28		-64				110
100	513	-75		270	24	516	-72		310	32	517	-70				519	-69		307	35	518	-65				100
90		-81					-74		304	35		-72					-70		304	42		-67				90
80							-76										-72					-70				80
70							-77															-74				70
60																						-80				60
						Isothermal. 415-386mb -43°															Inversion 342 mb 59° - 332mb 58°						
Tropopause	I 329 mb -62° 26·100·	I 332 mb -53° 26·100·	I 330mb -58° 26·250	I 314 mb -60° 27·500	I 323mb -62° 26·700·	I 317 mb -62° 27·200·	I 317mb -58° 27·500·	II 290mb -60° 29·600·	II 304 mb -65° 28·900·	Tropopause

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne		Station
Pressure: Time	21L G.M.T.	21L G.M.T.	21L G.M.T.	21L G.M.T.	21L G.M.T.	21L G.M.T.	21L G.M.T.	21L G.M.T.	G.M.T.	Time
Pressure: M.S.L.	994·0 mb	1002·6 mb	999·2 mb	1004·7 mb	998·1 mb	998·7 mb	1000·2 mb	1007·4 mb	mb	M.S.L.
Pressure: Surf	983·8 mb	1000·9 mb	998·3 mb	994·6 mb	996·0 mb	994·1 mb	983·6 mb	996·6 mb	mb	Surf
Pressure: Freezing	960 mb	995 mb	967 mb	968 mb	912 mb	920 mb	916 mb	930 mb	mb	Freezing

Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Pressure mb
Surf	2·7	33	31	350	17	0·6	35	30	345	30	0·2	35	29	000	11	2·6	34	32			0·6	39	36			Surf
1000	-1·7					0·6	35	30			-0·2					1·1					-0·5					1000
950		31	23	330	27		29	23	349	30		30	23	325	12		31	29				35	28			950
900	26·0	27	18	331	27	28·2	21	17	349	31	27·5	25	19	332	12	28·8	26	22			27·4	31	26			900
850		20	13	331	27		14	09	347	29		20	13	336	15		20	16				25	21			850
800	56·2	13	09	330	24	57·9	09	04	345	26	57·6	14	05	338	21	59·0	15	07			57·9	19	14			800
750		07	02	323	22		04	-01	343	25		06	-02	340	25		09	00				12	06			750
700	89·4	01	-06	301	18	90·9	-02	-08	344	30	90·8	-01	-07	340	25	92·4	04	-03			91·5	05	-02			700
650		-08	-14	285	14		-10	-16	344	33		-08	-15	340	18		-05	-11				-01	-11			650
600	127	-13	-22	276	12	128	-18	-25	335	31	128	-18	-23	322	07	130	-13	-24			129	-12	-21			600
550		-16	-30	262	11		-20	-30	326	32		-26	-33	279	07		-19	-43				-22	-33			550
500	169	-28	-37	271	12	171	-26	-40	328	33	170	-34	-42	190	05	173	-29	-45			172	-31	-43			500
450		-36	-43	329	15		-34	-51	332	32		-39	-49	187	06		-39	-50				-40	-52			450
400	219	-48		342	16	221	-46		336	40	220	-45		280	03	223	-50				222	-47				400
350		-56		344	15		-54		339	60		-49		328	11		-48					-55				350
300	281	-60		259	07	283	-56		341	47	283	-54		335	20	286	-51				284	-54				300
250		-59		257	08		-54		338	44		-51		333	25		-59					-57				250
200		-55				371	-59		328	36	371	-61		328	27	372	-62				371	-58				200
170	(225mb)						-65		322	24		-62		331	25		-67					-63				170
150							-70		322	35		-64		324	26		-64					-60				150
130												-67					-72					-64				130
110																						-70				110
100																					518	-71				100
90																						-80				90
80																						-78				80
70																										70
60																										60
		Isothermal. 605· 561mb -13°					Inversion. 590mb -20° - 560mb -19°					Inversion. 410mb -40° - 450 mb -39° 288· -54° - 235·· -50° Isothermal. 313 - 288mb -54°											Inversion 994 mb 33° - 966mb 37°						
Tropopause	I 315 mb -62° 26·800·	I 325mb -57° 26·700·	I 422 mb -40° 20,700 II 313· -54° 27·400·	I 395 mb -51° 22·700·	I 339mb -37° 25·800·	I 303mb -62° 28,000·	I 285mb -65° 29·500·	I 292 mb -68° 29·300·		Tropopause

H.M.S.O. Press, M.O., Dunstable.

No. 11580

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Tuesday 12th. December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.
Pressure: M.S.L.	996·3 mb	1004·8 mb	1001·7 mb	1006·5 mb	1002·1 mb	10000 mb	1002·8 mb	1009·5 mb	1013·7 mb
Pressure: Surf	986·1 mb	1003·1 mb	1000·8 mb	997·4 mb	10000 mb	995·5 mb	986·2 mb	998·7 mb	1012 mb
Pressure: Freezing	286 (Surf) mb	957 mb	973 mb	974 mb	950 mb	948 mb	948 mb	932 mb	935 mb

Pressure mb	Lerwick Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	31	31	360	28	0·4	35	30	360	05	00·2	31	24	300	08	02·6	33	32		
1000	01·1					1·2	35	30			00·4	31	24			01·9				
950		29	25	337	42		31	24	348	27		30	21	319	18		31	28		
900	26·3	23	18	341	36	26·8	23	17	348	23	26·0	24	17	346	27	29·5	27	22		
850		17	13	340	28		16	11	347	24		17	12	353	27		21	16		
800	56·2	11	09	339	23	58·6	08	04	346	25	58·0	12	03	357	26	59·8	16	14		
750		05	03	339	15		01	-04	344	27		07	-04	360	25		09	08		
700	89·3	-01	-04	333	09	91·4	-05	-15	343	23	09·1	-01	-10	352	23	93·2	01	-01		
650		-07	-14	318	07		-11	-24	342	21		-08	-17	348	24		-04	-09		
600	12·6	-14	-21	318	13	12·8	-14	-28	334	33	12·8	-17	-24	340	25	13·1	-09	-18		
550		-19	-27	331	16		-21	-38	326	44		-27	-32	327	25		-12	-25		
500	16·9	-27	-36	341	17	17·1	-29	-46	341	51	17·1	-27	-43	352	20	17·4	-17	-35		
450		-37	-46	332	16		-38	-54	341	64		-36	-48	356	23		-26	-50		
400	21·9	-49		322	16	22·1	-51		340	77	22·1	-46		349	29	22·5	-36	-58		
350		-63		317	16		-66		337	75		-55		346	38		-47			
300	28·1	-65		332	15	28·1	-72		335	67	28·3	-57		344	47	28·9	-64			
250		-64		304	17		-76		328	64		-58		339	42		-63			
200	36·7	-64		301	18	36·5	-75		322	40	37·0	-69		348	33	37·5	-61			
170		-66		295	15		-75		315	42		-69		328	36		-65			
150		-69		279	16	42·4	-79		317	45	43·1	-62		319	33	43·5	-68			
130		-73		267	17		-82		325	37		-70		324	28		-67			
110		-79		272	16		-86		319	32		-71		326	21		-66			
100	51·0	-82		283	21	50·5	-88		312	33	51·5	-70		324	18	52·0	-65			
90		-83		295	30		-90		313	34		-74		308	15					
80		-84		282	20		-93		304	46		-79								
70		-87		271	18															
60																				

Pressure mb	Liverpool Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Valentia Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	35	30	360	05	01·2	36	34	300	14	1·4	35	33	330	15	02·9	41	30	315	30	00·3	42	36		
1000	00·6					00·0					0·7					02·5					3·7	41	36		
950		32	23				32	31	334	25		32	29	330	27		35	11	323	38		35	31		
900	28·3	26	18			27·7	28	27	338	25	28·5	28	19	340	30	30·3	28	08	326	37	31·5	28	25		
850		20	13				23	20	339	24		22	14	341	28		21	03	328	36		22	20		
800	58·4	13	09			58·0	18	16	333	24	58·8	16	13	333	26	60·5	14	-02	330	37	61·8	17	14		
750		06	-02				12	08	329	23		09	06	327	27		08	-10	337	37		12	09		
700	91·5	-03	-10			91·6	04	02	322	20	92·2	02	-02	319	25	93·9	05	-25	332	47	95·5	14	-04		
650		-11	-17				-02	-07	334	19		-05	-09	310	23		01	-31	330	52		09	-11		
600	12·8	-19	-27			12·9	-09	-20	324	19	12·9	-14	-19	306	22	132	-4	-37	332		13·4	04	-19		
550		-26	-35				-19	-29	310	18		-23	-30	306	24		-10	-45	335			-03	-27		
500	17·1	-31	-42			17·2	-30	-39	307	19	17·2	-31	-41	329	31	175	-19	-55	338	72	179	-12	-24		
450		-38	-51				-41		309	19		-38	-52	327	38		-28	-56	340	91		-18	-29		
400	22·1	-45				22·2	-50		281	15	22·2	-49		328	45	22·6	-37	-60	341	105	231	-29	-40		
350		-52					-55		300	18		-55		332	46		-46		340	111		-42			
300	28·4	-55				28·4	-59		326	28	28·9	-58		331	53	290	-58		337	109	295	-54			
250		-55					-55		335	24		-60		325	52		-64					-71			
200	37·0	-63				37·1	-59		329	40	37·1	-61		332	46	37·5	-66				373	-81			
170		-61					-61		332	30		-69		328	46		-66					-77			
150		-65				43·3	-64		318	32	43·1	-66		318	38		-68					-75			
130		-68					-64		304	30		-70		317	35		-71					-76			
110		-74					-67		298	23		-73		313	40		-75					-76			
100	51·6	-77				51·8	-70		298	20	51·5	-74		311	42	51·9	-74				521	-76			
90		-75					-74					-75					-76								
80		-79															-81								
70		-82															-82								
60																									

Inversion 1001mb 31° - 973mb 32°
550 .. -27° - 524 .. -23°
286 .. -59° - 245 .. -53°

Inversion 1000mb 35° - 981mb 36°

Isothermal 535 - 519 mb -28°

Isothermal 1003 - 978 mb 35°
662 - 630 .. -11°

Isothermal 922 - 700 mb 05°

Inversion 734 mb 11° - 710mb 15°

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Tropopause	I 328 mb -67° 26,200'	II 344 mb -68° 29,500'	II 327mb -57° 26,400' I 197mb -65° 37,200'	I 240 mb -64° 28,900'	I 328 mb -55° 26400'	I 345 mb -56° 25400'	II 375 mb -53° 23,600'	II 280mb -63° 30,300'	I 212 mb -82° 36,700'

09h. G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	
Pressure: Time	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h G.M.T.	09h. G.M.T.	G.M.T.
Pressure: M.S.L.	998·4 mb	1004·4 mb	1003·0 mb	1006·3 mb	1004·1 mb	1003·1 mb	1005·8 mb	1010·0 mb	mb
Pressure: Surf	988·2 mb	1002·7 mb	1002·1 Surf mb	996·7 mb	1002·0 mb	998·6 mb	989·1 mb	999·2 mb	mb
Pressure: Freezing	988 (Surf) mb	970 mb	mb	996·7 mb	950 mb	999 (Surf) mb	970 mb	920 mb	mb

Pressure mb	Lerwick Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	29	27	360	16	0·4	34	29			00·2	29	24	290	10	02·6	32	31		
1000	-00·5					1·2	34	29			00·8	29	24			01·7				
950		28	21	343	25		29	23				29	23	316	20		29	26		
900	26·8	22	14	339	24	28·8	22	16			28·3	23	16	337	20	29·3	26	21		
850		16	11	336	22		16	11				19	11	353	24		20	15		
800	56·7	09	04	333	16	58·7	09	04			58·4	12	06	346	18	59·5	13	11		
750		02	-04	326	14		03	-01				04	-03	340	12		06	03		
700	89·6	-02	-16	314	13	91·7	-03	-08			92·0	-01	-12	336	07	92·8	00	-03		
650		-09	-28	311	12		-01	-17				-09	-19	309	11		-01	-20		
600	12·7	-11	-29	313	14	12·9	-08	-21			12·9	-14	-31	321	22	13·0	-06	-20		
550		-17	-39	318	30		-16	-23				-17	-34	341	33		-12	-22		
500	17·0	-24	-52	329	24	17·2	-23	-30			17·2	-24	-39	346	43	17·4	-19	-27		
450		-33	-54	336	25		-32	-39				-34	-49	344	48		-29	-37		
400	22·1	-45		328	29	22·3	-44				22·2	-46		340	46	22·5	-42			
350		-55		326	28		-55					-59		336	49		-53			
300	28·3	-65		323	28	28·5	-68				28·4	-66		335	50	28·7	-63			
250		-63		318	17		-65					-60		333	42		-68			
200	36·7	-60		298	17	37·1	-64				37·0	-66		333	42	37·2	-67			
170		-63		307	17		-67					-60		333	27		-68			
150		-67		297	20	43·1	-66				43·1	-63		308	30	43·2	-70			
130		-70		293	24		-70					-68		312	38		-72			
110		-72		293	25		-75					-70		328	36		-75			
100	(105mb)-74					51·5	-76				51·5	-73				51·6	-77			
90							-76										-79			
80																	-81			
70							-75									61·9	-85			
60																(50mb)	-88			

Inversion 988mb 29° - 985mb 31°
710 .. -03° - 690 .. -01°

Isothermal 585 - 573 mb -13°

Inversion 700 mb -3° - 650 mb -01°

Isothermal 1003 - 987 mb 34°

Isothermal 1002 - 940mb 29°
885 - 868 .. 21°

Inversion 686mb -01° - 660mb 00°

Pressure mb	Liverpool Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	32	26			01·2	32	25	290	13	1·4	31	28	CALM		02·9	41	29	320	15
1000	01·1					00·8					1·5					02·7				
950		32	23				29	23	333	27		30	26	326	18		36	26	318	24
900	28·7	25	18			28·4	25	19	333	24	29·0	25	17	331	24	30·6	29	22	325	23
850		19	11				19	09	331	25		20	09	340	26		22	17	330	27
800	58·7	13	01			58·6	14	04	330	24	59·1	14	-03	337	26	61·0	16	12	331	33
750		07	-07				08	01	327	18		07	-11	333	25		10	02	323	38
700	91·9	+01	-13			91·9	01	-12	321	13	92·4	00	-10	330	25	94·5	09	-15	317	40
650		+10	-22				-09	-20	312	15		-09	-21	325	27		08	-19	328	46
600	12·9	+10	-27			12·9	+16	-26	255	08	12·9	-14	-37	333	42	13·3	02	-26	322	52
550		-14	-34				-24	-34	157	18		-16	-39	335	57		-05	-32	319	53
500	17·2	-21	-46			17·1	-32	-41	150	13	17·3	-21	-46	336	70	17·7	-14	-27	322	53
450		-31	-59				-41		331	20		-30	-54	340	81		-24	-34	327	60
400	22·3	-42				22·1	-47		341	40	22·4	-44		338	84	22·9	-35	-44	327	65
350		-54					-55		339	42		-51		335	90		-46		324	78
300	28·6	-62				28·4	-61		336	50	28·6	-63		332	85	29·2	-62		321	73
250		-64					-62		327	39		-65		327	65		-75		321	82
200	37·1	-66				37·0	-64		328	34	37·2	-66		326	49	37·6	-68		323	70
170		-65					-64		321	30		-66		325	48		-69			
150		-66				43·0	-67		315	30	43·2	-67		325	49					
130		-68					-66		329	32		-64		319	44		-73			
110		-70					-71		318	24		-67		316	37		-74			
100	51·6	-74				51·5	-71		308	28	51·7	-71		316	35	51·9	-74			
90		-76					-70		306	28		-73		320	34		-75			
80		-78					-74					-76		325	32		-76			
70		-80										-79		320	26					
60	(63mb)-80										(65mb)-81									

Inversion 1002mb 32° - 976mb 38°
612 - -11° - 595 - -10°

Isothermal 636 - 612 mb -11°

Inversion 960mb 28° - 942mb 30°

Isothermal 435 - 418mb -44°

Inversion 989mb 31° - 970mb 32°
607 - -15° - 583 - -13°

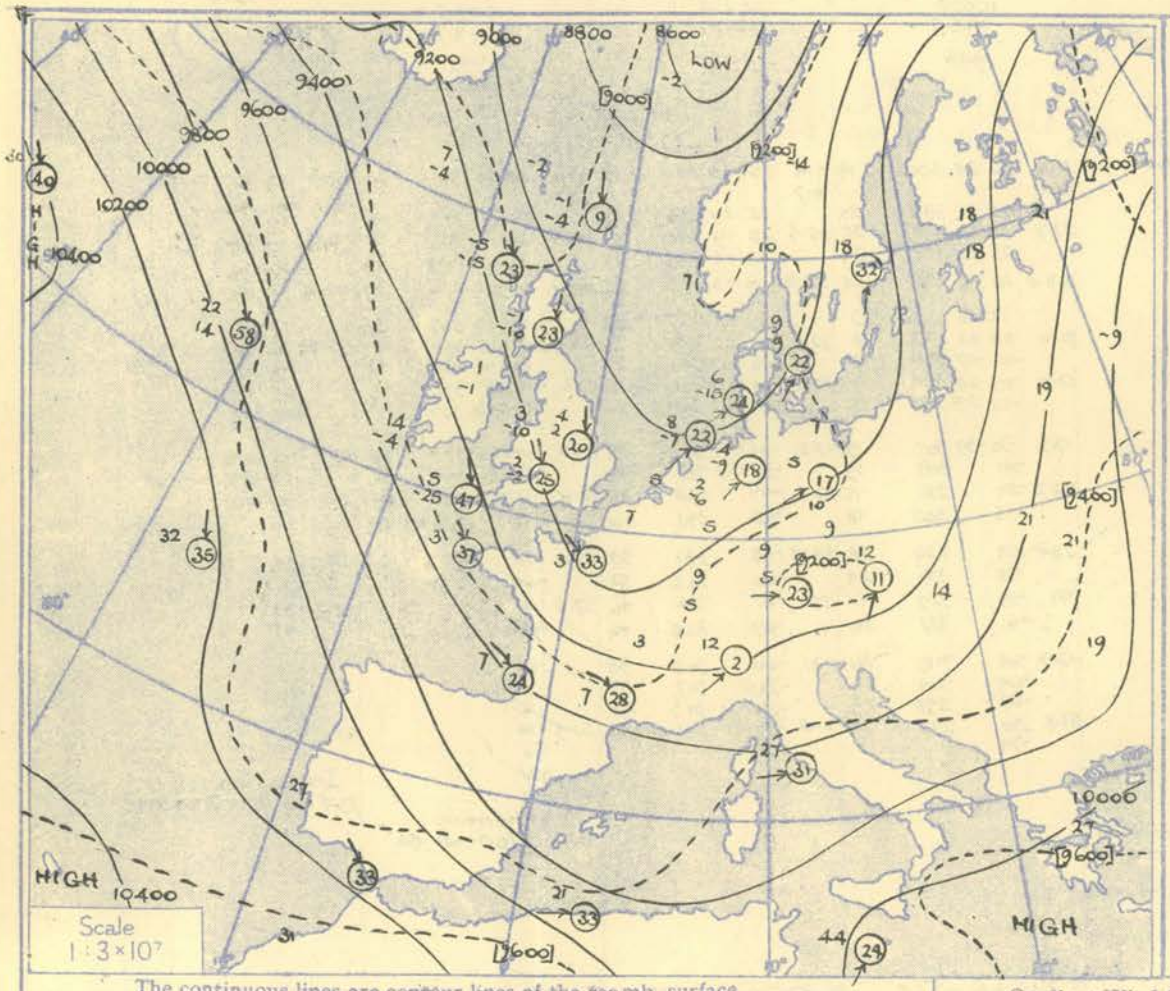
Isothermal 517 - 500 mb -21°

Inversion 999mb 41° - 992mb 42°
705 - 08° - 685 - 11°
383 - -39° - 378 - -38°

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	
Tropopause	I 303 mb -65° 28,000'	I 294 mb -69° 29,000'	I 295mb -67° 28600'	I 278mb -67° 30,300'	I 269 mb -65° 30,800'	I 295 mb -62° 28,700	I 280 mb -68° 30,000'	I 245mb -76° 33,400'	Tropopause

Tuesday 12th December, 1950.

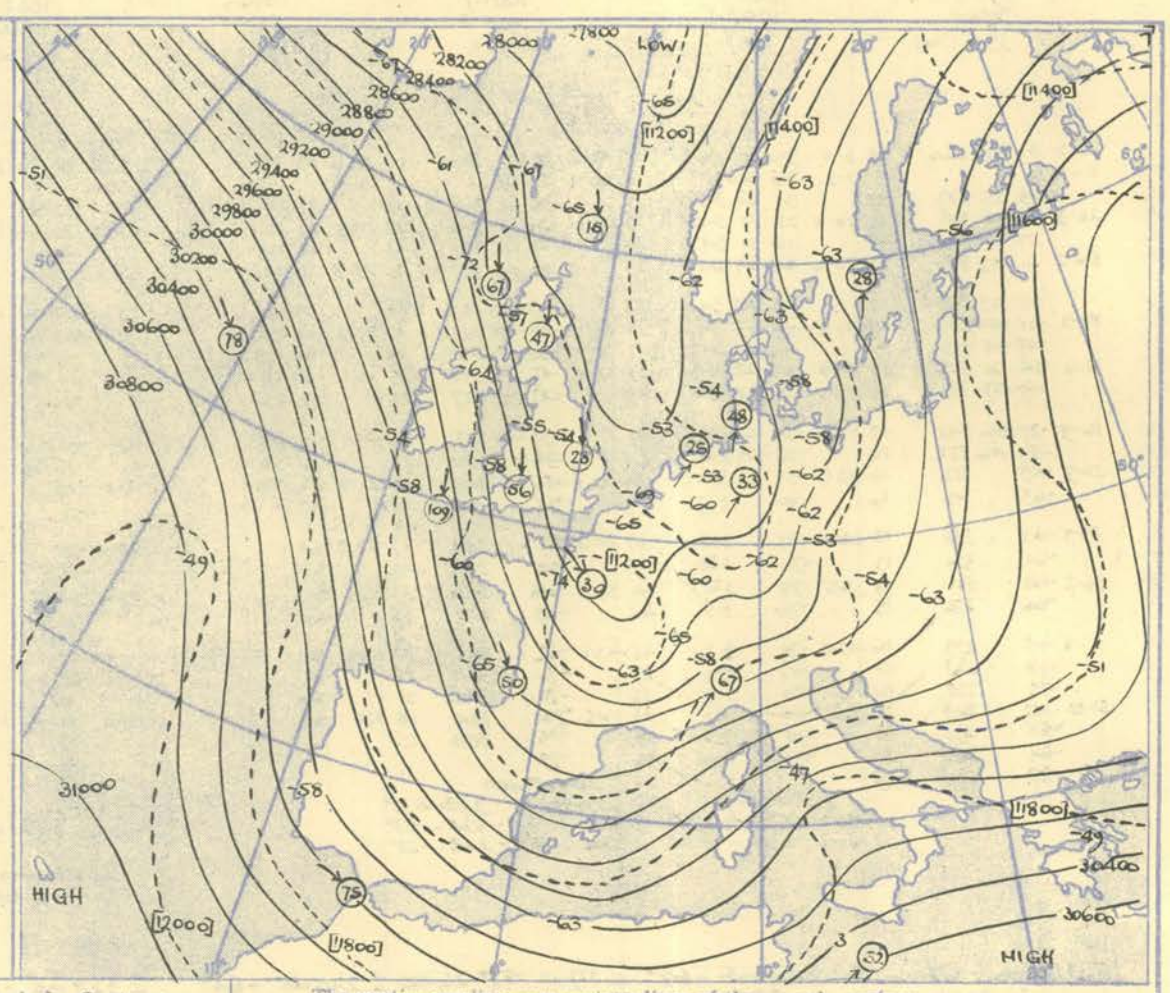
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



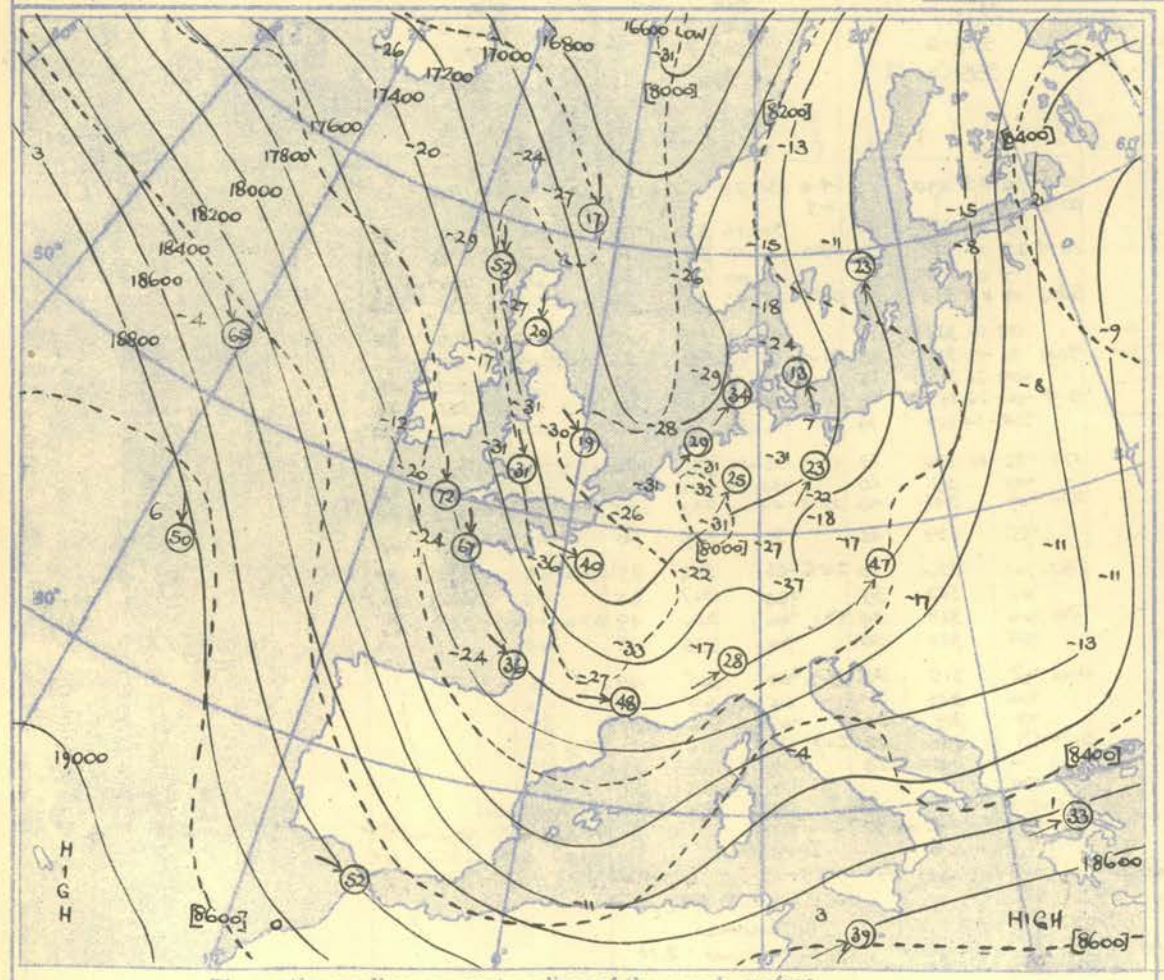
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

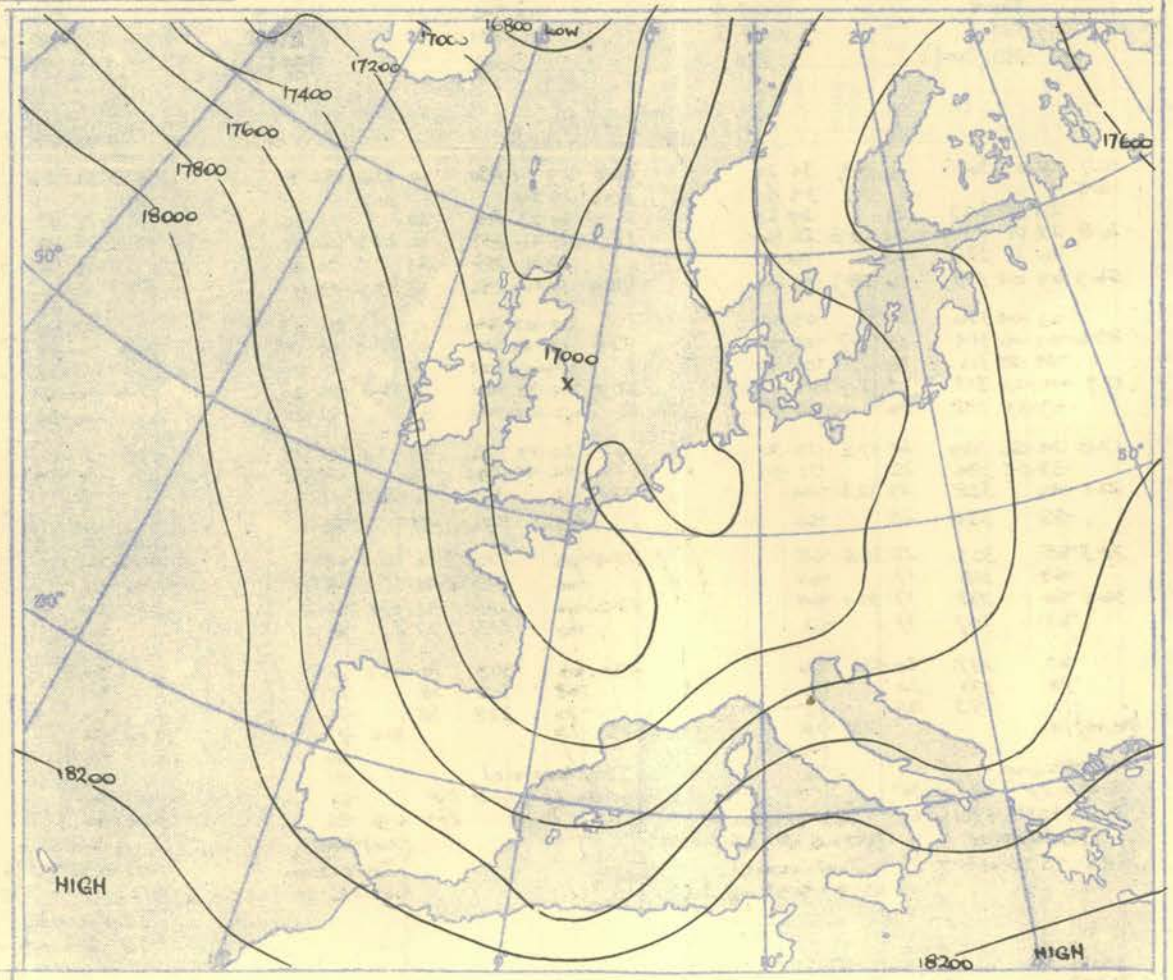
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopletha of Thickness 500 - 1000mb.

Tuesday 12th December 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.
	53·1N 01·3E		
Time	1515L		
M.S.L.	1002 mb		
Surf	1000 mb		
Freezing	956 mb		
Surf	0·5	39	29
1000	0·5	39	29
950		32	32
900	28·2	27	27
850		20	
800	58·4	15	
750		08	
700	91·6	-05	
650		-08	
600	129	-10	
550		-22	
500	171	-29	
450		-38	
400	222	-49	
350		-57	
300	283	-65	
250			
200			
170			

cloud:-
5/8 Sc 950-900 mb

Occasional Cu tops to 620 mb

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	W. Watcher 52·6N 20·1W		Castle Archdale		Lympne		Castle Archdale		Pembroke Dock		Aldergrove		W. Watcher 52·6N 20·0W	
Time	03L		09L		09h		15h		15h		15L		21L	
Type											PILAR			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			270	05	320	10	290	09	280	09			310	23
1,000			290	13	320	23	300	15	300	15	331	06	320	30
2,000			310	16	330	28	330	13	300	17	331	06	320	29
3,000			320	21	330	27	350	16	290	16	330	09	320	31
4,000			320	26	330	27	350	23	300	14	329	09	320	36
5,000					330	26	350	24			328	11	320	38
6,000					330	22	340	21	310	13	327	13	320	40
8,000					280	13	340	18	290	27	325	20	320	40
10,000					290	20	(7,000')				323	26	320	46
14,000					260	16					325	30	320	61
18,000					(12,000')						324	37	320	68
24,000											316	36	320	75
30,000	310	78									326	45	320	83
40,000	310	101									316	43	320	86
50,000	300	72									311	42	320	130
60,000	310	56											320	48
	310	55												
	(63,000')													

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	Weather Watcher					Weather Watcher					Weather Watcher					Weather Watcher				
Lat/Long	52·6°N 20·1°W					52·5°N 20°W					52·5°N 20·1°W					52·6°N 20·1°W				
Time	03hrs G.M.T.					09hrs G.M.T.					15hrs G.M.T.					21hrs G.M.T.				
M.S.L.	1021 mb					1016 mb					1019 mb					1019 mb				
Surf	1021 mb					1016 mb					1019 mb					1019 mb				
Freezing	785 mb					785 mb					890 mb					775 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	—	48	42	290	22	—	49	44	300	30	—	49	39	320	27	—	48	41		
1000	5·4	45	39	289	25	4·3	47	42	300	30	5·0	47	43	324	29	5·1	46	39		
950		40	34	291	30		40	35	305	39		40	39	323	43		40	34		
900	33·7	39	10	298	40	32·5	33	29	309	46	33·1	33	33	323	47	33·3	34	28		
850		37	08	301	45		35	26	314	50		28	28	323	50		37	15		
800	64·9	34	06	308	48	63·5	34	21	315	53	64·0	31	14	323	55	64·5	35	09		
750		28	08	314	56		28	08	315	51		31	04	325	67		29	04	See top	
700	99·6	22	14	315	58	98·2	20	05	315	51	98·8	25	-2	325	71	99·2	21	05	of page	
650		19	10	314	63		12	03	316	58		17	-11	325	71		18	10	for winds	
600	139	10	-1	311	71	137	04	-5	318	60	138	12	-15	327	71	138	12	06		
550		02	-7	309	71		-6	-20	319	57		06	-19	327	75		05	-1		
500	184	-4	-13	309	65	181	-9	-28	319	61	183	-2	-26	327	81	184	-2	-8		
450		-13	-18	312	66		-18	-42	319	62		-12	-35	328	72		-9	-16		
400	237	-23	-31	310	79	234	-30	-56	315	70	236	-25	-42	331	82	237	-19	-27		
350							-44		316	77		-38	-52	335	78		-33	-41		
300				See top of		298	-57		315	78	301	-52		337	96	302	-50			
250				page for			-69		315	66		-70		338	105		-69			
200				remainder		382	-73		315	79	365	-81		331	102	387	-90			
170				of winds			-75		315	78		-74		336	96		-80			
150							-73		315	76		-76		336	85		-83			
130							-76		315	78		-75		332	67		-80			
110							-77		315	72		-75		330	65		-82			
100						525	-76		315	71	527	-76		329	64	526	-81			
90							-75		315	68		-77					-85			
80							-80		315	67		-76								
70							-86		315	63		-76								
60							-83		315	50		-77								
						(50)	-89					-79								
											(44)	-80								
Tropopause	NR.					I 239 mb -72° 34500'					I 214 mb -86° 37400'					I 191 mb -93° 39800'				

Weather Watcher 03hrs:
Isothermal
950 - 912 mb 41°
863 - 850 mb 37°
713 - 687 mb 22°

Weather Watcher 09hrs:
Inversion
885 mb 30° - 850 mb 35°
538 mb -8° - 523 mb -5°
Isothermal
850 - 810 mb 35°

Weather Watcher 15hrs:
Inversion
854 mb 27° - 814 mb 32°
Isothermal
800 - 742 mb 31°

Weather Watcher 21hrs:
Inversion
895 mb 33° - 867 mb 37°
670 mb 16° - 650 mb 22°
Isothermal
867 - 850 mb 37°
825 - 800 mb 35°

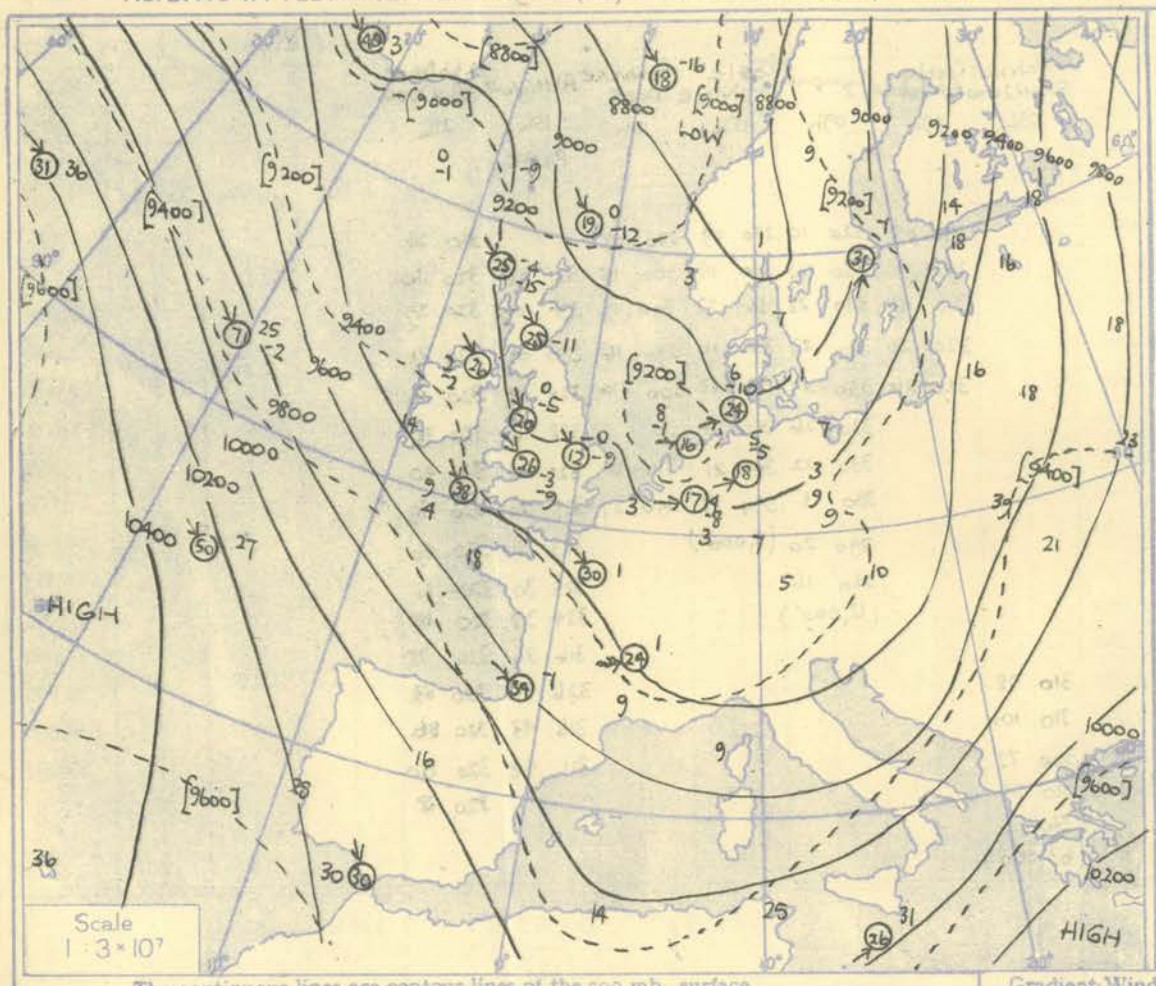
Ship	Weather Observer					Weather Observer					Weather Observer					Weather Observer				
Lat/Long	60·9°N 14°W					60·9°N 13·9°W					60·8°N 14°W					61·1°N 13·8°W				
Time	03hrs G.M.T.					09hrs G.M.T.					15hrs G.M.T.					21hrs G.M.T.				
M.S.L.	1006 mb					1007 mb					1009 mb					1001 mb				
Surf	1006 mb					1007 mb					1009 mb					1001 mb				
Freezing	1000 mb					985 mb					985 mb					960 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	—	3	31	010	12	—	35	26	060	15	—	35	22			—	37	34		
1000	1·6	32	29			1·8	34	26			2·4	34	22			0·3				
950		28	25				27	23	045	14		27	17				31	26		
900	25·0	23	19			29·2	20	20	042	11	29·7	15	03			27·9	25	21		
850		18	13				15	15	022	08		15	02				19	14		
800	59·0	12	07			59·0	09	05	356	08	59·5	10	-5			57·9	13	10		
750		07	-1				05	-1	343	16		06	-5				07	04		
700	92·4	07	-4			92·1	00	-7	348	18	92·6	00	-1			91·2	03	-15		
650		03	-5				-3	-9	348	37		-8	-18				-3	-27		
600	130	-4	-10			130	-9	-13	343	49	130	-17	-27			129	-7	-34		
550		-12	-18				-16	-20	332	52		-26	-35				-17	-41		
500	174	-20	-26			173	-24	-28	316	42	172	-25	-41			172	-27	-46		
450		-30	-39				-35	-39	315	40		-37	-53				-34	-44		
400	225	-40	-49			223	-45		311	48	222	-48				222	-42			
350		-53					-56		311	51		-58					-53			
300	287	-61				285	-63		316	54	284	-61				285	-63			
250		-57					-63		312	60		-61					-69			
200	374	-61				371	-63		316	48	370	-65				370	-62			
170		-62					-66		302	52		-63					-65			
150		-67					-69		303	56		-67					-68			
130		-72					-71		307	57		-67								
110	(125)	-74					-71		310	52		-69								
100						516	-73		314	59	515	-74								
90							-78		316	55		-78								
80							-82		318	56		-81								
70							-83		318	50		-79								
60						(63)	-83					-80								
												-84								
											(42)	-89								
Tropopause	II 313 mb -61° 27900'					II 328 mb -61° 26500'					I 331 mb -62° 26200'					II 267 mb -69° 31000'				

Weather Observer 03hrs:
Inversion
750 mb 7° - 735 mb 9°
Isothermal
756 - 750 mb 7°

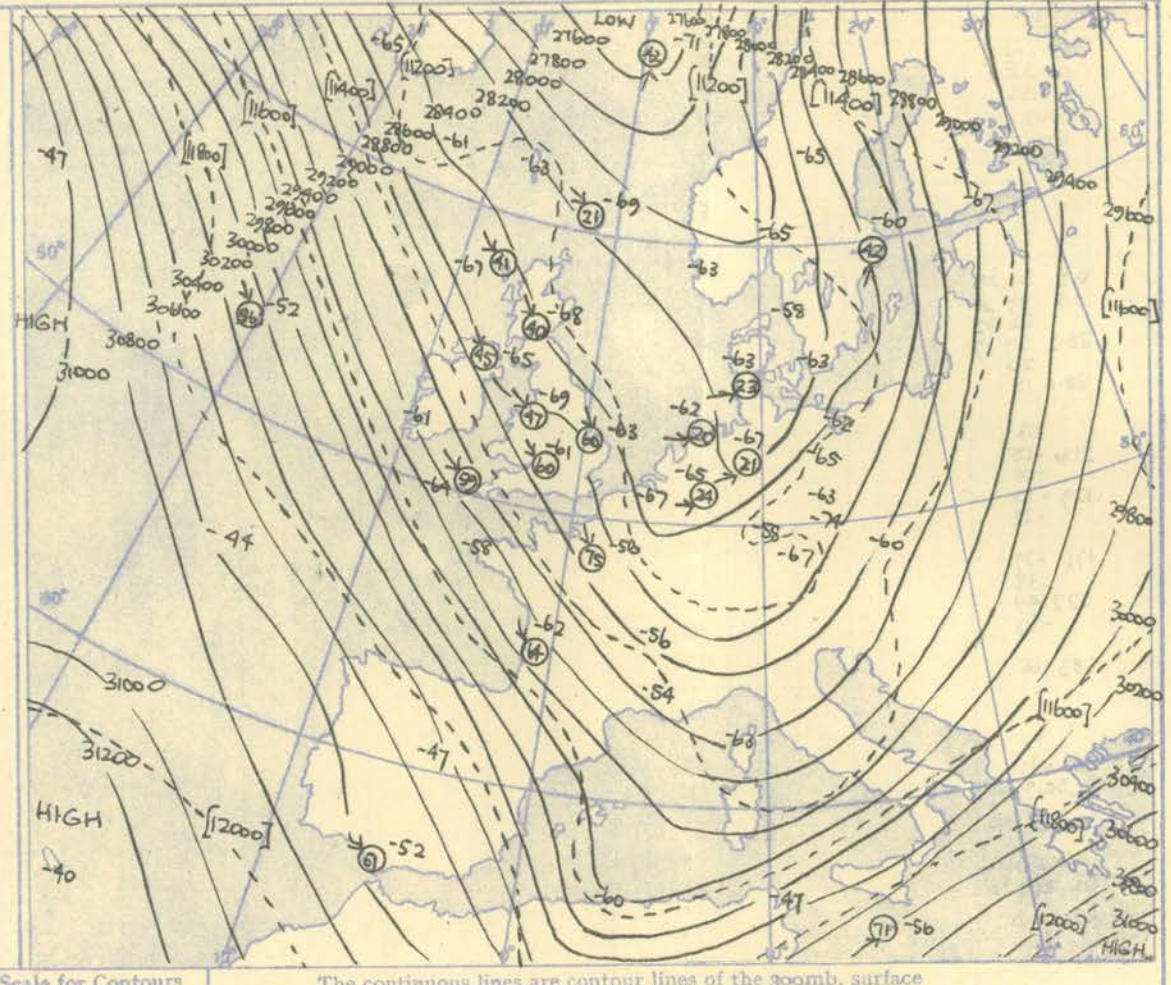
Weather Observer 09hrs:
Isothermal
790 - 774 mb 8°
Inversion
663 mb -3° - 655 mb -2°

Weather Observer 15hrs:
Inversion
775 mb 6° - 756 mb 7°
542 mb -27° - 532 mb -26°

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

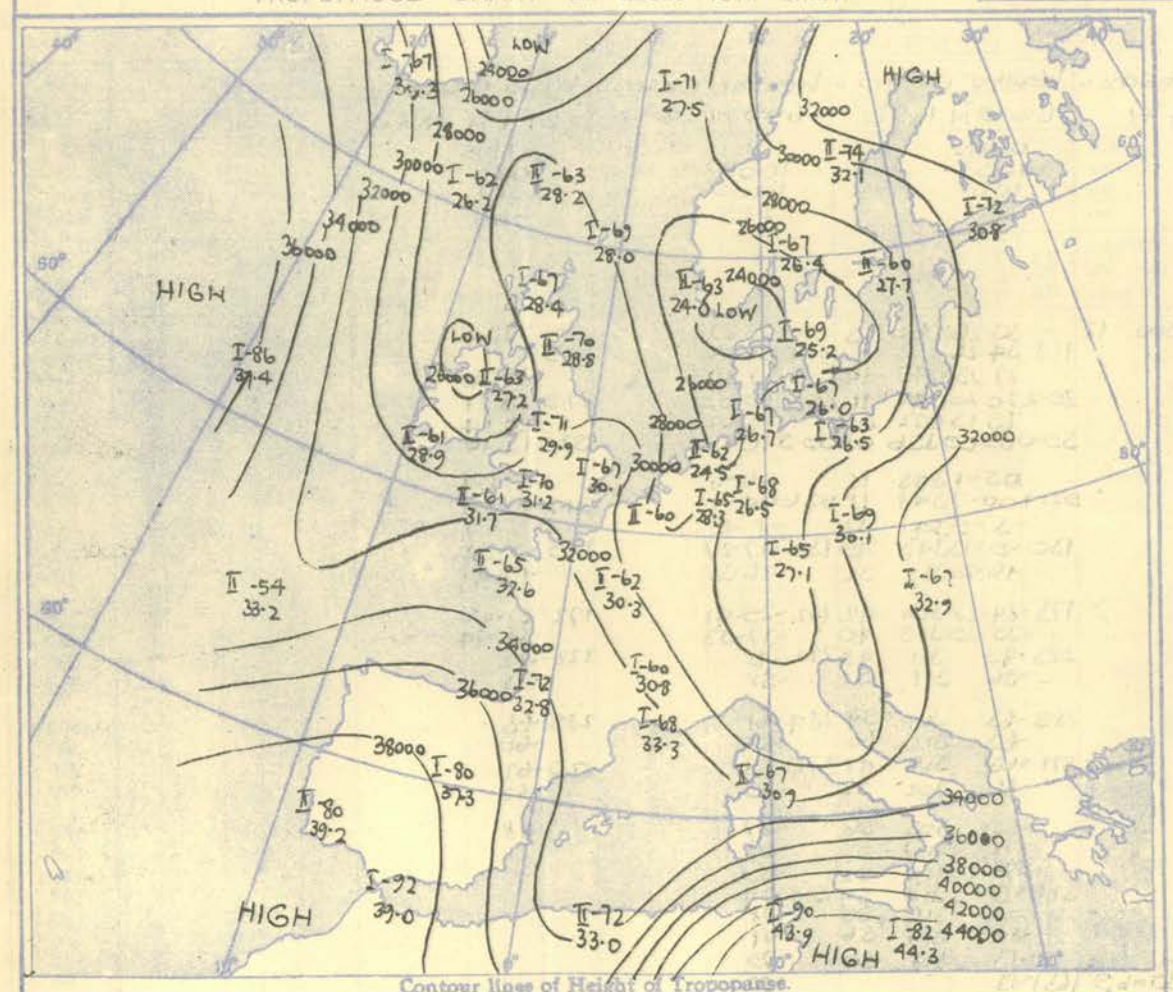


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold air reached the Mediterranean in the south and continued to progress eastwards over Scandinavia. The rate of progress of the trough axis was somewhat less than in the preceding 24 hours.

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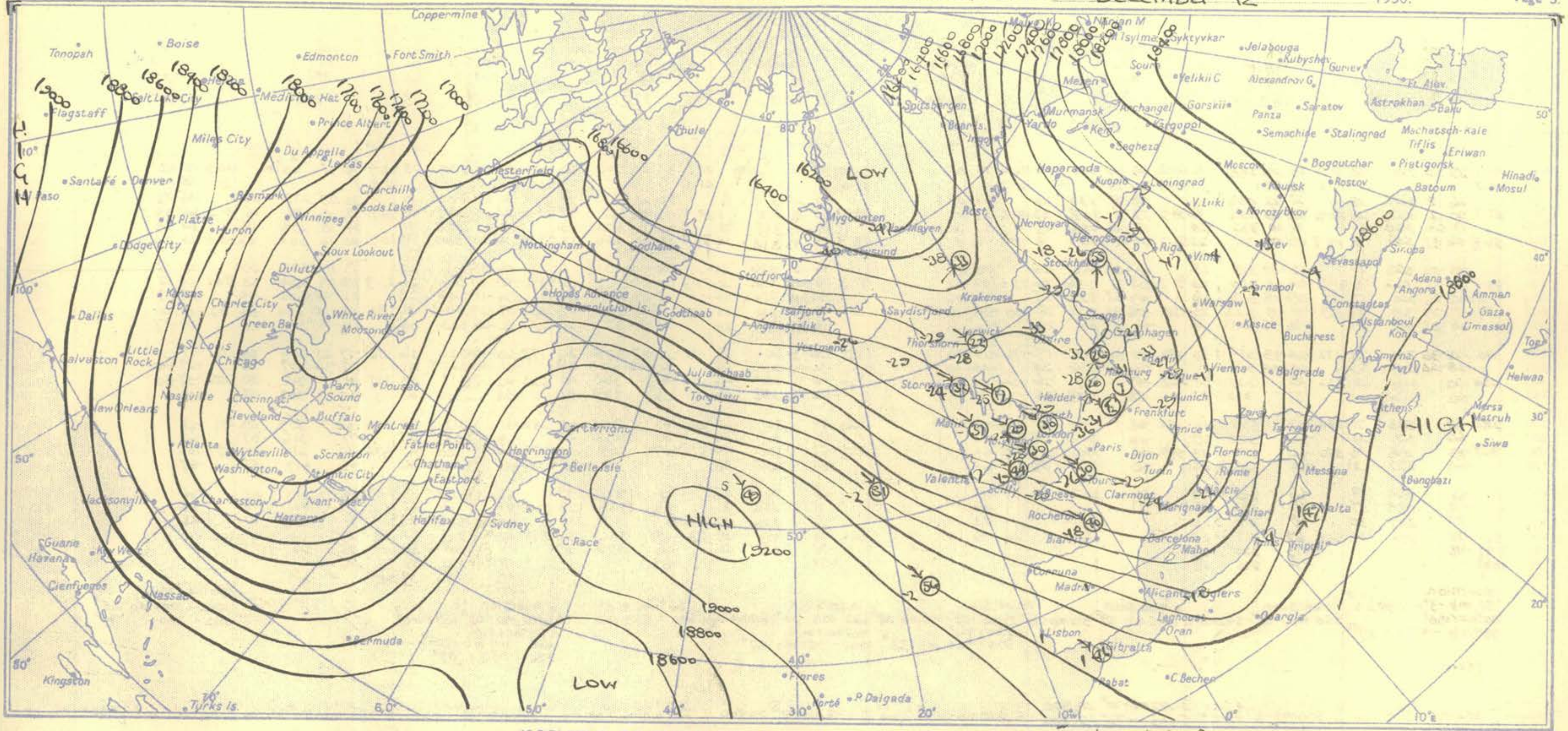
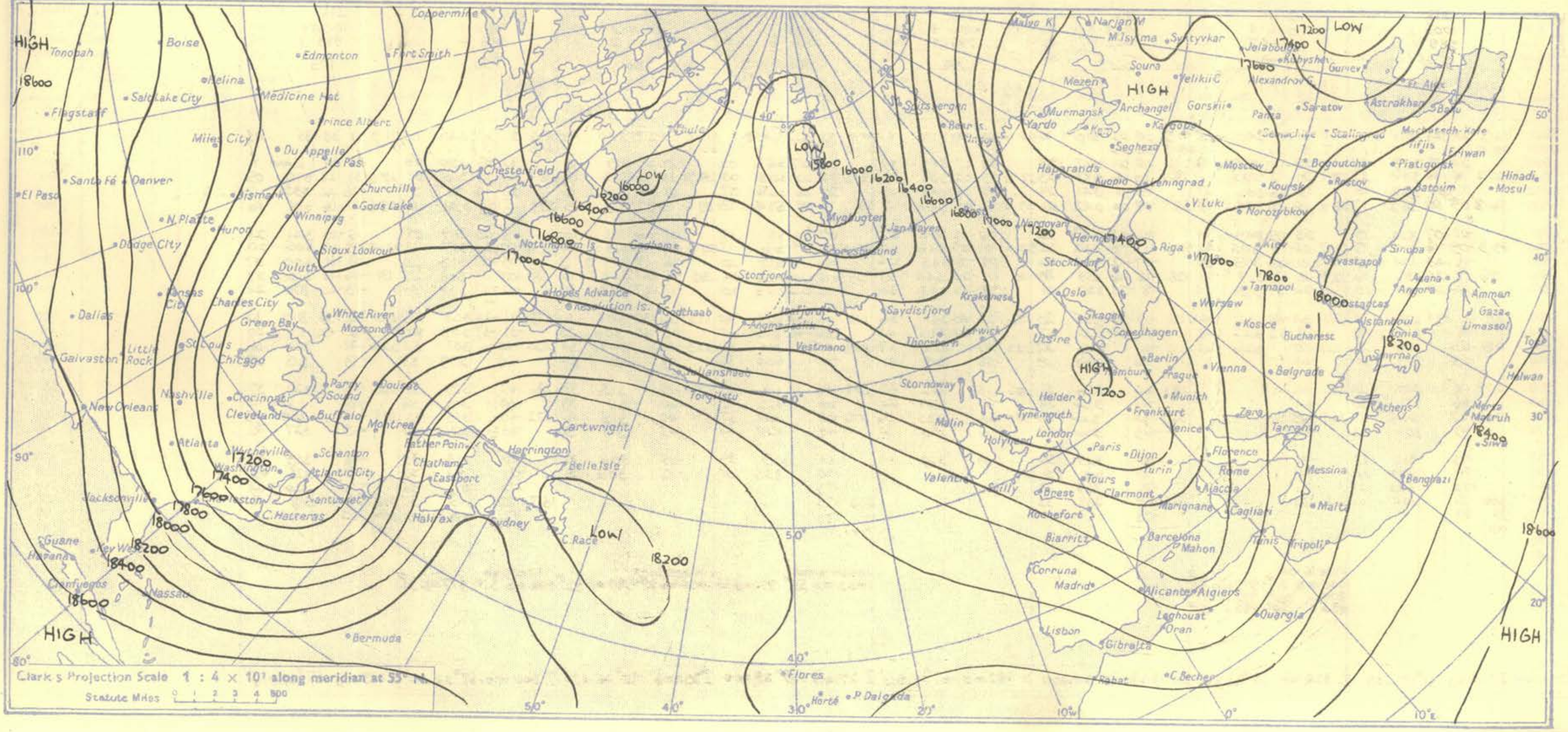
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. December 12th 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 12th December. 1950.



Clark's Projection Scale 1 : 4 × 10⁷ along meridian at 55° N.
Statute Miles 0 1 2 3 4 500

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	15h	999·3 mb	989·0 mb	989 (Surf) mb
STORNOWAY	15h	1005·0 mb	1003·3 mb	988 mb
LEUCHARS	15h	1002·7 mb	1001·8 mb	983 mb
ALDERGROVE	15h	1004·5 mb	994·9 mb	968·0 mb
LIVERPOOL	15h	1003·6 mb	1001·5 mb	950 mb
DOWNHAM MARKET	15h	1004·0 mb	999·4 mb	971 mb
LARKHILL	15h	1005·2 mb	988·9 mb	953 mb
CAMBORNE	15h	1007·2 mb	996·4 mb	960 mb
VALENTIA	15h	1002·2 mb	1002 mb	870 mb

Pressure mb	LERWICK Height ft./100	LERWICK °F. Temp.	LERWICK °F. Dew	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °F. Temp.	STORNOWAY °F. Dew	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °F. Temp.	LEUCHARS °F. Dew	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °F. Temp.	ALDERGROVE °F. Dew	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	29	25	010	18	0·4	33	28	360	08	00·2	34	25	350	10	02·6	33	32		
1000	-00·2					1·3	33	28			00·6	34	25			01·2				
950		26	18	347	28		27	22	006	15		29	19	336	23		31	29		
900	27·1	20	12	352	25	28·8	20	15	350	16	28·2	23	11	345	23	28·8	27	24		
850		13	03	350	21		15	10	332	20		17	06	014	15		21	16		
800	56·8	06	02	341	18	58·7	09	01	317	22	58·2	09	01	003	16	59·1	15	11		
750		-01	-05	328	21		03	-06	313	23		03	-04	348	25		08	05		
700	89·5	00	-12	322	19	91·7	-04	-11	310	25	91·2	-01	-11	336	25	92·5	02	-02		
650		-02	-26	320	17		-09	-18	313	26		-09	-27	322	27		-02	-06		
600	127	-11	-29	319	17	129	-11	-19	322	25	128	-08	-31	318	28	130	-08	-13		
550		-20	-31	317	20		-18	-26	321	28		-16	-29	317	25		-14	-21		
500	170	-28	-35	316	22	172	-24	-33	311	32	172	-25	-34	315	17	173	-23	-30		
450		-38	-44	317	25		-34	-44	316	31		-35	-43	314	20		-34	-40		
400	220	-50		316	22	222	-44		325	31	222	-47		317	26	224	-45			
350		-62		316	24		-57		333	32		-58		318	34		-57			
300	281	-69		303	21	284	-67		330	41	284	-68		316	40	286	-65			
250		-64		309	21		-64		322	39		-66		316	38		-64			
200	367	-63		298	18	370	-64		319	38	369	-62		330	39	372	-63			
170		-65		292	21		-64		314	41		-60		312	33		-65			
150		-68		300	19		-66		315	39		-65		327	23		-65			
130		-74		298	17		-69		322	38		-71					-69			
110		-77		289	30		-69		318	32							-74			
100	510	-78		291	32	515	-69		317	34						516	-75			
90	(093	-78					-73		320	38										
80	mb)						-76		315	38										
70																				
60																				

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °F. Temp.	LIVERPOOL °F. Dew	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °F. Temp.	DOWNHAM MARKET °F. Dew	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °F. Temp.	LARKHILL °F. Dew	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °F. Temp.	CAMBORNE °F. Dew	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °F. Temp.	VALENTIA °F. Dew	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	37	31	Calm		01·2	34	25	300	10	4·4	37	30	290	08	02·9	40	37	Calm		00·3	05	42		
1000	01·0					01·1					1·4					01·9					09	45	42		
950		32	24	314	11		30	22	321	21		31	23	323	10		32	29	279	07		45	42		
900	28·7	25	18	312	12	28·7	26	19	327	17	29·0	24	15	322	13	29·7	28	25	286	15	29·2	35	33		
850		19	07	311	14		20	11	324	15		19	07	308	17		24	20	298	19		30	29		
800	58·7	13	03	314	13	58·9	15	01	306	12	59·0	14	03	308	19	60·2	20	16	304	26	60·0	26	24		
750		05	-01	316	14		09	-04	301	12		06	-03	311	22		15	11	303	33		20	17		
700	91·9	00	-05	312	20	92·3	00	-09	317	12	92·2	-03	-09	316	26	93·9	09	04	304	38	94·1	14	10		
650		-04	-15	314	23		-07	-19	311	07		-04	-11	314	28		02	-06	305	44		07	03		
600	129	-09	-23	321	25	129	-14	-29	308	07	130	-07	-27	311	31	132	04	-12	304	53	132	-01	-06		
550		-16	-23	320	24		-14	-31	321	20		-12	-28	323	30		-09	-18	311	46		-08	-17		
500	172	-24	-31	321	29	173	-22	-37	328	30	173	-20	-30	326	36	176	-19	-27	308	44	176	-17	-30		
450		-34	-42	325	39		-30	-46	333	39		-31	-40	321	41		-27	-36	307	43		-27	-40		
400	223	-48		327	44	224	-41		330	40	224	-42		317	53	227	-38	-51	310	50	228	-37	-50		
350		-56		322	42		-53		329	50		-54		310	60		-50		307	57		-48			
300	283	-69		317	47	286	-63		325	60	286	-61		312	60	290	-64		309	59	291	-61			
250		-67		317	46		-60		323	45		-68		308	57		-72		316	57		-62			
200	370	-67		320	44	372	-59		319	32	372	-64		320	41	374	-70		311	57	377	-63			
170		-63		317	36		-62		311	35		-65		315	36		-68		317	51		-67			
150		-67		321	36		-62		312	39		-66		320	59		-68		317	47		-68			
130		-71		328	31		-63		324	28		-67		313	37		-69		317	48		-67			
110		-72		323	32		-69		311	39		-68		316	38		-71		318	47		-68			
100	514	-74		313	39	518	-69		306	36	517	-70		315	37	518	-73		318	41	522	-71			
90		-75		299	41		-68		295	29		-71		305	39		-75		316	37					
80		-78					-69					-71		292	38	(88	-76								
70												-72		292	39	mb)									
60												-77													

Inversion 731 mb -3° - 703mb 0°
Isothermal 989 mb - 977mb 29°

Inversion 550 mb - 18° - 542mb-17°

Inversion 647 mb -09° - 615mb-06°
Isothermal 995 - 985 mb 33°

Inversion 609mb -09° - 600mb 08°
Isothermal 1002 - 987 mb 37°

Isothermal 600 - 550 mb -14°

Inversion 682 mb -05° - 659mb-03°
Isothermal 638 - 611mb -05°
581 - 570 .. -09°

Isothermal 1002 - 1000mb 45°
302 - 300 .. -61°

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	I 302mb -69° 28,000'	I 300mb-67° 28,400'	II 292mb-70° 28,900' II 135 .. -72° 45,200'	II 320mb-63° 27,200'	I 278mb-71° 29,900'	I 278mb-67° 30,100'	I 265mb-70° 31,200'	II 263mb-71° 31,700'	II 302mb-61° 28,900'

21h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	21h	1000·2 mb	989·9 mb	Surf (990) mb
STORNOWAY	21h	1006·4 mb	1004·7 mb	979 mb
LEUCHARS	21h	1003·8 mb	1002·9 mb	Surf mb
ALDERGROVE	21h	1006·4 mb	996·4 mb	996 mb
LIVERPOOL	21h	1003·7 mb	1001·6 mb	961 mb
DOWNHAM MARKET	21h	1004·9 mb	1000·4 mb	980 mb
LARKHILL	21h	1005·1 mb	988·4 mb	950 mb
CAMBORNE	21h	1004·1 mb	993·3 mb	905 mb
VALENTIA		G.M.T. mb	mb	mb

Pressure mb	LERWICK Height ft./100	LERWICK °F. Temp.	LERWICK °F. Dew	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °F. Temp.	STORNOWAY °F. Dew	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °F. Temp.	LEUCHARS °F. Dew	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °F. Temp.	ALDERGROVE °F. Dew	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	28	24	360	15	0·4	31	29	340	08	00·2	30	25	310	10	02·6	32	30	350	07
1000	00·0					1·7	31	25			00·9	30	25							
950		24	19	339	27		28	19	359	18		25	21	327	23		29	27	353	09
900	27·2	18	14	346	21	29·1	21	12	005	19	28·2	20	16	337	23	29·2	25	22	350	12
850		11	07	342	18		13	06	002	19		15	11	341	23		19	13	348	15
900	56·8	05	00	332	17	58·8	06	-01	349	19	58·1	09	04	342	21	59·4	13	06	346	19
750		-01	-07	322	19		03	-09	349	31		02	-03	343	22		06	-01	346	22
700	89·5	-09	-16	322	19	91·7	-02	-16	345	42	91·0	-05	-10	332	229	92·6	-01	-09	346	25
650		-13	-23	321	15		-10	-23	323	38		-07	-12	314	20		-08	-18	345	26
600	126	-18	-24	286	16	129	-18	-29	317	37	128	-12	-16	319	20	130	-11	-25	345	29
550		-23	-27	280	20		-26	-37	313	44		-18	-21	322	21		-18	-33	343	30
500	169	-31	-35	274	21	171	-34	-44	321	44	171	-29	-32	325	20	173	-26	-40	341	36
450		-41		266	18		-49	-52	322	48		-36	-40	321	27		-37	-50	335	41
400	248	-53		268	24	221	-50		326	45	222	-46		328	27	223	-47		322	37
350		-63		279	24		-61					-56		333	28		-58		319	41
300	279	-71		310	24	282	-64				283	-64		326	31	285	-65		322	49
250		-66		311	30		-64					-67		324	38		-67		337	54
200	364	-67		304	21	367	-68				369	-63		325	36	370	-65		330	56
170		-69		306	23		-66					-63		326	40		-67		330	50
150		-73		312	27		-71					-66		323	36		-69		329	44
130		-70		309	25		-75					-70		318	35					
110		-73		304	27		-75					-71		329	33					
100	508	-76		304	24	511	-74				514	-71		331	32					
90	(93	-81										-73								
80	mb)																			
70																				
60																				

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °F. Temp.	LIVERPOOL °F. Dew	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °F. Temp.	DOWNHAM MARKET °F. Dew	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °F. Temp.	LARKHILL °F. Dew	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °F. Temp.	CAMBORNE °F. Dew	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots
Surf	00·6	33	32	Calm		01·2	30	27	250	06	4·4	31	30	240	03	02·9	39	38	135	03
1000	01·0					01·3					1·3					01·1				
950		31	27	252	02		29	21	319	15		32	28	290	06		36	34	Land V.	
900	28·5	26	22	308	03	28·9	25	16	323	14	28·9	27	20	316	07	29·0	31	28	310	05
850		20	16	328	07		19	04	317	15		21	14	327	07		26	22	333	12
900	58·7	14	09	334	13	59·0	13	02	312	15	59·1	15	07	338	07	59·6	21	16	331	16
750		09	04	311	17		07	-06	311	15		08	06	319	07		15	10	341	21
700	92·0	02	-07	316	17	92·2	00	-12	313	14	92·4	00	-04	317	12	93·4	09	04	305	20
650		-06	-13	319	20		-06	-19	317	14		-03	-07	316	20		03	-01	300	27
600	129	-12	-20	326	24	130	-11	-27	329	16	130	-07	-11	314	25	131	-06	-12	310	27
550		-17	-26	325	30		-17	-27	318	20		-12	-17	314	33		-13	-24	310	26
500	172	-25	-34	321	34	173	-24	-30	306	20	173	-21	-26	308	32	175	-22	-33	315	32
450		-36	-46	315	35		-35	-40	306	28		-31	-37	308	32		-32	-42	310	30
400	223	-45		310	36	225	-46		309	34	224	-40		307	30	226	-41		314	36
350		-57		304	36		-57		301	34		-55		299	33		-53		313	39
300	284	-68		313	39	285	-70		313	33	286	-67		303	37	288	-65		321	35
250		-67		325	42		-64		311	33		-64		313	38		-65		314	45
200	370	-65		320	37	371	-60		318	36	372	-60		315	40	373	-64		320	48
170		-65		320	41		-62		313	30		-63		321	30		-65		327	42
150		-65		319	33		-65		306	32		-70		313	33		-68		329	40
130		-70		323	36		-70		305	30		-71		311	35		-69		325	42
110		-73										-72		312	35		-73		320	43
100	514	-73									517	-74		315	37	518	-75		318	48
90	97	-73										-76		310	32	(096	-76			
80	mb)											-77				mb)				
70																				
60																				

Inversion 005mb 31° - 979mb 32°
800 .. 06° - 792 .. 07°
494 .. -34° - 482 .. -33°

Inversion 1002 mb 33° - 950mb 35°

Inversion 1000mb 30° - 980mb 32°

Inversion 988mb 31° - 977mb 34°

Tropopause	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	I 304mb-71° 27,600'	I 328mb-67° 26,300'	I 273mb-68° 30,400'	II 282mb-67° 29,800'	I 291mb-69° 29,000'	I 300mb-70° 28,500'	I 300mb-67° 28,600'	I 285mb-67° 29,800'	

HMSO Press, MO, Dunstable

No. 11581

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Wednesday 13th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressures: Time 03h G.M.T.; M.S.L. 1000·2 mb; Surf 989·8 mb; Freezing 990 (Surf) mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	26	25	010	12
1000	00·1				
950		23	19	324	21
900	27·2	18	14	320	18
850		11	08	319	18
800	56·8	05	01	321	19
750		-01	-06	324	20
700	89·4	-05	-11	324	24
650		-13	-20	320	31
600	126	-20	-27	316	31
550		-26	-33	305	25
500	16·8	-34	-39	291	22
450		-43		284	22
400	21·8	-51		275	21
350		-58		261	24
300	27·9	-67		276	24
250		-65		295	27
200	(207mb)	-63			
170					
150					
130					
110					
100					
90					
80					
70					
60					

Tropopause: I 309 mb -69° 27,400'

STORNOWAY

Pressures: Time 03h. G.M.T.; M.S.L. 1002·7 mb; Surf 1001·0 mb; Freezing 980 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	29	26	235	05
1000	00·7	29	25		
950		29	20	243	09
900	28·1	23	15	251	12
850		16	08	259	14
800	58·0	12	02	275	15
750		06	-01	304	18
700	91·1	-01	-07	315	18
650		-08	-13	314	22
600	128	-16	-22	310	33
550		-26	-32	313	44
500	17·1	-31	-40	320	52
450		-39	-48	329	57
400	22·1	-47		328	75
350		-57		326	80
300	28·2	-66		327	76
250		-66		329	60
200	36·7	-66		314	49
170		-67		313	48
150	42·8	-66		316	46
130		-70		322	49
110		-74		317	47
100	51·2	-73			
90					
80					
70					
60					

Inversion 1001 mb 29° - 980 mb 32°; 844 .. 15° - 828 .. 16°; 525 .. -31° - 510 .. -30°

Isothermal 355 - 344 mb -57°

Tropopause: I 290 mb -68° 29,000'

LEUCHARS

Pressures: Time 03h. G.M.T.; M.S.L. 1001 mb; Surf mb; Freezing mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	26	21	280	10
1000	00·4				
950		23	17	287	17
900	27·6	19	09	322	20
850		14	02	321	21
800	57·5	09	-04	311	21
750		01	-13	309	19
700	90·3	-07	-20	307	18
650		-16	-27	307	20
600	121	-25	-35	299	27
550		-35	-45	300	23
500	16·8	-41		298	28
450		-50		293	30
400	22·3	-60		290	26
350		-60		285	25
300	27·8	-64		285	22
250		-61		283	24
200	36·4	-59		283	22
170		-63		282	27
150		-65		282	27
130		-69		283	39

Tropopause: I 250 mb -64° 32,100'; I 357 mb -58° 24,500'

ALDERGROVE

Pressures: Time 03h G.M.T.; M.S.L. 1006·2 mb; Surf 997·5 mb; Freezing - mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	26	25		
1000	02·0				
950		30	26		
900	29·5	23	16		
850		16	07		
800	59·9	11	03		
750		06	-06		
700	92·6	01	-20		
650		-07	-28		
600	130	-12	-32		
550		-16	-36		
500	17·3	-25	-44		
450		-35	-53		
400	22·3	-46			
350	(370mb)	-52			

See Page 3 for Winds

Inversion 997 mb 26° - 950 mb 30°

Isothermal 617 - 595 mb -12°

Tropopause: N.R 370 mb -52° 23,500'

LIVERPOOL

Pressures: Time 03h. G.M.T.; M.S.L. 1004·2 mb; Surf 1002·1 mb; Freezing 960 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	31	28	CALM	
1000	01·1				
950		30	19	313	07
900	28·6	24	12	337	09
850		17	07	342	11
800	58·5	11	03	342	14
750		05	-05	329	18
700	91·6	-02	-13	313	21
650		-10	-16	308	24
600	129	-15	-21	323	27
550		-20	-27	325	28
500	17·1	-28	-34	325	21
450		-39	-45	314	24
400	22·1	-49		316	26
350		-59		301	30
300	28·3	-63		331	40
250		-67		331	42
200	36·8	-66		320	47
170		-67		325	36
150		-68		329	35
130		-72		328	36
110		-75		319	34
100	51·2	-74		311	35
90		-76		311	37
80		-78		315	42
70	(72mb)	-78			

Inversion 1002 mb 31° - 978 mb 33°

Tropopause: I 330 mb -64° 26,300'

DOWNHAM MARKET

Pressures: Time 03h. G.M.T.; M.S.L. 1005·3 mb; Surf 1000·8 mb; Freezing mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	29	27	275	06
1000	01·4	29	26		
950		29	19	324	15
900	28·9	25	13	306	16
850		20	14	295	14
800	58·9	11	05	297	16
750		05	00	300	19
700	91·9	-03	-07	304	20
650		-09	-13	308	21
600	129	-14	-20	297	17
550		-21	-28	288	15
500	17·2	-30	-35	303	17
450		-39	-45	302	19
400	22·2	-49		303	23
350		-60		307	30
300	28·3	-68		308	30
250		-67		311	33
200	36·8	-63		309	30
170		-65		298	30
150	42·9	-67		303	32
130		-71		308	31
110		-73		314	32
100	51·3	-73		312	32
90		-78		311	18

Inversion 1001 mb 29° - 977 mb 30°

Isothermal 320 - 306 mb -66°

Tropopause: I 293 mb -69° 28,800'

LARKHILL

Pressures: Time 03h. G.M.T.; M.S.L. 1004·9 mb; Surf 988·2 mb; Freezing 956 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	29	26	CALM	
1000	01·2				
950		31	29	301	05
900	28·8	26	21	285	05
850		20	14	295	06
800	58·9	13	11	308	07
750		08	04	339	08
700	92·2	02	-04	337	14
650		-03	-09	320	19
600	130	-08	-14	319	19
550		-15	-24	313	21
500	17·3	-24	-33	286	28
450		-34	-42	286	32
400	22·3	-43		298	32
350		-54		297	31
300	28·6	-63		304	30
250		-59		317	41
200	37·2	-59		321	39
150		-63		315	38
130		-64		312	36
110		-66		306	44
100		-66		320	37
90	51·9	-68		327	35
80		-73		315	37
70		-73		302	37
60	(75mb)	-73			

Inversion 988 mb 28° - 968 mb 33°

Isothermal 673 - 660 mb -2°

Tropopause: I 310 mb -64° 27,800'

CAMBORNE

Pressures: Time 03h. G.M.T.; M.S.L. 1008·4 mb; Surf 994·7 mb; Freezing 923 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	36	33	CALM	
1000	01·5				
950		35	32	350	09
900	29·4	30	27	344	16
850		25	21	333	21
800	59·9	20	15	324	21
750		15	09	320	21
700	93·7	10	02	337	23
650		05	-04	336	27
600	131	-02	-13	336	31
550		-10	-22	334	37
500	17·6	-19	-32	335	46
450		-27	-41	341	49
400	22·7	-35	-52	348	76
350		-46		350	93
300	29·0	-60		351	80
250		-63		335	66
200	37·6	-64		341	68
150		-63		342	78
130	43·7	-68			
110					
100					
90					
80					
70					
60					

Inversion 995 mb 36° - 984 mb 38°

Tropopause: II 292 mb -62° 29,600'

VALENTIA

Pressures: Time 03h. G.M.T.; M.S.L. 1009 mb; Surf 1007 mb; Freezing 900 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	40	34		
1000	2·4	40	34		
950		37	30		
900	30·3	31	25		
850		23	18		
800	60·7	20	11		
750		14	-4		
700	94·5	11	-13		
650		09	-28		
600	133	04	-26		
550		-06	-20		
500	177	-15	-23		
450		-24	-32		
400	229	-36	-43		
350		-49			
300	292	-60			
250		-71			
200	376	-71			
170		-72			
150		-73			
130		-73			
110	519	-77			
100		-80			
90		-79			
80					
70					
60					

Tropopause: I 226 mb -74° 35,100'

LERWICK

Pressures: Time 09h. G.M.T.; M.S.L. 997·2 mb; Surf 986·8 mb; Freezing 987 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	20	16	360	04
1000	00·7				
950		25	17	341	09
900	26·3	18	06	343	07
850		13	-04	340	06
800	56·1	08	-09	329	07
750		02	-10	319	13
700	88·9	-04	-16	320	17
650		-12	-23	313	22
600	126	-20	-27	308	28
550		-27	-38	309	31
500	16·8	-35	-49	309	37
450		-46		301	41
400	21·7	-58		296	49
350		-66		300	48
300	27·8	-67		298	33
250		-63		292	27
200	36·3	-64		292	29
170		-65		307	30
150		-70		297	29
130		-68		300	30
110		-72			
100					
90					
80					
70					
60					

Inversion 987 mb 20° - 975 mb 28°

Tropopause: I 339 mb -67° 25,200'

STORNOWAY

Pressures: Time 09h. G.M.T.; M.S.L. 992·4 mb; Surf 990·8 mb; Freezing 957 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	34		
1000	02·1				
950		31	30		
900	25·6	27	26		
850		22	21		
800	56·0	17	16		
750		12	10		
700	89·6	06	04		
650		-02	-04		
600	127	-10	-13		
550		-19	-22		
500	17·0	-30	-34		
450		-42			
400	22·0	-52			
350		-63			
300	28·0	-76			
250		-66			
200	36·5	-68			
170		-66			
150	42·5	-65			
130		-66			
110		-71			
100	51·0	-74			

Tropopause: I 308 mb -77° 27,600'

LEUCHARS

Pressures: Time 09h G.M.T.; M.S.L. 993 mb; Surf mb; Freezing mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	29	29	280	18
1000	00·5				
950		27	27	277	30
900	25·6	24	23	317	33
850		20	19	337	38
800	58·7	15	14	345	45
750		09	07	354	46
700	88·9	01	-04	354	40
650		-06	-12	353	38
600	126	-14	-19	353	40
550		-25	-19	356	46
500	16·9	-36	-45	358	46
450		-49		004	61
400	21·7	-63		002	57
350		-71		358	50
300	27·7	-72		346	32
250		-66		309	29
200	36·2	-65		317	26
150		-69		356	22
130		-70		298	27
110		-70		310	28
100		-75		322	25
90		-75		316	22
80		-77			

Tropopause: I 317 mb -66° 27,000'

ALDERGROVE

Pressures: Time 09h. G.M.T.; M.S.L. 1001·6 mb; Surf 991·8 mb; Freezing mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	26	24	CALM	
1000	00·4				
950		29	24	179	15
900	27·9	24	15	207	14
850		21	01	213	14
800	58·0	15	-07	212	12
750		08	-12	247	10
700	91·3	01	-19	248	12
650		-09	-19	258	08
600	128	-13	-20	289	18
550		-18	-25	297	30
500	17·1	-27	-34	299	41
450		-37	-43	306	44
400	22·1	-49		305	48
350		-58		305	52
300	28·3	-71		309	52
250		-69		314	54
200	36·8	-66		317	54
150	42·8	-68		321	37
130		-73		311	45
110		-72		304	51
100	51·1	-72		312	36
90		-74			

Inversion 992 mb 26° - 963 mb 31°

Isothermal 655 - 643 mb -09°

Tropopause: I 300 mb -71° 28,300'

LIVERPOOL

Pressures: Time 09h. G.M.T.; M.S.L. 1002·9 mb; Surf 1000·7 mb; Freezing 974 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	24	22	150	03
1000	00·7				
950		29	15	313	07
900	28·1	23	12	311	10
850		17	02	321	17
800	58·1	12	-12	334	18
750		07	-23	011	22
700	91·3	01	-32	003	25
650		-07	-38	356	25
600	129	-08	-41	345	30
550		-16	-48	331	34
500	17·2	-24	-32	334	37
450		-34	-37	331	43
400	22·2	-45		329	52
350		-54		327	59
300	28·4	-66		328	52
250		-69		326	51
200	36·9	-62		319	46
150		-63		316	39
130		-67			
110					
100	(40mb)	-69			

Inversion 1001 mb 29° - 980 mb 33°; 635 .. -09° - 610 .. -06°

Isothermal 300 - 280 mb -66°

Tropopause: I 235 mb -70° 33,600'

DOWNHAM MARKET

Pressures: Time 09h. G.M.T.; M.S.L. 1004·2 mb; Surf 999·7 mb; Freezing Surf mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	27	22	275	04
1000	01·1				
950		28	20	308	13
900	28·6	23	13	296	14
850		17	09	289	16
800	58·6	10	03	286	18
750		04	-05	284	22
700	91·6	-02	-11	282	26
650		-10	-18	285	22
600	129	-14	-21	300	18
550		-21	-27	299	17
500	17·1	-30	-36	288	19
450		-39	-45	290	20
400	22·1	-50		295	25
350		-58		324	30
300	28·3	-64		333	45

Inversion 1000 mb 27° - 963 mb 29°

631 .. -12° - 620 .. -11°

Isothermal 350 - 330 mb -58°

N.R.

LARKHILL

Pressures: Time 09h. G.M.T.; M.S.L. 1004·5 mb; Surf 987·7 mb; Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	29	29	CALM	
1000	01·1				
950		32	31	CALM	
900	28·7	27	26	304	06
850		21	19	300	07
800	58·9	17	14	293	09
750		10	06	288	12
700	92·3	04	03	295	14
650		-01	-06	312	18
600	130	-07	-22	313	21
550		-15	-34	317	28
500	17·3	-23	-46	338	44
450		-31	-53	350	60
400	22·4	-38	-59	344	66
350		-50		338	67
300	28·7	-60		332	56
250		-64		329	52
200	37·3	-62		323	48
150		-64		318	37
130		-65		315	35
110		-66		314	35
100		-63		323	32
90	51·9	-67		318	31
80		-70			
70		-74			
60					

Inversion 988 mb 29° - 975 mb 34°

Isothermal 823 - 800 mb 17°

Tropopause: I 285 mb -64° 29,800'

CAMBORNE

Pressures: Time 09h. G.M.T.; M.S.L. 1005 mb; Surf 994·3 mb; Freezing 920 mb

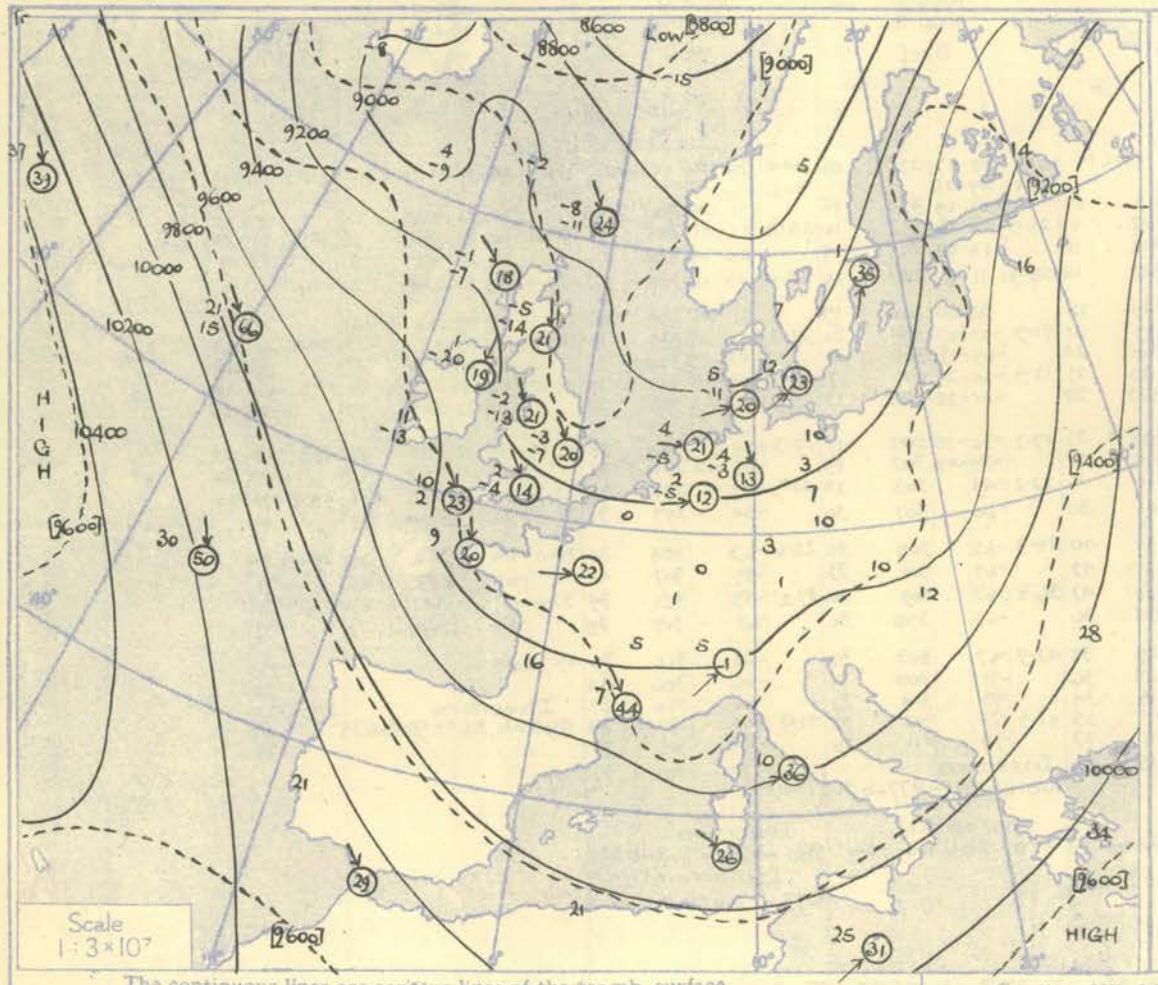
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	40	33	310	10
1000	01·4				
950		36	30	314	17
900	29·3	29	25	319	14
850		23	20	319	13
800	59·7	16	11	311	14
750		10	04	298	18
700	93·2	08	-04	318	27
650		06	-17	313	27
600	131	-02	-19	317	36
550		-09	-18	316	33
500	17·5	-18	-25	317	36
450		-27	-33	317	39
400	22·6	-40	-45	319	50
350		-52		322	53
300	28·9	-65		324	69
250		-69		324	76
200	37·3	-71		332	62
150		-72		326	62
130		-68		317	55
110		-70		315	45
100		-73		327	45
90	51·7	-77			
80		-79			
70		-77			
60	(75mb)	-77			

Isothermal 737 - 682 mb 08°

Tropopause: II 280 mb -69° 30,300'

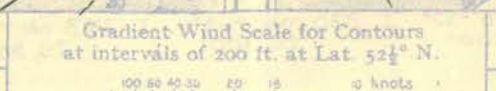
Wednesday 13th December 1950.

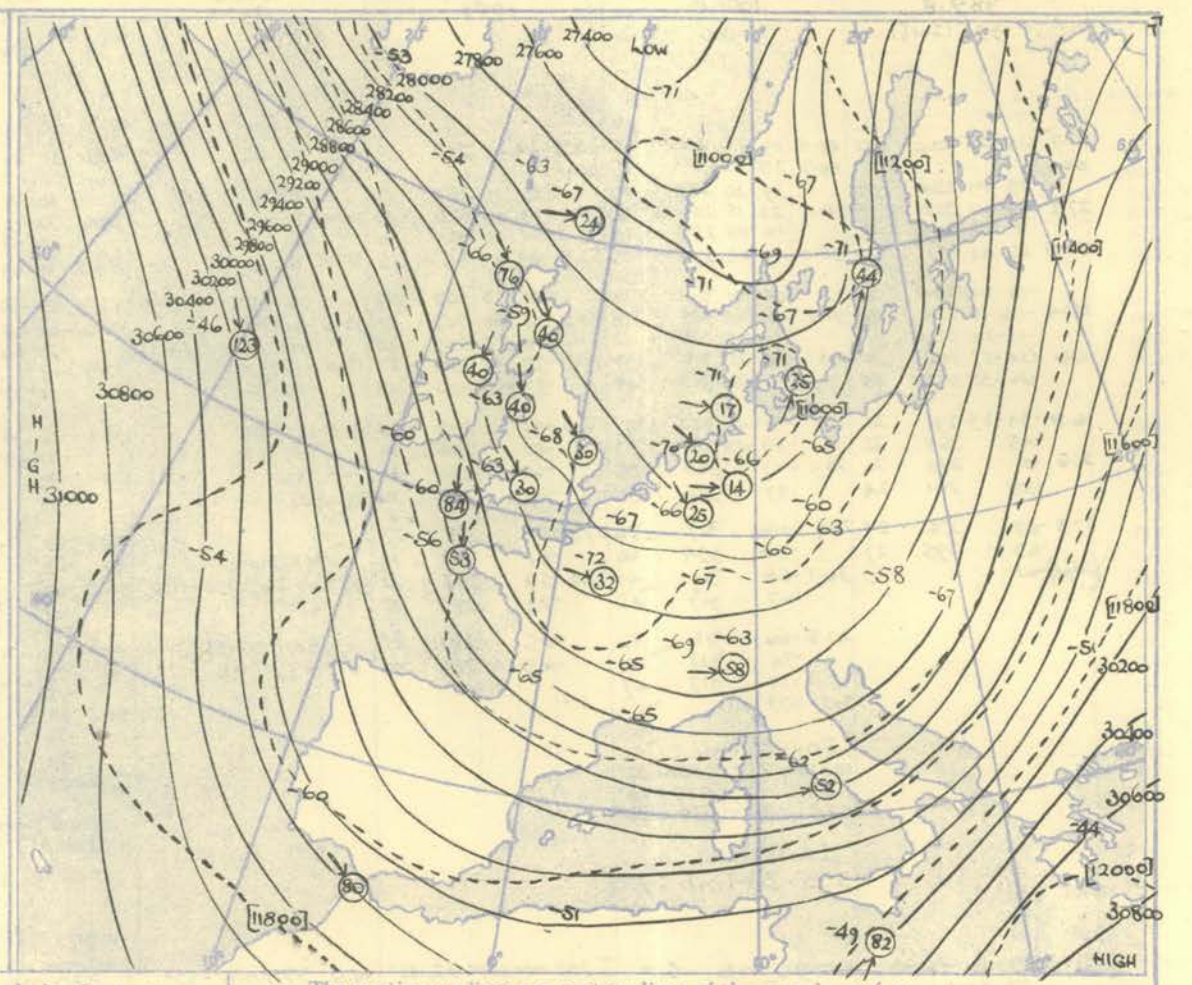
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



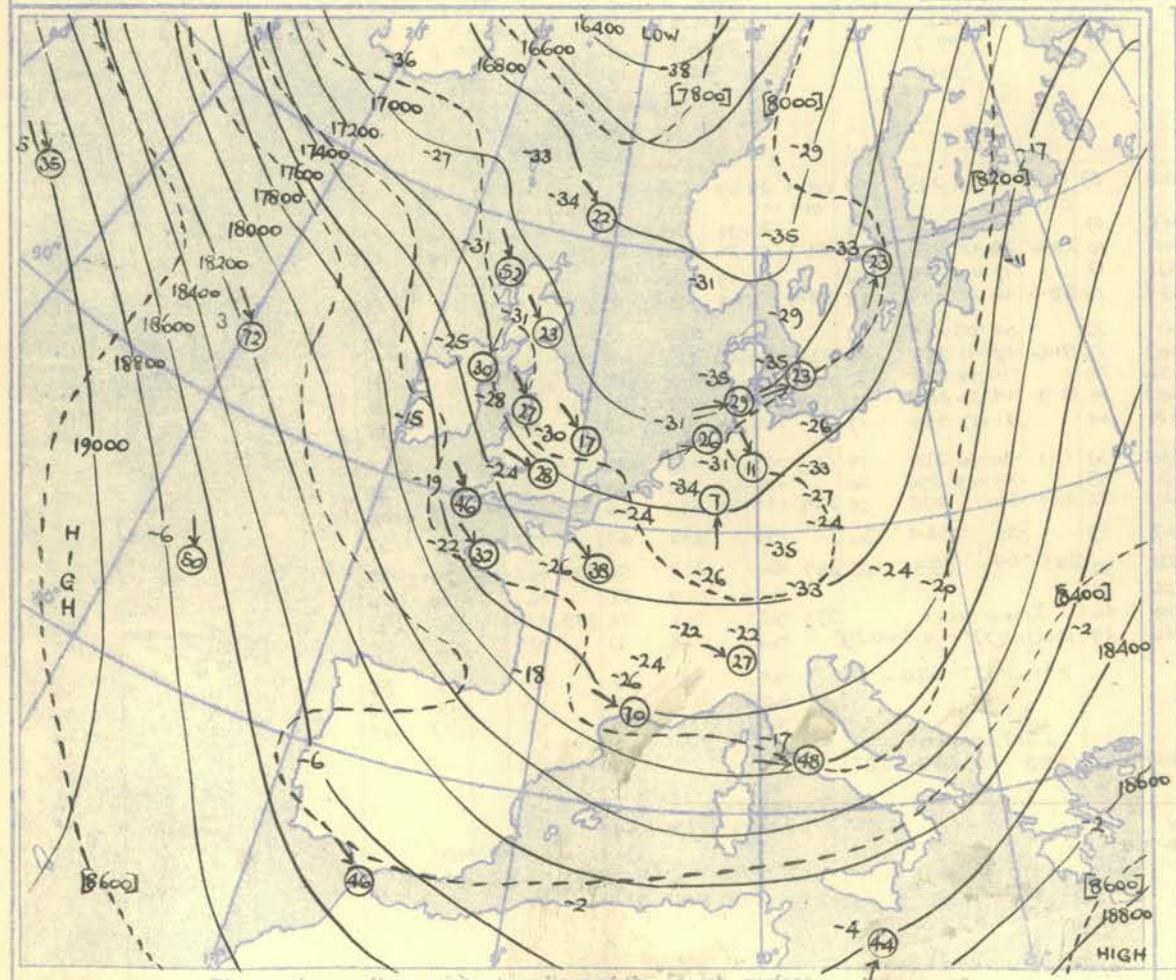
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 — 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

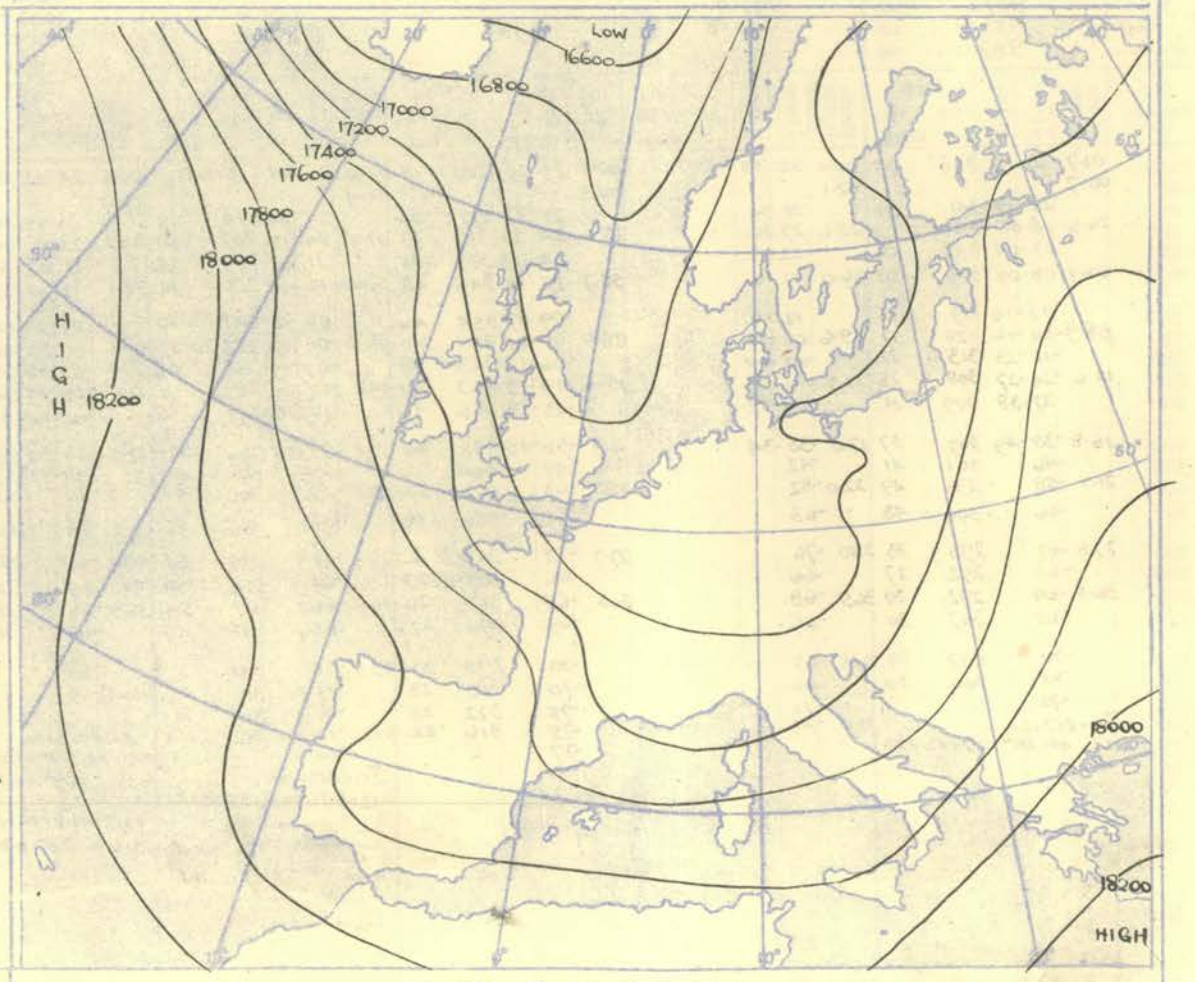




The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 — 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2N 17·0W.			39·5N. 12·2W.			53·1 N 01·3E.																	
Pressure: Time	13h.			1430h.			1445h.																	Time
Pressure: M.S.L.	1015	mb		1015	mb		1000	mb			mb			mb			mb			mb			mb		M.S.L.
Pressure: Surf	1022	mb		1020	mb		998	mb			mb			mb			mb			mb			mb		Surf
Pressure: Freezing	710			730			996				mb			mb			mb			mb			mb		Freezing
Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Pressure mb
Surf		56	49		58	53	0·5	34	30																Surf
1000																									1000
950	5·8	54	47	5·5	55	50	0·0																		950
900		51	31		49	45																			900
850		47	14		45	40	27·2	23																	850
800		46	19		37	23		19																	800
		40	24		40	28	57·3	13																	
750		36	19		34	32		06																	750
700	10·1	31	22	10·1	30		90·4	-01																	700
650		25			22			-09																	650
600		18			16		128	-10																	600
550		11			09			-17																	550
500	18·7	02		18·7	02		17·1	-23																	500
450	Cloud			Cloud				-31																	450
400	7/8CS NR			7/8 SC			22·1	-44																	400
350	Surface			930-840mb				-55																	350
300	Wind W'ly			Surface																					300
250	17·2 kts.			Wind W'ly			28·3	-65																	250
200				11-16 kts																					200
170																									170
				Inversion																					
				850mb 37°																					
				800 · 40°																					

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Aldergrove		Ronaldsway		Downham		Lympne		Pembroke		Shoeburyness		Valentia		St. Eval		Pembroke		Kerwick		Place
Time	03h.		03h.		09h.		09h.		09h.		12h.		15h.		15h.		15h.		21h.		Time
Type																					Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.	CALM		360	06			CALM		CALM		CALM		290	22	180	08	180	03	190	29	Surf
1,000	359	06	360	23			040	01	030	02	210	05	290	37	190	20	180	15	158	33	1,000
2,000	005	08	340	17			150	03	330	07	210	05	300	46	220	18	180	14	168	36	2,000
3,000	006	12	340	19			240	05	030	04	210	08	290	47	230	21	190	17	175	38	3,000
4,000	010	15	330	14			230	09	020	05	210	10	290	47	250	23	200	21	181	42	4,000
5,000	013	16	330	16			220	09			220	13	290	46	250	25	210	19	182	42	5,000
6,000	015	17					250	10	330	04	230	16	290	43	250	17	240	21	185	44	6,000
8,000	016	17					250	10	310	10	240	18	280	40	270	32	250	24	186	46	8,000
10,000	011	19					280	11	320	20	250	17	280	38					209	37	10,000
14,000	013	21					280	13			280	19	280	45					243	32	14,000
18,000	017	30					(11,000')				310	30	280	44					245	41	18,000
24,000	018	40									330	46							264	51	24,000
30,000	020	40			328	44					320	38							285	29	30,000
40,000	017	33			312	36					300	29							287	29	40,000
50,000	(36,000')				302	21					300	39							293	29	50,000
											(46,000')										

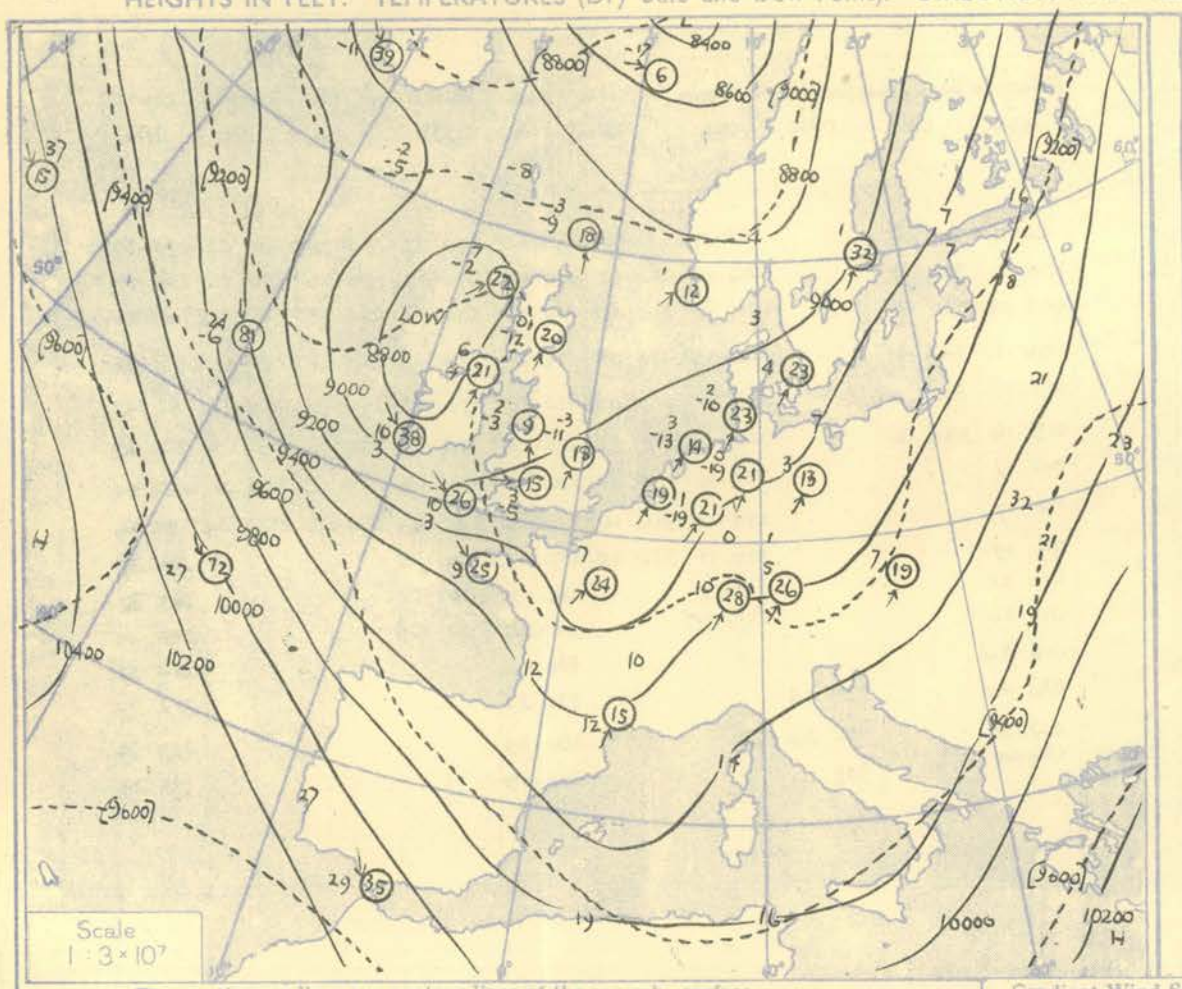
NEPHOSCOPE OBSERVATIONS

Place												Place
Time Type												Time Type
Dir. Vel.												Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

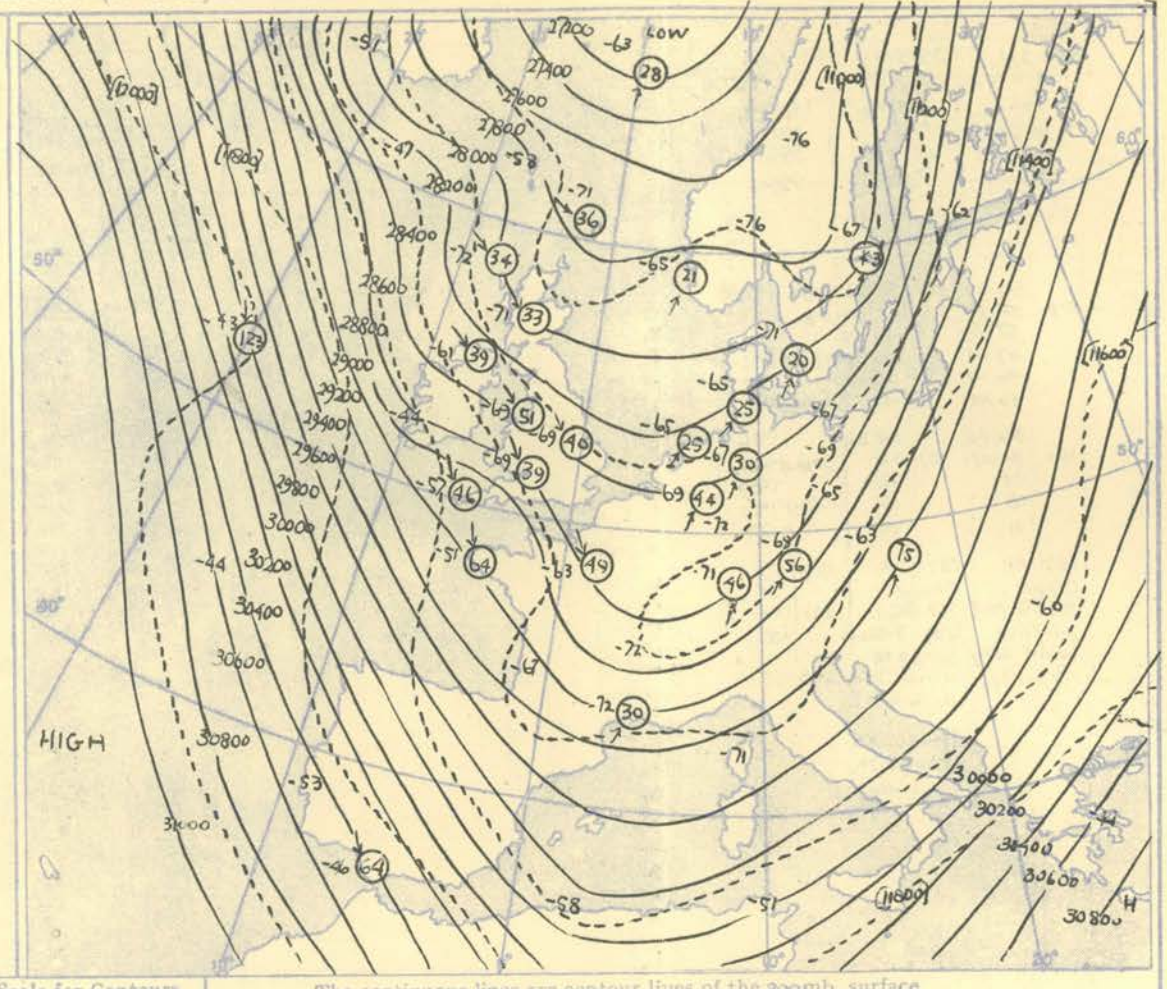
Ship	WEATHER OBSERVER.	WEATHER OBSERVER.	WEATHER OBSERVER.	WEATHER OBSERVER.	WEATHER WATCHER	WEATHER WATCHER	WEATHER WATCHER	WEATHER WATCHER		Ship
Lat/Long	61·0N 13·9W.	61·0N 4·9W	61·1N. 14·2W.	60·9N 14·1W.	52·5N 20·1W	52·5N 20·0W.	52·5N. 19·9W.	52·6N 20·2W.		Lat/Long
Pressure: Time	03L G.M.T.	09L G.M.T.	15L G.M.T.	21L G.M.T.	03L G.M.T.	09L G.M.T.	15L G.M.T.	21L G.M.T.	G.M.T.	Time
Pressure: M.S.L.	993 mb	992 mb	1000 mb	1001 mb	1016 mb	1005 mb	1008 mb	1014 mb	mb	M.S.L.
Pressure: Surf	993 mb	992 mb	1000 mb	1004 mb	1016 mb	1005 mb	1008 mb	1014 mb	mb	Surf
Pressure: Freezing	950 mb	985 mb	Surf. mb	Surf mb	830 mb	880 · mb	905 mb	900 · mb	mb	Freezing
Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. ° Vel. knots	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. ° Vel. knots	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. ° Vel. knots	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. ° Vel. knots	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. ° Vel. knots	Pressure mb
Surf		38	36	305 19		33	32			31	28			48 41	270 22		47 43	295 32		47 36	330 36		46 30	320 29	Surf
1000	-17				-21					31	25	360 25	1·6	30 29		2·4	46 36	332 51	3·8	44 33	333 30		1000
950		31	24			28			-1	31	28			21 17	349 24		40 34	276 28		38 29	333 33		950
900	25·9	24	19		25·3	21				27	26		4·3	46 40	276 26	1·4	40 36	300 55		38 29	333 33		900
850		19	13			14			27·3	21	20			35 29	279 37	29·6	34 30	300 50	30·1	31 24	330 55	31·9	32 27	330 36	850
800	56·0	16	01		55·1	08				15	14		32·5	35 22	282 40		29 25	310 48		26 16	328 60		25 18	330 38	800
									57·1	09	08			29 22	294 46	60·4	31 27	310 57	60·7	22 08	329 62	62·5	26 19	328 41	
750		11	-07			01				03	02		63·7												750
700	89·5	04	-09		88·0	-01			90·1	-02	-05			25 20	304 54		26 22	310 60		24 -03	330 65		24 -03	329 51	700
650		-01	-09			-10				-07	-16		90·6	-10 -15	305 66	95·3	26 22	310 78	95·0	24 -06	331 81	97·0	26 02	330 68	650
600	127	-08	-17		125	-18				-14	-21			21 15	305 66		23 18	310 82		20 -12	330 94		24 05	330 93	600
550		-16	-24			-26			127	-22	-30		98·1	19 14	304 63				134	16 -07	330 104	137	21 -05	330 98	550
														15 10	310 57	134	19 13	310 80		10 -04	330 108		15 -11	328 105	
500	170	-27	-36		167	-34			170	-29	-37			10 04	318 60		12 06	310 80							500
450		-37	-46			-46				-39	-47														450
400	220	-49			216	-55			220	-45															400
350		-56				-58				-48															350
300	283	-54			278	-56			283	-47			168	-41	338 42	180	03 -03	325 72	183	03 -07	311 87	183	07 -18	328 100	300
250		-54				-54				-48				-49	332 45		-04 -12	312 87		-05 -20	328 116		-02 -29	325 105	250
200	370	-56			366	-57			372	-51			217	-50	330 66	181	-07 -26	319 92	180	04 -09	326 118		-02 -29	325 105	200
170		-57				-61				-53				-51	330 87	235	-12 -25	314 108	234	-15 -29	329 115	237	-12 -38	325 107	170
																	-26 -39	316 118		-26 -42	324 122		-26 -47	328 115	
150		-54				-67				-55			280	-53	320 103	303	-46 -50	322 123	301	-43	318 119	304	-40 -60	324 108	150
130		-70				-69				-59				-59	320 96		-66	329 114		-62	312 96		-56	318 99	130
110		-73				-75				-63			366	-66	320 76	387	-88	331 126	387	-80	314 115	391	-74	317 92	110
100	(120mb)													-74			-91	334 122		-93	316 121		-87	312 87	100
90						-67				-55							-82	334 115		-96	312 108		-81	314 80	90
80						-78				-59							-92	331 82		-87	311 93		-81	325 72	80
70						-83				-63							-83	325 59		-85	310 73		-78		70
60					511	-78			521	-66						526	-81	323 56	523	-81		531	-73		60
						-78				-67							-81	323 53					-76		
						-83				-68							-81						-77		
						-87				-71													-78		
						-88				-74															
						-90				-76															
	Isothermal				(53mb)				(45mb)	-67							Isothermal.			Inversion.			Inversion		
	898- 850 mb 19°				Inversion				Isothermal.								683- 637 mb 19°			823mb 27°- 800 mb 28°			844mb 24°- 800mb 26°		
	Inversion				727mb -2°- 700mb -1°				435 - 412 mb -42°								Inversion			Isothermal.			766- 730- 731- 26°		
	850mb 19°- 638mb 20°																906mb 34°- 890mb 39°			780 - 680mb 26°			Isothermal.		
																	709 - 20°- 700 - 21°						731· 700 mb 26°		
																							660 - 625 · 24°		
Tropopause	I 365 mb -59° 23.800·		II 412 mb -55° 21·400		II 365mb -48° 23.900		II 463 mb -49°. 18·700		I 186 mb -95° 40·400		I 156 mb -100° 43.900.		I 150 mb -88° 44·600				I 164 mb -90° 43·300								Tropopause

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



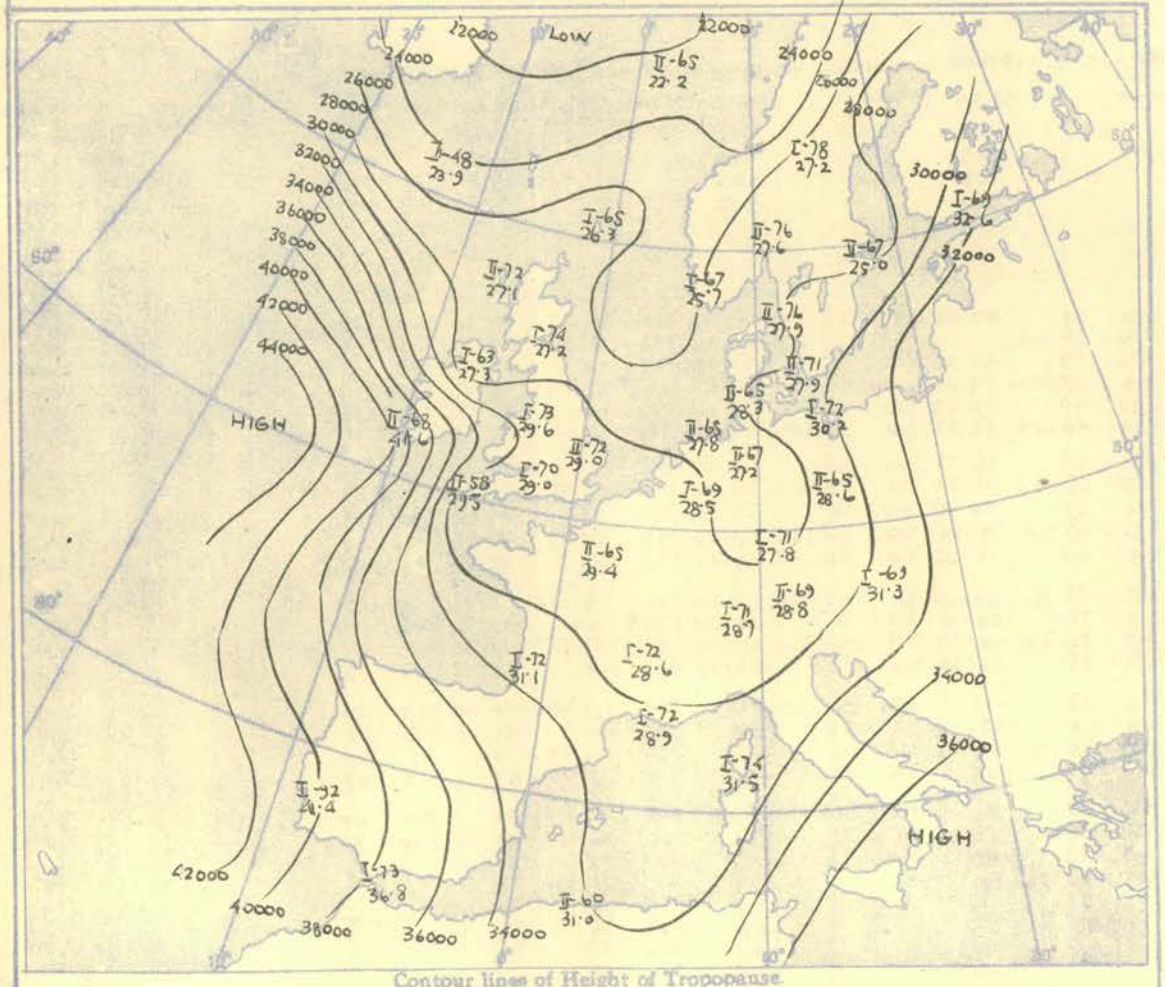
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The main cold trough continued a slow eastward movement and a secondary trough was formed west of the British Isles by advection of cold air behind a vigorous depression.

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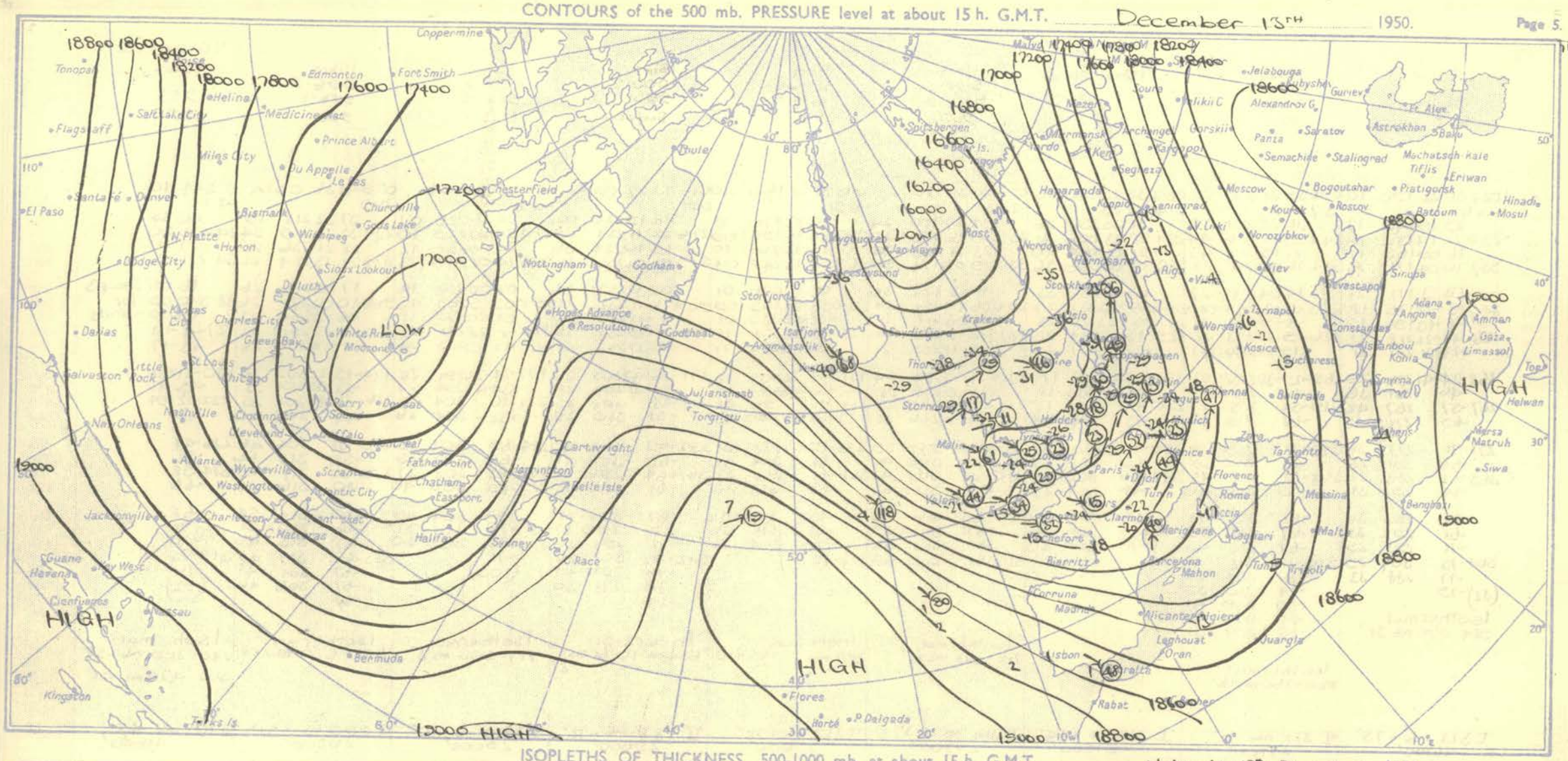
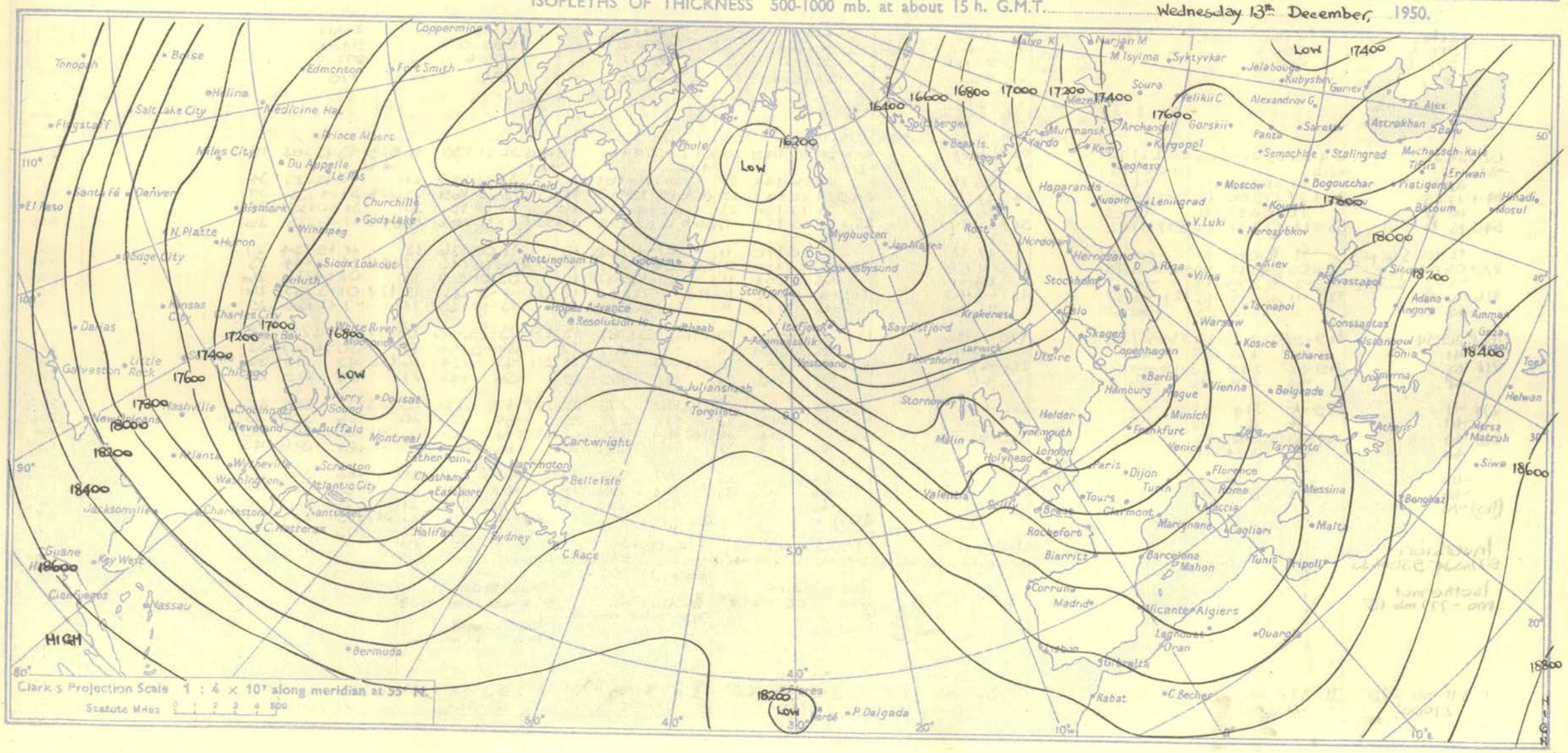
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. December 13TH 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Wednesday 13th December, 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.
Pressure: M.S.L.	993·9 mb	986·3 mb	mb	991·8 mb	996·6 mb	1000·2 mb	998·8 mb	996·8 mb	mb
Pressure: Surf	983·7 mb	984·7 mb	mb	980·9 mb	994·6 mb	995·7 mb	982·3 mb	986·1 mb	983 mb
Pressure: Freezing	Surf, 984 mb	921 mb	mb	950 mb	962 mb	Surface mb	958 mb	900 mb	890 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots	Pressure mb
Surf	027	31	22	190	10	004	39	31	210	25	002	35	25	010	20	026	33	30	170	20	006	31	28	160	100	012	32	27	calm		044	35	35	calm		039	41	36	calm		Surf
1000	-016					-037					004	35	25			-025					-009					001					-002					-009					-041					1000
950		29	19	145	17		36	28	201	38		31	20	356	36		32	27	180	24		30	17	170	11		28	19	232	10		31	28	228	07		37	32	218	19		40	35				950
900	258	22	14	152	16	242	25	21	206	44	248	28	13	006	41	252	27	16	180	30	267	24	14	196	09	276	22	11	234	09	274	24	20	229	10	271	32	27	219	24	241	35	30			900
850		16	09	162	17		22	15	217	43		21	06	004	40		23	11	180	35		18	13	220	10		15	10	234	06		20	16	238	12		28	21	236	22		27	22				850
800	557	10	04	177	21	594	16	09	231	35	583	14	00	006	36	555	19	00	174	36	567	14	13	248	04	573	10	02	236	16	578	14	08	245	13	578	21	13	254	22	547	22	15			800
750		03	-3	177	21		14	04	238	27		07	-6	350	33		11	-3	174	30		09	-26	071	01		02	-6	237	18		08	00	255	14		17	10	266	26		16	05	See p3 for winds			750
700	887	-3	-9	175	18	883	07	-2	244	22	915	00	-19	337	27	890	06	04	188	21	900	02	-34	165	09	904	-3	-11	237	18	908	03	-5	265	15	916	10	03	278	26	885	10	03			700
650		-8	-15	195	15		-1	-9	252	22		-5	+23	329	23		02	00	218	18		-3	-39	335	01		-8	-22	275	10		01	-20	275	18		06	-2	294	27		04	00				650
600	126	-16	-22	228	22	126	-9	-18	253	20	129	-13	+28	314	28	127	-6	-9	233	20	127	-9	-25	258	18	128	-8	-29	334	16	129	-8	-28	281	21	130	-1	-7	290	32	127	-4	-14			600
550		-24	-31	251	28		-19	-27	250	17		-23	-33	307	21		-14	-18	255	22		-16	-24	282	21		-16	-37	325	21		-15	-29	283	24		-7	-14	300	36		-13	-17				550
500	168	-34	-41	256	29	169	-29	-38	253	17	171	-34	-46	327	18	170	-22	-27	284	24	171	-24	-32	305	25	171	-26	-47	303	23	172	-24	-32	291	25	174	-15	-22	305	34	170	-21	-32			500
450		-46		261	36		-42		278	23		-48		305	18		-33	-39	278	28		-35	-47	311	25		-38	-58	306	28		-34	-42	298	27		-23	-30	301	33		-23	-43				450
400	217	-57		267	42	219	-54		285	27	220	-63		310	18	221	-45		261	29	221	-46		290	31	222	-48		308	35	222	-46		304	35	226	-33	-44	308	35	222	-32	-54			400
350		-69		272	45		-68		288	36		-75		314	24		-56		266	35		-57		290	43		-58		310	39		-58		308	36		-44		305	42		-40					350
300	277	-71		277	36	279	-72		289	34	280	-71		328	37	283	-61		282	35	283	-60		288	51	282	-69		304	40	284	-69		302	39	285	-57		304	46	286	-44					300
250		-62		251	26		-66		300	39		-65		338	37		-59		300	42		-63		304	42		-69		301	41		-69		308	45		-55		318	66		-52					250
200	363	-63		283	28	364	-61		312	46	368	-60		302	28	370	-59		316	42	368	-62		312	37	367	-64		296	32	369	-63		308	37	376	-62		317	67	374	-58					200
170		-64		292	31		-59		313	40		-68		304	27		-55		316	35		-63		313	38		-61		305	36		-63		305	40		-60		316	54		-66					170
150		-68		293	30		-62		321	41		-63		301	30		-60		316	49		-63		304	42		-67		305	28		-68		309	39		-60		314	54		-68					150
130		-68		292	31		-67		307	39		-64		288	26		-62		317	39		-63		311	36		-71		299	37		-70		308	31		-60		310	51		-71					130
110		-71		293	25		-68		312	43		-71		301	30		-65		308	43		-70		304	33		-72		298	36		-73		309	30		-63		313	46		-70					110
100	508	-75		304	29	510	-71		312	41						517	-68		303	39	514	-75				512	-73		302	36		-72				523	-67		317	48	519	-73					100
90		-77		288	33		-73		314	35																-76		296	28	(105)						-67		308	48		-76					90
80	(82)	-75					-74		310	35																-80		278	30							-67		306	46	(52)						80
70							-80		308	41																-84										-67										70
60							-84		302	46																																				60
	Isothermal 284-570 mb 31°						-85		297	58						Isothermal 716-678 mb 6°					Inversion 977 mb 29° 962 mb 32°					Inversion 634 mb -10° 600 mb -8°					Isothermal 717-673 mb 3°					Isothermal 683-670 mb 0.85 08°					Isothermal 240-209 mb -56° 500-474 mb -21°					
						Isothermal 800-760 mb 16°																																									
Tropopause	I 322 mb -75° 26300'					II 328 mb -72° 27100'					I 312 mb -74° 27200'					I 314 mb -63° 27300'					I 282 mb -78° 29600'					II 288 mb -72° 25000'					I 290 mb -70° 25000'					I 290 mb -58° 29500'					II 165 mb -68° 41600'					Tropopause

21 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne
Pressure: Time	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.
Pressure: M.S.L.	986·6 mb	990·6 mb	mb	986·2 mb	990·3 mb	996·2 mb	992·0 mb	983·0 mb
Pressure: Surf	976·6 mb	989·0 mb	mb	977·1 mb	988·2 mb	991·7 mb	975·6 mb	972·5 mb
Pressure: Freezing	927 mb	970 mb	mb	930 mb	Surface mb	Surface mb	939 mb	870 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Pressure mb
Surf	027	34	32			004	33	33	260	05	002	27	24			026	36	28			006	31	30	145	20	014	30	29	120	11	044	32	31	130	11	029	43	43	203	18						Surf
1000	-036					-025					010	27	23			-035					-025					010					-021					-046										1000
950		35	31				31	31	250	18			24	20			35	26				27	26	144	27		30	26	161	20		33	32	147	21		42	42	227	34							950
900	241	27	25			251	27	27	306	13	282	15	12			243	28	21			249	24	22	147	29	266	25	19	163	18	255	28	25	165	23	236	35	34	233	34						900
850		20	18				22	21	347	12		13	05				26	18				21	17	151	23		18	14	176	16		22	18	191	20		31	30	235	35							850
800	543	15	13			555	18	17	357	14	598	07	-2			548	22	19			551	18	08	158	17	566	15	08	194	16	558	17	12	206	16	545	27	26	233	39						800
750		12	10	See p3 for winds			12	10	012	18		01	-8				17	12				13	00	170	11		07	-1	209	15		12	05	236	13		21	19	234	27							750
700	875	06	04			892	05	04	347	10	930	06	-6			890	11	06			887	07	02	222	07	899	04	-8	227	15	894	04	03	245	17	887	14	12	249	23						700
650		-1	-3				-3	-8	295	19		-14	-21				04	-1				02	-3	268	11		01	-17	242	15		05	01	267	18		08	04	256	26							650
600	126	-10	-13			127	-11	-13	254	15	127	-23	-28				-4	-10			127	-9	-9	264	10	128	-8	-22	246	13	127	-9	-9	283	15	127	01	-3	257	26						600
550		-15	-22				-20	-28	235	25		-30	-35				-13	-19				-13	-17	285	10		-17	-26	250	12		-13	-17	285	18		-7	-12	250	29							550
500	168	-30	-34			169	-29	-32	212	26	169	-37	-43			170	-23	-30			170	-22	-26	255	10	171	-25	-32	267	13	171	-23	-29	290	15	171	-18	-24	221	28						500
450		-41					-41		220	30		-43					-34	-42				-32	-37	301	14		-35	-41	267	17		-36	-43	266	12		-30	-36	207	33							450
400	218	-55				219	-52		249	35	219	-49				221	-47				221	-45		292	15	224	-47		270	23	221	-43		254	26	222	-43		218	32							400
350		-68					-65		259	46		-56					-47					-37		263	29		-58		269	29		-56		242	27		-54		229	29							350
300	278	-77				279	-70		314	35	281	-53				282	-62				283	-65		266	28	283	-70		275	33	287	-68		256	33	285	-55		295	30							300
250		-67					-66		337	45		-55					-59					-63		303	28		-72		277	29		-64		253	30		-56		306	43							250
200	363	-63				364	-63		348	45						369	-58				369	-58		314	36	367	-64		295	28	369	-61		301	33	372	-60		322	70							200
170		-65					-68		344	47							-62					-62		316	37		-66		298	30		-65		314	35		-61		316	43							170
150		-66					-70		359	47																-67		305	28		-67		307	39												150
130		-69					-73		355	44																-71		299	37		-70		309	30												130
110	(115)	-70					-75																			-72		298	36																110
100																										-73		302	36																100
90																										-76		296	28																90
80																										-80		278	30																80
70																										-84																			70
60																																														60
	Inversion 977 mb 34° 950 mb 35° Isothermal 800-777 mb 15°															Inversion 880 mb 25° 850 mb 26°					Inversion 812 mb 23° 791 mb 24° Isothermal 820-800 mb 18°					Inversion 952 mb 30° 965 mb 31° 810 mb 12° 792 mb 13° Isothermal 728-668 mb 4°					Inversion 976 mb 32° 960 mb 34° Isothermal 760-741 mb 12°														
Tropopause	I 311 mb -75° 27000'					II 318 mb -75° 26800'					I 257 mb -74° 28300'					I 332 mb -65° 26000'					II 306 mb -65° 27800'					I 274 mb -76° 30200'					I 293 mb -70° 28700'					I 325 mb -56° 26700'										Tropopause

HMSO Press, MO., Dunstable.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Thursday 14th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure — Time 03h. G.M.T.; M.S.L. 985·1 mb; Surf 975·1 mb; Freezing 924 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	34	34		
1000	-3·9				
950		34	34		
900	29·9	29	28		
850		23	21		
800	54·3	17	15		
750		11	09		
700	87·8	04	02		
650		-02	-04		
600	12·5	-10	-12		
550		-19	-22		
500	16·8	-28	-30		
450		-40	-46		
400	21·8	-54			
350		-67			
300	27·8	-75			
250		-68			
200	36·3	-62			
170		-64			
150		-64			
130		-65			
110		-76			
100	50·7	-78			
90		-80			
80		-82			
70		-84			
60					

See Page 3 for Winds

Isothermal 975 - 945 mb 34°

Tropopause: II 320 mb -75° 26,500'

STORNOWAY

Pressure — Time 03h. G.M.T.; M.S.L. 997·0 mb; Surf 995·4 mb; Freezing 987 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	33	29	340	18
1000	00·8				
950		28	19	334	31
900	26·6	21	12	337	22
850		15	07	341	18
800	56·4	08	02	343	16
750		02	-04	336	13
700	89·3	-04	-12	302	16
650		-11	-23	272	21
600	12·6	-18	-31	254	27
550		-27	-41	253	32
500	16·8	-35	-49	233	33
450		-44		232	50
400	31·8	-55		243	55
350		-61		259	44
300	27·9	-58		293	41
250		-59		314	50
200	36·6	-61		319	51
170		-65		318	45
150	42·6	-68		312	47
130		-71		308	54
110		-77		313	51

Tropopause: I 350 mb -61° 24,600'

LEUCHARS

Pressure — Time 03h. G.M.T.; M.S.L. 996·5 mb; Surf 995·6 mb; Freezing mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	20	18	270	05
1000	00·8				
950		28	16	165	15
900	26·5	23	15	171	13
850		18	15	170	14
800	56·6	13	03	171	15
750		07	-06	165	12
700	90·0	02	-14	182	12
650		-03	-24	212	07
600	12·7	-11	-31	204	12
550		-20	-34	193	09
500	17·0	-28	-34	230	13
450		-38	-43	244	26
400	22·1	-50		255	33
350		-63		265	38
300	28·1	-72		277	32
250		-64		306	35
200	36·6	-64		310	42
170		-65		307	38
150	42·7	-67		308	36
130		-70			

Inversion 996 mb 20° - 966 mb 30°

Tropopause: I 312 mb. -75° 27,300'

ALDERGROVE

Pressure — Time 03h. G.M.T.; M.S.L. 995·1 mb; Surf 985·8 mb; Freezing 985·8 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	32	32		
1000	-1·2				
950		30	30		
900	26·4	25	25		
850		21	20		
800	56·7	17	16		
750		11	08		
700	90·2	05	01		
650		-01	-06		
600	12·8	-09	-15		
550		-17	-22		
500	17·1	-27	-33		
450		-39	-46		
400	22·1	-50			
350		-57			
300	28·3	-60			
250		-62			
200	36·9	-67			
170		-69			
150	42·8	-71			
130		-71			

Tropopause: I 361 mb - 58° 24,300'

LIVERPOOL

Pressure — Time 03h. G.M.T.; M.S.L. 991·0 mb; Surf 988·9 mb; Freezing 988·9 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	32	29	120	15
1000	-02·4				
950		30	26	132	25
900	25·2	28	24	140	25
850		22	20	147	19
800	55·4	20	16	188	06
750		15	09	312	05
700	89·3	11	00	334	11
650		02	-08	348	12
600	12·7	-07	-14	319	09
550		-14	-23	304	09
500	17·1	-22	-35	293	07
450		-34	-47	296	12
400	21·2	-48		291	21
350		-62		289	25
300	28·2	-66		309	27
250		-63		324	32
200	36·8	-65		320	37
170		-67		323	47
150		-67		314	44
130		-66		311	44
110		-70		314	42

Inversion 816 mb 18° - 796 mb 21°; 734 " 13° - 717 " 14°

Tropopause: I 322 mb -69° 26,700'

DOWNHAM MARKET

Pressure — Time 03h. G.M.T.; M.S.L. 995·3 mb; Surf 990·7 mb; Freezing 991 (Surf) mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	31	30	120	10
1000	-01·2				
950		31	27	148	22
900	26·4	26	22	151	19
850		24	16	157	17
800	56·8	18	12	171	12
750		11	09	206	11
700	90·4	05	03	227	11
650		01	-07	234	08
600	12·8	-05	-09	242	06
550		-12	-18	255	07
500	17·2	-21	-26	282	12
450		-32	-39	291	12
400	22·3	-44		278	15
350		-55		255	20
300	28·4	-70		254	20
250		-67		280	24
200	36·9	-65		303	27
170		-64		299	28
150	43·0	-65		297	29
130		-68		295	30
110		-72		293	30
100	51·4	-72			

Isothermal 991 - 950 mb 31°; 896 - 861 " 25°; 682 - 666 " 03°

Tropopause: I 273 mb -75° 30,300'

LARKHILL

Pressure — Time 03h G.M.T.; M.S.L. 988·8 mb; Surf 972·6 mb; Freezing 920·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	33	32	100	09
1000	53·0				
950		35	35	129	24
900	24·8	30	30	140	26
850		24	21	145	25
800	55·3	21	18	148	22
750		20	13	150	15
700	89·3	11	04	177	07
650		03	00	173	10
600	27·4	-04	-07	176	09
550		-12	-16	170	03
500	17·1	-21	-27	306	03
450		-32	-41	293	15
400	21·7	-46		263	18
350		-58		250	22
300	28·4	-61		296	13
250		-60		305	13
200	37·0	-60		321	33
170		-64		314	36
150	43·0	-64		311	34
130		-66		307	32
110		-70		307	40
100		-72		303	40
90		-74		297	38
80		-72		294	40
70		-78		310	39

Inversion 973 mb 33° - 953 mb 36°

Isothermal 822 - 780 mb 21°

Tropopause: I 324 mb -63° 26,600'

CAMBORNE

Pressure — Time 03h. G.M.T.; M.S.L. 981·1 mb; Surf 970·6 mb; Freezing 885 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	40	40	CALM	
1000	05·1				
950		40	39		
900	22·0	34	33		
850		29	28		
800	53·8	24	22		
750		18	15		
700	87·8	12	07		
650		05	-04		
600	12·6	-02	-16		
550		-12	-24		
500	17·0	-22	-37		
450		-29	-47		
400	22·1	-34	-55		
350		-38	-58		
300	28·6	-42			
250		-50			
200	37·4	-59			
170		-62			
150		-64			
130		-66			
110		-70			
100		-70			
90		-71			
80		-74			
70	(73mb)	-75			

See Page 3 for Winds

Isothermal 971 - 947 mb 40°

Tropopause: II 373 mb - 37° 23700'

VALENTIA

Pressure — Time 03h. G.M.T.; M.S.L. 1003 mb; Surf 1002 mb; Freezing 900 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	42	39		
1000	0·8	42	39		
950		38	28		
900	28·8	32	25		
850		24	20		
800	59·4	17	14		
750		11	07		
700	92·9	05	-03		
650		06	-11		
600	13·1	04	-16		
550		00	-22		
500	17·6	-06	-32		
450		-11	-33		
400	22·9	-22	-41		
350		-32	-49		
300	29·4	-45			
250		-59			
200	38·1	-73			
170		-80			
150		-74			
130	(34mb)	-72			

Inversion 679 mb 04° - 650 mb 06°

Isothermal 1002 - 1000 mb 42°

Tropopause: I 167 mb - 81° 41,800'

LERWICK

Pressure — Time 09h. G.M.T.; M.S.L. 996·2 mb; Surf 986·0 mb; Freezing 986 Below Surface mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	28	27	010	20
1000	-01·1				
950		25	20	320	28
900	26·1	18	13	336	24
850		12	08	338	20
800	55·7	06	01	335	12
750		01	-06	350	15
700	88·5	-06	-15	236	23
650		-14	-31	286	31
600	12·5	-16	-34	231	43
550		-26	-35	220	47
500	16·7	-37	-43	217	51
450		-49		217	51
400	21·6	-60		208	60
350		-72		217	50
300	27·6	-74		231	32
250		-64		266	27
200	36·1	-69		279	21
170		-69		285	24
150		-69		285	24
130		-73		292	29
110		-77		293	31
100	50·4	-80		289	27
90	(96mb)	-81			
80					
70					
60					

Inversion 622 mb 18° - 605 mb 15°

Tropopause: I 316 mb -75° 26,500'

STORNOWAY

Pressure — Time 09h. G.M.T.; M.S.L. 1000·8 mb; Surf 999·1 mb; Freezing mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
Surf	00·4	25	17		
1000	00·2				
950		26	13		
900	27·5	20	06		
850		12	03		
800	57·2	05	00		
750		-03	-09		
700	89·8	-07	-19		
650		-15	-32		
600	12·6	-24	-41		
550		-32	-50		
500	16·8	-41			
450		-51			
400	21·7	-51			
350		-51			
300	27·9	-59			
250		-60			
200	36·5	-63			
170		-66			
150	42·6	-69			
130		-74			
110		-75			
100	50·9	-76			
90		-78			
80		-80			
70		-82			

Inversion 999 mb 25° - 977 mb 30°

Tropopause: I 445 mb -48° 19,300'

LEUCHARS

Pressure — Time 09h. G.M.T.; M.S.L. 997·8 mb; Surf 996·9 mb; Freezing mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
Surf	00·2	24	22	CALM	
1000	-00·6				
950		29	20	326	08
900	26·9	23	07	360	09
850		17	-02	023	11
800	56·8	11	-06	035	11
750		05	-12	047	06
700	90·0	00	-16	073	04
650		-07	-23	141	04
600	12·7	-15	-30	241	15
550		-21	-36	221	25
500	17·0	-31	-43	215	26
450		-43		224	27
400	21·9	-57		239	38
350		-63		237	33
300	28·0	-60		264	30
250		-61		300	39
200	36·7	-60		305	43
170		-65		312	40
150	42·8	-67		314	39
130		-69		308	32
110		-74		306	40
100	51·2	-75		295	51
90		-77		303	49
80		-78			

Inversion 997 mb 24° - 965 mb 30°

Tropopause: II 389 mb -60° 21,600'

ALDERGROVE

Pressure — Time 09h G.M.T.; M.S.L. 1001·4 mb; Surf 991·6 mb; Freezing 991·6 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	31	29		
1000	0·4				
950		30	24		
900	27·9	24	13		
850		16	09		
800	57·9	10	02		
750		03	-07		
700	90·9	-04	-34		
650		-10	-40		
600	12·8	-18	-44		
550		-27	-55		
500	17·0	-35	-58		
450		-43			
400	21·9	-54			
350		-56			
300	28·1	-55			
250		-60			

Isothermal 992 - 957 mb 31°

Tropopause: I 394 mb -56° 22,10

LIVERPOOL

Pressure — Time 09h. G.M.T.; M.S.L. 996·6 mb; Surf 994·5 mb; Freezing 997 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	31	29	CALM.	
1000	-00·8				
950		30	27	154	05
900	26·8	27	24	191	07
850		24	21	235	08
800	57·2	16	14	241	07
750		11	09	256	06
700	90·7	05	01	251	12
650		04	-01	259	22
600	12·8	-01	-12	257	20
550		-16	-21	243	20
500	17·2	-26	-31	230	22
450		-37	-42	251	33
400	22·2	-50		252	37
350		-59		279	38
300	28·3	-61		310	41
250		-63		315	61
200	36·9	-65		318	62
170		-69		322	53
150		-68		319	48
130		-72		305	45
110		-74		305	42
100	(106mb)	-75			

Inversion 672 mb 01° - 650 mb 04°

Isothermal 913 - 890 mb 27°

Tropopause: III 366 mb -58° 24,200'

DOWNHAM MARKET

Pressure — Time 09h. G.M.T.; M.S.L. 997·9 mb; Surf 993·4 mb; Freezing 943 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	32	28	065	05
1000	-00·5				
950		33	27	144	10
900	27·2	27	20	141	13
850		20	16	135	12
800	57·5	18	07	124	07
750		11	04	040	04
700	91·0	03	00	316	03
650		02	-04	256	07
600	12·9	-04	-13	288	09
550		-11	-23	305	11
500	17·2	-21	-37	315	12
450		-34	-51	315	15
400	22·3	-47		315	21
350		-59		293	20
300	28·4	-69		284	30
250		-62		304	36
200	37·0	-63		308	34

Inversion 993 mb 32° - 968 mb 34°; 841 " 18° - 815 " 20°

Isothermal 700 mb - 668 mb 03°

Tropopause: I 300 mb -69° 28,500'

LARKHILL

Pressure — Time 09h G.M.T.; M.S.L. 994·5 mb; Surf 978·2 mb; Freezing 923·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	34	31	090	05
1000	51·5				
950		33	28	087	21
900	26·3	30	27	124	10
850		26	21	126	06
800	56·8	23	16	024	05
750		16	06	017	05
700	90·8	12	03	011	07
650		04	-02	351	07
600	28·9	-03	-10	326	09
550		-09	-25	305	07
500	17·2	-20	-39	294	10
450		-32	-46	277	20
400	23·6	-43		268	30
350		-54		288	24
300	28·6	-59		330	45
250		-63		328	61
200	37·2	-63		327	57
170		-68		328	48
150		-67		317	41
130		-69		311	36
110		-70		311	39
100		-73		312	39
90		-77		312	40
80		-77		313	39
70		-77		308	37
60		-76			

Inversion 862 mb 25° - 837 mb 27°

Tropopause: I 320 mb -60° 27,100'

CAMBORNE

Pressure — Time 09h. G.M.T.; M.S.L. 993·0 mb; Surf 982·4 mb; Freezing 863 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	42	39	045	12
1000	-01·9				
950		40	37	020	20
900	26·3	35	31	033	27
850		30	26	015	26
800	57·2	25	21	026	29
750		20	18	034	18
700	91·4	15	10	038	13
650		10	01	032	12
600	13·0	02	-10	359	18
550		-07	-20	346	15
500	17·4	-18	-29	348	21
450		-23	-38	348	42
400	22·6	-29	-45	346	77
350		-39	-55	341	110
300	29·0	-50		341	121
250		-60		332	118
200	37·7	-69		340	110
170		-70		330	80
150		-74		324	42
130		-74			
110		-70			
100	52·0	-73			
90	(95mb)	-74			
80					
70					
60					

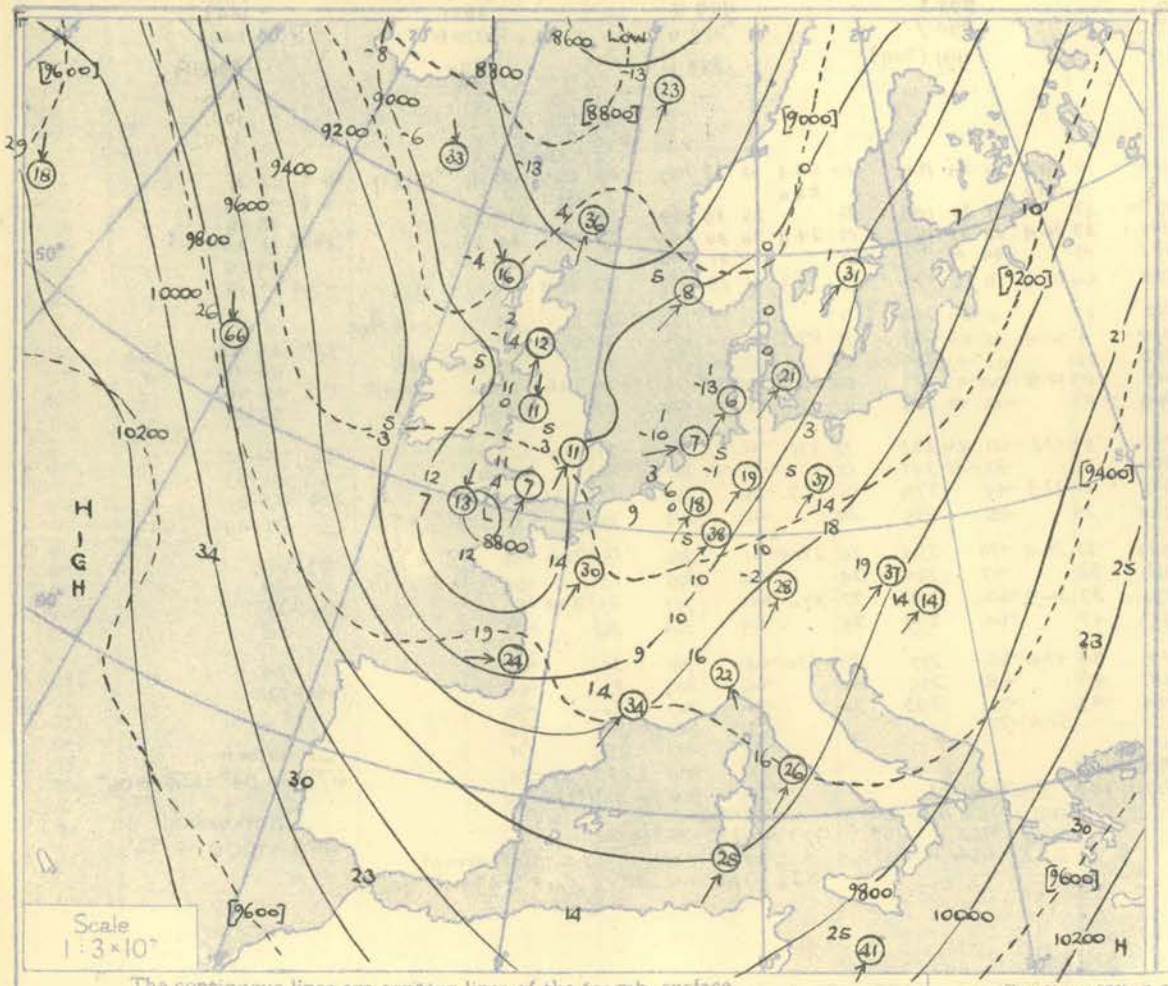
Inversion 456 mb 24° - 450 mb 25°; 237 " -65° - 220 " -64°

Isothermal 889 - 875 mb 33°

Tropopause:

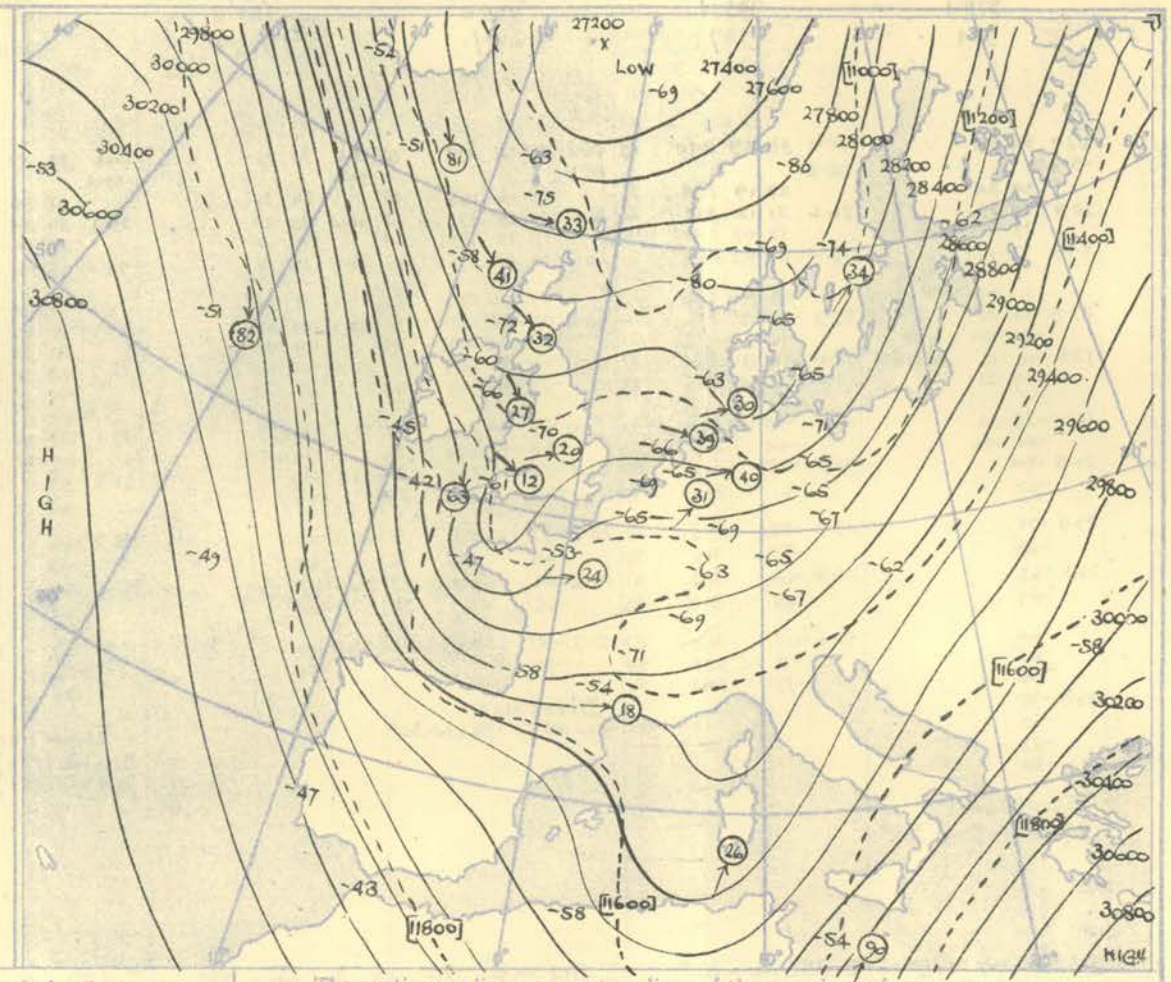
Thursday 14th December, 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.

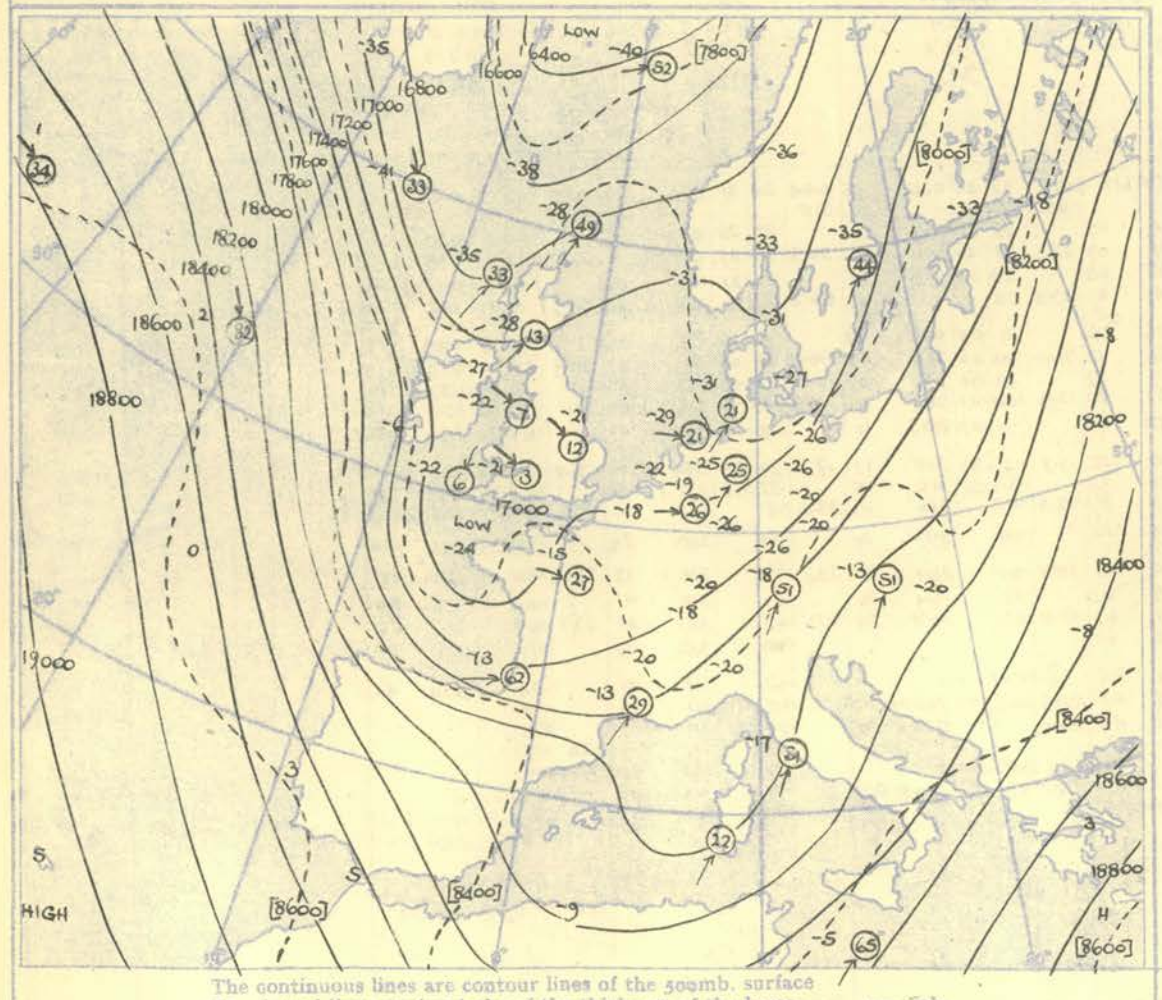


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

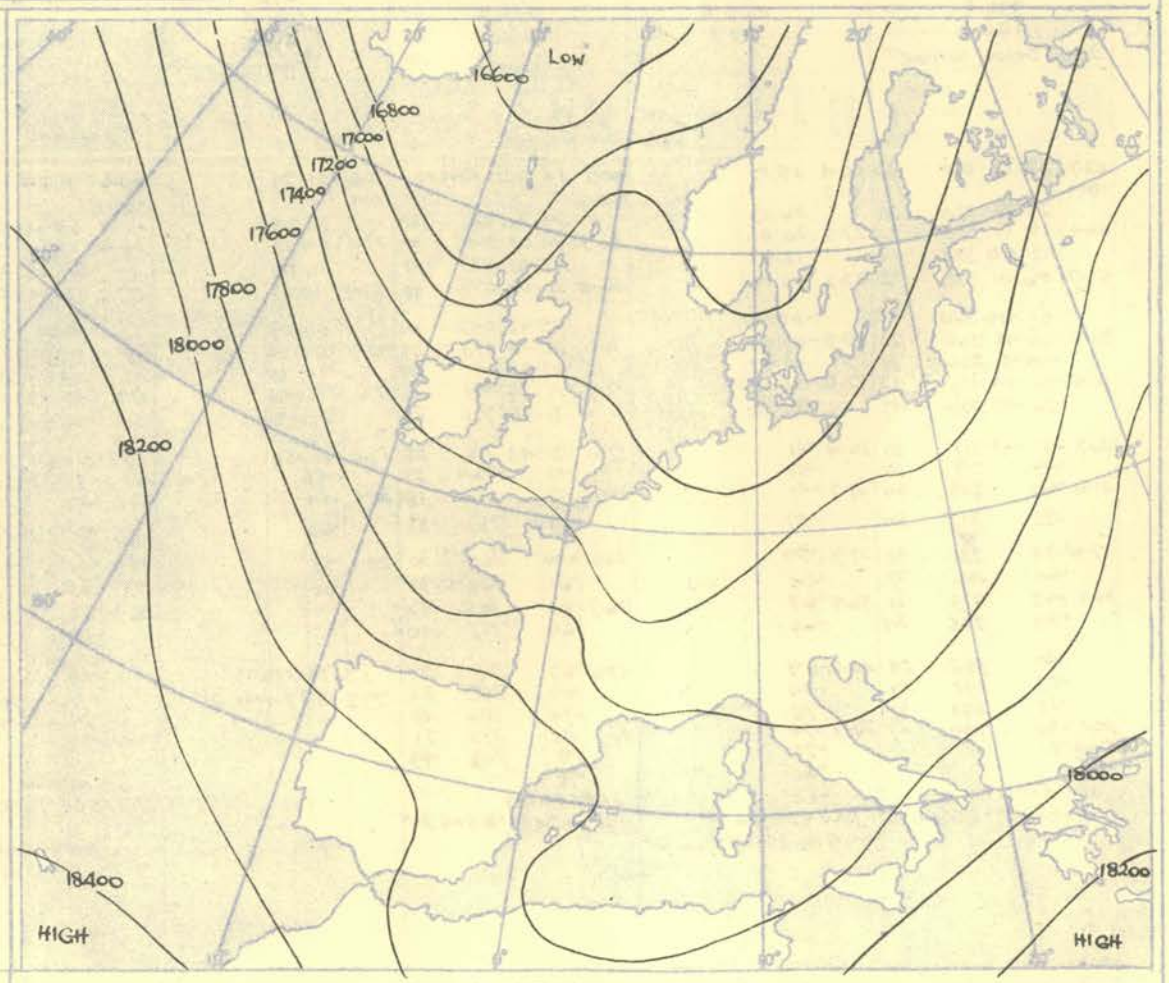
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

14th December 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	55·7°N 21·8°W			53·1°N 01·2°E		
Pressure: Time	1630hrs			15hrs		
M.S.L.	1013 mb			997 mb		
Surf	1009 mb			995 mb		
Freezing	940 mb			933 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf	01·0	41	34	0·5	40	33
1000	03·4			-0·8		
950		33	28		34	28
900	31·2	26	26	270	27	27
850		20	20		22	~
800	61·4	15	06	573	17	-
750		18	-1		11	-
700	95·4	18	12	90·8	04	-
650		13	~		02	-
600	134	11	-	129	-6	-
550		02	-		-11	-
500	129	-7	-	172	-22	-
450					-35	-
400				223	-49	-
350					-63	
300				281	-62	-
250						
200						
170						

Cloud
4/8Sc850-810
8/8As595-345
Inversion
350mb -63°
300mb -62°

Trop:- 350mb

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Camborne		Lerwick		Aldergrove		Shoeburyness		Collinstown		Wick	
Time	03hrs		03hrs		10hrs		12hrs		14hrs		15hrs	
Type	Pilar		Radar									
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	Calm		230	38	340	09	150	03	260	05	360	14
1,000	010	12	210	43	340	17	130	07	320	14	360	16
2,000	015	12	213	42	350	24	100	10	330	18	350	22
3,000	017	11	215	42	350	24	070	11	330	21	340	25
4,000	017	12	216	39	340	25	030	04	320	25	340	29
5,000	021	12	222	38	340	25	290	04	330	22	330	26
6,000	022	12	224	36	330	26	280	05	320	26	330	08
8,000	025	12	230	33	320	26	280	10	320	22	270	05
10,000	031	13	224	36	330	40	280	12	330	26		
14,000	038	06	225	45			270	12				
18,000	032	06	222	49			280	15				
24,000	347	41	227	45			280	34				
30,000	343	63	266	33			310	41				
40,000	331	60	291	28			300	33				
50,000	317	51	257	25			(38000')					
	340	32	(46000')									
	(52000')											

NEPHOSCOPE OBSERVATIONS

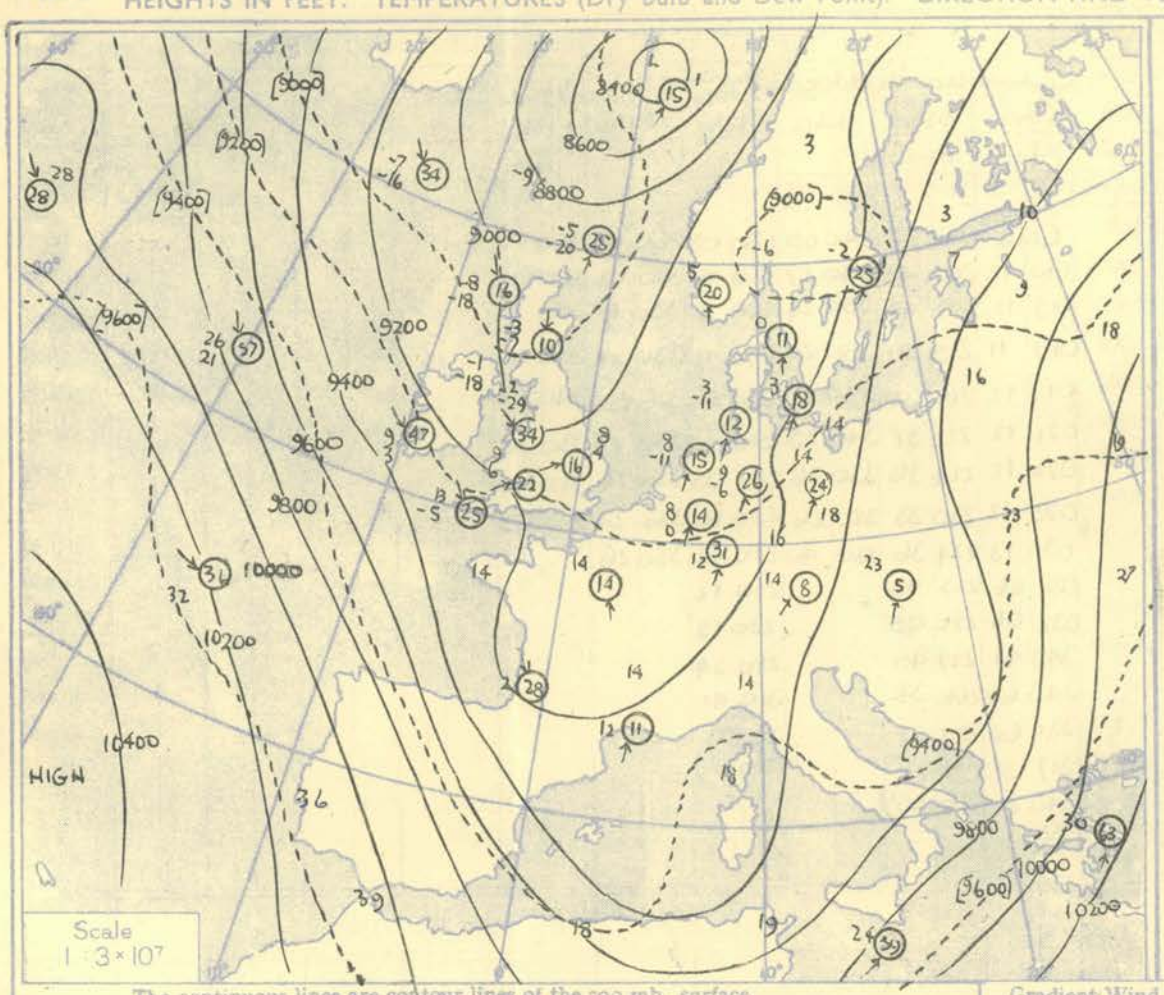
Place										
Time Type										
Dir. Vel.										

