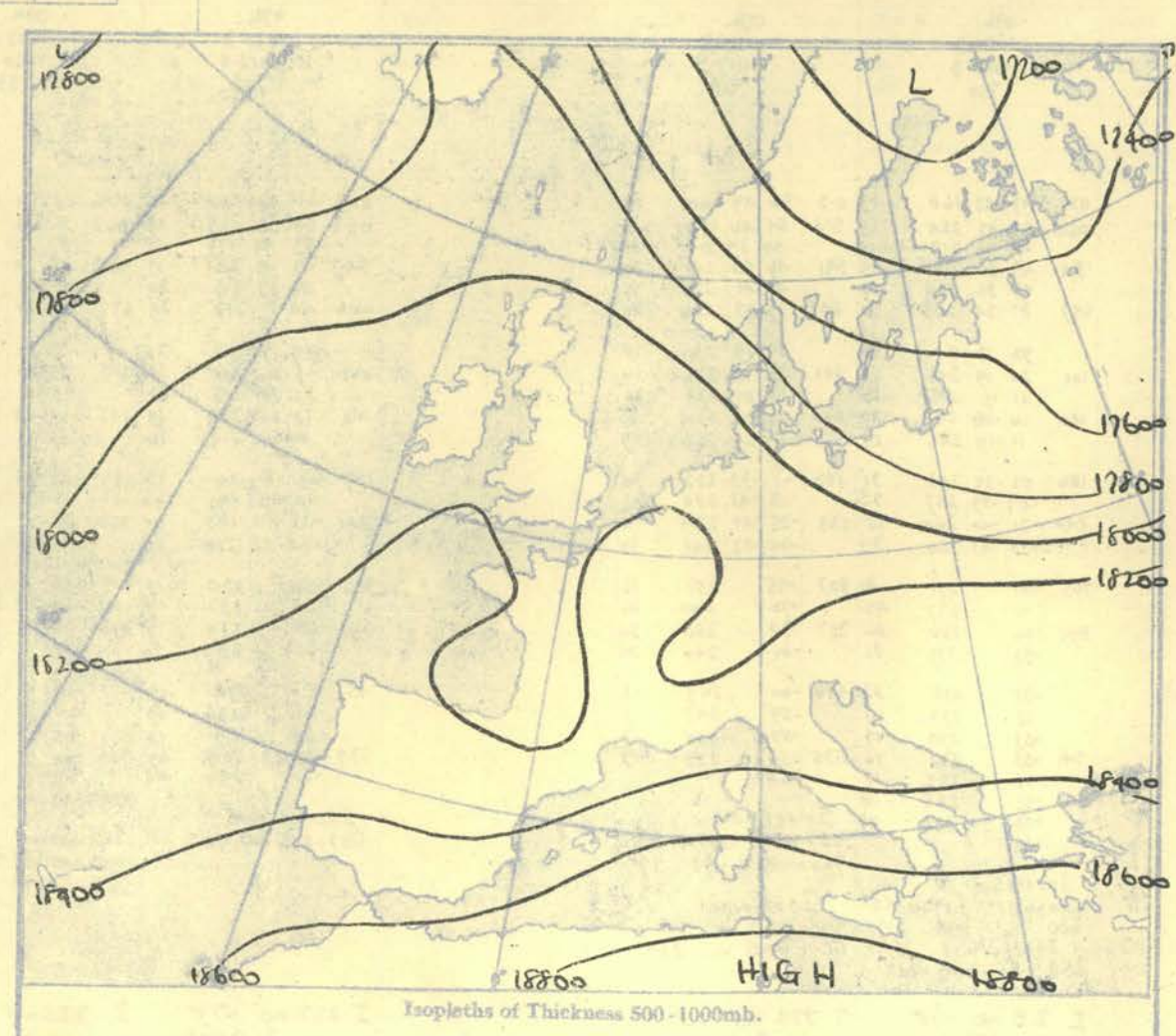
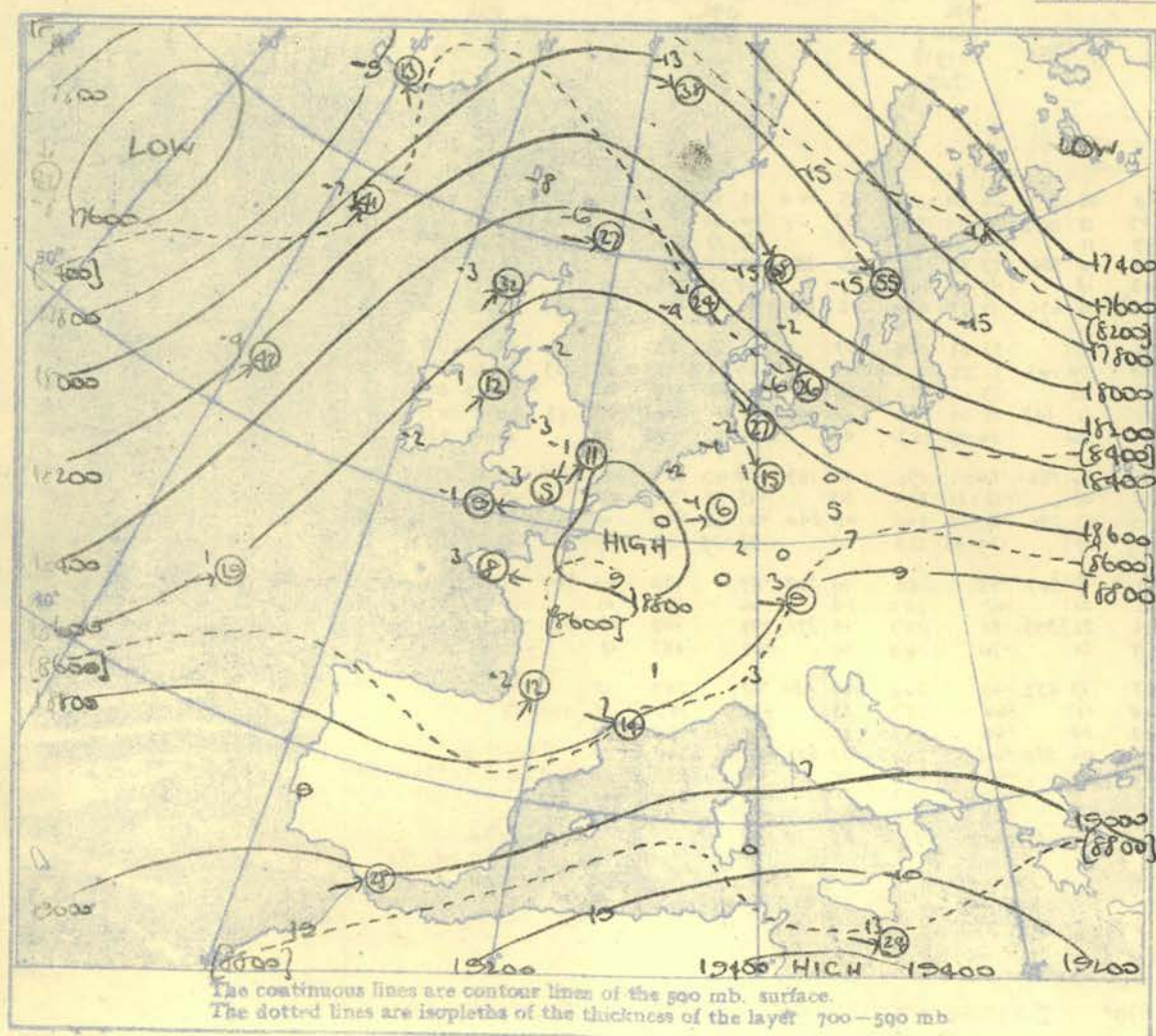
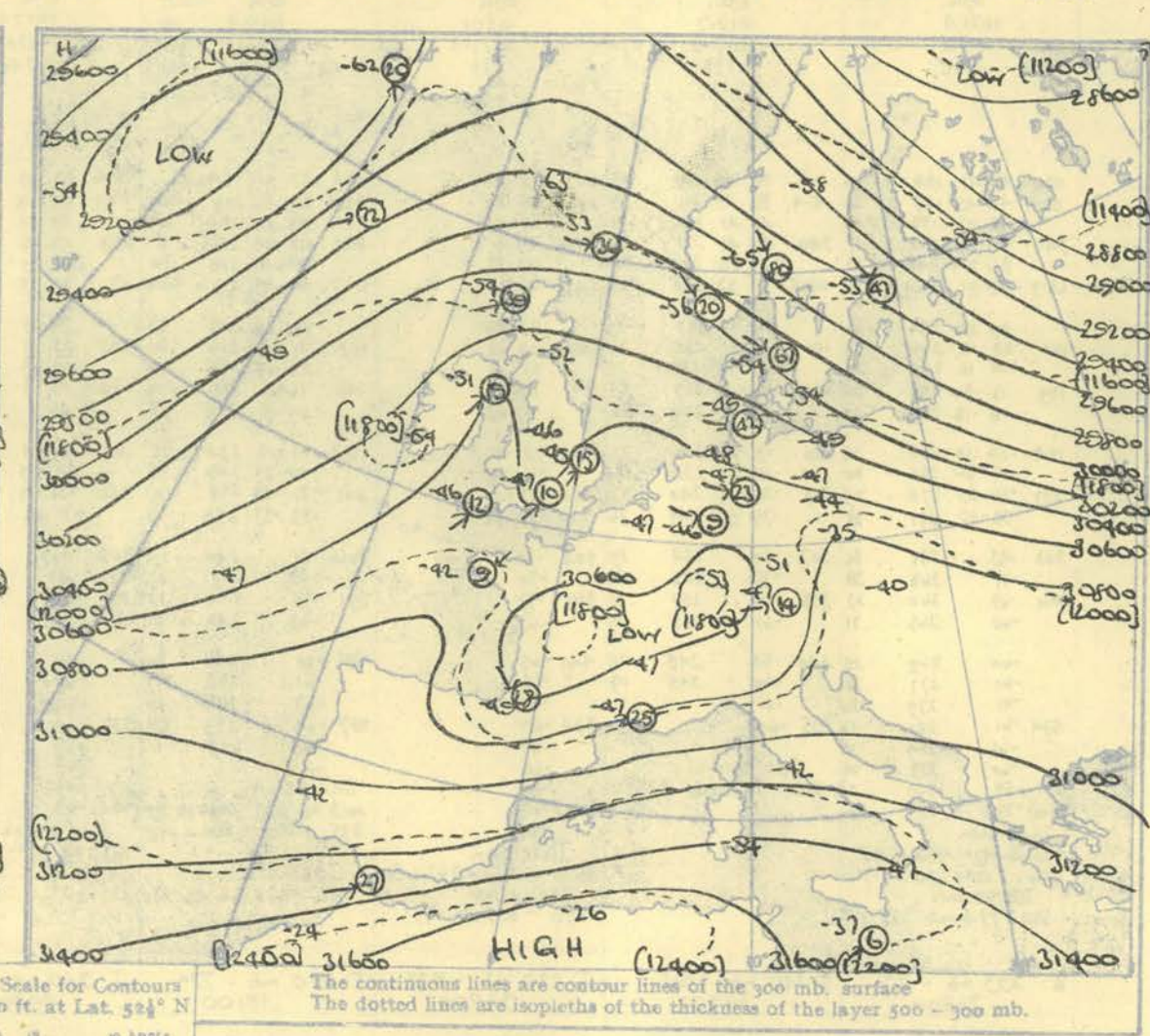
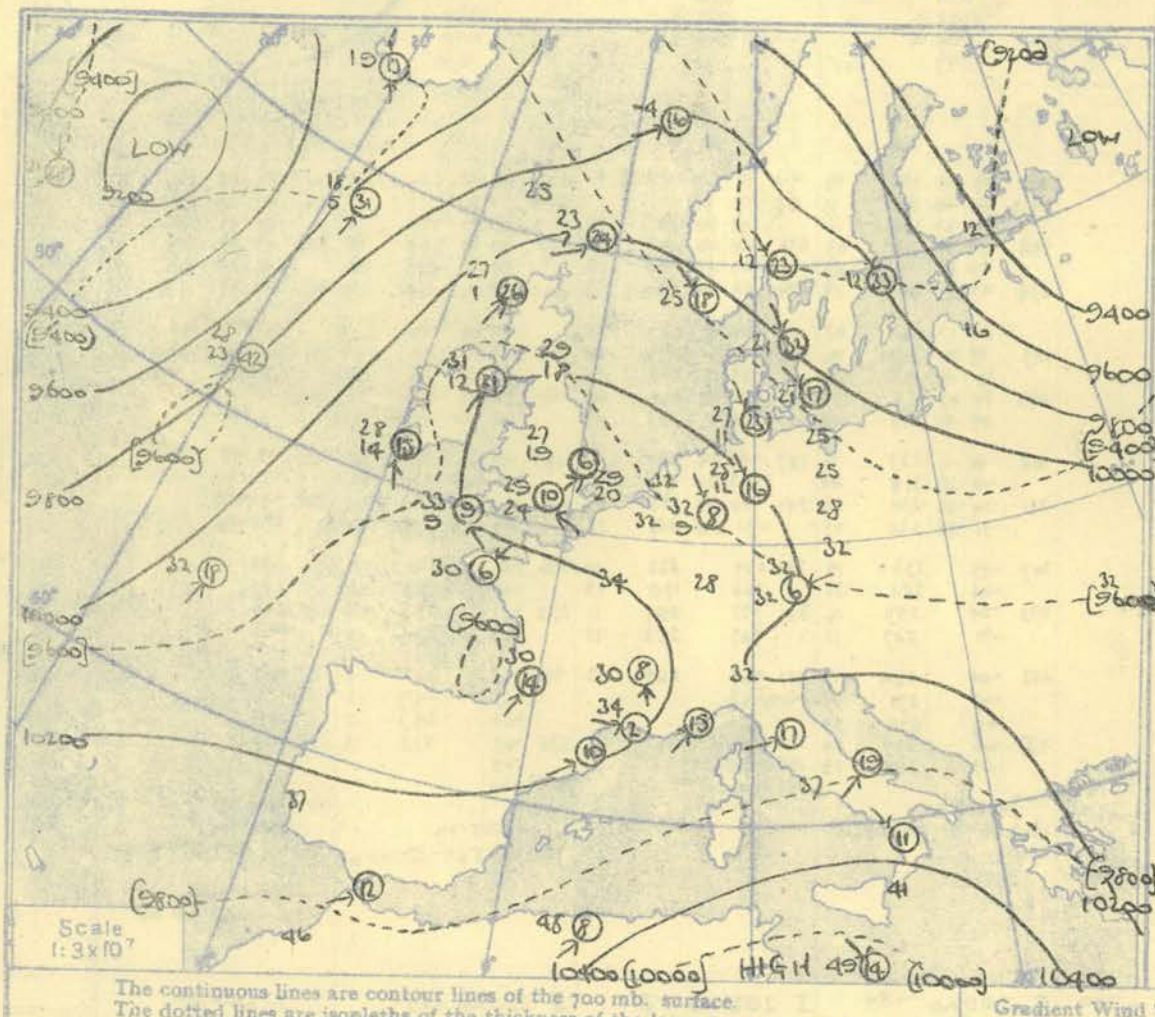






HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (In knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.





## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WIND at height above M.S.L.

Place	Larkhill	Liverpool	Leuchlos
Time	15k.	21k.	21k.
Type			
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.
Surf.	090 10	120 10	280 03
1,000	081 18	128 15	253 12
2,000	089 18	148 15	244 10
3,000	097 18	156 13	230 15
4,000	117 18	157 13	218 17
5,000	116 17	154 13	216 19
6,000	115 17	160 16	224 17
8,000	105 17	160 15	233 18
10,000	104 15	166 14	234 23
14,000	123 11	184 08	238 23
18,000	176 09	254 02	222 14
24,000	213 17	212 05	208 10
30,000	221 14	221 14	211 14
40,000	233 13	250 18	251 17
50,000	250 11	289 14	259 15
60,000	293 05	246 09	267 13
	260 06 (63,000')		(52,000')

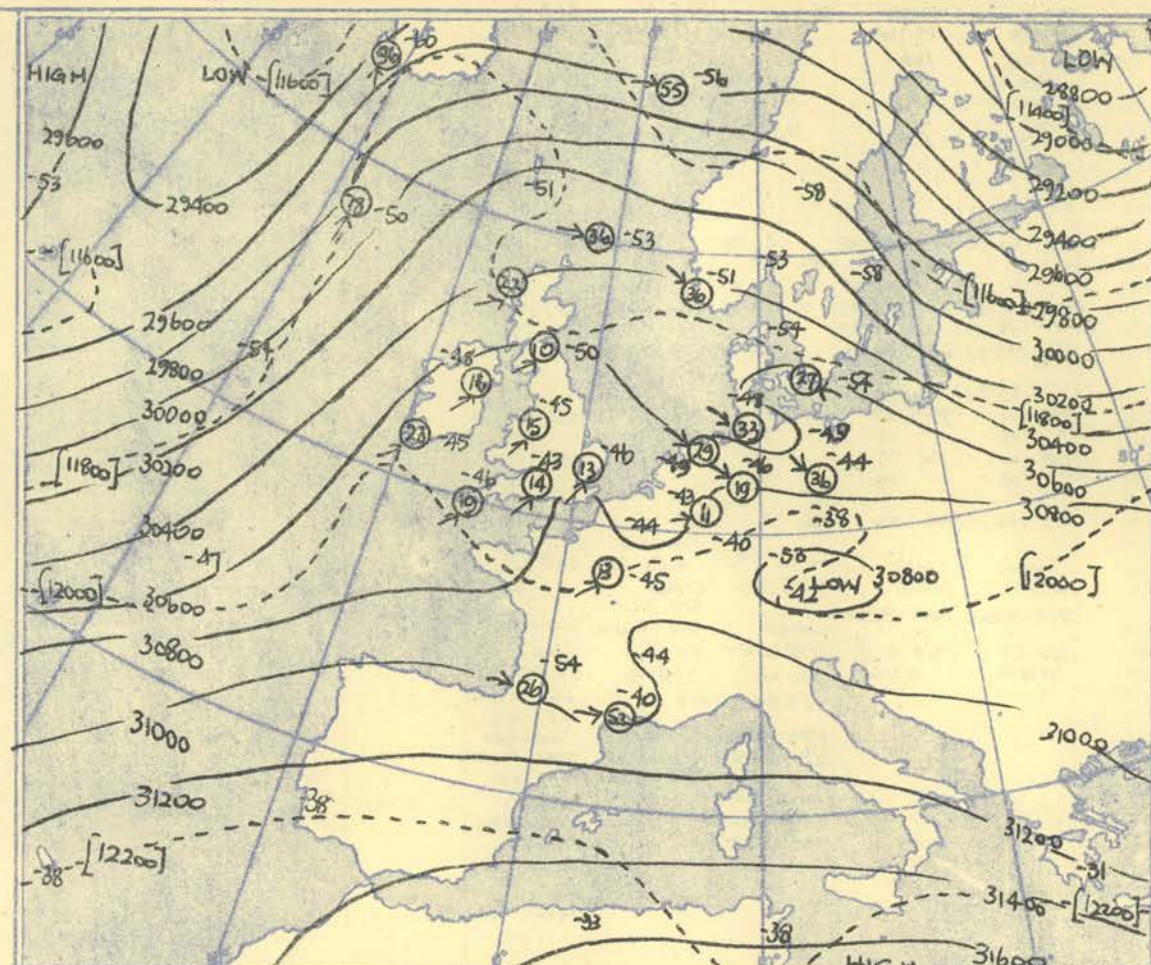
## NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				CUMULUS				CUMULUS				CUMULUS				CUMULUS				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Lat/Long	59°0N		18°1W		59°1N		19°0W		59°1N		19°1W		59°0N		19°1W		52°5N		20°0W		52°5N		20°0W		52°5N		20°0W		52°5N		20°0W		Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Pressure	Time	D3h		G.M.T.		Time	09h		G.M.T.		Time	15h		G.M.T.		Time	21h		G.M.T.		Time	03h		G.M.T.		Time	15h		G.M.T.		Time	21h		G.M.T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	M.S.L.	1007		mb		M.S.L.	1004		mb		M.S.L.	1000		mb		M.S.L.	1000		mb		M.S.L.	1008		mb		M.S.L.	1007		mb		M.S.L.	1007		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Surf	1007		mb		Surf	1004		mb		Surf	1000		mb		Surf	1000		mb		Surf	1008		mb		Surf	1007		mb		Surf	1007		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Freezing	820		mb		Freezing	760		mb		Freezing	750		mb		Freezing	830		mb		Freezing	750		mb		Freezing	770		mb		Freezing	790		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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots	ft./100	°F.	°F.	Dir. Val. knots																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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750		27	07	176	31		31	28	188	40		32	20	188	63		26	17	200	40												750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
700	76-2	18	05	187	31	76-1	27	27	202	51	95-4	28	07	184	60	94-2	20	05	200	45	98-1	28	23	winds	96-7	25	18	winds	97-1	27	19	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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600	135	10	01	203	55	136	14	12	202	54	139	14	04	184	63	133	08	16	211	50												600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Inversion				680 mb 15° - 650 mb 17°				650 mb 17° - 600 mb 19°				(533) mb - 49°				Isothermal				955 - 917 mb 48°				302 - 300 mb - 53°				Inversion				955 mb 48° - 942 mb 50°				Inversion				914 mb 46° - 900 mb 46°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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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.

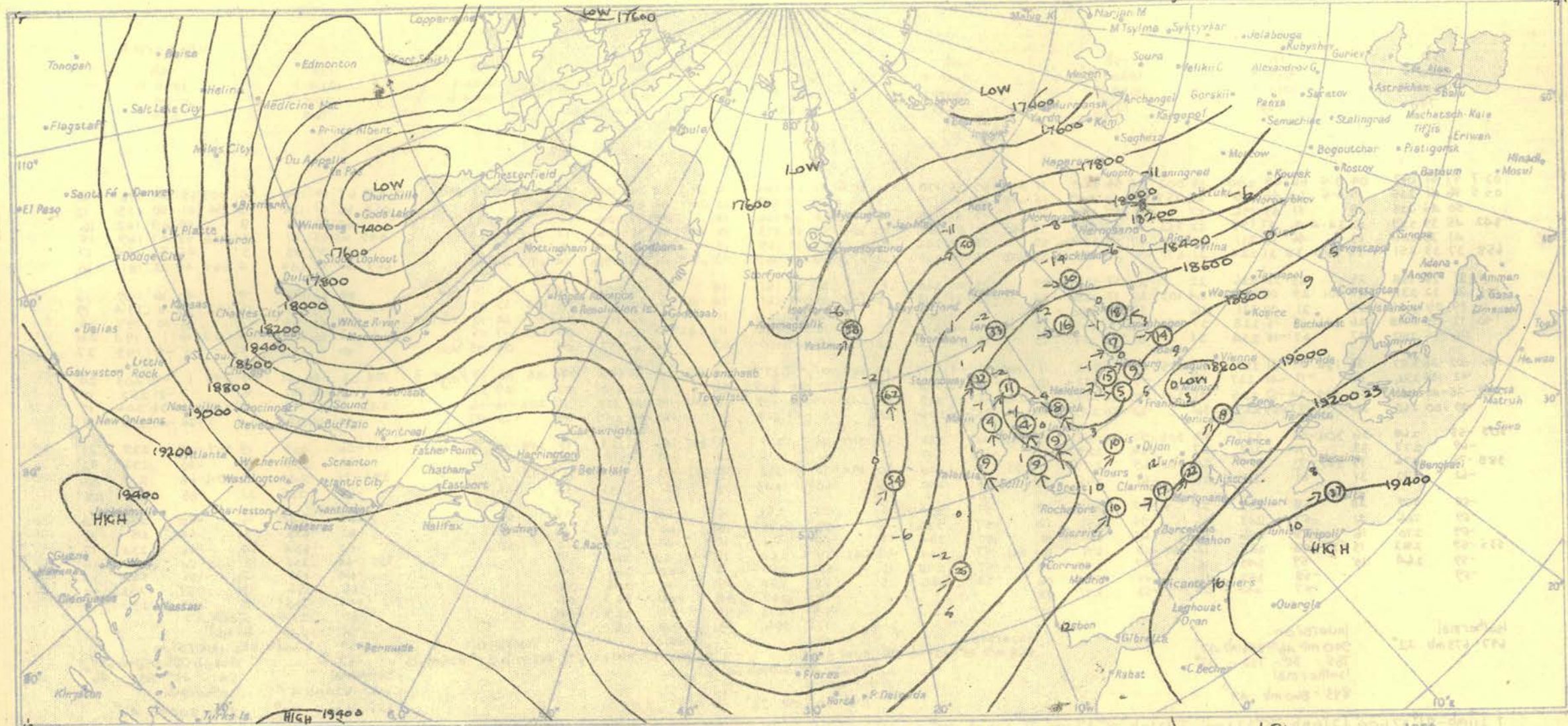
## 100 80 60 40 30 20 15 10 knots



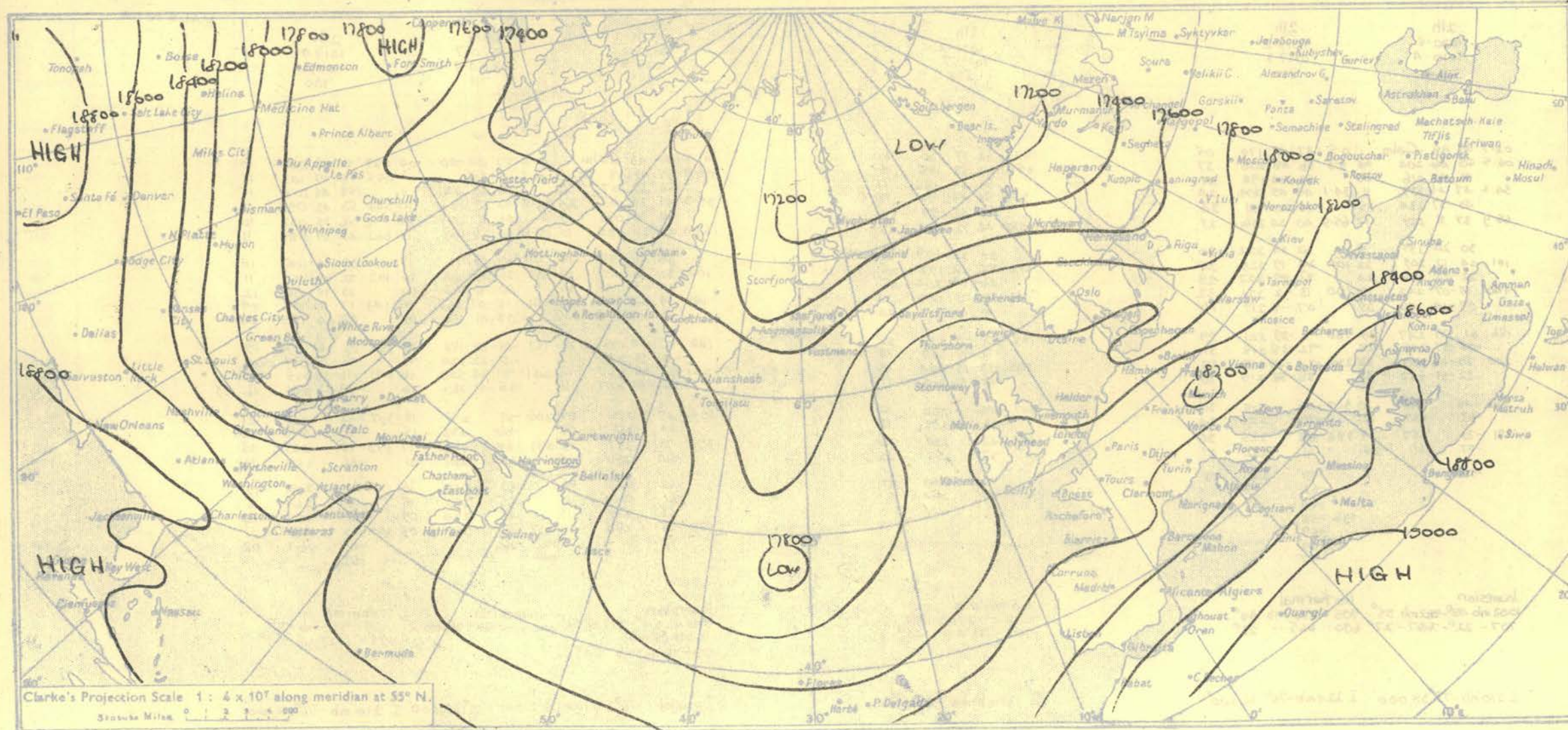
Contour lines of Height of Tropopause.  
Temperature of Tropopause.

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.





HMSDP-ess Dunstable

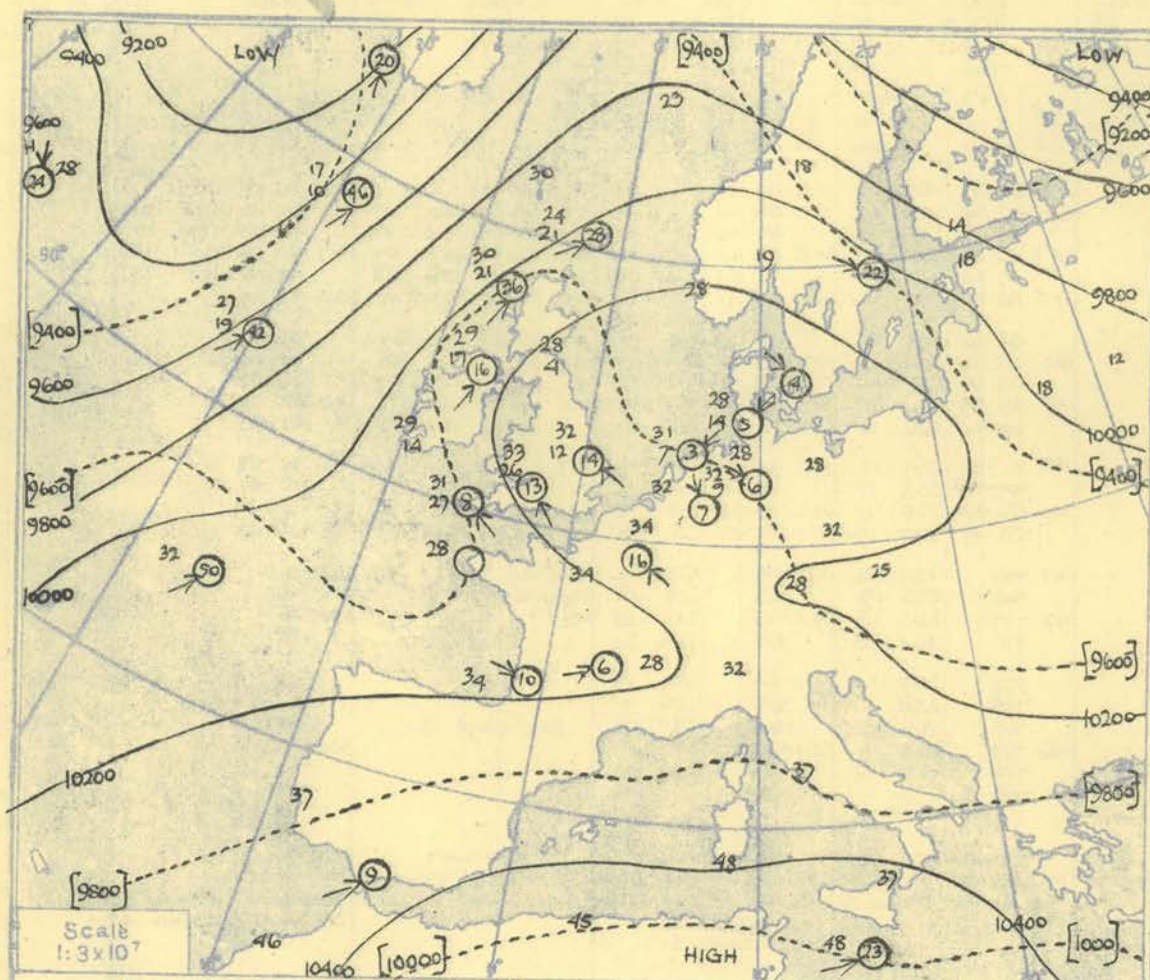


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

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																																																																																																								
	1020.1		mb		1018.0		mb		1020.4		mb		1020.3		mb		1022.4		mb		1022.8		mb		1020.7		mb		1019.7		mb																																																																																																										
	1010.0		mb		1016.1		mb		1019.6		mb		1011.9		mb		1020.4		mb		1018.3		mb		1004.7		mb		1009.2		mb																																																																																																										
769		mb		712		mb		728		mb		720		mb		730		mb		700		mb		697		mb		725		mb		720																																																																																																									
Pressure Height Temp. Dew Wind Dir. Vel.	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots	ft./100	°F.	°F.	knots																																																																																																									
Surf	02.7	47	47	157	07	00.5	52	49	180	03	00.2	52	50	02.3	57	57	190	10	00.6	54	44	01.2	50	47	06.5	05	24.4	54	44	09.0	04	02.9	56	52	Calm	00.3	51	48	133	8	Surf																																																																																																
1000	5.4	49	47	193	14	4.9	54	51	188	21	5.6	64	56	5.5	58	57	189	15	6.1	54	43	6.2	52	44	103	13	5.6	55	45	09.0	04	5.4	56	52	140	09	5.2	50	47	148	10	1000																																																																																															
950	5.4	54	43	193	14	5.4	54	47	202	26	6.1	61	47	5.7	55	189	18	5.4	54	40	5.6	56	58	127	17	5.9	46	117	12	6.0	51	145	08	46	45	174	15	950																																																																																																			
900	34.2	48	40	200	15	33.9	50	44	210	29	35.0	54	45	34.6	52	46	188	19	35.0	53	53	36.2	52	28	133	19	34.8	54	45	130	11	34.5	52	46	147	06	33.7	43	26	175	18	900																																																																																															
850	42	42	39	233	15	44	39	215	34	47	43	47	43	48	40	193	24	47	43	47	33	49	22	115	17	47	43	126	09	44	41	136	08	47	41	15	183	23	850																																																																																																		
800	65.9	37	33	246	21	65.6	39	35	213	38	66.9	41	37	66.6	42	39	196	21	66.9	42	27	67.2	43	18	107	14	66.8	45	30	123	09	66.3	40	39	123	10	65.5	42	29	183	23	800																																																																																															
750	29	29	27	236	22	37	26	214	32	35	28	36	28	36	25	197	15	35	22	38	22	38	03	03	117	13	40	30	115	12	36	34	122	09	36	24	122	09	750																																																																																																		
700	101	24	21	243	28	101	30	21	215	36	102	28	04	102	29	17	195	16	102	26	19	103	32	12	125	14	102	33	26	114	13	102	31	27	121	08	101	29	14	700																																																																																																	
650	17	05	24	32	32	21	16	215	27	21	02	22	03	22	03	190	21	17	12	17	12	22	07	133	14	24	18	133	12	24	16	128	09	24	16	128	09	650																																																																																																			
600	140	10	00	241	30	140	14	09	215	26	142	14	15	141	15	09	193	21	141	09	06	142	15	09	137	11	142	19	13	162	11	141	17	10	162	11	140	12	06	600																																																																																																	
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500	185	05	32	239	27	186	03	14	215	35	187	03	15	187	02	10	205	21	186	07	16	188	01	05	209	10	188	04	08	170	14	187	00	08	217	10	186	02	28	500																																																																																																	
450	16	46	236	28	11	26	214	32	13	16	11	18	212	21	11	18	212	21	18	26	11	20	09	20	208	17	07	20	194	14	08	26	240	12	12	42	450																																																																																																				
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300	302	58	226	28	304	50	207	22	305	52	305	52	65	305	48	236	17	303	59	71	64	307	46	237	21	308	49	235	19	306	44	222	22	303	51	68	68	300																																																																																																			
250	73	241	27	228	37	73	228	37	65	65	73	241	27	64	256	12	303	59	71	64	307	46	237	21	308	49	235	19	306	44	222	22	303	51	68	68	250																																																																																																				
200	385	81	247	28	389	78	226	37	65	65	391	65	63	391	74	228	26	387	76	69	392	77	253	13	393	73	245	20	390	71	245	20	388	71	66	66	200																																																																																																				
170	70	251	24	226	37	70	251	24	64	64	70	251	24	66	224	24	387	76	69	69	70	251	24	260	15	67	260	15	67	260	15	67	260	15	67	260	15	67	260	15	170																																																																																																
150	66	252	21	255	19	66	255	19	61	61	66	255	19	60	230	20	387	76	69	69	70	251	24	260	15	67	260	15	67	260	15	67	260	15	67	260	15	67	260	15	150																																																																																																
130	68	255	19	255	19	68	255	19	61	61	68	255	19	61	220	19	387	76	69	69	70	251	24	260	15	67	260	15	67	260	15	67	260	15	67	260	15	67	260	15	130																																																																																																
110	66	264	16	264	16	66	264	16	62	62	66	264	16	62	238	19	387	76	69	69	70	251	24	260	15	67	260	15	67	260	15	67	260	15	67	260	15	67	260	15	110																																																																																																
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60	57	146	04	146	04	57	146	04	61	61	60	57	146	04	61	252	14	531	69	69	536	69	264	11	539	65	264	11	539	65	264	11	539	65	264	11	539	65	264	11	60																																																																																																
(050)	54	146	04	146	04	(050)	54	146	04	61	61	(050)	54	146	04	61	252	14	531	69	69	536	69	264	11	539	65	264	11	539	65	264	11	539	65	264	11	539	65	264	11	(050)																																																																																															
Inversion	1010mb. 47°-768mb. 56°	Inversion	1016mb. 47°-768mb. 56°	Inversion	1016mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°	Inversion	1010mb. 47°-768mb. 56°



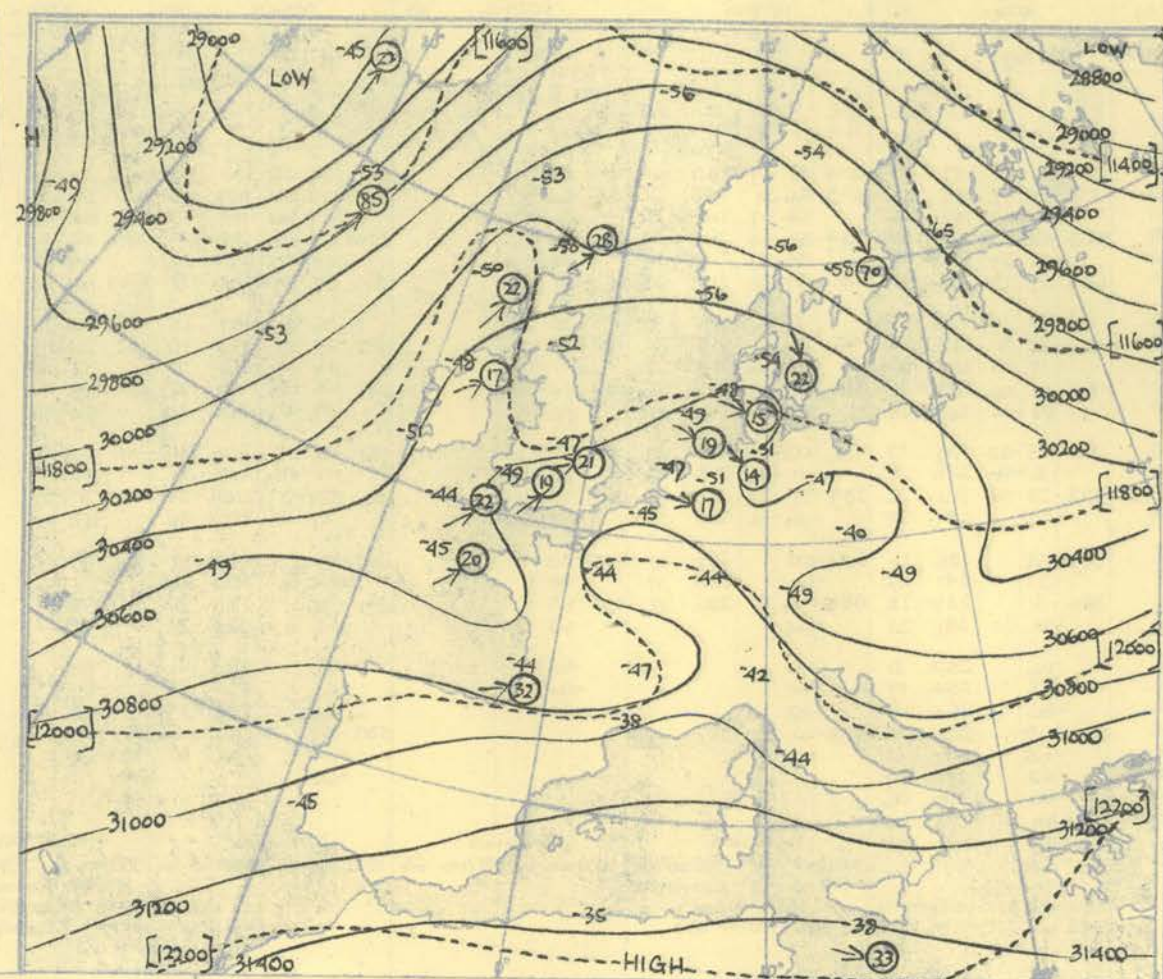
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



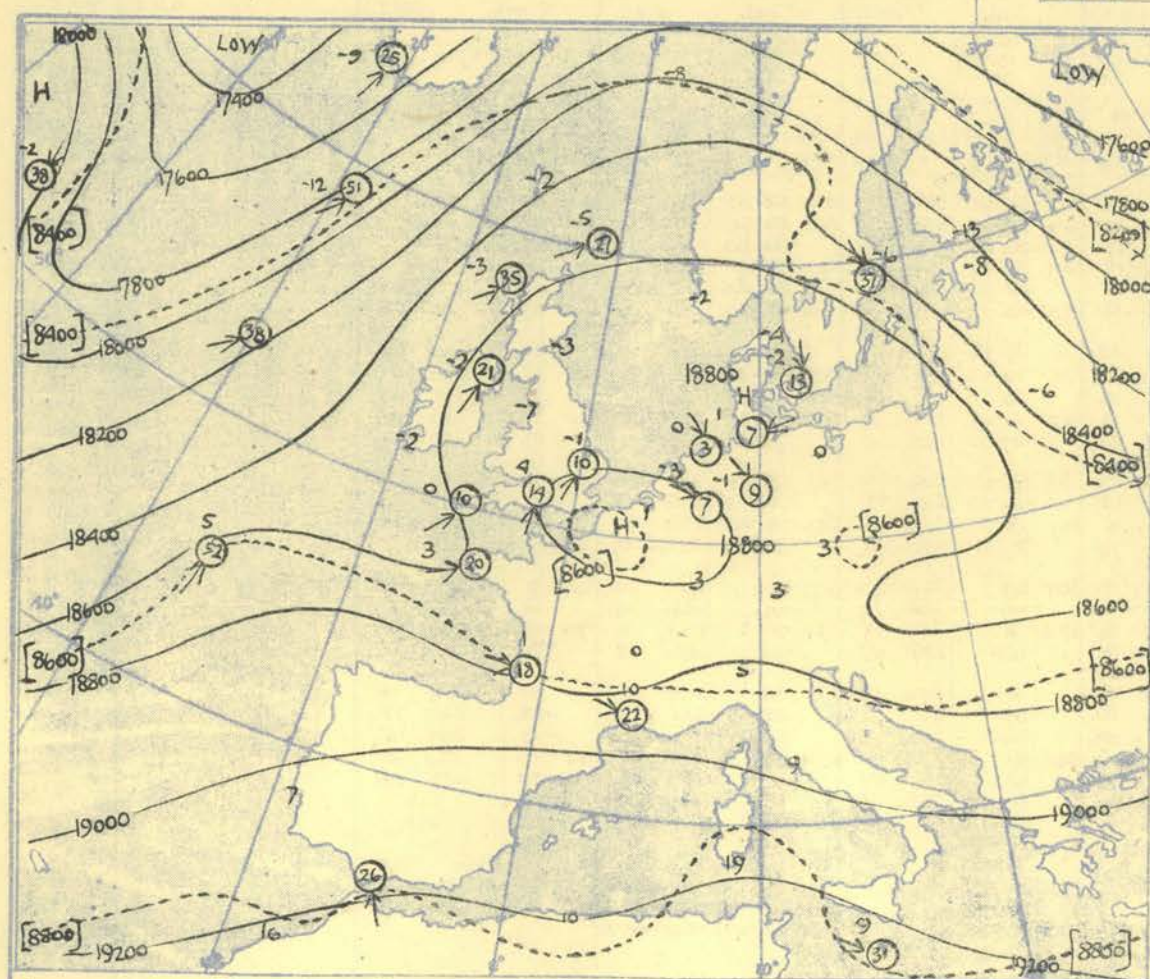
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

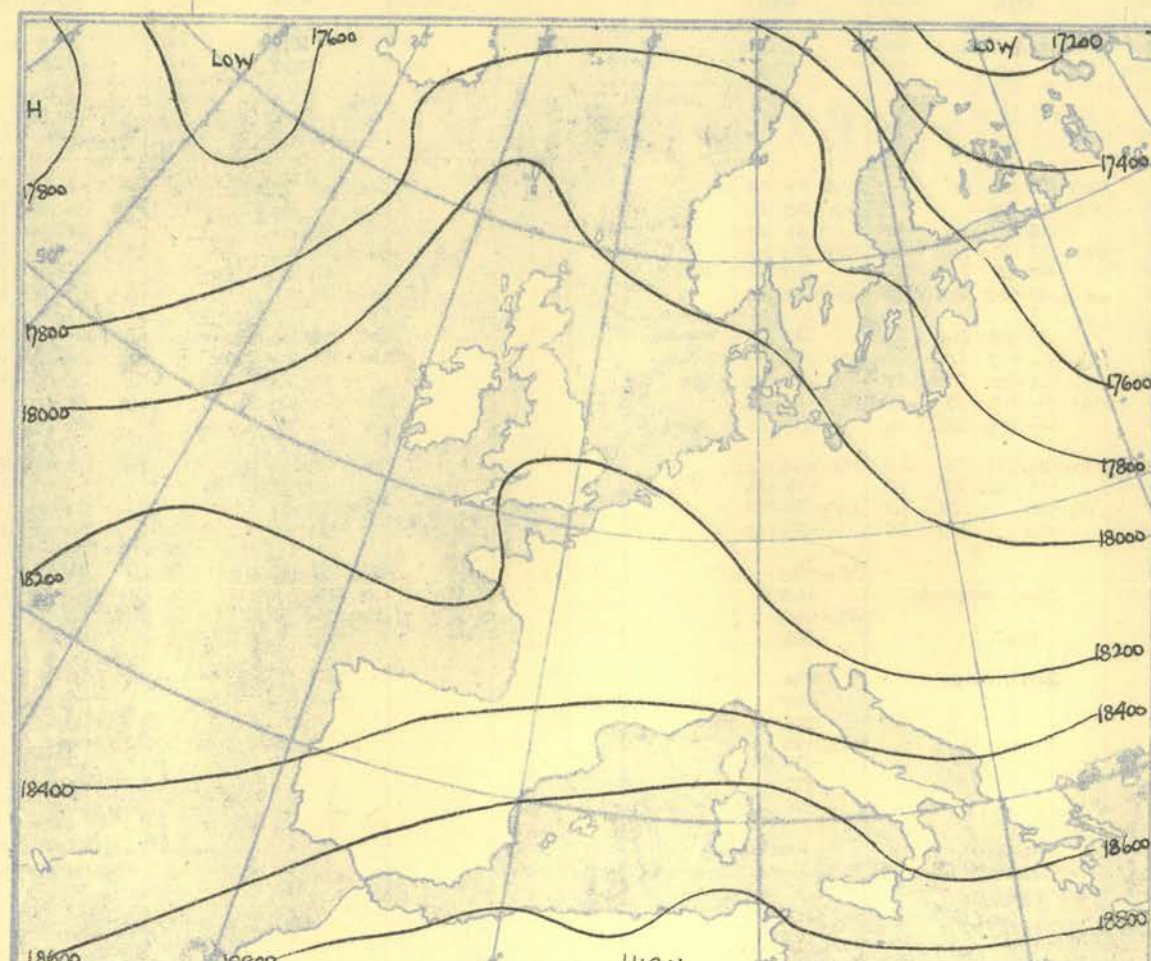
100 80 60 40 20 10 knots



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.

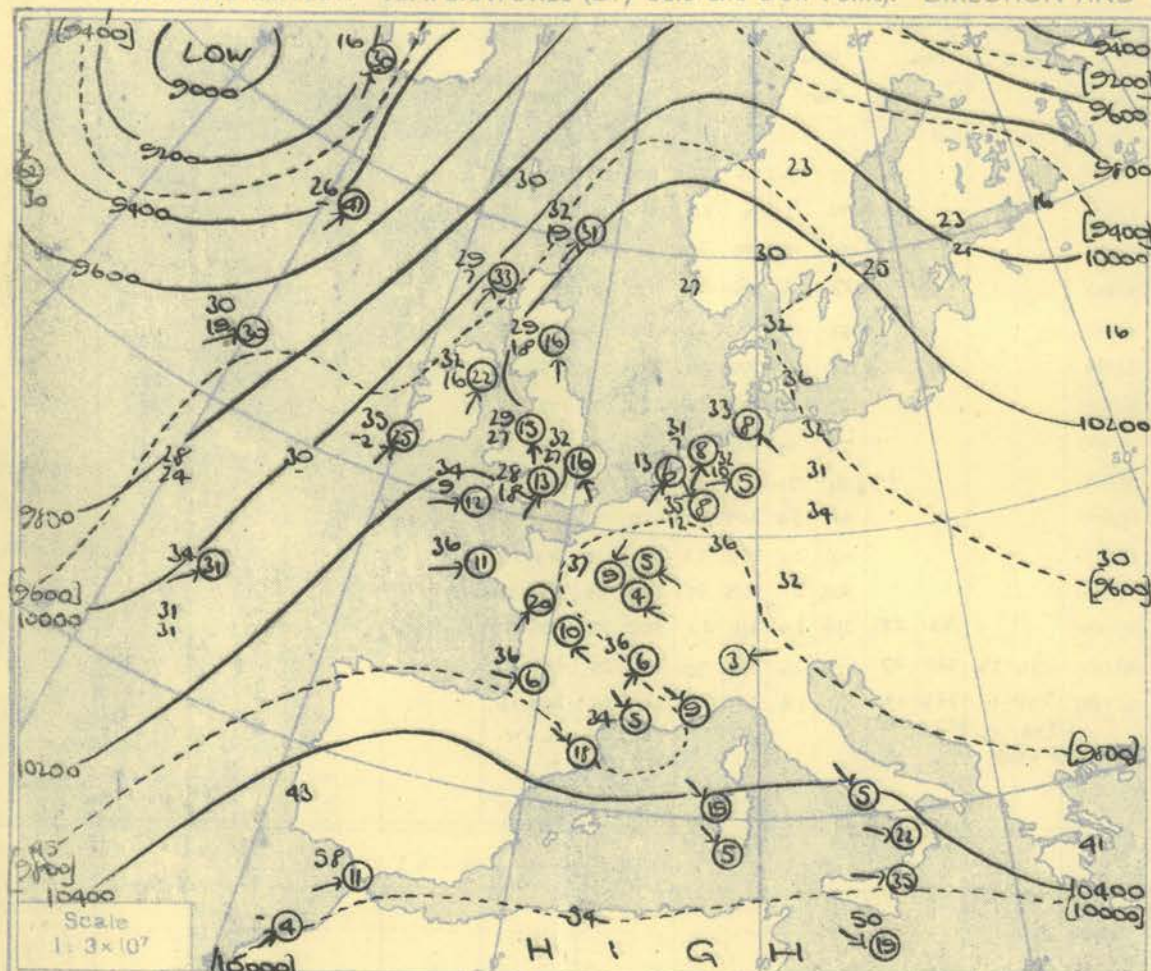


Isopleths of Thickness 500-1000mb.



AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																				DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
48°21'N 20°51'W		49°51'N 14°17'W		43°21'N 17°17'W		51°31'N 00°46'E										Time M.S.L.		Pressure		Place	Gamborne	Lerwick	Aldergrove	Stornoway	Liverpool	Leuchars									Place																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Time M.S.L.		13L		15L		13L		1413L												Time	03L	09L	09L	09L	21L	21L									Time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Surf.		1010 mb		1013 mb		1016 mb		1020.8 mb												Type		Radar Wind	Pilot	Pilot	Pilot	Pilot									Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Freezing		740 mb		720 mb		705 mb		690 mb												Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Pressure mb		Height ft./100		Temp. °F.		Dew °F.		Height ft./100		Temp. °F.		Dew °F.		Height ft./100		Temp. °F.		Dew °F.		Surf.		1000		950		900		850		800		750		700		650		600		550		500		450		400		350		300		250		200		170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Surf		1.0	58	58	1.0	57	55	4.4	59	59	3.1	67	59							Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

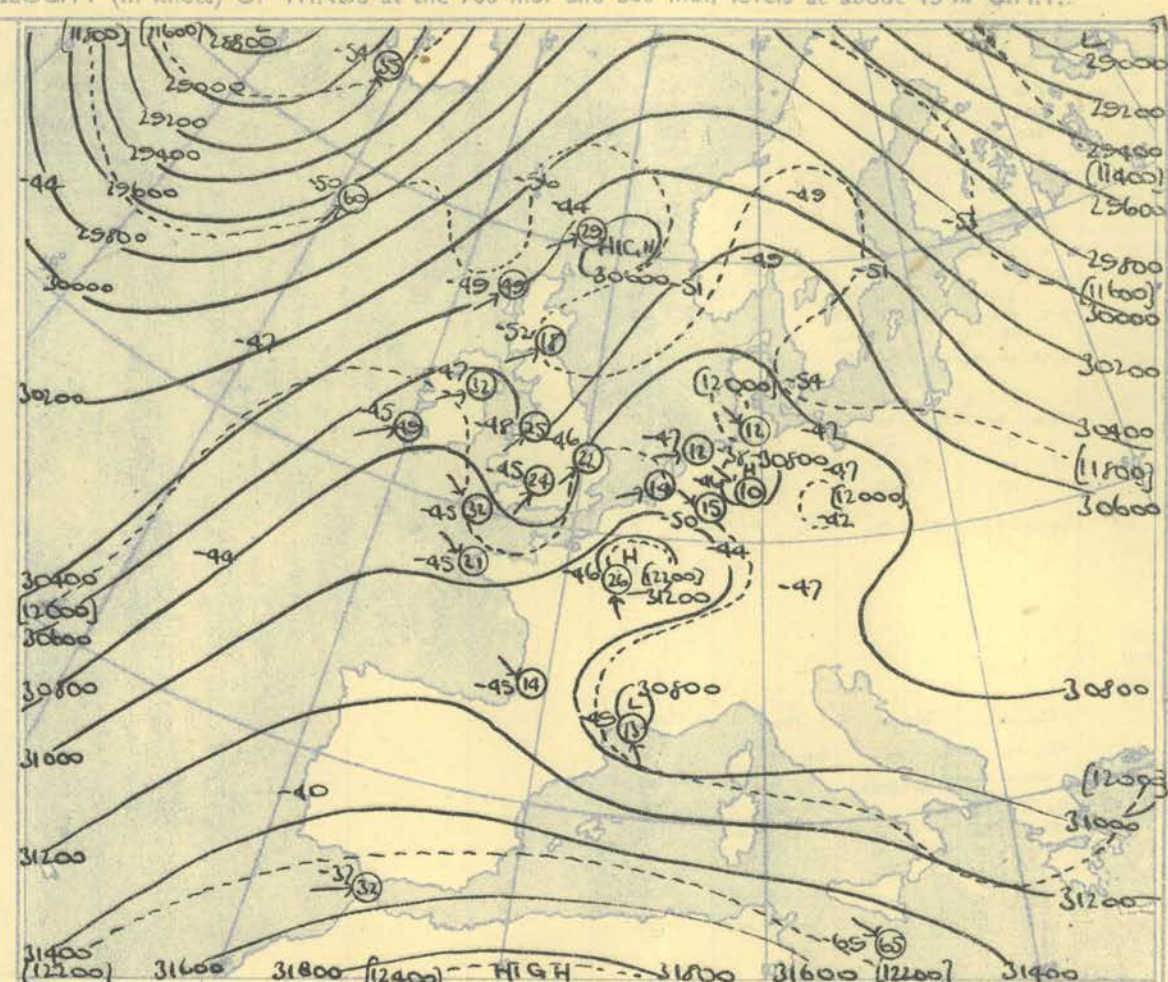




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

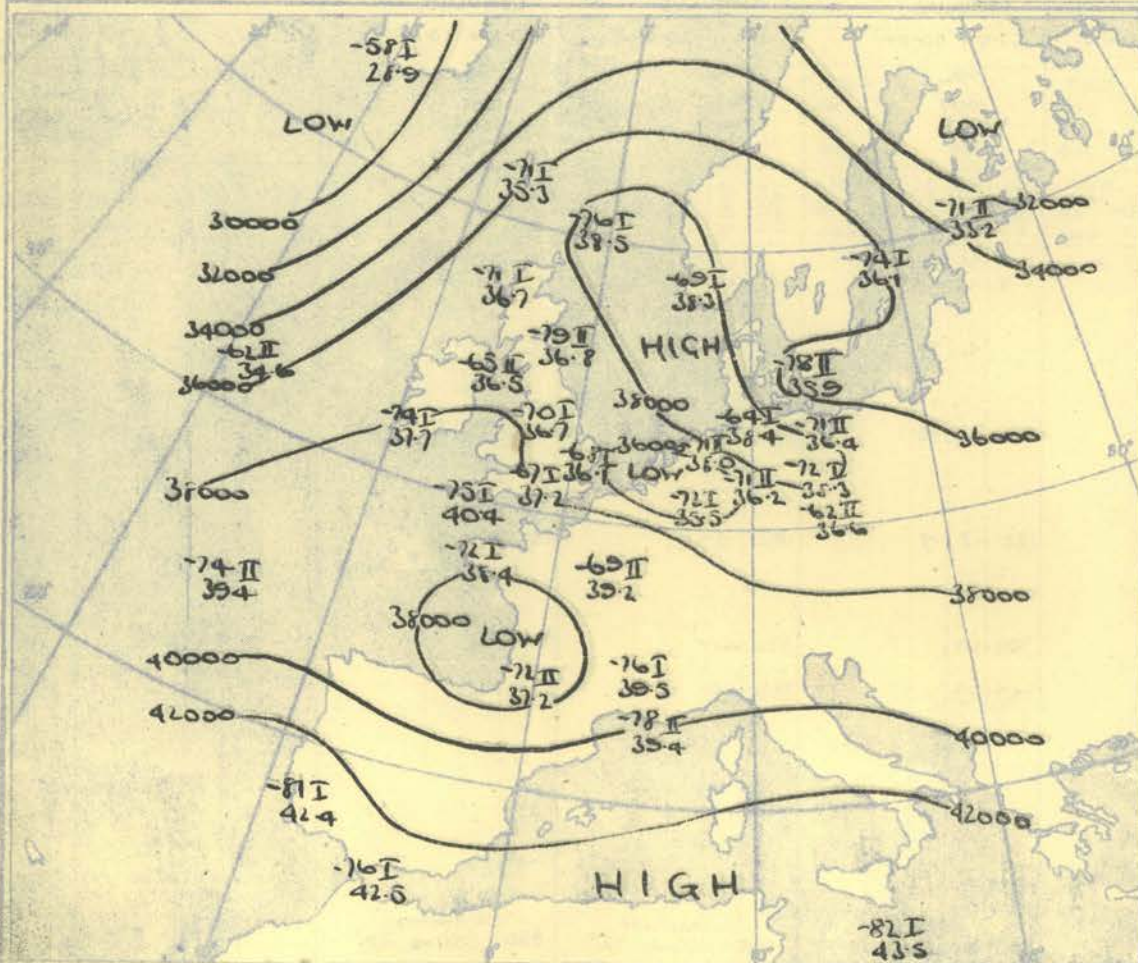
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.

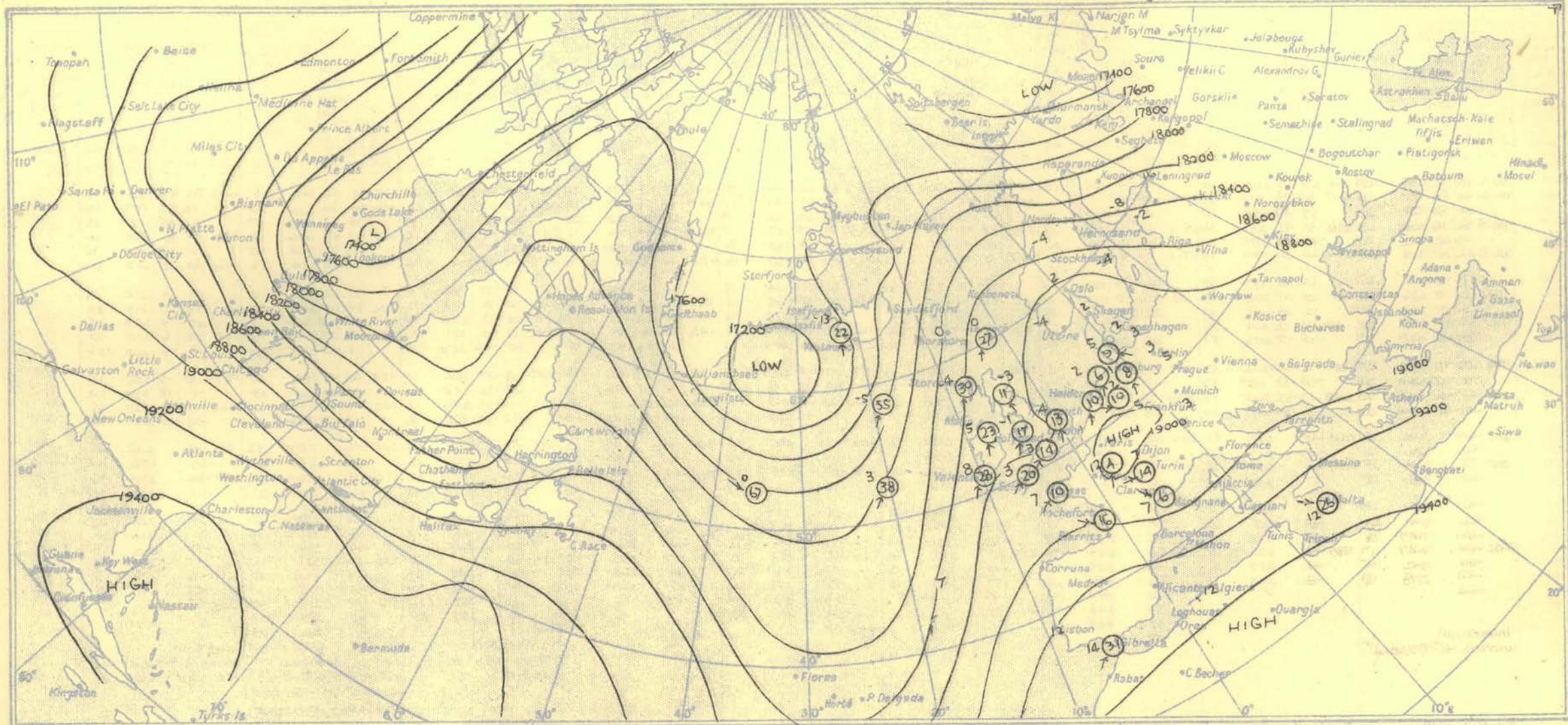


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

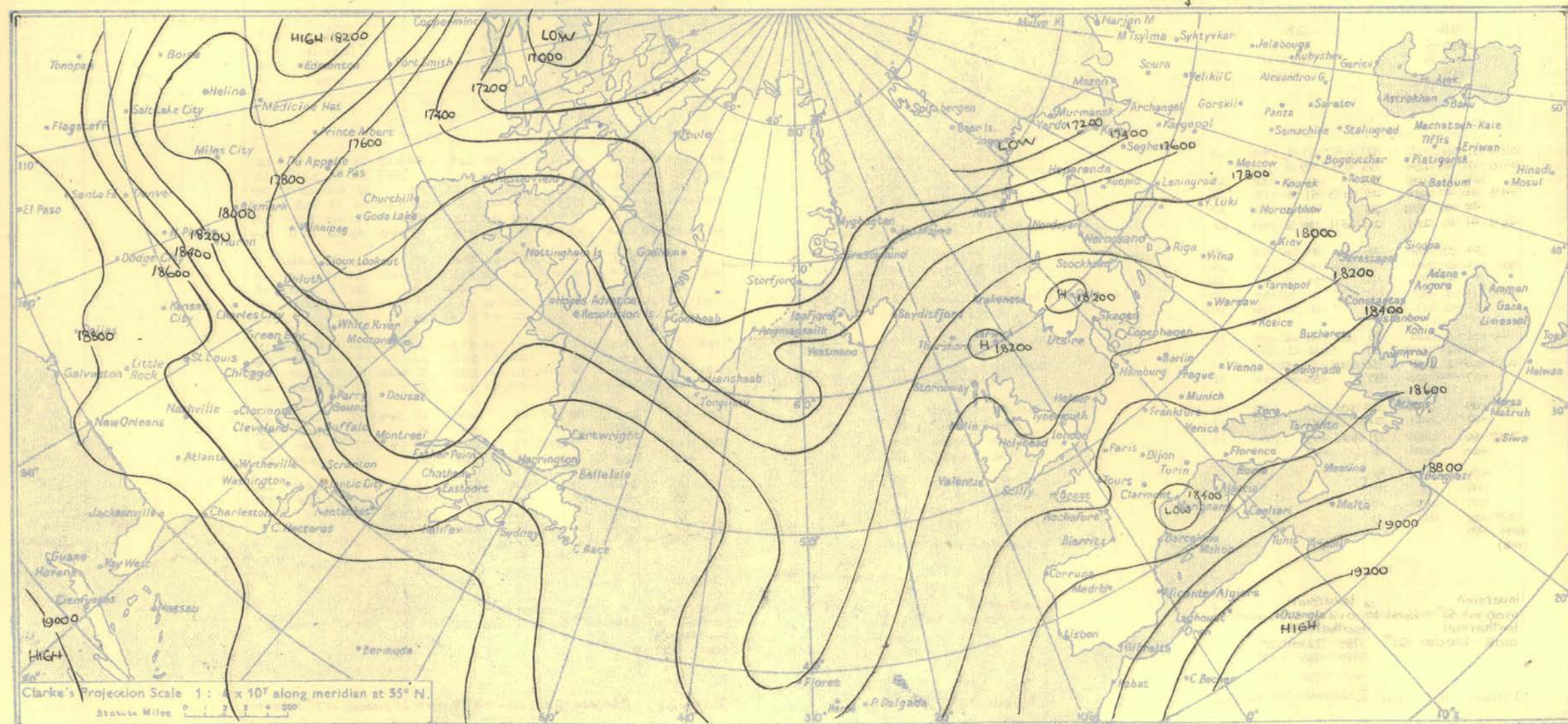
### NOTES ON THE AEROLOGICAL SITUATION.

Only small irregular changes since yesterday.  
No special features.





