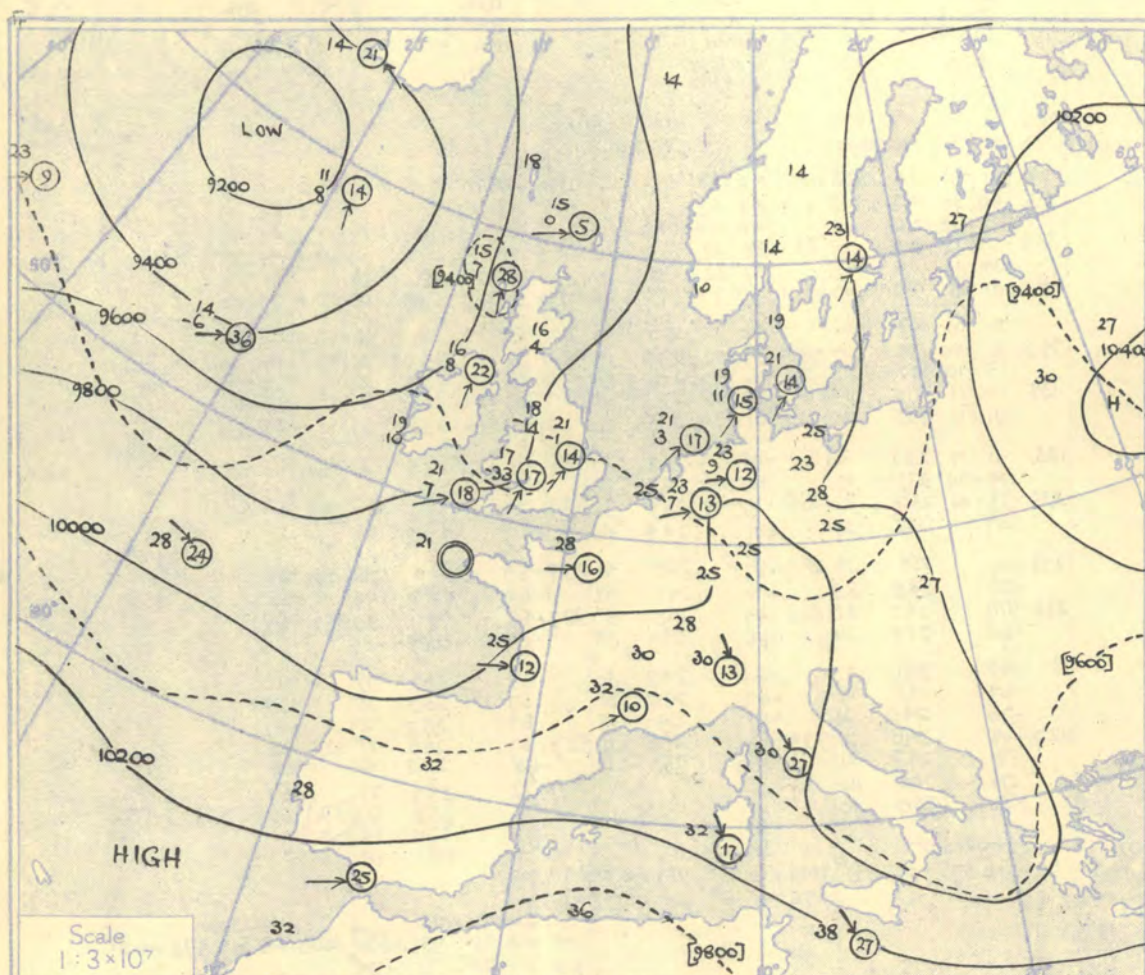


Page 1

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA																	
Pressure	Time M.S.L. Surf Freezing	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.																			
		1014.4	mb	1009.9	mb	1015.4	mb	1012.6	mb	1016.7	mb	1019.8	mb	1017.8	mb	1014.5	mb	1010.4	mb	1003.9	mb	1010.4	mb	1009.9	mb	1010.4	mb	1009.9	mb	1010.4	mb																				
		859		828		859		849		850		820		850		820		850		820		850		820		850		820		850		820																			
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots																			
Surf	02.7	43	41	220	01	00.5	51	45	165	15	00.2	34	34	02.3	49	45	160	16	00.6	39	39	01.2	41	40	130	03	04.4	42	42	090	07	02.9	48	45	CALM	00.3	49	48													
1000	3.9	44	42	211	14	2.7	50	44	165	15	4.0	38	37	3.4	49	45	160	16	4.4	41	39	5.3	40	39	143	05	4.7	42	42	090	07	02.9	48	45	CALM	2.8	50	49													
950	4.1	44	42	211	14	2.7	50	44	165	15	4.0	38	37	3.4	49	45	160	16	4.4	41	39	5.3	40	39	143	05	4.7	42	42	090	07	02.9	48	45	CALM	2.8	50	49													
900	32.1	35	28	195	12	31.2	40	36	186	37	32.3	37	31	31.8	39	29	152	27	32.7	38	32	33.5	41	38	173	08	4.4	44	197	14	3.7	48	43	209	04	48	43														
850	31.1	35	28	195	12	31.2	40	36	186	37	32.3	37	31	31.8	39	29	152	27	32.7	38	32	33.5	41	38	173	08	4.4	44	197	14	3.7	48	43	209	04	48	43														
800	63.1	26	10	208	10	62.4	29	25	191	30	63.2	25	17	62.8	32	26	188	27	63.7	26	13	64.7	31	15	187	09	64.1	27	27	185	14	63.6	29	20	209	09	62.6	29	26												
750	20	04	238	06	23	16	183	27	20	09	21	16	190	23	16	193	22	21.0	18	14	21.3	21	16	190	23	16	193	22	21.0	18	14	21.3	21	16	193	22	21.0	18	14												
700	97.2	15	00	256	05	96.7	15	01	175	28	97.0	16	04	97.1	16	08	193	22	98.0	18	14	99.3	21	10	190	14	98.5	17	02	194	17	98.1	21	07	243	18	97.1	19	10												
650	08	15	294	13	135	03	03	176	29	136	09	08	193	22	10	02	193	22	10.3	19	12	138	15	10	192	15	16	17	216	14	17	216	14	17	216	14	17	216	14	17											
600	136	01	19	311	12	135	03	03	187	25	136	09	08	136	03	01	203	20	13.7	07	12	138	06	11	210	14	13.7	07	18	222	15	13.7	07	18	222	15	13.7	07	18												
550	-08	-27	311	12	-04	-10	195	27	-07	-14	-06	-11	216	20	-06	-11	216	20	-06	-11	216	20	-01	-11	225	20	-01	-11	225	20	-01	-11	225	20	-01	-11	225	20	-01	-11											
500	179	-18	-39	306	11	180	-14	-21	182	23	180	-17	-27	180	-15	-20	211	16	181	-12	-31	183	-11	-17	232	20	182	-05	-27	242	25	182	-11	-25	224	33	180	-11	-28												
450	-29	-47	264	12	-25	-35	166	25	-28	-36	-26	-31	208	18	-26	-31	208	18	-26	-31	208	18	-19	-24	238	19	-19	-24	238	19	-19	-24	238	19	-19	-24	238	19	-19	-24											
400	231	-41	239	12	231	-37	167	24	231	-38	231	-39	195	28	231	-39	195	28	231	-39	195	28	231	-39	195	28	231	-39	195	28	231	-39	195	28	231	-39	195	28	231	-39	195	28									
350	-54	-22	227	12	-51	-47	195	28	-52	-48	-53	-48	209	28	-53	-48	209	28	-53	-48	209	28	-47	-41	245	27	-47	-41	245	27	-47	-41	245	27	-47	-41	245	27	-47	-41											
300	293	-68	189	13	294	-67	198	33	294	-69	294	-68	210	30	294	-68	210	30	294	-68	210	30	298	-61	258	34	299	-57	245	41	297	-59	230	45	296	-58	230	45	296	-58											
250	-78	199	20	-82	205	34	-85	205	34	-85	205	34	-85	205	34	-85	205	34	-85	205	34	-85	205	34	-73	248	33	-70	241	48	-69	235	44	-65	235	44	-65	235	44	-65	235	44									
200	377	-68	199	19	378	-62	206	24	377	-72	378	-68	224	32	378	-68	224	32	378	-68	224	32	383	-70	242	32	383	-69	243	37	382	-68	247	30	381	-63	247	30	381	-63											
170	-66	204	20	-61	205	21	-67	205	21	-67	205	21	-67	205	21	-67	205	21	-67	205	21	-67	205	21	-65	239	26	-66	249	35	-69	259	34	-65	259	34	-65	259	34	-65	259	34									
150	(40)	-67		-61	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21	-68	215	21									
130	525	-62		-62	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24	-69	214	24									
110																																																			
90																																																			
80																																																			
70																																																			
60																																																			
Inversion		1004 mb 43°-992 mb 46°		Isothermal		800 - 785 mb 29°		560 - 550		-04°		Inversion		1015 mb 34°-965 mb 46°		Isothermal		700 - 681 mb 18°				Inversion		1015 mb 39°-962 mb 45°		Isothermal		700 - 681 mb 18°				Inversion		982 mb 39°-940 mb 92°		Inversion		1001 mb 42°-987 mb 46°		696 - 16°-669 - 19°		Inversion		1004 mb 48°-983 mb 50°		750 - 23°-787 - 24°		Inversion		1000 mb 50°-978 mb 51°	
Tropopause		I 255 mb - 79°		I 245 mb - 83°		33,500'		I 248 mb - 85°		33,300'		I 259 mb - 83°		32,500'		I 247 mb - 78°		36,200'		I 250 mb - 73°		35,600'		I 235 mb - 74°		35,600'		I 227 mb - 72°		35,600'		I 250 mb - 65°		33,400'		Tropopause															
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA																	
Pressure	Time M.S.L. Surf Freezing	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.		09h		G.M.T.															
		1014.8	mb	1009.2	mb	1015.3	mb	1012.9	mb	1016.0	mb	1019.1	mb	1017.7	mb	1014.4	mb	1003.7	mb	1010.4	mb	1009.2	mb	1010.4	mb	1009.2	mb	1010.4	mb	1009.2	mb	1010.4	mb	1009.2	mb																
		829		850		850		833		850		833		850		833		850		833		850		833		850		833		850		833		850		833															
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots															
Surf	02.7	46	44	180	09	00.5	52	46	00.2	36	36	050	02	02.3	50	45	150	08	01.2	44	42	085	03	04.4	44	43	110	05	02.9	47	45	CALM																			
1000	3.9	46	43	170	17	2.5	51	45	4.0	38	37	050	02	3.3	49	44	154	17	5.1	46	43	140	09	4.5	44	43	110	05	3.9	49	44	CALM																			
950	4.1	46	43	170	17	2.5	51	45	4.0	38	37	050	02	3.3	49	44	154	17	5.1	46	43	140	09	4.5	44	43	110	05	3.9	49	44	CALM																			
900	32.2	39	33	173	15	31.0	39	33	32.2	37	30	31.7	39	33	32.2	37	30	182	19	33.4	38	32	186	13	32.8	39	36	168	10	32.4	42	37	216	04																	
850	33.2	39	33	173	15	31.0	39	33	32.2	37	30	31.7	39	33	32.2	37	30	182	19	33.4	38	32	186	13	32.8	39	36	168	10	32.4	42	37	216	04																	
800	63.3	30	16	209	11	62.0	27	21	63.1	25	18	62.8	29	23	63.5	27	12	189	15	64.3	28	11	153	11	63.9	28	25	192	08	63.7	32	28	256	04																	
750	23	08	221	09	22	15			18	13	For			23	16	For			20	12	188	15	24	04	153	13	24	14	212	07	25	21</																			

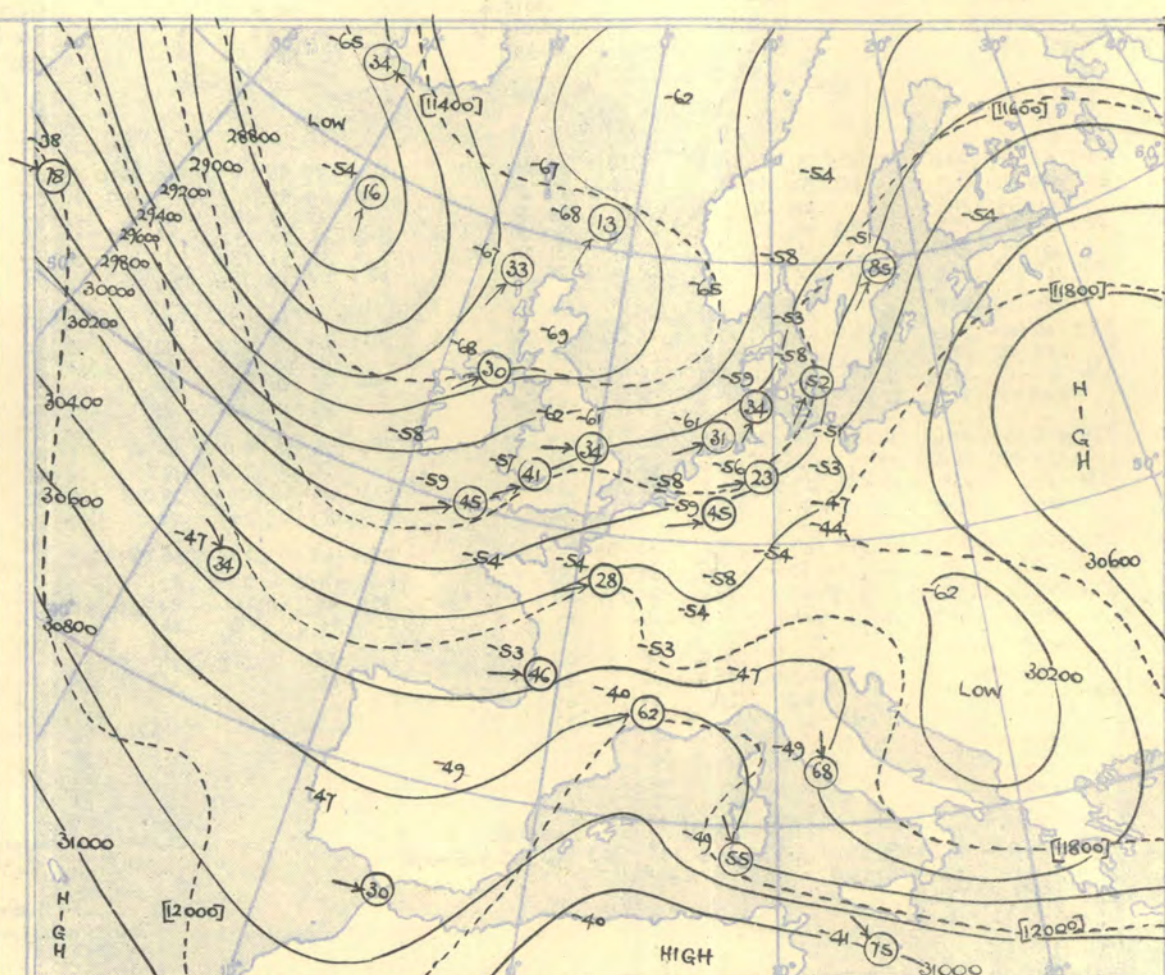
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h. G.M.T.



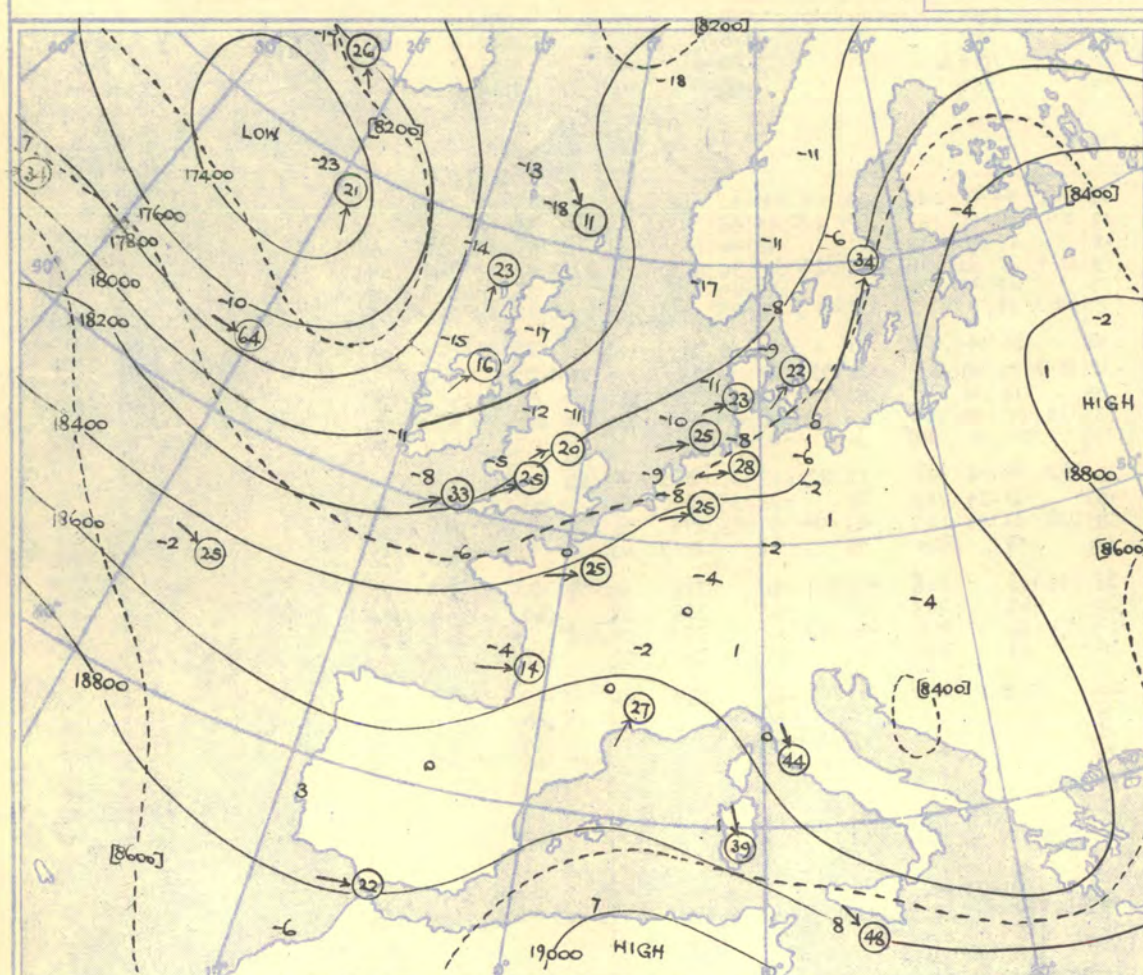
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

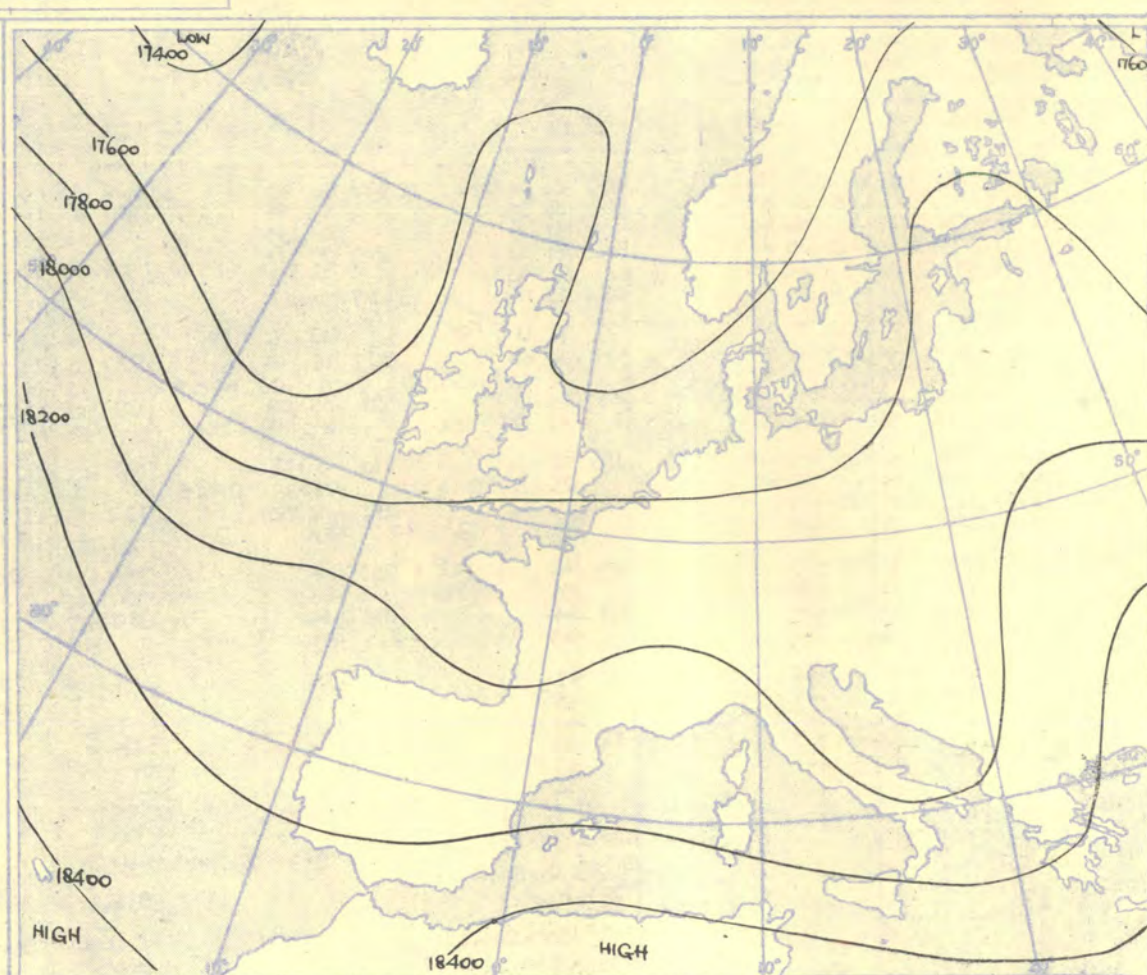
100 80 60 40 20 10 knots



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.



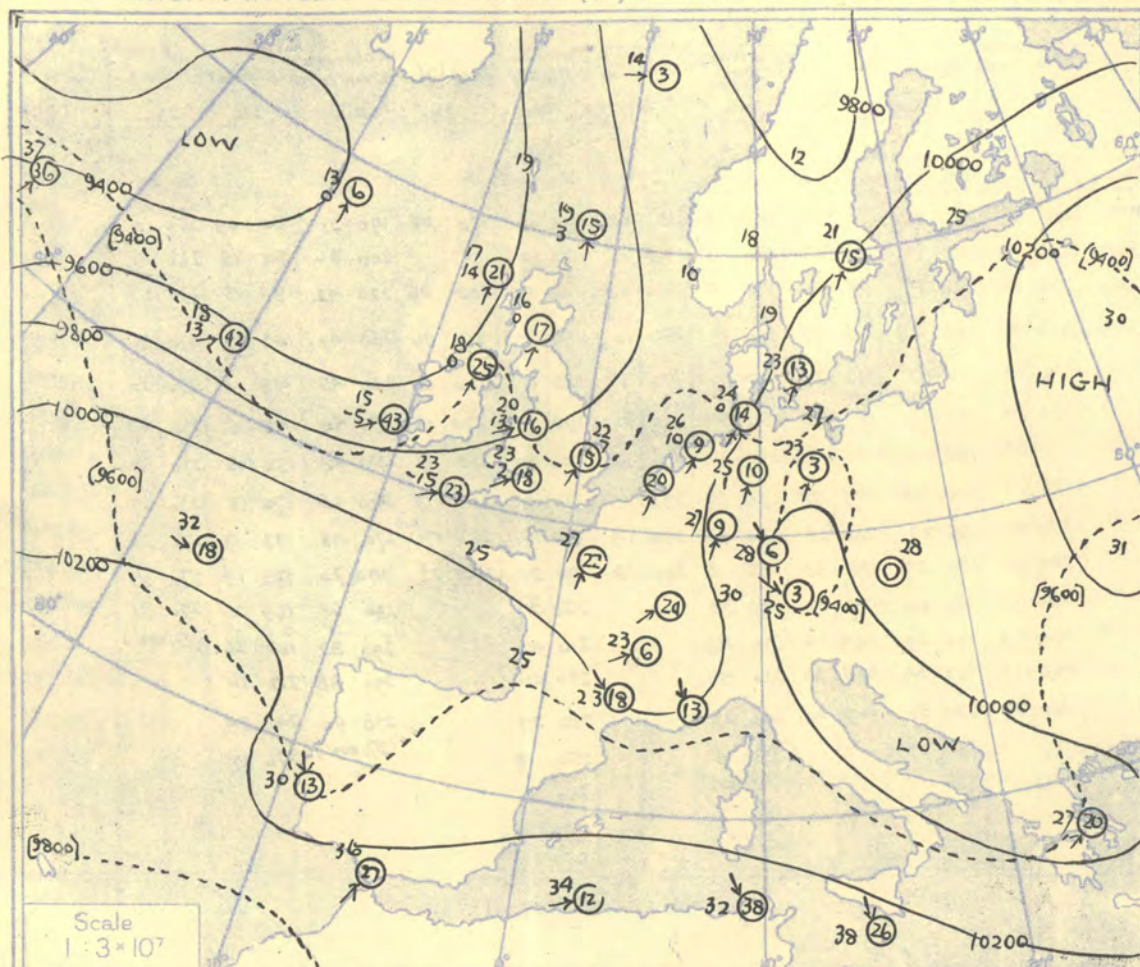
The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700-500 mb.



Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

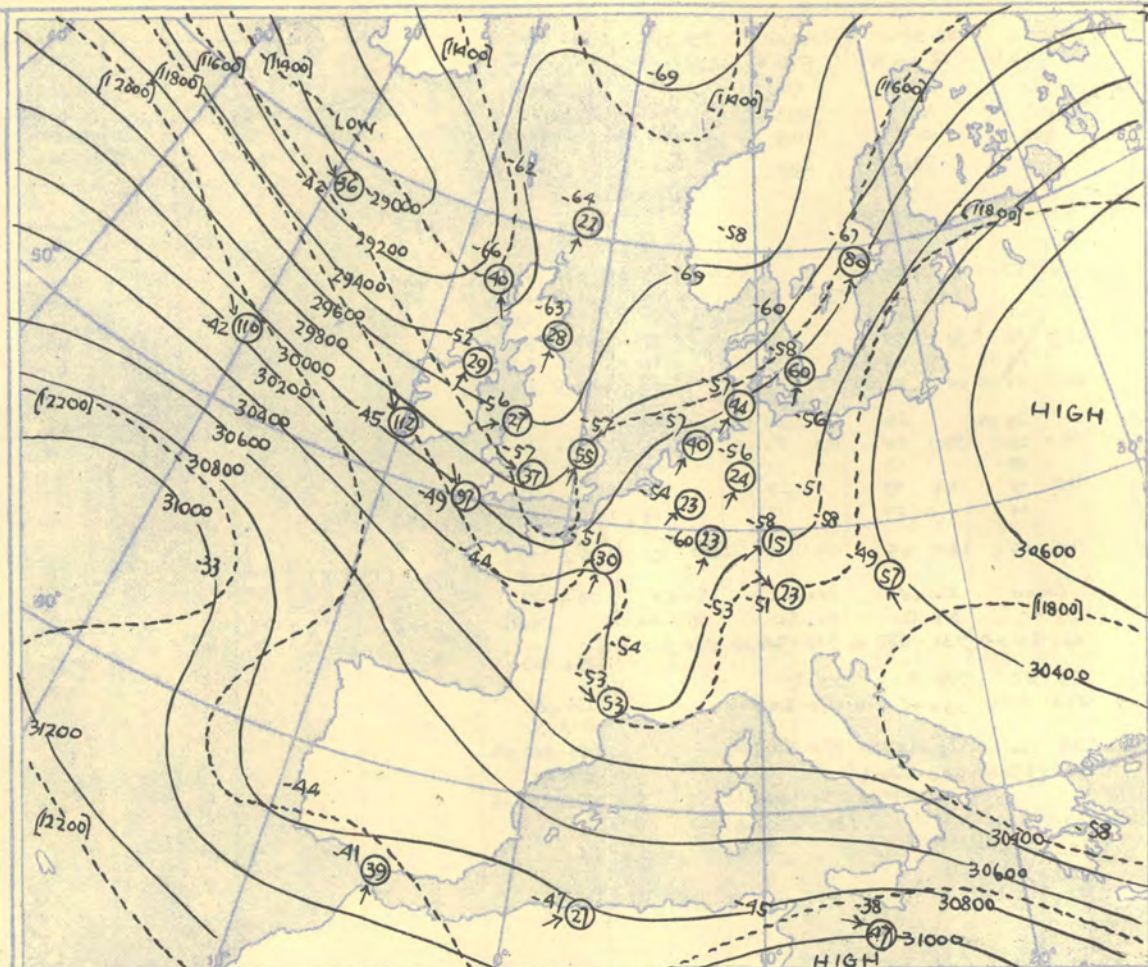
Time M.S.L.	49.02 N 17.06 W	48.37 N 12.05 W	43.2 N 17.0 W	39.5 N 12.2 W	53.1 N 01.3 E	Time M.S.L.	49.02 N 17.06 W	48.37 N 12.05 W	43.2 N 17.0 W	39.5 N 12.2 W	53.1 N 01.3 E
Surf	1017 mb	1018 mb	1023 mb	1021 mb	1017 mb	Surf	1017 mb	1018 mb	1023 mb	1021 mb	1017 mb
Freezing	775	780	660	665	854	Freezing	775	780	660	665	854
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Temp. °F.	Dew °F.	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Temp. °F.	Dew °F.
Surf	01.0	53	45	01.0	54	Surf	01.0	53	45	01.0	54
1000	04.5	45	43	04.8	46	1000	04.5	45	43	04.8	46
950	32.7	38	37	33.2	39	950	32.7	38	37	33.2	39
900	34.2	36	35	34.3	37	900	34.2	36	35	34.3	37
850	64.1	34	25	64.3	32	850	64.1	34	25	64.3	32
800	29	09	28	29	05	800	29	09	28	29	05
750	99.0	15	18	99.1	16	750	99.0	15	18	99.1	16
700	139	19	13	138	09	700	139	19	13	138	09
650	14	06	18	14	05	650	14	06	18	14	05
600	18.5	06	18	18.9	11	600	18.5	06	18	18.9	11
550	Cloud	Cloud	Cloud	Cloud	Cloud	550	Cloud	Cloud	Cloud	Cloud	Cloud
500	4/8 Ac	3/8 Cu	1/8 Sc	8/8 Sc	23.4	500	4/8 Ac	3/8 Cu	1/8 Sc	8/8 Sc	23.4
450	620-610 mb	730-680 mb	750-940 mb	950-940 mb	29.8	450	620-610 mb	730-680 mb	750-940 mb	950-940 mb	29.8
400	5/8 Ac	7/8 Ac	3/8 Sc	8/8 Sc	29.8	400	5/8 Ac	7/8 Ac	3/8 Sc	8/8 Sc	29.8
350	4xx-4xx	580-510 mb	820-810 mb	850-800 mb	29.8	350	4xx-4xx	580-510 mb	820-810 mb	850-800 mb	29.8
300	3/8 Cu	Isotermal	8/8 Cs NR	Isotermal	29.8	300	3/8 Cu	Isotermal	8/8 Cs NR	Isotermal	29.8
250	930-890 mb	600-550 mb	850-750 mb	850-750 mb	29.8	250	930-890 mb	600-550 mb	850-750 mb	850-750 mb	29.8
200	Inversion	650-180	600-190	600-190	29.8	200	Inversion	650-180	600-190	600-190	29.8



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

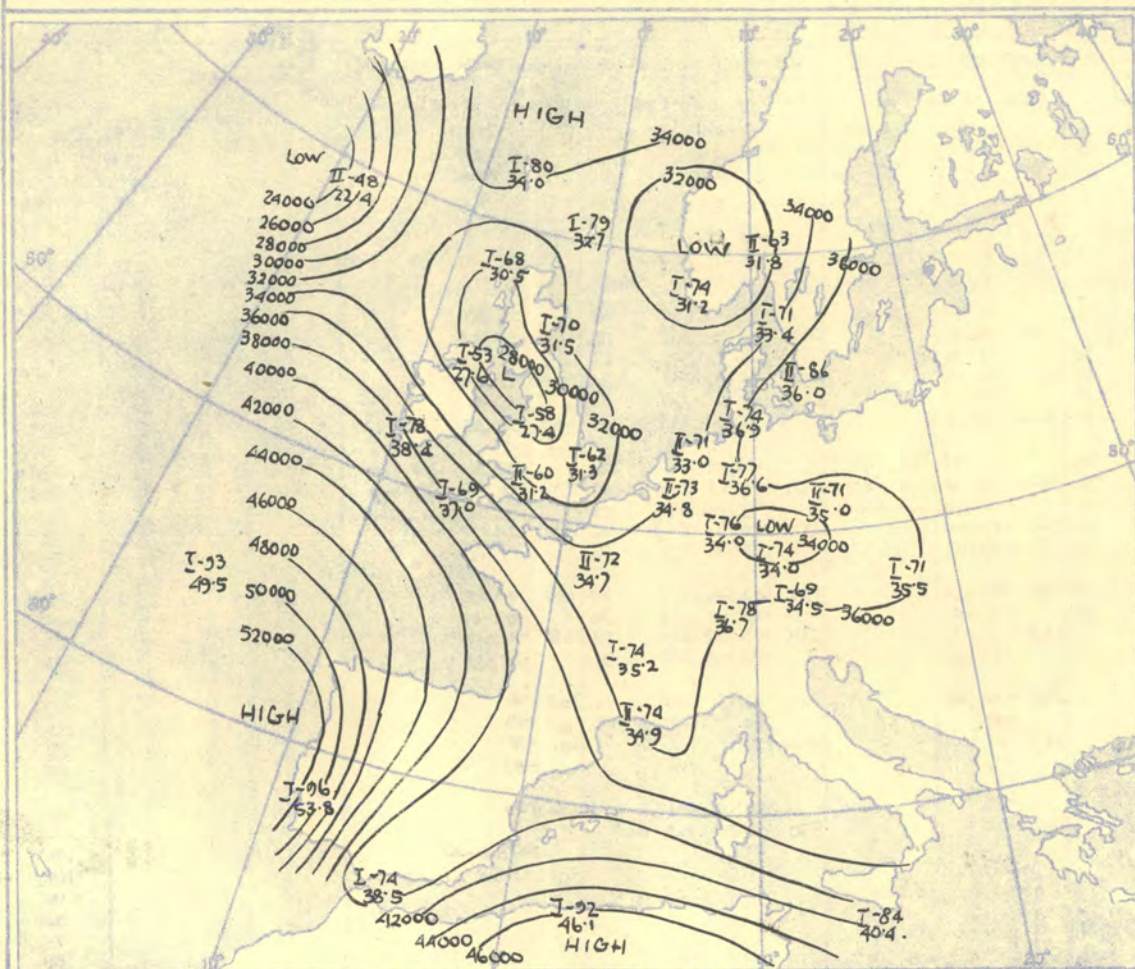
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

100 60 40 20 15 up 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.

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



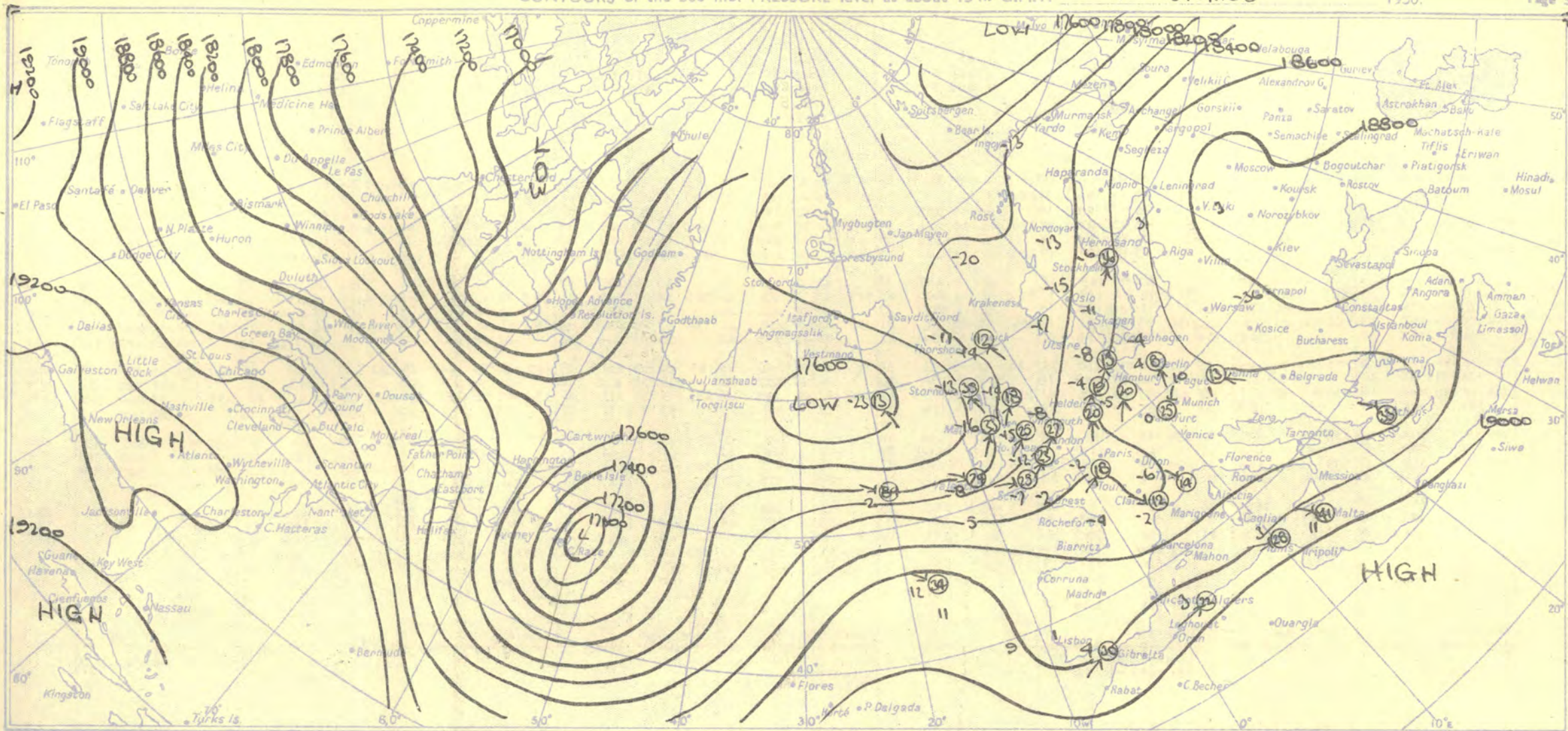
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A marked breakaway thermal pattern developed in the Atlantic as the deep centre became slow moving off Newfoundland and a small centre moved rapidly along the westerly thermal towards Northern Ireland late in the day.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

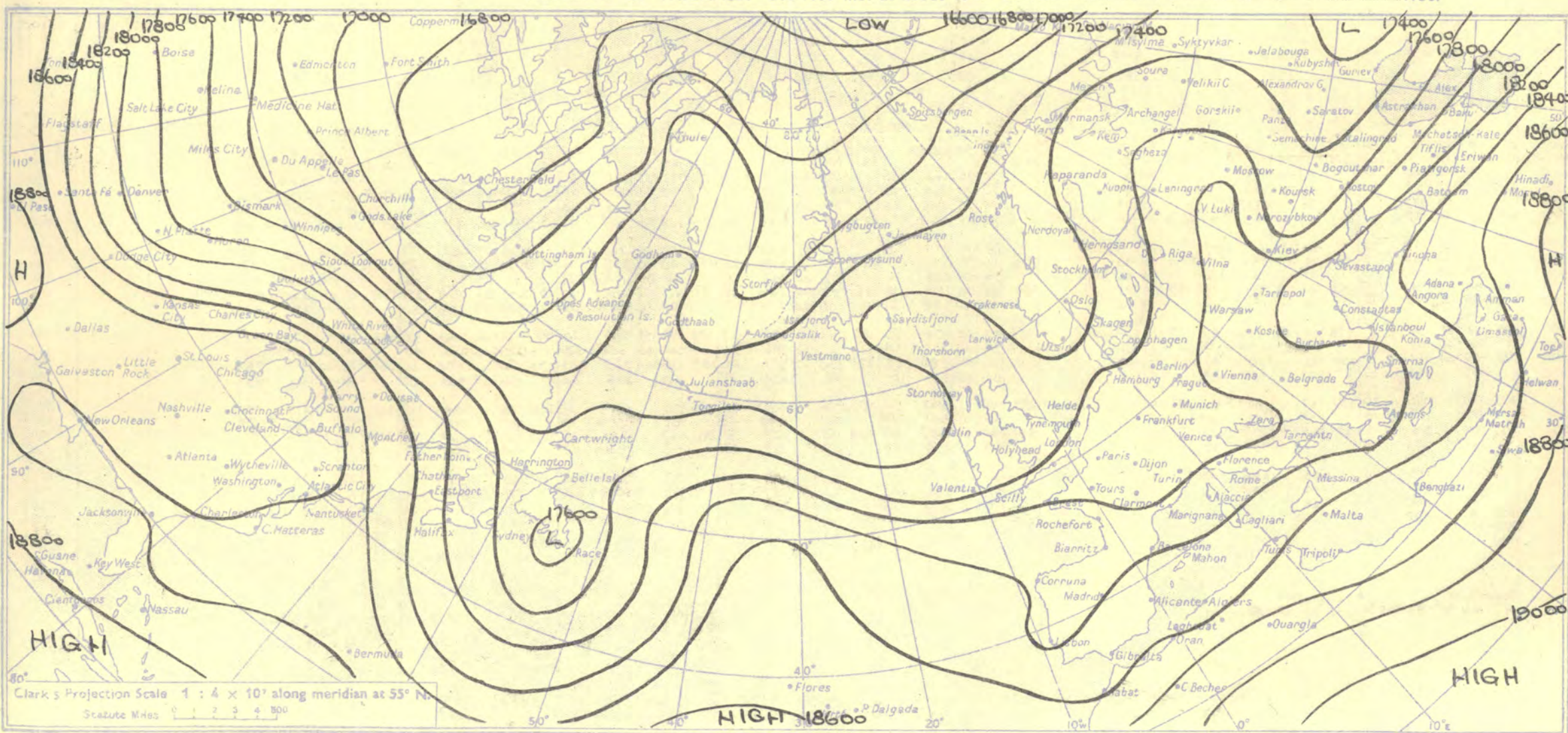
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

1st November

1950.



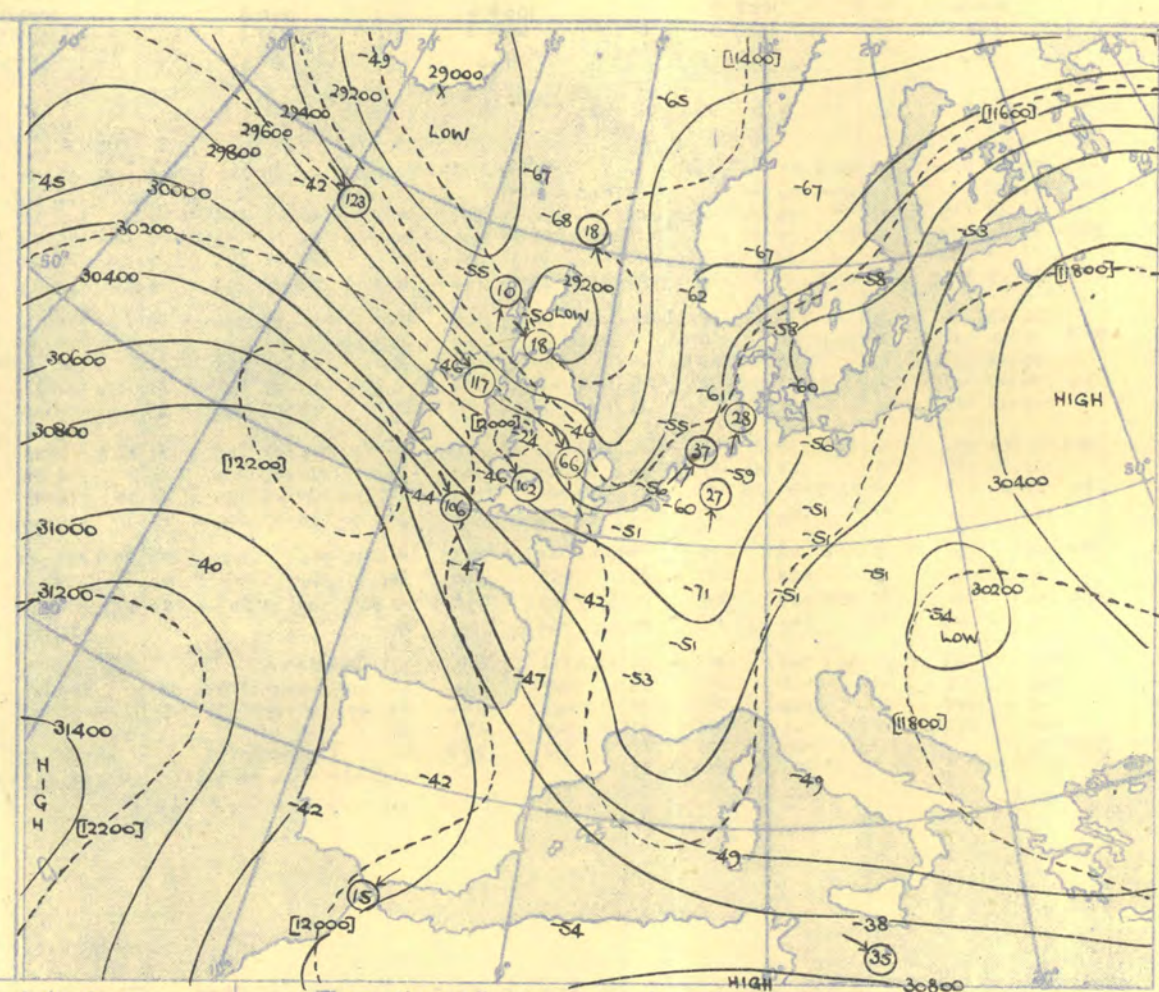
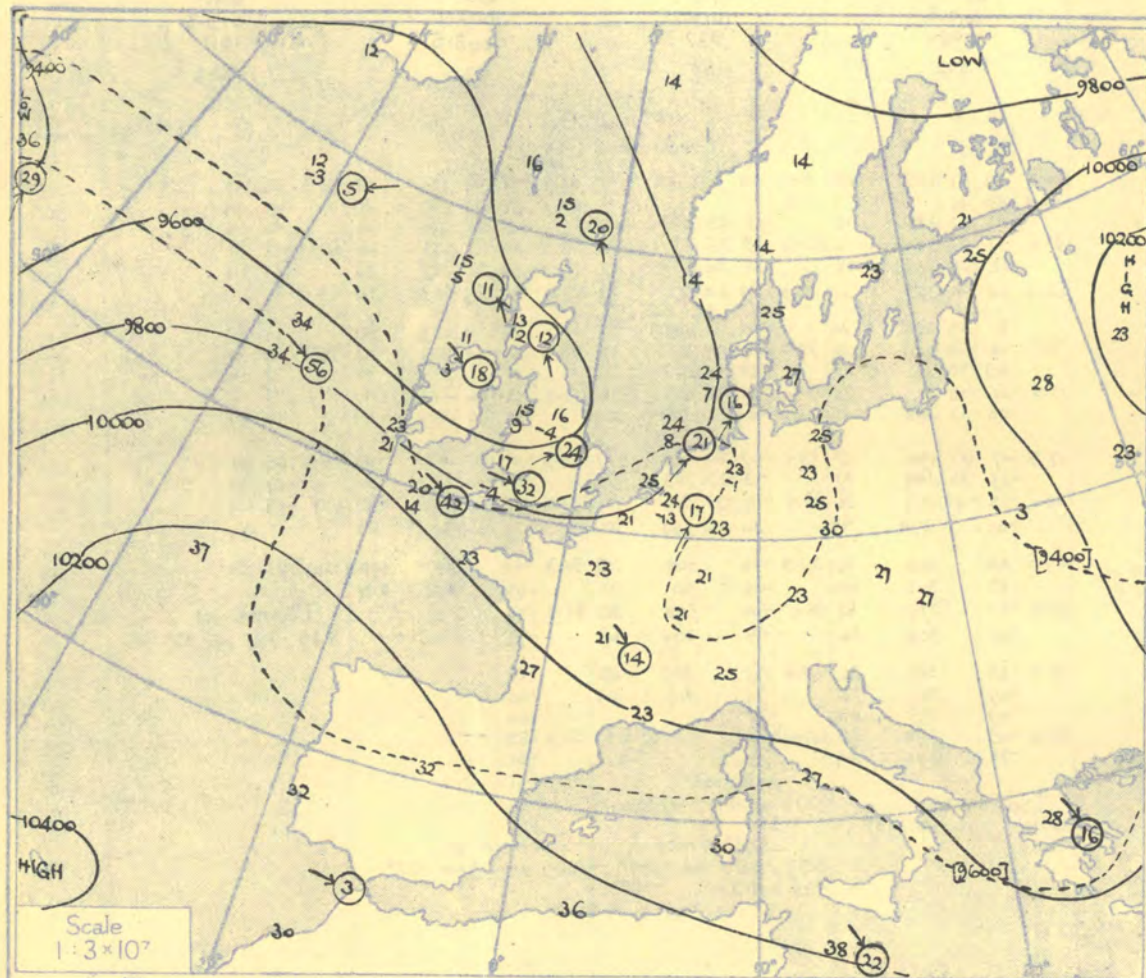
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																
Pressure { Time M.S.L. Surf Freezing	15h G.M.T. 1014.6 mb 1004.6 mb 817 mb				15h G.M.T. 1008.6 mb 1006.7 mb 859 mb				15h G.M.T. 1013.2 mb 1012.1 mb 840 mb				5h G.M.T. 1010.9 mb 1002.3 mb 830 mb				15h G.M.T. 1013.8 mb 1011.8 mb 829 mb				5h G.M.T. 1017.4 mb 1013.0 mb 837 mb				5h G.M.T. 1016.6 mb 999.4 mb 828 mb				15h G.M.T. 1015.1 mb 1004.5 mb 814 mb				15h G.M.T. 1011.8 mb 1010 mb 860 mb				Time M.S.L. Surf Freezing																
	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots																		
	Surf	02.7	48	45	190	18	00.5	49	47	170	08	02.9	48	44	165	09	02.3	51	48	210	08	00.4	46	43	160	15	01.2	49	45	170	05	4.4	48	47	120	06		02.9	54	51	225	03	00.3	50	48	215	09	Surf					
1000	03.9	48	44			02.3	49	47			03.5	47	42	180		15	03.0				03.7	45	42	162		18	04.7	47	42	162		12	4.2				04.1	53	50			3.2	49	46	230		1000						
950		43	39	170	24		44	43	157	26		46	37	180		14		44	44	223		14		43	40	181		19		42	37	160		11		42	42	164		07		46	42	254		950							
900	32.3	37	32	168	23	30.7	36	35	158	31	31.9	40	29	180		18	31.4	40	30	222		17	32.0	40	30	215		16	33.0	37	32	159		09	32.6	39	39	197		08	32.6	40	36	259		900							
850		32	26	171	26		31	29	187	33		33	25	180		18		35	27	222		17		35	24	220		18		33	29	158		07		35	36	222		10		35	31	258		850							
800	63.3	30	16	179	19	61.6	28	25	181	27	63.0	27	19	181		19	62.6	27	22	215		23	63.2	29	14	215		17	64.1	29	24	170		06	63.7	29	26	253		16	63.8	31	26	265		800							
750		23	09	176	16		22	20	190	18		22	09	183		18		23	10	207		25		22	14	223		13		24	16	232		09		24	12	261		16		26	13	266		750							
700	97.7	19	03	176	15	95.9	17	14	181	21	97.0	16	00	179		17	97.0	18	00	202		25	97.5	20	13	253		16	98.5	22	07	242		15	98.4	23	02	263		18	98.4	23	15	264		700							
650		11	-06	173	13		10	06	178	24		11	-06	193		16		12	-17	199		29		13	08	252		20		17	00	223		21		14	-08	261		18		17	-28	266		650							
600	136	04	-13	167	12	134	04	-01	172	26	136	03	-08	192		18	136	04	-28	196		31	136	04	-01	239		21	138	09	-07	224		24	137	07	-14	267		18	138	10	-36	265		600							
550		-04	-21	162	10		-04	-11	168	34		-05	-12	196		21		-06	-37	196		39		-05	-11	235		24		02	-16	216		24		02	-23	258		22		01	-45	270		550							
500	181	-14	-31	173	12	179	-21	-162	35	180	-14	-19	210	78	180	-16	-45	194	33		180	-15	-21	226		25	183	-08	-23	221		27	182	-12	-36	254		23	182	-07	-48	271		35	180	-08	-28	291		500			
450		-24	-41	185	11		-26	-35	156	33		-24	-29	205		16		-26	-54	192		36		-26	-35	227		22		-18	-29	222		32		-21	-46	274		24		-16	-46	276		42		-15	-34	302		450	
400	232	-34	-50	200	14	230	-39	-49	157	36	232	-37	-42	192		21	232	-38	-58	179		39	232	-37	-48	239		26	235	-31	-39	213		45	234	-34	-55	283		30	235	-26	-51	279		40	233	-24	-33	300		400	
350		-48		211	14		-51		159	39		-50		184		26		-48		196		31		-52		251		29		-43		212		57		-49		282		34		-40	-60	308		58		-30	-39	302		350	
300	295	-64		214	22	293	-66		167	40	295	-63		183		28	295	-52		238		29	295	-56		255		27	299	-57		210		55	297	-57		290		37	300	-49		315		97	298	-45		305		112	300
250		-72		206	19		-57		204	21		-65		210		22		-52		269		39		-52		268		34		-61		214		35		-60		290		39		-57		324		122		78		309		114	250
200	380	-60		216	17	379	-56		243	21	380	-58		240		21	383	-54		285		41	382	-57		275		30	385	-60		228		20	383	-62		285		34	387	-60		512		71	384	-78		309		114	200
170		-59		222	15		-58		243	20		-58		247		24		-57		276		36		-59		278		30		-61		227		17		-68		283		38		-62		301		71		-73		309		114	170
150		-61		231	17		-58		258	16		-59		253		24		-60		280		30		-61		283		25		-61		217		19		-65		287		30		-69		300		46		-75					150
130		-60		235	16		-59		256	21		-61		253		22		-62		281		31		-62		281		24		-62		224		16		-63		287		26		-71		309		31		-76					130
110		-63		244	19		-61		256	21		-61		260		21		-64		272		26		-68		275		18		-63		227		16		-63		274		13		-72		308		24		-76					110
100	528	-65		256	17	528	-61				528	-60		256		20	531	-64				532	-59		278		15	532	-64		224		14	529	-65		282		16	532	-72		284		27	526	-75					100	
90		-66										-60		251		19		-64		253		17		-67		253		17		-65		246		09	(88 mb)	-68			-71		285		30		-74					90			
80	188	mb										-64		253		16		-64		257		14		-66		257		14		-66		246		09	(88 mb)	-68			-70		285		30		-74					80			
70												-67		253		17		-67		257		14		-66		257		14		-66		246		09	(88 mb)	-68			-71		285		30		-74					70			
60												-71		248		21		-71		248		21		-68		257		14		-66		246		09	(88 mb)	-68			-72		283		24	(666 mb)	-74					60			
Inversion 1005 mb 48° - 991 mb 49° 850 - 822 mb 33°				Isothermal 1007 - 994 mb 49°				Inversion 976 mb 44° - 947 mb 46° Isothermal 681 - 665 mb 14°				Inversion 955 mb 41° - 941 mb 45° Isothermal 712 - 700 mb 20°				Inversion 715 mb 19° - 690 mb 24°				Inversion 750 mb 24° - 730 mb 26°				Inversion 725 mb 24° - 712 mb 25° Isothermal 310 - 276 mb - 49°				Inversion 396 mb - 35° - 380 mb - 33°																									
Tropopause I 258 mb - 79° 32, 700'				Tropopause I 283 mb - 68° 30, 500'				Tropopause I 272 mb - 70° 31, 500'				Tropopause I 325 mb - 53° 27, 600'				Tropopause I 330 mb - 58° 27, 400'				Tropopause I 280 mb - 62° 31, 300'				Tropopause II 280 mb - 60° 31, 200'				Tropopause I 217 mb - 69° 37, 000'				Tropopause I 200 mb - 78° 38, 400'				Tropopause																	
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																
Pressure { Time M.S.L. Surf Freezing	21h G.M.T. 1014.7 mb 1004.6 mb 875 mb																																																				

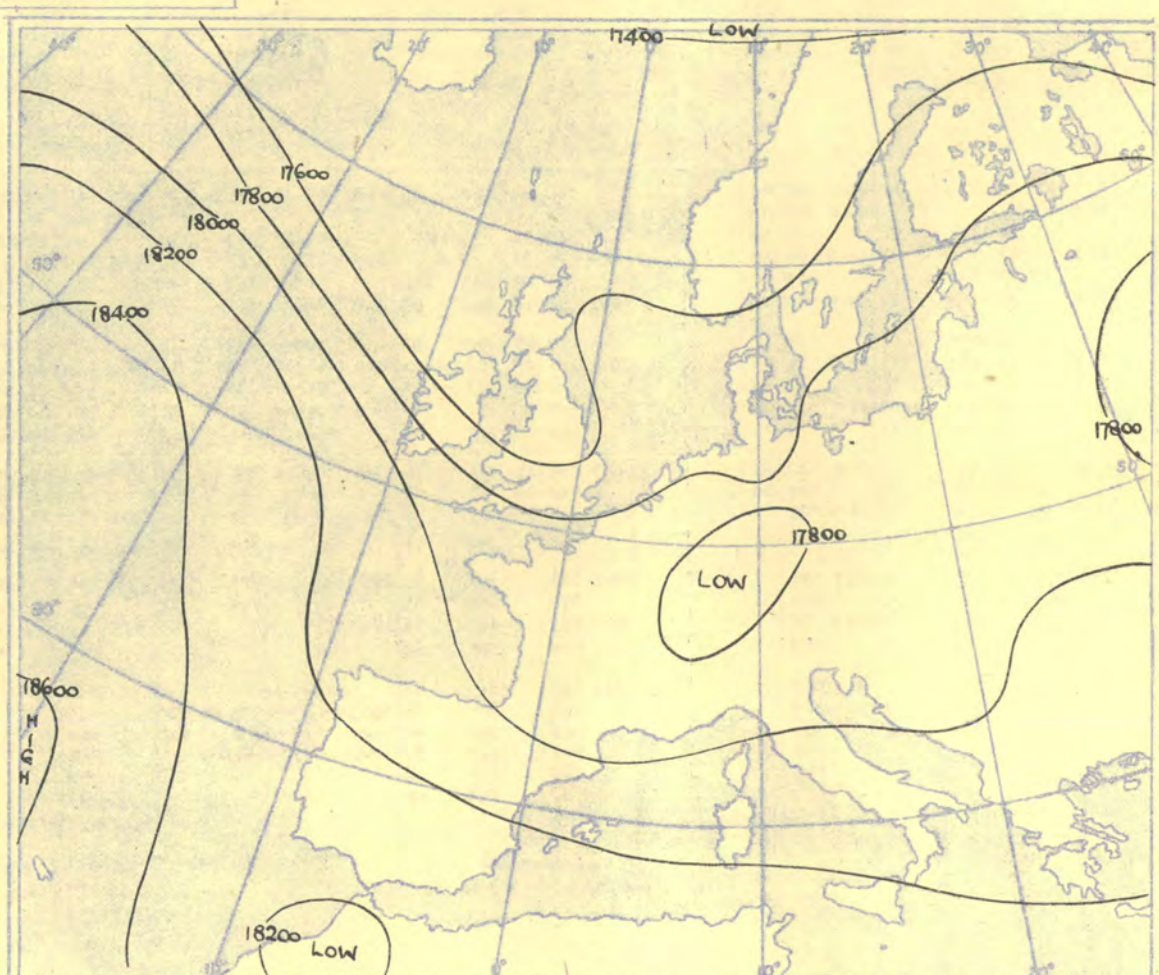
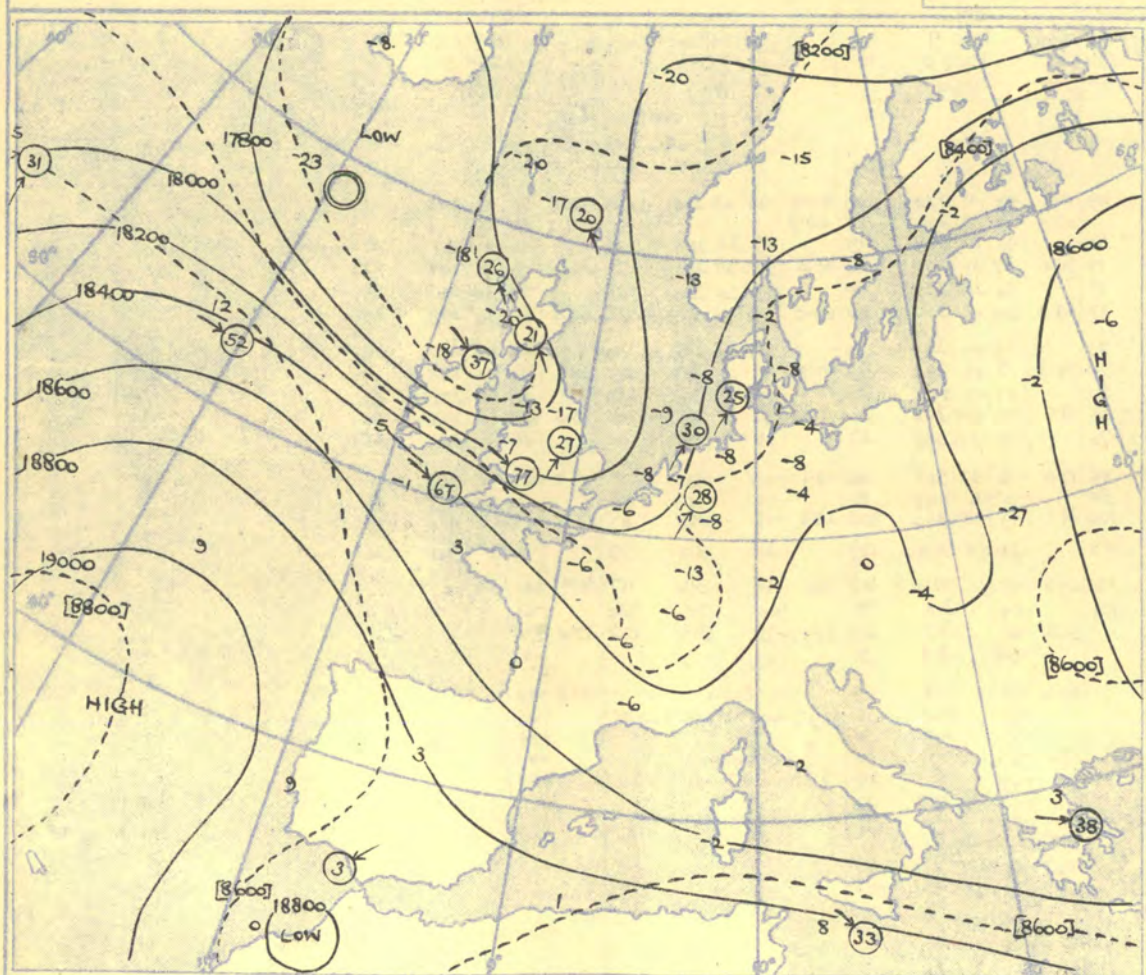
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Pressure mb	Time M.S.L. Surf Freezing	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 mb													
		1014.6	mb	1004.5	mb	1008.9	mb	1007.0	mb	1008.6	mb	1009.5	mb	1010.8	mb	1002.2	mb	1009.9	mb	1012.5	mb	1008.1	mb	1014.0	mb	997.7	mb	1016.1	mb	1005.5	mb	1013.3	mb		1012.1950	mb	1012.1950	mb									
		856				830				866				873				877				852				832				830				829													
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb											
Surf	02.7	46	43	150	11	00.5	44	45	CALM	02.5	44	42	CALM	02.3	41	39	270	05	00.6	44	49	01.2	43	41	165	05	4.4	44	44	240	07	02.9	51	48	270	15	00.3	48	47	Surf							
1000	03.9	46	43		02.4	46	45		02.5	43	41		02.9	40	37	185	09	02.6	44	41	03.4	43	41		05	3.8	44	44		04.4	50	47	259	21	00.4	47	44	1000									
950		41	38	138	17	30.7	39	35	176	05	30.7	35	34	180	09	31.1	35	32	293	15	30.9	36	33		16	32.2	39	35	276	24	32.8	45	46	271	24	31.9	40	39	950								
900	32.2	35	30	140	21	30.7	39	35	188	05	30.7	35	34	180	09	31.1	35	32	293	17	30.9	36	33		16	32.2	39	35	276	24	32.8	45	46	271	24	31.9	40	39	900								
850		31	14	140	21	30.7	39	35	200	05	30.7	35	34	180	09	31.1	35	32	293	18	30.9	36	33		15	32.2	39	35	276	24	32.8	45	46	271	24	31.9	40	39	850								
800	63.1	26	05	138	21	61.8	29	24	182	05	61.6	25	25	168	10	61.9	23	13	294	18	61.7	25	22		20	63.3	29	20	270	32	63.9	29	25	283	34	63.1	32	31	800								
750		22	03	137	21	23	15	139	07	19	19	165	11	18	05	292	18	20	16		20	16			21	09	255	24	24	08	270	31	24	19	283	38	27.8	27	25	750							
700	97.1	15	02	139	20	96.1	15	05	140	11	09.6	13	12	164	12	95.9	11	03	288	18	95.9	15	09		16	04	246	24	97.7	17	04	272	32	98.4	20	14	279	42	97.8	23	21	700					
650		07	02	137	15	08	01	147	14	07	02	158	12	04	13	288	20	05	05		20	05	05		09	08	232	25	08	14	280	35	08	14	280	46	07	11	16	650							
600		07	02	137	14	13.4	01	143	19	13.4	01	143	12	13.4	01	143	12	13.4	01	143	12	13.4	01	143		13.5	02	18	22.1	26	13.6	01	23	287	46	13.8	12	06	285	49	13.7	15	12	600			
550		07	02	137	18	9	21	134	22	10	24	147	13	13	28	288	25	09	22		08	22	205		20	22	205	25	04	27	289	54	06	00	289	54	10	06	550								
500	18.0	17	24	136	20	17.8	18	31	142	26	17.8	20	29	157	21	17.7	18	38	289	37	17.8	13	28		17.9	17	27	190	27	18.1	07	25	298	77	18.3	01	07	290	67	18.3	05	00	500				
450		27	36	136	19	28	40	149	30	28	40	149	27	28	40	149	27	28	40		27	28	40		27	28	40	27	28	40	27	28	40	27	28	40	27	28	40	27	28	40	450				
400	23.1	37	46	133	19	22.9	39	50	143	35	22.9	44	30	23.0	20	23.0	20	23.0	20		23.1	20	23.0		23.1	20	23.0	27	23.4	27	23.4	27	23.4	27	23.4	27	23.4	27	23.4	27	23.4	27	23.4	27	400		
350		51	131		17	52	137		137	27	56	179	20	30	57	296	115	19	44		30	57	296		30	57	296	48	30	57	296	106	30	57	296	87	30	57	296	87	30	57	296	350			
300	29.4	68	130	18	29.2	55	175	10	29.1	50	283	18	29.6	46	302	17	29.9	24	43		29.9	24	43		29.9	24	43	66	29.9	24	43	308	102	30.3	44	307	106	30.3	44	307	106	30.3	44	307	106	300	
250		69	170	13	28.7	54	287	23	28.7	54	287	23	28.7	54	287	23	28.7	54	287		28.7	54	287		28.7	54	287	60	28.7	54	287	60	28.7	54	287	60	28.7	54	287	60	28.7	54	287	60	250		
200	37.9	62	224	08	38.0	58	292	29	37.9	57	295	32	38.3	63	303	82	39.2	31	54		39.2	31	54		39.2	31	54	53	38.5	74	308	80	38.9	76	308	80	38.9	76	308	80	38.9	76	308	80	200		
170		62	243	08	60	293	30		63	304	30		63	304	30		63	304	30		63	304	30		63	304	30	64	304	36	71	309	67	73		73		73		73		73		170			
150		62	243	08	60	293	30		63	304	30		63	304	30		63	304	30		63	304	30		63	304	30	64	304	36	71	309	67	73		73		73		73		73		150			
130		65	256	14	64	293	30		67	299	33		67	299	33		67	299	33		67	299	33		67	299	33	69	301	32	74	310	59	80		80		80		80		80		130			
110		68	258	13	66	293	35		68	286	24		68	286	24		68	286	24		68	286	24		68	286	24	69	301	32	74	310	59	80		80		80		80		80		110			
100		69	256	12	67	295	27		68	287	33		68	287	33		68	287	33		68	287	33		68	287	33	69	301	32	74	310	59	80		80		80		80		80		100			
90	(92mb)	70				69	295	21		72	293	22		72	293	22		72	293	22		72	293	22		72	293	22	69	301	32	74	310	59	80		80		80		80		80		90		
80		70				70	294	22		72	293	22		72	293	22		72	293	22		72	293	22		72	293	22	69	301	32	74	310	59	80		80		80		80		80		80		80
70		70				70	294	22		72	293	22		72	293	22		72	293	22		72	293	22		72	293	22	69	301	32	74	310	59	80		80		80		80		80		70		
60		70				70	294	22		72	293	22		72	293	22		72	293	22		72	293	22																							

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.



Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.



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

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																		
Place	Larkhill				Tangmere				Tirea				Shoeburyness					
Time	12hrs	2hrs	2330hrs	10hrs	14hrs	15hrs												
Type	Pilot																	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
Surf.	230	04	030	20	300	12			020	05	240	07						
1,000	240	09	020	36	330	27	280	11	020	05	260	05						
2,000	240	09	015	36	340	30	300	21	030	05	260	05						
3,000	250	14	002	33	340	32			060	07	230	05						
4,000	250	21	357	33	340	35	290	23	050	05	240	10						
5,000	260	28	348	32	340	34					250	15						
6,000	260	32	341	34	340	35	290	30			260	27						
8,000	270	35	320	45	340	38	290	24			260	36						
10,000	270	35	310	68	340	43	290	35			260	53						
14,000	290	59	305	92	310	86	280	43			270	60						
18,000			304	76	310	92	(12000')				280	64						
24,000			308	81	(15000')						300	105						
30,000			303	104							310	125						
40,000			311	98							310	77						
50,000			312	59														
			(47000')															

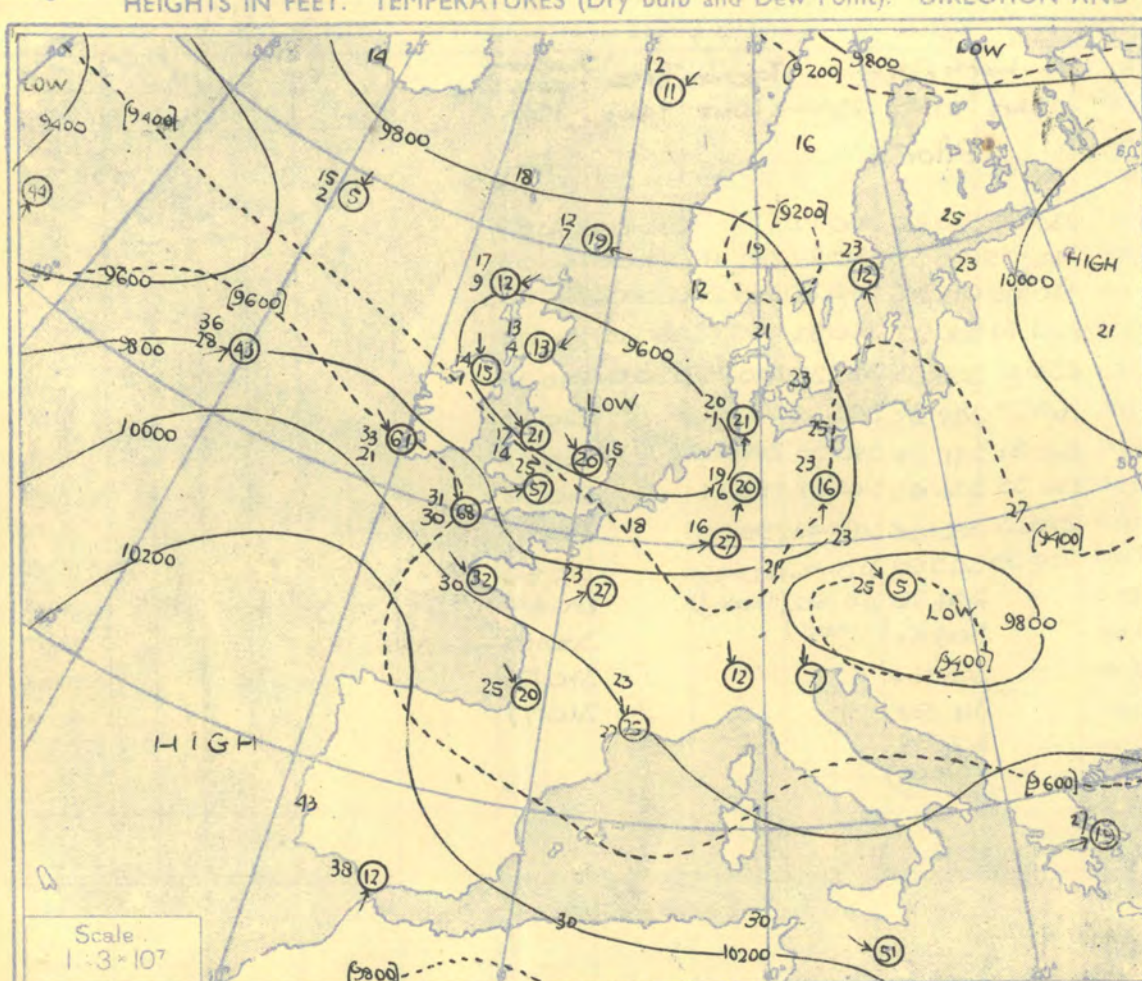
MAF 60000

LIBRARY

10 NOV 1950

OFFICE

NEPHOSCOPE OBSERVATIONS																	
Place																	Place
Time Type																	Time Type
Dir. Vel.																	Dir. Vel.

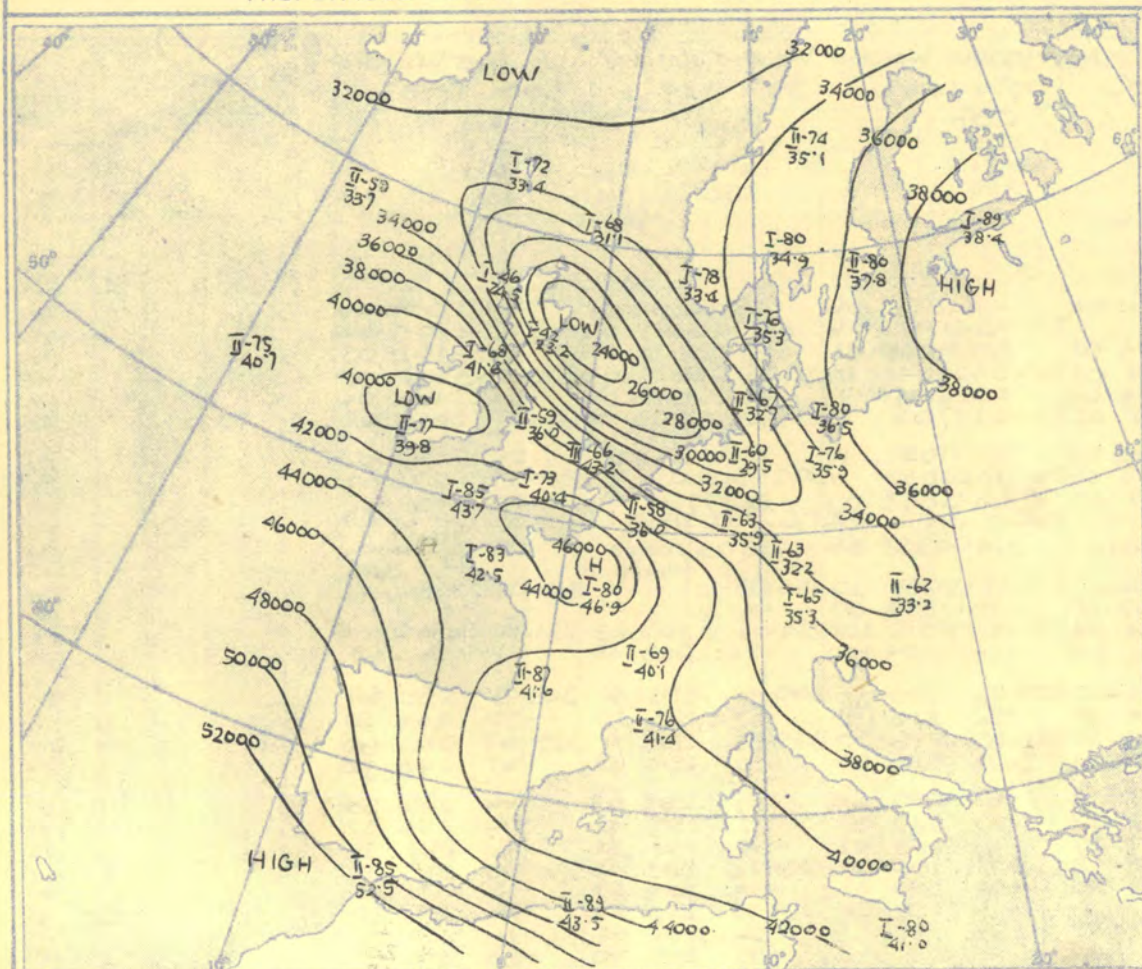


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

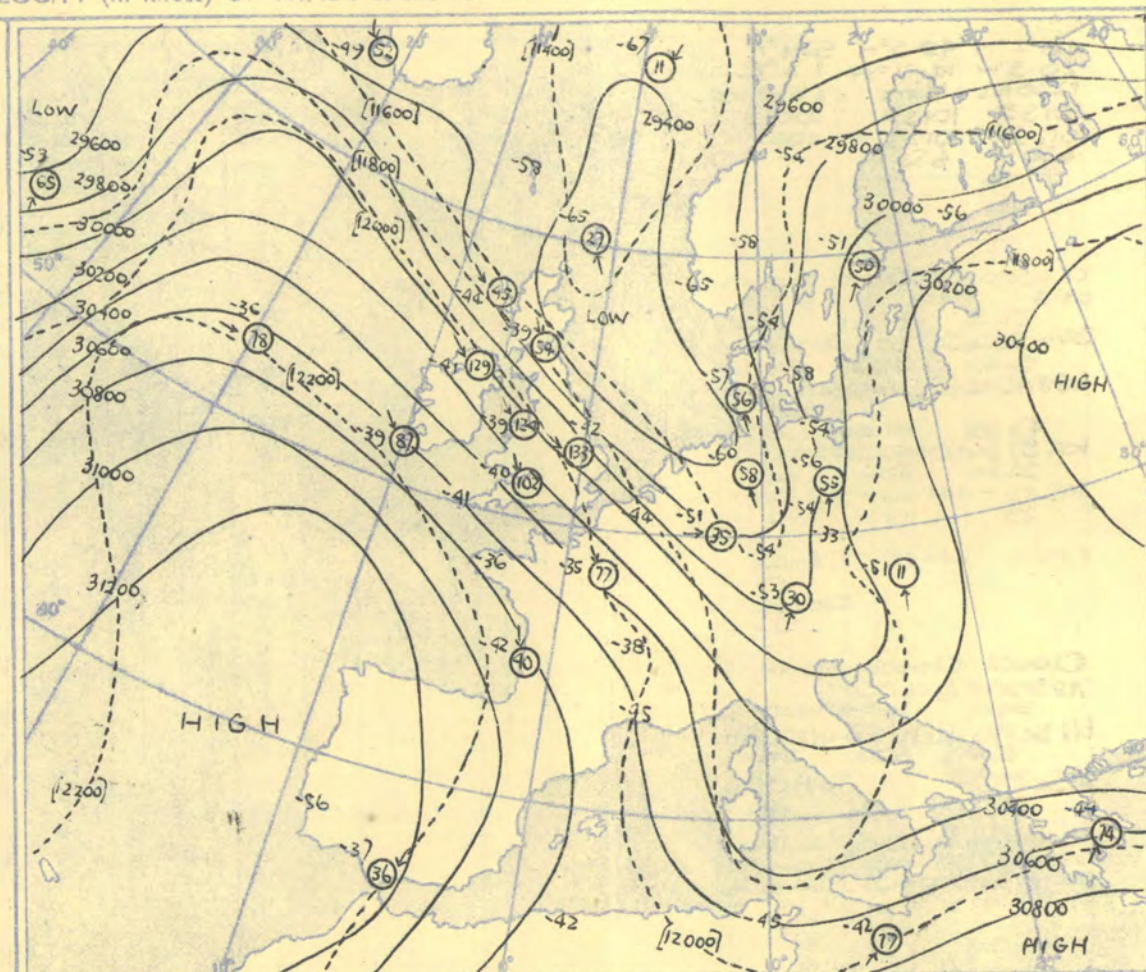
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

100 80 60 40 20 10 knots

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



Contour lines of Height of Tropopause.
Temperature of Tropopause.



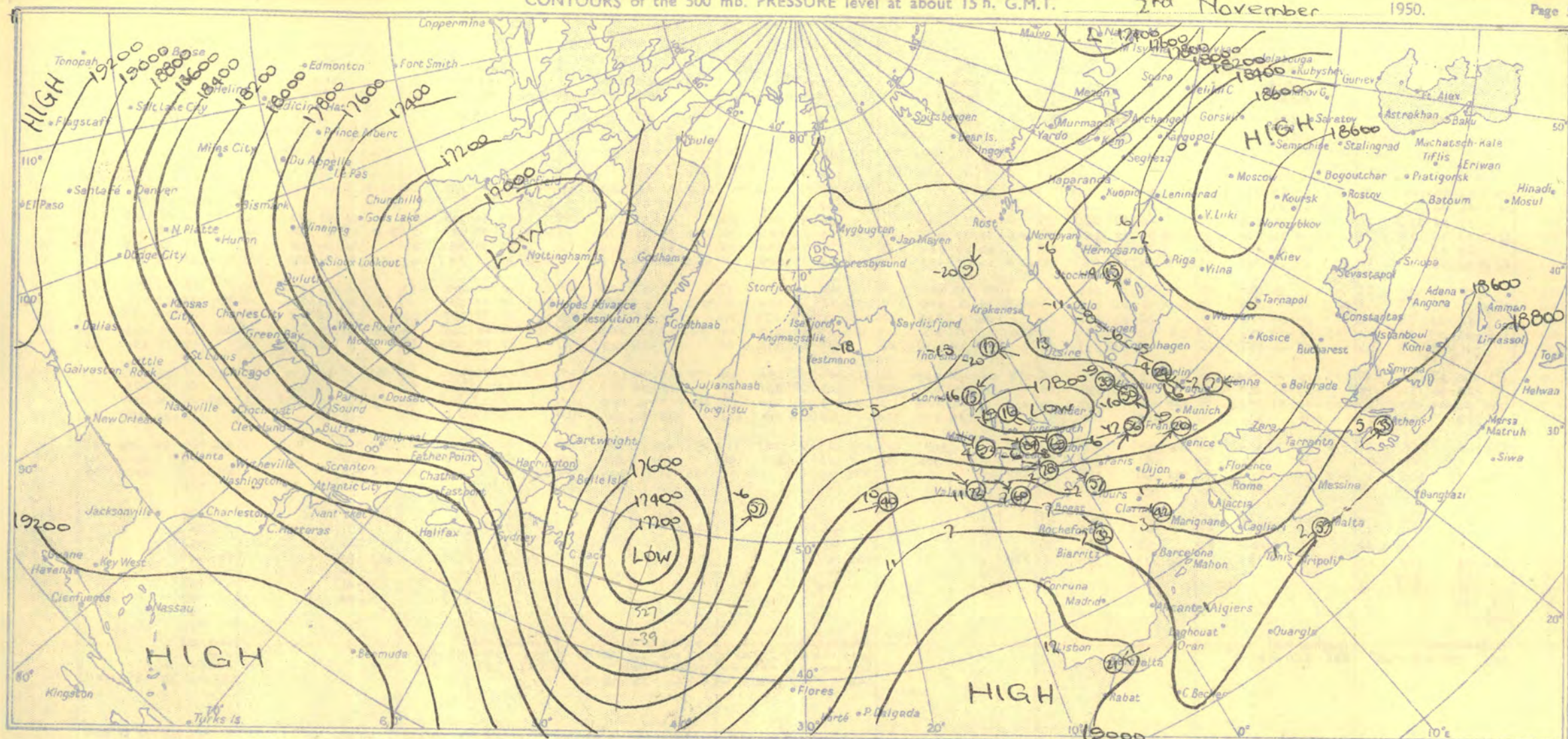
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

NOTES ON THE AEROLOGICAL SITUATION.

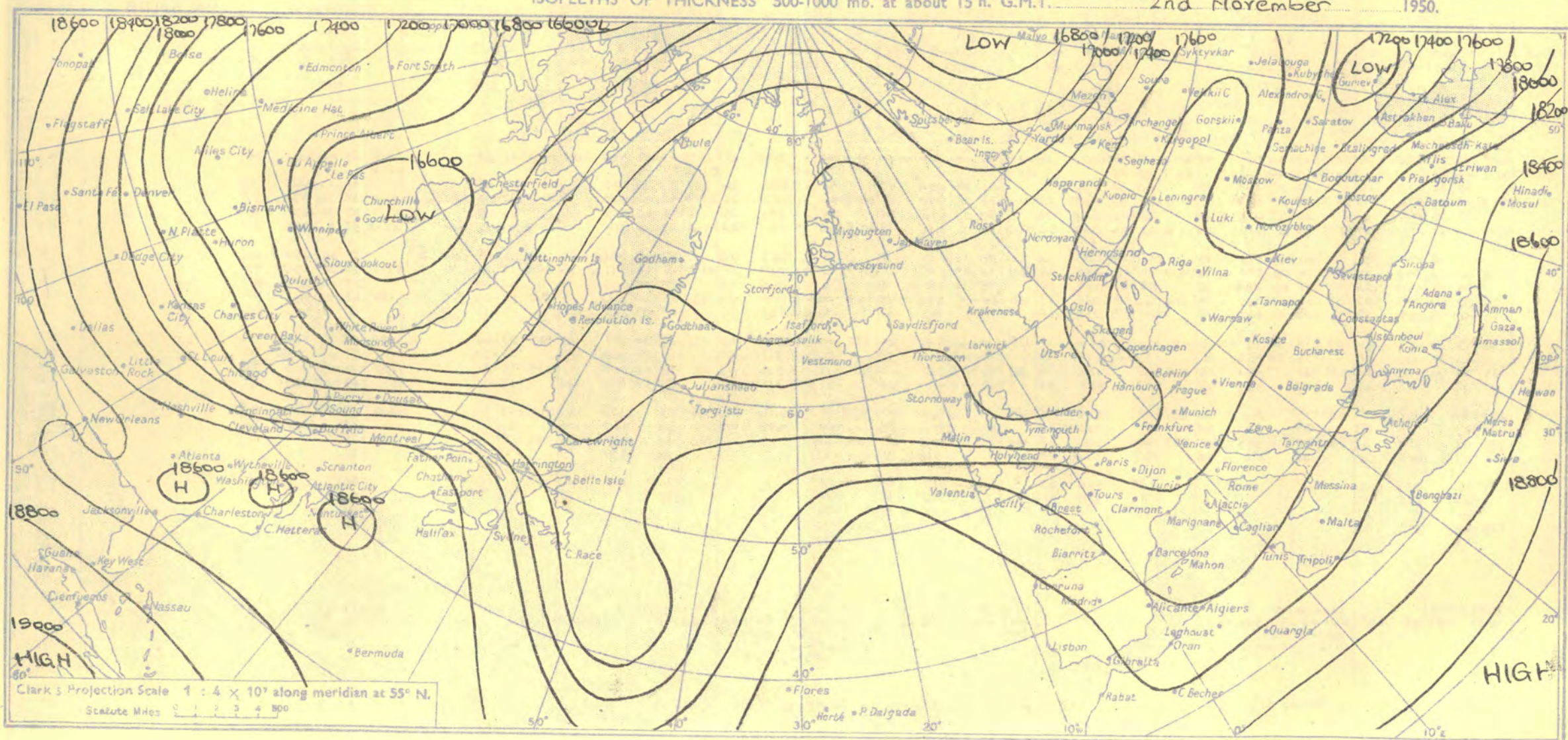
Little change during the day in the thermal pattern. A strong jet persisted from about 500 miles west of Ireland to the Midlands.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.



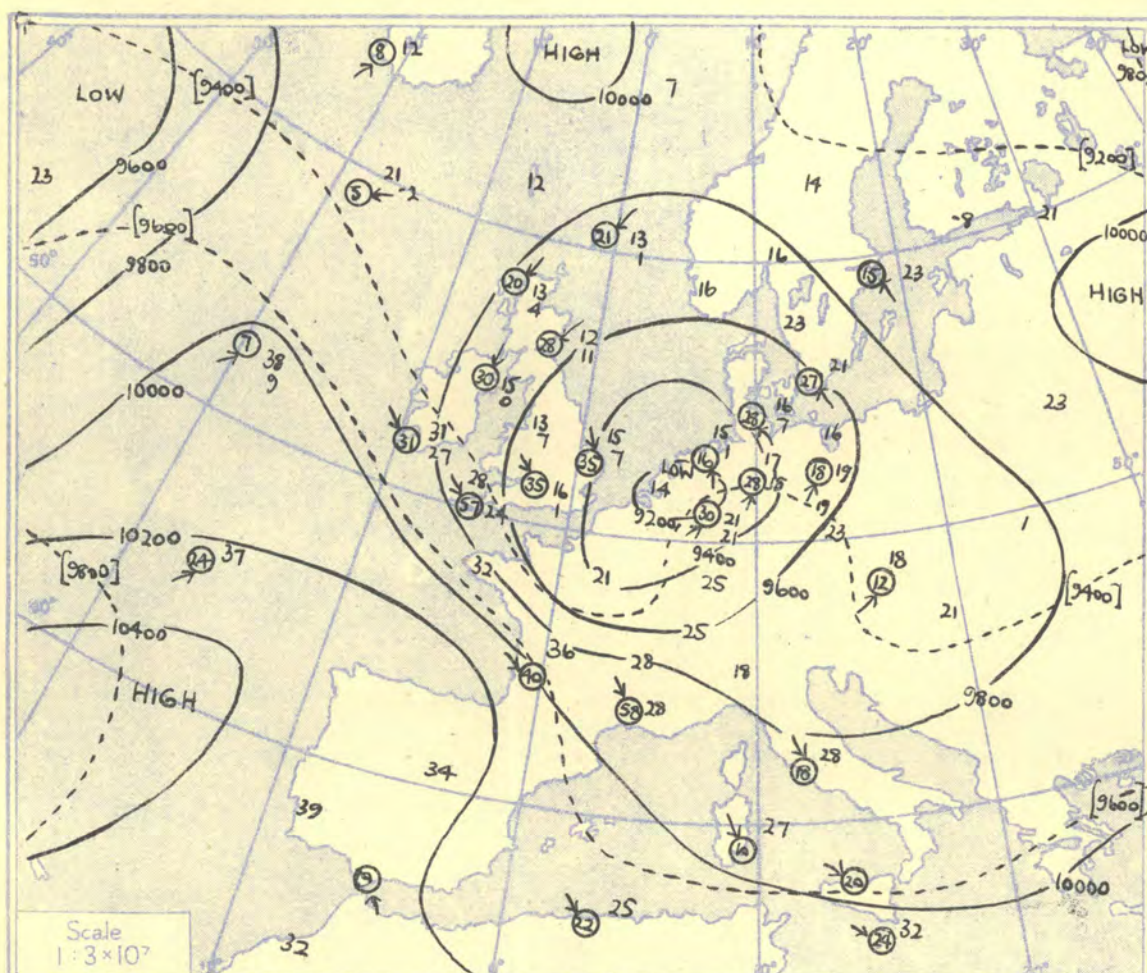
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

1950. Page 1

1950. Page 1

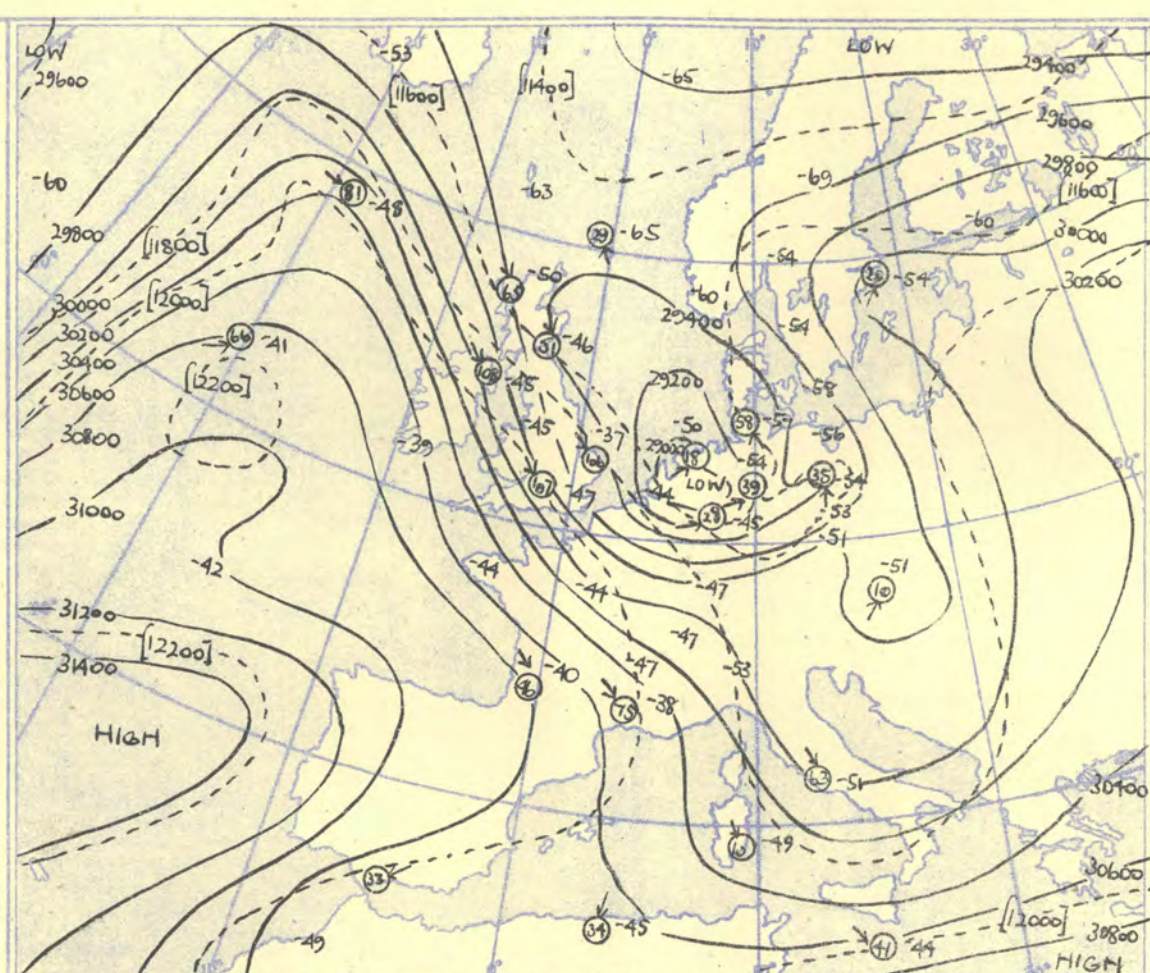
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



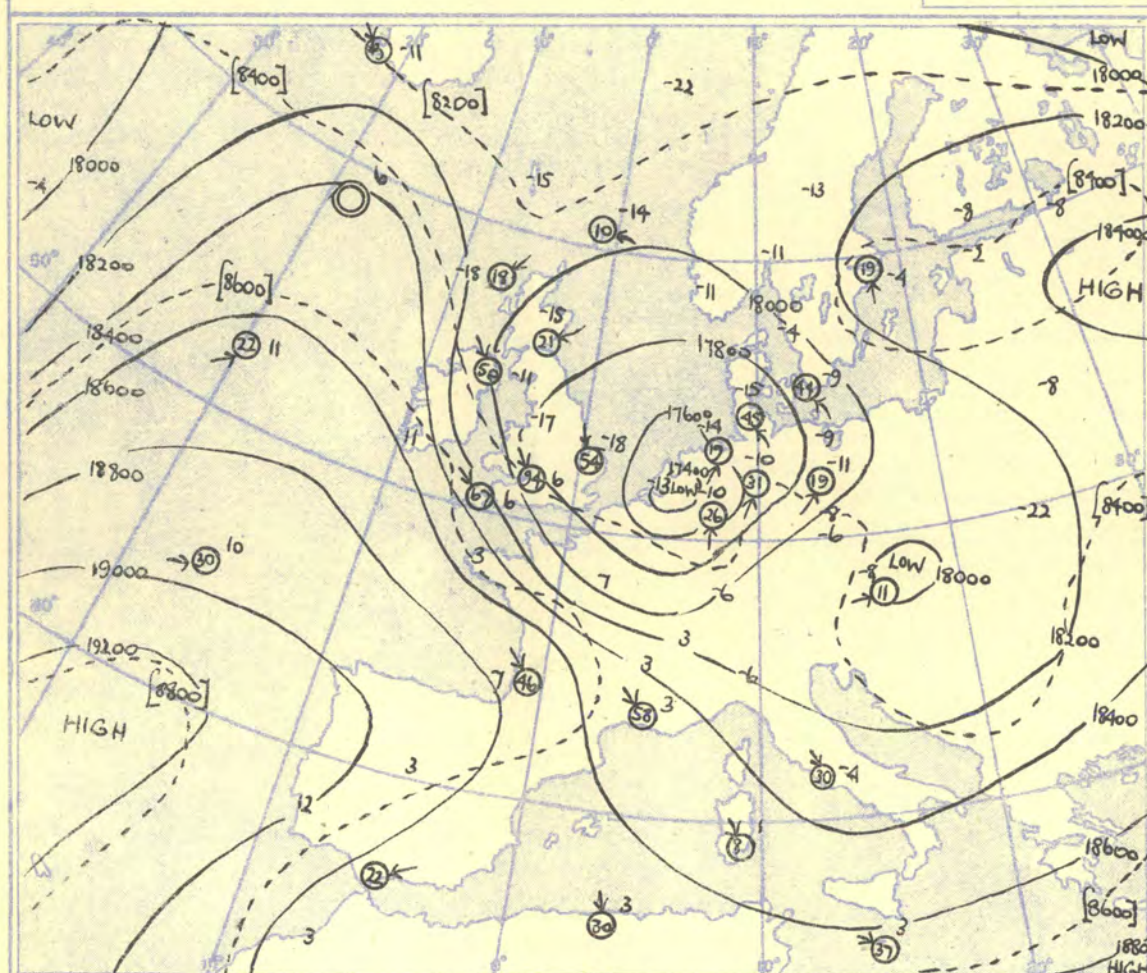
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

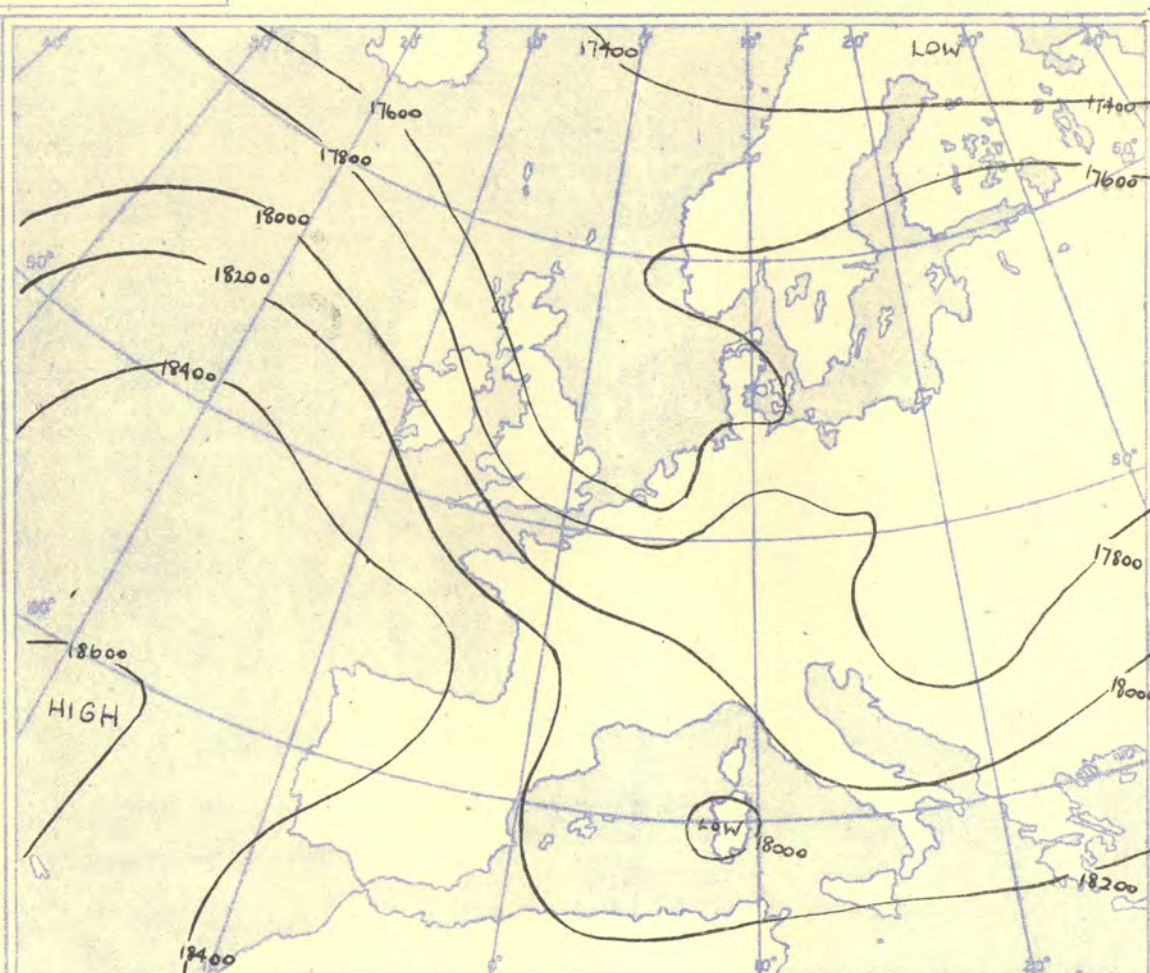
100 80 60 40 20 10 knots



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.



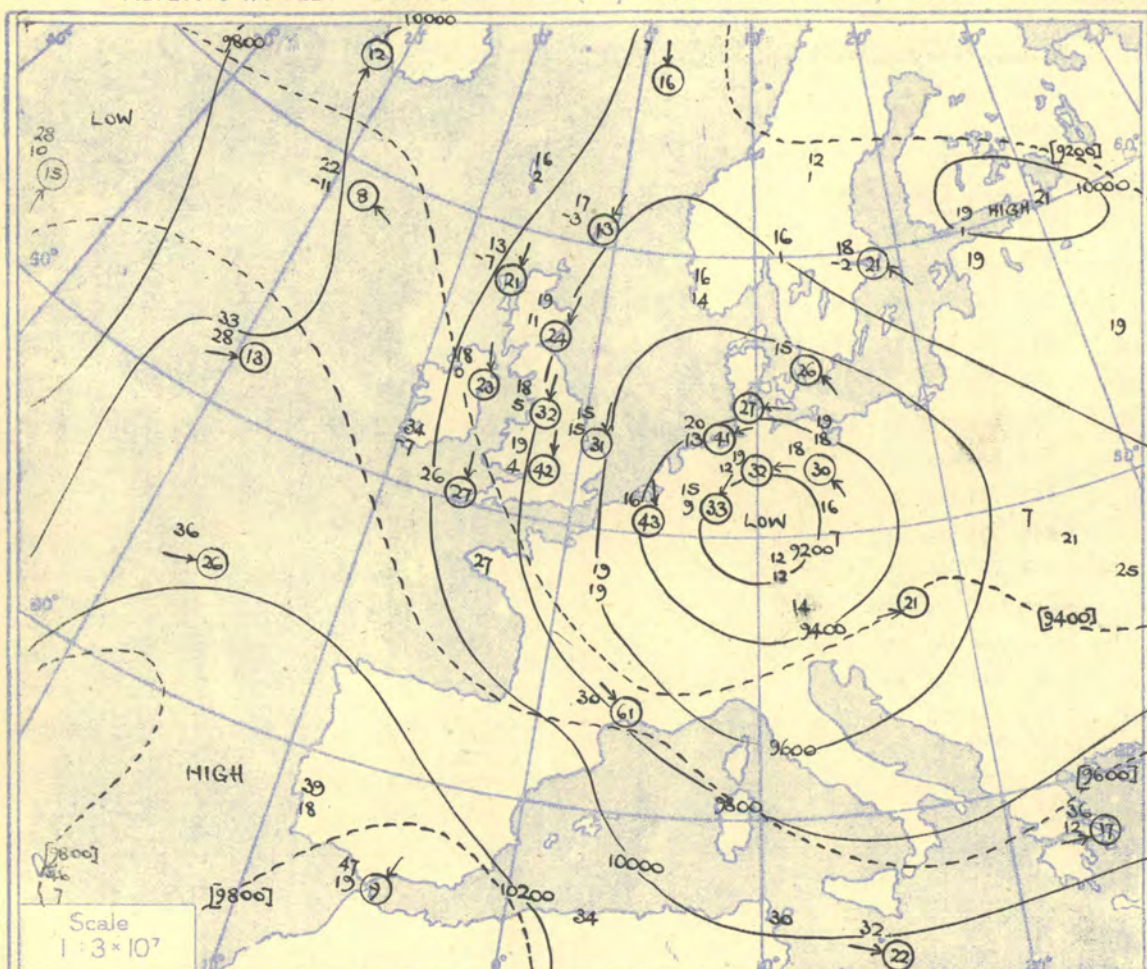
The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700-500 mb.



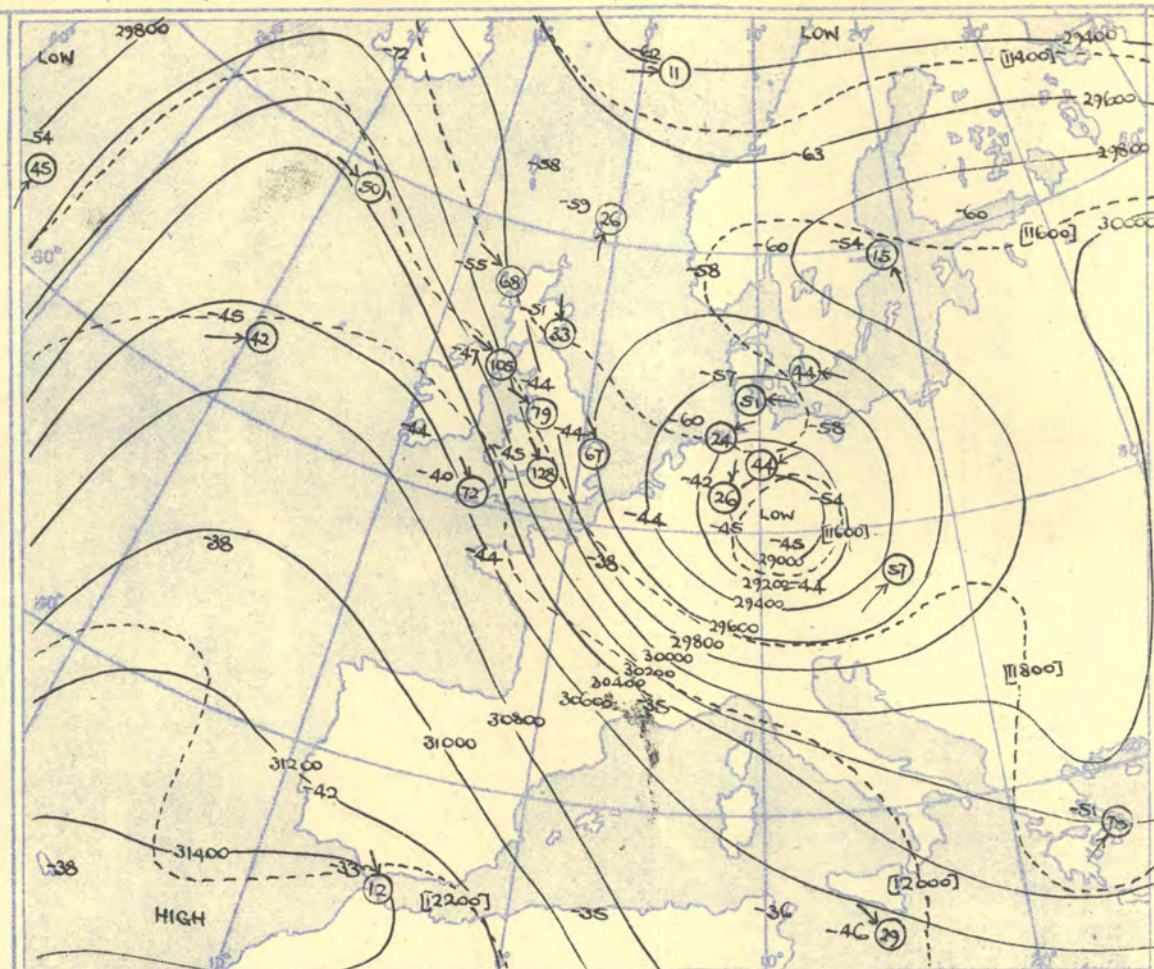
Isopleths of Thickness 500-1000mb.

NEPHOSCOPE OBSERVATIONS

Ship	WEATHER WATCHER.				WEATHER WATCHER.				WEATHER WATCHER.				WEATHER WATCHER.				WEATHER OBSERVER.				WEATHER OBSERVER.				WEATHER OBSERVER.				WEATHER OBSERVER.				Ship
Lat/Long	59° 0'N 19° 0'W.				59° 1'N 18° 9'W.				59° 0'N 19° 0'W.				59° 1'N 19° 0'W.				52° 3'N 20° 0'W.				52° 3'N 20° 3'W.				52° 3'N 19° 3'N.				52° 4'N 19° 9'W.				Lat/Long
Time	03L G.M.T.				03L 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.				Time
M.S.L.	1021 mb				1023 mb				1024 mb				1025 mb				1012 mb				1012 mb				1013 mb				1014 mb				M.S.L.
Surf	1021 mb				1023 mb				1024 mb				1025 mb				1012 mb				1012 mb				1013 mb				1014 mb				Surf
Freezing	820 mb				870 mb				800 mb				800 mb				660 mb				700 mb				690 mb				665 mb				Freezing
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb
Surf	5'6	49	42	085 04	6'1	48	41	105 09	6'4	49	39	120 07	6'7	49	45	115 12	3'3	55	54	130 05	3'3	55	54	100 14	3'6	55	53	090 11	4'0	55	55	130 09	Surf
1000	5'6	47	41	092 06	6'1	45	38	104 08	6'4	46	38	128 08	6'7	47	43	120 15	3'3	55	54	164 06	3'3	55	54	100 14	3'6	54	51	139 12	4'0	55	55	159 06	1000
950	38'7	41	37	091 06	34'3	39	33	102 09	34'8	40	33	128 10	34'9	41	34	124 16	32'4	55	53	180 06	32'5	55	55	151 13	33'6	54	50	158 10	33'0	54	54	161 08	950
900	38'7	36	30	095 07	34'3	34	27	109 09	34'8	37	29	126 12	34'9	34	31	127 19	32'4	54	52	203 07	32'5	55	51	145 14	33'6	53	49	174 13	33'0	53	53	164 07	900
850	65'0	34	21	096 07	65'2	31	21	115 08	66'0	35	19	122 12	66'																				

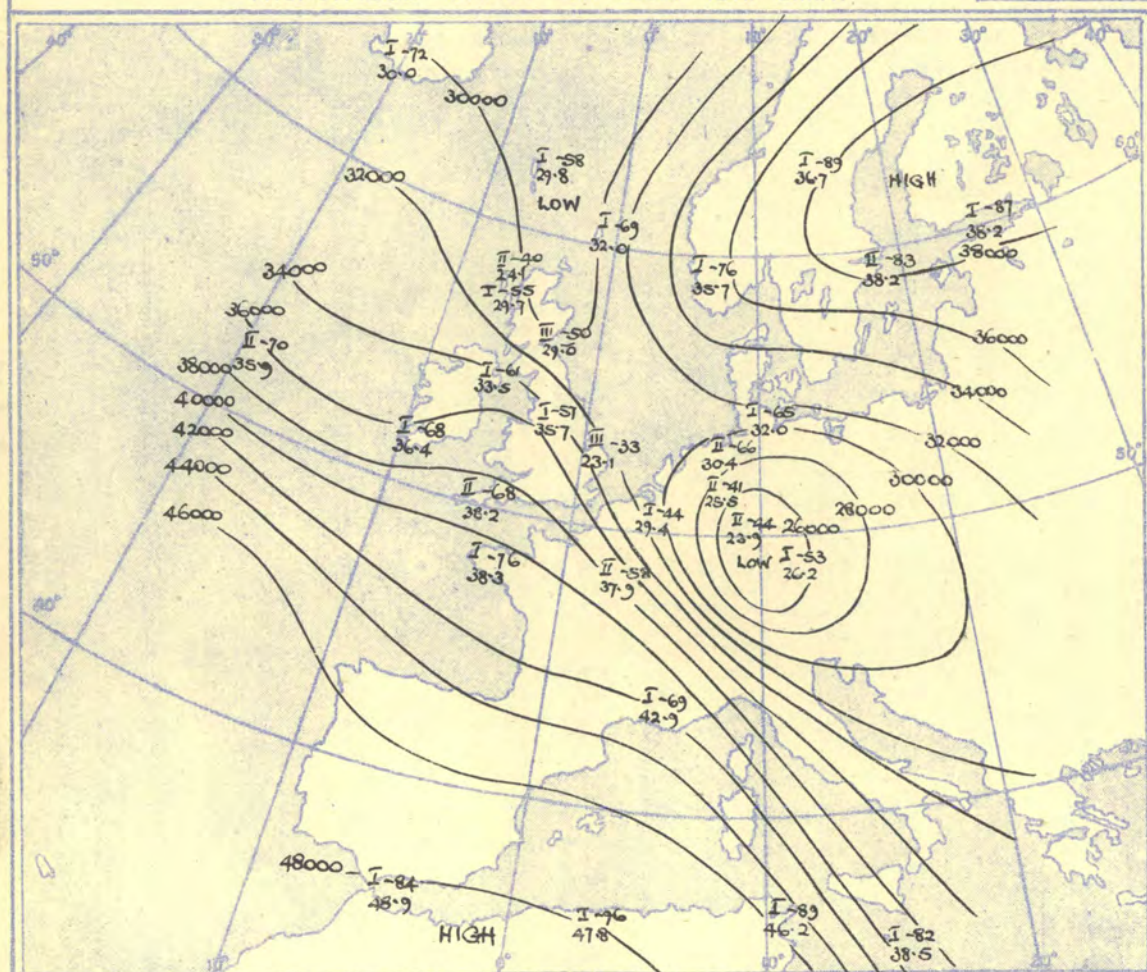


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb



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.



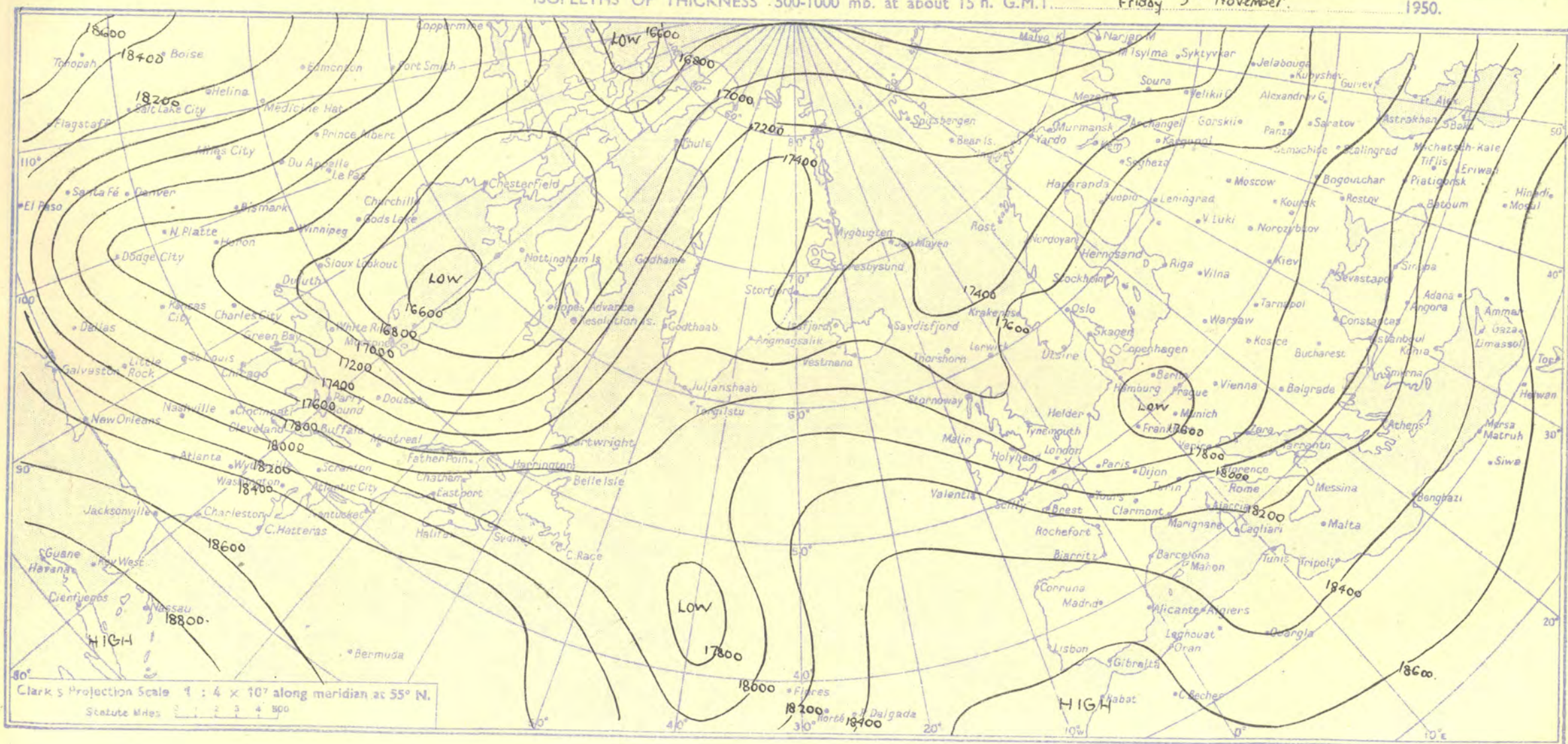
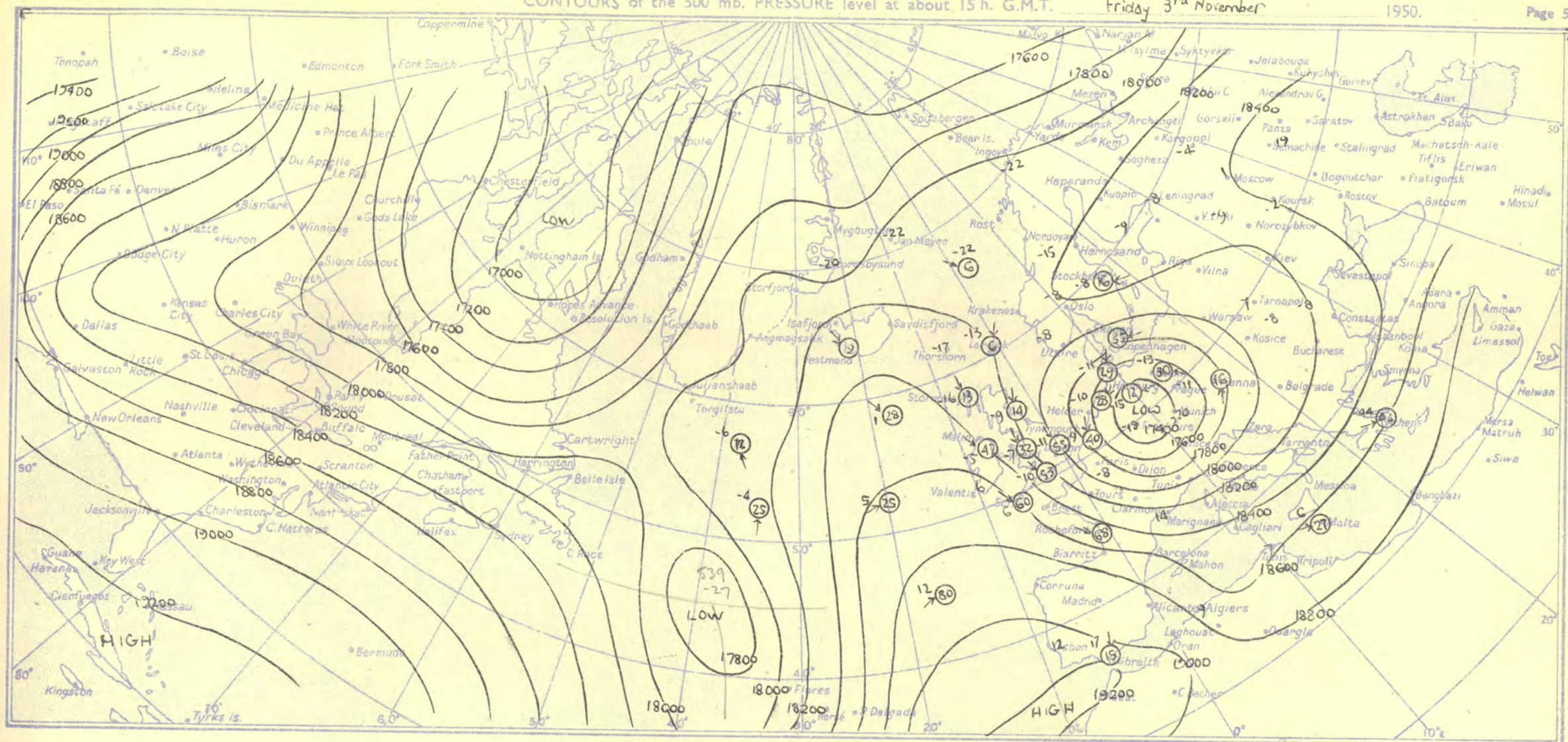
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The jet over the British Isles was transferred a little to the Southeast whilst the warm ridge over the Atlantic was maintained. The thermal trough over the Eastern Atlantic moved eastwards slightly and warmed a little in association with the filling of the depression. Strong thermal gradients persisted over North America.

RATES of SUBSCRIPTION : Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

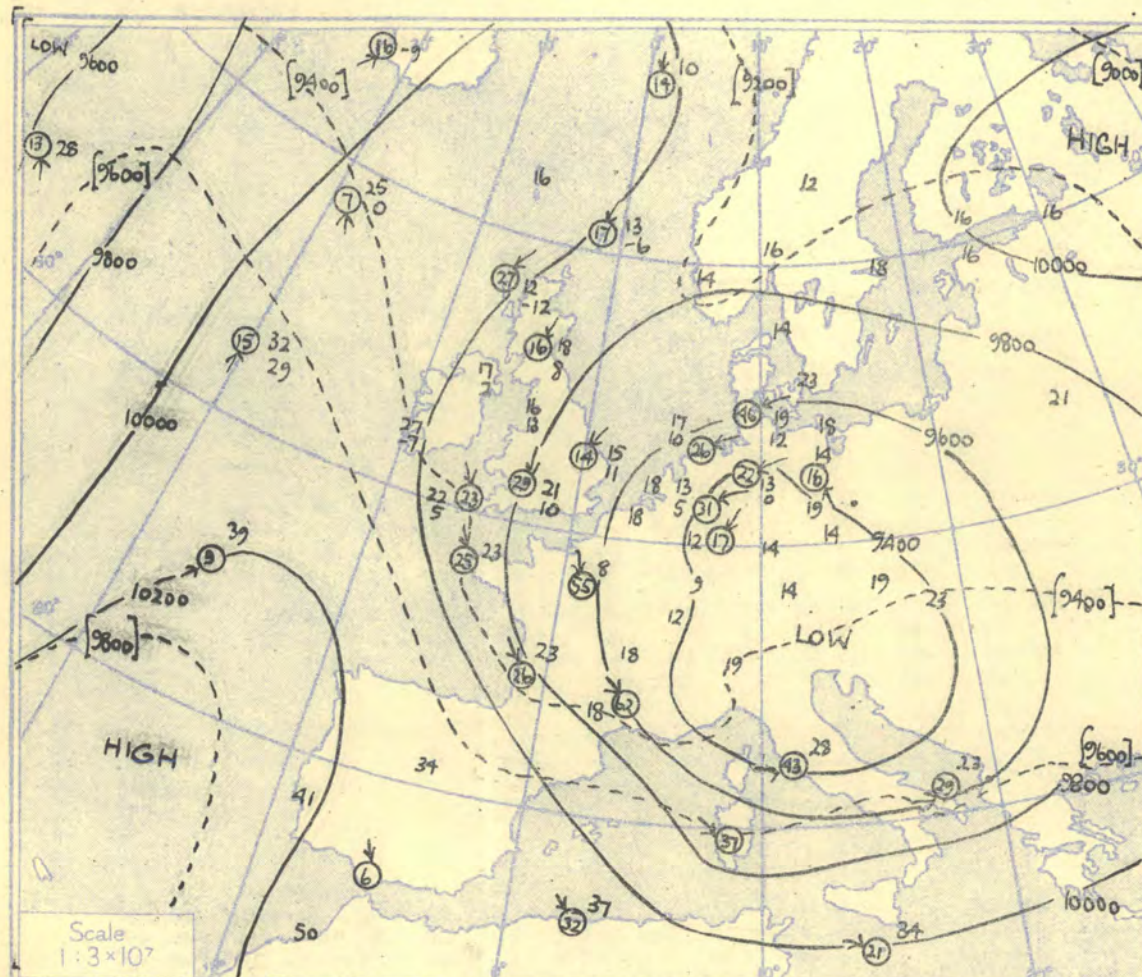
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director



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

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION											
Time M.S.L. Surf Pressure	15hrs G.M.T. 1020.2 mb 1010.0 mb 900	15hrs G.M.T. 1020.7 mb 1021.8 mb 880	15hrs G.M.T. 1018.8 mb 1017.6 mb 882	15hrs G.M.T. 1021.0 mb 1012.4 mb 872	15hrs G.M.T. 1015.9 mb 1013.9 mb 875	15hrs G.M.T. 1008.9 mb 1005.6 mb 875	15hrs G.M.T. 1012.8 mb 996.7 mb 872	15hrs G.M.T. 1017.2 mb 1006.6 mb 795	15hrs G.M.T. 1020.8 mb 1019 mb 750	Time M.S.L. Surf Pressure											
Pressure mb	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Pressure mb
Surf	02.74738030	24.055042030	15.0184929030	1102.35040355	09.065140360	12.0124744340	32.0444841340	15.02.95244020	10.035240050	06	Surf	02.74738030	24.055042030	15.0184929030	1102.35040355	09.065140360	12.0124744340	32.0444841340	15.02.95244020	10.035240050	06
1000	05.44637	06.44735032	21.0494738041	180574937353	18.0434838260	24.0284645	03.5	04.75245	56.514006303	1000	05.44637	06.44735032	21.0494738041	180574937353	18.0434838260	24.0284645	03.5	04.75245	56.514006303	1000	
950	33.3324036	26.3462528047	20.3313428021	26.3403628360	18.32.63827002	24.31.0333355	38.31.83531358	33.33.23834004	19.34.13528081	950	33.3324036	26.3462528047	20.3313428021	26.3403628360	18.32.63827002	24.31.0333355	38.31.83531358	33.33.23834004	19.34.13528081	950	
900	23.20034	27.2920044	23.2824024	29.3021004	23.2322003	23.2322003	34.2525003	34.2525003	20.3823072	900	23.20034	27.2920044	23.2824024	29.3021004	23.2322003	23.2322003	34.2525003	34.2525003	20.3823072	900	
850	64.12612032	27.6542410040	24.6392518029	206492614359	22.63.52516004	28.61.82424003	35.62.62720359	37.64.4322018	25.6343316036	850	64.12612032	27.6542410040	24.6392518029	206492614359	22.63.52516004	28.61.82424003	35.62.62720359	37.64.4322018	25.6343316036	850	
800	22.02032	21.1901033	24.2111032	28.2309354	20.2209003	30.1919008	33.2311358	43.2914003	21.3205350	800	22.02032	21.1901033	24.2111032	28.2309354	20.2209003	30.1919008	33.2311358	43.2914003	21.3205350	800	
750	98.417-3037	13.10013-7023	21.9821911032	24.9931800342	23.97.81803003	32.96.01515007	31.97.01804357	42.9942606351	26.10134-7321	750	98.417-3037	13.10013-7023	21.9821911032	24.9931800342	23.97.81803003	32.96.01515007	31.97.01804357	42.9942606351	26.10134-7321	750	
700	11-9045	05.098018	19.1303033	22.12-8246	28.16-2003	33.1109007	31.16-2351	40.22-3341	29.22-5323	700	11-9045	05.098018	19.1303033	22.12-8246	28.16-2003	33.1109007	31.16-2351	40.22-3341	29.22-5323	700	
650	137.05-15066	05.1380313358	16.13705-8032	14.13807-13248	27.13710-8355	33.13504-4003	30.13608-8340	40.1392501328	23.14123-11321	650	137.05-15066	05.1380313358	16.13705-8032	14.13807-13248	27.13710-8355	33.13504-4003	30.13608-8340	40.1392501328	23.14123-11321	650	
600	-3-21079	06.5-26001	13.2-10024	14.1-25344	31.02-16346	34.3-9004	38.0048335	42.17-6322	60.15-18312	600	-3-21079	06.5-26001	13.2-10024	14.1-25344	31.02-16346	34.3-9004	38.0048335	42.17-6322	60.15-18312	600	
550	181-13-2606	06.187-1633356	13.181-9-19004	14.183-5-22323	47.182-7-26357	32.179-11-13345	53.181-10-3032	53.185-6-17321	60.18706-21311	550	181-13-2606	06.187-1633356	13.181-9-19004	14.183-5-22323	47.182-7-26357	32.179-11-13345	53.181-10-3032	53.185-6-17321	60.18706-21311	550	
500	233-35-43236	06.234-38337	25.234-20-42	28.236-23-46324	63.234-26-39340	57.231-33-39344	59.234-24-41327	87.240-13-29322	74.24415-27307	500	233-35-43236	06.234-38337	25.234-20-42	28.236-23-46324	63.234-26-39340	57.231-33-39344	59.234-24-41327	87.240-13-29322	74.24415-27307	500	
450	47.192	16.4060328	62.43	39.32-56324	34.30-54331	78.39-49343	63.33-51327	120.24-37318	76.28-38306	450	47.192	16.4060328	62.43	39.32-56324	34.30-54331	78.39-49343	63.33-51327	120.24-37318	76.28-38306	450	
400	237-59	187.272755	328.6829851	332.33301-47	317.108300-44	327.79296-44	243.67299-45	326.128	206.4052215	400	237-59	187.272755	328.6829851	332.33301-47	317.108300-44	327.79296-44	243.67299-45	326.128	206.4052215	400	
350	382-62	327.24384-63	323.5638357	336.58388-63	317.66388-63	332.77384-63	67.387-59	324.81	353-63	350	382-62	327.24384-63	323.5638357	336.58388-63	317.66388-63	332.77384-63	67.387-59	324.81	353-63	350	
300	62.333	29.66	332.49	338.61	318.58	330.74	64.64	327.90	-61.315	300	62.333	29.66	332.49	338.61	318.58	330.74	64.64	327.90	-61.315	300	
250	62.336	31.65	333.36	343.48	324.55	327.60	62.325	45.69	233.76	250	62.336	31.65	333.36	343.48	324.55	327.60	62.325	45.69	233.76	250	
200	64.336	29.70	327.35	344.35	322.50	338.48	69.323	45.73	326.60	200	64.336	29.70	327.35	344.35	322.50	338.48	69.323	45.73	326.60	200	
150	69.335	23.78	317.35	337.36	312.57	327.72	78.323	51.70	321.48	150	69.335	23.78	317.35	337.36	312.57	327.72	78.323	51.70	321.48	150	
100	52.70	33.624	328.76	351.37	332.35	332.77	534.72	500.75	320.44	100	52.70	33.624	328.76	351.37	332.35	332.77	534.72	500.75	320.44	100	
90	67.348	21.78	331.31	341.34	324.76	338.73	73.320	44.53	295.42	90	67.348	21.78	331.31	341.34	324.76	338.73	73.320	44.53	295.42	90	
80	65.340	29.79	341.27	347.25	324.76	338.73	73.320	44.53	295.42	80	65.340	29.79	341.27	347.25	324.76	338.73	73.320	44.53	295.42	80	
70	65.341	29.79	341.27	347.25	324.76	338.73	73.320	44.53	295.42	70	65.341	29.79	341.27	347.25	324.76	338.73	73.320	44.53	295.42	70	
60	Inversion 840mb24-813mb27	Isenthal 743-729mb17	Inversion 820mb25-807mb26	Inversion 520mb7-42mb5	Inversion (20)-81	Inversion 665mb15-643mb16	Inversion 383mb73-374mb76	Inversion 264mb52-267mb53	Inversion 821mb26-811mb28	60	Inversion 840mb24-813mb27	Isenthal 743-729mb17	Inversion 820mb25-807mb26	Inversion 520mb7-42mb5	Inversion (20)-81	Inversion 665mb15-643mb16	Inversion 383mb73-374mb76	Inversion 264mb52-267mb53	Inversion 821mb26-811mb28	60	
Tropopause	I 269 mb -69° 32000'	I 386 mb -40° 24100'	III 310 mb -50° 29000'	I 256 mb -61° 33500'	I 230 mb -57° 35700'	III 400 mb -33° 23100'	I 134 mb -74° 47100'	II 210 mb -68° 28200'	I 230 mb -68° 26400'	Tropopause	I 269 mb -69° 32000'	I 386 mb -40° 24100'	III 310 mb -50° 29000'	I 256 mb -61° 33500'	I 230 mb -57° 35700'	III 400 mb -33° 23100'	I 134 mb -74° 47100'	II 210 mb -68° 28200'	I 230 mb -68° 26400'	Tropopause	
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION												
Time M.S.L. Surf Pressure	21hrs G.M.T. 1022.2 mb 1012.0 mb 900	21hrs G.M.T. 1025.6 mb 1023.5 mb 890	21hrs G.M.T. 1020.8 mb 1019.9 mb 860	21hrs G.M.T. 1022.7 mb 1013.8 mb 870	21hrs G.M.T. 1018.3 mb 1016.3 mb 871	21hrs G.M.T. 1013.6 mb 1009.2 mb 870	21hrs G.M.T. 1016.0 mb 999.7 mb 878	21hrs G.M.T. 1015.9 mb 1008.3 mb 785	Time M.S.L. Surf Pressure												
Pressure mb	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Height ft./100	Temp. °F. °C.	Dew °F. °C.	Wind Dir. Vel. knots	Pressure mb
Surf	02.74639045	25.054841030	15.023938360	65.0233624	06.4535010	12.0124543330	11.0444540260	15.0294943017	12	Surf	02.74639045	25.054841030	15.023938360	65.0233624	06.4535010	12.0124543330	11.0444540260	15.0294943017	12		
1000	05.44539031	30.0694638031	30.0534441347	24.0534034038	08.0434438003	19.0374443	04.3	05.14541013	18	1000	05.44539031	30.0694638031	30.0534441347	24.0534034038	08.0434438003	19.0374443	04.3	05.14541013	18		
950	33.322033	30.3335035	21.4036050	21.4139025	09.4034012	21.4139025	29.31.53530003	33.33.5353004	18	950	33.322033	30.3335035	21.4036050	21.4139025	09.4034012	21.4139025	29.31.53530003	33.33.5353004	18		
900	34.03226034	28.350325041	24.3373331038	23.3413629014	19.33.13523012	24.31.53532015	29.31.53530003	33.33.5353004	18	900	34.03226034	28.350325041	24.3373331038	23.3413629014	19.33.13523012	24.31.53532015	29.31.53530003	33.33.5353004	18		
850	27.22036	28.2723038	23.3127031	26.2920012	18.3026011	22.3027021	24.2823009	33.3926357	18	850	27.22036	28.2723038	23.3127031	26.2920012	18.3026011	22.3027021	24.2823009	33.3926357	18		
800	64.625	11.041	24.657	24.06032	22.64.62722028	24.6592910012	17.63.92420017	21.62.82723013	25.6332418010	800	64.625	11.041	24.657	24.06032	22.64.62722028	24.6592910012	17.63.92420017	21.62.82723013	25.6332418010	800	
750	22.07046	20.19-2033	23.2210024	22.2305011	18.2117015	23.2317004	26.2215004	33.2814347	21	750	22.07046	20.19-2033	23.2210024	22.2305011	18.2117015	23.2317004	26.2215004	33.2814347	21		
700	98.91902047	16.10012-11027	22.9901509024	20.994180209	20.9831911005	23.97.21904008	22.97.51911356	31.9972403233	24	700	98.91902047	16.10012-11027	22.9901509024	20.994180209	20.9831911005	23.97.21904008	22.97.51911356	31.9972403233	24		
650	12.03045	10.0817016	18.1103021	19.12-4358	22.14.07008	26.14-1008	17.1300351	39.20-4327	26	650	12.03045	10.0817016	18.1103021	19.12-4358	22.14.07008	26.14-1008	17.1300351	39.20-4327	26		
600	138.04-4038	02.13802-22007	18.13804-1019	19.13808-13353	28.13708-1003	27.1360712010	20.13703-7348	36.1391646330	51	600	138.04-4038	02.13802-22007	18.13804-1019	19.13808-13353	28.13708-1003	27.1360712010	20.13703-7348	36.1391646330	51		
550	-2-7010	07.6-28358	17.1-7017	19.01-23338	33.0-43356	27.1-21003	22.01-15350	32.13-10330	55	550	-2-7010	07.6-28358	1								

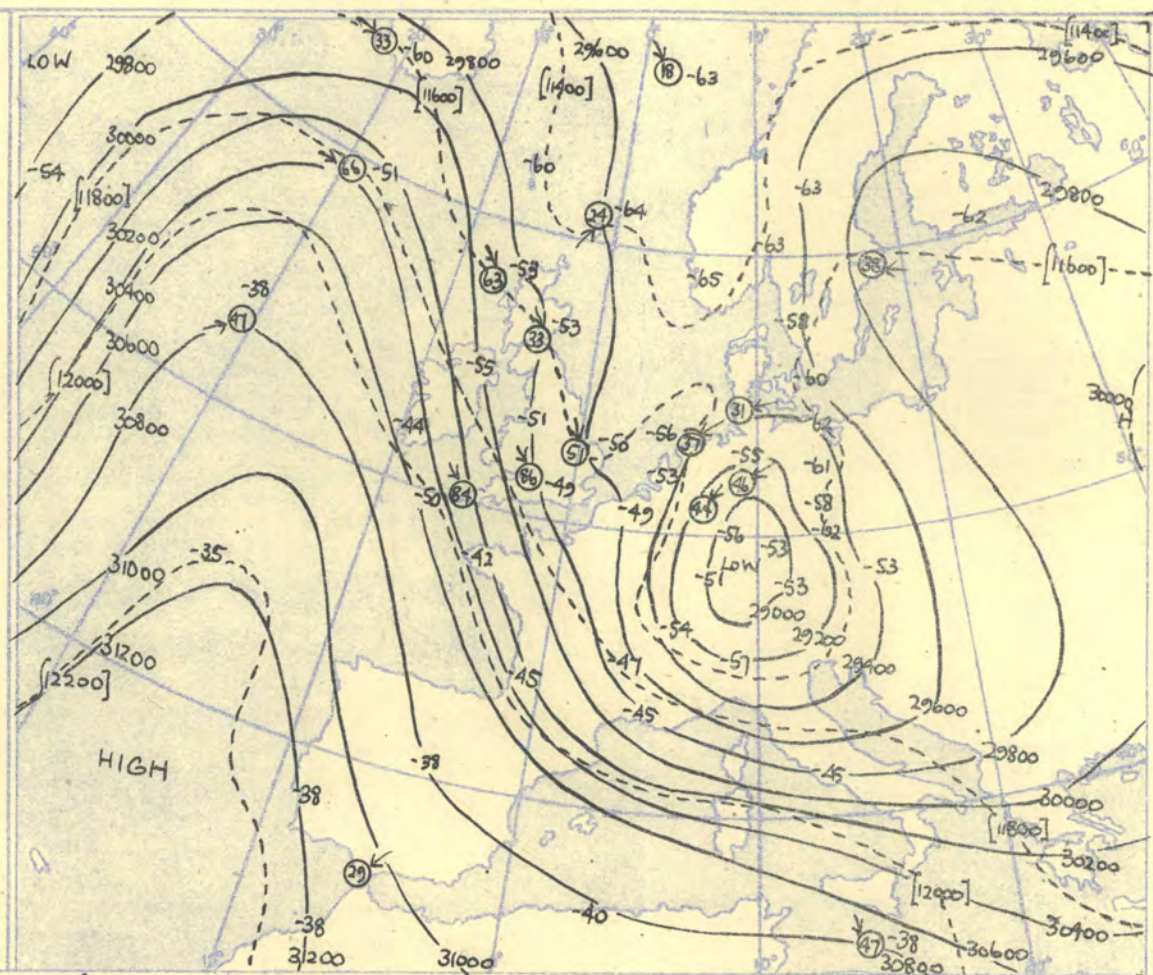
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																							
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure mb	Time M.S.L.	03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		Time M.S.L.					
		Surf	Freezing	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb						
		1014.0	918	1024.1	872	1022.0	885	1023.3	887	1019.5	874	1014.5	872	1016.4	888	1019.6	805.860	1022.950	810																				
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb							
Surf	02.7	45.36	060	27.00.5	47	41		00.2	05.8	43	39	359	15.06.1	37	34	038	00.6	42	38	01.2	45	40	325	14	4.4	42	40	360	15	02.9	43	41	030	07.00.3	36	33	Surf		
1000	06.4	44.34	030	31.07.3	45	42		05.8	43	39	359	15.06.1	37	34	038	00.6	42	38	04.0	43	42	349	26	4.4	42	40	360	15	02.9	43	41	030	15.06.2	43	38	1000			
950		37.29	030	29	40	38			39	36	018	16	40	31	025	09	38	35		39	37	005	26	4.4	42	40	360	30	05.2	44	41	011	16.06.2	43	38	950			
900	34.5	30.24	035	28.35.5	34	30	For Winds	33.9	34	31	032	20.34.2	34	25	014	19	33.2	34	30	32.2	35	33	014	27	32.5	34	32	004	30	53.5	37	33	011	23.34.4	37	31	900		
850		27.18	038	26	28	25			28	25	056	19	27	20	012	18	30	25		30	27	017	25	26	23	004	30	30	25	356	21	35	24	Winds	850				
800	65.1	25.06	042	26.46.2	24	13	See	64.7	24	19	038	15.66.0	26	09	012	17	64.1	25	21	63.0	24	21	020	26	63.2	24	20	003	30	64.6	31	15	351	22.65.5	32	15	800		
750		20.01	038	25	18	00	Page 3.		21	11	028	0	22	02	011	18		18	15		20	17	017	21	23	17	001	31	26	05	351	23	28	04	See Page	750			
700	99.3	13.06	022	17.10.0	12	12		99.0	19	08	014	16.99.3	07	03	007	20.98.2	16	15		97.2	15	11	020	14	97.5	21	10	359	29	99.2	22	05	347	23.10.0	27	07	700		
650		08.14	017	12	06	19			12	05	017	15	12	10	358	22		11	04		08	04	351	10	15	03	349	27	17	14	341	27	26	03	650				
600	138	02.09	016	11.139	03.24			138	06.04	023	16	138	05.21	353	28	137	04.05			136	05.03	314	14	137	06.05	348	27	138	13	21	333	36	140	19	05	600			
550		06.14	013	11	06	36			02.07	025	16	02	33	338	35	03	16			03	19	317	17	04	14	349	30	08	18	332	51	12	04	550					
500	182	17.25	016	14	183	16.48		182	11	18	018	18	183	08.43	336	45	181	12.30		180	11	32	323	14	181	13	23	343	34	184	02.22	330	67	186	04.05	500			
450		27.36	355	10	28.51				23	31	359	20	14	48	338	54		22.39			23	42	321	15	21	40	336	54	09	31	329	65	05	15	450				
400	233	38.47	268	05	234	35.58		234	34	40	012	11	235	26.58	335	63	233	28.47		232	33	52	323	24	233	25	51	335	75	237	22.42	328	62	240	16.29	400			
350		51	193	14	43				43	345		12	39	59	326	78		39.58					338	33	39	63	333	75	35	53	326	67	29	47	350				
300	296	64	205	24	298	53		298	53	334	33	300	55		333	106	298	51		296	50	342	51	298	49	333	86	302	50	323	84	306	44	300					
250		62	332	16	60				58				68				58				58	345	57	57	332	85	336	85	67	324	90	372	52	250					
200	381	62	342	28	385	59			64				64				60			383	58	340	65	385	61	336	62	388	67	324	86	mb)		200					
170		65	333	33	67				69				69				65				65	343	57	68	333	70	75		75				170						
150		68	344	36	71				74				74				67				69	348	57	67	341	61	74		74				150						
130		70	345	31	71				75				75				72				71	348	45	70	339	36	79		79				130						
110		72	346	29	71												76				74	345	38	73	335	42	83		83				110						
100	526	74	346	29	529	71											78			528	79	343	38	529	77	332	44	529	84				100						
90		75	344	30													80				80	346	39	80	332	44	85		85				90						
80		78	346	28													82				82		27	81									80						
70		82															83				82													70					
60																	83				83													60					
Inversion		866 mb 25° - 840 mb 28°		Inversion		812 mb 23° - 790 mb 25°		Inversion		1021 mb 42° - 1000 mb 43°		Inversion		1014 mb 34° - 980 mb 44°		Inversion		742 mb 17° - 732 mb 18°		Inversion		321 mb 47° - 315 mb 46°		Inversion		739 mb 21° - 718 mb 23°		Inversion		1009 mb 43° - 990 mb 48°		Inversion		1022 mb 36° - 988 mb 46°					
		Isothermal								Isothermal								Isothermal				Isothermal				Isothermal				Isothermal				Isothermal					
		850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°				850 - 30° - 830 - 35°					
		550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°				550 - 08° - 536 - 09°					
		Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal					
		622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°				622 - 592 mb 13°					
Tropopause		I 285 mb - 68° 30, 600		II 290 mb - 55° 30, 600		II 281 mb - 56° 31, 200		I 245 mb - 70° 34, 300		I 265 mb - 60° 32, 500		I 240 mb - 60° 34, 100		I 215 mb - 64° 36, 900		I 215 mb - 73° 37, 300		N.R.		Tropopause														Tropopause					
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure mb	Time M.S.L.	09h		G.M.T.		09h		G.M.T.		03h		G.M.T.		09h		G.M.T.		09h		G.M.T.		09h		G.M.T.		09h		G.M.T.		09h		G.M.T.		Time M.S.L.					
		Surf	Freezing	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb						
		1016.9	910	1027.2	800	1029.0	894	1024.1	895	1020.1	853	1018.6	870	1017.4	866	1021.0	860 800	1021.0	860 800																				
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb							
Surf	02.7	46	39	040	19	00.5	47	44	00.2	06.4	40	360	15	06.5	40	37	00.6	42	40	030	12	01.2	46	44	350	14	4.4	43	41	360	12	02.9	48	41	020	08	Surf		
1000	07.2	44	38	030	28	07.8	47	42	06.4	44	39	360	14	06.5	40	37	05.5	43	39	034	18	04.6	45	42	010	27	4.7	43	41	360	12	02.9	48	41	020	08	1000		
950		37	30	030	26	39	35			39	36	030	15	40	36			41	38	032	21		41	38	023	27		39	36	022	25	43	39	023	17	950			
900	36.2	31	25	033	26	35.9	33	30	34.6	33	32	062	16	34.6	32	29	33.7	25	31	030	22	32.7	25	31	027	28	32.8	35	30	025	26	33.7	37	33	030	19	900		
850		30	18	036	22	27	26			29	26	063	16	29	19			31	25	029	21		31	27	026	25		31	23	019	27	31	29	032	20	850			
800	65.8	25	04	034	23	66.5	23	14	65.3	24	23	064	14	65.5	28	16	64.6	26	31	019	19	63.6	26	21	028	24	63.7	26	19	023	27	64.7	32	24	025	18	800		
750		19	02	027																																			



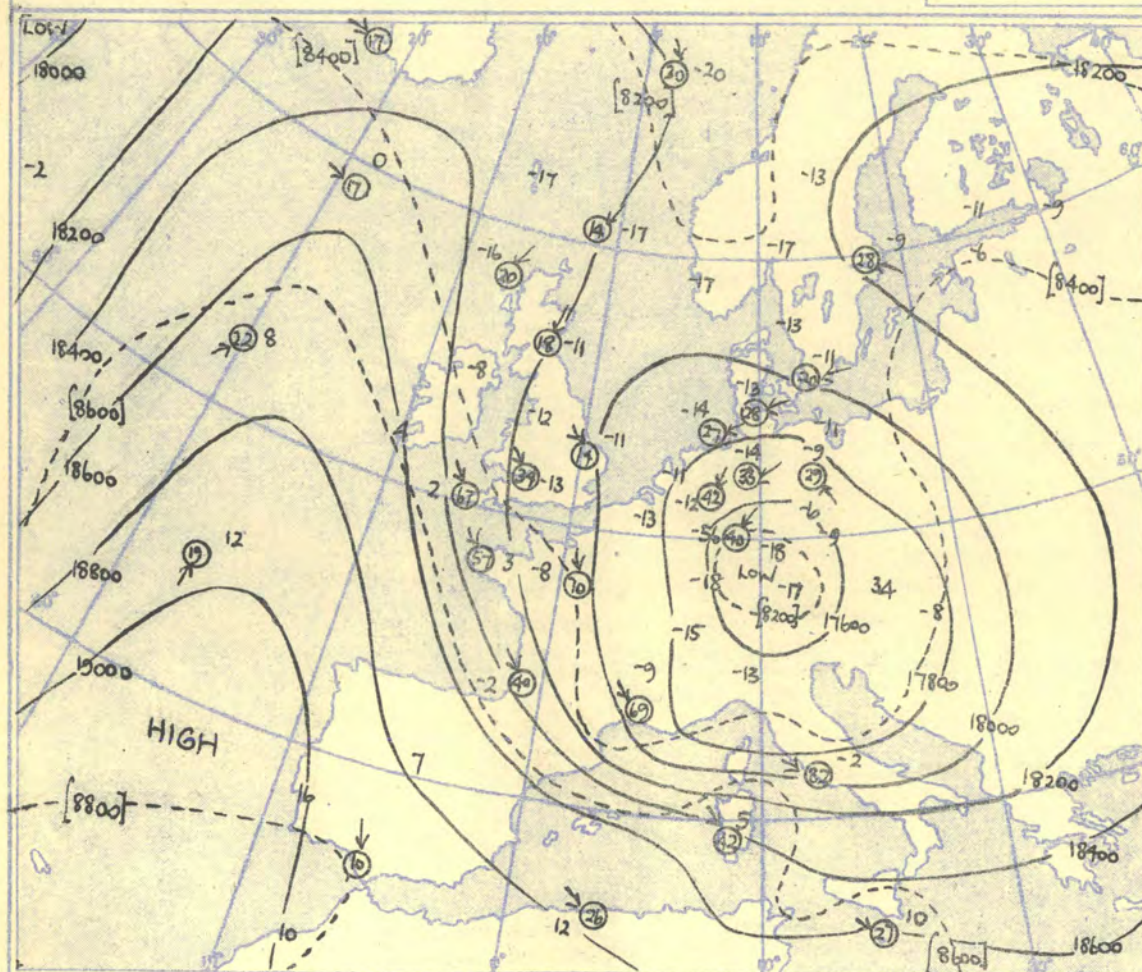
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

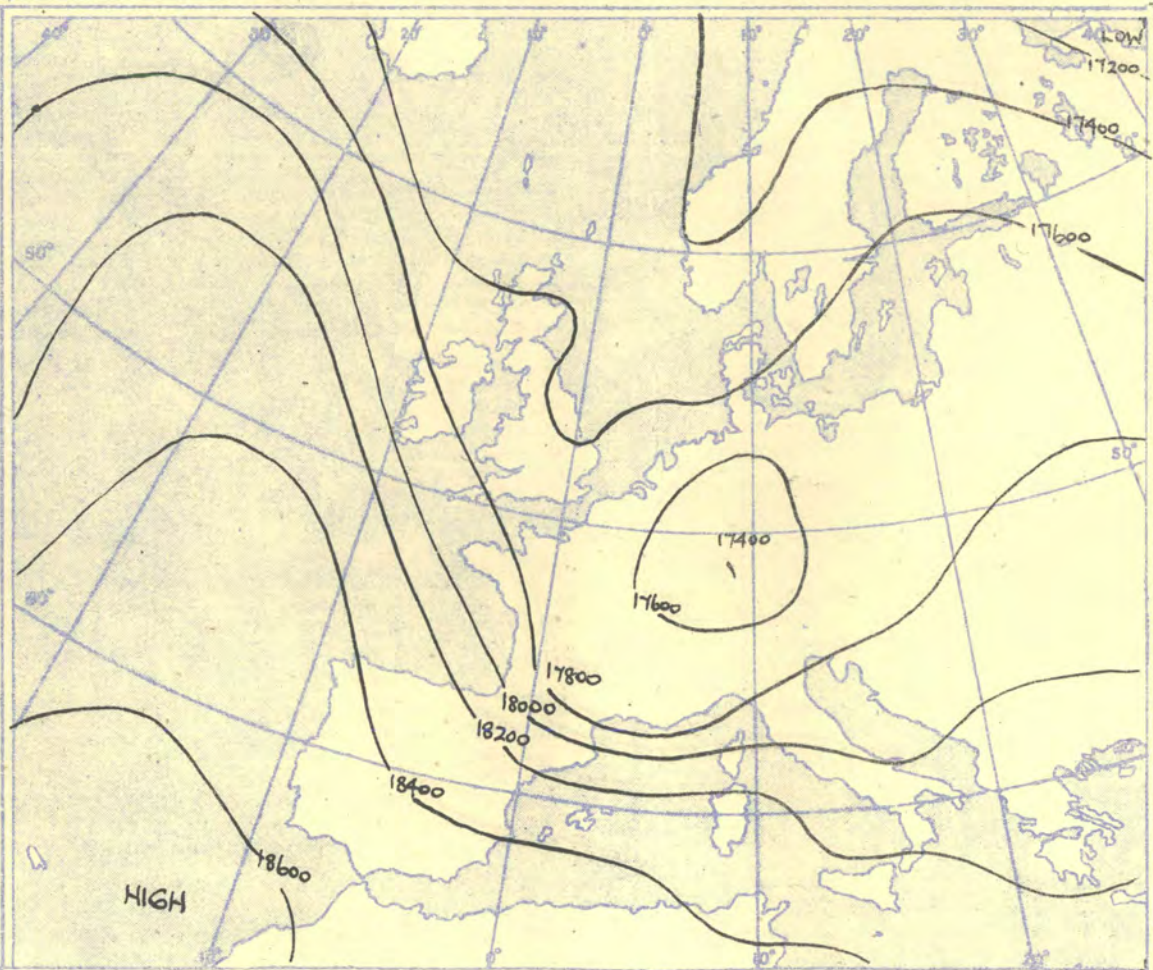
100 80 60 40 20 10 knots



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



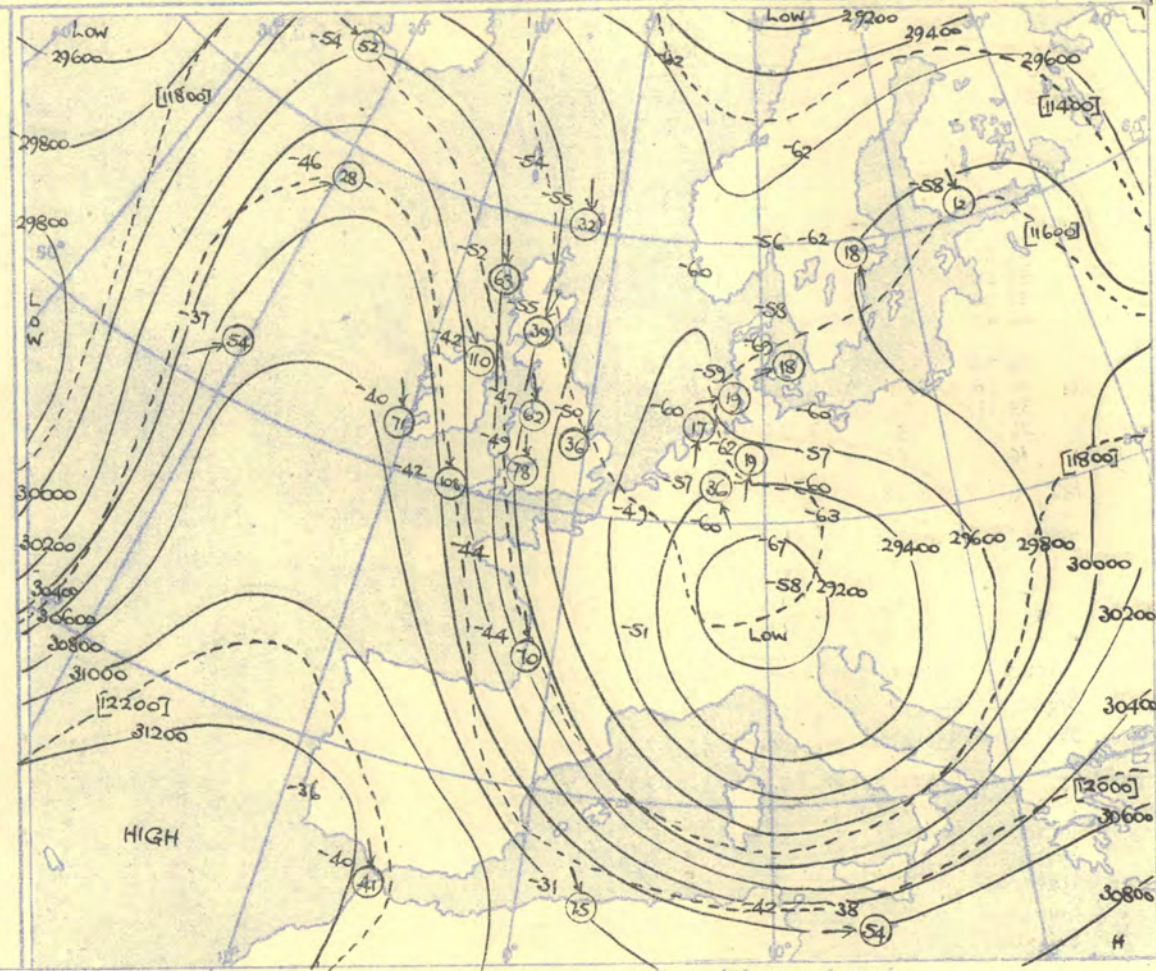
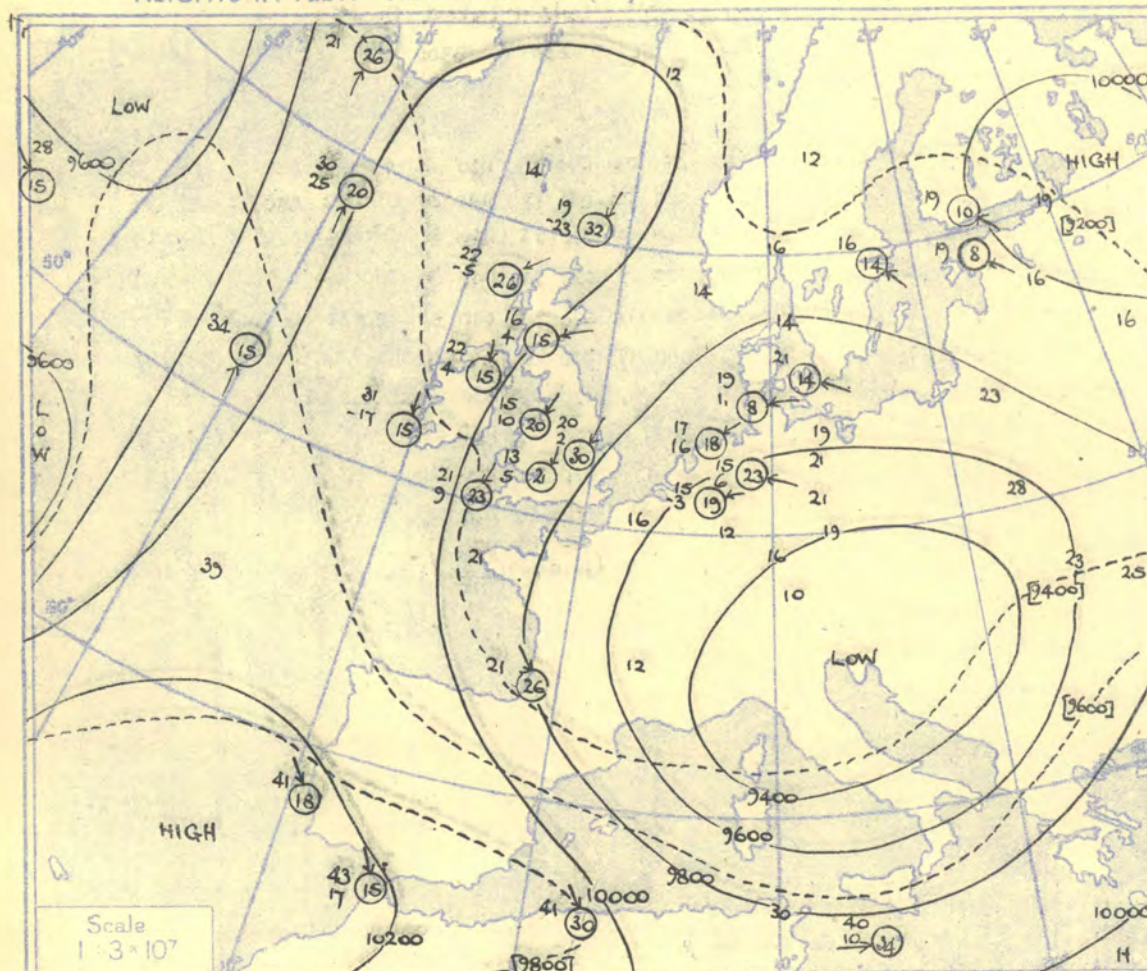
Isopleths of Thickness 500-1000mb.