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

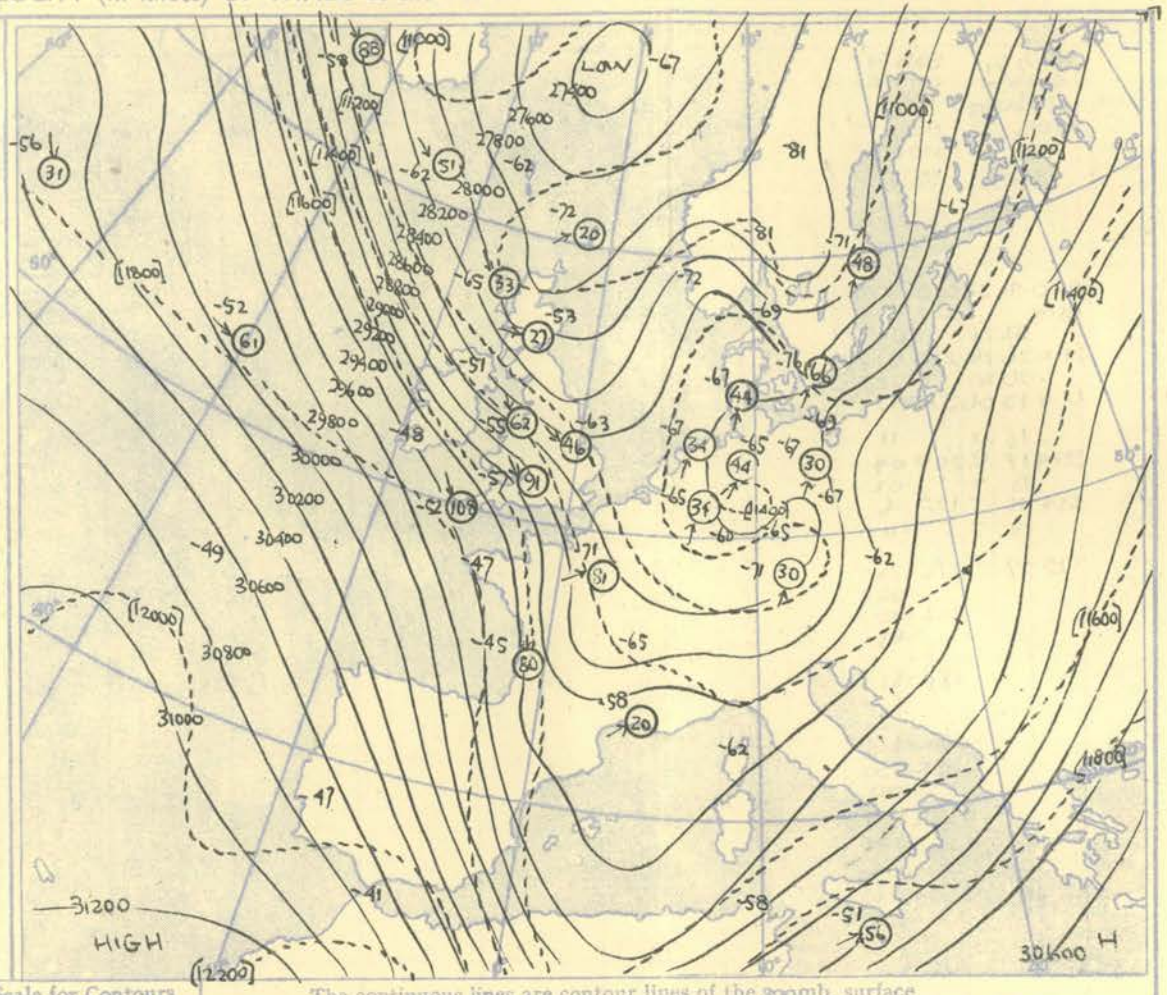
Ship	WEATHER WATCHER.					WEATHER WATCHER.					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52·6N 20·1W.					52·4N 20·1W.					52·5N 19·4W.					52·5N 19·9W				
Pressure: Time	03L G.M.T.					09L G.M.T.					15L G.M.T.					21L G.M.T.				
M.S.L.	1015 mb					1011 mb					1009 mb					1011 mb				
Surf	1015 mb					1011 mb					1009 mb					1011 mb				
Freezing	910 mb					860 mb					760. mb					900 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		46	33	310	17		47	43	270	25		48	44	295	22		47	36	330	27
1000	4·0	45	33	310	20	3·1	46	42	273	25	25	47	43	302	26	3·3	45	35	328	27
950		37	28	310	21		39	36	274	29		42	38	301	36		39	31	327	32
900	32·0	30	24	310	20	31·2	35	32	277	37	30·8	36	31	300	37	31·4	32	27	327	37
850		23	15	311	25		31	28	284	39		37	33	305	39		24	20	326	46
800	62·6	26	04	311	34	62·0	30	21	292	44	62·0	34	28	313	47	62·1	28	13	324	54
750		24	11	313	51		31	21	303	55		31	22	320	51		27	14	324	55
700	97·2	26	16	316	66	96·9	28	13	310	61	96·9	26	21	312	57	96·7	23	11	323	54
650		21	07	318	79		21	09	321	74		20	16	310	57		21	06	324	57
600	137	15	-04	318	80	137	16	01	320	75	136	14	07	303	56	136	15	-06	321	58
550		12	-09	317	73		10	-10	312	70		07	-03	307	57		05	-14	320	54
500	183	02	-24	319	82	182	-01	-08	304	70	182	-04	-13	310	56	181	-05	-21	318	56
450		-07	-34	317	80		-08	-15	298	75		-11	-31	307	61		-15	-27	309	62
400	236	-19	-42	315	76	236	-18	-23	288	75	235	-23	-42	305	77	234	-26	-38	306	66
350		-34	-55	316	82		-31	-36	287	79		-37	-48	306	66		-38	-50	309	66
300	301	-51		316	82	301	-46		287	78	299	-52		307	61	299	-53		310	77
250		-69		307	85		-63		283	83		-68		306	70		-67		310	62
200	385	-90		305	67	387	-81		295	74	384	-78		301	62	383	-78		316	64
170		-95		305	59		-85		296	70		-72		303	64		-77		313	60
150		-100		305	61		-87		296	66		-75		305	56		-77		307	63
130		-93		304	67		-83		296	64		-76		299	57		-80		311	64
110		-95		303	65		-84		296	63		-81		303	62		-80		314	59
100	520	-93		307	54	526	-86		296	63	526	-81				524	-83		314	56
90		-88		306	48		-89		299	61		-81					-85		313	54
80		-85					-92		307	52		-81					-86		311	53
70	(84mb)						-90		314	43		-84					-86		302	46
60							-88		318	37		-79					-86			
	Inversion. 855mb 22°- 807mb 26° 779- 22°- 718- 27° 187- -95°- 175- -93° Isothermal. 807- 800 mb 26° 600 - 566 15°					Inversion. 816mb 28°- 784mb 33° Isothermal. 734 - 708mb 30°					Inversion 892 mb 35°- 850mb 37° Isothermal. 822- 780mb 34°					Inversion 845mb 23°- 813mb 29° Isothermal. 678- 638 mb 21°				
Tropopause	I 150mb -100° 44·500					I 150mb -87° 44·700					I 200mb -78° 38·400					I 197mb -79° 38·600				

Ship	WEATHER OBSERVER					WEATHER OBSERVER.					WEATHER OBSERVER					WEATHER OBSERVER.				
Lat/Long	61·0N 13·9W					61·1N 13·8W.					61·0N 14·0W.					61·0N 14·0W.				
Pressure: Time	03L G.M.T.					09L G.M.T.					15L G.M.T.					21L. G.M.T.				
M.S.L.	1002 mb					1003 mb					1004 mb					1007 mb				
Surf	1002 mb					1003 mb					1004 mb					1007 mb				
Freezing	Surf. mb					Surf.. mb					1000 mb					Surf. mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		30	19	020	02		32	22	090	04		33	26	015	22		32	27	010	16
1000	6					7	31	22			1·2					1·8	31	26		
950		23	07	343	06		24	19				25	18	001	19		24	16	341	25
900	27·7	16	03	336	10	27·9	17	15			28·4	17	10	357	22	29·0	17	05	342	30
850		08	-03	327	15		10	10				10	03	349	25		10	01	345	32
800	57·1	02	-09	319	15	57·4	04	04			57·9	04	-03	308	23	58·5	02	-07	347	32
750		-03	-14	323	27		-04	-04				-01	-08	297	27		-05	-14	343	31
700	89·7	-06	-18	323	33	89·8	-07	-09			90·6	-07	-16	308	34	90·9	-11	-20	341	38
650		-13	-27	323	34		-11	-16				-07	-19	315	36		-13	-26	337	42
600	126	-21	-36	323	36	127	-18	-25			128	-14	-28	321	33	127	-20	-35	331	42
550		-30	-45	323	36		-25	-33				-22	-39	321	28		-29	-45	328	46
500	168	-41		323	33	169	-33	-40			170	-33	-52	321	28	169	-38	-53	328	51
450		-47		323	41		-43					-43		321	34		-49		323	51
400	217	-48		323	54	219	-52				220	-55		322	37	218	-61		316	52
350		-49		325	78		-56					-66		323	39		-66		313	69
300	280	-51		325	81	281	-56				281	-62		322	51	279	-62		315	67
250		-54		324	93		-55					-62		323	65		-64		316	63
200	368	-61		325	86	368	-55				367	-61		326	60	364	-67		322	70
170		-63		324	75		-55					-66		326	61		-66		324	68
150		-65		323	66	(183mb)						-67		327	60		-66		322	68
130		-68		321	54							-69		325	56		-69		316	63
110		-71		321	58							-73					-74		312	54
100	513	-75		321	66											509	-76		312	56
90		-78		321	70												-78		311	60
80		-80		321	72												-80		311	60
70		-80		323	67												-82		310	62
60		-83		322	60												-84		310	63
		-85		323	45												-88		310	64
	(43mb)	-86															-91		310	66
																(35mb)	-93			
	Isothermal. 761- 731mb -3°										Inversion 695 mb -8°- 672mb -5°					Isothermal. 705 -665mb -11°				
Tropopause	II 450mb -47° 19·000					II 372mb -56° 23·200					I 315mb -70° 27·000					I 382mb -66° 22·500				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

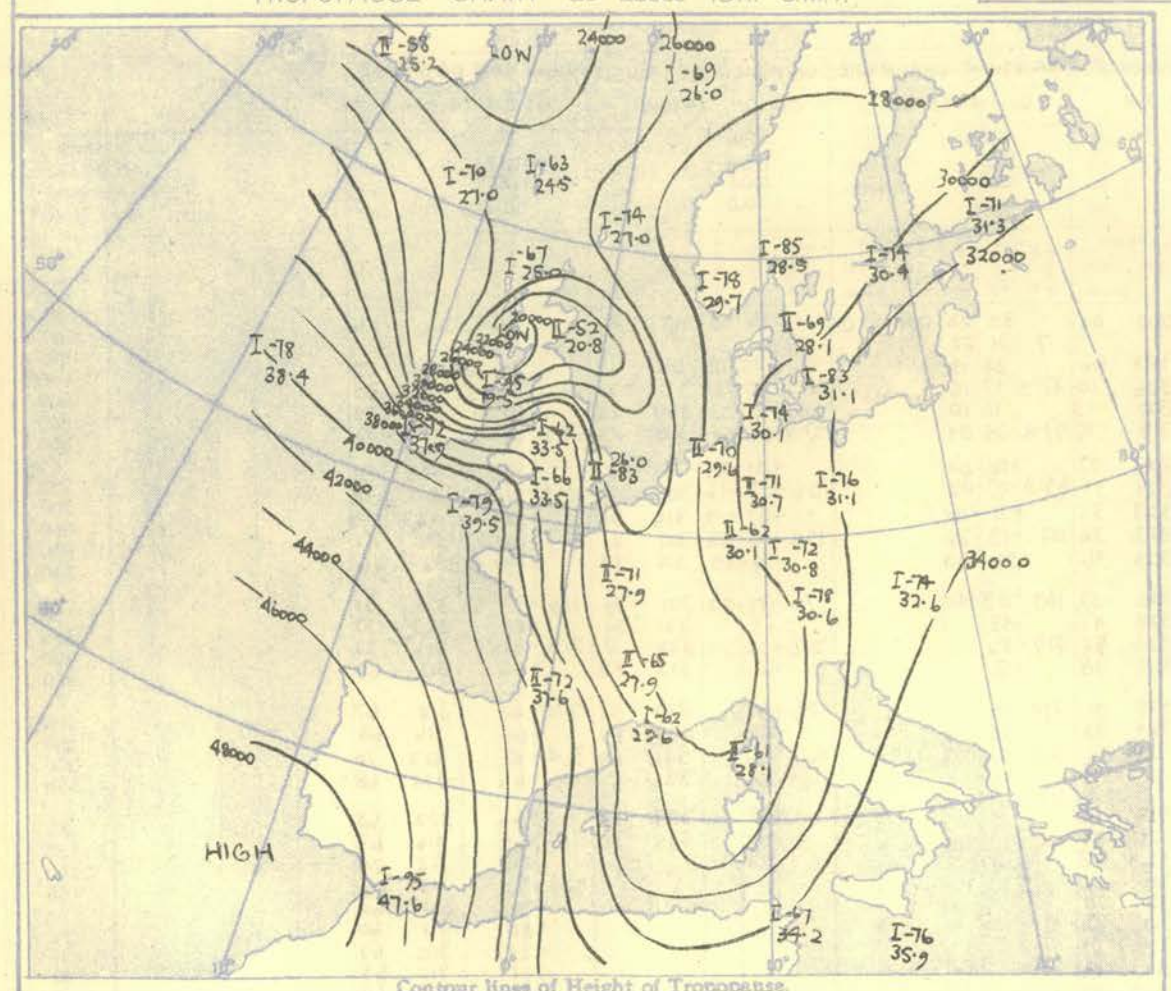


Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots

The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The main cold trough over Europe was reinforced by the secondary trough which formed northwest of the British Isles on the 13th. The broad effect was an apparent westward regression of the main cold trough and the flooding of Britain with very cold air.

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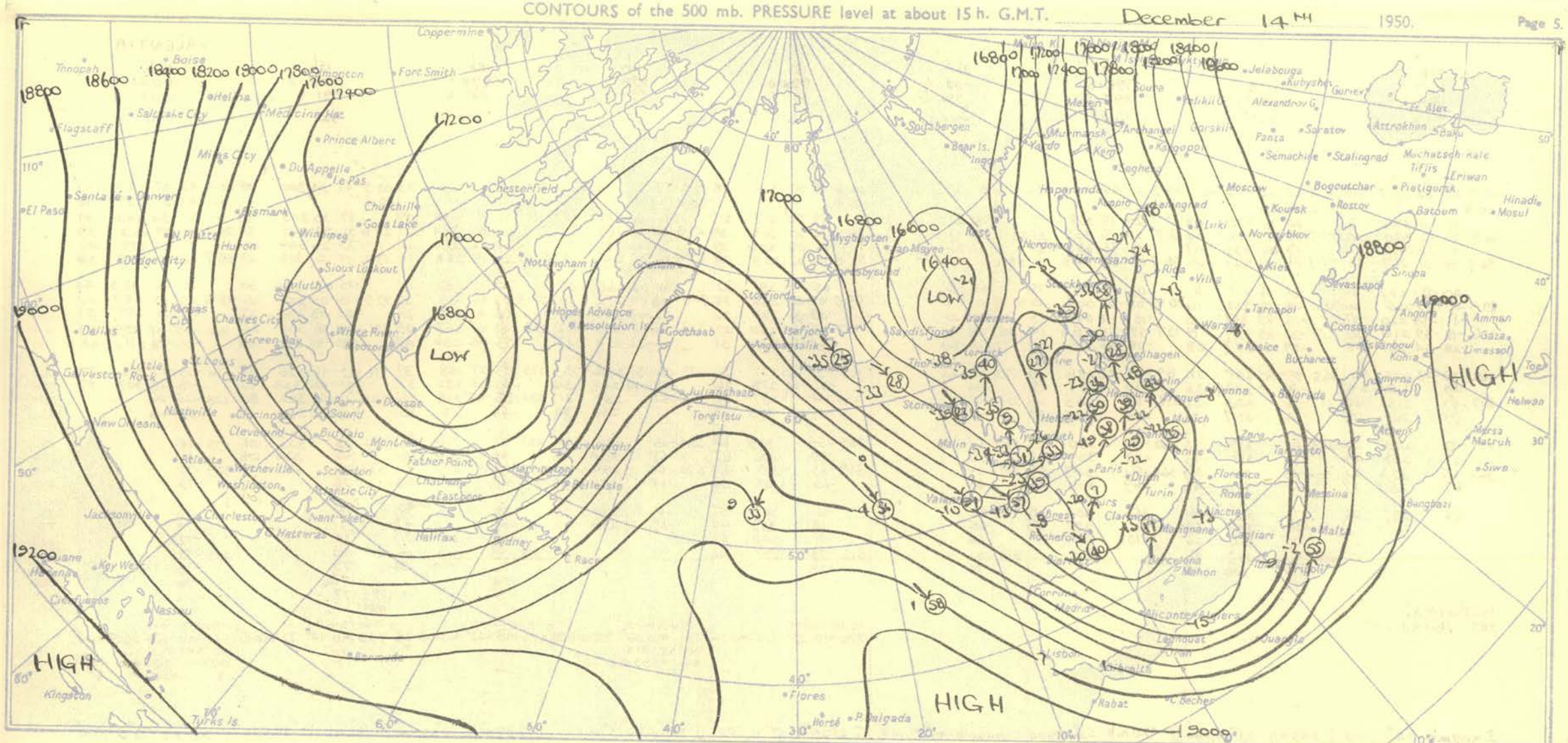
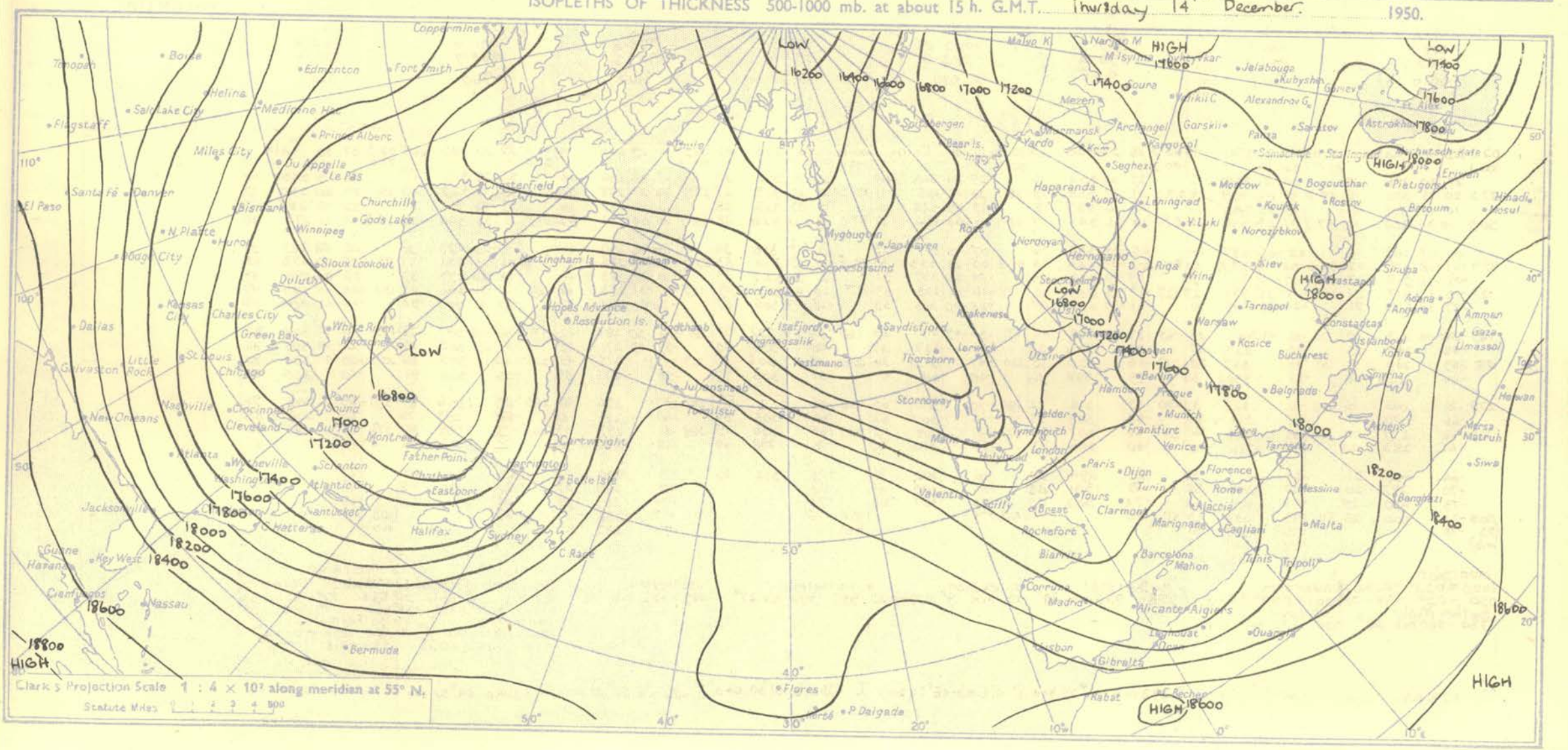
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. December 14th 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Thursday 14th December 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	999·1 mb	1001·8 mb	998·8 mb	1002·4 mb	998·0 mb	998·3 mb	998·1 mb	1002·2 mb	1004 mb
Pressure: Surf	988·7 mb	1000·1 mb	997·9 mb	992·6 mb	995·7 mb	994·0 mb	981·8 mb	991·5 mb	1003 mb
Pressure: Freezing	989·5 mb	Surf mb	Surf mb	Surf mb	975 mb	957 mb	950 mb	910 mb	910 mb

Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	027	23	22	360	03	00·4	30	24	Calm		00·2	30	26	350	06	02·6	30	27		
1000	-00·3					00·4	30	26			-00·4					00·6				
950		26	20	326	13		24	16	338	03		25	18	338	19		28	21		
900	26·9	19	12	330	14	27·7	19	12	336	04	26·9	20	15	338	21	28·1	23	12		
850		11	06	304	12		13	06	332	07		15	13	334	20		17	06		
800	56·5	06	-01	267	14	51·7	06	-03	327	09	56·7	09	06	343	16	58·2	11	01		
750		00	-12	232	21		-01	-11	317	11		03	00	345	13		05	-13		
700	89·3	-05	-20	225	25	90·0	-08	-18	322	16	90·0	-03	-07	005	10	91·3	-01	-18		
650		-11	-33	220	27		-15	-29	337	18		-10	-14	087	13		-10	-25		
600	126	-19	-39	216	30	1·7	-22	-35	347	19	127	-19	-23	056	14	128	-18	-31		
550		-28	-44	221	38		-29	-41	357	23		-28	-33	004	09		-26	-36		
500	168	-39	-48	223	40	168	-39	-50	358	22	169	-35	-42	196	09	170	-34	-44		
450		-49		218	43		-46		347	22		-45		194	19		-44			
400	217	-59		215	44	217	-56		343	21	218	-52		203	21	220	-41			
350		-69		210	28		-66		337	21		-53		264	19		-44			
300	277	-72		244	20	278	-65		319	33	280	-53		290	27	284	-51			
250		-67		268	21		-60		318	43		-52		309	29		-56			
200	362	-65		273	22	364	-63		313	46	368	-56		307	41	371	-59			
170		-67		287	27		-65		310	47		-59		302	38		-63			
150		-68		287	28		-70		311	46		-60		301	39		-62			
130							-74		307	49		-60		297	43		-65			
110							-76		314	44		-70					-68			
100						508	-76		305	42						518	-71			
90							-79		300	48							-73			
80							-82													
70																				
60																				
	Isothermal 989 -960mb 23°																			

Pressure mb	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	00·6	33	30	315	08	01·2	35	31	Calm		4·4	36		320	03	02·9	41	34	360	16	00·3	42	37	225	15
1000	-00·6					-00·4					-0·5					00·6					1·1	42	37	227	16
950		29	26	317	21		31	26	203	09		32	31	300	09		37	33	343	33		37	34	244	29
900	26·8	22	20	313	29	27·3	26	21	169	10	27·1	29	28	294	10	28·6	31	28	345	31	29·1	31	29	262	39
850		16	08	306	29		20	15	181	07		23	22	291	12		25	23	349	30		27	24	279	40
800	56·8	10	02	298	29	57·5	16	05	246	07	57·5	20	19	288	14	59·1	17	16	343	29	59·7	22	20	278	38
750		05	-13	291	32		10	05	268	09		15	12	282	18		15	03	326	30		15	13	283	44
700	89·9	-02	-29	288	34	91·0	08	04	272	16	91·3	09	06	273	22	92·9	13	-05	302	25	93·5	09	03	287	47
650		-09	-36	283	32		02	-03	260	19		03	00	259	30		05	-03	296	29		03	01	299	51
600	127	-15	-43	280	29	129	-06	-11	250	22	129	-04	-07	253	33	131	03	-20	308	34	132	-05	-07	299	51
550		-24	-50	280	31		-16	-22	250	27		-13	-15	256	43		-03	-35	324	43		-06	-18	311	65
500	169	-33	-60	277	31	172	-26	-31	254	33	173	-23	-27	258	39	176	-13	-46	325	57	176	-10	-17	316	91
450		-37	-60	278	36		-38	-44	248	30		-30	-35	292	37		-21	-42	323	72		-18	-28	308	99
400	220	-41		257	51	222	-51		239	31	224	-38	-47	314	56	228	-29	-40	322	80	228	-25	-36		
350		-47		308	65		-61		240	34		-44		318	85		-40	-52	324	99		-86	-46		
300	283	-55		303	62	284	-63		286	46	287	-67		316	91	292	-53		325	108	293	-48			
250		-60		302	67		-61		304	45		-64		314	86		-65		324	108		-61			
200	369	-63		309	61	370	-64		296	40	373	-62		319	69	377	-76		320	109	379	-72			
170		-65		309	56		-68		296	41		-67		311	53		-78					-75			
150		-66		307	51		-69		300	33		-69		293	48		-73					-76			
130		-68		303	44		-69		296	43		-68		286	47		-71					-78			
110		-71		304	43							-68		311	31		-74					-72			
100	515	-73		297	46						518	-70		313	45	519	-80				522	-72			
90		-78										-72		300	35		-79					-73			
80												-74					-77					-76			
70																(78 mb)	-77								
60																									
	Inversion 996 mb 33° - 989mb 34°					Inversion 721 mb 06° - 700mb 08° Isothermal 850 - 833mb 20°					Inversion 475mb -29° - 463mb -28°					Inversion 733 mb 14° - 721mb 15°					Inversion 550 mb -6° - 520mb -6° Isothermal 1003 - 1000mb 42° 587 - 550 " -6°				

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Tropopause	I 309mb -74° 27,000'	I 343mb -33° 25,000'	II 420mb -52° 20,800'	I 445mb -45° 19,700'	I 235mb -62° 33,500'	II 335mb -63° 26,000'	I 239mb -66° 33,500'	I 182mb -79° 39,500'	I 200mb -72° 37,900'

21h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	999·9 mb	1002·8 mb	999·3 mb	1002·0 mb	999·5 mb	998·8 mb	1001·5 mb	1004·3 mb	mb
Pressure: Surf	989·5 mb	1001·0 mb	998·4 mb	992·3 mb	997·4 mb	994·3 mb	984·9 mb	993·4 mb	mb
Pressure: Freezing	999·9 (S) mb	Surf mb	Surf mb	970 mb	997 mb	Surf mb	960 mb	920 mb	mb

Pressure mb	Lerwick Height ft./100	Lerwick °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	23	19	Calm		00·4	24	21	270	03	00·2	28	22	320	08	02·6	19	18	Calm	
1000	-00·1					00·7	24	21			-00·2					00·6				
950		27	20	318	14		24	21	338	15		27	22	354	16		29	20	310	09
900	27·2	20	13	325	15	28·0	19	15	339	16	27·2	21	17	368	18	28·1	23	15	325	11
850		14	10	328	15		13	09	340	15		15	10	357	18		17	09	348	15
800	56·9	08	04	320	12	57·7	07	03	336	16	57·1	10	01	347	17	58·1	10	00	354	18
750		02	-07	261	10		02	-06	337	20		05	-07	331	16		07	-15	357	23
700	89·9	-01	-18	218	22	90·6	-04	-16	370	20	90·0	-02	-07	344	14	91·3	00	-21	353	30
650		-09	-28	219	27		-07	-19	343	24		+09	-13	023	13		-08	-26	339	34
600	127	-16	-33	217	31	128	-15	-25	336	27	127	+17	-20	059	12	128	-16	-32	328	33
550		-27	-39	212	31		-24	-32	335	31		-27	-29	080	07		-25	-40	313	33
500	169	-38	-48	213	30	170	-32	-43	335	25	169	-38	-44	098	04	171	-34	-49	311	29
450		-48		207	23		-44		337	27		-50		025	06		-41		327	27
400	218	-59		209	19	130	-55		337	30	218	-55		325	15	220	-49		313	36
350		-64		226	18		-65		332	30		-59		338	16		-48		310	49
300	279	-70		245	15	280	-72		325	32	280	-59		318	22	284	-50		310	60
250		-66		270	19		-61		314	35		-58		308	31		-56		307	62
200	363	-66		279	24	366	-63		313	40	366	-60		307	35	371	-61		308	62
170		-60		283	24		-63		316	40		-60		306	33		-63		306	60
150		-64		288	21		-64		313	39		-67		294	30		-66		303	61
130		-70		277	20		-70		308	38		-69		301	48		-69		305	61
110		-73		290	25		-73		307	44		-74		302	49		-73		307	60
100	508	-74		300	25	511	-73		297	43	511	-74				516	-71			
90	(93 mb)	-75					-75		307	51										
80							-77		311	59										
70							-79		305	60										
60																				
	Inversion 1000 mb 23° 980mb 28 750 " -02° - 738 " -03° Isothermal 980 -960mb 28°					Inversion 1001mb 34° 972mb 27° Isothermal 700 -670 mb -09°										Inversion 992 mb 19° 970mb 32°				

Pressure mb	Liverpool Height ft./100	Liverpool °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots
Surf	00·6	27	21	320	05	01·2	31	29	260	10	4·4	29	29	280	08	02·9	37	30	Calm	
1000	-00·1					-00·3					0·4					01·2				
950		27	26	296	18		27	26	296	18		31	28	315	17		36	24	243	16
900	27·2	20	10	319	27	27·1	22	21	298	20	27·8	23	15	329	20	29·1	29	20	260	19
850		16	-03	322	28		15	12	292	28		19	-02	325	24		22	15	265	27
800	57·0	08	-14	326	28	56·9	10	04	291	32	57·9	17	-20	304	26	58·6	21	14	273	36
750		02	-19	318	34		06	-08	290	36		09	-25	293	26		15	08	285	39
700	89·9	-05	-29	314	33	89·9	-04	-20	285	39	91·3	02	-23	291	27	93·4	09	00	293	43
650		-12	-38	327	39		-10	-29	283	46		-08	-26	299	39		05	-05	298	49
600	127	-20	-44	322	49	127	-17	-37	293	62	129	-17	-31	306	43	132	-05	-13	299	49
550		-28	-49	305	67		-26	-42	294	70		-29	-42	307	54		-14	-22	304	56
500	169	-38	-56	292	71	169	-36	-50	284	62	171	-36	-48	307	72	175	-16	-31	307	82
450		-46		291	80		-39	-49	271	48		-37	-55	305	81		-22	-38	307	82
400	218	-49		306	69	219	-45		275	45	221	-44		305	88	227	-30	-49	304	95
350		-51		305	77		-50		275	39		-55		304	91		-42		305	97
300	280	-56		311	63	282	-57		274	48	283	-67		306	89	291	-53		308	96
250		-60		303	54		-60		283	52		-81		293	75		-65		304	85
200	367	-65		300	49	368	-61		293	43	365	-73		298	80	376	-73		303	82
170		-70		298	60		-68		296	39		-72		313	45		-75			
150		-72		312	62		-71		300	43		-82		300	40		-77			
130		-73					-70		289	39		-84		295	48		-76			
110		-74					-74		289	39		-81					-68			
100	(104 mb)	-75				512	-77		288	39	(104 mb)	-87				(103 mb)	-71			
90							-76		282	39										
80																				
70																				
60																				
	Isothermal 997 -950 mb 27°					Isothermal 489 -455 mb -38°					Inversion 984·9 mb 29° - 960mb 32 880 " -20° - 861 " -21° 484 " -37° - 469 " -39° Isothermal 842 -815 mb 18° 715 -700 " 02°					Inversion 993 mb 37° - 982mb 39° 834 " 22° - 821 " 23° 662 " 04° - 650 " 05° Isothermal 850 -834 mb 22° 535 -518 " -15°				

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Tropopause	I 823mb -70° 26,300'	I 303mb -73° 27,800'	I 332mb -61° 25,800'	II 416mb -48° 21,100'	I 429mb -51° 20,400'	II 296mb -58° 28,400'	I 241mb -84° 32,800'	II 215mb -72° 36,100'	

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DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Friday 15th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h	999·1 mb	988·7 mb	989 mb
STORNOWAY	03h	1002·8 mb	1001·1 mb	Surf.
LEUCHARS	03h	999·5 mb	998·6 mb	Surf mb
ALDERGROVE	03h	1003·5 mb	993·5 mb	
LIVERPOOL	03h	999·0 mb	996·8 mb	997 mb
DOWNHAM MARKET	03h	997·9 mb	993·4 mb	Surf (993·4) mb
LARKHILL	03h	999·5 mb	982·9 mb	983 mb
CAMBORNE	03h	993·9 mb	983·2 mb	880 mb
VALENTIA	03h	1004·4 mb	1003 mb	910 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	27	25	310	03	00·4	31	25	040	05	00·2	26	22	310	12
1000	00·5					0·7	31	25			00·2				
950		28	21	317	14		27	20	354	22		26	21	343	17
900	27·0	22	17	317	14	28·1	20	13	356	22	27·1	21	17	007	22
850		15	10	319	14		14	08	350	23		17	09	010	21
800	56·9	08	01	317	10	57·9	07	06	346	24	57·1	12	04	357	15
750		02	10	301	09		01	12	343	25		07	03	354	14
700	89·7	03	16	273	12	90·7	07	17	339	23	90·0	00	02	009	12
650		10	21	220	17		15	23	334	21		08	10	020	18
600	127	18	27	205	27	127	23	32	314	25	127	16	17	012	18
550		27	35	200	29		27	42	321	40		25	26	015	15
500	169	37	46	193	31	169	37	52	321	53	170	35	37	005	07
450		47		194	34		48		318	49		45		360	07
400	218	57		193	27	218	59		320	43	219	55		001	30
350		66		200	23		67		319	35		61		356	24
300	278	70		222	18	279	68		322	31	280	60		336	17
250		65		259	15		64		329	29		56		307	27
200	363	65		273	11	364	67		310	41	367	57		307	30
170		68		271	14		67		318	42		62		308	36
150		70					68		316	41		64		300	39
130		72					72		319	39		65		302	37
110		74					76		323	34		68			
100	507	76				507	78		509	37					
90		79					79		295	43					
80		82					79		294	45					
70	(75 mb)	84													
60															

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	23	21	Calm		00·6	13	07	Calm		01·2	26	22	250	10
1000	0·9					00·2					00·5				
950		28	20	352	19		26	14	339	20		28	23	289	22
900	28·3	22	14	356	27	27·0	21	05	341	21	27·0	23	15	291	20
850		16	10	353	28		15	10	340	21		17	06	297	19
800	58·2	10	02	355	30	56·8	08	17	338	18	56·9	12	01	299	20
750		04	08	355	34		03	26	342	19		06	11	295	20
700	91·3	02	20	353	34	89·7	04	33	344	21	90·1	00	21	276	25
650		05	27	356	36		12	38	337	22		06	29	271	30
600	129	14	35	356	42	127	20	43	329	30	127	12	34	284	36
550		22	44	004	37		27	49	321	29		19	35	281	45
500	171	32	55	360	39	169	33	56	312	27	170	28	39	267	58
450		43		352	40		40	60	308	27		39	48	258	71
400	221	56		349	45	219	49		311	23	220	49		254	73
350		60		332	42		55		291	35		59		270	57
300	282	57		316	50	281	51		310	42	282	58		269	55
250		55		314	58		56		300	49		60		286	49
200	369	57		314	59	368	58		302	43	369	60		280	45
170		61		311	59		63		305	82		64		283	46
150		64		306	54		65		296	56		70		281	41
130		67		308	51		65		302	51		68		283	34
110		71					65					73		289	36
100											514	75		291	44
90												78		283	52
80												79		279	47
70												79			
60															

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	28	25	080	06	02·9	43	38	300	15	00·3	35	31		
1000	00·1					01·7					1·2	35	30		
950		25	24	075	10		42	36	297	39		30	25		
900	27·1	21	19	069	06	26·6	35	31	294	39	28·9	28	20		
850		17	14	026	05		29	26	297	42		22	10		
800	57·0	13	10	334	09	57·3	23	21	294	45	59·2	17	07		
750		07	03	234	11		17	12	291	47		10	01		
700	90·3	04	00	223	27	91·3	11	02	286	47	92·6	05	03		
650		02	06				04	05	279	46		03	10		
600	128	06	10			129	01	16	281	53	130	05	18		
650		12	16				04	37	284	62		13	32		
500	171	22	26			174	12	41	291	67	174	16	37		
450		34	39	255	63		21	54	295	76		23	45		
400	222	05		261	67	226	32	59	298	81	226	33	54		
350		51		277	77		46		299	79		45			
300	285	58		285	82	289	57		295	88	289	53			
250		57		295	73		70		298	90		63			
200	371	59		292	54	374	68		298	71	275	65			
150		63		290	50		69					67			
130		66		293	50		71					69			
110		70		295	46		73					72			
100		73		293	47		77					78			
90	516	75				518	79				519	80			
80						(92 mb)	80					80			
70															
60															

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	989 mb 27° - 962 mb 30°	781 mb 26° - 566 mb -24°	999 mb 26° - 964 mb 27°	993 mb 23° - 972 mb 31°	997 mb 19° - 980 mb 29°	Surf (993) mb 26° - 979 mb 30°		983 mb 43° - 972 mb 45°	607 mb -7° - 600 mb -5°
Isothermal			754 - 728 mb 04°	367 - 350 mb -55°					538 - - 15° - 515 mb - 15°
Inversion									312 - - 54° - 300 mb - 5°
Tropopause	I 310 mb -72° 27,200'	II 330 mb -70° 25,800'	I 325 mb -65° 26,400'	II 400 mb -56° 22,100'	II 367 mb -55° 23,700'	I 345 mb -60° 25,200'	II 390 mb -47° 22,700'	I 250 mb -70° 32,800'	I 232 mb -68° 47,000'

09h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h	993·3 mb	988·0 mb	965 mb
STORNOWAY	09h	1003·1 mb	1001·4 mb	1000 mb
LEUCHARS	09h	1000·6 mb	999·7 mb	Surf mb
ALDERGROVE	09h	1005·4 mb	995·6 mb	995·6 mb
LIVERPOOL	09h	999·8 mb	997·8 mb	998 mb
DOWNHAM MARKET	09h	995·5 mb	991·0 mb	Surf (991·0) mb
LARKHILL	09h	997·5 mb	980·8 mb	981 mb
CAMBORNE	09h	1002·5 mb	991·8 mb	950 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	28	26	Calm		00·4	33	31			00·2	25	21	300	07
1000	00·5					00·8	32	31			00·2				
950		30	27	326	06		27	23				25	17	329	27
900	26·9	23	20	330	12	28·1	19	15			29·3	20	12	358	26
850		18	11	334	13		11	07				15	06	018	29
800	56·9	12	04	336	10	57·7	08	05			57·1	09	09	018	28
750		05	09	310	07		02	00				03	08	016	27
700	90·0	02	09	310	07	90·5	06	11			90·0	04	12	005	21
650		10	19	278	07		15	23				12	21	339	16
600	127	16	24	217	10	127	24	31			127	16	28	304	06
550		26	35	199	17		34	38				26	40	246	02
500	169	36	48	187	33	168	45				167	36	51	280	03
450		47		187	39		57					46		296	09
400	218	58		187	42	216	61				218	57		316	16
350		64		189	24		61					65		334	20
300	279	68		200	16	277	62				279	69		346	13
250		64		242	07		62					63		324	22
200	364	65		302	12	364	60				365	63		325	29
170		64		323	10		68					63		324	21
150		67		314	15		71					65		323	24
130		71		301	16		75					66		318	33
110		73		294	15		77					64		309	37
100	(102 mb)	71				507	79				511	67			
90							81								
80															
70															
60															

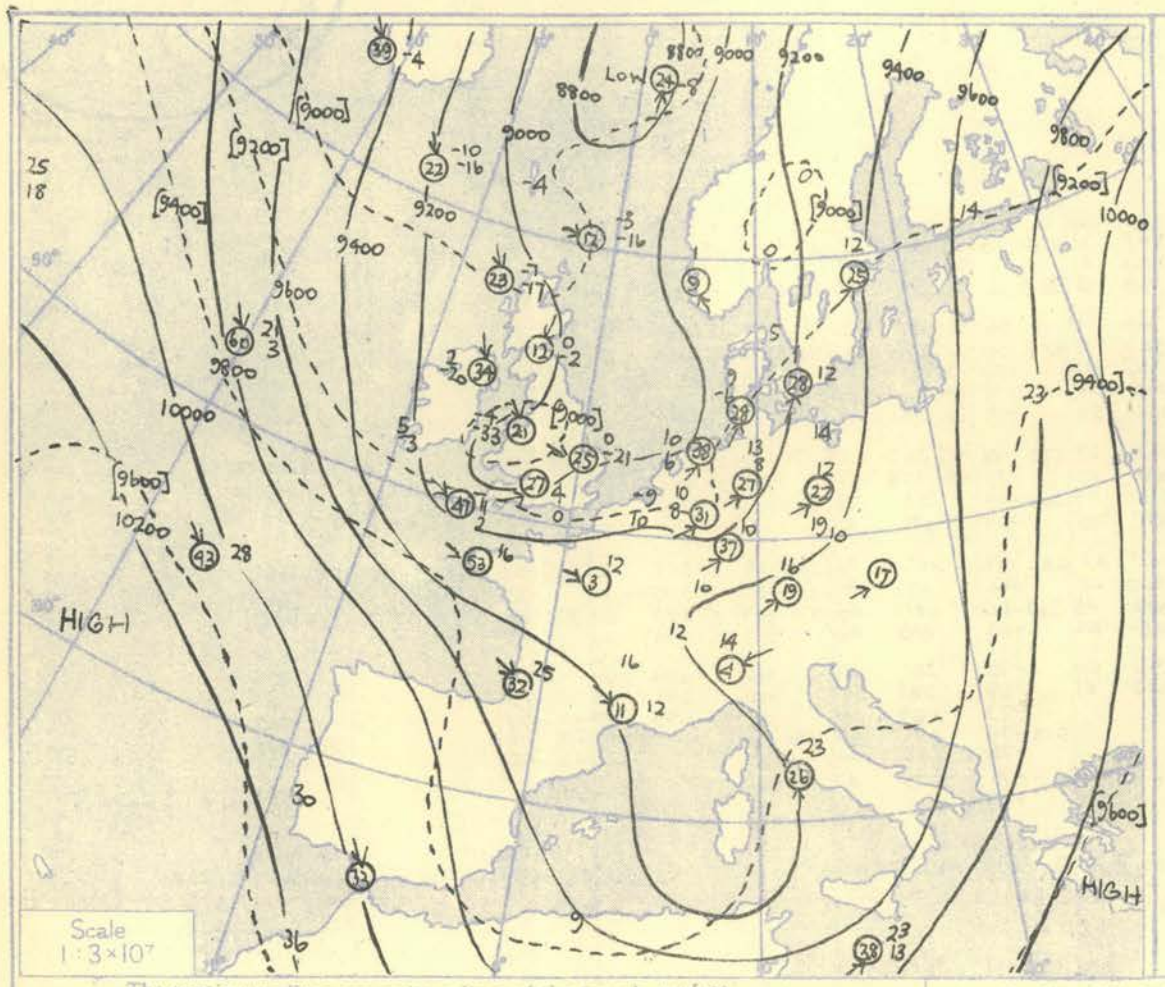
Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	29	29			00·6	26	22	330	15	01·2	26	23	270	12
1000	1·4					00·0					01·1				
950		28	25				26	16	330	25		23	21	322	24
900	28·9	22	15			27·4	21	07	341	30	26·1	21	19	312	25
850		16	11	For Wind			17	01	349	37		18	17	311	23
800	58·8	09	05			57·3	13	07	359	36	56·2	14	11	315	21
750		01	01	See			09	13	334	34		09	02	324	21
700	91·6	06	12			90·6	02	19	340	31	89·6	01	07	328	16
650		12	24	Page 3.			06	28	347	26		07	21	331	15
600	128	20	37			128	15	36	349	26	127	15	26	336	18
550		27	46				25	45	354	29		24	36	318	17
500	170	37	56			170	35	54	359	38	169	32	48	279	19
450		48					47		001	40		41		263	19
400	219	58				219	57		358	35	219	49		268	17
350		64					62		336	34		56		264	19
300	280	60				280	59		328	33	281	55		261	26
250		57					58		300	45		56		276	31
200	367	57				367	54		298	39	368	68		277	39
170		60					60		300	37		68		277	42
150		60					66		303	43		59		281	35
130		64					65		298	47		64		286	33
110		65					65		296	42		70		286	42
100	(114 mb)					514	66		301	36	515	71		285	44
90							66		300	36		70		283	46
80							70								
70															
60															

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	23	18	250	16	02·9	37	29	360	12					
1000	00·6					00·7									
950		22	17	350	36		32	27	352	25					
900	26·5	21	15	355	36	28·4	25	22	352	29					
850		16	08	358	35		19	15	349	36					
800	56·4	12	03	015	30	58·5	12	05	349	40					
750		07	04	011	31		07	03	344	42					
700	89·6	00	13	008	29	91·7	01	16	343	44					
650		07	20	354	25		05	38	362	42					
600	127	14	27	350	21	129	13	52	345	44					
550		22	35	329	16		21	54	334	32					
500	169	29	41	306	20	172	29	56	312	53					
450		38	51	310	24		36	59	305	57					
400	219	47		302	29	222	93		305	80					
350		50		304	40		51		303	80					
300	282	51		297	50	285	55		300	85					
250		55		290	51		59		305	80					
200	370	59		285	52	372	61		305	70					
150		59		296	52		63		310	70					
130		61		293	57		66		312	70					
110		63		301	60		70		315	52					
100		65		289	45	(113 mb)	76								
90	517	67		290	46										
80		69		292	49										
70		71		293	54										
60	(68 mb)	68		293	57										

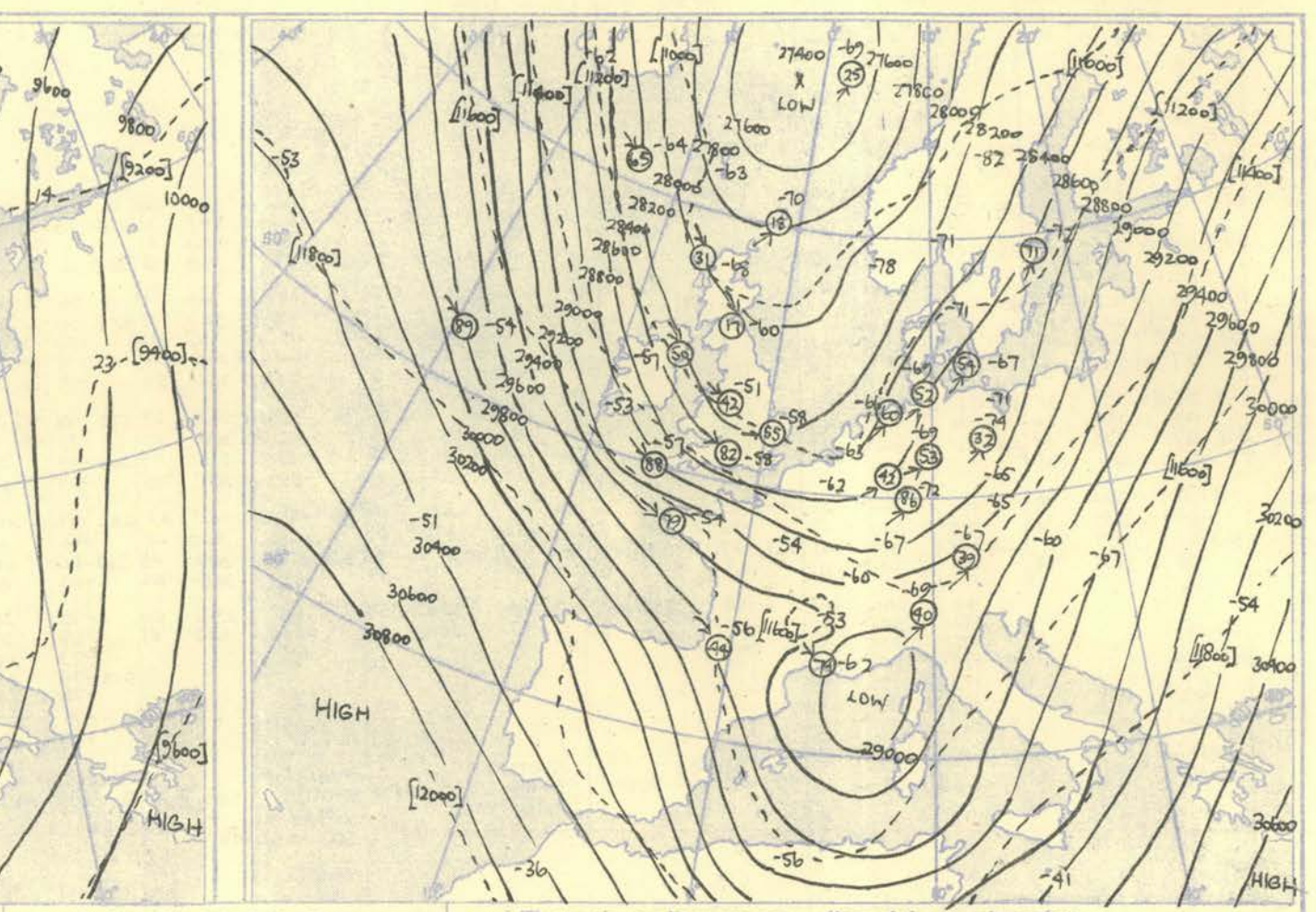
	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	988 mb 28° - 965 mb 32°				998 mb 26° - 983 mb 30°	913 mb 20° - 893 mb 21°	883 mb 20° - 832 mb 21°		
Isothermal	620 - 600 mb -16°	836 - 800 mb 08°	1000 mb 25° - 965 mb 27°		816 - 800 mb 13°		938 - 920 mb 22°		
Inversion									
Tropopause	I 329 mb -68° 26,000'	I 436 mb -61° 19,700'	I 296 mb -78° 28,200'	II 370 mb -60° 23,600'	II 374 mb -62° 23,100'	I 338 mb -57° 25,500'	I 391 mb -49° 22,500'	I 258 mb -59° 31,600'	

Friday 15th December. 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



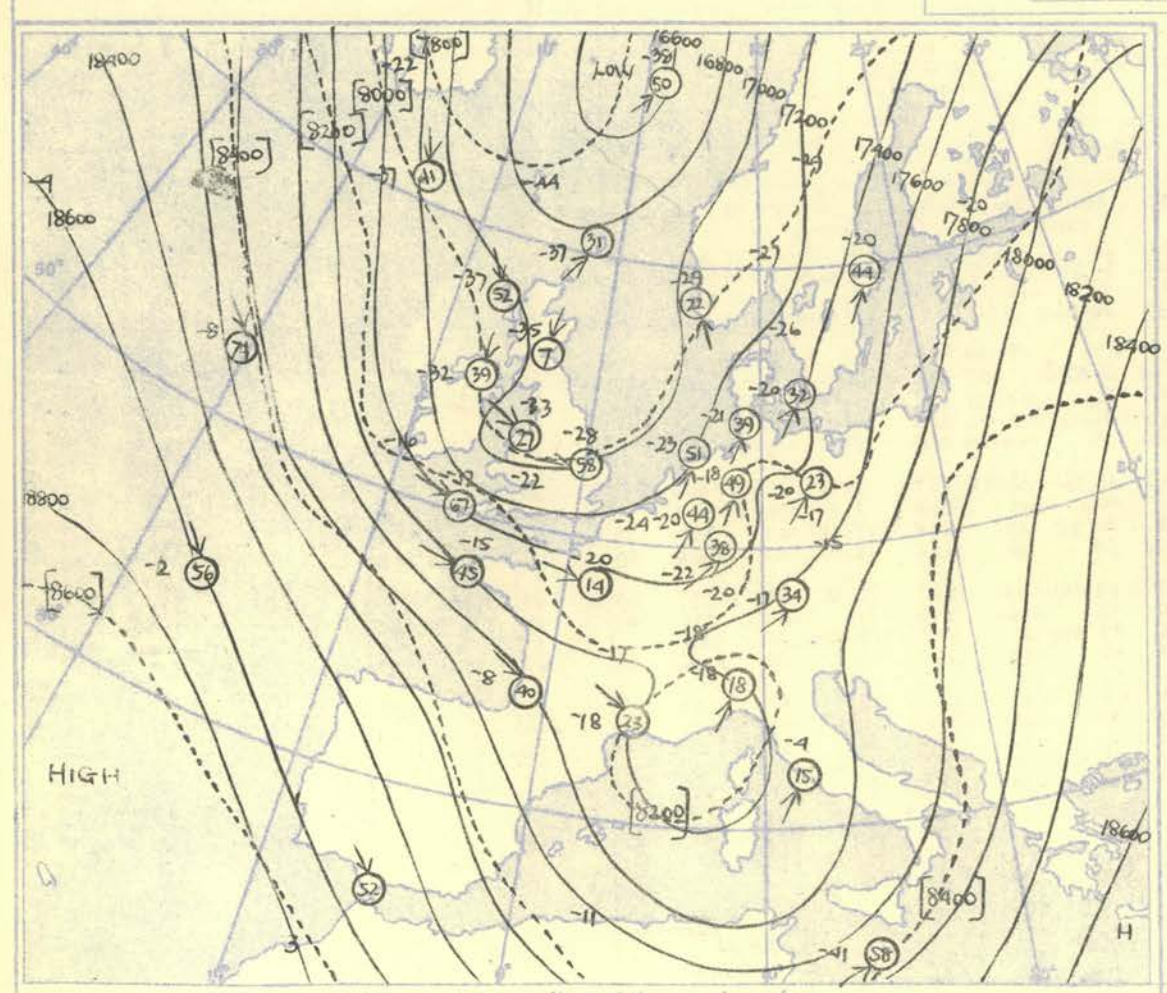
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



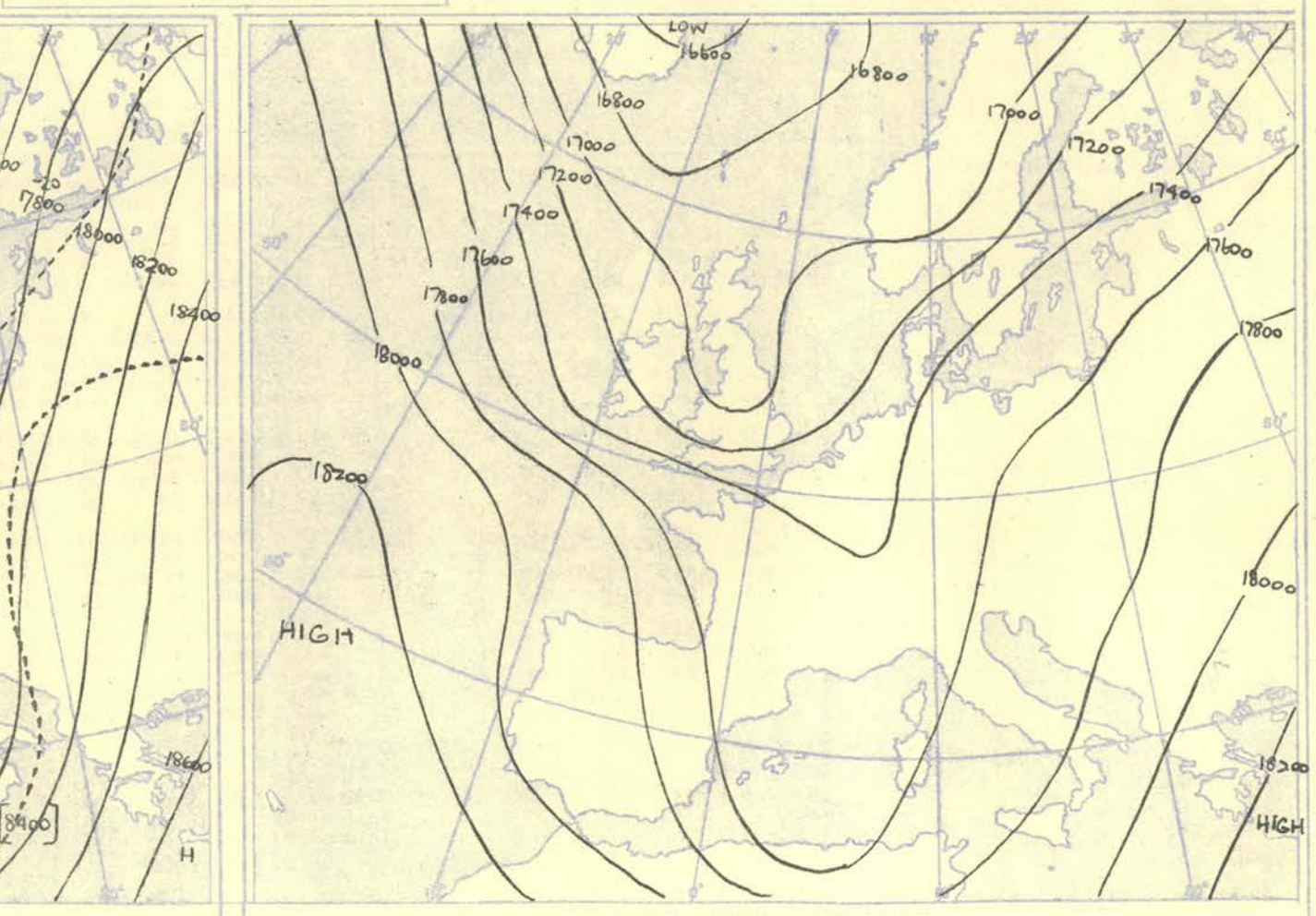
The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 20 10 5 knots



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

Friday 15th December 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43.2 N. 17.0 W.			39.5 N. 12.2 W.			53.1 N. 01.3 E.		
Pressure: Time	13h.			15h.			15h.		
M.S.L.	1022 mb			1017 mb			993 mb		
Surf	1019 mb			1014 mb			991 mb		
Freezing	750 mb			750 mb			947 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		55	53		59	58	0.5	37	35
1000	6.1	51	51	4.8			-1.9		
950		47	47		53	53			
900		45	45		48	47	25.9	31	30
850		41	41		43	42		21	
800		39	39		40	40	56.2	16	
750		32	32		32			09	
700	101	26		101	28		89.6	01	
650		20			24			-07	
600		13			15		12.7	-15	
550		02			06			-26	
500	186	-03		185	-05		16.9	-36	
450								-47	
400							21.8	-56	
350								-61	
300							27.9	-61	
250									
200									
170									

43.2 N. 17.0 W.:
Cloud.
8/8 Sc
990-930 mb
2/8 Ac
N.H.G
2/8 Ci NR
Surface
Wind N.W'ly
17-21 Kts

39.5 N. 12.2 W.:
Cloud
6/8 Sc
980-930 mb
5/8 Sc
850-800 mb
2/8 Ac
670-650 mb
Surface
Wind N'Wly
11-16 Kts

53.1 N. 01.3 E.:
Cloud
4/8 Sc
975-850 mb
2/8 Cu
975-700 mb
1/8 C.N.G.
975-500 mb
Isothermal
940-900 mb
31°
350-300 mb
-61°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Aldergrove		Shoeburyness		Downham		Lerwick	
Time	1145h.		11h.		21h.		21h.	
Type								
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	CALM		320	12			350	18
1,000	360	10	330	30			340	27
2,000	010	13	340	25			350	24
3,000	010	21	340	26			350	24
4,000	360	29	330	17			350	24
5,000	360	36	330	18			350	31
6,000	350	37	340	19			350	32
8,000	340	39	340	17			340	36
10,000	340	39	350	18			340	36
14,000	320	39	300	22			340	24
18,000	350	45	240	15			340	18
24,000	320	37	230	22			210	06
30,000	330	46	260	34			350	13
40,000	310	49	270	48			350	17
50,000	330 (46,000')	44	280 (48,000')	40	310	33	330	22
60,000							310	27
70,000							300	25

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER				
Lat/Long	61.1 N 14.0 W					60.9 N. 14.0 W					61.1 N 14.0 W				
Pressure: Time	03h. G.M.T.					09h. G.M.T.					15h. G.M.T.				
M.S.L.	1009 mb					1012 mb					1015 mb				
Surf	1009 mb					1012 mb					1015 mb				
Freezing	1000 mb					1010 mb					780 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		34	29	010	27		33	27	015	27		36	24	350	25
1000	2.4	33	29	349	29	3.2	30	23	353	30	3.7	34	24	340	27
950		25	21	350	30		24	16	351	33		29	22	340	28
900	29.6	17	15	348	37	30.4	17	09	343	36	31.1	21	16	340	29
850		10	06	344	34		10	03	343	36		13	08	341	30
800	59.1	05	00	341	30	59.9	04	-03	345	33	60.7	05	05	344	28
750		-03	-10	342	28		-02	-23	341	29		-03	-03	351	24
700	91.6	-10	-16	341	22	92.4	-10	-24	345	30	93.3	-10	-12	355	26
650		-18	-23	343	21		-18	-29	345	23		-13	-20	356	27
600	12.9	-23	-29	343	30	129	-21	-34	352	45	13.0	-17	-28	356	36
550		-29	-36	340	41		-26	-40	352	48		-23	-36	347	48
500	170	-37	-44	337	41	171	-33	-47	352	60	173	-28	-40	343	61
450		-44		336	43		-42		353	60		-37	-49	344	72
400	21.9	-52		336	54	221	-52		354	59	223	-46		342	79
350		-60		331	65		-61		351	71		-56		343	96
300	281	-64		324	65	282	-66		350	75	285	-66		345	105
250		-59		329	66		-63		350	87		-68		345	96
200	367	-65		330	72	367	-66		349	81	370	-65		345	74
170		-65		324	68		-68		349	66		-69		345	75
150	427	-67		323	63		-72		350	63		-71		345	58
130		-69		334	65		-74		348	66		-84		345	55
110		-72		334	63		-80		348	56		-75		345	61
100	511	-74		334	59	(108 mb)	-81				513	-78		345	60
90		-77		334	56							-81		345	50
80		-81		334	48							-82		345	50
70												-84		345	48
60												-84			
											(52 mb)	-84			
Tropopause	I 287 mb -67° 28,100'					I 313 mb -67° 27,300'					II 278 mb -68° 30,100'				

61.1 N 14.0 W, 03h.:
Isothermal
618-583 mb -23°
Inversion
330 mb -63°-310 mb -62°

60.9 N. 14.0 W, 09h.:
Isothermal
643-628 mb -19°

61.1 N 14.0 W, 15h.:
Isothermal
664-650 mb -13°
550-536 " -23°

Ship	WEATHER OBSERVER					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	60.9 N 14.2 W					52.5 N 19.9 W					52.4 N 19.9 W				
Pressure: Time	21h. G.M.T.					03h G.M.T.					09h G.M.T.				
M.S.L.	1018 mb					1016 mb					1019 mb				
Surf	1018 mb					1016 mb					1019 mb				
Freezing	990 mb					920 + 775 mb					910 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		35	25	355	23		45	31	320	25		46	33	355	19
1000	4.6	33	24	333	21	4.3	43	31	321	25	5.1	44	33	343	21
950		27	22	340	21		36	27	321	27		37	29	342	24
900	31.9	20	16	355	21	32.3	29	23	325	28	33.1	30	25	345	28
850		14	09	355	21		20	16	328	31		21	17	347	33
800	61.6	08	02	350	20	62.8	30	08	334	45	63.4	17	03	344	40
750		01	-04	346	22		28	04	334	54		27	-08	342	55
700	94.4	-09	-15	342	30	97.5	21	03	332	60	97.9	27	-12	337	59
650			-23	344	36		15	02	327	64		20	-24	333	59
600	132		-28	347	45	137	10	01	323	75	137	12	-29	332	64
550			-26	345	63		03	-21	323	79		03	-34	333	65
500	175	-20	-30	347	75	181	-08	-36	321	74	182	-08	-40	333	61
450		-27	-37	347	90		-17	-38	320	74		-19	-49	331	63
400	227	-33	-43	347	120	234	-28	-44	317	72	235	-28	-54	333	76
350		-45		351	127		-41		297	70		-39	-59	330	81
300	290	-59		349	125	298	-54		305	89	299	-52		335	73
250		-74		248	119		-68		304	89		-67		328	79
200	374	-73		348	90	383	-80		304	84	384	-81		320	78
170		-71		348	72		-83		306	73		-79		320	78
150		-71		348	61	441	-85		310	67		-80		320	72
130		-73		348	62		-81		314	64		-75		320	66
110		-79		348	62		-82		314	60		-79		317	60
100	517	-79		347	60		-83		314	60	525	-78		317	56
90		-79		341	54		-85		318	59		-80		316	61
80		-81		334	43							-82		314	48
70		-84		322	37						(72 mb)	-82			
60	(66 mb)	-85													
Tropopause	I 250 mb -74° 32,900'					II 212 mb -80° 37,000'					I 200 mb -81° 38400'				

60.9 N 14.2 W, 21h.:
Isothermal
683-629 mb -06°

52.5 N 19.9 W, 03h:
Inversion
850 mb 20°-783 mb 33°

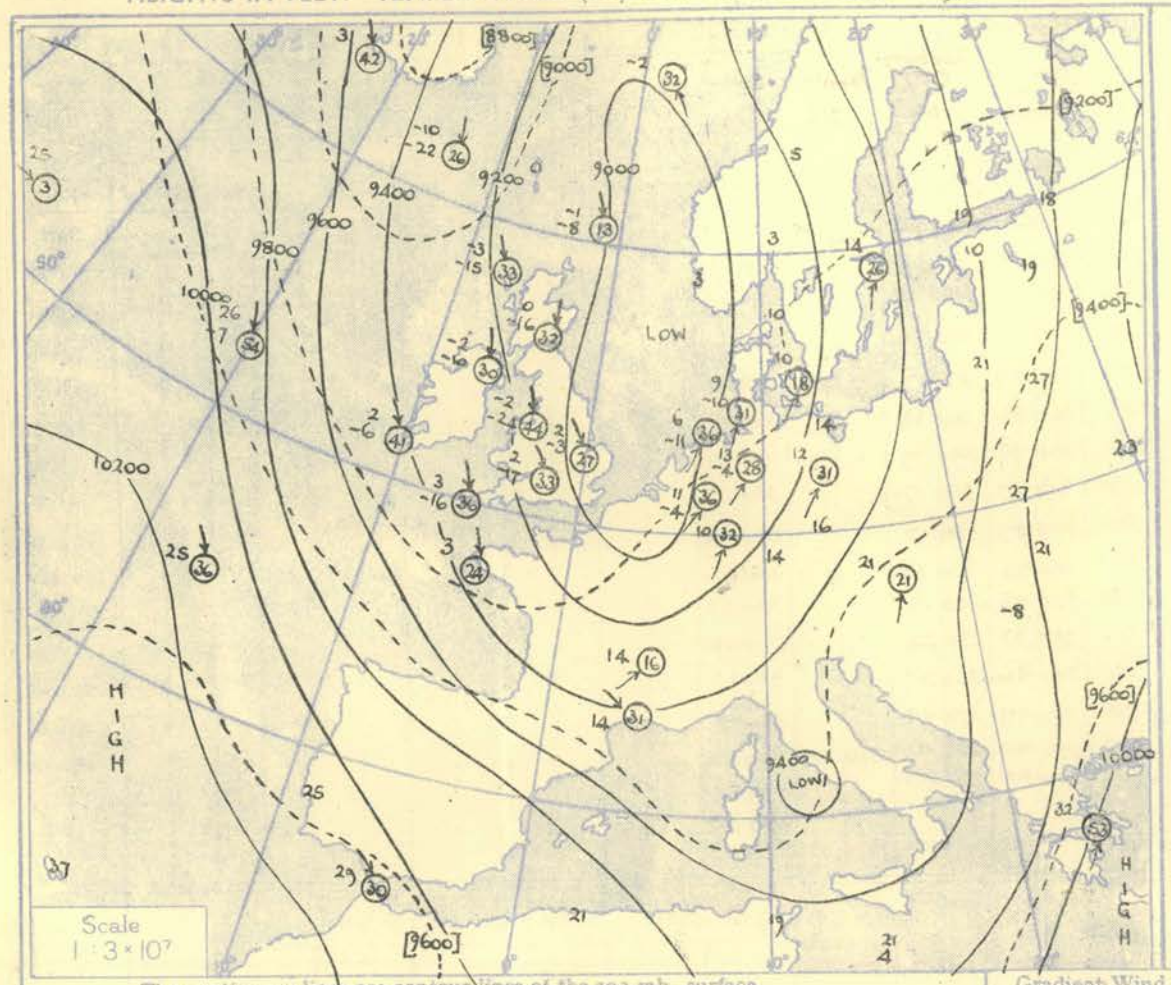
52.4 N 19.9 W, 09h:
Inversion
800 mb 17°-770 mb 29°
718 " 25°-700 " 27°
Isothermal
750-730 mb 27°

Ship	WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	52.3 N 19.8 W					52.4 N 20.1 W				
Pressure: Time	15h. G.M.T.					21h. G.M.T.				
M.S.L.	1023 mb					1026 mb				
Surf	1023 mb					1026 mb				
Freezing	940 mb					930 + 750 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	27	355	16		45	28	010	06
1000	6.0	40	25	352	17	6.9	42	27	354	06
950		33	22	349	16		35	24	355	07
900	33.7	26	18	345	17	34.8	28	20	355	08
850		19	13	343	23		21	13	355	09
800	63.9	27	02	341	35	65.3	33	-10	356	12
750		30	-03	341	43		32	-32	352	25
700	98.7	26	-07	338	54	100	25	-37	347	27
650		19	-13	334	55		21	-40	328	35
600	138	11	-20	334	63	140	13	-46	327	43
550		01	-28	332	64		03	-34	329	47
500	183	-08	-35	320	65	185	04	-28	329	55
450		-16	-40	317	63		-15	-35	324	51
400	236	-27	-49	328	63	237	-28	-44	328	54
350		-41		330	65		-40	-55	331	52
300	(305 mb)	-52				302	-57		331	56
250							-71		330	62
200						385	-82		328	72
170							-78		328	67
150							-81		324	55
130							-78		328	60
110							-81		322	54
100						526	-83		323	52
90							-85		325	47
80							-85		320	47
70							-84		325	52
60										
Tropopause	N.R.					I 214 mb -83° 37,100'				

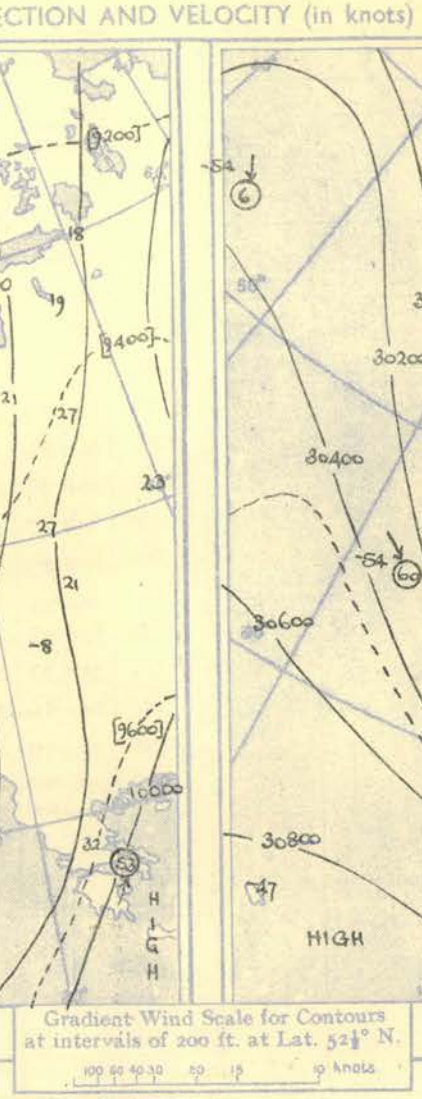
52.3 N 19.8 W, 15h.:
Inversion
841 mb 18°-739 mb 31°

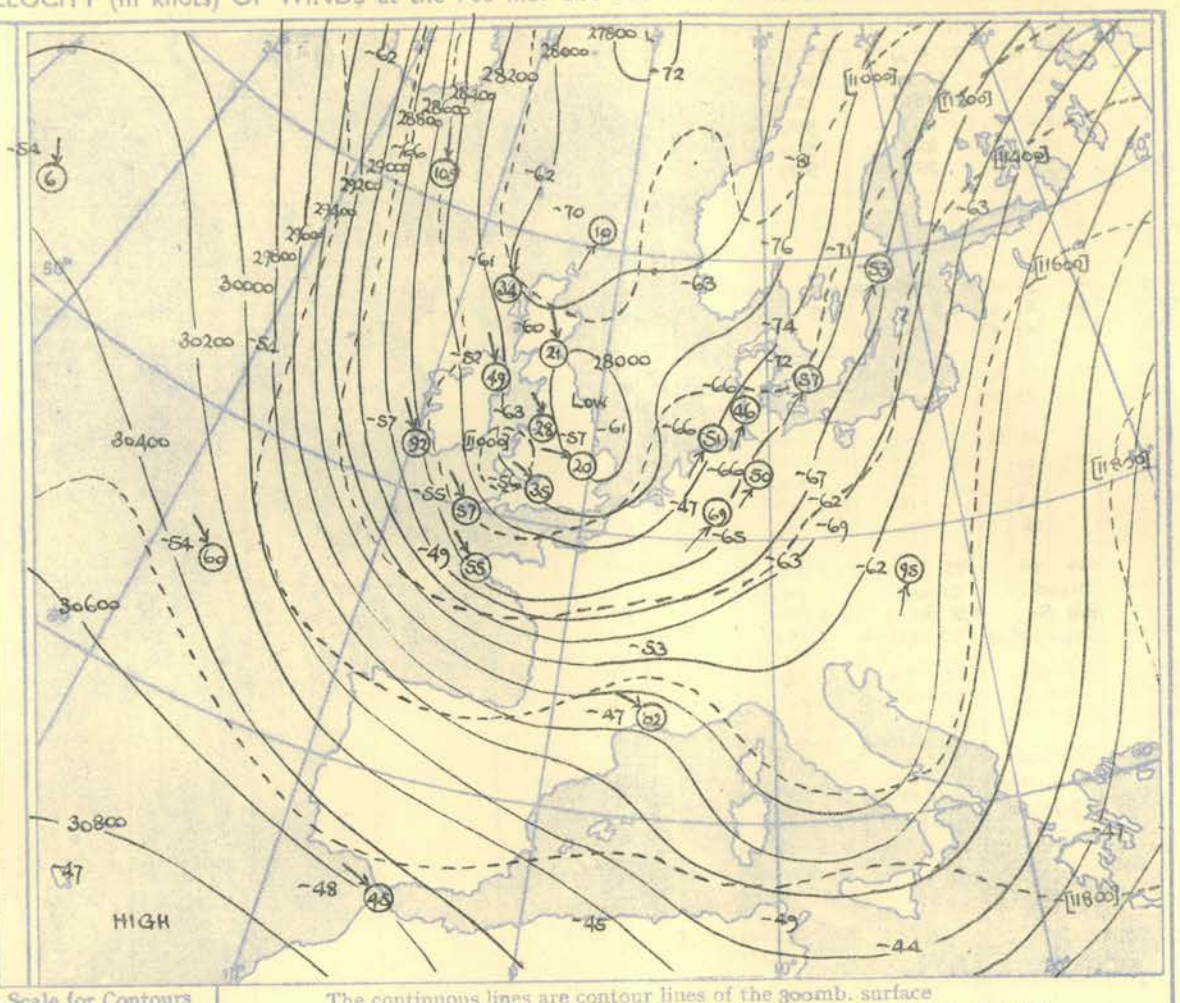
52.4 N 20.1 W, 21h.:
Inversion
837 mb 20°-804 mb 33°
Isothermal
804-755 mb 33°

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



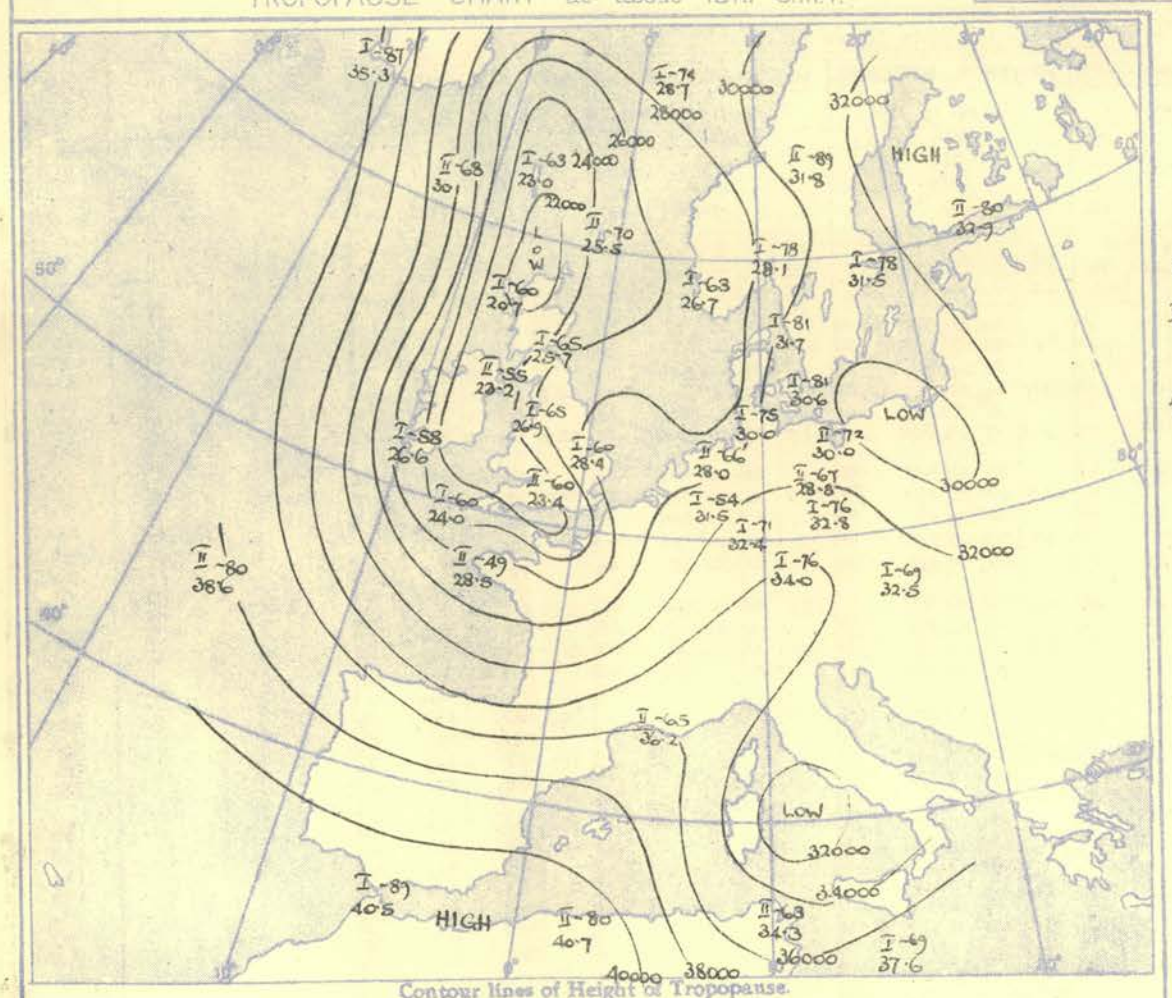
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb





The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The major cold trough over Britain sharpened as the very cold air penetrated into France and somewhat warmer air advanced towards the Faeroes from both Iceland and Norway.

The broad pattern of warm ridge in the central Atlantic and cold trough over Britain showed little change.

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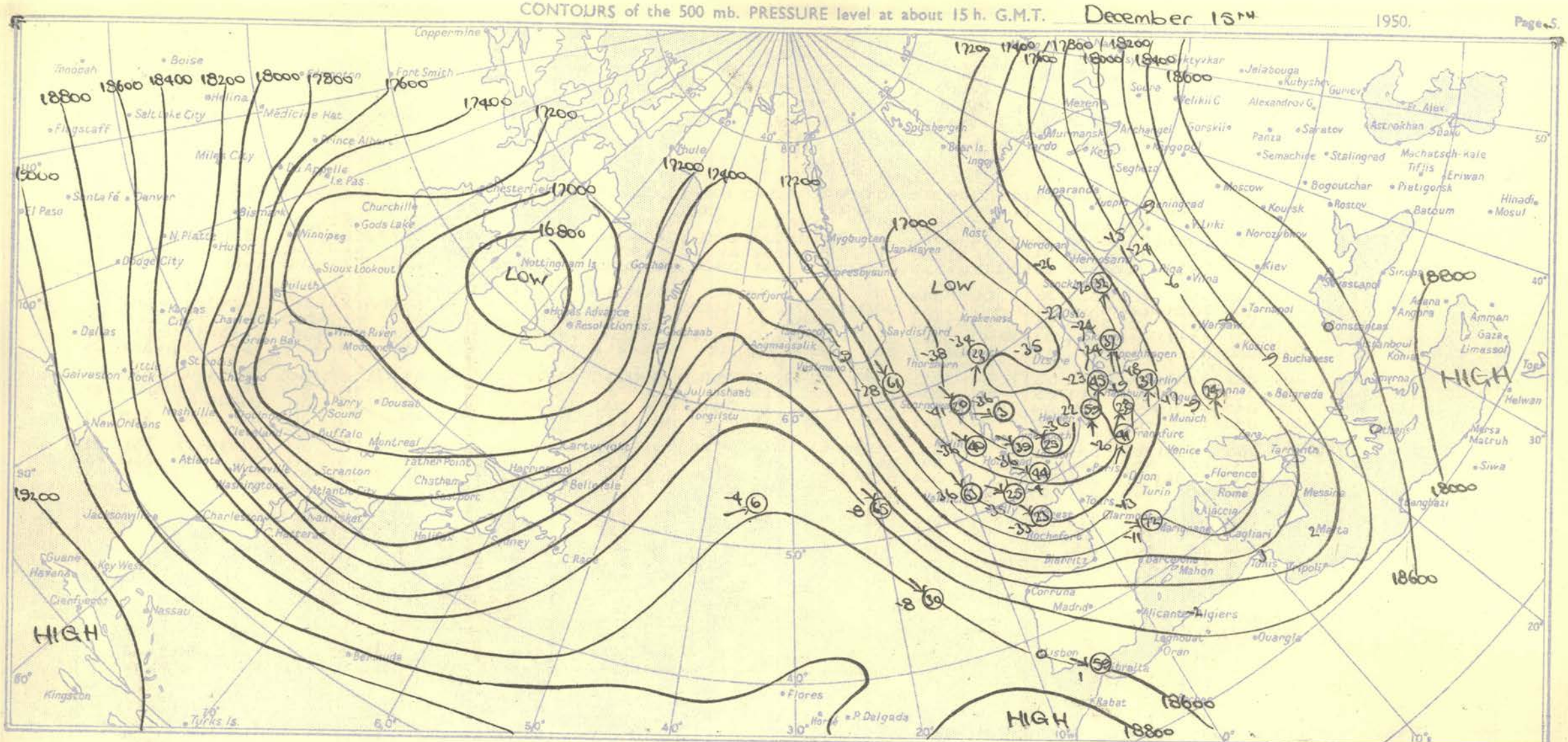
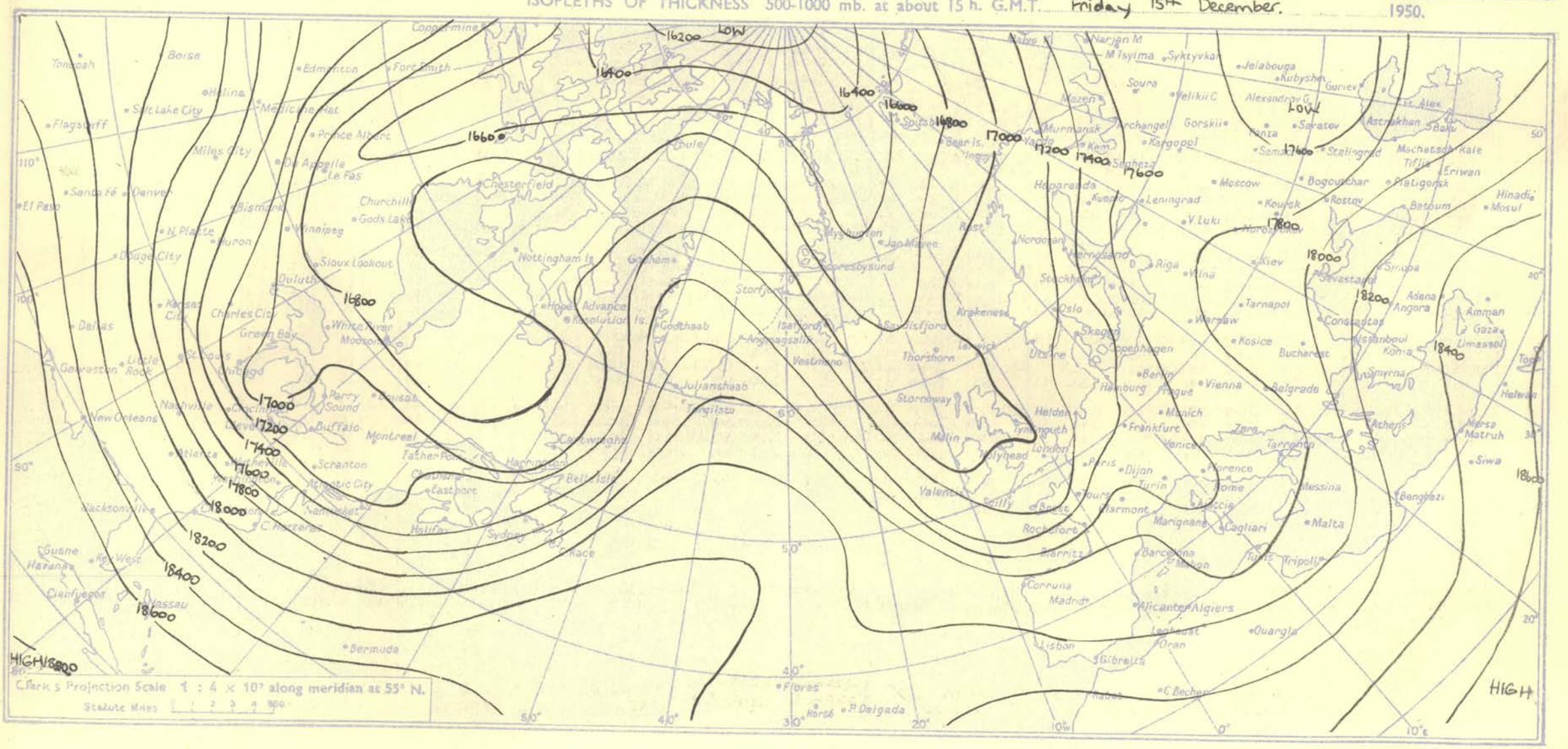
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. December 15th 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Friday 15th December. 1950.



Clark's Projection Scale 1 : 4 × 10⁷ along meridian at 55° N.
Statute Miles

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15 hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia
Pressure: Time	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.
Pressure: M.S.L.	998·3 mb	1003·9 mb	1000·0 mb	1005·3 mb	1000·9 mb	996·1 mb	1000·6 mb	1006·2 mb	1011·8 mb
Pressure: Surf	988·0 mb	1002·4 mb	999·1 mb	996·1 mb	998·8 mb	991·5 mb	984·1 mb	995·5 mb	1011 mb
Pressure: Freezing	960 mb	947 mb	988 mb	996·1 mb	Surface mb	Surface mb		932 mb	950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	29	24	360	06
1000	+0·3				
950	31	27	33	335	14
900	27·0	25	22	338	14
850	19	18	23	339	14
800	57·0	12	09	338	16
750	05	-01	33	335	18
700	20·1	-1	-8	340	13
650	-9	-20	34	346	10
600	127	-18	-29	215	07
550	-24	-34	21	7	18
500	169	-34	-43	195	22
450	-46			190	24
400	219	-54		187	30
350	-67			180	29
300	279	-70		191	10
250	-68			342	06
200	364	-64		347	07
170	-68			322	13
150	-68			316	17
130	-72			316	18
110	-72			307	18
100	508	-71		309	20
90	-69			305	22
80	-68				
70	(83)				
60	Inversion 988 mb 29° - 974 mb 34°				
STORNOWAY					
Surf	0·4	36	26	360	13
1000	0·9	36	26		
950		33	20	346	35
900	28·5	25	15	347	34
850		17	09	349	31
800	58·5	10	04	351	30
750		02	-4	349	30
700	91·4	-3	-13	334	33
650		-12	-31	325	33
600	128	-23	-35	337	25
550		-32	-45	350	22
500	170	-41		358	20
450		-53		358	20
400	218	-59		349	21
350		-62		343	33
300	279	-61		355	34
250		-61		346	40
200	365	-64		345	36
170		-65		330	40
150		-63		324	42
130		-67		333	37
110		-72		323	39
100	510	-75		328	46
90		-77		324	45
80		-78		308	43
70					
60	Inversion 1002 mb 36° - 982 mb 37°				
LEUCHARS					
Surf	0·2	33	26	320	14
1000	00·0				
950		29	22	325	28
900	21·5	24	16	344	30
850		19	08	355	32
800	57·6	14	01	359	31
750		07	-9	357	30
700	91·0	00	-16	359	32
650		-9	-25	360	33
600	128	-18	-31	354	27
550		-26	-39	352	13
500	170	-36	-51	273	03
450		-45		287	03
400	219	-52		306	06
350		-62		307	10
300	281	-60		341	21
250		-57		348	19
200	368	-58		329	30
170		-61		321	27
150		-58		325	24
130		-63		331	24
110		-68		316	31
100	513	-68		308	32
90		-72			
ALDERGROVE					
Surf	02·6	32	29	320	10
1000	01·6				
950		27	24	323	15
900	29·1	24	16	326	18
850		18	10	330	22
800	59·2	13	02	337	25
750		06	-7	340	27
700	92·4	-2	-10	338	30
650		-10	-17	330	27
600	129	-17	-23	325	33
550		-25	-34	320	38
500	172	-36	-45	323	40
450		-44		330	38
400	221	-51		333	37
350		-55		327	39
300	283	-52		330	49
250		-50		341	39
200	371	-51		324	50
170		-55		325	49
150		-57		323	51
130		-60		314	43
110		-62		296	51
100	520	-63		301	46
90		-63		321	45
LIVERPOOL					
Surface	0·6	32	24	340	10
1000	0·2				
950		28	18	335	27
900	27·7	22	13	336	30
850		16	06	338	32
800	57·7	10	-3	341	34
750		03	-14	344	42
700	89·3	-3	-24	344	44
650		-7	-34	332	45
600	128	-14	-40	320	45
550		-25	-48	315	42
500	170	-36	-57	318	39
450		-48		315	32
400	219	-56		318	30
350		-59		331	27
300	280	-63		325	28
250		-58		315	27
200	367	-58		317	31
170		-59		314	46
150		-62		318	37
130		-65		313	46
110		-62		304	41
100	514	-64		296	39
90		-66		300	34
80		-65		313	35
70		-72		299	40
60		-76		281	42
		-75			
	Inversion 368 mb 55° - 357 mb 58°				
DOWNHAM MARKET					
Surface	01·2	29	25	320	27
1000	+01·0				
950		25	21	337	39
900	26·3	26	24	345	42
850		21	19	353	39
800	56·5	16	12	355	32
750		10	04	347	28
700	89·2	02	-3	355	27
650		-6	-13	335	26
600	127	-15	-26	338	27
550		-25	-38	343	27
500	169	-37	-47	335	25
450		-49		330	22
400	218	-59		326	15
350		-61		273	11
300	280	-57		273	20
250		-58		259	13
200	366	-60		280	26
170		-57		283	32
150		-61		283	30
130		-64		287	31
110		-65		288	42
100	514	-66		285	44
90		-66		285	42
	Inversion 940 mb 24° - 920 mb 27°				
LARKHILL					
Surface	4·4	25	22	350	15
1000	0·2				
950		28	21	323	33
900	27·5	21	17	329	39
850		17	09	350	40
800	57·4	12	-2	350	33
750		09	-5	344	30
700	90·7	02	-17	338	33
650		-3	-22	339	34
600	128	-12	-31	343	37
550		-22	-40	343	44
500	171	-33	-50	341	44
450		-43		339	46
400	220	-55		331	46
350		-60		325	44
300	282	-56		304	33
250		-51		299	38
200	370	-53		290	42
150		-61		284	44
130		-64		290	50
110		-63		298	57
100	517	-61		299	55
90		-61		298	43
80		-62		293	37
70		-64		288	31
60		-69			
	Inversion 984 mb 29° - 963 mb 30° 934 mb 11° - 773 mb 12° Isothermal 850 - 830 mb 17°				
CAMBORNE					
Surf	02·9	29	27	350	12
1000	01·7				
950		24	24	333	24
900	29·5	28	20	335	24
850		20	13	343	35
800	59·7	12	06	348	36
750		09	-3	342	38
700	93·1	03	-16	327	36
650		-5	-36	329	32
600	130	-14	-44	318	27
550		-24	-54	311	25
500	173	-35	-58	303	25
450		-47		315	26
400	212	-57		311	52
350		-57		323	50
300	284	-55		322	57
250		-55		312	58
200	371	-57		308	64
150		-61		307	55
130		-64			
110		-67			
	Inversion 785 mb 39° - 773 mb 41°				
Valentia					
Surf	0·3	38	33	180	04
1000	0·2	38	32	Calm	
950		33	29	315	13
900	31·0	26	22	324	21
850		20	16	325	28
800	61·1	15	10	320	33
750		08	03	320	38
700	94·3	02	-6	315	41
650		-4	-17	321	43
600	132	-16	-25	321	50
550		-28	-36	324	54
500	174	-36	-49	329	62
450		-40	-56	335	79
400	224	-47			
350		-56		339	84
300	286	-57		332	92
250		-63		330	85
200					
150					
130					
110					
100					
90					
80					
70					
60					
	Isothermal 1011 - 993 mb 38°				
Tropopause	II 342 mb -70° 25500'	I 423 mb -60° 20700'	I 336 mb -65° 25700'	II 380 mb -55° 23200'	I 317 mb -65° 26900'	I 394 mb -60° 24400'	II 377 mb -60° 23400'	I 368 mb -60° 24000'	I 328 mb -58° 26600'

21 hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	
Pressure: Time	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21 hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	G.M.T.
Pressure: M.S.L.	998·6 mb	1006·5 mb	1001·5 mb	1008·0 mb	1002·8 mb	999·6 mb	1003·8 mb	1009·1 mb	mb
Pressure: Surf	988·3 mb	1004·8 mb	1000·6 mb	998·1 mb	1000·7 mb	995·0 mb	987·1 mb	998·3 mb	mb
Pressure: Freezing	956 mb	931 mb	Surface mb	975·0 mb	Surface mb	Surface mb	987 mb	940 mb	mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	32	26	330	11
1000	-0·4				
950	31	24	34	340	18
900	27·2	26	21	346	19
850	19	14	35	350	24
800	57·2	12	02	351	27
750	03	-8	35	357	24
700	90·4	00	-15	001	22
650	-9	-25	00	2	22
600	127	-17	-32	356	24
550	-28	-47	35	1	23
500	169	-39	-56	348	18
450	-47			287	07
400	218	-57		153	12
350	-68			200	08
300	279	-68		353	09
250	-69			352	17
200	364	-66		004	18
170	-66			336	18
150	-71			324	18
130	-74			329	19
110	-77			331	21
100	508	-80			
90		-81			
80		(94)			
70					
60					
	Inversion 988 mb 32° - 967 mb 33°				
STORNOWAY					
Surf	0·4	37	30	360	13
1000	01·7	37	30		
950		34	26	350	30
900	25·6	27	20	348	30
850		19	14	351	30
800	59·8	13	08	352	30
750		07	-2	351	32
700	93·0	-1	-16	346	29
650		-10	-26	343	24
600	130	-19	-35	344	20
550		-29	-41	348	18
500	172	-39	-48	348	20
450		-51		358	21
400	221	-54		358	19
350		-58		007	54
300	283	-56		354	54
250		-59		351	50
200	369	-61		351	48
170		-60		342	45
150		-64		342	35
130		-68		330	41
110		-71		334	46
100	515	-72			
	Inversion 1005 mb 27° - 987 mb 30°				
LEUCHARS					
Surf	0·2	28	24	290	07
1000	0·4	28	24		
950		29	25	326	24
900	27·9	24	20	346	29
850		19	16	357	30
800	58·6	13	11	007	30
750		07	04	009	27
700	91·2	00	-4	007	27
650		-9	-14	001	24
600	128	-19	-26	012	21
550		-29	-38	013	24
500	170	-39	-49	017	14
450		-49		L.Y	
400	219	-58		L.Y	
350		-65		356	12
300	280	-60		340	18
250		-62		344	30
200	366	-61		346	28
170		-64		349	30
150		-66		340	26
130		-69		325	32
110					
100					
90					
	Inversion 1001 mb 28° - 970 mb 31°				
ALDERGROVE					
Surf	02·6	29	28	340	05
1000	02·1				
950		30	25	336	21
900	29·7	24	16	334	30
850		18	11	346	35
800	59·8	12	05	350	36
750		06	03	354	36
700	92·9	-3	-12	358	37
650		-12	-18	358	35
600	130	-20	-28	346	33
550		-30	-35	347	37
500	170	-40	-45	340	38
450		-51		340	42
400	220	-59		342	44
350		-65		344	57
300	282	-54		358	52
250		-59		344	50
200	369	-62		338	50
170		-59		342	50
150		-65		336	47
130		-70		320	40
110		-68			
	Inversion 998 mb 29° - 985 mb 33°				
LIVERPOOL					
Surface	0·6	27	18	350	10
1000	0·7				
950		30	15	342	27
900	28·1	23	05	339	28
850		17	01	342	30
800	58·1	11	-6	343	31
750		04	-20	336	30
700	91·1	-4	-29	340	30
650		-12	-36	346	29
600	128	-21	-44	342	27
550		-31	-53	343	27
500	170	-41		331	31
450		-52		324	27
400	218	-57		331	13
350		-61		350	15
300	279	-60		323	27
250		-59		330	34
200	366	-59		336	30
170		-63		323	32
150		-63		310	35
130		-67			
	I 422 mb -58° 20600' I 358 mb -62° 24100'				
DOWNHAM MARKET					
Surface	01·2	29	25	320	27
1000	-01·0				
950		26	20	329	37
900	27·4	26	22	338	37
850		20	16	342	36
800	57·5	14	11	343	32
750		08	03	343	27
700	90·8	02	-3	355	21
650		-6	-11	357	16
600	128	-15	-18	355	07
550		-25	-31	012	04
500	170	-35	-40	052	03
450		-47		110	08
400	220	-56		143	07
350		-65		327	13
300	280	-64		316	15
250		-61		309	18
200	367	-60		310	22
150		-63		298	20
130		-63		303	38
110		-62		306	39
100	514	-66		304	33
90		-71			
	Inversion 950 mb 26° - 920 mb 28°				
LARKHILL					
Surface	4·4	26	19	310	13
1000	01·0				
950		28	18	323	32
900	28·5	24	14	333	34
850		15	07	336	35
800	58·3	13	00	338	36
750		06	-10	337	36
700	91·6	-2	-19	327	38
650		-10	-26	324	41
600	129	-19	-33	324	43
550		-29	-43	324	42
500	171	-39	-53	313	40
450		-47		310	33
400	220	-56		313	24
350		-64		310	27
300	281	-60		310	42
250		-53		324	36
200	368	-58		318	32
150		-64		303	36
130		-63		303	38
110		-62		306	39
100	514	-66		304	33
90		-71			
	Inversion 987 mb 26° - 967 mb 29°				
CAMBORNE					
Surf	02·9	29	28	360	12
1000	02·5				
950		33	23	320	25
900	30·2	26	18	316	28
850		21	13	315	29
800	60·4	15	07	317	30
750		09	01	312	33
700	93·7	01	-8	325	36
650		-7	-18	323	38
600	131	-16	-29	316	44
550		-24	-37	314	53
500	173	-35	-47	317	65
450		-45		320	62
400	223	-55		321	58
350		-55		320	65
300	285	-57		327	67
250		-57		324	64
200	374	-57		325	55
150		-56 (194)			
130					
110					
100					
90					
80					
70					
60					
	Inversion 950 mb 45° - 930° - 44°				
Tropopause	I 337 mb -71° 25400'	I 361 mb -59° 24200'	II 365 mb -65° 23900'	I 415 mb -59° 21200'	I 422 mb -58° 20600' I 358 mb -62° 24100'	I 350 mb -65° 24800'	I 330 mb -66° 26000'	II 344 mb -76° 25500'	

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No. 11584 **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Saturday 16th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
Pressure: M.S.L.	100·5 mb	1010·1 mb	1004·6 mb	1011·3 mb	1004·8 mb	1001·9 mb	1005·6 mb	1010·3 mb	1017·8 mb
Pressure: Surf	990·2 mb	1008·4 mb	1003·7 mb	1002·0 mb	1002·7 mb	997·4 mb	988·9 mb	999·5 mb	1017 mb
Pressure: Freezing	770	974	967	980	975	Surf	989	941	965

Pressure mb	LERWICK Height ft./100	LERWICK °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	32·7	31	30	020	10	0·4	36	29	360	15	00·2	34	31	010	13	02·6	33	31		
1000	00·1					2·6	36	29			01·1	34	32			03·1				
950		30	28	333	18		29	23	352	32		31	29	360	31		30	29		
900	37·7	25	24	325	22	30·2	21	15	353	31	28·7	25	23	360	34	30·7	25	22		
850		20	19	325	24		15	10	348	27		19	15	360	36		19	16		
800	57·8	15	13	328	24	60·0	08	03	340	27	58·9	12	07	002	38	60·9	15	08		
750		08	06	330	21		03	-05	322	21		05	00	001	39		06	-03		
700	91·1	01	-03	334	21	92·9	-03	-11	328	18	92·0	-02	-05	359	40	94·1	-02	-16		
650		-08	-14	330	20		-12	-22	296	15		-10	-14	359	49		-09	-23		
600	128	-16	-23	326	19	130	-21	-32	289	14	129	-18	-24	359	36	131	-17	-25		
550		-24	-32	328	21		-29	-42	292	08		-27	-33	008	33		-26	-35		
500	171	-34	-44	335	21	172	-38	-52	313	12	171	-37	-42	011	32	173	-38	-48		
450		-43		338	12		-45		349	33		-49		009	24		-48			
400	220	-52		246	03	221	-51		352	51	220	-59		341	17	222	-50			
350		-61		333	09		-58		356	66		-64		346	26		-55			
300	282	-62		352	12	283	-64		354	70	281	-60		357	32	284	-59			
250		-59		352	18		-66		352	65		-61		352	33		-62			
200	368	-62		349	18	368	-67		344	59	367	-63		357	33	370	-66			
170		-64		341	19		-70		345	53		-63		348	33		-68			
150		-69		338	24		-72		344	50		-67		351	32		-69			
130		-70		339	25		-72		341	49		-73					-70			
110		-74		338	24		-76		343	40										
100	513	-78		341	24	511	-79		348	36										
90		-81					-82		341	43										
80	(82 mb)	84					-83		333	35										
70							-85		332	36										
60							-87		303	45										
							-90													

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	30	23	350	10	01·2	27	23	290	15	04·4	26	25	300	11	02·9	38	27	250	20	00·3	56	33	070	06
1000	01·2	31	23			00·6					01·4					02·7	38	27			4·8	35	32	042	10
950		29	19	344	25		28	23	329	36		30	25	331	26		34	25	337	29		30	27		
900	28·6	22	14	340	27	28·0	27	22	337	33	28·9	24	18	340	29	30·4	26	17	344	29	22·4	24	21		
850		18	08	341	29		21	13	341	30		19	02	336	26		19	09	345	30		19	16		
800	58·6	12	02	340	31	58·2	15	09	344	27	59·1	12	-07	334	25	60·5	12	04	360	34	62·4	13	08		
750		04	-06	344	34		09	04	345	25		05	-13	335	25		04	-03	350	35					
700	91·6	-04	-21	356	30	91·6	02	-07	346	26	92·2	-02	-21	333	21	93·6	-03	-14	343	33	95·5	06	-05		
650		-12	-30	007	25		-06	-15	356	27		-12	-30	330	22		-09	-25	342	36		-02	-13		
600	128	-21	-42	008	21	129	-14	-21	358	21	129	-20	-38	329	26	131	-20	-37	345	36	133	-09	-15		
550		-31	-49	008	16		-23	-30	012	13		-28	-44	324	33		-30	-47	341	35		-11	-29		
500	170	-39	-59	011	13	171	-34	-40	018	15	171	-38	-52	323	34	172	-41		340	35	176	-17	-33		
450		-49		026	07		-45		037	19		-49		327	24		-45		337	42		-23	-39		
400	219	-58		012	14	221	-56		028	20	220	-58		319	13	221	-50		336	52	227	-25	-42		
350		-63		357	25		-67		359	12		-59		323	21		-52		338	66		-35	-50		
300	280	-60		359	32	282	-60		345	16	281	-57		325	25	282	-56		354	67	290	-49			
250		-61		345	36		-59		330	15		-56		336	26		-57		336	60		-64			
200	367	-62		340	37	368	-58		317	20	369	-57		315	40	371	-58		331	63	375	-68			
170		-62		333	30		-59		315	20		-60		322	34		-58		335	52		-68			
150		-66		336	38		-62		315	22		-60		315	32		-60		327	47		-68			
130		-69		318	31		-62		311	21		-60		308	35		-65		324	46		-69			
110		-74		329	36		-65		301	27		-66					-69		321	46		-67			
100	512	-74		323	33	515	-68		296	30						518	-69		316	48	520	-66			
90		-76					-70		288	31							-70		305	47		-67			
80							-72		282	35							-72					-69			
70																(78 mb)	-73				(675 mb)	-70			
60																									

Inversion 990mb 31°-970mb 32°

Inversion 1003 mb 30°-987mb 33°

Inversion 997 mb 27°-927mb 29°

Inversion 989 mb 26°-963mb 31°

Isothermal 392 -355 mb -51°

Isothermal 500 - 463mb -23°

Tropopause: I 350mb-61° 24,900' | II 278mb-66° 29,700' | I 370 mb-65° 23,550' | II 250mb-48° 19,500' | I 353mb-64° 24,600' | II 355mb-67° 24,300' | II 382 mb-60° 22,900' | I 330 mb-57° 26,300' | II 300mb-64° 29,000'

09h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
Pressure: M.S.L.	1000·4 mb	1009·0 mb	1006·2 mb	1013·0 mb	1007·6 mb	1003·6 mb	1007·5 mb	1013·1 mb	mb
Pressure: Surf	990·2 mb	1007·3 mb	1005·3 mb Surf.	1003·1 mb Surf	1005·5 mb	999·1 mb Surf.	990·8 mb	1001·5 mb	mb
Pressure: Freezing	956	940			981		991	944	mb

Pressure mb	LERWICK Height ft./100	LERWICK °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	30	29	Calm		0·4	37	31			00·2	29	24	280	12	02·6	32	30	Calm	
1000	00·1					2·3	37	30			01·6	30	25			03·4	32	29		
950		31	27	070	13		33	25				28	23	312	24		30	27	352	31
900	27·6	26	21	071	14	30·1	27	18			29·0	22	18	329	32	31·0	25	22	350	30
850		18	09	070	15		20	13				18	14	339	56		18	14	348	29
800	57·7	14	03	060	16	60·2	14	09			59·0	15	02	342	32	61·0	12	06	350	34
750		07	-08	056	16		08	04				09	-10	344	34		06	-03	348	35
700	91·0	02	-14	038	14	93·5	01	-07			92·0	-02	-18	346	21	94·2	-01	-14	348	35
650		-08	-28	024	13		-07	-20				-06	-27	342	19		-10	-20	349	38
600	128	-16	-27	019	16	131	-17	-30			130	-15	-35	338	21	131	-20	-29	343	40
550		-27	-38	020	18		-26	-40				-26	-44	337	20		-28	-41	346	48
500	170	-33	-44	049	14	173	-32	-46			172	-37	-54	339	21	173	-32	-52	349	55
450		-43		070	12		-39	-54				-50		341	24		-38	-58	350	69
400	220	-53		065	12	223	-45				221	-62		346	35	224	-42		350	90
350		-62		027	15		-51					-58		357	42		-60		352	95
300	281	-60		010	18	285	-62				283	-57		359	36	286	-60		352	97
250		-61		006	27		-70					-61		358	45		-60		353	72
200	367	-65		003	24	370	-72				370	-61		006	45	372	-65			
170		-69		360	27		-72					-62		003	25		-64			
150		-70		344	24		-69					-65		344	27		-66			
130		-67		350	25		-74					-71		328	32		-72			
110		-76		342	25		-83					-69		348	27					
100	512	-82		347	25	512	-87				515	-75		355	27					
90		-82					-89					-79		328	35					
80	(87 mb)	82					-89					-79		323	28					
70							-90					-86								
60							-92													

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	33	27	350	15	01·2	28	24	300	12	04·9	28	25	310	14	02·9	39	27							
1000	02·0										02·0					03·3	37	27							
950		30	19	347	24		30	29	340	30		30	25	343	26		33	23							
900	29·5	24	16	350	26	28·6	26	22	344	26	29·4	24	20	352	29	31·0	25	18							
850		20	04	350	29		21	14	344	25		18	15	355	25		18	10							
800	59·6	14	-04	349	30	58·9	14	04	340	25	59·4	14	05	360	22	61·0	10	04	For Winds						
750		07	-14	349	30		08	-02	334	24		07	-06	005	18		04	-06							
700	92·8	00	-21	351	29	92·2	01	-14	334	24	92·6	01	-15	003	22	94·0	02	-17	See						
650		-03	-28	360	29		-08	-24	340	25		-09	-23	007	24		-10	-26							
600	130	-17	-39	354	29	129	-16	-30	337	22	130	-17	-32	015	19	131	-18	-32	Page 3.						
550		-27	-44	001	24		-27	-39	322	15		-25	-41	027	09		-29	-39							
500	172	-38	-53	007	20	171	-40	-57	314	18	172	-35	-49	106	07	173	-39								
450		-50		356	22		-50		316	32		-46		104	07		-44								
400	221	-59		341	29	221	-62		330	12	221	-57		011	12	222	-48								
350		-58		353	44		-72		355	15		-64		349	30		-53								
300	282	-58		351	51	281	-67		353	22	282	-58		349	38	285	-62								
250		-62		358	45		-60		345	23		-58		346	41		-63								
200	369	-61		353	36	368	-59		337	22	369	-58		347	40	370	-66								
170		-61		352	40		-62		325	20		-60		336	30		-64								
150		-62		337	37		-61		306	25		-60		322	30		-67								
130		-65		331	37		-64		321	20		-62		327	30		-72								
110		-66		319	30		-69		303	18		-65		330	29		-72								
100	515	-68		319	25	514	-73		283	22	516	-66		318	25	515	-75								
90		-69		323	30		-76					-64		308	30		-76								
80												-67		298	24		-77								
70												-69		297	31	(67 mb)	-78								
60												-69		282	37										

Inversion 990 mb 30°-986mb 34°
Isothermal
311 - 891 mb 26°
850 - 824 .. 18°

Isothermal 1007 -978mb 37°
428 - 415 .. -42°
390 - 359 .. -48°

Inversion 1005 mb 29°-975mb 31°

Inversion 980 mb 28°-960mb 30°
Isothermal
999 - 980 mb 28°
960 - 934 .. 30°

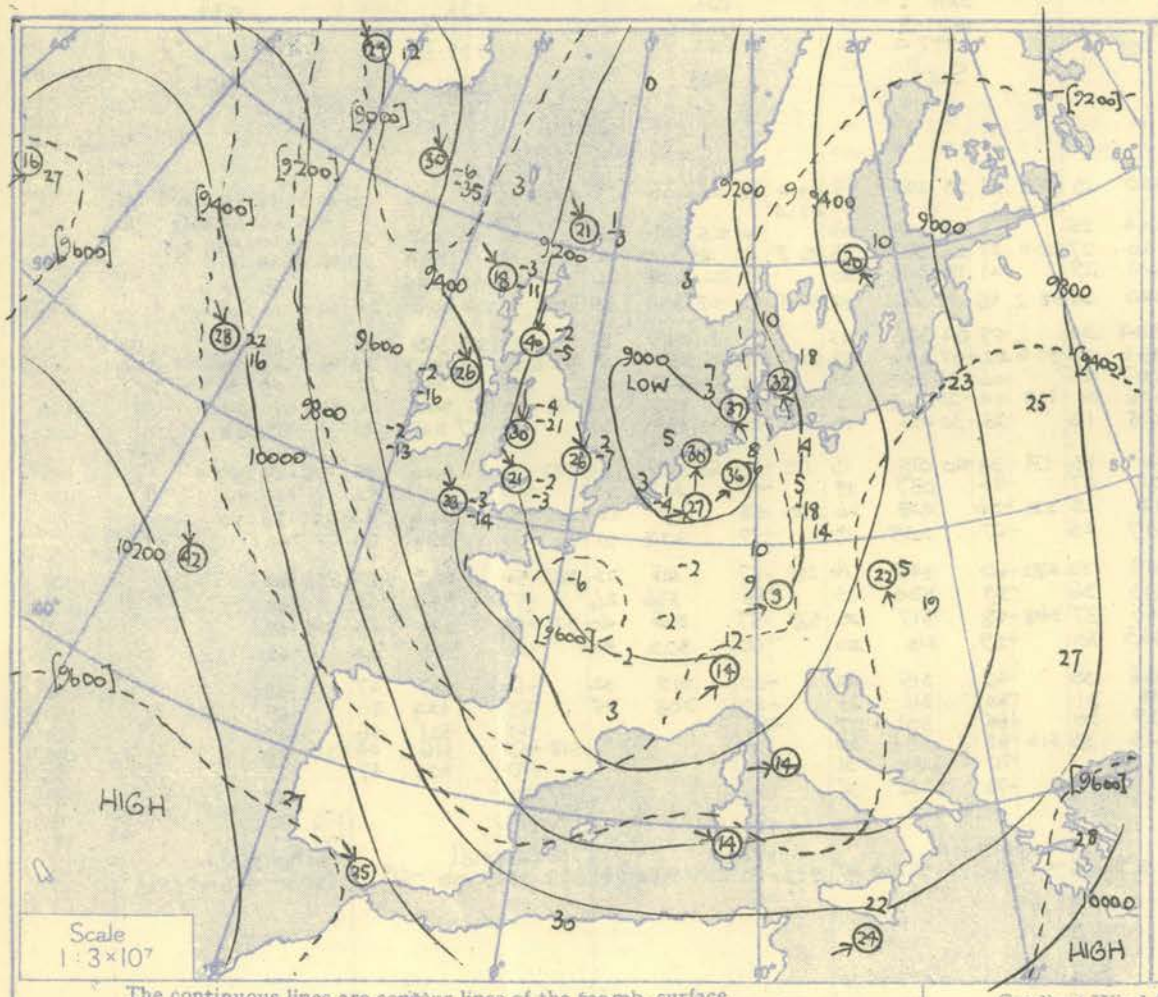
Inversion 991 mb 28°-960mb 31°
836 .. 15°- 820 .. 16°

Inversion 465 mb-45°-440 mb-43°

Tropopause: I 354mb-63° 24,600' | I 244 mb-71° 32,700' | II 400mb-62° 22,130' | III 500mb-60° 28,600' | I 400mb-59° 22,100' | I 346mb-73° 25,300' | II 358 mb-64° 29,400' | II 317mb-67° 27,200'

Saturday 16th December 1950.

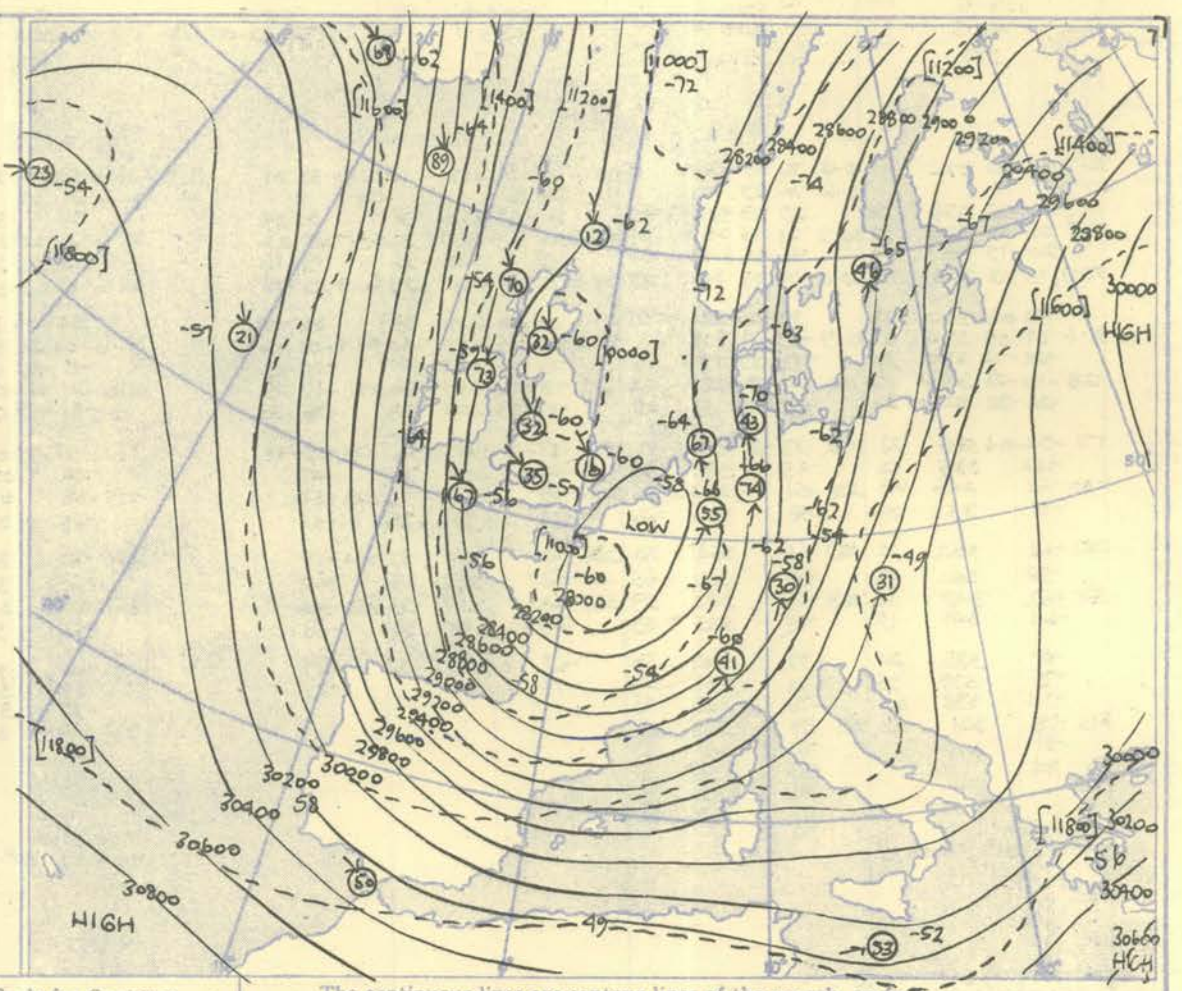
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



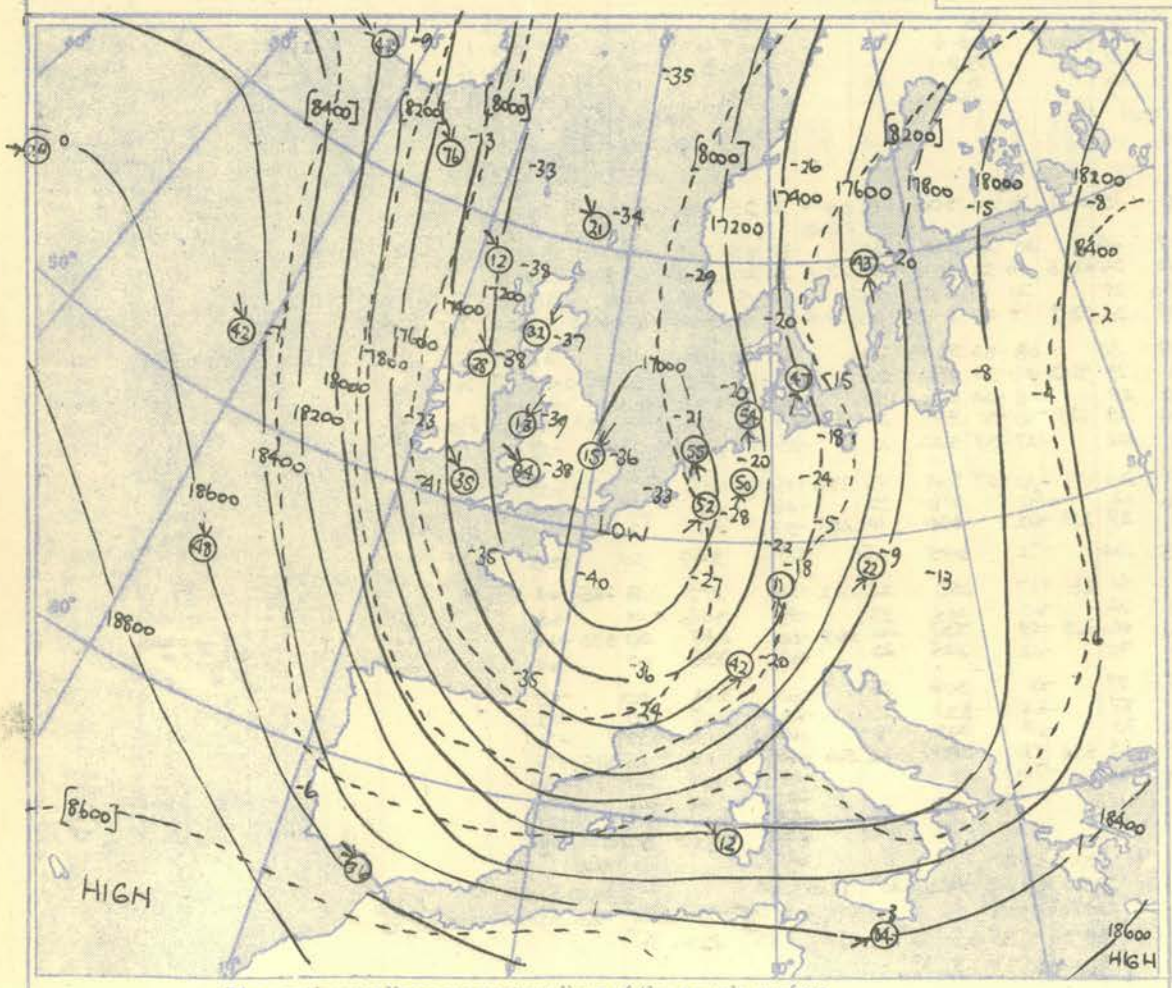
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 – 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

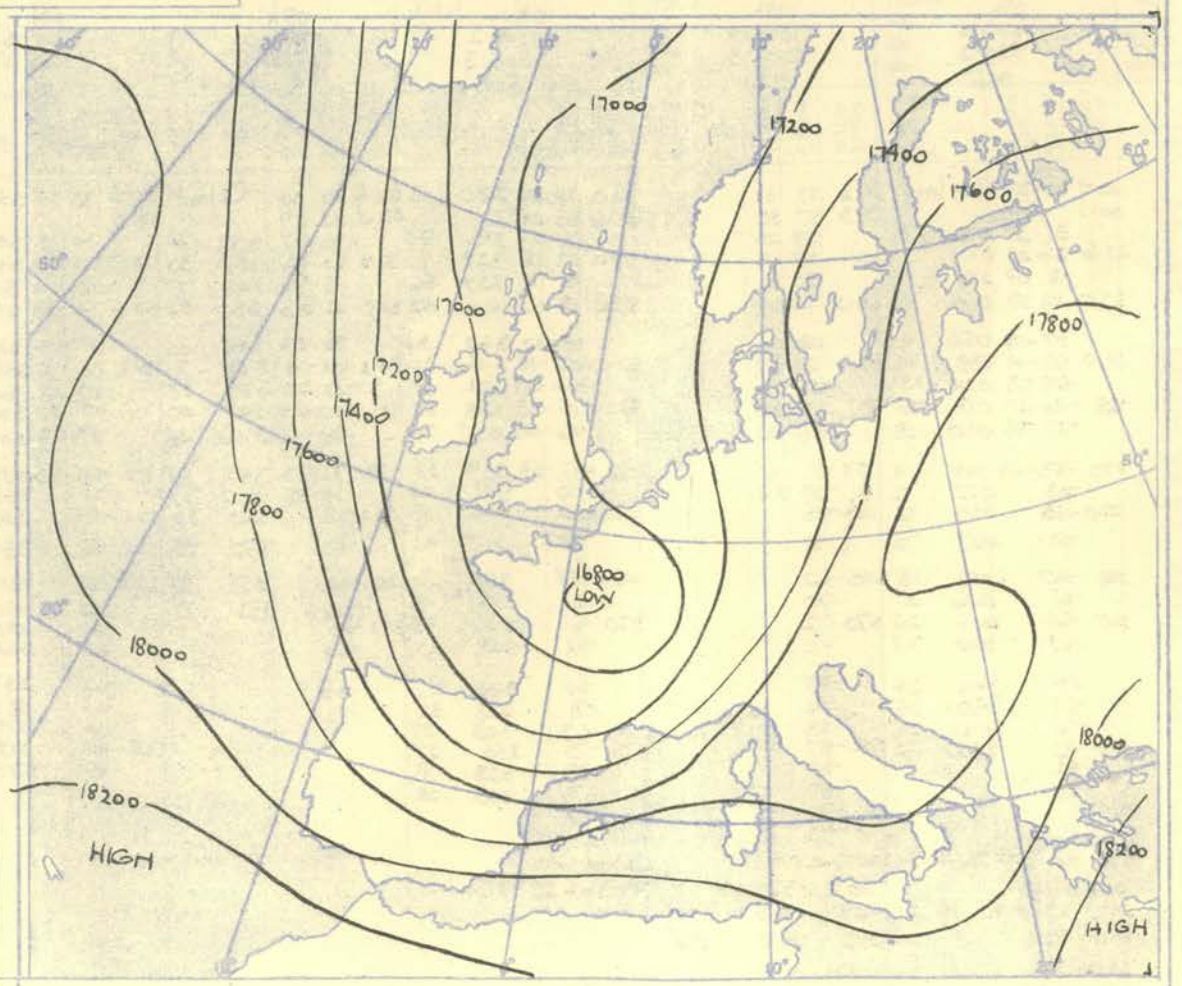
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000 mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2 N 17·0W.	39.5N 12·2W.	53·7N 01·3E.										
Pressure Time	13h.	1445.	1430h.										Time
Pressure M.S.L.	1027 mb	1023 mb	1002 mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	M.S.L.
Pressure Surf	1024 mb	1019 mb	1000 mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	Surf
Pressure Freezing	803 mb	723 mb	956 mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	Freezing

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Pressure mb
Surf		55	36		54	53	05	34	30													Surf
1000	69	50	37	6·1	53	50	0·5	34	30													1000
950		43	43		44	44		31	29													950
900		42	42		35	35	28·1	27	21													900
850		40	31		36	33		20														850
800		31	17		53	47	58·4	18														800
750		29	24		34			07														750
700	102	27		101	28		91·7	00														700
650		20			19			-09														650
600		12			11		129	-15														600
550		03			03			-26														550
500	186	-04		185	-07		17·1	-36														500
450								-47														450
400	Cloud.			Inversion			220	-55														400
350	5/8 Sc			900mb 35°																		350
	960-930mb.			800 " 53°			Cloud															
300																						300
250	2/8 Sc 850mb			Surface			7/8 Sc															250
200	1/8 Ac			Wind. N			990-810mb															200
170	550-500mb.			7-10kts.			3/8 CNG															170
	Surface Wind N 7-10kts						990-400mb															

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Aldergrove		Lympne		Cambourne		Liverpool														Place
Time	03h.		09h.		09h.		21h.														Time
Type																					Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.	320	10			230	05															Surf.
1,000	330	30	340	30	350	15															1,000
2,000	330	30			350	25															2,000
3,000	330	31			350	32															3,000
4,000	340	30			350	40															4,000
5,000	350	28			350	34															5,000
6,000	350	27			350	33															6,000
8,000	350	28			350	37															8,000
10,000	350	26	340	21	350	41															10,000
14,000	340	26			350	34															14,000
18,000	350	28			350	35															18,000
24,000	350	73			350	88															24,000
30,000	360	73			350	91	010	64													30,000
40,000	340	48			340	63	300	51													40,000
50,000					340	41	350 (49,000')	31													50,000

NEPHOSCOPE OBSERVATIONS

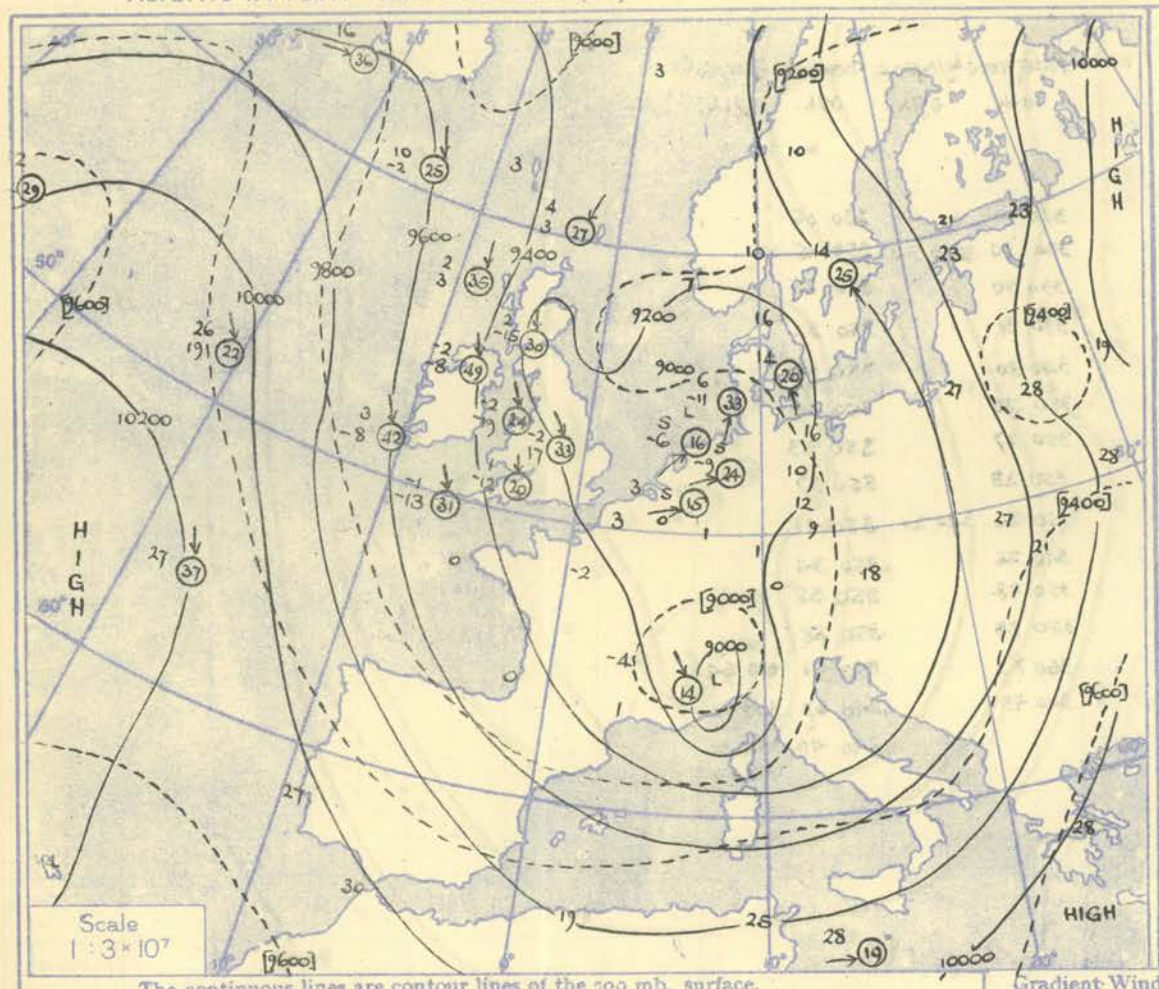
Place											Place
Time Type											Time Type
Dir. Vel.											Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER.	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER.	WEATHER WATCHER	WEATHER WATCHER	WEATHER WATCHER	WEATHER WATCHER			Ship
Lat/Long	61·1N 14·0W.	61·0N 14·1W	60·9N 13·9 W.	61·1N 13·9W	52·5N 19·9W	52·5N 20·0W	52·4N 20·0W	52·4N 20·0W			Lat/Long
Pressure Time	03h G.M.T.	09h G.M.T.	15h G.M.T.	21h G.M.T.	03h G.M.T.	09h G.M.T.	15h G.M.T.	21h G.M.T.	G.M.T.		Time
Pressure M.S.L.	1019 mb	1019 mb	1021 mb	1020 mb	1027 mb	1027 mb	1026 mb	1025 mb	mb		M.S.L.
Pressure Surf	1019 mb	1019 mb	1021 mb	1020 mb	1027 mb	1027 mb	1026 mb	1025 mb	mb		Surf
Pressure Freezing	1000 mb	985 mb	990 mb	990 mb	935 mb	925 mb	930 mb 790 mb	765 mb	mb		Freezing

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf		34	28	340	15		36	24	025	16		36	33	350	12		38	26	250	02		44	31	Calm							Surf
1000	5·0	32	25	343	15	5·1	34	24	013	19	5·4	33	29	360	10	5·3	34	24	227	06	7·1	40	29	"		7·0	41	30	Calm		6·8	46	24	Calm		6·5	46	36	162	06	1000
950		25	15	350	14		28	21	001	20		27	20	346	09		27	19	252	06		34	26	323	03		42	31	323	03		43	35	147	04	950
900	32·2	18	06	352	18	32·5	21	16	353	19	32·8	20	09	339	11	32·7	23	15	278	07	34·9	26	21	333	06	34·8	28	21	330	05	34·7	35	28	323	04		38	31	178	02	900
850		11	03	350	20		14	11	340	19		15	02	338	16		19	08	301	12		24	17	325	10		34	03	335	07		30	19	321	05	34·7	39	27	310	03	850
800	61·8	05	06	350	18	62·2	10	01	321	26	62·6	11	01	345	24	62·8	13	03	301	15	65·5	34	09	326	21	65·7	36	08	334	10	65·9	36	26	318	05		38	32	328	04	800
750		+02	-20	350	19		07	-04	323	30		14	-03	348	23		09	00	301	18		28	10	326	27		29	13	329	18		34	27	316	07	66·1	36	25	346	06	750
700	94·5	-06	-35	352	30	95·6	09	-06	338	34	96·3	10	-02	348	25	96·3	14	06	319	28	100	22	16	325	28	101	21	15	321	26	101	26	19	314	22	101	30	20	343	08	700
650		-10	-33	352	37		07	-09	344	43		07	-01	344	34		09	-03	328	39		19	09	324	30		19	09	315	27		19	06	305	27		25	16	323	20	650
600	132	-06	-28	347	47	84	00	-11	345	56	135	03	-02	341	40	135	03	-16	341	40	139	11	04	325	33	140	12	-01	321	27	140	11	02	308	25	141	19	09	318	25	600
550		-09	-32	344	64		-05	-14	348	64		-03	-09	337	50		-03	-20	331	42		03	-01	325	42		05	-11	332	32		05	-05	324	27		15	00	326	24	550
500	175	-13	-30	342	76	178	-11	-21	349	66	179	-12	-22	336	57	179	-12	-34	334	54	185	-17	-13	321	42	185	-03	-22	336	33	185	-04	-16	335	31	186	-05	-15	335	29	500
450		-23	-37	342	84		-20	-28	348	74		-22	-35	334	65		-23	-39	330	63		-17	-23	323	39		-13	-37	341	42		-13	-26	347	33		-14	-22	334	32	450
400	226	-34	-48	345	82	231	-30	-38	345	81	231	-34	-44	330	62	231	-35	-46	327	71	237	-28	-36	325	44	238	-26	-45	337	57	238	-24	-34	340	40	239	-25	-34	334	32	400
350		-49		345	91		-44		345	87		-48		333	70		-46		324	78		-42		325	55		-40	-54	330	43		-37	-46	326	45		-38	-56	335	36	350
300	290	-64		344	89		-49				294	-63		338	85	294	-61		324	99	301	-57		328	61	302	-56		330	45	303	-52		321	47	303	-55		335	36	300
250		-75		344	86	(32)mb)						-79		330	90		-79		324	117		-72		328	72		-75		330	49		-69		320	50		-72		332	48	250
200	373	-86		344	69						377	-81		328	74	377	-92		324	63	385	-85		335	60	385	-91		328	51	387	-87		317	55	387	-85		333	47	200
170		-80		344	63							-79		336	54		-78		324	45		-78		340	59		-78		327	54		-85		316	59		-85		333	47	170
150		-81		344	56							-79		335	52							-79		343	57		-79		329	52		-79		315	58		-80		332	48	150
130		-80		344	55							-81		332	54		-78					-78		330	55		-78		329	49		-73		316	54		-78		332	48	130
110		-75		344	46							-83		328	50		-82					-81		340	43		-81		331	46		-77		319	53		-80		331	46	110
100	314	-76		342	46						517	-85		329	47		-84				525	-84		343	45	525	-84		330	46	528	-80		320	47	52)	-81		331	42	100
90		-77		342	48							-86		329	44		-85					-86		341	52		-86		330	48		-81		321	43		-83		331	41	90
80		-79		341	47							-90		333	48		-84					-88		336	52		-88		330	40		-81		326	41		-84		331	41	80
70		-80										-90					-83				(72mb)						-86		326	40		-81		334	44		-84		332	39	70
60											(78mb)																-85					-80		324	37		-85		332	37	60
	Inversion. 636 mb -12°-644mb-5°			Inversion. 823mb 10°-805mb 11° 743- 6°- 721.. 11° Isothermal. 673- 640mb 7° 564- 550" -5°			Inversion. 800mb 11°-770mb 16° Isothermal. 850-835mb 15° 725- 690.. 10° 566- 553.. -3°			Inversion. 758mb 8°-700mb 14°			Inversion. 865mb 21°-800mb 26°			Inversion 886mb 26°-839mb 38°						Inversion. 908mb 28°-868mb 37° 750" 26°-712.. 27° Isothermal. 663- 650.. 19° I 185 mb - 89° 40·300'						Inversion 928mb 36°-888mb 40° 650.. 19°-627.. 20° Isothermal. 850- 816mb 38° 663- 650- 19° II 00mb -85° 38·700				
Tropopause	I 197 mb - 87° 37·700'		Nil.		I 215 mb - 85° 36·100.		I 217 mb - 88° 36·000.		I 205 mb - 86° 38·000.		I 192 mb - 93° 39·400.																					Tropopause

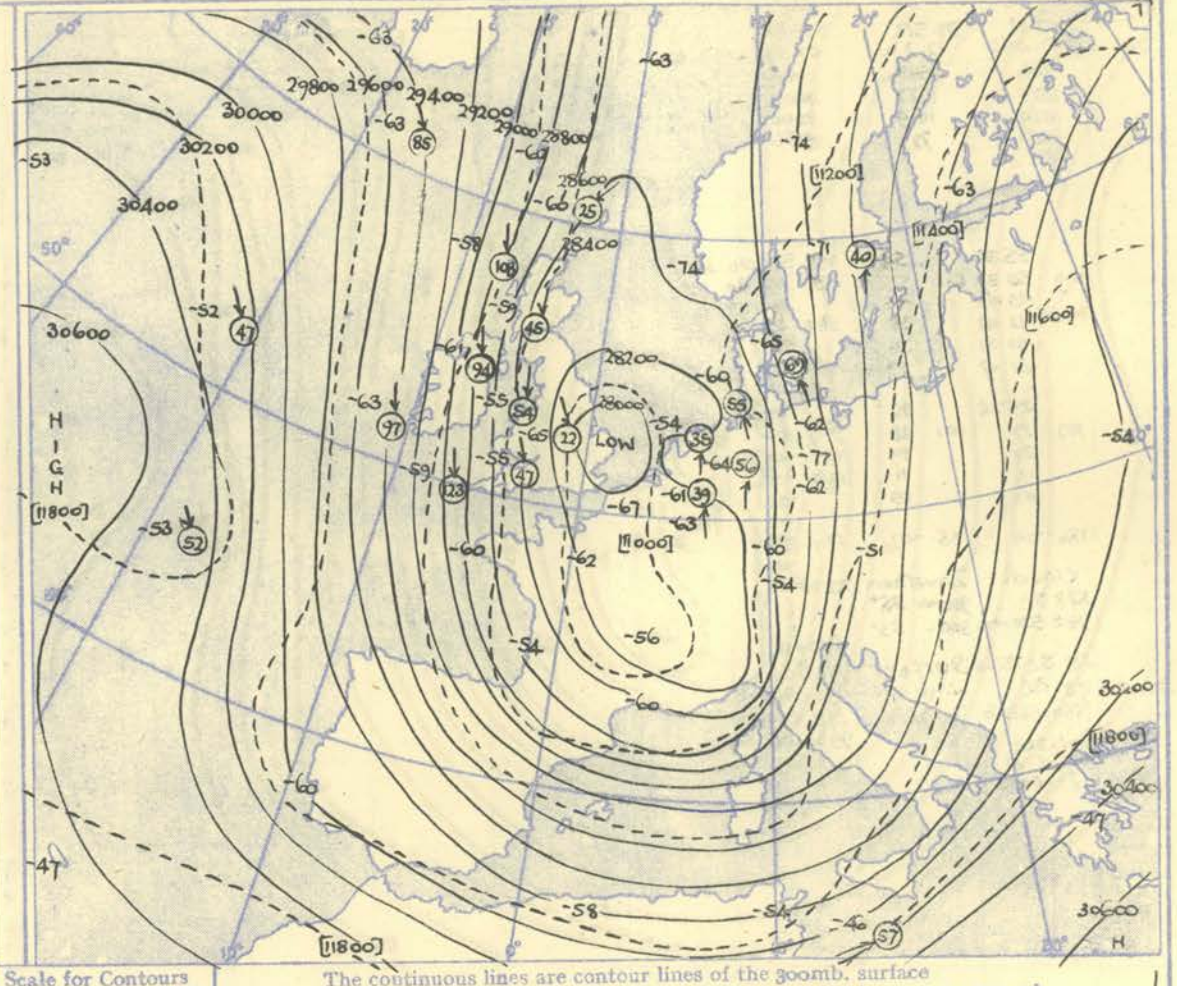
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

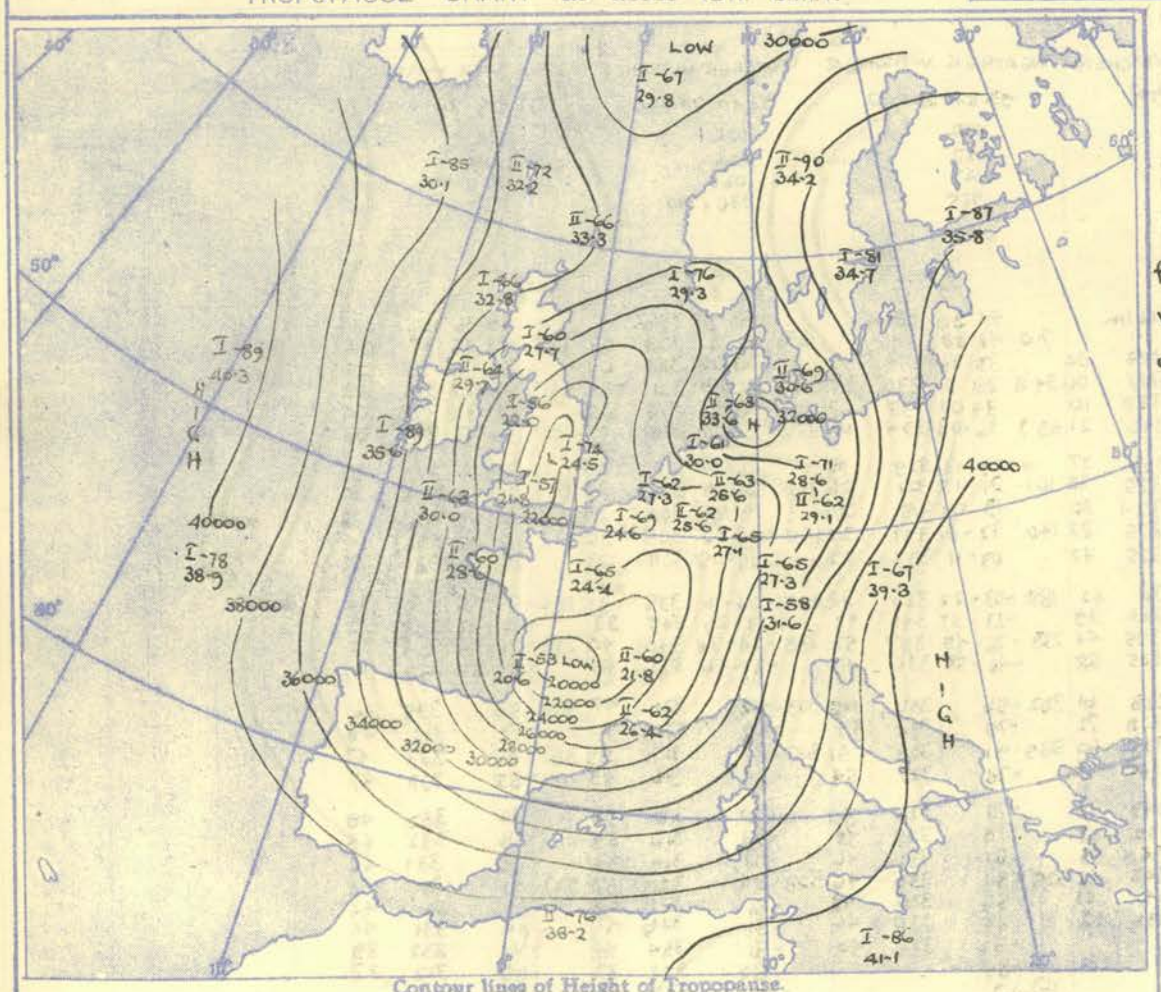
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge on the Atlantic advanced a little eastward and warm air from Norway moved westward towards Shetland. In consequence the major cold trough was narrowed considerably in the region of the Faeroes and cold pools were cut off over England and Switzerland.

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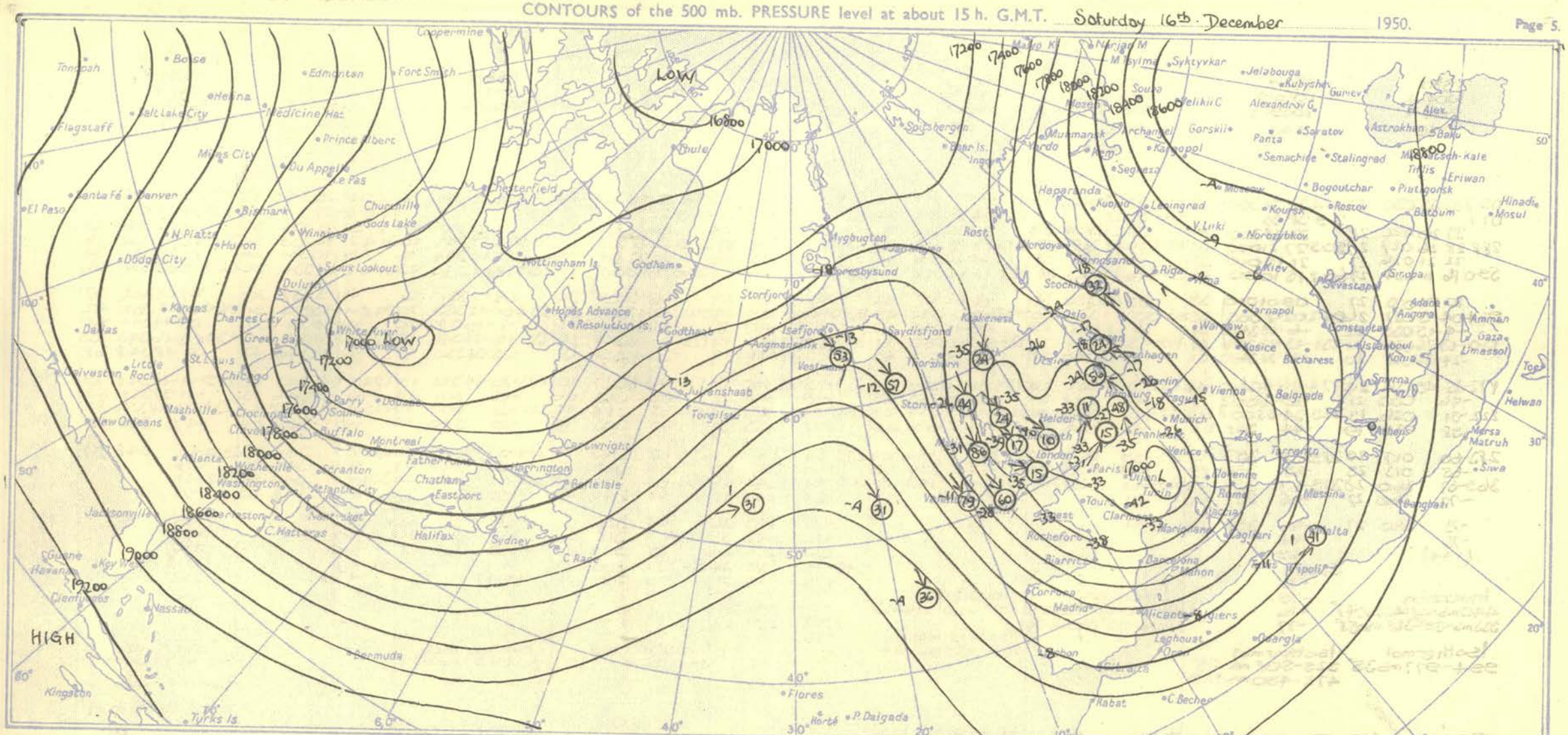
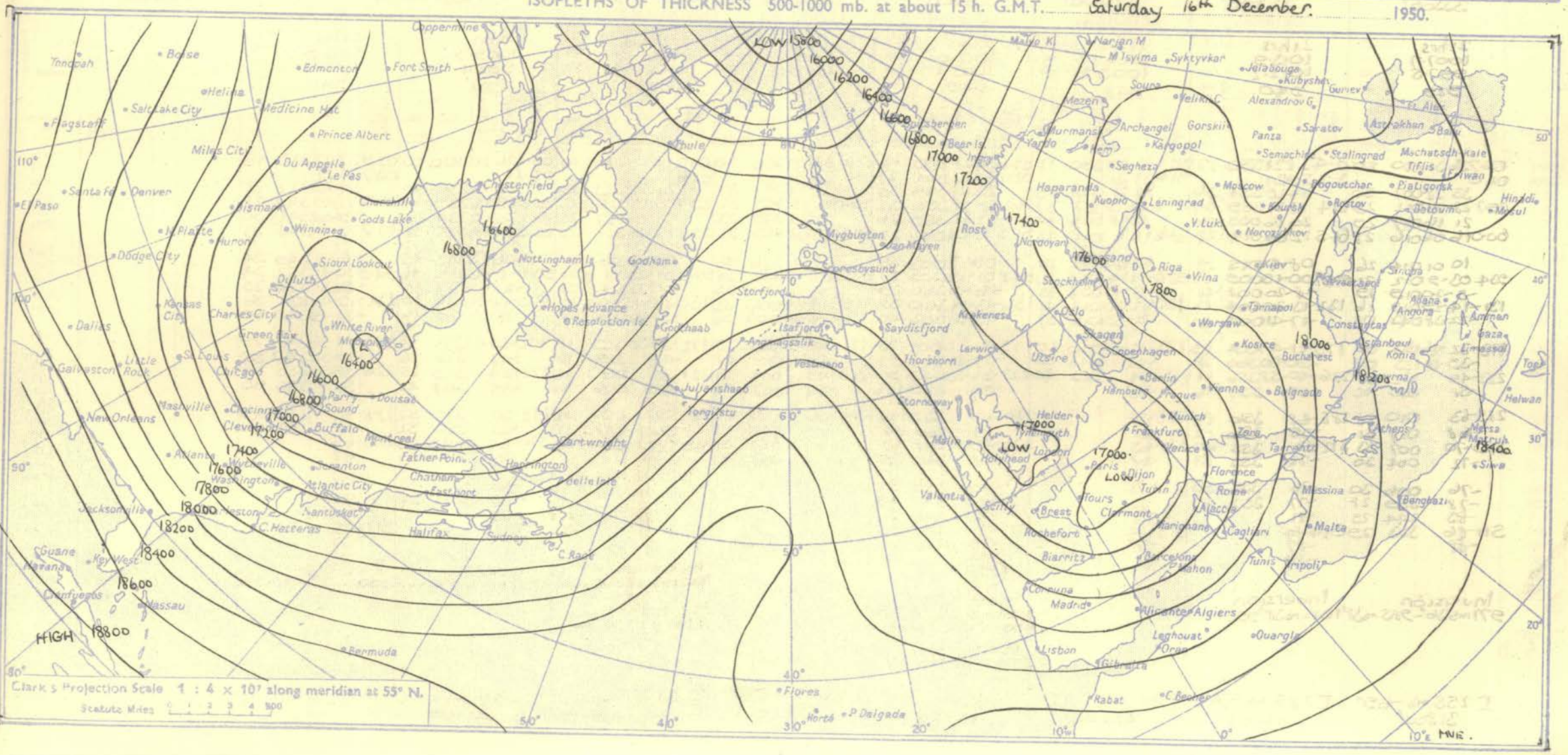
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Saturday 16th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 16th December. 1950.