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 mb	Time M.S.L.	15h		G.M.T.		15h		G.M.T.		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.												
		1019.1		mb		1017.1		mb		1020.0		mb		1018.3		mb		1020.0		mb		1018.8		mb		1019.0		mb		1020.0		mb														
		1009.2		mb		1015.1		mb		1019.2		mb		1009.9		mb		1018.6		mb		1020.4		mb		1019.5		mb		1020.6		mb														
Pressure mb		698		mb		735		mb		720		mb		700		mb		733		mb		699		mb		734		mb		681		mb		675												
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		1000		950		900		850	
Surf	02.7	58	52	135	03	0.5	65	55	200	20	70	55	135	16	02.3	69	59	170	08	00.6	68	52	140	09	01.2	69	53	093	02	04.4	69	60	160	03	02.9	61	56	300	5	00.3	60	55	180	17	Surf	
1000	05.2	61	55	193	15	4.7	60	51	212	29	05.6	68	52	16	05.1	67	55	12	08	05.6	65	52	141	15	05.8	66	51	099	12	05.3	68	59	160	03	02.9	61	56	300	5	00.3	60	55	180	17	1000	
950	34.5	56	46	204	20	33.6	51	41	201	36	35.1	56	41	177	19	34.4	54	46	178	17	34.7	51	47	157	17	35.1	56	44	173	12	34.6	52	45	185	12	34.6	57	45	206	06	33.8	47	43	192	26	950
900	49	40	212	23	46	36	192	34	49	36	190	20	49	36	185	16	46	43	169	16	46.5	41	38	169	16	47.2	44	36	161	16	46.5	41	33	192	16	46.6	43	28	214	12	45.6	44	12	208	26	900
850	66.5	42	35	218	24	65.4	40	30	194	35	67.1	43	31	193	21	66.4	42	35	187	18	66.5	41	38	169	16	67.2	44	36	161	16	66.5	41	33	192	16	66.6	43	28	214	12	65.6	44	12	208	26	850
800	37	30	231	27	34	23	199	33	36	74	168	19	36	19	184	22	34	31	153	17	38	31	158	15	35	27	199	15	39	22	246	12	41	14	218	28	750									
750	102	32	19	232	31	101	29	07	203	33	103	29	18	170	16	102	32	16	182	22	102	29	27	162	15	103	32	27	160	16	102	28	18	203	13	102	34	09	245	12	101	35	-2	213	25	700
700	25	11	232	31	22	00	201	34	22	12	189	16	24	15	190	21	23	18	179	14	28	24	173	17	22	13	208	14	27	02	246	16	28	4	208	28	650									
650	142	17	03	227	28	140	14	-2	201	36	142	14	07	202	17	142	19	11	199	22	141	16	14	204	15	143	20	16	185	17	142	19	03	231	13	142	19	03	250	18	141	22	6	210	23	600
600	09	-01	227	29	05	-9	206	37	06	-04	192	16	13	-8	204	22	08	00	203	14	12	04	183	15	10	-08	244	15	15	-12	260	18	15	-3	221	26	550									
550	188	00	-12	223	27	185	-4	-24	212	30	187	03	-23	174	11	188	5	-11	206	23	187	-1	-11	208	17	189	04	-2	192	13	187	03	-29	252	14	188	03	-11	259	20	187	8	-5	227	26	500
500	10	-20	224	26	-14	-33	209	33	-15	-25	195	12	-4	-24	217	23	-10	-27	215	17	-5	-15	212	13	-05	-30	250	15	-06	-29	261	23	-1	-13	229	34	450									
450	241	-21	-35	226	30	238	-23	-32	202	35	240	-23	-43	209	20	242	-18	-28	226	27	240	-20	-45	219	18	243	-16	-33	232	18	241	-18	-33	246	18	242	-15	-40	272	22	242	-13	-28	229	35	400
400	-31	-43	224	28	-35	-44	209	33	-36	-54	215	21	-30	-39	221	31	-28	-46	243	20	-29	-47	231	18	-29	-47	231	18	-29	-47	231	18	-29	-47	231	18	-29	-47	231	18	-29	-47	231	18	350	
350	307	-44	225	29	303	-49	209	49	305	-52	233	18	307	-47	224	33	306	-48	220	25	309	-46	245	22	307	-45	225	24	308	-45	282	32	308	-45	242	49	300									
300	60	236	33	-65	213	51	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	-69	219	20	250
250	393	-73	238	35	389	-65	224	36	390	-75	233	16	394	-65	236	25	392	-67	239	24	394	-67	251	20	394	-66	246	22	394	-73	264	42	393	-68	230	36	200									
200	-60	238	28	-57	232	23	-64	246	20	-61	243	17	-63	242	17	-62	241	17	-61	240	19	-60	235	16	-60	234	18	-60	234	18	-60	234	18	-60	234	18	-60	234	18	-60	234	18	-60	234	18	150
150	542	-54	247	17	539	-53	232	20	536	-63	242	11	543	-57	247	12	540	-56	252	10	542	-60	257	09	542	-60	247	11	540	-64	231	12	542	-57	205	18	100									
100	-54	247	18	-53	232	20	-54	246	20	-54	245	17	-55	244	17	-54	243	17	-54	242	17	-54	241	17	-54	240	17	-54	239	13	-56	239	14	-55	216	25	130									
90	-54	247	17	-53	232	20	-54	246	20	-54	245	17	-55	244	17	-54	243	17	-54	242	17	-54	241	17	-54	240	17	-54	239	13	-56	239	14	-55	216	25	110									
80	-54	247	13	-53	232	15	-53	235	18	-62	264	08	-57	252	10	-58	275	06	-59	270	06	-59	270	06	-59	270	06	-59	270	06	-59	270	06	-59	270	06	-59	270	06	-59	270	06	90			
70	-54	247	13	-53	232	12	-53	244	12	-58	269	05	-52	"	"	110	03	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	80			
60	Inversion 1009mb 58°-990mb 63°																																											70		
Tropopause		I 207mb -76° 38,500'				I 223mb -71° 36,700'				II 222mb -79° 36,800'				II 230mb -65° 36,500'				I 225mb -70° 36,700'				I 235mb -68° 36,100'				I 222mb -67° 37,200'				I 191mb -75° 40,400'				I 217mb -74° 37,700'				Tropopause								
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure mb	Time M.S.L.	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.												
		1018.5		mb		1015.5		mb		1017.2		mb		1018.3		mb		1020.5		mb		1019.5		mb		1021.0		mb		1018.5		mb														
		1008.5		mb		1013.6		mb		1008.7		mb		1018.6		mb		1020.4		mb		1019.5		mb		1020.6		mb		1016.5		mb														
Pressure mb		739		mb		760		mb		707		mb		700		mb		700		mb		711		mb		690		mb		690		mb		690												
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		1000		950		900		850	
Surf	02.7	52	46	157	10	0.5	57	51	180	03	02.3	63	54	160	06	04.7	63	54	170	10	05.7	62	54	122	12	05.4	63	58	235	04	02.9	55	52	315	02	05.7	54	52	275	10	Surf					
1000	05.0	52	46	204	33	4.3	59	51	188	24	04.7	63	54	170	10	05.7	62	54	170	10	05.7	62	54	122	12	05.4	63	58	235	04	02.9	55	52	315	02	05.7	54	52	275	10	1000					
950	34.3	56	40	200	25	33.3	51	45	178	27	33.9	53	48	192	20	34.7	53	48	192	20	34.7	53	48	192	20	34.7	53	48	192	20	34.7	53	48	192	20	34.7	53	48	192	20	950					
900	48	40	194	25	44	40	182	30	47	43	184	21	47	43	184	21	47	43	184	21	47	43	184	21	47	43	184	21	47	4																

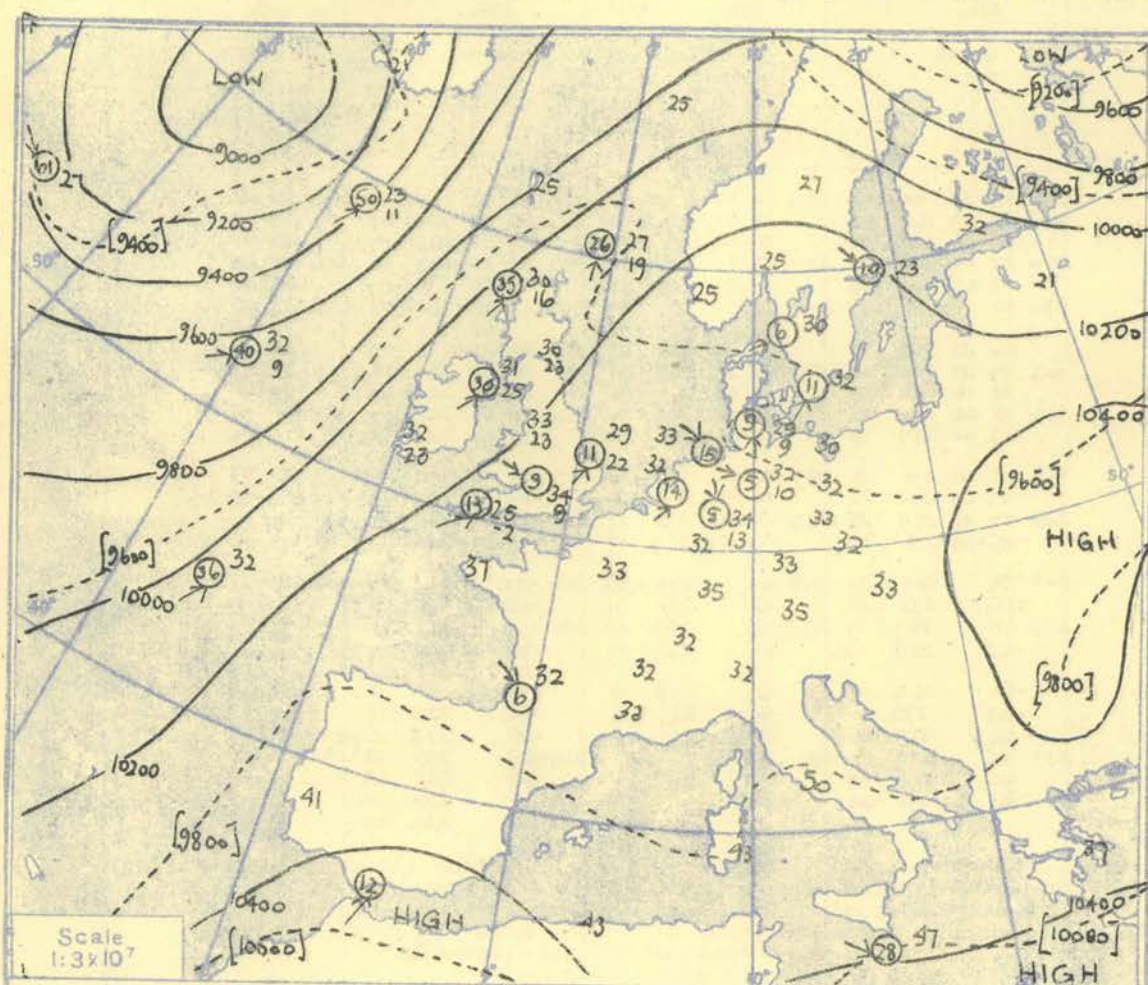


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

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.		03h.		G.M.T.											
		1018.7		mb		1014.5		mb		1019.0		mb		1017.6		mb		1020.1		mb		1020.9		mb		1021.3		mb		1022.3		mb		1017.6		mb											
		1008.6		mb		1012.6		mb		1018.2		mb		1009.2		mb		1018.1		mb		1016.5		mb		1005.3		mb		1011.6		mb		1016		mb											
731		mb		720		mb		721		mb		706		mb		683		mb		726		mb		688		mb		673		mb		700		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	49	43	169	11	00.5	54	50	Calm	00.2	50	49			02.3	57	55	190	10	00.6	54	52			01.2	56	53	100	05	04.4	55	55	Calm	01.9	50	49	Calm	00.3	56	56	Surf						
1000	5.0	50	47	185	33	3.9	56	52		5.1	54	50			4.9	57	54	197	20	5.5	56	55			5.7	64	59	161	12	5.8	55	55		6.0	53	49	254	07	4.7	55	54	1000					
950		57	43	189	39		55	48	190	26		56	50			56	48	202	25		57	53				60	54	203	06		57	53	216	09		53	31	266	07		53	51	950				
900	34.0	54	33	189	36	32.9	50	48	180	33	34.2	51	47			33.9	51	46	209	26	34.6	52	48			35.0	54	48	226	08	35.0	56	43	207	11	34.9	54	33	248	06	30.6	49	45	900			
850		48	29	190	34		45	44	186	36		46	42				47	39	214	27		47	44				48	43	208	08		49	37	207	12		50	24	231	07		46	41	850			
800	66.0	42	25	190	32	64.8	41	37	191	35	66.0	39	38			65.8	42	33	214	27	66.6	43	38			67.0	42	37	198	11	67.1	44	34	232	09	67.0	46	28	231	08	65.5	42	36	800			
750		36	23	187	29		36	27	192	33		34	31				38	29	212	28		37	28				36	32	202	14		38	22	257	09		40	23	221	09		38	29	750			
700	101	27	19	187	26	100	30	16	198	35	101	30	23			101	31	25	215	30	102	33	23			102	29	22	208	11	103	34	09	268	09	103	35	02	234	13	101	32	23	700			
650		19	12	191	25		21	14	198	40		24	17				24	20	216	29		27	15				24	16	248	08		25	07	264	15		29	11	240	15		26	16	650			
600	141	11	07	193	30	140	15	13	203	39	141	17	04			141	18	13	219	30	142	20	10			142	18	04	266	12	143	20	03	266	16	143	23	01	241	16	141	19	08	600			
550		03	01	190	32		09	05	215	30		09	08				09	03	222	38		12	10				13	11	277	13		11	06	286	14		16	07	243	21		11	04	550			
500	186	03	13	201	32	185	01	01	217	30	187	02	20			187	01	07	224	37	188	04	10			188	02	16	291	13	189	05	13	292	16	189	08	11	241	21	187	02	07	500			
450		14	21	217	25		09	12	209	35		11	27				08	18	228	34		06	15				07	30	308	22		05	23	277	21		03	30	254	26		06	22	450			
400	239	26	31	225	20	239	22	25	207	36	240	21	26			241	18	27	230	44	242	19	27			242	22	46	308	28	243	18	34	261	17	243	15	46	248	30	241	19	30	400			
350		39	48	247	22		35	40	208	41		34	39				30	37	228	45		33	41				36	58	318	30		31	47	269	19		28	53	246	35		33	46	350			
300	303	55	258	28	304	50	219	41	305	50	306	48			307	49		286	48	307	49				307	51		317	34	308	49		278	24	309	45		253	39	306	48				300		
250		71	245	34		65	226	48		68		65				65		233	50		65					66		294	35		67		280	31		63		251	38		63		250				
200	388	67	233	27	389	72	221	41	390	70	391	72			392	70		239	37	393	77				392	70		287	19	393	77		283	30	395	80		254	37	392	74				200		
170		61	238	23						64		69				62		229	25		68					62		248	15		67		247	19		250	26		250	26		250	26		250	26	170
150		64	248	22								63				61		228	25		63					61		265	17		63		248	14		70		236	18		57			150			
130		62	254	18								62				64		226	24		63					64		272	11		65		234	09		68		225	15		52			130			
110		62	252	15								64				64		221	21		65					64		279	06		67		260	09		68		223	15	(25)	61			110			
100	535	63									537	63				539	66		226	14	538	66				539	66		279	02	538	65			538	68		233	13				100				
90																																													90		
80																																													80		
70																																													70		
60																																													60		
Inversion 1009mb.49°-958mb.57° Isothermal 958-926mb.57° 556-535mb.03°																																															
Inversion 1013mb.54°-1000mb.56° Isothermal 1000-955mb.56°																																															
Inversion 1018mb.50°-974mb.77° Isothermal 1009-960mb.57°																																															
Isothermal 1018mb.54°-971mb.59° Isothermal 620-607mb.21°																																															
Inversion 1017mb.56°-997mb.65° Isothermal 575mb.14°-567mb.15°																																															
Inversion 1005mb.55°-974mb.58° Isothermal 950-918mb.57° 650-634mb.25°																																															
Inversion 1012mb.50°-994mb.55° Isothermal 960mb.52°-913mb.55° Isothermal 712-700mb.35°																																															
Isothermal 970-950mb.53°																																															
Tropopause I 230mb. -77° 35,900' I 218mb. -78° 37,100' I 216mb. -78° 37,400' I 212mb. -75° 37,900' I 192mb. -78° 40,100' I 234mb. -72° 36,000' I 218mb. -78° 37,500' I 182mb. -83° 41,400' I 200mb. -74° 39,200' 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.





## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure		Time			M.S.L.			Surf			Freezing			Pressure		Time			M.S.L.			Surf			Freezing		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h			1022.3			1011.5			680			mb		mb			mb			mb			mb		
mb		15h																									

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

Place	Cumulus 52-SN. 20-04	Squires Gate	Cumulus 52-SN. 20-04	Cumulus 52-SN. 20-04	Weather Explorer 58-SN. 19-04	Downham Market	Cumulus 52-SN. 20-04	Liverpool	Leuchars	Place
Time	03h.	04h.	09h.	15h.	15h.	15h.	21h.	21h.	21h.	Time
Type						Pilar		Pilar	Pilar	Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	200 13	280 06	210 24	230 26	170 19		200 30	Calm	200 07	Surf.
1,000	210 25	260 06	220 24	220 30	190 30		210 32	175 06	223 24	1,000
2,000	220 33	230 10	220 25	220 40	200 22		220 42	187 08	222 22	2,000
3,000	220 33	230 13	220 26	220 46	200 24		230 48	192 08	218 24	3,000
4,000	220 34	230 12	220 28	220 45	200 30		230 52	198 09	218 25	4,000
5,000	220 38	230 20	220 33	220 47	200 30		230 51	206 11	217 25	5,000
6,000		230 18	220 32	220 46	180 39			212 10	210 27	6,000
8,000		220 20			190 48			221 13	215 32	8,000
10,000	230 40	(7,000')	210 33	220 48	190 60		230 58	210 15	220 39	10,000
14,000	220 44		220 35	220 44	190 90		240 60	221 22	219 32	14,000
18,000	220 45		240 46	220 46	190 92			221 27	225 35	18,000
24,000			220 42		190 112			226 24	234 39	24,000
30,000					190 05			236 18	227 38	30,000
40,000					(27,000')			239 35	244 42	40,000
50,000						262 10		238 11	282 05	50,000
						296 05		235 08	229 07	
						(55,000')		(56,000')	(55,000')	

NEPHOSCOPE OBSERVATIONS

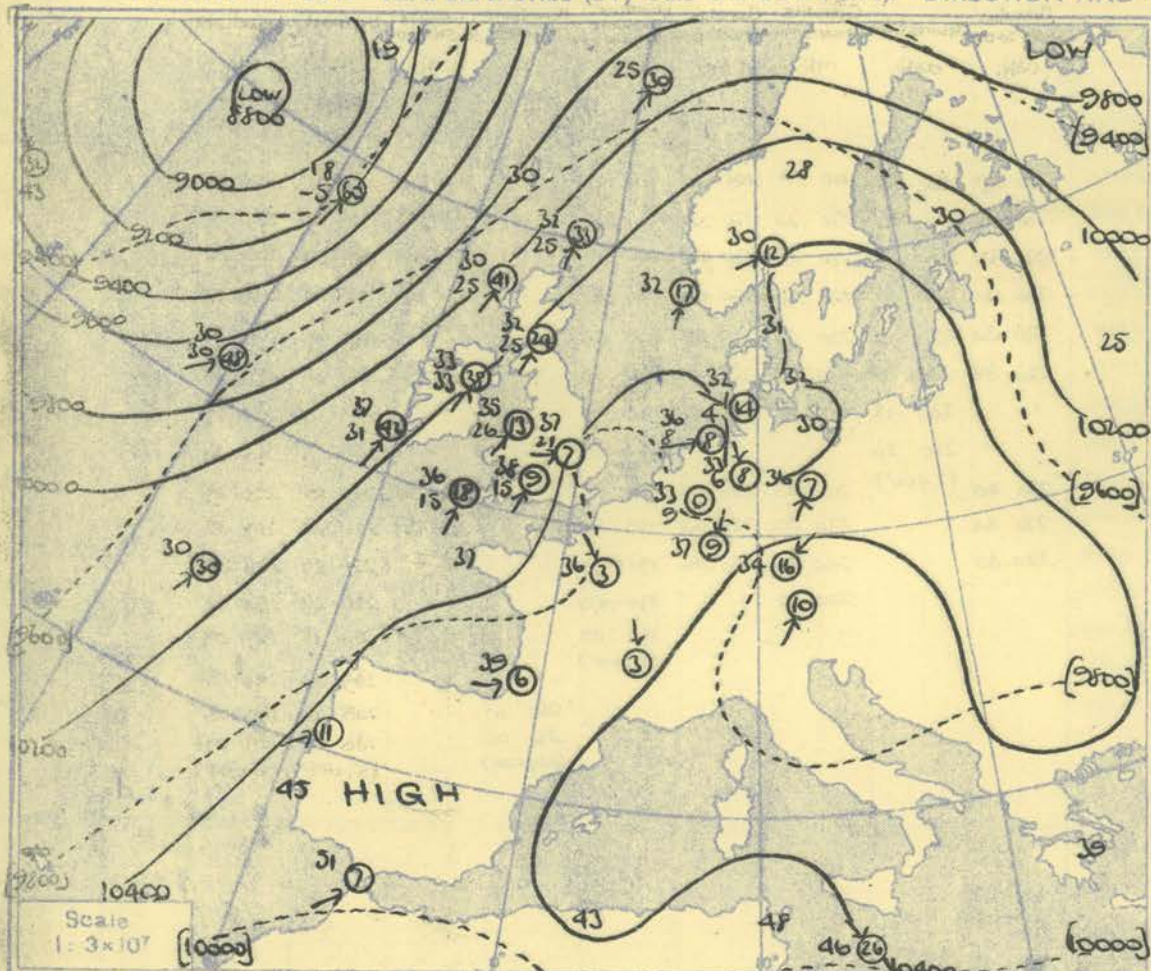
Place	Squires Gate	Wick							Place
Time Type	12h. C	12h. Ac							Time Type
Dir. Vel.	220 20	210 39							Dir. Vel.

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

Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Cumulus				Cumulus				Cumulus				Cumulus								Ship
Lat/Long	59°1'N 188°0'				59°N 19°W				58°9'N 19°W				59°N 18°9'W				52°5'N 20°W				52°5'N 20°W				52°5'N 20°W				52°5'N 20°W								Lat/Long
Pressure (Freezing)	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						
	Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb						
	Freezing		mb		Freezing		mb		Freezing		mb		Freezing		mb		Freezing		mb		Freezing		mb		Freezing		mb		Freezing		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	Pressure mb								
Surf	-	51.49	170	22	-	51.50	160	33	-	50.47	190	20	-	54.48	190	20	-	54.46	190	20	-	55.50	190	20	-	56.50	190	20	-	Surf							
1000	-2.0	47.45	173	34	-3.0	46.39	166	48	-2.1	46.35	200	23	1.1	54.48	200	26	0.3	54.46	200	29	41.19	41.16	41.41	39.35	0.4	55.50	200	29	41.41	39.35							
950	26.6	43.37	184	38	25.4	41.35	184	52	26.4	38.31	200	26																									
900	33.3	32.15	153	39	36.30	32.15	152	56	33.3	32.15	200	29																									
850	58.0	33.24	204	41	56.6	32.23	196	49	57.2	26.16	200	27																									
800	20.1	17.193	46	24	17.188	48	23	05	23.00	200	27		96.6	32.09	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30							
750	92.3	23.11	188	50	91.0	18.10	186	49	91.6	18.12	200	27	96.6	32.09	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30	96.3	30.30							
700	21.4	18.9	52	11	-1.188	58	13	-21	12.31	200	31																										
650	132.14	03.189	48	130	07-12	89	72	131	10-28	200	40																										
600	06-4	189	45	00-15	132	83	03-21	131	05-17	200	40																										
550	178-2	-11.189	50	175-8	-18.151	86	176-5	51	175-8	-50.200	73	181-4	-31	180-2	-44	182	01.01	181	00-P	181	00-P	181	00-P	181	00-P	181	00-P	181	00-P	181	00-P						
500	-4	-19.189	64	-19	-29.126	89	-15	-25	-14	-53.200	100																										
450	231-23	-32.189	68	227-32	-42.189	100	229-25	25	228-24	-49.197	109																										
400	-36	-48.189	82	-48	179	100	-39	-49	-38	-52.191	117																										
350	296	51.189	81	290	-54.192	73	293	-48	293	-41.178	96	300	-51	299	-51	301	-42	301	-43	301	-43	301	-43	301	-43	301	-43	301	-43	301	-43						
300	-53	189	89	-46	126	48	-42	-42	-39	173	72																										
250	384	-44.189	60	380	-44.188	43	383	-40	384	-39.188	45	385	-65	385	-54	389	-60	387	-63	387	-63	387	-63	387	-63	387	-63	387	-63	387	-63						
200	-44	189	49	-44	188	37	-39	-39	-4	192	34																										
150	-44	189	44	-45	188	24	-39	-39	-37	192	28																										
130	-46	189	39	-45	188	29	-39	-39	-39	192	27																										
110	-47	189	39	-46	188	15	-41	-41	-42	192	23																										
100	531-48			533	-49	188	14	538	-41			-58																									
90				-52				(84)-41																													
80	Inversion			Isenthal					Isenthal				Inversion				Inversion				Inversion				Inversion												
70	680mb21-660mb			652-636 mb 11°					764-740mb 28°				872mb39°	858mb43°	890mb37°	889mb43°	863mb39°	837mb43°	837mb37°	770mb39°				Isenthal													
60	23°								(50)-45				730-710mb 32°																								
Tropopause	I 278 mb -57°			± 314 mb -61°				I 283 mb -52°				I 332 mb -44°		I 228 mb -74°		I 223 mb -65°		I 230 mb -62°		I 216 mb -67°																	
	31300'			31300'				30600'				27000'		35800'		36300'		36000'		37100'																	



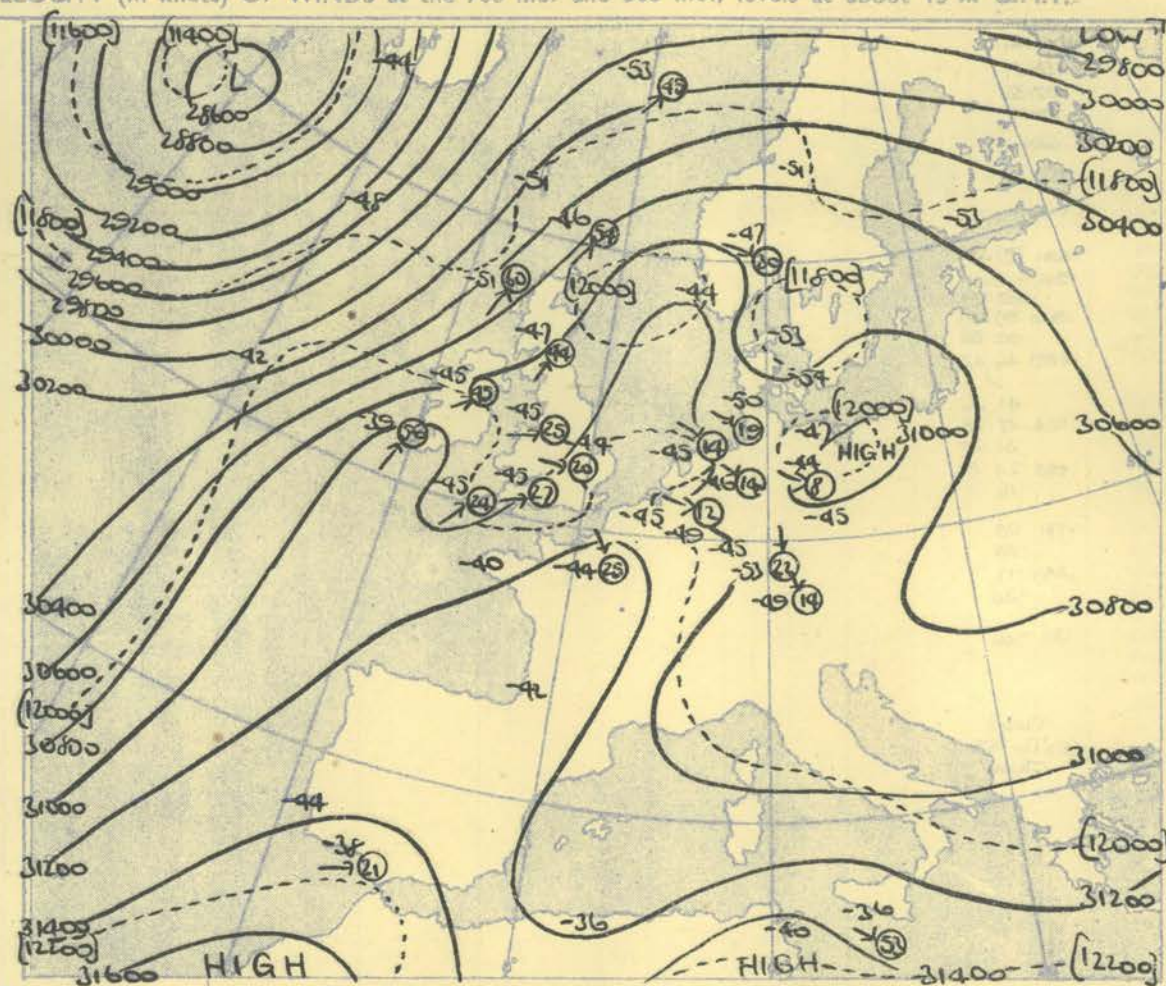
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 700-790 mb.

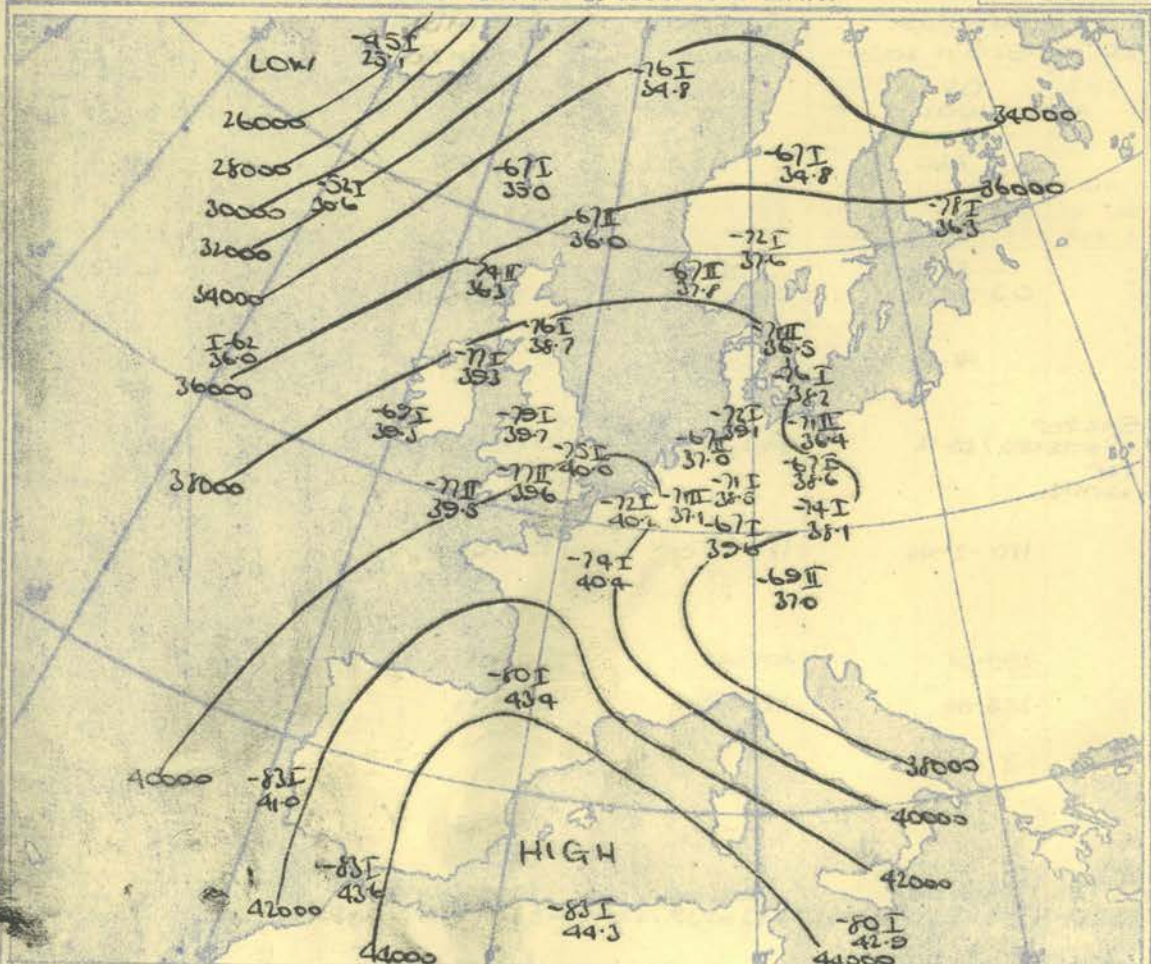
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

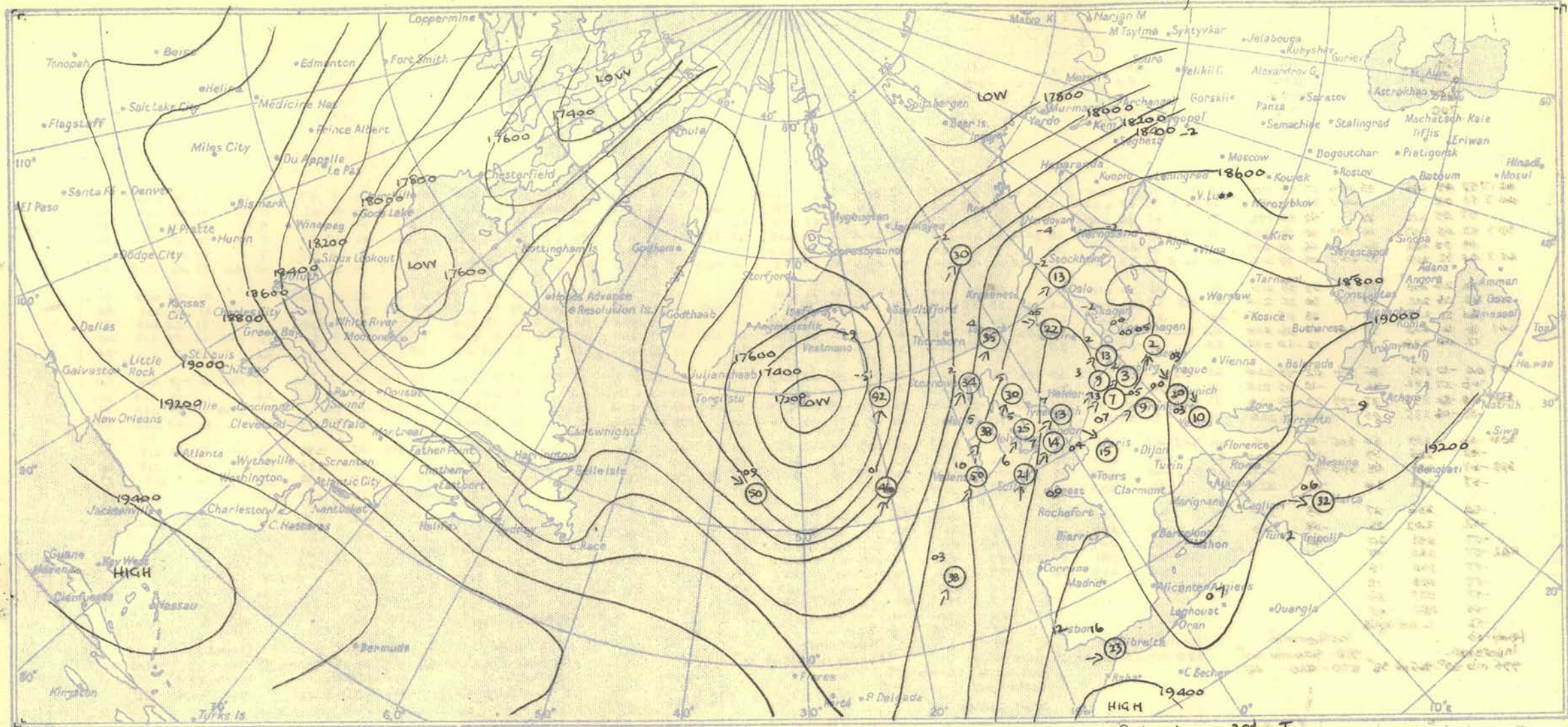
NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge from Spain to West of Norway intensified slightly. A cold pool developed in Mid-Atlantic, centred about 58°N, while another was off Northeast of the Azores.

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

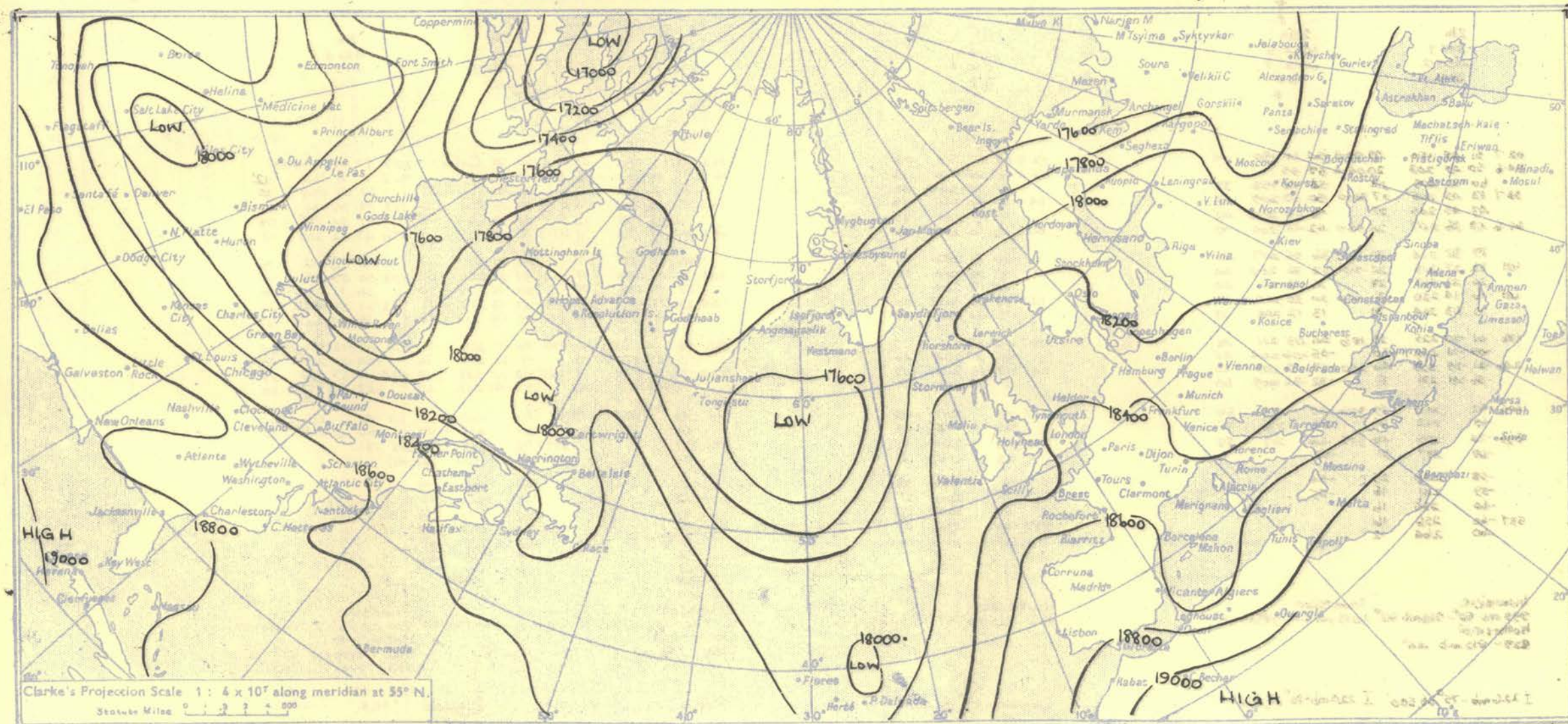




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 3<sup>rd</sup> June

1950



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.

Statute Miles 0 100 200 300



## 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.		15h	G.M.T.		15h	G.M.T.													
		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	1017.5	1017.5	1007.5	700	1015.2	1015.2	1013.5	715	1018.0	1018.0	1017.2	702	1018.9	1018.9	1010.4	690	1021.2	1021.2	1019.3	677	1021.2	1021.2	1016.9	641	1022.3	1022.3	1006.8	659	1022.7	1022.7	1012.3	669	1018.2	1018.2	1016	660								
Height	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	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	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°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	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F									
Wind	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.									
Vel.	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots									
Surf	02.7 53 49 146	04.7 51 48	15 00.5 57 53 190	20 00.2 76 57 265	11 02.3 63 59 180	12 00.6 75 57 198	01.2 78 58 240	04.4 71 60 190	03 02.9 66 56 157	3 00.3 57 56 170	15	1000	04.7 51 48	15 00.5 57 53 190	20 00.2 76 57 265	11 02.3 63 59 180	12 00.6 75 57 198	01.2 78 58 240	04.4 71 60 190	03 02.9 66 56 157	3 00.3 57 56 170	15	1000	04.7 51 48	15 00.5 57 53 190	20 00.2 76 57 265	11 02.3 63 59 180	12 00.6 75 57 198	01.2 78 58 240	04.4 71 60 190	03 02.9 66 56 157	3 00.3 57 56 170	15	1000										
950	57 49 212	22 52 52 192	33 61 48 215	14 56 54 187	18 42 53 199	06 68 53 224	07 61 52 205	06 63 63 161	11 49 56 179	24	950	57 49 212	22 52 52 192	33 61 48 215	14 56 54 187	18 42 53 199	06 68 53 224	07 61 52 205	06 63 63 161	11 49 56 179	24	950	57 49 212	22 52 52 192	33 61 48 215	14 56 54 187	18 42 53 199	06 68 53 224	07 61 52 205	06 63 63 161	11 49 56 179	24	950	57 49 212	22 52 52 192	33 61 48 215	14 56 54 187	18 42 53 199	06 68 53 224	07 61 52 205	06 63 63 161	11 49 56 179	24	950
900	53.7 52 43 207	26 33.1 50 50 204	35 34.7 53 45 222	26 34.4 55 53 205	27 35.4 56 44 208	09 35.9 60 49 203	08 35.7 56 44 200	07 35.6 55 45 168	9 33.8 53 50 204	36	900	53.7 52 43 207	26 33.1 50 50 204	35 34.7 53 45 222	26 34.4 55 53 205	27 35.4 56 44 208	09 35.9 60 49 203	08 35.7 56 44 200	07 35.6 55 45 168	9 33.8 53 50 204	36	900	53.7 52 43 207	26 33.1 50 50 204	35 34.7 53 45 222	26 34.4 55 53 205	27 35.4 56 44 208	09 35.9 60 49 203	08 35.7 56 44 200	07 35.6 55 45 168	9 33.8 53 50 204	36	900	53.7 52 43 207	26 33.1 50 50 204	35 34.7 53 45 222	26 34.4 55 53 205	27 35.4 56 44 208	09 35.9 60 49 203	08 35.7 56 44 200	07 35.6 55 45 168	9 33.8 53 50 204	36	900
850	49 38 202	30 46 43 209	32 52 40 229	20 49 48 205	29 50 39 216	13 52 43 198	08 52 34 193	07 51 34 197	7 50 47 203	40	850	49 38 202	30 46 43 209	32 52 40 229	20 49 48 205	29 50 39 216	13 52 43 198	08 52 34 193	07 51 34 197	7 50 47 203	40	850	49 38 202	30 46 43 209	32 52 40 229	20 49 48 205	29 50 39 216	13 52 43 198	08 52 34 193	07 51 34 197	7 50 47 203	40	850	49 38 202	30 46 43 209	32 52 40 229	20 49 48 205	29 50 39 216	13 52 43 198	08 52 34 193	07 51 34 197	7 50 47 203	40	850
800	65.7 44 32 203	30 66.1 43 39 212	40 66.8 45 38 222	22 66.4 42 42 205	30 67.6 46 37 217	14 68.2 47 37 196	07 67.9 49 17 203	06 67.7 48 28 205	10 66.0 47 45 204	47	800	65.7 44 32 203	30 66.1 43 39 212	40 66.8 45 38 222	22 66.4 42 42 205	30 67.6 46 37 217	14 68.2 47 37 196	07 67.9 49 17 203	06 67.7 48 28 205	10 66.0 47 45 204	47	800	65.7 44 32 203	30 66.1 43 39 212	40 66.8 45 38 222	22 66.4 42 42 205	30 67.6 46 37 217	14 68.2 47 37 196	07 67.9 49 17 203	06 67.7 48 28 205	10 66.0 47 45 204	47	800	65.7 44 32 203	30 66.1 43 39 212	40 66.8 45 38 222	22 66.4 42 42 205	30 67.6 46 37 217	14 68.2 47 37 196	07 67.9 49 17 203	06 67.7 48 28 205	10 66.0 47 45 204	47	800
750	38 24 203	33 37 33 213	41 40 34 216	24 38 38 210	34 40 32 211	13 42 30 218	06 42 24 217	07 42 28 207	16 42 38 203	41	750	38 24 203	33 37 33 213	41 40 34 216	24 38 38 210	34 40 32 211	13 42 30 218	06 42 24 217	07 42 28 207	16 42 38 203	41	750	38 24 203	33 37 33 213	41 40 34 216	24 38 38 210	34 40 32 211	13 42 30 218	06 42 24 217	07 42 28 207	16 42 38 203	41	750	38 24 203	33 37 33 213	41 40 34 216	24 38 38 210	34 40 32 211	13 42 30 218	06 42 24 217	07 42 28 207	16 42 38 203	41	750
700	32 25 202	33 101 30 25 214	41 102 32 25 214	24 102 33 33 215	28 103 35 26 223	13 104 37 31 250	07 104 38 15 217	00 103 36 15 202	18 102 37 31 203	42	700	32 25 202	33 101 30 25 214	41 102 32 25 214	24 102 33 33 215	28 103 35 26 223	13 104 37 31 250	07 104 38 15 217	00 103 36 15 202	18 102 37 31 203	42	700	32 25 202	33 101 30 25 214	41 102 32 25 214	24 102 33 33 215	28 103 35 26 223	13 104 37 31 250	07 104 38 15 217	00 103 36 15 202	18 102 37 31 203	42	700	32 25 202	33 101 30 25 214	41 102 32 25 214	24 102 33 33 215	28 103 35 26 223	13 104 37 31 250	07 104 38 15 217	00 103 36 15 202	18 102 37 31 203	42	700
650	24 21 210	33 23 07 215	44 25 17 224	26 26 33 215	41 29 22 224	16 32 09 255	08 31 13 228	13 29 19 209	17 31 24 209	43	650	24 21 210	33 23 07 215	44 25 17 224	26 26 33 215	41 29 22 224	16 32 09 255	08 31 13 228	13 29 19 209	17 31 24 209	43	650	24 21 210	33 23 07 215	44 25 17 224	26 26 33 215	41 29 22 224	16 32 09 255	08 31 13 228	13 29 19 209	17 31 24 209	43	650	24 21 210	33 23 07 215	44 25 17 224	26 26 33 215	41 29 22 224	16 32 09 255	08 31 13 228	13 29 19 209	17 31 24 209	43	650
600	141 16 12 222	31 140 17 06 216	42 142 19 09 225	26 142 19 17 215	41 143 22 09 222	20 145 25 09 264	10 144 24 01 226	17 144 23 9 210	18 142 24 18 213	40	600	141 16 12 222	31 140 17 06 216	42 142 19 09 225	26 142 19 17 215	41 143 22 09 222	20 145 25 09 264	10 144 24 01 226	17 144 23 9 210	18 142 24 18 213	40	600	141 16 12 222	31 140 17 06 216	42 142 19 09 225	26 142 19 17 215	41 143 22 09 222	20 145 25 09 264	10 144 24 01 226	17 144 23 9 210	18 142 24 18 213	40	600	141 16 12 222	31 140 17 06 216	42 142 19 09 225	26 142 19 17 215	41 143 22 09 222	20 145 25 09 264	10 144 24 01 226	17 144 23 9 210	18 142 24 18 213	40	600
550	12 04 226	33 12 14 212	34 13 03 232	30 12 07 214	39 16 05 223	22 17 03 277	12 16 04 232	14 17 1 213	21 17 12 210	44	550	12 04 226	33 12 14 212	34 13 03 232	30 12 07 214	39 16 05 223	22 17 03 277	12 16 04 232	14 17 1 213	21 17 12 210	44	550	12 04 226	33 12 14 212	34 13 03 232	30 12 07 214	39 16 05 223	22 17 03 277	12 16 04 232	14 17 1 213	21 17 12 210	44	550	12 04 226	33 12 14 212	34 13 03 232	30 12 07 214	39 16 05 223	22 17 03 277	12 16 04 232	14 17 1 213	21 17 12 210	44	550
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400	241 18 34 232	37 239 23 43 226	41 242 17 31 237	36 242 17 24 226	45 244 18 27 238	26 245 16 28 274	16 245 17 33 266	19 244 15 28 217	29 244 10 29 214	51	400	241 18 34 232	37 239 23 43 226	41 242 17 31 237	36 242 17 24 226	45 244 18 27 238	26 245 16 28 274	16 245 17 33 266	19 244 15 28 217	29 244 10 29 214	51	400	241 18 34 232	37 239 23 43 226	41 242 17 31 237	36 242 17 24 226	45 244 18 27 238	26 245 16 28 274	16 245 17 33 266	19 244 15 28 217	29 244 10 29 214	51	400	241 18 34 232	37 239 23 43 226	41 242 17 31 237	36 242 17 24 226	45 244 18 27 238	26 245 16 28 274	16 245 17 33 266	19 244 15 28 217	29 244 10 29 214	51	400
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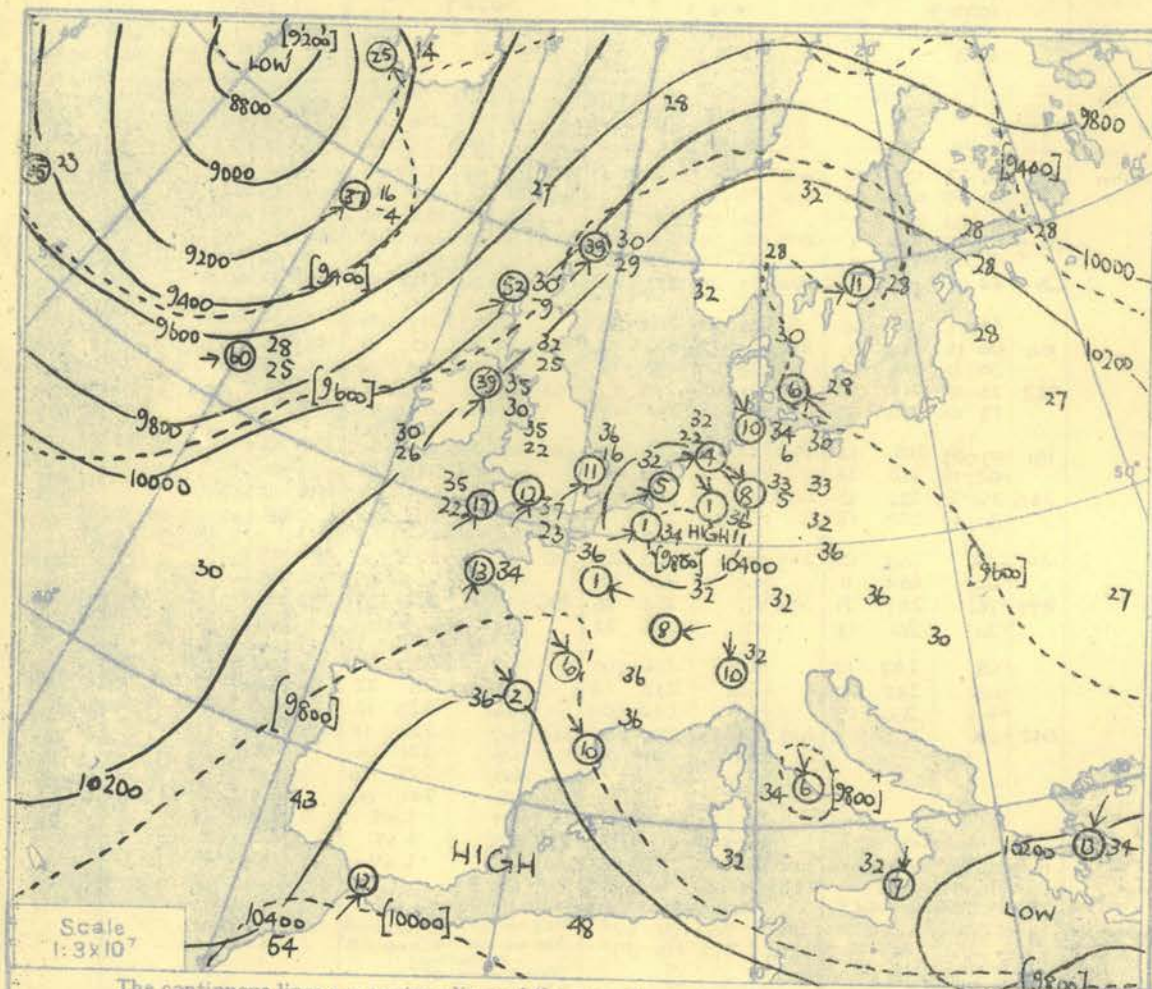


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time	03h.	03h.	03h.	03h.	03h.	03h.	03h.	03h.	03h.	Time
M.S.L.	1017.1	1015.2	1020.1	1019.9	1022.4	1022.9	1023.9	1023.7	1018.9	M.S.L.
Surf	1007.1	1013.3	1019.3	1011.4	1020.4	1018.6	1007.7	1012.5	1017	Surf
Freezing	713	720	700	673	685	663	672	670	715	Freezing
Pressure										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.	°	°	°	°	°	°	°	°	°	Dir.
Vel.	knots	knots	knots	knots	knots	knots	knots	knots	knots	Vel.
Pressure	mb	mb	mb	mb	mb	mb	mb	mb	mb	Pressure
Surf	02.7	00.5	00.2	02.3	00.6	01.2	04.4	02.9	00.3	Surf
1000	4.6	4.1	5.5	5.4	6.1	6.3	6.5	6.2	5.1	1000
950	5.9	4.9	5.5	5.4	5.8	6.3	6.5	5.6	5.1	950
900	5.3	4.5	5.1	5.1	5.5	5.7	5.5	5.6	4.7	900
850	4.8	4.2	5.1	4.8	5.0	5.1	5.3	5.2	4.6	850
800	4.1	3.9	4.7	4.4	4.6	4.8	4.9	4.7	4.2	800
750	3.6	3.5	4.0	4.0	4.2	4.3	4.2	4.0	3.6	750
700	3.0	3.0	3.6	3.5	3.5	3.6	3.7	3.5	3.0	700
650	2.4	2.1	3.2	2.8	2.6	2.5	2.8	2.9	2.0	650
600	1.7	1.5	2.7	2.1	1.9	2.5	2.1	2.3	1.4	600
550	1.0	0.8	2.1	1.3	1.3	1.8	1.4	1.3	1.1	550
500	0.0	-0.1	1.8	0.4	0.7	0.9	0.4	0.7	0.3	500
450	-1.0	-0.3	1.3	-0.6	0.3	-0.3	-0.7	-0.4	-0.6	450
400	-2.1	-0.7	0.7	-1.5	-0.2	-1.6	-1.8	-1.6	-1.8	400
350	-3.4	-1.4	-0.4	-2.8	-0.3	-3.0	-3.1	-2.9	-3.1	350
300	-5.1	-2.5	-0.7	-4.4	-0.8	-4.4	-4.7	-4.3	-4.6	300
250	-6.7	-3.5	-1.4	-6.2	-1.1	-6.0	-6.3	-6.0	-6.5	250
200	-7.4	-4.9	-2.1	-7.2	-1.7	-7.6	-7.7	-7.6	-7.1	200
170	-6.6	-3.5	-2.0	-7.0	-2.1	-7.0	-7.1	-7.4	-6.1	170
150	-5.9	-2.6	-1.0	-6.2	-1.7	-6.8	-6.7	-6.7	-6.2	150
130	-5.0	-1.8	-0.6	-6.0	-1.4	-6.5	-6.3	-6.3	-6.3	130
110	-6.0	-1.9	-0.4	-6.3	-1.2	-6.4	-6.6	-6.6	-6.4	110
100	-5.3	-1.2	-0.3	-6.4	-1.0	-6.4	-6.6	-6.7	-6.4	100
90				-6.4	-0.6		-6.7	-6.8	-6.3	90
80				-6.4	-0.6		-6.7	-6.8	-6.4	80
70				-6.4	-0.6		-6.7	-6.8	-6.4	70
60				-6.4	-0.6		-6.7	-6.8	-6.3	60
Inversion	1007mb-50°-969mb. 60°	1013-1000mb. 54°	(50)mb Inversion 1019mb. 55°-1000mb. 59°	965mb. 53°-950mb. 55°	(50)mb Inversion 1019mb. 55°-950mb. 55°	1019mb. 60°-975mb. 66°	1007mb. 53°-988mb. 62°	(50)mb Inversion 1013mb. 51°-969mb. 58°	873mb. 45°-850mb. 46°	Inversion
Isothermal	60°	54°	55°	44°	44°	44°	44°	58°	45°	Isothermal
578mb. 12°-566mb. 13°			578mb. 12°-566mb. 13°	455°-440mb. -06°	1020mb. 51°-965mb. 59°	789°-758mb. 44°	886mb. 52°-863mb. 54°	935mb. 56°-920mb. 58°	510°-491mb. 03°	510°-491mb. 03°
Isothermal	670°-653mb. 27°		670°-653mb. 27°				724°-713mb. 39°	950°-935mb. 56°		
Tropopause	I 219mb. -77° 37,100'	I 229mb. -71° 36,000'	I 215mb. -80° 36,800'	I 215mb. -75° 37,900'	I 170mb. -82° 43,000'	I 187mb. -78° 41,100'	I 218mb. -76° 37,600'	I 190mb. -80° 40,700'	I 213mb. -78° 37,800'	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION	
Time	09h.	09h.		09h.	09h.	09h.	09h.	09h.		
M.S.L.	1017.8	1016.8		1020.5	1020.3	1023.2	1023.5	1023.5		
Surf	1007.9	1014.8		1012.0	1022.3	1018.8	1007.7	1012.4		
Freezing	701	690		684	680	658	685	670		
Pressure										
Height	ft./100	ft./100		ft./100	ft./100	ft./100	ft./100	ft./100		
Temp.	°F.	°F.		°F.	°F.	°F.	°F.	°F.		
Dew	°F.	°F.		°F.	°F.	°F.	°F.	°F.		
Wind	Dir. Vel.	Dir. Vel.		Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.		
Dir.	°	°		°	°	°	°	°		
Vel.	knots	knots		knots	knots	knots	knots	knots		
Pressure	mb	mb		mb	mb	mb	mb	mb		
Surf	02.7	00.5		02.3	00.6	01.2	04.4	02.9		
1000	4.8	4.5		5.3	6.2	6.5	6.5	6.3		
950	5.6	4.9		5.3	5.7	6.3	6.5	5.8		
900	5.1	4.8		5.2	5.4	5.7	5.4	5.6		
850	5.0	4.5		4.9	5.2	5.1	4.9	5.3		
800	4.4	3.9		4.4	4.7	4.7	4.7	4.9		
750	3.8	3.4		4.0	4.1	4.5	4.1	4.4		
700	3.2	2.9		3.4	3.5	3.8	3.5	3.6		
650	2.4	2.1		2.7	2.8	3.0	2.6	2.9		
600	1.8	1.5		2.0	1.9	2.4	1.8	2.4		
550	1.3	0.8		1.3	1.1	1.8	1.3	1.8		
500	0.4	0.5		0.4	0.4	0.7	0.4	0.7		
450	-0.8	-0.5		-0.4	-0.7	-0.4	-0.9	-0.1		
400	-1.7	-1.4		-1.6	-1.9	-1.5	-1.9	-1.4		
350	-3.0	-2.5		-2.8	-3.1	-2.7	-3.2	-2.6		
300	-4.5	-3.7		-4.3	-4.7	-4.2	-4.8	-4.0		
250	-6.2	-5.3		-6.0	-6.6	-6.0	-6.3	-5.6		
200	-6.7	-5.9		-6.7	-7.1	-6.8	-7.8	-7.3		
170	-5.9	-4.9		-6.1	-6.0	-6.8	-7.8	-7.1		
150	-5.5	-4.9		-5.9	-6.0	-6.8	-7.8	-7.1		
130	-5.5	-4.9		-5.7	-5.9	-6.3	-7.0	-6.2		
110	-5.5	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
100	-5.4	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
90	-5.4	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
80	-5.4	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
70	-5.4	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
60	-5.4	-4.5		-5.6	-5.8	-6.3	-7.0	-6.2		
Inversion	905mb. 50°-885mb. 52°	890mb. 48°-867mb. 50°		950mb. 53°-925mb. 54°	912mb. 52°-885mb. 55°	992°-976mb. 65°	971mb. 44°-557mb. 15°	978mb. 55°-955mb. 58°		
Isothermal	448mb. -9°-439mb. -7°	942°-890mb. 48°		1000°-973mb. 60°		764°-750mb. 45°	987°-963mb. 59°	900mb. 56°-870mb. 57°		
Isothermal	985°-948mb. 56°	672°-660mb. 30°						1012°-978mb. 55°		
Isothermal	594°-583mb. 17°	595°-577mb. 20°						625°-608mb. 25°		
Tropopause	I 215mb. -74° 37,800'	I 225mb. -66° 37,000'		I 215mb. -71° 38,100'	I 211mb. -75° 38,300'	I 207mb. -77° 39,000'	I 195mb. -83° 37,700'	I 185mb. -76° 41,600'		



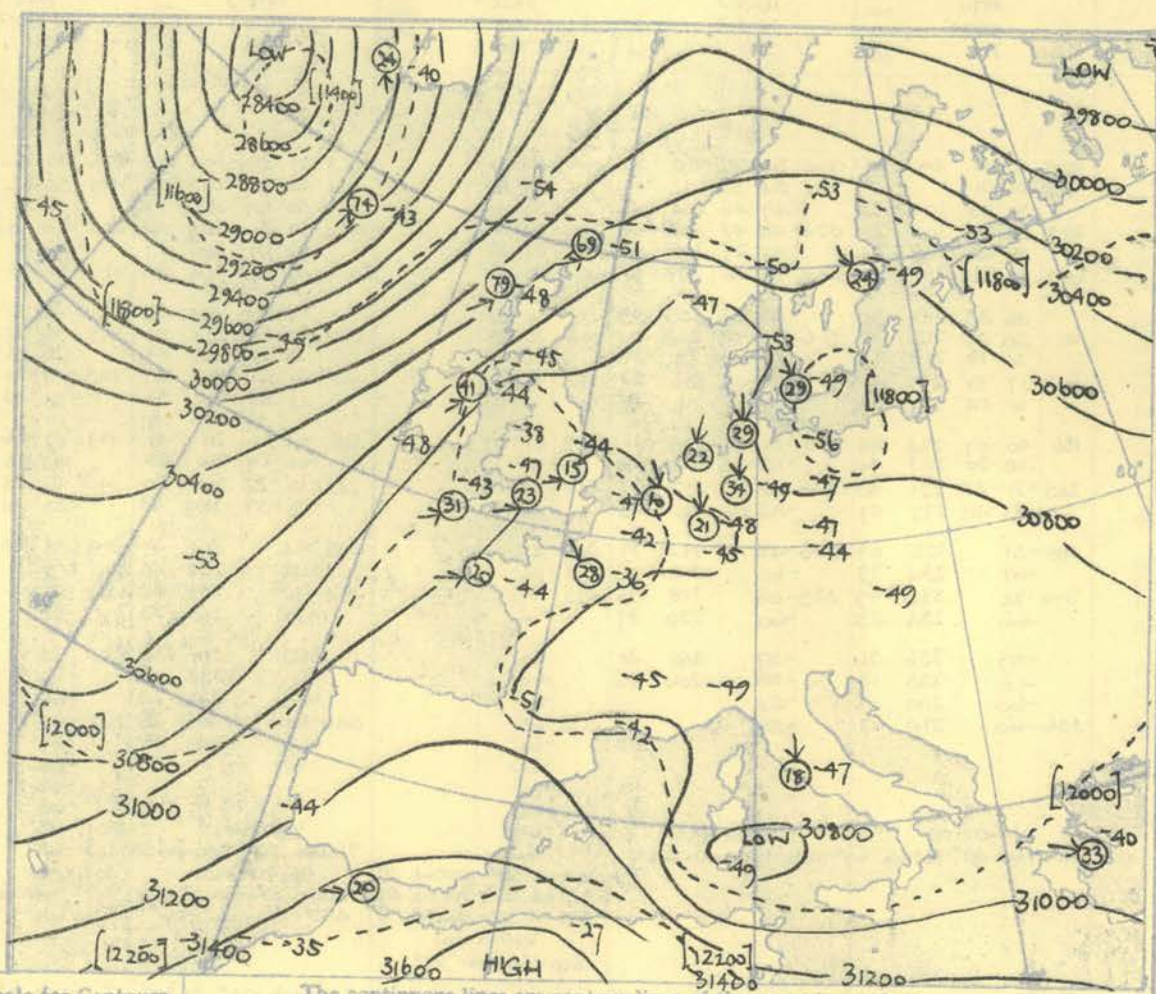
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h. G.M.T.



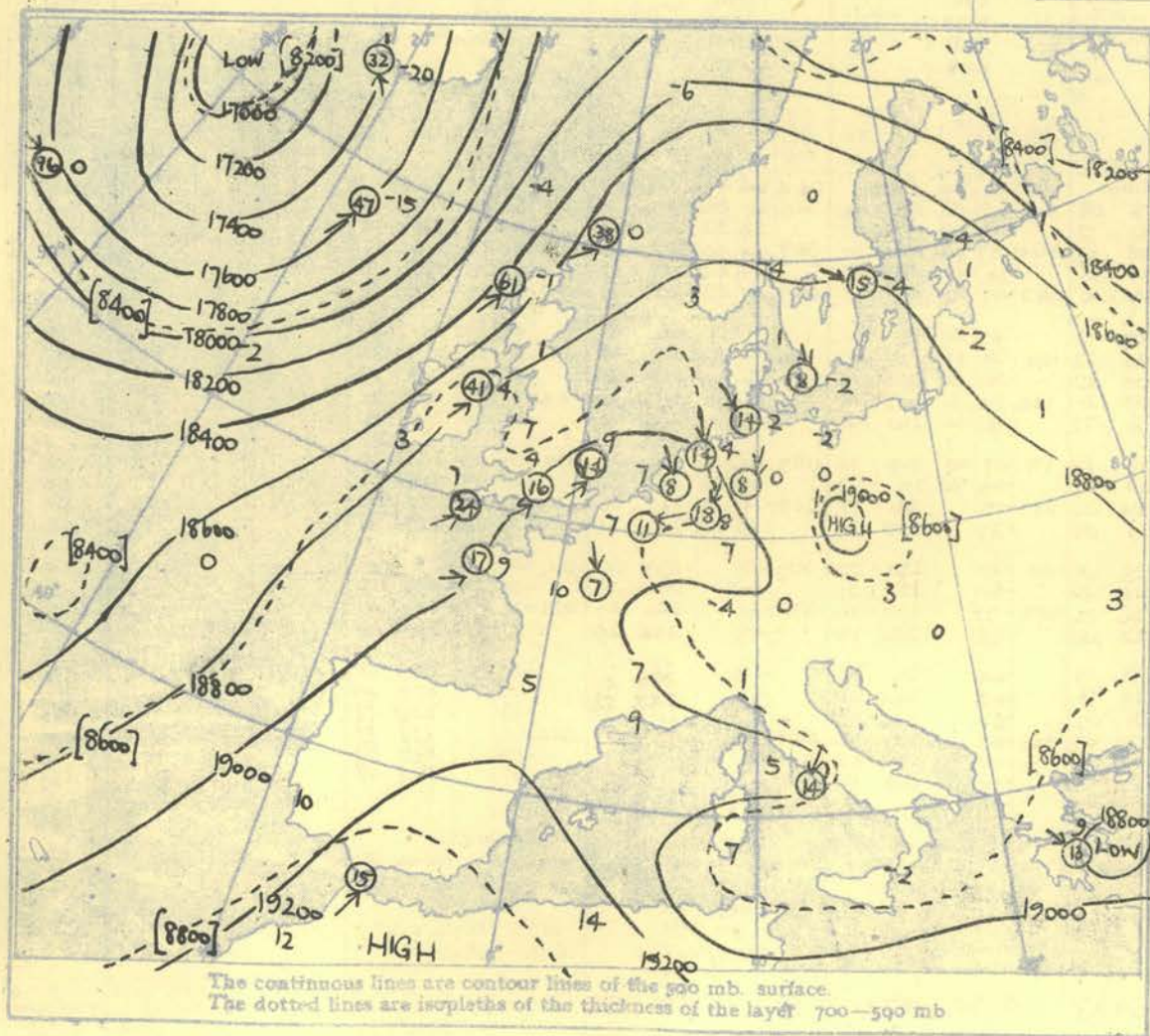
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 54° N

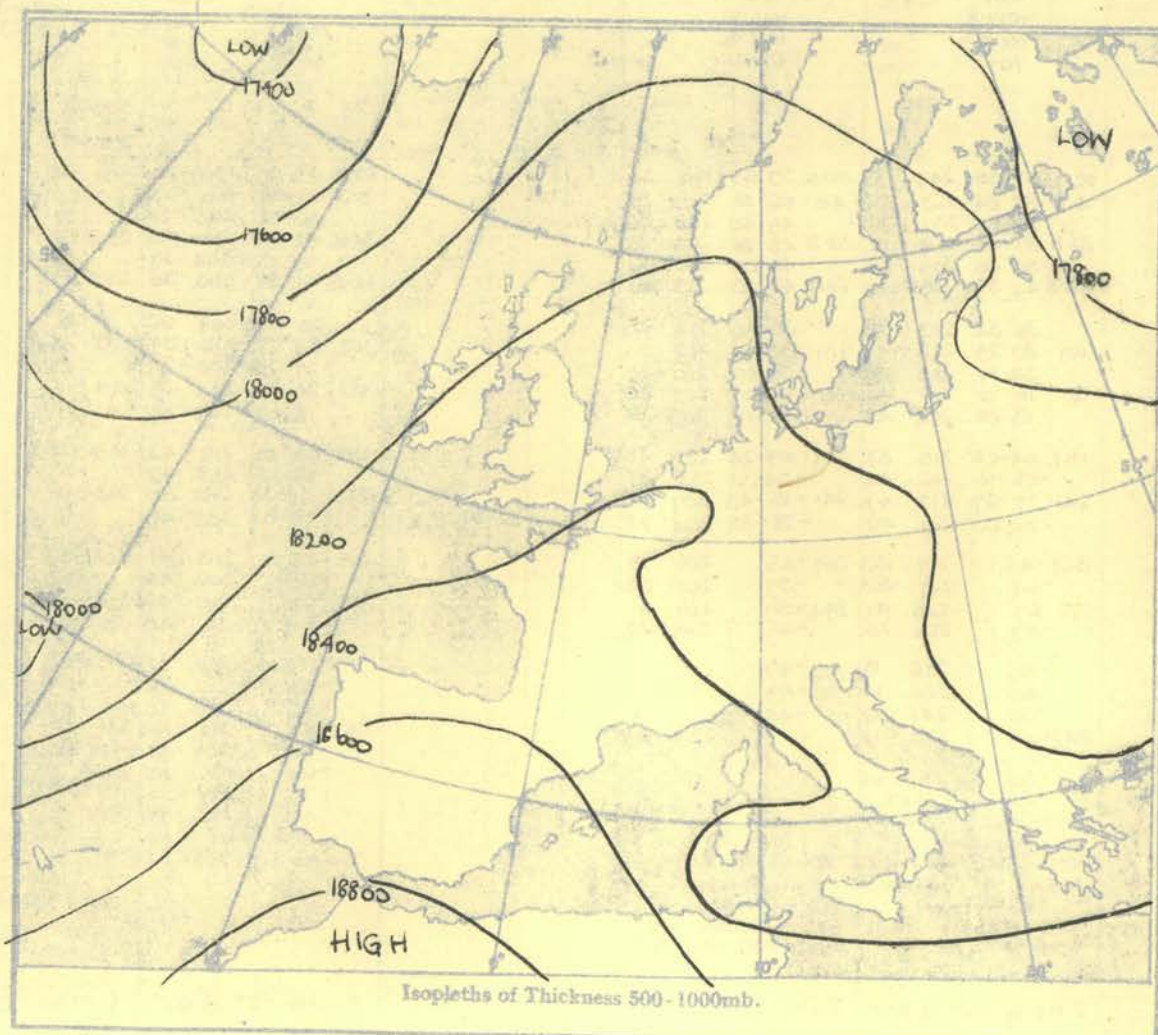
100 80 60 40 20 10 knots



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	48-2N. 20-5W.			49-5N. 14-7W.			43-2N. 17-0W.			39-5N. 12-2W.												Time M.S.L. Surf Freezing			
	14h.			15h.			12h.			14h.			mb			mb			mb				mb		
	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		
	1019	mb	mb	1022	mb	mb	1019	mb	mb	1019	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb			
	1016	mb	mb	1019	mb	mb	1015	mb	mb	1015	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb			
	690	mb	mb	670	mb	mb	760	mb	mb	630	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.	Pressure mb			
Surf	1.0	55	55	1.0	57	57	5.3	55	55	5.3	62	59										Surf			
1000	5.3			6.1			5.3	55	55	5.3	58											1000			
950		30	48		31	47		56	49		51	49										950			
900	33.9	41	41	34.9	46	36		47	45		60	49										900			
850		48	31		46	25		41	41		54	30										850			
800	65.8	44	23	66.7	45	13		36	36		40	19										800			
750		40	17		40	20		31	31		42	30										750			
700	101	33	21	102	35		101	25		103	38	21										700			
650		25			27			19			35											650			
600	141	15		142	20			15			26											600			
550		09			13			05			17											550			
500	187	04		188	03		186	04		189	08											500			
450																						450			
400																						400			
350																						350			
300																						300			
250																						250			
200																						200			
170																						170			
	Cloud. 3/8 Sc 90 - 890mb.			Cloud. 4/8 Sc 910 - 960mb.			Cloud. 1/8 Sc 980 - 970mb.			Cloud. 4/8 Sc 950-940mb. Surf. wind:- S.E. 7-10kts. Inversion 950mb. 31°- 900mb. 60°- 800mb 40°- 750mb. 42°															
	2/8 As H.N.G. 3/8 Cs H.N.G. Inversion 900mb. 41°- 850mb. 48°			1/8 Ci H.N.G. Isothermal 900-850mb. 46°			3/8 Cu 780- 600mb. 8/8 Cs H.R. Surf. wind:- S.E. 7-10kts. Inversion 1015mb. 55°- 950mb. 56°																		

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

Place	Cumulus 52° SN. 20° ON.				Cumulus 52° ON. 20° ON.				Leeming	Cumulus 52° SN. 20° ON.				Cumulus 52° ON. 20° ON.				Leuchars	Liverpool	Ronaldsby	Lympne	Place	
Time	03h.				09h.				09h.	15h.				21h.				21h.	21h.	21h.	21h.	21h.	Time
Type														Pilar				Pilar					Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	280	54	270	14	Calm		240	15	210	09	270	04	Calm		210	03	090	07					Surf.
1,000	260	16	270	18	230	07	240	18	220	16	235	15	121	09	220	18	110	02					1,000
2,000	280	28	260	24	210	11	240	22	220	20	235	15	208	07	210	13	150	07					2,000
3,000	240	32	260	30	200	10	240	66	230	24	235	15	223	13	220	15	170	07					3,000
4,000	240	32	260	36	210	17	240	36	240	30	235	18	216	20	230	13	190	09					4,000
5,000	240	38	280	42			240	37	260	34	232	23	215	22	230	18	200	12					5,000
6,000					200	19					227	30	217	24	230	25	190	12					6,000
8,000					210	11					220	35	234	22	230	33	210	08					8,000
10,000	230	60	230	50	210	21	240	44	260	42	221	39	233	23			280	06					10,000
14,000	220	62	230	53	210	17	240	65	250	45	220	36	231	27									14,000
18,000			240	18			260	68	250	48	230	35	248	23									18,000
24,000			240	88					240	40	231	36	240	34									24,000
30,000											221	35	243	45									30,000
40,000											236	35	247	29									40,000
50,000											246	18	232	14									50,000
											L+V. L+V. (63,000')		L+V. L+V. (63,000')										