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

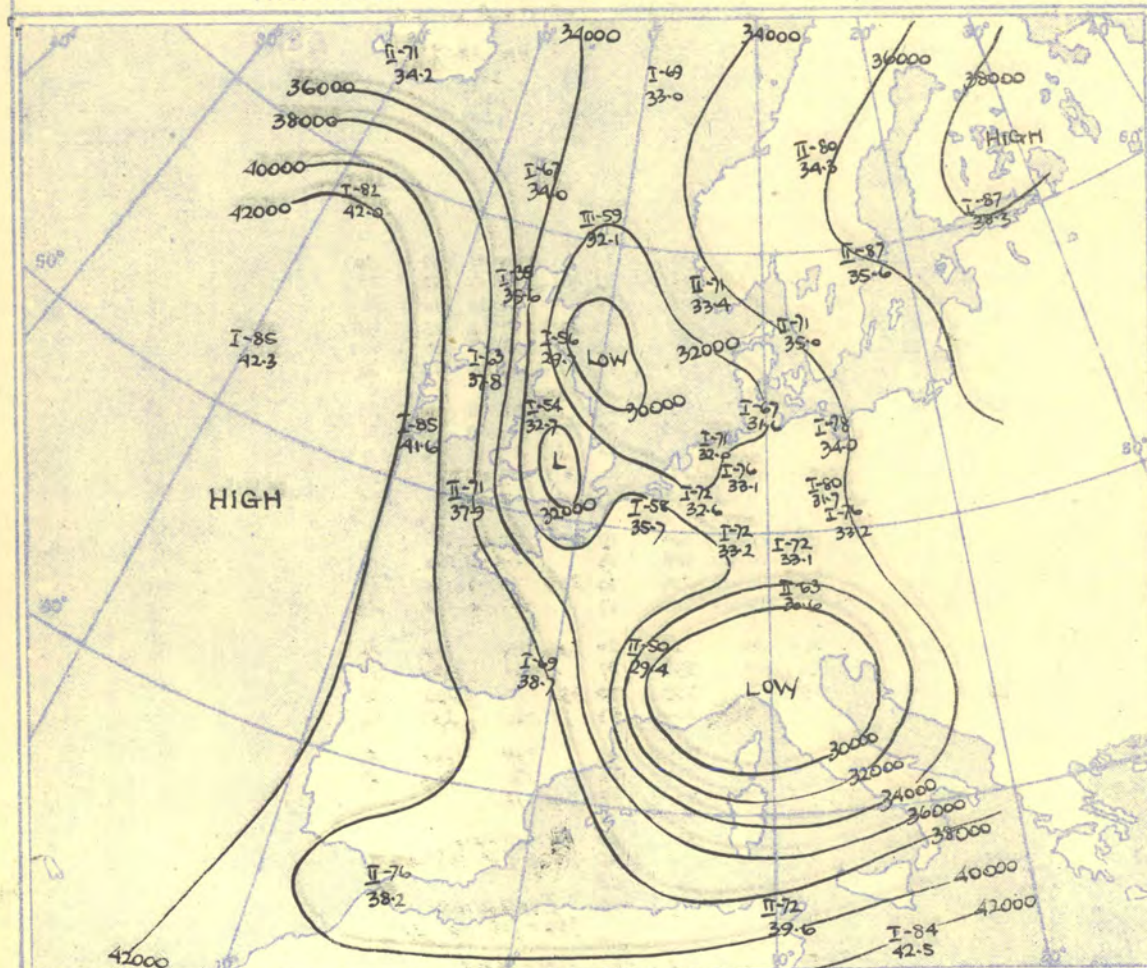
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				Ship				
Lat/Long	52.5 N 20.3 W.				52.6 N 20.3 W				52.6 N 20.4 W				52.6 N 20.3 W				59.2 N 19.0 W				59.2 N 19.1 W				59.1 N 19.0 W				59.0 N 18.9 W				Lat/Long				
Pressure	Time	03k.		G.M.T.	Time	09k.		G.M.T.	Time	15k.		G.M.T.	Time	21k.		G.M.T.	Time	03k.		G.M.T.	Time	09k.		G.M.T.	Time	15k.		G.M.T.	Time	21k.		G.M.T.	Time	G.M.T.			
	M.S.L.	1014		mb	M.S.L.	1013		mb	M.S.L.	1011		mb	M.S.L.	1008		mb	M.S.L.	1024		mb	M.S.L.	1022		mb	M.S.L.	1021		mb	M.S.L.	1017		mb	M.S.L.	mb			
	Surf	1014		mb	Surf	1013		mb	Surf	1011		mb	Surf	1008		mb	Surf	1024		mb	Surf	1022		mb	Surf	1021		mb	Surf	1017		mb	Surf	mb			
	Freezing	700		mb	Freezing	700		mb	Freezing	680		mb	Freezing	712		mb	Freezing	820		mb	Freezing	705		mb	Freezing	730		mb	Freezing	750		mb	Freezing	mb			
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure				
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb				
Surf		54	54	See top of page for Winds		54	54	145	20	64	54	140	30	54	53	145	36	50	45	125	20	50	44	130	21	50	44	140	29	50	41	150	30	Surf			
1000	3.9	54	54		3.7	53	52	147	39	3.1	53	53	138	39	2.2	53		6.5	47	43	140	28	6.0	48	42	151	22	5.6	47	41	145	32	4.6	50	40	152	33
950		53	52			49	45	150	34		51	51	144	41		48			41	39	140	28		43	38	153	34		41	37	145	37		42	39	150	38
900	32.9	51	49		32.4	49	38	155	30	31.9	51	49	151	40	30.9	49		34.7	37	31	140	25	34.3	37	32	142	42	33.9	35	32	149	45	22.9	37	32	145	45
850		49	47			44	36	157	32		48	43	156	30		45			34	27	143	21		38	27	158	36		39	20	157	40		39	23	147	40
800	65.0	43	42		64.2	41	36	159	27	63.9	43	41	160	24	62.7	42		65.8	31	12	147	21	65.7	36	06	167	31	65.1	37	14	171	36	64.3	35	16	146	32
750		38	36			39	35	161	27		39	38	167	18		36			28	04	155	12		33	04	166	24		33	01	182	28		22	08	158	31
700	101	32	29		99.7	33	29	180	24	99.5	34	31	174	15	98.1	32			25	00	169	07	101	31	22	164	13	100	30	25	184	20	99.4	31	09	164	31
650		25	20			27	23	196	27		27	22	187	22		27			22	09	217	04		25	21	178	09		27	20	178	18		25	13	173	31
600	140	19	14		140	19	11	215	34	140	19	17	191	28	138	22			14	04	266	09	141	17	11	205	06	140	18	14	171	21	139	19	15	171	32
550		16	13			12	07	225	34		12	07	194	36		15			07	00	276	13		09	02	213	05		11	06	177	17		12	09	171	34
500	187	08	04		186	07	01	222	39	186	09	08	196	38	184	7			00	-04	273	17	186	-1	-14	215	06	186	03	-07	184	18	185	05	02	181	30
450		00	-03			-01	-07	224	36		01	-01	200	27		02			-10	-16	258	23		-10	-18	245	11		-04	-10	188	13		-04	-07	180	18
400	241	-10	-16		241	-13	-20	224	39	240	-11	-13	200	40	239	-11			-23	-30	240	35	239	-22	-30	252	23	240	-16	-22	209	10	239	-14	-17	190	24
350		-23	-30			-24	-30	222	44		-24	-26	205	47		-24			-35	-43	244	50		-36	-44	244	29		-30	-36	240	17		-27	-30	198	26
300	308	-38	-47		307	-39	-46	222	38	307	-37	-40	208	54	306	-41			-51		272	66	304	-51		274	36	306	-46		229	28	305	-42		218	36
250		-56				-57		224	62		-56		213	70	(285b)-46				-73		287	85		-71		251	64		-63		236	37		-61		236	45
200	395	-78			394	-78		254	74	394	-77		216	72				-81		286	58	388	-77		284	75	391	-71		258	70	391	-78		238	57	
170		-85				-86		252	54		-84		212	54				-67		276	36		-73		283	54		-77		266	53		-71		247	58	
150	(158b)-87					-83		253	53		-73		232	33										-73		257	33		-69		278	45		-68		261	50
130						-80		261	29		-76		242	30										-73		266	21		-70		275	22		-71		269	47
110						-82		265	24		-74		233	23										-77		272	18		-74		271	15		(260)-72			
100	1014 - 984 mb - 54°					-84				535	-74		238	14										-78		289	16	535	-73		260	11					
90						-84					-79		238	02										-79		312	12		-73		221	09					
80	Inversion					-81					-81		235	03										-78		309	14		-73		180	06					
70	900 mb 51° - 875 mb 52°																							-82		259	05		-77		211	03					
60	600 " 19° - 578 " 20°																							-80		240	06		-80		219	03					
																								-83		239	09				219	03					
																										060	03										

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.



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

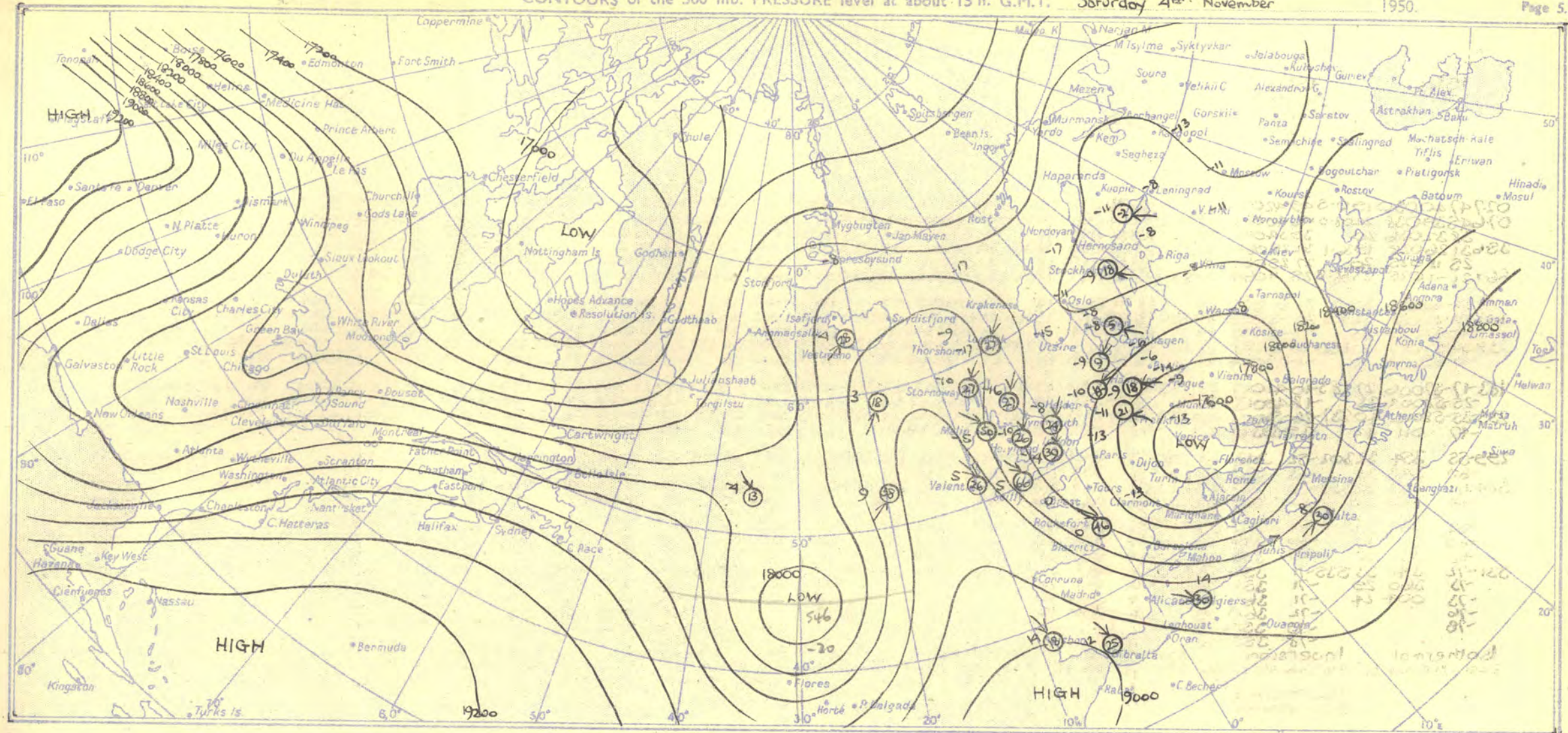


NOTES ON THE AEROLOGICAL SITUATION.

Little change during the day in the thermal distribution over the Atlantic and Europe. The strong thermal jet over America extended westward into the extreme western Atlantic.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

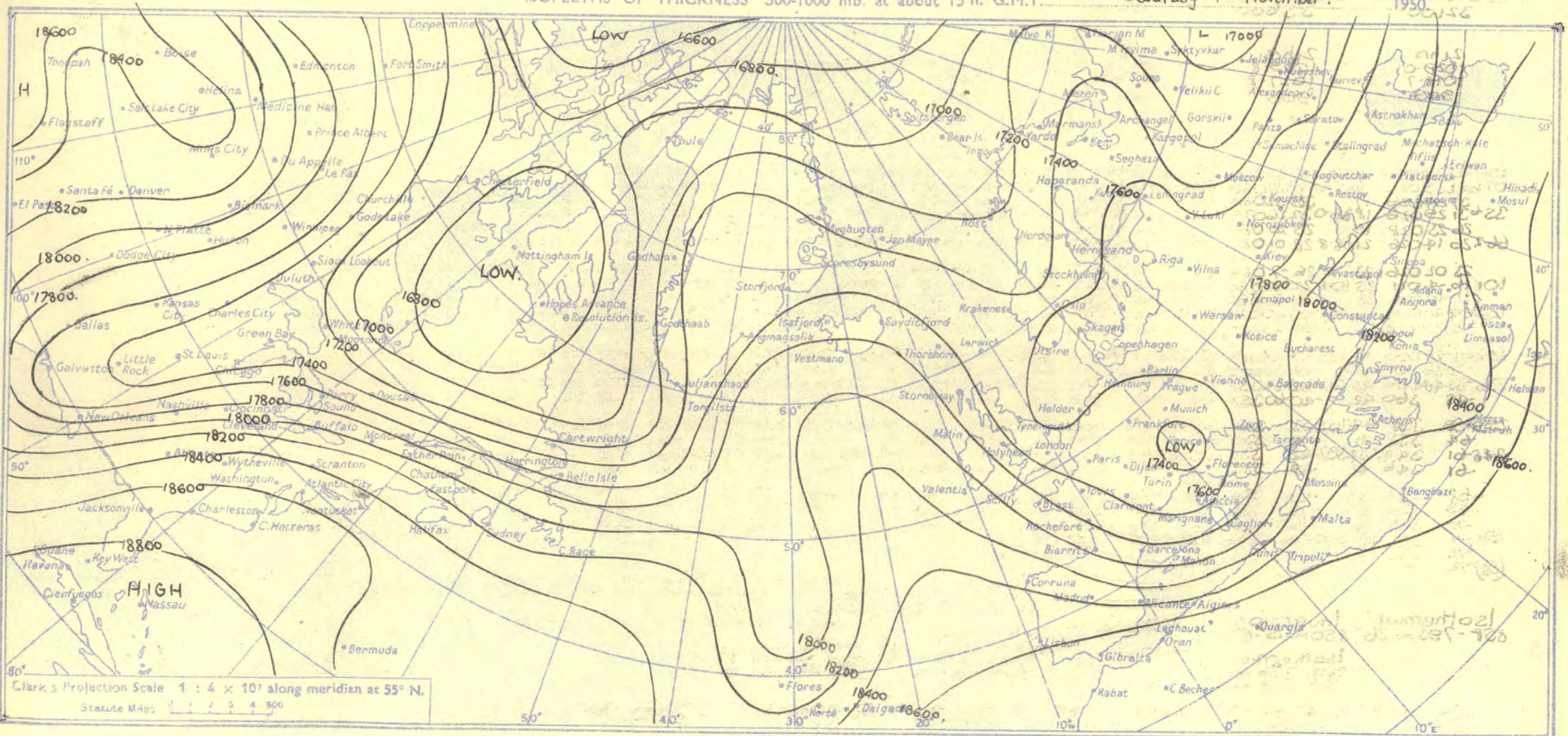
Meteorological Office, Air Ministry, Kingsway, London, W.C.2.
NELSON K. JOHNSON, K.C.B., D.Sc., Director



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 4th November.

1950.



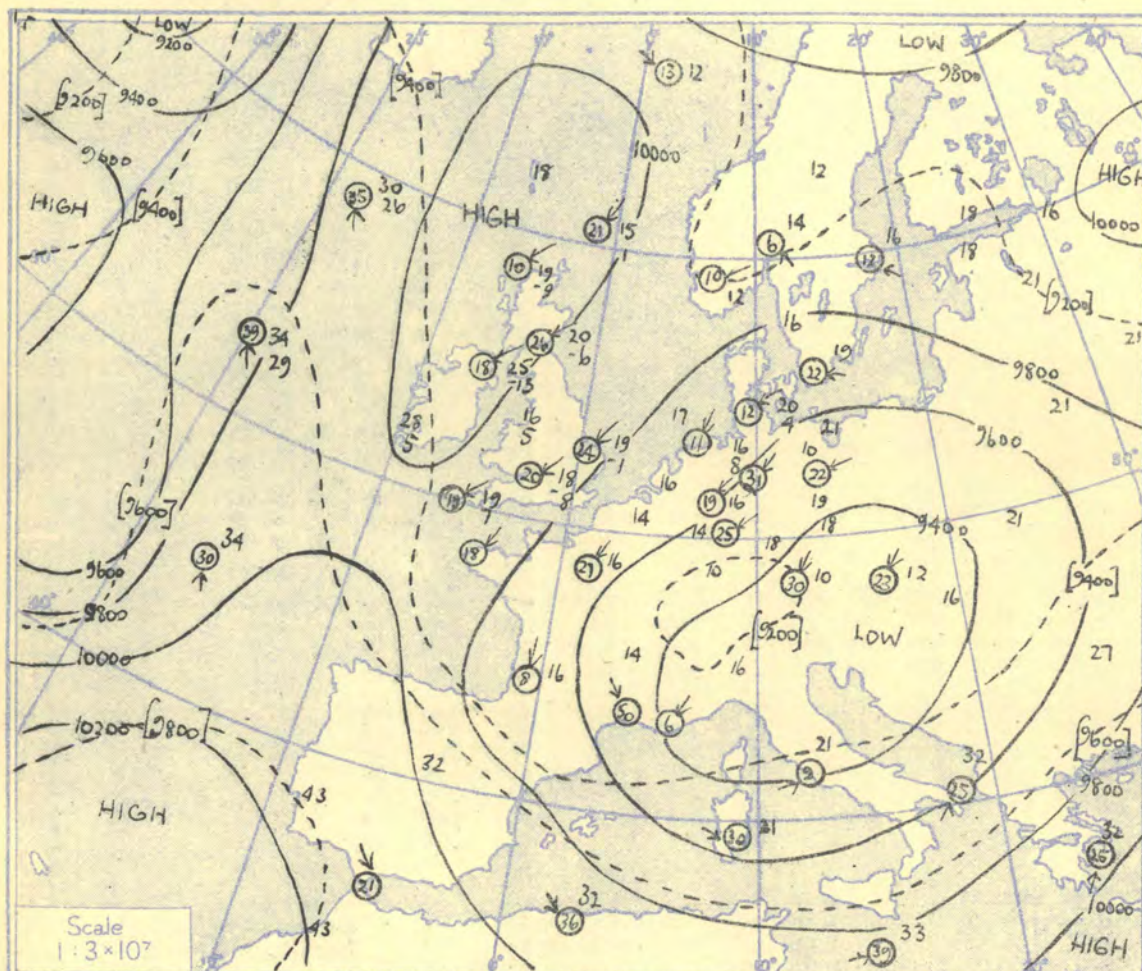
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

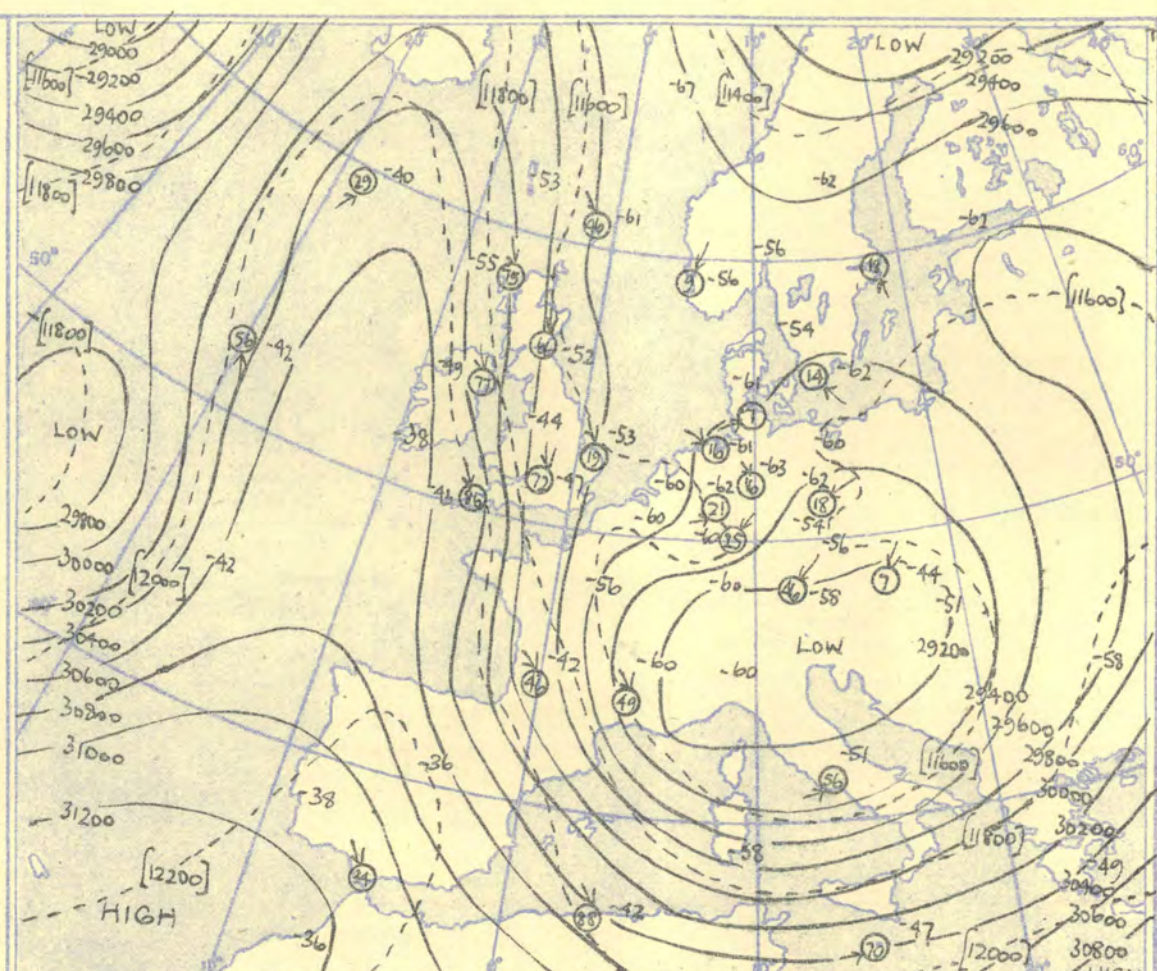
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																															
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																		
																																				Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing	Time M.S.L.	Surf Freezing
1000	07.4	39	36	018	15	07.7	44	37	107	09	07.0	43	39	031	22	07.6	44	40	078	15	06.4	42	39	01.2	44	39	360	12	4.4	37	36	040	06	02.9	41	36	040	08	00.3	47	40																												
950	37	31	028	16	37	37	29	106	11	38	34	048	21	40	32	086	17	37	33	40	34	036	27	5.4	38	36	040	06	07.7	42	37	071	15	5.8	46	40																																	
900	36.3	29	25	031	17	35.7	30	20	108	13	35.0	32	29	048	18	35.2	35	27	098	17	34.4	31	25	33	33	042	25	33.3	31	26	051	30	33.9	35	27	054	15	31.1	36	30																													
850	27	21	030	17	30	12	106	16	30	16	32	20	053	16	30	24	092	12	30	24	092	12	26	24	29	23	043	23	31	21	050	26	31	25	045	15	31	31	21																														
800	66.0	26	14	021	15	66.5	30	00	102	16	65.7	22	20	053	16	66.1	23	14	070	17	65.1	23	07	64.7	21	17	041	26	64.1	32	06	046	24	64.7	30	22	048	15	65.1	36	18																												
750	21	07	017	16	25	10	081	10	23	10	040	20	23	10	040	20	16	03	060	13	19	03	22	05	030	29	25	01	043	21	26	16	052	17	10	32	11																																
700	10.0	15	014	21	10.1	19	19	036	10	10.0	20	06	034	26	10.0	25	13	044	18	19	03	98.9	19	01	026	24	98.6	18	08	029	20	99.2	19	07	050	18	10.0	28	05																														
650	09	09	009	22	12	26	017	12	13	16	030	27	13	16	030	27	19	29	040	24	09	03	14	12	017	20	11	14	016	22	16	01	023	24	29	01																																	
600	139	03	12	003	20	140	06	32	005	15	139	05	23	026	29	140	11	35	032	27	138	05	16	138	07	20	013	19	137	07	21	011	24	138	16	04	012	28	140	21	08																												
550	05	21	354	22	00	41	354	19	03	29	023	35	03	31	023	32	03	31	023	32	01	23	00	28	030	20	01	26	008	23	08	12	358	41	08	12	358	41	13	13																													
500	183	15	28	349	30	184	08	40	349	26	183	11	34	022	45	185	06	49	012	34	183	09	34	182	10	36	013	16	182	09	36	010	22	184	04	18	355	49	186	03	21																												
450	25	38	346	30	19	45	353	35	21	42	019	47	21	42	019	47	14	55	011	45	183	09	34	235	32	46	360	13	230	46	021	22	235	32	46	021	22	235	32	46																													
400	235	36	47	346	42	237	29	46	353	49	236	31	50	012	52	238	25	58	003	68	235	29	55	235	32	46	360	13	230	46	021	22	235	32	46	021	22	235	32	46																													
350	47	34	47	346	47	40	35	352	63	41	010	66	36	59	352	67	36	59	352	67	36	59	352	67	36	59	352	67	36	59	352	67	36	59	352	67	36	59	352	67	36																												
300	298	61	345	46	301	55	340	75	300	52	367	66	303	49	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300																												
250	67	342	43	70	39	72	351	90	62	354	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300	44	344	77	300																													
200	383	65	348	40	385	75	329	68	386	69	352	44	389	74	352	44	389	74	352	44	389	74	352	44	389	74	352	44	389	74	352	44	389	74	352	44	389	74	352	44	389																												
170	65	344	33	75	340	39	65	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70	354	42	70																													
150	67	347	29	76	334	31	65	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72	351	24	72																													
130	68	344	26	75	337	27	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73																													
110	73	357	24	79	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73	346	22	73																													
100	528	74	011	22	527	80	355	21	530	74	001	30	531	80	001	30	531	80	001	30	531	80	001	30	531	80	001	30	531	80	001	30	531	80	001	30	531	80	001	30																													
90	75	011	19	82	357	12	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80	008	35	80																													
80	77				82				80				80				80				80				80				80				80				80				80																												
70					85				80				80				80				80				80				80				80				80				80																												
60									82				80				80				80				80				80				80				80				80																												
Inversion	876 mb 25°-850 mb 27°				1027 mb 41°-101 mb 46°				1026 mb 39°-1000 mb 43°				1013 mb 38°-1000 mb 44°				1022 mb 35°-1000 mb 42°				866 mb 29°-853 mb 30°				1004 mb 37°-987 mb 39°				1011 mb 41°-990 mb 44°				850 mb 31°-823 mb 37°				700 mb 28°-650 mb 29°																																
Tropopause	II 273 mb-68° 31,600'				I 225 mb-80° 36,100'				I 197 mb-70° 38,900'				I 200 mb-74° 38,900'				I 206 mb-70° 38,100'				II 237 mb-63° 34,900'				I 200 mb-65° 38,600'				I 190 mb-72° 40,300'				I 167 mb-81° 42,900'				Tropopause																																
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																															
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	D																																																			

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.



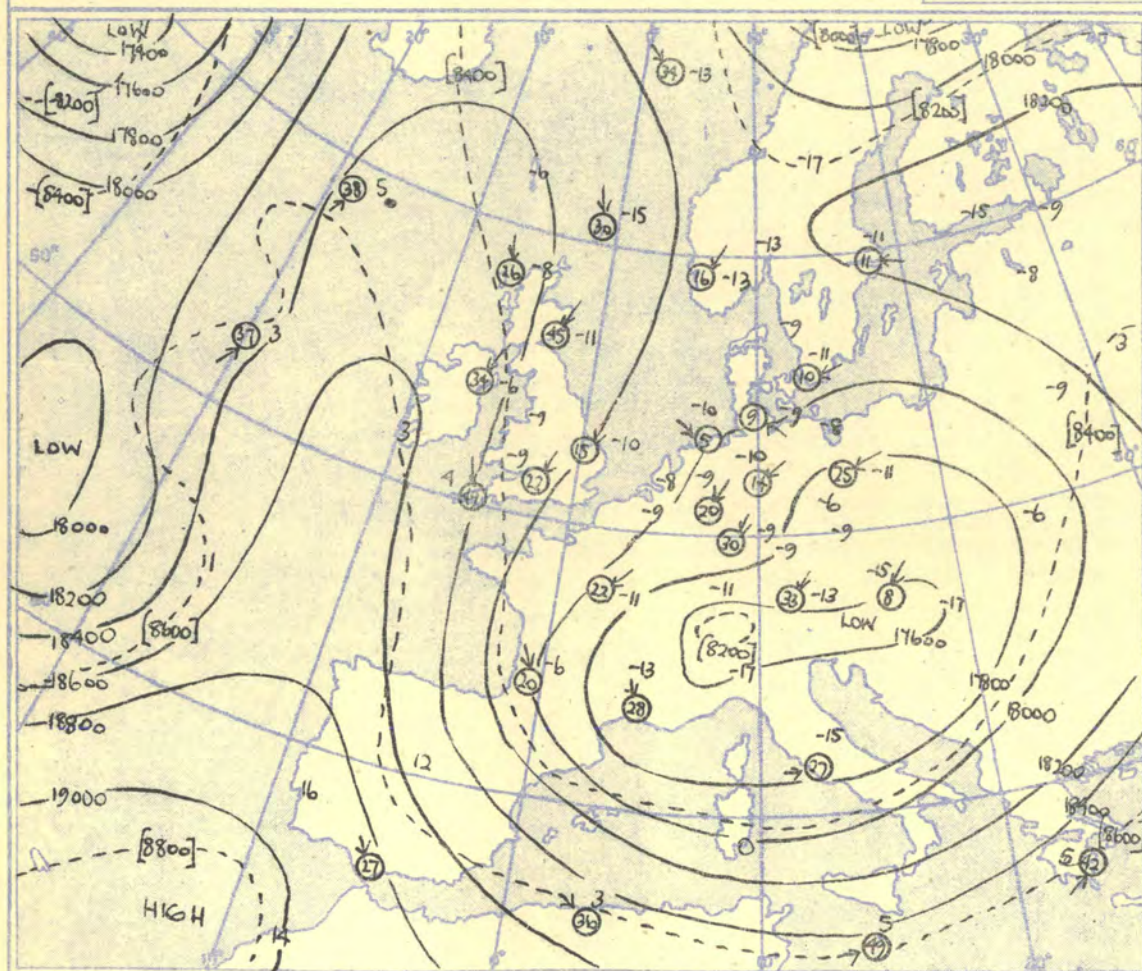
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



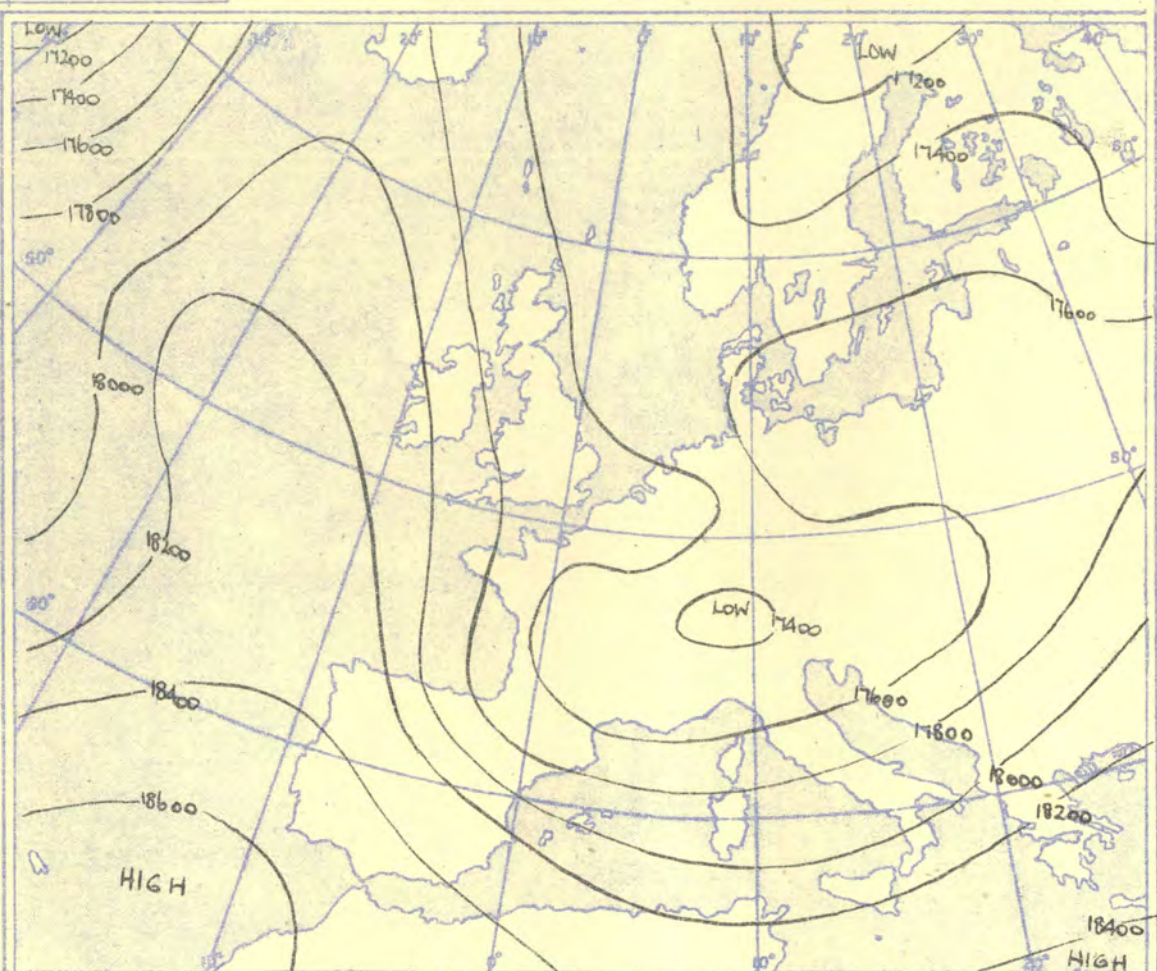
The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500—300 mb

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 5 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.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

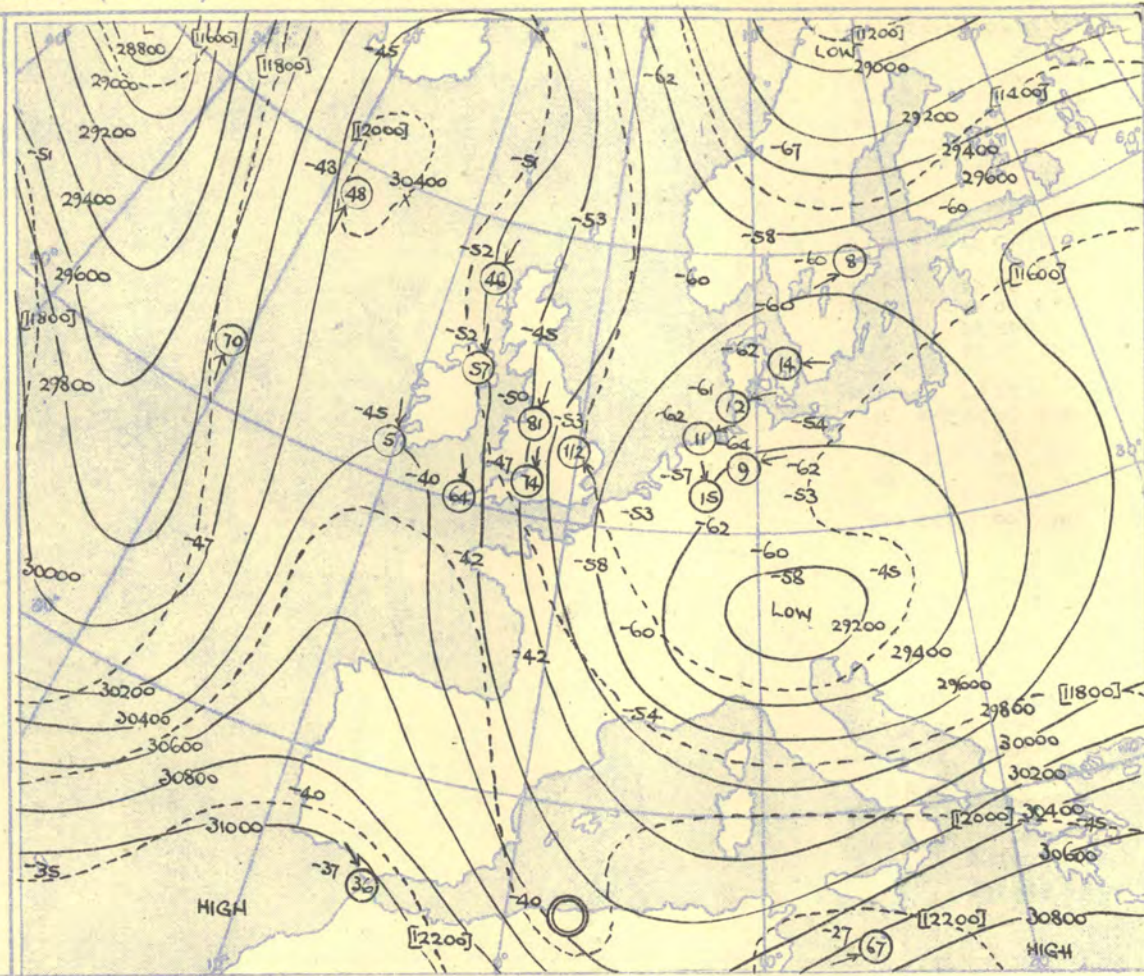
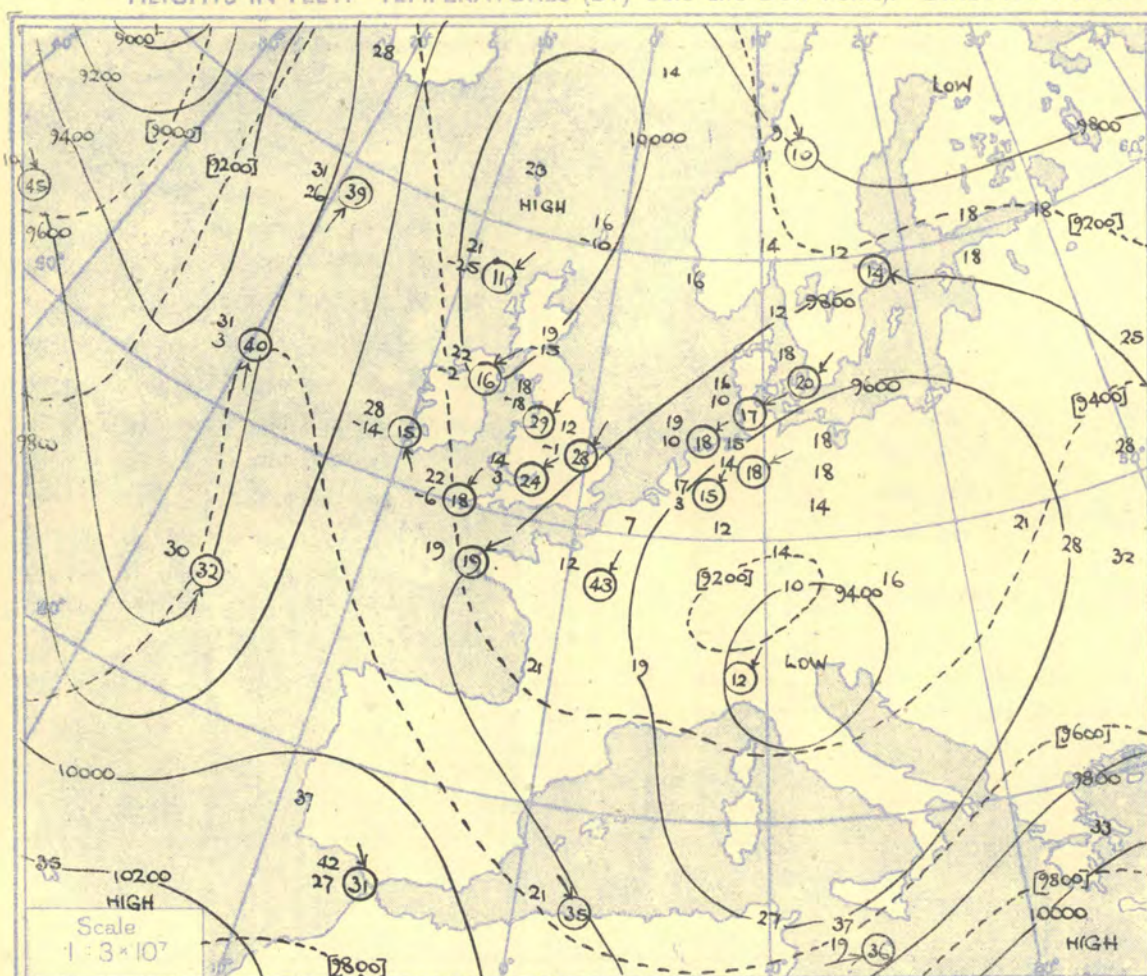
Place	Aldeergrove Larkhill		Castle Archdale		Liverpool		Camborne		Stoneway		Rondoway		Larkhill		St. Eval. Larkhill		Place		
Time	09h		1230h		15h		15h		15h		15h		1830h		21h 23h		Time		
Type	Pilar.						Pilar.		Pilar.		Pilar.						Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.		
Surf.			020	10	110	10					060	11	040	09	070	12	040	06	Surf.
1,000			030	24	190	15					040	09	040	24	080	20	040	24	1,000
2,000			040	23	120	10					050	10	040	25	100	15	040	20	2,000
3,000			050	23	130	13					060	09	040	23	110	12	040	20	3,000
4,000			060	22							060	15	040	17	070	09	040	15	4,000
5,000			060	21							080	10	040	15	080	12	030	15	5,000
6,000			050	21							050	15	040	18	070	14	030	14	6,000
8,000			040	24									040	20	050	13	030	18	8,000
10,000			030	24									030	23	030	23	030	22	10,000
14,000			010	30									020	23	340	02	040	20	14,000
18,000			010	33									020	24			040	22	18,000
24,000			(16.000)										(15.000)				(15.000)		24,000
30,000																			30,000
40,000	346	63					356	38			344	48							40,000
50,000	345	21					347	33			344	13							50,000
60,000							034	27	358	12	359	10							
							(59.000)		035	24	331	09							
									(67.000)		(64.000)								

NEPHOSCOPE OBSERVATIONS

[illegible]

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				Ship															
Lat/Long	59-0 N 18-9 W				59-2 N 19-1 W				59-1 N 19-0 W				59-0 N 19-0 W				52-4 N 20-2 W				52-4 N 20-1 W				52-3 N 19-6 W				52-3 N 19-7 W				Lat/Long															
Pressure	Time	03h.		G.M.T.	M.S.L.	Time	07h.		G.M.T.	M.S.L.	Time	15h.		G.M.T.	M.S.L.	Time	21h.		G.M.T.	M.S.L.	Time	03h.		G.M.T.	M.S.L.	Time	07h.		G.M.T.	M.S.L.	Time	15h.		G.M.T.	M.S.L.	Time	21h.		G.M.T.	M.S.L.								
	Surf	1014		mb		Surf	1009		mb		Surf	1006		mb		Surf	1003		mb		Surf	1000		mb		Surf	1003		mb		Surf	1000		mb		Surf	999		mb		Surf	1002		mb	Surf	1002		mb
	Freezing	750		mb		Freezing	740		mb		Freezing	715		mb		Freezing	740		mb		Freezing	685		mb		Freezing	730		mb		Freezing	705		mb		Freezing	720		mb		Freezing	720		mb				
	Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.		Temp.	°F.		°F.				
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure											
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb											
Surf																																				Surf												
1000	3-7	50	45	140	2-6	50	44	150	28	1-6	50	48	146	28	8	54	54	145	37	-0-1	55	53	150	33	-2	55	55	160	28	0-4	54	53	147	14	1000													
950		48	43	143		49	43	148			45	40	148	49		49	44	145	54		51	50	139	42		52	51	159	36		50	46	158	19	950													
900	32-0	37	32	151	43	30-9	37	31	150	42	30-2	39	33	148	48	29-6	50	45	161	55	28-7	48	47	151	42	28-7	47	44	165	35	29-1	45	42	174	21	900												
850		36	31	156	42		38	28	152	42		40	18	158	50		46	42	171	41		45	44	162	33		40	34	167	36	45	33	169	22	850													
800	63-2	34	25	164	39	62-2	33	26	154	35	61-6	36	26	166	51	61-7	40	33	188	45	61-6	44	40	176	40	60-9	40	37	158	26	60-4	42	25	168	37	60-8	39	28	165	24	800							
750		32	28	169	37		33	27	160	30		34	28	175	46		33	35	168	42		34	22	160	25		37	18	169	39		34	16	166	29	750												
700	98-3	30	26	170	35	97-4	29	23	167	29	96-9	31	26	188	39	97-0	31	23	170	40	97-2	34	29	167	39	95-7	28	72	172	33	95-7	31	03	167	40	96-0	31	03	169	33	700							
650		24	19	171	28		26	20	173	33		25	20	183	36		24	16	165	39		22	14	175	50		24	00	168	36		25	04	170	32	650												
600	138	19	14	176	18	13-7	21	15	173	38	13-7	20	14	168	30	13-7	17	10	167	42	137	19	13	179	48	35-5	16	-14	166	44	36	16	-02	168	27	600												
550		13	07	182	29		13	07	175	29		12	06	170	31		10	02	189	27		11	07	183	30		10	-22	167	49		08	-02	167	35	550												
500	184	05	-02	197	3	183	05	-03	182	29	183	03	-05	168	36	183	03	-06	177	44	183	03	-08	186	37	181	02	-02	173	31	181	01	-23	167	49	181	02	-16	167	43	500							
450		-04	-12	203	37		-04	-13	182	36		-05	-14	167	36		-05	-14	186	40		-05	-14	186	40		-09	-13	164	36		-09	-29	167	58		-09	-18	168	47	450							
400	238	-13	-21	241	44	237	-16	-25	171	39	237	-15	-25	178	42	237	-18	-29	169	47	237	-15	-24	180	62	235	-20	-26	157	52	235	-22	-42	167	66	235	-21	-31	168	54	400							
350		-26	-34	210	32		-29	-39	166	41		-29	-40	177	36		-30	-42	169	54		-34	-41	142	60		-35	-55	169	72		-38	-43	163	67		-43	-43	163	67	350							
300	305	-40	-49	192	29	303	-42		172	39	303	-43	181	48	302	-45	168	56	304	-42	174	56	300	-50	145	75	300	-48	170	70	300	-48	170	70	300	-48	167	77	300									
250		-57		197	34		-56		167	51		-60	178	51		-61	168	59	304	-60	176	65	300	-59	152	67		-61	168	59		-63	168	59		-63	168	63	250									
200	391	-75		211	43	390	-73		215	51	289	-78	170	36	(214mb)-73			390	-78	176	63	386	-74	153	58	386	-65	168	46	386	-66	165	40		-64	166	30	200										
170		-82		235	49		-78		237	61		-76	171	36				-87	179	43		-87	179	43		-71	153	43		-69	167	38		-64	166			170										
150		-77		250	54		-70		243	50		-69	171	26				-75	179	34	(158mb)-74						-68	167	33		-69	166	06					150										
130		-69		260	46		-70		245	43		-69	171	15				-79	179	24							-68	167	19		-68						130											
110		-72		262	34		-71		244	33		-70	171	19				-81	182	23							-69	167	15		-71						110											
100	534	-75		258	11	533	-74		243	31	532	-70	171	14				-81	184	18							-70	167	12	531	-72							100										
90		-78		258	10		-75		241	24		-73	171	07				-82	184	15							-71	167	07		-73							90										
80		-79		283	06		-75					-72	171	05				-82										-74											80									
70		-80		247	10		-75					-71	171	10				(73mb)-83										-73											70									
60		-80		254	04		-77					-72																											60									
						(53mb)-78																																										
						Inversion						Inversion																																				
						907 mb 36°-877 mb 41°						700 mb 39°-870 mb 42°																																				
						Isothermal						Isothermal																																				
						800 -750 mb 33°						818 -785 mb 36°																																				
Tropopause						I 162 mb -83° 43,800'						I 200 mb -73° 39,000'																																				
												I 195 mb -79° 39,400'																																				
												N.I.R.																																				

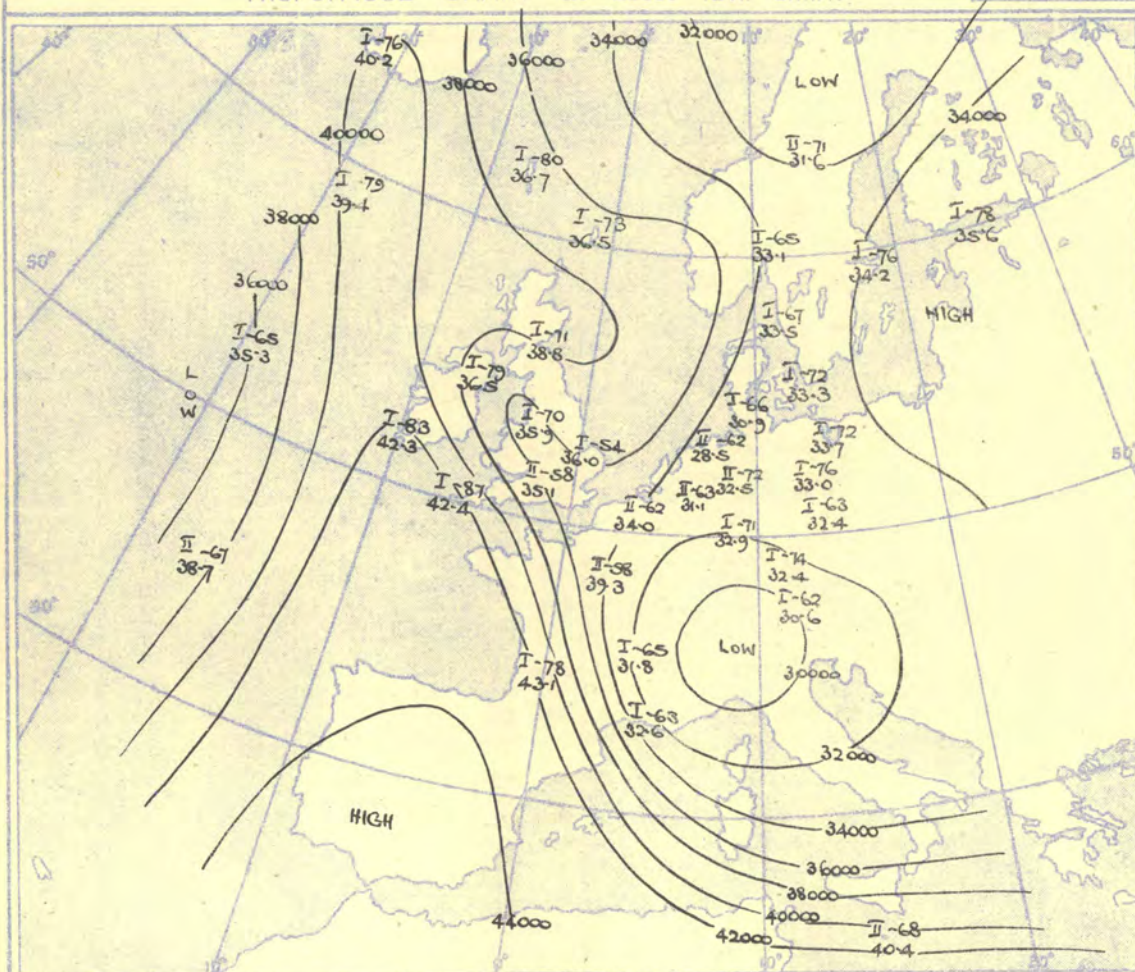


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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.

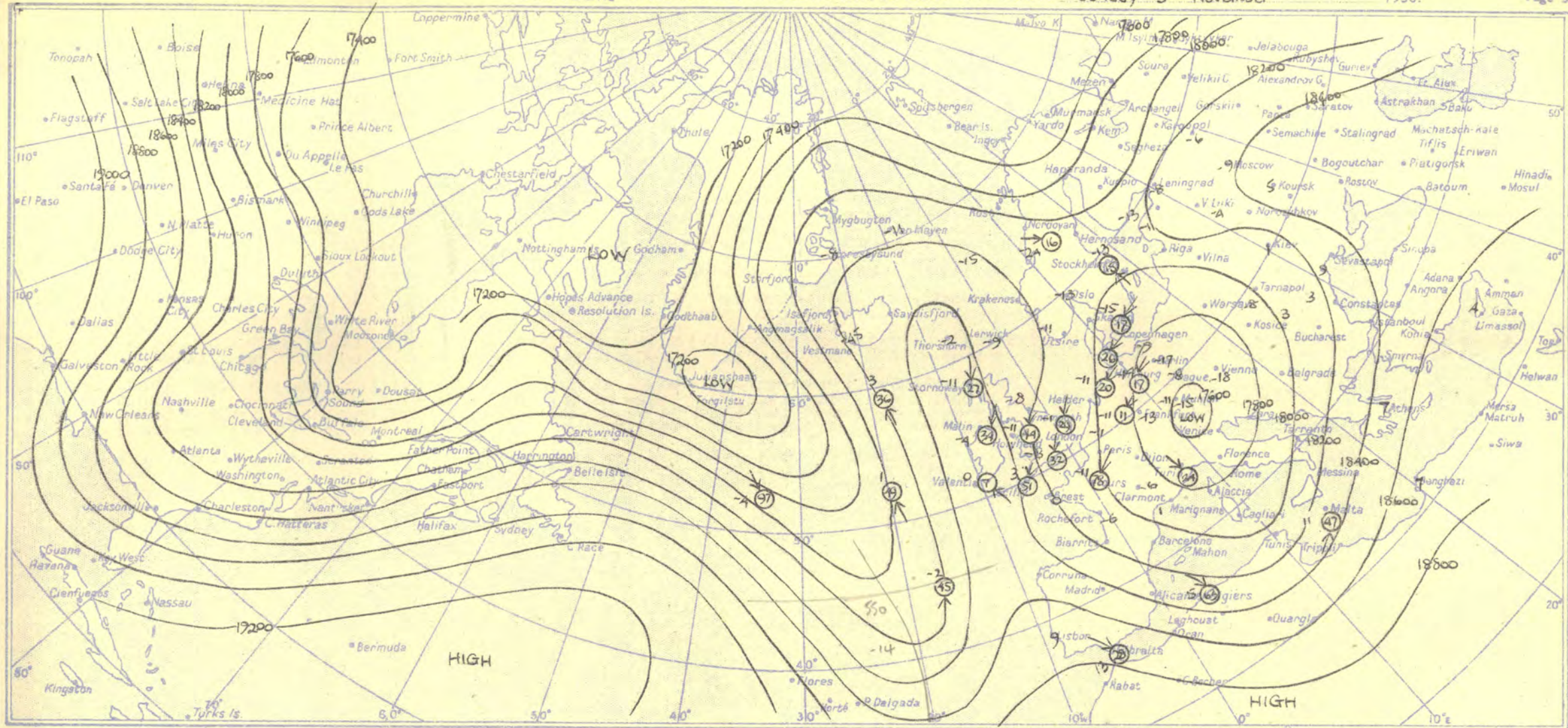
TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

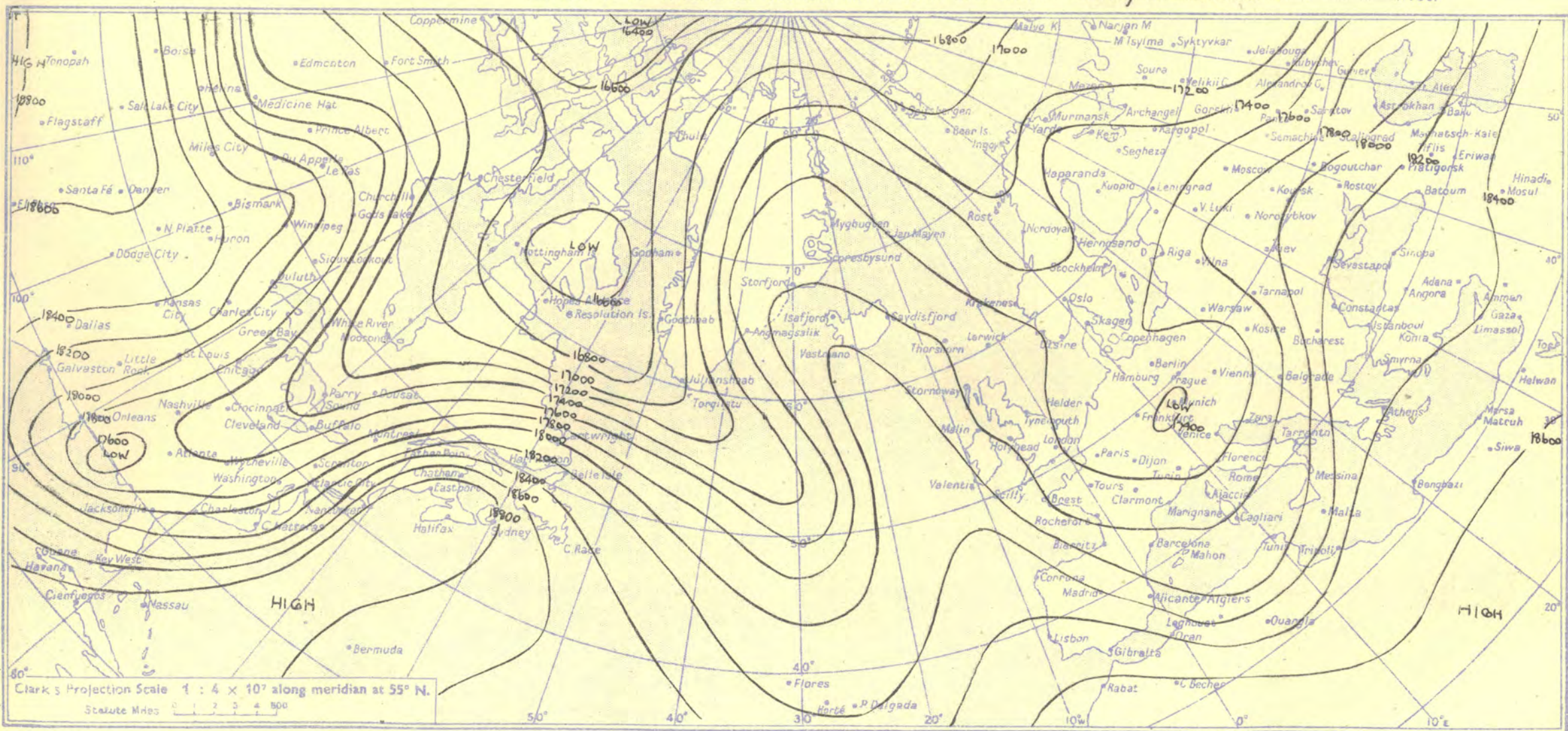
NOTES ON THE AEROLOGICAL SITUATION.

Despite the easterly gradient advecting colder air over the British Isles there was no change in the thickness values due to subsidence in the easterly air stream. The warm ridge in East Atlantic moved eastwards and narrowed.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 5th November

1950.



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

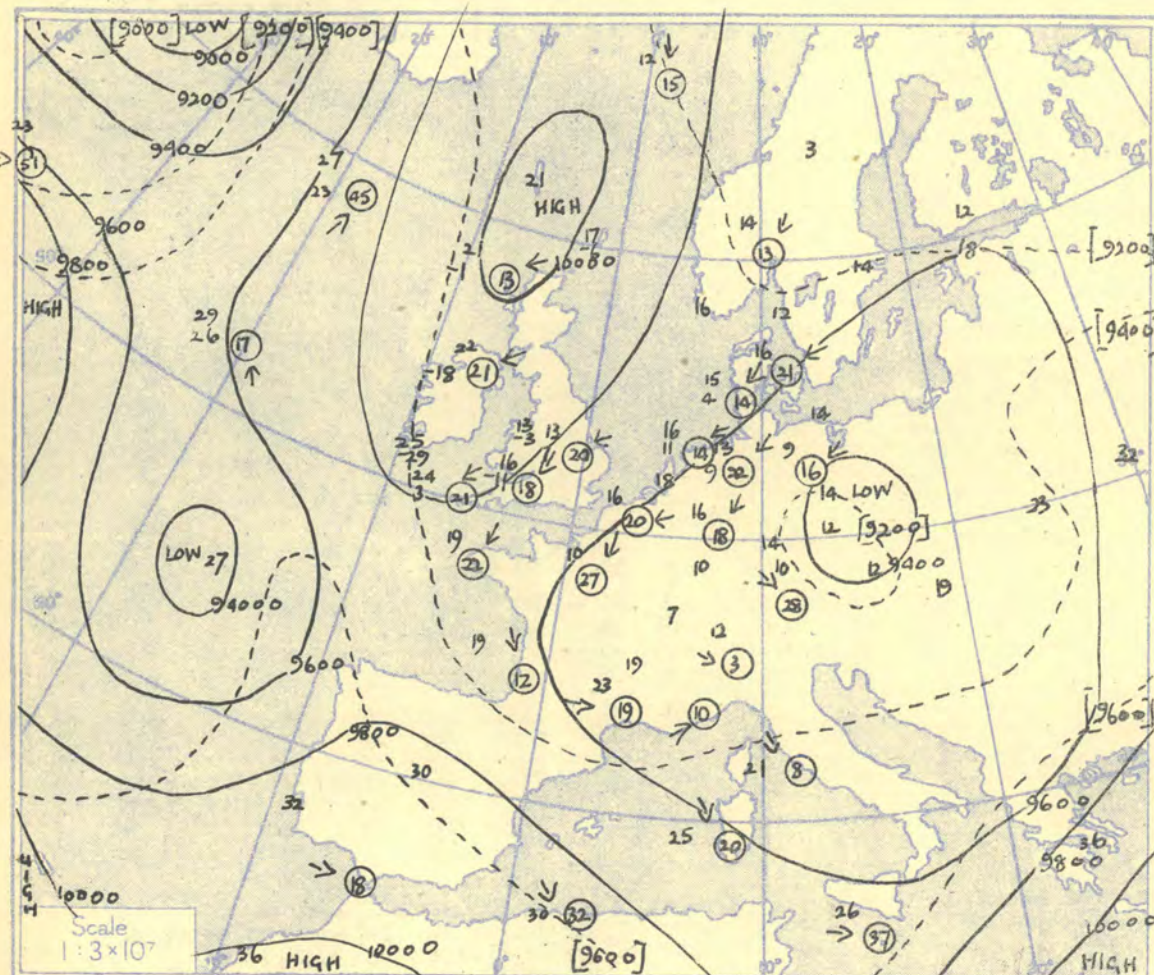
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION																																																																																																																																																																																																																																																																						
Pressure M.S.L. Surf Freezing	15hrs 1026.3 1016.3 899				15hrs 1027.1 1025.1 910				15hrs 1024.4 1023.6 890				15hrs 1024.8 1015.8 900, 788				15hrs 1021.7 1015.7 900				15hrs 1019.5 1015.2 898				15hrs 1019.2 1002.9 880				15hrs 1019.6 1008.9 815				15hrs 1017.9 1016 780				Pressure M.S.L. Surf Freezing																																																																																																																																																																																																																																																																						
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																																																																																																																																																																																																																																																																														
	Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots																																																																																																																																																																																																																																																																														
Surf	2.743	28			0.548	37	120	06	00	1.48	41			0.23	44	39	087	01	0.64	28	360	03	01	2.46	39	350	13	4.44	28	040	13	02	3.48	38	090	05	03	4.3	36	110	12	Surf																																																																																																																																																																																																																																																																	
1000	07.044	33			07.344	38			06.545	39			06.545	38	084	06	05	844	24	001	10	05	3	4.43	37		5.1	46	37		05	3.47	38	105	12	4.8	47	34	111	17	1000																																																																																																																																																																																																																																																																		
950	35.133	31			35.331	32	125	14		39	33			35.330	065	08		38	25	011	08		38	31	017	20		39	32	029	19		41	35	108	13		40	29	125	24	950																																																																																																																																																																																																																																																																	
900	27.27	27			27.27	27	128	11		34	6	33	29	23	088	09	38	32	23	023	09	33	4	32	25	020	21	33	33	27	036	17	33	5	24	31	097	17	33	0	34	25	148	23	900																																																																																																																																																																																																																																																														
850	65.827	13			66.230	6	113	11		65	3	26	17	65	3	29	12	26	13	047	12		26	15	021	20		25	13	044	16		35	15	083	12		40	17	130	23	850																																																																																																																																																																																																																																																																	
800	23.1				26.130	6	113	11		65	3	26	17	65	3	29	12	26	13	047	12		26	15	021	20		25	13	044	16		35	15	083	12		40	17	130	23	800																																																																																																																																																																																																																																																																	
750	100.12	10			101.23	05	07			23	10			100	22	03	062	17		21	00	053	20		17	07	025	20		20	03	035	23		25	06	021	18		31	3	128	14	750																																																																																																																																																																																																																																																															
700	12.17				15.28	02	050	11		100	15	15		100	22	03	062	17		21	00	053	20		17	07	025	20		20	03	035	23		25	06	021	18		31	3	128	14	700																																																																																																																																																																																																																																																															
650	139.08	19			140.06	17	016	13		139	12	32		139	11	18	020	24	13	8	05	24	017	36	137	05	19	023	21	137	07	12	022	27	13	8	14	29	025	34	139	17	24	118	14	650																																																																																																																																																																																																																																																													
600	-1.17				-4.26	00	6	23		01	31			04	21	010	30		00	28	011	37		-2	27	020	24		00	19	016	30		07	26	013	45		06	22	108	10	600																																																																																																																																																																																																																																																																
550	183.9	26			184.11	25	353	27		184	8	32		184	4	23	008	34	18	2	11	34	003	44	181	10	35	020	29	18	2	8	27	003	32		18	4	03	29	004	31	18	4	0	40	103	07	550																																																																																																																																																																																																																																																										
500	236.31	46			237.27	47	002	36		236	27	50		237	24	43	002	44	23	30	57	007	60	233	24	46	017	32		23	4	25	46	036	57	23	8	17	54	35	57	23	8	20	34	003	02	500																																																																																																																																																																																																																																																											
450	300.53				301.52	00	7	46		301	45			302	52	348	57	29	50		60	4	81	29	53		011	42	29	9	47		35	9	74	30	441		34	3	64	20	445		35	9	08	300																																																																																																																																																																																																																																																											
400	365.63										58			386	78	342	54	38	63		353	50	38	4	58		002	51		36		35	2	74		35	9	73		32	9	73		30	4	08	450																																																																																																																																																																																																																																																												
350	(63) 63										60			386	78	342	54	38	63		353	50	38	4	58		002	51		36		35	2	74		35	9	73		32	9	73		30	4	08	350																																																																																																																																																																																																																																																												
300											62					346	28										002	32		67		35	1	39		71		33	0	42		79		30	1	16	300																																																																																																																																																																																																																																																												
250											63					358	20										005	36		63		34		38		73		001	24		79		31	1	13	250																																																																																																																																																																																																																																																													
200											67					002	13										004	32		69		35	1	30		73		34	9	18		79		35	4	09	200																																																																																																																																																																																																																																																												
170											67					360	12										006	33	531	70																	170																																																																																																																																																																																																																																																												
150											67																008	33	531	70																	150																																																																																																																																																																																																																																																												
130											67																008	33	531	70																	130																																																																																																																																																																																																																																																												
110											67																008	33	531	70																	110																																																																																																																																																																																																																																																												
100											67																008	33	531	70																	100																																																																																																																																																																																																																																																												
90											67																008	33	531	70																	90																																																																																																																																																																																																																																																												
80											67																008	33	531	70																	80																																																																																																																																																																																																																																																												
70											67																008	33	531	70																	70																																																																																																																																																																																																																																																												
60											67																008	33	531	70																	60																																																																																																																																																																																																																																																												
Inversion 1016ms 40-59ms 44 840ms 25-815ms 28 650ms 17-612ms 10 253ms 68-250ms 61																														Inversion 892ms 29-87ms 25 35°																														Inversion 827ms 24-787ms 26 Isothermal 650-617ms 15 510-483ms 8																														Inversion 1016ms 44-593ms 45 Isothermal 650-617ms 15 510-483ms 8																														Inversion 800ms 20-776ms 22 Isothermal 500-488ms 11 Max wind blood 271ms 001-92kts																														Isothermal 850-809ms 26																														Isothermal 650-624ms 10 324-303ms 46																														Inversion 900ms 24-838ms 35 713ms 21-700ms 22 533-510ms 5																														Inversion 866ms 32-850ms 40 721ms 31-760ms 32 Isothermal 674-650ms 26 533-513ms 3																														Inversion 1016ms 40-59ms 44 840ms 25-815ms 28 650ms 17-612ms 10 253ms 68-250ms 61																													
Tropopause 1220ms -78° 36500'																														NR.																														Tropopause 1200ms -71° 38800'																														Tropopause 1222ms -79° 36500'																														Tropopause 1227ms -70° 35900'																														Tropopause 1213ms -60° 36000'																														Tropopause 1236ms -58° 35100'																														Tropopause 1170ms -87° 42400'																														Tropopause 1170ms -83° 42300'																														Tropopause																													
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION																																																																																																																																																																																																																																																																						
Pressure M.S.L. Surf Freezing	21hrs 1026.3 1016.1 920				21hrs 1023.9 1024.0 818				21hrs G.M.T. mb mb mb				21hrs 1023.7 1014.6 888, 811				21hrs 1021.1 1013.0 865				21hrs 1014.3 1014.2 898				21hrs 1013.3 1002.6 906				21hrs 1013.1 1008.2 883								Pressure M.S.L. Surf Freezing																																																																																																																																																																																																																																																																						
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																																																																																																																																																																																																																																																																																		
	Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots				Temp. Dew Wind Dir. Vel. knots																																																																																																																																																																																																																																																																																		
Surf	02.740	26			00.546	36	120	08					02.333	32	Cal	0.642	37	050	06	01	2.40	38	330	06	04	36	35	040	04	02	3.29	36	Cal										Surf																																																																																																																																																																																																																																																																
1000	07.042	36			06.944	34	113	12					06.239	36	094	12	05	643	26	053	20	05	0	41	38	019	20	80	37	36		03	041	38	091	12									1000																																																																																																																																																																																																																																																														
950	36.30				38.30	11	12						39	33	092	15		41	38	051	17		38	33	021	21		37	34	018	21		39	31	104	14								950																																																																																																																																																																																																																																																															
900	24.930	26			35.0	31	120	12					34	33	28	092	18	38	26	30	042	16	330	31	28	032	23	330	32	27	038	19	33	1	33	27	106	14							900																																																																																																																																																																																																																																																														
850	24.20				35.07	112	03						27	21	052	15		30	24	044	16		26	20	035	24		28	19	028	17		29	20	038	15								850																																																																																																																																																																																																																																																															
800	65.525	13			65.930	4	090	10					63	130	09	066	17	64	625	19	057	17	63	8	21	68	037	22	63	7	22	09	020	13	64	027	13	064	15						800																																																																																																																																																																																																																																																														
750	23.02				23	14	069	09					25	16	065	18		23	10	053	17		16	05	023	22		17	02	023	15		23	12	047	15								750																																																																																																																																																																																																																																																															
700	99.7	16	4		100	21	20	060	11				99	7	23	24	053	19	9	0	19	2	047	26	97	8	12	3	025	22	97	6	13	4	033	22	09	223	05	034	18					700																																																																																																																																																																																																																																																													
650	13.9				15	26	045	14					19	39	045	16		17	13																																																																																																																																																																																																																																																																																								

PHOENIX

VALENTIA
035 NOV 1950
1015-9
1014
830 and 760 E

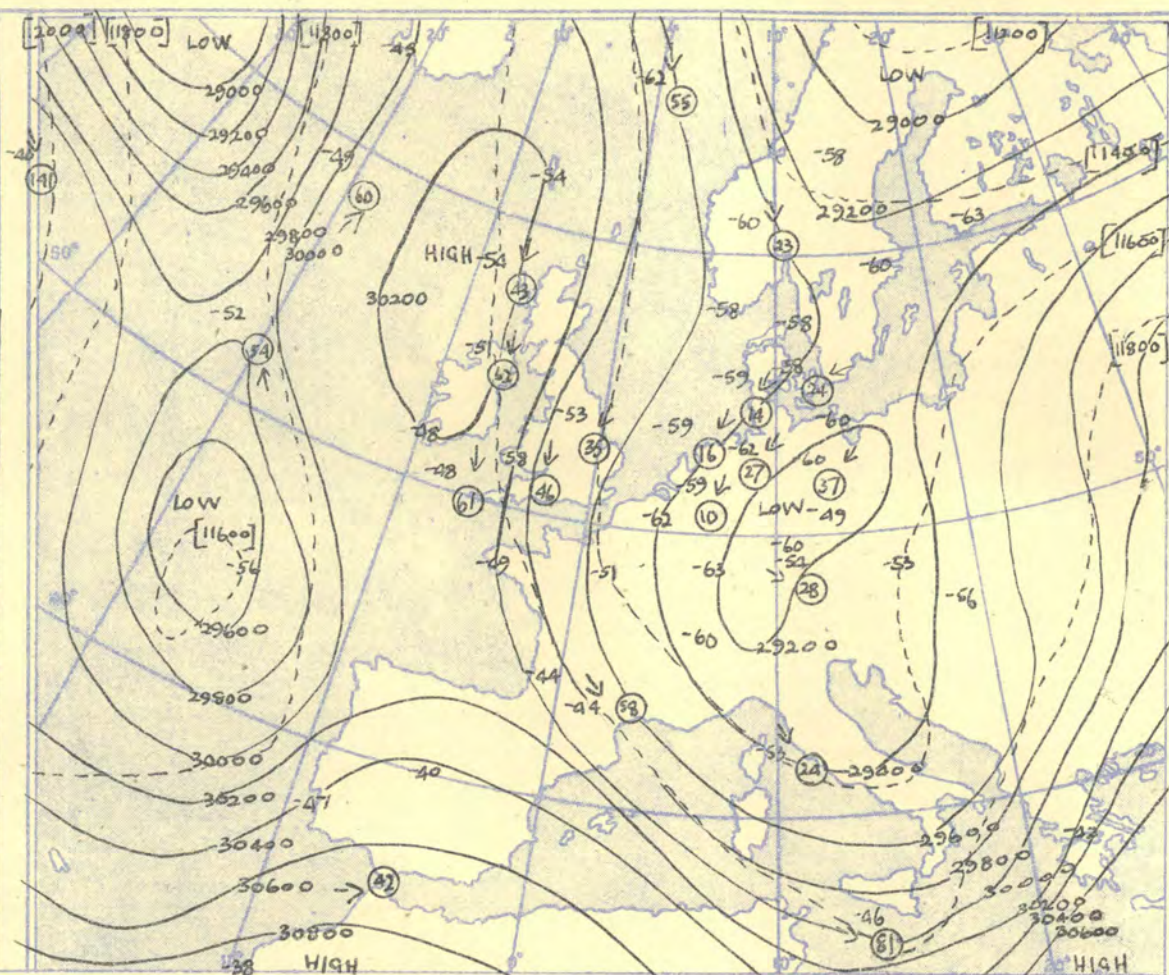
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



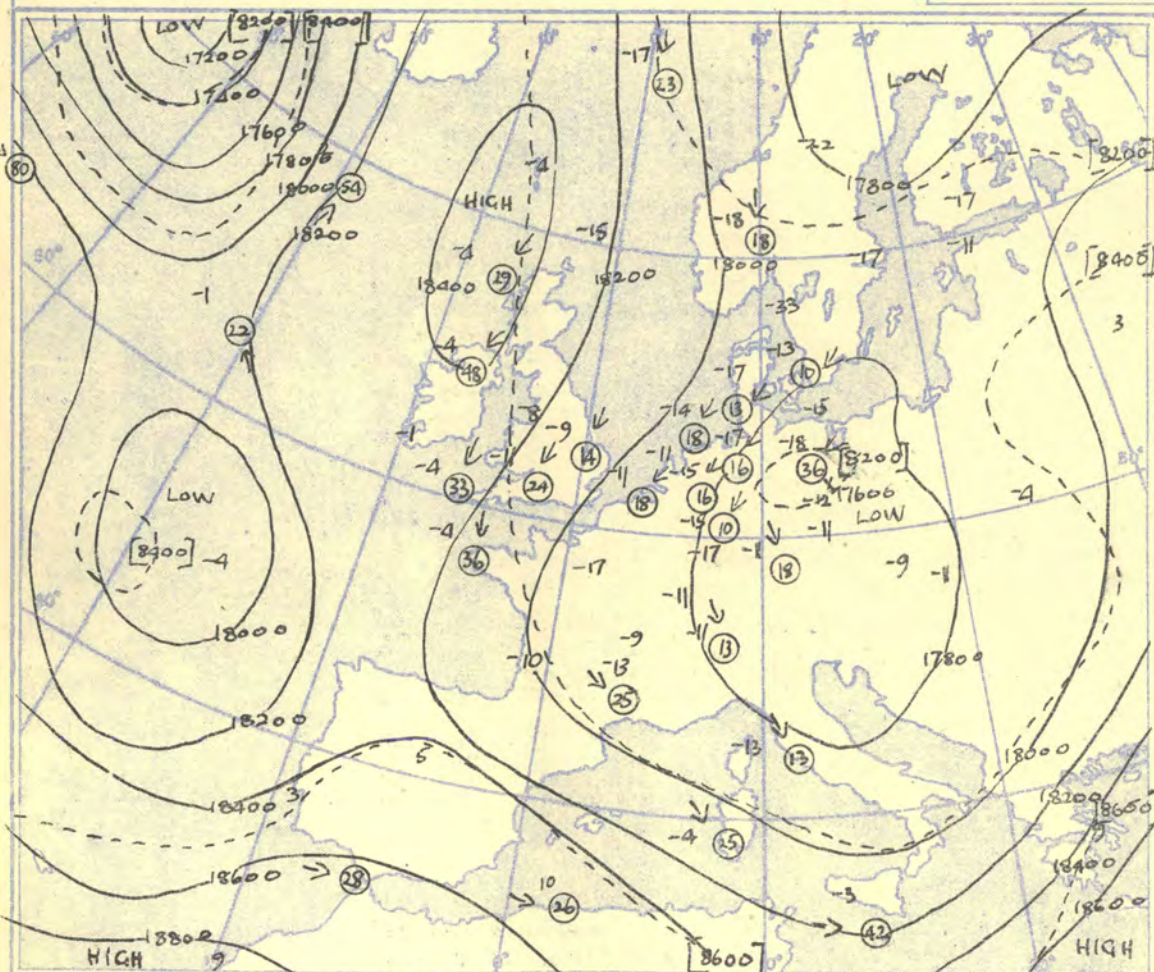
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

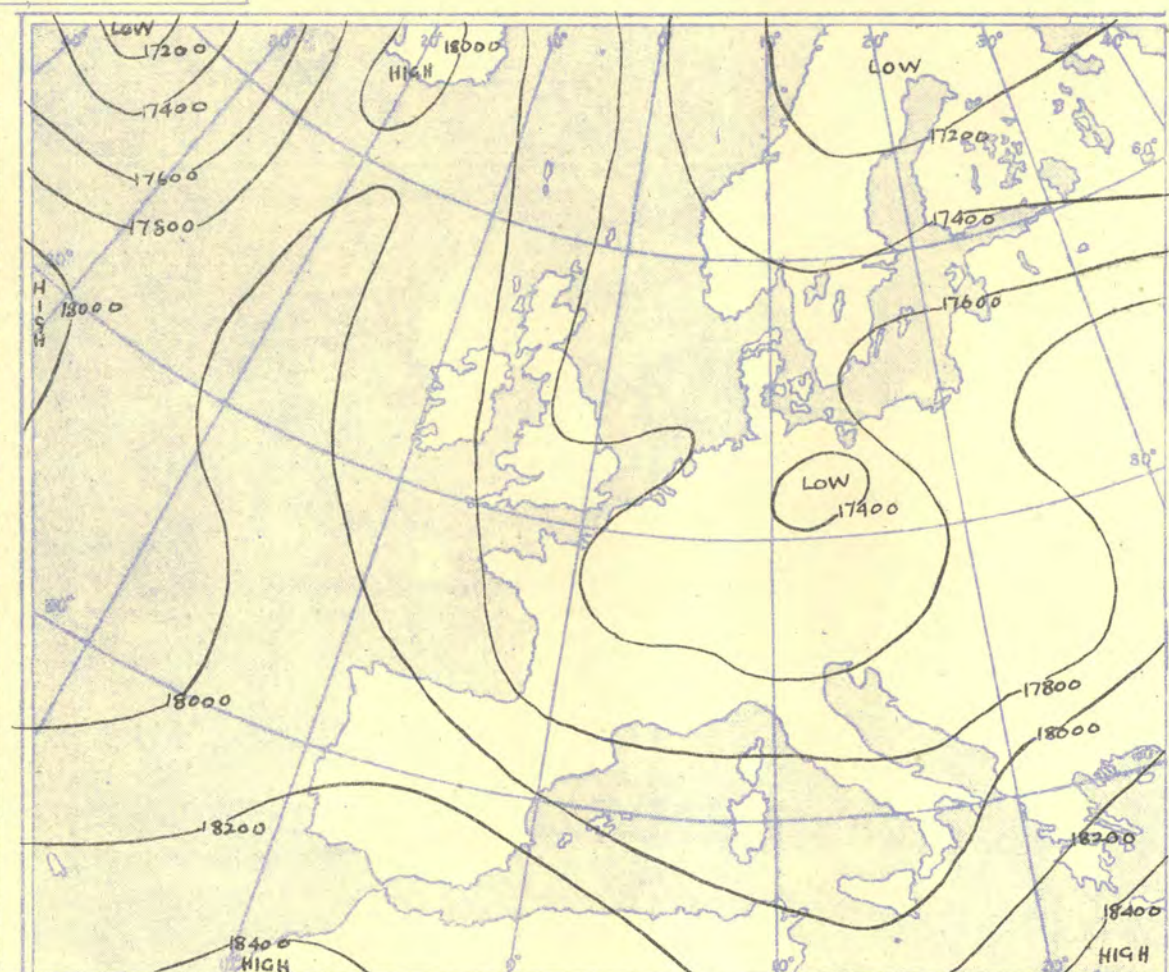
100 80 60 40 20 10 knots



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



Isopleths of Thickness 500-1000mb.

1950

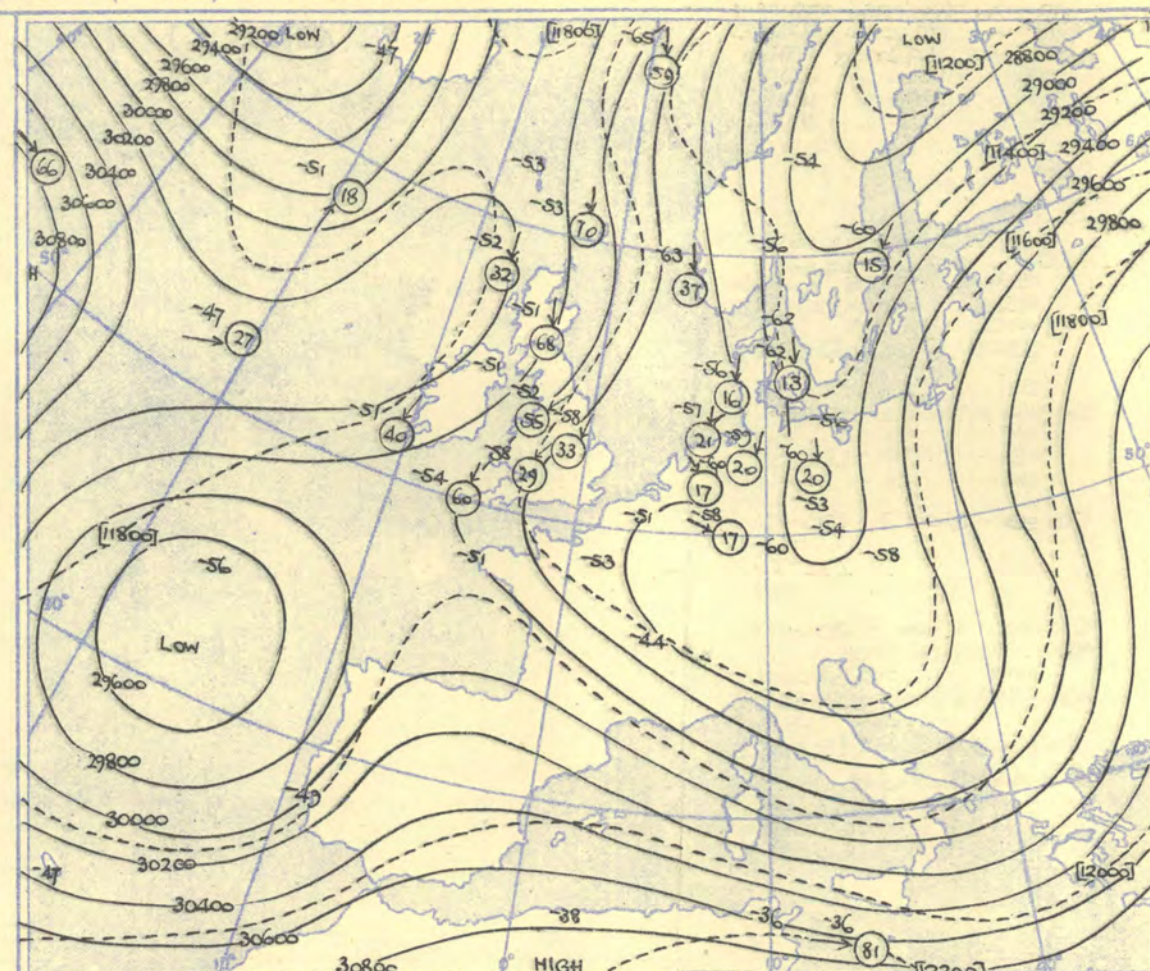
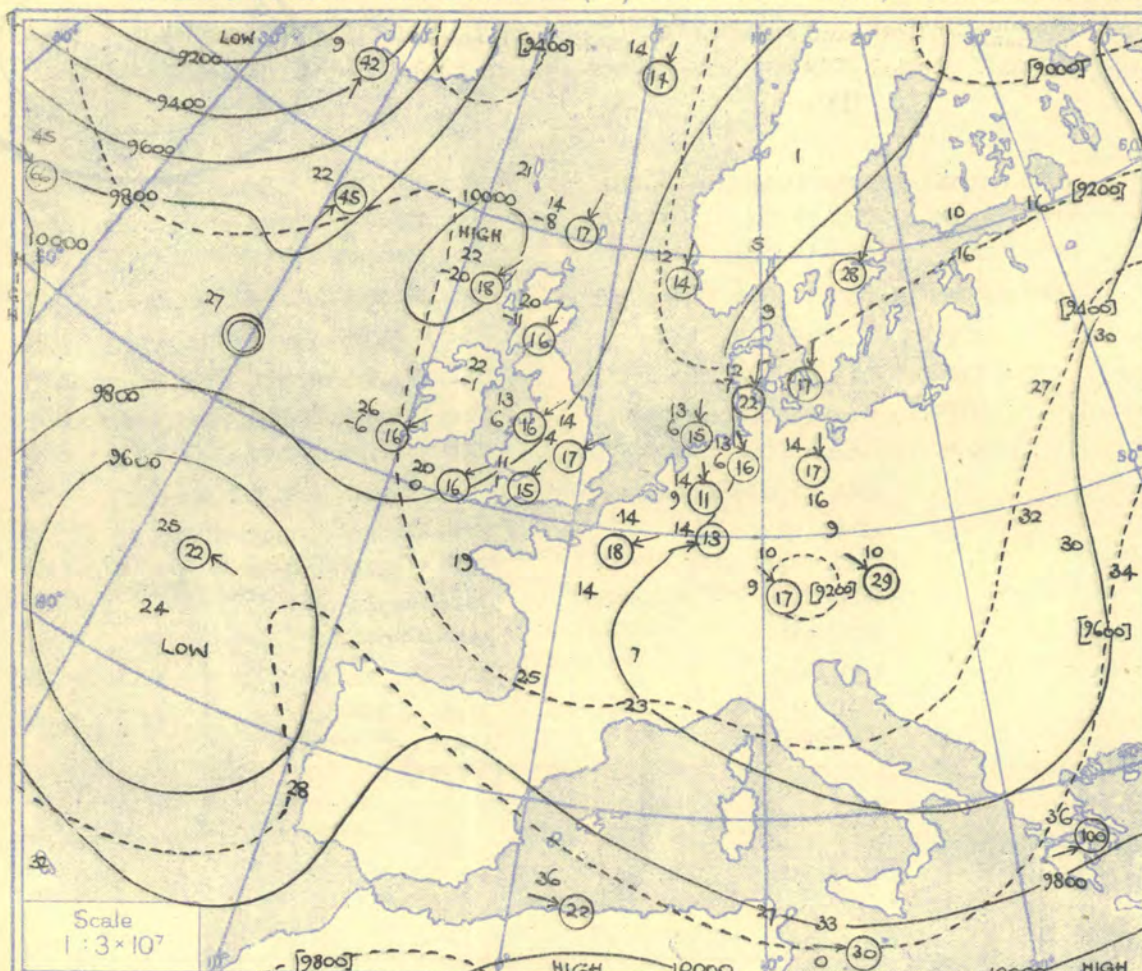
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.

NEPHOSCOPE OBSERVATIONS

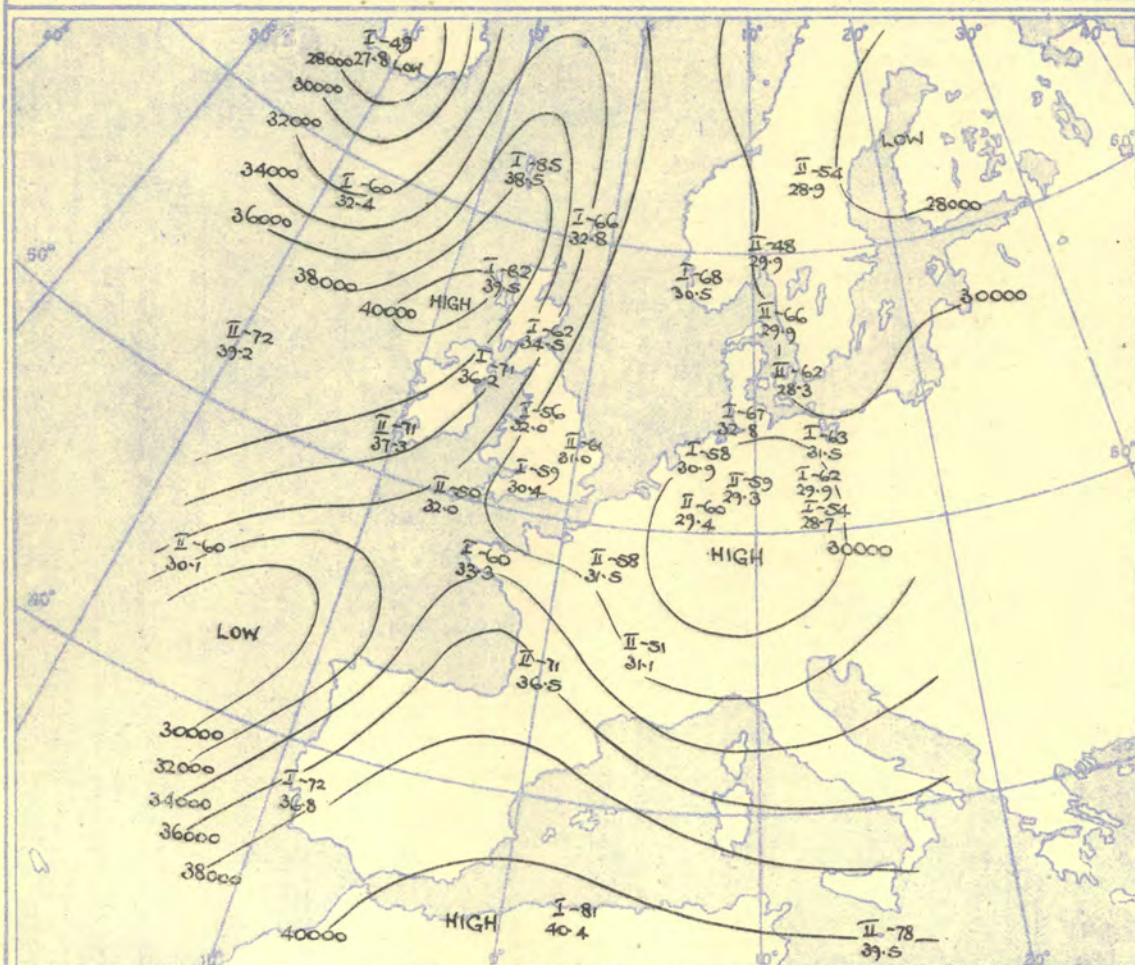
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				Ship		
Lat/Long	59-0N. 19-0W.				59-0N. 19-0W.				59-0N. 18-9W.				59-0N. 18-9W.				52-6N. 19-8W.				52-7N. 20-2W.				52-7N. 19-9W.				52-7N. 19-7W.				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							
	M.S.L.	1007	mb		1007	mb		1013	mb		1014	mb		1005	mb		1009	mb		1013	mb		1017	mb			mb	M.S.L.							
	Surf	1007	mb		1007	mb		1013	mb		1014	mb		1005	mb		1009	mb		1013	mb		1017	mb			mb	Surf							
	Freezing	750	mb		785	mb		910	mb		890.4 819	mb		730	mb		740	mb		785	mb		760	mb			mb	Freezing							
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure						
	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb						
Surf		51	49	180 30		49	49	260 15		41	37	230 08		45	30	230 08		53	53	130 13		53	53	160 17		54	52	160 10	Surf						
1000	1.8	50	49	162 39	2.0	48	48		3.5	40	36	247 06	3.7	44	29	230 10	11.5				3.6	50	50	143 12	4.6	52	52	155 14	1000						
950		47	44	164 45		44	42	220 18		35	32	247 11		41	30	229 07		49	49	133 28		48	44	138 18		45	45	157 13	950						
900	30.3	43	40	168 51	30.4	39	47	199 24	31.4	31	28	251 18	32.0	33	26	223 12	30.2	46	46	149 26	31.1	45	40	146 16	32.1	42	42	163 09	900						
850		40	36	178 42		36	33	191 34		32	29	240 27		29	15	216 15		42	41	154 14		41	35	210 07		39	39	213 06	850						
800	61.8	37	33	184 38	61.7	33	30	189 42	62.3	28	25	211 30	62.8	32	05	213 18	61.8	38	35	130 17	62.7	37	31	191 07	63.5	34	34	143 03	800						
750		32	28	179 37		29	26	184 45		25	22	197 52		29	13	206 21		34	31	119 18		33	26	110 07		31	31	067 06	750						
700	97.0	27	23	173 45	96.5	35	22	179 50	96.8	22	19	213 45	97.5	23	07	207 28	97.0	29	26	119 17	97.8	28	21	130 10	98.5	27	26		700						
650		21	16	173 48		19	15	177 51		16	12	212 54		19	12	208 30		23	20	115 15		22	15	140 15		20	16	268 11	650						
600	137	14	09	181 48	136	13	08	174 58	136	10	06	203 52	137	15	02	226 30	137	16	11	109 15	137	14	07	141 15	138	13	11	309 15	600						
550		07	-02	189 51		06	00	174 61		03	-01	196 58		06	-11	235 23		08	-01	125 24		11	-06	145 12		11	03	326 18	550						
500	182	02	-24	193 54	181	-02	-08	175 64	181	-05	-11	184 68	182	-04	-25	252 42	182	-01	-09	138 22	183	03	-15	157 12	184	01	-08	185 05	500						
450		-08	-28	194 51		-11	-18	182 63		-16	-22	172 61		-15	-35	265 54		-11	-18	142 30		-08	-23	157 16		-08	-20	343 43	450						
400	235	-22	-39	180 56	235	-22	-30	182 64	234	-18	-34	187 72	223	-20	-37	203 77	235	-23	-31	141 36	227	-19	-36	164 24	237	-20	-33	350 63	400						
350		-34	-46	180 61		-34	-43	182 69		-39	-46	197 85		-23	-47	214 84		-33	-47	142 45		-34	-50	175 32		-34	-48	009 72	350						
300	301	-49		180 60	300	-48		187 78	298	-51		197 87	301	-61		320 84	300	-52		142 54	302	-47		181 40	303	-47		002 91	300						
250		-65		180 69		-64		185 79		-59		197 78		-54		321 105		-61		158 40		-60		162 27		-58		360 119	250						
200	386	-70		180 53	385	-73		195 59	385	-59		197 32	389	-63		321 80	386	-64		183 27	288	-66		216 05	389	-71		358 121	200						
170		-70		180 42		-69		195 40		-62		197 27		-64		308 59		-69		198 24		-66		244 05		-72		347 99	170						
150		-67		180 21		-69		203 30		-62		197 31		-65		298 42		-68		244 18		-67		331 10		-74		356 78	150						
130		-70		180 15		-68		213 25		-64		223 27		-71		295 42		-70		262 21		-67		295 11		-71		356 51	130						
110						-70				-67		235 24		-71		290 32		-72		268 19		-69		262 15		-75		356 40	110						
100					529	-74			532	-70		241 21	533	-71		289 18	531	-72		276 17	533	-70		279 15	532	-75		356 34	100						
90						-75				-69		243 25		-71		289 09		-73				-73		310 09		-75		356 33	90						
80						-76				-72		261 17	(087 mb)	-71				-72				-75				-74		356 25	80						
70						-77				-70		246 10									(076 mb)	-76				-75		356 25	70						
60					(054 mb)	-75				-72			Inversion 900mb. 31°-863mb. 33° Isothermal 906-900mb. 31°			Inversion 858mb. 26°-835mb. 34° Isothermal 819-774mb. 32° 437-407mb. -18°					Inversion 590mb. 13°-572mb. 14°			(064 mb)	-75		356 27	60							
												</																							

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.



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

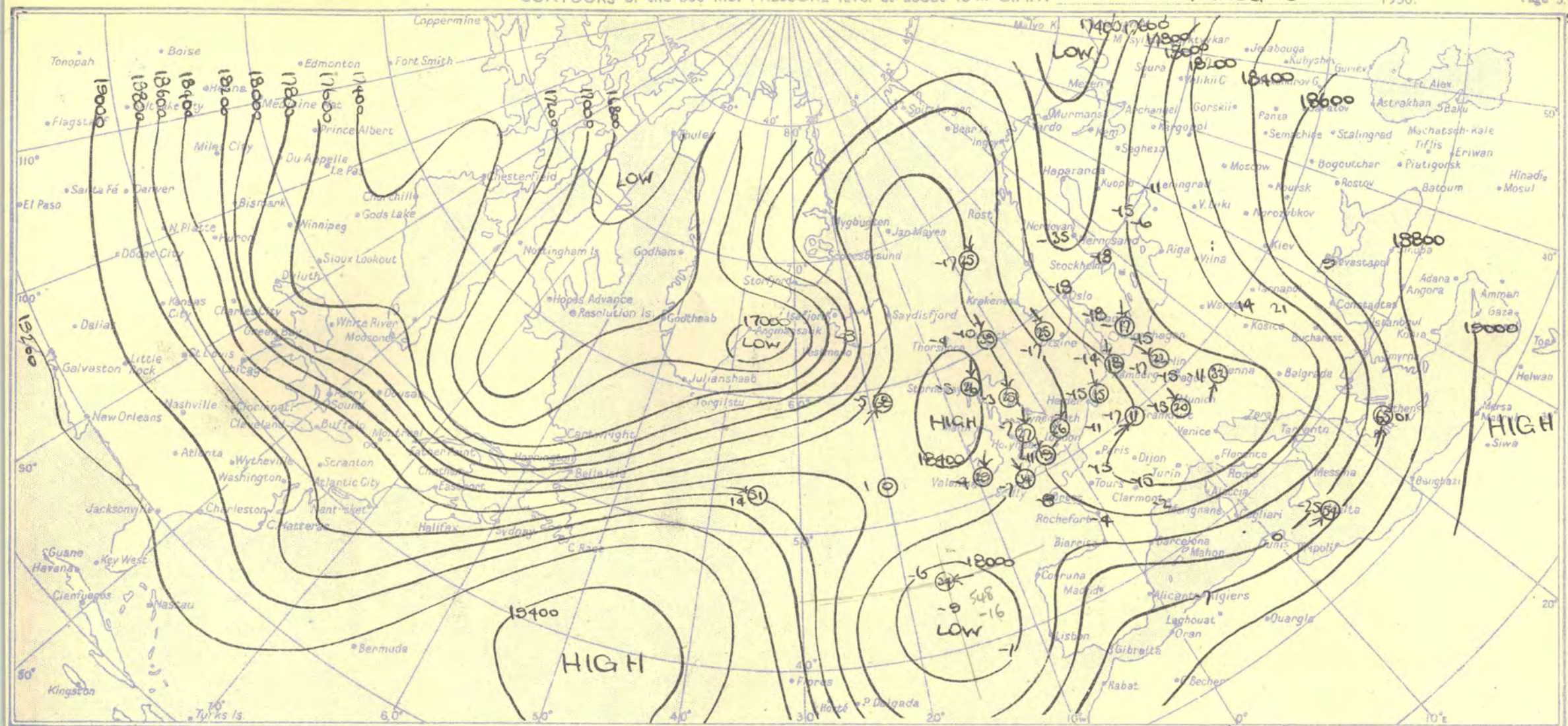


NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge continued to move east and decrease in intensity and during the period there seems to have been no compensating subsidence to counteract the advecting cooling from the East and thicknesses fell except in Northwest Scotland.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

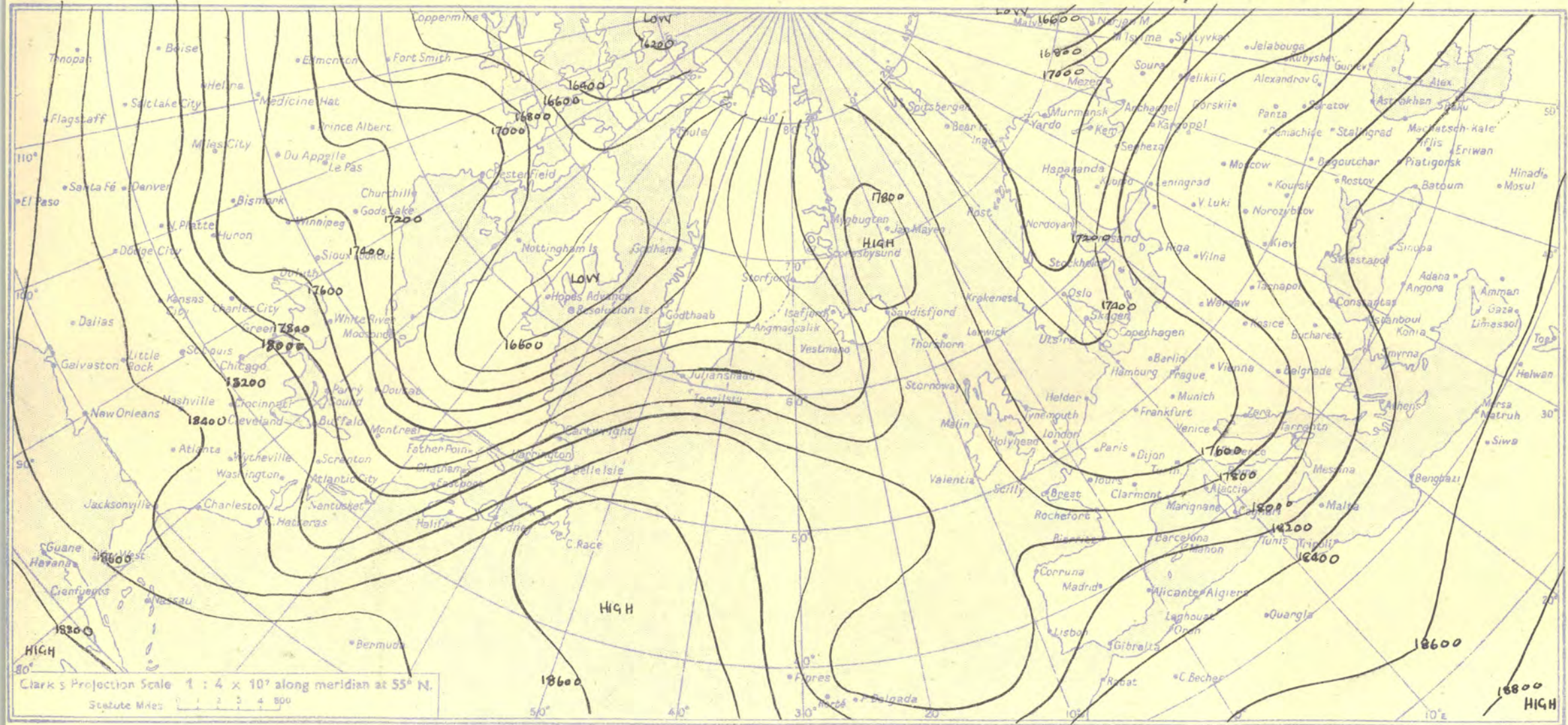
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Monday 6th November

1950.



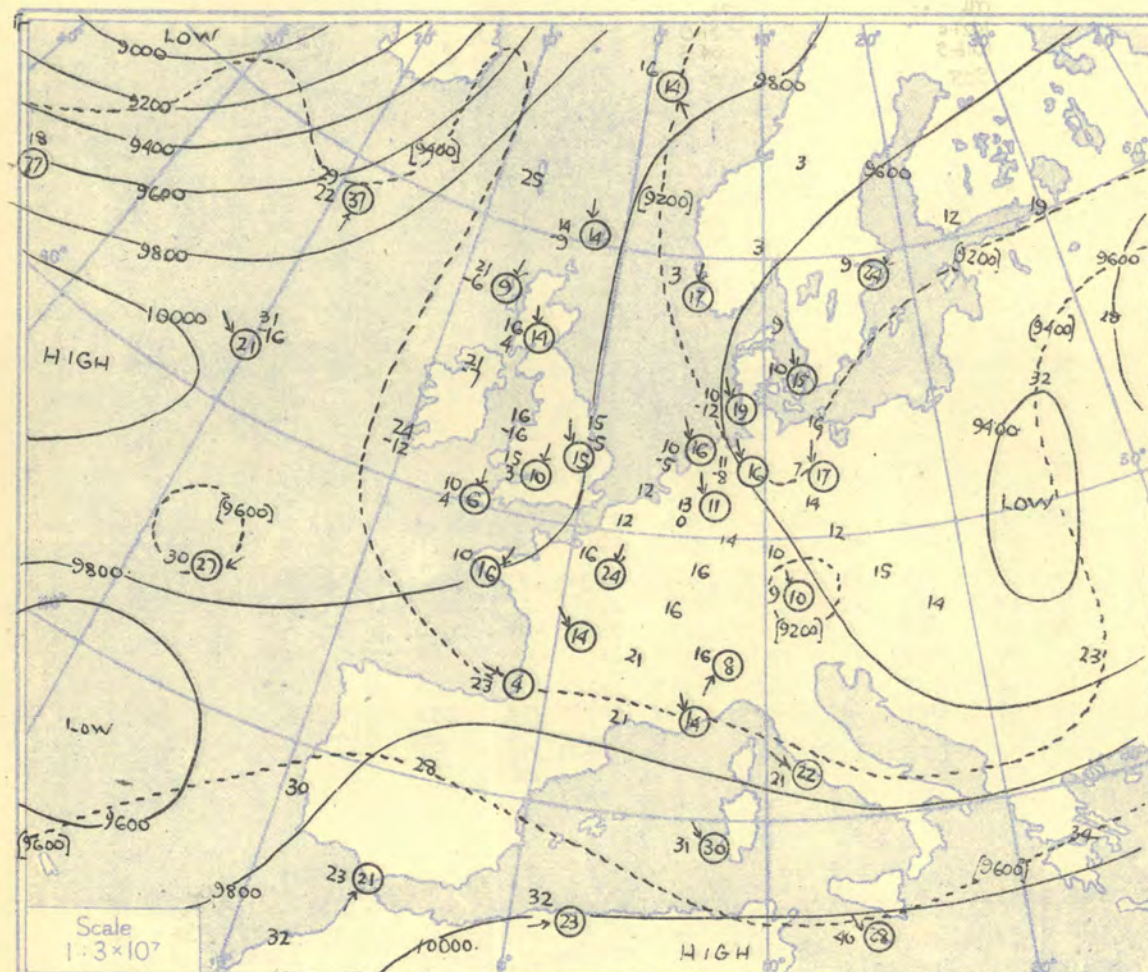
Clark's Projection Scale 1 : 4 x 10⁷ along meridian at 55° N.
Statute Miles 1 2 3 4 500

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	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time														
	M.S.L.	1023.2			M.S.L.	1024.3			M.S.L.	1022.0			M.S.L.	1022.5			M.S.L.	1020.2			M.S.L.	1018.0			M.S.L.	1017.0			M.S.L.	1016.9			M.S.L.														
	Surf	1013.0			Surf	1023.4			Surf	1021.2			Surf	1013.7			Surf	1018.2			Surf	1013.7			Surf	1000.7			Surf	1006.1			Surf														
Freezing	503	826			Freezing	898			Freezing	910			Freezing	898			Freezing	894			Freezing	890			Freezing	890			Freezing	880			Freezing														
Pressure	Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Pressure										
	mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb										
Wind	Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Wind										
	knots	knots			knots	knots			knots	knots			knots	knots			knots	knots			knots	knots			knots	knots			knots	knots			knots	knots			knots										
Surf	02.7	45	40		00.5	48	38	110	06.0	2	48	39	070	1002.3	47	39		0.6	46	39	030	06	01.2	48	37	020	10	04.9	45	40	040	11	02.9	46	40	045	13	Surf									
	1000	06.2	45	39		06.5	45	36	118	09.0	6	45	35	021	1206.0	45	38		05.5	44	38	038	14	04.9	47	37		10	04.6	45	40		09.5	45	39	084	09	50	1000								
950	38	31			38	31	116		08	39	25	025	12	38	31			38	32	051	14	41	32	039	19		38	33	048	18		39	33	087	13		950										
	900	34.2	27	23		34.6	27	26	106	09	34	13	25	048	11	34	13	26		33.6	27	26	061	20	33	13	25	043	31	32	7	34	27	081	18	33	2	900									
850	26	20			28	18	023		10	27	20	053	09	26	21			25	20	067	19	26	18	049	20		28	26	063	17		26	21	082	17		850										
	800	64.7	20	16		65.8	20	06	047	12	64	9	24	070	07	64	8	26	18		64.2	15	067	16	63	8	25	11	048	18	63	3	25	22	058	15	63	4	800								
750		21	11	See p3		26	5	034	15		19	13	033	06		24	10			20	12	068	17		20	10	044	22		19	05	064	13			750											
	700	98.9	14	8	for	100	21	20	044	18	91	0	20	11	042	16	99	3	22	1		98.3	13	06	066	16		97.9	11	01	059	15	97	4	20	057	16		700								
650		10	7	Winds		15	1	026	15		13	17	031	24		18	16			12	06	057	21		12	06	057	21		12	06	057	15			650											
	600	13	06	12		13	12	4	012	16	13	9	09	12	020	23	13	9	10	19		127	07	12	046	26	13	6	04	5	058	13	13	5	05	20	020	17	13	8	16	18	034	23		600	
550		00	13			04	4	006	22		02	18	013	22		04	21			00	18	038	27		00	18	038	27		03	13	048	20		03	13	048	14			550						
	500	182	40	28		185	5	44	004	26	183	3	27	026	25	184	4	31			182	8	26	030	27		181	15	26	038	26	180	11	50	017	19	181	7	36	357	34	184	6	23	013	29	
450		18	38			13	23	001	26		13	41	019	37		13	43				18	37	031	27			22	38	039	28		22	38	039	28			450									
	400	235	28	46		237	23	34	004	23	236	25	46	023	43	237	25	53			234	31	47	031	30		233	33	48	035	23	232	33	60	017	23	234	28	51	354	44	237	24	34	013	31	
350		41				36	50	006	31		37	54	024	62		37	60				41		033	42			46		037	28		46		018	24			350									
	300	299	53			302	52			009	32	301	51		017	68	301	51			298	52		032	53		296	58		039	33	295	58		020	29	298	54		003	60	301	51		027	40	
250		65				65			359	43		61		020	70		64				53		026	43			61		024	23		56		013	35		59		001	39		63		021	43		250
	200	385	65			387	70			004	40	387	69		009	33	387	66			386	58		018	37		383	54		016	23	383	56		003	29	385	64		353	22	387	70		355	28	
170		63				71			356	30		59		347	26		68				60		014	26			60		010	28		61		359	29		67		347	18		67		356	19		170
	150		63				69			357	27		61		352	23		67				63		359	23			63		357	30		64		005	24		67		359	21		68		001	14	
130		64				71			357	23		63		352	20		70				66		341	17			63		356	26		66		359	26		70		003	17		71		006	13		130
	110		71			73			343	16		66		355	21		73				67						68		350	20		66		357	18		74		358	11		71		012	12		110
100	530	72			531	73			344	17	534	67		358	23					67				529	66		330	18	529	68		334	13	525	74		354	16	531	71		015	12		100		
	90		72			73			342	17		67		354	20					67				70			72		329	14		69		343	17		74		350	14		71		015	18		90
80		72				73			339	16		67		345	17					72				72			72		313	13		72		343	17		76		355	09		73		016	18		80
	70		72			73			334	16		69		342	16					73				72			72		308	13		73		338	13		74		352	06		74		016	17		70
60		76				77			334	13		71		359	15					77				77			77		302	10		78		344	10		79		352	05		79		016	17		60
	Inversion	793mb 15°-700mb 21°			Inversion	855mb 29°-826mb 32°			Inversion	740mb 19°-703mb 21°			Inversion	826mb 24°-818mb 27°			Inversion	850mb 25°-826mb 28°			Inversion	855mb 26°-823mb 27°			Inversion	650mb 22°-623mb 28°			Inversion	821mb 23°-805mb 25°			Inversion	868mb 31°-800mb 33°													
Tropopause	I 261 mb -66° 32800'				I 193 mb -82° 29500'				I 245 mb -62° 24500'				I 225 mb -71° 36200'				I 271 mb -56° 32000'				I 280 mb -61° 31000'				I 288 mb -59° 30400'				I 270 mb -59° 32000'				I 214 mb -71° 37300'				Tropopause										
	STATION				STATION				STATION				STATION				STATION				STATION				STATION				STATION				STATION				STATION				STATION						
Pressure	Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time														
	M.S.L.	1023.0			M.S.L.	1023.8			M.S.L.	1022.8			M.S.L.	1023.6			M.S.L.	1022.1			M.S.L.	1020.2			M.S.L.	1019.3			M.S.L.	1018.2			M.S.L.														
	Surf	1012.7			Surf	1022.4			Surf	1021.9			Surf	1014.6			Surf	1020.0			Surf	1015.8			Surf	1002.8			Surf	1008.4			Surf														
Freezing	500	910			Freezing	910			Freezing	900			Freezing	920			Freezing	905			Freezing	911			Freezing	864			Freezing	864			Freezing														
Pressure	Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Height	Temp.			Pressure										
	mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb	°F.			mb										
Wind	Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Dir.	Vel.			Wind										
	knots	knots			knots																																										

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																																			
STATION					LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION	
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													
M.S.L.		1021.5		mb		1022.9		mb		1021.5		mb		1024.3		mb		1022.1		mb		1021.0		mb		1021.0		mb		1020.8		mb		1023.3		M.S.L.															
Surf		1011.2		mb		1020.9		mb		1021		mb		1015.3		mb		1020.0		mb		1016.5		mb		1004.3		mb		1009.9		mb		1022		Surf															
Freezing		915		mb		912		mb		890		mb		910		mb		920		mb		905		mb		915		mb		873		mb		880		Freezing															
Pressure		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Pressure													
mb		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		mb													
Surf		02.7	37	35	010	06	00.5	40	37	CA LM	00.2	38	35	270	02	02.3	38	35	CALM	00.6	31	30	CALM	01.2	39	37	290	02	04.4	33	32	050	03	02.9	40	36	067	10	00.3	35	33	070	05	Surf							
1000		5.7	41	38	010	12	6.1	43	39	190	06	5.8	41	37	030	06	6.4	41	37		5.8	41	35		5.5	41	37	339	15	5.6	34	32	050	13	5.5	42	37	053	13	6.1	42	36	047	04	1000						
950			36	31	012	12		37	31	174	08	39	35	016	07		38	29			37	31			38	32	349	14		36	28	033	14		41	29	071	12		41	34	012	02	950							
900		33.6	30	25	007	12	34.1	30	28	167	08	38.9	33	31	360	08	34.5	31	17		33.8	29	24		33.6	31	17	001	13	33.4	30	25	026	10	33.8	31	28	084	10		34.3	34	29	900							
850			24	21	357	12		27	20	153	02		27	23	350	10		24	22			26	21			24	21	006	13		30	21	007	10		29	25	059	05		29	21		850							
800		64.2	22	06	358	11	64.8	27	06	056	02	64.6	27	19	347	12	65.1	26	16		64.4	23	10		64.1	23	11	359	12	64.2	25	10	013	09	64.7	27	14	051	03	64.9	25	09		800							
750			18	-03	360	12		23	-01	019	07		20	15	354	11		25	-02			18	03			19	02	338	15		20	06	010	08		19	08	053	03		27	-09		750							
700		98.2	14	-09	360	14	99.2	21	-06	010	09	98.7	16	04	352	14	99.9	21	-07		98.4	16	10		98.2	15	-05	335	15	98.4	15	03	013	10	98.8	10	04	009	06	99.5	24	-02		700							
650			08	-17	360	17		15	-16	340	11		12	-05	349	16		16	-02			11	-07			09	-16	346	17		03	-04	017	14		15	-13	017	09		19	-01		650							
600		137	01	-24	004	24	138	05	-19	320	10	137	06	-12	351	24	139	10	01		137	04	-12		137	03	-13	353	22	137	04	-14	019	23	138	08	-21	026	16	139	16	-06		600							
550			-07	-32	002	30		00	-13	313	17		-01	-13	352	32		02	-04			-02	-21			-04	-19	353	24		-02	-19	005	21		01	-36	022	20		07	-11		550							
500		181	-17	-39	002	35	183	-09	-19	310	26	182	-09	-13	353	32	183	-07	-13		182	-09	-34		181	-13	-26	359	27	181	-13	-29	001	24	182	-07	-26	023	29	184	-03	-17		500							
450			-26	-47	350	41		-18	-26	312	28		-17	-21	353	40		-18	-24			-17	-38			-21	-38	006	35		-21	-38	012	30		-17	-44	024	44		-12	-24		450							
400		232	-33	-55	345	54	235	-28	-33	316	25	235	-18	-32	353	50	236	-29	-34		234	-28	-43		233	-31	-51	006	42	233	-30	-48	016	37	235	-28	-54	023	51	237	-24	-32		400							
350			-45					-39	-44	318	24		-40	-45	351	51		-38	-44			-40	-52			-44		008	45		-42		016	45		-41		023	59		-34	-39		350							
300		296	-56				300	-51		306	28	299	-52		347	57	301	-51			298	-55			297	-55		009	57	297	-55		016	60	299	-53		021	64	302	-49		300								
250			-61					-68		325	34	385	-72		350	61		-65				-64				-64		007	55		-63		018	61		-65		019	62		-67		250								
200		381	-68				385	-68		327	31		-68		351	33		-62			384	-72			383	-60		332	34		-64		341	31	385	-68		006	36	388	-71		-69		200						
170			-63					-70														-65				-61		332	34		-64		324	23		-67		345	29		-69		170								
150			-62					-66		321	28											-64				-65		325	24		-67		342	22		-70		333	29		-73		150								
130			-66					-68		313	26											-69				-69		329	23		-69		328	21		-73		354	21	(146)	-73		130								
110			-73					-72		313	23		-71		348	28		-72				-72				-71		338	25		-72		350	27		-74		343	18	(mb)	-73		110								
100		527	-75				529	-76		320	20	529	-73		002	28	531		-75		(105)	-72			529	-71		338	20		-73		342	19	528	-75		338	17				100								
90			-75					-77		321	17	722	-75									-75				-72		330	28		-74											90									
80			-76					-77		310	18	(mb)										-76				-72		327	20		-76											80									
70			-77					-78		306	19											-77				-74																	70								
60		(65)	-77					-80														-77				-76																	60								
Inversion 1011 mb 37° - 1000 mb 41° Isothermal 840 - 810 mb 23° Tropopause I 219 mb - 71° 36,300'																																																			
Inversion 1021 mb 40° - 1000 mb 43° Isothermal 857 - 825 - 834 - 31° Tropopause I 220 mb - 76° 36,500'																																																			
Inversion 1002 mb 38° - 988 mb 43° Isothermal 706 - 683 mb 16° Tropopause II 205 mb - 74° 36,900'																																																			
Inversion 1015 mb 38° - 990 mb 43° Isothermal 865 - 830 mb 26° Tropopause I 212 mb - 73° 37,300'																																																			
Inversion 1020 mb 31° - 997 mb 43° Isothermal 850 - 815 mb 24° Tropopause I 250 mb - 65° 33,600'																																																			
Inversion 1016 mb 39° - 980 mb 42° Isothermal 881 - 828 - 850 - 36° Tropopause I 250 mb - 63° 33,600'																																																			
Inversion 1004 mb 33° - 973 mb 40° Isothermal 846 - 828 - 823 - 31° Tropopause I 238 mb - 69° 34,200'																																																			
Inversion 1010 mb 40° - 990 mb 45° Isothermal 792 - 29° - 738 - 28° Tropopause II 241 mb - 71° 34,800'																																																			
STATION					LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION	
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.		09h		G.M.T.		Time													
M.S.L.		1019.2		mb		1019.2		mb		1019.3		mb		1022.3		mb		1021.6		mb		1020.9		mb		1021.6		mb		1022.3		mb		1022.3		M.S.L.															
Surf		1008.9		mb		1017.2		mb		1019		mb		1013.2		mb		1019.5		mb		1015.9		mb		1004.7		mb		1011.4		mb		1009.9		Surf															
Freezing		910		mb		896		mb		910		mb		908		mb		900		mb		877		mb		921		mb		838		mb		Freezing																	
Pressure		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Dew		Wind		Height		Temp.		Pressure													
mb		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		°F.		Dir. Vel.		ft./100		°F.		mb													
Surf		02.7	40	38	075	03	00.5	42	40		00.2	40	36		02.3	35	33	CALM	00.6	31	29	CALM	01.2	36	36	280	02	04.4	32	30	340	02	02.9	37	34	CALM					Surf										
1000		5.1	40	38	075	03	5.1	45	41		5.2	43	39		5.8	37	34		5.6	43	40	286	06	5.4	34	32	280	15	5.6	34	31	340	02	5.9	42	37	1.0					1000									
950			36	32	075	04		40	33			39	35			37	30			38	34	328	06		36	33	334	15		36	30	023	14		40	29	1.0				950										
900		33.0	31	29	063	04	33.2	33	30		33.3	31	27		33.8	31	23			32	28	338	13	33.2	35	32	337	15	33.5	29	25	016	12	34.1	33	25	069	05					900								
850			25	25	050	04		25	21			25	21			24	19			27	22	330	09		29	25	339	14		29	22	003	13		33	20	018	03					850								
800		63.5	19</																																																

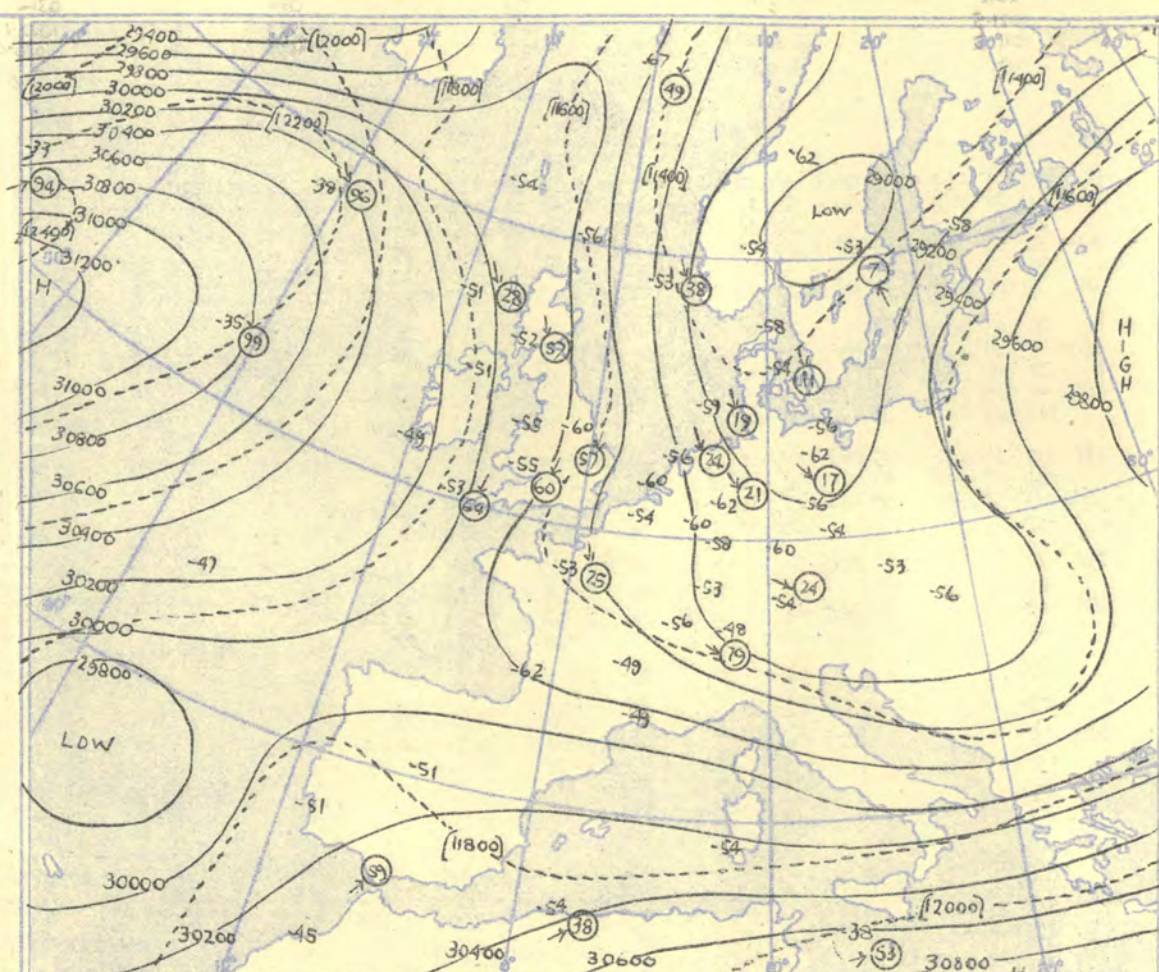
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



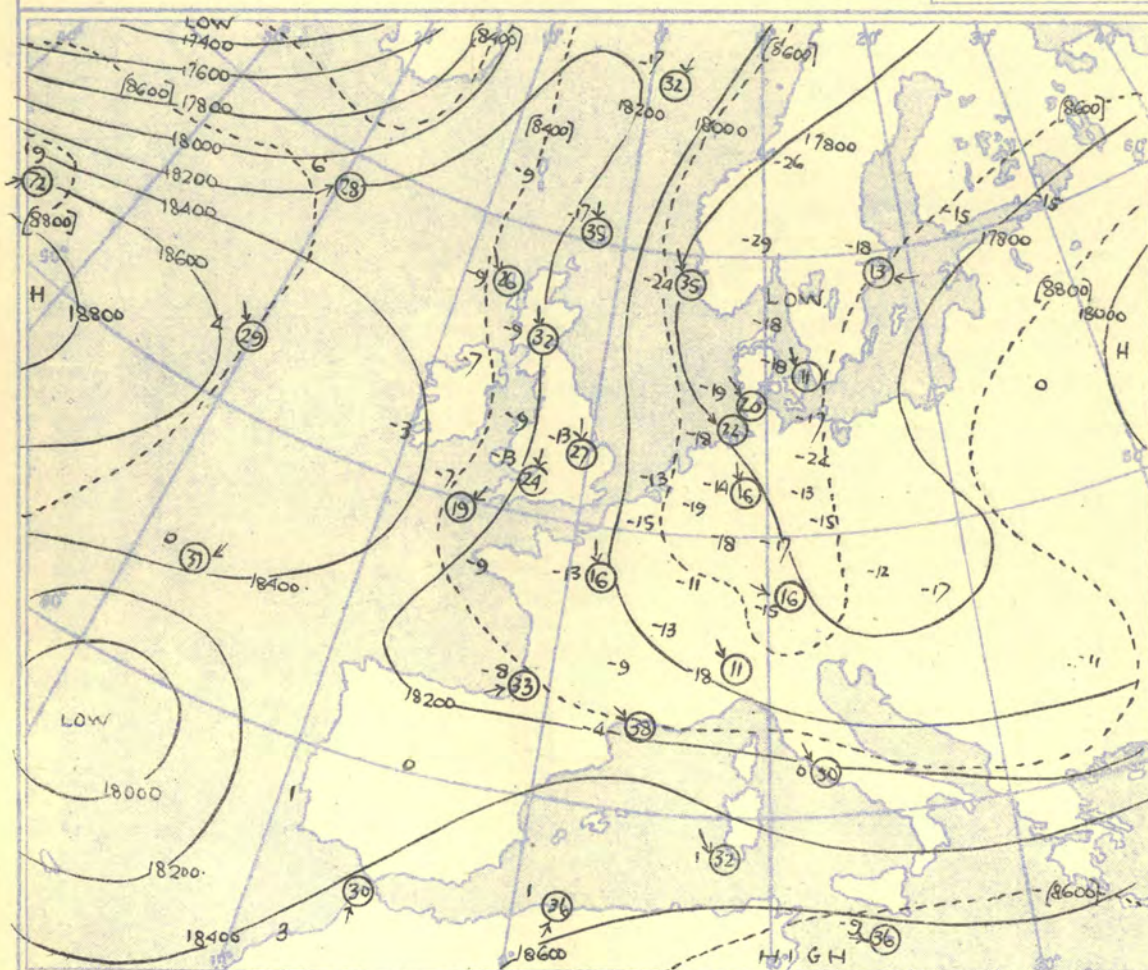
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

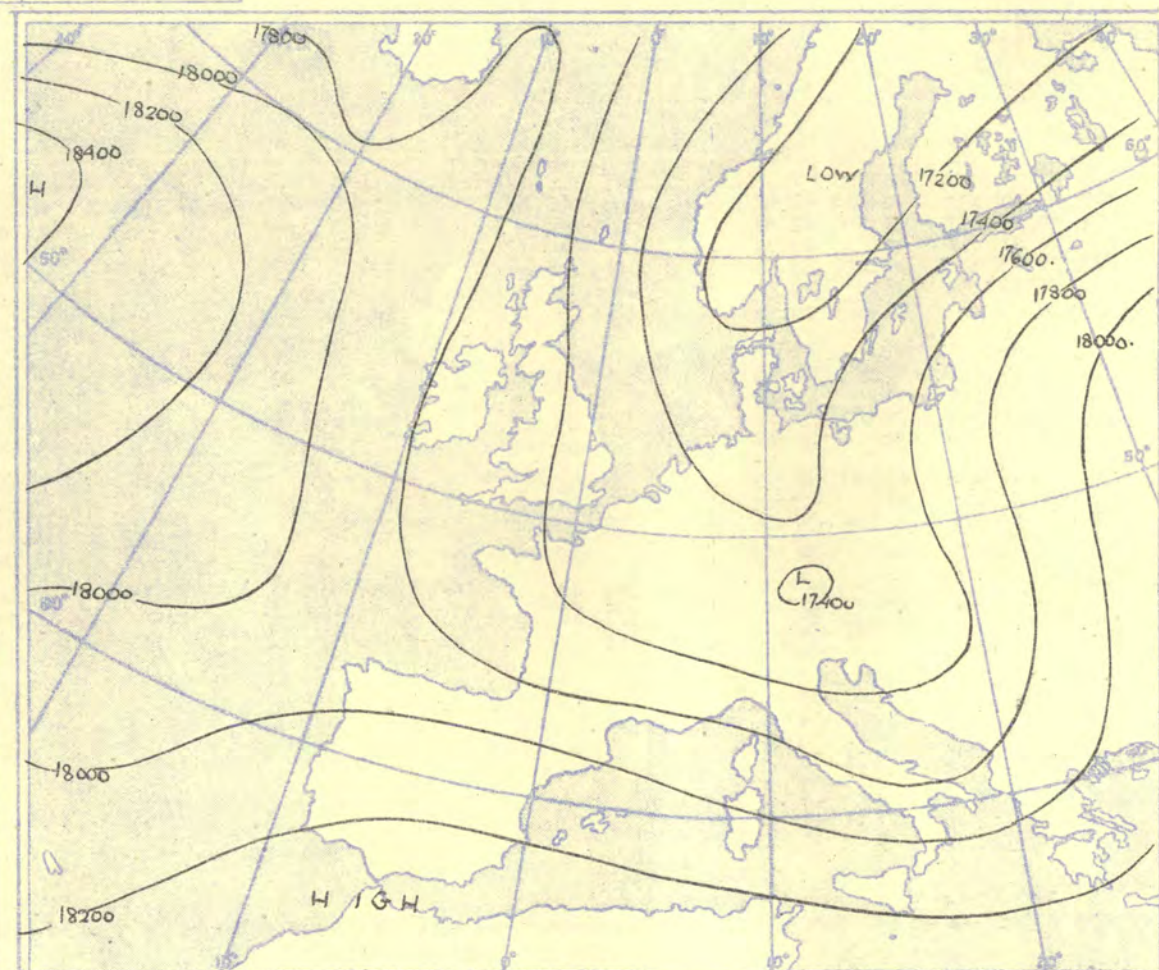
100 80 60 40 20 10 knots



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 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	51.4 N 18.2 W			48.6 N 12.1 W			43.2 N 17.0 W			39.2 N 12.5 W			53.1 N 01.3 E												Time M.S.L. Surf Freezing	Pressure mb
	Time M.S.L. Surf Freezing	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.				
Surf	010	55	46	010	53	50		62	59		63	60	0-5	47	39									Surf	1000'	
1000	5-4			5-2			3-0	61		1-3	62		4-9											950		
950		46	42		45	45		53	51		55	55		33	34									900		
900	33-9	37	37	33-8	38	33		49	40		51	50	32-9	33	30									850		
850		44	09		32	32		45	28		46	45		27	19									800		
800	66-5	44	15	64-9	34			42	20		42	36	63-5	20	10											
750		38	25		32			37	12		33	33		18	10									750		
700	101	33	22	99-8	26		99-2	31	01	97-6	30		98-0	16	-02									700		
650		29	22		25			25			22			11	01									650		
600	141	27	18	140	16			17			16		136	05										600		
550		14			07			08			10			-02										550		
500	187	08		185	01		185	00		183	00		181	-11										500		
450														-20										450		
400														-28										400		
350														-41										350		
300													197	-47										300		
250																								250		
200																								200		
170																								170		
cloud:-																										
3/8 Sc 910- 6/8 Cs 44N-G 1/8 Cs 44N-G Inversion 900 mb 37° 850 " 44° Isothermal 850-800 mb 44°																										
cloud:-																										
2/8 Sc 920- 2/8 Cs 44N-G Inversion 850 mb 32° 800 " 39°																										
cloud:-																										
4/8 Cu 940- Surface Wind E 17-21 Kts.																										
cloud:-																										
4/8 Cu 920- 5/8 Cu 960- 6/8 As 950 mb Surface Wind 7-10 Kts																										
cloud:-																										
5/8 Cu 965- 860 mb 2/8 Sc 800- 710 mb Isothermal 965-960 mb 41°																										

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

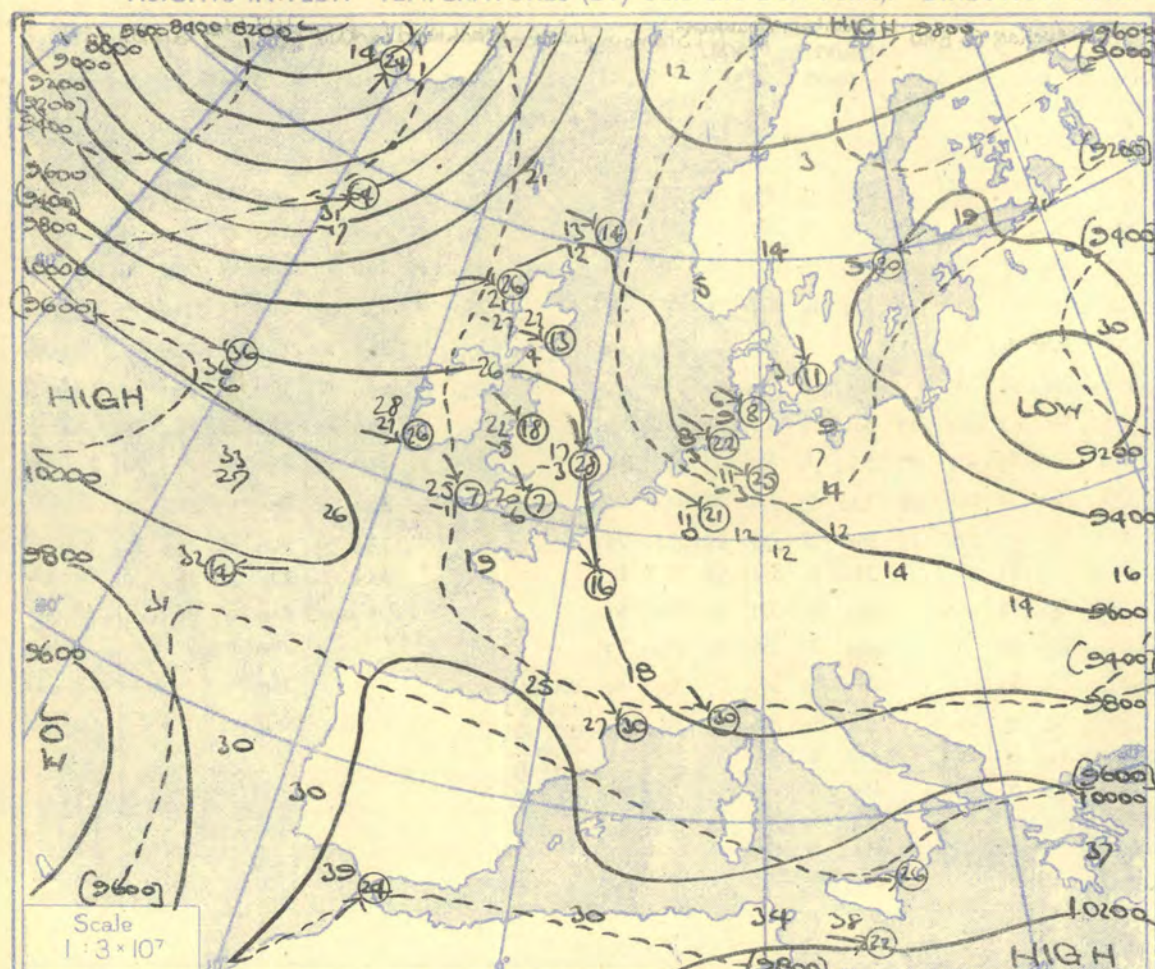
[illegible]

NEPHOSCOPE OBSERVATIONS

[illegible]

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

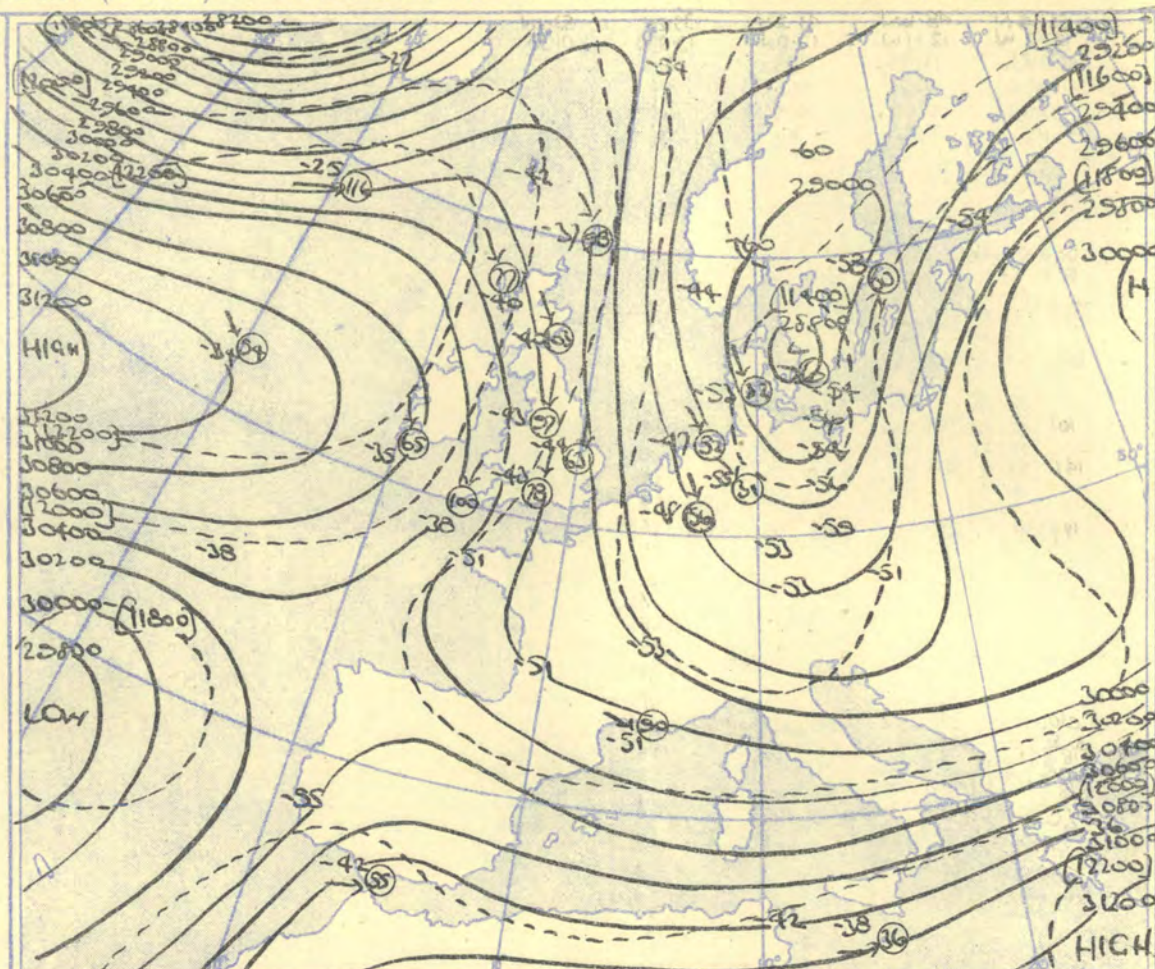
Ship	Weather Watcher				Weather Watcher				Weather Watcher				Weather Watcher				Weather Observer				Weather Observer				Weather Observer				Weather Observer				Ship			
Lat/Long	59°0'N 198°W				59°1'N 18°W				59°2'N 18°W				59°0'N 18°W				52°1'N 19°W				52°7'N 19°W				52°8'N 19°W				52°8'N 19°W				Lat/Long			
Pressure { Time M.S.L. Surf Freezing	03hrs G.M.T. 1009 mb 1009 mb 900, 815, 750 mb				03hrs G.M.T. 989 mb 989 mb 640 mb				15hrs G.M.T. 982 mb 982 mb 810, 710 mb				21hrs G.M.T. 979 mb 979 mb 850 mb				03hrs G.M.T. 1017 mb 1017 mb 715 mb				09hrs G.M.T. 1013 mb 1013 mb 680 mb				15hrs G.M.T. 1009 mb 1009 mb 675, 630 mb				21hrs G.M.T. 1006 mb 1006 mb 740 mb				G.M.T. mb mb mb			
	Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind			
	Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.			
	knots				knots				knots				knots				knots				knots				knots				knots				knots			
Surf	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Pressure mb			
Surf	-	47.36	180	23	-	46.46	180	36	-	51.47	218	36	-	44.44	-	54.51	200	13	-	51.51	250	20	-	53.47	223	32	-	53.47	270	30	Surf					
1000	2.3	46.36			2.8				4.9				5.6		4.7	52.49	197	21	4.0	50.50	227	24	2.4	51.44	224	36	1.6	52.46			1000					
950		39.30	180	29		42.42	188	57		48.46	223	44		42.42		48.48	203	22		47.47	231	39		44.38	230	38		45.41	272	36	950					
900	30.5	32.25	181	32	25.8	44.43	191	63	23.8	44.40	217	49	22.7	37.35	33.3	33.21	23	24	32.6	43.43	232	37	31.0	47.41	233	41	30.1	40.37	270	42	900					
850		35.27	183	33		43.48	208	64		37.33	231	52		31.27		33.33	228	22		38.36	233	26		44.38	233	46		40.37	268	48	850					
800	61.5	31.21	191	30	57.5	43.43	240	76	55.0	31.26	236	60	53.6	23.18	64.7	24.30	252	20	64.1	40.40	233	21	62.6	38.29	241	44	61.6	40.37	266	63	800					
750		32.15	203	31		41.38	250	74		36.22	240	62		15.09	See top	33.10	266	20		36.36	257	29		39.08	243	45		34.31	263	63	750					
700	96.5	29.22	218	37	93.2	36.33	241	62	90.2	31.17	243	64	87.5	11.07	of pag	39.82	2116	21	99.3	34.34	263	25	98.2	36.62	248	36	96.9	32.18	258	60	700					
650		25.19	233	46		23.30	240	66		27.35	242	70		07.6	for	26.02	238	17		29.29	275	29		32.18	258	33		33.08	254	59	650					
600	136	19.12	244	43	134	27.24	231	56	130	22.39	237	73	126	03.15	140	21.11	238	15	140	23.22	273	30	138	27.62	264	49	137	27.03	255	62	600					
550		13.06	352	38		23.20	248	57		11.47	238	51		-3-23		13.02	238	23		18.17	283	32		20.47	272	48		22.43	257	66	550					
500	182	06.22	253	28	181	15.11	240	43	176	05.51	343	52	170	-11.32		18.60	462	29	186	11.05	292	36	185	17.43	283	42	184	17.15	257	72	500					
450		-3-12	263	29		08.03	246	67		-2-57	243	119		-21.43		-2-93	319	31		03.01	303	39		06.39	286	43		-9.40	260	74	450					
400	237	-12.21	270	46	236	-12.92	247	74	231	-10.52	246	116	223	-15.39		240	-12.20	333	35	241	-8-8	310	46	241	-8-5	312	46	240	-3-50	265	74	400				
350		-26-33	287	61		-16.74	262	81		-16.53	240	117		-20.46		-22-31	345	52		-17-21	322	63		-18.53	256	54		-15.82	266	83	350					
300	303	-38-50	298	96	304	-33.42	260	96	299	-25.58	240	116	290	-23.50		307	-33-44	350	99	309	-32	327	66	308	-34-57	258	54	307	-33-60	270	85	300				
250		54		132		54				43	259	131		-27.54		34	358	126		52	346	73		50	302	66		51	281	96	250					
200	291	-74	309	114	351	-81			389	-61	289	170	283	-39.59		395	-73	354	126	397	-73	347	98	397	-70	312	70	395	-79	287	93	200				
170		-74	326	102		-82				-68	270	88		-49		-81	353	97		-83	350	86		-82	321	70		-76	290	82	170					
150		-81	327	71		-82				-78	252	64		-60		-79	360	91						-84	328	61		-84	307	55	150					
130		-82	316	58		-80				-73	250	63		-60		-87	322	62	(15)					-81	342	56		-81			130					
110		-75	290	42		-80				-69	243	54		-65		(15)	-82							-81	331	43		-83			110					
100	531	-79	283	36	531	-80			533	-73	250	45	532	-69										-82	003	23	(132)	-81			100					
90		-79	310	27		-79				-74	250	40		-70										(97)	-80						90					
80		-80	315	26		-77				-74	250	29		-71																	80					
70		-80	302	23		-76				-77	250	25		-73																	70					
60		-81				-76				-78	250	13	(6)	-77																	60					
	Inversion 883 mb 30°-850 mb 33° 791 mb 30°-771 mb 33° 200 mb 74°-183 mb 65°				Inversion 921 mb 40°-865 mb 50° 800 mb 31°-774 mb 38°				Inversion 443 mb 22°-400 mb 28° 326 mb 24°-300 mb 28° 300 mb 24°-281 mb 23°				Inversion 850 mb 34°-785 mb 38° 84 mb 80°-176 mb 75°				Inversion 838 mb 38°-820 mb 41° 716 mb 33°-700 mb 34° 659-950 mb 47° f59-838 mb 38°				Inversion 843 mb 43°-916 mb 48° 800 mb 35°-770 mb 41° 725 mb 21°-705 mb 22° 700 mb 31°-650 mb 33° 560 mb 19°-537 mb 22°				Inversion 857 mb 39°-828 mb 41° 705-700 mb 32°				Isothermal							
Tropopause	I 141 mb -85° 66300'				I 200 mb -81° 39100'				I 150 mb -78° 44800'				I 140 mb -63° 45800'				I 140 mb -93° 46300'				I 170 mb -85° 43100'				I 170 mb -82° 43000'				I 140 mb -83° 46300'				Tropopause			



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.

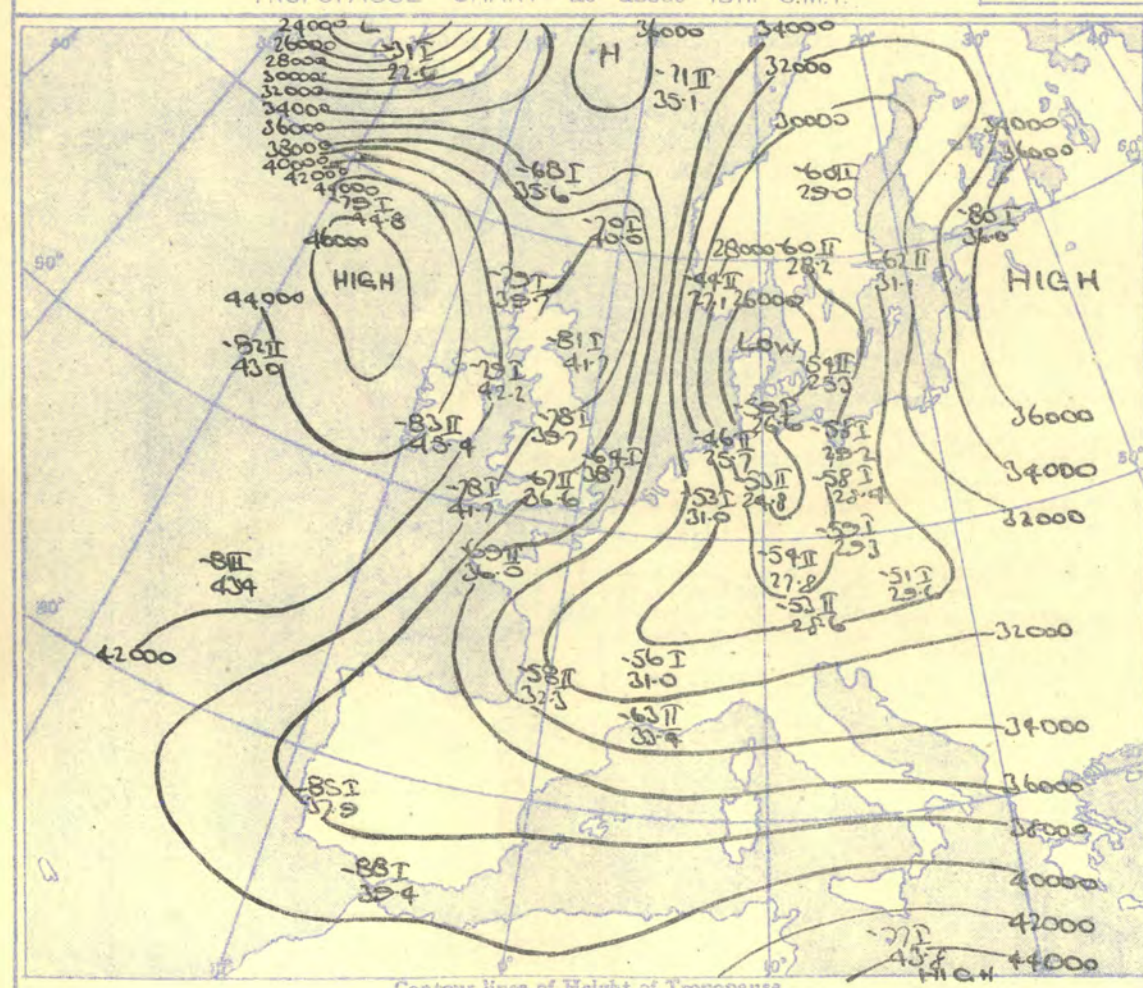
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 60 40 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.

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



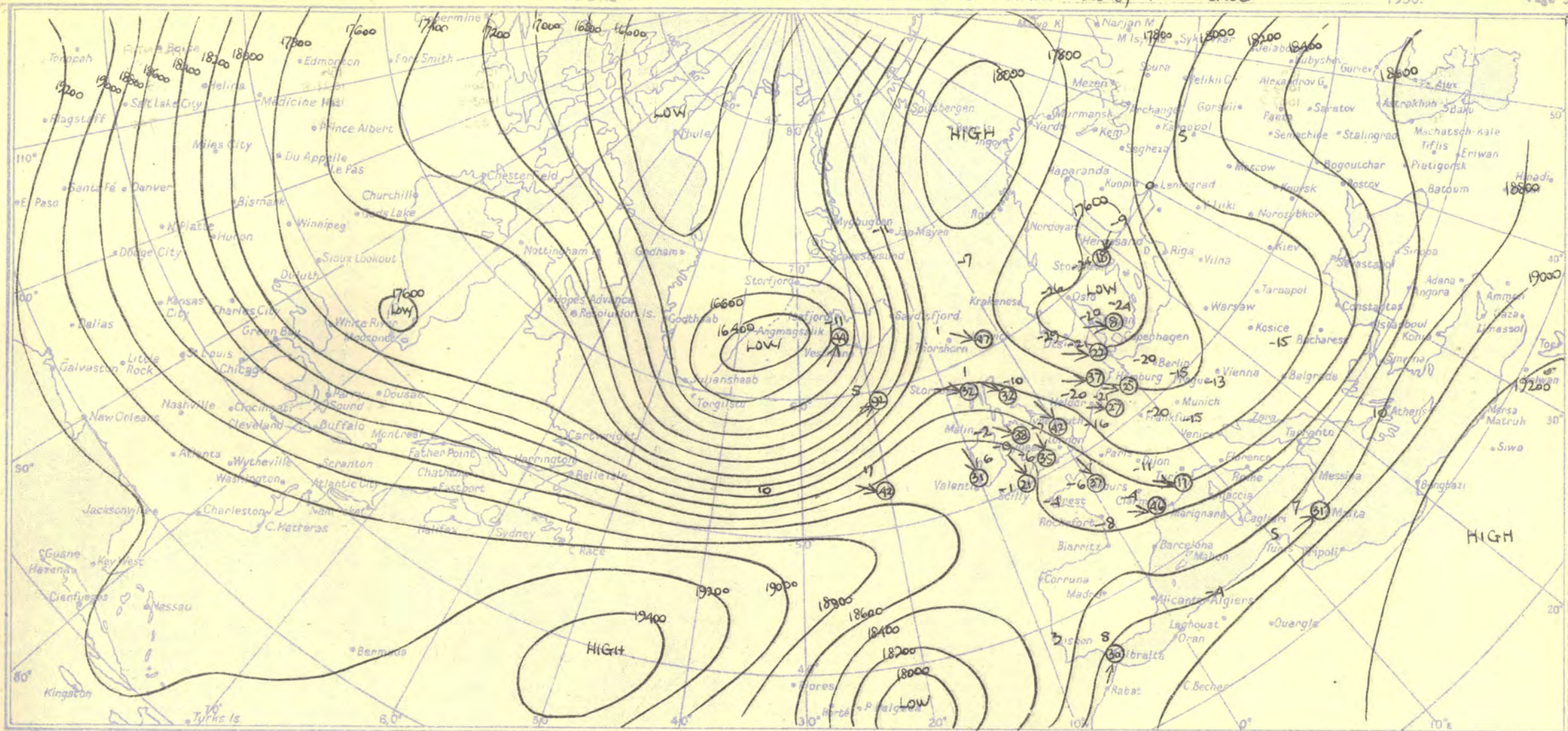
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge after being attacked from the west by a cold trough was reinforced by a fresh warm tongue, which caused a rapid relaxation of the cold trough.

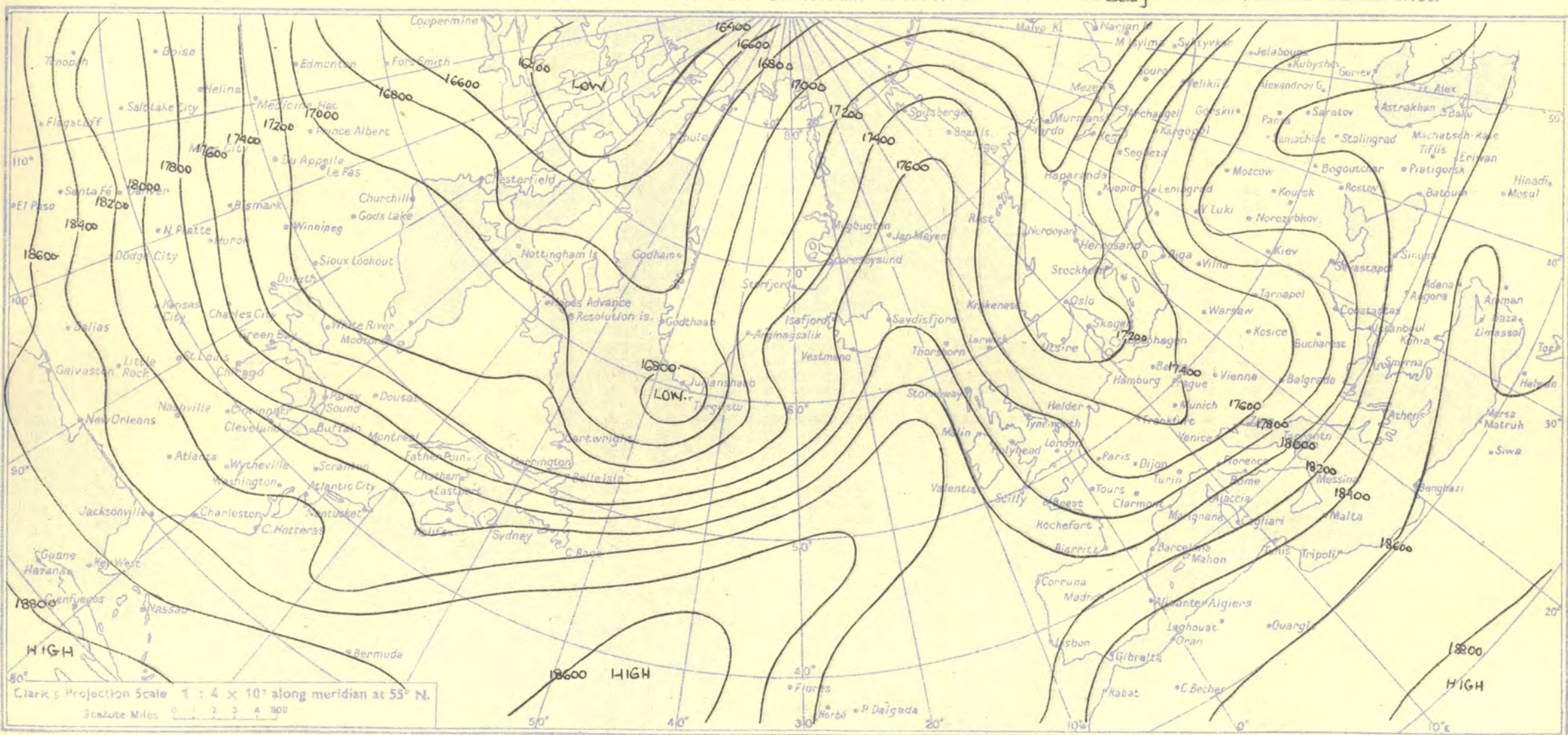
RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 7th November

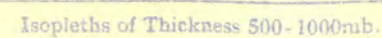
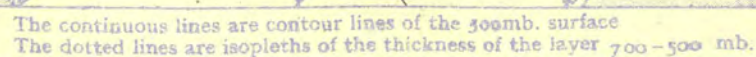
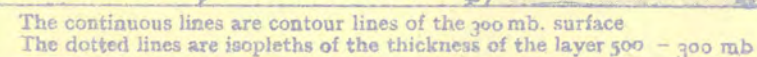
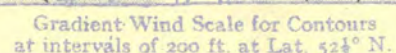
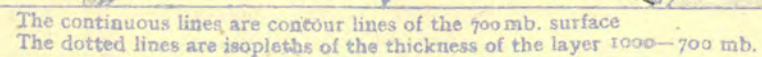
1950.