MNE.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON ..... December 19

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1004·4 mb | Surf: 994·2 mb | Freezing: 940 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	35	33	030	22
1000	01·1				
950		33	29	022	28
900	288	28	26	027	27
850		22	21	026	27
800	55·0	16	11	024	27
750		10	01	023	27
700	92·4	04	-5	027	26
650		-4	-15	030	22
600	130	-13	-26	039	21
550		-24	-38	038	20
500	172	-35	-49	031	24
450		-46		030	21
400	222	-51		026	15
350		-58		029	19
300	283	-60		017	23
250		-65		013	25
200	369	-67		360	20
170		-72		360	27
150		-73		360	27
130		-73			
110		(144)			

Inversion 440 mb -48° – 423 mb -47°
333 mb -55° – 318 mb -58°

Isothermal 994 – 977 mb 35°

Tropopause: II 242 mb -66° 33300'

STORNOWAY

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1010·9 mb | Surf: 1009·2 mb | Freezing: 942 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots
Surf	0·4	38	31	350	15
1000	2·9	38	33		
950		33	28	353	36
900	305	27	21	003	37
850		21	13	010	37
800	60·8	15	10	013	36
750		09	01	010	35
700	94·2	02	-8	008	35
650		-6	-13	360	31
600	131	-13	-26	356	31
550		-21	-31	360	32
500	174	-26	-41	360	44
450		-29	-48	002	78
400	225	-34	-55	001	54
350		-44		358	113
300	289	-58		357	108
250		-65		356	89
200	375	-67		358	62
170		-65		358	60
150		-65		358	55
130		-68			
110		-69			
100	520	-71			
90		-73			
80		-75			
70		-76			
60		-77			

Isothermal 525 – 508 mb -25°
472 – 450 mb -29°

Tropopause: I 255 mb -66° 32800'

LEUCHARS

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1002·6 mb | Surf: 1001·7 mb | Freezing: 957 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·2	37	28	300	15
1000	0·6	37	28		
950		31	22	304	34
900	28·2	26	21	318	39
850		21	17	333	38
800	58·4	16	12	345	38
750		09	06	350	36
700	92·0	02	-1	357	30
650		-5	-8	353	23
600	129	-13	-16	351	23
550		-24	-29	340	22
500	171	-35	-41	332	24
450		-44		348	37
400	221	-51		359	41
350		-58		004	41
300	283	-59		003	43
250		-59		359	48
200	369	-61		007	41
170		-61			

Inversion 450 mb -44° – 443 mb -43°
380 mb -55° – 365 mb -54°

Isothermal 525 – 508 mb -25°
472 – 450 mb -29°

Tropopause: I 310 mb -60° 27600'

ALDERGROVE

Pressure — Time: 15 hrs G.M.T. | M.S.L.: 1012·4 mb | Surf: 1008·3 mb | Freezing: 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	33	32	300	15
1000	03·4	34	33	322	30
950		32	30	324	39
900	31·1	26	25	326	29
850		20	20	326	42
800	61·3	13	12	326	44
750		06	02	327	43
700	94·5	-2	-3	342	49
650		-10	-15	358	57
600	298	-21	-34	341	13
550		-26	-30	004	63
500	174	-31	-36	360	86
450		-36	-47	355	85
400	224	-42		354	99
350		-51		001	119
300	287	-61		346	94
250		-64		354	79
200	372	-64		345	37
170		-72			

Inversion 1000 mb 33° – 984 mb 36°

Isothermal 285 – 250 mb -64°

Tropopause: II 285 mb -64° 29700'

LIVERPOOL

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1007·8 mb | Surf: 1005·7 mb | Freezing: 962 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	36	29	325	10
1000	02·1	35	28		
950		31	23	333	24
900	29·7	25	12	334	27
850		19	06	333	26
800	55·8	14	-2	326	27
750		07	-12	326	29
700	93·0	-2	-19	339	24
650		-11	-25	340	18
600	298	-21	-34	341	13
550		-29	-42	341	14
500	217	-39	-54	340	17
450		-49		344	22
400	206	-56		352	34
350		-57		353	52
300	283	-55		361	54
250		-60		355	53
200	365	-62		343	46
170		-64		348	42
150		-66		343	36
130		-72		346	33
110		-70		328	34
100	514	-74		336	34
90		-78		334	31
80		-76		309	28
70		-77		292	26
60		-82		297	27
		-85			

Isothermal 960 – 928 mb 29°

Tropopause: I 402 mb -50° 22000'

DOWNHAM MARKET

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1005·5 mb | Surf: 1001·0 mb | Freezing: 991 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	33	26	308	24
1000	01·5	33	26		
950		29	20	336	28
900	28·9	26	18	338	28
850		20	14	344	26
800	59·0	13	03	337	28
750		06	-5	339	30
700	92·2	-2	-17	352	33
650		-10	-30	360	28
600	298	-20	-35	348	26
550		-30	-40	351	13
500	171	-40	-48	357	10
450		-52		313	06
400	220	-63		284	12
350		-70		300	14
300	280	-65		343	22
250		-61		333	27
200	366	-62		338	25
170		-64		342	22
150		-64		324	20
130		-67		312	23
110		-73		309	25
100	511	-77		300	23
90		-79		285	22
80		-79			

Isothermal 960 – 928 mb 29°

Tropopause: I 354 mb -71°

LARKHILL

Pressure — Time: 15hrs G.M.T. | M.S.L.: 992·1 mb | Surf: 1008·6 mb | Freezing: 955 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	044	34	29	310	12
1000	023				
950		31	25	332	29
900	29·9	25	13	342	29
850		20	14	344	26
800	60·1	14	08	343	25
750		08	-2	351	21
700	93·4	01	-12	353	20
650		-7	-19	347	20
600	131	-15	-26	346	19
550		-25	-34	330	15
500	173	-35	-44	322	13
450		-46		301	13
400	222	-57		303	20
350		-59		340	30
300	284	-55		346	45
250		-55		347	47
200	371	-58		341	44
170		-55		342	37
150		-58		337	33
130		-58		326	30
110		-58		309	28
100		-66			
90		(108)			

Isothermal 992 – 977 mb 34°

Tropopause: II 407 mb -57° 21700'

CAMBORNE

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1013·6 mb | Surf: 1002·8 mb | Freezing: 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	40	29	350	15
1000	036	39	27		
950		32	21	333	30
900	31·4	27	16	335	30
850		20	10	331	30
800	61·6	13	07	331	30
750		06	-3	332	30
700	94·8	-1	-13	334	31
650		-9	-19	331	33
600	132	-17	-31	332	40
550		-21	-42	340	43
500	174	-28	-86	343	60
450		-34	-57	346	73
400	225	-41		348	87
350		-49		352	114
300	273	-59		351	123
250		-63		344	70
200	374	-60		345	60
170		-66		344	48
150		-62			
130		-65			
110		-70			
100	520	-71			
90		-69			

Tropopause: II 282 mb -61°

Valentia

Pressure — Time: 15hrs G.M.T. | M.S.L.: 1018·1 mb | Surf: 1017 mb | Freezing: 960 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·3	39	35	030	09
1000	4·9	37	32	012	12
950		31	25	344	20
900	32·9	25	18	332	26
850		22	15	330	34
800	62·7	15	09	330	36
750		07	01	306	37
700	96·0	03	-8	332	42
650		04	-14	344	60
600	134	03	-16	340	65
550		-5	-18	348	68
500	179	-11	-28	348	79
450		-21	-37	351	85
400	231	-33	-48	352	87
350		-47		348	89
300	294	-63		348	97
250		-73			
200	372	-81			
170		-77			
150		-75			
130		-76			
110		-76			
100		(121)			

Inversion 700 mb 3° – 650 mb 4°

Isothermal 650 – 605 mb 4°

Tropopause: I 221 mb -69° 35600'

LERWICK

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1007·2 mb | Surf: 997·5 mb | Freezing: 929 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	36	31	030	20
1000	02·0				
950		35	28	007	30
900	297	28	21	012	29
850		21	16	017	29
800	60·0	16	06	016	28
750		10	01	014	26
700	93·4	03	-9	012	21
650		-3	-20	015	19
600	131	-14	-29	025	16
550		-22	-38	043	08
500	173	-32	-46	165	06
450		-35	-54	153	08
400	223	-49		122	08
350		-58		080	10
300	285	-63		010	28
250		-68		017	31
200	370	-70		007	33
170		-72		004	30
150		-76		006	30
130		-78		359	28
110		-83		244	25
100	511	-86		333	29
90		-88			
80					
70					
60					

Inversion 571 mb 36° – 565 mb 38°

Tropopause: I 255 mb -69° 31600'

STORNOWAY

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1013·9 mb | Surf: 1012·2 mb | Freezing: 940 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·4	38	31	350	17
1000	3·7	39	31		
950		34	28	354	36
900	31·4	27	21	355	34
850		20	16	003	30
800	61·5	12	06	014	27
750		08	-4	015	25
700	94·7	00	-13	009	22
650		-6	-20	008	21
600	132	-13	-30	004	27
550		-17	-41	004	42
500	175	-21	-47	004	63
450		-30	-50	360	78
400	226	-40	-58	356	81
350		-54		354	86
300	288	-68		356	84
250		-78		356	82
200	372	-71		355	60
170		-72		353	57
150		-76		355	50
130		-77		357	57
110		-81			
100	514	-84			
90		-87			
80		-89			
70					
60					

Inversion 1012 mb 38° – 995 mb 39°

Tropopause: I 295 mb -76° 32100'

LEUCHARS

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1006·1 mb | Surf: 1005·2 mb | Freezing: 948 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	37	30	350	12
1000	01·6	37	31		
950		32	28	346	25
900	29·4	26	23	358	37
850		22	18	006	44
800	59·6	16	11	011	43
750		10	04	012	41
700	93·0	04	-4	014	37
650		-4	-14	013	35
600	130	-12	-20	014	41
550		-22	-39	016	37
500	173	-32	-45	020	30
450		-42		043	26
400	223	-54		018	40
350		-53			
300	283	-58			
250		-61			
200	371	-63			
170		-68			
150		-73			
130		-73			
110		-73			
100	515	-74			
90		-78			

Tropopause: I 402 mb -53° 22200'

ALDERGROVE

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1012·0 mb | Surf: 1003·2 mb | Freezing: 940 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	34	28	280	12
1000	03·4	34	28	001	27
950		33	27	354	36
900	31·2	28	22	356	32
850		22	12	355	36
800	61·5	15	04	002	34
750		09	-7	003	35
700	94·8	01	-15	003	37
650		-6	-16	360	39
600	132	-13	-24	360	38
550		-15	-38	003	43
500	175	-22	-50	001	78
450		-27	-55	360	53
400	227	-36	-53	355	55
350		-50		359	106
300	289	-66		359	104
250		-74		360	84
200	374	-69		348	67
170		-68		345	39
150		-70		350	52
130		-73		341	45
110		-76		346	51
100	517	-78		348	53
90		-79		336	48
80		-80			
70		(87)			

Inversion 1003 mb 34° – 980 mb 36°
600 mb 43° – 574 mb 48°

Isothermal 505 – 487 mb -22°

Tropopause: I 250 mb -74° 32700'

LIVERPOOL

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1005·0 mb | Surf: 1002·9 mb | Freezing: 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	0·6	38	29	350	20
1000	01·3	38	29		
950		32	24	347	38
900	29·0	26	19	345	36
850		21	15	349	35
800	59·3	15	08	349	33
750		07	-1	346	46
700	92·6	02	-12	350	38
650		-6	-28	360	35
600	129	-14	-34	006	33
550		-24	-44	002	34
500	172	-34	-56	001	35
450		-43		001	48
400	219	-43		004	51
350		-56		003	63
300	284	-56		005	63
250				005	61
200				352	51
170				351	42

Isothermal 884 – 864 mb 23°

Tropopause: I 362 mb -55° 24400'

DOWNHAM MARKET

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1005·9 mb | Surf: 1001·4 mb | Freezing: 987 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	26	20	220	10
1000	01·6				
950		31	21	323	25
900	29·1	25	14	328	22
850		21	07	327	23
800	59·2	15	01	321	25
750		03	-18	320	21
700	92·5	01	-28	311	21
650		-8	-33	306	27
600	130	-18	-42	310	25
550		-27	-50	326	21
500	172	-37	-55	303	18
450		-48		329	19
400	221	-55		008	12
350		-55		006	24
300	282	-51		008	32
250		-56		017	31
200	369	-59		006	24

Inversion 600 mb 26° – 570 mb 33°

Isothermal 884 – 864 mb 23°

Tropopause: I 384 mb -62°

LARKHILL

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1009·3 mb | Surf: 992·4 mb | Freezing: 952 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	26	21	300	05
1000	02·4				
950		30	23	330	20
900	29·8	25	16	333	25
850		20	02	334	20
800	60·0	14	-8	340	18
750		06	-13	343	15
700	93·2	-2	-16	336	16
650		-10	-19	330	18
600	130	-16	-26	336	19
550		-28	-37	329	16
500	172	-39	-48	333	18
450		-46		339	26
400	221	-54		345	35
350		-55		348	42
300	283	-58		350	52
250		-55		350	52
200	370	-60		345	43
170		-61		344	41
150		-65		335	35
130		-65		332	34
110		-65			
100		(112)			

Inversion 392 mb 26° – 362 mb 38°

Tropopause: II 418 mb -54° 21200'

CAMBORNE

Pressure — Time: 21hrs G.M.T. | M.S.L.: 1013·9 mb | Surf: 1003·1 mb | Freezing: 940 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	37	27	315	15
1000	037	37	27		
950		34	25	332	28
900	31·5	27	15	344	28
850		19	08	346	30
800	61·7	12	-1	348	33
750		06	-9	349	34
700	94·9	00	-21	352	34
650		-9	-31	354	33
600	132	-15	-41	352	36
550		-22	-49	345	50
500	175	-28	-56	347	79
450		-28	-56	347	99
400	226	-38	-58	350	111
350		-51		350	110
300	288	-63		349	108
250		-70		348	76
200	373	-63			
170		-68			
150		-69			
130		-70			
110		-71			
100	517	-75			
90		-77			

Inversion 500 mb -28° – 461 mb 26°

Tropopause: I 238 mb -74°

HMSO Press, MO, Dunstable

No. 11585 **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Sunday 17th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
Pressure: M.S.L.	1008·1 mb	1014·7 mb	1007·7 mb	1013·6 mb	1007·3 mb	1004·5 mb	1007·3 mb	1013·8 mb	1018·9 mb
Pressure: Surf	997·9 mb	1013·0 mb	1006·8 mb	1003·9 mb	1005·2 mb	1000·0 mb	990·8 mb	1003·0 mb	1018 mb
Pressure: Freezing	918 mb	950 mb	930 mb	940 mb	943 mb	66 mb	961 mb	935 mb	930 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	36	33	030	21	0·4	38	33	350	18	00·2	38	30	350	25	02·6	37	29		
1000	02·1					3·9	36	32			02·0	38	30			03·6	37	29		
950		35	31	009	33		32	28	355	30		34	27	259	33		33	24		
900	30·0	30	26	011	31	31·6	27	23	360	29	29·8	28	22	267	34	31·4	27	22		
850		24	19	013	31		21	17	359	29		22	17	273	39		20	16		
800	60·4	18	14	016	30	61·9	15	10	359	26	60·1	15	10	279	41	61·6	15	09		
750		15	01	020	25		08	01	358	23		08	04	279	39		10	-01		
700	99·2	09	-08	020	21	95·2	03	-09	355	21	93·0	01	-13	271	36	95·0	03	-10		
650		01	-19	018	14		-03	-23	006	29		-02	-23	266	25		-05	-18		
600	132	-03	-21	070	05	133	-07	-31	005	45	131	-08	-28	269	20	132	-12	-29		
550		-11	-29	151	09		-12	-34	003	54		-20	-39	271	20		-15	-39		
500	176	-21	-38	142	14	176	-20	-34	360	66	174	-31	-49	293	24	176	-21	-43		
450		-33	-49	157	12		-30	-38	001	62		-41		290	29		-31	-45		
400	227	-44		115	10	227	-42		359	63	224	-51		276	37	227	-41			
350		-55		020	18		-55		359	77		-58		268	69		-53			
300	288	-65		017	30	289	-67		360	81						289	-64			
250		-68		010	39		-74		354	78							-66			
200	373	-70		012	36	373	-77		366	71						374	-66			
170		-72		002	34		-75		355	49							-66			
150		-73		002	30		-77		353	41							-68			
130		-75		003	28		-79		349	40							-72			
110		-81		355	30		-83										-76			
100	515	-85		342	30	514	-85													
90		-88		342	31		-86													
80		-90		342	34		-85													
70		-96		339	33															
60																				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	00·6	57	30	350	15	01·2	30	28	240	08	04·4	34	32	315	10	029	41	28	315	15	00·3	37	34	180	01
1000	02·0	37	30			01·2					01·9					03·7	40	27			5·1	39	35	182	02
950		33	25	347	29		31	28	303	28		31	28	336	25		34	23	329	34		34	27	185	04
900	29·7	27	20	349	29	28·8	25	25	313	28	29·6	26	28	351	30	31·6	27	19	334	36	330	29	21		
850		20	15	001	30		21	20	308	22		20	17	354	33		21	14	338	37		21	16		
800	60·0	16	09	004	33	59·1	15	10	309	22	59·8	12	10	353	34	61·9	15	09	345	27	63·2	15	12		
750		10	00	001	31		09	00	311	24		09	05	354	34		09	01	339	30		16	-01		
700	93·4	04	-07	004	32	92·4	01	-09	314	20	93·1	01	-05	354	32	95·2	02	-09	342	30	97·0	16	-04		
650		-04	-13	006	33		-07	-18	328	22		-05	-14	358	32		-05	-22	352	27		11	02		
600	131	-11	-21	009	33	130	-15	-21	342	24	131	-12	-26	001	32	133	-07	-34	351	35	136	07	-10		
550		-20	-31	021	28		-23	-27	353	34		-23	-37	003	32		-13	-45	354	40		-02	-16		
500	174	-30	-43	032	31	172	-34	-38	366	37	173	-34	-46	002	32	176	-23	-49	348	60	180	-10	-27		
450		-40	-53	030	38		-44		001	43		-42		005	34		-26	-58	352	90		-18	-33		
400	224	-48		010	53	221	-56		004	44	223	-51		007	36	227	-38	-58	355	90	233	-30	-44		
350		-51		005	69		-63		006	56		-57		001	48		-50		345	90		-44			
300	286	-55		008	72	282	-61		001	39	285	-53		353	57	290	-64		006	90	296	-59			
250		-56		001	57		-60		357	34		-56		357	51		-65		347	82		-75			
200	373	-61		355	98	369	-62		359	30	372	-59		356	48	376	-65		350	66	380	-74			
170		-66					-65		351	33		-60		345	46		-64					-70			
150							-67		345	30		-62		338	37		-63					-71			
130							-68		323	27		-67		343	34		-67					-72			
110							-70		332	22		-68					-73					-76			
100						514	-72		338	16	518	-68				521	-75				523	-75			
90																						-75			
80																						-75			
70																									
60																									

Inversion 938 mb 36° - 988 mb 38°; 373 .. -52° - 365 .. -51°

Inversion 289 mb -66° - 267 mb -69°; Isothermal 604 - 981 mb 37°; 612 - 600 .. -12°; 563 - 541 .. -15°; 528 - 518 .. -17°

Inversion 1000 mb 30° - 980 mb 33°

Isothermal 500 mb 23° - 465 mb -23°

Inversion 1018 mb 37° - 1000 mb 39°; 785 .. 14° - 750 .. 16°; Isothermal 750 - 700 mb 16°

Tropopause: I 273 mb -70° 30,900'; I 230 mb -78° 34,500'; N.R.; II 289 mb -66° 29,700' I 417 mb -49° 21,400' II 286 .. -57° 29,500'; I 367 mb -66° 24,000'; I 360 mb -60° 24,600' II 300 mb -61° 29,000'; I 206 mb -78° 37,400'

09h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
Pressure: M.S.L.	1009·9 mb	1015·8 mb	1009·8 mb	1015·3 mb	1009·4 mb	1002·1 mb	1008·7 mb	1014·6 mb	mb
Pressure: Surf	999·6 mb	1014·1 mb	1008·9 mb	1005·6 mb	1007·3 mb	997·7 mb	992·0 mb	1003·8 mb	mb
Pressure: Freezing	930 mb	945 mb	939 mb	940 mb	942 mb	960 mb	957 mb	924 mb	mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	36	33	015	19	0·4	39	35			00·2	38	31	250	15	02·6	35	33		
1000	02·6	36	33	015	19	4·2	37	33			02·5	38	31			04·1	35	33		
950		35	31	009	30		33	30				34	29	256	33		33	29		
900	30·4	29	24	014	29	31·9	28	25			30·1	27	23	273	39	31·9	27	25		
850		23	18	013	28		22	17				22	19	276	36		21	19		
800	60·7	19	04	012	24	62·3	19	05			60·4	16	14	282	33	62·1	17	07		
750		13	-08	012	18		12	-10				13	01	288	30		12	-02		
700	94·4	07	-17	021	17	95·9	08	-14			94·0	07	-18	292	33	95·7	07	-15		
650		03	-19	357	09		06	-19				00	-19	292	25		03	-35		
600	132	-04	-28	004	09	134	00	-14			132	-06	-18	292	30	134	-02	-38		
550		-13	-39	005	06		-06	-20				-16	-26	287	30		-10	-31		
500	176	-23	-45	042	07	178	-14	-31			175	-26	-38	291	34	177	-18	-34		
450		-34	-54	064	12		-24	-41				-37	-49	292	35		-26	-43		
400	226	-47		011	33	230	-36	-48			225	-50		282	48	229	-35	-51		
350		-57		011	54		-50					-55		275	80		-47			
300	288	-69		006	54	293	-64				287	-62				292	-60			
250		-74		009	51		-80					-66					-71			
200	372	-74		012	42	375	-80				372	-65				377	-74			
170		-76		006	36		-79					-69					-72			
150		-80		004	34		-78					-69					-72			
130		-80		003	32		-79					-68					-71			
110		-85		358	28		-82										-73			
100	512	-85		353	27	516	-84										-76			
90		-87		347	25											520	-76			
80		-90															-78			
70	(173	-92															-78			
60	mb)																-82			

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	00·6	37	30	330	15	01·2	35	32	300	30	04·4	33	29	310	08	029	41	32	360	18					
1000	02·5					00·6					02·2					03·9	40	31							
950		33	26	334	33		31	31	325	48		31	27	330	33		35	25	337	30					
900	30·1	26	20	343	35	28·3	28	28	334	48	29·8	26	22	344	37	31·8	29	19	340	33					
850		21	15	352	33		24	24	341	47		23	19	350	31		22	11	341	36					
800	60·4	17	03	348	34	58·7	19	19	347	45	60·1	16	12	350	31	62·2	19	01	346	33					
750		10	-06	340	35		13	11	349	04		11	-02	349	38		13	-08	358	32					
700	93·8	03	-21	341	36	92·4	07	05	349	47	93·6	06	-04	344	38	95·8	06	-19	360	27					
650		03	-28	347	33		-01	-04	346	45		-01	-11	344	32		00	-21	002	29					
600	131	-10	-35	353	30	130	-10	-16	343	42	131	-10	-19	345	30	134	-07	-32	360	34					
550		-19	-41	003	32		-20	-26	342	45		-19	-29	350	27		-13	-41	354	46					
500	174	-29	-47	008	30	173	-31	-37	341	45	174	-29	-39	353	24	177	-21	-50	354	67					
450		-41		013	35		-43		336	61		-40	-50	011	25		-29	-45	354	79					
400	224	-51		007	48	222	-56		345	61	224	-54		016	35	228	-37	-50	354	78					
350		-57		004	71		-67		352	58		-62		005	51		-48		355	84					
300	286	-60		004	78	283	-64		003	48	265	-63		360	65	291	-59		356	99					
250		-66		004	72		-57		359	41		-59		357	61		-59		357	84					
200	371	-66		006	54	369	-61		003	40	372	-60		355	52	377	-64								
170		-69		001	63		-63		354	34		-62		354	50		-64								
150		-72		355	54		-63		355	29		-62		357	45		-62								
130		-72		349	43		-65		356	28		-62		343	36 (142		-61								
110		-68										-67		337	32 mb)										
100		-67		350	42							-68		336	31										
90		-73									518	-65													
80	516	-68																							
70																									
60																									

Inversion 1000 mb 36° - 981 mb 39°; Isothermal 827 mb - 810 mb 20°; 686 .. - 660 .. 07°

Isothermal 1009 - 986 mb -38°; 392 - 360 .. -52°; 332 - 316 .. -60°

Inversion 282 mb -65° - 278 mb -64°

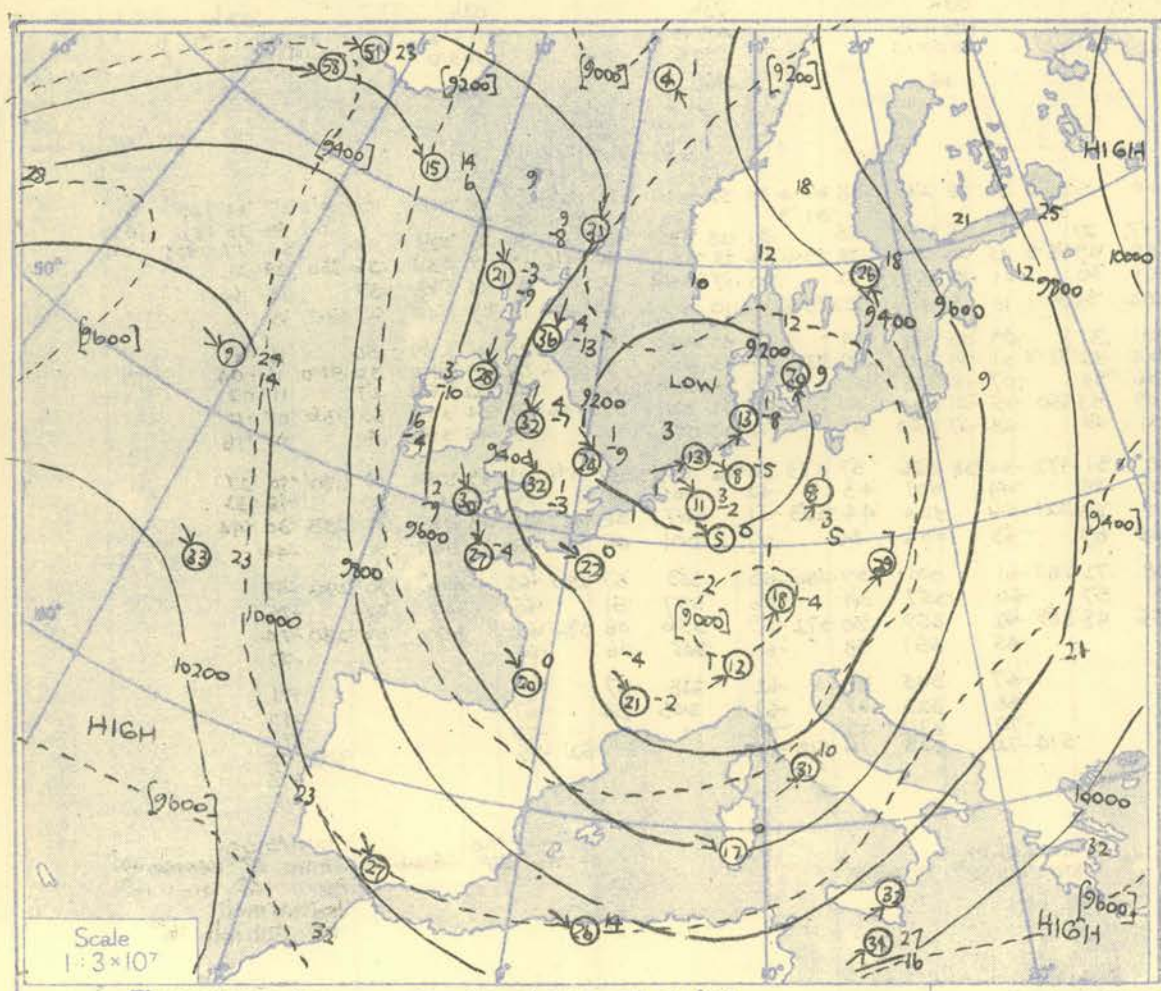
Inversion 992 mb 33° - 973 mb 34°; Isothermal 885 - 860 mb 24°

Isothermal 850 - 821 mb 22°; 491 - 480 .. -22°

Tropopause: II 250 mb -74° 32,700'; I 282 mb -84° 34,600' I 261 mb -68° 31,600' I 282 mb -65° 30,500' II 372 mb -56° 24,000' I 252 .. -66° 32,000' I 335 mb -70° 24,600' II 361 mb -62° 24,000' I 281 mb -61° 30,600'

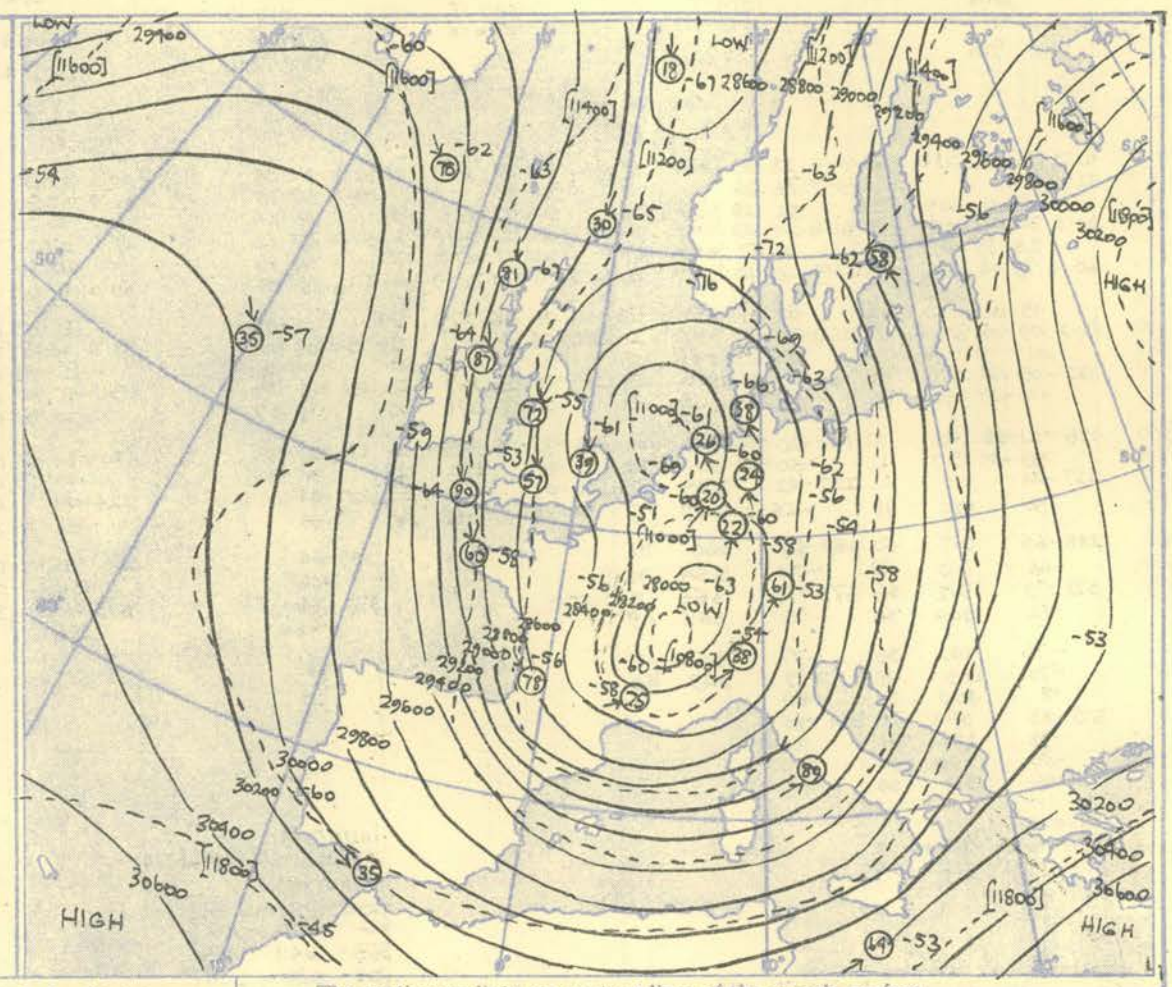
Sunday 17th December 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.

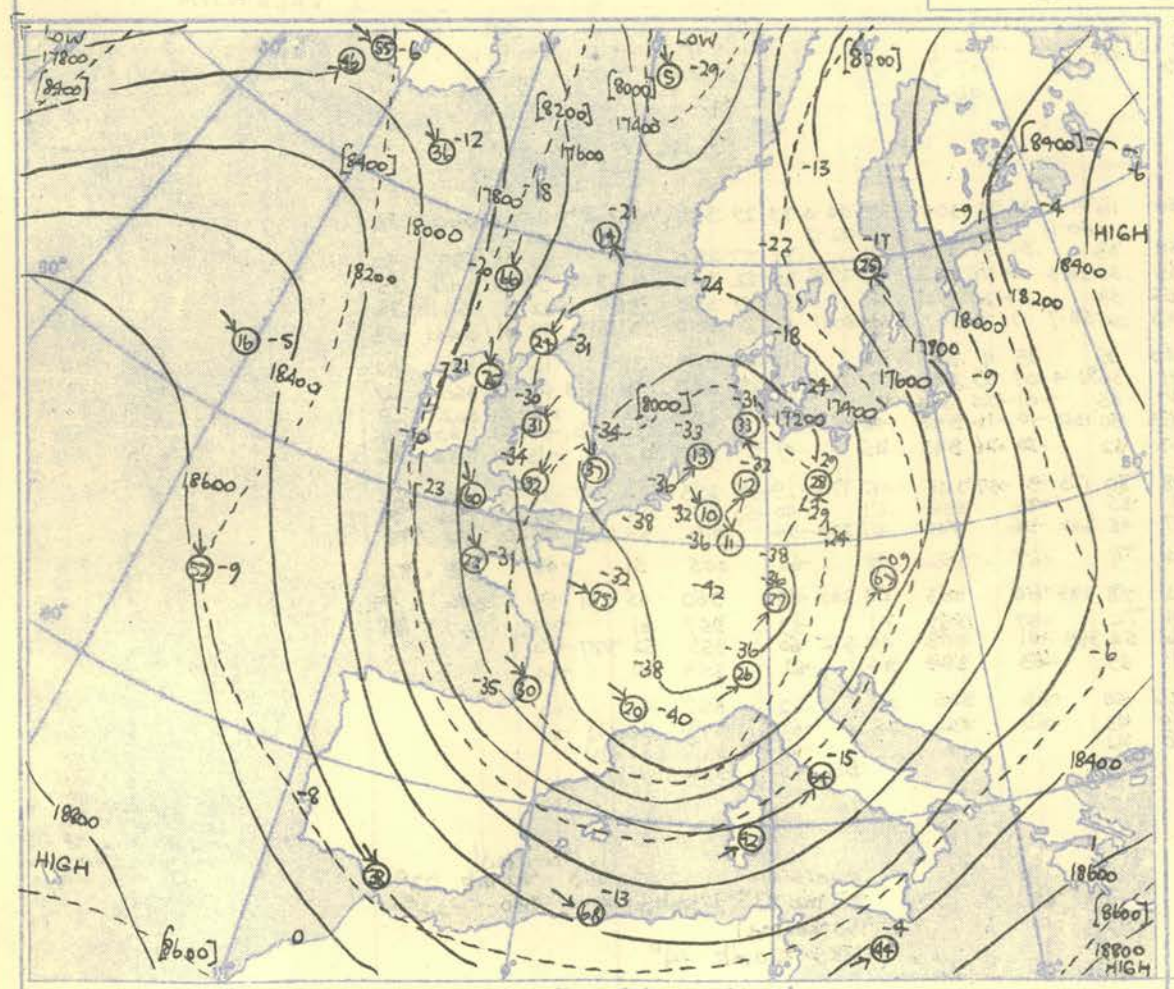


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

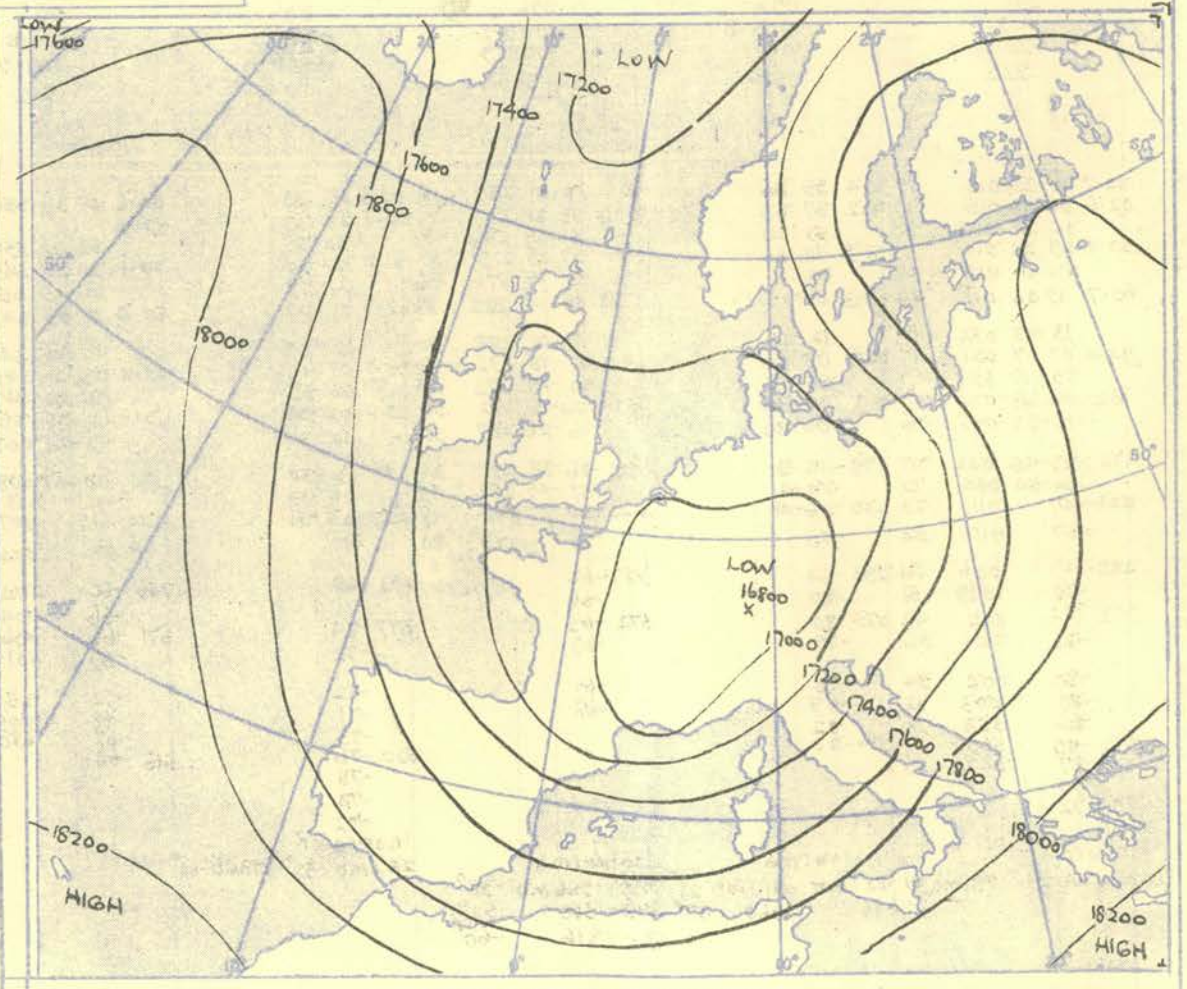
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700–500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure mb	Time	M.S.L. mb	Surf mb	Freezing mb	Height ft./100	°Temp. °F.	Dew °F.
Surf							
1000							
950							
900							
850							
800							
750							
700							
650							
600							
550							
500							
450							
400							
350							
300							
250							
200							
170							

NO FLIGHTS REPORTED.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Ronaldsway		52.5N 20W W. Watcher		Ronaldsway	
Time	0830h		09h		15h	
Type						
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	350	12	180	13	360	14
1,000	350	32	190	22	350	33
2,000	340	30	220	22	350	29
3,000	350	46	230	22	010	09
4,000	350	46	240	22	020	13
5,000	350	38	250	23	020	15
6,000			260	21	360	25
8,000			270	21	350	33
10,000			270	20		
14,000			290	22		
18,000			310	24		
24,000			280	19		
30,000			290	15		
40,000			310	23		
50,000			320	39		

NEPHOSCOPE OBSERVATIONS

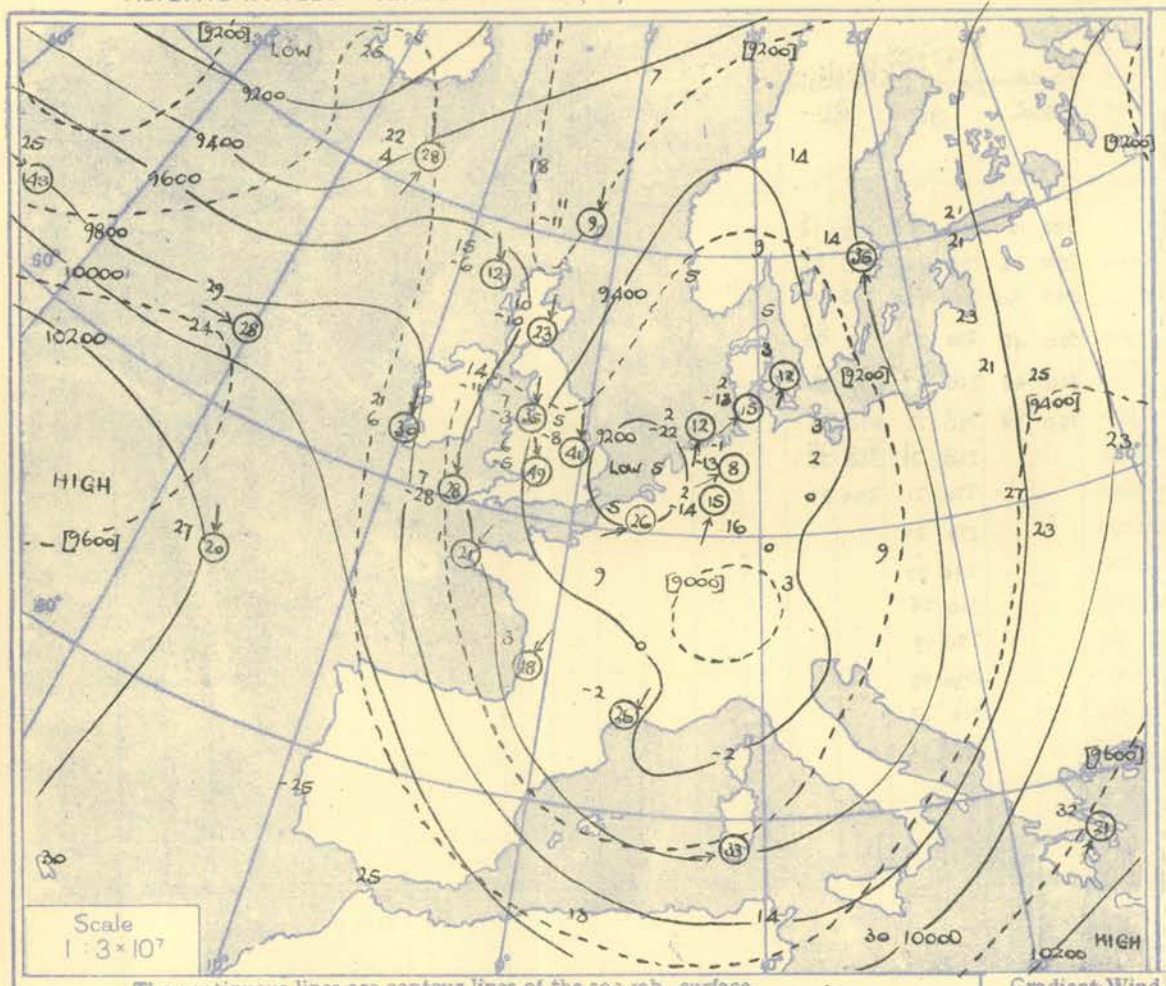
Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER					WEATHER OBSERVER				
Lat/Long	61.0N. 13.9W.					61.0N. 13.7W					60.9N. 13.9W.					61.1N. 13.8W.				
Time G.M.T.	03h.					09h.					15h.					21h.				
M.S.L. mb	1017					1012					1004					995				
Surf mb	1017					1012					1004					995				
Freezing mb	940					920					790					785				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		42	34	210	13		44	37	210	24		45	41	200	30		45	44	185	34
1000	4.6	40	33	213	11	3.2	42		206	27	1.1	44	41			-1.3				
950		33	30	218	13		35		206	28		39	38	187	40		41	41	176	45
900	32.2	25	21	234	15	31.0	30		207	27	29.2	35	35	188	40	26.9	39	39	181	43
850		21	17	243	17		29		206	24		36	36	192	39		36	36	189	40
800	62.4	18	16	255	13	61.7	29		215	27	60.4	33	33	200	34	58.1	33	33	198	46
750		20	18	269	11		26		245	21		28	28	211	28		30	30	200	45
700	96.4	14	06	295	15	96.3	21		261	26	96.2	22	21	216	28	93.0	23	23	197	41
650		12	01	313	29		16		261	24		17	04	219	26		18	17	194	45
600	135	05	-05	325	40	135	11		264	21	135	11	05	222	22	132	10	08	192	39
550		-03	-09	315	37		03		282	27		03	-03	230	27		01	-01	184	34
500	179	-12	-18	306	36	180	-07		299	36	179	-06	-12	239	29	177	-08	-15	180	34
450		-22	-29	312	57		-17		316	39		-18	-24	260	27		-20	-27	181	37
400	231	-34	-41	315	65	233	-29		330	34	232	-31	-37	260	26	229	-34	-40	186	39
350		-47		322	72		-43		296	38		-45		256	28		-46		188	37
300	295	-62		328	78	297	-56		297	42	296	-61		257	24	293	-60		186	31
250		-79		331	79		-75		305	41		-76		266	33		-76		188	25
200	377	-90		335	74	380	-88		308	51	379	-83		288	42	375	-92		188	20
170		-85		342	58		-78		324	47		-76		295	43		-87			
150		-85		337	47		-79		328	46		-76		300	45					
130		-83		328	26		-80		331	45		-78		300	28					
110		-85		321	38	(119 mb)	-80					-76		300	31					
100	515	-85		320	39						520	-81		306	31					
90		-87		319	36							-86		303	27					
80		-94		318	30							-88		291	31					
70		-94									(073 mb)	-90								
60																				
	Inversion 808mb. 17°-789mb. 21° Isothermal 789-756mb. 21° 700-665 mb. 14°					Inversion 880mb. 27°-850mb. 29° Isothermal 850-800mb. 29°					Inversion 903mb. 34°-885mb. 37° 661mb. 16°-650mb. 17° Isothermal 867-829mb. 36° 650-646 mb. 17°					Inversion 937mb. 39°-923mb. 40°				
Tropopause	I 209mb. -96° 36,800'					I 207mb. -89° 37,300'					I 215mb. -85° 36,400'					I 182mb. -97° 39,500'				

Ship	WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER					WEATHER WATCHER									
Lat/Long	52.5N. 20.0W.					52.5N. 20.0W.					52.5N. 20.0W.					52.6N. 19.9W.									
Time G.M.T.	03h.					09h.					15h.					21h.									
M.S.L. mb	1022					1017					1014					1015									
Surf mb	1022					1017					1014					1015									
Freezing mb	760					750					720					710									
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	43	170	25		50	50				51	51	210	15		49	47	300	23					
1000	5.8	45	41	172	15	4.6	49	49			3.9	52	51	229	21	3.9	48	46	296	24					
950		40	36	181	15		49	49				52	49	236	22		43	40	293	28					
900	34.0	40	37	203	14	33.3	45	44			32.7	49	45	255	24	32.3	45	31	289	29					
850		41	34	224	13		42	41				45	41	256	26		41	19	277	36					
800	65.4	38	25	221	15	64.8	37	36			64.5	40	36	254	26	63.8	39	04	271	45					
750		31	19	196	06		32	31				35	31	254	25		35	-02	266	47					
700	100	24	14	273	09	99.9	27	26			99.8	29	24	257	28	99.0	30	-15	266	45					
650		22	09	294	18		20	18				24	13	289	29		22	-15	271	57					
600	140	15	02	307	21	139	11	07			139	15	08	265	31	139	17	-13	277	61					
550		05	-07	308	20		06	03				08	-03	280	38		07	-12	286	63					
500	185	-05	-15	291	16	185	-04	-10			185	00	-18	285	45	184	-04	-15	301	66					
450		-16	-27	292	18		-11	-20				-11	-30	292	45		-16	-24	305	64					
400	238	-27	-39	333	34	238	-23	-36			238	-25	-44	302	46	237	-28	-36	289	61					
350		-39	-54	335	34		-37	-49				-37	-56	304	44		-42		283	62					
300	302	-57		335	35	302	-52				303	-52		275	41	301	-55		294	65					
250		-76		352	49		-71					-71		267	45		-74		295	67					
200	385	-93		011	48	386	-88				387	-86		265	44	385	-89		292	70					
170		-84		355	41		-82					-85		266	41		-89		299	62					
150		-81		334	37		-79					-80		272	37		-79		304	62					
130		-81		310	42	(133 mb)	-76					-75		281	31		-79		315	47					
110		-85		302	41							-75		287	32		-79		307	34					
100	524	-85		306	35						527	-79		287	32	524	-81		296	35					
90		-85		317	34							-82		286	31		-84		290	35					
80		-83		324	32							-82		298	31		-84		290	31					
70		-85		315	34							-82		326	30		-84		290	30					
60	(063 mb)	-85										-82		325	29		-90								
												-83		305	27										
											(045 mb)	-88													
	Inversion 880mb. 40°-850mb 41° Isothermal 950-880mb. 40° 684-643mb. 22°					Inversion 570mb. 5°-550mb 6° Isothermal 825-807mb. 38° 550-545mb. 6°					Inversion 1014mb 51°-971mb. 53° Isothermal 950-933mb. 52°					Inversion 927mb. 41°-900mb. 45° 762mb. 34°-737mb. 36° 644mb. 21°-621mb. 22° Isothermal 838-810mb. 40°									
Tropopause	I 200mb. -93° 38,500'					I 195mb. -90° 39,200'					II 208mb. -86° 37,900'					I 180mb. -98° 40,700'									

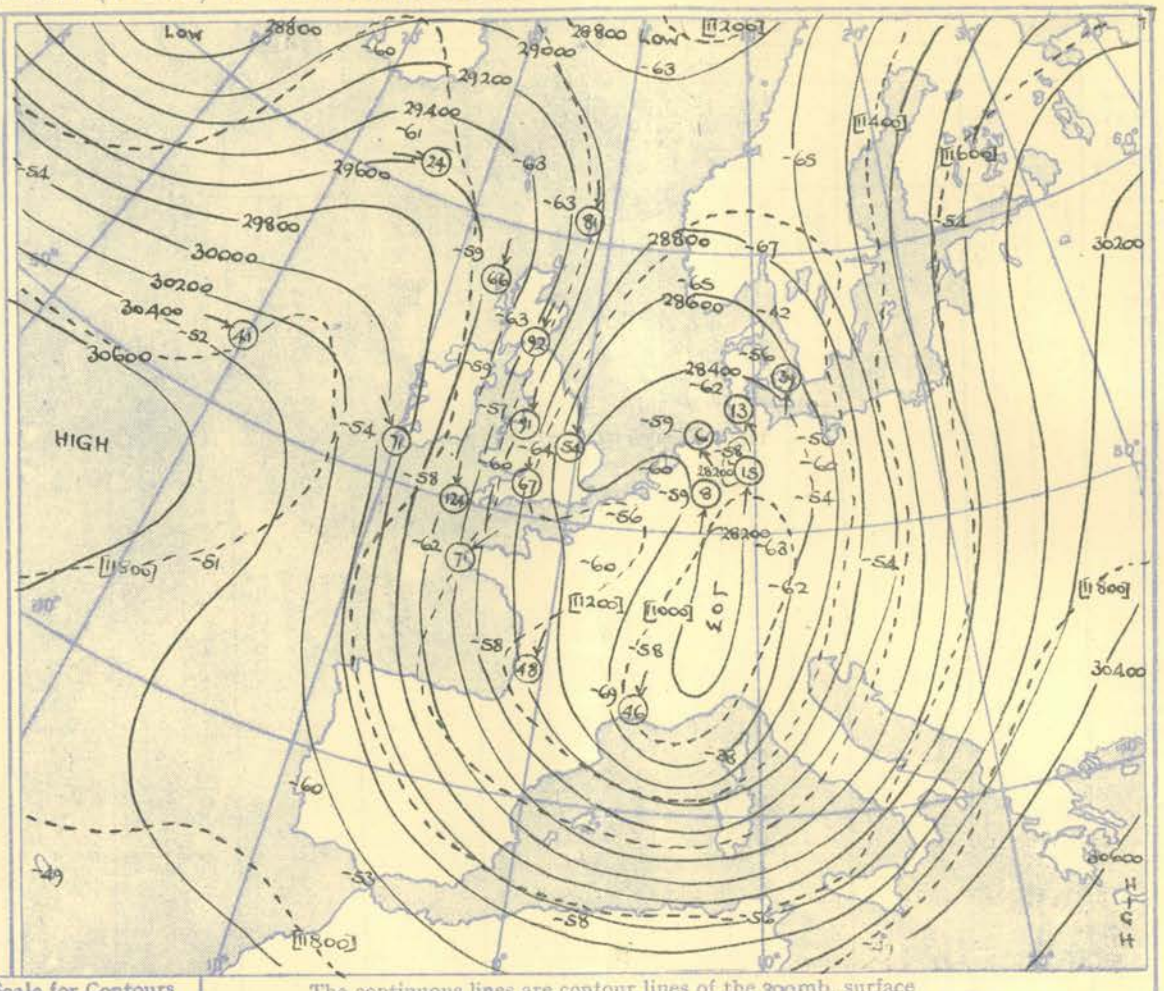
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

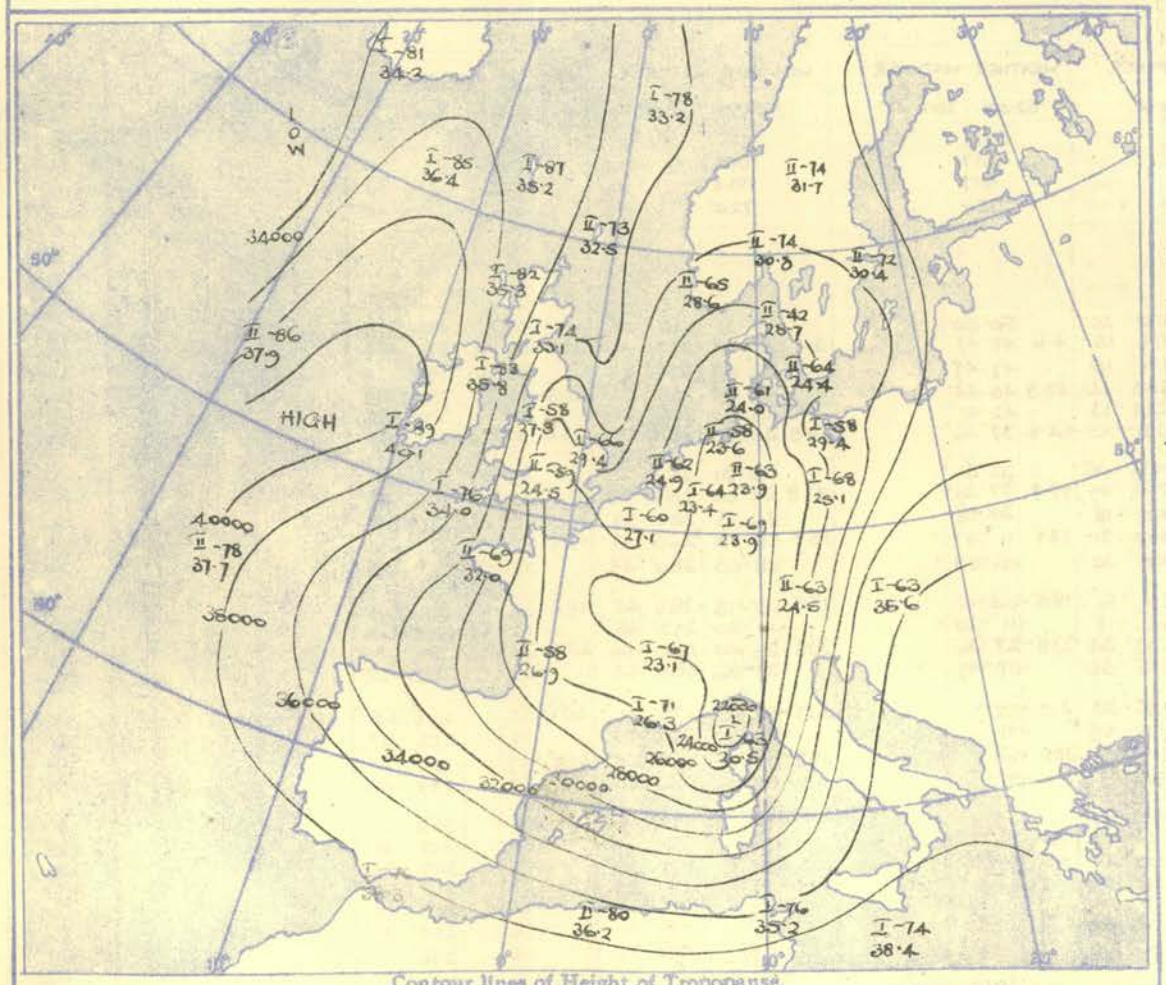
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool central over the Alps moved very slightly east during the day and warmed out somewhat. Warm air associated with a developing depression near Iceland moved steadily east and the upper ridge moved to near the British Isles. A strong west to southwest thermal gradient continued to affect the Northwest Atlantic and the adjacent land areas.

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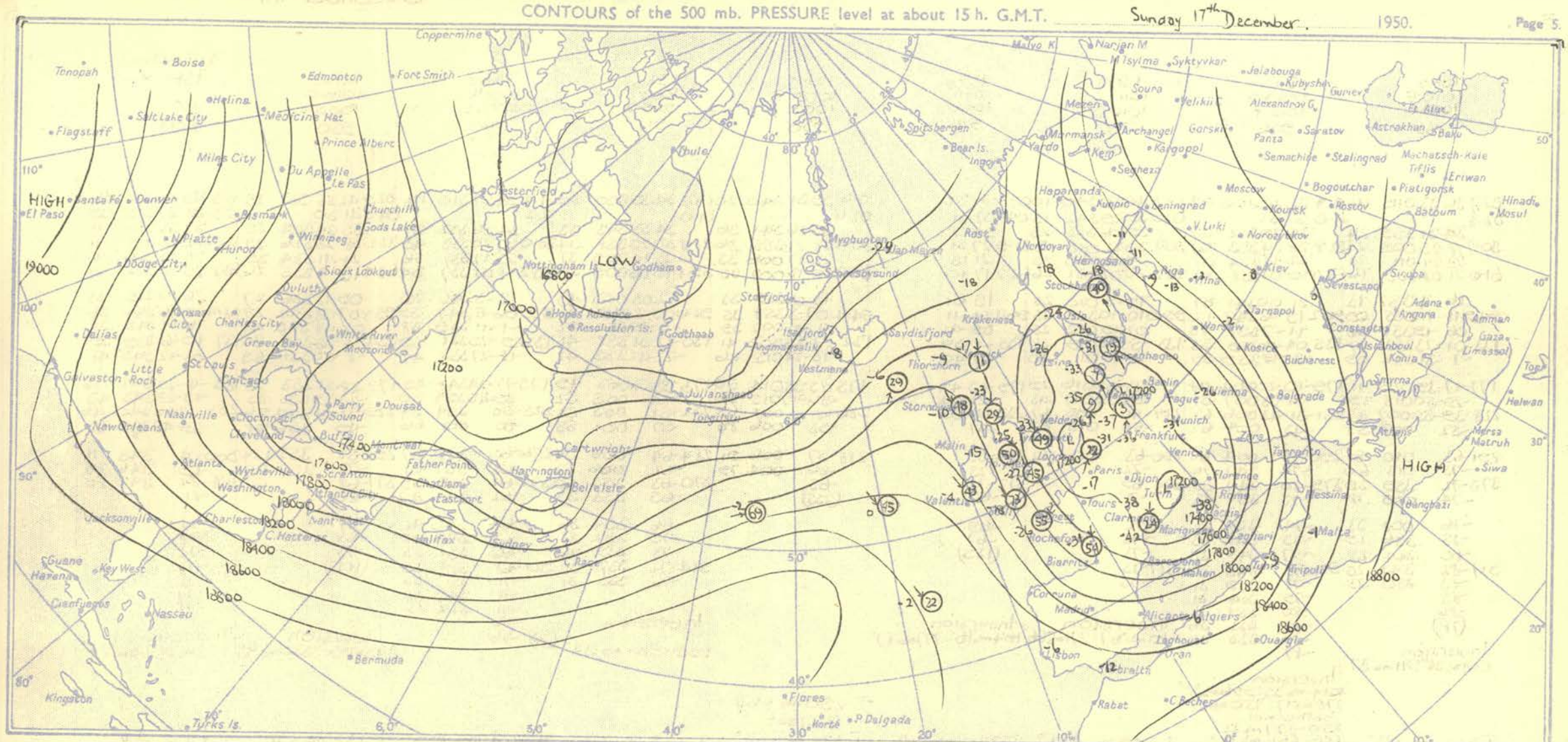
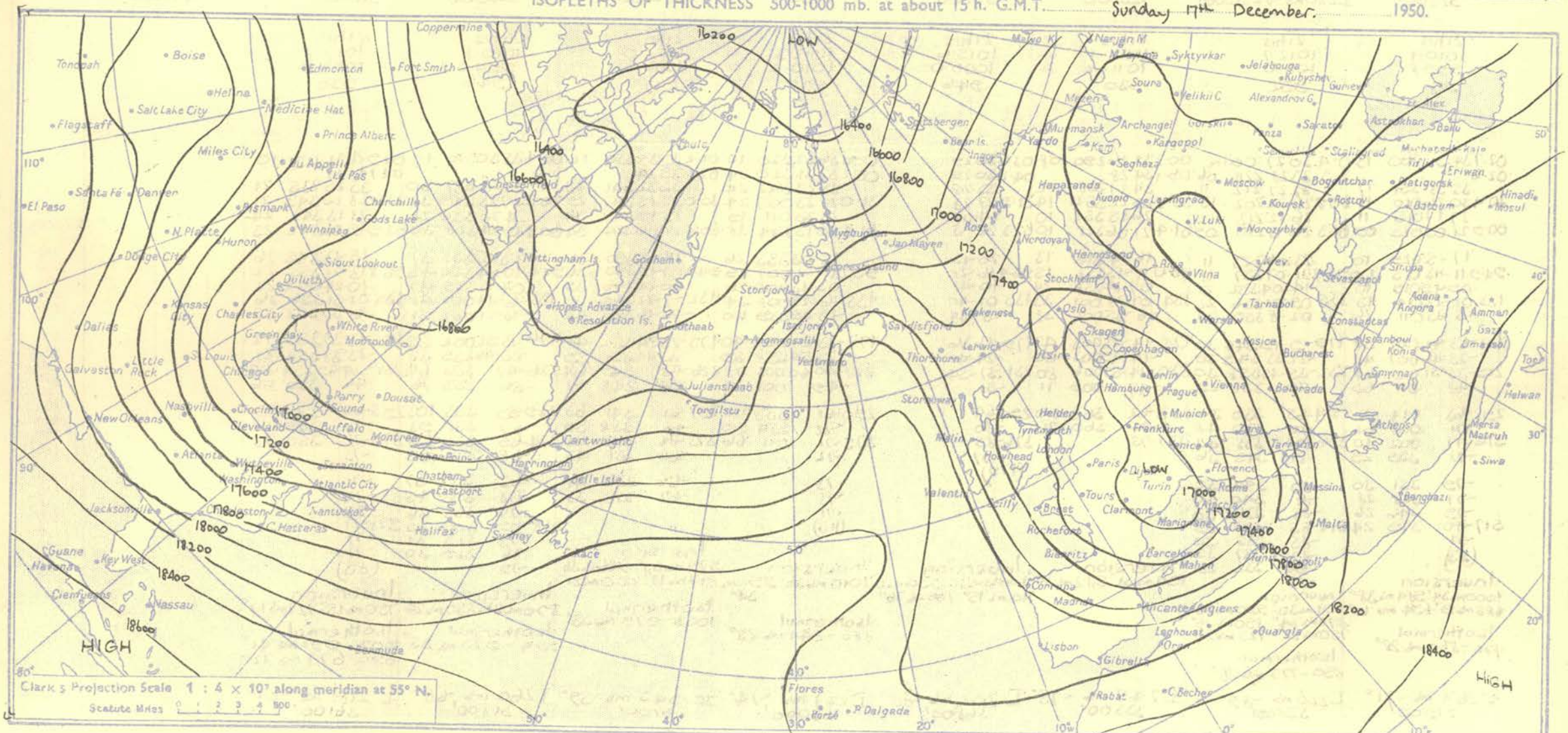
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Sunday 17th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 17th December. 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. December 17th 1936.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs
Pressure: M.S.L.	1010·9 mb	1015·5 mb	1011·2 mb	1015·8 mb	1009·8 mb	1008·8 mb	1008·6 mb	1016·0 mb	
Pressure: Surf	1000·6 mb	1013·8 mb	1010·3 mb	1006·1 mb	1007·7 mb	999·3 mb	992·1 mb	1005·2 mb	1018 mb
Pressure: Freezing	933 mb	936 mb	917 mb	940 mb	930 mb	918 mb	940 mb	930 mb	900 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	36	33	010	16	0·4	35	30	300	04	0·2	40	30	340	10	02·6	37	31		
1000	02·8					4·0	37	32			02·9	39	29	342	15	04·1	37	31		
950		34	31	359	24		34	29	332	07		35	26	353	25		34	28		
900	30·7	28	25	005	24	31·8	28	24	333	07	30·8	30	22	012	23	31·9	27	21		
850		23	21	011	21		22	17	334	08		24	16	030	25		21	13		
800	61·0	21	08	359	16	62·1	19	01	338	08	61·3	20	07	032	26	62·2	17	10		
750		16	-4	357	13		21	00	341	07		15	-5	020	25		15	01		
700	94·9	11	-11	005	09	96·2	15	-6	347	12	95·0	10	-10	359	23	96·1	14	-11		
650		06	-19	351	08		11	-7	357	25		02	-19	003	25		09	-42		
600	133	01	-23	353	07	135	04	-16	359	33	133	-5	-22	019	26	135	-1	-39		
550		-7	-31	342	09		-3	-18	359	39		-13	-31	011	30		-7	-40		
500	177	-17	-39	020	11	179	-10	-22	004	48	177	-23	-44	016	25	179	-15	-42		
450		-25	-50	018	13		-21	-33	007	51		-34	-54	017	43		-22	-44		
400	228	-39	-59	007	47	231	-31	-43	006	63	224	-41		008	67	230	-34	-53		
350		-52		007	58		-43		009	62		-54		013	80		-47			
300	291	-63		010	81	295	-59		004	66	280	-63		013	92	294	-59			
250		-73		013	60		-74		347	24		-72					-75			
200	373	-72		359	39	379	-80		347	55	374	-69				377	-72			
170		-74		005	38		-75		351	43		-78					-65			
150		-76		008	33		-74		352	42		-72					-69			
130		-75		356	25		-73		348	33		-76					-67			
110		-80		344	28		-77		346	35		-73					(133)			
100	517	-82		347	26	521	-78		343	33	517	-73								
90		-83		350	23		-78		339	31		-75								
80		-85					-75		334	31										
70		-86					-80		334	33										
60		(78)					-82		333	36										
							-84		333	38										
							-87													
Tropopause	I 255 mb -75° 32500'					688-664 mb 14° I 230 mb -62° 35300'					I 245 mb -74° 33200'					I 220 mb -83° 35800'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	0·6	39	31	340	20	01·2	34	33	300	20	4·4	36	27	310	14	02·3	42	38	337	15	0·3	43	39	320	06
1000	02·6					01·0					2·3					04·3	41	30			5·3	41	37	313	09
950		35	26	341	36		34	33	343	33		34	26	332	37		35	24	324	26		37	33	308	11
900	30·4	28	21	355	36	28·8	30	25	358	34	30·0	27	20	333	40	32·2	28	20	326	27	33·2	32	28	308	11
850		23	17	006	33		23	14	005	37		23	17	337	36		24	11	334	35		26	23	326	17
800	60·7	19	13	007	28	59·1	15	06	005	38	60·3	18	08	337	34	62·4	15	-4	335	26	63·8	25	20	335	21
750		13	06	359	23		12	03	003	40		12	-3	346	39		09	-18	336	27		26	16	339	33
700	94·4	07	-3	358	25	92·6	08	-8	360	41	93·9	06	-6	347	39	95·8	07	-28	342	28	98·4	21	06	346	36
650		-1	-9	002	39		-3	-19	360	42		-1	-11	353	38		02	-47	345	41		16	-1	345	38
600	132	-7	-15	008	41	130	-12	-31	358	41	132	-9	-25	331	39	134	-12	-55	347	56	137	10	-6	339	39
550		-18	-24	013	46		-22	-42	355	42		-18	-27	355	42		-8	-50	351	65		03	-12	345	41
500	175	-25	-35	014	50	173	-33	-50	003	49	173	-27	-34	348	45	178	-18	-58	353	73	183	-4	-22	342	43
450		-36	-47	015	56		-44		005	52		-39	-48	354	50		-27	-55	355	85		-15	-28	343	43
400	226	-47		008	68	222	-51		003	53	225	-50		354	54	229	-38	-58	354	96	253	-17	-36	340	46
350		-53		006	80		-57		001	55		-60		001	66		-43		356	108		-25	-47	339	63
300	288	-57		006	91	284	-64		006	54	286	-60		359	67	292	-58		353	124	300	-34		345	71
250		-66		004	75		-62		006	52		-63		358	68		-75		357	117		-52		346	83
200		-65				270	-63		353	40	272	-64		353	59	277	-68				284	-54		347	80
170		(235)					-65		353	35		-62		344	47		-66					-51			
150							-66		354	36		-64		345	40		-67					-77			
130							-70		352	38		-63		347	35		-68					-74			
110							-73		339	36		-66		351	33		-73					-72			
100						514	-74		337	38	518	-68		328	35		(112)				525	-73			
90							-76		335	31		-71		331	33							-75			
80												-71		340	38							-74			
70												-71		322	35							-74			
60												-76													
												-76													
Tropopause	I 322 mb -58° 27300'					I 285 mb -66° 29400'					II 364 mb -55° 24300'					I 238 mb -76° 34000'					I 184 mb -89° 40000'				

21 hrs G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne
Pressure: Time	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs
Pressure: M.S.L.	1010·1 mb	1012·7 mb	1012·1 mb	1015·6 mb	1012·3 mb	1008·0 mb	1010·8 mb	1017·2 mb
Pressure: Surf	999·8 mb	1011·0 mb	1011·2 mb	1006·0 mb	1010·2 mb	1003·5 mb	994·3 mb	1006·5 mb
Pressure: Freezing	918 mb	952 mb	930 mb	946 mb	938 mb	917 mb	946 mb	930 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	34	31	360	13	0·4	30	27	calm		00·2	31	26	290	08	02·6	30	29		
1000	02·6					3·3	33	28	228	06	03·1	34	28			04·2	30	29		
950		35	33	351	17		37	27	212	11		34	27	338	12		33	28		
900	30·4	30	26	010	13	30·8	26	22	202	13	30·8	29	22	352	14	31·9	27	23		
850		27	17	015	11		26	12	213	12		26	15	352	10		24	08		
800	60·3	21	03	023	09	61·3	26	-3	210	09	61·4	21	06	328	10	62·3	22	-2		
750		17	-5	029	10		23	06	323	11		16	-4	316	13		20	-13		
700	94·9	11	-13	025	09	95·7	21	01	337	18	95·0	11	-13	338	15	96·4	16	-28		
650		05	-19	015	10		14	04	352	21		07	-26	358	24		10	-48		
600	133	02	-28	014	13	135	09	01	356	22	134	01	-28	001	33	135	01	-40		
550		-5	-35	011	26		02	-8	350	27		-6	-35	002	38		-5	-34		
500	177	-15	-41	007	38	179	-9	-19	344	30	178	-14	-42	003	47	179	-13	-36		
450		-25	-46	007	47		-22	-33	343	30		-24	-49	003	60		-24	-42		
400	229	-33	-51	015	64	232	-35	-43	338	30	230	-34	-55	006	80	231	-37	-54		
350		-48		011	63		-49		352	29		-47		003	11		-51			
300	292	-63		014	72	294	-65		350	36	293	-62		360	50	294	-64			
250		-71		008	62		-80		330	48		-74		360	76		-80			
200	316	-77		002	40	316	-90		333	44	317	-75				316	-85			
170		-78		339	29		-81		345	36							-77			
150		-75		351	30		-80		344	32										
130		-77		348	28		-81		340	30										
110		-79		346	26		-85		336	30										
100	517	-80		345	24	516	-85		333	29										
90		-81					-85		335	30										
80		(93)					-87		337	33										
70							-90		332	33										
60							-93													
Tropopause	I 264 mb -71° 31500'					I 220 mb -89° 35800'					I 247 mb -75° 33300'					I 208 mb -88° 36800'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots
Surf	0·6	36	32	320	10	01·2	35	33	330	12	04·4	35	30	320	15	02·9	41	31	315	10
1000	02·5	37	31	320	24	02·1	35	34			2·8					04·7	41	31		
950		33	28	342	24		35	32	341	27		33	28	337	30		35	28	335	21
900	31·0	28	23	007	24	30·0	30	25	347	29	30·5	27	23	349	32	32·6	28	26	343	21
850		26	20	011	19		23	19	347	34		24	20	356	29		21	13	343	24
800	61·4	20	13	344	18	60·4	21	06	350	34	60·8	15	14	358	30	62·9	15	03	342	28
750		15	05	353	26		14	-8	350	36		15	07	355	37		15	-13	345	26
700	98·2	11	-1	007	29	94·2	07	-13	340	36	94·6	10	04	355	45	96·8	13	-21	355	22
650		03	-13	003	29		00	-24	346	35		04	-3	359	47		10	-40	002	22
600	133	-6	-25	008	34	132	-7	-22	348	35	133	-6	-14	001	48	135	02	-31	356	36
550		-18	-39	359	40		-16	-26	345	43		-13	-21	002	51		-6	-37	358	55
500	177	-23	-51	004	40	175	-25	-34	352	48	176	-23	-32	002	55	175	-13	-37	355	72
450		-32	-58	358	55		-33	-44	351	55		-35	-46	359	58		-25	-38	354	81
400	228	-40	-60	003	78	226	-46		349	64	226	-47		356	64	231	-34	-45	354	84
350		-49		001	87		-58		348	67		-56		353	76		-46		350	96
300	290	-61		355	112	287	-61		341	63	289	-59		353	101	293	-60		350	99
250		-72		354	90		-62		338	59		-67		358	93		-73		349	118
300	375	-71		011	66	373	-64		343	51	374	-65		353	66	378	-78		350	73
170		-72					-65		331	47		-68		356	60		-73			
150		-73					-66		336	41		-69		357	57		-71			
130		-73					-61		335	33		-68		348	45		-72			
110		-71										-70		333	36		-75			
100		(113)									518	-69		324	35	521	-77			
90												-73		325	31		-77			
80												-76		329	30		-77			
70												-79					(85)			
60																				
Tropopause	I 227 mb -74° 33000'					II 345 mb -59° 25100'					I 260 mb -68° 31800'					I 218 mb -81° 36100'				

Inversion
1001 mb 36° - 911 mb 37°

Inversion
1014 mb 35° - 996 mb 38°
978 mb 17° - 750 mb 21°
Isothermal
850 - 827 mb 22°

Inversion
280 mb 67° - 271 mb 66°

Inversion
194 mb 16° - 177 mb 17°

I 250 mb -67°
32700'

Inversion
999 - 938 mb 34°

Inversion
345 mb 51° - 330 mb 49°
825 mb 23° - 773 mb 28°

Inversion
1000 mb 34° - 984 mb 38°
685 mb 9° - 634 mb 10°
Isothermal
880 - 860 mb 28°

Inversion
1011 mb 30° - 990 mb 36°
876 mb 24° - 850 mb 26°
750 mb 23° - 725 mb 24°
Isothermal
850 - 775 mb 26°

Inversion
1011 mb 31° - 982 mb 36°

Inversion
1004 mb 30° - 950 mb 33°
710 mb 15° - 700 mb 16°

Inversion
1010 mb 36° - 992 mb 38°
Isothermal
883 - 841 mb 25°

Inversion
975 mb 35° - 966 mb 36°
817 mb 18° - 800 mb 21°
Isothermal
1003 - 979 mb 35°

Isothermal
870 mb 23° - 850 mb 24°
Isothermal
994 - 970 mb 35°

Inversion
750 mb 15° - 727 mb 17°
Isothermal
1007 - 997 mb 41°
650 - 677 mb 12°

HMSO Press, MO., Dunstable

No. 11586 **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Monday 18th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
Pressure: M.S.L.	1006·8 mb	1005·7 mb	1009·8 mb	1011·3 mb	1012·3 mb	1011·1 mb	1013·1 mb	1017·1 mb	1013·2 mb
Pressure: Surf	996·5 mb	1004·0 mb	1008·9 mb	1002·4 mb	1010·2 mb	1006·5 mb	996·5 mb	1006·3 mb	1012 mb
Pressure: Freezing	930 mb	938 mb	950 mb	930 mb	930 mb	930 mb	930 mb	920	765

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf	02·7	36	32	330	10	00·4	39	32	180	12	00·2	26	21	Calm		02·6	30	28		
1000	01·8					01·5	39	32			02·5	29	23			03·2	31	28		
950		34	27	346	10		34	27	199	21		32	25	259	16		34	28		
900	29·6	28	23	067	05	29·2	27	22	204	23	30·1	27	20	263	18	31·0	29	26		
850		27	18	167	03		29	20	224	16		23	10	297	11		28	23		
800	60·1	23	13	189	03	59·8	27	12	227	13	60·5	21	-01	327	12	61·8	29	27		
750		15	06	047	03		24	09	229	14		21	-16	344	19		24	22		
700	94·0	14	-01	051	05	94·3	20	05	232	13	95·0	18	-20	341	24	96·3	19	17		
650		09	-16	006	09		15	09	228	06		13	-21	342	28		15	10		
600	133	04	-24	358	19	133	08	02	Land V		133	06	-27	348	32	135	09	04		
550		-04	-30	002	25		-01	-11	234	07		-01	-25	350	44		00	-04		
500	177	-14	-34	003	35	178	-10	-20	231	09	178	-09	-26	352	52	180	-09	-15		
450		-22	-37	004	41		-20	-30	223	06		-20	-31	351	52		-19	-26		
400	229	-34	-48	013	46	230	-33	-43	215	11	230	-32	-43	556	51	232	-31	-40		
350		-46		009	55		-48		232	13		-45		351	51		-45			
300	292	-62		017	60	293	-62		273	05	294	-61		342	59	296	-58			
250		-76		003	48		-78		305	11		-75		339	55		-75			
200	376	-74		004	33	376	-88		311	14	377	-75		337	38	379	-80			
170		-72		355	28		-76		322	21		-72		341	30		-74			
150		-72		355	27		-77		326	21		-73					-72			
130		-74		344	26		-77		316	31		-74					-76			
110		-79		332	26		-80		321	33		-75					-77			
100	518	-81		332	26	517	-81		329	32	526	-75				521	-77			
90	(92	-84					-84		337	27		-79					-77			
80	mb)						-86					-79					-78			
70																	-79			
60																	(77 mb)			

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf	00·6	32	29	Calm		01·2	34	33	335	08	4·4	34	30	325	08	02·9	42	32	315	08	00·3	43	43		
1000	02·2	34	29	307	15	02·9					3·4					04·6	41	30			3·6	43	42		
950		34	24	306	14		33	33	347	17		34	29	339	22		36	27	294	20		41	40		
900	30·9	28	20	305	15	30·7	29	25	341	16	31·2	29	25	335	24	32·5	29	21	296	20	31·8	37	36		
850		22	15	306	15		25	21	337	21		25	21	337	24		23	16	298	20		38	36		
800	61·2	22	-11	306	12	61·2	20	13	351	28	61·6	19	15	345	22	63·1	23	05	308	18	63·1	36	34		
750		17	-21	294	15		12	05	358	28		17	06	333	25		23	-08	332	23		30	27		
700	94·9	14	-30	322	21	94·9	07	05	357	29	95·5	10	-03	329	30	97·4	21	-04	341	33	98·0	24	21		
650		09	-45	340	31		00	-06	353	51		04	-12	335	32		13	-14	341	35		18	14		
600	134	03	-39	345	35	133	-08	-17	353	37	133	-02	-24	342	33	136	06	-13	339	43	137	10	04		
550		-04	-48	349	47		-14	-27	351	40		-11	-31	347	39		-02	-29	343	48		04	-10		
500	178	-12	-35	351	60	176	-23	-43	353	48	177	-20	-39	350	48	181	-11	-37	341	57	183	-05	-17		
450		-22	-41	348	66		-34	-49	357	60		-30	-49	351	75		-20	-45	342	60		-16	-26		
400	230	-34	-51	347	72	227	-47		354	64	228	-36	-52	352	90	233	-29	-53	343	59	235	-27	-38		
350		-48		349	74		-55		348	81		-47		346	99		-38	-58	338	67		-40	-52		
300	293	-63		341	78	269	-63		348	90	291	-60		342	114	298	-49		344	85	299	-55			
250		-77		341	94		-71		353	79		-73		350	99		-62					-73			
200	376	-76		352	63	373	-71		353	51	375	-67				(243 mb)	-65				383	-88			
170		-71		348	46		-70		353	41	(95 mb)	-66										-81			
150		-72		343	41		-70		351	39												-75			
130		-74		344	35																	-76			
110		-75		346	29																	-79			
100	519	-77																			534	-81			
90		-78																				-75			
80		-79																							
70	(77 mb)	-79																							
60																									

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	997mb 36°- 985mb 38° 865 .. 23°- 850 - 27° 750 .. 15°- 732 .. 16° Isothermal 718 - 700mb -14°	870mb 23°- 843mb 31° Isothermal 766 - 732 mb 24°	1009 mb 26°- 986mb 35° Isothermal 825 - 750 mb 21°	1002mb 30°- 977mb 36° 868 .. 26°- 830 .. 32° Isothermal 661 - 633 mb 15°	1010 mb 32°- 984mb 37° 838 .. 20°- 825 .. 22° Isothermal 825 - 800mb 22° 723 - 696 .. 14°	711 mb 06°- 700mb 07° Isothermal 982 - 939 mb 33°	997mb 34°- 976mb 36° 800 .. 19°- 786 - 20° Isothermal 866 - 850mb 25°	800 mb 23°- 775mb 24° Isothermal 850 - 800 mb 23°	600 - 585 mb 10°
Tropopause	I 253mb -77° 32,600'	I 200mb -88° 37,600'	I 234mb -79° 34,500'	I 223mb -86° 35,800'	I 220mb -81° 35,600'	II 265mb -71° 31,400'	I 232mb -79° 34,500'	N.R.	II 214mb -88° 36,900'

09h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	09h G.M.T.	09h G.M.T.	09 G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
Pressure: M.S.L.	1003·0 mb	999·2 mb	1004·9 mb	1004·7 mb	1008·5 mb	1010·7 mb	1012·4 mb	1012·6 mb	mb
Pressure: Surf	992·8 mb	997·7 mb	1004·0 mb	995·3 mb	1006·4 mb	1006·2 mb	995·7 mb	1001·8 mb	mb
Pressure: Freezing	744 mb	885 mb	Surf	883 mb	968 mb	924 mb	935	850	mb

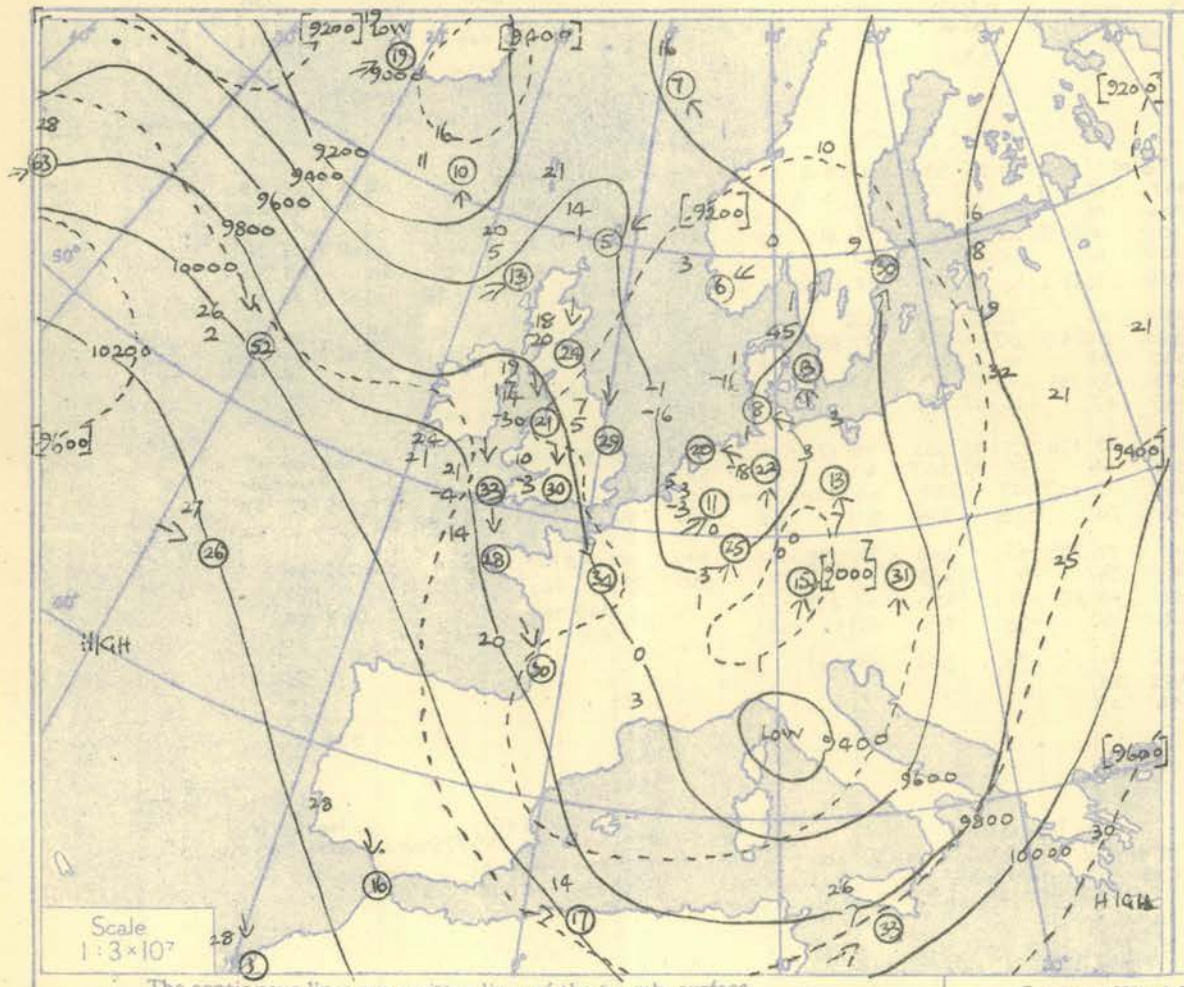
Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf	02·7	35	29	Calm		00·6	40	38			00·2	27	25	350	02	02·6	35	34		
1000	00·7					00·2					01·2	28	25			01·4				
950		33	27	Calm			34	31				30	27	218	12		38	36		
900	28·4	26	22	Calm		27·8	33	30			28·8	27	24	234	14	29·4	34	33		
850		28	20	180	04		30	27				22	21	241	15		29	29		
800	58·9	22	15	180	06	58·7	26	23			59·1	22	14	239	15	60·2	23	22		
750		13	08	180	06		19	17				18	01	234	09		19	10	Dew points	
700	92·5	05	00	165	06	92·8	13	09			93·0	14	01	260	06	94·3	15	-11	Dubious	
650		06	-17	018	05		09	05				09	02	301	07		09	-49	& Element	
600	131	-01	-31	008	13	81	02	-01			132	03	-04	299	08	133	02	-54	unreliable	
550		-09	-36	005	22		-05	-10				-02	-07	296	08		-05	-59		
500	175	-18	-44	003	36	175	-13	-19			176	-12	-15	294	07	177	-12	-53		
450		-24	-44	360	46		-23	-30				-23	-26	315	06		-24	-57		
400	226	-37	-55	004	46	207	-35	-43			228	-34	-38	349	07	229	-37	-60		
350		-51		014	51		-50					-48		353	10		-45			
300	289	-66		017	47	290	-62				291	-64		354	13	292	-53			
250		-74		008	33		-68					-68		329	20		-62			
200	373	-72		352	30	375	-66				376	-63		327	29	379	-64			
170		-72		350	32		-65					-66		334	34		-64			
150		-72		353	27		-67					-66		336	33					
130		-76		334	24		-70													
110		-79		325	27		-74													
100	515	-83		325	28	520	-76													
90		-86					-78													
80	(85	-87					-81													
70	mb)						-83													
60							-84													

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf	00·6	34	32	210	05	01·2	34	31			4·4	32	29	280	05	02·9	41	40	225	09					
1000	02·2	34	33	215	10	02·9					3·2					03·3	41	40							
950		31	27	216	11		34	30				34	28	272	15		38	38	247	27					
900	29·8	26	22	219	11	30·6	29	25			30·9	27	23	267	16	31·3	34	34	260	30					
850		23	19	254	13		26	19	for Winds			25	16	261	18		32	31	273	32					
800	60·2	22	18	274	18	61·0	18	13			61·2	22	01	285	18	62·3	30	29	289	41					
750		19	15	284	26		12	06	See			19	-09	315	20		27	24	296	44					
700	94·3	16	12	294	29	94·6	08	-11			95·4	10	-06	325	24	97·1	23	21	307	46					
650		11	06	285	30		02	-25	Page 3.			07	02	320	33		18	16	305	49					
600	133	06	00	279	35	133	-01	-30			134	05	00	311	47	136	07	02	309	51					
550		-03	-06	282	37		-08	-36				-01	-03	309	54		00	-12	313	49					
500	177	-13	-23	276	36	177	-16	-40			178	-10	-11	316	60										
450		-24	-33	273	33		-26	-41				-22	-24	322	59	181	-08	-16	319	46					
400	224	-34	-46	288	38	228	-34	-43			231	-30	-38	322	66		-19	-27	319	52					
350		-47		291	49		-49					-46		323	78	234	-30	-37	322	60					
300	292	-60		303	78	291	-65				290	-61		322	79		-44		321	68					
250		-72		203	63		-72					-76		324	80	297	-61		317	70					
200	377	-72		313	45	376	-66				378	-67		333	76		-80		327	74					
170		-66		326	39		-62					-67		333	42	379	-84		327	64					
150		-69		332	34		-65										-75								
130		-71		335	39		-66					-67		337	41										
110		-69					-68					-68		337	41		-72								
100	102 mb)	-66					-67					-73		341	38		-77								
90						522					522	-70		342	37	521	-79								
80												-69		330	30		-78								
70												-72		319	35		-76								
60																									

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	993 mb 35°- 973mb 36° 900 .. 26°- 850 .. 28° 700 - 05°- 680 .. 10°	287mb -65°- 270mb -63° Isothermal 950 -910mb 34° 686 - 661mb 11° 560 - 541 .. -5°	1004 mb 27°- 970mb 31° 850 .. 22°- 810 - 23°	995mb 35°- 973mb 39°		1006mb 34°- 972 mb 36° Isothermal 882 - 839 mb 27° 635 - 607 .. 00°	995·7mb 32°- 980mb 36° 889 .. 24°- 850 .. 25° 650 .. 07°- 630 - 08°	Isothermal 885 - 830 mb 32°	
Tropopause	I 250mb -74° 32,663'	I 242 mb -69° 33,600'	I 270mb -74° 31,200'	II 246mb -63° 33,600'	I 220mb -73° 35,800'	I 250mb -72° 32,900'	I 227mb -80° 35,200'	I 217mb -91° 36,400'	

Monday 18th December, 1950.

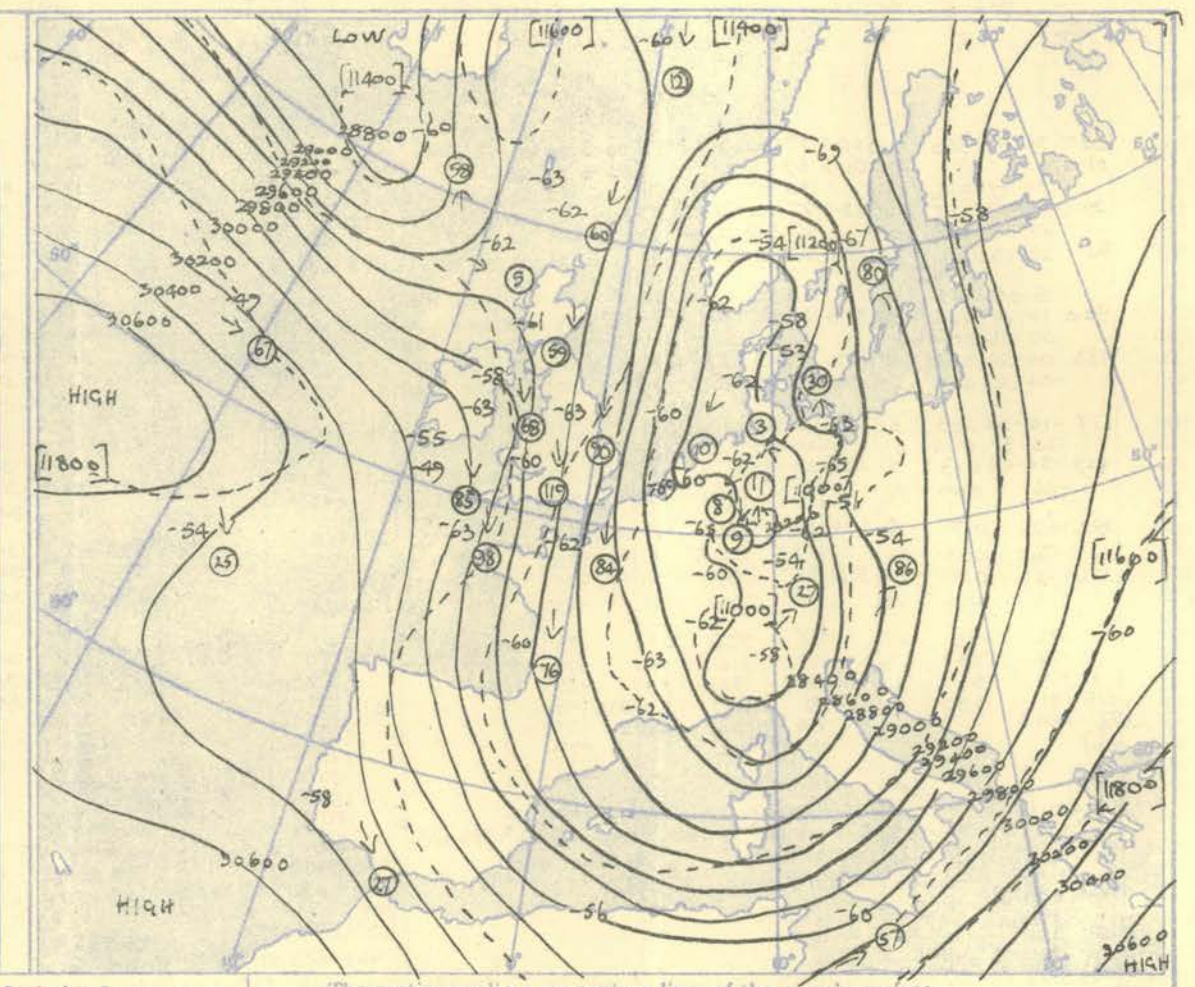
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



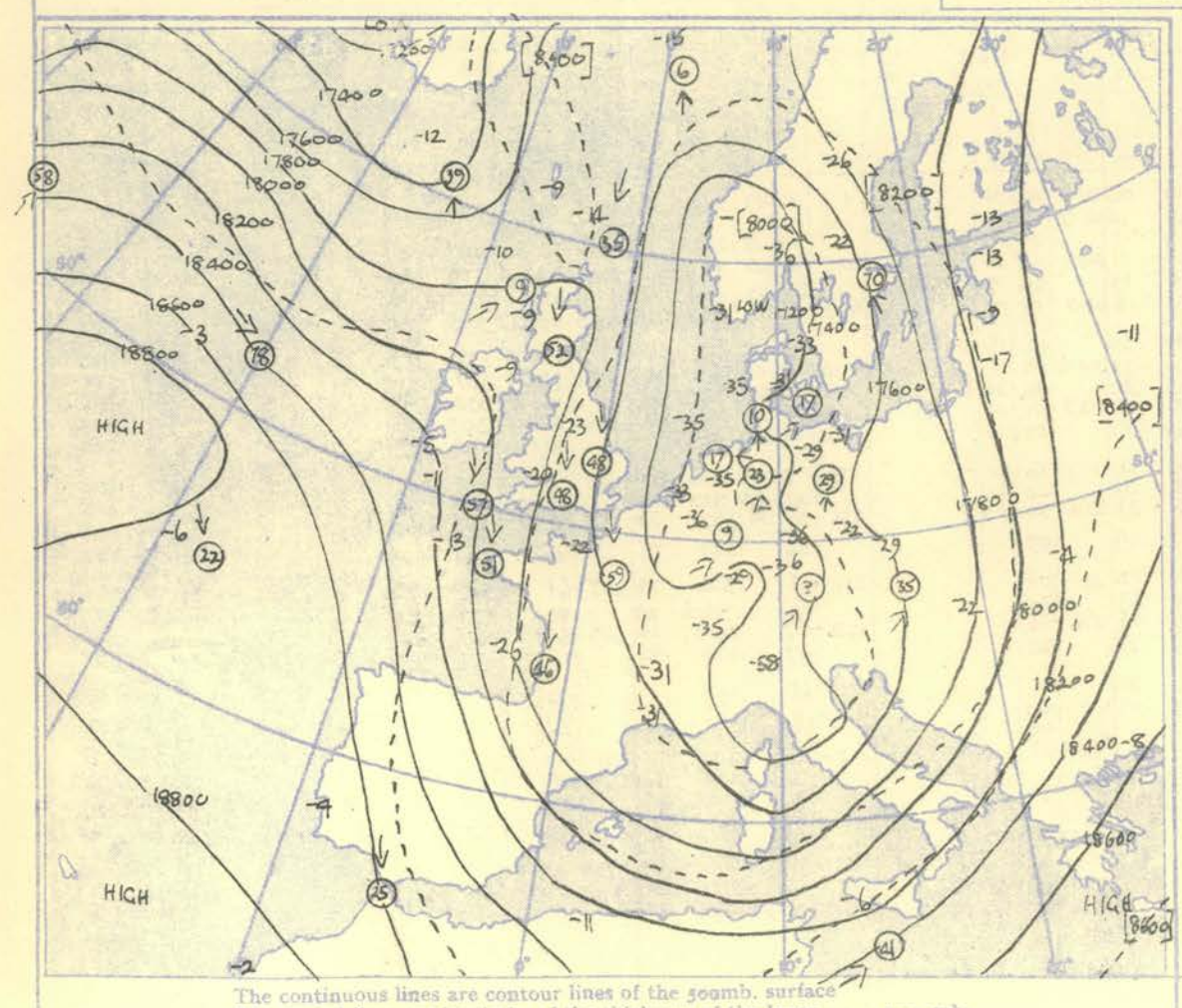
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

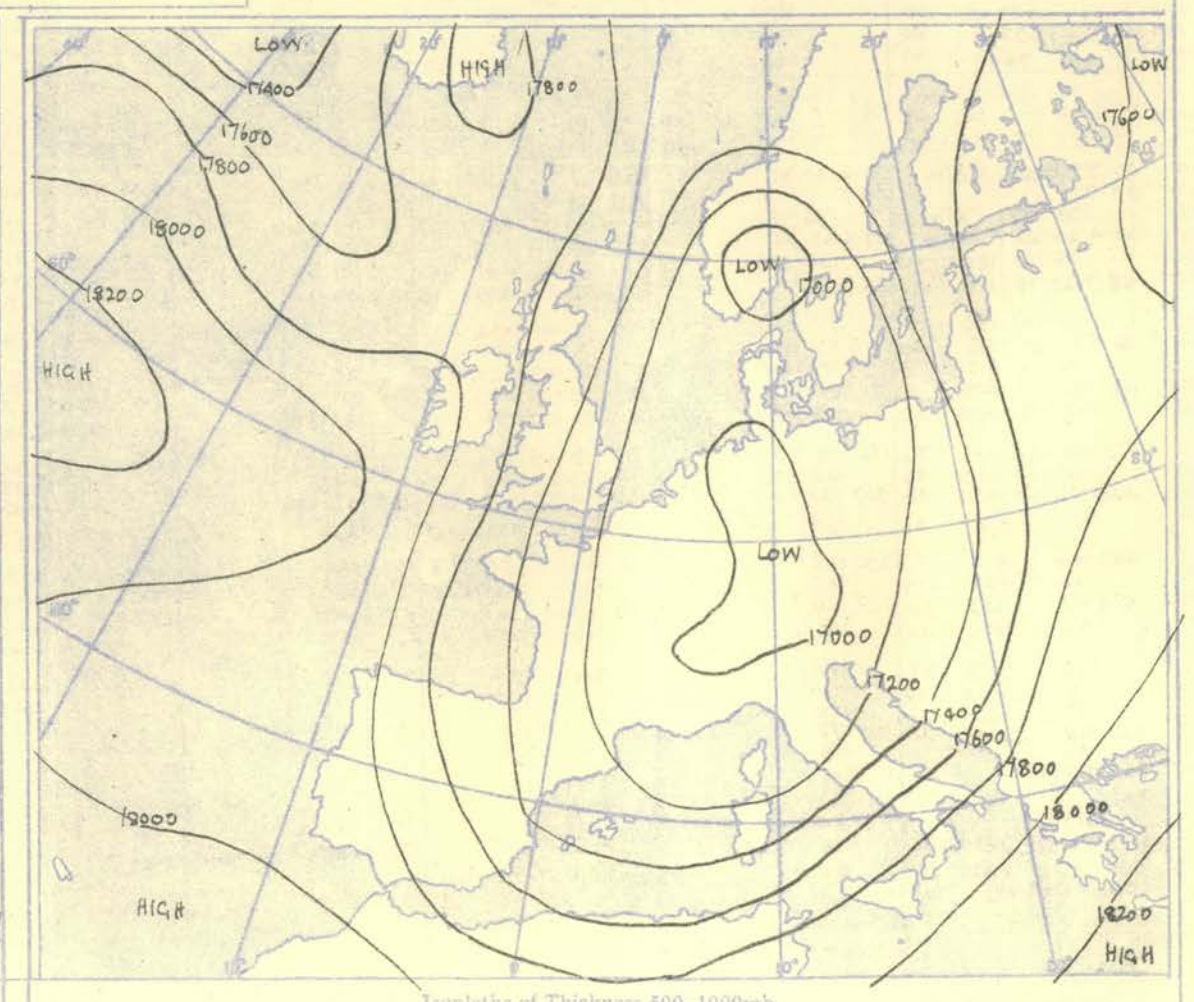
100 60 40 30 20 15 0 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

December 18TH 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2°N 17°W			53·1°N 1·3°E		
Pressure Time	1630hrs			15hrs		
M.S.L.	1024 mb			1007 mb		
Surf	1021 mb			1005 mb		
Freezing	780 mb			916 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf	~	57	57	0·5	40	35
1000	6·7	53	43	1·8	~	~
950		51	48		~	~
900		43	40	29·7	30	30
850		29	23		23	-
800		34	32	60·1	18	-
750		25	19		13	-
700	102	25	17	93·8	07	-
650		19			03	-
600		13		132	-3	-
550		04			-13	-
500	186	-4		175	-22	-
450					-28	-
400				227	-37	-
350					-45	-
300				250	-61	-
250						
200						
170						

43·2°N 17°W:
Cloud.
6/8 St-Cu 990-950
1/8 Cu 990-850
5/8 St-Cu 910-890
4/8 Ac 690-670
Surf wind.
V. 11-16 kts

53·1°N 1·3°E:
Cloud
3/8 St 840-803
6/8 As 633-503
Inversion
871 mb 35°
854 mb 36°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Dublin		Downham Market		Leeming		Lympne		Shoeburyness		Wick		Ronaldsway		Leuchars		Downham Market				Place
Time	02hrs		09hrs		0930hrs		10hrs		11hrs		15hrs		14hrs		21hrs		22hrs.				Time
Type																					Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.	220	17	240	05	130	07	Calm				140	06	300	17	Calm		130	05			Surf.
1,000	250	19	290	09	220	15	290	07	260	08	160	13	320	36	310	07	130	10			1,000
2,000	260	17	290	10	240	22	300	11	260	08	150	15	330	33	330	08	130	11			2,000
3,000	270	19	290	11	240	19	330	11	270	08	160	19	320	32	350	11	190	07			3,000
4,000	280	19	290	12	220	13	290	12	270	15	160	12	310	42	350	13	270	02			4,000
5,000	280	18	280	11	190	09	300	13	260	16	170	11	310	46	350	16	330	09			5,000
6,000	280	15	270	10	240	12	280	15	260	14	130	04	310	46	350	17	340	16			6,000
8,000	210 (7000')	18	280	09			290	13	250	08	320	08			340	17	340	22			8,000
10,000			290	09			290	09	340	23	310	11			340	16	350	22			10,000
14,000			330	23					340	25	330	14			340	21	360	25			14,000
18,000			340	46					310	52					340	32	360	30			18,000
24,000			320	71					310	60					340	44	360	38			24,000
30,000			320	80					310	83					340	49	350	48			30,000
40,000			340	43					340	44					340	41	340	41			40,000
50,000			340	32											330 (48000')	40	330	38			50,000
																	310	31			
																	300	41			6

NEPHOSCOPE OBSERVATIONS

Place											Place
Time Type											Time Type
Dir. Vel.											Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER WATCHER				
Lat/Long	52·6N 19·9W				
Pressure Time	03L G.M.T.				
M.S.L.	1017 mb				
Surf	1017 mb				
Freezing	740 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	40	310	17
1000	4·7	46	39	304	17
950		40	36	304	24
900	32·8	34	32	305	33
850		39	23	307	36
800	64·0	36	06	307	43
750		33	-07	305	46
700	99·0	26	02	300	52
650		22	06	290	66
600	139	16	-04	284	73
550		08	-07	277	76
500	184	-03	-12	280	78
450		-12	-21	282	63
400	237	-23	-31	284	60
350		-31	-44	288	64
300	302	-49		290	67
250		-66		294	80
200	387	-85		303	75
170		-89		303	59
150		-77		303	48
130		-74		301	51
110		-76		304	45
100	527	-78		305	43
90		-80		303	38
80		-82		309	34
70		-82		314	31
60		-83		299	30
		-84			
Tropopause	I 172 mb - 90° 41,800'				

Inversion
890 mb 32°-850 mb 39°

Ship	WEATHER WATCHER				
Lat/Long	52·5N 20·0W				
Pressure Time	09L G.M.T.				
M.S.L.	1018 mb				
Surf	1018 mb				
Freezing	915 , 750 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	38	290	11
1000	4·9	44	35	283	11
950		37	27	283	12
900	33·0	36	22	285	17
850		43	03	285	21
800	64·6	38	03	285	30
750		32	03	285	35
700	99·6	26	05	286	39
650		19	-14	287	47
600	139	14	-32	287	51
550		07	-40	291	57
500	184	-01	-29	296	57
450		-08	-27	291	57
400	238	-20	-38	290	58
350		-34	-51	289	59
300	303	-49		289	67
250		-65		294	74
200	388	-84		300	71
170		-93		304	57
150		-91		292	51
130		-82		303	46
110		-80		305	42
100	526	-78		296	39
90		-82		298	36
80		-82		302	35
70		-83		304	33
60		-85		299	33
		-83			
Tropopause	I 159 mb - 97° 43,400'				

Inversion
912 mb 32°- 863 mb 44°

Ship	WEATHER WATCHER				
Lat/Long	52·5N 20·0W				
Pressure Time	15L G.M.T.				
M.S.L.	1017 mb				
Surf	1017 mb				
Freezing	740 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	41	250	16
1000	4·6	46	41	243	20
950		39	38	241	21
900	32·7	37	30	238	22
850		43	28	245	29
800	64·3	40	22	257	32
750		34	08	267	43
700	99·5	28	04	271	41
650		23	-04	271	33
600	139	17	-09	268	34
550		08	-03	270	43
500	185	02	-02	277	46
450		-08	-21	286	54
400	238	-19	-26	286	65
350		-32	-41	284	60
300	304	-48		290	62
250		-66		291	63
200	389	-87		299	65
170		-90		297	55
150		-81		292	42
130		-78		286	38
110		-77		281	33
100	528	-78		281	31
90		-79		281	31
80		-78		281	31
70		-80		281	31
60		-81		281	35
(55 mb)		-80			
Tropopause	I 172 mb - 92° 42,000'				

Inversion
912 mb 34°- 850 mb 43°
Isothermal
519 - 500 mb 02°

Ship	WEATHER WATCHER				
Lat/Long	52·5N 19·9W				
Pressure Time	21L G.M.T.				
M.S.L.	1014 mb				
Surf	1014 mb				
Freezing	765 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		51	50	220	21
1000	3·7	50	49	220	30
950		46	44	225	35
900	32·2	44	41	239	39
850		43	35	242	37
800	63·8	37	31	236	40
750		30	24	240	34
700	98·8	27	05	249	39
650		22	01	254	42
600	138	16	-07	262	41
550		09	-14	263	43
500	184	02	-22	260	48
450		-06	-35	255	59
400	238	-18	-45	250	54
350		-32	-55	248	43
300	303	-48		252	47
250		-68		259	49
200	388	-87		262	45
170		-94		265	63
150		-88		270	37
130		-81		278	34
110		-80		277	28
100	526	-80		271	30
90		-79		265	37
80		-81		265	29
(72 mb)		-83			
Tropopause	I 177 mb - 97° 41,200'				

Isothermal
925 - 865 mb 44°
754 - 730 " 30°
518 - 495 " 02°

Ship	WEATHER OBSERVER				
Lat/Long	60·9N 13·9W				
Pressure Time	03L G.M.T.				
M.S.L.	989 mb				
Surf	989 mb				
Freezing	830 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	45	240	18
1000	-3·1				
950		43	39	232	21
900	25·2	38	34	222	22
850		33	29	218	21
800	56·3	29	25	202	15
750		23	19	186	14
700	90·6	16	11	181	12
650		12	-03	176	27
600	129	06	-05	163	36
550		-03	-12	145	33
500	174	-12	-21	162	39
450		-20	-31	143	51
400	226	-34	-46	136	58
350		-48		126	63
300	289	-60		140	58
250		-72		135	39
200	374	-68		200	09
170		-67		264	19
150		-70		281	20
130		-77		283	28
110		-80		262	45
100	517	-83		262	42
90		-85		293	30
80		-88		301	46
70		-90		290	51
60		-94		287	58
		-100			
(45 mb)		-103			
Tropopause	I 250 mb - 72° 32,800'				

Isothermal
673 - 645 mb 12°

Ship	WEATHER OBSERVER				
Lat/Long	60·9N 13·8W				
Pressure Time	09L G.M.T.				
M.S.L.	992 mb				
Surf	992 mb				
Freezing	850 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	43	325	33
1000	-2·2				
950		39	39	303	33
900	26·0	35	35	307	31
850		32	32	313	18
800	56·8	26	25	318	10
750		20	19	311	06
700	90·9	12	06	310	06
650		08	-09	317	06
600	129	03	-18	232	03
550		-03	-26	139	22
500	174	-09	-35	142	39
450		-20	-43	153	50
400	226	-34	-53	134	66
350		-45		130	53
300	289	-57		133	52
250		-63		137	20
200	375	-66		310	16
170		-67		280	33
150		-67		285	33
130		-68			
110		-73			
100	520	-77			
90		-80			
80		-84			
70		-87			
60		-87			
		-87			
(42 mb)		-87			
Tropopause	I 278 mb - 61° 30,600'				

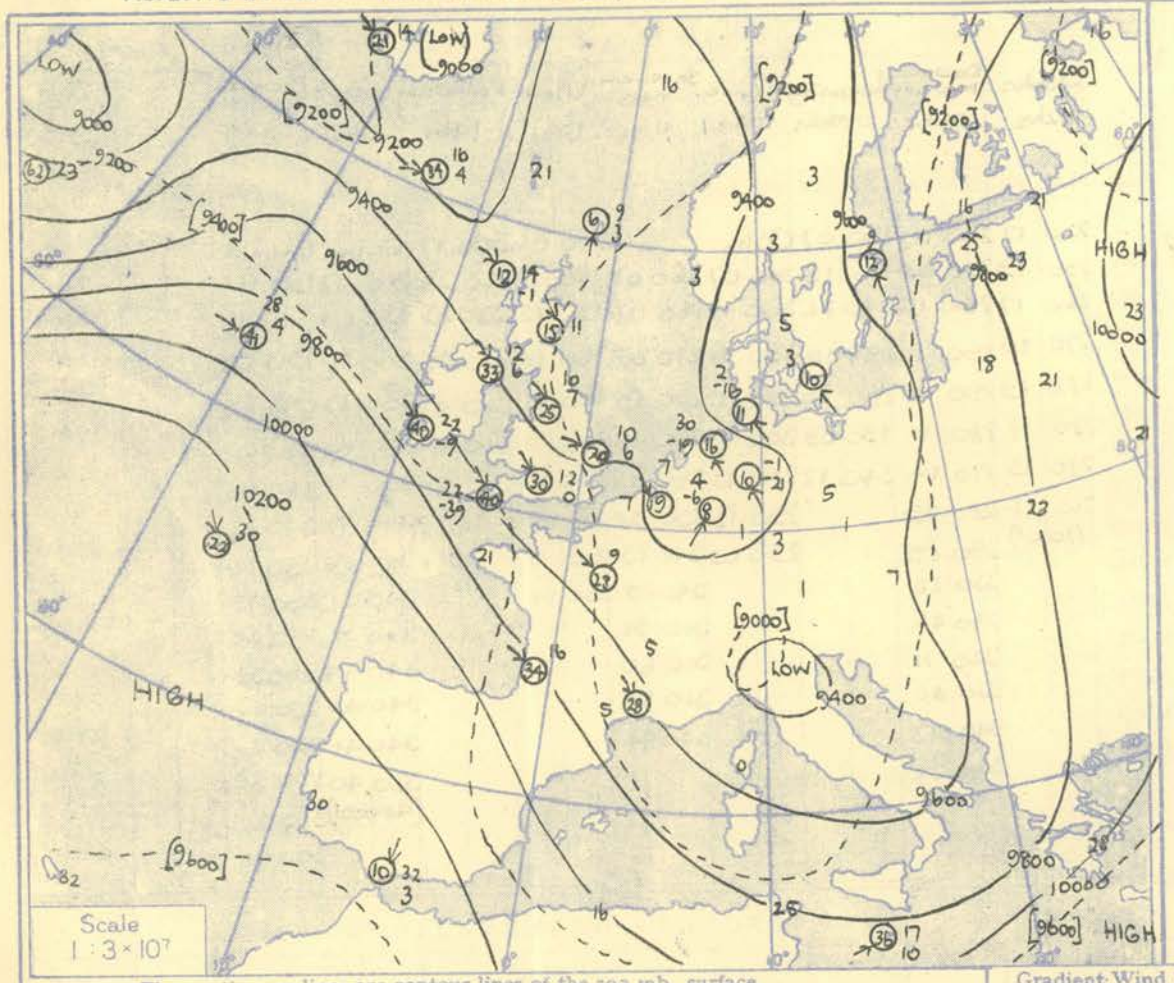
Ship	WEATHER OBSERVER				
Lat/Long	60·9N 14·1W				
Pressure Time	15L G.M.T.				
M.S.L.	997 mb				
Surf	997 mb				
Freezing	920 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	36	310	25
1000	-8				
950		37	27	295	27
900	27·2	30	24	292	27
850		24	17	289	36
800	57·6	22	15	290	33
750		21	03	290	26
700	91·8	16	-04	286	27
650		10	-10	283	27
600	130	02	-14	279	24
550		-06	-22	278	25
500	175	-13	-36	274	33
450		-21	-46	277	36
400	227	-32	-59	283	30
350		-42		289	44
300	291	-52		289	50
250		-63		292	54
200	377	-70		297	38
170		-67		298	28
150		-67		302	26
130		-72		307	24
110		-72		306	25
100	521	-77		299	26
90		-81		294	27
80		-80		291	42
70		-80		289	36
60		-85			
(58 mb)		-86			
Tropopause	I 200 mb - 70° 37,700'				

Inversion
812 mb 19°- 781 mb 25°
Isothermal
511 - 492 mb 07°

Ship	WEATHER OBSERVER				
Lat/Long	60·9N 14·0W				
Pressure Time	21L G.M.T.				
M.S.L.	1001 mb				
Surf	1001 mb				
Freezing	905 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	36	305	20
1000	3				
950		31	30	278	20
900	28·3	31	25	276	21
850		23	18	275	23
800	58·7	26	09	276	21
750		21	-06	277	18
700	92·9	15	-19	278	22
650		11	-24	282	36
600	132	09	-25	289	55
550		02	-31	296	67
500	177	-06	-40	307	67
450		-17	-51	305	67
400	229	-28	-56	302	80
350		-42		299	84
300	293	-58		298	85
250		-73		301	72
200	377	-75		301	60
170		-77		301	48
150		-77		300	40
130		-75		299	34
110		-79		299	27
100	519	-82		298	24
90		-83		298	26
80		-84		298	30
Tropopause	I 225 mb - 83° 35,200'				

Inversion
824 mb 19°-600 mb 31°
Isothermal
634 - 603 mb 10°

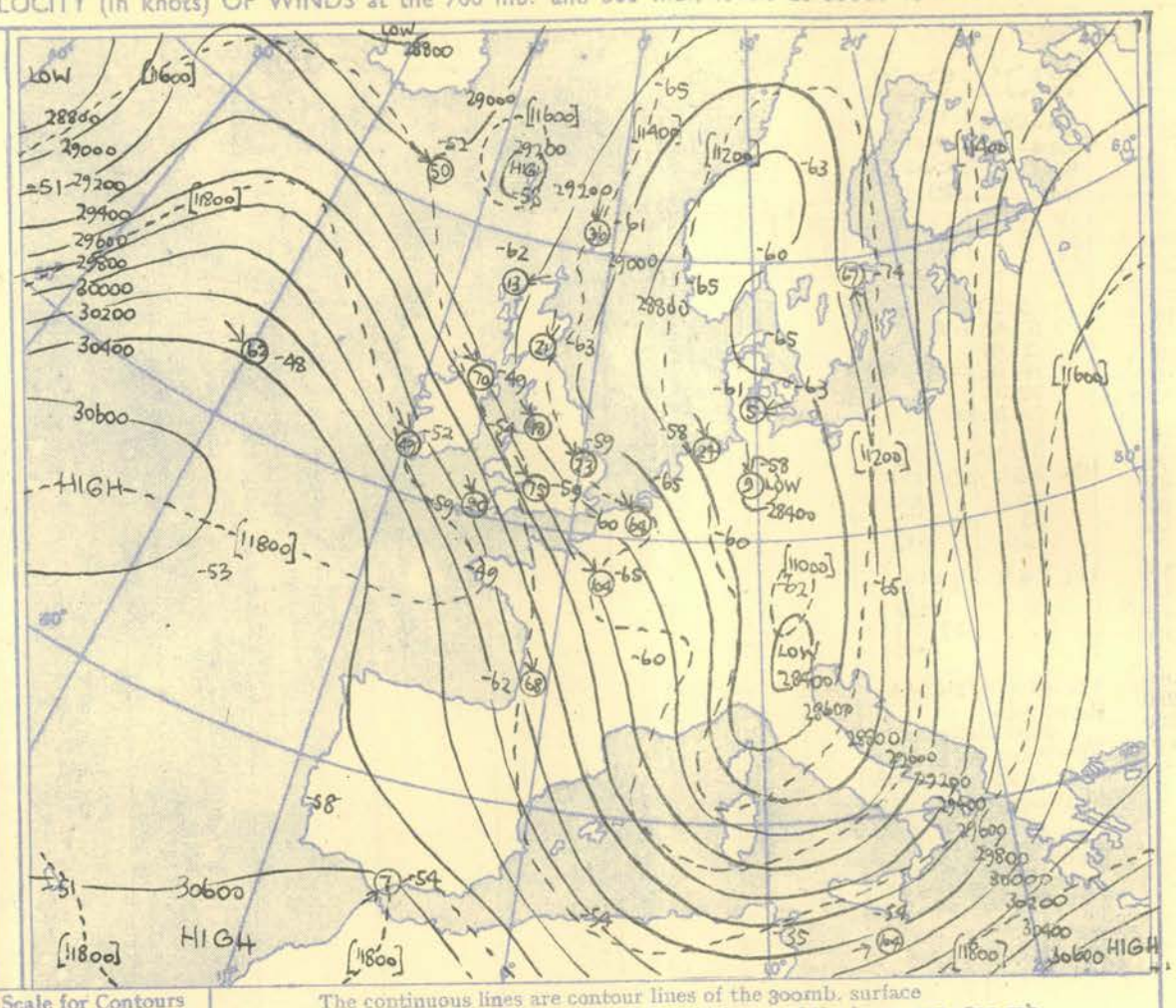
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

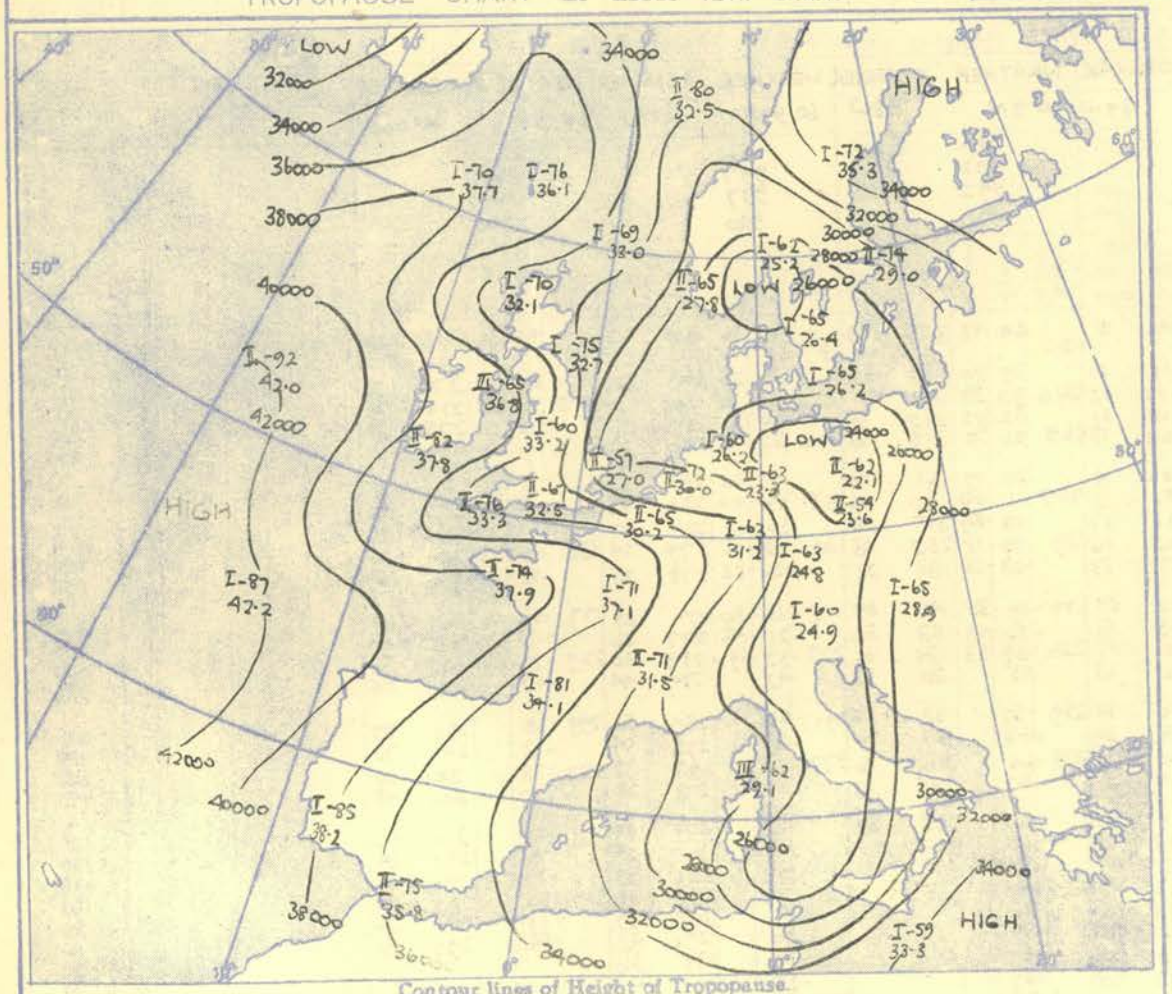
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The tongue of cold air from Norway to North Italy remained almost stationary. An upper warm ridge originally west of the British Isles moved southeast to Central France but the ridge weakened as the warm air was displaced during the occlusion of the surface warm sector. Another ridge over the Atlantic moved steadily east followed by a pronounced cold trough.

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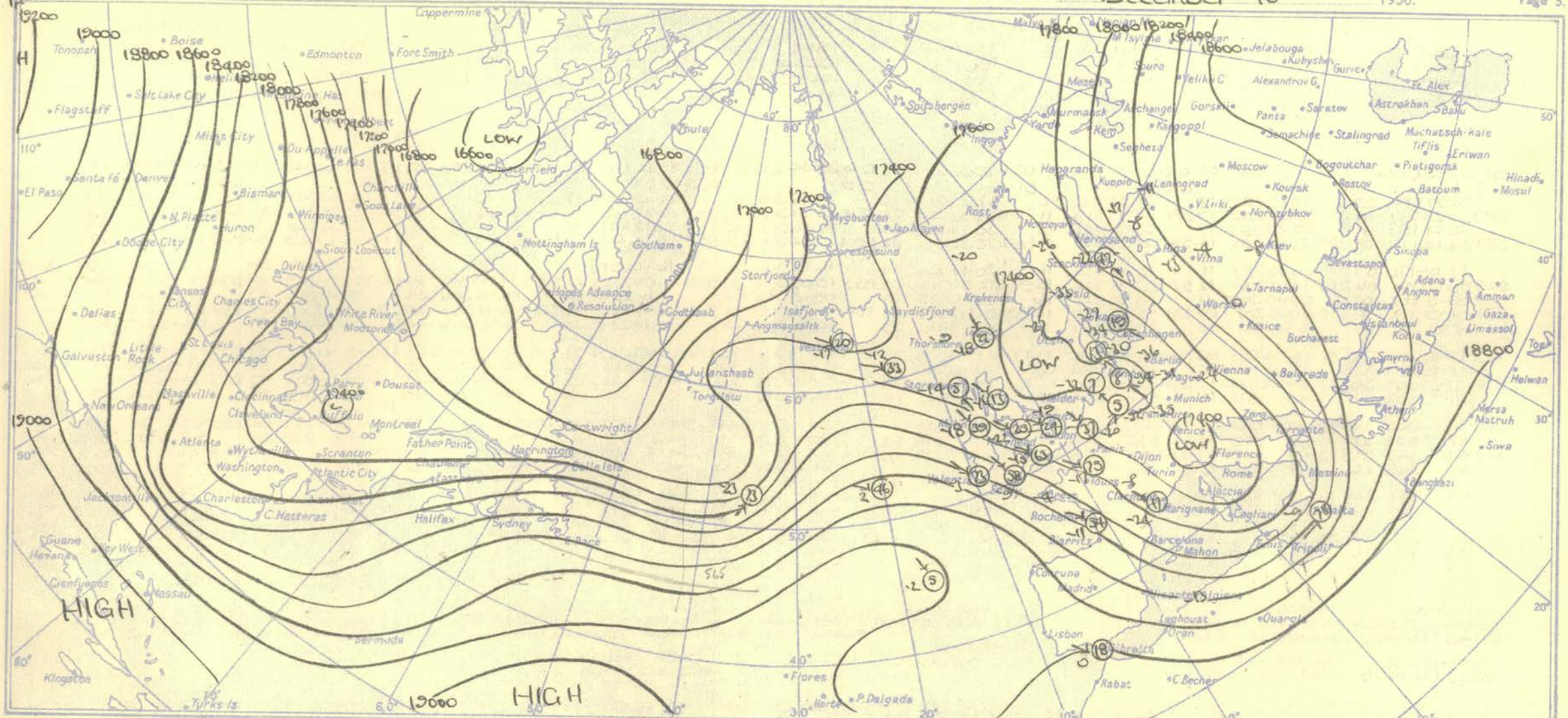
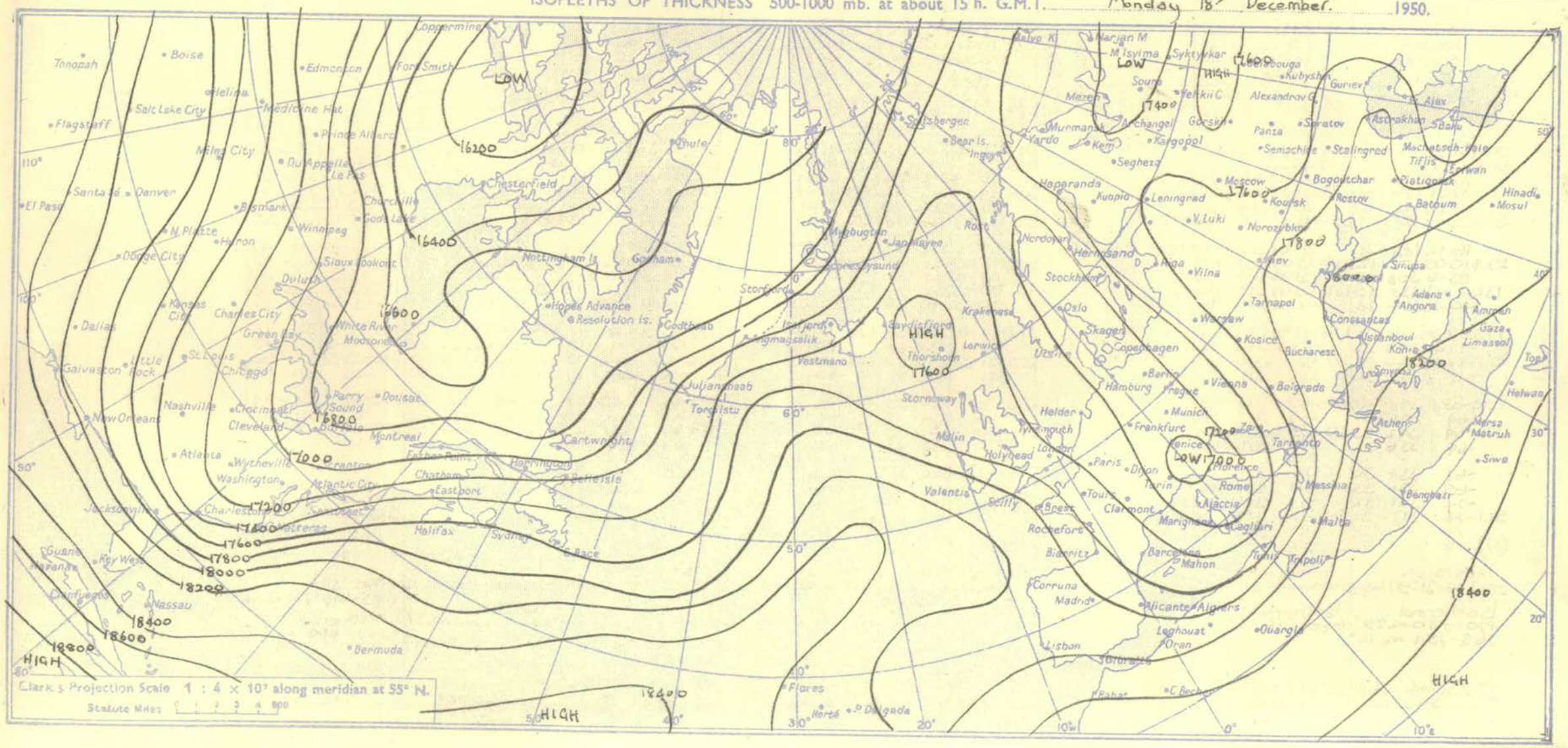
CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. December 18TH 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Monday 18th December. 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. [illegible] 1951

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia
Pressure Time	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.	15hrs G.M.T.
M.S.L.	1001·8 mb	998·9 mb	1002·0 mb	1004·8 mb	1003·4 mb	1007·9 mb	1006·2 mb	1008·7 mb	1012·9 mb
Surf	991·6 mb	997.2 mb	1001·1 mb	995·4 mb	1001·3 mb	1003·4 mb	988·7 mb	998·0 mb	1011 mb
Freezing	930 mb	874 mb	1000 mb	875 mb	887 mb	952 mb	883 mb	895, 811, 780 mb	880 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	027	37	29	Calm	
1000	0·5				
950		35	27	214	03
900	28·2	30	25	207	11
850		26	21	198	12
800	58·8	24	14	175	09
750		17	09	172	07
700	92·7	09	03	191	06
650		07	-5	262	05
600	131	01	-29	324	11
550		-8	-31	348	16
500	175	-19	-41	353	22
450		-28	-49	010	33
400	226	-37	-57	002	30
350		-51		007	37
300	289	-61		003	36
250		-68		002	37
200	374	-64		343	32
170		-61		343	26
150		-69		337	30
130		-75		330	24
110		-80		332	29
100	517	-81		317	35
90		-84		318	36
80		-86		316	33
70		-87			
60		(78)			

Inversion 992 mb 37° - 973 mb 38°; 677 mb 7° - 663 mb 8°

Isothermal 850 - 825 mb 26°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
Surf	0·6	40	39	200	03
1000	0·3				
950		39	38	238	18
900	27·8	35	34	239	13
850		30	29	237	17
800	58·6	25	24	232	14
750		20	13	287	11
700	92·8	14	-1	298	12
650		07	-10	304	11
600	131	00	-13	301	07
550		-6	-18	132	05
500	176	-14	-24	155	03
450		-23	-31	105	05
400	227	-36	-46	074	10
350		-49		077	16
300	290	-62		056	13
250		-68		029	16
200	375	-67		028	27
170		-68		023	33
150		-69		029	28
130		-72		025	31
110		-76		016	36
100	519	-77		016	47
90		-76		019	36
80		-77			

Inversion 997 mb 40° - 980 mb 41°; 291 mb -65° - 282 mb -69°

Isothermal 497 - 487 mb -15°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf	0·2	32	32	Calm	
1000	0·5	32	32		
950		31	31	271	12
900	2·81	27	27	313	11
850		25	24	326	13
800	58·5	22	22	321	16
750		18	17	320	16
700	92·0	13	11	326	15
650		05	03	322	16
600	131	-3	-5	331	14
550		-9	-10	316	11
500	174	-16	-19	334	13
450		-25	-30	003	09
400	226	-37	-43	010	12
350		-51		024	18
300	289	-63		358	21
250		-75		340	28
200	371	-61		328	33
170		-63		342	40
150		-65			

Not Available

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf	02·6	39	35	270	15
1000	01·4				
950		38	35	317	25
900	29·4	34	33	324	30
850		30	29	323	32
800	60·2	25	22	322	32
750		20	17	320	34
700	94·4	12	06	323	33
650		08	-6	329	34
600	133	01	-13	330	34
550		-8	-24	330	33
500	177	-18	-31	335	29
450		-31	-42	330	34
400	228	-34	-50	324	74
350		-42		323	80
300	292	-49		326	70
250		-57		326	65
200	375	-65		323	59
170		-67			
150		-67			
130		-66			
110		-69			
100	523	-67			
90		-68			
80		(95)			

Inversion 685 mb 10° - 665 mb 11°

Isothermal 595 - 570 mb 39°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
Surf	0·6	35	34	calm	
1000	0·9				
950		36	35	340	22
900	28·8	33	32	318	27
850		28	26	317	25
800	58·4	22	20	318	26
750		16	13	318	26
700	93·3	10	07	322	23
650		05	-8	323	28
600	131	-1	-28	318	31
550		-10	-46	313	29
500	175	-22	-51	321	25
450		-32	-57	321	15
400	226	-38	-58	323	26
350		-46		318	41
300	290	-54		318	48
250		-59		319	51
200	376	-63		328	42
170		-61		328	43
150		-64		335	41
130		-67		333	43
110		-69		324	36
100	522	-71		322	40
90		-74		322	37
80		-75		322	36
70		-75			
60		(75)			

Inversion 964 mb 32° - 943 mb 37°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
Surf	01·2	35	32	180	08
1000	02·1	35	33		
950		32	29	322	13
900	29·8	26	25	243	12
850		22	18	208	10
800	60·1	15	14	222	11
750		16	12	258	16
700	93·9	10	06	273	20
650		04	01	290	20
600	132	-02	-7	298	20
550		-10	-14	298	24
500	176	-19	-24	289	24
450		-30	-36	288	16
400	229	-42		322	08
350		-51		316	06
300	289	-59		308	23
250		-62		317	42
200	375	-60		328	48
170		-63		331	41
150		-65		323	39
130		-68		331	37
110		-71		328	33
100	521	-71		322	33

Inversion 810 mb 18° - 790 mb 20°

Isothermal 975 - 950 mb 32°; 865 - 838 mb 22°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
Surf	4·4	34	34	180	03
1000	01·7				
950		33	33		
900	30·7	30	30		
850		28	25		
800	60·3	25	25		
750		19	18		
700	94·3	12	00	313	20
650		06	-11	306	34
600	133	-2	-18	307	35
550		-10	-30	306	46
500	176	-15	-39	305	63
450		-20	-44	305	79
400	229	-32	-51	306	80
350		-46		310	80
300	292	-59		306	75
250		-67		313	73
200	377	-64		320	52
170		-65		329	51
150		-66			
130		-66			
110		-67			
100	523	-71			
90		-74			

Inversion 932 mb 32° - 918 mb 34°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
Surf	02·9	47	40	340	18
1000	02·5				
950		41	35	321	36
900	30·7	33	28	331	38
850		28	23	329	36
800	61·6	24	17	313	40
750		28	24	316	36
700	96·3	22	19	313	46
650		19	14	313	53
600	136	11	-4	307	52
550		02	-26	302	57
500	180	-9	-21	310	58
450		-18	-28	318	56
400	233	-29	-39	321	75
350		-43		319	86
300	297	-59		321	90
250		-76		328	94
200	380	-78			
170		-76			
150		-74			
130		-73			
110		-75			
100	522	-78			
90		-78			
80		-77			
70		-76			
60		(77)			

Inversion 825 mb 28° - 803 mb 35°; 682 mb 20° - 670 mb 22°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Valentia					
Surf	0·3	48	40	310	12
1000	3·5	47	39	311	13
950		41	31	318	25
900	31·8	34	27	317	28
850		28	22	320	33
800	62·5	26	21	316	37
750		27	21	311	39
700	97·2	22	-9	314	46
650		18	-20	315	48
600	136	10	-42	315	53
550		09	-5	315	63
500	181	-3	-19	314	73
450		-11	-32	316	74
400	235	-24	-45	318	81
350		-38	-58	322	89
300	299	-52		320	99
250		-68		322	109
200	384	-82			
170		-76			
150		-74			
130		-72			
110		-72			
100	526	-73			
90		-76			
80		-77			
70		(86)			
60					

Inversion 804 mb 23° - 796 mb 31°

Station	Tropopause
LERWICK	I 247 mb, -69° 33000'
STORNOWAY	I 260 mb, -70° 32400'
LEUCHARS	I 250 mb, -75° 32700'
ALDERGROVE	III 210 mb -65° 36800'
LIVERPOOL	I 243 mb -60° 33200'; I 200 mb -63° 37600'
DOWNHAM MARKET	II 327 mb -57° 27000'
LARKHILL	I 257 mb -67° 32500'
CAMBORNE	II 250 mb -76° 33300'
Valentia	II 205 mb -82° 37800'

21hrs G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	
Pressure Time	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	21hrs G.M.T.	G.M.T.
M.S.L.	1003·8 mb	1001·7 mb	mb	1008·0 mb	1005·2 mb	1007·4 mb	1006·7 mb	1012·1 mb	mb
Surf	993·8 mb	1000·0 mb	mb	998·6 mb	1003·1 mb	1002·9 mb	990·3 mb	1001·4 mb	mb
Freezing	900 mb	870 mb	mb	888 mb	900 mb	946 mb	883 mb	900 mb	mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	027	31	29	Calm	
1000	01·0				
950		37	35	177	07
900	28·9	32	31	176	06
850		29	26	175	08
800	59·6	22	18	178	13
750		16	12	183	21
700	91·4	10	05	158	12
650		03	-6	308	07
600	132	-1	-13	335	13
550		-10	-23	334	28
500	175	-17	-30	336	31
450		-27	-40	343	32
400	227	-37	-50	346	38
350		-48		349	36
300	290	-59		348	40
250		-69		341	37
200	376	-64		342	33
170		-64		336	31
150		-67		338	30
130		-69		331	33
110		-74		321	32
100	521	-74		317	31
90		-79			
80	(87)	-80			

Inversion 993 mb -31° - 977 mb -35°

Isothermal 870 - 850 mb 29°; 765 - 754 mb 16°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
Surf	0·4	40	39	280	05
1000	0·4	40	39		
950		41	40	316	24
900	28·6	35	33	314	22
850		30	28	314	20
800	59·4	25	17	318	18
750		21	08	310	12
700	93·6	15	-3	301	13
650		08	-16	307	09
600	132	05	-17	315	09
550		-2	-21	322	16
500	176	-13	-31	319	21
450		-25	-43	316	22
400	228	-39	-56	316	25
350		-53		311	29
300	290	-69		314	34
250		-76		325	33
200	373	-79		324	43
170		-79		326	36
150		-78		329	34
130		-80		323	36
110		-85		316	33
100	513	-87		315	31
90		-89		320	31
80		-91			

Inversion 1000 mb 40° - 515 mb 43°

Isothermal 640 - 616 mb 7°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf					
1000					
950					
900					
850					
800					
750					
700					
650					
600					
550					
500					
450					
400					
350					
300					
250					
200					
170					
150					
130					
110					
100					
90					
80					
70					
60					

Not Available

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf	02·6	38	33	300	13
1000	02·2				
950		39	34	312	26
900	30·3	34	30	320	33
850		27	22	326	25
800	61·0	22	17	320	25
750		18	12	321	27
700	93·0	15	05	321	33
650		07	-4	338	30
600	133	00	-13	333	34
550		-10	-25	340	36
500	177	-14	-40	342	30
450		-22	-55	334	39
400	229	-31	-58	336	69
350		-43		336	92
300	293	-55		336	95
250		-66		334	85
200	378	-70		335	55
170		-70		335	46
150		-67		330	38
130		-72		316	27
110		-79		314	27
100	522	-81		328	31
90		-82			
80		(93)			

Inversion 999 mb 38° - 973 mb 41°; 550 mb 40° - 532 mb -0°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
Surf	0·6	41	38		
1000	01·4	41	37		
950		38	31		
900	28·4	32	27		
850		27	21		
800	60·0	22	15		
750		15	09		
700	93·8	09	-3		
650		01	-9		
600	132	-2	-21		
550		-10	-32		
500	176	-17	-36		
450		-25	-36		
400	227	-36	-55		
350		-49			
300	290	-57			
250		-61			
200	376	-64			
170		-64			
150		-63			
130		-70			
110		-76			
100	521	-82			
90		-85			
80		-88			

Inversion 772 mb -61° - 764 mb -63°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
Surf	01·2	33	32	120	03
1000	02·0	33	32		
950		30	29	177	12
900	29·6	26	25	180	11
850		23	21	198	10
800	60·0	20	16	331	15
750		14	-29	333	21
700	93·9	08	-03	340	18
650		01	-8	350	13
600	132	-6	-13	333	15
550		-14	-20	352	16
500	175	-23	-31	357	17
450		-33	-42	014	19
400	226	-43		016	23
350		-56		008	27
300	288	-66		345	38
250		-63		340	35
200	369	-63		337	43
170		-68		337	43
150		-72		334	43
130		-76		333	39
110		-78		329	33
100	527	-81		323	37
90		-83			

Isothermal 560 - 547 mb -14°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
Surf	4·4	37	34	310	10
1000	1·8				
950		38	34	329	29
900	29·8	34	31	333	32
850		28	26	337	32
800	60·5	24	21	342	33
750		16	15	345	31
700	94·3	08	06	342	30
650		02	00	330	33
600	133	-4	-7	325	33
550		-13	-17	330	34
500	176	-24	-29	331	30
450		-36	-42	330	28
400	226	-39	-47	330	33
350		-43		333	53
300	291	-49		332	60
250		-57		333	59
200	377	-55		326	52
170		-56			
150		(180)			

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
Surf	02·9	46	40	330	15
1000	02·3	45	39		
950		40	35	326	31
900	31·4	32	28	332	32
850		23	18	329	28
800	61·2	21	15	320	39
750		21	-14	318	43
700	96·1	16	-29	320	48
650		13	-32	316	55
600	135	06	-41	320	59
550		-3	-38	320	67
500	179	-12	-37	320	78
450		-21	-47	318	88
400	232	-33	-58	323	80
350		-45		326	103
300	295	-58		331	114
250		-69		331	103
200	380	-76			
170		-69			
150		-73	Max		
130		-73	wind.		
110		-74	328 ms		
100	523	-76	27600'		
90		-78	332 ms 125 kts		
80		-81			
70		-84			
60					

Inversion 805 mb 19° - 777 mb 24°

Isothermal 687 - 664 mb 15°

Station	Tropopause
LERWICK	I 250 mb -67° 34800'
STORNOWAY	II 286 mb -75° 29800'
LEUCHARS	
ALDERGROVE	I 210 mb -71° 36800'
LIVERPOOL	I 235 mb -? 34400'
DOWNHAM MARKET	I 302 mb -66° 28600'
LARKHILL	I 225 mb -55° 35000'
CAMBORNE	I 200 mb -76° 38000'
Valentia	

HMSO Press, MO, Dunstable

No. 11587.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

Tuesday 19th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h. G.M.T.	1004·6 mb	994·5 mb	919 mb
STORNOWAY	03h. G.M.T.	1005·9 mb	1004·2 mb	895 mb
LEUCHARS	G.M.T.	mb	mb	mb
ALDERGROVE	03h. G.M.T.	1011·0 mb	1001·4 mb	900 mb
LIVERPOOL	03h. G.M.T.	1008·6 mb	1006·5 mb	900 mb
DOWNHAM MARKET	03h. G.M.T.	1010·1 mb	1005·6 mb	965 mb
LARKHILL	03h. G.M.T.	1010·1 mb	993·7 mb	910 mb
CAMBORNE	03h. G.M.T.	1014·7 mb	1004·0 mb	884 mb
LIBERTIA	03h. G.M.T.	1015·6 mb	1014 mb	870 – 760 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	39	34	190	16	00·4	40	38	Calm						
1000	1·2					1·5	40	38							
950		36	29	184	21		38	34	307	20					
900	29·0	30	25	178	21	29·6	33	31	300	19					
850		25	17	173	19		27	25	285	15					
800	59·4	21	-05	161	15	60·2	23	21	274	10					
750		15	-03	160	12		20	15	283	10					
700	93·2	11	-27	318	07	94·3	15	01	291	11					
650		06	-27	331	12		09	-04	302	18		Not			
600	131	-02	-28	358	21	133	04	-23	308	28					
550		-11	-34	001	25		-01	-36	318	36					
500	175	-17	-46	340	36	177	-06	-46	327	49		Available.			
450		-27	-56	329	41		-17	-54	329	66					
400	227	-38	-59	336	52	230	-26	-58	327	75					
350		-49		338	59		-39	-59	333	76					
300	289	-62		340	54	295	-58		337	77					
250		-72		338	48		-71		330	90					
200	374	-70		332	36	378	-81		322	79					
170		-69		328	33		-78		329	49					
150		-73		326	28		-77		326	33					
130		-77		318	30		-75		318	31					
110		-80		315	30		-79		301	30					
100	516	-84		320	35	520	-79		315	30					
90		-83		326	34		-82		321	27					
80		-88		323	30		-85								
70		-91					-85								
60	(064 mb)	-93													
	Inversion 995mb. 39°–987mb. 41°					Inversion 1004mb. 40°–991mb. 42° 767 mb. 19°–750mb. 20° 554mb. -02°–545mb. 0°									
Tropopause	I 253mb. -74° 32,600′					I 210mb. -84° 36,800′									

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	36	33	300	15	00·6	42	41	340	10	01·2	33	32	120	02	04·4	37	35			02·9	44	39	320	15
1000	3·0	36	33			2·7					2·7	32	31			2·7					3·9	43	38		
950		37	30	305	21		38	36	321	23		31	30	295	08		36	33				39	33	318	25
900	30·0	32	25	300	19	30·6	32	29	328	23	30·2	27	26	318	10	30·6	31	28			32·0	34	24	327	30
850		28	20	300	15		28	24	327	25		25	24	340	12		25	24				28	20	335	30
800	61·6	22	12	310	15	61·2	23	18	327	24	60·7	21	18	344	16	61·1	21	18			62·8	23	13	332	30
750		18	-14	316	25		16	09	325	25		15	10	346	18		16	11				24	-02	331	35
700	95·8	18	-24	333	32	95·1	15	-04	324	25	94·5	10	06	347	21	95·0	10	03			97·2	22	-13	333	48
650		09	-37	327	41		09	-15	331	22		05	00	342	24		06	-07				16	-22	329	57
600	134	00	-43	326	47	134	04	-26	338	23	133	-01	-08	340	34	13·3	03	-16			136	11	-24	329	60
550		-06	-46	334	49		-02	-27	336	30		-08	-20	344	37		-06	-24				05	-26	343	63
500	178	-17	-54	330	57	178	-10	-34	332	33	177	-16	-33	345	43	177	-14	-31			182	-02	-33	338	75
450		-28	-56	328	65		-21	-46	332	42		-26	-41	346	55		-24	-42				-13	-43	336	69
400	230	-37	-57	329	70	230	-33	-58	338	44	228	-38	-53	348	63	229	-37	-55			235	-24	-46	340	78
350		-46		331	75		-45		338	57		-50		349	74		-48					-36	-53	344	88
300	293	-56		345	75	294	-57		346	93	291	-60		349	75	292	-58				300	-50		348	94
250		-65		339	91		-69		344	79		-67		344	64		-66					-66		341	96
200						279	-72		345	63	276	-64		341	53	277	-67				384	-82		340	96
170							-67		342	51		-66		335	40		-65					-79		340	77
150							-67		333	47		-65		335	40		-65					-70			
130							-69		323	34		-69		332	40		-67					-69			
110							-74		321	36		-74		328	37		-74					-73			
100						523	-77		320	32	521	-77		329	36	522	-78				527	-76			
90							-78		328	40		-79					-78					-78			
80							-78										-78					-80			
70						(073 mb)	-77										-81					-81			
60																	-85								
																	-83								
																	-88 (040mb)				(050)	-78			
																					(044 mb)	-79			
	Inversion 1001 mb. 36°–985mb. 39° 825mb. 21°–800mb. 22° 750mb. 18°–709mb. 17° 580mb. -04°–567mb. -03°					Inversion 242mb. -70°–230mb. -69° Isothermal 742 – 700mb. 15°					Inversion 980 mb. 31°–965mb. 32° 719 mb. 10°–709mb. 11° Isothermal 900mb. – 873mb. 27°					Inversion 683mb. 08°–670mb. 09° 615mb. 02°–605mb. 04° Isothermal 994 – 957mb. 37°					Inversion 807mb. 22°–782mb. 24° Isothermal 782 –750mb. 24° 624 – 611 mb. 13° 580 – 537 mb. 5°				
Tropopause	N.R.					I 211mb. -76° 36,800′					I 267mb. -68° 31,600′					I 246mb. -67° 33,400′					I 187mb. -86° 40,000′				

Pressure mb	LIBERTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	48	41		
1000	4·2	46	39		
950		41	34		
900	32·3	35	28		
850		30	23		
800	63·5	36	12		
750		31	01		
700	98·5	30	-05		
650		23	-06		
600	138	15	-12		
550		07	-15		
500	184	00	-14		
450		-11	-19		
400	237	-21	-38		
350		-36	-50		
300	302	-53			
250		-70			
200	386	-90			
170		-94			
150		-85			
130		-81			
110					
100					
90					
80					
70					
60					
	Inversion 850mb. 30°–818mb. 38° Isothermal 513 – 500mb. 0°				
Tropopause	I 176mb. -96° 41,100′				

09h. G.M.T.

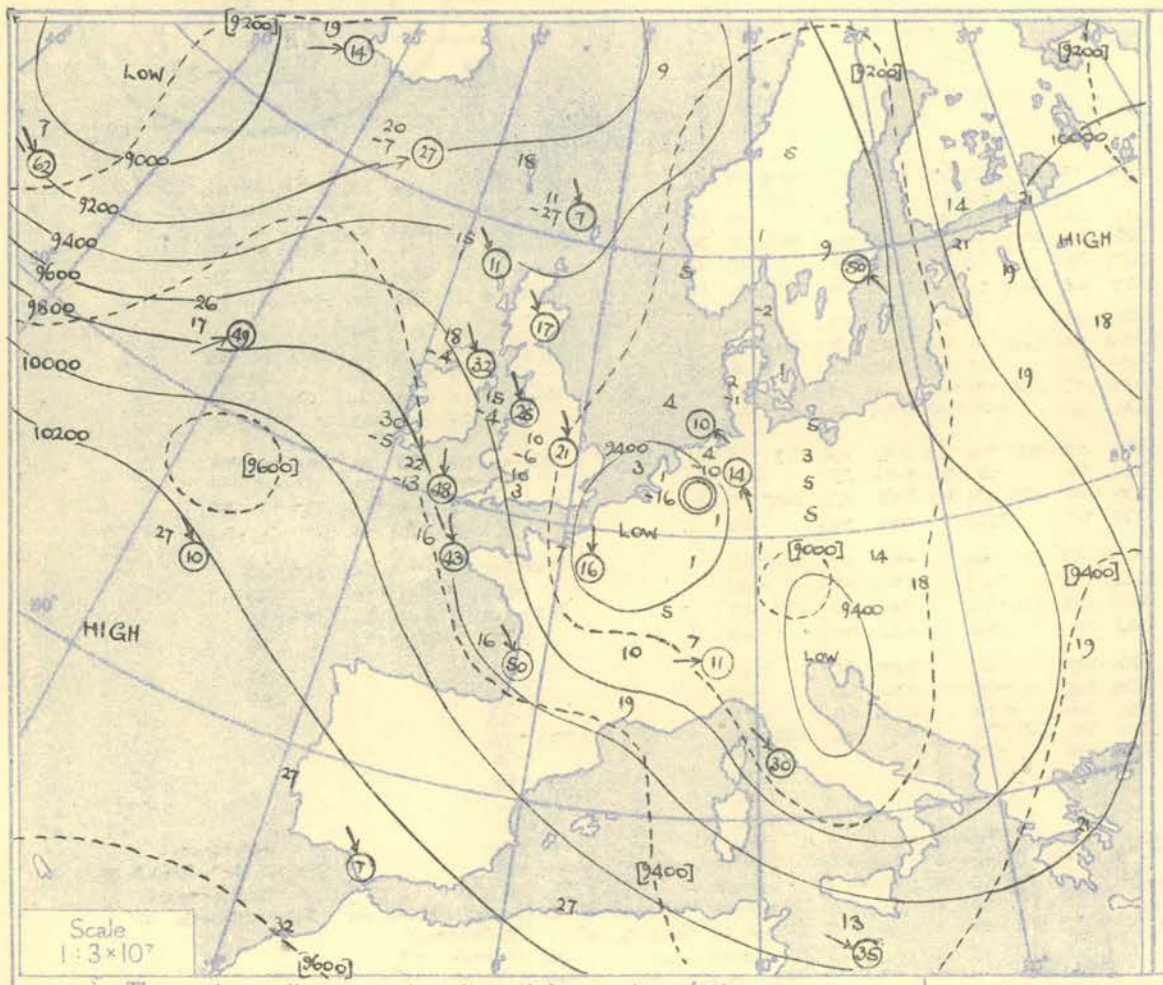
Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h. G.M.T.	1006·1 mb	995·9 mb	904 mb
STORNOWAY	09h. G.M.T.	1007·8 mb	1006·1 mb	912 mb
LEUCHARS	G.M.T.	mb	mb	mb
ALDERGROVE	09h. G.M.T.	1013·3 mb	1003·7 mb	900 mb
LIVERPOOL	09h. G.M.T.	1013·1 mb	1011·0 mb	902 mb
DOWNHAM MARKET	09h. G.M.T.	1014·8 mb	1010·2 mb	923 mb
LARKHILL	09h. G.M.T.	1014·7 mb	998·2 mb	900 mb
CAMBORNE	09h. G.M.T.	1017·6 mb	1006·9 mb	890 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	39	38	200	15	00·4	39	36							
1000	1·6					2·1	41	37							
950		37	35	182	23		36	32							
900	29·6	31	28	180	24	30·1	30	26							
850		29	17	183	20		25	22							
800	60·2	25	-17	217	16	60·7	24	16							
750		19	-07	229	14		26	-07							
700	94·4	15	-07	247	09	95·2	19	-19							
650		11	-16	246	11		15	-19							
600	133	02	-20	256	09	134	10	-16							
550		-06	-28	300	18		04	-11							
500	177	-11	-31	308	29	179	-04	-09							
450		-21	-36	313	32		-15	-21							
400	229	-33	-49	327	42	232	-27	-30							
350		-40	-57	332	67		-38	-43							
300	294	-53		325	76	297	-52								
250		-71		325	76		-69								
200	378	-76		324	43	381	-87								
170		-77		331	38		-85								
150		-77		323	36		-82								
130		-73		319	30		-76								
110		-77		318	29		-79								
100	520	-76		317	24	621	-78								
90		-76					-79								
80							-83								
70							-87								
60							-88								
	Inversion 996mb. 39°–983mb. 41° Isothermal 873 – 842mb. 29° 687 – 673 mb. 14° 385 – 367 mb. -36°					Inversion 1006mb. 39°–998mb. 42° 813 mb. 21°– 770mb. 29°									
Tropopause	I 243mb. -74° 33,800′					I 178mb. – 92° 40,500′									

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	34	32	200	08	00·6	42	40	310	05	01·2	34	33	140	03	04·4	37	36	300	07	02·9	44	39	300	03
1000	3·6					3·4	42	39	317	15	3·9					3·9					4·7	44	38	299	15
950		38	32	256	18		38	34	319	15		35	33	286	14		37	33	325	17		40	34	310	18
900	31·5	32	27	271	17	31·5	32	25	320	16	31·7	30	27	312	16	31·9	32	29	342	17	32·9	38	26	316	19
850		27	21	292	17		25	20	319	17		26	22	335	16		26	24	346	17		26	22	320	21
800	62·4	29	20	316	24	62·0	20	05	320	18	62·2	23	16	354	17	62·3	20	18	338	17	63·6	27	03	329	33
750		25	15	318	26		20	01	328	22		16	11	007	17		17	11	323	23		28	-04	335	39
700	96·9	21	17	316	29	96·1	16	-08	337	31	96·2	14	07	004	23	96·3	14	02	327	30	98·1	22	07	333	41
650		16	12	316	37		14	-24	339	40		09	-06	343	27		08	-11	336	37		18	09	329	44
600	136	10	06	315	36	135	08	-31	337	52	13·5	03	-12	340	30	13·5	07	-30	342	49	137	11	08	331	43
550		03	-01	318	36		03	-39	341	55		-05	-24	340	36		02	-50	344	57		05	-03	328	42
500	181	-04	-14	321	37	180	-07	-50	341	61	179	-11	-33	343	42	180	-06	-60	343	68	182	-03	-09	330	48
450		-14	-22	322	45		-18	-42	339	63		-22	-48	344	54		-16	-60	344	80		-13	-19	326	51
400	234	-22	-33	319	47	232	-28	-49	348	68	231	-33	-60	350	50	233	-26	-55	346	82	235	-23	-31	334	6
350		-36	-48	317	49		-43		346	73		-45		353	66		-38	-60	349	87		-35	-43	333	67
300	299	-51		314	53	296	-59		344	85	295	-56		349	82	297	-53		347	96	300	-51		341	62
250		-67		320	64		-74		339	90		-67		349	90		-69		345	99		-67		340	75
200	383	-88		324	51	280	-83		341	64	280	-72		350	66	282	-81		351	77	285	-84		341	62
170		-78		317	36		-75		338	41		-70		339	44		-76		336	45		-83		343	51
150		-76					-74		331	37		-70		337	38		-70		332	41		-79		333	45
130							-73		326	31		-70		339	39		-73		322	33		-75		315	33
110							-76		317	29		-72		328	33		-74		322	32		-76		336	32
100						521	-78				523	-75		333	31	525	-74		324	39	526	-76		334	33
90												-79				(097 mb)	-76					-76			
80																									
70																									
60																									
	Inversion 1004 mb. 34°–961mb. 39° 850 mb. 27°–820mb. 31°					Inversion 805 mb. 18°–785mb. 23° Isothermal 710 – 687mb. 16°					Inversion 1010mb. 34°–965mb. 36° Isothermal 739 – 700mb. 14°					Inversion 998mb. 37°– 973mb. 40° 635mb. 06°– 614mb. 08°					Inversion 1007 mb. 44°–980mb. 45° 830 mb. 28°– 800mb. 27°				
Tropopause	II 200mb. -88° 38,348′					I 212mb. -86° 36,900′					I 213mb. -75° 36,600′					I 198mb. -82° 38,400′					II 200mb. -84° 38,500′				

Tuesday 19th December, 1950.

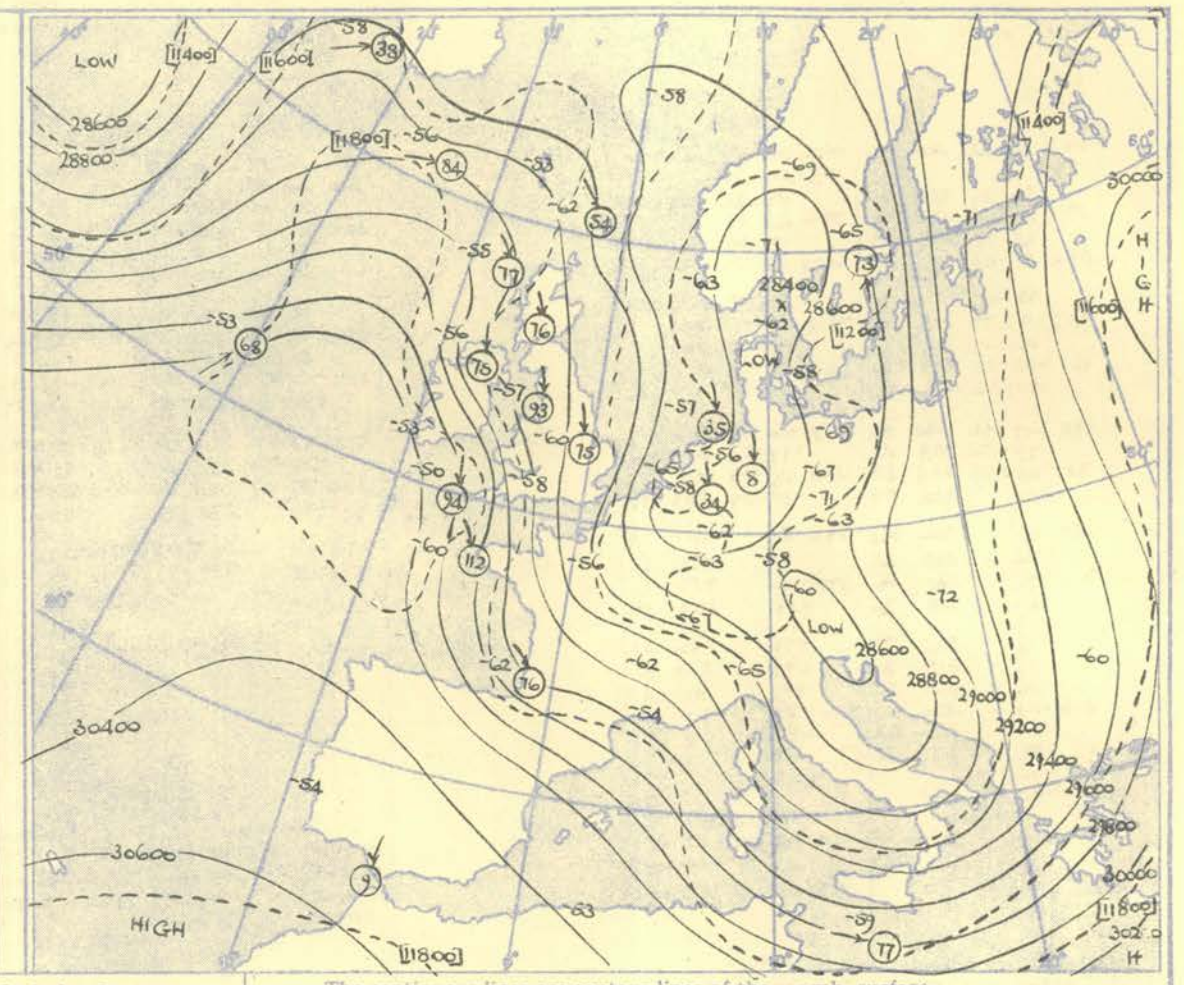
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



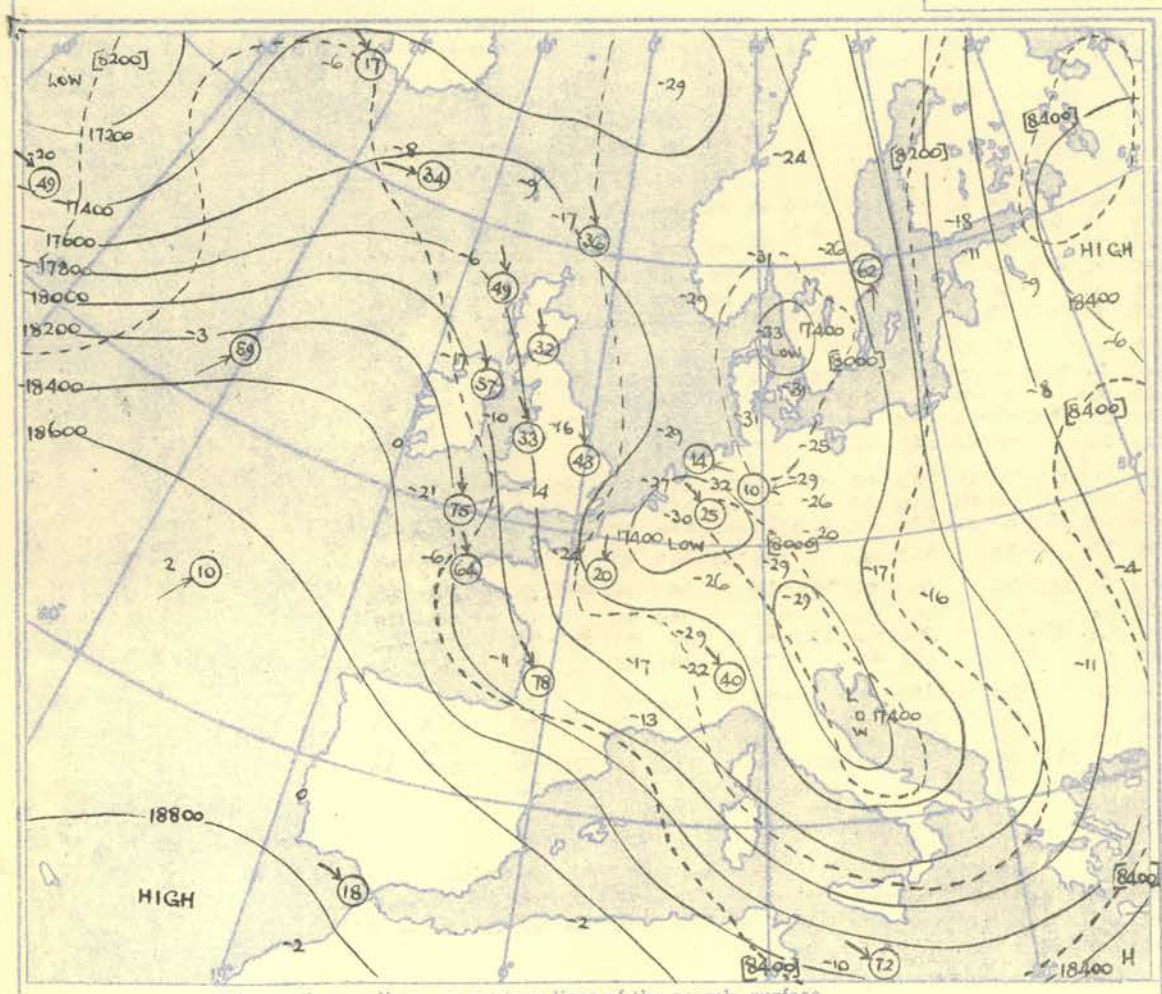
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

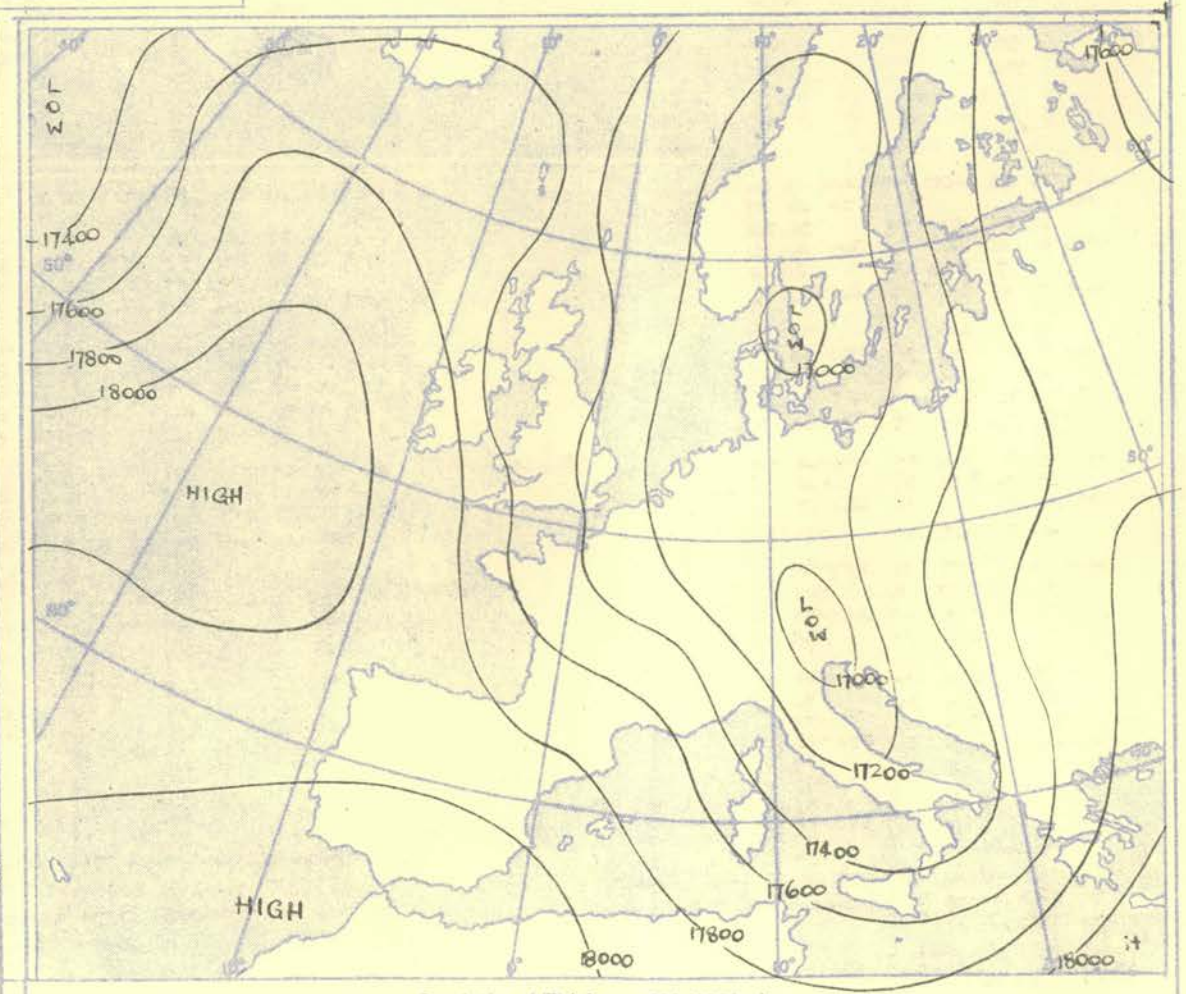
100 80 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

Tuesday 19th December 1950. Page 3

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	48·2°N 20·6°W	49·5°N 14·7°W	48·2°N 17°W	39·5°N 12·2°W									
Pressure Time	15h	15h	13h	15h									Time
M.S.L.	1015 mb	1011 mb	1027 mb	1027 mb	mb	mb	mb	mb	mb	mb	mb	mb	M.S.L.
Surf	1011 mb	1008 mb	1023 mb	1023 mb	mb	mb	mb	mb	mb	mb	mb	mb	Surf
Freezing	870 mb	850 mb	770 mb	765 mb	mb	mb	mb	mb	mb	mb	mb	mb	Freezing

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Pressure mb
Surf		53	44		45	45		58	58		58	57										Surf
1000	4·0	51		3·1	44		7·2	54	54	7·2	54	50										1000
950		43	40		41	41		50	50		51	51										950
900		35	35		35	35		46	42		47	47										900
850		29	29		32			41	38		42	38										850
800		24			29			35	33		36	29										800
750		19			28			28	26		29	23										750
700	97·3	11		97·2	25		10·2	23	15	10·3	27											700
650		08			16			18			19											650
600		00			07			10			11											600
550		-10			-01			01			01											550
500	179	-21		181	-11		186	-07		184	-05											500
450																						450
400																						400
350																						350
300																						300
250																						250
200																						200
170																						170

Cloud
8 Cu. 8 930 - 790mb
8 Cu. 8 930 - 830 mb
8 Sc. 8 830 - 810mb
Surf Wind W'ly 17-21 kts.

Cloud
7 Sc. 8 950 - 860mb
2 Cu. 8 920 - 760 mb
2 Cb. 8 920 - 560 mb
Surf Wind W'ly 7-10 kts.

Cloud
5 Sc. 8 990 - 970mb
1 Sc. at 700 approx.
Surf Wind N'ly 11-16 kts

Cloud
8 Sc. 8 990 - 900mb
Surf Wind N'ly 7-10 kts.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Leuchars		Collinstown		Ronaldsway		Lympne		Leuchars		Weather Watcher 52·5 20·0		Shoeburyness		Downham		Lerwick				Place
Time	03h		03h		0830h		09h		09h		09h		11h		15h		21h				Time
Type									Pilar						Pilar		Radar				Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.	Calm		220	07	300	10	340	03	250	07	270	23	Calm		130	02	200	31			Surf.
1,000	280	09	250	19	320	21	320	07	283	06	270	25	310	07	331	03	184	40			1,000
2,000	310	12	260	17	290	21	340	06	280	06	260	31	320	16	332	04	186	40			2,000
3,000	310	12	270	19	300	16	300	14	275	05	260	31	320	10	330	05	184	43			3,000
4,000	320	15	280	19	310	09	350	18	270	06	260	35	340	11	330	05	182	41			4,000
5,000	320	15	280	18	310	08	300	41	275	08	260	31	340	12	334	06	186	40			5,000
6,000	320	15	280	18					277	10	260	33	340	13	335	07	193	34			6,000
8,000	320	16	310	18					279	09	250	36	350	12	331	11	202	30			8,000
10,000	320	17							280	09	240	40	340	27	344	13	217	21			10,000
14,000	330	21							328	34	220	61	340	35	350	31	255	21			14,000
18,000	330	32							337	43	210	75	350	50	350	47	259	32			18,000
24,000	330	41							340	57			350	70	351	65	265	26			24,000
30,000	340	76							333	70			310	96	348	83	266	35			30,000
40,000	330	41											350	60	346	60	275	26			40,000
50,000	320	34													331 (48,000')	24	282	25			50,000
	320	35																			
	53,000'																				

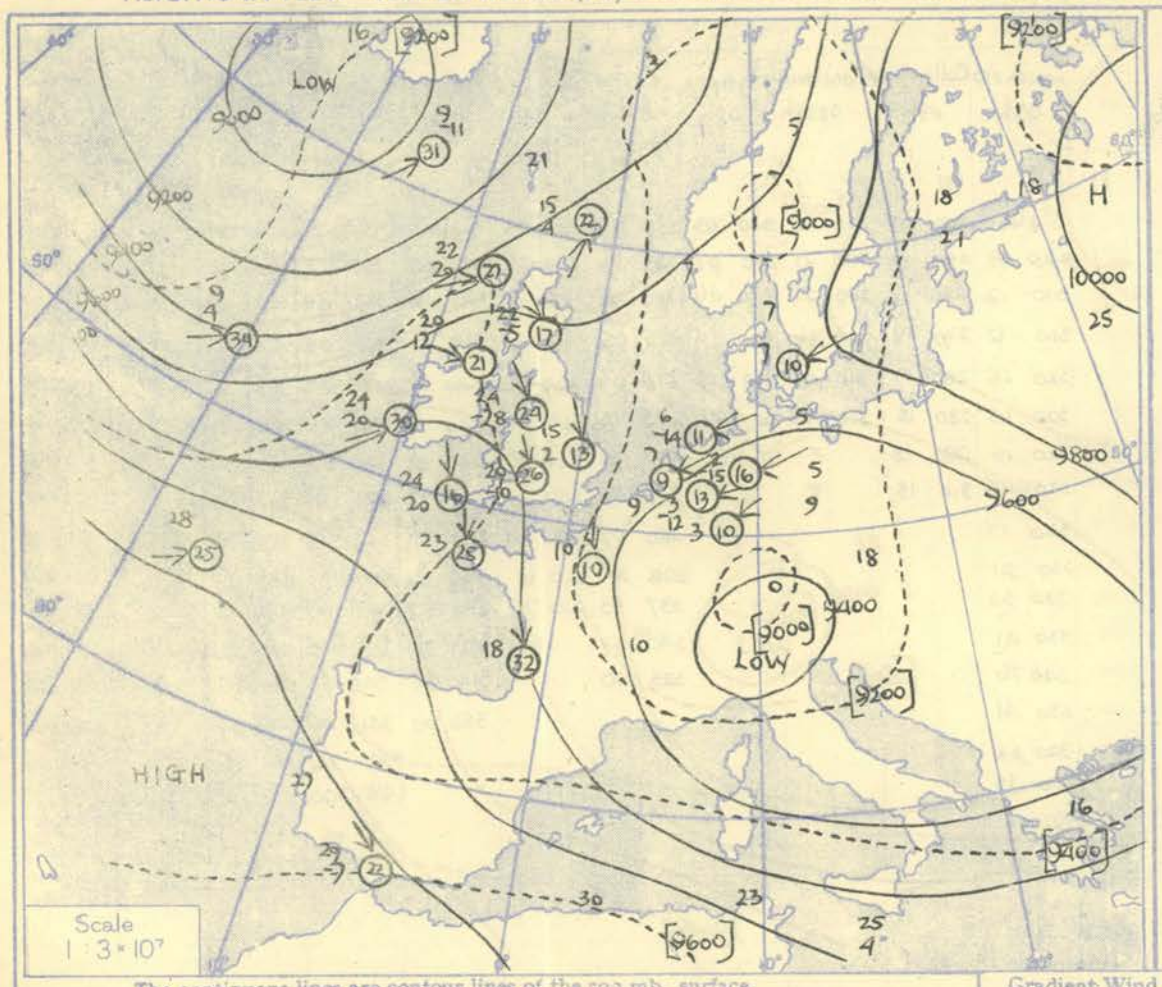
NEPHOSCOPE OBSERVATIONS

Place													Place
Time Type													Time Type
Dir. Vel.													Dir. Vel.