## NEPHOSCOPE OBSERVATIONS

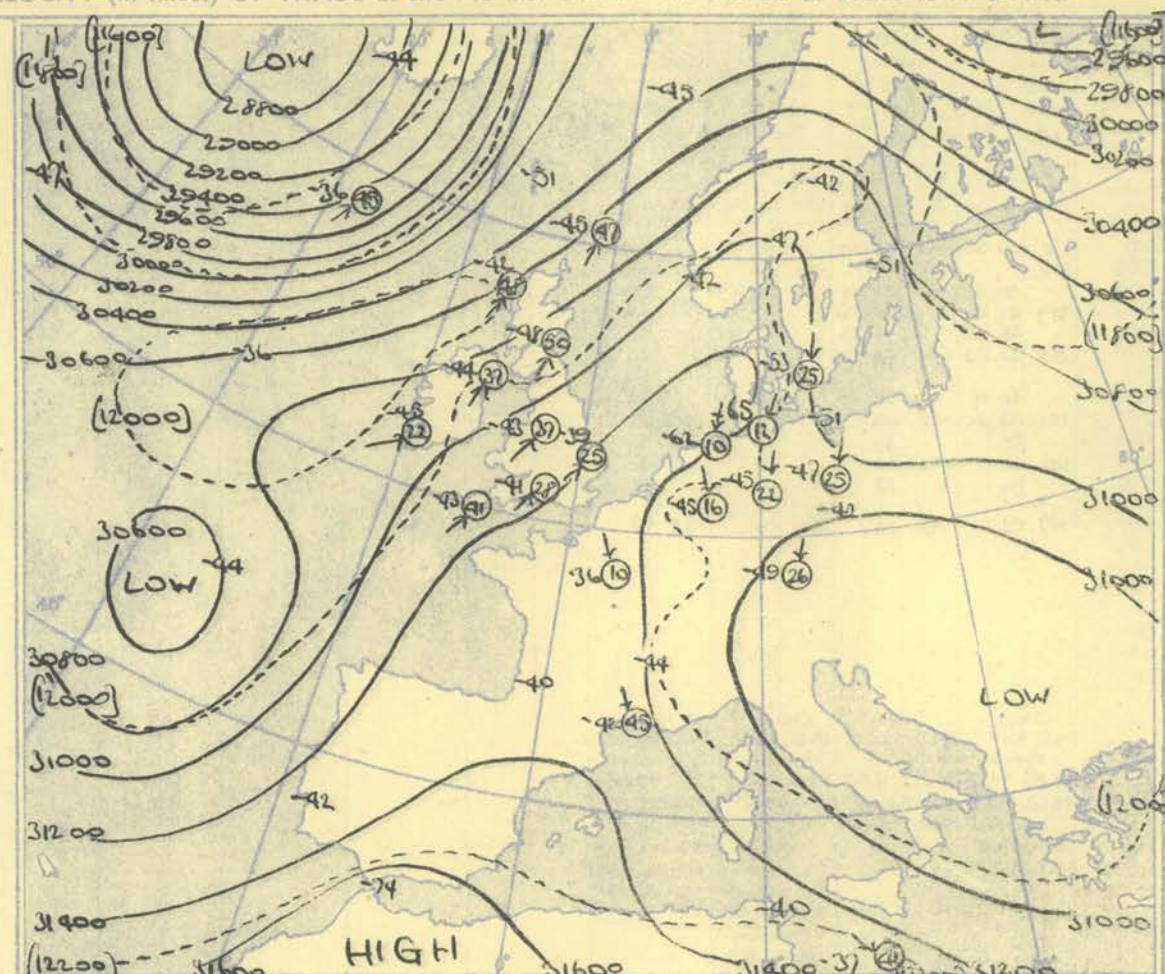
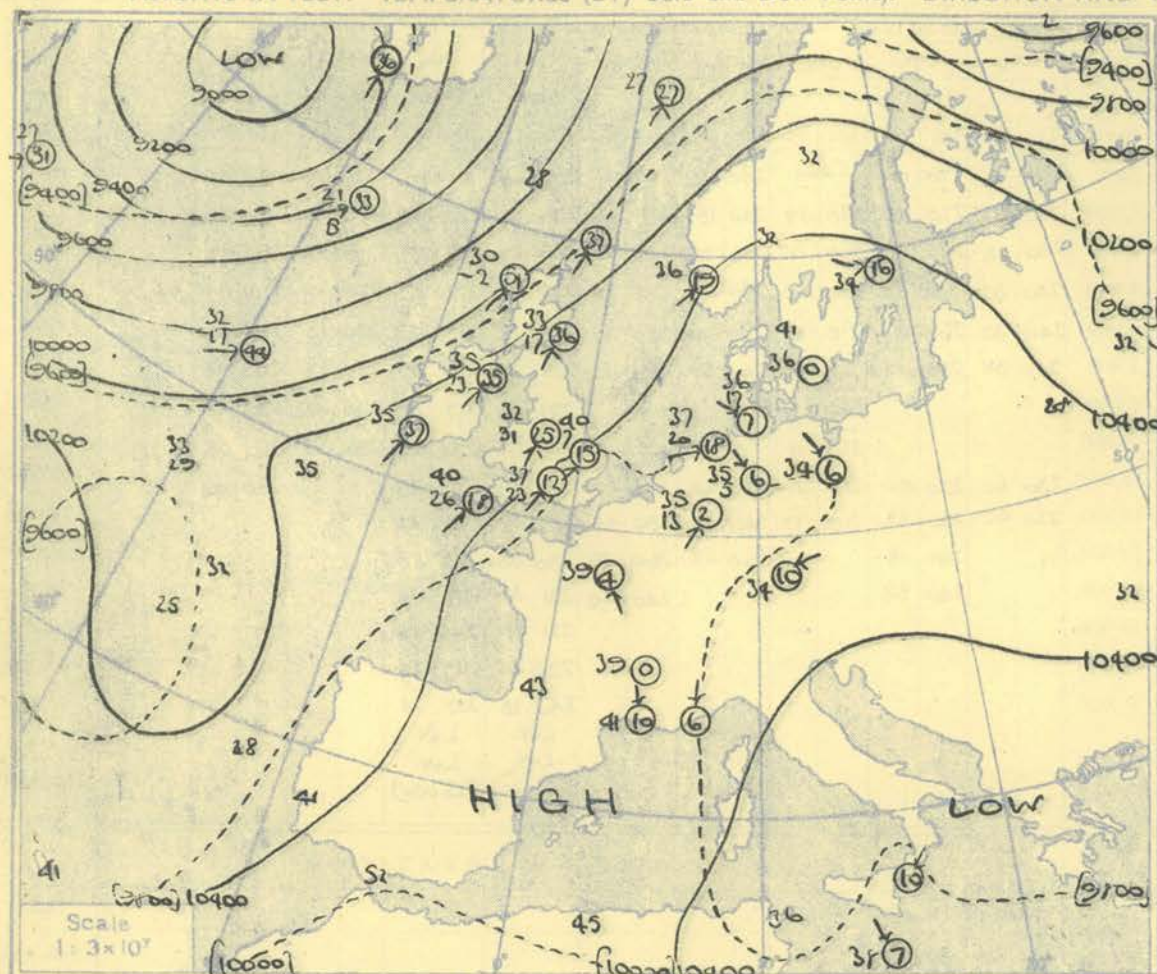
[illegible]

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

Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Cumulus				Cumulus				Cumulus				Cumulus				Ship								
Lat/Long	59°N 18.8°W				59°N 18.6°W				59°N 18.3°W				59°N 18.1°W				52.5°N 20°W				52.5°N 20°W				52.5°N 20°W				52.5°N 20°W				Lat/Long								
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	995			mb	999			mb	1003			mb	1003			mb	1007			mb	1012			mb	1016			mb	mb				M.S.L.			
	Surf	994			mb	995			mb	999			mb	1003			mb	1003			mb	1007			mb	1012			mb	1016			mb	mb					Surf		
	Freezing	855			mb	840			mb	832			mb	850			mb	750			mb	735			mb	700			mb	640			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	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		-49.48	180	19	-	51.45	190	23	-	51.48	210	23	-	50.42	220	23		50.48			1.6	52.39			3.4	52.39				54.41				52.45			Surf				
1000	-1.7				-1.3				-0.3				0.9					50.48																		1000					
950		45.38	191	18		45.38	199	21		47.42	213	30		43.36	222	25		43.36																		950					
900	2.7	38.31	194	25	27.2	38.31	202	29	28	24.0	33	212	28	29.2	37.30	226	40	41	39		36.16			37.00												900					
850		31.23	199	28		33.26	206	26		34.25	211	30		31.26	231	39																				850					
800	57.6	24.15	202	29	58.2	28.12	209	33	59.3	32.19	213	35	60.1	28.21	227	41																				800					
750		21.00	201	33		22.14	211	34		27.08	213	33		23.11	223	40		28.25		See top of page for winds	26.32	8-15			29.8	34.28										750					
700	91.8	16.4	193	37	92.5	16.06	204	36	93.9	21.32	213	33	94.5	16.06	223	41																				700					
650		10.5	193	40		10.13	199	40		14.24	213	38		12.7	229	38																				650					
600	130.0	2.11	196	43	131.0	2.38	197	42	133.0	7.31	213	38	133.0	5.18	232	38																				600					
550		-5.21	197	42		-6.45	202	48		-1.34	213	39		-3.21	238	42																				550					
500	175.15	30.19	199	47	175.16	49.20	203	51	177.10	38.21	213	39	178.12	31.24	245	60		-2.18			182.5	40			185.0	7-27				186.0	3-4				500						
450		-24.39	199	57		-26.54	202	57		-21.45	213	37		-23.41	251	46																				450					
400	226.35	50.20	66	217	27.60	202	59	230.34	53.21	36	230.35	54.24	56			69																				400					
350		-43	187	64		-47	194	55		-42	213	39		-46	246	69																				350					
300	290.43	189	74	291.37		181	52	294.36	213	46	293.43	252	81					-49			302.42				307.36					305.47					300						
250		-42	193	73		-36	198	50		-38	213	52		-45	267	67																				250					
200	381.43	190	45	382.36		177	42	386.34	213	41	384.46	242	48					-71			389.62				394.71					391.50					200						
170		-44	188	37		-38	196	63		-36	213	32		-47	213	56																			170						
150		-45	188	35		-40	196	27		-38	213	33		-47	210	54																			150						
130		-46	180	28		-42	196	21		-39	213	36		-45	230	48																				130					
110		-48	186	27		-43	196	24		-35	213	24		-45	240	20																				110					
100	534.49	193	21	534.44		196	21	542.37	213	22	536.47	240	16					-60								-53									100						
90		-50	193	19		-45	192	12		-36	204	23		-48	217	12																				90					
80		-51	195	12		-46	190	17		-37	192	20		-50																						80					
70	(25) 51					-46	150	06		-39	203	15		-52																						70					
60						-45	123	03	(65) -39																											60					
		Max wind. 347 mb 197° 84 kts					(35) -45					Isothermal 832-800 mb 32°					Isothermal 822-800 mb 28° 674-645 mb 12°					Inversion 957 mb 43°-885 mb 45°					Isothermal 822-800 mb 28° 884-820 mb 36°					Inversion 865 mb 32°-840 mb 39° 850 mb 39°-822 mb 41°					Isothermal 866-850 mb 39° 748-645 mb 34°				
Tropopause	II 339 mb -94° 26300'				I 370 mb -42° 24500'				I 354 mb -43° 25700'				I 358 mb -47° 23500'				I 203 mb -72° 36200'				I 210 mb -71° 37200'				I 177 mb -89° 42400'				I 165 mb -94° 43100'				Tropopause								



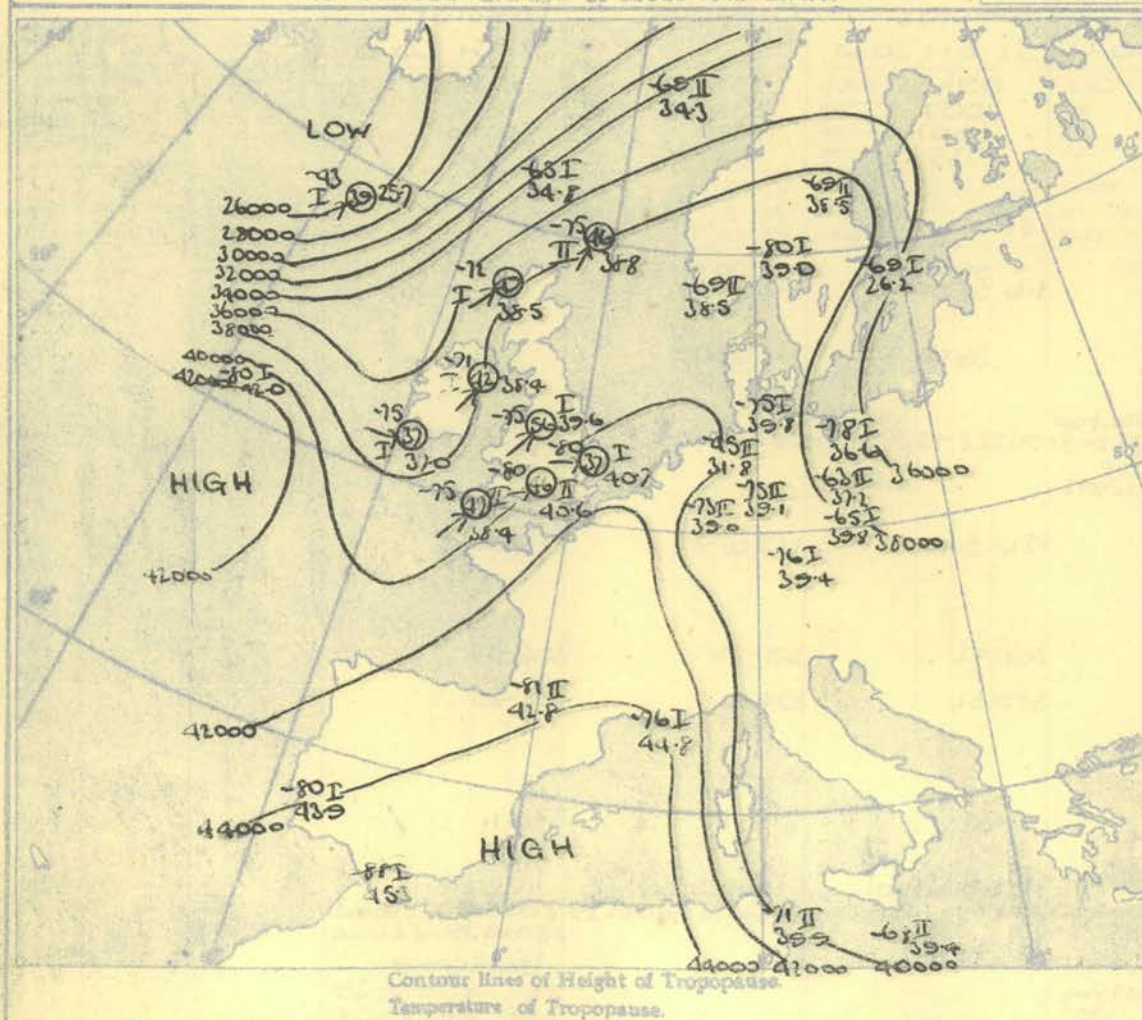
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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 15 h. G.M.T.



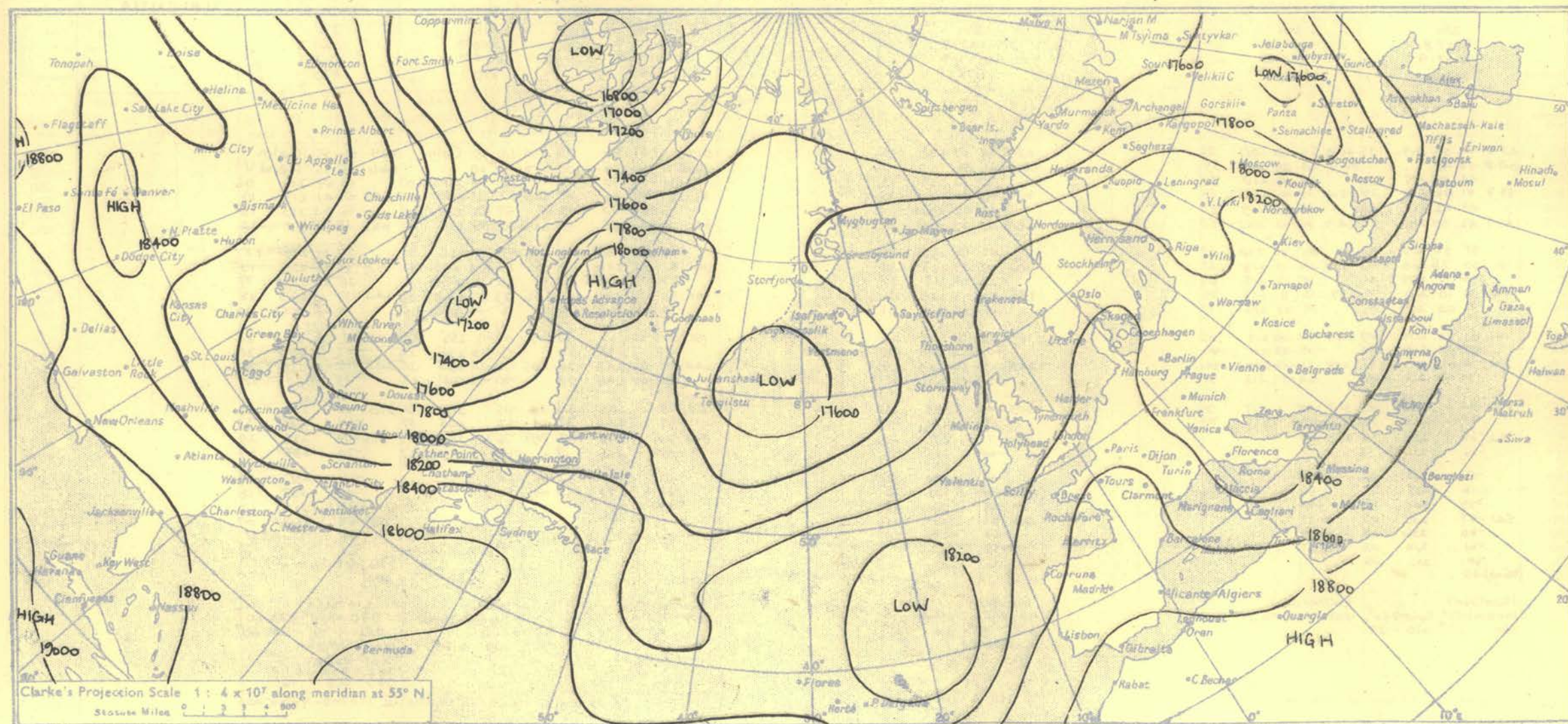
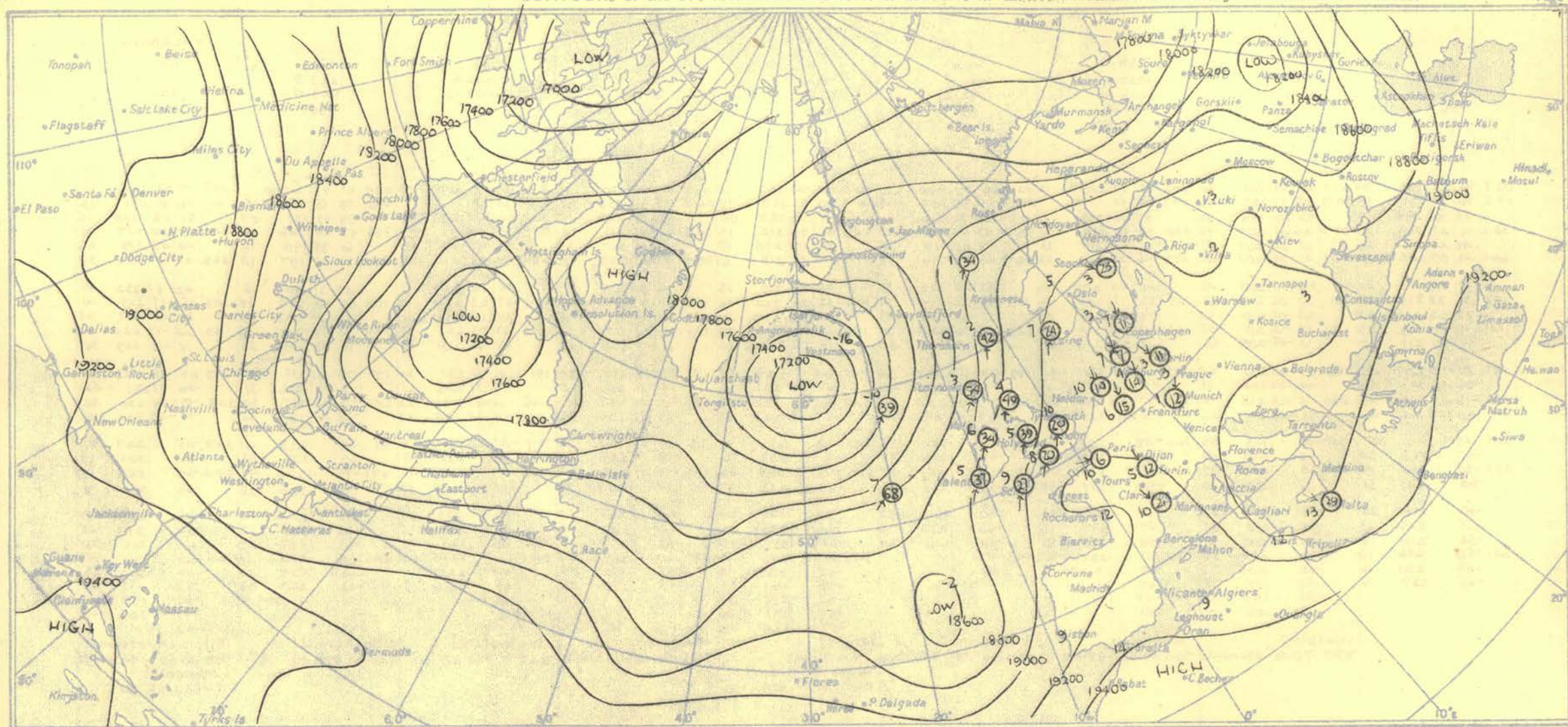
### NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge from Spain to Norway maintained its position and intensified slightly whilst warming occurred over much of the North Atlantic. A weak cold trough moved into the Western Atlantic from the region of Labrador.

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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.)

LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION											
Time M.S.L.	15h			G.M.T.	15h	G.M.T.			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	1019.4			mb	1017.9			mb	1020.9			mb	1020.5			mb	1023.1			mb	1022.7			mb	1022.5			mb	1023.9			mb	1022.5			mb											
Pressure	1009.4			mb	1015.9			mb	1020.1			mb	1012.2			mb	1021.1			mb	1018.4			mb	1007.2			mb	1013.4			mb	1020			mb											
Freezing	708			mb	713			mb	694			mb	680			mb	695			mb	653			mb	670			mb	657			mb	685			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	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Pressure mb														
Surf	02.7	56	53	135	05	00.5	61	53	180	20	00.2	73	57	250	12	02.3	66	55	200	10	00.6	64	54	330	10	01.2	80	58	210	11	4.4	76	59	200	08	02.9	61	57	Calm	003							
1000	05.2	56	53	191	18	04.9	59	51	189	30	05.7	68	52	250	12	05.7	65	57	202	10	06.4	60	52	324	15	06.5	77	56	222	12	6.4	74	58	L and V.	066	58	55	L and V.	60								
950		53	50	198	19		52	46	195	33		59	46	219	12		58	51	210	20		61	56	234	05		69	53	215	15		66	53	194	8		58	53	182	07							
900	34.2	51	47	204	23	33.7	45	41	200	35	35.0	53	42	210	24	36.0	53	48	218	27	35.6	56	53	212	15	36.4	61	49	211	14	36.1	59	47	192	9	358	58	44	186	14	348	49	38	217	21		
850		48	44	205	25		41	34	201	41		51	34	214	33		47	43	218	26		49	49	214	18		53	44	217	14		53	41	197	10		56	38	190	16		48	45	219	26		
800	66.1	43	39	208	33	65.3	41	28	207	42	67.2	46	27	213	33	66.9	43	39	216	28	67.9	48	41	213	20	68.4	49	27	223	18	68.4	50	28	206	08	682	52	41	197	14	668	47	0	225	29		
750		37	34	213	35		36	15	209	46		41	25	209	36		42	25	215	35		41	27	219	23		46	24	225	15		45	18	219	9		47	31	210	16		42	11	222	35		
700	102	31	28	215	37	101	30	02	210	51	103	33	17	207	36	103	35	23	214	35	104	32	31	222	25	105	40	07	222	15	104	37	23	224	12	104	40	26	224	18	103	35	17	227	37		
650		27	22	213	40		24	07	210	52		25	12	207	39		27	22	219	33		28	24	220	24		32	06	221	16		29	14	218	14		31	20	242	22		30	21	217	33		
600	141	18	10	212	43	140	18	12	211	55	143	19	08	214	40	143	24	20	224	39	144	21	13	216	25	145	25	05	222	17	145	22	03	221	17	144	23	14	244	23	143	24	17	225	28		
550		11	01	211	46		12	17	208	63		12	02	216	40		13	02	218	40		13	04	217	30		18	08	220	20		16	12	228	17		15	03	241	28		15	17	229	35		
500	187	02	14	209	42	186	03	25	202	54	189	04	09	219	44	189	06	11	226	34	190	05	11	223	39	192	10	17	215	20	191	08	19	237	20	191	09	08	231	27	189	05	18	228	37		
450		06	16	213	44		06	35	208	57		05	14	217	43		05	19	232	40		03	08	221	36		11	25	220	20		03	21	245	21		03	12	222	31		06	17	231	46		
400	241	16	25	213	45	240	15	43	214	51	243	17	26	214	42	243	15	32	224	40	244	14	19	226	35	246	12	35	227	20	245	14	27	236	22	245	15	22	227	34	243	19	38	220	42		
350		30	42	212	46		28	48	211	46		31	41	219	48		27	43	218	42		27	32	222	33		23	42	235	22		27	34	234	27		28	34	234	36		31	47	234	48		
300	307	45		212	47	306	42		213	48	308	48		221	50	309	44		222	36	310	43		226	37	313	39	55	250	25	311	41		231	28	311	43		223	41	308	45		247	22		
250		60		212	50		58		214	48		66		226	39		63		226	38		60		233	56		59		253	29		59		232	35		66		223	52		64		251	19		
200	393	70		212	46	393	68		218	49	394	67		221	42	395	67		216	42	396	75		233	66	399	78		258	37	395	77		247	46	397	75		226	47	394	69		250	32		
170		64		223	31		66		212	42		58		217	39		59		215	34		68		230	37		70		248	24		74		243	32		66		226	28		63		234	31		
150		60		215	24		53		208	27		58		235	23		60		214	32		66		228	24		64		243	20		66		233	22		63		224	26		61		221	33		
130		55		213	23		52		210	30		59		219	18		56		218	30		61		225	21		60		242	12		66		236	15		62		227	17		60		223	28		
110		54		216	18		52		210	31		58		213	10		58		216	24		61		225	18		62		252	11		64		230	10		63		221	13		60		205	20		
100	541	56		226	16		52		206	25	542	57		221	10	543	57		221	10	543	60		226	13	545	60		269	07	542	66		221	10	543	64		224	10	541	60		196	18		
90		56		230	16		52		205	17		58		L and V			59		L and V			59		233	14		58		270	05		64		232	7		63		229	09		60		210	13		
80		55		229	15		53		199	13		59		"	"		58		253	13		59		253	13		59		270	03		65		252	8		63		260	08		59		211	20		
70							54		185	10		59		"	"		57		231	07		57		231	07							64					61		L and V		61		199	08			
60							55		185	09		51		"	"		57		193	06		57		193	06							65		63			59		193	06		103	06				
Inversion.				890 mb 43°-832 mb 40°				Inversion.				Inversion.				0.42 mb 57° Inversion.				795 mb 58°-743 mb 61°				Inversion.				195 mb 48°-776 mb 49°				Isothermal				Isothermal				Isothermal				Inversion.			
				850 - 49° - 820 - 50°																																											
Tropopause				I 205 mb -75° 38,800'				I 208 mb -72° 38,500'																																							

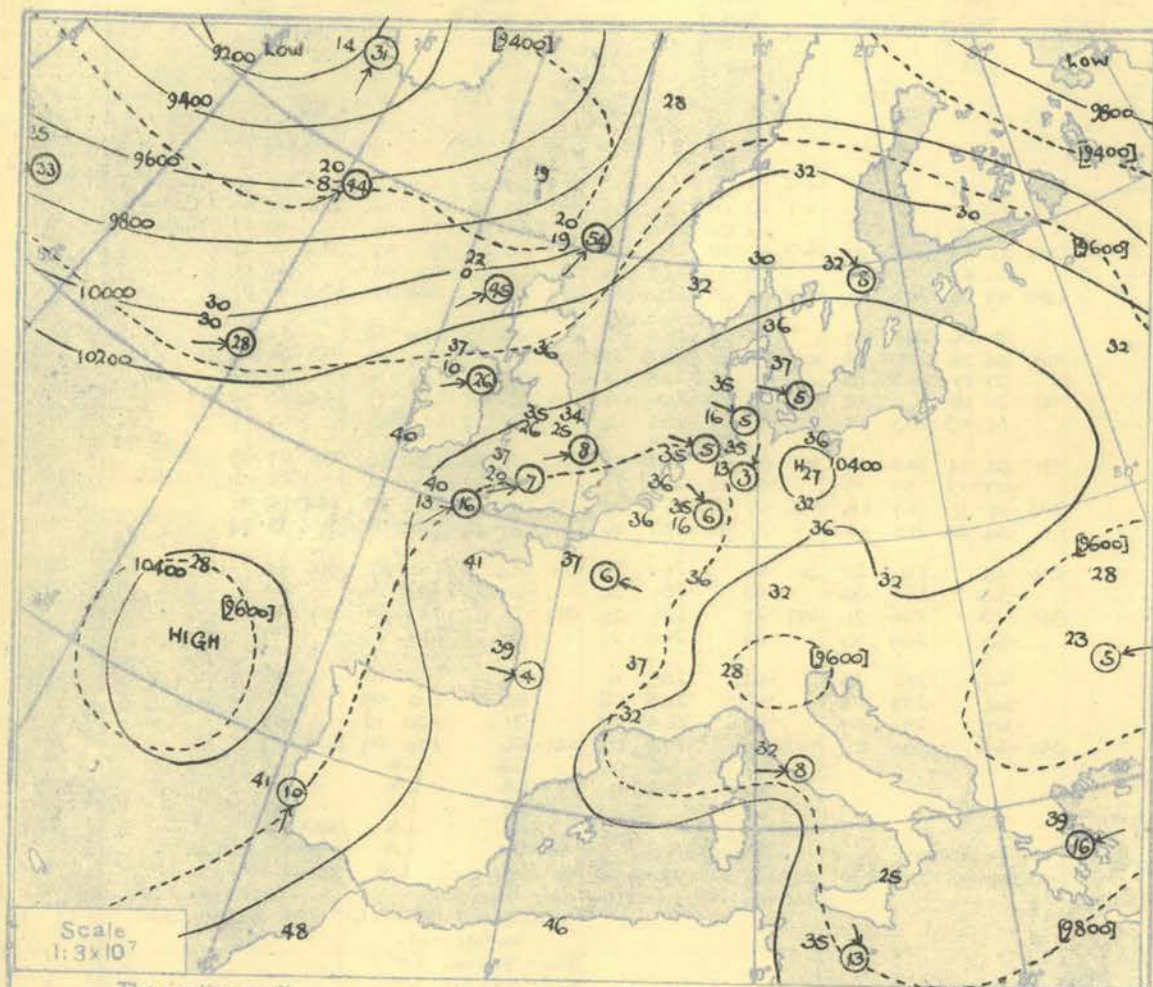


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION						
Time 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										
	1018.4	1008.3	mb	mb	1020.8	1018.9	mb	mb	1022.9	1022.1	mb	mb	1016.3	1025.0	mb	mb	1024.9	1022.9	mb	mb	1024.4	1019.8	mb	mb	1024.7	1008.8	mb	mb	1024.8	1014.2	mb	mb		1025.3	1024	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	01.7	53	50	240	20	00.5	48	44	220	05	00.2	58	55	02.3	51	48	200	08	00.5	54	52	01.2	61	58	Calm	04.4	59	59	Calm	02.9	55	55	Calm	00.3	52	50	Calm	Surf					
1000	4.9	52	49	251	36	5.6	50	44	227	30	6.2	59		6.7	54	50	206	11	6.7	58	57	6.7	68	63	202	06	6.7	62	60	201	04	6.7	57	57	159	05	6.8	50	47	Calm			
950		48	47	248	36		44	34	226	27		55			55	47	238	12		60	59		66	59	203	09		64	50	222	04		61	55	176	06		49	42	Calm			
900	33.6	44	42	234	34	34.0	41	34	229	25	35.2	50		36.4	50	39	241	20	36.1	55	54	36.4	54	55	208	10	36.3	62	28	230	05	36.2	60	21	195	07	35.4	50	25	Calm			
850		40	39	218	33		39	17	243	30		46			45	29	239	23		52	48		54	45	212	11		57	31	223	06		56	29	215	10		50	17				
800	65.0	34	33	223	35	65.4	34	12	250	33	67.1	43		67.6	46	23	231	25	68.3	49	37	68.8	49	38	225	09	68.8	49	35	226	07	68.7	51	19	226	12	67.5	47	02				
750		28	27	223	43		29	09	236	40		42			42	11	230	26		42	31		40	36	244	09		45	28	254	07		44	15	236	13		43	01				
700	99.7	20	19	213	54	100	22	00	240	45	103	36		103	37	10	247	26	104	35	26	105	34	25	251	08	105	37	20	258	07	105	40	13	239	16	103	38	06				
650		15	14	212	57		16	00	243	48		28			17	08	245	28		31	16		27	17	258	08		31	15	265	08		30	04	240	16		31	12				
600	139	10	07	216	54	139	13	14	258	60	143	20		143	21	01	245	25	144	23	05	145	20	08	262	12	145	22	06	266	09	145	22	01	237	17	144	23	08				
550	05	03		214	66		12	16	258	78		13			15	01	243	22		16	11		14	09	253	14		16	02	255	08		16	22	241	15		15	17				
500	184	04	07	215	65	185	03	16	262	74	189	06		189	06	09	237	22	191	07	16	191	04	14	248	15	191	08	10	268	09	191	07	26	235	10	190	07	19				
450		16	20	209	70		09	21	259	76		05			05	19	258	20		04	28		07	17	259	19		04	18	262	12		05	22	234	12		03	31				
400	237	30	35	211	81	239	22	32	261	75	243	19		244	17	29	250	32	245	16	42	245	19	30	267	18	246	17	31	268	12	245	18	31	228	15	244	14	42				
350	41			218	88		33	42	254	79	31			30	41		254	27		28	51		34	46	275	16		30	46	270	15		31	48	228	18		28	54				
300	301	45		222	90	304	48		255	73	309	45		309	47		248	29	311	43		310	48		271	23	311	46		260	16	311	44		232	15	310	41					
250		51		232	69		67		256	78		62								60			65			261	30		63		251	20		61		234	15		60				
200	389	53		229	44	389	69		269	47	394	76					258	20	397	76		345	73		266	21	397	75		257	25	397	74		247	30	397	77					
170	57			223	33		62		257	30		66							69			69			269	16		68		260	21		68		248	20		77					
150		57		219	25							64					248	24		63			66			272	13		66		255	11		64		231	16		74				
130		57		227	14							65							65				64			277	08		67		248	08		65		210	09		71				
110	(120)	57										62							63				67			290	09		67		264	08		71		230	12		68				
100												62							62				66			300	07		67		274	07	541	66		290	09	539	67				
90												61							61				66						67		286	05		66		L.V.		68					
80												61							61				66						66		288	04		68		L.V.		68					
70												62							62				66						67					67		L.V.		69					
60												63							63				66						67					67		L.V.		69					
				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion							
				1019mb. 48°-1000mb. 50°				1021mb. 58°-992mb. 59°				1016mb. 51°-983mb. 57°				1023mb. 54°-977mb. 62°				1020mb. 61°-995mb. 70°				1008mb. 59°-990mb. 68°				1014mb. 55°-965mb. 62°				970mb. 48°-900mb. 50°											
				908mb. 40°-853mb. 43°				812mb. 42°-776mb. 45°				863mb. 45°-800mb. 46°												940mb. 63°-916mb. 64°				1014mb. 55°-965mb. 62°				940-900mb. 60°				578-555mb. 17°							
				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal							
				624-560mb. 13°																																							
Tropopause				I 300mb. -45° 30,100'				I 225mb. -71° 36,500'				I 203mb. -79° 39,100'				N.R.				I 196mb. -77° 40,100'				I 215mb. -74° 38,000'				I 200mb. -75° 39,700'				I 184mb. -80° 41,500'				I 189mb. -80° 40,800'				Tropopause			
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION						
Time M.S.L. Surf Freezing	09h.		G.M.T.		09h.		G.M.T.				G.M.T.		09h.		G.M.T.		09h.		G.M.T.		09h.		G.M.T.		09h.		G.M.T.		09h.		G.M.T.		Time M.S.L. Surf Freezing										
	1023.3	1013.1	mb	mb	1024.4	1022.8	mb	mb				1027.5	1018.9	mb	mb	1026.9	1024.9	mb	mb	1028.4	1021.0	mb	mb	1025.6	1010.0	mb	mb	1024.6	1014.1	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	01.7	52	48	247	15	00.5	55	49	180	10				02.3	53	51	Calm	00.6	66	66	360	05	01.2	73	63	Calm	04.4	69	62	Calm	02.9	60	59	Calm				Surf					
1000	6.3	50	46	266	24	6.6	49	43	187	15				7.5	51	50	208	09	7.4	60	63	357	09	7.1	71	60	202	04	7.1	68	60	140	03	6.8	63	58	124	15					
950		45	36	275	20		43	39	226	15					51	48	223	10		58	57	240	03		67	55	198	04		65	54	163	05		68	58	135	14					
900	34.7	42	23	271	19	35.0	38	25	233	22				36.4	52	36	235	14	36.7	56	46	199	11	36.9	61	51	197	05	36.9	62	39	170	09	36.4	61	55	152	10					
850		41	13	254	24		41	12	236	26					50	14	236	13		53	42	212	11		57	33	200	06		56	32	153	07		56	46	179	09					
800	66.3	37	02	250	26	66.4	38	10	237	30				68.6	48	07	233	16	68.9	48	39	223	12	69.4	52	40	215	05	69.3	50	40	147	06	68.9	50	37	188	08					
750		34	17	248	28		34	02	235	37					48	00	232	17		41	31	239	15		45	33	227	06		45	28	168	03		42	38	196	10					
700	101	30	33	244	35	102	30	06	240	35				104	38	05	235	18	105	35	24	240	17	106	40	26	260	06	105	37	21	221	03	105	38	16	213	07					
65																																											



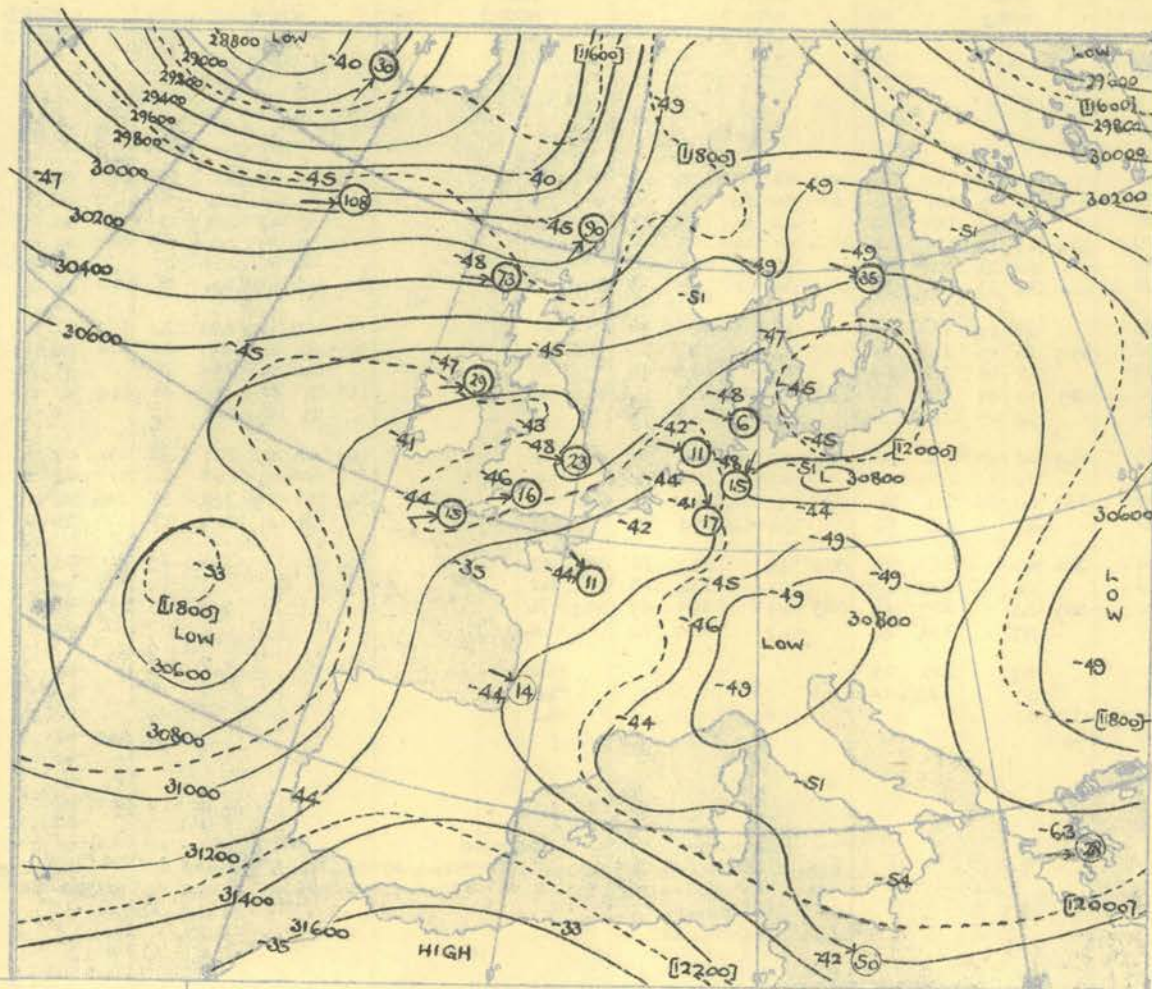
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



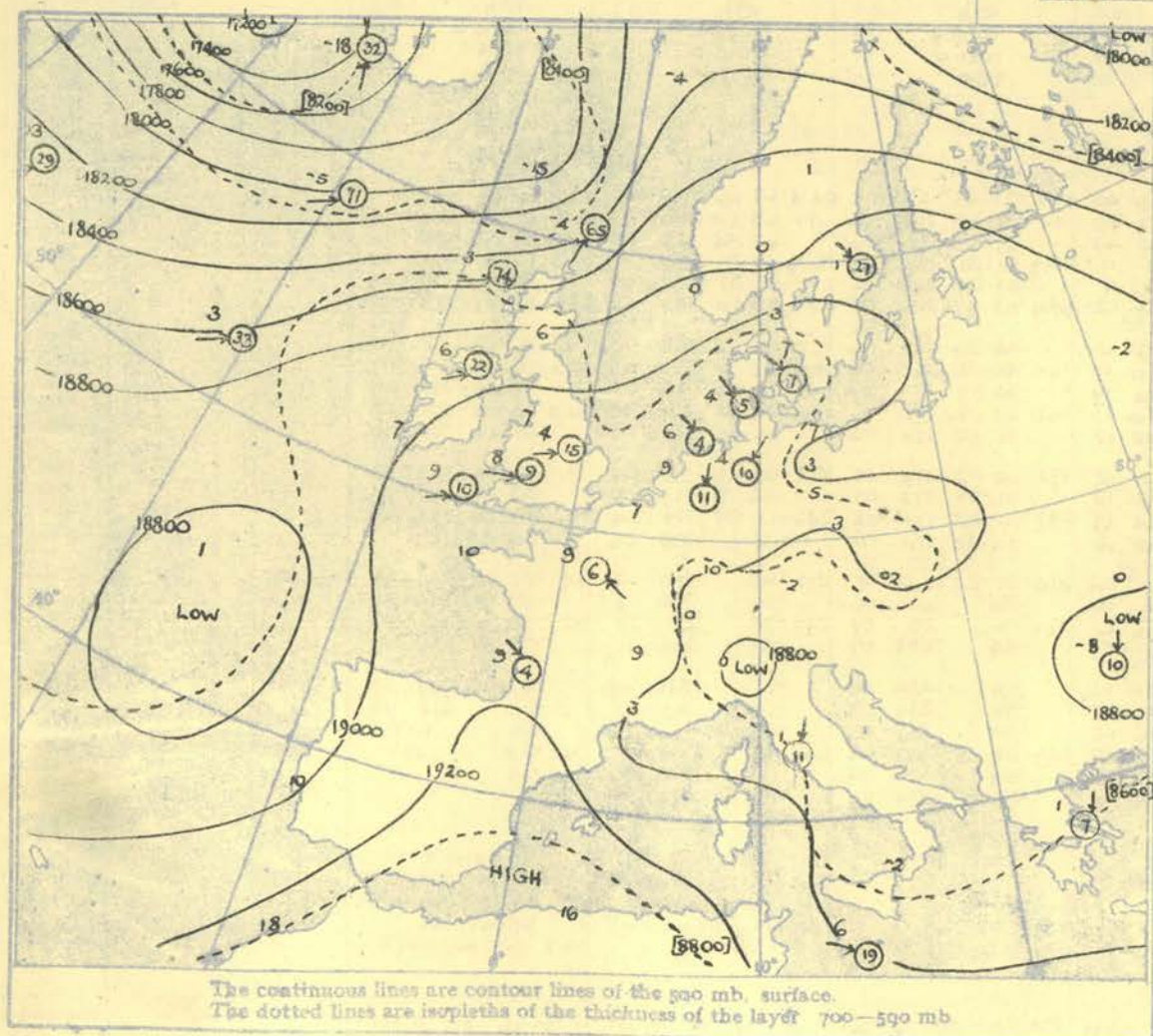
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 54° N

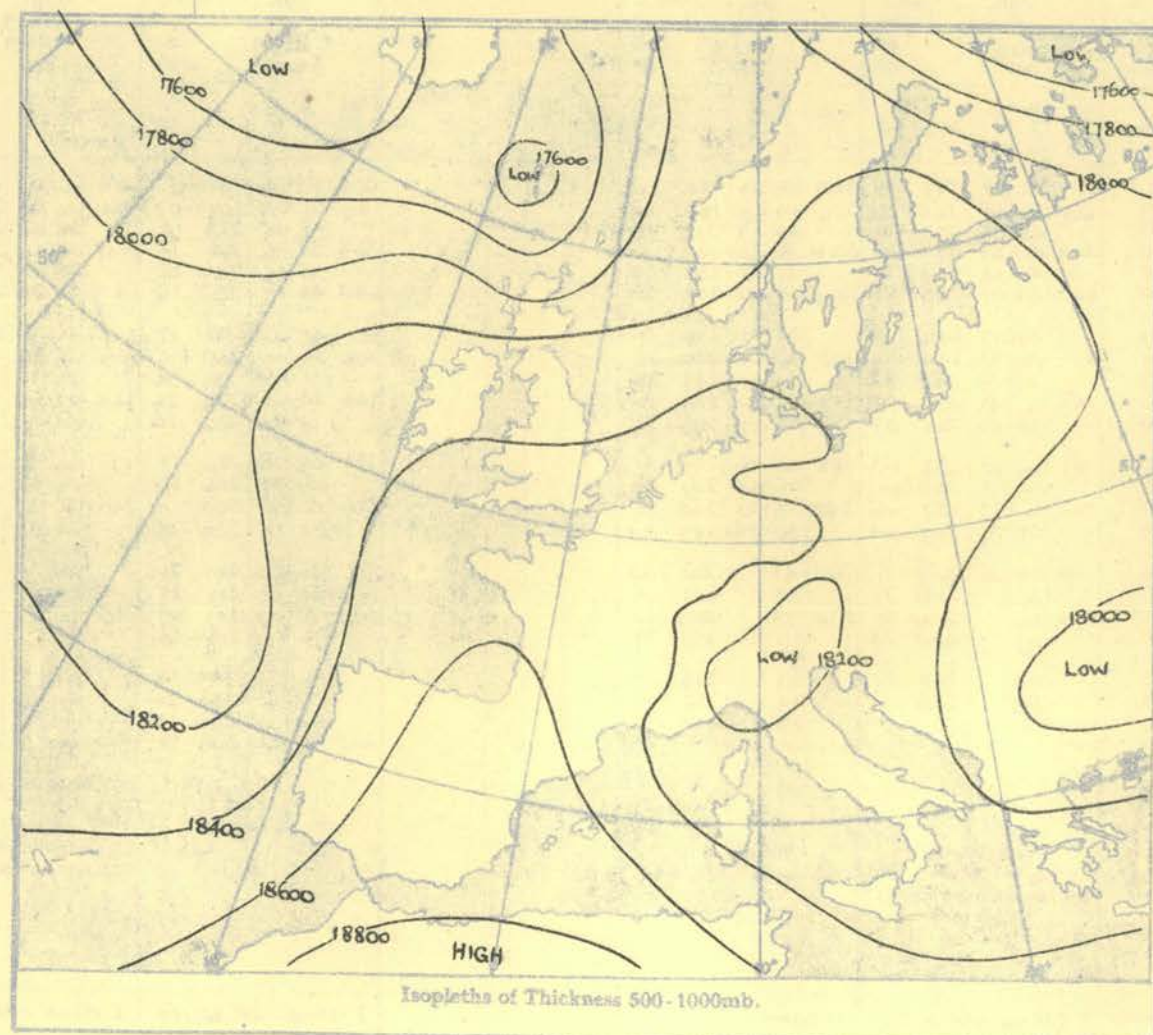
100 80 60 40 20 10 knots



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.

Place	Cumulus	Lympne	Cumulus	Preston	Leeming	Cumulus	Ronaldsway	Cumulus	Liverpool	Leuchars	Place											
Time	03h	03h	09h	09h	15h	15h	15h	21h	21h	21h	Time											
Type									Pilar	Pilar	Type											
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet					
Surf.	190	20	110	04	210	16	110	06	100	04	220	13	110	07	210	10	Calm	120	01	Surf.		
1,000	210	20	120	07	220	15	100	04	130	06	230	15	100	06	220	10	027	10	227	09	1,000	
2,000	210	22	120	05	230	15	110	03	130	09	230	16	110	06	230	12	104	06	227	09	2,000	
3,000	210	26	110	07	240	18	130	06	120	09	240	19	130	07	240	18	144	10	227	09	3,000	
4,000	240	30	190	04	240	18			130	06	240	20	100	06	240	22	156	10	224	12	4,000	
5,000	240	34	100	11	240	20					250	22	110	06	230	21	160	10	229	12	5,000	
6,000	240	30	190	05	(7,000')	220	15	150	07				170	08	220	23	171	11	229	14	6,000	
8,000					240	24	210	19			240	22	220	17			186	10	234	13	8,000	
10,000	240	34			240	26	220	16	160	08	240	22	220	16	210	17	212	11	241	16	10,000	
14,000					230	28	230	15			240	24	210	18	230	21	207	10	233	23	14,000	
18,000	130	33			220	30	220	18			220	23	210	18	230	21	222	08	258	24	18,000	
24,000	220	38			220	44	230	21			230	34	210	25	230	33	236	08	250	31	24,000	
30,000					230	36	240	20			410	46	(20,000')	230	36	218	08	254	28		30,000	
40,000							(28,000')						(28,000')			230	24	265	15	223	16	40,000
50,000																(35,000')	253	08	276	17	50,000	
																	360	05	Land		60,000	
																	(59,000')					

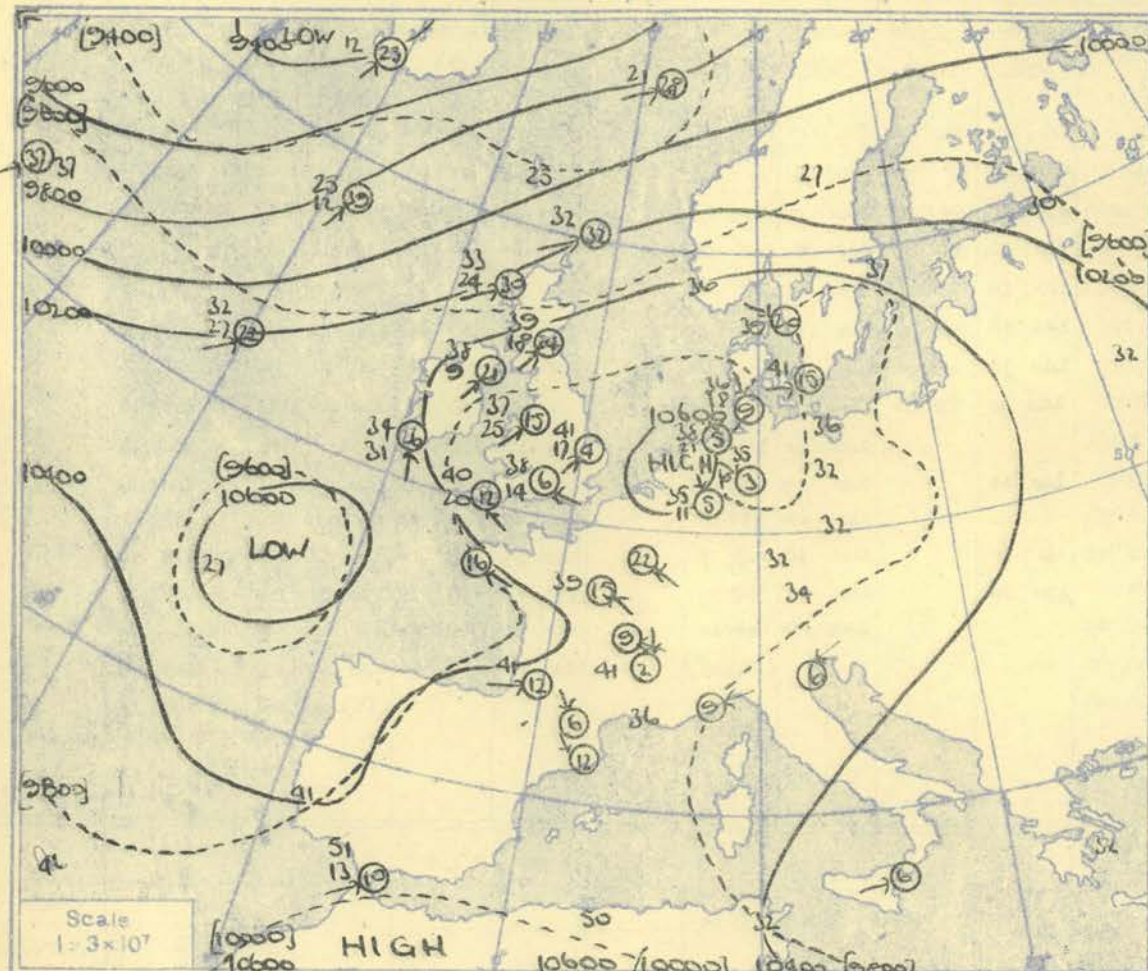
NEPHOSCOPE OBSERVATIONS											Place
Place	NONE REPORTED.										Place
Time Type											Time Type
Dir. Vel.											Dir. Vel.

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

Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Cumulus				Cumulus				Cumulus				Cumulus				Cumulus				
Lat/Long	58° 9' N 19° 0' W				58° 9' N 19° 0' W				59° 1' N 18° 9' W				59° 1' N 18° 9' W				51.5° N 20° W				52.5° N 20° W				52.5° N 20° W				52.5° N 20° W				52.5° N 20° W				
Pressure	Time	03hrs		G.M.T.	03hrs		G.M.T.	15hrs		G.M.T.	21hrs		G.M.T.	03hrs		G.M.T.	03hrs		G.M.T.	15hrs		G.M.T.	21hrs		G.M.T.	21hrs		G.M.T.	21hrs								
	M.S.L.	1008		mb	1011		mb	1013		mb	1014		mb	1016		mb	1018		mb	1020		mb	1020		mb	1020		mb	1020								
	Surf	1008		mb	1011		mb	1013		mb	1014		mb	1016		mb	1018		mb	1020		mb	1020		mb	1020		mb	1020								
	Freezing	860		mb	840		mb	770		mb	725		mb	735		mb	700		mb	721		mb	700		mb	700		mb	700								
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	-	50.48	210	26	-	51.45	200	23	-	49.49	230	12	-	50.48	225	06	-	55.54			-	55.54			-	55.54			-	55.52			Surf				
1000	2.1	43.43			2.8	49.43	220	24	3.4	49.44	230	15	03.9	48.45	230	09	4.5	54.50			4.8	54.52			5.4	54.52			5.5	54.52			1000				
950		43.30	222	36		47.36	212	29		43.38	230	29		42.38	230	13																950					
900	30.4	37.28	225	42	31.1	37.31	222	32	31.9	42.35	227	23	32.2	37.31	230	20																900					
850		30.22	226	45		33.28	217	35		36.29	217	28		39.22	230	25	37.37															850					
800	61.3	31.15	228	42	62.1	30.20	205	35	63.3	35.26	215	33	63.5	37.21	234	32		45.43								48.48			46.43			800					
750		26.01	228	41		25.15	204	34		30.18	219	40		35.23	237	39																750					
700	95.9	20.08	227	44	96.6	19.42	194	37	97.2	23.12	221	39	98.7	22.17	239	43	100	30.30			101	30.28			102	32.27			102	32.28			700				
650		14.16	230	40		17.09	213	42		18.06	221	42		22.09	240	41																650					
600	135	03.21	230	48	136	13.03	220	31	137	13.02	224	52	138	15.04	236	37																600					
550		-3.23	232	52		06.02	229	61		07.07	235	55		08.07	237	37																550					
500	175	-5.15	232	71	181	-3.12	231	68	183	-4.28	230	64	184	00.12	231	41	186	03.03			187	03.04			188	11.17			188	05.11			500				
450		-11.29	233	75		-10.22	230	71		-7.26	228	78		-10.19	222	52																450					
400	233	-23.45	238	78	235	-27.34	223	78	237	-17.41	229	84	237	-20.33	222	66																400					
350		-34.54	230	90		-32.43	222	87		-30.47	229	83		-31.43	226	67																350					
300	298	-45	232	108	300	-43	222	105	302	-45	227	87	303	-45	224	68	305	-45			307	-42			307	-45			309	-42			300				
250		-58	218	104		-52	222	104		-53	223	92		-58	230	66																250					
200	385	-57	232	76	388	-54	222	63	390	-51	223	73	391	-54	230	56	391	-78			394	-74			395	-65			396	-71			200				
170		-53	231	50		-54	222	54		-47	234	54		-49	230	42																170					
150		-52	231	33		-51	222	34		-47	230	40		-50	230	39																150					
130		-51	231	26		-48	222	33		-44	227	30		-51	233	33																130					
110		-51	231	22		-47	222	29		-42	227	19		-50	232	24																110					
100	536	-51																														100					
90		-53	231	19		-47	222	18		-40	227	17		-48	232	11																90					
80						-47	222	15		-41	221	15		-47	242	12																80					
70						-47	222	15		-41	221	15		-47	238	11																70					
60						-47	222	15		-41	221	15		-47	233	06																60					
	Inversion 620mb-27-800mb3 553mb-4-540mb-2 482mb-10-468mb-8				(50) 47-47 (40)-46 Inversion 700mb-19-686mb-22				Isothermal 1013-586mb49° 845-800mb35°				(50) 47-47 Inversion 876mb35°-845mb40° Isothermal 778-756mb36° 610-555mb15°				Isothermal 203-200mb-78°								Inversion 1000mb54-935mb69° Isothermal 721-700mb32° 505-500mb1°				Inversion 1000-964mb59° 900-877mb50° 700-676mb32°								
Tropopause	I 234 mb -61° 32500'				I 220 mb -59°36700'				I 233 mb -58° 33800'				I 255 mb -58° 33800'				I 184 mb -80° 40900'				I 187 mb -80° 40800'				I 220 mb -63° 37500'				I 200 mb -71° 39600'								Tropopause



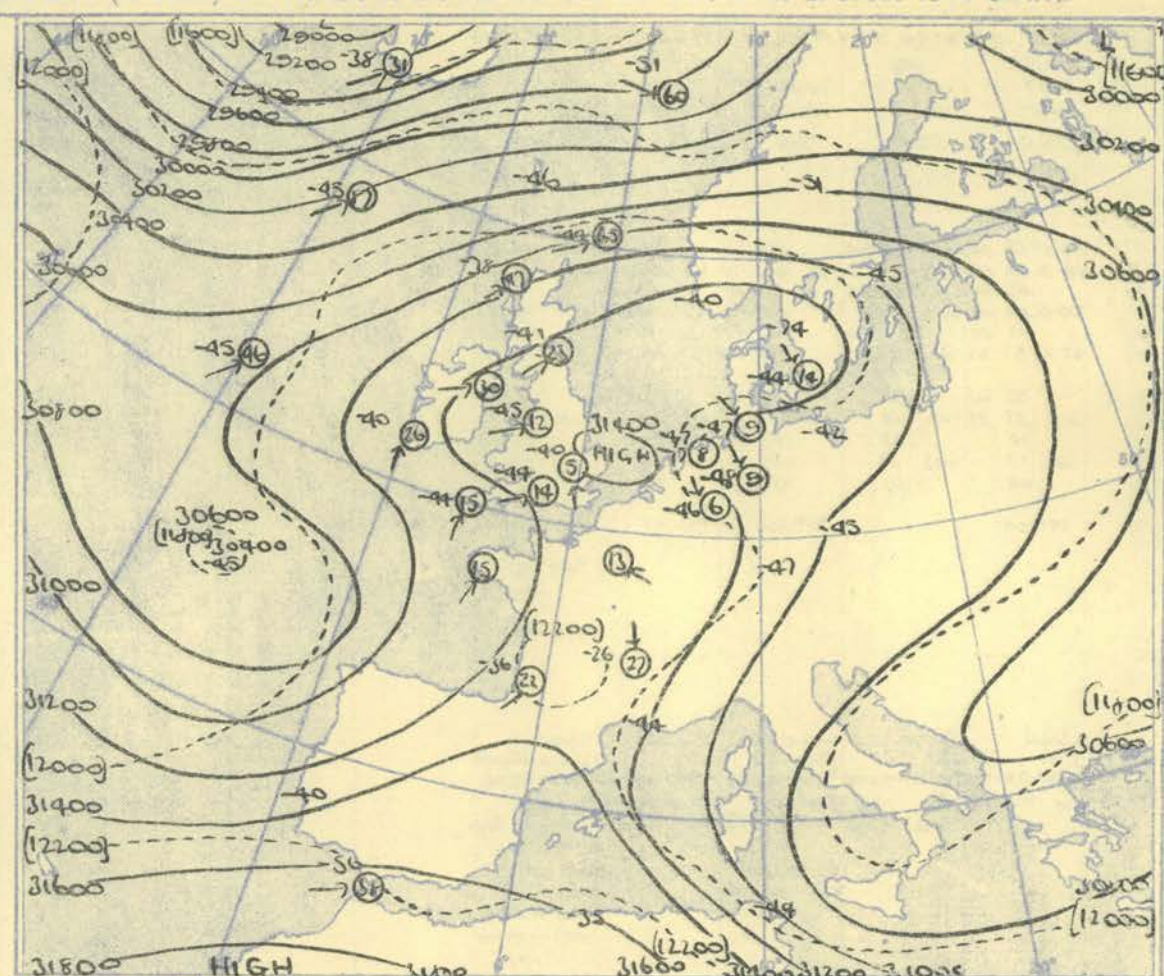
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

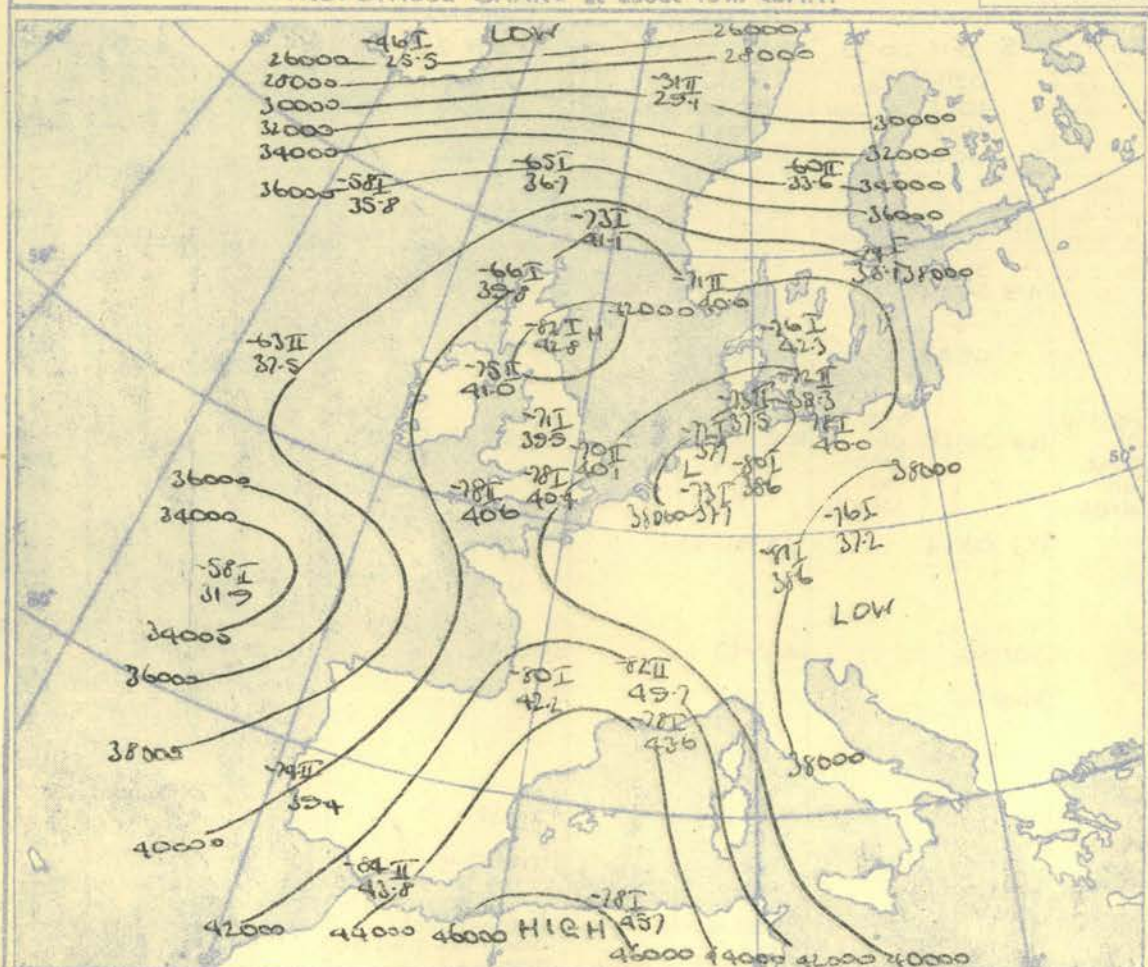
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat 52° N.

100 80 60 40 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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

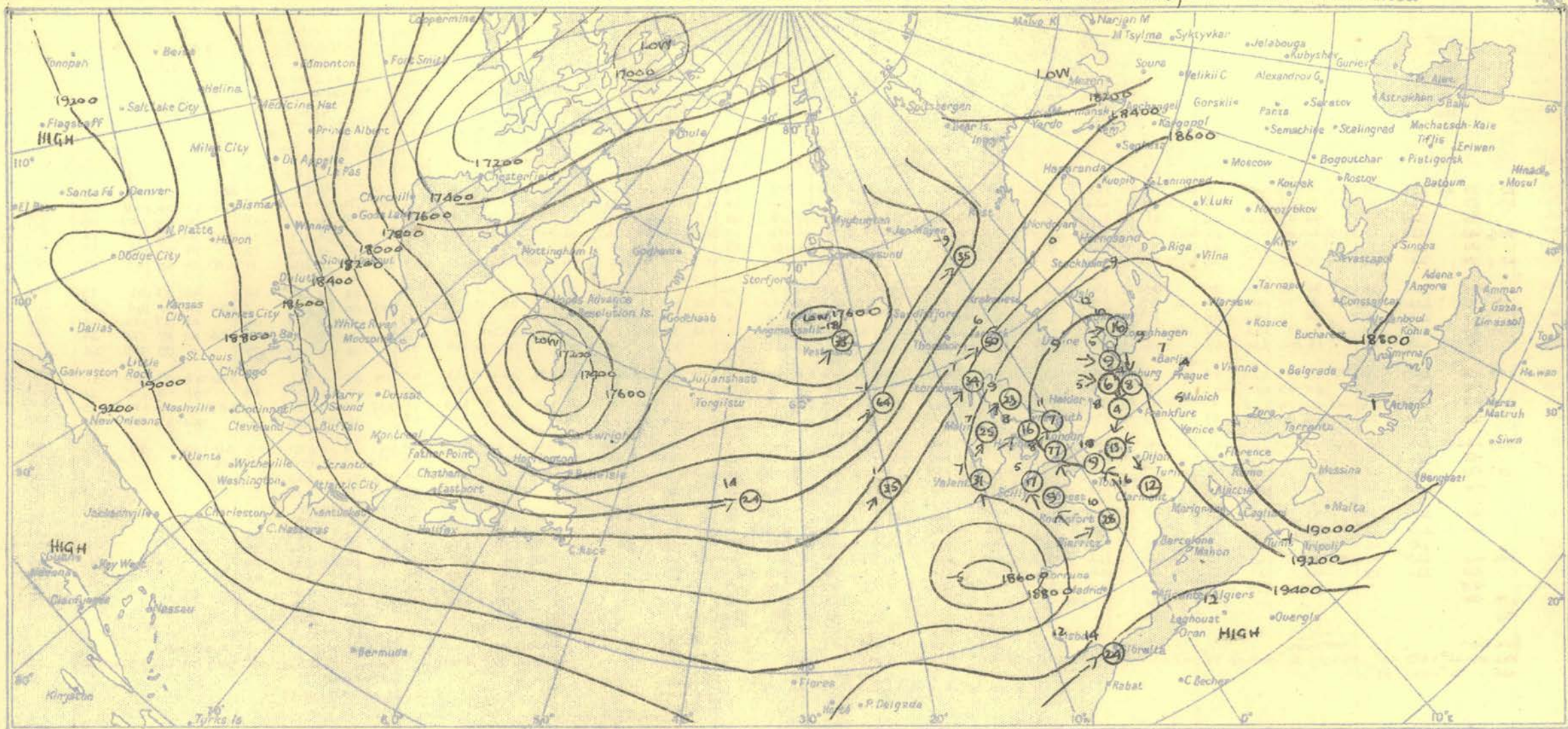
### NOTES ON THE AEROLOGICAL SITUATION.

Further slight warming and subsidence occurred in the warm ridge over Western Europe whilst the warm ridge over the extreme Western Atlantic moved a little eastwards and intensified. Cooling over Iceland caused the establishment of a southwesterly thermal between Scotland and Iceland.