Clark's Projection Scale 1 : 4 x 10⁶ along meridian at 55° N.
Scale in Miles 0 1 2 3 4 100

Wednesday 8th November, 1950. Page 1

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION																																																																																																																																																																																																																												
Time M.S.L. Surf Freezing	03h 989.6 979.6	G.M.T. mb mb mb	03h 988.7 986.7	G.M.T. mb mb mb	03h 999.7 998.8	G.M.T. mb mb mb	03h 1003.3 994.6	G.M.T. mb mb mb	03h 1010.0 1008.0	G.M.T. mb mb mb	03h 1015.3 1010.4	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb	03h 1017.2 1000.6	G.M.T. mb mb mb</



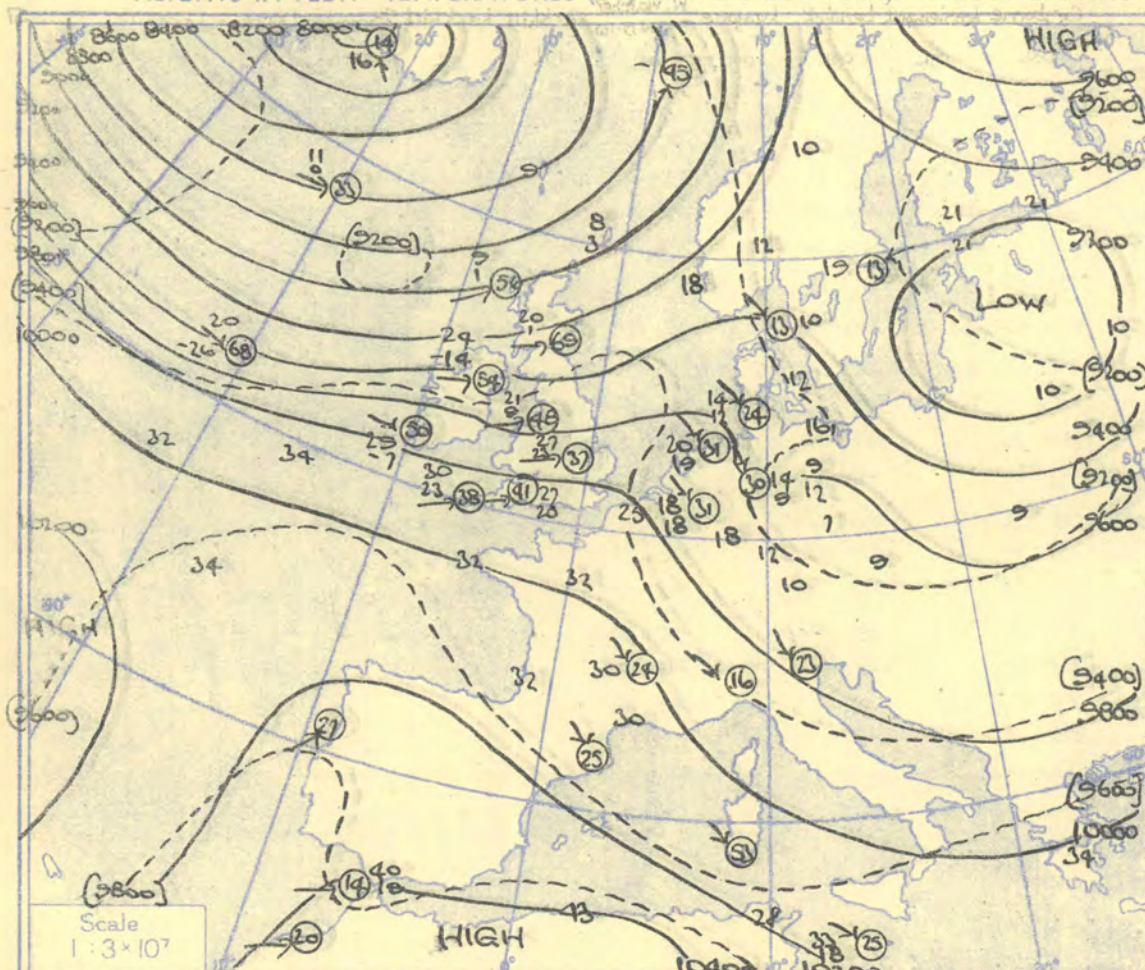
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

For
winds
see
top
of
page

Ship	WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				Ship			
Lat/Long	52.7N 19.8W				52.5N 20.0W				52.5N 20.7W				52.7N 19.7W				59.1N 19.0W				55.2N 19.2W				59.1N 19.2W				59.1N 19.3W				Lat/Long			
Pressure	03h				09h				15h				21h				03h				09h				15h				21h				G.M.T. Time			
	1007				1006				1003				1002				976				971				972				974				M.S.L.			
	mb				mb				mb				mb				mb				mb				mb				mb				Surf			
	890-770				885				900				910				940				890				880				890				Freezing			
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure			
Surf	49	40	290	33	48	39	290	36	47	40	280	40	47	40	275	37	37	35	250	40	42	40		43	25	250	37	43	33	250	29	Surf				
1000	1.9	48	39		16	47	38		8	46	39		7	46	39		-6.4	33	31	261	51			-7.5	43	25	249	57	-7.1	43	33	250	1000			
950		41	36	276	30	41	32	273	34	38	29	266	43	38	35	264	38	33	31	261	51	39	33		40	25	249	57	40	32	250	950				
900	30.1	33	32	276	30	29.8	34	273	34	28.9	32	270	42	31	31	267	41	21.4	28	26	261	57	20.2	33	28	249	57	21.1	33	25	250	900				
850		26	26	276	33		28	19	273	39		27	19	272	41		25	25	268	46				28	23	250	57		26	19	250	850				
800	60.7	32	05	274	42	60.5	25	11	273	46	59.5	21	13	270	39	59.2	20	20	273	51	51.8	17	15	254	63	50.9	22	17				800				
		35	-21	273	46		31	03	276	54		21	-16	269	48		13	03	274	54				16	09											
750		21	-41	272	50	95.3	27	-04	275	62	93.6	20	-26	268	68	93.0	13	02	280	63	85.4	04	03	253	69	84.8	09	01		07	00	248	750			
700		27	-41	271	57		27	-07	274	67		16	-07	268	80		08	-15	278	78			04	-04	253	66		02	-06		00	-10	248	700		
650	136	20	-43	269	64	135	18	-10	274	76	133	12	-22	268	85	131	02	-22	266	93	123	-13	-13	255	57	123	-05	-11					650			
600		12	-38	267	75		10	-20	274	75		07	-27	268	90		-01	-22	266	97				-22	-22	252	56		-14	-19			600			
550		182	08	-23	263	78	181	02	-28	274	87	178	-01	-35	268	91	176	-04	-27	266	89	165	-31	-31	249	61	166	-25	-31				550			
500		01	-25	263	89		05	-36	267	85		13	-48	264	101		-13	-35	257	121			-28	-33	243	72		-28	-34				500			
450	287	07	-41	263	118	235	-11	-40	264	101	231	-24	-57	263	116	229	-24	-45	243	119	217	-22	-33	241	80	217	-37	-44					450			
400		-21	-50	262	112		-24	-52	264	117		-33	-60	258	106		-34	-54	250	126			-19	-32	240	88		-33	-43				400			
350		304	-33	-58	261	110	301	-37	-60	262	111	(306)	-40	-87		294	-39	-58	252	135	284	-19	-34	238	102	283	-26	-40					350			
300		-50			259	120		-47		254	117	(mb)					-42		245	112			-24	-41	244	108		-25	-46				300			
250	392	-66			260	102	391	-54		249	87					384	-53		238	104	378	-36	-54	250	105	377	-32	-58					250			
200		-70			262	84		-65		241	69						-57		246	80			-40	-57	261	93		-42					200			
170		70			264	69		-67		238	54						-60		244	61			-47		266	81		-45					170			
150		-78			265	60		-72		237	59						-65		244	56			-55		266	61		-52					150			
110		-90			295	45	(14)	-76									-66		251	42			-64		255	58		-58					110			
100	534	-91			265	30						531	-68				-73		253	32	529	-69			250	60	529	-62					100			
90		-92			266	30							-73				-73		253	30	(mb)							-61					90			
80		-90			266	32							-73				-73		253	30								-61					80			
70		-88			266	32							-74				-74		253	22								-64					70			
60		-86			266	15							-74				(68)																60			
		-87			266	18																														
		-87			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														
		-86			266	18																														

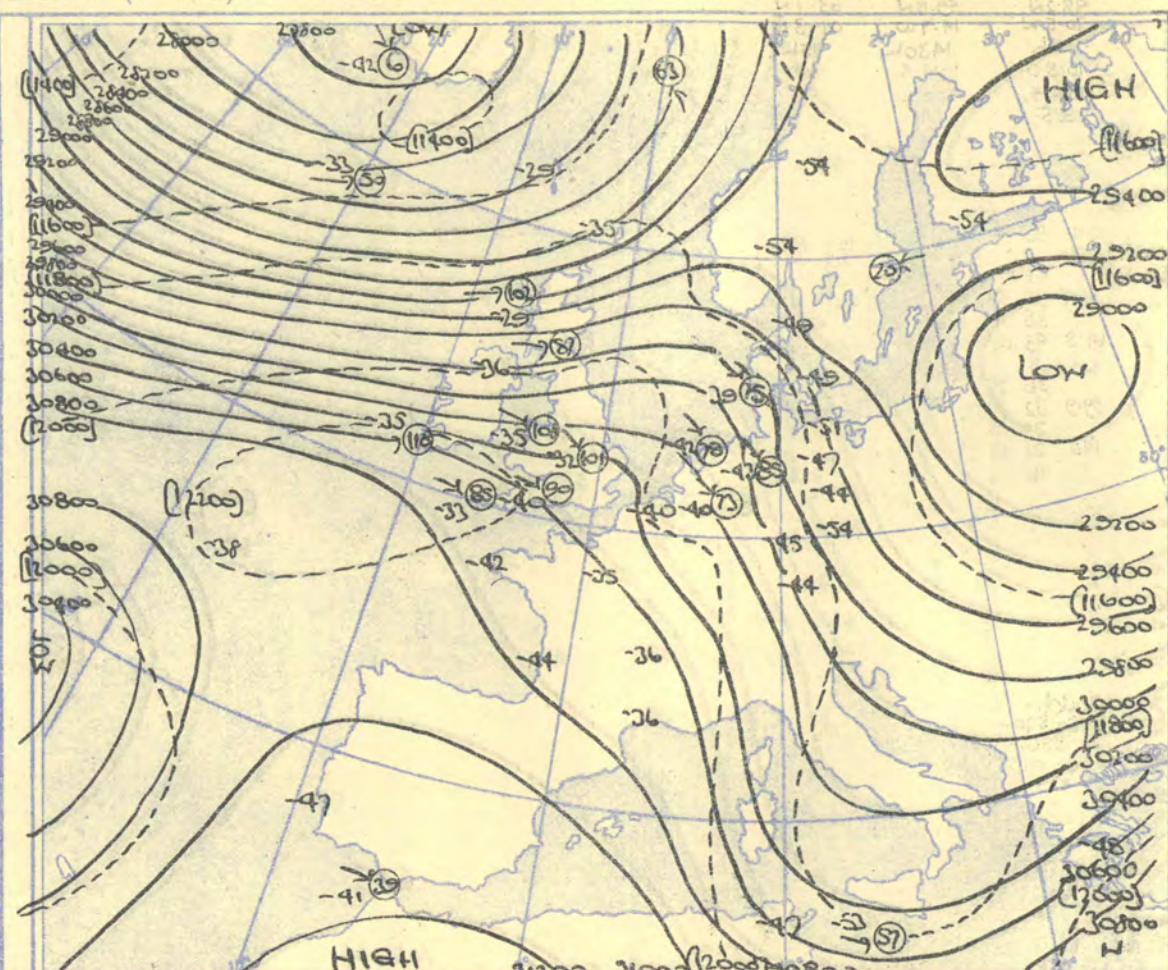
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15h G.M.T.



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.

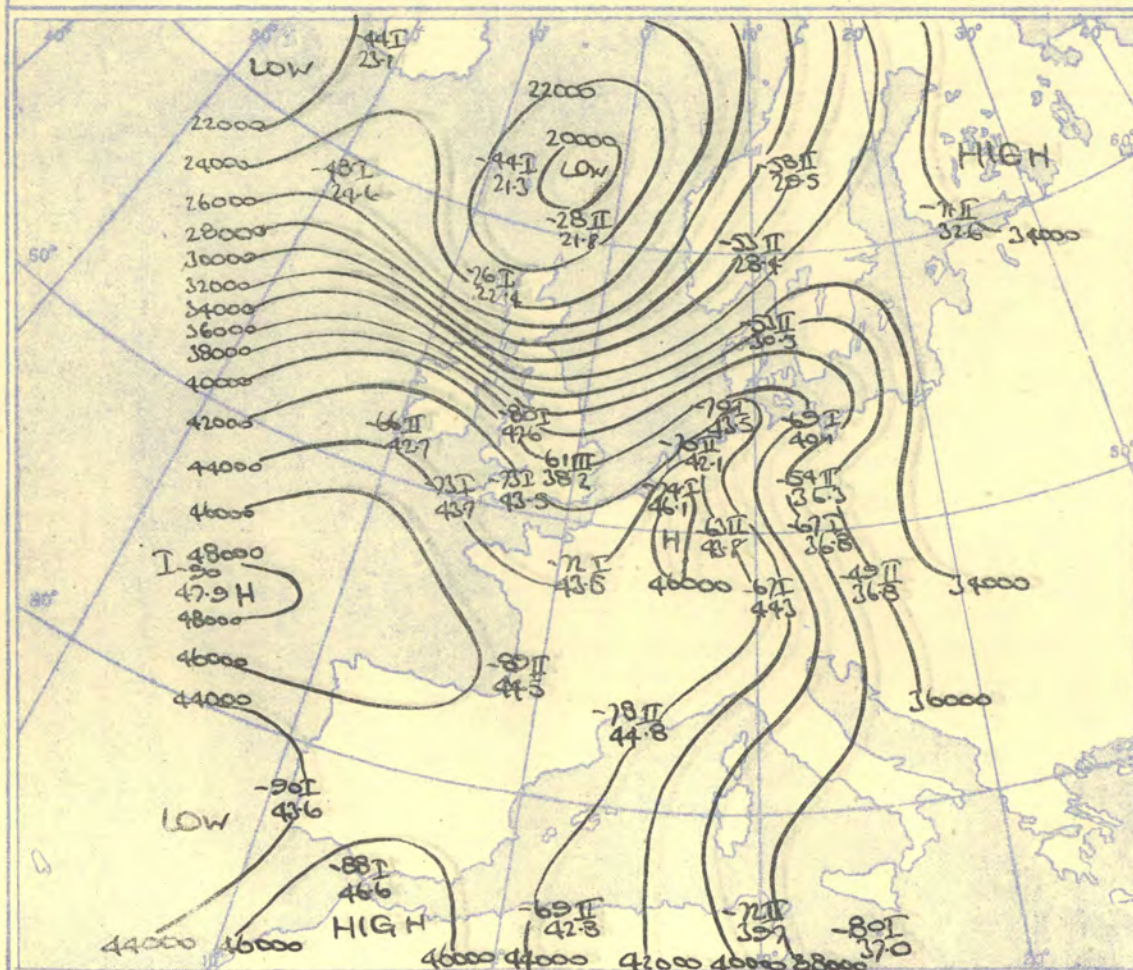
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

100 80 60 40 20 10 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.

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



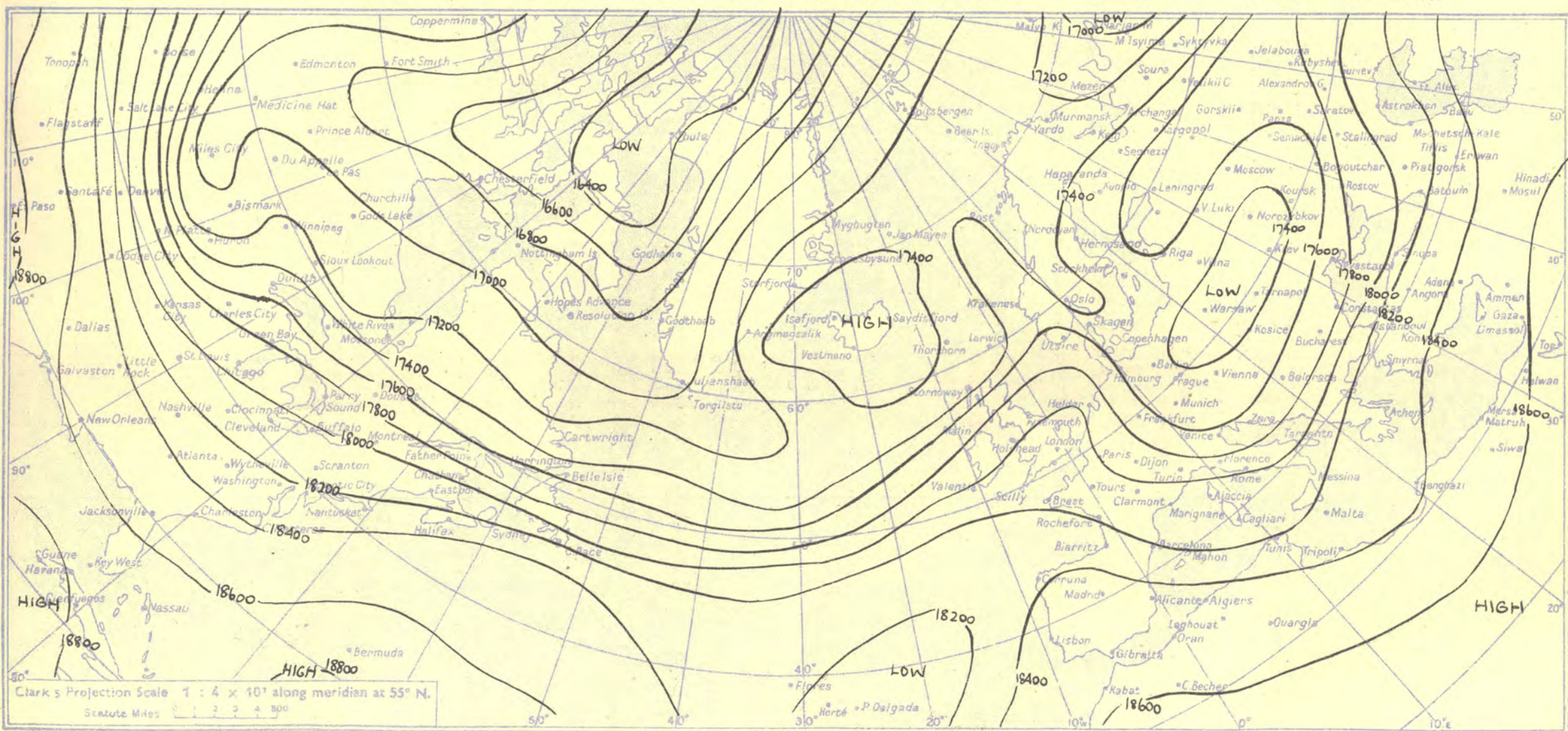
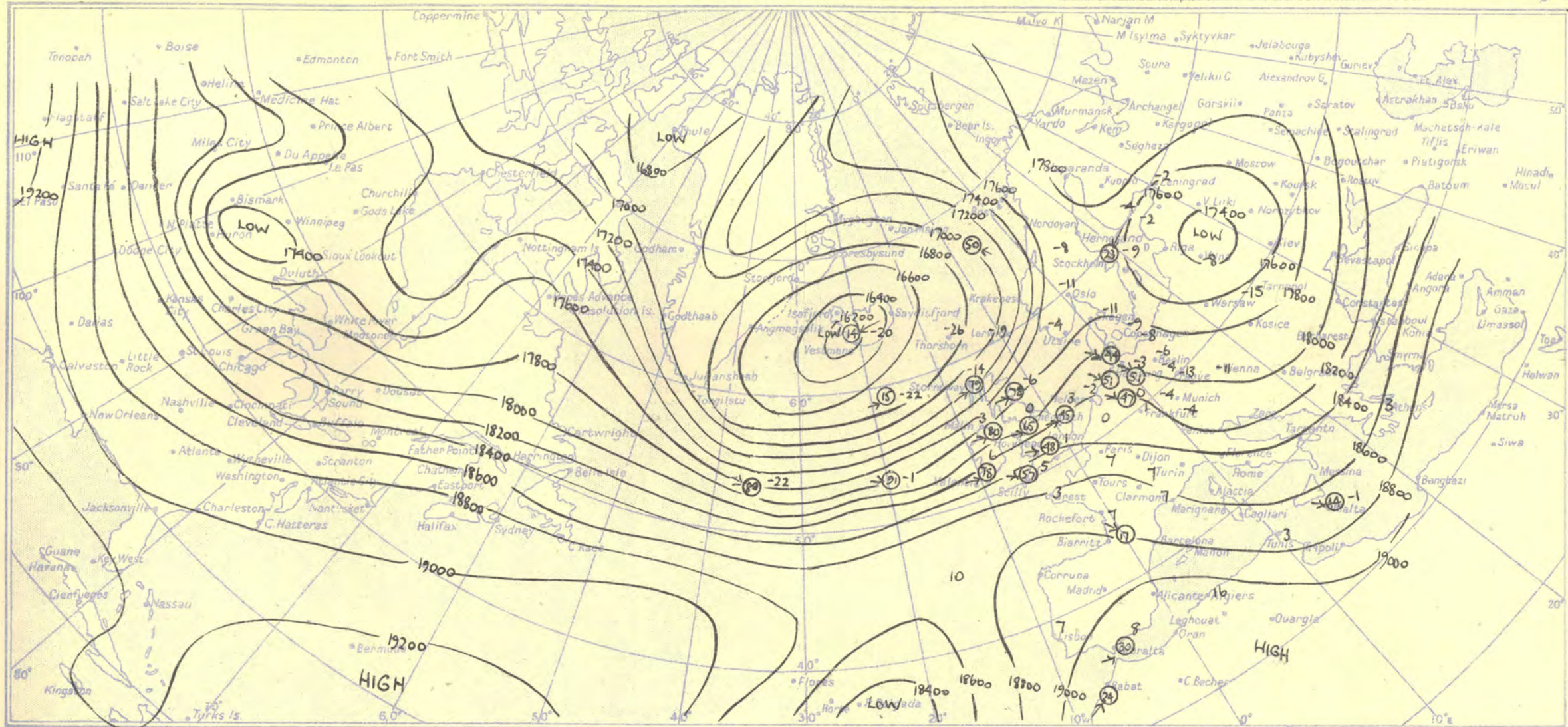
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A warm ridge crossed the British Isles.
An irregular flat thermal gradient formed in the
Northeastern Atlantic and Norwegian Sea, and a tight
westerly thermal gradient developed across the Atlantic
from Newfoundland to Ireland.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



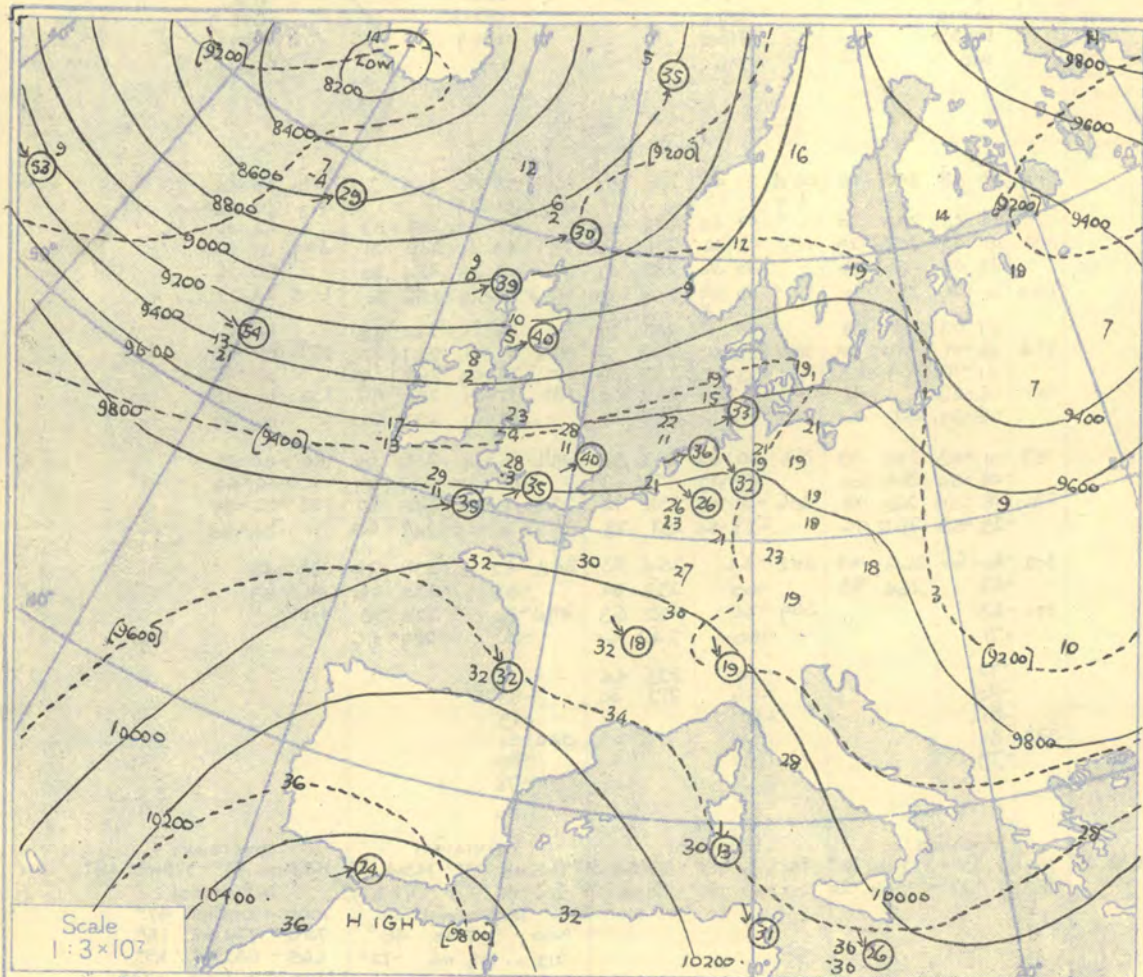
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																										
Pressure	Time	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.		15h.	G.M.T.	Time																																
	M.S.L.	987.2	mb		989.7	mb		996.3	mb		1001.5	mb		1004.2	mb		1008.5	mb		1011.8	mb		1013.1	mb		1002.6	mb		1006	mb	M.S.L.																																
	Surf	977.3	mb		987.8	mb		995.5	mb		992.9	mb		1002.2	mb		1004.2	mb		995.8	mb		759	mb		759	mb		1714	mb	Surf																																
	Freezing	892	mb		890	mb		859	mb		870	mb		998	mb		751	mb		765	mb		759	mb		759	mb		1730	mb	Freezing																																
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure																														
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb																														
Surf	92.7	43	37		00.5	43	36		00.2	47	40		02.3	48	37	250	15	00.6	50	48	270	18	01.2	50	44	215	20	4.4	52	46	250	20	02.9	54	46	225	20	00.3	50	41	260	12	Surf																				
1000	-3.5				-2.8				-0.9				0.4					0.2	50	48			02.4	49	44			3.2			03.6	54	46		2.1	49	40	259	14	1000																							
950		39	33			40	31			42	35			42	31	247	33		44	43	268	29		46	42	247			45	39	239	34		48	40	242	36		43	34	255	23	950																				
900	24.5	35	28		25.3	34	27		27.5	36	29		28.7	35	24	254	36	29.6	41	40	264	34	30.9	42	38	259		44	31.7	39	33	248	35	32.2	41	35	249	33	30.4	38	31	256	32	900																			
850		27	19			28	20			31	24			30	20	254	36		27	36	261	37		40	36	268		33		35	29	259	33		37	31	253	27		32	27	257	31	850																			
800	55.1	21	13		56.0	22	15		58.3	26	19		59.6	25	17	250	43	60.9	32	29	258	46	62.4	36	31	268		31	62.9	35	28	269	33	63.5	36	32	258	33	61.5	36	23	261	32	800																			
750		14	07			16	09			21	14			20	07	256	45		26	24	255	42		32	29	265		37		30	23	264	37		32	28	251	35		34	04	261	41	750																			
700	88.9	08	03		89.0	09	01		89.3	20	01		94.0	24	14	262	54	95.5	21	03	257	48	97.5	27	23	264		37	98.0	27	20	264	41	98.6	30	23	251	38	96.7	29	07	260	50	700																			
650		00	05			03	08			17	11			19	12	258	59		18	14	257	56		23	16	263		43		23	21	272	47		28	04	268	42		21	09	261	59	650																			
600	12.7	08	14		12.8	06	15		13.2	08	13		13.3	11	18	257	65	13.5	16	14	257	57	13.7	15	10	262		45	13.8	20	03	274	48	13.9	23	06	268	51	13.6	17	12	257	62	600																			
550		15	22			11	21			04	32			05	30	260	67		07	38	265	52		12	09	278		39		11	05	272	48		14	00	272	48		13	14	270	61	550																			
500	17.0	19	23		17.1	14	30	See Page 3 for Winds	17.7	16	43	See Page 3 for Winds	17.8	18	40	258	79	18.0	00	37	266	65	18.3	03	08	272		45	18.3	01	13	275	48	18.5	05	14	278	57	18.2	06	22	265	78	500																			
450		22	42			21	38			16	37			14	50	258	80		18	40	272	69		14	14	286		57		14	29	280	67		17	27	286	67		16	28	285	82	450																			
400	22.2	28	29		22.4	26	48		22.9	23	36		23.1	24	57	256	110	23.4	14	48	270	84	23.7	12	26	285		76	23.8	09	55	275	81	23.9	07	50	267	70	23.7	10	38	256	95	400																			
350		28	52			26	45			27	59			27	59	257	111		24	56	273	84		19	44	287		91		22	56	281	82		19	59	273	60		20	47	253	105	350																			
300	28.8	35	58		29.0	29	48			29	36			29	36			30.1	35	58	276	108	30.4	34	57	289		101	30.5	40	61	281	92	30.7	33	60	269	85	30.4	35		255	118	300																			
250		40	60			31	52			43				43					47					50		296		93		53		285	90		46		281	76		49		256	104	250																			
200	37.9	47			38.2	42			38.7	52			39.0	55				58					59.3	60		291		76	39.3	62		291	76	39.6	60		267	68	39.3	58		261	83	200																			
170		56				45								67				67						67		292		76		72		285	69		72		268	66		66		260	58	170																			
150	44.1	64			44.6	51								74				74					45.3	71		292		64	45.3	72		292	64		70					252	61	150																					
130		69				59								79				79						70		288		45		74		288	45		77				241	64	130																						
110		75				64								77				77						76		291		25		81		291	25		77				247	32	110																						
100	52.5	75			53.3	65								73				73					53.7	81		296		27	53.5	87		296	27		81		77			249	25	100																					
90		75				70								79				79						85		297		30		84		297	30		84		77			250	20	90																					
80		76				74								86				86						89		298		33		78		298	33		84		77			250	22	80																					
70		79				70								86				86						85						80		85		80		81		79			252	24	70																				
60	(45mb)-78					70								78				78						81						81		81		78		78		76			251	24	60																				
Isotermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°				Inversion 454 mb 04° -443 mb 03°				Inversion 617 mb 19° -607 mb 21°				Inversion 838 mb 30° -800 mb 36°							
Isothermal 512 - 471 mb -19°																																Inversion 524 mb -14° -514 mb -13°				Inversion 733 mb 18° -682 mb 22°				Inversion 733 mb 20° -709 mb 25°				Inversion 260 mb 48° -235 mb 45°</																			

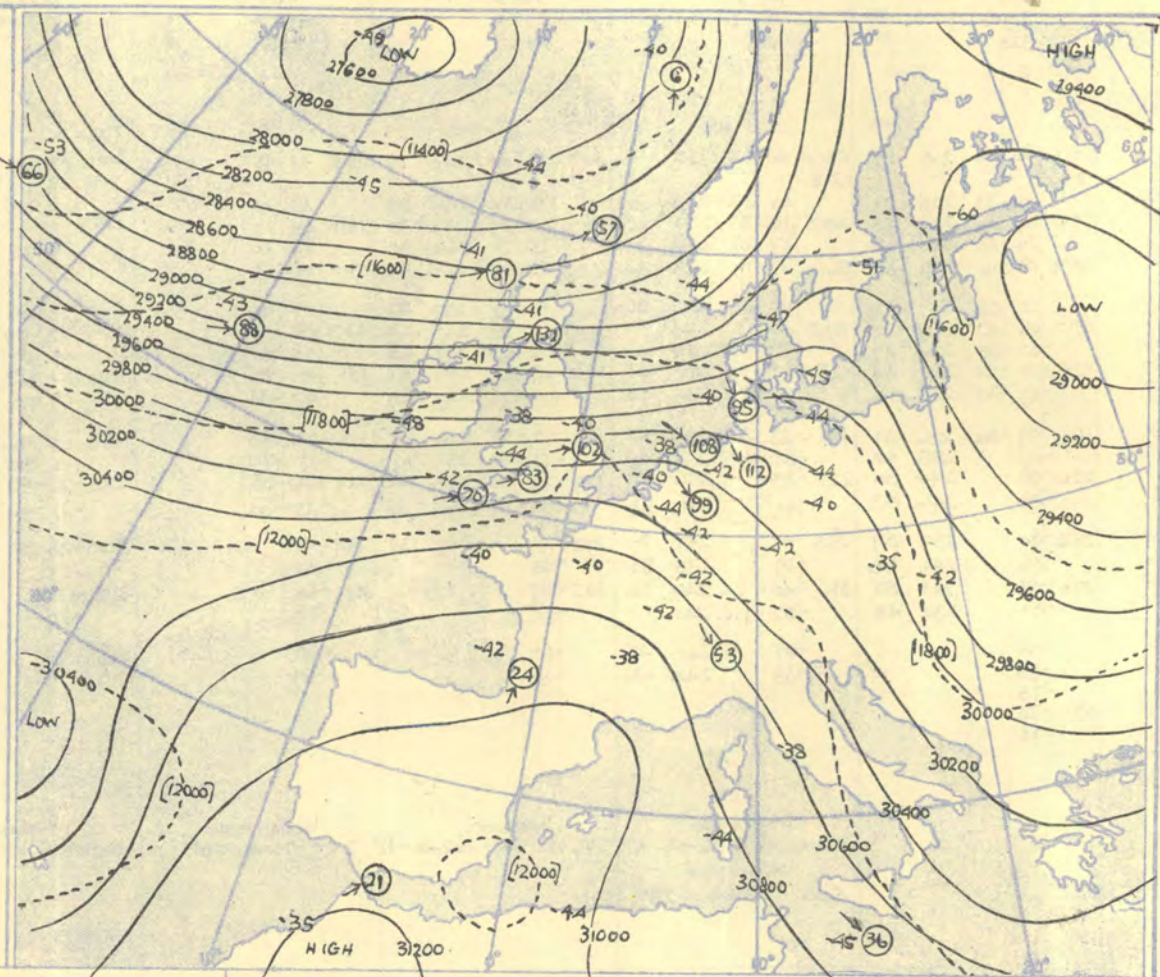
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

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.

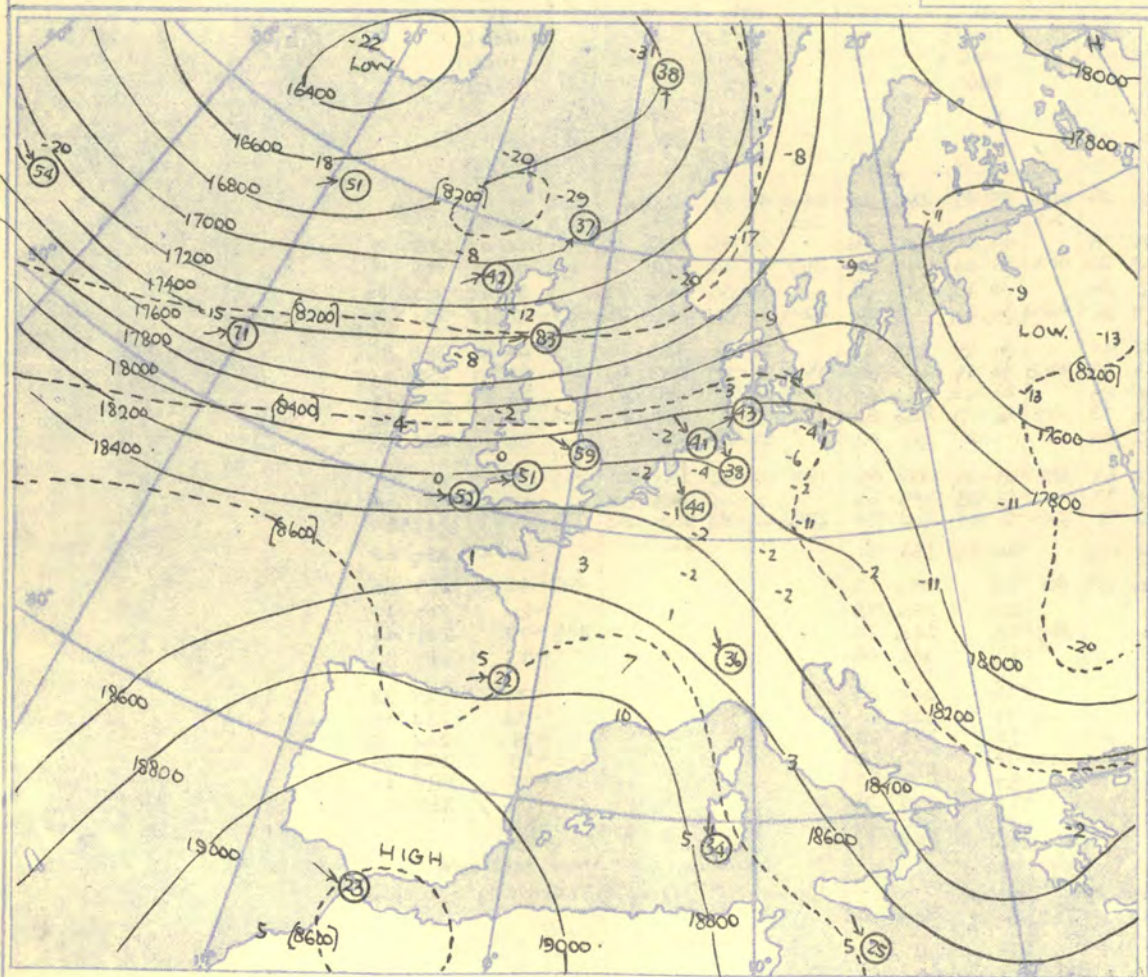


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

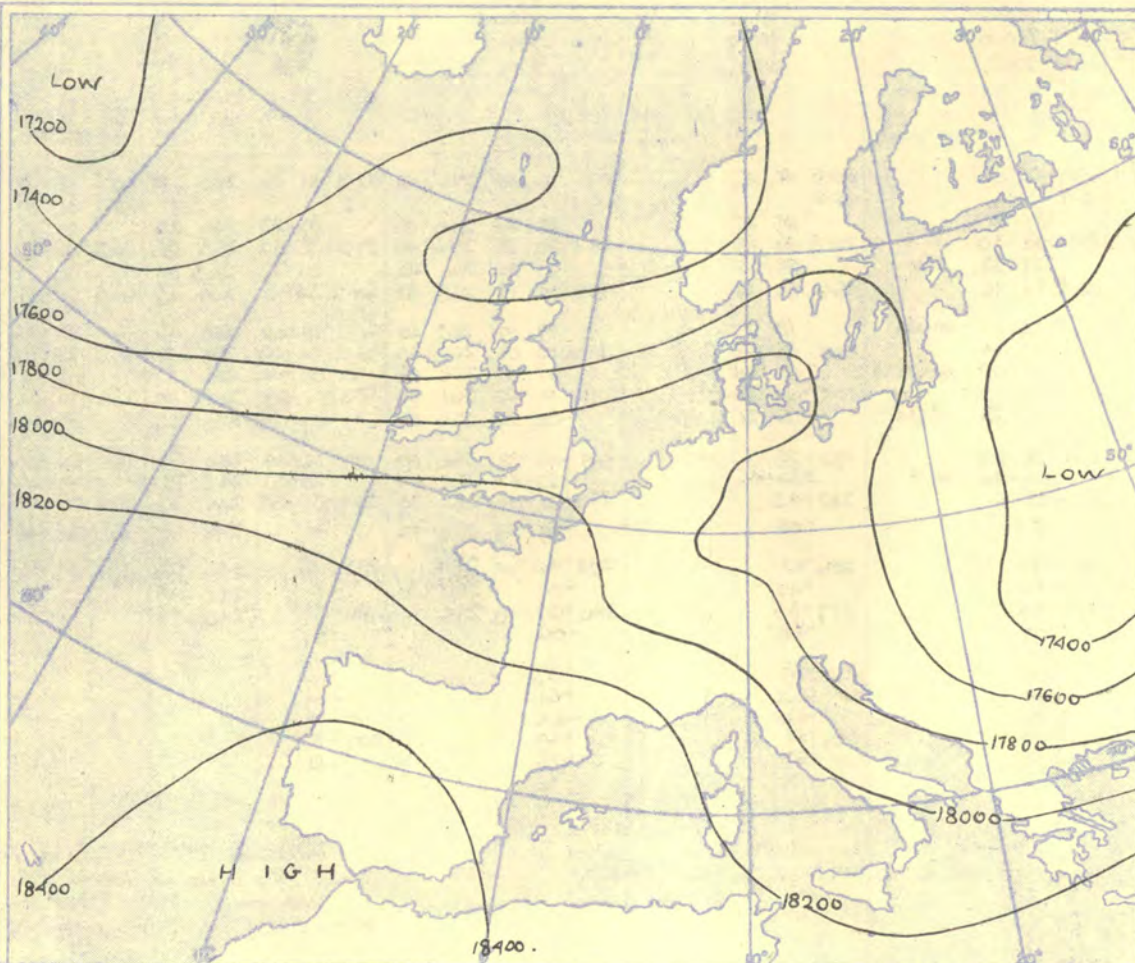


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^{\circ}$ N.

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.



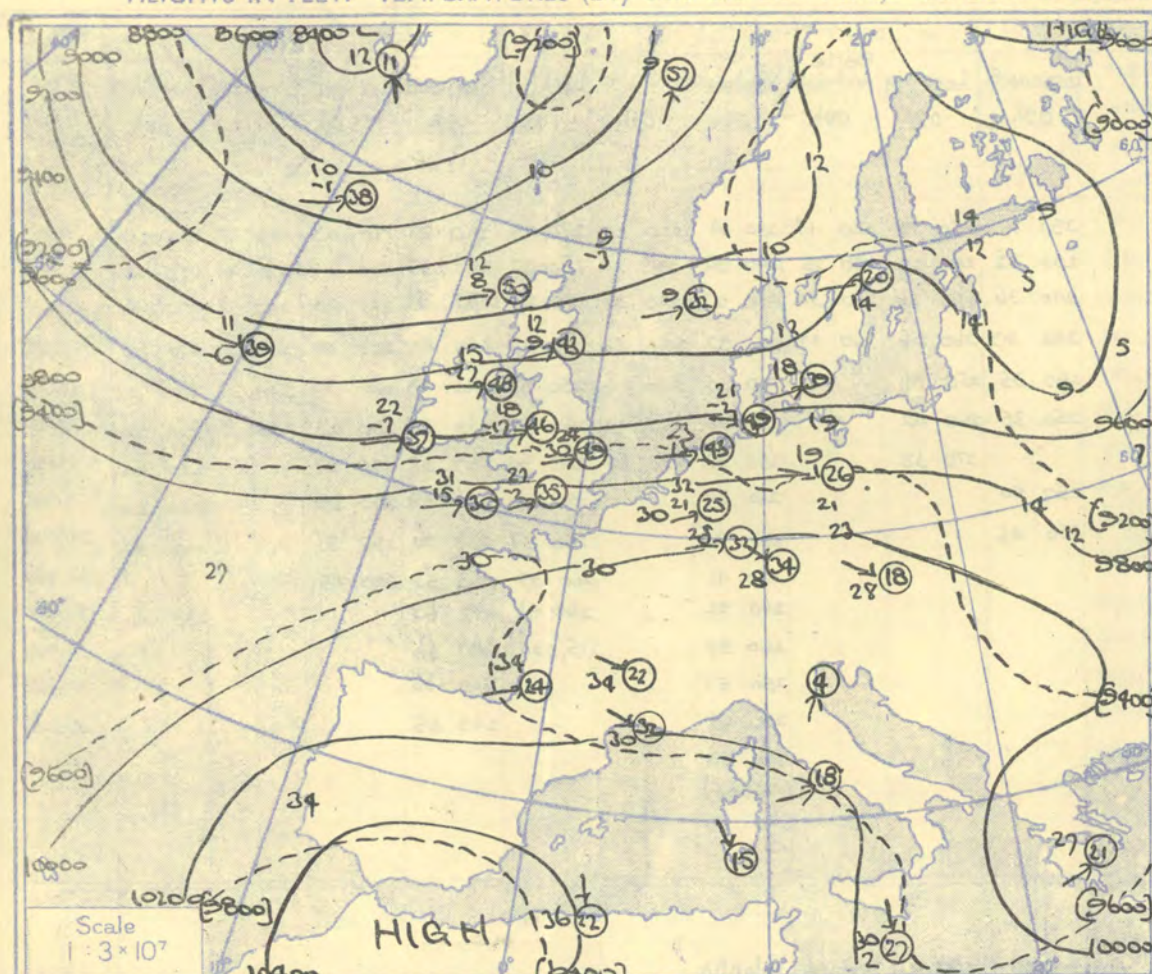
Isopleths of Thickness 500-1000mb.

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

NEPHOSCOPE OBSERVATIONS

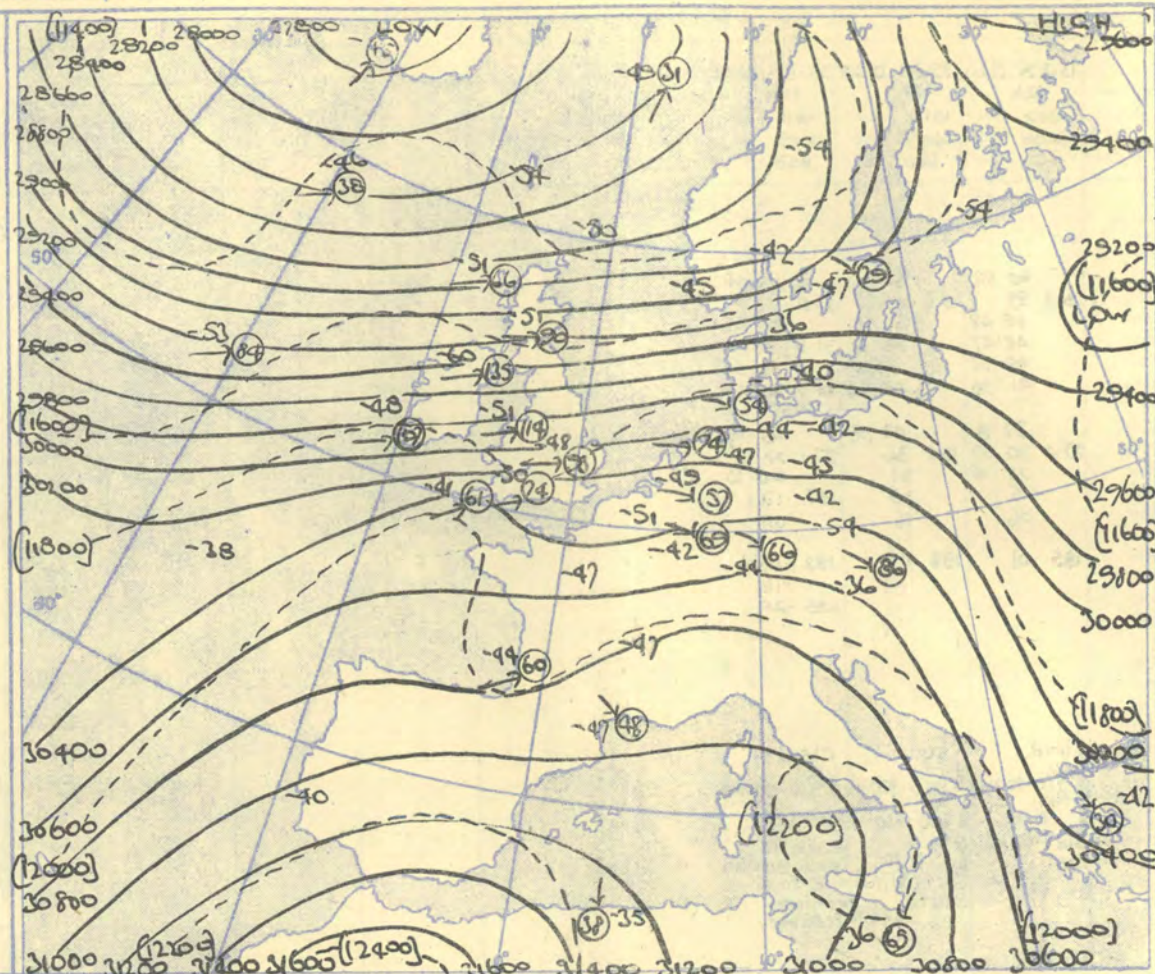
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Тропическая	I 350 mb - 47° 24, 100	I 350 mb - 48° 29, 700	I 340 mb - 53° 25, 400	II 337 mb - 55° 25, 500	II 326 mb - 44° 27, 300	II 277 mb - 56° 24, 200	II 282 mb - 56° 30, 500	I 314 mb - 54° 27, 900	Тропическая
-------------	------------------------	------------------------	------------------------	-------------------------	-------------------------	-------------------------	-------------------------	------------------------	-------------

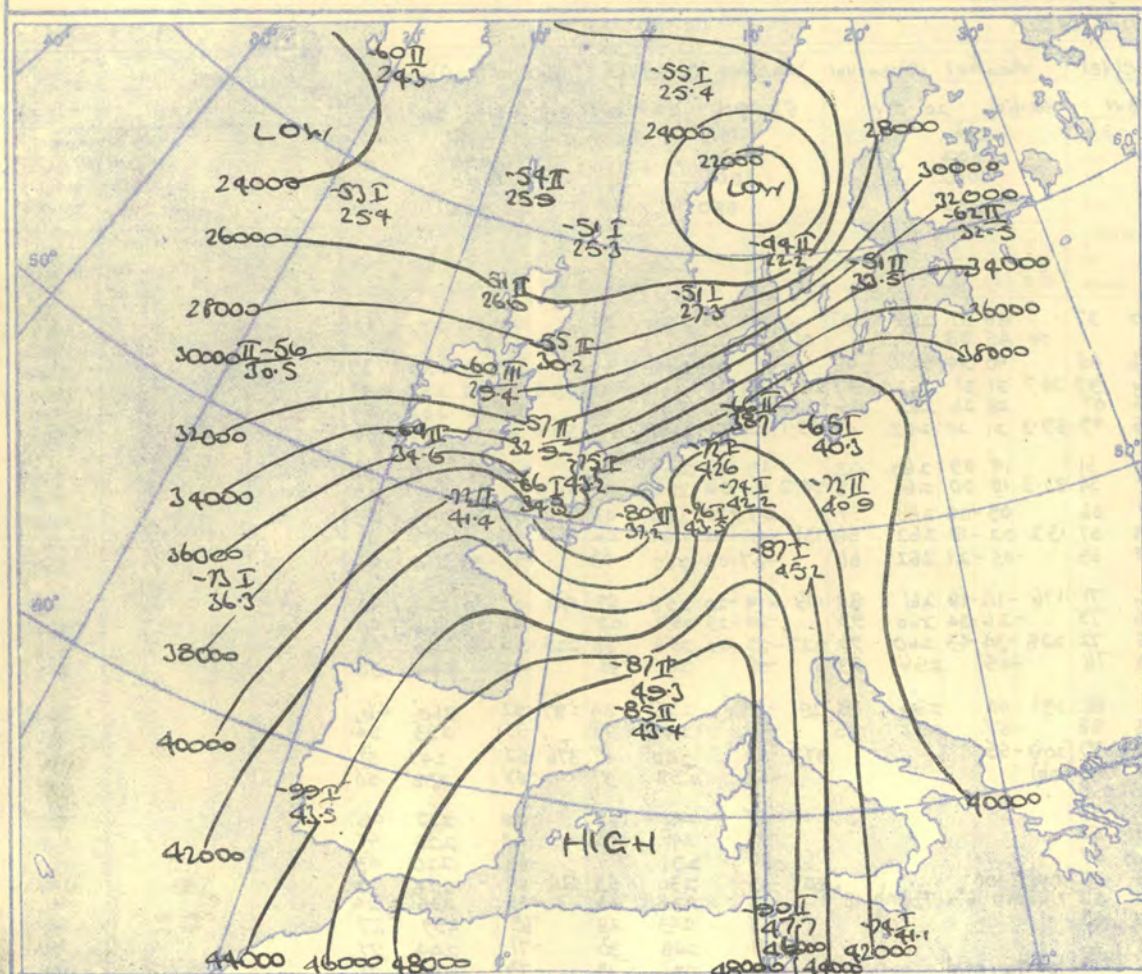


Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

100 50 40 30 20 15 10 knots



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



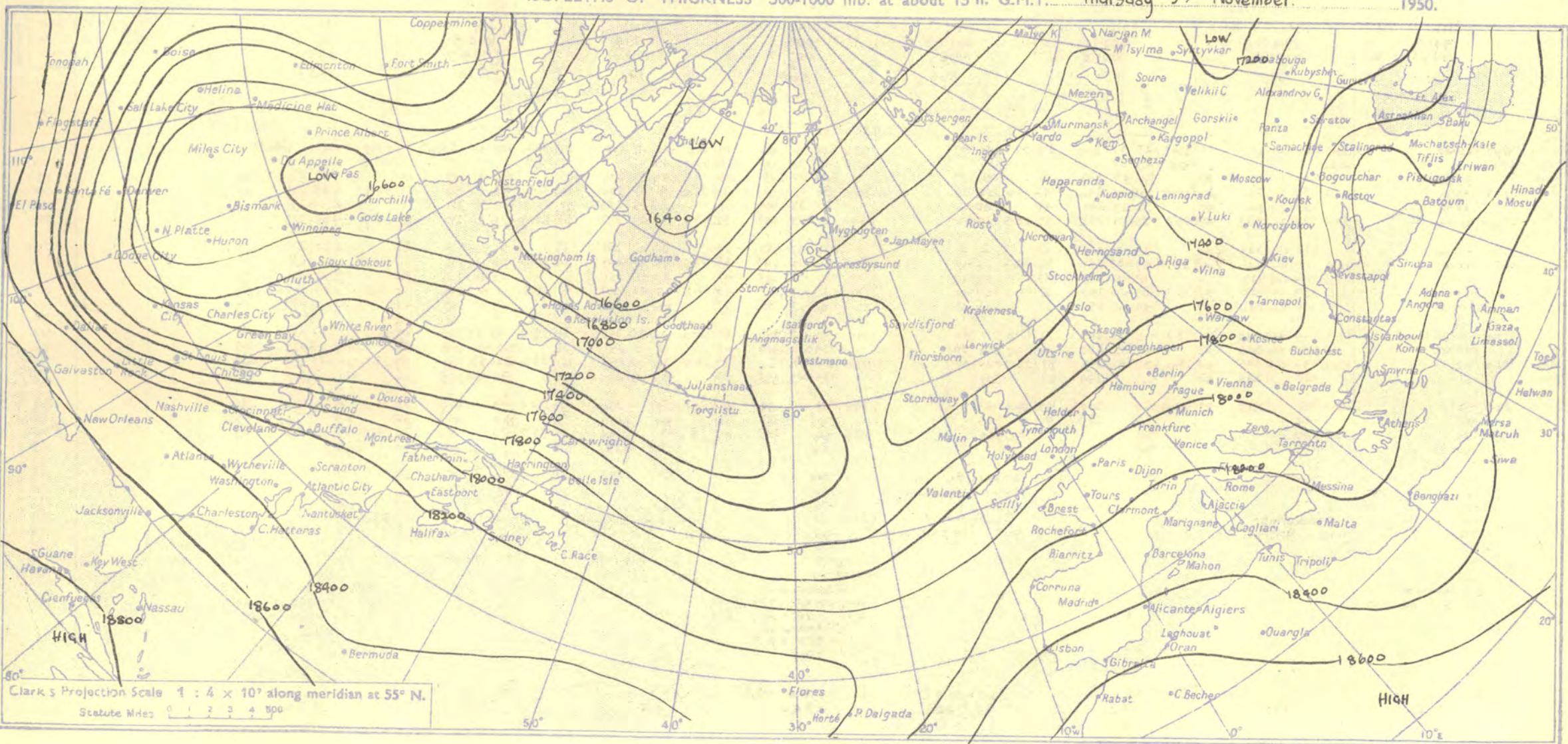
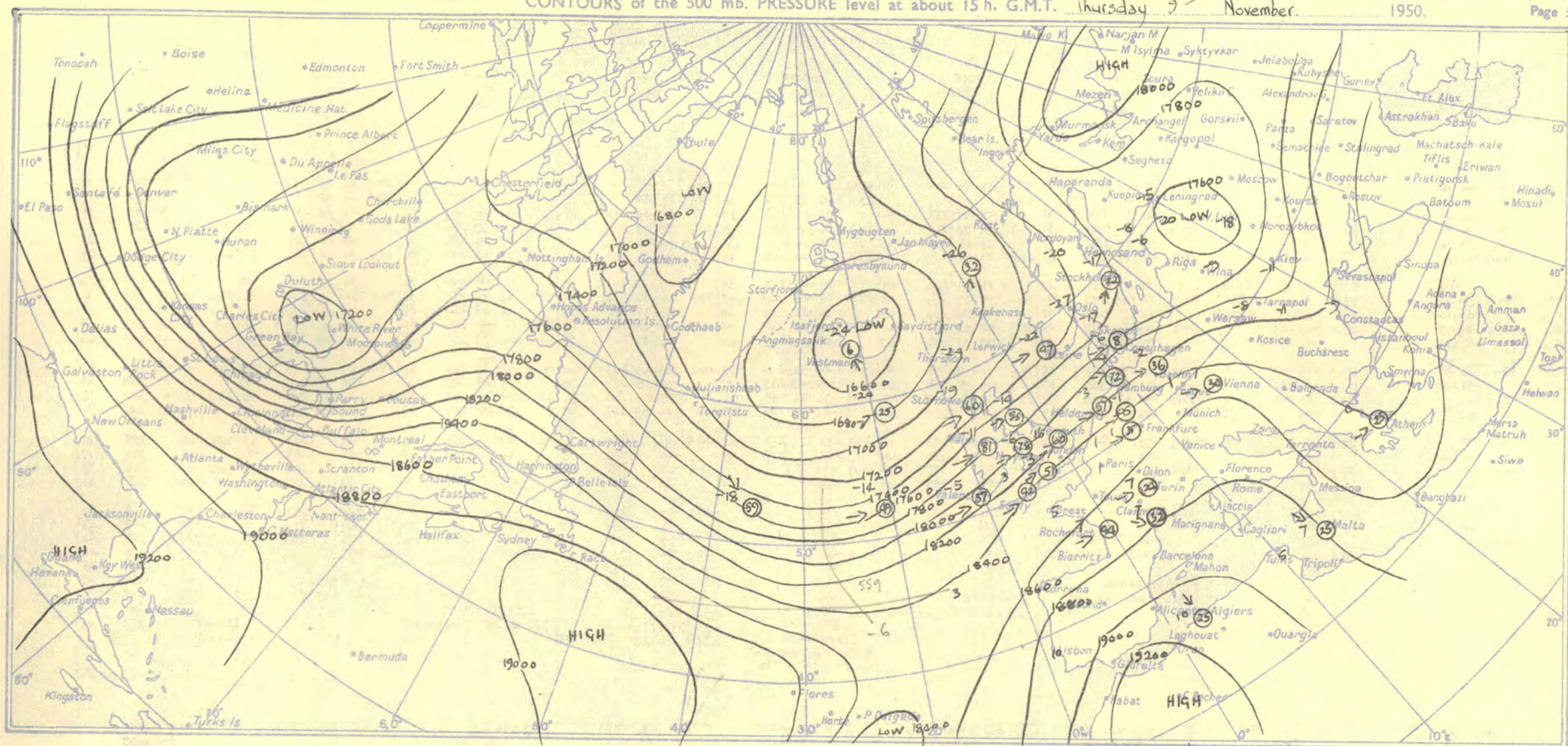
NOTES ON THE AEROLOGICAL SITUATION.

Thickness values over the British Isles showed little change, but the thermal gradient backed steadily as a cold trough accentuated in about longitude 20°W.

The Leuchers ascent at 2100hrs is suspected to be slightly too warm.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

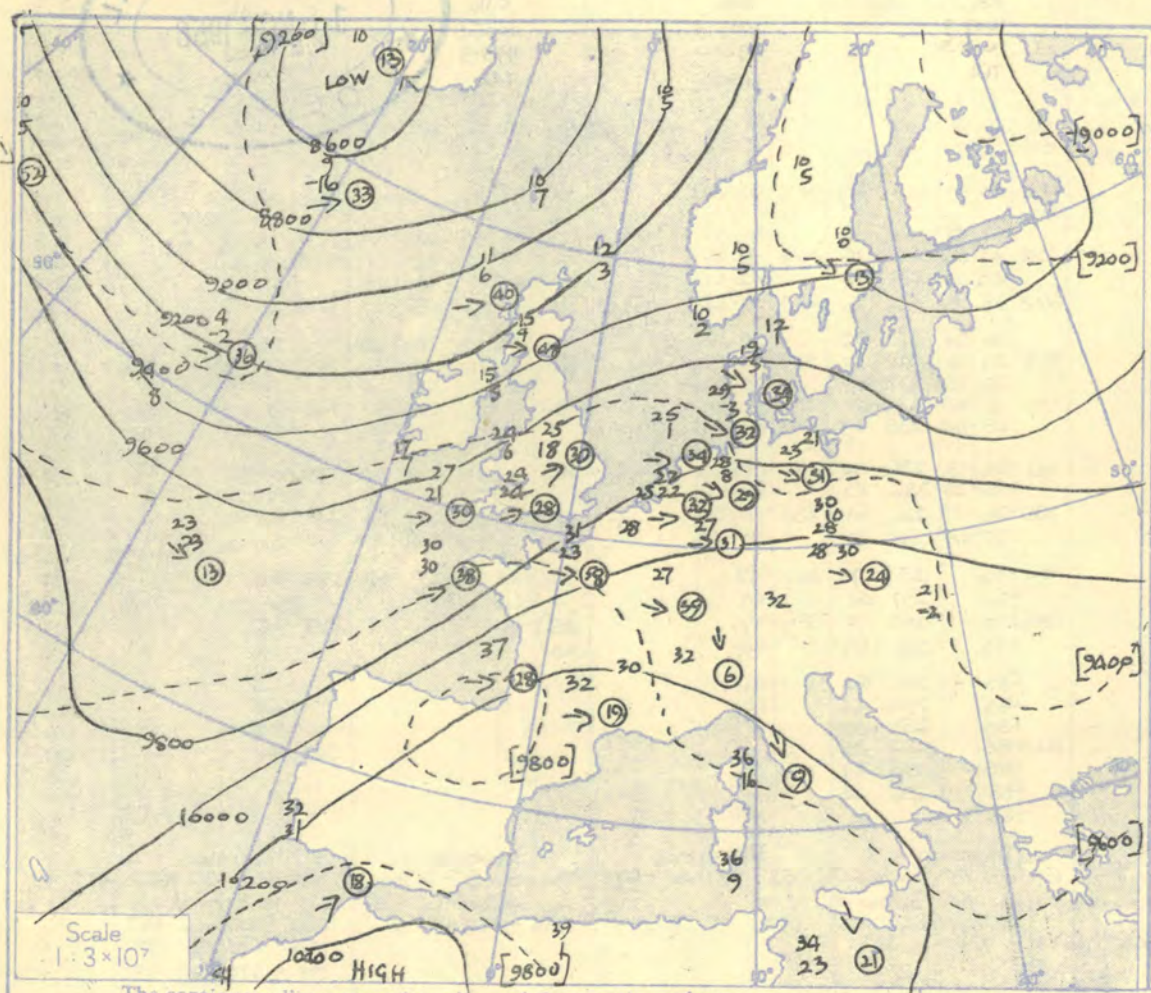
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION										
Pressure Time M.S.L. Surf Freezing	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 M.S.L. Surf Freezing														
	994.2	mb	984.3	mb	994.1	mb	992.1	mb	1002.0	mb	1001.2	mb	1003.3	mb	994.7	mb	1005.6	mb	1003.6	mb	1007.9	mb	1003.5	mb	1005.9	mb	990.0	mb		1006.5	mb	995.9	mb	744									
	870				877				878				875				846				764				750				850														
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb										
Surf	02.7	45	39		00.5	43	39	220 15	00.2	44	39	240 18	02.3	43	39		00.6	43	42		01.2	50	49	135 07	04.4	52	52		01.9	49	47	Calm	00.3	46	40	Surf							
1000	-1.6				-1.6				0.4				0.9				1.5				2.2				1.6				1.8				1.0			1000							
950		43	36			41	35	222 33		40	36	246 35		42	37			44	43			47	42	195 16		51	51			46	45	233 07		45	39	950							
900	26.7	36	31		26.6	35	30	229 38		28.7	34	30	256 35		29.1	36	32		29.8	38	35		30.8	44	38	213 16	30.3	46	46	For	30.3	45	43	221 11	29.5	38	34	900					
850		30	23			29	24	231 40		29	24	260 41		29	25			40	34			40	34	228 23		42	42			40	37	221 18		32	28	850							
800	57.5	24	18		51.4	23	19	230 45		59.5	24	16	260 43		59.9	24	14		60.9	30	26		62.3	38	29	239 30	61.9	37	37	Winds	61.8	35	32	219 27	60.4	27	23	800					
750		17	13			17	13	223 45			20	10	252 52			18	11			27	15			30	24	232 32		32	32			33	15	223 30		22	14	750					
700	91.5	12	03		91.3	11	06	220 40		93.6	15	04	245 40		94.2	15	05		95.7	24	06		97.2	25	18	222 30	97.1	24	24	See	96.9	27	21	228 30	94.7	19	01	700					
650		04	12			03	00	223 41			09	01	247 45			12	01			20	02			22	15	227 49		18	07			21	17	228 30		12	01	650					
600	130	04	18		129	05	10	224 46		132	04	04	249 53		133	06	03		135	12	01		137	13	05	235 51	136	11	01	page	136	15	07	226 32	133	05	03	600					
550		13	31			13	18	229 52			04	10	249 69			03	13			03	00			05	04	238 49		05	00			08	06	234 36		02	09	550					
500		173	21	40		173	22	27	236 51		176	14	21	251 83		177	14	18		180	03	09			04	13	236 50	181	01	06			01	11	239 50	178	09	05	500				
450		31	47			31	39	234 64			24	31	256 111			20	24			12	19			15	25	236 42		08	16	3.		05	25	244 72		18	26	450					
400	224	40	56			224	38	50	231 82		228	33	41	255 140		230	29	33		233	23	30			26	37	236 61	235	18	30		236	15	27	242 84	231	27	39	400				
350		48				46			232 85		44			254 128		40	45			33	38			37	49	247 57		32	43			29	38	238 87		32	46	350					
300	287	54				287	53		234 85		292	55		260 132		294	50			299	45			300	46		257 73	301	43			302	41		239 96	296	44	300					
250		56					52		239 74		62					61				62				61			257 81		67			60			61		250						
200	375	49				375	49		237 55		61					65				69				67			255 78	386	77			66			64		200						
170		51					54		229 48							62				70				82			253 62		80			(285) mb			63		170						
150		56					60		219 47							67				73				85			251 50		81						65		150						
130		62					65		223 42							73				75				85			250 44		80						68		130						
110		64					64									72				75				85			251 35		80						72		110						
100	524	66				524	64									74				76				85			252 26								74		100						
90		69														75				77				85			252 27										90						
80		70														75				77				85			255 27										80						
70		70														75				77				88			256 25										70						
60																75				77				88													60						
Isothermal 984-962mb. 45°					Isothermal 992-970mb. 43°					Inversion 679mb. 13°-665mb. 14°					Inversion 1004mb. 43°-972mb. 47°					Inversion 675mb. 23°-665mb. 24°					Isothermal 253-237mb. -67°					Isothermal 794mb. 35°-783mb. 36°					Inversion 1000mb. 46°-966mb. 47°								
722-710mb. 13°															814mb. 29°-782mb. 31°					337mb. 40°-328mb. 39°					Isothermal 782-764mb. 32°										395-370mb. -28°								
Tropopause	II 287mb. -55° 29,700				II 300mb. -53° 28,700				I 243mb. -63° 33,500				II 234mb. -65° 34,700				II 218mb. -69° 36,600				I 158mb. -84° 43,800				II 162mb. -80° 40,500				N.R.				II 238mb. -66° 34,600				Tropopause						
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION										
Pressure Time M.S.L. Surf Freezing	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.		Time M.S.L. Surf Freezing										
	994.2	mb	984.3	mb	992.4	mb	990.5	mb	998.2	mb	997.2	mb	1000.7	mb	992	mb	1000.7	mb	998.7	mb	1003.3	mb	999.0	mb	1002.2	mb	986.5	mb															

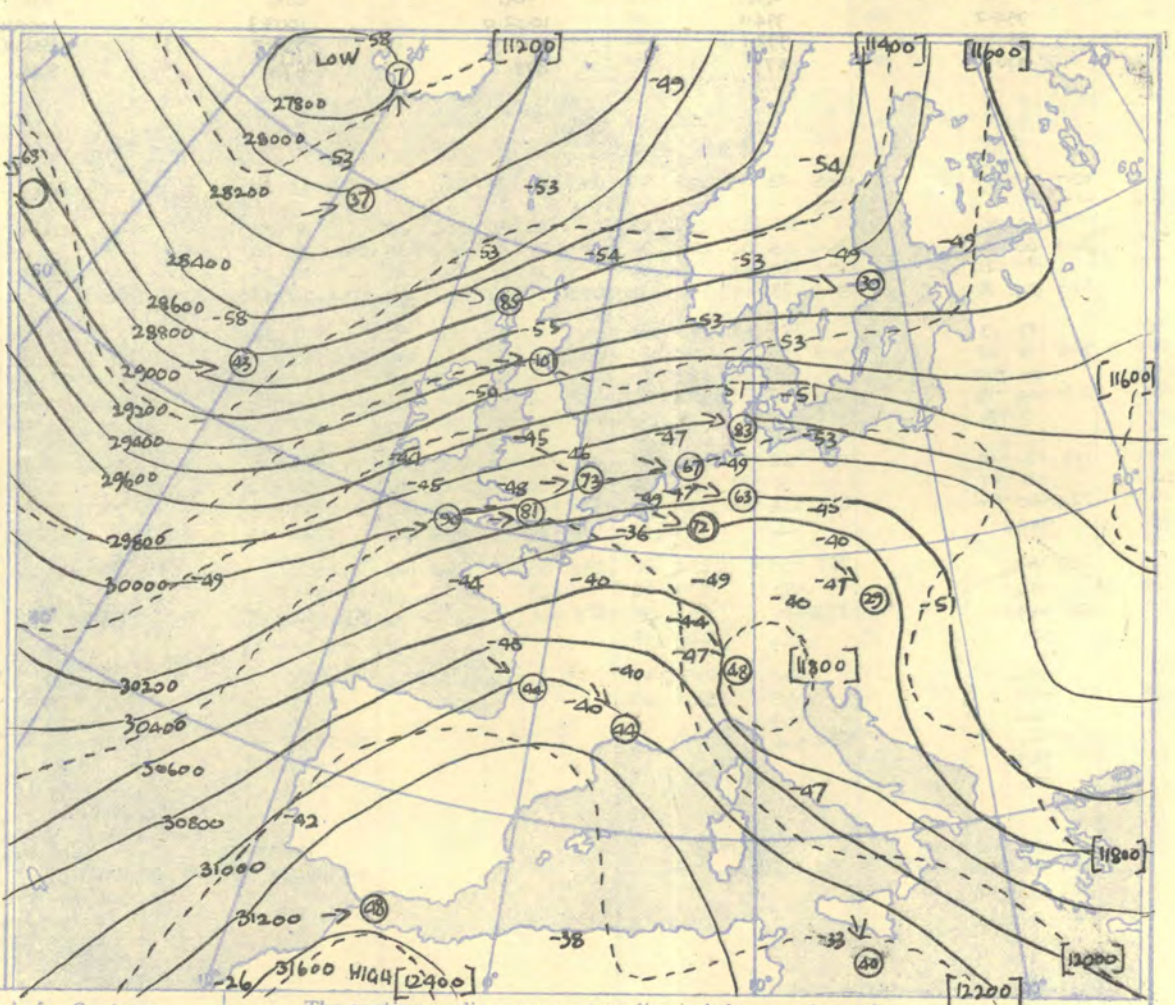
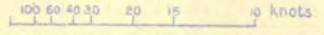
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h. G.M.T.



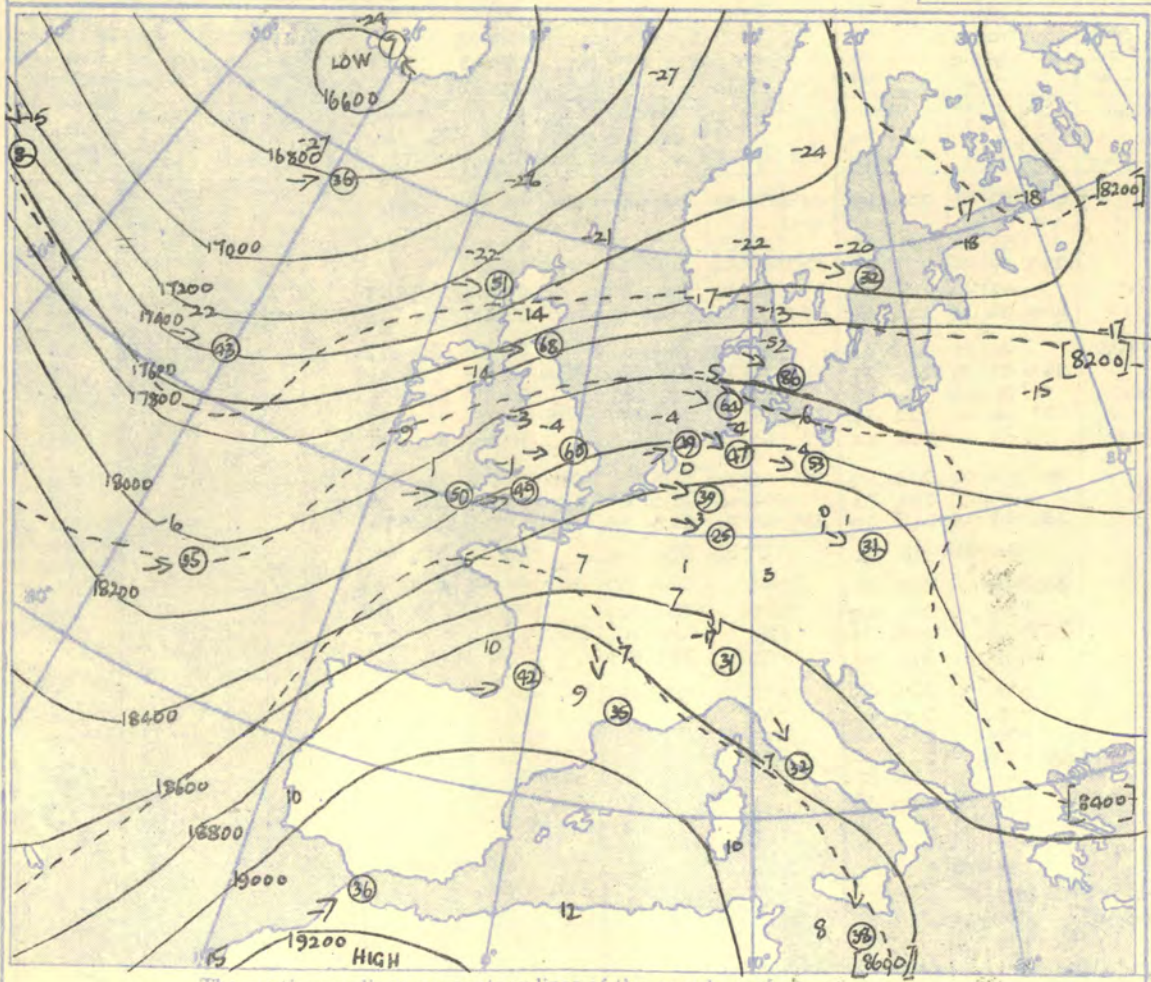
Scale
1:3x10⁷

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.

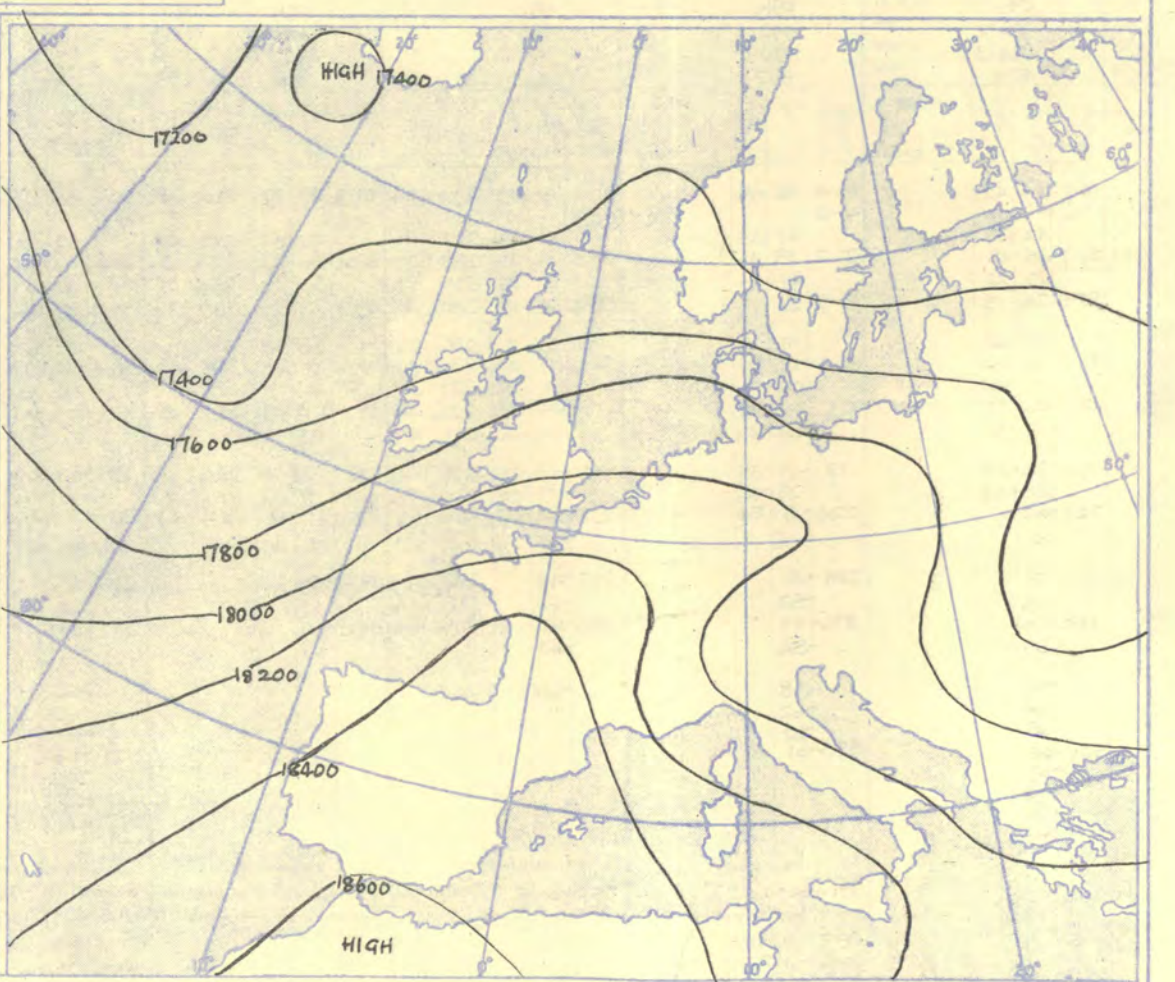
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.



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 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	Time M.S.L. Surf Freezing	482N. 20-SW			495N. 14-7W.			53.1N. 01.3E			43.2N. 17.0W.			39.5N. 12.2W.						Time M.S.L. Surf Freezing	
		1230h.			1345h.			1535h.			12h.			14h.							
		1010 mb			1006.4 mb			995 mb			1012 mb			1012 mb							
		1006.8 mb			1002.8 mb			993 mb			1015 mb			1000 mb							
878 mb			867 mb			713 mb			840 mb			700 mb						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	01.0	48	42	01.0	49	43	00.5	55	55												Surf
1000	2.9			1.8			-1.3	55	55												1000
950		40	35		43	36		50	50	4.0	55		3.3	61							950
900	8.1	34	34	30.1	34	34	27.5	46	46		47	41		53							900
850		27	27		29	26		41	41		42	40		51							850
800	61.8	21	21	60.9	23		59.1	37	37		38	31		47							800
											28	28		42							
750		15			19			34	34		25	17		37							750
700	30.7	12		94.9	13		94.3	32	32	98.4	21	13	99.6	32							700
650		09			07			28	27		20	15		27							650
600	134	04		133	02		134	22	21		13			22							600
550		-05			-06			15	13		02			12							550
500	178	-16		177	-17		181	06	03	183	08		185	01							500
450								-04													450
400								-17													400
350								-29													350
300																					300
250																					250
200																					200
170																					170
Cloud: 4/8 Cu 920-800mb. 3/8 Ci 300-300. Cloud: 4/8 Cu 910-790mb. Cloud: 8/8 Sc 965-890mb. 8/8 Ns 860-TN.R. Cloud: 4/8 St. 930-830mb. 1/8 Sc 800-780mb. Surf. wind - S.W. 17-N.W. 17-21kts. 21kts. Cloud: 8/8 Cu 960-830mb. 8/8 Cs N.R. Surf. wind - S.W. 17-N.W. 17-21kts. 21kts.																					

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

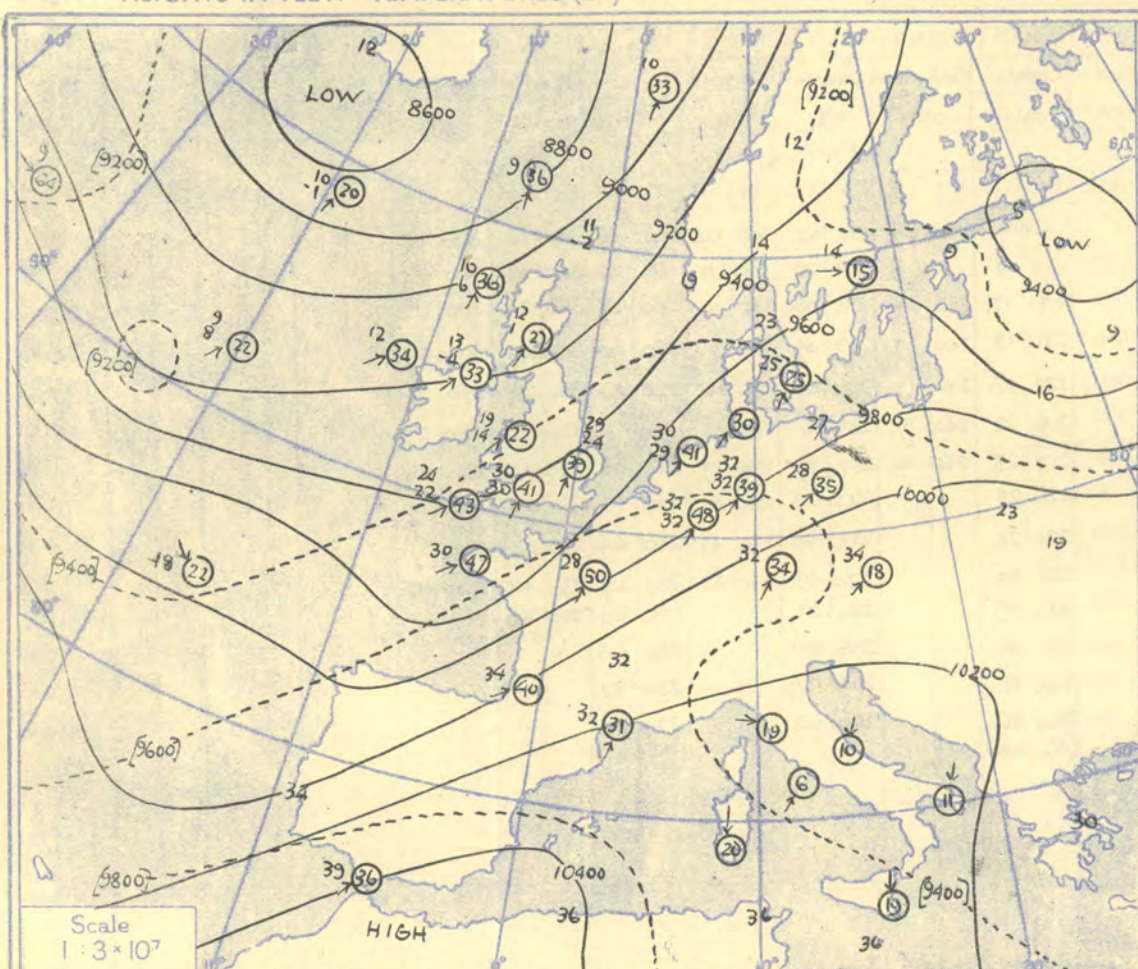
Place	Larkhill	Collinstown	Liverpool	Larkhill	Shoeburyness	Larkhill	Larkhill										Place
Time	03h.	03h.	09h.	09h.	15h.	15h.	21h.										Time
Type			Pilar														Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	Calm		230	09	190	03	200	04	170	06	350	14	300	08			Surf.
1,000	214	18			201	05	180	11	180	20	350	28	300	18			1,000
2,000	217	17	240	20	218	05	190	10	200	37	350	29	300	22			2,000
3,000	221	19	240	19	233	09	200	07	220	40	340	29	300	27			3,000
4,000	222	20	240	18	236	13	190	10	220	32	340	29	290	28			4,000
5,000	219	22	240	19	237	16	190	12			320	22	280	27			5,000
6,000	217	23	240	16	237	19	190	19	220	38	290	19	270	26			6,000
8,000	220	28			227	35	200	36	220	43	250	22	270	29			8,000
10,000	221	28			222	40	220	47	220	44	290	24	270	37			10,000
14,000	228	35			220	48	230	41	220	47	230	42	270	40			14,000
18,000	240	49			226	51			220	60	220	48	270	43			18,000
24,000	251	80			235	81			220	65	(15000ft)						24,000
30,000	248	81			234	109			230	82							30,000
40,000	260	86			240	62			230	91							40,000
50,000	(36,000)								(32,000)								50,000

NEPHOSCOPE OBSERVATIONS

Place	Squires Gate	Collinstown	Collinstown	Place
Time	12h. Sc.	12h. Ci.	15h. Ci.	Time
Dir. Vel.	230 75	200 90	210 70	Dir. Vel.

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

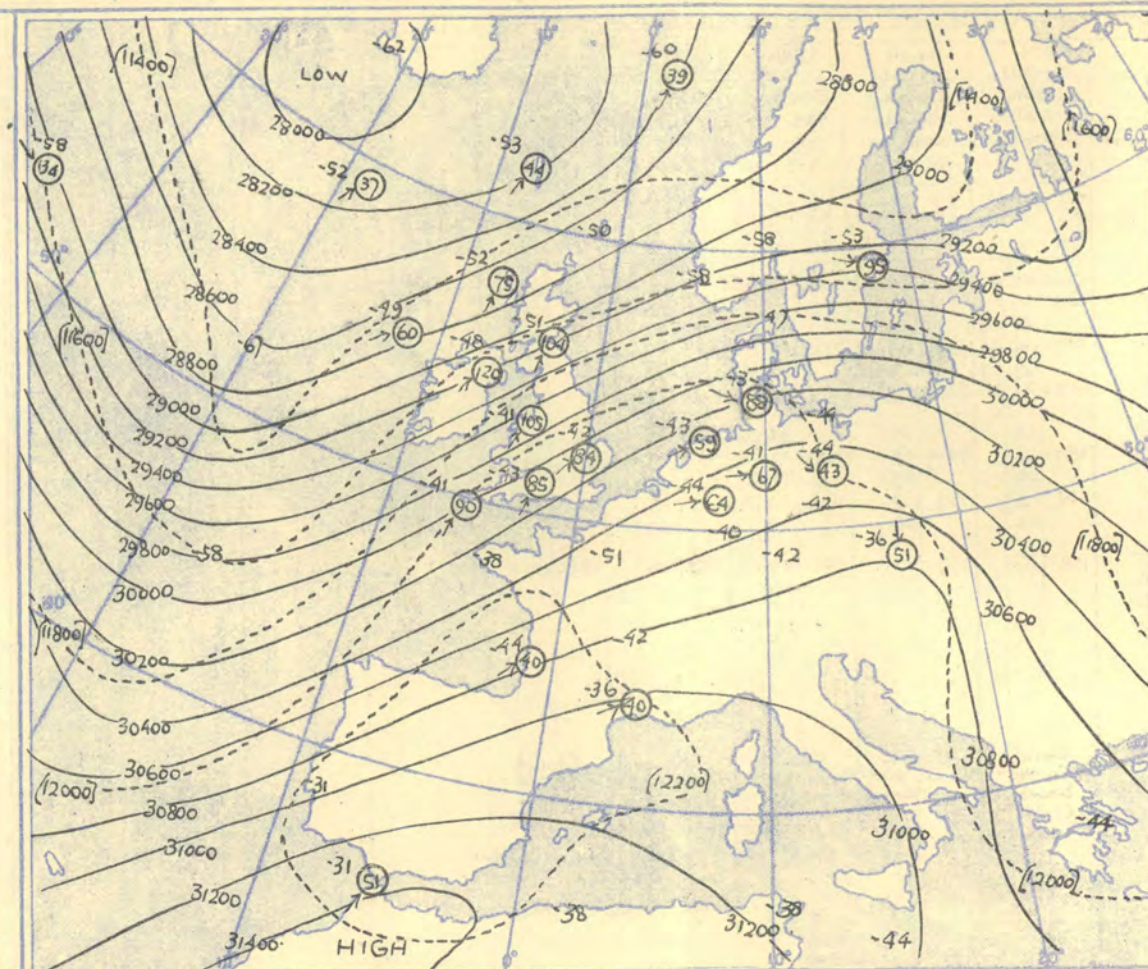
Ship		Weather Watcher				Weather Watcher				Weather Watcher				Weather Observer				Weather Observer				Weather Observer				Weather Explorer				Ship											
Lat/Long		59°N 18.9°W				59°N 19°W				59°N 18.9°W				59°N 18.7°N				52.7°N 19.8°W				52.7°N 19.5°W.				52.7°N 19.0°W				52.7°N 19.0°W.				54°3'N 10.3°W.				Lat/Long			
Pressure	Time	03hrs		G.M.T.		09hrs		G.M.T.		15hrs		G.M.T.		21hrs		G.M.T.		03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h.		G.M.T.		09h		G.M.T.		Time			
	M.S.L.	978		mb		977		mb		978		mb		979		mb		998		mb		996		mb		994		mb		991		mb		993		mb		M.S.L.			
	Surf	978		mb		977		mb		978		mb		979		mb		998		mb		996		mb		994		mb		991		mb		993		mb		Surf			
	Freezing	875		mb		875		mb		900		mb		890		mb		915		mb		905		mb		905		mb		890		mb		886		mb		Freezing			
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure				
Surf	-	43	37	260 23	-	45	40	215 17	-	45	39	250 13	-	43	40	255 15	-	43	38	250 37	-	45	38	280 30	-	41	39	270 23	-	45	38	290 26	-	47	47	250 25	Surf				
1000	6.1	41	33	240 29	6.2	42	38	215 24	6.1	37	31	250 17	5.8	39	33	252 14	6	36	32	270 42	-	45	38	278 37	-	41	39	270 23	-	45	38	290 26	-	47	47	250 25	1000				
950	22.2	35	29	242 20	27.0	35	34	225 22	21.9	32	26	250 18	21.5	30	27	270 46	27.5	30	27	270 42	27.0	31	278 45	26.5	31	31	269 39	25.9	33	33	283 25	26.5	36	35	247 29	950					
900	29	23	24	33	20	27	27	234 24	24	29	22	251 18	27	23	21	263 44	23	23	21	263 44	26	26	284 48	26	26	26	271 37	23	28	28	275 30	26	28	27	240 28	900					
850	53.1	24	16	242 33	52.8	23	21	240 23	52.5	23	15	251 15	53.1	21	13	251 15	57.7	16	14	264 36	57.5	21	283 52	57.0	21	21	261 34	56.5	23	22	270 32	57.3	25	22	226 37	850					
800																																				800					
750	18	03	242 35	16	13	236 23	17	10	250 18	15	08	250 16	16	10	06	262 34	91.2	10	06	262 34	91.2	09	284 51	90.8	15	15	249 25	90.4	16	15	268 34	91.4	19	11	224 44	750					
700	87.0	09	16	242 33	86.7	09	04	233 23	86.5	10	12	247 20	86.9	09	00	250 16	91.2	04	02	260 36	91.2	09	284 48	90.8	09	08	247 22	90.4	09	08	268 33	91.4	11	07	226 47	700					
650	-1.3	242 36	00	8	235 23	02	-11	244 23	01	-9	249 18	01	-18	260 48	05		129	04	02	260 36	129	00	282 44	128	06	08	248 26	128	03	00	267 38	130	05	-07	226 49	650					
600	126	9	19	242 38	125	-6	-16	243 22	125	-6	-15	242 24	125	-6	-26	258 52	129	-06	-26	258 52	129	00	282 54	128	-06	-08	251 38	128	-04	-11	278 42	130	-02	-17	229 46	600					
550	-17	28	242 38	-15	25	254 21	-16	24	237 27	-19	-27	247 19	-14	-33	262 45	-07		-14	-33	262 45	-07		282 55	-13	-16	256 37	-14	-21	268 46	-09	-25	223 46				550					
500	168	-27	38	242 36	168	-26	35	253 26	168	-26	34	233 26	172	-22	41	264 43	172	-22	41	264 43	173	-16	282 50	172	-21	-25	257 30	172	-22	-31	263 55	173	-17	-33	217 52	500					
450	-37	-47	238 32	-38	-46	253 29	-37	-45	232 27	-40	-50	228 25	172	-33	-43	264 45	173	-33	-43	264 45	173	-25	282 52	172	-31	-36	258 29	172	-32	-41	252 55	173	-27	-43	213 47	450					
400	218	-47	218 36	218	-50	243 27	218	-48	223 41	218	-49	223 41	223	-44	263 42	225	-39	223	-44	263 42	225	-39	282 51	223	-42	259 27	223	-46	242 62	225	-38	53	209 57	400							
350	-57		223 42	-56		242 25	-52		224 44	-50		227 27	-51		262 40	-49		-51		262 40	-49		282 45	-56				-55	239 66	-43			217 95	350							
300	280	-53	220 37	280	-52	246 26	281	-52	230 37	286	-58	261 43	288	-62	282 51	285	-67	286	-58	261 44	288	-62	282 51	285	-67			385	-53	240 54	289	-48	221 72	300							
250	-47	226 35	-47	235 29	-47	235 29	-47	236 36	-47	236 36	-47	236 36	-47	236 36	-47	236 36	-47	236	-57	261 44	-58		282 36	-57				385	-49	242 45	-55	225 77	250								
200	369	-50	235 37	369	-49	241 28	370	-45	250 28	373	-56	252 47	375	-50	281 34	372	-55	373	-56	252 47	375	-50	281 34	372	-55			373	-46	254 35	-54			200							
170	-50	235 37	-45	238 35	-46	258 32				-55		250 47	-53		278 34	-52		-55		250 47	-53		278 34	-52				-50	259 29	(228-5)				170							
150	-40	235 40	-47	234 34	-47	256 29				-54		251 44	-55		251 34	-56		-54		251 44	-55		268 31	-53				-54	268 30				150								
130	-34	235 37	-50	240 32	-49	252 27				-55		248 32	-60		248 32	-60		-55		248 32	-60		258 27	-59				-59	269 22				130								
110	-55	235 23	-53	242 28	-53	251 26				-61		247 30	-62		247 30	-62		-61		247 30	-62		252 21	-64				-58	272 12				110								
100	520	-58	235 27	521	-57	241 25	522	-53	251 25	522	-65	246 23	524	-59	252 20	521	-64	523	-61	246 23	524	-59	252 20	-65				-62	268 15				100								
90	-62	235 23	-59	241 25	-61	249 20				-67		246 23	-65		246 23	-65		-67		246 23	-65		252 24	-67				-65	255 18				90								
80	-67	235 21	-62		-63	245 16				-71		241 20	-67		241 20	-67		-67		241 20	-67		255 21	-68				-67	255 22				80								
70	(65)	-70	235 18	(82)						-75			-68																						70						
60																																				60					
		Isothermal. 670-650mb 01°				(5mb)				Isothermal. 360-350mb 43°				328-320mb 45°																											
Tropopause		I 335 mb -60° 25500'				I 345 mb -57° 24900'				I 330 mb -55° 25300'				NR.				I 300mb -58° 28.600				II 294 mb -63° 29.200				I 290mb -67° 29.200				I 336mb -58° 26.000				I 265mb -55° 31.600				Tropopause			



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

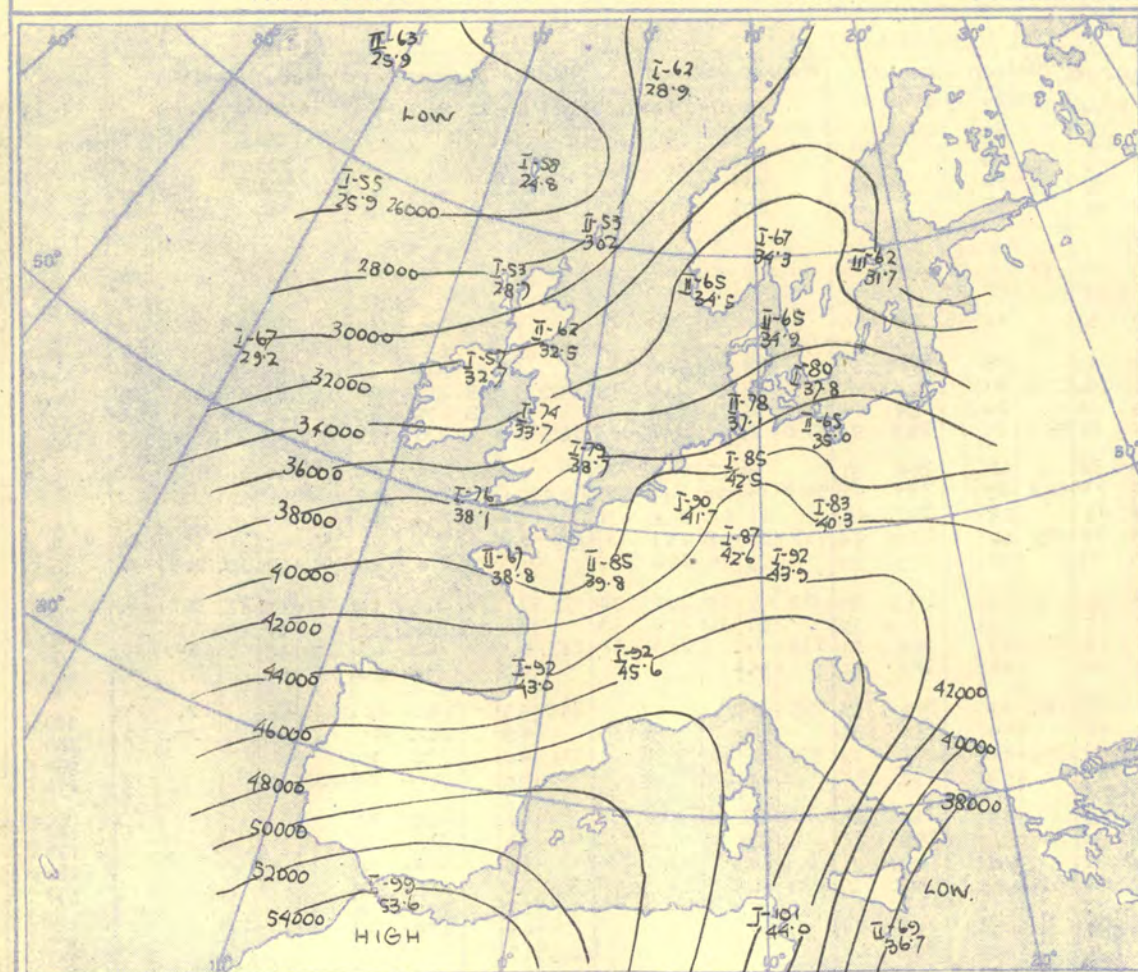
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

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.

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



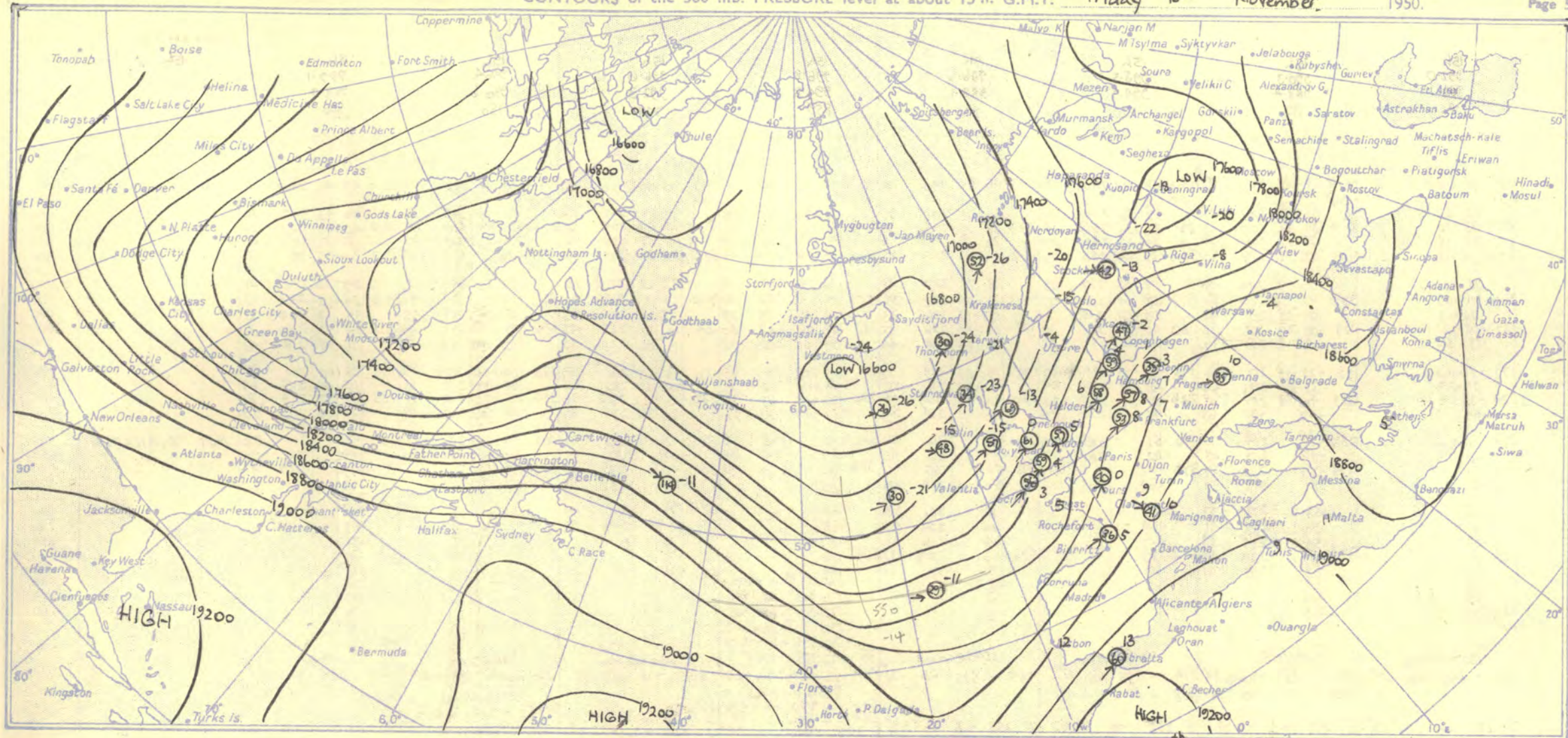
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

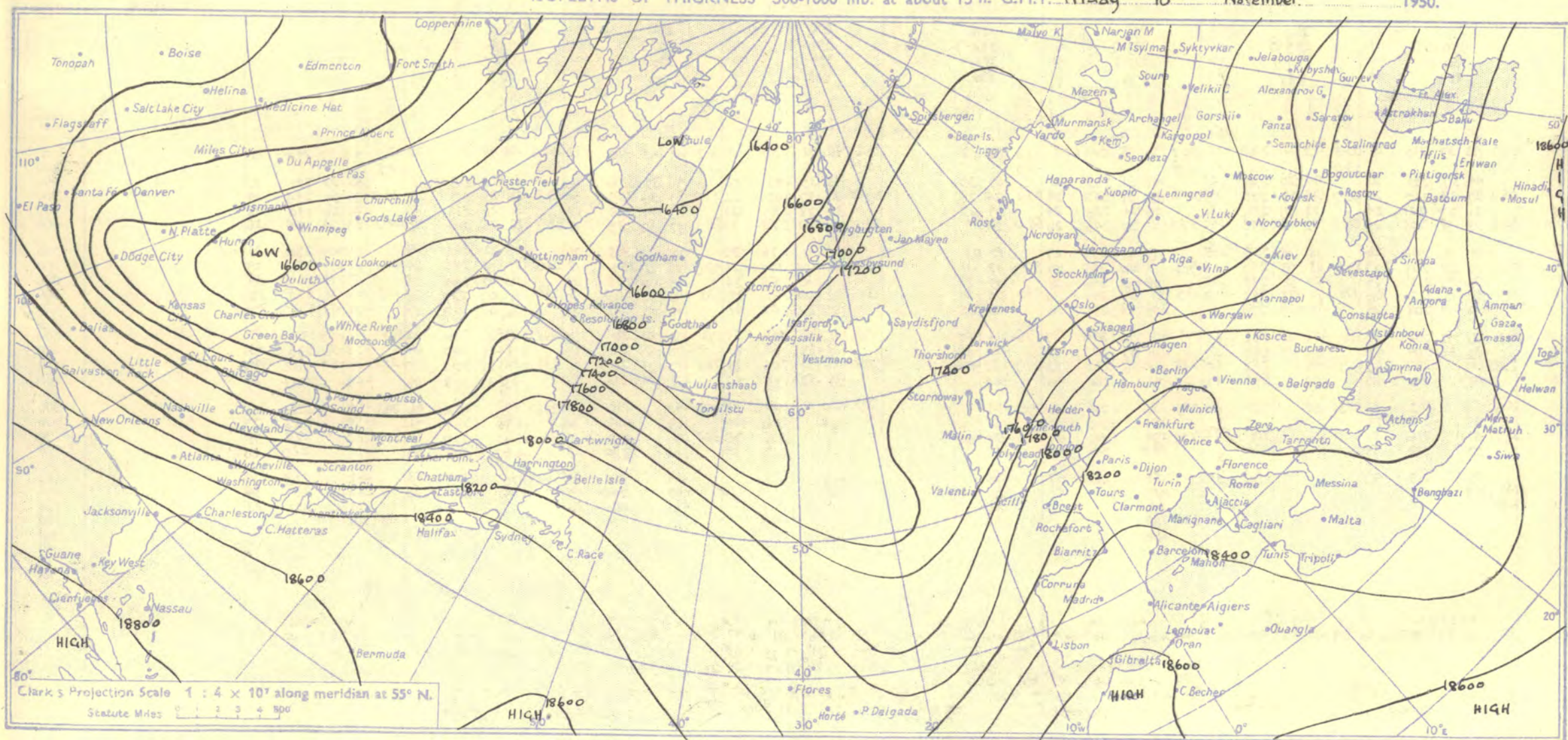
Little change occurred in the broad shape of the thickness pattern but there was a marked tightening in the thermal gradients over England in a band from the Davis Strait to about 47°N 25°W.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



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



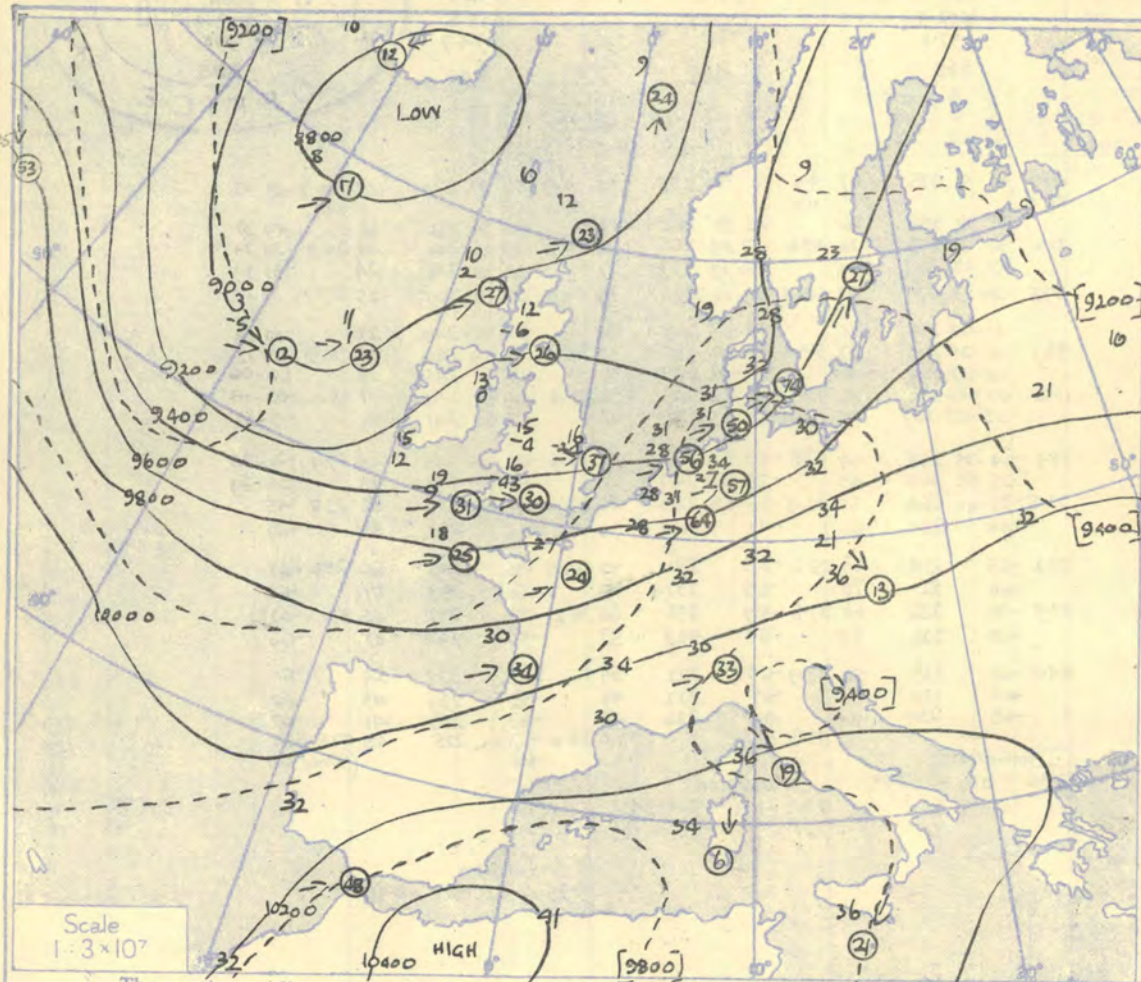
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Pressure	Time	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100	15h		G.M.T.	Height ft./100		

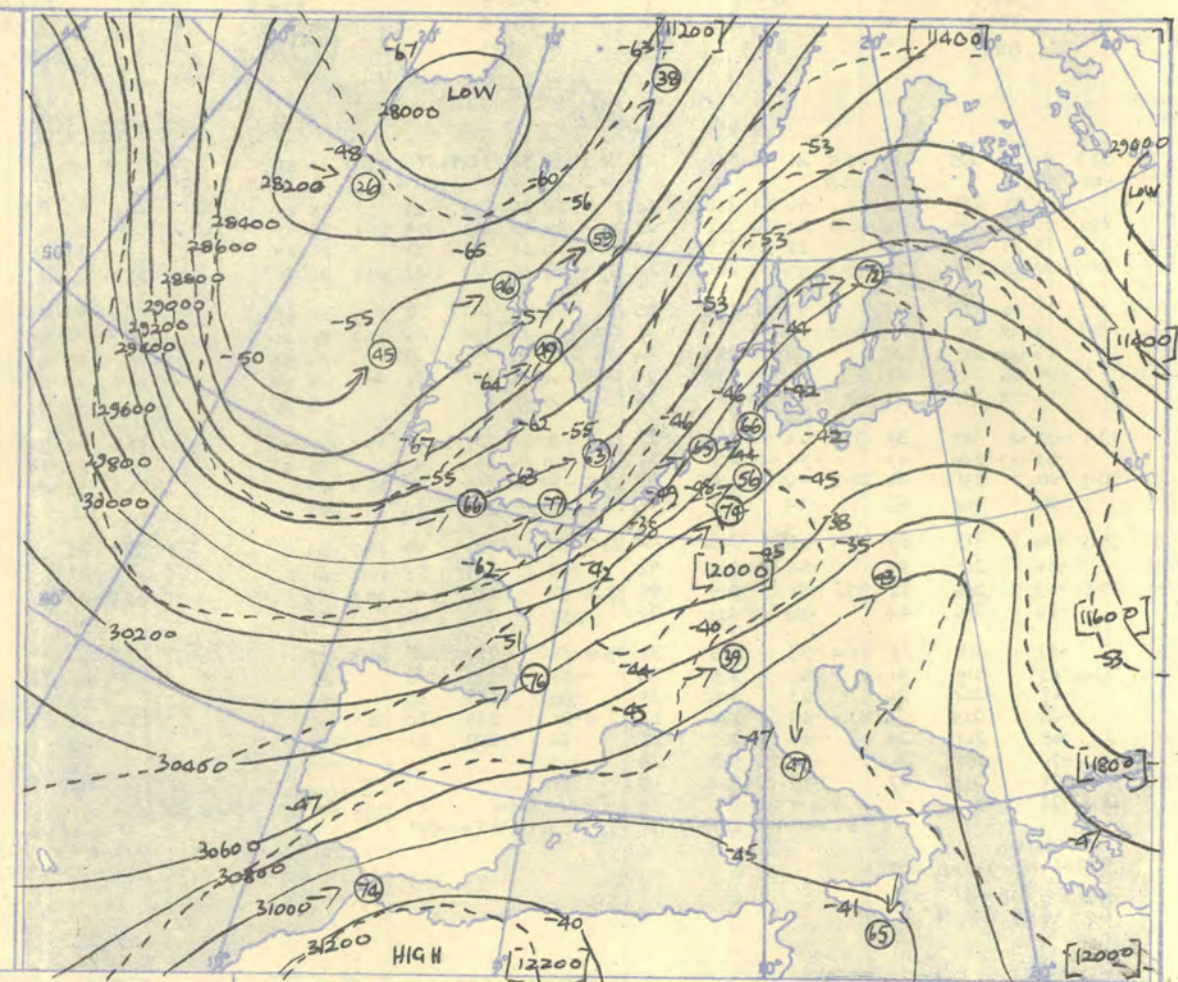
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				KALENTARY		STATION									
Pressure	Time M.S.L. Surf (Freezing)	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.													
		888.5	978.3	mb	mb	889	989.2	mb	mb	890	994.3	mb	mb	862	996.9	mb	mb	890	999.6	mb	mb	868	1002.3	mb	mb	867	1004.8	mb	mb	840	1005.5	mb	mb												
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb												
Surf	02.7	40	39	225	10	00.5	41	36	240	03	00.2	35	34	CAHM	01.3	36	32		00.6	42	37		01.2	43	41	235	07	4.4	41	40	255	10	02.9	42	37	270	08	00.3	47	42	Surf				
1000	-0.1	41	37	233	21	-0.9	40	34	228	20	-1.6	38	36	259	27	00.8	38	35		-0.1	42	39		00.4	42	38	288	26	1.3	41	40	255	10	01.4	42	37	270	08	-1.6	47	42	1000			
950	25.1	35	31	233	16	15.3	34	30	222	25	26.4	33	30	262	29	27.2	36	28		28.1	37	31		28.6	37	31	293	26	29.6	37	34	266	17	44	38	232	22	44	37	950					
850	28.24	23	18	233	16	28.24	23	18	223	25	29.24	23	18	263	28	31	24		28.1	29	23	287	24	30	19	267	27	30	19	267	27	33	25	248	24	31	29	850							
800	55.7	23	18	234	20	56.0	23	19	224	24	57.2	24	16	263	27	58.1	26	17		58.8	24	16		59.5	26	13	274	27	60.4	23	15	266	24	60.8	27	18	249	25	57.7	24	24	800			
750	17	10	237	22		17	11	224	25		18	06	262	27	20	07				20	04			21	04	270	31	17	04	263	26	24	03	249	27	19	18	750							
700	89.7	12	01	239	23	90.0	10	02	226	21	09.1	12	06	258	26	92.2	13	00		92.9	15	04		93.7	16	04	269	37	94.4	16	03	259	30	95.2	19	09	246	31	91.9	15	12	700			
650	03	12	242	24		01	05	234	26		02	16	255	29		05	09			09	04			10	07	269	40	11	04	258	31	15	04	245	39	06	06	650							
600	12.8	04	16	245	23	12.8	05	14	233	25	12.9	02	16	251	32	13.0	00	21		13.1	01	08		13.2	05	16	270	42	13.3	05	16	255	36	13.4	09	01	241	41	13.0	02	14	600			
550	-14	-32	247	27		-15	-23	227	25		-09	-17	242	40		-09	-33			-07	-17			-03	-53	269	45		-01	-56	251	42		02	12	241	41		-12	22	550				
500	17.1	-23	-41	249	33	17.1	-24	-31	230	27	17.3	-18	-36	239	40	17.4	-22	-45		17.6	-14	-26		17.7	-14	-55	268	44	17.8	-13	-54	248	41	17.9	-09	-18	243	45	17.4	-21	28	500			
450	-30	-47	240	47		-34	-40	222	29		-29	-36	234	45		-30	-53			-25	-38			-25	-58	268	45		-25	-58	247	44		-20	-28	239	49		-32	39	450				
400	22.2	-42	232	51	22.2	-46	216	35	22.5	-39	-48	233	47	22.5	-43				22.7	-37	-49		22.8	-37	-60	264	51	22.9	-38	-58	247	56	23.1	-31	-39	234	52	22.5	-45	400					
350	-54	224	52	-54	212	44	-53	230	50	-58									-51				-46		254	66		-41		244	75	-42		233	52		-59	350							
300	28.5	-56	213	59	28.4	-65	220	44	28.7	-57	229	49	28.7	-64					29.0	-62			29.2	-55	234	63	29.2	-63	241	77	29.5	-55	229	66	28.6	-67	300								
250	-56	214	52	-54	221	42	-53	223	58	-61									-59				-60		227	78		-65	233	78	-60		233	71		-66	250								
200	37.2	-53	206	56	37.1	-51	219	44	37.5	-51	222	45	37.3	-59					37.6	-57			37.9	-55	226	60	37.8	-59	232	66	38.2	-59	227	60	37.1	-62	200								
170	-56	216	44	-50	221	29	-54	225	42	-57									-58				-65	222	55		-63	228	53	-56		234	62		-60	170									
150	-57	216	38	43.4	-53	220	32	43.8	-56	224	35	43.5	-57						-61				44.0	-68	223	56	43.9	-67	222	54	-55		235	54		-61	150								
130	52.0	-62	219	31	-61	218	26	-58	222	38									-60				-65		220	48		-61	222	49	-59		239	43		-65	130								
110	-63	224	26	-63	216	25	-60	228	30	-66									-65				-68		234	44		-71	226	45	-63		230	41		-67	110								
100	-65	225	23	52.0	-64	221	22	52.4	-64	249	20	52.1	-67						-68				52.4	-68				-71	226	45	-63		225	45	518	-67	100								
90	-68	214	24	-65	221	26	-66	259	21	-69									-69				-70					-71				-65				-67	90								
80	-71	209	26	-70	227	20	-67												-70				-70					-71				-65				-67	80								
70	-73	226	27	-70	234	15													-70				-70					-71				-65				-67	70								
60	(68nb)-74																		-70				-70					-71				-65				-67	60								
Inversion		979nb40°-970nb43°		Isothermal		608-600nb41°				Inversion		987nb41°-973nb42°		993nb35°-965nb40°				Inversion		988nb36°-936nb39°		(63nb)-72		Inversion		997nb42°-975nb45°		556-7°-543°-6°																	
Tropopause		355nb-54°		24,800'				Tropopause		300nb-65°		28,400'				Tropopause		301nb-66°		28,200'				Tropopause		305nb-62°		28,600'				Tropopause		239nb-60°		33,100'				Tropopause					
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE						STATION									
Pressure	Time M.S.L. Surf (Freezing)	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.													
		990.7	980.7	mb	mb	991	990.1	mb	mb	997.7	996.8	mb	mb	995.3	986.7	mb	mb	1001.1	999.0	mb	mb	1006.9	1002.6	mb	mb	1006.4	990.1	mb	mb	1002.5	991.9	mb	mb												
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb								
Surf	02.7	41	39	210	06	00.5	42	37		00.2	39	36	230	06	01.3	43	39	190	15	00.6	40	37	200	09	01.2	39	35	180	08	4.4	40	38	180	09	02.9	50	44	180	15			Surf			
1000	-02.6	40	34	236	15	-2.1	41	36		-6.6	38	35	227	25	-1.2	44	40	190	34	00.3	41	37	208	24	01.9	42	35	235	23	1.7	43	37	202	20	00.6	46	40	200	26			1000			
950	25.5	34	28	237	18	26.1	35	30		27.4	35	31	243	28	27.2	38	33	194	33	28.6	37	33	222	27	30.2	37	27	239	22	29.9	37	31	212	24	29.1	40	35	202	24			950			
900	27	23	238	21		29	25			31	23	247	27		32	28	196	36		31	26	223	26		32	22	240	22		31	22	219	27		33	29	205	34			900				
850	56.3	22	20	238	20	56.9	22	16		58.3	25	17	239	29		58.2	26	21	200	9	59.5	26	18	224	27	61.2	27	17	242	24	60.9	27	40	221	27	60.2	30	19	215	32			850		
750	16	11	247	21		16	08			22	08	239	27		19	14	205	41		21	16	226	29		21	03	245	25		22	83	224	30		25	13	224	31			750				
700	90.1	09	01	245	24	90.8	10	02		09.3	14	02	242	23		12	06	206	42	93.7	13	08	226	29		18	01	248	26		18	72	230	31		18	12	225	35			700			
650	03	06	245	22		03	05			09	09	232	28		07	02	203	42		08	04	221	31		13	04	245	32		11	10	228	33		12	06	228	36			650				
600	12.8	05	11	244	15	12.9	05	14		13.1	01	19	230	28						15.2	04	01	221	30		13.4	07	08	240	39		13.4	04	05	226	35		13.4	05	02	224	36			600
550	-14	-20	234	17		-14	-21			-08	24	232	44		Anomalous from 650nb					-03	08	231	31		-02	14	238	45		-04	08	221	40		-02	10	219	40			550				
500	17.1	-24	-31																																										

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.

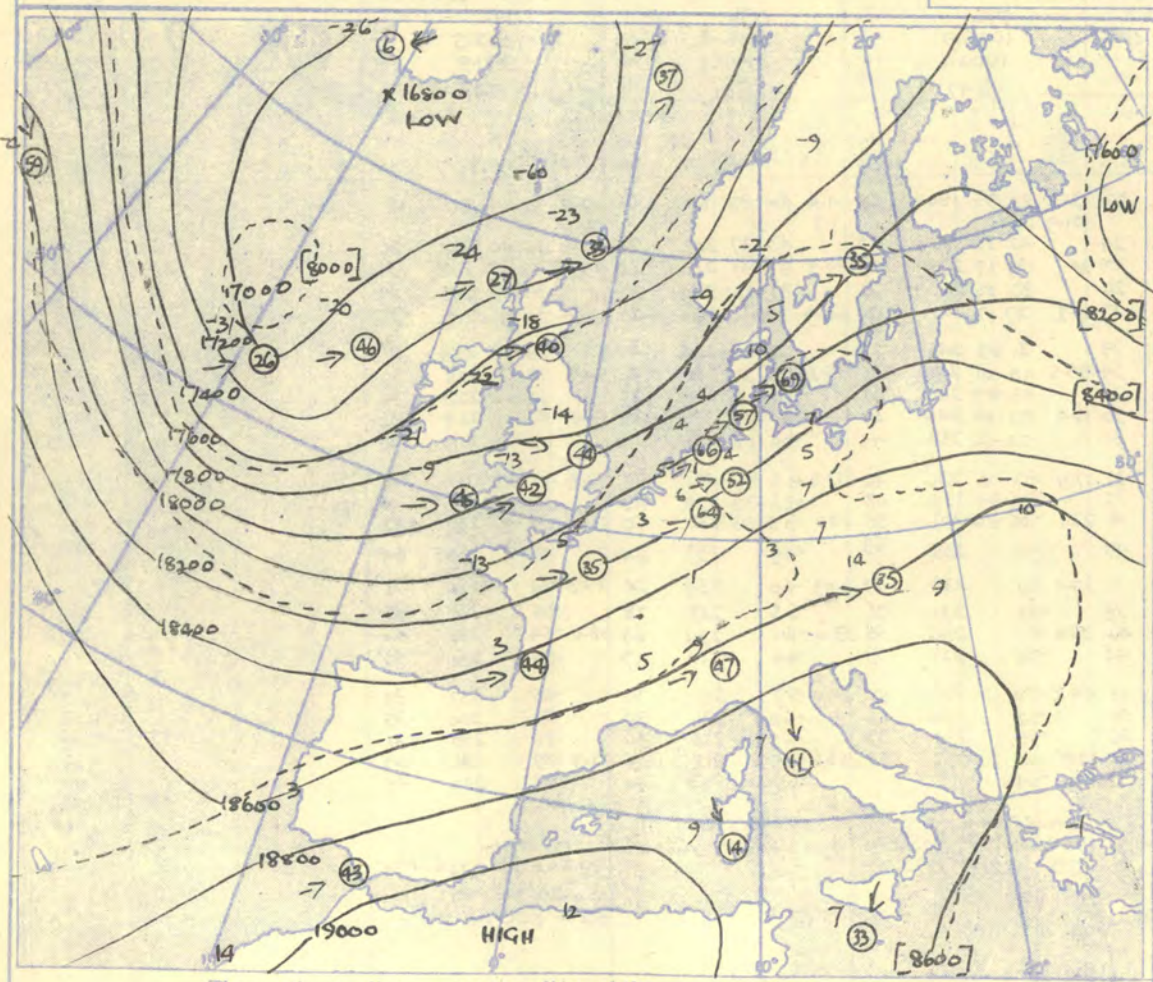
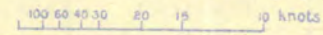


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

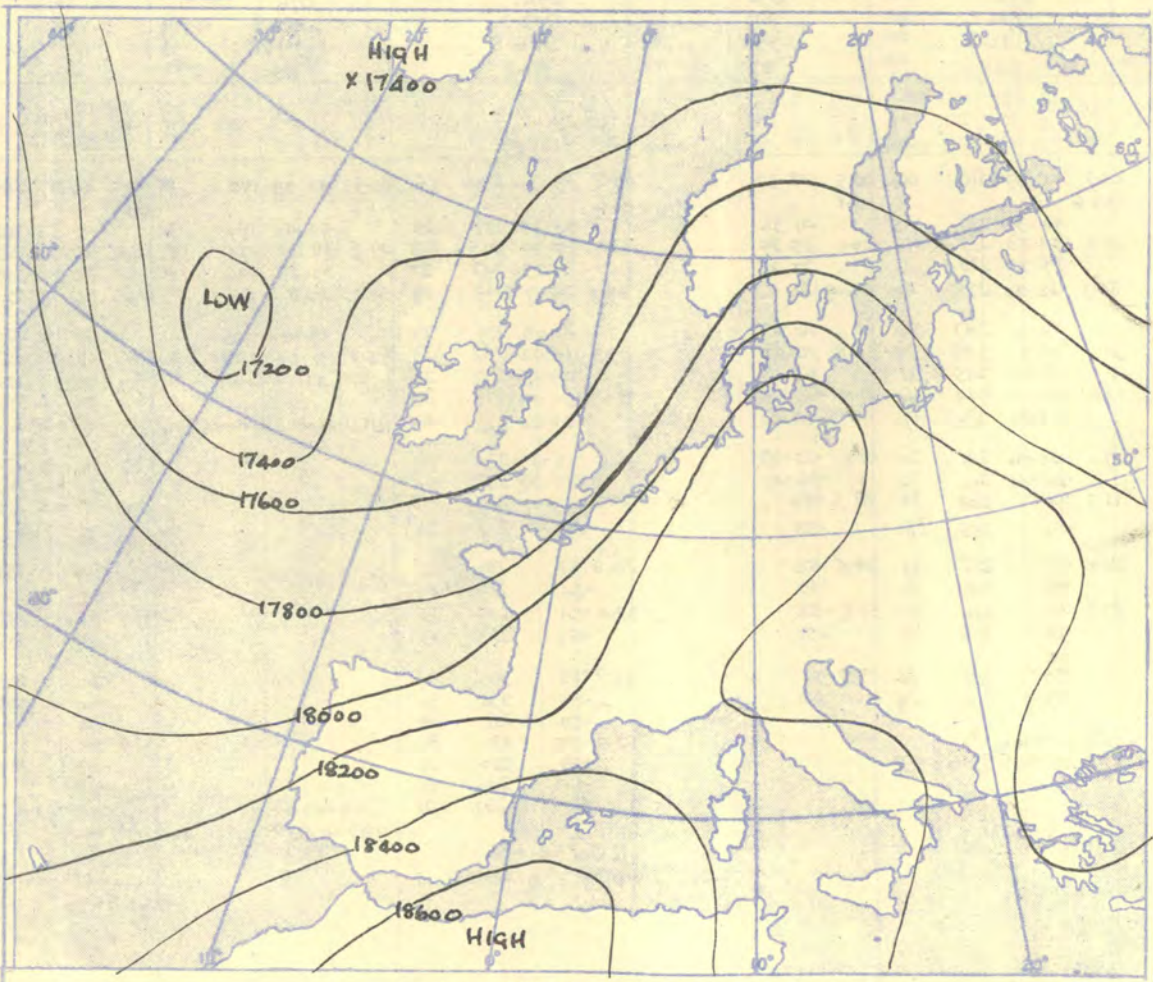


The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.



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

Time	48.2N 20.3W			49.5N 14.7W			50.5N 01.3E												Time
	M.S.L.	mb	Freezing	M.S.L.	mb	Freezing	M.S.L.	mb	Freezing	M.S.L.	mb	Freezing	M.S.L.	mb	Freezing	M.S.L.	mb	Freezing	
12h.	1015	mb		14h.	1007	mb	15h.	1005	mb										15h.
Surf	1011	mb		1001	mb		1003	mb											Surf
Freezing	890	mb		905	mb		820	mb											Freezing
Pressure	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Pressure
mb	ft./100	°F.	°F.	ft./100	°F.	°F.	ft./100	°F.	°F.	ft./100	°F.	°F.	ft./100	°F.	°F.	ft./100	°F.	°F.	mb
Surf	01.0	51	36		47	37	5	52	41										Surf
1000	04.0			2.0			1.3												1000
950		40	33		39	32		45	40										950
900	32.2	32	29		31	28	29.8	39	29										900
850		26			26			34	24										850
800	62.8	22			18		60.8	28	17										800
750		16			15			23	14										750
700	96.7	10		94.1	09		95.0	19											700
650		03			01			12											650
600	13.5	02			-08		13.4	06											600
550		00			-16			-04											550
500	17.9	-05		17.5	-27		17.8	-14											500
450								23											450
400	cloud			cloud			230	-36											400
350	4/8 Cu			1/8 Cu				-48											350
300	940-790mb			940-850mb			293	-62											300
250																			250
200																			200
170																			170

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

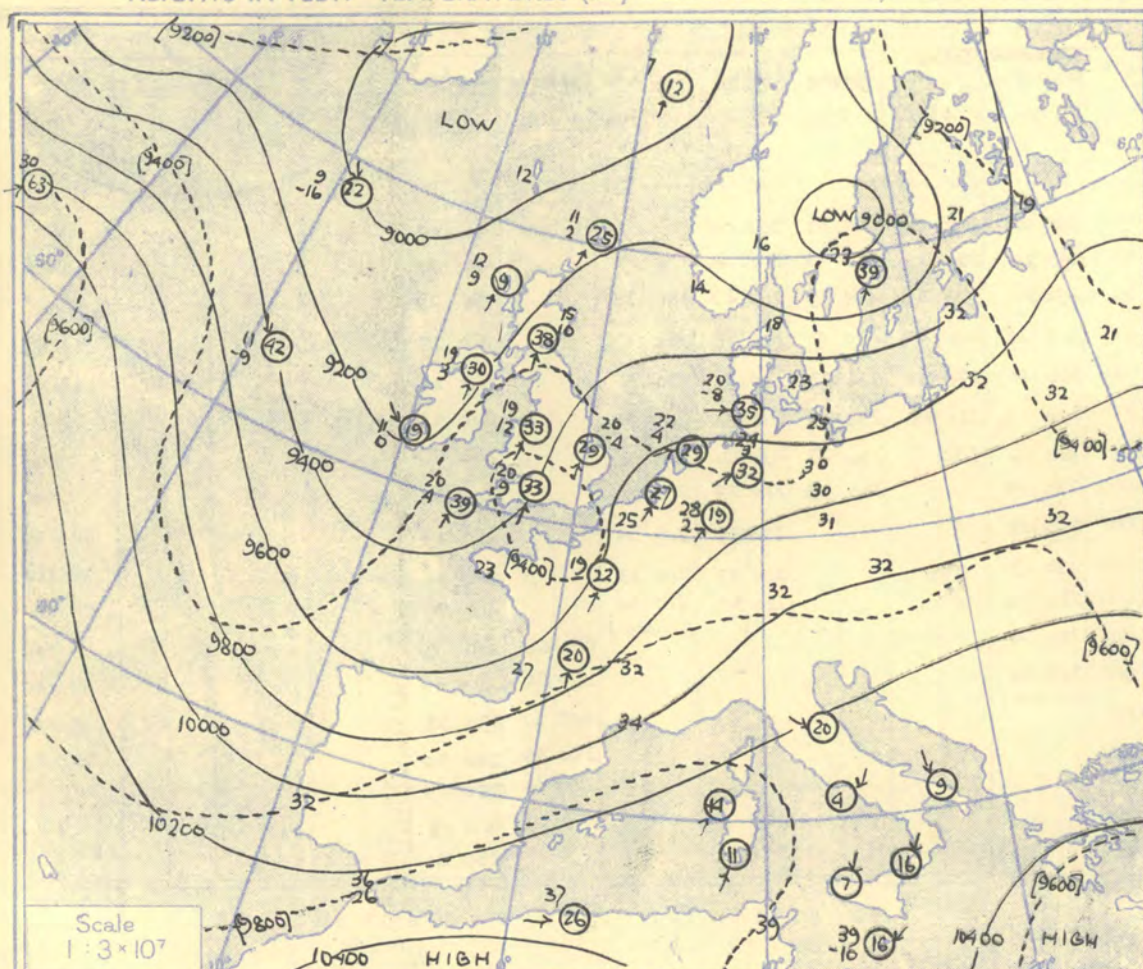
Place	W. observer S-8N 18-W		Collins- town		Lympe		Lorkhill		Lorkhill		Canborne		Donham		20 NOV 1950		Place
Time	03h.		03h.		09h.		11.30h.		1730h.		21h.		22h.		★		Time
Type															OFFICE		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet.
Surf.	290	20	210	10	230	02	200	04	170	07			140	09			Surf.
1,000	290	24	220	26	210	13	190	15	170	27			180	29			1,000
2,000	290	30	220	26	220	19	200	23	180	31			180	29			2,000
3,000	300	28	210	24	230	19	200	28	190	33			190	25			3,000
4,000	300	24	230	20	230	23	200	31	190	31			190	24			4,000
5,000	300	23	220	18	230	24	210	32	200	31			200	23			5,000
6,000	290	16	230	7	230	27	210	32	200	31			200	23			6,000
8,000	280	14			230	23	220	29	210	31			200	24			8,000
10,000	250	12					220	33	210	34			210	23			10,000
14,000	250	13					220	37	210	33			200	32			14,000
18,000	230	26					220	38	210	34			210	37			18,000
24,000	230	26							(15,000')								24,000
30,000	250	24									180	60	210	39			30,000
40,000	(26,000')										207	36	220	46			40,000
50,000											245	21	230	38			50,000
60,000											250	39	240	30			
70,000										(45,000')	250	19					
80,000													260	19			
														280	21		

NEPHOSCOPE OBSERVATIONS

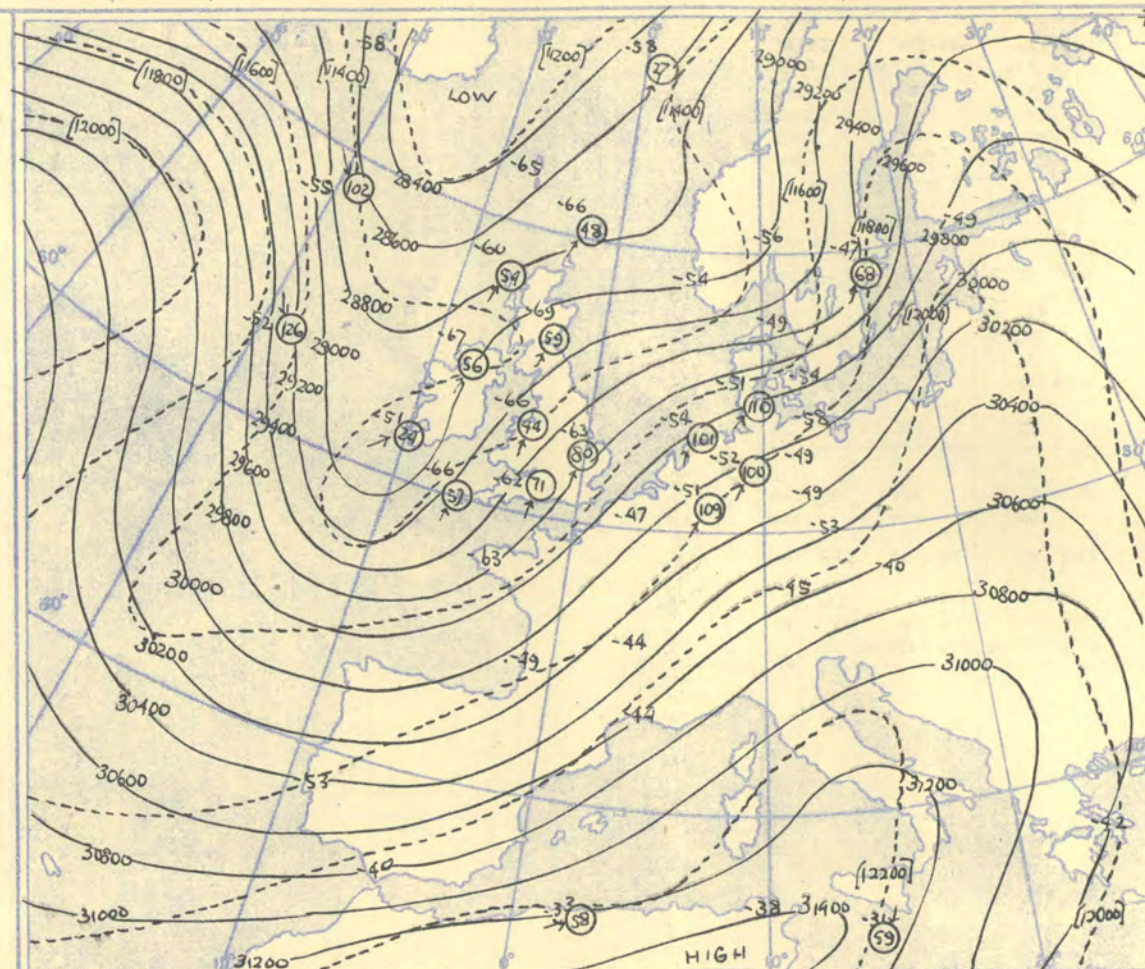
Place																				Place
Time																				Time
Type																				Type
Dir. Vel.																				Dir. Vel.

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

Ship	WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER EXPLORER				Ship							
Lat/Long	59.1N. 18.6W.				59.1N. 18.6W.				59.1N. 18.9W.				59.1N. 17.8W.				52.8N. 18.6W.				52.9N. 18.3W.				52.9N. 18.0W.				53.2N. 17.3W.				54.3N. 13.3W.				Lat/Long			
Pressure Time M.S.L. Surf Freezing	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.		03h.		G.M.T.		Time M.S.L. Surf Freezing			
	982		mb		984		mb		990		mb		993		mb		992		mb		995		mb		999		mb		1002		mb		989		mb					
	982		mb		984		mb		990		mb		993		mb		992		mb		995		mb		999		mb		1002		mb		989		mb					
	875		mb		900		mb		890		mb		880		mb		915		mb		895		mb		870		mb		885		mb		890		mb					
Pressure mh	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb							
Surf		45	36	230 18		43	37	250 12		45	39	340 12		45	37	300 07		44	34			46	32	322 22		50	48	320 30		50	41	320 27		44	42	282 16	Surf			
1000	5.0	41	34	231 22	4.5	40	33	250 12	2.8	40	32	336 17	2.0	34	27	294 11	2.2	37	27			40	28	297 26		43	39	311 40		41	31	300 35	2.9	39	32	266 18	1000			
950		35	31	232 22	237	35	29	250 14	25.3	33	26	326 20	26.2	34	27	296 16	25.9	32	24	For		26.6	33	28	27	28.2	36	29	316 36	28.7	34	24	300 33	25.2	33	29	265 18	950		
900		28	26	234 25	30	24	250 13	28	28	18	328 22	28	21	297 15	23	16		26	18	298 27		26	18	298 27		29	19	317 37		27	20	307 31	28	23	251 14	900				
850		22	21	234 24	54.5	24	19	254 16	56.0	22	05	329 21	56.8	22	16	299 17	56.3	18	10	winds		57.1	19	12	297 27		59.0	23	15	317 29	59.4	22	08	313 26	56.0	25	15	238 14	850	
800	54.0	15	08	233 21		18	11	265 17		16	05	335 21		16	02	301 18		11	03				13	04	300 30		16	02	317 41		17	01	315 34		18	06	236 18	750		
750	87.9	08	03	233 17	88.5	11	03	272 18	89.9	09	16	340 22	90.7	10	06	303 18	89.8	03	05	See		90.8	07	07	303 29		92.9	11	09	317 42	93.3	11	11	315 33	90.0	11	01	240 23	700	
700		00	06	229 15		03	05	271 21		01	27	347 28		03	05	303 17		03	18				00	14	306 26		05	14	315 39		07	21	312 45		05	09	239 36	650		
650	126	08	19	224 11	127	05	12	257 27	128	07	28	356 29	129	05	24	303 17	128	12	19	top		129	08	26	307 34		131	02	21	315 40	132	04	13	313 55	128	01	10	229 43	600	
600		18	29	235 10		15	22	254 22		17	36	354 33		14	34	305 18		23	30				17	35	310 44		11	36	317 39		01	06	316 65		10	18	221 45	550		
550		16	29	235 10		15	22	254 22		17	36	354 33		14	34	305 18		23	30				17	35	310 44		11	36	317 39		01	06	316 65		10	18	221 45	500		
500	16.9	29	39	256 11	170	25	33	289 18	171	28	45	355 34	172	21	44	304 34	170	31	42	of		172	28	44	312 53		175	20	45	320 55	176	07	14	319 76	172	20	30	215 46	450	
450		21	34	272 14		25	20	289 20		38	56	343 39		23	41	298 58		39	54				38	53	316 53		21	49	323 92		17	24	324 94		33	42	209 56	400		
400	218	53		293 17	220	44		259 21	221	39	58	332 85	224	34	47	297 68	220	47		page.		222	49		336 51		227	25	54	325 115	229	28	34	326 108	223	45		210 62	350	
350		57		276 30		45		289 22		43		328 108		44				52					222	49		336 51		227	25	54	325 115	229	28	34	326 108	223	45		210 62	300
300																																							250	
250	281	48		270 26	284	42		298 23	285	55		314 102	333	48			283	50				285	49		343 76		291	52		339 126	293	53		319 136	285	55		185 45	200	
200		50		270 24		46		303 29		61		310 82						50					49		331 40			61		359 115		68		319 126		50		197 29	170	
170	36.9	59		267 22	374	48		314 26	371	59		299 41					371	51				374	50		324 33		378	58		005 61	379	71		326 96	373	47		209 20	150	
150		50		260 20		49		303 22		61		288 40						52					50		320 27			50		355 50		69		332 75		50		229 17	130	
130		51		256 20		51		289 19		59		296 37						56							320 28			54		346 45		65		333 55		53		250 15	110	
110		52		255 22		51		282 22		59		322 27						59							320 31			57		333 35		68		330 38		57		273 16	100	
100		55		256 25		55		284 23		61		299 27						62							319 27			60		333 27		68		325 37		59			100	
90	520	58		262 23	525	56		280 21	519	62		273 24					520	63							316 26		527	62		333 38		68		323 36		68			90	
80		61		268 23		58				63		267 39						65							309 23			63		333 30		71		321 30		71			80	
70		65		259 22		65				65		272 37						66							296 28			64		333 15		73		320 24		73			70	
60	(074) mb	67								66		267 38						66										64		333 13		75						60		
										66		286 20						66										65		333 13		75								
										67		313 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								
										67		316 18						67										65		333 13		75								

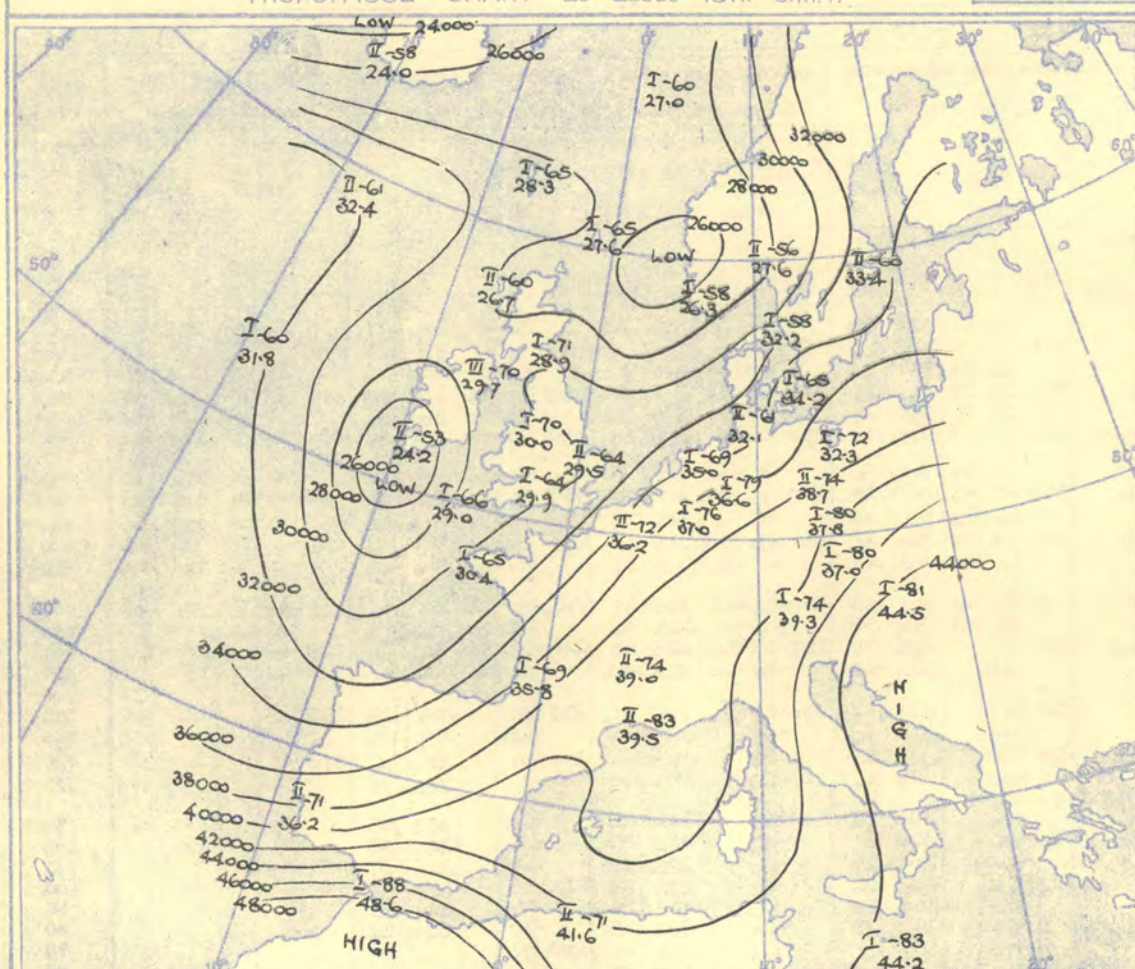


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb



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.



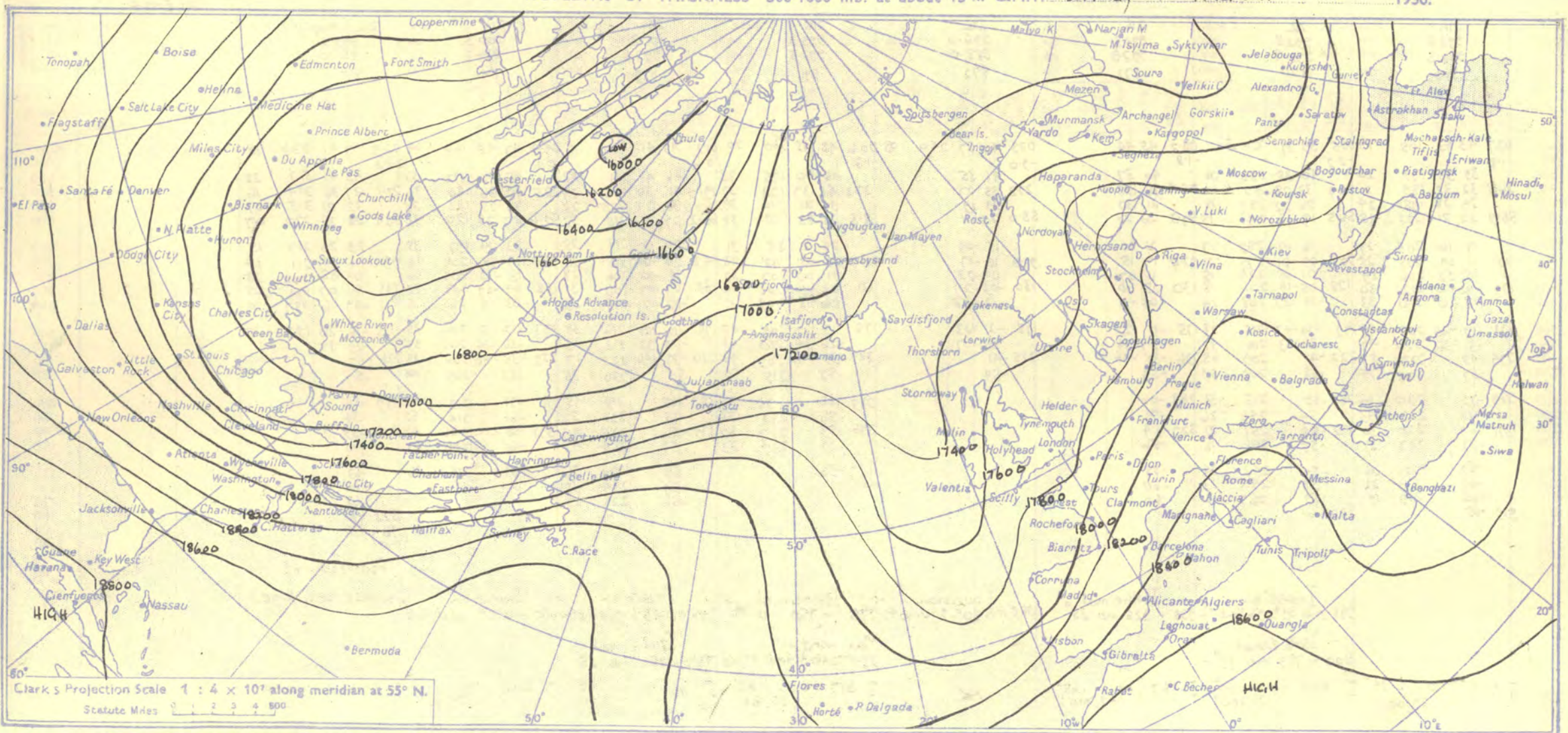
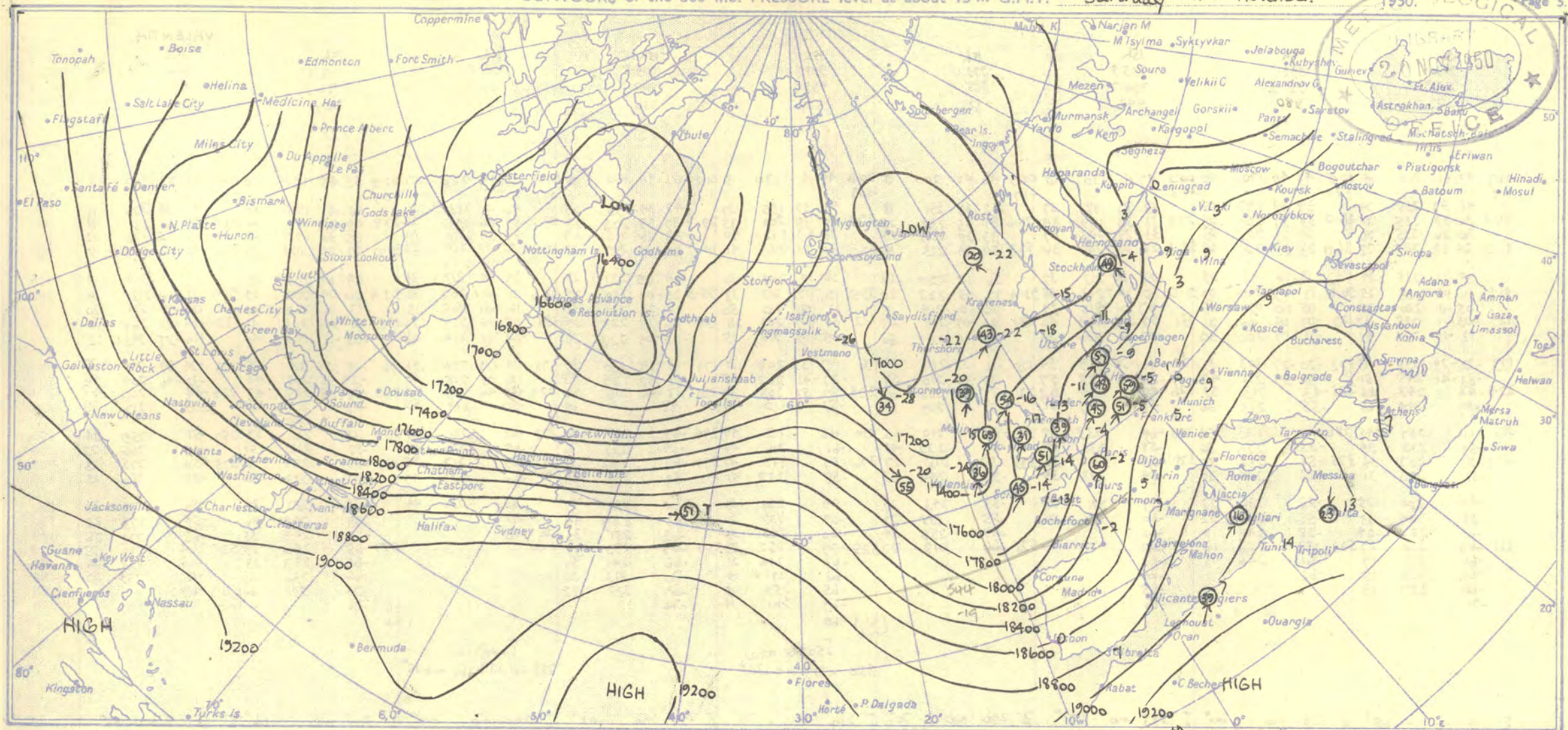
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A thermal ridge across Europe moved steadily eastwards. A cold upper trough west of the British Isles moved slowly east. The very strong west south west thermal gradient over Eastern America extended steadily eastwards across the Atlantic with a marked dipfluence to the trough ahead of it.

RATES of SUBSCRIPTION : Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



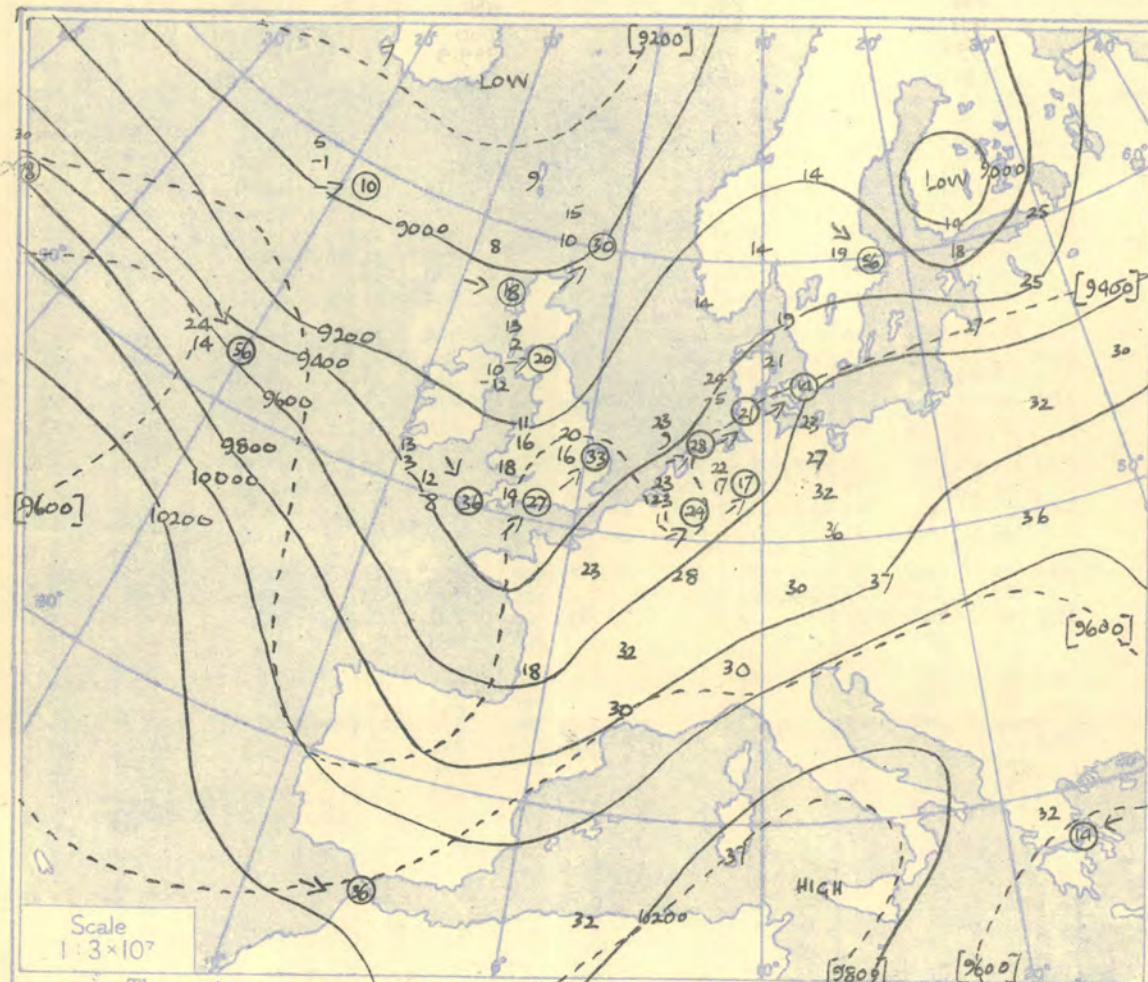
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Time	15h				15h				15h				15h				15h				15h				15h				15h				15h				Time
M.S.L.	993.4				992.1				995.5				993.6				997.8				1004.5				1002.8				996.8				996.7				M.S.L.
Surf	983.5				990.2				994.7				985.1				995.8				1000.2				986.9				986.3				995				Surf
Freezing	872				880				843				836				808				836				847				822				885				Freezing
Pressure	mb				mb				mb				mb				mb				mb				mb				mb				mb				Pressure
Height	ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				Height
Temp.	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Temp.
Dew	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Dew
Wind	Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Wind
Dir.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Dir.
Vel.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Vel.
Pressure	mb				mb				mb				mb				mb				mb				mb				mb				mb				Pressure
Height	ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				Height
Temp.	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Temp.
Dew	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Dew
Wind	Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Wind
Dir.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Dir.
Vel.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Vel.
Pressure	mb				mb				mb				mb				mb				mb				mb				mb				mb				Pressure
Height	ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				Height
Temp.	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Temp.
Dew	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Dew
Wind	Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Wind
Dir.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Dir.
Vel.	° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				° knots				Vel.
Pressure	mb				mb				mb				mb				mb				mb				mb				mb				mb				Pressure
Height	ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				ft./100				Height
Temp.	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Temp.
Dew	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Dew
Wind	Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Dir. Vel.				Wind
Dir.	° knots				° knots																																

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 M.S.L. Surf (Freezing)	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.		03h.	G.M.T.		Time M.S.L. Surf (Freezing)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		mb	mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb		mb	mb	mb	mb	mb	mb	mb	mb	mb	mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Surf	1000	02.7	41	41	00.5	37	34	0.2	43	42	260	04	02.3	33	31	00.6	41	41	01.2	45	43	130	08	4.4	47	46	200	04	02.9	46	33	315	15	00.3	48	41	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
950	950	02.7	41	41	00.5	37	34	0.2	43	42	260	04	02.3	33	31	00.6	41	41	01.2	45	43	130	08	4.4	47	46	200	04	02.9	46	33	315	15	00.3	48	41	1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
900	900	24.9	41	40	217	09	39	33	25.3	33	28	16	26.9	34	23	26.9	33	33	27.7	41	30	189	29	26.9	40	39	221	20	28.3	35	26	325	32	28.7	38	20	950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
850	850	32	31	220	22	27	23	12	30	27	259	12	27	13	29	36	22	192	36	22	192	29	26.9	40	39	221	20	28.3	35	26	325	32	28.7	38	20	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
800	800	55.9	26	24	216	24	55.8	21	17	56.9	26	19	243	14	57.6	23	06	57.7	25	25	58.9	30	22	191	28	58.0	30	27	222	23	59.0	23	11	324	33	59.7	26	20	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
750	750	21	16	209	26	15	08	See Page 3 for Winds.	20	09	243	17	17	00	20	20	20	20	25	19	195	30	24	21	204	27	17	03	317	34	20	12	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
700	700	90.1	15	10	205	30	89.6	08	01	09.1	13	02	239	20	91.6	10	12	92.0	17	16	93.5	20	16	195	33	92.6	18	14	200	27	93.0	12	08	306	36	93.8	13	03	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
650	650	09	01	200	33	01	08	05	00	09.1	05	00	216	30	10	08	10	08	13	09	202	34	10	04	202	30	13	05	14	293	28	07	05	650																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
600	600	12.9	03	02	200	37	12.7	08	18	12.9	01	03	207	34	130	06	37	13.1	02	00	13.2	07	03	207	36	13.1	03	04	278	27	13.2	00	09	600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
550	550	06	11	202	42	18	731	07	12	07	12	204	37	17	46	06	08	06	06	208	36	04	14	197	50	09	31	257	30	01	12	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
500	500	17.3	16	22	201	48	17.0	18	42	17.3	16	20	201	48	17.3	15	55	17.5	16	19	17.7	11	16	204	38	17.5	13	25	197	54	17.5	17	37	244	25	177	07	19	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
450	450	21.4	18	23	202	55	21.0	19	53	21.5	18	20	201	60	22.3	17	59	22.6	18	32	22.9	12	18	204	44	22.6	13	33	190	57	22.6	17	45	230	24	22.9	17	28	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
400	400	58	210	66	59	22.0	49	50	56	22.5	19	45	201	69	22.3	17	59	22.6	18	32	22.9	12	18	204	44	22.6	13	33	190	57	22.6	17	45	230	24	22.9	17	28	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
350	350	58	210	66	59	22.0	49	50	56	22.5	19	45	201	69	22.3	17	59	22.6	18	32	22.9	12	18	204	44	22.6	13	33	190	57	22.6	17	45	230	24	22.9	17	28	350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
300	300	28.6	72	215	60	28.3	51	28.7	60	213	44	28.7	52	36	28.7	58	37.5	59	29.2	62	208	78	29.0	57	188	62	29.0	50	331	33	29.4	52	300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
250	250	37.2	57	213	34	37.1	55	37.5	54	239	30	37.4	60	35	37.5	59	64	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222	37	60	225	31	37.9	61	222

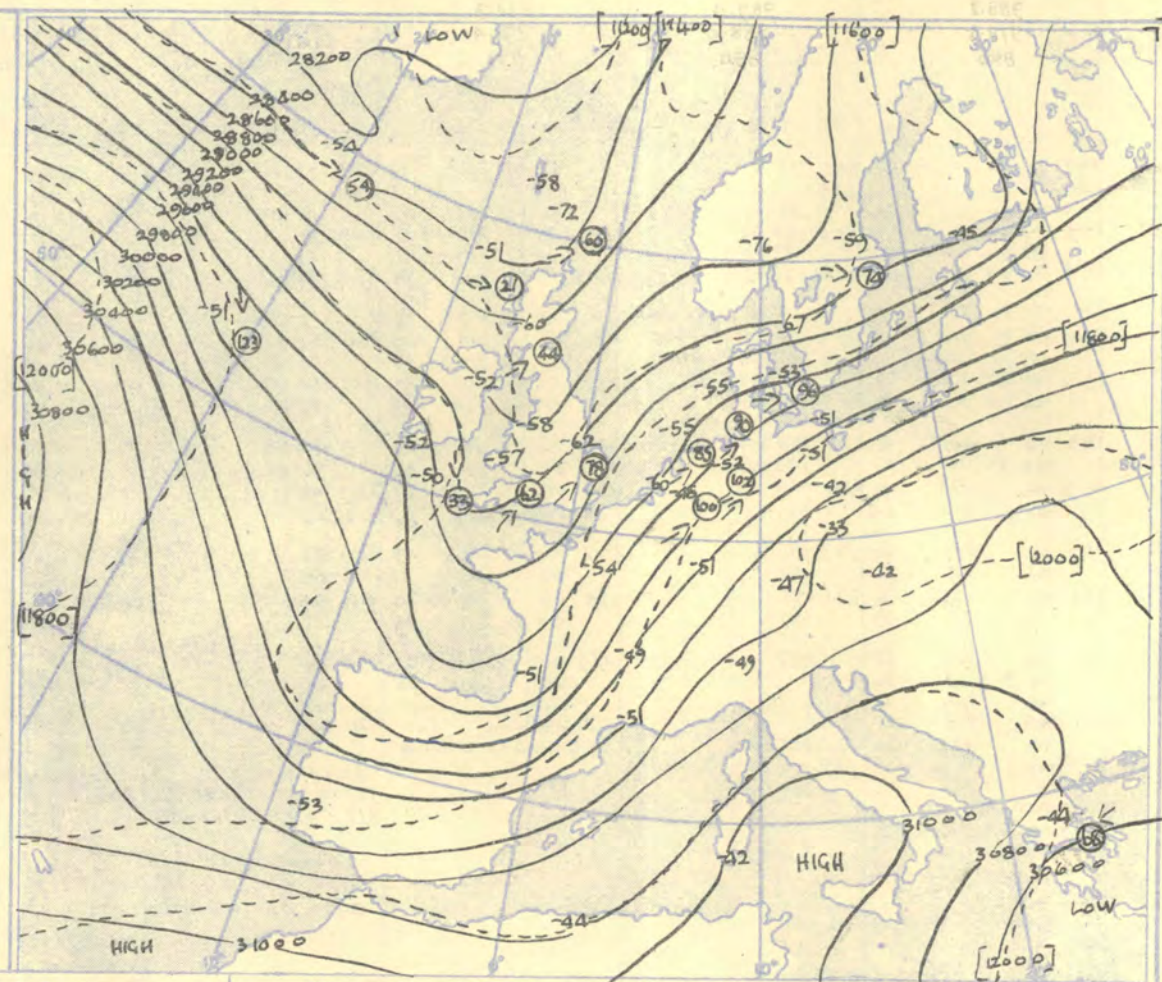
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h. G.M.T.