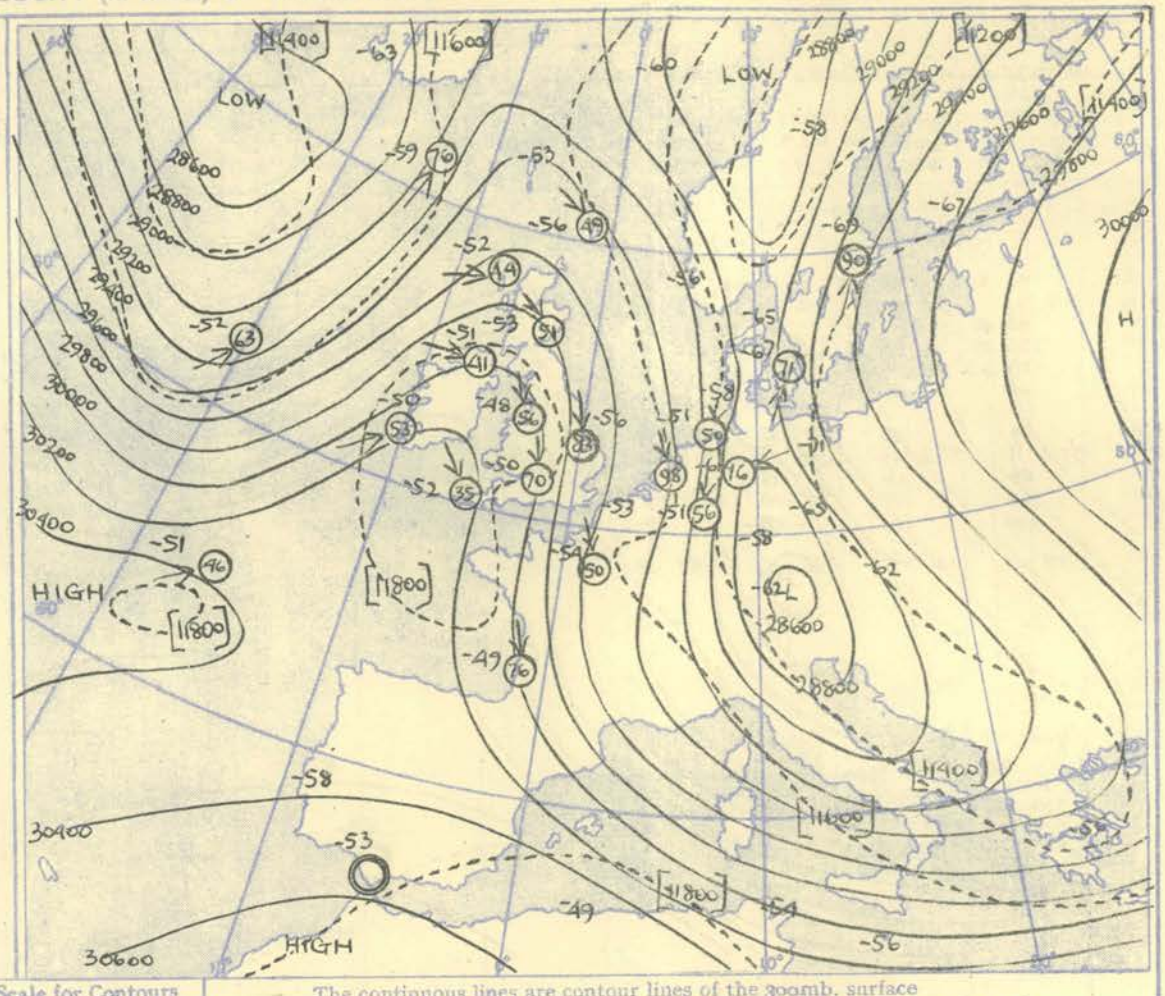
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER			WEATHER OBSERVER			WEATHER OBSERVER			WEATHER OBSERVER			WEATHER WATCHER			WEATHER WATCHER			WEATHER WATCHER			WEATHER WATCHER			WEATHER RECOK			Ship
Lat/Long	61·0N 14·1W			61·0N 14·3W			60·9N 14·1W			61·0N 13·8W			52·5N 19·9W			52·5N 20·0W			52·5N 20·0W			52·5N 20·0W			54·9N 10·2W			Lat/Long
Time	03h. G.M.T.			09h. G.M.T.			15h. G.M.T.			21h G.M.T.			03h. G.M.T.			09h. G.M.T.			15h. G.M.T.			21h. G.M.T.			21h. G.M.T.			Time
M.S.L.	999 mb			994 mb			992 mb			993 mb			1008 mb			1008 mb			1006 mb			1004 mb			1004 mb			M.S.L.
Surf	999 mb			994 mb			992 mb			993 mb			1008 mb			1008 mb			1006 mb			1004 mb			1004 mb			Surf
Freezing	925 mb			870 mb			880 mb			870 mb			760 mb			840 mb			880 mb			870 mb			800 mb			Freezing
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf		43	36	240	17		44	44	170	22		45	43	220	20		46	39	225	22		52	51	225	22		50	47				Surf
1000	-0·3					-1·7					-2·4					-1·9															1000
950		36	32	227	19		40		158	26		40	36	208	25		41	36	212	26	2·2	52	51	223	36	2·2	49	43				950
900	27·7	28	26	229	17	26·4	33		161	32	25·8	34	30	217	27	26·3	36	30	210	27		49	49	229	43		43	37				900
850		21	20	235	21		31		173	30		29	22	221	28		30	26	209	27	30·9	46	46	238	45	30·6	37	31				850
800	58·1	26	07	239	24	57·2	28		188	33	56·5	23	18	226	30	57·0	24	19	208	28		41	41	248	42		33	28				800
750		25	-01	244	22		24		205	32		22	11	228	31		18	07	208	31	62·5	37	37	244	44	61·6	27	22				750
700	92·5	20	-07	248	27	91·7	23		213	36	90·8	19	-11	226	31	91·0	12	-01	207	34		31	31	239	49		22	12	See top of page for winds			700
650		14	-11	254	33		16		218	32		15	-19	217	34		07	-13	204	33	97·5	26	17	233	49	96·0	18	-07				650
600	131	08	-02	258	29	131	09		230	32	130	08	-25	268	45	129	02	-20	201	42		21	13	227	47		14	-11				600
550		-01	-03	258	33		01		232	28		-01	-33	198	48		-05	-27	296	51	137	19	01	232	48	135	08	-19				550
																						08	-11	217	49		00	-20				
500	176	-03	-10	258	34	175	-11		233	31	174	-10	-40	195	50	179	-15	-33	194	60	182	-03	-22	214	59	179	-11	-24				500
450		-17	-20	261	46		-18		208	48		-22	-49	198	51		-24	-33	192	66		-13	-33	225	62		-20	-30				450
400	229	-27	-31	264	45	228	-28		212	52	227	-34	-57	197	62	225	-35	-42	182	72	236	-22	-43	228	70	232	-30	-39				400
350		-10	-44	264	62		-42		215	59		-49		197	78		-48		172	79		-36	-56	228	77		-42					350
300	293	-56		265	84	292	-56		221	65	289	-59		194	76	289	-58		181	75	30·0	-53		225	72	296	-54					300
250		-71		269	81		-70		217	79		-73		196	78		-63		181	48		-74		214	69		-66					250
200	377	-82		291	60	376	-83		237	55	374	-72		201	47	375	-63		191	40	384	-89		207	53	381	-73					200
170		-85		296	42		-89		245	33		-73		202	28		-65		193	29		-88		222	39		-70					170
150		-77		302	43		-79		246	33		-71		202	27		-68		194	21		-83		224	35		-69					150
130		-77		303	39		-80		246	24		-76		202	24		-70		203	18		-90		224	27		-72					130
110		-75		297	30		-82		240	25		-80		207	20		-73		220	14		-80		224	28		-75					110
100	417	-77		292	28	416	-82		243	18	516	-78		232	16	519	-77		225	15	423	-81		224	30	424	-76					100
90	Inversion											-81		247	16		-76		236	15		-84		224	31		-79					90
80	832 mb 19° - 796 mb 27°					Isothermal						-83		260	19		-79		250	18		-87		224	31		-79					80
70						762 - 710 mb 24°						-87		267	22		-81		266	15		-91					-78					70
60											(062mb)	-87					-82		267	12		-78				(50mb)	-81					60
											Inversion 770mb 20° - 750mb 22°						-87					-85					-85					
											Isothermal 750 - 725mb 22°											Inversion 765mb 21° - 739mb 23°				(58mb)	-74					
																						Isothermal 700 - 679 mb 18°					Isothermal 376 - 360 mb -42°					
Tropopause	I 192 mb -85° 38,700'			II 206 mb -83° 37,000'			I 236 mb -78° 34,000'			II 250 mb -63° 32,800'			I 188 mb -92° 39,700'			I 232 mb -72° 35,000'			II 278 mb -54° 30,700'			II 275 mb -59° 30,900'			I 185 mb -7· 41,300			Tropopause

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

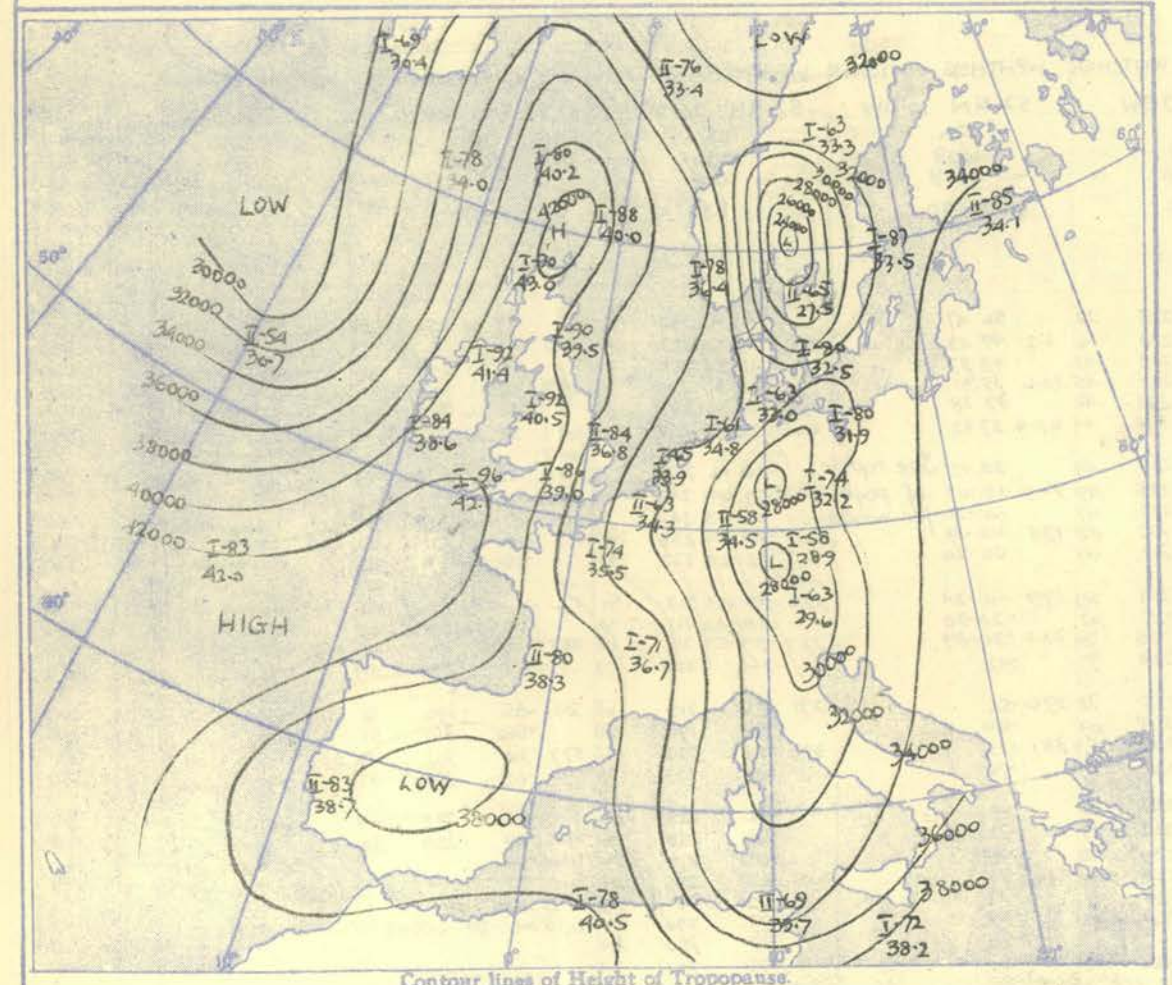


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The European cold trough has remained stationary but warming has taken place in both flanks by advection. Note the sharpening of the Atlantic cold trough and the southward penetration of the cold air in about longitude 20° West.

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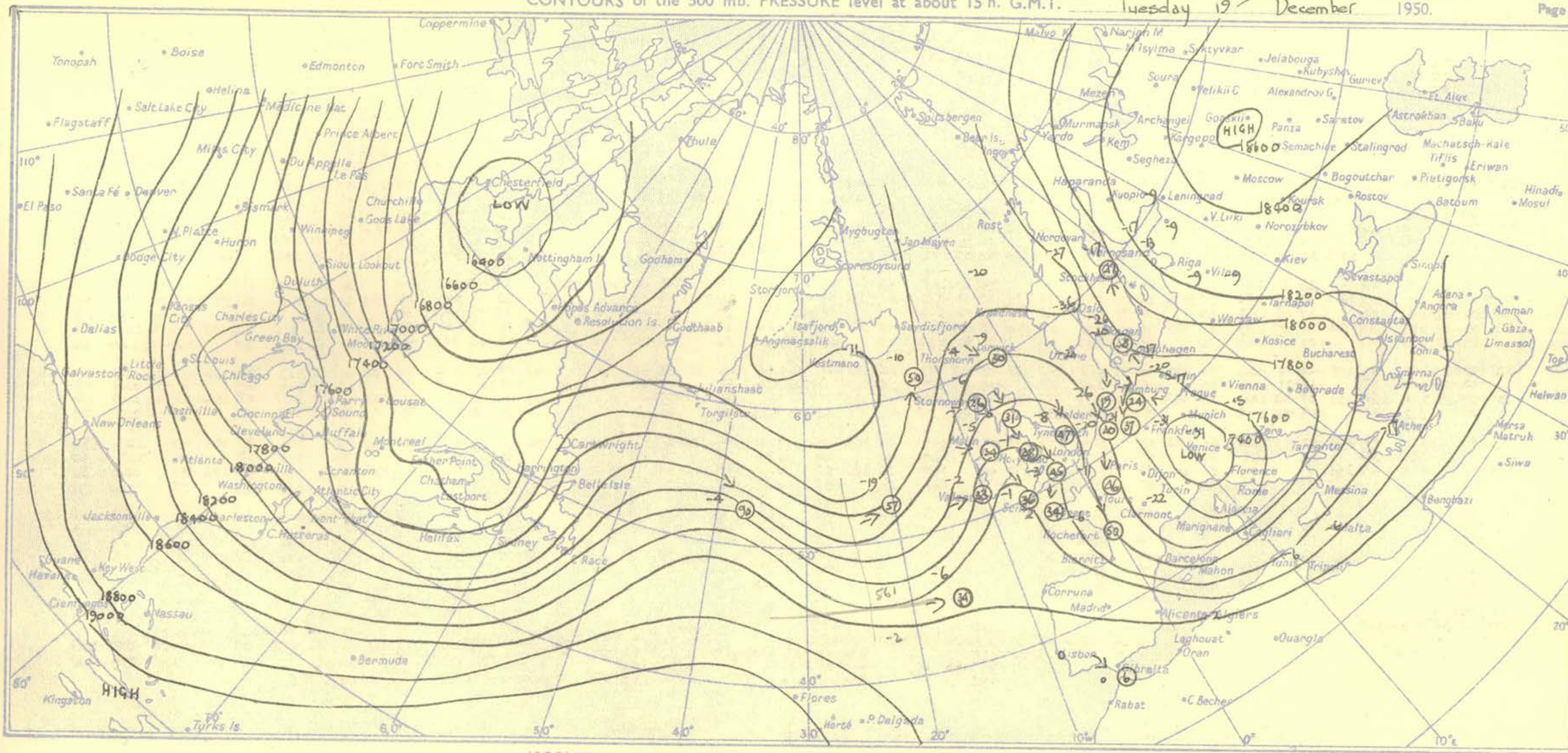
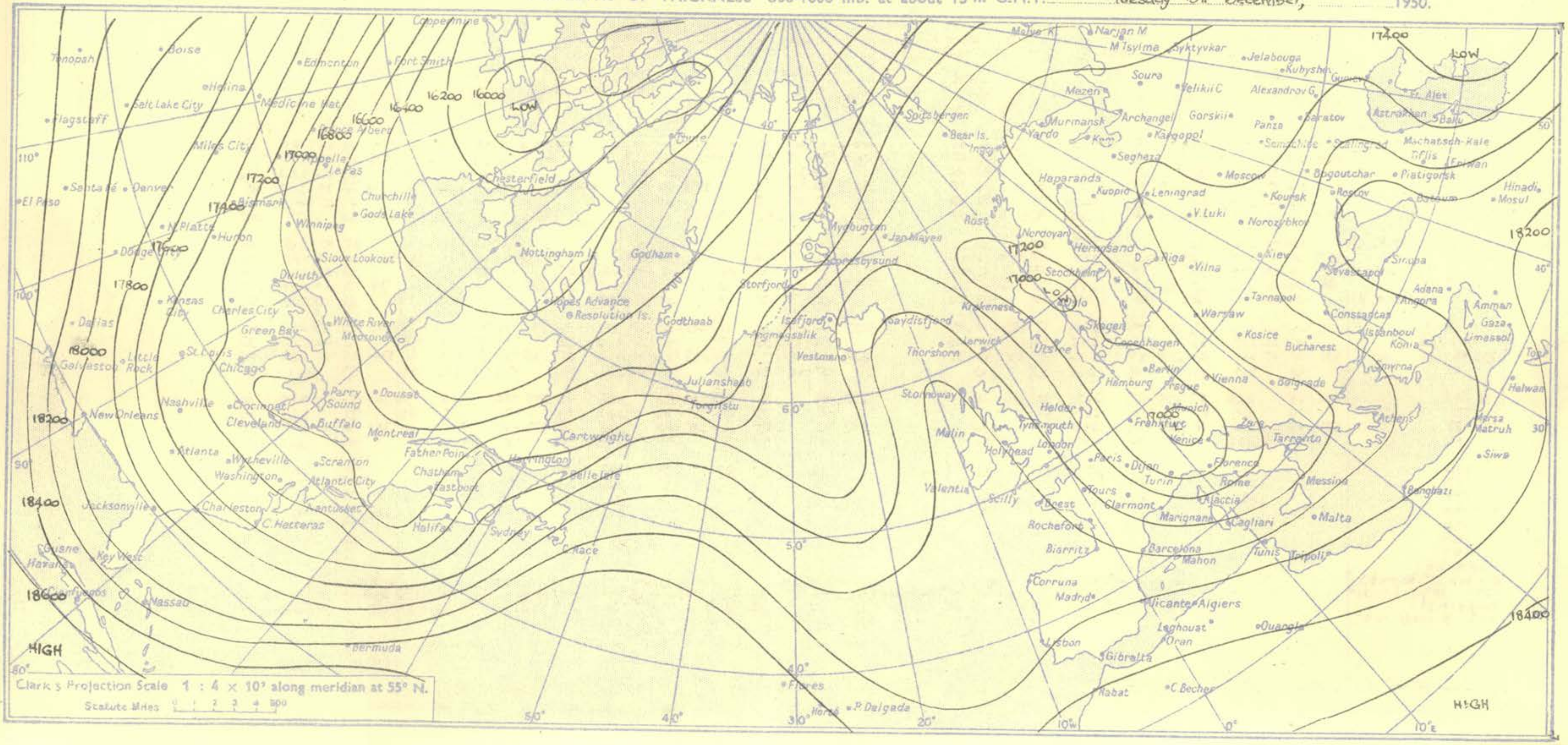
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Tuesday 19th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 19th December, 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. ... DECEMBER, 1956

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	15h	1008·0 mb	997·8 mb	908 mb
STORNOWAY	15h	1005·5 mb	1003·8 mb	840 mb
LEUCHARS	15h	1012·6 mb	1011·7 mb	902 mb
ALDERGROVE	15h	1011·9 mb	1002·7 mb	833 mb
LIVERPOOL	15h	1015·1 mb	1013·1 mb	900 mb
DOWNHAM MARKET	15h	1018·0 mb	1013·4 mb	920 mb
LARKHILL	15h	1016·9 mb	1000·5 mb	893 mb
CAMBORNE	15h	1018·3 mb	1007·6 mb	837, 780, 886 mb
VALENTIA	15h	1012·5 mb	1011 mb	790 mb

Pressure mb	LERWICK Height ft./100	LERWICK °C	LERWICK Dew °F	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °C	STORNOWAY Dew °F	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °C	LEUCHARS Dew °F	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °C	ALDERGROVE Dew °F	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots	LIVERPOOL Height ft./100	LIVERPOOL °C	LIVERPOOL Dew °F	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °C	DOWNHAM MARKET Dew °F	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °C	LARKHILL Dew °F	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °C	CAMBORNE Dew °F	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °C	VALENTIA Dew °F	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots	Pressure mb
Surf	02·7	36	36	230	12	00·4	44	42	180	18	00·2	34	31	290	04	02·6	38	38	180	12	00·6	44	40	250	05	01·2	35	35			09·4	41	36	290	03	02·9	47	44	250	03	00·3	49	49	193	14	Surf
1000	02·1					01·4	43	42			03·3	35	23			03·3					04·0	43	38	246	08	04·7	36	36			04·5					05·0	45	42	244	15	3·3	48	48	195	17	1000
950		39	34	220	19		38	37	192	32		37	27	235	15		40	39	193	23		38	32	355	10		35	35				38	32	328	10		40	37	250	13		45	44	208	27	950
900	30·1	31	27	209	20	29·5	35	34	209	33	31·2	31	20	229	16	31·4	36	35	222	26	32·1	32	25	274	11	32·6	30	30			02·5	33	25	313	10	33·2	34	31	270	10	31·8	41	40	222	26	900
850		28	24	205	21		33	32	222	29		26	18	214	17		33	32	245	27		25	18	282	09		25	25				27	21	307	09		29	26	307	09		38	37	229	28	850
800	60·8	22	18	210	23	60·5	30	29	233	28	61·8	20	10	218	10	62·5	30	27	246	26	62·6	29	01	317	11	63·2	19	19			63·1	24	15	328	12	64·2	34	28	325	13	63·2	34	33	233	30	800
750		18	11	215	26		26	25	241	29		23	-06	274	11		25	23	269	22		26	-21	322	17		18	14	For Winds			24	01	337	20		28	24	327	17		27	26	228	28	750
700	94·8	15	04	222	22	95·2	22	20	246	27	96·1	22	-05	291	17	97·1	20	12	270	21	97·2	24	-28	319	20	97·2	15	02	See		97·5	20	-10	335	26	99·1	24	20	326	16	97·9	24	20	231	30	700
650		08	-08	241	20		17	15	258	32		14	01	305	20		17	06	272	23		16	-02	331	27		11	-09				19	-13	342	36		19	15	313	20		19	01	235	34	650
600	133	06	-19	281	18	134	11	09	269	34	135	10	01	313	27	136	11	07	266	18	136	10	02	334	33	136	07	-10			137	12	-19	343	40	138	14	04	316	25	137	13	-06	235	29	600
550		-01	-30	302	22		03	00	260	30		03	-06	312	29		04	02	266	19		06	-03	334	36		01	-25	Page 3.			08	-22	341	40		07	01	320	27		06	-13	240	32	550
500	178	-09	-37	301	30	179	-06	-11	260	26	180	-05	-12	317	51	181	-05	-13	270	24	182	-01	-13	331	38	181	-08	-36			182	-03	-25	342	45	184	-01	-14	313	36	183	-02	-22	239	33	500
450		-18	-30	307	57		-16	-21	261	30		-15	-25	322	29		-15	-31	272	24		-11	-25	336	32		-16	-47				-13	-27	339	51		-14	-31	310	40		-11	-35	229	49	450
400	231	-29	-38	314	39	232	-27	-32	246	24	233	-25	-36	314	25	234	-24	-49	274	27	235	-21	-36	331	32	233	-27	-55			235	-22	-35	342	60	237	-23	-40	307	47	236	-21	-42	229	56	400
350		-41		312	45		-39	-46	258	40		-37	-47	307	34		-37	-60	270	45		-32	-48	325	47		-40	-60				-35	-48	337	70		-38	-53	307	41		-36	-54	227	53	350
300	295	-56		311	49	296	-52		260	44	298	-53		308	51	299	-51		266	41	300	-48		324	56	298	-65				300	-50		337	70	302	-52		315	35	301	-50		226	53	300
250		-71		303	59		-68		262	52		-69		306	57		-66		266	36		-66		324	59		-71					-66		341	70		-70		315	38		-66		227	60	250
200	379	-84		314	55	381	-85		259	54	382	-86		314	47	384	-84		269	36	385	-82		326	49	382	-84				385	-85		345	62	386	-87		311	33	386	-84		230	52	200
170		-86					-88		273	36		-87		320	30		-90		268	26		-87		332	37		-75					-84		334	45		-95		318	32		-77		238	31	170
150		-80					-85		285	24		-84		319	25		-82		275	27		-82		326	33		-72					-71		331	36		-81		316	30		-78		259	26	150
130		-76					-82		275	23		-73		309	23							-73		323	28		-72					-71		315	31		-79		310	30		-75		280	20	130
110		-78					-77		273	27		-76		304	24							-74		312	30		-72					-71		312	25		-79		304	45		-72		283	28	110
100	519	-81				520	-76		281	26	521	-76		302	21						526	-74		316	24	524	-75				527	-72		313	23	525	-79		285	27	528	-71		283	27	100
90		-81					-77		297	20		-78		299	24							-74		307	24		-76					-74		310	23		-78		301	25	(096	-72					90
80		-83					-78		297	20		-80		301	22							-75		300	27		-78					-76		294	22	82	-78				mb)					80
70		-86					-78					-82										-77		302	29		-82					-78		304	26	(mb)										70
60	Inversion 998 mb 39°-976mb 42° Isothermal 758 - 742 mb 18°										Inversion 1012 mb 34°-955mb 38° Isothermal 800 .. 20°- 758 .. 23°					Inversion 1003 mb 38°- 977mb 41° Isothermal 711 - 693 mb 20° 671 - 648 .. 17°					Inversion 830 mb 23°- 800mb 29° Isothermal 800 - 776 mb 29°					Inversion 1013 mb 35°- 973mb 37° 776 .. 17°- 746 .. 19° Isothermal 616 - 600 mb 07°					Inversion 816 mb 23°- 779 mb 26° Isothermal 1000·5 - 984 mb 41° 706 - 665 .. 20°					Inversion 850 mb 28°- 837 mb 32° 837 .. 32°- 798 .. 34° Isothermal 625 - 603 mb 15° 517 - 506 .. 0°					Inversion 850 mb 38°- 840 mb 39° 723 .. 23°- 700 .. 24°					60
Tropopause	I 180 mb - 88° 39,950					I 157 mb - 90° 43,000					I 188 mb - 90° 39,500					I 172 mb - 92° 41,400					I 180 mb - 92° 40,500					II 213 mb - 84° 36,800					I 196 mb - 86° 59,000					I 168 mb - 96° 42,100					I 200 mb - 84° 38,600					Tropopause

21h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	21h	1009·2 mb	999·1 mb	900 mb
STORNOWAY	21h	1004·0 mb	1002·4 mb	808 mb
LEUCHARS	21h	1013·4 mb	1012·5 mb	891 mb
ALDERGROVE	21h	1010·7 mb	1001·1 mb	837 mb
LIVERPOOL	21h	1016·1 mb	1014·0 mb	900 mb
DOWNHAM MARKET	21h	1020·3 mb	1015·9 mb	902 mb
LARKHILL	21h	1019·0 mb	1002·3 mb	923 mb
CAMBORNE	21h	1017·2 mb	1006·5 mb	787, 840, 872 mb
VALENTIA	21h	G.M.T. mb	mb	mb

Pressure mb	LERWICK Height ft./100	LERWICK °C	LERWICK Dew °F	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY °C	STORNOWAY Dew °F	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS °C	LEUCHARS Dew °F	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE °C	ALDERGROVE Dew °F	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots	LIVERPOOL Height ft./100	LIVERPOOL °C	LIVERPOOL Dew °F	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET °C	DOWNHAM MARKET Dew °F	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL °C	LARKHILL Dew °F	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE °C	CAMBORNE Dew °F	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA °C	VALENTIA Dew °F	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots	Pressure mb
Surf	02·7	43	39			00·4	45	44	200	20	00·2	38	36	210	10	02·6	42	40			00·6	42	35	170	05	01·2	35	35	120	06	04·4	32	32	Calm		02·9	46	44	180	03						Surf
1000	02·5					01·0	45	44			03·5	39				02·9	42	40			04·3	42	35	173	15	05·4	36	36			05·0	33	32			04·6	46	43								1000
950		38	34				40	39	204	39		37		187	14		43	42			38	32	179	13		37	37				35	29	183	05		42	36	204	16						950
900	30·5	32	29			29·2	38	37	219	33	31·5	33		191	18	31·2	38	38			32·3	32	28	214	12	33·3	32	29	L and V.		32·8	29	19	215	05	32·9	36	29	208	15						900
850		27	24				35	34	223	30		29		228	19		33	33				29	25	298	11		25	21				23	16	251	06		31	27	200	16						850
800	61·1	25	15			60·4	31	28	219	30	62·2	26		255	18	62·3	30	29			63·1	28	24	288	13	63·8	18	18			63·3	26	-11	350	16	64·0	34	16	177	09						800
750		22	02	For Winds			26	23	214	32		27		270	20		24	21				24	20	308	16		20	17				23	-11	350	16		27	19	215	10						750
700	95·4	20	13	See		95·0	21	17	219	34	96·8	22		271	17	96·8	18	13			97·7	21	17	308	11	97·9	18	07			97·7	20	08	346	21	98·7	22	09	250	15						700
650		15	11				14	10	223	32		17		282	13		11	04				15	09	314	08		12	-01	356	07		15	08	343	21		20	-08	255	13						650
600	154	09	04			134	06	02	222	29	136	11		271	12	136	06	-16			137	08	00	325	12	137	10	-11	367	25	137	07	01	354	22	138	13	-14	248	13						600
550		02	-04	Page 3.			-03	-05	213	32		03		256	10		-03	-22				00	-07	325	13		04	-17	359	33		03	-03	342	23		06	-21	244	20						550
500	179	-06	-13			178	-10	-16	215	33	181	-06		244	12	180	-14	-32			182	-06	-17	302	12	182	-04	-17	351	36	181	-06	-17	324	27	183	-01	-29	257	26						500
450		-17	-24				-21	-32	217	36		-17		247	14		-20	-45				-14	-34	293	19		-15	-21	350	35		-14	-40	319	89		-12	-42	259	35						450
400	232	-30	-38			231	-31	-47	211	40	234	-27		256	19	232	-30	-57			234	-25	-49	290	30	235	-23	-31	326	37	235	-26	-51	315	41	236	-25	-51	256	45						400
350		-45					-45		219	44		-41		276	32		-43					-37	-60	286	25		-34	-44	336	48		-38	-58	320	28		-39		251	40						350
300	295	-57				294	-58		225	47	278	-57		267	40	296	-58				299	-54		291	27	300	-50		338	52	299	-54		308	34	301	-56		248	34						300
250		-71					-74		230	47		-74		269	42		-75					-71		282	34		-66		334	53		-71		308	48		-72		249	40						250
200	379	-82				377	-88		231	48	381	-88		268	26	379	-86				383	-90		289	36	385	-83		343	48	373	-89		325	30	384	-90		249	32						200
170		-80					-80		243	26		-86		269	23		-86					-97		294	21		-87		343	37		-84		322	25		-86		267	24						170
150		-76					-77		251	18		-83		281	25		-83					-86		300	22		-79		335	30		-77		317	23		-81		285	26						150
130		-77					-78		244	27		-81					-78					-78					-75		326	21		-76		320	20		-77		295	27						130
110		-79					-79		280	19		-80					-80				(115	-77					-76		318	21		-79		306	21		-79		299	22						110
100	520	-80				518	-80				520	-63				519	-61				mb)					525	-77		315	22	513	-79				524	-79		287	22						100
90		-82															-82										-78										-79		294	24						90
80		-84																																				-82		300	19						80
70		-87																																												70
60	Inversion 812 mb 23°- 800mb 25° 727 .. 20°- 711 .. 21° Isothermal 323 - 312 mb 54°										Inversion 1013 mb 35°- 985 mb 40° 793 .. 25°- 750 .. 27° 206 .. -88°- 196 .. -87°					Inversion 983 mb 39°- 956mb 44° 490 .. -16°- 476 .. -19° Isothermal 655 - 633mb 11°					Inversion 822 mb 27°- 781mb 29° 750 .. 24°- 732 .. 25° Isothermal 1014 - 993 mb 42° 550 - 528 .. 00°					Inversion 1016 mb 35°- 980mb 37° 796 .. 17°- 740 .. 21° 625 .. 09°- 610 .. 11° Isothermal 980 - 945 mb 57°					Inversion 1002 mb 32°- 981 mb 38° 835 .. 22°- 800 .. 26° Isothermal 725 - 700 mb 20° 572 - 550 - 03°					Inversion 855 mb 30°- 815mb 36° 687 .. 20°- 666 - 22° Isothermal										60
Tropopause	I 195 mb - 83° 38,400					I 200 mb - 88° 37,700					I 206 mb - 88° 37,500 I 178 .. - 90° 40,500					I 223 mb - 80° 35,700					I 165 mb - 98° 42,100					I 180 Mb - 89° 40,500					II 208 mb - 69° 37,500					I 200 mb - 94° 38,400										Tropopause

HMSO Press, MO, Dunstable

No. 11568

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. December 20th 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
Pressure: Time	03hrs G.M.T.	03hr. G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.	03hrs G.M.T.
Pressure: M.S.L.	1009.6 mb		1013.2 mb	1008.3 mb	1014.7 mb	1020.9 mb	1017.6 mb	1013.2 mb
Pressure: Surf	999.5 mb	1003 mb	1012.3 mb	999.7 mb	1012.6 mb	1016.5 mb	1001.0 mb	1002.5 mb
Pressure: Freezing	309 mb	820 mb	860 mb	818 mb	890 mb	945 mb	926 mb	865 mb

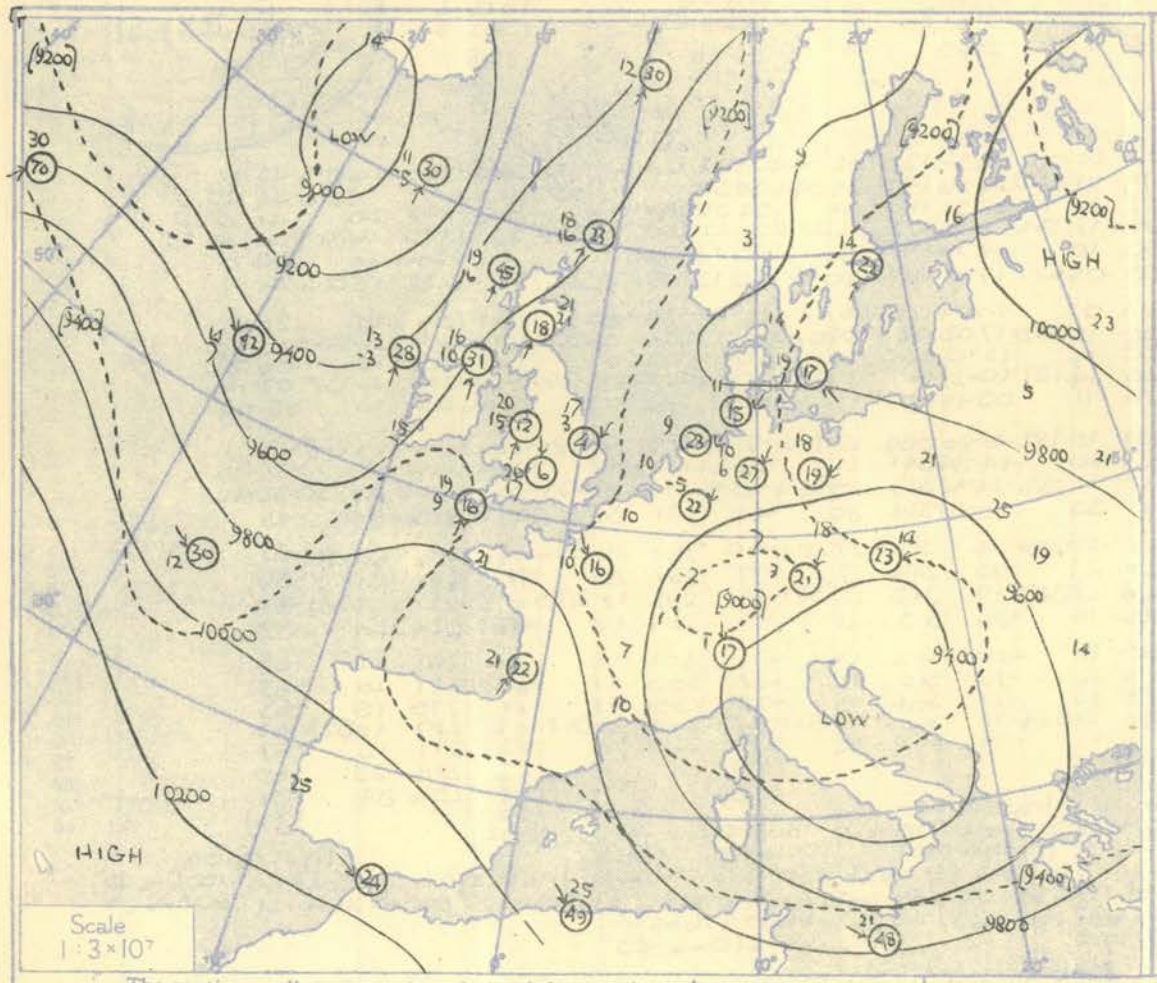
Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02.7	42	39			00.4	46	44	180	15	0.2	37	37	160	03	02.6	44	42	180	16	0.6	40	37	170	10	01.2	36	36	130	08	04.4	34	34	Calm		02.9	46	43	160	10	0.3	45	42	Surf
1000	02.5					1.2	45	43			03.3	43	37	175	15	02.5					03.8	40	36	175	21	05.3	36	36	145	24	04.6	34	34			03.5	46	43			2.0	46	43	1000
950		36	34				41	39					37	36	188	19		40	37	190	30		38	29	172	24		32	32	160	22		34	30	156	13		41	38	175	20		42	39	950
900	30.5	31	29			29.4	37	36	198	30	31.4	34	34	195	1930	737	341	91	32	31.9	33	29	188	18	33.2	29	29	177	16	32.5	30	22	155	14	31.8	35	32	185	26	30.4	26	26	900
850		30	27				35	33	201	33		31	31	205	16	35	32	192	32		31	27	193	10		24	20	148	12		25	17	170	11		31	26	206	20		30	23	850
800	61.3	27	24			60.5	30	27	201	39	62.4	28	28	215	1461	930	27	190	28	62.8	30	26	199	05	63.7	17	16	147	10	63.1	29	13	197	05	62.7	30	26	231	15	61.3	26	17	800
750		24	21				24	21	200	42		26	26	232	13		24	17	190	36		25	20	228	07		20	04	129	07		26	21	236	05		28	07	216	18		21	15	750
700	95.7	18	16	See p3 for winds		95.0	19	16	199	45	97.0	21	21	223	1856	4	16	10	184	31	97.2	20	15	155	12	97.9	17	03	050	04	97.6	20	17	354	06	97.2	19	09	216	16	95.5	15	07	700
650		12	07				12	05	196	41		16	13	204	22		08	03	181	31		14	08	203	14		13	13	030	10		15	11	353	04		13	12	219	15		06	00	650
600	134	04	-4			134	05	-03	193	40	136	10	06	192	24	135	05	-14	182	31	136	08	-1	200	14	137	10	-2	017	17	137	10	04	260	03	136	06	-11	227	20	138	02	-16	600
550		-6	-14				-02	-08	201	36		00	-4	187	22		-4	-13	192	32		-1	-10	186	11		05	-14	001	15		02	-8	283	03		-2	-16	45	20		-5	-24	550
500	175	-15	-22			178	-11	-17	204	38	181	-9	-16	184	20	179	-14	-22	200	34	181	-10	-22	208	15	182	-6	-20	004	17	182	-7	-21	284	09	181	-12	-28	211	23	178	-13	-28	500
450		-25	-34				-22	-27	199	45		-19	-24	185	22		-24	-35	199	33		-15	-38	207	20		-14	-34	341	22		-13	-34	285	18		-22	-41	216	22		-22	-35	450
400	230	-37	-46			230	-35	-42	198	48	233	-28	-41	208	28	231	-26	-43	199	33	234	-28	-45	218	21	238	-26	-48	323	25	239	-29	-46	274	30	233	-33	-50	214	43	230	-32	-42	400
350		-51					-47		198	43		-41		212	30		-47		202	42		-41		241	35		-40	-58	314	30		-44		271	31		-47		215	54		-43		350
300	293	-66				294	-59		199	57	297	-53		221	40	294	-53		198	52	298	-37		223	29	299	-34		312	27	298	-60		268	26	296	-64		216	60	294	-57		300
250		-79					-71		203	60		-69		227	36		-73		199	56		-73		226	27		-70		312	27		-77		267	25		-78		222	51		-56		250
200	375	-87				377	-80		204	52	382	-85		225	33						381	-84		246	28	383	-87		315	22	381	-86		273	18	379	-85		221	29	381	-60		200
170		-84					-75		214	33		-80		231	20							-85		246	14		-84		323	21		-82		294	17		-81		224	20		-59		170
150		-83					-76		218	24		-82		240	15							-77		255	16		-80		322	16		-77		302	18		-81		261	22		-62		150
130		-82					-78		217	36		-77		252	16							-75		256	20		-78		315	12		-78		300	18		-80		281	20		-63		130
110		-81					-78		223	23		-75		274	16							-75		258	13		-77		304	21		-78		259	21		-81		279	15		-63		110
100	314	-83				319	-80		241	20	321	-80		282	17						321	-78		252	21	324	-78		310	19	321	-78		304	21	318	-82		287	18	328	-63		100
90		-90					-80		242	18		-79		286	15							-80					-79		306	15		-79		276	20		-83		277	15		-67		90
80		-94					-79					-81		290	20							(92)										-80					-83		284	23		-69		80
70		(82)										-81		290	18																	(80)					-88		296	24		-71		70
60												-84		286	17																						-90					(72)		60
	Inversion 881 mb 21°-868 mb 31°										Inversion 892 mb 35°-865 mb 35° 642 mb 7°-620 mb 8°					Inversion 830 mb 30°-807 mb 31°					Inversion 795 mb 16°-770 mb 20°					Inversion 1001 mb 34°-986 mb 38° 850 mb 25°-800 mb 29°					Inversion 842 mb 30°-803 mb 31°					Inversion Surf 43°-1000 mb 46° 626 mb 1°-600 mb 2°				
	Isothermal 959-589 mb 42°										Isothermal 1012-950 mb 37° 780-750 mb 26° 425-410 mb -25°					Isothermal 950-935 mb 4°					Isothermal 1013-971 mb 40°					Isothermal 1016-989 mb 36° 770-740 mb 20° 667-637 mb 13°					Isothermal 495-476 mb -8° 220-210 mb -85°												
Tropopause	I 215 mb -88° 36200'	II 218 mb -80° 36000'	I 180 mb -50° 40300'	NR.	I 182 mb -88° 40000'	I 184 mb -51° 40000'	II 220 mb -85° 36000'	I 210 mb -86° 36500'	I 290 mb -60° 30100'	Tropopause

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
Pressure: Time	09hrs G.M.T.	09hr. G.M.T.	09hrs G.M.T.	0 9hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.	09hrs G.M.T.
Pressure: M.S.L.	1011.0 mb		1013.4 mb	999.2 mb	1014.3 mb	1020.6 mb	1016.6 mb	1010.0 mb
Pressure: Surf	1000.8 mb	1003 mb	1012.5 mb	860 mb	1012.2 mb	1016.3 mb	1000.0 mb	999.3 mb
Pressure: Freezing	808 mb	860 mb	886 mb		887 mb	812 mb	902 mb	830 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02.7	42	40	155	33	004	47	45			0.2	39	37	170	12	02.6	45	43			0.6	38	36	120	13	01.2	38	32			4.4	25	25	120	08	02.9	46	46	135	12				Surf
1000	02.9	42	40	155	33	1.3	47	46			03.3	38	37	184	15	02.4					03.8	37	34	144	24	05.4	34	31			4.4					02.7								1000
950		36	34	162	43		41	40				36	35	153	16		39	36				35	32	165	25		25	25	158	22		36	36	155	24		41	40	165	30				950
900	30.9	33	31	150	39	29.6	36	35			31.5	33	32	213	18	30.6	34	31			31.7	32	29	177	28	33.2	31	15	169	20	32.3	32	27	168	24	31.0	31	36	174	29				900
850		32	31	136	27		31	28				30	25	201	15		31	28				29	26	151	24		23	16	169	21		27	20	167	22		33	32	152	23				850
800	61.9	31	29	201	17	60.5	26	22			62.3	27	26	202	20	61.6	27	25			62.5	25	22	187	16	63.6	18	04	168	25	62.9	22	14	174	11	62.1	30	28	223	20				800
750		25	22	200	16		21	17				22	21	202	18		22	19	See p3 for winds			25	21	202	14		17	-8	165	23		23	01	176	06		25	22	225	22				750
700	96.5	20	17	196	18	94.7	16	12			97.0	17	15	203	17	96.0	16	12			96.9	14	14	180	16	97.7	13	-12	146	10	97.1	17	00	168	08	96.6	15	14	219	22				700
650		19	10	183	20		10	05				11	05	196	24		0504					11	07	170	15		10	-11	102	07		14	12	162	07		13	09	199	23				650
600	135	07	03	180	26	133	04	-04			135	05	02	193	28	135	03	-3			136	03	-3	161	17	136	06	-16	015	03	136	0504		194	08	135	07	03	196	23				600
550		-1	-6	185	26		-05	-12				-3	-7	187	33		-4	-11				-5	-11	183	16		06	-24	069	06		-2	-11	197	09		0603		188	28				550
500	180	-11	-16	196	30	177	-16	-23			180	-12	-18	165	40	179	-14	-21			180	-12	-20	155	21	181	-9	-23	072	04	180	-8	-23	190	14	180	-8	-14	185	27				500
450		-23	-28	195	34		-27	-31				-22	-30	173	36		-24	-32				-22	-3	141	25		-17	-31	075	03		-15	-35	183	20		-17	-23	189	30				450
400	232	-37	-43	196	40	229	-31	-42			232	-32	-42	180	38	231	-36	-46			232	-29	-46	174	36	233	-28	-41	360	05	233	-24	-43	188	21	233	-30	-41	193	34				400
350		-47		200	40		-52					-45		180	40		-52					-44		188	35		-42		303	10		-43		208	24		-45		211	36				350
300	295	-61		195	41	291	-67				295	-55		186	40	293	-62				296	-60		154	34	297	-56		283	06	297	-55		215	29	296	-55		214	42				300
250		-77		205	39		-75					-74		184	42		-68					-76		178	33		-74		278	06		-74		210	23		-63		191	39				250
200	318	-81		214	29	378	-74				319	-75		213	26	318	-66				379	-77		210	24	381	-77		263	05	381	-82		201	21	382	-67		226	26				200
170		-82		217	20		-76					-72		223	10		-70					-72		070	10		-82		257	06		-75		246	17		-63		255	18				170
150		-76		246	15		-78					-70		244	09		-72					-72		061	10		-77		296	17		-73		282	16		-67		102	21				150
130		-79		265	14		-78					-71					-74					-73		092	15		-72		310	09		-72		293	17		-63		105	15				130
110		-80					-80										-79					-74		318	18		-73		308	16		-72		293	14		-69		130	15				110
100		(113)				516	-82									522	-78				522	-75				S22	-77		305	13	523	-77		284	18	527	-69							100
90							-83																				-78		307	18		-74		307	21		-68							90
80																											-80		308	32		-76		310	24		(95)							80
70																																-77		297	23									70
60																																-77		312	26									60
	Inversion 912 mb 32°-865 mb 34°										Inversion 238 mb -78°-216 mb -76°					Inversion 318 mb -63°-300 mb -62°					Inversion 800 mb 25°-768 mb 27° 550 - 540 mb -5°					Inversion 555 mb 28°-530 mb 34° 800 mb 18°-778 mb 20°					Inversion 1000 mb 35°-963 mb 39° 782 mb 22°-761 mb 24° Isothermal 800-663 mb 29° 808-782 mb 22°												
Tropopause	I 217 mb -81° 36300'	I 253 mb -76° 32500'	I 238 mb -78° 34500' 188 mb -80° 37200'	I 313 mb -63° 27800' I 274 mb -70° 31300'	I 220 mb -65° 36000'	I 180 mb -51° 40200'	II 211 mb -82° 37100'	II 250 mb -65° 33500'		Tropopause

20 December 1950.

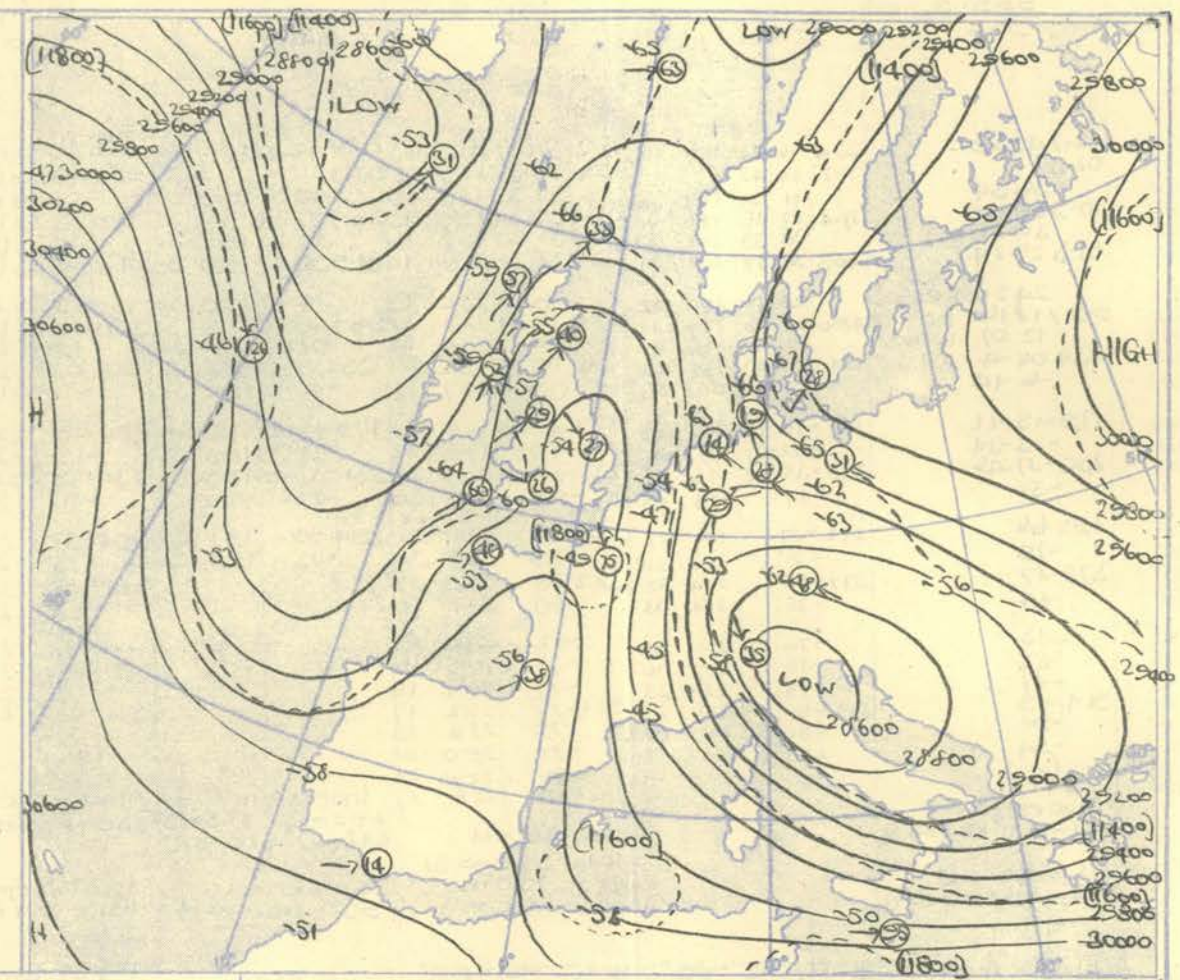
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



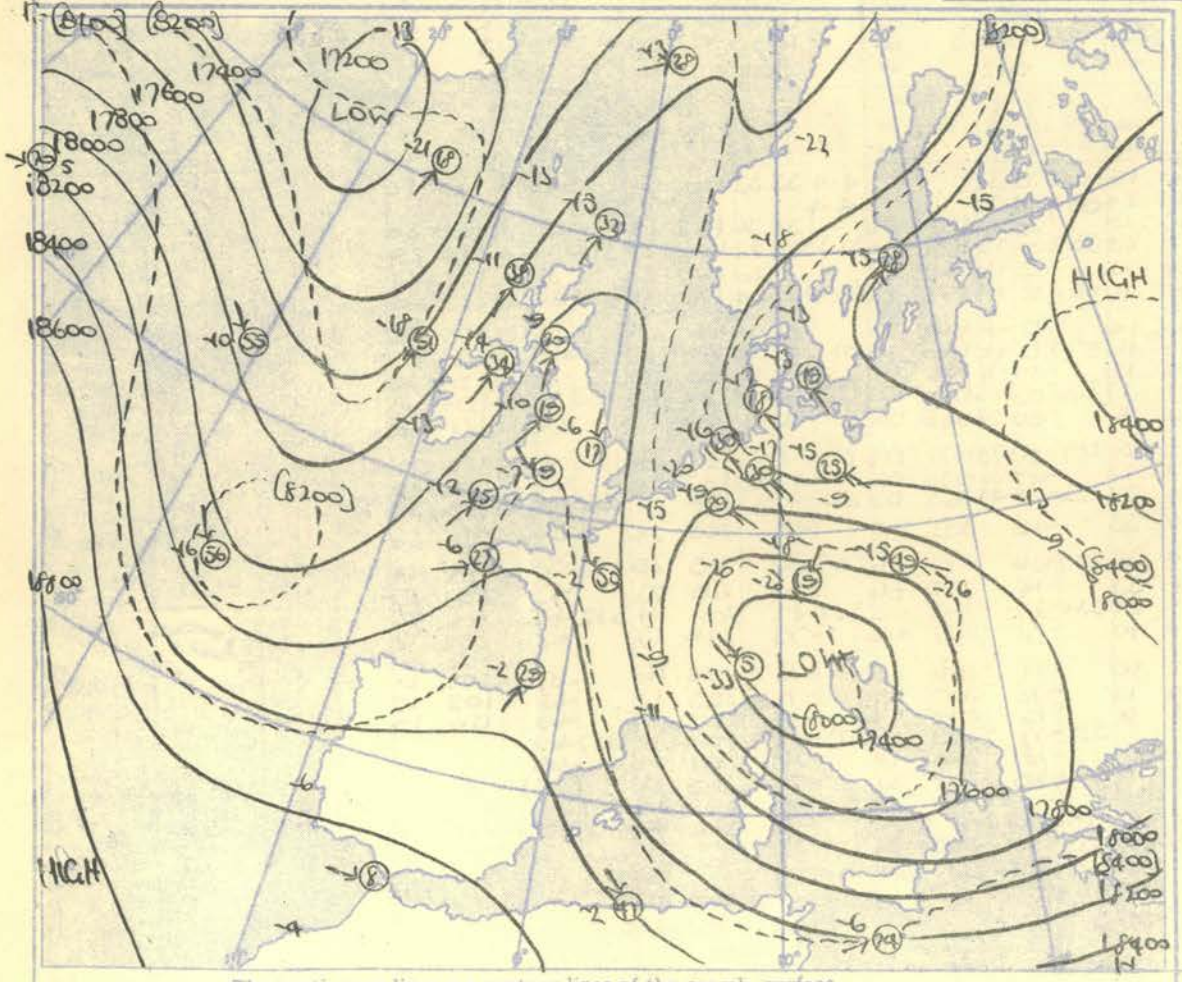
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 — 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

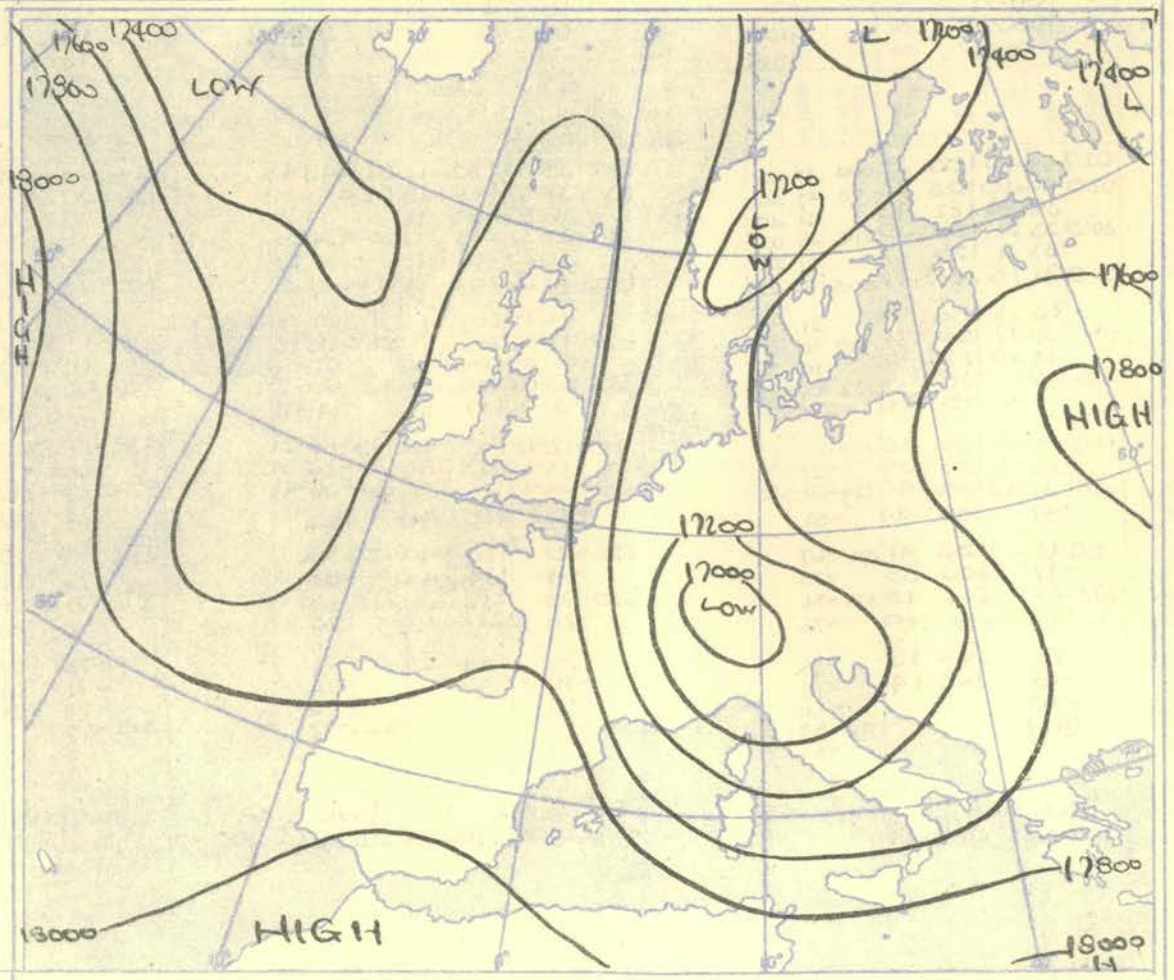
100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 — 500 mb.



Isopleths of Thickness 500 - 1000 mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	48·2N 20·5W			49·5N 14·7W		
Pressure Time	13h			15h		
M.S.L.	1018 mb			1013 mb		
Surf	1014 mb			1009 mb		
Freezing	800 mb			890 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		49	47		48	40
1000	4·7	47		3·4		
950		41	41		41	41
900		37	36		33	33
850		32	32		28	
800		32	31		25	
750		30	28		22	
700	99·0	30	28	96·6	16	
650		25	23		15	
600		19	19		10	
550		13	08		06	
500	185	04	-02	181	-03	

48·2N 20·5W:
Cloud:-
6/8 St 930-890 mb
8/8 Ns 820-450mb
Icing:-
Light rime or frost in cloud 850-650mb.
Surface wind W 11-16 KTS
Isothermal
850-800mb 32°
750-700mb 30°

49·5N 14·7W:
Cloud:-
6/8 Cu 930-780mb
6/8 Cs NR
Surface wind NW. 11-16 KTS
Inversion
670 mb 13°-
650" 15°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Lerwick		Aldergrove		Weather observer 60·9N 14·2W		Shannon		Aldergrove		Shoeburyness		Leuchars	
Time	03h		09h		09h		0845h		1030h		10h		21h	
Type	PILAR		PILAR										PILAR	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	190	36	160	17			110	03	160	17	130	15	160	10
1,000	180	46	165	30			250	16	170	31	130	15	190	22
2,000	183	46	174	33			250	16	170	31	140	15	192	23
3,000	187	43	178	33			250	16	170	33	140	15	191	25
4,000	194	39	186	35			250	16	190	35	150	16	194	25
5,000	201	36	188	39			250	14	190	39	150	16	189	23
6,000	206	27	188	36			230	13	190	36	160	18	188	21
8,000	212	23	175	28			230	15	170	28	150	15	180	18
10,000	224	23	170	32			220	23	170	32	150	17	192	13
14,000	229	18	183	42					180	42	070	10	184	20
18,000	214	32	177	42					180	42	010	07	175	25
24,000	213	32	180	44	210	32							183	29
30,000	225	33	165	62	250	23			170	62	110	09	182	46
40,000	234	28	180	45	260	15			180	95	L&V		228	10
50,000	(38,000')				280	17			(35,000')		290	15	269	10
					280	18							(42,000')	
					(53,000')									

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER.					WEATHER OBSERVER					WEATHER OBSERVER.				
Lat/Long	60·9N 14·1W.					60·9N 14·2W.					60·9N 14·0W				
Pressure Time	03h G.M.T.					09h G.M.T.					15h G.M.T.				
M.S.L.	994 mb					996 mb					997 mb				
Surf	994 mb					996 mb					997 mb				
Freezing	870 mb					880 mb					890 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		46	39	200	20		47	43	200	15		47	43	185	20
1000	-16					-11					-0·7				
950		41	32	196	30		41	38	185	22		40	34	171	21
900	26·7	35	26	195	24	27·1	34	34	187	26	27·5	33	26	178	26
850		29	19	196	24		29	29	189	25		28	21	176	28
800	57·4	24	12	196	27	57·8	23	21	195	22	58·2	24	14	170	30
750		18	06	196	26		17	13	199	24		16	03	172	27
700	91·3	11	-03	196	30	91·7	10	07	199	22	92·1	11	-04	172	24
650		05	-13	196	31		03	01	205	22		03	-14	175	20
600	129	-02	-13	196	30	130	-04	-11	210	22	130	-05	-23	181	16
550		-11	-25	197	24		-11	-21	210	17		-13	-30	187	10
500	173	-21	-35	196	18	173	-20	-30	210	20	174	-16	-47	312	04
450		-31	-43	196	27		-33	-49	212	27		-26	-53	350	15
400	224	-43		196	33	224	-45		214	33	225	-37	-60	345	21
350		-50		196	33		-48					-50		310	22
300	287	-53		196	31		-46				288	-61		297	30
250		-53		196	27	(30mb)						-68		303	15
200	375	-57		196	17						373	-68		255	16
170		-60		257	12							-71		246	28
150		-63		224	12							-69		250	27
130		-69		235	12							-72		255	23
110		-68		247	18						(113mb)	-78			
100	521	-73		250	19										
90		-75		262	18										
80		-78		262	15										
70		-82													
60															
Tropopause	II 378 mb - 49° 23·700'					I 390mb - 48° 23·200					I 265mb -70° 31·500'				

Ship	WEATHER OBSERVER.					WEATHER WATCHER					WEATHER WATCHER				
Lat/Long	60·4N 13·1W.					52·5N 20·0W					52·4N 19·9W				
Pressure Time	21h G.M.T.					03h G.M.T.					09h G.M.T.				
M.S.L.	998 mb					1005 mb					1009 mb				
Surf	998 mb					1005 mb					1009 mb				
Freezing	860 mb					890 mb					800 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	44	165	20		47	41	280	32		47	42	280	24
1000	-05					1·5	47	41			2·3	46	40	289	27
950		42	36	164	21		40	24	296	42		40	34	290	29
900	27·8	36	29	163	22	29·7	33	29	297	43	30·5	34	28	291	31
850		30	25	163	23		28	24	298	40		28	22	294	28
800	58·7	26	18	175	21	60·4	23	17	298	37	61·1	23	15	297	27
750		22	10	178	20		19	14	296	39		25	11	301	30
700	92·9	14	01	175	20	94·5	14	07	295	42	95·5	19	01	306	38
650		07	-10	171	20		08	00	294	44		16	-07	311	48
600	131	00	-19	199	14	133	01	-08	293	54	135	13	-17	313	57
550		-05	-29	280	12		-04	-19	294	55		09	-20	313	72
500	175	-11	-41	308	10	177	-10	-28	297	55	180	03	-19	313	78
450		-22	-50	311	10		-19	-36	361	67		-07	-29	315	81
400	228	-33	-60	318	22	230	-28	-45	302	70	234	-19	-36	318	85
350		-44		331	31		-35	-53	309	89		-31	-49	315	89
300	291	-59		325	29	295	-46		315	126	300	-45		310	94
250		-67		282	23		-57		338	125		-64		310	113
200	376	-68		259	29	382	-66		333	92	385	-75		310	100
170		-68		265	29		-66		333	81		-74		310	84
150		-69		283	25		-66		338	72		-72		310	73
130		-71		290	33		-67		334	60		-71		310	56
110		-73		281	19		-70		326	51		-73			
100	520	-73		275	16	527	-72		320	46		-74			
90		-76		267	20		-71		317	36	(105mb)				
80		-79					-71		312	31					
70							-73		307	29					
60							-75		300	28					
							-78		296	27					
						(45mb)	-79								
Tropopause	II 275mb -67° 31·000'					I 186mb -67° 39·800'					I 180mb - 83° 40·800'				

60·4N 13·1W: Isothermal.
560mb -5° - 530mb -5°

52·5N 20·0W (03h): Isothermal.
1005 - 1000mb 47°

52·4N 19·9W: Inversion.
783mb 22° - 741mb 26°
Isothermal.
682 - 642mb 16°
585 - 568" 12°

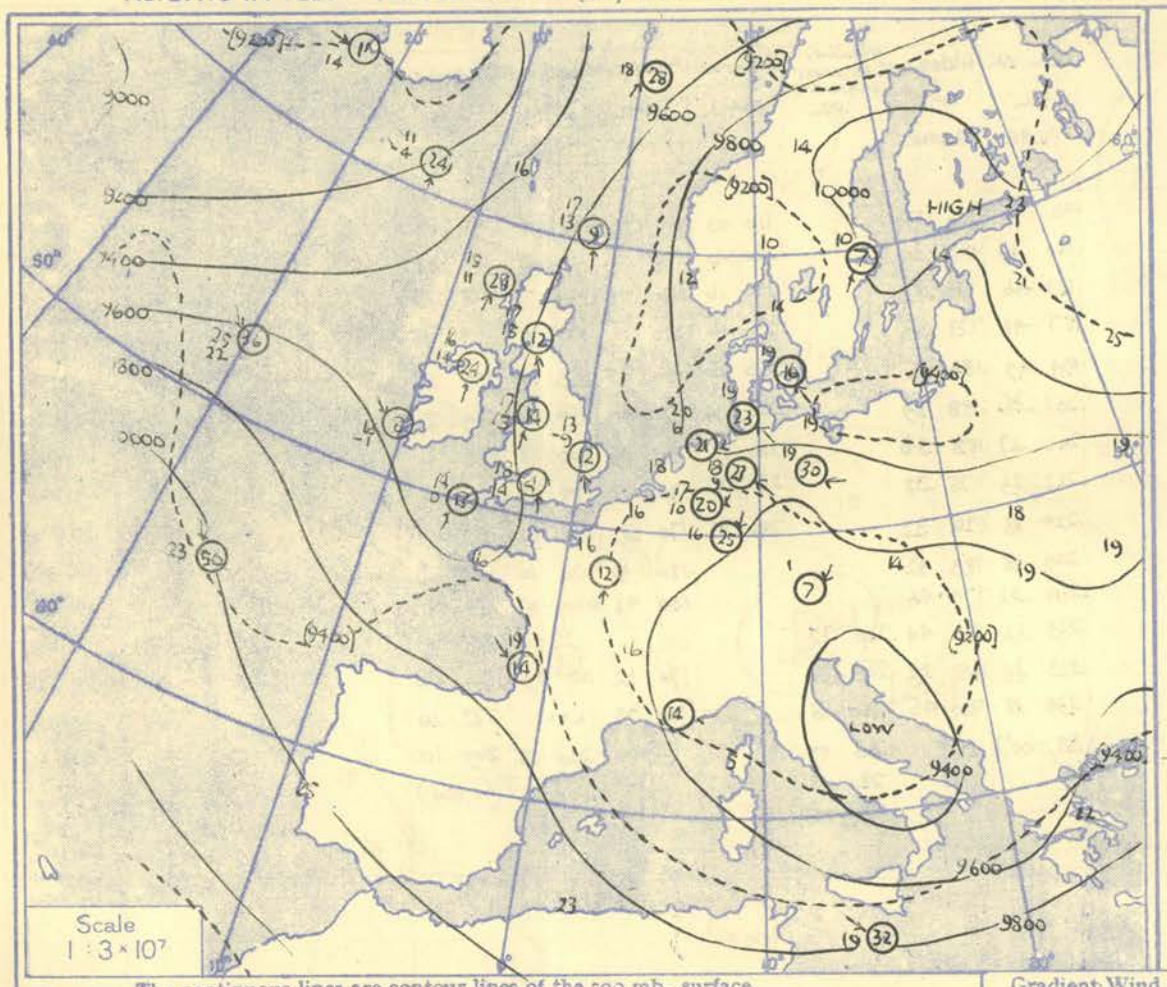
Ship	WEATHER WATCHER.					WEATHER WATCHER					WEATHER RECO				
Lat/Long	52·5N 19·9W.					52·5N 20·0W.					54·6N 11·5W				
Pressure Time	15h G.M.T.					21h G.M.T.					03h G.M.T.				
M.S.L.	1009 mb					1000 mb					1002 mb				
Surf	1009 mb					1000 mb					1002 mb				
Freezing	890 mb					765 + 705 mb					860 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	40	260	17		49	49	190	23		48	42	02	
1000	2·5	46	39	264	22	0·0	49	49			0·6	47	40	216	
950		39	34	264	28		44	44	198	42		41	35	215	
900	30·6	33	30	256	30	28·5	44	44	227	42	28·8	37	31	214	
850		27	17	248	28		39	39	250	45		30	23	214	
800	61·5	30	-02	255	28	60·0	38	34	257	36	59·8	25	12	223	
750		27	22	282	31		32	23	249	30		21	01	217	
700	96·1	25	22	291	36	95·2	31	05	239	31	93·9	13	-03	210	
650		20	19	285	42		25	-02	240	38		06	-17	206	
600	136	17	10	285	42	135	16	-20	260	40	132	00	-31	207	
550		10	06	290	52		06	-19	259	45		-09	-44	199	
500	181	01	-01	303	57	180	-05	-29	255	55	176	-18	-53	187	
450		-09	-14	316	65		-17	-37	255	68		-28	-56	17	
400	235	-20	-26	316	74	233	-30	-47	262	85	227	-38	-58	18	
350		-34	-41	288	68		-41		259	102		-49		188	
300	300	-50		277	85	297	-53		258	104		-51			
250		-70		280	115		-61		259	99	(339mb)				
200	385	-79		277	104	383	-67		263	87					
170		-77		286	84		-66		272	71					
150		-70		287	72		-62		276	60					
130		-72		301	63		-70		270	63					
110		-77		302	49		-75								
100	527	-78		294	44										
90		-78													
80		-79													
70		-80													
60	(77mb)														
Tropopause	I 187mb - 82° 39·800'					II 200mb -67° 38·300'					NR				

52·5N 19·9W: Inversion
850mb 27° - 828mb 32°
Isothermal.
764 - 750mb 27°
650 - 615" 20°

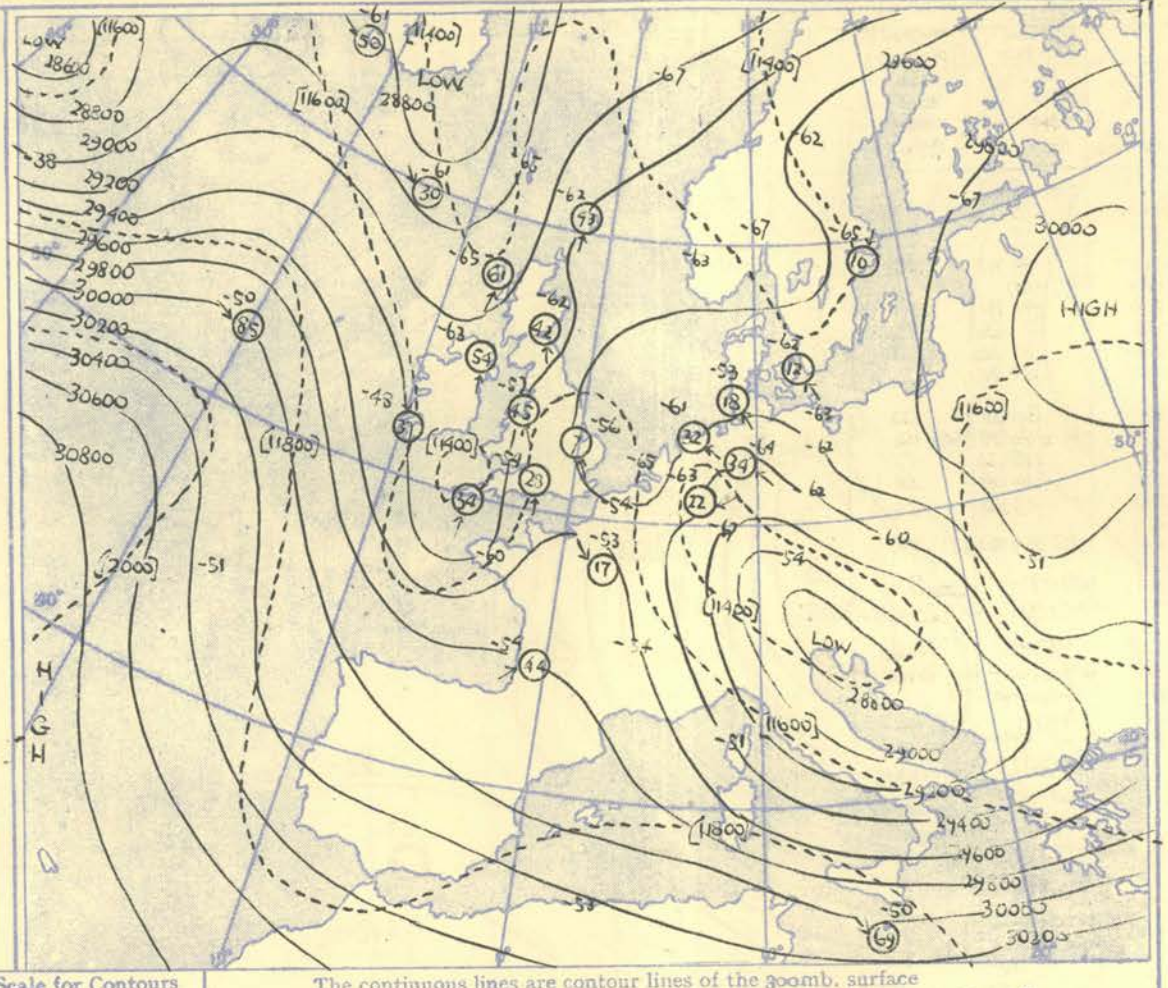
52·5N 20·0W (21h): Inversion
950mb 44° - 908mb 43°
832" 38° - 808" 39°
759" 31° - 730" 35°

Wednesday

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

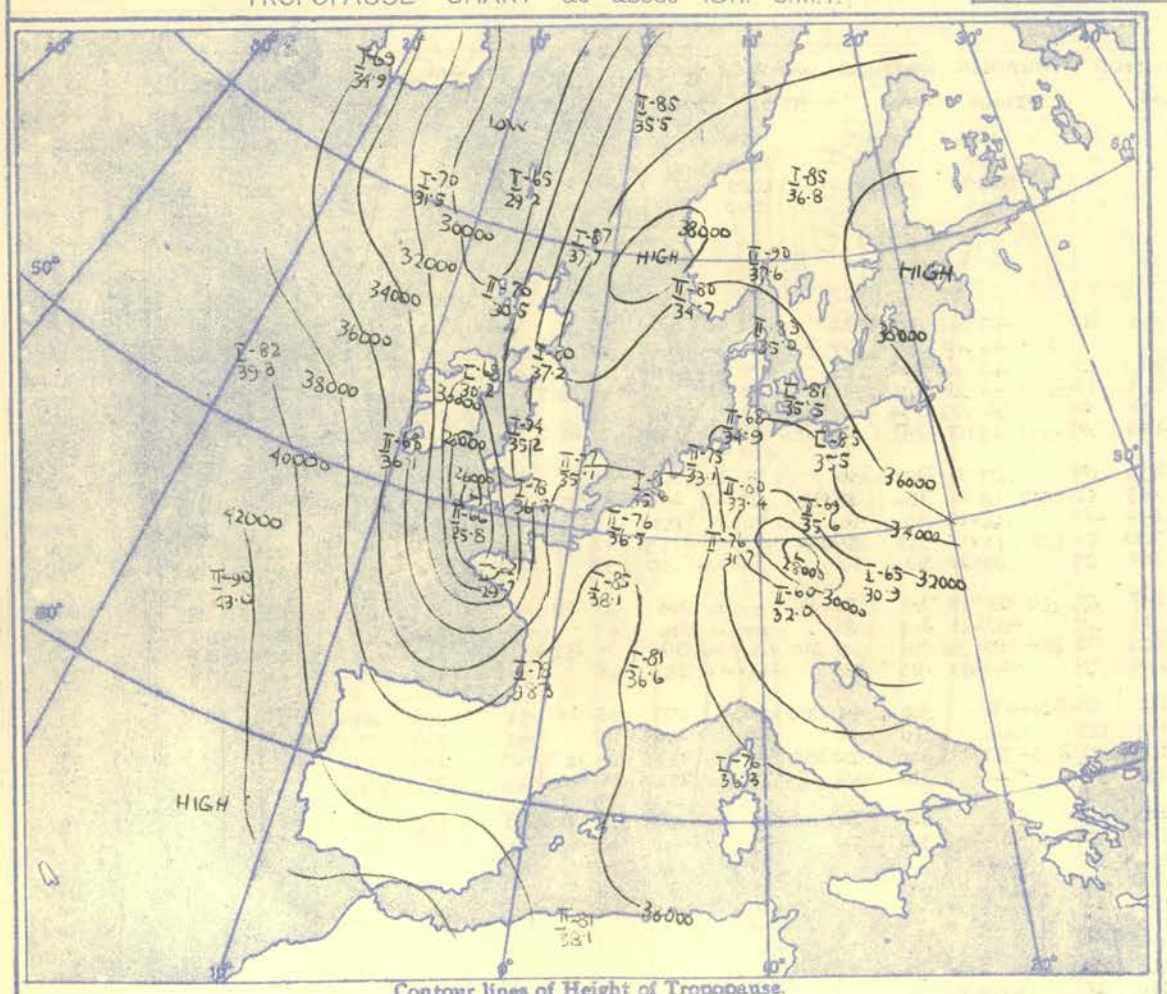


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Note the occlusion of the warm air associated with the frontal system over the British Isles. Rapid warming of the cold trough off western Ireland, due to strong advection of warm air from the west.

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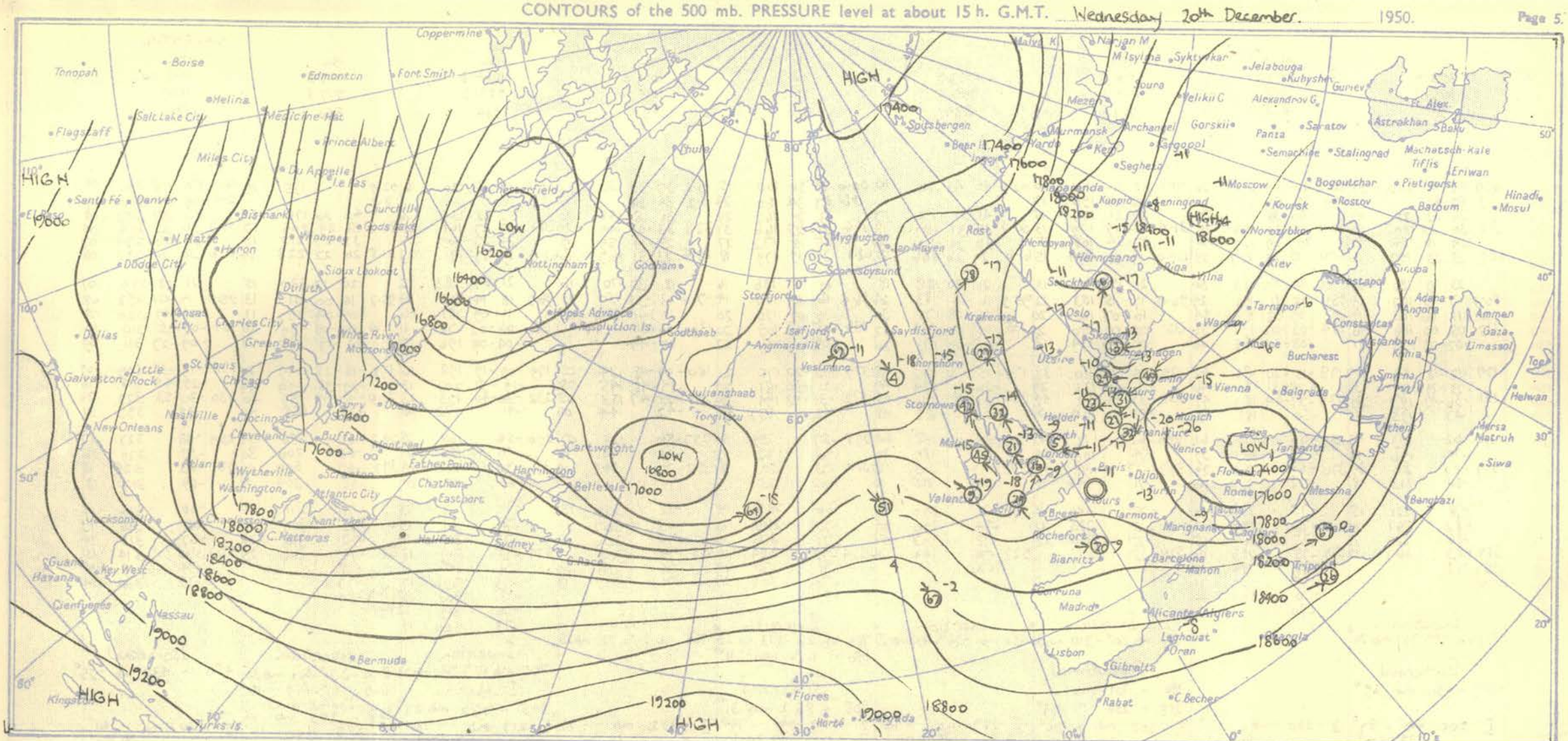
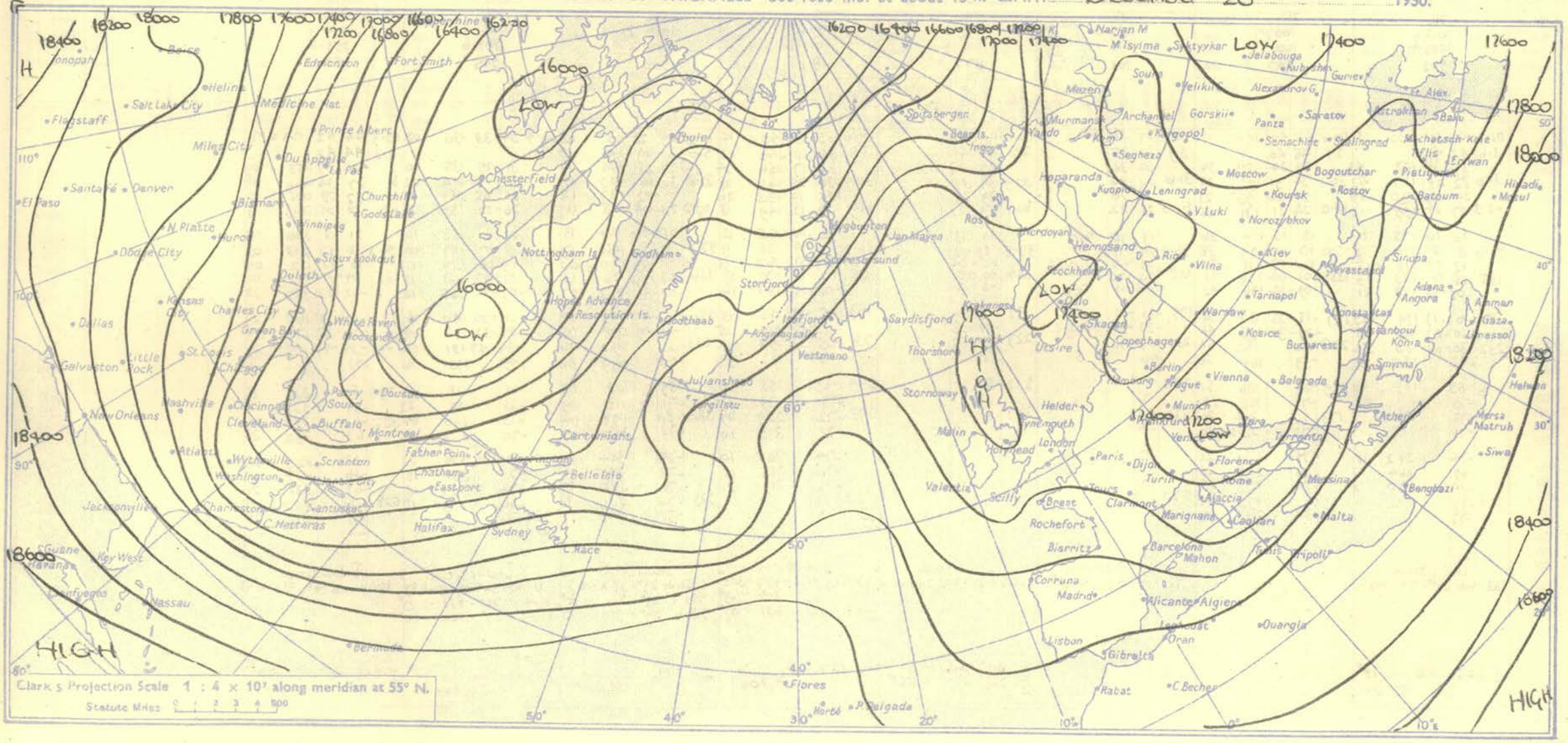
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Wednesday 20th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. December 20th 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure — Time 15h G.M.T. | M.S.L. 1012·4 mb | Surf 1002·7 mb | Freezing 919 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	42	40	200	33
1000	3·3	42	41		
960		36	33	181	47
900	31·2	30	28	180	46
850		29	26	184	42
800	61·9	25	23	197	16
750		23	19	180	09
700	96·3	17	13	167	09
650		11	06	163	12
600	135	05	00	166	16
550		-02	-08	173	21
500	179	-12	-18	182	27
450		-23	-29	179	31
400	231	-36	-42	192	39
350		-47		195	42
300	294	-62		193	43
250		-78		196	43
200	377	-87		204	39
170		-81		213	18
150		-78		231	15
130		-82		247	20
110		-84		263	18
100	517	-83		267	12
90	(95 mb)	-82			

Inversion 793 mb 25° – 771 mb 26°

Isothermal 887 – 850 mb 29°

Tropopause: I 200 mb – 87° — 37,700'

STORNOWAY

Pressure — Time 15h G.M.T. | M.S.L. 1007·7 mb | Surf 1006 mb | Freezing 875 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	46	44	180	20
1000	2·1	45	43		
960		40	38	181	25
900	30·2	35	34	184	31
850		29	29	189	28
800	61·0	25	22	187	28
750		20	16	183	30
700	95·1	15	11	183	29
650		09	05	186	34
600	134	02	-02	191	36
550		-05	-10	188	40
500	178	-15	-20	182	42
450		-25	-31	180	46
400	229	-37	-44	187	47
350		-50		188	48
300	292	-65		179	61
250		-71		189	59
200	376	-69		208	29
170		-72		238	16
150		-75		256	21
130		-75		249	12
110		-75		264	15
100	519	-75		283	18
90		-77		295	19
80		-78		308	21
70		-80		284	20
60		-80			

Tropopause: II 280 mb – 70° — 30,500'

LEUCHARS

Pressure — Time 15h G.M.T. | M.S.L. 1014·0 mb | Surf 1013·1 mb | Freezing 957 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	38	36	160	10
1000	3·6	36	35	190	14
960		32	31	186	15
900	31·4	31	29	179	13
850		27	24	168	15
800	62·0	23	21	174	15
750		21	19	167	13
700	96·0	17	15	153	12
650		10	07	160	20
600	135	03	00	180	21
550		-05	-10	174	28
500	179	-14	-21	170	32
450		-26	-34	172	29
400	231	-37	-46	182	42
350		-48		180	51
300	294	-62		172	42
250		-74		190	34
200	377	-77		198	19
170		-71		246	11
150		-75		246	14
130		-76		283	12
110		-76		286	12
100	520	-75			

Inversion 938 mb 30° – 910 mb 32°

Isothermal 786 – 731 mb 21°; 255 – 236 " –74°

Tropopause: I 205 mb – 80° — 37,200'

ALDERGROVE

Pressure — Time 15h G.M.T. | M.S.L. 1008·5 mb | Surf 999·5 mb | Freezing 884 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	45	43	180	10
1000					
960		41	37	196	17
900	30·7	34	31	187	18
850		30	29	192	20
800	61·6	27	26	206	15
750		21	20	188	18
700	95·9	16	14	183	24
650		10	08	179	30
600	135	03	00	174	32
550		-05	-09	173	36
500	179	-15	-20	172	45
450		-26	-31	174	49
400	230	-36	-45	176	45
350		-50		182	48
300	293	-63		168	54
250		-65		189	29
200	378	-67		213	5
170		-68		265	10
150		-71		290	09
130		-74		290	09
110		-72		293	09
100	522	-74		294	24
90		-76			

Inversion 450 mb –26° – 438 mb –25°

Isothermal 305 mb –59° – 290 mb –57°

Tropopause: I 287 mb – 68° — 30,200'

LIVERPOOL

Pressure — Time 15h G.M.T. | M.S.L. 1013·7 mb | Surf 1011·6 mb | Freezing 930 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	39	36	160	15
1000	3·6	37	34	160	24
960		33	29	162	29
900	31·4	31	28	166	31
850		25	15	172	27
800	62·1	22	19	179	18
750		19	18	196	16
700	96·4	16	15	184	14
650		10	09	190	20
600	139	05	-03	169	20
550		-04	-11	151	22
500	179	-13	-20	170	21
450		-21	-30	181	22
400	232	-31	-42	194	24
350		-42		177	39
300	295	-57		159	45
250		-70		162	45
200	380	-73		203	05
170		-68		232	11
150		-66		287	09
130		-70		265	10
110		-71		316	16
100	524	-72		304	09
90		-71		270	14
80		-70		308	27
70		-73			

Inversion 784 mb 22° – 773 mb 23°; 650 " 10° – 640 " 11°

Isothermal 905 – 882 mb 31°

Tropopause: I 229 mb – 74° — 35,200'

DOWNHAM MARKET

Pressure — Time 15h G.M.T. | M.S.L. 1019·3 mb | Surf 1014·9 mb | Freezing 890 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	35	30	130	12
1000	5·2	34	29		
960		31	18	145	20
900	32·8	33	-02	149	20
850		28	-14	159	19
800	63·4	23	-31	163	16
750		18	-35	170	16
700	97·4	13	-38	157	13
650		10	-41	127	05
600	136	06	-46	L I V	
550		00	-44	"	
500	180	-09	-48	134	05
450		-17	-45	145	05
400	233	-28	-47	153	05
350		-42		144	06
300	297	-56		128	07
250		-71		145	15
200	382	-77		247	09
170		-74		L I V	
150		-68		302	05
130		-63		307	17
110		-74		306	18
100	525	-74		309	17
90		-74		316	20
80		-74		308	18

Inversion 965 mb 29° – 922 mb 35°

Tropopause: I 232 mb – 77° — 35,100'

LARKHILL

Pressure — Time 15h G.M.T. | M.S.L. 1014·8 mb | Surf 998·3 mb | Freezing 934 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	38	37	120	16
1000	3·9				
960		33	32	134	26
900	31·7	28	27	161	25
850		24	23	169	24
800	62·4	19	17	181	23
750		21	07	183	12
700	96·2	18	14	143	04
650		11	09	181	06
600	135	04	-02	178	11
550		-04	-09	196	12
500	179	-09	-19	198	16
450		-19	-31	201	18
400	232	-30	-44	193	23
350		-41		172	28
300	296	-54		168	28
250		-70		155	29
200	381	-73		200	18
170		-68		251	07
150		-72		272	13
130		-70		311	15
110		-72		316	16
100	524	-73		319	13
90		-74		308	13
80		-73		296	17
70		-73		303	25
60		-76		319	22
	(76 mb)	-78		300	19

Inversion 795 mb 18° – 745 mb 22°

Isothermal 745 – 732 mb 22°

Tropopause: I 217 mb – 78° — 36,300'

CAMBORNE

Pressure — Time 15h G.M.T. | M.S.L. 1008·5 mb | Surf 997·8 mb | Freezing 850 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9			135	10
1000	2·3				
960		42	36	174	21
900	30·6	36	29	204	17
850		32	27	215	15
800	61·5	26	22	228	14
750		20	12	220	15
700	85·7	14	00	211	13
650		08	-04	202	13
600	134	00	-09	179	20
550		-03	-17	148	27
500	178	-18	-28	149	27
450		-29	-38	149	34
400	229	-40	-49	159	40
350		-54		185	41
300	292	-63		186	34
250		-66		206	30
200	377	-67		300	31
170		-68		304	21
150		-71		311	21
130		-73		309	21
110		-72		310	22
100	521	-74		316	25
90		-75			
80		-77			
70	(76 mb)	-80			

Inversion 860 mb 31° – 851 mb 32°; 664 " 07° – 649 " 08°

Isothermal 258 – 245 mb –66°

Tropopause: II 253 mb – 66° — 25,800'

VALENTIA.

Pressure — Time 15h G.M.T. | M.S.L. 1008·1 mb | Surf 1007 mb | Freezing 868 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	50	45	290	09
1000	2·4	49	45	288	09
960		42	38	282	08
900	30·7	36	32	284	09
850		30	26	284	08
800	61·6	28	21	282	08
750		21	08	289	07
700	95·8	14	-01	298	08
650		06	-09	300	08
600	134	-02	-15	310	10
550		-09	-27	311	09
500	178	-19	-36	309	09
450		-25	-44	318	16
400	230	-30	-53	329	26
350		-39		333	31
300	294	-48		327	37
250		-59		329	26
200	381	-63		324	18
170		-64		317	13
150		-66		314	17
130		-68		315	15
110		-67		313	14
100	527	-70		314	15
90		-74		319	14
80		-74		330	14

Isothermal 450 – 433 mb –25°

Tropopause: II 220 mb – 63° — 36,100'

LERWICK

Pressure — Time 21h G.M.T. | M.S.L. 1013·6 mb | Surf 1003·4 mb | Freezing 902 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	42	39	190	31
1000	3·6	42	40		
960		37	34	178	43
900	31·6	32	29	187	42
850		29	26	190	29
800	62·3	27	24	199	12
750		22	20	175	09
700	96·6	18	15	174	12
650		12	08	178	15
600	135	06	01	183	13
550		-02	-08	179	21
500	180	-10	-17	174	25
450		-20	-27	166	35
400	232	-30	-38	180	34
350		-42		185	36
300	296	-55		189	48
250		-70		198	45
200	381	-78		188	35
170		-71		215	30
150		-74		242	18
130		-69		264	12
110		-74		270	13
100	524	-77			
90		-77			

Inversion 863 mb 28° – 841 mb 29°

Tropopause: I 205 mb – 79° — 37,500'

STORNOWAY

Pressure — Time 21h G.M.T. | M.S.L. 1007·7 mb | Surf 1006 mb | Freezing 890 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	46	40	190	18
1000	2·1	45	40		
960		38	34	187	34
900	30·2	34	31	192	33
850		29	26	193	21
800	61·0	24	21	171	31
750		18	15	174	36
700	95·0	10	09	174	38
650		06	02	171	40
600	133	-01	-04	176	41
550		-09	-14	176	42
500	177	-18	-25	182	54
450		-29	-36	193	46
400	228	-42		183	52
350		-59		169	56
300	289	-68		186	51
250		-71		188	38
200	373	-72		206	26
170		-75		232	18
150		-79		278	22
130		-80		288	22
110		-81		293	25
100	524	-82		293	24
90		-84		293	20

Tropopause: II 280 mb – 70° — 30,500'

LEUCHARS

Pressure — Time 21h G.M.T. | M.S.L. 1015·0 mb | Surf 1014·1 mb | Freezing 903 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	37	36		
1000	3·9	36	35		
960		34	34		
900	31·6	32	26		
850		28	26		
800	62·3	23	22		
750		17	15	For winds see page 3	
700	96·0	14	11		
650		09	04		
600	135	03	-05		
550		-04	-11		
500	179	-13	-21		
450		-24	-34		
400	231	-35	-48		
350		-46			
300	294	-59			
250		-71			
200	332	-74			
150		-72			
130		-75			
110		-76			
100	520	-78			

Isothermal 721 – 709 mb 14°

Tropopause: I 214 mb – 79° — 36,700'

ALDERGROVE

Pressure — Time 21h G.M.T. | M.S.L. 1010·6 mb | Surf 1000·6 mb | Freezing 877 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	44	41		
1000	2·8	44	41		
960		39	37		
900	30·9	34	33		
850		29	28		
800	61·7	24	22		
750		19	13		
700	95·8	12	02		
650		05	-04		
600	134	00	-05		
550		-08	-15		
500	178	-18	-26		
450		-28	-38		
400	229	-40	-52		
350		-50			
300	292	-58			
250		-66			
200	377	-68			

Inversion 305 mb –59° – 290 mb –57°

Tropopause: I 305 mb – 59° — 30,000'; II 260 " – 66°

LIVERPOOL

Pressure — Time 21h G.M.T. | M.S.L. 1019·7 mb | Surf 1012·6 mb | Freezing 911 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	35	32	140	14
1000	3·8	34	30	140	22
960		32	27	156	24
900	31·4	30	25	161	28
850		25	19	153	26
800	61·9	28	12	149	18
750		22	14	165	12
700	96·2	17	09	158	11
650		09	01	162	13
600	135	02	-08	170	18
550		-05	-15	154	16
500	179	-15	-25	165	13
450		-25	-38	194	15
400	231	-35	-53	198	18
350		-48		183	34
300	294	-63		158	40
250		-72		179	28
200	378	-72		255	09
170		-72		315	10
150		-74		305	10
130		-76		315	15
110		-77		319	21
100	520	-77			
90	(93 mb)	-77			

Inversion 970 mb 31° – 927 mb 33°; 820 " 22° – 804 " 23°; 643 – 06° – 631 " 07°

Tropopause: I 237 mb – 76° — 34,300'

DOWNHAM MARKET

Pressure — Time 21h G.M.T. | M.S.L. 1019·8 mb | Surf 1018·2 mb | Freezing 900 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	29	28	110	02
1000	5·0	30	29	130	15
960		27	22	134	16
900	32·5	32	06	142	15
850		29	-02	137	12
800	63·2	23	-04	125	11
750		20	-06	126	13
700	97·3	15	-16	146	17
650		09	-29	170	20
600	136	03	-36	168	13
550		-02	-43	093	07
500	180	-11	-47	045	05
450		-21	-49	008	05
400	233	-30		092	06
350		-43		099	06
300	296	-57		108	09
250		-71		110	09
200	380	-80		198	04
170		-73		350	04
150		-74		344	12
130		-73		345	19
110		-76		338	14
100	523	-76		331	18
90		-78		349	17

Inversion 1015 mb 29° – 982 mb 31°; 950 " 21° – 936 " 30°; 318 " 29° – 900 " 32°

Tropopause: I 174 mb – 81° — 38,600'

LARKHILL

Pressure — Time 21h G.M.T. | M.S.L. 1015·2 mb | Surf 998·6 mb | Freezing 905 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	34	33	130	08
1000	4·0				
960		31	29	135	20
900		31	18	144	22
850		26	05	148	21
800		26	-20	158	15
750		21	01	152	10
700		15	07	117	10
650		09	06	127	11
600		02	-07	163	12
550		-07	-14	165	10
500		-15	-20	149	06
450		-24	-32	176	09
400		-34	-47	191	06
350		-49		173	16
300		-61		138	30
250		-73		174	22
200		-73		290	04
170		-70		336	18
150		-71		334	22
130		-73		331	18
110		-76		322	18
100		-76		333	18
90	(93 mb)	-76			

Inversion 921 mb 30° – 905 mb 32°; 864 " 26° – 833 " 28°; 810 " 25° – 800 " 26°

Tropopause: I 241 mb – 74° — 34,000'

CAMBORNE

Pressure — Time 21h G.M.T. | M.S.L. 1010·3 mb | Surf 999·6 mb | Freezing 850 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	44	42	CALM	
1000	2·8	44	42		
960		42	39	358	09
900	31·1	37	34	009	09
850		32	28	001	13
800	62·1	28	24	346	11
750		21	18	330	04
700	96·3	16	13	213	03
650		10	02	122	04
600	135	04	-11	148	10
550		-02	-23	157	25
500	179	-12	-27	162	27
450		-23	-35	179	34
400	231	-34	-47	178	27
350		-42		162	11
300	295	-50		328	13
250		-57		332	28
200	382	-61		328	30
170		-63		332	28
150		-65		325	27
130		-66		334	29
110		-68		331	26
100	628	-70		322	25
90		-71		318	25
80		-71			

Inversion 1000 mb 44° – 983 mb 48°

Tropopause: I 258 mb – 58° — 32,700'

VALENTIA.

Pressure — Time 21h G.M.T. | M.S.L. mb | Surf mb | Freezing mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots

Tropopause

HMSO. Press, MO., Dunstable.

No. 112/50

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Thursday 21st December. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Time	03h	03hrs	03h	03h	03h	03h	03h	03h	
Pressure M.S.L.	1013·1 mb	1007·3 mb	1014·2 mb	1009·0 mb	1013·7 mb	1017·6 mb	1014·5 mb	1009·4 mb	
Surf	1002·9 mb	1005·6 mb	1013·3 mb	999·3 mb	1011·6 mb	1013·0 mb	997·7 mb	998·7 mb	
Freezing	932 mb.	888 mb	897 mb	885·0 mb	850 mb	Surf 1013 mb		870 mb	

Pressure mb	Lerwick Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	41	35	180	32	00·4	46	42	180	18	00·2	35	33	160	12	02·6	42	40		
1000	03·4	41	34			01·5	44	41			03·7	34	31	174	18	02·4				
950		34	27	172	42		33	36	186	30		35	31	174	19		38	33		
900	31·3	26	24	181	40	30·0	33	30	194	32	31·5	32	22	175	21	30·4	34	26		
850		27	23	195	36		29	20	193	29		29	06	179	26		29	18		
800	61·8	22	17	194	33	60·5	27	13	187	27	62·1	24	-05	185	29	61·2	26	11		
750		19	07	184	32		21	13	185	27		17	-17	179	31		20	03		
700	95·9	14	00	176	29	95·2	15	10	188	30	96·2	17	12	175	23	95·4	14	02		
650		08	-10	172	22		06	-3	190	37		10	08	175	17		09	-04		
600	134	03	-19	177	22	134	01	-5	189	42	135	01	-01	168	21	134	01	-08		
550		-06	-26	176	25		-5	-11	181	45		-03	-05	172	24		-05	-13		
500	179	-12	-38	164	25	178	-13	-19	178	43	179	-11	-15	176	29	178	-14	-26		
450		-21	-37	159	25		-26	-31	175	54		-20	-27	191	25		-24	-39		
400	231	-32	-48	170	30	229	-38	-42	168	54	231	-29	-41	181	26	230	-32	-52		
350		-47		165	34		-48		170	65		-43		169	31		-41			
300	294	-59		170	39	292	-61		185	40	295	-53		178	37	294	-54			
250		-64		181	39		-63		196	22		-68		163	42		-68			
200	377	-82		178	27	378	-66		202	30	380	-71		188	19	379	-66			
170		-75		213	19		-61		252	26		-73		207	07		-67			
150		-75		232	18		-70		263	15		-71		257	08		-68			
130		-77		237	13		-70		253	14		-72		268	08		-69			
110		-77		254	14		-70		286	16		-72		289	11		-72			
100	519	-76		271	17	522	-71		282	18	523	-72		297	11					
90		-79		293	17		-74		301	18		-72		323	09					
80		-84					-78		313	17		-74		321	15					
70							-81		282	23		-79								
60							-82		295	24										
	Inversion 882 mb 25°-850mb 27° 763 - 18°- 743 - 20° Isothermal 1002 - 990mb 41° 537 - 520 - -08°					(40) -85	-90		304	29	Inversion 977mb 33°-956 mb 36° 741 - 16°- 709 - 18°					Inversion 560 mb -6°-550mb 5° Isothermal 850-835 mb 29°				
Tropopause	I 210 mb-86° 36,700'	I 238mb-65° 30,100' II 220 - -70° 35,800'	I 220mb-76° 36,000	I 245mb-69° 33,500'	I 271mb-71° 31,300' II 220 - -76° 35,600'	I 206mb -79° 37,000	I 235 mb -73° 34,600'	I 234 mb -72° 34,800'	I 233 mb -71° 34,800'	

Pressure mb	Liverpool Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	34	31	130	15	01·2	29	27	130	02	4·4	30	26	120	04	02·9	44	43	Calm	
1000	03·6	32	27	132	21	04·6	31	27	148	15	3·8					02·5				
950		27	19	139	23		28	25	145	16		29	27	131	18		39	37	129	09
900	31·1	23	11	174	27	32·1	30	12	193	19	31·2	30	15	152	18	30·6	35	32	131	08
850		32	-17	186	25		28	05	182	12		28	-17	180	16		31	27	143	08
800	60·9	26	-09	184	21	62·7	24	09	148	10	61·8	23	12	136	14	61·6	28	23	171	07
750		25	07	165	18		20	05	150	10		21	-18	151	06		22	16	180	06
700	950	15	03	163	18	96·9	18	-01	149	15	96·0	15	-10	181	10	95·9	15	09	016	08
650		10	-03	169	17		12	-11	158	16		09	-14	195	09		10	-03	163	08
600	134	00	-14	197	16	136	03	-21	148	20	135	04	-09	133	10	134	05	-06	156	21
550		-08	-22	197	15		-03	-27	155	20		-05	-14	163	10		-03	-15	170	26
500	178	-16	-35	191	15	180	-13	-37	156	22	179	-14	-23	184	03	179	-13	-27	196	15
450		-26	-46	186	19		-23	-48	148	20		-24	-34	269	02		-21	39	323	09
400	229	-40	-58	182	19	232	-34	-57	109	06	231	-34	-45	097	03	231	-27	-55	342	40
350		-53		176	29		-46		348	06		-46		130	09		-29	-59	340	63
300	292	-63		183	31	295	-61		034	09	294	-59		165	16	295	-53		340	65
250		-69		195	17		-73		018	05		-69		180	07		-68		339	59
200	376	-72		288	07	279	-77		005	08	379	-73		826	18	380	-70		322	40
170		-76		296	12		-74		342	12		-71		320	16		-73		326	34
150		-78		296	16		-73		340	12		-71		327	19		-74		323	33
130		-75		319	21		-75		334	12		-71		321	16		-71		331	31
110		-76		334	17		-75		351	11		-72		332	21		-73		331	27
100	518	-80		328	20	521	-78				523	-73		328	22	524	-73		325	27
90	(095 mb)	-81										-76		231	20		-74		323	29
80												-78		332	21		-76		321	31
70												-79					-78		322	30
60												-79				(65 mb)				
	Inversion 935 mb 25°-915mb 34° 875 - 31°- 856 - 33° 775 - 22°- 750 - 25° Isothermal 700 -670 mb 15°					Inversion 1013 mb 29°-1000mb 31° 929 - 26°- 900 - 30° 742 - 19°- 722 - 21°					Inversion 927 mb 27°-900mb 30° 884 mb 29°-868 - 30° 777 - 20°- 750 - 21° Isothermal 997·7 mb-959 mb 30° 661 - - 630 - - 09°									Inversion Surf 44°-1000mb 46° 526 mb -5°- 519 - -4°
Tropopause	I 271mb- 71° 31,300' II 220 - -76° 35,600'					I 206mb -79° 37,000					I 235 mb -73° 34,600'					I 234 mb -72° 34,800'				I 233 mb -71° 34,800'

09h G.M.T.

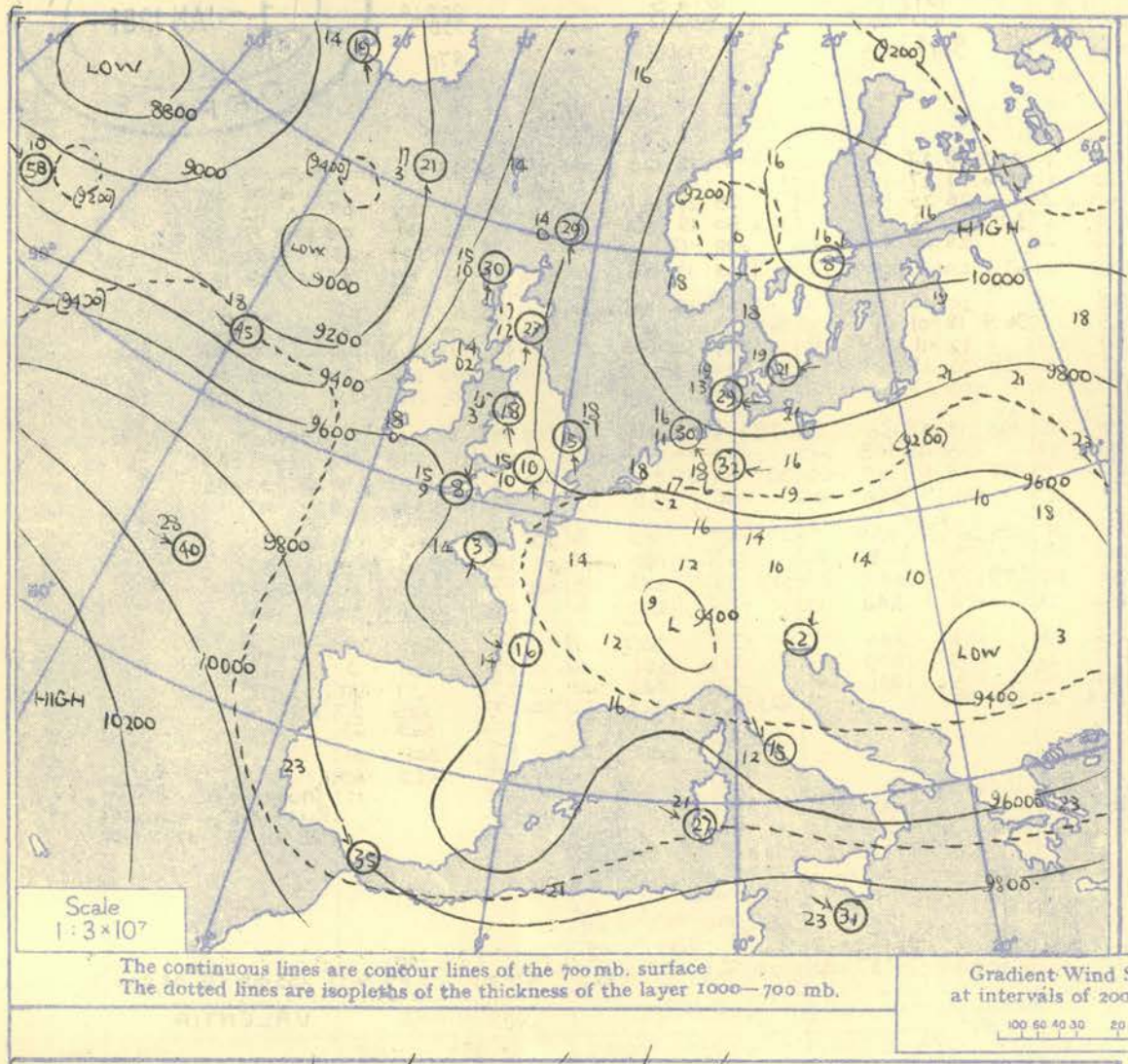
Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Time	09h	09hrs	09h	09h	09h	09h	09h	09h	
Pressure M.S.L.	1013·2 mb	1005·8 mb	1012·5 mb	1006·2 mb	1011·5 mb	1016·3 mb	1013·5 mb	1008·2 mb	
Surf	1003·0 mb	1004·1 mb	1011·6 mb	997·8 mb	1009·4 mb	1011·8 mb	996·8 mb	997·5 mb	
Freezing	933 mb	910 mb	888 mb	900 mb	872 mb	972 mb	900 mb	880 mb	

Pressure mb	Lerwick Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Stornoway Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Leuchars Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Aldergrove Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	40	34	180	28	00·4	44	39			00·2	38	29	160	10	02·6	42	40	150	15
1000	03·5	40	34			01·5	43	38			03·2	32	27			02·0				
950		34	28	165	32		37	33				30	16	160	15		37	33	148	29
900	31·2	27	21	168	32	29·5	31	27			30·9	33	06	167	19	30·0	32	27	158	31
850		28	-08	173	33		29	20				27	-05	171	25		27	20	170	29
800	61·8	25	-30	179	34	60·1	20	16			61·5	23	-10	169	27	60·6	22	14	182	27
750		18	-25	181	33		19	08				19	-05	173	29		18	09	187	29
700	95·9	13	-30	176	32	94·2	14	-6			95·5	14	10	190	24	94·6	11	02	184	29
650		08	-39	178	36		06	-14				07	05	180	26		02	-12	177	25
600	134	02	-54	182	31	132	-3	-19			134	-01	-02	173	27	133	00	-28	193	21
550		-04	-46	180	27		-12	-33				-05	-08	173	29		-05	-48	215	10
500	178	-14	-40	174	22	176	-16	-38			178	-15	-22	172	29	177	-14	-38	220	11
450		-25	-47	176	24		-24	-47				-25	-33	179	32		-21	-43	246	14
400	230	-34	-57	178	24	288	-34	-51			230	-36	-43	178	37	229	-34	-54	246	15
350		-46		172	26		-46					-49		182	40		-48		193	19
300	293	-58		170	28	292	-56				293	-61		176	40	292	-61		181	20
250		-72		166	33		-67					-68		176	39		-74		200	17
200	377	-79		182	25	377	-63				377	-72		203	15	376	-70		291	14
170		-72		209	10		-67					-68		238	08		-66		307	20
150		-74		214	12		-68					-67		260	07		-65		308	20
130		-76		236	10		-69					-70		296	13		-68			
110		-76		273	13		-70					-71		307	15					
100	519	-77		281	16						521	-71		309	20					
90		-78		299	17							-73								
80		-79																		
70																				
60																				
	Inversion 894 mb 26°-850mb 28° Isothermal 1009 - 989mb 40°					Inversion 810 mb-19°-780 mb-21°					Inversion 855mb 28°- 919mb 35°					Inversion 625 mb -02°- 600 mb 00° 570 .. -06°- 550 - -05°				
Tropopause	I 192mb -80° 39,500'	I 210mb -72° 36,600	I 250mb-68° 33,100	I 236mb -78° 34,200'	I 220 mb -73° 35,800	I 273 mb -73° 34,900	I 218 mb -74° 36,000	I 255 mb- 75° 37,400'		

Pressure mb	Liverpool Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Downham Market Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Larkhill Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Camborne Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	32	29	100	15	01·2	26	25	Calm		4·4	30	30	090	11	02·9	44	42	135	06
1000	03·0	31	26	138	29	04·2	33	30			3·5					02·2				
950		26	21	155	27		30	26	143	12		32	32	130	18		40	37	145	15
900	30·6	35	07	162	29	31·8	29	20	143	14	31·0	32	23	148	18	30·4	34	32	150	13
850		30	-12	166	27		20	07	142	10		28	09	158	15		29	27	160	10
800	61·3	25	-16	172	22	62·4	24	19	145	10	61·7	24	07	159	15	61·2	24	19	178	08
750		20	-06	177	15		22	12	156	11		21	-14	165	12		20	10	182	09
700	95·4	15	-08	174	13	96·7	17	15	160	10	95·8	17	-17	170	08	95·4	15	-01	204	10
650		09	-02	166	18		12	07	152	13		10	-03	180	06		10	-06	185	16
600	89	03	-06	175	21	135	-05	-04	141	15	135	04	-06	170	06	134	02	-11	176	16
550		-05	-12	181	21		-04	-13	144	20		-03	-10	146	07		-03	-21	200	10
500	178	-19	-26	174	21	180	-15	-26	141	18	179	-11	-14	145	06	178	-10	-37	314	16
450		-25	-38	188	22		-25	-39	136	20		-21	-28	075	02		-19	-50	314	22
400	220	-35	-50	181	24	231	-36	-51	135	18	231	-34	-40	133	05	231	-30	-43	322	28
350		-49		190	26		-48		128	13		-45		187	09		-44		318	27
300	293	-63		184	18	295	-59		045	08	295	-59		212	12	294	-60		313	13
250		-71		203	14		-69		012	07		-70		255	08		-70		296	17
200	374	-68		275	08	379	-72		358	08	379	-68		325	14	379	-60			
170							-71		346	09		-66		322	15	188	-63			
150							-68		331	11		-70		328	20					
130							-69		321	16		-69		327	27					
110							-66		329	18		-68		327	27					
100						524	-69		333	18	524	-69		324	24					
90							-70		338	18		-70		327	25					
80							-76		340	16		-70		333	24					
70							-78				(72 mb)	-71								
60																				
	Inversion 933 mb 25°- 907mb 36°					Inversion 1012 mb 26°-1000mb 33° 817 .. 23°- 782 .. 25° Isothermal 1000 - 985 mb 33° 941 - 900 .. 29°					Inversion 976mb 29°- 950mb 32° 919 .. 26°- 900 .. 32° Isothermal 821 - 807 mb 25° 784 - 750 .. 21°									
Tropopause	I 220 mb -73° 35,800					I 273 mb -73° 34,900					I 218 mb -74° 36,000					I 255 mb- 75° 37,400'				

Thursday 21st December. 1950.

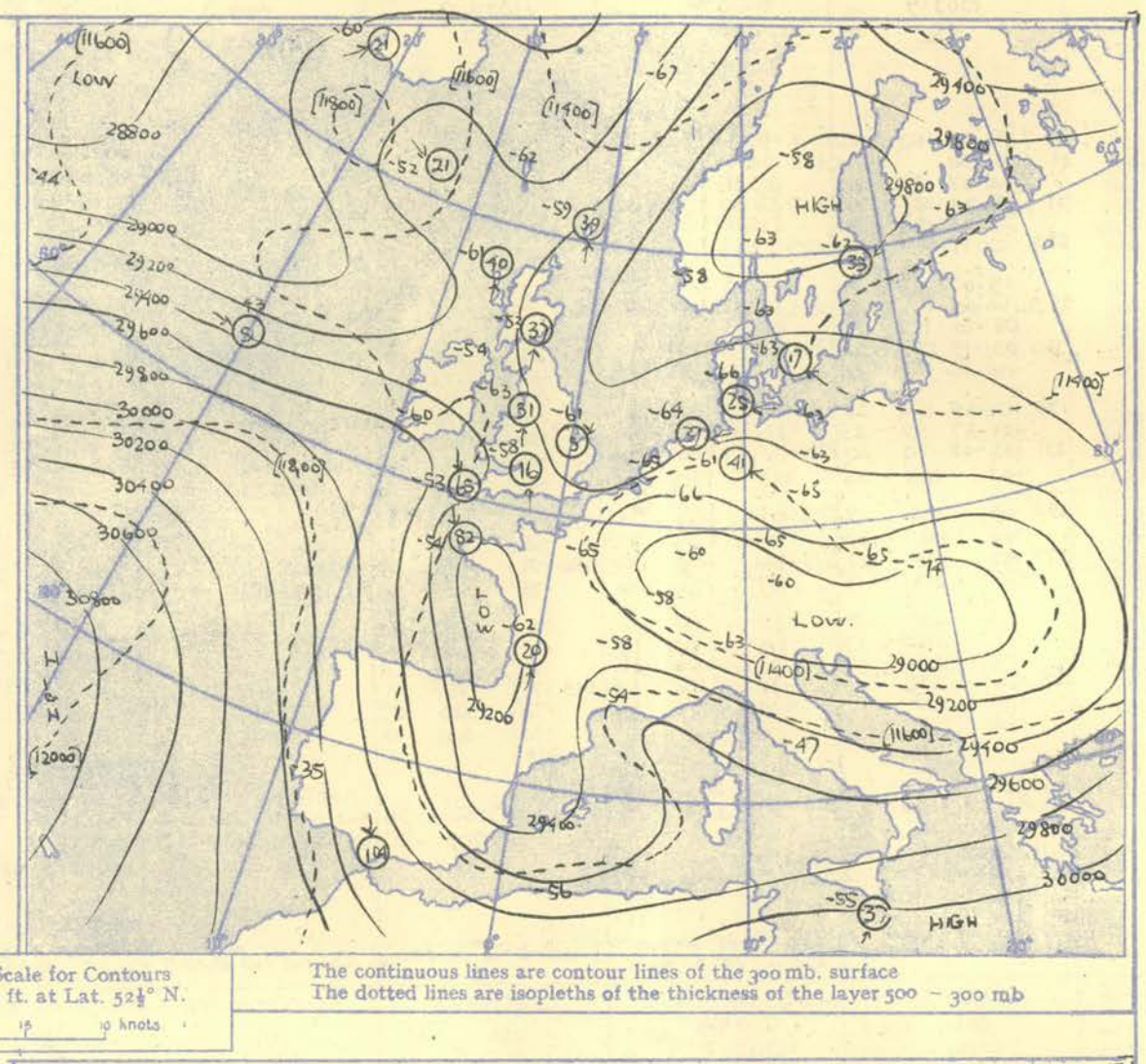
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



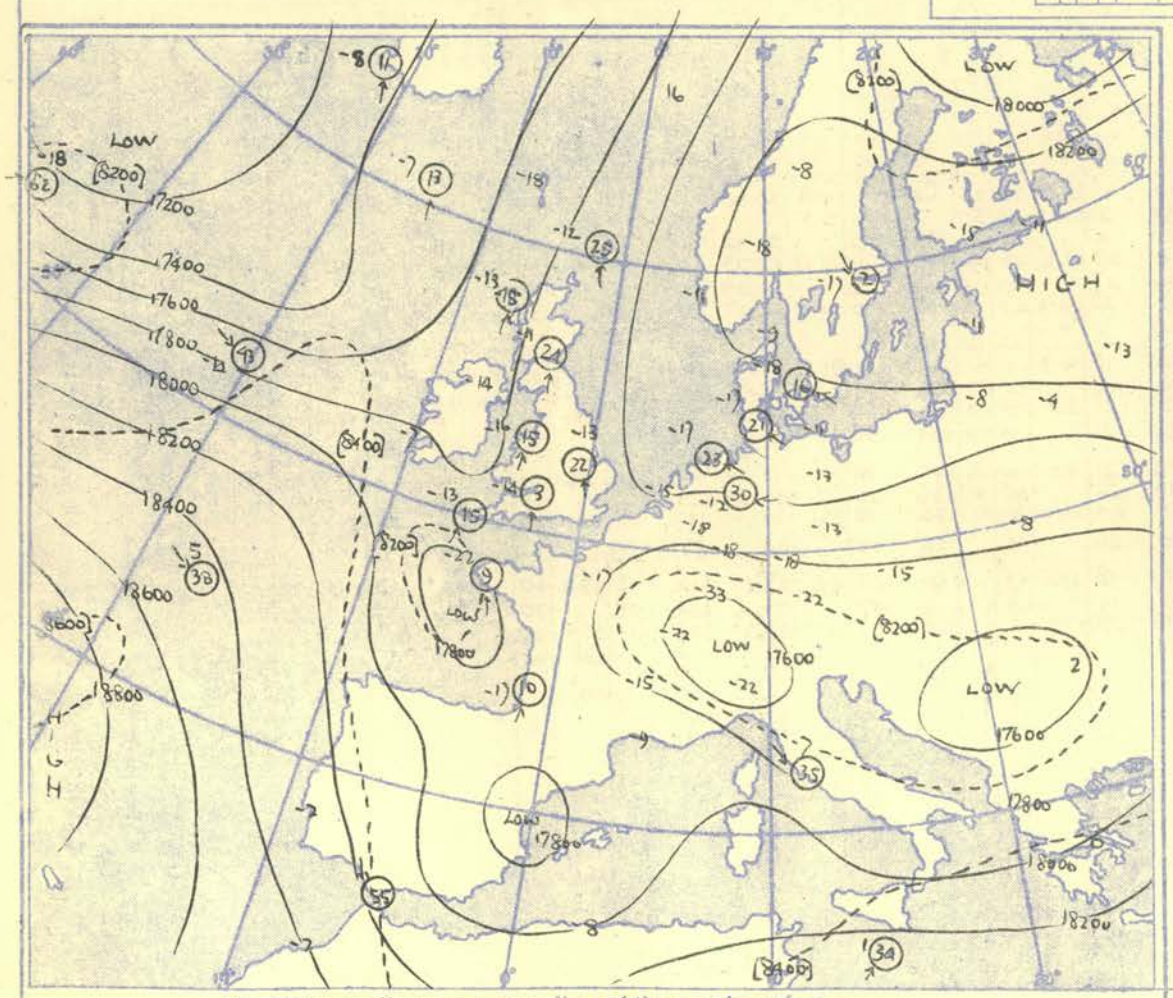
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

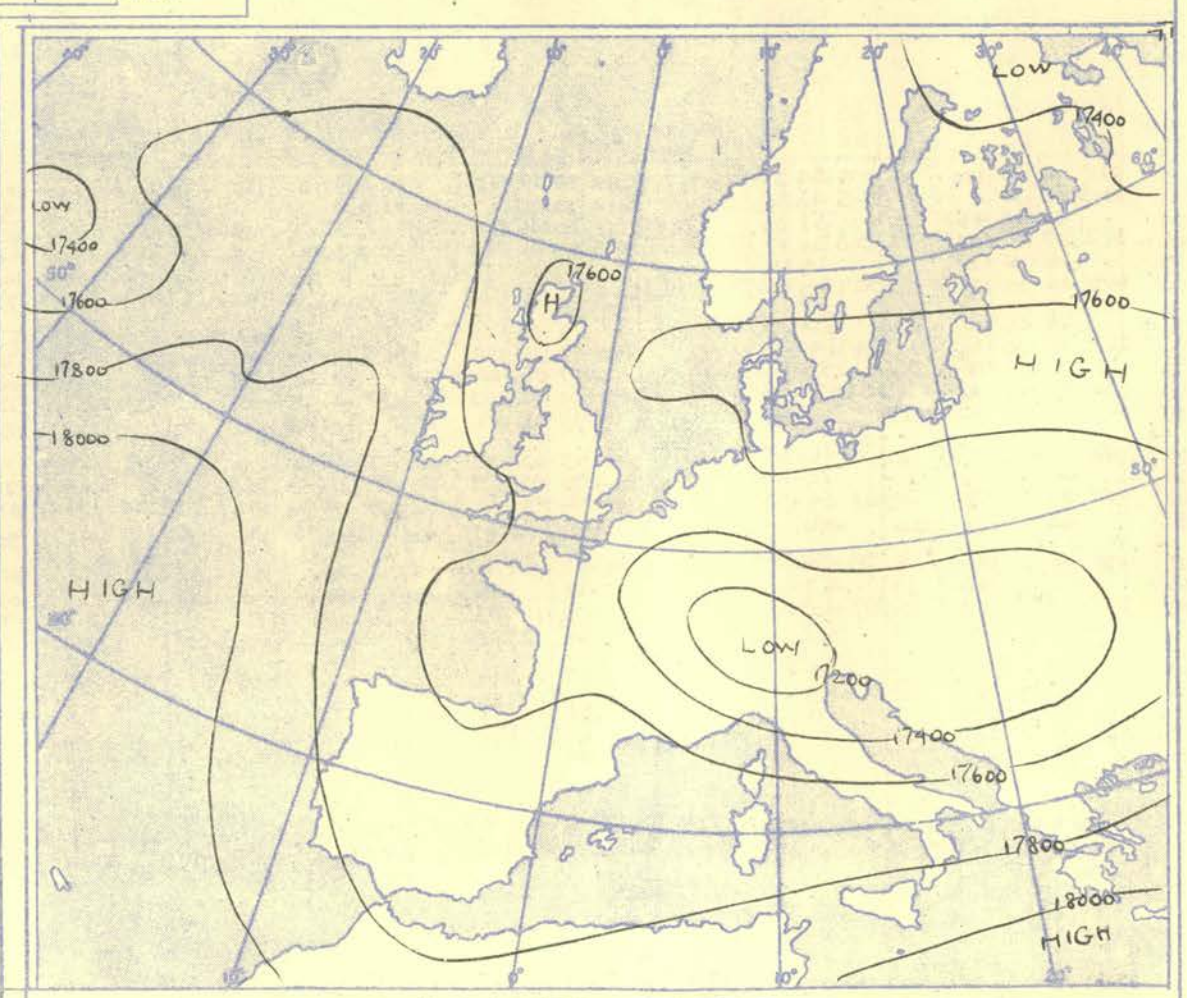
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure — Time / M.S.L. / Surf / Freezing — mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew
Surf			
1000			
950			
900			
850			
800			
750			
700			
650			
600			
550			
500			
450			
400			
350			
300			
250			
200			
170			

No Flights Reported.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place																		Place
Time																		Time
Type																		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet
Surf.																		Surf.
1,000																		1,000
2,000																		2,000
3,000																		3,000
4,000																		4,000
5,000																		5,000
6,000																		6,000
8,000																		8,000
10,000																		10,000
14,000																		14,000
18,000																		18,000
24,000																		24,000
30,000																		30,000
40,000																		40,000
50,000																		50,000

No Pilot Reported.

NEPHOSCOPE OBSERVATIONS

Place												Place
Time Type			NONE REPORTED.									Time Type
Dir. Vel.												Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	Weather Explorer	Weather Explorer	Weather Explorer	Weather Explorer	Weather Watcher	Weather Watcher	Weather Watcher	Weather Recorder	Weather Recorder	Ship
Lat/Long	60.6°N 13.5°W	61°N 14°W	61°N 13.9°W	61.1°N 14°W	52.5°N 19.8°W	53.0°N 18°W	54°N 13.9°W	52.8°N 18.7°W	52.6°N 12.7°W	Lat/Long
Time	03hrs G.M.T.	09hrs G.M.T.	15hrs G.M.T.	21hrs G.M.T.	03hrs G.M.T.	09hrs G.M.T.	21hrs G.M.T.	15hrs G.M.T.	21hrs G.M.T.	Time
Pressure M.S.L.	996 mb	994 mb	995 mb	996 mb	997 mb	994 mb	990 mb	992 mb	989 mb	Pressure M.S.L.
Surf	996 mb	994 mb	995 mb	996 mb	997 mb	994 mb	990 mb	992 mb	989 mb	Surf
Freezing	850 mb	850 mb	840 mb	850 mb	800 mb	850 mb	870 mb	855 mb	860 mb	Freezing

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	44	40	182	17
1000	-1.2				
950		41	38	168	27
900	270	37	35	177	24
850		32	28	176	19
800	580	27	22	178	20
750		22	13	173	21
700	824	17	03	170	21
650		10	-8	172	21
600	134	01	-16	181	22
550		00	-22	183	16
500	173	-7	-36	179	13
450		-18	-45	184	12
400	228	-26	-52	236	06
350		-40	-59	293	06
300	293	-52		286	21
250		-68		315	21
200	378	-63		246	10
170		-38		213	16
150		-60		212	15
130		-62		254	22
110		-64		287	21
100	525	-66		288	26
90		-69		282	28
80		-71		246	27
70		-72		261	24
60		-73		293	36
		-75		264	24
		-77		278	33

Isothermal 600-555 mb 10°

Tropopause: I 250 mb -68° 33200'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	46	41	130	16
1000	-1.6				
950		42	32	155	20
900	267	36	25	155	18
850		31	21	157	18
800	577	27	15	161	22
750		20	05	163	24
700	919	16	-3	168	23
650		10	-13	160	20
600	130	03	-19	164	18
550		-1	-21	146	18
500	175	-7	-31	153	15
450		-16	-46	167	18
400	220	-25	-44	184	13
350		-38	-54	176	13
300	292	-53		138	10
250		-69		131	13
200	377	-66		188	15
170		-59		231	11
150		-61		238	11
130		-62		255	12
110		-66		275	27
100	524	-69		275	28
90		-73		286	21
80		-74		279	24
70		-76		269	33
60		-77		287	19
		-78		274	15
		-80		290	33
		(32) -83			

Tropopause: I 226 mb -76° 35200'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	47	40	110	17
1000	-1.3				
950		43	38	133	29
900	268	38	34	142	20
850		33	29	137	21
800	577	28	24	137	22
750		22	17	148	23
700	920	16	12	162	28
650		08	04	149	29
600	131	03	-1	151	18
550		-2	-7	173	12
500	175	-9	-17	calm	
450		-20	-26	179	12
400	227	-30	-37	146	15
350		-41		136	21
300	291	-55		118	25
250		-72		126	26
200	576	-63		154	27
170		-56		222	20
150		-57		234	20
130		-59		270	15
110		-66		279	11
100	524	-68		294	13
90		-69		258	17
80		-70			
70		(67)			

Isothermal 650-632 mb 8° 570-545 mb -2° 408-445 mb -20°

Tropopause: I 230 mb -79° 34800'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	48	42	110	23
1000	-2.2				
950		45	41	134	35
900	272	39	36	138	36
850		32	29	143	33
800	582	27	23	143	29
750		21	16	138	25
700	923	17	10	133	27
650		10	03	140	21
600	132	03	-5	134	42
550		-4	-12	170	11
500	175	-12	-21	158	14
450		-23	-41	152	15
400	228	-37	-51	157	22
350		-49		147	27
300	290	-62		126	36
250		-77		129	45
200	374	-64		132	16
170		-62		167	10
150		-62		227	11
130		-67		242	22
110		-71		267	17
100	520	-73		273	15
90		-76		290	12
80		-78			
70		(85)			

Isothermal 733-711 mb 18° 612-600 mb 5°

Tropopause: II 252 mb -77° 32800'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	51	48	260	18
1000	-0.9				
950		47	43	257	34
900	276	40	34	253	34
850		32	27	260	34
800	583	32	21	263	34
750		25	18	270	40
700	934	18	11	278	43
650		13	04	276	43
600	132	05	-5	274	42
550		-4	-14	272	38
500	177	-14	-21	270	43
450		-23	-32	268	43
400	228	-35	-46	264	45
350		-35	-52	263	46
300	293	-43		265	51
250		-46		278	82
200	382	-51		278	77
170		-52		282	65
150		-56		285	61
130		-61		291	48
110		-66		291	37
100	530	-69		291	37
90		-74		291	36
80		-78			
70		-75			
60		(78)			

Isothermal 888-887 mb 39°

Tropopause: II 265 mb -39° 24900'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	48	43	271	15
1000	-1.6				
950		43	38	286	20
900	267	37	32	285	20
850		31	26	288	23
800	577	23	20	290	27
750		19	12	287	26
700	918	13	07	280	20
650		10	-1	276	16
600	130	05	-9	281	17
550		-4	-19	283	22
500	175	-15	-25	265	25
450		-28	-40	253	25
400	226	-37	-49	247	23
350		-44		262	33
300	290	-50			
250		-52			
200	378	-51			
170		-53			
150		-57			
130		-62			
110		-67			
100	526	-70			
90		-74			
80		-78			
70		-78			
60		(63) -77			

Tropopause: I 365 mb -43° 24700'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	47	41	260	12
1000	-2.7				
950		42	38	260	13
900	256	35	34	266	13
850		25	28	270	13
800	563	23	23	268	14
750		17	13	Above Radar elevation	
700	920	10	00		
650		03	-12		
600	128	-3	-18		
550		-11	-29		
500	172	-22	-41		
450		-33	-49		
400	223	-46		170	13
350		-55		165	21
300	285	-55		157	25
250		-55		190	16
200	573	-53		289	19
170		-55		291	22
150		-59			
130		-59			
110		-58			
100	520	-61			
90		-64			
80		-64			
70		-64			
60		-73			

Tropopause: II 350 mb -55° 25100'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	44	43	250	14
1000	-2.3				
950		43	35	239	24
900	261	37	26	249	24
850		31	19	264	24
800	569	26	14	283	25
750		20	06	287	27
700	913	13	00	270	34
650		05	-9	268	21
600	129	-2	-20	268	24
550		-9	-29	260	22
500	173	-18	-40	246	30
450		-28	-49	242	26
400	224	-38	-52	257	22
350		-47		262	22
300	288	-47		266	21
250		-46		258	32
200	578	-43		258	33
170		-47		262	36
150		-51		266	46
130		-53		265	41
110		-61		263	42
100	528	-64		278	51
90		-66		280	46
80		-65		286	37
70		-72			
60					

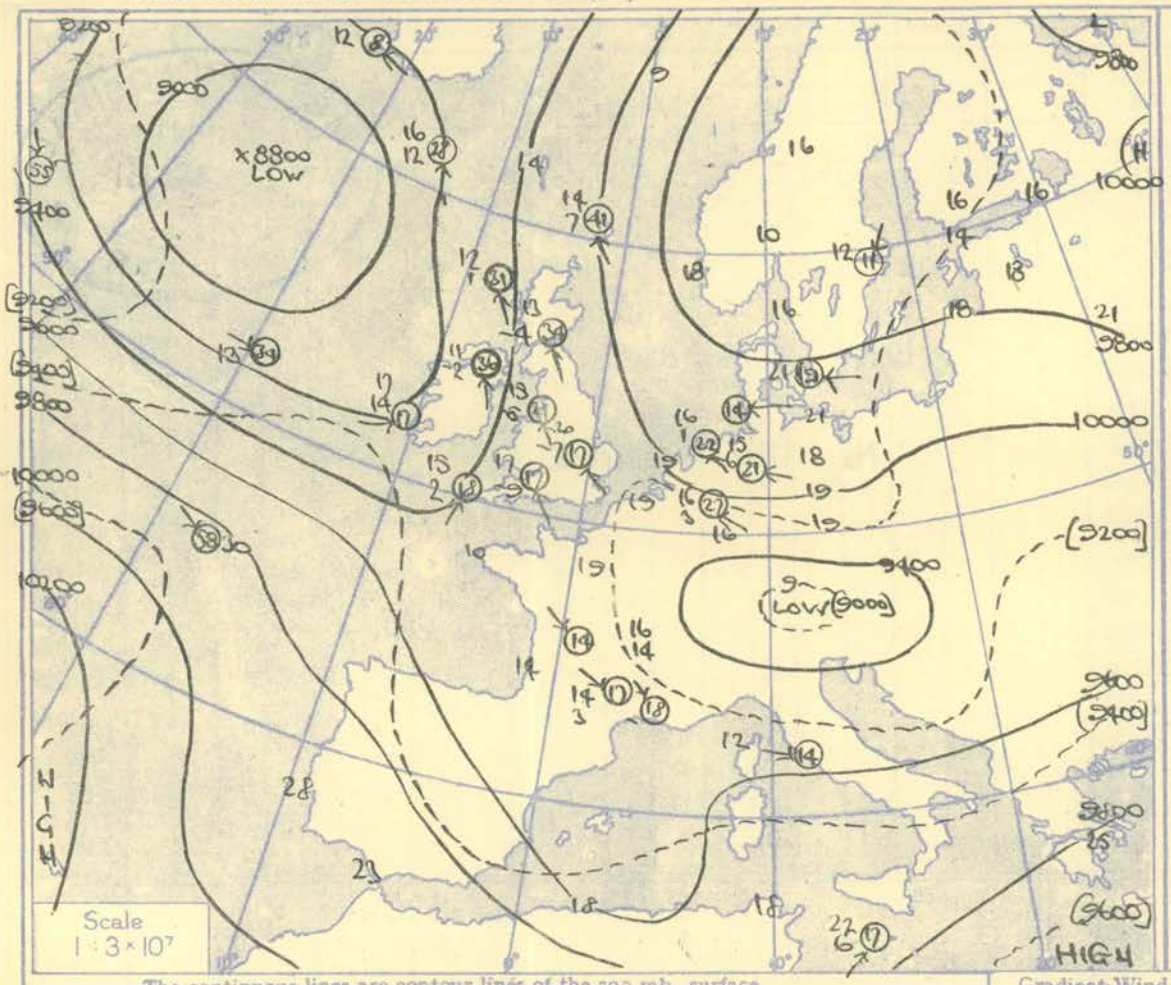
Tropopause: I 350 mb -47° 25400'

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	—	45	41	250	15
1000	-2.9				
950		41	35	275	19
900	253	35	25	275	19
850		28	17	277	24
800	560	22	09	277	24
750		16	02	271	18
700	899	08	-6	261	15
650		04	-11	248	17
600	128	-3	-23	247	18
550		-12	-30	261	21
500	171	-23	-37	266	20
450		-32	-47	266	22
400	222	-39	-56	266	27
350		-37		266	28
300	286	-51		266	31
250		-49		266	37
200	374	-49		266	38
170		-49		266	38
150		-50		266	35
130		-53		266	35
110		-56			
100		(113)			
90					
80					
70					
60					

Isothermal 662-648 mb 4°

Tropopause: II 323 mb -51° 26900'

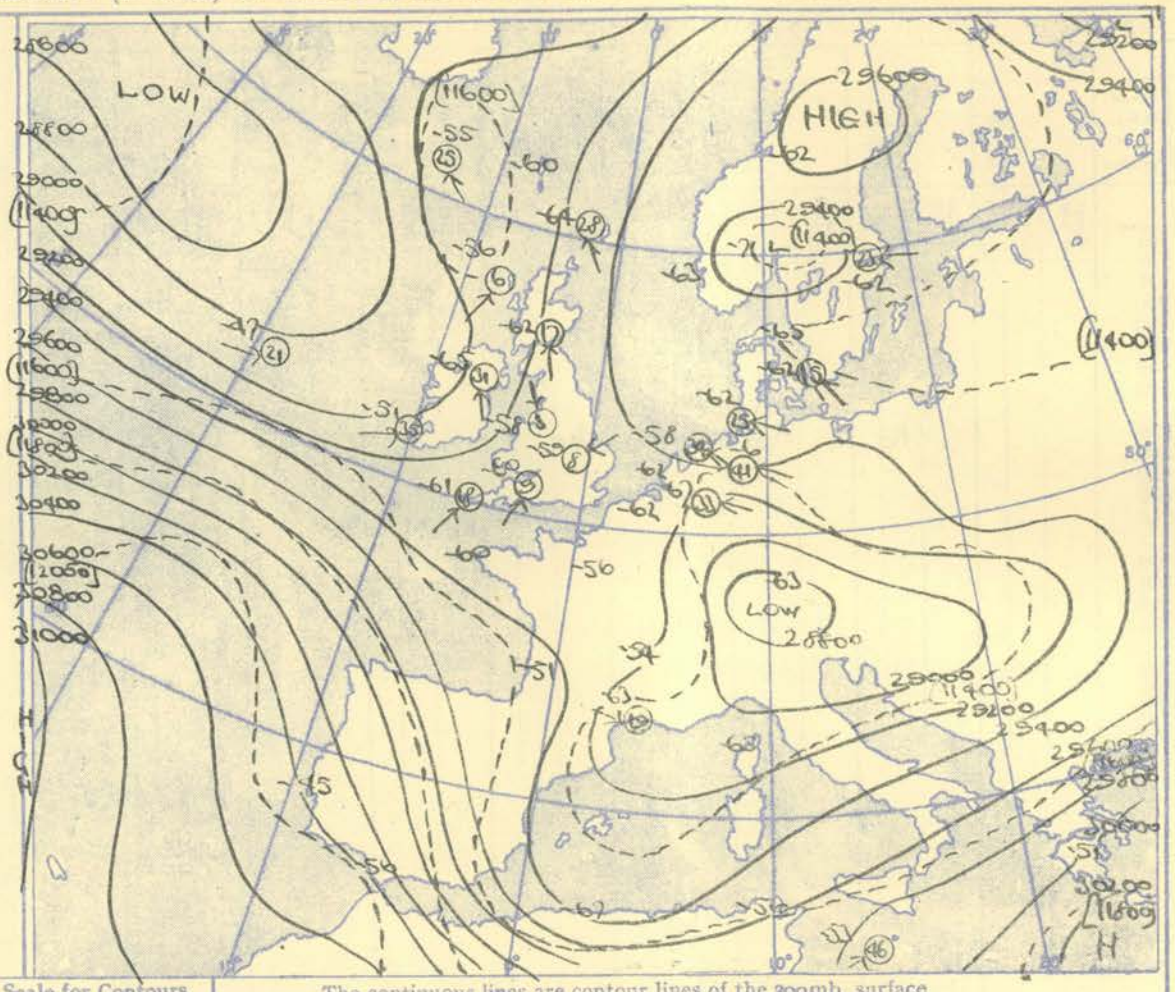
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

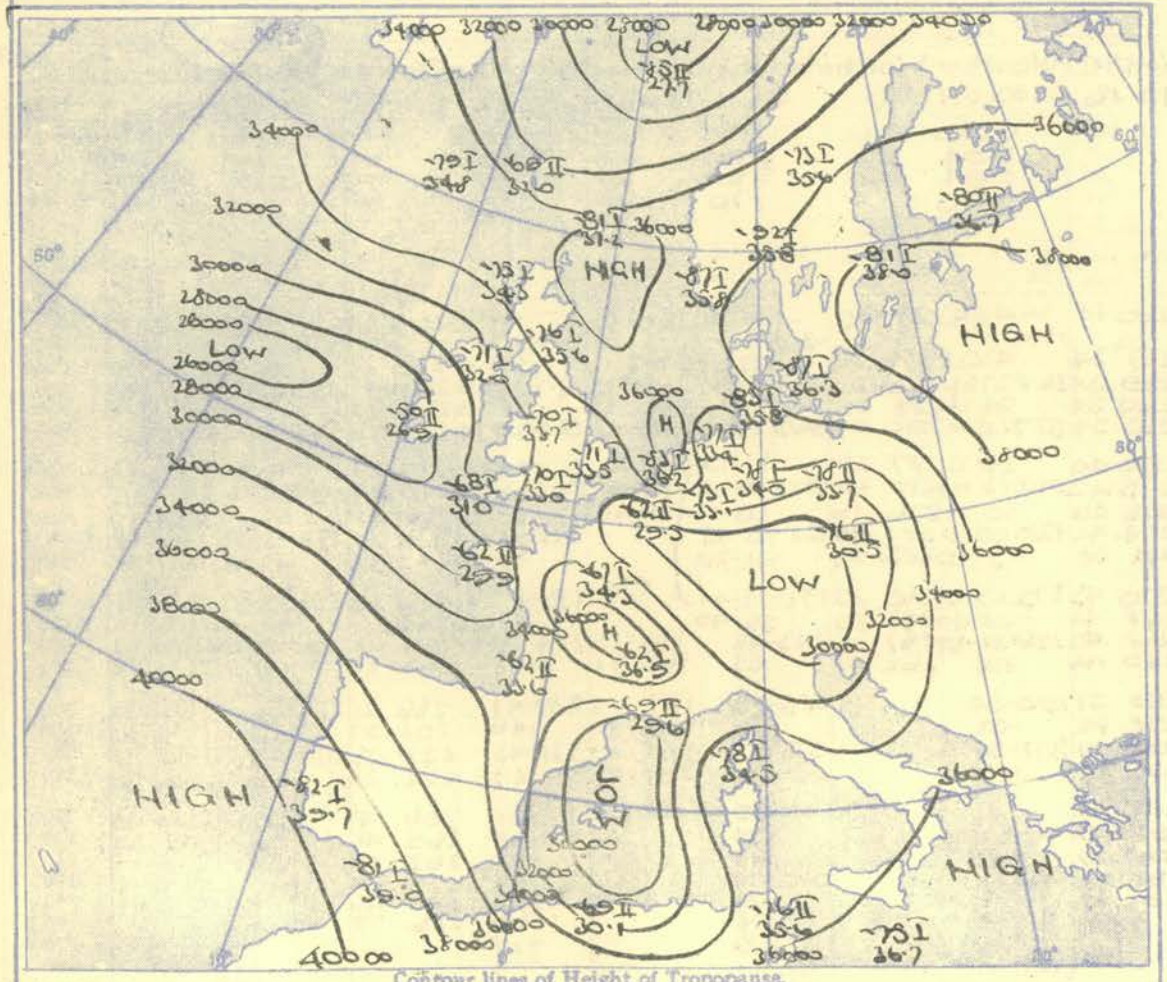
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

little noteworthy change.

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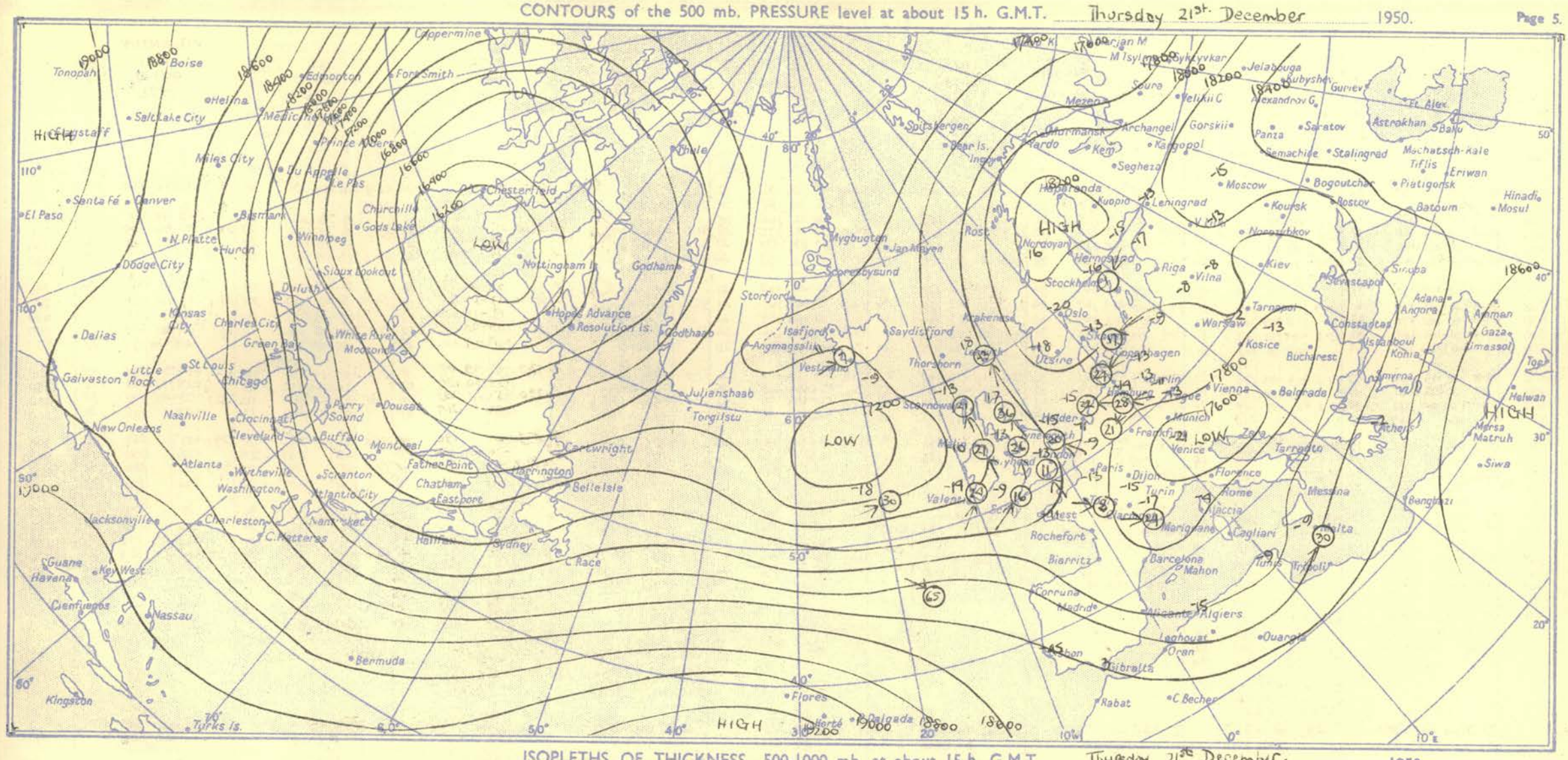
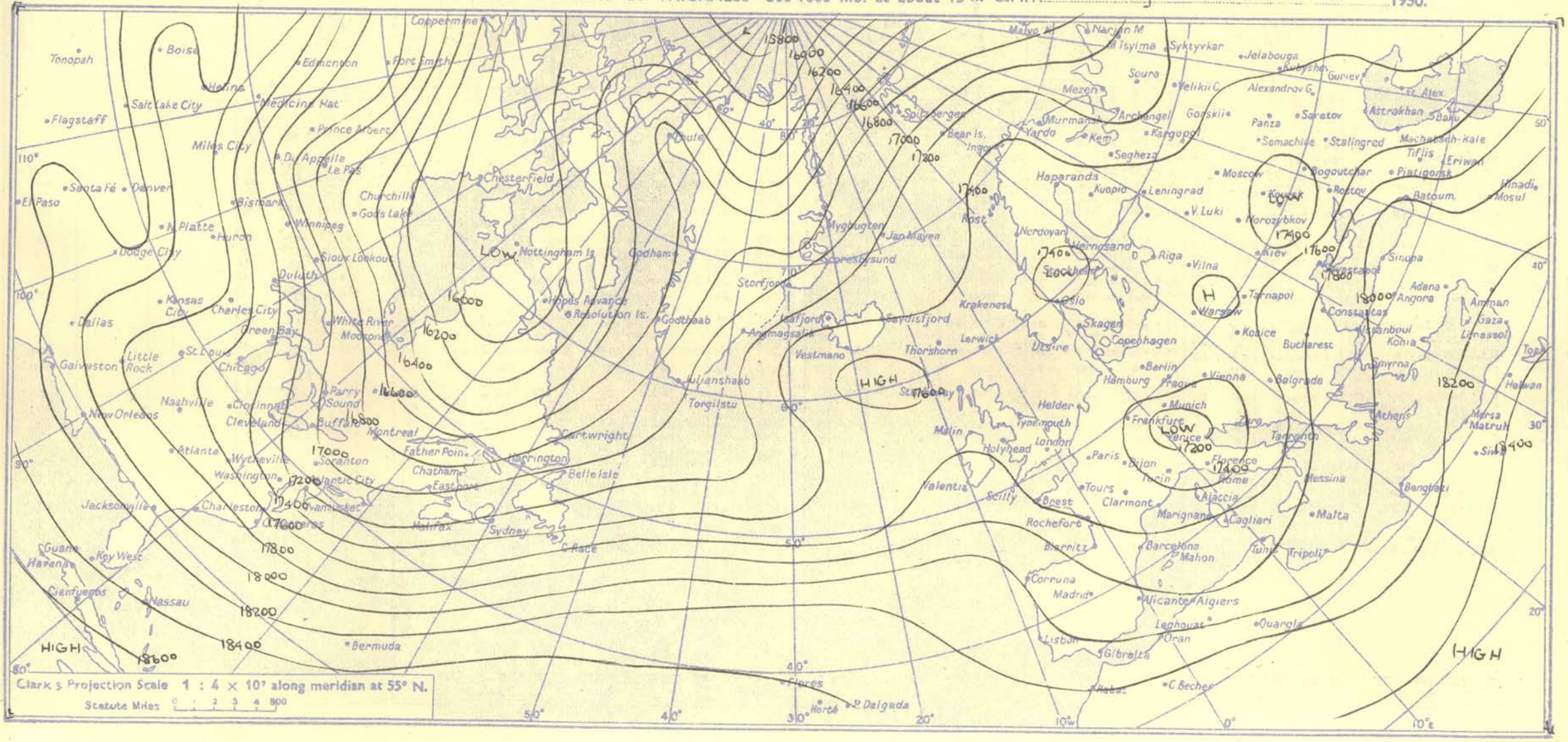
CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Thursday 21st. December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Thursday 21st December. 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h. G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.	15h. G.M.T.
Pressure: M.S.L.	1021·1 mb	1004·6 mb	1009·7 mb	1003·7 mb	1009·0 mb	1012·8 mb	1009·3 mb	1003·7 mb	993·9 mb
Pressure: Surf	1001·9 mb	1002·9 mb	1008·8 mb	993·7 mb	1006·9 mb	1008·3 mb	992·8 mb	993·0 mb	992 mb
Pressure: Freezing	927 mb	900 mb	969 mb	900 mb	888 mb	948 mb	952 mb	871 mb	830 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick °Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway °Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars °Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots
Surf	02·7	42	40	180	20	00·4	44	37	180	12	00·2	35	28	140	10
1000	03·2	42	40			01·2	43	36			02·5	34	27	178	18
950		35	31	171	30		38	32	158	18		35	17	179	21
900	31·1	29	24	168	33	29·3	32	28	174	23	30·3	32	-03	170	22
850		26	20	165	29		27	22	181	26		26	-05	172	27
800	61·4	24	20	168	27	60·0	21	16	181	30	60·8	21	-02	166	28
750		20	09	171	37		15	10	174	30		19	-04	163	33
700	95·8	14	07	172	41	93·9	12	01	169	31	94·8	13	-04	163	34
650		07	-05	171	45		05	-05	168	39		09	-03	168	35
600	13·4	01	-10	181	45	13·2	-04	-12	165	43	13·3	01	-07	172	31
550		-07	-24	182	44		-08	-31	168	31		-08	-14	175	34
500	17·8	-18	-43	186	43	17·6	-13	-54	170	21	17·7	-17	-38	167	36
450		-27	-55	181	37		-21	-54	181	19		-24	-35	178	32
400	23·0	-37	-60	177	30	22·8	-32	-59	189	21	27·9	-36	-49	187	33
350		-51		180	29		-43		150	09		-49		176	35
300	29·2	-64		175	28	29·2	-56		198	06	29·2	-62		172	17
250		-73		174	24		-71		185	14		-69		188	19
200	37·6	-80		177	30	37·6	-73		163	21	37·6	-69		182	11
170		-76		203	15		-63		183	19					
150		-75		231	08	43·7	-63		200	14					
130		-75		261	08		-64		281	11					
110		-74		293	05		-65		303	12					
100	51·8	-75		293	05	52·2	-67		304	12					
90		-77					-68		297	15					
80	(82mb)	-79					-69		285	21					
70							-70		284	25					
60						62·8	-72		297	20					
							-73		301	18					
						71·2	-75		303	22					
							-78		316	24					

Pressure mb	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove °Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool °Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market °Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots
Surf	02·6	41	39	145	18	00·6	31	29	135	15	01·2	32	32	CALM	
1000	00·9					02·4	30	24	139	24	03·4	33	33		
950		37	34	155	29		26	21	162	28		32	31	149	16
900	28·9	32	30	165	31	29·9	33	11	172	28	31·0	27	25	149	12
850		66	25	167	34		27	03	173	27		25	22	148	13
800	59·5	21	20	171	30	60·5	23	02	173	26	61·4	21	18	148	14
750		15	10	177	31		21	-06	165	21		19	11	148	16
700	73·3	11	-02	170	36	94·6	15	-05	160	21	95·6	20	-07	148	17
650		05	-23	166	33		10	-06	159	23		13	-29	149	18
600	13·2	00	-35	172	31	13·3	04	-09	166	24	13·4	05	-36	154	21
550		-05	-36	175	29		-04	-13	168	28		-04	-41	153	24
500	17·6	-10	-23	167	27	17·8	-13	-20	171	26	17·9	-15	-51	146	20
450		-21	-36	163	15		-24	-34	168	25		-26	-58	140	17
400	22·8	-33	-47	176	17	21·9	-35	-49	175	21	23·0	-39	-59	138	16
350		-49		185	22		-46		183	21		-49		118	11
300	29·1	-65		174	31	29·3	-58		338	03	29·3	-59		047	05
250		-68		185	30		-69		170	06		-70		047	08
200						37·8	-68		249	07	37·8	-69		319	06
170							-64		271	12		-67		325	08
150							-60		303	20	43·8	-66		348	12
130							-62		331	22		-68		319	10
110							-68		322	16		-66		312	20
100						52·4	-70		316	11	52·3	-68		317	20
90							-71		316	22		-70		319	18
80							-71		319	24		-74		318	19
70												-74			
60											62·9	-78			
												-81			

Pressure mb	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill °Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne °Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia °Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	04·4	36	32	150	06	02·9	46	44	135	05	00·3	49	46	170	08
1000	02·4					01·0					-1·6				
950		32	29	143	18		41	38	182	20		45	42	171	19
900	30·0	29	18	160	24	29·3	36	32	192	27	26·8	39	36	209	10
850		26	08	157	24		30	25	198	26		34	30	229	12
800	60·6	24	07	153	21	60·2	26	19	202	20	57·8	28	24	214	14
750		22	05	155	18		21	05	202	16		22	18	229	16
700	94·9	17	-09	154	17	94·4	15	02	199	18	92·1	17	12	235	17
650		13	-11	156	13		09	-02	201	16		11	06	227	17
600	13·9	03	-03	165	13	13·3	04	-05	201	13	131	04	-05	229	17
550		-04	-14	164	15		00	-08	223	14		-05	-20	195	23
500	17·8	-13	-19	158	11	17·8	-09	-16	234	16	175	-14	-30	195	24
450		-23	-30	154	05		-20	-27	230	09		-25	-37	202	32
400	23·0	-33	-41	253	06	23·0	-32	-40	227	10	22·7	-33	-45	179	31
350		-48		214	07		-46		220	13		-45		185	32
300	29·3	-60		190	09	29·3	-61		208	18	29·1	-51		224	35
250		-70		254	05		-63		264	24		-52		250	26
200	37·8	-67		292	10	37·9	-62		295	27	37·9	-52		280	32
170		-63		309	18		-64		303	36		-54		294	37
150	43·9	-64		313	23		-63		313	36		-55		279	34
130		-63		325	27		-66		321	30		-59		289	28
110		-68		329	24		-70		322	32		-65		298	27
100	52·4	-68		322	23	52·5	-70		319	32	52·7	-64		304	28
90		-68		320	24		-72		315	29		-68		304	28
80		-68		319	24		-73		315	30		-73		302	28
70		-70		318	25		-76		312	27	(75mb)	-76			
60	63·1	-69		323	14		-76		316	25					
		-71		321	16										

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Inversion / Isothermal	Isothermal 890 - 880 mb 28°; 860 - 825 .. 26°	Inversion 578 mb -7° - 570 mb -6°; Isothermal 750 - 725 mb -15°	Inversion 969 mb 32° - 947 mb 266 - 69° - 253 .. Isothermal 784 - 758 mb 20°	Inversion 540 mb -6° - 525 mb -5°; Isothermal 715 - 700 mb 11°	Inversion 953 mb 24° - 930 mb 33°; 930 .. 33° - 906 .. 34°	Inversion 1008 mb 32° - 977 mb 35°; 900 .. 27° - 880 .. 28°; 809 .. 20° - 788 .. 24°; 740 .. 17° - 713 .. 21°	Inversion 762 mb 210° - 750 mb 22°; Isothermal 843 - 808 mb 25°	Isothermal 800 - 788 mb 26°; 580 - 560 .. 02°	Isothermal 413 - 400 mb -33°
Tropopause	I 204 mb - 81° 37,200'	I 235 mb -78° 34,300'	I 220 mb -76° 35600'	I 259 mb -71° 32,000'	I 243 mb -70° 33700'	I 245 mb -71° 33,500'	I 250 mb -70° 33,000'	I 278 mb -68° 31,000'	II 331 mb -50° 26900'

21h. G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	21h. G.M.T.	21h. G.M.T.	21h. G.M.T.	21h. G.M.T.	21h. G.M.T.	21h. G.M.T.	21h. G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1011·6 mb	1002·5 mb	1009·1 mb	1001·1 mb	1005·9 mb	1011·0 mb	1006·5 mb	997·5 mb	mb
Pressure: Surf	1001·4 mb	1001·8 mb	1008·2 mb	992·1 mb	1003·8 mb	1006·4 mb	990·0 mb	987·0 mb	mb
Pressure: Freezing	909 mb	894 mb	913 mb	931 mb	977 mb	965 mb	965 mb	841 mb	mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick °Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway °Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars °Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots
Surf	02·7	42	42	180	28	00·4	42	30	160	15	00·2	34	30	150	14
1000	03·1	42	42			00·5	42	30			02·3	34	29		
950		38	34	155	36		37	25	154	17		34	24	155	30
900	31·1	31	27	160	33	28·9	33	24	161	15	30·0	31	20	157	28
850		27	22	167	30		28	23	162	18		26	16	154	27
800	61·8	30	20	168	31	59·6	23	18	156	21	60·5	21	17	151	27
750		24	17	168	35		17	12	161	27		20	12	157	29
700	96·2	16	11	167	37	93·5	13	03	164	37	94·6	15	10	163	32
650		08	03	164	37		08	-06	163	39		09	00	162	35
600	135	02	-04	165	38	132	-01	-09	164	40	13·3	03	-11	166	35
550		-07	-16	168	39		-11	-18	158	42		-05	-26	165	40
500	17·9	-15	-26	171	37	17·5	-20	-30	164	28	17·9	-16	-37	158	40
450		-25	-41	175	37		-29	-37	176	24		-26	-47	154	40
400	23·0	-38	-54	178	38	22·7	-40	-47	169	20	23·9	-36	-55	157	29
350		-51		181	36		-52		161	20		-49		150	29
300	29·3	-64		170	30	28·9	-66		159	18	29·2	-63		149	22
250		-74		167	16		-80		141	20		-75		147	22
200	37·6	-74		176	19	37·2	-74		158	17	37·0	-64		156	07
170		-70		169	10		-75		179	05		-67		262	01
150		-75		205	06	43·1	-70		206	05	43·3	-65		312	12
130		-75		228	10		-73		233	12		-67		310	19
110		-74		308	15		-78		314	18		-71		323	14
100	51·9	-75		313	15	51·9	-81		322	19					
90		-77					-78								
80															
70															
60															

Pressure mb	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove °Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool °Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market °Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots
Surf	02·6	39	35			00·6	33	28	140	20	01·2	34	33	110	08
1000	00·5					01·5					02·9				
950		34	31				28	25	144	33		31	28	135	23
900	28·4	32	27			29·0	28	15	148	33	30·6	28	22	136	20
850		27	19				26	00	157	33		22	20	136	18
800	29·1	24	12			59·5	26	10	164	31	61·1	26	-03	136	18
750		17	12				21	05	159	29		23	-06	138	20
700	93·1	12	02			93·7	15	-08	154	27	95·4	17	-26	138	21
650		08	07				09	-14	152	29		12	-24	135	23
600	13·1	01	-15			13·2	02	-25	156	28	13·4	04	-24	137	23
550		-06	-28				-07	-25	155	28		-05	-25	144	21
500	17·6	-13	-30			17·6	-18	-25	155	28	17·8	-15	-34	142	22
450		-22	-34				-28	-36	154	24		-26	-49	149	32
400	22·8	-33	-45			22·8	-39	-48	143	21	23·0	-38	-58	148	32
350		-47					-51		152	17		-51		141	27
300	29·1	-62				29·0	-65		147	16	29·3	-63		125	14
250		-72					-72		153	19		-67		066	05
200	37·6	-65				37·5	-67		169	04	37·8	-66		360	02
170		-63					-67		320	05		-64		320	07
150							-65		319	06	43·8	-64		319	10
130		-69					-68		303	24		-64		323	13
110							-72		338	19		-67		332	18
100	52·2	-70				52·0	-72		325	21	52·3	-69		336	19
90							-74								
80															
70															
60															

	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Inversion / Isothermal	Inversion 836 mb 25° - 810 mb 31°	Isothermal 738 - 725 mb 15°	Inversion 967 mb 32° - 945 mb 35°; 796 .. 20° - 770 .. 21°	Inversion 925 mb 31° - 891 mb 32°; 849 .. 27° - 830 .. 28°	Inversion 933 mb 27° - [illegible] 29°; 825 .. 25° - 800 .. 26°	Inversion 827 mb 19° - 808 mb 26°	Isothermal 92·8 - 890 mb 29°		
Tropopause	II 320 mb -78° 35,150'	I 221 mb -85° 35000'	I 250 mb -75° 33,000'	I 255 mb -74° 32,400'	I 260 mb -74° 32,000'	I 281 mb -66° 30700'	I 255 mb -71° 32,500'	I 311 mb -60° 28,100'	

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RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

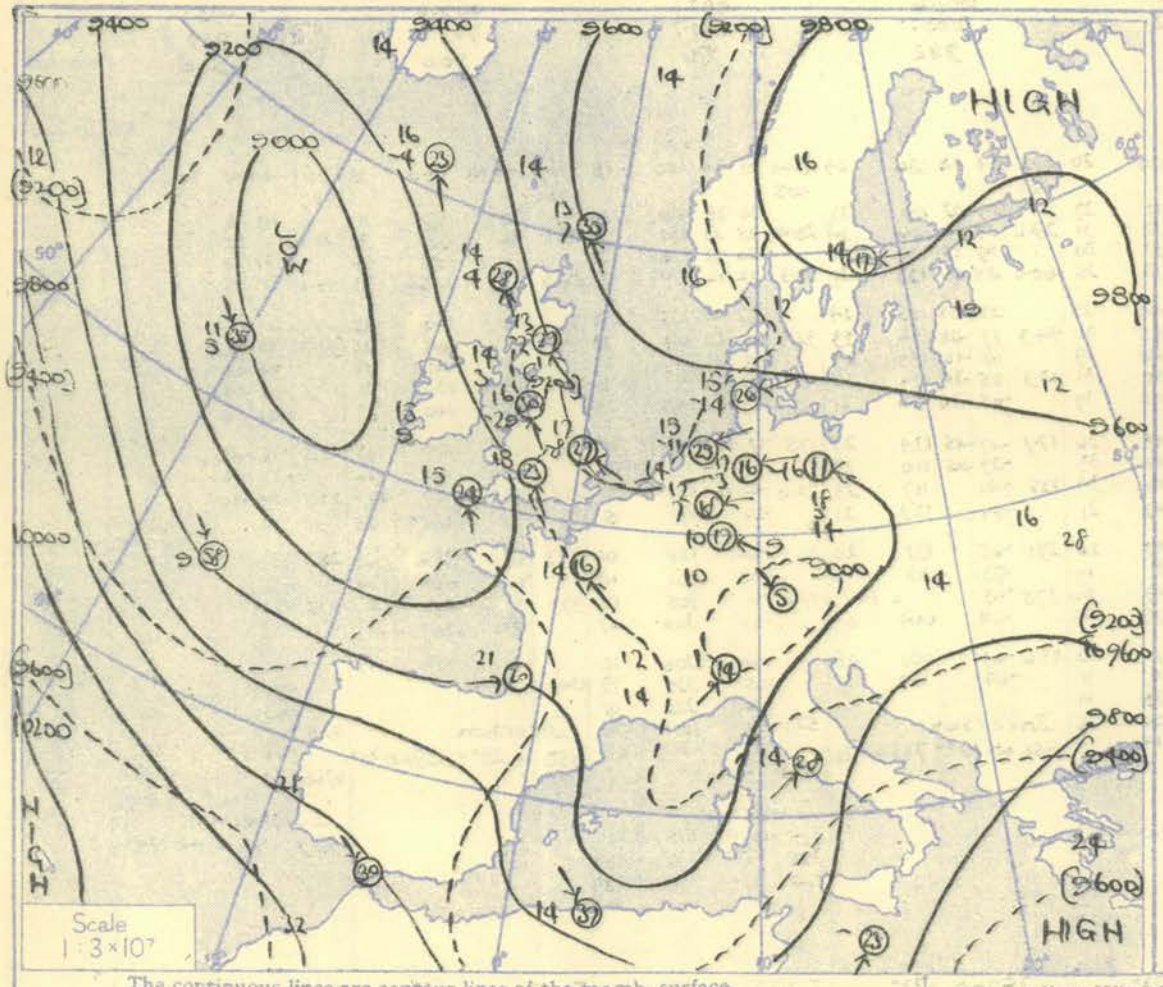
Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.
Pressure: M.S.L.	1012.3 mb	1004.5 mb	1007.7 mb	-990 mb	1003.3 mb	1007.6 mb	1002.1 mb	992.6 mb	990 mb
Pressure: Surf	1002.1 mb	1002.8 mb	1006.8 mb	930 890 mb	1001.2 mb	1003.1 mb	985.7 mb	982.0 mb	989 mb
Pressure: Freezing	923 mb	910 mb	939 mb		970 mb	982 mb	976 mb	900 mb	860 mb

Pressure mb	LERWICK Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	02·7	41	40	170	27	0·4	41	29	130	20	00·2	36	34	160	02	02·3	37	32			00·6	35	33	120	20	01·2	34	28	080	04	044	33	30	150	18	02·9	43	41	090	25	00·3	44	41			Surf
1000	03·3	41	40			1·1	40	28			01·9	36	34			0·2					00·9	35	32			02·1					00·5					-02·0					-2·7					1000
950		35	34	150	37		36	22	140	22		34	32	137	19		34	29				30	27	122	27		29	22	119	22		30	28	116	30		38		128	42		42	38			950
900	31·2	29	26	150	36	29·0	31	17	150	23	29·7	28	27	140	20	28·0	33	27			28·5	28	23	132	31	29·6	23	19	126	24	28·0	25	23	124	29	26·1	32		135	39	25·6	36	32			900
850		26	22	150	32		27	07	169	27		23	19	141	21		28	20				22	17	137	30		19	15	130	28		20	19	128	25		28		138	30		31	28			850
800	61·8	26	19	150	32	59·6	24	03	170	27	60·0	20	16	140	25	58·7	22	14			59·0	24	12	135	25	60·0	25	00	133	27	58·3	22	16	129	20	56·8	27		146	22	56·5	27	23			800
750		20	13	157	33		19	-04	153	24		16	06	147	33		20	04				22	-18	140	25		22	-08	135	24		17	-05	135	18		22		168	22		21	16			750
700	96·0	13	07	157	35	93·7	14	04	150	28	94·0	13	-02	152	37	92·8	14	03			93·2	16	-29	148	30	94·3	17	-08	134	23	92·4	18	-09	147	23	91·1	15		164	24	90·7	15	09			700
650		08	-01	166	36		09	00	159	27		07	-19	146	35		06	-06				10	-40	148	29		10	-16	135	23		11	-22	146	27		10		141	24		08	02			650
600	13·4	-02	-08	165	35	13·2	03	-10	158	31	132	01	-20	144	31	131	09	-10			13·2	02	-40	150	31	13·3	05	-24	134	25	13·1	03	-30	143	30	13·0	03		133	21	129	01	-08			600
550		-06	-16	165	34		-05	-23	158	31		-08	-28	148	31		-10	-18				-07	-48	148	29		-05	-36	130	21		-07	-39	145	28		-05		140	23		-06	-18			550
500	17·8	-15	-26	165	34	17·7	-15	-35	158	37	176	-18	-43	152	36	175	-28	-29			17·6	-16	-50	144	36	17·7	-17	-45	124	23	17·5	-17	-49	139	30	17·4	-16		149	19	17·3	-16	-27			500
450		-27	-40	166	36		-26	-42	162	36		-28	-56	152	44		-28	-40				-26	-58	142	33		-29	-55	110	27		-28	-59	138	30		-29		154	16		-27	-36			450
400	23·0	-38	-52	167	34	22·8	-37	-49	151	28	228	-41		147	40	226	-39	-50			22·7	-37	-60	141	34	228	-41		117	23	22·6	-40	-60	137	21	225	-42		169	17	22·5	-39	-46			400
350		-52		166	32		-47		149	31		-54		149	28		65					-49		142	21		-54		123	21		-51		131	15		-55		160	25		-52				350
300	29·2	-65		165	32	29·1	-59		146	21	290	-67		141	30		-50				29·0	-65		149	20	29·1	-65		133	20	28·9	-64		128	09	28·7	-65		155	25	28·8	-58				300
250		-80		169	29		-73		133	25		-74		121	16		-65					-72		131	19		-73		118	15		-68		151	10		-62		201	10		-56				250
200	37·5	-79		146	11	37·5	-77		143	15	37·4	-65		118	06		-75				37·5	-63		143	06	37·5	-65		L RV		37·4	-61		305	05	27·3	-57		256	08	37·5	-52				200
170		-73		165	06		-77		140	13		-66		063	04		-70					-61		238	05		-64		004	03		-61		300	07		-59		311	13		-53				170
150		-72		166	05	43·4	-72		132	09	43·4	-66		016	04		-69					-63		313	10	43·6	-63		002	08		-60		306	10		-59		323	18		-54				150
130	(148mb)	-72					-69		151	04		-66		351	12							-63		347	11		-64		352	12		-65		339	19	(34mb)	-60					-58				130
110							-68		302	09		-70		317	12							-66		338	14							-70		323	18							-63				110
100	Inversion					51·9	-68		343	10	51·9	-73		326	15						52·1	-70		320	16	Inversion						-71		311	20	Inversion					52·4	-63				100
90	842 mb 25° - 830mb 27°						-72		359	09	Inversion											-73		314	20	856 mb 17° - 785mb 26°						-71		311	15	850 mb 28° - 839mb 30°						-64				90
80	665 - 07° - 650 . 08°						-74		338	08	100 mb 36° - 981mb 37°											-70																										80
70							-76		337	08	811 . 19° - 796 . 21°										Inversion																										70
60	Isothermal					62·4	-77		309	13	750 . 16° - 735 . 17°										875 mb 20° - 813mb 24°																										60
	868 - 850 mb 26°						-79		299	15						Isothermal															835 mb 19° - 815mb 24°															
						706	-81		308	14						800 - 772 mb 22°															750 . 17° - 730 . 18°															
						(30mb)	-83																								714 . 17° - 700 . 18°															
Tropopause	I 239 mb - 82° 33,900'					II 240 mb - 75° 33,800'					II 285 mb - 71° 30,000'					III 284 mb -70° 30,000'					I 238 mb -73° 33,800'					I 250 mb -73° 32,900'					I 273 mb - 69° 30,700'					I 290 mb - 66° 29,400'					I 311 mb - 60° 24,000'					Tropopause
Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		Station
Pressure: Time	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	G.M.T.	Pressure: Time
Pressure: M.S.L.	1014.5 mb	1007.9 mb	1008.7 mb	mb	1003.1 mb	1005.6 mb	984.4 mb	990.4 mb	mb	Pressure: M.S.L.
Pressure: Surf	1004.3 mb	1006.2 mb	1007.8 mb	mb	1001.0 mb	1001.1 mb	1001.0 mb	979.8 mb	mb	Pressure: Surf
Pressure: Freezing	935 mb	914 mb	929 mb	mb	985 mb	994 mb	984 mb	910 mb	mb	Pressure: Freezing

Pressure mb	LERWICK Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf	02·7	40	35	165	23	0·4	39	31			00·2	39	37	140	12	02·3	37	30			00·6	34	28	110	15	01·2	33	28	080	08	044	29	25	080	15	02·9	40	31	100	30					Surf
1000	03·9	40	36			2·1	39	35			02·2	39	38			0·2					00·8					01·5					00·3					-02·6									1000
950		34	30	144	29		37	31				35	34	111	25		32	27	111	21		28	21	115	22		27	22	108	24		26	22	093	11		36	28	109	40						950
900	31·7	28	25	144	28	30·1	30	22			30·1	29	28	115	23	28·6	26	22	115	25	28·2	21	14	118	31	28·9	21	20	116	27	27·5	21	19	097	27	25·5	31	25	109	40					900
850		26	20	143	31		25	13				23	19	117	25		25	20	116	28		19	11	123	35		26	10	118	30		23	16	109	27		27	33	115	40						850
800	62·2	26	12	141	32	60·7	27	12			60·4	19	-07	122	28	59·1	25	11	120	29	58·4	26	02	121	30	59·3	25	10	120	33	57·8	24	-11	119	30	56·1	22	18	124	36					800
750		22	-01	139	28		22	08				19	06	131	32		21	-07	124	34		22	-06	126	30		20	06	017	33		22	-13	118	28		21	14	125	28						750
700	96·6	18	-03	139	25	95·0	15	05			09·5	14	02	133	32	09·3	17	-09	128	36	92·7	17	-15	123	30	93·5	14	02	114	30	92·1	18	-16	120	26	90·2	12	08	120	18					700
650		11	-06	136	25		09	01				07	-02	134	35		10	-34	128	35		10	-23	123	21		09	-05	105	24		11	-28	118	24		05	01	097	33						650
600	135	02	-11	137	24	13·4	02	-12			13·3	00	-12	131	30	132	05	-22	133	34	13·1	03	-29	123	20	132	03	-14	103	23	13·1	03	-53	116	28	12·8	-01	-07	095	24					600
550		-07	-17	139	21		-07	-17				-08	-20	128	20		-04	-31	128	32		-06	-38	123	27		-05	-19	107	25		-07	-50	115	30		-06	-15	102	23						550
500	17·9	-18	-26	135	18	17·8	-14	-29			17·7	-17	-34	115	20	176	-15	-42	143	33	17·5	-18	-48	122	30	176	-14	-34	119	25	17·5	-17	-46	111	29	17·2	-16	-28	105	18					500
450		-23	-39	138	17		-24	-40				-29	-47	120	23		-26	-46	134	33		-30	-57	117	26		-25	-45	129	25		-27	-59	109	26		-28	-41	110	14						450
400	230	-41	-50	143	18	22·9	-35	-51			22·8	-40	-53	122	29	228	37	-50	130	28	22·7	-43		106	23	228	-38	-56	133	28	22·6	-39	-59	111	28	22·4	-42		109	13						400
350		-54		150	18		-50					-53		128	30		-19		118	26		-55		123	27		-51		127	34		-52		109	28		-55		115	20						350
300	29·3	-66		132	22	29·2	-61				29·0	-65		139	33	29·1	-63		126	27	28·8	-68		125	24	27·0	-66		118	42	28·9	-62		100	18	28·6	-67		116	24						300
250		-80		141	22		-72					-74		128	27		-72		120	27		-72		118	16		-69		108	24		-65		103	15		-61		102	09						250
200	37·5	-76		137	13	37·7	-71				37·5	-69		126	12	37·5	-64		106	11	37·3	-63		061	09	37·5	-65		101	15	37·5	-59		062	06	37·2	-57		174	08						200
170		-21		128	09		-63					-66		056	07		-62		072	05		-61		043	08		-62		020	07		-58		028	03	(18mb)	-56								170
150		-73		076	05	43·8	-63				43·5	-64					-60		027	06		-60		354	09	43·6	-60		016	06		-57		345	11											150
130	(116mb)	-74		358	07		-62										-67		326	12		-61		343	11		-64		358	14		-60		330	15	Inversion									130
110							-63				Inversion						-68		320	14		-64		344	16	Inversion						-61		330	14	800 mb 22° - 770mb 24°									110
100	Inversion					Inversion					809 mb 18° - 781mb 24°						-69		333	17	520	-65		326	16						52·2	-63		332	19	588 . -03° - 574 . -01°									100
90	870mb 23° - 841 mb 27°					855mb 24° - 827mb 30°										Inversion						-65		348	16	Inversion						-65		342	15										90
80	Isothermal															882 mb 23° - 827mb 27°						-67		332	18	895mb 20° - 838mb 26°						-67		345	19										80
70																627 . 07° - 614 . 08°					Inversion										Inversion															70
60	841 - 822 mb 27°																				859 mb 16° - 800mb 26°										873 mb 18° - 825mb 27°															60
																					Isothermal										Isothermal														
																					770 - 751 mb 22°										775 - 750 mb 22°														
																															666 - 639 . 11°														
Tropopause	II 241 mb - 83° 33,800'					II 258 mb - 72° 32,300'					I 256 mb - 75° 32400'					I 250 mb - 72° 32,400'					II 263 mb - 71° 31500'					I 274 mb - 70° 30900					I 279 mb - 67° 30,400'					I 295 mb - 69° 29,000'									Tropopause

December 22nd 1950.