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

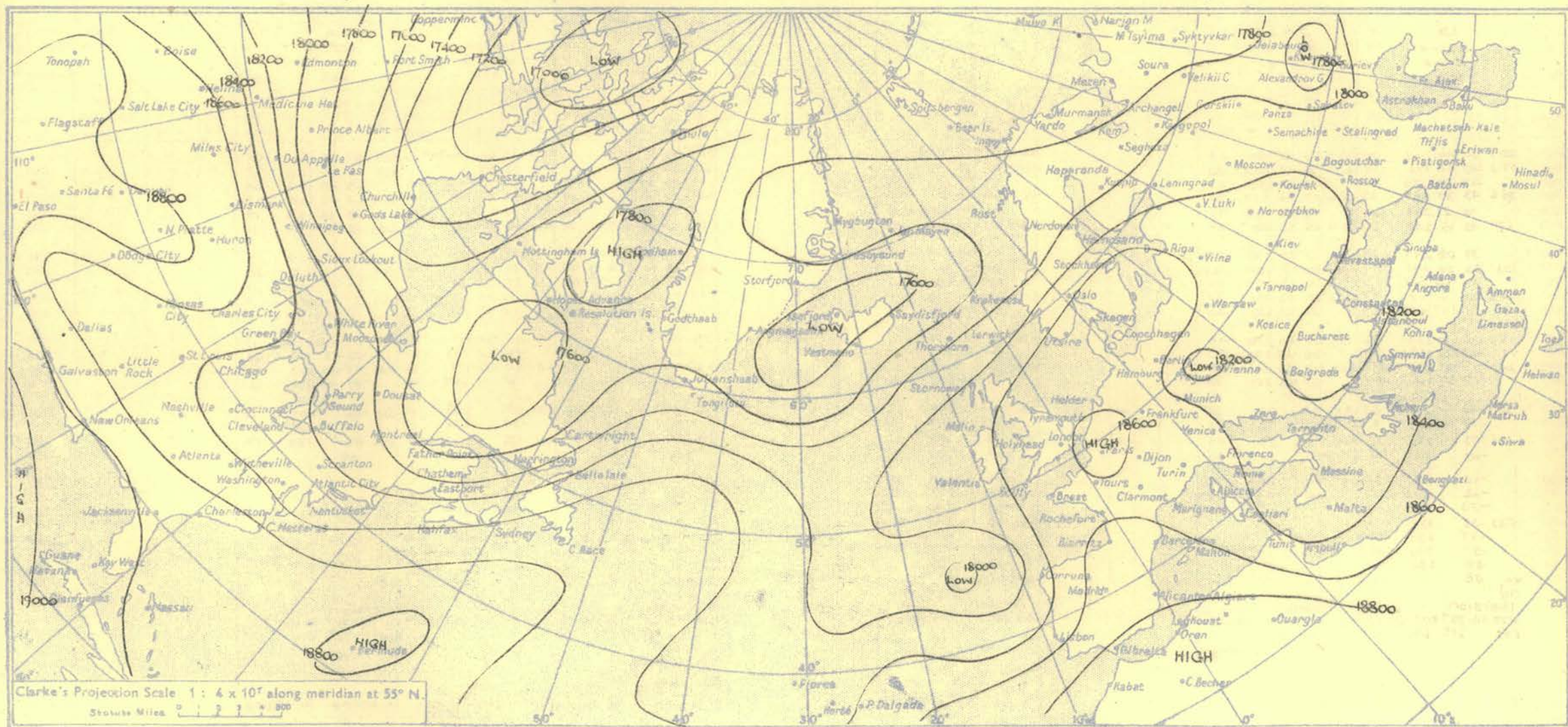




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Monday 5<sup>th</sup> June, 1950.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.

Statute Miles 0 1 2 3 4 5 6 7 8 9 10



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. 1026.5 mb 1016.4 mb 700 mb				15h G.M.T. 1025.3 mb 1024.0 mb 687 mb				15h G.M.T. 1026.2 mb 1025.4 mb 654 mb				15h G.M.T. 1026.9 mb 1018.4 mb 660 mb				15h G.M.T. 1024.6 mb 1022.7 mb 655 mb				15h G.M.T. 1024.5 mb 1020.0 mb 648 mb				15h G.M.T. 1023.9 mb 1008.6 mb 653 mb				15h G.M.T. 1022.9 mb 1012.7 mb 652 mb				15h G.M.T. 1024.6 mb 1023 mb 685 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	02.7	55	47	225	09	005	59	54	180	12	002	76	53	270	3	02.3	69	58	180	03	00.6	79	61	360	05	01.2	83	61	Calm	4.4	82	43	110	03	02.9	75	59	110	10	003	61	52	270	03	Surf																																																																																																																																																																																																																																																																																																																																																																																																																						
1000	07.1	50		260	15	07.1	55	52	206	27	07.3	69	47	105	09	07.5	65	56	170	03	07.1	73	61	015	09	06.9	80	58	Calm	6.8	80	62	105	08	06.5	72	56	116	21	66	57	03	008	04	1000																																																																																																																																																																																																																																																																																																																																																																																																																						
950		45		247	15		48	48	214	26		61	41	116	12		58	46	188	07		67	57	118	08		71	51	059	02		72	56	108	09		70	56	114	15		58	56	089	06	950																																																																																																																																																																																																																																																																																																																																																																																																																					
900	35.6	43		239	15	35.9	44	42	217	25	36.7	55	38	127	16	36.7	52	33	205	09	36.9	61	55	158	09	36.9	63	49	022	02	36.7	65	51	168	09	36.3	62	48	113	16	36.8	54	46	120	12	900																																																																																																																																																																																																																																																																																																																																																																																																																					
850		41		242	21		39	35	222	24		49	29	134	18		53	22	222	11		56	44	180	08		57	47	168	06		55	45	122	10		57	42	112	12		51	35	152	15	850																																																																																																																																																																																																																																																																																																																																																																																																																					
800	67.1	38		241	25	67.4	39	23	229	24	68.8	46	26	122	21	68.9	49	18	230	15	69.5	50	41	212	11	69.5	51	43	162	06	69.2	50	33	130	10	68.7	51	38	116	11	68.0	46	38	163	17	800																																																																																																																																																																																																																																																																																																																																																																																																																					
750		34		242	28		36	13	245	25		45	10	118	22		45	14	229	19		44	35	212	14		46	29	188	06		45	24	117	08		48	26	121	14		40	37	164	19	750																																																																																																																																																																																																																																																																																																																																																																																																																					
700	102	32		246	32	103	33	24	242	30	105	39	18	118	24	105	38	09	222	21	05	57	25	225	15	106	41	17	213	04	105	38	14	103	06	105	40	20	27	12	104	34	31	164	26	700																																																																																																																																																																																																																																																																																																																																																																																																																					
650		30		251	36		28	17	236	35		31	07	120	22		30	06	219	18		30	18	219	15		33	12	226	03		31	11	116	05		32	15	141	06		28	27	172	24	650																																																																																																																																																																																																																																																																																																																																																																																																																					
600	142	23		251	38	143	21	13	232	37	146	23	-6	120	22	145	23	03	218	17	146	22	10	213	11	146	26	-02	233	02	146	23	00	127	06	145	23	05	149	07	144	21	17	174	24	600																																																																																																																																																																																																																																																																																																																																																																																																																					
550		15		248	43		13	04	230	43		15	-15	131	22		16	-07	218	22		18	-1	231	14		19	-12	249	03		18	-10	139	08		14	-09	183	05		15	09	169	24	550																																																																																																																																																																																																																																																																																																																																																																																																																					
500	189	06		249	50	189	07	-05	225	43	191	09	-23	146	23	191	07	-15	225	23	192	08	-6	243	16	193	11	-20	234	07	192	08	-14	153	07	191	05	-12	167	17	190	07	-03	169	31	500																																																																																																																																																																																																																																																																																																																																																																																																																					
450		-4		251	56		02	-13	229	42		-2	-25	137	27		-3	-26	226	25		-5	-21	215	14		01	-32	242	10		-3	-21	217	10		-4	-20	175	14		-01	-13	171	21	450																																																																																																																																																																																																																																																																																																																																																																																																																					
400	243	-12		250	56	243	-13	-20	228	47	246	-14	-30	34	27	246	-16	-36	218	29	246	-16	-36	218	18	248	-11	-46	260	07	246	-14	-31	208	05	245	-15	-27	195	11	245	-10	-25	171	25	400																																																																																																																																																																																																																																																																																																																																																																																																																					
350		-26		253	60		-25	-33	228	57		-27	-39	135	26		-27	-48	237	29		-26	-44	225	12		-26	-55	292	08		-28	-45	224	07		-28	-41	192	15		-24	-39	173	25	350																																																																																																																																																																																																																																																																																																																																																																																																																					
300	309	-44		253	65	310	-38	-47	235	47	312	-41		128	23	312	-45		209	12	314	-40	-60	148	05	312	-44		238	14	311	-44		190	15	311	-40		183	26					300																																																																																																																																																																																																																																																																																																																																																																																																																						
250		-57		256	57		-52		232	48		-57		132	19		-57		201	34		-59		186	16		-57		103	06		-60		190	13	255	-56								250																																																																																																																																																																																																																																																																																																																																																																																																																						
200	397	-72		255	48	398	-66		217	46	399	-73		153	15	399	-73		174	22	399	-71		174	22	401	-70		022	10	398	-76		272	18	398	-75		203	22	mb)				200																																																																																																																																																																																																																																																																																																																																																																																																																						
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110		-55		223	18		-48		242	17		-61		120	14		-61		218	17		-62		219	11		-61		253	09		-63		285	04		-65		194	09					110																																																																																																																																																																																																																																																																																																																																																																																																																						
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90		-54		224	15		-48		239	12		-62		134	8		-59		250	16		-58		320	04						-62		609	05		-63		262	04					90																																																																																																																																																																																																																																																																																																																																																																																																																							
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862 mb 420°-870 03°				855mb 36°-800mb 39°				767 mb 44°-743mb 45°				36mb 52°				mb)				Isothermal				Isothermal				573mb 20°-563mb 21°				991 mb 71°-976mb 73°				389 mb -55°-967mb 60°																																																																																																																																																																																																																																																																																																																																																																																																																															
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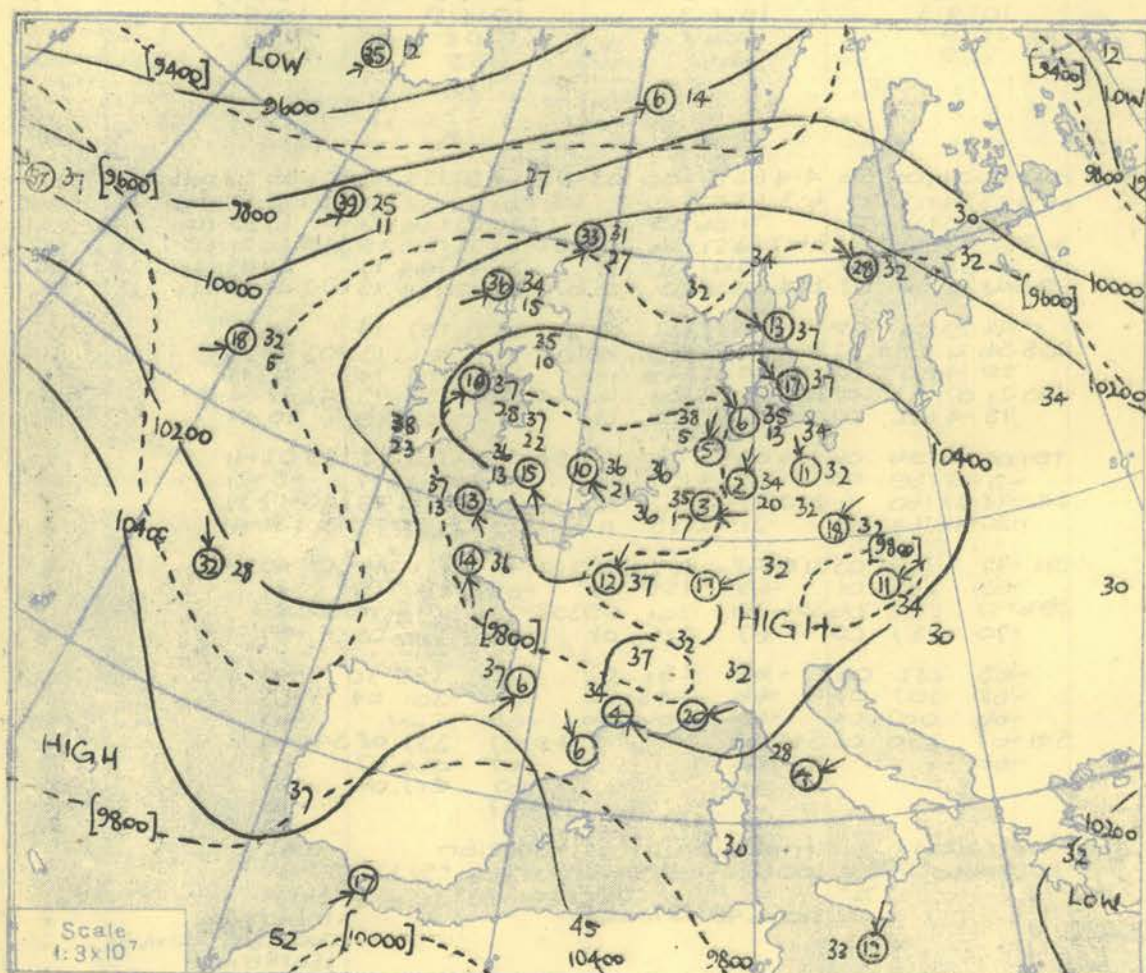


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L.	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs
Surf	1015.0	1022.3	1023.0	1024.0	1023.4	1019.8	1022.7	1018.9	1019.3	1019.3
Freezing	708	687	680	667	658	669	661	655	670	670
Pressure mb	1015.0	1022.3	1023.0	1024.0	1023.4	1019.8	1022.7	1018.9	1019.3	1019.3
Height ft/100	02.7	00.5	00.2	02.3	04.0	02.1	04.4	02.9	02.3	02.3
Temp. °F	52	51	50	50	50	50	50	50	50	50
Dew °F	51	50	49	49	49	49	49	49	49	49
Wind Dir.	10	10	10	10	10	10	10	10	10	10
Wind Vel. knots	15	15	15	15	15	15	15	15	15	15
Surf	02.7	00.5	00.2	02.3	04.0	02.1	04.4	02.9	02.3	02.3
1000	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
950	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
900	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
850	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
800	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
750	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
700	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
650	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
600	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
550	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
500	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
450	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
400	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
350	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
300	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
250	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
200	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
170	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
150	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
130	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
110	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
100	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
90	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
80	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
70	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
60	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
Tropopause	I 202 mb -75°	NR	I 183 mb -88°	I 220 mb -75°	II 200 mb -68°	II 193 mb -78°	II 206 mb -73°	I 190 mb -81°	I 219 mb -73°	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L.	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs
Surf	1012.9	1023.0	1021.1	1022.4	1021.1	1019.3	1021.8	1019.1	1019.3	1019.3
Freezing	697	679	670	660	675	661	651	663	670	670
Pressure mb	1012.9	1023.0	1021.1	1022.4	1021.1	1019.3	1021.8	1019.1	1019.3	1019.3
Height ft/100	02.7	00.5	00.2	02.3	04.0	02.1	04.4	02.9	02.3	02.3
Temp. °F	52	51	50	50	50	50	50	50	50	50
Dew °F	51	50	49	49	49	49	49	49	49	49
Wind Dir.	10	10	10	10	10	10	10	10	10	10
Wind Vel. knots	15	15	15	15	15	15	15	15	15	15
Surf	02.7	00.5	00.2	02.3	04.0	02.1	04.4	02.9	02.3	02.3
1000	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
950	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
900	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
850	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
800	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
750	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
700	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
650	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
600	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
550	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
500	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
450	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
400	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
350	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
300	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
250	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
200	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
170	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
150	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
130	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
110	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
100	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
90	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
80	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
70	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
60	06.2	06.5	06.8	06.3	06.6	06.6	06.3	06.2	06.2	06.2
Tropopause	I 210 mb -71°	I 216 mb -75°	NR	II 211 mb -74°	I 185 mb -81°	I 188 mb -79°	I 206 mb -71°	NR	I 219 mb -73°	Tropopause



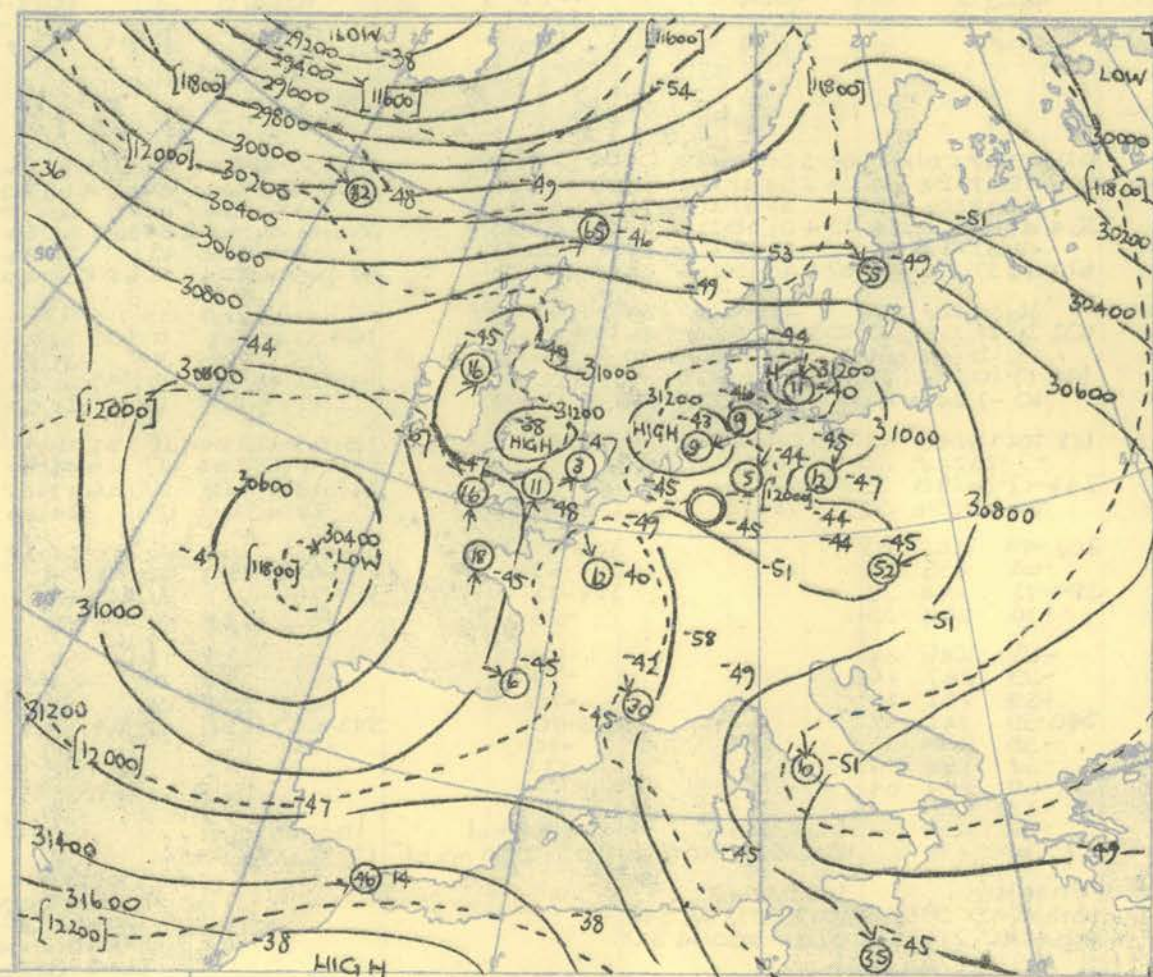
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03h. G.M.T.



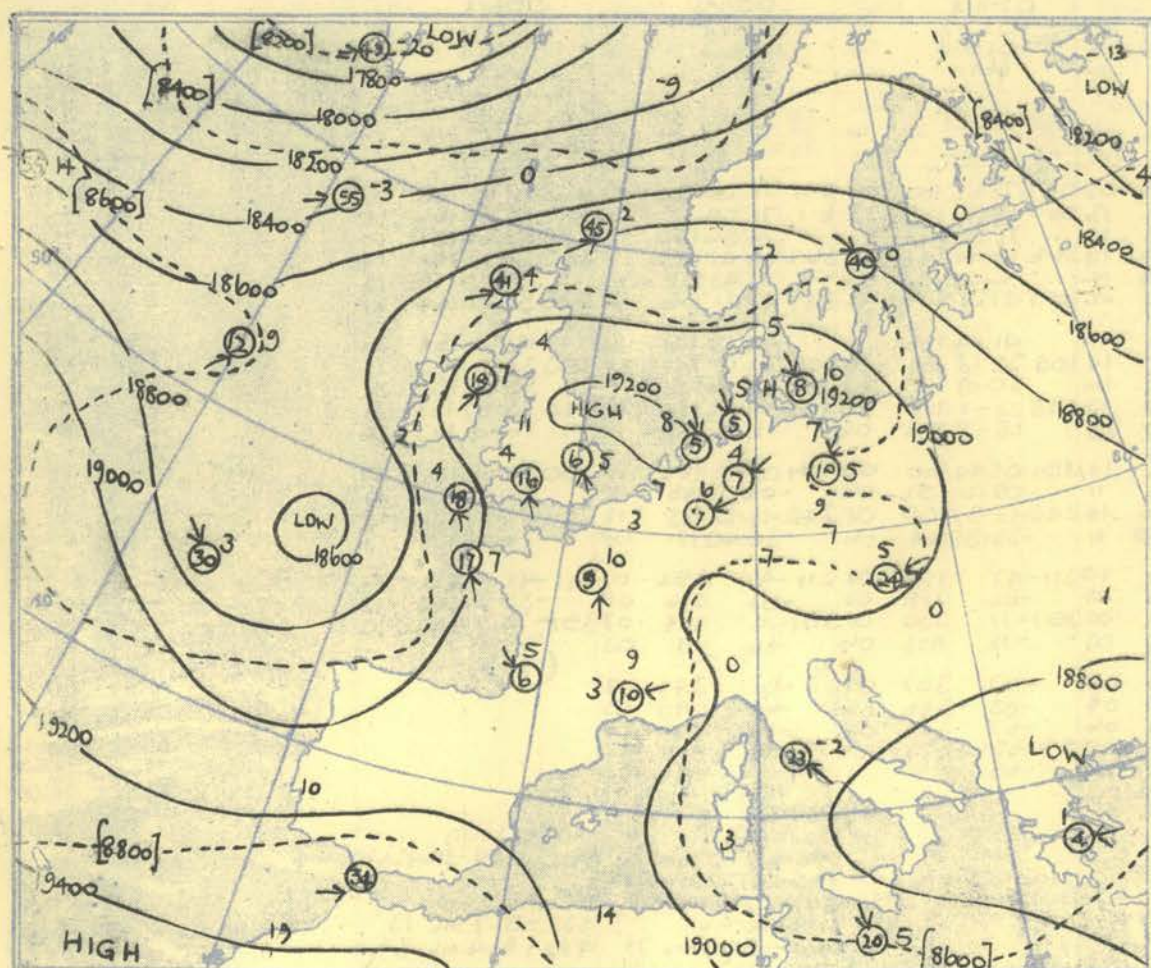
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

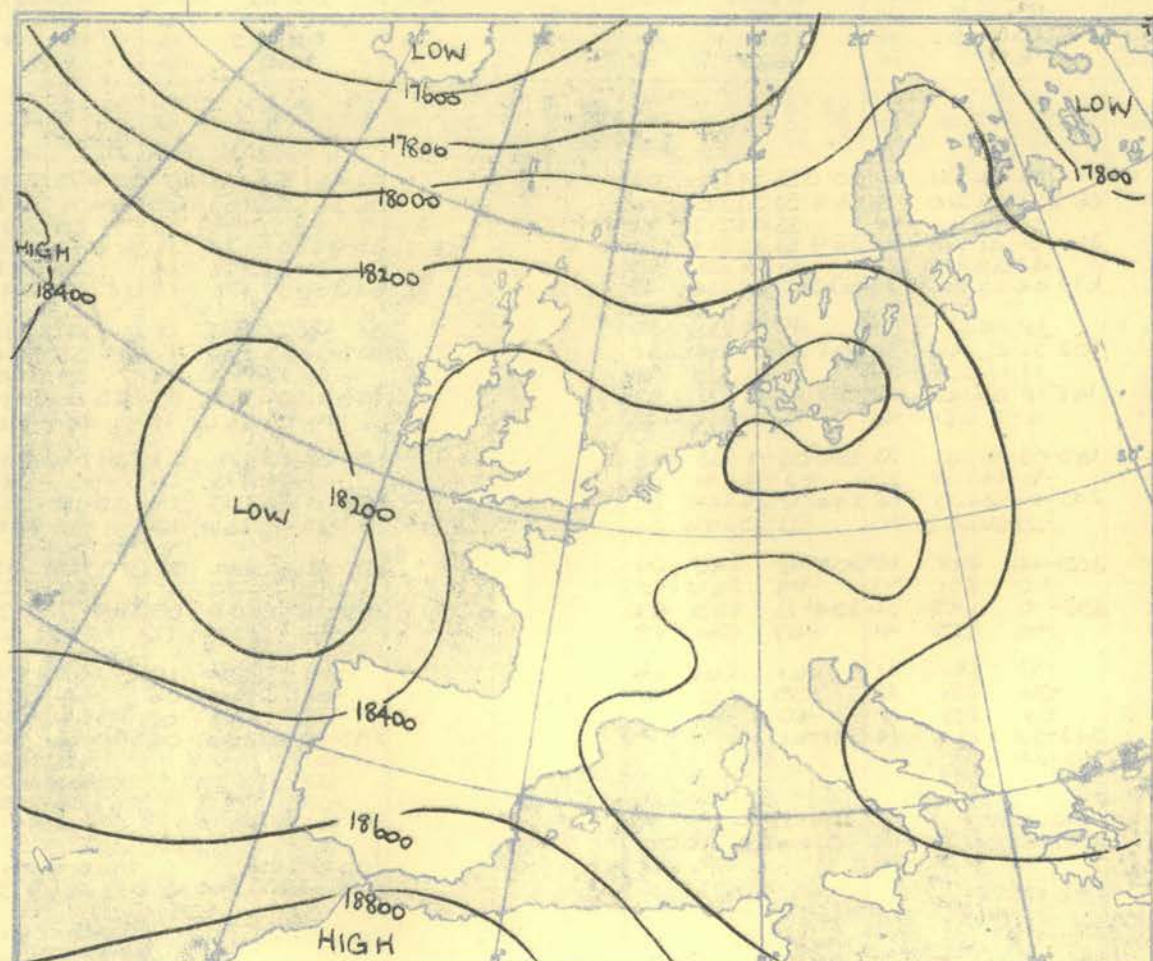
100 80 60 40 20 10 0 knots



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.

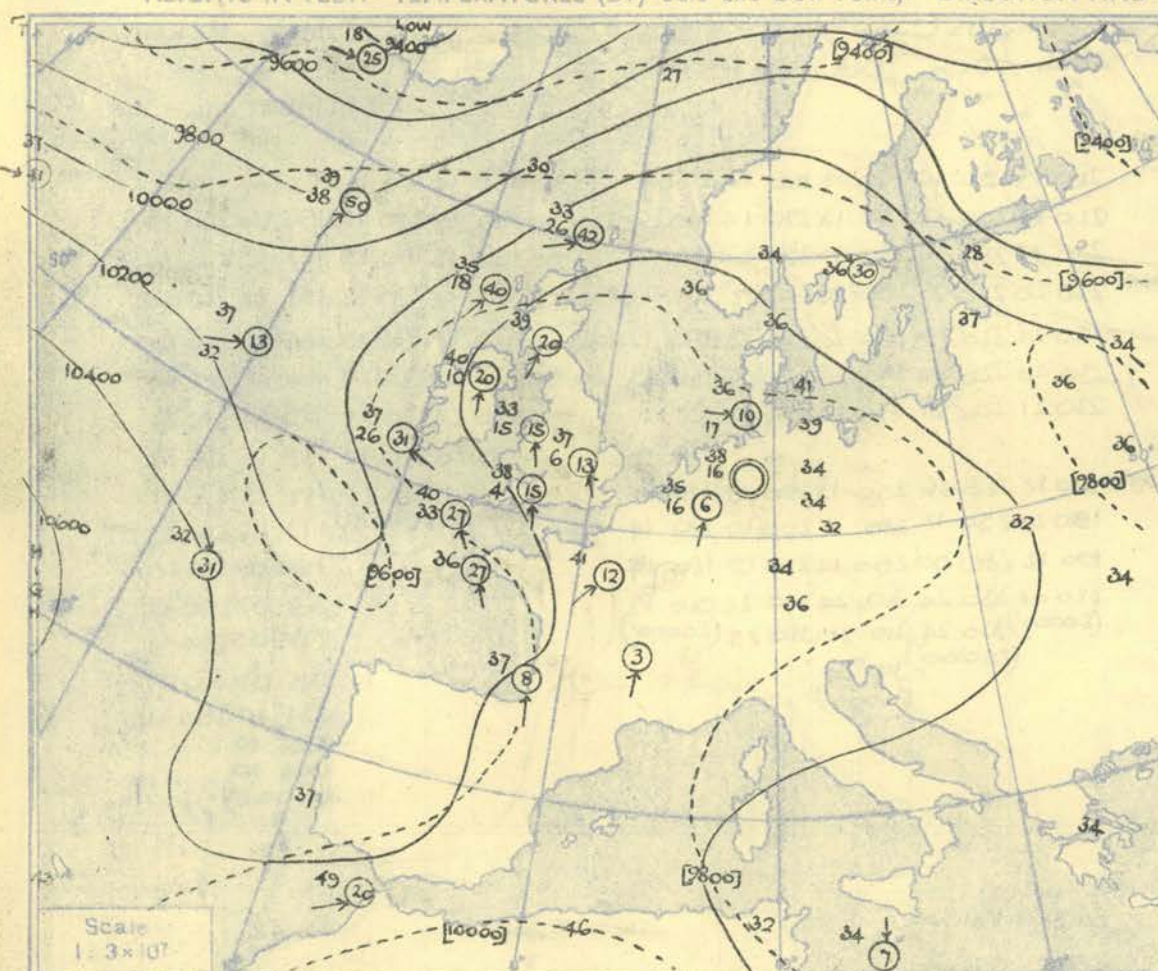
NEPHOSCOPE OBSERVATIONS

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

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				CUMULUS				CUMULUS				CUMULUS				CUMULUS				Ship	
Lat/Long	S9. 1N. 18. 8W.				S9. 1N. 18. 8W.				S9. 2N. 18. 7W.				S9. 0N. 18. 9N.				S2. 5N. 20. 0W.				S2. 5N. 20. 0W.				S2. 5N. 20. 0W.				S2. 5N. 20. 0W.				Lat/Long	
Pressure	Time	03h. G.M.T.			09h. G.M.T.			15h. G.M.T.			21h. G.M.T.			03h. G.M.T.			09h. G.M.T.			15h. G.M.T.			21h. G.M.T.			G.M.T.			Time					
	M.S.L.	1014 mb			1010 mb			1005 mb			1007 mb			1020 mb			1018 mb			1018 mb			1019 mb			mb			M.S.L.					
	Surf	1014 mb			1010 mb			1005 mb			1007 mb			1020 mb			1018 mb			1018 mb			1018 mb			1019 mb			mb			Surf		
	Freezing	810 mb			760 mb			620 mb			650 mb			700 mb			690 mb			600 mb			615 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		51	49	170 10	51	51	170 17	52	52	190 23	52	51	240 19	55	54	52	55	52		55	52		55	52		55	52		Surf					
1000	38	48	45	195 12	50	48	186 21	52	52	206 37	51	50	255 25	55	54	52					55	52		55	52				1000					
950		44	38	193 16	46	39	188 24	49	49	213 37	50	50	255 24								54	50		54	50				950					
900	32-2	42	29	194 25	31-4	46	32	189 26	30-1	47	47	224 36	30-6	48	47	265 20			For		46	32	For		50	43	For		48	48	For	900		
850		42	29	193 20		43	27	197 23		44	44	226 42		46	43	270 22		45	34												850			
800	63-8	37	26	212 27	63-1	37	22	203 30	61-9	41	40	217 43	62-4	42	35	268 25				winds											800			
750		32	20	218 35		30	19	204 40		40	39	219 46		39	33	267 35															750			
700	98-7	25	11	229 39	98-2	29	20	208 54	97-6	39	38	227 50	97-9	37	10	265 48	101	32	05	see	101	34	27	see	102	37	32	see	102	36	34	see	700	
650		18	06	231 46		27	19	219 60		34	32	229 52		32	10	265 52																650		
600	138	11	02	235 54	138	22	14	229 56	138	30	27	237 52	138	26	21	259 54				Top												600		
550		05	14	236 51		14	05	231 57		22	18	240 52		18	30	250 61																550		
500	183	03	30	236 55	184	05	05	236 56	185	12	06	242 54	185	07	38	235 69	188	09	26	of	188	12	09	of	190	21	04	of	189	14	00	of	500	
450		07	50	234 61		05	17	232 56		02	24	234 66		04	38	232 80																450		
400	237	19	59	243 70	239	16	28	243 64	240	07	34	245 72	239	13	36	242 87				page												400		
350		33	60	256 70		28	41	239 63		20	47	247 73		28	47	250 87																350		
300	302	28		275 82	305	43		256 72	307	36	59	244 78	305	40	55	250 95	308	44			309	38	54		314	33			312	38		300		
250		60		273 69		56		272 96		49		244 54		54		250 111																250		
200	389	60		243 46	392	65		275 78	396	61		250 87	393	68		250 87	395	72			397	71			402	67			399	76		200		
170		57		242 34		66		280 60		57		268 69		60		250 61																170		
150		54		242 30		58		272 32		56		240 57		60		250 53																150		
130		56		242 30		58		254 30		58		240 39		61		250 40																130		
110		55		242 22		55		243 20		54		240 27		64		250 28																110		
100	338	56		242 12	540	54		241 18	545	50		240 24	540	61		250 20	-69															100		
90		56		242 13		50		241 16		49		238 22		59		250 20																90		
80		56		242 14		50		241 12		52		242 21		55		250 10																80		
70		58		242 13		53		241 10	(078)	53				57		250 05																70		
60		57		242 07		49		241 06	(mb)					56		250 03																60		
	(053) mb	Inversion 923mb. 40°-871mb. 45°			(052) mb	Inversion 142mb. 29°-723mb. 30°			Inversion 778mb. 39°-750mb. 40°			(639) mb	Isothermal 983-936mb. 50°			Isothermal 700-693mb. 32°			Inversion 920mb. 45°-888mb. 48°			Inversion 895mb. 48°-865mb. 50°			Inversion 944mb. 48°-924mb. 56°									
		Isothermal 490-463mb. 06°				Isothermal 694mb. 28°-678mb. 29°											237-221mb. 67°			797mb. 45°-772mb. 46°			700mb. 37°-691mb. 39°			709-655mb. 36°								
						950-886mb. 46°														Isothermal 865-850mb. 50°														
Tropopause	I 211mb. -64° 37,700'				I 180mb. -69° 41,400'				I 196mb. -63° 44,000'				I 194mb. -70° 39,700'				I 158mb. -78° 44,100'				I 163mb. -83° 43,800'				703-700mb. 37°			I 175mb. -76° 42,900'			I 197mb. -78° 40,200'			Tropopause



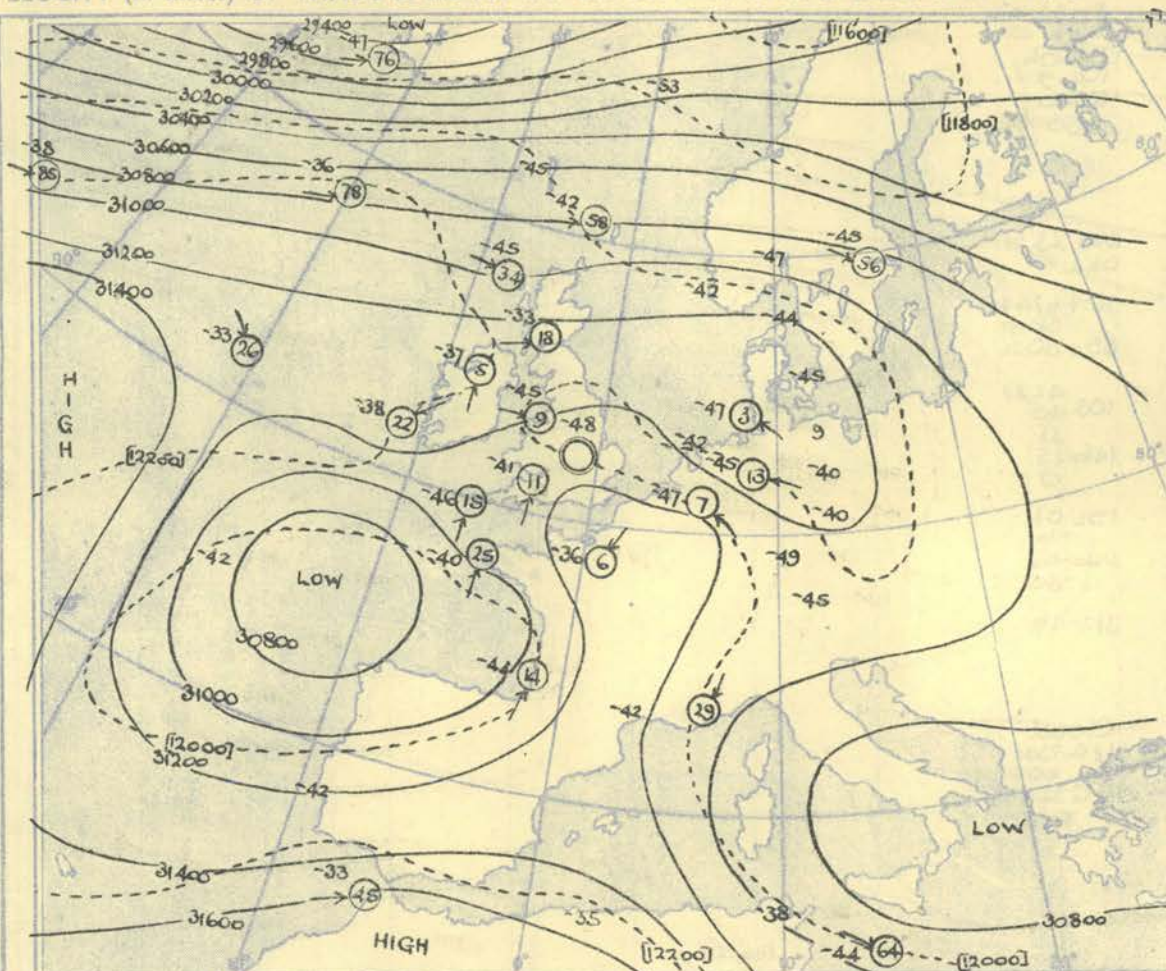
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

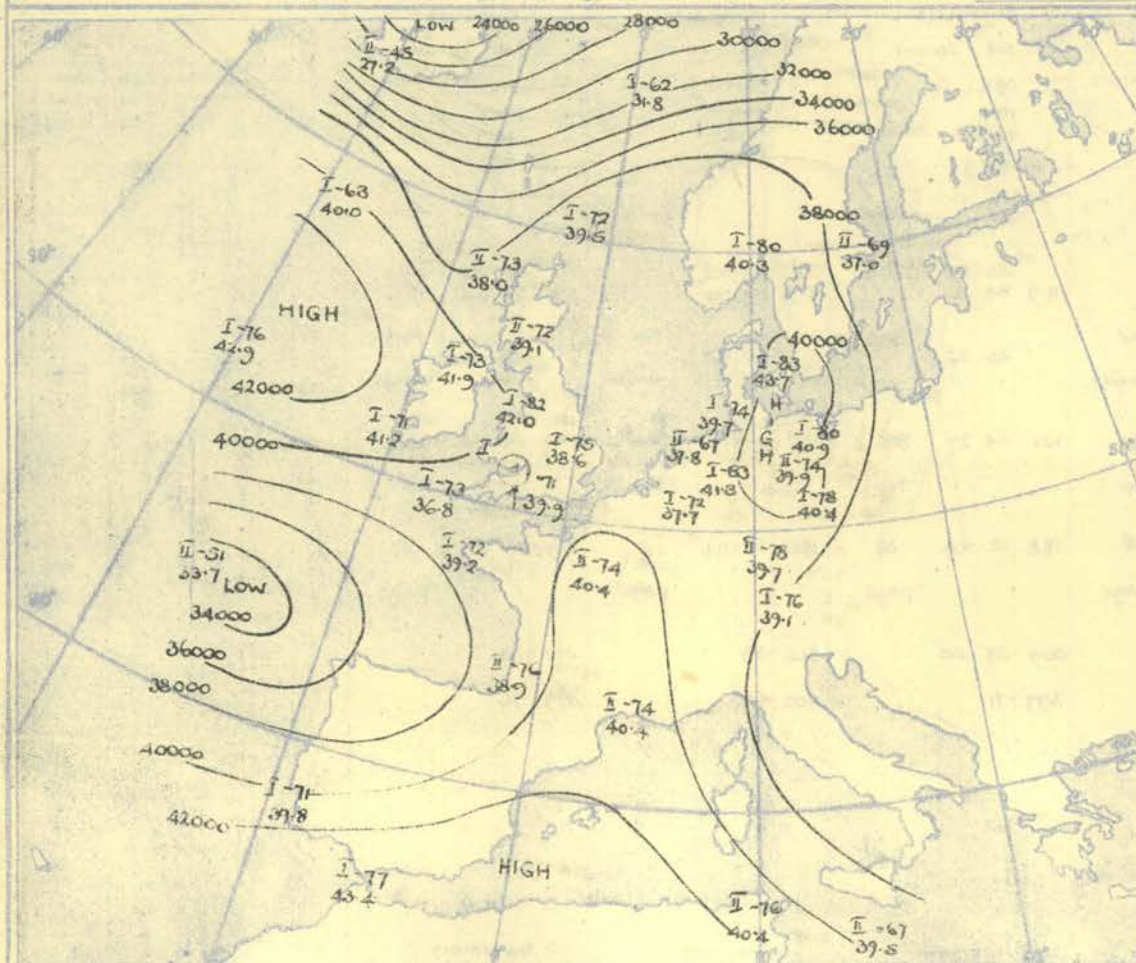
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52\frac{1}{2}^\circ$  N.

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.

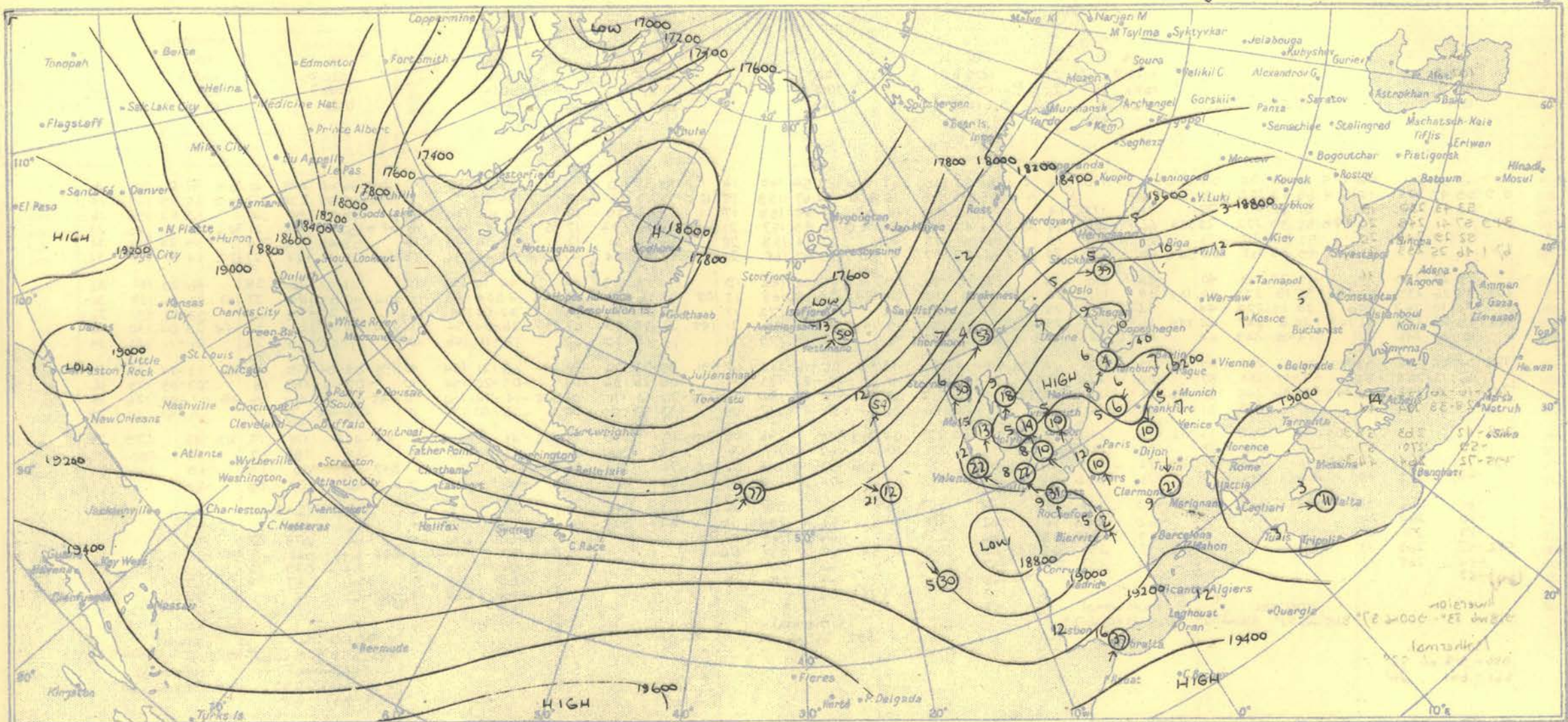
## NOTES ON THE AEROLOGICAL SITUATION.

Warm ridge over the Western Atlantic declined so establishing a southwesterly thermal from Labrador to Scandinavia. Subsidence and further slight warming occurred over much of Europe whilst the cold pool west of Biscay warmed a little and moved slowly east.

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

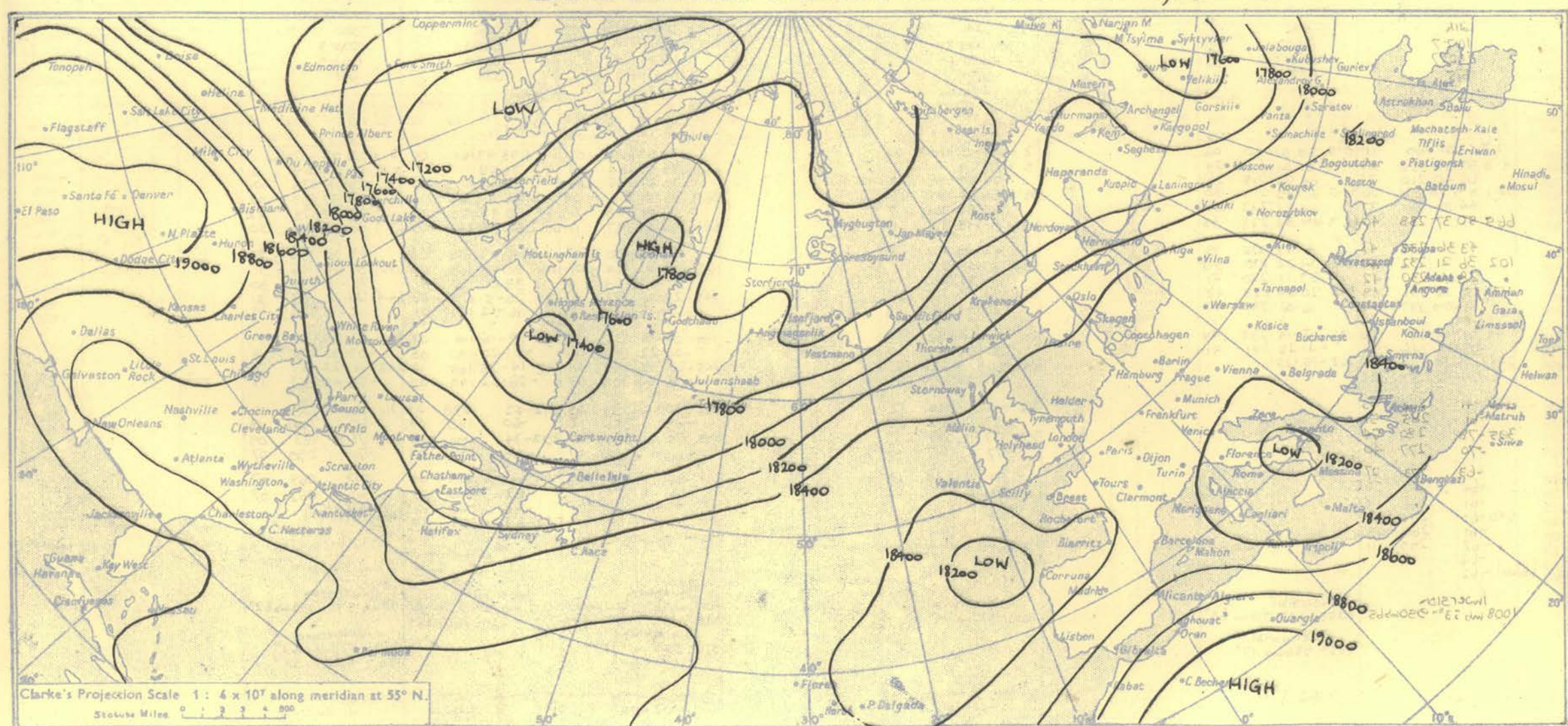




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 6<sup>th</sup> June,

1950.





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

LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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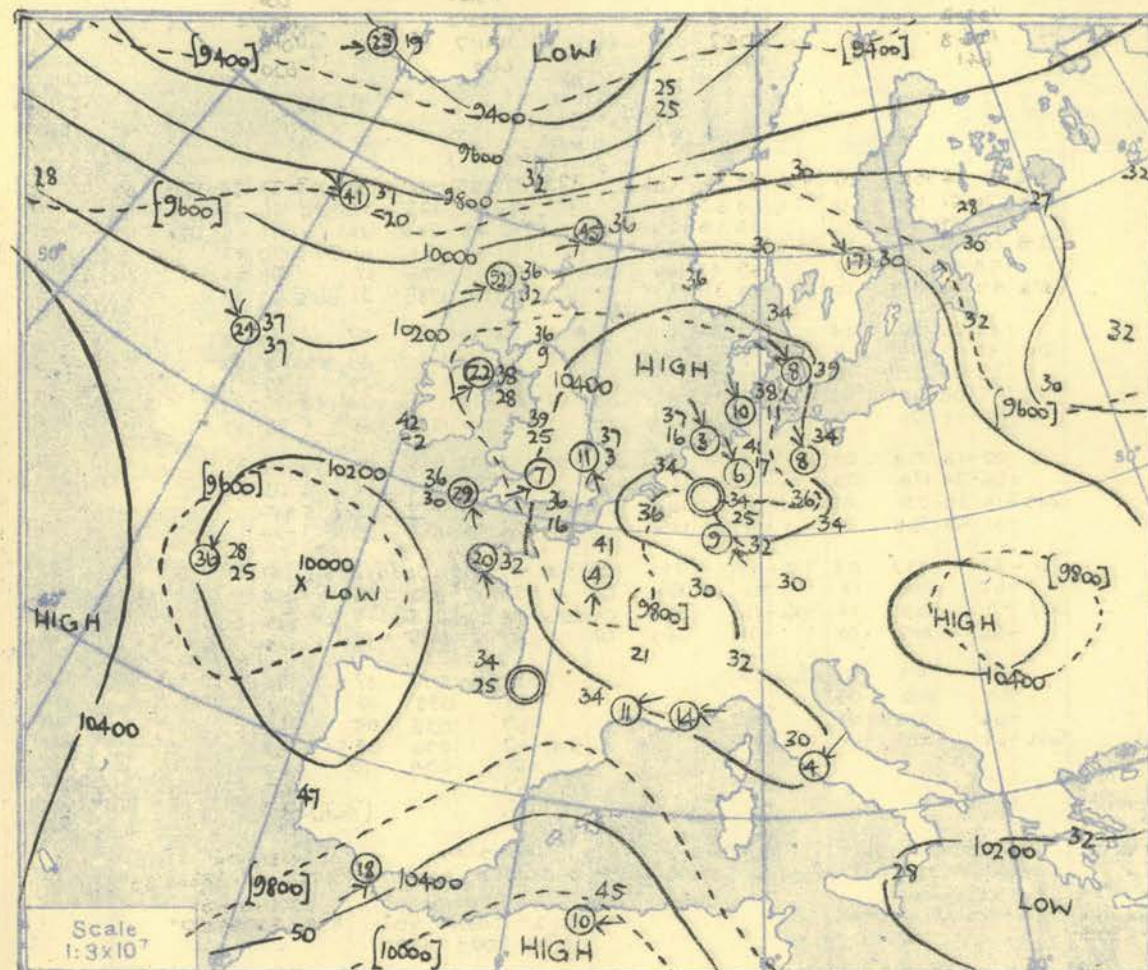


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				Station																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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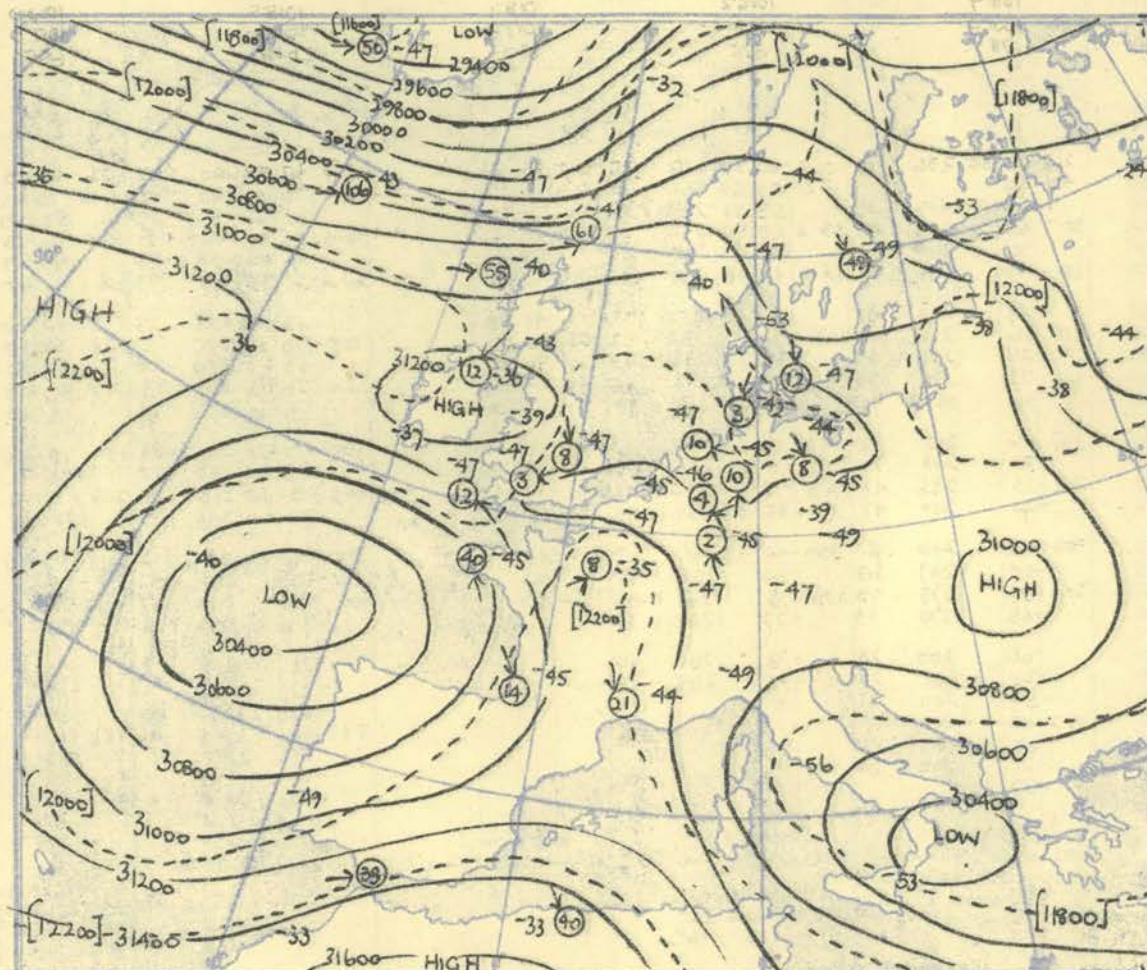
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03h. G.M.T.



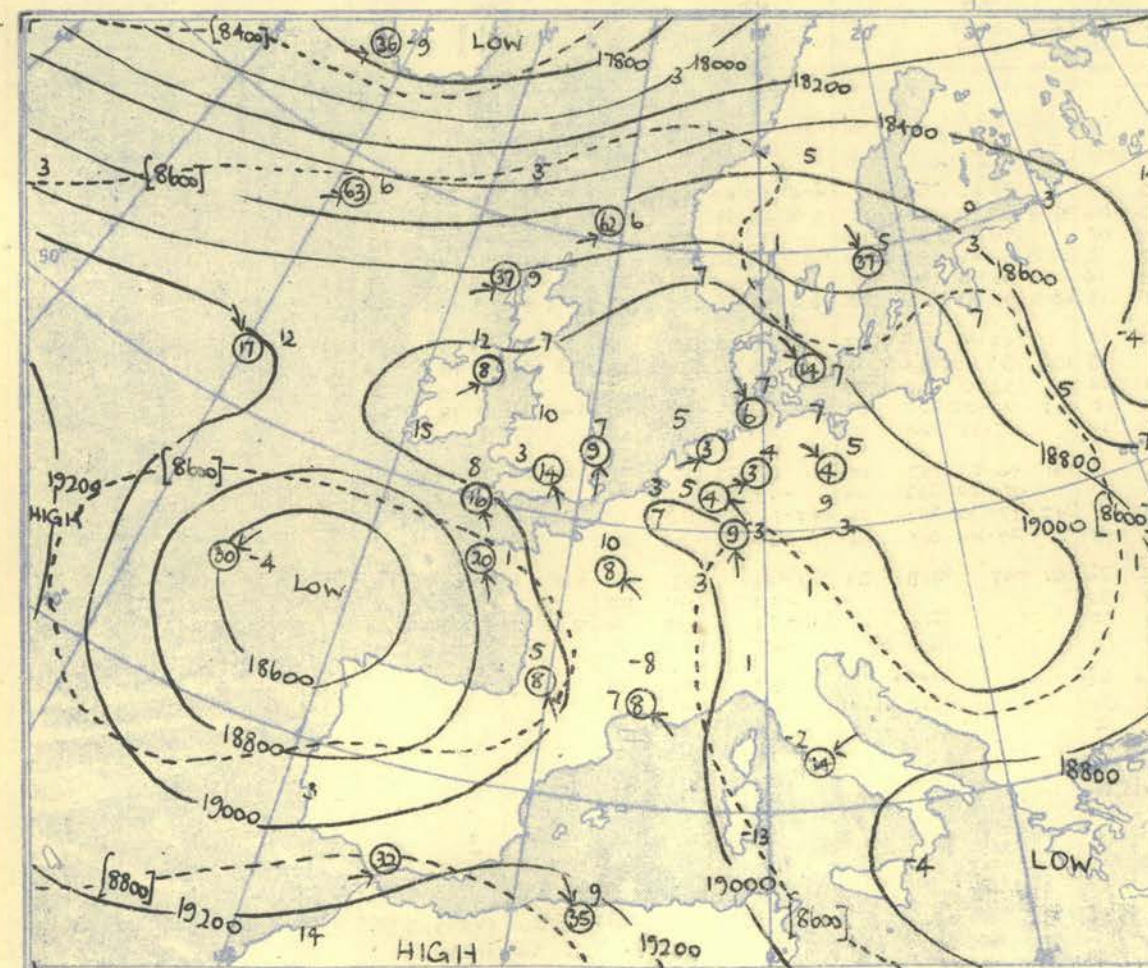
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 300 ft. at Lat.  $52\frac{1}{2}^\circ$  N

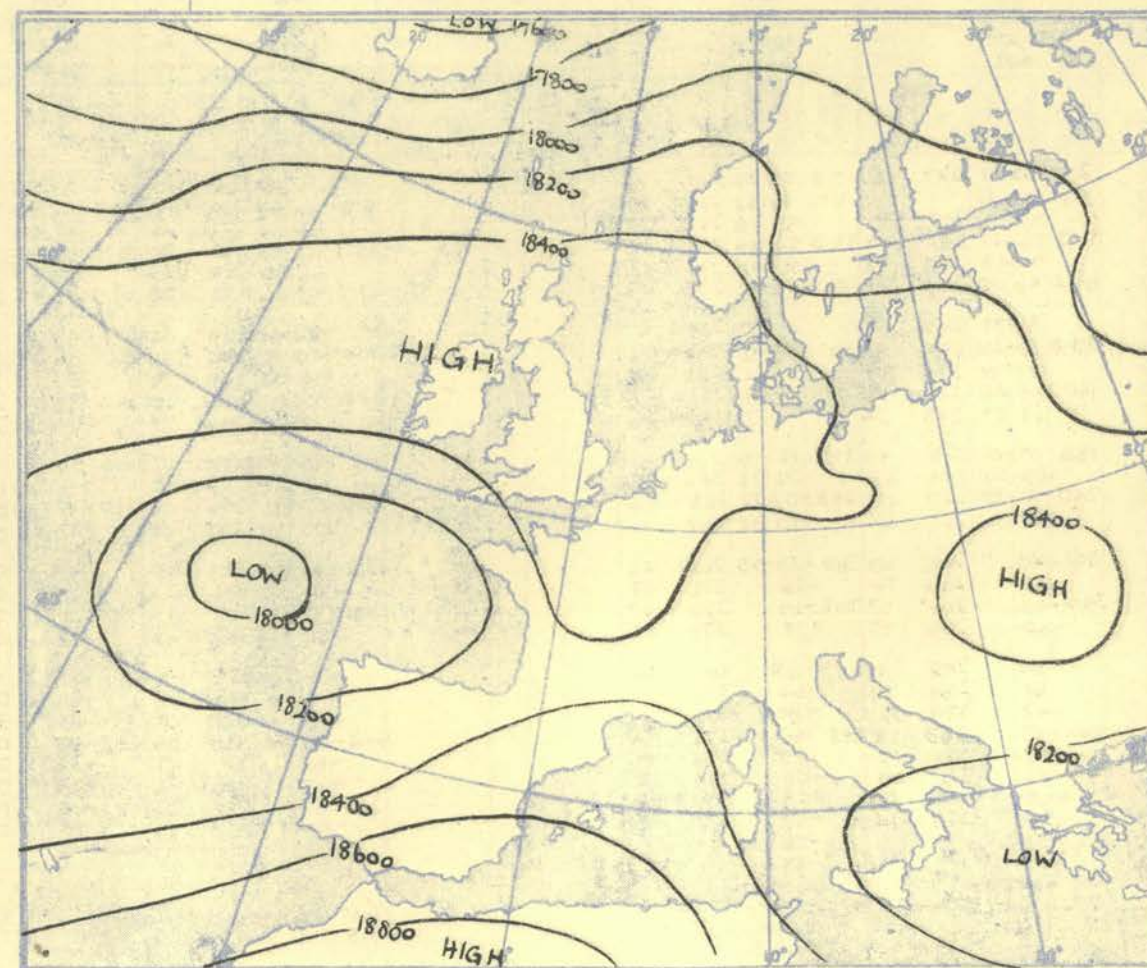
100 90 80 70 60 50 40 30 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.



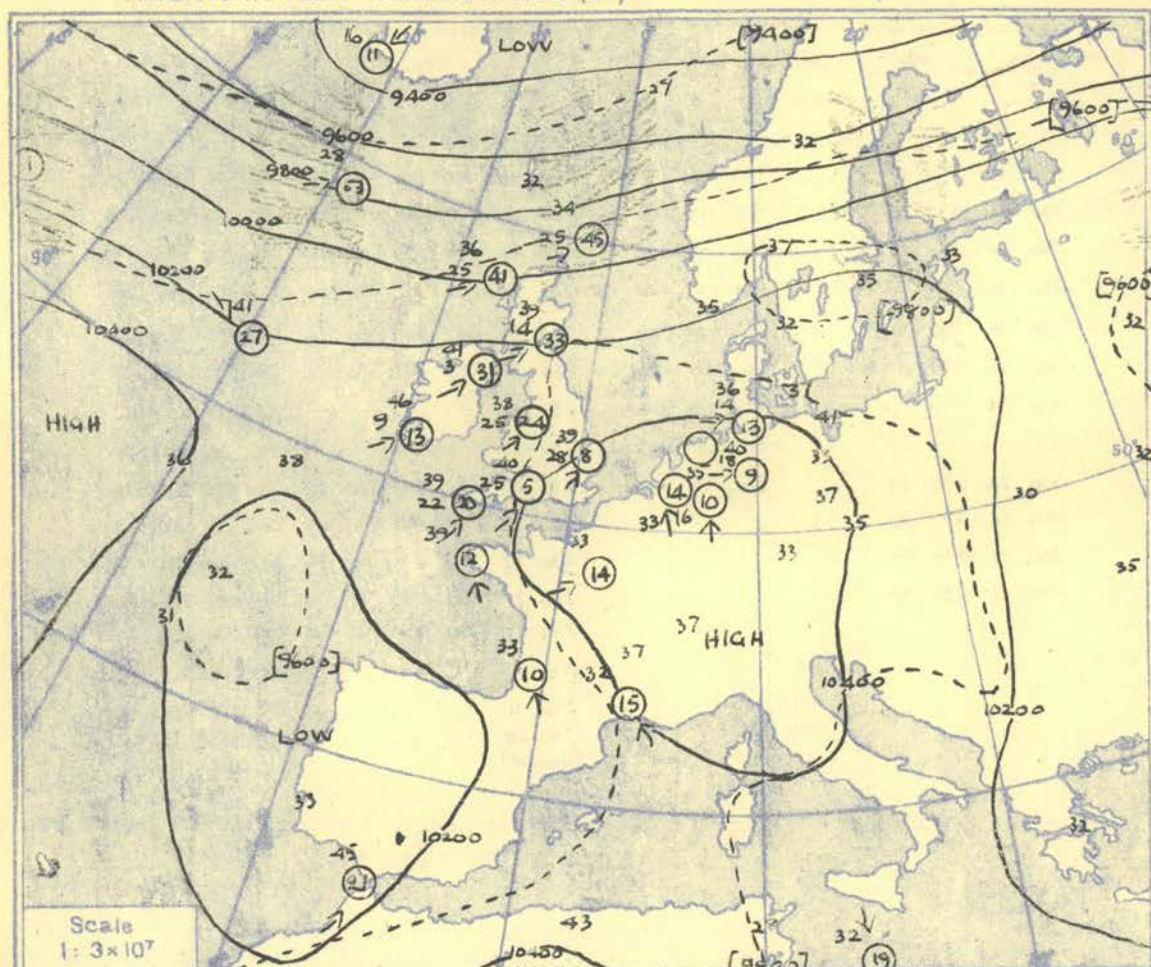
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS[illegible]

Ship	Weather Explorer	Weather Explorer	Weather Explorer	Weather Explorer	Cumulus	Cumulus	Cumulus	Cumulus		Ship
Lat/Long	58.8 N 19.2 W	58.9 N 18.9 W	58.9 N 18.9 W	58.9 N 19.0 W	52.5 N 20.0 W	52.5 N 20.0 W	52.5 N 20.0 W	52.5 N 20.0 W		Lat/Long
Pressure	Time M.S.L. Surf Freezing	03h 1009 mb mb	G.M.T. -mb mb mb	09h 1008 mb mb	G.M.T. mb mb mb	15h 1010 mb mb	G.M.T. mb mb mb	21h 1020 mb mb	G.M.T. mb mb mb	Time M.S.L. Surf Freezing
Pressure	665	770 and 685	750	840	600	590	610	660		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
Surf	25	23	26	28	52	54	60	65		Surf
1000	49	45	44	43	43	38	32	30		1000
950	45	43	41	41	33	29	23	23		950
900	43	40	37	37	33	23	13	13		900
850	43	37	37	37	33	23	13	13		850
800	43	37	37	37	33	23	13	13		800
750	40	30	32	32	24	12	12	12		750
700	37	27	28	28	22	05	05	05		700
650	30	27	27	27	17	05	05	05		650
600	139	137	127	136	11	11	11	11		600
550	16	13	03	01	19	19	19	19		550
500	185	183	182	181	190	19	19	19		500
450	105	105	104	103	118	118	118	118		450
400	116	116	116	116	116	116	116	116		400
350	127	127	127	127	127	127	127	127		350
300	106	106	106	106	106	106	106	106		300
250	114	114	114	114	114	114	114	114		250
200	114	114	114	114	114	114	114	114		200
170	114	114	114	114	114	114	114	114		170
150	114	114	114	114	114	114	114	114		150
130	114	114	114	114	114	114	114	114		130
110	114	114	114	114	114	114	114	114		110
100	114	114	114	114	114	114	114	114		100
90	114	114	114	114	114	114	114	114		90
80	114	114	114	114	114	114	114	114		80
70	114	114	114	114	114	114	114	114		70
60	114	114	114	114	114	114	114	114		60
Inversion	971 mb 42° - 825 mb 44°	790 mb 30° - 741 mb 35°	723 mb 40° - 830 mb 45°	651 mb 49° - 848 mb 49°	943 mb 48° - 875 mb 46°	936 mb 45° - 885 mb 54°	954 mb 46° - 872 mb 52°	913 mb 43° - 850 mb 48°		Inversion
isothermal	1009 - 1000 mb 50°	943 - 900 mb 43°	943 - 900 mb 43°	943 - 900 mb 43°	700 - 656 mb 37°	670 - 644 mb 36°	872 - 838 mb 52°	938 - 913 mb 43°		isothermal
	442 - 413 .. 36°	741 - 710 .. 35°	290 mb 249° 132 Kts.	632 - 809 mb 31°	650 - 605 .. 34°	600 - 600 .. 32°	200 - 156 mb 63°	740 - 710 .. 39°		
Tropopause	I 211 mb - 73° 38,000'	I 225 mb - 67° 37,000'	I 223 mb - 47° 36,900'	I 332 mb - 47° 27,600'	N.R.	I 155 mb - 85° 46,500'	I 145 mb - 85° 47,900'	I 172 mb - 81° 43,200'		Tropopause



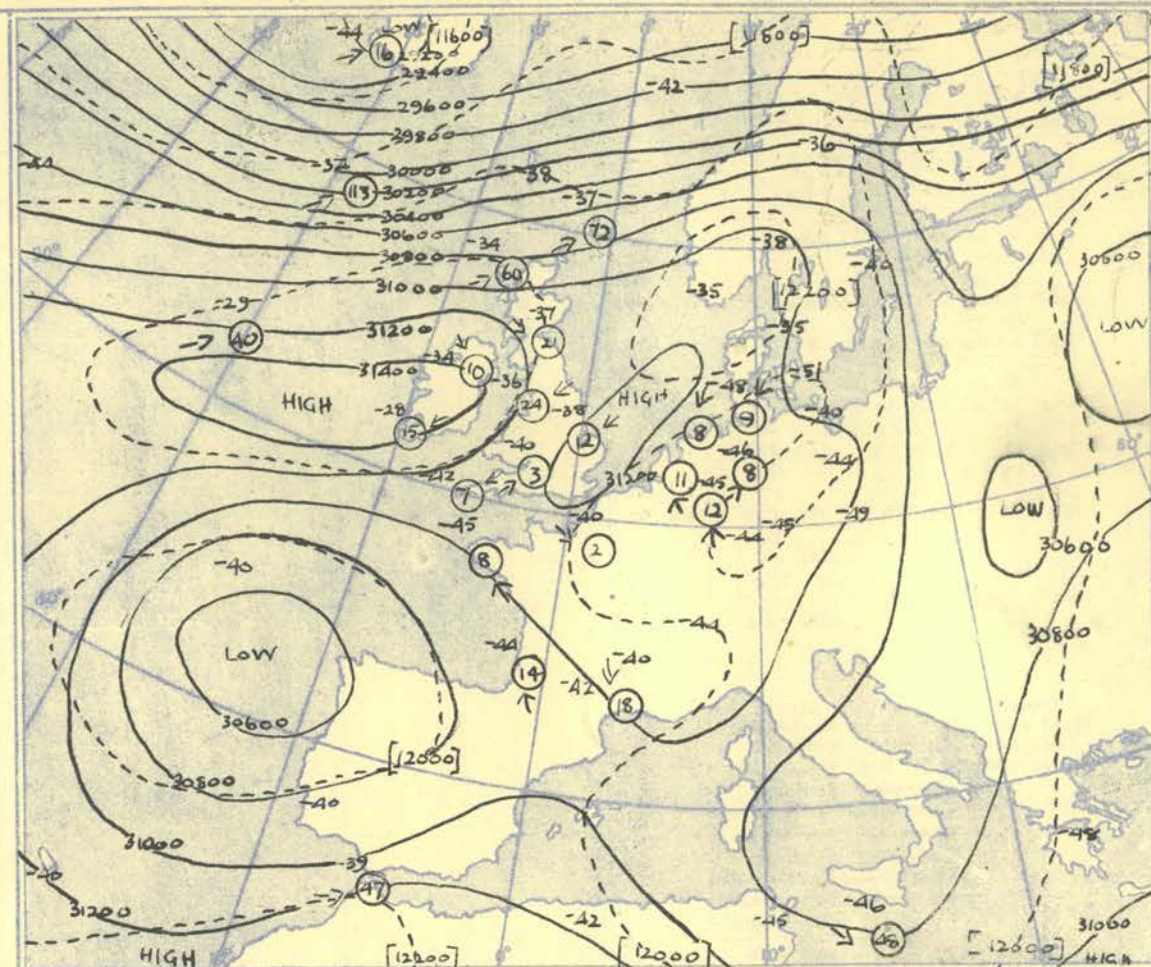
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

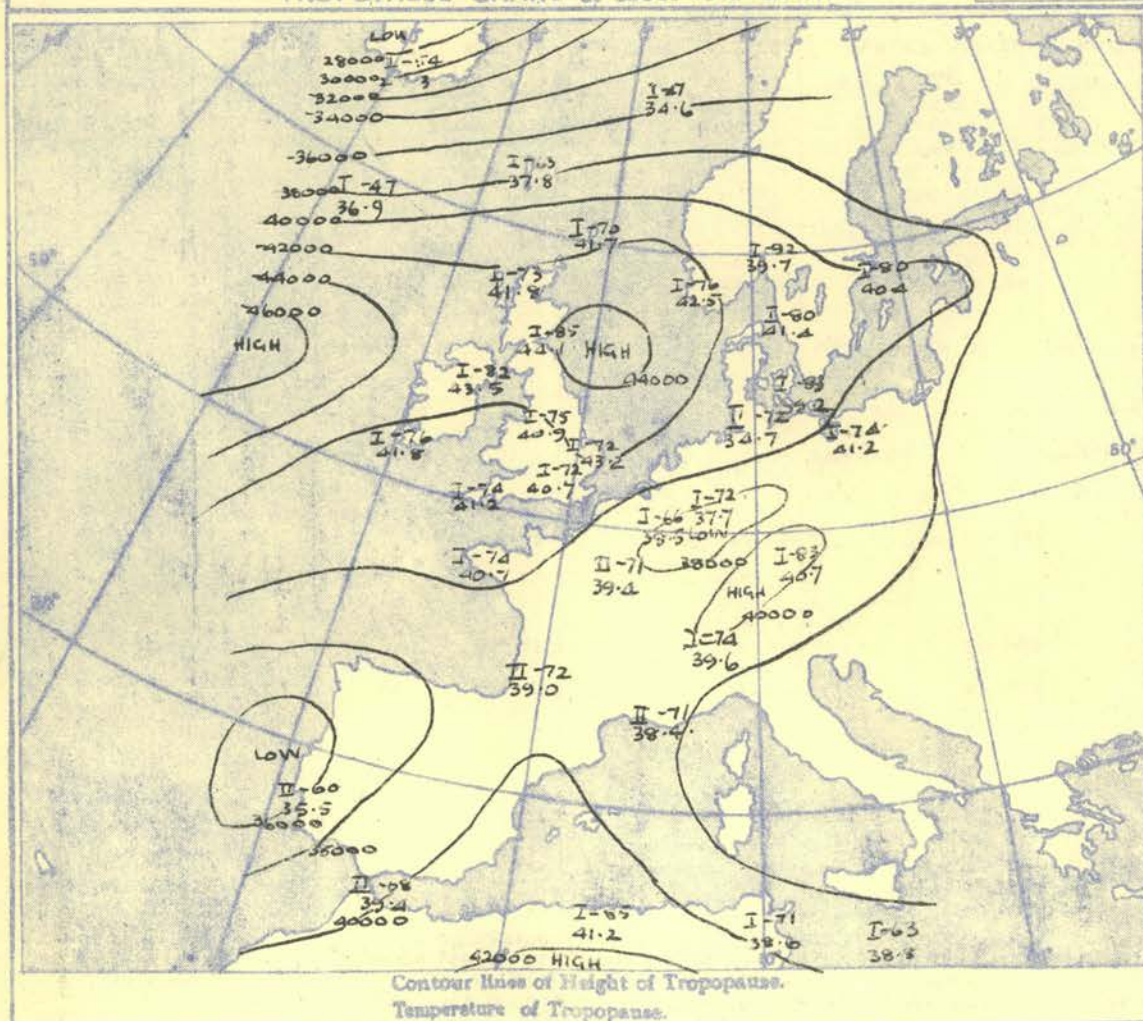
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

100 60 40 20 10 knots



## NOTES ON THE AEROLOGICAL SITUATION.

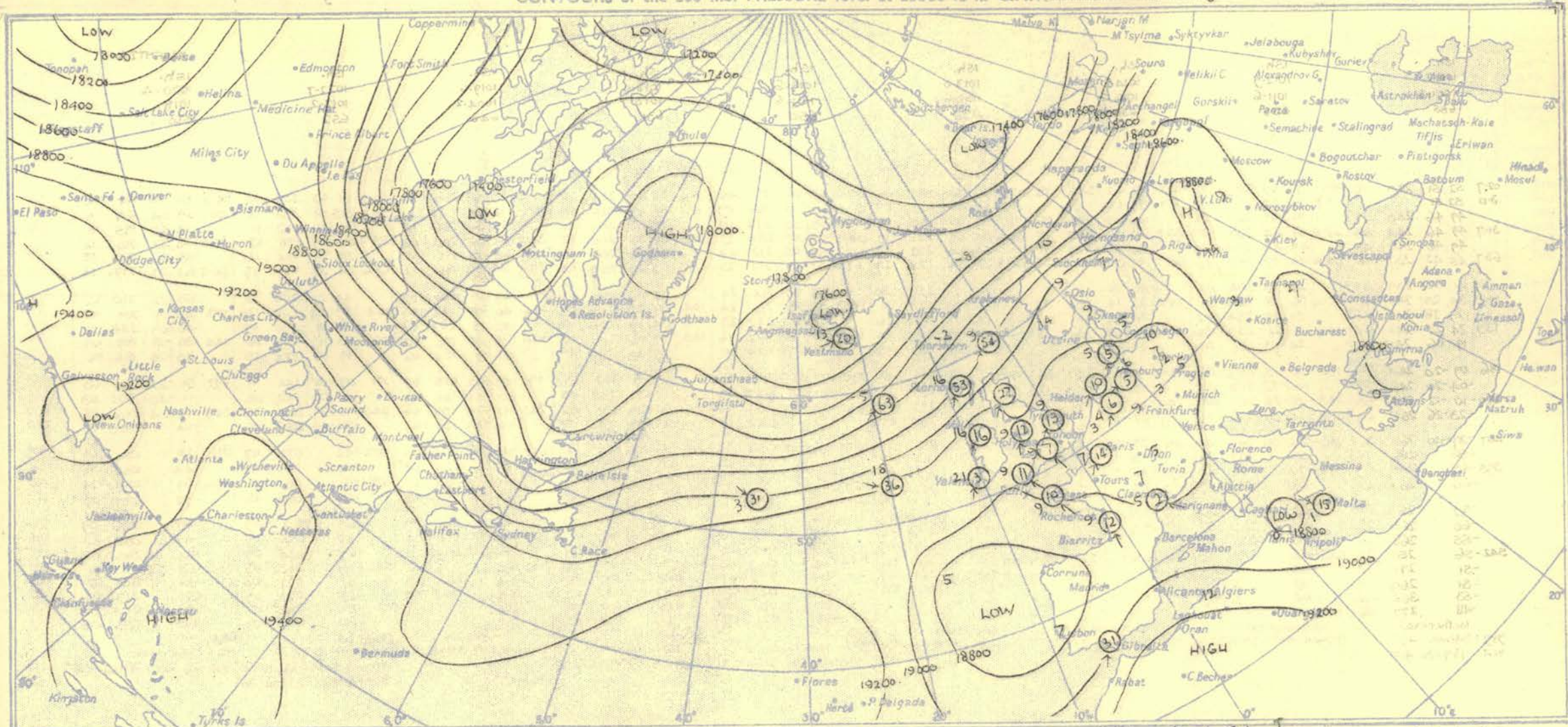
Note the reluctance of the cold pool over the Bay of Biscay to encroach on the land in spite of the northeast movement of the surface trough. Over Southern England the upper air ascents showed temperatures up to the recorded maximum for June, while readings over Ireland exceeded previous records.