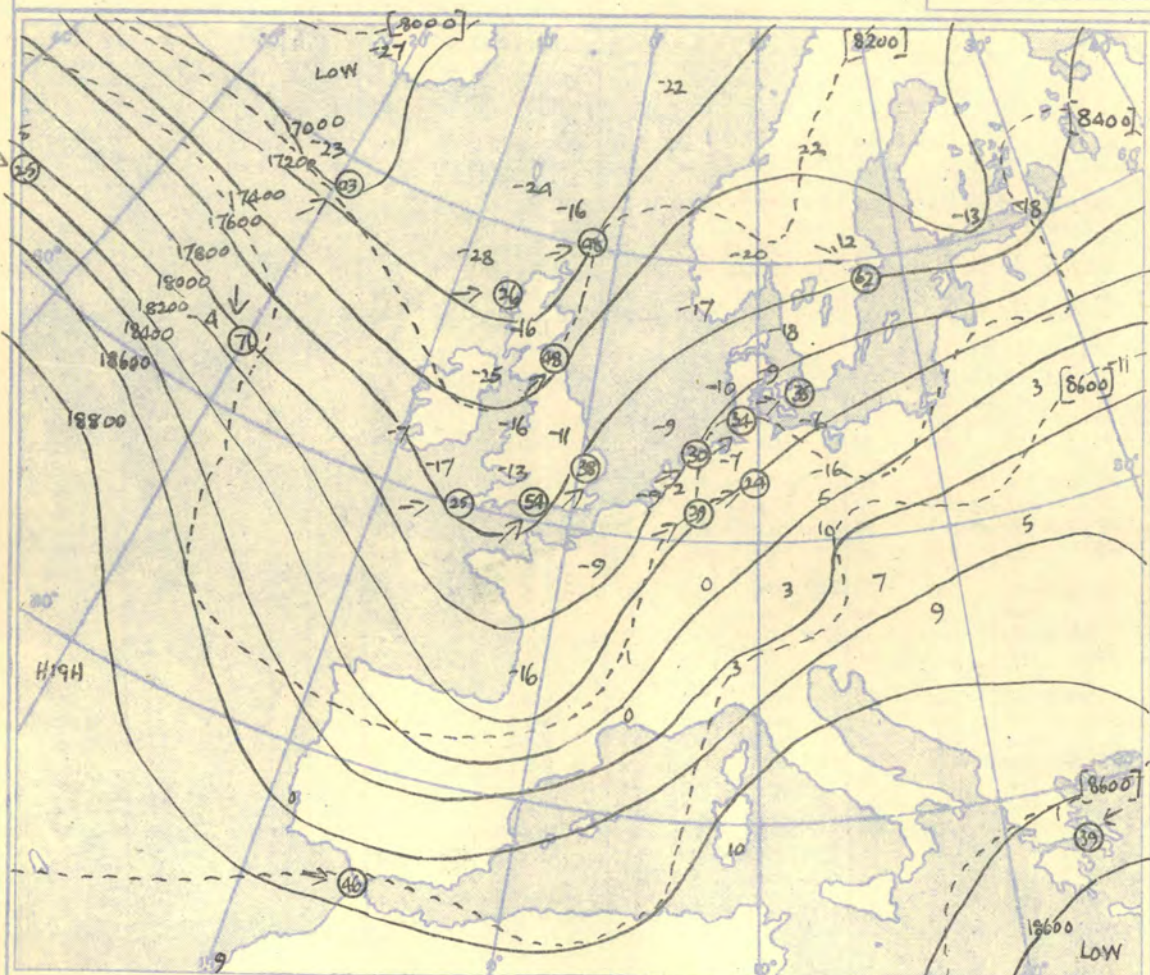
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

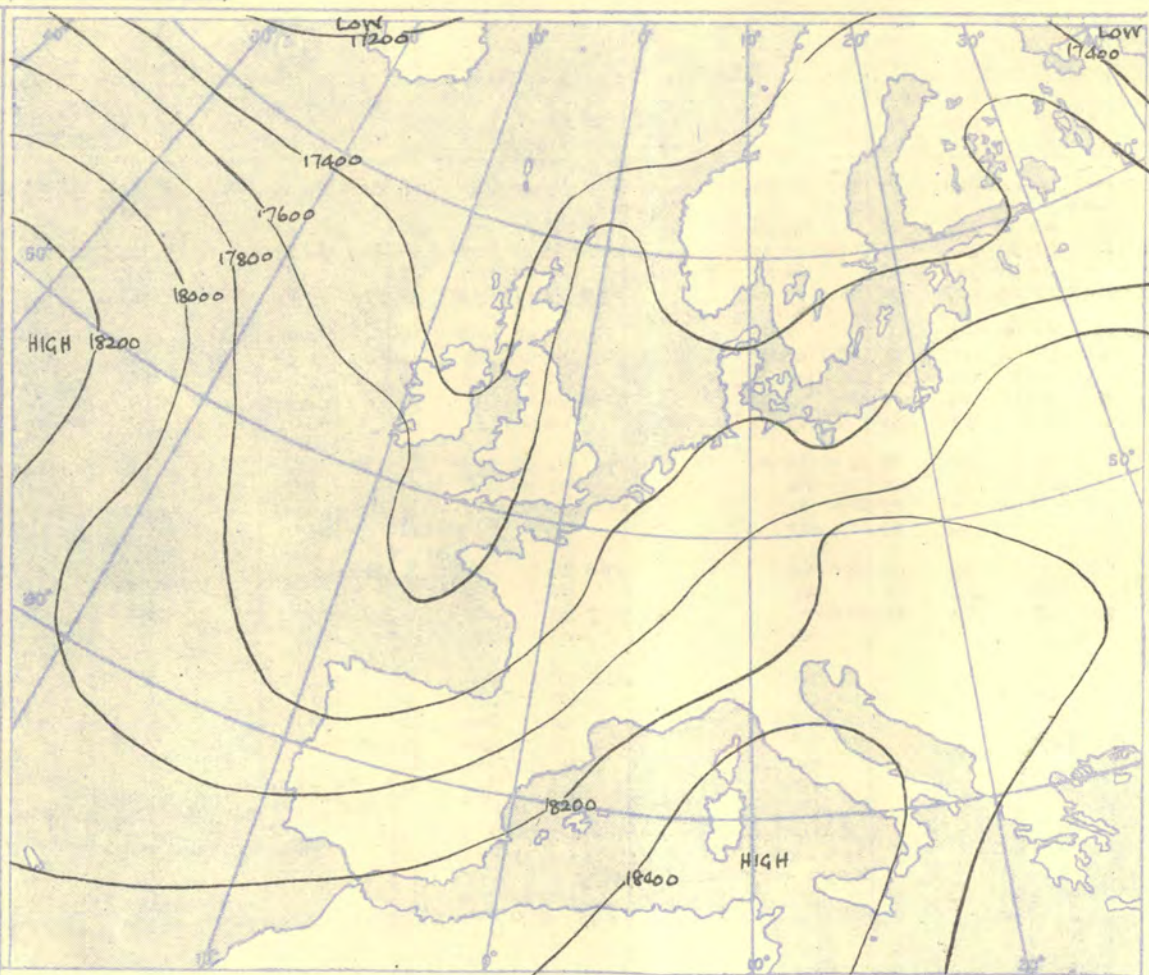
100 60 40 30 20 15 10 knots



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 Time M.S.L. Surf Freezing	43.2N. 17.0W.			39.5N. 12.2W.			mb	mb	mb	mb	mb	mb	mb	mb	Time M.S.L. Surf Freezing	Pressure			
	13h.	mb		15h.	mb												mb	mb	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.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Pressure mb
Surf		59	55		60	54													Surf
1000	7.5	55	52	7.8	57	53													1000
950		49	47		49	46													950
900		44	43		43	35													900
850		45	32		37	32													850
800		39	31		41	30													800
750		37	16		37	25													750
700	103	32	21	104	33	21													700
650		27	18		30														650
600		19			23														600
550		13			14														550
500	189	00		190	03														500
450																			450
400																			400
350																			350
300																			300
250																			250
200																			200
170																			170
Cloud. 6/8 Sc 930- 910mb. 5/8 Cs N.R. Inversion 900mb. 44°- 850mb. 49° Surf. wind- W. 23-28kts				Cloud. 6/8 Sc 910- 850mb. 5/8 Cs N.R. Inversion 850mb. 37°- 800mb. 41° Surf. wind- N.W. 11-16kts.															

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

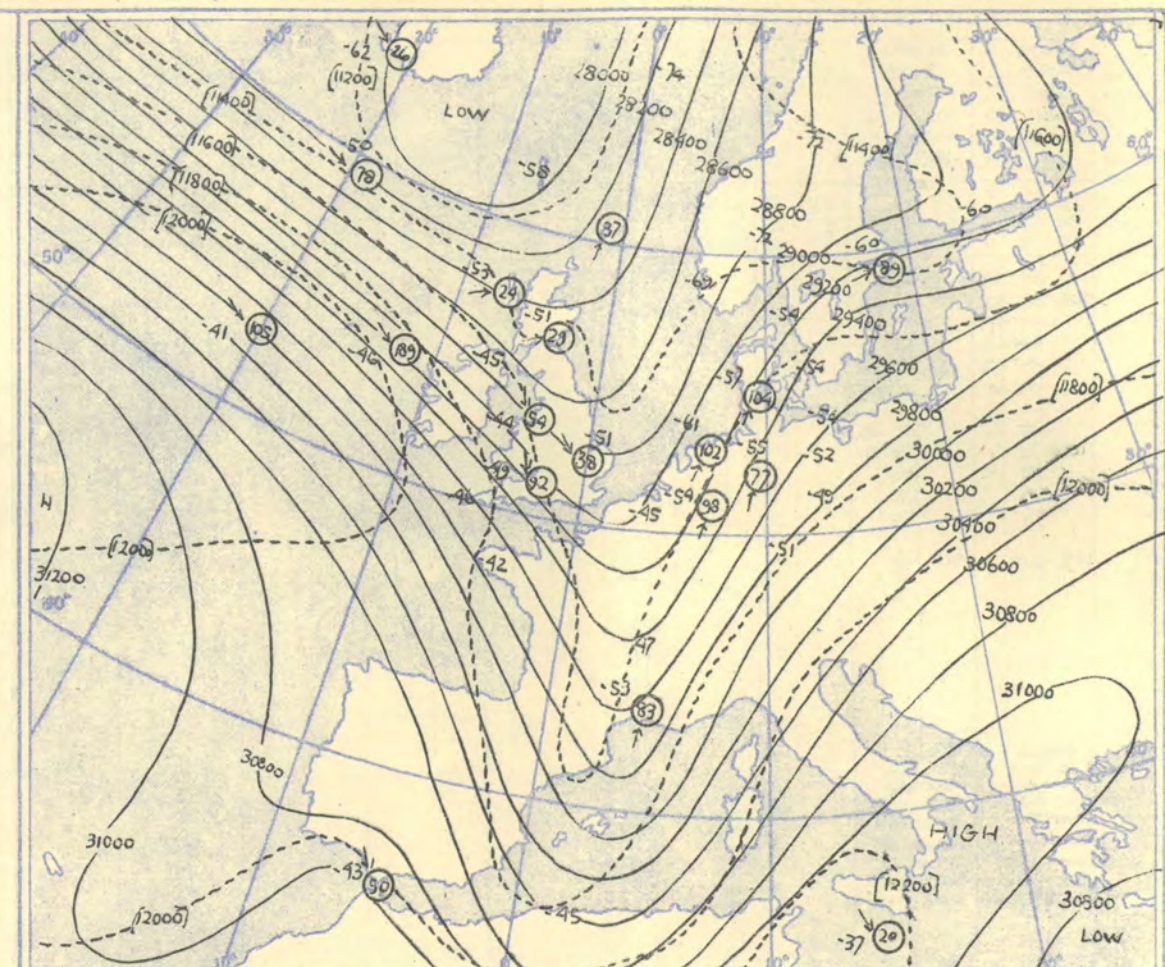
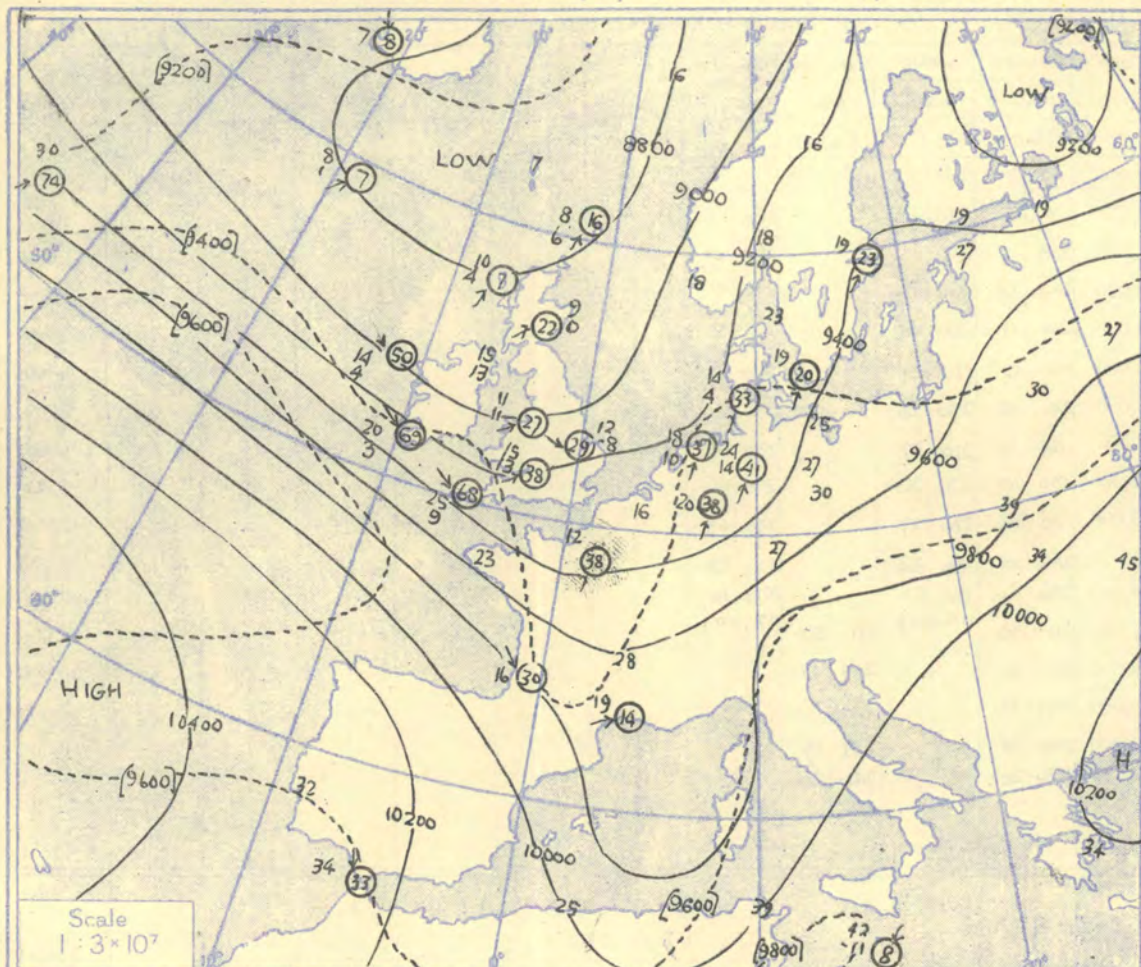
[illegible]

NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER OBSERVER				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Lat/Long	59-0N. 19-1W.				59-0N. 19-0W.				59-0N. 18-9W.				53-0N. 17-8W.				52-8N. 18-8W.				52-5N. 19-7W.				52-8N. 19-9W.				56-5N. 11-9W.				Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Pressure	Time	03h.	G.M.T.		09h.	G.M.T.		15h.	G.M.T.		03h.	G.M.T.		09h.	G.M.T.		15h.	G.M.T.		21h.	G.M.T.		15h.	G.M.T.		G.M.T.	Time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	M.S.L.	988	mb		984	mb		982	mb		997	mb		996	mb		993	mb		993	mb		987	mb		mb	M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Surf	988	mb		984	mb		982	mb		997	mb		996	mb		993	mb		993	mb		987	mb		mb	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Freezing	890	mb		880	mb		900	mb		790	mb		890	mb		725	mb		760	mb		870	mb		mb	Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Surf		45	40	240 07	43	39	190 02	Calm	45	40			48 48	280 24			52 49	270 23			53 53	265 25			49 48	290 26			49 41	276 35	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1000	-3-3				-4-2				-4-8				-8				-1-3				-1-8				-1-8				-3-6			1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
950		40	36	255 07	39	35	180 04		40	36	244 03		43 38	226 32			47 44	286 42			50 44	278 45			43 38	290 30			42 39	282 48	950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
900	24-9	33	28	250 09	23-9	34	29	182 04	23-4	32	29	243 06	27-6	39 31	263 44		27-3	41 38	277 47		26-9	43 36	278 48		26-6	36 30	293 34	24-7	35 34	286 44	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
850		27	21	244 13		29	24	184 05		28	24	242 06		35 26	282 59			37 34	267 57			40 34	278 49			29 26	295 41		29 28	290 39	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
800	55-4	21	14	242 14	54-7	25	20	203 07	54-1	21	16	232 08	58-8	23 23	287 61		58-6	33 26	267 61		58-4	36 28	276 58		57-6	36 14	290 54	55-4	23 22	290 44	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
750		18	03	237 12		19	14	218 07		15	10	227 08		29 15	286 65			31 18	272 75			34 26	277 76			31 22	273 80		19 15	290 62	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
700	89-0	05	01	233 10	88-8	13	08	239 07	87-9	08	01	230 07	93-7	24 14	288 66		93-6	26 19	273 97		93-6	30 23	277 75		92-7	28 20	271 87	89-5	14 14	290 50	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
650		01	06	233 13		06	04	263 09		00	04	244 16		17 00	293 71			20 16	282 97			24 17	279 76			22 14	270 70		08 11	289 60	650																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
600	127	09	13	231 20	127	02	20	269 09	126	13	17	250 24	133	11	09	306 84	133	13	09	288 82	133	19	12	280 82	132	15	08	273 88	128	00	20	295 65	600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
550		15	19	225 22		11	25	272 24		16	24	263 21		02	13	305 72		08	01	287 92		13	06	277 88		11	20	268 100		00	22	300 84	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
500	170	23	27	233 23	171	20		271 15	169	26	35	255 21	178	04	17	298 71	178	02	08	287 96	179	06	02	277 91	178	03	30	272 102	172	06	29	300 87	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
450		33	37	248 23		27		272 24		34	45	260 18		14	27	301 87		10	31	280 115		03	13	276 100		07	25	274 104		13	33	296 127	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
400	221	42		260 25	222	33		271 39	219	44		268 26	231	25	338	303 102	232	22		279 111	234	15	29	276 102	232	15	34	275 116	225	23	35	293 134	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
350		50		263 33		39		283 62		47		270 20		39	52	304 108	(375) 30					236	39	277 120		24	37	275 117		36	45	296 174	350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
300	283	54		267 54	287	45		282 72	283	50		274 78	295	51		308 123					300	41		278 105	298	39	50	283 130	290	46		298 189	300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
250		55		291 70		47		296 70		51		272 70		67		305 129						53		282 132		55		292 142		58		298 146	250																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
200	371	57		303 71	376	50		291 71	371	54		286 68	380	75		310 123					387	70		290 120	386	72		284 124	378	61		298 112	200																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
170	(192) 58					49		296 64		55		282 56	(187) 70									70				70			284 106		57		299 87	170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
150						52		297 57		57		288 51										74				73			282 97		57		300 62	150																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
130					(135) 52					54		289 57										73				74			280 88	(146) 57				130																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
110										56		300 39										77				78			279 69				110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
100									520	60		291 39						530				74				81			279 64				100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
90										64		278 37										70							279 60				90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
80										66		257 24										67											80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
70										69		272 20										64											70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
60									(065) 70																								60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Inversion 409 mb -44° -396 mb -40°																Isothermal 770-750 mb. 31°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</			

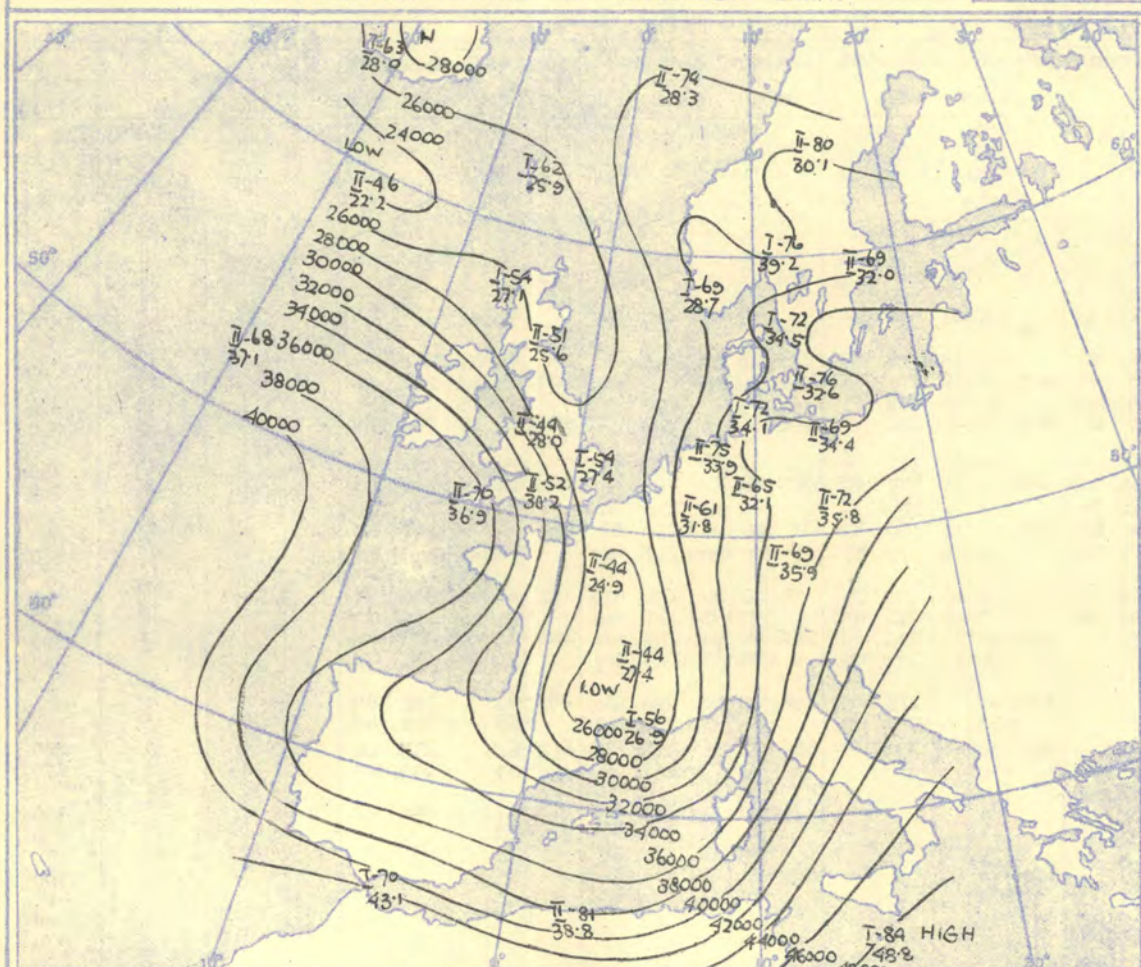


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° 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.

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



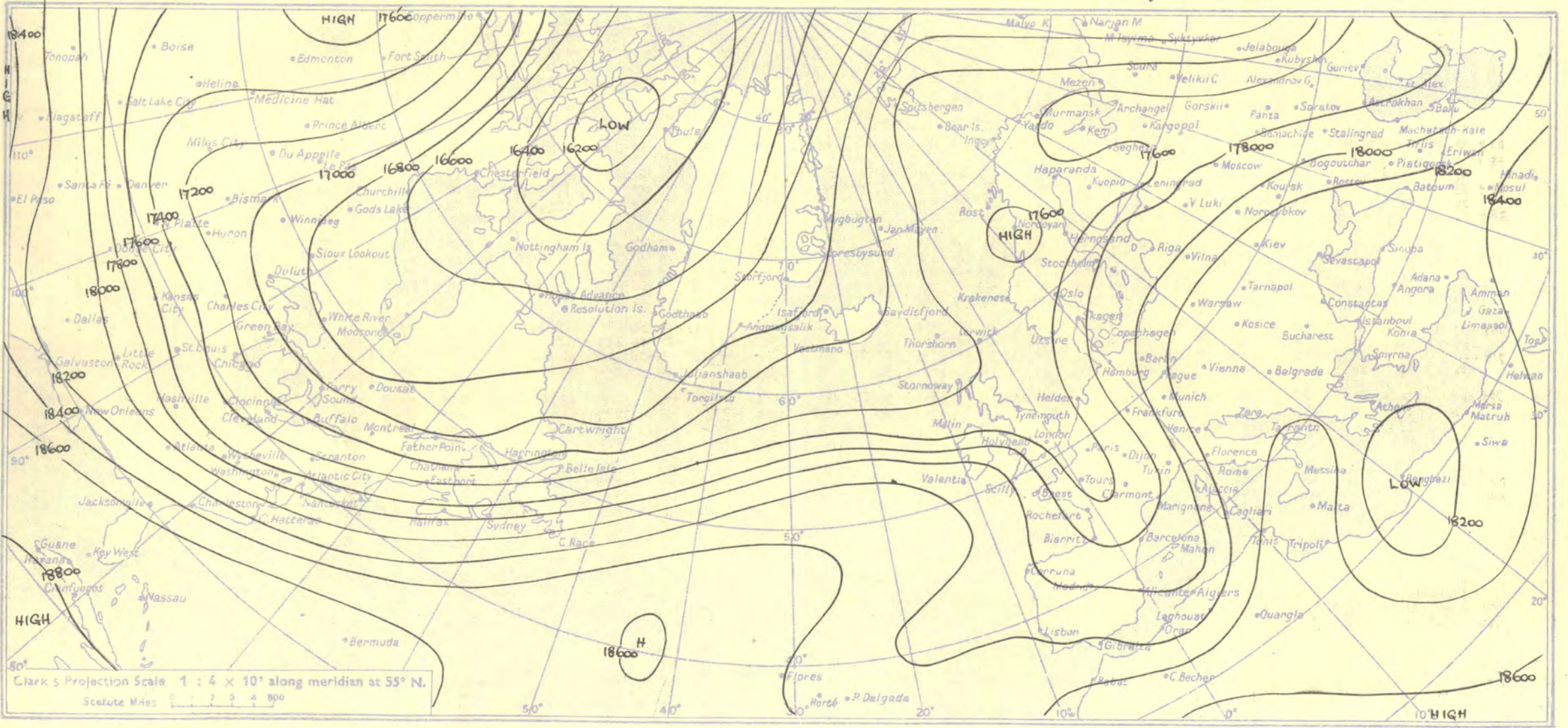
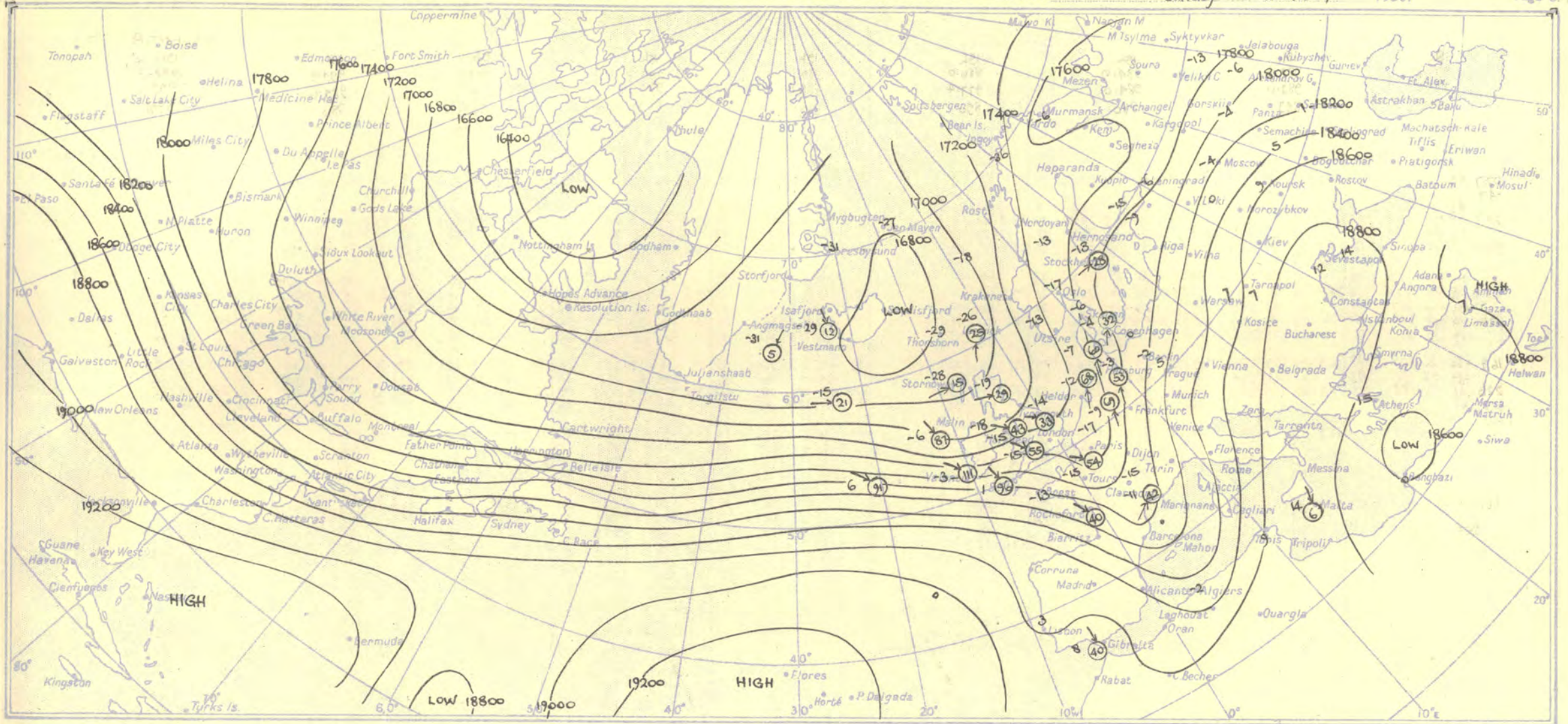
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The upper cold trough moved across the British Isles into the North Sea and France. Behind this trough the strong westerly thermal jet propagated itself steadily eastwards penetrating across the British Isles later.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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

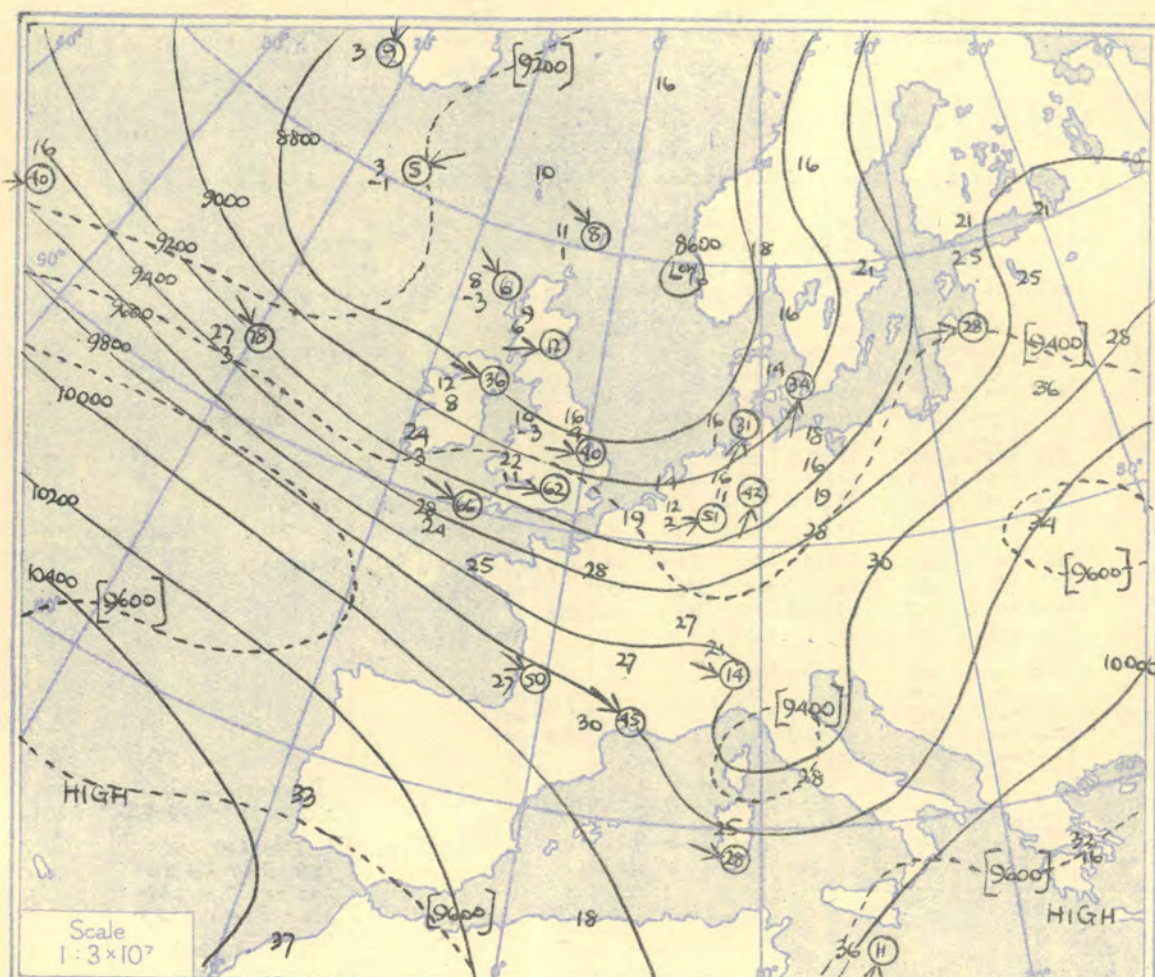


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION														
Pressure mb	Time M.S.L. Surf Freezing	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		15h	15h		G.M.T.		Time M.S.L. Surf Freezing																				
		993.0	mb	993.2	mb		982.9	mb	982.0	mb		984.9	mb	984.0	mb		977.4	mb	986.0	mb		987.1	mb	993.4	mb		987.1	mb	993.6	mb		994.9	mb	984.6	mb		972.7	mb	972	mb		828	mb																		
		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884		884	884	884	884																
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Pressure mb																					
Surf	02.7	49	43	250	04	00.5	42	38	240	02	00.2	44	39	225	09	02.3	40	39																						Surf																					
1000	-4.7					4.3					-4.1					-3.7																								1000																					
950		42	38	248	15	23.9	34	31	241	18	24.1	34	35	233	18	24.2	33	33																						950																					
900	23.5	34	33	248	13	23.9	34	31	241	20	24.1	34	35	246	20	24.2	33	33																						900																					
850		27	24	249	12	23.9	28	25	252	18	24.2	28	23	252	18	24.2	28	23																						850																					
800	54.3	22	15	237	13	54.6	23	21	231	20	54.9	23	16	252	20	55.1	25	24																						800																					
750		16	11	227	15		17	12	211	06		16	08	257	22		20	18																						750																					
700	88.1	08	06	221	16	88.4	10	04	232	07	89.0	09	00	258	22	89.3	15	13																						700																					
650		04	06	217	17		01	07	240	09		02	09	256	21		08	04																						650																					
600	126	05	18	217	18	126	08	18	227	08	127	06	17	256	24	128	00	04																						600																					
550	-17	29	211	18	-18	-31	226	11	-11	-23	263	26		263	26	-09	-13																							550																					
500	169	-26	-36	205	25	169	-28	-39	239	15	170	-19	-31	266	29	171	-18	-22																						500																					
450		-30	-48	190	43		-34	-43	264	18		-29	-42	262	34		-29	-33																						450																					
400	220	-43		185	58	220	-42		261	14	221	-41		253	33	223	-34	-43																						400																					
350	395	-44					-61		245	14		-50		242	26		-40	-52																						350																					
300							283	-53	268	24	284	-51		236	29	287	-45																							300																					
250							52		275	35		-51		268	28		-48																							250																					
200							371	-80	273	31	373	-53		268	29	376	-53																							200																					
170							521	-52	273	34		-56		262	33		-58																							170																					
150	for rest of winds see page 3.																																																			150									
130							-54		276	31		-56		262	34		-55																							130																					
110							-53		275	29		-55		262	30		-55																							110																					
100							-56		268	26		-57		262	30		-59																							100																					
90							-59		272	35		-59		262	30		-59																							90																					
80							-60		272	31		-61					-63																							80																					
70							-61										-64																							70																					
60																																									60																				
Isothermal		570 - 540 mb - 11°					Inversion					273 mb - 49° - 260 mb - 47°					Inversion					384 mb - 44° - 369 mb - 43°					Isothermal					580 - 550 mb - 04°					Inversion					880 - 850 mb 42°					Isothermal					850 - 837 mb 34°					768 - 750 mb 25°				
Tropopause		NR.					I 317 mb - 54°					I 341 mb - 51°					I 167 mb - 59°					I 310 mb - 49°					I 319 mb - 54°					I 327 mb - 46°					I 215 mb - 70°					NR.					Tropopause														
STATION		LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION														
Pressure mb	Time M.S.L. Surf Freezing	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		21h	21h		G.M.T.		Time M.S.L. Surf Freezing																				
		981.1	mb	981.1	mb		982.2	mb	982.3	mb		981.9	mb	981.0	mb		984.5	mb	985.9	mb		982.4	mb	980.4	mb		985.7	mb	981.3	mb		990.2	mb	994.5	mb		984.1	mb																							
		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892		892	892	892	892	892	892														
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Pressure mb																					
Surf	02.7	38	35	CALM	00.5	32	27	CALM	00.2	41	35	320	02	02.3	39	38	190	08	00.6	46	42	280	12	01.2	41	40	170	10	04.4	41	41	270	15	02.9	51	51	247	15		Surf																					
1000	-5.1					4.7				-4.9				-4.2					-4.8																						1000																				
950		41	32	Lv LSKH		38	33	Lv		38	37	266	09	38	37	238	21		43	39	287	24		41	40	238	24		44	39	277	33		48	48	276	36			950																					
900	22.9	33	26			23.2	32	27		23.2	34	31	271	09	23.9	35	34	252	30	23.5	38	32	288	30	24.4	37	35	264	27	25.7	40	33	287	50	27.2	45	44	283	33		900																				
850		26	19			27	23			28	26	269	12	30	29	271	31		32	38	288	35		31	28	278	29		34	29	286	52		41	40	273	48			850																					
800	53.5	20	13			53.8	21	15	307	03	54.0	24	16	275	12	54.7	24	22	285	22	54.5	26	23	291	36	55.3	27	24	275	28	56.8	27	23	282	56	58.8	37	36	275	54		800																			
750		15	04	240	10	15	05	296	03	18	10	263	14	19	15	280	30		19	17	286	35		22	17	268	27		22	09	283	59		31	29	280	55		750																						
700	87.3	08	-08	240	14	87.6	08	-02	291	04	88.0	11	07	267	14	88.7	11	05	278	35	88.6	13	00	283	38	89.6	15	11	259	25	91.1	18	06	287	66	93.8	26	28	283	54		700																			
650		00	-14	220	17		00	-08	260	06		03	00	274	18		05	-05	277	39		07	-10	284	40		08	-01	248	28		11	06	292	77		21	20	293	65		650																			
600	125	-08	-26	200	18	125	-08	-19	256	10	126	-06	-10	264	18	127	-04	-11	281	42	127	00	-21	287	39	128	01	-08	239	31	130	06	-02	293	84	133	14	09	299	75		600																			
550	-17	-34	200	17	-16	-30	262	12	-16	-19	265	24		-09	-27	285	51		-08	-35	294	44		-05	-22	263	36		04	-11	295	90		08	05	295	77		550																						
500	168	-27	-43	200	16	169	-26	-38	267	13	169	-28	-32	264	21	171	-16	-3																																											

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 M.S.L.	Surf	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	Time M.S.L.	Surf	Freezing																													
			977.3				979.3				979.9				981.2				979.6				984.8				988.3				991.3				989.7																																			
			967.4				977.4				978				972.6				981.6				980.5				972.5				980.9				988																																			
Freezing			88.4				900				830				885				868				850				850				740				825																																			
Pressure mb			Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Pressure mb																											
			Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.						Wind Dir.	Vel. knots	Pressure mb																											
			Dew °F.				Dew °F.				Dew °F.				Dew °F.				Dew °F.				Dew °F.				Dew °F.				Dew °F.				Dew °F.																																			
			Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.				Wind Dir.																																			
			Vel. knots				Vel. knots				Vel. knots				Vel. knots				Vel. knots				Vel. knots				Vel. knots				Vel. knots				Vel. knots																																			
Surf			02.7				00.5				00.2				02.3				00.6				01.2				01.2				02.9				00.3				00.3		Wind Dir.	Vel. knots	Pressure mb																											
1000			-06.1				05.5				05.7				05.1				-05.0				-04.1				-04.1				-04.1				-04.1																																			
950			39 34 320				37 33 305				36 34 268				40 36 280				43 37 31				39 35 274				36 32 287				32 33 278				30 33 274																																			
900			21.9 34 28 328				22.3 32 19 303				22.2 33 30 268				23.0 34 30 283				23.3 36 31				24.1 36 32 287				24.1 32 25 290				25.2 32 33 278				26.3 46 46 271																																			
850			27 23 323				27 24 359				27 23 267				29 25 284				30 25				32 25 290				32 29 274				40 42 274				42 42 274																																			
800			52.5 22 18 320				52.9 21 16 328				52.9 21 17 267				54.2 24 16				55.1 26 19 287				56.3 30 29 273				57.9 37 37 274				57.9 37 37 274				57.9 37 37 274																																			
750			16 09 315				15 07 306				15 12 266				18 14 284				17 03				21 09 283				28 27 273				33 32 276				33 32 276																																			
700			86.5 11 01 308				86.7 08 +03 303				86.7 09 06 265				88.0 12 08 285				88.1 10 +03				89.3 16 04 273				91.1 22 21 273				93.1 28 24 277				93.1 28 24 277																																			
650			06 -09 297				08 +14 299				01 +03 267				06 01 282				02 10				09 -11 273				14 12 279				24 19 282				24 19 282																																			
600			12.5 -02 -20 290				12.4 -07 -22 298				12.5 -03 -13 271				18 2.6 -01 -07 276				12.6 -05 -25				12.8 04 -23 277				13.0 06 03 286				13.3 15 09 288				13.3 15 09 288																																			
550			-12 -32 286				-16 -36 298				-16 -23 272				-06 -15 284				-11 -39				-04 -35 280				03 07 284				08 01 279				08 01 279																																			
500			16.8 -23 -40 270				16.8 -27 -47 298				16.8 -26 -32 268				17.0 -14 -26 286				17.0 -18 -49				17.2 -08 -43 282				17.5 -05 -14 283				17.8 00 -07 278				17.8 00 -07 278																																			
450			21.9 -29 -45 180				21.8 -37 -48 281				21.8 -43 -44 270				22.2 -34 -54 289				22.1 -39 -59				22.5 -30 -57 281				22.8 -27 -45 286				23.2 -22 -29 278				23.2 -22 -29 278																																			
400			-52 176				-54 268				-47 281				-42 288																																																							

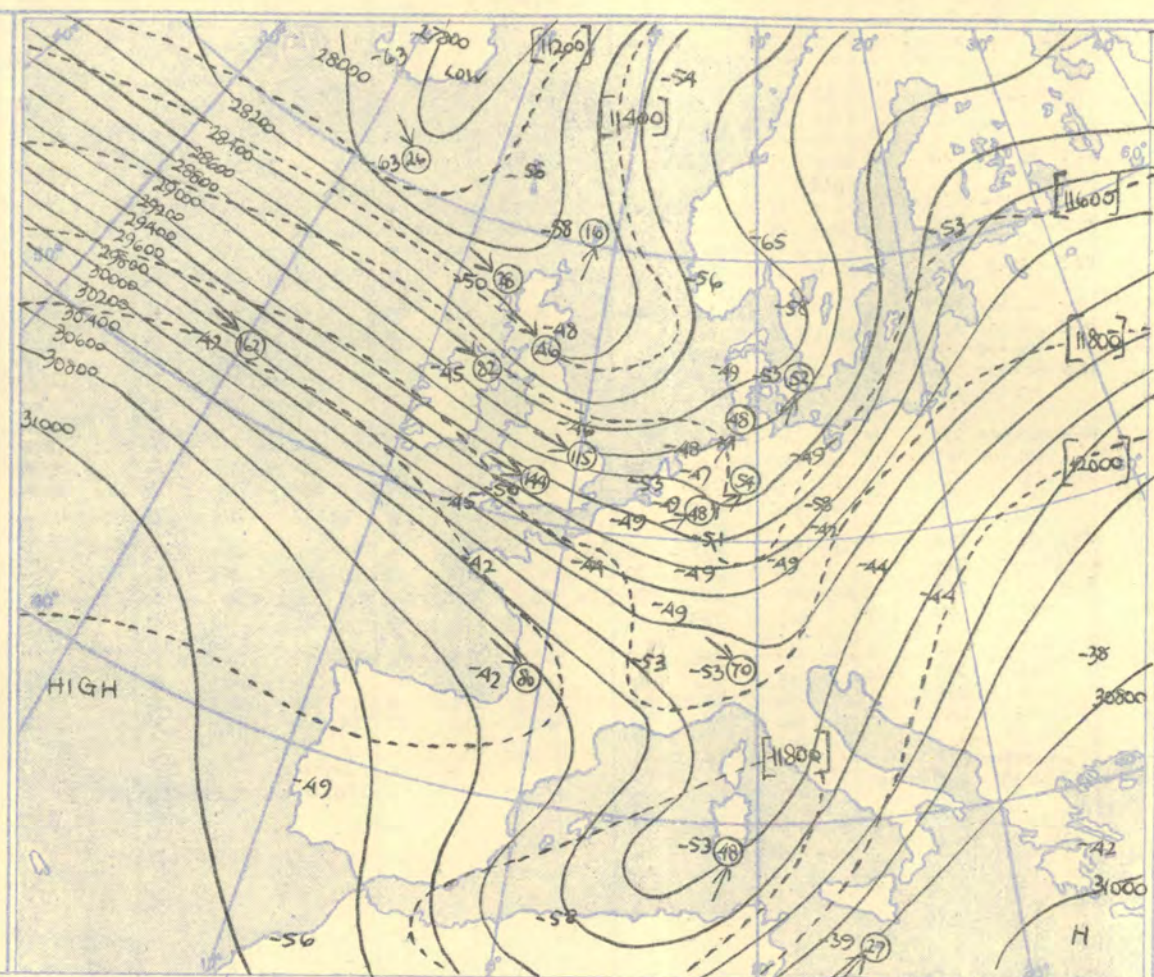
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



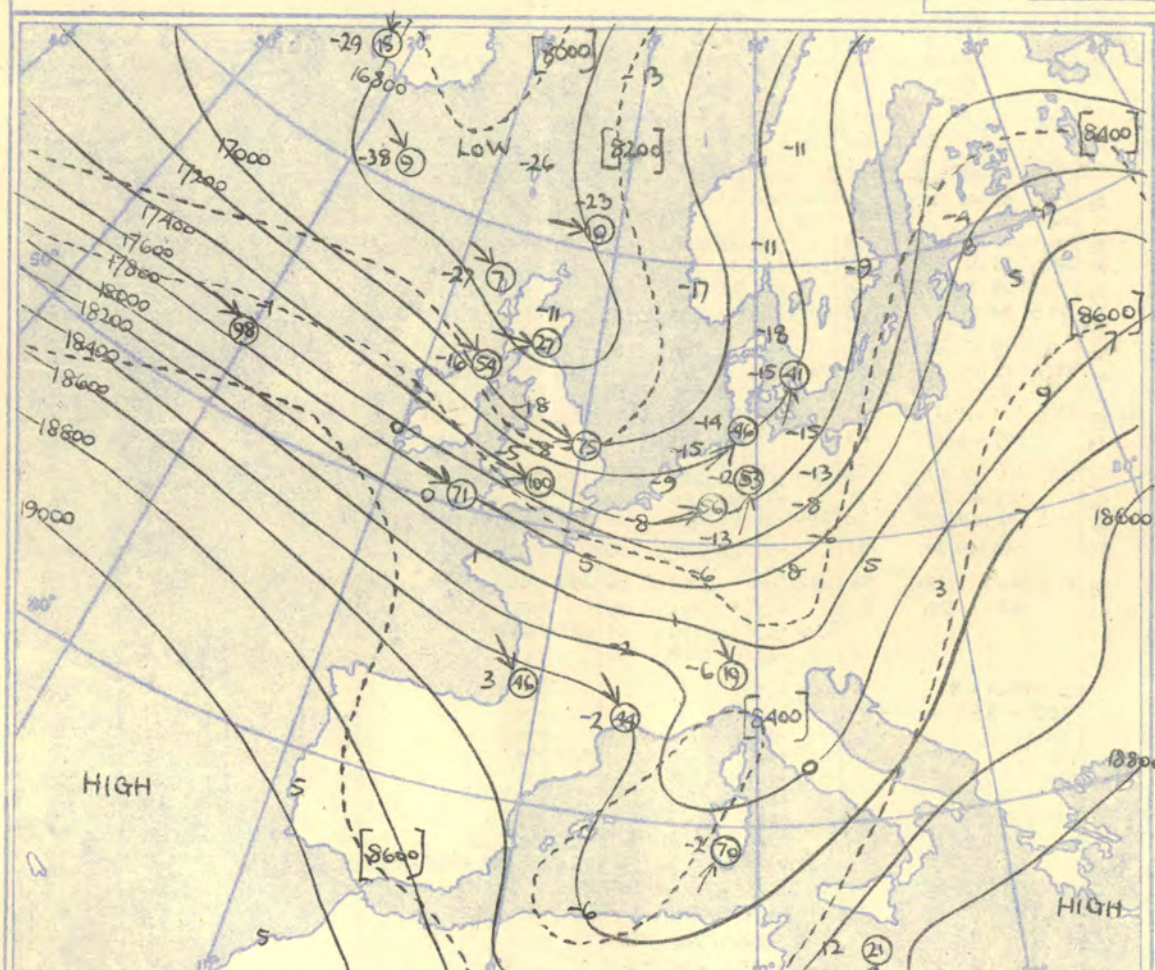
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient-Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

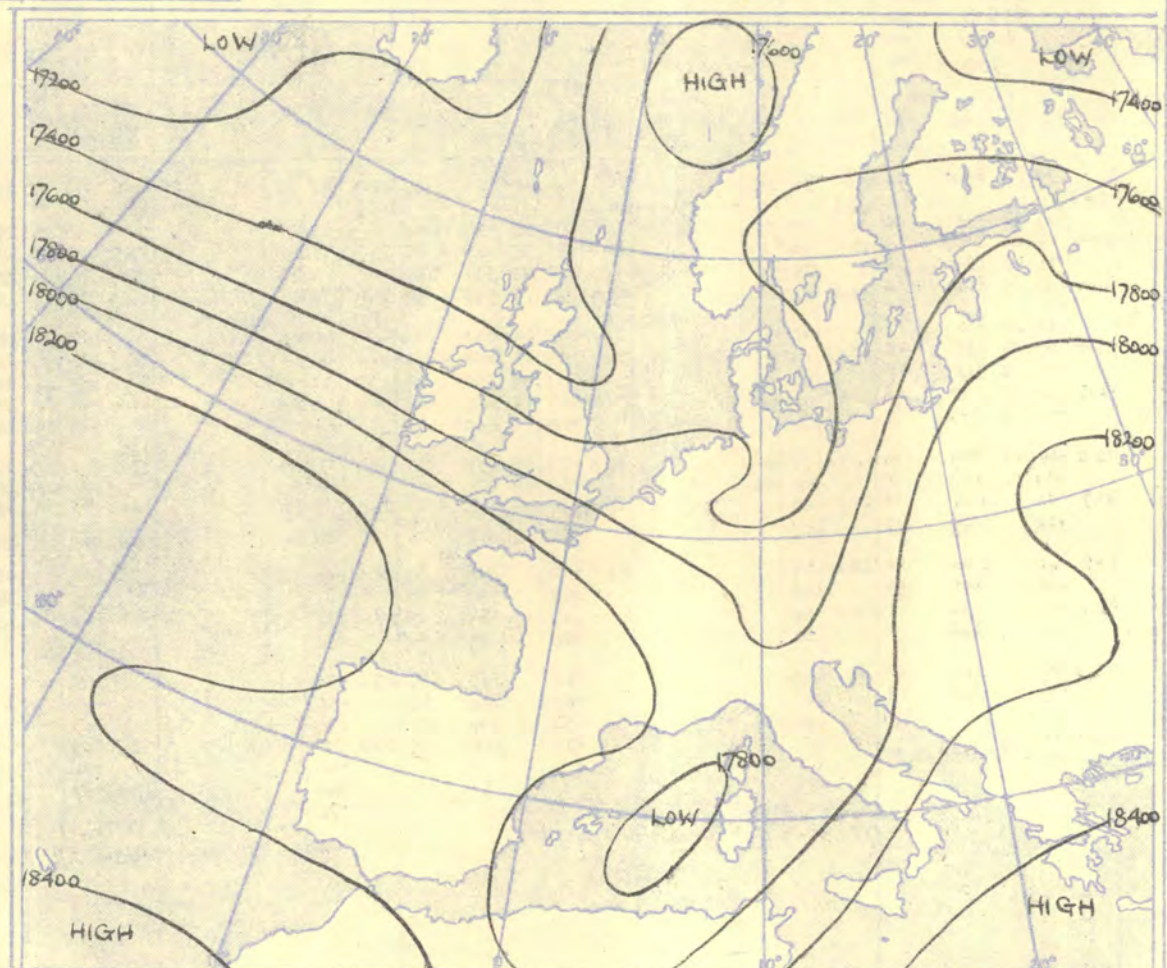
100 80 60 40 30 20 10 knots



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 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

Time M.S.L.	48°2'N 20°5'W	49°5'N 14°7'W	43°2'N 17°0'W	39°5'N 12°2'W	53°1'N 01°3'E	Time M.S.L.	Pressure mb
Surf	10158 mb	10078 mb	1020 mb	1023 mb	984 mb	Surf	Pressure mb
Freezing	680 mb	900 mb	650 mb	640 mb	870 mb	Freezing	Pressure mb
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Pressure mb
Surf	01.0	51	43	01.0	49	43	Surf
1000	4.2	42	40	2.1	41	41	1000
950	32.5	37	35	30.3	35	30	950
900	43	28	28	46	40	35	900
850	63.8	41	31	61.1	28	23	850
800							800
750							750
700	79.3	35	18	96.0	27	19	700
650							650
600	139	19	13	136	17	17	600
550							550
500	185	02		181	-03		500
450							450
400							400
350							350
300							300
250							250
200							200
170							170

cloud:-
5/8 Sc 920-
1/8 Sc 900mb
1/8 Ci NR.
Inversion
900mb 37°-
850 .. 43°

cloud:-
3/8 Sc 950-
1/8 Sc 940 mb
1/8 Sc 880-
800 mb
Inversion
800mb 28°-
750 .. 30°
Isothermal
850-800mb
28°

cloud:-
5/8 Sc 970-
1/8 Sc 940 mb
5/8 Sc 910-
890 mb
2/8 Ac about
700 mb
1/8 Ci NR.
Surface
wind W.
17-21 Kts
Inversion
900mb 49°-
850 .. 55°

cloud:-
2/8 Sc 920-
1/8 Sc 890 mb
2/8 Ci NR.
Surface
wind W.
17-21 Kts
Inversion
900mb 49°-
850 .. 55°

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

Place	Ronaldsway		Colinstown		Benbecula		Shoeburyness		Valentia		Lympne		Liverpool		Larkhill		Place
Time	0215h		03h		10h		11h		15h		15h		15h		2330h		Time
Type													PIRAR				Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	270	20	260	15	360	05	290	16	300	22	260	19	270	20	260	12	Surf.
1,000	270	30	290	32	360	12	280	28	290	28	270	24	272	37	260	27	1,000
2,000	280	27	290	37	350	14	290	30	280	32	280	32	270	38	270	28	2,000
3,000	280	32	290	38	350	20	290	38	290	30	290	27	267	41	270	30	3,000
4,000	280	31	300	34	340	17	290	39	290	31	290	50	267	44	270	34	4,000
5,000			290	35							290	52	269	44	270	31	5,000
6,000					340	17	280	41	280	39	280	55	272	45	270	31	6,000
8,000							280	43	280	37			276	45	270	36	8,000
10,000							280	50	280	46			278	41	270	40	10,000
14,000							270	65	280	88			272	44	280	42	14,000
18,000							270	89	290	93			282	52	270	65	18,000
24,000									(16,000')				293	77	(15,000')		24,000
30,000							280	115					284	91			30,000
40,000							280	80									40,000
50,000							260	45									50,000

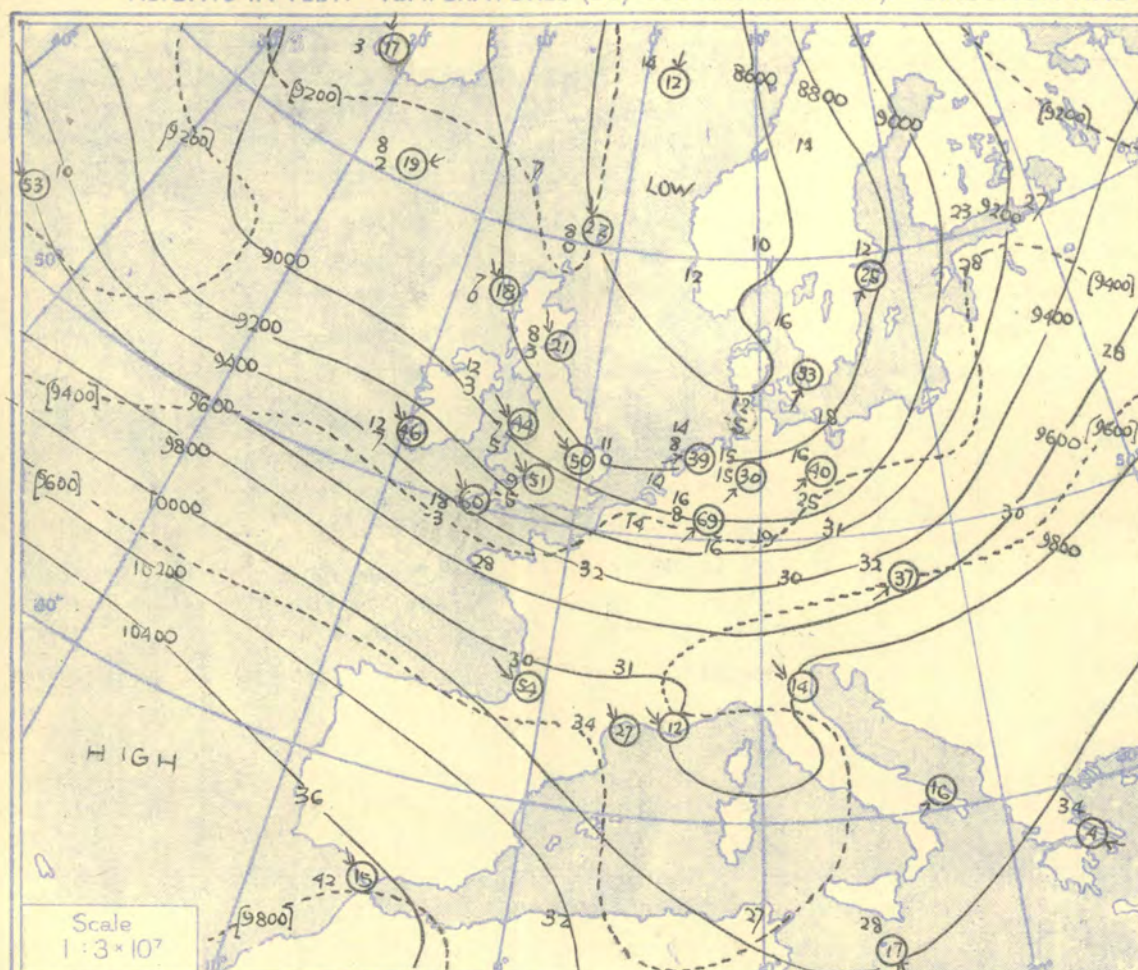
NEPHOSCOPE OBSERVATIONS

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 Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Ship		
Lat/Long	52°4'N 19°6'W.				52°5'N 19°5'W.				52°5'N 19°4'W.				52°4'N 19°7'W.				60°5'N 15°8'W.				60°6'N 15°7'W.				60°6'N 15°8'W.				60°5'N 15°9'W.				Lat/Long		
Pressure (Freezing)	Time	03h		G.M.T.	Time	09h		G.M.T.	Time	15h		G.M.T.	Time	21h		G.M.T.	Time	03h		G.M.T.	Time	09h		G.M.T.	Time	15h		G.M.T.	Time	21h		G.M.T.			
	M.S.L.	993		mb	M.S.L.	1000		mb	M.S.L.	1002		mb	M.S.L.	1004		mb	M.S.L.	981		mb	M.S.L.	983		mb	M.S.L.	985		mb	M.S.L.	987		mb			
	Surf	998		mb	Surf	1000		mb	Surf	1002		mb	Surf	1004		mb	Surf	981		mb	Surf	983		mb	Surf	985		mb	Surf	987		mb			
	Freezing	890		mb	Freezing	885		mb	Freezing	900		mb	Freezing	905		mb	Freezing	910		mb	Freezing	985		mb	Freezing	900		mb	Freezing	910		mb			
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb		
Surf		49	45	275 25		46	44	270 28		44	44	260 25		45	45	270 36		44	39	030 06		43	39	020 12		42	37	040 13		42	37	040 20		Surf	
1000	-7	43	33	293 42	1	46	40	281 35	6	44	43	287 36	9	44	44	283 49	-52	38	34	074 06	-45	40	37	054 11	-41	38	33	040 12	-37	37	31	035 15	1000		
950		34	25	292 33	28.3	34	281 35	28.7	32	31	282 34	29.0	31	28	283 49	22.9	30	26	048 08	23.6	34	31	056 14	23.9	32	25	049 12	24.3	31	25	035 12	950			
900	27.6	27	21	288 40	28	28	281 37	26	26	275 36	24	21	282 49	23	19	030 08	27.9	23	19	030 08	27.2	24	18	048 14	25	18	048 14	24	16	041 11	900				
850	58.3	19	16	287 40	59.0	22	282 36	59.3	20	19	274 39	59.5	18	15	283 57	53.4	17	13	042 08	54.3	20	16	039 10	54.8	20	13	024 09	54.8	18	09	035 10	850			
800		19	05	290 42		17	282 43	15	14	275 39		11	06	283 59	10	04	038 08		14	07	030 10		14	08	100 06		12	00	013 12		750				
750	82.5	27	03	290 78	93.0	17	280 54	93.2	15	03	279 52	93.0	04	15	284 59	86.8	03	01	052 05	88.1	06	01	032 09	88.2	08	02	087 05	88.4	04	07	337 10	700			
700		22	03	291 83		17	282 66	12	10	281 67		02	17	283 64		03	09	051 06		01	07	042 06		00	06	046 06		04	15	325 12	650				
650	132	16	16	291 94	132	13	286 81	132	08	22	280 77	131	07	27	284 70	124	11	17	312 03	126	09	19	024 07	126	10	19	005 05	126	13	24	322 16	600			
600		07	24	290 94		03	285 91	02	31	280 93		13	34	288 76		20	27	342 05		18	25	330 13		18	28	295 12		23	32	312 15	550				
550																																			
500	177	01	32	282 98	177	02	286 100	177	05	38	280 100	174	21	42	296 97	167	28	35	302 09	169	29	37	313 14	169	30	41	278 21	168	33	42	298 15	500			
450		10	40	261 112		40	274 110		14	48	280 108		20	42	289 130		41		282 11		40	48	292 14		42		244 15		44		297 15	450			
400	231	20	50	259 129	231	21	279 120	230	26	55	279 115	226	28	51	284 138	217	54		280 10	219	52		296 25	218	55		271 25	218	52		297 25	400			
350		26	56	280 135					36	59	278 133		33	58	283 143		60		308 28		56		302 33		58		275 33		61		308 29	350			
300	297	42		280 162					295	48		274 123	292	38	58	281 147	278	63		308 26	280	61		295 50	280	62		291 31	279	62		325 31	300		
250		58		280 134					58		279 147		51		277 166		60		302 35		53		293 33		57		298 38		62		311 31	250			
200	384	63		280 128					61		278 108	380	54		284 156	365	58			368	53		296 36	366	52		290 33	365	56		283 40	200			
170		66		280 90					60		273 106		59		284 98		58				54		302 40		53		284 39		58		284 31	170			
150		68		280 87					62		266 104		62		284 91	(197mb)					53		296 33		55		268 42		59		289 34	150			
130		74							62		259 90		62		284 81						54		296 33		56		286 40		60		288 32	130			
110		73							67		263 72		68								53		295 36		56				59		297 33	110			
100	528	77							70			529	70			527	69			518	55		275 25	(116mb)				54	57		292 33	100			
90		77							70				70				70				57		275 11					58		256 38	90				
80		69							68				71				71											60		267 32	80				
70									68				72				72											62		247 43	70				
60									65																			64					60		
Inversion. 775mb 15°-700mb 27°				Isothermal. 764° 650mb 17°				Inversion. 735mb 13°-691mb 16°				Inversion. 489mb 23°-456mb 19°																							
Max Wind. 258mb 280° 150kts.																																			
Tropopause 242mb -61° 34° 400'				Tropopause 16.6mb -67° 42° 200'				Tropopause 235mb -62° 34° 800'				Tropopause 257mb -52° 32° 500'				Tropopause 350mb -60° 24° 400'				Tropopause 385mb -55° 22° 400'				Tropopause 397mb -57° 22° 000'				Tropopause 385mb -64° 25° 500'				Tropopause			

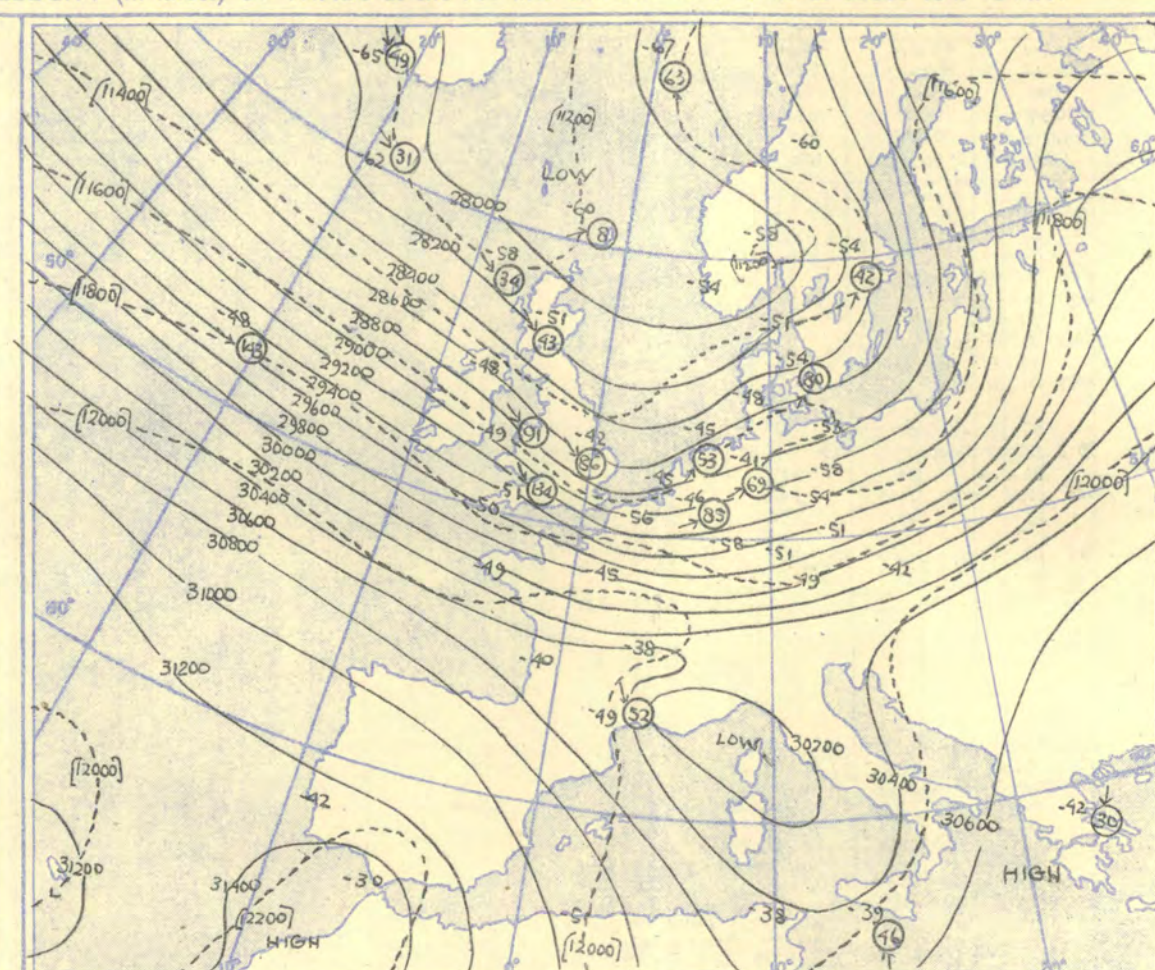
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



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

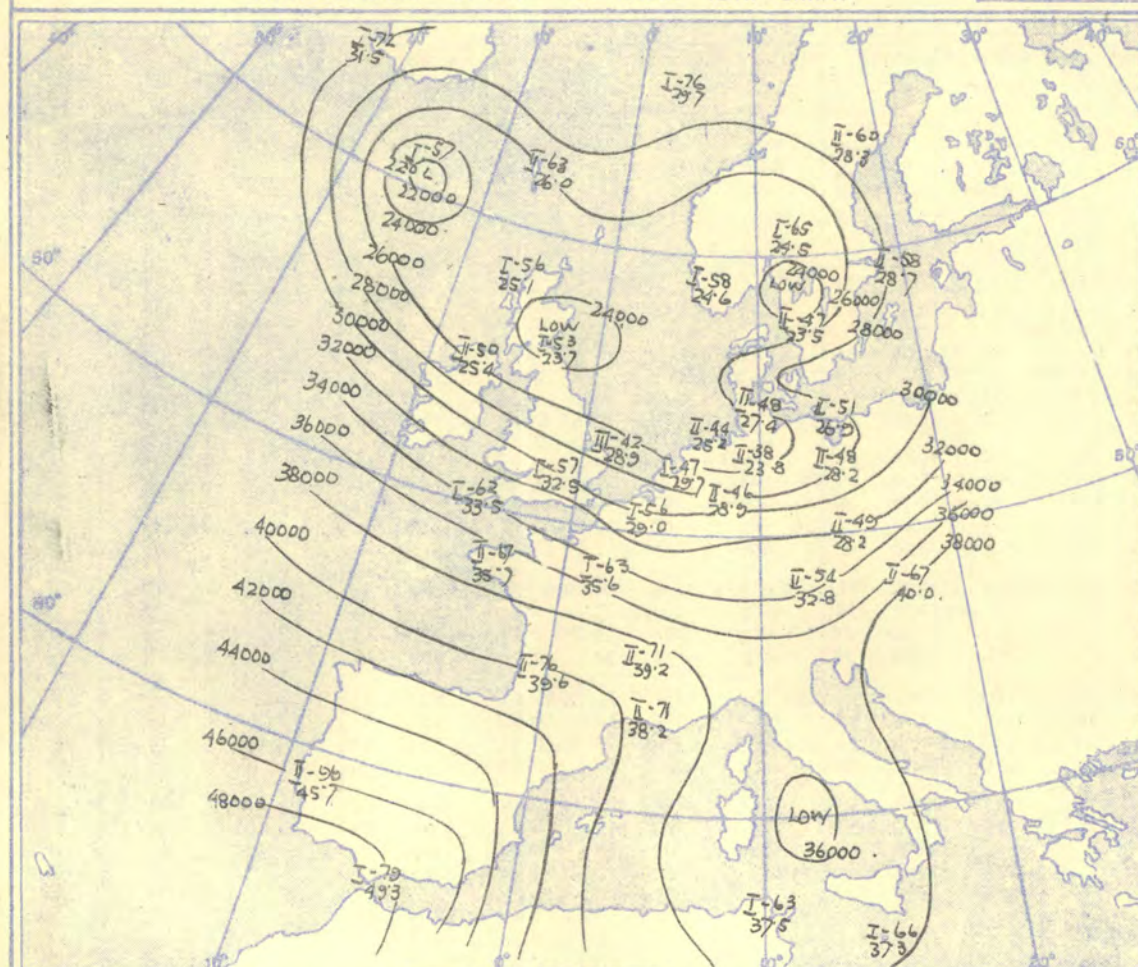
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 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.

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



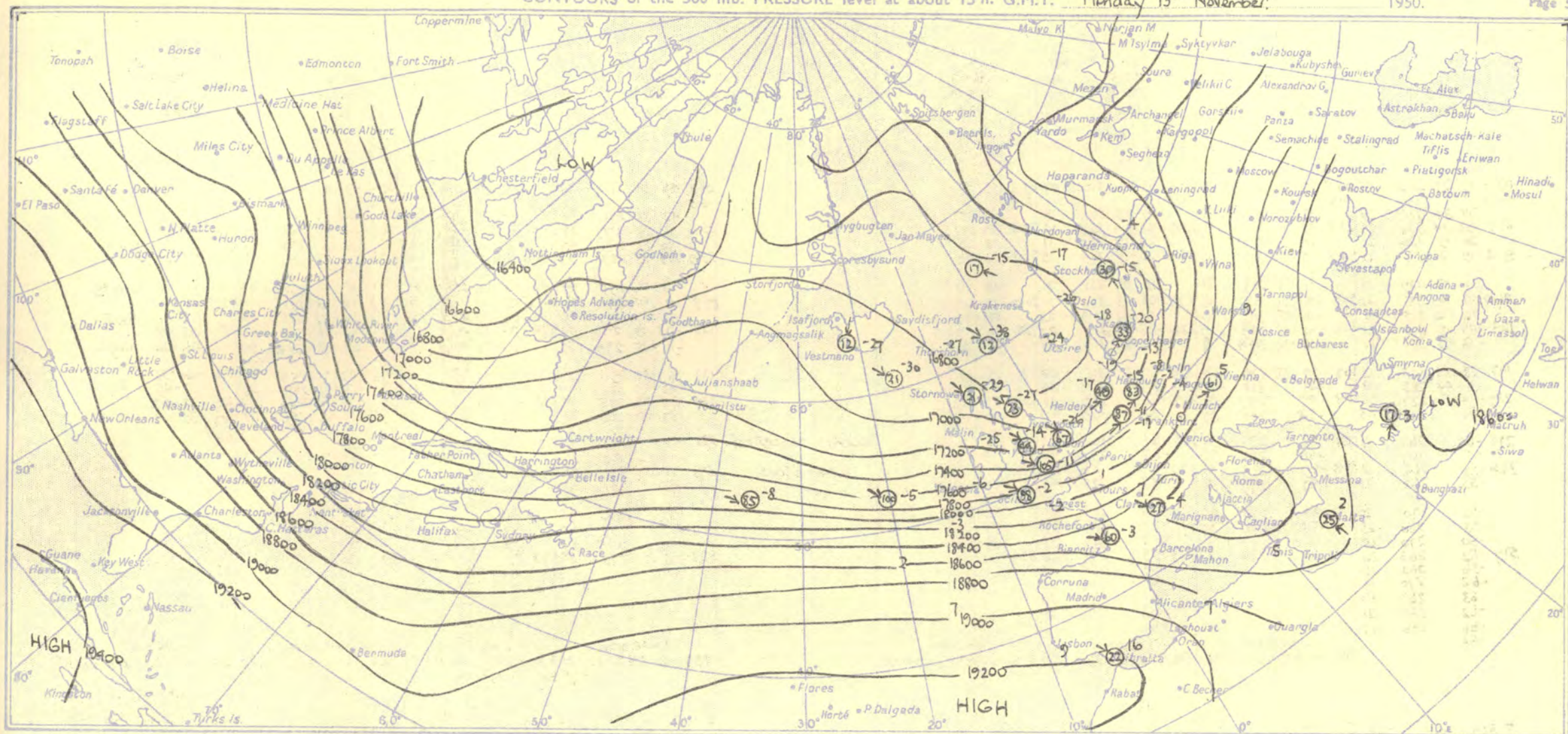
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

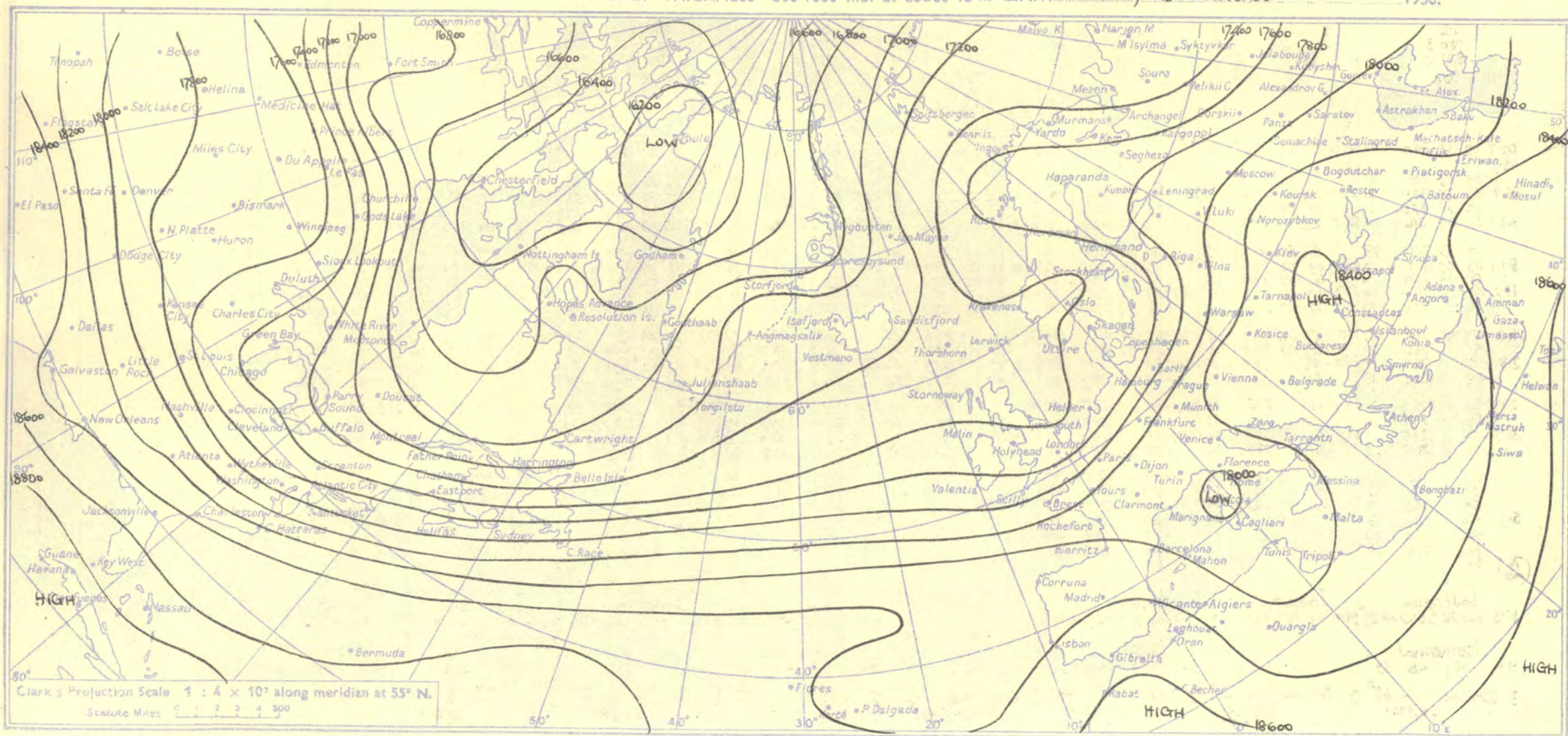
The very strong westerly thermal jet extending from America to Western Europe continued to extend eastwards across Europe. The cold trough ahead disappeared but a detached cold pool remained in the Mediterranean.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Monday 13th November.

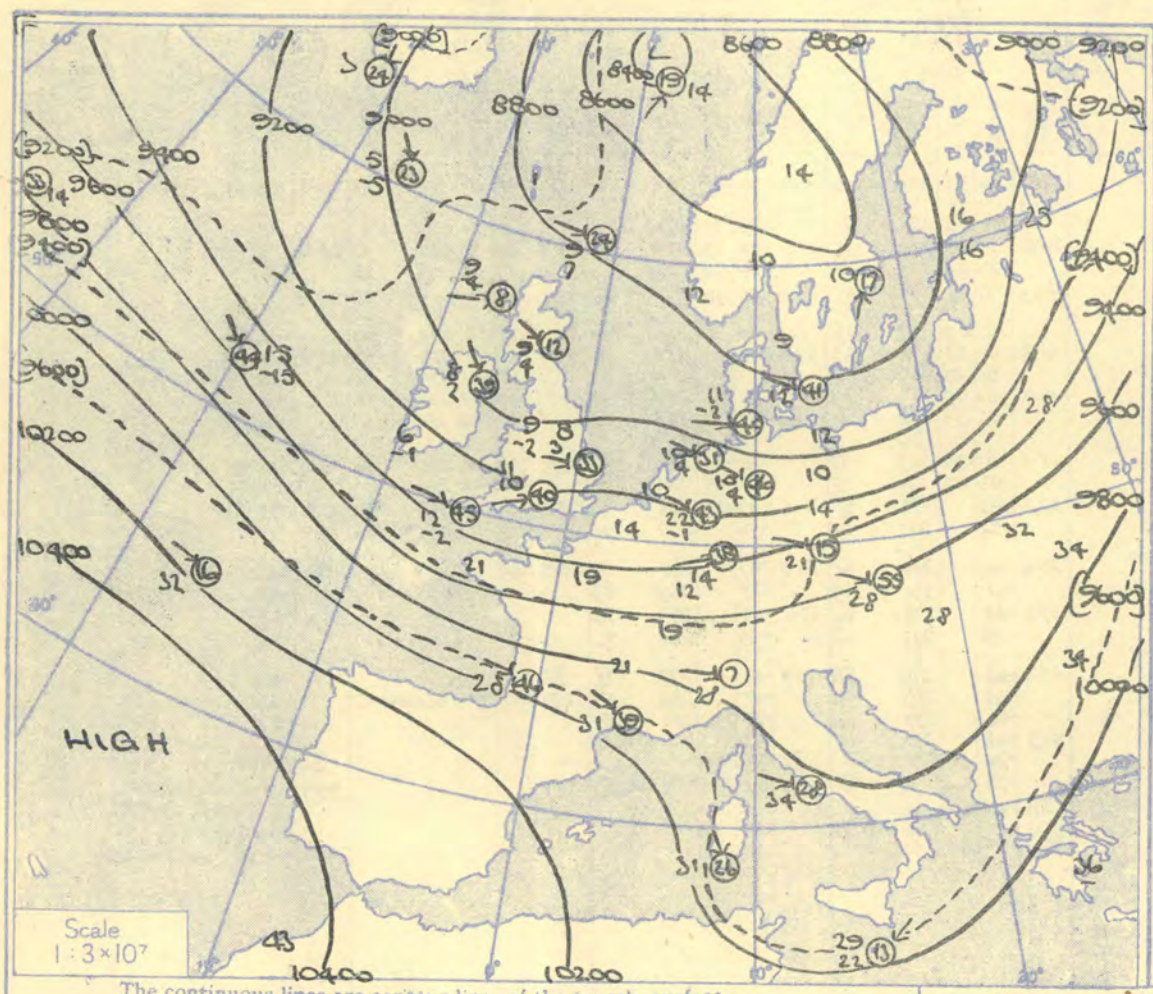


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

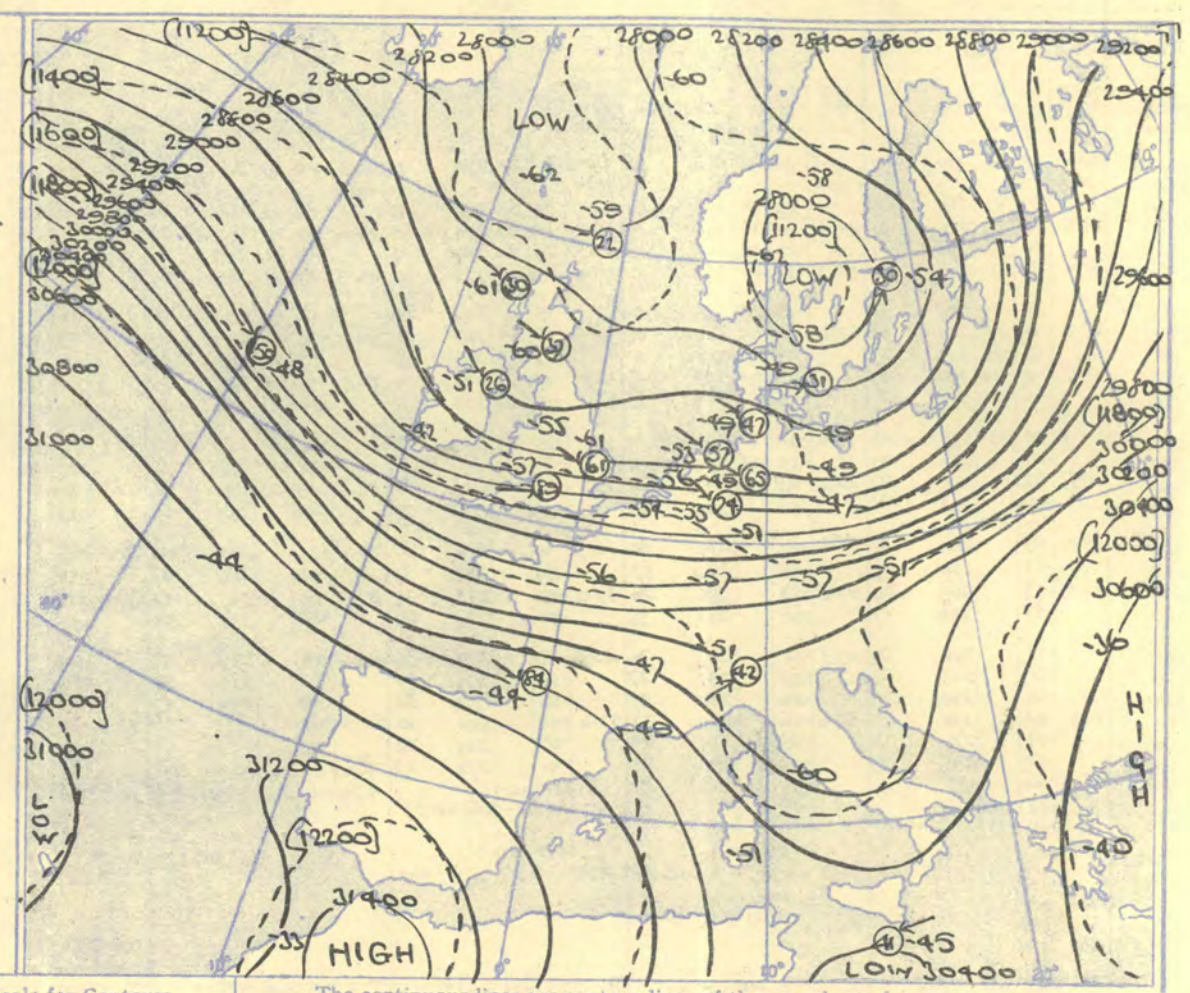
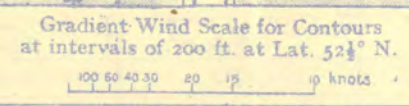
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure Time M.S.L. Surf Freezing	15h 977.1 967.3 895				15h 984.0 982.1 900				15h 982.5 982.0 890				15h 987.3 978.9 885				15h 987.3 978.9 885				15h 987.8 983.4 868				15h 990.8 975.0 879				15h 999.5 989.0 863				15h 998.9 998 880				Pressure Time M.S.L. Surf Freezing				
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb												
	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots												
Surf	02.7	39	37	350	15	00.5	39	36	260	08	00.2	43	34	310	07	02.3	43	38														Surf									
1000	-6.1				4.3					-4.8						3.4					01.2	46	36	255	20	04.4	47	34	270	25	02.9	49	38	280	25	00.3	46	43	1000		
950		38	34	328	28		39	34	310	15		39	30	301	18		40	35			-3.3	42	33	271	36	-2.5	44	35	275	39		44	33	285	40		950				
900	21.9	33	24	326	24	23.8	32	29	310	18	23.4	33	24	322	14	24.8	34	29			25.0	36	28	277	37	25.9	36	26	283	41	28.3	37	27	294	42	28.0	34	32	900		
850		26	19	320	22		24	21	314	19		27	19	333	11		28	23				30	23	285	45		27	20	289	45		30	21	296	44		850				
800	52.4	19	12	317	22	54.2	17	13	316	19	54.0	20	12	328	15	55.6	25	20			55.9	23	15	289	47	55.6	22	13	287	46	59.1	23	17	297	44	58.8	24	20	800		
750		13	07	329	23		11	06	318	21		13	07	321	21		18	10				16	06	291	49		16	06	284	50		18	10	296	54		750				
700	86.0	08	00	336	22	87.9	07	00	331	18	87.9	08	03	320	21	90.0	12	03			89.8	11	00	291	50	90.4	09	-05	285	51	93.2	18	-03	291	60	92.9	12	07	700		
650		00	-10	315	18		-01	-09	342	16		01	-02	319	22		-05	-06				04	-07	293	48		06	-15	287	55		18	-22	288	74		650				
600	124	-09	-18	308	21	126	-10	-16	349	19	126	-06	-13	319	22	128	-04	-17			128	-03	-15	296	51	129	-02	-18	289	70	132	12	-24	291	80	131	05	-18	600		
550		-18	-25	320	18		-19	-30	344	18		-16	-29	319	22		-15	-28				-11	-25	294	53		-04	-32	291	81		07	-31	286	90		03	-26	550		
500																																							500		
450	167	-28	-37	323	12	168	-29	-38	324	21	169	-27	-39	315	23	171	-25	-38			172	-18	-34	290	67	173	-11	-41	288	105	178	-02	-42	284	98	176	-06	-33	450		
400		-36	-49	288	08		-41		319	22		-39		319	24		-35	-47				-23	-43	286	77		-18	-49	287	124		-13	-43	284	108		-17	-45	400		
350	217	-44		227	08	218	-49		293	28	219	-50		317	31	222	-39	-52			224	-32	-55	285	84	225	-30	-58	284	132	231	-24	-49	282	113	229	-29	-54	350		
		-56		212	05		-55		298	37		-53		309	40		-49					-37	-60	286	81		-41		283	132		-38	-58	286	118		-32				
300	279	-60		260	08	281	-58		291	34	281	-51		300	43	285	-48				288	-42		283	86	289	-51		287	134	295	-50						300			
250		-58		267	13		-60		286	40		-52		293	45		-49					-46		280	86		-56		282	114									250		
200	366	-52		264	18	368	-49		289	41	370	-49		286	48	374	-51				378	-48		280	87	377	-58		282		382	-61							200		
170		-52		262	21		-52		279	40		-53		285	46		-52					-50		281	70		-60												170		
150		-52		270	20		-54		278	40		-55		284	47		-56					-52		283	65		-61												150		
130		-53		260	25		-55		278	30		-55		281	37		-57					-59		279	60		-69												130		
110		-50		270	25				274	22		-58		277	39		-58					-60		275	67		-70												110		
100	517	-52		263	26				274	22	519	-59		272	36	524	-62				528	-62		253	54	523	-71												100		
90		-56		262	26							-59		264	22		-63					-64																	90		
80		-62		270	19							-60		268	20																								80		
70		-63		267	16							-61		269	20																								70		
60		-66		296	17							-66		276	22																								60		
Inversion 982 mb 39° - 965 mb 42°				Inversion 987 mb 51° - 992 mb 50°				Inversion 985 mb 38° - 918 mb 36°				Inversion 459 mb 24° - 450 mb 23°				Inversion 671 mb 05° - 650 mb 06°				Inversion 706 mb 17° - 683 mb 22°				Inversion 672 mb 08° - 650 mb 11°				Isothermal 530 - 500 mb - 06°													
Tropopause I 327 mb - 62° 26,000'				Tropopause I 343 mb - 56° 25,000'				Tropopause I 370 mb - 53° 23,700'				Tropopause I 346 mb - 50° 25,400'				Tropopause I 300 mb - 42° 28,900'				Tropopause I 255 mb - 57° 32,500'				Tropopause I 250 mb - 62° 33,500'				NR.				Tropopause									
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure Time M.S.L. Surf Freezing	21h 980.8 971.0 900				21h 986.0 984.1 988				21h 987.6 986.0 890				21h 991.1 982.7 900				21h 991.2 989.2 880				21h 993.7 989.2 878				21h 999.3 982.2 872				21h 1002.7 992.0 867				21h G.M.T. mb mb mb				Pressure Time M.S.L. Surf Freezing				
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb												
	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots				Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots												
Surf	02.7	39	33	340	08	00.5	38	35	250	08	00.2	35	31	260	06	02.3	40	37	240	15	00.6	45	41	280	20	01.2	41	37	240	12	04.4	41	38	260	10	02.9	47	38	280	15	Surf
1000	-5.3				3.7					-3.4						3.3					-2.4					1.7						-0.4								1000	
950		39	33	325	27		39	33	294	11		36	31	283	20		36	33	278	22		42	36	278	28		39	35	282	33		41	35	279	30		45	37	281	31	950
900	22.8	32	27	325	21	24.3	34	30	281	10	24.5	33	28	311	19	25.6	32	29	287	25	26.0	35	31	283	31	26.4	35	31	295	34	27.7	36	31	286	36	29.1	36	29	287	33	900
850		27	21	320	24		28	24	270	11		29	22	329	18		26	22	284	25		28	25	281	31		29	25	297	37		29	26	288	37		30	22	287	36	850
800	53.3	21	09	316	24	55.0	22	17	254	07	55.2	23	15	327	16	56.3	21	18	286	27	56.7	22	19	286	32	57.2	23	19	299	36	58.5	22	20	285	40	60.00					

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.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	03h.		G.M.T.	mb	Time				
		M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf			M.S.L.	Surf				M.S.L.	Surf	M.S.L.	Surf
Freezing	Freezing	900				888				878				900				878				884				861				870				890				Freezing				
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure					
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb					
Surf	02.7	37	36	310	10	00.5	36	33	260	08	00.2	31	30	270	04	02.3	40	37	240	15	00.6	43	38	01.2	36	34	190	10	4.4	38	37	240	07	02.9	45	41	280	10	00.3	45	35	Surf
1000	04.4	39	37	313	18	03.4	39	33	291	13	03.1	38	37	280	12	02.3	36	33	278	22	01.2	40	35	01.2	38	36	260	31	39	37	261	24	02.9	42	37	275	43	00.3	41	29	1000	
950	23.6	32	30	313	21	24.6	34	30	270	13	25.0	34	32	284	13	25.6	32	29	287	25	26.0	35	30	26.8	34	31	274	33	27.5	36	33	264	25	28.3	36	31	280	42	28.2	33	23	950
900	26.6	26	25	296	21	28.2	28	24	261	13	29.6	29	26	280	12	29.6	26	22	264	25	29.8	28	23	28.2	28	24	274	32	27.5	31	28	271	20	29.2	29	24	278	46	29.2	26	18	900
850	54.1	21	19	285	20	55.2	22	19	254	11	05.6	22	18	278	11	06.3	21	18	286	27	06.7	21	16	57.5	21	17	269	32	58.4	25	16	271	33	59.1	24	17	273	48	58.8	19	12	850
800	15	11	11	280	21	15.9	15	09	251	09	15.1	15	11	282	09	15.1	17	13	286	30	16.1	16	10	15.9	15	09	267	33	18	11	265	38	18.08	18	08	273	47	18.08	12	07	800	
750	09.7	09	07	275	24	09.1	09	04	261	08	08.9	09	04	288	12	09.2	10	08	283	29	09.6	09	02	09.3	09	03	271	33	09.4	11	10	257	40	09.1	12	02	276	45	09.1	06	01	750
700	01	01	02	273	27	01.0	03	06	278	07	02	02	07	278	15	03	02	285	32	01	01	10	01.3	01	03	267	32	01.4	04	03	260	45	01.0	10	06	274	43	01.0	01	11	700	
650	12.6	07	10	271	29	12.7	05	14	279	13	12.7	07	20	302	16	12.8	06	12	286	32	12.9	06	15	02.9	08	13	266	30	13.1	01	11	265	47	13.2	05	07	270	45	13.0	10	19	650
600	16	16	20	270	36	16.1	15	22	268	13	16.1	15	27	308	18	16.1	16	23	282	31	16.1	16	23	17.2	12	25	273	36	17.2	09	22	265	52	17.2	08	25	288	63	17.2	21	31	600
550	14.9	27	33	272	42	14.9	24	32	262	14	19.1	25	37	303	27	17.2	26	34	285	35	17.2	22	36	17.3	21	36	273	47	17.4	18	35	260	60	17.6	08	21	266	78	17.3	31	41	550
500	21.9	27	37	277	39	21.9	24	37	254	16	22.1	24	49	293	30	22.3	26	41	288	51	22.3	26	41	22.3	26	41	270	52	22.3	26	41	262	65	22.3	19	41	266	106	22.3	33	46	500
450	21.9	27	37	277	39	21.9	24	37	254	16	22.1	24	49	293	30	22.3	26	41	288	51	22.3	26	41	22.3	26	41	270	52	22.3	26	41	262	65	22.3	19	41	266	106	22.3	33	46	450
400	21.9	27	37	277	39	21.9	24	37	254	16	22.1	24	49	293	30	22.3	26	41	288	51	22.3	26	41	22.3	26	41	270	52	22.3	26	41	262	65	22.3	19	41	266	106	22.3	33	46	400
350	21.9	27	37	277	39	21.9	24	37	254	16	22.1	24	49	293	30	22.3	26	41	288	51	22.3	26	41	22.3	26	41	270	52	22.3	26	41	262	65	22.3	19	41	266	106	22.3	33	46	350
300	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	300
250	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	250
200	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	200
170	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	170
150	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	150
130	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	130
110	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	110
100	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9	27	37	268	89	28.5	27	37	268	125	28.8	27	37	100
90	28.0	27	37	270	22	28.3	27	37	279	30	28.3	27	37	276	37	28.6	27	37	280	66	28.5	27	37	28.6	27	37	276	61	28.9													

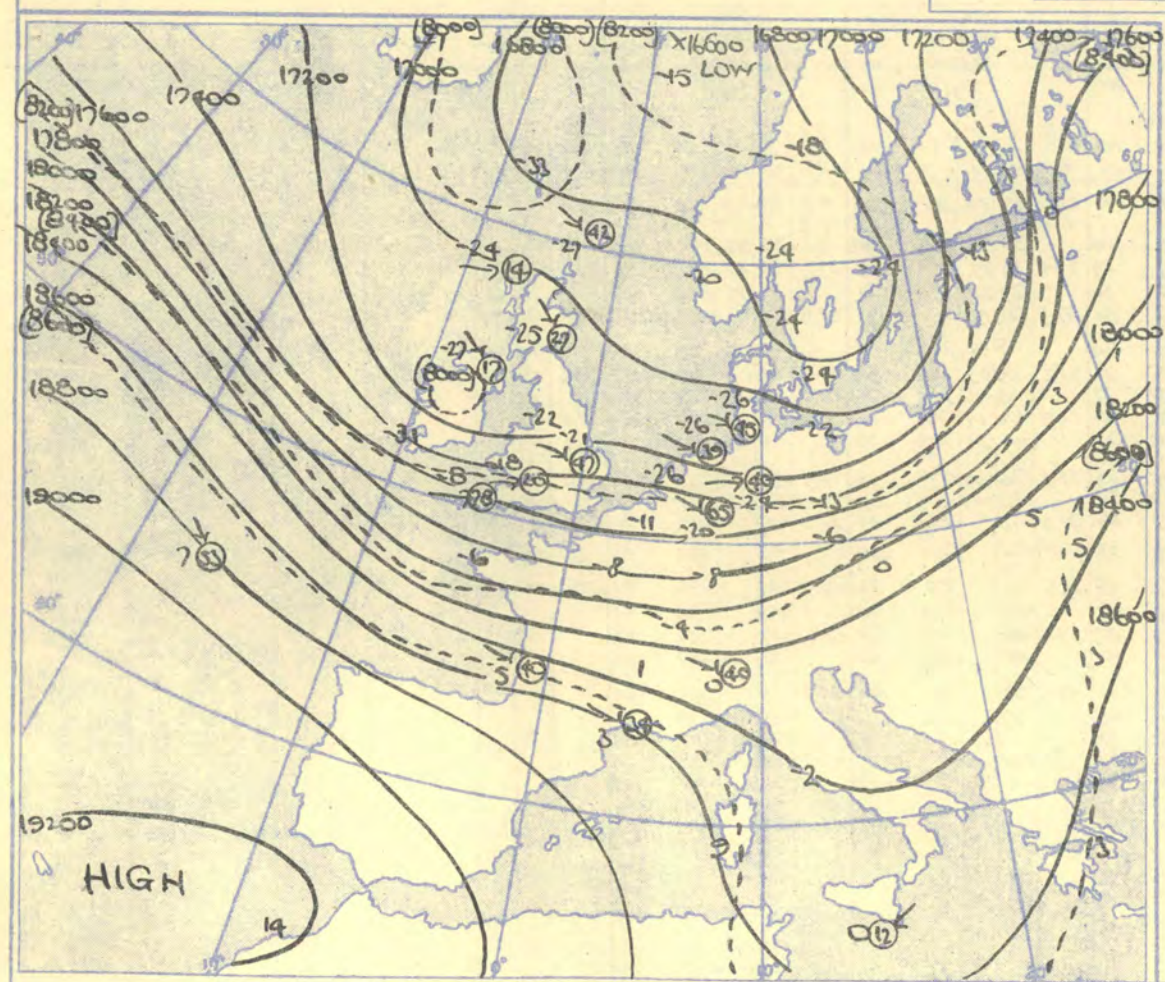
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



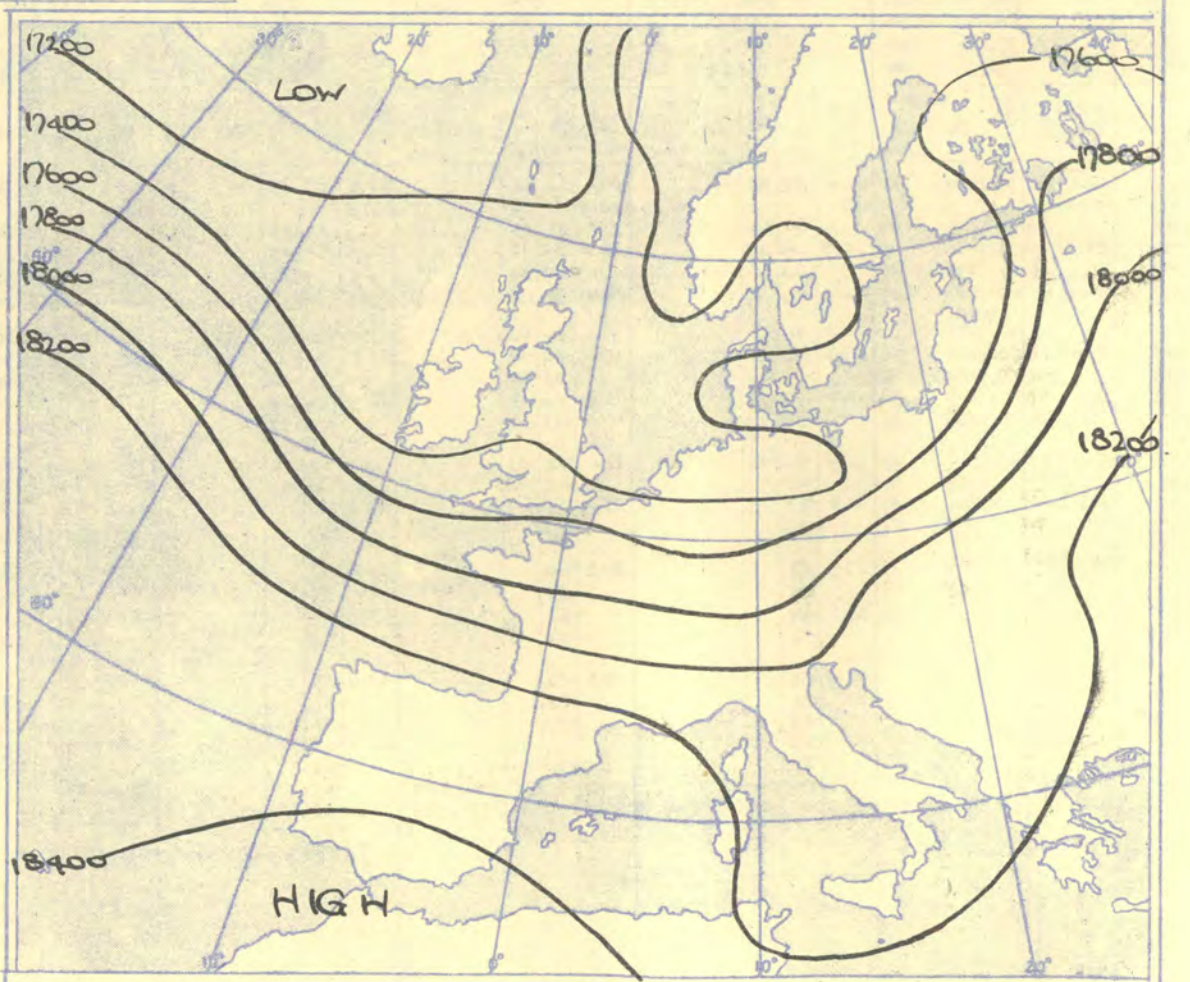
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



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



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

[illegible]

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

Place	Camborne		Larkhill		Uxbridge		Shoeburyness		Larkhill		Weather Recorder		Larkhill		Place		
Time	09h.		1130h.		10h.		11h.		1730h.		6054.15 8 ^h . 21h.		2330h.		2 NOV 1950		
Type	Pilar														Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	293	15	290	17	280	12	300	20	290	15	310	18	230	27			Surf.
1,000	284	39	300	26	300	27	300	25	300	29	290	24	290	32			1,000
2,000	292	38	300	27	300	34	310	25	300	34	290	27	290	36			2,000
3,000	303	38	300	29	320	27	310	24	310	43	290	25	290	36			3,000
4,000	305	39	300	34	310	22	310	24	310	48	290	24	290	37			4,000
5,000	306	42	310	37	310	38	300	23	310	50	290	24	290	29			5,000
6,000	309	48	310	38	310	26	300	24	310	50	290	24	290	40			6,000
8,000	311	52	300	37	310	24	300	30	310	47	290	21	300	38			8,000
10,000	308	52	300	36	310	24	300	27	310	43	290	23	300	39			10,000
14,000	307	60	310	42			300	25			290	26	300	51			14,000
18,000	306	66	(42,000')				280	30			290	28	300	53			18,000
24,000	304	95					290	37			280	42	(15,000')				24,000
30,000	303	109					300	45			260	51					30,000
40,000	304	98					290	60			280	39					40,000
50,000	(35,000')										280	48					50,000
											270	32	(60,000')				
											270	36					
											(64,000')						

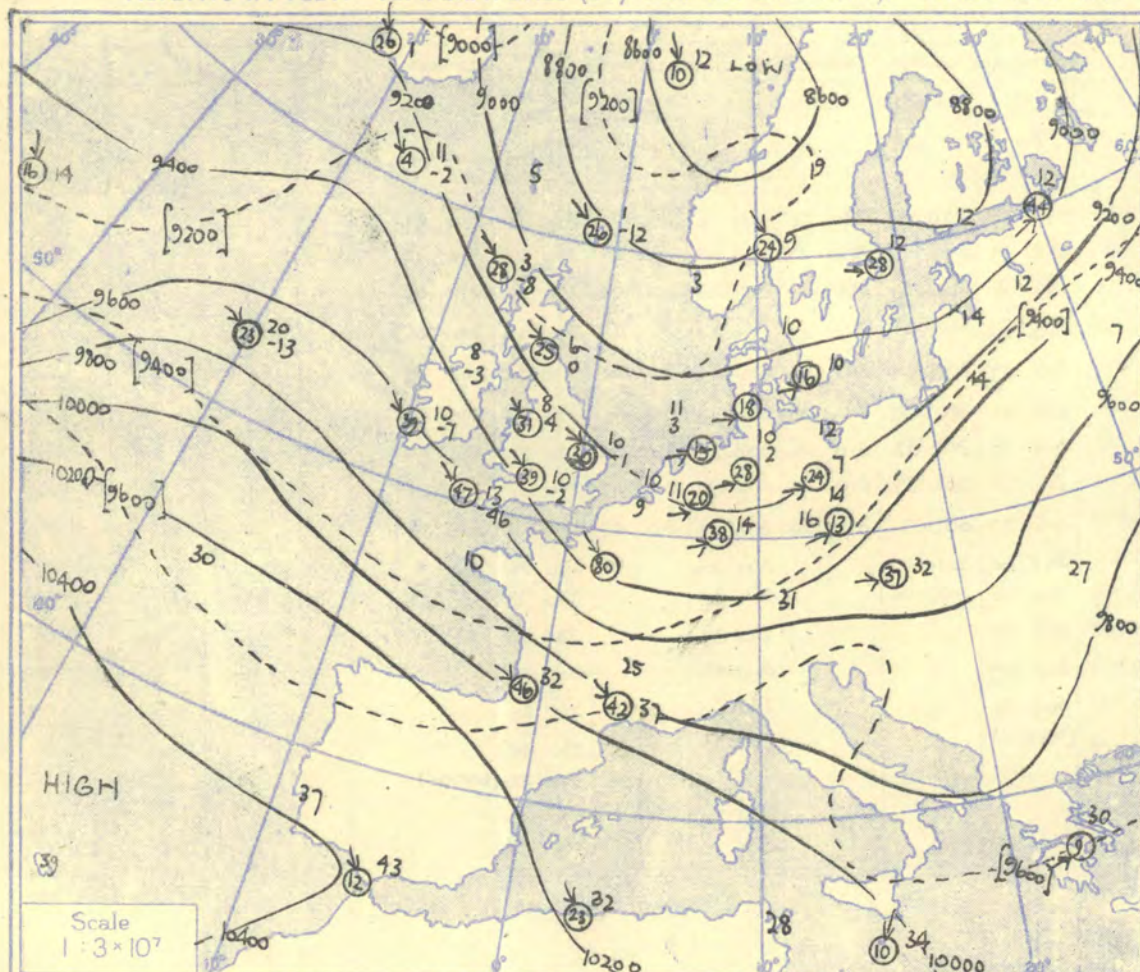
NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				Ship							
Lat/Long	60°S. 16°W.				60°S. 15°W.				60°S. 15°W.				60°S. 15°W.				52°N. 20°W.				52°N. 20°W.				52°N. 20°W.				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.	03h.	G.M.T.		09h.	G.M.T.		21h.	G.M.T.	Time				
Surf	M.S.L.	992	mb		996	mb		1000	mb		1004	mb	1009	mb		1014	mb		1016	mb		1015	mb	1016	mb		1014	mb		1015	mb	M.S.L.				
Freezing	Surf	992	mb		996	mb		1000	mb		1004	mb	1009	mb		1014	mb		1016	mb		1015	mb	1016	mb		1014	mb		1015	mb	Surf				
Freezing	Freezing	910	mb		940	mb		890	mb		930	mb	900	mb		910	mb		905	mb		900	mb	905	mb		910	mb		900	mb	Freezing				
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure			
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb			
Surf	42	33	340	17	41	31	305	20	41	31	280	18	41	30	310	18	47	45	275	35	47	47	260	06	47	47	260	12	47	34	190	08	Surf			
1000	-2.0	36	29	323	19	34	27	306	18	39	33	314	18	34	26	308	32	20	286	40	39	34	287	27	38	26	219	22	39	28	228	06	1000			
950	26.9	30	26	322	19	28.0	25	316	21	28.0	25	316	22	28.9	27	22	30.8	32	20	286	40	31.9	31	28	291	23	32.4	31	20	278	23	32.1	32	229	08	950
900	23	20	331	19	20	13	317	16	25	22	316	22	20	17	310	22	25	13	288	37	21	23	290	24	26	15	279	23	27	20	216	10	900			
850	56.2	17	12	327	20	57.0	15	03	310	15	58.5	18	18	310	22	57.0	14	01	294	38	62.4	16	16	287	28	63.0	21	05	274	23	62.8	24	18	226	11	850
800	09	05	319	22	08	03	309	13	17	08	298	15	11	21	300	15	20	01	299	39	62.4	16	16	287	28	63.0	21	05	274	23	62.8	24	18	226	11	800
750	89.8	05	05	317	23	90.0	01	09	307	13	92.3	11	02	295	14	92.6	06	19	295	44	96.5	22	03	287	30	97.3	20	13	277	23	97.3	20	13	277	23	750
700	03	17	325	26	01	17	305	13	11	10	293	15	00																							

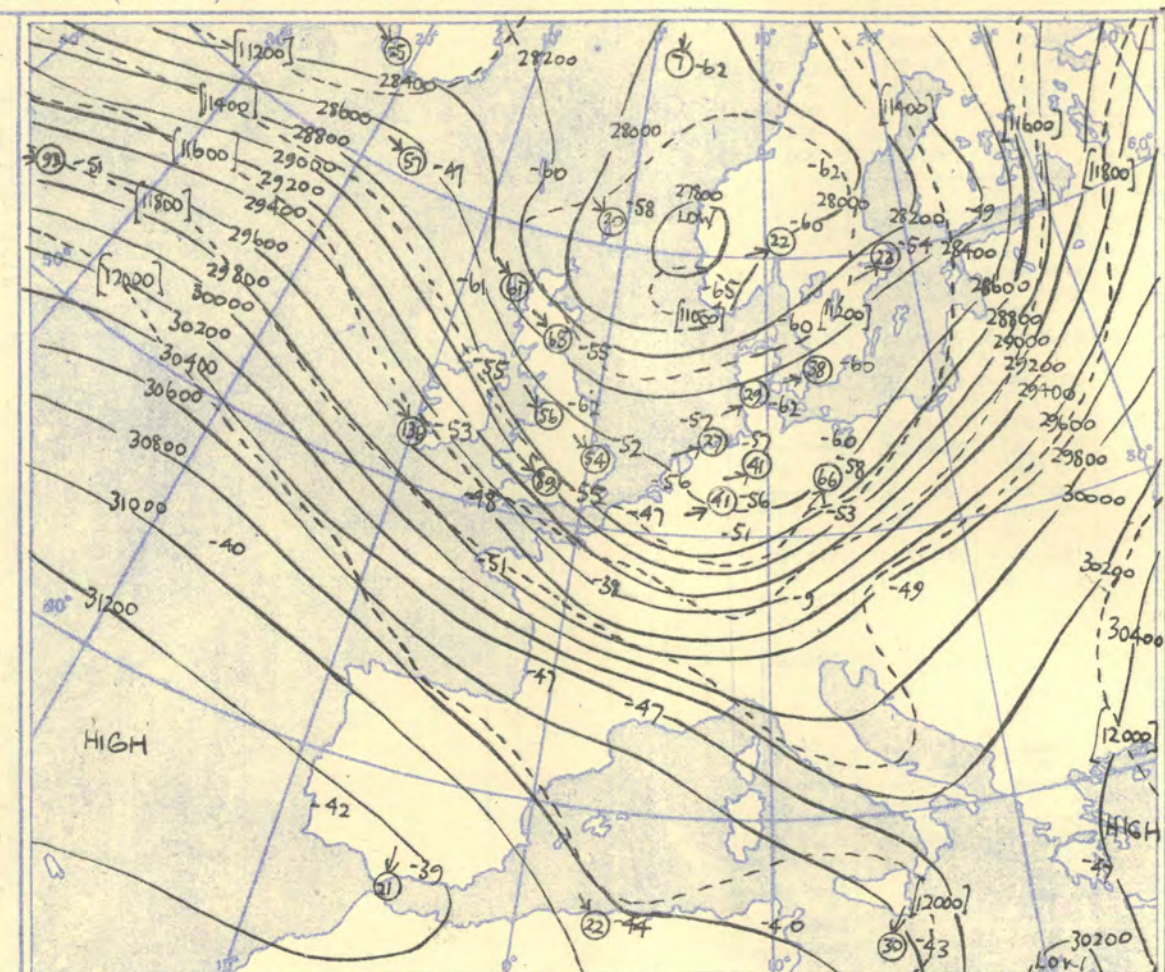
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



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

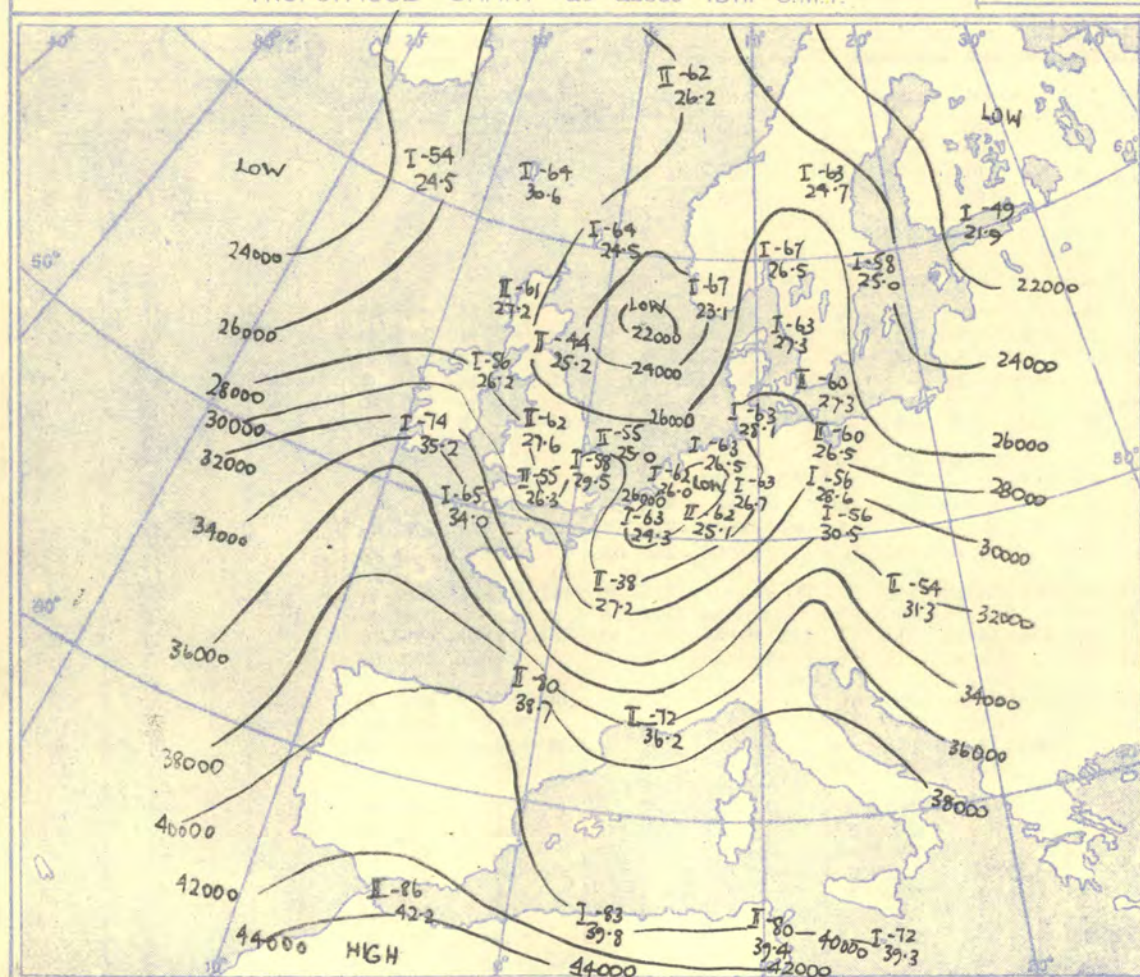
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 up 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.

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



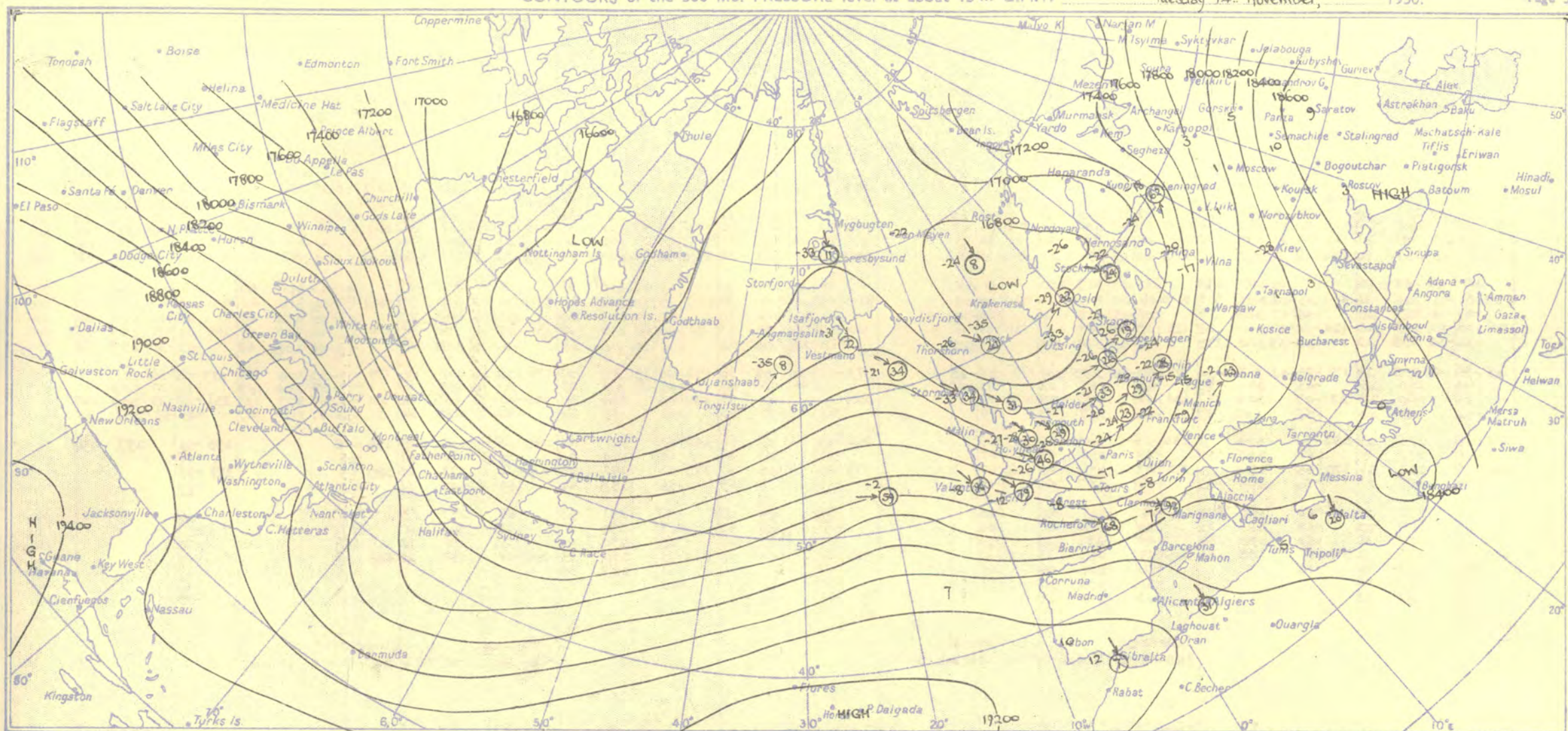
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The very strong thermal belt continues over the Atlantic, and is extending eastwards towards the British Isles in association with the depression moving east-northeast in mid-Atlantic.

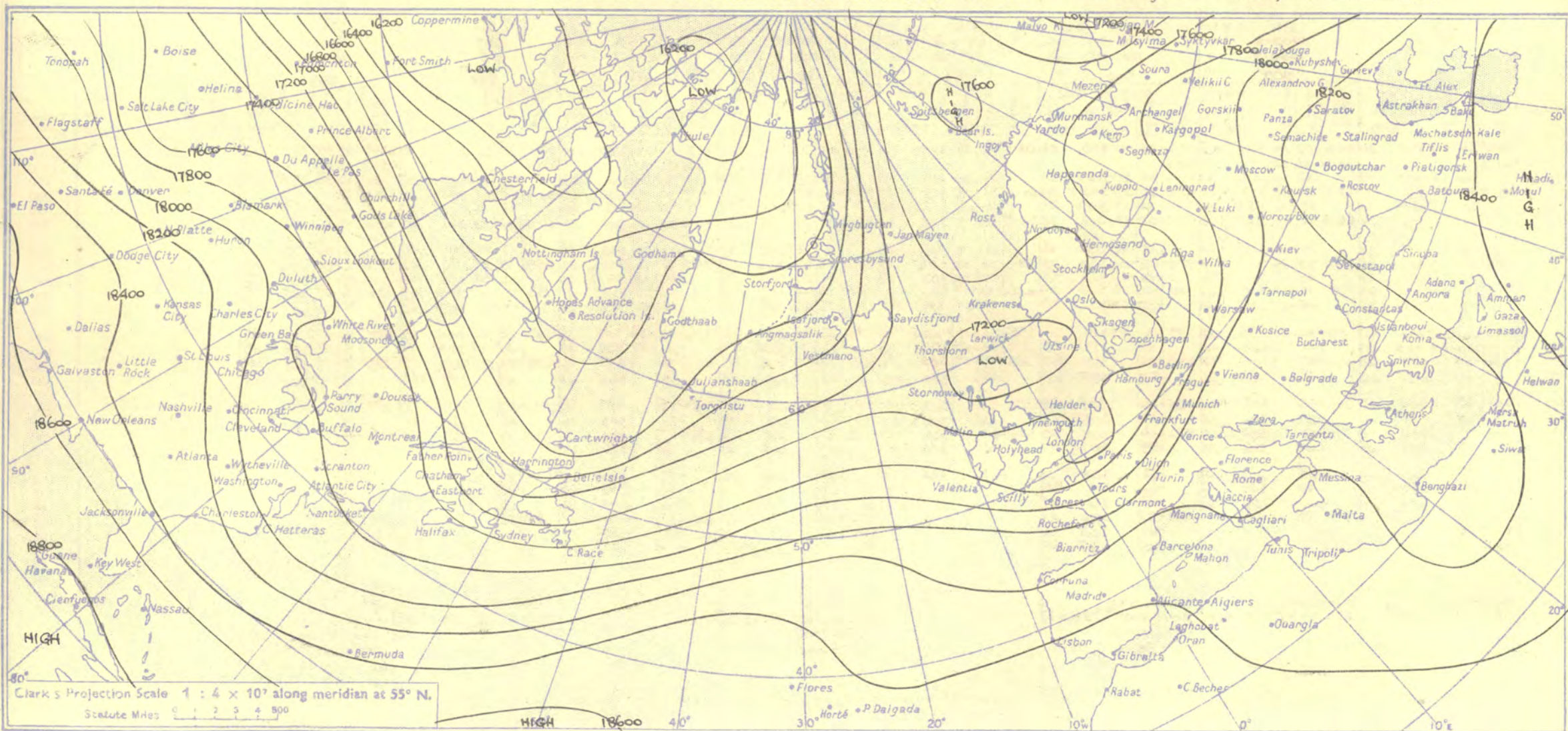
RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 14th November, 1950.



Clark's Projection Scale 1 : 4 x 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.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION										
Pressure { Time M.S.L. Surf (Freezing)	15h G.M.T. 988.4 mb 978.4 mb 954 mb				15h G.M.T. 997.3 mb 995.3 mb 910 mb				15h G.M.T. 996.5 mb 995.6 mb 892 mb				15h G.M.T. 1001.4 mb 992.8 mb 888 mb				15h G.M.T. 999.2 mb 997.2 mb 884 mb				15h G.M.T. 999.8 mb 995.5 mb 882 mb				15h G.M.T. 1002.2 mb 996.1 mb 882 mb				15h G.M.T. 1002.9 mb 999.3 mb 865 mb				15h G.M.T. 1012.6 mb 1011 mb 875 mb				Time M.S.L. Surf (Freezing)										
	Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind				Temp. Dew Wind														
	Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100														
Surf	00.7	39	33	310	19	00.5	41	33	290	18	00.2	42	35	320	10	02.3	45	39	300	15	00.6	45	40	310	15	01.2	45	37	270	14	00.4	46	36	290	18	02.9	50	39	290	25	00.3	50	38	300	10	Surf	
1000	3.1					00.8					01.0					00.4					00.2						00.5					02.7					3.4					16	1000				
950		35	29	291	30		38	29	299	33		38	31	326	18		40	34			41	40	309	31		39	32	285	36		41	32	293	32		44	32	297	36		43	34	299	24	950		
900	24.7	28	21	282	24	27.3	30	25	293	34	27.0	33	24	337	19	28.6	34	28		28.0	34	32	307	30	28.1	39	32	298	33	28.9	34	27	298	36	31.1	47	32	309	33	31.7	43	34	298	29	900		
850		22	14	281	27		23	21	293	33		27	20	339	20		26	21			27	26	306	31		29	20	304	35		28	20	304	36		30	22	313	36		28	21	298	34	850		
800	55.0	15	05	286	30	57.6	16	11	298	30	57.6	20	13	331	21	59.3	19	14		58.7	20	19	302	34	58.8	28	15	304	33	59.5	22	13	311	40	62.0	27	04	317	40	62.4	22	14	300	36	800		
750		09	-03	288	28		11	03	299	29		12	07	317	23		13	02			15	11	300	32		17	07	304	31		18	09	312	41		21	-24	317	45		16	04	297	38	750		
700	88.3	01	-12	285	26	91.1	03	-08	301	28	91.0	06	00	310	28	98.0	08	-03		92.5	08	01	300	31	92.7	10	-01	303	30	93.4	10	-02	310	59	96.2	13	-06	316	47	96.2	10	-07	296	39	700		
650		07	-16	289	20		-06	-17	305	29		-01	-13	313	28		00	-10			01	-02	296	34		03	-10	307	30		02	-10	307	40		05	-42	312	52		03	-15	299	46	650		
600	125	-15	-25	293	20	128	-14	-21	311	33	129	-09	-23	309	29	131	-07	-16		130	-08	-16	298	33	131	-06	-20	313	28	131	-07	-19	306	41	134	-02	-40	307	59	134	00	-19	299	65	600		
550	-24	-34	298	22	-23	-33	314	33		-19	-30	301	30		-17	-25				-18	-25	300	28		-16	-28	310	31		-16	-28	306	42		-03	-46	306	68		-02	-30	299	74	550			
500	168	-35	-44	298	24	171	-23	-42	318	34	172	-30	-38	295	31	174	-27	-35		173	-28	-34	303	30	174	-25	-39	315	29	175	-26	-38	307	46	179	-12	-53	304	79	179	-08	-36	301	96	500		
450		-44		295	25		-43		311	35		-42		289	34		-32	-44			-34	-43	310	40		-35	-51	319	29		-30	-42	309	59		-19	-59	304	103		-16	-37	303	90	450		
400	217	-56		300	23	221	-49		306	47	221	-51		289	45	226	-44		224	-42		210	49	224	-46		314		37	225	-40	-53	305	60	231	-24	-57	309	129	231	-27	-39	304	120	400		
350		-64		309	20		-55		307	59		-55		307	72		-65			-52			307	60		-51		313	54		-52		304	64		-24	-67	312	147		-40	-51	297	130	350		
300	278	-58		295	20	283	-61		306	61	284	-54		304	65	287	-55		286	-62		306	56	287	-57		310	55	288	-55		305	39	296	-48						295	-53		297	136	300	
250		-58		292	19		-57		305	50		-49		297	45		-57			-59			303	67		-60		304	57		-55		302	81		-64					-67			250			
200	365	-59		292	21	370	-65		296	42	372	-47		294	50	374	-57		373	-55		305	67	375	-53		297	65	376	-54		299	65	382	-63						381	-69			200		
170		-55		267	21		-54		304	42		-46		297	44		-57			-56			306	59		-56		293	50		-59		297	66		-64					-68			170			
150		-58		276	23		-54		304	34		-46		301	42		-60			-58			306	60		-57		291	53		-60		299	60		-65					-69			150			
130		-57		293	22		-59		283	42		-50		304	41		-62			-59			302	55		-58		290	47		-61		303	60		-67					-71			130			
110		-58		290	12		-58		290	38		-49		281	30		-60			-59			302	45		-62		290	46		-61		291	48		-67					-70			110			
100	514	-60		299	12	519	-57		295	37	525	-49		282	33	522	-61		522	-59		314	46	524	-63		290	43	523	-62		284	40	528	-66						525	-68			100		
90		-60		262	16		-60					-60		285	35		-62			-60							-61		288	36												-67			90		
80		-59		281	13							-52		292	34		-57			-60							-61																	-67		80	
70		-64		259	12							-53		313	29					-60							-62																		-70		70
60	(057-67 mb)																			(73 mb)																										60	

Inversion
388 mb-53°-374 mb-51° Isothermal
500-481 mb-27°

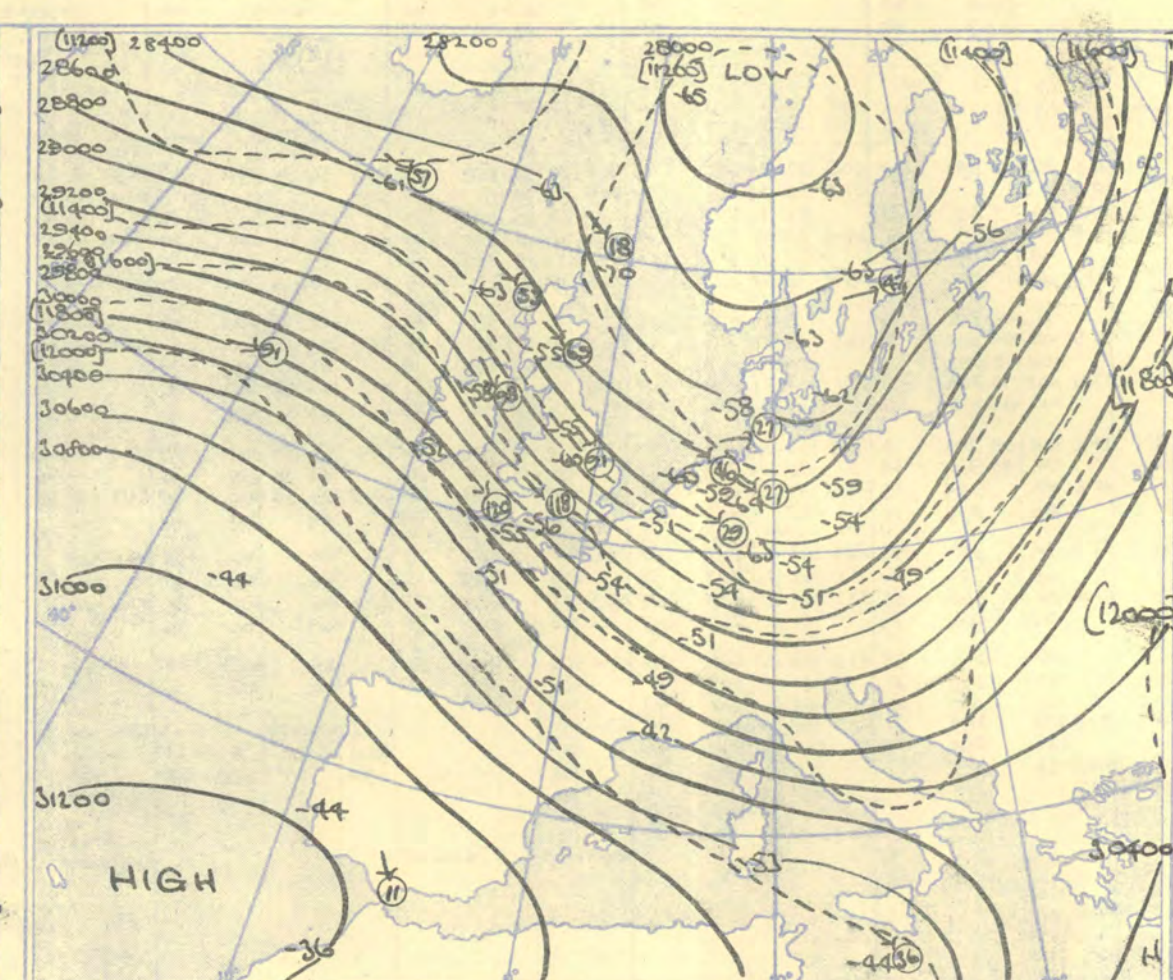
Inversion
486 mb-29°-469 mb-27° Inversion
579 mb-4°-557 mb-2°

Tropopause	I 352 mb-64° 24,500				II 315 mb-61° 27,200				II 374 mb-56° 25,200				I 335 mb-56° 26,200				II 316 mb-62° 27,600				I 288 mb-58° 29,500				II 338 mb-55° 26,300				I 245 mb-65° 34,000				I 229 mb-74° 35,200				Tropopause
------------	---------------------	--	--	--	----------------------	--	--	--	----------------------	--	--	--	---------------------	--	--	--	----------------------	--	--	--	---------------------	--	--	--	----------------------	--	--	--	---------------------	--	--	--	---------------------	--	--	--	------------

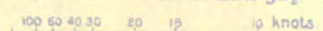
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure { Time M.S.L. Surf (Freezing)	Time M.S.L. Surf (Freezing)	21h G.M.T. 991.8 mb 981.7 mb 915 mb				21h G.M.T. 1002.2 mb 1000.3 mb 909 mb				21h G.M.T. 1002.3 mb 1001.4 mb 920 mb				21h G.M.T. 1008.5 mb 999.8 mb 913 mb				21h G.M.T. 1005.5 mb 1003.4 mb 885 mb				21h G.M.T. 1005.5 mb 1001.2 mb 886 mb				21h G.M.T. 1009.5 mb 993.2 mb 880 mb				21h G.M.T. 1014.4 mb 1002.8 mb 868 mb				G.M.T. mb mb mb				Time M.S.L. Surf (Freezing)				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb									
Surf	02.7	36	36	330	20	00.5	39	34	300	05	00.2	35	30	270	06	02.3	40	35	300	10	00.6	43	37	310	05	01.2	40	38	280	10	04.4	39	35	290	10	02.9	48	39	315	15	Surf	
1000	02.2	36	32	305	33	00.6	39	34	300	05	00.6	35	29	287	21	36	33	312	18	39	38	307	26	01.6	40	37	29	02.5	40	31	299	35	03.9	48	39	315	41	1000				
950		36	32	305	33		37	30	325	22		35	29	287	21		36	33	312	18		39	38	307	26		40	31	299	35		48	39	315	41	950						
900	25.6	30	27	305	33	28.5	31	24	323	24	29.0	30	23	302	30	30.2	31	28	312	20	29.6	34	30	304	26	29.7	34	29	315	30	30.6	35	25	304	38	32.3	37	31	295	26	900	
850		24	21	304	34		23	16	323	30		25	17	309	31		26	23	312	26		27	25	301	27		28	23	312	30		28	22	305	39		30	23	299	29	850	
800	56.1	21	19	302	34	58.8	16	11	321	25	59.0	20	17	318	30	60.7	20	18	308	24	60.3	19	19	301	27	60.4	22	15	304	31	61.4	22	15	301	39	63.2	24	15	298	33	800	
750		14	11	301	33		10	04	319	24		14	8	330	26		13	08	306	26		15	12	302	30		17	03	303	35		17	05	299	40		18	06	295	37	750	
700	89.8	06	02	302	33	92.2	02	05	317	25	93.0	06	04	330	26	94.3	06	05	306	29	94.0	08	05	296	32	94.3	10	15	306	36	95.3	10	01	301	42	97.2	12	03	296	41	700	
650		02	07	301	32		05	11	311	26		02	15	319	26		02	15	319	26		01	02	291	32		02	32	307	33		01	08	306	42		07	11	301	52	650	
600	127	11	17	302	31	120	15	22	303	27	120	10	23	323	24	220	10	17	304	35	132	07	12	290	34	132	07	35	310	31	133	07	14	303	43	136	06	27	303	66	600	
550		20	25	313	30		25	32	295	26		20	22	321	25		13	25	305	44		17	21	290	39		15	42	318	34		11	27	303	54		01	29	302	71	550	
500		170	30	35	330	27	172	34	41	294	29	173	31	43	315	32	150	24	42	305	45	175	23	30	297	46	176	22	56	305	36	177	20	41	304	63	180	04	29	302	84	500
450		40	46	005	23		41		307	43		43		313	39		23	54	302	65		32	41	304	49		32	59	298	30		27	49	305	73		15	27	301	89	450	
400	220	50		017	24	222	47		309	53	223	48		310	60	258	39	59	305	76	226	40	60	308	67	227	46		299	40	228	34	57	305	99	283	22	37	302	99	400	
350		61		013	20		59		305	51		54		309	62		46		302	105		47		309	74		52		300	65		43		309	126		33	49	304	110	350	
300	281	64		334	19	283	65		305	52	285	66		305	68	289	53		303	119	289	54		310	99	289	56		307	71	292	54		309	130	299	47		303	135	300	
250		60		318	25		59		304	55		57		306	58		62		304	104		57		307	90		56		308	75		65		311	120		63			250		
200	368	59		300	25	370	58		304	50	372	56		308	50	375	63		304	78	376	57		304	72	376	57		304	74	378	62		304	80	385	75		75		200	
170		58		297	25		62		306	45		59		307	47		61		304	67		57		305	68		58		305	62		63		305	70		75		170			
150		58		302	24		64		309	43		61		308	50		63		304	61		61		304	56		59		305	60		64							150			
130		58		288	22		62		300	42		62		312	48													56		293	60		64						130			
110		60		285	24		60		296	36		59		312	57													59		299	52		63						110			
100	516 (97 mb)					617	59				620	57		306	49						524 (094 mb)							61		301	45		62							100		
90														302	31													61		304	42		63							90		
80														297	21													60		299	24		60							80		
70																																									70	
60																																									60	
		Isothermal 982-950 mb 36°				Inversion 1000 mb 39°-972 mb 41°				Inversion 1001 mb 35°-970 mb 37° Isothermal 420-381 mb -48°								Inversion 1003 mb 43°-991 mb 44° Isothermal 526-515 mb -20°								Inversion 993 mb 39°-976 mb 45°				(55 mb) Inversion 623 mb 06°-612 mb 07° Isothermal 662-640 mb 07° 615-604 .. 07°												
Tropopause		I 323 mb -68° 26,600				I 312 mb -68° 27,500				I 298 mb -67° 28,600				I 228 mb -64° 34,600				I 292 mb -56° 29,500				I 300 mb -56° 28,900				I 205 mb -69° 31,800				I 197 mb -76° 38,700				Tropopause								

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

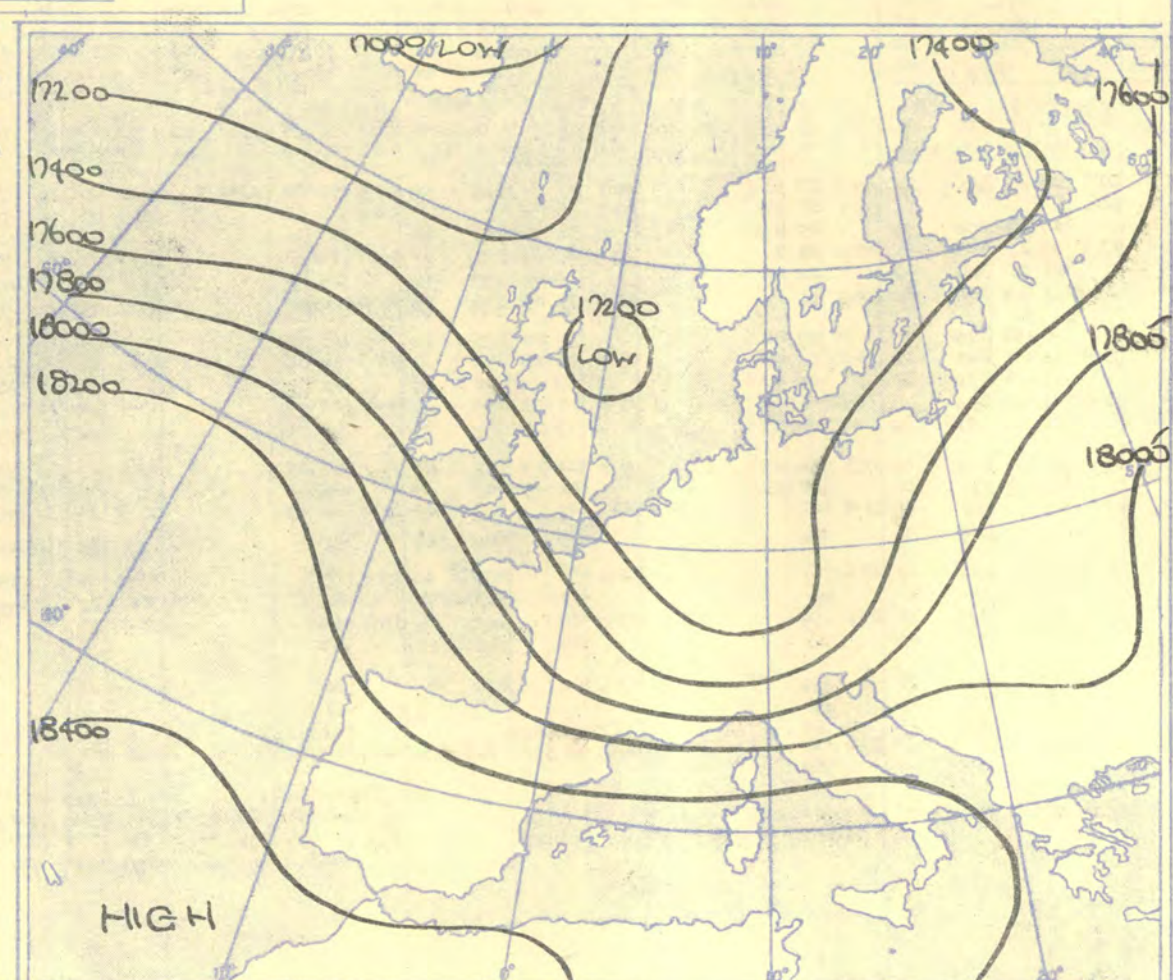
[illegible]



Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^{\circ}$ 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

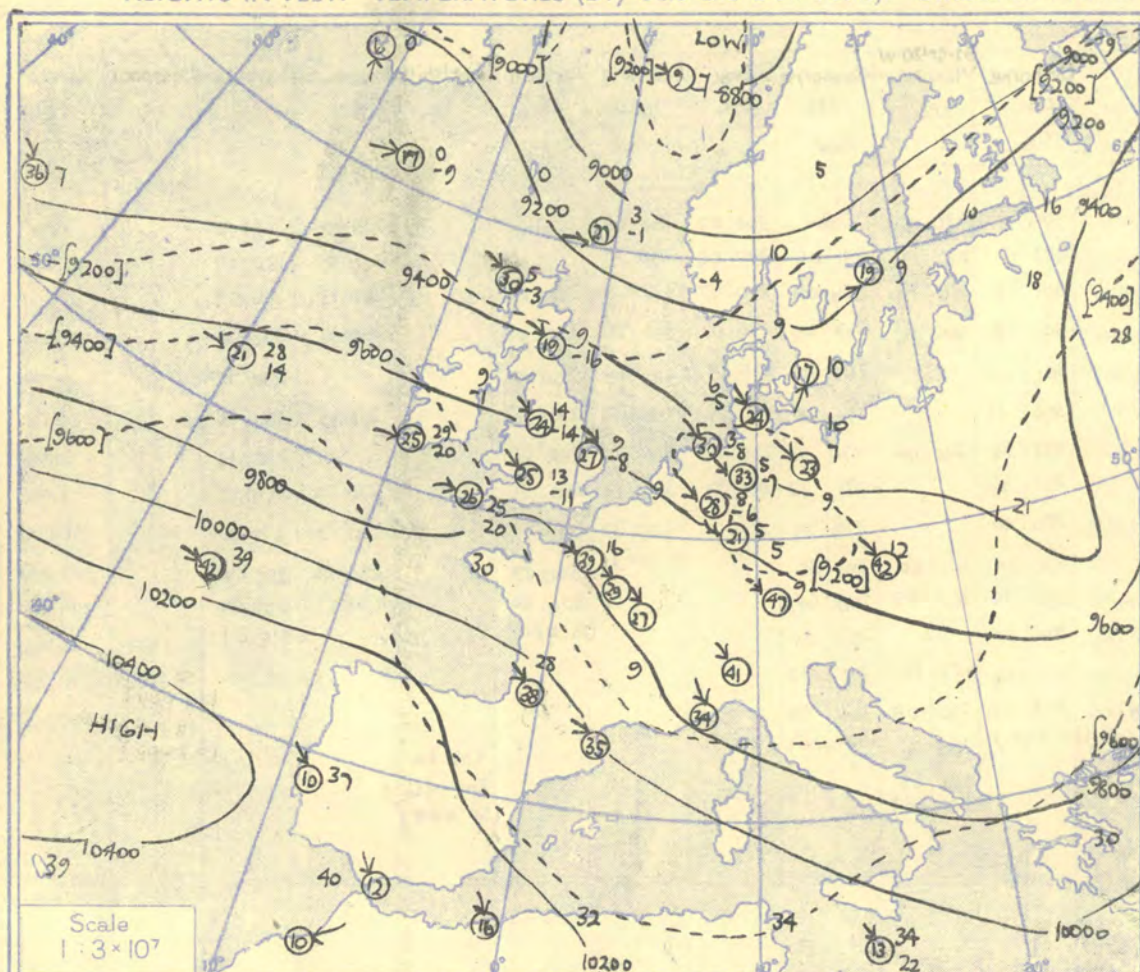


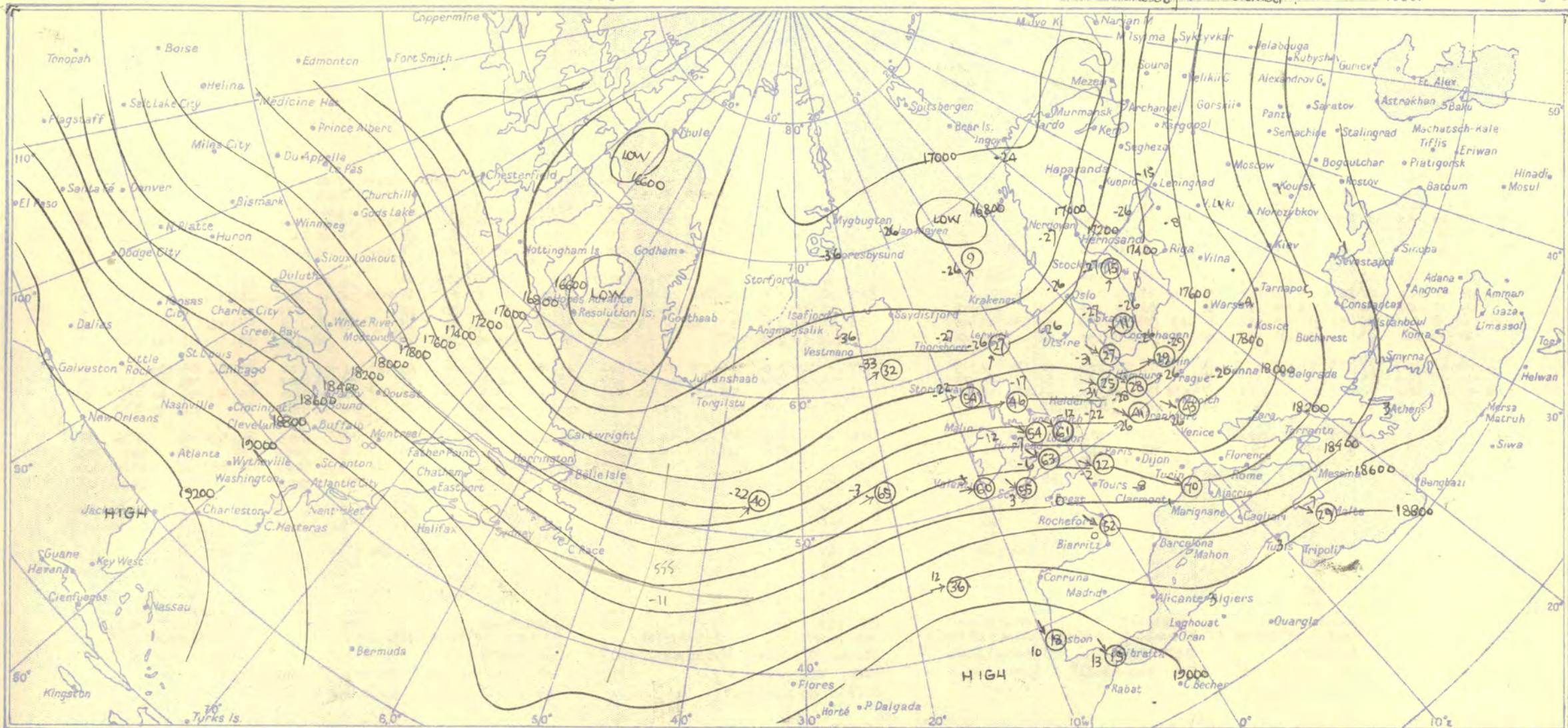
Isopleths of Thickness 500-1000mb

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

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

Ship	Weather Explorer.				Weather Explorer.				Weather Explorer.				Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Ship												
Lat/Long	52° 6' N 20° 1' W.				52° 5' N 20° 9' W				52° 6' N 20° 0' W				52° 3' N 20° 2' W.				60° 5' N 15° 9' W				60° 5' N 15° 8' W.				60° 5' N 15° 8' W.				Lat/Long												
Pressure { Time M.S.L. Surf Freezing	{ 03L 1011 1011 880	G.M.T. -mb -mb -mb	09L 1007 1007 770	G.M.T. -mb -mb -mb	{ 15L 1007 1007 800	G.M.T. -mb -mb -mb	{ 21L 1008 1008 890	G.M.T. -mb -mb -mb	{ 03L 1004 1004 925	G.M.T. -mb -mb -mb	{ 09L 1005 1005 940	G.M.T. -mb -mb -mb	{ 15L 1005 1005 925	G.M.T. -mb -mb -mb	{ 21L 1005 1005 935	G.M.T. -mb -mb -mb	{ Time M.S.L. Surf Freezing	{ G.M.T. -mb -mb -mb	{ Time M.S.L. Surf Freezing																						
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb												
Surf	45	42	09S	11	47	43			48	42	360	13	48	39	350	10	41	32	310	23	42	32	290	15	42	45	290	24	42	30	010	02	Surf								
1000	2.8	44	41	111	16	46	39		47	42			48	43	360	10	41	32			42	32	293	15	41	28	290	24	41	30			1000								
950		37	34	119	15	41	32		41	40	029	10	41	36	015	11	35	26	305	24	34	27	296	16	35	24	328	06	34	25	012	03	950								
900	30.9	33	31	142	12	30.0	36	27	30.1	36	35	011	11	30.2	33	29	28	20	306	27	29.0	26	20	299	16	29.2	28	20	327	06	29.2	27	19	346	04	900					
850		29	27	176	12		35	26		34	33	332	12		27	23	21	11	306	28		19	11	307	15	21	05	320	05	21	09	335	05	850							
800	61.7	29	26	231	09	61.1	33	24		32	31	293	13	60.9	23	16	19	16	306	31	59.1	14	00	308	16	59.4	15	03	306	03	59.4	15	01	332	05	800					
750		27	24	262	17		31	22		28	27	278	15		23	15	28	6	286	13		10	24	310	26		08	06	301	16		09	01	302	06	750					
700	96.5	23	20	250	21	96.1	27	19	For	96.1	28	14	270	21	95.2	18	09	287	22	92.5	02	32	307	27	92.5	02	09	296	17		00	09	262	11	92.8	02	07	277	07	700	
650		19	15	250	27		21	09			24	09	261	40		15	11	267	29			04	37	301	24		06	15	292	20		08	21	262	16		07	16	256	06	650
600	136	19	00	261	53	236	18	10	Winds	136	16	13	258	52	134	08	14	255	36	130	13	45	299	21	130	15	23	287	23	130	16	27	277	14	130	15	24	256	07	600	
550		11	17	252	68		10	27			07	18	257	58		02	15	260	36			24	49	299	25		26	34	284	25		23	34	277	18		23	30	266	09	550
500	182	00	15	249	69	181	03	33	See	181	03	25	253	65	179	14	22	261	48	172	31	52	290	29	172	37	44	285	26	172	33	43	273	32	172	31	41	284	17	500	
450		12	29	259	61		05	41	page		10	33	255	81		23	28	257	66			38	58	263	42		45	283	38		41		280	43		41	52	286	25	450	
400	235	20	30	264	64	235	21	44		235	21	44	256	89	230	34	43	256	79	223	45		273	48	221	48	280	51	221	49		273	45	222	49		281	35	400		
350		32	43	264	72		31	58	3.		34	56	257	99		41		251	92			55		284	48		55		275	15		58		262	51		59		274	43	350
300	301	44		262	91	301	42			299	47		258	109	295	54		263	104	285	61		268	57	283	61		272	55	284	62		276	48	284	65		266	45	300	
250		58		265	124		55				61		255	121		66		231	116		63		263	59		61		268	62		61					261	48	250			
200	387	72		266	98	389	66			386	64		256	111	380	72		262	102	371	59		254	69	370	59		272	53	(278mb)				370	58		262	45	200		
170		76		270	97		70				69		259	99		74		261	105		57		278	57		60		271	55							267	48	170			
150		78		276	104		73				75		259	92		74		260	92		59		280	49		59		270	53							271	48	150			
130		78		289	120		73				66		259	91		76		260	89		61		280	48		59		270	50							268	46	130			
110		79		298	98		73				69		259	81		76		260	79		59		276	38		60		270	40							262	45	110			
100	529	78		302	84	533	67			530	66		259	66	523	75		260	65	519	58				518	61		269	40							274	48	100			
90											70		258	93		75		260	64							62		268	40								266	44	90		
80											68		254	51		78		260	55							61		266	44								266	40	80		
70											67		249	41		79		260	47							62		266	40								267	36	70		
60											64		242	46		78		260	45							65		270	33								270	30	60		
Inversion 816mb 27°-785mb 31° 620° 16°-600° 19°				Inversion 871mb 34°-850mb 35° Isothermal. 655-650mb 21°				(5mb)-64 Inversion. 724mb 27°-700mb 28° Isothermal. 859-816mb 34° 495-483°-4°				(95mb)-77 Inversion. 809mb 22°-773mb 26° Max Wind. 288mb. 261°123kts.				Isothermal. 826-800mb 19° 467-442°-38°				Isothermal 465-450mb -45°																					
Tropopause II 217mb -71° 37.000				I 184mb -69° 40.000				I 143mb -78° 45.000				I 200mb -72° 38.000				I 267mb -65° 31.000				I 323mb -60° 26.100				J 325mb -63° 26.500				II 320mb -65° 27.000				Tropopause									

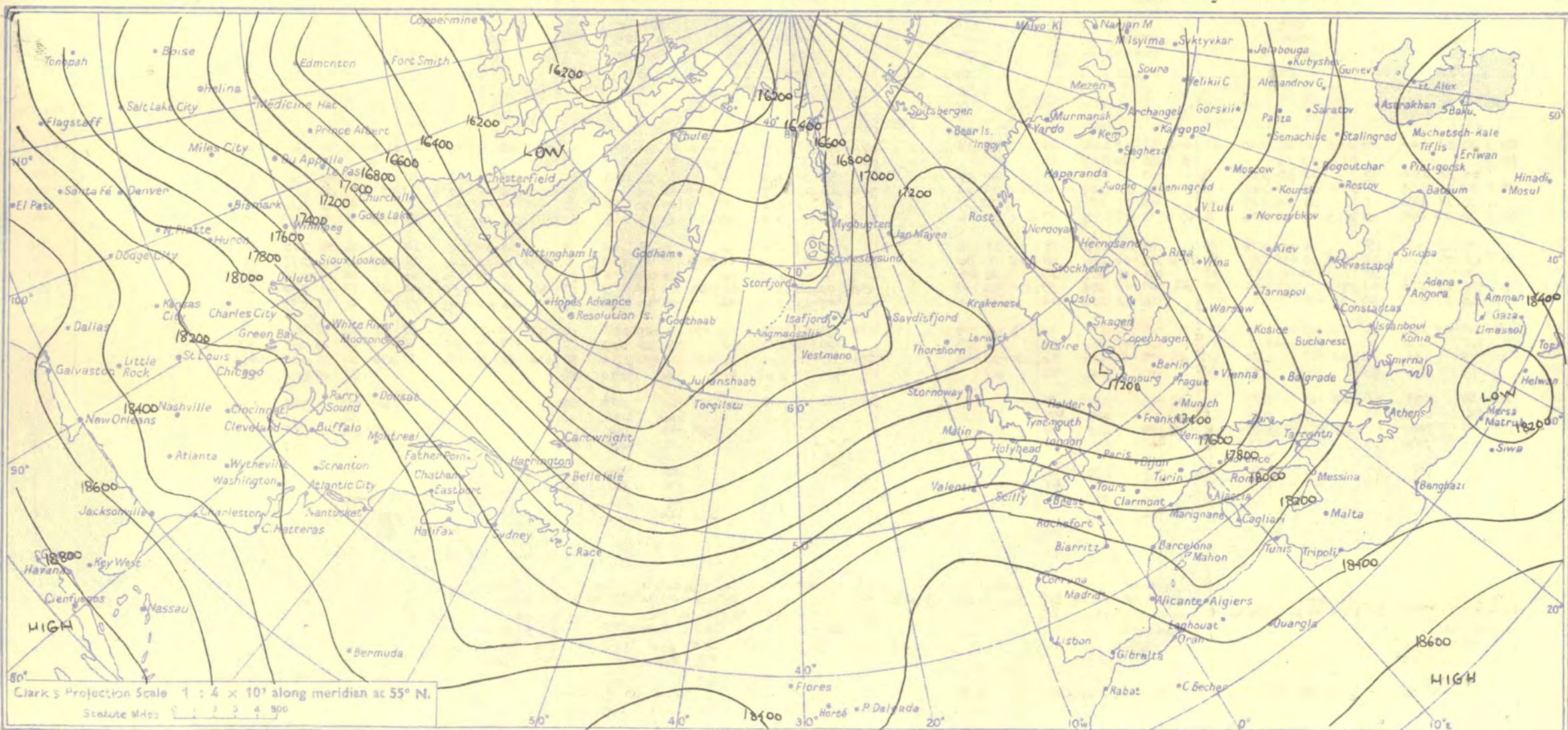




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Wednesday 15th November

1950.