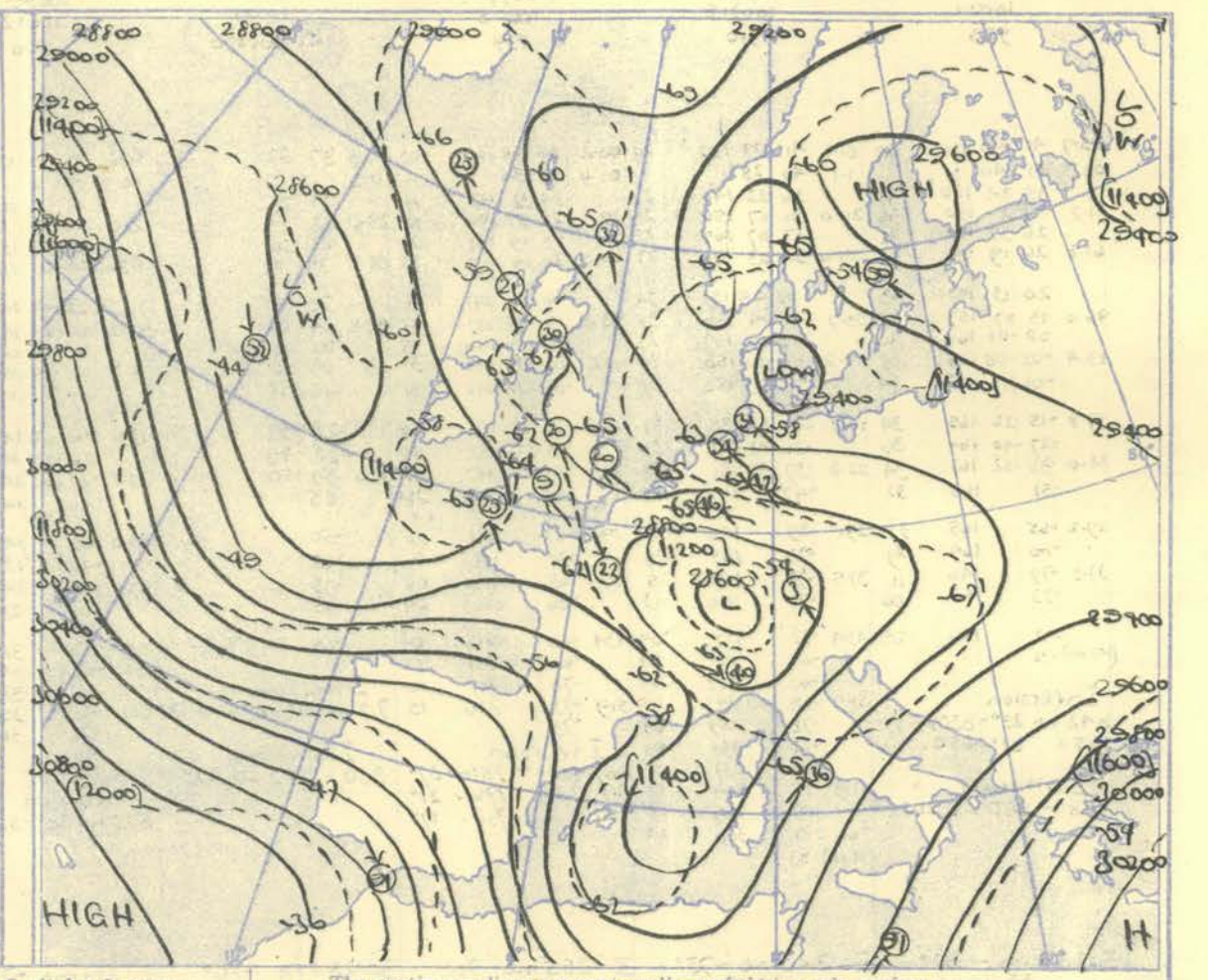
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



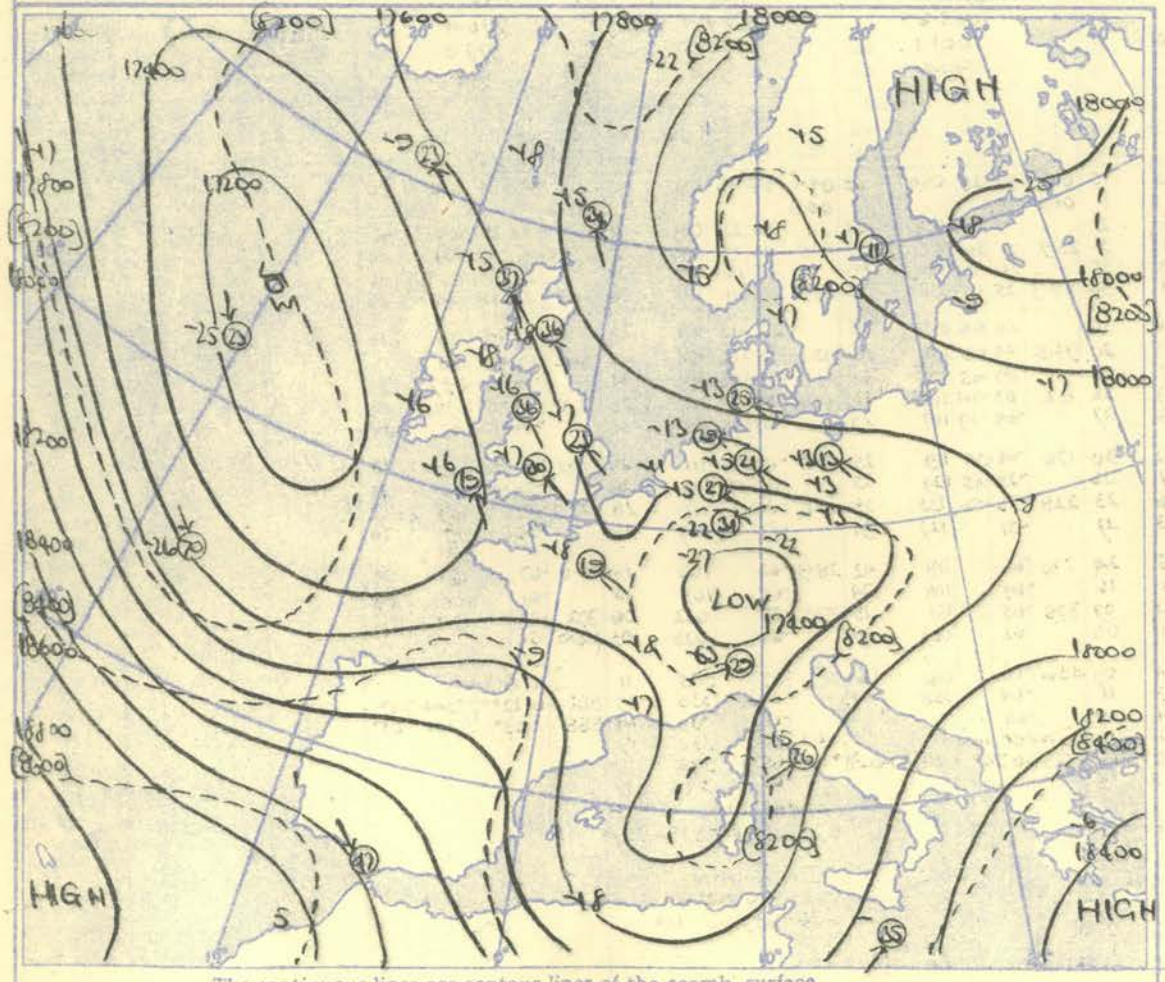
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

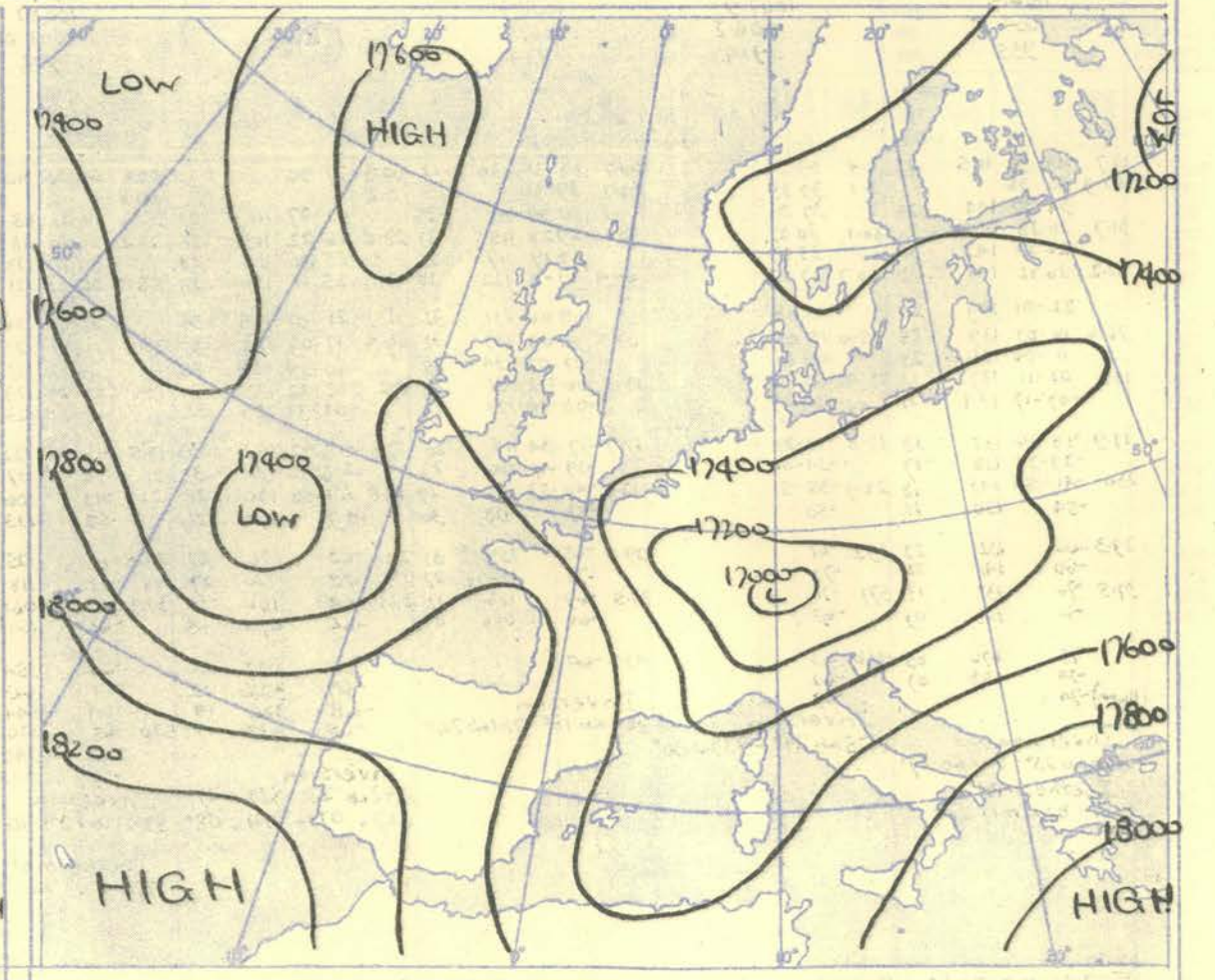
100 60 40 30 20 15 0 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43.2N 17.0W			39.5N 12.2W		
Pressure Time	15h			16h.		
Pressure M.S.L.	1007 mb			1002 mb		
Pressure Surf	1009 mb			995 mb		
Pressure Freezing	855 mb			800 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		51	37		56	45
1000	1.8			0.7		
950		41	39		49	44
900		37	28		43	37
850		31			36	35
800		25			32	
750		22			24	
700	95.4	20		95.1	29	
650		19			17	
600		10			13	
550		0			02	
500	180	0		179	06	
450						
400						
350						
300						
250						
200						
170						

Cloud 6/8 Cu 890-770 mb 1/8 Cis about 700mb Isothermal 550-500mb 0° Surf. Wind N'wly 41-47 kts

Cloud 4/8 Cu 900-770mb Surface Wind. N'wly 41-47 kts

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Camborne		Collinstown		Shoeburyness		Aldergrove		Lerwick	
Time	09h.		09h.		10h.		21h.		21h	
Type										
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel
Surf.			110	25	090	14	090	20	170	10
1,000			110	35	100	21	090	22	150	15
2,000			130	31	100	22	090	23	140	15
3,000			130	18	100	22	080	24	130	17
4,000			130	15	100	25	080	22	120	21
5,000					110	31	080	20	110	20
6,000					110	33	060	21	100	21
8,000					110	27	070	21	090	25
10,000					110	19	070	20	090	30
14,000					100	23	090	23	070	20
18,000					100	22	070	16	060	16
24,000					100	32	090	27	050	16
30,000					110	32	120	37	030	17
40,000	200	08			080	09	010	18	070	06
50,000	310	19			350	13			340	12
60,000'	(48,000')								310	16

NEPHOSCOPE OBSERVATIONS

Place										
Time Type										
Dir. Vel.										

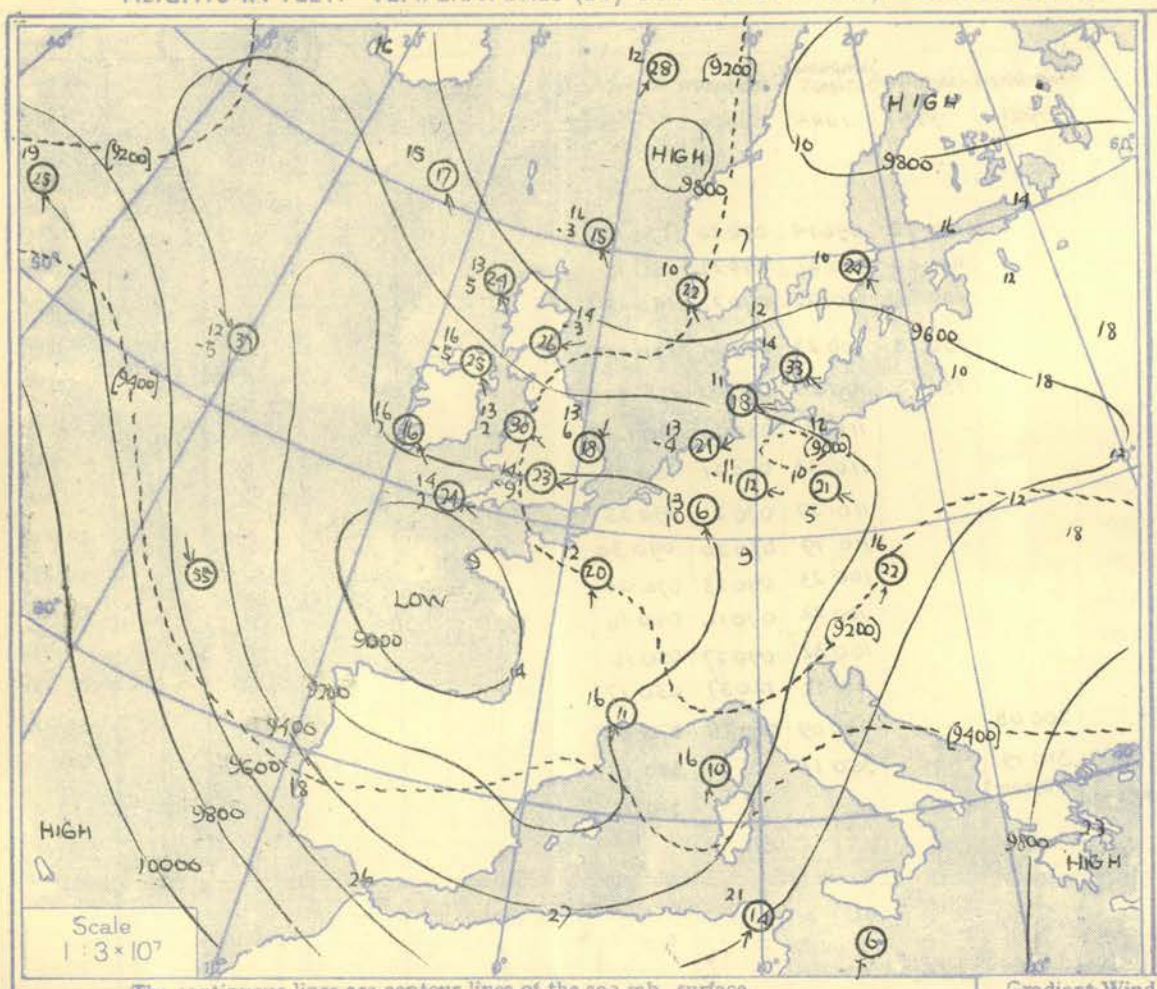
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER EXPLORER.					WEATHER EXPLORER.					WEATHER EXPLORER				
Lat/Long	61.1N 14.1W.					60.9N 14.0W.					61.0N 14.0W				
Pressure Time	03L G.M.T.					09L G.M.T.					15L G.M.T.				
Pressure M.S.L.	999 mb					1003 mb					1009 mb				
Pressure Surf	999 mb					1003 mb					1009 mb				
Pressure Freezing	870 mb					870 mb					900 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	40	115	22		47	38	115	20		47	35	120	15
1000	-2					9	47	38			2.4	45	33		
950		42	35	127	28		41	34	124	25		42	30	130	19
900	28.7	35	27	130	28	291	35	29	122	24	30.7	37	26	134	19
850		30	21	131	25		30	23	120	23		31	22	134	20
800	68.9	25	17	136	23	59.9	23	18	120	21	61.6	28	14	132	17
750		21	10	140	24		17	12	137	22		22	12	129	17
700	93.2	16	-04	137	23	93.7	12	07	133	22	95.9	15	07	131	17
650		09	-04	126	22		09	-03	123	24		10	01	135	17
600	132	03	-08	115	21	132	02	-14	116	22	135	03	07	141	14
550		-04	-20	112	21		-05	-14	112	19		-02	-14	154	17
500	176	-09	-27	103	23	177	-15	-24	121	19	179	-10	-24	167	18
450		-20	-42	112	23		-25	-38	123	16		-20	-35	168	15
400	228	-32	-53	137	24	228	-38	-48	123	21	231	-34	-49	144	15
350		-47		133	27		-53		123	24		-44		117	18
300	291	-66		138	25	291	-67		123	27	295	-57		138	18
250		-70		154	27		-92		135	34		-68		124	23
200	376	-62		148	19	374	-70		164	24	380	-67		112	13
170		-61		172	10		-66		179	19		-62		122	06
150		-61		190	14		-66		193	09		-62		113	06
130		-67		190	10		-69		235	07		-65		091	06
110		-69		L.V.			-74		284	10		-66		248	09
100		-80				519	-75		244	11	526	-68		252	14
90							-75		252	13		-68		277	18
80							-79		279	12		-68		284	19
70							-82		284	14		-69		253	16
60							-85					-72		280	17
							-87					-73		271	19
											(42mb)	-75			
	Inversion 636mb 06° - 632mb 07° 550 - -04° - 542 - -0. Isothermal. 554 - 550mb -4°					Isothermal. 800 - 785 mb 23° 700 - 680 - 12°					Inversion 987mb 43° - 966mb 44° 679 - 11° - 663 - 12° Isothermal. 858 - 850mb 31°				
Tropopause	I 260mb -71° 32.200					I 250mb - 82° 33.000					NR.				

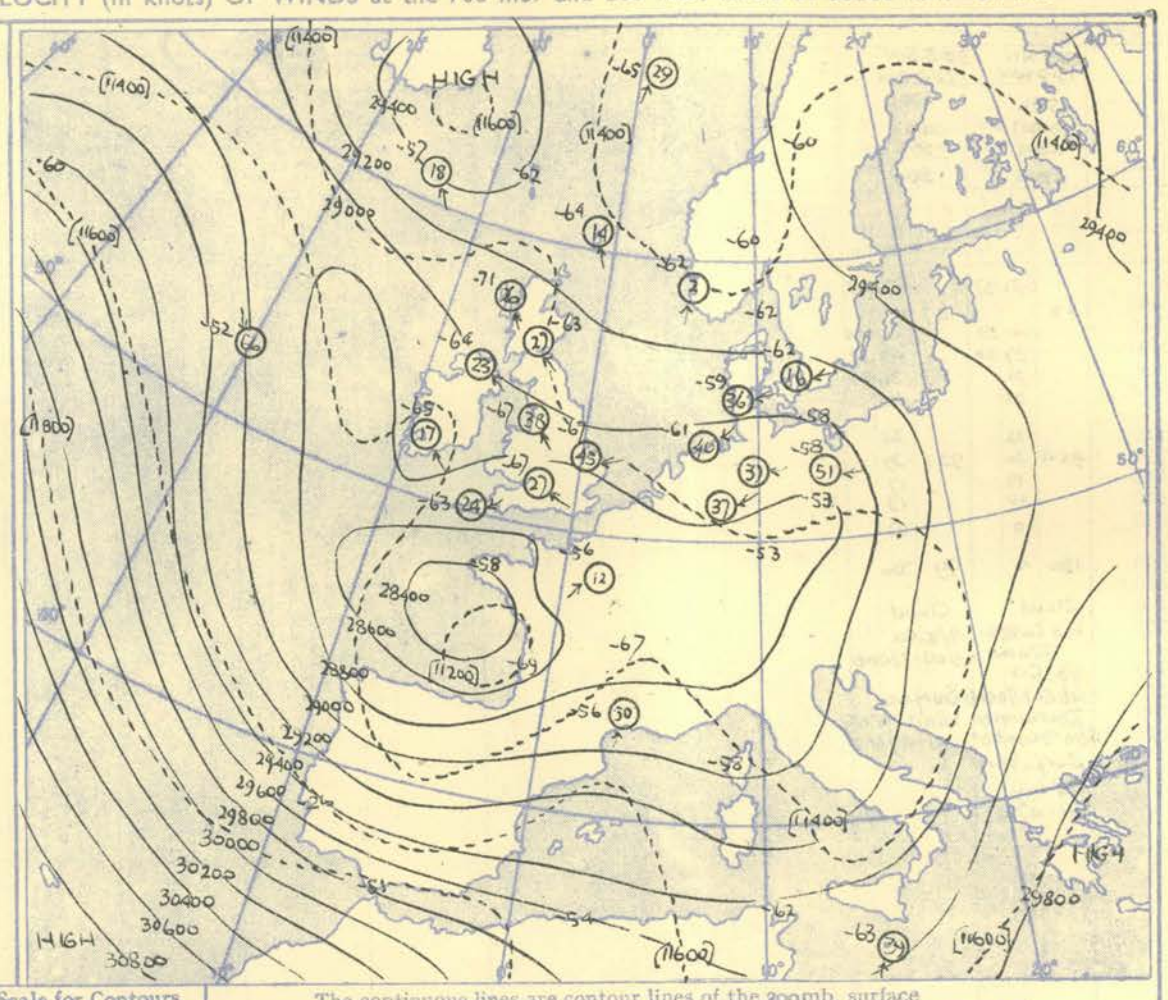
Ship	WEATHER EXPLORER					WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	61.0N 14.0W					52.6N 19.8.N.					52.5N 19.8W				
Pressure Time	21L G.M.T.					03h G.M.T.					09L G.M.T.				
Pressure M.S.L.	1012 mb					991 mb					996 mb				
Pressure Surf	1012 mb					991 mb					996 mb				
Pressure Freezing	900 mb					890 mb					880 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		46	39	110	16		44	41	330	20		47	42	320	20
1000	3.1	45	37			-25					-10				
950		39	31	127	18		39	39	302	19		40	35	330	29
900	31.2	32	22	130	16	25.7	33	30	300	18	27.2	33	28	330	28
850		28	17	132	14		28	25	289	25		28	23	334	29
800	61.8	20	11	132	14	56.4	22	19	290	31	57.9	22	13	337	30
750		18	08	132	15		17	12	301	36		16	09	340	31
700	95.7	13	00	132	17	90.3	11	05	302	35	91.7	09	03	340	33
650		08	-09	133	17		03	-01	304	34		02	-06	340	35
600	134	02	-20	139	15	128	-05	-12	311	30	129	-08	-14	336	36
550		-07	-37	145	16		-16	-22	308	25		-17	-23	336	37
500	178	-18	-36	149	18	171	-25	-30	304	23	173	-25	-32	336	36
450		-29	-39	148	16		-35	-40	303	18		-30	-45	336	30
400	229	-40	-52	139	11	222	-36	-43	310	18	223	-40	-56	336	36
350		-52		128	10		-39	-48	319	24		-48		336	43
300	292	-63		118	12	287	-44		326	32	287	-51		336	46
250		-70					-46		319	32		-52		336	45
200	(266mb)					376	-50		316	36	375	-54		326	52
170							-53		316	41		-63		322	48
150							-54		313	39		-69		327	45
130							-58		309	37		-69		327	45
110							-63		310	33		-70		333	33
100						525	-66		307	33	520	-70		333	33
90							-69		305	30		-70		333	38
80							-68		306	28		-71		333	40
70							-69		306	30		-72		333	40
60							-72					-76		333	45
												-80		333	26
	Isothermal. 786 - 745mb 18°										Isothermal. 508 mb - 500mb -25°				
Tropopause	NR					I 460mb -46°. 22.200					II 322mb -51° 27.100				

Ship	WEATHER RECORDER					WEATHER RECORDER.					WEATHER WATCHER.				
Lat/Long	52.3N 20.4W					52.5N 20.3W					54.5N 12.2W.				
Pressure Time	15L G.M.T.					21L G.M.T.					03L G.M.T.				
Pressure M.S.L.	1003 mb					1005 mb					991 mb				
Pressure Surf	1003 mb					1005 mb					991 mb				
Pressure Freezing	850 mb					850 mb					850. mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		49	43	320	20		48	45	320	25		45	41	200	02
1000	9	48	42	320	20	1.5	47	44	320	25	-25				
950		41	35	320	22		42	39	322	31		42	39	180	03
900	29.2	34	27	323	25	29.7	38	34	335	31	25.8	37	35	152	03
850		29	17	327	27		32	28	332	31		32	31	116	06
800	60.0	24	10	327	27	60.7	27	23	329	28	56.7	27	26	111	08
750		18	05	325	34		21	15	330	25		21	20	115	10
700	94.0	12	-05	324	37	95.1	16	09	328	26	90.9	16	13	121	12
650		06	-07	324	35		09	03	327	32		08	04	123	15
600	132	-02	-14	324	39	134	02	-06	332	41	129	00	-04	121	26
550		-10	-27	324	43		-06	-15	339	46		-09	-13	119	18
500	176	-19	-30	333	45	178	-15	-26	338	50	173	-20	-25	131	31
450		-28	-43	339	57		-22	-37	331	57		-29	-35	142	53
400	227	-38	-52	340	66	230	-30	-48	323	79	224	-41		153	58
350		-49		338	61		-40	-58	326	100		-51		155	41
300	291	-52		333	66	294	-52		318	102	287	-60		143	26
250		-51		331	90		-56		316	69		-57		161	16
200	379	-56		331	45	381	-62		319	58	374	-57		185	12
170		-57		331	43		-60		307	50		-55		255	09
150		-59					-63		283	48		-58		253	09
130							-65					-61		252	09
110						(142mb)						-66			
100											522	-68			
90															
80															
70															
60															
	Isothermal. 961mb - 945mb 41° 364 - -333 - 45°														
Tropopause	I 300mb -52° 29.100					II 265mb -56° 32.100					II 307mb -60° 28.200				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

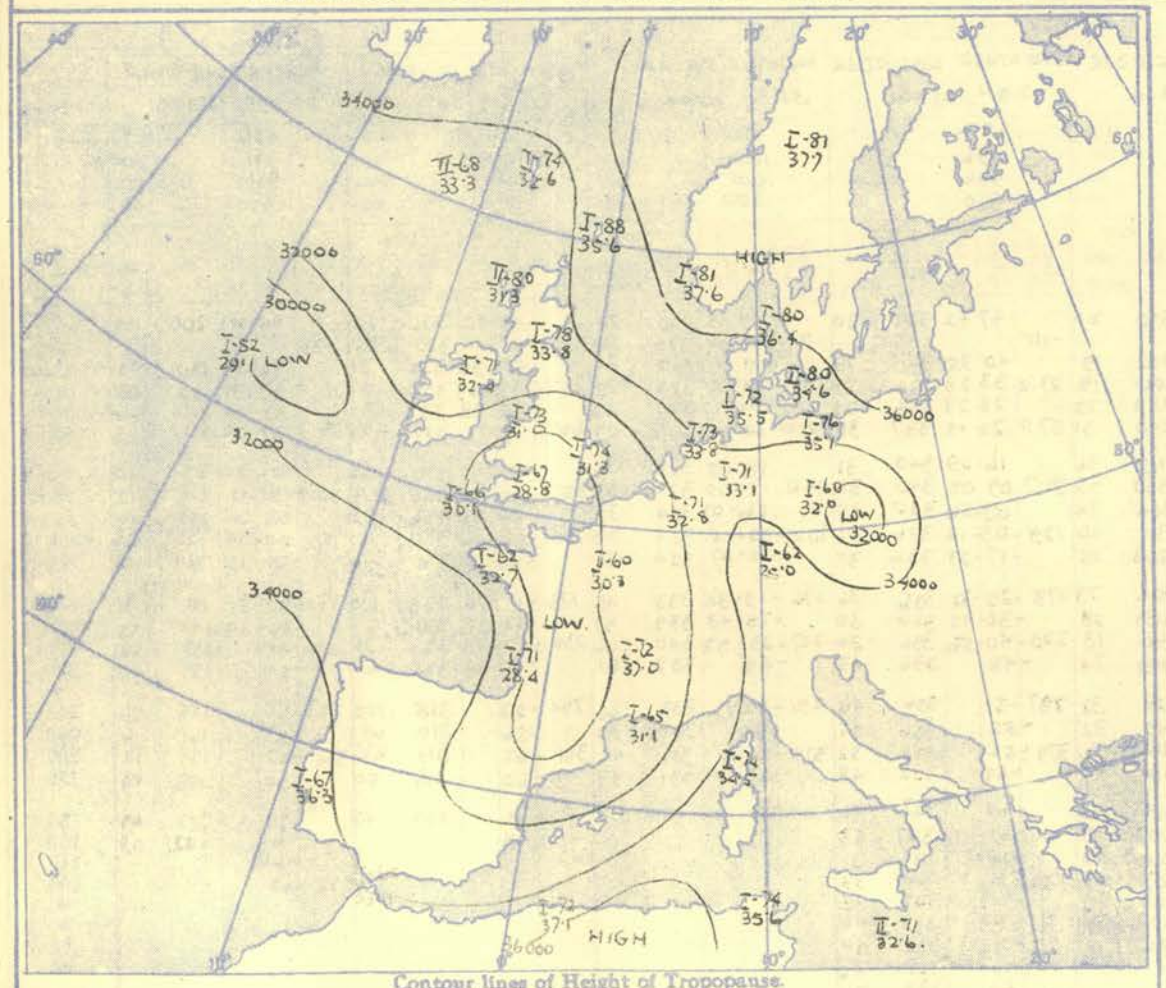


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft, at Lat. 52½° N.

100 80 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Very flat thermal field over Europe and the British Isles with main thermal zone from South of Newfoundland to Spain. Old cold pool over the Alps tended to spread Northwestwards towards the British Isles

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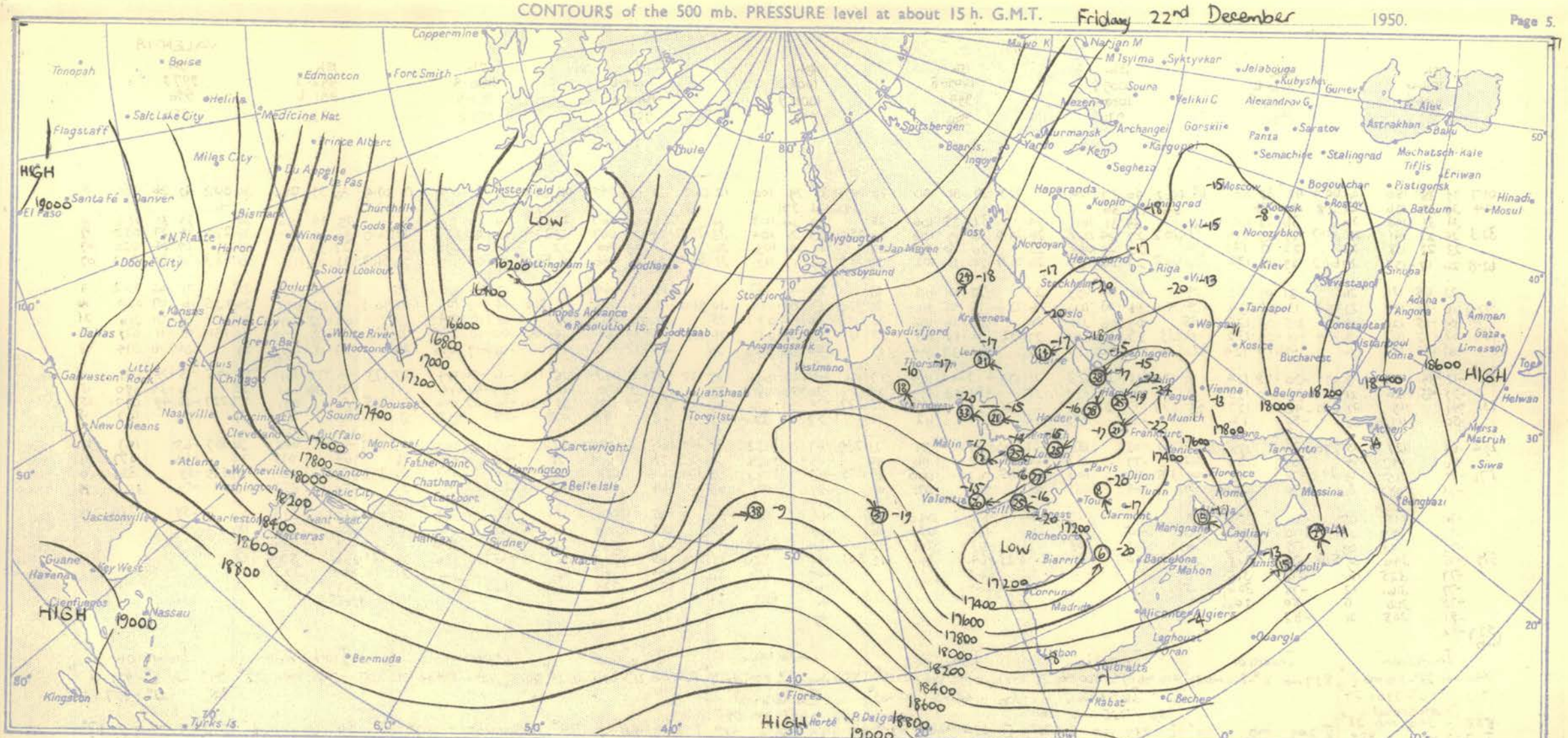
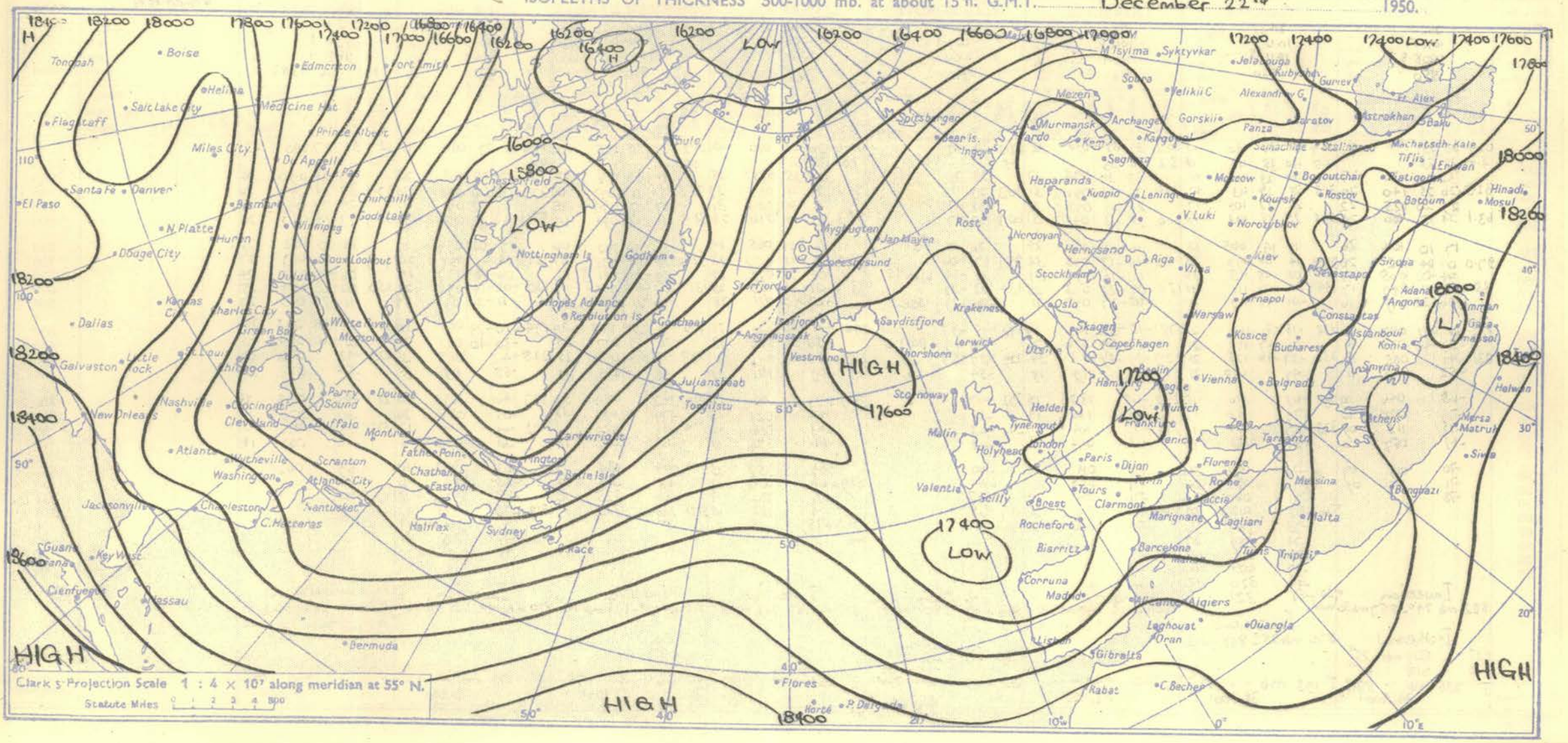
CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Friday 22nd December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. December 22nd 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	1016·6 mb	1010·6 mb	1009·8 mb	1004·8 mb	1002·0 mb	1007·6 mb	1000·4 mb	992·2 mb	997·8 mb
Pressure: Surf	1006·4 mb	1008·9 mb	1008·9 mb	999 mb	1001·9 mb	1000·0 mb	983·8 mb	981·6 mb	996 mb
Pressure: Freezing	938 mb	920 mb	936 mb	950 mb	978 mb	988 mb	983·8 mb	920 mb	880 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	39	38	150	16	00·4	42	35	110	05	00·2	40	37	120	15
1000	44	39	37	146	25	2·8	41	34			2·5	39	36		
950		34	32	145	26		36	28	102	10		34	31	101	24
900	82·3	28	27	141	25	30·7	29	22	134	13	30·2	27	24	098	26
850		23	22	138	26		22	17	149	14		22	20	098	28
800	62·8	26	12	133	27	61·2	29	18	136	20	60·8	23	20	096	26
750		23	05	131	26		21	09	133	24		16	08	099	27
700	97·0	16	-03	127	22	85·5	13	05	134	24	85·0	14	-03	106	26
650		09	-05	120	19		05	-03	135	25		09	-06	114	26
600	136	02	-12	107	16	134	-01	-09	132	23	133	02	-17	109	27
550		-07	-24	124	16		-09	-17	129	23		-06	-20	114	25
500	180	-17	-34	134	19	177	-20	-28	124	23	177	-15	-29	123	21
450		-27	-43	120	21		-32	-40	125	24		-25	-37	127	25
400	231	-41		119	21	228	-46		127	25	229	-37	-53	129	25
350		-50		117	22		-59		134	27		-51		133	24
300	294	-64		127	15	290	-71		138	26	291	-63		133	27
250		-80		142	14		-81		120	22		-77		137	26
200	876	-78		115	09	373	-78		118	09	375	-67		106	11
170		-73		082	06		-70		060	07		-64		055	07
150		-70		018	05		-70		355	07		-63		029	06
130		-72		355	05		-70		342	10		-65		358	16
110		-72		345	09		-75		336	09		-68		353	12
100	519	-75		340	09	516	-78		318	08	621	-70			
90		-77		325	10		-78		315	10					
80		-77		316	12		-78		306	15					
70		-78		308	15		-80		306	21					
60		-81		305	21		-82								
	(52) mb -82														

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	37	30	100	20	00·6	35	29	100	12	01·2	33	32	045	08	04·4	28	22	070	18	02·9	38	37	080	30	00·3	42	36	080	15
1000	1·3					1·0	34	27			1·2					1·0					-2·0					-6				
950		32	25	106	28		29	24	107	26		29	29	067	22		24	23	079	21		35	34	086	30		37	31	084	19
900	29·0	26	19	106	29	28·6	23	21	104	33	28·7	24	24	067	23	27·4	18	18	087	24	26·0	30	29	099	38	27·5	34	27	055	12
850		20	16	098	27		19	18	103	36		23	23	068	22		19	10	098	26		27	23	110	35		29	24	020	07
800	59·4	24	13	102	25	58·9	24	17	112	33	59·0	22	21	066	14	57·7	24	03	102	26	56·7	22	10	118	30	58·3	24	20	032	07
750		20	10	107	30		17	12	064	15		19	-10	101	25		20	04	106	25			21	14	062	11			
700	93·6	16	-05	111	25	93·0	13	02	104	30	93·0	13	06	058	18	91·8	14	02	098	24	90·8	14	02	098	24	92·5	16	07	080	16
650		11	-16	106	30		06	-08	097	25		07	-06	062	18		08	-15	099	23		07	-02	094	24		11	-01	080	21
600	132	04	-28	101	25	131	03	-12	038	24	131	01	-27	068	19	130	00	-10	094	23	129	00	-08	099	24	131	03	-11	079	24
550		-04	-37	094	19		-06	-24	095	20		-07	-32	069	24		-08	-17	095	26		-07	-15	099	27		-06	-16	074	17
500	177	-17	-44	104	17	176	-14	-46	099	25	175	-15	-38	073	25	174	-16	-26	094	27	173	-16	-24	101	25	175	-15	-23	081	20
450		-30	-53	092	24		-26	-56	118	22		-27	-35	070	28		-27	-41	074	31		-28	-36	101	25		-26	-34	090	18
400	228	-41		103	23	227	-39	-59	119	20	227	-39	-49	075	33	226	-39	-52	096	37	225	-41		091	27	227	-40	-49	092	15
350		-54		112	18		-52		112	33		-52		085	42		-53		095	38		-53		091	31		-51		102	15
300	290	-64		114	23	289	-67		122	31	289	-67		095	45	288	-67		102	27	287	-63		085	24	289	-65		101	17
250		-69		116	19		-69		104	24		-73		104	28		-62		089	18		-64		075	24		-63		077	11
200	375	-62		085	16	374	-65		087	15	374	-64		088	13	374	-60		077	09	373	-58		004	09	375	-59		336	10
170		-59		078	07		-59		021	08		-64		150	05		-60		011	09		-59		353	12		-59		338	14
150		-58		040	07		-61		006	09		-65		359	13		-58		349	12		-57		343	16		-59		336	18
130		-61		030	10		-60		353	15		-63		349	12		-60		340	13		-59		350	18					
110		-63		351	10		-64		348	17		-66		333	12		-63		335	15		-65		330	22					
100	523	-64		341	12	521	-65		326	12	520	-68		335	13	521	-63		336	18	521	-66		324	12					
90		-64					-66		336	11		-66		342	12		-62		310	21		-66		323	16					
80	(85) mb	-64					-67		330	16		-70		335	12		-60					-67		326	21					
70							-68		332	24												-68									
60							-69																							

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	840 mb 23°–810 mb 28° 782 " 23°–770 " 24°	837 mb 21°–800 mb 29°	816 mb 19°–800 mb 23°	841 mb 19°–815 mb 25° 300 " -64°–283 " -63°	850 mb 19°–825 mb 28°	868 mb 21°–830 mb 25°	868 mb 14°–824 mb 26°	803 –765 mb 22°	943 mb 36°–929 mb 37° 805 " 23°–797 " 25°
Isothermal	855 – 840 mb 28°		750 – 725 mb 16°		630 –613 mb 04°				
Tropopause	I 222 mb – 88° 35,600'	II 269 mb – 80° 31,300'	I 239 mb – 78° 33,800'	I 255 mb –71° 32,400'	I 272 mb – 73° 31,000'	I 267 mb – 74° 31,300'	I 300 mb – 67° 28,800'	I 280 mb – 66° 30,100'	I 294 mb – 67° 29,300'

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1018·7 mb	1013·5 mb	1012·0 mb	1009·3 mb	1006·6 mb	1005·7 mb	1001·5 mb	998·3 mb	mb
Pressure: Surf	1008·8 mb	1011·8 mb	1011·1 mb	1000 mb	1003·5 mb	1001·2 mb	984·9 mb	987·4 mb	mb
Pressure: Freezing	950 mb	930 mb	946 mb	940 mb	973 mb	991 mb	984·9 mb	972, 916 9887 mb	mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	38	33	165	14	00·4	41	36	130	10	00·2	39	34	090	12
1000	4·9	38	33			3·5	40	35	118	18	3·2	38	33		
950		32	29	130	17		34	29	116	18		33	29	094	27
900	32·5	26	23	140	20	31·3	28	24	113	17	30·8	26	23	091	31
850		29	20	125	22		26	22	108	17		21	13	092	32
800	63·1	24	15	106	24	61·8	25	18	103	18	61·0	15	13	099	31
750		17	10	104	26		19	14	065	12		16	06	083	24
700	97·0	09	04	102	26	95·9	14	00	098	13	95·0	15	-17	095	34
650		04	-02	065	17		08	-05	115	13		08	-11	097	31
600	135	02	-10	042	17	134	00	-08	111	18	133	04	-22	095	25
550		-06	-22	049	16		-08	-18	112	18		-05	-27	095	21
500	179	-16	-32	097	16	178	-15	-30	114	21	178	-15	-32	103	19
450		-27	-40	074	14		-26	-37	117	21		-27	-39	096	22
400	231	-41		058	13	230	-37	-46	125	21	229	-39	-49	113	24
350		-52		045	11		-49		140	21		-51		119	19
300		-65		046	10	293	-63		130	15	292	-65		137	14
250		-79		028	10		-79		146	15		-80		114	14
200		-72		113	09	375	-87		164	19	374	-75		107	09
170		-69		057	06		-81		113	12		-68		049	10
150		-70		013	09		-78		092	06		-70		013	09
130		-71		010	09		-76		082	06		-71		033	13
110		-73					-73		060	06		-71		350	17
100						516	-72		013	05	518	-73		356	20
90							-73		359	06		-74		006	15
80							-74		359	07					
70							-76		015	09					
60							-77		024	10					
						(30) mb	-80		320	12					
							-81		321	13					

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·3	37	32			00·6	36	31	070	10	01·2	33	30	025	10	04·4	31	27	080	13	02·9	34	27	090	02					
1000	2·5					1·5	35	31			1·5					0·4					-5·0									
950		33	28				29	25	075	25		29	25	078	20		27	25	068	25		29	24	090	24					
900	30·3	27	22			29·1	24	21	087	29	28·8	23	21	093	18	27·7	21	20	082	29	27·1	33	28	092	20					
850		22	17				18	16	088	31		17	15	094	15		25	17	091	29		29	23	090	18					
800	60·8	27	17			54·3	18	14	076	24	58·8	16	12	093	09	58·1	23	10	096	21	57·9	23	14	087	20					
750		21	01				16	-01	065	29		15	-10	092	06		19	08	094	19		18	10	088	23					
700	95·1	17	-06			93·2	14	-11	072	25	92·6	13	-25	078	07	92·1	14	01	098	20	91·9	11	-06	087	27					
650		11	-14				08	-24	072	24		09	-48	081	12		06	-08	097	19		06	-09	086	24					
600	134	02	-22			13·2	01	-33	063	25	131	02	-54	080	17	130	-02	-14	098	21	130	00	-20	084	25					
550		-06	-29				-07	-40	071	28		-06	-31	083	20		-11	-20	091	24		-11	-34	083	27					
500	178	-15	-37			176	-17	-50	081	28	175	-15	-31	088	20	174	-20	-29	089	30	174	-19	-38	083	25					
450		-26	-47				-26	-58	085	28		-26	-39	087	23		-30	-40	088	30		-31	-41	080	33					
400	229	-39	-59			227	-40	-60	093	29	227	-37	-56	080	28	225	-42		085	35	225	-42		076	37					
350		-54					-52		101	32		-48		085	34		-55		095	37		-54		078	37					
300	292	-67				289	-67		063	13	290	-62		087	37	287	-66		095	40	287	-60		079	23					
250		-68					-63		021	15		-74		092	33		-65		088	20		-62		051	17					
200	370	-65				374	-63		006	13	374	-68		083	17	372	-64		060	12	373	-58		023	08					
170		-62					-66		356	13		-63		058	12		-61		022	15		-58		002	17					
150		-60					-69		352	13		-64		034	12		-63		340	10		-59		002	15					
130		-64				519	-69		004	12		-65		016	10		-65		343	13		-60								
110		-67					-71		330	15		-66		325	10		-68		326	15		-60								
100							-74		332	15	520	-68		333	12	518	-70		334	17										
90	(74) mb	-75															-72		344	17										
80																	-73		328	23										
70																	-75													
60																														

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Inversion	882 mb 24°–857 mb 30°	780 mb 13°–745 mb 16° 639 " 06°–628 " 10°	846 mb 21°–800 mb 27°	816 mb 19°–788 mb 21°	810 mb 12°–793 mb 19°	880 mb 19°–835 mb 26°	930 mb 27°–904 mb 34° 319 " -61°–300 " -60°		
Isothermal	828 – 809 mb 25° 740 – 614 " 03°	870 mb 25°–828 mb 28°	788 – 713 mb 19°						
Tropopause	I 235 mb – 83° 34,400'	II 193 mb – 88° 38,300'	II 250 mb – 80° 32,900'	I 269 mb –74° 31,300'	I 264 mb – 77° 31,400'	II 246 mb – 75° 33,100'	II 275 mb – 72° 30,500'	I 270 mb – 64° 30,800'	

For winds see page 3.

No. 11391

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Saturday 23rd December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

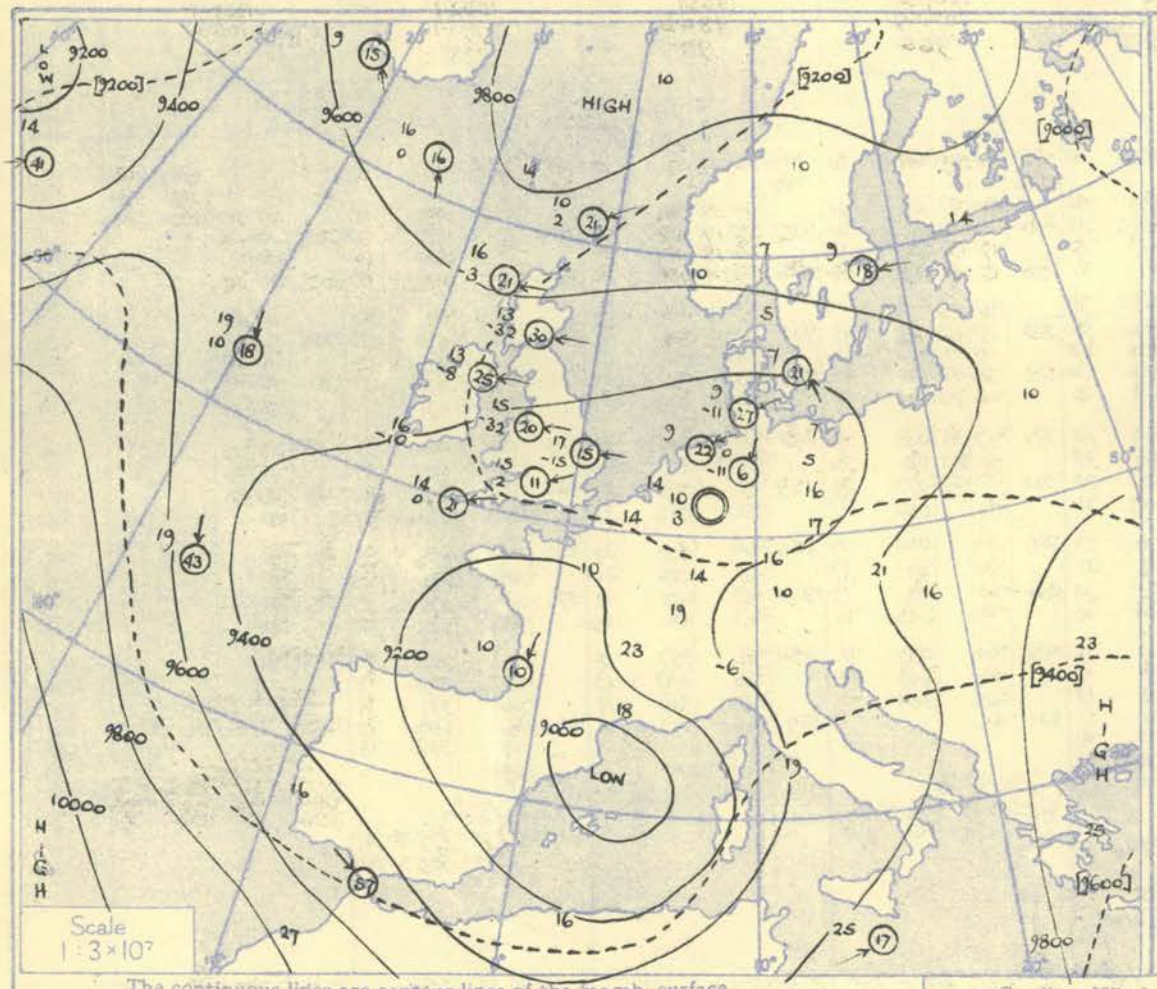
Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	Station
Pressure: Time	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h. G.M.T.	Time
Pressure: M.S.L.	1020·0 mb	1016·3 mb	1013·8 mb	1010·8 mb	1007·6 mb	1007·2 mb	1003·1 mb	1002·1 mb	1007·4 mb	M.S.L.
Pressure: Surf	1009·7 mb	1014·6 mb	1012·9 mb	1001·0 mb	1005·5 mb	1002·7 mb	986·6 mb	991·1 mb	1006 mb	Surf
Pressure: Freezing	940 mb	935	946	960	989	965	987	935	945	Freezing

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	027	35	33	CALM	
1000	052	37	31		
950		34	28	122	12
900	329	27	23	117	16
850		25	21	100	18
800	633	19	15	089	20
750		18	09	077	20
700	972	10	02	056	21
650		02	-03	057	22
600	1335	01	-13	063	24
550		-07	-21	070	24
500	1779	-16	-27	068	20
450		-25	-38	053	20
400	2231	-37	-50	035	23
350		-50		034	21
300	2933	-64		038	20
250		-76		052	15
200	3771	-77		077	07
170		-72		041	07
150		-72		027	06
130		-73		349	08
110		-73		347	10
100	5209	-75		349	10
90		-76		341	10
80		-77		311	12
70		-78			
60	(60nb)	-78			
	Inversion 1010 nb 36°-978 nb 38° 795 " 18°-775 " 19° 625 " -02°-600 " 01°				
STORNOWAY					
Surf	004	41	30	130	12
1000	040	40	30	108	23
950		34	25	116	20
900	319	27	20	123	18
850		19	12	123	18
800	621	23	02	102	16
750		19	-29	100	15
700	961	16	-31	089	21
650		07	-23	081	16
600	1340	00	-27	085	15
550		-07	-40	092	18
500	1778	-18	-30	096	21
450		-29	-56	112	15
400	2300	-40	-60	113	15
350		-53		109	06
300	2920	-69		142	11
250		-82		232	09
200	3740	-76		100	06
170		-69		038	06
150	4340	-69		024	08
130		-69		335	12
110		-74		321	10
100	5180	-77		322	08
90		-79		321	08
80		-80		310	14
70		-82		301	16
	Inversion 840 nb 17°-820 nb 25° Isothermal 725-705 nb 17°				
LEUCHARS					
Surf	002	40	35	090	23
1000	036	38	33	078	23
950		33	29	080	21
900	314	27	20	081	22
850		21	17	081	22
800	615	15	12	091	25
750		11	-02	093	28
700	955	13	-32	086	30
650		11	-47	077	33
600	1342	02	-54	076	27
550		-04	-58	069	23
500	1782	-12	-53	066	24
450		-24	-57	061	16
400	2302	-36	-59	060	15
350		-49		051	12
300	2932	-64		055	07
250		-78		068	03
200	3762	-75		068	06
170		-69		037	08
150	4362	-69		039	08
130		-68		356	16
110		-71		348	19
100	5202	-73		025	14
90		-75		359	11
80		-76		004	16
	Inversion 750 nb 11°-725 nb 14° 250 " -78°-240 " -77				
ALDERGROVE					
Surf	026	31	31	090	20
1000	029				
950		31	24	083	20
900	305	25	17	076	33
850		18	13	074	35
800	606	11	-01	074	33
750		16	-07	084	28
700	944	13	-08	086	25
650		08	-24	072	22
600	1331	03	-34	066	25
550		-06	-40	069	26
500	1771	-17	-39	077	26
450		-28	-42	085	27
400	2281	-39	-51	100	24
350		-51		103	26
300	2911	-64		114	24
250		-79		128	17
200	3741	-70		022	08
170		-67		008	12
150	4339	-66		353	12
130		-66		350	14
110		-70		345	09
100	5201	-72		344	09
90		-74		316	13
80		-75		320	16
	Inversion 785 nb 09°-768 nb 17°				
LIVERPOOL					
Surf	006	34	30	070	10
1000	020	33	29		
950		28	24	088	22
900	294	23	18	095	25
850		17	14	093	25
800	593	11	07	091	21
750		16	-01	088	19
700	930	15	-32	086	20
650		09	-47	090	18
600	1319	02	-54	086	20
550		-07	-50	073	22
500	1761	-15	-56	085	28
450		-26	-58	078	29
400	2271	-38	-58	080	33
350		-51		088	33
300	2901	-64		090	33
250		-75		102	21
200	3731	-70		053	13
170		-64		034	10
150		-66		360	16
130		-66		354	17
110		-69		352	13
100	519	-72		340	12
90		-73		345	09
80		-72		330	16
70		-70		341	15
	Inversion 776 nb 08°-759 nb 16° Isothermal 759-710 nb 16°				
DOWNHAM MARKET					
Surf	012	35	29	040	10
1000	020				
950		30	23	074	24
900	296	23	18	082	20
850		17	13	084	13
800	596	15	10	083	06
750		16	03	083	07
700	935	17	-15	162	15
650		10	-17	104	16
600	1322	00	-19	100	15
550		-10	-23	095	16
500	1762	-17	-34	083	18
450		-25	-35	076	20
400	2282	-33	-58	077	24
350		-46		080	27
300	2912	-58		084	29
250		-70		093	27
200	3762	-68		076	13
170		-66		045	10
150	4362	-64		033	11
130		-65		003	14
110		-65		354	15
100	521	-65			
	Inversion 810 nb 13°-780 nb 20° 728 " 13°-700 " 17°				
LARKHILL					
Surf	044	32	29	040	09
1000	008				
950		29	25	072	27
900	282	22	19	082	28
850		20	18	085	23
800	586	23	14	084	15
750		19	11	070	13
700	927	15	02	064	11
650		06	-08	063	11
600	1311	00	-11	074	13
550		-09	-19	082	17
500	1748	-21	-30	084	22
450		-30	-38	081	26
400	2592	-41		085	29
350		-52		085	31
300	2882	-64		089	34
250		-67		086	20
200	3732	-63		045	12
170		-63		030	09
150	4342	-62		357	18
130		-65		347	13
110		-69		341	13
100	519	-68		312	15
	Inversion 881 nb 20°-842 nb 26°				
CAMBORNE					
Surf	029	33	27	067	10
1000	005				
950		29	24	078	15
900	281	29	25	071	13
850		24	21	060	10
800	586	21	17	071	12
750		19	07	082	18
700	926	14	00	078	21
650		07	-08	075	24
600	1311	01	-14	073	18
550		-08	-24	071	20
500	1751	-18	-33	068	23
450		-30	-44	072	29
400	2262	-42		074	32
350		-51		078	37
300	2892	-61		082	35
250		-64		072	25
200	3742	-62		075	15
170		-61		005	22
150		-61		360	20
130		-63		340	18
110		-66		337	14
100	521	-66		342	15
90		-68		332	13
80		-69			
	Inversion 815 nb 20°-795 nb 21° 950 " 29°-935 " 32°				
VALENTIA					
Surf	003	36	32	070	02
1000	020	36	31	068	02
950		33	27	056	06
900	298	26	22		
850		22	17		
800	602	25	06		
750		21	00		
700	949	16	-10		
650		10	-12		
600	1331	00	-19		
550		-07	-25		
500	1770	-14	-38		
450		-26	-46		
400	2292	-39	-55		
350		-53			
300	2912	-63			
250		-67			
200	3762	-62			
170		-62			
150	(162nb)	-62			
130					
110					
100					
90					
80					
70					
60					
	Isothermal 1006-1000 nb 36° Inversion 1000 nb 36°-985 nb 37° 850 " 22°-820 " 27°				
Tropopause	I 245 nb -77° 33,500'	I 241 nb -85° 33,500'	I 220 nb -80° 35,600'	I 240 nb -80° 33,700'	II 247 nb -76° 33,000'	I 225 nb -75° 35,100'	I 275 nb -69° 30,600'	I 300 nb -61° 28,900'	I 250 nb -67° 33,000'	Tropopause

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	027	40	38	035	12
1000	050	41	39	020	26
950		37	32	025	22
900	330	31	27	034	18
850		27	22	040	18
800	635	22	18	048	18
750		17	12	053	22
700	979	10	05	053	28
650		02	-04	056	29
600	1351	-04	-15	067	25
550		-12	-23	063	30
500	1791	-22	-40	069	29
450		-32	-53	062	25
400	2301	-44		061	27
350		-54		079	22
300	2921	-62		066	16
250		-74		057	18
200	3761	-74		057	12
170		-70		066	06
150		-69		031	06
130		-70		359	07
110		-73		335	08
100		-75		327	09
90		-76		322	11
80		-77			
70		-78			
60	(75nb)	-75			
	Inversion 1009 nb 40°-992 nb 41° 253 " -74°-246 " -73° 600 " -05°-578 " -01°				
STORNOWAY					
Surf	004	39	33		
1000	049	37	31		
950		33	28		
900	327	27	22		
850		26	15		
800	631	20	13		
750		17	07		
700	969	10	02		
650		02	-07		
600	1351	-05	-41		
550		-06	-29		
500	1791	-17	-32		
450		-28	-36		
400	2302	-40	-55		
350		-53			
300	2932	-67			
250		-83			
200	3752	-74			
170		-69			
150	4352	-70			
130		-72			
110		-75			
100	5192	-77			
90		-78			
80		-78			
70		-78			
	Inversion 814 nb 16°-795 nb 22° 600 " -05°-578 " -01°				
LEUCHARS					
Surf	002	38	36	100	12
1000	042	37	36		
950		33	29	081	29
900	320	28	21	084	28
850		22	18	083	27
800	623	16	15	082	24
750		11	08	081	23
700	996	11		075	24
650		06		073	27
600	1351	00		065	18
550		-08		051	17
500	1781	-18		044	17
450		-28		034	16
400	2301	-38		006	15
350		-50		003	19
300	2931	-63		009	14
250		-77		008	07
200	3771	-69		009	05
170		-65		009	05
150	4371	-65		009	08
130		-67		009	15
110		-69			
100	5211	-70			
90		-71			
80		-73			
	Inversion 759 nb 09°-740 nb 14°				
ALDERGROVE					
Surf	026	37	30	090	15
1000	035	37	30		
950		32	26	092	19
900	312	26	18	089	30
850		19	14	089	33
800	614	12	08	091	33
750		14	06	090	32
700	950	14	-08	081	29
650		08	-14	080	24
600	1331	02	-21	085	21
550		-05	-28	077	20
500	1781	-12	-37	066	22
450		-23	-47	069	21
400	2302	-35	-55	070	14
350		-49		070	13
300	2932	-64		081	16
250		-75		122	07
200	3762	-71		360	06
170		-66		343	10
150	4372	-66		343	13
130		-67		352	12
110		-69		337	10
100	522	-70		309	12
90		-71		331	12
80		-74			
70		-73			
	Inversion 778 nb 09°-760 nb 14° 600 " 02°-585 " 03° Isothermal 760-700 nb 14° 532 " 514 " -09°				
LIVERPOOL					
Surf	006	34	32	070	05
1000	027	34	32		
950		28	25	096	20
900	301	22	19	090	31
850		17	15	080	34
800		11	07	079	32
750		14	-06	089	22
700	936	15	-32	075	18
650		08	-17	075	11
600	1321	-02	-26	059	20
550		-10	-38	062	27
500	1761	-15	-46	075	31
450		-25	-58	074	34
400	2281	-36	-59	073	27
350		-49		072	21
300	2901	-64		090	18
250		-74		069	15
200	3741	-72		035	10
170		-65		017	07
150		-62		350	17
130		-65		003	15
110		-67		358	19
100	520	-67		350	12
90		-68		342	12
80		-69		339	12
	Inversion 770 nb 07°-741 nb 17° 711 " 14°-700 " 15°				
DOWNHAM MARKET					
Surf	012	34	29	030	10
1000	026	33	28		
950		29	25	069	22
900	301	24	22	078	21
850		18	16	078	24
800	603	15	10	076	18
750		14	-06	083	08
700	941	12	-32	065	09
650		07	-37	047	11
600	1321	-01	-38	051	10
550		-10	-43	077	06
500	1761	-15	-53	096	13
450		-27	-59	077	13
400	2281	-39	-59	083	19
350		-49		077	20
300	2911	-63		071	20
250		-72		074	18
200	3751	-70		057	13
170		-65		019	09
150	4351	-64		023	10
130		-67		023	10
	Inversion 807 nb 13°-792 nb 19° Isothermal 743 -711 nb 13°				
LARKHILL					
Surf	044	32	29	040	10
1000	016				
950		29	27	069	24
900	290	23	22	074	23
850		22	17	077	23
800	593	21	13	078	16
750		17	05	077	14
700	934	15	-04	077	10
650		09	-08	081	09
600	1321	01	-14	077	12
550		-07	-21	069	12
500	1761	-17	-28	086	11
450		-28	-40	095	15
400	2271	-39	-53	091	12
350		-47		094	18
300	2901	-59		089	27
250		-69		087	19
200	3761	-63		054	10
170		-62		341	10
150	4371	-60		002	10
130		-62		344	13
110		-65		343	16
100		-65		336	14
90		-66			
	Inversion 860 nb 19°-842 nb 24° Isothermal 842-821 nb 24° 750-716 " 17°				
CAMBORNE					
Surf	029	32	29	CALM	
1000	016				
950		29	24	070	17
900	292	24	20	063	12
850		25	17	056	12
800	598	25	07	059	14
750		20	02	061	14
700	939	14	-03	066	13
650		07	-11	068	12
600	1321	-01	-17	051	18
550		-10	-25	061	15
500	1726	-20	-34	065	19
450		-32	-46	062	21
400	2272	-41		067	31
350		-51		072	31
300	2892	-62		070	33
250		-62		056	14
200	3752	-62		007	16
170		-60		349	20
150		-61		357	18
130		-62		359	18
110		-66		344	16
100	522	-67		332	15
90		-68			
	Inversion 875 nb 22°-835 nb 28° Isothermal 995-980 nb 32°				
Tropopause	I 226 nb -78° 35,200'	I 243 nb -85° 33,400'	I 247 nb -78° 30,700'	I 234 nb -77° 32,500'	I 225 nb -79° 35,000'	II 265 nb -72° 31,500'	I 243 nb -70° 33,100'	I 285 nb -64° 30,000'		Tropopause

Saturday 23rd December 1950.

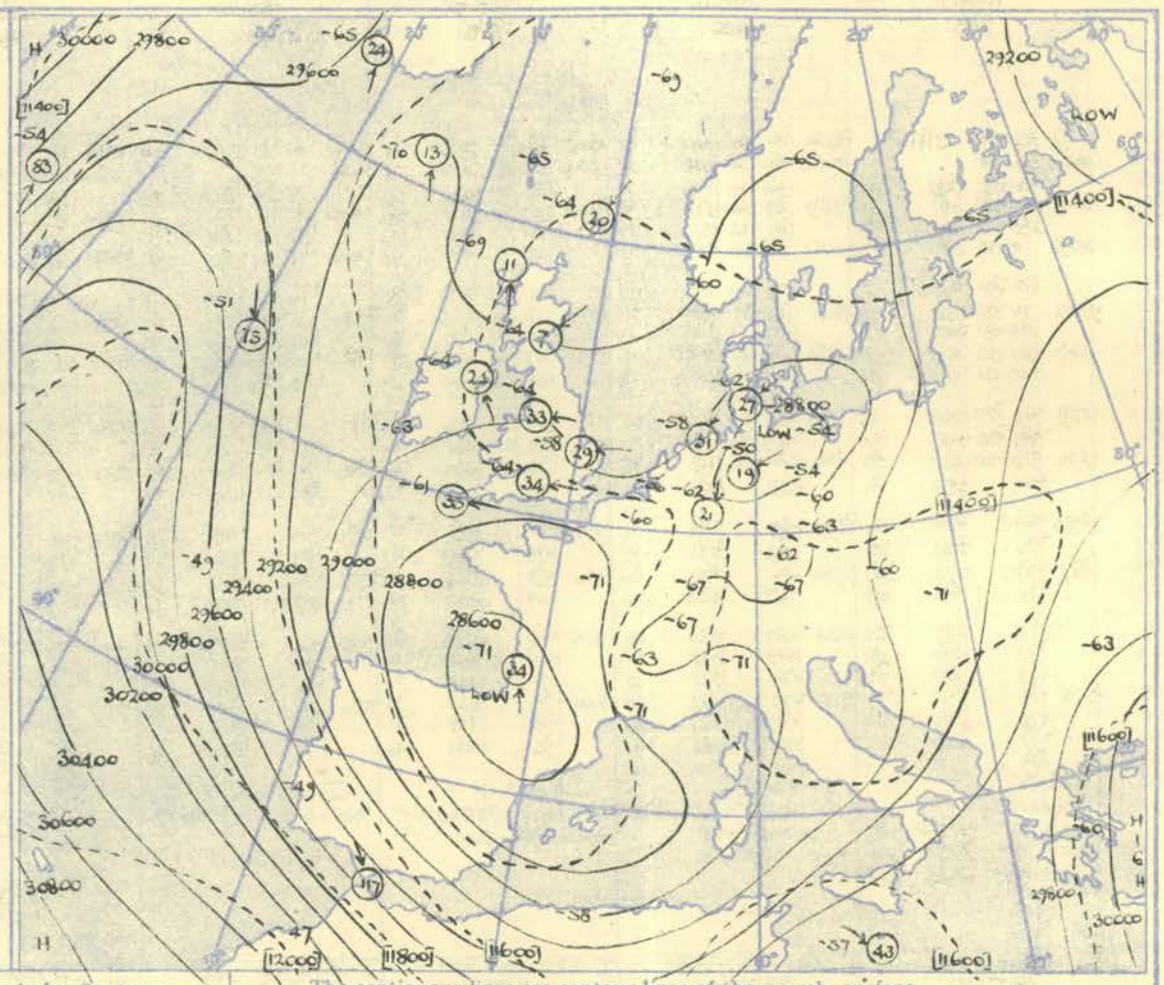
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb. levels at about 03h G.M.T.



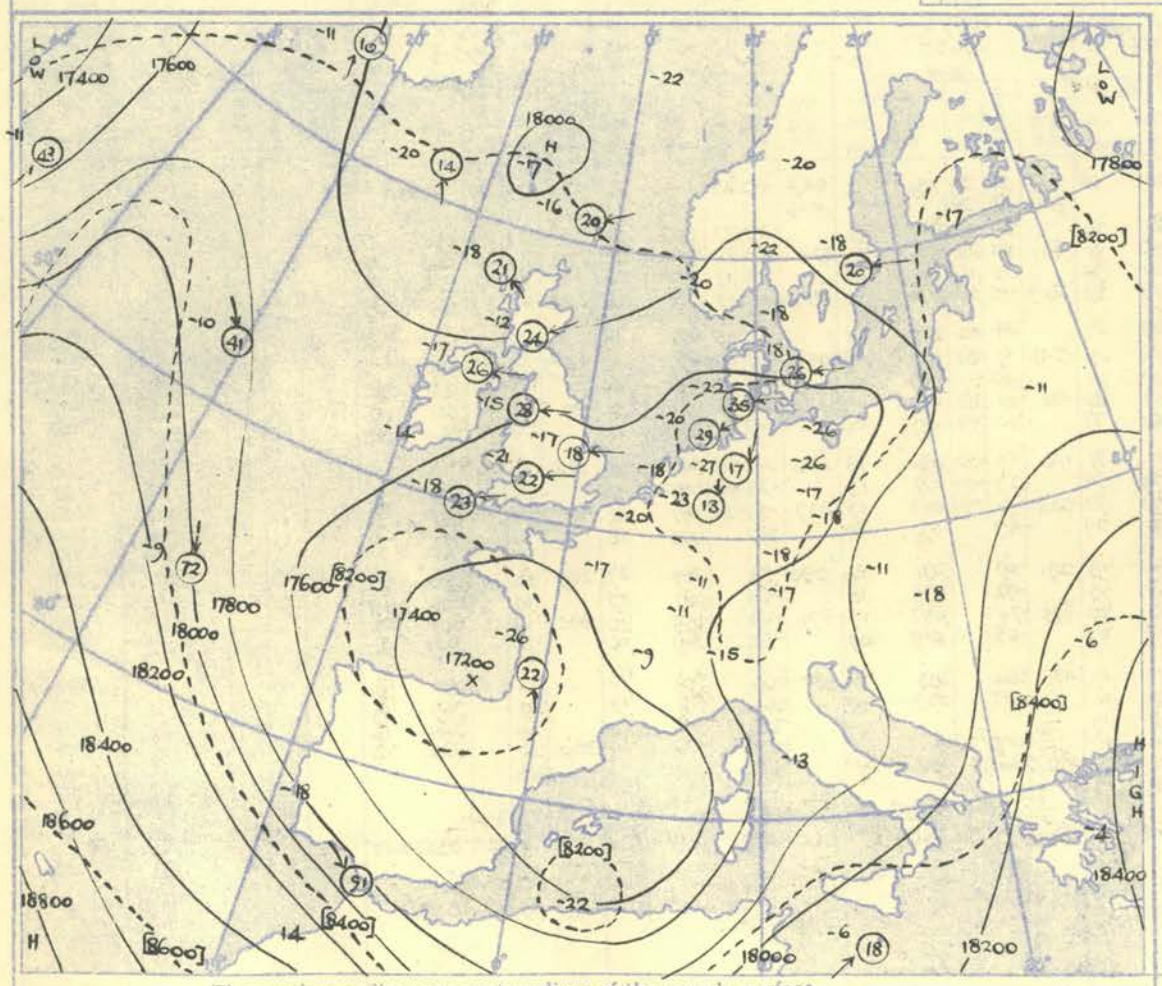
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

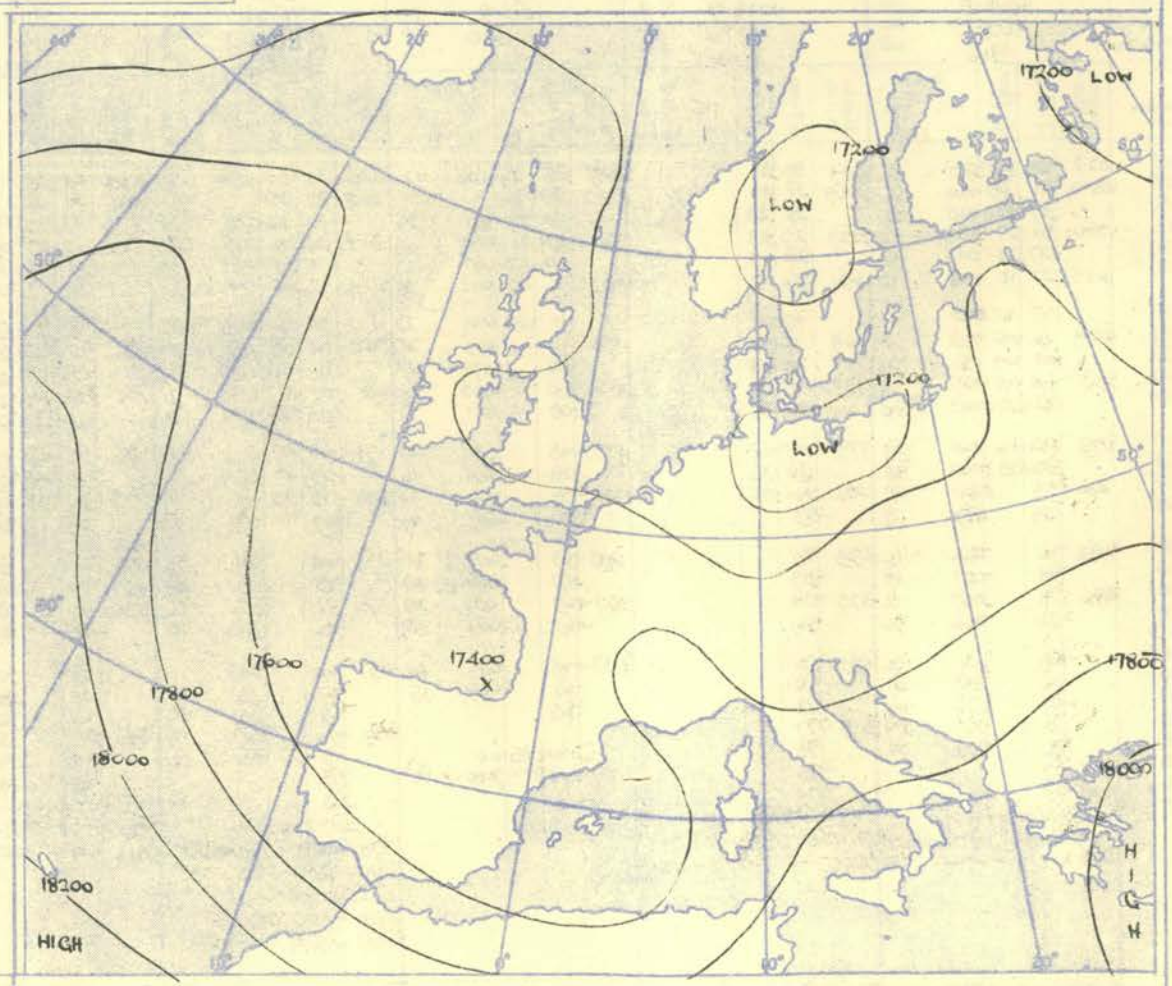
100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure		43·2 N 17·0 W.	39·5 N 12·2 W																				
	Time	1345h.	1515h.																				
	M.S.L.	1013 mb	1009 mb	mb			mb			mb			mb			mb			mb			Time M.S.L.	Pressure
	Surf	1009 mb	1006 mb	mb			mb			mb			mb			mb			mb			Surf	
	Freezing	760 mb	820 mb	mb			mb			mb			mb			mb			mb			Freezing	
Pressure mb		Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.		Pressure mb
Surf			53	42		48	41																Surf
1000																							1000
950		34	52		28	48																	950
900			45	40		48	41																900
850			35	35		40	33																850
800			35	18		34	30																800
			35	06		31																	
750																							750
700			31	13		28																	700
650		97·7	22		96·9	21																	650
600			19			18																	600
550			16			12																	550
			09			04																	
500		183	03		181	05																	500
450		Surface			Cloud																		450
400		Wind N'Wly			4/8 Sc																		400
350		17-22 kts			880-750mb																		350
300		Cloud.			Surface																		300
250		8/8 As			Wind N'Wly																		250
200		670-530mb			11-16 kts																		200
170		7/8 Cc NR																					170
		Isothermal			Isothermal																		
		900-800mb			1006-950mb																		
		35°			48°																		

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place																						Place
Time																						Time
Type																						Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.																							Surf.
1,000																							1,000
2,000																							2,000
3,000					NO		PILARS																3,000
4,000																							4,000
5,000																							5,000
6,000																							6,000
8,000																							8,000
10,000																							10,000
14,000																							14,000
18,000																							18,000
24,000																							24,000
30,000																							30,000
40,000																							40,000
50,000																							50,000

NEPHOSCOPE OBSERVATIONS

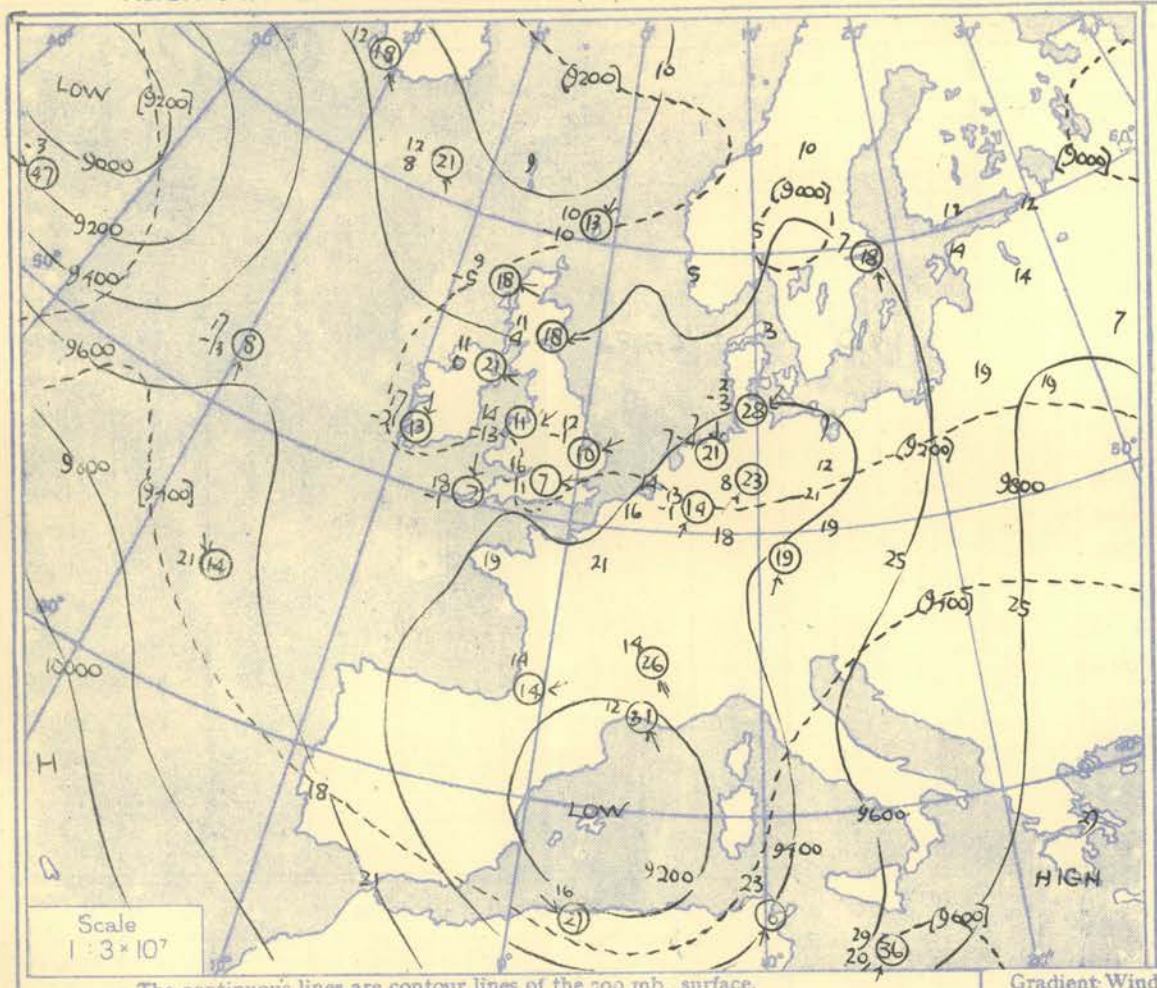
Place												Place
Time Type												Time Type
Dir. Vel.												Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER			Ship
Lat/Long	61·1N 14·0W.	61·1N 14·0W	61·1N 14·1W.	60·9N 14·0W	52·6N 20·0W.	52·6N 20·0W.	52·6N 19·8W	52·6N 19·6W.			Lat/Long
Time	03L G.M.T.	09L G.M.T.	15L G.M.T.	21L G.M.T.	03L G.M.T.	09L G.M.T.	15L G.M.T.	21L G.M.T.		G.M.T.	Time
M.S.L.	1014 mb	1016 mb	1018 mb	1019 mb	1008 mb	1008 mb	1008 mb	1006 mb		mb	M.S.L.
Surf	1014 mb	1016 mb	1018 mb	1019 mb	1008 mb	1008 mb	1008 mb	1006 mb		mb	Surf
Freezing	905 mb	880 mb	890 mb	900 mb	840 mb	880 mb	870 mb	875 mb		mb	Freezing

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf		46	38	110	13		46	43	115	09		45	40	120	16		46	33	120	18		+6	46	330	10		46	46	330	07		Surf
1000	3·9	45	38	120	18	4·3	45	39	142	13	4·8	44	40	138	21	5·0	44	32	142	24	2·0	46	45			2·1	45	45	315	05		1000
950		39	30	116	19		41	28	151	12		38	37	134	23		38	29	140	20		41	39	339	09		39	39	308	03		950
900	32·0	31	23	106	16	32·6	36	22	160	13	32·9	33	32	123	22	33·1	32	25	137	16	30·3	37	34	337	18	30·3	34	34	308	03	30·2	900
850		24	16	121	17		28	16	162	14		28	26	124	16		26	18	136	18		33	30	334	20		35	30	191	05		850
800	62·5	16	09	139	17	63·3	20	09	160	15	63·6	21	20	130	15	63·7	20	12	146	12	61·3	27	21	329	18	61·1	24	20	315	03		800
750		22	04	146	14		22	07	153	16		17	16	132	18		17	03	157	18		22	15	333	17		30	13	315	05	29·8	750
700	96·7	16	00	143	16	97·4	16	02	145	17	97·5	12	08	133	21	97·6	14	-09	155	15	95·6	19	10	335	18	95·3	21	13	315	05		700
650		07	+02	102	06		09	-04	143	16		09	01	148	22		07	-09	121	15		12	-05	335	22		17	03	328	08	94·9	650
600	135	-02	+18	163	14	136	00	-19	140	16	136	00	-07	146	18	136	-01	-14	110	18	134	05	-20	334	24	134	11	-10	336	12		600
550		-09	-28	164	13		-08	-26	130	16		-07	16	148	19		-09	-21	138	16		04	-33	322	24		07	-18	341	30	133	550
500	179	-20	-26	155	14	180	-14	-37	136	14	180	-18	-25	146	20	180	-17	-34	197	19	179	-10	-44	318	41	179	-01	-29	320	32		500
450		-32	-45	157	22		-28	-47	145	16		-29	-36	138	18		-29	-41	155	21		-19	-59	321	71		11	-24	213	12		450
400	229	-45		149	19	231	-42		147	17	231	-41		142	22	231	-41		150	24	231	-31	-58	324	81	231	-31	-52	313	62		400
350		-58		142	17		-55		147	16		-55		160	27		-53		144	20		-39	-59	324	84		-44		320	61		350
300	291	+70		142	13	293	-66		144	16	293	-68		158	29	293	-67		140	22	296	-51		325	75	295	-59		317	73		300
250		+76		129	18		-67		147	14							-70		133	16		-62		327	81		-71		309	64		250
200	375	+73		166	08	328	-68		180	08						377	-67		171	06	382	-70		329	62	329	-69		295	49		200
170		+71		229	05		-66		230	08							-66		251	06		-70		320	39		-69		275	44		170
150		+71		211	08		-68		208	11							-66		266	06		-69		298	30		-69		280	37		150
130		+73		203	17		-70		190	12							-66		293	09		-67		284	41		-69		307	31		130
110		+77		218	21		-72		286	11							-68		297	10		-69		283	56		-72		317	28		110
100	517	+79		235	18	523	-74		279	11						523	-70		297	09	526	-70		279	51	523	-72					100
90		+79		306	20		-74		277	13							-73		294	08		-73		265	51						525	-70		288	28	526	-67		258	32	90
80		+79		287	12		-75		295	18							-73		261	10		-76		258	51							-71		280	25		-68		267	34	80
70		+78		284	15		-78		288	20							-76		258	14		-78		254	48							-71		275	24		-70		278	38	70
60		+82		273	33		-78										-78		284	19		-80										-71					-70		281	32	60
																	(556) -79													(68mb) -71					-71		290	27	
	Inversion. 800mb 16° - 763mb 23°					Inversion. 786mb 18° - 750mb 22°					Inversion. 770mb 17° - 753mb 18°					Isothermal. 800-785mb 20°					Isothermal. 1008 - 1000mb 46° 500 - 495 " - 10° 256 - 242 " - 62°					Isothermal. 633 - 604mb 8°					Isothermal. 1008 - 1000mb 45° 541 - 526 " - 4°									
Tropopause	II 250mb -76° 39.000.					I 215 mb -71° 31.300.					NR.					I 285 mb -75° 30.400.					I 195 mb -72° 38.700					I 229 mb -77° 35.100.					I 254 mb -77° 33.000.					II 273 mb -63° 31.400.					Tropopause

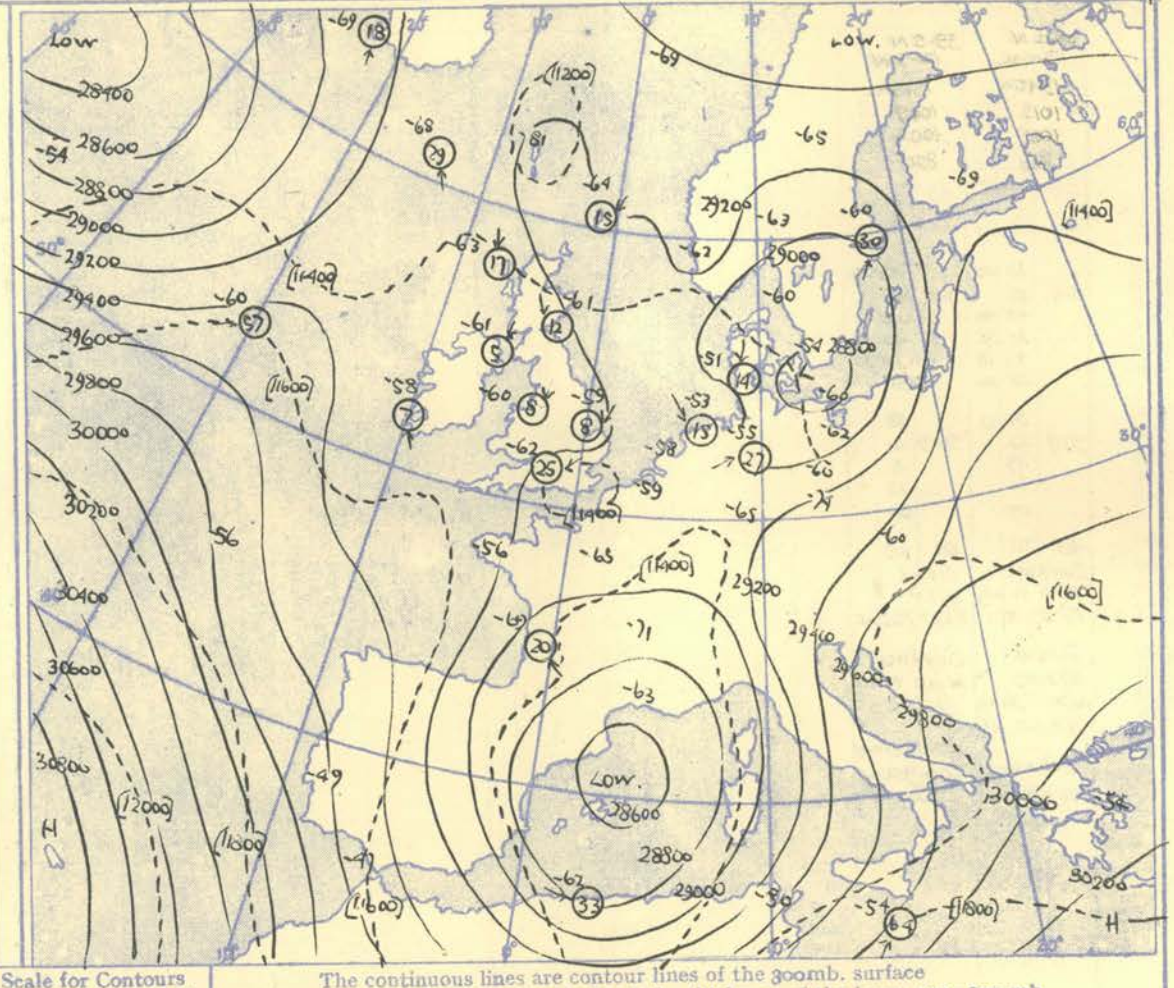
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

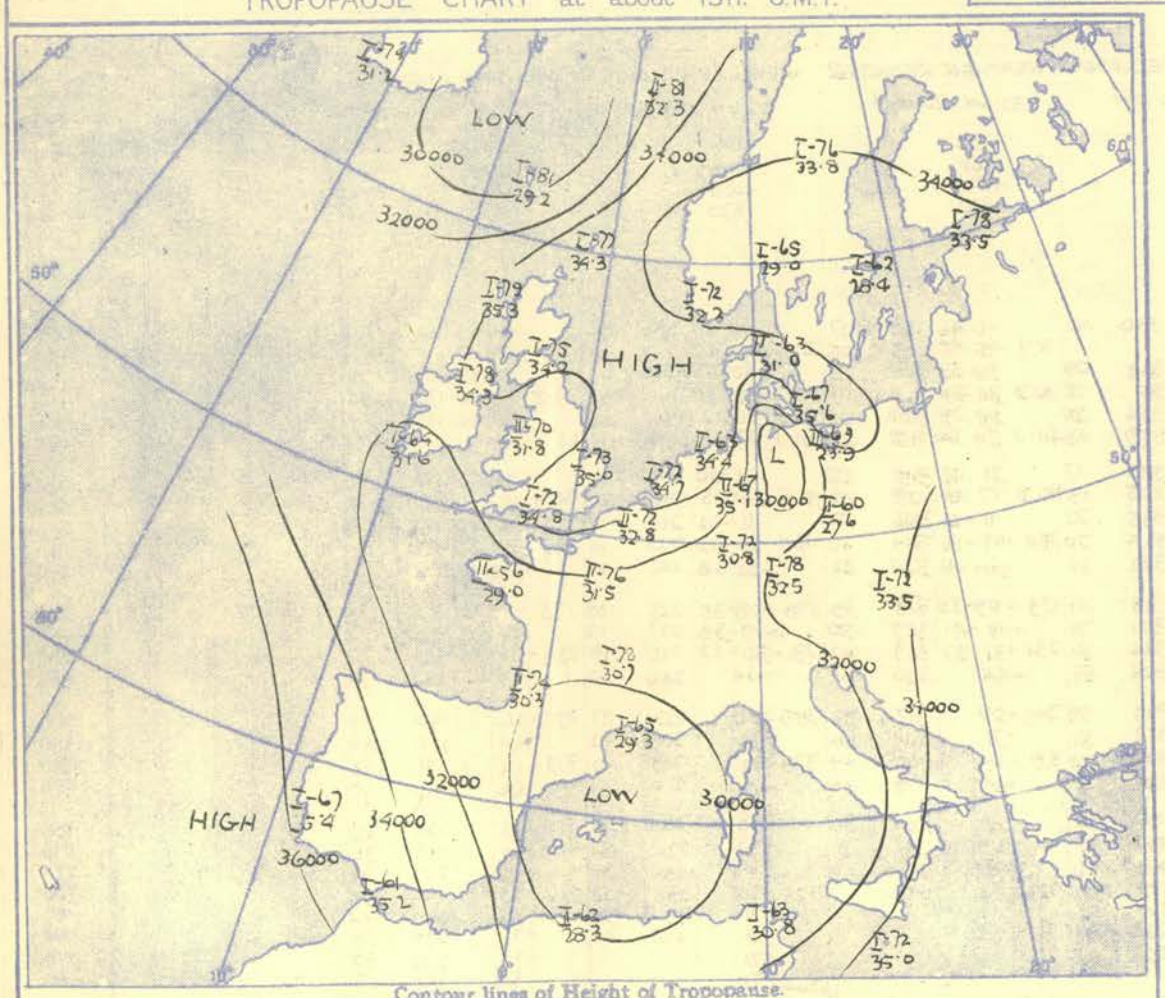
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Little general change but cold pool originally over the Alps moved to Northern Germany. The Atlantic thermal weakened slightly.

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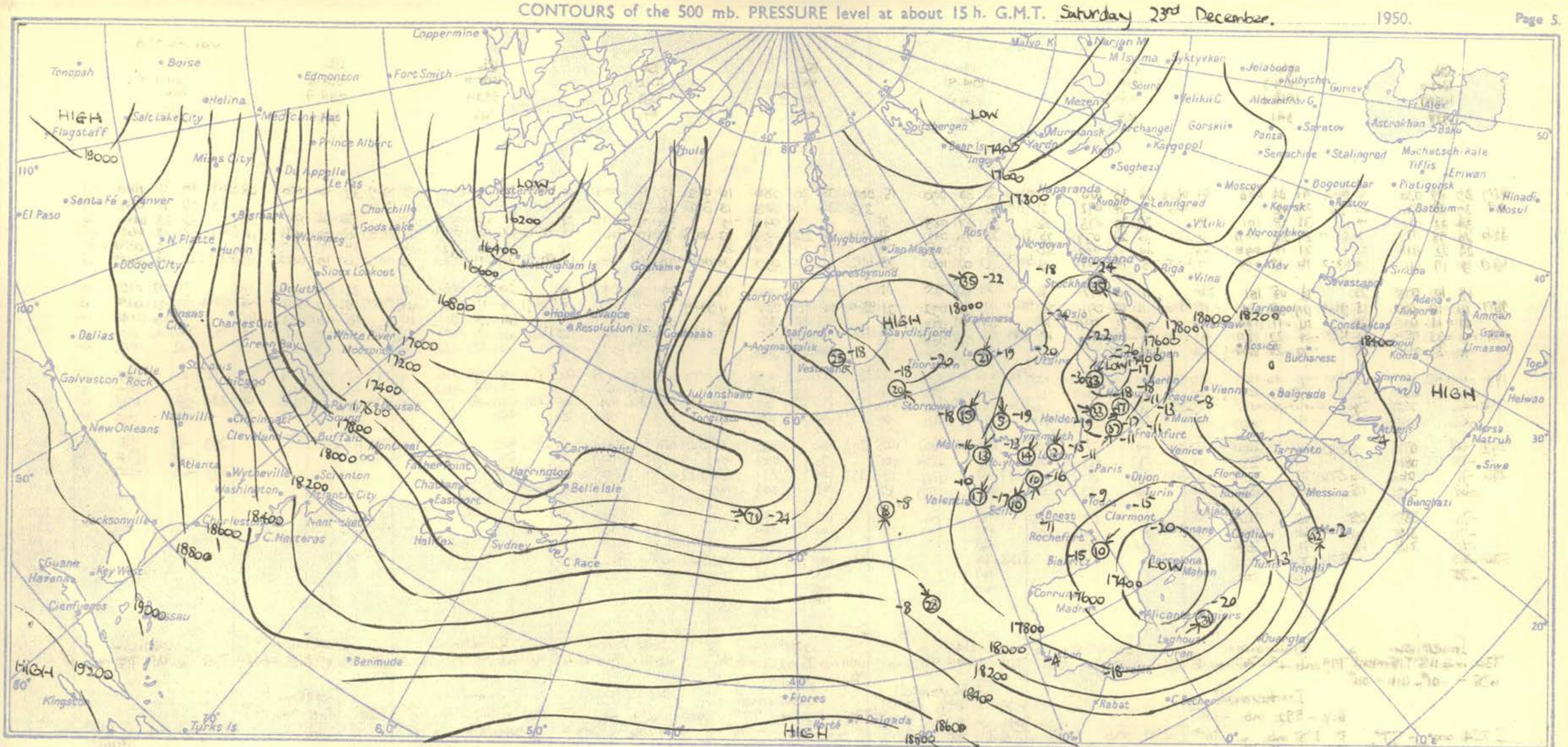
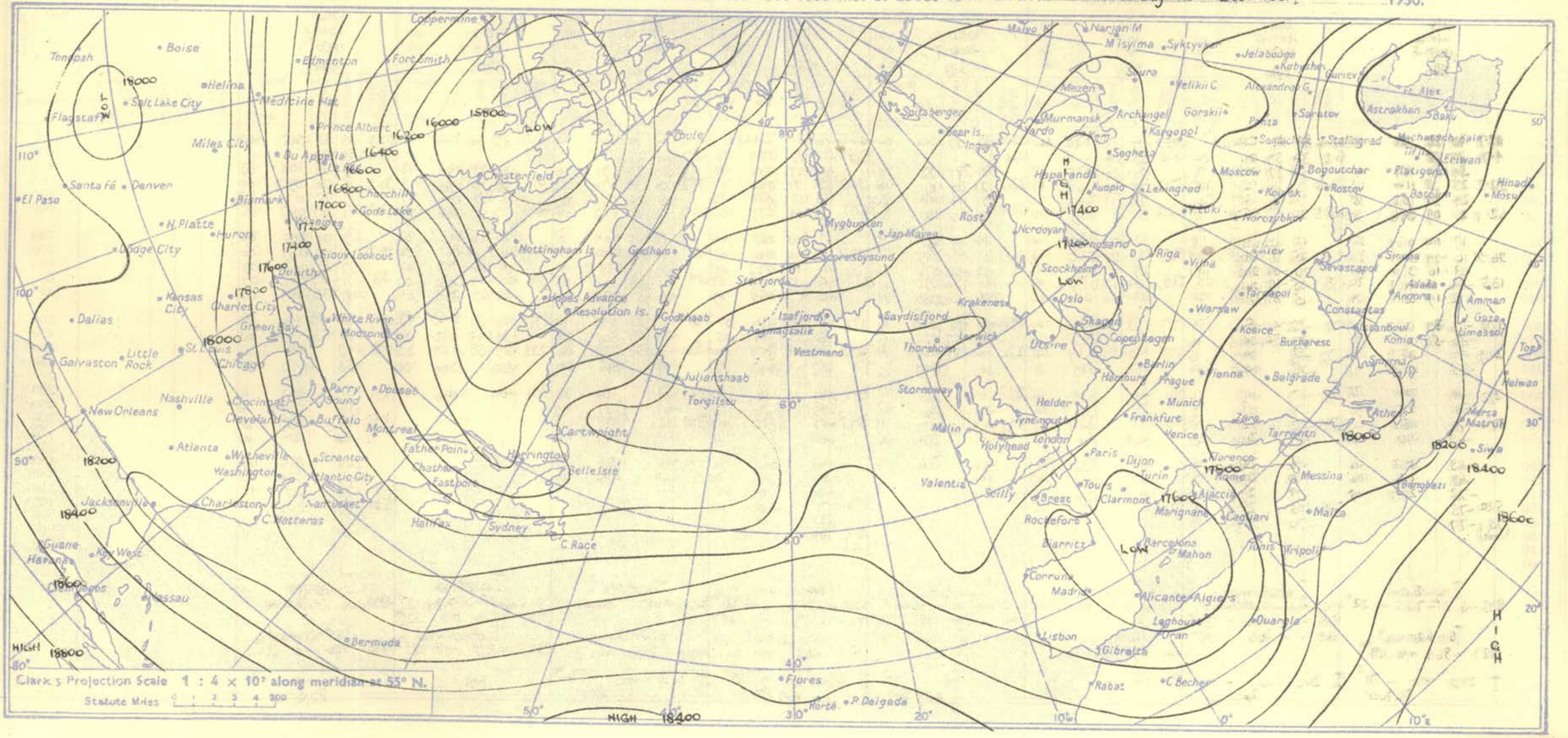
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Saturday 23rd December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 23rd December. 1950.



Page 6.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	15h	1017·9 mb	1007·7 mb	928 mb
STORNOWAY	15h	1019·8 mb	1018·1 mb	941 mb
LEUCHARS	15h	1017·2 mb	1016·3 mb	945 mb
ALDERGROVE	15h	1014·5 mb	1004·8 mb	960 mb
LIVERPOOL	15h	1012·6 mb	1010·5 mb	956 mb
DOWNHAM MARKET	15h	1012·1 mb	1003·7 mb	970 mb
LARKHILL	15h	1008·6 mb	992·1 mb	982 mb
CAMBORNE	15h	1008·6 mb	997·7 mb	970 mb
VALENTIA	15h	1011·1 mb	1010 mb	950 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	39	39	030	08	00·4	41	34	080	07	00·2	38	35	100	10
1000	1·7	39	38	020	20	5·2	39	32			4·5	37	34	072	21
950		34	32	020	19		33	28	101	14		33	30	073	22
900	32·6	29	28	024	18	33·0	27	22	098	16	32·0	25	24	077	22
850		24	22	018	21		21	15	096	24		20	19	082	20
800	63·0	19	17	011	24	63·2	16	12	096	31	62·5	15	14	088	28
750		12	10	025	22		13	05	101	26		11	10	088	26
700	96·7	10	-10	036	23	96·9	09	-05	098	18	96·0	11	04	091	28
650		03	-14	043	24		01	-11	084	13		06	+11	094	25
600	135	-01	-23	039	24	135	-04	-22	080	12	134	-01	-13	119	13
550		-10	-37	038	25		-10	-28	064	18		-10	-27	137	08
500	179	-19	-48	047	21	179	-18	-40	051	15	178	-19	-37	005	05
450		-30	-57	059	22		-29	-51	039	16		-29	-46	007	13
400	230	-41		058	24	230	-40	-60	011	15	229	-38	-54	006	16
350		-53		059	25		-51		009	21		-49		339	14
300	292	-64		072	15	292	-63		001	17	292	-61		324	12
250		-75		081	12		-74		352	18		-73		324	09
200	376	-71		062	06	376	-73		328	11	377	-69		342	07
170		-68		017	05		-67		356	06		-66		353	09
150		-70		337	05		-65		002	05		-66		359	09
130		-71		315	10		-66		349	05		-67		346	08
110		-73		315	12		-71		264	12		-68			
100	520	-73				521	-72		293	10					
90		-75					-72		301	05					
80							-72								
70															
60															
Inversion	730 mb 11°-718 mb 12° 625 " -0°-611 " 00°					779 mb 4°-767 mb 15°					736 mb 6°-705 mb 12°				
Isothermal						617 - 592 mb -04°									
Tropopause	234 mb - 77° 34,300'					225 mb - 79° 35,300'					237 mb - 75° 34,200'				

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	38	32	090	15	00·6	35	30	080	10	01·2	37	28	040	10	04·4	33	30	100	09	02·9	35	30	050	08	00·3	39	31	060	05
1000	3·9	38	32			3·3	36	30	085	15	3·2	36	27			2·1					2·3					3·0	38	31	060	07
950		31	27	085	21		31	26	098	19		30	23	075	21		29	26	059	24		30	24	059	13		32	23	061	10
900	31·6	25	20	092	23	31·0	26	22	099	23	30·8	23	17	067	23	29·6	23	22	074	22	29·9	26	20	086	11	30·7	25	18	061	08
850		21	13	102	24		19	17	096	25		18	12	061	29		17	16	093	16		19	17	083	11		18	12	056	11
800	61·8	12	08	100	25	61·2	12	10	092	24	60·9	20	09	064	13	59·9	23	11	072	10	60·3	25	10	052	12	60·7	11	09	045	15
750		18	05	095	25		17	01	089	18		19	06	075	10		20	02	066	07		23	06	026	10		13	-02	012	12
700	95·6	11	00	092	21	95·0	14	-13	084	11	94·9	12	-01	087	10	94·1	16	-11	091	07	94·7	18	-01	010	09	94·4	17	-21	015	13
650		07	-09	079	18		08	-21	083	05		07	-10	097	09		09	-10	101	10		10	-16	023	07		13	-30	014	14
600	134	01	-25	058	15	133	+01	-22	085	03	133	01	-18	105	05	133	01	-18	107	05	133	00	-19	053	08	133	06	-46	010	16
550		-06	-33	046	15		-06	-35	064	10		-06	-27	098	03		-06	-27	138	05		-08	-25	070	07		-02		018	20
500	178	-14	-40	038	13	177	-13	-42	058	14	177	-15	-37	025	02	177	-16	-38	210	10	177	-17	-33	066	10	178	-10		034	17
450		-24	-50	028	16		-24	-53	064	13		-26	-47	039	03		-27	-48	202	09		-27	-43	065	08		-22		059	12
400	230	-35	-57	021	16	229	-36	-59	058	15	229	-35	-56	071	08	228	-40	-60	172	09	229	-38	-54	058	15	230	-35		070	08
350		-48		021	09		-46		049	11		-47		041	08		-50		109	13		-51		059	25		-47		095	07
300	293	-61		001	05	293	-60		035	08	292	-59		034	08	391	-62		089	25	(310	+56				293	-58		133	07
250		-75		334	05		-70		042	04		-69		021	09		-70		086	(8mb							-63		334	14
200	377	-67		318	09	377	-68		331	10	377	-68		005	05	207	-73									379	-62		322	22
170		-66		337	12		-62		003	09		-65		355	07	mb														
150		-61		341	10		-61		344	14		-62		339	06															
130		-63					-61		336	14		-64		337	13															
110		-65					-64		336	12		-62		327	09															
100	523	-66				524	-60		335	09	523	-63		322	09															
90		-67					-55		313	11		-67		314	09															
80		-69					-65		309	14		-69																		
70							-65		321	16																				
60							-66		305	13																				
						(55 mb) -67																								
Inversion	787 mb 10°-762 mb 19°					1011 mb 35°-997 mb 36° 780 " 09°-769 " 17°					815 mb 14°-790 mb 25°					850 mb 17°-822 mb 26°					835 mb 19°-815 mb 26°					780 mb 08°-717 mb 18°				
Isothermal	678 - 658 mb 09° 641 " 623 " 05°					769 - 724 mb 17°					665 - 650 mb 07°					766 - 742 mb 20°					850 - 835 mb 19°									
Tropopause	I 237 mb - 75° 34,300'					II 260 mb - 70° 34,800'					I 227 mb - 73° 35,000'					I 238 mb - 72° 34,800'					NR.					I 270 mb - 64° 31,605'				

21h G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	21h	1018·0 mb	1007·8 mb	936 mb
STORNOWAY	21h	1019·8 mb	1018·1 mb	930 mb
LEUCHARS	21h	1017·9 mb	1017 mb	959 mb
ALDERGROVE	21h	1016·2 mb	1006·7 mb	939 mb
LIVERPOOL	21h	1014·3 mb	1012·2 mb	954 mb
DOWNHAM MARKET	21h	1014·2 mb	1009·6 mb	962 mb
LARKHILL	21h	1012·1 mb	995·4 mb	932 mb
CAMBORNE	21h	1011·6 mb	1000·7 mb	965 mb
VALENTIA		mb	mb	mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	40	38	180	14	00·4	39	37	CALM		00·2	34	33	020	06
1000	1·7	39	38			5·2	39	31	011	09	4·6	35	34		
950		34	31	121	10		34	32	025	13		31	30	070	12
900	32·5	27	25	116	13	33·0	29	26	039	15	32·2	25	22	065	14
850		24	20	102	15		24	21	047	21		20	17	061	16
800	62·9	21	09	076	20	635	20	17	054	19	62·3	15	13	059	16
750		17	00	069	27		13	10	062	18		12	06	070	16
700	96·9	10	-09	070	26	97·1	05	02	065	19	96·0	08	-02	080	14
650		03	-10	070	23		00	-04	065	17		05	-10	063	11
600	135	-04	-14	067	20	35	-05	-19	066	18	134	-04	-13	029	15
550		-12	-19	065	24		-13	-24	064	20		-15	-26	001	10
500	178	-20	-39	062	21	178	-22	-41	051	17	177	-22	-41	026	06
450		-30	-50	058	21		-32	-54	044	16		-30	-49	343	06
400	229	-41		059	24	229	-43		049	15	228	-40	-59	339	10
350		-53		054	19		-56		045	14		-61		309	14
300	292	-64		061	15	291	-67		019	11	291	-60		314	14
250		-71		051	16		-76		029	12		-71		310	10
200	376	-72		050	06	375	-72		007	08	376	-73		344	08
170		-69		010	08		-69		302	03		-64		316	08
150		-68		353	06		-68		280	04		-65		332	08
130		-69		316	06		-70		290	05		-67		341	09
110		-73		297	05		-73		297	07		-69		316	10
100	520	-75				518	-75		297	08	521	-71		295	12
90	(23 mb)	-77					-76		294	08					
80															
70															
60															
Inversion	815 mb 21°-785 mb 22°					813 mb - 1000 mb 39° 818 " - 800 " 20° 669 " - 638 " 00°					817 mb 34°-785 mb 36° 800-790 mb 15°				
Isothermal	887 - 866 mb 25°														
Tropopause	I 280 mb - 71° 32,700'					II 262 mb - 76° 32,000'					II 254 mb - 71° 32,600'				

Pressure mb	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	37	32	200	04	00·6	34	31	CALM		01·2	34	30	360	05	04·4	32	30	040	10	02·9	35	30	045	02					
1000	4·4					3·8	36	32	057	13	3·7	34	29			3·2					3·1	35	30							
950		34	27	112	11		31	27	080	14		30	23	071	16		29	25	064	18		30	23	104	02					
900	32·2	28	20	111	18	31·5	25	21	090	17	31·2	25	19	076	17	30·6	22	20	080	17	30·7	25	20	097	04					
850		21	14	114	20		18	13	088	22		18	14	075	18		15	12	076	12		19	18	071	08					
800	62·5	14	10	110	20	61·5	12	06	077	24	61·2	12	08	072	15	60·6	22	12	058	05	60·9	21	07	063	05					
750		14	09	102	19		13	-02	061	14		18	-01	066	07		20	00	069	04		19	01	072	06					
700	96·1	07	01	089	17	95·1	09	-06	046	08	95·1	14	-06	060	04	94·7	16	-04	067	06	94·9	14	-10	069	06					
650		03	-06	070	14		04	-18	072	08		08	-11	059	04		08	-06	052	07		07	-18	043	05					
600	134	01	-20	090	10	133	-03	-27	062	07	134	01	-24	203	05	133	00	-17	032	02	133	-01	-25	069	03					
550		-08	-28	050	08		+10	-33	058	09		-04	-37	236	10		-06	-23	253	09		-09	-30	093	03					
500	178	-16	-38	026	10	177	+18	-47	056	07	178	-13	-53	275	10	177	-16	-31	242	17	177	-20	-45	140	02					
450		-25	-47	014	13		+28	-56	314	05		-24	-57	305	05		-28	-43	230	22		-31	-53	060	03					
400	230	-36	-58	008	14	228	-40	-60	358	10	230	-35	-58	333	06	228	-39	-52	237	22	228	-42		038	10					
350		-49		349	12		-52		343	12		-47		315	06		-50		209	06		-53		042	20					
300	293	-64		315	13	291	-64		336	14	293	-58		314	10	391	-60		096	17	290	-61		048	18					
250		-76		310	13		-78		326	12		-69		321	09							-70		014	16					
200	377	-67		329	11	375	-67		330	07	378	-66		359	07						375	-68		334	15					
170		-64		324	08		-65		331	11		-62		347	06							-66		324	10					
150		-66		316	10		-64		343	12		-61		318	07							-66		314	18					
130		-68					-66		343	10		-64		330	09							-69		334	15					
110							-70		304	11												-73		209	16					
100						520	-71		320	10											520	-73		301	17					
90							-72															-73		317	19					
80						87 mb	-74															-74								
70																														
60																														
Inversion	1007 mb 37°-990 mb 38° 771 " 030-745 " 15° 675 " 06°-660 " 09°					1012 mb 34°-1000 mb 36° 761 " 11°-744 " 14°					800 mb 12°-774 mb 19°					845 mb 14°-825 mb 22° 772 " 18°-740 " 22°					825 mb 16°-810 mb 21°									
Isothermal						671 - 661 mb 06°					1010 - 980 mb 34°					825 - 799 mb 22°					810 - 776 mb 21°									
Tropopause	I 245 mb - 77° 31,500'					I 282 mb - 79° 34,400'					I 245 mb - 70° 33,500'					NR.					I 250 mb - 70° 32,871'									

HMSO. Press, MO, Dunstable.

No. 11592

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Sunday 24th. December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure: Time 03h G.M.T. | M.S.L. 1019.0 mb | Surf 1008.7 mb | Freezing 934 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	35	34	CALM	
1000	05·0	38	34		
950		34	27	128	05
900	32·7	28	20	109	06
850		21	15	074	10
800	62·9	15	11	054	18
750		12	05	047	31
700	96·6	12	-09	049	38
650		04	-16	051	29
600	13·5	-03	-21	052	23
550		-14	-29	054	18
500	17·8	-24	-42	055	22
450		-34	-53	056	23
400	22·9	-41		058	19
350		-52		062	20
300	29·1	-62		065	20
250		-69		069	23
200	37·6	-71		084	10
170		-67		349	05
150		-67		010	05
130		-67		355	06
110		-71		266	09
100	52·1	-72		284	13
90		-73		291	15
80		-74		293	12
70		Inversion			
60		1009 mb 35°-995 mb 39°			
		744 " 12°-720 " 14°			
		Isothermal			
		768-744 mb 12°			
Tropopause	II 238 mb -71° 36,600'				

STORNOWAY

Pressure: Time 03h G.M.T. | M.S.L. 1018·3 mb | Surf 1016.6 mb | Freezing 900 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	39	37	CALM	
1000	04·8	38	35	018	09
950		36	32	016	10
900	32·8	32	28	017	11
850		26	22	025	11
800	63·4	20	17	029	11
750		12	08	039	11
700	97·1	07	01	049	15
650		01	-10	054	15
600	13·5	-05	-21	066	13
550		-09	-32	073	15
500	17·9	-19	-44	059	19
450		-31	-55	057	18
400	23·0	-43		048	18
350		-56		042	16
300	29·2	-70		035	10
250		-80			
Inversion					
595 mb -06°-582 mb -04°					
Tropopause	I 265 mb -80° 31,500'				

LEUCHARS

Pressure: Time 03h G.M.T. | M.S.L. 1018·2 mb | Surf 1017·3 mb | Freezing 980 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	34	34	300	02
1000	04·7	33	33		
950		30	30		
900	32·3	26	26		
850		21	20		
800	62·5	15	13		
750		09	06	See Page 3 for Winds	
700	99·6	04	-01		
650		02	-13		
600	13·4	-06	-27		
550		-15	-34		
500	17·7	-21	-41		
450		-31	-54		
400	22·8	-41			
350		-51			
300	29·1	-59			
250		-67			
200	37·6	-68			
170		-66			
150	43·6	-60			
130		-66			
110		-68			
100	52·1	-70			
Isothermal					
700 - 674 mb 04°					
Tropopause	III 258 mb -67° 32,100'				

ALDERGROVE

Pressure: Time 03h G.M.T. | M.S.L. 1016·6 mb | Surf 1007·0 mb | Freezing 944 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	34	32	090	08
1000	4·4	35	32		
950		33	28	086	13
900	32·1	28	20	104	11
850		22	15	107	13
800	62·4	15	10	098	20
750		07	03	100	18
700	96·0	10	-03	105	17
650		06	-11	106	14
600	13·9	-03	-19	106	10
550		-11	-26	098	03
500	17·8	-17	-33	001	04
450		-25	-41	335	10
400	22·9	-36	-53	317	13
350		-48		307	14
300	29·2	-62		302	14
250		-74		296	14
200	37·6	-70		297	11
170		-66		312	12
150	43·7	-65		309	09
130		-67		298	07
110		-69		290	14
100	52·1	-70		295	15
90		-70			
Isothermal					
1007 mb 34°-988 mb 36°					
746 " 06°-710 " 11°					
Isothermal					
690-667 mb 08°					
Tropopause	I 245 mb -75° 33,400'				

LIVERPOOL

Pressure: Time 03h. G.M.T. | M.S.L. 1014·7 mb | Surf 1012·7 mb | Freezing 945 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	34	33	070	03
1000	03·9	36	33	078	10
950		33	26	089	14
900	31·5	24	17	096	18
850		18	13	094	21
800	61·5	10	08	081	22
750		08	02	066	17
700	94·8	12	-05	031	10
650		06	-14	037	10
600	13·3	-03	-24	050	06
550		-10	-31	043	10
500	17·7	-18	-39	337	06
450		-29	-50	303	07
400	22·8	-41		307	09
350		-52		314	11
300	29·0	-65		320	10
250		-78		299	12
Inversion					
1013 mb 34°-1000 mb 36°					
769 " 06°-757 " 08°					
734 " 07°-700 " 12°					
Isothermal					
520 - 507 mb -17°					
N.R.					

DOWNHAM MARKET

Pressure: Time 03h G.M.T. | M.S.L. 1014·9 mb | Surf 1010·4 mb | Freezing 959 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	34	29	360	05
1000	04·0				
950		31	22	065	11
900	31·7	26	18	080	13
850		19	14	089	18
800	61·8	16	11	097	10
750		17	06	132	06
700	98·7	13	-03	171	06
650		05	-10	233	03
600	13·4	00	-19	260	08
550		-05	-32	265	08
500	17·8	-13	-40	265	18
450		-25	-52	259	15
400	22·9	-36	-59	261	10
350		-48		264	12
300	29·3	-60		272	10
250		-70		298	07
200	37·8	-65		260	10
170		-64		323	15
150	43·9	-61		330	16
130		-60		347	06
110		-64		320	10
100	52·5	-65			
Inversion					
1010 mb 34°-984 mb 35°					
810 " 13°-790 " 19°					
Isothermal					
620 - 600 mb 00°					
Tropopause	I 241 mb -72° 34,000'				

LARKHILL

Pressure: Time 03h G.M.T. | M.S.L. 1013·6 mb | Surf 996·9 mb | Freezing 997 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	32	28	030	08
1000	03·5				
950		29	22	070	18
900	30·9	23	19	083	18
850		17	13	080	14
800	60·9	17	10	081	10
750		21	-02	060	02
700	95·0	16	-04	025	02
650		08	-09	290	01
600	13·3	02	-21	234	07
550		-04	-26	236	11
500	17·8	-13	-28	238	19
450		-24	-32	225	21
400	22·9	-34	-46	220	19
350		-49		226	22
300	29·3	-62		220	15
250		-69		115	05
200	37·7	-71		305	09
170		-67		328	14
150	43·7	-65		331	13
130		-64		330	13
110		-66		309	09
100	51·2	-68		302	10
90		-69		304	11
80		-70		296	12
70		-71		296	12
60		-72		305	09
(67 mb)		-73			
Inversion					
815 mb 13°-796 mb 18°					
775 " 18°-744 " 22°					
Isothermal					
984-965 mb 31°					
796-775 " 18°					
Tropopause	II 270 mb -68° 31500'				

CAMBORNE

Pressure: Time 03h G.M.T. | M.S.L. 1012·7 mb | Surf 1001·8 mb | Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	35	28	045	05
1000	03·3	35	28		
950		32	23	LTV	
900	30·9	27	20	LTV	
850		21	15	239	05
800	61·2	19	12	236	05
750		20	05	234	05
700	95·3	16	-02	230	06
650		08	-09	241	06
600	13·4	00	-15	214	05
550		-09	-29	205	05
500	17·8	-18	-37	206	06
450		-30	-45	235	07
400	22·9	-40	-55	284	04
350		-50		006	08
300	29·2	-58		019	21
250		-69		003	12
200	37·7	-70		325	15
170		-64		325	20
150	43·6	-64		316	16
130		-67		310	14
110		-68		305	16
100	52·2	-68		303	16
90		-70		303	15
80		-71		315	16
70		-72		305	09
(67 mb)		-73			
Inversion					
818 mb 17°-785 mb 21°					
Isothermal					
785-763 mb 21°					
Tropopause	I 240 mb -71° 33,800'				

VALENTIA

Pressure: Time 03h G.M.T. | M.S.L. 1012·6 mb | Surf 1010·2 mb | Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	38	34		
1000	03·4	37	33		
950		32	28		
900	30·9	27	23		
850		23	19		
800	61·3	17	13		
750		09	05		
700	94·9	16	07		
650		10	-03		
600	13·3	03	-11		
550		-05	-20		
500	17·8	-16	-31		
450		-27	-41		
400	22·9	-38	-53		
350		-51			
300	29·2	-63			
250		-69			
200	37·7	-64			
170		-62			
Inversion					
742 mb 08°-713 mb 17°					
Tropopause	I 250 mb -69° 33,100'				

LERWICK

Pressure: Time 09h. G.M.T. | M.S.L. 1018·2 mb | Surf 1008·2 mb | Freezing 934 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	36	34	300	08
1000	04·8	39	35	328	10
950		34	26	328	09
900	32·5	28	23	330	08
850		21	17	328	08
800	62·7	15	12	345	10
750		10	08	008	16
700	96·2	04	02	019	22
650		02	-08	032	25
600	13·4	-01	-26	040	23
550		-09	-39	040	24
500	17·8	-20	-49	033	22
450		-30	-57	043	23
400	22·9	-40	-60	045	23
350		-51		051	27
300	29·2	-60		056	27
250		-71		045	20
200	37·6	-70		011	08
170		-66		008	05
150		-64		008	04
130		-67		322	06
110	(117 mb)	-70			
100					
90					
80					
70					
60					
Inversion					
1008 mb 36°-997 mb 40°					
672 " -01°-650 " 02°					
Isothermal					
650-629 mb 2°					
Tropopause	II 242 mb -73° 33,700'				

STORNOWAY

Pressure: Time 09h. G.M.T. | M.S.L. 1017·4 mb | Surf 1015·7 mb | Freezing 930 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	33		
1000	04·5	38	37		
950		34	32		
900	32·4	28	26		
850		23	21		
800	62·8	18	15		
750		13	09		
700	96·5	08	04		
650		02	-04		
600	13·4	-07	-22		
550		-15	-33		
500	17·8	-24	-43		
450		-34	-54		
400	22·8	-43			
350		-53			
300	29·1	-63			
250		-70			
200	37·5	-67			
170		-68			
150	43·5	-68			
130		-69			
110		-69			
100	52·0	-69			
90		-69			
80		-68			
70		-68			
60					
Inversion					
1016 mb 35°-996 mb 39°					
Tropopause	I 243 mb -71° 33,400'				

LEUCHARS

Pressure: Time 09h G.M.T. | M.S.L. 1018·1 mb | Surf 1017·2 mb | Freezing 938 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	32	30		
1000	04·6	34	32		
950		33	29		
900	32·3	27	22		
850		21	18		
800	62·5	14	10		
750		07	02	See Page 3 for Winds	
700	99·6	03	-05		
650		01	-12		
600	13·4	-05	-21		
550		-13	-29		
500	17·7	-32	-40		
450		-30	-48		
400	22·8	-43			
350		-53			
300	29·0	-62			
250		-71			
200	37·5	-74			
170					
Inversion					
1017 mb 32°-994 mb 35°					
685 " 02°-674 " 03°					
Tropopause	I 250 mb -71° 32,800'				

ALDERGROVE

Pressure: Time 09h G.M.T. | M.S.L. 1016·5 mb | Surf 1007·5 mb | Freezing 930 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	2·6	36	33		
1000	4·6	37	34		
950		34	29		
900	32·4	29	22		
850		22	15		
800	62·8	16	11		
750		08	04		
700	96·1	05	-03		
650		03	-09		
600	13·4	-04	-18		
550		-11	-26		
500	17·8	-19	-34		
450		-27	-45		
400	22·9	-24	-52		
350		-43			
300	29·3	-57			
250		-69			
200	37·8	-68			
170		-65			
150	43·8	-63			
130		-64			
110		-64			
100	52·4	-64			
90		-64			
80		-65			
70					
60					
Inversion					
1008 mb 36°-995 mb 38°					
710 " 02°-690 " 09°					
Tropopause	I 230 mb -72° 34,800'				

LIVERPOOL

Pressure: Time 09h. G.M.T. | M.S.L. 1015·9 mb | Surf 1013·4 mb | Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	33	32	080	03
1000	04·1	34	31	092	09
950		32	23	116	08
900	31·6	28	18	132	08
850		19	15	117	08
800	61·7	14	11	087	14
750		06	02	078	14
700	95·0	12	-14	040	08
650		06	-24	020	09
600	13·3	-03	-32	015	05
550		-12	-38	218	01
500	17·7	-19	-43	253	12
450		-29	-53	276	13
400	22·8	-39	-59	286	09
350		-51		286	08
300	29·1	-63		287	11
250		-73		281	13
200	37·5	-65		315	10
170		-61		312	05
150	43·8	-63		291	07
130		-66		303	11
110		-67		310	08
100	(105 mb)	-66			
Inversion					
1013 mb 33°-1000 mb 34°					
722 " 01°-707 " 13°					
Isothermal					
520-500 mb -19°					
Tropopause	I 260 mb -74° 32,000'				

DOWNHAM MARKET

Pressure: Time 09h. G.M.T. | M.S.L. 1015·7 mb | Surf 1011·8 mb | Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	35	31	360	08
1000	04·1				
950		32	23	066	12
900	31·8	26	18	075	13
850		19	13	083	13
800	62·0	12	07	084	10
750		15	04	162	06
700	95·6	10	-09	205	07
650		03	-21	235	10
600	13·4	-01	-26	258	10
550		-07	-36	268	20
500	17·8	-15	-44	269	23
450		-27	-37	265	25
400	22·9	-39	-59	259	27
350		-50		207	18
300	29·2	-63		252	11
250		-73		258	09
200	37·6	-63		278	05
170		-64		286	07
150	43·7	-64		305	11
130		-64		323	13
Inversion					
1011 mb 35°-988 mb 37°					
788 " 10°-756 " 16°					
Tropopause	I 241 mb -75° 33700'				

LARKHILL

Pressure: Time 09h G.M.T. | M.S.L. 1014·4 mb | Surf 997·7 mb | Freezing 998 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	32	29	060	05
1000	03·8				
950		30	26	076	15
900	31·2	24	20	090	14
850		18	16	097	13
800	61·2	13	07	108	11
750		20	00	150	07
700	95·2	14	-06	154	03
650		05	-14	200	03
600	13·4	00	-22	229	08
550		-08	-24	213	12
500	17·7	-17	-26	206	16
450		-26	-33	207	24
400	22·9	-39	-46	216	27
350		-52		211	30
300	29·1	-63		208	22
250		-69		199	05
200	37·6	-65		301	08
170		-61		302	09
150	43·7	-59		309	15
130		-65			
110					
100					
90					
80					
70					
60					
Inversion					
807 mb 12°-757 mb 21°					
Tropopause	II 260 mb -69° 32,100'				

CAMBORNE

Pressure: Time 09h. G.M.T. | M.S.L. 1014·7 mb | Surf 1003·1 mb | Freezing 970 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	33	29	090	03
1000	03·7	33	29		
950		29	22	338	12
900	31·3	23	20	283	13
850		23	18	255	18
800	61·6	17	13	243	16
750		19	08	229	12
700	95·5	13	02	215	09
650		07	-06	194	08
600	13·4	00	-12	195	09
550		-06	-20	211	08
500	17·8	-17	-27	234	10
450		-27	-39	246	11
400	22·9	-37	-54	296	11
350		-43		324	19
300	29·3	-55		331	19
250		-65		305	10
200	37·9	-63		315	10
170		-61		305	15
150	43·9	-60		307	18
130		-60		308	18
110		-60		323	17
100	52·6	-61		318	15
90		-61			
80	(87 mb)	-61			
70					
60					
Inversion					
783 mb 15°-757 mb 20°					
376 " -12°-363 " -11°					
Isothermal					
1003-980 mb 33°					
950-900 " 29°					
Tropopause	II 247 mb -66° 33,500'				

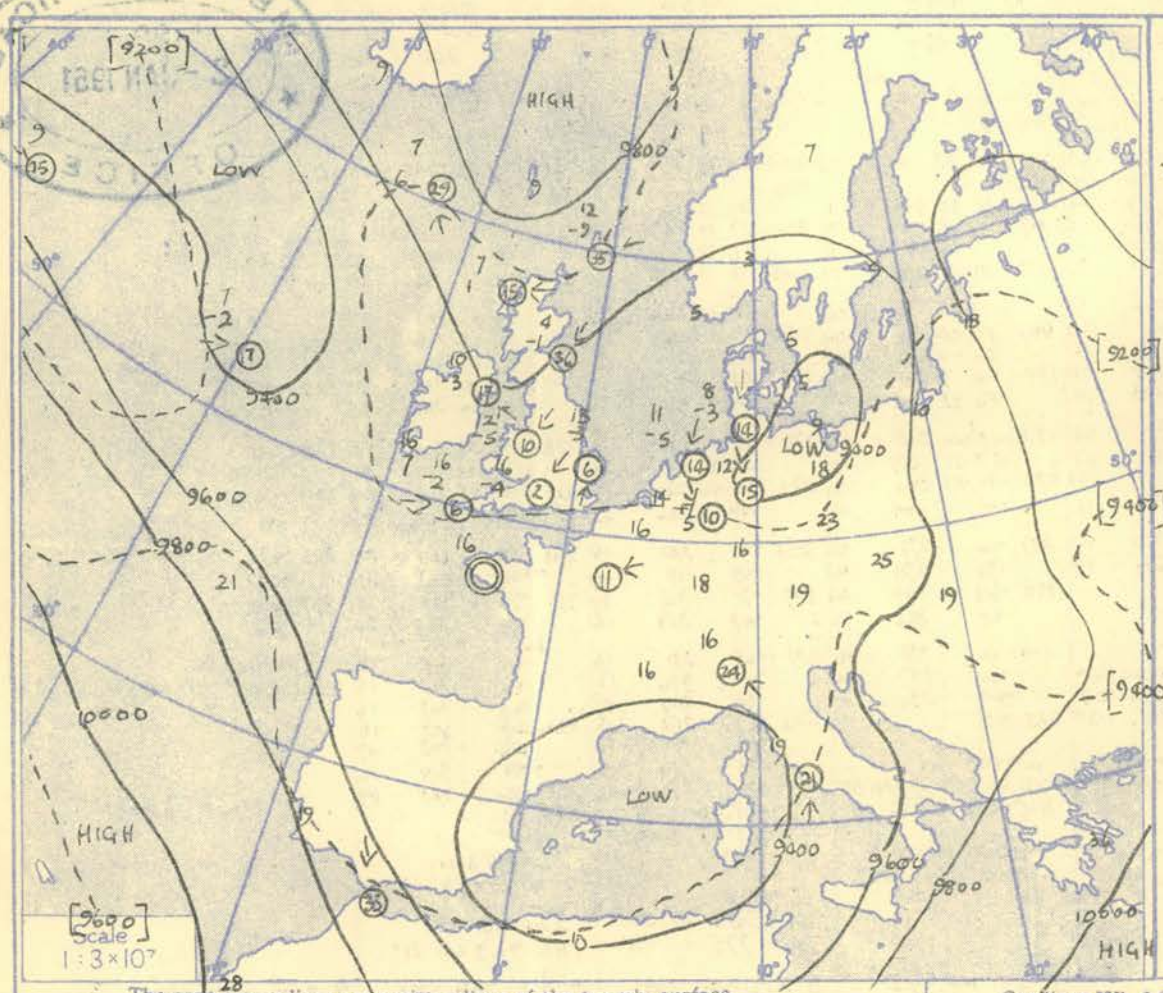
VALENTIA

Pressure: Time G.M.T. | M.S.L. mb | Surf mb | Freezing mb

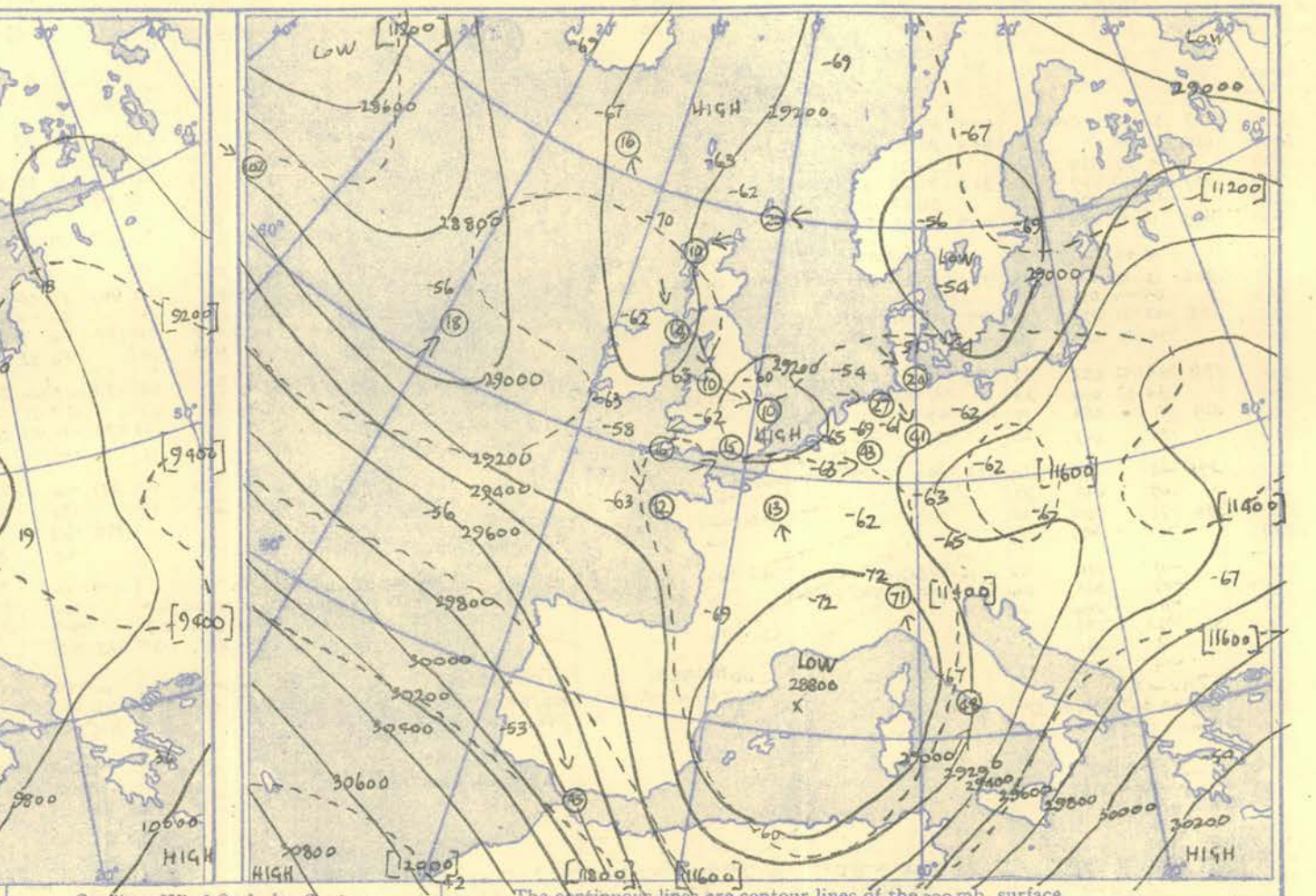
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf					
1000					
950					
900					
850					
800					
750					
700					
650					
600					
550					
500					
450					
400					
350					
300					
250					
200					
170					
150					
130					
110					
100					
90					
80					
70					
60					
Tropopause					

Sunday 29th December. 1950.

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



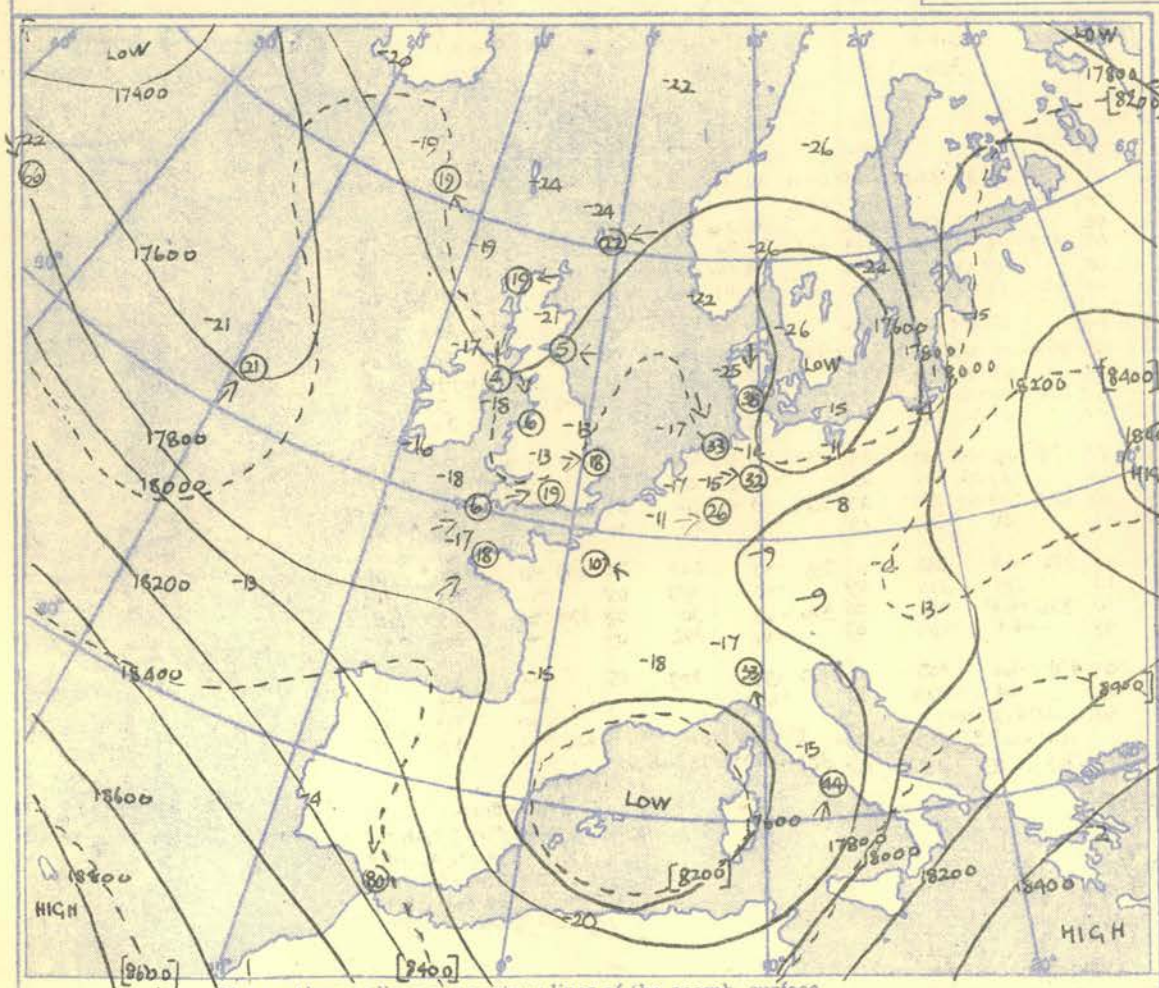
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 — 700 mb.



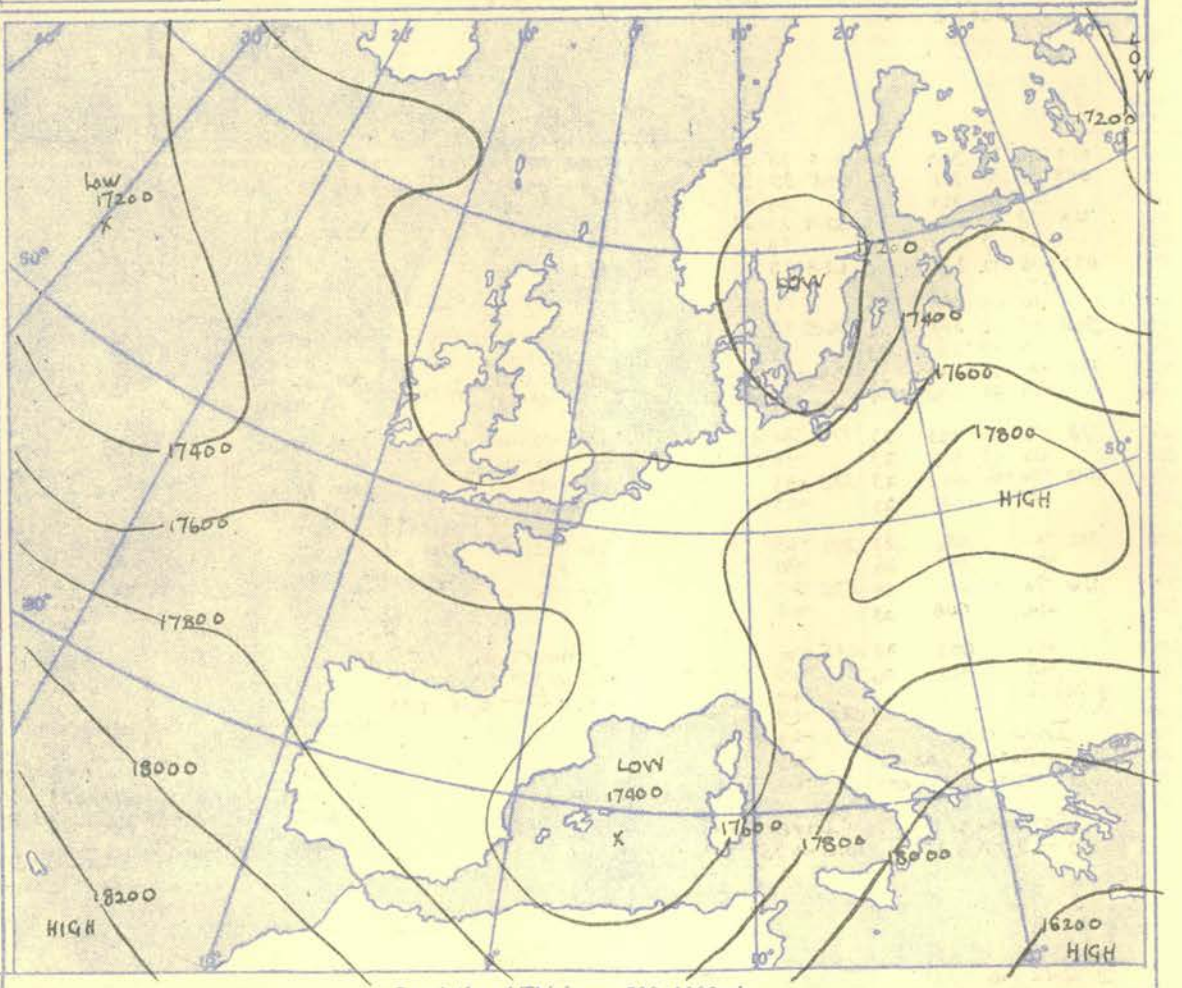
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew	Height ft./100	°F. Temp.	°F. Dew
Position	51·0N 15·9W			51·6N 12·8W			43·2N 17·0W			59·5N 12·2W		
Time	14h.			16h.			14h.			15h.		
Pressure M.S.L. mb	1010			1007·4			1020			1019		
Pressure Surf mb	1006·3			1003·7			1017			1016		
Pressure Freezing mb	905			900			820			855		
Surf	01·0	47	32	01·0	39	39		55			57	
1000	02·7			02·0			5·6	53		5·1	54	
950		39	33		34	34		44	43		46	45
900	30·7	30	30	29·8	31			39	25		39	39
850		24	20		28			33	33		31	31
800	61·1	19		60·5	23			31	24		32	22
750		13			18			27	18		32	20
700	94·8	06		94·5	12		999	22	16	100	24	
650		-01			02			19			15	
600	133	-11		133	-07			08			09	
550		-21			-14			-03			-01	
500	17·5	-31		176	-26		183	-15		184	-11	
450												
400												
350												
300												
250												
200												
170												

51·0N 15·9W: Cloud 4/8 Cu 980-800mb; 4/8 AC 620-580mb

51·6N 12·8W: Cloud 8/8 NS 920-670mb; 7/8 Ac 560-500mb

43·2N 17·0W: Cloud 5/8 Cu 960-800mb; 6/8 Sc 850-870mb. Surface Wind N'N'ly 11-16Kts

59·5N 12·2W: Cloud 2/8 Cu 930-800mb; 7/8 Sc 890-840 mb. Surface Wind N'ly 3-6Kts. Inversion 850mb 31°- 800.. 32°. Isothermal 800-750mb 32°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Liverpool		Leuchars		Leuchars	
Time	03h.		03		09h.	
Type						
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			060	02	CALM	
1,000			064	07	031	04
2,000			072	09	033	05
3,000			077	09	042	05
4,000			078	11	043	05
5,000			077	11	043	05
6,000			074	11	039	04
8,000			068	06	038	06
10,000			008	03	112	04
14,000			060	09	343	07
18,000			093	05	060	07
24,000			084	05	075	12
30,000			084 (28,000')	06	060	09
40,000	329	12			338	03
50,000	300	19			317	07
	307 (52,000')	07				

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S L.) FROM SHIPS.