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

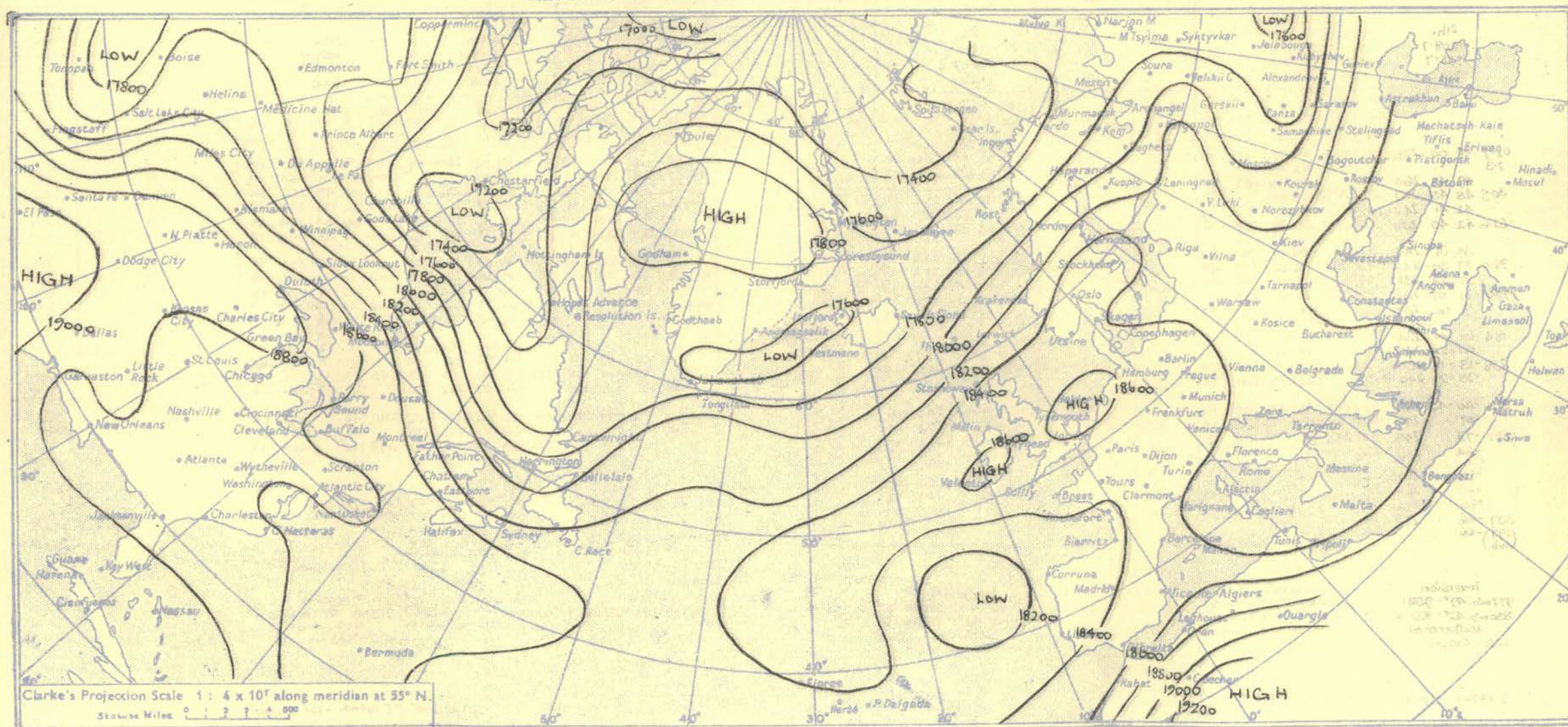




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Wednesday 7th June 1950

1950



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> 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 mb	Time M.S.L.	Surf Pressure	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.	15h.		G.M.T.

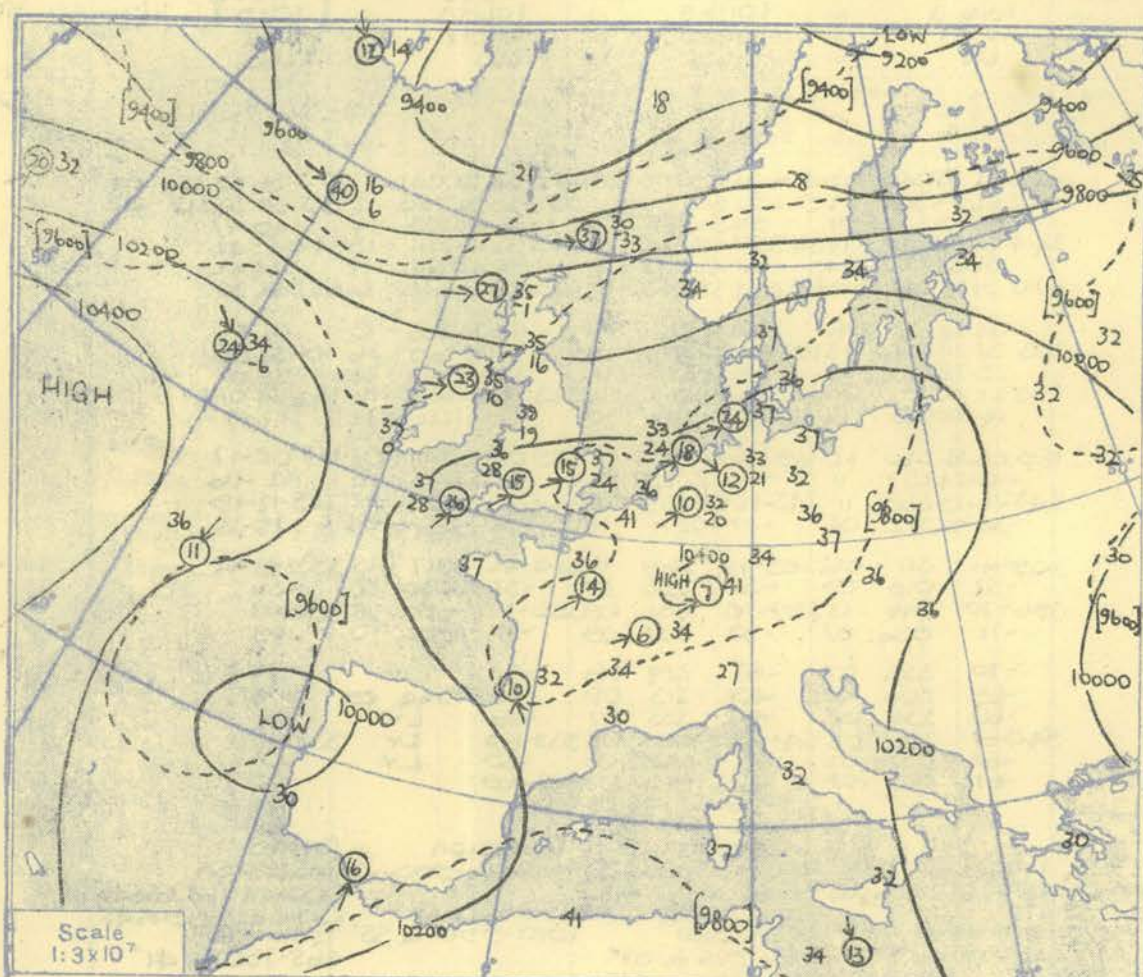


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia			
Time		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.	
M.S.L.		1007.7		mb		1013.5		mb		1013.6		mb		1011.0		mb		1017.1		mb		1016.5		mb		1013.1		mb		1003.3		mb		1020.3		mb	
Surf		997.7		mb		1011.6		mb		1012.8		mb		1008.5		mb		1015.1		mb		1013.1		mb		1003.3		mb		1003.3		mb		1009.8		mb	
Freezing		715		mb		752		mb		680		mb		675		mb		661		mb		668		mb		669		mb		660		mb		660		mb	
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.	
		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		02.74949225		21.0		50.46240		05.0025848		02.35854250		10.0065350		01.26155310		09.445149290		06.0295552		0.35655220		0.35655220		0.35655220		0.35655220		0.35655220		0.35655220		0.35655220		0.35655220		0.35655220	
1000		02.1		3.7		4843		03.85148		04.75652275		14.0465652		04.86254312		12.325250		05.5551250		12.53543228		05.5551250		12.53543228		05.5551250		12.53543228		05.5551250		12.53543228		05.5551250		12.53543228	
950		4645268		32		4138274		21		5046258		12		6359274		11		5046258		15		5046258		14		4547		15		4547		15		4547		15	
900		30.64140266		29.31		3527271		22.32		33.5464264		10.33		34.46155241		14.34		5749242		17.34		5347221		15.34		5347221		15.34		5347221		15.34		5347221		15.34	
850		4133264		29		4120269		24		4542		18		5844220		14		5749242		16		5440219		17		4442		17		4442		17		4442		17	
800		62.13719262		32.63		3716264		30.64		44240		65.24135258		16.65		65.64929		17.66		85235248		18.66		65.039208		20.65		84433		20.65		84433		20.65		84433	
750		33-1259		36		3107263		33		3730		3831259		23		4518		16		4538244		17		4434203		23		4121		23		4121		23		4121	
700		27.23033256		37.98		123-1262		37		1003316		1013510260		27		1023819		13103		3628241		13		1033728260		26		1013700		26		1013700		26		1013700	
650		23-38253		42		20-3260		42		2819		2908255		29		3014		13		2919238		12		3018207		22		3101		22		3101		22		3101	
600		13716-43247		45		14-11258		51		14020-1		14123-16252		28		142407		17		2209238		11		1432408204		16		1422407		16		1422407		16		1422407	
550		09-49242		53		05-17253		55		15-13		1601251		30		17-2		16		1501244		10		13-11212		12		17-7		12		17-7		12		17-7	
500		182-2-35248		69		183-4-27253		57		18607-26		18709-3246		39		18806-13		189		05-8265		07		18908-13247		08		18808-17		08		18808-17		08		18808-17	
450		-7-23240		77		-12-30247		72		-2-36		00-20242		42		-4-26		-6-24257		11		-4-82359		06		-2-23282		10		-2-16		10		-2-16		10	
400		236-12-2234		91		236-19-41230		85		241-12-47		242-10-19238		41		242-14-40		243-16-29280		11		243-15-29259		10		243-15-29259		12		243-12-19		12		243-12-19		12	
350		-23-31227		98		-28-46226		96		-25-42		-22-31236		49		-24-50		-30-42272		07		-27-40271		12		-28-51331		07		-25-33		07		-25-33		07	
300		303-3947229		37		302-41		229		9930740-53		309-37-47243		44		3094060		309-41		317		0630941		269		10310-42		017		153093948		309		3948		309	
250		-54		231		99		-57		210		102		-57		-58		-57		019		09		-55		295		07		-58		030		18		-56	
200		391-59		237		76390-59		238		7039473		396-73		261		4739673		396-70		046		15397-70		001		09395-76		028		23396-77		396		-77		396	
170		-55		239		53		241		57		-77		-78		24734		-72		056		07		-70		057		09		-71		017		10		-85	
150		-53		240		36		-59		248		91		-70		-71		251		25		-73		-70		335		02		-67		284		09		-71	
130		-57		250		26		-57		264		28		-67		-71		264		07		-69		313		09		-70		344		09		-74		344	
110		-57		270		28		-60		264		28		-71		-71		60		252		23		-70		69		334		07		-69		344		07	
100		540-57		253		21		538-63		538-74		540-67		264		15		538-69		540-67		333		03		541-46		027		05338-69		538-68		538-68		538-68	
90		-55		260		17		-70		-70		-66		310		10		-67		-69		03		-67		095		03		-69		-69		-69		-69	
80		-51		262		12		-67		-67		-63		310		10		-67		-69		03		-67		010		04(5)-69		-68		-68		-68		-68	
70		-51		247		03		(73)-64		(73)-64		(73)-64		(73)-64		(73)-64		-66		333		03		-66		333		03		-68		-68		-68		-68	
60		(56)-51		Inversion		155ms33-737ms34		896ms34-860ms42		450ms-7-430ms-6		Isothermal		900-835ms41		478-450ms-7		Inversion		1003ms51-990ms55		218ms46-200ms33		Inversion		900ms45-876ms46		830ms42-819ms45		Isothermal		765-750ms41		Isothermal		765-750ms41	
Tropopause		I 213ms-64		37800'		I 240ms-59		35000'		I 185ms-77		41100'		I 179ms-78		41900'		I 178ms-87		42000'		I 200ms-70		39800'		I 188ms-74		41000'		I 178ms-79		41900'		I 170ms-85		43000'	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION			
Time		03hrs		G.M.T.		03hrs		G.M.T.		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		03hrs		G.M.T.		G.M.T.		Time			
M.S.L.		1007.6		mb		1012.6		mb		mb		1017.3		mb		1016.3		mb		1017.0		mb		1018.3		mb		1019.4		mb		mb		M.S.L.			
Surf		997.6		mb		1010.6		mb		mb		1008.8		mb		1014.3		mb		1012.7		mb		1002.6		mb		1008.9		mb		mb		Surf			
Freezing		785		mb		825		mb		mb		664		mb		661		mb		672		mb		670		mb		650		mb		mb		Freezing			
Pressure		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		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.		mb			
		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							
Surf		02.75143236		21.0		56.47240		12		02.35746300		08		00.66054280		100126255270		050446152300		0502.95853		Calm		0503.5753269		10		0503.5753269		10		0503.5753269		10		Surf	
1000		02.0		3.4		5344246		24		04.75644307		12		04.85853281		160475851293		060516051		0535753269		10		0535753269		10		0535753269		10		0535753269		10		1000	
950		4440262		30		4539259		25		4938288		15		5343252		12		8248262		10		5041278		10		5041278		10		5041278		10		950			
900		30.43833272		31.31		3533263		30		33.64635275		15		33.54845255		1133.65336250		193403648235		1434.14744271		12		1434.14744271		12		1434.14744271		12		1434.14744271		900			
850		32.28280		33		3530260		33		4230260		18		4342276		15		5633255		24		5546226		17		5428254		16		5428254		16		850			
800		61.43120281		32.62		2924255		32		65.23623260		20		65.24138252		266615135252		2466.3494222		196635037243		18		196635037243		18		196635037243		18		196635037243		800			
750		2807262		37		2215252		31		3906296		21		4222247		33		4428247		23		4430224		21		4631237		18		4631237		18		750			
700		26125-2258		43		97.11607254		39		1003529274		25		1013713243		32		102362346		27		1023726228		13		102402229		19		102402229		19					



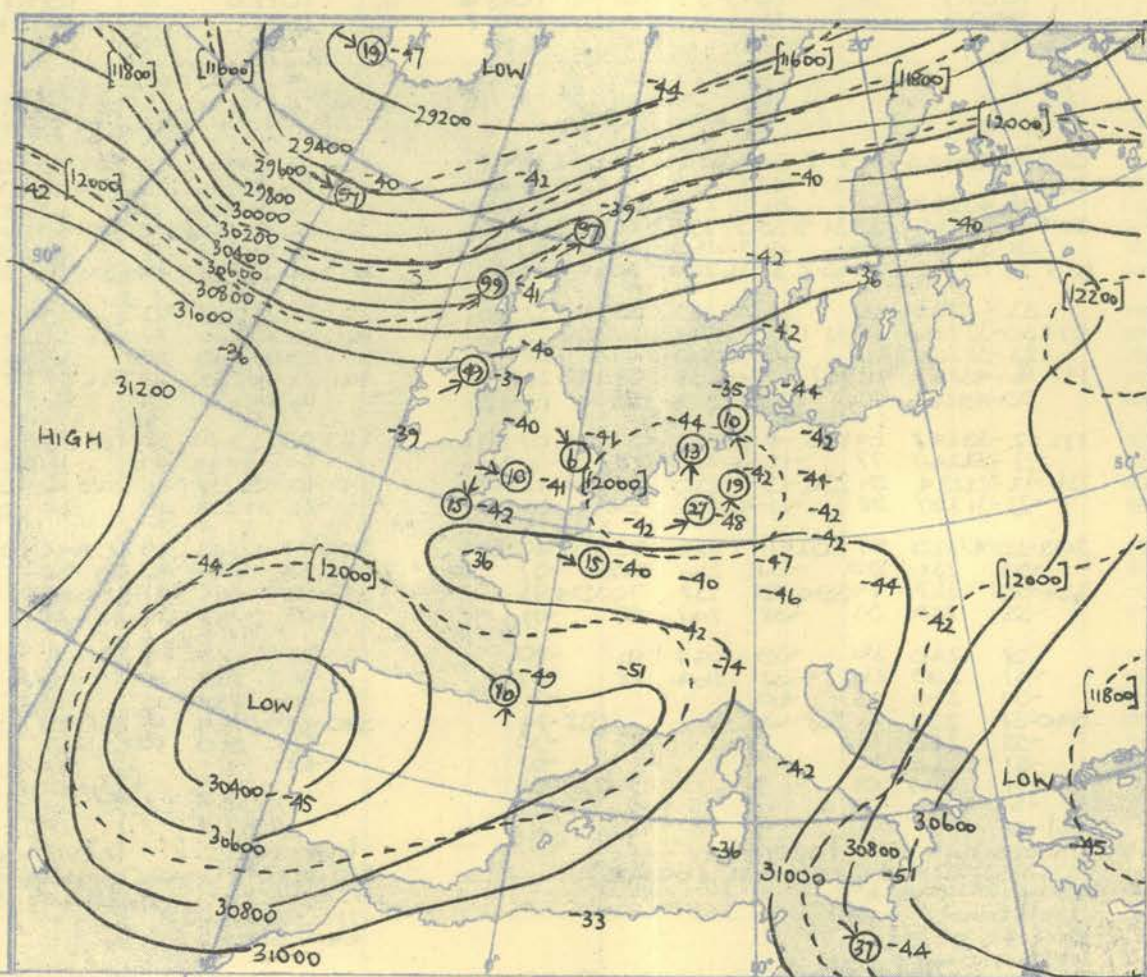
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



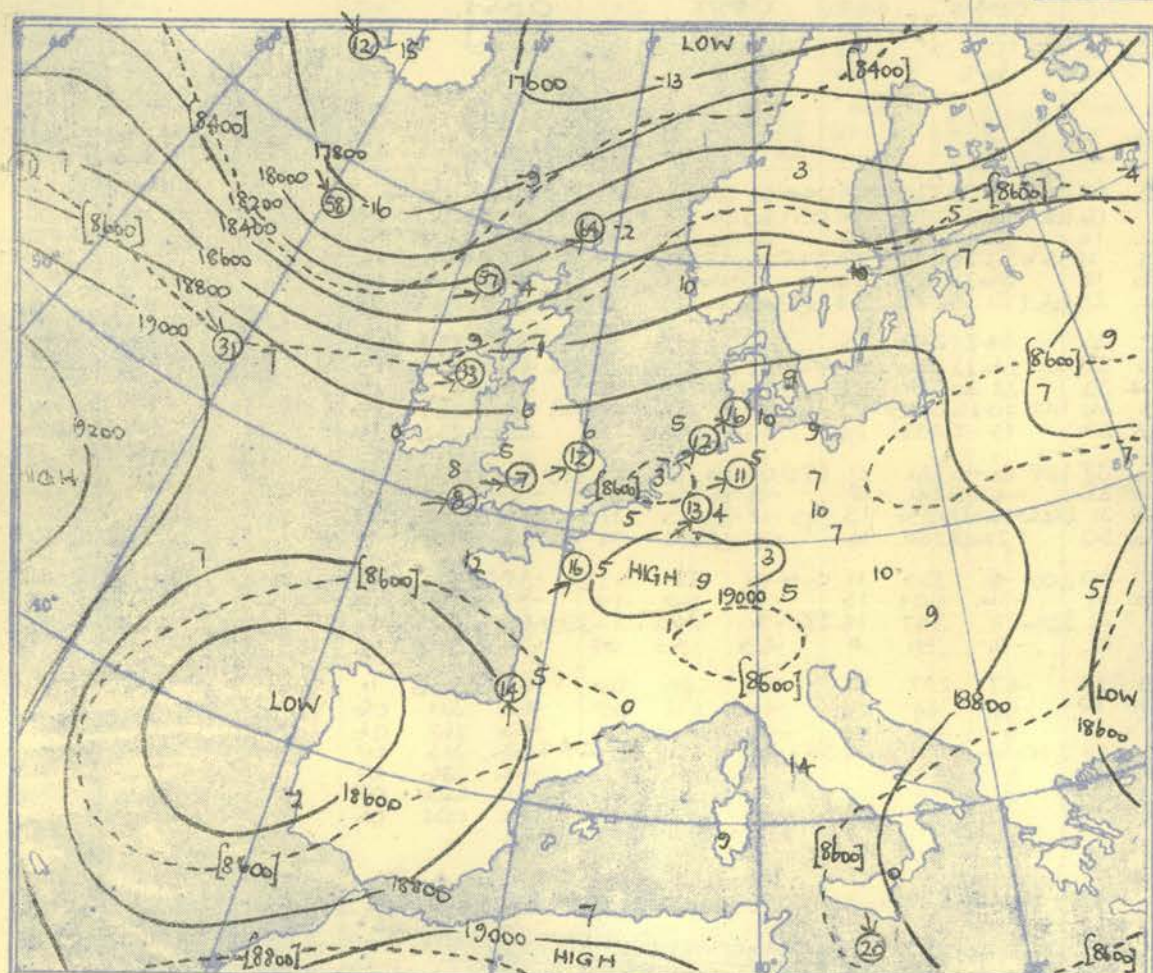
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

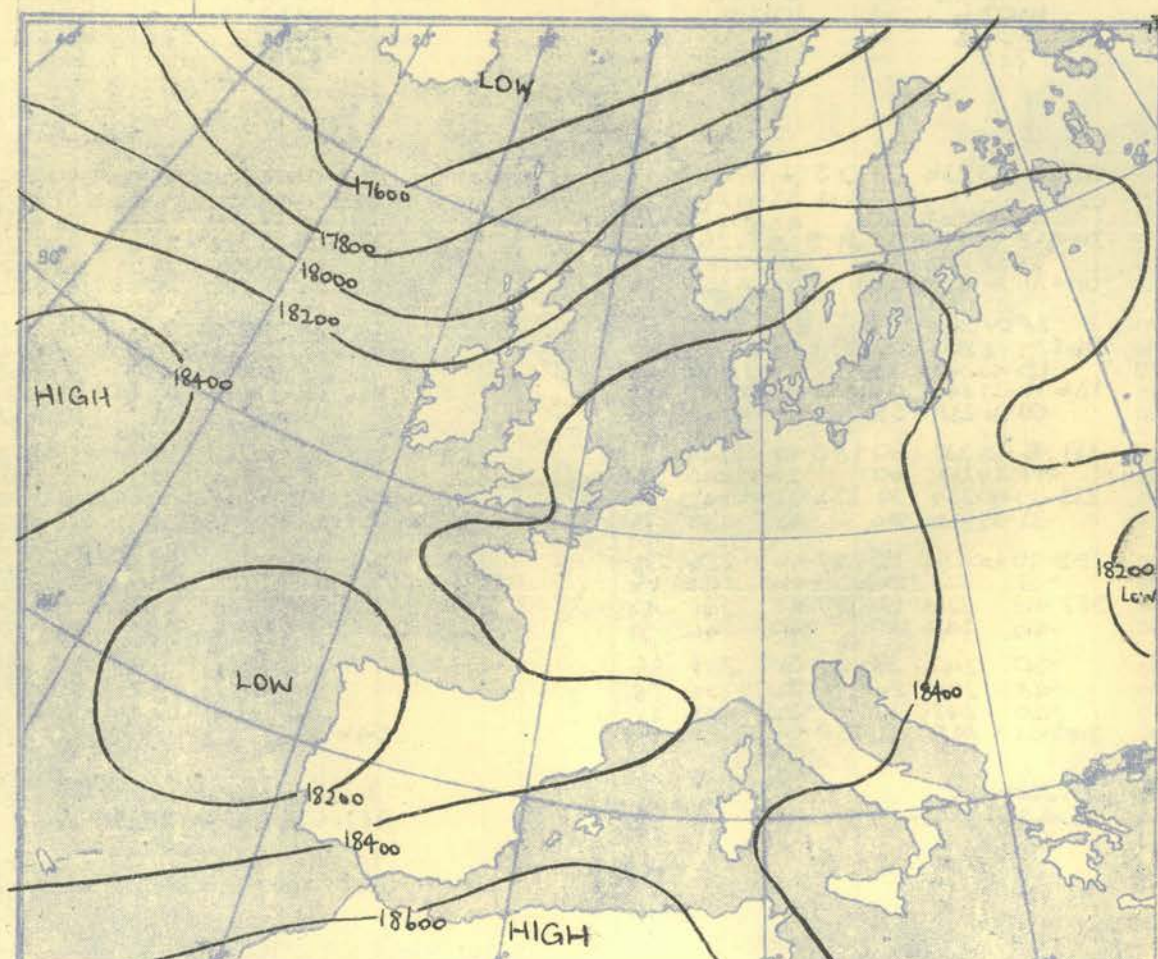
100 80 60 40 20 10 0 10 knots



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.	55°N. 21°W.	50°N. 16°W.	43°N. 17°W.	37°N. 12°W.	31°N. 00°E.	Time M.S.L.
1230h.	1023 mb	1024 mb	1021 mb	1014 mb	1015-4 mb	14h.
Surf	1019 mb	1020 mb	1018 mb	1011 mb	1004-6 mb	Surf
Freezing	720	660	645	730	670	Freezing
Pressure mb	Height ft./100	Temp. °F.	Dew. °F.	Temp. °F.	Dew. °F.	Pressure mb
Surf	48 42	54 49	61 58	61 56	31 76 59	Surf
1000	6.0 44 40	6.4 50 46	6.0 53 49	4.0 51 44	4.4 57 57	1000
950	38 38	44 42	54 44	51 44	34.1 57 57	950
900	39 27	50 44	47 47	45 40	53 51	900
850	50 45	50 33	42 40	41 35	64.5 50 42	850
800	40 43	47 28	45 32	41 35	64.5 50 42	800
750	36 23	43	41 20	35	44 34	750
700	30 22	38	37 01	28	103 37 26	700
650	24	31	33 05	22	143 21	650
600	18	23	25	11	15	600
550	06	15	17	10	15	550
500	186 03	189 03	189 08	185 00	189 05	500
450					-04	450
400					-17	400
350					-30	350
300					-42	300
250						250
200						200
170						170
Cloud. 2/8 Sc 940-910mb. 1/8 As 600mb. 1/8 Ci 400mb. Inversion 900mb. 50°-850mb. 50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°
Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°
Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°
Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°
Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°
Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°						Cloud. 2/8 Sc 930-910mb. Inversion 950mb. 44°-820mb. 50° Isothermal 850mb. 42°-50°

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

Place	Cumulus 52°N. 20°W.	Cumulus 52°N. 20°W.	Shoeburyness 52°N. 20°W.	Cumulus 52°N. 20°W.	Cumulus 52°N. 20°W.	Leuchars 52°N. 20°W.	Liverpool 52°N. 20°W.	Place
Time	03h.	09h.	09h.	15h.	21h.	21h.	21h.	Time
Type						Pilar	Pilar	Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet
Surf.	300	16 330	10 250	04 290	02 220	09 270	12 340	10 270
1,000	310	15 330	12 260	08 290	04 220	09 290	18 312	21 290
2,000	310	14 330	15 250	12 290	04 230	08 290	20 312	25 290
3,000	310	14 330	17 250	20 290	05 240	09 290	21 312	25 290
4,000		330	18 250	21 290	06 280	10 290	24 310	26 290
5,000	310	15 330	16 250	19 290	08 290	12 290	24 310	27 290
6,000			250	18 310	15		300 25	307 26
8,000			240	22			300 29	292 32
10,000	310	24 310	21 240	18 270	11 290	22 300	36 290	33 290
14,000	310	31 300	27 240	16 260	17 300	30 290	43 288	40 290
18,000	290	31 280	31 270	15 250	24 280	32 290	44 288	50 290
24,000	280	40 310	60 250	19		280 33	290 62	287 50
30,000			270 21			280 32	290 69	276 49
40,000			320 11				280 39	279 46
50,000			270 09				295 20	
			(45,000)				330 26	
							(60,000)	



## NEPHOSCOPE OBSERVATIONS

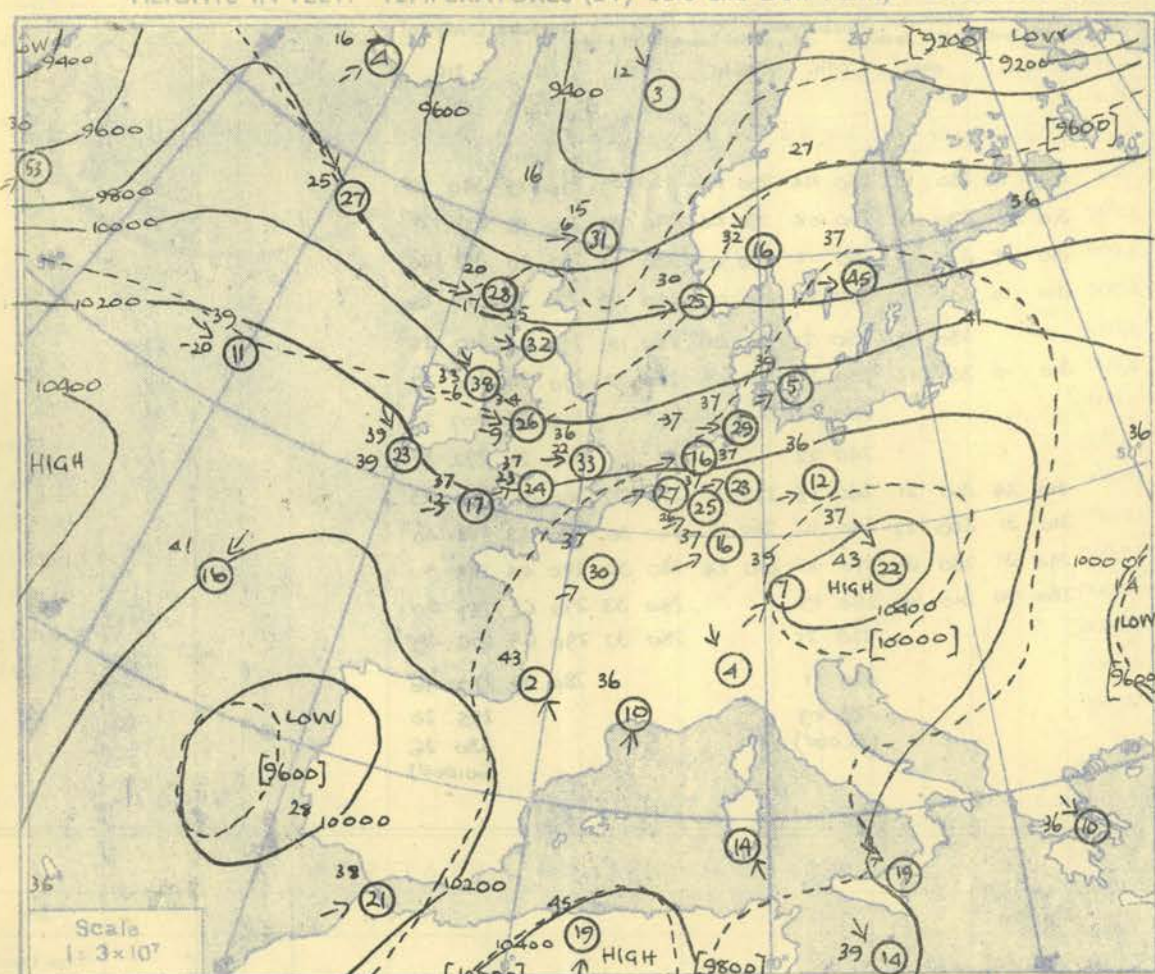
Place	Scanton	Place
Time Type	09h. Ac	Time Type
Dir. Vel.	240 54	Dir. Vel.

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

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				CUMULUS				CUMULUS				CUMULUS				CUMULUS				Ship			
Lat/Long	58°N. 19°3W.				58°N. 19°1W.				58°N. 19°2W.				59°N. 19°0W.				52°N. 20°0W.				52°N. 20°0W.				52°N. 20°0W.				52°N. 20°0W.				Lat/Long			
Pressure 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.				G.M.T. Time			
	1009 mb				1013 mb				1017 mb				1016 mb				1024 mb				1024 mb				1025 mb				1024 mb				mb M.S.L.			
	1009 mb				1013 mb				1017 mb				1016 mb				1024 mb				1024 mb				1025 mb				1024 mb				mb Surf			
	875 mb				870 mb				860 + 800 mb				745 mb				672 mb				640 mb				650 mb				675 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																													Surf							
1000	2.3	49 45	260 27	300 23	3.5	48 33	270 23	4.5	48 43	278 09	4.4	47 44	236 08	6.3	54 45		6.6	52 43		6.8	54 41		6.6	54 45					1000							
950		43 35	272 37			41 35	315 24		42 39	278 12		41 37	236 08					48 16											950							
900	30.6	35 28	276 40	31.7	34 28	313 30	32.8	36 33	280 15	32.6	34 28	236 10																	900							
850	29	23	277 40		29	23	313 35		31 27	283 17		29 20	244 10					45 28											850							
800	61.5	25 17	273 42	62.4	27 03	307 39	63.8	32 23	285 21	63.4	35 17	252 15																	800							
750		17 11	272 40		21 00	301 42		29 17	281 22		33 00	259 21																	750							
700	35.6	16 06	270 40	36.7	19 13	298 4.4	38.5	25 12	285 27	38.4	26 04	263 27	102	35 06	see	102	37 09	see	103	39 08	see	102	34 27					700								
650		09 05	273 44		15 44	295 48		19 05	290 40		20 11	263 29																	650							
600	134	02 18	265 48	136	03 32	288 51	138	13 01	285 44	138	15 37	263 33																	600							
550		06 15	268 53		01 52	289 57		07 01	285 54		07 32	262 33																	550							
500	178	16 27	275 58	181	09 51	295 66	183	01 09	287 53	183	02 31	269 46	189	07 38		189	07 18		190	09 20		189	10 05					500								
450		26 40	275 63		19 50	299 74		09 21	287 59		11 31	276 51																	450							
400	230	35 51	272 66	233	29 56	299 93	237	17 29	237	19 31	273 54																		400							
350		40 56	272 66		39 59	299 111	(398 mb)	18 30			32 44	268 70																	350							
300	294	40 57	272 57	297	53	299 129					302 47	267 87	310	36		311	35		312	36		311	38 42					300								
250		42	272 57		54	299 84					63	270 91																	250							
200	385	43	272 36	385	49	299 56					388 69	306 71	398	65		398	72		399	71		399	72					200								
170		46	272 38		49	299 42					70	252 30																	170							
150		49	272 31		50	299 31					57	290 37																	150							
130		50	272 31		49	299 32					56	252 30																	130							
110		54	272 23		50	299 29					59	288 12																	110							
100	537	55	272 10	537	54	299 30					56	306 15	63			69													100							
90		56	272 20		55	299 21					56	308 18																	90							
80		56	272 10		55	299 20					56	290 12																	80							
70		55	272 09		54	299 19					53	281 15																	70							
60		57	272 05		53	299 22					52	310 09																	60							
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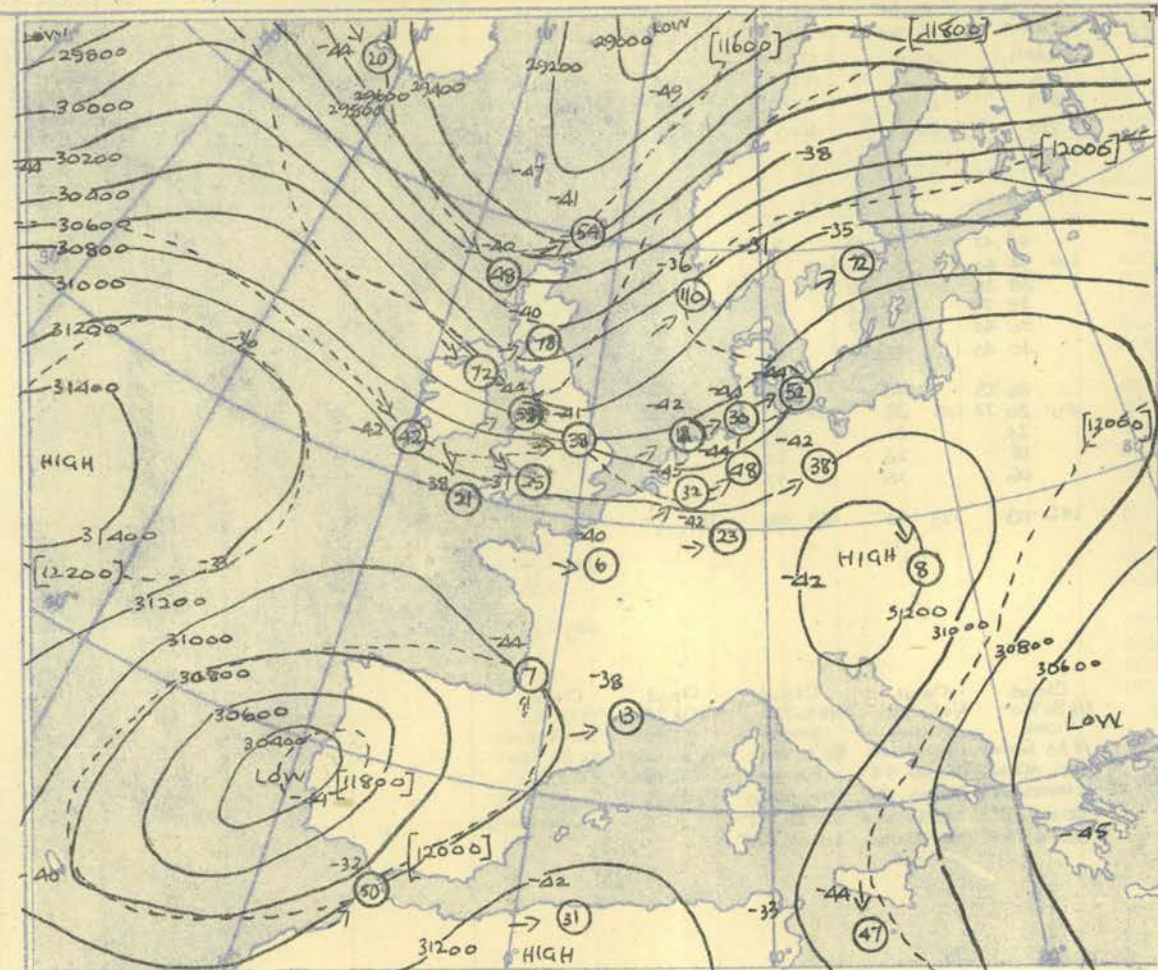
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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

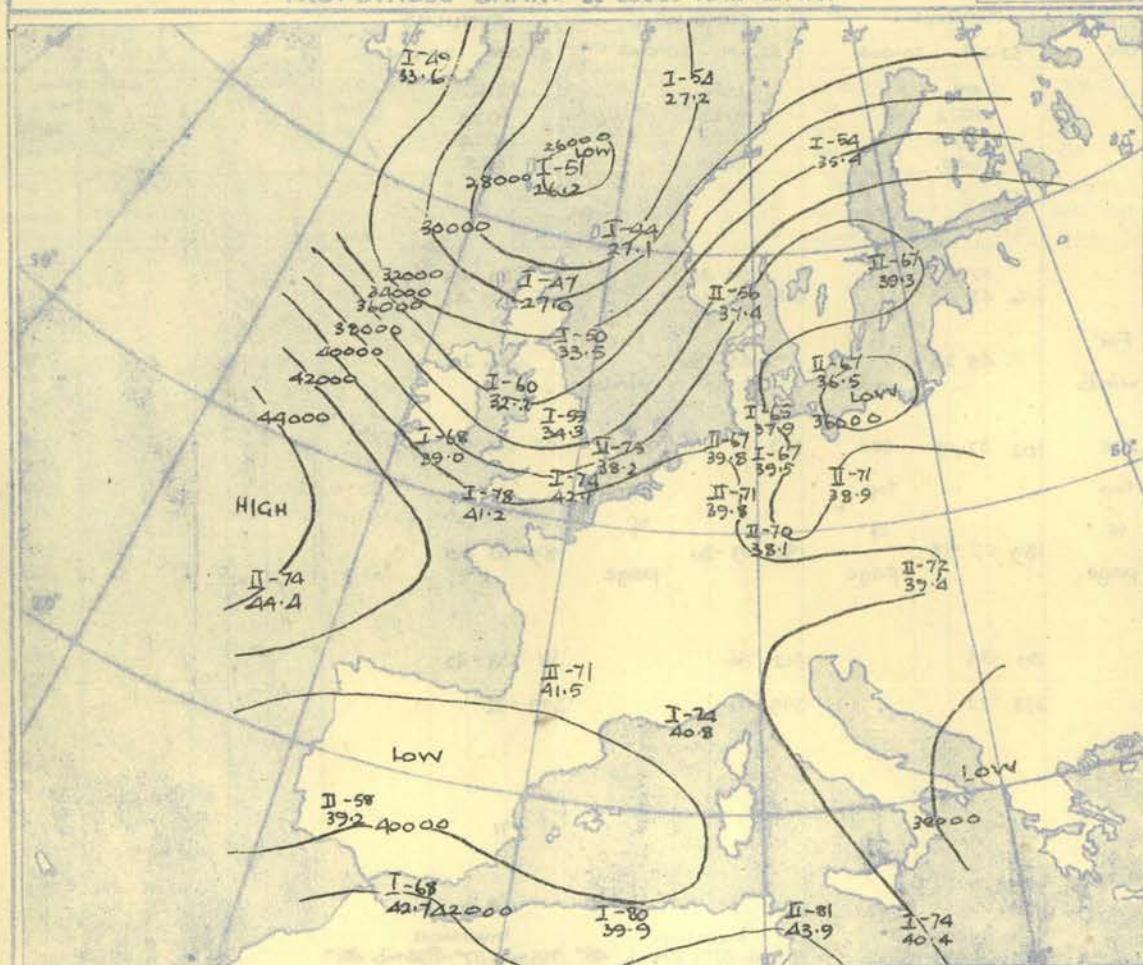
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat 52° N.

100 80 60 40 20 10 0 knots



## NOTES ON THE AEROLOGICAL SITUATION.

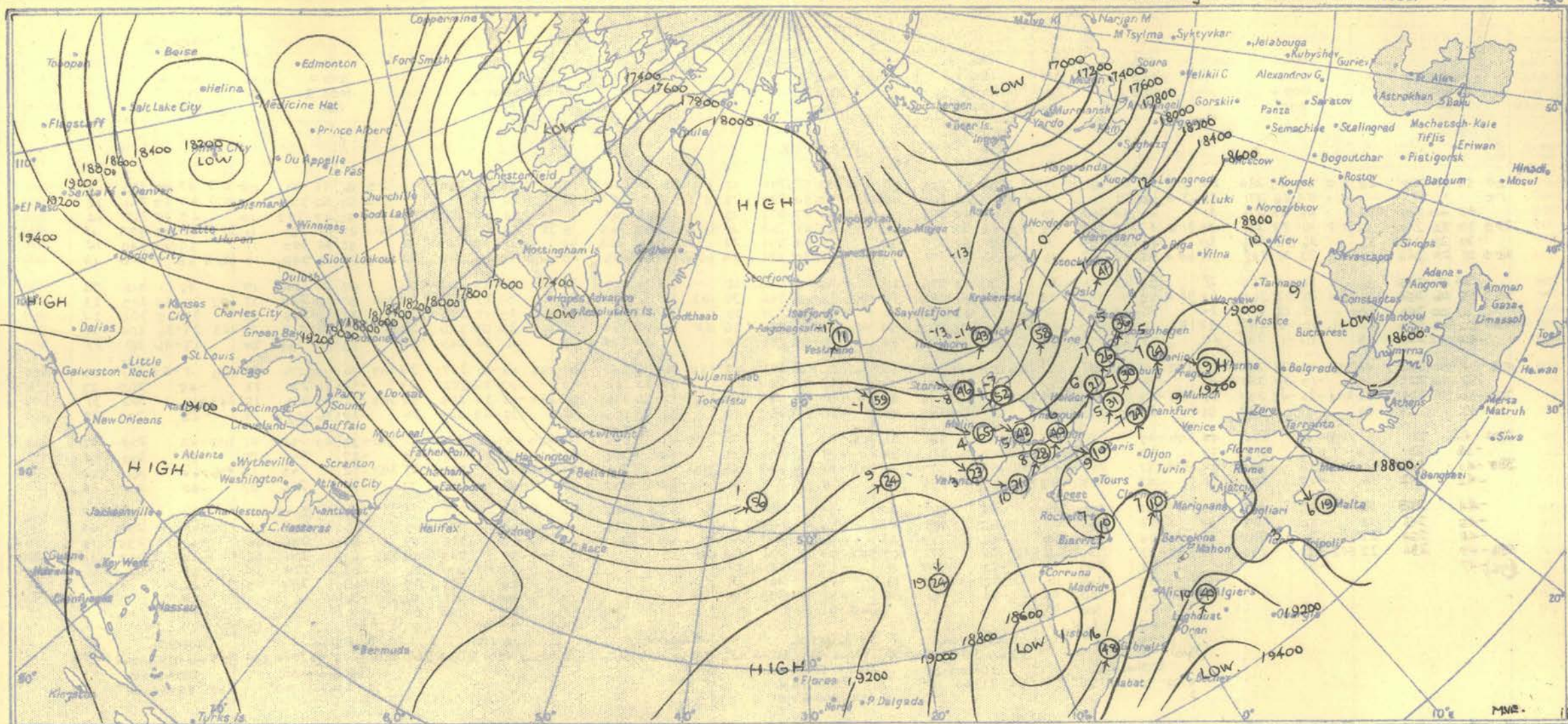
The substantial warming shown by the day's ascents from the vessel at 59°N 19°W appears to have been due largely to subsidence in the middle layers. The most marked effect of this warming was the considerable sharpening of the cold trough as it crossed the British Isles.



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

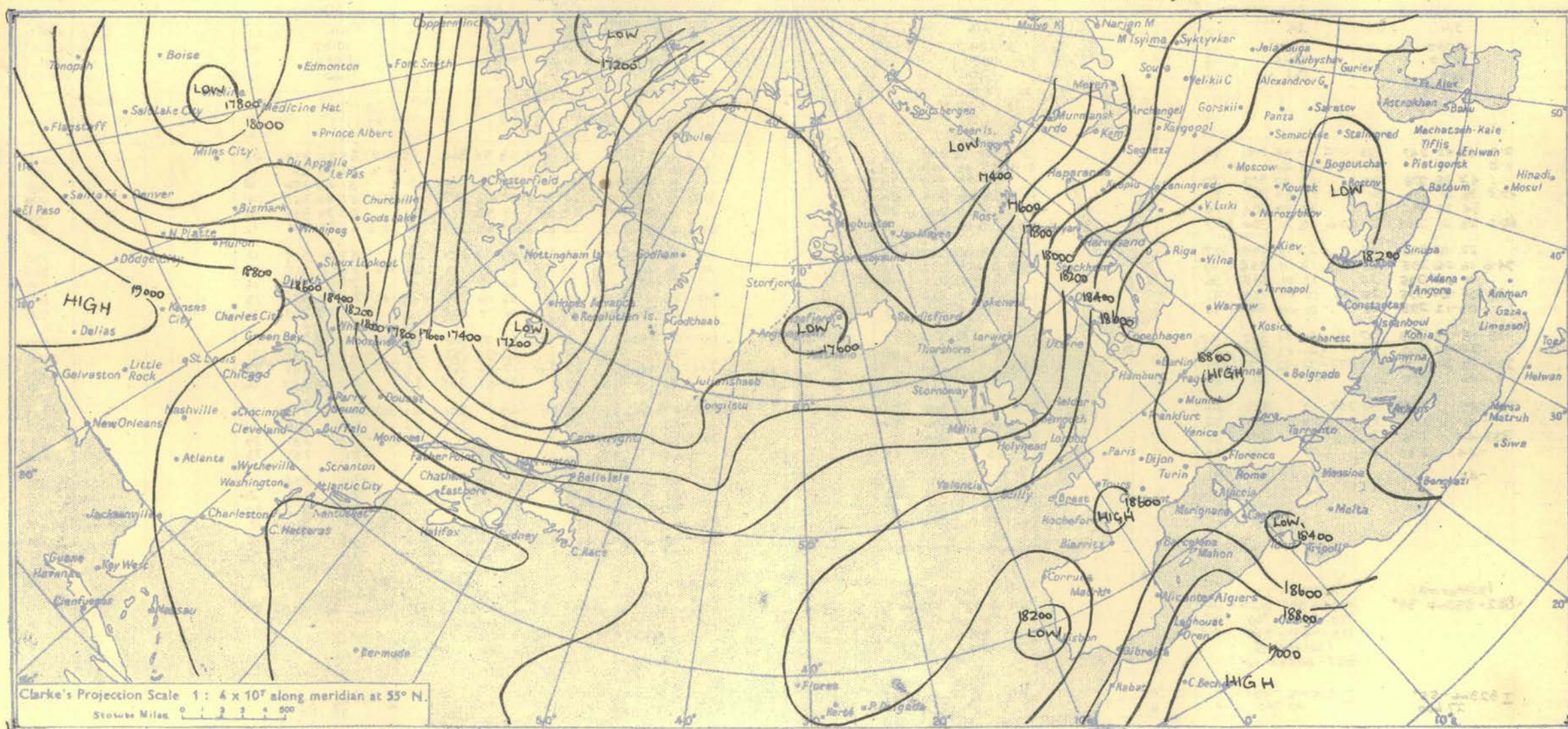




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 8<sup>th</sup> June

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.  
 Statute Miles 0 1 2 3 4 5 6 7 8 9 10



## 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	154		G.M.T.		154		G.M.T.		154		G.M.T.		154		G.M.T.		154		G.M.T.		154		G.M.T.		154		G.M.T.		154		G.M.T.		Time															
	M.S.L.	1006.0		mb		1011.0		mb		1010.0		mb		1016.3		mb		1015.7		mb		1015.2		mb		1017.0		mb		1019.0		mb		M.S.L.															
	Surf	996.0		mb		1009.2		mb		1009.2		mb		1007.9		mb		1013.7		mb		1010.9		mb		1001.4		mb		1008.5		mb		Surf															
	Freezing	850		mb		800		mb		793		mb		694		mb		680		mb		662		mb		666		mb		660		mb		Freezing															
Pressure	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Height	Temp.	Dew	Wind	Vel.	Pressure													
																																					Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.	Dir.
mb	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	ft/100	°F	°F	°F	knots	mb													
Surf	2.7	53	47	210	25	0.5	55	45	260	20	0.2	71	47	290	17	2.3	64	51	250	09	0.6	63	53	290	12	1.2	69	54	250	09	4.4	65	53	290	06	2.9	61	53	310	05	0.3	59	49	330	13	Surf			
1000	1.5	43	40	243	37	3.1	54	46	271	30	2.8	65	49	260	19	4.5	62	50	260	15	4.3	59	50	290	18	4.3	66	51	287	10	5.2	59	52	285	14	5.7	57	49	341	14	1000								
950	29.9	38	32	245	36	31.5	41	38	273	31	31.9	47	35	258	19	33.5	54	45	273	16	33.1	47	43	268	20	33.4	50	52	265	16	34.1	47	43	281	11	34.5	42	42	355	13	950								
900	32	27	246	33	36	32	232	30	40	31	262	17	40	34	279	20	42	39	273	22	42	39	273	22	42	39	273	22	42	39	273	22	42	39	273	22	42	39	273	22	900								
850	60.9	27	23	248	31	62.8	32	27	269	30	63.4	33	27	267	16	65.0	38	27	277	24	64.8	41	35	274	24	65.6	48	35	245	29	66.0	49	36	246	22	66.2	49	29	240	18	66.4	48	326	18	850				
800	24	17	248	31	26	19	265	27	25	12	272	22	36	14	278	30	42	2	266	25	43	29	247	32	43	33	246	24	43	21	245	19	45	3	312	24	750												
750	95.2	15	06	254	31	97.4	20	17	264	28	98.0	25	01	267	32	100	36	06	280	38	100	34	9	266	26	102	36	22	248	32	102	37	23	241	24	100	37	12	248	17	102	39	24	299	23	700			
700	11	00	249	35	15	07	275	29	17	14	262	41	26	17	280	36	29	07	271	29	30	20	246	39	29	07	271	29	30	20	246	39	29	07	271	29	30	20	246	39	29	07	271	29	30	20	246	39	700
650	134	02	12	236	40	136	10	5	280	34	137	11	18	260	45	140	19	21	278	53	141	22	24	282	36	142	22	10	242	39	142	22	09	246	26	142	24	11	267	22	43	23	36	304	21	600			
600	-04	22	232	38	02	17	280	40	03	25	259	50	13	28	276	64	15	32	281	40	15	32	281	40	15	32	281	40	15	32	281	40	15	32	281	40	15	32	281	40	15	32	281	40	15	32	281	40	600
550	178	14	30	228	43	181	08	24	283	46	182	07	34	287	52	186	04	41	275	65	187	05	40	277	42	188	06	12	249	40	188	08	10	247	28	189	10	15	273	21	189	3	53	307	23	500			
500	-24	40	223	50	-19	30	289	49	-18	43	255	57	-08	47	270	70	-07	50	264	44	-05	50	264	44	-05	50	264	44	-05	50	264	44	-05	50	264	44	-05	50	264	44	-05	50	264	44	-05	50	264	44	450
450	230	36	53	224	56	234	30	42	294	52	235	29	54	250	67	240	22	56	278	82	241	19	59	283	48	242	17	36	256	36	243	14	34	263	34	243	13	33	272	25	243	16	302	31	400				
400	-42	228	59	-45	289	53	-40	60	240	82	-37	60	285	89	-31	58	259	47	-28	50	256	34	-25	48	268	26	-24	36	283	24	-24	36	283	24	-24	36	283	24	-24	36	283	24	-24	36	283	24	350		
350	294	-41	231	54	298	-40	274	48	299	-45	230	78	305	-52	280	72	306	-44	247	59	308	-41	264	38	309	-37	57	276	25	310	-38	49	286	21	309	-42	299	42	299	42	299	42	299	42	300				
300	-38	231	44	-37	277	39	-49	250	59	-57	271	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	-59	243	68	250			
250	385	-41	245	40	389	-38	269	32	388	-51	250	49	392	-52	279	45	393	-61	267	53	395	-73	256	29	397	-70	252	27	397	-72	269	24	396	-64	301	50	396	-64	301	50	396	-64	301	50	200				
200	-42	242	36	-43	272	31	-47	295	52	-52	273	45	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	-55	271	36	150			
150	-44	258	28	-47	276	25	-52	265	33	-54	267	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	-59	274	30	130			
130	-45	243	23	-50	272	22	-53	265	27	-55	269	28	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	-54	271	24	110			
110	-48	254	22	-51	282	19	-54	265	20	-55	269	23	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	-56	273	15	100			
90	938	-49	234	22	542	-51	285	12	539	-57	265	16	542	-54	272	09	542	-54	274	08	541	-59	274	08	541	-59	274	08	541	-59	274	08	541	-59	274	08	541	-59	274	08	541	-59	274	08	541	-59	98		
80	(26)	47		-51				-53	265	12	-52	275	11	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	-52	273	07	80		
70				-52				-52	265	10	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	-52	269	13	70		
60				-51				-51	300	05	-53	261	08	-51	296	06	(5mb)	-51																											60				
				-46				-46																																									
				(36mb)	-45																																												

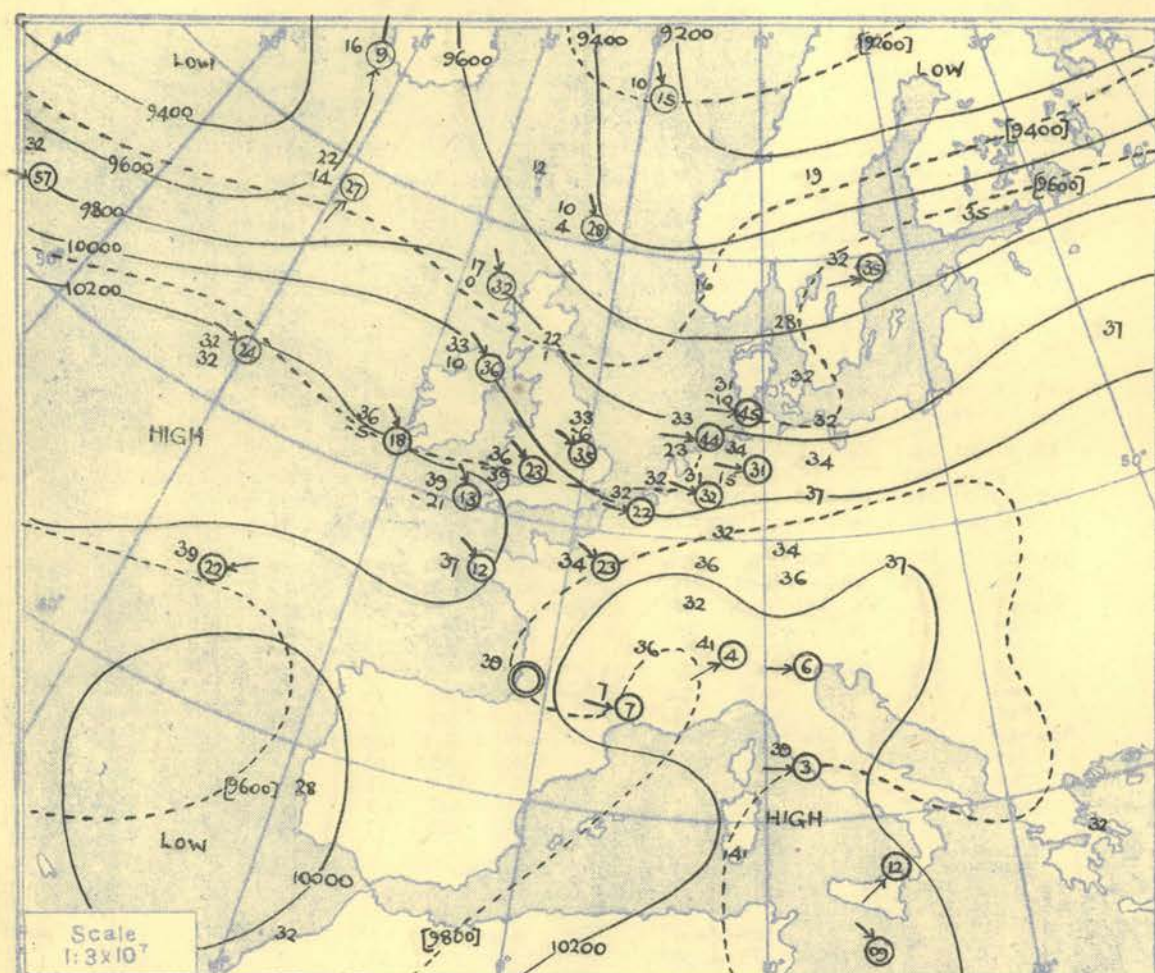
[illegible]



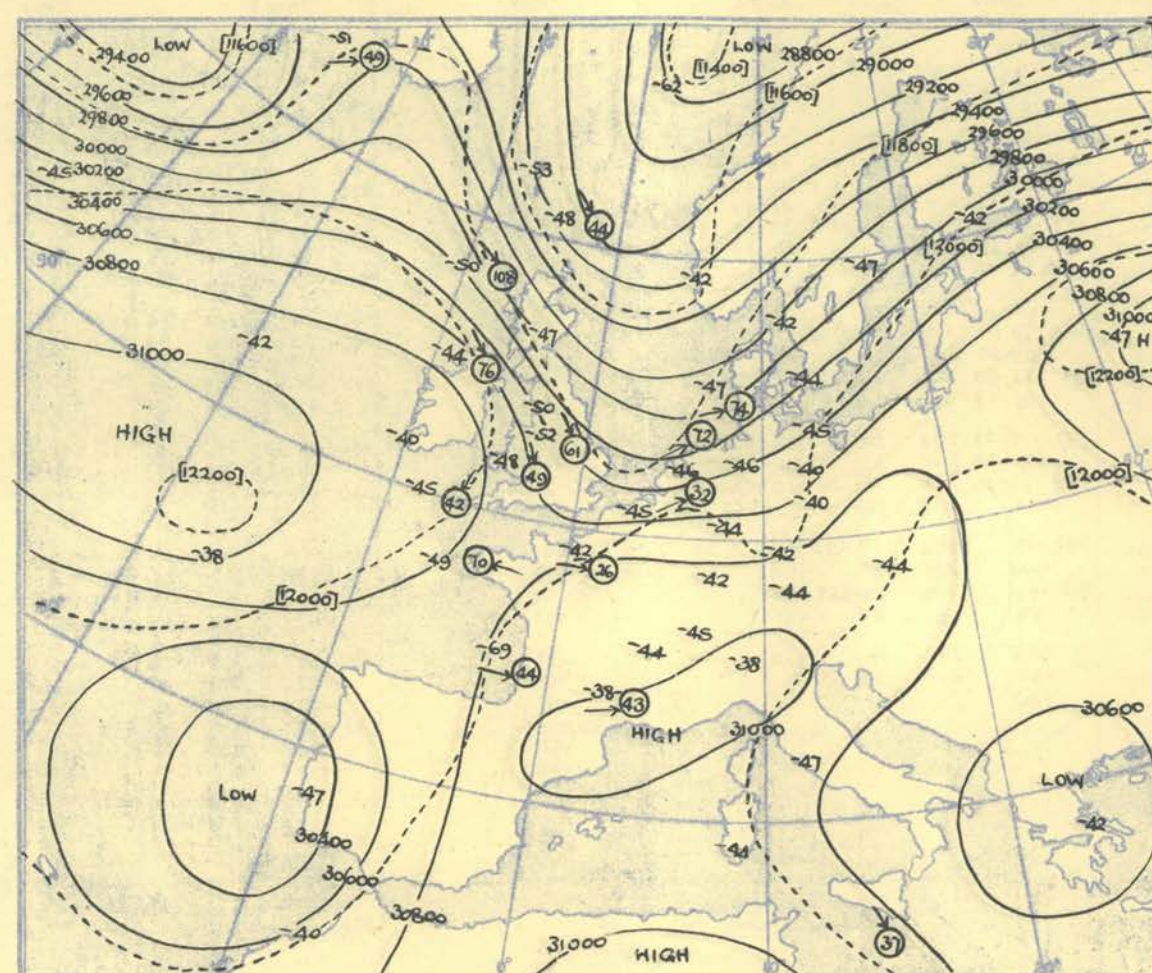
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA		STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Time M.S.L.		03h		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		1006.0		mb		1015.2		mb		1013.1		mb		1019.2		mb		1017.1		mb		1015.9		mb		1018.8		mb		1021.9		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Pressure		995.9		mb		1013.3		mb		1012.3		mb		1010.6		mb		1015		mb		1011.3		mb		1000.8		mb		1008.1		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Freezing		88.4		mb		87		mb		85.0		mb		69.4		mb		70.0		mb		69.1		mb		67.5		mb		65.0		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		Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Surf	2.7	45	39	303	22	0.5	46	42	Calm	0.2	51	41						2.3	50	46	300	15	0.6	51	43							Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1000	1.5																	5.2	48	44	310	21	4.6	50	44							1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
950		40	34	317	33	4.1	47	42		3.5	49	40						4.0	52	44		06	4.4	52	52	330	08	2.9	51	51	Calm	0.3	49	42	030	04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
900	2.7	34	28	323	31	32.3	35	30	318	23	31.9	38	31					4.0	49	40	321	23	51	49	006	12	5.1	55	48	355	11	43	37	014	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
850		28	23	322	29	30	23	314	24	32	26							32.6	43	35	318	24	33.3	45	41	344	08	34.1	48	44	006	09	34.3	40	29	355	08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
800	6.5	24	16	321	28	63.2	27	14	312	25	62.0	25	20					64.6	38	21	315	31	64.1	35	16		64.3	42	04	291	24	65.1	45	01	308	18	66.1	49	13	343	08	66.1	45	00	289	09																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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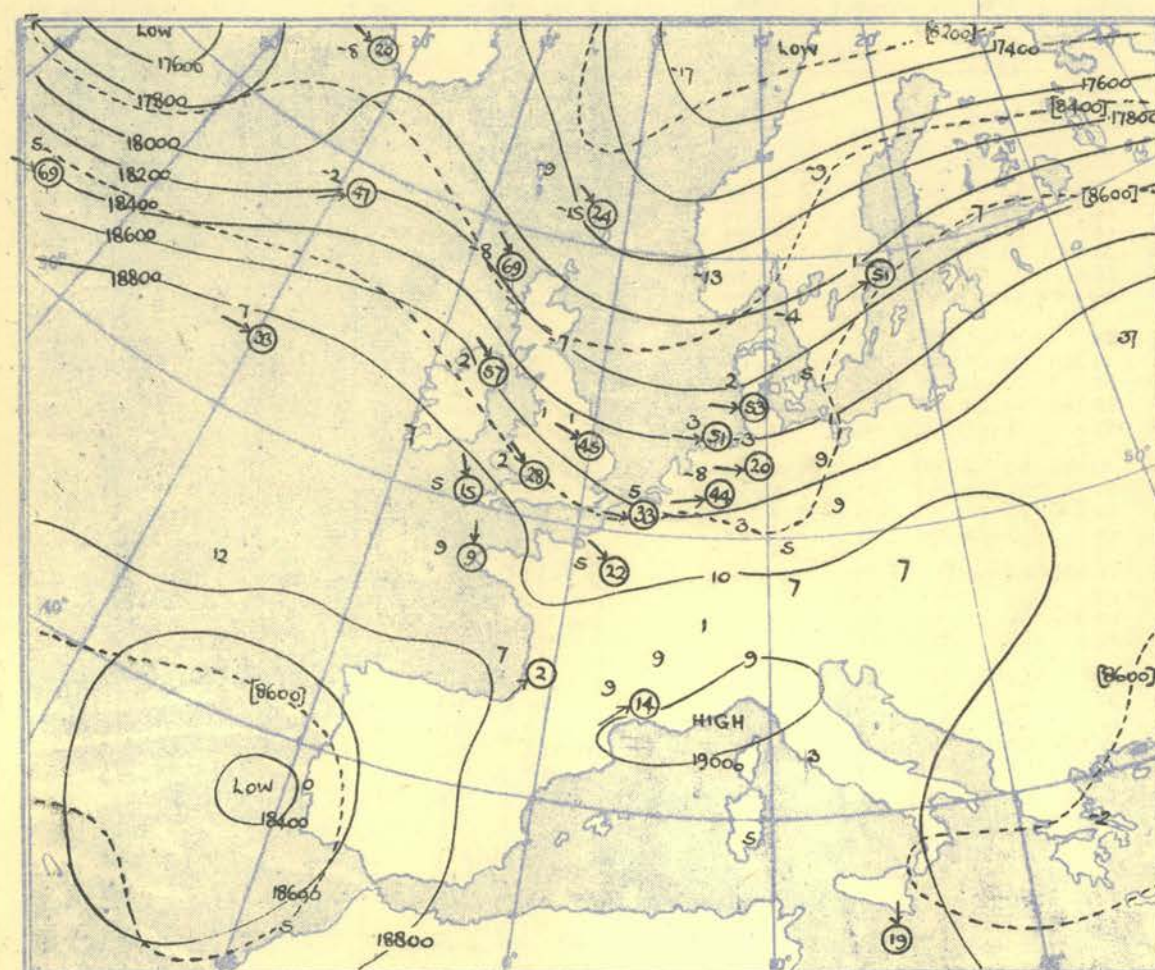
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



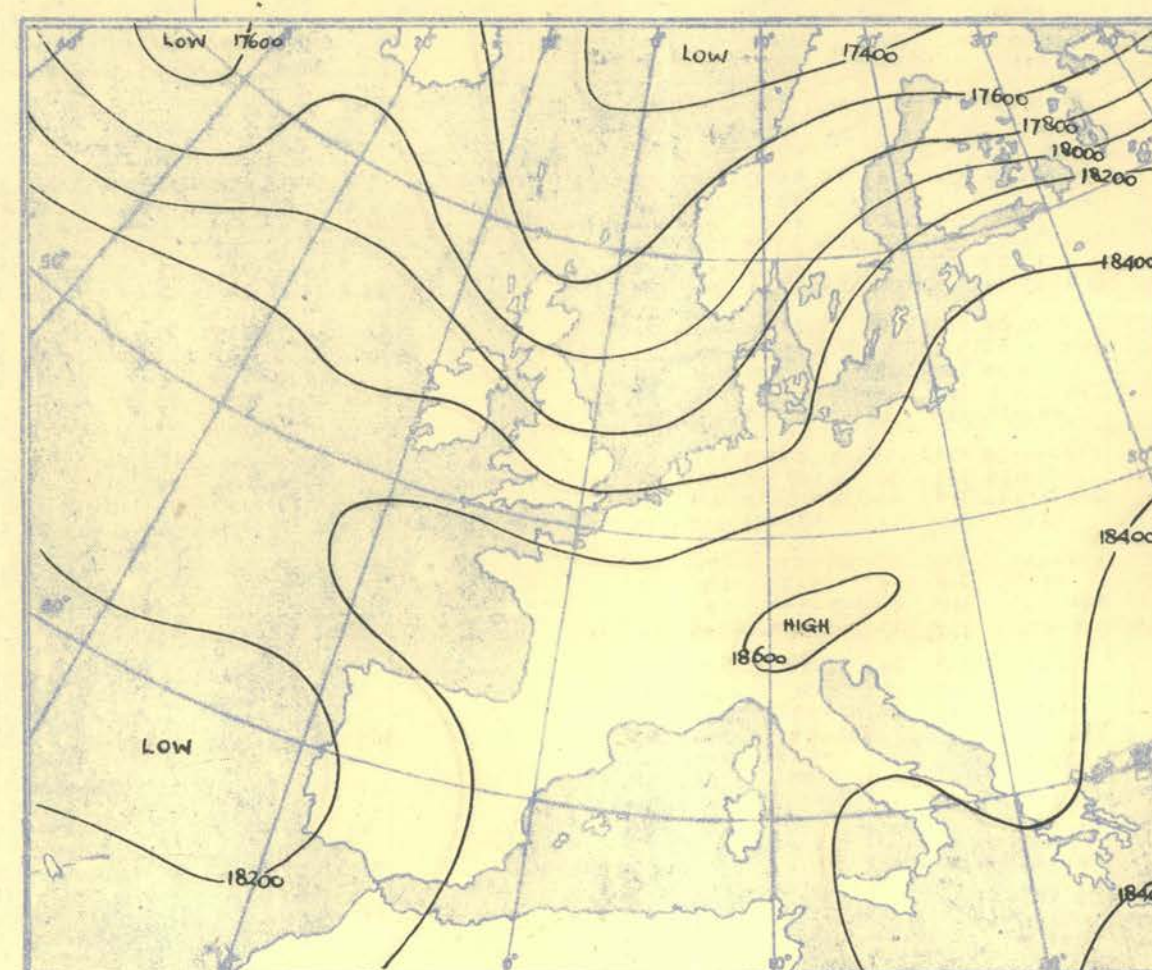
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



The continuous lines are contour lines of the 300 mb. surface  
The dotted lines are isopieths 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.