Clark's Projection Scale 1 : 4 x 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.)

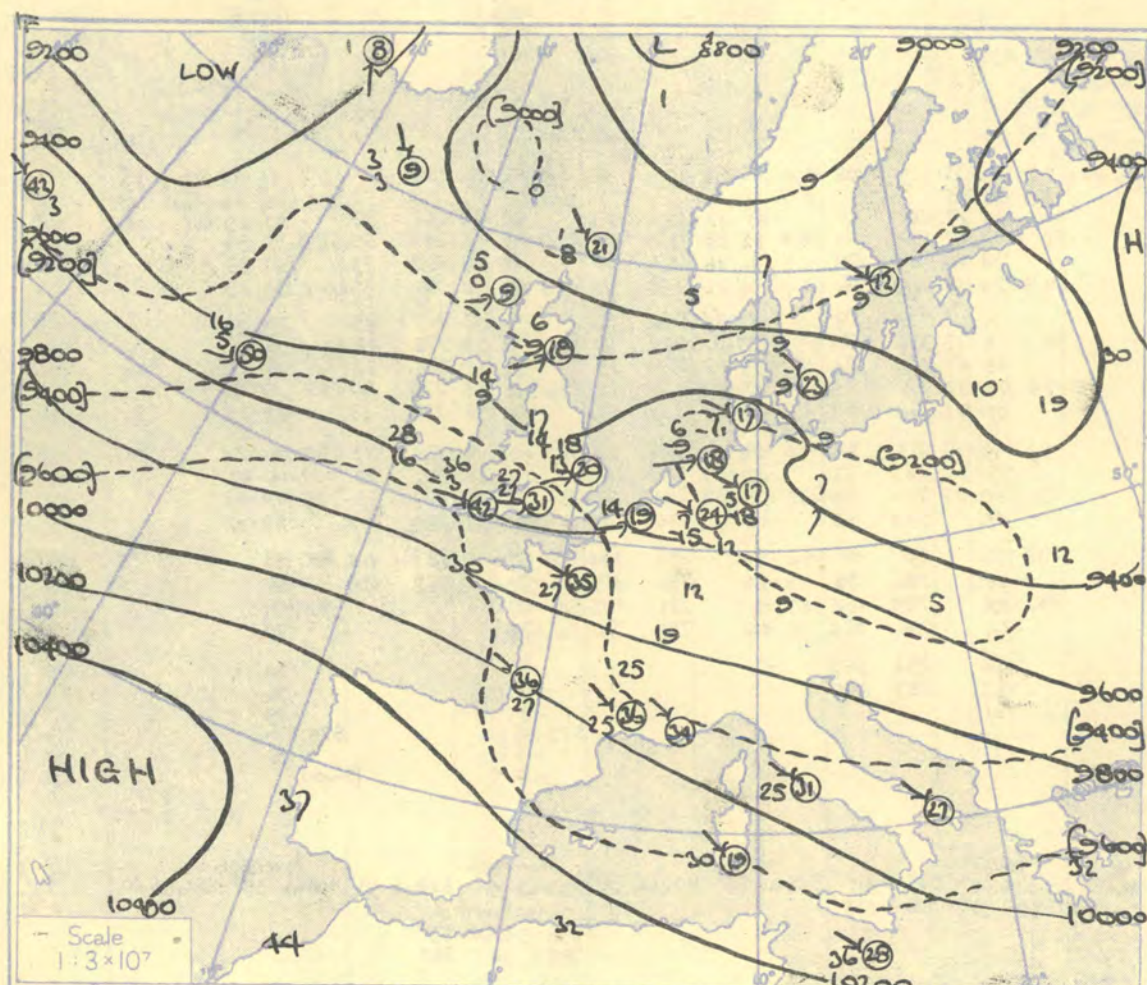
STATION	LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION																																						
Pressure Time M.S.L. Surf Freezing	15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			Time M.S.L. Surf Freezing																																											
	1001.1		mb			1006.9		mb			1008.2		mb			1012.2		mb			1014.3		mb			1015.4		mb			1015.2		mb			1005.5		mb																																														
	991.0		mb			1004.9		mb			1007.3		mb			1003.4		mb			1010.0		mb			999.1		mb			1002.6		mb			1004		mb																																														
	945					910					915					904					908					898					830					790																																																
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																															
Surf	02.7	37	37	310	12	00.5	38	34	260	05	02.1	42	33	280	08	02.3	41	36	00.6	47	40	270	05	01.2	43	36	240	06	4.4	45	37	Calm	02.9	47	44	170	08	00.3	48	43	105	12	Surf																																									
1000	00.3					01.8	37	33	260	05	02.1	42	33	280	08	02.3	41	36	03.3	45	38	274	13	03.9	42	35		06	4.1	45	37		03.6	46	43		08	1.5	48	45	107	12	1000																																									
950		33	33	263	11		37	27	285	21		36	28	278	18		37	30		39	33	279	15		38	27	297	19		38	29	245	03		42	36	191	18		43	40	129	16	950																																								
900	28.0	27	26	243	10	29.8	30	20	280	23	30.2	30	23	292	21	31.3	32	27	31.4	31	25	282	15	31.9	31	20	300	20	32.3	32	250	07	21.9	37	31	202	27	29.9	37	36	143	19	900																																									
850		22	20	257	16		24	15	281	24		25	17	203	22		25	20		24	16	286	15		24	15	297	20		26	15	257	13		34	28	221	23		37	34	152	21	850																																								
800	58.3	16	15	267	23	60.1	17	09	282	24	60.8	23	11	296	18	61.9	22	12	62.0	21	07	297	16	62.4	19	09	291	20	62.9	23	10	264	19	63.0	30	25	247	28	61.2	33	30	185	20	800																																								
750		10	06	270	23		11	06	283	26		17	01	294	17		14	01		16	03	296	18		14	01	293	21		17	07	275	22		29	24	264	29		32	29	247	18	750																																								
700	91.7	03	01	261	27	93.6	05	03	286	30	95.0	09	16	289	14	95.7	09	01	95.9	14	14	301	24	96.1	09	08	302	27	96.9	13	11	287	25	98.0	25	20	265	26	96.2	29	20	266	25	700																																								
650		04	08	254	30		03	13	285	32		02	14	293	28		04	09		08	09	298	30		06	09	302	37		12	01	290	32		22	17	273	32		25	21	269	33	650																																								
600	12.9	11	18	255	26	131	11	21	283	36	133	06	16	293	34	134	01	05	134	04	05	291	39	134	01	13	302	45	135	08	01	293	38	137	18	11	278	37	136	18	13	269	26	600																																								
550		20	27	251	33		20	31	279	43		13	16	290	42		06	12		06	13	293	47		07	17	300	48		01	09	294	52		11	00	281	48		11	14	269	53	550																																								
500		172	26	37	249	27	174	22	37	279	54	176	17	37	285	46	178	12	19		07	24	300	54	178	12	27	302	61	180	06	16	296	63	183	03	08	286	55	182	03	23	274	60	500																																							
450		36	51	260	29		31	45	279	56		27	46	284	51		20	28		18	31	294	66		20	36	309	73		14	25	298	79		04	14	284	63		05	31	279	64	450																																								
400	22.2	45		254	30	225	44		278	53	228	38	53	292	63	230	29	38	231	28	37	292	85	231	32	42	306	91	233	25	36	290	85	237	13	25	290	74	236	10	44	275	63	400																																								
350		50		260	32		56		277	60		47		297	98		43			37	45	294	101		41		304	103		36	47	297	73		22	34	288	78		29	55	270	76	350																																								
300	28.5	61		267	34	287	56		280	72	291	62		293	90	294	53			60		297	117	295	54		305	126	298	50		300	103	304	36		283	86	302	42		276	79	300																																								
250		59		282	35		55		282	65		60		297	79		63			62		297	131		64		306	117		64		304	123		52		290	90		281	100	250																																										
200	371	56		272	31	375	55		283	62	377	62		295	78	380	65			65		297	66		61		309	106	383	70		302	117	392	65		289	105	389	67		276	109	200																																								
170		55		278	29		57		280	53		65		297	66		67			66					64		311	96		72		304	109		70		288	83		70		285	105	170																																								
150							57		279	56		65					66			64					67					71		312	85		70			71		287	96	150																																										
130							52		279	54		61					65			60					62					71		300	55		73			73				130																																										
110							52					62					65			59					61					(135 mb)	71					76			74			110																																										
100						52.1	52				52.4	55				52.6	63			52.9					63										53.6	76		63.3	74			100																																										
90							52					59					63				64				64											69			72			90																																										
80							52					63					66				64				64													69			70		80																																									
70							52					63					66				64				64														66			70		70																																								
60							52					61								56					64																	60																																										
					Inversion 1005mb 38°-790mb 42° Isothermal 550-515mb -20°										Inversion 550mb-B°-545mb-11° Isothermal 815-800mb 23°										Inversion 616mb 0°-595mb 2° Isothermal 539-525mb -8°										Inversion 58mb 720mb 12°-700mb 14° 543..-07°-620...-4° 267...-61°-259...-60°										Inversion 525mb-12°-512mb-10°										Inversion 616mb-08°-500mb-06° Isothermal 839-824mb 25° 113-676..-13°										Inversion 764mb 27°-758mb 29° Isothermal 625-600mb 18° 470-450mb -04°										Inversion 1004-1000mb 48° 891-861..-38°									

Tropopause		II 318mb-60° 28,100				I 319mb-58° 27,500				I 200mb-62° 29,100				I 240mb-67° 34,200				I 227mb-67° 35,600				I 262mb-64° 32,300				II 225mb-70° 35,800				I 174mb-71° 42,200				II 193mb-69° 39,700				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure mb	Time M.S.L. Surf Freezing	21h G.M.T. 1001.3 mb 991.1 mb 938 mb				21h G.M.T. 1006.2 mb 1004.2 mb 920 mb				21h G.M.T. 1008.2 mb 1007.3 mb 928 mb				21h G.M.T. 1007.5 mb 998.7 mb 883 mb				21h G.M.T. 1009.4 mb 1007.4 mb 893 mb				21h G.M.T. 1012.8 mb 1007.6 mb 900 mb				21h G.M.T. 1010.3 mb 994.0 mb 878 mb				21h G.M.T. 1003.5 mb 993.0 mb 710 mb									
		Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb					
		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											
		02.7	32.32	000	00	00.5	37	35	240	03	00.2	31	29	260	04	02.3	38	34																		Surf			
00.3	34.31	294	15	01.6	39.36			02.1	33.30	269	13			02.6	41.37	164		00.6	41.37	160	04	01.2	38.36	190	03	4.4	40.30	170	05	02.9	51.50	150	20	1000					
																																		950					
																																		900					
																																		850					
																																		800					

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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION		
Time M.S.L.	03h				03h				03h				03h				03h				03h				03h				03h				03h				Time M.S.L.		
Surf	1000.9				1003.5				1005.1				1004.1				1004.1				1007.4				1002.7				1000.6				1001.8				Surf		
Freezing	990.7				990.5				1001.5				995.3				1002.1				1003.1				986.6				996.1				1000				Freezing		
Pressure mb	941				929				927				894				900				895				750				678				790				Pressure mb		
Height ft./100	Temp.				Temp.				Temp.				Temp.				Temp.				Temp.				Temp.				Temp.				Temp.				Height ft./100		
Dew	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Dew		
Wind Dir.	°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				°F.				Wind Dir.		
Vel.	knots				knots				knots				knots				knots				knots				knots				knots				knots				Vel.		
Surf	2.7	35	30	320	13	0.5	40	31	270	02	0.2	29	28	Cal	2.3	41	39																			Surf			
1000	0.2	33	26	291	23	0.9	40	31	270	07	1.3	31	30	228	06	38	35																		1000				
950		27	20	289	21	28.8	28	20	199	07	29.1	29	25	228	06	29.1	33	30																	950				
900	27.9	27	20	289	21	28.8	28	20	199	07	29.1	29	25	228	06	29.1	33	30																	900				
850	22	17	290	22	23	16	195	06	24	17	229	07	28	25																						850			
800	58.1	15	10	294	22	59.0	17	07	214	07	59.5	20	02	238	12	59.8	24	20																	800				
750		08-09	296	21		11	06																													750			
700	91.4	01-08	292	21	92.6	05	06	223	08	93.0	13-04	239	15	20	16																					700			
650		08-14	285	23		01-06					00-14	249	18	07	02																					650			
600	129	14-22	282	26	130	09-13	246	09	131	06-20	276	20	132	00-05																						600			
550		24-35	283	25		18-23					14-27	276	31	-07-21																						550			
500	171	33-44	282	27	173	29-34	237	13	174	24-37	275	34	176	15-35																						500			
450		43	283	31		40-46					35-47	274	49	-24-41																						450			
400	221	51	284	37	223	52	267	40	225	44	273	52	228	36-51																						400			
350		59	285	45		60					54	278	61	-49																						350			
300	282	60	280	40	284	63	274	58	287	62	283	69	291	57																						300			
250		58	278	33		62					59	284	74	-64																						250			
200	369	57	281	34	371	59	280	45	374	59	278	57	378	61																						200			
170		55	272	32		60					59	282	62	-63																						170			
150		56	269	34		60					59	282	52	-65																						150			
130		55	266	36		62					58																									130			
110		55	266	36		60																														110			
100	519	55			518	60																														100			
90		54				63																															90		
80		55				66																															80		
70																																						70	
60																																						60	
Inversion.				Inversion.				Inversion.				Inversion.				Inversion.				Inversion.				Inversion.				Inversion.				Inversion.				Inversion.			
991mb 35°-986mb 36°				1001mb 40°-990mb 41°				1004mb 29°-973mb 37°				736mb 19°-720mb 20°				1003mb 38°-935mb 41°				858mb 35°-820mb 37°				850mb 41°-828mb 43°				900mb 39°-886mb 40°				Isothermal.				990-980mb 53°			
25-100°				30-100°				29-800°				33-300°				34-100°				34-900°				36-800°				36-300°											
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION		
Time M.S.L.	09h				09h				09h				09h				09h				09h				09h				09h								Time M.S.L.		
Surf	1001.3				1001.1				1001.4				1001.2				1000.6				1000.8				997.2				1000.0								Surf		
Freezing	991.0				999.1				1000.5				992.4				998.6				996.5				981.2				989.5								Freezing		
Pressure mb	950				930				911				900				868																						

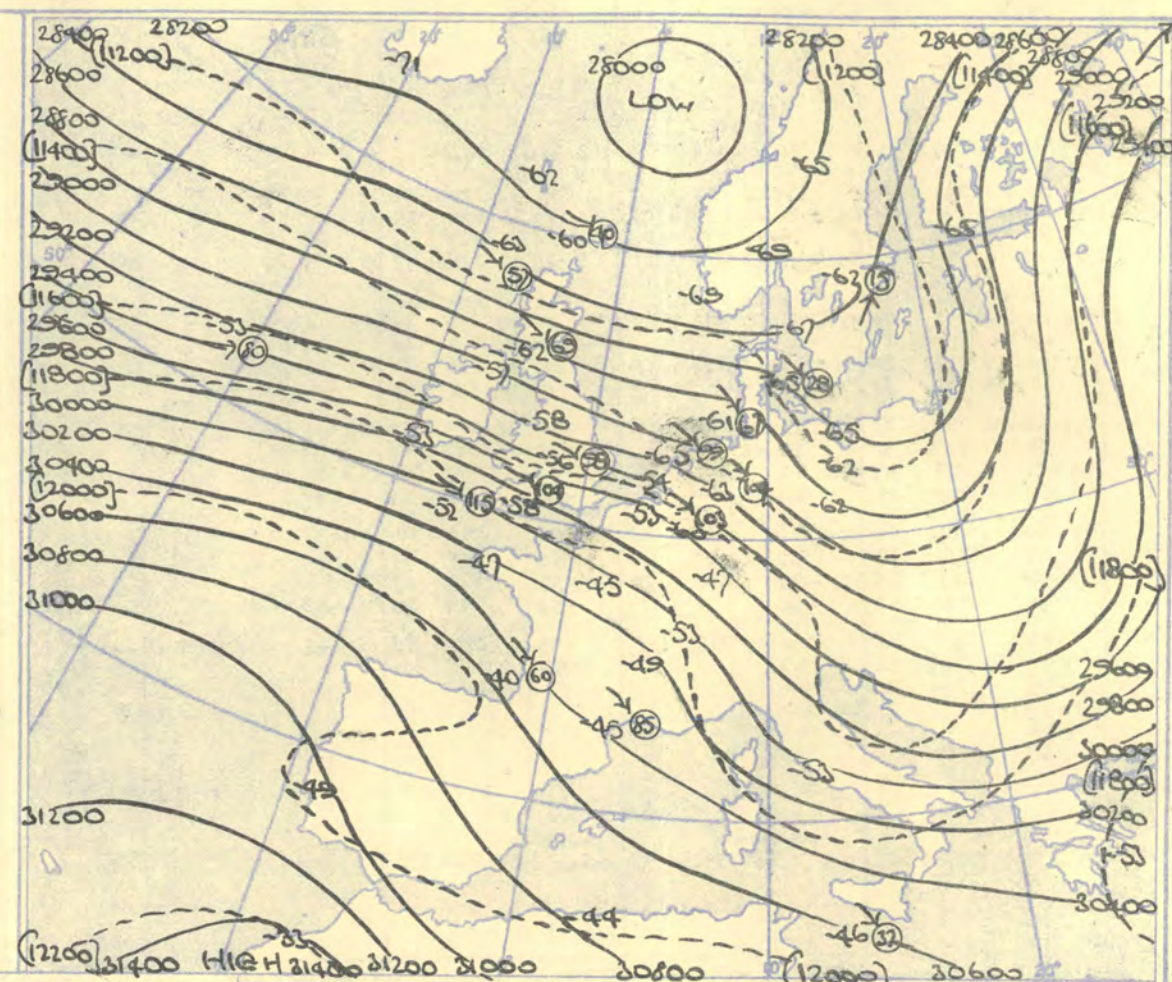
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



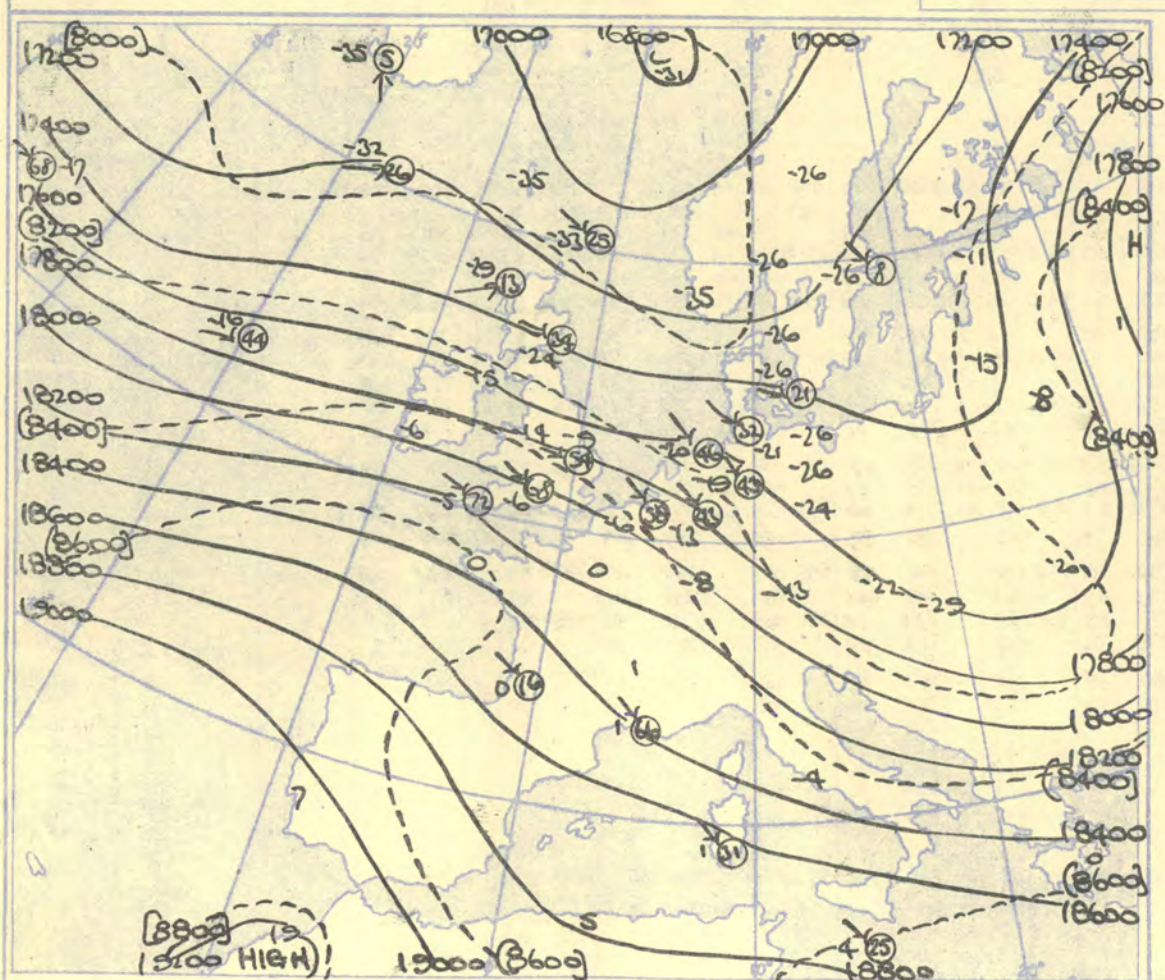
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

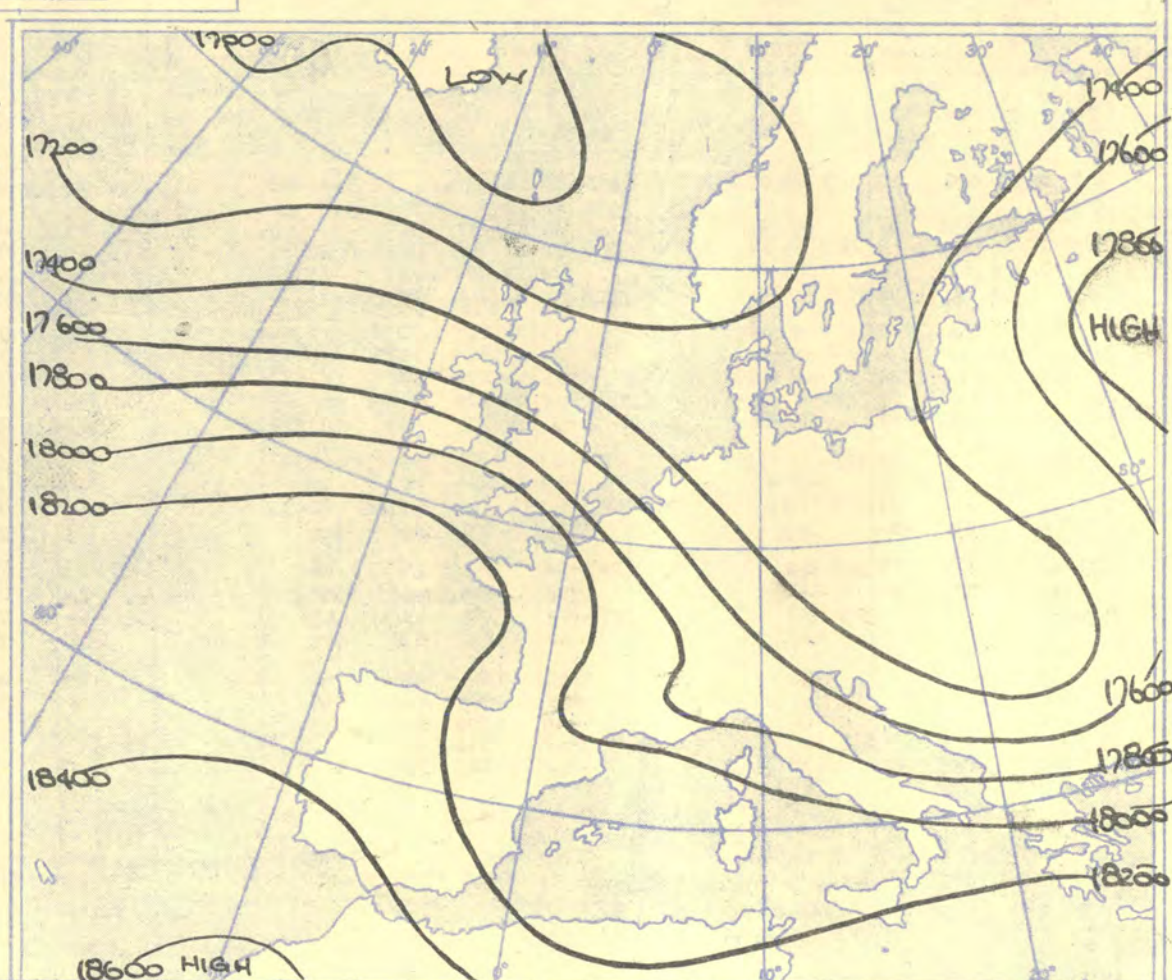
100 80 60 40 20 10 knots



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 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

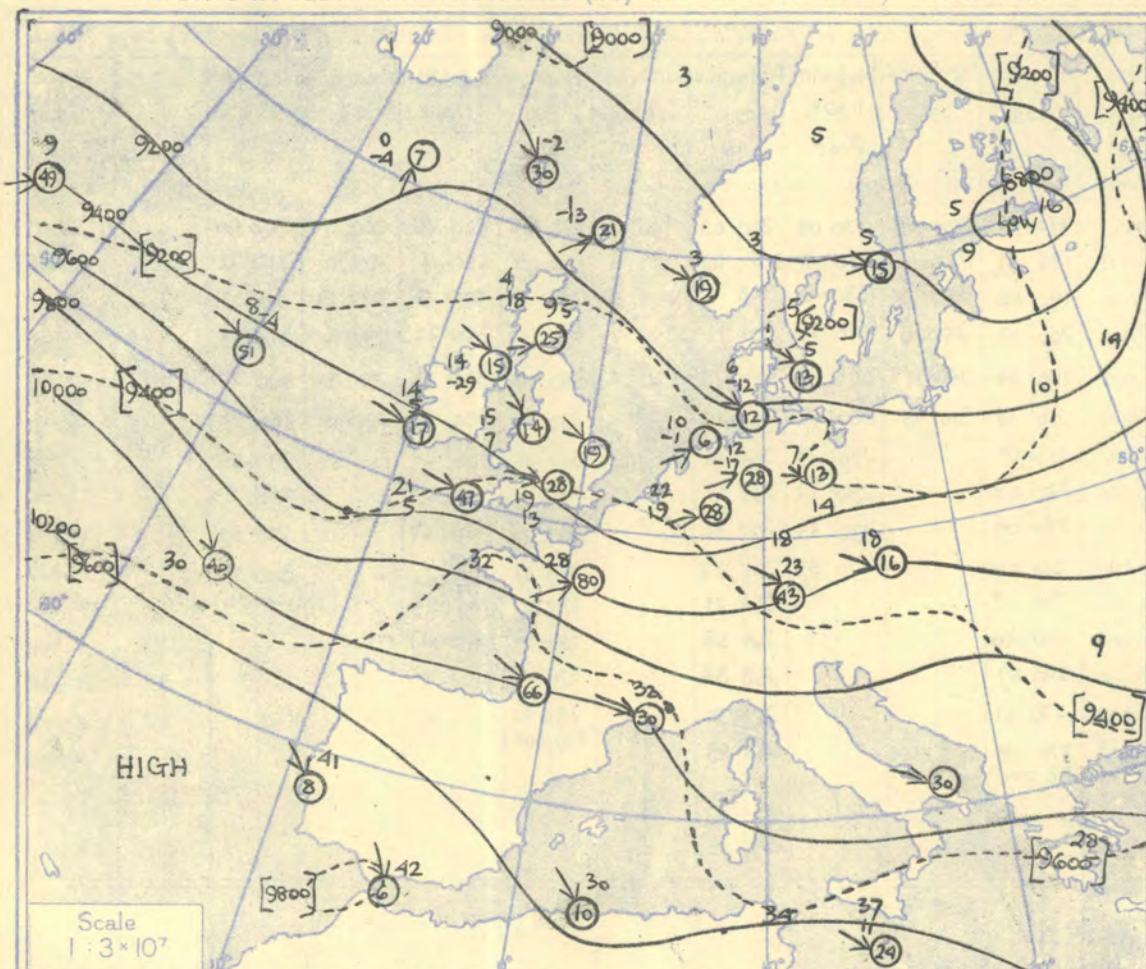
[illegible]

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

[illegible]

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

Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER								Ship	
Lat/Long	60.4 N 15.7 W				60.5 N. 15.8 W.				60.5 N. 15.8 W.				60.5 N 15.9 W				52.6 N. 20.0 W.				52.7 N 20.0 W				52.6 N 19.6 W				52.5 N. 19.7 W.								Lat/Long	
Pressure	Time	03h			09h.			15h.			21h.			03h.			09h			15h.			21h.						G.M.T.			Time						
	M.S.L.	1004			1003			1002			1001			1006			1005			1007			1009						mb			M.S.L.						
	Surf	1004			1003			1002			1001			1006			1005			1007			1009						mb			Surf						
	Freezing	940			970			935			930			875			900			900			900						mb			Freezing						
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure					
	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb					
Surf	1.0	39	34	040	08	39	34	240	07	42	36	150	05	40	38	CALM	1.7	48	36	260	01	46	41	280	23	47	35	270	20	46	38	260	25	Surf				
1000		39	34	035	07	38	33	140	05	41	35	150	05	40	38	Winds light Southerly	1.7	47	35	261	01	45	40		1.9	47	33		2.3	45	36	266	45	1000				
950		33	28	020	04	30	25	"		34	30	173	08	34	33				41	31	262	02	37	33	290	36	40	28	278	36	39	24	268	41	950			
900	28.7	27	23	010	05	28.3	25	19	"	28.4	27	23	180	09	28.0		23	25	29	27	262	02	29.3	27	30	290	30	30.1	32	24	282	37	30.4	32	20	271	38	900
850		21	18	359	06	18	11	"		21	19	180	07	22	20			60.8	29	21	262	03	26	24	297	31	20.1	25	17	281	40	26	13	281	39	850		
800	58.8	15	12	333	08	58.4	11	03	"	58.7	15	13	178	09	58.2	16	13		26	18	262	08	59.9	21	19	288	39	60.6	20	08	280	41	61.0	20	07	282	37	800
750		09	06	317	08					08	04	176	08	09	03	Southerly	20	09	262	27	17	01	262	24		12	00	280	43	14	03	277	37	750				
700	92.2	03	03	306	09	91.4	03	09	"	92.0	00	04	181	07	91.6		02	01	16	05	261	50	93.9	12	10	225	31	94.3	08	04	281	51	94.8	11	22	275	40	700
650		05	11	297	09		10	16	"		07	12	196	05			06	11	09	04	261	42		04	17	223	34		03	27	279	52		08	30	274	44	650
600		13	20	280	12	12.8	18	25	L + V	12.9	15	19	226	06	12.9		13	21	02	11	261	33	132	05	23	235	29	13.2	03	40	279	40	13.3	02	24	274	47	600
550		22	30	278	16	27	34	250	13	23	27	251	09	21	30	240	15	06	16	261	37		09	21	250	28		09	44	279	48		06	26	274	47	550	
500	17.2	32	41	258	26	170	34	44	271	22	172	32	39	267	19	171	29	36	237	18	178	16	26	261	44	176	17	40	259	43	17.6	16	45	280	57	500		
450		39	49	289	32		43		277	29		40	47	267	22		39	45	254	27		20	44	260	71		24	47	258	48		23	48	280	46	450		
400	22.2			298	29	230	53		280	29	221	48		268	23	221	49		266	30	230	28	56	259	85	227	38	58	268	48	22.8	34	59	279	50	400		
350		60		286	29		61		285	34		59		269	21		61		264	29		40	60	259	81		52		270	43		47		279	49	350		
300	28.4	65		279	27	281	69		286	37	283	69		272	21	283	72		267	26	294	53		260	80	290	59		264	58	291	56		279	52	300		
250		63		267	42		71		286	36		72		275	21		64		274	24		60		257	95		59		259	91		56		279	65	250		
200	36.9	59		267	48	36.6	63		285	36	367	61		271	24	368	60		247	29	380	64		249	95	377	60		260	68	378	57		279	70	200		
170		61		247	45		62		284	35		61		269	27		61		255	31		67		245	93		65		254	72		58		279	71	170		
150		62		261	39		63		283	36		61		262	33		62		275	39		66		246	86		64		245	66	(68mb)	68		63		275	71	150
130		63					65		283	36		61		258	35		64		269	37		70		254	86		66		242	59		60		275	68	130		
110							65		262	26		63		260	40		65		254	29		72		256	89		70		246	56		70		269	64	110		
100	Isothermal						66				515	64		258	40	514	67		246	35	525	72		256	67	522	70		250	56		71		263	57	100		
90	1004 - 1000 mb	39°	(95mb)	66								66		235	43		68		246	38		70		256	66		73		253	57	Isothermal	1007 - 1000 mb	47°	525	71	258	52	90
80							67		252	42		69		254	42		70		255	39		71		256	65		71		253	55		71.5	69.6	08°	75	258	47	80
70							69		254	42		70					72					71		256	62	(67mb)	70		253	53				72	261	46	70	
60							70				(64mb)	70										71		256	44		71							71	263	45	60	

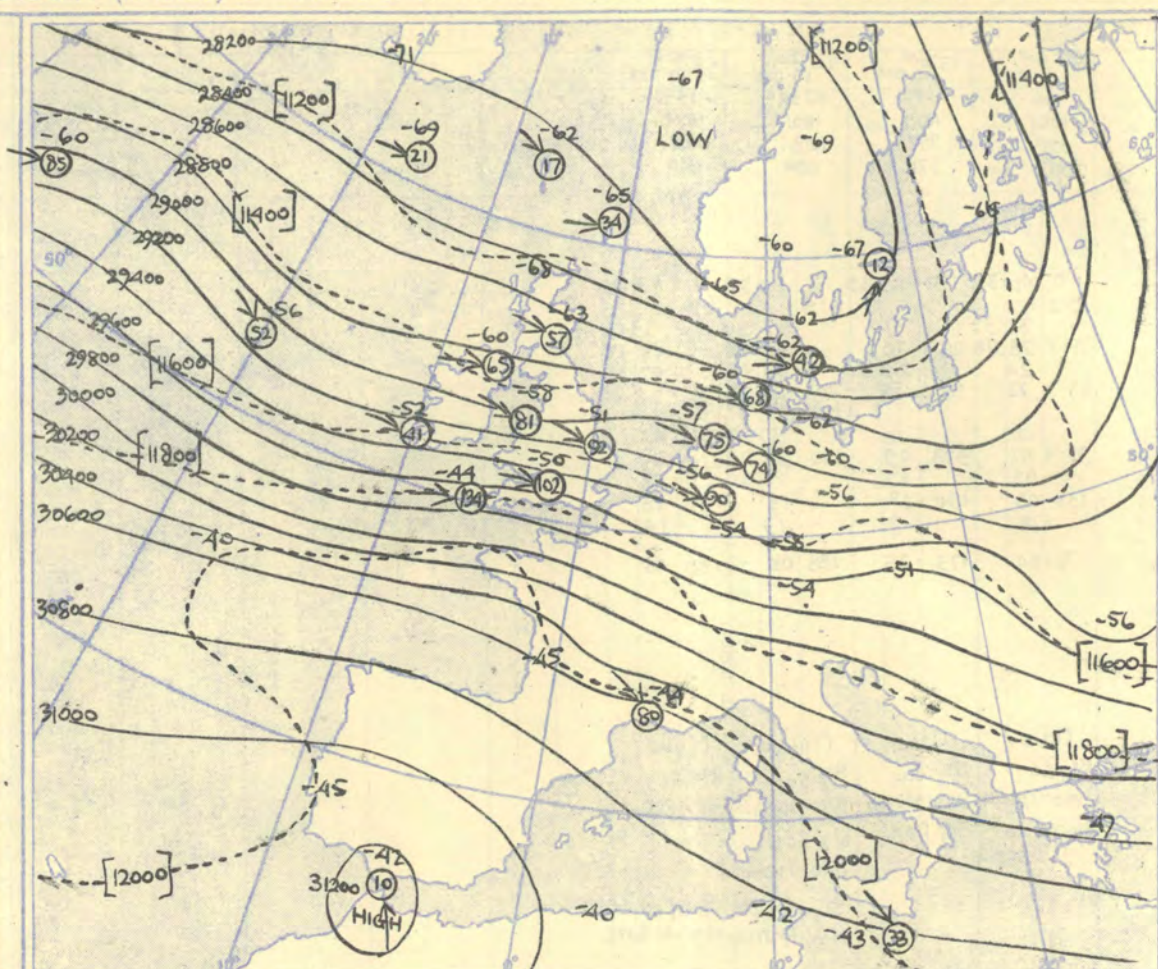


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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

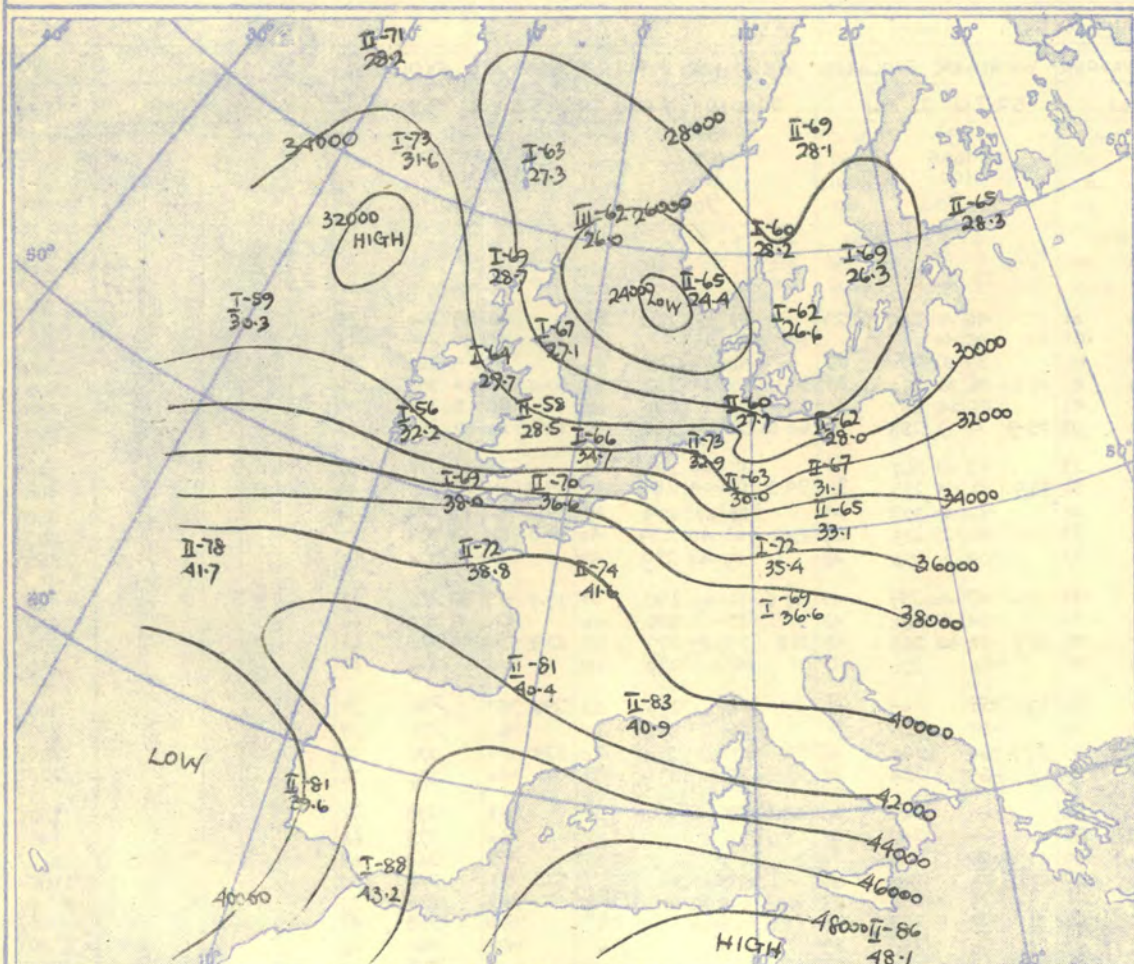
100 80 60 40 20 15 10 knots



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.

NOTES ON THE AEROLOGICAL SITUATION.

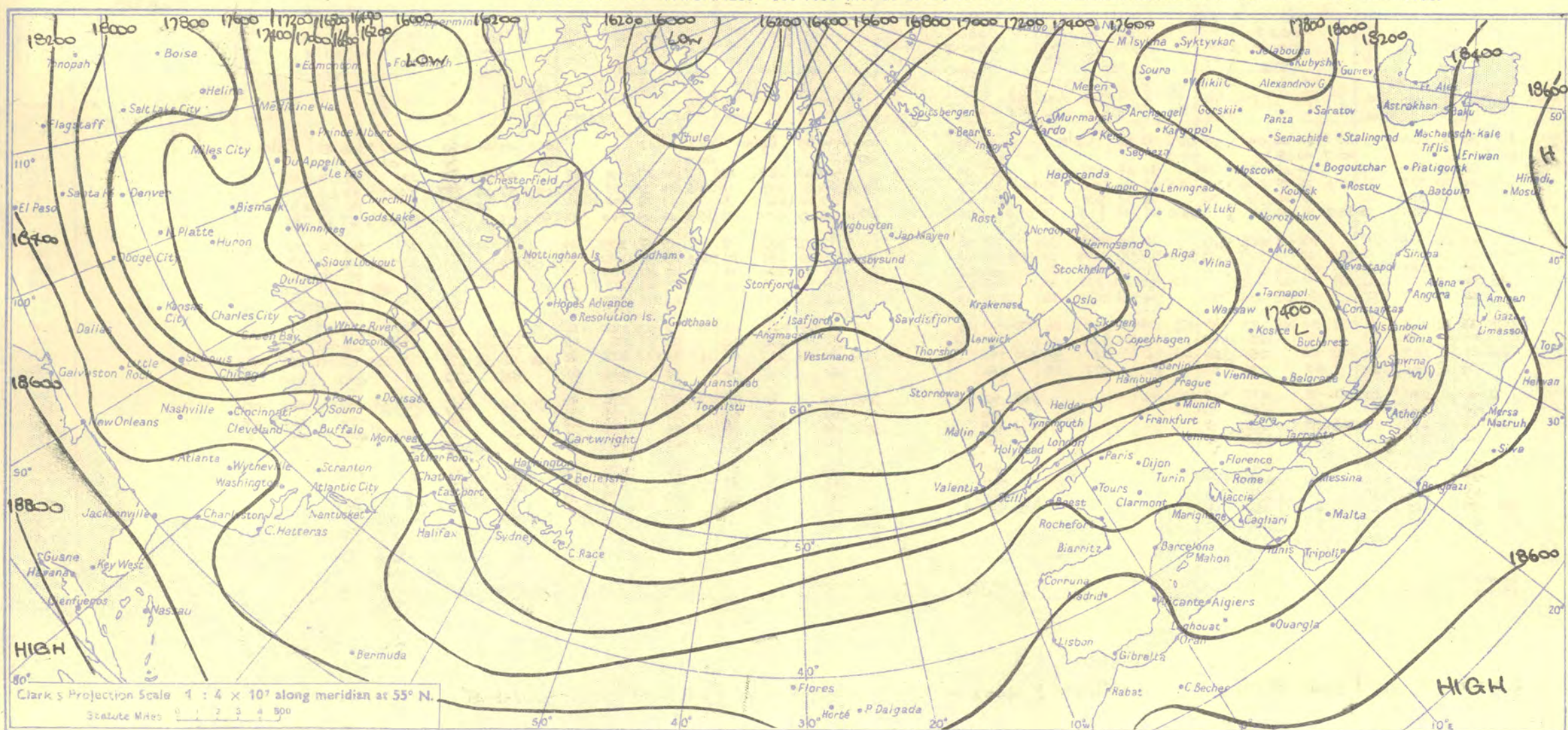
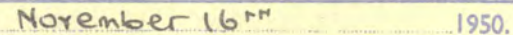
The southern portion of the European thermal trough warmed as it moved eastwards over the Balkans. Otherwise little change of note.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



7

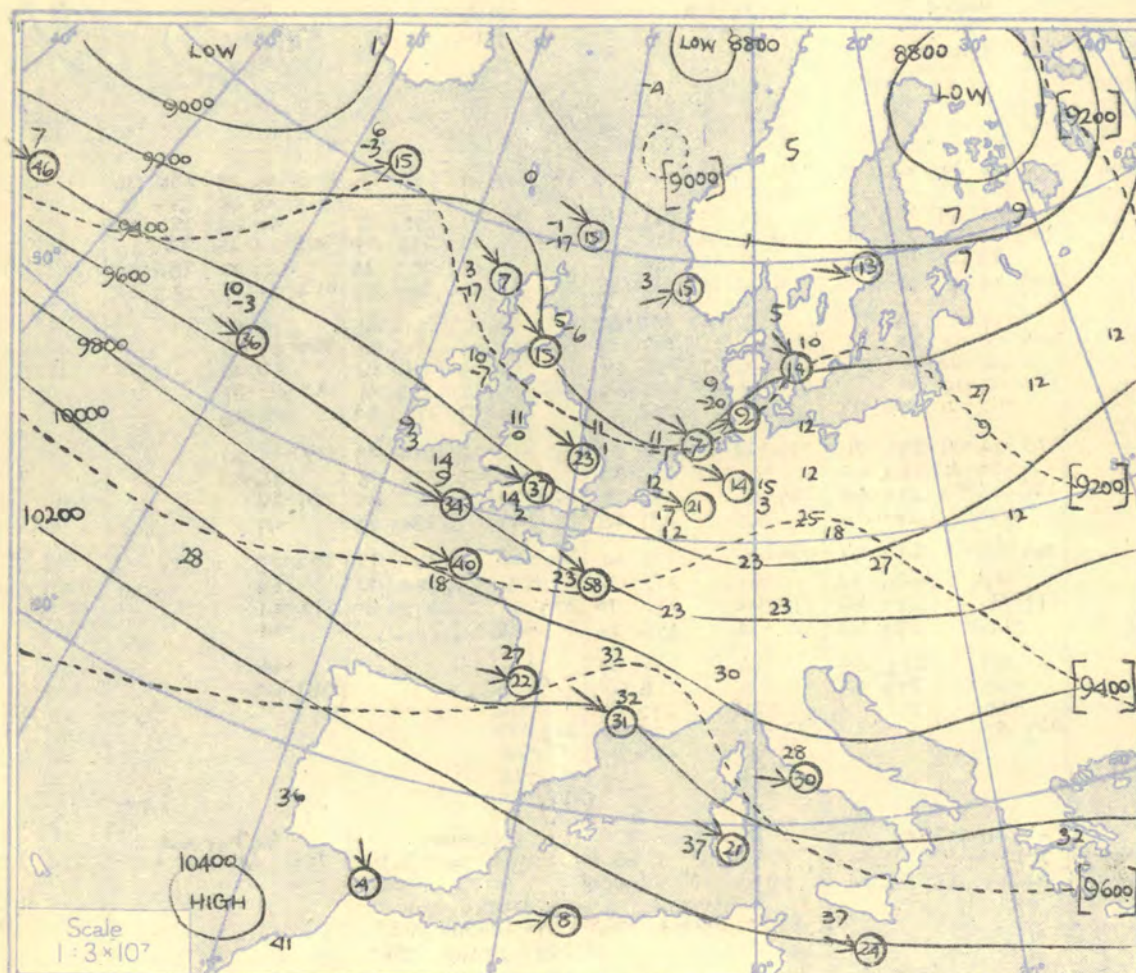
STATION	LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION
Time M.S.L. Surf Freezing	15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			15h		G.M.T.			Time M.S.L. Surf Freezing										
	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb													
Pressure	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Pressure mb										
Surf	02-7	34	30	025	13	00-5	41	33	045	10	00-2	38	36	Calm		02-3	44	41	Calm		00-6	40	38	130	63	01-2	45	43	065	08	4-4	41	41	310	10	02-9	50	46	300	06	00-3	48	43	290	07	
1000	00-3					00-4					00-2					00-2						00-0			130	63	00-2				08	7-1			310	10	00-8				06	00-3	48	43	290	07
950																																														
900	27-9	25	16	253	15	28-3	25	29	056	19	27-7	35	34	232	10	28-3	39	35	292	16	28-0	35	33	206	04	28-0	39	39	098	05	28-0	39	39	314	15	29-3	40	37	297	18	20-4	35	31	296	05	
850		18	13	344	18		21	16	024	15		26	24	281	14		26	22	286	15		31	26	303	09		30	27	339	10		35	32	311	24		35	32	286	21		30	26	295	08	
800	57-9	12	08	325	12	58-6	14	07	004	12	58-3	23	21	276	18	58-9	20	13	287	17	58-9	26	16	297	14	58-9	27	23	322	11	59-1	33	24	303	25	60-5	31	28	287	28	60-3	25	20	286	13	
750																																														
700	31-0	01	-13	265	21	32-1	04	-18	310	10	32-0	09	05	253	25	32-8	14	-29	288	15	32-9	15	07	308	14	32-4	19	12	288	19	32-8	19	13	273	28	35-1	21	05	274	47	34-4	14	05	271	17	
650																																														
600	128	-14	-35	261	21	130	-13	-26	315	24	130	-06	-28	268	27	131	-04	-20	281	14	131	-02	-16	281	17	132	06	-07	276	34	133	-27	-58	276	83	134	14	-03	268	48	07	-03	263	20		
550		-23	-44	265	25		-20	-42	301	19		-13	-34	274	36		-15	-26	274	13		-10	-18	270	32		-03	-09	274	44		04	-25	273	54		05	-27	263	38		-07	-18	285	21	
500																																														
450	171	-31	-50	265	33	172	-23	-45	286	27	174	-20	-40	279	44	174	-23	-32	266	21	175	-20	-27	268	34	177	-13	-19	272	51	178	-05	-38	270	60	179	-04	-35	268	66	177	-14	-28	274	28	
400		-40	-57	257	39		-37	-55	280	31		-30	-51	282	51		-32	-40	261	21		-26	-36	271	51		-19	-27	277	65		-18	-49	272	69		-15	-45	266	68		-33	-40	271	31	
350	221	-51		265	40	223	-45		286	37	225	-43		283	51	225	-44		266	40	226	-35	-53	271	66	229	-32	-63	278	69	230	-27	-58	276	83	232	-23	-54	265	81	229	-35	-51	266	31	
		-60		269	38		-54		282	37		-58		278	62		-49		267	63		-47		271	66		-42		281	77		-37	-60	275	87		-34	-67	268	104		-48		263	34	
300	282	-66		272	34	285	-68		277	36	286	-63		271	57	288	-60		270	65	290	-58		269	81	293	-51		277	32	295	-50		272	102	298	-44		270	134	292	-52		266	41	
250		-63		269	36		-59		269	42		-61		274	64		-61		266	68		-61		271	82		-61		275	101		-62		272	121		-60		272	121		-55		264	46	
200	368	-57		273	35	371	-54		274	44	373	-56		276	57	374	-60		267	72	376	-63		271	79	379	-63		279	82	381	-71		276	110	384	-68		-59		261	45				
170		-56		269	33		-52		266	41		-56		275	51		-60		270	64		-63		269	72		-63		269	72		-68		272	81		-69		-64		269	39				
150		-57		275	30		-53		255	43		-58		270	42		-61		272	58		-63		264	62		-63		264	62		-72		271	75		-67		-65		267	36				
130		-56		265	31		-58		274	48		-61		271	46		-62		270	40		-66		268	60		-64		268	60		-69		273	78		-69		-66		260	34				
110		-58		261	36		-59		265	41		-61		273	39																															
100	517	-54		260	32	520	-58		260	37	521	-62		278	40																															
90		-50					-64					-60		267	41																															
80	(86 mb)	-49										-68																																		
70																																														
60																																														
																															</															

[illegible]

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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Time M.S.L.	03h.				03h.				03h.				03h.				03h.				03h.				03h.				03h.				03h.				Time M.S.L.
Surf	1002.6				1003.5				1002.4				1003.0				1002.4				1003.4				1004.8				1008.0				1008.4				Surf
Freezing	992.3				1001.5				1001.6				994.3				1000.3				991				988.5				997.4				1007				Freezing
Pressure mb	968				934				941				909				888				884				872				861				885				Pressure mb
Height ft./100	02.7				00.5				00.2				00.6				00.6				01.2				04.2				02.9				00.3				Height ft./100
Temp. °F.	26				38				31				31				41				40				39				47				46				Temp. °F.
Dew °F.	21				30				27				27				39				39				38				41				39				Dew °F.
Wind Dir.	860				130				290				02				Calm				040				330				280				280				Wind Dir.
Vel. knots	06				03				02				34				34				08				03				12				20				Vel. knots
Pressure mb	Surf				1000				950				900				850				800				750				700				650				Pressure mb
Height ft./100	02.7				00.5				00.2				00.6				00.6				01.2				04.2				02.9				00.3				Height ft./100
Temp. °F.	26				38				31				31				41				40				39				47				46				Temp. °F.
Dew °F.	21				30				27				27				39				39				38				41				39				Dew °F.
Wind Dir.	860				130				290				02				Calm				040				330				280				280				Wind Dir.
Vel. knots	06				03				02				34				34				08				03				12				20				Vel. knots
Pressure mb	Surf				1000				950				900				850				800				750				700				650				Pressure mb
Height ft./100	02.7				00.5				00.2				00.6				00.6				01.2				04.2				02.9				00.3				Height ft./100
Temp. °F.	26				38				31				31				41				40				39				47				46				Temp. °F.
Dew °F.	21				30				27				27				39				39				38				41				39				Dew °F.
Wind Dir.	860				130				290				02				Calm				040				330				280				280				Wind Dir.
Vel. knots	06				03				02				34				34				08				03				12				20				Vel. knots
Pressure mb	Surf				1000				950				900				850				800				750				700				650				Pressure mb
Height ft./100	02.7				00.5				00.2				00.6				00.6				01.2				04.2				02.9				00.3				Height ft./100
Temp. °F.	26				38				31				31				41				40				39				47				46				Temp. °F.
Dew °F.	21				30				27				27				39				39				38				41				39				Dew °F.
Wind Dir.	860				130				290				02				Calm				040				330				280				280				Wind Dir.
Vel. knots	06				03				02				34				34				08				03				12				20				Vel. knots
Pressure mb	Surf				1000				950				900				850				800				750				700				650				Pressure mb
Height ft./100	02.7				00.5				00.2				00.6				00.6				01.2				04.2				02.9				00.3				Height ft./100
Temp. °F.	26				38				31				31				41				40																

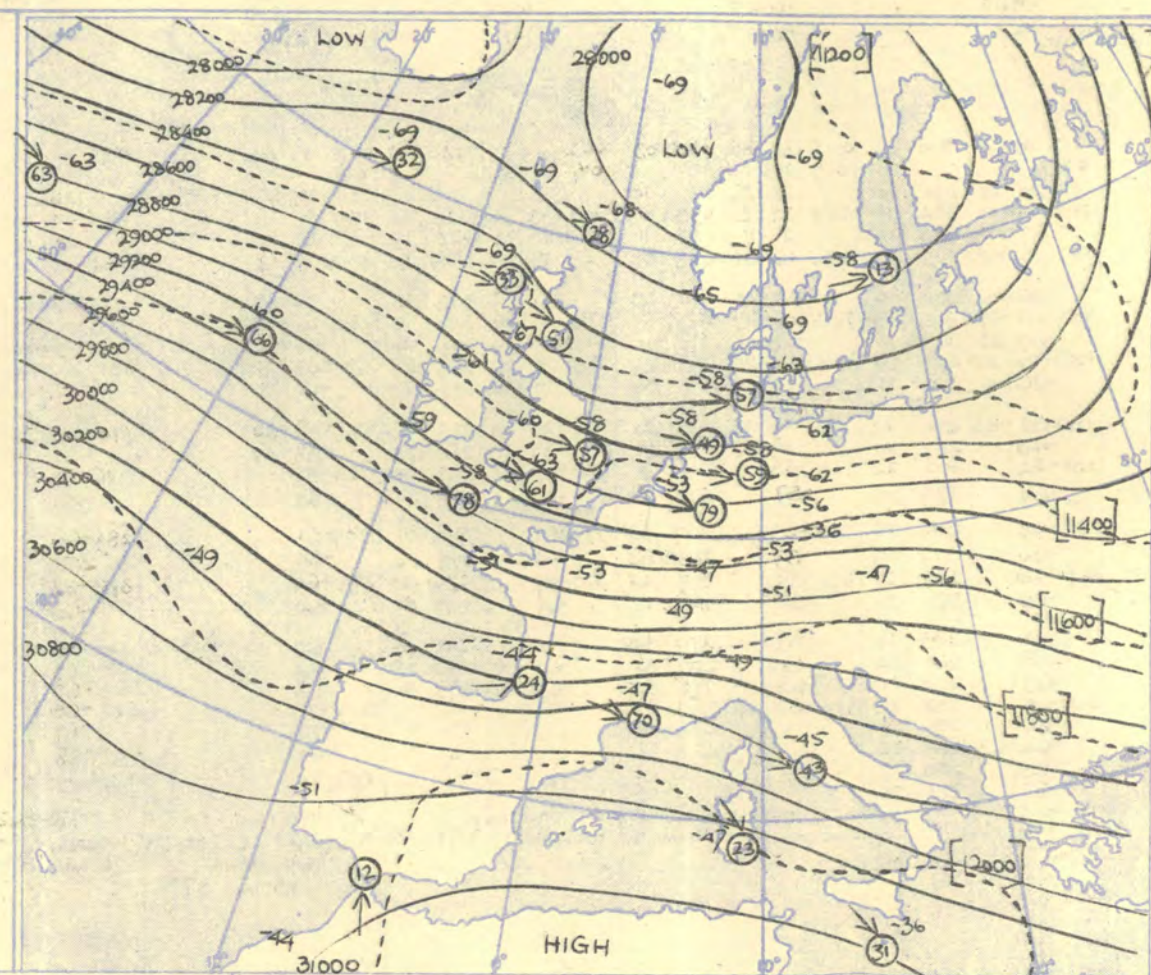
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 H G.M.T.



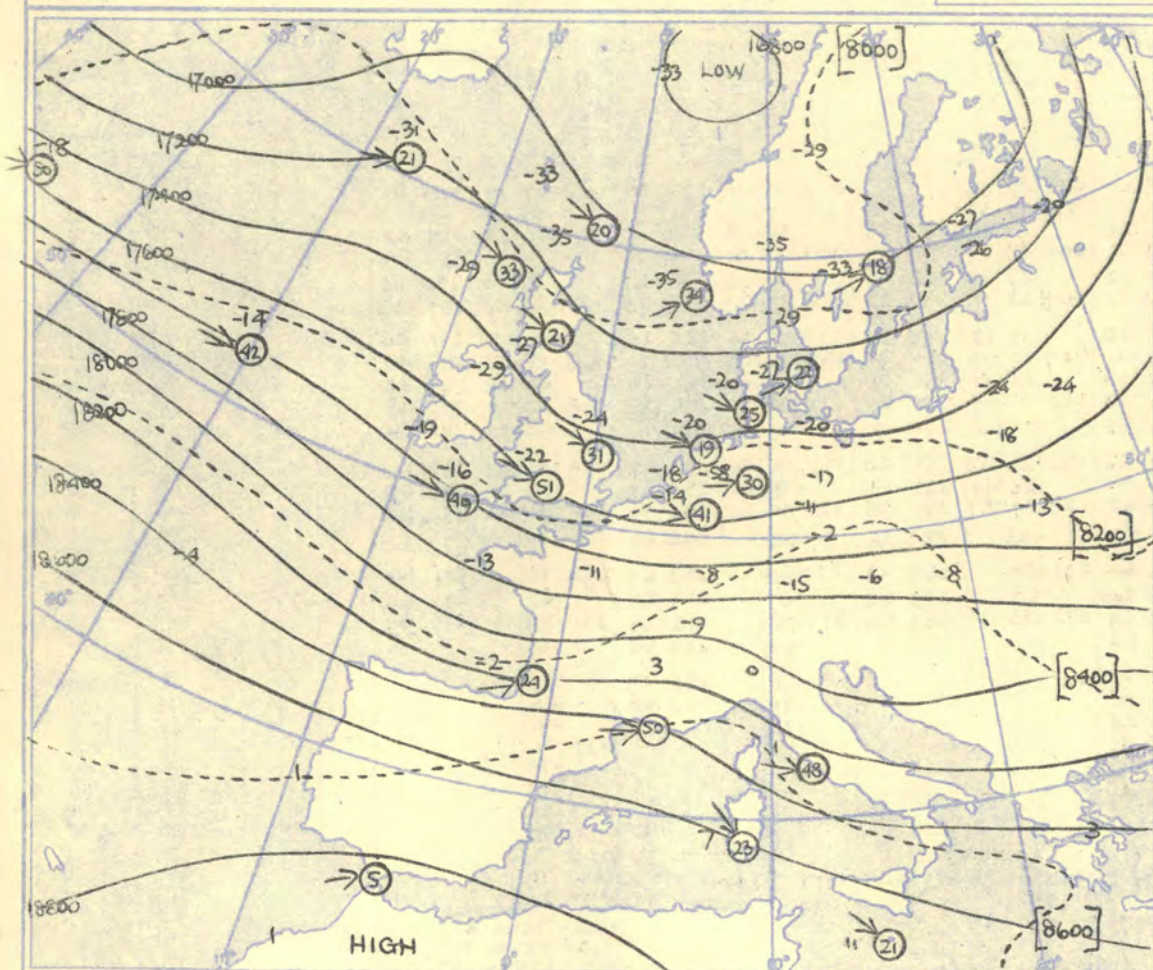
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

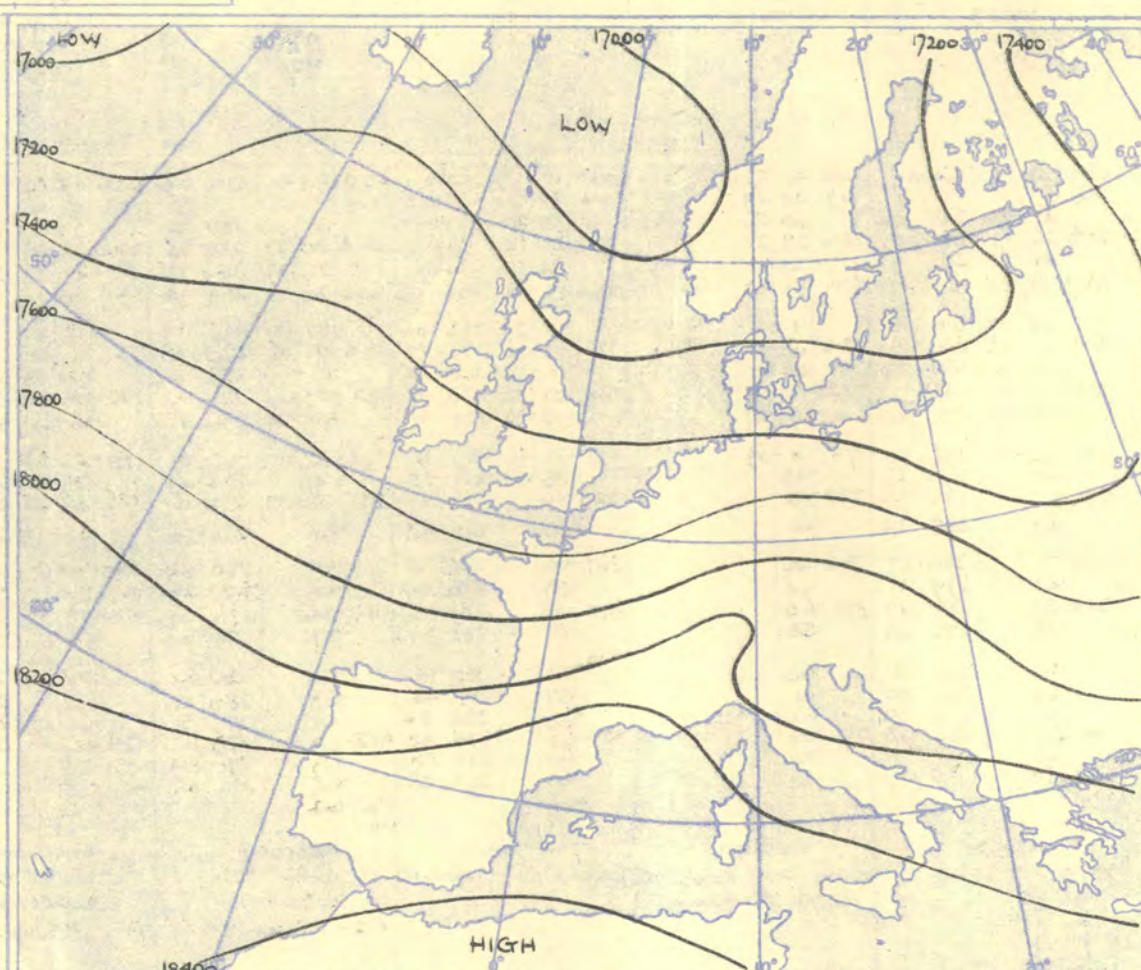
100 60 40 20 10 0 knots



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.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

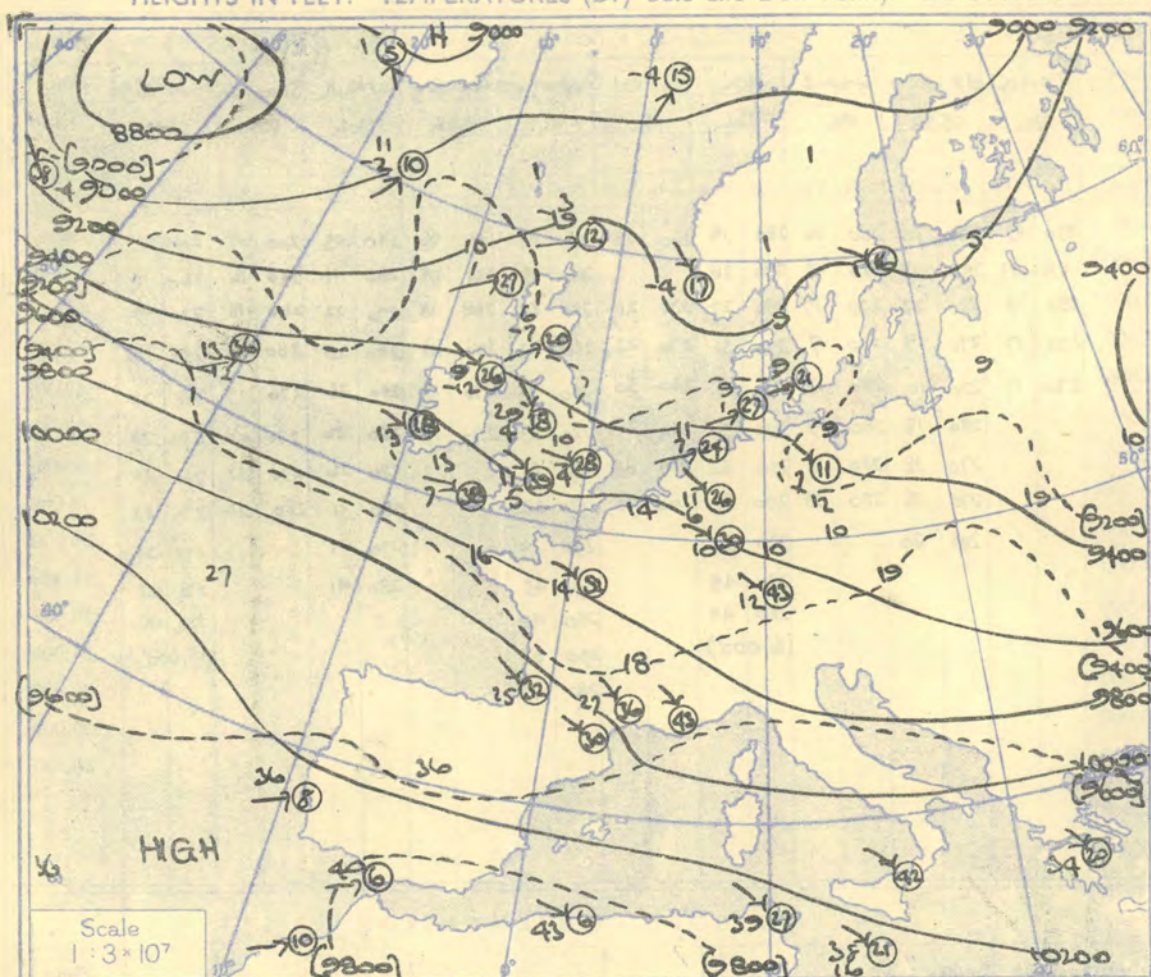
[illegible]

NEPHOSCOPE OBSERVATIONS

Place	Lympne	St. Athan	Middleton	Leeming						Place
Time Type	12h Ac	12h Ac	12h Ci	15h Ac						Time Type
Dir. Vel.	290 48	290 48	270 50	280 57						Dir. Vel.

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

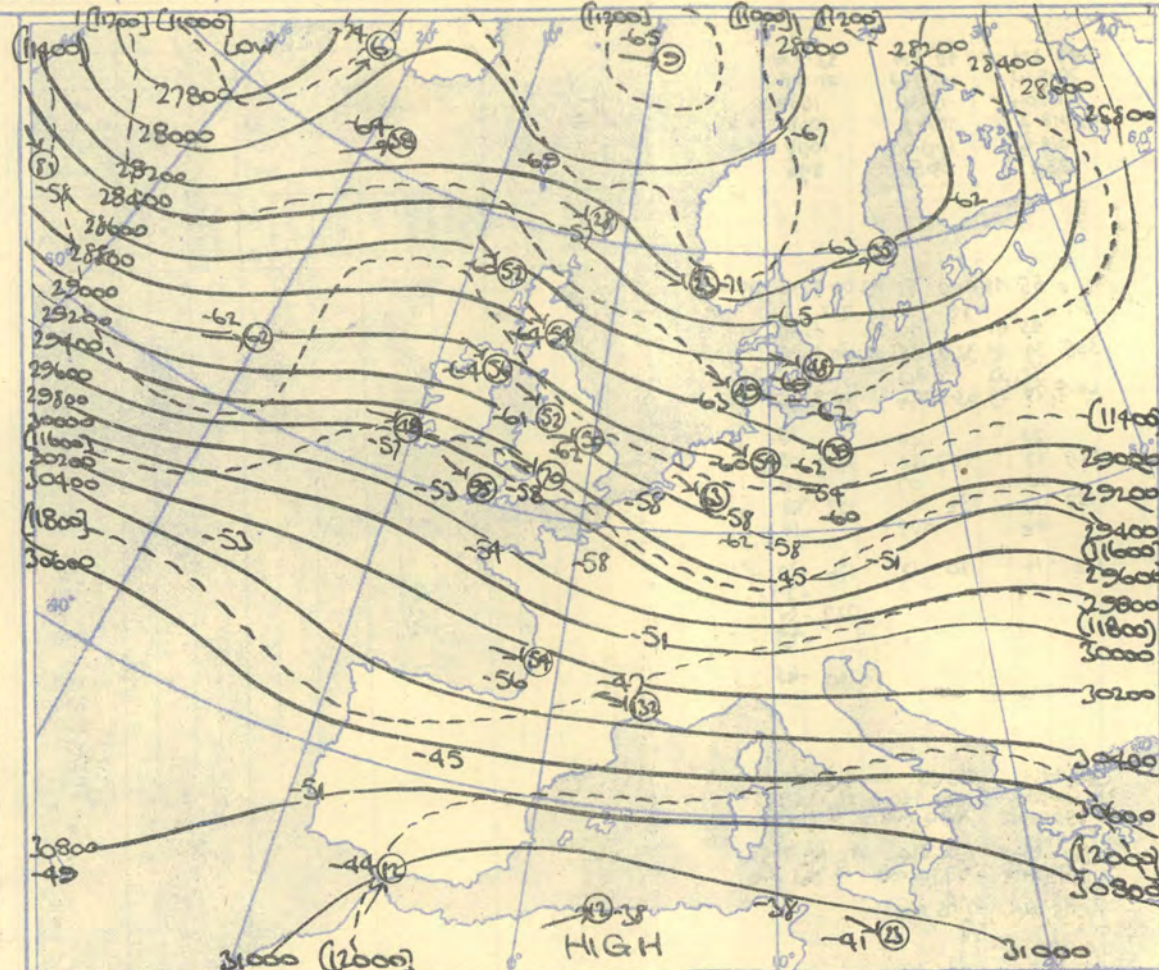
[illegible]



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.

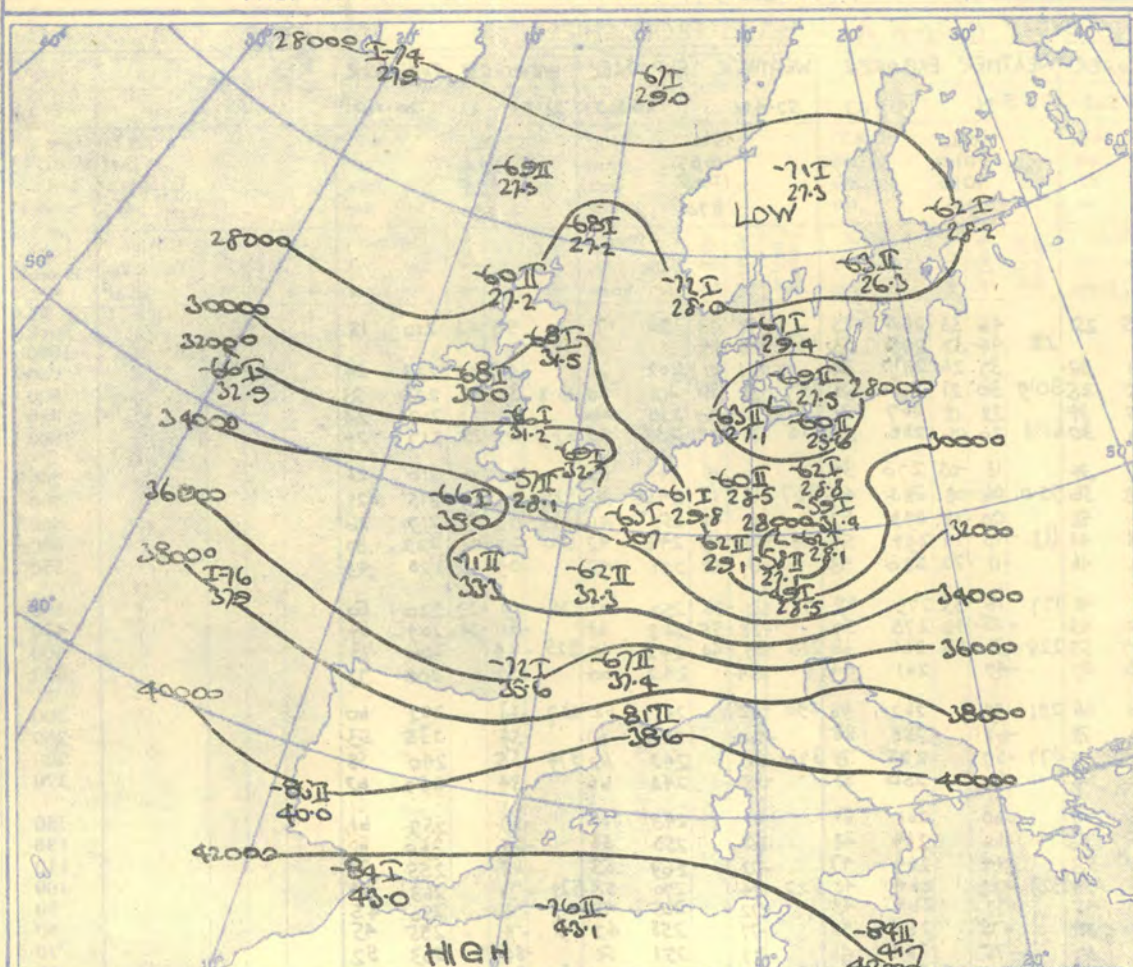
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 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.

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



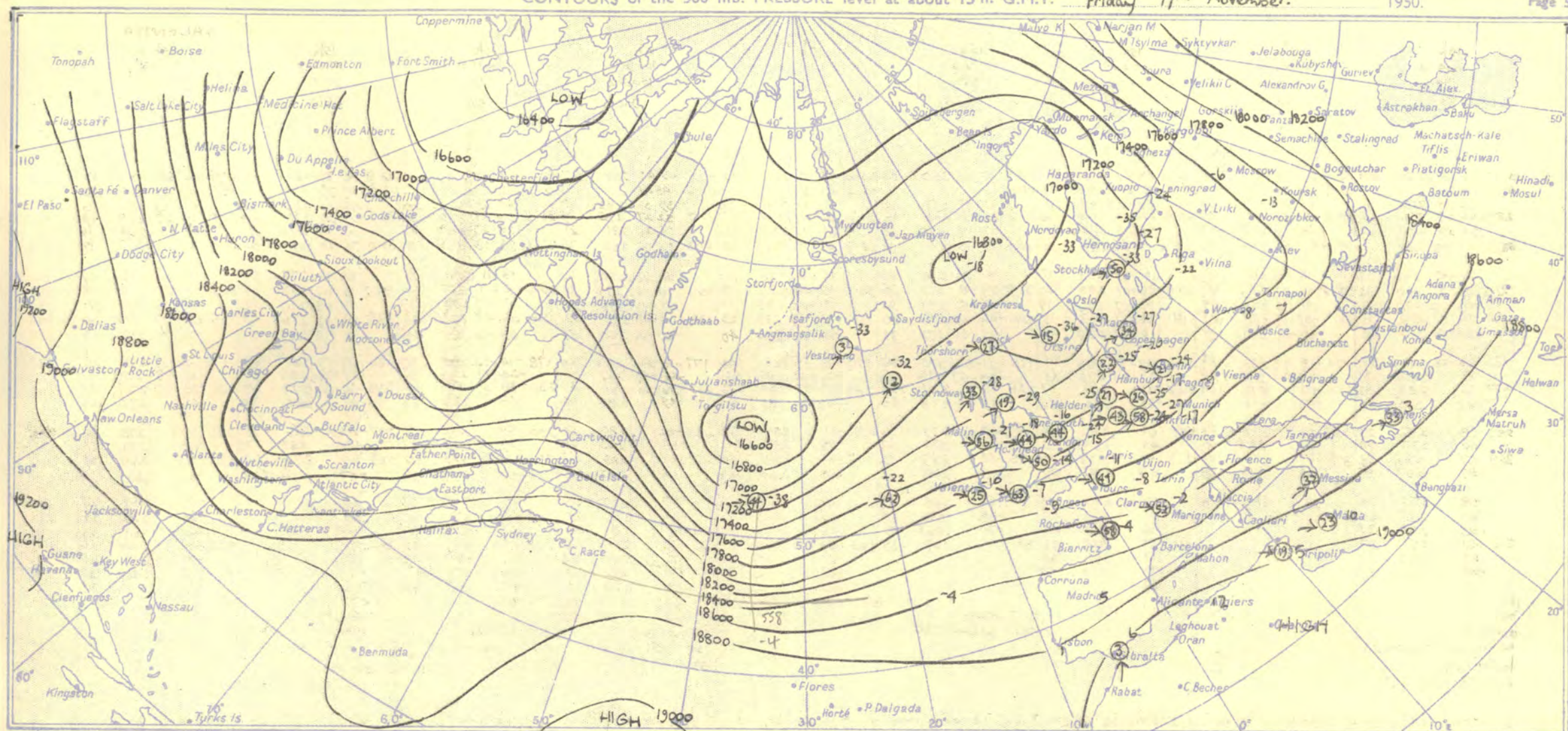
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Cold air from the Davis Strait streamed into the Western Atlantic resulting in thickness near the extreme values and a corresponding marked thermal difference in Mid-Atlantic. A new depression developed about 500 miles West of Ireland probably in association with this difference of the thermal pattern.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

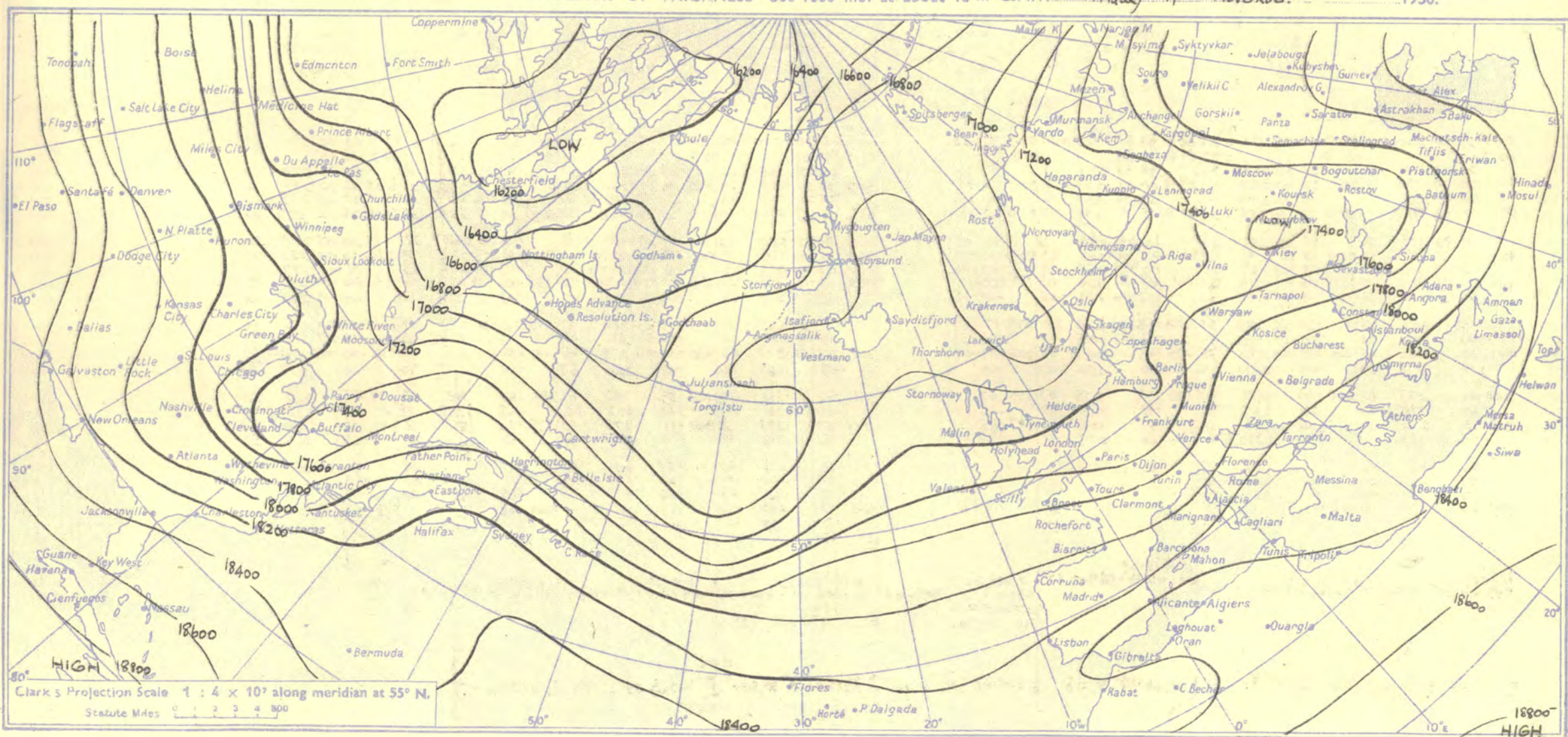
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Friday 17th November.

1950.



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

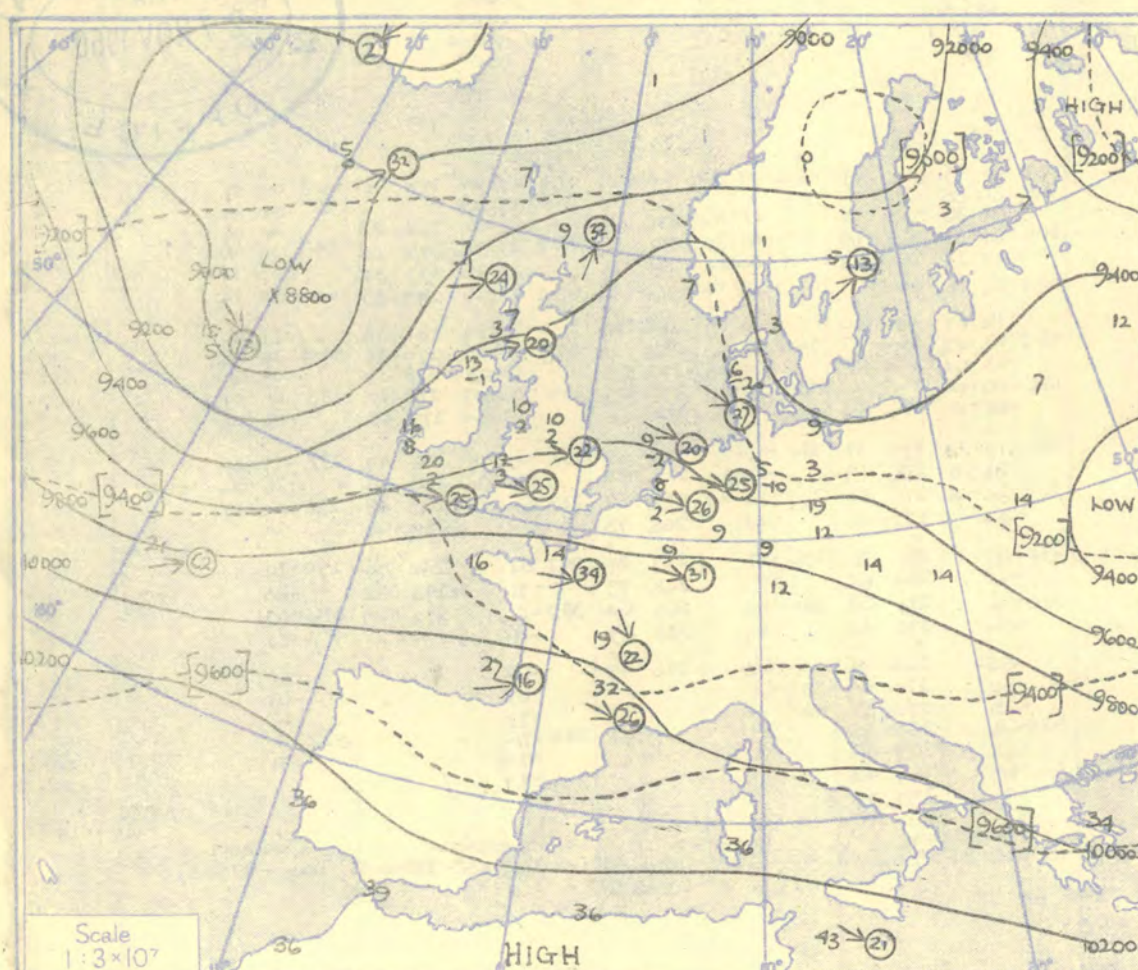
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION										
Pressure M.S.L. Surf Freezing	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. Surf Freezing										
	1004.2 mb				1002.0 mb				1006.2 mb				1006.1 mb				1008.0 mb				1009.7 mb				1011.4 mb				1012.3 mb				1011.8 mb														
	994.0 mb				1000.0 mb				1005.4 mb				997.3 mb				1005.9 mb				1005.4 mb				995.1 mb				1003.7 mb				1010 mb														
944				710				245				900				907				900				877				868				890															
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																		
Surf	02.7	36	28	220	09	00.5	41	38	170	12	00.2	28	25	Calm	02.3	42	38	250	03	00.6	44	39	270	10	01.2	45	41	250	07	4.4	47	38	290	10	02.9	50	39	270	08	00.3	50	41	280	13			
1000	01.0					00.5	41	38			01.7	28	34	186	11	01.6					02.2	43	39			02.6	45	41			2.7				03.9	49	39			3.2	49	40	278	12			
950		33	23	215	16		35	32	189	23		32	29	187	11		37	31	258	15		37	33	270	24		37	33	282	17		40	33	276	20		42	35	265	22		41	33	271	10		
900	28.7	26	23	215	14	28.5	31	27	197	23	29.4	32	29	200	14	29.6	32	26	262	18	30.2	31	27	272	27	30.7	32	27	282	19	30.7	34	29	280	27	32.2	35	30	270	24	31.4	34	27	274	13		
850		24	00	230	12		26	22	216	27		28	15	212	11		27	19	270	18		27	23	269	25		26	21	281	21		28	23	283	32		31	23	275	29		27	22	282	16		
800	28.9	17	08	240	11	29.1	20	18	249	33	29.8	19	05	227	12	60.2	25	13	270	18	60.9	22	18	279	22	61.3	20	16	282	23	61.6	23	18	288	34	63.0	26	16	279	31	62.3	24	16	277	18		
750		10	14	246	12		14	09	254	31		13	03	239	17		15	04	274	20		15	11	285	20		15	10	280	26		18	11	290	38		20	12	278	36		19	05	273	17		
700	92.3	03	19	260	12	92.8	10	01	242	27	93.0	06	07	240	20	93.9	09	12	279	26	94.7	09	04	289	18	95.1	10	04	278	28	95.6	11	05	287	35	97.2	13	07	269	38	96.4	13	01	274	18		
650		03	22	270	13		01	12	248	27		02	07	246	19		01	18	279	30		01	05	285	21		03	05	276	28		07	07	285	39		09	03	270	42		07	03	277	20		
600	130	14	21	290	11	131	08	19	250	27	131	08	17	253	15	132	06	24	276	30	133	05	17	293	23	133	04	14	279	29	134	02	08	283	41	136	04	05	276	49	135	02	09	272	20		
550		24	40	310	18		19	29	250	29		18	27	269	18		15	41	282	33		11	26	294	40		10	30	280	37		06	15	281	45		02	14	279	57		05	16	270	23		
500	172	33	48	310	27	174	28	38	242	33	174	29	38	268	19	175	21	52	274	36	176	18	35	291	44	177	16	39	282	44	178	14	22	285	50	180	17	19	281	63	179	10	28	276	25		
450		43		298	31		28	44	244	29		35	47	275	31		30	57	276	36		26	42	281	41		26	49	287	45		24	31	285	56		17	28	280	67		21	39	280	32		
400	227	52		288	32	224	42		272	37	225	43		302	57	226	41		277	33	228	37	63	282	45	229	36	56	286	45	230	34	39	285	65	233	30	42	279	69	231	33	49	277	36		
350		62		283	27		53		274	58		55		293	56		53		278	43		48		281	50		49		284	44		45		283	66		41		284	84		45		273	43		
300	283	68		275	28	287	60		278	52	287	64		286	54	289	64		278	56	291	61		285	52	292	62		284	50	294	58		282	70	297	53		286	95	295	57		272	48		
250		60		277	34		63		282	51		62		284	52		63		274	52		58		281	60		65		283	61		59		282	67		63		283	79		63		272	39		
200	369	57		270	35	373	57		270	45	373	55		285	58	375	54		277	52	377	55		280	54	378	57		283	61	381	54		277	60	383	60		276	64	381	57		265	30		
170		59		257	38		53		274	62		56		281	62		53		268	57		55		280	54		56		282	53		56		277	56		57		276	58		55		262	27		
150		58		277	38		53		272	65		58		279	52		61		265	58		60		285	52		59		277	53		60		275	53		59		275	53		59		267	27		
130		60		265	45		61		270	53		61		270	53		63		268	52		60		280	52		63		271	49		63		271	50		63		271	50		64		270	22		
110		62		280	37		66		275	46		66		275	46		70		267	49		66		280	49		67		273	45		67		278	37		69		278	37		68		261	23		
100	516	62		256	37		69		278	51	521	69		280	48	521	70		268	39	525	69		280	54		70		277	44		70		278	40		71		278	40		71		270	25		
90		63		249	34		71		280	51		71		280	48		72		269	39		67		280	54		72		283	52		72		287	45		71		287	45		70		271	21		
80		65		242	35		70		272	54		70		272	54		72		268	39		67		280	54		72		277	44		72		273	47		71		273	47		71		270	25		
70		65																																													
60		66																																													
Inversion 885mb 24° - 869mb 26° Isothermal 994 - 972mb 36°																																															
Tropopause I 300mb - 68° 28,300 I 319mb - 60° 27,200 I 275mb - 68° 30,500 I 283mb - 68° 30,000 I 272mb - 66° 31,200 I 253mb - 69° 32,700 I 317mb - 57° 28,100 I 234mb - 66° 35,000 I 283mb - 61° 30,700																																															
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION										
Pressure M.S.L. Surf Freezing	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.				21h G.M.T.				Time M.S.L. Surf Freezing										
	1003.0 mb				1001.1 mb				1006.2 mb				1008.0 mb				1009.2 mb				1012.4 mb				1013.4 mb				1016.5 mb				1002.8 mb														
	992.8 mb				999.1 mb				1006.3 mb				999.2 mb				1007.1 mb				1008.0 mb				997.0 mb				1002.8 mb				1002.8 mb														
928				995				923				882				888				886				880				868																			
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb						
Surf	02.7	37	32	220	16	00.5	39	36	210	02	00.2	33	32	Calm	02.3	37	35			00.6	41	38	260	06	01.2	37	35	220	06	4.4	39	37	Calm	02.9	46	40	270	08									
1000	00.7					00.3					01.6	35	34			02.2					02.5	42	38			03.3	38	36			3.5				04.2	46	40										
950		35	28	198	30		37	33	238	22		35	33	227	13		39	36			38	35	268	25		39	36	262	20		40	36	267	18		41	35	274	23								
900	28.6	28	24	194	31	28.3	32	27	242	27	29.4	30	27	223	16	30.2	34	31			30.5	34	30	269	28	31.4	34	29	284	14	31.7	34	29	268	21	32.4	36	30	277	26							
850		22	18	194	31		28	21	240	26		25	22	234	16		29	25			28	24	270	23		28	24	285	19		28	24	267	22		30	23	279	25								
800	59.0	19	04	193	27	59.0	24	16	238	24	59.9	19	15	251	18	61.0	23	15			61.2	21	17	276	24	62.1	22	16	288	16	62.5	24	18														

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

[illegible]

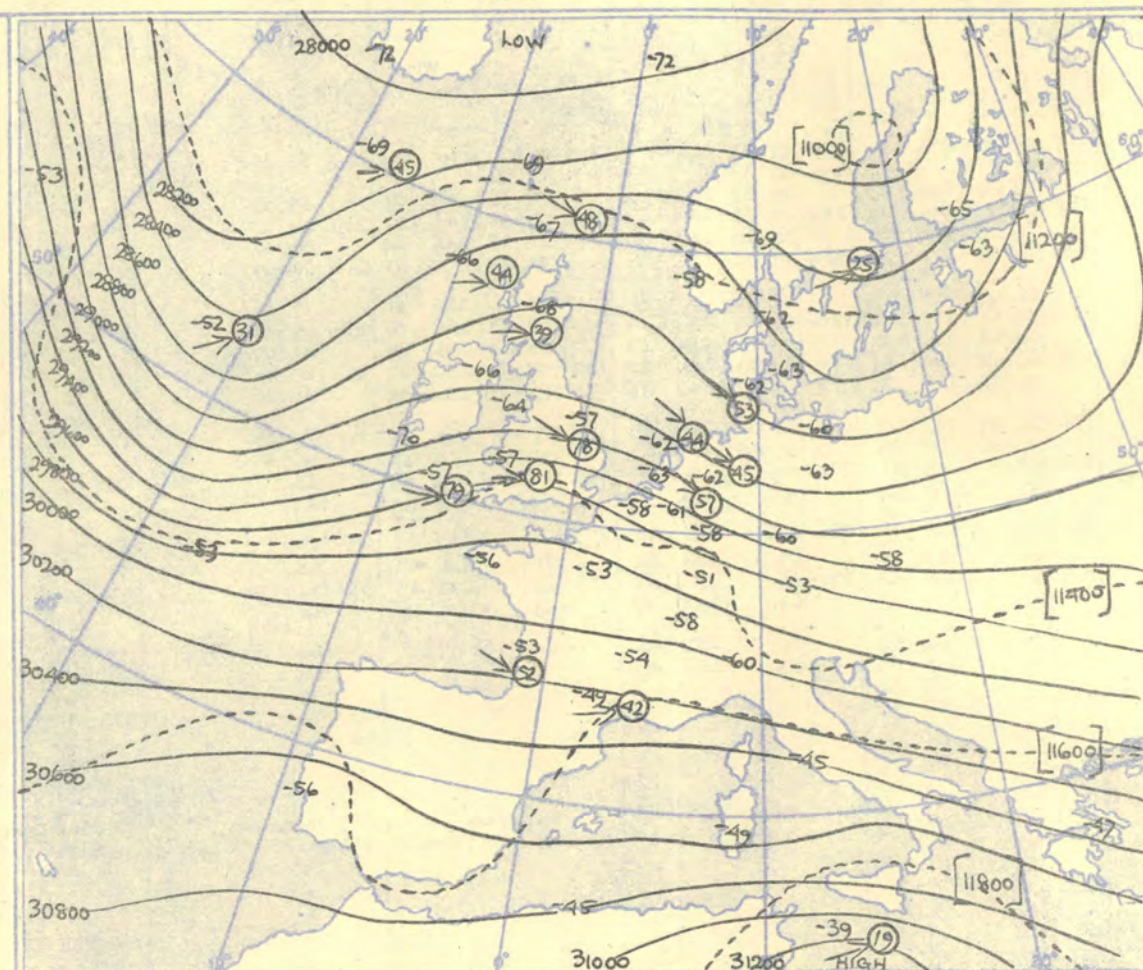
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



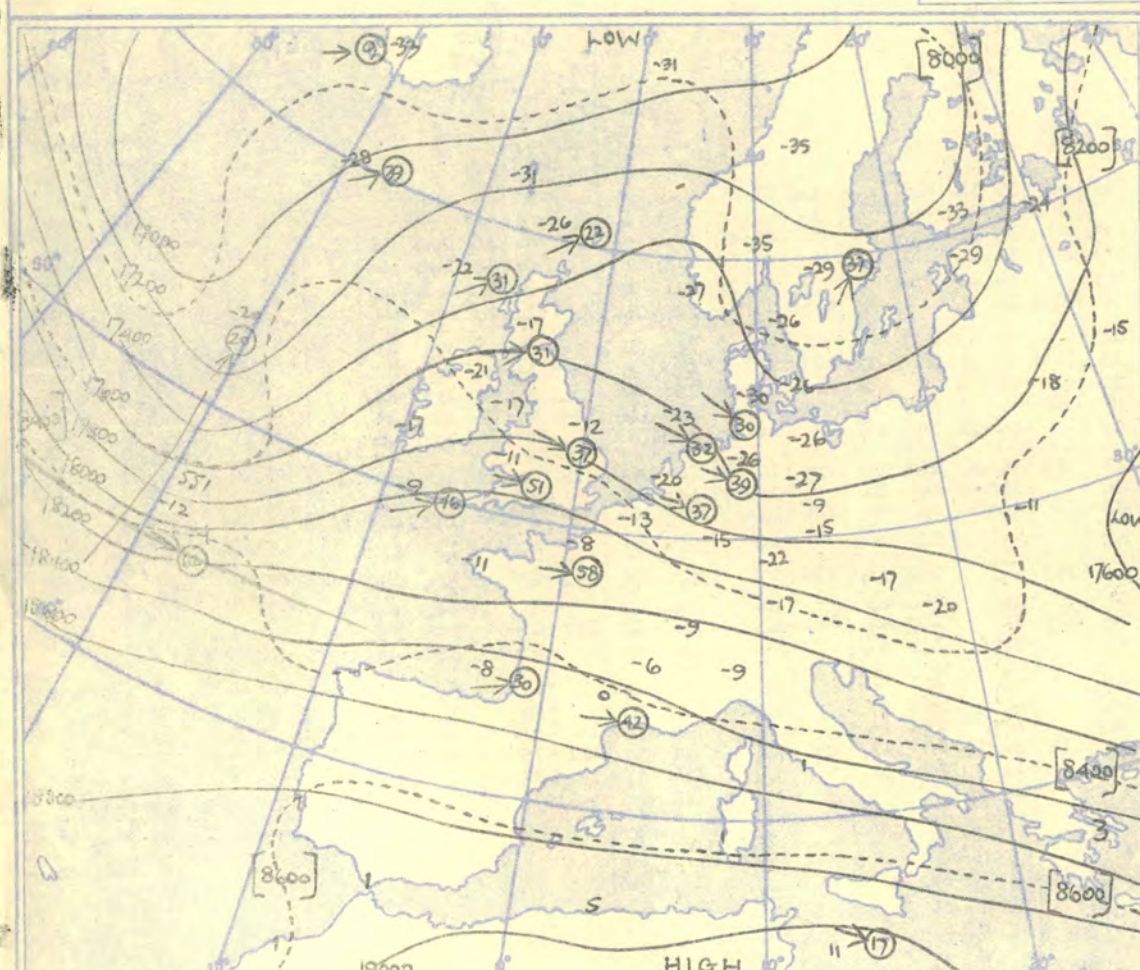
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

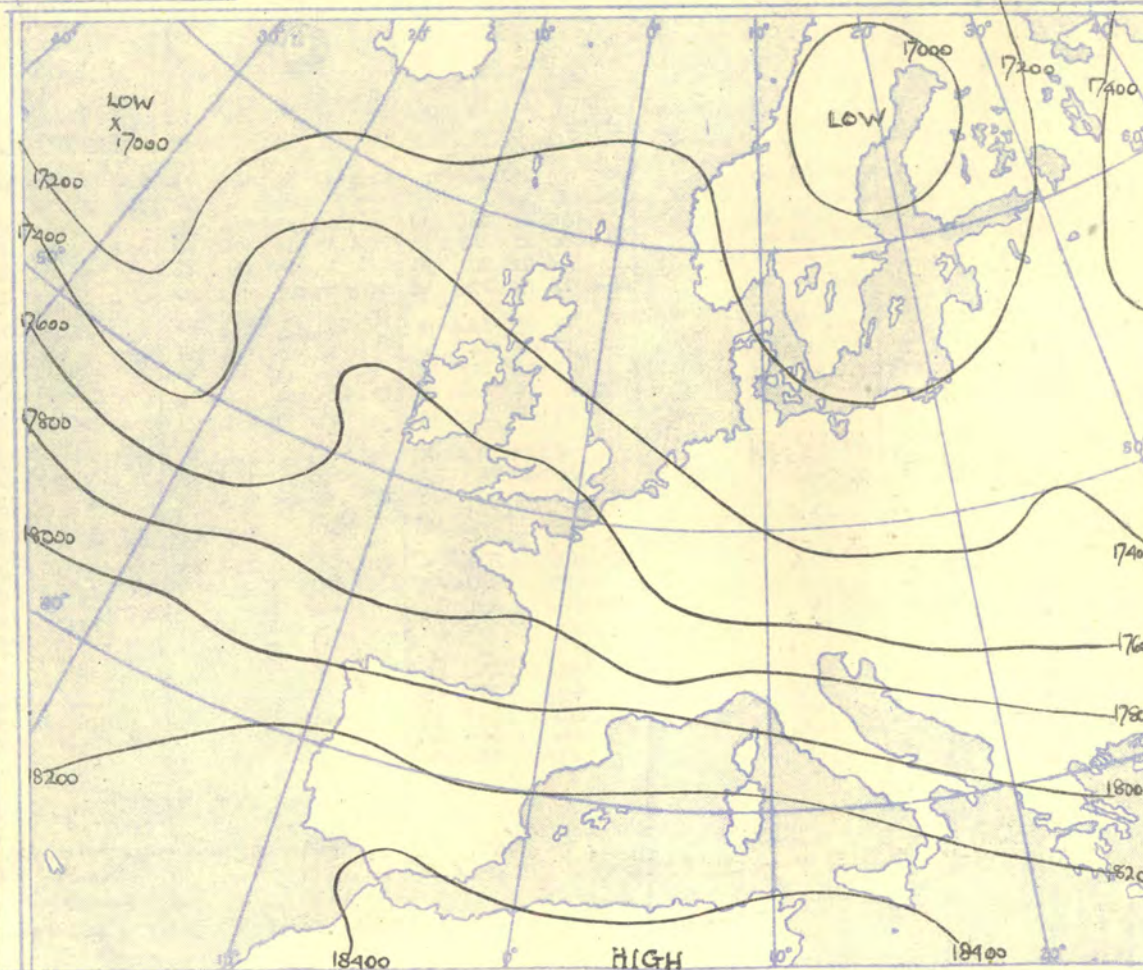
100 80 60 40 20 10 0 knots



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.



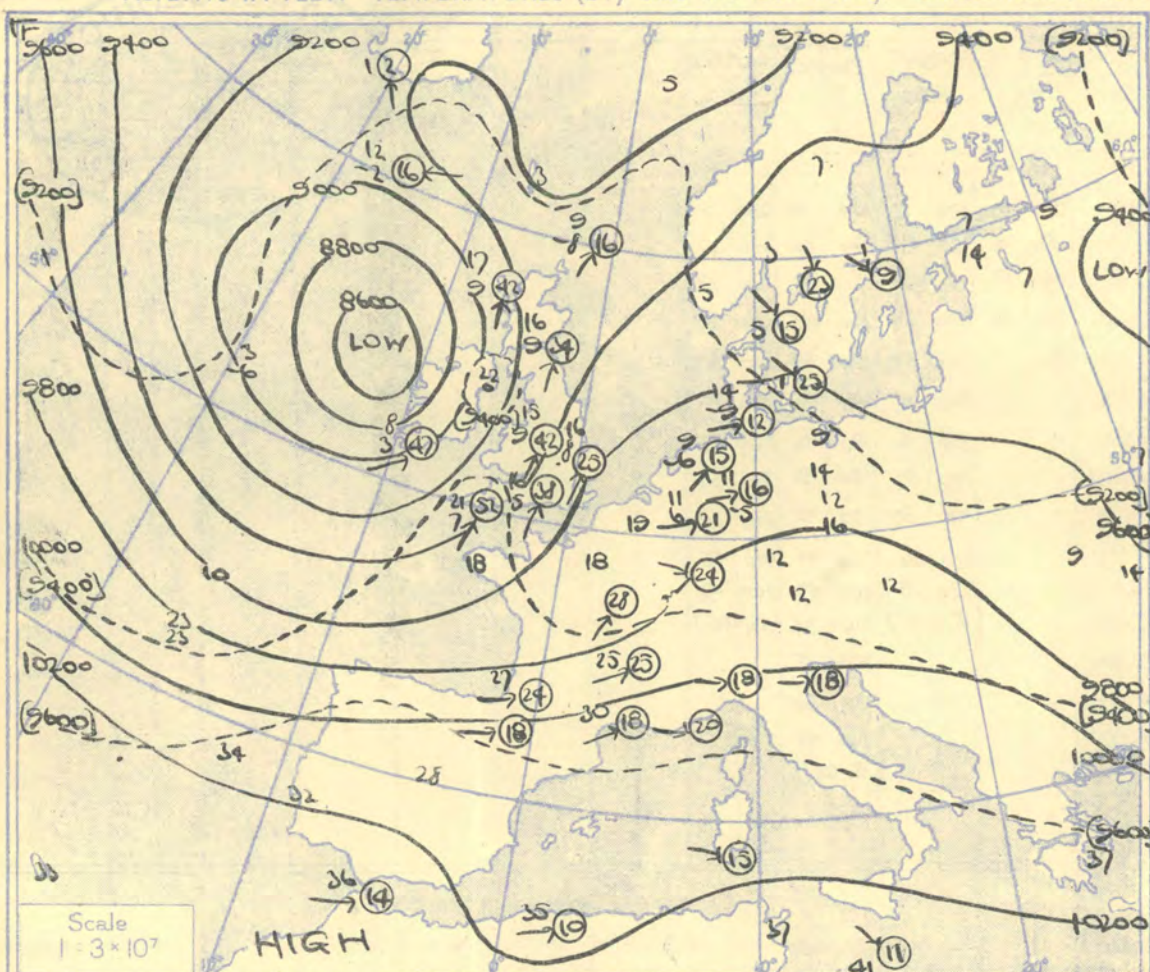
Isopleths of Thickness 500-1000mb.

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

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

Ship				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER								Ship							
Lat/Long				60-4N 16-1W				60-5N 16-2W				60-4N 16-3W				60-4N 16-0W				52-6N 20-0W				52-6N 19-7W				52-4N 19-3W				52-4N 20-1W				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										
	M.S.L.	993 mb			993 mb			994 mb			996 mb			984 mb			987 mb			991 mb			994 mb						mb M.S.L.										
	Surf	993 mb			993 mb			994 mb			996 mb			984 mb			987 mb			991 mb			994 mb						mb Surf										
	Freezing	910 mb			915 mb			885 mb			905 mb			875 mb			910 mb			890 mb			880 mb						mb Freezing										
Pressure	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb						
Surf		43	32	220	13	43	34	140	11	44	37	060	18	45	36	050	27	45	40	260	08	39	39	290	45	43	32	44	41	310	41	Surf							
1000	-2.1	37	30	214	13	43	37	20	145	08	39	33	052	18	39	33	058	27	42	35	270	15	36	33	40	24	42	31	311	56	1000								
950	26.0	30	26	210	15	26.2	29	23	143	07	26.5	34	30	061	23	31	28	057	28	35	27	272	15	23.9	31	28	25.7	33	20	26.5	35	22	319	48					
900	56.3	16	06	218	24	56.7	18	12	130	06	57.2	24	12	057	21	57.5	20	12	051	26	54.8	27	19	272	14	54.4	19	17	56.3	17	10	57.3	27	09	325	48			
850																																	850						
800																																	800						
750	89.8	11	08	232	31	13	03	145	07	18	05	048	17	17	19	048	24	20	12	278	14	13	11	10	03	20	01	323	53	750									
700	05	00	240	32	90.4	08	04	151	08	91.2	12	02	067	16	10	19	046	22	89.0	15	05	288	13	88.1	07	05	89.7	03	-06	91.5	12	-02	328	48					
650	127	-10	-22	261	32	128	-10	-19	178	16	129	-03	-15	053	15	129	-04	-28	035	21	127	-08	-13	242	10	126	-02	-11	130	-05	-16	335	43						
600	19	-29	263	38	-18	-26	205	21	-11	-28	028	15	-17	-39	027	20	-11	-21	200	16	-16	19	-19	-37	-13	-28	340	43	600										
550																																	550						
500	170	-28	-35	261	39	171	-27	-35	224	19	173	-21	-38	009	14	173	-23	-32	023	11	171	-20	-29	182	20	169	-21	-24	170	-26	-40	173	-23	-39	349	44			
450	37	-43	254	38	-38	-46	230	27	30	43	240	07	-33	-59	145	05	-32	-41	167	18	-33	-41	167	18	-33	-36	220	-39	-61	220	-35	-52	357	35					
400	220	48	241	38	221	-51	222	32	224	41	193	31	223	-44	167	15	223	-45	162	21	220	-46	-51	-55	220	-51	-55	220	-48	-56	347	29							
350	59		234	46	-62		205	48	-54		175	17	-58		162	24	-58		189	22	-61											347	31						
300	282	-69	240	45	282	-75	209	54	286	-69	180	42	285	-75	163	36	284	-52	210	31	282	-49											300						
250	567	-68	228	36	-77		205	38	-86		193	48	-84		176	39	-49		219	33	-49												250						
200		-61	229	35	210	-71			-67		235	23	366	-79	237	20	373	-50	253	44	371	-48											200						
170		-61	225	36					-66		245	21	-77		267	20	-53		252	54	-51												170						
150		-62	225	36					-66		248	26	-76		279	22	-55		240	53	-53												150						
130		-64	235	46					-65		249	27	-74		275	22	-59		231	58	-58												130						
110		-67	240	42					-67		246	21	-72				-61		238	62	-64												110						
100	513	-68	243	42					-69		243	24	508	-73			-64		250	59	-66												100						
90		-70	249	45					-70		240	26	755	-76			-68		251	59	92	-68											90						
80		-72	252	45					-71		241	27					-72		252	53													80						
70		-64	254	43					-73		247	27					-76		247	45													70						
60									-75		245	30					-81		241	38													60						
									-75		246	31					-95																						

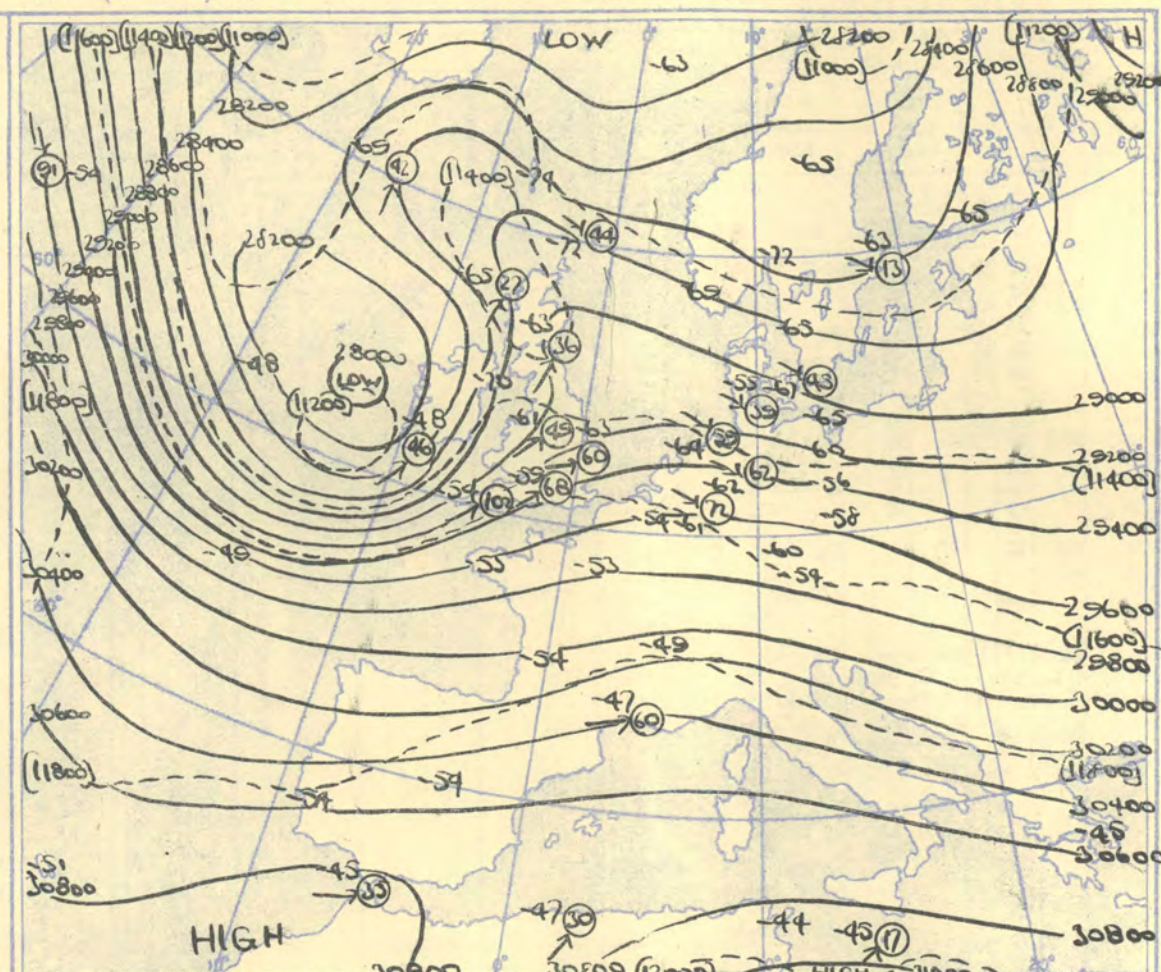
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



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.

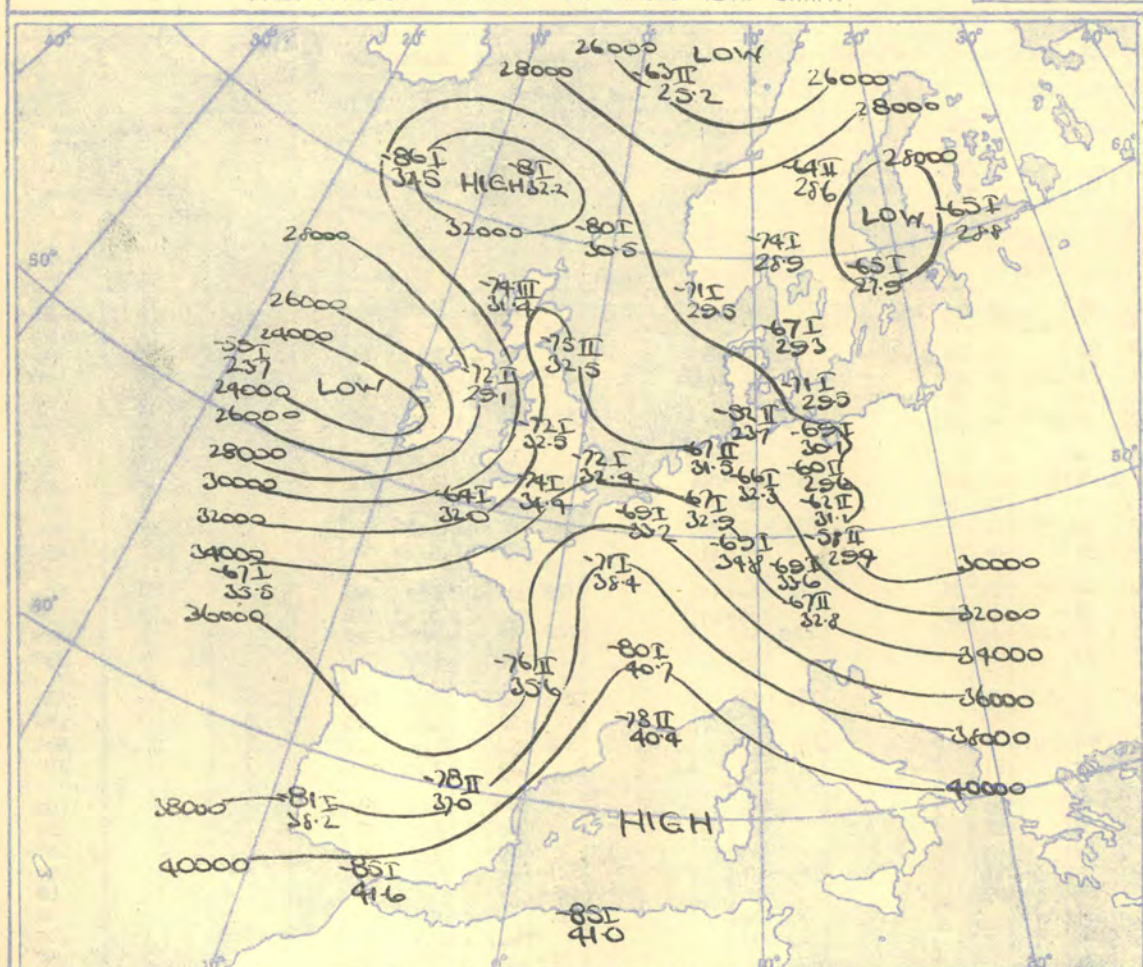
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

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.

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



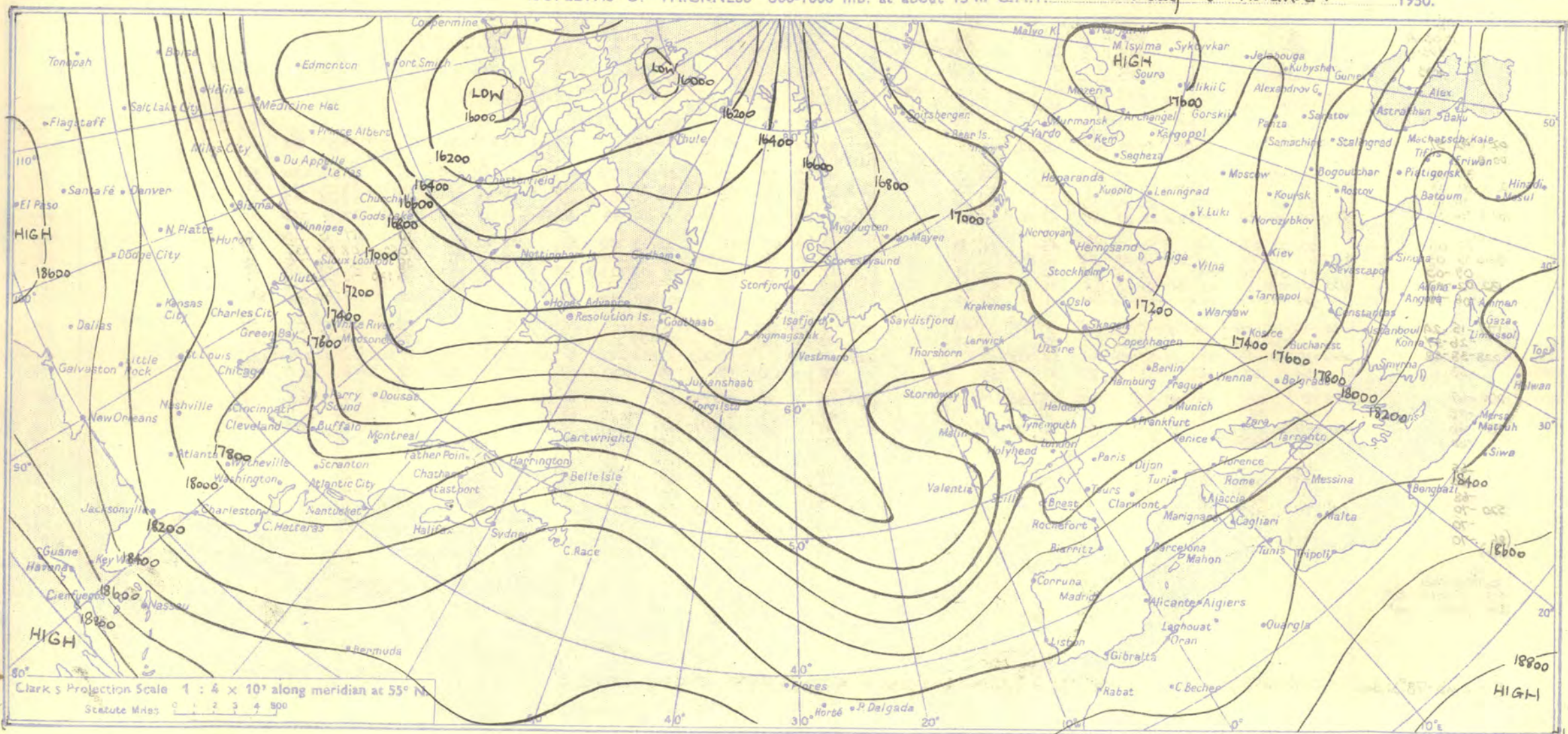
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

A cold trough developed from the tip of Greenland to southwest of the British Isles and moved Northeastwards during the day. A weak warm ridge also developed over the British Isles. Both features were in association with a deepening depression West or Northwest of Ireland.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



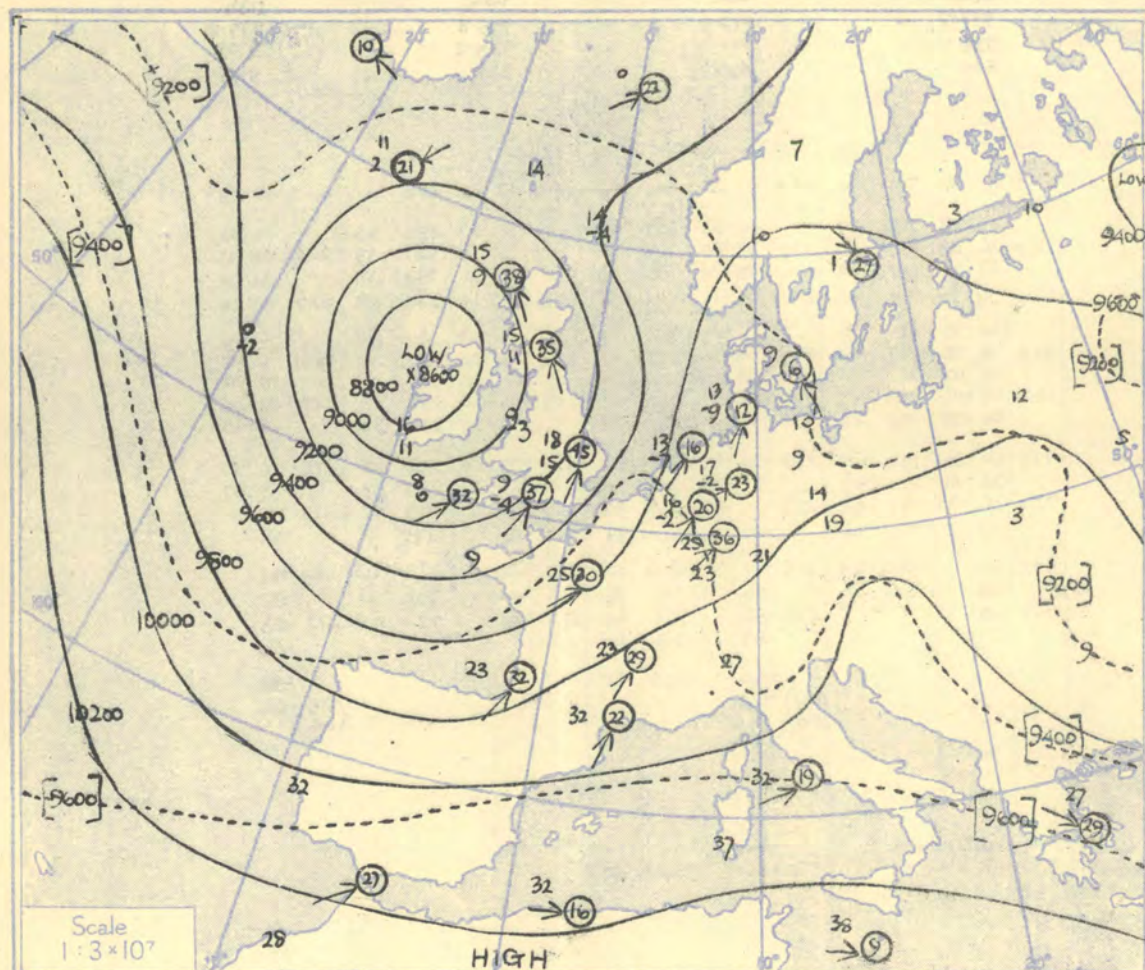
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure Time M.S.L. Surf Freezing	15h G.M.T. 1003.0 mb 993.0 mb 910 mb				15h G.M.T. 996.6 mb 994.7 mb 875 mb				15h G.M.T. 1001.7 mb 1000.8 mb 850 mb				15h G.M.T. 987.8 mb 979.2 mb 808 mb				15h G.M.T. 999.5 mb 997.5 mb 848 mb				15h G.M.T. 1008.5 mb 1004.1 mb 841 mb				15h G.M.T. 1004.8 mb 988.8 mb 840 mb				15h G.M.T. 996.6 mb 986.2 mb 800 mb				15h G.M.T. 983.8 mb 982 mb 880 mb				Time M.S.L. Surf Freezing
Pressure mb	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Pressure mb				
Surf	02.7	37	36	210	05	00.5	45	35	130	15	00.2	41	36	150	09	02.3	42	40														Surf					
1000	00.8					00.9					00.4	41	34	196		21-03.3																1000					
950		38	32	200	16		42	29	134	26		39	33	192	22		44	41														950					
900	28.8	31	24	200	15	27.3	35	24	144	27	28.5	37	20	181	21	25.0	37	34														900					
850		25	18	200	15		28	20	147	30		32	18	175	24		35	31														850					
800	59.4	19	11	200	17	58.1	24	17	157	35	59.4	27	07	175	28	56.2	32	23														800					
750		14	03	205	17		23	16	174	39		24	03	182	33		27	12														750					
700	93.1	09-08	233	16	92.4	17	09	183	42	94.0	16	09	187	34	91.0	22	00															700					
650		05-19	259	26		12	04	185	39		10	05	193	34		16	-12															650					
600	131	00-21	262	28	131	05-04	184	39	132	03-03	187	33	120	06	-19																	600					
550		-12-22	270	27		-03-13	181	38		-06-14	191	27		-06-28																		550					
500	175	-22-39	283	29	176	-13-34	185	36	176	-14-24	198	22	174	-18-37																		500					
450		-33-49	277	33		-23-34	194	33		-26-35	194	26		-29-49																		450					
400	225	-44	265	45	227	-36-46	204	26	228	-40-51	203	21	225	-32																		400					
350		-59	273	52		-51	226	15		-52	222	22		-55																		350					
300	287	-72	280	44	290	-66	230	27	290	-63	242	36	287	-70																		300					
250		-72	250	35		-75	239	42		-75	244	47		-59																		250					
200	371	-61	242	39	374	-68	221	41	375	-60	238	46																				200					
170		-64	242	43		-61	230	46		-60	242	45																				170					
150		-63	242	44		-57	229	42		-56	240	45																				150					
130		-65	241	46		-57	223	33		-63	235	51																				130					
110		-69				-60	233	24		-60	246	48																				110					
100	517	-69			522	-62	235	47	522	-66	247	53																				100					
90		-73				-65	240	51		-69	240	54																				90					
80						-66	240	45		-69	245	45																				80					
70						-68	247	45		-73	255	46																				70					
60						-69	239	43		-70	251	40																				60					
						-71	229	48		-73	242	41																									
						-75	231	43		-72																											

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 M.S.L.	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.	03h.		G.M.T.	03h.		G.M.T.					
		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing	Surf	Freezing	Surf
1000	02-7	45	38		00-5	47	41	130	15	00-2	46	45	180	20	00-6	40	38		01-3	43	41	210	10	04-4	37	35	240	03	02-9	42	35	203	10	00-3	46	43			
950	0-8	41	34		3-0	43	37	114	30	2-5	41	40	181	23	2-0	39	34		0-3	42	38	230	27	0-5	40	33	227	22	-1-2	39	32	233	23	-5-7	42	40			
900	29-0	34	27		24-5	38	33	127	33	25-8	36	33	192	27	26-1	35	27		28-0	36	33	217	30	27-5	34	30	228	28	26-9	34	28	236	37	22-6	38	35			
850		30	22		32-2	32	28	136	29		30	27	182	28		29	18		32-2	32	29	201	32	28-2	34	24	225	29	27-1	21	234	38	34	31					
800	59-8	30	12		56-4	27	23	139	28	56-7	26	23	179	32	56-9	23	13		59-0	29	26	189	34	58-1	22	17	224	30	57-6	21	14	232	28	53-7	28	24			
750		22	02			22	16	140	33		21	17	170	35		16	08			24	21	184	38		16	09	222	31		15	08	234	35		22	18			
700	94-1	14	04		90-7	15	09	139	38	90-9	15	11	168	35	90-8	09	03		93-5	18	15	187	45	92-0	09	04	218	37	91-4	08	00	236	32	88-0	16	11			
650		06	12			09	04	132	42		09	04	152	35		00	16			12	07	190	54		02	09	216	39		00	05	235	31		10	04			
600	133	02	16		129	01	03	129	48	129	01	05	147	45	129	09	25		132	04	06	195	69	130	06	17	214	42	129	08	15	238	29	127	02	06			
550		11	24			07	13	141	50		07	14	148	60		19	30			04	18	195	75		16	25	215	45		17	27	238	33		06	15			
500		17	19		173	16	23	140	48	173	16	24	150	60	171	29	43		177	10	30	192	69	173	24	32	205	62	172	27	38	238	35	171	16	25			
450		29	25			27	35	138	52		28	37	149	63		39	53			23	41	190	69		29	40	203	89		39	50	232	37		28	37			
400	227	42			225	41		134	55	225	42		149	61	222	45			229	36	53	192	64	224	36	49	207	99	222	51		233	42	222	42				
350		53				55		126	58		57		152	60		48				49		192	74		47		211	93		48		222	46		58				
300	289	68			287	70		125	56	286	68		166	51	285	53			292	60		202	79	288	51		206	95	285	50		223	53	284	57				
250		83				76		139	45		60		180	46		56				65			216	80		56		216	76		49		225	49		52			
200	(238)	88			310	66		184	21	313	62		215	35	312	58			378	65				375	56		220	60	374	51		224	46	372	53		56		
170						66		201	22		62		213	41		62									57		213	44											
150						67		211	21		62		225	44		65									60		225	42											
130						68		223	30		67				518	72								(137)	62														
110						71		227	36							75																							
100					515	74																																	
90																																							
80																																							
70																																							
60																																							
		Inversion 87omb. 29°-85omb. 30° 824mb. 29°-80omb. 30°								Isothermal 764-753mb. 22°								Inversion 99omb. 40°-968mb. 41°				Isothermal 994-965mb. 43°				Inversion 982mb. 37°-96omb. 42°													
Tropopause		I 237mb. -88° 34,200'				I 267mb. -78° 31,000'				I 306mb. -70° 28,200'								II 273mb. -56° 20,500'				I 282mb. -64° 30,800'				I 300mb. -51° 28,800'				I 402mb. -51° 22,300'				I 334mb. -63° 26,000'				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION	
Pressure	Time M.S.L.	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.	09h.		G.M.T.	09h.		G.M.T.	09h.		G.M.T.					
		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing		Surf	Freezing	Surf	Freezing	Surf
1000	02-7	46	42		00-5	45	39		00-2	41	37		02-3	43	36		00-6	39	35	150	10	01-2	40	38	160	08	04-4	38	36	200	05	02-9	44	37	190	25			
950	0-7	41	38		2-9	43	37		2-1	41	37		4-5	44	37		2-2	37	34	165	17	0-4	41	36	177	27	0-8	40	37	206	18	2-2	41	35	216	46			
900	28-9	34	31		25-4	38	29		25-9	35	30		23-8	37	31		25-8	32	30	194	32	27-8	35	30	200	27	27-3	33	3	216	24	26-0	35	30	220	44			
850		29	25			33	22			29	23			31	26			28	25	205	31		29	23	198	26		27	24	214	30		28	23	223	40			
800	59-6	23	16		56-5	27	19		56-6	23	16		54-7	24	19		56-5	24	20	216	25	58-6	23	18	196	27	57-9	22	16	214	31	56-8	23	18	222	39			
750		22	05			20	09			17	09			19	12			18	14	206	24		17	11	200	31		15	08	213	32		18	13	218	38			
700	93-8	17	05		90-6	13	07		90-5	10	01		88-7	12	03		90-5	09	06	205	26	92-6	11	03	206	35	91-7	08	02	211	32	90-8	13	08	210	33			
650		11	06			08	04			03	08			06	06			01	01	187	25		04	01	197	38		01	06	215	39		06	02	211	35			
600	132	02	09		129	02	00		129	05	16		127	04	18		128	07	10	185	26	131	05	08	198	38	129	10	05	217	40	129	02	22	219	30			
550		07	17			07	12			14	26			13	28			15	22	233	16		14	18	201	40		20	26	218	35		11	36	239	20			
500		17	16		173	17	23		172	25	37		170	22	39		172	26	34	254	12	174	25	29	196	48	172	30	35	219	35	173	21	42	265	20			
450		27	34			30	38			35	47			33	49			38	45	260	16		34	38	195	61		216	36		28	39	280	36					
400	228	37	44		224	44			222	46			221	45			222	48		245	18	225	38	44	188	79	222	49		213	39	224	39	50	287	46			
350		51				56				47				60			49			211	26		47				49		213	49		54		291	43				
300	290	67			286	69			285	53			283	54			285	50		201	29	288	53			53		196	83	285	50		50		273	31			
250		80				69				53				54				47		207	39		53				50		198	57		50		238	35				
200	313	73			310	66			311	54			311	54			314	52		210	33	376	54			54		204	53	373	56		50		237	30			
170		68				66				55				55				54		206	34		58				58		212	43		58		239	36				
150		65				69				58				58				54		216	34		55				55		214	34		62		240	33				
130		70				68																																	

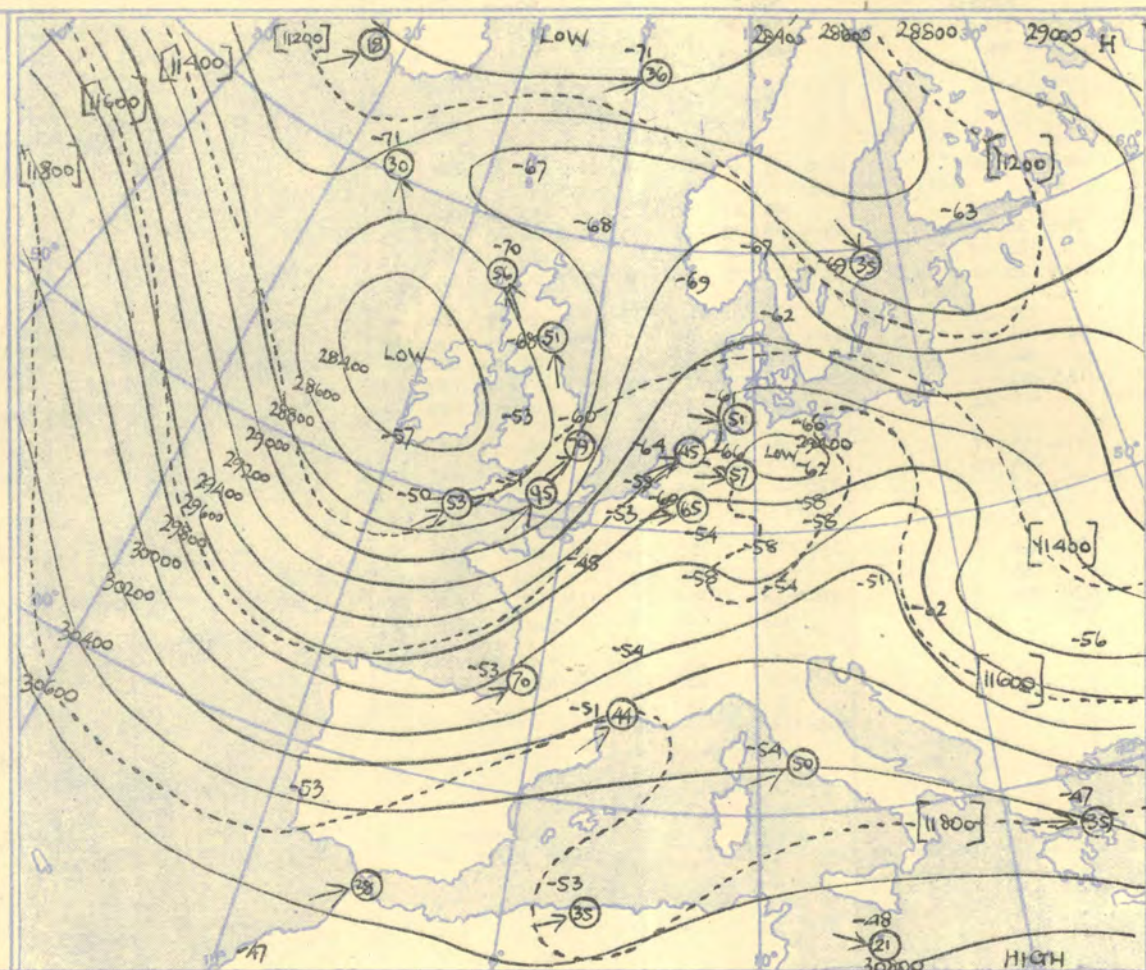
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



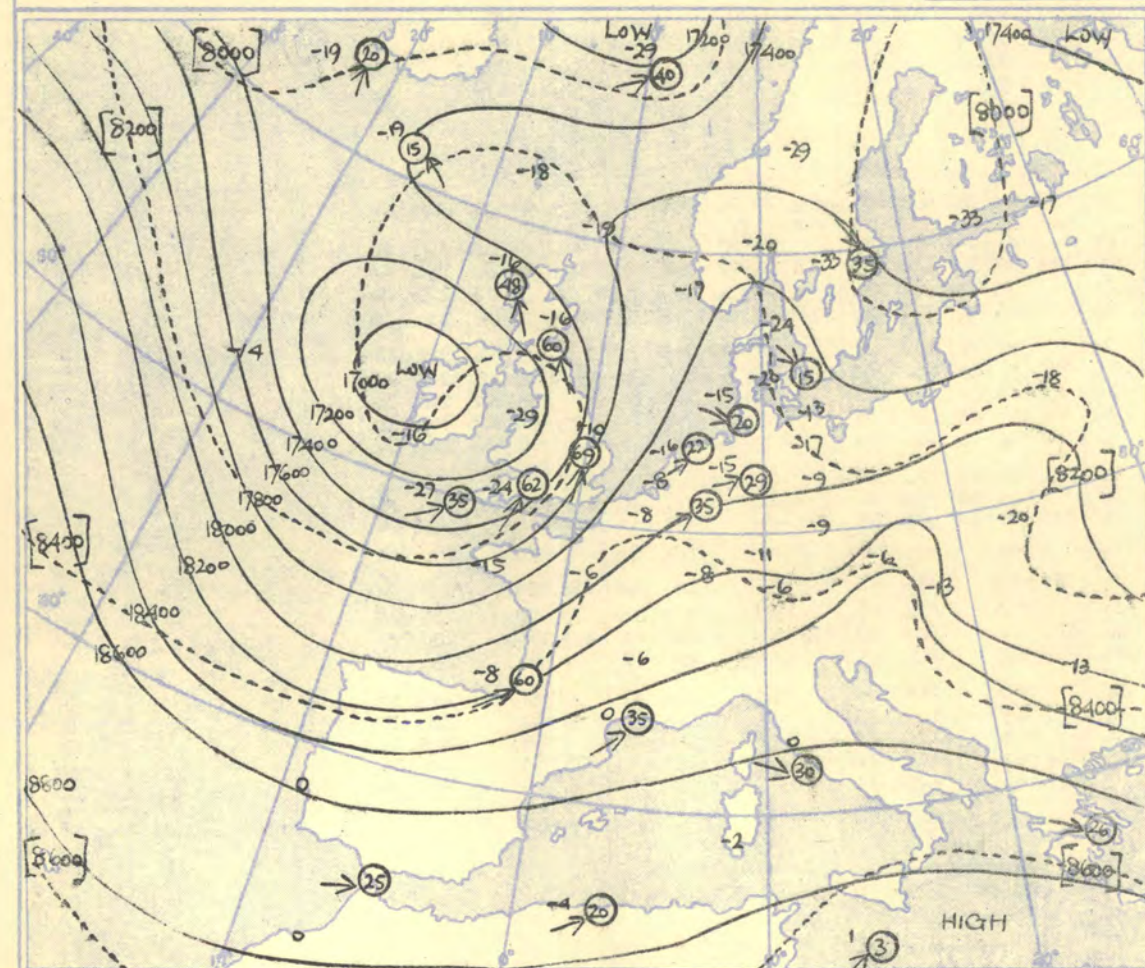
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

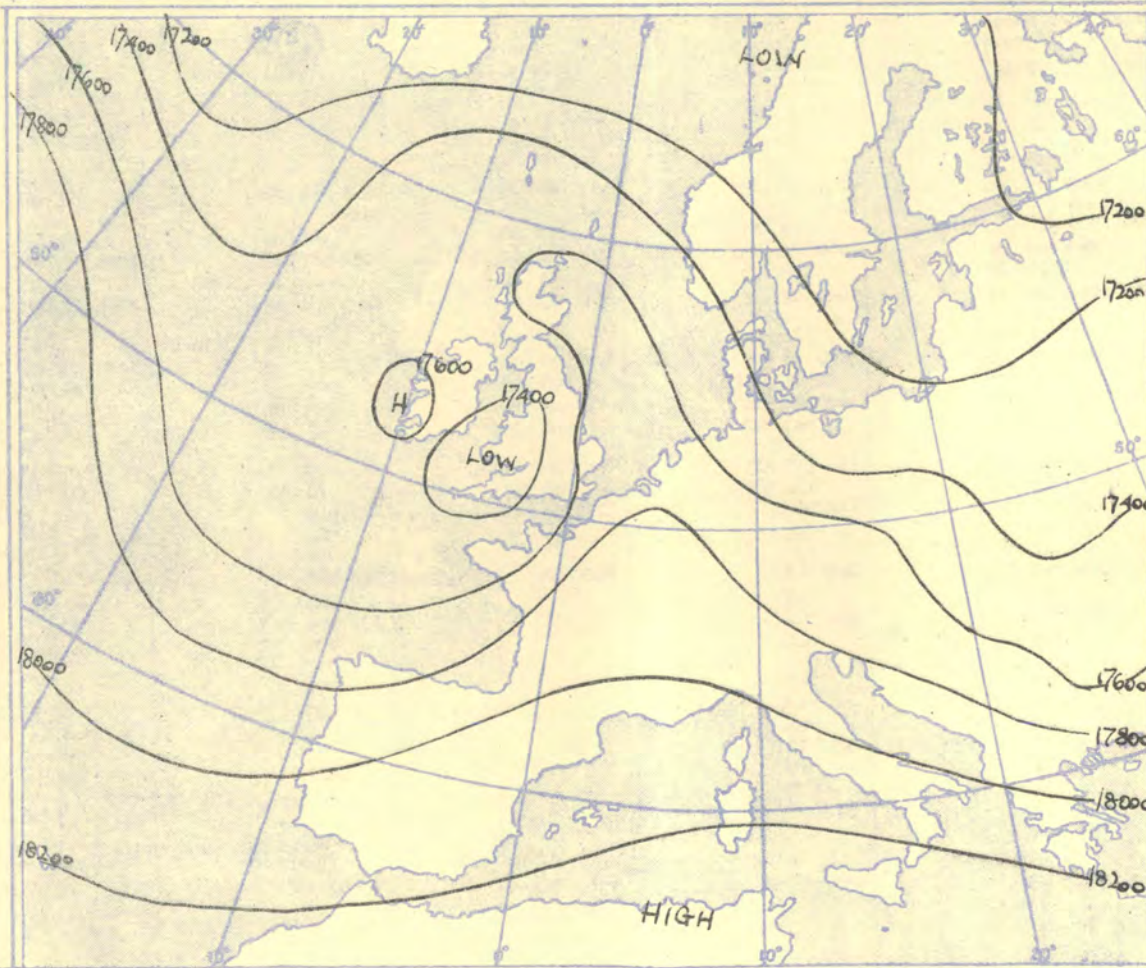
100 80 60 40 20 10 knots



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

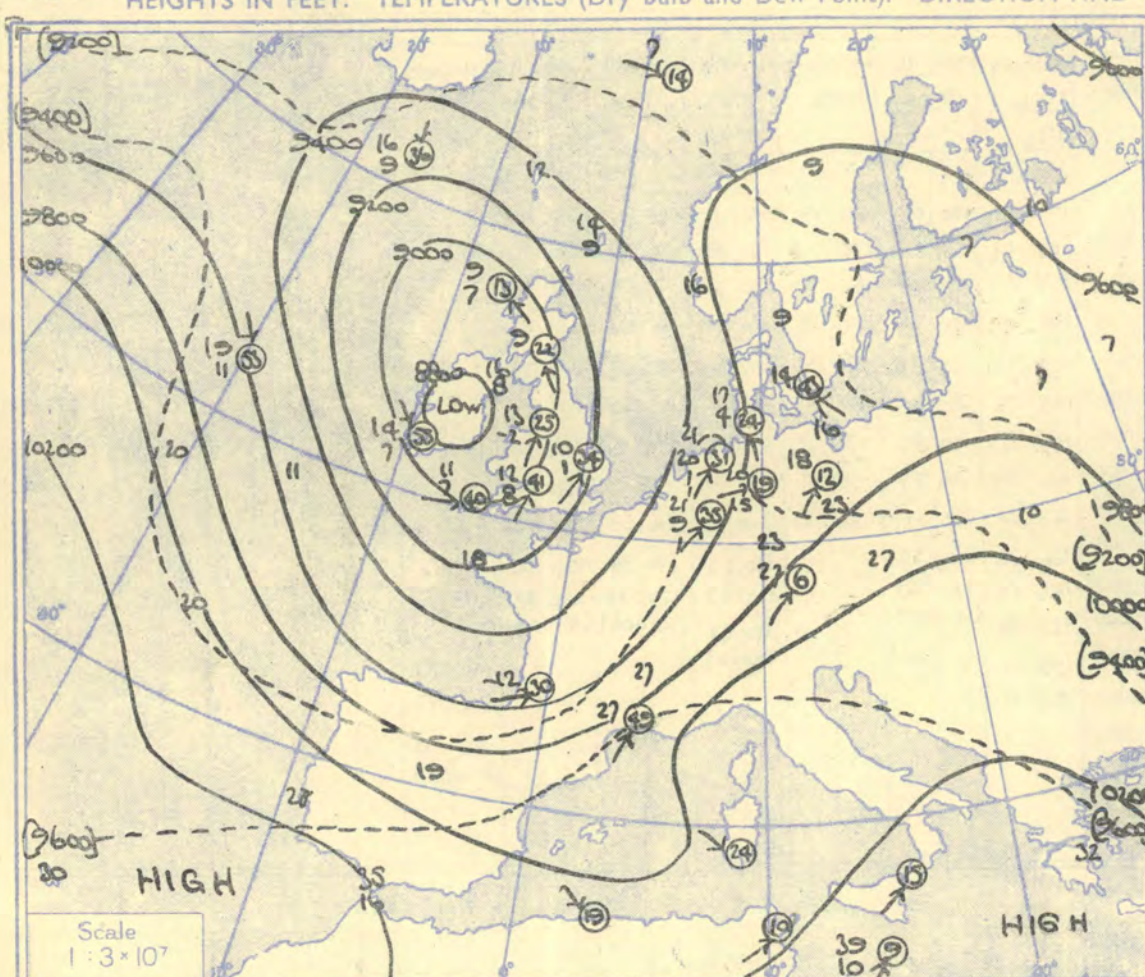


Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.NEPHOSCOPE OBSERVATIONSRADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS

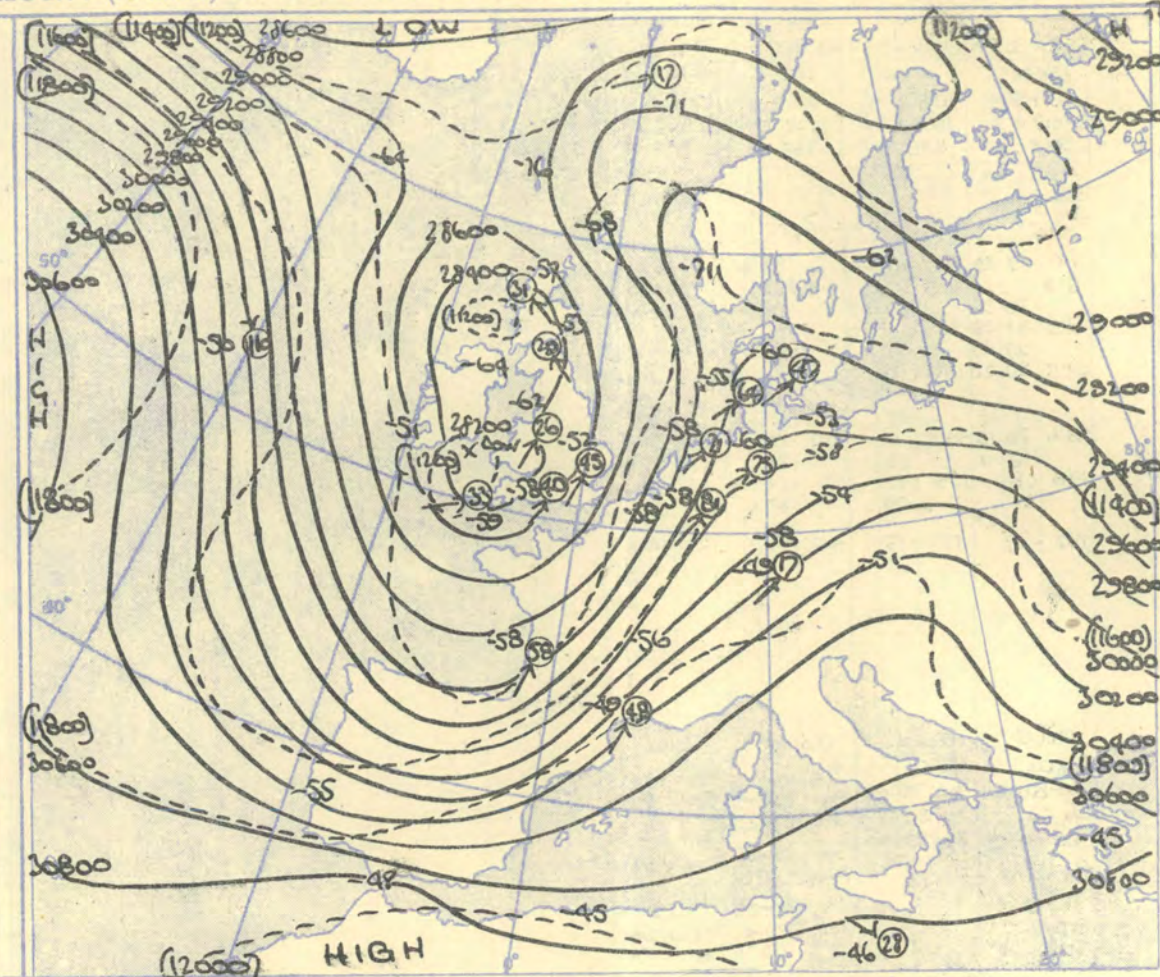
Ship		WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				Ship						
Lat/Long		52.4N 20.3W		52.4N 20.5W		52.4N 20.5W		52.4N 20.3W		60.4N 15.8W		60.4N 15.6W		60.4N 15.4W		60.5N 15.2W										Lat/Long										
Pressure	Time	08L 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.	1004 mb		1011 mb		1011 mb		1005 mb		997 mb		998 mb		997 mb		995 mb										M.S.L.										
	Surf	1004 mb		1011 mb		1011 mb		1005 mb		997 mb		998 mb		997 mb		995 mb										Surf										
Freezing		885		880		900		820		885		905		885		855										Freezing										
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure							
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb							
Surf		47	41	31S 37		48	45	320 25		46	44	295 22		45	45	220 15		45	41	065 30		43	41	040 33		44	44	045 35		Surf						
1000	1.1	47	42		2.9	47	43	320 25	2.8	45	41	301 39	1.3	45	45	220 15	-7	45	41	065 30	-6	43	41	040 33	-9	44	44	045 35	-1.4	48	44	050 30	1000			
950		40	40			42	26	310 29		39	38	302 28		42	42	243 16		39	32	045 18		37	37	042 42		39	39	034 39		42	37	074 38	950			
900	29.3	34	32		31.2	34	21	309 40	30.9	32	32	308 29	29.6	31	37	245 18	27.5	33	24	053 30	27.4	31	31	048 43	27.2	33	30	030 40	26.9	36	30	079 42	900			
850		28	17			28	17	310 40		27	27	301 33		31	34	254 36		29	15	061 27		27	27	049 37		29	25	044 48		31	24	079 38	850			
800	60.0	22	13		61.8	22	02	310 42	61.6	21	21	302 36	60.7	31	31	270 43	58.3	24	08	067 25	58.1	23	23	049 37	58.0	27	23	053 42	57.8	26	18	080 36	800			
750		16	04			16	19	310 49		24	19	303 42		28	28	178 45		19	09	058 24		16	16	051 38		21	16	052 39		20	09	078 33	750			
700	93.9	10	02		95.7	11	23	310 58	95.8	19	11	325 53	95.6	24	24	282 49	92.2	11	02	059 21	92.2	12	12	071 34	92.2	16	09	052 36	92.0	14	03	078 31	700			
650		02	10			11	21	317 56		16	04	325 52		20	20	279 52		08	19	047 20		06	03	081 25		10	03	130 57		08	02	084 27	650			
600	132	07	21		134	06	12	326 57	135	09	16	315 45	135	14	13	277 59	130	04	23	053 20	130	03	08	067 18	131	02	06	084 26	130	01	11	080 22	600			
550		12	28			01	26	324 63		01	26	311 57		09	06	281 61		11	23	084 21		12	14	081 18		07	16	339 54		09	19	082 16	550			
500	175	14	81		179	11	41	326 71	180	07	20	313 72	181	00	03	280 65	174	19	30	098 15	174	21	24	120 20	175	15	23			174	18	29	083 15	500		
450		26	42			21	58	321 83		16	22	313 84		10	16	283 70		28	39	152 12		30	32	115 06		175	15	23			174	18	29	083 15	450	
400	227	39	54		231	31	58	325 87	232	28	33	316 93	234	21	28	297 87	225	40	50	154 19	225	42	42	185 06	226	39	50			225	42	40	081 13	400		
350	(370 mb)	47				41		326 104		39	45	311 105		32	39	297 100		55		168 38		56		154 34		51					225	42	40	081 13	350	
300					295	53		322 130	297	50		311 110	299	47		305 112	287	71		153 30	287	73		146 35	289	64				288	68		067 12	300		
250						66		326 141		65		311 109		65		298 128		74		194 15		85		165 22		68					288	69		140 08	250	
200					280	75		328 110	382	81		311 114	385	84		289 104	372	67		261 10	367	75		318 15	275	66				372	61		270 13	200		
170					(195 mb)	74				82		311 81		68		289 63		67		238 15		73		300 21	(mb)						372	61		301 13	170	
150												311 68		72		289 67		67		258 16		75		286 28								61		314 18	150	
130												311 60		70		292 54		68		272 18		76		290 16								64		307 19	130	
110												311 47		70		304 51		70		263 21		78		300 16								69		298 24	110	
100												311 48		73		309 49		73		268 24		79		303 19								70		308 31	100	
90												311 52				311 39																	72		309 45	90
80												311 36		73		73		80															73		302 33	80
70												311 39																					75		298 17	70
60												311 33																					76			60
Inversion		558 mb - 13° - 520 mb - 10°		Inversion		692 mb - 10° - 669 mb - 11°		(45) - 81		Inversion		178 mb - 18° - 750 mb - 24°		520 - 06° - 510 - 05°		Isothermal		669 - 650 mb - 11°		750 - 730 mb - 24°		1005 - 577 - 560 mb - 45°		Isothermal		800 - 777 mb - 24°		550 - 545 - 11°		Isothermal		I 275 mb - 76°		Tropopause		
NIR.				I 215 mb - 76°		I 185 mb - 84°		I 200 mb - 84°		I 275 mb - 80°		I 243 mb - 87°		I 266 mb - 74°		I 275 mb - 76°																		Tropopause		
				36,600'		39,800'		38,500'		30,500'		33,200'		31,500'		30,600'																				



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

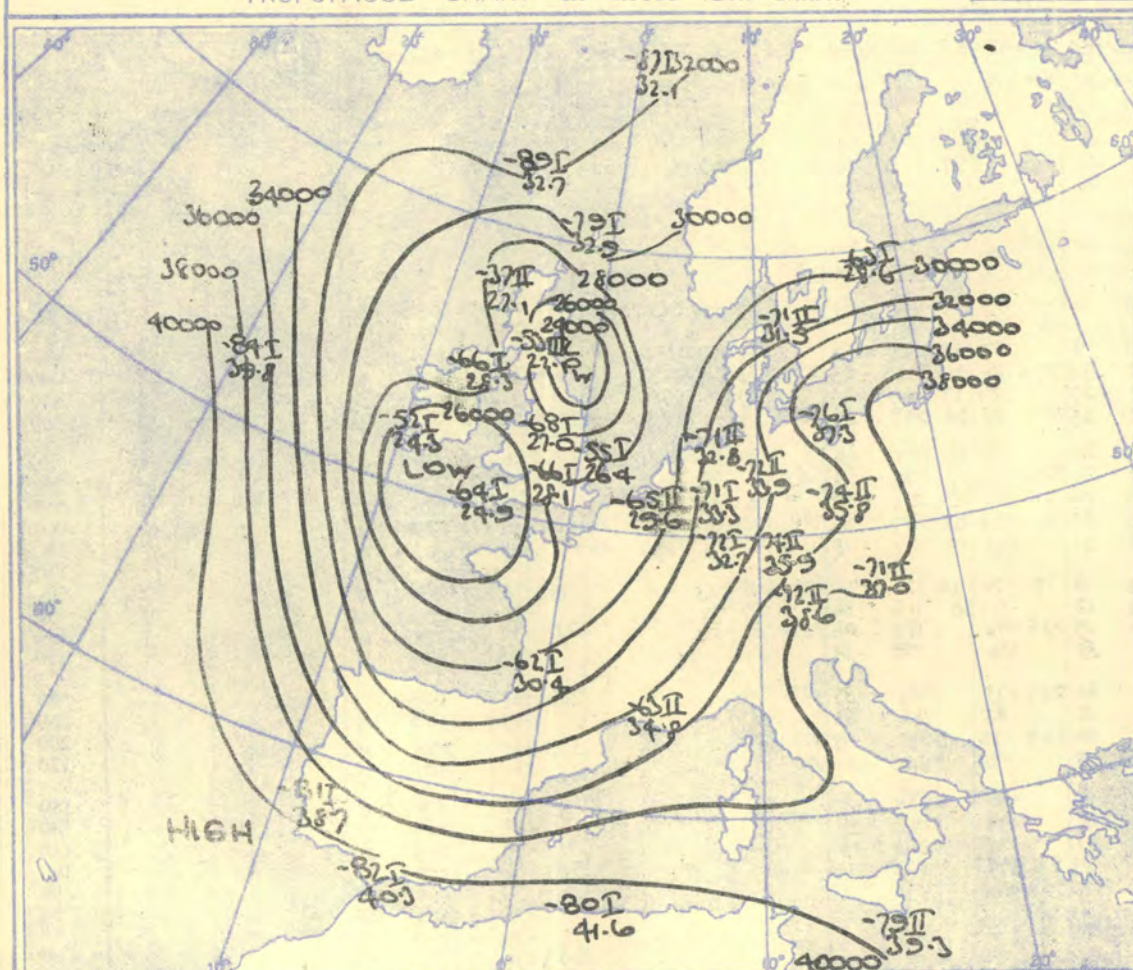
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52½° N.