WEATHER RECORDER — 52·7N 19·2W. Time 03h G.M.T.; Pressure M.S.L. 1004 mb; Surf 1004 mb; Freezing 890 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		46	43	270	30
1000	1·1	46	43	270	33
950		39	36	274	38
900	29·3	33	31	274	39
850		26	24	275	38
800	59·9	20	17	274	31
750		14	10	272	29
700	93·6	07	02	259	17
650		01	-04	233	16
600	132	-03	-15	192	25
550		-10	-25	192	28
500	175	-21	-36	187	21
450		-32	-47	143	21
400	226	-41		159	22
350		-48		176	21
300	289	-56		173	18
250		-61		202	16
200	375	-64		226	20
170		-62		237	21
150		-65		264	26
130		-61		298	27
110		-67		290	33
100	522	-70		286	33
90		-71		272	33

Isothermal. 658-638mb 1°. Inversion 295mb -57° 285mb -56°.
Tropopause: II 213mb -67°. 36,200

WEATHER RECORDER — 52·6N 20·8N. Time 09h G.M.T.; Pressure M.S.L. 1007 mb; Surf 1007 mb; Freezing 920 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		44	38	270	35
1000	1·9	44	38		
950		37	31	296	42
900	29·9	29	25	296	45
850		23	19	306	47
800	60·3	17	12	310	42
750		11	05	306	39
700	93·8	04	-02	293	40
650		-03	-12	294	39
600	131	-09	-16	288	28
550		-19	-27	285	15
500	174	-29	-40	317	21
450		-37	-50	320	20
400	224	-45		298	22
350		-52		286	24
300	287	-58		294	27
250		-62		282	30
200	373	-63		292	24
170		-63		276	33
150		-64		272	18
130		-65		276	22
110		-67		266	24
100	519	-69		266	24
90		-71		270	22
80		-76			

Isothermal. 1007-1000mb 44°; 835-824" 20°; 476-465" -35°; 410-400" -45°.
Tropopause: II 287mb -60°. 29,700

WEATHER RECORDER. — 52·6N 20·5W. Time 15h G.M.T.; Pressure M.S.L. 1011 mb; Surf 1011 mb; Freezing 915 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		46	43	310	32
1000	3·0	44	41	310	39
950		37	33	310	44
900	31·1	30	26	310	47
850		26	19	316	44
800	61·6	19	12	319	40
750		13	05	317	36
700	95·3	08	-01	314	30
650		02	-03	313	28
600	133	-06	-12	318	33
550		-14	-20	330	29
500	176	-24	-31	335	23
450		-32	-40	346	23
400	227	-41		006	25
350		-51		003	35
300	290	-57		350	31
250		-60		335	33
200	377	-63		328	36
170		-61		329	31
150		-59		327	27
130		-63		323	20
110		-64		284	23
100	524	-62		280	24
90		-63			
80	(88mb)	-64			

Tropopause: II 320mb -56°. 27,700

WEATHER RECORDER — 52·7N 20·7W. Time 21h G.M.T.; Pressure M.S.L. 1016 mb; Surf 1016 mb; Freezing 900 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		46	45	310	30
1000	4·2	44	44	320	51
950		39	39	322	48
900	32·3	33	33	328	45
850		28	28	337	40
800	631	24	24	339	37
750		19	11	337	30
700	97·3	14	11	339	24
650		07	-01	339	25
600	136	-02	-10	337	32
550		-12	-20	339	36
500	179	-23	-32		
450		-29	-41		
400	230	-39	-54		
350		-51			
300	293	-51			
250		-68			
200	378	-71			
170		-71 (185mb)			

Tropopause: II 235mb -70°

WEATHER EXPLORER — 61·0N 14·0W. Time 03h G.M.T.; Pressure M.S.L. 1020 mb; Surf 1020 mb; Freezing 910 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		46	33	120	18
1000	5·3	44	29	134	23
950		37	26	138	23
900	33·3	29	20	142	35
850		22	14	144	29
800	63·7	21	06	143	29
750		14	-01	142	31
700	97·4	07	-06	141	29
650		06	-11	141	28
600	136	00	-17	141	27
550		-09	-27	136	23
500	179	-19	-36	106	19
450		-29	-45	084	19
400	231	-40	-52	094	21
350		-53		143	13
300	293	-67		154	16
250		-74		134	14
200	377	-71		139	05
170		-67		253	11
150		-67		251	13
130		-69		238	09
110		-68		173	03
100	521	-68		258	12
90		-71		271	17
80		-72		288	23
70		-73		267	09
60		-75		273	10
		-77		283	16
		-80		269	32
	(33mb)	-82			

Inversion. 824mb 21°- 807mb 22°; 678" 3°- 650" 6°.
Tropopause: II 276mb -74°. 31,100

WEATHER EXPLORER — 61·0N 14·1W. Time 09h G.M.T.; Pressure M.S.L. 1021 mb; Surf 1021 mb; Freezing 905 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		46	35	075	15
1000	5·6	44	36	081	14
950		38	33	100	15
900	33·6	31	24	099	16
850		25	19	095	12
800	64·2	20	15	105	12
750		14	09	113	22
700	97·9	09	00	126	28
650		03	-12	121	24
600	136	-03	-16	111	21
550		-12	-24	109	19
500	179	-22	-32	117	14
450		-33	-42	113	13
400	230	-44		093	11
350		-57		039	06
300	292	-72		122	14
250		-81		175	16
200	375	-74		256	04
170		-71		177	05
150		-72		166	07
130		-73		220	07
110		-75		290	09
100	517	-77		286	09
90		-78		284	12
80		-80		275	13
70		-82		253	18
60	(50mb)	-84		272	23

Isothermal. 717-700mb 9°.
Tropopause: I 266mb -51°. 31,800

WEATHER EXPLORER. — 61·0N 14·2W. Time 15h G.M.T.; Pressure M.S.L. 1023 mb; Surf 1023 mb; Freezing 915 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		45	34	070	18
1000	6·1	43	31	079	18
950		36	26	081	21
900	34·0	30	20	078	22
850		30	11	078	16
800	64·6	23	03	102	22
750		15	00	112	30
700	98·4	08	-03	120	26
650		00	-16	125	22
600	136	-03	-23	114	20
550		-13	-27	101	21
500	180	-22	-37	113	16
450		-32	-48	118	16
400	231	-42		110	08
350		-56		116	09
300	293	-67		100	12
250		-77		088	12
200	376	-73		134	03
170		-70		308	08
150		-69		307	10
130		-67		308	13
110		-69		301	09
100	521	-67		337	09
90		-67		349	09
80		-69		315	09
70		-72		300	10
60		-73		002	21
		-75		001	22
	(43mb)	-75			

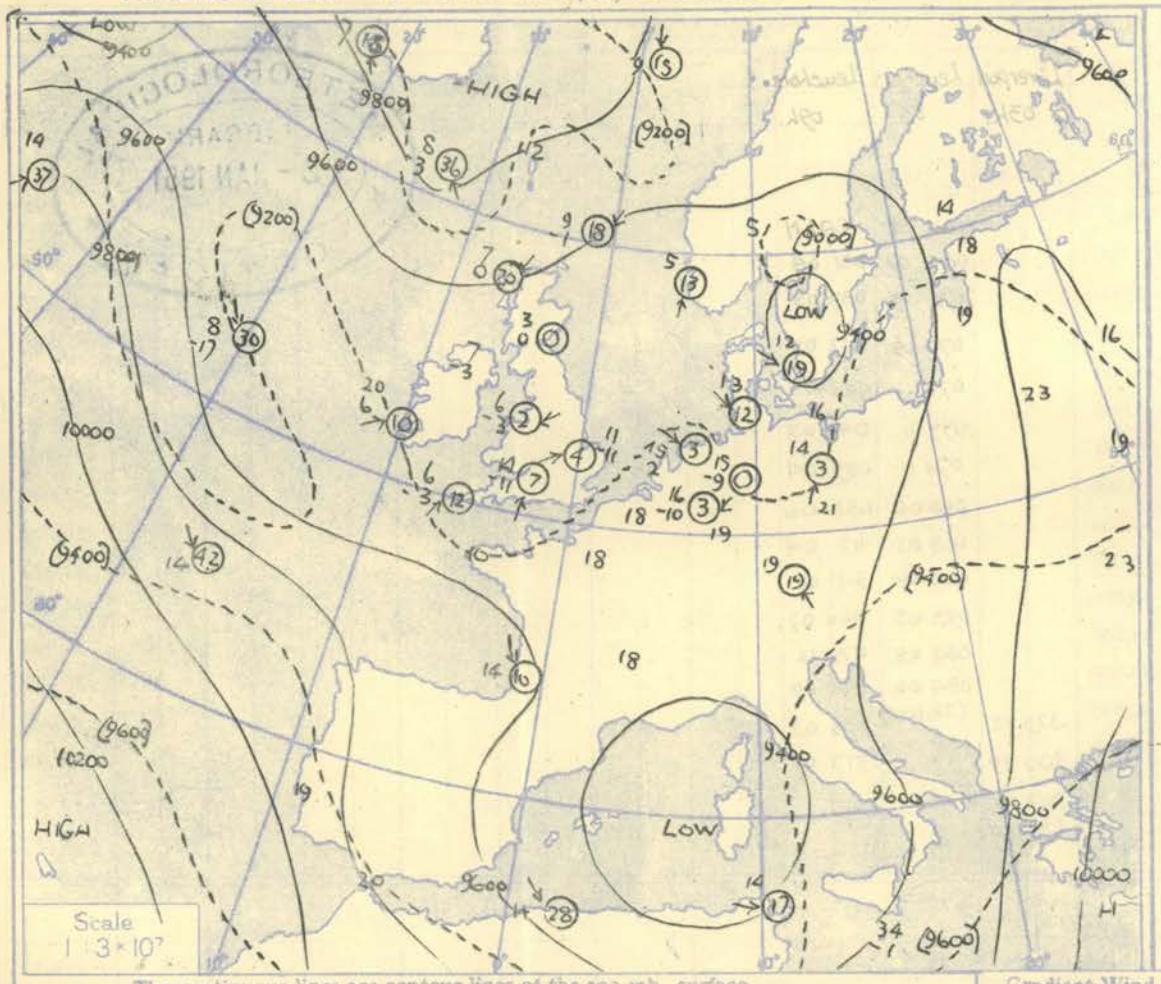
Inversion. 873mb 27°- 856mb 31°.
Tropopause: II 250mb -77°. 33,200

WEATHER EXPLORER — 61·0N 14·1W. Time 21h G.M.T.; Pressure M.S.L. 1025 mb; Surf 1025 mb; Freezing 920 mb

Pressure mb	Height ft./100	°F. Temp.	°F. Dew	Wind Dir. °	Wind Vel. knots
Surf		45	34	070	14
1000	6·8	41	30	074	17
950		35	25	076	15
900	34·6	30	20	080	13
850		28	13	073	13
800	65·2	23	03	067	12
750		14	-02	062	10
700	99·0	06	-06	063	10
650		-01	-13	068	09
600	137	-07	-20	075	11
550		-15	-29	087	11
500	180	-24	-39	096	11
450		-35	-51	102	10
400	231	-46		103	09
350		-57		108	09
300	292	-69		125	08
250		-75		128	07
200	376	-71		222	05
170		-68		250	08
150		-68		257	10
130		-68		265	11
110	(114mb)	-68			

Isothermal. 850mb-837mb 28°; 673 - 663" 1°.
Tropopause: I 256mb -76°. 32,600

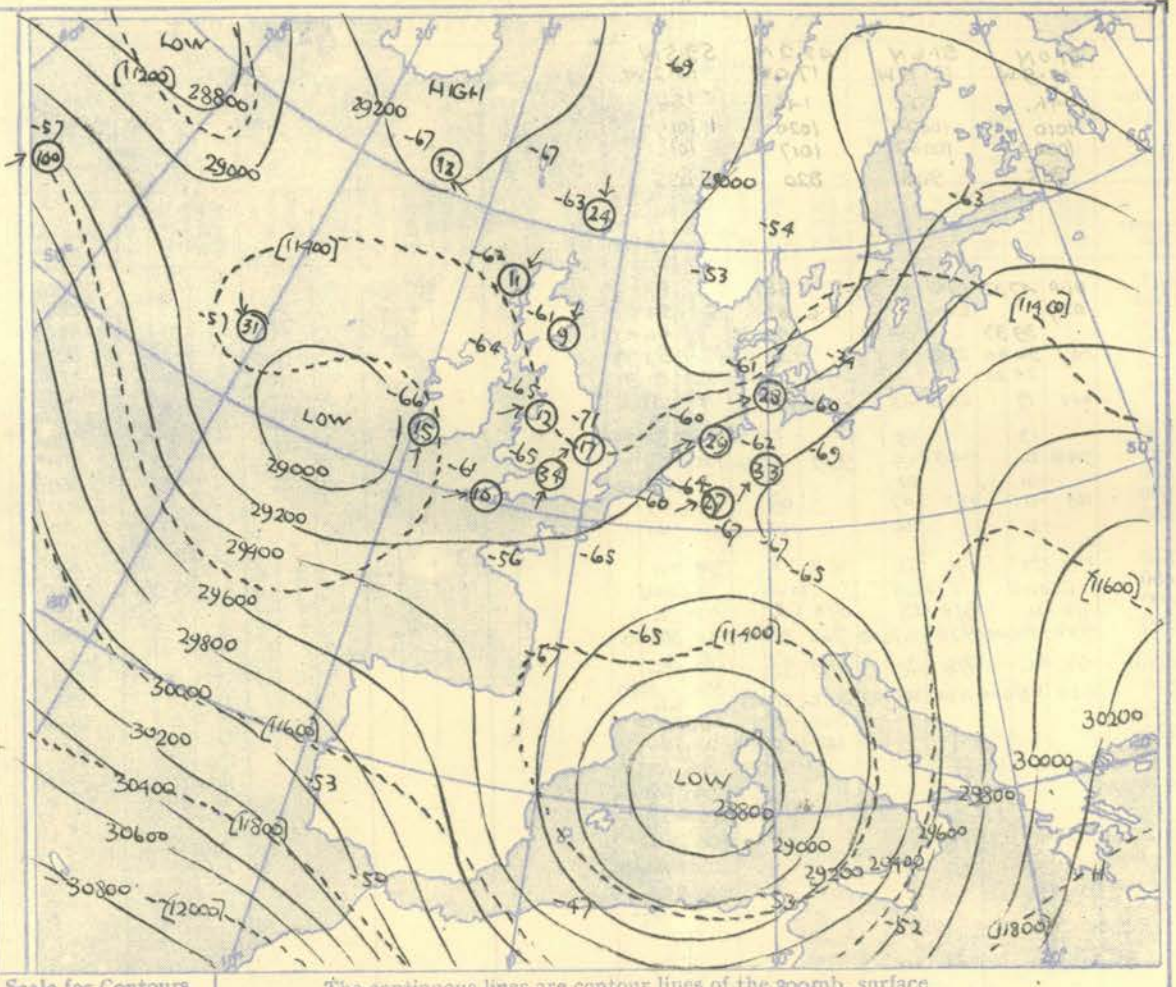
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

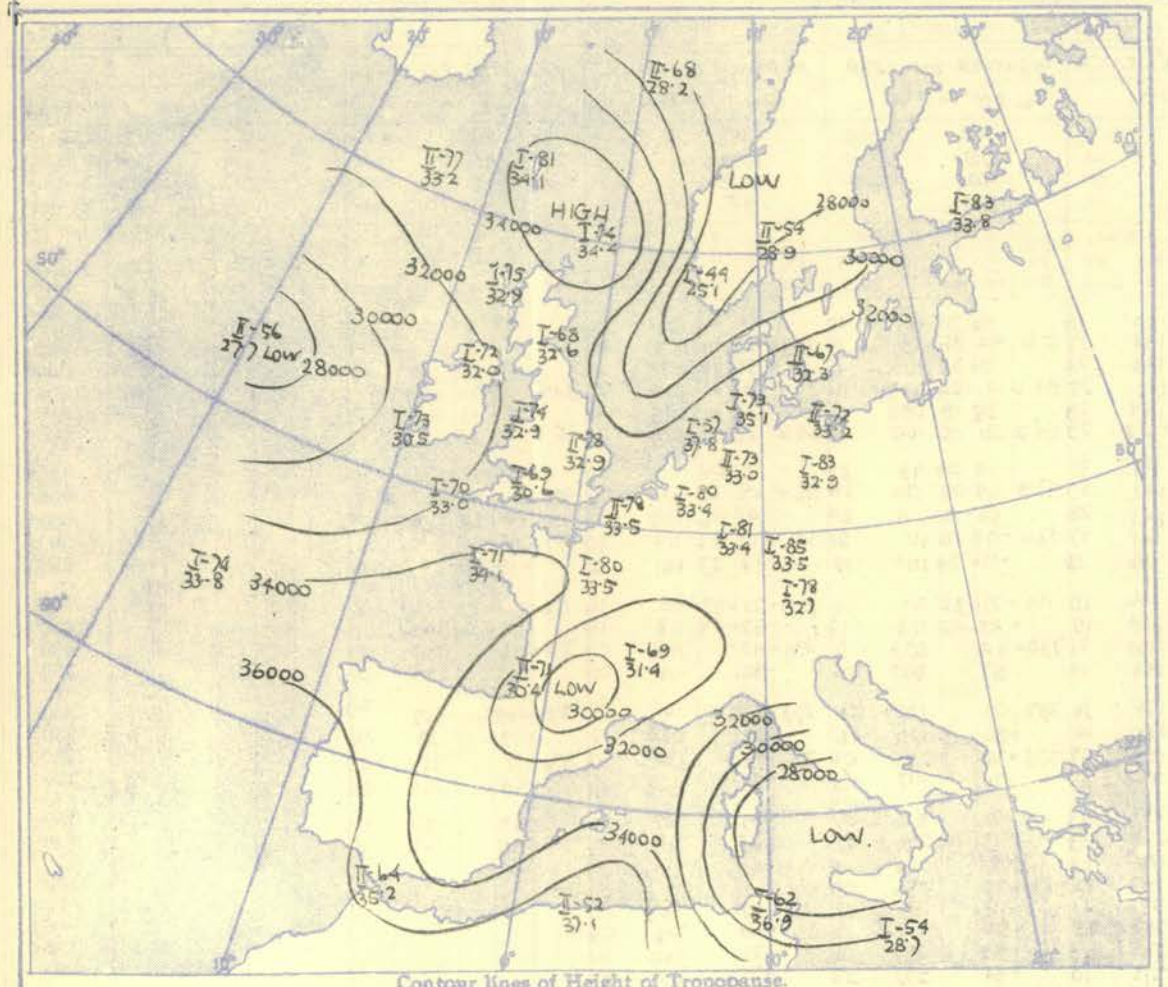
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 20 10 5 1 0 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Cold pool over South Sweden moved slowly north northwest, otherwise no general change.

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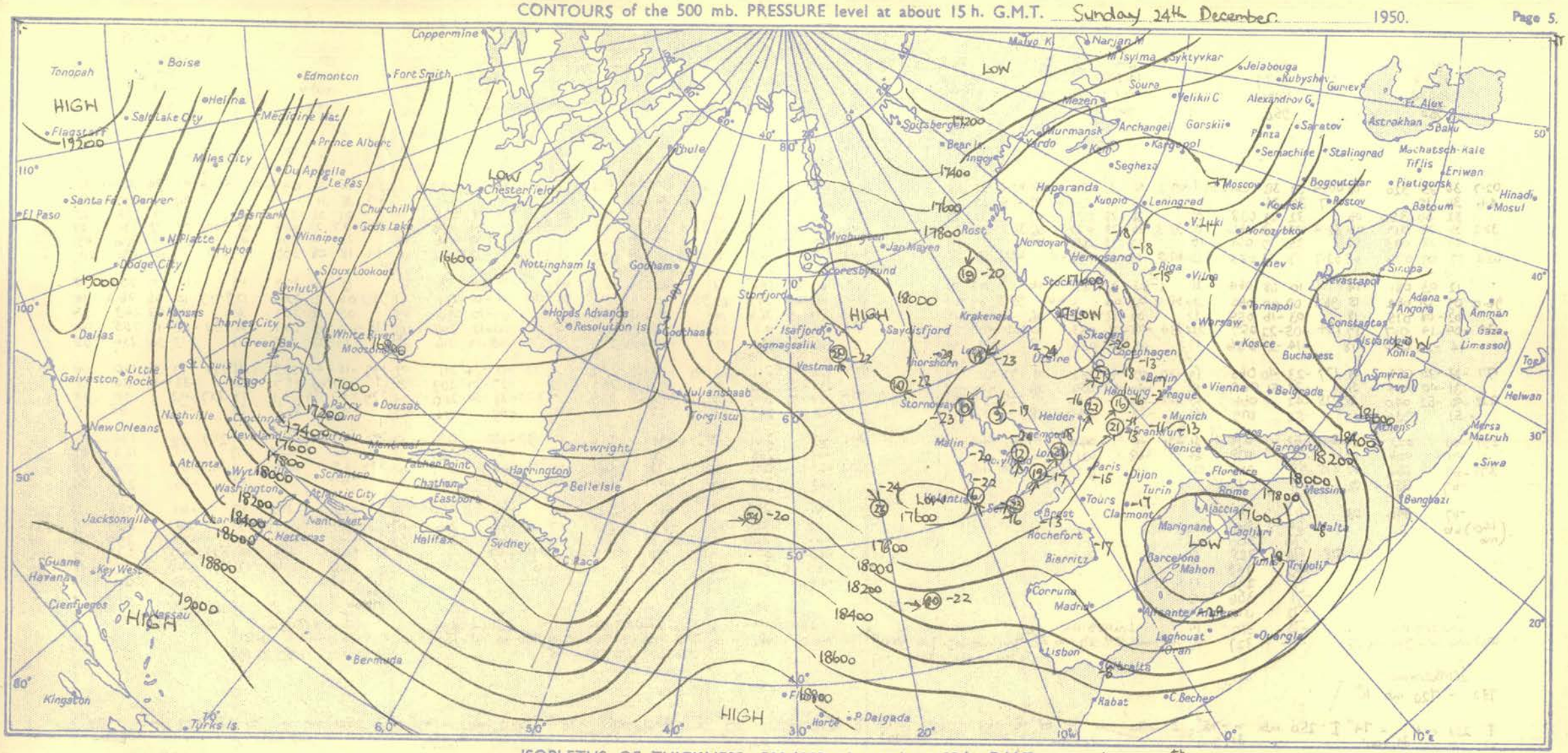
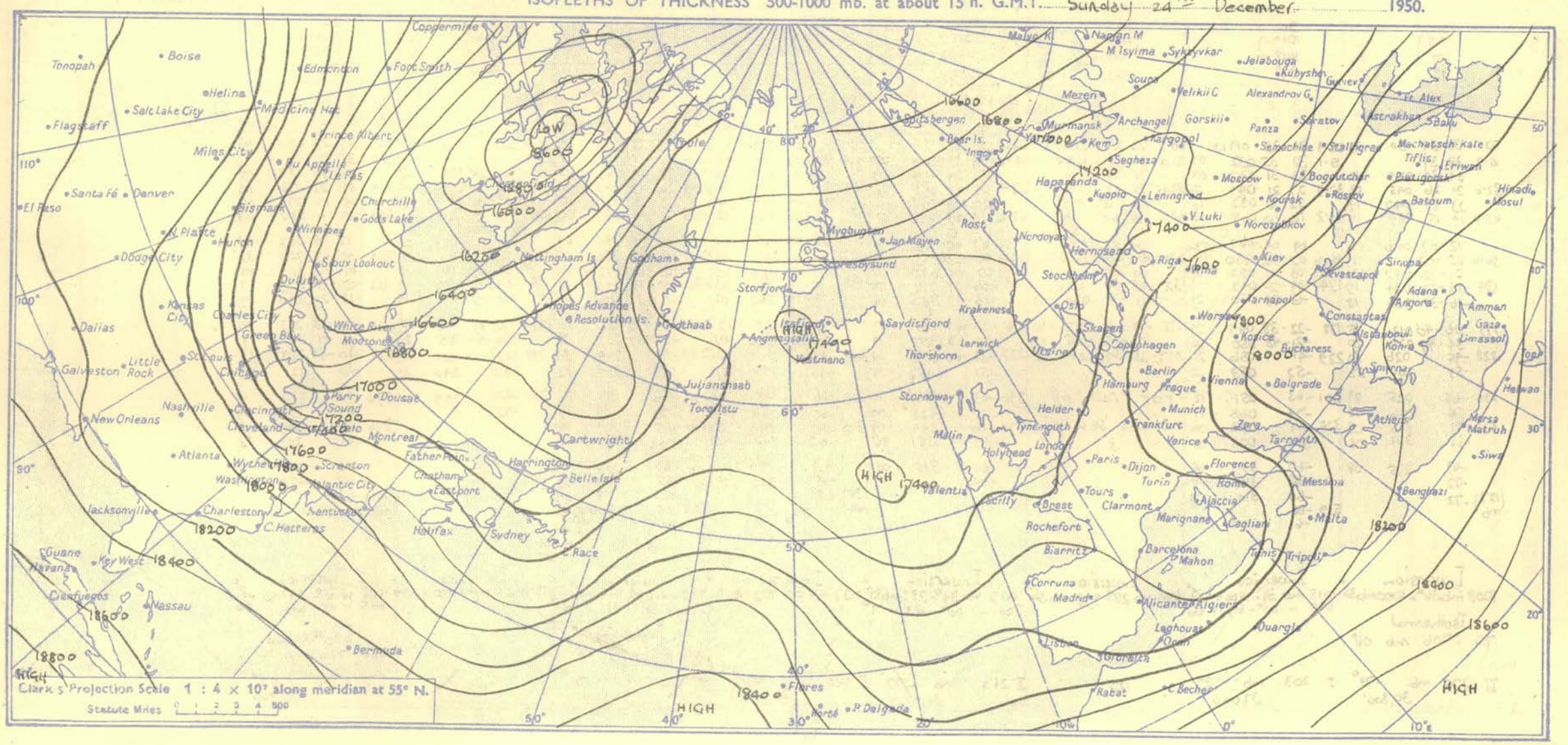
CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Sunday 24th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 24th December 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	1017·6 mb	1017·9 mb	1018·0 mb	1018·6 mb	1015·7 mb	1016·5 mb	1014·7 mb	1013·8 mb	1010·0 mb
Pressure: Surf	1007·3 mb	1016·2 mb	1017·1 mb	1006·9 mb	1013·6 mb	1012·1 mb	998·2 mb	1003·0 mb	1009 mb
Pressure: Freezing	950 mb	950 mb	961 mb	950 mb	959 mb	952 mb	967 mb	955 mb	925 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	36	35	320	08	00·4	39	38	CALM		00·2	32	31	280	03	02·6	38	34		
1000	4·6	36	35			4·7	35	34			4·6	33	31	024	07	4·4	37	33	080	06
950		32	30	350	06		32	29	038	05		31	28	023	07		32	28		
900	32·2	26	24	017	06	32·4	28	25	066	07	32·3	26	23	021	05	32·2	26	22		
850		21	18	043	07		23	19	061	10		22	14	021	05		21	14		
800	62·4	17	09	070	07	62·7	17	13	055	15	62·5	14	06	LAV		62·3	15	08		
750		12	03	081	14		10	08	064	20		08	02	211	06		07	01		
700	96·0	09	-01	082	18	96·1	07	00	064	20	96·0	03	00	LAV		95·8	07	-03		
650		02	-08	075	18		03	-16	055	22		00	-12	077	06		-01	-15		
600	134	-04	-14	067	17	134	-05	-22	057	20	134	-05	-26	053	10	133	-07	-23		
550		-14	-22	060	18		-14	-29	056	17		-11	-36	033	08		-13	-30		
500	177	-28	-30	054	19	177	-23	-40	060	19	177	-19	-44	032	09	177	-20	-39		
450		-31	-40	044	21		-33	-51	065	18		-30	-53	059	06		-27	-49		
400	228	-40	-52	040	25	228	-42		064	17	228	-42		047	08	228	-37	-59		
350		-51		034	22		-52		079	14		-52		042	08		-50			
300	291	-63		023	24	291	-62		075	11	291	-61		040	09	291	-64			
250		-71		006	19		-75		078	13		-68		021	10		-67			
200	375	-69		360	08	375	-75		085	06						376	-65			
170		-67		350	02		-71		LAV											
150		-67		340	03		-68		LAV											
130	(140 mb)	-66					-69		309	06										
110							-70		300	05										
100						518	-70		285	06										
90							-69		298	13										
80							-70		296	17										
70							-71		306	18										
60							-72		310	15										
							-73		310	14										
							-74		321	12										
Tropopause	I 253 mb -74° 34,900'					I 250 mb -75° 32,900'					I 250 mb -68° 22,900'					I 261 mb -72° 32,000'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. Vel. ° knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	00·6	38	35	CALM		01·2	37	34	355	08	04·4	33	32	CALM	02·9	38	31	CALM		00·3	41	34	086	12
1000	4·2	36	33			4·4	36	33			2·5				3·7	38	31			2·7	40	33	092	12
950		31	27	083	04		32	27	030	09		31	28	088	19		31	26	129	12		35	28	128	12
900	31·8	25	21	123	03	32·1	26	18	063	09	30·0	27	24	098	09	31·4	27	23	214	08	30·6	29	20	171	09
850		19	15	103	01		19	15	081	11		21	19	036	09		20	16	290	07		25	18	206	09
800	61·9	14	09	103	11	62·2	11	09	083	13	61·2	15	13	112	06	61·6	18	08	302	15	61·1	22	15	230	10
750		09	04	105	12		15	04	113	04		16	11	196	05		12	01	292	14		16	11	254	10
700	95·3	06	-05	089	02	95·7	11	-11	236	09	950	14	-01	191	07	95·2	06	-03	233	12	94·9	10	06	262	10
650		07	-18	266	06		06	-15	265	11		07	-10	190	09		05	-18	207	16		02	-03	263	13
600	139	00	-28	108	03	134	-02	-24	261	15	133	00	-12	209	13	133	-02	-29	224	16	133	-05	-11	255	10
550		-10	-36	189	08		-08	-27	252	21		-08	-17	216	20		-10	-33	242	18		-13	-20	226	05
500	177	-20	-48	211	12	178	-18	-32	237	21	177	-17	-24	211	19	177	-18	-40	253	23	176	-22	-30	160	06
450		-27	-52	216	12		-27	-38	247	25		-27	-37	209	25		-27	-48	257	25		-33	-41	130	13
400	229	-38	-58	224	07	229	-39	-50	239	27	223	-38	-50	200	34	229	-37	-57	263	18	227	-42		128	18
350		-51		272	07		-55		239	28		-49		196	42		-47		268	14		-51		156	10
300	291	-65		261	12	291	-71		230	17	292	-65		193	34	292	-61		264	10	289	-66		170	15
250		-74		268	12		-78		216	15		-67		224	12		-70		253	07		-65		122	07
200	376	-67		296	12	374	-72		263	09	394	-68		277	10	377	-65		284	11	375	-62		276	16
170		-62		318	09		-65		300	10		-65		292	11		-61		301	13		-60		284	09
150		-61		264	08		-65		318	06		-62		285	08		-62		302	15		-61		285	18
130		-62		260	09		-67		292	07		-62		266	07		-64		301	13		-62		294	09
110		-65		306	11		-68		280	08		-65		271	09		-66		292	14		-66		290	13
100	522	-65		308	14	519	-70		283	10	541	-67				523	-65		298	15	522	-67		273	14
90		-63		327	12		-73				95 mb	-68					-66		305	17		-66		298	12
80		-64														(82 mb)	-68					-66		304	12
70																						-68		289	12
60																					(65 mb)	-69			
	Inversion 741 mb 06°-710 mb 09° 261 " -72°-248 " -61°					Inversion 778 mb 08°-760 mb 16° 270 " -76°-258 " -75°					Inversion 780 mb 13°-750 mb 16°					Inversion 845 mb 19°-830 mb 21° 697 " -05°-678 " 09°									
Tropopause	I 250 mb -74° 32,900'					I 250 mb -78° 32,850'					I 280 mb -69° 30,600'					I 250 mb -70° 33,000'					I 279 mb -73° 30,500'				

21h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1018·7 mb	1019·7 mb	1019·5 mb	1018·2 mb	1017·1 mb	1017·8 mb	1016·7 mb	1014·8 mb	mb
Pressure: Surf	1008·3 mb	1018·0 mb	1018·6 mb	1008·5 mb	1015·0 mb	1013·5 mb	998·9 mb	1002·9 mb	mb
Pressure: Freezing	932 mb	978 mb	962 mb	960 mb	1000 mb	949 mb	1000 mb	910 mb	mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots
Surf	02·7	36	34	030	09	00·4	34	33	CALM		00·2	28	27	CALM		02·6	34	32	CALM	
1000	4·9	38	31			5·1	38	35	032	09	5·0	34	33	LAV		4·8	34	32	140	06
950		34	32	045	12		33	31	032	08		31	28	"			31	28	124	09
900	32·6	29	26	045	09	32·9	27	21	041	10	32·6	25	22	"		32·4	26	22	098	13
850		23	20	047	14		22	16	052	13		20	15	"			20	09	086	15
800	03·0	19	15	049	18	63·2	16	10	065	15	62·8	15	09	"		62·6	14	03	096	12
750		12	07	046	13		09	04	062	18		08	02	"			07	00	102	16
700	96·6	05	-02	039	17	96·6	02	-02	050	25	94·0	02	-01	"		95·9	00	-03	075	15
650		01	-12	042	21		03	+10	052	28		00	-05	"			-02	-18	055	08
600	139	-08	-22	034	19	134	-04	-20	049	24	132	-05	-14	LAV		133	-06	-27	018	05
550		-16	-31	026	18		-13	-29	040	21		-11	-25	070	11		-13	-37	335	06
500	177	-26	-40	013	15	178	-22	-38	049	24	175	-17	-33	047	10	176	-20	-47	018	01
450		-34	-47	020	20		-31	-48	050	21		-26	-45	025	08		-29	-53	352	12
400	228	-45		026	30	229	-41		056	21	227	-35	-57	024	08	227	-38	-60	332	14
350		-57		030	32		-52		053	20							-51		327	14
300	290	-68		025	27	291	-63		051	18	For rest of					290	-63		318	10
250		-74		016	18		-74		068	17	winds see page						-72		322	04
200	374	-71		346	08	375	-71		072	06	3					374	-66		344	08
170		-68		314	08		-69		005	10							-64		351	08
150		-69		275	08		-67		339	08							-64		335	09
130		-72					-68		310	06							-65			
110	(127 mb)	-72					-60		310	09										
100						519	-60													
90							-61													
80																				
70																				
60																				
	Inversion 1008 mb 36°-1000 mb 38°					Inversion 1018 mb 34°-1000 mb 38° 687 " 00°-677 " 06°					Inversion 1019 mb 28°-998 mb 36°					Inversion 1009 mb 34°-982 mb 35° 700 " 00°-665 " 09°				
	Isothermal 716 - 706 mb 08°																			
Tropopause	III 274 mb -73° 30,800'					I 203 mb -78° 37,000'					HR.					II 262 mb -72° 31,900'				

Pressure mb	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. Vel. ° knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots
Surf	00·6	33	29	CALM		01·2	35	33	010	05	04·4	32	31	060	05	02·9	35	32	090	05
1000	4·5	32	28	101	12	4·8	35	33			4·3					3·6	35	32		
950		29	27	109	13		32	29	062	13		30	26	084	07		86	29	138	19
900	32·1	25	21	103	11	32·5	26	22	083	10	318	25	21	058	09	31·4	81	23	156	09
850		19	14	084	10		19	15	072	10		20	17	087	10		25	17	271	06
800	62·3	13	08	116	12	62·5	12	09	057	06	61·9	13	12	086	06	61·8	19	11	282	05
750		05	00	095	08		15	10	281	02		16	11	153	03		12	08	308	13
700	95·6	11	-01	287	05	96·1	11	-03	280	05	95·5	10	-02	180	08	98·4	08	03	308	32
650		01	-19	260	05		03	-10	272	09		05	-09	189	11		01	-02	302	26
600	134	-05	-28	250	05	134	-03	-19	245	13	134	-04	-11	199	14	133	-03	-13	279	17
550		-14	-29	242	07		-11	-22	243	15		-13	-19	198	18		-13	-21	280	19
500	177	-24	-41	218	12	178	-22	-29	231	18	177	-22	-33	212	21	177	-21	-38	215	09
450		-33	-51	240	03		-29	-37	208	25		-30	-46	215	23		-30	-37	227	17
400	228	-41		001	06	229	-41		209	33	228	-42		221	29	228	-40	-45	219	13
350		-53		343	07		-54		204	23		-52		240	28		-53		221	07
300	290	-66		308	07	291	-66		197	36	291	-60		259	21	290	-64		223	10
250		-69		286	07		-70		208	16		-72					-67		232	09
200	375	-63		310	07	376	-65		297	06						376	-61		303	08
170		-62		319	05		-62		261	05							-61		301	12
150		-63		299	07		-63		289	07							-60		318	11
130		-65		320	07		-65		295	07							-63		296	14
110	(125 mb)	-65					-67		305	09						(117 mb)	-63			
100						522	-68		306	09										
90							-69													
80																				
70																				
60																				
	Inversion 782 mb 09°-750 mb 15° 500 " -22°-485 " -21°					Inversion 770 mb 09°-750 mb 16°					Inversion 1003 mb 35°-967 mb 38° 645 " 00°-634 " 02°									
	Isothermal 1013-966 mb 35°										Isothermal 733-720 mb 10°									
Tropopause	I 284 mb 30,250' -75°					I 260 mb -71° 32,000'					HR.					I 276 mb -69° 30,700'				

HMSO Press, MO, Dunstable.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK — Time 03h G.M.T.; Pressure M.S.L. 1020.0 mb; Surf 1009.7 mb; Freezing 926 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.7	34	32	020	08
1000	05.2	40	37		
950		35	30	026	15
900	33.1	28	23	029	17
850		26	12	030	19
800	63.5	20	05	028	21
750		13	08	025	21
700	97.2	07	02	024	21
650		00	-04	026	21
600	13.5	-08	-14	022	16
550		-17	-25	019	10
500	17.8	-23	-31	024	10
450		-29	-38	029	18
400	22.9	-41		026	30
350		-52		019	33
300	29.2	-63		020	31
250		-72		010	24
200	37.6	-70		335	11
170		-65		316	07
150		-67		318	10
130	(3.8mb)	-69			

Inversion 1010 mb 34°-1005mb 40°

Tropopause: I 263mb -72° 32,000'

STORNOWAY — Time 03h G.M.T.; M.S.L. 1021.5 mb; Surf 1019.8 mb; Freezing 947 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00.4	32	30	CALM	
1000	05.6	39	36	044	09
950		33	30	043	09
900	33.4	27	20	042	09
850		21	16	044	09
800	63.6	15	11	047	08
750		07	03	052	11
700	97.0	07	-12	058	16
650		00	-23	062	21
600	13.5	-07	-21	060	19
550		-16	-24	059	17
500	17.8	-26	-39	055	16
450		-34	-45	045	21
400	22.8	-44		048	22
350		-55		048	26

Inversion 1020 mb 32°-1000mb 39°; 731 " 04°-707 " 03°

Tropopause: N.R.

LEUCHARS — Time 03h G.M.T.; M.S.L. 1020.7 mb; Surf 1019.8 mb; Freezing 960 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	002	27	25	CALM	
1000	054	34	33	L+V	
950		31	29	"	
900	33.1	26	20	"	
850		21	12	"	
800	633	14	05	"	
750		07	-02	"	
700	970	01	-12	"	
650		-02	-14	064	10
600	134	-08	-20	081	09
550		-15	-28	073	08
500	177	-24	-39	050	07
450		-33	-48	038	16
400	228	-43		029	09
350		-54		031	11
300	290	-63		032	15
250		-69		027	12
200	375	-70		353	09
170		-63		318	05
150	435	-65		319	07
130		-67		330	10
110		-67		331	11
100	520	-67			

Inversion 1020mb 27°-994mb 36°

Tropopause: II 270 mb -68° 31200'

ALDERGROVE — Time 03h G.M.T.; M.S.L. 1020.0 mb; Surf 1010.4 mb; Freezing 954 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.6	35	33	CALM	
1000	05.3	35	33		
950		31	28	055	07
900	33.0	26	22	069	09
850		22	15	076	08
800	63.3	16	06	079	10
750		08	02	074	11
700	970	00	-03	072	12
650		00	-07	070	10
600	134	-05	-25	066	10
550		-12	-35	062	12
500	178	-20	-46	059	13
450		-30	-55	045	13
400	229	-40	-60	032	10
350		-50		359	12
300	292	-61		344	12
250		-69		004	13
200	375	-67		347	08
170		-64		340	08
150	437	-63		339	10
130		-64		335	06
110		-66			
100	521	-67			
90		-68			

Inversion 1010mb 35°-980mb 36°; 689 " -01°-665 " 01°; 261 " -70°-250 " -69°

Tropopause: I 235 mb -73° 32,000'

LIVERPOOL — Time 03h G.M.T.; M.S.L. 1018.5 mb; Surf 1016.4 mb; Freezing 970 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00.6	33	30	CALM	
1000	04.9	35	32	108	13
950		30	26	112	11
900	325	21	20	106	07
850		20	16	103	07
800	625	13	08	103	10
750		06	01	105	11
700	958	08	01	120	06
650		03	-10	192	03
600	134	-05	-17	157	03
550		-14	-26	231	04
500	17.7	-24	-34	246	06
450		-32	-44	261	06
400	228	-41		310	09
350		-51		302	10
300	290	-64		298	12
250		-69		305	09
200	375	-65		313	04
170		-62		322	09
150		-64		317	10
130		-64		328	09
110		-67			
100	(108mb)	-67			

Inversion 1016 mb 33°-997mb 35°; 726 " 03°-691 " 10°

Tropopause: II 275 mb -69° 30800

DOWNHAM MARKET — Time 03h G.M.T.; M.S.L. 1019.1 mb; Surf 1014.6 mb; Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01.2	34	32	040	08
1000	05.0	35	32		
950		32	25	083	17
900	31.7	26	18	087	14
850		20	14	090	12
800	62.9	13	09	094	16
750		13	05	094	13
700	96.5	12	-04	013	02
650		05	-09	280	06
600	13.5	-02	-15	245	06
550		-11	-18	207	15
500	17.8	-19	-24	216	24
450		-28	-40	226	25
400	230	-40	-52	229	30
350		-51		222	35
300	292	-63		232	30
250		-67		258	17
200	377	-65		265	06
170		-62		277	07
150	438	-60		299	10
130		-61		304	07
110		-64		303	05
100	524	-65		303	05
90		-66		308	06
80		-67		320	11
70		-67		324	10
60	631	-67		320	10

Inversion 1012 mb 34°-978mb 36°; 765 " 10°-750 " 13°

Tropopause: I 234mb -70° 34,500'

LARKHILL — Time 03h G.M.T.; M.S.L. 1017.1 mb; Surf 1000.3 mb; Freezing 1000 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04.4	32	32	CALM	
1000	04.5				
950		30	29	050	07
900	32.1	25	23	057	11
850		19	18	066	11
800	623	13	10	081	09
750		12	05	130	06
700	95.8	08	01	168	07
650		03	-06	174	08
600	134	-03	-13	185	13
550		-11	-23	190	15
500	187	-19	-34	184	11
450		-29	-47	200	17
400	437	-39	-59	204	18
350		-50		212	16
300	301	-63		221	09
250		-72		231	06
200	386	-65			

Isothermal 790-750 mb 12°

Tropopause: I 256 mb -74° 33200'

CAMBORNE — Time 03h G.M.T.; M.S.L. 1014.1 mb; Surf 1003.1 mb; Freezing 921 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.9	40	36	110	03
1000	03.8	40	35		
950		36	32	138	16
900	317	29	25	146	11
850		23	21	166	07
800	621	17	16	246	03
750		12	11	294	06
700	95.6	06	06	289	08
650		00	-01	279	11
600	134	-08	-11	274	08
550		-16	-27	246	08
500	17.7	-26	-35	254	10
450		-36	-48	263	17
400	227	-46		234	09
350		-56		147	14
300	289	-68		139	16
250		-71		180	06
200	373	-67		326	07
170		-65		340	07
150		-66		325	08
130		-68		317	14
110		-69		322	11
100	518	-69		318	11
90		-70		314	13
80	(82mb)	-71			

Tropopause: II 261 mb -72° 31800'

VALENTIA — Time 03h G.M.T.; M.S.L. 1014.8 mb; Surf 1013 mb; Freezing 890 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00.3	41	34		
1000	3.8	40	33		
950		37	30		
900	31.8	33	26		
850		26	22		
800	62.5	20	18		
750		14	11		
700	962	07	03		
650		-01	-07		
600	134	-04	-16		
550		-11	-29		
500	178	-21	-41		
450		-30	-50		
400	229	-52			
350		-52			
300	291	-65			
250		-69			
200	376	-66			
170	(195mb)	-66			

Tropopause: I 262 mb -70° 32,000'

LERWICK — Time 09h G.M.T.; M.S.L. 1020.0 mb; Surf 1009.6 mb; Freezing 917 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.7	35	34	020	10
1000	05.2	37	36	020	18
950		35	33	020	20
900	33.1	30	27	021	22
850		26	22	022	22
800	63.6	19	11	023	22
750		12	07	020	21
700	97.3	06	-02	020	20
650		-01	-11	021	19
600	135	-09	-14	025	17
550		-16	-23	032	13
500	17.8	-24	-34	035	16
450		-33	-44	037	25
400	22.9	-42		036	33
350		-54		027	31
300	29.1	-65		017	29
250		-75		005	23
200	375	-71		357	15
170		-70		345	12
150	43.5	-69		330	12
130		-67		321	10
110		-70		315	10
100	51.9	-68		321	10
90		-66		333	10
80		-71		330	12
70		-75		325	13
60		-74		325	13

Inversion 1010 mb 35°-987mb 39°

Tropopause: I 232 mb -77° 34,400'

STORNOWAY — Time 09h G.M.T.; M.S.L. 1023.7 mb; Surf 1022.0 mb; Freezing 943 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00.4	33	30		
1000	06.1	38	33		
950		33	28		
900	33.9	27	22		
850		22	16		
800	64.2	17	08		
750		10	02		
700	97.6	03	-04		
650		-03	-12		
600	135	-12	-19		
550		-18	-27		
500	17.8	-25	-38		
450		-33	-45		
400	22.9	-45			
350		-57			
300	29.1	-68			
250		-79			
200	37.3	-73			
170		-71			
150	43.3	-70			
130		-71			
110		-72			
100	51.7	-73			
90		-73			

Inversion 1022 mb 33°-1000mb 38°

Isothermal 1000-986 mb 38°; 581-567 " -16°; 488-476 " -27°

Tropopause: I 235 mb -82° 34,000'

LEUCHARS — Time 09h G.M.T.; M.S.L. 1021.8 mb; Surf 1022.7 mb; Freezing 988 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	002	26	26	270	06
1000	05.8	33	33	279	06
950		29	28	330	03
900	33.3	26	22	032	06
850		20	14	358	07
800	63.5	15	09	308	08
750		09	03	017	03
700	970	04	-03	073	10
650		-01	-06	073	14
600	135	-09	-15	055	14
550		-14	-21	047	13
500	17.8	-24	-33	045	12
450		-35	-45	029	12
400	228	-46		020	15
350		-56		016	16
300	290	-66		011	15
250		-71		345	10
200	374	-67		360	12
170		-65		347	13
150	435	-66		332	07
130		-67			

Inversion 1022mb 26°-1000mb 33°

Isothermal 700-674 mb 04°

Tropopause: I 270 mb -73° 31200'

ALDERGROVE — Time 09h G.M.T.; M.S.L. 1022.2 mb; Surf 1013.2 mb; Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.6	32	30	CALM	
1000	06.1	34	31	061	05
950		32	28	069	07
900	338	26	22	071	10
850		20	13	080	12
800	641	15	05	078	12
750		06	-01	072	11
700	970	-04	-09	057	07
650		-03	-14	040	13
600	135	-09	-25	046	15
550		-15	-35	038	09
500	178	-22	-46	030	10
450		-32	-54	032	11
400	229	-42		026	12
350		-50		017	10
300	292	-56		030	13
250		-64		039	17
200	378	-60		007	11
170		-58		359	11
150	439	-58		337	11
130		-59		330	11
110		-59			
100		-58			

Inversion 1013 mb 32°-984mb 36°; 662 " -07°-642 " -02°

Tropopause: I 237 mb -66° 34,200'

LIVERPOOL — Time 09h G.M.T.; M.S.L. 1020.2 mb; Surf 1018.3 mb; Freezing 950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00.6	35	31	CALM	
1000	05.3	35	30	114	10
950		32	25	101	13
900	32.9	26	21	106	16
850		19	14	095	15
800	63.0	13	09	085	17
750		04	01	090	17
700	961	03	-05	102	09
650		-00	-13	107	06
600	134	-06	-20	126	03
550		-15	-27	237	03
500	177	-24	-33	284	03
450		-33	-45	288	04
400	228	-41		297	06
350		-51		291	12
300	290	-64		300	08
250		-72		325	07
200	375	-66		342	10
170		-64		345	10
150		-65		355	09
130		-65		343	08
110		-69		336	12
100	521	-66		324	11
90		-68		327	11
80		-69			

Inversion 1018 mb 35°-986mb 36°; 727 " 01°-688 " 04°

Tropopause: I 253 mb -7[illegible]° 32,000'

DOWNHAM MARKET — Time 09h G.M.T.; M.S.L. 1020.8 mb; Surf 1016.1 mb; Freezing 943 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01.2	34	29	040	08
1000	05.4	36	33		
950		33	25	052	17
900	331	26	20	058	18
850		20	13	063	20
800	63.2	12	08	066	20
750		08	01	065	15
700	96.6	10	-01	054	07
650		03	-09	L+V	
600	135	-05	-14	L+V	
550		-15	-22	212	08
500	17.8	-21	-32	227	11
450		-31	-43	236	20
400	229	-40	-53	228	27
350		-50		233	26
300	292	-62		254	18
250		-73		274	15
200	376	-68		320	07
170		-63		L+V	
150	437	-62		"	
130		-63		"	
110		-65			

Inversion 1016 mb 34°-990mb 37°

Isothermal 770-738 mb 08°; 536-518 " -18°

Tropopause: [illegible] -74° 34300'

LARKHILL — Time 09h G.M.T.; M.S.L. 1018.0 mb; Surf 1001.4 mb; Freezing 978 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04.4	33	33		
1000	04.7				
950		31	30		
900	324	26	21		
850		20	17		
800	625	14	13		
750		08	07		
700	96.0	08	00		
650		03	-01		
600	340	-04	-11		
550		-11	-32		
500	178	-20	-41		
450		-29	-50		
400	288	-39	-59		
350		-51			
300	292	-65			
250		-73			
200	376	-63			

Inversion 750 mb 08°-727mb 10°

Isothermal 693-697 mb 07°

Tropopause: I 245 mb -75° 33,200'

CAMBORNE — Time 09h G.M.T.; M.S.L. 1016.1 mb; Surf 1005.3 mb; Freezing 924 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02.9	39	36	120	10
1000	04.3	38	35		
950		34	31	116	15
900	322	30	26	118	08
850		25	21	038	08
800	627	19	14	042	08
750		12	08	009	07
700	963	06	02	358	11
650		00	-06	360	17
600	134	-07	-16	337	10
550		-11	-29	305	12
500	178	-20	-39	304	16
450		-32	-50	298	11
400	228	-41		L+V	
350		-51		L+V	
300	291	-61		069	11
250		-67		080	08
200	376	-65		032	05
170		-61		356	16
150		-61		358	12
130		-60		342	11
110		-67		315	07
100	523	-66		308	13
90		-65		311	12
80		-65		336	13
70		-66			
60	(66mb)	-66			

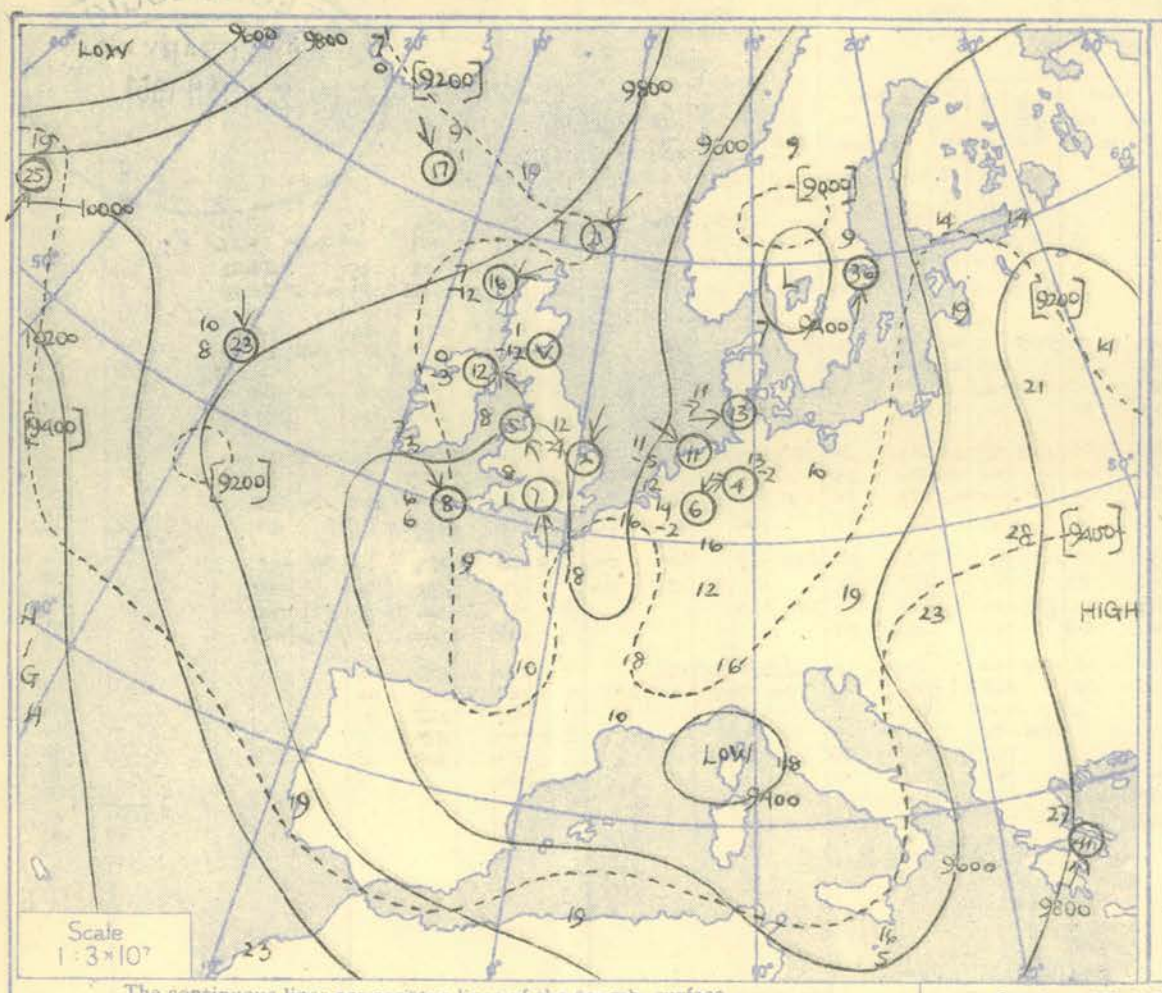
Tropopause: I 273 mb -67° 31,100'

(Station blank) — Time G.M.T.; M.S.L. mb; Surf mb; Freezing mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf					

Monday 25 December 1950.

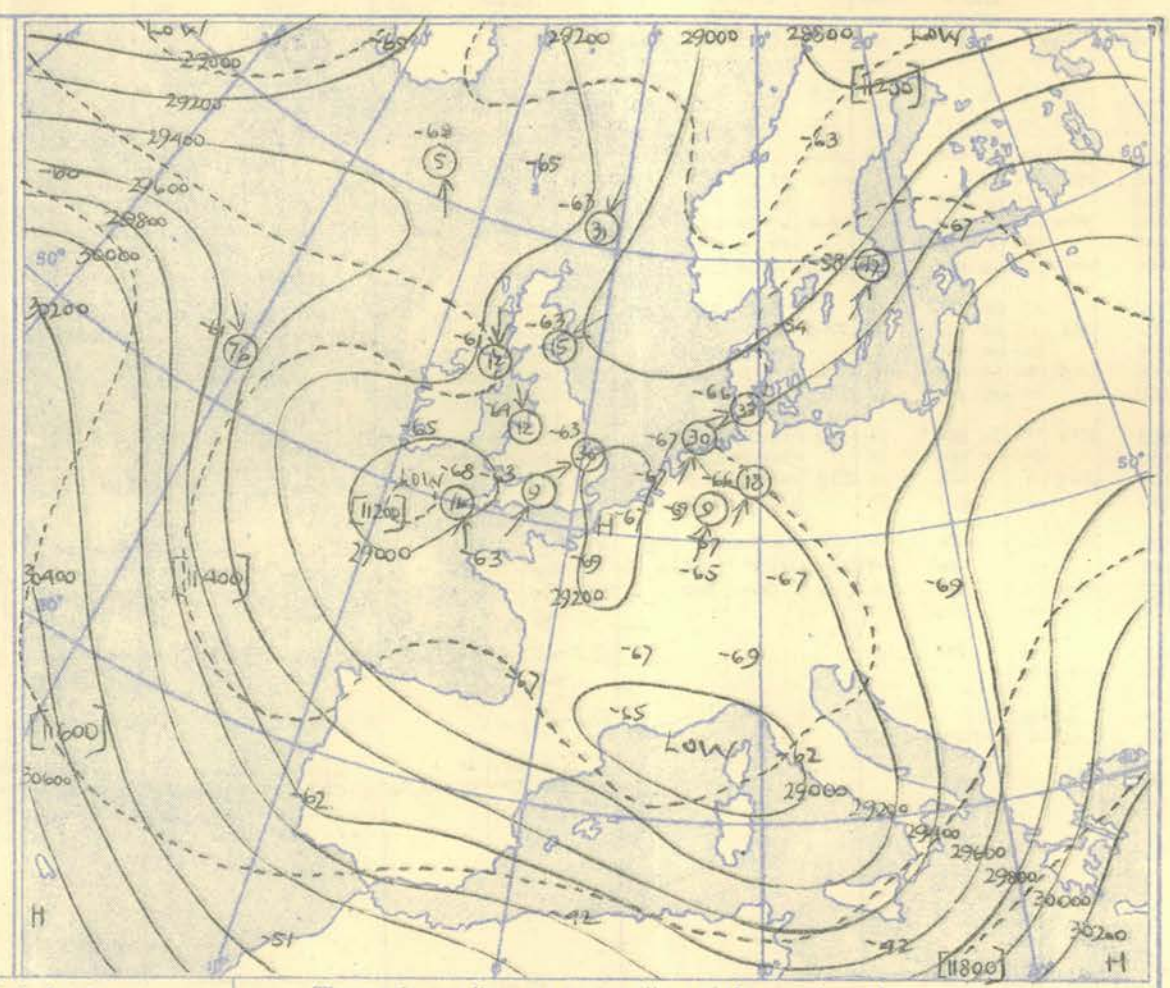
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



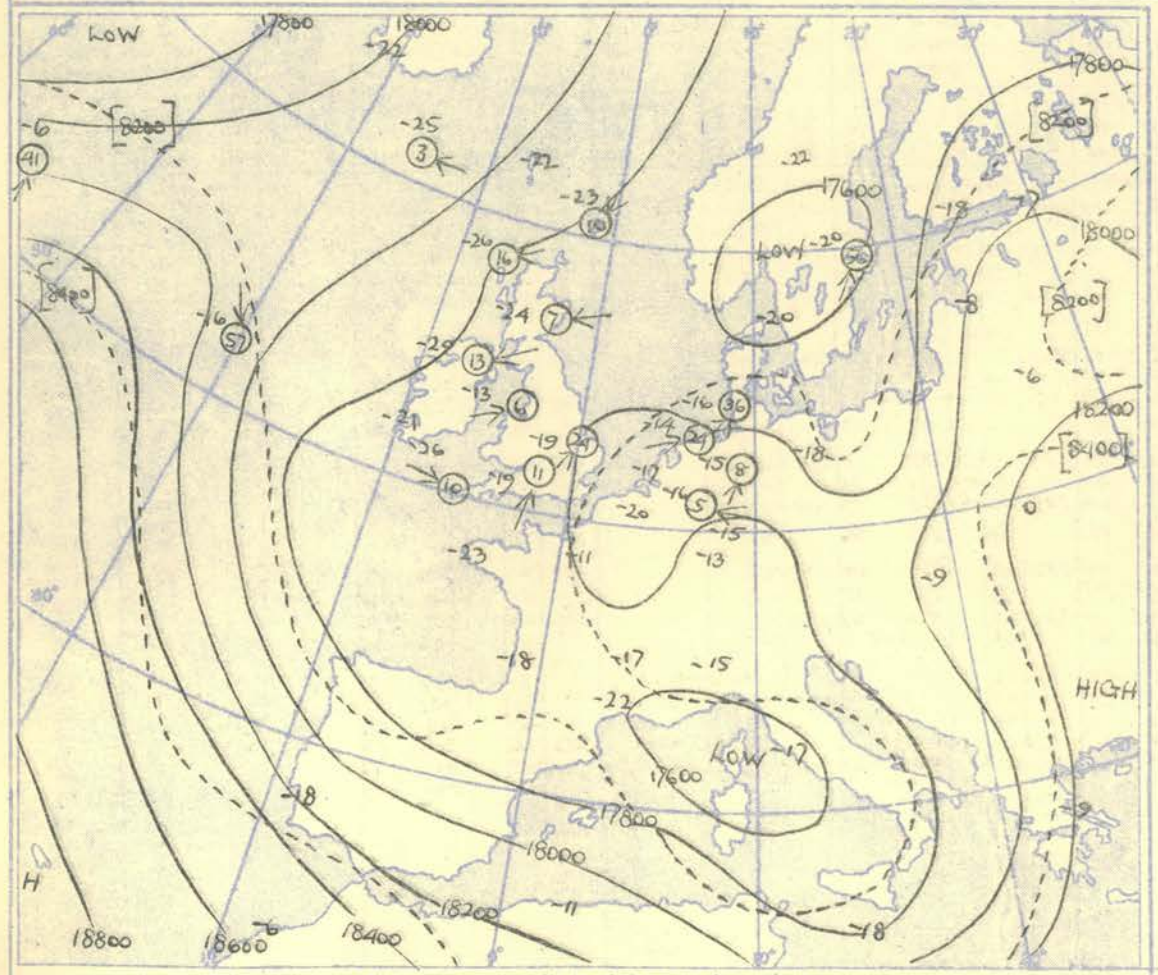
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 – 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

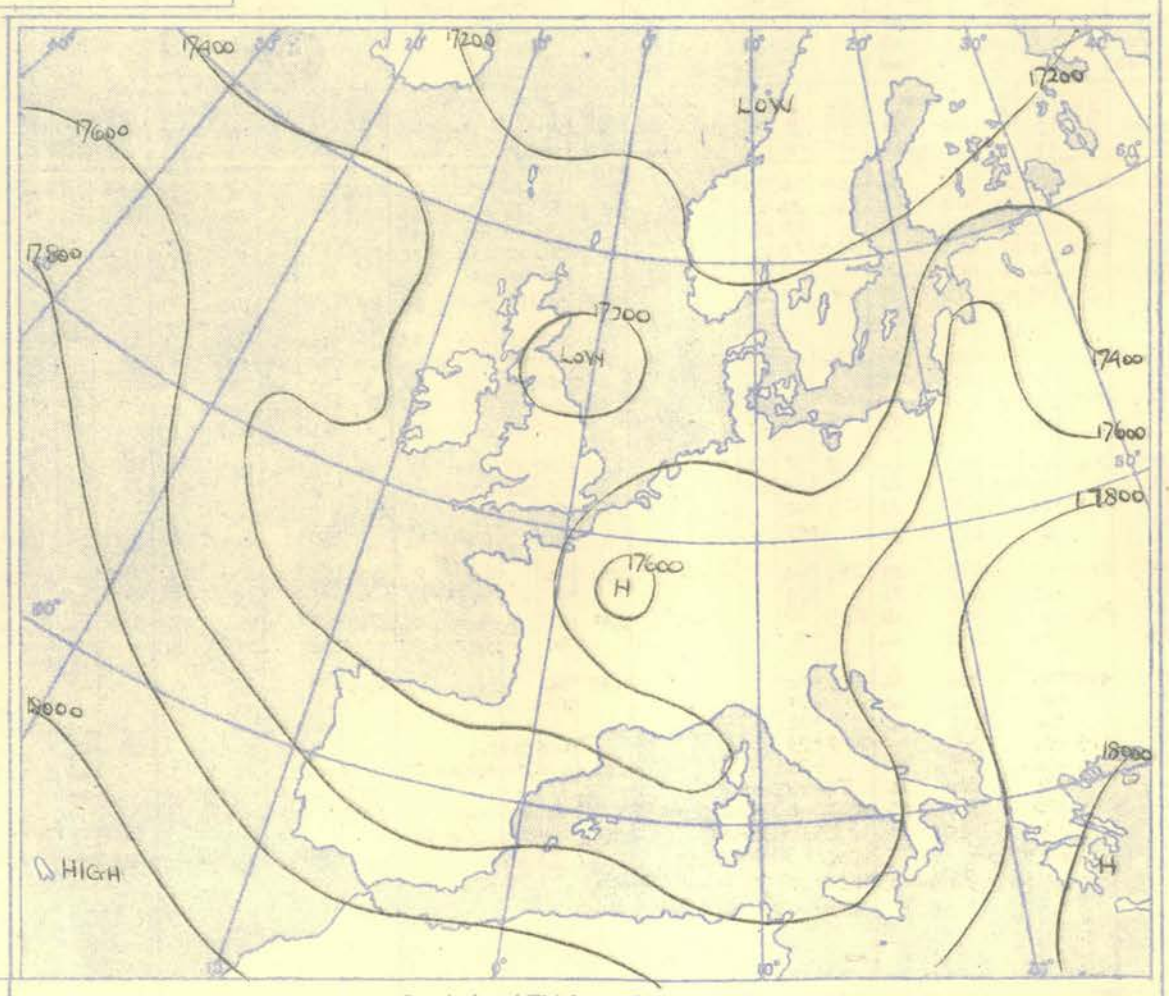
100 60 40 30 20 15 0 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

Monday 25th December 1950

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

NO FLIGHTS AVAILABLE

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Camborne		Leuchars	
Time	15h		21h	
Type			PILAR	
Feet	Dir.	Vel.	Dir.	Vel.
Surf.			CALM	
1,000			006	12
2,000			013	16
3,000			020	21
4,000			023	24
5,000			027	22
6,000			029	19
8,000			023	19
10,000			019	19
14,000			021	14
18,000			007	15
24,000			015	30
30,000	002	12	018	23
40,000	(34,000')		356	23
50,000			(33,000')	

NEPHOSCOPE OBSERVATIONS

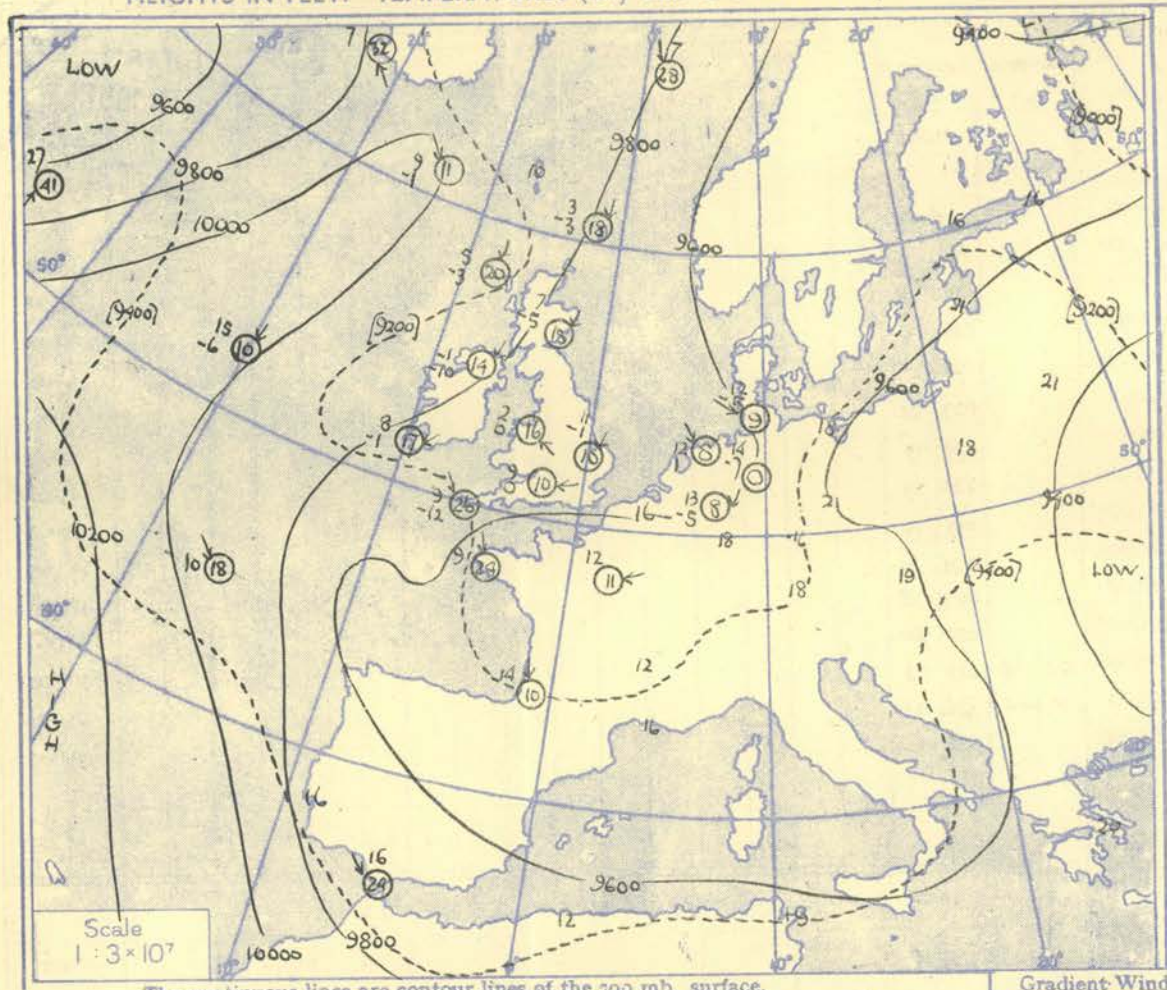
NONE REPORTED.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER RECORDER					WEATHER RECORDER.					WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·6N 20·4W					52·5N 20·6W,					52·5N 20·5W					52·5N 20·2W				
Time G.M.T.	03L					09L					15L					21L				
Pressure M.S.L. mb	1022					1026					1028					1028				
Pressure Surf mb	1022					1026					1028					1028				
Pressure Freezing mb	900					890					890					900				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	47	340	15							48	44				48	45	090	74
1000	5·9	45	44			6·7	45	44	025	11	7·2	45	41	356	03	7·4	46	41	112	09
950		36	36	340	23		39	39	019	12		38	32	358	03		38	32	114	09
900	33·9	31	28	340	22	34·8	33	33	011	15	35·2	33	26	007	04	35·5	32	26	124	08
850		26	22	345	21		28	28	009	15		27	19	008	06		25	17	127	08
800	645	22	18	348	25	652	23	21	009	18	65·9	23	13	008	07	66·1	24	14	119	09
750		17	13	350	27		18	11	008	21		19	05	008	08		21	05	064	07
700	98·4	10	08	346	23	99·6	16	-02	009	21	100	15	-06	008	10	100	18	-08	360	15
650		03	-01	338	20		11	-11	001	29		11	-15	350	15		12	-04	334	12
600	137	-03	-15	338	25	138	05	-17	350	38	139	03	-21	343	17	139	07	-18	315	09
550		-08	-28	340	44		-02	-24	348	39		-03	-27	335	21		-02	-26	348	09
500	180	-16	-36	340	57	183	-12	-32	345	56	183	-10	-33	333	39	184	-11	-24	328	21
450		-26	-45	336	67		-21	-40	338	70		-20	-39	329	47		-19	-27	318	39
400	232	-38	-56	335	69	235	-33	-51	330	71	235	-31	-46	325	48	236	-29	-37	322	39
350		-49		335	69		-46		326	84		-44		323	56		-43		320	51
300	295	-61		324	76	298	-59		322	95	290	-60		306	54	300	-58		316	66
250		-72		320	66		-73		321	91		-77		304	57		-72		313	81
200	379	-80		315	53	382	-73		323	55	382	-82		317		383	-89		318	72
170		-75		315	46		-70		329	39							-79		317	66
150		-74		317	32		-70		332	28							-81			
130		-74		318	25		-69		334	21										
110		-75		312	23		-69		334	12										
100	521	-75		289	30	526	-70		094	80										
90		-76		274	30		-70		334	19										
80		-76		277	29		-70		334	09										
70		-72		309	11		-71		334	12										
60		-77																		
		-77																		
	(56mb)															Inversion 830mb 21°-815mb 24° Isothermal. 815 - 797 mb 24° 711 - 657 " 18°				
Tropopause	I 205 mb -82° 37-700					I 225mb -81° 35-800					I 211 mb - 85° 37.000					I 195 mb -90° 38.900				

Ship	WEATHER EXPLORER.					WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER.				
Lat/Long	61·0N 13·7W.					61·0N 13·5W					61·0 N 13·9W					61·0N 14·0W				
Time G.M.T.	03L					09L					15L					21L				
Pressure M.S.L. mb	1027					1028					1029					1029				
Pressure Surf mb	1027					1028					1029					1029				
Pressure Freezing mb	925					930					930					940				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		43	33	010	14		44	37	020	06		45	41	020	02		44	40	080	06
1000	7·2	41	28	028	15	7·4	41	28	013	07	7·8	41	38	036	09	7·8	40	34	040	07
950		34	29	031	15		34	22	019	11		34	34	037	06		33	29	062	07
900	35·1	29	23	038	15	35·2	29	17	024	13	35·7	29	26	052	08	35·6	27	23	069	07
850		27	17	037	15		24	08	028	14		23	16	048	12		21	14	065	08
800	65·7	23	13	028	18	65·6	19	03	015	16	66·1	18	12	026	11	65·9	18	06	001	05
750		14	05	004	19		16	-04	357	18		15	04	007	12		14	01	299	08
700	99·5	09	01	338	17	99·5	11	-11	343	14	100	09	-01	340	11	99·6	07	-07	311	09
650		03	-05	319	07		05	-17	301	12		02	-12	304	07		01	-15	297	14
600	137	-04	-13	197	01	138	-04	-25	268	14	138	-05	-17	302	06	137	-05	-21	258	12
550		-15	-23	197	07		-14	-30	253	13		-14	-26	282	11		-12	-31	252	15
500	181	-25	-33	104	03	181	-22	-41	277	08	181	-23	-36	291	12	181	-22	-41	274	10
450		-33	-43	055	05		-31	-52	235	08		-34	-46	310	13		-33	-50	287	16
400	231	-45		128	04	232	-44		261	07	232	-45		301	12	232	-43		273	19
350		-58		155	05		-55		246	06		-57		291	16		-56		283	23
300	293	-69		160	05	294	-67		259	10	294	-66		301	18	294	-69		288	36
250		-77					-75		263	16		-76		305	24		-80		312	19
200	376	-75				378	-72		255	08	377	-74		313	31	376	-82		331	30
170		-70					-70		291	17										
150		-70					-69		293	17										
130		-71					-70		281	12										
110		-70					-71		277	10										
100	520	-72				522	-70		263	21										
90		-74					-69													
80		-77				(97mb)														
70		-79																		
60		-78																		
		-78																		
	Inversion 877mb 26°- 861mb 28° 711- 07° 690- 10°					Inversion. 803mb 18°- 800mb 19° Isothermal. 800 - 780mb 19°					Inversion. 807mb 17°- 789mb 20°					Isothermal 832 mb 18°- 775mb 18°				
Tropopause	II 268 mb -77° 31·700					II 250mb -75° 33·300					II 256mb -76° 32-800					I 213mb -84° 35·300				

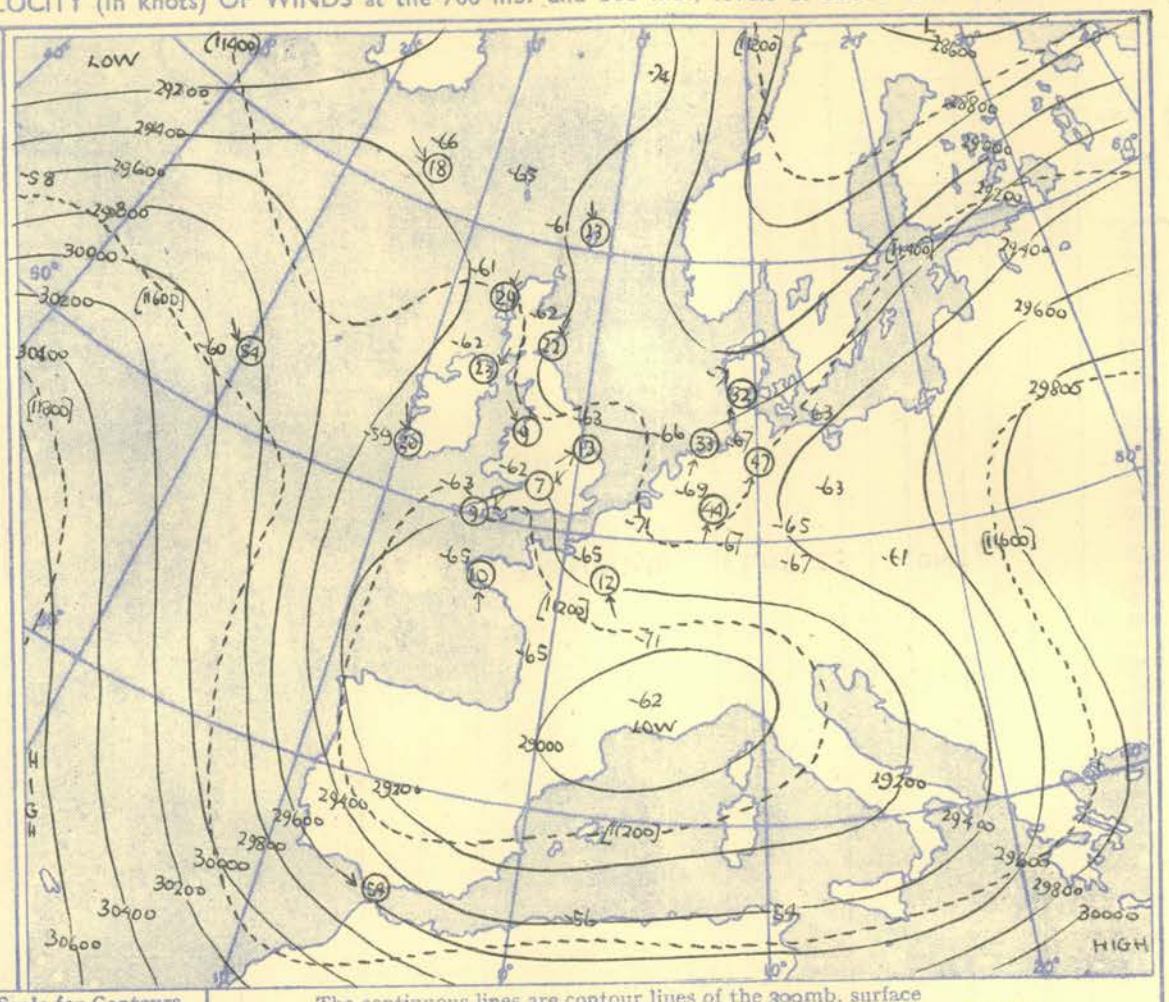
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

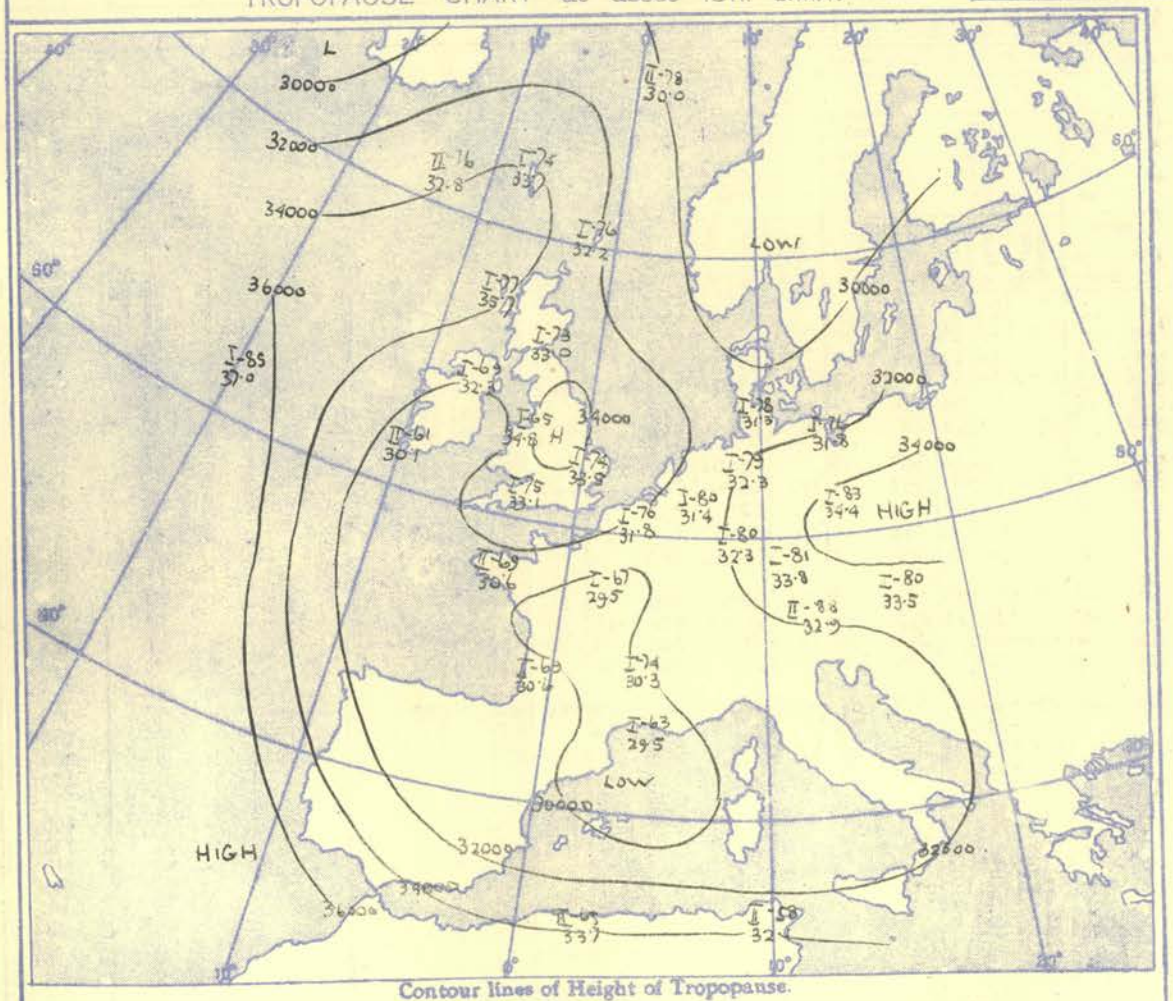
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Warming partly the result of advection and partly subsidence led to formation of a warm ridge in mid - Atlantic.

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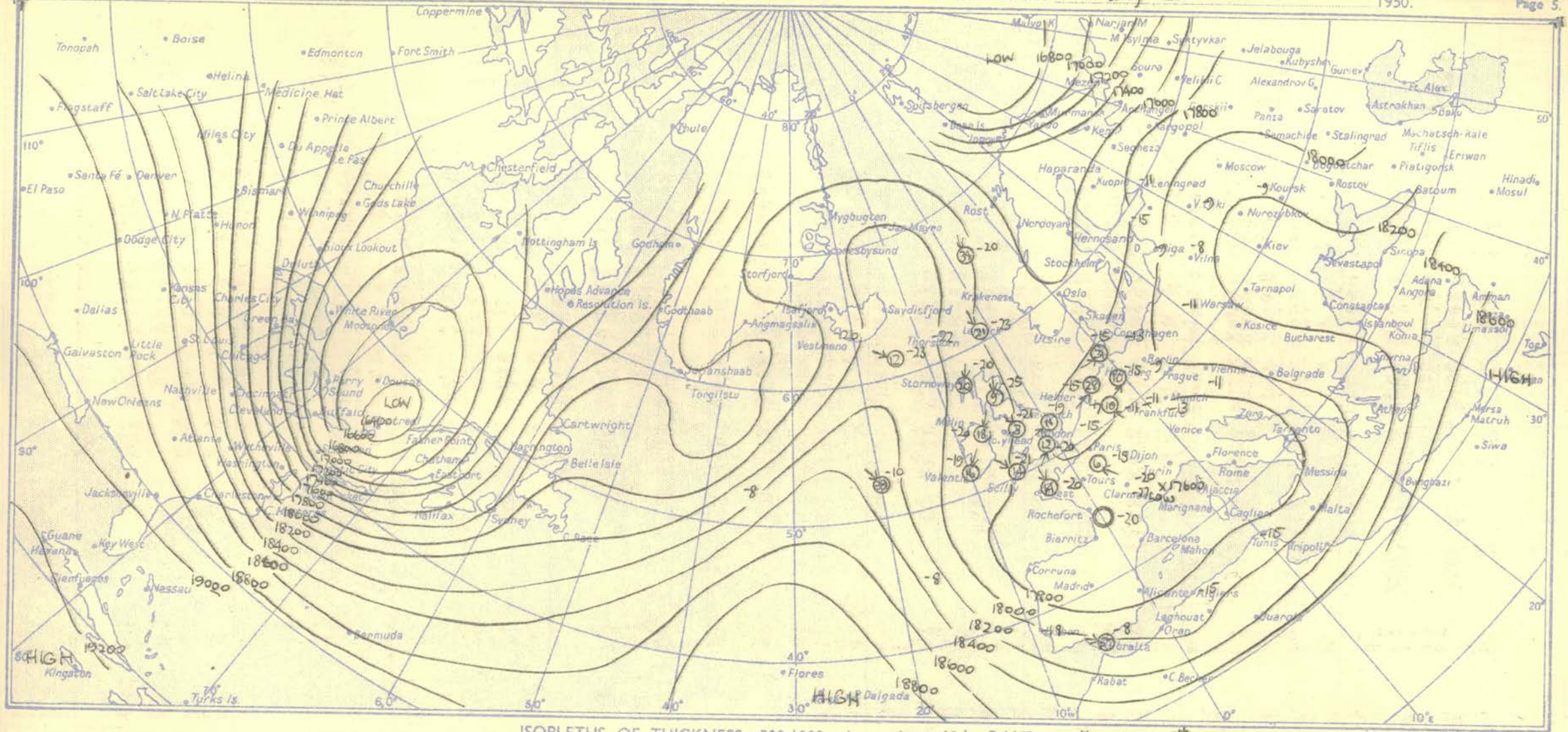
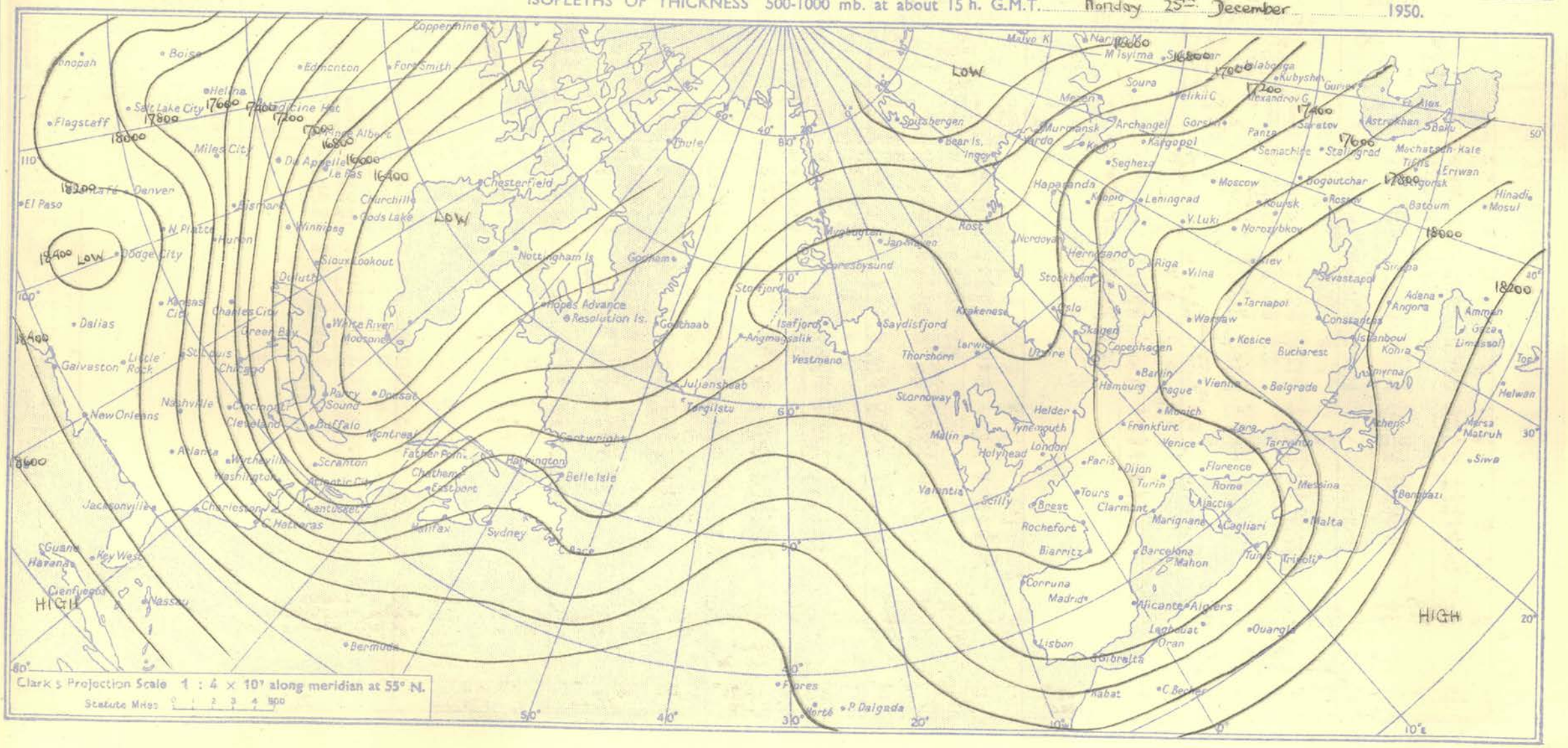
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Monday 25th December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Monday 25th December 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Time G.M.T.	15h	15h	15h	15h	15h	15h	15h	15h	15h
Pressure M.S.L. mb	1022·1	1025·3	1023·5	1023·6	1022·0	1021·6	1019·5	1018·7	1023·2
Pressure Surf mb	1011·8	1023·6	1022·6	1014·6	1019·9	1017·2	1000·1	1007·8	1022
Pressure Freezing mb	936	922	953	940	945	943	962	929	950

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	40	34	055	16	00·4	40	36	300	08	00·2	33	30	260	07
1000	5·8	40	33	023	20	6·6	39	34	322	06	6·1	34	27	330	12
950		34	28	024	21		34	30	004	12		31	25	010	11
900	33·7	28	19	026	19	34·5	30	27	020	16	33·8	26	20	020	08
850		25	10	028	20		25	21	027	16		22	13	027	11
800	64·1	18	07	027	20	65·0	19	14	028	18	64·0	17	10	033	12
750		10	02	024	19		12	06	026	17		12	-02	033	12
700	97·5	03	-03	021	18	98·6	05	-03	032	20	98·0	07	-05	040	15
650		-04	-11	015	16		-03	-11	036	25		-01	-07	046	15
600	135	-12	-19	007	14	136	-10	-17	035	30	135	-08	-15	039	11
550		-20	-27	003	15		-17	-24	034	28		-15	-22	027	09
500	178	-23	-37	001	21	179	-20	-31	031	20	179	-25	-34	013	09
450		-33	-49	355	23		-29	-45	038	18		-33	-42	018	13
400	229	-45		356	23	231	-40	-56	029	20	229	-43		024	16
350		-58		357	22		-50		016	20		-51		024	22
300	290	-70		002	23	293	-61		008	24	292	-62		015	22
250		-75		002	20		-73		354	26		-73		352	16
200	374	-71		341	15	377	-71		355	20	376	-65		244	10
170		-68		326	10		-69		358	14		-65		333	08
150		-69		323	10		-66		313	12		-65		334	13
130		-68		317	10		-64		324	12		-65		338	09
110		-69		309	11		-67		284	11		-65		323	12
100	518	-68		298	12	523	-67		298	13	522	-66		314	12
90		-68		295	13		-67		302	12					
80		-69		295	15		-66		268	10					
70		-71		278	17		-67		268	13					
60							-69								
	Isothermal 1012 - 1000 mb 40°					Inversion 557 mb -17°-532 mb -14°					Inversion 1023 mb 33°-982 mb 35°				
Tropopause	I 255 mb - 76° 32,200'					I 221 mb - 77° 35,700'					I 250 mb - 73° 33,000'				

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	36	32	CALM		00·6	38	35	CALM		01·2	36	34	340	11
1000	6·4	35	31	045	06	5·8	38	31	048	09	5·7	36	33		
950		33	30	042	06		33	27	034	06		33	30	018	16
900	34·2	27	21	044	08	33·6	27	21	031	06	33·4	27	24	027	16
850		22	12	049	07		21	14	036	09		22	18	037	18
800	64·5	15	05	064	08	63·8	15	10	057	15	63·6	15	10	039	19
750		07	-02	052	11		08	03	072	14		11	03	044	13
700	98·0	-01	-10	044	14	97·1	02	00	110	06	97·2	11	-01	054	10
650		02	-09	040	15		03	-05	170	02		03	-09	349	08
600	136	-06	-20	039	16	135	-03	-13	043	01	135	-03	-13	288	10
550		-12	-29	039	18		-11	-21	049	01		-11	-19	256	10
500	179	-20	-31	035	18	179	-21	-29	345	08	179	-19	-28	242	11
450		-30	-47	031	19		-28	-37	009	04		-27	-39	229	16
400	230	-39	-56	033	22	230	-36	-47	316	06	230	-37	-49	231	24
350		-49		034	25		-46		292	10		-48		236	22
300	293	-62		034	23	293	-58		288	09	293	-63		259	13
250		-67		001	18		-67		341	06		-73		275	11
200	278	-64		356	16	379	-61		355	09	378	-65		002	06
170		-60		327	13		-59		348	09		-61		256	06
150		-64		334	13		-59		311	07		-58		279	08
130		-65		337	12		-60		311	12					
110	(112) mb	-63					-61		350	12					
100						527	-61		346	11					
90							-61		343	13					
80							-63		353	11					
70							-64		328	11					
60						(63) mb	-65								
	Inversion 693 mb -02°- 657 mb 03°					Inversion 692 mb 01°- 677 mb 06° Isothermal 1020 - 1000 mb 38°					Inversion 741 mb 10°- 692 mb 12° Isothermal 1017 - 969 mb 36°				
Tropopause	I 259 mb - 69° 32,300'					I 231 mb - 65° 34,800'					I 246 mb - 74° 33,500'				

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	36	32	070	08	02·9	39	32	090	03	00·3	41	34	070	05
1000	5·2	35	31			4·9	38	31			6·3	38	31	065	08
950		31	28	050	22		34	25	076	15		32	24	049	15
900	32·9	25	20	066	22	32·8	28	17	038	15	33·8	28	19	036	20
850		19	15	078	21		21	12	010	16		23	13	035	21
800	62·9	13	08	075	21	63·0	18	11	352	18	64·1	18	10	048	18
750		09	05	076	14		12	04	345	22		10	03	056	20
700	96·4	09	00	090	10	96·6	09	-02	343	26	97·6	08	-01	038	17
650		03	-03	116	07		01	-08	345	22		02	-16	026	16
600	134	-05	-10	135	07	136	-06	-16	340	17	136	-04	-22	019	15
550		-11	-20	194	10		-12	-25	317	15		-11	-30	013	15
500	178	-20	-37	192	12	180	-21	-36	302	14	179	-19	-38	013	16
450		-29	-45	192	15		-31	-45	295	08		-27	-46	357	15
400	229	-39	-54	201	13	231	-42		007	06	231	-36	-54	349	17
350		-51		201	09		-56		062	45		-46		346	15
300	292	-62		073	07	294	-63		061	09	294	-39		002	20
250		-74		041	03		-67					-61		354	28
200	377	-64		335	07						380	-60		351	26
170		-62		313	10										
150		-61		332	12	For rest of winds see page 3									
130		-62													
	Inversion 765 mb 08°-729 mb 11° Isothermal 580 - 563 mb -09°					Isothermal 750 - 716 mb 12°					Inversion 720 mb 05° - 700 mb 08°				
Tropopause	I 248 mb - 75° 33,000'					NR.					I 289 mb - 61° 30,100'				

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA.
Time G.M.T.	21h	21h	21h	21h	21h	21h	21h	21h	
Pressure M.S.L. mb	1024·6	1027·0		1026·4	1024·0	1022·7	1021·3	1022·0	
Pressure Surf mb	1014·3	1025·3		1016·6	1021·9	1018·1	1004·6	1010·9	
Pressure Freezing mb	933	923		943	960	950	987	936	

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	36	34	020	08	00·4	40	38	360	03	00·2	32	28	CALM	
1000	6·4	36	32	020	18	7·1	42	39			6·3	37	30		
950		34	28	024	14		35	32	036	15		35	30		
900	34·3	27	22	032	15	35·0	30	28	026	14	34·2	29	25		
850		23	16	040	21		25	22	025	15		23	21		
900	64·6	18	06	030	19	65·5	20	10	025	13	64·5	18	11		
750		11	-03	021	18		13	06	020	12		14	03	For	
700	98·1	05	-04	022	18	99·2	06	00	011	14	98·0	06	-08		
650		00	-13	034	23		-02	-11	001	20		00	-15	winds	
600	136	-08	-25	037	27	137	-09	-15	013	26	136	-06	-21		
550		-15	-31	054	24		-16	-25	012	25		-15	-34	see	
500	179	-24	-39	051	28	180	-22	-42	013	17	179	-23	-40		
450		-33	-48	047	27		-33	-52	003	16		-29	-46	page	
400	230	-44		039	29	231	-44		358	26	230	-41			
350		-56		046	30		-54		352	27		-53		3	
300	291	-67		038	24	293	-68		347	26	293	-62			
250		-72		028	22		-80		330	30		-70			
200	376	-69		348	15	376	-73		336	17	378	-66			
170		-66		338	13		-72		331	15		-62			
150		-66		325	13		-71		338	12		-64			
130		-66		323	09		-71		321	15		-63			
110		-68		320	09		-72		313	10		-65			
100	521	-70		317	09	519	-72		294	11					
90		-70		312	11		-75		285	17					
80		-71					-76		296	11					
70	(74 mb)	-73					-74								
60															
	Inversion 1014 mb 36°- 970 mb 37°					Inversion 1025 mb 40°- 1004 mb 43° Isothermal 550 -527 mb -16°									
Tropopause	I 238 mb - 73° 33,900'					I 250 mb - 80° 33,000'					I 264 mb - 71° 31,900'				

Pressure mb	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	32	31	CALM		00·6	28	25	CALM		01·2	33	31	340	09
1000	7·3	37	36			6·3	34	30	020	12	5·9	36	35	006	24
950		33	30	356	10		31	25	020	13		32	27	025	17
900	35·0	27	23	354	11	33·9	26	19	020	14	33·7	27	22	032	17
850		21	09	357	10		21	07	021	13		20	14	032	19
900	65·3	14	04	351	09	64·2	14	04	023	13	63·9	16	09	037	18
750		06	-01	036	15		07	00	030	11		11	02		
700	99·0	04	-03	051	21	98·5	01	-03	028	09	97·4	08	-07		
650		-03	-12	051	20		-01	-10	358	07		03	-16	003	11
600	136	-10	-22	033	16	136	-06	-22	353	06	135	-05	-18	344	10
550		-15	-26	018	16		-14	-29	348	07		-13	-26	321	06
500	179	-23	-37	019	20	180	-23	-36	008	07	179	-19	-37	281	03
450		-32	-46	022	24		-32	-45	015	06		-29	-49	243	16
400	230	-41		024	39	230	-42		358	06	230	-39	-58	238	20
350		-51		025	32		-51		328	09		-51		230	16
300	293	-63		029	29	292	-61		341	07	293	-62		259	12
250		-75		015	30		-70		351	10		-73		301	08
200	377	-68		346	21	377	-66		355	10	377	-67		346	07
170		-68		333	21		-65		358	13		-63		354	08
150		-67		332	14		-64		355	14		-61		014	08
130		-67		334	12		-64		352	12		-64		076	05
110		-68		314	09		-64		333	08		-66		346	09
100	522	-69		309	10	523	-66		308	07	524	-67			
90		-70		319	09		-67		285	09					
80		-72					-68		322	13					
70	(79 mb)	-72				(73 mb)	-70								
60															
	Inversion 1017 mb 32°- 995 mb 39° 740 " 05°- 723 " 07°					Inversion 1022 mb 28°- 997 mb 35° Isothermal 900 -883 mb 26°					Inversion 1018 mb 33°- 995 mb 37° 755 " 10°- 743 " 12°				
Tropopause	I 237 mb - 79° 34,200'					I 260 mb - 70° 32,200'					I 250 mb - 73° 32,100'				

Pressure mb	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA. Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	34	32	030	05	02·9	32	29							
1000	5·6	33	32			5·7	33	29							
950		29	28	043	20		34	23							
900	33·1	26	20	049	22	33·5	28	18							
850		20	13	052	22		22	13							
800	63·2	13	08	049	21	63·8	17	09							
750		10	01	045	21		12	04							
700	96·7	09	-07	052	15	97·5	11	00							
650		03	-08	083	09		03	-11							
600	135	-05	-11	151	08	136	-03	-16							
550		-15	-17	170	09		-10	-28							
500	178	-22	-25	191	12	179	-19	-36							
450		-31	-36	181	13		-27	-48							
400	229	-41		179	12	231	-38	-57							
350		-53		193	07		-51								
300	291	-65		028	07	293	-68								
250		-74		031	07		-77								
200	376	-65		355	11	377	-69								
170		-62		012	12		-67								
150		-63													
	Inversion 951 mb 29°- 933 mb 30° 747 " 10° - 730 " 11°					Inversion 1011 mb 32°- 980 mb 37° 729 " 10° - 710 " 13°									
Tropopause	I 253 mb - 74° 32,700'					I 253 mb - 78° 32,700'					-				

HMSO Press, MO, Dunstable

No. 11594 **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Tuesday 26th December. 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	Pressure	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	Time	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.
	M.S.L.	1026·2 mb	1028·3 mb	1024·7 mb	1027·3 mb	1024·3 mb	1022·4 mb	1021·8 mb	1022·8 mb	1026·4 mb
	Surf	1015·9 mb	1026·6 mb	1025·6 mb	1017·6 mb	1022·2 mb	1017·8 mb	1005·1 mb	1011·9 mb	1026 mb
	Freezing	950 mb	924 mb	932 mb	950 mb	960 mb	947 mb	1000 mb	992 mb	

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	2·7	38	36	080	12	0·4	39	38	Calm		0·2	35	31	290	12	02·6	27	24			00·6	25	23	Calm		01·2	31	29	325	10	04·4	33	32			02·9	36	30	360	05	00·3	35	29	140	20	Surf
1000	6·9	38	35	035	21	7·4	39	37			6·6	37	31	350	16	07·1	28	22			06·2	34	33	353	12	05·8	32	30	356	25	05·7	32	31			06·0	36	30			7·1	37	30	116	02	1000
950		32	29	034	19		35	32	040	21		34	28	355	17		32	19				31	26	001	13		32	29	006	23		31	30				33	26				33	23			950
900	34·5	26	23	034	16	35·3	29	26	038	20	34·4	29	24	010	18	34·8	28	08			33·8	27	21	015	09	38·6	27	20	011	22	33·2	27	23			33·8	27	19			34·9	28	17			900
850		21	19	029	13		24	22	026	14		23	20	032	20		23	08				21	11	017	13		22	18	014	22		22	14				21	12				21	08			850
800	64·6	16	14	019	10	65·8	18	16	017	19	64·8	20	12	050	22	65·1	18	02			64·0	15	04	028	15	63·8	16	10	023	23	63·5	16	08			64·0	15	08			65·1	14	03			800
750		09	06	007	12		12	09	016	11		12	02	036	24		14	-03				11	01	037	12		11	00	024	20		13	03				08	03				08	-01			750
700	38·0	06	-05	002	19	39·4	04	-01	011	14	39·0	08	02	030	23	38·8	07	-13			37·5	05	-08	038	13	37·3	06	-11	020	15	37·1	08	-06			37·4	06	-01			38·5	09	-12			700
650		00	-16	007	24		-02	-05	021	16		02	-09	026	21		-03	-24				-03	-14	013	12		01	-21	003	12		02	-09				-01	-08				01	-19			650
600	36	-06	-22	012	23	37	-08	-26	038	16	36	-05	-16	017	18	36	-09	-30			35	-10	-22	047	16	35	-05	-29	338	09	36	-05	-13			35	-07	-18			36	-04	-26			600
550		-13	-28	026	21		-15	-37	027	21		-12	-23	001	15		-14	-37				-16	-32	045	16		-14	-31	306	10		-13	-19				-12	-26				-10	-32			550
500	79	-21	-37	041	26	80	-25	-46	018	25	86	-18	-30	341	13	80	-16	-38			78	-26	-42	033	14	79	-22	-38	286	11	79	-22	-33			79	-20	-35			80	-17	-40			500
450		-30	-46	058	30		-36	-57	017	25		-24	-39	341	15		-30	-55				-34	-49	026	13		-31	-49	269	17		-31	-50				-30	-45				-28	-52			450
400	30	-42		064	33	31	-48		017	22	32	-30	-46	342	19	31	-41				29	-43		016	12	29	-43		250	17	29	-40	-55			30	-39	-55			32	-38			400
350		-55		067	36		-61		014	26												-54		005	18		-55		248	19		-52					-52				-50				350
300	92	-70		068	40	92	-71		004	20				For							91	-65		354	20	91	-66		246	09	92	-64				92	-65				94	-60			300
250		-79		056	30		-78		353	24												-74		354	18		-73		298	07		-75					-71					-71			250
200	79	-72		350	18	75	-74		338	22				winds							75	-70		352	15	76	-65		358	09	(230	-72				76	-69				79	-71			200
170		-71		340	13		-77		343	15												-68		351	12		-64		331	07	mb)						-65								170
150		-70		310	15		-76		323	18				See								-67		332	10		-65		326	07							-66								150
130		-69		300	12		-75		314	16				page								-69		327	12		-65		349	13							-67								130
110		-71		303	15		-74		298	14				3.								-69		334	14												-69								110
100	19	-71		286	15	17	-74		289	15											20	-69		345	13										21	-63								100
90		-73		268	17		-76		288	14												-71		326	12											-69								90
80		-76		280	17		-77		288	13												-70														-69								80
70		-79					-79		287	13												-70														-70								70
60																					(77 mb)														(68 mb)								60
	Isothermal. 1015 mb 38°- 1000mb 38°					Inversion. 1027mb 39°- 1006mb 40°					Inversion. 1025mb 35°- 988mb 38° 881 - 22°- 825 .. 24°					Inversion 1018mb 27°- 950mb 32° 527 .. -16°- 508 .. -14° Isothermal 500 - 477 mb 18°					Inversion 1022mb 23°- 998mb 34° Isothermal 493 - 483 mb -28°					Inversion 1018mb 31°- 976mb 35°					Inversion 974mb 29°- 950mb 31° Isothermal 770 - 750mb 13°					Isothermal 1012 - 978mb 36° 750 - 709 .. 08° 617 - 590 .. -08°					Inversion 1026mb 33°- 1000mb 37° 757 .. 7°- 723 .. 12°					
Tropopause	I 254mb -80° 32,500					III 275mb -77° 31,000					N.R.					N.R.					I 253mb -74° 32,600					II 265mb -73° 31,700					I 250mb -75° 32,900					I 267mb -71° 31,700					I 244mb -73° 33,100					Tropopause

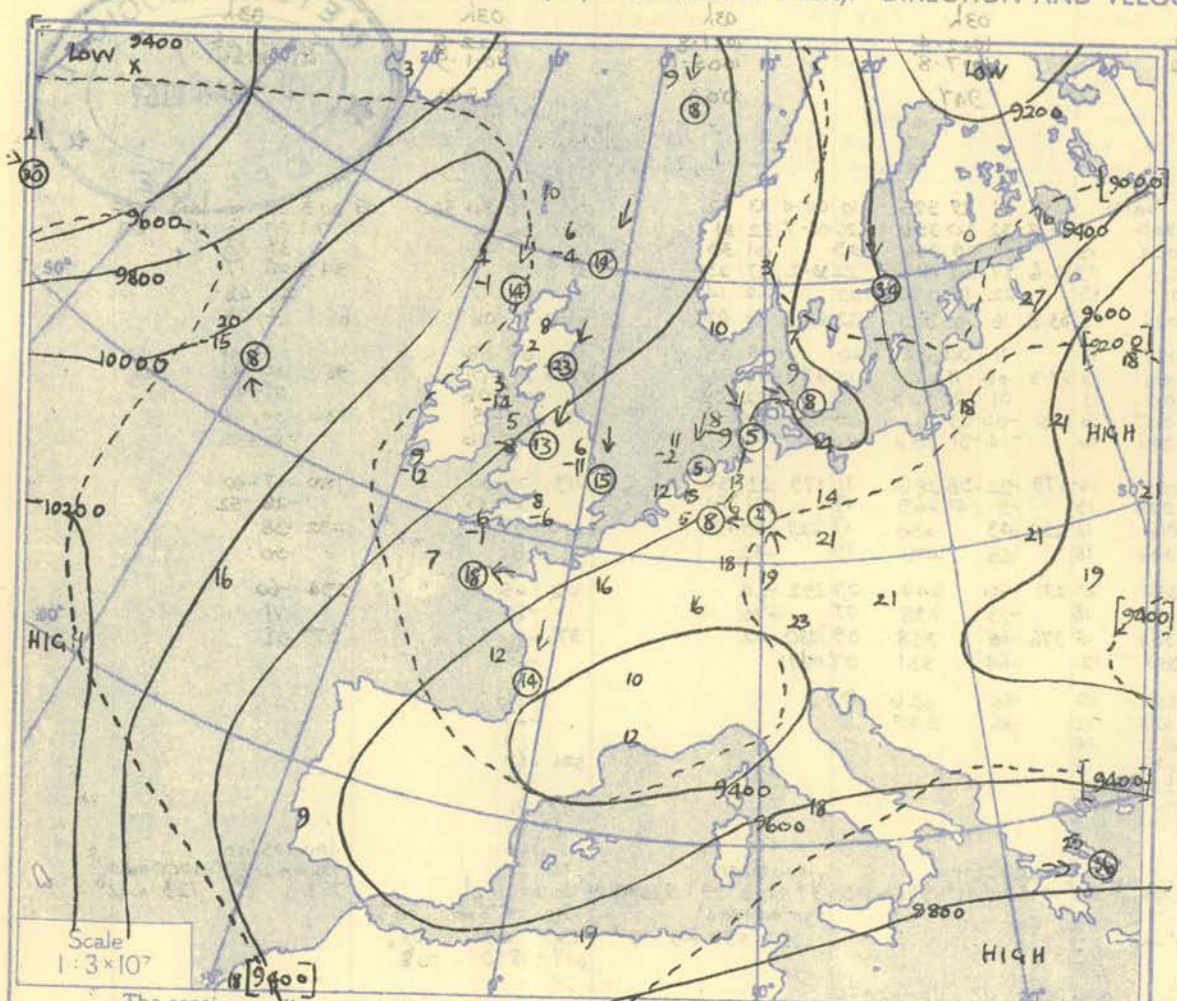
09h G.M.T.

Station	Pressure	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
	Time	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
	M.S.L.	1027·2 mb	1029 mb	1026·1 mb	1028·1 mb	1023·9 mb	1022·0 mb	1021·8 mb	1023·9 mb	mb
	Surf	1016·7 mb	1027·3 mb	1025·2 mb	1018·3 mb	1021·8 mb	1017·4 mb	1004·9 mb	1012·6 mb	mb
	Freezing	954 mb	923 mb	950 mb	945 mb	950 mb	950 mb	952 mb	950 mb	mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	35	35	015	09	30·4	38	35			00·2	34	30	340	07	02·6	23	21	Calm		00·6	29	25	020	03	01·2	30	29	310	10	09·4	32	30	030	10	02·9	35	31	360	03						Surf
1000	06·9	35	32	026	12	07·5	40	36			06·8	35	34	356	22	07·3	20	28	047	05	06·2	36	30	026	20	05·8	35	35	342	18	05·6	32	29			06·2	37	33	013	16						1000
950		31	28	034	15		35	31				32	31	019	24		33	31	040	07		32	24	016	21		32	28	015	18		31	28	022	24		32	22	034	18						950
900	34·5	25	21	049	17	35·4	29	22			34·4	27	26	028	25	35·1	27	24	033	09	33·8	26	22	016	21	33·5	27	21	030	20	33·3	27	23	029	24	39·0	29	14	046	21						900
850		20	17	054	13		22	15				22	20	030	23		21	17	032	16		20	14	037	21		21	18	034	20		24	18	030	23		22	10	043	24						850
800	64·7	15	11	051	14	65·7	15	11			64·7	17	14	033	22	65·5	14	08	037	22	63·9	15	05	027	20	63·7	15	10	018	20	63·6	19	11	033	20	64·3	15	06	042	23						800
750		13	-02	041	15		12	04				11	05	035	24		11	03	036	18		12	-05	018	19		12	03	020	19		11	02	020	20		08	02	040	16						750
700	98·3	07	-13	037	14	99·3	10	-10			98·0	05	-01	037	22	99·0	04	-04	030	18	97·4	04	-18	022	22	97·3	08	-06	032	18	97·2	06	-06	012	20	97·9	08	-05	033	15						700
650		01	-19	040	16		03	-25				03	-16	041	21		-04	-10	017	16		00	-12	032	16		00	-14	002	16		00	-08	344	15		00	-08	344	15						650
600	36	-02	-23	057	20	37	-06	-33			36	-06	-29	043	20	37	-10	-17	020	19	35	-08	-29	037	16	35	-07	-21	016	18	35	-07	-18	341	13	36	-08	-13	065	13						600
550		-10	-36	060	23		-15	-39				-15	-39	044	27		-15	-26	016	17		-16	-38	029	20		-15	-31	358	09		-16	-25	317	09		-17	-21	078	11						550
500	80	-18	-47	050	22	80	-24	-47			79	-24	-44	050	24	80	-21	-38	025	25	78	-29	-47	023	19	78	-23	-40	310	08	78	-21	-32	230	06	79	-26	-36	048	11						500
450		-28	-56	072	29		-33	-56				-32	-50	036	24		-32	-56	018	29		-34	-57	028	22		-34	-49	266	13		-29	-42	248	07		-31	-42	015	10						450
400	31	-41		070	34	31	-43				30	-42		034	23	31	-42		021	33	29	-45		011	13	29	-44		245	16	29	-39	-52	232	08	30	-41		016	09						400
350		-56		061	33		-54					-54		037	22		-56		012	31		-58		009	15		-57		236	16		-51		255	04				001	14						350
300	93	-70		057	23	93	-69				92	-66		033	21	93	-63		360	34	91	-65		343	19	91	-69		298	10	92	-64		334	06	92	-63		010	28						300
250		-81		034	24		-75					-72		035	21		-68					-70		349	18		-74		274	06		-72		335	09		-72		007	33						250
200	76	-71		342	14	77	-73				76	-71		022	21						75	-65		356	15	75	-66		360	11	76	-65		010	14	76	67		010	20						200
170		-70		320	14		-74															-67		351	16		-36		012	10		-63		360	13		66		346	21						170
150		-69		330	10		-73															-68		353	16		-66		006	09		-63		005	14		66		359	22						150
130		-72		307	14		-72															-64		341	07		-67		011	06		-63		001	12		65		341	10						130
110		-72		306	21		-73															-69		323	05						(113 mb)						68		325	08						110
100	13	-72		297	20	20	-74														21	-70													22	69		313	06						100
90							-74																													(85 mb)	-69								90
80							-75																																						80
70							-76																																						70
60		Isothermal 1017 - 978mb 35° 808 - 765 15°					Inversion 1027mb 38°- 1004mb 40° 725 .. 10°- 710 .. -11° Isothermal 800 - 787mb 15°					Inversion 1025mb 34°- 994mb 36° Isothermal 693 - 656mb 04° 285 - 270 .. -10°					Inversion 1018mb 23°- 986mb 36°					Inversion 1022mb 29°- 1005mb 36° Isothermal 764 - 752 mb 12°					Inversion 1017mb 30°- 993mb 36° 770 .. 11°- 750 .. 12°					Inversion 923mb 25°- 909mb 26° Isothermal 1005 - 952 mb 32° 881 - 868 .. 25°					Inversion 1013 mb 35°- 1000mb 37° 740 .. 06°- 710 .. 09° Isothermal 535 - 525 mb 20° 482 - 468 .. -30°										60
Tropopause	I 257mb -82° 32,500					II 260mb -75° 32,300					I 223mb -75° 35,300					II 336mb -59° 26,700					I 242mb -71° 33,700					I 268mb -75° 32,500					II 250mb -72° 33,000					I 240mb -74° 33,800										Tropopause

Tuesday 26th December 1950.

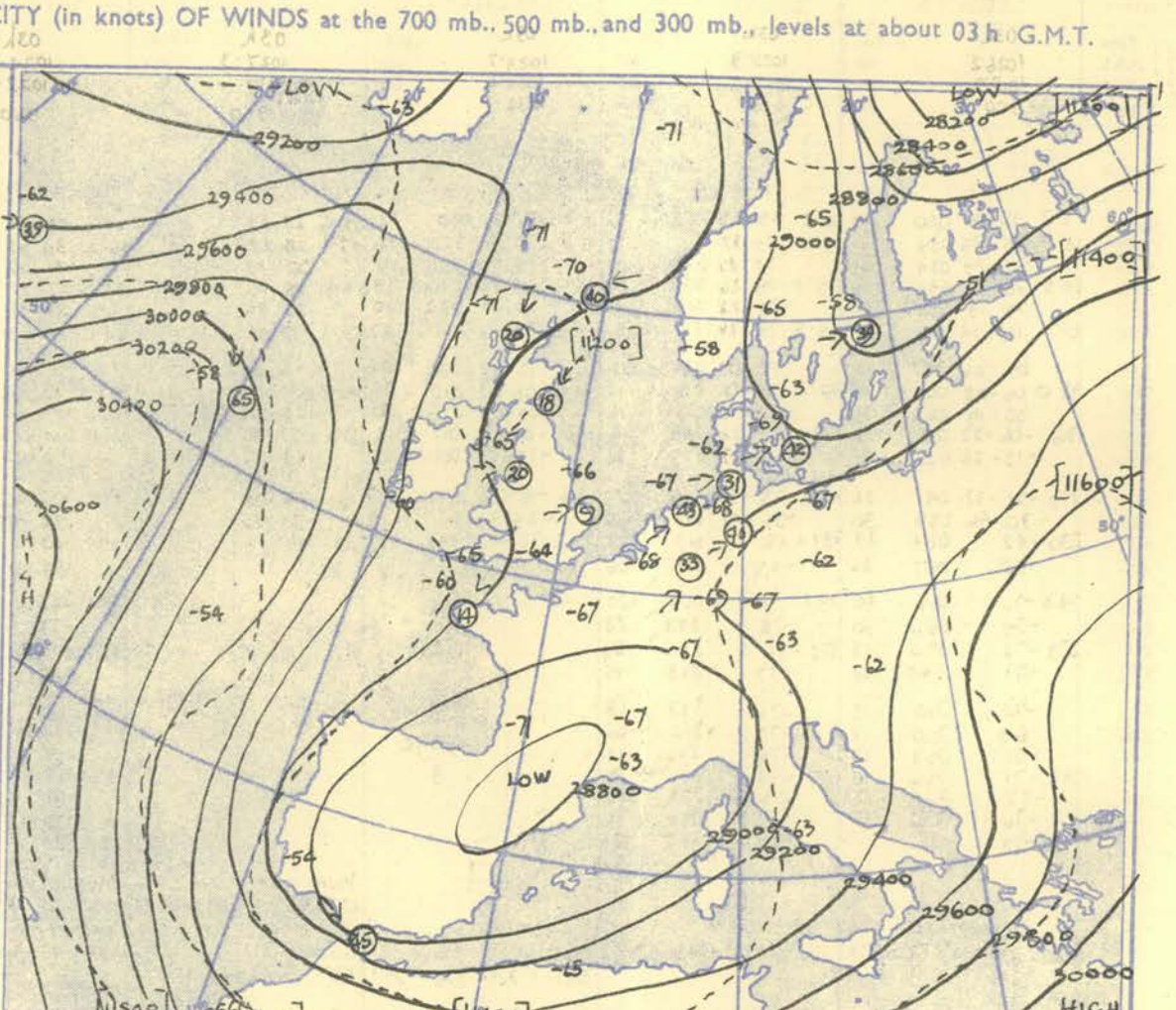
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



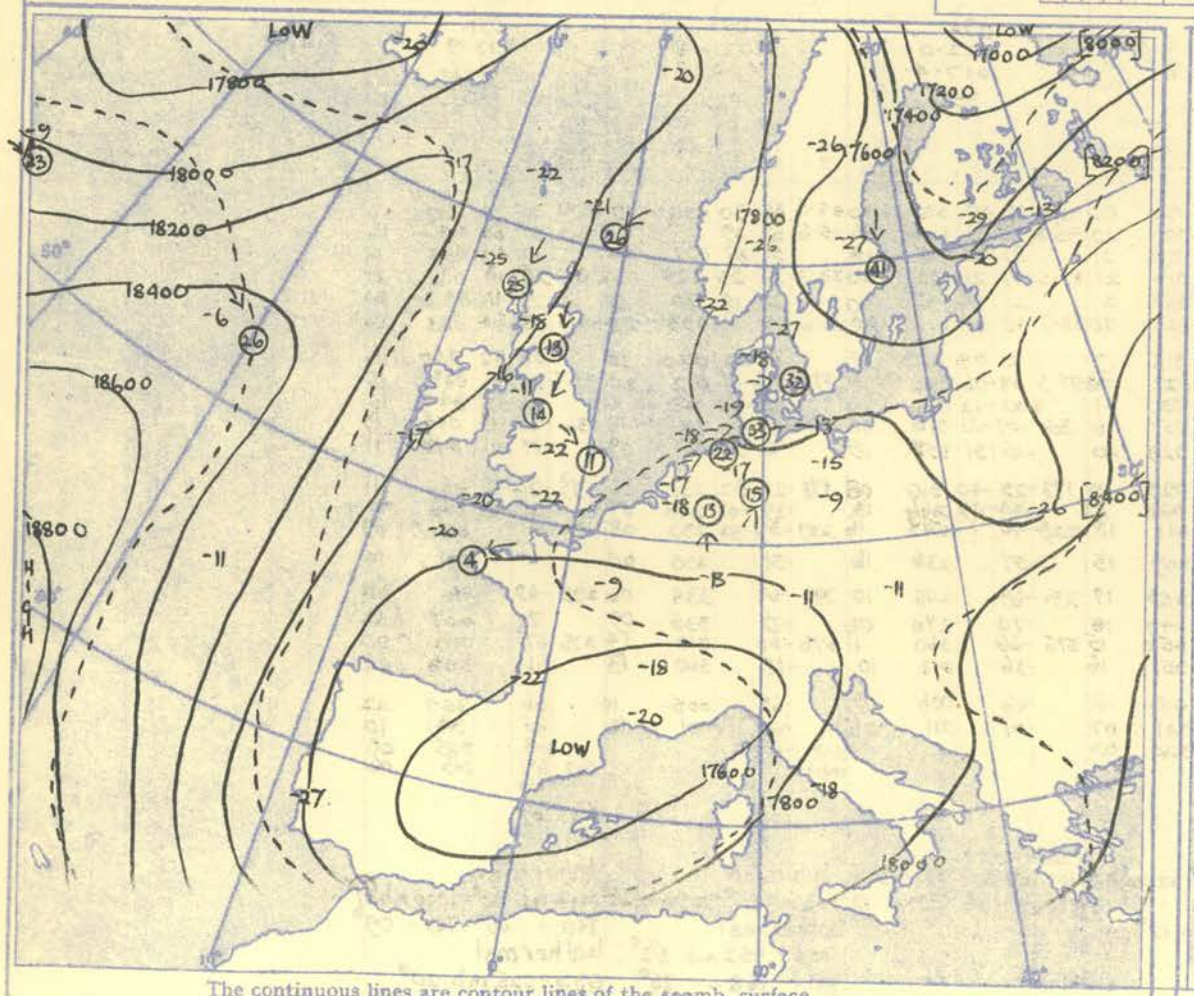
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 — 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

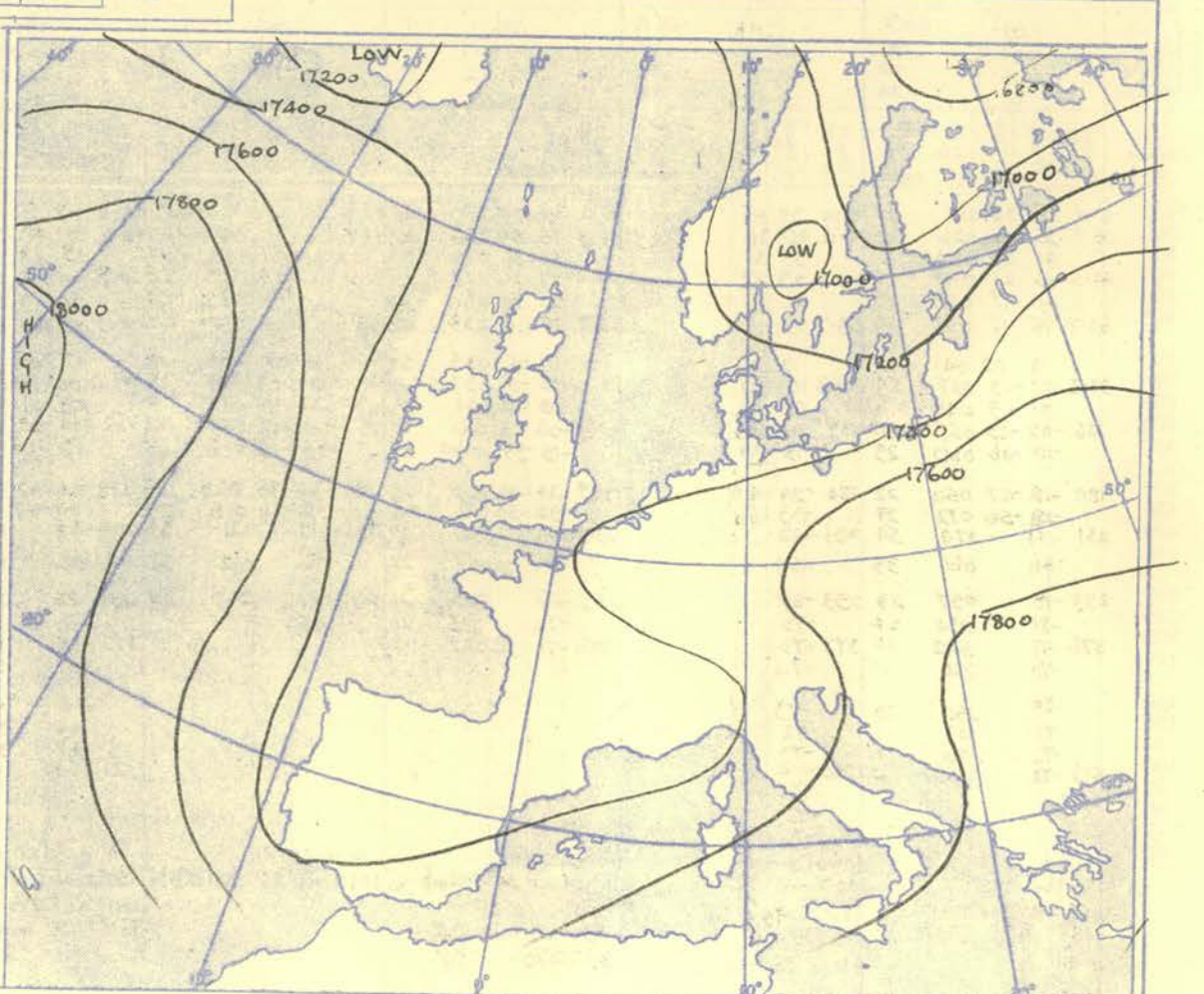
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 — 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	48·2N 20·5W			49·5N 14·7W		
Pressure Time	1330L			1515L		
Pressure M.S.L.	1019·5 mb			1025·5 mb		
Pressure Surf	1015·9 mb			1021·9 mb		
Pressure Freezing	810 mb			920 mb		
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Height ft./100	°F. Temp.	Dew °F.
Surf	01·0	43	43	01·0	46	32
1000	5·3			6·9	43	31
950		39	39		36	33
900	33·4	39	39	34·8	28	
850		32	32		23	
800	64·5	31		65·2	24	
750		29			22	
700	99·3	25		99·5	19	
650		22			12	
600	139	15		138	05	
550		02			-03	
500	184	-03		183	-09	
450						
400						
350						
300						
250						
200						
170						

cloud:- 8/8 Ns 960-560 mb
8/8 As 540-4xx mb

cloud:- 5/8 Cu 930-850 mb
5/8 As 590-510 mb
3/8 Ci NR.

Isothermal 950-900 mb 39°

Inversion 850 mb 23° 800 " 24°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Leuchars	
Time	03L	
Type	PILAR	
Feet	Dir.	Vel.
Surf.		
1,000		
2,000		
3,000		
4,000		
5,000		
6,000		
8,000		
10,000		
14,000		
18,000		
24,000		
30,000	017	18
40,000	346	12
50,000	303	11
	309	18
	(58,000)	

NEPHOSCOPE OBSERVATIONS

Place	
Time Type	NONE REPORTED.
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

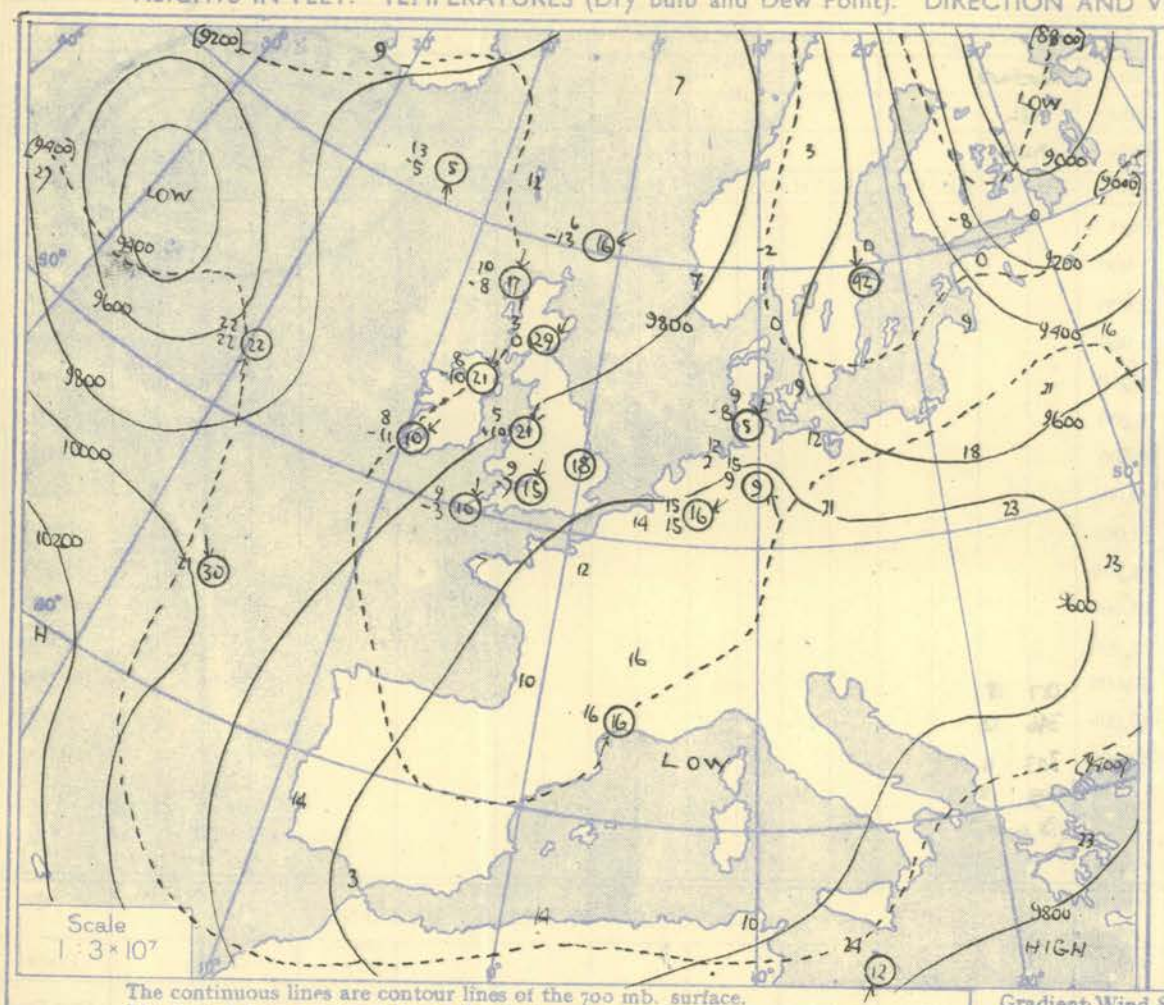
Ship	WEATHER EXPLORER					WEATHER EXPLORER.				
Lat/Long	61·0N 14·0W.					61·0N 14·2W.				
Pressure Time G.M.T.	03L					09L				
Pressure M.S.L. mb	1029					1028				
Pressure Surf mb	1029					1028				
Pressure Freezing mb	925					925				
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		44	35	Calm			44	35	170	02
1000	7·8	40	32	137	03	7·5	41	35	220	06
950		35	28	146	04		35	30	202	05
900	35·7	29	22			35·4	31	21	195	05
850		27	17				28	14		
800	66·2	23	07			66·0	21	08		
750		15	00				14	04		
700	100	09	-04			99·8	10	-01		
650		05	-14				03	-11		
600	138	-01	-22			138	-03	-15		
550		-09	-26	289	18		-10	-20		
500	182	-17	-32	285	23	182	-17	-25		
450		-27	-41	287	25		-29	-37		
400	233	-38	-51			233	-41		277	20
350		-39					-54		300	31
	(392mb)									
300						295	-67		290	33
250							-80		277	28
200						378	-76		287	17
170							-73		295	17
150							-73		285	19
130							-72		281	25
110							-73		288	25
100						521	-74		293	20
90							-74		295	28
80						(84mb)	-74			
70										
60										
	Isothermal 863mb - 846mb 27° 650 " - 637 " 5°					Inversion 913mb 30° - 900mb 31° Isothermal 900 - 875mb 31°				
Tropopause	NR.					I 240mb -81° 34.000				

Ship	WEATHER EXPLORER.					WEATHER EXPLORER				
Lat/Long	61·0N 14·2W.					61·0N 14·3W.				
Pressure Time G.M.T.	14L					21L				
Pressure M.S.L. mb	1028					1027				
Pressure Surf mb	1028					1027				
Pressure Freezing mb	918					915				
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	33	180	07		44	32	150	06
1000	7·4	42	31	190	09	7·2	43	30	175	05
950		36	27	195	10		37	26	183	06
900	35·3	30	22	198	08	35·1	30	21	187	06
850		29	13	191	06		27	15	186	08
800	66·0	23	06	182	05	65·8	23	03	185	08
750		18	00	170	05		17	-04	188	08
700	100	13	-05	167	05	89·8	11	-13	204	07
650		07	-11	189	07		06	-18	227	09
600	138	01	-11	245	11	138	00	-19	235	10
550		-07	-16	257	17		-09	-23	248	16
500	182	-15	-23	235	19	182	-17	-28	251	24
450		-25	-33	228	18		-24	-36	253	27
400	234	-35	-43	347	19	234	-35	-45	263	26
350		-47		262	23		-46		272	28
300	297	-61		274	28	297	-59		278	36
250		-76		275	32		-73		293	39
200	381	-77		276	27	381	-78		272	39
170		-74		294	26		-73		279	34
150		-72		302	27		-71		298	29
130		-74		306	27		-71		297	30
110		-75					-72		288	28
100	(120mb)					524	-73		282	26
90							-73		291	26
80							-73		297	27
70							-72		291	31
60							-73		298	27
							-73		311	36
						(48mb)	-73			
	Inversion 893mb 29° - 871mb 31°					Isothermal. 875 - 837mb 27°				
Tropopause	I 224mb -81° 35.700.					II 233mb -79° 34.900.				

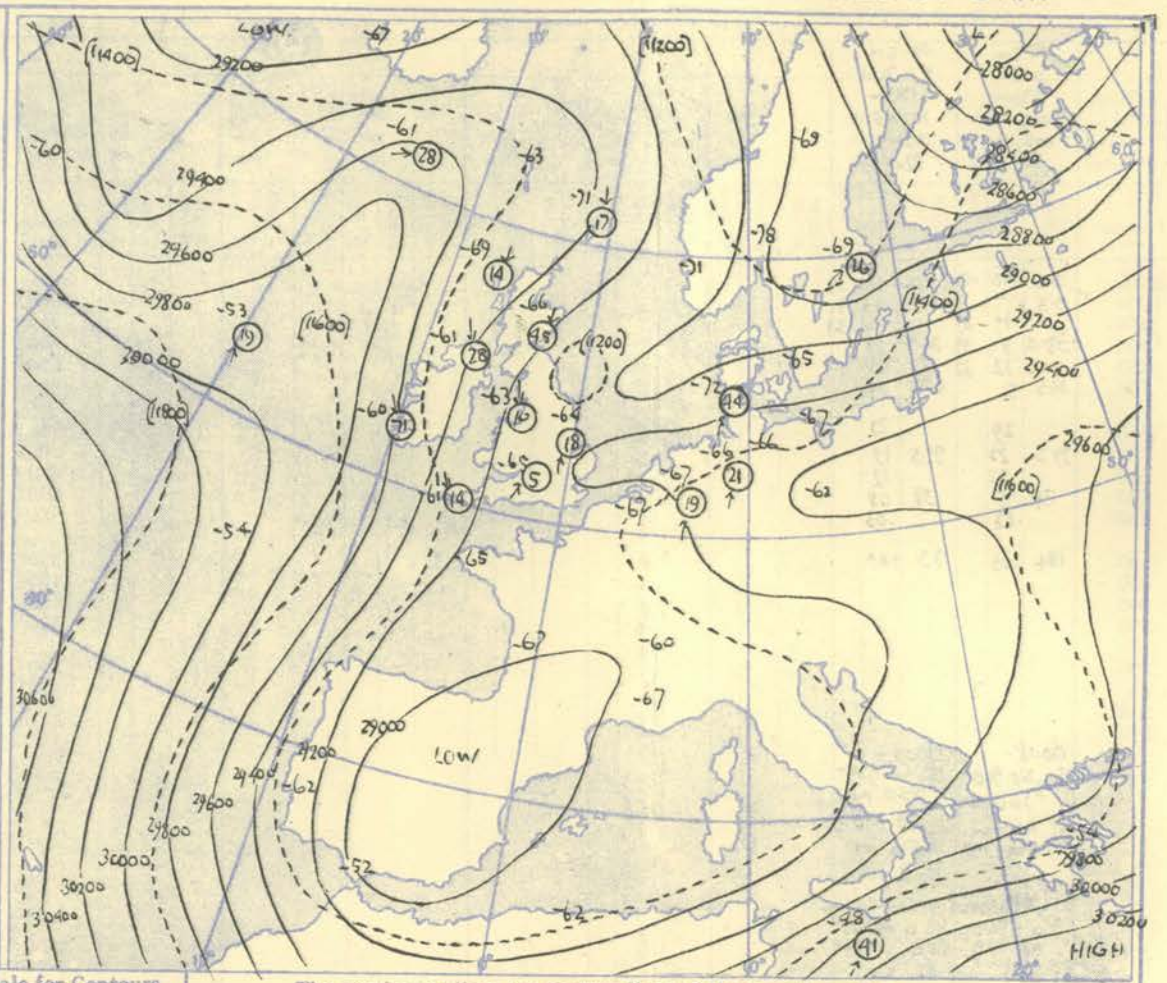
Ship	WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·6N 19·9W					52·6N 20·1W				
Pressure Time G.M.T.	03L					09L				
Pressure M.S.L. mb	1026					1020				
Pressure Surf mb	1026					1020				
Pressure Freezing mb	900					890				
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		47	45	130	15		48	48	145	22
1000	7·0	45	41	146	21	5·4	46	45	159	31
950		39	30	153	15		40	36	155	28
900	35·1	33	24	159	15	33·6	33	24	159	24
850		27	18	160	15		29	22	161	30
800	65·9	27	12	162	11	64·4	26	20	177	22
750		24	01	162	09		26	21	163	23
700	100	20	-15	161	08	98·9	22	18	201	16
650		15	-08	161	06		17	13	197	15
600	139	09	-05	241	06	138	11	06	220	19
550		02	-07	282	18		05	00	211	16
500	184	-06	-15	290	26	183	-02	-07	228	23
450		-16	-25	305	32		-12	-18	222	22
400	237	-29	-39	312	35	236	-24	-29	247	36
350		-42		310	30		-37	-53	238	23
300	309	-58		303	65	301	-53		262	36
250		-77		300	69		-70		245	40
200	384	-82		304	51	385	-77		273	40
170		-82					-80		268	35
150	(185mb)						-70		297	30
130							-72		285	43
110							-74			
100						528	-75			
90										
80										
70										
60										
	Inversion 838mb 25° - 813mb 28°					Inversion 780mb 24° - 750mb 26°				
Tropopause	I 225mb -86°. 36.000					I 215mb - 83° 37.000				

Ship	WEATHER RECORDER					WEATHER RECORDER.				
Lat/Long	52·8N 20·1W					52·7N 19·9W.				
Pressure Time G.M.T.	14L					21L				
Pressure M.S.L. mb	1013					1008				
Pressure Surf mb	1013					1008				
Pressure Freezing mb	890					870				
Pressure mb	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F. Temp.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	46	140	30		46	46	150	35
1000	3·5	46	44	154	40	2·2	45		143	40
950		39	38	154	45		39		137	45
900	31·6	33	33	158	52	30·4	34		136	56
850		29	29	158	50		30		136	63
800	62·5	28	28	166	42	61·2	29		156	46
750		26	26	181	30		24		165	42
700	97·2	22	22	183	22	95·6	19		164	41
650		15	15	190	25		13		148	33
600	136	09	09	202	36	135	06		148	31
550		03	02	209	24		01		148	30
500	181	-05	-06	206	21	179	-07		148	33
450		-15	-17	198	18		-17		148	39
400	234	-26	-28	196	19	232	-29		148	28
350		-39	-42	200	20		-43		148	23
300	299	-53		211	19	296	-69		148	30
250		-65					-71		148	14
200	(260mb)					380	-68		315	21
170							-69		317	15
150							-70		315	19
130							-72		315	21
110							-73		310	22
100						524	-74		300	30
90							-75		290	30
80							-77			
70										
60										
	Isothermal. 782 - 760mb 27°					Isothermal. 836 - 800mb 29°				
Tropopause	NR.					II 259mb -71° 32.800				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

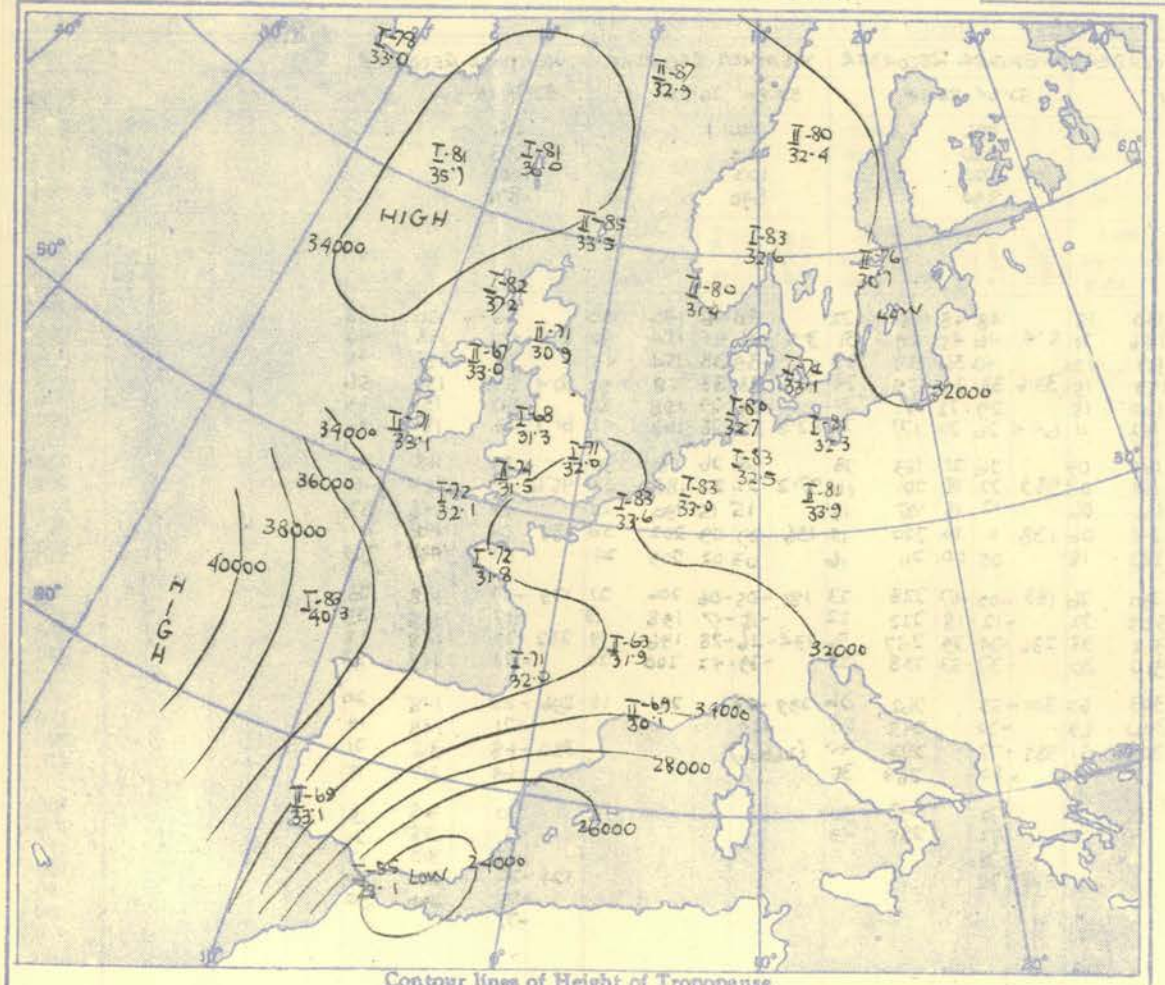


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500–300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Warm ridge in the Atlantic moved eastwards and weakened considerably. A cold trough formed over Finland in association with the northerly current of a low centred east of Finland.

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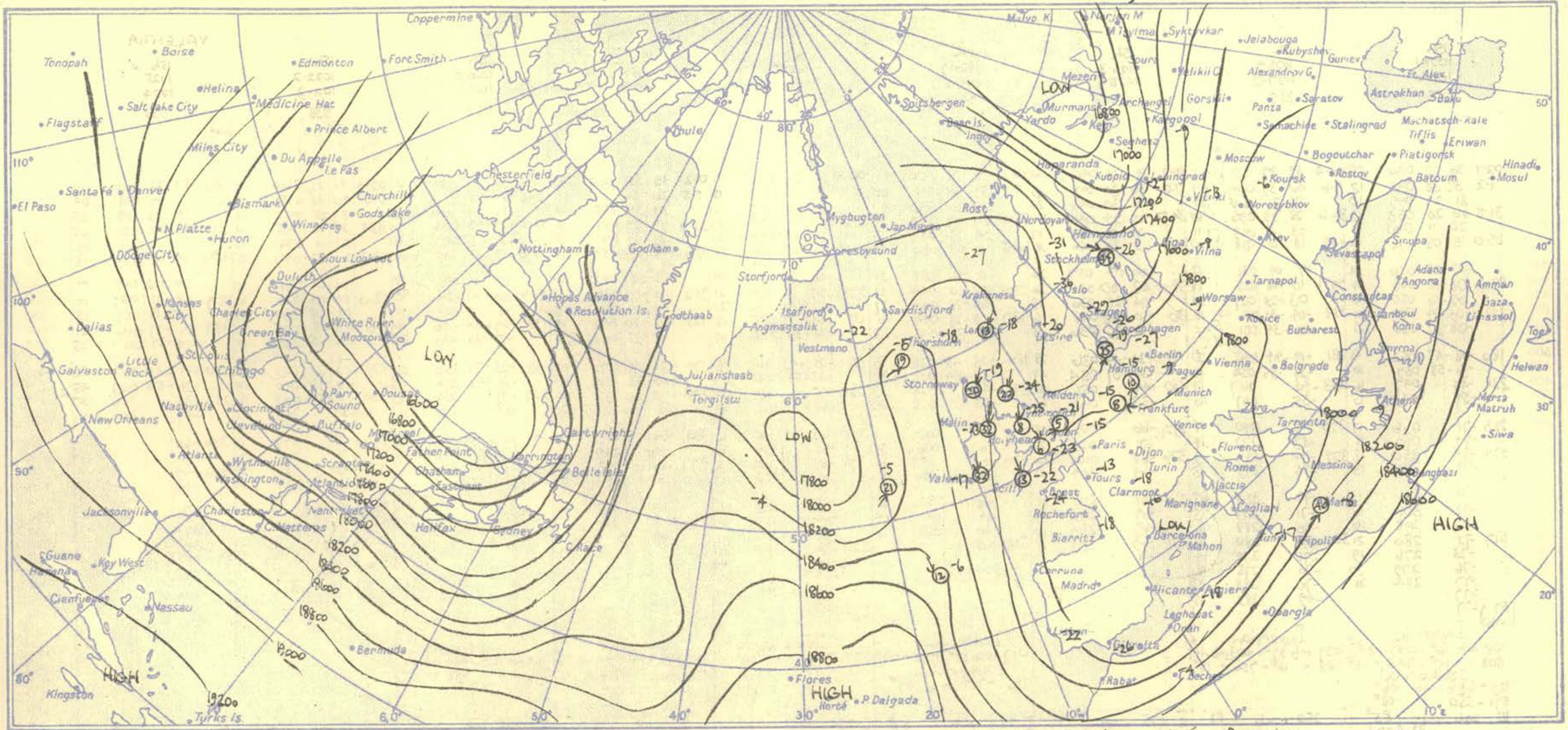
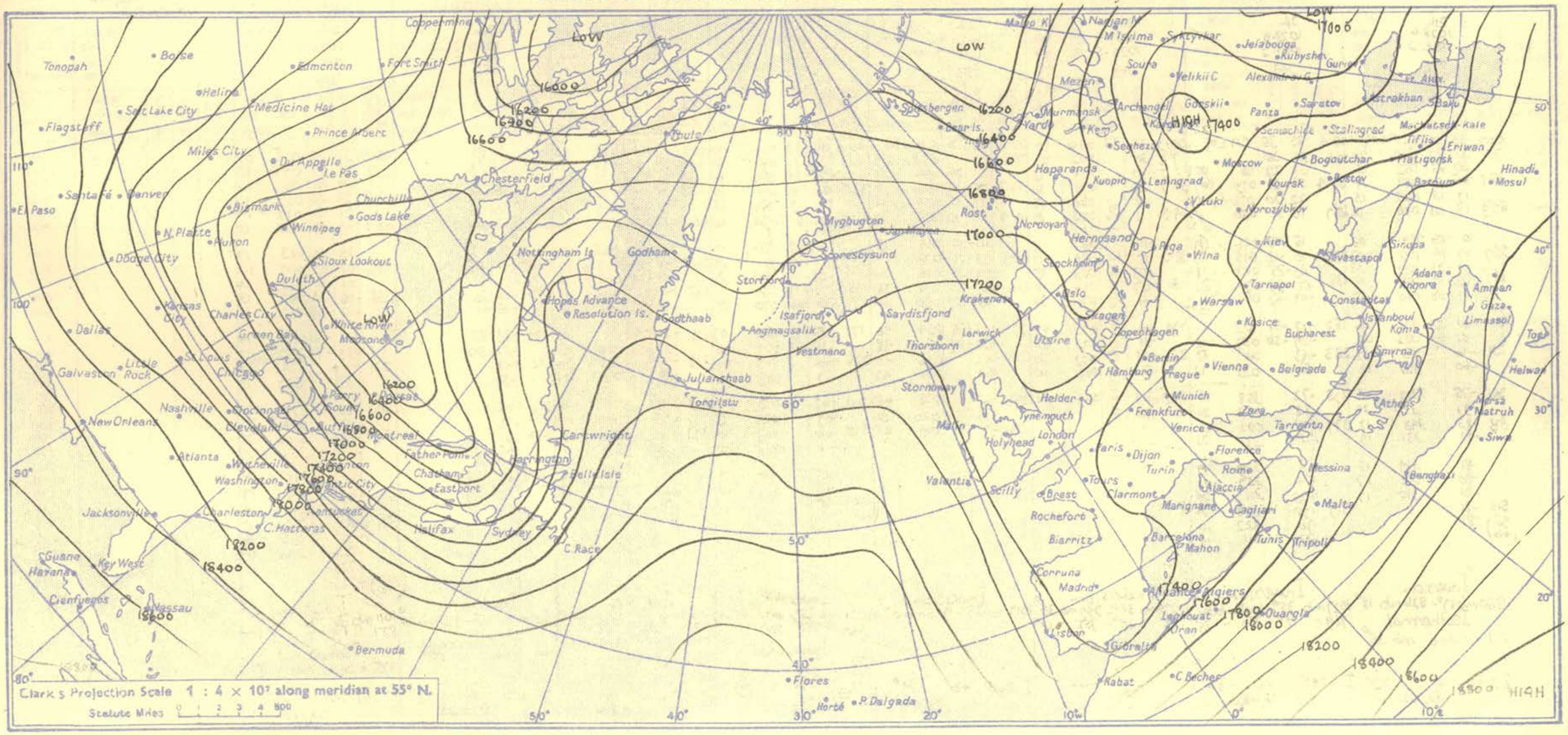
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Tuesday 26th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 26 December. 1950.



METEOROLOGICAL OFFICE, LONDON. ... to day to ... December ... 1950.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Pressure — Time 15h G.M.T.; M.S.L. 1028·1 mb; Surf 1017·6 mb; Freezing 953 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	30	33	030	08
1000	T·2	38	38	033	12
950		31	27	049	10
900	34·8	26	20	053	12
850		20	11	061	13
800	65·0	15	08	070	12
750		10	-08	070	14
700	98·4	06	-13	058	14
650		05	-16	050	10
600	137	-03	-24	059	09
550		-08	-32	056	10
500	180	-18	-47	042	13
450		-31	-58	039	16
400	231	-44		047	16
350		-59		042	15
300	293	-71		026	17
250		-84		010	18
200	374	-84		350	18
170		-79		339	15
150		-74		324	13
130		-72		301	15
110		-72		298	16
100	517	-72		280	21
90		-73		276	19
80		-76		279	20
70		-77		284	21
60		-77			
(57 mb)					

Inversion 1018 mb 36° - 1007 mb 39° / 808 " 14° - 765 " 15°
Isothermal 729 - 656 mb 06° / 571 - 550 " -08°

Tropopause II 246 mb - 85° 33,400'

STORNOWAY

Pressure — Time 15h G.M.T.; M.S.L. 1028·9 mb; Surf 1027·2 mb; Freezing 935 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	39	37	CALM	
1000	7·6	40	37	066	07
950		34	31	060	10
900	35·6	28	25	086	10
850		23	18	049	11
800	58	18	10	038	10
750		17	04	031	12
700	99·6	10	-08	025	17
650		03	-23	027	20
600	138	-04	-31	036	18
550		-10	-34	051	17
500	181	-19	-44	046	20
450		-29	-55	054	16
400	233	-40		067	17
350		-55		067	16
300	295	-69		040	14
250		-82		022	18
200	377	-74		349	19
170		-74		349	15
150		-74		322	15
130		-71		303	15
110		-70		288	16
100	521	-71		280	16
90		-71		279	14
80		-70		275	18
70		-70		288	27
60		-69		282	25

Inversion 1027 mb 39° - 1003 mb 41° / 788 " 16° - 756 " 18°

Tropopause I 250 mb - 82° 34,200'

LEUCHARS

Pressure — Time 15h G.M.T.; M.S.L. 1026·3 mb; Surf 1025·4 mb; Freezing 963 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	38	34	040	06
1000	7·0	36	34	042	15
950		31	30	046	20
900	34·7	25	24	046	21
850		20	19	043	17
800	64·9	15	14	046	18
750		09	07	057	26
700	98·0	03	00	041	24
650		-04	-25	036	18
600	130	-10	-30	048	16
550		-16	-38	036	23
500	179	-24	-49	026	28
450		-34	-51	084	41
400	230	-44		057	51
350		-55		063	51
300	292	-66		059	45
250		-71		022	27
200	376	-68		016	20
170		-69		344	10
150		-68		328	11
130		-69		292	09
110		-69		294	10
100	521	-69		303	13
90		-71			

Inversion 1017 mb 32° - 992 mb 39° / 735 - 717 mb 09°
Isothermal

Tropopause I 275 mb - 71° 39,900'

ALDERGROVE

Pressure — Time 15h G.M.T.; M.S.L. 1026·9 mb; Surf 1017·3 mb; Freezing 930 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	32	30	CALM	
1000	7·2	32	33	012	05
950		34	26	040	08
900	35·1	29	22	053	12
850		24	13	059	16
800	65·5	18	05	060	17
750		11	-01	038	21
700	99·1	08	-10	044	21
650		00	-28	044	22
600	137	-08	-33	044	25
550		-16	-38	030	28
500	180	-23	-45	028	32
450		-33	-54	032	33
400	231	-44		029	33
350		-55		028	30
300	293	-61		020	28
250		-67		010	33
200	379	-63		358	24
170		-64		336	18
150		-65		336	16
130		-64		339	14
110		-64		303	11
100	525	-65			

Inversion 1017 mb 32° - 992 mb 39°
Isothermal T35 - 717 mb 09°

LIVERPOOL

Pressure — Time 15h G.M.T.; M.S.L. 1022·7 mb; Surf 1020·6 mb; Freezing 941 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	006	37	34	030	10
1000	5·8	36	31	062	13
950		33	26	053	21
900	33·6	27	18	040	23
850		20	13	024	21
800	63·8	19	03	030	20
750		12	-08	031	19
700	97·4	05	-10	024	21
650		-02	-16	030	21
600	135	-08	-23	035	18
550		-14	-33	023	09
500	178	+25	-43	011	08
450		+34	-51	014	07
400	229	+45		017	06
350		+53		019	06
300	291	+63		004	10
250		+66		358	11
200	376	+69		004	16
170		+66		002	13
150		+63		352	12
130		+66		324	10
110		+70		303	11
100	521	+70		303	10
90		+69		297	08
80		+67		288	10
70		+69		298	11
60		+69			
(66 mb)					

Isothermal. 859 - 806 mb 20

Tropopause I 271 mb - 68° 31,300'

DOWNHAM MARKET

Pressure — Time 15h G.M.T.; M.S.L. 1021·0 mb; Surf 1016·6 mb; Freezing 934 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	35	35	345	05
1000	5·5	36	36		
950		33	33	055	13
900	33·3	28	27	077	15
850		23	22	079	15
800	63·6	17	16	057	15
750		10	08	042	16
700	91·2	10	-02	037	18
650		04	-12	036	18
600	135	-02	-20	052	17
550		-12	-35	062	15
500	179	-21	-44	290	05
450		-28	-52	216	05
400	230	-40	-60	233	15
350		-51		228	20
300	293	-64		219	18
250		-69		249	11
200	377	-66		348	06
170		-62		353	07
150		-63		345	06
130		-63		320	07
110		-64			

Inversion 1017 mb 35° - 993 mb 36° / 750 " 10° - 734 " 12°

Tropopause I 283 mb - 71° 32,000'

LARKHILL

Pressure — Time 15h G.M.T.; M.S.L. 1020·0 mb; Surf 1003·3 mb; Freezing 983 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	35	31	030	12
1000	5·2	34	31		
950		31	29	020	21
900	32·8	27	22	026	20
850		21	17	028	18
800	63·0	13	11	030	19
750		05	05	028	18
700	96·6	09	-07	028	15
650		01	-19	026	14
600	135	-07	-24	026	10
550		-15	-36	030	07
500	178	-23	-38	350	06
450		-31	-48	236	07
400	229	-41		236	10
350		-53		230	11
300	291	-65		252	05
250		-74		342	20
200	378	-68		341	13
150		-63			

Inversion 961 mb 30° - 944 mb 31° / 786 " 11° - 750 " 15°

Tropopause II 266 mb - 74° 31,500'

CAMBORNE

Pressure — Time 15h G.M.T.; M.S.L. 1022·2 mb; Surf 1011·3 mb; Freezing 938 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	41	32	360	10
1000	6·0	40	32	015	18
950		34	25	022	15
900	33·8	28	18	035	14
850		24	10	051	13
800	64·2	21	07	049	07
750		14	01	031	10
700	98·0	09	-03	020	10
650		03	-08	360	12
600	136	-08	-18	325	11
550		-14	-25	335	09
500	179	-22	-35	093	13
450		-30	-45	010	16
400	230	-39	-54	008	18
350		-52		343	21
300	293	-61		328	14
250		-71		349	21
200	378	-65		342	23
170		+66		344	20
150		+68			

Inversion 1011 mb 36° - 992 mb 38° / 827 " 17° - 795 " 19°
Isothermal 525 - 510 mb -19°

Tropopause I 261 mb - 72° 32,100'

VALENTIA

Pressure — Time 15h G.M.T.; M.S.L. 1025 mb; Surf 1024 mb; Freezing 920 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	47	33	200	03
1000	6·7	40	27	154	04
950		35	23	158	05
900	34·6	30	17	021	05
850		24	10	068	03
800	65·0	19	03	079	13
750		14	-02	064	14
700	98·7	08	-11	057	10
650		05	-18	027	15
600	137	01	-27	016	21
550		-08	-37	011	25
500	180	-17	-45	007	32
450		-26	-54	002	45
400	233	-34		356	57
350		-47		341	71
300	296	-60			
250		-71			
200	380	-69			
170		-68			
150		-70			
130		-68			
110		-64			
100	543	-65			
90		-67			

Tropopause I 254 mb - 71° 33,100'

LERWICK

Pressure — Time 21h G.M.T.; M.S.L. 1028·6 mb; Surf 1018·2 mb; Freezing 972 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	35	33	CALM	
1000	T·5	35	32	050	06
950		30	25	052	13
900	35·1	25	20	058	14
850		17	13	075	13
800	65·3	14	03	086	12
750		10	-06	089	06
700	98·7	07	-14	100	07
650		03	-21	092	08
600	137	-03	-30	046	10
550		-11	-36	010	05
500	180	-20	-47	322	06
450		-32	-57	335	09
400	231	-46		331	12
350		-60		328	12
300	292	-75		323	13
250		-91		327	20
200	373	-83		343	17
170		-82		331	19
150		-81		324	18
130		-80		321	17
110		-81		310	17
100	513	-81			
90	95	-82			
80	(46 mb)				
70					
60					

Inversion 850 mb 17° - 826 mb 18°
Isothermal 818 - 1000 mb 35°

Tropopause I 242 mb -92° 33,600'

STORNOWAY

Pressure — Time 21h G.M.T.; M.S.L. 1028·9 mb; Surf 1027·2 mb; Freezing 943 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	35	CALM	
1000	7·6	38	35		
950		33	29	115	05
900	35·4	28	24	079	07
850		22	20	078	10
800	65·7	16	11	050	11
750		15	03	046	11
700	99·4	10	-12	045	17
650		03	-25	044	17
600	138	-01	-33	056	12
550		-07	-42	084	11
500	182	-17	-51	102	17
450		-29	-56	077	10
400	233	-43		049	12
350		-56		021	12
300	295	-72		358	14
250		-82		002	24
200	377	-78		003	25
170		-75		331	23
150		-75		339	19
130		-74		339	11
110		-75		311	24
100	519	-75		328	24
90		-76		322	16
80		-77		311	16
70					
60					

Inversion 1027 mb 35° - 1008 mb 39° / 769 " 13° - 750 " 15°

Tropopause I 245 mb - 83° 33,600'

LEUCHARS

Pressure — Time 21h G.M.T.; M.S.L. 1027·4 mb; Surf 1020·5 mb; Freezing 968 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	34	33	080	06
1000	7·1	36		062	07
950		30		084	12
900	34·7	24		079	16
850		18		060	18
800	64·8	11		053	19
750		11		068	18
700	98·0	05		079	17
650		-03		088	15
600	136	-07		086	18
550		-14		071	30
500	179	-20		073	43
450		-31		073	48
400	230	-43		072	50
350		-56		066	50
300	292	-69		049	38
250		-76			

U/S. ELEMENT. HUMIDITY

Inversion 1027 mb 34° - 999 mb 36° / 779 " 08° - 755 " 12°

N.R.

ALDERGROVE

Pressure — Time 21h G.M.T.; M.S.L. 1026·4 mb; Surf 1016·9 mb; Freezing 953 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	33	27	CALM	
1000	7·0			053	09
950		31	24	054	14
900	34·7	25	20	056	10
850		20	15	054	18
800	64·9	15	10	038	15
750		10	-04	054	15
700	98·3	03	-21	038	17
650		-03	-38	040	20
600	136	-10	-50	034	25
550		-16	-57	030	30
500	179	-23	-56	034	46
450		-32	-59	036	48
400	230	-42		036	48
350		-52		040	47
300	292	-67		028	45
250		-73		020	36
200	376	-71		004	23
170		-72			

Inversion 1017 mb 33° - 995 mb 37°

Tropopause I 253 mb - 67° 33,000'

LIVERPOOL

Pressure — Time 21h G.M.T.; M.S.L. 1023·0 mb; Surf 1020·9 mb; Freezing 960 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	35	32	050	10
1000	6·0	36	32	051	24
950		31	24	059	18
900	33·7	26	21	066	15
850		21	17	074	13
800	63·9	14	11	074	16
750		10	05	056	17
700	97·3	03	-07	051	18
650		-03	-19	050	21
600	135	-09	-28	054	19
550		-16	-66	070	15
500	178	-25	-45	052	07
450		-35	-55	028	06
400	228	-46		069	06
350		-57		083	06
300	290	-62		032	10
250		-69		028	13
200	375	-66		007	16
170		-66		003	10
150		-67		360	15
130		-67		327	16
110		-67			
(122 mb)					

Inversion 1021 mb 35° - 1001 mb 36° / 823 " -65° - 801 " -62°
Isothermal 778 - 758 mb 11° / 360 - 348 " -57° / 290 - 273 " -69°

Tropopause I 248 mb -69° 32,800'

DOWNHAM MARKET

Pressure — Time 21h G.M.T.; M.S.L. 1022·7 mb; Surf 1018·2 mb; Freezing 963 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	33	31	070	03
1000	6·0	34	30	072	15
950		31	21	073	11
900	33·5	25	15	075	13
850		18	09	077	19
800	63·5	11	08	070	26
750		09	02	065	22
700	96·8	05	-04	067	19
650		01	-14	065	18
600	135	-08	-25	073	11
550		-19	-35	091	10
500	178	-26	-42	170	09
450		-35	-51	200	13
400	228	-47		213	24
350		-58		210	24
300	289	-71		211	16
250		-75		227	03
200	373	-70		014	10
150		-68		345	11
130		-72		337	11
110		-69		355	12
100		-71			

Inversion 1018 mb 33° - 1000 mb 34° / 778 " 06° - 745 " 10° / 696 " 04° - 670 " 05°

Tropopause I 270 mb - 77° 31,100'

LARKHILL

Pressure — Time 21h G.M.T.; M.S.L. 1020·2 mb; Surf 1003·5 mb; Freezing 980 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	34	34		
1000	5·3	33	33		
950		29	28		
900	32·8	25	24		
850		20	18		
800	62·9	13	09		
750		09	03		
700	96·2	06	-05		
650		-01	-21		
600	134	-08	-30		
550		-15	-41		
500	177	-23	-55		
450		-32	-59		
400	227	-42			
350		-52			
300	290	-63			
250		-72			
200	373	-61			
150		-63			
130		-67			

Inversion 764 mb 08° - 740 mb 10°
Isothermal 610 -600 mb 08°

Tropopause I 250 mb - 72° 31,700'

CAMBORNE

Pressure — Time 21h G.M.T.; M.S.L. 1021·6 mb; Surf 1010·6 mb; Freezing 936 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	36	32	023	05
1000	5·7	37	32	048	15
950		34	26	037	16
900	33·5	28	20	027	17
850		21	15	022	19
800	63·8	13	07	022	15
750		15	00	023	17
700	97·6	08	-05	019	16
650		01	-15	018	14
600	135	-06	-23	007	13
550		-14	-34	007	13
500	179	-21	-40	002	14
450		-33	-49	352	15
400	229	-44		342	16
350		-53		322	15
300	292	-63		326	21
250		-68		341	21
200	377	-69		346	22
170		-69		351	24
150		-69		348	20
130		-69		344	17
110		-69		331	14
100	521	-70		309	09
90		-70		305	16
80		-71		290	09
70		-72			
60		-72			
(68 mb)					

Inversion 1011 mb 36° - 992 mb 38° / 827 " 17° - 795 " 19°
Isothermal 525 - 510 mb -19°

Tropopause I 291 mb - 65° 29,800'

VALENTIA

Pressure — Time G.M.T.; M.S.L. mb; Surf mb; Freezing mb

Tropopause

HMSO Press, MO, Dunstable.