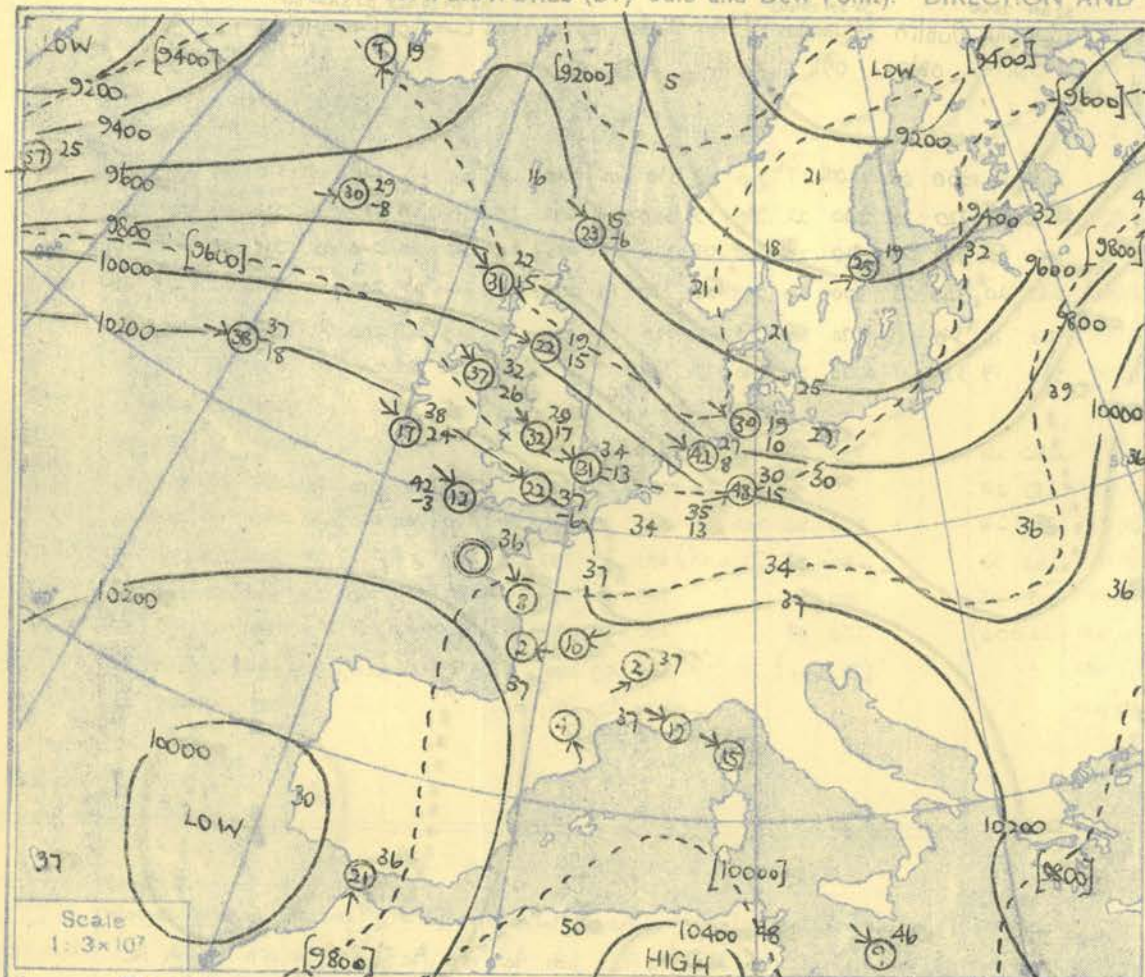
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

Ship	Weather Explorer	Weather Explorer	Weather Explorer	Weather Explorer	Cumulus	Cumulus	Cumulus	Cumulus		Ship
Lat/Long	59-0 N 18-9 W	59-1 N 18-7 W	59-1 N 18-5 W	59 N 19 W	52-5 N 20-0 W	52-5 N 20-0 W	52-5 N 20 W	52-5 N 20 W		Lat/Long
Time	03h	09h	15h	21h	03h	09h	15h	21h		
M.S.L.	1012	1005	1007	1008	1022	1019	1018	1017		
Surf	1012	1005	1007	1008	1022	1019	1018	1017		
Freezing	840	760	730	710	700	700	610	665		
Pressure										
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	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	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Height	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100
Temp.	°F	°F	°F							



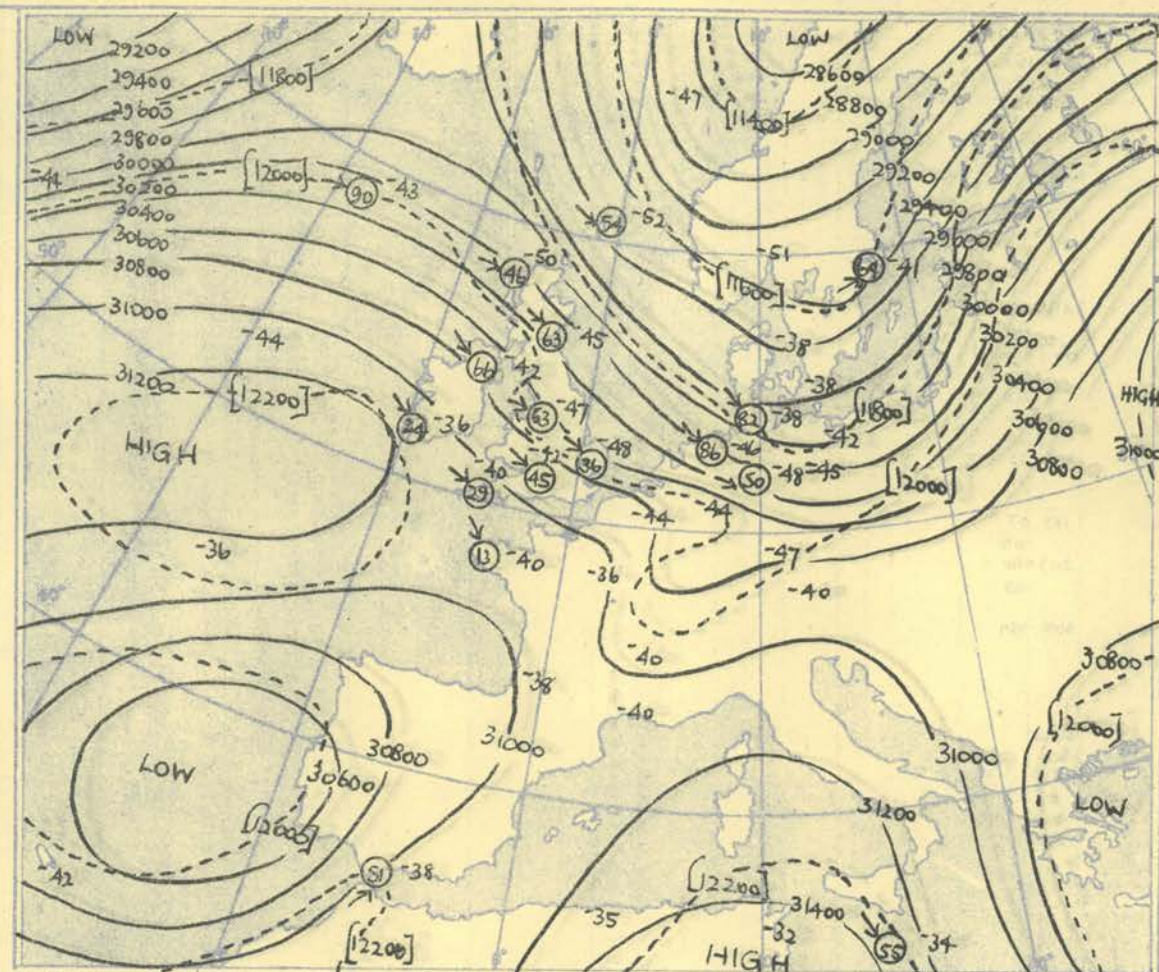
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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

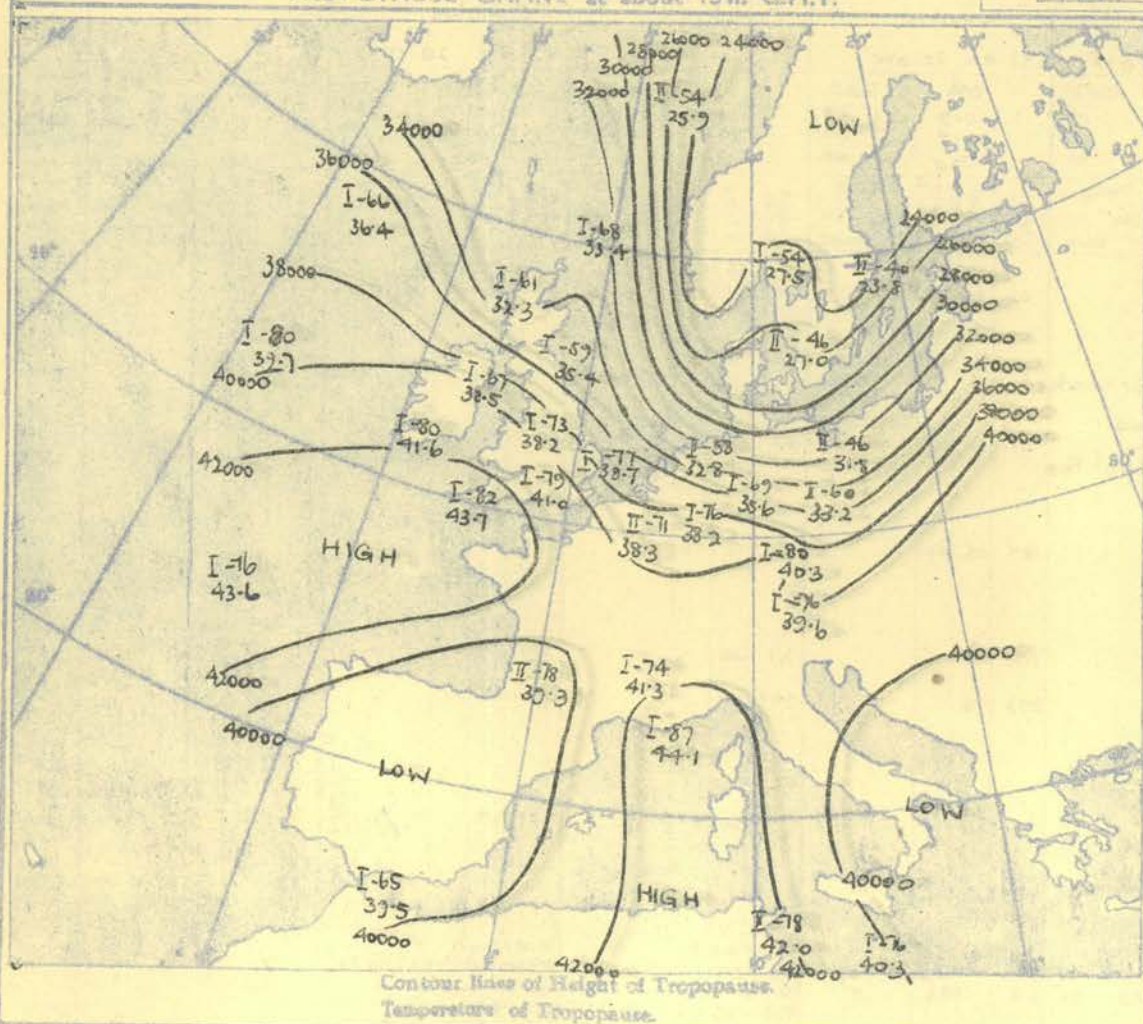
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 50 40 30 20 15 10 knots



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

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



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

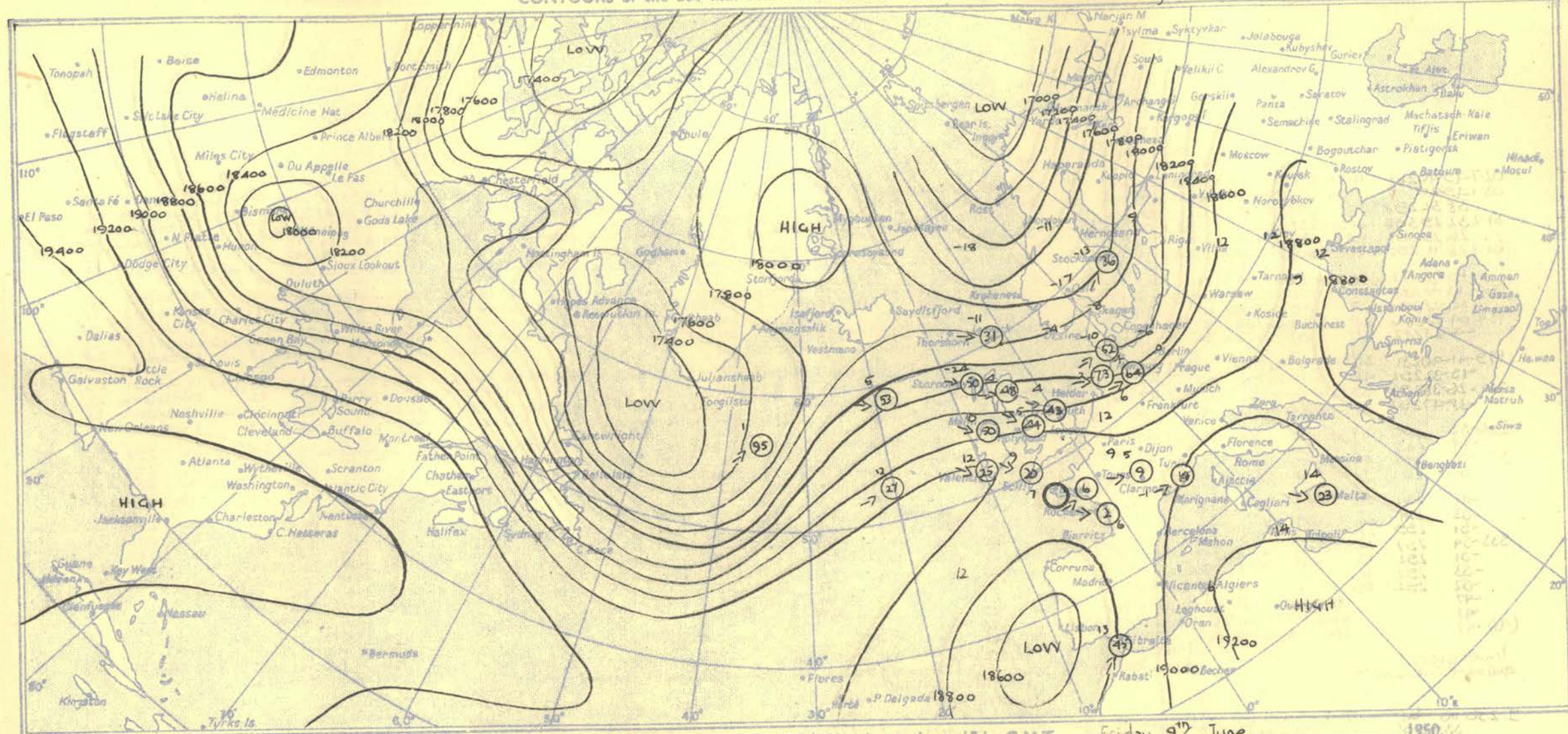
### NOTES ON THE AEROLOGICAL SITUATION.

The thermal structure west of the British Isles suggests that the surface cold front CH is feeble, and that effectively there is a large warm sector over the eastern half of the Atlantic. Ascents from the ship in position 52½°N 20°W show, that in this latitude the air in the "warm sector" had subsided considerably during the day.

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

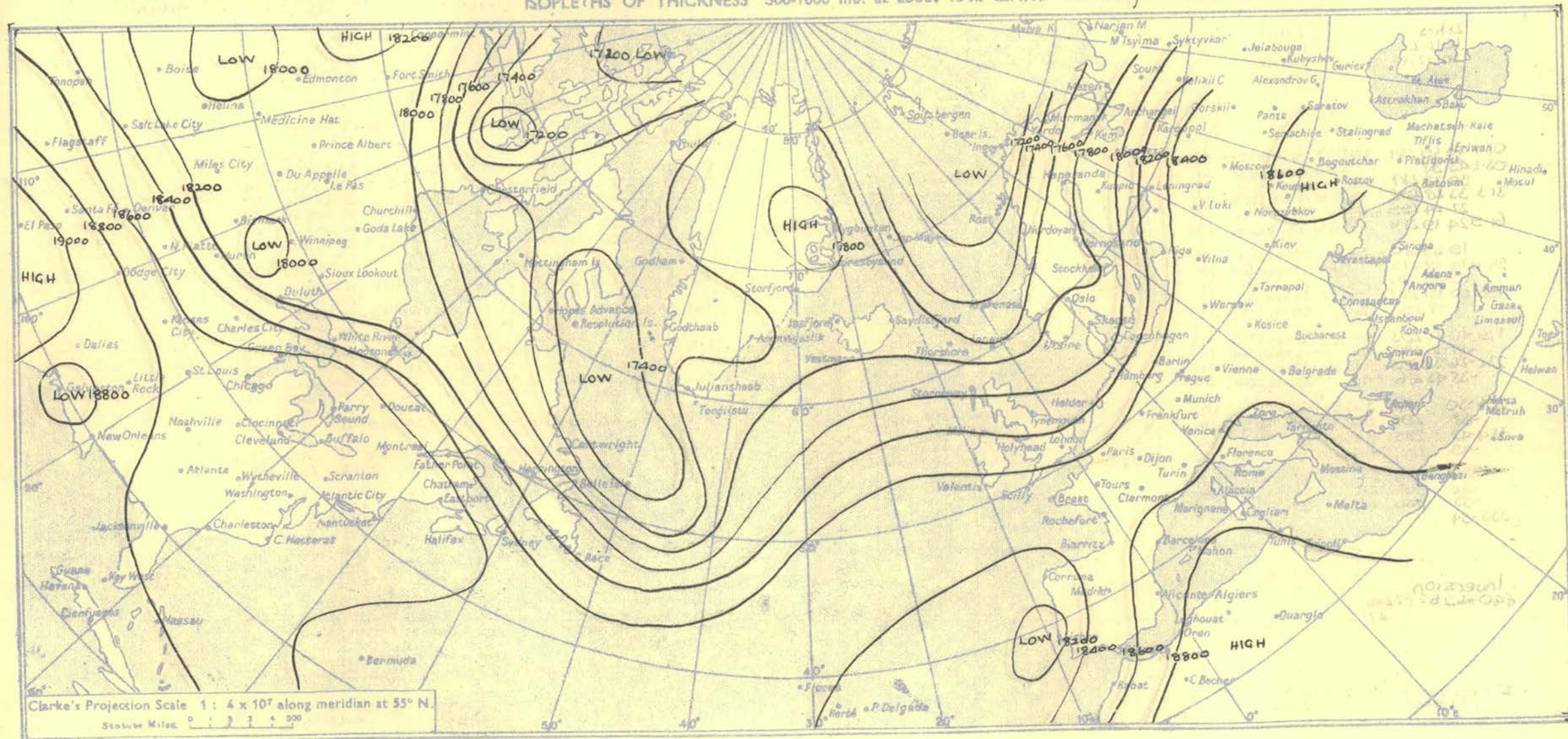




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Friday 9<sup>th</sup> June.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> 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.)

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 (Pressing)	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	15hrs G.M.T.		mb	mb	Time M.S.L. Surf (Pressing)							
		1011.4	1001.4			1015.3	1013.5			1015.8	1015.0			1019.9	1011.4			1019.4	1017.4			1018.2	1013.9			1018.7	1003.0			1020.6	1010.1				1022.7	1021.6					
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	49	40	28	16	00	53	43	24	05	00	26	41	02	3	61	47	24	08	00	65	43	31	05	01	2	64	46	00	03	02	9	58	50	36	00	01	Surf			
1000	03.1	49	40	28	16	00	53	43	24	05	00	26	41	02	3	61	47	24	08	00	65	43	31	05	01	2	64	46	00	03	02	9	58	50	36	00	01	1000			
950	38	34	29	8	22	04	1	50	41	22	13	04	3	59	49	05	3	48	25	12	05	3	56	41	31	7	10	05	0	60	43	00	6	05	3	55	47	33	9	950	
900	31.2	32	29	30	21	32	3	38	32	23	4	21	33	1	43	39	36	36	34	2	43	37	23	15	33	8	41	28	29	13	33	8	41	28	29	13	07	900			
850	26	23	30	7	19	32	28	24	6	18	36	26	23	3	43	39	36	36	34	2	43	37	23	15	33	8	41	28	29	13	33	8	41	28	29	13	07	850			
800	61.7	23	11	29	21	63	3	26	21	25	0	23	64	3	32	29	23	65	4	41	29	0	29	65	4	41	29	0	29	65	4	41	29	0	29	65	4	06	800		
750	19	03	28	21	25	20	27	26	25	21	21	25	21	10	32	29	2	35	33	29	2	35	33	29	2	35	33	29	2	35	33	29	2	35	33	29	2	06	750		
700	25	7	13	28	23	9	0	22	15	28	6	31	9	0	19	13	10	32	29	2	35	33	29	2	35	33	29	2	35	33	29	2	35	33	29	2	06	700			
650	10	28	25	25	19	12	28	41	19	18	41	19	18	27	2	28	40	25	19	30	2	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	06	650		
600	13	4	28	28	28	13	14	28	4	13	18	22	17	14	21	11	28	39	14	19	12	29	36	14	18	01	28	44	14	23	12	28	31	14	23	12	28	06	600		
550	4	28	28	28	07	26	28	51	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	12	17	07	06	550	
500	17	9	11	40	31	18	2	31	28	0	50	18	4	18	10	12	28	50	18	6	05	42	33	18	9	0	4	18	9	0	4	18	9	0	4	18	9	06	500		
450	13	32	25	48	11	25	27	50	7	50	7	50	7	18	1	12	28	56	4	14	28	44	18	7	04	4	18	9	0	4	18	9	0	4	18	9	06	450			
400	23	1	26	35	53	23	6	31	28	0	49	23	17	24	2	27	54	24	0	16	27	54	24	0	16	27	54	24	0	16	27	54	24	0	16	27	54	06	400		
350	38	47	25	57	34	44	28	47	25	34	44	28	47	25	34	44	28	47	25	34	44	28	47	25	34	44	28	47	25	34	44	28	47	25	34	44	28	06	350		
300	29	6	29	59	30	1	50	27	3	46	30	43	25	30	8	29	66	30	6	47	27	63	30	8	29	66	30	6	47	27	63	30	8	29	66	30	43	06	300		
250	67	28	53	28	53	60	27	3	51	57	51	57	51	58	30	63	63	60	63	60	63	60	63	60	63	60	63	60	63	60	63	60	63	60	63	60	63	06	250		
200	32	33	29	43	38	49	28	6	46	39	2	55	39	38	5	27	78	39	2	71	27	78	39	2	71	27	78	39	2	71	27	78	39	2	71	27	78	39	06	200	
170	50	29	31	51	28	39	28	39	28	39	28	39	28	54	3	26	26	68	44	3	28	62	44	3	28	62	44	3	28	62	44	3	28	62	44	3	28	62	06	170	
150	48	29	27	52	28	33	28	33	28	33	28	33	28	57	3	29	30	63	44	3	28	62	44	3	28	62	44	3	28	62	44	3	28	62	44	3	28	62	06	150	
130	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	130
110	51	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	110
100	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	100
90	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	90
80	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	80
70	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	70
60	53	29	28	54	28	32	28	32	28	32	28	32	28	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	29	31	60	3	06	60
Inversion		467 mb 16-450 mb 15				800 - 777 mb 26				Inversion				822 - 753 mb 32				Inversion				Inversion				Inversion				Inversion				Inversion				Tropopause			
Tropopause		I 250 mb -68°				I 270 mb -61°				I 235 mb -55°				I 210 mb -67°				I 210 mb -73°				I 204 mb -77°				I 187 mb -79°				I 165 mb -82°				I 185 mb -80°							
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION			
Pressure	Time M.S.L. Surf (Pressing)	21hrs G.M.T.		mb	mb	21hrs G.M.T.		mb	mb	G.M.T.		mb	mb	21hrs G.M.T.		mb	mb	G.M.T.		mb	mb	21hrs G.M.T.		mb	mb	21hrs G.M.T.		mb	mb	21hrs G.M.T.		mb	mb	Time M.S.L. Surf (Pressing)							
		1012.2	1002.1			1010.8	1009.9							1018.2	1009.8							1018.3	1013.8			1018.2	1002.4			1019.8	1009.2										
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															

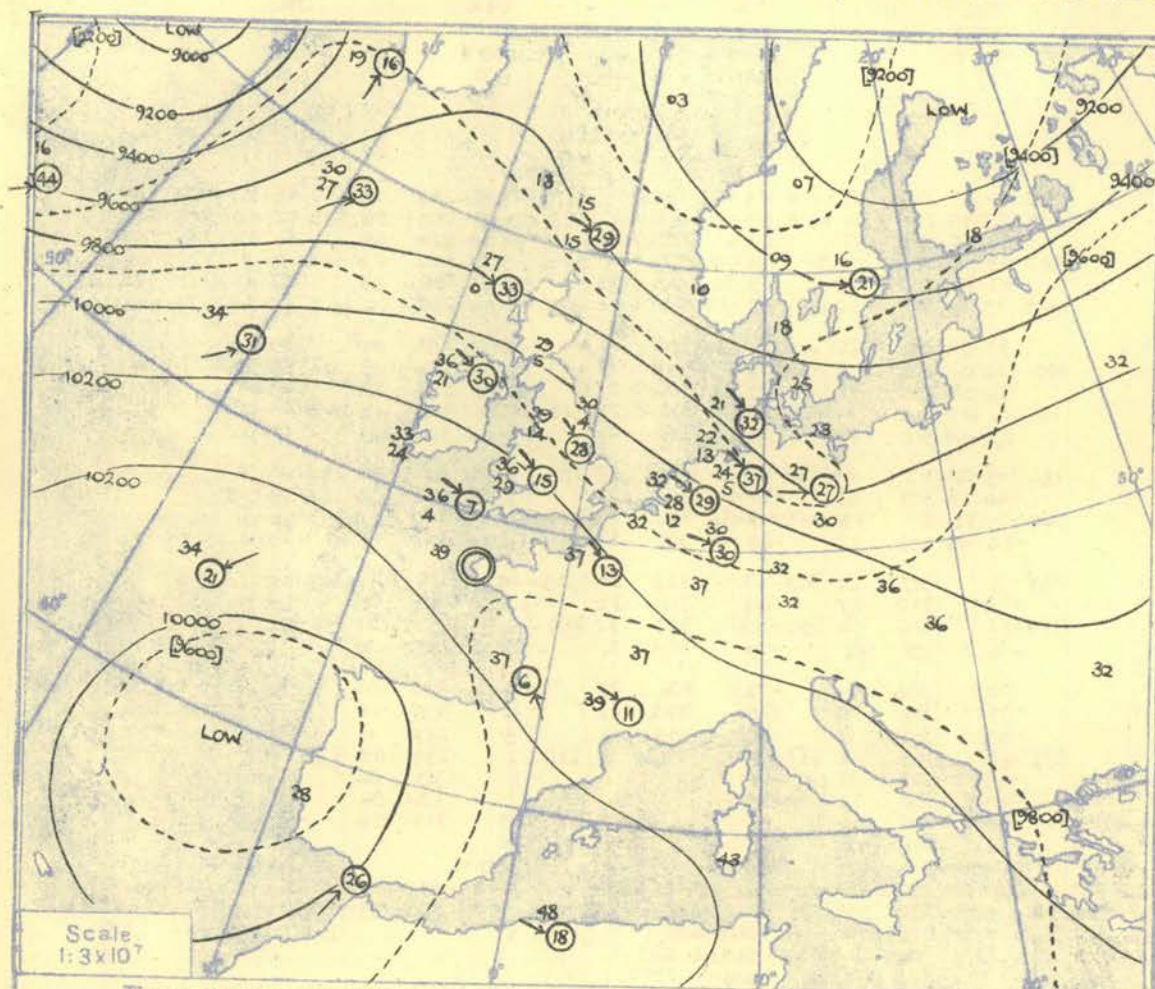


## Page

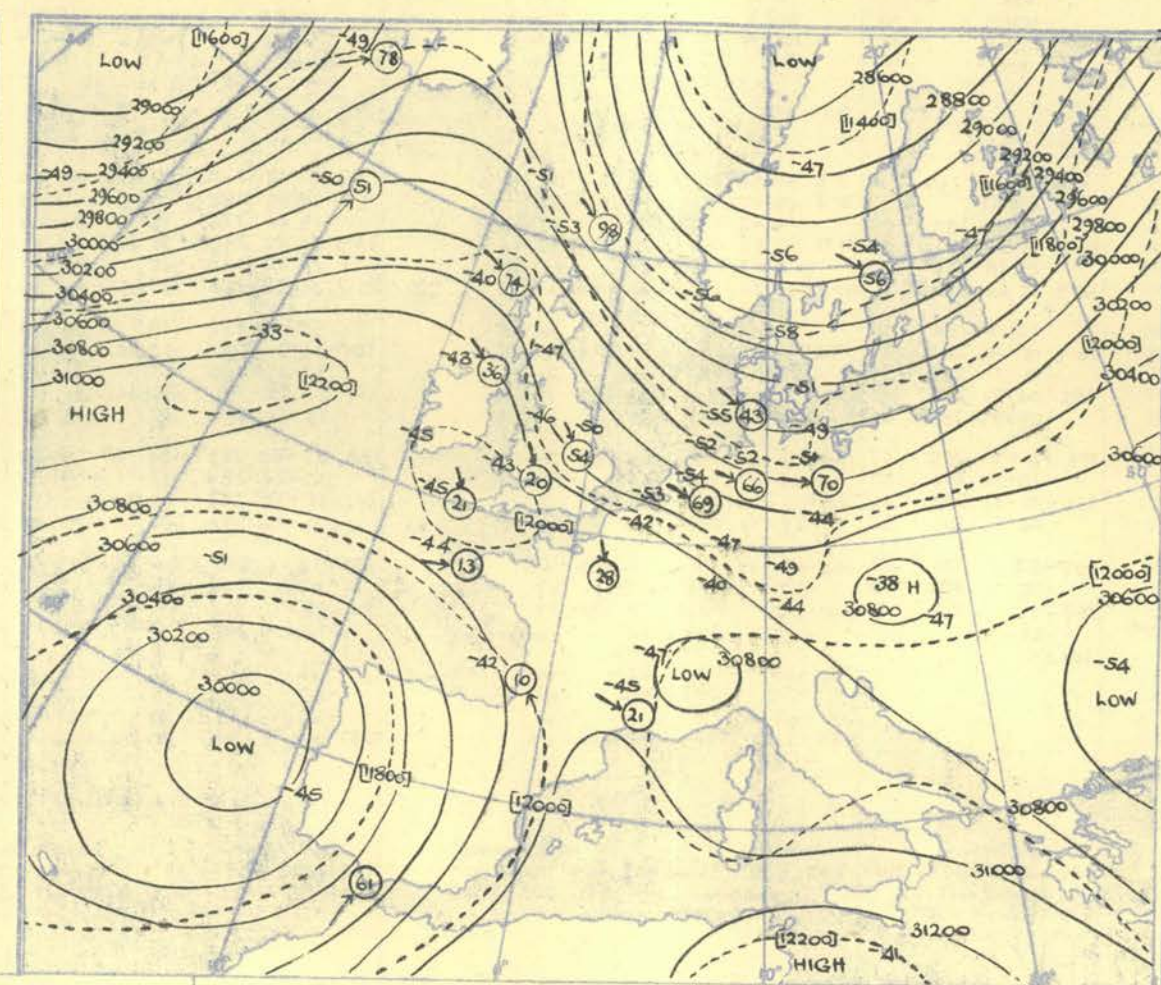
Page



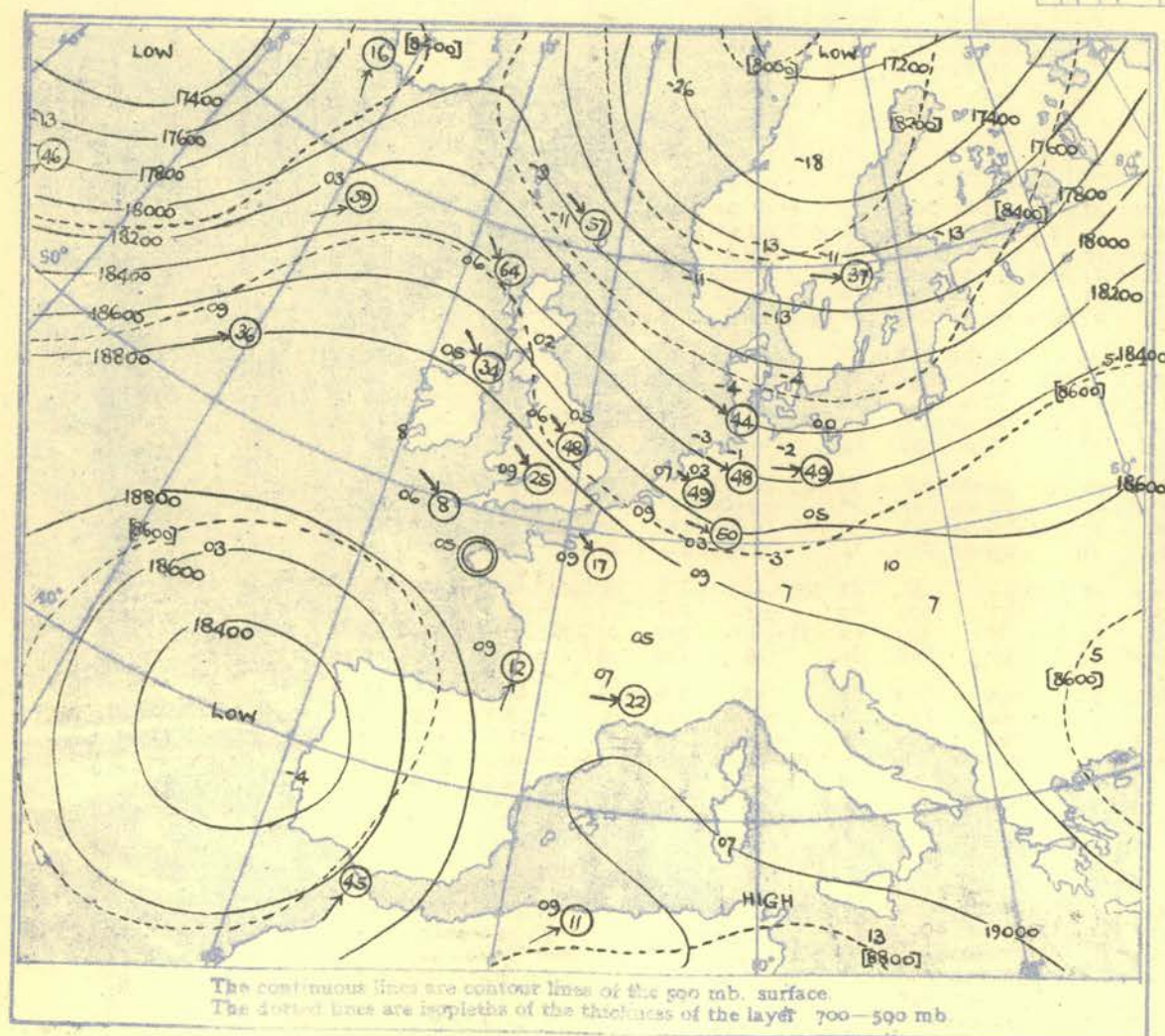
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



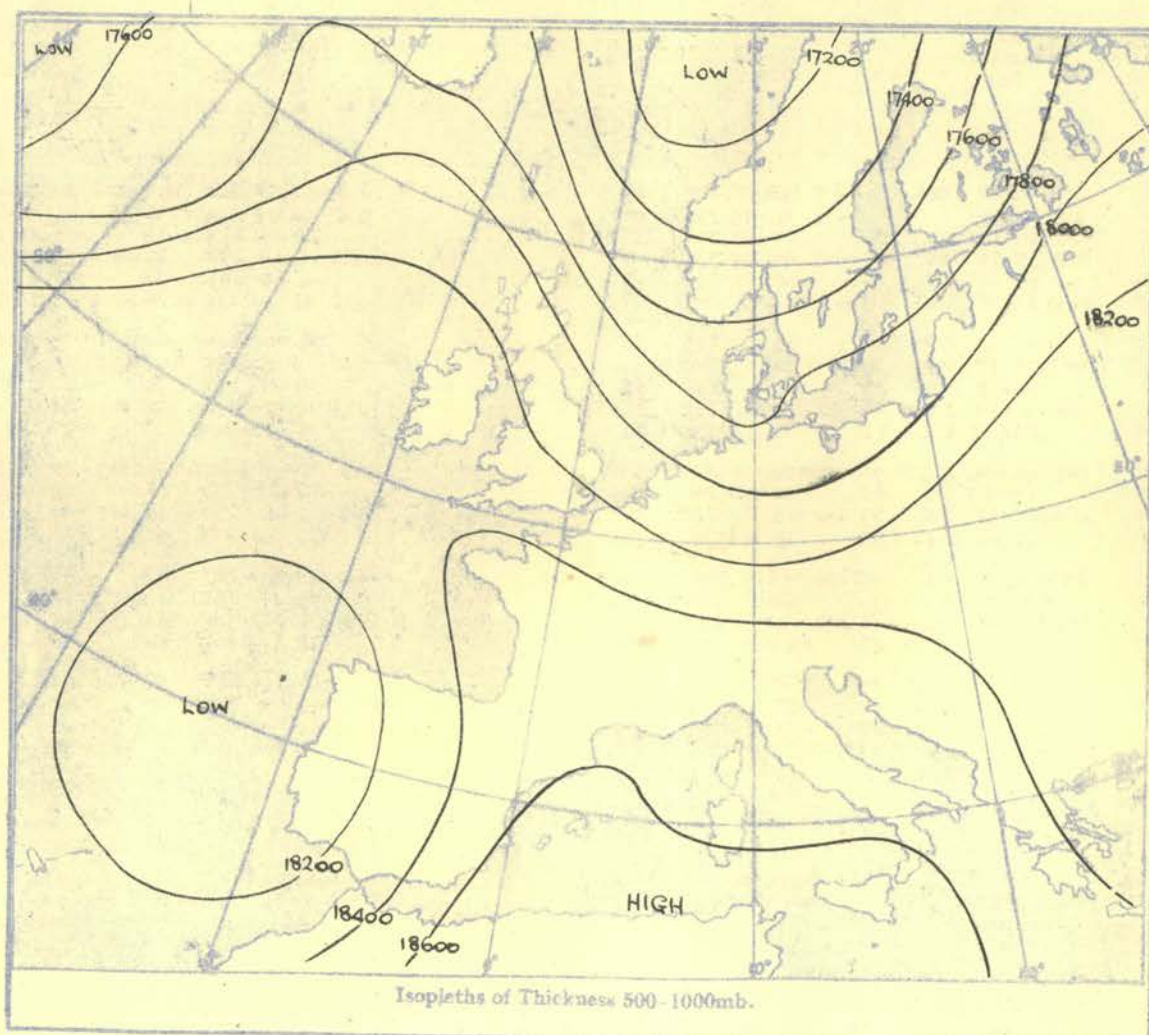
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



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.

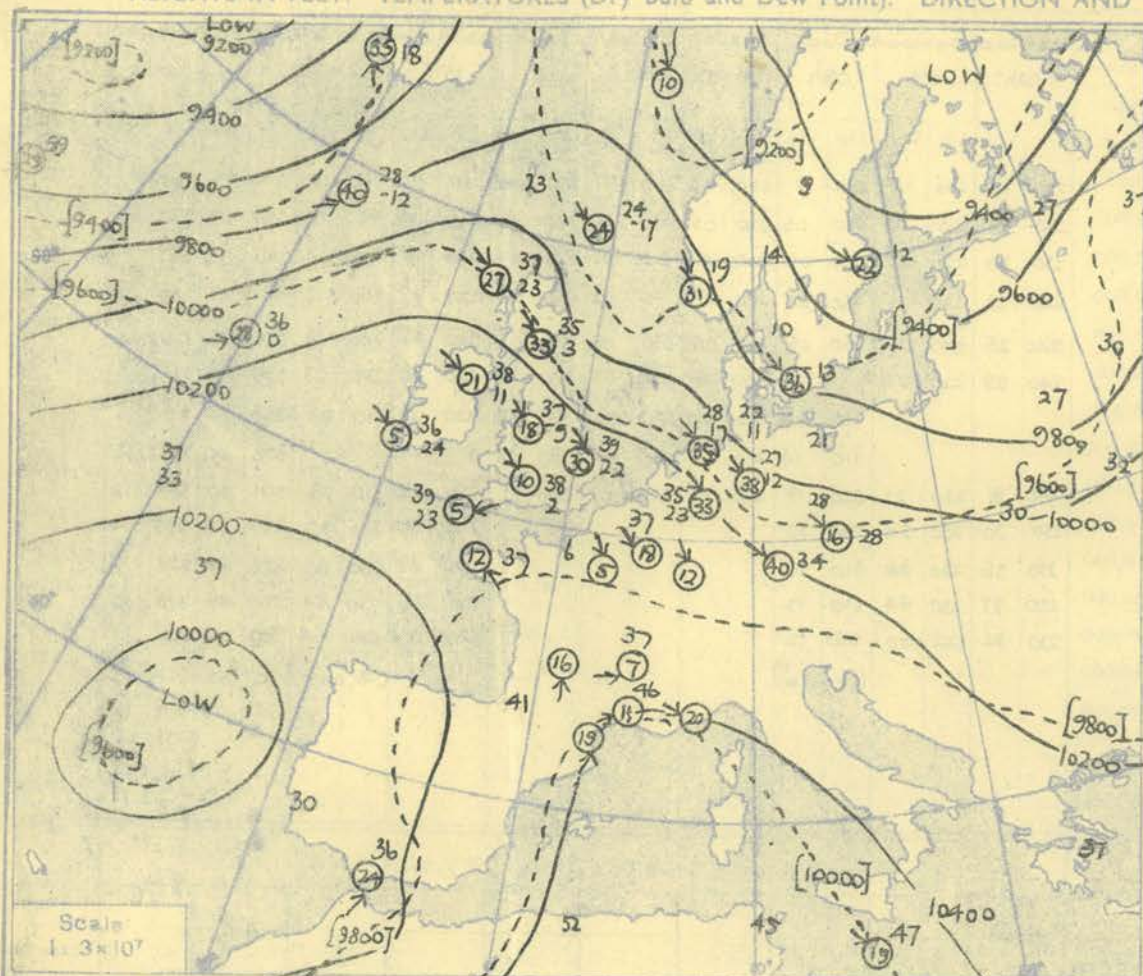
[illegible]

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

RAINFALL-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (HEIGHTS ABOVE 100 FT.)																							Ship										
Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				CUMULUS		CUMULUS		CUMULUS		CUMULUS				Lat/Long						
Lat/Long	58.9N		19.4W		59.0N		19.3W		59.1N		19.2W		59.1N		19.0W		52.5N		20.0W		52.5N		20.0W		52.5N		20.0W						
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.		
	1007		mb		1006		mb		1010		mb		1014		mb		1016		mb		1016		mb		1018		mb		1018		mb		
	1007		mb		1006		mb		1010		mb		1014		mb		1016		mb		1016		mb		1018		mb		1018		mb		
	715		mb		750		mb		740		mb		780		mb		675		mb		700		mb		665		mb		675		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		50	50	190 18		51	51	180 16		51	47	220 20		51	46	210 17		55	54			55	52			57	54			57	53		Surf
1000	1.9	49	49	202 21	1.7	51	51		2.8	50	47	228 21	3.8	49	38	233 17	4.6	54	52		4.5	54	50		4.9	55	52		4.9	55	51		1000
950		45	45	204 24		47	44	206 28		45	44	238 23		43	36	231 19																	950
900	30.3	40	40	207 25	30.3	44	36	207 29	31.3	41	40	242 25	32.1	37	27	229 23		46	30			45	43			46	39		45	39		900	
850		41	19	208 21		42	31	205 31		39	30	231 28		35	18	223 25																	850
800	61.8	36	24	229 30	61.9	37	30	205 38	62.7	37	20	221 32	63.2	34	03	225 25																	800
750		34	33	235 34		32	26	209 42		33	03	222 40		29	01	227 44																	750
700	97.1	30	27	233 33	97.0	26	21	213 45	97.7	28	12	221 40	98.0	23	-06	231 48	101	34	23		101	32	19		101	36	00		101	36	-01		700
650		24	24	228 49		21	12	218 43		23	-26	212 43		16	-14	231 52																	650
600	137	17	16	230 61	137	15	10	223 52	137	15	-44	220 48	137	09	-23	230 44																	600
550		10	04	227 61		10	04	221 67		08	-47	224 56		01	-27	230 55																	550
500	183	03	-10	230 59	182	02	-06	215 63	183	00	-53	221 55	182	-05	-18	225 57	187	09	-04		187	09	-04		188	09	-09		187	07	-17		500
450		-06	-25	233 63		-06	-13	214 67		-07	-50	214 67		-11	-26	217 78																	450
400	237	-18	-33	234 53	236	-18	-28	218 72	237	-16	-57	212 84	235	-22	-42	222 93																	400
350		-32	-47	229 54		-30	-40	215 67		-27	-57	216 89		-36	-52	226 109																	350
300	302	-50		228 51	302	-44		215 68	303	-41		220 95	300	-50		226 117	310	-33			308	-40			309	-40			307	-44		300	
250		-67		228 52		-61		215 71		-55		220 105		-68		226 117																	250
200	386	-82		238 50	388	-72		221 68	390	-56		220 97	386	-59		226 83	398	-76				-69			397	-71			394	-72		200	
170		-63		230 39		-60		227 53		-50		220 52		-53		226 76																	170
150		-62		237 24		-57		229 43		-49		220 39		-56		226 89																	150
130		-62		246 22		-55		228 25		-47		220 33		-57		226 24																	130
110		-62		235 11		-51		229 16		-47		220 21		-55		226 18																	110
100	533	-61		233 14	537	-52		222 16	542	-45		220 13	535	-55		226 10	-67				-63				-63				-81			100	
90		-60		233 06		-53		219 12		-45		220 12		-56		226 17																	90
80		-59		231 07		-51		219 10		-41		220 15		-84		226 03																	80
70		-59		231 06		-49		219 05		-41		220 10		-49																			70
60						-47		219 02		-42				-49																			60
Inversion (053) 47 mb Isothermal 881 - 850 mb 350° Inversion 872 mb 38° 855 mb 39° Isothermal 865 - 839 mb 39°																																	
887 mb 39° 856 mb 42° Isothermal 1006 - 1000 mb 51° Inversion 871 - 850 .. 42° Isothermal 872 mb 38° 855 mb 39° Isothermal 865 - 839 mb 39°																																	
Isothermal 592 - 577 mb 15° I 194 mb - 83° I 195 mb - 73° I 216 mb - 63° I 229 mb - 71° I 170 mb - 87° I 224 mb - 67° I 180 mb - 81° I 186 mb - 75°																																	
Tropopause 39,300' 39,300' 37,500' 36,800' 43,100' 37,100' 41,900' 40,900'																																	



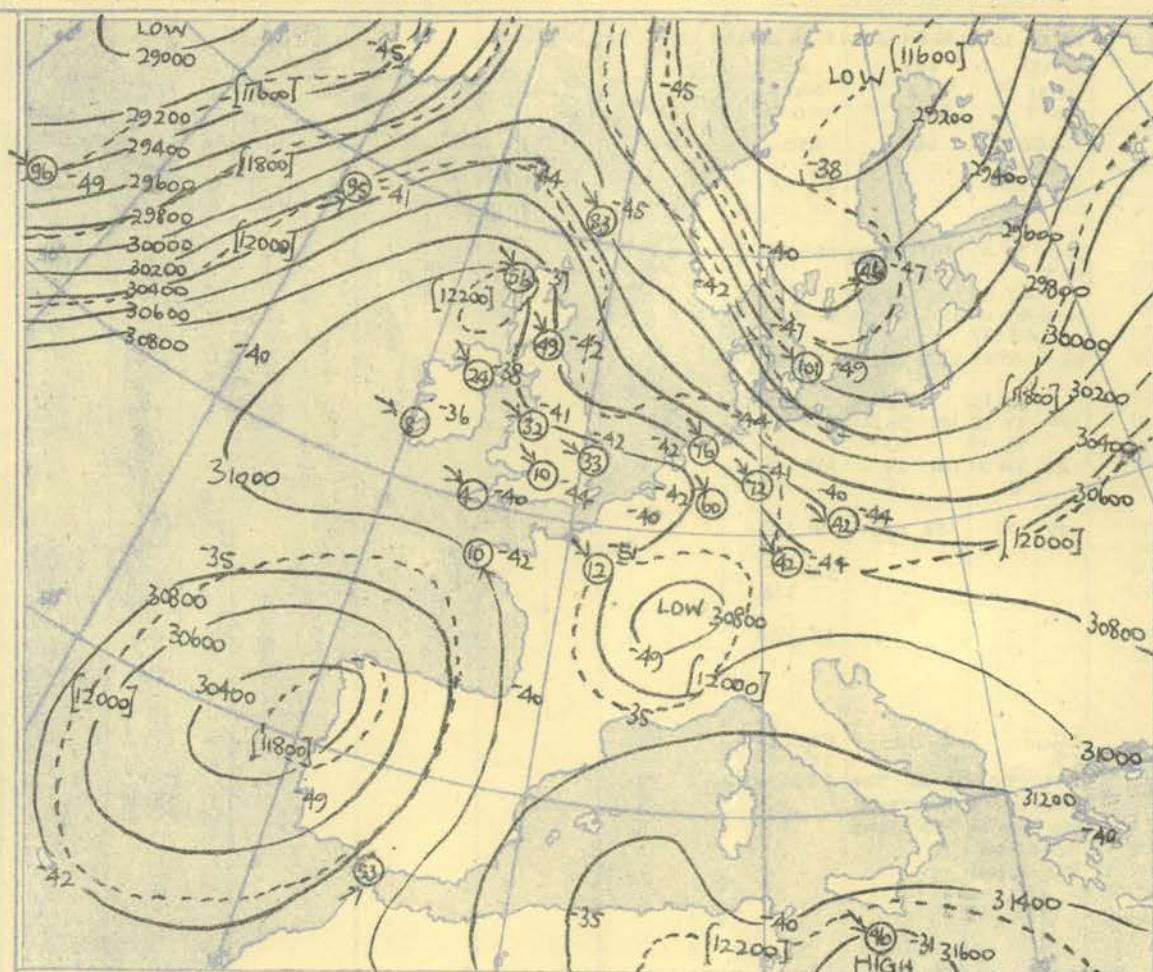
HEIGHTS IN FEET, TEMPERATURES (Dry bulb and Dew Point), DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

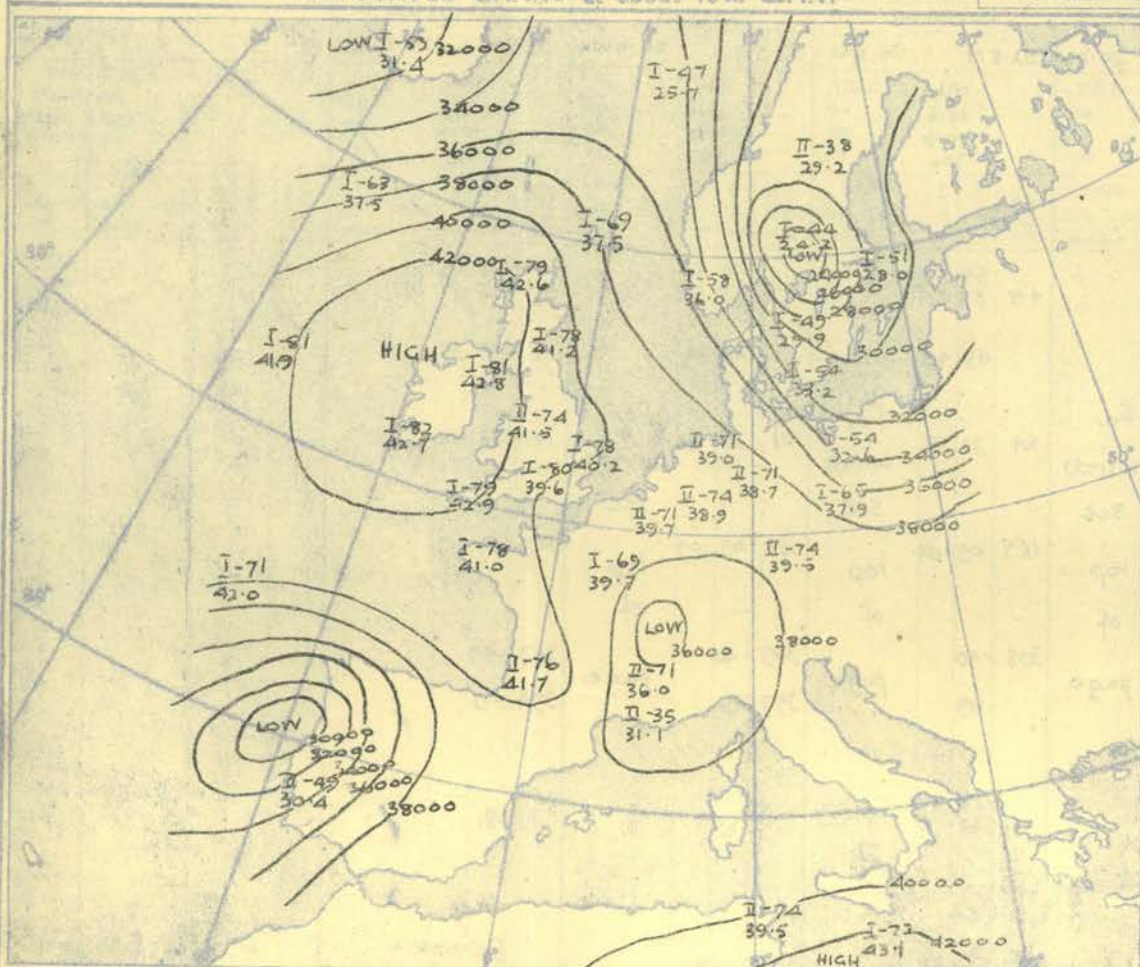
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

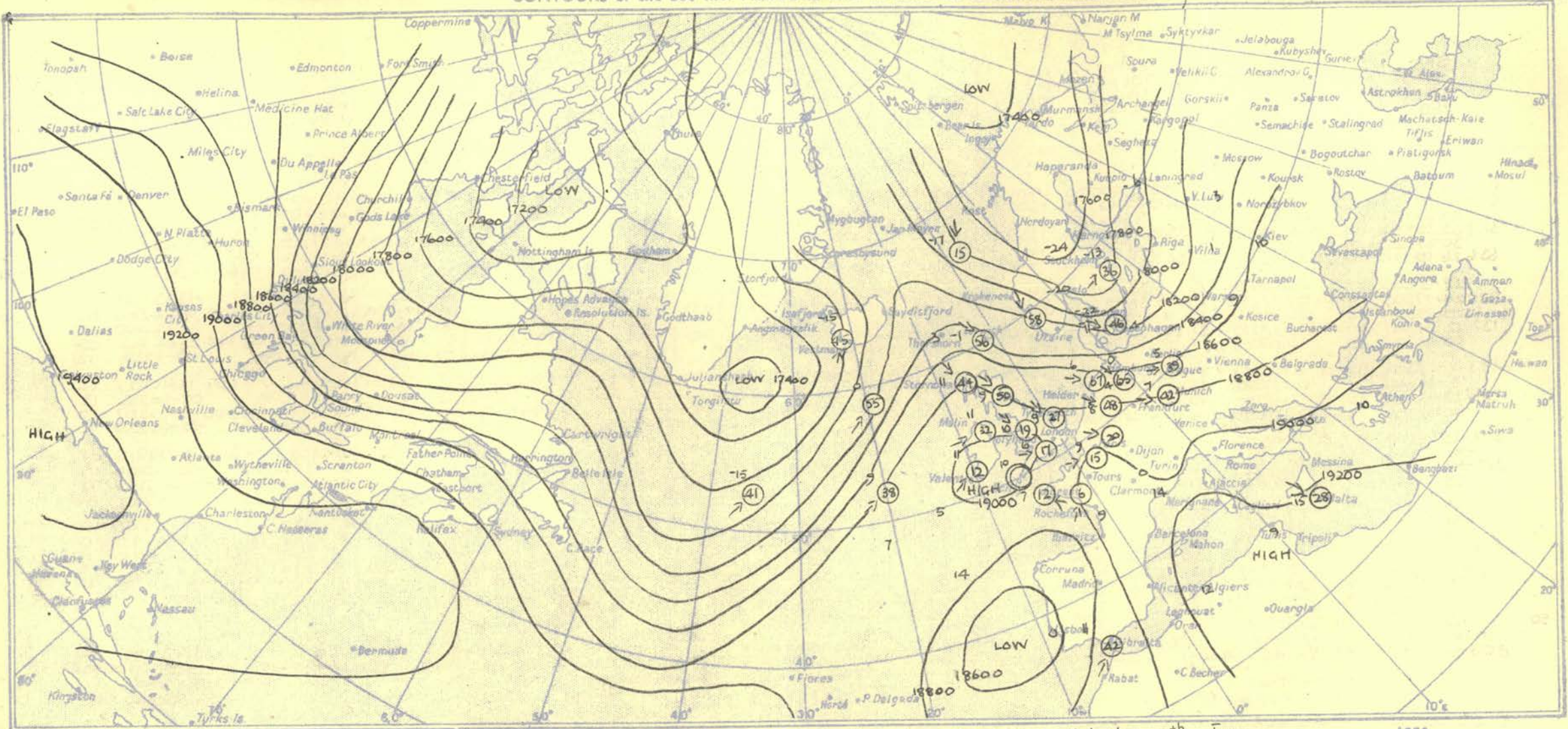
### NOTES ON THE AEROLOGICAL SITUATION.

Strong warming due to subsidence took place on the west side of the cold trough which has moved over Scandinavia. The cold trough in West Atlantic moved slowly eastwards with strong penetration of cold air southwards.

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

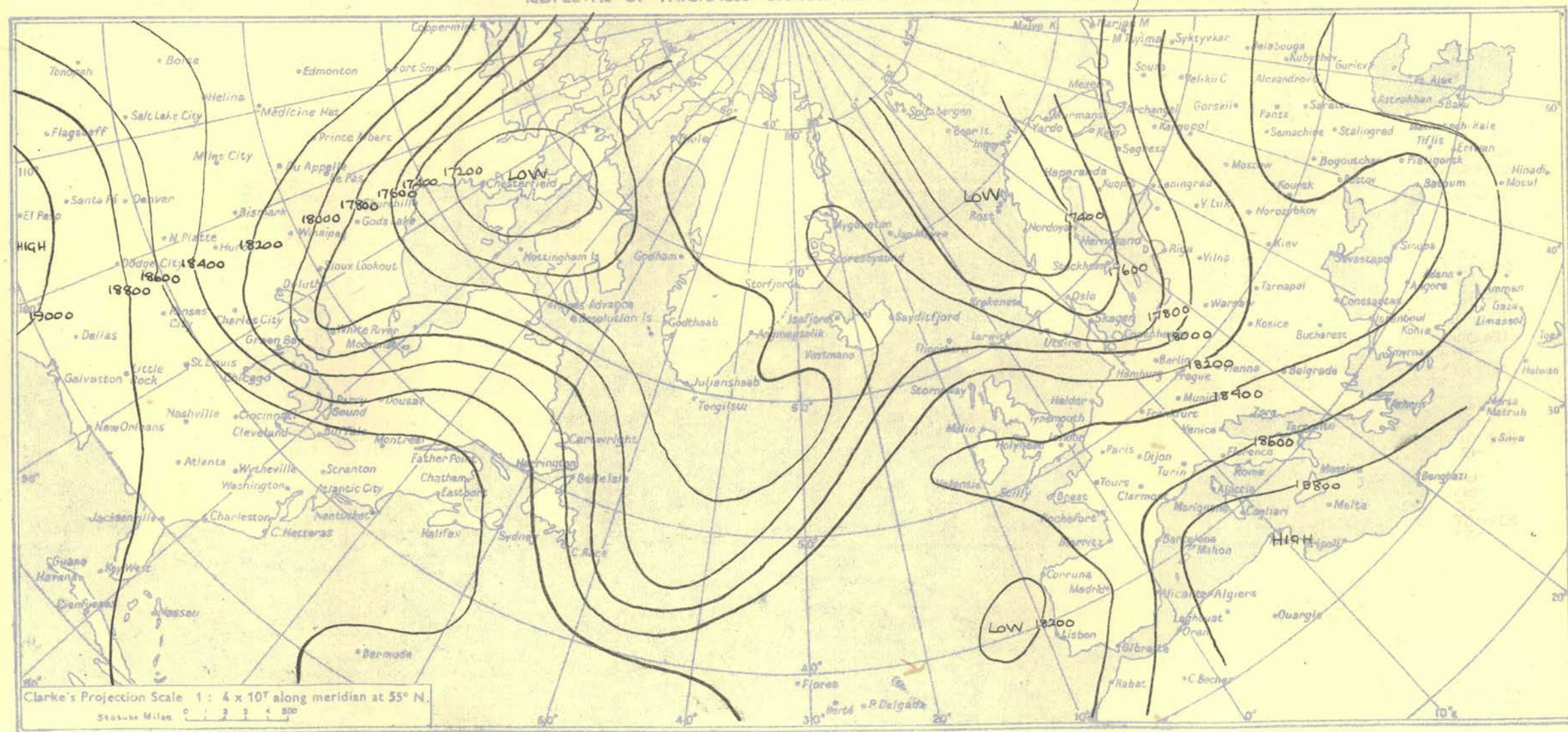




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 10<sup>th</sup> June.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.  
Statute Miles 0 1 2 3 4 500



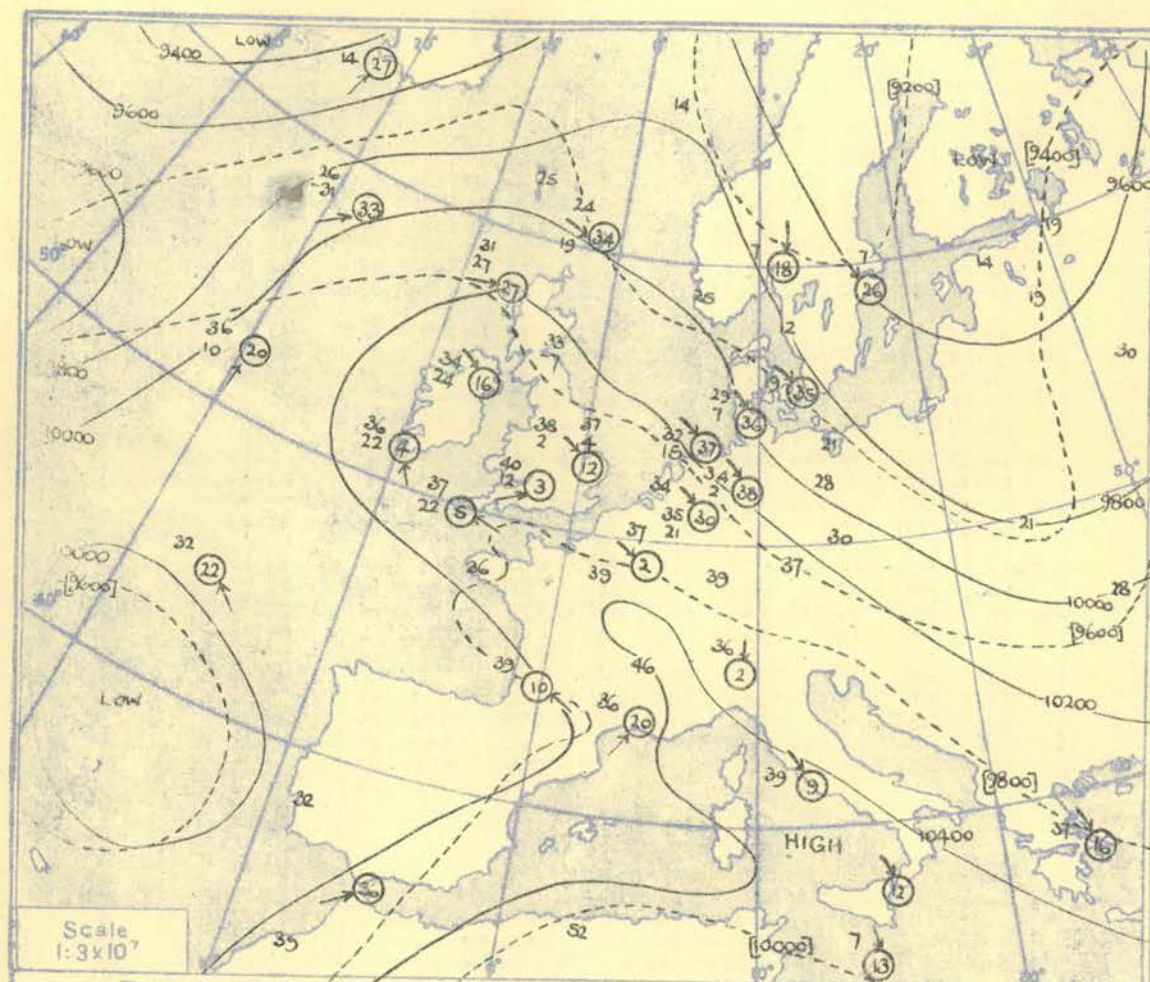
2004/05/14 14:00:00







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.