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.

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



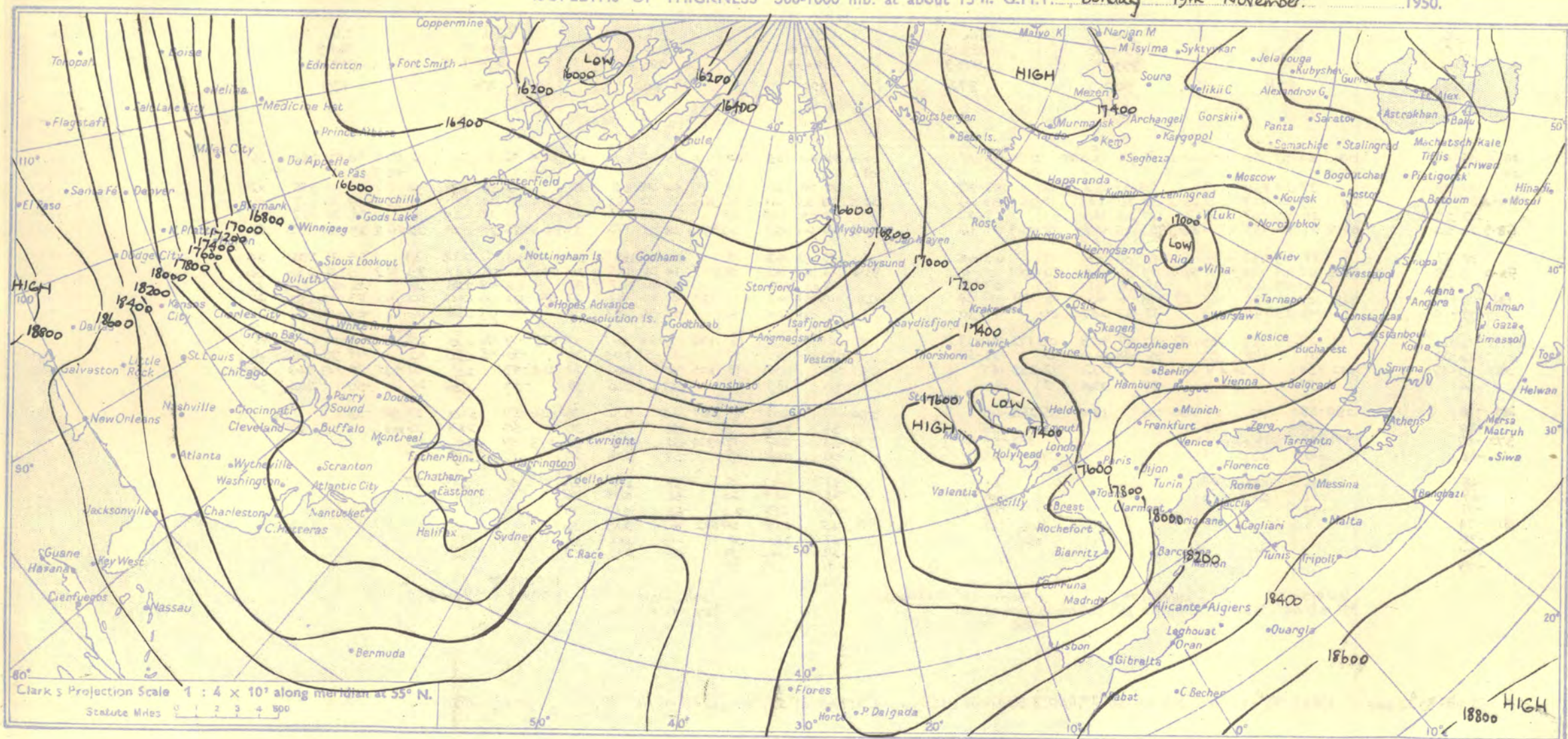
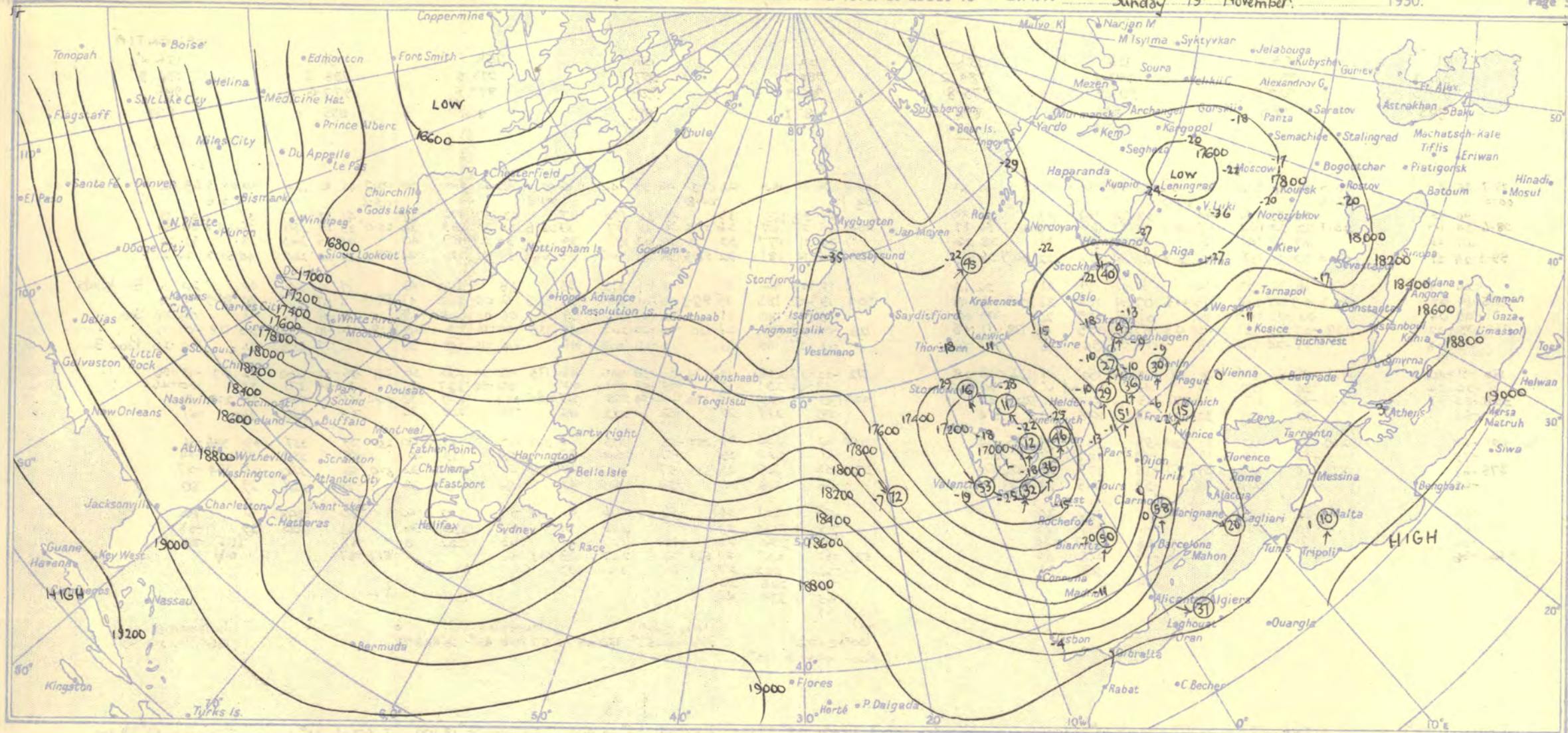
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The thermal pattern become very irregular over the slow moving depression near Ireland. Considerable warming from the West into Mid-Atlantic.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

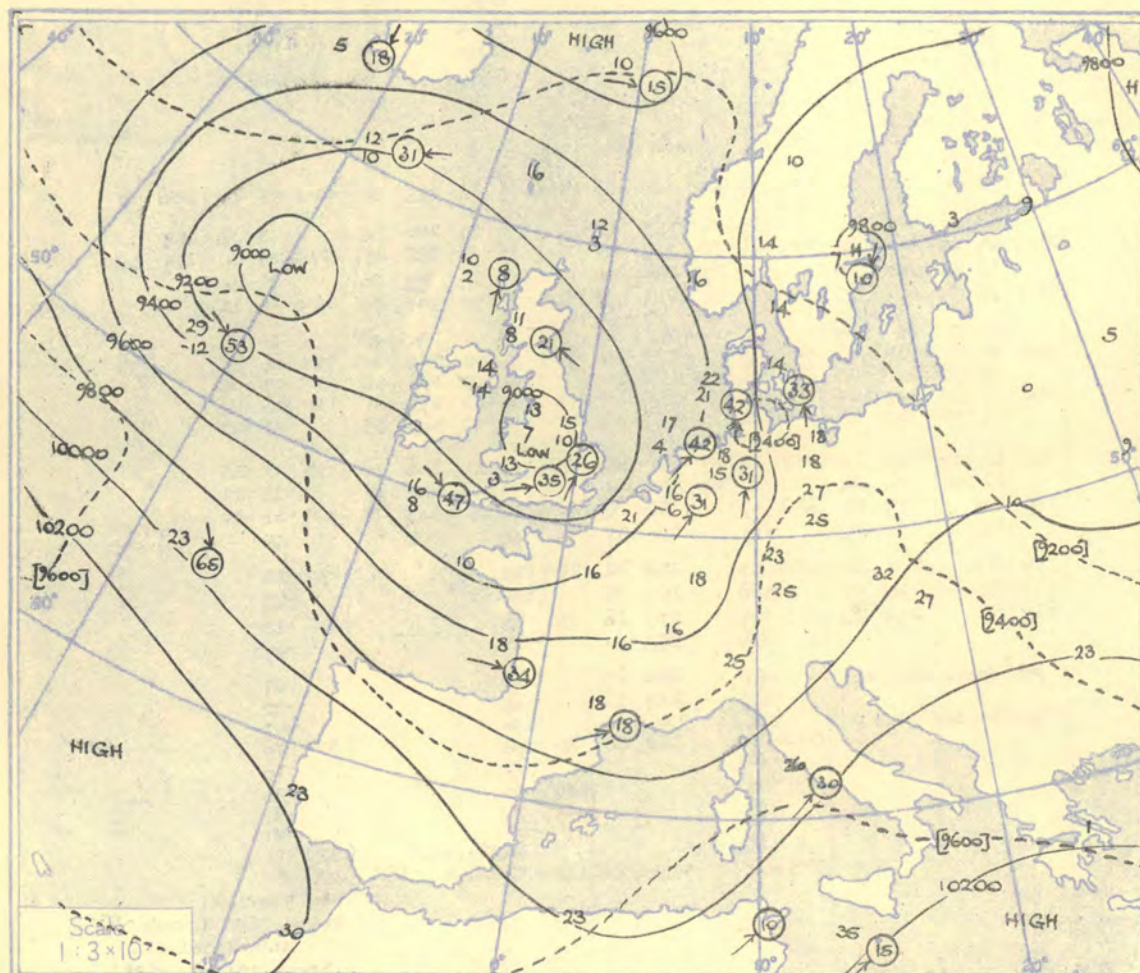
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



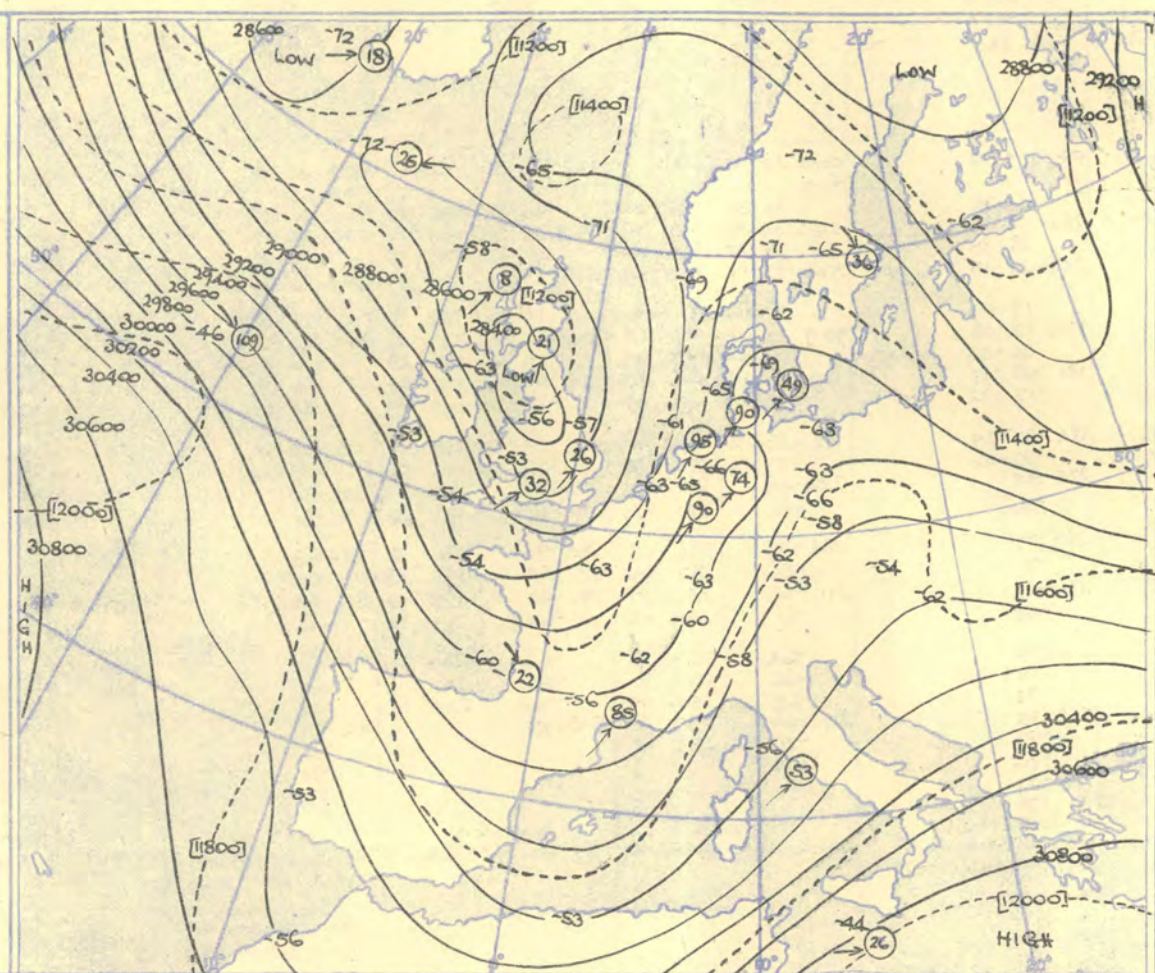
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Pressure { Time M.S.L. Surf Freezing	15h 1001.3 991.3 883	G.M.T. mb mb mb	15h 991.2 989.3 900	G.M.T. mb mb mb	15h 992.8 991.9 896	G.M.T. mb mb mb	15h 984.2 975.8 874	G.M.T. mb mb mb	15h 988.9 986.9 874	G.M.T. mb mb mb	15h 997.1 992.7 872	G.M.T. mb mb mb	15h 993.5 977.5 858	G.M.T. mb mb mb	15h 988.2 977.6 895	G.M.T. mb mb mb	15h 986.8 986 850	G.M.T. mb mb mb	Time M.S.L. Surf Freezing	Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Surf	02.7	45	41		00.5	43	42	140	20	00.2	43	37	170	05	2.3	44	42		00.6	46	36	150	22	01.2	45	39	140	15	04.4	43	40	210	08	02.9	45	40	250	30	00.3	49	42		Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
1000	00.4				02.4					02.0					4.2					03.1					00.8					01.7					03.2					1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
950		40	35			38	32	141	24		38	32	162	13		42	39			41	32	155	33		32	190	27		43	39	176	27		41	37	257	37		47	39		950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
900	28.6	34	30		25.7	32	32	142	17	26.1	33	27	151	18	26.1	36	31		25.2	35	27	167	36	27.5	38	29	157	33	26.6	38	33	183	37	25.0	33	29	258	36	24.8	40	34		900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
850		29	25			27	27	141	15		27	20	149	21		28	22			30	21	177	33		29	23	199	34		30	27	189	40		28	25	263	38		32	28		850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
800	59.3	25	21		56.4	22	21	137	14	56.8	21	14	154	22	64.9	26	18		56.0	25	14	181	32	58.3	24	16	206	33	57.5	24	22	196	41	55.8	22	20	265	40	55.8	26	21		800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
750		20	16			16	15	123	14		15	08	159	21		22	12			19	05	182	31		18	06	212	33		18	15	200	43		17	14	261	40		20	15		750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
700	93.5	14	09		90.3	09	07	128	13	90.6	09	01	164	22	89.2	16	08		90.1	13	02	183	25	92.3	10	01	211	34	91.5	12	08	202	41	89.7	11	07	254	40	89.9	14	01		700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
650		09	04			02	02	140	15		01	11	159	20		09	00			05	12	180	21		02	07	207	39		06	02	208	38		01	01	254	42		06	08		650																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
600	132	03	02		128	07	13	161	16	128	07	19	153	18	128	07	08		128	04	19	178	21	130	06	20	202	45	130	00	05	213	38	128	04	10	260	36	128	01	15		600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
550		02	08			17	24	174	18		17	30	154	15		07	16			13	27	180	16		14	26	203	46		10	15	218	38		12	19	259	42		10	26		550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

[illegible]

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.



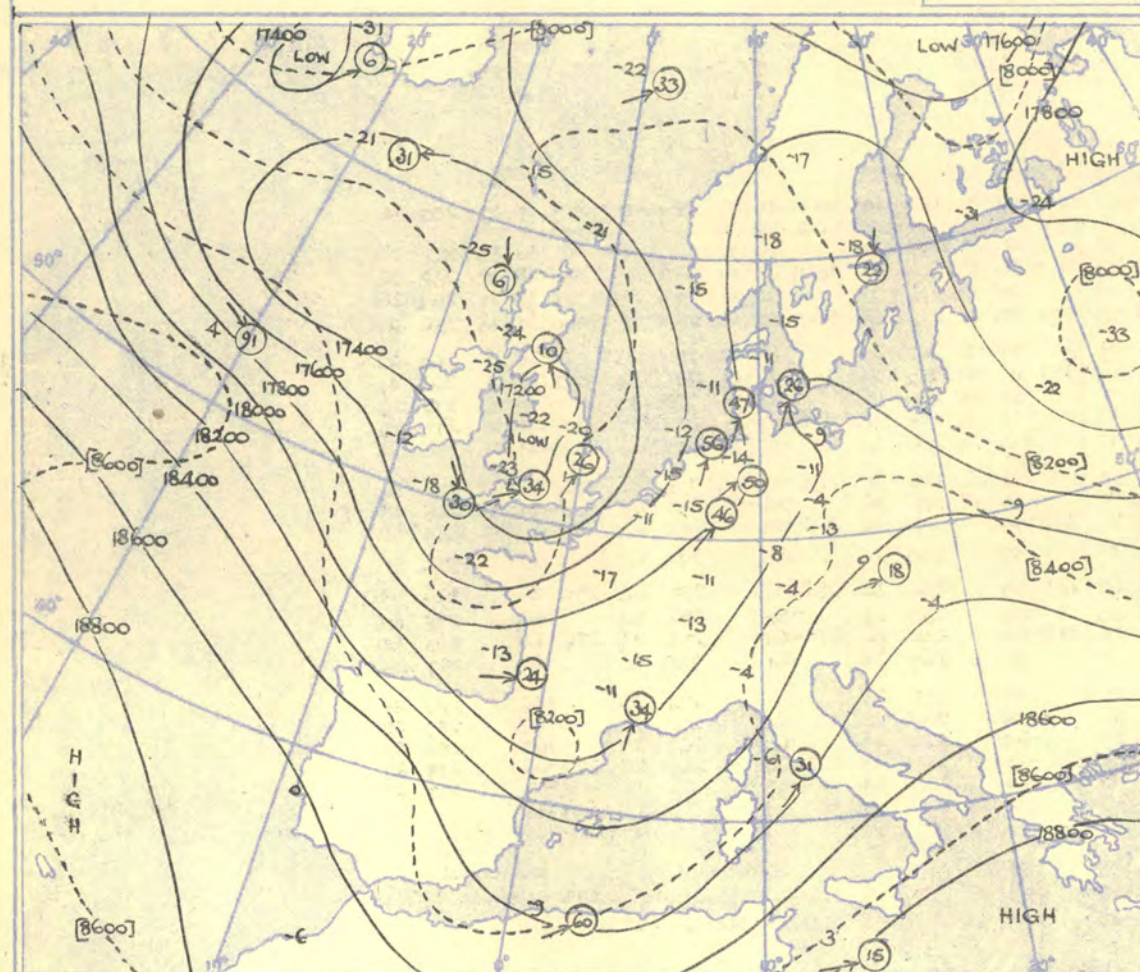
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



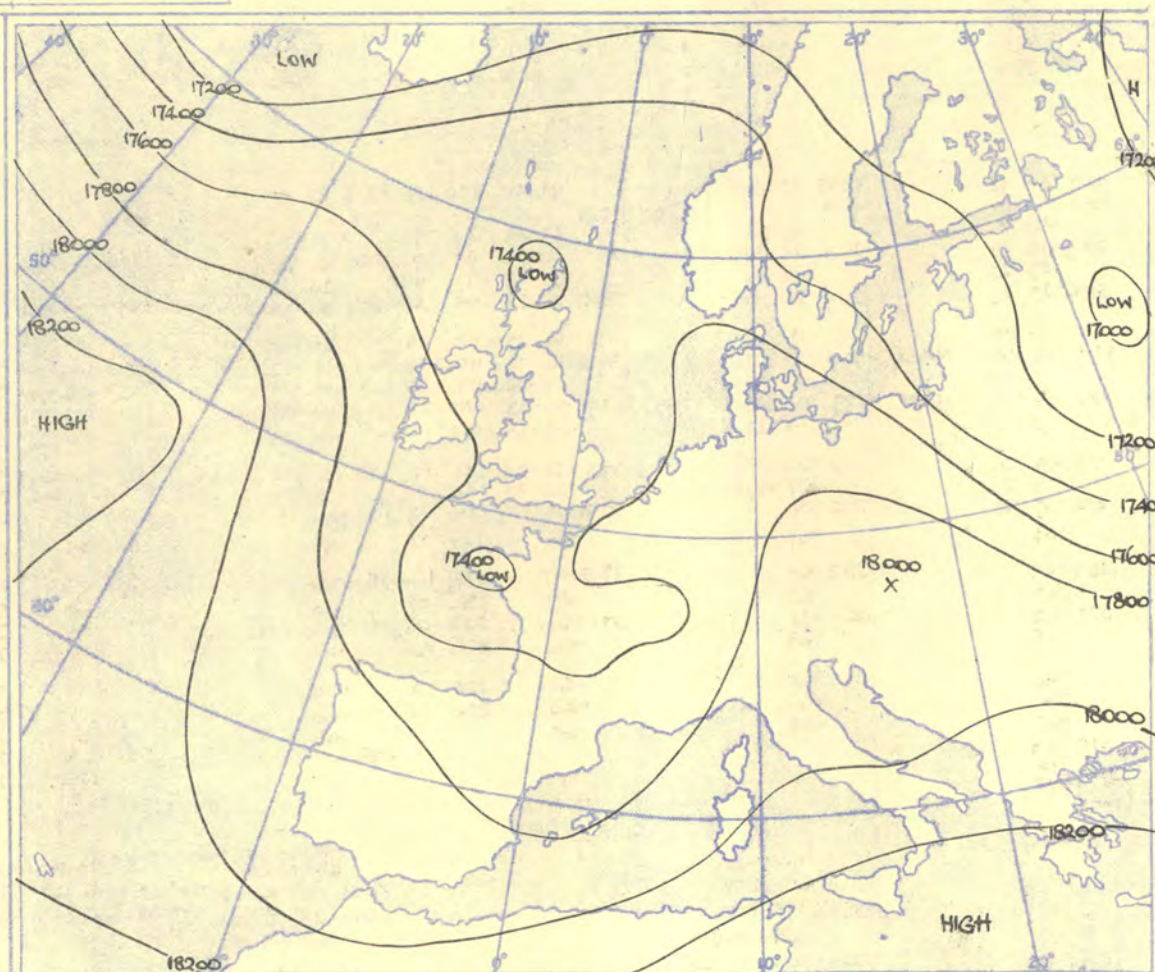
The continuous lines are contour lines of the 300 mb. surface
The dotted lines are isopleths of the thickness of the layer 500-300 mb

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

100 80 60 40 20 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.



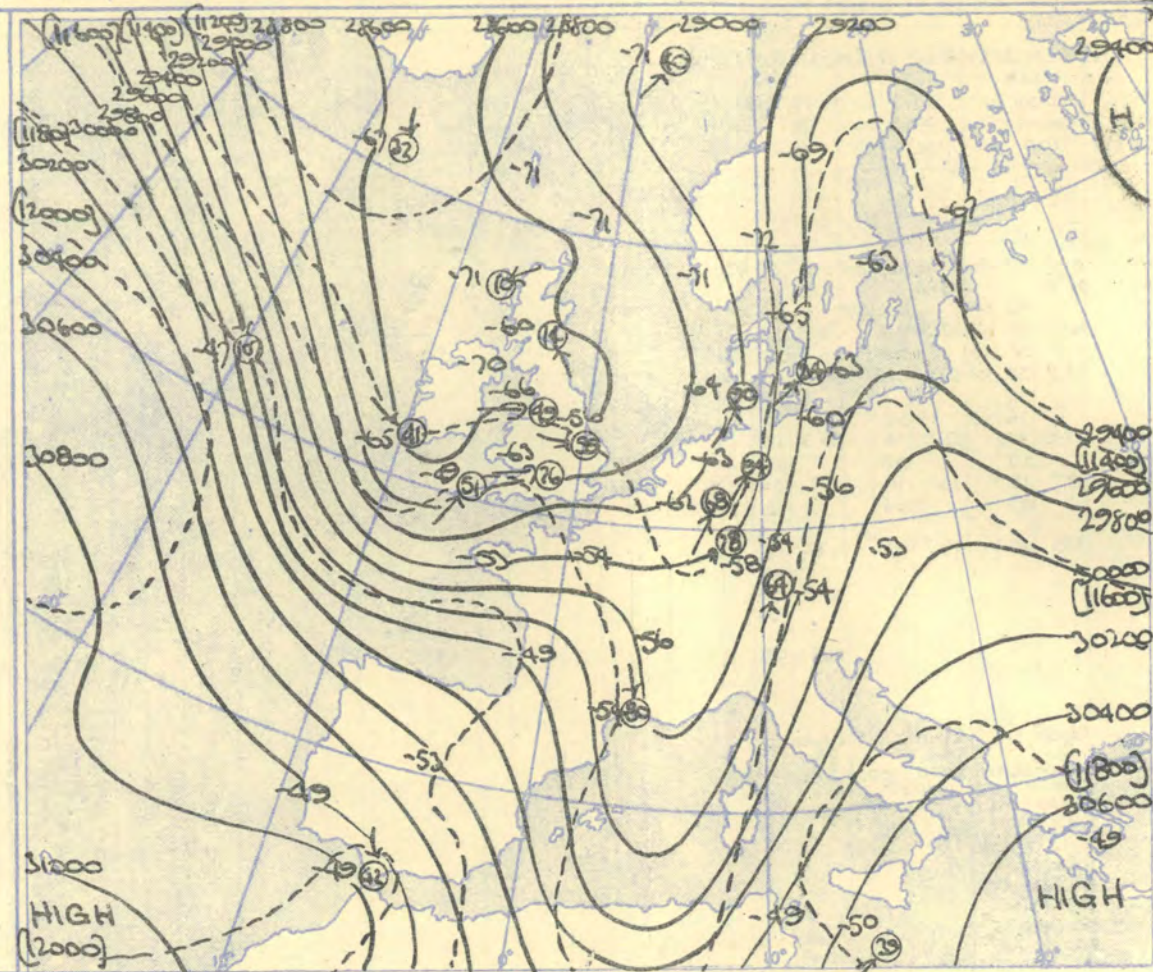
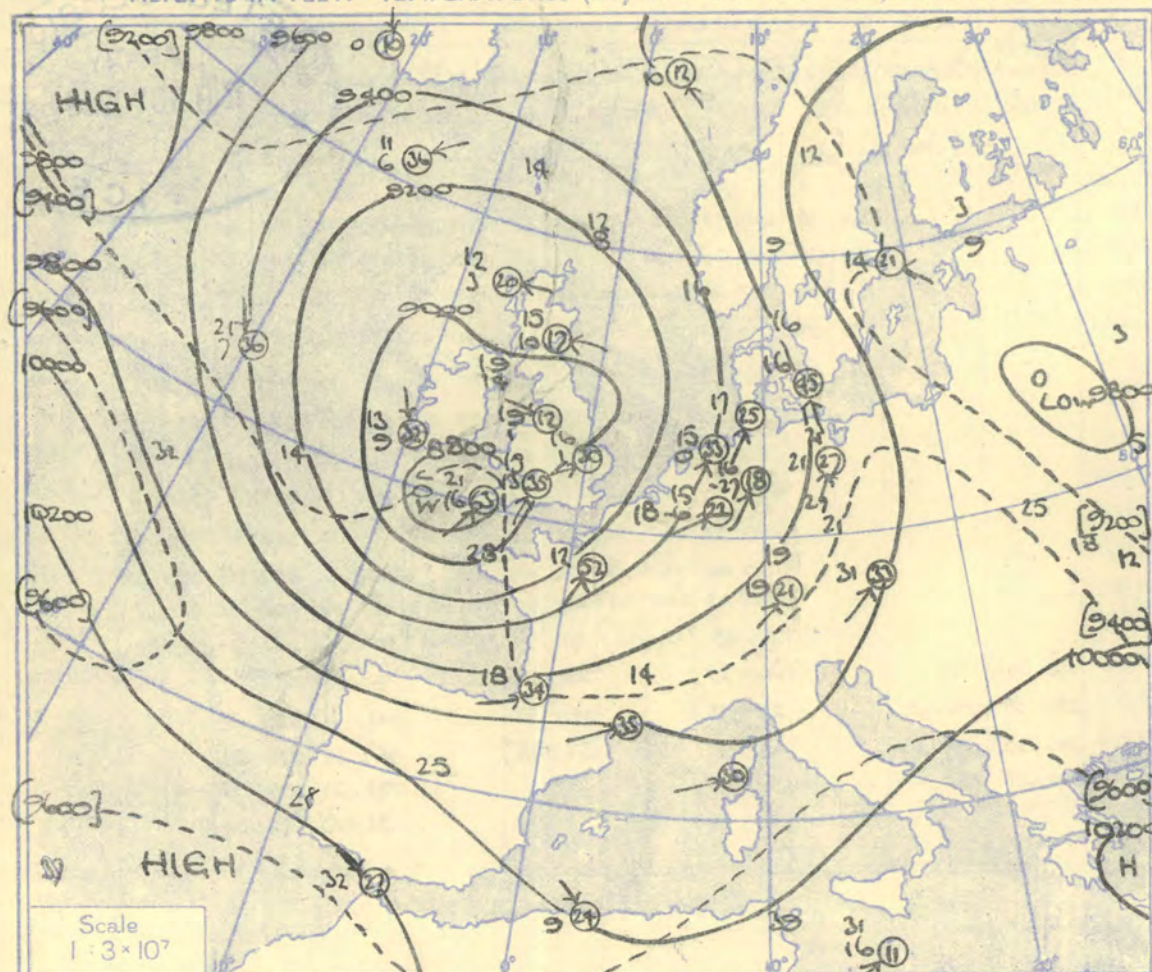
Isopleths of Thickness 500-1000mb.

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS (heights above MSL)

[illegible]

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

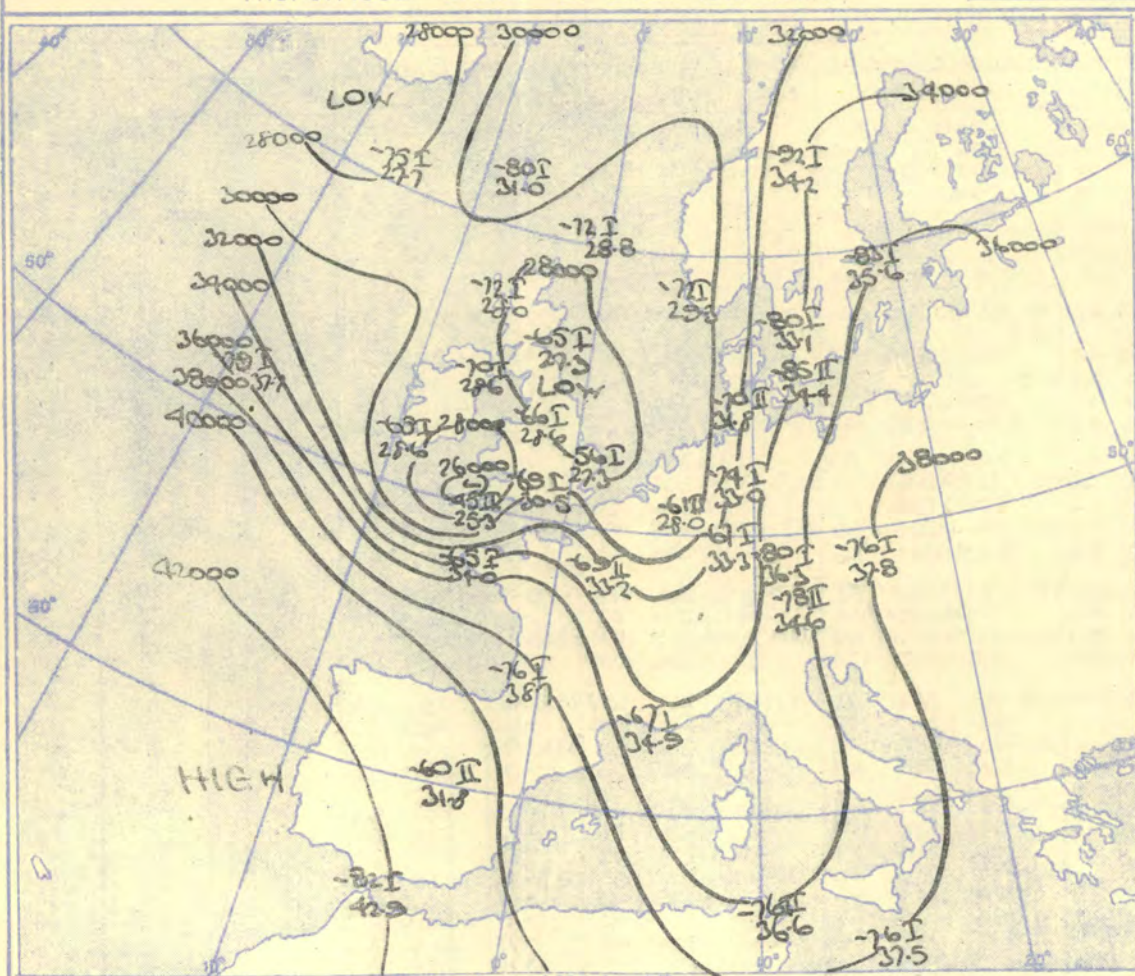
Ship		Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Ship									
Lat/Long		60.5°N 15.8°W				60.6°N 15.7°W				60.6°N 15.6°W				60.8°N 15.5°W				52.5°N 20°W				52.4°N 20°W				52.2°N 20.2°W				52.3°N 20°W									
Pressure	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.	15hrs		G.M.T.	21hrs		G.M.T.			G.M.T.	Time										
	M.S.L.	994		mb	996		mb	999		mb	1001		mb	998		mb	998		mb	1001		mb	1000		mb			mb	M.S.L.										
	Surf	994		mb	996		mb	999		mb	1001		mb	998		mb	998		mb	1001		mb	1000		mb			mb	Surf										
	Freezing	860		mb	890		mb	885		mb	890		mb	890		mb	890		mb	860		mb	850		mb			mb	Freezing										
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure						
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb						
Surf	-	48.47	060	28	-	42.42	055	31	-	48.42	030	35	-	46.43	020	25	-	49.49	260	28	-	43.43	330	21	-	49.46	310	20	-	51.49	330	23	Surf						
1000	-1.7				-1.3				-0.4				-0.2				-0.4				-0.4				-0.4				-1.5				1000						
950		40.40	060	41		38.38	032	43		38.38	032	43		39.39	034	30		47.47	300	48		42.42	337	38		38.38	332	43		46.46	343	20	950						
900	26.6	35.35	061	43	26.9	33.33	034	51	27.7	33.33	034	51	28.3	33.33	038	34	25.4	42.42	352	45	27.9	34.31	342	38	28.6	38.38	332	43	29.8	39.39	343	27	900						
850		30.30	066	46		28.28				29.29	039	43		27.27	041	34		29.29	276	42		29.29	349	36		31.31	333	38		31.31	344	28	850						
800	51.4	24.24	069	46	57.6	24.24	17		58.4	23.23	050	36	59.0	22.22	039	30	56.7	34.13	273	43	58.7	26.26	347	41	59.6	28.28	24.33	32	60.9	30.17	348	30	800						
750		18.18	068	44		19.19				17.17	050	35		17.17	025	25		31.31	012	46		24.24	343	49		26.26	335	33		25.04	346	21	750						
700	91.4	12.10	061	31	91.7	12.09			92.4	11.06	038	36	93.0	11.06	022	23	91.7	29.12	288	53	93.1	18.03	343	51	94.3	21.07	337	34	95.4	13.23	335	29	700						
650		05.03	061	36		03.10	23			03.10	023	26		02.00	029	24		23.38	288			10.23	336	50		14.23	336	34		14.23	336	34	650						
600	130	-3.60	070	31	130	-2.42			130	-5.11	026	34	131	-7.11	040	24	131	14.28	63	132	06.14	330	63	133	10.10	335	52	134	01.11	303	52	600							
550		-11.44	070	30		-12.12				-15.22	021	33		-17.26	047	21		11.28	82			02.19	314	86		06.18	334	62		01.17	307	60	550						
500	173	-21.25	067	31	173	-12.33			174	-25.32	022	30	174	-29.33	038	20	177	04.28	91	177	-2.27	303	118	178	-5.31	331	72	179	-7.24	306	65	500							
450		-31.35	064	25		-32.44				-35.42	012	31		-42.08		18		7.25	94			-11.36	299	114		-14.38	326	83		-15.36	305	73	450						
400	224	-44.05		25	224	-45.07			224	-48.02		29	224	-53.04		20	231	-20.23	101	230	-22.43	316	116	231	-23.46	313	101	232	-23.42	308	83	400							
350		-59.05		24		-61.07				-63.02		43		-64.03		19		294	118			-35.57	315	124		-38.54	316	107		-36.52	297	100	350						
300	285	-72.06		25	285	-73.07			285	-61.06		32	284	-75.07		017	22	296	46.04			294	109	295	-49.06		317	21	297	-47.04		107	297	49	300				
250		-84.08		19		-74.09				-62.04		20		-75.08		355	18					-64.03		307	41		-64.03		303	124		-63.03		293	104	250			
200	368	-69.03		19	369	-67.06			371	-61.05		20	368	-68.06		330	17					-62.04		308	96	362	-76.07		309	121	382	-77.07		296	108	200			
170		-69.03		19		-67.06				-62.04		16		-69.06		320	22					-62.04		291	84		-74.07		307	93		-71.03		305	86	170			
150		-71.03		21		-68.06				-63.02		15										-68.06		283	84		-69.06		303	90		-73.08		288	62	150			
130		-72.04		23		-69.07																-69.06		297	66		-69.06		298	72		-73.08		282	64	130			
110		-74.09		25		-71.09																-69.06		314	35		-69.06		298	80		-73.08		286	63	110			
100	512	-76.07		25		-73.07																-69.06		314	36	525	-67.07		297	48	525	-72.07		289	54	100			
90		-78.04		25		-75.04																-70.04		314	40		-68.07		297	48		-72.07		297	50	90			
80		-79.01		25		-76.01																-70.04		314	35		-71.07		299	43		-71.07		292	40	80			
70		-80.01		24		-77.01																-70.04		314	34		-69.07		299	42		-73.08		281	36	70			
60		-81.01		30		-78.01																-70.04		314	34		-71.07		299	42		-76.08		277	37	60			
		Isothermal		750-738 mb 18"																																			
		Tropopause		I 254 mb -86° 32100'																																			
				I 285 mb -78° 29700'																																			
				I 312 mb -75° 27700'																																			
				II 292 mb -76° 29000'																																			
				NR																																			
				II 203 mb -73° 37800'																																			
				I 206 mb -79° 37100'																																			
				II 209 mb -77° 37300'																																			
				Tropopause																																			



Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 knots.

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

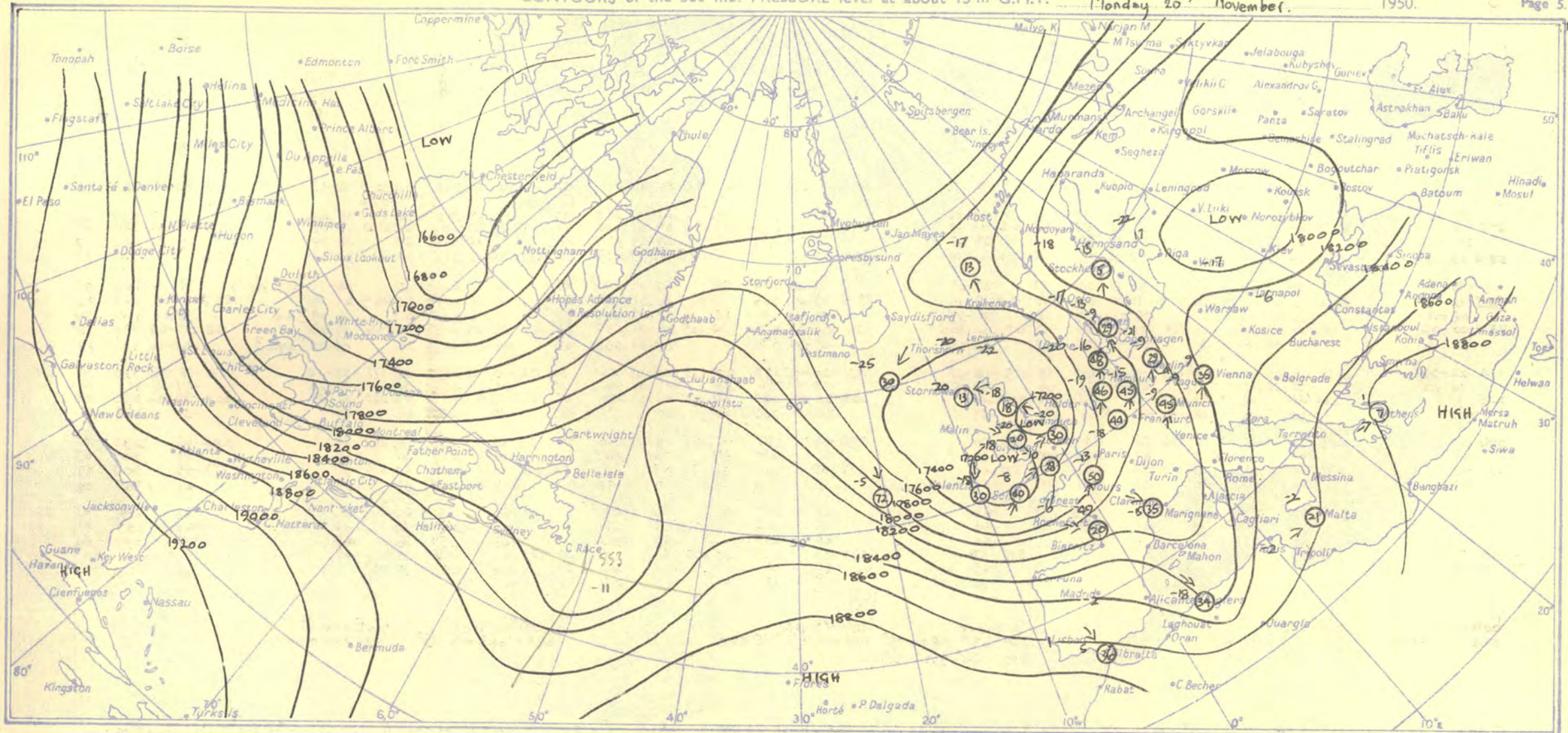


NOTES ON THE AEROLOGICAL SITUATION.

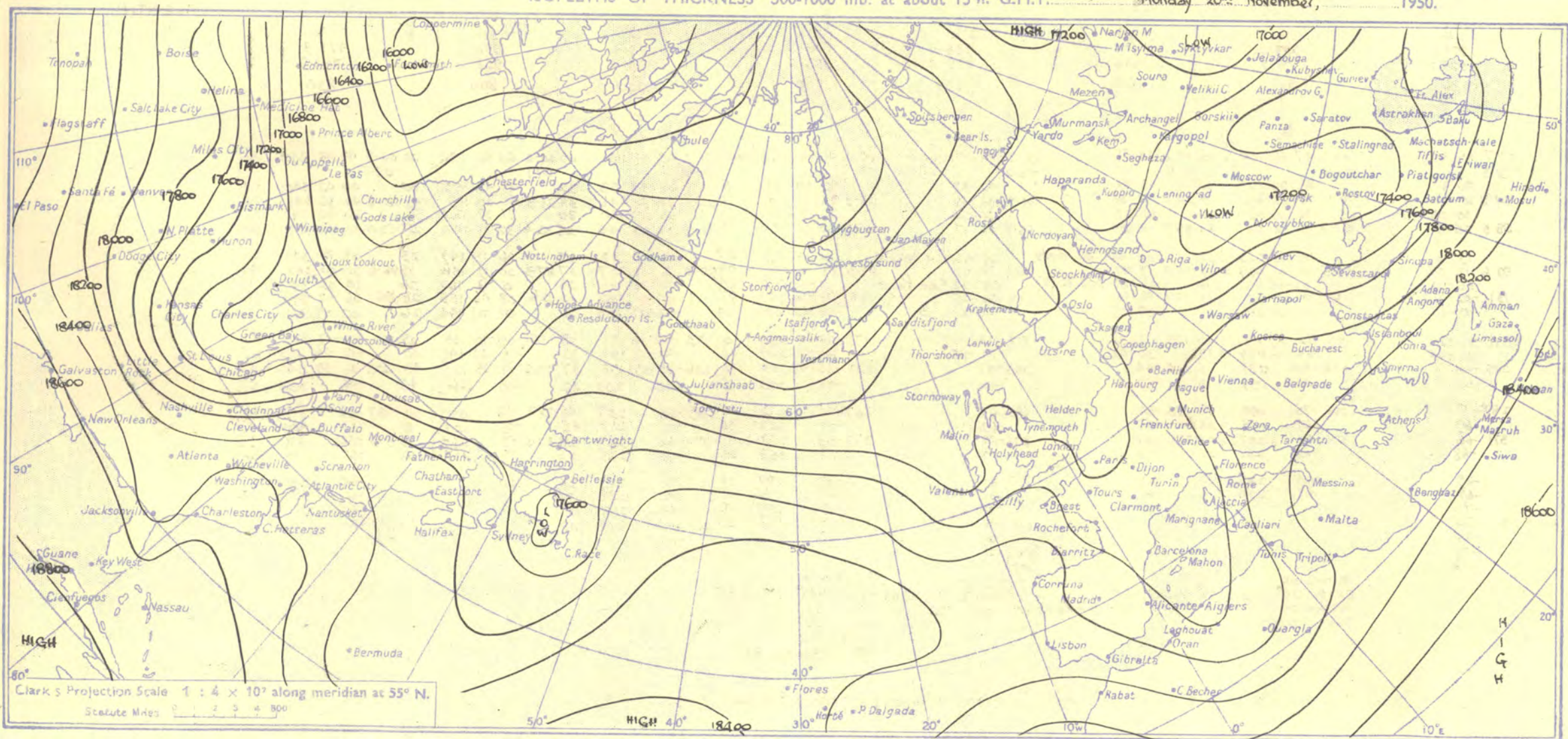
Northerly advection behind the depression in the Western Channel caused the renewal of the thermal trough to the West of the British Isles. Warming continued over Mid-Atlantic whilst a small coldpool was cut off over Newfoundland.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.



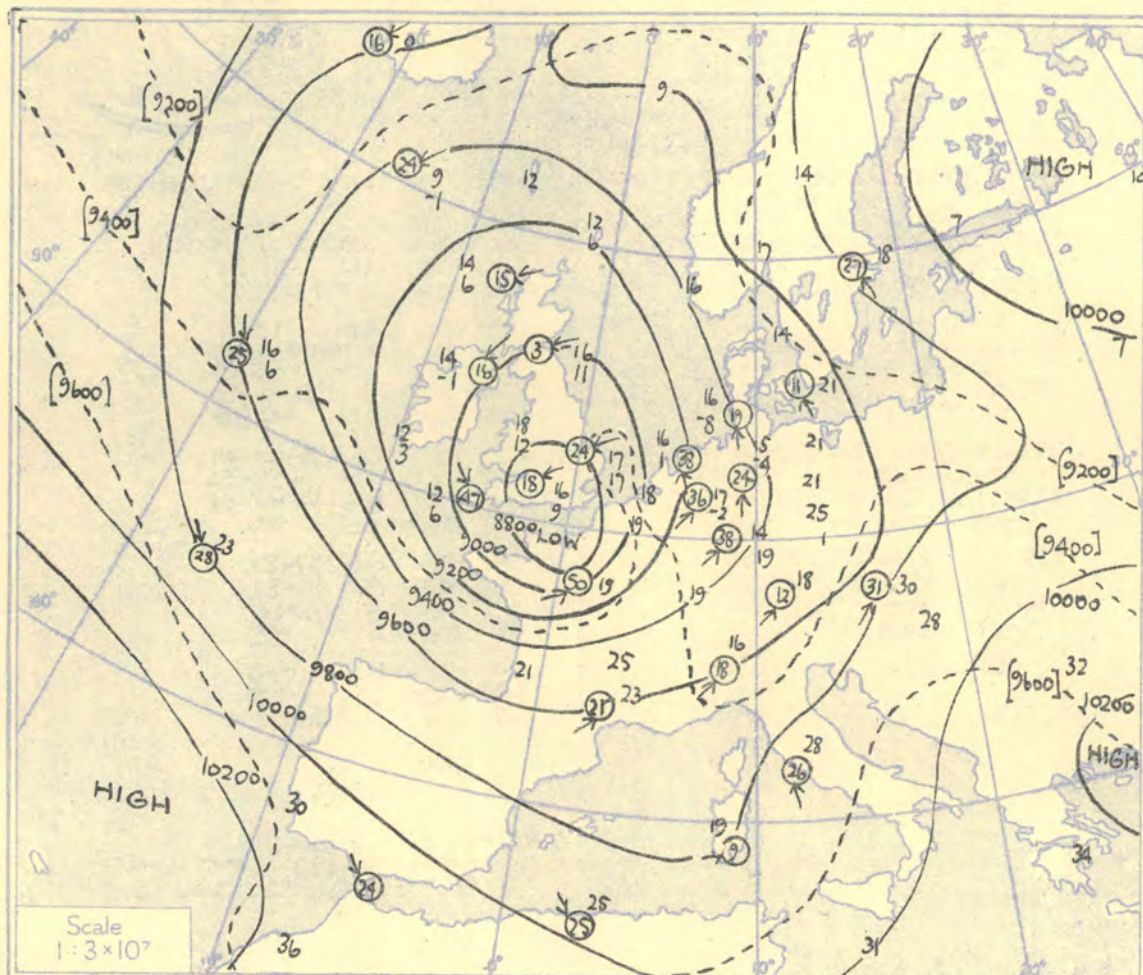
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure Time M.S.L. Surf Freezing	15h				15h				15h				15h				15h				15h				15h				15h				15h				15h				Time M.S.L. Surf Freezing
	998.6				992.8				987.2				986.5				986.5				990.7				990.3				972.5				987.5								
	988.6				990.9				988.0				978.1				984.4				986.4				974.4				962.3				986								
	886				881				851				875				872				871				845				800				875								
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb								
Surf	02.7	43	41		00.5	46	41	070	06	53.3	45	43	080	15	2.3	43	39		00.6	45	43	Calm	01.2	46	41	180	12	04.4	46	41	220	04	02.9	50	49	Surf					
1000	00.4				02.0					53.3					-3.6				03.7				02.5					02.6				07.6			1000						
950		39	36			42	37	069	14		42	39	069	15		40	36			41	38	249	05		37	214	22		44	29	192	14			950						
900	27.7	34	31		26.3	34	33	095	16	25.0	37	32	097	15	24.6	36	31		24.5	35	31	266	06	25.7	35	31	230	23	25.8	39	34	206	24	21.0	48	46	900				
850		29	25			29	28	106	22		32	29	108	15		29	23			29	24	261	07		29	24	237	26		33											

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

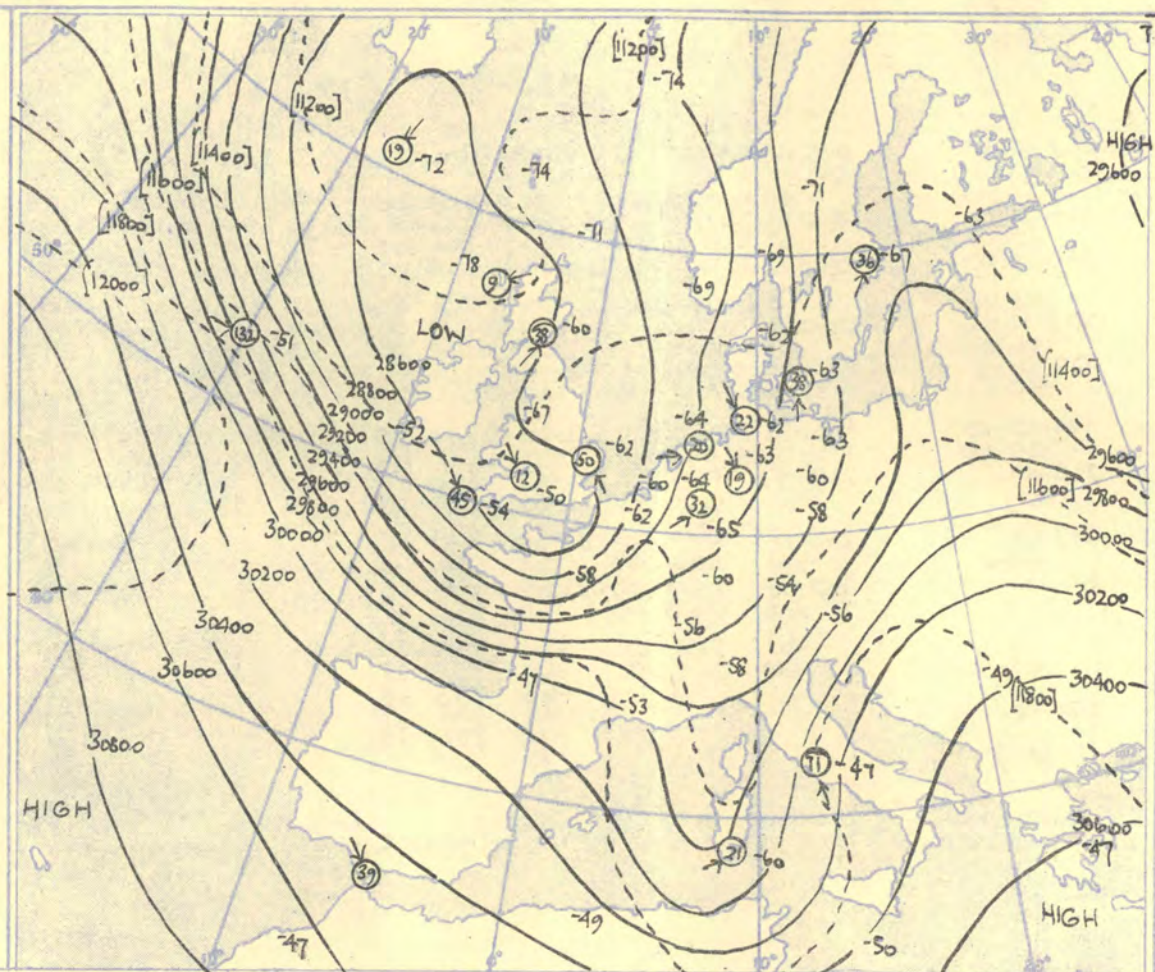
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	Time
M.S.L.	998.1	991.4	988.4	990	984.9	978.8	974.9	987.6	M.S.L.
Surf	988.2	989.5	987.5	981.2	982.8	975.4	959.4	977.2	Surf
Freezing	878	852	870	872	854	834	830	870	Freezing
Pressure	02.7	0.5	0.7	0.2	0.6	0.1	0.2	0.2	Pressure
Height	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	Height
Temp.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Temp.
Dew	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Dew
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Wind
Dir.	°	°	°	°	°	°	°	°	Dir.
Vel.	knots	knots	knots	knots	knots	knots	knots	knots	Vel.
Surf	02.7	0.5	0.7	0.2	0.6	0.1	0.2	0.2	Surf
1000	0.5	-2.3	-0.3	-2.7	-4.1	-5.5	-6.7	-5.3	1000
950	38.36	42.41	41.40	41.02	41.36	44.43	42.42	44.37	950
900	27.6	26.0	26.0	26.0	26.0	26.0	26.0	26.0	900
850	29.25	26.0	26.0	26.0	26.0	26.0	26.0	26.0	850
800	58.3	56.8	56.8	56.8	56.8	56.8	56.8	56.8	800
750	18.14	21.14	21.14	21.14	21.14	21.14	21.14	21.14	750
700	92.3	91.0	91.0	91.0	91.0	91.0	91.0	91.0	700
650	06.00	07.2	07.2	07.2	07.2	07.2	07.2	07.2	650
600	10.1	12.9	12.9	12.9	12.9	12.9	12.9	12.9	600
550	-10.17	-10.10	-10.10	-10.10	-10.10	-10.10	-10.10	-10.10	550
500	17.4	17.3	17.3	17.3	17.3	17.3	17.3	17.3	500
450	22.6	22.4	22.4	22.4	22.4	22.4	22.4	22.4	450
400	28.7	28.5	28.5	28.5	28.5	28.5	28.5	28.5	400
350	37.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	350
300	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	300
250	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	250
200	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	200
170	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	170
150	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	150
130	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	130
110	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	110
100	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	100
90	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	90
80	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	80
70	136.3	136.3	136.3	136.3	136.3	136.3	136.3	136.3	70
60	145.3	145.3	145.3	145.3	145.3	145.3	145.3	145.3	60
Isotermal	900-878 mb 32°	989-977 mb 45°	987 mb 40-964 mb 42°	981 mb 32-950 mb 41°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	Isotermal
Tropopause	1298 mb -72°	1296 mb -80°	1289 mb -62°	NR.	1260 mb -74°	1278 mb -68°	1274 mb -53°	1253 mb -54°	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time	09hrs	09hrs	09hrs	09hrs	09hrs	09hrs	09hrs	09hrs	Time
M.S.L.	999.1	992.8	992.2	992.1	985.7	979.8	981.7	991.4	M.S.L.
Surf	989.1	990.9	991.3	983.4	983.6	975.3	965.8	980.9	Surf
Freezing	884	858	861	853	850	845	832	850	Freezing
Pressure	02.7	0.5	0.6	0.2	0.6	0.1	0.2	0.2	Pressure
Height	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	Height
Temp.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Temp.
Dew	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Dew
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Wind
Dir.	°	°	°	°	°	°	°	°	Dir.
Vel.	knots	knots	knots	knots	knots	knots	knots	knots	Vel.
Surf	02.7	0.5	0.6	0.2	0.6	0.1	0.2	0.2	Surf
1000	0.5	-2.0	-0.2	-2.1	-3.7	-5.3	-6.7	-5.3	1000
950	38.36	42.41	41.41	42.41	41.40	44.43	42.42	44.37	950
900	27.6	26.4	26.0	26.0	26.0	26.0	26.0	26.0	900
850	29.25	26.4	26.0	26.0	26.0	26.0	26.0	26.0	850
800	58.3	57.4	57.0	57.0	57.0	57.0	57.0	57.0	800
750	18.14	22.15	21.16	21.16	21.16	21.16	21.16	21.16	750
700	92.3	91.6	91.0	91.0	91.0	91.0	91.0	91.0	700
650	06.00	06.0	06.0	06.0	06.0	06.0	06.0	06.0	650
600	10.1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	600
550	-11.18	-9.24	-10.29	-8.25	-7.12	-7.12	-7.12	-7.12	550
500	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	500
450	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	450
400	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	400
350	37.3	37.2	37.2	37.2	37.2	37.2	37.2	37.2	350
300	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	300
250	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	250
200	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	200
170	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	170
150	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	150
130	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	130
110	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	110
100	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	100
90	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	90
80	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	80
70	136.3	136.3	136.3	136.3	136.3	136.3	136.3	136.3	70
60	145.3	145.3	145.3	145.3	145.3	145.3	145.3	145.3	60
Isotermal	991-978 mb 46°	991 mb 36-976 mb 43°	983 mb 37-950 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	983 mb 40-936 mb 42°	Isotermal
Tropopause	1240 mb -67°	1307 mb -69°	1239 mb -81°	1276 mb -66°	1278 mb -71°	1235 mb -51°	1208 mb -56°	1250 mb -48°	Tropopause

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.

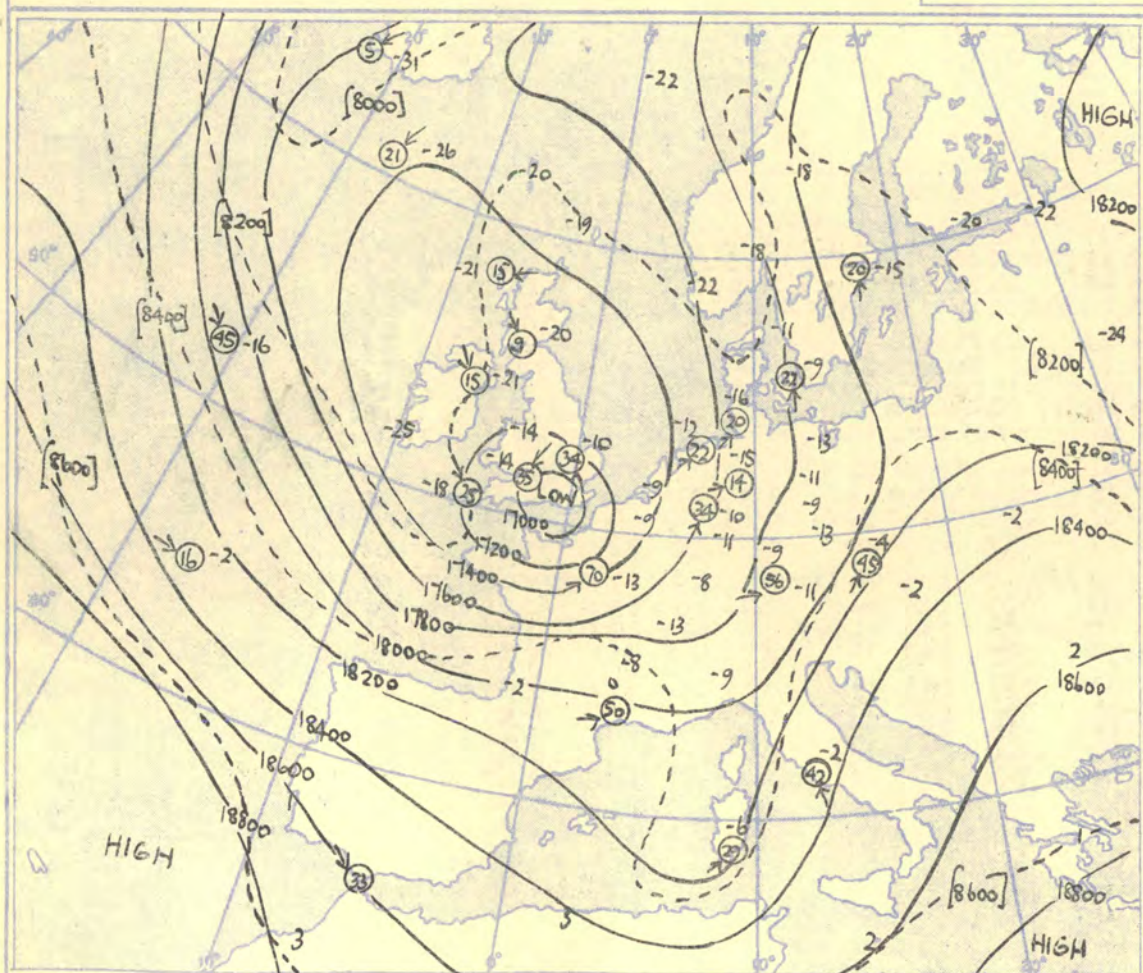


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

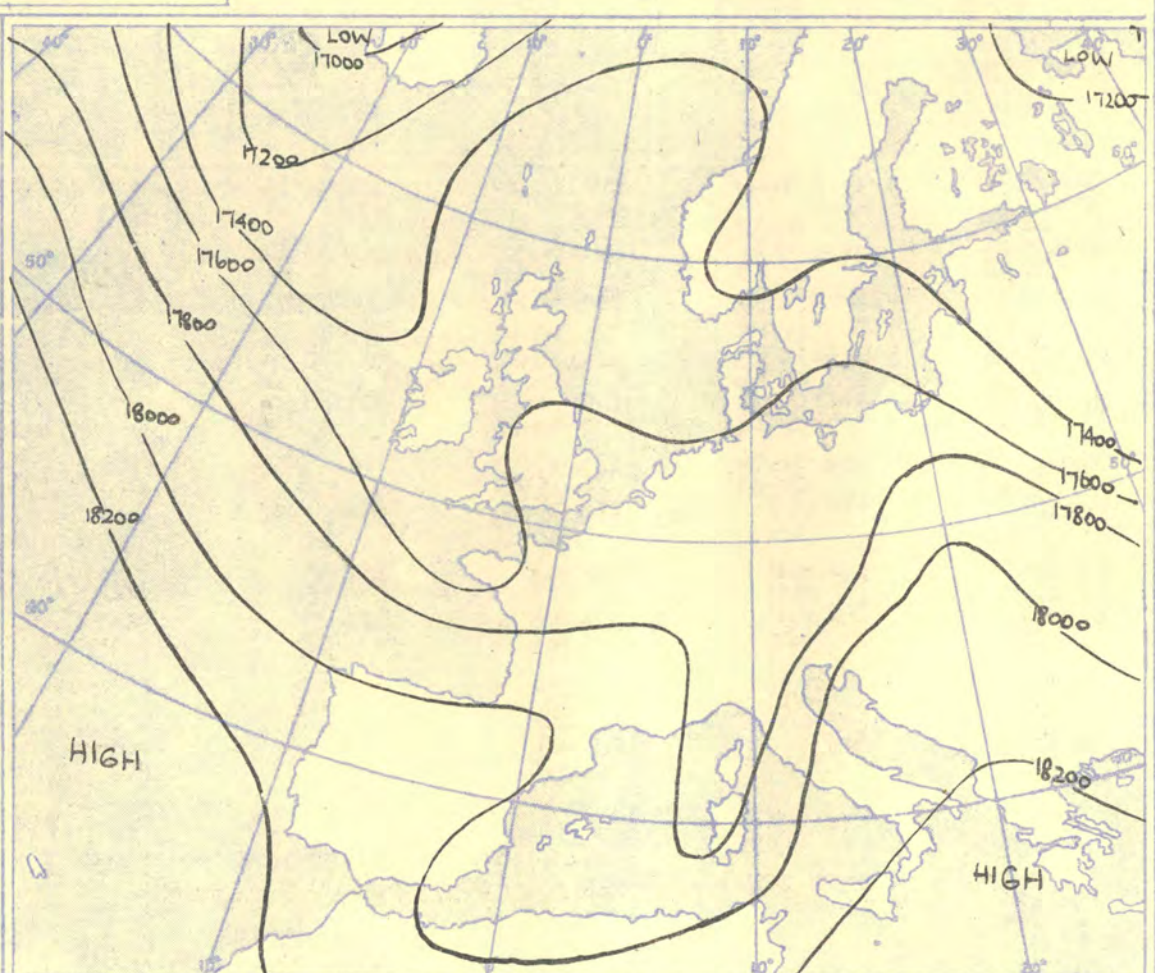
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.



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 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

		41-4N. 14-6W.		38-5N. 10-9W.		53-1N. 01-3W.																							
		Time M.S.L. Surf Freezing		Time M.S.L. Surf Freezing		Time M.S.L. Surf Freezing																							
		13h. 1009 1000 700		1430h. 1016 1012 690		1445 979 977 827																							
		mb mb mb		mb mb mb		mb mb mb																							
		Temp. °F. °C.		Temp. °F. °C.		Temp. °F. °C.																							
		Dew °F. °C.		Dew °F. °C.		Dew °F. °C.																							
		Height ft./100		Height ft./100		Height ft./100																							
		Surf 1000 950 900 850 800		Surf 1000 950 900 850 800		Surf 1000 950 900 850 800																							
		2-6 61 56 53 48 41		4-3 64 55 48 45 47		0-5 47 44 40 34 30																							
		99-4 32 26 21 11		101 34 26 18 09		88-5 20 10 04 -06																							
		185 05		187 -05		171 -18 -28 -40 -50 -53																							
		Cloud. 8/8 St. 1000- 930mb. 8/8 Sc 930- 810mb. 1/8 Ci N.R. Surf. wind- W. 22-26kts		Cloud. 8/8 St. 940mb. 8/8 Sc 870- 830mb. 8/8 Ci N.R. Inversion 850mb 45°- 800mb 47° Surf. wind- W. 11-16kts		Cloud. 8/8 Sc 948- 645mb. 8/8 As 60- 512mb. 1/8 Cs 398- 386mb. Isothermal 961-944mb. 45°																							

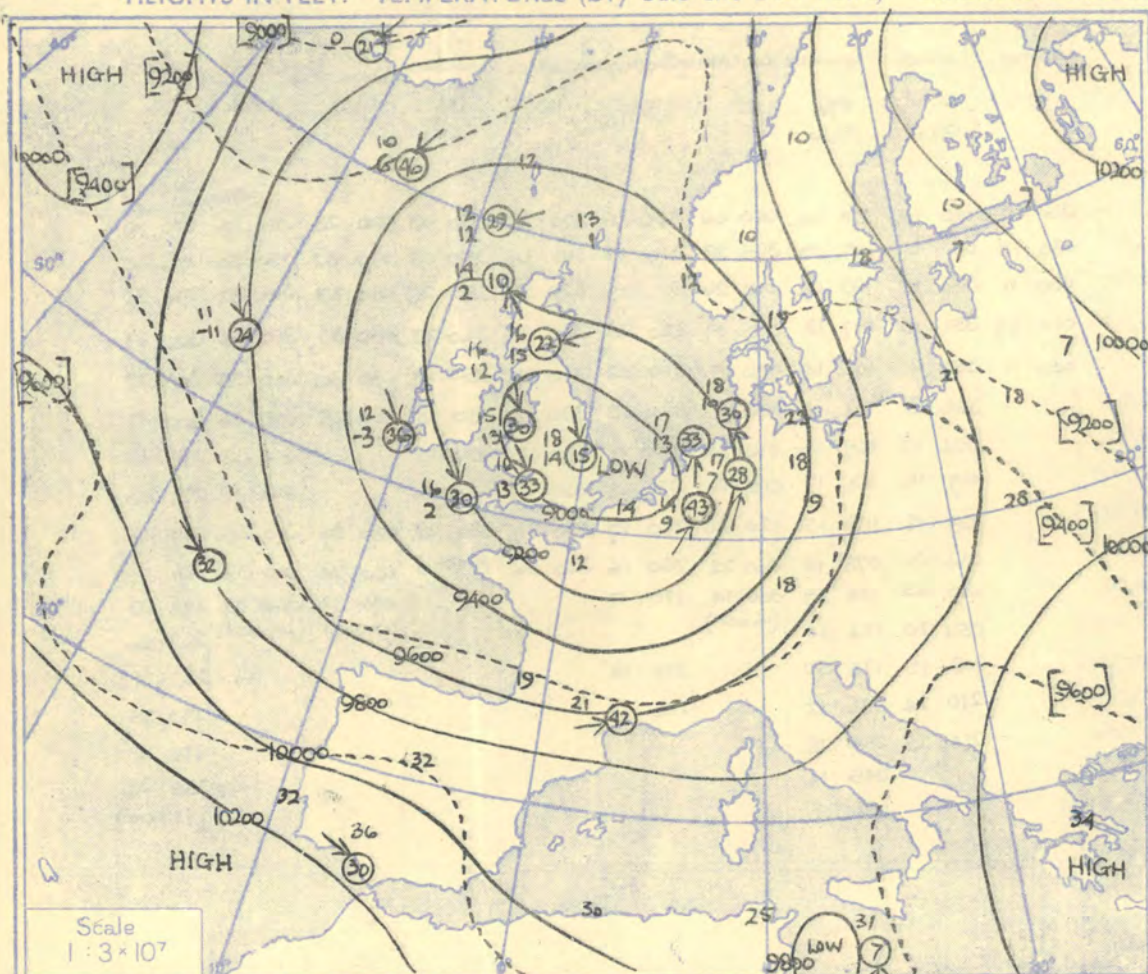
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

		Place		Preston		Larkhill		Leuchars		Rondaldsway		Shoeburyness		Larkhill		Rondaldsway		Cirrus		Larkhill		Larkhill		Place	
		Time		03h.		03h.		09h.		09h.		10h.		1130h.		15h.		15h.		1730h.		21h.		Time	
		Type		Pilar		Pilar																Pilar		Type	
		Feet		Dir.		Dir.		Dir.		Dir.		Dir.		Dir.		Dir.		Dir.		Dir.		Dir.		Feet	
		Surf.		360		020		270		040		040		300		320		100		280		290		Surf.	
		1,000		030		18		115		10		360		311		310		350		090		290		1,000	
		2,000		030		11		360		12		105		010		320		350		080		300		2,000	
		3,000		040		07		351		10		097		13		320		340		080		310		3,000	
		4,000		040		11		353		10		100		14		310		350		080		310		4,000	
		5,000						356		10		104		15		300		330		080		310		5,000	
		6,000						004		12		109		16		300		330		080		310		6,000	
		8,000						019		16		113		17		300		330		080		310		8,000	
		10,000						028		18		118		15		290		320		080		310		10,000	
		14,000						034		21		078		10		360		280		080		310		14,000	
		18,000						010		25		148		09		360		290		080		300		18,000	
		24,000						354		20		174		34		(16,000)				(17,000)		(15,000)		24,000	
		30,000						308		12		173		50										30,000	
		40,000						270		24		236		12										40,000	
		50,000						274		25		258		18										50,000	

NEPHOSCOPE OBSERVATIONS

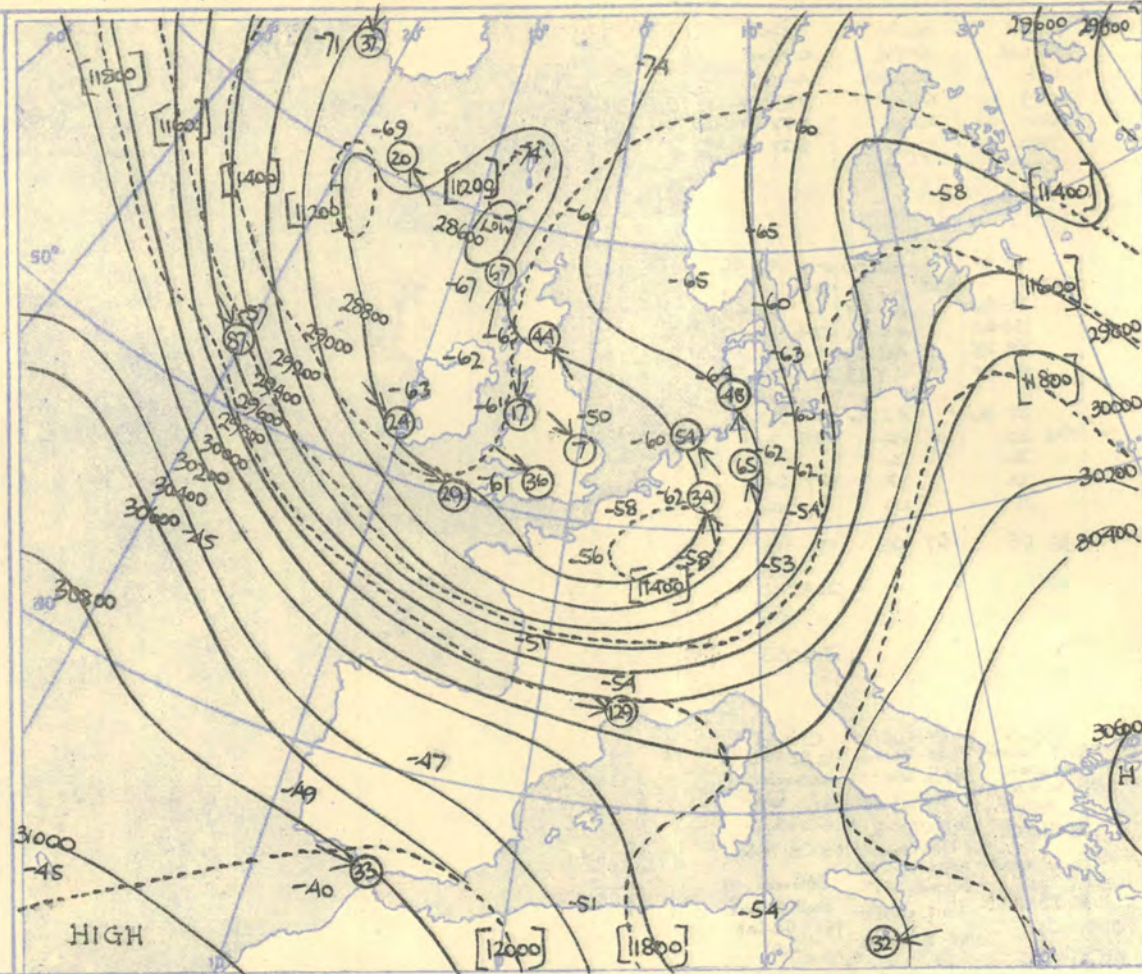
		Place																						Place	
		Time Type																						Time Type	
		Dir. Vel.																						Dir. Vel.	

RADIO-SOUND

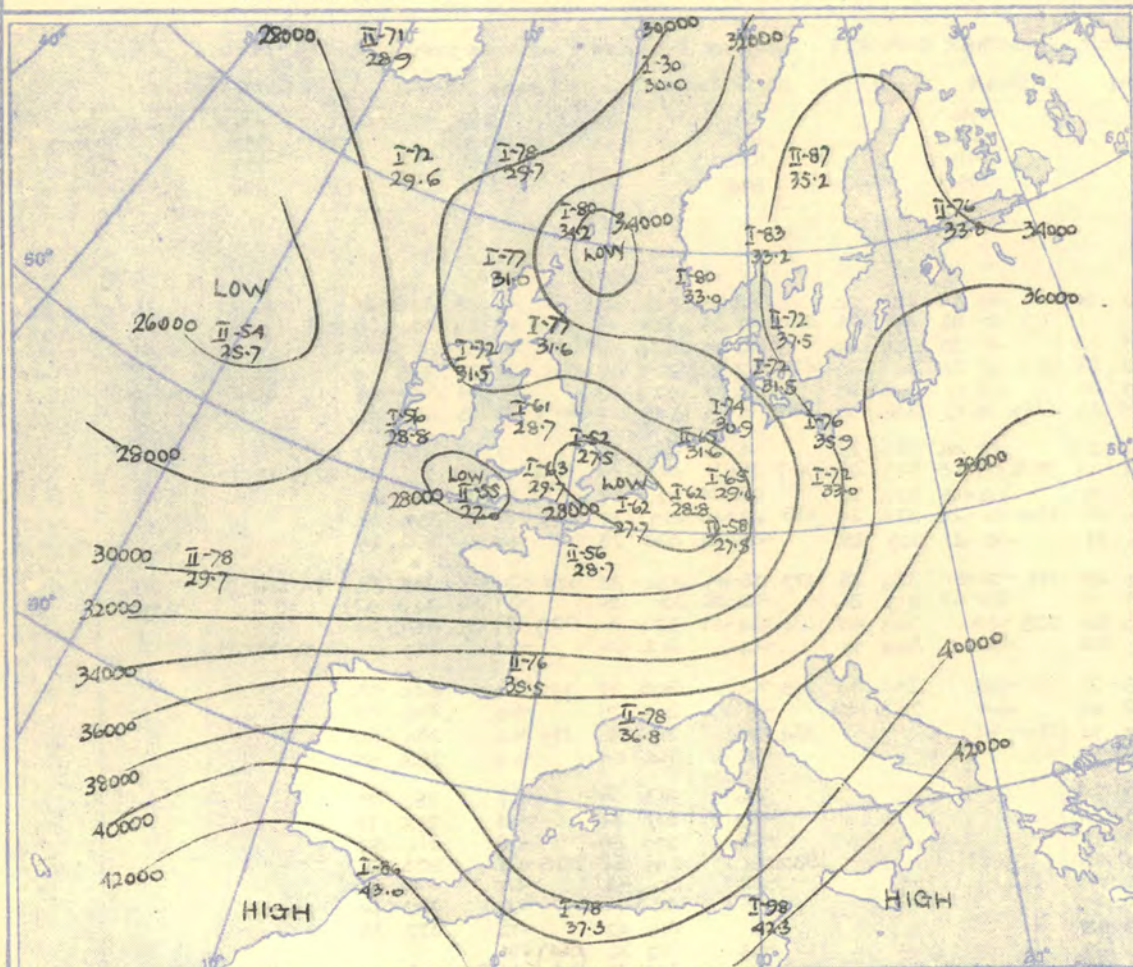


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 60 40 20 10 5 knots



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

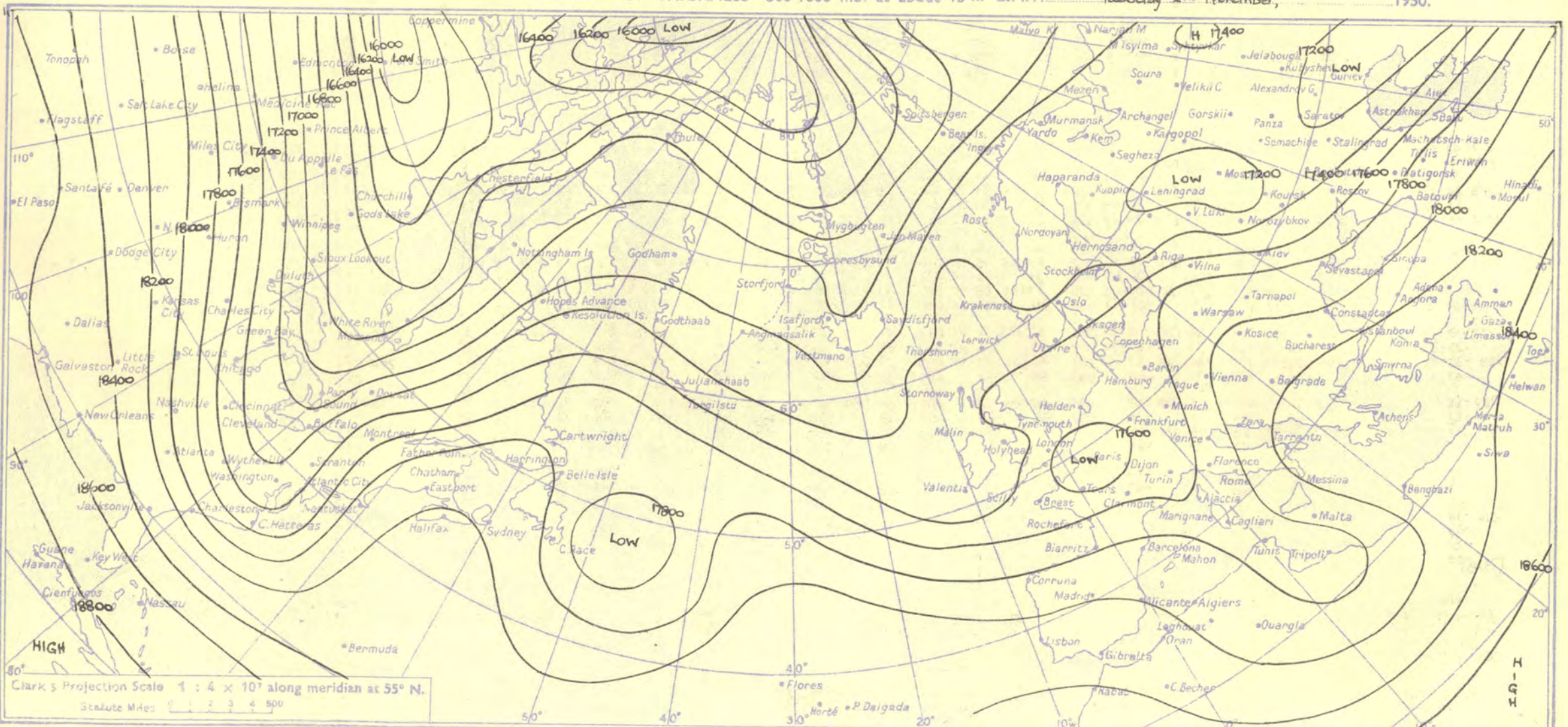
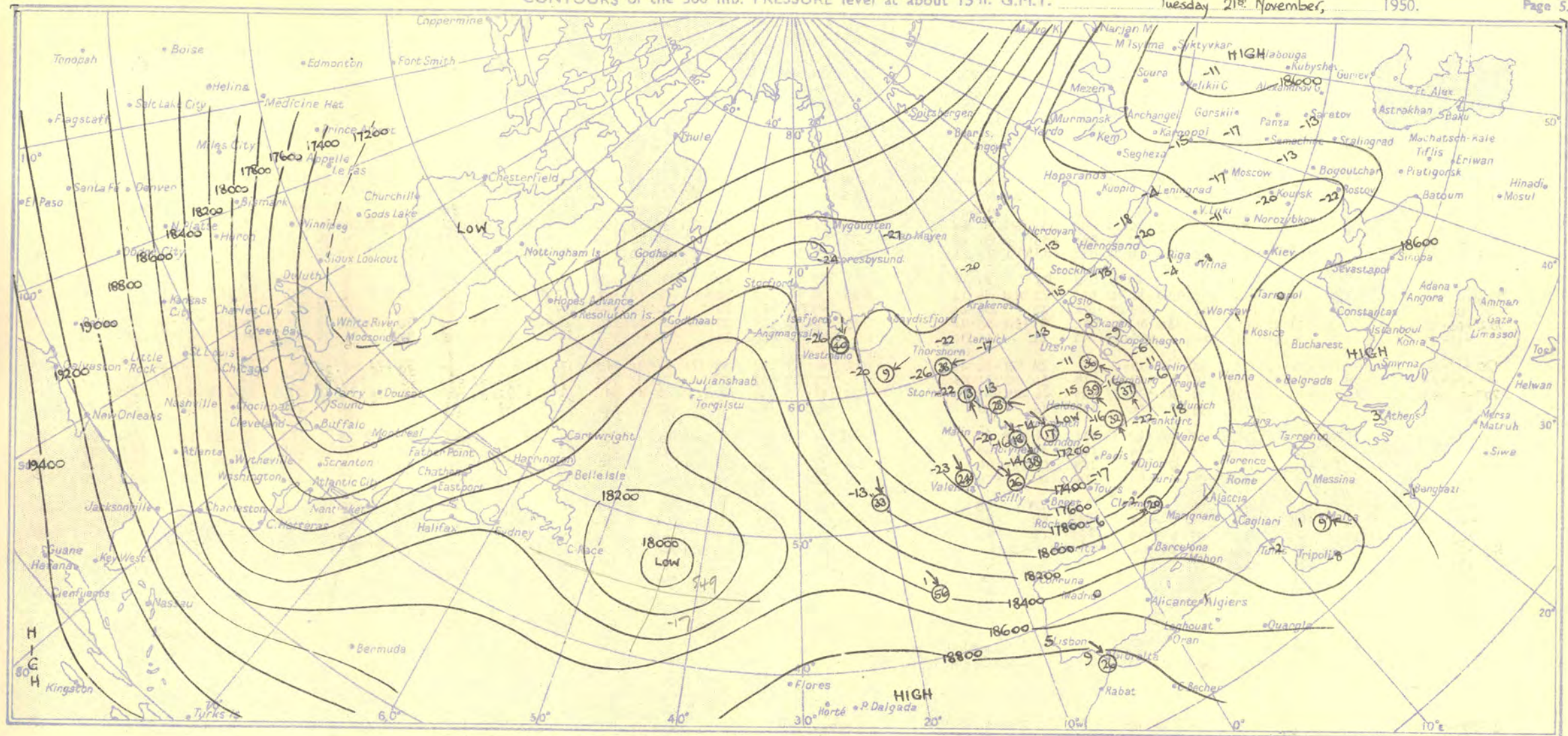


NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over Newfoundland moved slowly eastwards whilst the trough west of the British Isles maintained its position

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



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

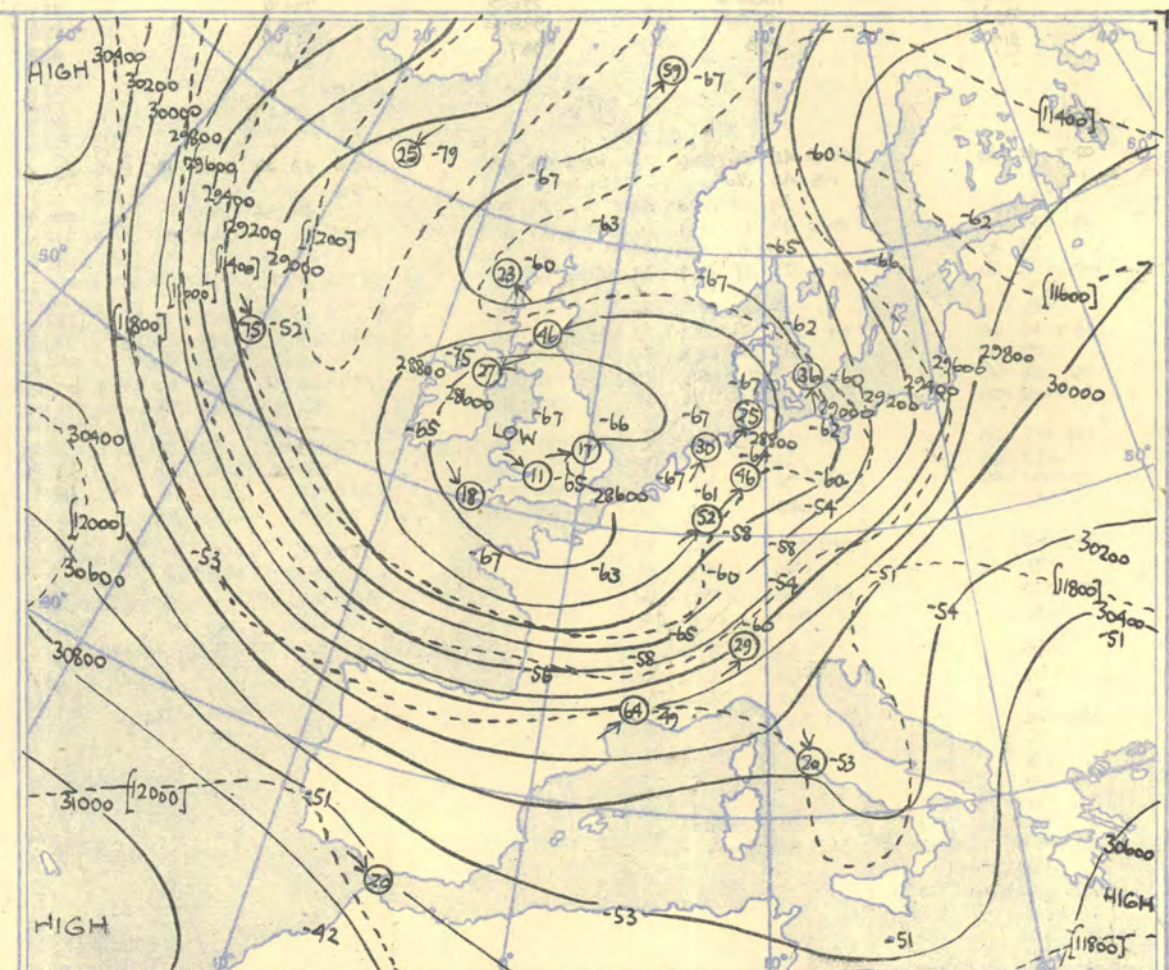
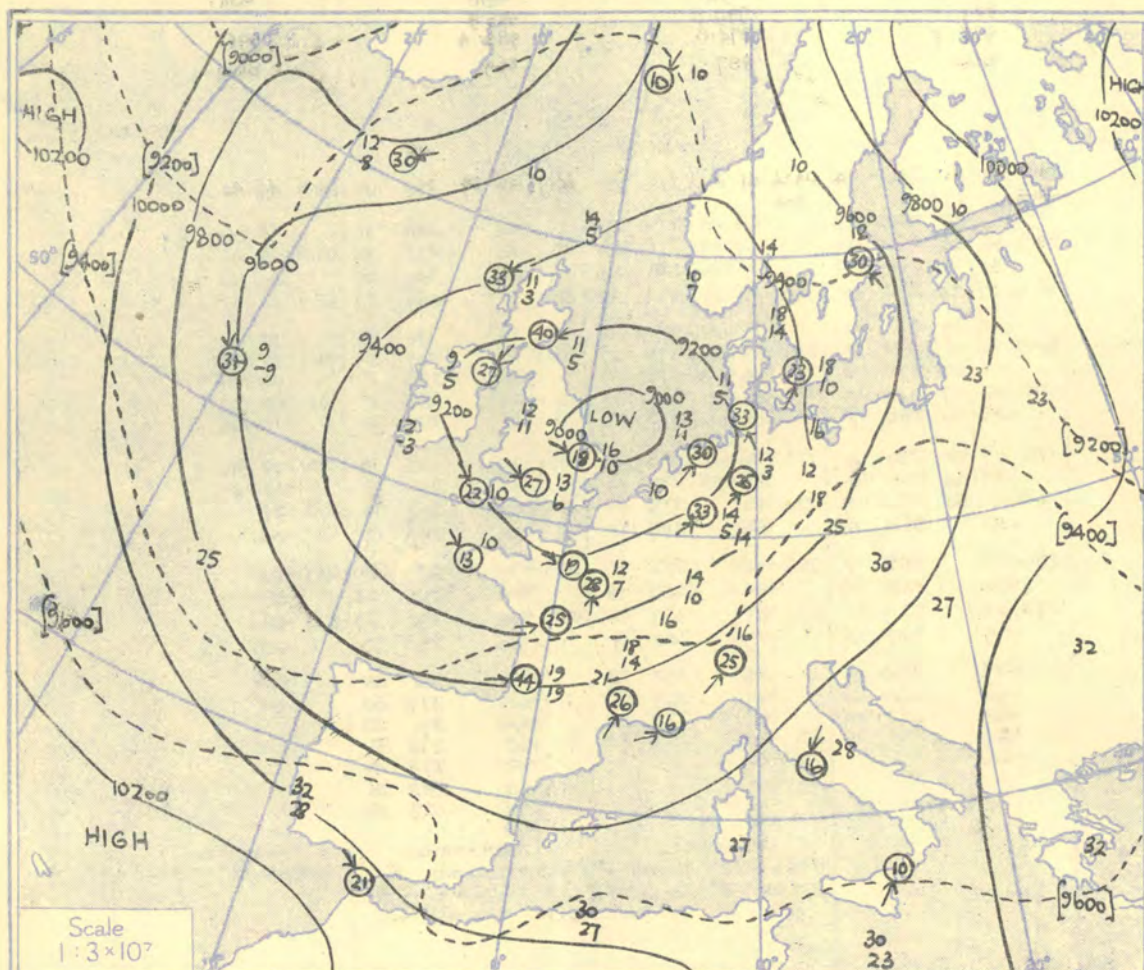
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure { Time M.S.L. Surf Freezing	15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		Time												
	1009.1		mb		995.4		mb		992.4		mb		992.1		mb		986.8		mb		980.6		mb		986.5		mb		994.2		mb		M.S.L.												
	994.1		mb		993.6		mb		991.5		mb		983.6		mb		984.7		mb		976.2		mb		970.7		mb		983.8		mb		Surf												
	906		mb		875		mb		850		mb		862		mb		850		mb		846		mb		876		mb		860		mb		Freezing												
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb												
Surf	2.7	43	38		0.5	46	42	120	05	0.2	45	49	100	20	2.3	46	44	Calm	0.6	43	42	340	12	1.2	46	46	330	13	4.4	43	39	300	12	2.9	48	39	320	15	0.3	48	42	360	04	Surf	
1000	1.1				1.2				0.2				2.1					3.6					5.3					3.7				1.6				3				1000					
950		38	31			41	38	105	12		40	39	080	34		43	40			39	38	343	20		43	42	358	18		41	36	309	27		44	37	310	31		47	38	337	17	950	
900	29.2	31	27		27.0	35	30	103	11	26.0	35	34	082	32	26.2	37	34		24.6	34	34	343	22	23.1	38	37	355	18	24.6	35	32	320	34	26.8	39	32	319	29	28.1	38	32	323	22	900	
850		26	22			29	26	106	11		32	30	084	33		31	29			32	22	342	23		32	20	357	18		30	28	336	39		31	26	321	27		32	26	325	24	850	
800	59.8	21	17		57.4	27	20	108	12	57.0	28	27	086	33	57.1	26	23		55.5	27	26	341	23	54.1	29	26	354	18	55.4	26	23	333	40	57.7	25	20	324	29	59.0	24	17	323	26	800	
750		14	10			21	12	117	11		22	21	088	29		21	17			23	22	343	30		23	20	348	16		21	18	331	35		19	11	323	30		18	07	321	25	750	
700	93.6	13	01		92.1	14	02	130	10	91.0	16	15	085	22	91.4	16	12		89.7	15	13	348	30	88.6	18	14	348	15	89.6	16	13	323	33	91.8	16	02	323	30	93.0	12	03	319	36	700	
650		05	10			07.09	126	12			09	08	072	22		09	06			09	04	353	28		10	05	350	14		09	05	324	31		10	14	319	29		06	09	313	26	650	
600	132	03	17		130	01	21	121	10	130	01	01	071	21	130	06	20		128	02	05	355	27	127	04	02	355	13	128	02	03	332	36	130	04	19	311	36	131	01	18	312	24	600	
550		11	21			11	30	132	10		04	06	092	22		10	30			06	13	360	22		05	11	353	14		04	10	328	39		06	24	306	28		11	24	307	22	550	
500	175	17	25		174	22	42	171	13	174	13	16	119	28	174	20	42		172	16	23	357	18	171	14	21	348	19	172	14	21	340	38	174	17	23	301	26	175	23	35	307	24	500	
450		25	34			34	54	193	15		23	26	128	30		31	54			25	32	007	23		26	35	341	17		24	31	329	38		27	39	295	22		36	47	300	22	450	
400	227	37	44		225	46		192	15	226	34	37	133	26	225	43			224	37	44	355	20	223	40	49	341	20	224	35	42	319	34	226	38	48	280	13	225	44		295	20	400	
350		48				54		177	53		46		127	43		48				49		336	22		47		328	12		48		311	31		50			267	15		53		292	22	350
300	230	61			227	67		177	67	229	63		131	44	228	62			227	61		358	17	226	50		291	07	227	61		307	36	229	55		283	29	228	63		296	24	300	
250		77				74		179	29		74		136	38		68				56		358	11		52		254	05		56		297	27		54		288	49		56		294	35	250	
200	374	71			371	69		183	11	374	69		189	09	373	60			374	57		284	08	374	56		247	12	374	57		286	24	376	55		285	43	375	56		297	41	200	
170		67				66		181	07		61		216	09		58				56		260	13		57		245	15		59		283	29		57		283	42		60		295	28	170	
150		66				68		195	06		61		229	09		58				56		266	17		58		239	17		59		277	30		58		283	36		58		291	33	150	
130		67				68		233	12		63		247	09		60				57		283	17		57		236	18				283			58		284	33		43				130	
110		69				71		282	09		65		275	12		62				60		244	22		61		228	21						58									110		
100	519	70			515	73		265	09	521	66				521	64			523	62		253	22	523	61		224	15															100		
90		70				75		260	13							65				63							221	15															90		
80		72				76		269	12							66			(9mb)																								80		
70		74				77		265	24							69																												70	
60		76														73																												60	
	Isothermal. 750mb - 710mb 14°				Inversion. 840mb 28°-822mb 29°				Inversion. 400mb -43°-388mb -39°																								Inversion 761 - 750mb 18°												

Tropopause		I 234 mb - 80° 34'200"				I 267 mb - 77° 31'000"				I 261 mb - 77° 31'600"				I 263 mb - 72° 31'500"				I 300 mb - 61° 28'685"				I 314 mb - 52° 27'500"				I 286 mb - 63° 29'700"				I 325 mb - 55° 27'000"				I 300 mb - 56° 28'800"				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION					
Pressure mb	Time M.S.L. Surf Freezing	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.		Time M.S.L. Surf Freezing									
		1006.3		mb		1000.9		mb		994.3		mb		993.1		mb		987.5		mb		984.3		mb		989.9		mb		995.7		mb							
		996.3		mb		998.9		mb		993.4		mb		984.8		mb		985.4		mb		979.9		mb		983.9		mb		985.3		mb							
		900		mb		891		mb		881		mb		832		mb		867		mb		862		mb		850		mb		860		mb							
Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb							
Surf	2'7	43	35		0'5	45	41	090	12	0'2	44	42	080	20	2'3	46	39	010	10	0'6	43	42	340	10	1'2	44	43	260	16	4'4	41	38		Surf					
1000	1'7				1'2					1'2					1'8					3'4						4'3								1000					
950		38	30			39	35	083	25		40	39	075	34		44	36	046	15		40	37	340	18		41	40	297	27		42	39		950					
900	29.8	32	27		28.4	33	30	090	28	27.0	34	33	075	36	26.5	33	32	030	25	24.8	35	33	345	17	24.0	36	33	303	22	25.5	38	33		900					
850		25	20			28	25	094	31		30	09	075	36		33	26	012	27		30	29	346	14		31	28	304	20		32	27		850					
800	60.2	19	12		59.0	22	19	094	27	57.0	24	23	076	36	57.5	30	22	010	23	55.7	25	24	351	15	54.9	25	22	305	20	56.5	26	23		800					
750		19	06			17	15	099	21		17	16	075	36		26	11	020	23		20	18	358	17		21	17	310	21		19	18		750					
700	94.2	16	01		92.9	11	07	090	21	91.0	12	10	068	29	92.0	19	06	026	25	89.8	14	10	360	15	89.1	16	11	312	18	90.6	14	09		700					
650		10	12			05	00	071	24		06	02	068	31		12	03	022	25		08	04	020	15		09	02	309	14		08	04		650					
600	138	02	19		131	02	08	071	23	130	01	04	078	32	131	03	11	018	23	128	00	03	032	16	128	00	08	307	13	129	01	14		600					
550		07	19			10	17	074	19		07	12	082	36		06	20	018	23		08	13	039	14		09	15	306	14		08	24		550					
500		17	13	25		17	13	25		17	13	25		17	13	25		17	13	25		17	13	25		17	13	25		17	13	25		500					
450		23	32			29	36	133	26		25	30	084	39		26	42	063	30		29	34	032	11		30	39	312	19		28	43		450					
400	229	35	45		236	39	46	139	30	225	37	43	089	46	226	39	55	065	27	233	40	46	360	11	222	43	313	21	224	40	53		400						
350		47				54		138	32		50		099	55		52		072	28		52		344	13		55		312	27		52		350						
300	292	65			288	70		141	43	288	67		094	60	289	65		090	30	286	67		341	13	285	61		282	12	287	64		300						
250		84				82		144	29		73		099	36		63		072	19		59		323	05		60		251	12		60		250						
200	374	83			371	76		128	15	372	65				375	60		338	07	372	60		263	07	371	61		249	12	373	58		200						
170		73				73		143	10		64					60		332	06		59		270	11		62		248	14		59		170						
150		73				72		178	05		64					61		289	12		59		277	10		61		240	15				150						
130		75				73		263	04		65					62		334	09		60		274	13		64		243	18				130						
110		75				73										64		272	21		61					63		253	17				110						
100	516	78													572	65				(104mb)	61				518		67		253	18				100					
90		79																									70		250	22				90					
80		81																									69							80					
70	(73mb)	83																																70					
60																																		60					
Inversion.		800mb 19°-773mb 21°		718°		16°-706° 17°		Isothermol.		553°-537mb 07°																													
Inversion.		985mb 46°-973mb 47°																																					
Inversion.		974mb 41°-950mb 42°																																					
Isothermol.		785°-975mb 48°																																					
Tropopause		I 230mb - 84° 34'500"				I 235mb - 83° 33'300"				I 272mb - 74° 30'200"				I 284mb - 68° 30'000"				I 291mb - 69° 29'200"								I 286mb - 67° 29'700"				I 307mb - 67° 28'200"				Tropopause					

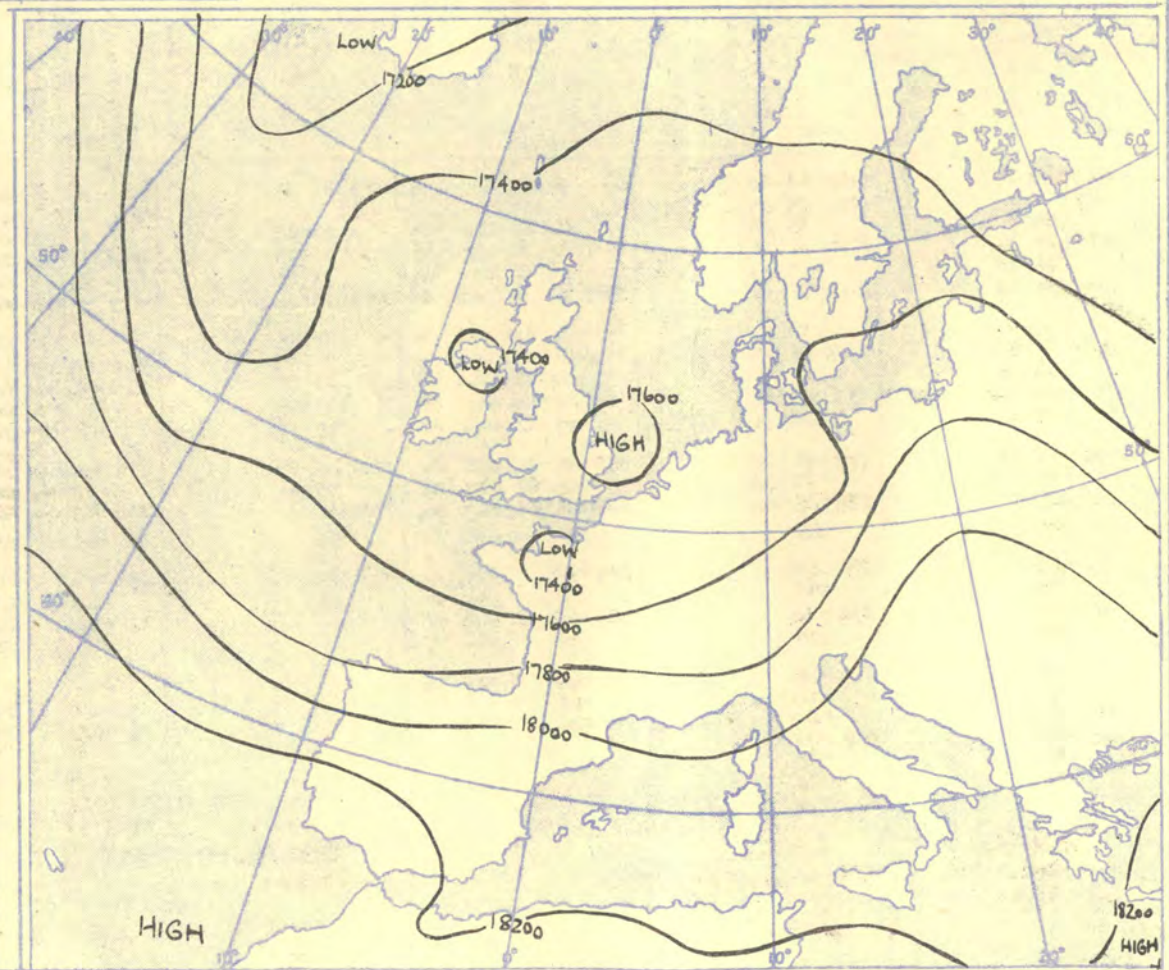
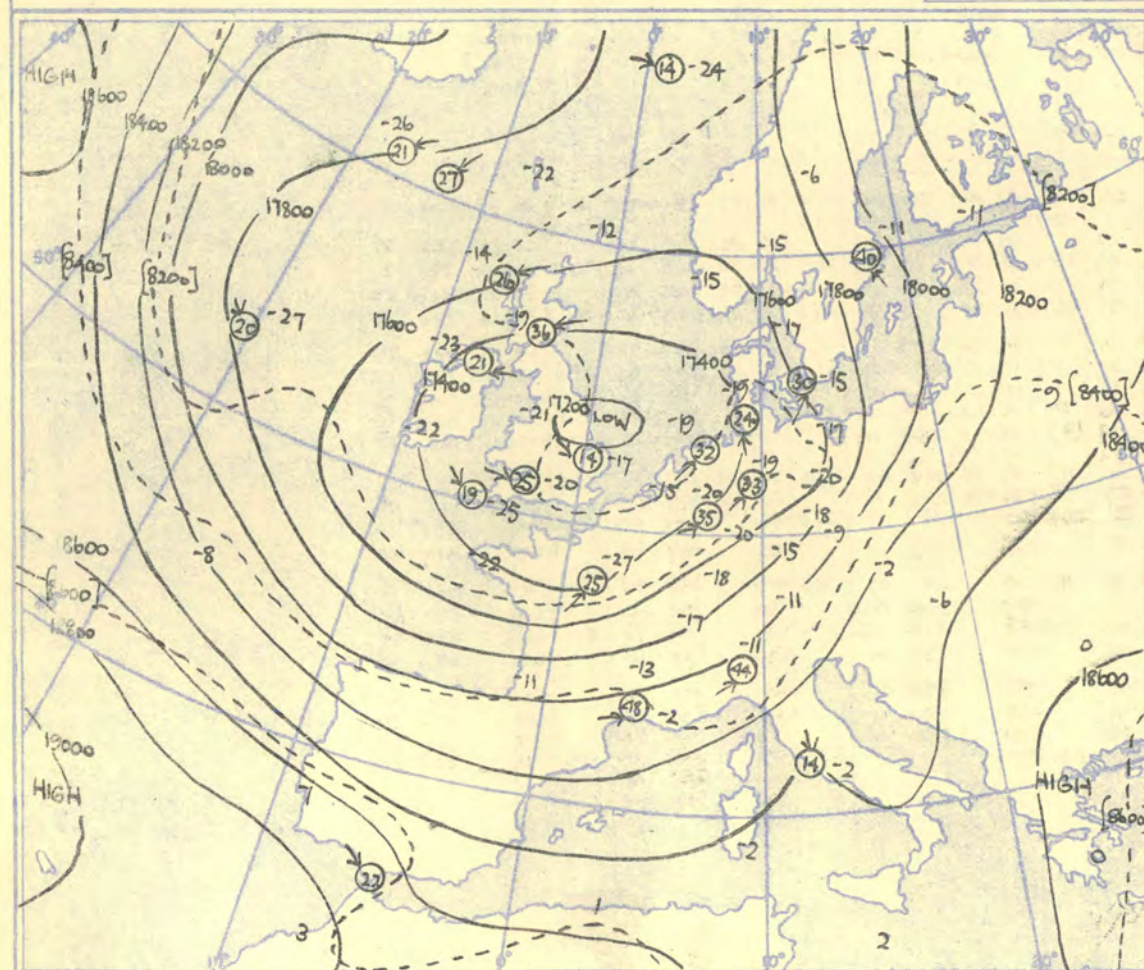
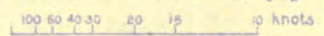
1950. Page

1950. Page

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.



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



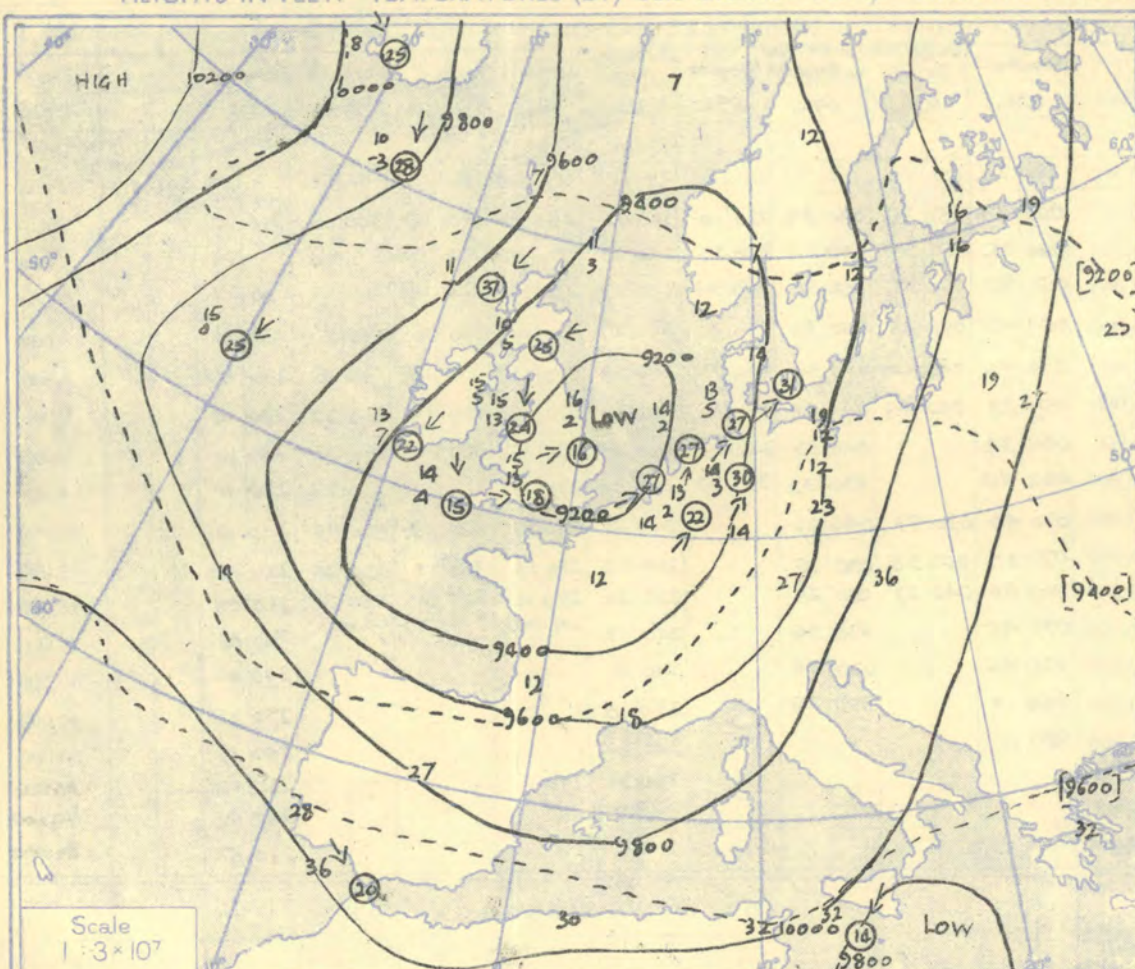
M.S.L.

[illegible]

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

[illegible]

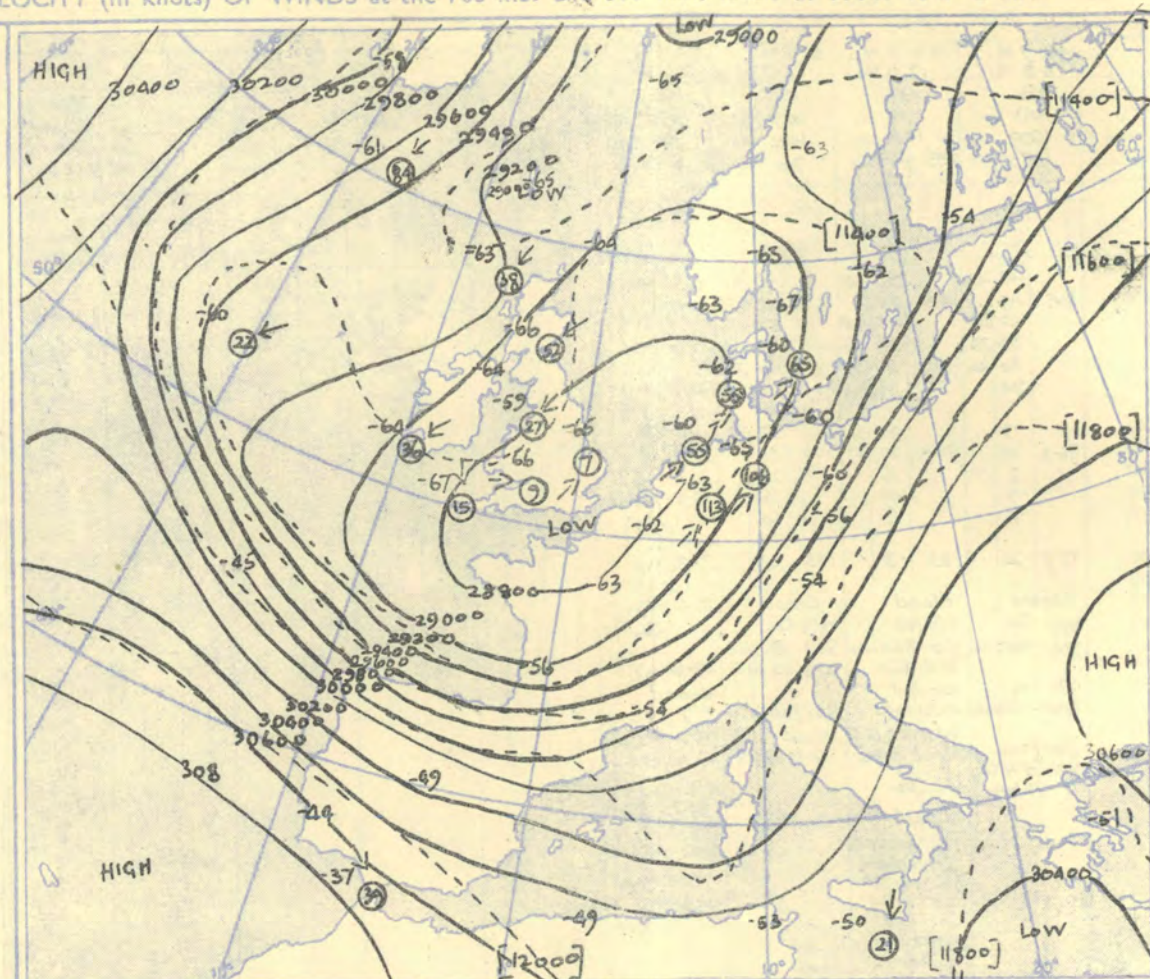
Wednesday 22 November 1950.



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

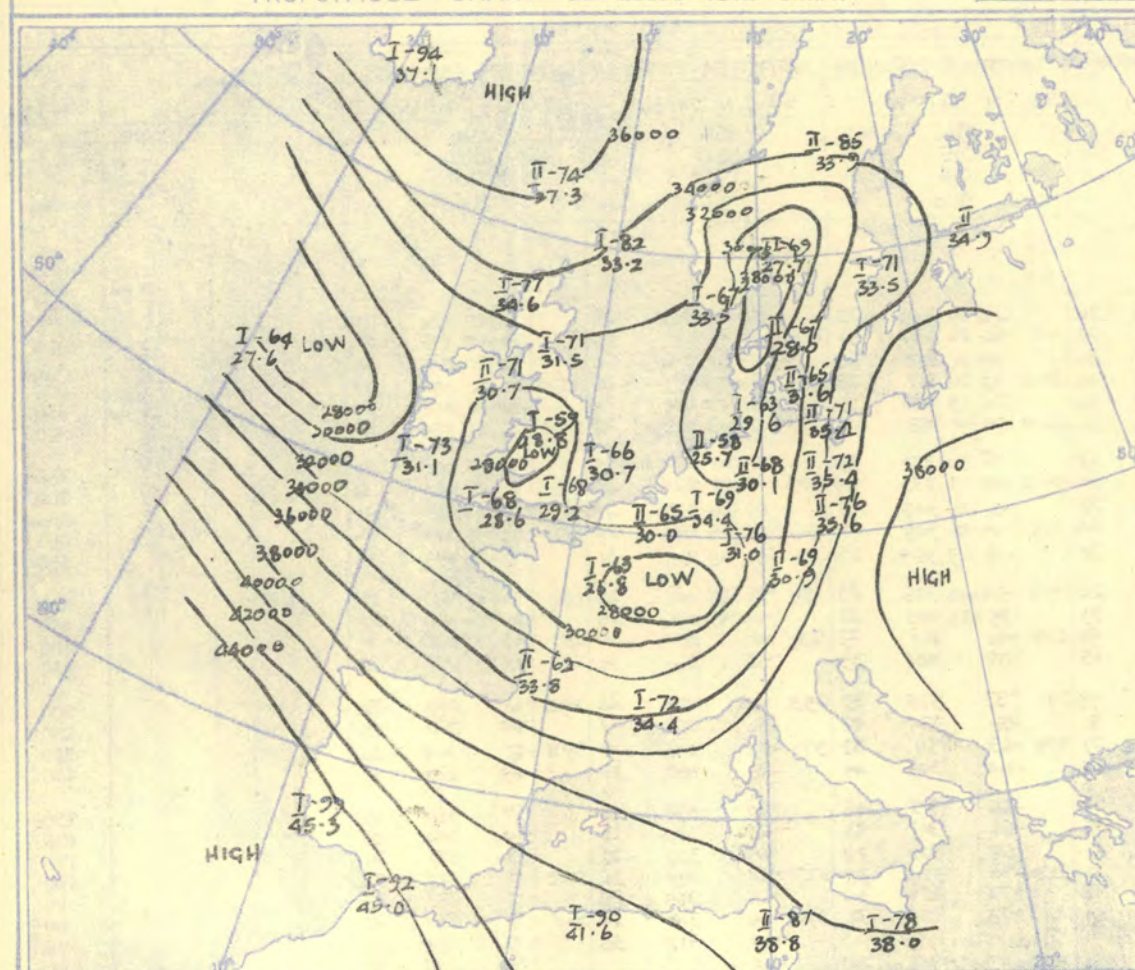
Gradient-Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 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.

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



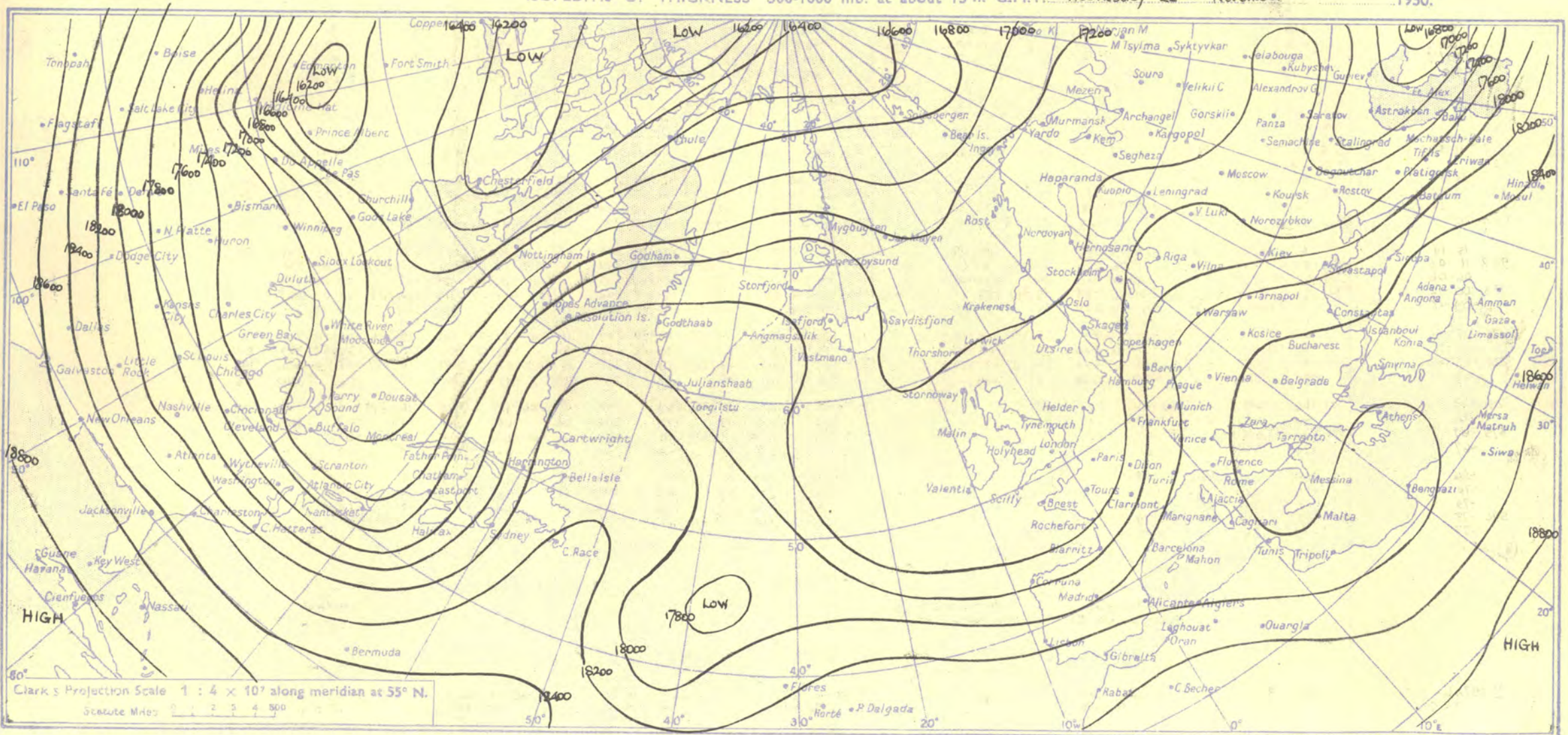
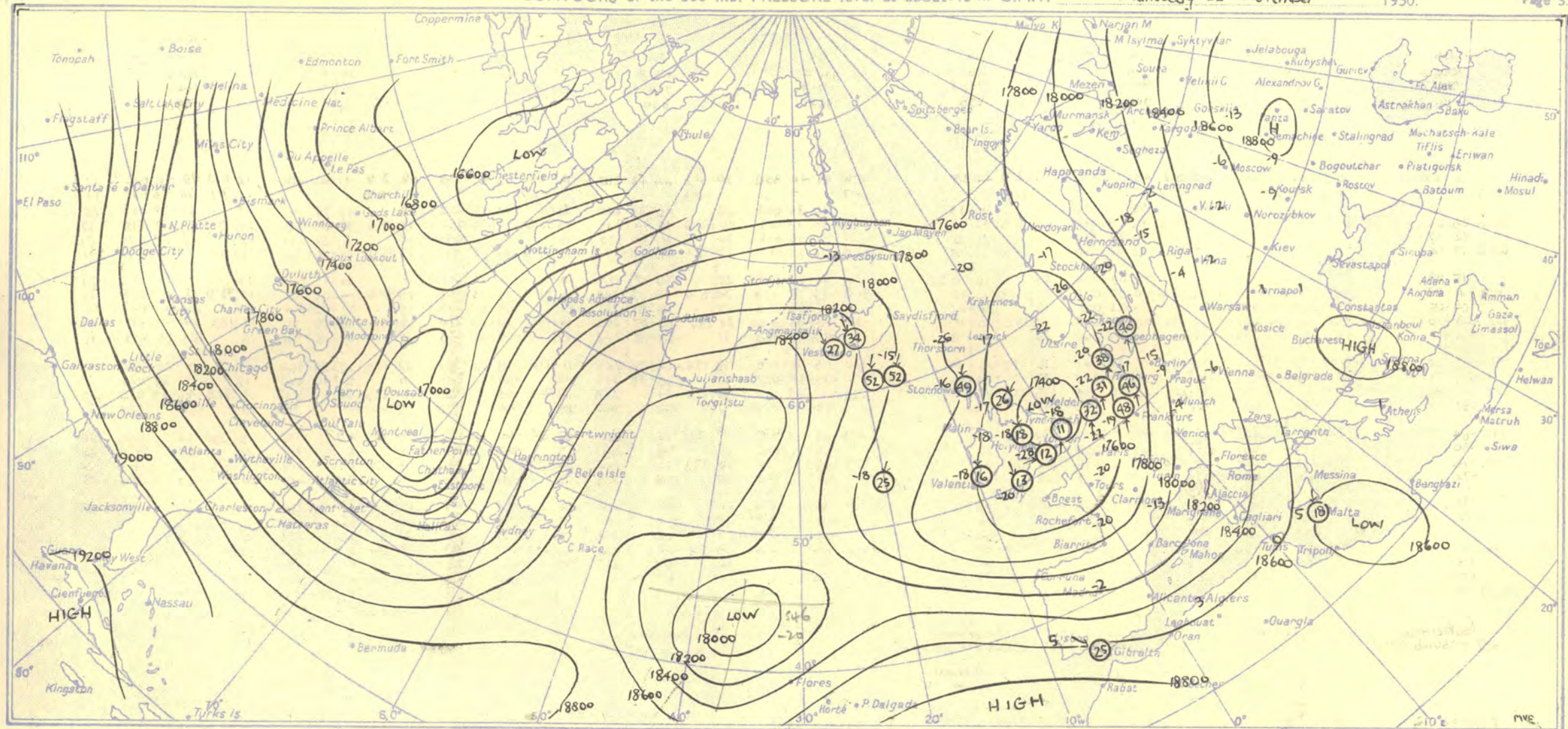
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool east of Newfoundland moved steadily east into the Central Atlantic in association with the surface depression whilst advective warming over Newfoundland and the western Atlantic occurred resulting in the establishment of a warm ridge. Little change over Britain and the Eastern Atlantic.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



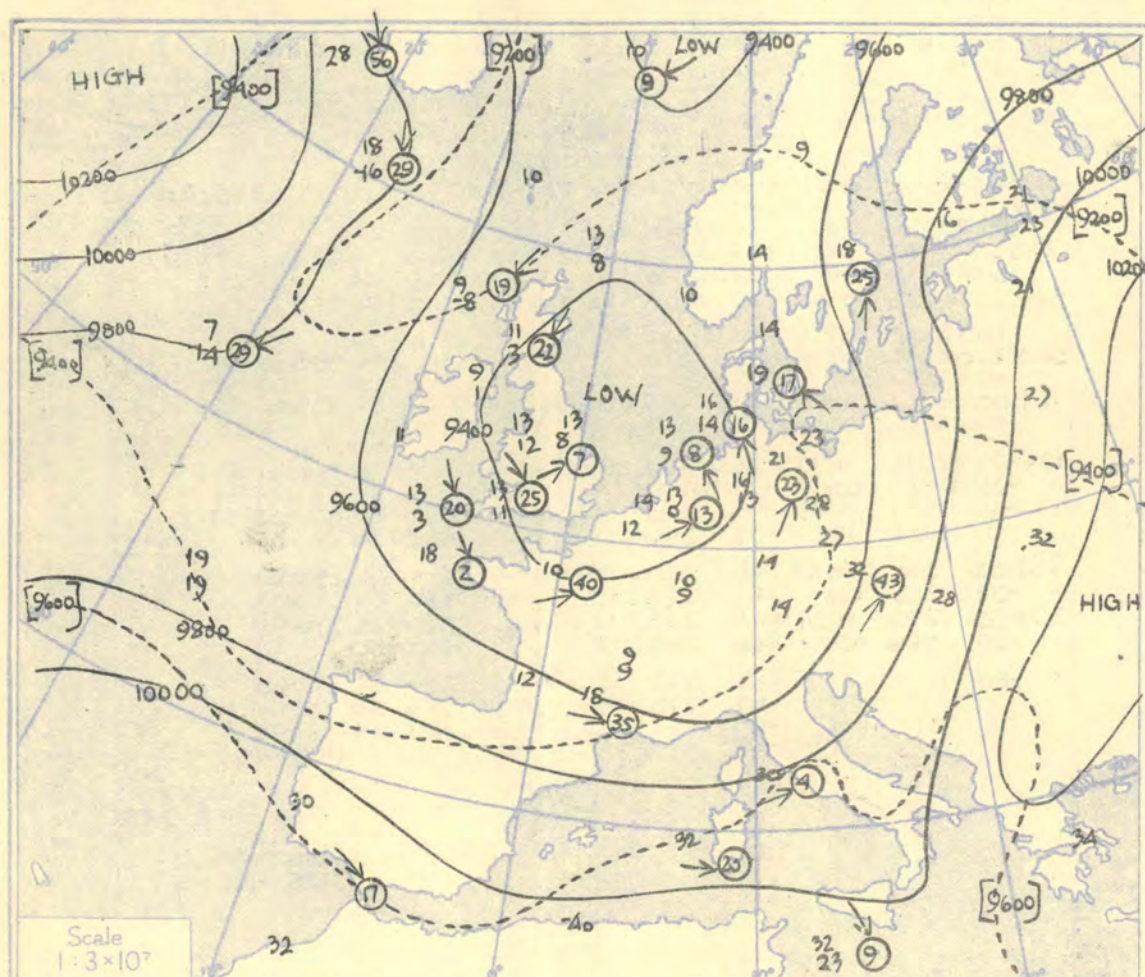
Clark's Projection Scale 1 : 4 x 10⁷ along meridian at 55° N.
Scale in Miles 0 2 4 600

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 mb	Time M.S.L.	Surf	Freezing	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	1

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
STATION					LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Pressure	Time M.S.L.	Surf	Freezing		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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			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.			03hrs		G.M.T.			03hrs		G.M.T.			03hrs		G.M.T.			03hrs		G.M.T.			03hrs		G.M.T.			03hrs		G.M.T.	

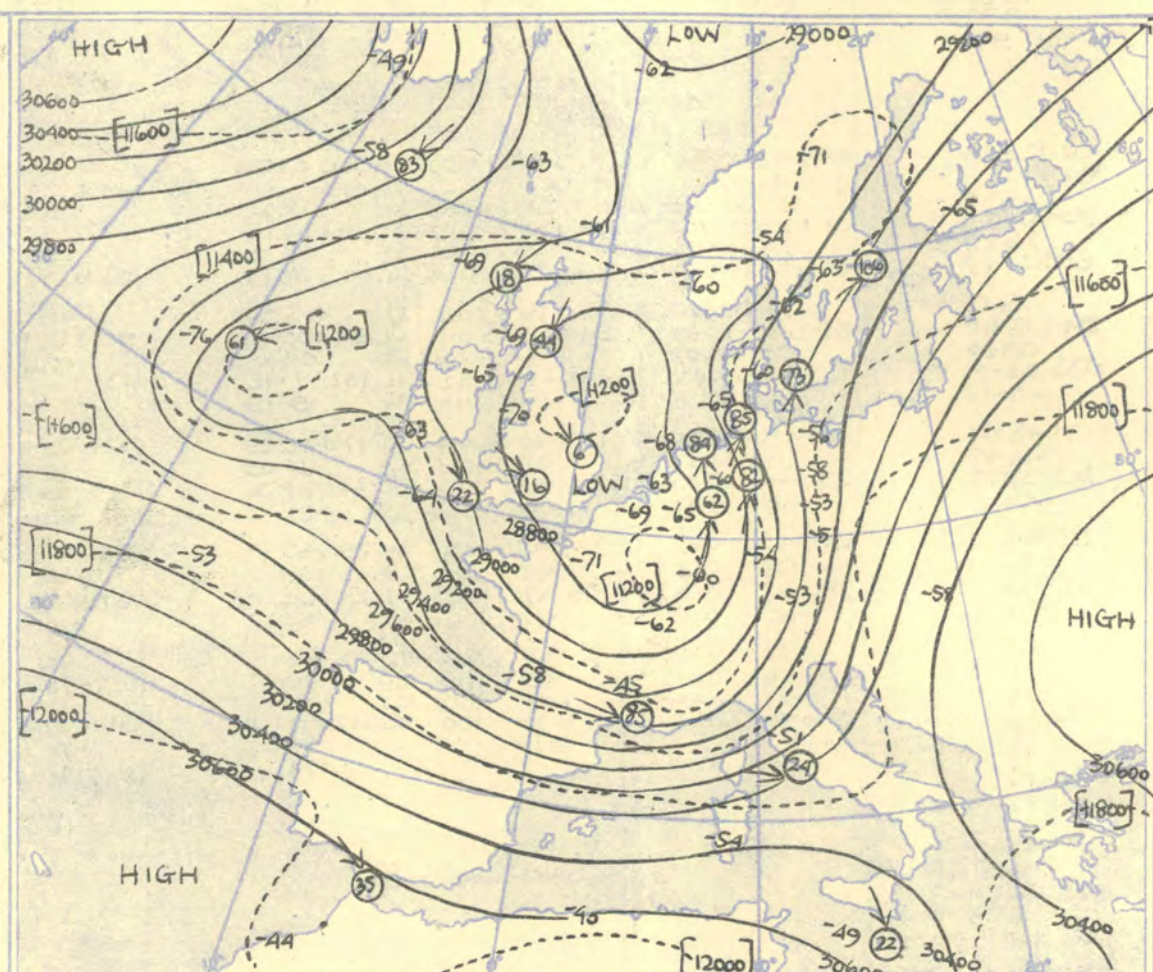
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb. levels at about 03 h G.M.T.



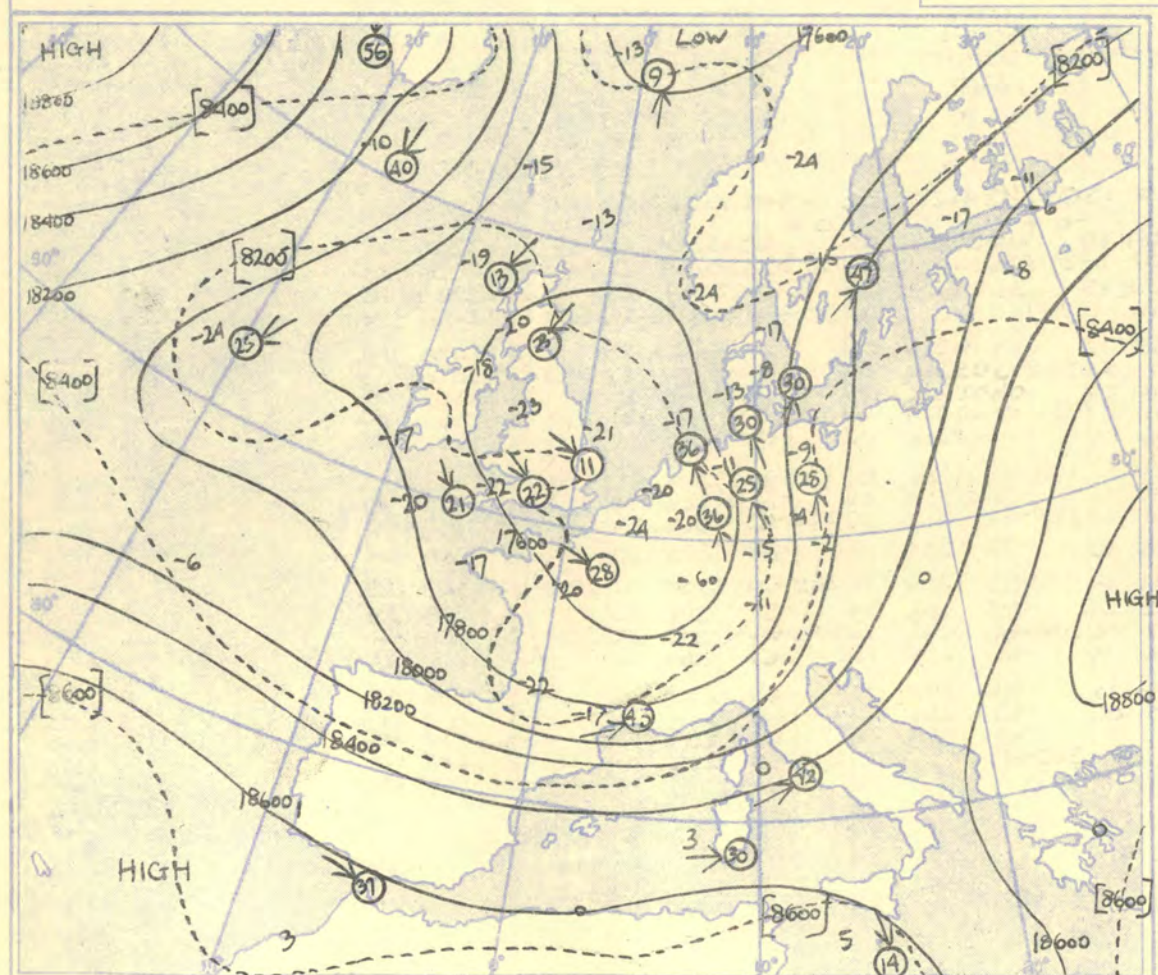
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

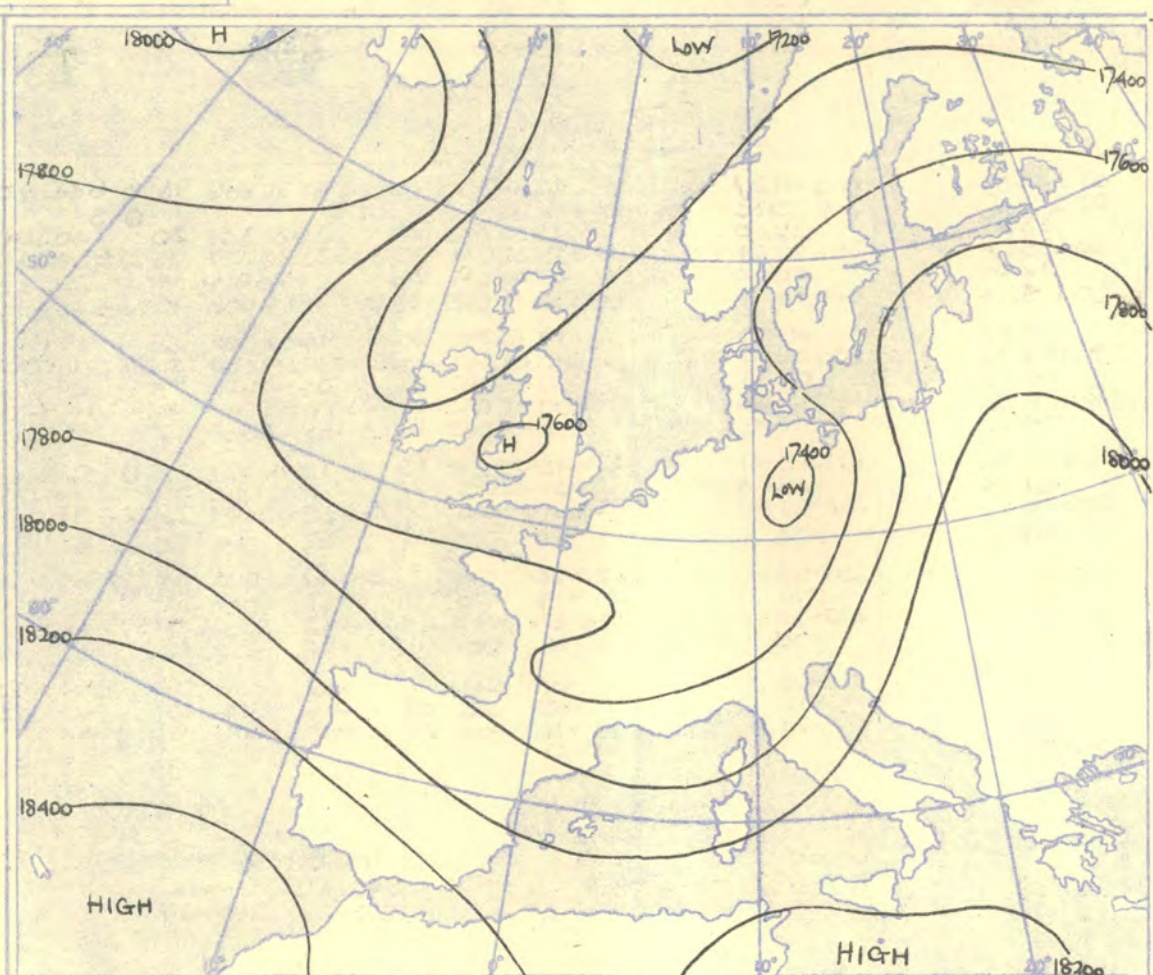
100 60 40 20 15 10 knots



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.

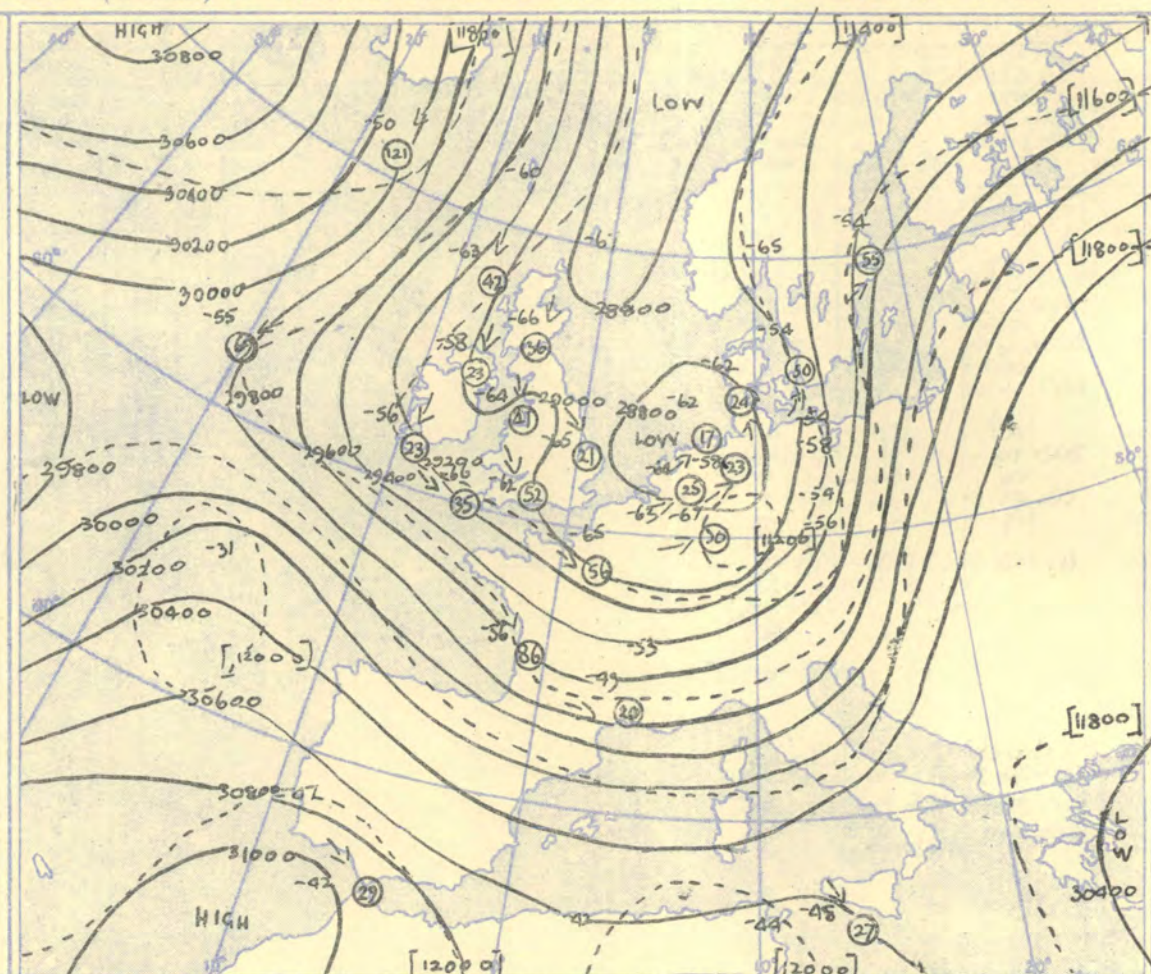
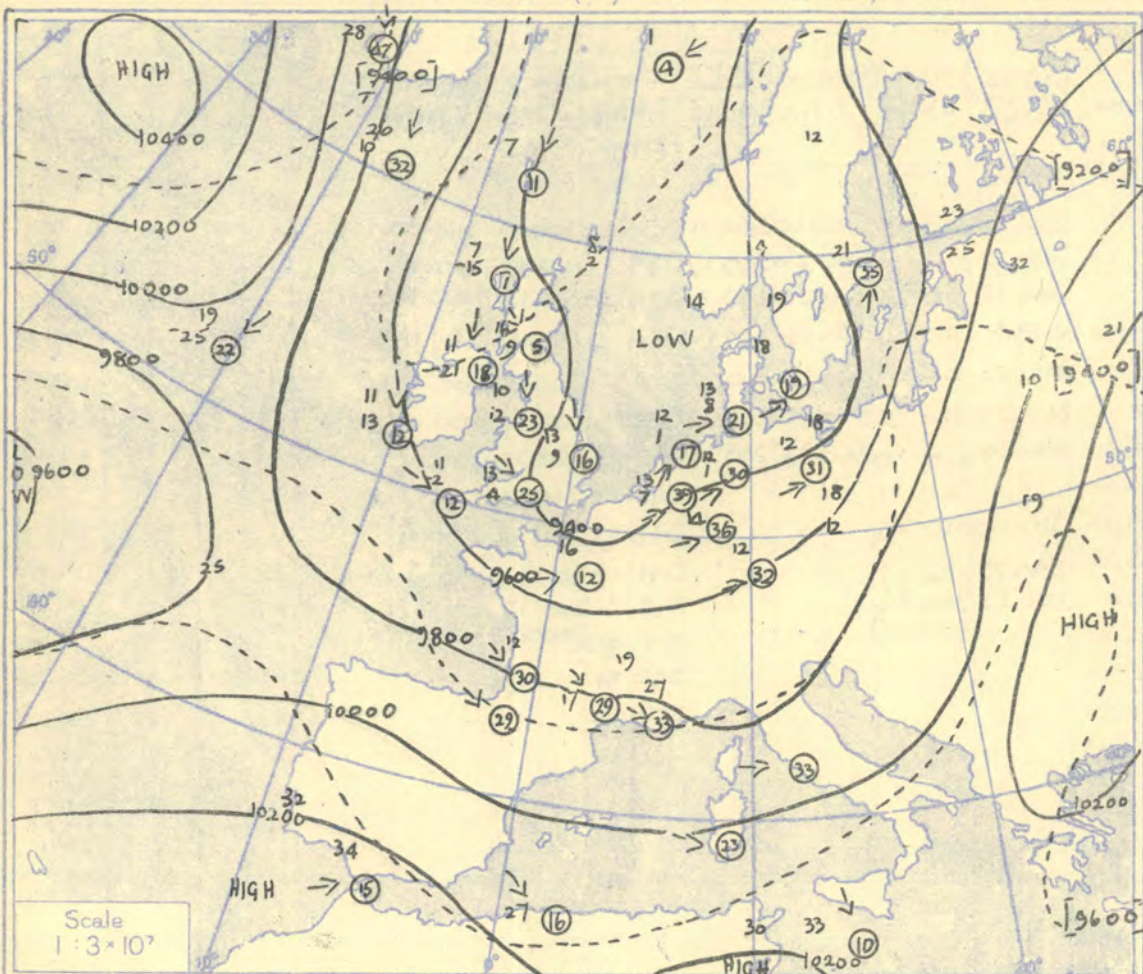


The continuous lines are contour lines of the 500 mb. surface
The dotted lines are isopleths of the thickness of the layer 700-500 mb.



Isopleths of Thickness 500-1000mb.

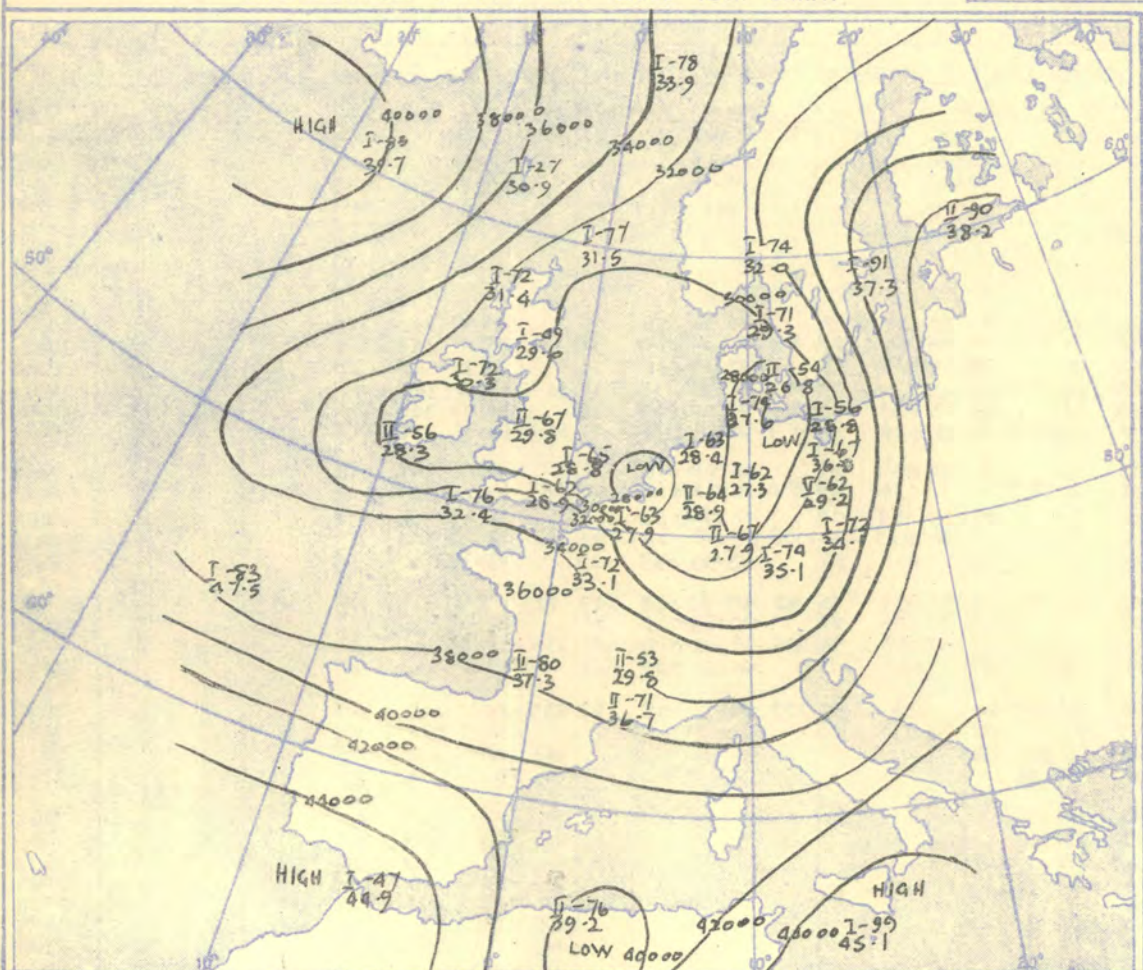
AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																				DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Time M.S.L.		48°2'N 20°5'W				49°5'N 14°7'W				55°1'N 1°30'E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											



Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 5 knots

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

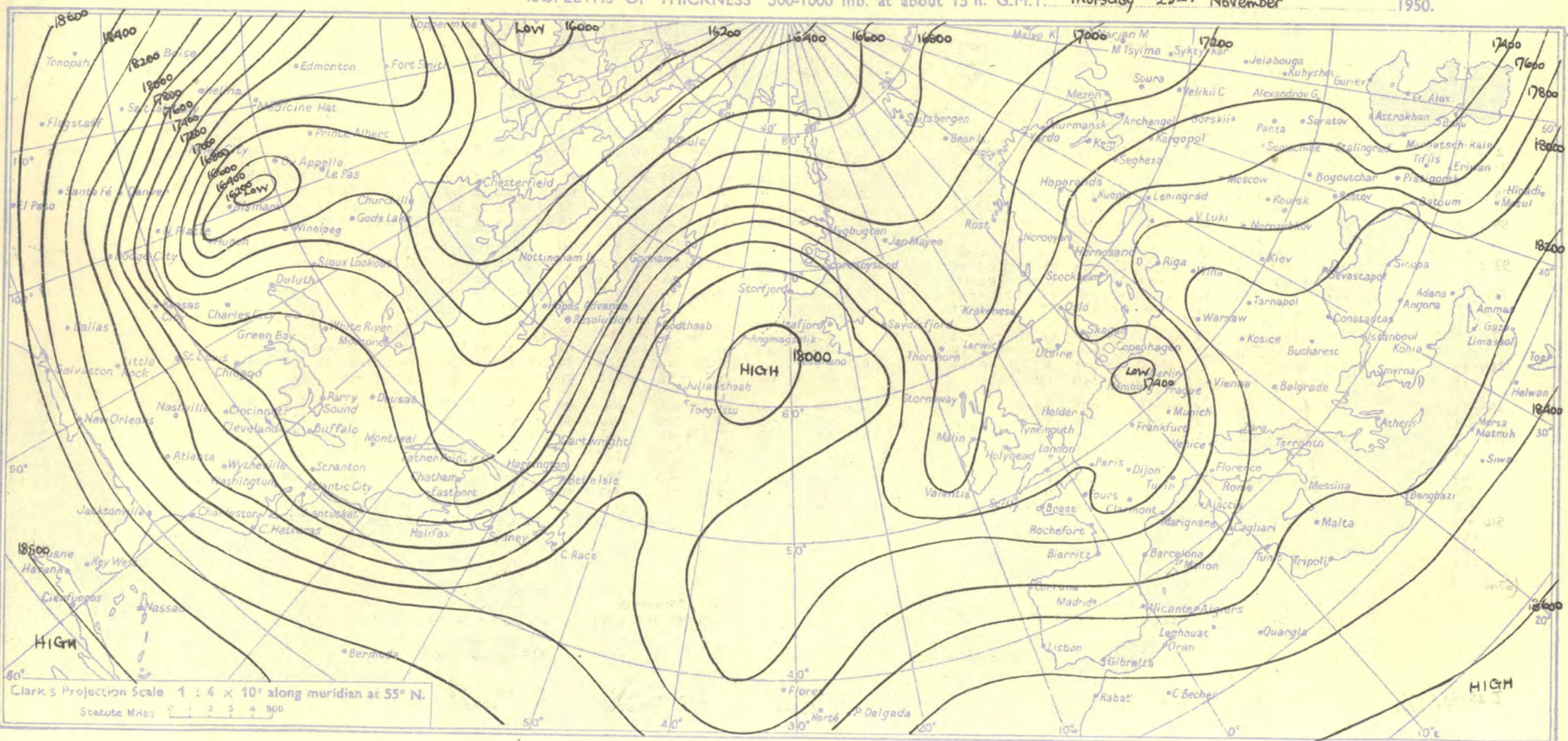
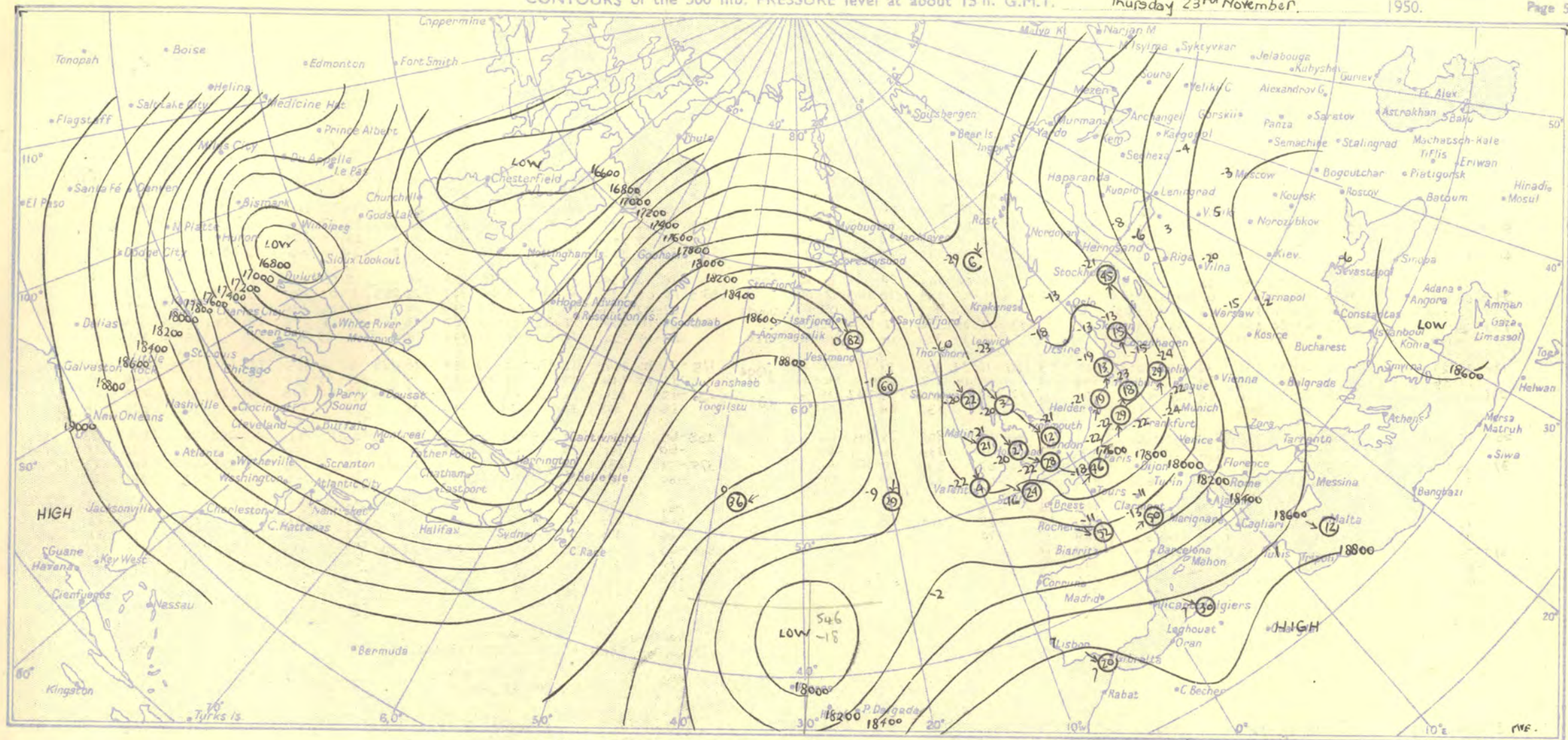


NOTES ON THE AEROLOGICAL SITUATION.