No. 11595 **DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.** Wednesday 27th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h. G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h. G.M.T.	03h. G.M.T.
Pressure: M.S.L.	1028·8 mb	1028·6 mb	1027·6 mb	1024·1 mb	1022·7 mb	1022·2 mb	1020·4 mb	1019·8 mb	1021·9 mb
Pressure: Surf	1018·4 mb	1026·9 mb	1026·7 mb	1016·2 mb	1020·6 mb	1017·6 mb	1003·5 mb	1008·9 mb	1021 mb
Pressure: Freezing	965 mb	954 mb	963 mb	970 mb	941 mb	968 mb	960 mb	978 mb	935 mb

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	31	21	CALM		00·4	35	33	CALM		00·2	34	30	CALM		02·6	31	29	075	10	00·6	32	28	CALM		01·2	33	32	005	07	04·4	32	31			02·9	36	32	090	05	00·3	36	27			Surf
1000	07·5	36	25	CALM		07·4	37	34	099	07	07·2	35	30	064	11	06·8	36	31	070	10	05·9	33	28	110	10	05·8	35	32	050	21	05·3	32	31			08·2	36	31	060	14	5·9	38	28			1000
950		30	22	083	02		31	27	097	08		30	21	066	11		30	21	068	18		33	26	105	11		30	26	055	26		30	23				35	29	053	12		34	23			950
900	36·0	24	16	090	03	35·2	26	20	086	08	34·8	23	15	071	16	34·4	22	11	062	17	33·6	27	17	101	09	33·4	23	21	050	27	328	23	17			330	29	23	045	12	33·7	27	14			900
850		22	01	072	05		18	14	084	08		16	09	074	18		15	05	053	16		20	06	088	07		18	11	031	25		16	12				22	17	044	13		23	09			850
800	65·2	16	04	061	09	65·3	17	02	087	07	64·8	10	05	079	17	64·3	14	03	054	17	63·8	14	06	070	13	634	11	07	035	21	627	10	08			632	15	11	044	13	64·0	17	03			800
750		12	-10	082	05		12	-10	087	07		12	-02	087	17		-10	-04	072	15		08	04	081	20		11	00	080	19		07	03				10	03	044	15		09	-07			750
700	989	12	-14	207	02	98·9	11	-14	078	07	98·3	06	-16	090	13	97·8	04	-15	091	18	97·1	05	-04	084	22	96·9	08	-12	067	22	95·9	04	-03			96·6	06	-07	038	17	97·4	05	-13			700
650		05	-25	238	03		05	-27	079	07		-01	-23	089	15		00	-23	088	18		-01	-17	082	19		04	-20	070	22		-03	-14				00	-18	035	13		01	-20			650
600	137	-03	-32	273	02	137	00	-32	080	07	136	-06	-29	088	27	136	-07	-29	085	21	135	-08	-28	092	12	135	-04	-28	076	18	334	-09	-23			134	-07	-26	051	09	135	-03	-26			600
550		-09	-37	005	05		-03	-39	088	05		-10	-33	086	34		-16	-36	080	29		-17	-42	106	08		-13	-38	099	10		-16	-30				-15	-36	063	09		-10	-42			550
500	181	-18	-47	319	10	18·1	-17	-50	111	05	180	-21	-45	084	37	179	-24	-44	069	33	17·8	-27	-55	087	12	178	-20	-37	067	11	766	-23	-37			178	-24	-47	040	07	179	-17	-50			500
450		-28	-52	362	10		-28	-56	083	06		-32	-56	080	43		-31	-53	060	47		-35	-58	078	17		-29	-45	193	15		-33	-48				-34	-54	009	05		-28				450
400	232	-40	-60	303	22	233	-40	-60	031	07	231	-43		070	45	230	-41		057	55	228	-47		083	15	230	-41		194	22	273	-45				228	-46		010	06	231	-39			400
350		-53		312	19		-56		019	12		-55		073	45		-52		050	52		-58		086	14		-55		202	22							-55		008	05		-51				350
300	294	-66		339	19	295	-67		011	23	292	-69		057	41	292	-64		043	48	290	-67		085	13	292	-68		203	20						290	-63		001	15	293	-63			300
250		-79		360	21		-79		011	34		-78		048	31		-74		034	37		-70		054	12		-75		139	05							-66		353	21		-72				250
200	377	-78		338	16	377	-86		013	25	375	-74		023	15	376	-68		012	21	37·4	-69		019	09	376	-67		002	09						376	-68		353	22	378	-67			200
170		-73		334	15		-78		359	22		-72		003	10		-69		008	18		-67		010	08		-64		023	07							-69		343	20	(17Smb)	-66			170
150		-73		322	15	435	-79		348	18	435	-73		338	11	436	-69		360	17		-69		339	12	436	-65		332	03	Inversion						-69		335	17						150
130		-73		312	19		-77		333	16		-72		330	13		-71		343	19		-69		328	08		-68		302	10	1003mb 32°-965mb 33°						-68		328	12	Inversion					130
110		-73		317	21		-80		337	21		-72		306	11		-70		342	13		-68		301	10		-67		296	11							-70		322	12	1021mb 36°-1000mb 38°					110
100	520	-75		317	21	517	-79		339	21	518	-73		301	22	521	-71				61·9	-72		315	16	521	-68		298	14						520	-71		313	13						100
90		-73		317	21		-78		333	20		-73										-71		310	15		-69										-71		302	15						90
80		-72		296	20		-77		319	20	Inversion					Inversion						-70		310	12												-72		312	22						80
70		-72		280	21		-79				1027mb 34°-988mb 35°					1016mb 31°-1000mb 36°						-67		322	14	Inversion											-74									70
60	(65mb)	-73				Inversion					809 " 09°-770 " 13°					820 " 12°-803 " 14°					(67mb)	-66				1018mb 33°-1000mb 35°										Inversion											60
	Inversion					1027mb 35°-1006mb 38°										258 " -73°-250 " -72°					Inversion					Isothermal										1009mb 36°-970mb 37°					Inversion					
	1018mb 31°-1006mb 37°					838 " 16°-829 " 18°															1021mb 32°-956mb 34°					800-735mb 11°										763 " 09°-743 " 10°					1021mb 36°-1000mb 38°					
	750 " 12°-740 " 15°					720 " 08°-700 " 11°															724 " 05°-712 " 07°																									
	Isothermal																																													
	905-835mb 24°																																												
Tropopause	I 277mb -83° 35,200'					I 218mb -88° 36,000'					I 237mb -80° 34,000'					I 258mb -73° 32,400'					I 250mb -70° 32800'					I 260mb -76° 32,100'					N.R.					II 273mb -66° 31,000'					I 237mb -74° 34,300'					Tropopause

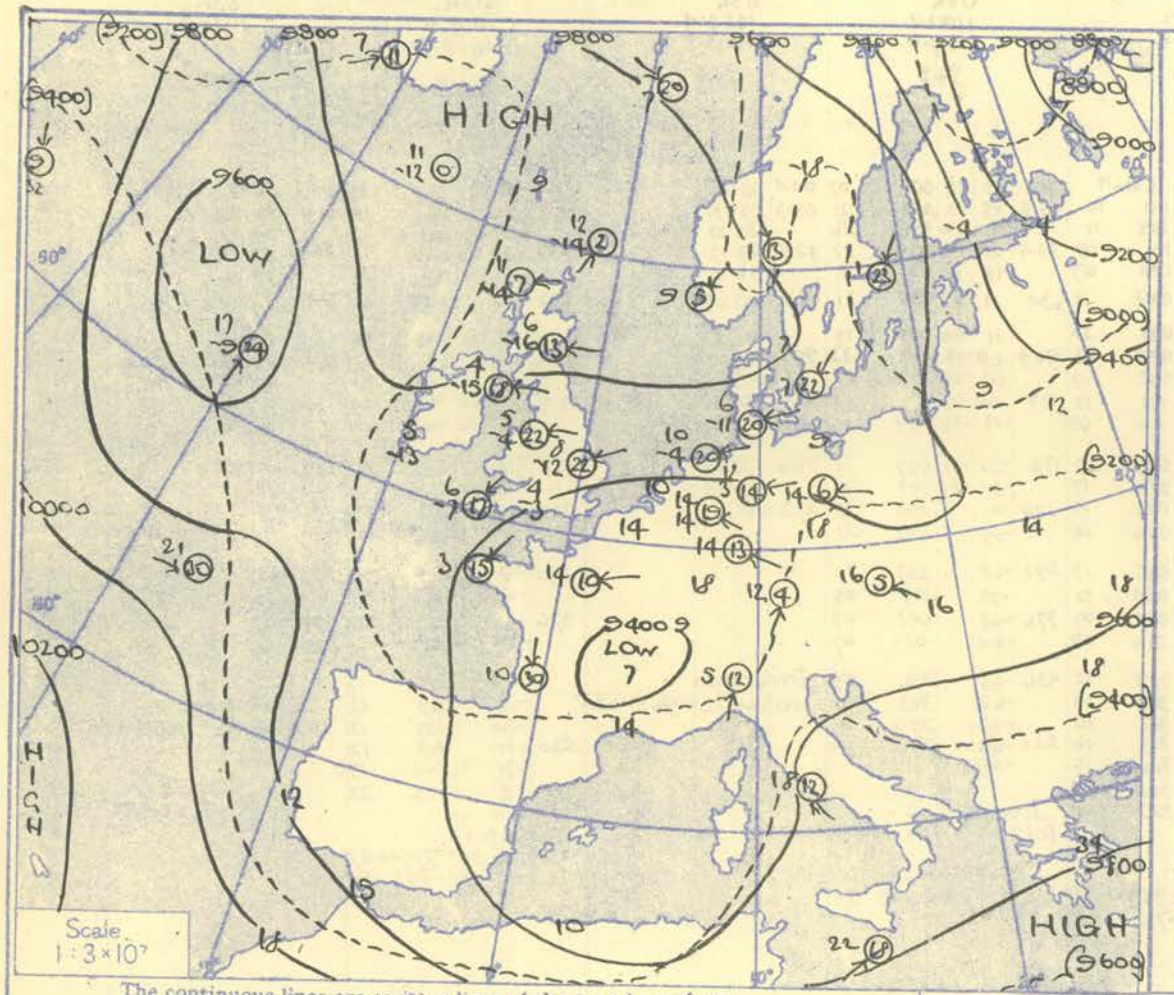
09h. G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		Station
Pressure: Time	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	G.M.T.	Time
Pressure: M.S.L.	1028 mb	1028·7 mb	1028·5 mb	1026·0 mb	1023·7 mb	1022·7 mb	1019·7 mb	1019·7 mb	mb	M.S.L.
Pressure: Surf	1018 mb	1027·0 mb	1027·6 mb	1016·5 mb	1021·6 mb	1018·0 mb	1002·9 mb	1008·6 mb	mb	Surf
Pressure: Freezing		960 mb	980 mb	951 mb	968 mb	988 mb	1000 mb	977 mb	mb	Freezing

Pressure mb	LERWICK Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LIVERPOOL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02·7	29	25	CALM		00·4	33	29			00·2	33	28	020	06	02·6	32	30	090	15	00·6	35	30	080	05	01·2	33	30	030	08	04·4	32	30	040	12	02·9	34	30	030	10						Surf
1000	07·5	36	30	200	06	07·4	38	31			07·4	35	26	042	12	06·9	34	31	095	18	05·9	35	29	079	24	05·9	34	30	053	21	05·1	32	30			05·1	33	29	083	15						1000
950		30	22	195	08		30	24				28	21	048	13		31	27	091	20		31	22	081	21		27	24	064	27		27	24	052	28		30	24	083	20						950
900	350	24	17	191	08	34·9	23	17			34·8	22	18	055	15	34·5	25	19	096	21	33·5	23	17	082	22	333	21	18	072	30	324	21	19	053	29	32·7	26	19	081	20						900
850		19	06	LAV			15	10				15	13	069	16		19	14	091	20		16	12	073	24		16	15	071	28		14	13	056	28		19	12	053	12						850
800	65·1	15	05	LAV		64·8	14	05			64·7	15	08	075	16	64·5	12	10	081	17	63·5	13	07	070	22	63·2	15	15	072	27	632	12	09	057	24	62·8	12	07	035	09						800
750		10	-10	LAV			12	-06				13	-30	079	16		11	-03	086	17		11	-02	076	21		12	07	075	25		11	01	069	21		08	04	035	09						750
700	985	07	-15	197	03	98·4	10	-15			98·3	08	-31	080	17	97·9	05	-12	090	20	96·9	06	-07	086	20	96·8	09	00	077	22	95·8	07	-08	075	20	96·1	05	-06	038	12						700
650		04	-22	263	02		04	-25				02	-38	087	19		00	-19	076	29		-01	-17	082	19		03	-09	079	21		02	-15	083	18		-01	-18	032	14						650
600	137	-04	-29	345	07	137	-01	-31			136	-03	-49	090	24	136	-04	-28	070	28	135	-08	-24	084	17	135	-03	-17	088	16	337	-04	-10	100	16	134	-07	-28	030	15						600
550		-12	-36	328	08		-10	39				-09	-51	084	28		-14	-43	069	30		-17	-36	095	14		-10	-25	103	10		-13	-17	109	17		-16	-36	051	15						550
500	180	-22	-46	310	06	18·0	-22	-50			18·0	-15	-58	075	32	179	-25	-51	071	40	178	-26	-43	113	12	179	-20	-31	130	10	771	-22	-24	128	17	17·7	-25	-44	083	13						500
450		-32	-55	336	10		-36	-59				-29	-56	071	33		-32	-59	070	51		-35	-52	124	14		-31	-38	145	10		-33	-36	142	16		-33	-51	100	13						450
400	231	-43		342	16	231	-47				231	-41		069	30	230	-43		070	54	228	-45		165	13	230	-43		100	10	278	-44		126	18	228	-43		140	19						400
350		-56		245	18		-59					-54		054	28		-55		062	49		-57		166	12		-57		163	10		-56		141	19		-53		155	16						350
300	293	-71		347	21	292	-73				293	-70		047	27	292	-67		058	42	290	-69		144	07	291	-71		157	10	895	-72		146	17	290	-62		143	06						300
250		-82		351	20		-87					-78		041	24		-72		040	27		-75		080	15		-80		052	06		-77		076	12		-65		014	16						250
200	324	-86		341	20	323	-91				327	-73		016	15	376	-71		014	27	374	-71		026	11	324	-68		041	05	728	-69		04	12	325	-67		357	19						200
170		-77		329	19		-82					-70		357	14		-69		004	20		-70		359	11		-66		005	10		-69		4	09		-63		342	16						170
150		-78		329	21	431	-80				436	-71		352	13	436	-70		356	20		-70		354	12	435	-67		350	09	330	-68		328	07		-66		344	18						150
130		-78		324	21		-80					-71		323	14		-69		344	22		-71		350	07		-67		332	06		-67		357	15											130
110		-77		314	22		-80					-69		305	19	Inversion						-69		342	18		-67		323	12	Inversion					Inversion											110
100	615	-78		315	23		-80				520	-72				1016mb 32°-986mb 35°					518	-69		342	22	1018mb 33°-1000mb 34°					824mb 11°-786mb 13°					760mb 06°-745mb 09°										100
90		-79		315	24	513	-80				Inversion					783 " 09°-767 " 13°						-70		358	10	818 " 12°-805 " 16°										643 " -02°-630 " -01°										90
80		-79					-80				1028mb 33°-1003mb 35°					286 " -71°-263 " -69°						-70																									80
70							-79				837 " 13°-818 " 15°					Inversion																																70
60	Inversion					Inversion					Isothermal					815mb 10°-800mb 13°																																60
	1019mb 29°-1000mb 36°					1027mb 33°-1008mb 39°					818-765mb 15°					Isothermal																																
	710 " 06°-685 " 08°					810 " 10°-800 " 14°										1022-1003mb 38°																																
						715 " 09°-700 " 10°																																											
						619 " -20°-605 " 00°																																											
						Isothermal																																											
						800-775mb 14°																																											
Tropopause	II 225mb -86° 35,100'					I 234mb -90° 34,200'					I 260mb -79° 32,200'					I 268mb -71° 30,100'					I 263mb -75° 31,750'					I 263mb -82° 31800'					I 264mb -83° 31500'					I 267mb -66° 31,500'										Tropopause

December 27th 1950.

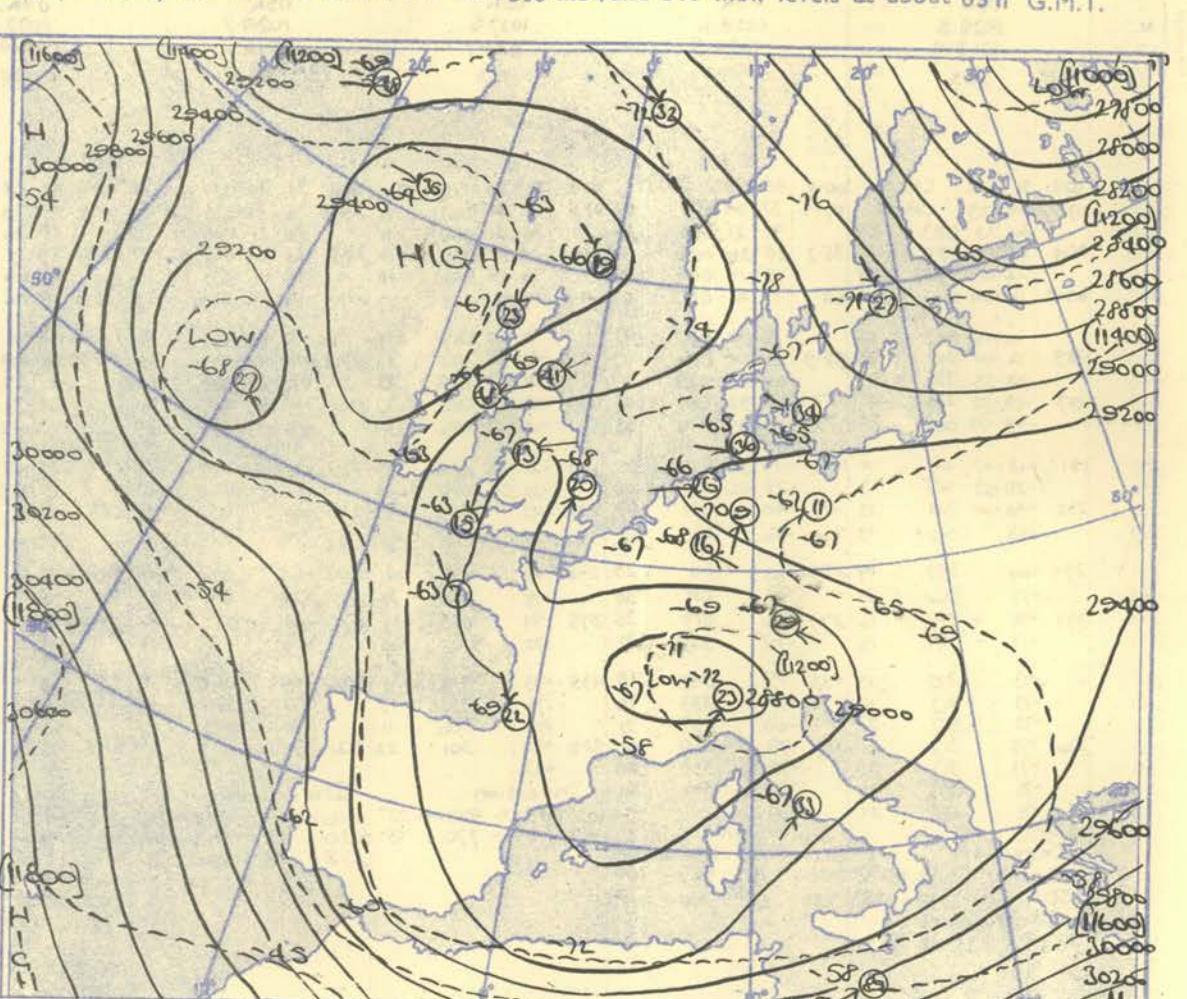
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



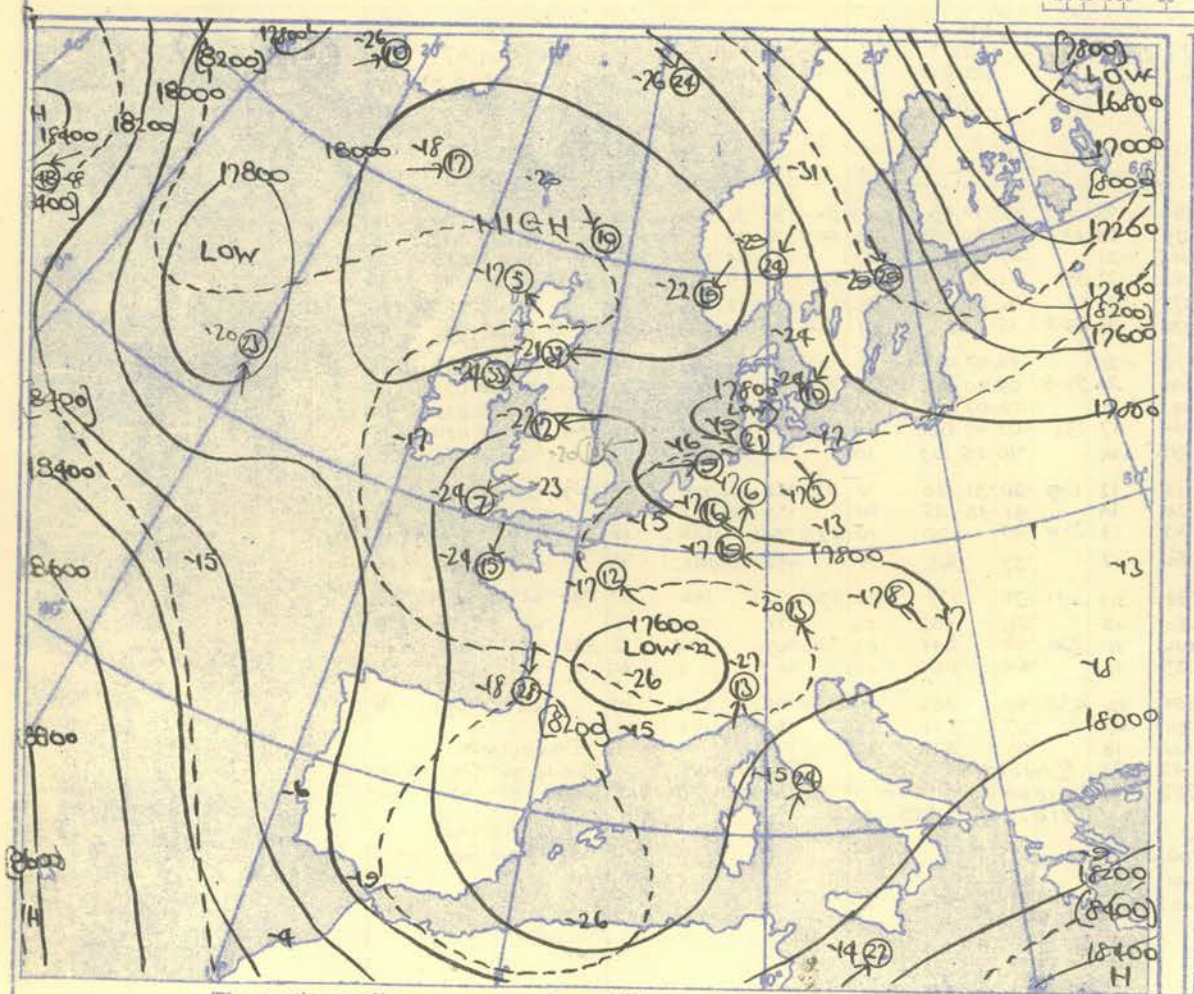
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

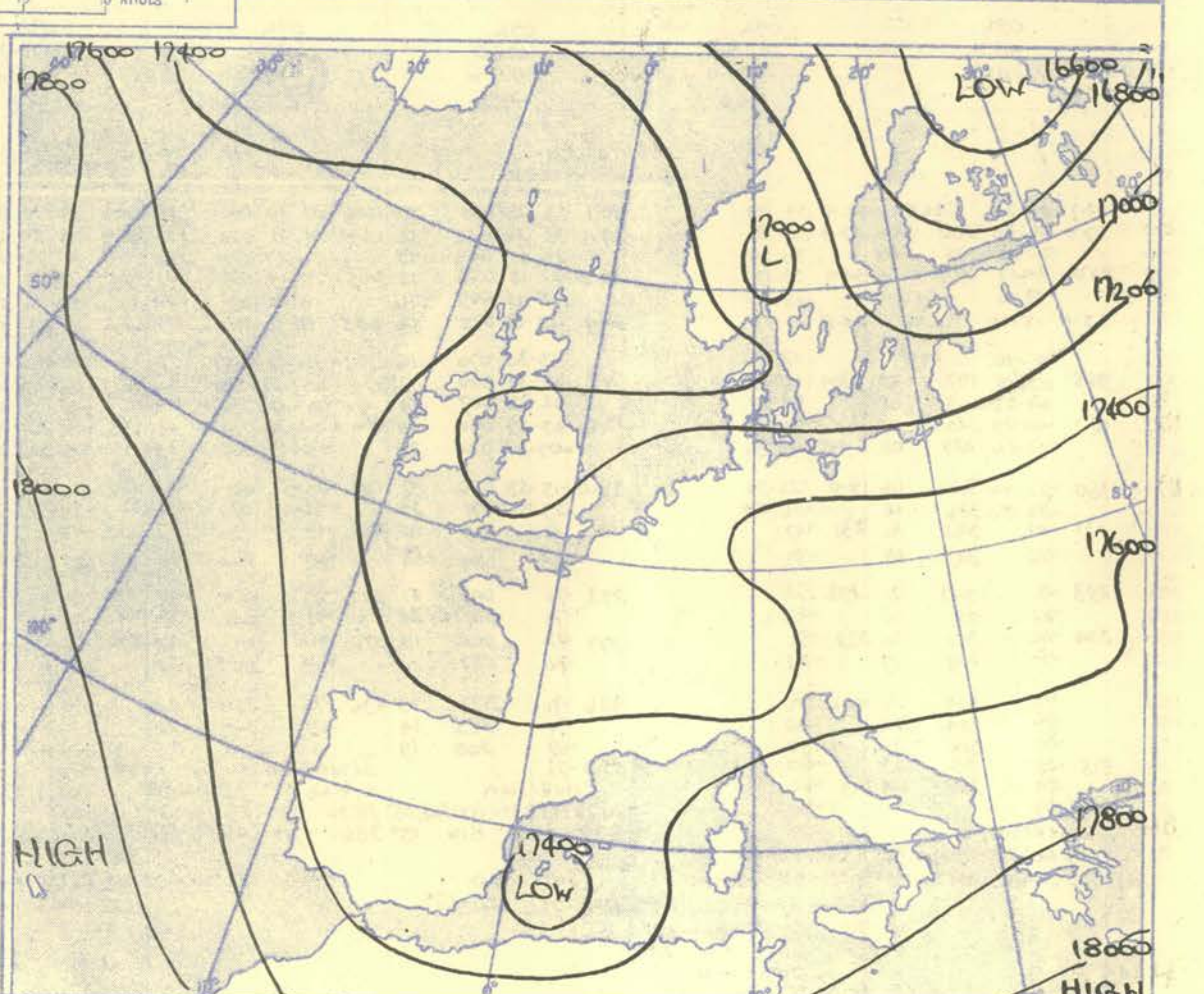
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700—500 mb.



Isopleths of Thickness 500-1000mb.

Wednesday 27th December 1950.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2N 17·0W.			39·5N 12·2W.		
Pressure Time	13h.			15h.		
M.S.L.	1012 mb			1013 mb		
Surf	1008 mb			1009 mb		
Freezing	760 mb			790 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		48	48			
1000	3·6					
950		40	40			
900		35	35		43	41
850		42	42		40	39
800		38	38		33	
750		31			30	
700	978	23			23	
650		18			18	
600		12			08	
550		05			02	
500	182	-03			-04	
	Cloud. 8/8 As 960-800mb 8/8 Ac 630-590mb 3/8 Ci NR. Light rime or frost in cloud 630-590 mb Inversion 900 mb 35° 850 .. 42°			Cloud 5/8 Cs NR 8/8 Ac 660-630mb 3/8 Sc 750-730mb		

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Camborne		Castle Archdale		Leuchars		Shoeburyness		Leuchars		Downham		W. Recorder 52·6N 20·0W	
Time	09h.		10h.		15h.		15h.		21h		21h.		03h.	
Type														
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			CALM		090	12	050	15	120	03	040	14	150	30
1,000			080	15	079	15	070	29	081	11	062	30	160	33
2,000			180	28	082	15	070	30	082	11	070	30	160	30
3,000					087	15	070	33	076	11	070	31	160	25
4,000					092	15	060	28	065	12	072	29	160	23
5,000					084	15	060	30	051	09	076	29	170	22
6,000					085	13	070	31	114	08	081	30	170	22
8,000					088	14	080	28	131	16	082	31	180	23
10,000					107	12	080	25	105	11	081	25	190	23
14,000					084	13	090	18	067	11	064	12	180	16
18,000					057	17	070	16	057	15	045	06	180	16
24,000					031	22	080	21	035	23	040	06	160	21
30,000					039	27	080	20	038	32	010	06	120	30
40,000	340	20			006	20	020	11	354	21	345	09		
50,000	(47,000')				336	16	310	10	346	21	328	24		
60,000					333	15	(49000')							

NEPHOSCOPE OBSERVATIONS

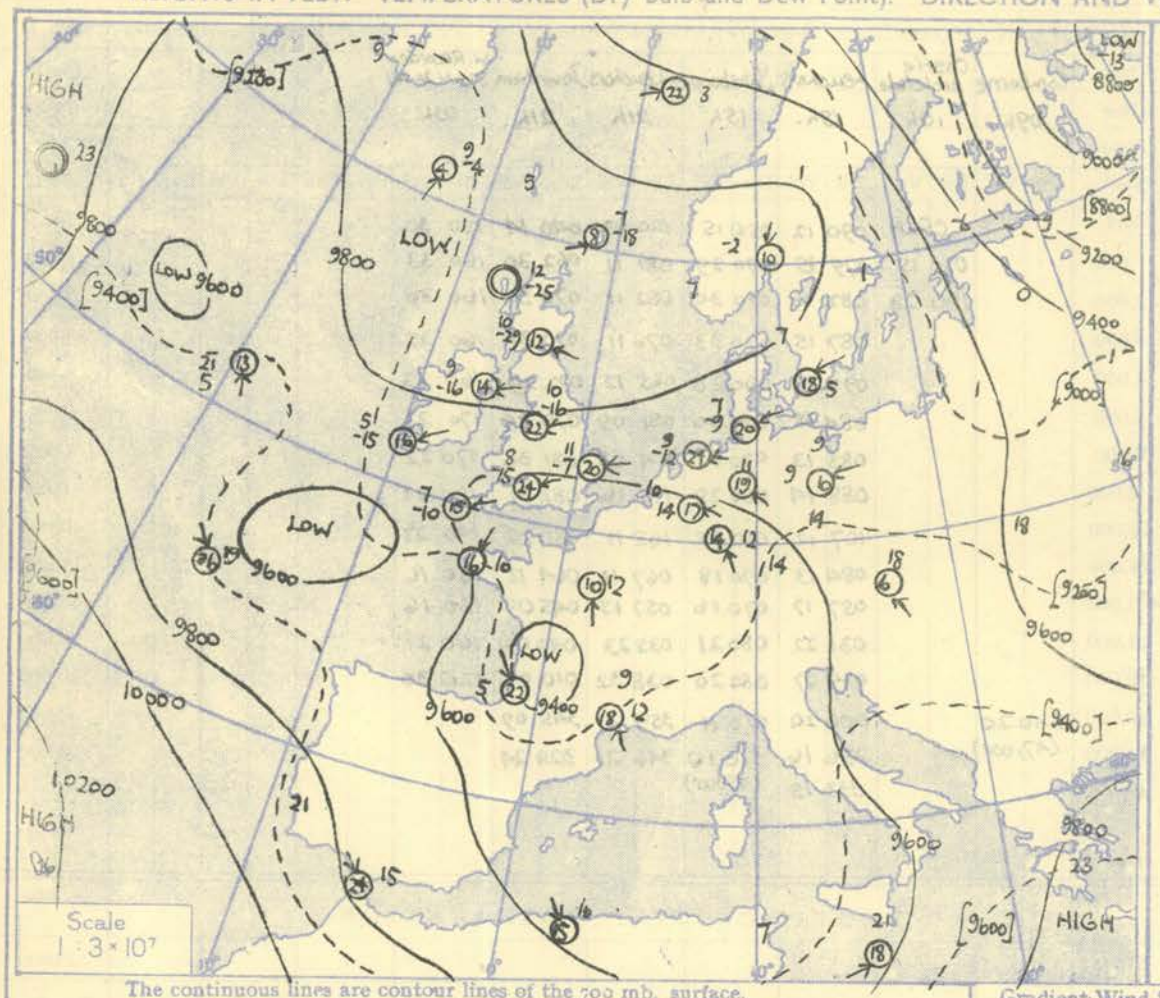
Place										
Time Type										
Dir. Vel.										

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

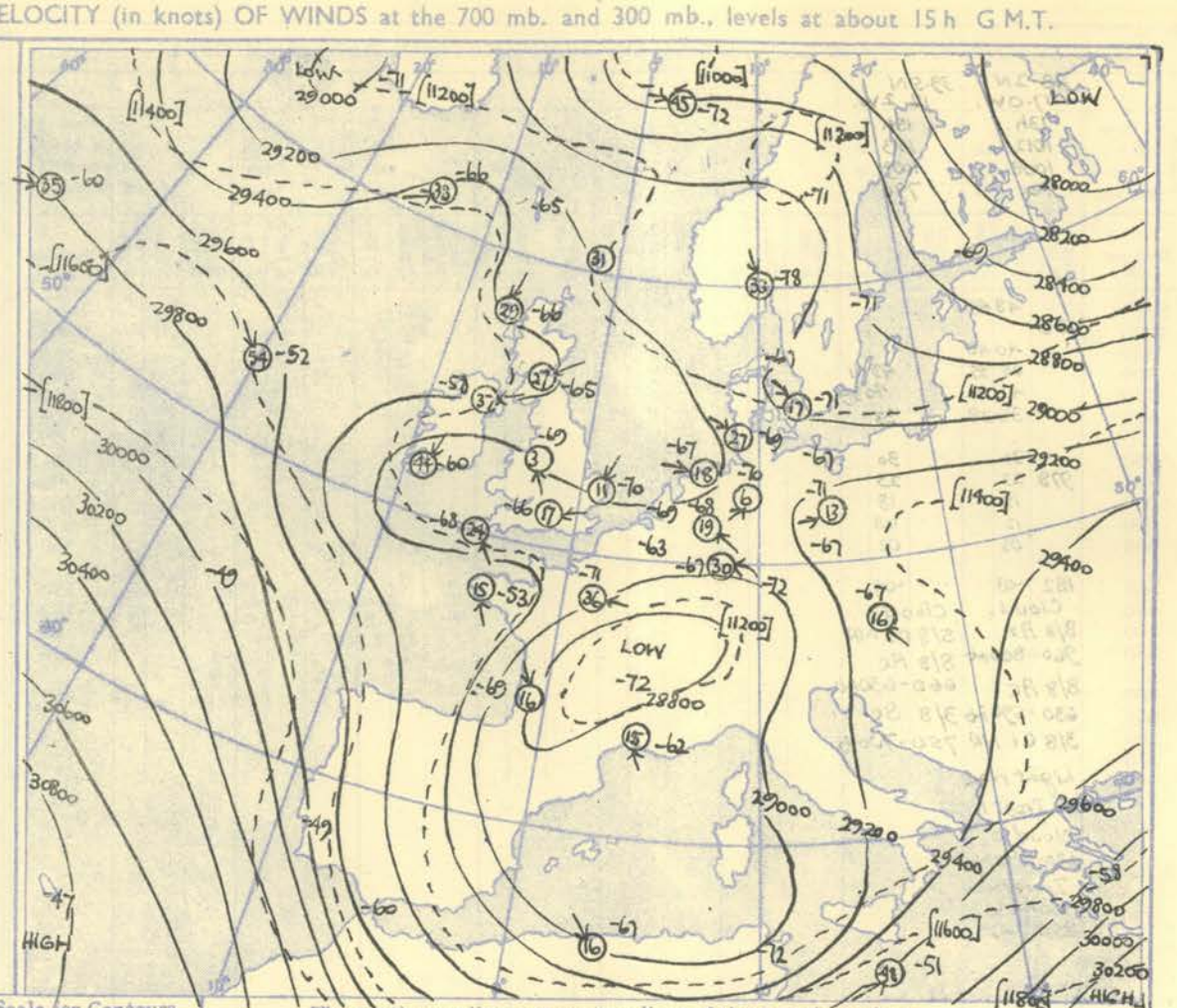
Ship	WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	61·0N				14·2W	61·0N				14·3W	61·0N				14·3W	61·1N				14·3W
Pressure Time	03h G.M.T.					09h G.M.T.					15h G.M.T.					21h G.M.T.				
M.S.L.	1027 mb					1026 mb					1026 mb					1025 mb				
Surf	1027 mb					1026 mb					1026 mb					1025 mb				
Freezing	915 mb					910 mb					900 mb					905 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	34	180	02		45	36	CALM			43	38	185	13		45	35	200	05
1000	7·1	42	32	175	06	7·0	43	33	185	04	6·9	42	36	185	07	6·7	43	34	138	06
950		36	25	176	06		37	26	185	05		37	33	177	06		37	29	148	07
900	35·1	30	21	186	06	35·0	30	20	166	05	34·9	32	28	182	04	34·7	31	21	155	06
850		25	11	213	06		26	16	159	05		26	22	205	04		24	15	137	05
800	65·6	22	-02	186	05	65·5	22	06	182	05	65·5	21	16	208	05	65·2	17	10	116	05
750		17	-09	142	06		17	-03				15	06	220	04		13	05	108	08
700	99·5	11	-12	Above		99·3	11	-09			99·3	09	-04	184	04	98·8	07	-08	113	05
650		05	-19	radar			05	-14				02	-10	135	06		02	-15	135	08
600	138	-02	-25	elevation		137	-01	-16			137	-05	-15	176	09	137	-07	-20	176	13
550		-11	-24				-09	-21				-12	-19	218	17		-12	-21	205	15
500	181	-18	-28	231	17	181	-18	-29			181	-19	-25	240	25	180	-20	-28	223	14
450		-27	-36	236	25		-26	-37				-27	-32	225	22		-20	-38	231	22
400	233	-26	-45	242	24	233	-35	-46			232	-39	-44	229	24	231	-39	-48	231	25
350		-50		253	19		-50					-51		247	31		-52		240	21
300	296	-64		270	35	296	-65				295	-66		252	38	294	-67		252	28
250		-79		274	52		-83					-82		257	42		-85		255	35
200	378	-82		274	52	378	-77				377	-78				315	-80		279	23
170	(190 mb)	-80					-72										-74		285	28
150							-73										-73		289	33
130							-74										-74		290	29
110							-75										-74		290	27
100						521	-76									518	-76		290	31
90							-75										-78		289	30
80							-75										-79		283	27
70							-78									(73 mb)	-79			
60						(65 mb)	-80													
	Isothermal 860 - 827 mb 25°										Inversion 561 mb -13° - 550mb -12					Isothermal 402 - 400 -39°				
Tropopause	II 235 mb - 85° 34,500'					II 249 mb - 84° 33,200'					I 233 mb - 88° 34,500'					I 234 mb - 89° 34,300'				

Ship	WEATHER RECORDER					WEATHER RECORDER					WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·6N				20·0W	52·5N				19·8W	52·2N				19·7W	52·2N				20·0W
Pressure Time	03h G.M.T.					09h G.M.T.					15h G.M.T.					21h G.M.T.				
M.S.L.	1006 mb					1010 mb					1012 mb					1013 mb				
Surf	1006 mb					1010 mb					1012 mb					1013 mb				
Freezing	850 mb					830 mb					840 mb					855 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		48	48				48	46	150	28		49	47	140	21		49	48	140	18
1000	1·6	47	47			2·7	47	44	135	32	3·3	48	43			3·5	47	46	155	27
950		42	41				42	38	137	34		44	38	138	29		42	40	152	30
900	29·9	31	35			30·8	39	34	141	27	31·7	39	33	141	30	31·8	37	34	150	30
850		32	29				34	28	145	25		33	29	142	27		31	27	148	28
800	60·9	27	23			61·9	30	28	150	24	62·8	30	24	140	21	62·9	28	21	148	23
750		22	18	For			26	12	157	21		26	16	144	18		26	14	148	15
700	95·2	19	07			96·5	22	00	165	15	97·4	21	05	171	13	97·3	19	04	169	12
650		15	-05	winds			15	-05	160	13		15	-03	188	12		14	-03	CALM	
600	134	08	-05			136	08	-07	136	08	136	09	-08	185	09	136	06	-13	"	
550		00	-12	see			00	-13	125	05		02	-14	CALM			-01	-25	335	06
500	179	-08	-21			180	-08	-23	117	06	181	-10	-25	"		181	-11	-37	326	11
450		-16	-27	top			-18	-34	117	13		-21	-36	"			-20	-49	325	17
400	232	-26	-37			233	-31	-47	137	19	233	-31	-47	155	09	233	-27	-55	326	21
350		-38	-50	of			-45		147	34		-44		212	09		-41		324	35
300	296	-55				296	-60		163	11	297	-52		312	54	297	-58		322	39
250		-70		page.			-73		294	30		-66		317	57		-74		318	46
200	(237 mb)	-68				381	-74		295	44		-70		304	56	381	-78		326	38
170							-74		297	46		-68		308	51		-79		339	37
150							-74		307	45		-68		333	33		-74		348	30
130							-75					-68		293	27		-77		345	26
110							-75					-69		300	32		-78		323	25
100						523	-76				527	-71		296	37	522	-77		308	23
90							-79					-72		302	30		-79		288	18
80							-81					-73		309	22		-79		263	21
70						(75 mb)	-82					-72		314	22		-79		287	21
60												-71		335	25					
						Isothermal 815 - 800 mb 30°					Inversion 813 mb 28° - 800 mb 30					Inversion 700 mb 19° - 678 mb 20				
Tropopause	I 245 mb - 71° 34,000'					II 253 mb - 73° 33,300'					I 220 mb - 74° 36,300'					II 225 mb - 81° 35,600'				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

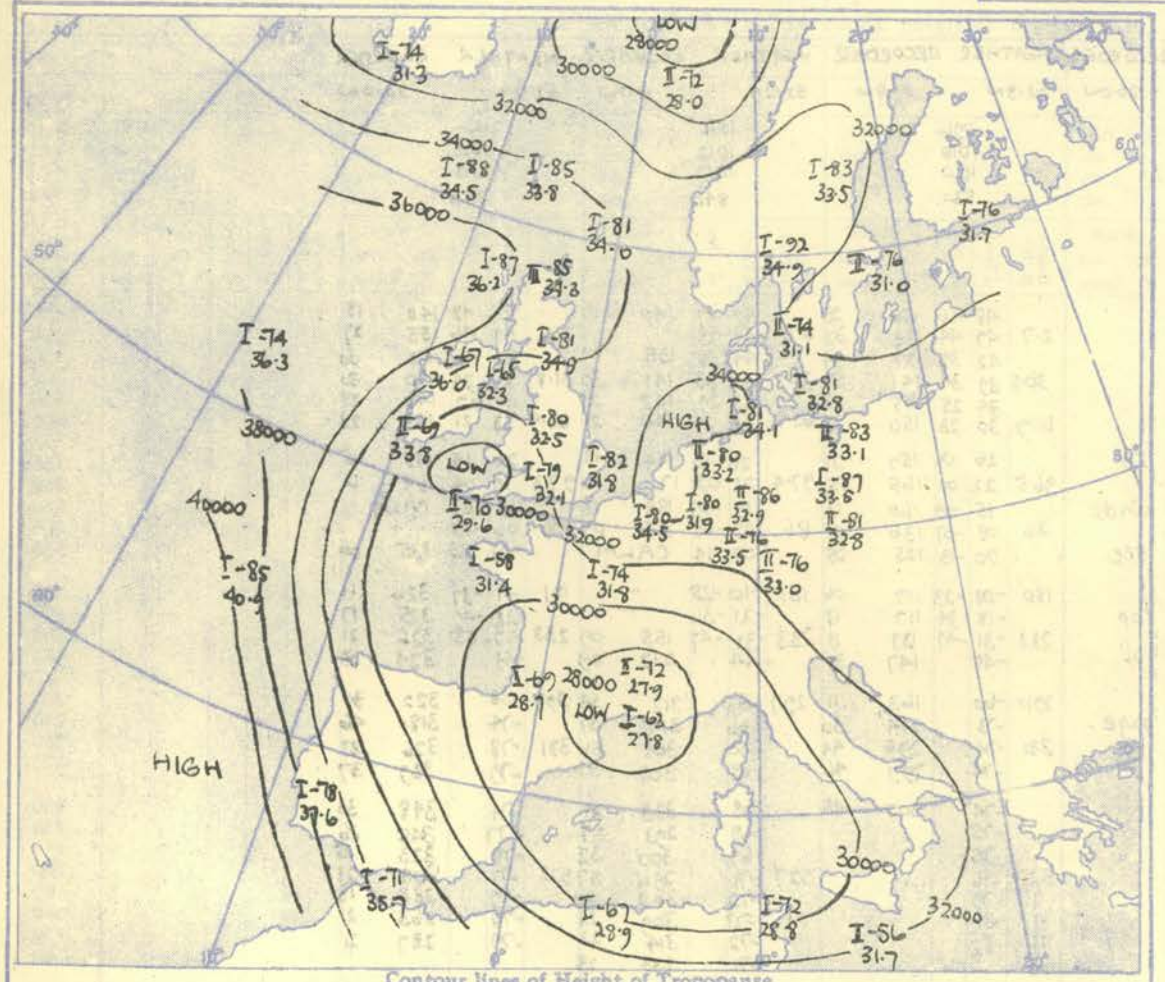


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge moved round the large cold trough over France and Spain and lost its identity resulting finally in a slight warming over Spain and just to west of it.

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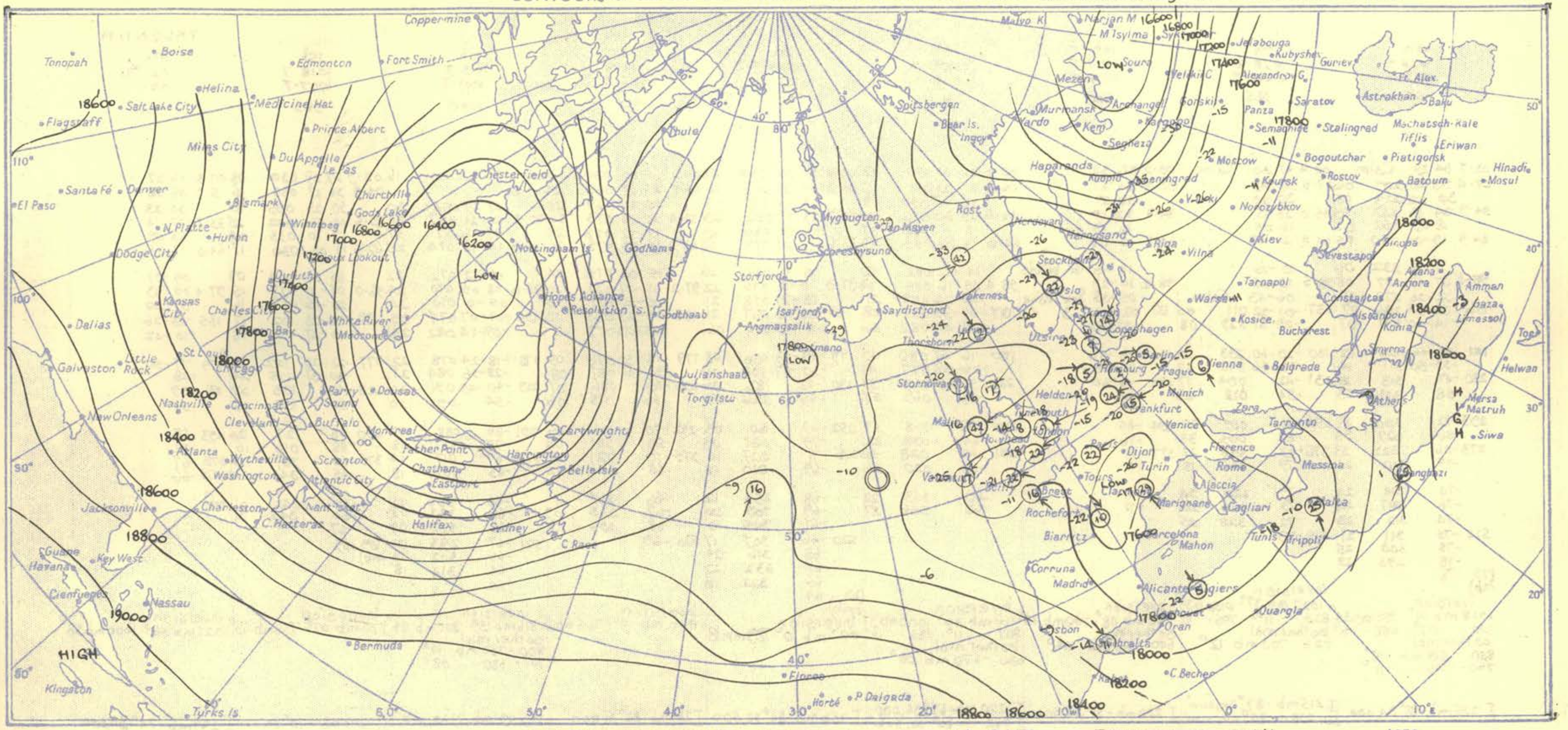
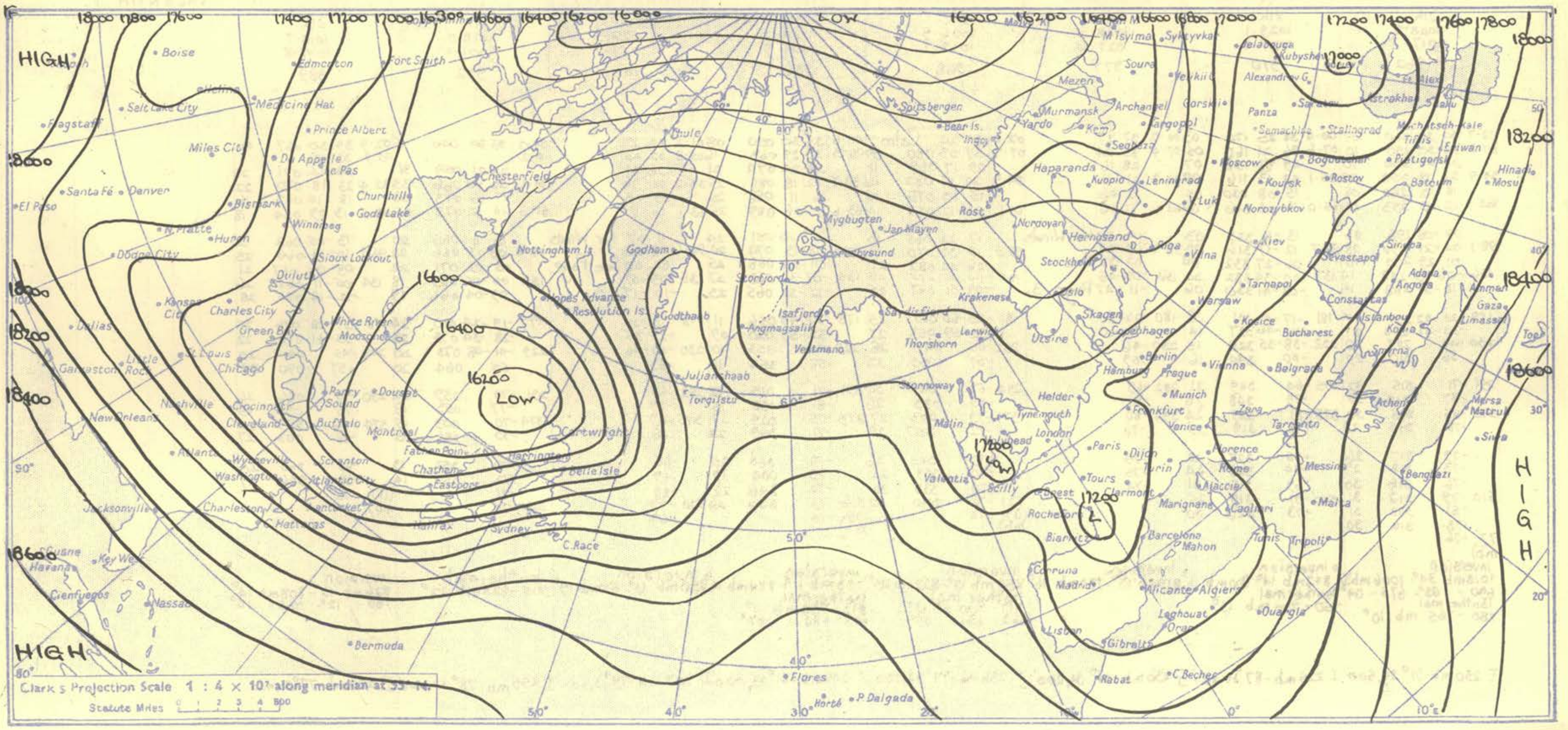
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Wednesday 27th December, 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. December 27th 1950.



DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Wednesday 21st December 1950.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	03h G.M.T.
Pressure: M.S.L.	1028·5 mb	1028·6 mb	1027·9 mb	1025·9 mb	1023·7 mb	1021·8 mb	1018·3 mb	1018·7 mb	1021·9 mb
Pressure: Surf	1018·0 mb	1026·9 mb	1027·0 mb	1016·1 mb	1021·6 mb	1017·4 mb	1001·7 mb	1007·7 mb	1021 mb
Pressure: Freezing	970 mb	965 mb	980 mb	960 mb	993 mb	980 mb	1000 mb	965 mb	935 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Lerwick					
Surf	02·7	34	29	Calm	
1000	07·4	35	28	209	06
950		30	22	213	08
900	34·9	24	13	243	05
850		18	09	252	03
800	64·9	15	-04	250	05
750		11	-11	232	06
700	98·4	07	-18	257	08
650		02	-26	272	09
600	136	-06	-33	286	07
550		-14	-40	319	07
500	181	-22	-46	324	12
450		-33	-50	311	14
400	230	-47		313	18
350		-58		341	23
300	293	-72		350	31
250		-86		329	33
200	373	-86		322	33
170		-79		310	21
150		-74		318	24
130		-76		317	24
110		-74		312	23
100	514	-75		311	21
90		-78		300	25
80		-78		298	29
70	(75 mb)	-78			
60					
Tropopause	I 235 mb -88° 34,000'				
Stornoway					
Surf	00·4	37	30	Calm	
1000	07·5	37	23	"	
950		30	20	"	
900	35·0	23	15	"	
850		15	09	"	
800	64·9	15	-03	"	
750		10	-15	"	
700	98·5	12	-25	"	
650		06	-43	Calm	
600	137	-01	-52	011	05
550		-09	-51	329	08
500	180	-20	-60	333	10
450		-30	-56	342	12
400	231	-42		004	17
350		-54		012	23
300	294	-66		009	29
250		-82		003	33
200	376	-83		358	22
170		-79		346	18
150		-79		320	24
130		-73		325	20
110		-72		328	25
100	519	-73			
Tropopause	I 215 mb -87° 36,200' II 238 .. -85° 34,300'				
Leuchars					
Surf	00·2	37	32		
1000	07·3	34	27		
950		28	21		
900	34·8	22	19		
850		16	13		
800	64·7	10	08		
750		14	-15		
700	98·2	10	-29		
650		05	-38		
600	137	02	-42		
550		-07	-50		
500	180	-16	-57		
450		-26	-58		
400	232	-40	-60		
350		-53			
300	294	-65			
250		-76			
200	377	-77			
170		-71			
150		-71			
130		-71			
Tropopause	I 230 mb -81° 34,900'				
Aldergrove					
Surf	02·6	36	32	090	12
1000	06·8	37	33	091	15
950		31	27	090	19
900	34·5	25	20	092	20
850		18	11	088	17
800	64·6	13	03	083	13
750		14	-12	082	12
700	98·4	09	-16	084	14
650		04	-24	088	21
600	137	-01	-33	087	28
550		-08	-44	082	36
500	180	-16	-57	080	42
450		-26	-58	077	43
400	232	-38	-58	069	39
350		-48		062	57
300	295	-58		058	37
250		-64		038	32
200	381	-62		028	26
170		-60		020	26
150		-60		353	22
130		-60		356	27
Tropopause	I 220 mb -67° 36,000' I 262 .. -65° 32,300'				
Liverpool					
Surf	00·6	35	30	060	08
1000	06·3	33	29	068	12
950		27	23	079	18
900	33·7	23	17	082	23
850		16	13	083	23
800	63·6	12	07	079	22
750		15	-11	081	25
700	97·3	10	-16	075	22
650		03	-29	078	21
600	135	-04	-40	061	21
550		-11	-47	075	06
500	179	-19	-53	056	08
450		-30	-57	138	06
400	230	-42		182	06
350		-55		226	05
300	292	-69		160	03
250		-79		061	08
200	375	-71		027	14
170		-69		010	12
150		-68		354	12
130		-69		353	20
110		-67		345	10
100	520	-66		307	17
90		-68		316	24
80		-67		332	22
70		-66		322	18
60	(65 mb)	-64			
Tropopause	I 256 mb -80° 32,500				
Downham Market					
Surf	01·2	35	30	030	13
1000	05·8	34	27	058	24
950		28	21	069	28
900	33·4	22	16	073	32
850		17	12	078	28
800	63·4	14	09	078	26
750		15	04	075	24
700	97·2	11	-07	079	20
650		05	-20	077	16
600	135	00	-29	063	12
550		-08	-23	079	11
500	179	-18	-32	096	09
450		-30	-41	087	08
400	230	-43		086	07
350		-56		078	06
300	292	-70		106	05
250		-80		081	08
200	375	-70		021	11
170		-68		344	12
150		-66		337	11
130		-67		338	09
110		-68		295	10
100	520	-69			
Tropopause	I 264 mb -82° 31,800'				
Larkhill					
Surf	04·4	33	32	050	16
1000	4·8				
950		27	27	052	30
900	32·1	21	21	057	30
850		17	16	071	37
800	62·0	14	13	074	25
750		13	04	075	22
700	96·6	08	05	070	24
650		05	-01	070	24
600	134	-01	-07	077	23
550		-09	-14	082	23
500	178	-18	-24	078	22
450		-28	-36	084	21
400	229	-40	-49	091	20
350		-54		091	20
300	291	-66		088	17
250		-77		077	18
200	375	-67		017	14
170		-63		102	18
150		-66		355	12
130		-65		332	12
110		-66		327	09
100	521	-67		293	09
90		-65		302	13
80		-64		312	18
70		-65			
Tropopause	I 259 mb -79° 32,100'				
Camborne					
Surf	02·9	37	29	030	08
1000	04·9	36	27	060	16
950		30	23	055	18
900	32·5	24	16	042	25
850		17	10	033	24
800	62·5	11	04	030	17
750		10	01	044	09
700	96·0	07	-10	079	15
650		02	-15	085	16
600	134	-06	-23	102	17
550		-15	-27	113	18
500	177	-21	-28	122	22
450		-30	-31	128	24
400	228	-42		135	27
350		-54		139	25
300	290	-68		127	24
250		-68		016	15
200	375	-65		357	15
170		-65		345	20
150		-65		342	21
130		-64		343	21
110		-67			
100	(103 mb)	-69			
Tropopause	II 293 mb -70° 29,600'				
Valentia					
Surf	00·3	36	27		
1000	5·9	38	28		
950		34	23		
900	33·7	27	14		
850		23	09		
800	64·0	17	03		
750		09	-07		
700	97·4	05	-13		
650		01	-20		
600	135	-03	-26		
550		-10	-42		
500	179	-17	-50		
450		-28			
400	231	-39			
350		-51			
300	293	-63			
250		-72			
200	378	-67			
170	(175 mb)	-66			
Tropopause	I 237 mb -74° 34,300'				

Lerwick: Inversion 1018 mb 34° - 995 mb 35 / 920 - 907 - 688 -08° / Isothermal 850 - 839 mb -18° / 760 - 745 .. -11°

Stornoway: Inversion 1027 mb 37° - 1015 mb 39° / 825 .. 11° - 795 .. 10° / Isothermal 726 - 700 mb 12°

Leuchars: Inversion 780 mb 08° - 750 mb 14° / Isothermal 640 - 611 mb 04°

Aldergrove: Inversion 1016 mb 36° - 1000 mb 37° / 807 .. 11° - 783 .. 18° / Isothermal 680 - 670 mb 06°

Liverpool: Inversion 807 mb 10° - 789 mb 18°

Downham Market: Inversion 800 mb 14° - 765 mb 16°

Larkhill: Inversion 816 mb 13° - 800 mb 14° / Isothermal 800 - 750 mb 14° / 707 - 680 .. 08°

Camborne: Inversion 770 mb 07° - 738 mb 13°

Valentia: Inversion 1021 mb 36° - 1000 mb 38°

For Winds See Page 3.

21h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1028·2 mb	1029·1 mb	1028·5 mb	1026·9 mb	1024·0 mb	1022·3 mb	1018·0 mb	1018·7 mb	mb
Pressure: Surf	1017·7 mb	1027·4 mb	1027·6 mb	1017·1 mb	1021·9 mb	1017·7 mb	1001·4 mb	1009·8 mb	mb
Pressure: Freezing	962 mb	970 mb	977 mb	968 mb	986 mb	1000 mb	992 mb	989 mb	mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Lerwick					
Surf	02·7	30	30	260	07
1000	07·3	36	30	250	10
950		31	26	250	10
900	34·9	24	18	250	09
850		18	10	260	08
800	64·9	12	03	293	06
750		09	-08	298	06
700	98·1	04	-21	296	08
650		01	-29	290	10
600	136	-06	-35	288	14
550		-16	-31	288	15
500	179	-24	-32	291	17
450		-34	-41	294	21
400	230	-44		297	22
350		-56		310	29
300	291	-71		315	32
250		-87		318	39
200	373	-85		318	30
170		-78		315	29
150		-79		317	26
130		-73		318	29
110		-76		316	30
100	514	-79		312	31
90		-81		308	31
80		-78		310	30
70	(77 mb)	-76			
60					
Tropopause	I 230 mb -91° 34,500'				
Stornoway					
Surf	00·4	38	25	170	03
1000	07·6	36	21	160	05
950		29	17	153	07
900	36·1	22	13	116	09
850		15	08	030	05
800	65·0	16	05	316	06
750		13	-11	333	03
700	98·7	12	-17	316	03
650		06	-27	332	04
600	137	00	-34	332	04
550		-08	-41	330	06
500	181	-17	-42	331	08
450		-26	-46	327	14
400	232	-38	-35	328	15
350		-50		340	16
300	295	-64		349	21
250		-79		348	26
200	378	-81		327	24
170		-73		319	25
150		-75		327	28
130		-74		325	24
110		-69		316	21
100	520	-71		319	25
90		-73		326	30
Tropopause	I 215 mb -87° 36,200' II 238 .. -85° 34,300'				
Leuchars					
Surf	00·2	37	27		
1000	07·4	35	24		
950		28	16		
900	34·3	21	11		
850		12	06		
800	64·6	11	06		
750		14	-20		
700	98·2	09	-24		
650		02	-32		
600	136	-03	-45		
550		-11	-47		
500	180	-22	-55		
450		-33	-60		
400	230	-46			
350		-59			
300	292	-69			
250		-81			
200	394	-80			
170		-76			
150		-75			
130		-75			
110		-74			
100	516 (095 mb)	-75			
Tropopause	I 236 mb -85° 34,200'				
Aldergrove					
Surf	02·6	34	24	Calm	
1000	07·3	37	23	080	09
950		29	17	069	11
900	34·9	22	17	082	16
850		15	10	075	15
800	65·1	21	-12	055	14
750		17	-22	065	13
700	99·0	13	-31	070	14
650		06	-44	082	21
600	137	-01	-51	075	25
550		-09	-51	067	25
500	181	-20	-60	060	25
450		-32	-59	053	27
400	232	-45		047	28
350		-57		055	32
300	294	-67		047	34
250		-75		033	26
200	377	-73		003	27
170		-72		357	29
150		-70		345	26
130		-70		339	24
110		-70		335	30
100	521 (091 mb)	-72		340	30
Tropopause	I 220 mb -67° 36,000' I 262 .. -65° 32,300'				
Liverpool					
Surf	00·6	34	30	050	08
1000	06·3	33	29	063	16
950		28	24	074	21
900	33·7	22	18	081	25
850		16	11	086	25
800	63·6	11	06	089	25
750		12	06	081	24
700	97·1	08	-13	074	24
650		01	-25	068	25
600	135	-07	-34	068	27
550		-12	-39	065	23
500	178	-20	-49	056	11
450		-32	-59	020	09
400	229	-44		353	10
350		-58		354	11
300	291	-71		013	12
250		-81		038	16
200	373	-75		024	17
170		-71		349	22
150		-74		360	25
130		-73		004	19
110		-74		346	22
100	516 (095 mb)	-75		346	26
Tropopause	I 256 mb -80° 32,500				
Downham Market					
Surf	01·2	34	27		
1000	05·8	32	25		
950		26	21		
900	33·2	20	16		
850		13	08		
800	63·1	16	11		
750		11	07		
700	96·6	08	06		
650		05	02		
600	135	-03	-07		
550		-10	-17		
500	178	-18	-25		
450		-29	-35		
400	230	-40	-46		
350		-53			
300	292	-67			
250		-79			
200	375	-63			
170		-68			
150		-66			
130		-69			
110		-69			
100	520	-69			
90		-69			
80		-69			
Tropopause	I 264 mb -82° 31,800'				
Larkhill					
Surf	04·1	33	30	040	15
1000	4·2				
950		28	21	059	31
900	31·6	22	20	066	33
850		17	15	073	30
800	61·6	14	12	072	25
750		13	11	065	20
700	95·4	09	07	066	22
650		05	02	071	22
600	134	06	-04	069	18
550		-09	-04	066	19
500	177	-19	-24	010	24
450		-28	-34	073	23
400	229	-41	-48	073	20
350		-55		064	20
300	291	-70		059	22
250		-77		055	19
200	374	-70		003	15
170		-70		351	15
150		-70		352	13
130		-72		352	14
110		-71			
100					
90	518	-72			
Tropopause	I 259 mb -79° 32,100'				
Camborne					
Surf	02·9	34	30	067	05
1000	04·9	33	29		
950		28	24	071	22
900	32·4	23	18	070	22
850		18	14	062	16
800	62·5	13	09	064	18
750		13	-05	062	20
700	96·1	10	-14	066	23
650		03	-06	067	21
600	134	-05	-11	067	26
550		-12	-18	075	28
500	178	-21	-28	076	25
450		-35	-41	076	22
400	228	-45		081	25
350		-57		090	24
300	290	-70		086	26
250		-70		031	15
200	374	-66		359	25
170		-68		003	27
150		-69		360	27
130		-69		346	27
110		-70			
100	(117 mb)				
Tropopause	II 293 mb -70° 29,600'				
Valentia					
Surf					
1000					
950					
900					
850					
800					
750					
700					
650					
600					
550					
500					
450					
400					
350					
300					
250					
200					
170					
150					
130					
110					
100					
90					
80					
70					
60					
Tropopause	I 237 mb -74° 34,300'				

Lerwick: Inversion 1018 mb 34° - 1006 mb 37 / 690 .. 03° - 675 .. 04° / Isothermal 780 - 765 mb 10°

Stornoway: Inversion 842 mb 14° - 800 mb 16° / Isothermal 750 - 705 mb 13°

Leuchars: Inversion 819 mb 10° - 781 mb 16°

Aldergrove: Inversion 850 mb 15° - 822 mb 25° / Isothermal 711 - 700 mb 13° / 642 - 631 .. 05°

Liverpool: Inversion 793 mb 11° - 774 mb 14° / Isothermal 812 - 793 mb 11° / 603 - 584 .. -07°

Downham Market: Inversion 850 mb 13° - 830 mb 19°

Larkhill: Isothermal 905 - 888 mb 22°

Camborne: Inversion 826 mb 13° - 808 mb 14° / 780 .. 12° - 765 .. 14°

For Winds See Page 3.

HMSO Press, MO., Dunstable.

No. 11596.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Thursday 28th December 1950.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	
Pressure: Time	03h G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	03h G.M.T.	
Pressure: M.S.L.	1025·7 mb	1027·8 mb	1027·9 mb	1026·4 mb	1023·9 mb	1022·4 mb	1018·4 mb	1018·8 mb	
Pressure: Surf	1015·3 mb	1026·1 mb	1027·0 mb	1016·6 mb	1021·8 mb	1018·0 mb	1001·6 mb	1007·8 mb	
Pressure: Freezing	958 mb	963 mb	977·0 mb	968 mb	978 mb	1009 mb	1001·6 mb	1008. 980 · mb	

Pressure mb	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02.7	33	30	280	06	0·4	37	24	170	03	00·2	33	29	CALM		02·6	34	28			0·6	34	29	060	10	1·2	33	25	045	11	4·4	32	29	040	20	2·9	32	26	045	05	0·3	36	29	090	06	Surf
1000	06·7	38	32	265	15	7·3	37	24	152	09	07·2	34	26	094	09	07·2	35	25			6·2	34	26	061	15	5·9	31	22	067	29	4·8	32	29			4·9	32	25			6·0	35	26	086	16	1000
950		31	26	270	15		30	18	132	09		29	20	102	08		30	22				28	21	074	22		26	18	072	30		25	23	055	25		30	23	066	23		31	22	093	30	950
900	34·3	24	18	285	12	34·8	23	13	109	16	34·7	22	16	113	08	34·8	23	19			38·6	21	17	082	27	33·2	19	13	074	30	32·0	21	20	067	26	32·5	26	19	069	23	33·6	23	16	107	36	900
850		18	13	296	12		18	10	088	13		16	12	117	07		18	17				15	10	086	29		21	03	074	27		16	15	070	26		20	14	056	18		15	09			850
800	64·3	12	07	303	11	64·8	12	04	012	07	64·6	13	00	132	09	64·9	14	05			63·5	17	02	090	26	63·3	19	-14	075	25	62·0	18	18	071	24	62·7	15	10	051	19	63·8	22	02			800
750		08	-01	309	10		14	-02	238	05		14	-23	154	12		15	-07				12	-46	090	23		12	-05	081	30		12	11	075	25		15	09	063	20		17	-08			750
700	97·6	05	-12	334	08	98·5	11	-24	277	05	09·8	09	-34	180	05	98·7	10	-18			97·1	05	-51	083	21	96·9	08	01	084	30	95·6	08	07	073	25	96·5	14	06	061	18	97·7	12	-17			700
650		-01	-13	316	12		05	-30	318	06		04	-45	160	02		07	-28				-01	-54	067	25		03	-03	060	22		05	02	068	21		07	00	056	20		06	-23			650
600	13·5	-08	-14	303	18	13·7	-2	-36	302	08	136	-02	-52	311	06	13·7	-01	-37			135	-07	-50	067	29	135	-05	-09	077	13	134	-02	-08	056	21	135	-01	-07	046	19	136	-03	-24			600
550		-16	-23	303	22		10	-43	293	08		-10	-52	357	07		-10	-46				-15	-56	065	34		-11	-16	078	06		-10	-17	058	20		-09	-16	046	18		-11	-28			550
500	17·8	-24	-32	302	26	180	-20	-49	314	11	180	-19	-59	008	14	18·1	-21	-53			178	-25	-58	060	32	179	-20	-28	051	04	177	-19	-27	055	17	179	-18	-26	042	17	179	-21	-38			500
450		-33	-41	309	31		-31	-48	318	20		-24	-57	076	20		-31	-57				-35	-58	052	27		-32	-42	010	03		-30	-38	040	16		-30	-40	049	25		-31	-46			450
400	22·9	-41		315	35	231	-41		322	20	232	-36	-59	079	24	232	-40	-60			229	-47		048	26	229	-44		003	04	229	-42		038	13	230	-43		057	22	230	-43				400
350		-55		318	40		-52		322	18		-49		017	30		-52					-59		046	27		-56		336	06		-55		043	16		-55		028	24		-53				350
300	291	-69		313	43	29·4	-68		318	24	295	-62		019	31	294	-66				290	-73		042	27	291	-69		332	13	290	-70		034	19	292	-69		029	21	293	-65				300
250		-86		318	45		-83		316	32		-77		016	30		-81					-79		032	27		-76		026	14		-81		023	24		-75		017	24		-74				250
200	37·3	-83		315	35	375	-86		315	25	377	-84		008	29	377	-77				373	-76		023	20	375	-70		013	15	374	-68		013	20	375	-68		002	21	376	-72				200
170		-77		313	30		-76		320	26		-79		345	22		-79					-71		350	20		-73		008	15		-69		356	19		-68		357	30		-70				170
150		-77		313	31	434	-75		322	24	436	-78		340	20	436	-73					-72		347	21		-68		353	14		-73		345	18		-68		355	27		-73				150
130		-76		314	32		-74		312	25		-75					-72					-73		343	28		-70		347	18		-76					-69		347	30		-71				130
110		-77		312	33		-75		318	32		-71					-72					-75		343	26		-70		339	20	(139mb)						-71		349	31		-75				110
100	51·4	76				51·7	-75		313	29						51·9	-73				(103b)	-74					51·9	-70		337	16						520	-73		353	26	520	-76				100
90							-76		321	38																		-70		331	19							-72		342	24						90
80							-78		329	39																		-70		327	23							-71									80
70							-79		308	25																		-70		332	23						(75mb)	-70									70
60							-81																					-70																			60

Inversion 1015 mb 33°- 1000 mb 38°
Isothermal 762 - 720 mb 08°

Inversion 795 mb 11°- 770 mb 15°
Isothermal 1026 - 994 mb 37°

Inversion 1027 mb 33°-998 mb 34°
805 " 10°-792-18°

Inversion 1017 mb 34°-995 mb 36°
812 " 12°-780-17°

Inversion 825 mb 12°-804 mb 15°
Isothermal 1022-1000 mb 34°

Inversion 875 mb 15°-846 mb 22°
Isothermal 727 - 691 mb 08°

Inversion 844 mb 15°-800 mb 13°
680 - 06° - 670 - 08°

Inversion 1008 mb 32°-994 mb 33°
Isothermal 820 - 750 mb 15°

Inversion 824 mb 24°-800 mb 22°

Tropopause	I 230 mb -89° 34·500 ·	I 217 mb -90° 36·000 ·	I 211 mb -85° 36·800 ·	I 233 mb -86° 34,500 ·	I 263 mb -79° 31·700 ·	I 258 mb -77° 32·200 ·	I 250 mb -81° 32·800 ·	I 262 mb -78° 32·000 ·	I 230 mb -76° 34·700 ·	Tropopause

09h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	
Pressure: Time	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	09h G.M.T.	G.M.T.
Pressure: M.S.L.	1023·2 mb	1026·7 mb	1027·5 mb	mb	1024·2 mb	1023·8 mb	1019·8 mb	1019·6 mb	mb
Pressure: Surf	1012·8 mb	1025·0 mb	1026·6 mb	1017·1 mb	1022·1 mb	1019·1 mb	1002·6 mb	1008·5 mb	mb
Pressure: Freezing	943 mb	968 mb	972 mb	973 mb	972 mb	1019 mb	1002·6 · mb	1000 · mb	mb

Pressure mb	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Pressure mb
Surf	02.7	35	34	350	12	0·4	33	27			00·2	32	29	L.V.		02·6	34	29			0·6	34	29	060	08	1·2	30	23	040	12	4·4	31	25	080	17	2·9	33	30	045	08						Surf
1000	06·0	35	31	291	21	6·9	35	23			07·0	34	28	"		07·1	35	30			6·4	35	27	062	15	6·2	29	21	064	27	5·1	31	25			5·1	32	29	054	21						1000
950		33	30	286	12		30	21				29	23	"			29	22				29	21	076	19		24	17	069	32		24	20	054	24		27	23	063	20						950
900	33·7	27	22	284	14	34·4	25	12			34·6	21	18	"		34·5	21	16			33·8	22	16	083	23	33·4	17	12	074	33	32·3	20	16	069	25	32·6	23	18	059	20						900
850		22	18	293	14		19	08				15	14	"			14	13				15	10	084	22		13	09	077	32		19	15	071	25		20	14	052	21						850
800	64·0	18	14	327	15	64·5	13	06			64·5	09	01	189	09	64·4	18	02			63·7	16	02	081	21	63·5	20	-28	078	29	62·4	16	08	069	24	62·8	16	11	060	20						800
750		12	08	328	14		13	-11				13	-11	209	11		14	-20	See Page 3 for Winds			13	-16	075	20		15	-39	073	27		12	06	064	21		09	05	058	18						750
700	97·6	05	00	320	16	98·2	11	-37			98·1	08	-23	251	07	98·2	12	-29			97·4	08	-25	071	27	97·3	08	-38	071	24	96·0	08	05	069	24	96·0	11	06	052	17						700
650		-02	-08	317	18		05	-39				03	-31	339	04		07	-50				03	-33	069	22		01	-39	070	22		05	00	068	23		05	-04	036	14						650
600	135	-09	-16	317	21	13·6	-01	-44			136	-02	-41	007	08	137	-07	-47			135	-04	-40	069	27	135	-05	-45	065	15	134	-01	-05	063	20	135	-01	-18	023	12						600
550		-17	-24	302	22		-09	-51				-09	-39	360	12		-11	-45				-13	-48	053	30		-13	-45	048	08		-10	-16	061	18		-09	-23	016	13						550
500	178	-23	-31	310	32	180	-20	-60			180	-28	-40	356	13	180	-20	-48			179	-21	-54	060	31	179	-22	-50	022	08	178	-19	-26	054	12	178	-20	-32	008	14						500
450		-32	-40	309	36		-31	-58				-28	-40	001	13		-29	-50				-31	-58	054	32		-33	-59	001	08		-30	-38	045	09		-31	-43	008	14						450
400	229	-41		311	37	231	-41				231	-37	-50	003	21	231	-38	-52			230	-42		054	34	229	-45		011	08	229	-43		043	10	229	-43		359	16						400
350		-54		306	45		-55					-48		358	17		-52					-53		051	41		-55		023	13		-55		039	09		-55		360	17						350
300	291	-69		307	47	293	-70				294	-60		355	26	294	-65				292	-66		042	44	291	-67		042	22	291	-69		035	09	291	-65		022	22						300
250		-84		307	51		-82					-75		357	31		-78					-81		032	35		-78		036	24		-76		037	21		-71		021	32						250
200	373	-79		308	36	375	-78				378	-87		346	35	377	-78				375	-80		009	28	375	-71		013	20	374	-72		011	24	376	-65		356	34						200
170		-75		308	38		-86					-84		337	25		-73					-76		353	28		-68		350	22		-68		359	26		-67		353	35						170
150		-74		309	31	435	-78															-68		357	24		-68		354	22		-71		359	26		-66		354	32						150
130		-75		315	38																	-69		344	22		-70		354	22		-68		353	24		-66		346	33						130
110		-72		317	41																	-69		335	25							-70		300	18		-67		337	33						110
100	51·6	-73		315	40																518	-72		338	25						518	-72		338	21	521	-69									100
90		-76																				-74		336	26							-71		342	24												90
80																						-76										-69															80
70																					(87mb)										(78mb)	-69															70
60																																																60

Inversion 1013 mb 35°- 986 mb 36°

Inversion 1025 mb 33°-1008 mb 36°
782 " 10°- 743 " 14°

Inversion 1027 mb 32°-990 mb 35°
800 " 09°- 772 " 16°

Isothermal 750 - 724 mb 14°

Inversion 1022 mb 34°-995 mb 35°
824 " 12°- 789 - 18°
Isothermal 715 - 697 mb 08°

Inversion 882 mb 15°- 800 mb 20°

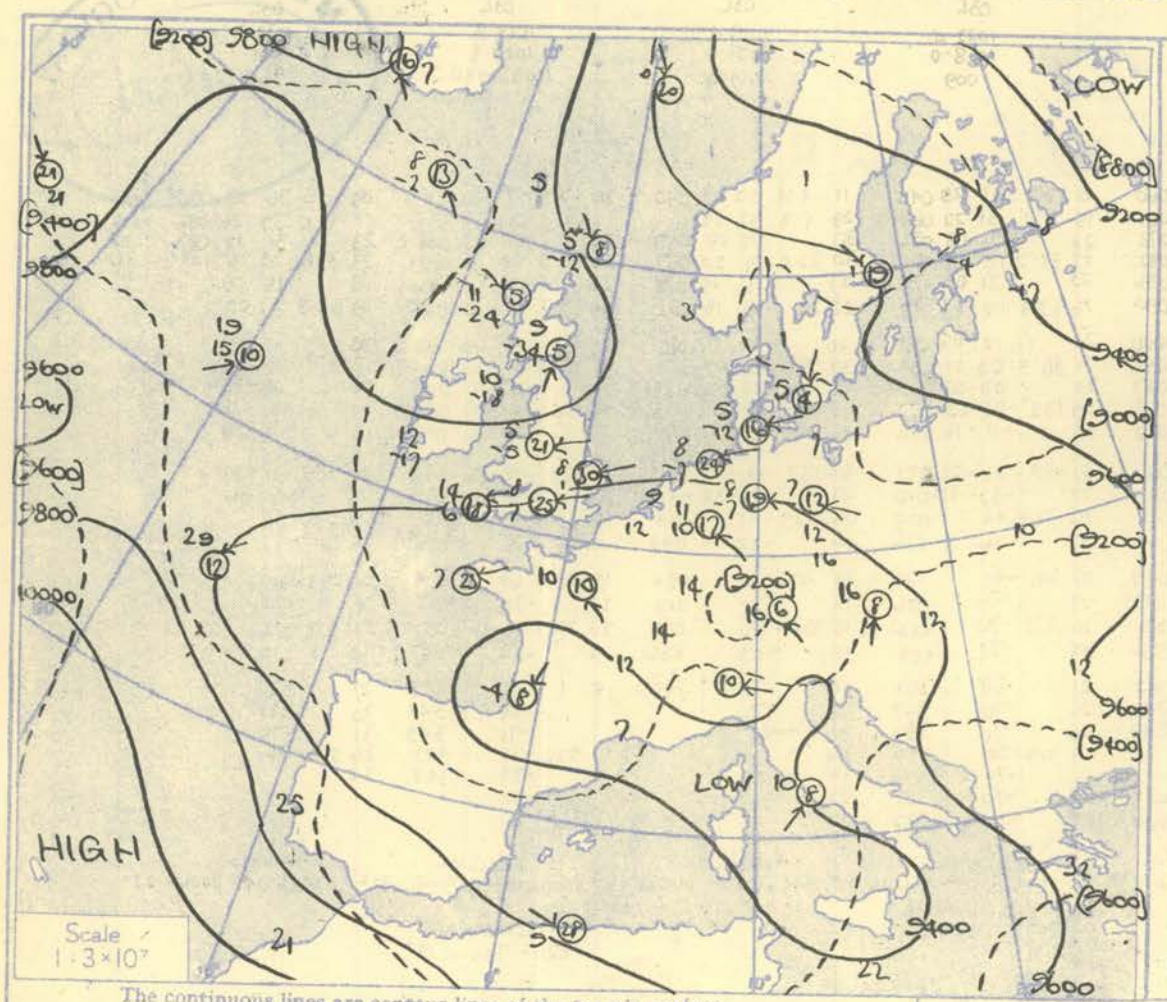
Inversion 879 mb 18°- 865 mb 19°
711 " 01°- 688 " 09°
Isothermal 955 - 937 mb 24°
617 - 606 - 00°

Inversion 738 mb 08°- 724 mb 13°

Tropopause	I 233 mb -87° 34·300 ·	I 212 mb -88° 36·500 ·	I 184 mb -89° 39·500 ·	I 219 mb -87° 35,900 ·	I 240 mb -83° 33·700 ·	I 250 mb -78° 32·900 ·	I 257 mb -77° 32·300 ·	I 270 mb -70° 31·300 ·		Tropopause

December 28TH 1950.

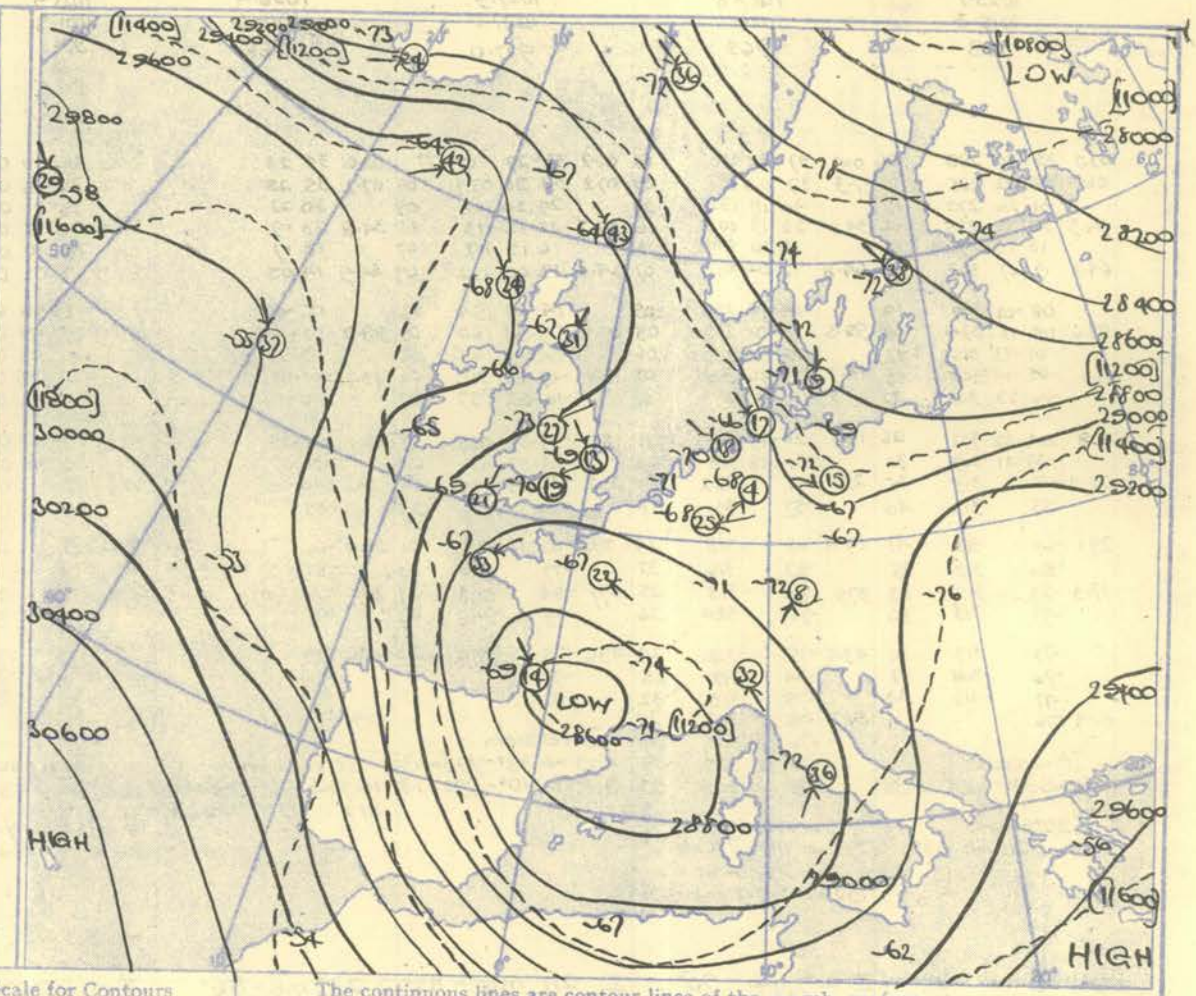
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



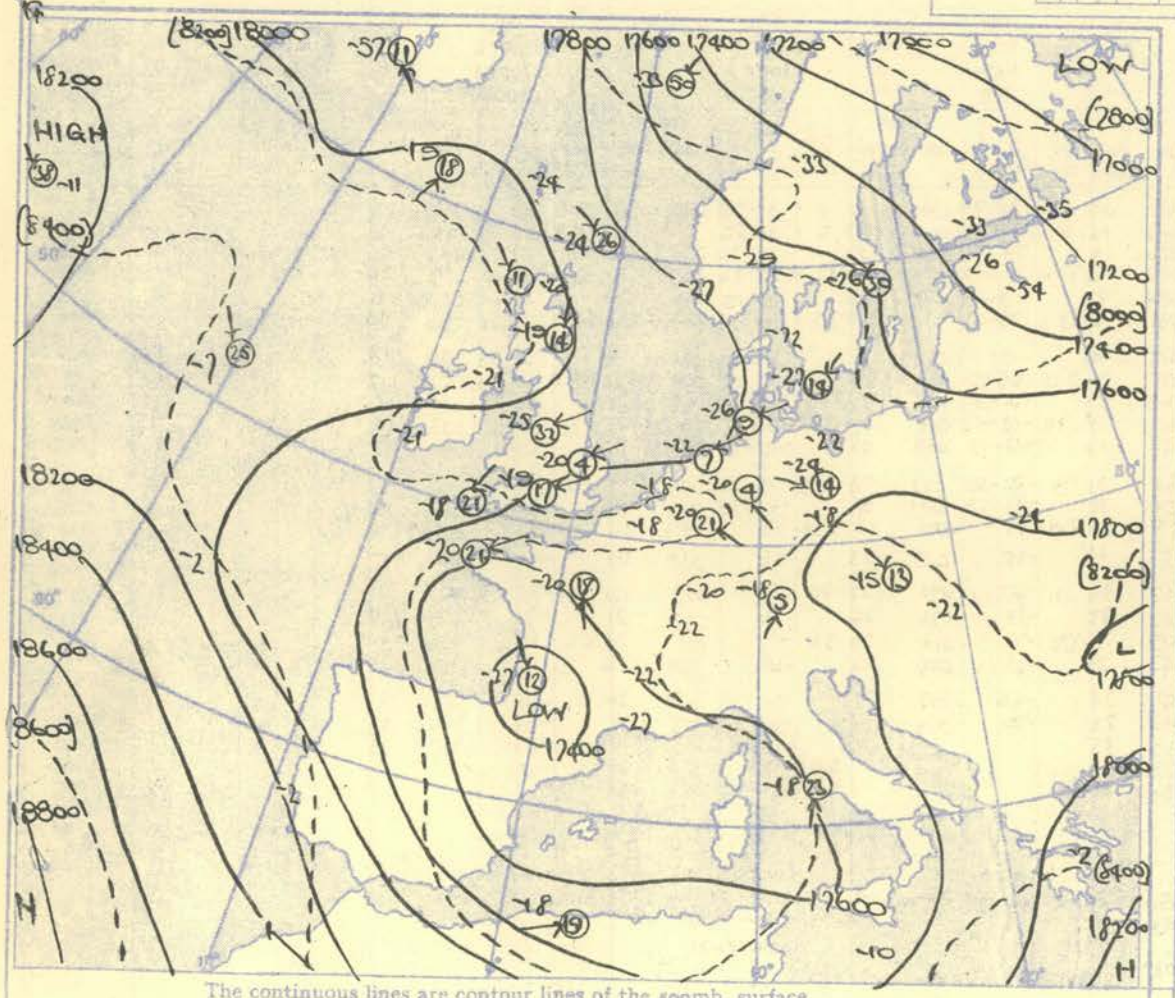
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

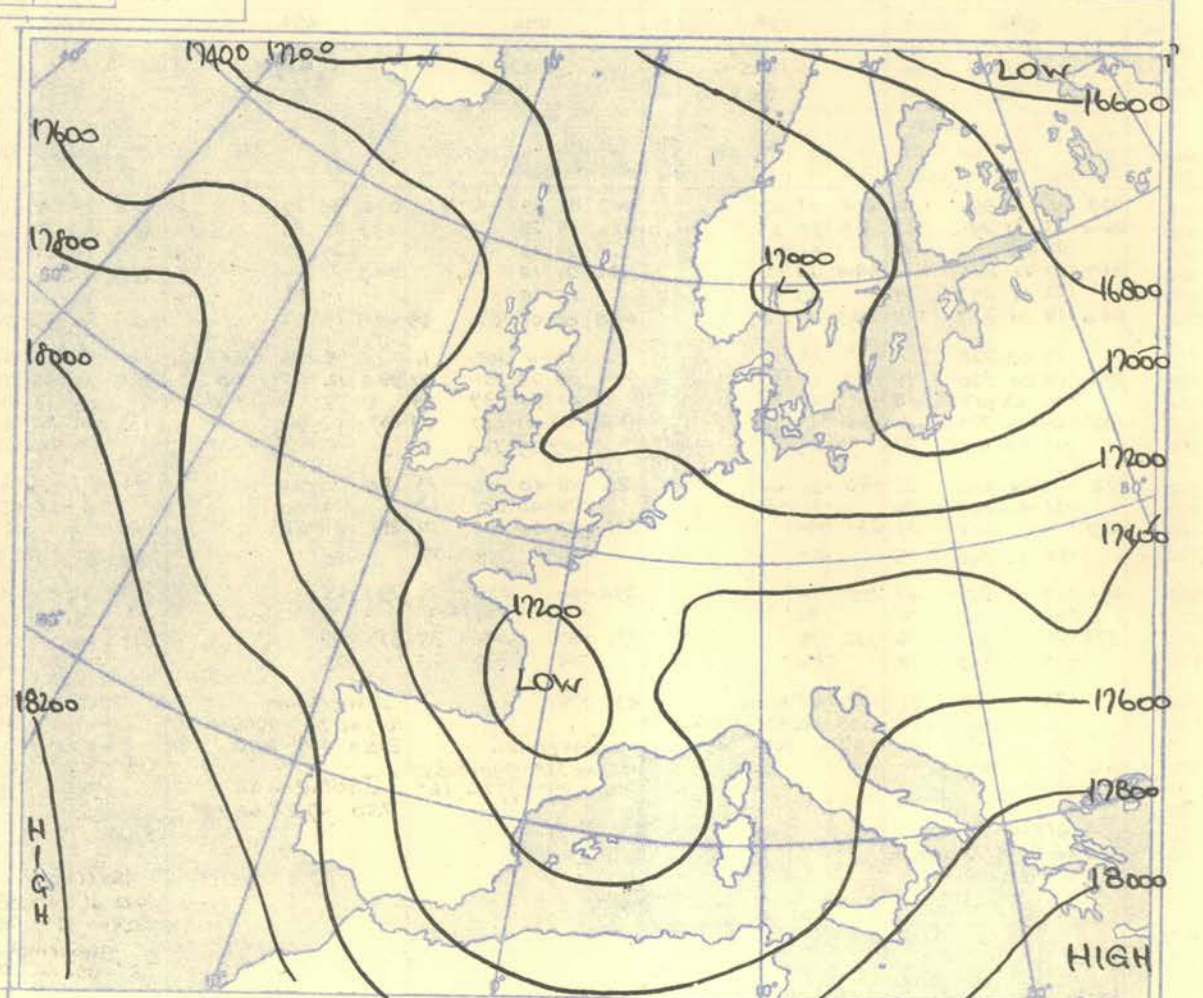
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 — 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700–500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2N 17·0W			39·5N 12·2W			53·1N 01·3E		
Pressure Time	13h			15h			15h		
M.S.L.	1010 mb			1010 mb			1021 mb		
Surf	1007 mb			1006 mb			1019 mb		
Freezing	820 mb			750 mb			988 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		49	49		49	49		36	24
1000	2·9			2·0			5·5		
950		45	45		44	44		27	
900		40	40		39	39	32·9	20	
850		35	35		37	37		16	
800		31	31		34	34	62·9	17	
750		29	29		32			13	
700	97·4	26	25	96·7	28		97·0	08	
650		22			23			03	
600		14			17		135	-05	
550		07			09			-15	
500	182	-03		182	03		178	-23	
450								-31	
400							229	-44	
350								-57	
300							290	-70	
250									
200									
170									
	Cloud. 8/8 Ns. 960-740mb. 1/8 Ci NR. Surf wind. E. 11-16kts.			cloud. 2/8 Sc 950-910mb 8/8 Ns 810-TNG. Surf wind. calm.			Cloud. 8/8 Sc 900-850mb. Inversion. 850 mb 16°- 800 " 17°		

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Aldergrove		Stornoway		Larkhill.		Aldergrove		Shoebury		Lerwick.		Downham.	
Time	09h		15h		21h		21h		10h		21h		21h.	
Type	Pilor.		Pilor.		Pilor.		Pilor.							
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel	Dir.	Vel.	Dir.	Vel.
Surf.	070	05	Calm.				Calm		040	17	330	02	070	07
1,000	070	12	L.V.				170	03	050	25	340	12	070	16
2,000	080	09					170	03	060	24	340	12	060	18
3,000	080	09					174	05	060	27	330	12	060	19
4,000	080	10	350	06			194	04	060	28	320	11	050	19
5,000	082	10	345	07			218	07	060	22	320	12	060	17
6,000	092	08	339	10			249	09	060	21	320	13	060	13
8,000	094	08	349	09			267	10	070	27	310	21	060	11
10,000	095	07	L.V.				249	15	070	24	310	21	040	12
14,000	030	14	265	19			269	17	040	11	310	22	360	20
18,000	040	21	264	23			266	14	040	09	300	29	020	21
24,000	022	24	275	39			282	22	010	09	290	30	010	24
30,000	002	30	291	44			286	31	020	13	290	47	010	28
40,000	336	29	305	37	345	27			360	21	310	39	340	27
50,000	331	26	311	34	328	24			340	19	310	47	330	27
			(44·000')						(47·000')		310	64	330	32
											310	72	310	38
											(67·000')		(65·000')	

NEPHOSCOPE OBSERVATIONS

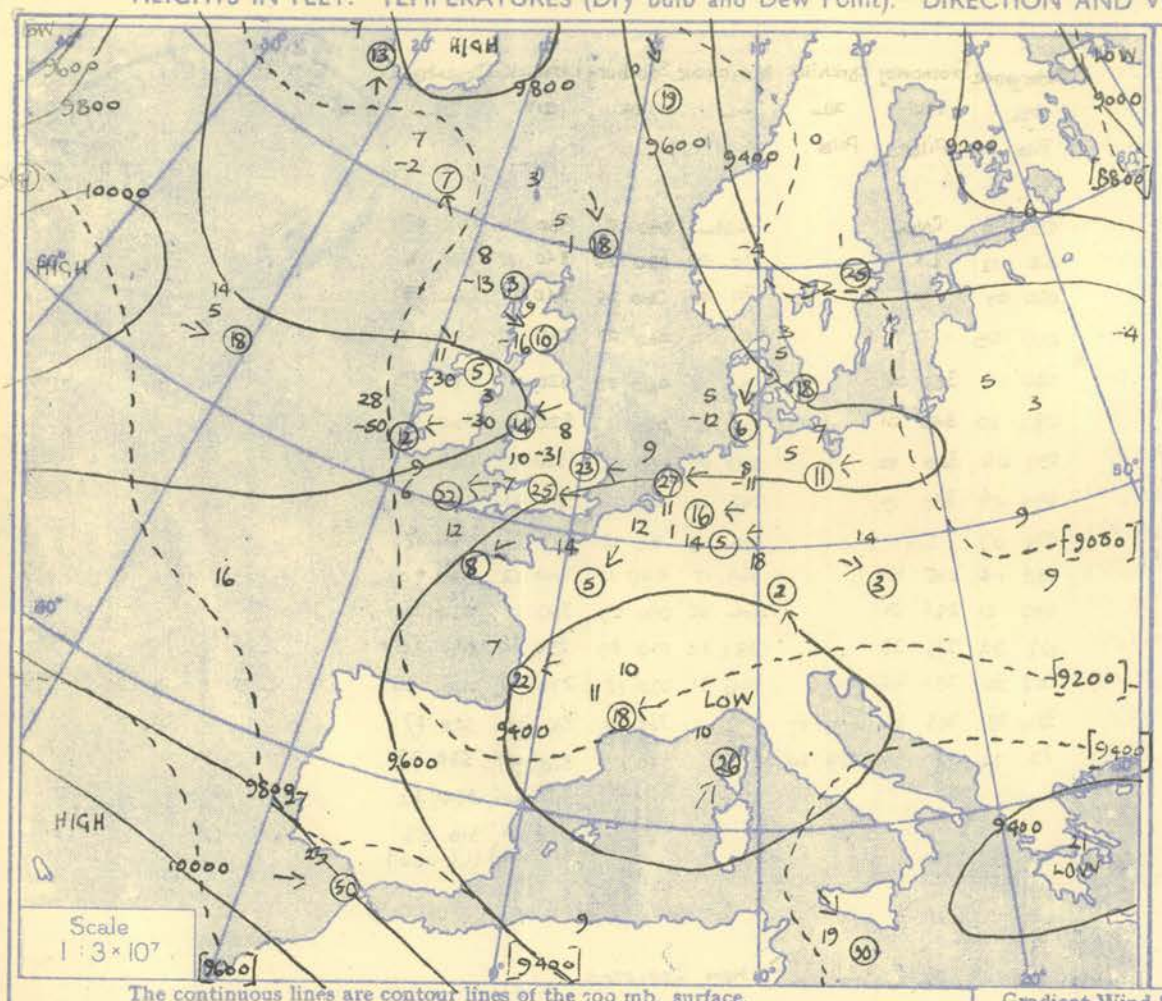
Place	NON REPORTED.
Time Type	
Dir. Vel.	

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

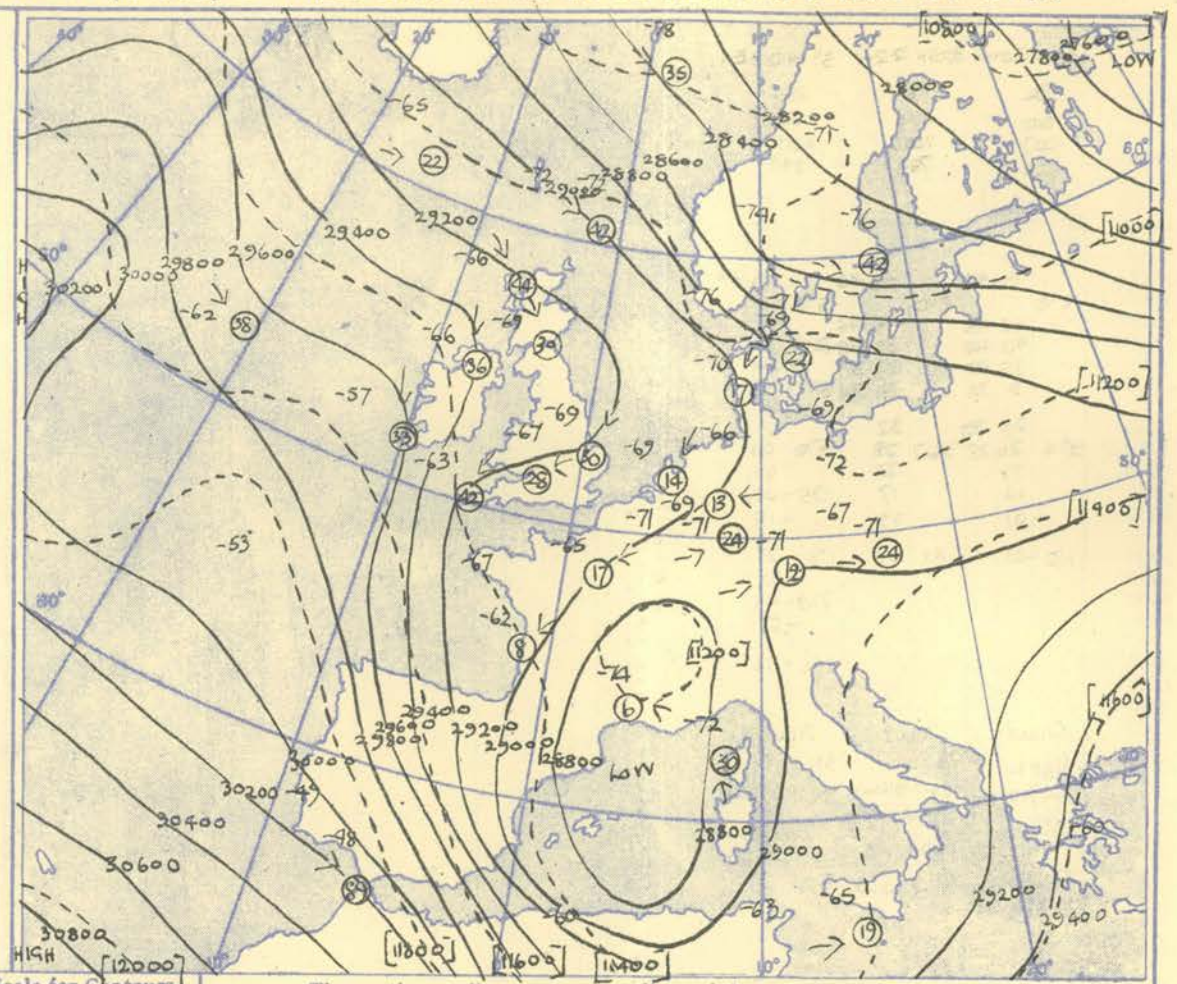
Ship	WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	61·0 N 14·1 W.					61·0N 14·2W					61·0N 14·3W					60·9N · 13·9W.				
Pressure Time	03h. G.M.T.					09h. G.M.T.					15h. G.M.T.					21h. G.M.T.				
M.S.L.	1025 mb					1023 mb					1021 mb					1020 mb				
Surf	1025 mb					1023 mb					1021 mb					1020 mb				
Freezing	910 mb					930 mb					920 mb					920 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	35	105	11		43	38	160	10		45	35	090	09		45	35	070	14
1000	6·6	42	34	116	12	6·1	40	37	153	12	5·6	42	32	091	12	5·2	43	33	076	09
950		37	28	114	11		34	34	148	11		36	25	105	12		36	25	080	11
900	34·6	31	21	108	13	33·9	27	26	131	10	33·5	30	21	148	10	33·2	30	20	085	12
850		24	18	104	14		21	20	122	09		24	16	169	06		26	10	090	12
800	65·1	19	14	107	15	64·2	16	15	155	09	64·0	19	11	126	04	63·6	19	08	102	11
750		11	07	131	14		10	09	174	09		13	04	111	07		13	01	112	09
700	98·7	08	-02	141	13	97·6	04	-04	168	09	97·7	07	-02	144	07	97·2	07	-06	134	06
650		02	-10	125	10		-02	-14	132	08		-01	-09	161	08		0	-12	200	04
600	157	-04	-17	147	09	135	-09	-19	116	07	135	-08	-19	113	09	135	-07	-19	263	06
550		-10	-24	189	11		-16	-20	157	03		-16	-26	149	09		-13	-26	285	07
500	180	-19	-30	221	18	178	-24	-27	241	09	179	-22	-32	222	12	178	-21	-34		
450		-28	-35	227	22		-34	-36	245	09		-30	-39	263	19		-32	-45		
400	232	-38	-43	227	21	229	-45		223	19	230	-42		266	15	229	-45			
350		-50		227	28		-59		226	25		-57		260	12		-59			
300	295	-64		221	42	290	-73		228	27	291	-65		258	22	291	-69			
250		-79		227	37		-77		248	35		-70		251	37		-70		280	28
200	378	-73		262	32	373	-77		272	27	376	-69		281	37	375	-69		295	28
170		-69		285	35		-72		280	30		-69		288	38		-70		290	39
150		-69		291	35		-73		291	36		-67		271	42		-66		286	40
130		-70		294	36		-73		298	37		-68		288	42		-69		285	39
110		-70		297	39		-76		289	42	(120mb)	-68					-70		285	39
100	522	-72		297	42	515	-79		280	38						520	-71		285	46
90		-74		298	44		-81		272	30							-73		285	42
80		-76		300	36		-79		284	32							-75		285	34
70		-78		290	46		-81		297	37							-77		285	33
60		-79		304	49		-84		293	43						(65mb)	-78			
	(50mb)	-78																		
Tropopause	I 253 mb - 80° 33,100'					II 280 mb -76° 30,500'					II 265 mb -70° 31,800'					II 265 mb -70° 31,800'				

Ship	WEATHER RECORDER					WEATHER RECORDER					WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·3N. 20·0W					52·5N 19·8W					52·4N 20·1W					52·5 N. 19·6W				
Pressure Time	03h. G.M.T.					09h. G.M.T.					15h. G.M.T.					21h. G.M.T.				
M.S.L.	1015 mb					1017 mb					1019 mb					1020 mb				
Surf	1015 mb					1017 mb					1019 mb					1020 mb				
Freezing	860 mb					870 mb					860 mb					890 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		49	48	145	20		50	46	160	18		50	46	200	20		48	42	300	15
1000	4·2	47	46	157	21	4·5	48	44	166	22	5·0	47	43	203	27	5·4	45	40	300	21
950		41	40	162	28		42	37	171	23		40	37	204	27		37	32	284	20
900	32·4	36	36	162	24	32·8	35	30	193	18	33·2	35	33	210	24	33·4	33	27	274	21
850		31	31	168	19		30	24	208	18		31	30	220	18		29	15	278	22
800	63·3	26	26	185	16	63·7	25	18	221	11	64·1	26	26	237	16	64·2	26	00	291	22
750		19	19	196	12		19	11	265	09		20	18	248	16		21	-09	316	24
700	97·6	19	15	217	10	97·9	19	-01	300	12	98·3	14	05	265	18	98·5	19	-16	314	27
650		14	06	256	13		15	-24	322	14		16	-09	279	18		15	-21	314	37
600	137	07	-03	279	11	137	10	-32	331	17	137	07	-15	283	21	137	07	-31	319	43
550		-01	-15	307	15		01	-31	340	24		-02	-16	281	24		-01	-42	319	43
500	181	-07	-27	329	25	182	-10	-33	342	24	182	-13	-22	277	33	182	-11	-53	321	46
450		-17	-36	342	23		-21	-38	316	24		-24	-32	284	36		-20	-60	330	62
400	234	-28	-45	341	25	234	-32	-48	316	29	233	-36	-42	294	41	234	-31		338	72
350		-40	-54	326	37		-46		312	27		-49		296	49		-43		354	78
300	298	-55		326	37	297	-59		303	39	296	-62		288	38	298	-58		347	70
250		-72		308	36		-76		303	46		-69		288	35		-73		347	66
200	(245mb)	-74				380	-89		303	36	381	-76		313	43	382	-84		344	66
170							-80		303	35		-72		317	46		-83		326	50
150							-76		303	35		-73		320	45		-80		318	38
130							-75		303	34		-70		327	39		-77		311	34
110							-75		303	25		-71		320	26		-76		311	36
100						521	-76		303	25	524	-71		310	22	523	-78		314	31
90							-77		304	24		-71		308	19		-77		322	30
80							-78		304	25		-71		305	21		-76			
70							-80		302	25		-71		301	27					
60												-68		294	25					
											(53mb)	-71								
	Isothermal 760 - 700mb 19°					Inversion 745mb 18° - 703mb 20°										Inversion 917mb 32° - 900mb 33° Isothermal 716 - 677 mb 19° 225 - 218 " - 81°				
Tropopause	N.R.					I 215 mb -90° 36,400'					I 188 mb -77° 39,400'					I 200 mb -84° 38,200'				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

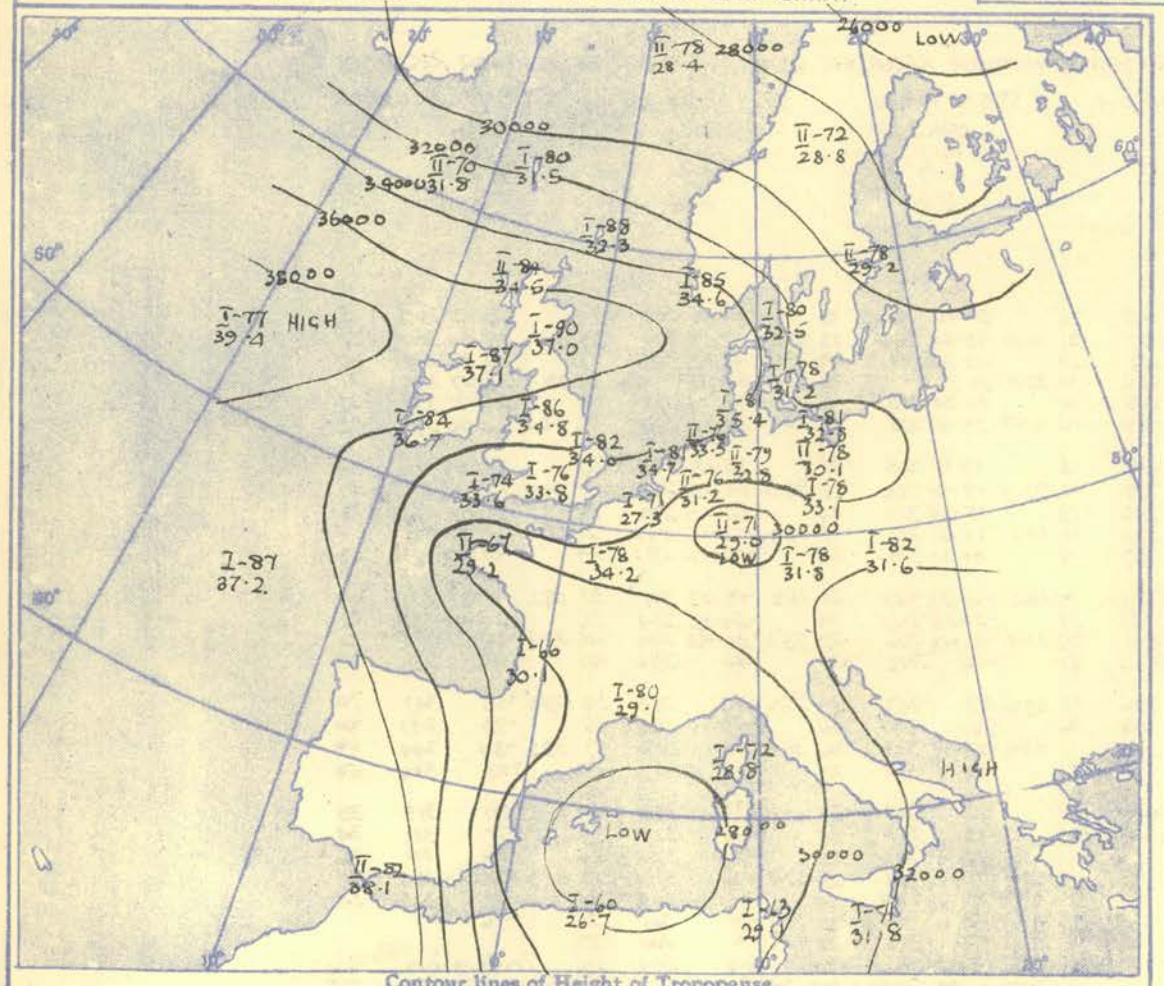


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Cold air from Labrador began to penetrate steadily eastwards into the Atlantic leading to the cutting off of a warm pool in Baffin Bay.

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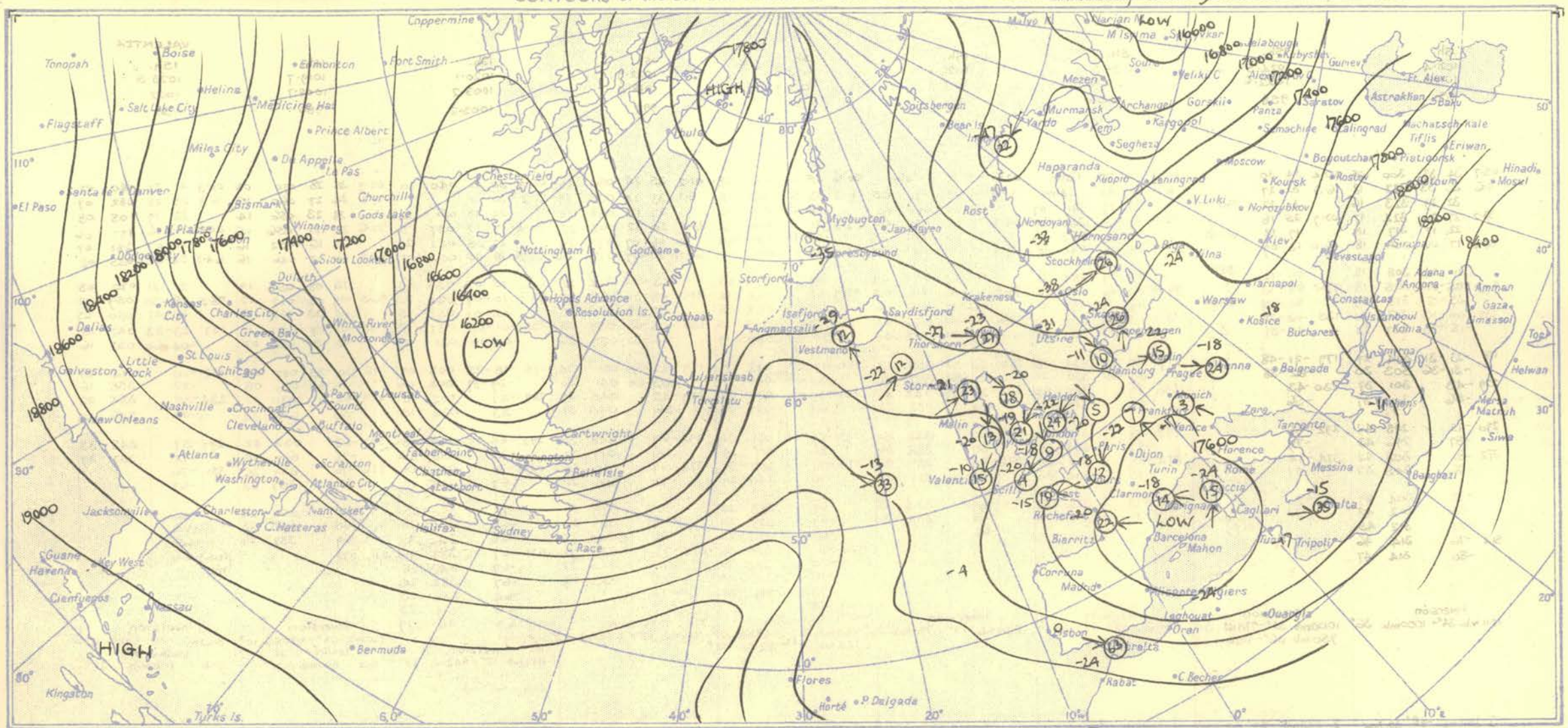
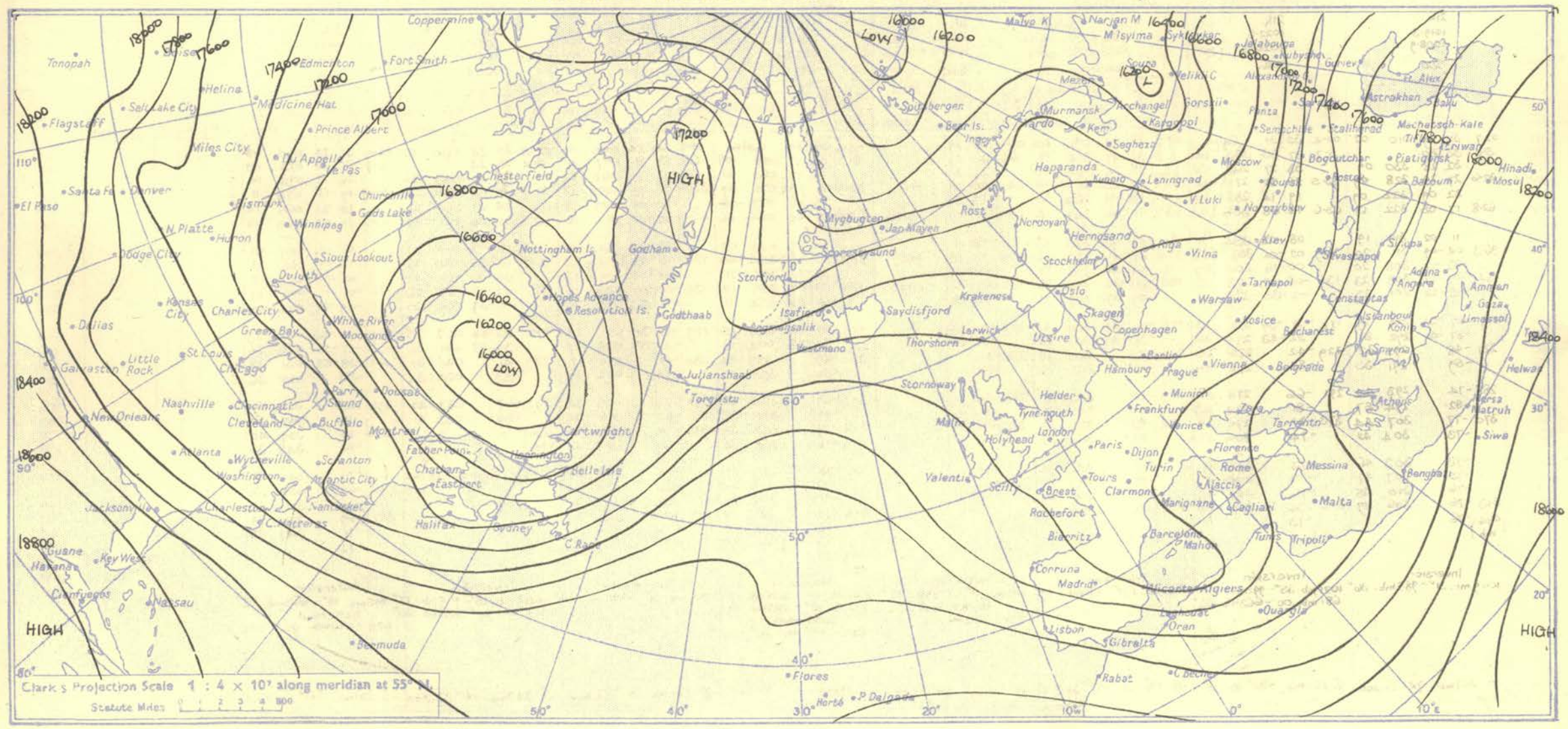
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Thursday 28th. December 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Thursday 28th. December 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

LERWICK

Time 15h. G.M.T.; Pressure M.S.L. 1021·4 mb; Surf 1011·0 mb; Freezing 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	34	33	360	05
1000	5·6	36	33	323	18
950		32	29	323	16
900	33·2	27	20	324	17
850		22	17	317	18
800	63·4	17	06	308	18
750		11	04	308	18
700	96·9	05	-01	305	18
650		-03	-12	313	18
600	135	-09	-16	313	20
550		-15	-23	307	24
500	178	-23	-31	304	27
450		-31	-36	303	30
400	229	-43		301	37
350		-56		300	37
300	290	-72		293	42
250		-87		296	43
200	372	-81		308	42
170		-76		305	42
150		-75		304	39
130		-75		312	48
110		-75		312	45
100	514	-76		314	46
90		-80		314	47

Inversion
1011 mb. 34°- 1000mb. 36°

Tropopause: I 254mb. -88° 32,300'

STORNOWAY

Time 15h. G.M.T.; Pressure M.S.L. 1024·3 mb; Surf 1022·6 mb; Freezing 958 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	34	30		
1000	6·3	32	27		
950		31	22	For	
900	33·9	25	16		
850		19	12	winds	
800	46·0	13	09		
750		06	-12	see	
700	97·4	08	-13		
650		03	-22	page	
600	135	-03	-28		
550		-11	-37	3.	
500	179	-21	-48		
450		-32	-58		
400	230	-43			
350		-56			
300	292	-66			
250		-79			
200	374	-84			
170		-77			
150		-73			
130		-73			

Inversion
1000mb. 32°-975mb. 34°
750 mb. 06°-716mb. 09°

Tropopause: II 233mb. -84° 34,500'

LEUCHARS

Time 15h. G.M.T.; Pressure M.S.L. 1025·5 mb; Surf 1024·6 mb; Freezing 1000·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	34	29	Calm	
1000	6·6	32	26	Calm	
950		27	19	281	07
900	34·0	21	15	263	09
850		15	11	263	09
800	63·9	08	03	240	10
750		14	-09	254	11
700	98·0	09	-16	277	10
650		04	-28	297	10
600	136	-03	-34	330	10
550		-11	-37	337	14
500	179	-20	-39	334	18
450		-30	-46	330	22
400	230	-41		304	24
350		-54		317	26
300	293	-69		312	30
250		-82		339	48
200	374	-88		329	32
170		-75		330	30
150		-73		326	27
130		-71			

Inversion
800mb. 08°-787mb. 17°

Tropopause: I 205mb. -90° 37,000'

ALDERGROVE

Time 15h. G.M.T.; Pressure M.S.L. 1026·1 mb; Surf 1016·2 mb; Freezing 984 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	35	28	Calm	
1000	6·8	34	27	090	05
950		28	20	090	05
900	34·3	22	15	150	04
850		15	10	195	05
800	64·3	19	01	180	05
750		15	-19	204	04
700	98·1	11	-30	300	05
650		06	-39	335	06
600	136	-01	-50	356	08
550		-09	-51	003	08
500	180	-20	-52	358	13
450		-29	-54	358	21
400	231	-39	-59	332	21
350		-53		338	22
300	294	-66		348	36
250		-80		338	36
200	376	-84		339	30
170		-73		327	27
150		-69		334	45
130		-68		339	30
110		-68			

Inversion
825mb. 12°-795mb. 20°

Tropopause: I 205mb. -87° 37,100'

LIVERPOOL

Time 15h. G.M.T.; Pressure M.S.L. 1024·0 mb; Surf 1021·9 mb; Freezing 980 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	35	30	060	08
1000	6·3	33	26	065	15
950		28	20	077	16
900	33·8	21	14	095	18
850		22	12	089	14
800	64·0	22	-07	076	11
750		16	-24	069	13
700	97·9	12	-30	064	14
650		05	-37	058	15
600	136	-02	-41	058	15
550		-10	-52	043	19
500	180	-19	-59	043	21
450		-30	-57	042	24
400	231	-40	-60	031	27
350		-52		027	30
300	293	-67		019	35
250		-82		017	39
200	376	-77		362	31
170		-70		345	29
150		-69		343	25
130		-69		329	25
110		-69		342	24
100	520	-71		335	26
90		-70		335	31
80		-70		326	25
70		-73		319	25
60	(065 mb)	-74			

Inversion
862mb. 16°-844mb. 25°
724mb. 12°- 712mb. 14°

Tropopause: I 230mb. -86° 34,800'

DOWNHAM MARKET

Time 15h. G.M.T.; Pressure M.S.L. 1022·9 mb; Surf 1018·5 mb; Freezing 992 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	35	25	030	15
1000	6·1	33	24	055	24
950		27	18	058	24
900	33·5	20	12	063	25
850		14	07	072	26
800	63·5	20	-09	073	24
750		13	-24	064	22
700	97·3	08	-31	063	23
650		02	-38	061	24
600	135	-05	-45	059	25
550		-14	-52	057	26
500	179	-22	-55	051	24
450		-33	-60	041	26
400	229	-45		045	29
350		-56		045	31
300	291	-69		028	30
250		-80		017	27
200	374	-77		359	24
170		-73		350	20
150		-71		339	22
130		-69		333	26
110		-71		344	24
100	517	-73		340	30
90		-73		345	27
80		-73		333	22
70		-73			

Inversion
853mb. 13°- 825mb. 23°

Tropopause: I 237mb. -82° 34,000'

LARKHILL

Time 15h. G.M.T.; Pressure M.S.L. 1020·1 mb; Surf 1003·2 mb; Freezing 1003·2 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	30	21	040	20
1000	5·2	30	21		
950		24	18	051	24
900	32·4	17	12	057	21
850		22	08	057	20
800	62·5	18	05	052	17
750		15	02	059	23
700	96·3	10	-07	065	25
650		06	-02	053	15
600	135	-01	-08	037	12
550		-09	-16	031	09
500	178	-18	-25	008	09
450		-29	-37	008	09
400	229	-42		002	10
350		-53		032	15
300	292	-64		045	28
250		-74		033	34
200	376	-71		010	18
170		-67		004	23
150		-70		350	25
130		-66		342	28
110		-66		340	25
100	521	-67		337	26
90		-67		343	28
80		-67		344	24
70		-64		330	25
60		-66		319	23
	(050)	-63		311	29
	(045 mb)	-61			

Inversion
892mb. 16°- 842mb 23°
Isothermal
688 - 668mb. 08°

Tropopause: I 241mb. -76° 33,800'

CAMBORNE

Time 15h. G.M.T.; Pressure M.S.L. 1019·7 mb; Surf 1008·7 mb; Freezing 986 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	35	28	090	08
1000	5·2	34	27	060	15
950		28	23	056	14
900	32·6	23	19	056	15
850		21	16	052	16
800	62·8	20	13	046	16
750		13	08	058	19
700	96·5	09	04	069	22
650		05	00	063	17
600	135	-01	-09	050	11
550		-10	-21	050	07
500	178	-20	-33	037	04
450		-31	-44	026	08
400	229	-42		030	22
350		-53		036	34
300	292	-63		033	42
250		-72		017	35
200	376	-70		359	36
170		-67		357	33
150		-66		354	24
130		-65		343	28
110		-69		352	26
100	521	-70			

Inversion
720mb. 08°-690mb. 10°
Isothermal
650 - 810mb. 21°

Tropopause: I 242mb. -74° 33,600'

VALENTIA

Time 15h. G.M.T.; Pressure M.S.L. 1023·5 mb; Surf 1022 mb; Freezing 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·3	41	25	080	07
1000	6·3	38	22	082	07
950		32	19	105	08
900	34·0	26	16	192	06
850		21	07	281	07
800	64·3	24	-06	055	08
750		21	-21	070	08
700	98·5	28	-50	059	12
650		11	-47	050	13
600	137	03	-53	042	15
550		-04	-60	032	16
500	182	-10		014	15
450		-22		356	16
400	234	-35		354	22
350		-45		356	33
300	297	-57		348	33
250		-72		357	39
200	381	-76			
170		-67			
150		-66			
130		-65			
110		-65			
100	(105 mb)	-66			

Inversion
880mb. 21°- 815mb. 25°
Isothermal
750 - 720mb. 21°

Tropopause: I 213mb. -84° 36,700'

LERWICK

Time 21h. G.M.T.; Pressure M.S.L. 1019·3 mb; Surf 1008·9 mb; Freezing 950 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	31	29	010	02
1000	5·0	33	30		
950		32	28	330	09
900	32·6	27	20	328	09
850		22	09	322	09
800	62·8	17	05	322	13
750		11	-02	319	19
700	96·3	04	-09	311	20
650		-03	-12	308	20
600	134	-11	-17	308	23
550		-18	-22	301	25
500	177	-27	-31	294	29
450		-37	-41	292	31
400	227	-48		292	32
350		-59		291	35
300	288	-74		293	44
250		-82		294	57
200	370	-77		307	44
170		-73		304	42
150		-73		303	46
130		-75		307	47
110		-76		310	45
100	513	-76		306	49
90	(094 mb)	-76			

Inversion
1004 mb. 31°-985mb. 36°

Tropopause: II 307mb. -74° 21,800'

STORNOWAY

Time 21h. G.M.T.; Pressure M.S.L. 1022·5 mb; Surf 1020·8 mb; Freezing 946 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·4	35	31	Calm	
1000	5·7	37	30	353	06
950		33	27	263	05
900	33·5	26	22	275	04
850		19	14	288	04
800	63·6	14	08	306	04
750		08	02	354	10
700	96·9	02	-04	353	13
650		00	-16	300	09
600	135	-06	-27	278	13
550		-12	-35	278	19
500	178	-21	-39	274	23
450		-32	-43	274	26
400	229	-42		275	36
350		-53		276	41
300	291	-66		274	44
250		-81		274	43
200	373	-81		290	37
170		-74		306	37
150		-74		303	39
130		-73		305	41
110		-76		307	45
100	516	-74		302	32
90		-73			

Inversion
1021mb. 35°-995mb. 38°
681 mb. 00°-663mb. 02°

Tropopause: I 224mb. -86° 36,000'

LEUCHARS

Time 21h. G.M.T.; Pressure M.S.L. 1023·9 mb; Surf 1023·0 mb; Freezing 1005·0 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·2	33	29	290	02
1000	6·3	32	27	254	12
950		28	20	264	13
900	33·7	20	13	269	15
850		13	09	265	15
800	63·4	11	06	267	14
750		14	-12	275	13
700	97·0	08	-21	283	14
650		04	-26	293	13
600	135	-02	-32	303	16
550		-09	-39	307	21
500	179	-20	-49	300	22
450		-30	-57	301	24
400	230	-43		302	28
350		-56		313	36
300	292	-67		316	38
250		-83		310	38
200	374	-83		318	35
170		-75		316	32
150		-72		316	34
130		-75		319	32
110		-75		319	41
100	516	-76		322	39

Inversion
805mb. 07°-791mb 19°

Tropopause: II 240mb. -87° 33,700'

ALDERGROVE

Time 21h. G.M.T.; Pressure M.S.L. 1025·1 mb; Surf 1015·1 mb; Freezing Surf. mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·6	32	29		
1000	6·6	30	27		
950		26	22		
900	34·0	20	14	For	
850		13	09		
800	63·7	11	-01	winds	
750		14	-11		
700	97·4	13	-18	see	
650		06	-32		
600	136	-02	-50	page	
550		-10	-52		
500	180	-20	-60	3.	
450		-31	-58		
400	230	-40			
350		-51			
300	293	-66			
250		-80			
200	376	-76			
170		-67			
150		-67			
130		-67			

Inversion
810mb. 8°-776mb. 17°
Isothermal
731 - 695mb. 13°

Tropopause: III 250mb. -80° 33,000'

LIVERPOOL

Time 21h. G.M.T.; Pressure M.S.L. 1024·1 mb; Surf 1022·0 mb; Freezing 988 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	33	29	Calm	
1000	6·3	33	22	058	09
950		27	17	063	10
900	33·6	21	14	076	09
850		13	08	077	08
800	63·6	19	-02	066	06
750		14	-30	020	05
700	97·4	10	-40	334	06
650		04	-53	352	11
600	136	-03	-57	359	14
550		-10	-52	354	11
500	179	-21	-54	020	15
450		-31	-58	004	18
400	230	-43		358	24
350		-56		350	27
300	292	-67		360	31
250		-81		358	35
200	374	-79		345	30
170		-76		338	25
150		-70		337	32
130		-72		328	34
110		-71		337	34
100	518	-72		337	31
90		-76		328	30
80		-73		335	20
70	(075 mb)	-73			

Inversion
840mb. 11°-815mb. 21°
720mb. 10°- 705mb. 11°
Isothermal
1022 -995mb. 33°

Tropopause: I 222mb. -88° 35,400'

DOWNHAM MARKET

Time 21h. G.M.T.; Pressure M.S.L. 1023·2 mb; Surf 1018·6 mb; Freezing 994 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	01·2	34	24	060	08
1000	6·1	33	21	067	20
950		27	17	062	22
900	33·5	20	13	059	22
850		20	09	059	18
800	63·6	19	-41	061	16
750		15	-44	061	15
700	97·4	10	-48	052	13
650		04	-52	039	13
600	136	-03	-57	033	16
550		-12	-53	032	20
500	179	-22	-55	033	24
450		-31	-58	028	27
400	230	-41		029	27
350		-54		026	27
300	292	-67		023	34
250		-82		019	34
200	375	-74		352	28
170		-69		348	25
150		-69		338	27
130		-68		334	31
110		-69		337	21
100	519	-71		334	24
90		-72		331	27
80		-72			

Inversion
860mb. 15°-844mb. 24°

Tropopause: I 240mb. -86° 33,800'

LARKHILL

Time 21h G.M.T.; Pressure M.S.L. 1021·2 mb; Surf 1004·1 mb; Freezing 1004·1 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	04·4	25	24	030	13
1000	5·4	25	24		
950		25	20	047	25
900	32·5	21	17	057	24
850		24	09	066	21
800	62·8	21	-06	065	22
750		16	-13	056	22
700	96·7	10	-20	050	22
650		04	-26	050	27
600	135	-02	-32	052	26
550		-10	-39	050	25
500	178	-20	-48	042	25
450		-30	-57	041	28
400	229	-41		041	31
350		-53		035	34
300	292	-67		033	42
250		-80		032	41
200	(226 mb)	-78			

For other winds see page 3.

Inversion
1004mb. 25°- 965mb. 27°
912 mb. 20°-835mb. 25°

Tropopause: I 243mb. -81° 33,300'

CAMBORNE

Time 21h. G.M.T.; Pressure M.S.L. 1022·1 mb; Surf 1011·0 mb; Freezing 1011 mb

Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·9	32	23	090	08
1000	5·7	31	22	075	09
950		26	19	073	10
900	32·9	19	15	070	11
850		24	20	065	14
800	63·2	21	05	060	15
750		16	01	059	15
700	97·1	12	01	062	13
650		04	-08	038	12
600	135	-01	-16	029	13
550		-09	-31	034	15
500	179	-17	-40	040	23
450		-27	-50	036	36
400	231	-38	-58	031	33
350		-50		025	36
300	293	-65		021	39
250		-76		017	50
200	376	-76		357	40
170		-70		348	30
150		-74		341	31
130		-69		335	36
110		-67		335	32
100	521	-69		339	28
90		-71		347	28
80		-72			

Inversion
895mb. 18°- 865mb. 25°
Isothermal
625 -610mb. 0°

Tropopause: I 231mb. -81° 34,700'

H.M.S.O. Press, M.O., Dunstable.

No. 11597. DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Friday 29th December, 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h.	1016·6 mb	1006·2 mb	960 mb
STORNOWAY	03h.	1019·5 mb	1017·5 mb	950 mb
LEUCHARS	03h.	1020·3 mb	1019·4 mb	1019 mb
ALDERGROVE	03h.	1022·8 mb	1013·1 mb	Surf.
LIVERPOOL	03h.	1022·8 mb	1020·7 mb	1020·7 mb
DOWNHAM MARKET	03h.	1022·6 mb	1018·0 mb	Surf.
LARKHILL	03h.	1021·1 mb	1005·0 mb	1004·0 mb
CAMBORNE	03h.	1021·9 mb	1010·7 mb	1011 mb
VALENTIA	03h.	1021·6 mb	1021 mb	950 mb

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	32	30	360	03
1000	4·3	33	32		
950		31	27	335	12
900	31·9	25	21	335	13
850		20	16	332	12
800	62·0	14	09	325	15
750		08	-01	315	19
700	95·3	03	-10	311	21
650		-05	-15	306	22
600	133	-13	-26	303	24
550		-21	-32	303	24
500	175	-29	-37	303	25
450		-39	-45	300	28
400	225	-49		294	28
350		-61		290	27
300	286	-75		288	36
250		-80		287	47
200	369	-75		300	40
170		-75		300	40
150		-75		303	43
130		-75		306	47
110		-75		314	52
100	511	-78		314	55
90		-76		313	55
80		-77			
70					
60					

Inversion 1006mb. 32° – 987mb. 35°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
Surf	00·4	35	31	260	03
1000	5·1	36	30	240	04
950		32	25	252	07
900	32·8	26	20	255	07
850		20	15	255	08
800	63·0	16	12	325	07
750		09	05	344	10
700	96·4	02	-01	346	14
650		-06	-09	336	15
600	134	-08	-20	322	16
550		-16	-26	309	22
500	177	-28	-36	302	22
450		-38	-51	301	24
400	227	-52		301	25
350		-61		264	36
300	288	-73		266	46
250		-82		268	42
200	371	-78		314	36
170		-75		305	41
150		-73		313	48
130					
110					
100					
90					
80					
70					
60					

Inversion 1018mb. 35° – 991mb. 37°
Isothermal 647 – 613mb. -7°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf	00·2	32	28	270	02
1000	3·2	31	26	272	18
950		28	21	293	18
900	32·6	22	18	305	18
850		16	14	307	17
800	62·5	09	07	303	12
750		14	-12	297	13
700	96·0	09	-34	292	15
650		04	-47	283	17
600	134	-02	-56	281	22
550		-11	-63	275	29
500	178	-21	-54	269	32
450		-32	-59	273	33
400	229	-43		278	38
350		-55		283	39
300	291	-68		283	38
250		-79		293	46
200	373	-77		305	39
170		-73		321	33
150		-70		315	38
130		-70		310	38
110		-70		315	38
100	517	-71		314	39
90		-72		311	42
80		-73			
70					
60					

Inversion 793mb. 08° – 768mb. 15°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf	02·6	31	28	Calm	
1000	6·0	31	26	Calm	
950		29	18	271	05
900	33·5	23	13	278	10
850		17	10	277	10
800	63·6	11	07	275	12
750		12	02	272	12
700	97·0	10	-15	266	16
650		05	-48	259	20
600	135	-02	-57	258	23
550		-10	-52	262	27
500	179	-19	-59	254	30
450		-29	-56	260	27
400	230	-39	-59	253	29
350		-50		257	32
300	293	-63		248	31
250		-73		270	28
200	377	-76		291	34
170		-74		309	34
150		-68		312	32
130		-68		311	34
110		-70		314	25
100	521	-70		318	39
90		-70		309	39
80					
70					
60					

Inversion 777mb. 08° – 760mb. 12°
Isothermal 1013 – 970mb. 31°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
Surf	00·6	32	23	Calm	
1000	5·9	30	20	096	03
950		26	16	101	03
900	33·2	19	12	056	03
850		12	06	017	03
800	63·0	19	-14	290	04
750		15	-31	280	08
700	96·8	11	-40	304	10
650		04	-50	308	13
600	135	-01	-56	307	12
550		-09	-51	313	09
500	179	-19	-51	312	10
450		-31	-58	314	15
400	230	-40		313	19
350		-52		316	21
300	292	-66		312	22
250		-83		303	25
200	374	-78		315	33
170		-72		326	33
150		-69		326	33
130		-70		320	39
110		-70		325	34
100	518	-70		323	32
90		-72		310	26
80		-73		315	16
70	(076 mb)	-74			
60					

Inversion 843mb. 11° – 813mb. 19°
713 mb. 10° – 700mb. 11°
Isothermal 813 – 778mb. 19°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
Surf	01·2	32	25	335	07
1000	5·9	31	24	034	12
950		27	20	047	12
900	33·3	22	18	053	12
850		15	11	053	10
800	63·3	20	-03	047	08
750		15	-24	033	12
700	97·1	09	-34	021	11
650		04	-41	007	13
600	135	-02	-54	005	14
550		-10	-36	013	15
500	179	-20	-38	013	16
450		-31	-44	004	18
400	230	-40		353	22
350		-53		354	27
300	292	-64		356	27
250		-78		346	29
200	375	-79		346	30
170		-73		330	31
150		-71		332	28
130		-71		331	28
110		-70		331	36
100	518	-69		325	35
90		-71		315	30
80		-69		317	26
70		-70			
60					

Inversion 836mb. 13° – 815mb. 20°
Isothermal 815 – 800mb. 20°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
Surf	04·4	23	21	025	09
1000	5·4	24	22		
950		24	19	062	19
900	32·5	17	12	065	18
850		21	07	059	15
800	62·7	19	-07	048	14
750		15	-11	037	13
700	96·5	11	-17	045	14
650		05	-26	048	13
600	135	-03	-33	039	16
550		-12	-41	033	17
500	178	-21	-45	025	15
450		-32	-43	017	18
400	229	-43		006	23
350		-54		009	25
300	291	-67		011	29
250		-82		360	33
200	373	-80		357	30
170		-73		340	30
150		-72		336	31
130		-71		340	35
110		-70		330	29
100	517	-73		328	28
90		-74		320	29
80		-74		323	27
70		-74		334	25
60	(064 mb)	-75			

Inversion 1004mb. 28° – 991mb. 27°
900mb. 17° – 881mb. 22°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
Surf	02·9	27	19	090	05
1000	5·6	28	19	071	09
950		25	16	066	10
900	32·9	23	09	063	10
850		25	-08	061	10
800	63·3	23	-14	060	10
750		16	-21	063	09
700	97·2	12	-25	060	10
650		06	-30	056	12
600	135	00	-35	050	12
550		-08	-42	038	15
500	179	-16	-50	017	15
450		-28	-56	008	17
400	231	-38	-58	359	19
350		-49		353	22
300	294	-63		348	24
250		-78		341	30
200	377	-73		327	33
170		-70		339	33
150		-62		328	35
130		-65		328	33
110		-69		330	24
100	522	-72		324	24
90		-72		318	26
80		-73		305	25
70		-74		314	30
60		-72		340	28
	(050 mb)	-70			

Inversion 1011mb. 27° – 987mb. 29°
868mb. 23° – 830mb. 27°
Isothermal 934 – 868mb. 23°
731 – 708 mb. 18°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
VALENTIA					
Surf	00·3	36	21	Calm	
1000	5·8	34	24	208	02
950		32	20	252	05
900	33·4	26	17	279	06
850		18	11	289	05
800	63·5	16	01		
750		16			
700	97·2	10			
650		03	-48		
600	135	-04	-58		
550		-12			
500	179	-21	-45		
450		-32	-40		
400	230	-44			
350		-54			
300	292	-63			
250		-72			
200	376	-75			
170		-75			
150		-72			
130		-72			
110		-73			
100					
90					
80					
70					
60					

Inversion 819mb. 14° – 775mb. 18°

Tropopause	II 293mb. -76° 29,200′	I 250mb. -82° 32,500′	I 228mb. -83° 34,600′	I 260mb. -72° 32,400′ II 215mb. -78° 36,300′
Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE

Tropopause	II 238mb. -88° 33,900′
Station	LIVERPOOL

Tropopause	II 229mb. -83° 34,700′
Station	DOWNHAM MARKET

Tropopause	II 240mb. -85° 33,500′
Station	LARKHILL

Tropopause	I 232mb. -84° 34,800′
Station	CAMBORNE

Tropopause	I 273mb. -75° 31,200′
Station	

09h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h.	1014·7 mb	1004·3 mb	967 mb
STORNOWAY	09h.	1017·2 mb	1015·5 mb	970 mb
LEUCHARS	09h.	1017·4 mb	1016·5 mb	1000 mb
ALDERGROVE	09h.	1020·5 mb	1010·8 mb	985 mb
LIVERPOOL	09h.	1020·2 mb	1018·1 mb	1000 mb
DOWNHAM MARKET	09h.	1021·5 mb	1016·9 mb	Surf.
LARKHILL	09h.	1020·7 mb	1003·7 mb	1004 mb
CAMBORNE	09h.	1021·5 mb	1010·4 mb	Surf.

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	31	29	015	09
1000	3·8	33	30		
950		30	28	017	12
900	31·3	24	21	007	12
850		18	17	359	11
800	61·3	12	07	363	10
750		06	01	342	12
700	94·4	-01	-05	326	15
650		-09	-14	315	20
600	131	-15	-26	312	21
550		-23	-30	306	24
500	174	-34	-39	307	29
450		-44		302	27
400	223	-55		296	21
350		-67		286	36
300	284	-77		286	40
250		-76		298	36
200	367	-72		307	42
170		-71		309	44
150		-71		313	46
130		-68		314	48
110		-73		310	54
100	510	-74		310	56
90		-75			
80		-77			
70					
60					

Inversion 1004 mb. 31° – 992mb. 35°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
Surf	00·4	35	34		
1000	4·5	34	33		
950		31	30		
900	32·2	27	24		
850		22	20		
800	62·5	16	14		
750		10	06		
700	95·9	02	00		
650		-05	-07		
600	133	-14	-17		
550		-18	-24		
500	176	-26	-33		
450		-37	-43		
400	226	-49			
350		-62			
300	287	-71			
250		-73			
200	371	-76			
170		-73			
150		-71			
130		-72			
110		-73			
100	514	-75			
90		-77			
80		-77			
70		-77			
60					

Inversion 592mb. -15° – 582mb. -14°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf	00·2	33	30	280	04
1000	4·5	32	29	299	10
950		29	25	306	10
900	32·1	26	21	310	08
850		19	15	357	06
800	62·2	13	12	035	08
750		07	06	051	11
700	95·4	00	-03	054	12
650		-02	-09	349	09
600	133	-07	-42	322	11
550		-15	-35	328	13
500	176	-24	-43	324	19
450		-36	-48	309	22
400	227	-48		290	24
350		-60		267	36
300	288	-71		266	44
250		-75		299	36
200	371	-71		318	39
170		-69		317	42
150		-68		313	41
130		-68		309	41
110		-70			
100					
90					
80					
70					
60					

Inversion 778mb. 08° – 768mb. 12°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf	02·6	31	28		
1000	5·4				
950		28	24		
900	32·9	23	19		
850		16	12		
800	62·9	08	06		
750		13	08		
700	96·4	07	01		
650		00	-04		
600	134	-03	-12		
550		-12	-22		
500	178	-22	-32		
450		-34	-43		
400	228	-47			
350		-58			
300	290	-65			
250		-72			
200	374	-71			
170		-70			
150		-68			
130		-70			
110		-69			
100	519	-71			
90		-73			
80		-76			
70		-78			
60					

Inversion 1011mb. 31° – 985mb. 32°
780mb. 05° – 724mb. 11°
655mb. 00° – 640mb. 01°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
Surf	00·6	31	20	Calm	
1000	5·8	32	20	210	09
950		25	12	219	05
900	32·6	21	09	004	05
850		14	04	006	08
800	62·4	12	01	293	10
750		13	-16	278	16
700	96·1	11	-24	282	17
650		01	-30	278	20
600	134	-01	-37	280	17
550		-10	-45	277	20
500	178	-21	-53	275	20
450		-31	-55	272	24
400	229	-42		267	25
350		-56		270	23
300	291	-70		262	22
250		-79		265	29
200	373	-73		214	30
170		-67		316	34
150		-63		325	32
130		-64		324	36
110		-68		315	36
100	(102 mb.)	-69			
90					
80					
70					
60					

Inversion 1018mb. 31° – 999mb. 32°
808 mb. 08° – 787 mb. 15°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
Surf	01·2	31	30	Calm	
1000	5·6	31	29		
950		25	22	005	04
900	33·0	19	17	002	04
850		13	12	354	05
800	62·9	17	09	339	04
750		14	-02	325	05
700	96·6	07	-12	312	08
650		01	-19	310	12
600	134	-04	-28	309	12
550		-12	-31	305	10
500	178	-22	-39	309	10
450		-32	-49	309	11
400	229	-45		311	15
350		-55		314	20
300	290	-68		307	22
250		-83		298	25
200	373	-79		318	29
170		-70		318	32
150		-69		320	33
130		-70		326	31
110		-69		318	27
100	517	-71		311	32
90		-70		308	31
80		-71		304	36
70					
60					

Inversion 840mb. 12° – 814mb. 18°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
Surf	04·4	26	21	020	03
1000	5·3	27	22		
950		23	19	061	12
900	32·4	16	12	049	09
850		28	01	030	05
800	62·6	20	-07	005	04
750		16	-12	014	05
700	96·4	11	-17	345	09
650		05	-27	330	12
600	135	-02	-37	339	11
550		-10	-43	351	11
500	178	-21	-45	350	14
450		-32	-49	342	12
400	229	-42		332	11
350		-54		324	15
300	291	-67		314	15
250		-85		298	24
200	374	-75		317	30
170		-72		323	35
150		-67		325	31
130		-67		322	27
110		-69		314	32
100	518	-76		317	31
90		-71		319	33
80					
70					
60					

Inversion 1004mb. 26° – 990mb. 28°
875mb. 13° – 864mb. 13°
Isothermal 250 – 237mb. -85°
210 – 200mb. -75°

Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
Surf	02·9	28	18	100	05
1000	5·4	28	17	090	15
950		26	17	048	16
900	32·8	19	15	030	12
850		24	10	351	05
800	63·1	21	-14	014	03
750		15	-19	035	04
700	96·9	10	-24	L.&V.	
650		03	-31	L.&V.	
600	135	-04	-37	L.&V.	
550		-11	-43	L.&V.	
500	178	-23	-53	300	07
450		-33	-57	316	12
400	229	-44		279	12
350		-57		275	16
300	291	-71		270	23
250		-74		306	29
200	374	-69		324	35
170		-67		329	32
150		-65		335	33
130		-67		313	30
110		-68		329	31
100	519	-69		322	32
90		-70			
80	(093 mb)				
70					
60					

Inversion 1010mb. 28° – 987mb. 29°
890mb. 18° – 832mb. 25°

Tropopause	I 284mb. -79° 29,800′
Station	LERWICK

Tropopause	II 304mb. -71° 28,500′
Station	STORNOWAY

Tropopause	I 278mb. -76° 30,300′
Station	LEUCHARS

Tropopause	I 305mb. -66° 28,800′
Station	ALDERGROVE

Tropopause	I 236mb. -80° 34,100′
Station	LIVERPOOL

Tropopause	I 238mb. -87° 34,000′
Station	DOWNHAM MARKET

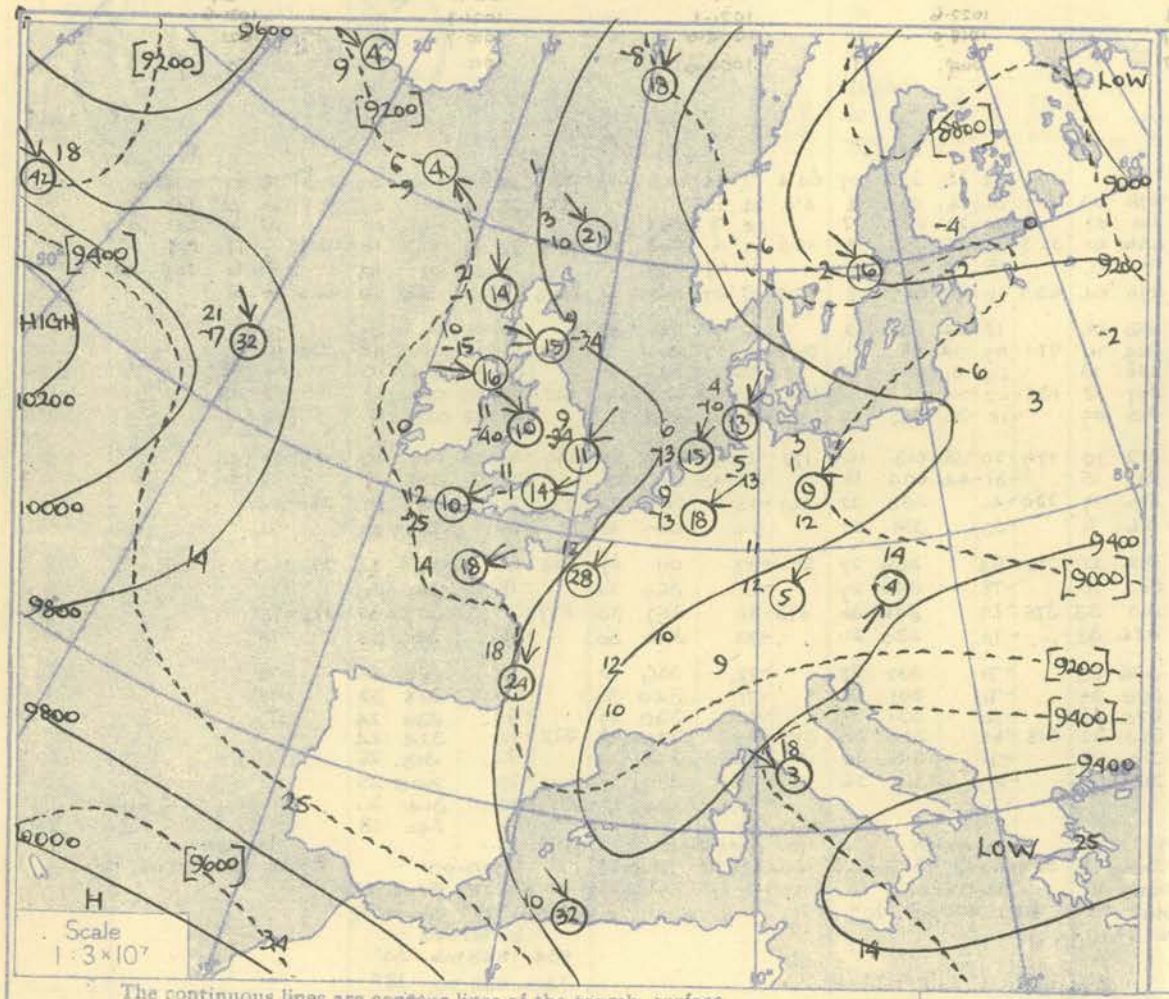
Tropopause	II 260mb. -85° 33,900′
Station	LARKHILL

Tropopause	I 274mb. -75° 31,000′
Station	CAMBORNE

Tropopause	
Station	

Friday 29th. December 1950.

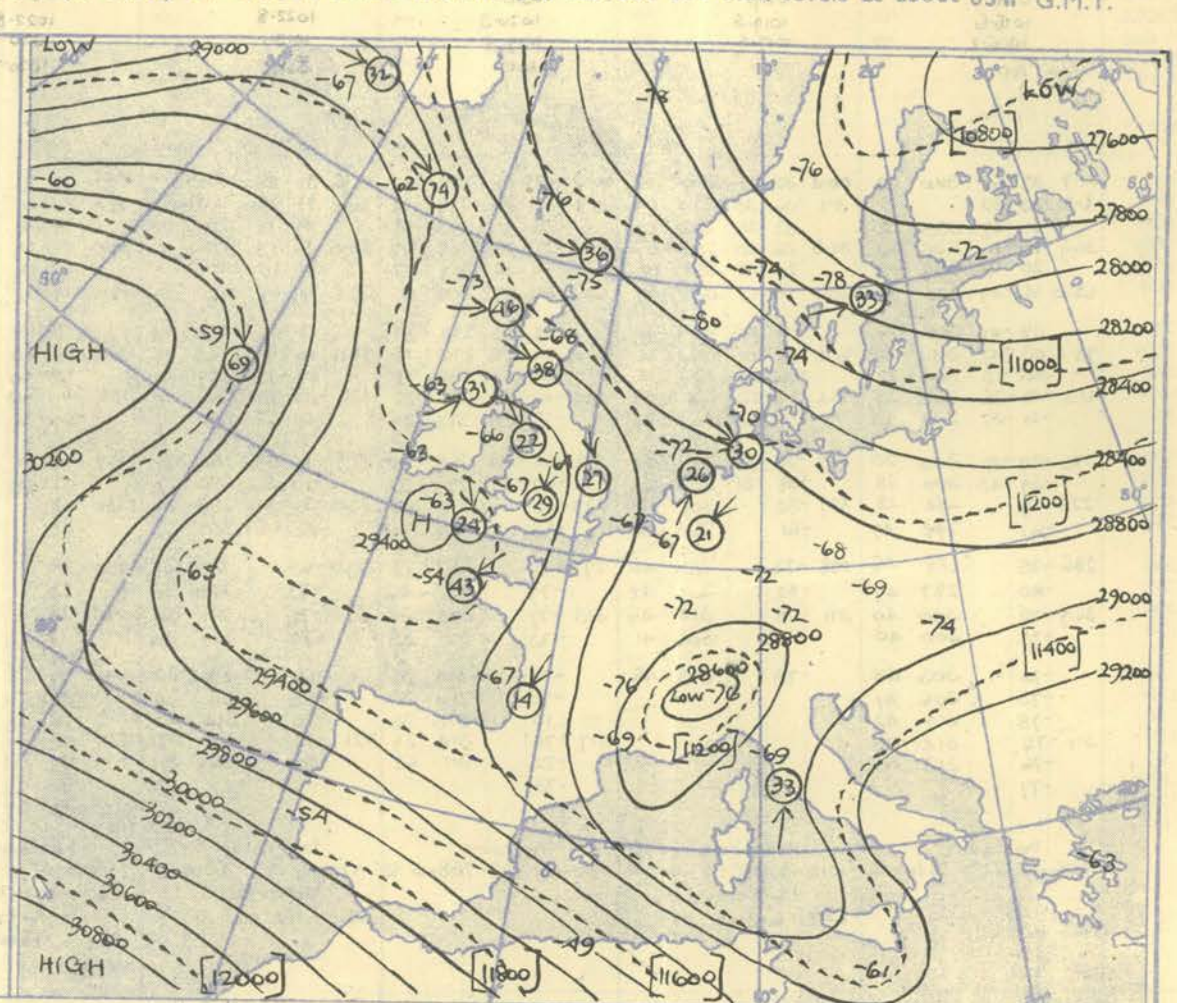
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



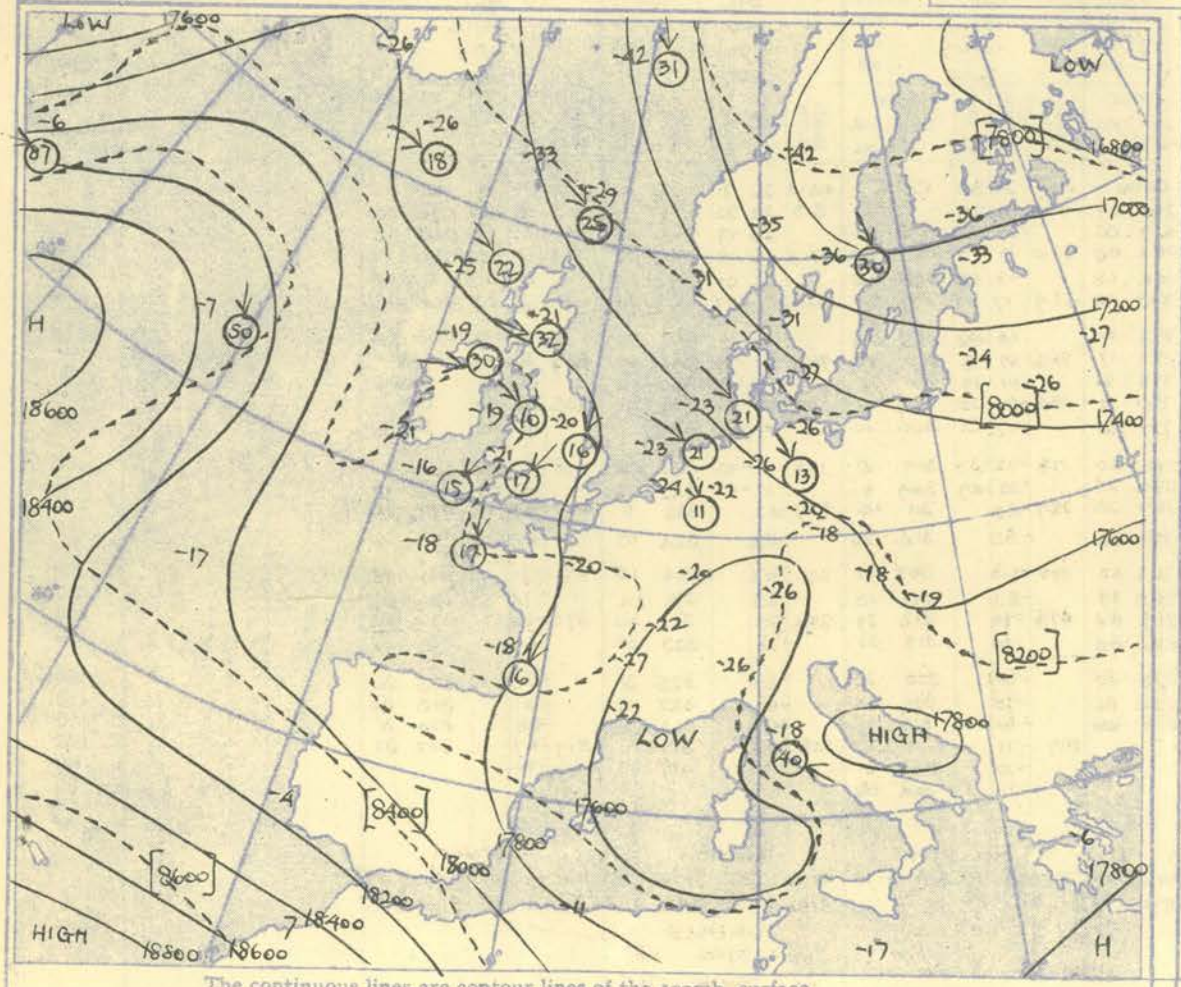
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

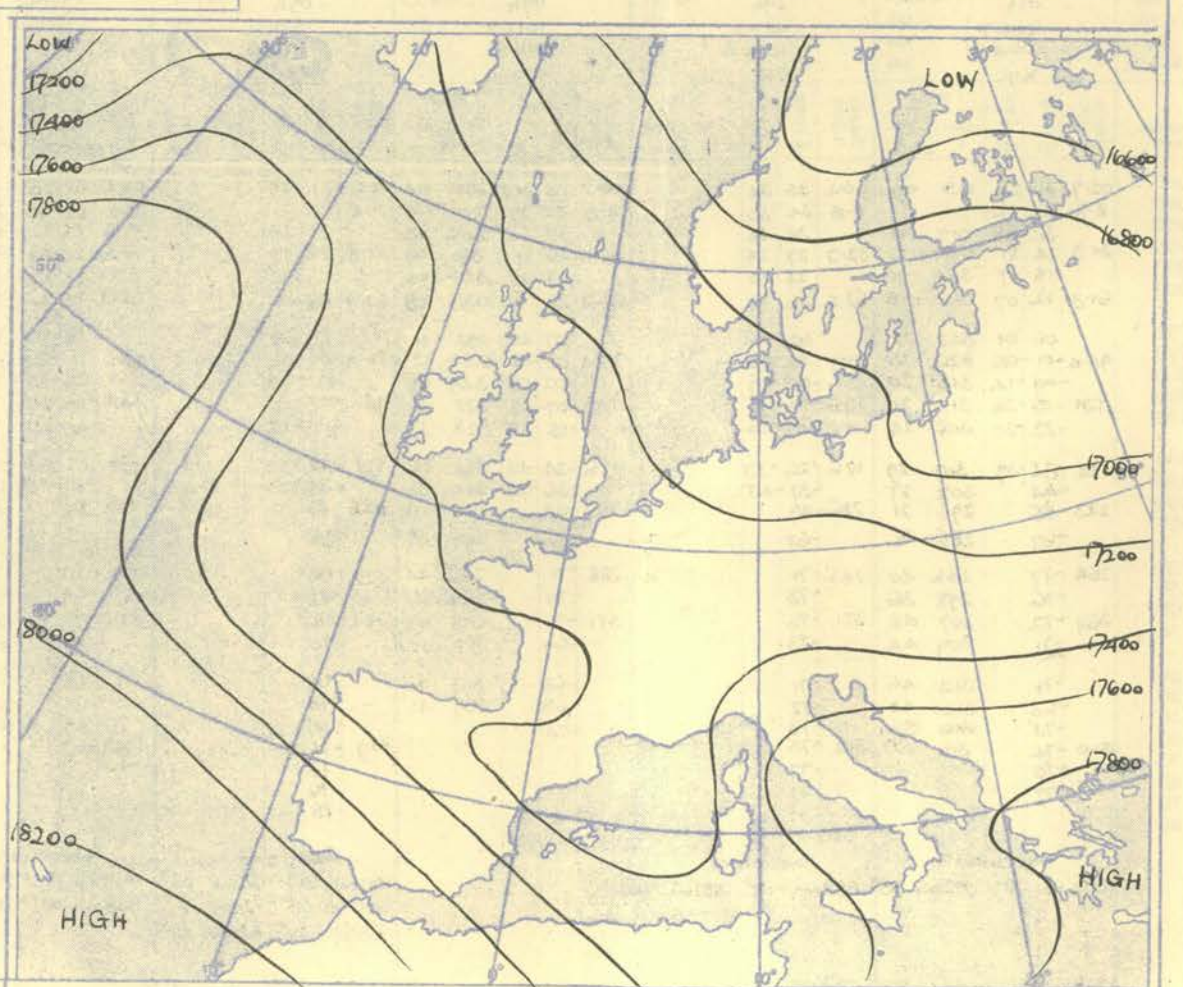
100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

Friday 29th December. 1950

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	53°1N 01°3E		
Pressure: Time	15h		
M.S.L.	1018 mb		
Surf	1016 mb		
Freezing	999 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.
Surf		34	23
1000	4·7		
950		28	26
900	32·1	22	16
850		13	11
800	62·1	17	05
750		12	
700	90·0	07	
650		-03	
600	133	-07	
550		-15	
500	177	-25	
450		-35	
400	227	-47	
350		-58	
300	289	-73	
250			
200			
170			

Cloud.
8/8 Sc
963-812mb.
Haze layer.
440-340mb.
Inversion
850mb 13°
775" 18°
Contrails.
Faint persistent
350-310mb.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place			Shoebury		Dublin		Leeming		Downham	
Time			11h		15h.		15h.		15h	
Type									Radar.	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.			340	07	240	04	270	06		
1,000			020	14	240	12	260	11		
2,000			040	11	250	21	280	16		
3,000			070	09	260	15	320	15		
4,000			070	07	290	19	320	13		
5,000			350	06	310	21				
6,000			350	06						
8,000			330	07			320	16.		
10,000			330	05			310	21		
14,000			350	08						
18,000			020	06						
24,000			340	13						
30,000			310	15						
40,000			320	30						
50,000			320 (45·000)	28					306	36
									307 (54·000)	36

NEPHOSCOPE OBSERVATIONS

Place											Place
Time Type											Time Type
Dir. Vel.											Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

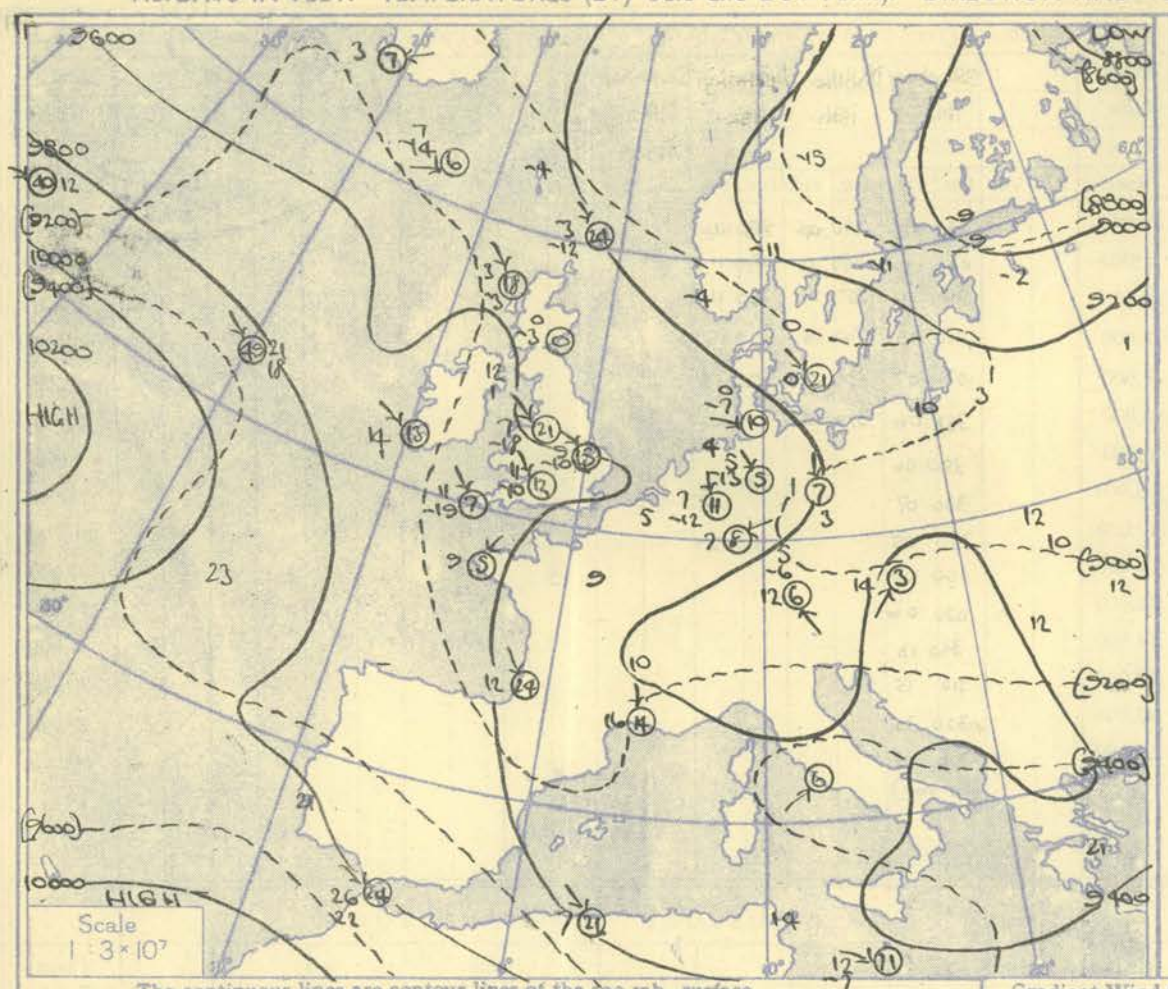
Ship	WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	60·9N 14·0W					60·9N 14·2W				
Time G.M.T.	03h					09h				
M.S.L. mb	1019					1018				
Surf mb	1019					1018				
Freezing mb	930					940				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf		45	39	060	15		41	33	050	17
1000	4·9	41	34	071	15	4·6	39	31	072	20
950		34	25	074	14		33	25	073	22
900	32·8	29	19	075	12	32·4	27	19	072	18
850		24	12	076	10		23	14	074	12
800	63·2	19	06	086	06	62·7	18	07	CALM	
750		12	-08	105	04		12	-01	"	
700	96·9	06	-09	116	04	96·3	-05	-14	Lt VLS	
650		-01	-16	083	04		-02	-28	"	
600	135	-08	-25	349	09	134	-10	-38	310	04
550		-17	-27	292	11		-20	-49	310	08
500	178	-26	-38	298	18	177	-30	-57	Above	
450		-37	-49				-40	-60	maximum	
400	229	-46				227	-40	-60	radar	
350		-52					-54		elevation	
300	290	-62		319	74	289	-68		314	68
250		-70		303	66					
200	375	-66		302	58					
170		-66		301	43					
150		-67		299	45					
130		-69		300	45					
110		-69		307	50					
100	520	-70		301	55					
90		-73		293	48					
80		-75		295	54					
70		-80								
60										
Remarks	Max wind:- 334 mb 320° 78 Kts					Inversion 433mb -42° - 405mb -38°				
Tropopause	I 273 mb - 69° 31,100'					NR.				