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

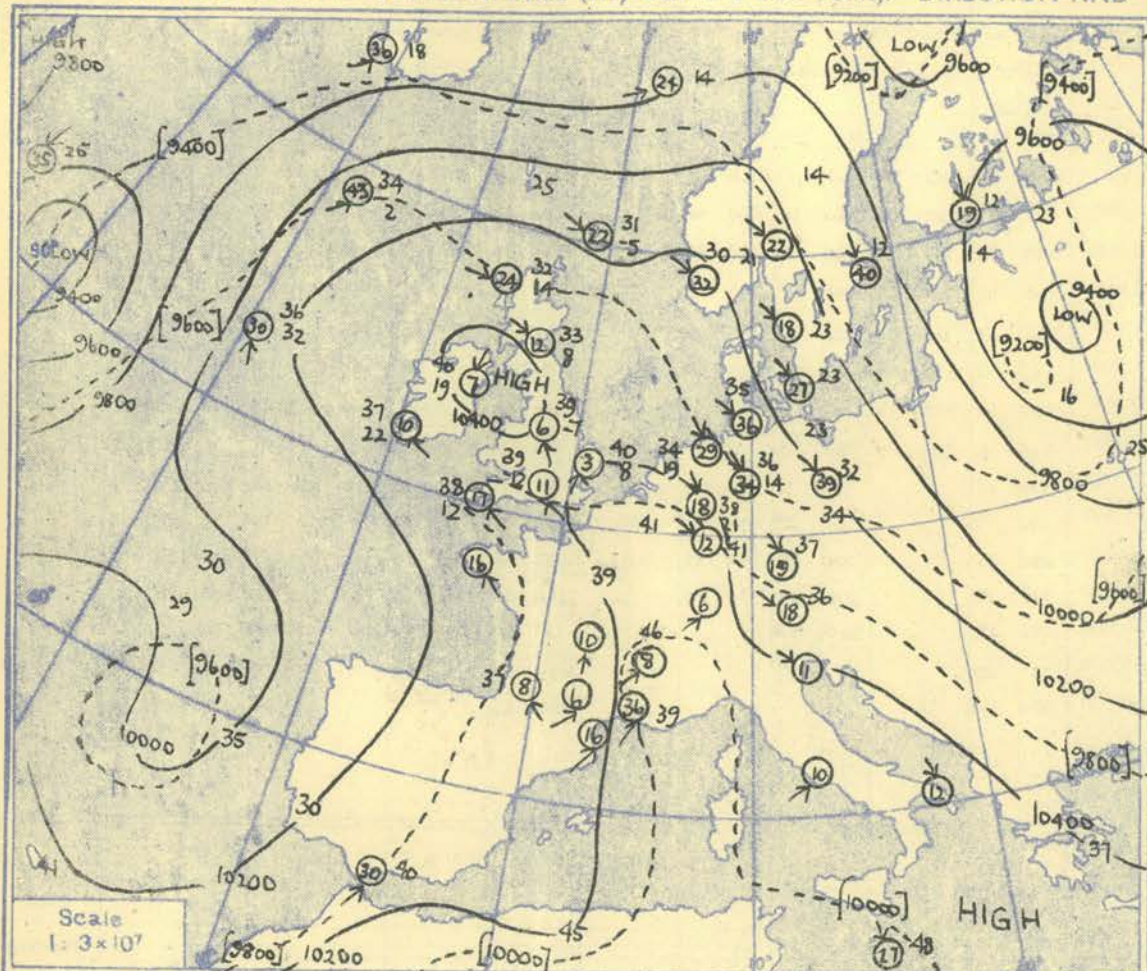
NEPHOSCOPE OBSERVATIONS

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

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				CUMULUS				CUMULUS				CUMULUS				CUMULUS				CUMULUS				Ship																																																																																																																																																																																
Lat/Long	69-1N	18-8W	59-1N	18-6W	58-9N	19-1W	58-9N	19-1W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	52-5N	20-0W	Lat/Long																																																																																																																																																																																						
Pressure	Time	03L	G.M.T.	00h	G.M.T.	15h	G.M.T.	21h	G.M.T.	03L	G.M.T.	09h	G.M.T.	15h	G.M.T.	21h	G.M.T.	03L	G.M.T.	09h	G.M.T.	15h	G.M.T.	21h	G.M.T.	03L	G.M.T.	09h	G.M.T.	15h	G.M.T.	G.M.T.	Time																																																																																																																																																																																				
	M.S.L.	1017	mb	1018	mb	1016	mb	1017	mb	1018	mb	1017	mb	1016	mb	1017	mb	1018	mb	1017	mb	1016	mb	1016	mb	1017	mb	1016	mb	1016	mb	mb	M.S.L.																																																																																																																																																																																				
	Surf	1017	mb	1018	mb	1016	mb	1017	mb	1018	mb	1017	mb	1016	mb	1017	mb	1018	mb	1017	mb	1016	mb	1016	mb	1017	mb	1016	mb	1016	mb	mb	Surf																																																																																																																																																																																				
	Freezing	740	mb	750	mb	680	mb	670	mb	645	mb	660	mb	670	mb	675	mb	645	mb	660	mb	670	mb	675	mb	645	mb	660	mb	670	mb	mb	Freezing																																																																																																																																																																																				
Pressure	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	Temp.	Dew	Wind	Height	ft/100	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	mb																																																																																																																																																																																
Surf	16	50	45	200	12	47	51	48	170	10	43	52	52	180	16	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	Surf																																																																																																																																																																																
1000	42	48	42	206	12	47	51	48	170	10	43	52	52	180	16	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	1000																																																																																																																																																																																
950	42	48	42	206	12	47	51	48	170	10	43	52	52	180	16	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	52	180	21	53	950																																																																																																																																																																																
900	32.9	38	24	209	18	33.2	41	40	194	18	33.2	41	40	194	18	33.2	41	40	194	18	33.2	41	40	194	18	33.2	41	40	194	18	33.2	41	40	194	18	33.2	900																																																																																																																																																																																
850	40	40	21	211	21	38	37	208	33	45	34	227	37	46	34	216	22	42	40	33	212	26	45	45	40	33	212	26	45	45	40	33	212	26	45	850																																																																																																																																																																																	
800	64.3	37	00	216	22	64.8	37	37	206	48	65.0	40	29	218	39	65.4	40	33	212	26	45	45	40	33	212	26	45	45	40	33	212	26	45	45	800																																																																																																																																																																																		
750	33	-18	221	21	32	32	212	44	36	23	214	44	40	24	210	29	101	36	12	For winds	101	36	12	For winds	101	36	12	For winds	101	36	12	For winds	101	36	12	750																																																																																																																																																																																	
700	99.3	26	-31	236	33	99.6	27	26	213	40	101	34	02	213	43	101	35	09	214	34	101	36	10	For winds	101	36	12	For winds	101	36	12	For winds	101	36	12	700																																																																																																																																																																																	
650	18	-22	236	35	21	20	215	40	29	01	219	42	29	01	221	39	29	01	221	39	29	01	221	39	29	01	221	39	29	01	221	39	29	01	221	39	650																																																																																																																																																																																
600	139	18	-20	230	39	139	16	18	228	53	141	22	04	222	47	141	20	12	229	45	141	20	12	229	45	141	20	12	229	45	141	20	12	229	45	600																																																																																																																																																																																	
550	02	00	219	60	12	10	230	60	15	-05	221	49	14	00	237	46	14	00	237	46	14	00	237	46	14	00	237	46	14	00	237	46	14	00	237	46	550																																																																																																																																																																																
500	184	02	-07	220	67	185	05	02	232	64	187	07	-19	222	57	187	06	-22	221	23	188	09	-08	see	187	07	00	see	188	10	-11	187	06	-16	500																																																																																																																																																																																		
450	-06	-13	228	76	-04	-08	222	72	-03	-36	222	64	-04	-25	223	56	-04	-25	223	56	-04	-25	223	56	-04	-25	223	56	-04	-25	223	56	-04	-25	450																																																																																																																																																																																		
400	238	-14	-21	232	87	237	-15	-20	229	66	241	-13	-44	224	68	241	-16	-26	223	58	395	-04	-17	see	395	-04	-17	see	395	-04	-17	see	395	-04	-17	400																																																																																																																																																																																	
350	-27	-35	235	93	-27	-34	227	71	-27	-53	227	73	-29	-38	231	87	-29	-38	231	87	-29	-38	231	87	-29	-38	231	87	-29	-38	231	87	-29	-38	350																																																																																																																																																																																		
300	309	-43	236	86	305	-43	225	78	307	-42	232	72	303	-43	239	60	308	-44	226	65	308	-44	226	65	308	-44	226	65	308	-44	226	65	308	-44	226	65	300																																																																																																																																																																																
250	-60	238	88	-60	233	71	-58	234	74	-59	226	68	-59	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	250																																																																																																																																																																																	
200	391	-64	242	64	392	-72	227	54	394	-63	236	71	394	-70	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	200																																																																																																																																																																																
170	-58	244	58	-61	225	49	-54	241	55	-66	226	64	-66	226	64	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	170																																																																																																																																																																																	
150	-55	237	46	-56	230	39	-49	238	28	-52	226	36	-52	226	36	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	150																																																																																																																																																																																	
130	-54	231	32	-52	233	33	-47	228	26	-52	224	32	-52	224	32	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	130																																																																																																																																																																																	
110	-52	231	24	-53	233	24	-45	224	19	-52	226	25	-52	226	25	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	394	-76	226	68	110																																																																																																																																																																																	
100	540	-54	231	18	541	-53	232	20	546	-45	224	17	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	100																																																																																																																																																																																
90	-54	231	17	-52	228	16	-44	224	12	-53	224	12	-53	224	12	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	90																																																																																																																																																																																	
80	-54	231	14	-50	225	12	-44	224	11	-52	224	11	-52	224	11	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	80																																																																																																																																																																																	
70	-54	231	12	-48	225	12	-44	224	11	-52	224	11	-52	224	11	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	70																																																																																																																																																																																	
60	-53	231	09	-46	225	12	-44	224	11	-52	224	11	-52	224	11	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	542	-55	224	15	60																																																																																																																																																																																	
Tropopause	(048) mb	-52	231	09	(047) mb	-47	225	12	(063) mb	-42	225	12	(052) mb	-49	225	12	795 mb 37°-777 mb 41°	710	46°-895	48°	882 mb 37°-870 mb 54°	897	866 mb 54°	607	600	23°	579	565	21°	186 mb	-76°	41,000'	Tropopause																																																																																																																																																																																				
	Inversion	900 mb 38°-875 mb 41°	586	09°-570	18	Max wind: 350 mb 235° 38 kts	I 208 mb	-71°	38,300'	Inversion	1016 mb 52°-1007 mb 55°	1007	1000 mb 55°	760	750	36°	I 220 mb	-68°	37,400'	Inversion	1000 mb 55°-984 mb 54°	880	47°-865	48°	792	390	735	42°	I 203 mb	-71°	39,000'	Inversion	910	46°-895	48°	882 mb 37°-870 mb 54°	897	866 mb 54°	607	600	23°	579	565	21°	186 mb	-76°	41,000'	Tropopause																																																																																																																																																																					
	Isothermal	1004 - 1000 mb 50°	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I 174 mb	-81°	42,400'	NR	I 186 mb	-76°	41,000'	I 208 mb	-71°	38,300'	I 224 mb	-70°	36,800'	I 220 mb	-68°	37,400'	I 203 mb	-71°	39,000'	I 165 mb	-80°	43,500'	I

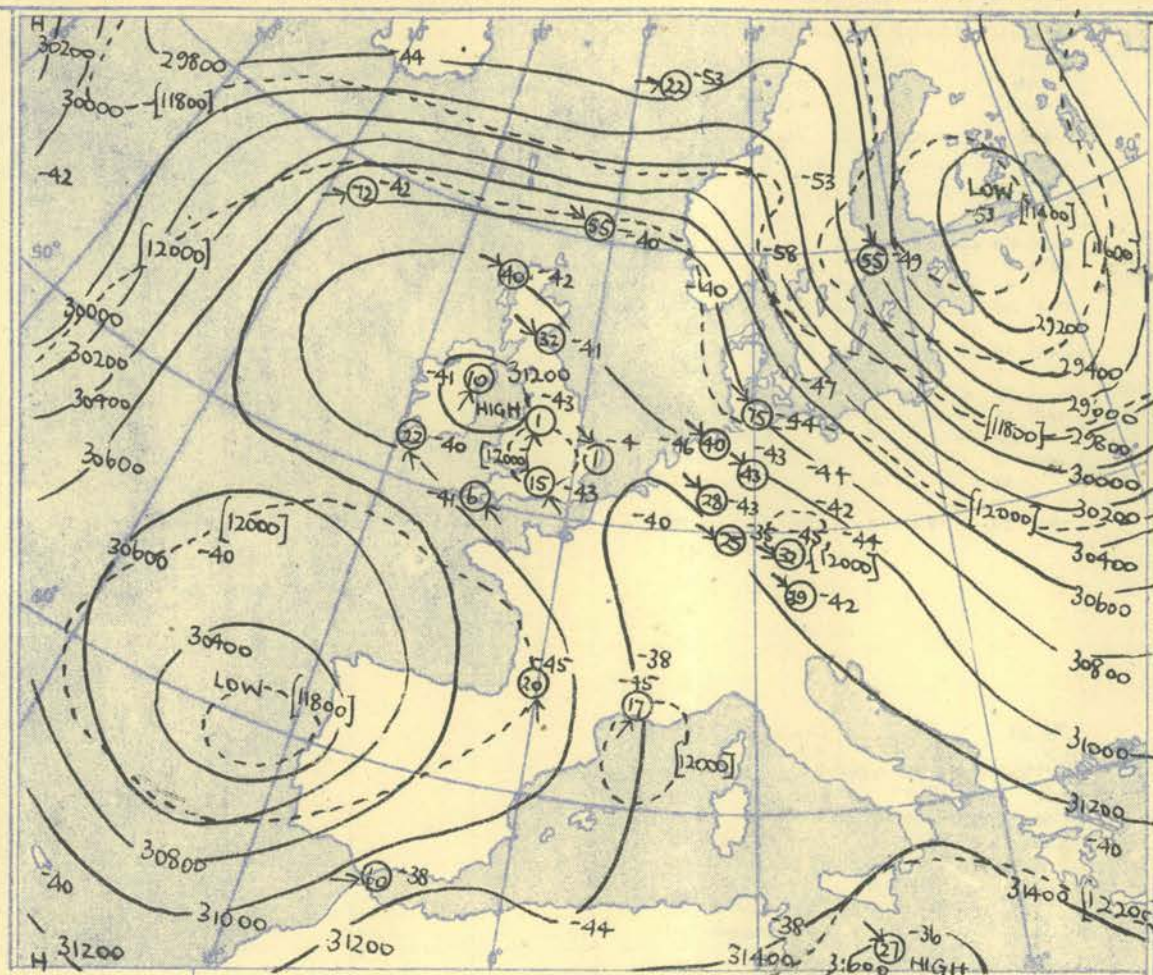


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.

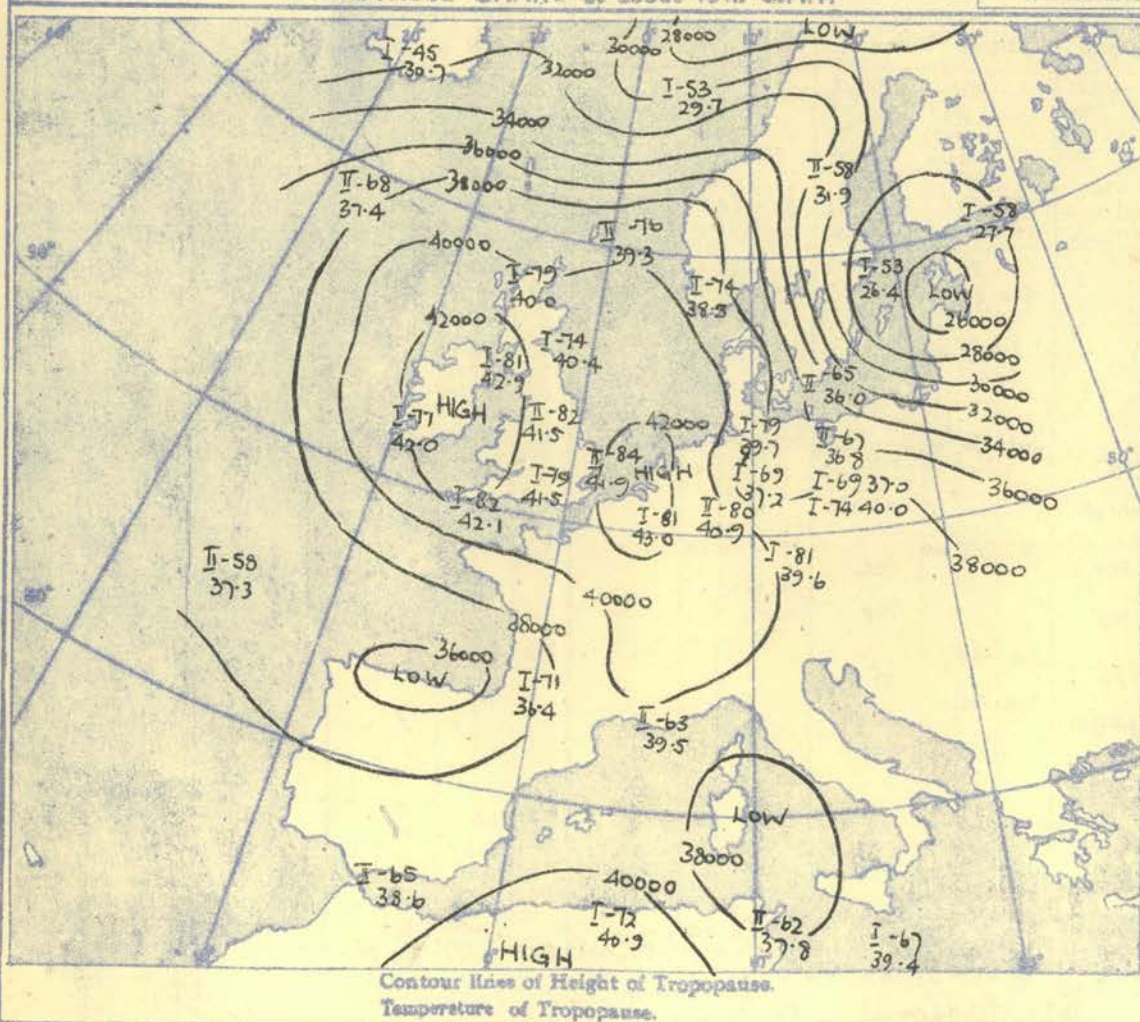


Gradient Wind Scale for Contours at intervals of 300 ft. at Lat. 52° N.

100 80 60 40 20 10 knots



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



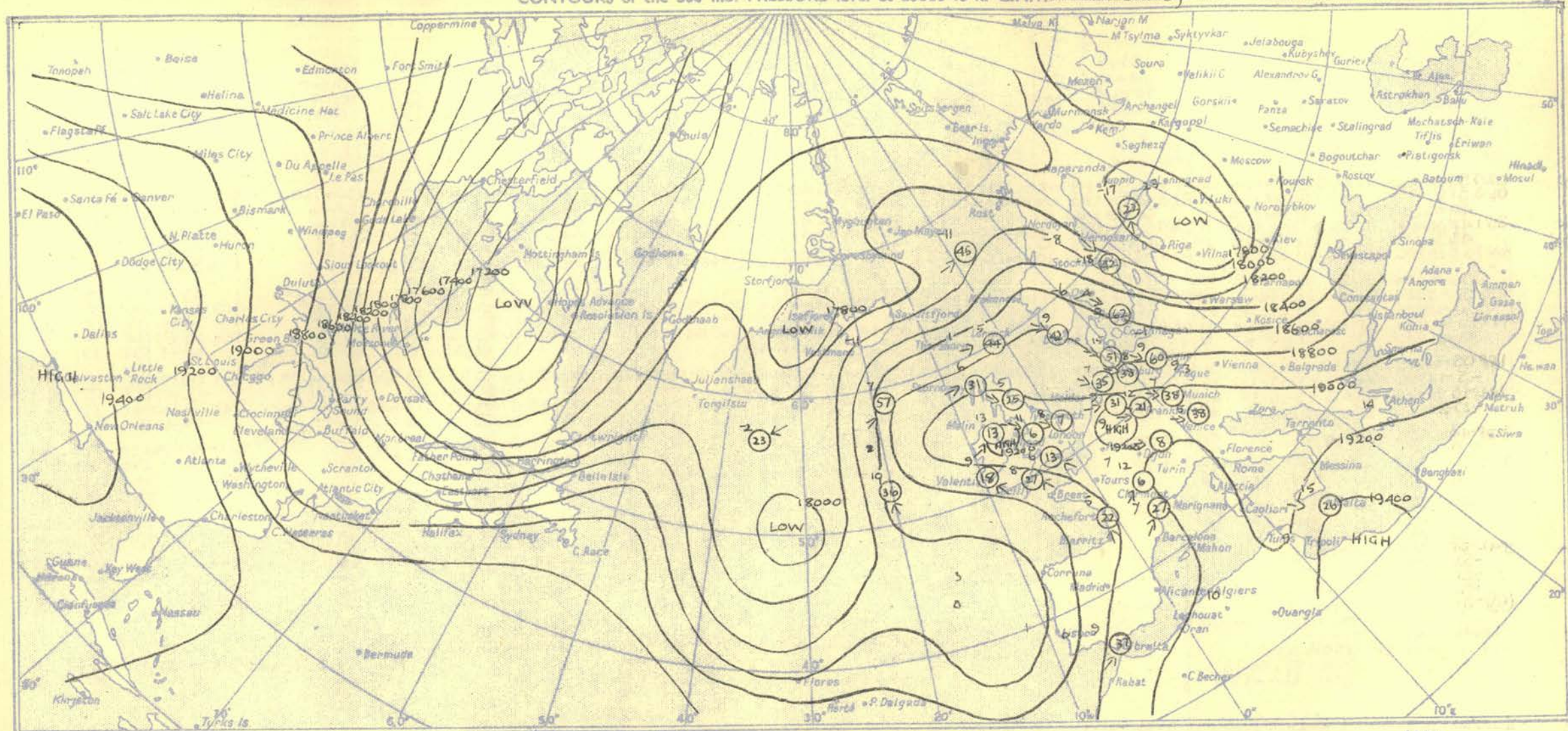
### NOTES ON THE AEROLOGICAL SITUATION.

Intense subsidence continued over the North Sea and Western Scandinavia leading to a broadening of the thermal ridge extending northwards from South France. The cold trough in the West Atlantic continued to move eastwards and a cut of cold pool has appeared.

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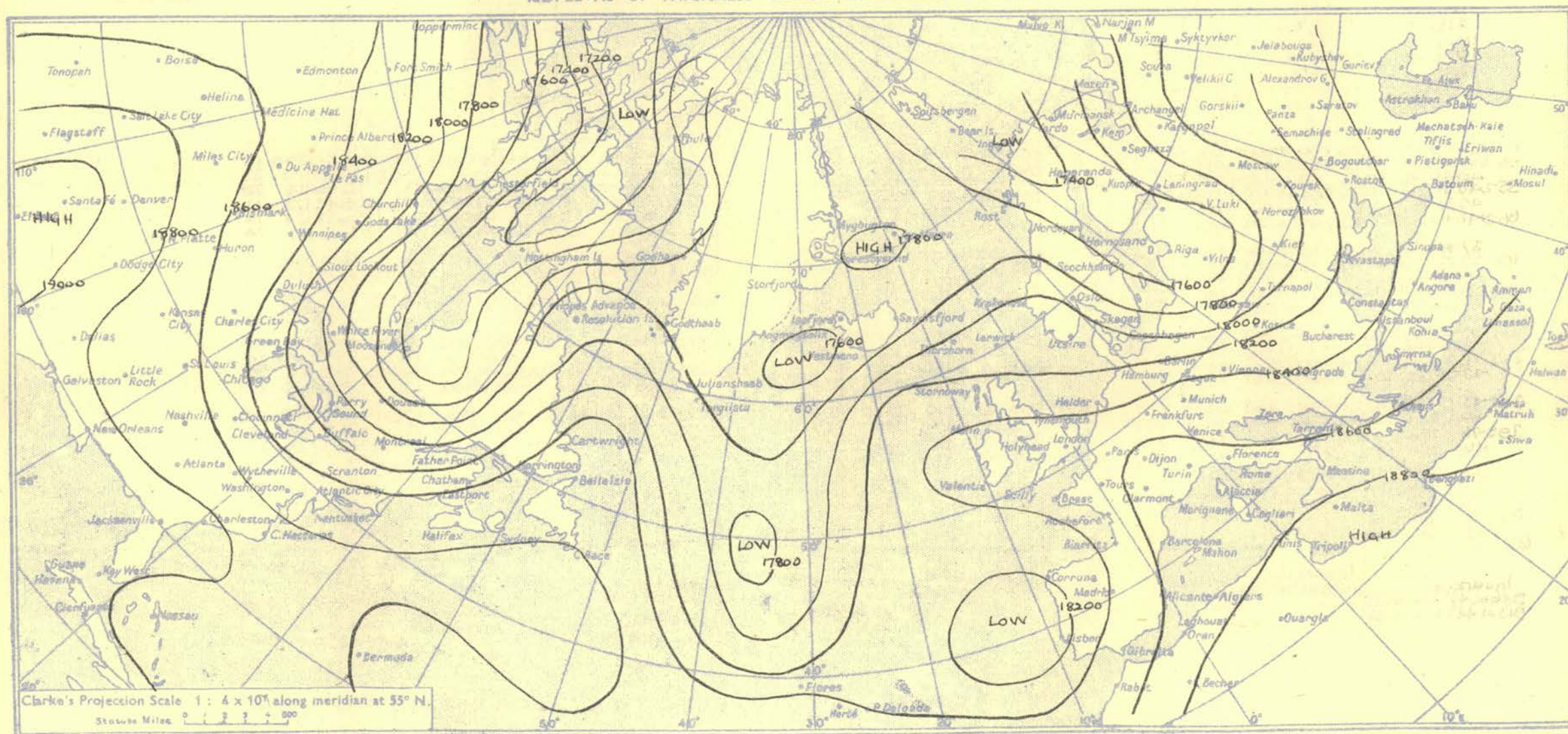
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>6</sup> along meridian at 55° N.  
Statute Miles 0 1 2 3 4 5 6 7 8 9 10



# 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.	15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		15hrs		G.M.T.		Time M.S.L.	Pressure										
		Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing	Surf	Pressing														
Surf	02.7	55.3	259	12.0	55.6	180	08.0	51.8	37.6	53.1	180	08.0	52.3	37.2	55.1	112	06.0	50.6	37.5	49.1	150	03.0	51.2	37.6	59.0	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	1000										
1000	06.3	51.4	259	07.1	51.6	180	06.8	46.8	31.2	48.1	180	06.7	46.8	31.2	48.1	110	06.7	46.8	31.2	48.1	150	05.0	46.7	31.1	48.0	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	950										
950		49.4	259		49.4	180		46.8	31.2	48.1	180		46.8	31.2	48.1	110		46.8	31.2	48.1	150		46.7	31.1	48.0	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	900										
900	35.1	48.3	259	18.3	48.3	180	11.3	46.1	31.2	48.1	180	08.3	46.1	31.2	48.1	110	08.3	46.1	31.2	48.1	150	08.3	46.1	31.2	48.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	850										
850		46.3	259		46.3	180		44.1	29.8	46.1	180		44.1	29.8	46.1	110		44.1	29.8	46.1	150		44.1	29.8	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	800										
800	66.7	38.5	259	21.7	38.5	180	14.7	36.3	27.6	46.1	180	13.7	36.3	27.6	46.1	110	13.7	36.3	27.6	46.1	150	13.7	36.3	27.6	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	750										
750		35.1	259		35.1	180		32.9	24.8	46.1	180		32.9	24.8	46.1	110		32.9	24.8	46.1	150		32.9	24.8	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	700										
700	102.3	31.1	259	21.3	31.1	180	14.3	28.9	20.8	46.1	180	10.3	28.9	20.8	46.1	110	10.3	28.9	20.8	46.1	150	10.3	28.9	20.8	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	650										
650		26.1	259		26.1	180		23.9	17.2	46.1	180		23.9	17.2	46.1	110		23.9	17.2	46.1	150		23.9	17.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	600										
600	142.1	21.1	259	14.3	21.1	180	7.3	19.2	12.2	46.1	180	14.3	19.2	12.2	46.1	110	14.3	19.2	12.2	46.1	150	14.3	19.2	12.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	550										
550		13.0	259		13.0	180		10.8	2.2	46.1	180		10.8	2.2	46.1	110		10.8	2.2	46.1	150		10.8	2.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	500										
500	188.0	5.1	259	44.1	5.1	180	37.1	0.0	-13.0	46.1	180	188.0	5.1	-6.2	259	37.1	0.0	-13.0	46.1	180	188.0	5.1	-6.2	259	37.1	0.0	-13.0	46.1	180	188.0	5.1	-6.2	259	37.1	0.0	-13.0	46.1	450							
450		-5.1	259		-5.1	180		-3.1	-17.2	46.1	180		-3.1	-17.2	46.1	110		-3.1	-17.2	46.1	150		-3.1	-17.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	400										
400	242.1	-15.1	259	43.1	-15.1	180	40.1	-15.1	-25.2	46.1	180	242.1	-15.1	-25.2	46.1	110	242.1	-15.1	-25.2	46.1	150	242.1	-15.1	-25.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	350										
350		-27.1	259		-27.1	180		-25.1	-40.2	46.1	180		-25.1	-40.2	46.1	110		-25.1	-40.2	46.1	150		-25.1	-40.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	300										
300	308.0	-40.1	259	53.1	-40.1	180	50.1	-40.1	-51.2	46.1	180	308.0	-40.1	-51.2	46.1	110	308.0	-40.1	-51.2	46.1	150	308.0	-40.1	-51.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	250										
250		-53.1	259		-53.1	180		-51.1	-64.2	46.1	180		-51.1	-64.2	46.1	110		-51.1	-64.2	46.1	150		-51.1	-64.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	200										
200	355.0	-76.1	259	67.1	-76.1	180	64.1	-76.1	-87.2	46.1	180	355.0	-76.1	-87.2	46.1	110	355.0	-76.1	-87.2	46.1	150	355.0	-76.1	-87.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	170										
170		-66.1	259		-66.1	180		-64.1	-79.2	46.1	180		-64.1	-79.2	46.1	110		-64.1	-79.2	46.1	150		-64.1	-79.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	150										
150		-61.1	259		-61.1	180		-59.1	-74.2	46.1	180		-59.1	-74.2	46.1	110		-59.1	-74.2	46.1	150		-59.1	-74.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	130										
130		-57.1	259		-57.1	180		-55.1	-70.2	46.1	180		-55.1	-70.2	46.1	110		-55.1	-70.2	46.1	150		-55.1	-70.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	110										
110		-53.1	259		-53.1	180		-51.1	-66.2	46.1	180		-51.1	-66.2	46.1	110		-51.1	-66.2	46.1	150		-51.1	-66.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	100										
90	542.0	-53.1	259		-53.1	180		-51.1	-66.2	46.1	180	542.0	-53.1	-66.2	46.1	110	542.0	-53.1	-66.2	46.1	150	542.0	-53.1	-66.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	90										
80		-51.1	259		-51.1	180		-49.1	-64.2	46.1	180		-49.1	-64.2	46.1	110		-49.1	-64.2	46.1	150		-49.1	-64.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	80										
70		-51.1	259		-51.1	180		-49.1	-64.2	46.1	180		-49.1	-64.2	46.1	110		-49.1	-64.2	46.1	150		-49.1	-64.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	70										
60	(63)	-51.1	259		-51.1	180		-49.1	-64.2	46.1	180		-49.1	-64.2	46.1	110		-49.1	-64.2	46.1	150		-49.1	-64.2	46.1	09.0	08.4	47.6	51.1	120	10.0	52.9	37.0	47.1	60										
		Isothermal		814-800 mb 38°		Isothermal		762-725 mb 36°		Isothermal		718-681 mb 34°		Isothermal		685-648 mb 32°		Isothermal		652-615 mb 30°		Isothermal		619-582 mb 28°		Isothermal		586-549 mb 26°		Isothermal		553-516 mb 24°		Isothermal		520-483 mb 22°		Isothermal		487-450 mb 20°		Isothermal		454-417 mb 18°	

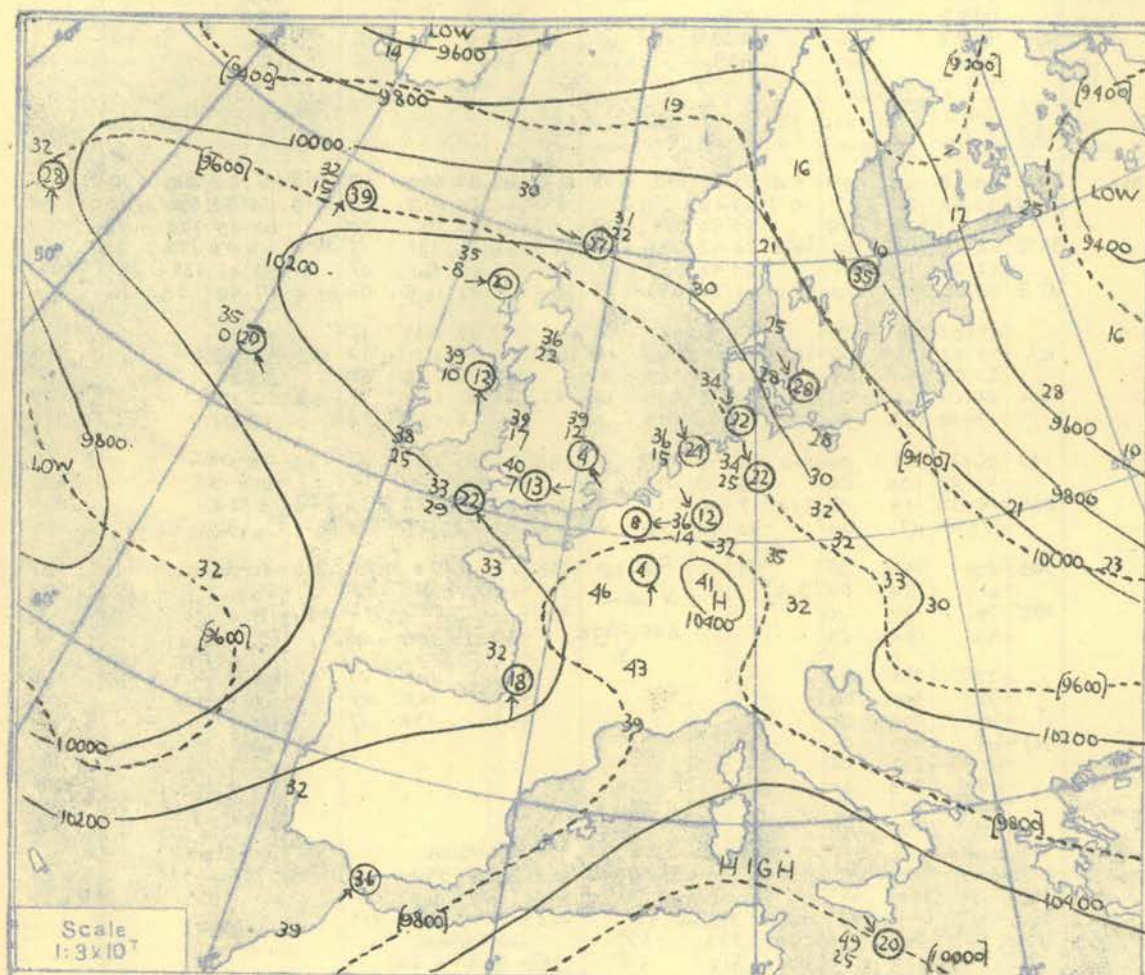


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure mb	Time M.S.L.	Surf Freezing	03L		G.M.T.		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.	Surf Freezing									
			1024.4	mb	1024.3	mb	1024.3	mb	1025.5	mb	1024.7	mb	650	mb	1023.5	mb	1015.0	mb	1024.1	mb	1022.1	mb	1023.8	mb	1019.2	mb	1021.1	mb	1005.0	mb	1018.2	mb	1018.2	mb			1016	mb	665	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	2.7	48	48	10	0.5	48	48	Calh.	0.2	48	47					2.3	61	54	140	12	0.6	55	46	Calh.	1.2	49	48	06	06	4.4	53	47	00	13	2.9	62	52	080	15	0.3	65	53	070	10	Surf
1000	6.5	49	49	223	13	6.5	52	52	237	06	6.8	54	50			6.4	64	57	144	18	6.6	55	45		6.4	52	47	100	17	5.7	53	46	100	13	5.0	61	51	095	18	4.9	64	52	090	15	1000
950		49	46	239	13		55	51	242	11		61	51				64	55	144	18		55	44			55	33	108	15		59	50	073	27		61	53	111	20		60	49	123	23	950
900	35.1	46	43	268	17	35.5	52	41	239	18	36.1	55	46			35.2	58	47	150	17	35.6	51	43		34.8	54	43	086	20	34.3	56	46	131	15	34.2	55	43	128	28		55	43	128	28	900
850		43	42	279	15		49	37	241	20		49	43				51	34	138	15		50	30			52	01	111	11		53	42	087	17		52	45	161	07		62	41	133	28	850
800	66.8	39	37	272	23	67.4	45	35	244	22	68.2	43	38			67.3	46	21	129	13	67.6	47	13		67.1	51	31	087	17	66.5	46	43	163	06	66.4	47	40	138	26		66	40	138	26	800
750		31	30	275	24		39	25	259	21		38	32				43	05	123	13		44	10			47	02	108	07		47	19	087	14		37	32	093	12		43	36		750	
700	102	31	22	281	27	103	35	08	258	20	104	36	22			104	35	10	123	12	104	39	17		103	39	12	131	04	103	40	07	090	13	102	33	29	110	22	102	38	25		700	
650		27	09	280	30		31	17	249	21		32	08				33	07	136	08		32	14			30	08	161	05		34	12	089	20		28	24	128	30		30	20		650	
600	142	18	09	280	33	143	23	26	249	23	144	23	09			145	27	01	158	10	144	25	08		144	24	01	156	03	144	24	15	096	14	142	20	18	130	33	143	22	12		600	
550		10	02	289	39		15	01	250	21		13	01				20	06	158	18		18	03			17	10	155	06		16	14	132	34		16	14	132	34		17	01		550	
500	188	03	06	287	44	190	05	04	253	13	190	06	09			191	11	15	164	20	190	07	18		190	06	22	153	06	190	05	19	095	17	188	04	05	131	33	189	08	08		500	
450		06	20	283	50		05	16	250	27		02	16				01	33	171	20		05	28			06	29	130	06		06	16	124	32		06	16	124	32		01	19		450	
400	242	15	26	282	55	244	17	36	241	31	244	16	27			246	14	40	152	20	244	17	37		244	18	38	114	07	244	17	40	097	20	243	17	28	122	33	244	13	24		400	
350		29	37	284	55		31	48	237	33		29	38				28	52	161	18		31	47			32	50	117	06		30	53	098	20		31	42	127	33		26	36		350	
300	307	45		286	54	307	45		242	29	310	44				312	40	60	162	15	310	44			309	45		156	07		31		Forrest	308	47		129	29	310	40	52		300		
250		61		285	55		58		250	34		60					56		162	18		59				61		154	08	(3.15)		of wind	308	47		131	33		58		250				
200	394	76		293	61	396	73		264	34	397	74				399	74		164	22	396	77			395	79		139	10		393	64		127	12	396	78		200						
170		73		294	46		78		266	26		79					73		176	12		81				84		162	08		80		160	08		69		170							
150		64		293	28							70					71		192	07		75				77		313	04		61		163	07		65		150							
130		62										67					66		235	04		70				72		314	06		60		163	09		65		130							
110												63					63					68				70		278	07		63		193	07		65		110							
100												62					62					67				69		303	03										65		100				
90												61					61					66				67		297	03										62		90				
80												60					60					65				68		249	04										64		80				
70												59					61					62				69		242	05										64		70				
60												58					61					62				69		331	07										64		60				
Inversion 1014mb 48°-378mb 50° 716" 50°-693" 32°					Inversion 1022mb 48°-372mb 56°					Inversion 1025mb 48°-369mb 63°					Inversion 1015mb 48°-380mb 67°					Inversion 870mb 48°-850mb 50°					Inversion 1019mb 49°-990mb 54°					Inversion 986mb 53°-956mb 59°					Inversion 968mb 60°-950mb 61°					Isothermal 735°-727mb 42°					
Isothermal 761°-736mb 38°					Isothermal 813°-790mb 46°					Isothermal 1022°-938mb 55°					Isothermal 886°-815° 53°					Isothermal 1005°-986mb 53°					Isothermal 956°-933° 59°					Isothermal 983°-968mb 60°															
Tropopause 1185mb -78° 41,000'					Tropopause 1179mb -79° 41,800'					Tropopause 1182mb -80° 41,600'					Tropopause 1192mb -77° 40,800'					Tropopause 1176mb -83° 42,200'					Tropopause 1175mb -86° 42,300'					NR					Tropopause 11232mb -73° 36,400'					Tropopause 11208mb -78° 38,800'					
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure mb	Time M.S.L.	Surf Freezing	09L		G.M.T.		09L		G.M.T.		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		Time M.S.L.	Surf Freezing							
			1022.5	mb	1023.3	mb	1020.8	mb	mb																																				
Surf	2.7	50	50	157	11	0.5	58																																						



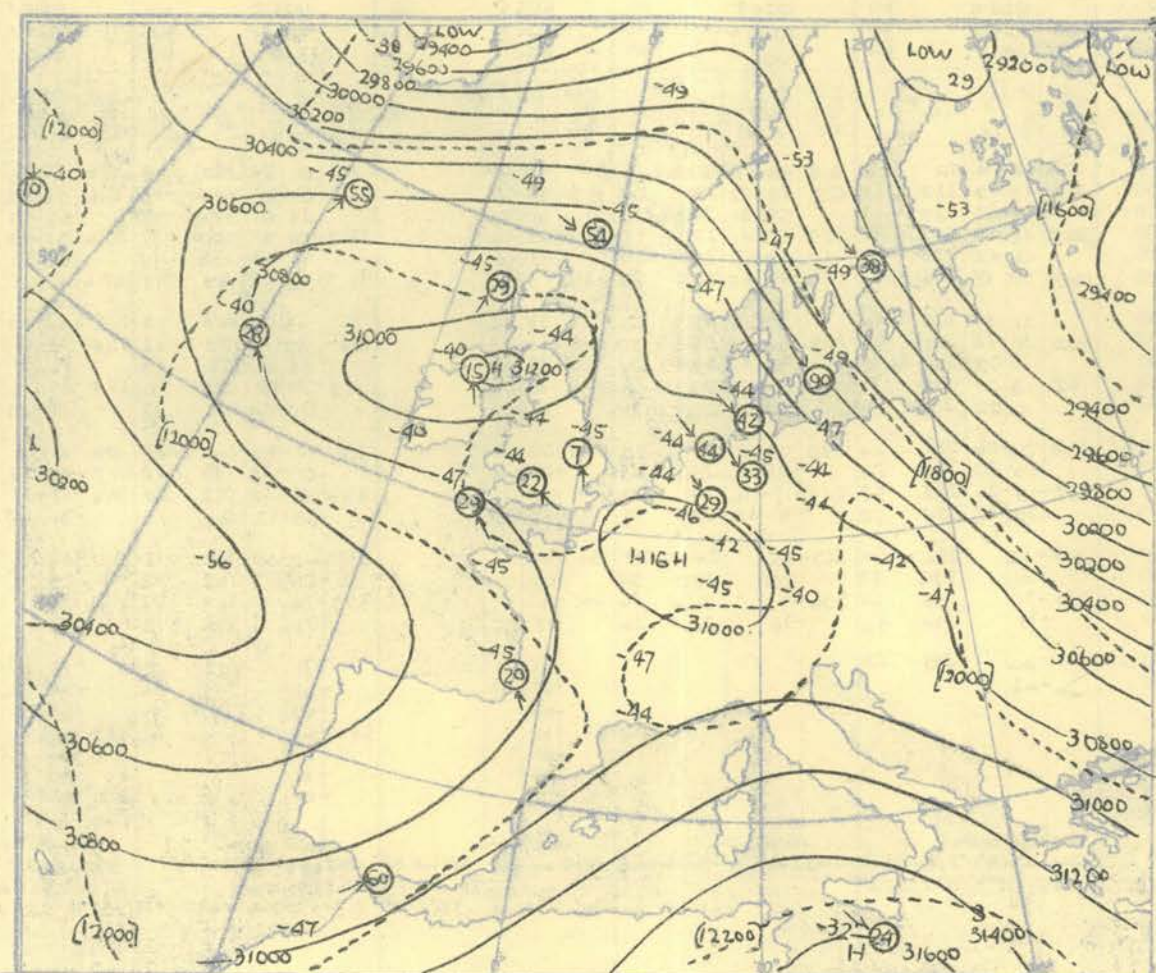
HEIGHTS IN FEET: TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



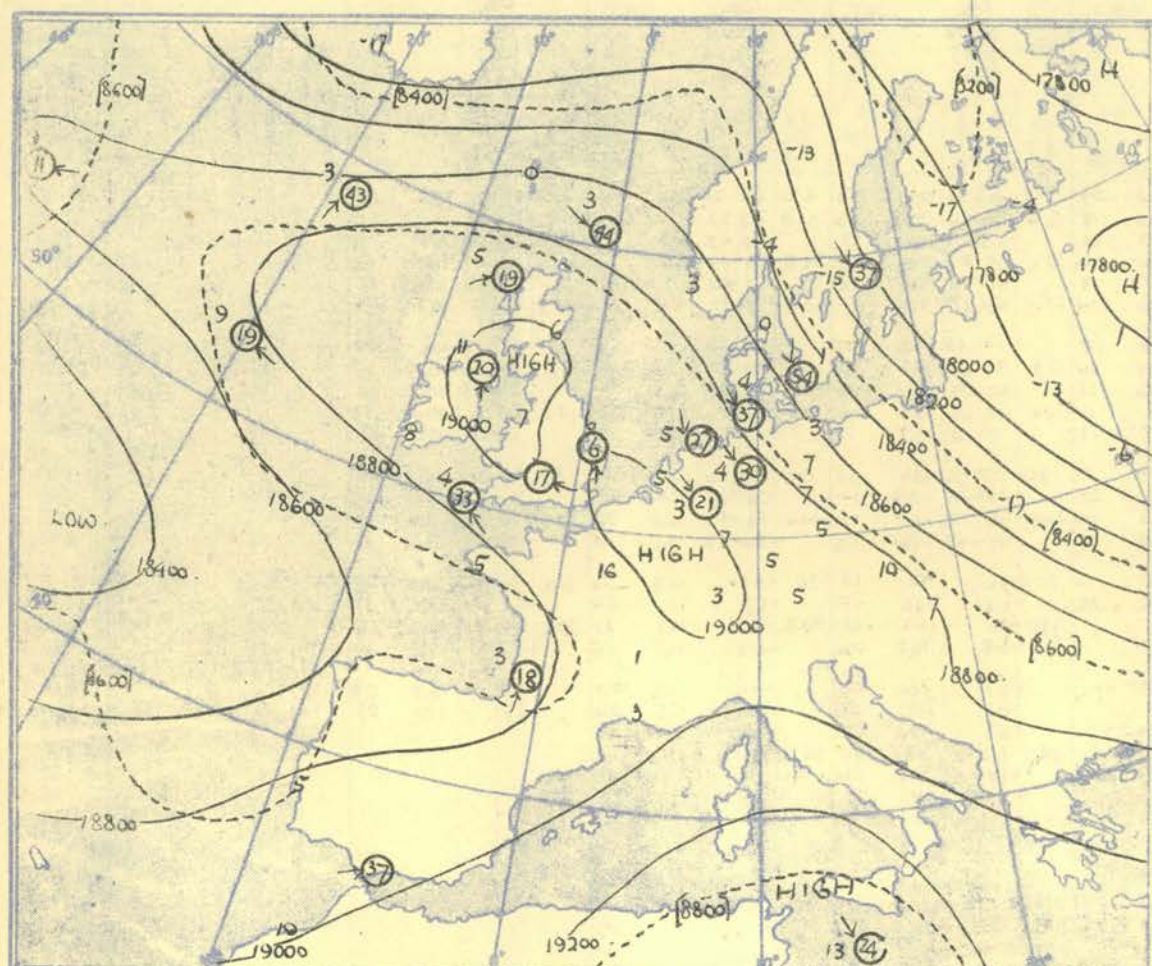
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

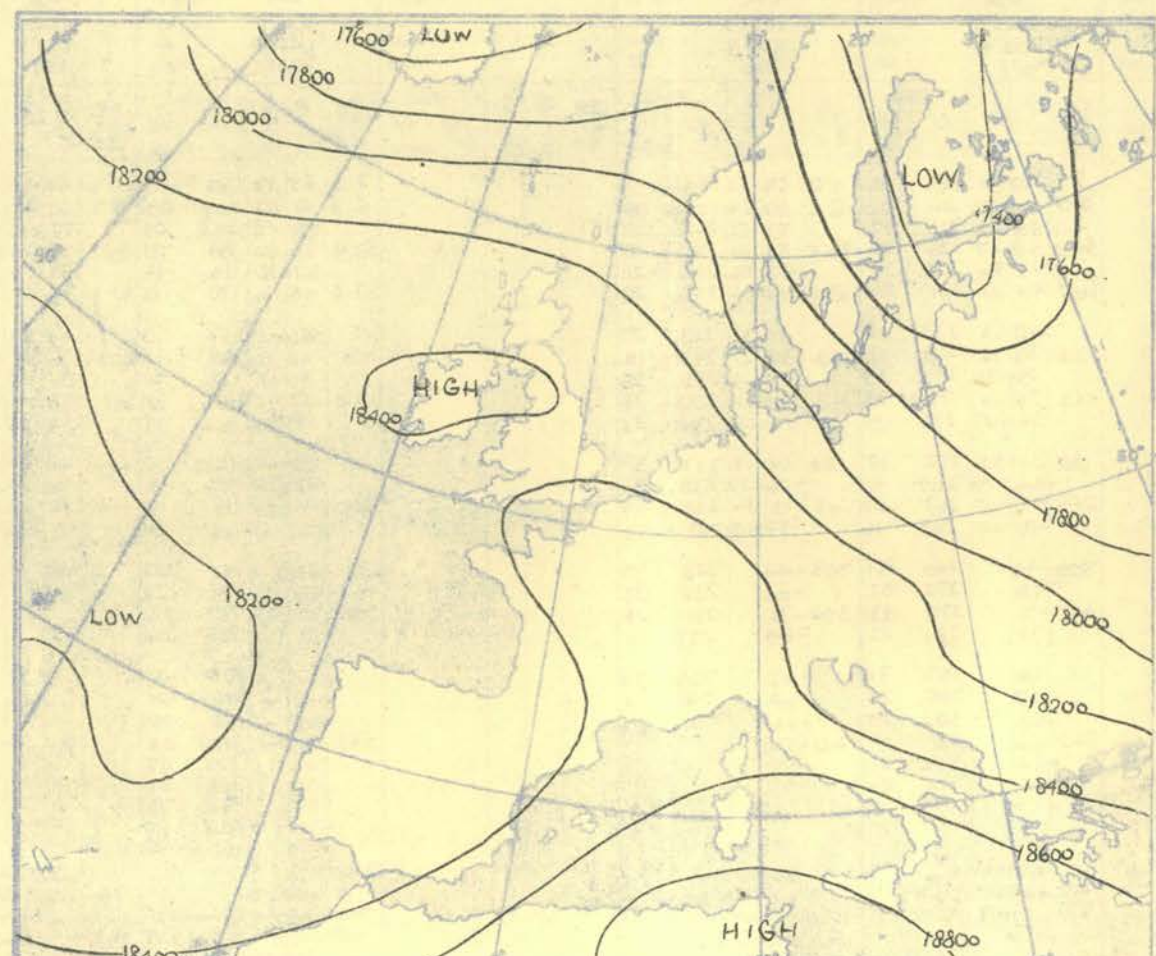
100 80 60 40 20 0 10 knots



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.																						
Place	Larkhill		Cumulus S2-SN-20'owl.		Cumulus S2-SN-20'owl.		Liverpool		Stornoway		Cumulus S2-SN-20'owl.		Cumulus S2-SN-20'owl.		Larkhill	Leuchars	Liverpool	Place				
Time	03h.		03h.		09h.		09h.		15h.		15h.		21h.		21h.		21h.	21h.	Time			
Type	Pilar						Pilar		Pilar						Pilar		Pilar	Pilar	Type			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet			
Surf.			090	09	090	07			070	12	070	08	060	05			130	08	110	10	Surf.	
1,000			100	18	090	10			056	06	080	12	070	09			L+V.	119	18	1,000		
2,000			110	24	100	16			237	06	090	16	080	10			L+V.	126	14	2,000		
3,000			110	25	120	20			225	12	090	22	080	12			L+V	131	12	3,000		
4,000			110	32	120	22			225	17	100	24	080	13			L+V.	140	11	4,000		
5,000			110	22	120	25			225	16	100	24	080	12			L+V	139	08	5,000		
6,000									223	16	090	23	080	10			L+V.	130	06	6,000		
8,000									223	20										8,000		
10,000			110	20	110	28			223	21	090	24	080	12			300	11	128	05	10,000	
14,000			110	23	110	25			242	14			090	16			250	08	140	09	14,000	
18,000			110	19	110	30			253	30	090	22	100	17			240	17	149	13	18,000	
24,000			130	28					253	33	090	22	090	26			250	20	161	14	24,000	
30,000	113	22	140	28					258	34			090	26			240	24	151	11	30,000	
40,000	110	25	160	34			169	27	252	27					115	47	260	23	164	07	40,000	
50,000	143	06	(31,000')				336	03	289	15					129	21	250	26	182	17	50,000	
60,000	213	05					283	02	023	08					193	05	300	14	308	06	60,000	
	(58,000')						(57,000')		088	06									288	05		
									(63,000')										(53,000')			

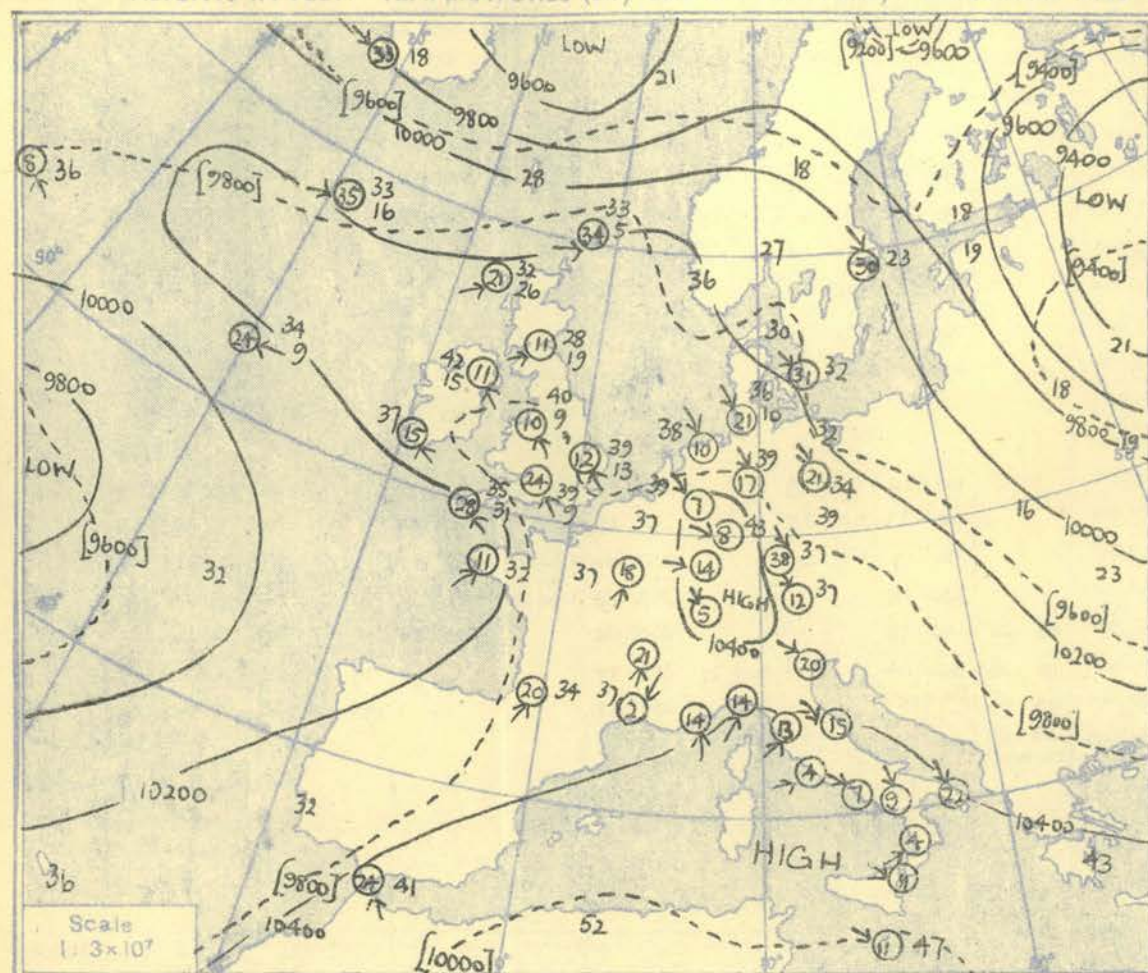
NEPHOSCOPE OBSERVATIONS													
Place	Mullingar		Wick										Place
Time Type	12h. C'	15h. Ac											Time Type
Dir. Vel.	230 25	280 33											Dir. Vel.

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

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				Cumulus				Cumulus				Cumulus				Cumulus				Ship			
Lat/Long	59-0 N 18-9 W				59-0 N 18-8 W				59-0 N 18-6 W				59° N 18-6 W				52-5 N 20-0 W				52-5 N 20-0 W				52-5 N 20-0 W				52-5 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.						G.M.T.			Time				
	M.S.L.	1019 mb			1021 mb			1023 mb			1025 mb			1015 mb			1015 mb			1016 mb			1017 mb						mb			M.S.L.				
	Surf	1019 mb			1021 mb			1023 mb			1025 mb			1015 mb			1015 mb			1016 mb			1017 mb						mb			Surf				
	Freezing	700 mb			675 mb			690 mb			690 mb			666 mb			685 mb			685 mb			645 mb						mb			Freezing				
Pressure	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Pressure mb			
	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots	ft.	°F.	°F.	Dir. Vel. knots				
Surf		51	51	210	15	49	49	360	13	50	47	350	07	60	43	330	06	57	52		57	55		57	54		58	58					Surf			
1000	50	50	50	241	16	56	48	46	275	15	62	47	41	354	07	66	48	43	347	12	40	54	52		43	57	52		46	55	45		1000			
950	49	49	49	238	22		47	40	289	14		44	37	346	08		41	37	337	12													950			
900	337	46	44	236	25	342	47	39	278	13	346	42	32	316	12	349	45	35	322	14													900			
850		41	34	236	23		43	34	272	18		42	22	298	14		43	25	311	14	52	16	For Winds	52	28	For Winds	48	45	For Winds					850		
800	653	39	26	237	25	659	39	29	272	20	662	40	15	275	18	665	38	17	298	16													800			
750		37	18	237	32		35	23	273	26		35	25	259	30		34	11	291	18			See			See							750			
700	101	32	15	237	39	101	33	08	268	30	101	33	16	255	35	102	33	09	289	20	101	36	0	Top of Page	101	34	0	Top of Page	101	35	12			700		
650		26	12	237	43		28	12	256	34		27	10	260	38		29	01	299	25													650			
600	141	18	02	237	39	141	21	24	261	38	141	20	06	262	34	142	22	07	278	27													600			
550		12	12	237	43		13	14	251	46		13	30	262	31		14	14	283	31													550			
500	186	03	15	237	43	187	03	18	241	38	187	04	36	268	34	188	08	19	282	33	187	09	11		187	07	03		188	09	17			500		
450		07	14	232	42		05	18	240	47		06	42	272	38		01	24	291	29													450			
400	240	19	27	228	47	241	18	31	248	47	241	16	43	264	46	243	10	34	297	39													400			
350		31		234	55		30	344	252	46		28	56	269	49		23	46	297	54													350			
300	306	45		234	55	307	46		258	54	307	42		283	45	309	37	58	304	42	308	40			308	42		308	47		309	42		300		
250		60		234	64	253	57					58		313	46		53		343	53													250			
200	392	75		234	64						394	64		276	36	397	68		017	51	395	74			394	74		395	67		395	72		200		
170		65		234	28							57		264	25		71		355	66													170			
150		62		234	16							55		276	21		60		330	37													150			
130		65		234	17							56		274	11		60		319	25													130			
110		58		234	17							53		262	10		57		318	07													110			
100	538	58		234	13						543	52		264	10	544	56		Cal'm				58										100			
90		58		234	16							51		263	07		56		319	07													90			
80		57		234	06							52		263	06		56		319	12													80			
70		57										50		263	03		55		319	12													70			
60	065 mb	57										48		Cal'm			54		319	09													60			
												46					56																			
												</																								



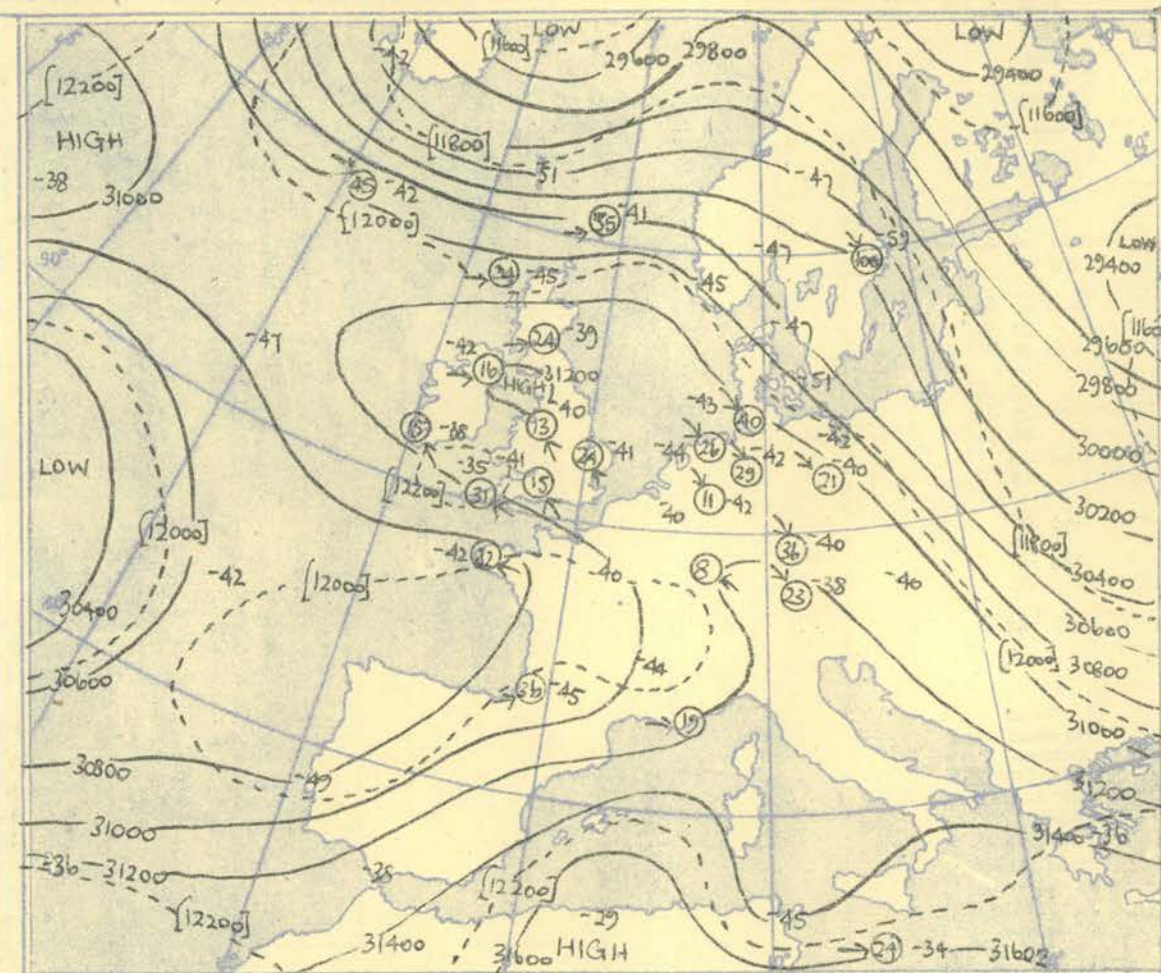
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

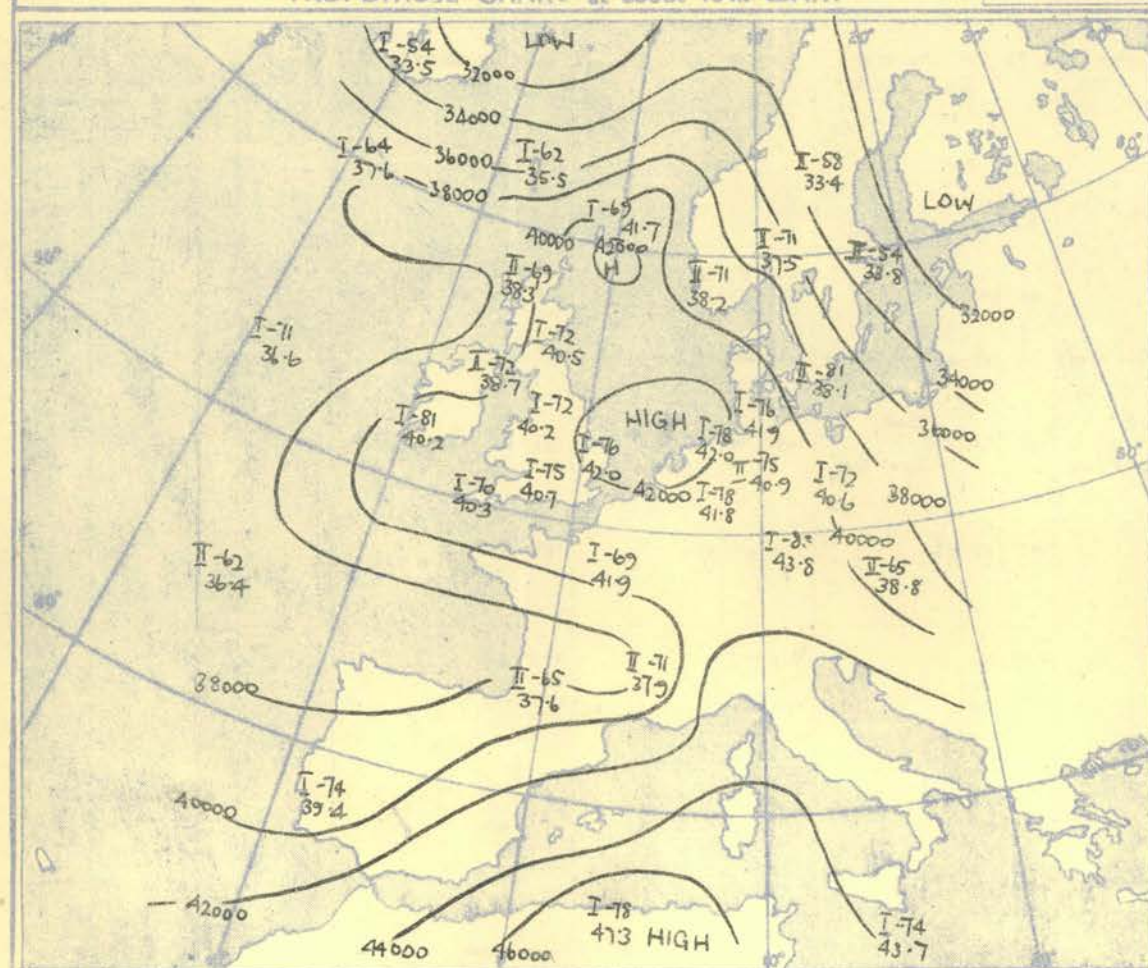
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52\frac{1}{2}^\circ$  N.