A very rapid extension of the warm ridge towards Iceland occurred, accompanied by a large fall of surface pressure over Iceland and east Greenland and a southward movement of the surface anticyclone. This extension could not have been the result of advection alone and the Sheeks Field ascent with dry air above 750 mbs suggests that considerable subsidence must have occurred.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



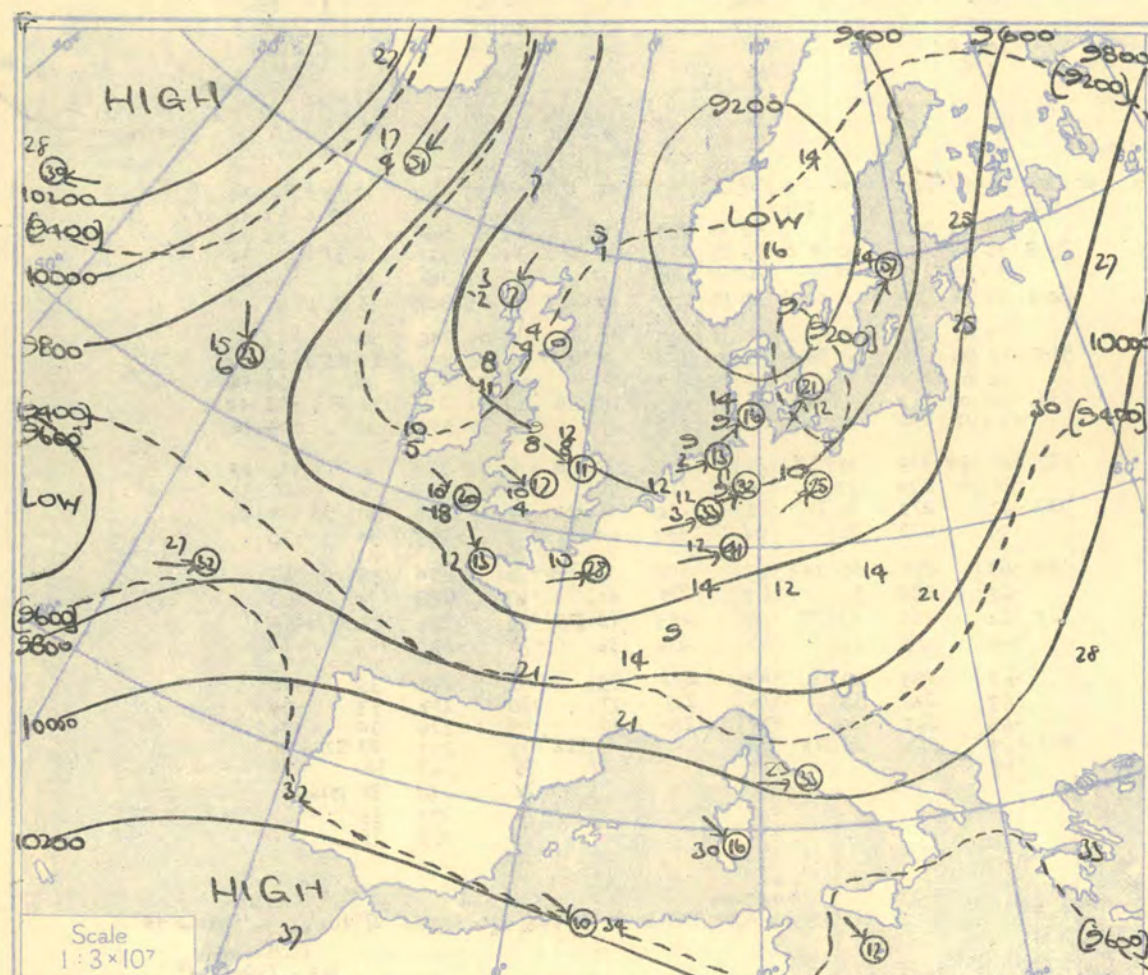
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																		
Time M.S.L. Surf Freezing	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. Surf Freezing																																						
	1007.3	mb	997.1	mb	1011.9	mb	1009.9	mb	1006.5	mb	1009.3	mb	1000.6	mb	1004.0	mb	1002.0	mb	1001.1	mb	996.8	mb	883	mb	998.8	mb	1009.5	mb	1014	mb	1013	mb	Pressure mb																																						
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																						
Surf	2.7	39	37		0.5	41	32	350	08	0.2	43	37	040	10	2.3	44	36	355	12	0.6	44	40			1.2	44	42	275	08	4.4	45	41	290	08	2.9	47	39	300	12	0.3	47	36	350	12	Surf																										
1000	1.9				3.2	40	31		1.7	42	36		2.5	44	36		1.1	44	40						0.3					1.2				2.6				3.8	45	34	354	12	1000																												
950		35	31			34	26	350	19		36	30	336	09		37	28	358	23		38	35				40	38	317	18		40	37	307	24		39	32	318	18		39	29	006	11	950																										
900	29.8	29	24		30.9	28	22	354	15	29.7	30	25	020	15	30.5	31	24	356	23	29.2	34	32				28.5	35	32	325	17	29.3	33	31	316	24	30.7	33	27	324	16	31.9	32	23		900																										
850		24	19			22	18	359	13		27	20	019	17		24	17	354	20		30	26				30	27	330	16		28	27	315	21		28	18	321	16		28		350	17	850																										
800	60.1	17	14		61.1	16	12	003	10	60.3	22	15	353	12	61.0	19	11	345	18	60.1	25	22				59.3	24	18	333	15	59.9	22	19	312	21	61.5	24	11	316	15	62.9	23	11	342	01	800																									
750		12	07			14	02	359	08		16	09	338	09		13	02	341	20		18	16				16	12	334	15		18	13	313	21		18	05	298	11		17		329	15	750																										
700	93.8	08	02		94.8	07	15	352	07	94.0	10	04	280	05	94.8	11	21	347	18	94.1	12	06				93.3	14	08	335	16	93.9	13	04	309	25	95.5	11	02	285	12	96.5	11	13	323	12	700																									
650		02	06			03	21	354	13		03	03	L.V.			05	28	352	14		05	03				67	02	336	16		04	03	309	26		08	06	290	17		03	23	317	11	650																										
600	132	06	13		133	03	30	354	17	132	03	11		133	03	29	346	12	132	02	11				132																																														
550		14	18			11	35	351	14		11	18			13	30	322	16		10	21				132																																														
500	175	23	27		176	20	38	351	22	176	20	28	322	03	176	21	39	311	21	177	20	30				175	21	30	344	12	176	22	33	298	28	178	16	36	305	24	178	22	50	004	04	500																									
450		32	36			29	40	356	34		32	38	344	13		30	49	312	25		30	41				226	45	321	16	226	44		298	33	229	40	60	298	29	229	41	038	15	450																											
400	226	44			228	40	49	356	42	227	41		356	21	227	42		321	23	282	40	50				226	45	321	16	226	44		298	33	229	40	60	298	29	229	41	038	15	400																											
350		55				51		349	48		53		357	28		55		335	24		51					226	45	321	16	226	44		298	33	229	40	60	298	29	229	41	038	15	350																											
300	288	67			290	63		359	42	290	66		001	36	290	68		357	23	291	64					288	65		303	21	289	62		307	52	292	66		293	35	292	66	018	23	300																										
250		74				65		009	34		64		007	27		71		339	26		65					288	65		291	20		295	48		285	52		285	52		285	52		330	17	250																									
200	372	68			375	66		009	31	375	61		349	17	374	67		350	19	377	60					375	59		288	27	375	63		293	31	376	70		286	46	378	65		310	23	200																									
170		70				66		008	25		62		336	10		68		338	20		59					375	60		301	15		64		290	30		288	44		310	27		310	27	170																										
150		70				67		004	21		62		348	18		64		313	11		61						288	61		279	16		63		276	27		292	37		68		303	27	150																										
130		73				67		356	13		65		332	14		67		313	18		62						288	64		273	24		65		274	26		293	26		69		297	23	130																										
110		77				72					68		288	17		70					65						288	66		271	17		66		280	22		72		285	28		71		296	22	110																								
100	515	79				72				521	69		289	13		70					63						288	68		264	18	521	66		281	24	520	72		283	31	523	72		299	21	100																								
90		81									70		276	11							63						288	70		246	18		66		277	27		285	30		72		305	21	90																										
80		83									71		257	13							65						288	72		249	25		65		266	24		281	28		72		305	21	80																										
70		84									73		261	13							65						288	72		259	36		63					266	33					70		70																									
60																											288	73																	60																										
																																Inversion. 738 mb 14°-718 mb 16°				Inversion. 846 mb 27°-833 mb 28° Isothermal. 900-888 mb 33°																																			
																																I 264 mb -77° 31.500°				I 268 mb -72° 31.400°				I 290 mb -69° 29.600°				I 280 mb -72° 30.300°				II 290 mb -67° 29.800°				I 300 mb -65° 28.800°				I 300 mb -62° 28.900°				I 257 mb -76° 32.400°				II 312 mb -56° 28.300°				Tropopause			
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION																																		
Time M.S.L. Surf Freezing	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.			Time M.S.L. Surf Freezing																																						
	1005.7	mb	995.5	mb	1010.2	mb	1008.5	mb	1006.5	mb	1009.9	mb	1001.1	mb	1005.3	mb	1003.3	mb	1004.8	mb	990.6	mb	880	mb	1006.9	mb	999.7	mb	1010.4	mb	880	mb	Pressure mb																																						
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																						
Surf	2.7	37	35		0.5	37	35	290	03	0.2	39	33	320	07	2.3	39	35								1.2	41	41	270	04	4.4	40	38	300	05	2.9	46	39	340	10					Surf																											
1000	1.5				2.8	37	34		1.8		38	32	338	10	2.7	39	35								1.5					1.3				2.8				46	39					1000																											
950		35	31			34	30	330	12		38	32	338	10		36	29									39	38	334	17		39	35	320	20		41	34	329	18					950																											
900	29.3	29	25		30.6	28	25	350	10	29.8	32	27	001	14	30.6	29	29								29.5	34	31	339	11	29.4	33	32	339	14	29.9	32	30	319	17	31.0	34	27	328	14			900																								
850		23	19			21	19	005	11		28	21	011	14		23	21									29	26	340	13		28	26	331	12		28	26	323	15		28	22	328	19			850																								
800	59.7	18	13		60.9	15	12	015	12	60.4	22	18	013	11	60.9	17	11								60.2	22	20	339	14	60.2	25	21	328	14	60.5	24	19	304	20		61.7	24	18	329	15			800																							
750		12	06			11	06	002	12		15	13	007	08		16	15	341	14		19	13	327	16						19	13	298	21		17	12	325	14					750																												
700	93.3	06	01		94.4	07	09	344	14	94.0	08	07	343	08	94.5	05	04								94.1	10	0																																												

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	03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		Time				
	M.S.L.	1004.3		mb		1008.1		mb		1005.9		mb		1008.5		mb		1005.8		mb		1005.4		mb		1007.4		mb		1010.5		mb		1011.8		M.S.L.						
	Freezing	994.0		mb		1006.4		mb		1005.0		mb		999.7		mb		1003.7		mb		1001.0		mb		991.1		mb		999.8		mb		910		Freezing						
Pressure		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Pressure				
mb		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		mb				
		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.						
		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots		° knots						
Surf		2.7	38	36		0.4	38	33	36.0	05	0.2	38	31		1.3	36	34		0.6	40	39	36.0	05	1.2	42	42	26.0	06	4.4	37	36	28.0	05	2.9	44	35	34.0	12	0.3	36	34	Surf
1000		1.1				2.2	37	32		1.5				2.2				1.6	40	39			1.4	42	42	26.0	06	4.4	37	36	28.0	05	2.9	44	35	34.0	12	0.3	36	34	1000	
950			35	31			37	32			1.5				2.2				1.6	40	39			1.4	42	42	26.0	06	4.4	37	36	28.0	05	2.9	44	35	34.0	12	0.3	36	34	950
900		28.9	28	24		30.0	33	29	35.6	19	29.5	31	24		30.1	34	29		29.5	35	32			30.2	39	39	29.2	10	30.2	40	35	28.9	17	31.0	34	31	31.6	18	31.1	31	32.0	900
850			24	21			21	16	34.2	05		25	18			24	19		29.5	35	32			30.2	39	39	29.2	10	30.2	40	35	28.9	17	31.0	34	31	31.6	18	31.1	31	32.0	850
800		59.3	19	16		60.3	15	10	L.V.		60.0	19	12		60.6	18	11		60.2	22	21			60.4	25	24	28.4	11	60.8	20	18	29.3	18	61.7	25	05	30.7	18	61.6	18	14	800
750			12	09			09	04			11	05			12	00			16	15				19	17	28.3	11	17	11	28.5	18	18	09	29.6	21			14	01		750	
700		32.9	05	01		33.7	03	02	02.2	07	34.0	04	04		34.2	08	11		34.0	09	08			34.5	12	08	28.1	11	34.6	10	04	28.4	17	35.7	10	18	29.1	20	35.2	10	05	700
650			01	08			03	09	3.36	07		01	20			04	11			02	01				12	06	27.8	12	02	05	28.9	17	06	25	29.0	18			04	06		650
600		131	04	20		131	09	15	3.08	06	131	08	23		132	02	10		132	07	09			133	02	09	27.9	15	133	04	11	28.8	15	134	02	31	31.6	14	133	02	10	600
550			11	29			13	20	L.V.			16	36		132	02	19		132	07	09			133	02	09	27.9	15	133	04	11	28.8	15	134	02	31	31.6	14	133	02	10	550
500		174	20	31		175	19	28			174	25	46		176	19	26		175	21	35			176	21	34	27.3	19	176	20	31	27.0	15	178	16	45	32.9	21	177	16	23	500
450			29	39			28	38				34	57		227	29	37			30	45			227	29	37	27.4	22		30	42	27.5	10		24	52	32.7	30		26	33	450
400		225	40	50		226	37	51			225	44			227	40	48		226	41				227	42		27.5	29	227	42		28.0	11	230	34	57	31.0	30	299	38	44	400
350			50				49		170	10		54			52				53					55			27.7	36		54		33.2	14		47		29.5	39		50	350	
300		288	64			289	61		113	05	287	66			290	66			289	66				289	63		29.3	30	289	67		31.5	18	293	58		29.4	55	291	64	300	
250			69				59		026	33		67				67				66				289	62		28.8	30	289	65		27.9	41		67		28.3	70		63	250	
200		373	66			375	60		018	36	372	64			375	65			373	67				375	62		28.9	27	375	66		28.3	40	378	68		28.1	53	377	64	200	
170			64				65		014	36		64				66				68				375	62		27.9	24		69		28.6	36		70		28.2	44		64	170	
150			65				67		013	34		64				69				67					63		28.3	21		69		28.2	35		69		28.8	35		70	150	
130			68				67		016	30		69				72				72					65		27.6	18		70		27.7	27		70		27.9	33		74	130	
110			74				72		015	37		75				73				74					68		27.6	20		74		28.1	27		73		27.6	30		74	110	
90		518	74			520	75		009	24	517	77			519	74			517	74					75		26.5	20		74		28.1	27		73		27.6	30		74	90	
80			79				78		004	24		77				77				75					76		26.1	23	519	77		28.1	27		74		27.6	30		74	80	
70			80				79		011	23		77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74	70	
60			82				81					77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74	60	
			85									77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74		
			86									77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74		
												77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74		
												77				77				76					76		26.1	23	519	77		28.1	27		74		27.6	30		74		

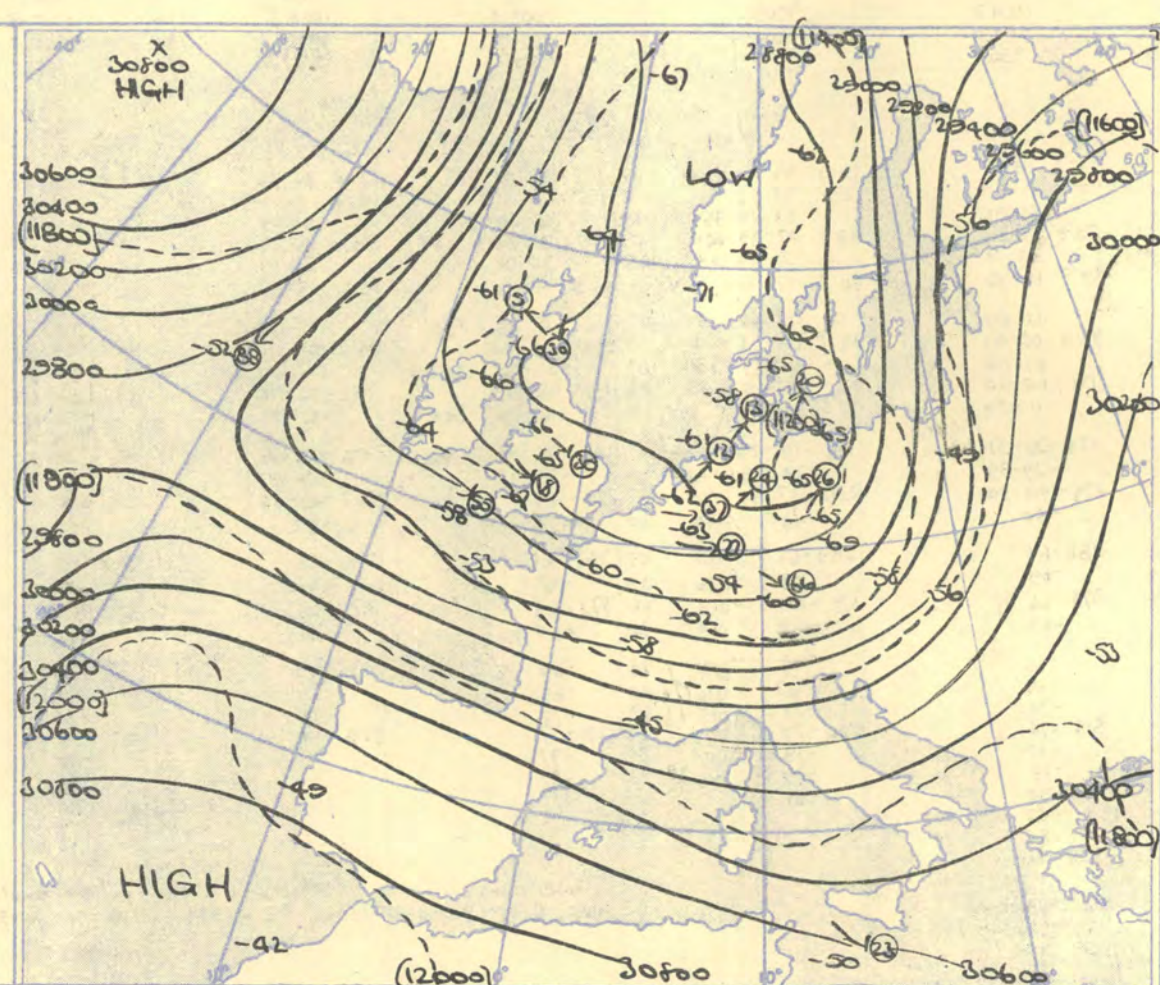
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



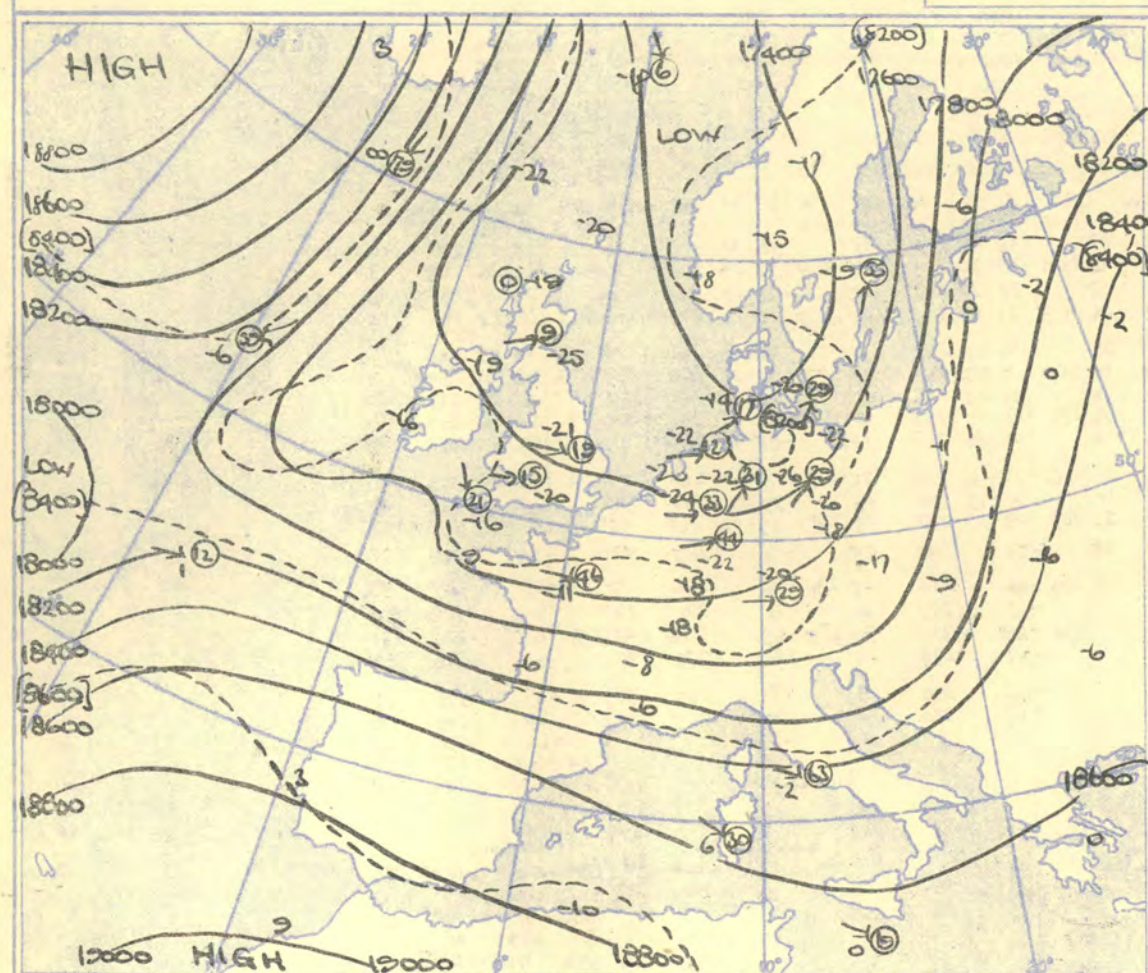
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

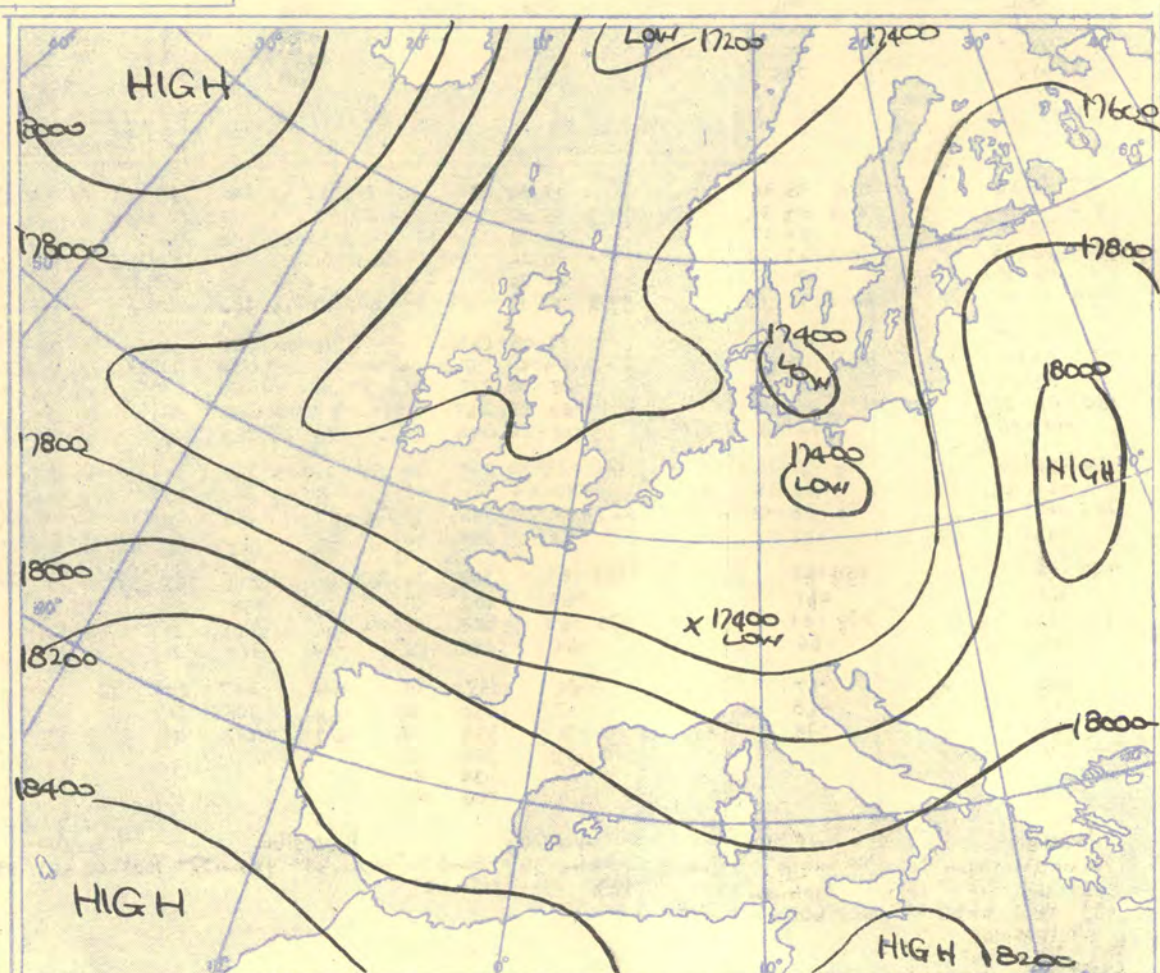
100 50 40 30 20 15 10 knots



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 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above MSL

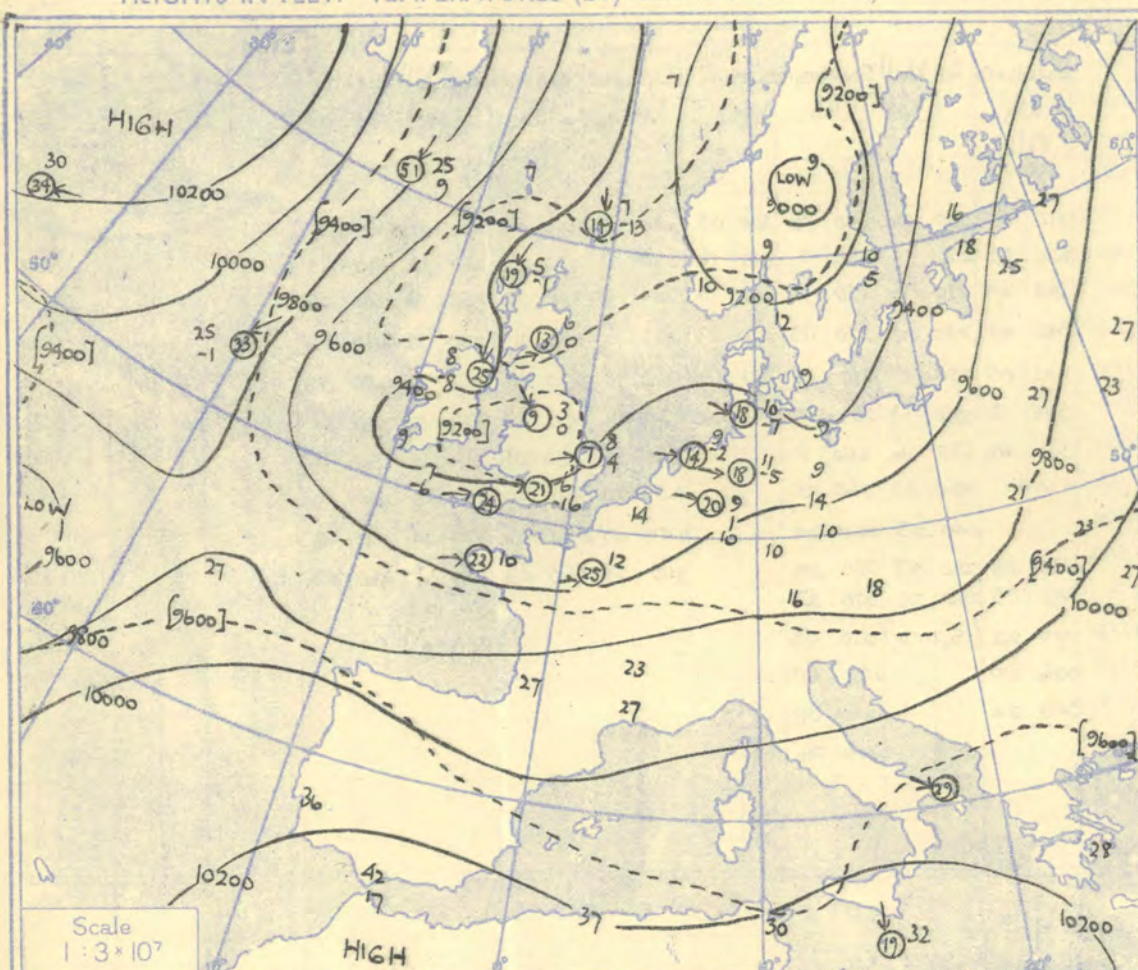
[illegible]

NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship		Weather Explorer										Weather Explorer										Weather Explorer										Weather Recorder										Weather Recorder										Weather Recorder										Weather Recorder										Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Lat/Long		52-5N 19-9W										52-4N 20-0W										52-3N 20-0W										52-3N 20-0W										60-3N 16-1W										60-5N 15-9W										60-5N 16-0W										60-7N 15-9W										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.										Time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	M.S.L.	1018 mb										1016 mb										1016 mb										1017 mb										1018 mb										1018 mb										1019 mb										1020 mb											M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Surf	1018 mb										1016 mb										1016 mb										1017 mb										1018 mb										1018 mb										1019 mb										1020 mb												Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Freezing	910 mb										880 mb										860 mb										900 mb										900 mb										910 mb										915 mb										925 mb													Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Pressure	Height	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind		Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.	Temp.	Dew	Wind	Vel.	Dir.

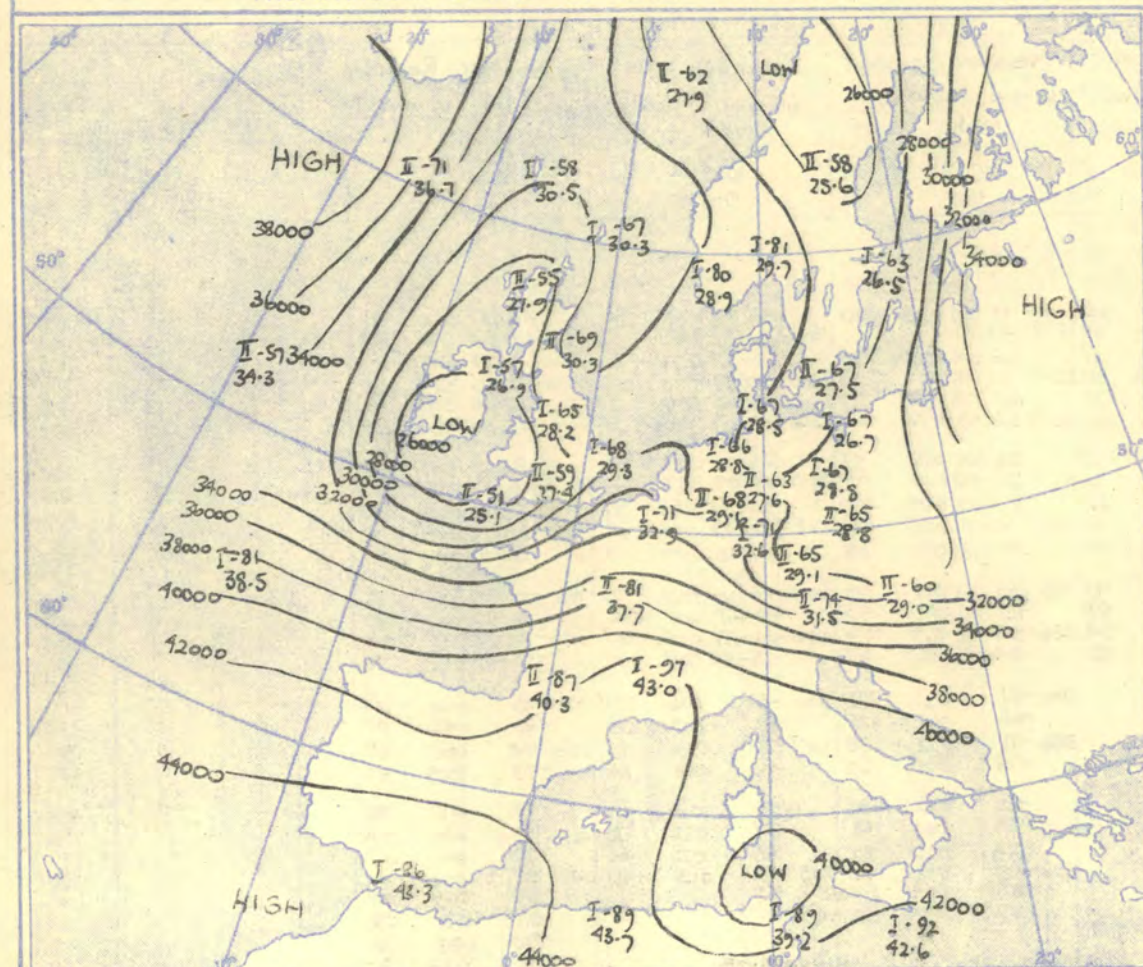


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb

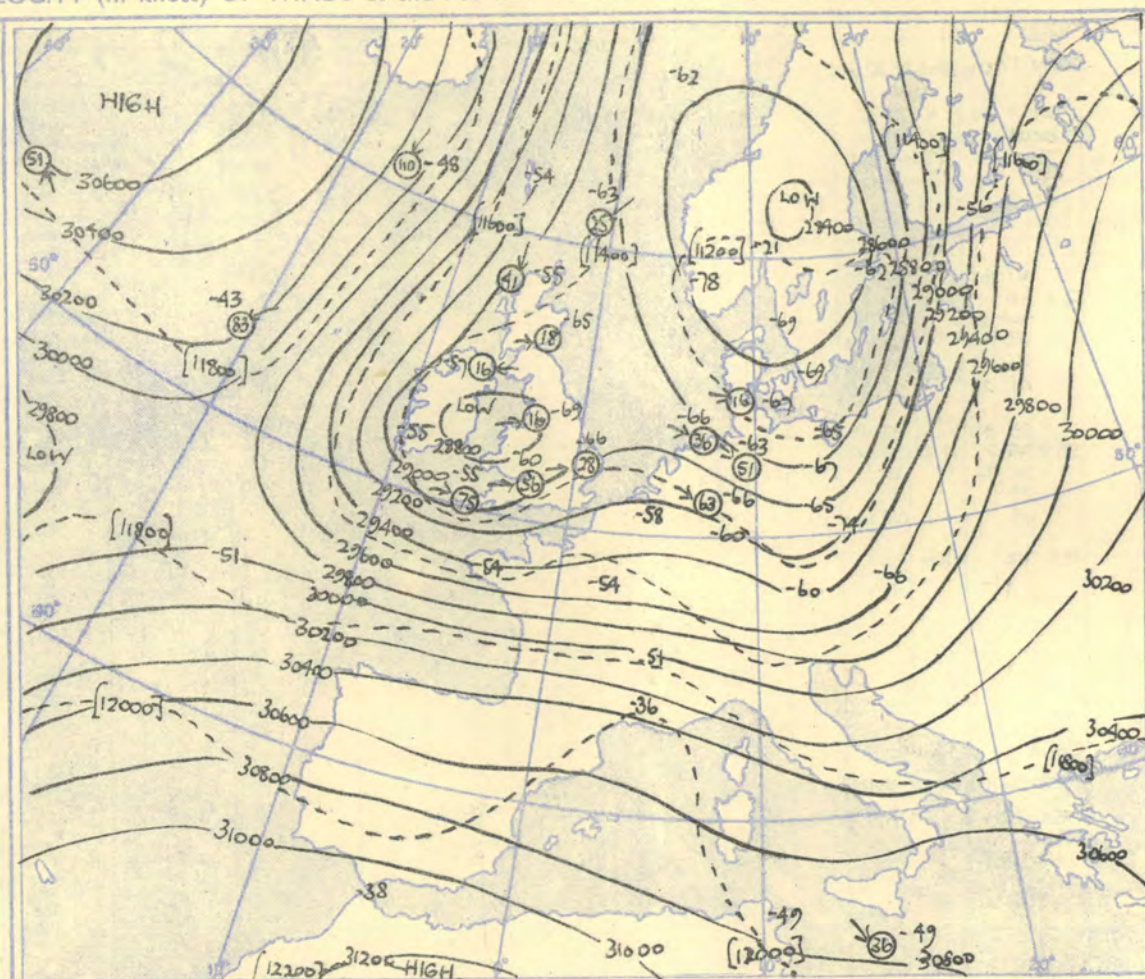
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

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.



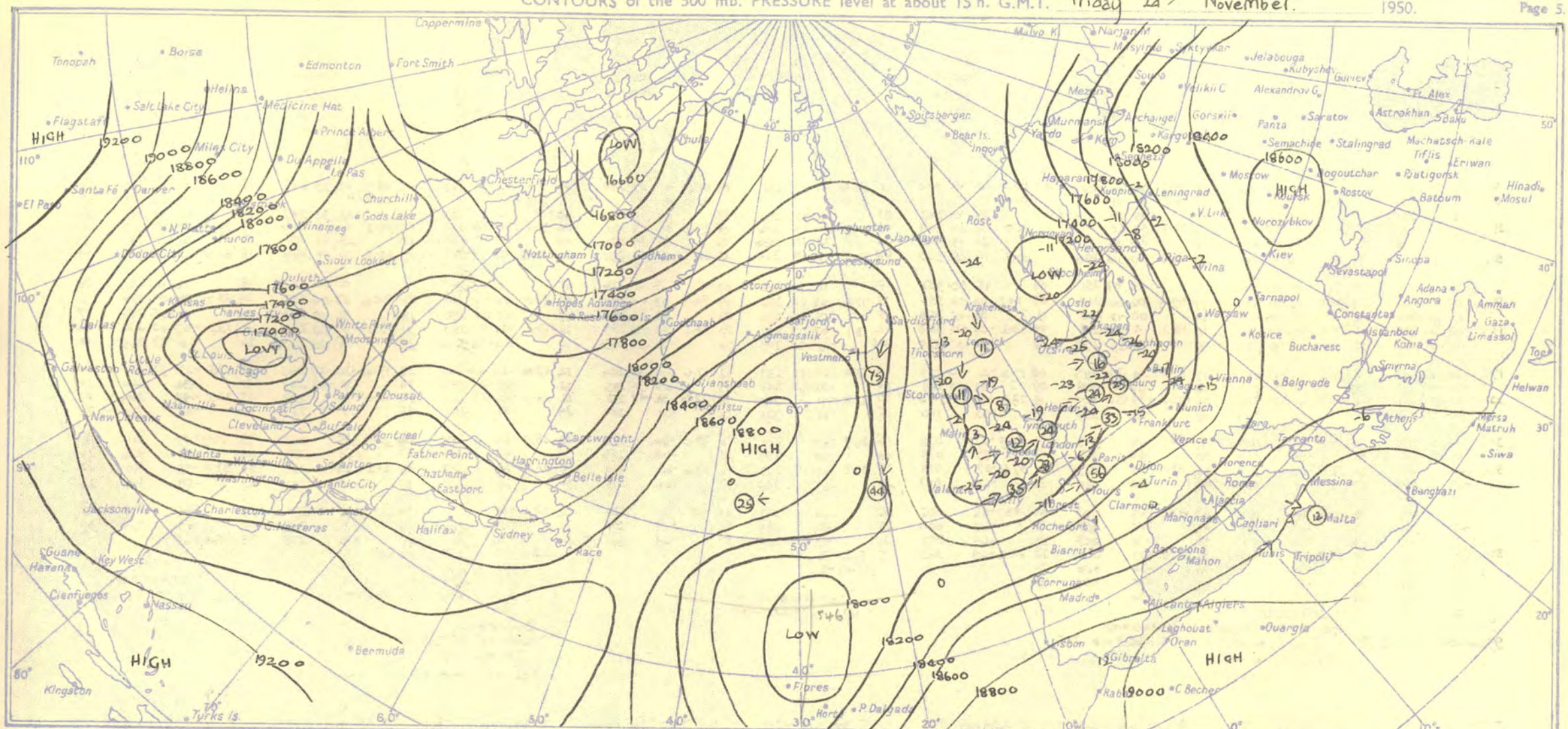
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

NOTES ON THE AEROLOGICAL SITUATION.

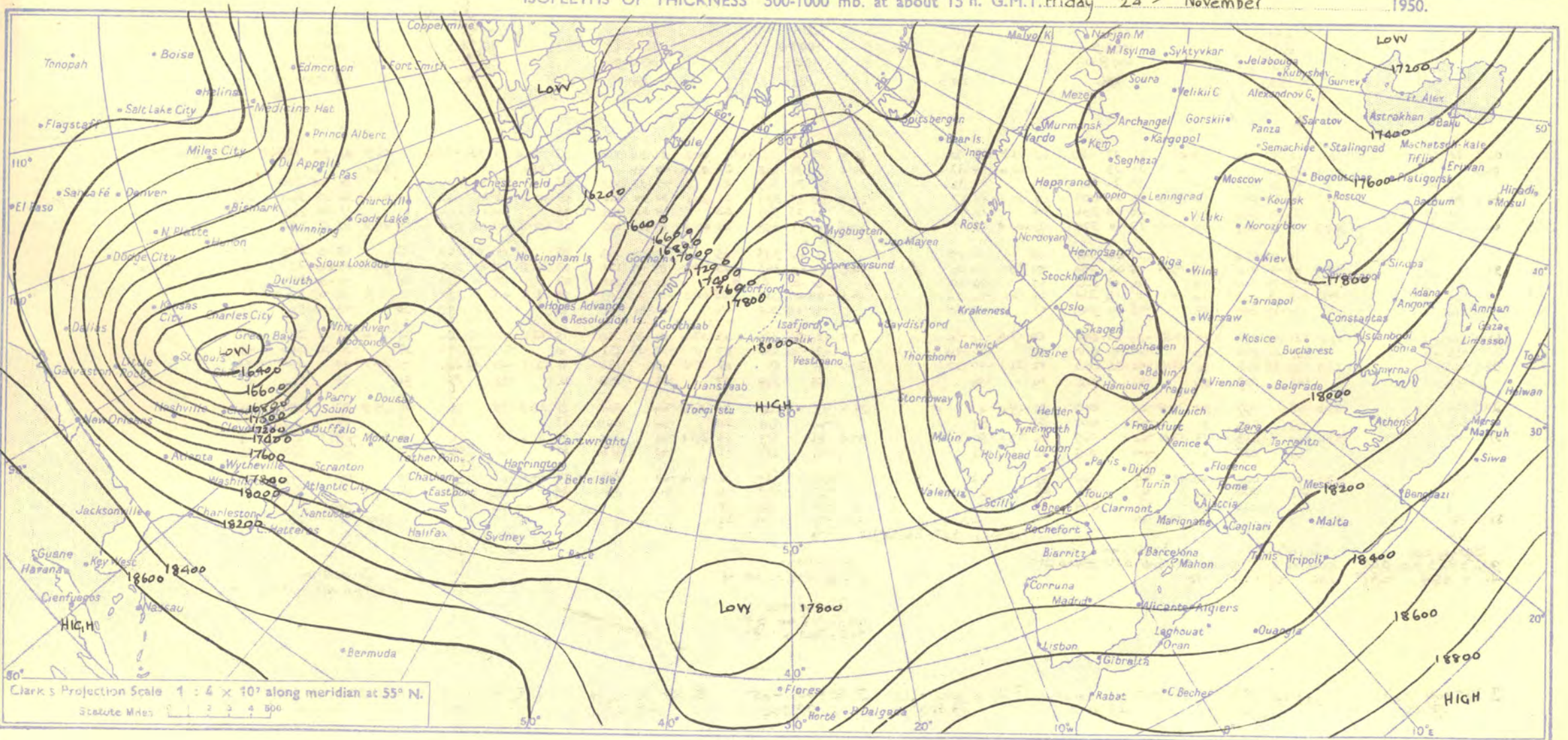
As a result of a westward extension of cold air between latitudes 40° and 50° N and the eastward advance of a cold trough over North America, a cut-off warm pool was formed west of Iceland. There was a spread northwards of warm air across the Bay of Biscay which together with the persistence of cold air over the British Isles led to the establishment of a strong thermal gradient to the south of the British Isles.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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

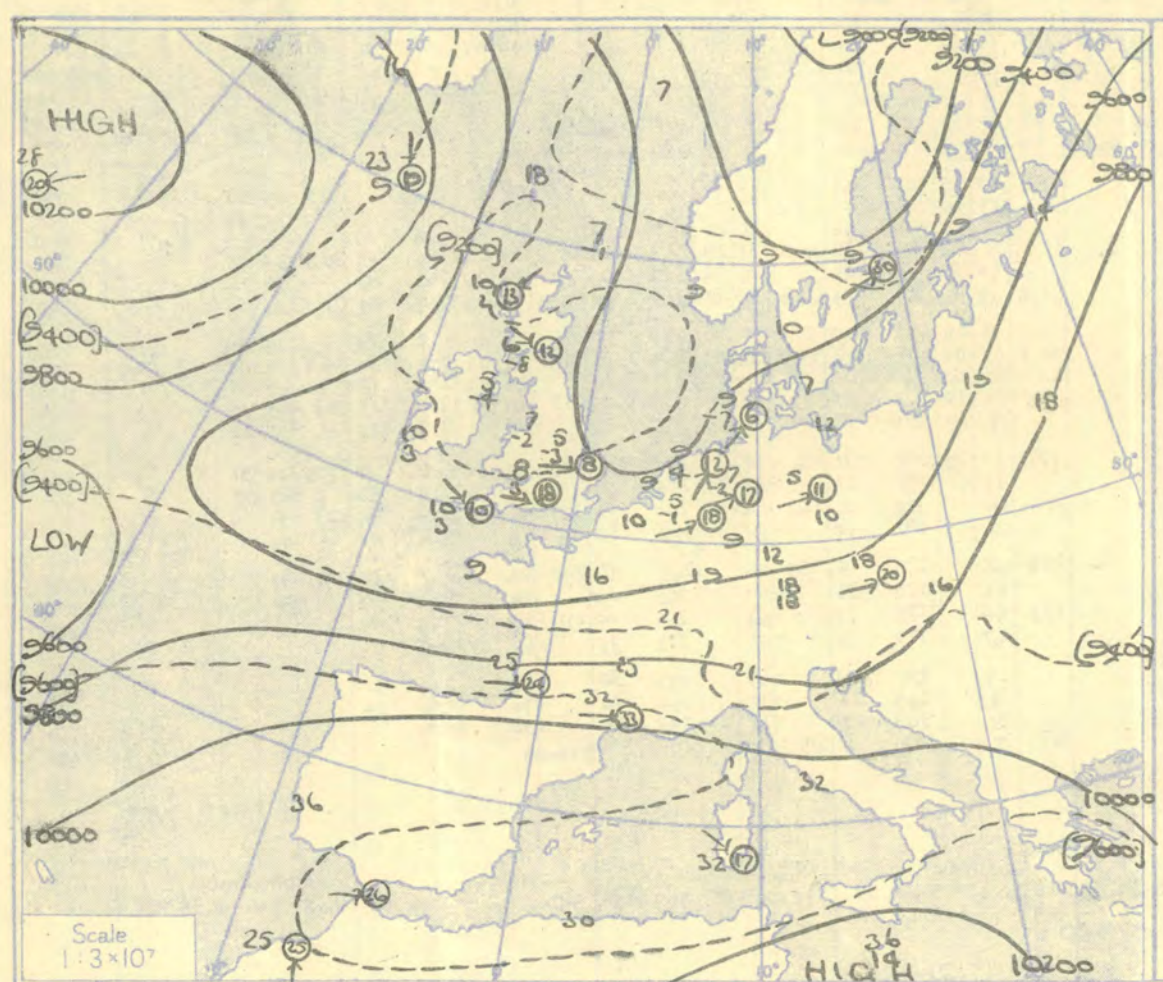


ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Friday 24th November. 1950.

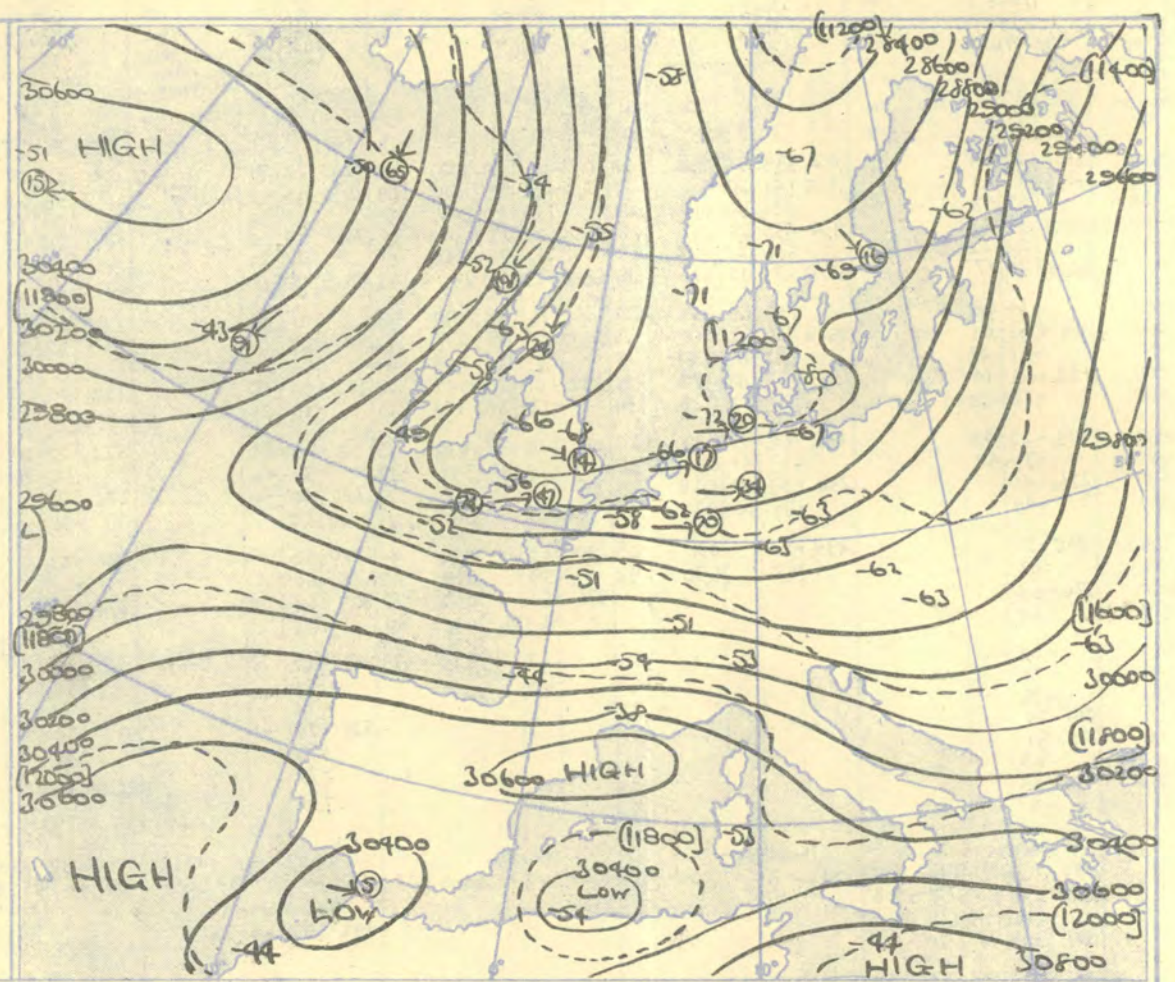
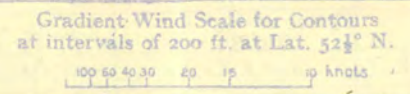


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
STATION					LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION																																																																																																																																																																																																																																																																																																																																																																																																																																														
Pressure mb	Time M.S.L.	Surf Freezing	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L	G.M.T.	mb	03L

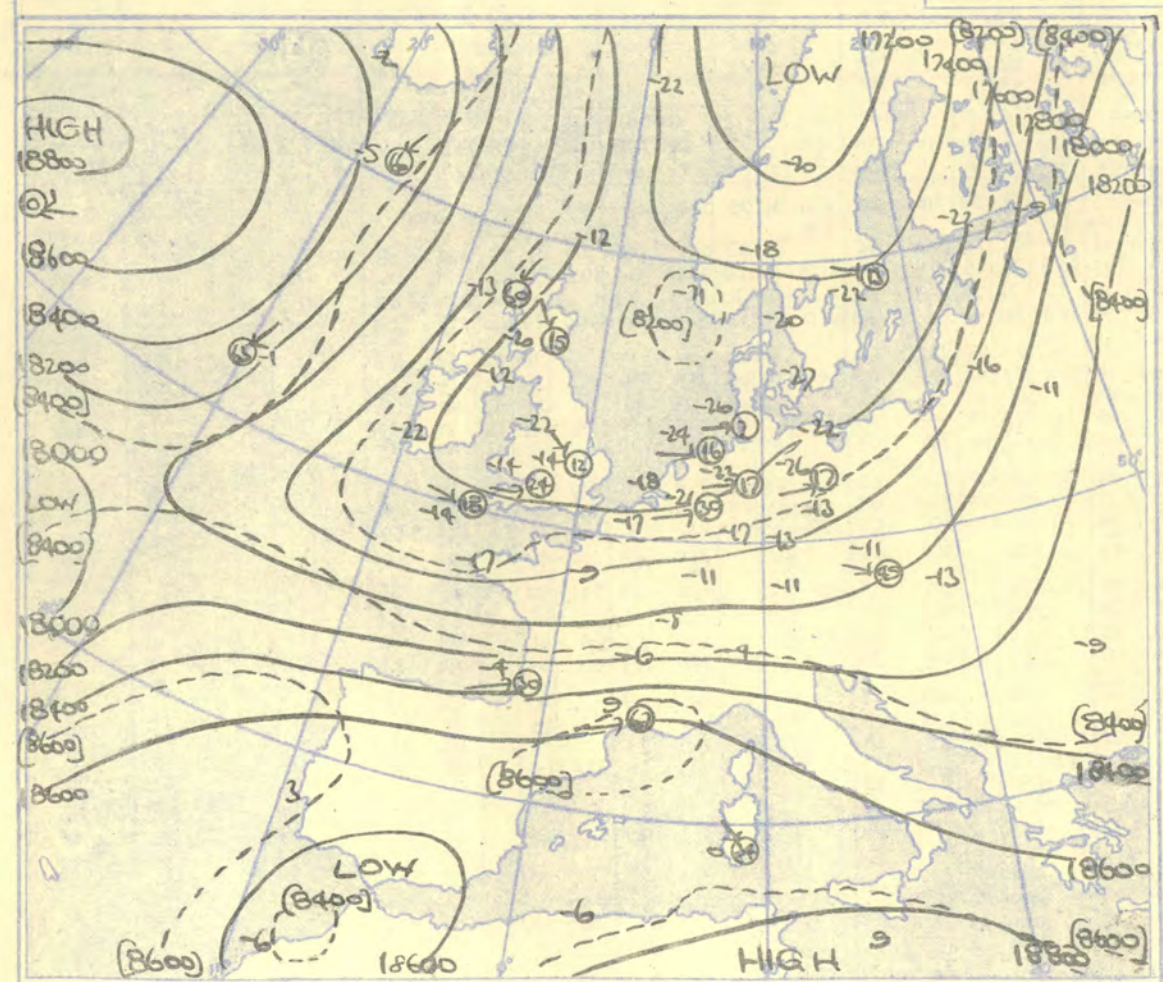
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h. G.M.T.



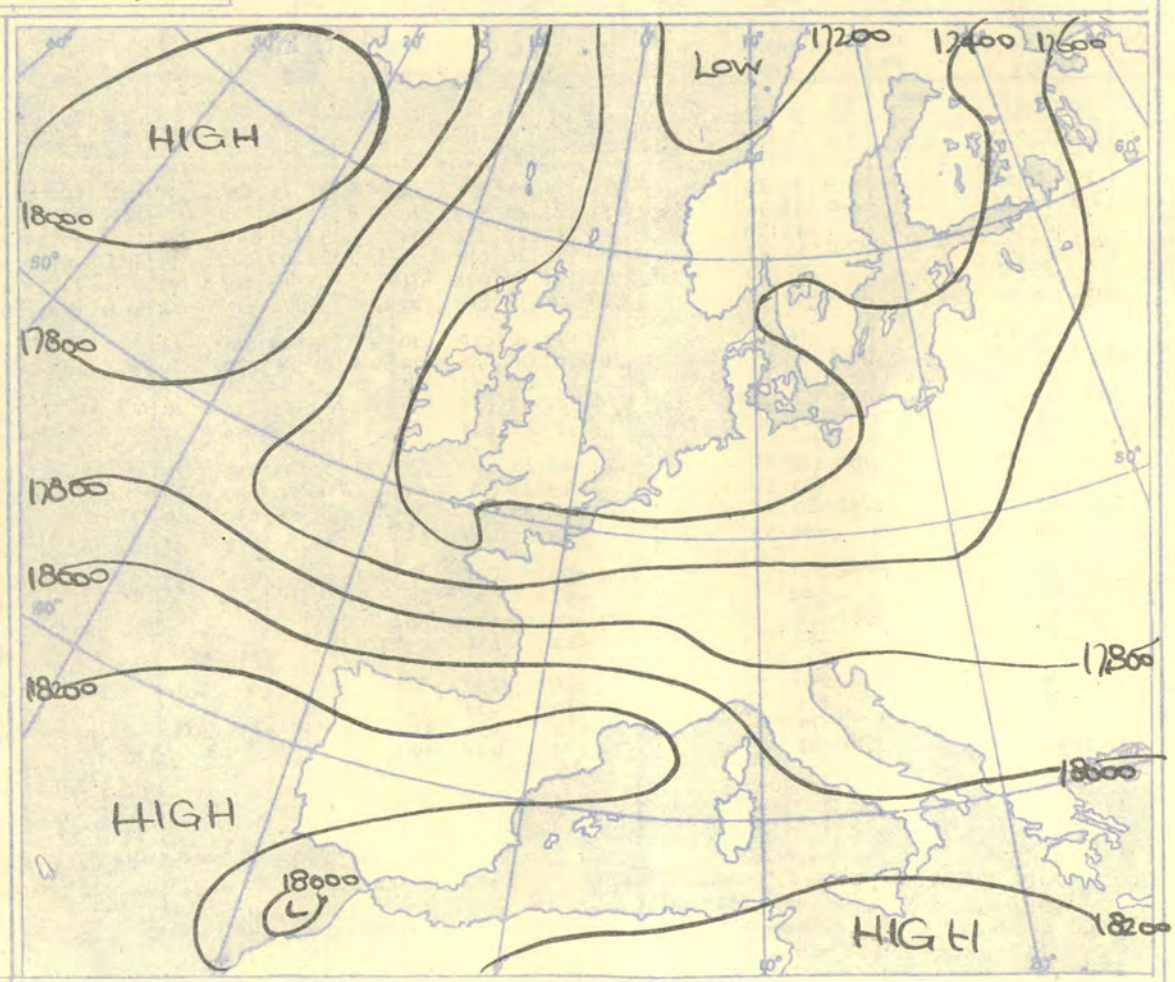
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



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.



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.



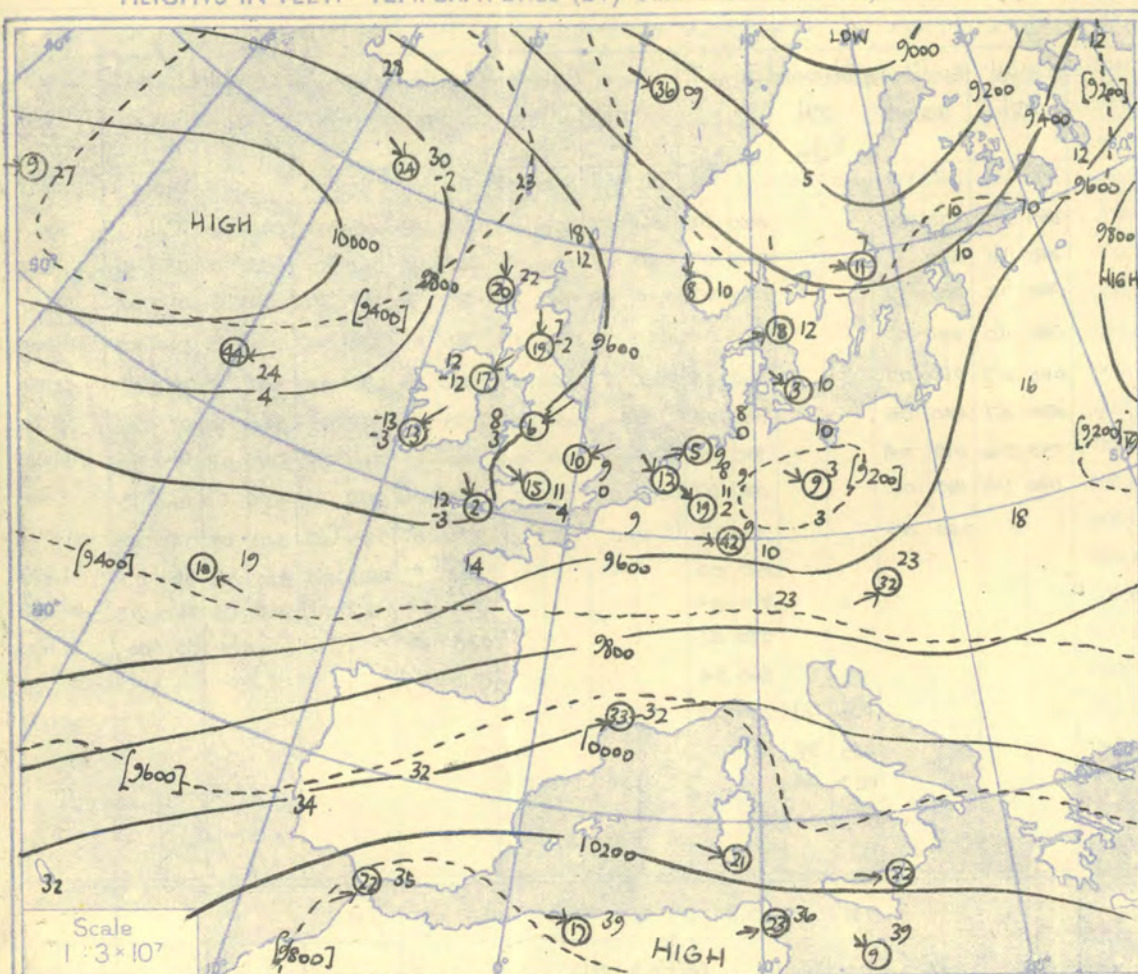
Isopleths of Thickness 500-1000mb.

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

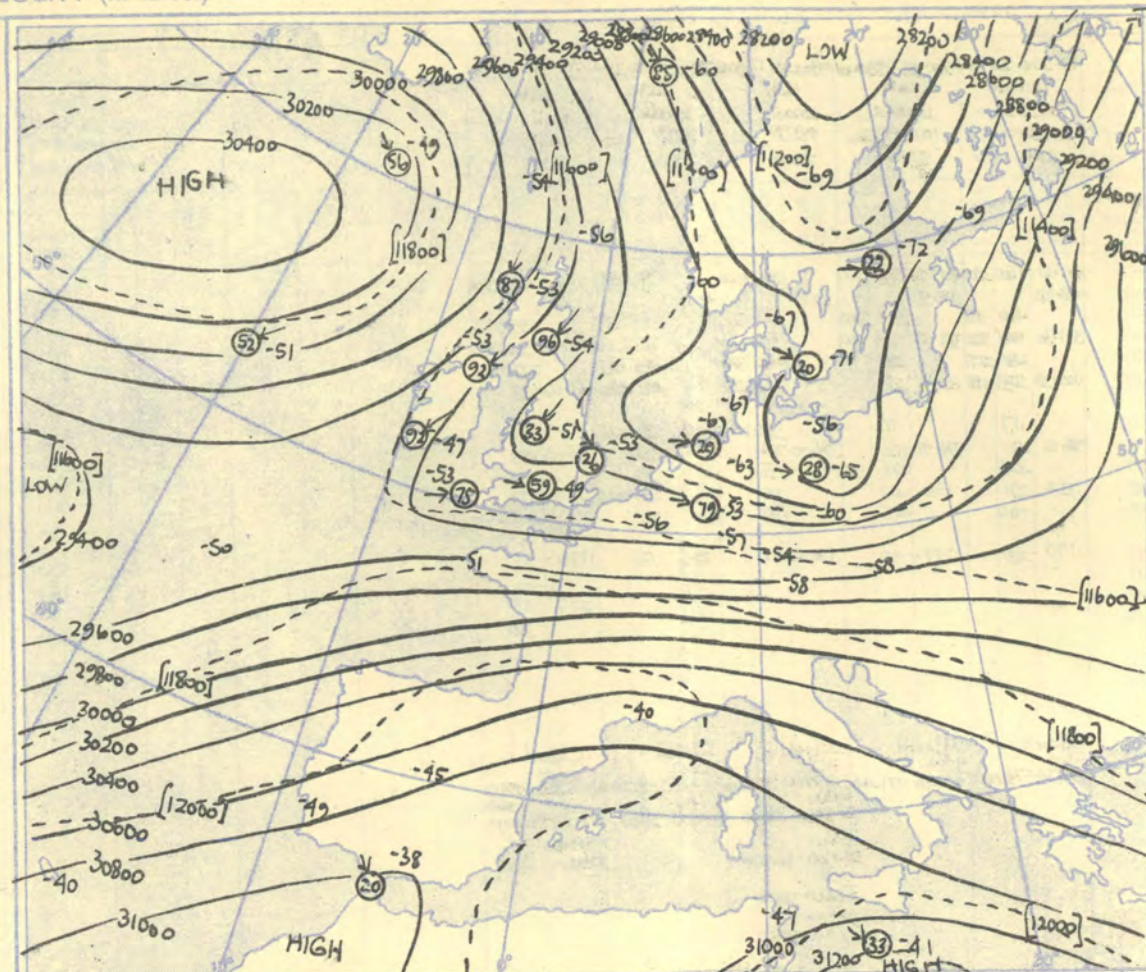
NEPHOSCOPE OBSERVATIONS							
Place			NONE REPORTED.				Place
Time Type							Time Type
Dir. Vel.							Dir. Vel.

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

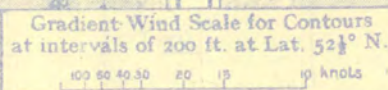
Ship	Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Ship										
Lat/Long	60-7N 15-8W				60-7N 15-8W				60-6N 15-6W				60-6N 15-4W				52-9N 20-0W				52-5N 20-0W				52-4N 20-4W				52-4N 20-3W				Lat/Long						
Pressure (Freezing)	Time M.S.L. Surf	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.		Time M.S.L. Surf Freezing					
		1018	mb	1018	mb	1016	mb	1016	mb	1012	mb	1012	mb	1010	mb	1010	mb	1017	mb	1017	mb	1019	mb	1019	mb	1020	mb	1020	mb	1020	mb	1020	mb						
		882		mb		730		mb		710		mb		725		mb		890		mb		890		mb		920 and 790		mb		905		mb							
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb						
Surf	4-8	46	38	265	12	45	44	270	12	46	43	260	20	45	42	270	20	47	42	015	27	49	41	020	24	47	41	020	24	48	37	040	17	Surf					
1000		44	37			43	42	272	14	44	40			44	41	270	20	46	42	020	34	47	36	035	30	45	41	041	30	46	36	060	24	1000					
950		37	31	271	10	36	35	276	14	39	33	268	22	38	35	283	30	40	37	027	35	40	29	035	28	38	36	043	22	39	31	057	22	950					
900	32-9	34	18	273	10	32-3	36	29	288	15	31-5	44	29	270	25	30-8	45	32	283	28	32-9	33	31	033	35	33-3	33	23	033	29	33-4	31	26	060	18	900			
850		32	09	279	12	35	26	313	17	46	23	270	25	47	08	288	30	25	24	034	35	26	16	029	31	27	24	051	26	26	22	062	19	850					
800	63-8	32	18	294	14	63-8	38	31	332	22	63-3	43	18	275	23	62-6	42	13	299	33	62-6	28	17	035	40	64-0	29	07	028	33	64-2	33	14	051	30	800			
750		29	13	317	14	35	04	345	23	37	14	286	22	35	13	298	31	29	08	039	36	29	08	039	36	29	07	048	36	30	04	055	33	750					
700	98-5	23	09	335	19	99-0	28	05	353	23	98-7	30	02	293	24	97-9	29	05	298	29	98-0	27	08	024	50	98-7	24	11	046	38	99-0	24	04	047	44	700			
650		20	03	332	33	21	11	355	27	23	07	305	23	24	05	307	28	19	00	022	48	18	13	038	45	20	01	047	48	19	20	062	42	650					
600	138	12	11	342	42	139	13	17	350	21	158	16	07	314	22	137	13	02	310	30	138	18	00	030	52	138	13	20	032	53	138	12	09	047	48	600			
550		06	12	355	57	04	24	338	34	09	14	322	27	05	10	308	34	09	07	030	53	08	23	034	57	05	14	047	51	05	14	057	51	550					
500	183	05	16	013	66	184	06	33	342	37	184	02	20	335	33	183	05	20	306	32	183	01	15	029	63	183	03	32	035	59	183	05	21	049	57	500			
450		15	24	028	62		16	30	347	47		11	30	335	35		16	31	301	33		08	22	029	74		13	40	031	68		16	42	052	60	450			
400	236	25	35	022	63	237	26	39	364	52	237	21	40	338	42	235	25	41	306	38	237	18	31	029	74	236	24	50	035	65	226	26	41	060	69	400			
350		27	27	017	63		38	51	346	55		33	52	345	57		39	54	308	40		30	45	030	85		37	63	042	64		38	53	062	71	350			
300	301	50		002	65	301	54	348	72	303	49		325	56	300	55		300	46	303	43		035	91	301	50		036	75	301	51		053	82	301	49	300		
250		63		009	75		66	362	65		61		326	50		68		307	47		57		030	94		63		040	80		67		052	76		64	250		
200	386	76		007	75	386	76	356	50	388	74		322	52	384	79		315	46	390	70		036	89	387	75		045	59	386	73		052	60	387	74	200		
170		76		009	53		71	358	42		77		222	35		77		311	45		67		034	66		66		049	48		68		052	32		81	170		
150		73		015	36		74	358	38		70		324	32		76		304	39		68		031	55		71		053	42		73		052	33		74	150		
130		77		011	36		78	347	27		74		324	30		79		295	39		72		031	54		78		050	44		76		052	34		78	130		
110		81		010	36		84	340	16		78		316	33		82		291	37	(120	74		85		041	41		85		041	41		81		052	33		84	110
100	527	84		009	45	527	88	355	16	531	80		296	31	525	84		289	32	(mb)			86		038	39	529	84		052	33	528	85		83		052	27	100
90		86		011	40		94	004	19		83		281	25		92		270	30				(098	86		83		052	27	(098	86		84		052	19	90		
80		89		009	30		99	001	17		86		270	51		94		288	37				(mb)				84		052	14		84		052	09	80			
70		93		010	24		89				91		277	30		92		275	24							83		052	12		82		052	12	70				
60		97		018	24						90		328	30		93		272	35							82		052	09		81		052	09	60				
Inversion		915mb 33°-900mb 34°		Isothermal		850-815mb 39°		Inversion		915mb 36°-895mb 46°		Isothermal		800-711mb 28°		Max Wind		238mb 030° 97 Kts		Inversion		833mb 23°-800mb 28°		Isothermal		632-1170-613-20°		Inversion		832mb 23°-798mb 30°		Isothermal		841mb 26°-810mb 33°		Inversion		850mb 26°-810mb 31°	
Tropopause		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600		11 200mb-76 38,600			



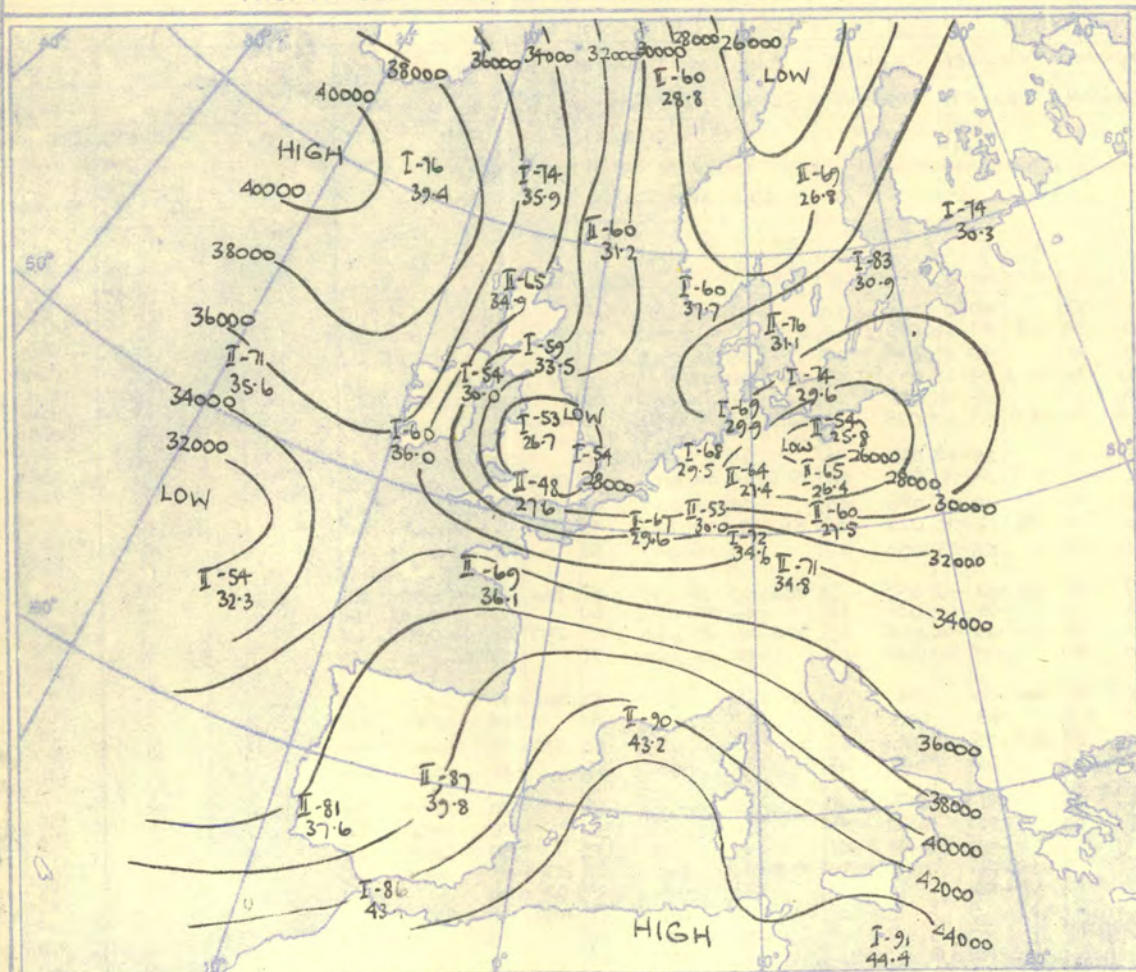
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb



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.



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



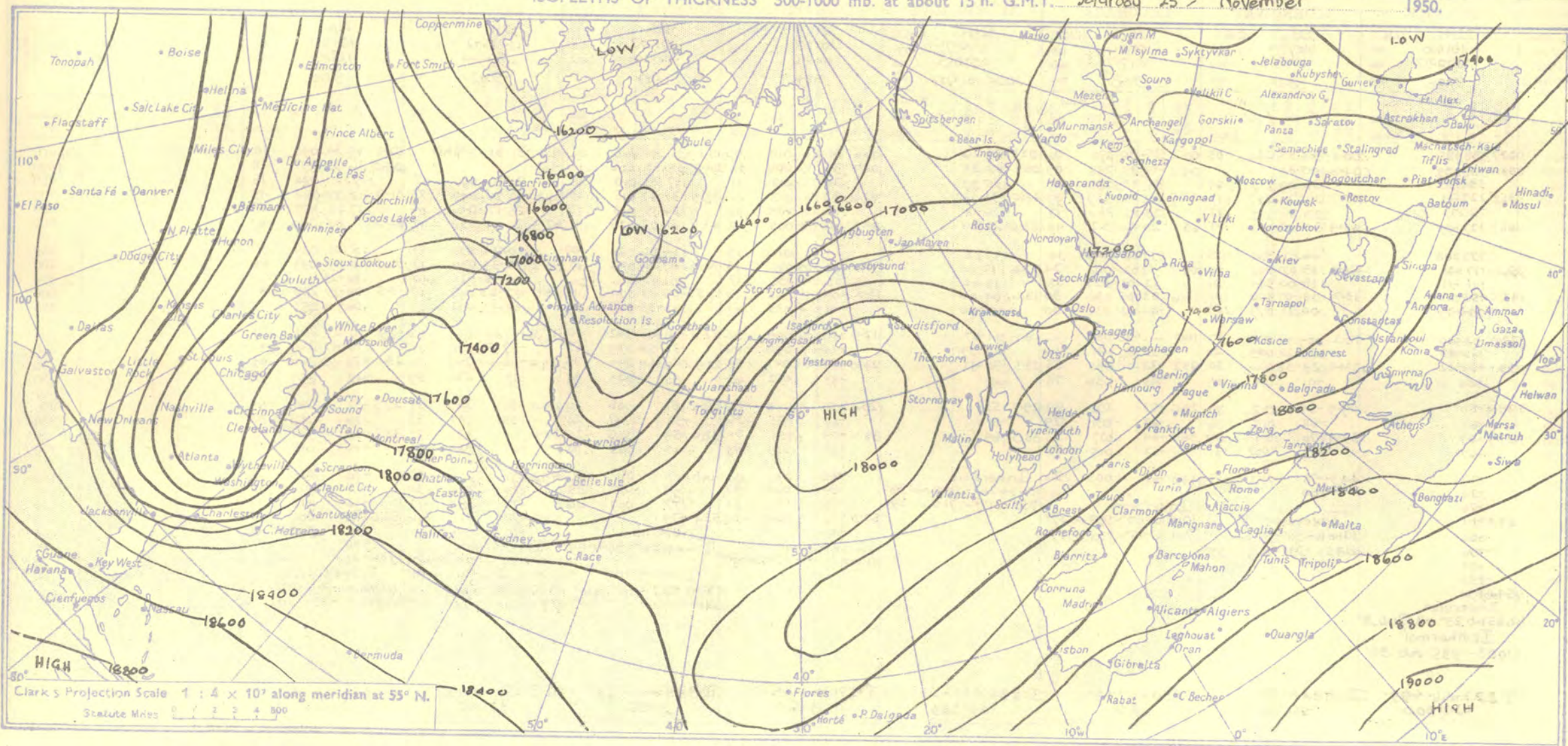
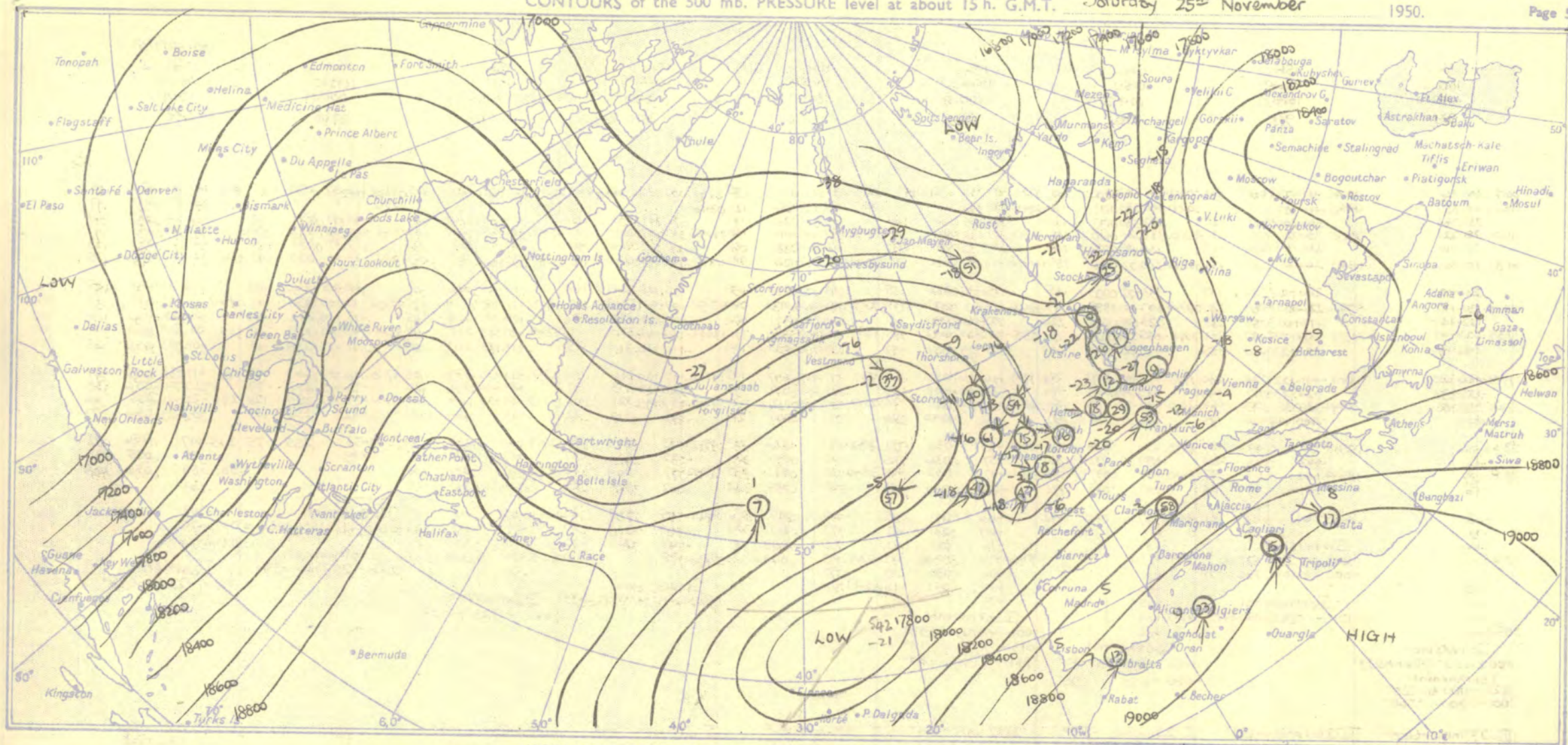
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm pool moved eastwards accompanied by a further movement of the surface anticyclone southwards. Otherwise little change in the pattern.

RATES of SUBSCRIPTION : Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



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 M.S.L. Surf Freezing)	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	Time M.S.L. Surf Freezing	Pressure mb									
	1012.2	mb	1002.0		mb	1015.2	mb		1014.3	mb	1016.6		mb	1007.8	mb		1013.9	mb	1011.9		mb	1013.5	mb		1009.1	mb	1012.7		mb	996.4	mb		1012.0	mb	1001.4				mb	1014.8	mb	1014	mb				
	931				915				910				928				906				900				912				878				900														
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb										
Surf	02.7	40	36		00.4	41	37	250	03	00.4	40	33	013	16	04.4	38	32	CAHM	00.6	43	36	010	05	01.2	37	36	CAHM	4.4	38	35	020	05	02.8	46	37	090	02	00.3	40	31	050	15	Surf				
1000	03.2	40	35		04.5	41	35		04.0	40	33	013	16	04.4	38	32		03.7	42	35	006	12	03.6	37	36		3.4	38	35	020	05	03.2	46	37	090	02	04.0	39	30	052	17	1000					
950		35	28			36	30	301	12		37	30	013	16		35	29	061	04		37	31	020	11		32	31	353	06		31.3	21	25	001	14		40	31	054	12	950						
900	31.0	28	22		32.5	30	26	302	11	32.0	31	24	010	14	32.3	29	22	066	04	31.6	31	24	041	06	31.5	32	27	019	05	31.3	21	25	001	07	31.4	35	23	052	08	32.0	32	17	043	17	900		
850		21	16			23	16	302	13		26	19	007	14		24	15	063	09		26	18	028	06		27	22	060	08		27	18	329	05		27	17	052	06		27	11	053	13	850		
800	61.3	20	06		63.1	26	10	310	13	62.6	20	12	006	15	62.8	18	07	060	13	62.1	21	14	026	08	62.1	23	15	060	14	61.8	22	10	308	06	62.2	23	10	030	03	62.7	22	07	048	15	800		
750		20	-03			26	-06	352	15		13	02	003	15		15	-02	056	15		14	09	028	09		15	06	064	16		15	05	296	09		18	05	360	02		18	04	043	15	750		
700	95.5	18	-12		97.6	22	-05	358	20	97.6	07	-02	358	19	96.6	12	-12	047	17	95.9	08	03	043	06	95.9	09	00	065	10	95.7	11	-04	278	15	96.2	12	-03	334	02	96.7	13	-03	053	13	700		
650		12	-14			17	-10	355	23		03	-08	014	28		05	-16	042	21		00	-04	031	06		04	-14	330	06		05	-15	278	15		03	-14	292	04		06	-13	060	16	650		
600	135	02	-14		13.7	09	-17	357	31	13.4	-05	-21	023	36	13.5	-01	-20	042	35	13.4	-04	-10	353	11	13.4	-02	-14	320	11	13.4	-05	-25	277	10	13.4	-03	-20	309	02	35	01	-24	060	21	600		
550		-06	-19			-01	-22	010	35		-09	-26	032	47		-07	-29	051	52		-10	-20	353	14		-10	-20	314	15		-13	-28	311	09		-11	-27	284	43		-08	-33	056	25	550		
500	17.8	-16	-28		18.1	-11	-22	024	40	17.8	-13	-32	042	54	17.9	-16	-36	051	61	17.7	-17	-27	357	15	17.8	-17	-30	316	16	17.7	-21	-36	339	08	17.8	-18	-35	263	47	17.9	-17	-38	035	27	500		
450		-25	-38			-20	-27	017	49		-25	-40	034	79		-26	-45	048	63		-28	-39	011	19		-29	-44	296	17		-29	-44	296	10		-23	-42	257	79		-25	-44	056	35	450		
400	23.0	-38	50		23.4	-30	-38	023	63	23.0	-39	-53	034	81	23.0	-36	-54	044	74	22.9	-39	-49	012	21	22.9	-35	-53	321	19	22.9	-35	-53	269	40	23.0	-31	-49	254	128	23.1	-32	-41	055	66	400		
350		45				-40	-48	016	75		-46		023	92		-44		040	96		-51		002	21		-48		319	22		-43		264	58		-42		253	103		-39	-59	056	77	350		
300	29.3	-56			29.8	-53		019	87	29.3	-54		033	96	29.4	-53		038	92	29.2	-51		026	33	29.2	-53		295	26	29.3	-49		266	59	29.4	-53		255	75	29.5	-47		056	92	300		
250		-61				-62		018	84		-59		032	80		-57		036	75		-53		019	34		-55		290	27		-57		271	41		-59				055	125	250					
200	38.0	-59			38.4	-62		012	87	38.0	-57		037	83	38.1	-57		032	45	38.0	-58		022	33	38.0	-57		304	22	38.0	-62		286	30				056	108					200			
170		-60				-61		015	34		-61		032	42		-66		033	46		-63		026	34		-62		325	25		-64		292	25									170				
150		-63			44.5	-64		001	31	44.1	-67		034	42		-66		042	45		-69		027	36	44.1	-65		335	28	44.1	-67		311	25									150				
130		-72				-73					-73					-69		031	42		-73		021	34		-68		339	29		-71		312	22									130				
110		-79				-80					-80					-75		022	42		-75		008	31		-69		341	22		-73		308	15										110			
100	52.4	-80				-82					-82					-80		030	33		-80		030	33		-77					-77		324	17										100			
90		-82				-82					-82					-80		042	18	(88mb)	-78																							90			
80		-85				-83					-83					-79																													80		
70		-88				-85					-85					-79																													70		
60		-86				-86					-86					-86																													60		
	(55mb) 89																																														
	Inversion																																														
	800 mb 20°-76 mb 22°																																														
	Isotermal																																														
	821-800 mb 20°																																														
	300-290 " 56°																																														
																																														</	

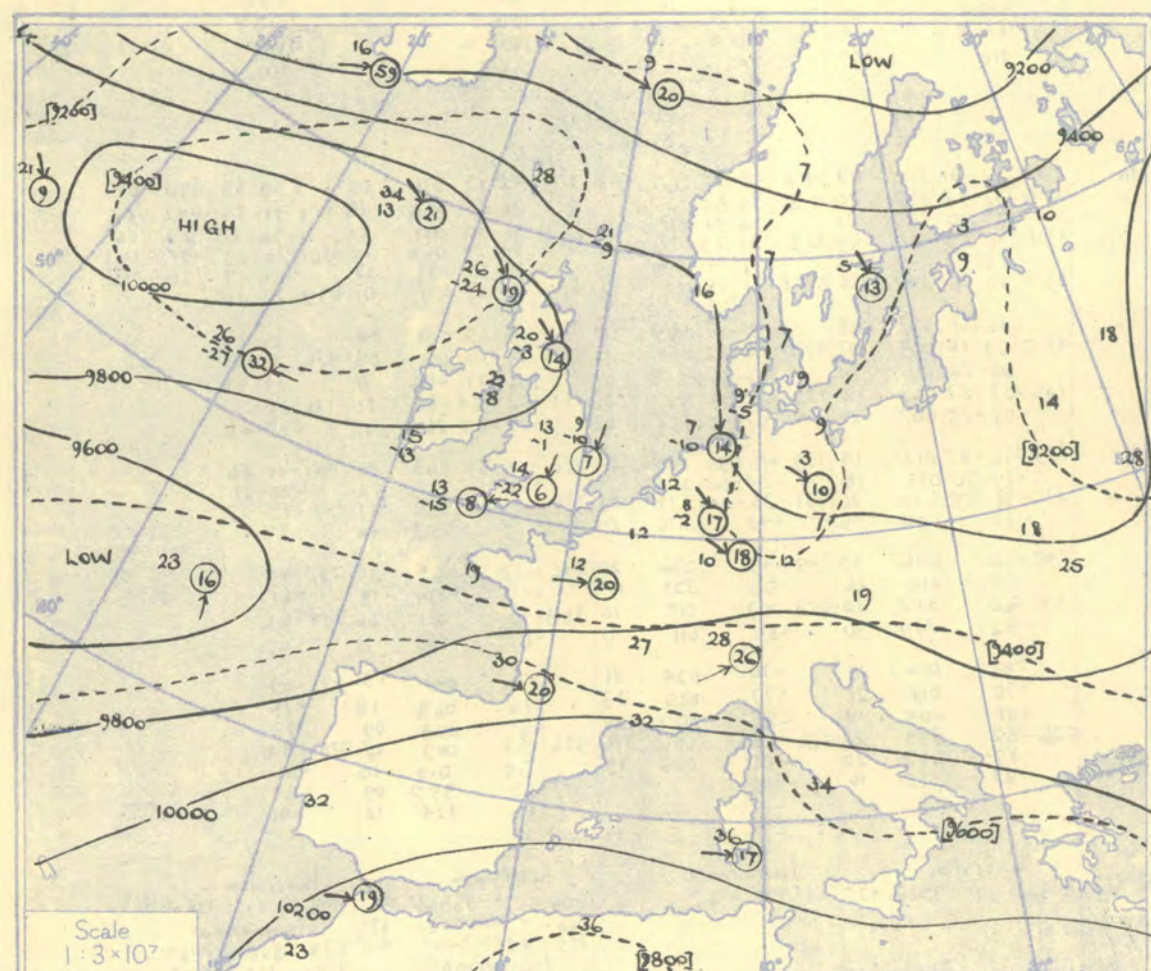
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION						
Pressure M.S.L. Surf Freezing	034			G.M.T. mb mb mb	024			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034			G.M.T. mb mb mb	034		Time M.S.L. Surf Freezing									
	1011.2				1017.0				1019.6				1021.5				1019.8				1019.4				1018.4				1016.5				1018.9			034								
	1001.0				1015.3				1018.7				1012.4				1017.7				1014.8				1001.8				1005.6				1018			1018								
930						922				934				900				919				910				910				885		910												
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb											
Surf	2.7	42	38		0.4	41	36	235	03	0.2	31	29	260	18	2.3	26	26		0.6	28	26		1.2	32	31	310	09	4.4	35	35	060	08	2.9	33	32	070	05	0.3	39	33	090	05	Surf	
1000	2.9	42	38		4.5	42	35		5.0	36	32	262	12	5.6	30	30		5.1	38	35		5.0	37	34	337	10	4.8	35	35		4.3	36	32	095	05	0.3	39	33	090	05	1000			
950		34	30			36	29	256	24		34	28	276	11		35	32			36	29			37	30	347	11		34	34	071	16		36	30	091	21		36	28	112	06	950	
900	30.8	29	26		32.3	29	24	257	28	32.9	29	25	287	12	33.4	32	25		33.0	30	26		33.1	31	28	007	09	32.5	31	23	086	14	32.3	34	23	060	14	33.0	30	25	131	16	900	
850		23	19			29	19	271	26		26	21	292	12		29	19			25	17	009	08		25	17	009	08		27	14	086	15		29	13	095	13		26	19	136	11	850
800	61.5	29	13		63.3	35	09	296	20	63.5	25	09	298	13	64.2	25	07		63.5	23	13		63.7	22	04	349	08	63.1	21	05	081	21	63.0	24	07	097	07	63.5	22	10		800		
750		25	04			32	13	312	18		26	02	307	11		25	01			16	05			16	01	337	08		16	07	069	13		19	05	051	06		20	02		750		
700	96.0	21	09		98.2	26	24	312	19	98.0	20	03	314	14	98.6	22	08		97.4	13	01		97.5	09	10	003	07	97.0	14	22	014	06	97.1	13	15	051	08	97.6	15	13		700		
650		15	13			19	33	317	20		14	03	348	15		15	11			08	10			03	24	011	10		07	26	348	05		06	21	062	11		13	23		650		
600	135	07	03		138	03	16	334	21	137	08	09	008	18	138	10	14		136	03	19		136	03	23	008	12	135	01	34	347	06	13.5	02	24	068	11	136	05	37		600		
550		07	12			03	16	339	26		01	12	008	24		02	21			06	27			08	25	007	12		07	45	354	07		05	32	263	12		03	42		550		
500	180	10	20		183	06	23	344	26	182	08	24	023	27	183	10	32		180	16	36		179	18	37	012	14	179	16	55	329	09	18.0	11	37	263	35	181	11	46		500		
450		20	27			17	31	352	29		18	28	032	36		18	39			26	45			29	50	033	18		24	60	278	18		21	41	258	42		20	51		450		
400	232	33	40		235	25	41	357	33	234	29	38	030	56	235	27	47		232	31	49		231	32	58	039	26	231	33	60	270	29	232	37	18	258	51	233	27	57		400		
350		45				40	55	353	43		40	50	028	64		38	57			41				42			040	36		42		276	29		45		258	44		38		350		
300	295	59			300	54		352	52	299	55		026	71	300	49			296	53			295	50		036	38	295	49		274	20	296	52		264	35	297	49		300			
250		72				67		353	57		62		024	73		57				61				55		015	26		56		327	17		57		274	19		61		250			
200	380	71			385	48		343	30	385	66		023	40	387	65			382	63			382	60		350	20	383	57		015	10	383	64		001	06	384	63		200			
170		76				72		343	26		70		021	33		66				64				62		349	30		65		011	17		67		075	13		65		170			
150		73				72		337	26		69		355	32						68				67		004	29		70		024	21		71		049	13		69		150			
130		77				77		324	26		72									72				75		013	21		77		025	23		76		068	18		73		130			
110		82				82		312	25											79				81		005	19		81		002	20		81		053	09		78		110			
100	521	85			527	84		317	33											82				82		008	22		83		006	16		83		069	07	528	82		100			
90		85				91		304	32											84				85		003	28		84		005	15		85		019	10		86		90			
80		89				91		288	31											88				87		013	16		85					324	12		89		80					
70						89		287	32											88				87																70				
60																				88				87																60				
Inversion						Inversion.								(66mb)																		(65mb)												

Inversion 850mb 23°-830mb 31° Isothermal. 730-720mb 24°
Inversion 1015mb 41°-995mb 43° 862-26°-826-36° 410-26°-400-25° Isothermal. 636mb-615mb 16°
Inversion 1019mb 31°-991mb 38° 814-24°-758-27°
Inversion 1012mb 26°-982mb 37° 794-24°-728-25°
Inversion 1018mb 28°-996mb 41° Isothermal. 878-863mb 27° 725-690-13° 650-638-08° 441-416-27°
Inversion 1015mb 32°-982mb 42° Isothermal. 761-726mb 16°
Inversion 1006-35°-988mb 37° 960-35°-942-37° 355-45°-340-44° Isothermal. 873-850mb 26° 775-730-20° 150-435-20°
Tropopause I 238mb -75° 34.500 I 220mb -73° 36.500 I 236mb -64° 34.900 II 202mb -65° 38.600 I 250mb -61° 334.89 I 274mb -55° 31.400 II 273mb -55° 31.600 II 293mb -53° 30.000 II 240mb -63° 34.500

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Tropopause						
Pressure M.S.L. Surf Freezing	094				094				094				094				094				094				094				094				G.M.T.						
	1008.0				1015.8				1019.4				1023.5				1019.4				1022.1				1012.3				1018.1				Time						
	998.0				1014.1				1018.5				1014.3				1017.5				1017.4				1004.4				1007.2				M.S.L.						
962				890				920				935				915				887				918				874				mb							
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb						
Surf	2.7	45	45		0.4	43	41		0.2	30	29	Calm	2.3	26	23		0.6	27	26	Calm	1.2	32	32	Calm	4.4	30	30	090	03	2.9	36	34	090	06	Surf				
000	2.1				4.2	44	41		5.0	35	33	264	18	6.1	30	27		5.6	30	29	099	06	5.8	35	35	020	09	5.5	30	30		4.8	38	35	1000				
950		41	40			39	34			35	32	277	18		34	30			35	32	088	06		38	38	046	09		35	34	076	18		40	35	100	23		
900	30.4	35	33		32.3	33	39		32.9	30	27	292	19	33.9	30	13		33.4	30	25	074	06	33.9	33	32	044	12	33.5	31	22	083	16	32.8	36	27	101	19	950	
850		30	25			30	22			23	13	295	15		28	06			28	17	058	07		30	23	038	12		28	11	086	16		29	18	095	15	900	
800	61.4	36	11		63.4	36	02		63.2	22	01	293	13	64.6	30	02		64.1	23	07	042	06	64.7	26	10	050	12	64.2	22	03	084	17	63.6	25	03	088	18	850	
750		30	03			30	10			29	11	317	13		27	19			21	01	053	15		20	02	031	11		18	08	081	17		23	47	098	20	750	
700	96.3	24	02		98.3	25	08		98.0	25	01	329	13	99.2	23	18		98.4	20	05	057	20	99.0	15	05	035	13	98.2	16	43	068	14	97.9	18	12	089	30	700	
650		16	00			18	01			18	12	338	12		19	10			13	08	058	25		15	18	059	24		10	48	056	16		11	20	085	16	650	
600	135	07	09		137	11	09		137	10	18	343	13	138	10	17		137	06	14	063	29	138	08	22	054	37	137	06	50	054	19	137	06	29	086	09	600	
550		01	22			02	15			02	15	013	15		03	22			02	20	065	30		00	28	053	28		05	57	059	27		00	41	248	09	550	
500	180	10	33		182	09	27		182	07	20	009	21	183	06	29		182	11	29	060	35	183	10	37	056	44	181	11	53	058	29	181	08	47	274	18	500	
450		22	45			20	39			19	27	011	25		16	37			20	37	065	42		20	47	055	54		17	57	064	33		18	51	275	24	450	
400	232	34	54		235	29	48		234	30	40	015	32	236	26	47		234	31	47	065	54	235	28	53	058	56	234	25	58	071	35	234	31	58	263	25	400	
350		46				41				43		018	41		41				43		053	65		38	58	054	54		36	59	076	33		42		241	18	350	
300	295	57			299	55			298	56		018	40	301	52			298	53		057	56	300	49		056	49	299	45		064	23	298	50		272	13	300	
250		74				69				71		019	47		63				64		058	30		55		060	31		55		026	14		56		249	10	250	
200	380	65			383	72			383	69		333	30	387	70			384	68		034	23	387	63		020	27	386	61		358	14	385	61		060	03	200	
170		72				73				75		335	24		69				69		007	19		71		356	21		64		321	10		64		076	05	170	
150		77				76				77		331	23		68				71		007	18		74		342	20		66		323	07		66		128	12	150	
130		76				72				78		316	27		75				75		007	17		72		340	20		72		346	12		71		103	09	130	
110		80				77				86		307	26		83				82		008	18	529	81		348	18		80		005	11		78		083	15	110	
100	522	84			526	81			524	92		317	30	529	87			526	86		008	12		82		355	18	530	84		003	09	530	81		080	13	100	
90		87				84				91					90				88		011	10		82		356	15		82		298	05		83		110	05	90	
80		85																	88					86		354	19		82					87		120	10	80	
70		87																	91					89										81		290	08	70	
60																																						80	
Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion			
855 mb 29° 812 mb 36°				1014 mb 43° 1000 mb 44°				1019 mb 30° 989 mb 38°				1014 mb 26° 975 mb 36°				1009 mb 27° 975 mb 37°				1017 mb 32° 970 mb 40°				1004 mb 30° 966 mb 36°				1007 mb 36° 1000 mb 38°				964 mb 37° 946 mb 41°							
Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.				Isothermal.			
812-788 mb 36°				841-30° 810-37°				829-19° 745-29°				825-28° 790-30°				750-21° 722-23°				707-14° 680-16°				405-29° 395-28°				765-738 mb 18°				765-738 mb 18°							

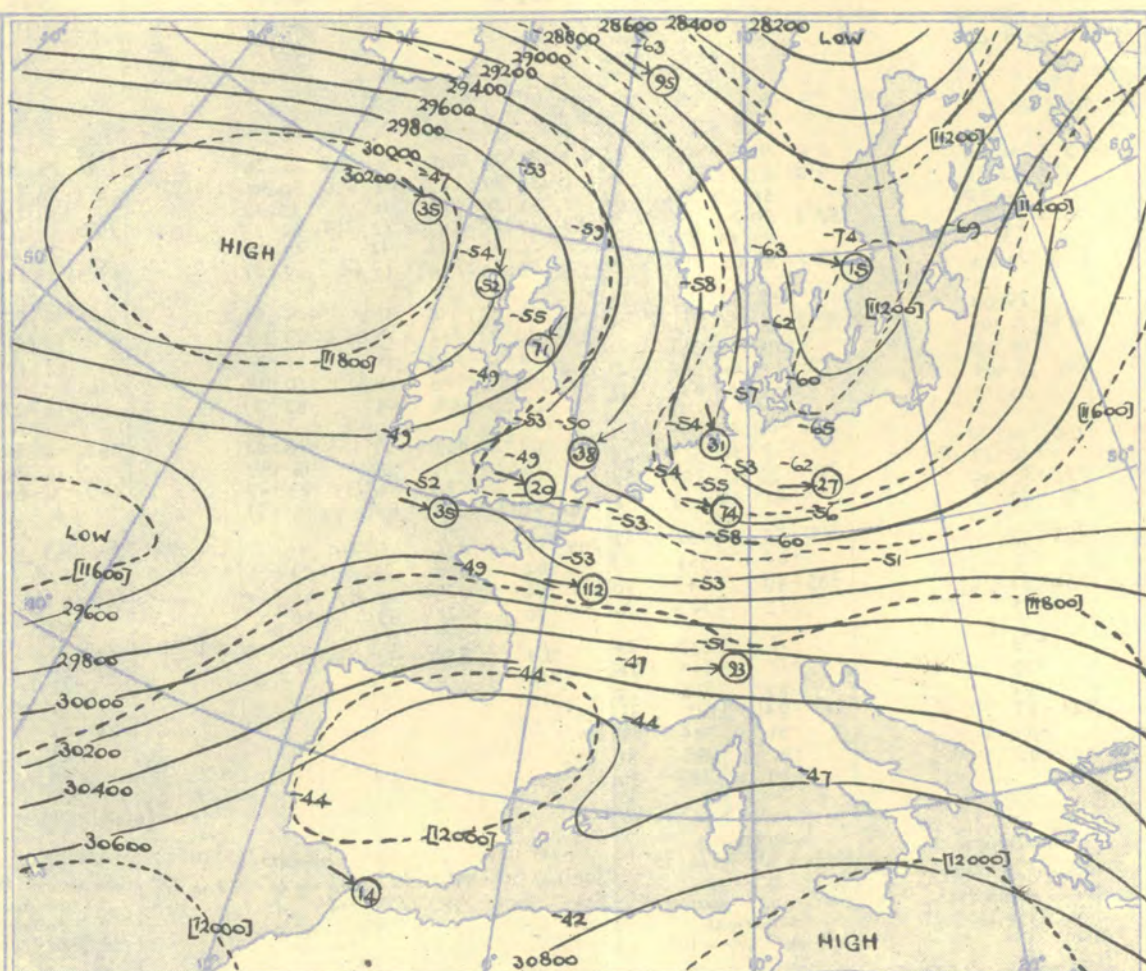
HEIGHTS IN FEET: TEMPERATURES (Dry bulb and Dew Point). - DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03 h G.M.T.



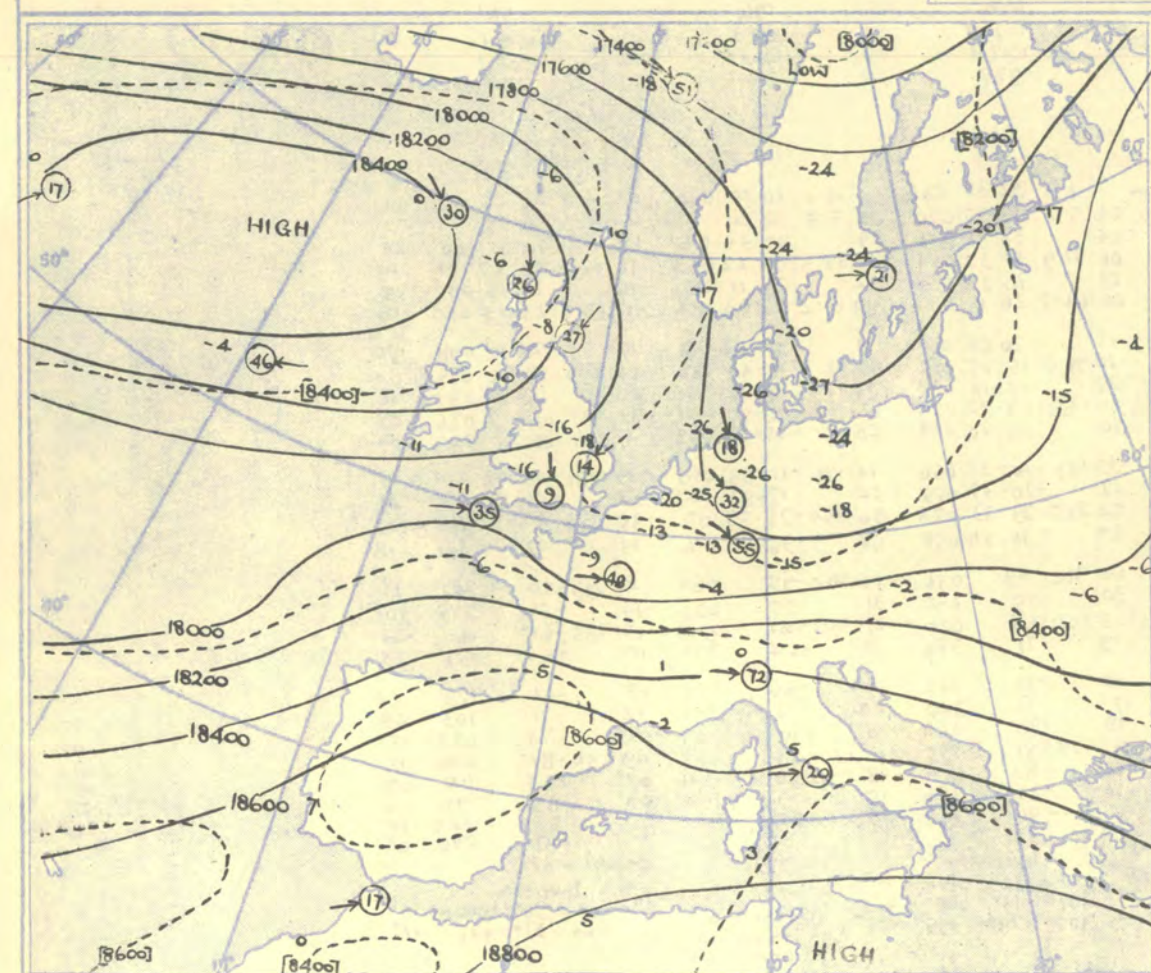
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

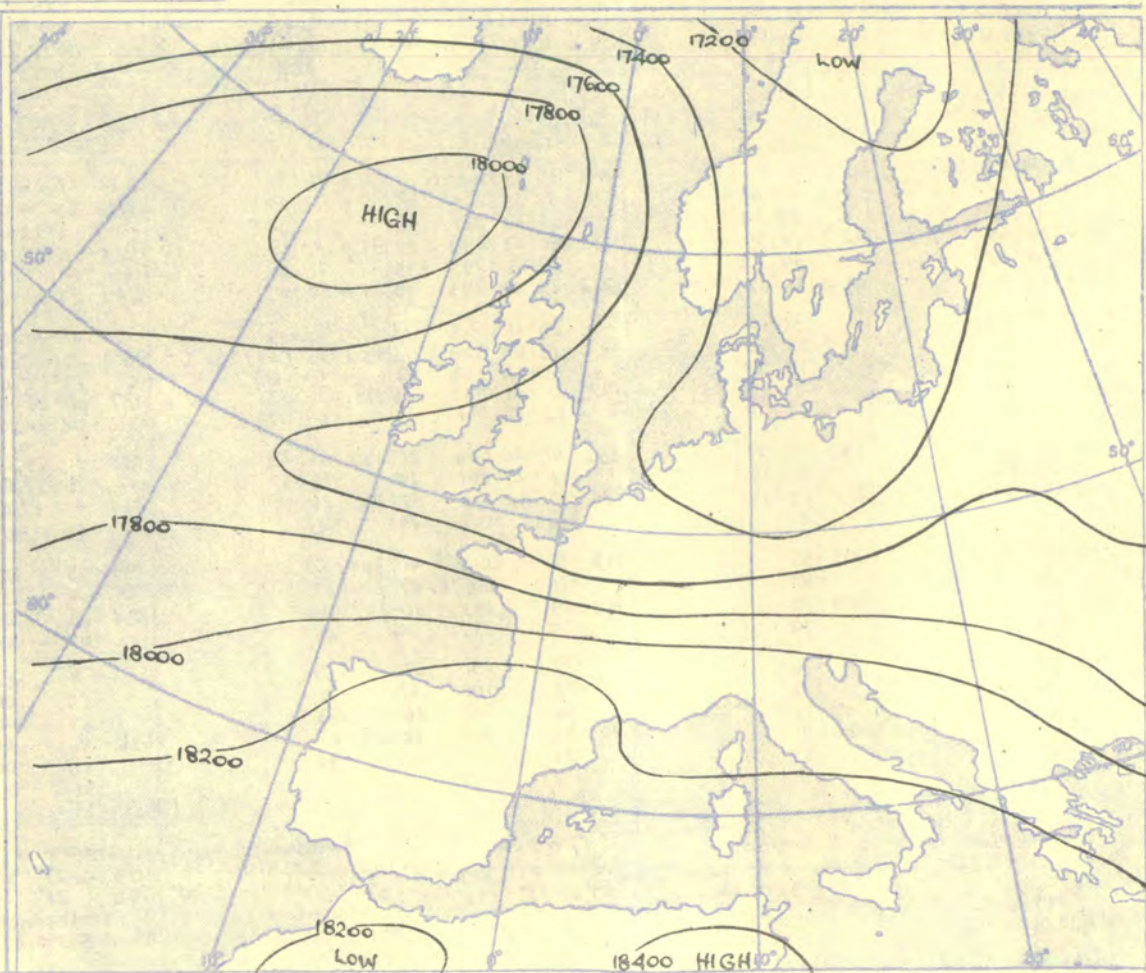
100 80 60 40 20 10 knots



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 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

[illegible]

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

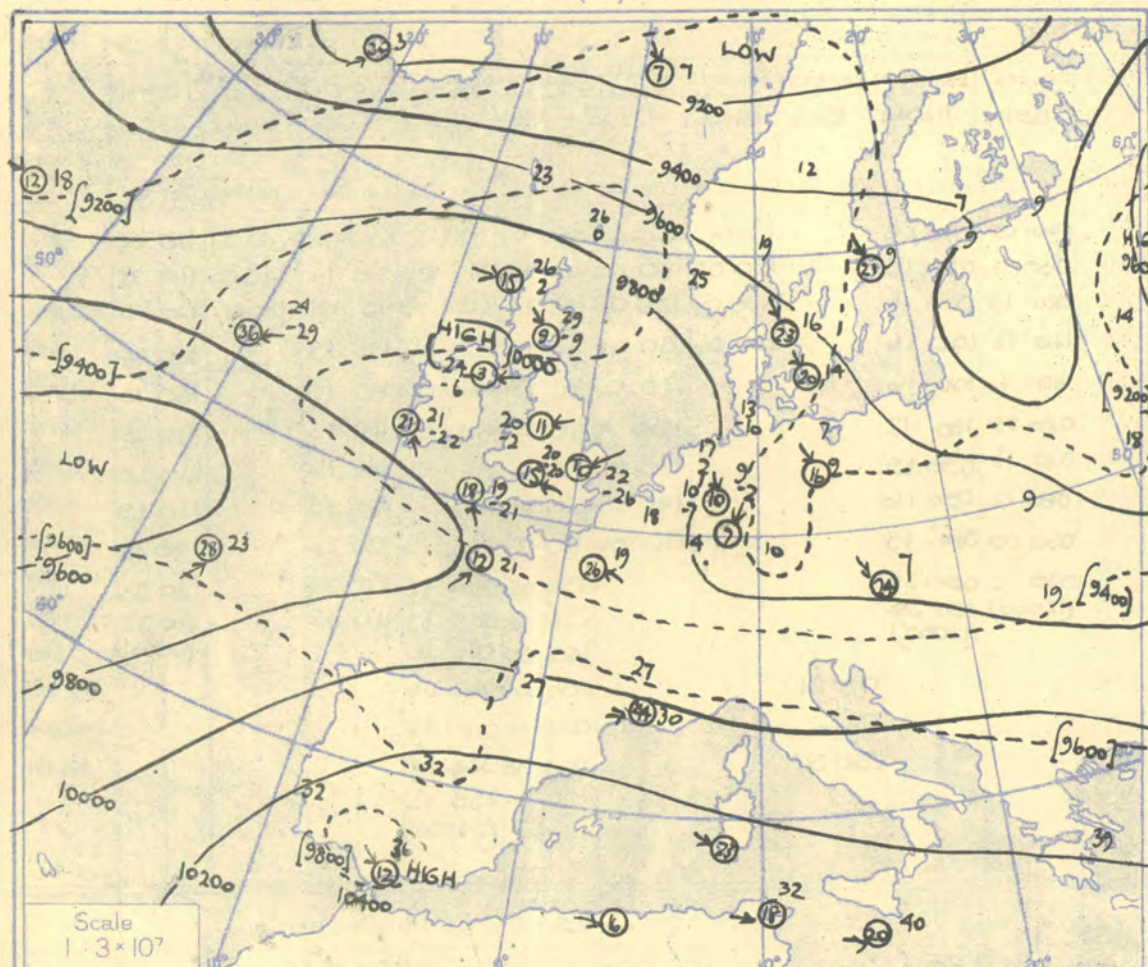
Place	Lymene	Larkhill	Larkhill	Ronalds Way	Castle Archdale	Cumbarne	Downham Market	Larkhill	Ronalds Way	Larkhill	Place	
Time	09hrs	1130hrs	15hrs	1415hrs	14hrs	15hrs	15hrs	1730hrs	2015hr	2350hrs	Time	
Type							Pier				Type	
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet.	
Surf.	020 09	070 03			Calm	Calm	080 07	Calm	080 02	030 07	110 08	Surf.
1,000	060 21	080 15			130 05	160 03	100 18	112 06	120 13	140 05	110 21	1,000
2,000	080 15	090 16			200 07	120 05	110 18	093 05	110 15	160 07	120 20	2,000
3,000	120 13	100 16			240 06	130 08	110 18	075 06	120 15		130 20	3,000
4,000	110 12	100 16				210 07	110 19	060 06	110 15		130 20	4,000
5,000	080 09	100 17				130 11	110 20	041 06	110 15		130 20	5,000
6,000	070 13	090 19				180 09	110 21	061 06	110 16		130 20	6,000
8,000	060 12	090 16				140 03	120 21	063 13	110 15		130 19	8,000
10,000	050 09	080 15				130 06	120 18	069 16	100 25		140 20	10,000
14,000	030 12	090 36					130 06	064 22	110 34		130 35	14,000
18,000	(12000)	090 39					250 12	063 15	110 35		130 35	18,000
24,000		(15000)					240 09	072 39			(15000)	24,000
30,000			070 31				300 06	062 36				30,000
40,000			Calm				090 11	018 15				40,000
50,000			250 58				260 16	324 14				50,000
								259 13				
								(51000)				

NEPHOSCOPE OBSERVATIONS

[illegible]

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

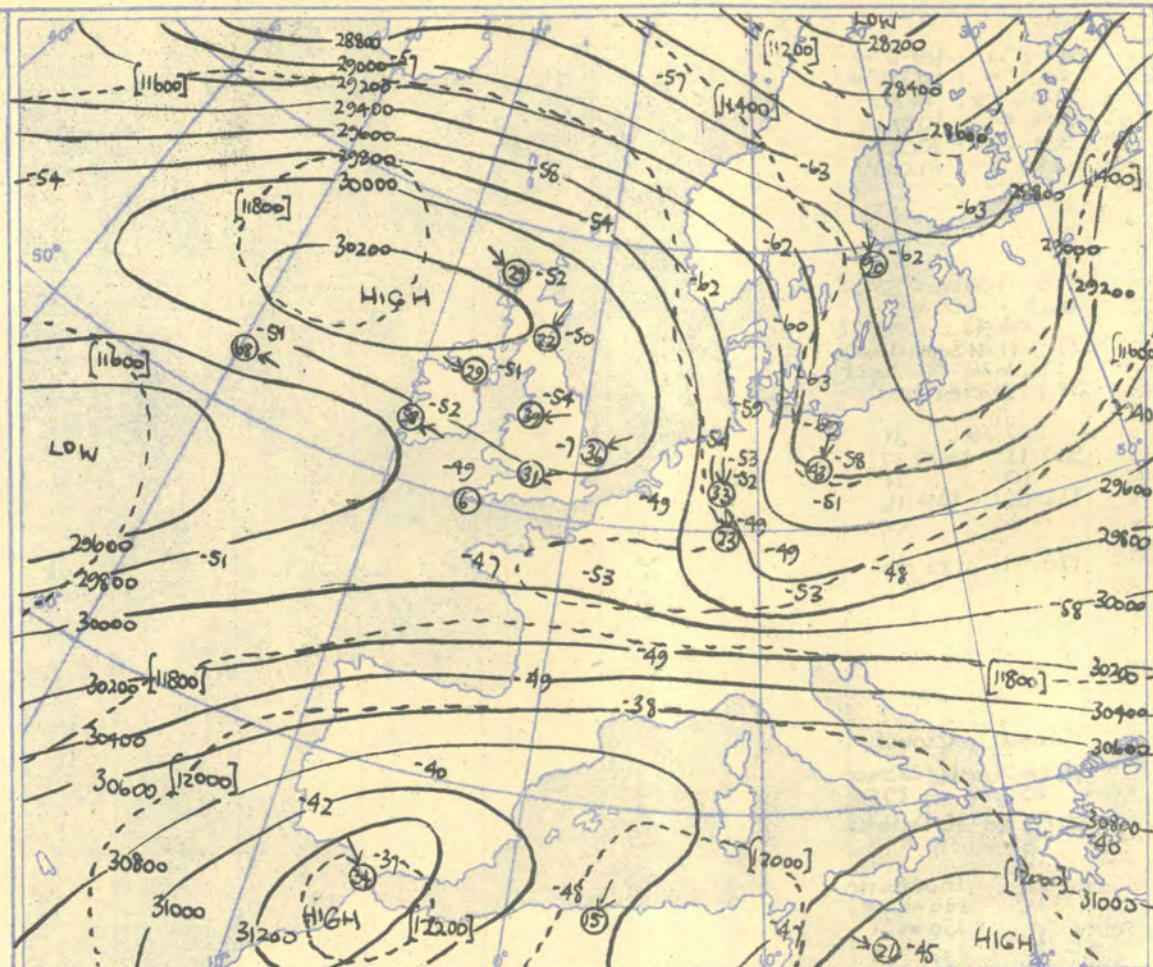
Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Weather Recorder				Weather Recorder												Ship
Lat/Long	52-5N 20-1W				52-5N 20-2W				52-5N 20-3W				52-5N 20-0W				59-7N 13-8W				58-8N 12-2W												Lat/Long
Pressure	Time	03h		G.M.T.	Time	09h		G.M.T.	Time	15h		G.M.T.	Time	21h		G.M.T.	Time	03h		G.M.T.	Time	09h		G.M.T.			G.M.T.			G.M.T.	Time		
	M.S.L.	1020		mb	M.S.L.	1019		mb	M.S.L.	1017		mb	M.S.L.	1014		mb	M.S.L.	1012		mb	M.S.L.	1014		mb			mb			mb	M.S.L.		
	Surf	1020		mb	Surf	1019		mb	Surf	1017		mb	Surf	1014		mb	Surf	1012		mb	Surf	1014		mb			mb			mb	Surf		
	Freezing	890		mb	Freezing	745 and 895		mb	Freezing	895 and 750		mb	Freezing	880		mb	Freezing	678		mb	Freezing	720		mb			mb			mb	Freezing		
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb
Surf		48	41	050	09	49	37	065	13	49	37	080	16	49	41	075	20	45	44	275	19	50	43	268	17								Surf
1000	5-2	46	34	050	09	47	37	066	15	48	37	096	24	47	41	090	28	44	43	283	30	48	40										1000
950		39	28	065	14	40	33	075	17	42	32	095	24	42	30	104	29	40	40	283	25	41	32	277	21								950
900	33-3	33	23	077	14	33-2	33	29	090	15	32-9	33	25	33	26	115	32	31-5	43	36	287	22	32-0	37	26	290	18						900
850		21	17	086	16	28	23	094	16	27	21	094	25	27	21	123	33	47	21	294	21	41	18	289	18								850
800	64-1	32	03	080	19	33	14	093	19	43-8	33	06	094	27	62-8	24	18	121	32	63-4	44	08	30-7	20	62-4	40	04	279	17				800
750		31	21	076	28	33	03	094	23	32	23	093	34	24	13	115	28	38	14	308	22	36	01	269	15								750
700	99-0	26	27	075	32	25	06	099	25	98-7	24	29	090	36	97-1	19	38	114	25	98-9	24	13	300	21	98-7	29	01	265	15				700
650		17	32	075	32	17	13	102	29	16	35	086	34	13	49	133	24	27	08	297	28	21	02	261	17								650
600	138	11	82	072	36	138	08	19	100	34	138	07	42	085	34	136	07	50	151	30	139	17	01	293	23	138	14	06	256	18			600
550		05	30	064	44	03	16	098	40	00	48	088	44	01	45	143	23	08	07	303	22	05	10	260	18								550
500	183	04	29	061	46	183	05	21	095	43	183	07	53	090	52	181	09	41	136	20	184	00	13	300	30	183	03	24	272	27			500
450		14	38	060	51		13	30	090	51		14	61	090	61		20	45	143	21		10	24	294	32		183	14	31	284	25		450
400	236	26	50	058	61	236	24	42	084	64	235	26	75	091	63	233	32	57	155	31	238	21	34	293	20	236	21	41	288	28			400
350		34	61	063	64		36	54	089	60		39	70	094	71		43	136	43		33	43	295	34		236	40	55	292	32			350
300	(347 mb)	35	62			301	50		092	58	300	51		097	68	297	53		103	63	303	47		295	35	301	51		285	32			300
250						65			076	63		63		094	67		63		098	73		63		309	40			302	41				250
200						387	71		056	45	386	71		096	51	383	68		112	45	389	78		321	41	386	79		291	39			200
170						68			044	24		68		098	32		70		118	38		75		275	36		76		281	38			170
150						71			046	18		70		104	30		75		121	37		76		266	37		75		268	42			150
130						76			087	14		74		107	28		79		128	24		80		264	32		79		268	31			130
110						82			119	14		77		122	23		81		123	16		84		256	30				265	36			110
100						529	84		112	10	529	79		129	18	525	84		111	12	529	86				527	81		273	45			100
90						84			085	08		82		143	11		85		097	10							85		275	45			90
80						85			085	07		82		167	12		87		134	06							89		277	45			80
70						85						75		191	06		89		207	05							93		273	36			70
60						85						79		200	06		89		227	04							92		268	34			60
	Inversion	628 mb 26°-800mb 32°			Inversion	855mb 27°-770mb 35°			Inversion	854 mb 26°-775mb 34°			Inversion	920 mb 38°-861mb 47°			Inversion	920 mb 38°-861mb 47°			Inversion	900mb 37°-887mb 43°			Inversion	863 .. 40°-830 .. 42°			Inversion	800 .. 40°-787 .. 40°			
	(isothermal)	800-756 mb 32°			(isothermal)	600-582 mb 8°			(isothermal)	250 .. 63°-235 .. 62°			(isothermal)	777 mb 21°-760mb 25°			(isothermal)	861-820 mb 47°			(isothermal)	800-780 .. 44°			(isothermal)	800-780 .. 44°			(isothermal)	800-780 .. 44°			
Tropopause	N.R.				I 210mb-72° 37,600'				I 212mb-71° 37,300'				I 235mb-65° 39,800'				I 185mb-79° 39,600'				I 168mb-83° 39,900'								Tropopause				



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.

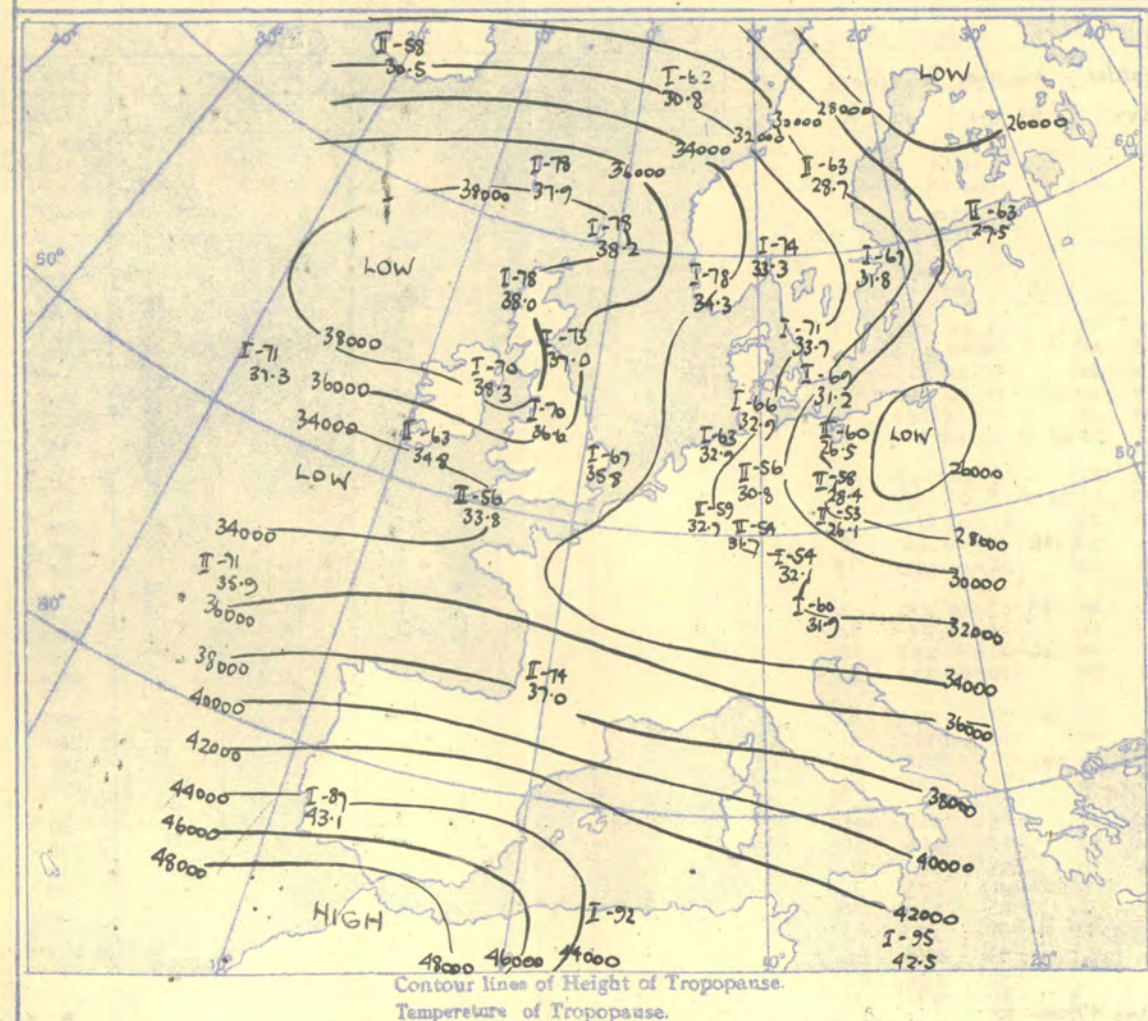
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

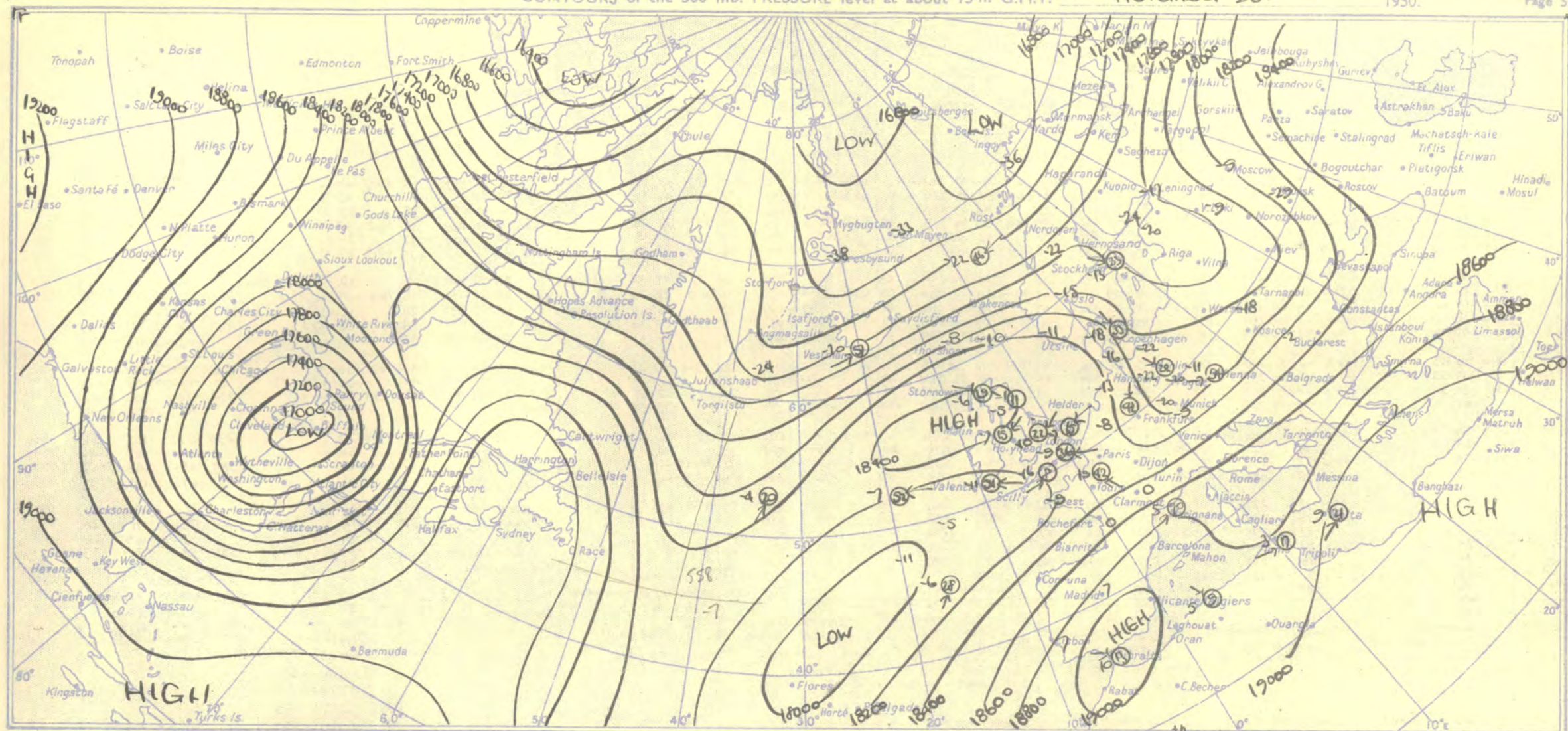
100 80 60 40 20 10 knots



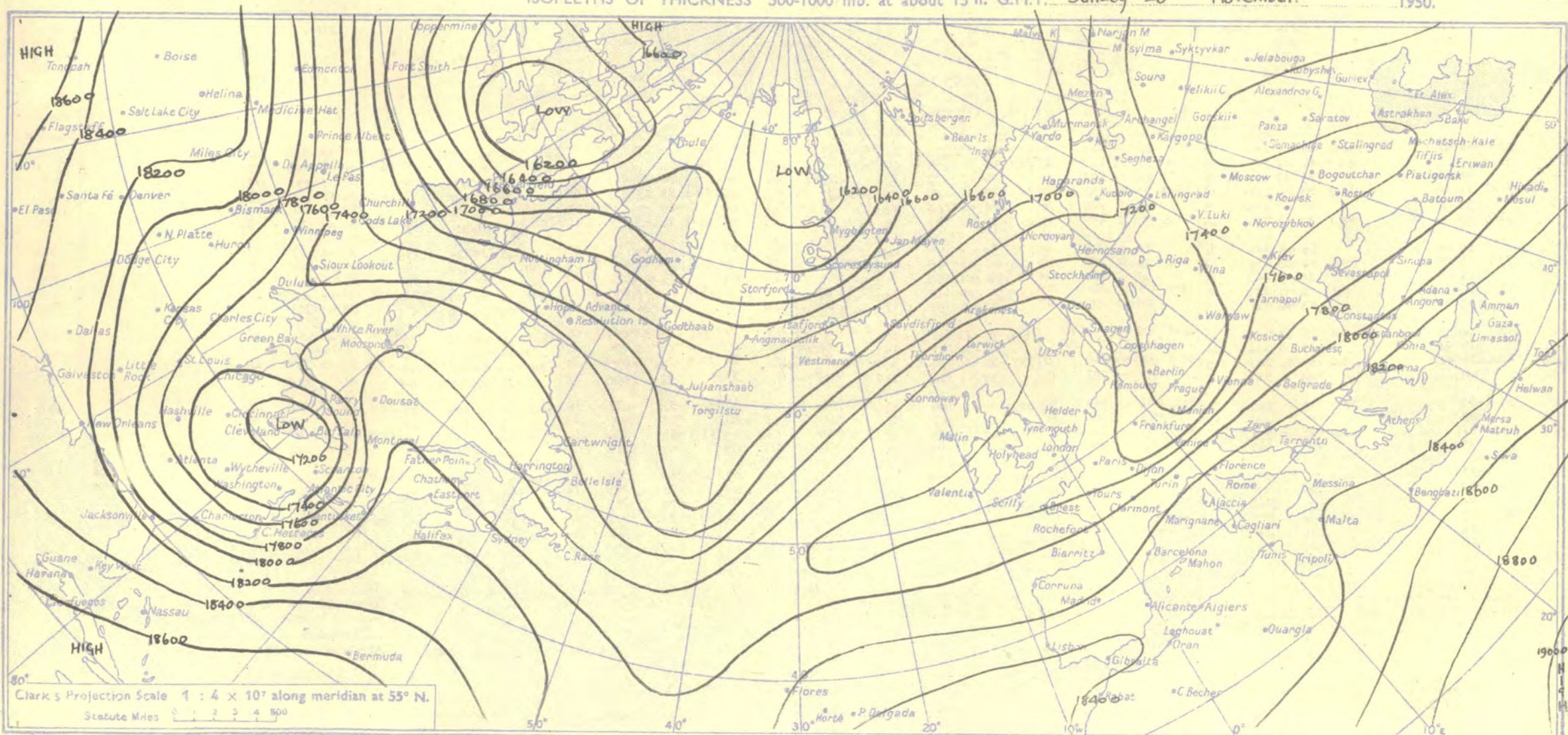
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500—300 mb.

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





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 26 November.



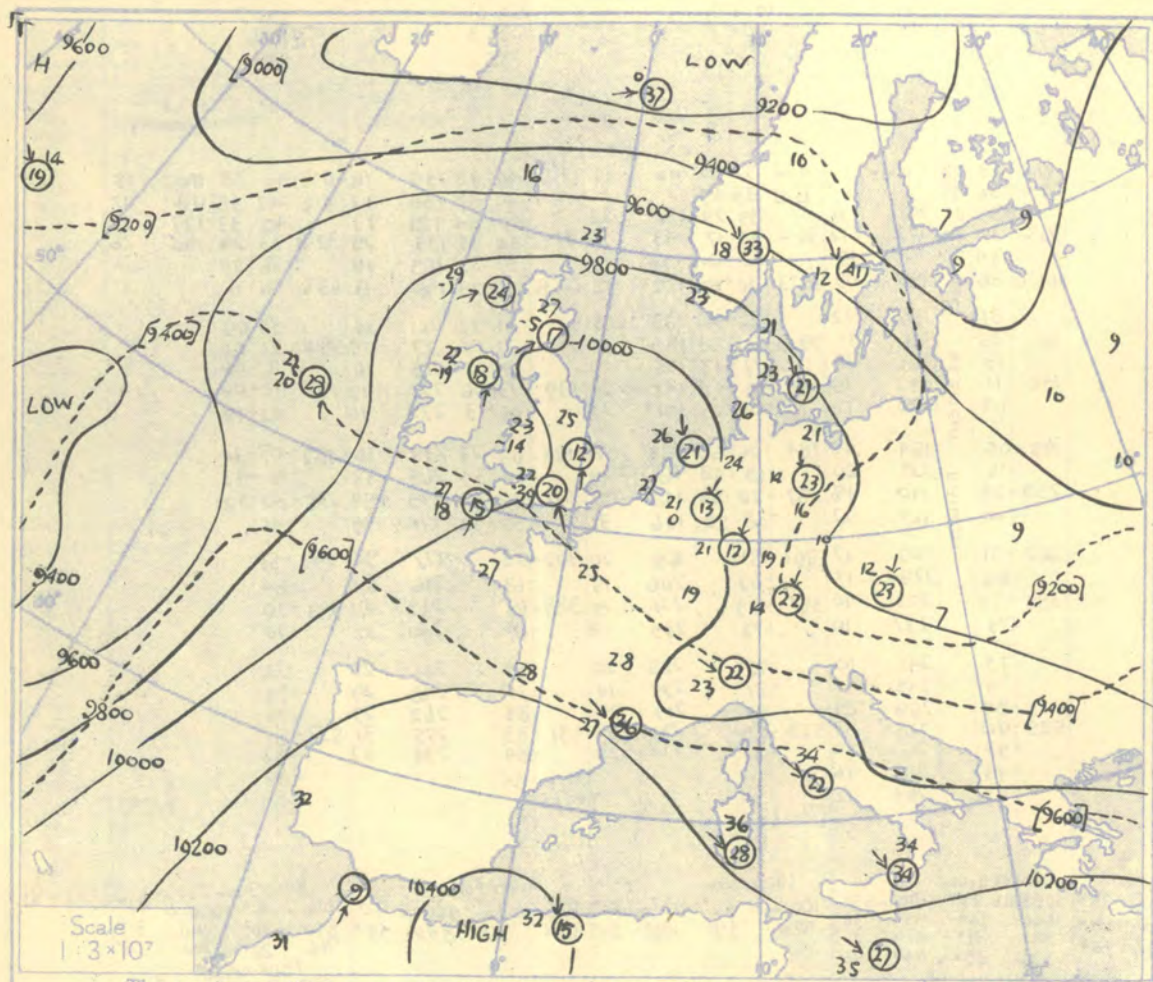
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION												
Pressure Time M.S.L. Surf Freezing	15h. G.M.T. 1009.9 mb 999.6 mb 745 mb				15h. G.M.T. 1017.0 mb 1015.3 mb 743 mb				15h. G.M.T. 1019.6 mb 1018.7 mb 719 mb				15h. G.M.T. 1023.0 mb 1014.7 mb 820 + 800 mb				15h. G.M.T. 1023.0 mb 1020.9 mb 908 mb				15h. G.M.T. 1024.2 mb 1019.6 mb 867 mb				15h. G.M.T. 1021.8 mb 1005.1 mb 883 mb				15h. G.M.T. 1019.4 mb 1008.5 mb 890 mb				15h. G.M.T. 1019.7 mb 1019 mb 870 mb				Pressure Time M.S.L. Surf Freezing												
	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots																	
	Surf	02.7	45	44		00.4	46	44	240	05	00.2	46	36	260	15	02.3	37	32	CALM		00.6	36	34	CALM		01.2	33	33		4.4	36	36	090	03	02.9	43		39		00.3	45	34	090	08	Surf				
1000	02.6				04.5	44	41	265	21	05.1	40	35	257	21	06.2	38	33	236	06	05.0	41	34	181	03	06.3	35	38		5.7	26	36		05.1	42	38		5.3	43	32	094	10	1000							
950		39	38			39	37	259	24		37	32	276	23		36	29	230	07		37	33	180	05		37	36			36	30	089	15		39	23		37	25	103	16	950							
900	30.8	34	34		32.6	33	31	255	27	33.1	32	28	292	24	34.2	34	21	225	05	34.0	37	24	175	05	34.4	32	28		33.7	34	19	099	16	33.2	34	77		33.3	37	17	114	19	900						
850		40	11			40	11	262	21		37	14	287	17		32	09	222	06		27	15	159	05		30	13			30	11	100	15		26	22		29	10	120	19	850							
800	62.1	39	-12		63.3	39	-17	281	15		34	-01	288	13	65.1	32	-03	175	05	64.7	27	08	111	06	65.1	27	03		64.5	26	02	106	15	63.9	27	13		64.0	22	01	127	20	800						
750		33	-17			33	-20	277	15	10.0	29	-09	298	12		29	-10	216	03		26	-01	072	10		28	-22	See Page		23	-07	108	12		22	-17	See Page		26	-10	121	19	750						
700	97.1	26	00		99.0	24	-02	269	15		21	-04	311	09	99.9	24	-06	086	03	99.3	20	-02	069	11	10.0	22	-24	3	98.9	20	-20	095	15	98.3	-19	-21	3	98.4	21	-22	123	21	700						
650		19	00			19	00	277	15	13.9	12	-03	228	07		18	-06	086	02		15	-06	079	12		16	-19	for Winds		14	-25	095	28		16	-31	for Winds		13	-29	122	26	650						
600	13.6	11	-01		13.8	12	-05	284	15		05	-08	352	11	13.9	09	-19	088	08	13.8	08	-14	073	15	13.9	09	-28		13.8	08	-30	094	34	13.7	08	-47		13.7	05	-37	121	39	600						
550		00	-06			03	-15	264	18	19.4	-05	-16	338	12		02	-24	094	11		-01	-20	078	18		01	-31			-01	38	098	35		00	-44		-03	-43	113	57	550							
500	18.1	-10	-13		12.3	-6	-22	279	19		-15	-26	349	11	18.4	-07	-34	078	15	18.3	-10	-26	078	22	18.4	-07	-37		18.2	-10	-46	094	46	18.2	-10	-36		18.2	-11	-52	109	51	500						
450		-19	-22			-17	-30	301	20	23.7	-24	-39	004	14		-16	-33	060	20		-19	-38	080	25		-16	-47			-18	-53	092	40		-20	-44		-19	-59	108	48	450							
400	23.3	-30	-34		25.6	-28	-39	303	21		-32	-55	008	12	23.7	-27	-45	069	22	23.5	-29	-47	078	29	23.6	-27	-39		23.5	-27	-59	091	37	23.4	-32	-56		23.4	-29	-59	106	62	400						
350		-41				-39	-50	289	20	30.2	-50		019	20		-16	-37	068	29		-43		072	35		-38	-58		(383mb)-31						-42					-42	108	48	350						
300	29.8	-54			30.1	-52		294	29		-63		010	21	30.1	-51		068	29	29.9	-54		070	39	30.1	-41																29.8	-49	102	58	300			
250		-68				-67		321	30	38.8	-65		002	28		-60		070	26		-65		074	15		-62																				250			
200	38.2	-78			38.6	-77		298	31		-72		011	24	38.9	-69		023	14	38.5	-67		048	12	38.7	-61																					200		
170		-72				-75		300	33	48.8	-74		324	23		-64		114	05		-70		010	06		-66																				170			
150		-74			44.4	-78		277	40		-75		322	26	44.8	-65		262	09		-71		338	09	47.8	-09			Inversion																		150		
130		-75				-75		284	44		-78		322	40		-72		355	06		-73		341	10		-73			983mb 35°-963mb 37°																		130		
110		-82				-79		294	41	53.1	-82		318	27		-75		252	04		-79		327	09		-77																				110			
100	52.5	-84			52.7	-83		291	36		-86		297	24	53.1	-79		280	12	52.8	-82		329	08	53.1	-81			Isothermal																		100		
90		-84				-88		268	46		-88		294	29		-33		282	12		-85		300	12		-85																					90		
80		-85				-91		280	36		-87		297	26		-83					-91		283	13		-90			Inversion																		80		
70		-86				-89				63.2	-86		299	28		-90					-90		269	11					1020mb 33°-986mb 41°																		70		
60		-87									-90		302	28															818 " 26°-750 " 28°																		60		
																			</																														

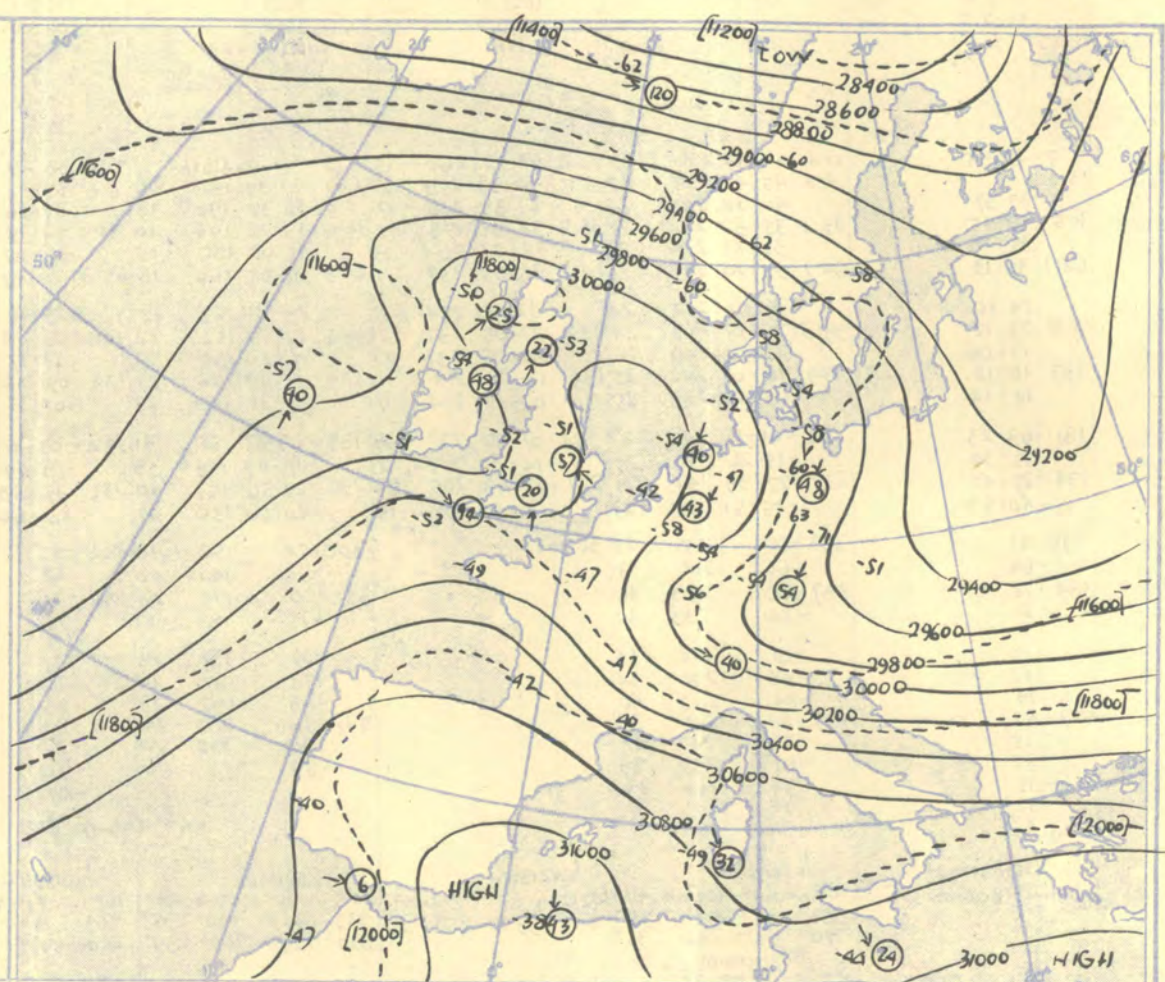
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Time		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.			
M.S.L.		1012.3		mb		1013.7		mb		1021.2		mb		1023.8		mb		1025.1		mb		1027.1		mb		1025.0		mb		1019.0		mb		1010.7		mb			
Surf		1002.2		mb		1017.0		mb		1020.3		mb		1014.7		mb		1023.6		mb		1022.5		mb		1008.2		mb		1008.3		mb		1016		mb			
Freezing		776		mb		878		mb		750		mb		1011 + 859		mb		856		mb		758		mb		850		mb		755		890		mb		Freezing			
Pressure		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.			
mb		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.			
Surf		2.7		45		0.4		42		0.2		35		2.3		28		0.6		33		1.2		28		4.4		32		2.9		46		0.3		46			
1000		3.3		45		4.9		44		5.5		40		2.3		28		6.6		35		7.0		36		6.5		33		5.1		45		4.6					
950		31.5		36		33.1		35		33.5		34		34.0		35		34.5		34		35.0		31		34.4		33		33.5		40		33					
900		31.5		36		33.1		35		33.5		34		34.0		35		34.5		34		35.0		31		34.4		33		33.5		40		33					
850		31.5		36		33.1		35		33.5		34		34.0		35		34.5		34		35.0		31		34.4		33		33.5		40		33					
800		62.7		35		64.2		35		64.8		35		64.9		35		65.3		29		66.0		36		65.3		30		15		64.8		36					
750		29		10		33		01		252		24		29		21		162		22		29		10		26		36		153		19		31					
700		23		12		29		07		253		24		27		05		237		2		22		19		22		36		153		19		31					
650		17		06		23		12		249		26		20		05		237		21		16		20		158		27		19		27		18					
600		137		10		139		16		07		244		25		139		12		08		219		16		139		08		25		139		13					
550		01		14		08		09		239		25		02		12		224		17		00		31		148		23		09		24		13					
500		181		08		184		01		17		244		27		184		07		22		18		183		09		37		155		31		184					
450		15		30		13		26		239		25		14		30		217		21		18		47		149		38		18		47		38					
400		234		27		22		39		241		29		237		27		43		205		22		236		29		56		151		40		236					
350		40		53		35		51		235		27		40		55		198		15		40		60		150		47		40		60		40					
300		299		51		303		50		235		25		301		53		300		54		300		54		150		48		361		52		300					
250		64		33		64		214		36		385		70		172		29		386		71		386		71		386		71		386		71					
200		384		74		387		80		229		36		385		70		172		29		386		71		386		71		386		71		386					
170		72		35		81		244		34		72		187		28		71		79		248		11		81		225		14		74							
150		71		34		83		250		34		78		187		34		76		84		258		09		87		219		20		83							
130		72		39		84		245		39		86		243		37		86		90		261		16		91		261		25		84							
110		79		37		86		243		37		90		230		20		87		93		255		16		93		264		12		94							
100		82		35		88		241		39		91		255		39		89		93		255		16		93		264		12		94							
90		85		33		89		243		37		93		257		39		91		95		257		16		95		264		12		94							
80		87		31		91		245		39		95		259		39		93		97		259		16		97		264		12		94							
70		88		29		92		246		36		97		260		36		95		99		260		16		99		264		12		94							
60		89		27		93		247		34		98		261		34		96		101		261		16		101		264		12		94							
		83		25		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		23		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		21		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		19		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		17		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		15		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		13		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		11		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		9		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		7		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		5		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		3		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		1		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32		97		102		262		16		102		264		12		94							
		83		0		94		248		32		99		262		32																							

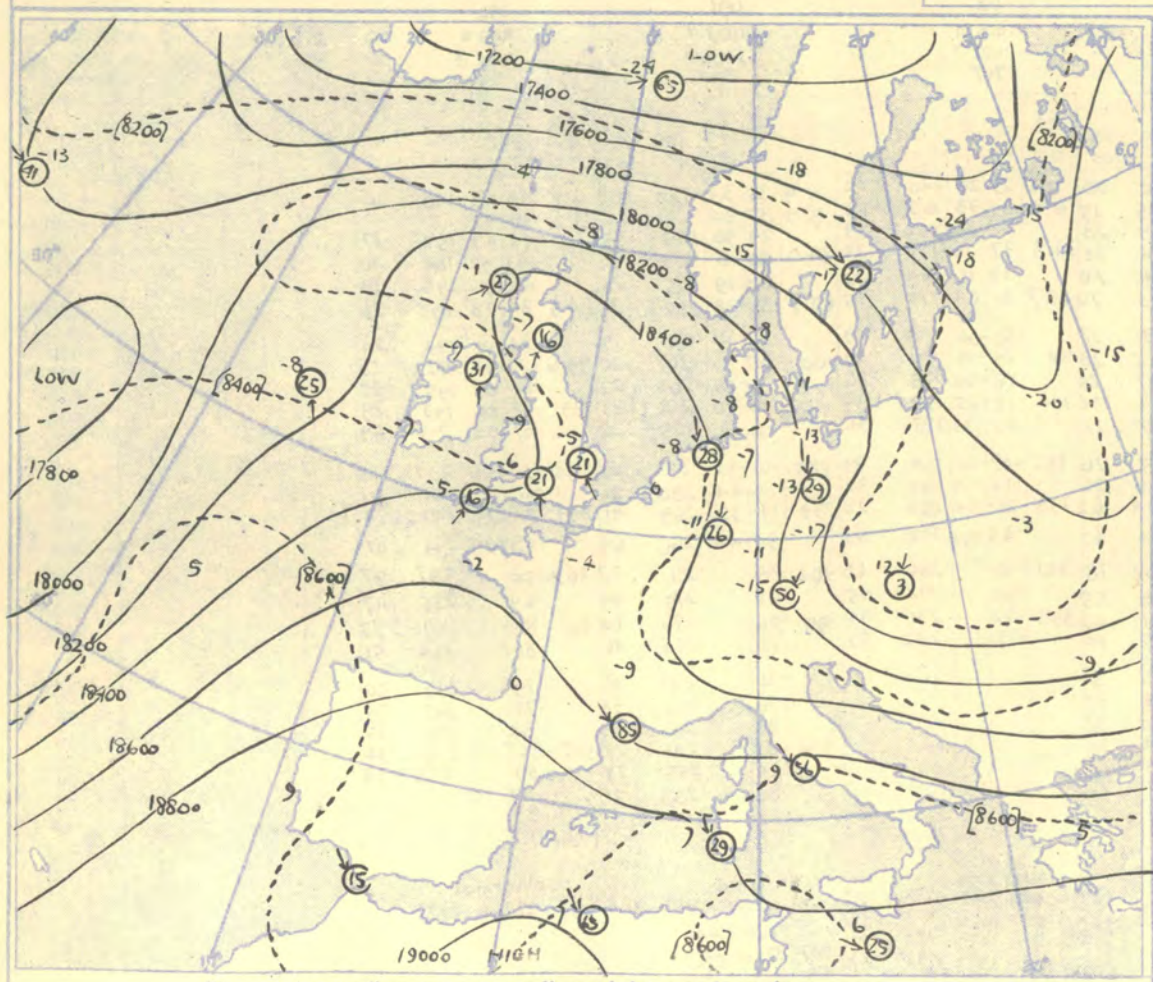
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



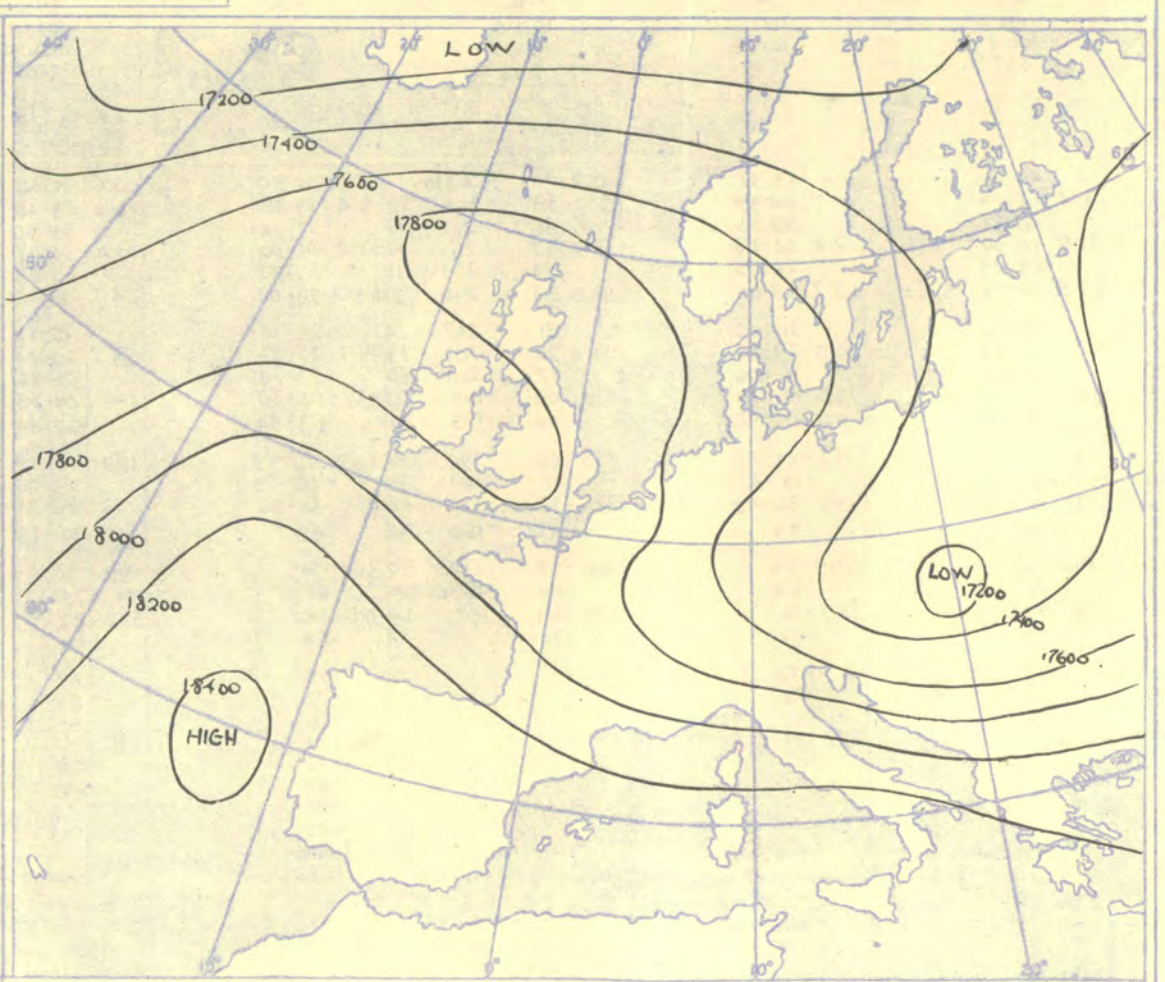
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000 - 700 mb.