Ship	WEATHER EXPLORER					WEATHER EXPLORER				
Lat/Long	60·8N 14·3W					61·0N 13·9W				
Time G.M.T.	15h					21h				
M.S.L. mb	1015					1012				
Surf mb	1015					1012				
Freezing mb	930					935				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf		41	33	065	18		40	25	060	14
1000	4·0	40	31	073	18	3·3	39	24	069	21
950		34	27	074	16		33	20	065	18
900	31·8	28	22	080	14	31·0	27	15	079	11
850		22	16	107	09		23	08	115	06
800	62·2	18	10	205	04	61·4	20	-10	254	02
750		13	00	254	12		14	-21	334	06
700	95·8	07	-14	257	06	95·2	07	-27	326	06
650		-01	-28	245	03		-01	-28	298	10
600	133	-09	-31	(Above		133	-10	-28	296	10
550		-18	-45	maximum			-19	-31	283	16
500	176	-28	-44	radar		176	-29	-42	285	27
450		-36	-53	elevation)			-36	-50	297	31
400	227	-42				226	-45		291	31
350		-53		288	38		-58		289	34
300	289	-69		284	49	287	-72		284	45
250		-77		279	51		-71		273	46
200	372	-75		287	54	372	-64		291	46
170		-67		291	54		-65		291	42
150		-70		286	47	(168 mb)	-64			
130		-69		291	48					
110		-70		300	40					
100	516	-72		298	43					
90		-75		295	41					
80		-76		290	44					
70		-77		289	57					
60		-79		290	42					
Remarks	Inversion 467 mb -37° - 450mb -36°					Inversion 865 mb 22° - 850mb 23°; 459 " -37° - 445 " -35°. Isothermal 850 - 847 mb 23°				
Tropopause	I 242 mb - 78° 33,200'					I 300 mb - 72° 28,700'				

Ship	WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·5N 19·7W					52·5N 20·0W				
Time G.M.T.	03h					09h				
M.S.L. mb	1020					1019				
Surf mb	1020					1019				
Freezing mb	890 & 800					780				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf		47	46	300	10		47	45	295	17
1000	5·4	45	38			5·2	45	44	291	33
950		39	33	300	24		39	39	290	27
900	33·5	33	29	299	23	33·3	32	32	287	22
850		34	22	300	23		36	33	285	19
800	66·4	32	02	300	22	64·4	34	13	291	23
750		27	-06	310	13		29	21	295	27
700	99·0	21	-17	316	32	99·3	22	22	297	30
650		17	-26	322	22		16	16	302	32
600	138	11	-24	335	40	139	10	09	303	33
550		04	-21	351	51		02	01	301	36
500	183	-07	-27	341	50	183	-07	-09	298	42
450		-19	-30	327	48		-18	-20	298	48
400	235	-31	-47	324	48	236	-30	-33	296	54
350		-45		325	84		-44		296	60
300	299	-59		326	69	299	-60		307	54
250		-76		326	59		-77		307	67
200	382	-84		326	55	382	-96		306	63
170		-83		328	47		-89		307	48
150		-78		328	34		-88		307	39
130		-78		327	32		-79		307	33
110		-77		327	30		-80			
100	523	-76		327	27					
90		-77		327	22					
80		-78		327	24					
70		-78		327	24					
60		-77		327	20					
		-77								
Remarks	Inversion 880 mb 31° - 850mb 34°. Isothermal 850 - 842 mb 34°; 580 - 570 " 08°					Inversion 900 mb 32° - 850mb 36°				
Tropopause	II 215 mb - 83° 36,700'					I 200 mb - 96° 38,200'				

Ship	WEATHER RECORDER					WEATHER RECORDER				
Lat/Long	52·5N 20·2W					52·4N 19·8W				
Time G.M.T.	15h					21h				
M.S.L. mb	1017					1015				
Surf mb	1017					1015				
Freezing mb	865					870				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Vel. knots
Surf		48	46	240	18		46	46	320	25
1000	4·7	46	44			4·0	45	45	321	33
950		39	37	257	23		42	40	320	25
900	32·9	33	30	256	27	32·2	36	32	316	24
850		31	28	259	33		29	24	315	21
800	63·7	26	23	271	41	63·1	29	11	312	24
750		25	22	276	48		26	-21	297	30
700	98·1	21	18	280	49	97·7	21	-18	294	31
650		15	11	281	49		16	-28	298	29
600	137	09	05	277	50	137	09	-37	308	31
550		03	-01	270	49		-01	-32	306	42
500	182	-05	-10	270	58	181	-08	-28	298	48
450		-14	-26	272	57		-18	-34	285	63
400	235	-24	-30	275	61	234	-28	-46	285	72
350		-35	-41	280	74		-40	-60	283	78
300	300	-52		285	78	298	-54		281	93
250		-67		288	82		-68		292	96
200	385	-82		290	76	383	-77		286	63
170		-92		293	57		-71		286	55
150		-84		289	47		-71		290	50
130		-76		280	32		-70		293	47
110		-74					-70		294	42
100	525	-73				527	-69		294	38
90							-69		294	31
80							-70		292	28
70							-72		290	30
60							-72		291	33
							-71		292	36
						(47 mb)	-71			
Remarks	Isothermal 900 - 884 mb 33°; 790 - 721 " 25°					Isothermal 850 - 790 mb 29°				
Tropopause	I 170 mb - 92° 41,900'					I 207 mb - 78° 37,500'				

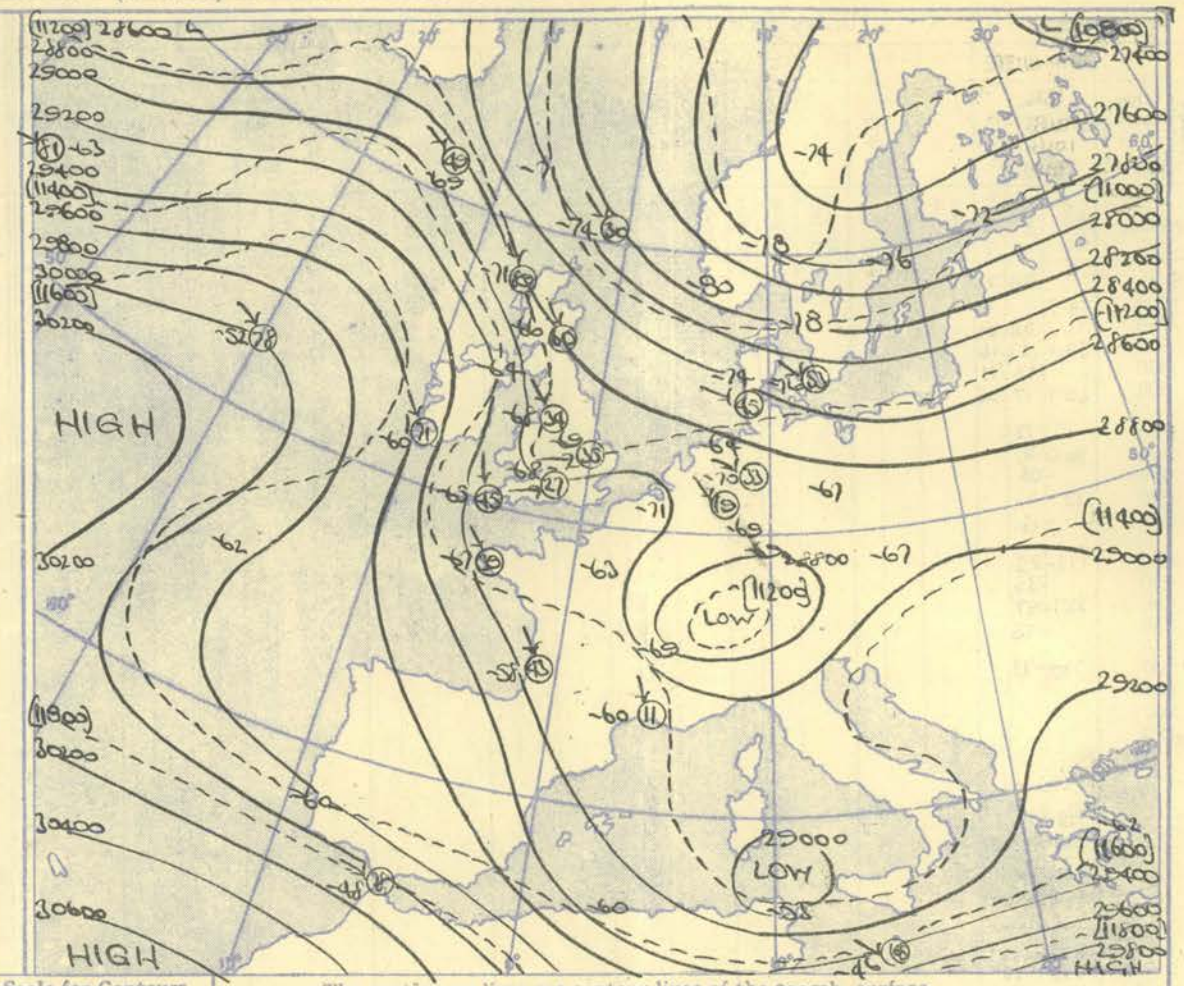
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

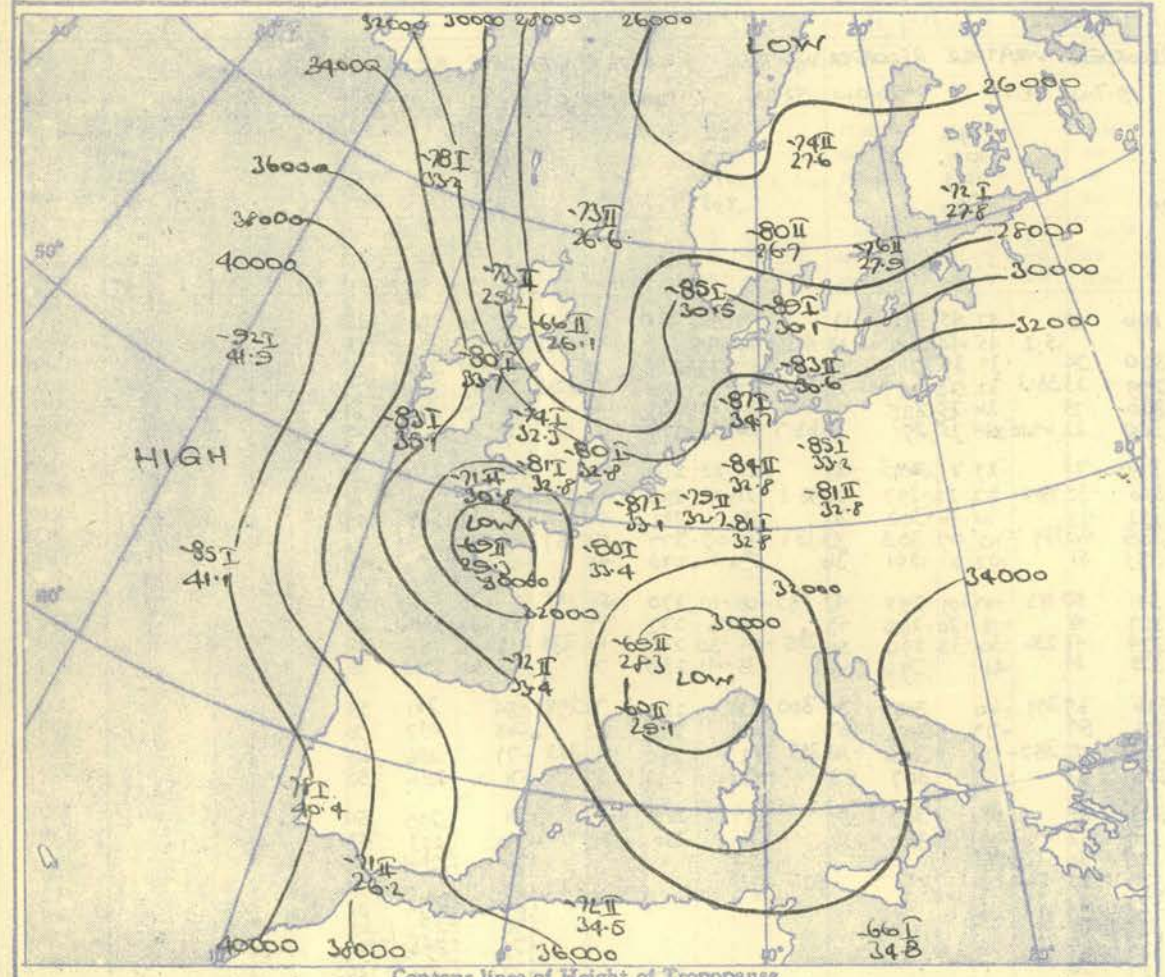
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The strong penetration of cold air into the West Atlantic continued and the warm ridge ahead of it moved southeastwards.

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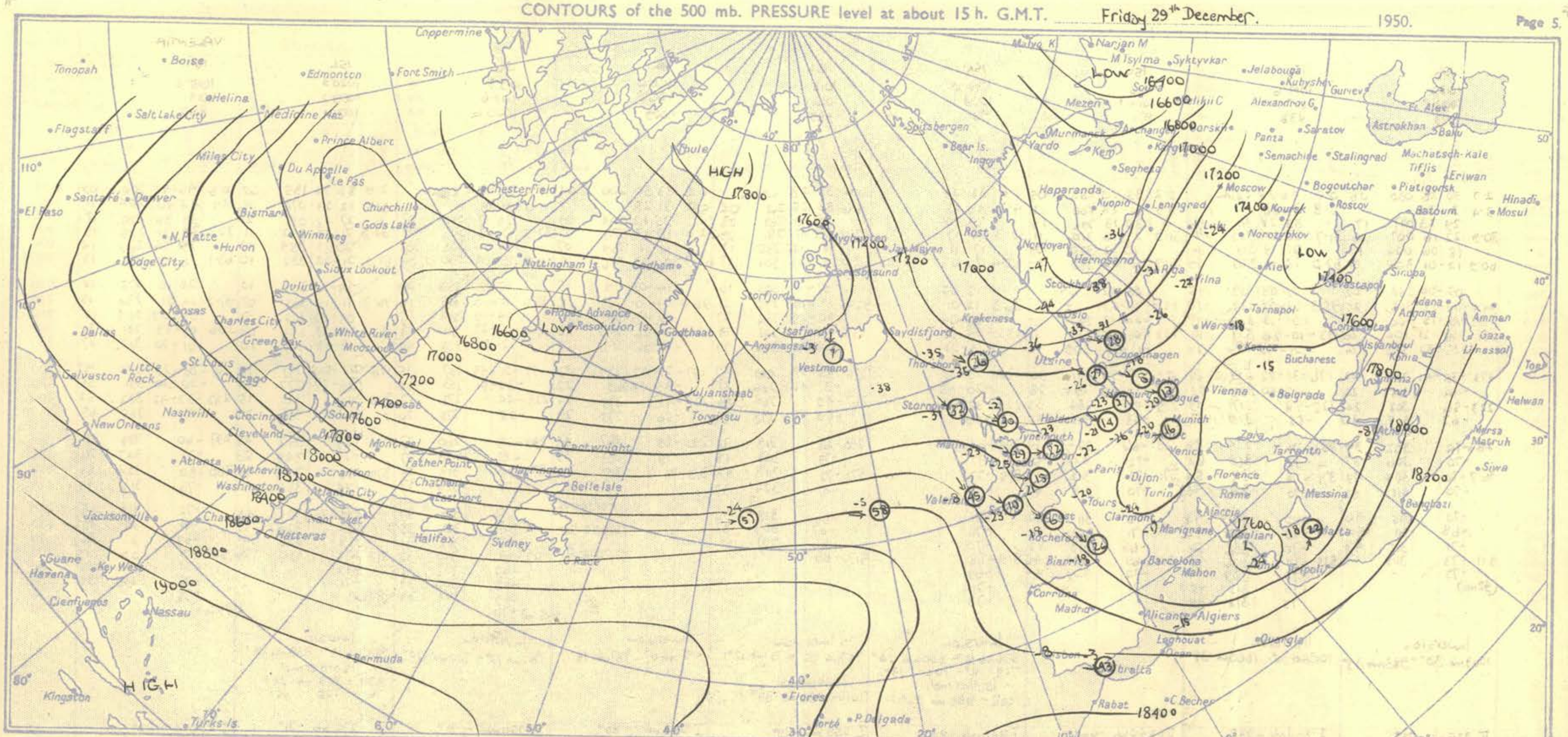
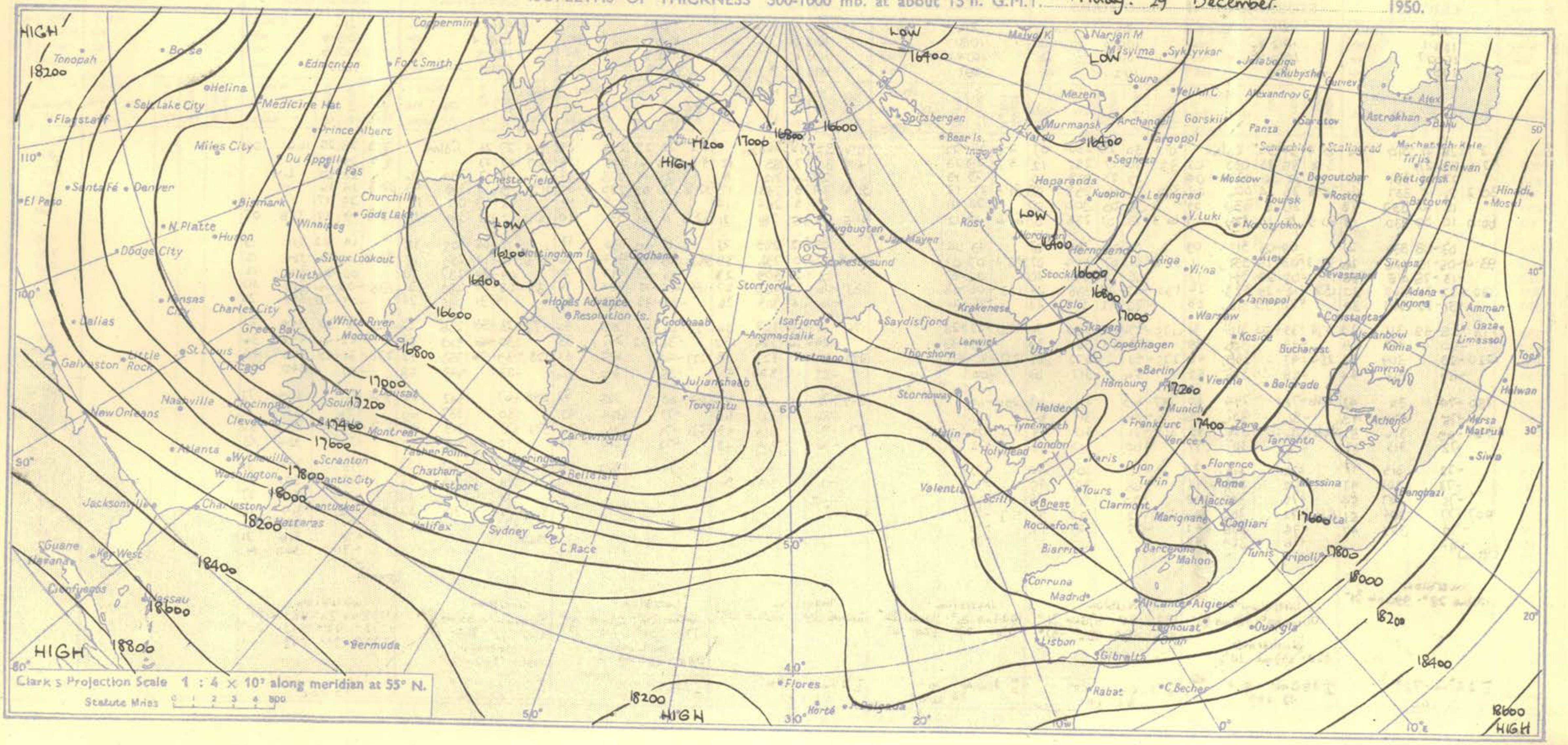
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Friday 29th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Friday. 29th December. 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne	Valentia
Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure M.S.L.	1013·2 mb	1014·6 mb	1015· mb	1018·0 mb	1018·0 mb	1020·0 mb	1019·3 mb	1020·3 mb	1015·2 mb
Pressure Surf	1002·8 mb	1002·9 mb	1013·1 mb	1008·1 mb	1015·9 mb	1015·3 mb	1002·6 mb	1009·2 mb	1014 mb
Pressure Freezing	983 mb	938 mb	972 mb	983 mb	985 mb	1009 mb	1002·6 mb	1000 mb	880 mb

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Valentia Height ft./100	Valentia °Temp. °F.	Valentia Dew °F.	Valentia Wind Dir. °	Valentia Wind Vel. knots	Pressure mb
Surf	2·7	30	28	030	08	0·4	36	34	Calm		0·2	35	30	260	05	2·6	32	29			0·6	33	28	Calm		1·2	33	30	300	04	4·4	31	19	Calm		2·9	33	24	135	05	0·3	45	42	200	09	Surf
1000	3·4	31	28			3·3	39	36			3·9	34	28	280	12	4·7	32	28			4·6	33	25	212	04	5·2	31	28			5·0	31	19			5·3	32	23	074	06	4·1	44	40	204	11	1000
950		29	23	007	17		33	28	311	10		30	23	296	13		29	20				29	19	262	08		25	22	294	09		25	17	010	07		27	22	051	21		39	36	220	17	950
900	30·9	22	16	007	16	31·7	28	24	322	11	31·5	27	18	310	11	32·3	24	17			32·1	22	15	281	09	32·6	19	17	278	07	32·3	17	13	011	07	32·8	21	18	022	11	32·2	34	31	225	15	900
850		18	06	004	18		21	19	331	11		25	12	320	09		17	11				17	14	285	13		12	11	264	07		14	04	308	07		20	13	354	13		29	24	264	14	850
800	60·9	12	-01	366	21	62·0	15	11	338	09	61·7	18	08	338	09	62·4	20	03			62·0	11	07	304	17	62·3	10	09	276	12	62·2	09	04	290	09	62·9	21	08	332	10	63·1	26	19	272	13	800
750		05	-06	348	22		09	03	327	15		06	02	L.V.			15	05				07	-01	303	16		14	-03	281	15		15	-04	288	09		14	-10	302	10		20	10	275	12	750
700	94·0	-03	-12	318	24	95·3	03	-03	325	18	94·9	00	-03	"		96·3	12	01			95·4	07	-18	295	21	96·0	09	-10	288	15	96·0	11	-10	301	07	96·7	11	-18	301	07	97·2	14	01	286	13	700
650		+10	-13	300	27		-03	-13	325	17		-04	-13	297	05		05	-04				00	-29	284	27		03	-17	291	20		04	-19	314	15		05	-25	322	09		09	-09	294	14	650
600	131	-16	-21	304	26	133	-10	-26	327	19	132	-08	-24	307	21	135	-04	-12			133	-06	-16	289	29	134	-05	-26	289	20	134	-03	-27	311	15	135	-04	-33	326	09	136	07	-19	331	36	600
550		-25	-32	305	24		-21	-40	337	28		-11	-27	309	26		-13	-28				-14	-25	300	27		-13	-36	291	20		-12	-36	303	15		-13	-43	307	10		01	-20	332	37	550
500	173	-35	-41	305	22	176	-31	-52	323	32	175	-27	-36	301	30	179	-23	-37			176	-25	-37	299	29	177	-23	-42	282	22	177	-21	-43	287	15	178	-23	-50	292	10	181	-08	-22	332	43	500
450		-44		314	24		-40	-60	320	32		-39	-46	294	28		-28	-45				-37	-46	266	27		-33	-49	269	22		-32	-51	283	14		-34	-57	272	14		-20	-30	331	51	450
400	223	-56		302	24	225	-48		317	19	225	-50		284	33	229	-37	-55			267	-49		268	34	228	-45		273	24	228	-44		272	17	229	-44		261	15	233	-32	-42	332	52	400
350		-67		307	30		-55		325	28		-63		311	42		-45					-59		278	31		-56		275	29		-55		273	20		-58		315	22		-45		339	65	350
300	283	-74		302	36	287	-71		324	39	287	-66		327	49	293	-64				288	-68		318	34	290	-69		267	35	290	-68		260	27	291	-65		352	45	297	-60		333	71	300
250		-70		306	37		-73		318	60		-72		321	50		-77					-73		327	48		-79		283	33		-81		278	27		-73		349	53		-77		327	76	250
200	367	-70		304	43	371	-74		311	54	371	-73		312	48	375	-77				372	-72		318	48	373	-75		307	30	373	-75		318	29	375	-75		339	43	380	-80		324	61	200
170		-70		311	42		-70		314	49		-70		318	47		-74					-67		324	37							-72		326	37		-74		334	41		-73		316	45	170
150		-70		315	46		-69		310	43		-70		311	40		-71					-66		318	36							-70		322	37		-72		331	49		-72		312	38	150
130		-68		311	46		-69		308	42		-71		317	42		-70					-67		309	37							-69		320	35		-72		328	33		-71		311	35	130
110		-71		312	48		-70		306	50		-68		313	42		-70					-66		29).	42							-69		312	31		-73		332	21		-69		311	34	110
100	511	-73		309	47	515	-70		306	48	515	-69		306	46	519	-68				517	-68												318	-73		330	26	523	-71		310	35	100
90		-73					-70		309	44		-70		309	44		-69															-72							-76					302	32	90
80	(82mb)						-70		313	45		-71					-71															-71							-75					298	38	80
70							-73		312	39							-73																					-75							70
60																																														60
Tropopause	II 325 mb -73° 26·600′					II 293 mb -23° 29·200′					II 340 mb -66° 26·100′					I 240 mb -80° 33·700′					I 255 mb -73° 32·300′					I 248 mb -80° 32·800′					I 250 mb -81° 32·800′					II 275 mb -71° 30·800′					I 230 mb -83° 35·100′					Tropopause

Inversion. 1003 mb 30° - 983 mb 32°

Inversion. 1013 mb 38° - 1000 mb 39°

Inversion. 836 mb 15° - 800 mb 20°; 718 - 11° - 708 - 13°. Isothermal. 1008 - 988 mb 32°

Inversion. 757 mb 05° - 731 mb 12°. Isothermal. 1016 - 992 mb 38°

Forrest of winds see page 3.

Inversion. 815 mb 07 - 781 mb 16°

Inversion. 862 mb 12° - 810 mb 20°

Inversion. 865 mb 15° - 838 mb 24°. Isothermal. 838 - 813 mb 24°; 761 - 725 - 14°

21h G.M.T.

Station	Lerwick	Stornoway	Leuchars	Aldergrove	Liverpool	Downham Market	Larkhill	Camborne		
Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.	
Pressure M.S.L.	1011·1 mb	1012·5 mb	1013·8 mb	1013·7 mb	1015·2 mb	1018·3 mb	1018·4 mb	1019·0 mb	mb	
Pressure Surf	1000·7 mb	1010·8 mb	1011·9 mb	1004·2 mb	1013·1 mb	1013·8 mb	1001·5 mb	1007·8 mb	mb	
Pressure Freezing	1001 mb	950 mb	1012· mb	991 mb	1013·1 mb	1013·8 mb	1001·5 mb	1008 mb	mb	

Pressure mb	Lerwick Height ft./100	Lerwick °Temp. °F.	Lerwick Dew °F.	Lerwick Wind Dir. °	Lerwick Wind Vel. knots	Stornoway Height ft./100	Stornoway °Temp. °F.	Stornoway Dew °F.	Stornoway Wind Dir. °	Stornoway Wind Vel. knots	Leuchars Height ft./100	Leuchars °Temp. °F.	Leuchars Dew °F.	Leuchars Wind Dir. °	Leuchars Wind Vel. knots	Aldergrove Height ft./100	Aldergrove °Temp. °F.	Aldergrove Dew °F.	Aldergrove Wind Dir. °	Aldergrove Wind Vel. knots	Liverpool Height ft./100	Liverpool °Temp. °F.	Liverpool Dew °F.	Liverpool Wind Dir. °	Liverpool Wind Vel. knots	Downham Market Height ft./100	Downham Market °Temp. °F.	Downham Market Dew °F.	Downham Market Wind Dir. °	Downham Market Wind Vel. knots	Larkhill Height ft./100	Larkhill °Temp. °F.	Larkhill Dew °F.	Larkhill Wind Dir. °	Larkhill Wind Vel. knots	Camborne Height ft./100	Camborne °Temp. °F.	Camborne Dew °F.	Camborne Wind Dir. °	Camborne Wind Vel. knots	Pressure mb
Surf	2·7	28	27	010	04	0·4	34	32	Calm		0·2	30	28	280	07	2·6	28	22			0·6	32	28	Calm		1·2	28	22	225	08	4·4	27	23	Calm		2·9	28	25	160	06						Surf
1000	2·9	28	27			3·2	35	33	030	03	3·3	30	27	282	12	3·7	29	23			4·0	31	27	183	12	4·8	28	21	275	18	4·7	27	23			4·9	29	25								1000
950		27	21	351	14		32	30	022	04		29	23	288	10		29	19				28	24	212	11		26	14	278	14		26	17	284	06		28	20	L.V.							950
900	30·2	21	15	337	16	30·8	26	24	006	04	31·0	26	16	298	08	31·3	27	13			31·4	24	19	238	12	32·2	21	09	289	11	31·9	19	13	339	09	32·3	24	16	"							900
850		15	10	332	18		20	18	330	09		20	09	300	07		28	11				20	13	264	14		17	09	308	10		15	07	012	18		25	17	"							850
900	60·0	10	00	330	18	60·9	15	11	329	09	61·3	13	07	288	07	61·6	19	12			61·5	15	05	281	21	62·2	11	-03	331	10	61·8	12	03	351	17	62·8	19	12	358	07						900
750		03	-08	330	21		09	-03	317	09		06	00	299	07		13	04				09	-02	289	22		11	-09	330	13		15	-05	305	15		14	02	331	13							750
700	93·0	-05	-15	326	26	94·3	03	-15	331	11	94·6	-01	-07	344	07	95·2	07	01			94·8	02	-10	296	39	96·0	09	-13	334	16	95·5	10	-17	293	17	96·5	10	01	324	15						700
650		+13	-25	315	26		-05	-28	331	17		-08	-18	344	20		00	-07				01	-13	309	23		01	-23	293	20		04	-20	29)	20		05	-06	311	12							650
600	130	-12	-31	309	30	132	-12	-29	325	24	132	-15	-29	338	24	133	-06	-18			133	-06	-22	308	27	134	-05	-15	304	24	133	-05	-23	289	21	135	-03	-16	316	10						600
550		-31	-39	307	30		-22	-39	316	28		-20	-42	329	23		-15	-21				-16	-35	304	26		-14	-29	305	27		-14	-31	285	24		-05	-23	343	20							550
500	171	-38	-48	311	29	174	-33	-50	310	31	175	-27	-50	320	30	176	-23	-28			176	-24	-46	323	30	177	-24	-41	298	30	177	-23	-39	286	24	178	-12	-33	348	31						500
450		-50		310	29		-43		308	39		-38	-58	320	33		-29	-33				-29	-54	324	32		-36	-52	297	33		-30	-46	339	24		-22	-41	346	36							450
400	220	-59		309	35	224	-47		309	46	225	-43		322	52	227	-36	-40			227	-41		325	43	227	-44		325	42	228	-39	-56	358	42	231	-34	-49	340	44						400
350		-69		313	44		-58		306	45		-56		317	63		-50					-55		326	55		-55		340	66		-53		347	58		-47		340	56							350
300	280	-74		311	42	286	-72		294	60	287	-69		311	68	290	-65				289	-72		317	66	289	-68		325	52	290	-67		342	65	294	-61		334	72							300
250		-75		309	43		-81		301	56		-80		311	60		-81					-86		321	62		-77		324	45		-80		337	60		-76		337	71							250
200	364	-69		316	37	368	-76		306	49	370	-71		313	49	373	-75				371	-77		318	43	373	-71		317	36	373	-78		319	37	377	-77		336	52							200
170		-72		313	37		-72		307	47		-69		313	48		-72					-76		314	42		-72		313	42		-75		319	33		-72		324	48							170
150		-72		313	47		-72		310	38		-71		304	40		-72					-70		316	41		-70		319	36		-70		321	37		-73		324	31							150
130		-73		308	47		-72		303	44		-68		307	45		-70					-71		313	36							-73		319	35		-67		321	30							130
110		-75		307	54		-72		305	45		-70		317	48		-69					-69										-70		316	32		-71		314	27							110
100	60)	-77		304	51	511	-72		306	48	515	-72		316	43	517	-71				(124mb)										516	-73		301	32	521	-72		314	33							100
90		-79		305	47		-74		308	42		-75		307	41		-74														-72					-71		308	33							90
80	(81mb)	-80					-76		309	48							-77														(95mb)					-71		316	31							80
70																																				-71		300	44							70
60																																				-71				(96mb)							60
Tropopause	I 267 mb -78° 31·100′					I 250 mb -81° 32·400′					I 250 mb -80° 32·400′					I 250 mb -81° 32·900′					I 243 mb -86° 32·500′					I 255 mb -78° 32·300′					I 253 mb -81° 32·600′					II 239 mb -80° 33·500′										Tropopause

Inversion. 1001 mb 28° - 990 mb 31°

Inversion. 1011 mb 34° - 982 mb 36°. Isothermal. 850 - 833 mb 20°

Inversion. 1042 mb 30° - 976 mb 31°; 440 - 430 - 432 - 37°

Inversion. 1004 mb 28° - 994 mb 32°; 931 - 27° - 924 - 28°

Inversion. 700 mb 02° - 665 mb 03°

Inversion. 1014 mb 28° - 980 mb 29°; 778 - 08° - 738 - 12°. Isothermal. 900 - 890 mb 21°

Inversion. 886 mb 15° - 837 mb 17°; 800 - 12° - 765 - 17°. Isothermal. 1001 - 960 mb 27°

Inversion. 1038 mb 28° - 983 mb 31°; 813 - 22° - 847 - 20°; 570 - -7° - 545 - -4°

HMSO, Press, M.O., Dunstable

No. 11598.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON. Saturday 30th December 1950. Page 1.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	Time	M.S.L.	Surf	Freezing
LERWICK	03h.	1008·3 mb	997·9 mb	Surf.
STORNOWAY	03h.	1009·2 mb	1007·5 mb	960 mb
LEUCHARS	03h.	1009·2 mb	1008·3 mb	1008·3 mb
ALDERGROVE	03h.	1007·1 mb	997·3 mb	960·0 mb
LIVERPOOL	03h.	1010·0 mb	1007·9 mb	1007·9 mb
DOWNHAM MARKET	03h.	1014·2 mb	1009·7 mb	Surf.
LARKHILL	03h.	1014·7 mb	997·8 mb	997·8 mb
CAMBORNE	03h.	1013·0 mb	1002·1 mb	950 mb
VALENTIA	03h.	1005·8 mb	1004 mb	885 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	30	29	030	10	00·4	32	29	Calm		00·2	27	25			02·6	34	32		
1000	2·1					2·4	31	33	Calm		2·4	28	26			2·0				
950		27	26	021	15		31	27	031	05		30	26				31	28		
900	29·4	21	20	018	13	30·1	25	21	010	03	29·8	26	21			29·7	28	25		
850		16	15	016	13		19	17	261	03		21	15	For			25	22		
800	57·3	11	09	014	13	60·2	14	11	295	06	60·0	15	08	winds		60·2	20	16		
750		02	-01	011	14		09	03	327	11		10	04				15	09		
700	92·3	-05	-09	355	11	93·5	02	-13	324	15	93·5	04	-08	see		94·0	08	02		
650		-13	-15	347	11		-06	-19	316	15		-03	-18				00	-04		
600	129	-21	-29	343	12	131	-14	-28	313	21	131	-11	-26	page		132	-08	-13		
550		-30	-38	333	14		-23	-39	315	24		-19	-36				-17	-23		
500	171	-40	-47	322	16	173	-34	-45	312	31	174	-29	-45	3.		175	-21	-31		
450		-48		319	26		-44		309	38		-39	-53				-31	-42		
400	220	-56		316	38	223	-51		308	31	224	-46				225	-44			
350		-66		317	41		-64		292	33		-58					-55			
300	280	-70		313	48	283	-76		300	39	286	-70				287	-68			
250		-71		309	29		-80		301	44		-82					-80			
200	364	-72		308	39	366	-77		302	40	368	-74				370	-72			
170		-70		302	43		-72		307	39		-71					-68			
150		-68		306	42		-72		302	44		-71								
130		-69		309	45		-71		299	44		-71								
110		-72		308	48		-74		308	41		-73								
100	508	-76		306	51	509	-76		301	46										
90		-77		307	44		-76		300	44										
80		-78																		
70																				
60																				
	Isothermal 998 - 982 mb. 30°					Inversion 1007 mb. 32° - 1000 mb. 31° Isothermal 430 - 415 mb. -48°					Inversion 1008 mb. 27° - 961 mb. 31° 438 mb. -41° - 425 mb. -40°									
Tropopause	II 327 mb. -70° 26,100'					II 305 mb. -76° 28,000'					I 240 mb. -84° 33,000'					I 250 mb. -80° 32,400'				

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	30	28	150	06	01·2	27	26	210	07	04·4	25	21	200	03	02·9	34	26		
1000	2·6					3·7					3·8					3·4	34	26		
950		29	25	224	09		26	19	255	12		25	18	223	07		32	25		
900	30·0	27	23	255	12	31·0	21	11	268	08	31·1	25	16	286	08	31·2	31	22		
850		23	19	277	11		18	08	299	05		21	16	339	08		28	18	For	
800	60·3	18	14	278	19	61·0	13	05	333	09	61·2	15	11	346	12	61·9	22	15	winds	
750		12	08	283	23		07	01	327	21		10	06	338	18		16	11		
700	93·9	05	00	285	24	94·2	00	-03	310	25	94·8	10	01	305	17	95·8	11	05	see	
650		-01	-06	289	29		01	-06	306	24		03	-06	300	21		05	-03		
600	132	-09	-15	297	24	132	-08	-14	301	24	133	-06	-14	289	20	134	-02	-09	page	
550		-17	-24	307	22		-17	-24	297	23		-15	-26	284	24		-07	-13		
500	175	-26	-33	307	22	175	-23	-32	293	25	176	-24	-32	278	23	178	-13	-20		
450		-32	-40	304	29		-32	-40	296	30		-28	-34	269	31		-22	-30	3.	
400	225	-42		310	27	226	-44		291	34	227	-39	-45	280	37	230	-36	-44		
350		-52		283	30		-57		297	42		-52		288	39		-50			
300	288	-65		292	33	287	-72		306	48	290	-68		290	46	293	-69			
250		-80		295	36		-83		307	45		-80		305	46		-84			
200	370	-75		299	44	369	-75		309	36	372	-76		307	36	374	-84			
170		-73		310	37		-72		306	37		-71		308	36		-80			
150		-74		305	33		-71		305	40		-70		311	37		-77			
130		-73		304	40		-69		305	39		-70		303	40		-79			
110		-72		308	44		-73		304	86	(114 mb)	-70					-77			
100	513	-71		312	39											515	-80			
90		-74		301	38												-82			
80		-76		298	41												-83			
70		-78		307	41												-84			
60	(062 mb)	-80														(54 mb)	-84			
	Isothermal 989 - 917 mb. 29°					Inversion 1010 mb. 27° - 975 mb. 28° 700 mb. 00° - 689 mb. 03° Isothermal 887 - 863 mb. 20° 689 - 670 mb. 03°					Inversion 997 mb. 25° - 982 mb. 27° 933 mb. 24° - 909 mb. 26° 742 mb. 09° - 717 mb. 13°					Inversion 910 mb. 30° - 894 mb. 31° Isothermal 1002 - 968 mb. 34° 930 - 910 mb. 30°				
Tropopause	I 221 mb. -85° 35,000'					I 262 mb. -84° 31,500'					I 235 mb. -85° 34,000'					I 225 mb. -89° 35,100'				

Pressure mb	CAMBORNE (cont.) Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf						00·3	44	43		
1000						1·6	44	42		
950							39	37		
900						29·7	34	31		
850							28	25		
800						60·4	24	21		
750							19	17		
700						94·5	13	17		
650							06	-02		
600						133	-02	-09		
550							-11	-42		
500						177	-14	-27		
450							-26	-47		
400						283	-38			
350							-50			
300						291	-64			
250							-75			
200						375	-71			
170							-70			
150							-72			
130							-69			
110							-74			
100						509	-74			
90							-74			
80							-74			
70										
60										
	Inversion 539 mb. -13° - 510 mb. -12°									
Tropopause	I 250 mb. -75° 33,000									

09h. G.M.T.

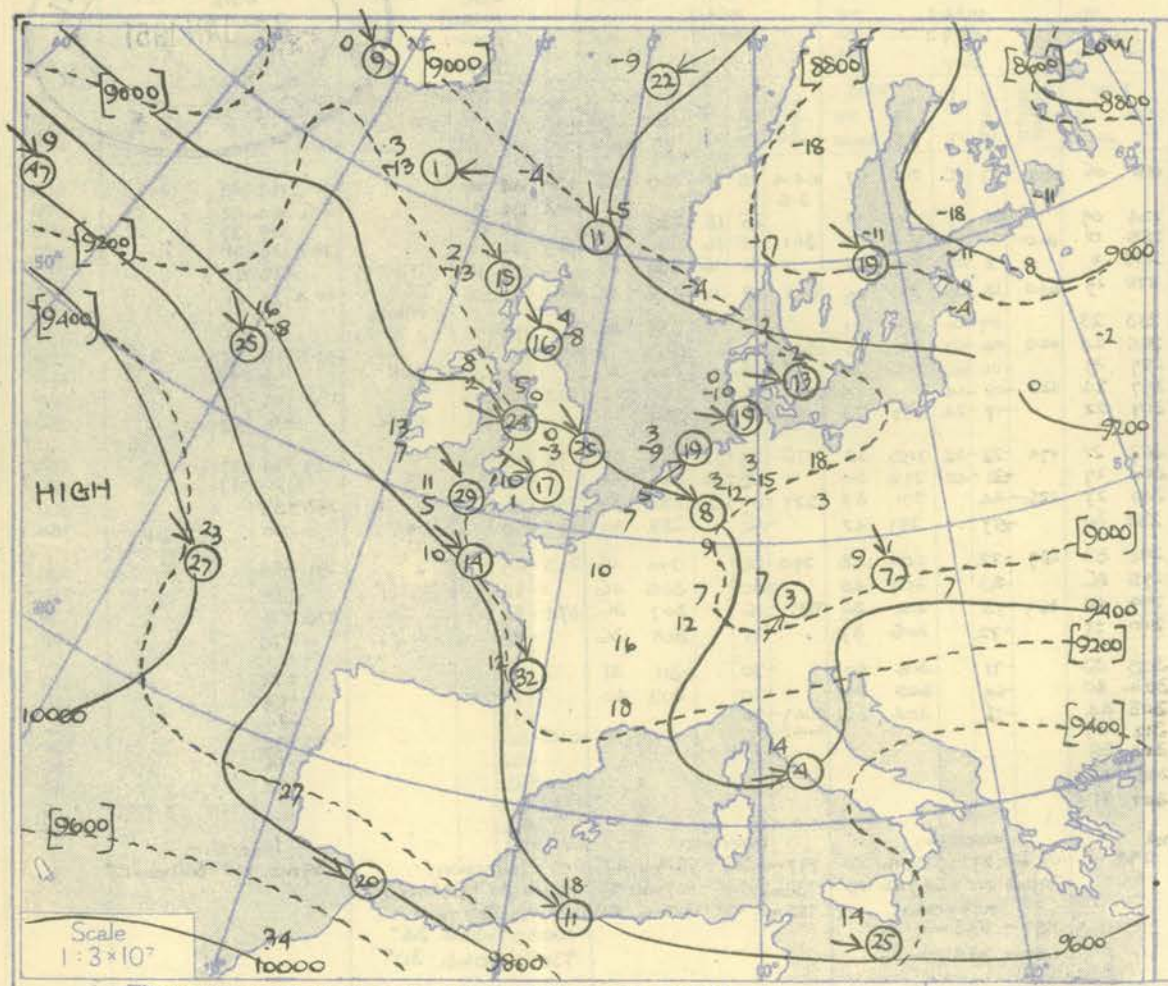
Station	Time	M.S.L.	Surf	Freezing
LERWICK	09h.	1007·0 mb	996·4 mb	975 mb
STORNOWAY	09h.	1006·4 mb	1004·7 mb	945 mb
LEUCHARS	09h.	1007·5 mb	1006·6 mb	1006·6 mb
ALDERGROVE	09h.		992·9 mb	928 mb
LIVERPOOL	09h.	1006·1 mb	1004·1 mb	Surf.
DOWNHAM MARKET	09h.	1011·3 mb	1007·0 mb	Surf.
LARKHILL	09h.	1010·6 mb	993·7 mb	993·7 mb
CAMBORNE	09h.	1006·8 mb	995·1 mb	926 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	02·7	27	23	010	10	00·4	36	31			00·2	23	22	Calm		02·6	37	35		
1000	18					1·6	37	31			1·9	24	23	L.V.		0·7				
950		29	23	006	18		33	29				30	28	L.V.			34	31		
900	29·2	22	15	005	18	29·6	26	22			29·4	25	21	L.V.		28·5	30	27		
850		15	04	003	15		20	15				20	13	L.V.			26	23		
800	59·1	09	-06	350	14	60·2	15	04			59·6	14	02	L.V.		59·1	22	20	For	
750		02	-15	345	14		11	-06				11	-07	L.V.			17	13	winds	
700	91·9	-05	-20	338	18	93·7	05	-14			93·0	04	-18	L.V.		93·1	11	06		
650		-13	-24	328	18		-02	-18				-04	-25	325	14		04	-04	see	
600	129	-22	-30	320	21	131	-11	-25			131	-12	-31	317	18	131	-04	-13		
550		-32	-40	313	22		-21	-31				-21	-35	299	20		-13	-21	page	
500	170	-37	-47	320	21	174	-32	-40			173	-31	-42	294	18	175	-25	-34		
450		-49		315	27		-44					-42		309	23		-31	-43	3.	
400	219	-57		308	37	223	-54				223	-53		312	32	225	-44			
350		-67		314	39		-68					-62		300	37		-58			
300	280	-71				284	-74				284	-71		296	45	287	-69			
250		-69					-80					-77		299	52		-81			
200	364	-69				366	-77				267	-71		302	38	370	-70			
170		-71					-72					-68		302	36		-69			
150		-69					-72					-68		300	36		-69			
130		-69					-73					-68		300	36		-70			
110		-74					-74					-69		300	32		-70			
100	(105 mb)	-76				509	-76				512	-70		297	39	514	-70			
90							-77					-71								
80							-79													
70							-81													
60																				
	Inversion 997 mb. 27° - 976 mb. 32°					Inversion 1005 mb. 36° - 993 mb. 38°					Inversion 1007 mb. 23° - 955 mb. 30° 800 mb. 14° - 788 mb. 15°									
Tropopause	II 337 mb. -70° 25,400'					II 260 mb. -81° 31,100'					I 261 mb. -78° 31,300'					I 250 mb. -81° 32,400'				

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	00·6	32	29	160	06	01·2	29	26			04·4	25	20	180	05	02·9	40	92	180	17
1000	1·7					3·0	28	25			2·7					1·6				
950		29	26	202	12		27	24	236	16		27	23	200	14		35	34	183	33
900	29·1	27	24	233	16	30·3	23	21	239	14	30·1	26	13	198	14	29·5	30	28	208	36
850		24	20	236	11		20	18	249	12		23	17	185	17		27	24	213	25
800	59·5	19	14	249	10	60·5	15	14	283	10	60·4	18	14	189	06	60·1	23	19	229	25
750		13	07	237	05		11	10	313	13		13	09	301	06		18	13	241	24
700	93·1	06	-02	239	07	94·0	05	03	316	21	94·0	06	03	302	09	94·1	13	08	250	21
650		-02	-10	268	14		00	-02	316	24		-01	-05	312	11		07	01	257	17
600	131	-09	-18	267	17	132	-08	-11	316	21	132	-06	-11	324	17	132	00	-08	269	14
550		-18	-28	265	15		-17	-21	312	22		-16	-21	319	17		-09	-19	297	17
500	174	-28	-38	282	21	175	-26	-30	310	25	175	-26	-30	320	17	176	-17	-27	270	24
450		-38	-48	312	18		-34	-38	298	20		-35	-39	306	19		-28	-39	281	30
400	224	-47		291	23	226	-43		288	24	225	-43		297	20	228	-36	-51	295	33
350		-57		281	30		-52		298	24		-53		287	30		-47		295	27
300	285	-69		300	27	288	-68		282	25	288	-66		287	32	291	-59		305	32
250		-80		299	33		-75		295	32		-78		290	32		-64		305	39
200	(215 mb)	-74				371	-70		300	33	371	-72		294	36	377	-60		294	41
170							-68		297	39		-70		297	37		-60		300	42
150							-66		303	39		-68		297	36		-60		300	35
130							-65		299	39		-68		297	34		-60			
110							-64		296	38		-68		287	29					
100						517	-67		299	36	516	-70		282	38					
90							-70		297	35		-70		294	40					
80							-70		293	40	(87 mb)	-70								
70							-71		289	40										
60																				
	Isothermal 976 - 767 mb. 29°					Inversion 870 mb. 20° - 859 mb. 21° Isothermal 985 - 946 mb. 27° 679 - 665 mb. 01°					Inversion 637 mb. -03° - 630 mb. -02° Isothermal 979 - 924 mb. 27° 417 - 412 mb. -41°									
Tropopause	I 238 mb. -81° 33,600'					I 240 mb. -78° 33,400'					II 253 mb. -78° 32,100'					I 268 mb. -65° 31,400'				

Saturday 30th December 1950.

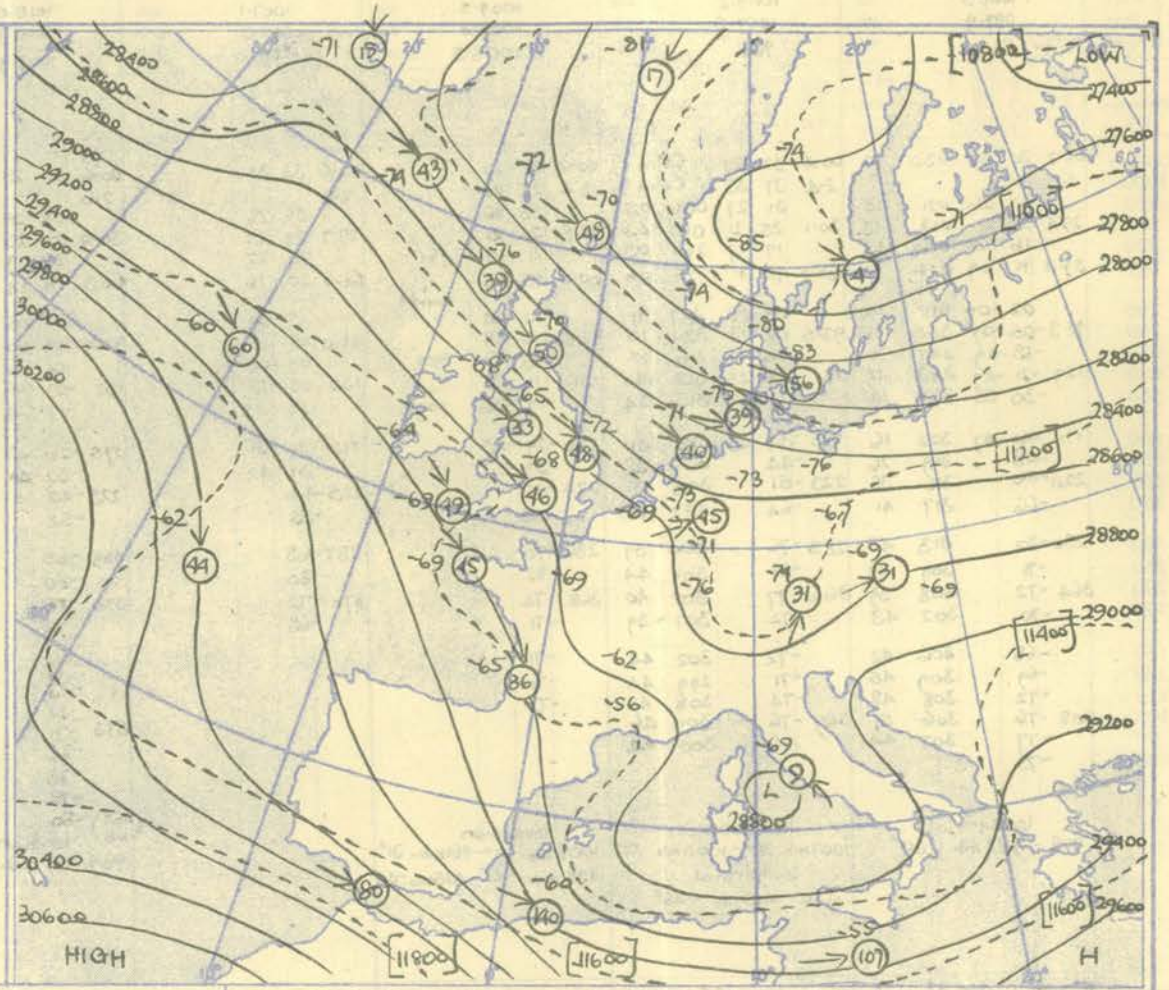
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



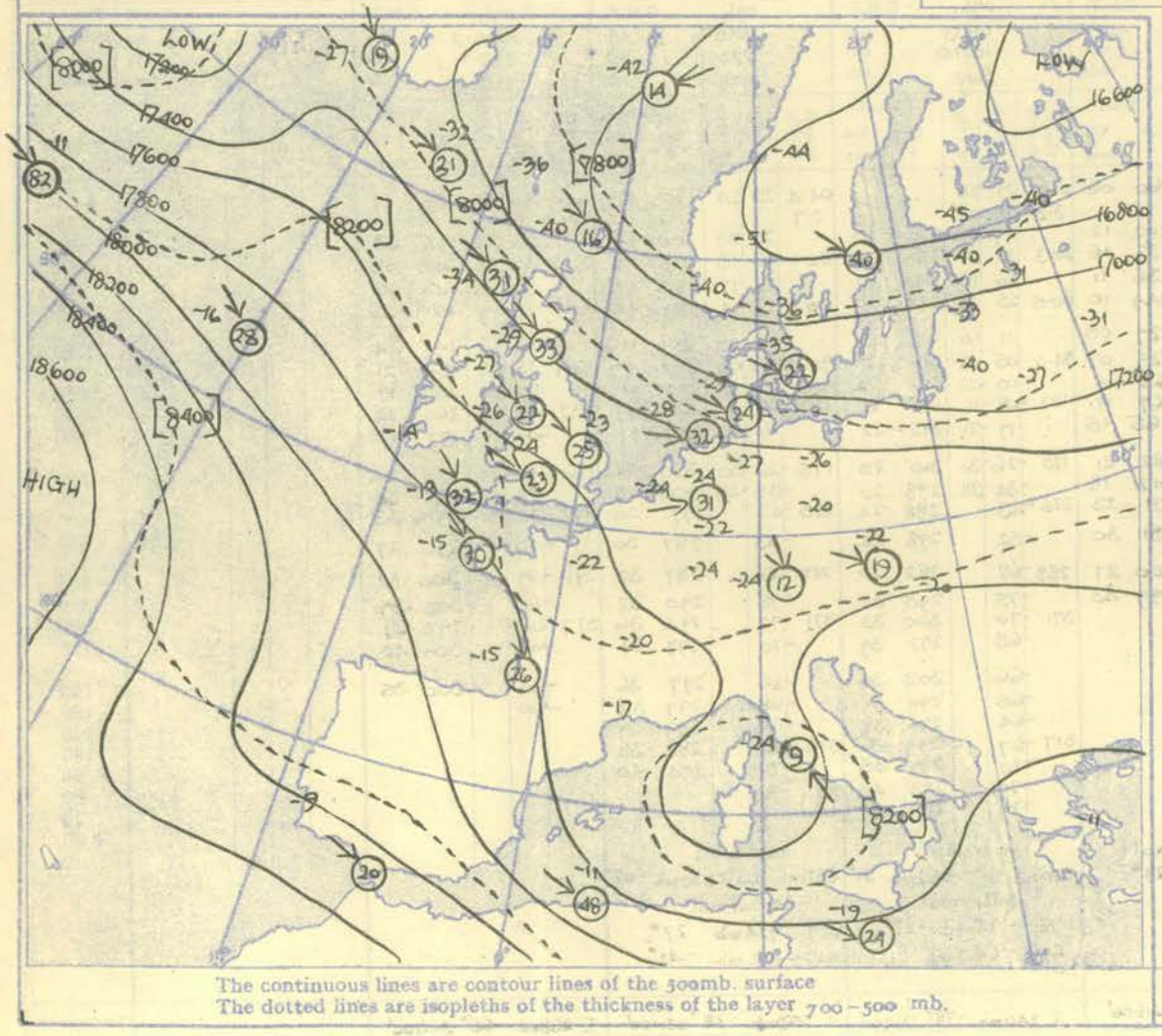
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 – 700 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

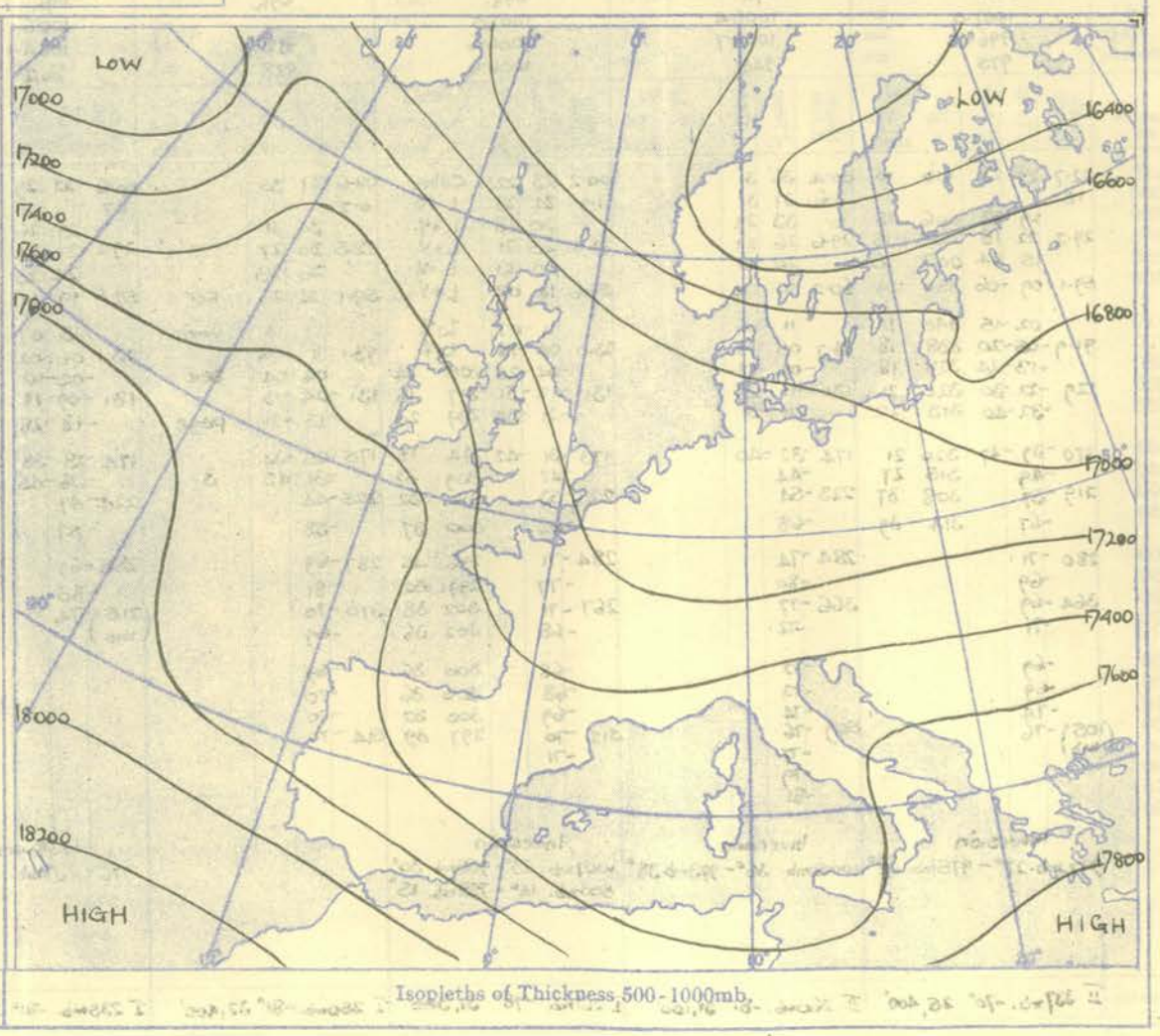
100 50 40 30 20 15 10 knots



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43·2N 17·0W			39·5N 12·2W		
Pressure: Time	13L			15L		
M.S.L.	1022 mb			1019 mb		
Surf	1011 mb			1007 mb		
Freezing	810 mb			875 470 mb		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		55			52	40
1000	6·0	52		4·9	51	
950		43	43		44	36
900		37	37		35	34
850		36	36		30	30
800		31	31		35	07
750		24	23		29	
700	100	21		99·1	24	
650		16			18	
600		07			11	
550		-01			01	
500	184	-09		183	-08	
450						
400						
350						
300						
250						
200						
170						

Surf wind. S. 8-10kts. — Surf wind N. 8-10kts.

Cloud.
8/8 Sc
970-930mb
2/8 Ac
760-740mb
2/8 Cs NR.

Cloud.
6/8 Sc
890-830mb
2/8 Cs NR.
Inversion
850mb 30°.
800" 35°

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Leuchars		Camborne		Aldergrove		Aldergrove		Liverpool		61°N 13·9W W. Explorer.		Lerwick	
Time	03L		03L		1030		15L		21L		21L		21L	
Type	Pilot.				Pilot.		Pilot.		Pilot.					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	Calm		180	08	090	10			170	14	090	36	Calm	
1,000	285	10	180	12	096	15			189	24	090	41	360	04
2,000	291	09	190	18	099	13			220	17	100	40	020	06
3,000	334	05	200	17	110	08			246	17	100	44	020	05
4,000	334	05	210	16	117	08			251	18	100	46	010	03
5,000	342	04	240	15	113	08			251	14	100	50	360	03
6,000	346	03	290	13	108	07			248	13	110	48	340	04
8,000	344	05	290	17	105	05			247	15	120	42	320	07
10,000	339	16	290	29	148	04			245	17	140	34	340	07
14,000	326	24	290	29	262	05			255	18	170	33	310	15
18,000	320	33	300	32	300	12			276	17	180	16	310	31
24,000	299	40	300	49	316	27			275	27	180	10	310	36
30,000	300	50	290	49	306	34			278	34	L.V<5		310	29
40,000	307	43	310	42	297	37	300	40	296	37	290	23	300	30
50,000	311	40	300	39	294	35	291	37	292	30	300	30	290	41
	(42.000)		300	48			(45.000)		285	36	290	33	290	51 (60.000)
			(55.000)						(52.000)		(57.000)		280	71 (70.000)
													290	70 (80.000)
													300	46 (90.000)

NEPHOSCOPE OBSERVATIONS

Place									
Time Type									
Dir. Vel.									

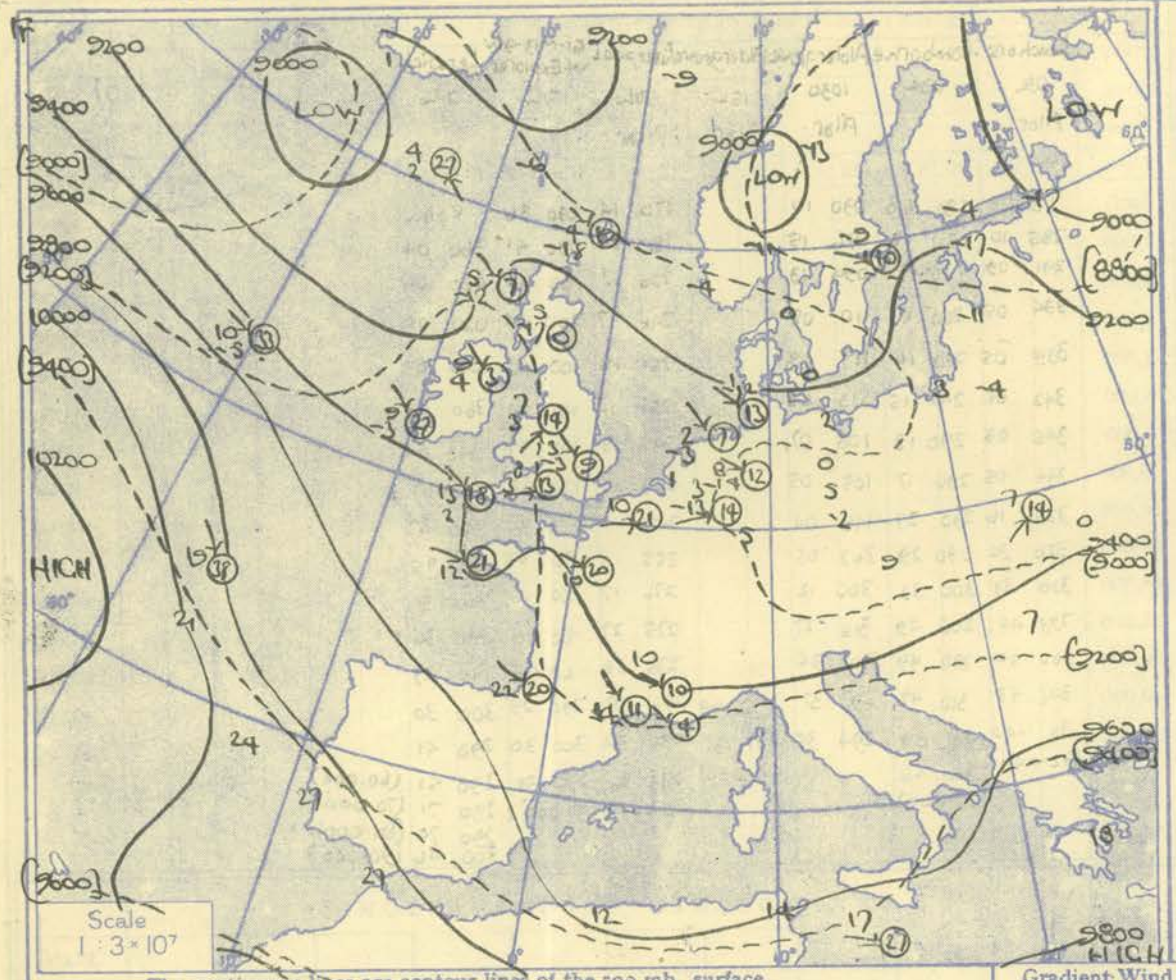
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER EXPLORER.					WEATHER EXPLORER.					WEATHER EXPLORER				
Lat/Long	61·0N 14·1W.					61·0N 14·1W.					61·0N 14·2W				
Pressure: Time	03L G.M.T.					09L G.M.T.					15L G.M.T.				
M.S.L.	1008 mb					1004 mb					1000 mb				
Surf	1008 mb					1004 mb					1000 mb				
Freezing	940 mb					910 mb					950 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		41	29	090	15		42	39	060	23		39	35	080	33
1000	2·2	40	26	089	14	1·2	41	30			-1	39	25		
950		34	20	090	16		37	30	103	28		32	30	099	37
900	29·9	26	14	087	14	29·2	31	26	103	27	27·7	27	26	104	38
850		20	10	115	07		24	20	103	22		23	22	113	33
800	60·1	14	04	162	03	59·7	17	14	093	16	57·9	16	14	110	33
750		10	-05	217	01		14	08	081	08		10	07	119	26
700	93·5	03	-13	077	01	93·3	07	00	197	03	91·3	04	02	142	27
650		-04	-18	289	05		00	-05	235	11		-02	-04	165	24
600	131	-12	-24	240	12	131	-07	-09	246	21	129	-09	-12	188	19
550		-21	-32	269	27		-16	-19	257	21		-17	-21	208	15
500	173	-32	-43	282	31	174	-27	-31			172	-29	-35	231	16
450		-43		290	28		-39	-43				-41		238	19
400		-54		287	32	224	-51				222	-55		224	16
350		-64		283	32		-62					-67		242	29
300	284	-74		235	43	286	-69		282	45	282	-79		275	24
250		-77		292	45		-75		279	35		-73		292	30
200	367	-73		300	35	369	-76		292	41	365	-70		303	25
170		-70		295	33		-68		295	34		-69		298	24
150		-69		291	32		-66		294	24		-68		290	24
130		-72		288	34		-66		303	32		-67		286	30
110		-75		288	32		-68		306	36		-70		314	37
100	510	-77		288	45	514	-70		299	37	510	-73		323	36
90		-79		300	36		-71		292	31		-75		302	42
80		-80		308	35							-78			
70		-81		309	44							-81			
60		-83		297	47							-82			
	Isothermal. 782 - 764mb 12°					Isothermal. 787 - 757mb 15°					(67mb)				
Tropopause	I 295mb -75° 28·700					I 254 mb -78° 31·700					I 284mb -83° 29·400				

Ship	WEATHER EXPLORER.					WEATHER RECORDER.					WEATHER RECORDER.				
Lat/Long	61·0N 13·9W.					52·2N 19·8W.					52·5N 20·0W.				
Pressure: Time	21L G.M.T.					03L G.M.T.					09L G.M.T.				
M.S.L.	994 mb					1014 mb					1014 mb				
Surf	994 mb					1014 mb					1014 mb				
Freezing	910 mb					900 mb					915 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		41	32	For winds See page 3.			45	44	335	20		43	41	290	23
1000	-16					3·7	43	42	336	23	3·9	42	33		
950		38	25				38	37	334	23		36	32	315	25
900	26·4	31	21			31·8	32	31	334	24	31·8	30	27	314	25
850		25	13				25	25	330	27		25	19	313	23
800	56·9	19	11			62·3	21	17	318	26	62·3	19	15	309	12
750		13	05				23	02	312	26		16	05	306	22
700	90·6	07	-01			96·6	16	-08	306	25	96·1	12	-12	293	25
650		01	-07				09	-11	297	25		04	-25	297	33
600	128	-08	-15			135	01	-18	297	27	134	-01	-33	306	41
550		-15	-24				-07	-28	299	25		-07	-42	303	46
500	172	-24	-33			179	-16	-36	302	28	178	-16	-31	279	54
450		-35	-45				-23	-42	301	36		-23	-40	303	51
400	242	-46				231	-35	-51	298	37	230	-32	-51	311	70
350		-59					-48		294	50		-44		320	89
300						294	-60		286	60	294	-58		318	99
250							-66		279	74		-69		318	105
200						379	-70		287	53	378	-75			
170							-69		295	50					
150							-71		297	52					
130							-66		295	38					
110							-66		298	45					
100						524	-69		298	44					
90							-71		297	43					
80							-71		296	36					
70							-69		296.	21					
60															
	Inversion 994mb 41° - 989mb 43°					Inversion 805mb 20° - 785mb 27°					Inversion 765mb 15° - 750mb 16°				
Tropopause	NR.					I 208mb -71° 37·100					I 225mb -76° 35·400				

Ship	WEATHER RECORDER.					WEATHER RECORDER.				
Lat/Long	52·4N 19·9W.					52·4N 20·3W.				
Pressure: Time	15L G.M.T.					21L G.M.T.				
M.S.L.	1013 mb					1009 mb				
Surf	1013 mb					1009 mb				
Freezing	925 mb					920 mb				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf		45	38	300	25		43	38	280	22
1000	3·5	43	37	300	30	2·7	42	38	282	24
950		36	29	300	29		35	33	284	30
900	31·4	28	19	299	30	30·2	29	28	284	36
850		22	13	294	29		23	23	282	34
800	61·8	16	06	289	28	60·6	17	17	281	32
750		09	00	286	29		10	09	280	30
700	95·4	10	-05	291	33	94·0	04	-01	278	33
650		04	-15	290	37		00	-04	274	39
600	133	-01	-21	291	40	132	-07	-11	267	52
550		-06	-27	289	57		-15	-26	268	60
500	177	-16	-37	289	64	176	-22	-35	273	66
450		-26	-43	293	69		-31	-42	276	70
400	229	-39	-52	287	72	226	-42		275	72
350		-51		290	73		-53		275	76
300	292	-64		282	97	288	-67		275	72
250		-74		291	101		-77		275	81
200	375	-83		290	92	372	-73		275	70
170		-79		287	60		-73		275	61
150		-76		287	53		-73		275	60
130		-73		286	53		-74		275	48
110		-72		279	41		-74		275	39
100	517	-72		273	40	514	-75			
90		-72		276	34					
80		-72								
70										
60										
	Inversion 753mb 9° - 713mb 11°									
Tropopause	I 190mb -86° 38·600					I 253mb -78° 32·500				

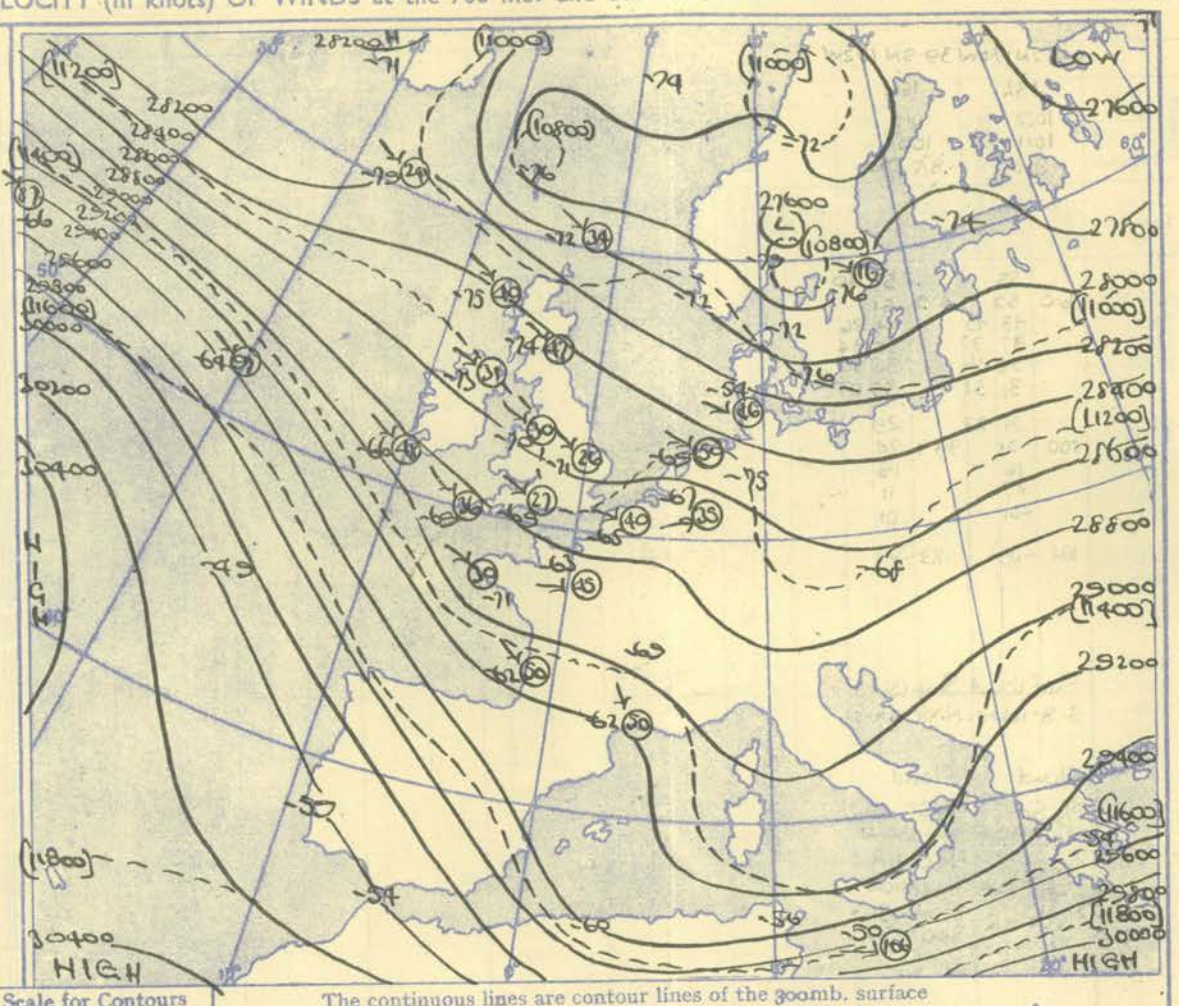
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

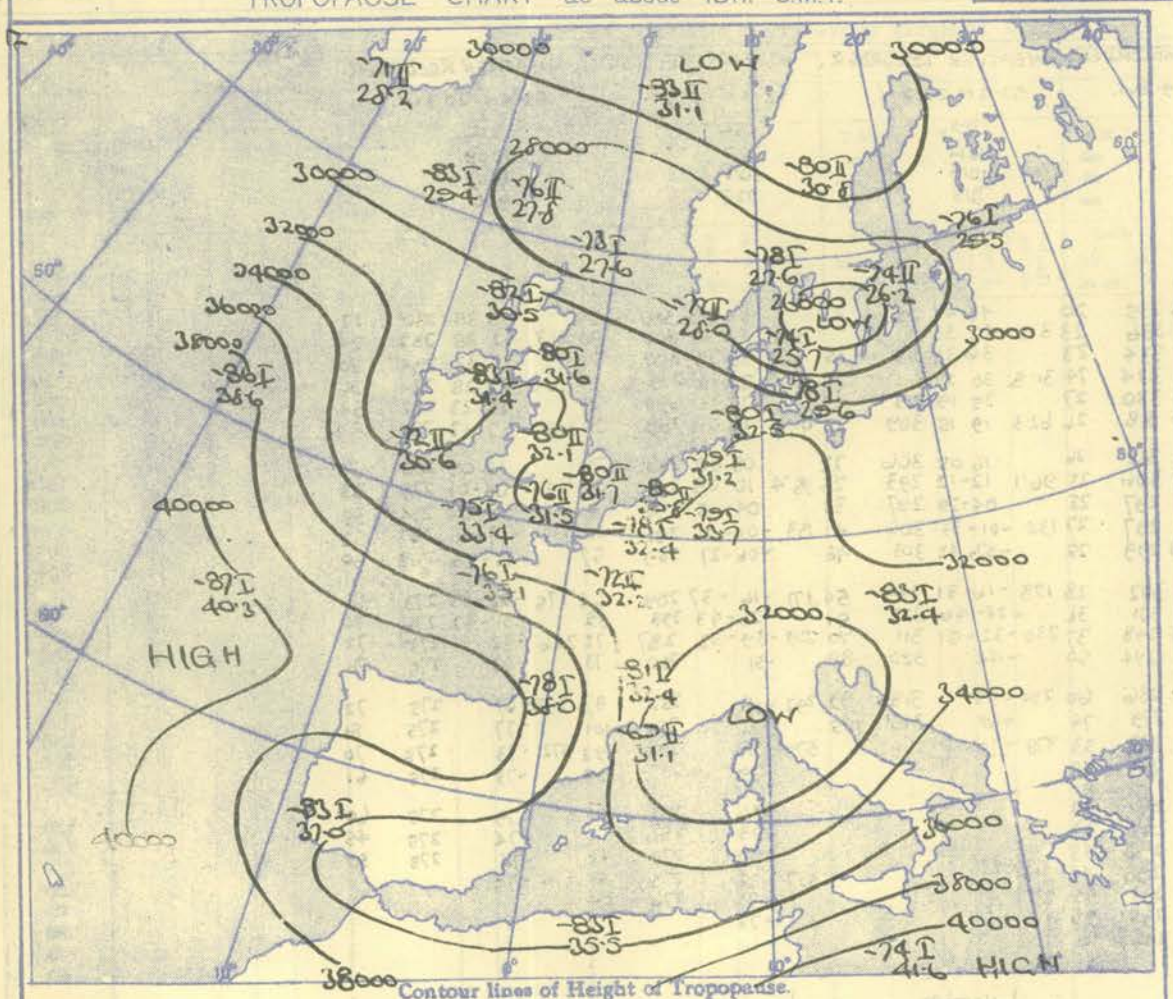
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots



The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The Southeastward penetration of cold air continued west of Ireland and the warm ridge ahead weakened owing to dynamic cooling.

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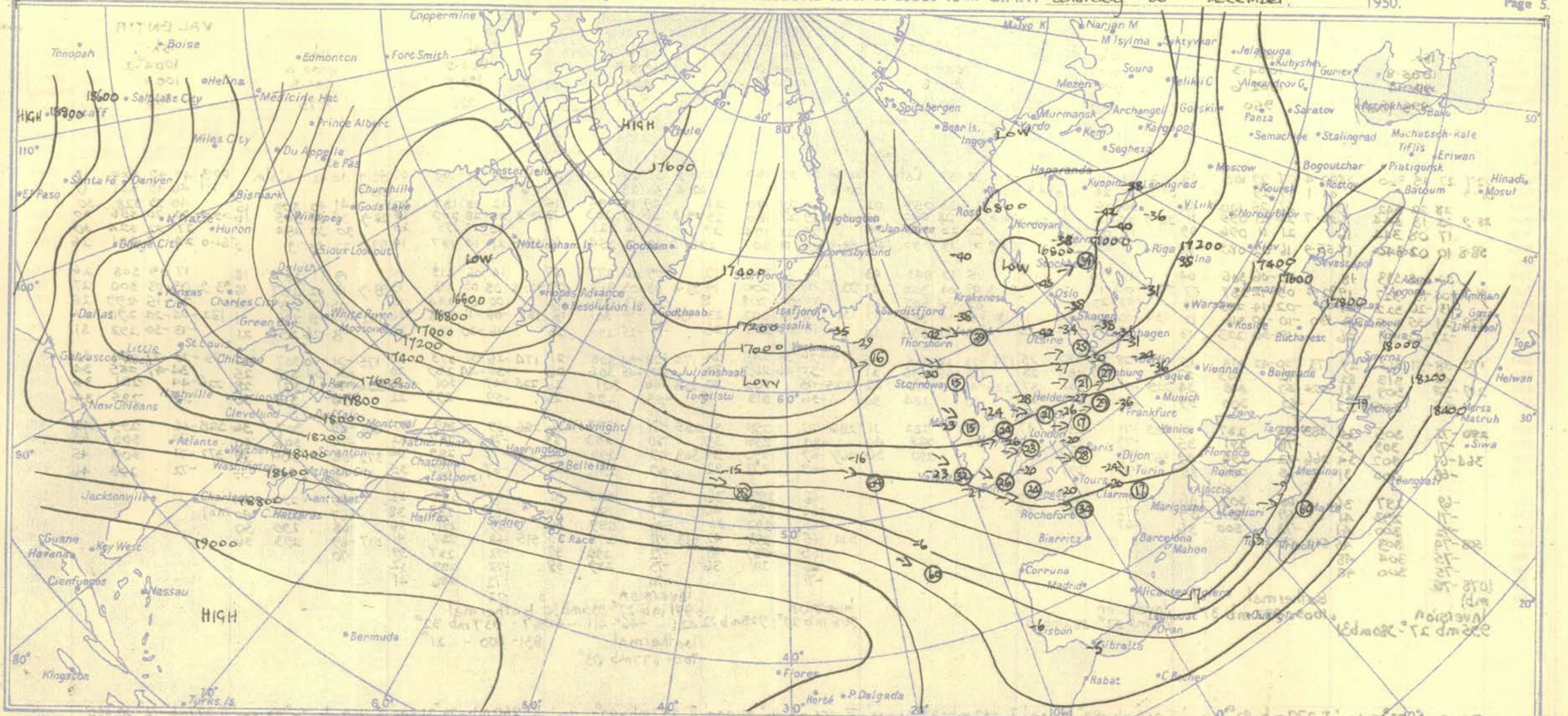
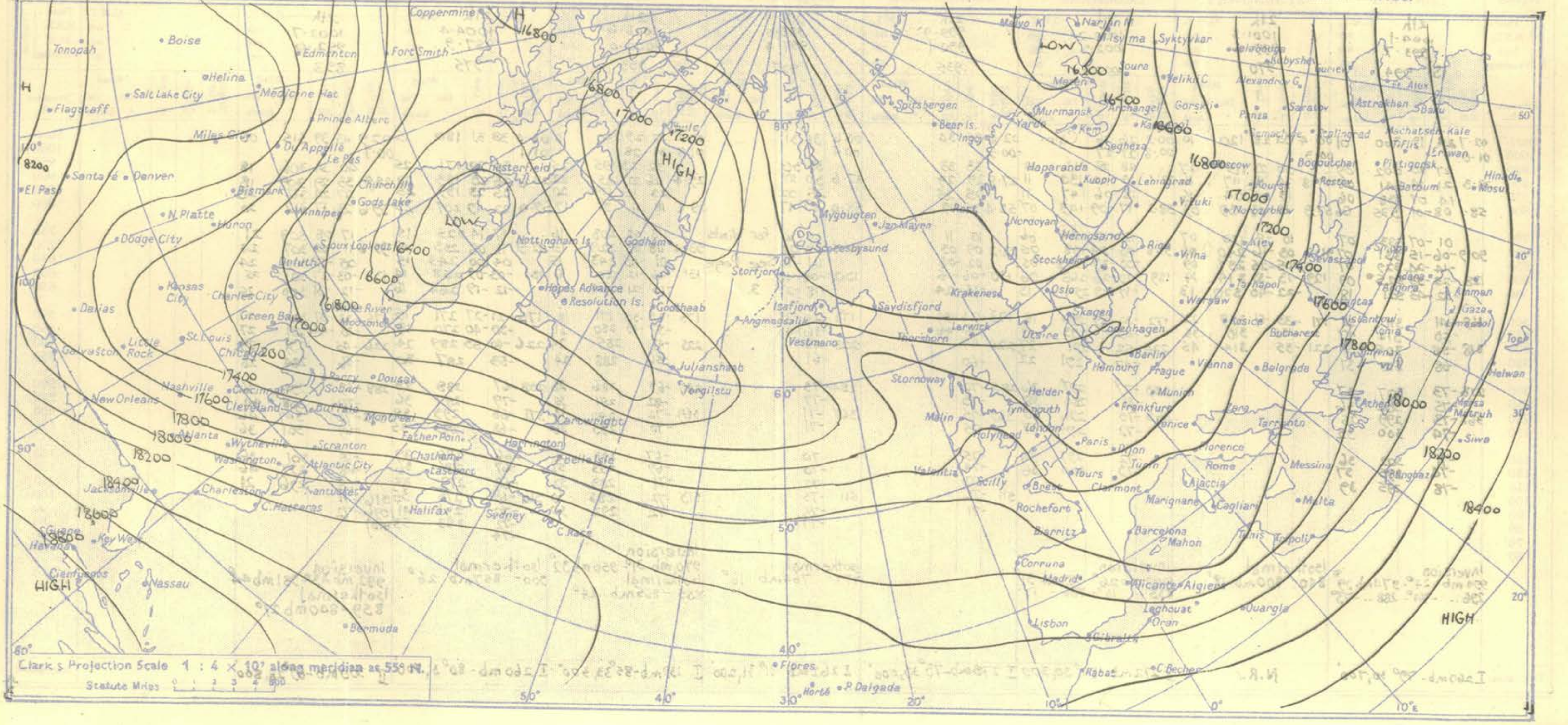
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Saturday 30th December. 1950.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 30th December. 1950.



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	1005·8 mb	1004·3 mb	1005·0 mb	1000·3 mb	1003·0 mb	1008·9 mb	1006·0 mb	1002·0 mb	1004·2 mb
Pressure: Surf	995·4 mb	1002·6 mb	1004·1 mb	991·8 mb	1000·9 mb	1004·4 mb	989·5 mb	991·5 mb	1004 mb
Pressure: Freezing	995 (Surf) mb	950 mb	1000 mb	926 mb	928 mb	Surf. mb	937 mb	875 mb	585 mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	27	25	360	08	000·4	37	29	100	03	00·2	32	29	Calm		02·6	38	37	Calm	
1000	01·5					01·1	37	29			01·3	32	28	Land		00·4				
950		28	22	342	11		32	25	100	12		30	25	..	..		34	33	059	02
900	28·9	23	18	344	16	28·7	26	21	095	11	28·9	25	15	-	-	28·3	30	28	060	02
850		17	08	344	16		21	11	096	09		19	09	..	..		26	25	070	04
800	58·8	10	02	340	17	55·9	16	02	089	05	59·1	17	05	..	..	58·9	21	19	080	02
750		04	-08	333	18		12	-06	306	04		12	-10	..	..		15	12	043	03
700	91·7	-04	-18	327	19	92·4	05	-12	287	07	92·7	05	-17	..	..	92·8	09	04	320	03
650		-13	-26	322	21		-02	-14	295	09		-01	-23	..	..		02	-04	307	06
600	128	-21	-35	315	23	130	-10	-20	316	12	130	-10	-30	280	11	131	-07	-14	288	07
550		-29	-42	311	26		-19	-30	323	13		-18	-29	284	23		-16	-23	295	10
500	170	-38	-51	312	29	173	-30	-42	314	15	173	-28	-34	282	25	174	-23	-34	315	15
450		-48		313	32		-42		303	27		-40	-47	289	28		-33	-48	296	21
400	219	-58		309	31	223	-52		308	34	223	-51		301	37	225	-46		290	22
350		-65		305	32		-62		300	39		-59		301	43		-60		284	30
300	280	-72		305	31	283	-76		287	40	285	-71		298	47	286	-73		282	31
250		-71		303	35		-76		291	35		-79		295	45		-82		288	40
200	364	-67		302	34	366	-72		294	39	367	-73		294	37				290	36
170		-68		300	31		-68		296	38		-76		299	42					
150		-69		297	36		-68		302	36		-77		301	42					
130		-71		293	41		-69		301	39		-72		297	35					
110		-72		300	41		-73		300	36		-67								
100	508	-74		303	45	510	-73													
90		-75		304	48															
80		-75		300	48															
70	(078	-76																		
60	mb)																			

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	060	31	30	160	12	01·2	31	25	140	09	4·4	34	28	140	07	02·9	44	42	Calm		00·3	47	40	320	18
1000	00·8					02·4	30	23			1·6					00·7					1·1	46	40	321	19
950		30	29	170	21		29	19	195	15		32	28	187	22		41	40	308	15		40	33	328	30
900	28·4	29	27	186	23	29·8	26	19	203	12	29·2	28	28	203	18	28·9	35	35	305	16	29·3	34	20	356	30
850		25	22	194	27		21	16	221	11		23	23	195	20		30	30	294	15		27	22	324	30
800	58·9	20	18	207	22	60·0	16	14	254	10	59·6	21	14	187	14	59·8	25	24	291	15	61·0	23	17	321	26
750		14	10	214	12		09	06	277	07		14	06	213	10		19	14	289	18		17	09	308	26
700	92·7	07	03	200	14	93·4	03	-03	317	09	93·4	08	03	233	13	93·9	13	02	287	18	93·9	09	-03	300	27
650		00	-04	208	18		-01	-13	335	12		00	-05	244	14		05	-07	289	20		04	-15	299	26
600	131	-08	-14	223	23	131	-10	-19	301	18	131	-06	-11	268	16	132	-04	-13	294	21	132	-04	-24	290	27
550		-16	-23	237	26		-19	-25	291	23		-16	-20	274	22		-B	-26	301	21		-13	-30	292	31
500	174	-26	-34	245	24	174	-28	-34	308	21	174	-26	-31	273	23	175	-21	-40	307	26	175	-23	-37	284	32
450		-37	-46	269	20		-40	-45	306	26		-38	-44	289	20		-31	-50	319	25		-34	-47	285	34
400	229	-45		302	22	224	-46		301	26	225	-47		301	21	226	-44		321	28	226	-44		281	35
350		-56		313	29		-59		295	26		-59		299	22		-56		317	30		-50		285	34
300	286	-70		299	30	285	-71		293	26	286	-69		289	27	288	-69		307	36	288	-66		295	48
250		-80		298	39		-80		283	33		-76		287	32		-74		306	40		-74		305	63
200	369	-69		290	34	368	-73		292	35	370	-72		289	36	372	-68		309	39	372	-71		300	45
170		-69		292	32		-69		291	34		-67		290	35		-65		300	35		-72		298	46
150		-68		292	36		-67		288	31		-65		285	32		-65		292	34	(100	-73			
130		-64		292	40		-67		292	36		-67		288	38		-67		294	40	mb)				
110		-65		292	36		-70		289	36		-69		291	36		-68		290	30					
100	514	-65		293	42	513	-71		291	35	515	-68		287	41	517	-69		293	36					
90		-66		289	41		-72		290	39		-72		287	39		-70								
80		-66		291	36		-73		289	38		-72		289	32										
70		-71					-74					-72		286	41										
60												-72													

Inversion 958 mb 29° - 928 mb 32°
421 .. -46° - 411 .. -44°
Isothermal 700 - 677 mb 03°

Inversion 971 mb 27° - 955 mb 30°
Isothermal 867 - 937 mb 32°
831 - 800 .. 21°

Isothermal 1003 - 992 mb 37°

Inversion 396 mb 52° - 382 mb 51°

Inversion 995 mb 27° - 980 mb 31°

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Tropopause	I 303 mb - 73° 27,600'	I 270 mb - 82° 30,600'	I 256 mb - 80° 31,600'	I 262 mb - 83° 31,400'	II 255 mb - 80° 32,000'	II 257 mb - 80° 31,700'	II 260 mb - 76° 31,500'	I 239 mb - 75° 33,400'	II 277 mb - 72° 30,600

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	1004·1 mb	1001·3 mb	1003·2 mb	999·9 mb	999·5 mb	1006·6 mb	1004·4 mb	1002·7 mb	mb
Pressure: Surf	993·7 mb	999·6 mb	1002·5 mb	990·1 mb	997·4 mb	1002·0 mb	987·9 mb	992·0 mb	mb
Pressure: Freezing	(S) 994 mb	970 mb	1002·3 mb	935 mb	927 mb	953 mb	975 mb	893 mb	mb

Pressure mb	LERWICK Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	STORNOWAY Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LEUCHARS Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	ALDERGROVE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	027	24	19	360	01	000·4	34	28	120	10	00·2	26	26	Calm		02·6	35	34		
1000	01·0					00·3					00·8	27	27			-00·5				
950		27	20	002	09		30	23	113	12		28	28	113	12		33	33		
900	28·3	21	14	341	08	27·8	24	11	117	16	28·1	23	22	130	11	27·8	29	29		
850		14	07	338	06		19	04	124	15		18	06	147	11		25	25		
800	58·1	08	-01	335	06	57·9	18	03	139	09	58·2	17	-09	149	07	58·4	21	19		
750		01	-07	333	07		10	-11	170	07		12	-17	154	06		15	11		
700	90·9	-06	-15	331	07	91·2	03	-16	240	06	91·8	05	-24	158	05	92·2	09	03		
650		-14	-24	329	07		-05	-25	297	09		-02	-29	162	05		02	-06		
600	128	-23	-33	325*	09	129	-13	-33	314	14	129	-10	-26	266	06	130	-06	-15		
550		-32	-43	321	18		-22	-40	320	13		-19	-29	294	13		-14	-24		
500	169	-41		311	21	171	-33	-51	309	22	172	-30	-39	294	18	173	-24	-34		
450		-50		314	27		-45		310	35		-42		293	19		-36	-46		
400	218	-58		308	31	221	-55		314	45	224	-52		291	27	224	-47			
350		-68		316	37							-65		291	22		-60			
300	278	-73		307	37						283	-77		297	36	285	-70			
250		-75		302	36							-81		284	38		-73			
200	361	-73		299	25						365	-75		296	35	369	-75			
170		-74		300	32							-72		296	37		-75			
150		-71		302	36							-72		297	34		-75			
130		-74		295	37							-73		300	36		-74			
110		-78		295	39												-73			
100																511	-72			
90																	-71			
80																				
70																				
60																				

Pressure mb	LIVERPOOL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	DOWNHAM MARKET Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	LARKHILL Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	CAMBORNE Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	VALENTIA Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	006	34	31			01·2	32	29	140	10	04·4	33	31	180	15	029	43	39	315	05					
1000	00·1					01·8	31	28			01·1					00·7									
950		33	30				32	23	195	25		30	29	171	25		40	34	306	18					
900	27·6	30	27			29·4	26	22	185	22	28·6	26	20	183	29	28·9	33	29	309	18					
850		25	22				23	15	179	20		25	23	199	25		27	24	312	20					
800	58·0	19	17			59·8	18	11	191	17	59·0	22	19	207	23	59·6	23	17	312	20					
750		14	10	for Winds			13	08	203	16		17	14	225	15		17	08	309	21					
700	91·7	08	02			93·4	08	03	229	15	92·9	11	08	233	15	93·6	11	-02	307	24					
650		01	-10	See Page			01	-05	243	15		04	00	243	15		05	-17	305	24					
600	150	-08	-18			131	-06	-12	250	16	131	-03	-09	258	14	132	-03	-27	301	25					
550		-18	-27	3.			-15	-21	264	18		-12	-19	264	16		-12	-31	300	26					
500	173	-24	-38			175	-25	-30	271	18	175	-21	-27	271	15	175	-22	-37	301	27					
450		-36	-48				-37	-43	280	21		-30	-40	270	19		-33	-44	291	27					
400	223	-48				225	-47		285	24	226	-40	-53	289	24	226	-45		291	29					
350		-61					-56		288	24		-53		287	30		-56		284	28					
300	284	-73				287	-69		286	28	288	-67		288	28	288	-69		292	36					
250		-79					-82		291	36		-79		297	36		-70		308	44					
200	367	-74				369	-74		290	34	371	-68		293	38	372	-70		307	46					
170		-71					-70		293	36		-68		293	35		-69		301	36					
150		-70					-67		293	36		-66		296	39		-69		301	36					
130		-70					-69		293	37		-67		296	36		-68		297	46					
110		-72					-71		289	32		-68		279	33		-68		296	21					
100	511	-73				513	-72		288	30	516	-69		275	35	516	-71								
90		-75					-72		292	30		-70		291	41	096	-72								
80		-77										-72		283	53	mb)									
70												-74													
60																									

Isothermal 777 - 764 mb 16°

Inversion 970 mb 31° - 950 mb 32°
Isothermal 885 - 865 mb 24°

Isothermal 900 - 857 mb 26°

Inversion 994 mb 24° - 974 mb 29°
296 .. -74° - 288 .. -75°

Isothermal 840 - 800 mb 18°

Inversion 1002 mb 26° - 983 mb 31°
833 .. 16° - 786 .. 17°

Inversion 992 mb 43° - 981 mb 44°
Isothermal 859 - 840 mb 27°

	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Tropopause	I 260 mb - 79° 30,700'	N.R.	I 272 mb - 84° 30,300'	I 278 mb - 73° 30,000'	I 262 mb - 81° 31,200'	I 239 mb - 85° 33,300'	I 260 mb - 80° 31,700'	II 300 mb - 69° 28,800'	

HMSO Press, MO, Dunstable.

No. 11599.

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON.

Sunday 31st December 1950 Page 1

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

03h. G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.	03h. G.M.T.
M.S.L.	1001·6 mb	996·4 mb	998·7 mb	998·5 mb	997·3 mb	1004·5 mb	1002·1 mb	1002·4 mb	1001·4 mb
Surf	991·3 mb	994·7 mb	997·8 mb	988 mb	995·2 mb	999·9 mb	986·0 mb	991·7 mb	1000 mb
Freezing	988 mb	960 mb	998 mb	965 mb	922 mb	Surf. mb	986·0 mb	885 mb	910 mb

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	24	21	Calm	
1000	0·2				
950		29	26	009	05
900	21·5	21	19	023	03
850		16	12	020	03
800	57·4	11	06	316	02
750		05	00	220	03
700	90·5	-03	-12	239	03
650		-12	-20	290	06
600	127	-19	-27	305	11
550		-25	-36	315	15
500	170	-32	-44	321	41
450		-42		311	66
400	219	-54		311	56
350		-66		305	57
300	279	-75		309	40
250		-78		299	29
200	363	-73		297	25
170		-71		294	28
150		-72		294	34
130		-73		293	34
110		-75		293	42
100	506	-75		296	40
90		-78		300	42
80					
70					
60					

Inversion 988mb. 24°–964mb. 30°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
1000	00·4	36	26	140	10
950	-1·0	32	22	143	09
900	26·6	27	18	152	09
850		21	09	157	15
800	56·9	18	-01	150	17
750		12	-11	155	18
700	90·5	06	-14	177	16
650		-02	-10	190	15
600	128	-10	-17	190	15
550		-19	-26	190	14
500	171	-29	-35	201	15
450		-41		206	17
400	221	-53		215	16
350		-67		227	15
300	281	-81		245	27
250		-78		282	29
200	363	-71		273	26
170		-69		281	30
150		-70		286	31
130		-72			

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf	00·2	24	23	Calm	
1000	-0·3				
950		27	25	094	07
900	27·1	27	20	122	13
850		21	18	127	14
800	57·3	17	09	124	17
750		11	01	126	18
700	90·1	05	-05	140	12
650		-02	-14	181	07
600	128	-11	-21	148	03
550		-19	-31	122	02
500	171	-27	-39	123	02
450		-36	-52	169	02
400	222	-48		247	13
350		-62		248	24
300	283	-75		266	28
250		-79		283	33
200	365	-74		282	35
170		-70		287	34
150		-69		287	33
130		-69		290	36
110		-70		292	36
100	509	-71		292	35
90		-73		293	35
80		-75		292	35
70		-77			
60	(665 mb)	-77			

Inversion 798mb. 24°–982mb. 31°
950mb. 27°–911mb. 28°
Isothermal 820–792mb. 17°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf	02·6	33	33		
1000	-0·5				
950		31	30		
900	27·2	29	26		
850		24	20		
800	57·7	18	13		
750		14	10		
700	91·4	08	-05		
650		00	-11		
600	129	-09	-15		
550		-18	-26		
500	172	-28	-38		
450		-37	-50		
400	223	-48			
350		-60			
300	284	-72			
250		-73			
200	367	-72			
170		-67			
150		-68			
130		-69			
110		-71			
100	512	-72			

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
1000	00·6	35	34	200	08
950	-0·8	36	34	247	21
900	27·1	29	26	257	25
850		25	21	265	27
800	57·5	20	16	273	25
750		14	09	270	23
700	91·2	08	-01	263	23
650		00	-10	264	19
600	129	-08	-18	268	19
550		-17	-21	279	23
500	172	-26	-60	271	25
450		-38	-48	259	24
400	222	-50		267	21
350		-60		273	32
300	284	-72		282	32
250		-76		286	39
200	367	-68		289	39
170		-68		295	38
150		-68		287	33
130		-68		287	33
110		-71		298	40
100	512	-73		288	41
90		-73		284	40
80		-73			
70					
60					

Inversion 995mb. 35°–985mb. 39°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
1000	01·2	32	25	180	14
950	1·2	26	22	191	29
900	28·7	24	17	187	32
850		22	18	199	24
800	59·0	18	13	214	21
750		13	08	215	23
700	92·6	08	02	225	23
650		00	-06	230	27
600	130	-06	-13	234	23
550		-16	-23	234	23
500	174	-27	-34	234	20
450		-38	-45	254	20
400	224	-48		263	24
350		-60		264	28
300	285	-73		271	23
250		-77		281	25
200	368	-70		288	35
150		-68		287	34
130		-70		284	35
110		-69		289	32
100		-70		287	31
90	512	-70		286	38
80		-73		288	41
70		-72			
60					

Inversion 934mb. 24°–915mb. 26°
862mb. 20°–850mb. 22°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
1000	04·4	32	32	160	07
950	0·5	29	29	186	17
900	28·0	28	28	226	18
850		25	25	261	17
800	58·4	21	18	269	13
750		15	14	272	13
700	92·2	09	07	278	15
650		01	-02	275	18
600	130	-07	-12	279	22
550		-14	-29	285	31
500	173	-24	-36	273	21
450		-35	-44	263	22
400	224	-46		257	25
350		-57		285	31
300	286	-69		296	37
250		-77		294	39
200	369	-70		294	38
150		-71		292	34
130	(13 mb)	-69		293	39
110		-71		287	37
100		-70			

Inversion 924mb. 27°–900mb. 28°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
1000	02·9	43	38	293	10
950	0·6	40	34	305	24
900	28·7	34	30	306	23
850		27	23	305	25
800	59·3	23	18	298	25
750		16	10	293	24
700	93·1	10	-01	288	20
650		03	-18	283	24
600	131	-04	-25	284	26
550		-12	-31	289	31
500	175	-22	-42	309	36
450		-32	-50	303	42
400	226	-44		304	48
350		-57		298	48
300	287	-71		296	52
250		-80		299	52
200	370	-78		297	44
150		-77		297	43
130		-73		293	36
110		-74		285	30
100		-75		296	40
90	512	-76		294	36
80		-75		297	35
70		-77		297	45
60	(675 mb)	-78			

Inversion 992mb. 43°–983mb. 44°
Isothermal 840–822mb. 26°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
VALENTIA					
1000	00·3	39	34		
950	0·4	39	34		
900		37	33		
850	28·3	30	26		
800		24	20		
750	58·8	17	12		
700		11	-01		
650	92·3	06	-08		
600		-02	-14		
550	130	-11	-28		
500		-18	-25		
450	173	-25	-39		
400		-35	-51		
350	223	-46			
300		-60			
250	285	-73			
200		-82			
150	867	-74			
130		-72			
110		-72			
100		-75			
90		-74			
80	510	-75			
70	(995 mb)	-76			
60					

Inversion 1000mb. 29°–977mb. 40°

Tropopause	I 316mb. -77° 26,900′	I 303mb. -82° 27,800′	I 263mb. -80° 31,000′	II 275mb. -75° 30,300′	I 250mb. -76° 32,100′	I 269mb. -80° 30,600′	I 242mb. -78° 33,000′	II 250mb. -80° 32,400′	II 267mb. -81° 31,000′

09h. G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE
Pressure: Time	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.	09h. G.M.T.
M.S.L.	999·7 mb	993·0 mb	994·3 mb	mb	995·2 mb	1001·4 mb	1000·1 mb	1000·4 mb
Surf	989·3 mb	991·3 mb	993·4 mb	mb	993·1 mb	996·9 mb	983·6 mb	989·9 mb
Freezing	989 mb	958 mb	950 mb	mb	910 mb	Surf. mb	933 mb	893 mb

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LERWICK					
Surf	02·7	26	22	Calm	
1000	-0·1				
950		25	22	090	03
900	27·1	18	16	090	03
850		12	10	094	05
800	56·7	07	02	102	06
750		00	-08	097	03
700	89·5	-08	-18	Calm	
650		-15	-26	308	16
600	126	-18	-29	312	30
550		-24	-36	297	39
500	168	-39	-43	309	42
450		-49		317	45
400	217	-61		300	45
350		-76		296	47
300	276	-83		299	39
250		-83		294	32
200	357	-78		280	23
170		-78		288	25
150		-79		292	27
130		-80		286	28
110		-82		285	33
100					
90					
80					
70					
60					

Inversion
989mb. 26°–971mb. 27°
317mb. -84°–309mb. -83°
Isothermal
650 – 630mb. -15°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
STORNOWAY					
1000	00·4	35	33		
950	-2·1	31	28		
900	25·5	27	24		
850		22	20		
800	55·8	17	13		
750		12	08		
700	89·4	06	01		
650		-03	-09		
600	127	-11	-18		
550		-21	-28		
500	170	-33	-40		
450		-45			
400	219	-58			
350		-70			
300	278	-75			
250		-79			
200	361	-74			
150		-73			
130		-75			
110		-76			

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LEUCHARS					
Surf	00·2	30	29	Calm	
1000	1·5				
950		32	31	112	09
900	26·1	27	25	101	12
850		21	19	101	19
800	56·3	15	11	104	18
750		11	05	111	12
700	90·0	06	-04	123	12
650		01	-16	144	09
600	127	-08	-28	157	11
550		-18	-34	160	15
500	170	-28	-40	183	12
450		-39	-49	218	10
400	220	-52		231	12
350		-62		248	15
300	281	-73		248	15
250		-80		259	28
200	364	-74		271	32
170		-71		269	29
150		-70		281	28
130		-70		282	30
110		-70		288	31
100	508	-71		286	33
90		-73		283	36
80		-74		283	36
70	(777 mb)	-74			
60					

Inversion
993mb. 30°–972mb. 34°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
ALDERGROVE					
Surf					
1000					
950					
900					
850					
800					
750					
700					
650					
600					
550					
500					
450					
400					
350					
300					
250					
200					
170					
150					
130					
110					
100					
90					
80					
70					
60					

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LIVERPOOL					
1000	00·6	35	34	240	15
950	-1·8	36	34	261	19
900	26·6	31	28	278	19
850		25	21	282	16
800	57·1	20	15	282	18
750		14	09	285	16
700	90·8	07	01	268	17
650		-02	-10	267	18
600	128	-10	-23	263	19
550		-17	-34	265	24
500	171	-26	-42	272	26
450		-37	-53	271	27
400	222	-48		274	36
350		-59		274	44
300	283	-73		277	45
250		-79		276	39
200	366	-69		275	36
170		-71		279	39
150		-69		277	34
130		-70		281	30
110		-72			
100					
90					
80					
70					
60					

Inversion 993mb. 35°–968mb. 38°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
DOWNHAM MARKET					
1000	01·2	29	28	135	14
950	0·4	26	24	189	23
900	27·8	25	24	220	22
850		24	23	238	15
800	58·2	17	16	252	14
750		12	08	263	14
700	91·8	06	02	255	19
650		-01	-07	257	16
600	129	-10	-16	238	19
550		-18	-29	242	21
500	172	-27	-41	254	22
450		-38	-52	267	21
400	223	-50		270	23
350		-60		284	30
300	284	-75		278	37
250		-81		275	36
200	866	-73		280	37
150		-72		281	37
130		-71		282	32
110		-73		285	35
100		-75		287	30
90	509	-75			
80					
70					
60					

Inversion 967mb. 25°–930mb. 27°
Isothermal 875–850mb. 24°

Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
LARKHILL					
1000	04·4	32	32	190	05
950	0·0	32	32	235	10
900	27·6	28	28	263	14
850		23	23	272	14
800	57·9	18	17	267	14
750		13	10	273	16
700	91·7	08	05	264	20
650		01	-01	255	20
600	129	-06	-17	262	20
550		-12	-27	278	24
500	173	-22	-39	279	26
450		-33	-47	279	32
400	224	-44		282	35
350		-56		285	37
300	285	-69		277	39
250		-80		276	45
200	369	-70		280	46
150		-70		279	36
130		-71		279	37
110		-69		281	33
100		-68		280	32
90	513	-69		272	31
80		-70		280	36
70	(987 mb)	-69			
60					

Isothermal
984–933mb. 32°

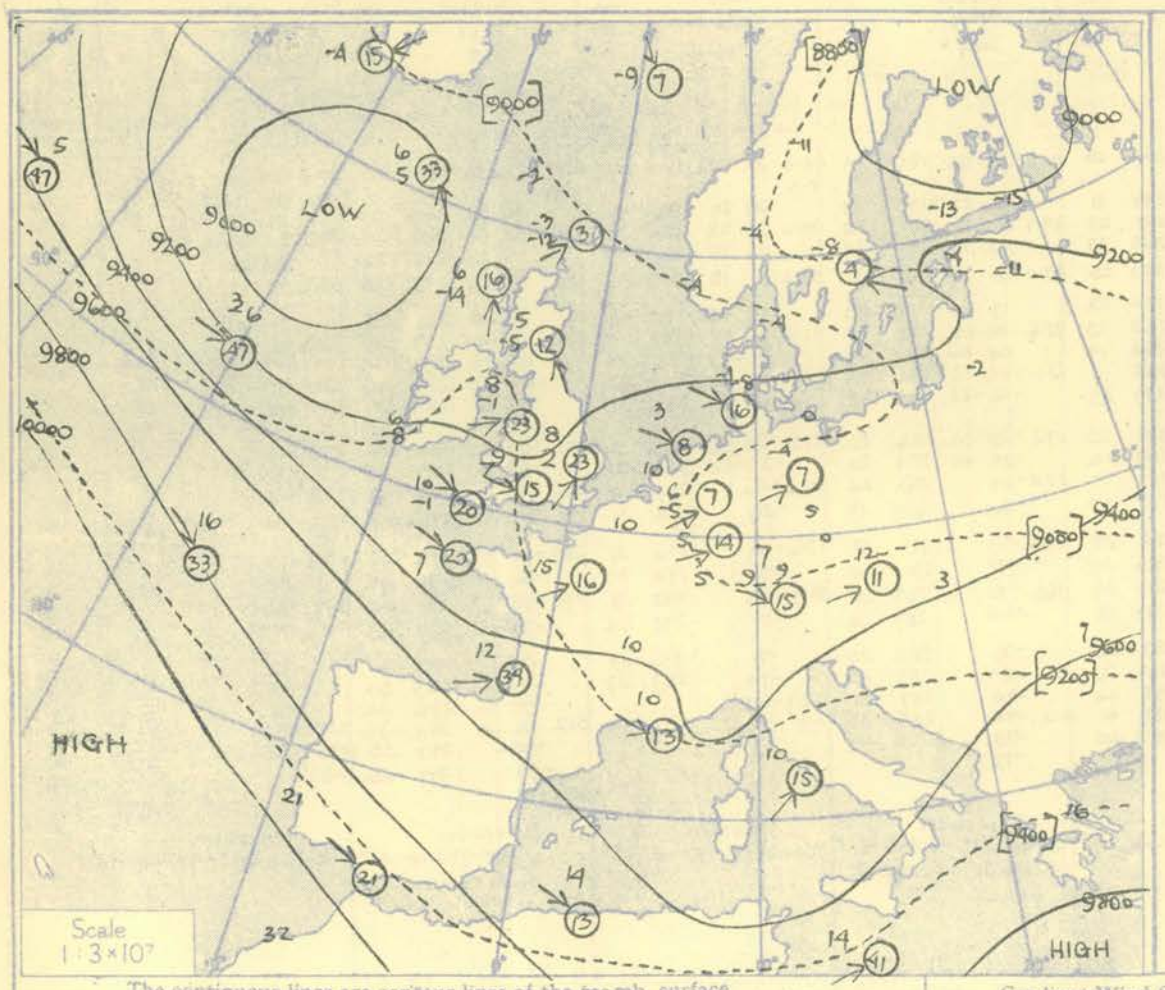
Pressure mb	Height ft./100	°Temp. °F.	°Dew °F.	Wind Dir. °	Wind Vel. knots
CAMBORNE					
1000	02·9	37	34	Calm	
950	0·2	40	33	265	18
900	28·3	33	29	268	19
850		27	21	274	20
800	58·9	21		281	18
750		14	03	276	24
700	92·0	07	00	270	27
650		03	-07	264	29
600	131	-04	-19	271	27
550		-11	-23	266	30
500	174	-20	-36	263	05
450		-32	-47	265	38
400	225	-42		270	46
350		-56		271	52
300	287	-71		276	50
250		-77		276	54
200	370	-71		276	45
150		-70		276	43
130		-69		281	39
110		-68		277	34
100	(720 mb)	-68			
90					
80					
70					
60					

Inversion
990mb. 37°–968mb. 42°
678mb. 04°–665mb. 05°

Tropopause	I 272mb. -91° 29,600′	I 298mb. -85° 27,500′	II 267mb. -80° 30,500′		II 281mb. -79° 29,700′	I 262mb. -83° 31,200′	I 250mb. -80° 32,300′	II 280mb. -78° 30,000′	

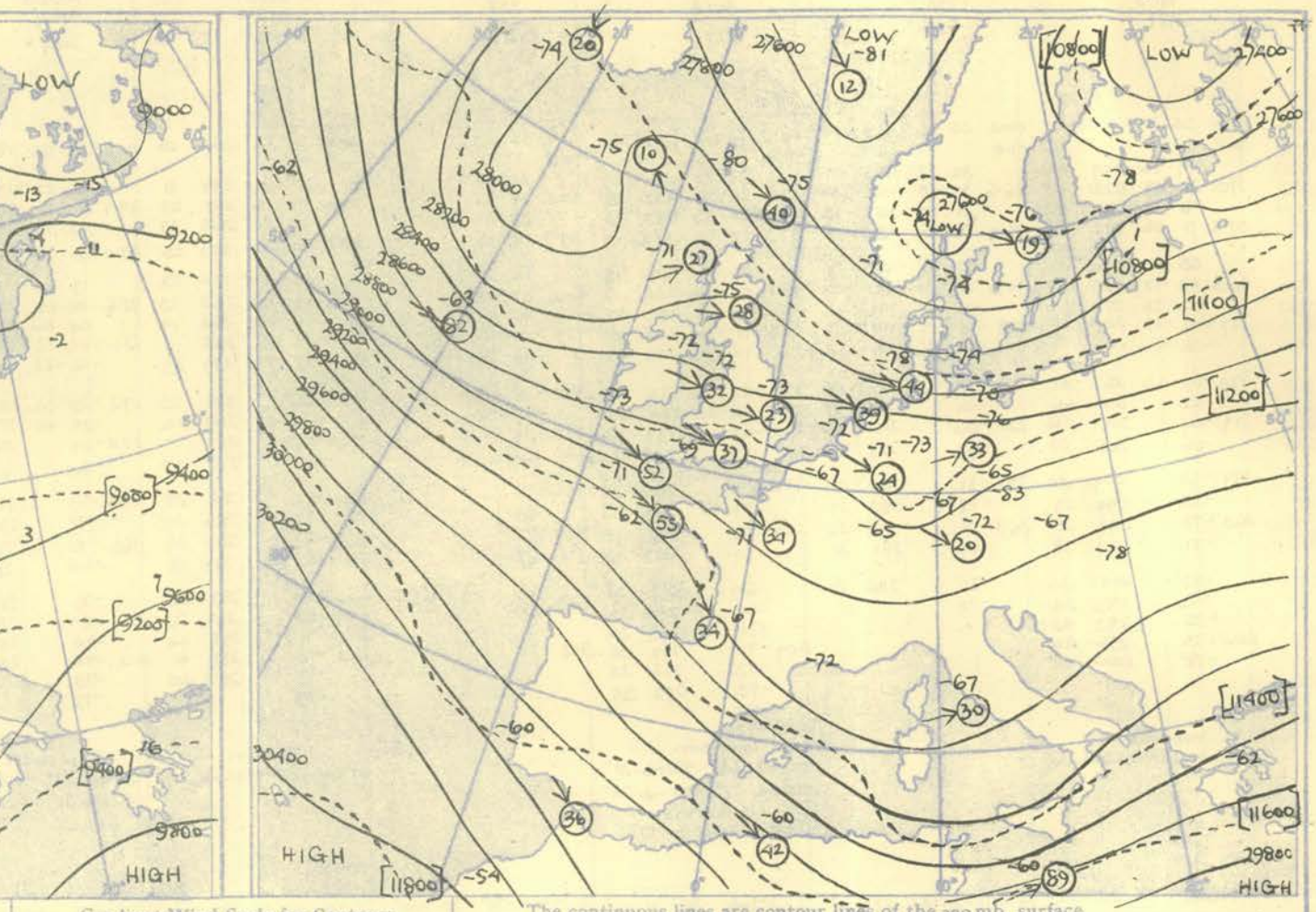
Sunday 31st. December 1950

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.

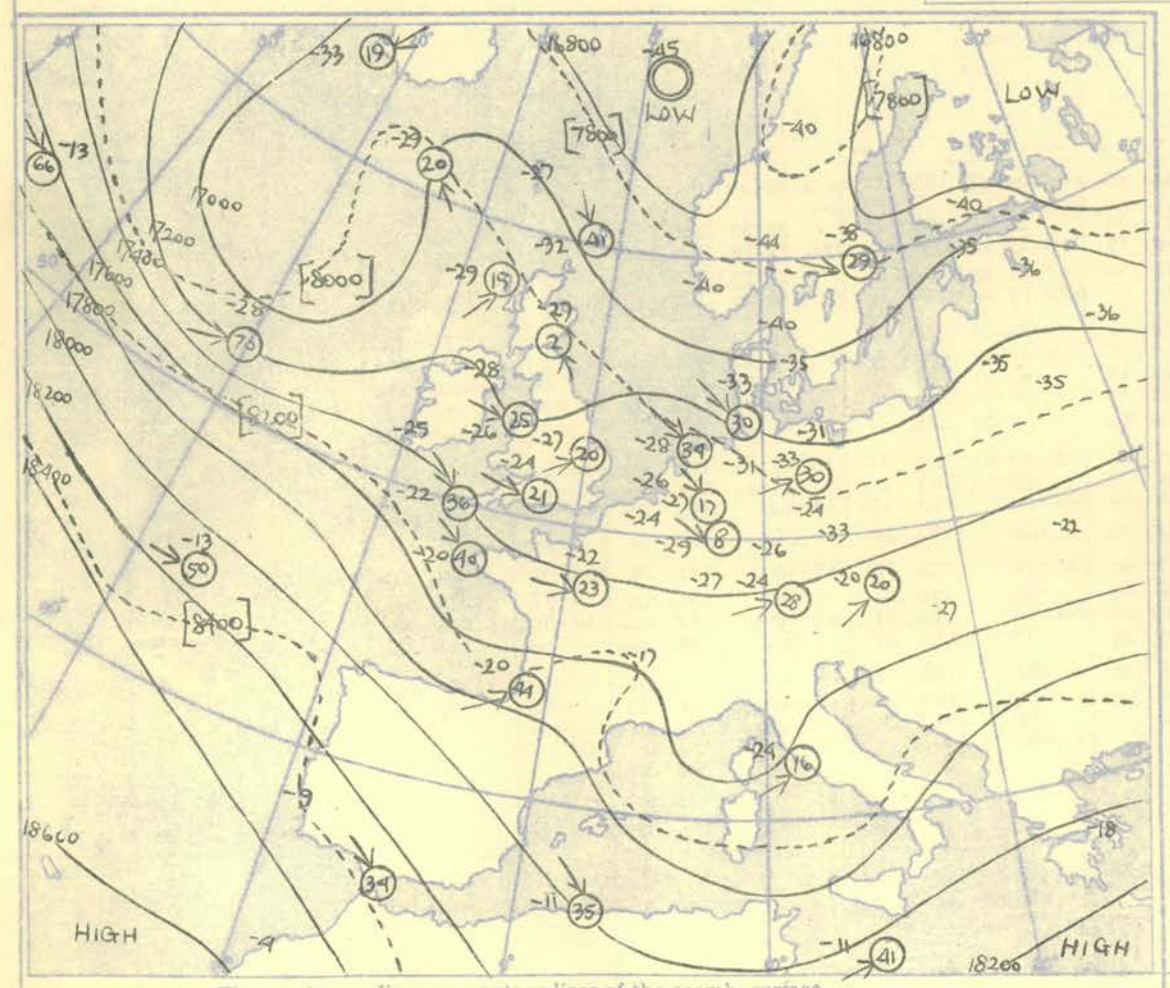


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

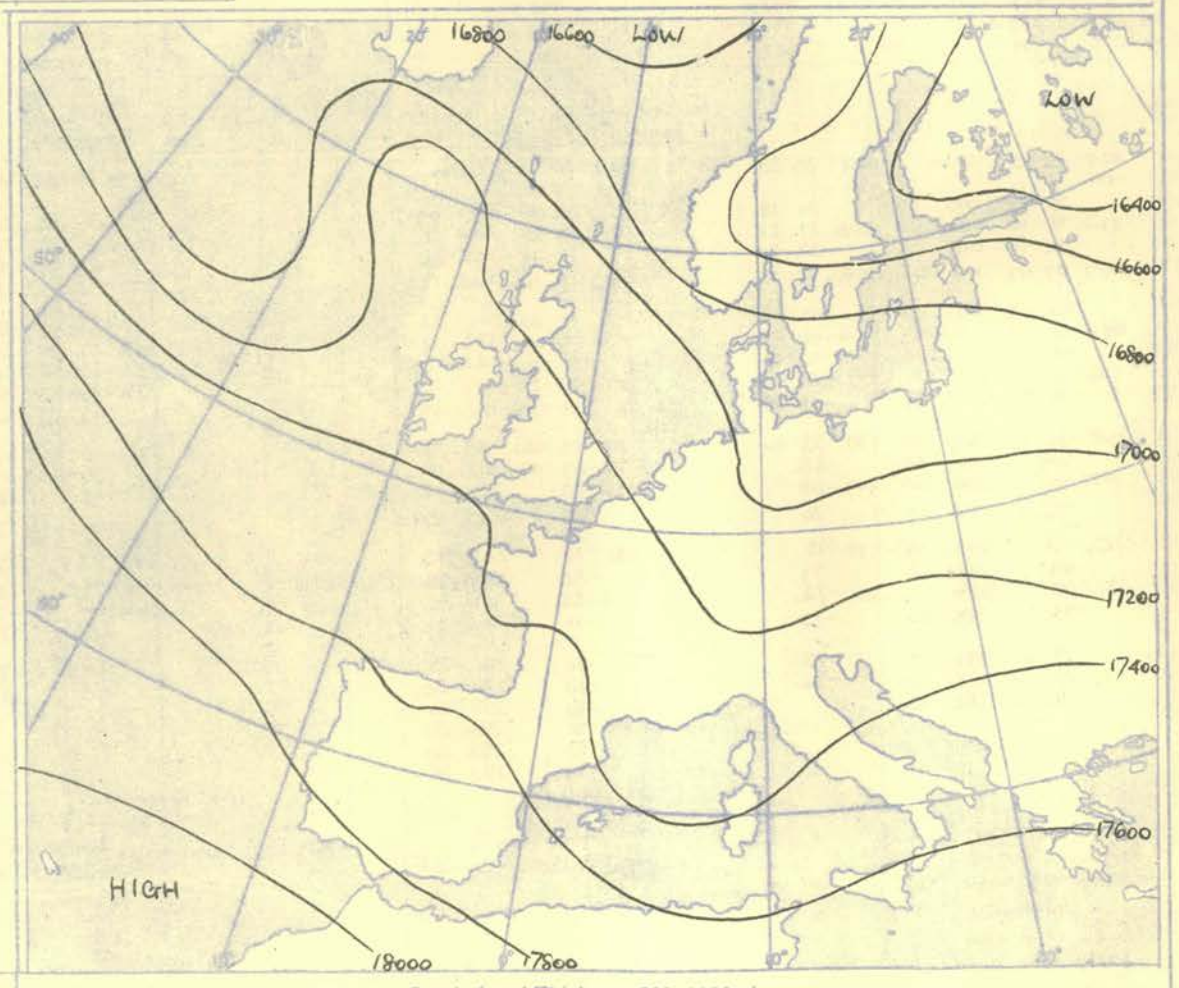
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.



The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500 – 300 mb



The continuous lines are contour lines of the 500mb. surface
The dotted lines are isopleths of the thickness of the layer 700 – 500 mb.



Isopleths of Thickness 500-1000mb.

F

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

	43.2N. 17.0W.			39.5N. 12.2W.		
Time	12h.			15h.		
M.S.L. mb	1014			1015		
Surf mb	1011			1011		
Freezing mb	830			825		
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Height ft./100	°Temp. °F.	Dew °F.
Surf		50	39		54	49
1000	3.7	49		4.0	53	
950		43	40		46	46
900		37	34		42	42
850		35	24		34	
800		27	25		31	
750		25			29	
700	97.4	17		98.5	21	
650		15			15	
600		07			06	
550		00			-03	
500	181	-08		182	-11	
450						
400						
350						
300						
250						
200						
170						

Cloud.
2/8 Cu 900 - 700mb.
2/8 Sc 900 - 720mb.
2/8 Ci N.R.
Surf-wind:- W. 17-21Kts.

Cloud.
1/8 Cu 960 - 900mb.
4/8 Sc 870 - 810mb.
2/8 Cu 850 - 790mb.
1/8 Ci N.R.
Surf-wind:- W. 6-10kts.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Collinstown		Aldergrove		Valentia	
Time	03h.		1030h.		15h.	
Type			Pilar			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	260	14	Calm		310	18
1,000	290	19	182	07	280	23
2,000	300	26	186	10	280	27
3,000	300	23	190	11	280	25
4,000	300	23	210	12	280	22
5,000	300	19	218	11	280	22
6,000	290	19	219	15	290	23
8,000	290	20	222	13	290	25
10,000	(7,000')		224	12	300	20
14,000			246	18	280	31
18,000			241	20	260	26
24,000			230	21	310	33
30,000			232	29	270	36
40,000			274	32	280	39
50,000			280	45		

NEPHOSCOPE OBSERVATIONS

Place

Time Type

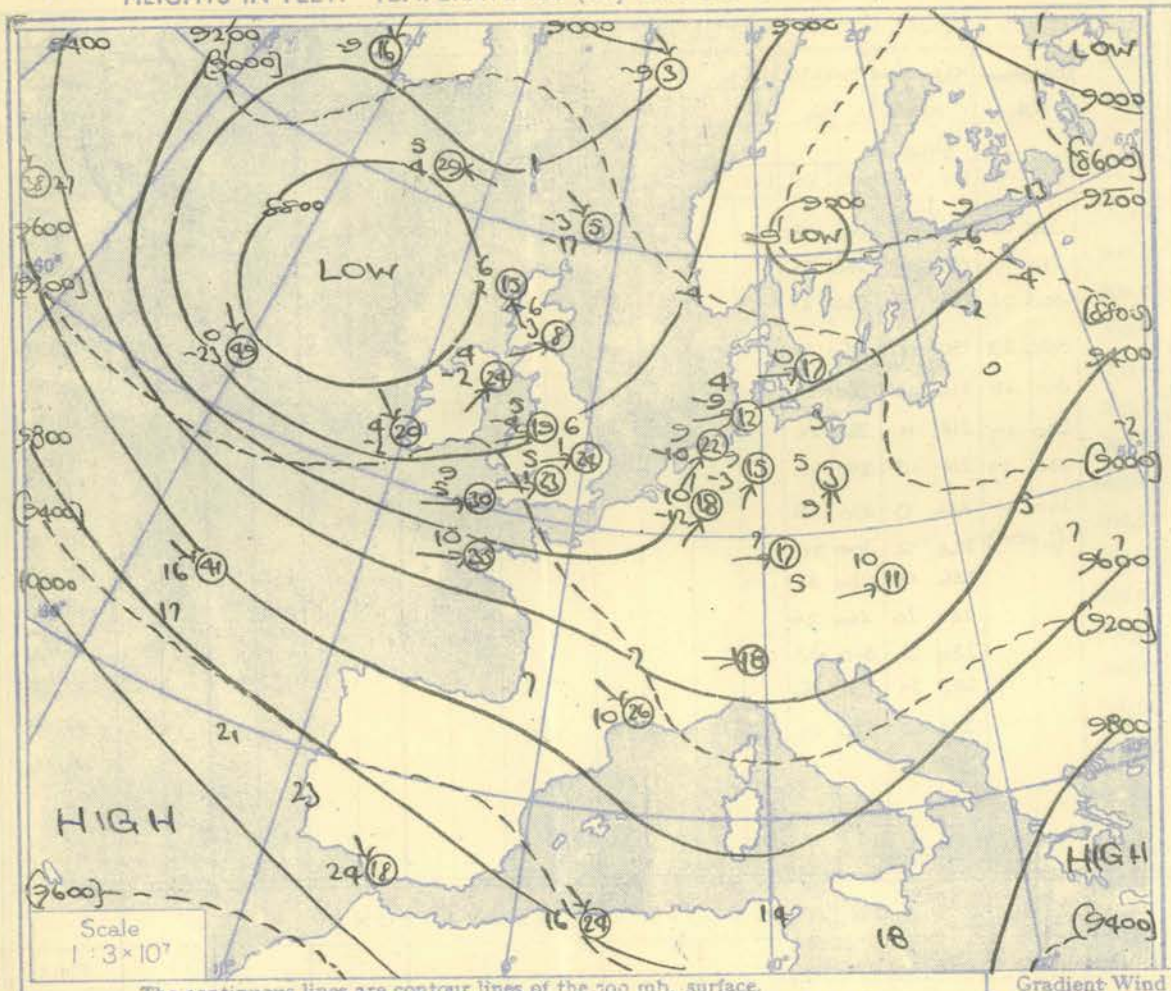
Dir. Vel.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

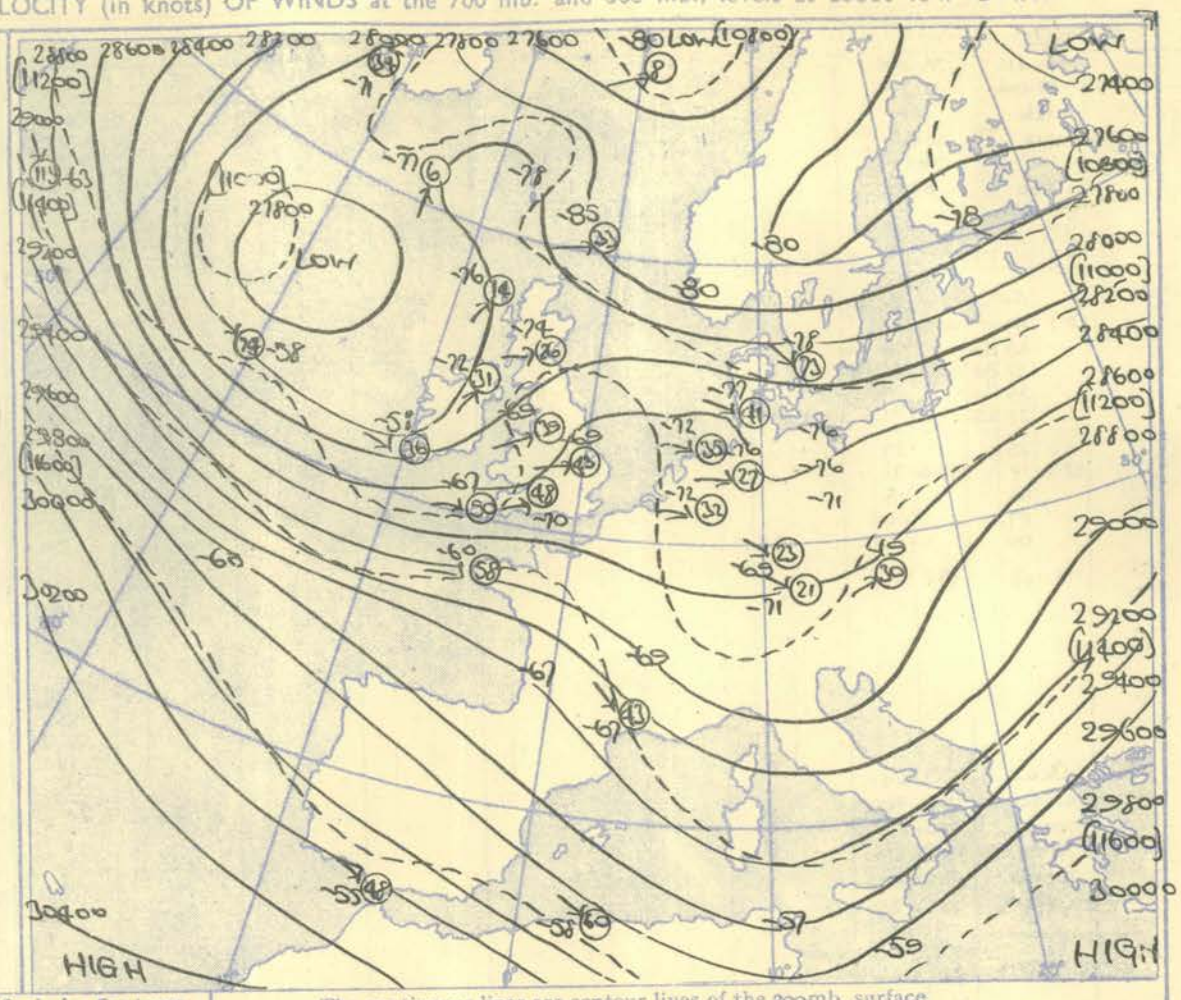
Ship	Weather Explorer					Weather Explorer					Weather Explorer					Weather Explorer				
Lat/Long	61°N 13.7°W					61.1°N 13.9°W					61.1°N 13.9°W					61.1°N 14.2°W				
Time G.M.T.	03hrs					09hrs					15hrs					21hrs				
M.S.L. mb	991					990					990					991				
Surf mb	991					990					990					991				
Freezing mb	925					970					900					910				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	~	37	36	100	27	~	38	38	085	34	~	39	34	070	27	~	41	30	045	28
1000	-2.4					-2.7					-2.7					-2.4				
950		34	34	104	39		29	29	092	42		38	34	086	36		37	31	070	40
900	25.4	30	30	107	40	25.0	24	24	092	47	25.3	32	30	078	34	25.6	30	26	072	37
850		25	25	115	37		19	18	093	42		24	23	076	36		24	17	070	34
800	56.0	19	18	125	35	55.1	13	12	086	43	55.8	18	17	078	34	56.0	17	11	070	30
750		13	12	130	31		07	06	094	41		11	10	085	32		11	06	069	27
700	90.0	06	05	136	33	88.3	00	-2	098	32	89.3	05	04	092	29	89.5	05	-3	074	23
650		-2	-3	141	33		-7	-9	055	29		-2	-3	086	22		-3	-11	077	23
600	127	-9	-11	140	30	125	-16	-19	054	25	127	-11	-13	072	18	127	-12	-22	065	24
550		-19	-21	136	29		-25	-28	030	13		-20	-23	073	15		-22	-32	067	18
500	170	-29	-31	143	20	168	-35	-38	088	21	170	-30	-33	073	11	170	-32	-41	070	11
450		-41		157	26		-47		123	19		-41		076	10		-44		071	07
400	220	-53		154	27	217	-59		132	17	220	-54		080	07	219	-57		027	04
350		-66		142	18		-63		140	08		-65		208	03		-68		265	03
300	280	-75		125	10	277	-79		172	06	280	-77		184	06	279	-80		272	01
250		-72		253	04		-75		335	05		-77		222	03		-78		021	05
200	364	-63		302	11	360	-71		328	05	363	-70		006	06	362	-73		323	15
170		-66		299	15		-72					-70		308	13		-72		338	22
150		-67		202	20		(195)					-65		309	20		-75		332	26
130		-69		303	11							-70		312	22		-79		296	24
110		-71		294	23							-74		301	31		-81		298	27
100	509	-73		292	24						507	-74		288	37		-80			
90		-77		296	25							-78		285	38		(105)			
80		-80		298	29							-79								
70		-80										-81								
60		(78)										-86								
											(50)	-89								
Tropopause	I 274 mb -76° 29900'					I 257 mb -82° 31000'					I 290 mb -78° 28800'					I 288 mb -82° 28800'				

Ship	Weather Recorder					Weather Recorder					Weather Recorder					Weather Recorder				
Lat/Long	52.4°N 20.0°W					52.4°N 20.3°W					52.6°N 20.3°W					52.7°N 20.3°W				
Time G.M.T.	03hrs					09hrs					15hrs					21hrs				
M.S.L. mb	1002					996					990					991				
Surf mb	1002					996					990					991				
Freezing mb	940					940					930					905				
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. °	Wind Vel. knots
Surf	~	41	41	290	30	~	40	34	295	23	~	39	34	340	29	~	44	38	340	24
1000	0.6	41	41			-1.0					-2.6					-2.3				
950		33	29	288	34		33	28	290	35		34	27	330	36		39	32	309	27
900	28.4	27	20	284	42	26.8	26	22	290	37	25.2	28	20	330	44	24.8	31	24	304	26
850		22	14	277	35		18	15	290	39		20	10	330	45		26	18	308	36
800	58.7	16	06	275	45	56.8	11	03	290	42	55.5	14	01	330	47	55.4	20	04	311	37
750		10	01	277	46		05	02	292	44		08	-9	330	48		13	00	310	39
700	92.2	03	-6	277	47	89.9	-1	-7	294	44	88.8	00	-23	330	49	89.7	08	-6	313	42
650		-13	-13	273	51		-8	-18	299	45		-7	-30	330	63		00	-14	310	48
600	130	-11	-25	270	55	127	-17	-27	303	45	126	-14	-37	330	67	127	-10	-24	306	45
550		-17	-35	266	66		-26	-33	300	42		-23	-45	330	69		-19	-34	309	42
500	173	-28	-44	263	70	169	-36	-43	296	42	168	-32	-53	323	75	170	-31	-44	308	48
450		-36	-52	268	69		-47		295	52		-42		317	87		-40	-54	307	56
400	223	-45		272	81	219	-48		295	55	218	-51		314	78	220	-51		307	48
350		-55		272	78		-50		295	70		-53		310	79		-58		313	54
300	281	-63		272	82	281	-50		295	87	280	-58		304	79	281	-62		305	65
250		-67		272	73		-57		295	76		-56		298	75		-66		308	60
200	371	-67		272	66	369	-63		293	65	367	-59		287	66	366	-65		302	60
170		-63		272	54		-63		295	60		-67		284	66		-68		305	54
150		-67		272	54		-64		295	55		-68		281	60		-69		256	56
130		-69		272	57		-67		295	50		-69		281	69		-71		257	50
110		-70		272	52		-70		295	50		-70		281	68		-74		259	52
100	573	-71		272	54	514	-72		295	48	512	-71		286	64	510	-75		258	42
90		-72					-74		295	48		-71					-76		301	58
80		-74					-74		295	45		-72					-78			
70		-74					-74		295	42		-73					-80			
60		-74					-77		295	41		-74					-81			
							-75		295	45	(50)	-76				(50)	-82			
											(40)	-78								
	Isothermal Surf - 1000 mb 41°										Isothermal 455 - 436 mb -42°					Isothermal 855 - 840 mb 26°				
Tropopause	I 300 mb -63° 28500'					II 450 mb -47° 19500'					II 390 mb -34° 22100'					I 360 mb -59° 24300'				

HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

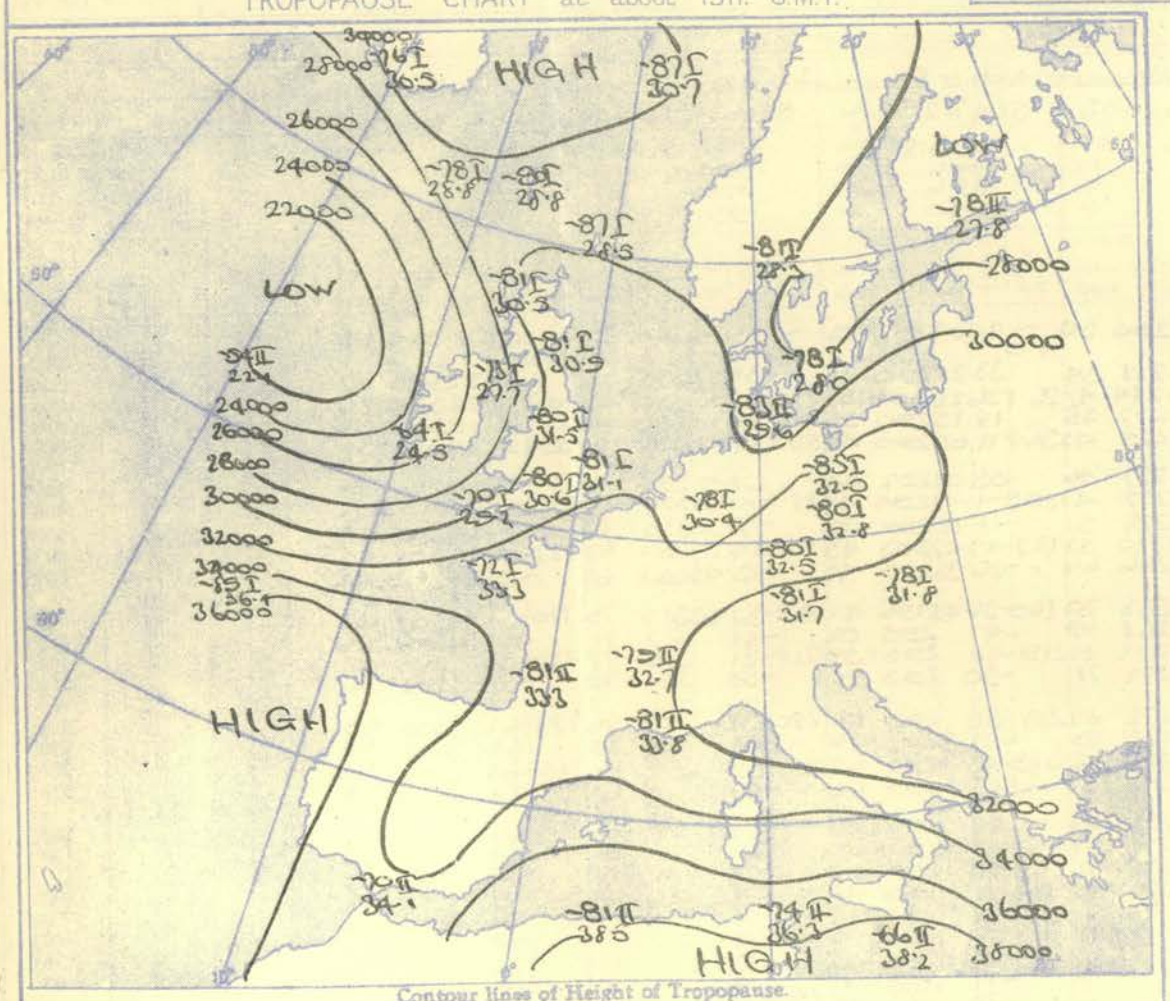


The continuous lines are contour lines of the 300mb. surface
The dotted lines are isopleths of the thickness of the layer 500 - 300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52½° N.

100 60 40 30 20 15 10 knots

TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The weakening warm ridge ahead of the cold tongue from Iceland to Biscay moved slowly east to envelope the British Isles.

The temperature ascents from Lerwick and the Weather Explorer at 60°N 18°W showed somewhat large and irregular fluctuations throughout the day.

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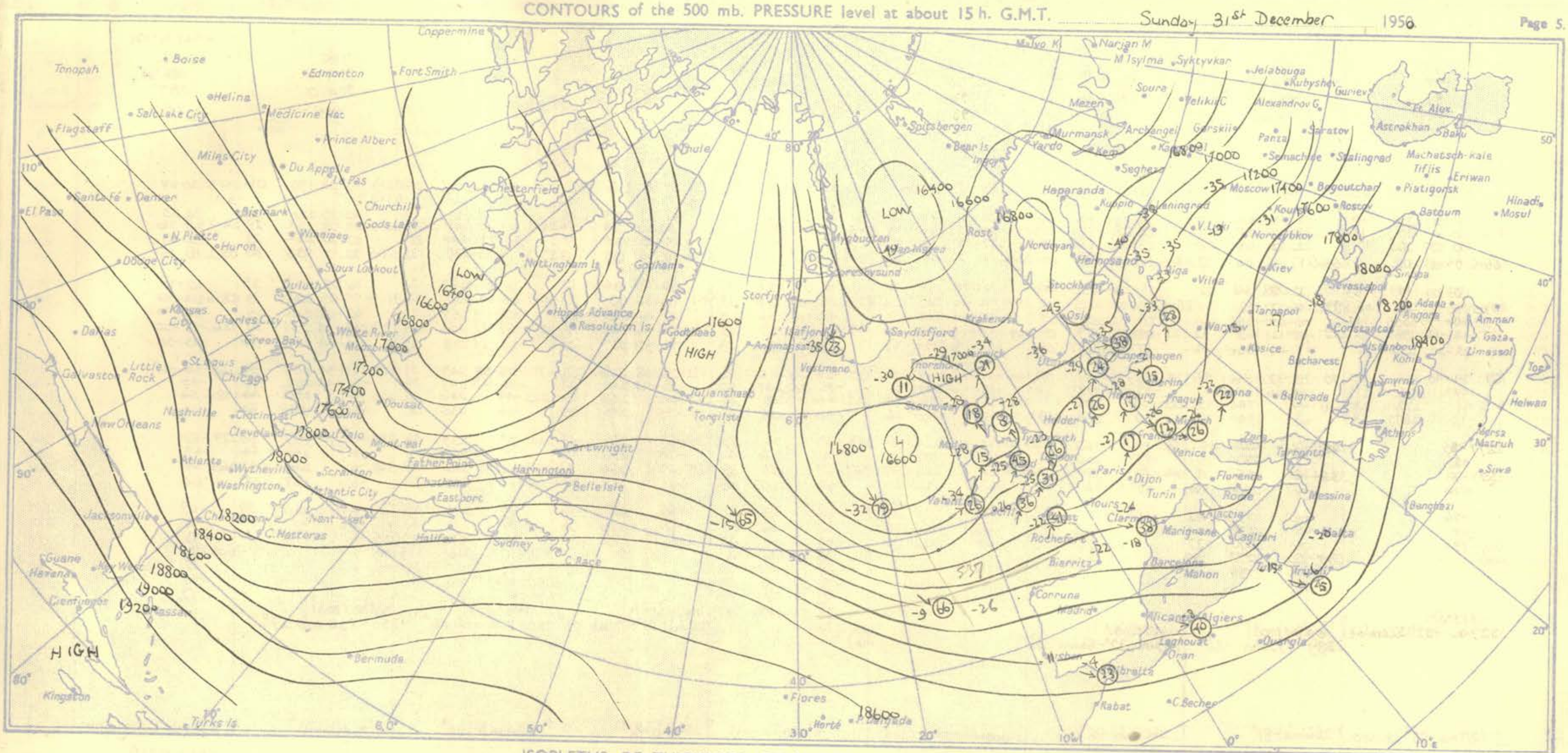
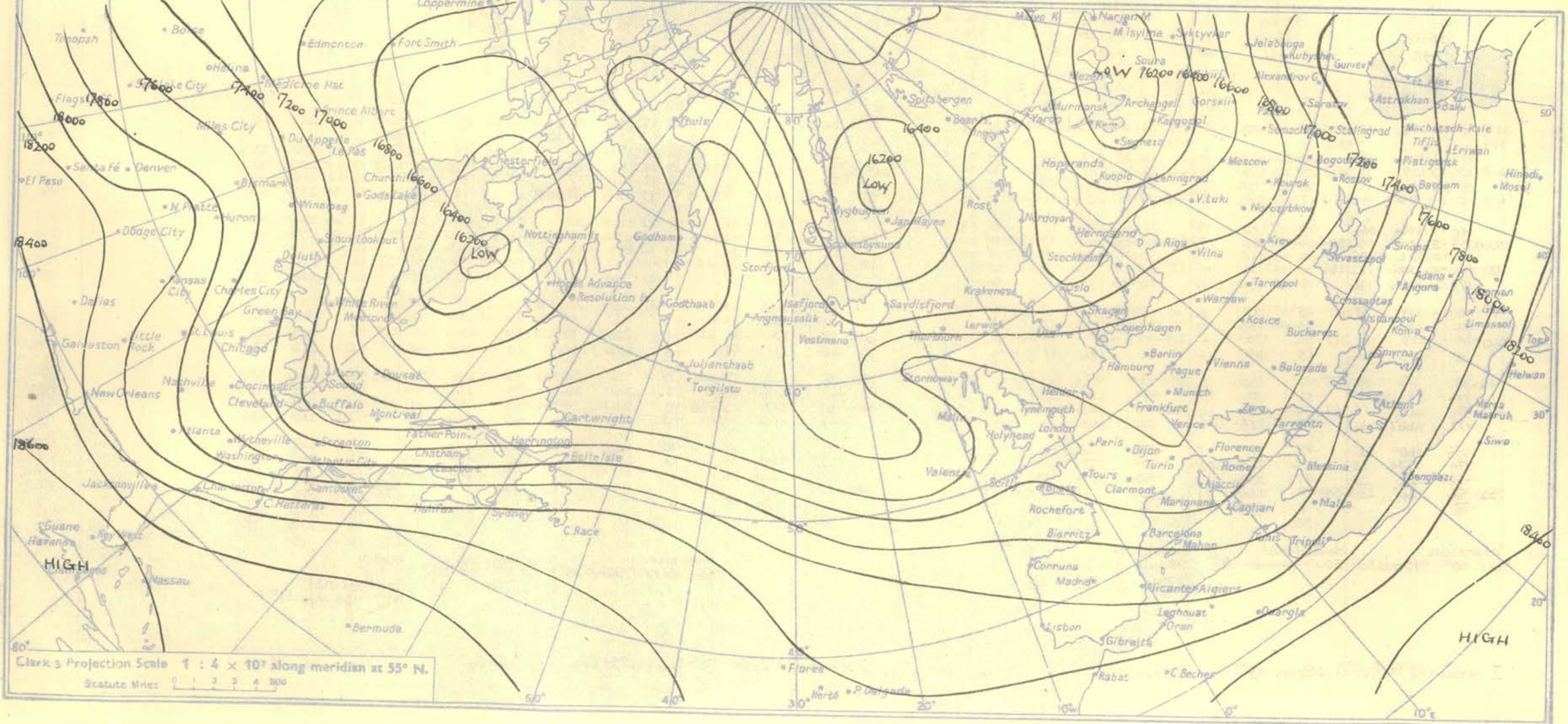
NELSON K. JOHNSON, K.C.B., D.Sc., Director.

CONTOURS of the 500 mb. PRESSURE level at about 15 h. G.M.T. Sunday 31st December 1950



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 31st December 1950



Page 6.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

15h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.	15h G.M.T.
Pressure: M.S.L.	997·5 mb	990·5 mb	990·3 mb	990·0 mb	992·4 mb	997·5 mb	996·6 mb	994·6 mb	988·6 mb
Pressure: Surf	987·4 mb	988·8 mb	989·4 mb	980 mb	990·3 mb	993·0 mb	980·3 mb	984·0 mb	987 mb
Pressure: Freezing	979 mb	940 mb	948 mb	930 mb	927 mb	Surf 992 mb	917 mb	885 mb	920 mb

Pressure mb	LERWICK Height ft./100	LERWICK Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	33	24	150	04	00·4	36	33	150	10	0·2	32	32	Calm		02·6	35	32	Calm	
1000	-00·7					-02·6					-2·6					-2·7	-	-		
950		28	20	132	10		35	30	134	18		32	32	174	06		34	30	198	12
900	26·8	20	13	130	11	26·2	28	25	147	18	25·1	28	28	179	03	25·1	28	23	190	19
850		13	07	130	11		22	20	152	20		23	22	161	05		23	18	192	18
800	56·5	09	-03	132	10	55·6	17	15	144	21	55·5	18	17	138	05	55·4	19	12	199	16
750		03	-10	149	03		12	08	140	21		11	05	185	04		12	05	196	15
700	89·5	-03	-17	291	05	89·2	06	02	150	15	89·0	06	-03	228	08	89·0	04	-02	203	24
650		-06	-19	305	14		-01	-05	164	10		-01	-12	201	07		-02	-09	203	19
600	127	-14	-22	298	16	127	-08	-12	163	12	127	-08	-20	179	09	127	-12	-19	209	17
550		-23	-30	272	21		-17	-21	156	14		-17	-28	167	09		-21	-28	222	12
500	169	34	-40	263	21	170	-28	-32	156	18	170	-28	-36	167	08	169	-29	-36	217	15
450		-47		266	21		-40	-45	164	17		-39	-48	192	10		-39	-46	222	24
400	218	-61		272	23	220	-49		174	12	220	-50		206	11	219	-51		216	24
350		-75		267	33		-63		194	12		-60		245	19		-62		200	26
300	277	-85				281	-76		202	14	281	-74		252	26	280	-72		206	31
250		-86					-77		234	15		-79		250	27		-68		232	26
200	359	-78				364	-68		255	18	364	-70		259	24	365	-64		253	27
170		-76					-67		266	18		-69		267	27		-63		266	40
150		-76					-68		272	22		-69					-66		274	39
130		-77					-69		275	24							-66		260	38
110	(115	-79					-71		270	27							-68		275	32
100	mb)					509	-72		273	28										
90							-74		273	21										
80							-75													
70																				
60																				

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA Temp. °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	37	34	180	05	01·2	32	31	165	08	1·4	35	35	190	05	02·9	43	38	190	06	00·3	40	37		
1000	-02·1					-00·6					-0·9					-01·4					-3·1				
950		34	30	206	09		31	31	229	15		35	34	229	14		42	35	221	28		36	33		
900	25·7	29	25	237	11	27·2	30	30	224	14	26·9	30	29	241	15	26·8	34	28	231	28	24·9	29	26		
850		24	18	242	15		24	22	240	19		24	22	240	20		27	23	232	29		22	21		
800	56·1	19	11	237	11	57·6	18	15	239	18	57·3	18	15	239	22	57·5	22	12	233	30	55·2	16	15		
750		12	03	237	17		10	05	234	19		12	05	247	21		16	08	237	33		10	-15		
700	89·7	05	04	234	19	91·1	06	-05	233	24	90·9	05	00	261	23	91·4	09	05	241	30	88·6	04	-02		
650		-02	-11	236	20		00	-15	240	20		-02	-09	259	26		02	-02	245	35		-04	-10		
600	127	-11	-28	239	22	129	-06	-26	245	18	129	-09	-17	253	27	129	-08	-14	251	37	126	-13	-20		
550		-19	-30	244	23		-14	-36	237	21		-17	-24	248	29		-16	-24	254	35		-23	-30		
500	170	-25	-36	240	25	172	-23	-38	236	26	171	-25	-38	249	31	172	-26	-34	254	36	169	-34	-41		
450		-35	-45	231	30		-33	-43	240	27		-34	-43	249	36		-37	-44	252	40		-45			
400	221	-45		228	31	223	-44		243	13	222	-44		236	42	223	-47		252	44	218	-54			
350		-56		221	32		-55		253	30		-56		235	40		-60		249	50		-64			
300	283	-69		231	39	285	-69		260	43	284	-70		239	48	284	-67		257	50	279	-58			
250		-76		256	40		-78		256	40		-77		248	47		-68		255	54		-63			
200	367	-69		253	33	368	-69		260	37	367	-68		262	39	369	-65		267	47	365	-67			
170		-64		262	35		-65		267	37		-66		268	36		-62		269	43		-64			
150		-64		263	22		-65		267	36		-69		273	40		-65		269	38		-69			
130		-67		266	37		-65		270	36		-67		272	37		-68					-71			
110		-68		279	42		-68		272	30		-68		270	29	(125	-68					-73			
100	516	-70		280	41						512	-70		265	33	mb)					509	-75			
90		-69		262	30							-71		262	36							-72			
80		-70		270	36						1080	-66		258	46							-75			
70		-72		274	45						mb)	-67										-79			
60		-73		282	37																				
	(55 mb)	-74																							

Inversion 329 mb -82° - 322 mb -81°
Isothermal 289 - 970 mb 36°
Inversion 989 mb 32° - 965 mb 38°
Inversion 725 mb 06° - 710 mb 07°
Isothermal 980 - 942 mb 35°
Isothermal 850 - 838 mb 27°

Tropopause: I 287 mb -87° 28,500' | I 266 mb -81° | I 260 mb -81° | I 305 mb -73° 27,700' | I 257 mb -80° 31,500' | I 264 mb -81° | I 268 mb -80° | I 290 mb -70° | II 350 mb -64° 24,500'

21h G.M.T.

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Pressure: Time	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	21h G.M.T.	G.M.T.
Pressure: M.S.L.	995·9 mb	988·1 mb	988·4 mb	986·4 mb	988·0 mb	994·2 mb	990·1 mb	987·9 mb	mb
Pressure: Surf	985·8 mb	986·5 mb	987·5 mb	976 mb	985·0 mb	989·7 mb	973·9 mb	977·3 mb	mb
Pressure: Freezing	954 mb	926 mb	947 mb	920 mb	918 mb	921 mb	892 mb	897 mb	mb

Pressure mb	LERWICK Height ft./100	LERWICK Temp. °F.	LERWICK Dew °F.	LERWICK Wind Dir. °	LERWICK Wind Vel. knots	STORNOWAY Height ft./100	STORNOWAY Temp. °F.	STORNOWAY Dew °F.	STORNOWAY Wind Dir. °	STORNOWAY Wind Vel. knots	LEUCHARS Height ft./100	LEUCHARS Temp. °F.	LEUCHARS Dew °F.	LEUCHARS Wind Dir. °	LEUCHARS Wind Vel. knots	ALDERGROVE Height ft./100	ALDERGROVE Temp. °F.	ALDERGROVE Dew °F.	ALDERGROVE Wind Dir. °	ALDERGROVE Wind Vel. knots
Surf	02·7	33	21	130	10	00·4	38	35	100	10	0·2	31	28	Calm		02·6	33	32		
1000	51·1					-03·2					-3·1					-3·7				
950		31	16	106	15		35	32	090	16		32	29	217	09		34	31		
900	26·5	25	10	109	15	24·7	29	26	108	16	24·6	28	25	229	10	24·1	30	29		
850		18	02	111	17		23	21	114	19		23	21	233	09		25	22		
800	56·5	15	-06	126	10	55·1	17	15	118	19	55·0	17	15	225	11	54·6	20	15		
750		10	-19	156	06		09	07	120	19		14	06	220	12		13	08		
700	90·0	05	-23	204	06	88·6	06	02	120	19	89·0	07	-06	206	13	88·3	07	01		
650		-02	-20	214	08		-02	-07	114	16		00	-14	195	16		-01	-10		
600	128	-12	-30	226	12	126	-10	-14	114	16	127	-09	-23	192	14	126	-10	-21		
550		-19	-38	236	16		-19	-23	120	16		-20	-33	195	12		-20	-31		
500	170	-30	-95	239	19	169	-29	-33	123	16	169	-27	-38	197	12	169	-30	-38		
450		-42		243	19		-40	-45	134	15		-39	-49	200	12		-42			
400	220	-54		238	15	219	-52		135	12	219	-49		195	14	219	-66			
350		-68		235	16		-63		139	15		-61		186	19		-70			
300	280	-78		273	14	279	-75		165	16	281	-73		187	23	279	-77			
250		-83		256	19		-81		183	11		-81		210	23		-71			
200	362	-76		261	17	362	-76		219	12	364	-74		245	22	362	-68			
170		-73		267	20		-73		273	15		-72		258	23		-70			
150		-75		269	21		-72		273	17		-73		262	22		-72			
130		-74		274	25		-74		275	20		-75		271	24		-74			
110		-76		270	26		-77		266	20		-74		270	33		-77			
100	504	-76		267	25	504	-78		266	21		-74			33	505	-78			
90		-78					-78		276	25		-75					-78			
80							-80				(084 mb)	-76								
70																				
60																				

Pressure mb	LIVERPOOL Height ft./100	LIVERPOOL Temp. °F.	LIVERPOOL Dew °F.	LIVERPOOL Wind Dir. °	LIVERPOOL Wind Vel. knots	DOWNHAM MARKET Height ft./100	DOWNHAM MARKET Temp. °F.	DOWNHAM MARKET Dew °F.	DOWNHAM MARKET Wind Dir. °	DOWNHAM MARKET Wind Vel. knots	LARKHILL Height ft./100	LARKHILL Temp. °F.	LARKHILL Dew °F.	LARKHILL Wind Dir. °	LARKHILL Wind Vel. knots	CAMBORNE Height ft./100	CAMBORNE Temp. °F.	CAMBORNE Dew °F.	CAMBORNE Wind Dir. °	CAMBORNE Wind Vel. knots	VALENTIA Height ft./100	VALENTIA Temp. °F.	VALENTIA Dew °F.	VALENTIA Wind Dir. °	VALENTIA Wind Vel. knots
Surf	00·6	34	32	140	12	01·5	34	33	140	10	04·4	36	35	150	10	02·9	41	37	247	15					
1000	-03·2					01·2					-02·7					-03·2									
950		33	32	154	24		32	32	176	16		36	35	178	28		40	35	270	33					
900	24·5	31	26	163	25	26·3	29	25	182	15	25·2	33	32	180	29	24·9	33	29	273	32					
850		26	19	172	20		24	19	211	17		28	27	186	28		26	22	282	30					
800	55·1	20	15	181	19	56·8	19	12	226	21	55·8	21	18	193	28	55·5	19	14	284	30					
750		13	09	186	19		12	01	223	23		17	07	194	32		12	06	280	30					
700	88·8	06	02	190	22	90·4	05	-03	222	18	89·7	10	03	195	35	89·1	06	-02	278	30					
650		-02	-07	186	24		-03	-10	238	18		03	-01	195	31		-02	-09	273	30					
600	126	-09	-17	195	22	128	-09	-18	247	15	128	-04	-09	196	31	127	-12	-19	262	34					
550		-18	-30	212	17		-19	-31	249	16		-13	-19	204	33		-22	-28	244	38					
500	169	-28	-43	243	25	171	-30	-41	259	24	171	-22	-29	217	37	169	-32	-40	227	36					
450		-40	-54	238	32		-21		265	41		-36	-43	230	38		-41		180	32					
400	219	-53		230	31	221	-53		250	33	222	-50		233	44	219	-51		209	30					
350		-66		231	41		-66		226	30		-64		238	48		-60		226	33					
300	280	-78		212	27	281	-75		221	34	282	-72		245	50	280	-66		245	39					
250		-69		236	32		-73		241	36		-73		251	43		-67		253	56					
200	364	-67		271	25	365	-70		262	34	366	-69		253	45	365	-70		259	50					
170		-67		252	29		-69		253	35		-69		264	36		-71		263	53					
150		-70		254	27		-70		266	29		-64		260	36		-73		268	95					
130		-69		269	31		-70		256	27		-69		258	33		-71		269	58					
110		-72		266	36							-73		264	36		-73		270	35					
100	508	-71		259	42						(105	-72				509	-75		275	38					
90		-73		263	45						mb)						-77		277	39					
80		-75															-76		276	36					
70																	-79		274	39					
60																(67, mb)	-76								

Inversion Surf. 80° - 975 mb 55°
Isothermal 750 - 734 mb 09°
Inversion 988 mb 31° - 967 mb 34°
905 .. 28° - 894 .. 29°
793 .. 16° - 770 .. 17°
Inversion 966 mb 32° - 928 mb 33°
Isothermal 974 - 937 mb 36°
800 - 780 .. 21°
Isothermal 977 - 954 mb 41°

Tropopause: I 265 mb -88° 30,500' | I 258 mb -83° | I 272 mb -84° | I 315 mb -79° 26,800' | I 302 mb -79° 28,000' | I 295 mb -76° 28,500' | I 310 mb -76° | I 286 mb -68° 29,000'

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