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.



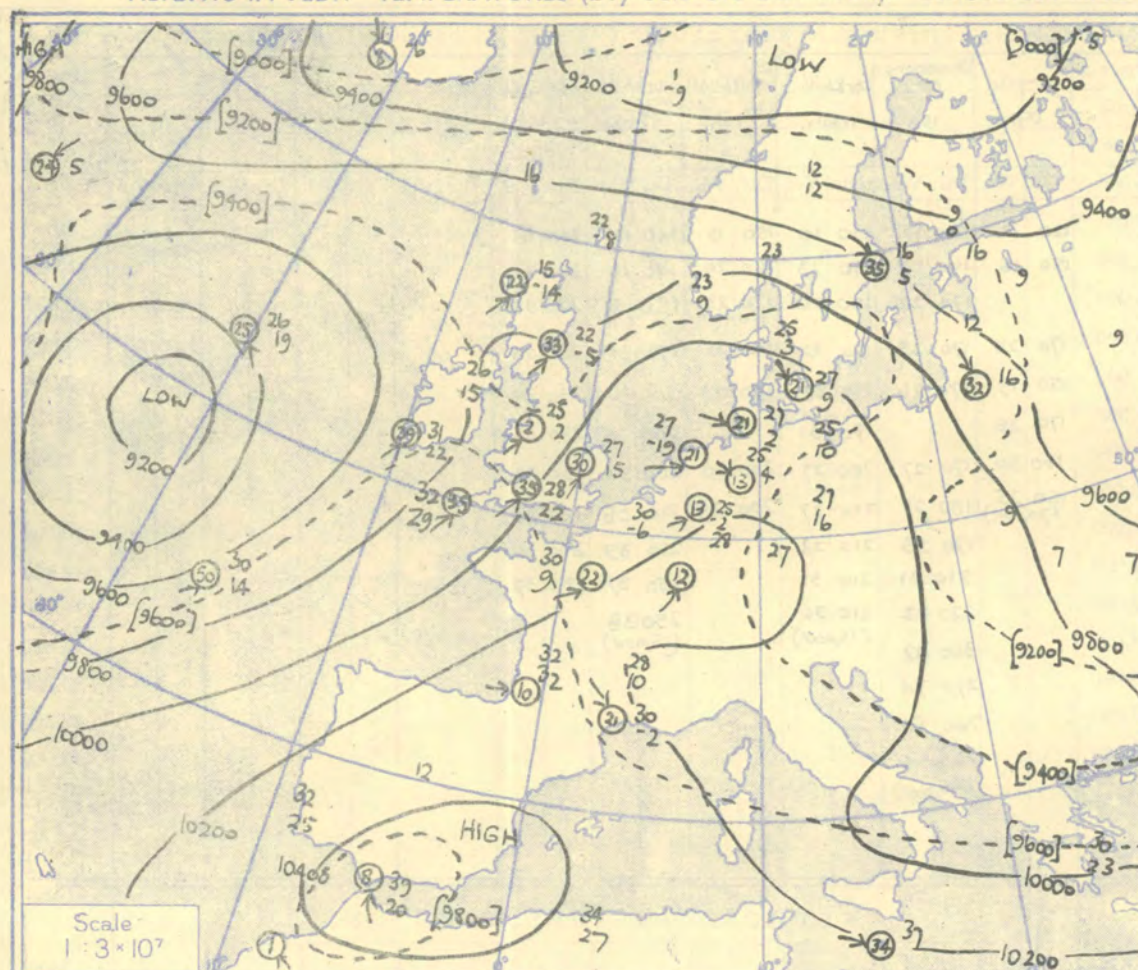
Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY														DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.															
Pressure (Time M.S.L. Surf Freezing)	43.2N 17.0W.			39.5N. 12.2W.			53.1N. 01.3E.																					Time M.S.L. Surf Freezing)	Pressure mb
	13h.			14h.			15h.																						
	1003 mb 999 mb 715 mb			1013 mb 1009 mb 660 mb			1024 mb 1022 mb 758 mb			- mb mb mb			mb mb mb			mb mb mb			mb mb mb			mb mb 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.	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																												Surf	
1000	7	59.58		65.63	0.5	46.41																						1000	
950		57.97		64.64																								950	
900		49.49		54.49	34.7	42.12																						900	
850		45.41		45.45		37.05																						850	
800		41.39		43.42	66.0	36.20																						800	
750		36.28		37.37		31.16																						750	
700	97.0	30.24	100	35.35	10.1	27.21																						700	
650		24		31		22.16																						650	
600		19		24		14.10																						600	
550		10		17		06																						550	
500	183	-1		187	09	18.6	03																					500	
450	Cloud			Cloud.		09																						450	
400	3/8 Sc			8/8 Ms.	239	23																						400	
350	950-900 mb			730 - approx		33																						350	
	2/8 As			400 mb.																									
300	approx. 600					30.4	53																					300	
250	2/8 Ci			Icing		Cloud.																						250	
200	approx. 400			light time		3/8 Sc																						200	
170	Surface or frost.			987-980 mb		5/8 Cs																						170	
	Wind S.W. in cloud			410-370 mb																									
	17-22 kts			Surface Inversion																									
				987 mb 41°																									
				580-500 mb																									
				Wind S.W.																									
				23-28 kts.																									
				950 - 43°																									
				Isotermal																									
				950-900 mb																									
				43°																									

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.

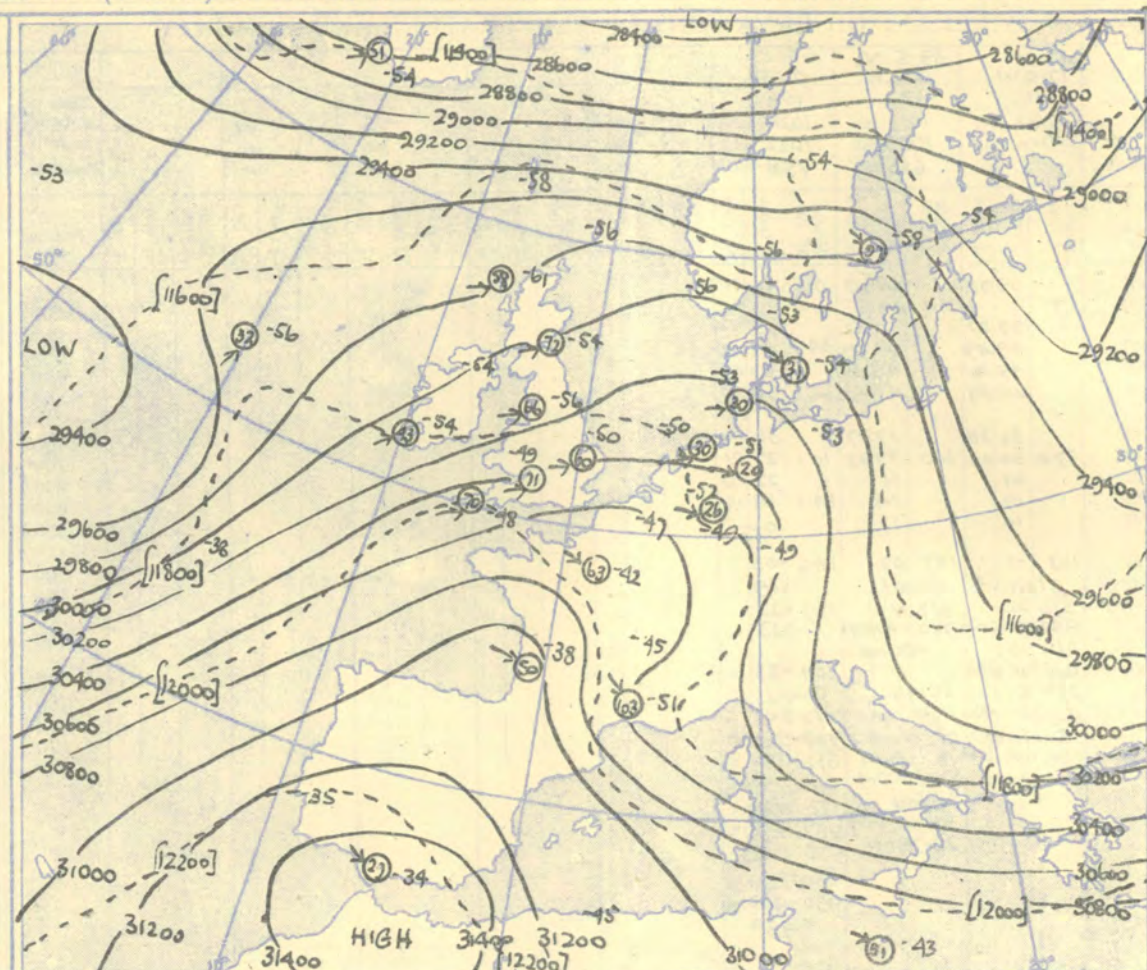
Ship					WEATHER EXPLORER					WEATHER EXPLORER					WEATHER EXPLORER																				Ship									
Lat/Long					52.5N 19.7W					52.5N 19.8W					52.5N 20.0W					52.5N 20.0W																				Lat/Long				
Pressure	Time	03L G.M.T.			09L G.M.T.			15L G.M.T.			21L G.M.T.																					G.M.T.												
	M.S.L.	1009 mb			1001 mb			997 mb			992 mb																					mb												
	Surf	1009 mb			1001 mb			997 mb			992 mb																					mb												
	Freezing	840 - 800 mb			800 mb			730 mb			710 mb																					mb												
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure											
	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb											
Surf		50	48	085 23	52	50	090 20	52	51	080 22	-2.1	52	51	060 26																			Surf											
1000	2.3	49	46		4	52	49		7.7	49	49	107 36		51	50	090 44																	1000											
950		42	37	107 30		47	38	113 36		49	49	107 34		51	50	090 44																	950											
900	30.7	38	34	108 28	29.0	41	32	127 41	28.0	45	45	117 36	26.7	47	46	119 39																	900											
850		33	30	114 25		37	28	132 33		40	40	133 31		43	41	125 33																	850											
800	61.8	32	29	118 25	60.2	32	23	135 23	59.6	37	33	132 25	58.3	36	33	122 22																	800											
750		27	25	135 25		27	19	143 19		30	25	130 25		31	26	117 24																	750											
700	96.5	22	20	168 28	94.9	20	12	162 18	94.6	26	19	144 25	93.3	25	22	105 27																	700											
650		15	12	188 35		14	03	174 20		20	14	151 24		19	16	111 25																	650											
600	135	08	02	171 28	134	09	04	180 23	134	12	07	147 25	133	12	07	129 25																	600											
550		01	08	160 21		00	12	187 26		05	00	144 22		07	01	129 19																	550											
500	180	08	15	172 25	179	09	21	188 27	179	04	14	153 20	178	07	13	133 14																	500											
450		19	27	210 33		20	32	188 27		14	23	155 22		18	24	132 21																	450											
400	233	31	37	207 31	231	34	45	195 28	232	27	32	159 23	230	26	36	134 27																	400											
350		44		203 33		49		204 31		40	44	164 30		43		136 26																	350											
300	296	57		217 40	294	65		220 32	296	56		194 32	294	58		121 21																	300											
250		64		194 26		68		216 37		74		200 39		63		143 12																	250											
200	382	66		176 25	378	68		220 33	381	68		204 35	380	63																			200											
170								228 37		66		207 29		67		226 33																	170											
150								238 31		69		208 27		68		210 23																	150											
130								240 24		70		209 22		71		230 25																	130											
110								222 20		70		216 25		73		239 25																	110											
100								205 18	525	71		243 33		74		239 23																	100											
90								190 18		73		234 29		63		243 22																	90											
80								220 20		74		245 29		78		243 20																	80											
70								284 21		78		241 20		76		275 21																	70											
60										77		240 18																					60											
										78		242 18																																



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

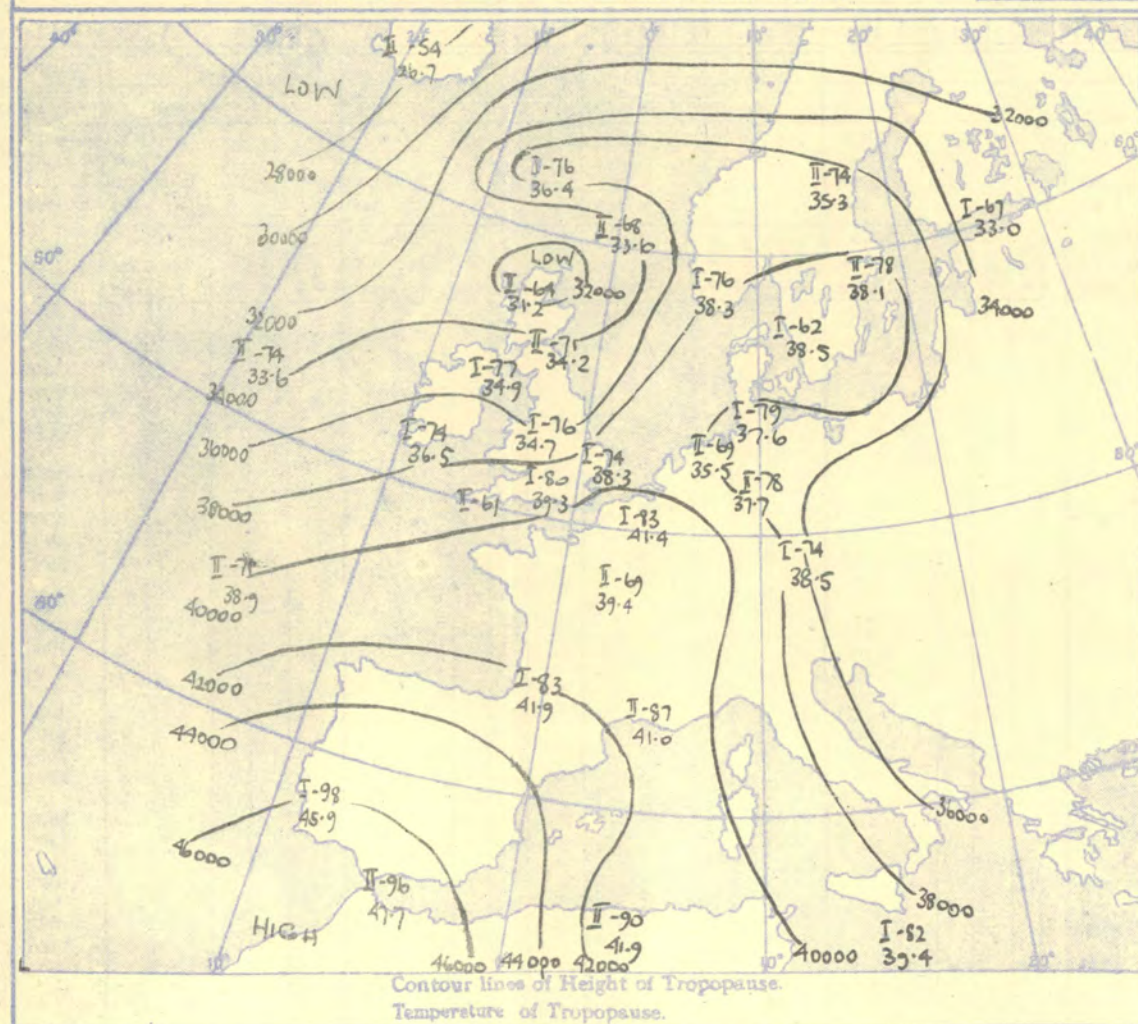
Gradient-Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 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.

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



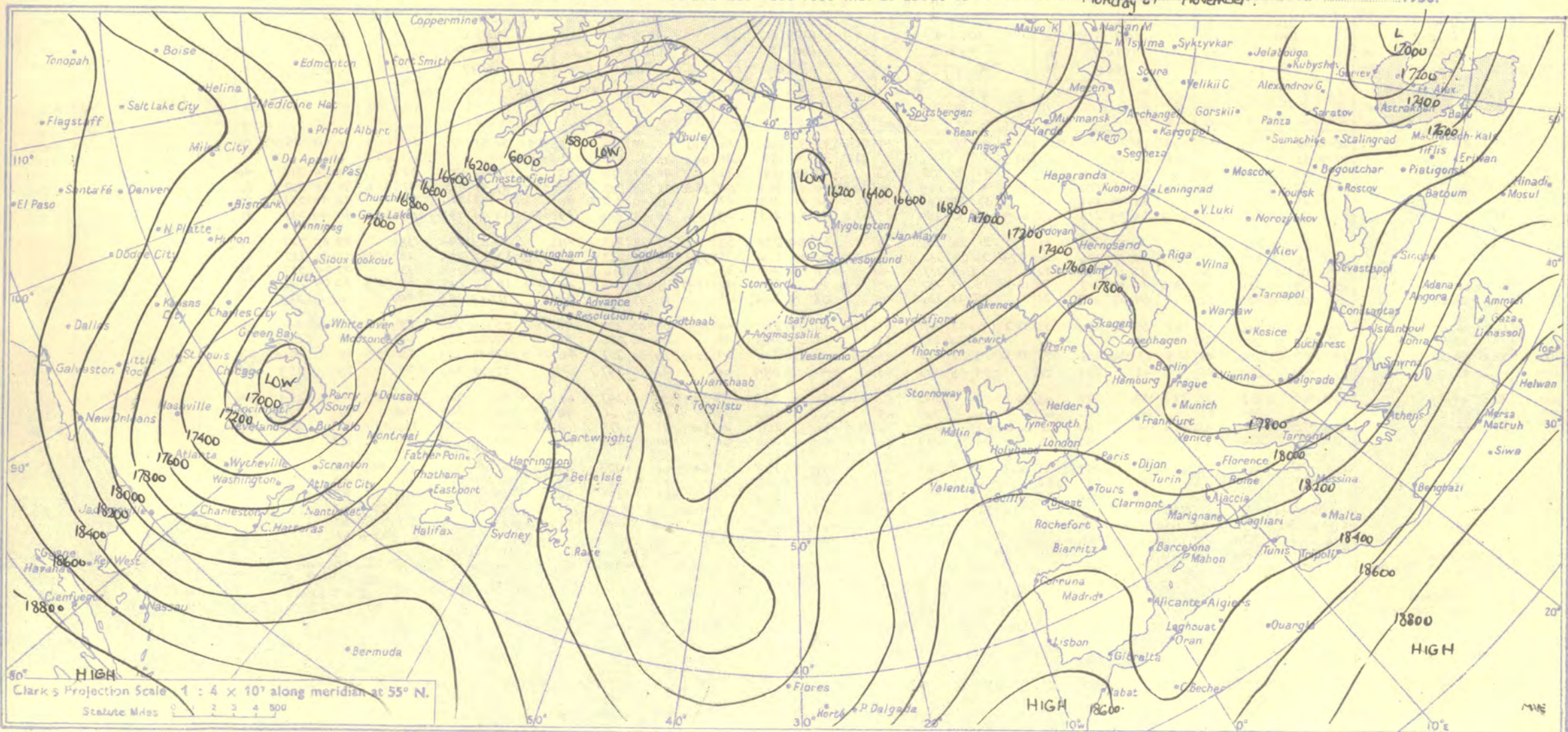
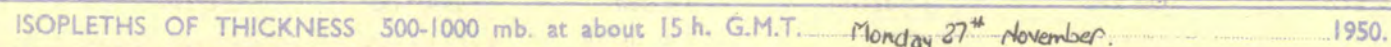
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The warm pool over Scotland, linked with the warm air over France to broaden the warm ridge which had developed to the southwest of the British Isles on the 26th. The warm ridge continued to develop by advection from the southwest and by the end of the day its axis lay from Gibraltar to England. A strong westerly thermal gradient being formed over Scotland and the Norwegian Sea.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

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



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 M.S.L. Surf Freezing	Time	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	15h.		G.M.T.	mb	Time	M.S.L. Surf Freezing																		
		1013.2				1015.8				1018.3				1018.4				1017.2				1021.9				1016.5				1009.6						1002.9																	
		1003.0				1014.1				1017.5				1007.6				1015.1				1017.5				1002.2				999.1						1001																	
878		870		772		796		758		760		700		710																																							
Pressure mb	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	°Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																				
Surf	02.7	44	42					22.0	05	00.2	38	35	CALM	02.3	40	36					00.6	34	33	140	15	01.2	40	39	115	12	4.4	43	43	150	12	02.9	54	53	135	20	00.3	51	48	080	13	Surf							
1000	02.7	44	42					22.0	05	04.8	39	35	205	11	04.3	40	36				04.5	32	31	146	27	05.8	40	39	140	24	4.9	43	43			02.7	53	50	183	49	08	51	48	080	14	1000							
950		40	35					215	19		35	31	205	11		37	33					36	36	170	29		44	24	169	27		42	41	172	27		49	47	108	26	950												
900	31.7	35	32					222	19	32.8	34	23	204	12	32.3	34	30				32.5	40	40	189	29	34.0	40	17	183	31	33.3	42	43	189	33	31.5	48	44	198	40	29.4	45	44	133	27	900							
850		29	25					226	19		30	11	203	17		33	30					37	37	201	25		38	12	196	31		40	37	194	31		46	40	202	33	29.4	42	41	16.4	31	850							
800	62.4	26	16					232	18	63.6	26	07	206	24	63.3	34	28				63.8	33	32	208	29	65.2	35	27	205	31	64.9	37	23	195	29	63.4	44	37	212	34	61.2	40	39	187	30	800							
750		26	00					227	19		24	01	216	28		31	18					31	18	211	30		31	23	203	30		30	21	196	27		36	34	224	36		36	35	204	33	750							
700	37.0	22	-08					208	22	38.0	22	-05	222	33	38.2	26	15				98.7	25	02	214	27	10.0	27	15	206	30	99.9	28	22	210	35	99.0	32	29	229	35	96.6	31	22	215	39	700							
650		16	-08					205	21		19	-09	226	30		22	02					19	07	217	28		21	05	217	33		23	21	217	38		26	23	235	38		24	18	215	42	650							
600	13.6	09	-10					211	22	13.7	11	-14	229	28	13.8	15	10				13.8	10	-11	213	29	14.0	14	-07	226	33	14.0	17	13	223	38	13.9	20	12	241	44	13.6	15	05	218	50	600							
550		02	-24					224	32		03	-19	232	29		07	-20					09	-01	223	28		06	-14	227	35		11	07	228	38		11	-02	235	38		07	-19	22.0	49	550							
500	18.1	-06	-24					234	45	18.2	-07	-26	233	31	18.3	-02	-25				18.3	-01	-09	240	35	18.5	02	-06	231	34	18.5	03	-01	232	47	18.5	03	-15	235	41	18.2	00	-26	22.4	46	500							
450		-16	36					233	59		-19	-36	241	35		-14	-27					-12	-21	240	38		-09	-15	236	35		-07	-17	237	48		-06	-29	226	44		-11	-26	24.2	47	450							
400	23.4	-26	-51					238	57	23.5	-29	-40	244	37	23.6	-25	-33				23.6	-24	-33	236	51	23.9	-22	-28	241	42	23.9	-19	-24	243	49	23.9	-18	-41	230	46	23.5	-23	-36	24.6	41	400							
350		-41						240	56		-42		249	47		-38	-46					-39	-48	243	63		-34	-40	257	57		-34	-43	255	59		-31	-55	239	61		-28	-50	23.4	38	350							
300	29.8	-56						235	58	29.9	-54		254	72	30.1	-54					30.1	-56		241	66	30.4	-50		255	60	30.5	-49		254	71	30.4	-48		242	70	23.0	-54		236	43	300							
250		-68						239	39		-68		251	73		-72						-73		238	72		-64		257	79		-66		251	95		-62		240	86		-68		235	44	250							
200	38.3	-70						230	38	38.4	-67		240	49	38.5	-74					38.5	-70		252	60	38.9	-71		261	74	38.9	-79		254	89	39.0	-73		38.5	-70		243	53	200									
170		-71						232	41		-67		241	43		-77						-72		245	51		-69		259	55		-78		258	70		-76				238	40	170										
150		-70						239	40	44.4	-71		243	45	44.4	-76						-74		242	47	44.9	-71		255	49	44.8	-82		259	64		-71				238	41	150										
130		-76						238	29		-72		243	53		-76						-79		247	49		-73		250	39		-78		256	51		-74				237		130										
110		-82						244	31		-80		245	34		-82						-79		239	39		-79		253	42		-81		254	42		-80				237		110										
100	52.5	-85						244	30	52.7	-82		250	22	52.7	-85					52.7	-81		237	34	53.2	-81		258	39	53.2	-82		255	41	53.2	-81				237		100										
90		-84						239	31		-81		252	40		-87						-83		235	38		-80		264	35		-85		253	37		-80				237		90										
80		-85						240	32		-80		252	51		-88						-84					-81		267	31		-86		260	39		-80				239		80										
70		-87									-80																-80		259	30		(7mb)-83									239		70										
60		-89																																										60									
		Inversion																																																			
		1017mb 38° - 1000mb 39°																																																			
		930.. 32° - 900.. 34°																																																			
		Isothermal																																																			
		1000 - 987 mb 39°																																																			
		805 mb 25° - 782 mb 29°																																																			

				570-550 " 09°	523-500 " 02°	985-950mb 42°			
Tropopause	II 250 mb -68° 33,600'	II 278mb -64° 31,200'	II 244mb -71° 34,200'	I 238mb -77° 34,900'	I 240 mb -74° 34,700'	I 205mb -74° 38,300'	I 196mb -80° 39,300'	II 258mb -61° 38,700'	I 220mb -74° 36,500'

STATION		LERWICK		STORNOWAY		LEUCHARS		ALDERGROVE		LIVERPOOL		DOWNHAM MARKET		LARKHILL		CAMBORNE		STATION	
Pressure	Time	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	21k.	G.M.T.	G.M.T.	Time
	M.S.L.	1010.7	mb	1011.1	mb	1011.5	mb	1008.4	mb	1009.6	mb	1015.4	mb	1012.0	mb	1008.9	mb	mb	M.S.L.
	Surf	1000.5	mb	1009.4	mb	1010.7	mb	999.6	mb	1007.5	mb	1011.0	mb	996.0	mb	998.4	mb	mb	Surf
	Freezing	888	mb	90.2	mb	846	mb	790 + 758	mb	720	mb	748	mb	697	mb	695	mb	mb	Freezing

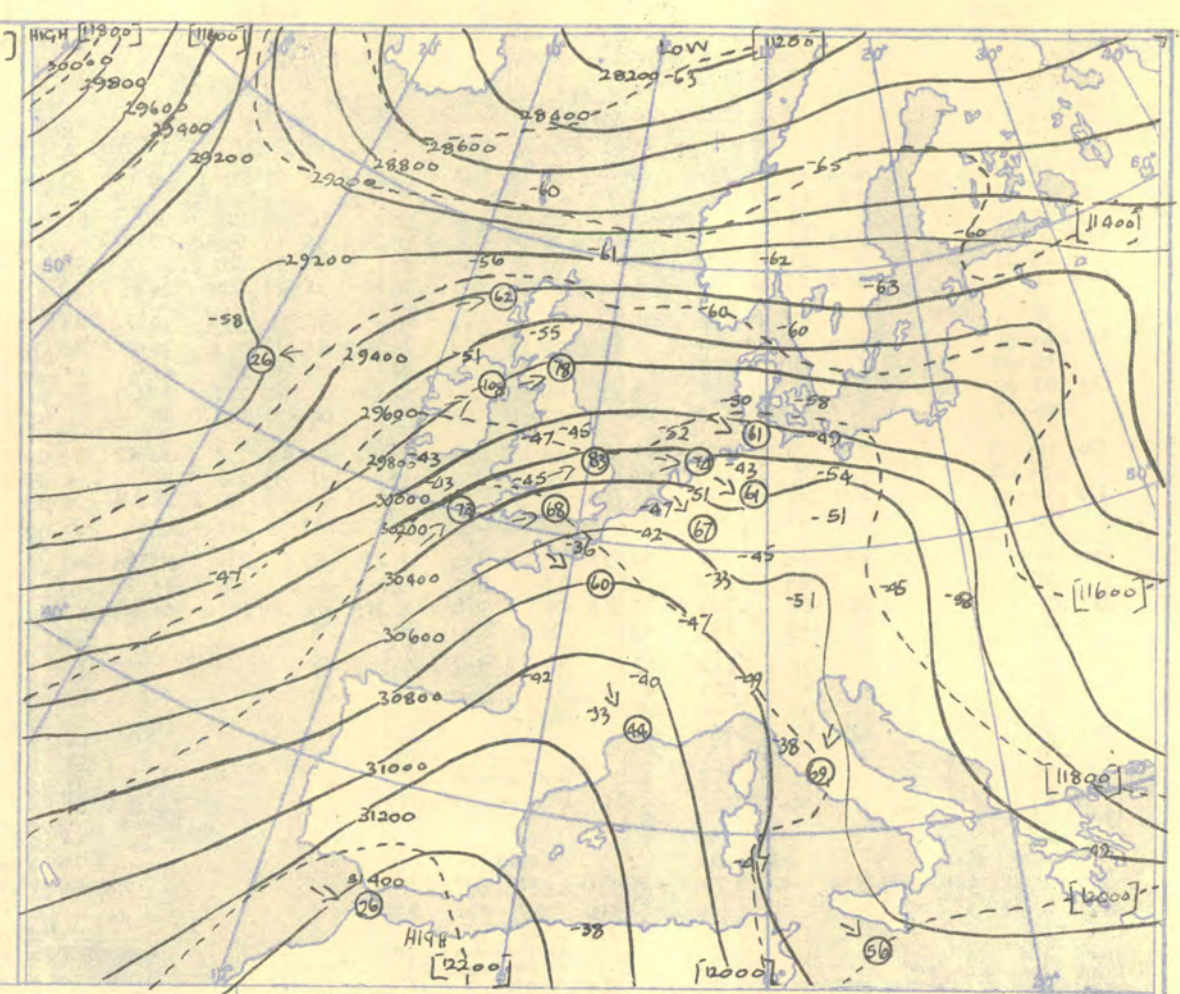
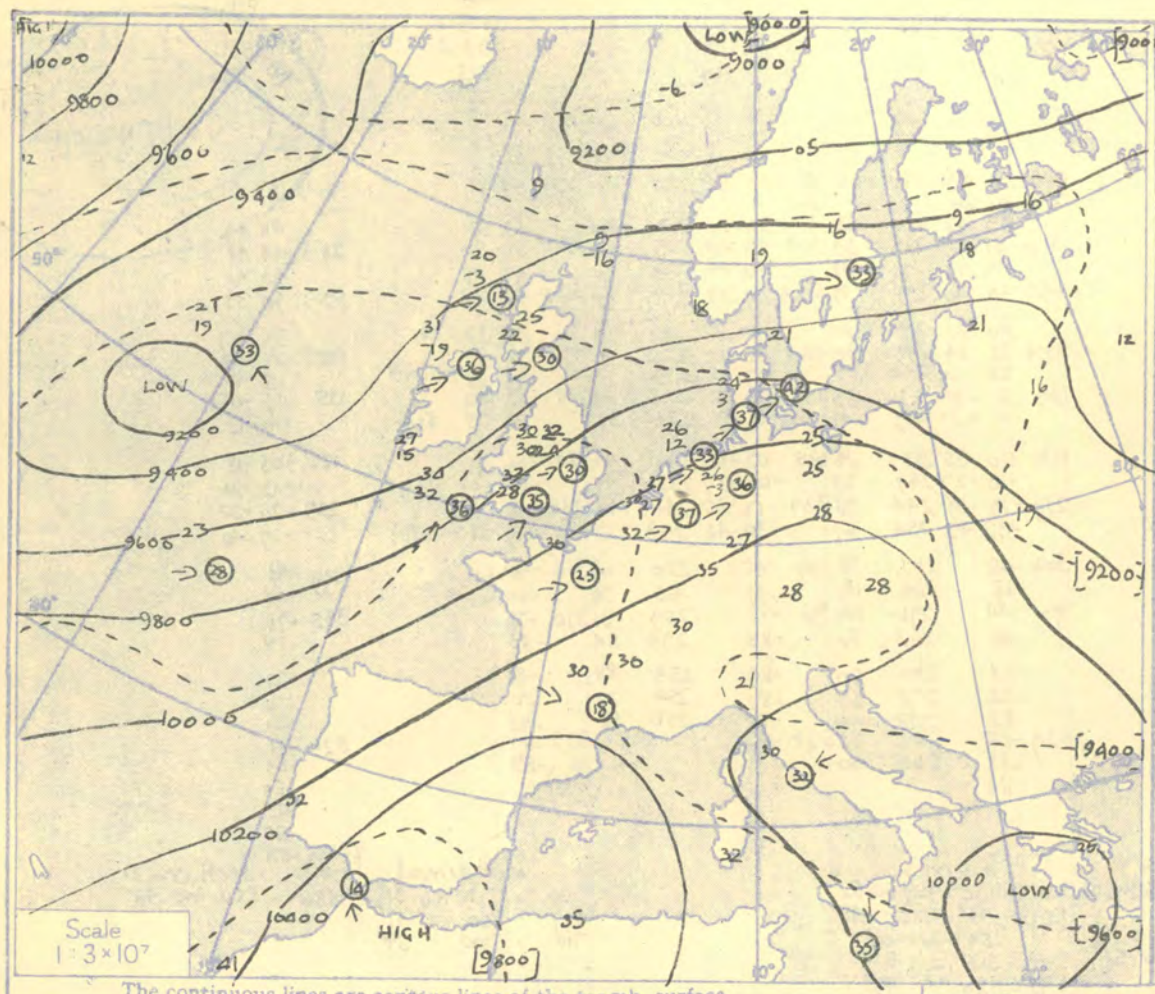
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb														
Surf	02.7	42	42		00.4	38	35	290	03	00.2	33	33	CALM	02.3	41	39	090	14	00.6	39	39	180	18	01.2	40	40	135	13	4.1	51	51	170	15	02.9	55	54	250	15					Surf
1000	02.8				01.9	42	38			03.0	34	33		02.3					02.5	39	36	152	28	04.1	39	38	170	33	3.3												1000		
950		38	37			37	33	180	12		36	33	166	11		42	39	110	15		42	38	184	32		48	47	178	35		49	49	192	32		54	54	215	40			950	
900	30.9	33	31		30.8	32	31	202	12	30.9	34	22	179	14	30.6	41	40	149	14	30.8	46	43	203	34	32.5	45	44	197	33	32.0	47	47	213	37	31.6	53	53	222	38			900	
850		28	25			26	25	211	12		33	26	196	16		44	41	162	20		44	41	214	32		42	40	215	36		47	47	226	34		48	48	222	35			850	
800	61.5	23	20		61.3	22	09	216	11	61.9	30	29	213	17	61.9	33	30	184	25	62.5	40	39	213	33	64.1	38	35	208	39	63.9	44	44	237	34	63.7	44	44	221	32			800	
750		17	13			20	12	220	10		28	27	230	19		31	28	205	29		35	34	228	33		32	28	213	41		39	39	244	28		39	35	221	29			750	
700	56.0	16	12		95.5	16	27	231	12	96.7	22	17	226	20	97.0	28	23	232	29	97.9	36	29	236	33	99.3	29	25	223	44	99.5	33	32	254	25	99.2	33	30	222	31			700	
650		08	19			16	19	234	20		15	11	222	22		22	14	237	40		23	13	243	33		24	20	236	41		25	24	256	33		27	24	227	31			650	
600	13.4	00	31		13.5	07	16	236	25	13.6	10	07	219	28	13.7	15	09	237	45	13.8	15	07	244	40	13.9	18	14	246	41	13.9	18	06	255	35	13.9	20	09	232	38			600	
550		08	38			02	18	239	32		04	02	237	31		08	21	236	45		08	09	244	43		11	07	248	34		11	18	254	40		11	12	238	40			550	
500	17.8	16	45		17.9	12	24	246	39	18.1	05	07	232	33	18.2	00	24	242	55	18.3	02	25	251	40	18.5	01	03	254	40	18.5	03	16	246	52	18.5	02	24	241	36			500	
450		23	51			24	32	242	45		15	17	232	47		10	24	239	52		14	29	244	49		09	16	256	36		08	26	245	54		08		233	52			450	
400	23.0	35	58		23.1	37	49	242	48	23.4	27	30	235	51	23.6	19	32	243	47	23.6	26	50	240	64	23.8	20	31	257	46	23.9	17	44	244	58	23.9	19		241	55			400	
350		47				50		239	55		42		232	54		34	48	243	63		41		244	60		34	51	247	54		32	53	249	54		29		253	69			350	
300	29.3	60			29.3	64		239	57	29.8	57		243	63	30.1	50		243	58	30.0	58		248	59	30.4	51		247	61	30.4	49		266	76	30.5	44		254	94			300	
250		67				71		244	53		68		240	67		66		239	65		67		266	95		65		266	90		61		267	124		61		250	123			250	
200	37.8	68			37.8	70		247	45	38.2	74		260	62	38.6	72		247	76	38.4	80		259	91	38.9	77		275	114	39.0	81		270	130	39.1	81		256	87			200	
170		70				72		244	45		74		262	55		74		239	70		75		266	60		80		265	89		72		274	103		89					170		
150		72			43.7	76		246	42	44.1	75		257	53	44.5	74		243	60		80		265	57	44.7	80		273	69	44.7	79		269	66	44.8	82					150		
130		74				77					79		257	53		76		247	61		82		248	51		83		263	49		81		266	61		83				130			
110		79									83		256	43		77		251	55		86		254	45		83		271	55		87		265	50		85				110			
100	52.1	82			Inversion					52.4	82			52.8	78			250	48	52.5	85				52.9	82		256	39	52.9	89					52.9	87			100			
90		84			1009 mb 38°			998 mb 43°	Inversion						81					Inversion					52.9	84		253	34												90		
80		86			816 - 21°			793 - 23°	1011 mb 33°	940 mb 36°				84						971 mb 39°	915 mb 47°				Inversion																80		
70					700 - 16°			666 - 19°	820 - 30°	786 - 31°														Inversion																	70		
60					Inversion																				Inversion																	60	
					735 mb 15°			716 mb 17°																																			
																																				</							

Tropopause	II 265 mb - 66° 32,000'	I 240 mb - 73° 34,000'	I 206 mb - 76° 37,500'	II 240 mb - 68° 34,700'	I 200 mb - 80° 38,400'	I 258 mb - 66° 33,500'	II 179 mb - 91° 41,200'	II 175 mb. - 89° 41,700'	Tropopause
------------	----------------------------	---------------------------	---------------------------	----------------------------	---------------------------	---------------------------	----------------------------	-----------------------------	------------

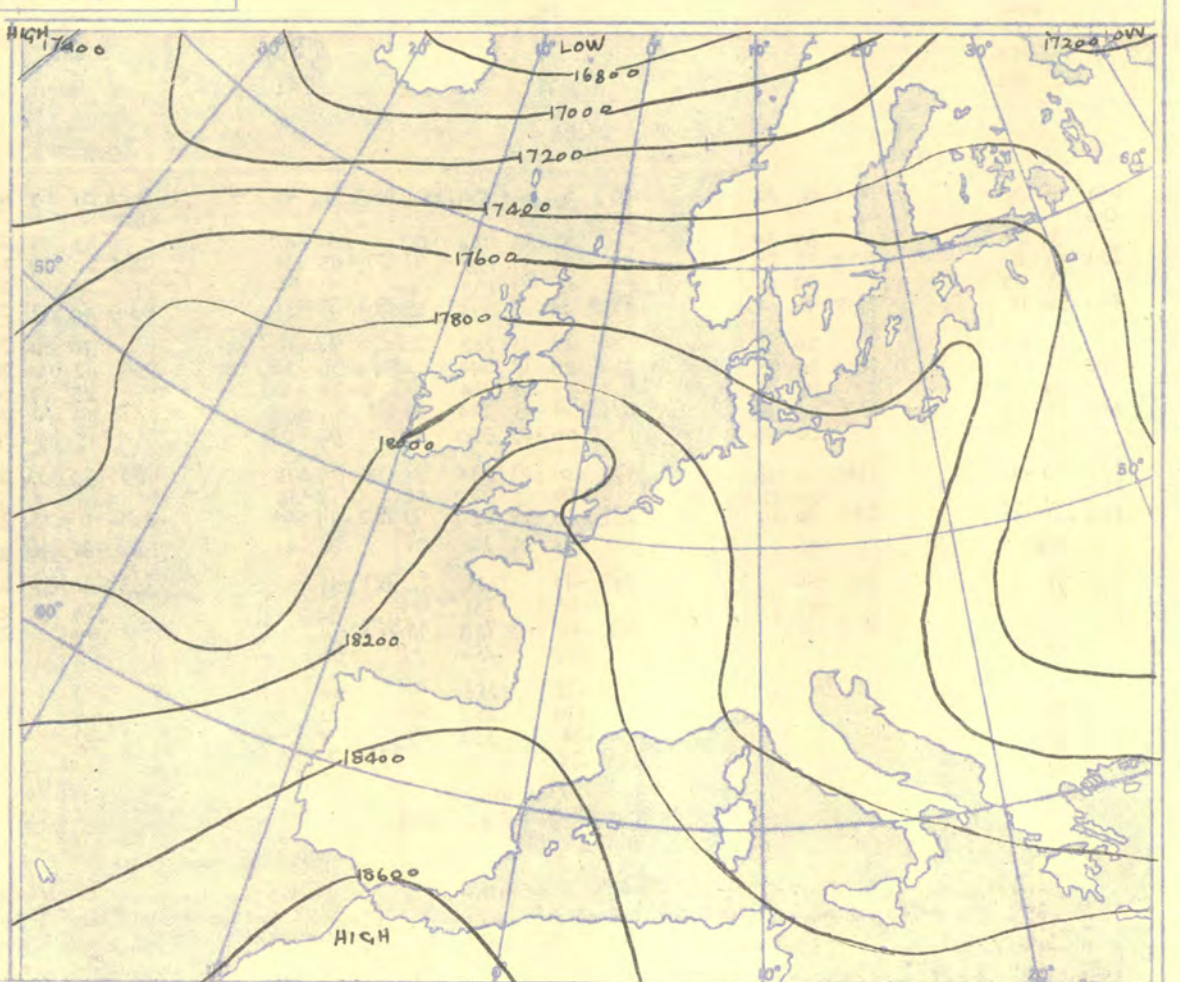
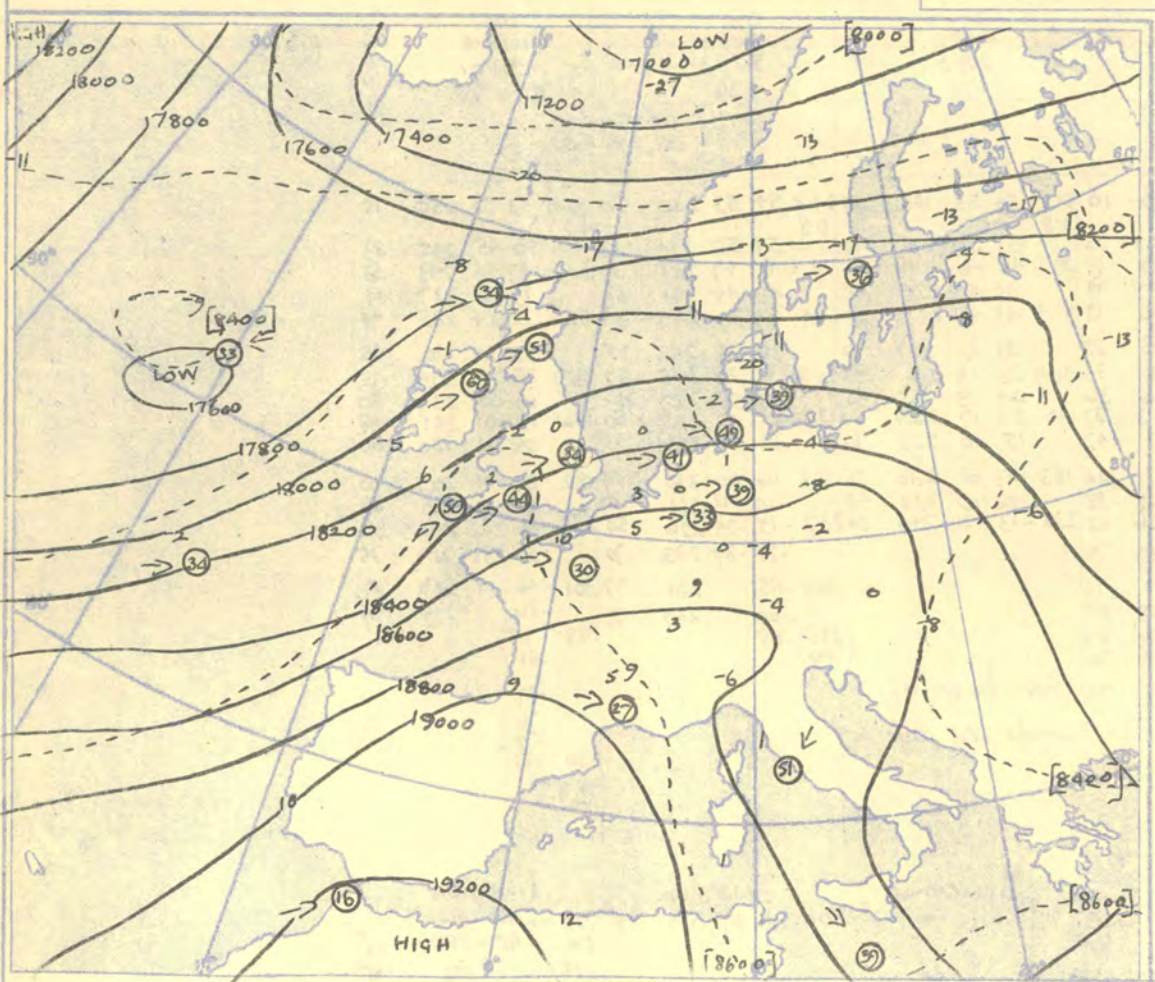
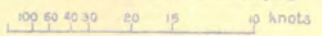
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Time M.S.L. Surf Freezing	08h 1007.1 996.9 912				G.M.T. mb mb mb				08h 1006.7 1005.0 900				G.M.T. mb mb mb				08h 1003.0 994.3 711				G.M.T. mb mb mb				08h 1004.4 1002.4 711				G.M.T. mb mb mb				08h 1003.8 994.0 700				G.M.T. mb mb mb				08h 1003.6 993.3 675				G.M.T. mb mb mb				08h 998.5 997.7 730				G.M.T. mb mb mb				Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Pressure mb	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft/100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Surf	02.7	40	39		00.4	43	35	120	03	00.2	35	34	260	03	02.3	45	44	090	800	0.6	47	16		01.2	50	49	170	10	04.4	55	54	200	20	02.9	54	54		00.3	52	51	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1000	1.8				1.8	43	38			1.7					0.8	45	44			1.2	47	16		2.8	50	49		10	04.4	55	54	200	20	02.9	54	54		-4	48	47	1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
950		37	36			38	30	L & V			38	32	212	07	29.3	45	43	158	11		51	51			52	48	280	33	31.5	48	45	225	36	52	51			48	47	950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
900	29.8	31	31		29.9	32	27	030	04	29.6	38	38	216	07	29.3	45	43	206	11		50	50		31.6	51	48	238	33	31.5	48	45	225	40	30.0	51	50		23.3	44	43	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
850		25	25			25	14	073	03		37	37	220	07		41	39	211	21		47	47			51	47	241	33		46	44	222	36	49	48			43	40	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
800	60.4	20	19		60.5	25	05	063	08	60.8	31	30	231	10	60.9	38	27	220	24	61.9	42	42		63.7	44	40	239	29	63.3	41	39	220	35	62.0	43	38		59.9	40	35	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
750		13	11			26	09	237	11		31	29	244	21		36	11	223	23		37	37			40	31	240	26		37	33	222	36	39	32	For		35	27	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
700	94.1	09	06		95.0	20	08	249	13	95.8	25	22	244	30	96.2	31	19	224	36	97.3	30	30		99.4	32	24	249	30	98.7	32	28	222	35	97.6	34	32	winds		95.2	27	19	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
650		06	32			14	04	245	21		18	16	244	24		25	34	221	43		24	16			25	16	248	34		27	22	223	34	29	28			19	16	650																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
600	132	02	05		134	08	11	253	26	135	14	01	251	42	136	18	40	222	44	137	19	11		189	21	04	246	35	139	21	15	223	33	138	23	22		135	15	01	600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
550		06	12			01	15	256	28		07	11	254	49		09	49	233	49		10	15			11	21	249	39		13	03	230	38	16	15	see		06	12	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
500	76	17	27		79	08	31	253	34	180	04	15	254	51	182	01	45	229	60	183	02	20		185	00	25	281	34	185	02	06	234	44	184	06	03		180	05	18	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
450		27	38			18	39	257	40		13	23	253	54		13	45	230	62		14	27			10	27	249	53		09	27	233	49		04	07	page		12	24	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
400	228	40	49		231	31	52	254	48	234	25	37	254	63	235	26	49	235	65	236	24	33		239	19	29	244	58	239	17	30	241	60	238	15	22		233	20	30	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
350		53				44		252	51		40	51	252	82		37	58	234	82		35	44			32	42	254	67		30	42	243	61		19	38		29	40	350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
300	290	61			295	56		245	62	298	55		250	78	299	51		230	108	301	47			304	45		261	83	304	45		250	68	304	48		299	43		300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
250		67				64		244	70		67		253	102		61		236	144		62				63		264	101		62		263	64		60		299	61	250																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
200	357	71			380	67		246	55	383	74		256	90	385	78		244	110	386	83			390	84		276	101	390	82		259	91	390	78		385	78	200																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
170		73				69		253	49		79		261	68		71					76				86			263	80		88		255	84	84		78		170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
150		75				71		260	42		79		261	57		72					81				84			261	80		89		254	85	85		77		150																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
130		77				71		257	41		78		260	56		72					83				82			275	67		82		254	77	77		78		130																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
110		79				75		260	45		80										86				85			288	46		85		256	58	58		79		110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
90	517	80			524	77		254	42										526						86			285	52	528	86			539	85	85		81		90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
80		81				79		253	42												87				87			286	50				(mb)	85		85		84		80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
70		83				82		253	41												87				88			268	50							85		85		70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
60	(mb)	87				84													(73 mb)						88												85		60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Inversion 997 mb 40° - 989 mb 41° 259 " - 68° - 254 " - 61° Isothermal 700 - 680 mb 09°																														Inversion 824 mb 22° - 774 mb 29° 1006 mb 35° - 995 mb 37° 945 " - 33° - 925 " - 38° 791 " - 30° - 774 " - 32° 925 - 865 mb 38° 650 - 640 " - 18°																														Inversion 1002 mb 41° - 961 mb 52° 800 " - 44° - 788 " - 45° Isothermal 900 - 887 mb 50°																														Inversion 1006 mb 50° - 969 mb 52° 800 " - 44° - 788 " - 45° Isothermal 969 - 913 mb 52° 872 - 836 " - 49°																														Isothermal 900 - 873 mb 51° 777 - 760 " - 41° 710 - 700 " - 34°																														Isothermal 886 - 850 mb 43°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Tropopause I 228 mb - 71° 35,300'																														Tropopause I 262 mb - 67° 32,400'																														Tropopause II 178 mb - 74° 30,700'																														Tropopause I 203 mb - 79° 38,000'																														Tropopause I 198 mb - 84° 38,800'																														Tropopause II 195 mb - 86° 39,500'																														Tropopause I 158 mb - 90° 43,600'																														Tropopause I 178 mb - 84° 41,400'																														Tropopause I 208 mb - 77° 37,600'																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Time M.S.L. Surf Freezing	09h 1002.5 991.4 903				G.M.T. mb mb mb				09h 999.5 997.8 900				G.M.T. mb mb mb				09h 998.5 997.6 787				G.M.T. mb mb mb				09h 995.4 986.8 742				G.M.T. mb mb mb				09h 997.3 995.3 700				G.M.T. mb mb mb				09h 1002.5 998.3 679				G.M.T. mb mb mb				09h 1003.0 987.3 636				G.M.T. mb mb mb				09h 1004.4 993.9 757.7 738				G.M.T. mb mb mb				09h 1003.0 993.9 757.7 738				G.M.T. mb mb mb				Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

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.



Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.



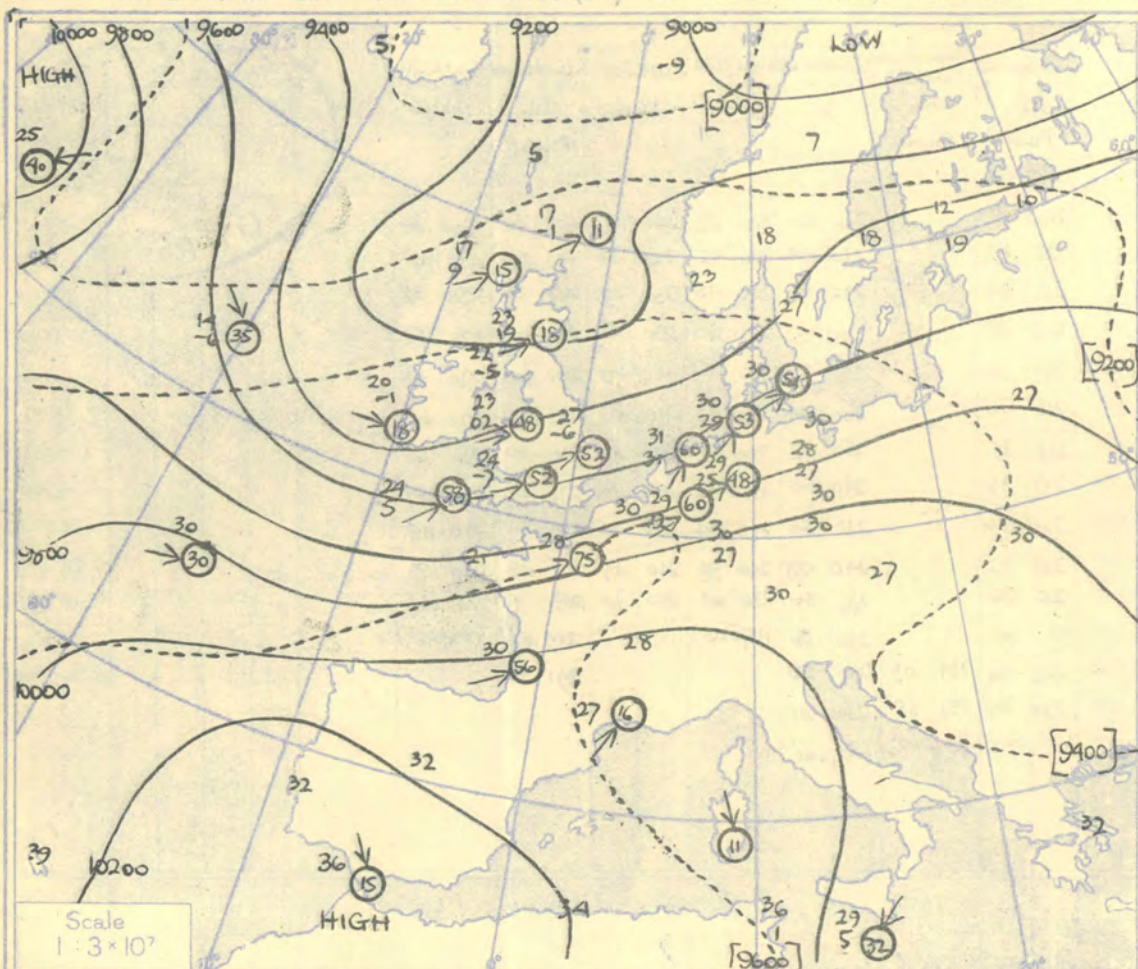
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

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													Ship	
Lat/Long	52.4 N. 20.4 W.								52.5 N 20.5 W								52.7 N 20.2 W								52.7 N 20.1 W								58.6 N 12.2 W														Lat/Long
Pressure	Time	03h. G.M.T.				09h. G.M.T.				15h. G.M.T.				21h. G.M.T.				21h. G.M.T.				G.M.T.				G.M.T.				G.M.T.				Time													
	M.S.L.	393 mb				999 mb				1010 mb				1017 mb				999 mb				mb				mb				mb				M.S.L.													
	Surf	393 mb				999 mb				1010 mb				1017 mb				999 mb				mb				mb				mb				Surf													
	Freezing	800 mb				850 mb				915 mb				905 mb				930 mb				mb				mb				mb				Freezing													
Pressure	Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Pressure																
mh	ft./100	°F.	°F.	Dir.	Vel. knots	ft./100	°F.	°F.	Dir.	Vel. knots	ft./100	°F.	°F.	Dir.	Vel. knots	ft./100	°F.	°F.	Dir.	Vel. knots	ft./100	°F.	°F.	Dir.	Vel. knots	ft./100	°F.	°F.	Dir.	Vel. knots	mb																
Surf																														Surf																	
1000	-2.0	50	49	050	21	-3.0	49	47	350	33	-4.0	46	40	320	26	-4.5	44	39	320	33	-4	43	33	360	17					1000																	
950		49	46	070	37		44	43	008	42		38	27	348	34		37	27	325	36		35	26	348	21					950																	
900	26.6	43	40	094	24	28.1	38	37	012	40	30.7	29	22	349	28	32.5	31	19	334	38	27.4	28	19	344	25					900																	
850		37	35	109	24		32	30	011	37		23	17	326	26		23	12	350	40		21	11	342	23					850																	
800	57.3	32	31	101	24	59.1	28	26	357	37	61.1	19	11	307	30	62.9	20	06	352	40	57.6	15	06	341	23					800																	
750		26	25	091	22		25	22	340	38		19	06	302	33		11	15	348	40		08	05	340	21					750																	
700	92.6	21	19	099	23	93.7	21	17	355	30	95.1	14	06	292	35	96.6	12	20	341	40	90.9	02	23	342	21					700																	
650		15	13	095	27		15	10	333	27		09	13	278	38		06	34	341	46		07	32	350	17					650																	
600	132	08	04	070	27	133	09	02	314	30	135	03	15	271	42	135	03	15	271	42	12.8	13	45	356	15					600																	
550		00	04	065	29		02	07	313	29		-06	22	262	51		-06	22	262	51		-19	52	343	15					550																	
500	176	-09	-13	037	33	178	-09	-12	327	26	178	-16	-30	265	56	179	-17	-60	323	42	17.1	-24	-57	330	18					500																	
450		-22	-27	039	29		-21	-30	298	28		-24	-42	269	53		-29	-56	329	48		-33	-60	323	19					450																	
400	229	35	-41	052	34	230	-34	-43	294	36	229	-35	-57	268	59	230	-43		338	57	222	-43		321	19					400																	
350		-49		050	35		-47		328	24	(368mb)	-43		268			-58		338	60		-52		319	24					350																	
300	291	-58		045	26	293	-62		333	23	Inversion						292	-73		338	55	284	-60		322	34					300																
250		-60		356	04		-69		328	22	800 mb 19°-784 mb 20°						-78		336	38		-65		322	31					250																	
200	378	-62		249	12	378	-64		338	15						374	-80		309	32	370	-67		319	33					200																	
170		-67		248	17		-67		353	11							-81		282	33		-69		316	36					170																	
150		-70		251	20		-71		360	11							-87		282	34		-73		299	36					150																	
130		-73		255	15		-75		350	10							-89		284	36		-75		283	36					130																	
110		-74		255	15		-78		339	09							-91		290	32		-77		293	30					110																	
100	522	-75		253	15	521	-78		334	06						512	-92		290	27	513	-79		306	22					100																	
90	(95mb)	-74					-79										-92		288	26		-81		309	18					90																	
80							-80										-94		286	24		-83		316	19					80																	
70																	-98		283	22	(76mb)	-83								70																	
60																	-99		282	21										60																	
																	-98		280	21																											
																	-96		279	19																											
																	-100																														
																							</																								

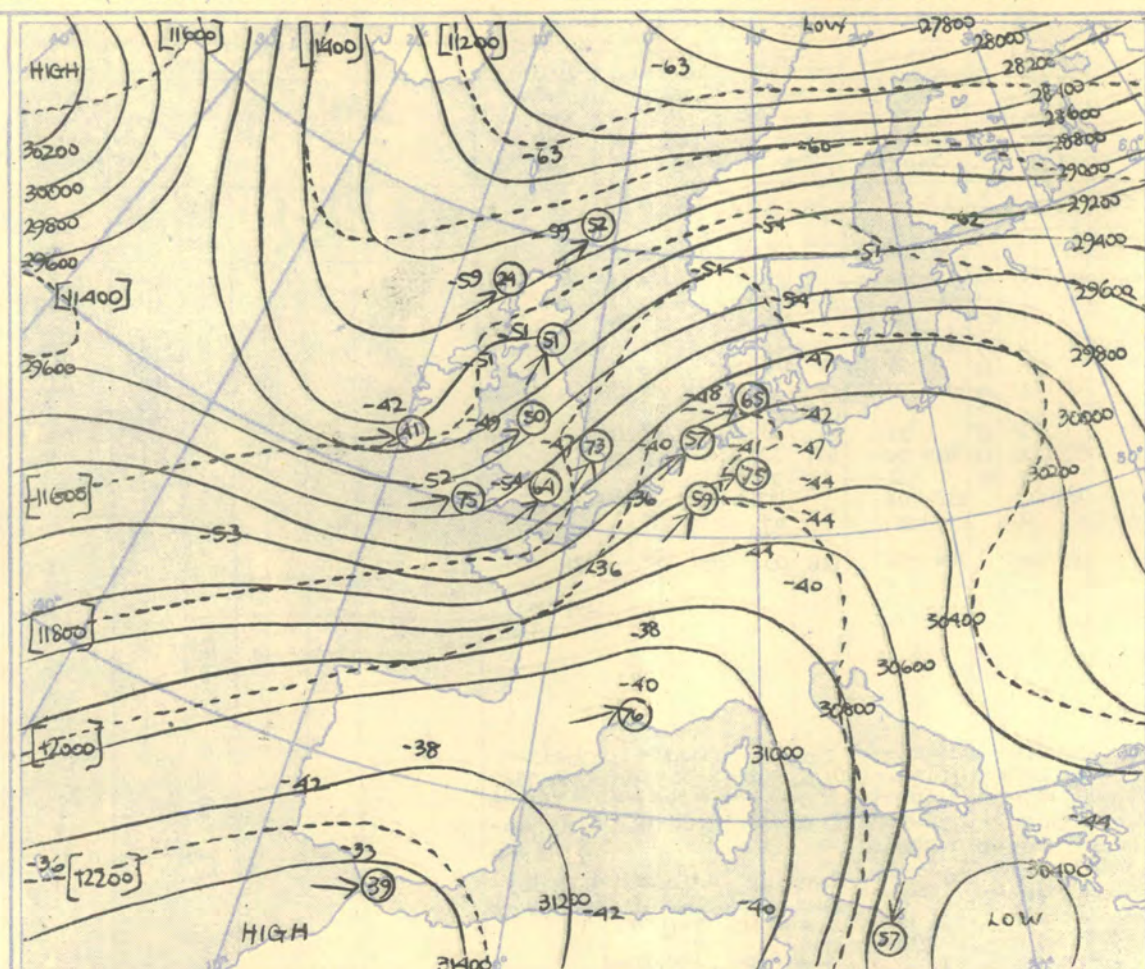
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h G.M.T.



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.

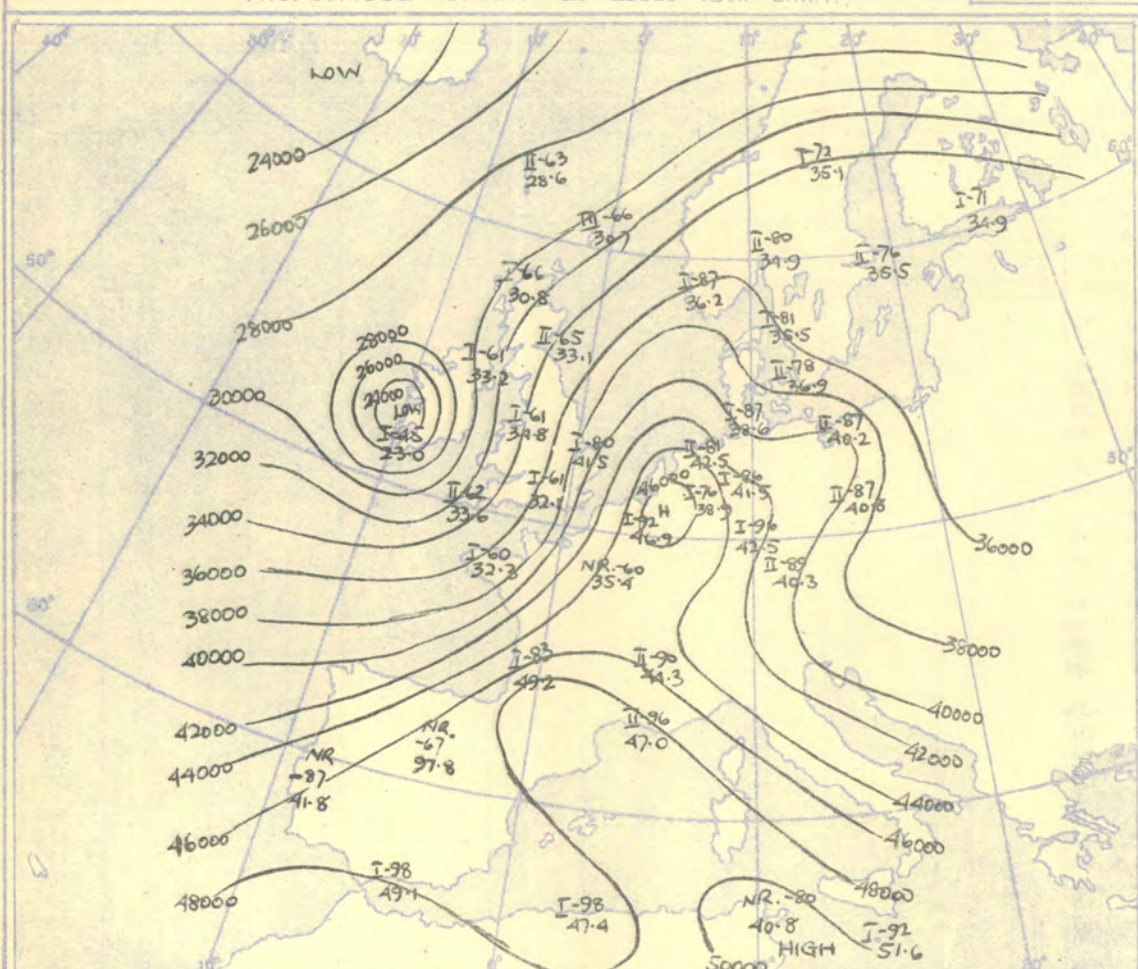
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 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.

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



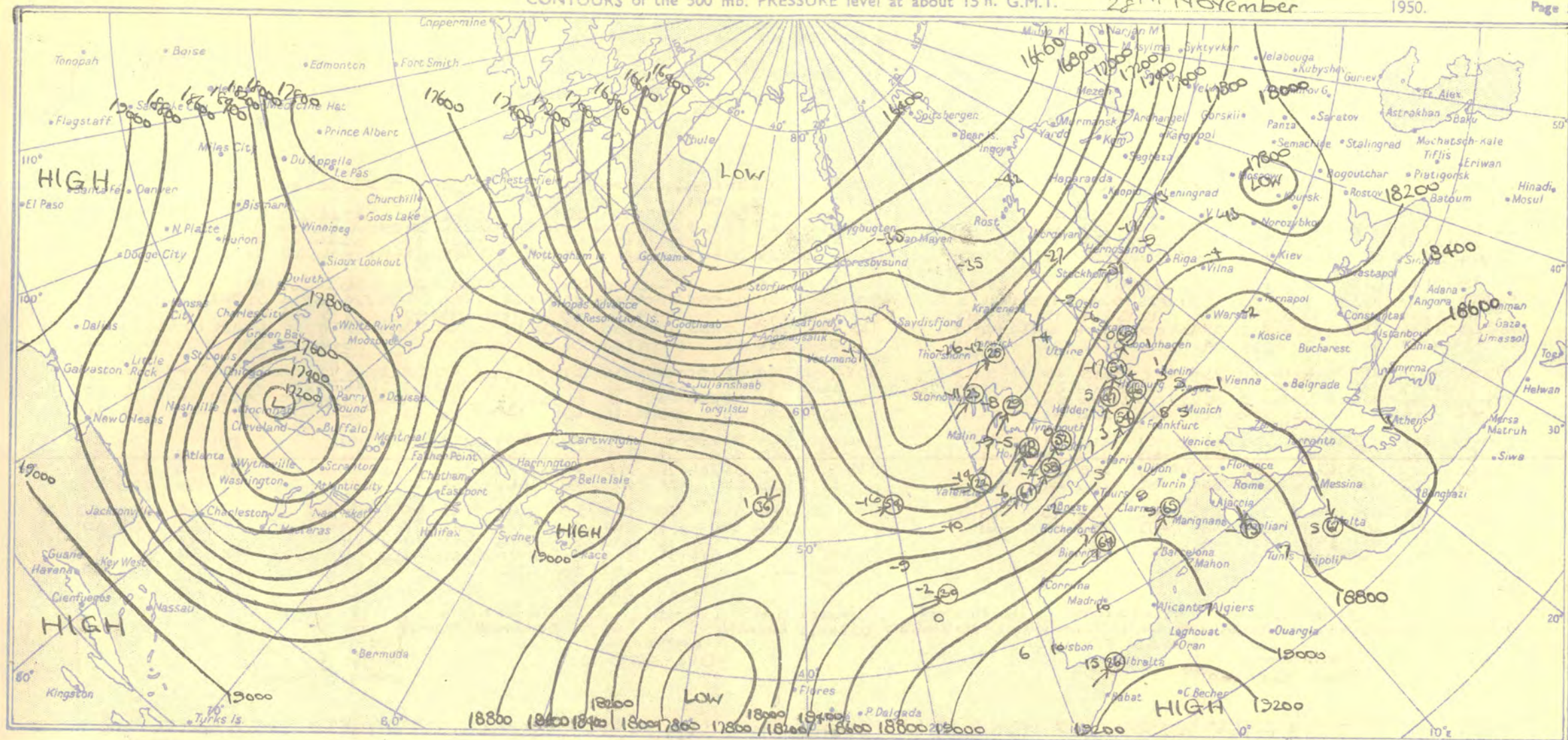
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The northern part of the warm ridge moved steadily eastward to Germany and a cold trough advanced rapidly into sea areas, Faeroes, Bailey and Rockall. The strong thermal gradient remained in the Norwegian sea but backed rapidly in the west.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

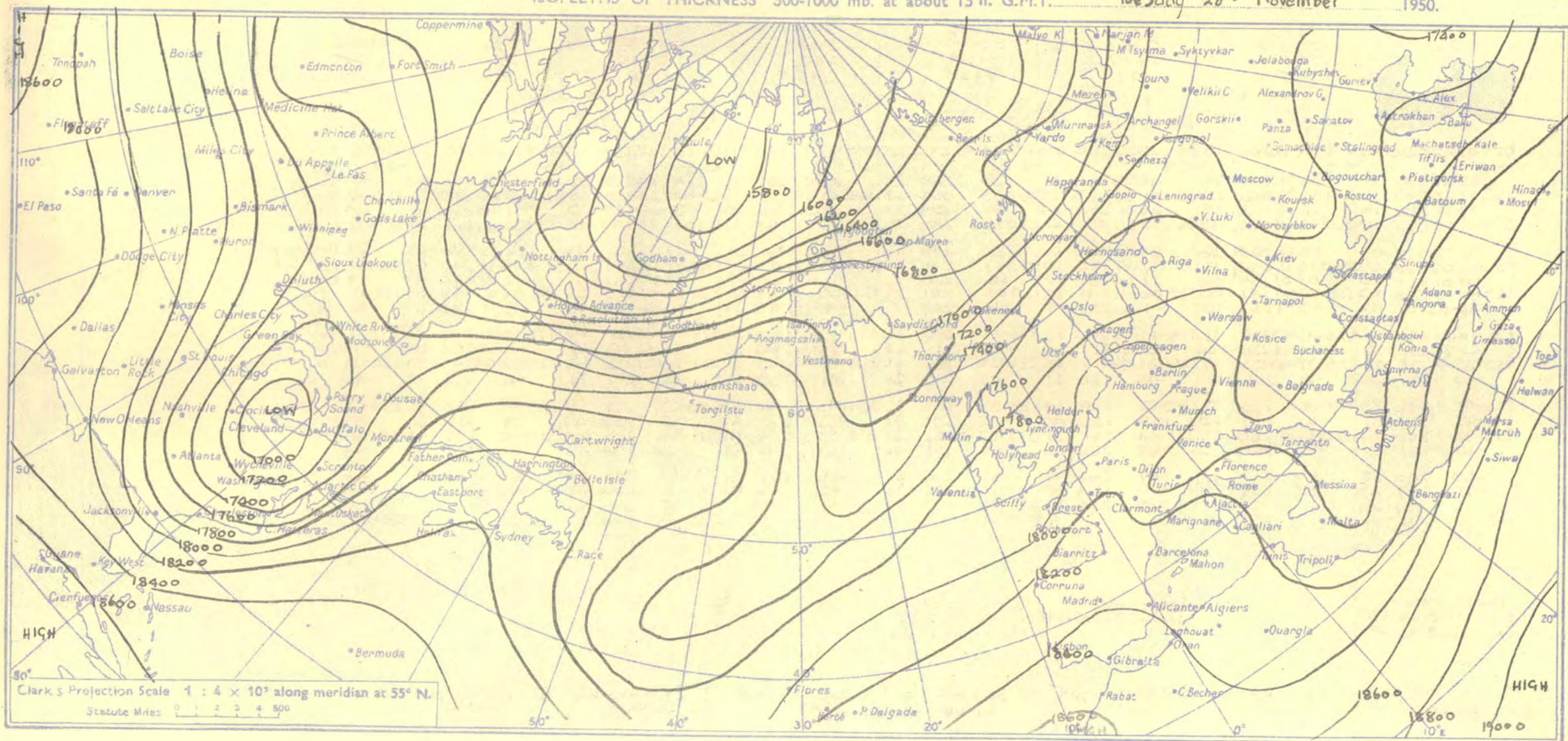
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 28TH November

1950.



Clark's Projection Scale 1 : 4 x 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.)

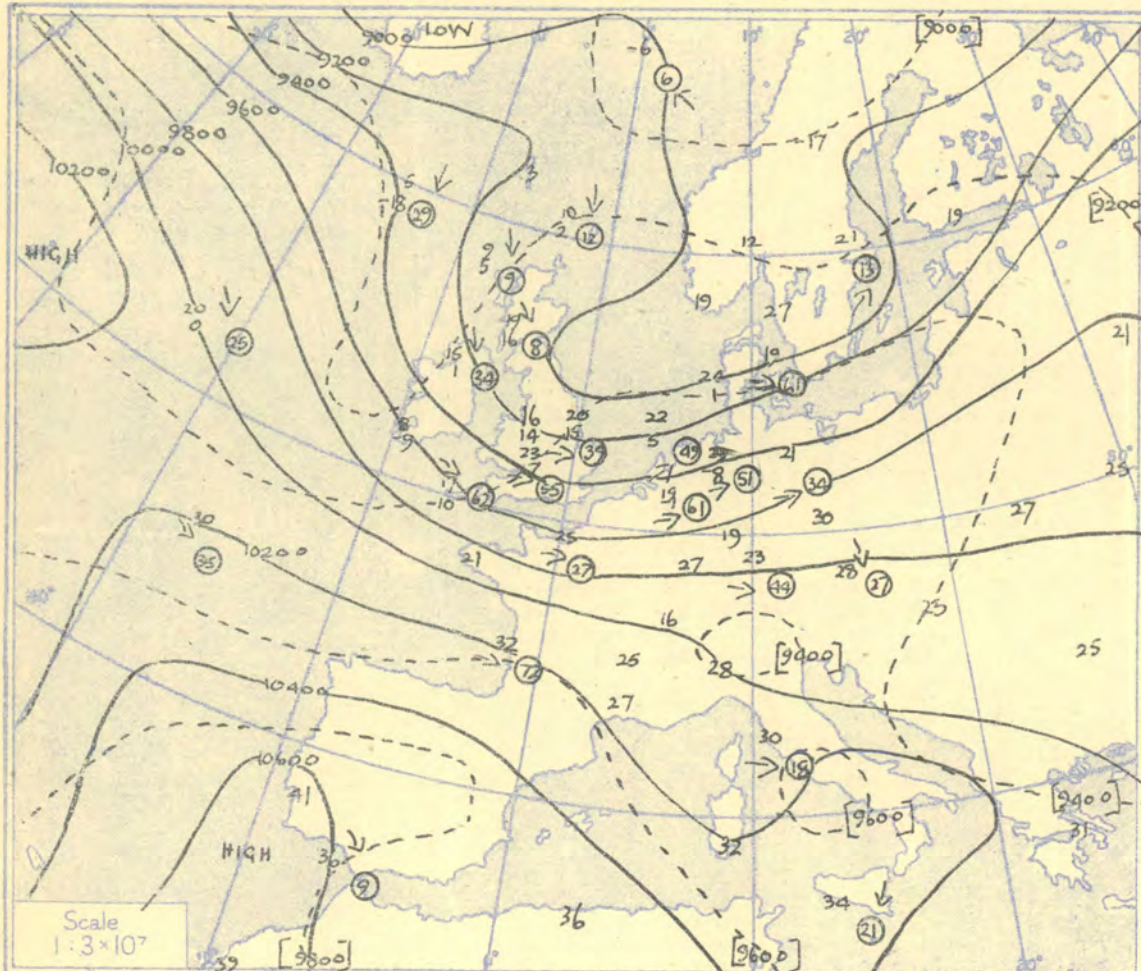
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	Time
M.S.L.	996.6	993.6	991.6	993.2	997.0	1000.6	1003.4	1004.8	991.8	M.S.L.
Surf	986.6	992.0	990.9	984.9	995.0	995.9	987.5	994.5	991	Surf
Freezing	905	902	790	825	772	750	764	829	790	Freezing
Pressure	Height	Height	Height	Height	Height	Height	Height	Height	Height	Pressure
mb	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	mb
Temp.	Temp.	Temp.	Temp.	Temp.	Temp.	Temp.	Temp.	Temp.	Temp.	Temp.
°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.
Dew	Dew	Dew	Dew	Dew	Dew	Dew	Dew	Dew	Dew	Dew
°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.
Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind
Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.
Vel.	Vel.	Vel.	Vel.	Vel.	Vel.	Vel.	Vel.	Vel.	Vel.	Vel.
knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots
Surf	02.7 40 37 100	07.0 44 36 060	10.0 27 37	02.3 47 48	0.6 52 44 240	01.2 55 53 200	01.4 52 48 250	02.9 53 50 247	25 0.3 52 49 120	Surf
1000	0.9	1.7	0.2	1.8	0.8	0.1	0.9	0.3	2.4	1000
950	37 31 070 15	38 32 054 17	38 37 053 02	44 41	49 40 243 30	52 50 241 29	47 43 251 30	47 44 232 41	48 46 222 12	950
900	27.1 31 24 077 13	32 27 039 16	35 30 233 10	102 67 41 37	27.8 44 37 247 34	28.8 45 42 256 38	29.8 42 38 256 39	29.9 41 36 238 43	26.2 43 44 233 16	900
850	26 12 088 11	28 19 062 13	33 38 238 17	26 51	36 30 253 37	44 15 236 40	41 26 231 44	35 26 238 46	38 27 247 16	850
800	57.7 24 9 020 06	57.0 26 20 084 09	57.1 33 30 252 18	57.9 30 25	59.2 35 24 258 39	60.4 37 04 252 54	61.1 36 15 248 48	61.1 29 16 239 52	57.5 33 23 258 17	800
750	19 51 43 01	24 17 086 12	28 25 259 18	28 17	29 14 254 29	32 32 250 54	30 02 247 50	30 12 238 57	26 25 263 18	750
700	21.8 17 12 41 11	17 09 235 15	19 23 19 244 18	32 62 22 5	24.1 13 02 251 48	27 06 249 82	26 02 245 52	25 8 24 05 234 58	21.2 20 11 268 18	700
650	10 12 234 13	12 03 262 27	17 13 234 19	15 13	15 6 248 41	18 4 244 47	18 16 246 47	17 3 237 60	14 10 279 20	650
600	130 04 3 233 18	30 05 6 275 09	131 09 4 224 20	132 10 18	133 13 5 247 39	135 13 9 235 52	135 13 24 250 44	135 10 11 237 63	131 07 02 276 23	600
550	3 14 237 21	3 11 237 14	02 5 222 28	02 22	03 26 246 43	06 4 240 58	06 25 250 51	05 20 238 63	3 9 275 23	550
500	175 12 24 224 25	174 11 19 237 23	176 8 16 219 29	17 5 28	178 5 27 244 48	190 00 5 235 52	181 2 38 240 58	180 6 29 242 61	176 14 18 274 22	500
450	32 34 223 23	21 30 258 24	20 28 216 35	20 44	16 37 245 51	8 22 232 55	12 47 239 54	16 38 237 73	26 35 277 23	450
400	27 32 228 31	22 30 42 257 36	22 8 30 28 230 39	22 30 53	231 27 49 241 48	234 19 27 237 61	234 25 52 232 54	233 27 48 240 74	227 38 46 278 24	400
350	44 215 43	46 250 30	40 230 44	42	37 31 236 53	32 39 221 63	38 58 226 65	39 55 242 75	41 267 31	350
300	290 59 227	290 59 222	292 51 216	512 55 51	296 49 235	299 47 221	298 54 224	64 297 52	291 42 256 41	300

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

November
 METEOROLOGICAL
 LIBRARY
 VALENTIA
 DEC 1950
 G.M.T. 11.11
 03L
 10100
 1008
 912
 Station
 M.S.L.
 Sun
 (Freezing)
 OFFICE

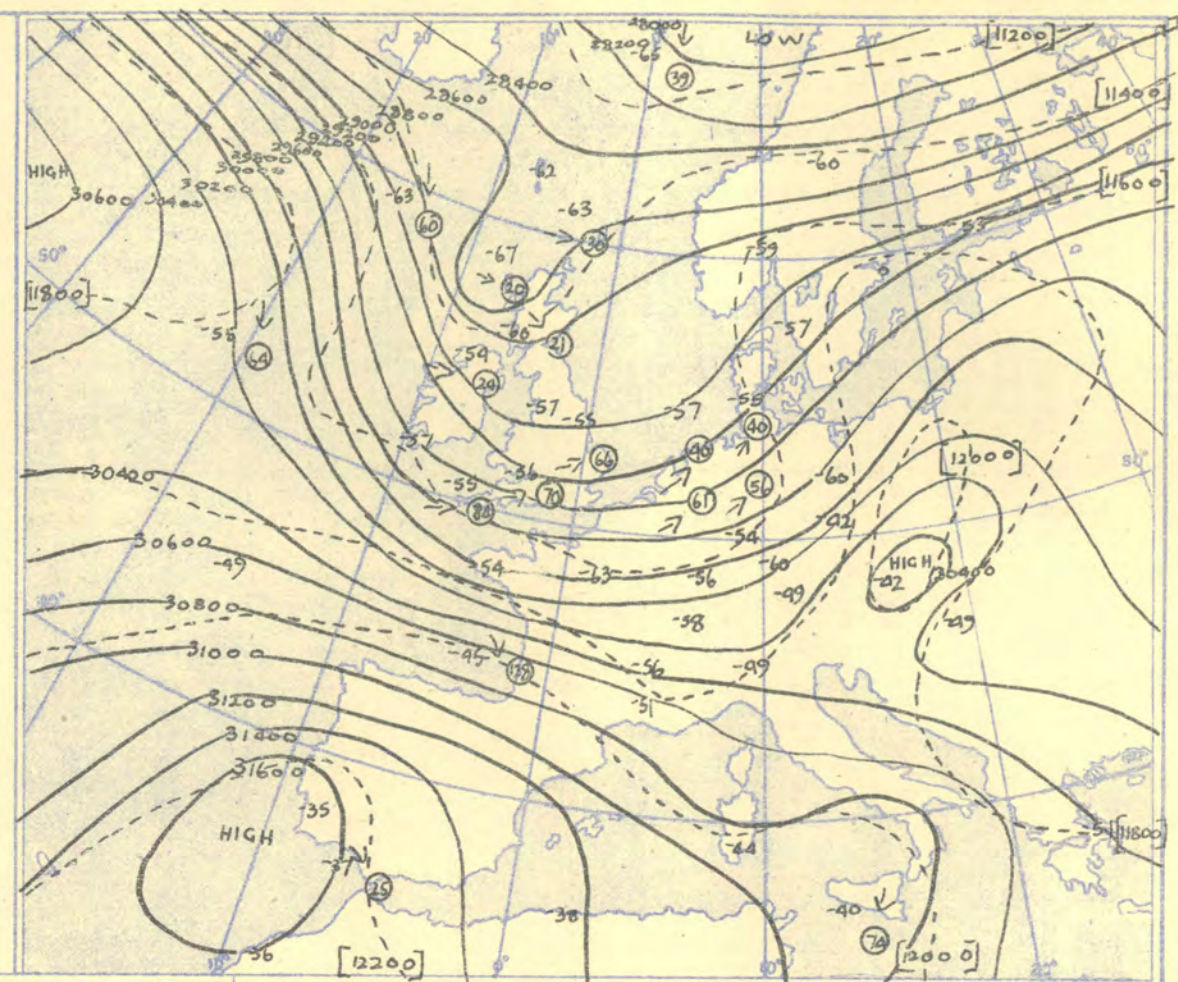
[illegible]

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.

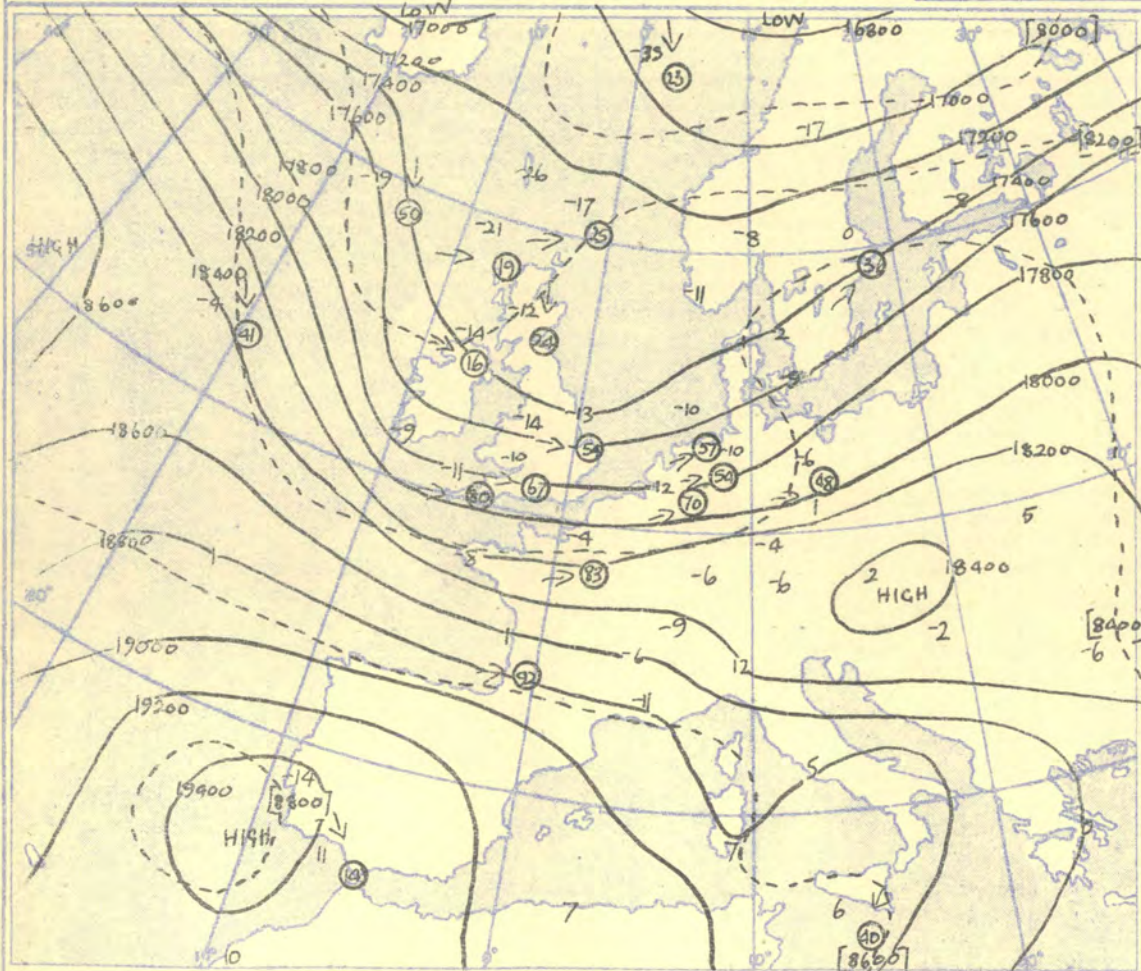


The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

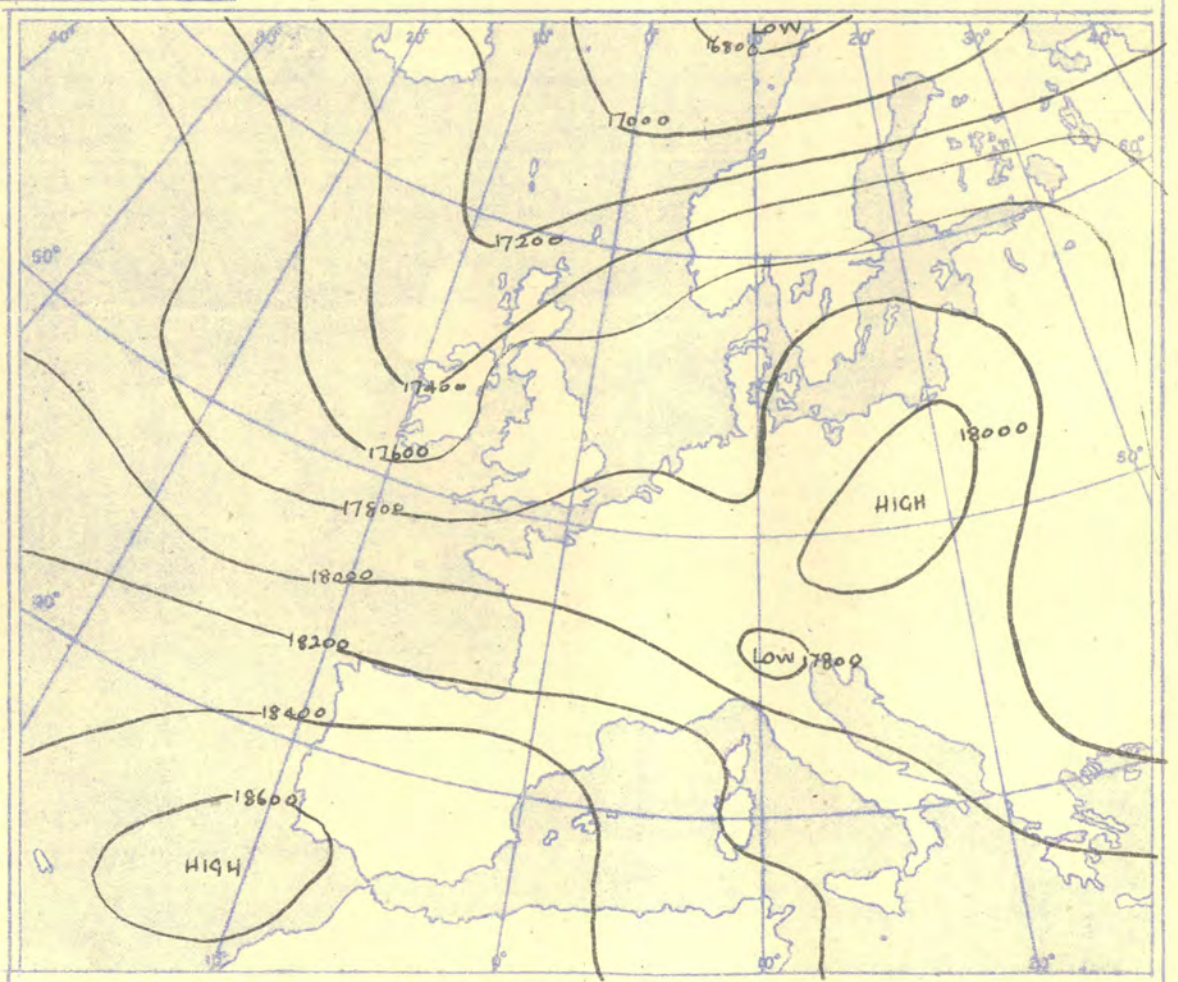
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.



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



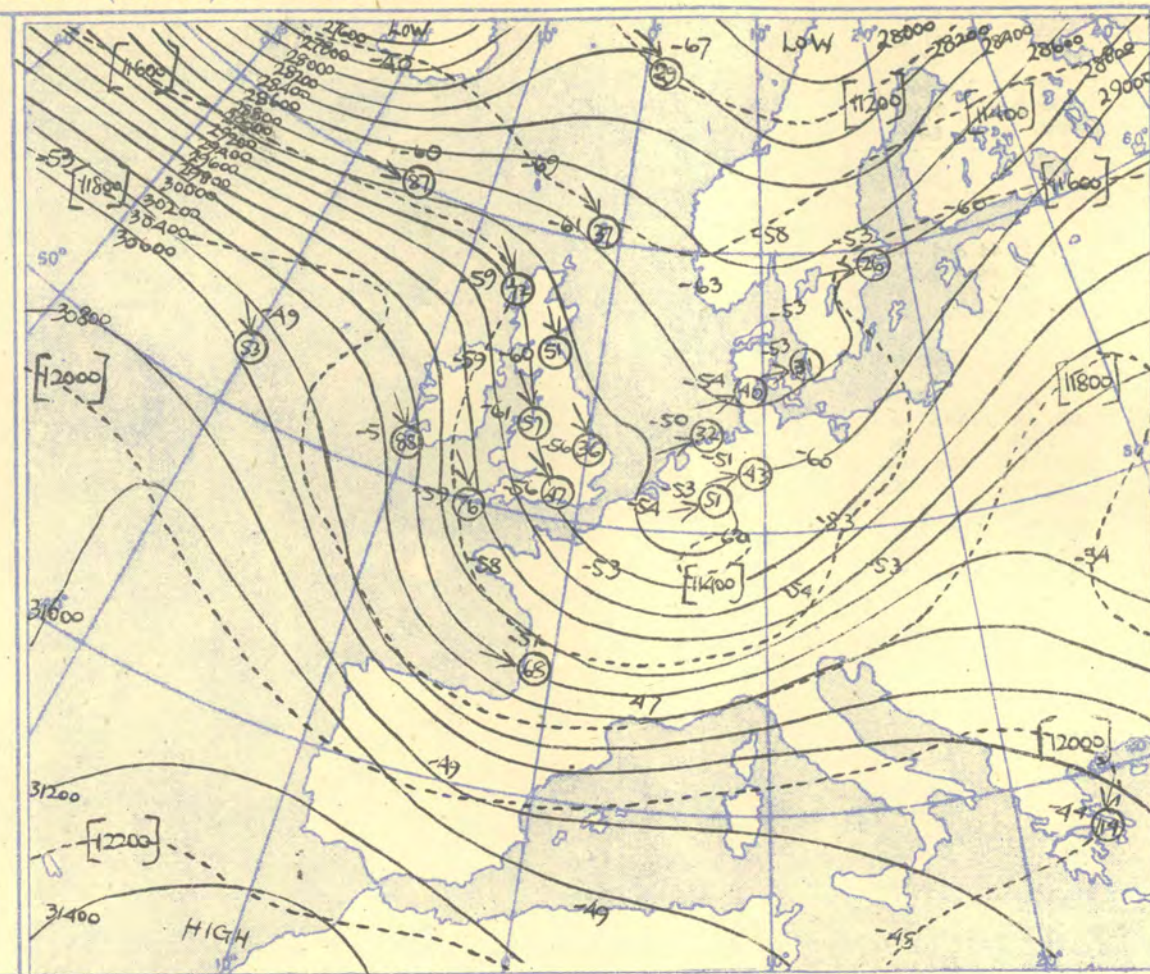
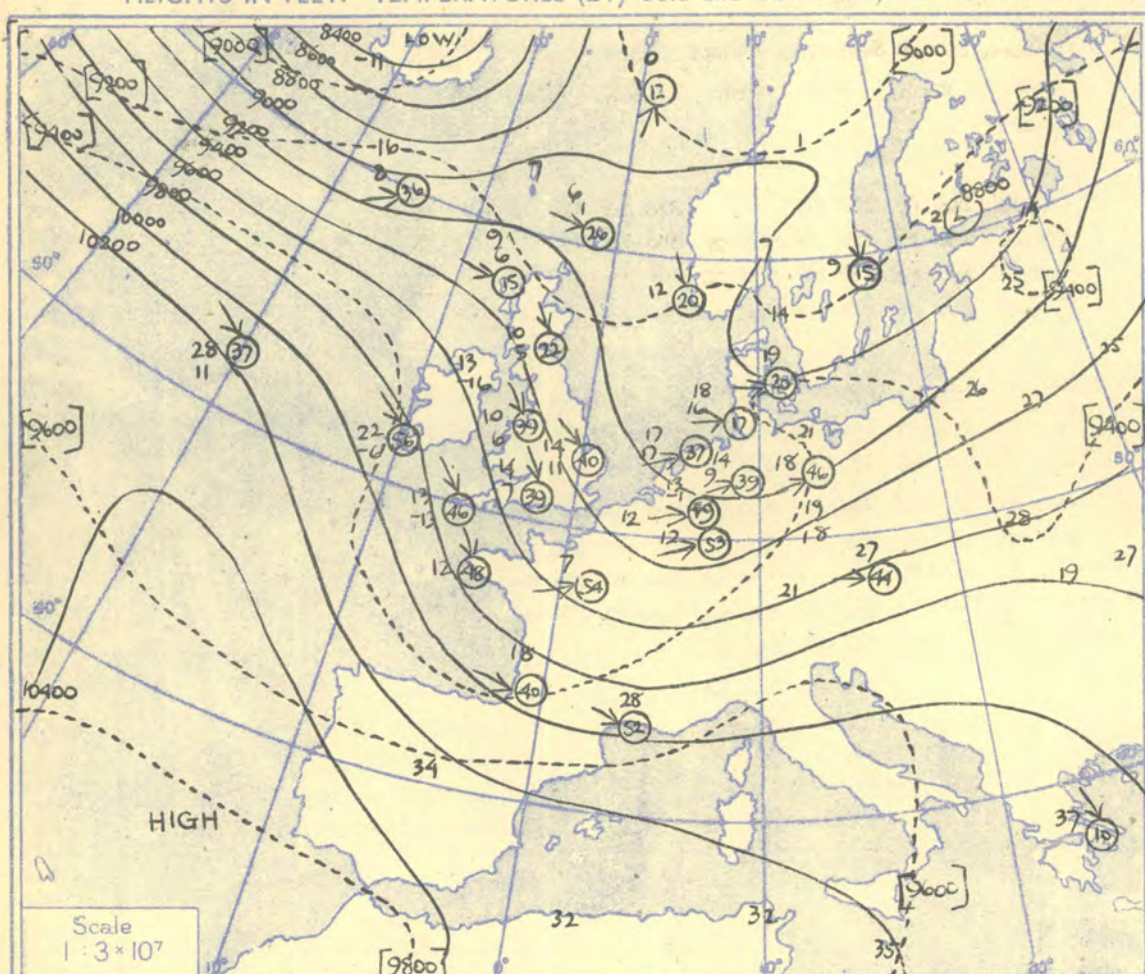
Isopleths of Thickness 500-1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																			
Time		48° 24' 20" SW.		53° 14' 01" SE.															
M.S.L.		1034 mb		994 mb		mb		mb		mb		mb		mb		mb		mb	
Surf		1030-2 mb		992 mb		mb		mb		mb		mb		mb		mb		mb	
Freezing		800 mb		861 mb		mb		mb		mb		mb		mb		mb		mb	
Time		10h.		15h.															
M.S.L.		1034 mb		994 mb		mb		mb		mb		mb		mb		mb		mb	
Surf		1030-2 mb		992 mb		mb		mb		mb		mb		mb		mb		mb	
Freezing		800 mb		861 mb		mb		mb		mb		mb		mb		mb		mb	
Pressure		Height		Height		Height		Height		Height		Height		Height		Height		Height	
mb		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100	
Temp.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.	
Dew		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.	
Surf		48		44		0.5		46		40		39		36		36		34	
1000		7.1		44		35		-1.6											
950		37		33		40		39											
900		37.2		36		30		26.6		36		36							
850				35		34		34											
800		68.3		32		57.4		23											
750				31		19													
700		103		29		91.5		14											
650				23		08													
600		143		16		130		04											
550				09		-06													
500		187		01		174		-17											
450						-28													
400						226		-37											
350						-50													
300						288		-58											
250																			
200																			
170																			
Cloud.		5/8 Sc 940-		7/8 Sc 920-		8/8 Sc 850-		8/8 As 620-		6/8 As 530-									
940mb.		890mb.		820mb.		540mb.		520mb.											

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																	
Place	Camborne		Larkhill		Shoeburyness		Valentia		Larkhill		Larkhill		Downham Market				Place
Time	09h.		1130h.		10h.		15h.		1730h.		2330h.		22h.				Time
Type	Pilar																Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	290	25	280	18	260	16			320	20	270	10	300	08			Surf.
1,000	302	30	280	27	270	33	300	21	310	35	290	24	300	30			1,000
2,000	305	42	290	30	290	38	300	26	310	39	300	27	310	27			2,000
3,000	303	42	300	35	300	45	300	30	320	44	310	29	320	28			3,000
4,000	302	40	300	40	300	46	300	36	320	43	320	30	330	26			4,000
5,000	302	42	300	39	300	47	300	40	320	41	320	30	330	25			5,000
6,000	300	45	310	37	300	44	310	45	320	37	320	30	330	25			6,000
8,000	300	39	310	36	290	40	310	51	320	31	310	39	330	27			8,000
10,000	309	42	320	33	280	37	320	56	320	33	330	45	320	27			10,000
14,000	301	46	320	28	270	26	320	67	320	49	330	54	330	44			14,000
18,000	291	53	340	29	270	37	320	82	330	50	330	54	340	58			18,000
24,000	301	55	(15,000')		270	55	320	67	(16,000')		(15,000')						24,000
30,000	(23,000')				260	61	330	85				340	75				30,000
40,000					270	43	310	64				320	50				40,000
50,000					280	39	310	56				310	25				50,000
					290	37	(44,000')					330	22	(60,000')			
					(53,000')							320	20	(70,000')			
												350	18	(80,000')			

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		52° 6' N. 20° 0' W.				52° 5' N. 20° 1' W.				52° 3' N. 20° 0' W.				52° 1' N. 19° 9' W.				59° 0' N. 13° 0' W.				59° 5' N. 13° 9' W.				60° 1' N. 15° 1' W.				60° 4' N. 15° 7' W.				Lat/Long					
Pressure (Freezing)	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.		Time					
	M.S.L.	1024		mb		1025		mb		1024		mb		1023		mb		1006		mb		1006		mb		992		mb		982		mb			M.S.L.				
	Surf	1024		mb		1025		mb		1024		mb		1023		mb		1006		mb		1006		mb		992		mb		982		mb				Surf			
	Freezing	916		mb		730 + 790		mb		740		mb		740		mb		956		mb		930		mb		875		mb		910		mb					Freezing		
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. ° knots	Pressure mb						
Surf		46	38	290	18	46	43	270	18	48	46	255	26	50	49	245	25	42	37	350	36	44	33	240	20	45	43	260	23	43	43	260	35	Surf					
1000	6.4	43	34	310	27	43	40	265	28	46	44	269	40	48	47	264	33	41	36			43	33	240	20	45	43	260	23	43	43	260	35	1000					
950		36	30	300	25	35	34	285	27	47	33	271	42	46	35	275	36	31	24	003	27	35	27	242	21	40	31	250	33	38	37	263	54	950					
900	34.3	20	26	291	23	34	7	285	27	46	21	274	41	46	32	281	40	23	15	003	29	28	20	246	23	35	26	254	44	25	26	260	56	900					
850		29	19	298	23	34	10	294	30	41	24	287	37	41	22	276	37	18	09	003	24	28	16	248	26	28	20	257	42	25	26	254	63	850					
800	65.1	28	03	319	25	65	8	318	38	66	5	300	36	66	2	277	42	12	03	360	24	59	7	17	08	253	27	56	6	53	6	19	12	248	60	800			
750		23	03	317	34	26	10	322	41	33	13	305	39	34	18	280	45	05	04	348	24	11	05	258	28	17	09	251	40	13	03	246	60	750					
700	99.4	20	00	317	25	100	22	313	38	102	28	293	37	101	26	283	45	01	18	357	27	03	06	263	32	16	08	252	36	04	03	296	58	700					
650		13	02	317	34	19	12	313	42	24	06	291	41	21	06	287	44	00	40	339	34	03	04	274	37	10	02	260	42	03	10	245	60	650					
600	138	10	02	320	36	140	11	314	44	141	18	306	42	141	15	01	288	46	03	43	347	43	02	07	294	42	06	07	271	54	12	09	252	74	600				
550		04	08	332	46	01	19	318	45	11	04	305	41	07	06	285	46	11	41	333	46	01	22	305	52	00	16	268	63	06	24	257	108	550					
500	183	04	20	332	41	185	07	326	50	187	01	300	43	186	03	13	279	48	19	41	328	50	09	32	315	60	17	30	274	63	16	09	32	257	130	500			
450		15	23	316	48	15	33	345	54	12	20	304	44	12	20	277	55	28	50	346	52	19	38	317	66	20	40	280	51	17	32	260	138	450					
400	236	27	39	327	36	237	27	339	48	241	20	332	46	239	24	28	278	51	39	59	339	69	30	48	323	70	34	53	280	75	22	26	39	281	138	400			
350		41		334	55	41		323	61	33	43	296	37	38	41	280	67	52		338	78	44		325	76	47		279	74	40	50	247	131	350					
300	300	55		351	64	301	56	318	63	306	49	324	53	304	53	283	65	63		328	60	292	59	312	94	289	60	274	87	286	51	253	132	300					
250		72		355	80	73		318	55	68		324	58	69		292	55	68		324	44	66		296	88	66		277	93	58		253	122	250					
200	385	75		345	57	385	83	318	49	390	85	316	66	388	88	288	62	62		316	35	372	62	315	38	68		277	93	64		253	122	200					
170		76		321	52	83		318	48	83		306	56	90		280	76	65		315	38	65		315	38	64		279	74	64		253	122	170					
150		73		295	52	80		318	49	82		304	52	91		282	65	70		313	35	70		313	35	65		279	74	65		253	122	150					
130		76		282	52	79		318	42	79		295	45	90		282	54	71		310	38	71		310	38	65		279	74	65		253	122	130					
110		78		282	39	79		318	34	80		279	44	89		282	50	71		310	38	71		310	38	66		279	74	66		253	122	110					
100	527	75		282	33	525	81	318	31	531	79	282	36	525	83	282	43	71		310	38	71		310	38	66		279	74	66		253	122	100					
90		79		282	39	78		318	21	76		299	30	88		282	40	71		310	38	71		310	38	67		279	74	67		253	122	90					
80		76		282	38	78		318	21	75		303	24	88		282	32	71		310	38	71		310	38	67		279	74	67		253	122	80					
70		77		291	25	77		318	25	73		303	22	88		282	32	71		310	38	71		310	38	67		279	74	67		253	122	70					
60		79		307	18	77		318	11	70		302	28	88		282	32	71		310	38	71		310	38	67		279	74	67		253	122	60					
		78		321	22	79		318	11	63		302	28	88		282	32	71		310	38	71		310	38	67		279	74	67		253	122						
	(645) mb	Inversion		873mb. 26° - 835mb. 30°		850mb. 13° - 625mb. 14°		Isothermal		658 - 650mb. 13°		Inversion		921mb. 31° - 881mb. 38°		841mb. 33° - 821mb. 35°		Isothermal		720 - 700mb. 22°		Inversion		973mb. 43° - 940mb. 49°		961mb. 44° - 925mb. 49°		694mb. -2° - 623mb. 2°		678mb. 2° - 665mb. 4°		630mb. 1° - 620mb. 3°		Isothermal		700 - 695mb. 16°		650 - 630mb. 10°	
Tropopause	I 180mb. -73° 40,700'		I 220mb. -84° 28,900'		I 198mb. -86° 39,300'		I 200mb. -88° 38,800'		I 270mb. -70° 31,100'		I 280mb. -66° 30,700'		I 265mb. -67° 31,600'		I 250mb. -58° 32,500'		Tropopause																						

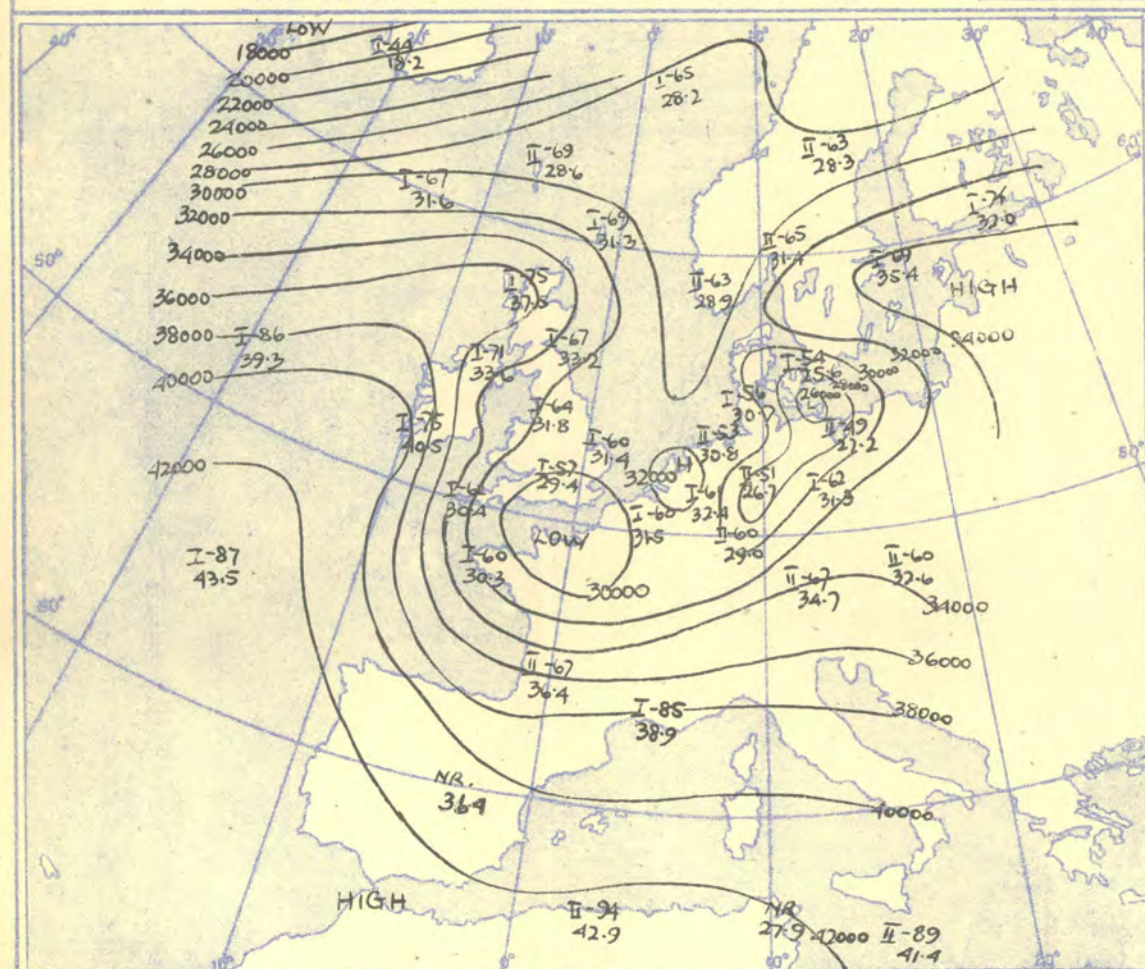


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

Gradient-Wind Scale for Contours
at intervals of 200 ft. at Lat. 52 $\frac{1}{2}$ ° 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.

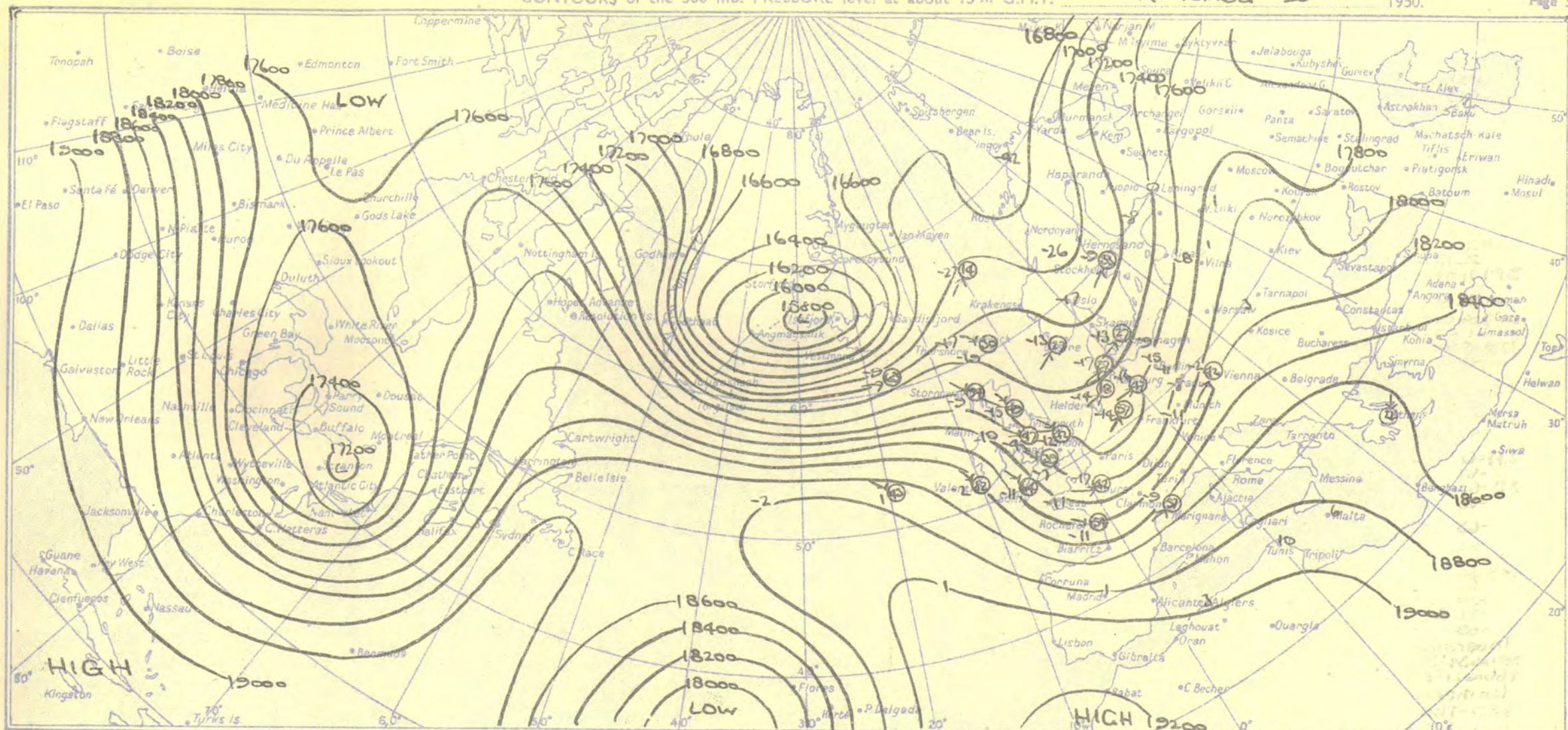
TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

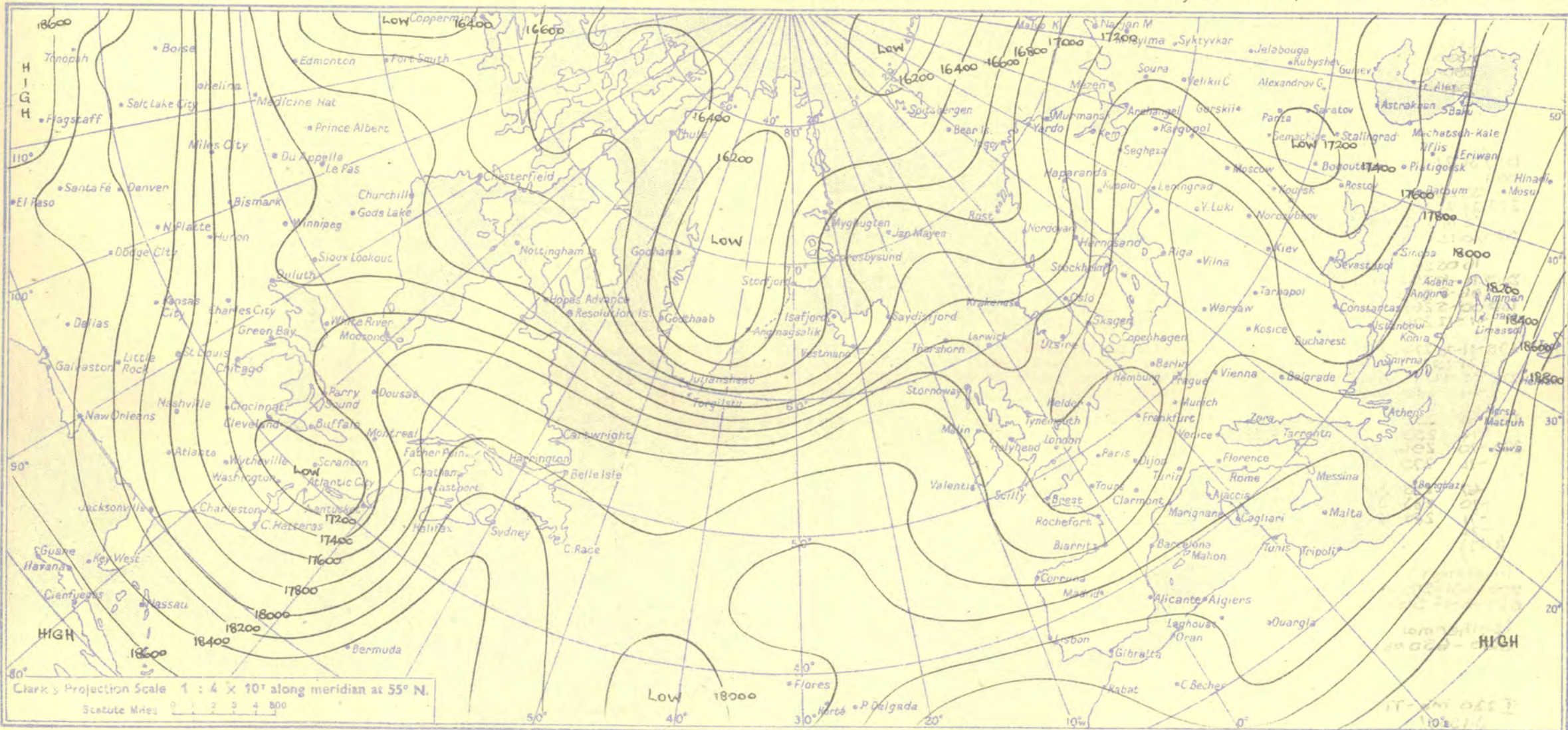
In latitudes north of about 50°N a strong west to east motion was shown by all the upper air ridges and troughs. One trough quickly crossed the British Isles into the North Sea and Northwest Europe, being followed by a rapid moving ridge whilst another trough developed between Iceland and Greenland. In this latter trough very cold air was drawn south around an intense surface depression.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Wednesday 29th November,

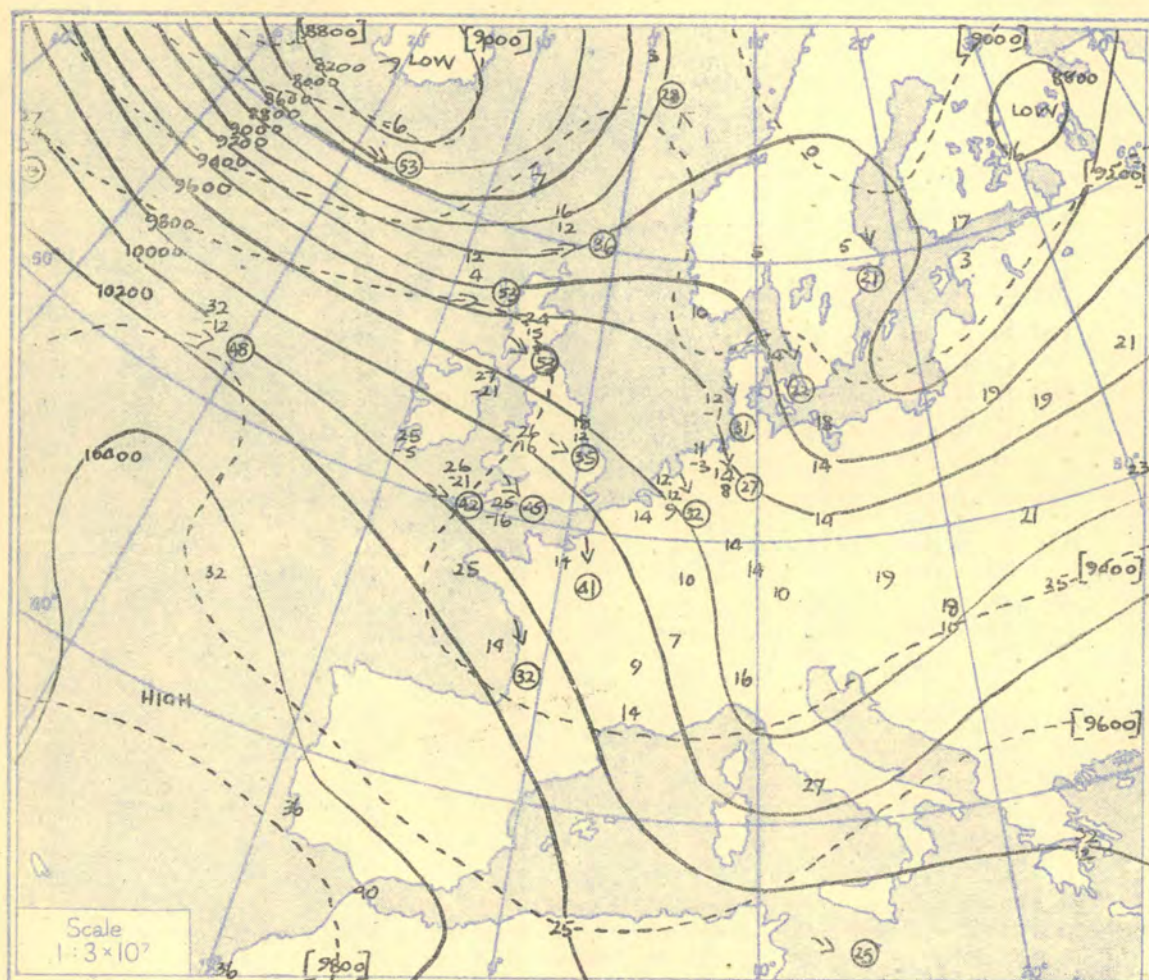
1950.



HMSO Press, MO., Dunstable

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

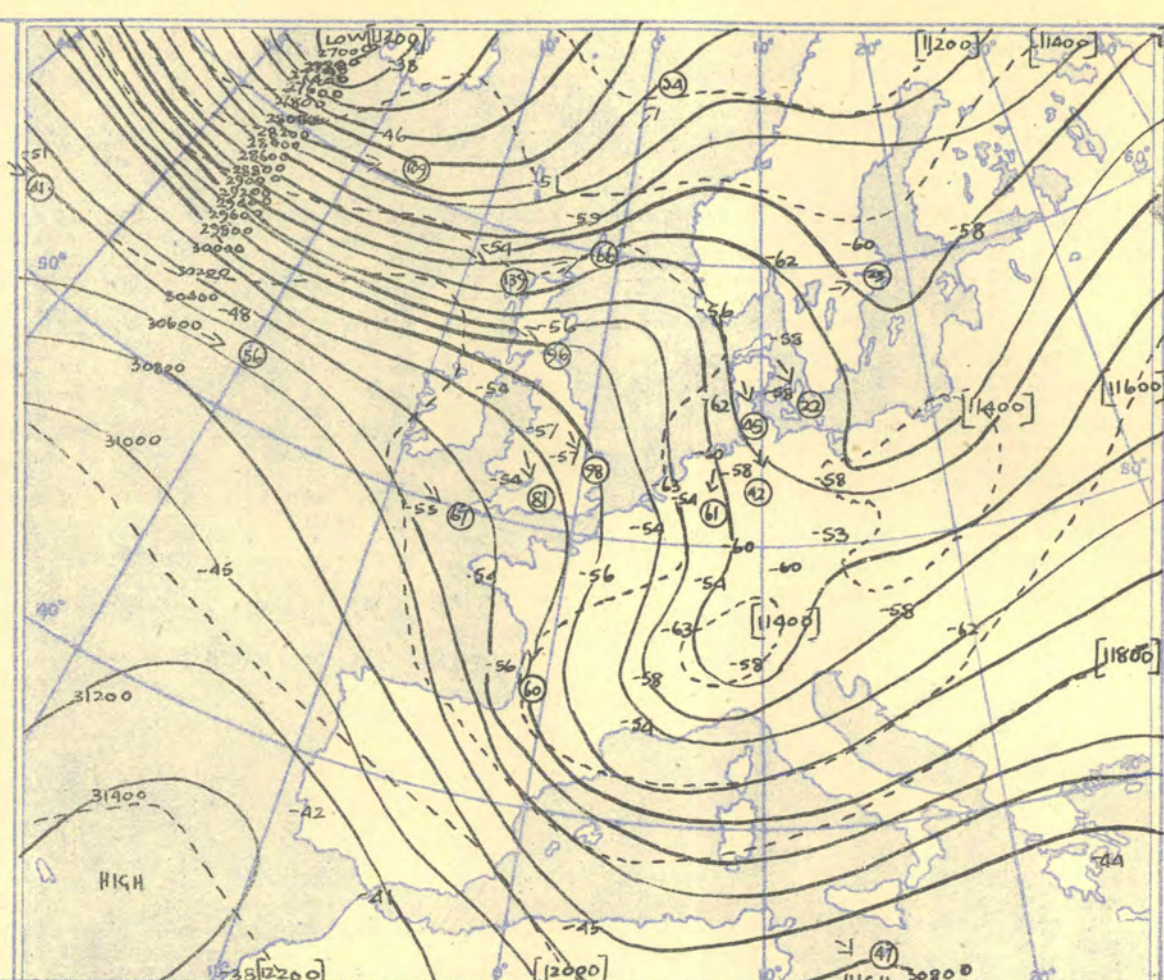
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION							
Pressure	Time M.S.L. Surf Freezing	03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		Time M.S.L. Surf Freezing											
		989.7	mb	991.0	mb	1001.2	mb	1008.8	mb	1011.7	mb	1014.5	mb	1017.7	mb	1022.2	mb	1025.3	mb	1028.4	mb	1031.5	mb	1034.6	mb	1037.7	mb	1040.8	mb	1043.9	mb	1047.0	mb												
Height ft./100	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.												
Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.	Wind Dir.	Wind Vel.												
Surf	02.7	41	40	210	29	00.4	45	41	220	30	00.2	44	42	230	12	02.3	45	41			00.6	45	42			01.2	39	35	230	10	04.4	40	37	CALM	02.9	48	41	280	15	00.3	49	45	260	16	Surf
1000	-1.8				-2.5					0.3						2.3					3.2	44	41			3.9	38	36	230	10	04.4	40	37	CALM	5.9	47	40	265	36	5.2	47	43	260	19	1000
950		39	38	208	42	43	39	248	45	44	38	249	26	41	37		41	37			40	37			39	36	290	26	4.7	40	37	281	28	5.9	40	34	276	37	5.2	43	39	262	26	950	
900	26.3	35	32	221	42	25.8	37	33	251	54	28.5	36	33	261	41	30.5	36	33			31.4	35	32		32.0	33	30	299	25	32.7	33	30	286	30	34.1	34	29	288	32	33.6	46	12	900		
850		32	29	232	40		30	26	255	55		31	28	267	48		31	30			29	26			27	27	303	24	27	24	292	31	28	292	30	34.1	34	29	288	32	33.6	46	12	850	
800	56.3	27	24	233	37	56.7	24	19	256	57	59.5	27	23	269	50	61.6	36	27			62.2	23	20		62.7	25	16	302	27	63.4	23	19	302	34	64.9	27	01	309	45	65.0	35	05	800		
750		21	15	230	36		19	13	263	60		27	20	273	50		33	15			29	23			20	12	304	31		28	14	315	42		31	05	312	41		28	01	750			
700	30.5	16	12	236	38	30.7	12	04	246	53	34.0	24	15	276	53	36.7	27	21			36.9	26	16		36.9	18	12	314	35	38.1	25	16	319	45	39.8	26	21	317	42	39.8	25	08	700		
650		10	08	242	38		05	01	242	56		20	12	279	58		20	36			136	19	08		136	12	07	319	35		20	01	324	46		29	19	318	44		19	17	650		
600	12.9	01	05	252	42	12.9	02	07	253	64	13	12	00	279	69	136	14	45			136	14	01		136	12	01	326	55	137	13	02	323	59	139	15	24	317	48	139	10	21	600		
550		01	07	253	53		03	21	269	80		04	08	285	71		06	36			05	08			08	06	322	68		07	15	321	57		08	23	315	46		05	22	550			
500	17.3	08	15	257	57	17.3	10	23	271	97	17.9	04	13	296	55	18.1	04	29			18.1	05	16		18.1	05	17	322	62	18.3	03	21	326	51	18.5	03	26	314	48	18.4	03	20	500		
450		19	27	258	54		19	33	273	105		14	21	293	69		16	31			16	24			15	31	335	49		13	28	327	65		14	34	315	56		14	28	450			
400	22.6	30	28	258	63	22.6	30	44	276	117	23.2	27	34	298	76	23.4	26	37			23.4	29	31		23.4	29	40	340	55	23.6	25	38	329	61	23.8	26	43	314	66	23.7	28	400			
350		46		265	63		42		272	139		40	47	303	89		38	49			41				42		339	78		39	50	332	70		39	54	317	68		42	350				
300	28.9	59		268	63	28.0	54			296	56		293	96	29.9	54				29.8	57				29.8	57	336	98	300	54		332	81	302	55		321	67			300				
250		70				66					74		298	95		74					74					75		335	96		70		334	85		72		328	71			250			
200	37.5	68			37.5	71				37.9	80			382	82		82				82				81		333	69	385	80		330	60	385	84		319	69			200				
170		67				69					73				76		79				79				81		331	63		82		326	66		87		320	60			170				
150		67				72					74				77		76				76				82		330	64		81		327	69		83		319	57			150				
130		67				74					74				76		76				76				79		326	54		74		326	34		78		315	47			130				
110		69				77					73				78		77				77				82		304	31	526	80		76		308	34		80		318	35			110		
100	51.9	66			51.8	72				52.2	71				52.4		76				52.3				80		302	28		80		302	30		80		302	30			100				
90																	75								82		302	28		80		304	30		80		304	30			90				
80																	75								82		302	28		80		304	30		80		304	30			80				
70																	75								82		302	28		80		304	30		80		304	30			70				
60																	75								82		302	28		80		304	30		80		304	30			60				
(63 mb)																																													
Inversion																																													
980 mb 41° - 970 mb 42° 989 - 970 mb 45° 989 -																																													



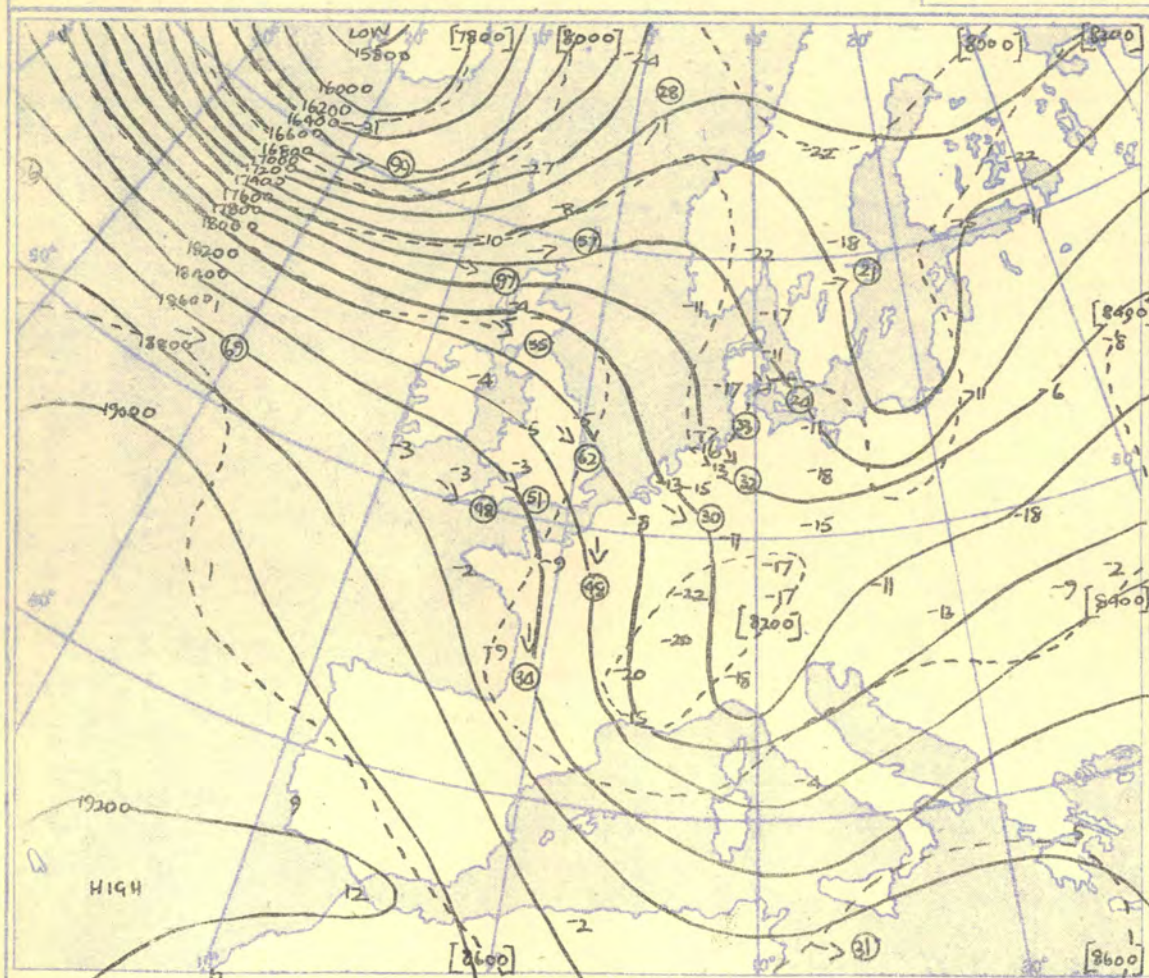
The continuous lines are contour lines of the 700 mb. surface
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

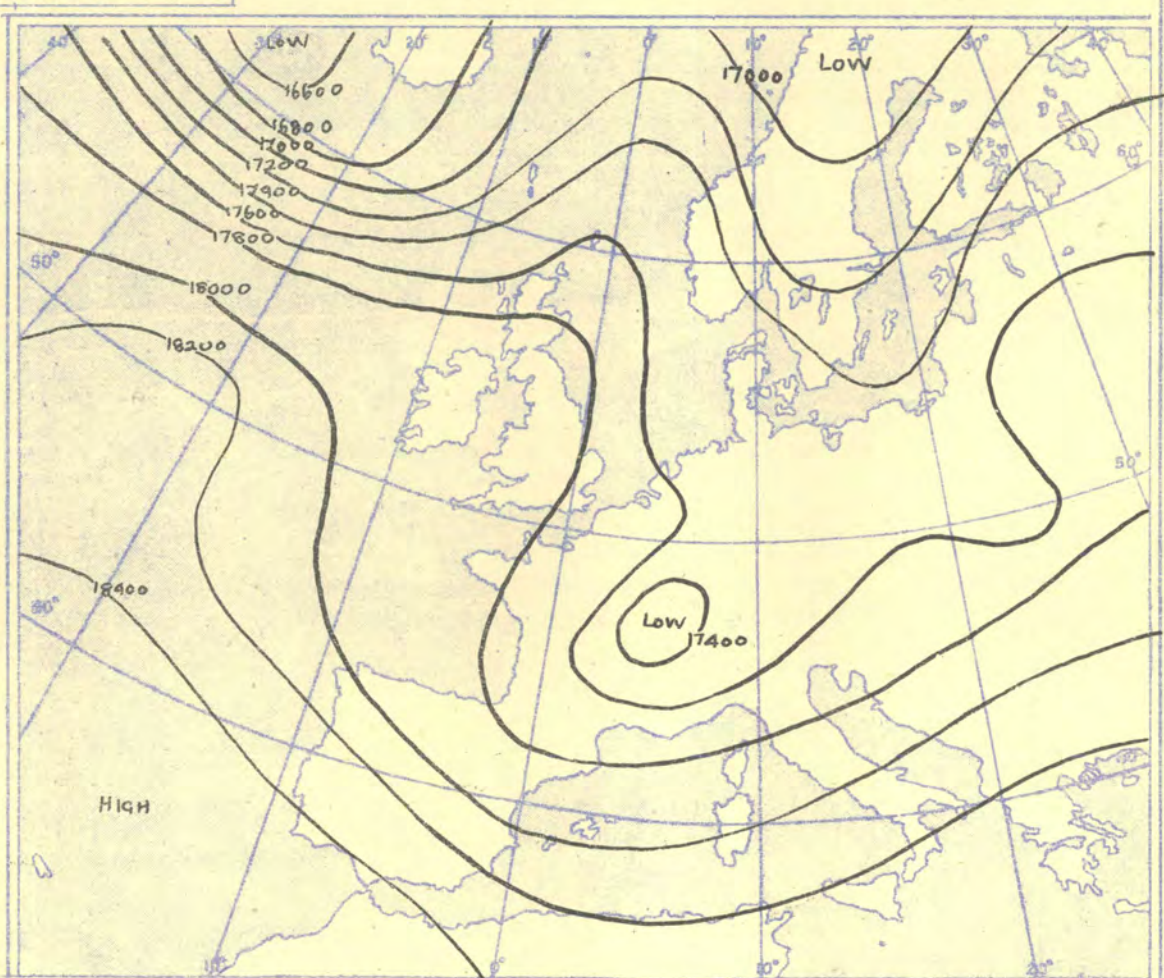
100 80 60 40 20 10 knots



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

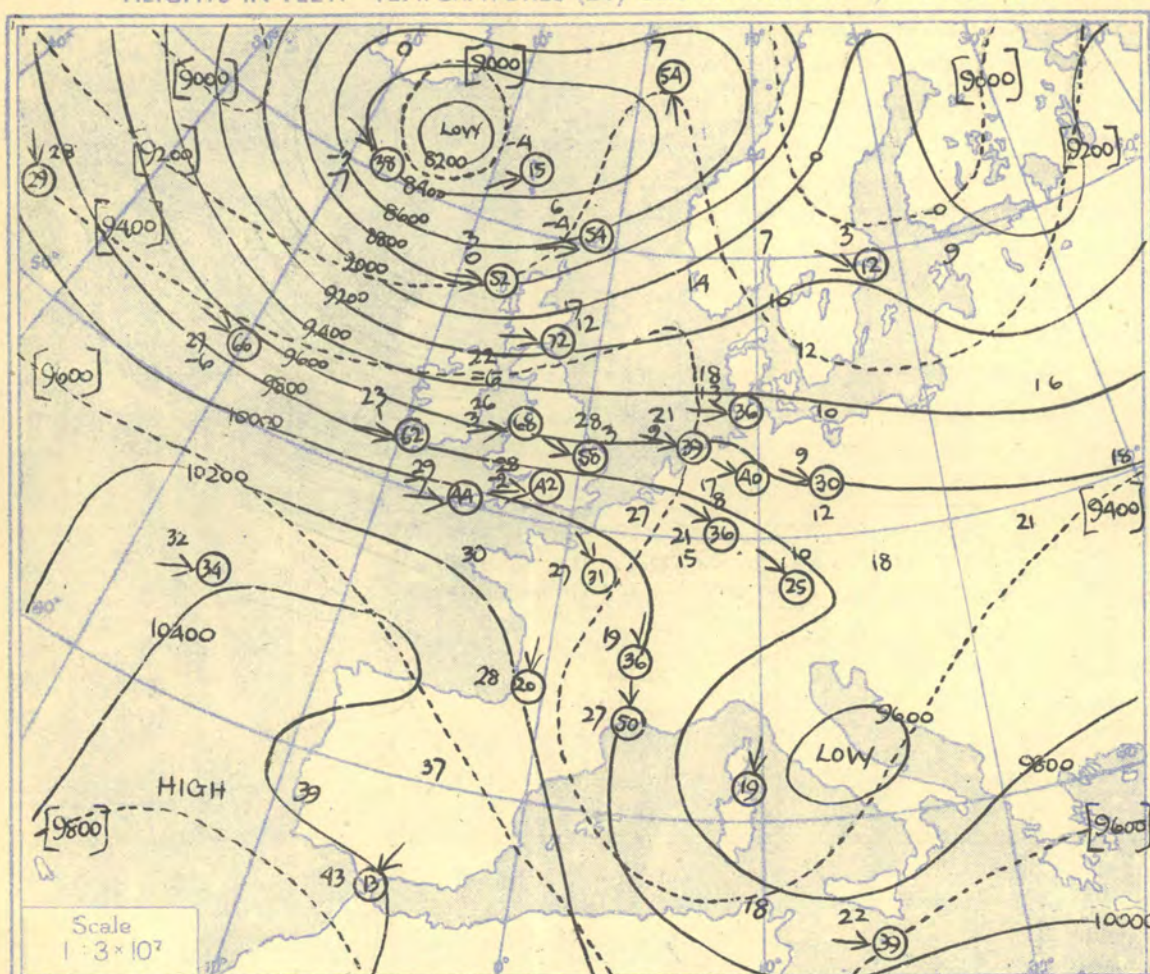


Isopleths of Thickness 500-1000mb.

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

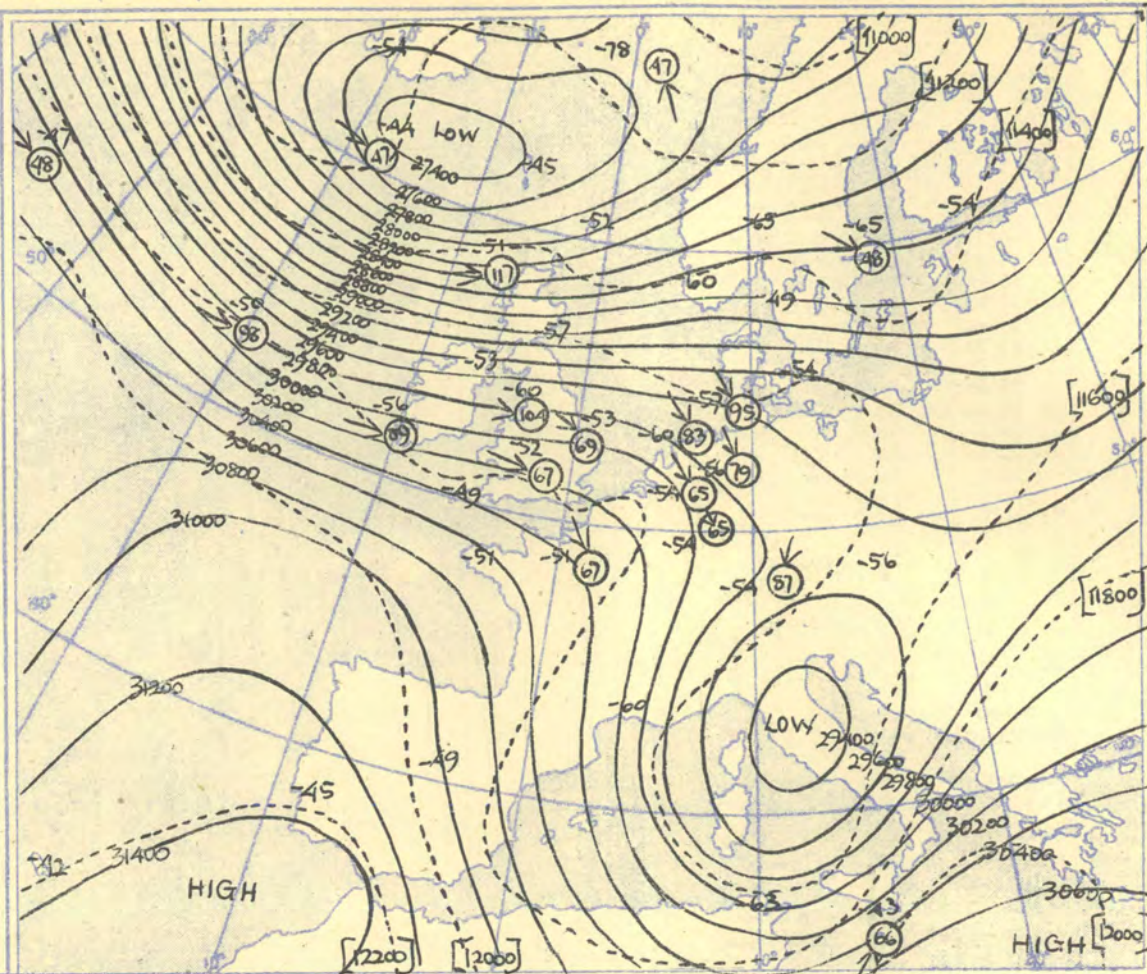
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER EXPLORER.								WEATHER EXPLORER.								WEATHER EXPLORER.								WEATHER RECORDER.								WEATHER RECORDER.								WEATHER RECORDER.								WEATHER RECORDER.								Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Lat/Long	52° 5' N 19° 8' W.								52° 5' N 19° 5' W.								52° 4' N 19° 4' W.								52° 3' N 19° 5' W.								60° 3' N 15° 5' N.								60° 3' N 15° 6' W.								60° 3' N 17° 2' N.								60° 5' N 16° 2' N.								Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure	Time	G.M.T.							Time	G.M.T.							Time	G.M.T.							Time	G.M.T.							Time	G.M.T.							Time	G.M.T.							Time	G.M.T.							Time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.	mb							M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf	mb							Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing	mb							Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Pressure	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Height	Temp.	Dew	Wind	Vel.	Dir.	Vel.	Pressure																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Surf	50	49	230	30				49	47	230	25				51	47	253	31				41	34	275	31				36	35	270	33				31	29	250	40				32	30	290	33				36	24	350	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1000	49	45	239	38	2	9	48	45	235	42	2	5	49	43	267	39	1	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280	35	5	7	46	34	280



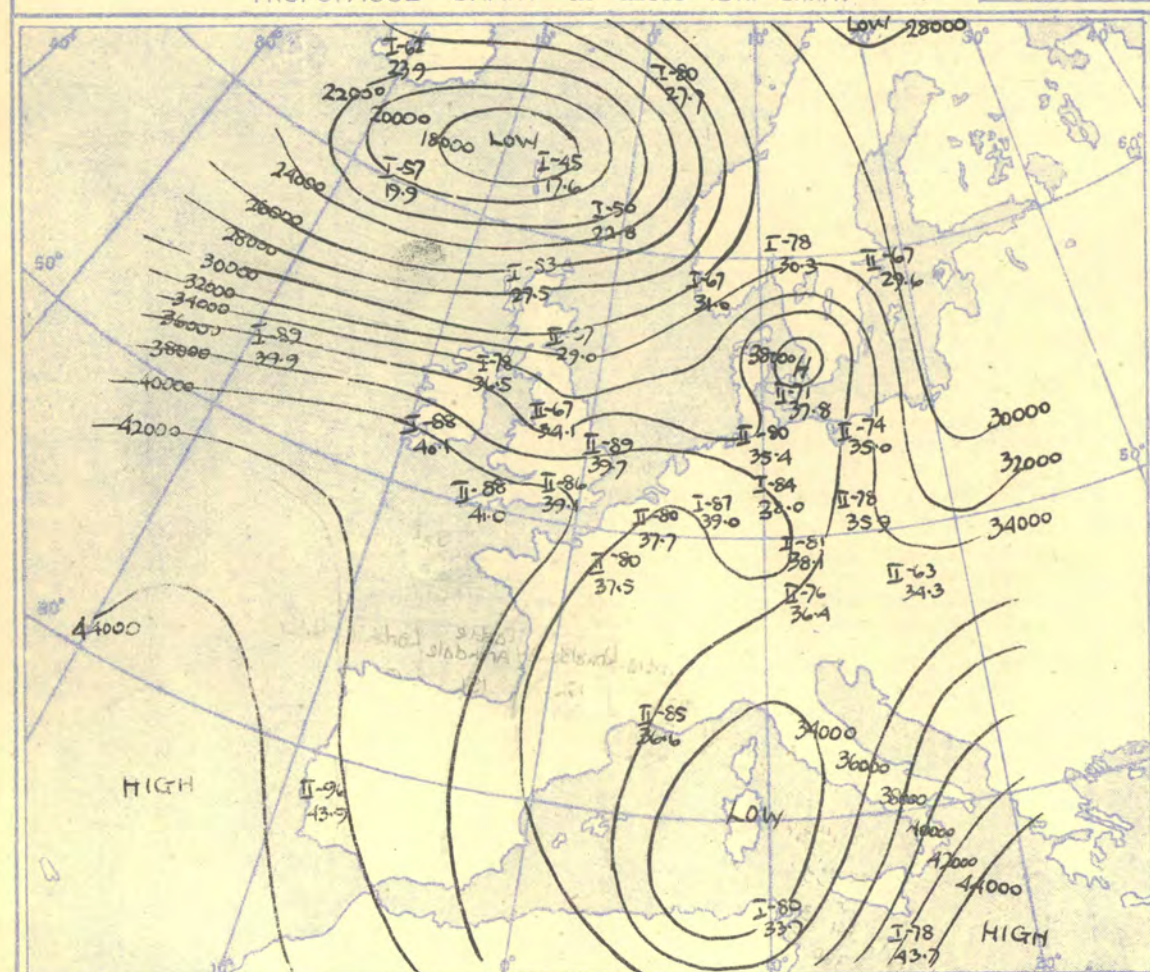
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^{\circ}$ 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.



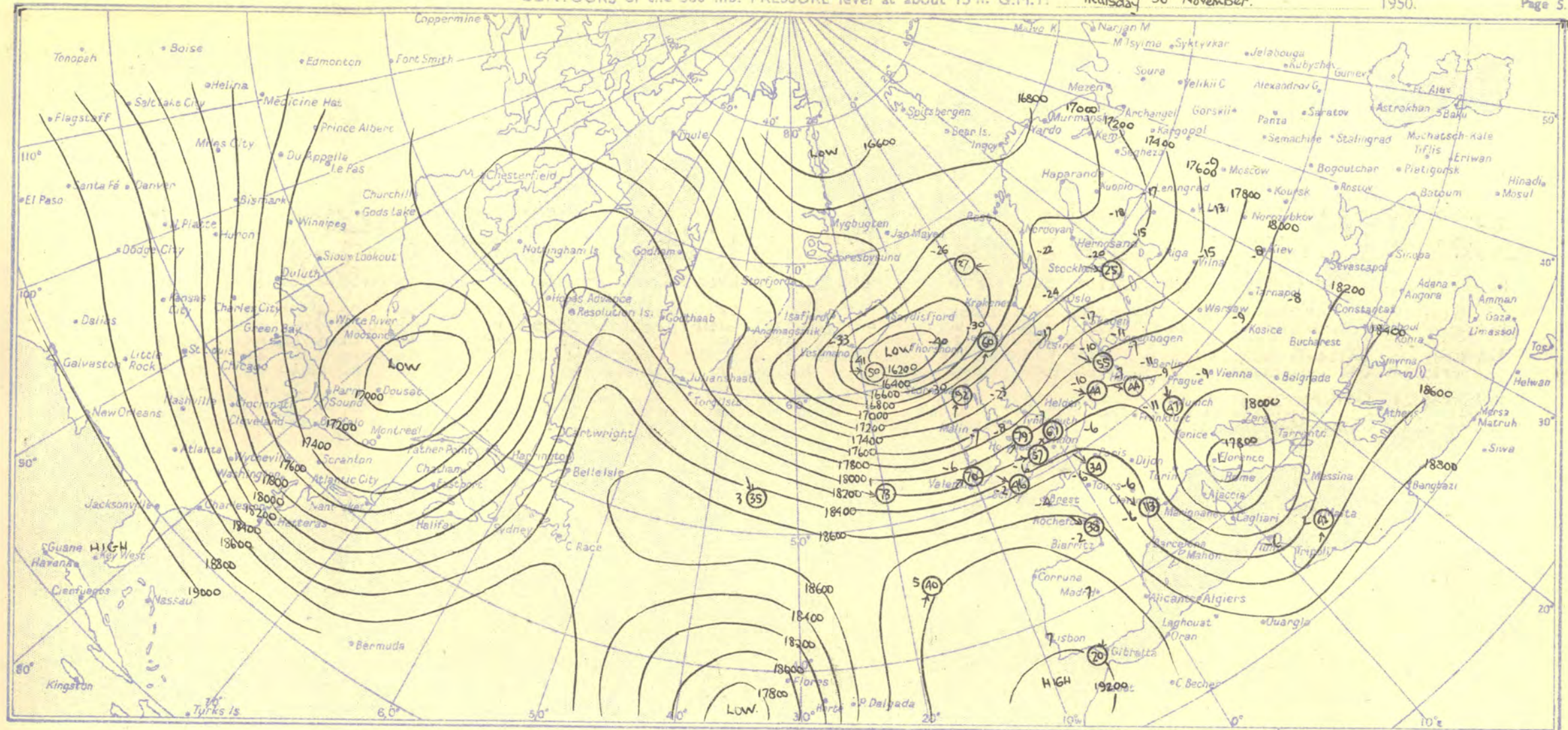
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The outburst of very cold air round the west side of an intense depression near Iceland resulted in the formation of a detached cold pool south of Iceland. A very strong westerly thermal gradient persisted across the Atlantic between 55 and 60 degrees North. South of latitude 55 there was little change except for a general eastward drift across Europe.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-
For special arrangements for supply to schools and colleges, see Form 2452.

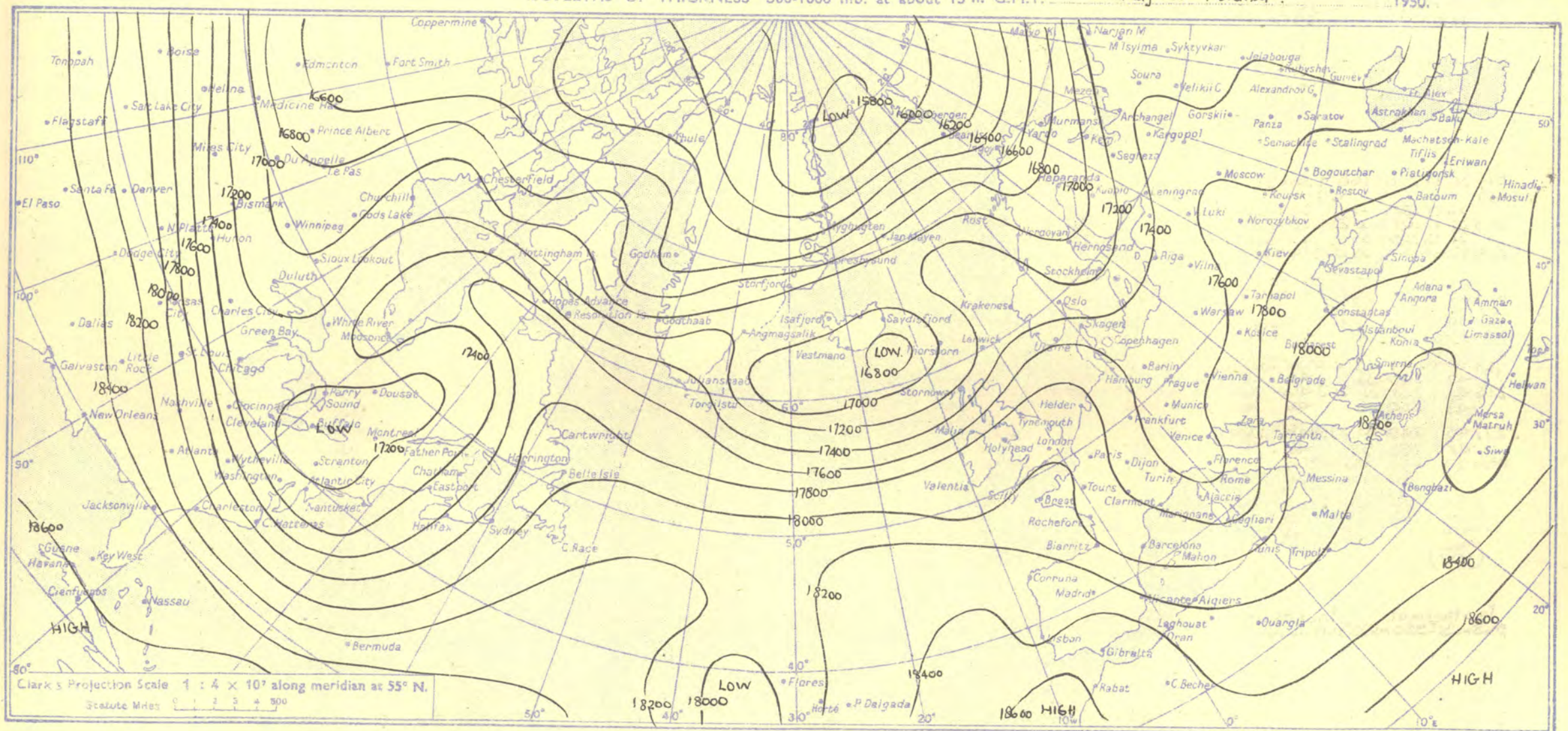
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 30th November.

1950.



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

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	15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			15hrs			Time		
	M.S.L.	277.4			282.7			290.4			299.2			1004.7			1004.7			1010.2			1015.3			1015.6			1011			M.S.L.					
	Surf	267.4			281.1			282.6			290.6			1002.7			1005.9			999.2			1015.3			1008.9			1011			Surf					
	Freezing	210			256			846			833			750			729			747			738			810			810			Freezing					
Pressure	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			Pressure		
	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Temp.		
Wind	Dir.	°			°			°			°			°			°			°			°			°			°			°			Wind		
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.		
Dew	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Dew		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
Surf	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			Surf		
	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Temp.		
1000	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			1000		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
950	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			950		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
900	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			900		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
850	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			850		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
800	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			800		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
750	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			750		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
700	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			700		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
650	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			650		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
600	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			600		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
550	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			550		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
500	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			500		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
450	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			450		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
400	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			400		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
350	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			350		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
300	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			300		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
250	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			250		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
200	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			200		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
170	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			170		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
150	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			150		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
130	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			130		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
110	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			110		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
100	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			100		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
90	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			90		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
80	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			80		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
70	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			70		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
60	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			60		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
Inversion	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Inversion		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
Tropopause	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Tropopause		
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
STATION	LERWICK	STORNOWAY			LEUCHARS			ALDERGROVE			LIVERPOOL			DOWNHAM MARKET			LARKHILL			CAMBORNE			Valentia			STATION											
	Time	21hrs			21hrs			21hrs			21hrs			21hrs			21hrs			21hrs			21hrs			21hrs			Time								
Pressure	M.S.L.	274.9			282.3			289.1			295.8			1001.2			1007.5			1012.8			1016.4			G.M.T.			M.S.L.								
	Surf	264.9			280.9			288.2			297.2			999.2			1003.2			996.6			1004.7			mb			Surf								
	Freezing	250			216			217			884			854			771			770			740			mb			Freezing								
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F								
Pressure	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			Pressure					
	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Temp.					
Wind	Dir.	°			°			°			°			°			°			°			°			°			°			Wind					
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.					
Dew	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Dew					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
Surf	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			Surf					
	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			Temp.					
1000	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			1000					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
950	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			950					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
900	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			900					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
850	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			850					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
800	Temp.	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			800					
	°F	°F			°F			°F			°F			°F			°F			°F			°F			°F			°F			°F					
750	Temp.	°F			°F			°F			°F			°F			°F			°F			°F</														