100 80 60 40 20 15 10 knots

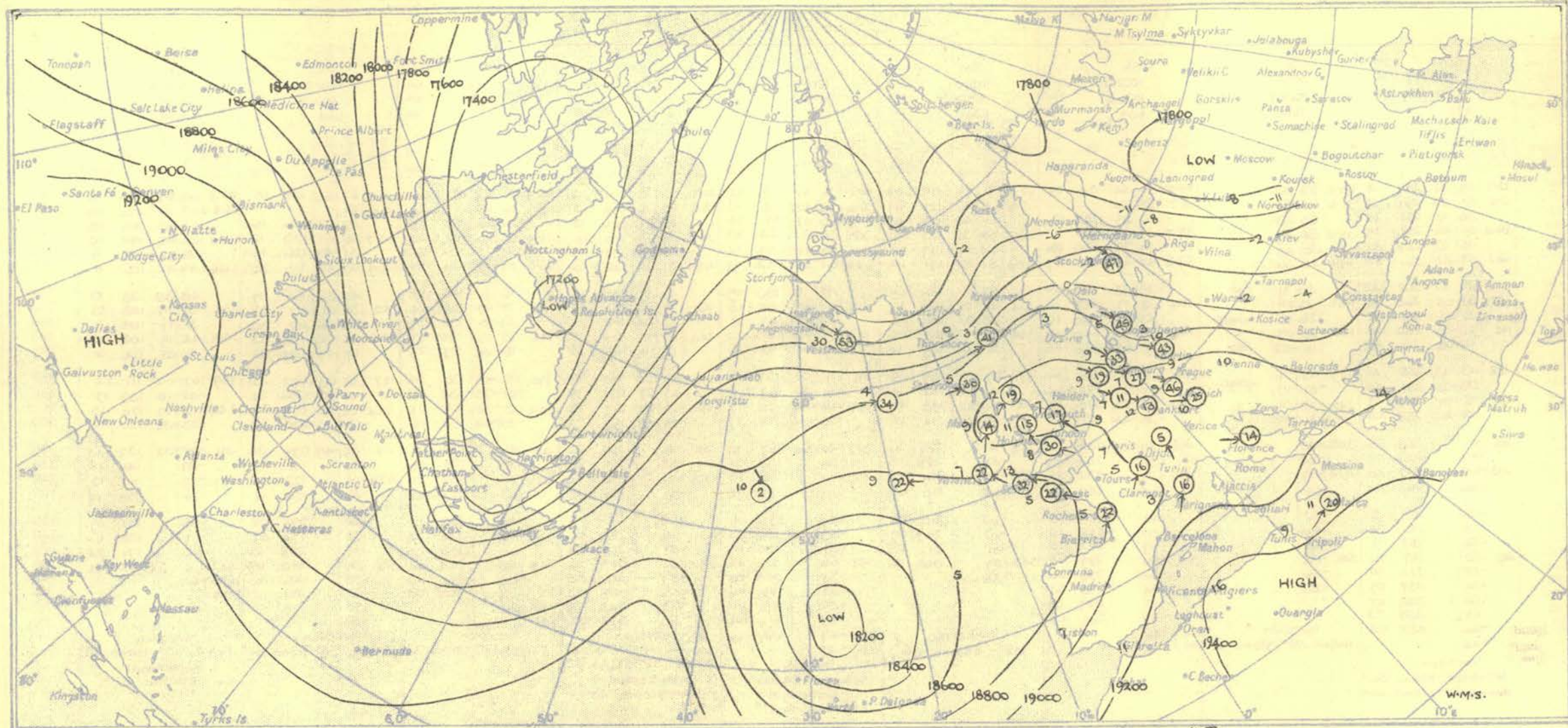


The continuous lines are contour lines of the 300 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

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



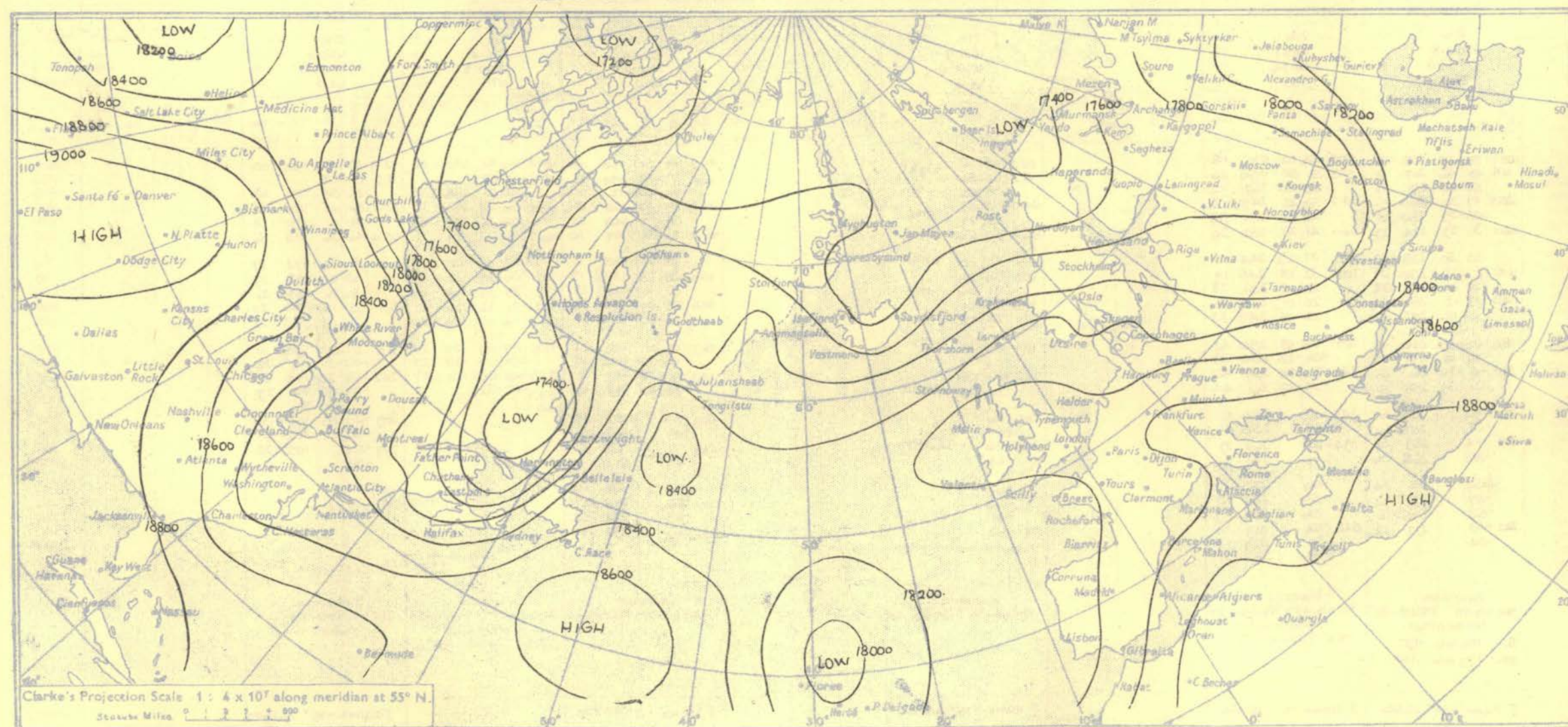




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Monday 12<sup>th</sup> June.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.  
Scale in Miles 0 1 2 3 4 5 6 7 8 9 10



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)	Pressure mb	15h.		G.M.T.		15h.		G.M.T.		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)													
		1020.0	mb	1010.1	mb	1020.3	mb	1018.7	mb	1022.4	mb	1021.6	mb	1021.0	mb	1012.6	mb	1019.7	mb	1017.8	mb	1020.7	mb	1016.3	mb	1001.3	mb	1016.6	mb	1016.3	mb	1017.8	mb		1016.8	mb											
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.													
Surf 1000 950 900 850 800	02.7 5.4 34.4 66.2	59 57 56 47 45 43	52 50 46 39 33 32	247 267 262 257 258 261	13 28 28 29 30 32	00.5 5.6 35.0 67.0	58 60 60 54 50 46	54 54 53 49 43 36		00.2 6.2 35.7 67.8	71 68 62 43 57 44	54 50 35 39 39 35	120 174 165 150 150	09 12 11 08 07	02.3 5.8 35.2 67.6	71 68 61 56 54 51	49 46 40 30 07 10	110 127 128 137 147 151	08 09 03 10 10 10	00.0 5.6 35.1 67.6	76 73 65 56 58 52	43 42 37 32 12 23	115 114 119 124 135 144	12 13 14 15 12 09	01.2 5.8 35.1 67.5	72 68 58 56 55 51	39 36 33 26 26 22	070 094 101 110 132 136	12 15 18 15 15 15	04.4 4.7 34.4 66.9	76 76 66 62 57 52	53 53 46 35 32 28	075 20	02.9 4.5 33.7 65.9	62 61 59 55 51 47	55 55 51 45 44 42	113 113 106 123 126 115	15 16 19 12 19 24	00.3 4.8 34.2 66.6	65 63 63 57 55 49	59 57 49 41 41	270 220 108 098 113	06 06 08 11 11	Surf 1000 950 900 850 800			
750 700 650 600 550	102 142	38 26 21 12	32 05 02 04	262 260 262 261	32 34 44 43	103 143	40 26 20 4	31 26 03 02	For winds	104 144	38 33 25 19	19 228 03 04	186 228 240 226	06 11 16 18	104 144	47 40 27 18	134 139 156 187 189	09 11 06 12	104 144	40 33 27 19	155 143 131 143	10 11 12 16	104 144	45 39 32 25	135 148 150 154	13 12 11 15	103 143	46 39 33 25	141 135 130 145	19 24 27 29	66.9 103 143	52 39 33 25	28 09 09 09	138 135 130 130	15 24 27 29	65.9 102 142	47 38 30 25	42 31 26 14	115 112 112 114	17 28 30 33	66.6 143	49 37 31 24	41 29 17 19	113 108 105 108	11 21 22 21	750 700 650 600 550	
500 450 400 350	188 242	03 18 28	03 20 43	258 257 258 258	41 44 43 45	189 242	05 19 31	11 19 43	page 3.	191 245	12 00 12 25	14 23 33 44	230 242 230 240	19 20 22 24	191 245	09 01 12 25	189 182 193 214	14 14 12 15	191 245	11 01 14 25	157 167 175 173	15 14 17 17	190 245	07 03 15 28	147 157 167 167	17 18 22 23	190 244	08 01 13 25	130 134 139 134	30 29 27 18	187 244	13 03 03 21	103 086 089 100	32 31 36 32	189 244	07 02 12 23	111 133 120 120	22 19 13 13	500 450 400 350								
300 250 200 170	308 395	41 65 66		260 254 257 263	55 52 44 40	308 394	45 60 69 66			312 399	39 71	57 55 71 65	237 233 232 240	24 33 35 21	312 399	42 58 72 68	226 226 216 210	16 15 12 09	312 399	40 54 70 69	167 158 178 186	13 21 25 10	311 398	41 55 72 73	167 161 150 167	24 22 22 13	311 397	41 59 72 63	136 139 153 143	15 30 21 13	311 397	35 52 68 56	49 42 26 12	099 115 122 124	31 42 26 12	311 397	38 57 79 70	52 26 14 123	15 26 13 10	300 250 200 170							
150 130 110 100 90 80 70 60	543	52 52 51 50 49 46		282 275 287 296 327 325 353 023	30 25 19 10 09 07 03 05	541 541 541 541	58 58 56 55 55 53 53 05			546	56 57 57 55 54 53 49	58 12 10 15 06 06	261 288 268 299 295 027 000	12 10 15 08 03 09 06	545	59 58 58 58 52 50 49	210 209 218 008	08 09 05 06	547	55 53 52 50 49	192 256 280 328 008	06 05 05 06 04	544	59 58 58 58 53 50 49	215 280 266 319 350 068 242 350	07 06 08 06 05 03 04 02	544	58 57 56 56 56 55 54	157 240 258 244 214 205	10 08 05 04 03 03	544	56 56 55 55 54	180 146 132	09 10 10	542	65 65 65 65 65	172 171 172	04 04 04 04 04	150 130 110 100 90 80 70 60								
		Inversion 989 mb 55°-950 mb. 56° 831 mb 43°-820 mb 44°				Inversion 1019 mb 58°-980 mb. 63°				Isothermal 908 - 884 mb. 56°				Inversion 890 mb 54°-859 mb. 59° Isothermal 612 - 600 mb. 27°				Inversion 940 mb 56°-925 mb. 57° 910 mb 56°-884 mb. 57° Isothermal 750 - 740 mb. 45°				Inversion 920 mb 60°-900 mb. 62°				Inversion 977 mb 58°-962 mb. 60°				Inversion 975 mb 61°-950 mb. 63° Isothermal 900 - 874 mb. 57°																	
Tropopause		I 180 mb. -69° 41,700'				II 211 mb. -69° 38,300'				I 194 mb. -72° 40,500'				II 211 mb. -72° 38,700'				I 198 mb. -72° 40,200'				I 180 mb. -76° 42,000'				I 191 mb. -75° 40,700'				I 196 mb. -71° 40,300'				II 196 mb. -81° 40,200'				Tropopause									
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE																	
Time M.S.L. Surf (Freezing)	Pressure mb	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)													
		1017.8	mb	1007.8	mb	1019.1	mb	1017.6	mb	1018.9	mb	1010.3	mb	1018.9	mb	1010.3	mb	1018.9	mb	1016.4	mb	1016.4	mb	1000.8	mb	1016.4	mb	1004.6	mb	1004.6	mb	1016.8	mb														
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.													
Surf 1000 950 900 850 800	02.7 4.8 33.5 65.1	50 49 49 43 36	48 46 40 30 29	289 267 278 286 274	16 21 15 16 23	00.5 5.3 34.2 66.1	53 51 53 54 41	52 50 50 41 27	070 050 267 249 232	08 06 12 18 20					02.3 5.2 34.5 66.8	65 64 58 55 54 50	52 51 45 39 29 26									01.2 5.0 34.4 66.9	60 59 61 59 56 51	51 52 47 40 38	070 090 112 125 143	08 18 18 18 12 10	04.4 4.6 34.0 66.2	66 66 62 56 52 48	52 51 47 46 42	090 078 073 143 153 114	08 13 07 06 06 11	02.9 4.2 33.3 65.4	59 59 56 54 50 46	58 58 55 48 41 36	135 179 185 196 195	08 13 10 12 16							Surf 1000 950 900 850 800
750 700 650 600 550	100 140	33 29 23 17 10	30 26 20 12 01	258 250 246 251 256	42 37 38 46 46	102 141	37 23 10 01 12	244 245 281 255 249	15 19 28 31 33					103 143	42 38 24 13 08	20 06 01 08									103 143	38 23 29 23 15	32 16 07 00	139 140 140 139	11 13 13 20	102 142	36 29 21 14 08	105 119 121 126	17 18 21 26	101 141	34 31 26 16 07	194 188 179 154 143	17 19 21 20 22							750 700 650 600 550			
500 450 400 350	186 240	02 18 31	08 14 39	256 257 258	48 45 51	187 241	05 20 29	250 250 261	42 38 44					189 243	05 18 16 30	16 24 36 48									189 243	05 18 16 30	16 24 36 48	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	142 140	500 450 400 350						
300 250 200 170	305 392	43 64 56		259 255 268	61 60 36	307 394	41 59 67	254 255 268 270	43 46 37 26					309 395	46 76 68											309 395	46 76 68													300 250 200 170							
150 130 110 100 90 80 70 60	542	54 53 54		281 297 295 292	24 22 18 12	543	56 56 54 53	275 282 304 319 329 353	21 15 13 12 11					541	62 62 61 62											541	62 62 61 62													150 130 110 100 90 80 70 60							
		Inversion 984 mb 48°-942 mb. 51° Isothermal 921 - 900 mb. 49° 792 - 777 mb 35°				Inversion 982 mb 49°-930 mb. 56° Isothermal 768 - 740 mb. 37°				Inversion 925 mb 56°-780 mb 48°				Inversion 932 mb 59°-738 mb. 62°				Inversion 853 mb 50°-846 mb. 54° Isothermal 775 - 764 mb. 44°				Inversion 970 - 928 mb. 56° Isothermal 712 - 668 mb. 34°																									
Tropopause		I 214 mb. -65° 37,800'				II 210 mb. -61° 38,400'				I 193 mb. -78° 40,300'				I 188 mb. -79° 40,800'				N.R.				I 231 mb. -59° 36,600'				Tropopause																					

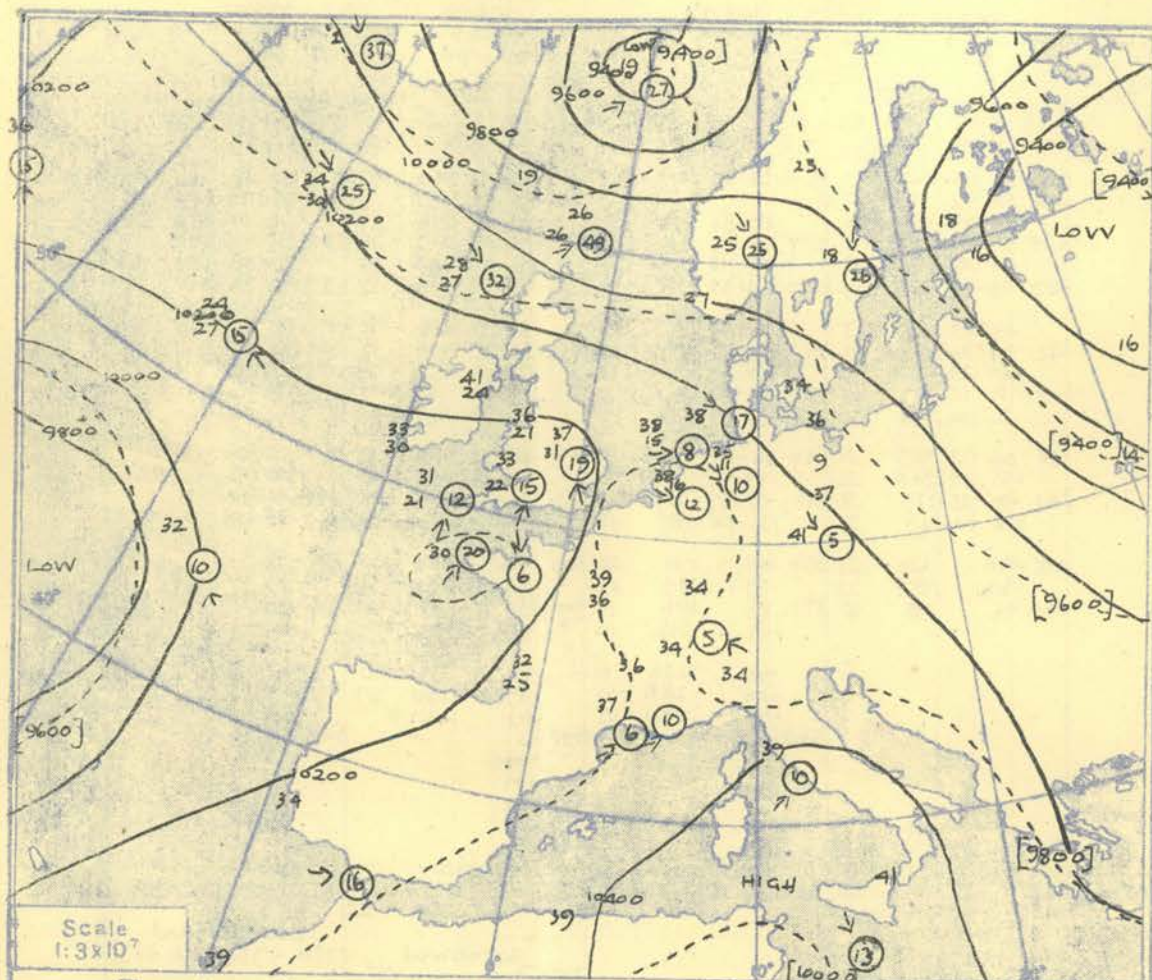


## 1001850

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																										
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																																																																																																																																																																																																																														
	1014.7	mb	1004.7	mb	1018.9	mb	1017.0	mb	1017.0	mb	1016.9	mb	1016.1	mb	1015.9	mb	1016.0	mb	1015.7	mb	1016.0	mb	1015.7	mb	1016.0	mb	1015.1	mb	1013	mb																																																																																																																																																																																																																																	
Pressure mb	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																														
Surf	02.7	48	48	304	10	00.5	52	51	360	07	00.2						02.3	55	46														Surf																																																																																																																																																																																																																														
1000	3.9	48	48	300	16	5.1	50	49	352	18							4.6	54	41	070	03	4.4	56	52		4.4	58	54		4.4	58	54	1000																																																																																																																																																																																																																														
950		46	45	300	16		46	46	338	14								57	49						105	06		55	52	216	21	4.1	60	57	950																																																																																																																																																																																																																												
900	32.4	40	40	272	17	33.7	44	41	323	13							33.7	54	44						127	11	33.7	55	49	216	09	33.5	51	48	900																																																																																																																																																																																																																												
850		38	38	257	24		42	38	276	16								53	36						152	17		49	46	214	16		48	48	850																																																																																																																																																																																																																												
800	63.7	35	35	254	21	65.3	39	37	270	20							66.0	51	21						162	17	65.7	44	37	211	11	65.4	43	39	800																																																																																																																																																																																																																												
750		32	32	269	31		34	27	278	25								44	26									39	33	197	13		38	32	750																																																																																																																																																																																																																												
700	98.7	26	26	261	43	101	28	27	282	32							102	36	21									33	22	190	15	101	31	21	700																																																																																																																																																																																																																												
650		15	18	256	48		22	15	278	38								28	12									28	06	185	17		28	04	650																																																																																																																																																																																																																												
600	138	14	12	252	45	140	21	16	261	44							142	21	10									21	13	167	20	141	21	05	600																																																																																																																																																																																																																												
550		06	04	247	51		12	21	275	42								12	01	173	20							13	17	173	17		13	13	550																																																																																																																																																																																																																												
500	184	-03	-12	243	66	186	04	26	287	42	No Ascent Reported.						188	03	-11									21	187	04	-19	177	21	187	05	500																																																																																																																																																																																																																											
450		-11	-27	238	66	186	04	26	287	42								-07	-19									20	-07	-33	148	15	14	-05	450																																																																																																																																																																																																																												
400	237	-21	-32	234	66	240	-18	-40	281	44							242	-18	-34									18	241	-19	-37	167	21	241	-21	400																																																																																																																																																																																																																											
350		-36	-48	234	70		-30	-47	289	47								-22	-36										-35	-52	110	25	241	-15	350																																																																																																																																																																																																																												
300	302	-48		236	69	306	-44		298	52							311	-37	49										308	-46	126	27	306	-44	300																																																																																																																																																																																																																												
250		-55		249	68		-64		303	51								49											157	22	189	32	306	-53	250																																																																																																																																																																																																																												
200	389	-51		264	45	392	-68		289	43							399	-63											198	18	393	-62	186	15	200																																																																																																																																																																																																																												
170		-53		274	32		-61		292	29								-62											-63		216	10	394	-56	170																																																																																																																																																																																																																												
150		-55		283	28		-60		296	28								-66											-63		236	10	306	-44	150																																																																																																																																																																																																																												
130		-55		304	25		-59		307	20								-67											-64		255	10	306	-53	130																																																																																																																																																																																																																												
110		-55		313	21		-59		297	15								-66											-64		250	09	306	-57	110																																																																																																																																																																																																																												
100	540	-54		318	12	540	-61		311	11							549	-54											-64		540	-64	542	-61	100																																																																																																																																																																																																																												
90		-54		330	10		-60		342	09								-65											-61		542	-61	542	-61	90																																																																																																																																																																																																																												
80		-53		349	09													-67											-61		542	-61	542	-61	80																																																																																																																																																																																																																												
70		-53		359	10													-50											-62		542	-61	542	-61	70																																																																																																																																																																																																																												
60	(065) -57																	-53											-62		542	-61	542	-61	60																																																																																																																																																																																																																												
Inversion 760 mb 31° - 750 mb 32°																																Inversion 831 mb 44° - 910 mb 45°																																Inversion 1008 mb 55° - 987 mb 62°																																Inversion 1015 mb 53° - 945 mb 60°																																Inversion 1000 mb 58° - 963 mb 60°																																Inversion 700 mb 31° - 690 mb 32°																																Inversion 1013 mb 57° - 986 mb 64°																																																															
Isothermal 860 - 832 mb 42°																																Isothermal 895 - 818 mb 53°																																Isothermal 876 - 840 mb 51°																																Isothermal 870 - 840 mb 51°																																Isothermal 870 - 840 mb 51°																																Isothermal 870 - 840 mb 51°																																Isothermal 870 - 840 mb 51°																																																															
Tropopause I 260 mb -56°																																Tropopause I 230 mb -71°																																Tropopause I 209 mb -64°																																Tropopause I 202 mb -80°																																Tropopause I 212 mb -72°																																Tropopause I 225 mb -66°																																Tropopause I 263 mb -53°																																Tropopause II 218 mb -72°																															
33,200'																																36,300'																																37,000'																																37,100'																																38,100'																																36,900'																																33,400'																																36,500'																															
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																										
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																																																																																																																																																																																																																														
	1012.5	mb	1002.5	mb	1016.8	mb	1015.7	mb	1015.0	mb	1014.0	mb	1014.0	mb	1014.4	mb	1014.0	mb	1014.4	mb	1015.7	mb	1016.2	mb	1016.2	mb	1015.7	mb	1016.2	mb	1015.7	mb																																																																																																																																																																																																																															
Pressure mb	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Temp. °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																														
Surf	02.7	49	40	290	11	00.5	51	43	320	12				02.3	62	50																	Surf																																																																																																																																																																																																																														
1000	3.4	49	40	296	18	4.8	49	41	341	21				4.2	51	49																	1000																																																																																																																																																																																																																														
950		43	34	299	18		43	38	342	19					55	45	227	13															950																																																																																																																																																																																																																														
900	31.7	37	30	302	20	33.1	35	32	345	18				33.3	55	24																	900																																																																																																																																																																																																																														
850		30	26	302	20		41	22	319	15					51	31																	850																																																																																																																																																																																																																														
800	62.8	34	06	292	21	64.6	35	12	301	20				65.4	46	12																	800																																																																																																																																																																																																																														
750		29	01	283	24		31	02	292	22					38	25	292	02															750																																																																																																																																																																																																																														
700	97.5	22	-05	276	30	99.6	31	-07	292	27				101	36	14																	700																																																																																																																																																																																																																														
650		14	-12	273	32		27	-11	289	39					30	14																	650																																																																																																																																																																																																																														
600	136	08	-17	274	40	139	18	-20	284	40				141	21	11																	600																																																																																																																																																																																																																														
550		01	-23	268	56		09	-27	278	39					03	01																	550																																																																																																																																																																																																																														
500	181	-07	-30	265	63	185	00	-14	266	50				187	03	-11																	500																																																																																																																																																																																																																														
450		-16	-38	271	72		-08	-16	277	51					-08	-20																	450																																																																																																																																																																																																																														
400	234	-21	-38	268	84	239	-16	-23	283	50				241	-18	-34																	400																																																																																																																																																																																																																														
350		-29	-44	263	89		-26	-34	282	54					-29	-45																	350																																																																																																																																																																																																																														
300	300	-43		259	93									307	-45																		300																																																																																																																																																																																																																														
250		-49		271	72										-64																		250																																																																																																																																																																																																																														
200	389	-43		282	32									394	-60																		200																																																																																																																																																																																																																														
170		-46		285	27										-61																		170																																																																																																																																																																																																																														
150		-48		294	24										-60																		150																																																																																																																																																																																																																														
130		-46		293	16										-61																		130																																																																																																																																																																																																																														
110		-51		306	13										-59																																																																																																																																																																																																																																																



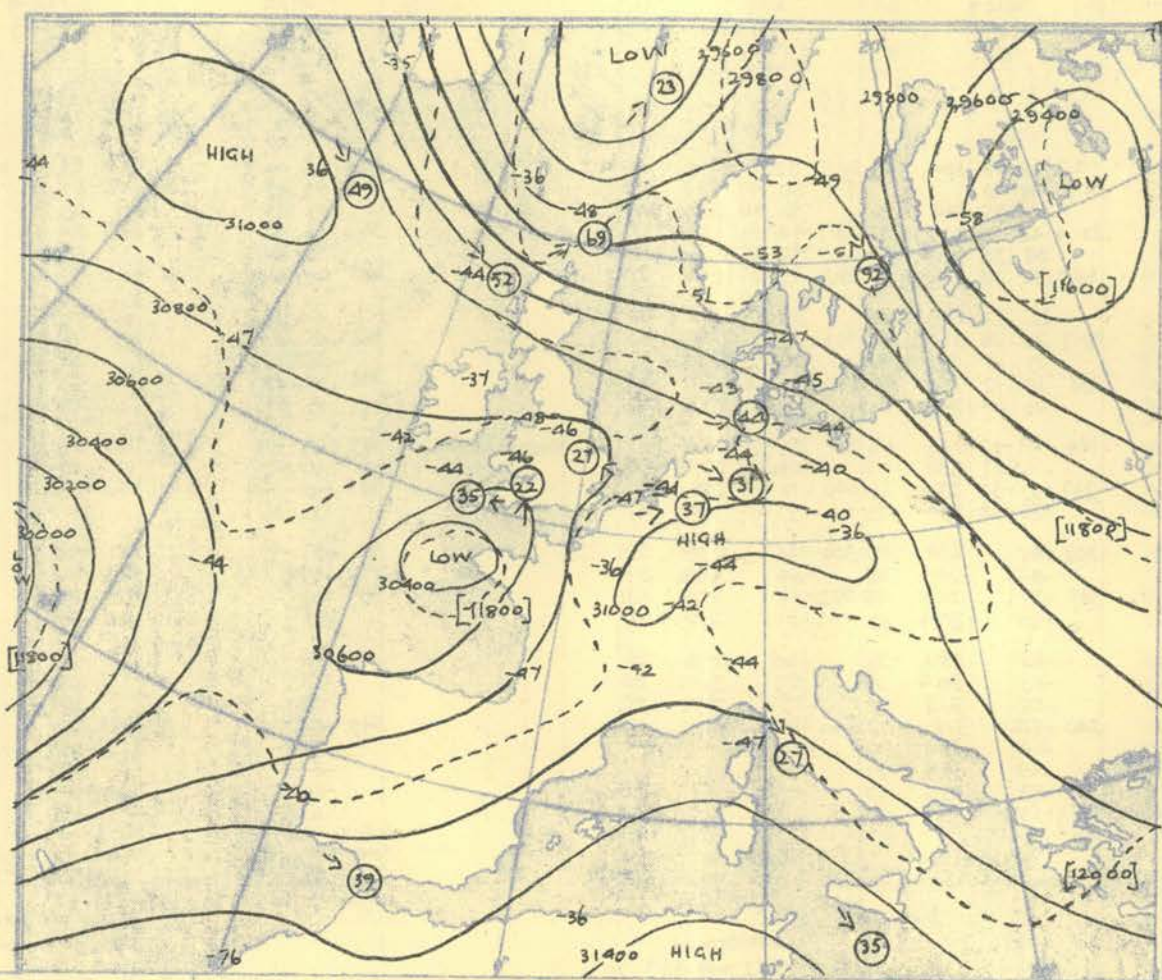
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h. G.M.T.



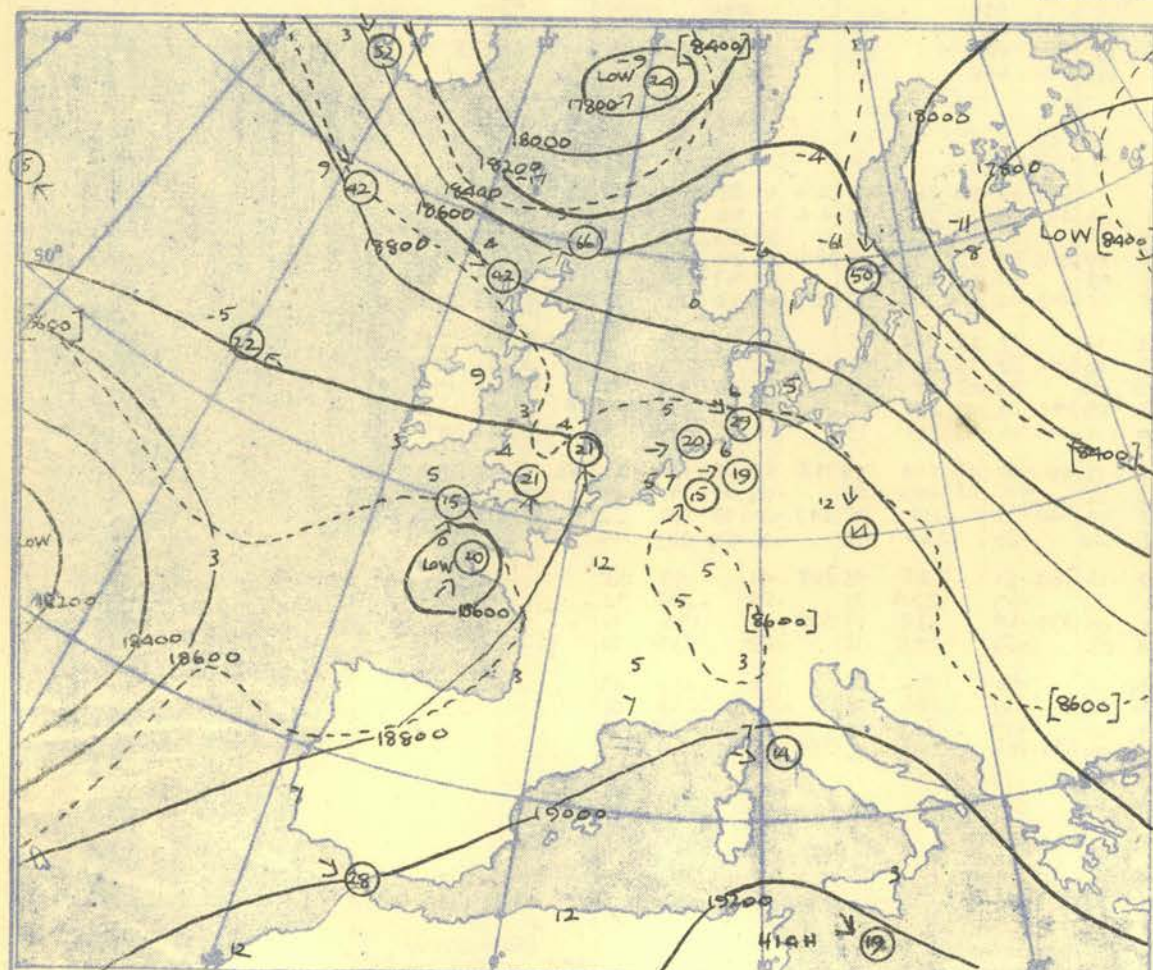
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $50^\circ$  N

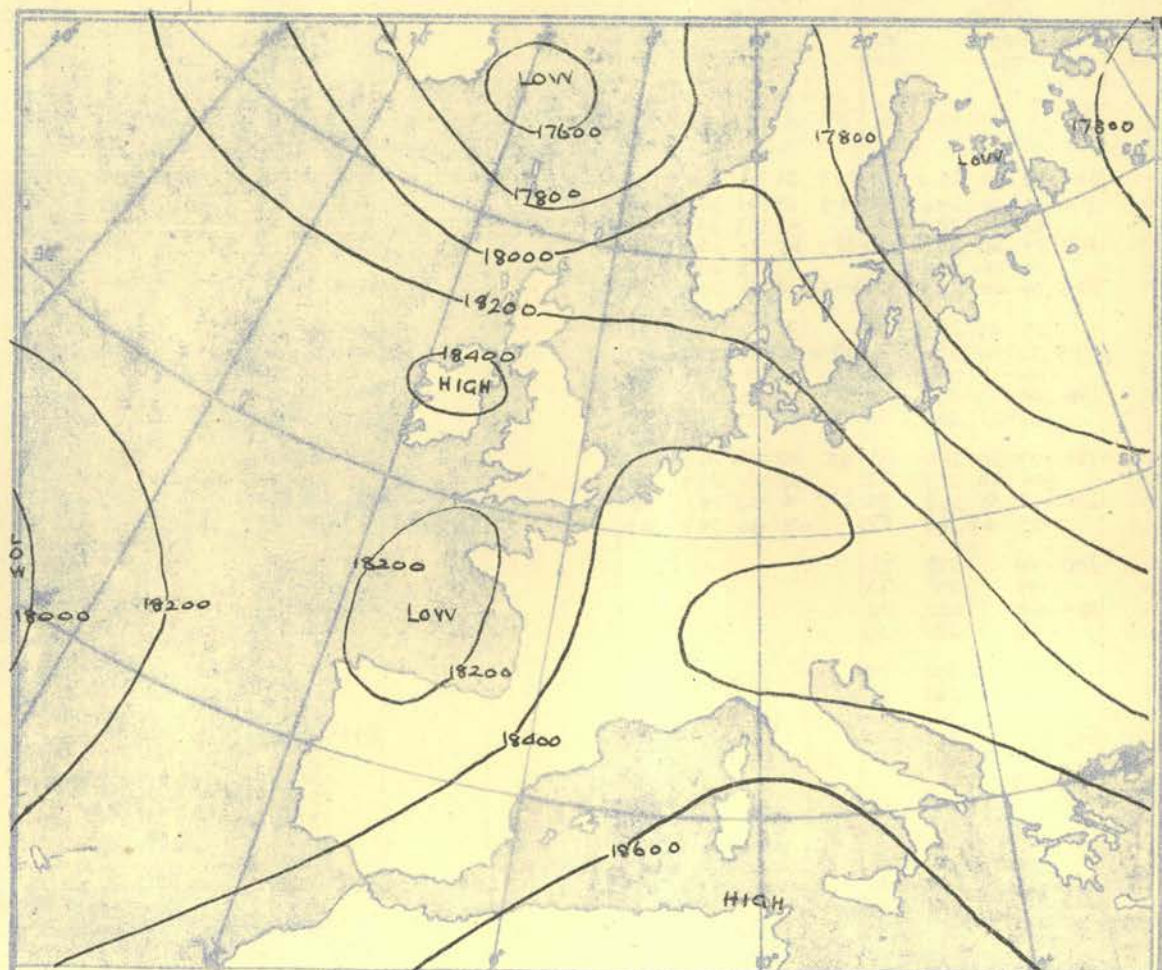
100 80 60 40 20 10 knots



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

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY											
48°22'N 05°W 43°54'N 14°W 51°31'N 00°4'E.											
Time M.S.L.	12h	14h	14h							Time M.S.L.	
Surf	1016 mb	1017 mb	10142 mb							Surf	
Freezing	720 mb	720 mb	10029 mb							Freezing	
Pressure mb	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Pressure mb	Height ft./100
Surf	4.6	51	49	4.6	57	3.1	70	55		Surf	
1000										1000	
950										950	
900										900	
850										850	
800										800	
750										750	
700										700	
650										650	
600										600	
550										550	
500										500	
450										450	
400										400	
350										350	
300										300	
250										250	
200										200	
170										170	
Cloud. 5/8 Sc. 970-930mb. 5/8 CSMR.											
Cloud. 8/8 Sc. 1000-960mb. 1/8 Sc. 770-760mb. 8/8 Ac. 610-570mb. 1/sothermal. 550-900mb. 530. Night clear ice in cloud 620-590mb.											
Cloud. 7/8 CSMR. 924-855mb. 2/8 CSMR. Dewpoints considered unreliable. All wetbulb readings higher than dry bulb for temps under 48°F.											

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

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.											
52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus. 52°54'N 20°00'W Cumulus.											
Place	Time	03h	09h	09h	09h	09h	09h	09h	09h	09h	09h
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	080	11	040	07	220	16	180	02	009	05	070
1,000	090	13	060	08	240	16	280	11	006	10	070
2,000	100	14	070	09	270	16	290	15	004	13	060
3,000	110	13	080	10	250	17	280	13	004	14	050
4,000	110	15	080	12	240	16	300	08	342	12	040
5,000	120	17	080	14					338	11	040
6,000	110	17			240	19	230	08	327	09	
8,000					230	16	240	10	297	09	
10,000	110	15	100	12	230	16	250	08	287	10	030
14,000	090	15	110	15	230	21	230	10	290	09	010
18,000	100	20	070	17	210	24	240	01	297	09	030
24,000	080	15	090	12	200	32	230	06	336	12	040
30,000			090	12	210	50	200	06	358	22	040
40,000			(26000)		200	20	230	15	002	22	(28000)
50,000					270	13	(36000)		343	08	
					290	10	(53000)		349	09	

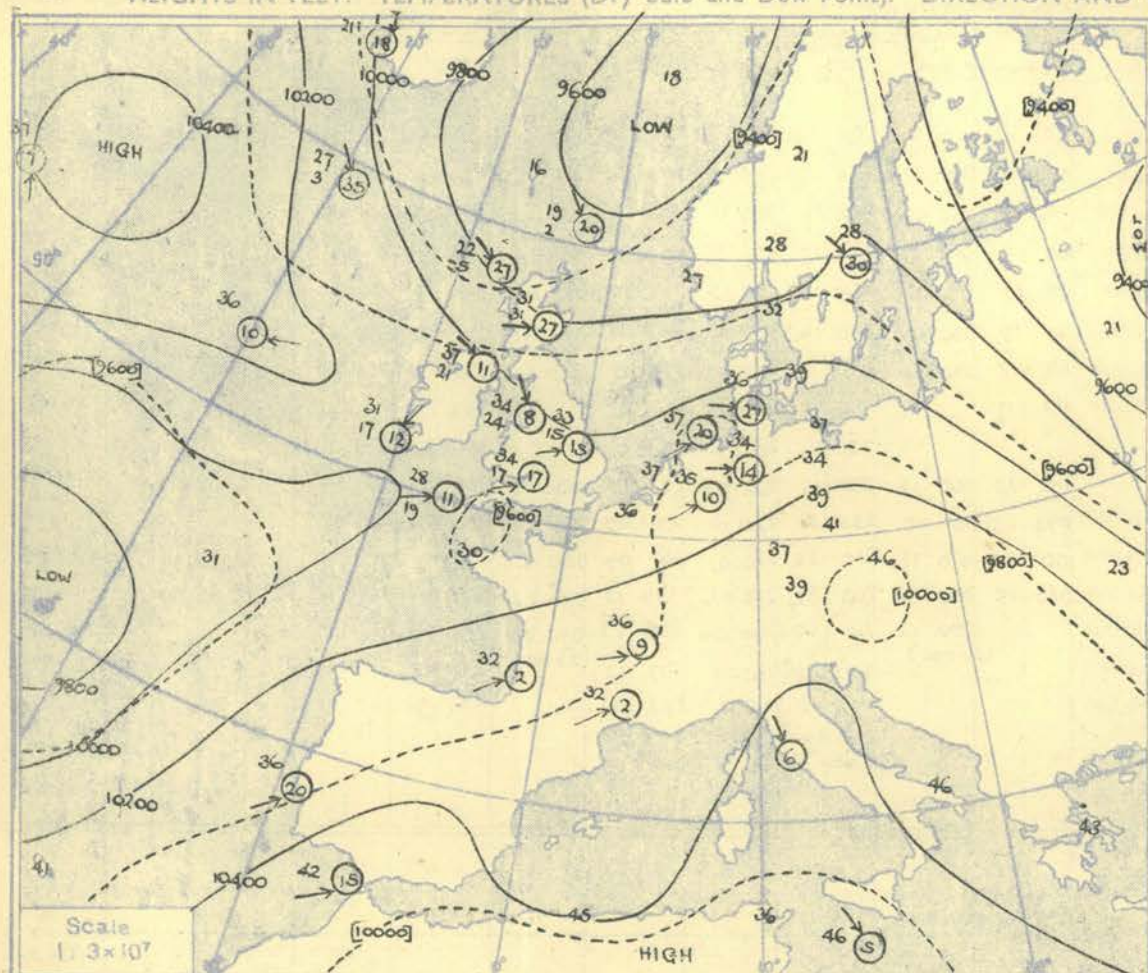
## NEPHOSCOPE OBSERVATIONS

Place	West Freugh.	Lympe.									Place
Time Type	12h Ac	15h Ci									Time Type
Dir. Vel.	310 30	120 90									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.				Cumulus.				Cumulus.				Cumulus.				Cumulus.								Ship
Lat/Long	59°N 18.7°W.				59°N 18.6°W.				58°N 19.0°W.				58°N 19.1°W.				52°N 20.0°W				52°N 20.0°W.				52°N 20.0°W				52°N 20.0°W.								Lat/Long
Pressure	Time	09h		G.M.T.	09h	G.M.T.		15h	G.M.T.		21h	G.M.T.		09h	G.M.T.		09h	G.M.T.		15h	G.M.T.		21h	G.M.T.						G.M.T.	Time						
	M.S.L.	1025		mb	1024	mb		1023	mb		1022	mb		1018	mb		1019	mb		1020	mb		1020	mb						mb	M.S.L.						
	Surf	1025		mb	1024	mb		1023	mb		1022	mb		1018	mb		1019	mb		1020	mb		1020	mb						mb	Surf						
	Freezing	680		mb	750	mb		740	mb		765	mb		685	mb		712	mb		675	mb		660	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.	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.	°F.	Dir. Vel.	ft./100	°F.	°F.	Dir. Vel.	mb								
Surf		49	44	300	09	48	46	290	15	49	46	300	18	49	46	320	17	57	55		55	54		55	50				Surf								
1000	67	46	38	305	12	46	43	299	10	63	47	42	325	18	48	41	331	19	51	55	55		54	54		53	54	48	1000								
950		39	30	324	08	40	37	308	19		41	33	325	22	42	36	331	24											950								
900	350	45	17	336	13	34	8	315	17	34	43	17	325	25	34	3	331	21		For				For					900								
850		39	04	327	18	38	24	318	23		41	14	325	30	39	06	331	22					48	46		50	39		850								
800	66	4	38	05	312	19	66	1	321	24	66	0	325	29	65	6	331	30		Winds				Winds					800								
750		35	22	305	22	32	09	321	25		33	02	325	26	30	08	333	32											750								
700	102	34	30	312	25	101	31	08	313	28	101	27	03	313	35	100	24	08	342	30	102	34	27	see	102	36	27		700								
650		27	35	298	28	26	13	310	32		27	19	301	43	21	11	340	37		top				top					650								
600	142	20	14	290	29	141	19	01	298	32	141	23	11	287	47	140	18	13	332	48				top					600								
550		14	16	298	37	13	05	294	38		18	02	303	49	12	07	324	62		of				of					550								
500	188	09	22	299	42	187	10	02	304	45	188	08	04	314	61	186	06	00	322	63	188	05	11	page	188	07	06	page	189	10	15	500					
450		01	12	305	43	01	06	308	46		02	18	311	55	02	14	319	63												450							
400	243	09	23	310	42	242	10	19	303	51	242	08	47	315	57	241	10	21	321	72										400							
350		21	34	316	46	20	28	307	54		20	49	331	49	20	39	327	69												350							
300	310	36	48	317	49	300	35	43	313	66	310	33	60	323	57	308	34	57	327	73	308	45								300							
250	(262mb)					313	46		315	57				315	57		50		327	78										250							
200						326	46		315	50	396	60		315	50	396	60		327	71	394	76								200							
170						322	43		315	33		65		315	33		65		327	66	395	72								170							
150							31		317	28		64					64		327	42										150							
130						342	26		323	22		60					60													130							
110						349	21		324	13	40mb																			110							
100						351	18	548	46																					100							
90						345	13		324	09																				90							
80						326	15		325	07																				80							
70						314	03		L.V.																					70							
60						314	03																							60							
Inversion. 938mb 37°-96mb 47° (43mb) 42° Isothermal. 950-945mb 40° 750-708° 32° 441-435° 33° 945mb 40°-506° 11° 533° 10°-506° 11° 177mb-75° 42° 200°																																					
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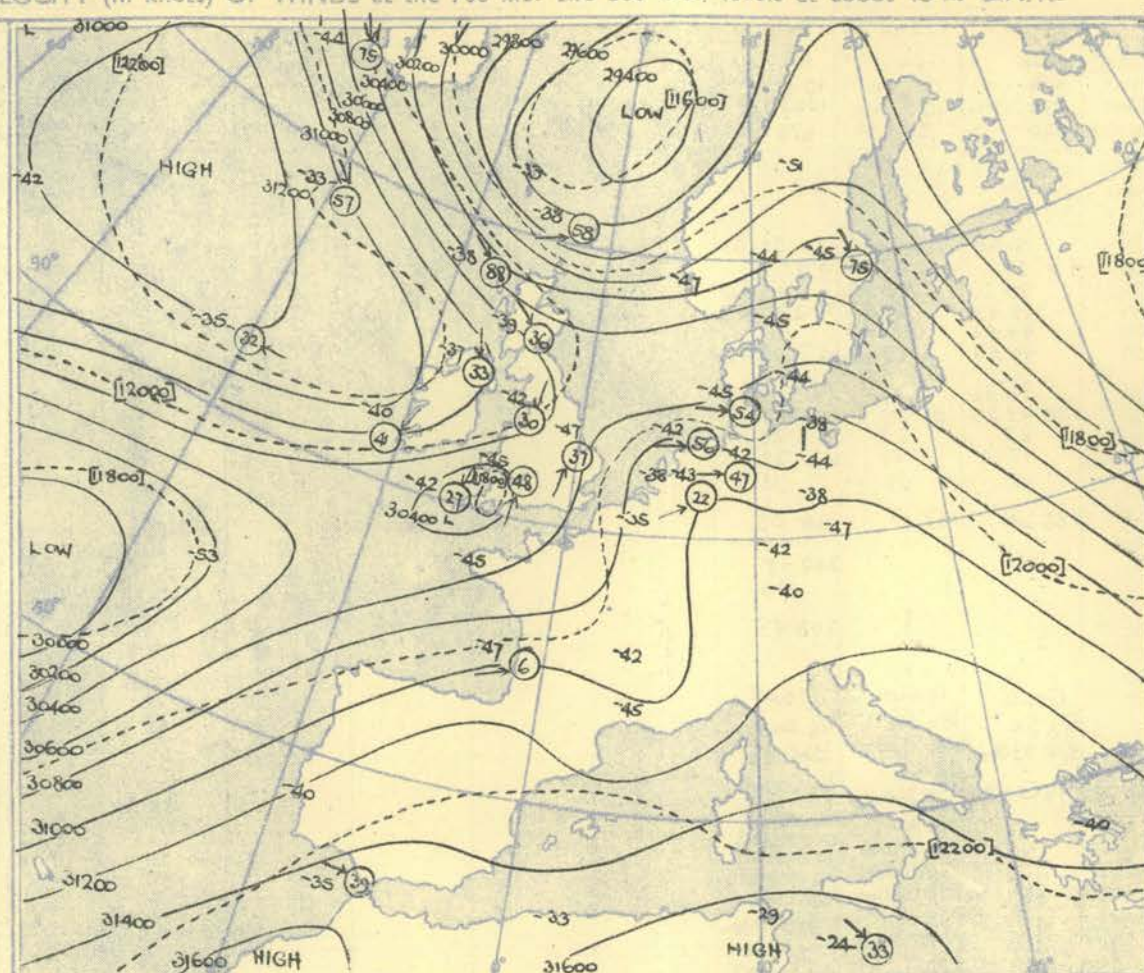




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isotherms of the thickness of the layer 1000-700 mb.

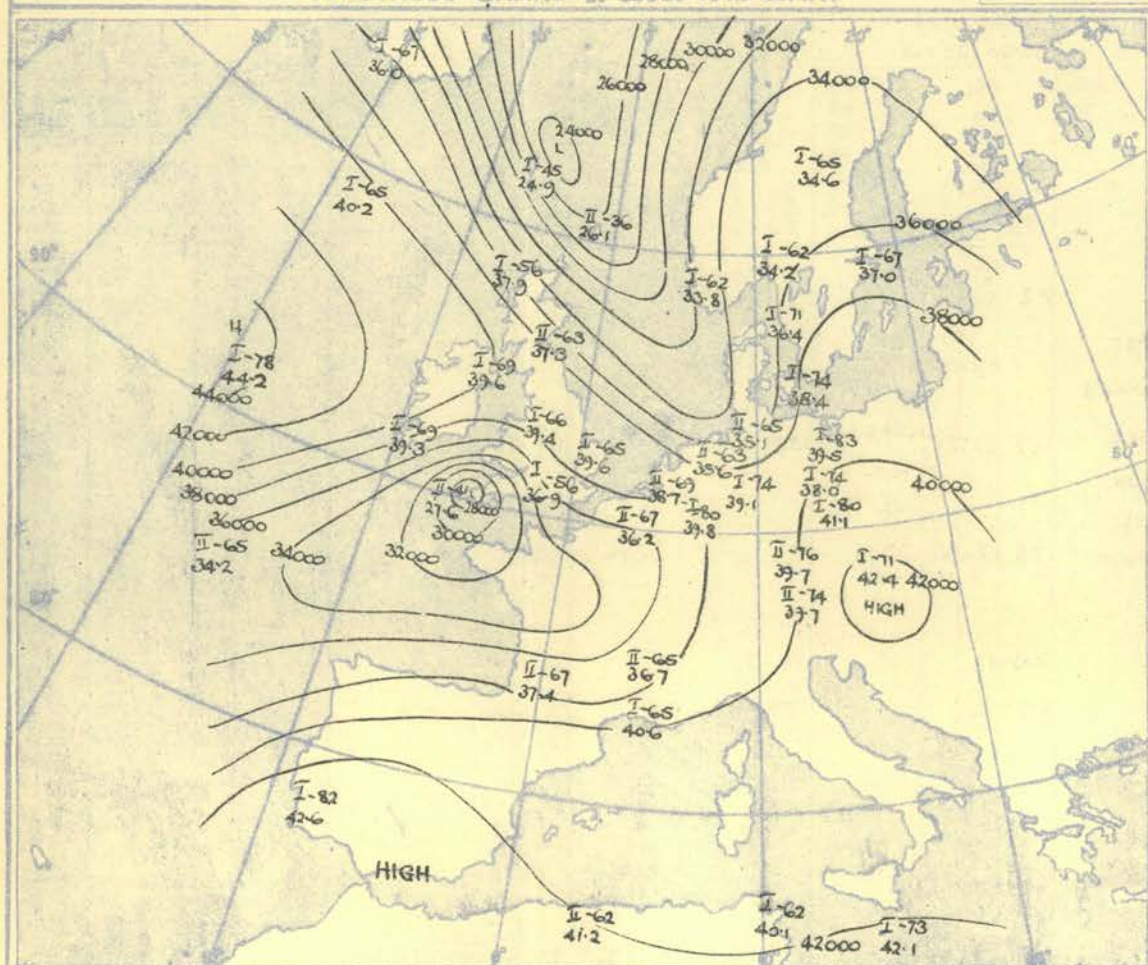
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52\frac{1}{2}^\circ$  N

100 80 60 40 20 10 knots



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

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

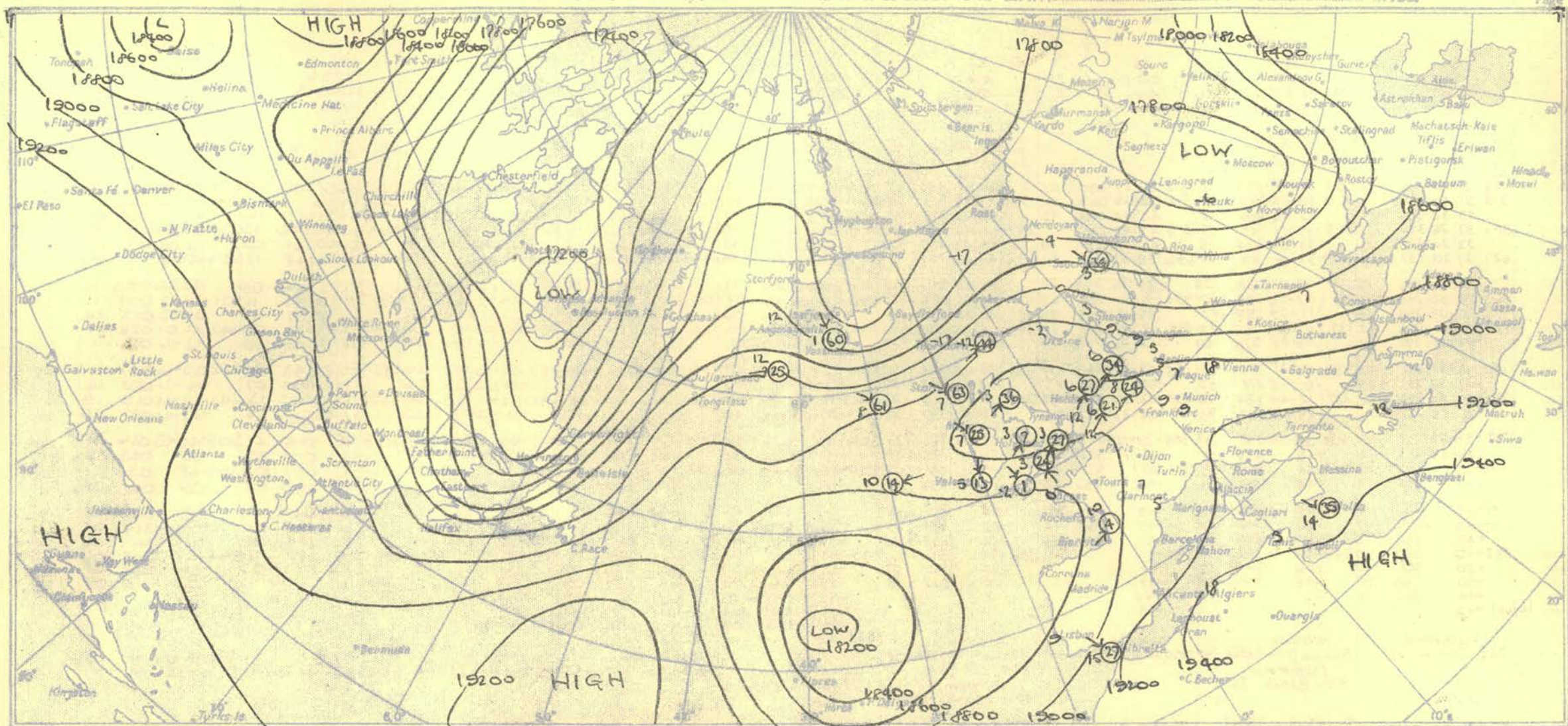


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

A new cold pool formed east of Iceland and moved Southeastward towards Northern Scotland. The cold pool in the region of the Azores moved slowly east. Both pools extended troughs which linked to form a flat irregular cold thermal col over the British Isles.

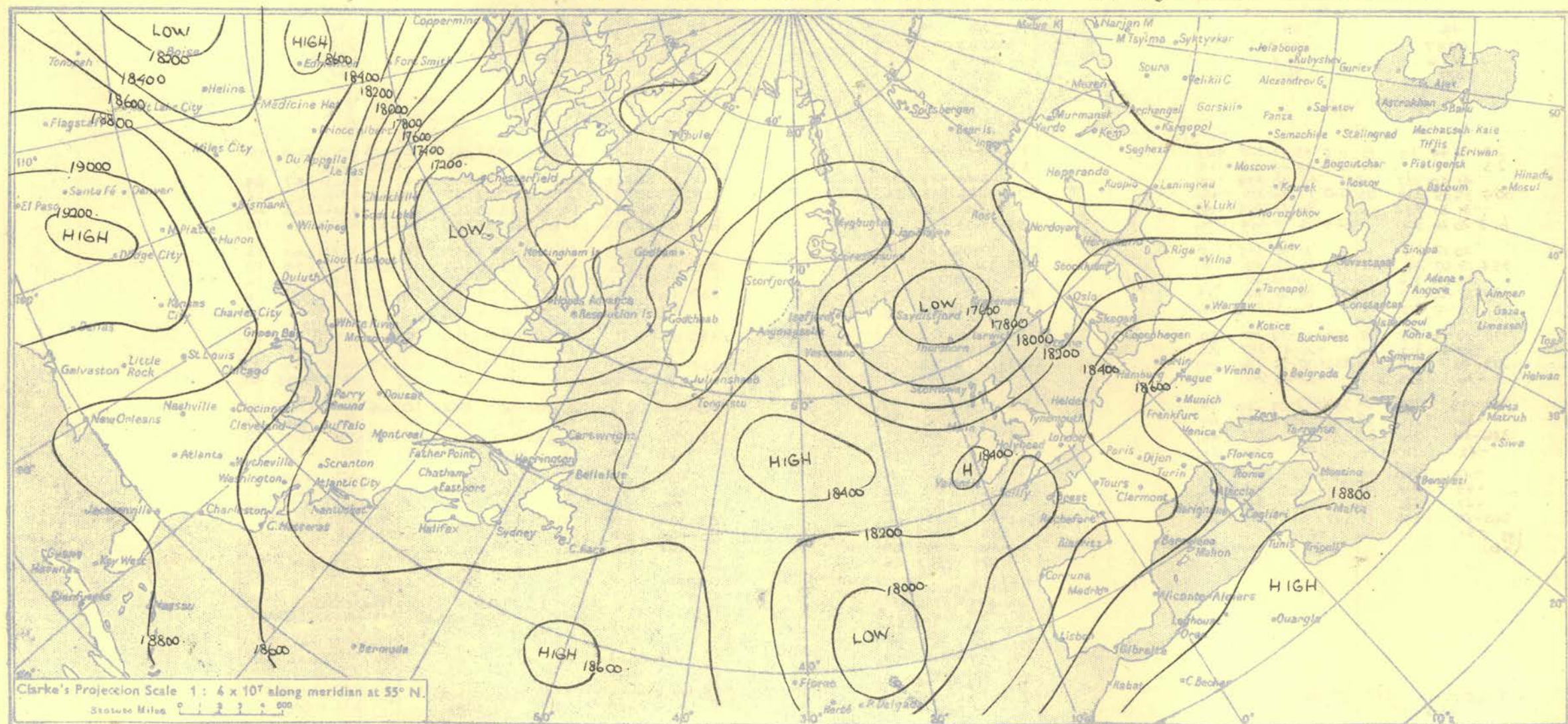




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 13<sup>th</sup> June.

1950.





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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valencia				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															
		1010.7	mb	1000.7	mb	850	mb	1015.0	mb	1013.7	mb	802	mb	1012.9	mb	1012.1	mb	705	mb	1014.0	mb	1005.6	mb	1011.9	mb	1010.0	mb	673	mb	1011.4	mb	1007.2	mb		653	mb	1014.0	mb	1008.4	mb	686	mb	1015.6	mb	1005.3	mb	720	mb	1012.9
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	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	51	40	304	12	0.5	50	44	320	12	0.2	53	47	080	10	2.3	64	54	330	15	00.6	68	58	260	12	01.2	74	58	250	10	04.4	66	37	270	08	02.9	66	37	203	10	0.3	66	60	330	13	Surf			
1000	2.9	51	40			4.2	48	42	319	15	3.4	52	48	062	12	3.9	63	54	319	14	03.4	65	56	262	18	03.3	73	57			03.9				04.4	64	56		3.5	66	59	337	10	1000					
950		43	34	317	13		42	39	318	15		45	44	060	12		58	51	311	13		60	55	271	17		63	52	255	15		59	50	239	16		55	51	219	16		63	51	360	03	950			
900	31.1	37	28	322	12	32.5	35	34	319	15	31.9	42	42	L.V.	33.1	54	44	300	12	32.7	54	47	269	15	32.9	55	46	259	16	33.1	52	44	231	16	33.4	50	46	240	13	33.1	57	51	078	03	900				
850		32	24	327	09		33	28	324	15		45	45	270	09		49	43	285	08		49	43	285	13		49	41	261	17		47	40	231	16		43	40	251	08		52	46	070	03	850			
800	62.1	27	20	337	10	63.5	32	16	313	21	63.6	39	39	247	16	65.2	48	25	294	11	64.8	46	35	296	14	64.9	44	37	259	18	65.1	42	34	247	16	65.1	39	33	248	12	65.4	46	41	031	06	800			
750		24	11	302	15		27	07	298	23		35	35	262	22		41	26	286	10		39	20	306	13		40	24	251	14		39	23	236	18		35	25	246	09		43	30	005	10	750			
700	96.5	19	02	285	20	98.1	22	05	294	27	99.6	31	31	260	27	101	37	21	284	11	100	34	24	316	08	100	33	15	235	13	101	34	17	228	17	100	28	19	243	11	101	38	23	004	12	700			
650		12	03	283	24		17	09	285	42		25	18	263	36		31	13	280	13		27	21	272	03		27	21	272	03		27	11	221	18		21	10	257	12		30	13	013	14	650			
600	135	04	11	266	25	137	11	00	281	45	139	18	05	267	35	141	24	05	283	16	140	19	11	239	03	140	22	12	230	21	141	20	05	213	16	140	15	01	272	09	142	22	01	022	13	600			
550		04	18	270	32		05	03	278	60		12	01	266	34		16	02	287	22		11	03	240	07		12	7	228	29		12	6	192	22		08	7	303	09		13	6	011	11	550			
500	180	12	25	257	44	183	02	01	275	63	185	03	21	264	36	188	07	09	284	28	186	13	11	248	07	186	03	15	220	27	187	03	13	177	24	185	2	8	343	06	188	05	14	007	13	500			
450		22	37	251	59		05	25	277	65		05	19	266	43		03	19	295	22		7	24	272	03		8	35	206	26		7	25	176	26		11	23	004	07		4	21	008	14	450			
400	232	29	45	250	72	237	14	40	284	78	239	12	22	280	48	242	12	23	316	23	240	16	31	039	10	240	19	43	216	31	240	22	41	173	26	239	22	29	005	13	242	15	31	019	19	400			
350		36	55	251	71		25	46	292	83		24	33	277	46		23	31	337	25		27	43	024	19		30	53	212	42		31	49	171	50		37	44	017	24		27	41	037	29	350			
300	297	38	58	257	58	303	38	56	297	88	305	39	50	285	36	309	37	45	346	33	306	42	023	30	306	47	206	37	305	43	182	48	304	42	014	27	308	40	53	036	41	300							
250		36	59	263	42		48		295	91		56		302	48		56		355	39		57	032	18		62	217	24		51	150	18		47	003	09		55	043	53	250								
200	388	39		283	33	302	54		301	58	303	63		302	38	396	69		001	39	394	66	356	08	392	74	214	20	394	54	239	15	393	51	287	08	393	68	051	21	200								
170		41		283	23		49		288	36		62		282	27		64		290	14		55		188	11		71	249	20		54		255	12		54		249	08		59	001	09	170					
150		43		303	19		45		298	28		49		281	20		54		301	13		55		278	15		64	262	14		54		265	15		56		241	12		56		350	05	150				
130		48		305	17		50		308	22		49		298	14		55		304	15		55		281	16		63	268	13		58		269	12		56		251	12		56		314	07	130				
110		47		314	12		50		328	21		50		294	14		54		308	13		55		281	11		65	260	13		58		260	12		58		284	11		57		311	06	110				
100	542	50		360	10	544	48		333	18	544	50		341	15	396	55		31	12	543	55	313	11	537	46	266	10	(105)	56		542	55	285	11	544	57	265	10	544	57	265	10	100					
90		50		001	10		46		341	15		49		341	15		54		350	07		55		329	07		65	276	10		58		267	07		58		267	07		58		358	06	90				
80		50		360	09		48		314	08		47		341	08		54		022	07		55		360	02		64	291	09		63		303	08		63		303	08		63		303	08	80				
70	(6) mb	49		360	10		51					43					53					51		803	04		60	312	10		56					56					56			70					
60		49										43					49					49		013	05		61	337	03															60					
		Isothermal 782-759 mb 25°				Inversion 550 mb 05°-522 mb 06° Isothermal 870-820 mb 33°				Inversion 305 mb 42°-854 mb 45°				Inversion 828 mb 47°-815 mb 43° 450-330 mb -12° Isothermal				(49)-49 Inversion 697 mb 33°-688 mb 34°				Inversion 783 mb 41°-767 mb 42°				Inversion 800 mb 42°-780 mb 43°				Inversion 823 mb 41°-825 mb 43° Isothermal 910-895 mb 50°				Isothermal 800-782 mb 46°															
Tropopause		II 350 mb -36° 26100'				I 213 mb -56° 37900'				II 220 mb -63° 37300'				I 200 mb -69° 39600'				I 200 mb -66° 39400'				I 196 mb -65° 39600'				I 213 mb -56° 36300'				I 339 mb -41° 27600'				I 203 mb -69° 39300'				Tropopause											
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION															
Pressure	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															
		1008.7	mb	998.6	mb	877	mb	1013.7	mb	1011.4	mb	860	mb	1013.2	mb	1004.6	mb	693	mb	1009.7	mb	1005.3	mb	722	mb	1013.1	mb	997.4	mb	730	mb	1013.0	mb		1003.7	mb	727	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	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	44	315	13	0.5	49	47	320	03							2.3	50	46	355	15																							Surf					
1000	2.3					7.7	48	43	316	18							3.6																												1000				
950		41	40	337	15		43	40	333	18								43	40	342	25																							950					
900	30.5	35	35	338	09	32.0	37																																										

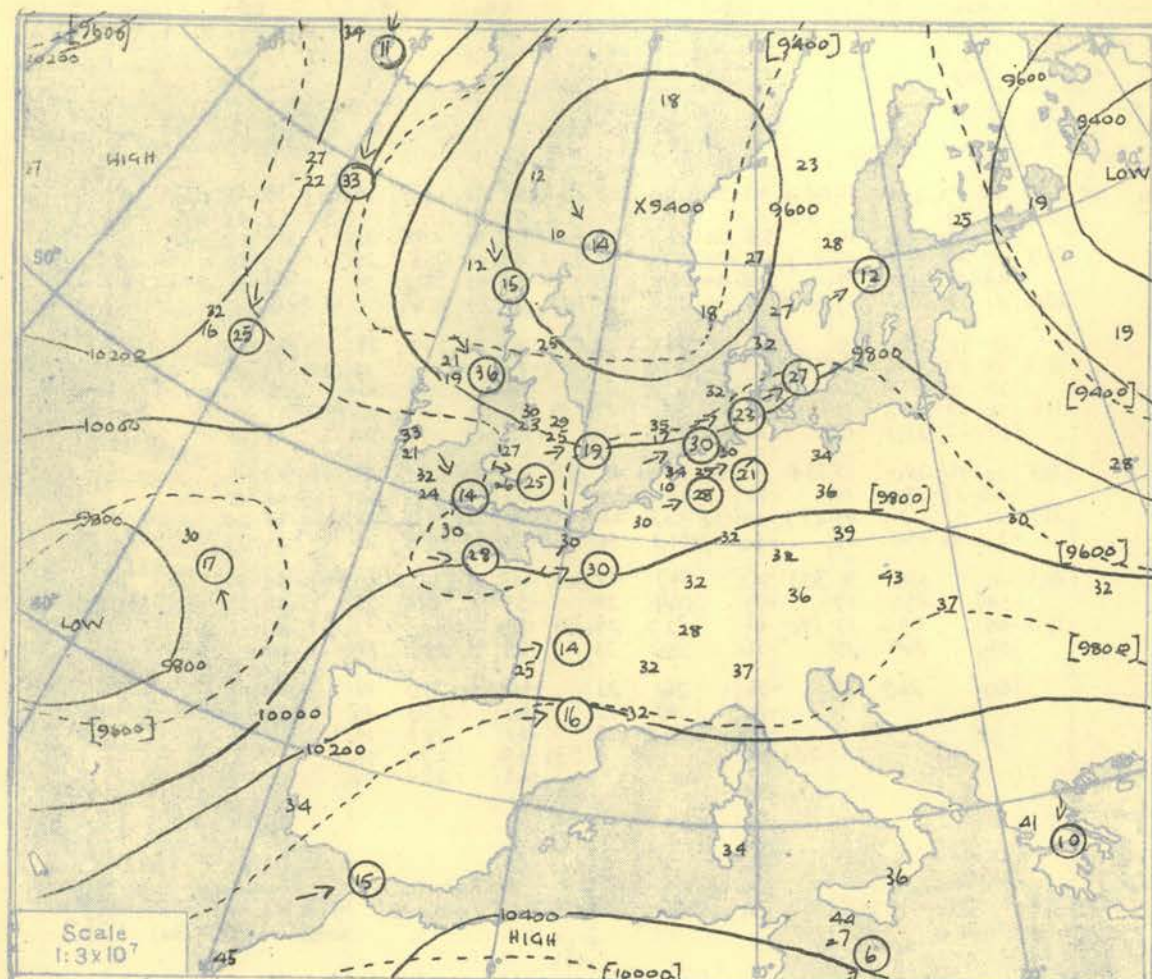


METEOROLOGICAL  
VALENTIA  
21st APR 1950  
Time  
MSL  
Surr  
Pressure

[illegible]



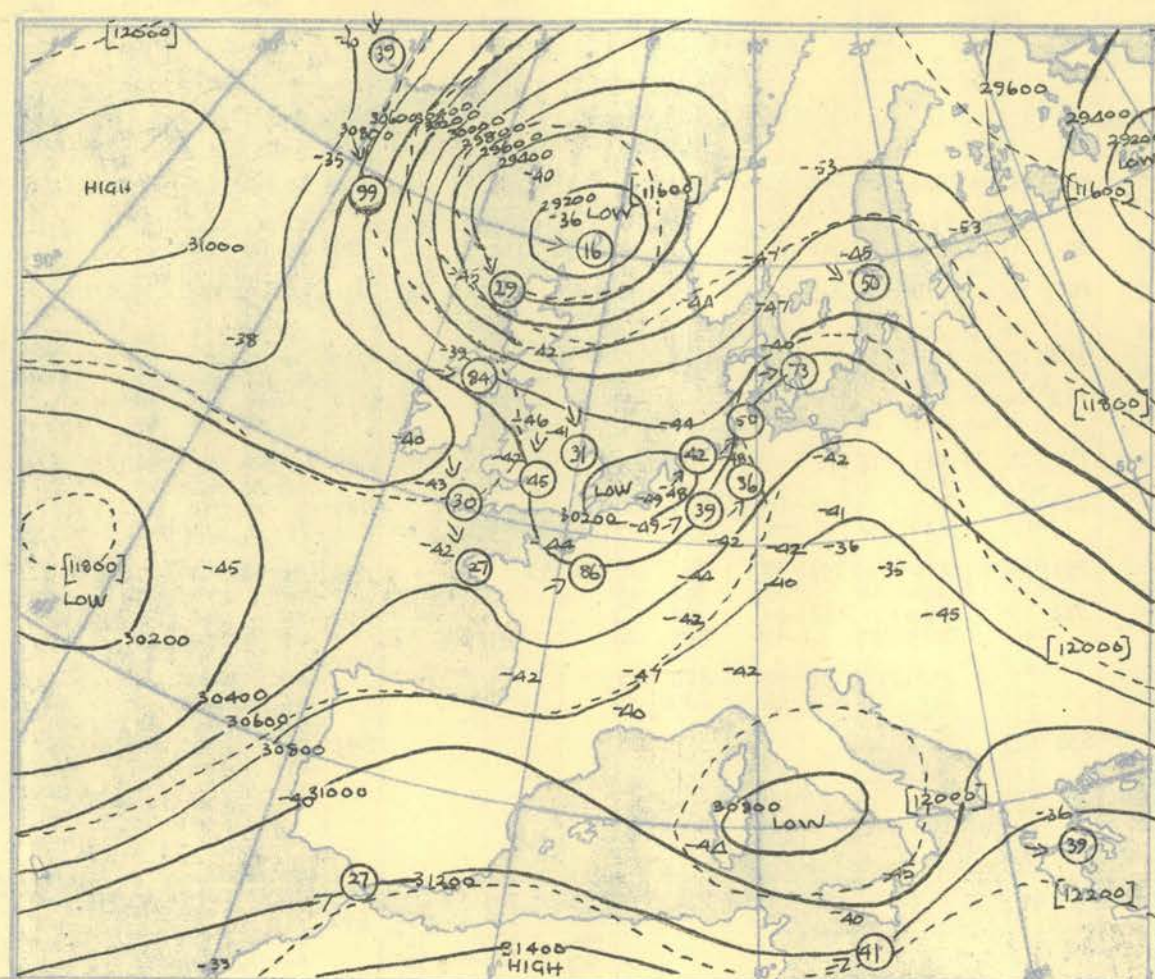
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (In knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



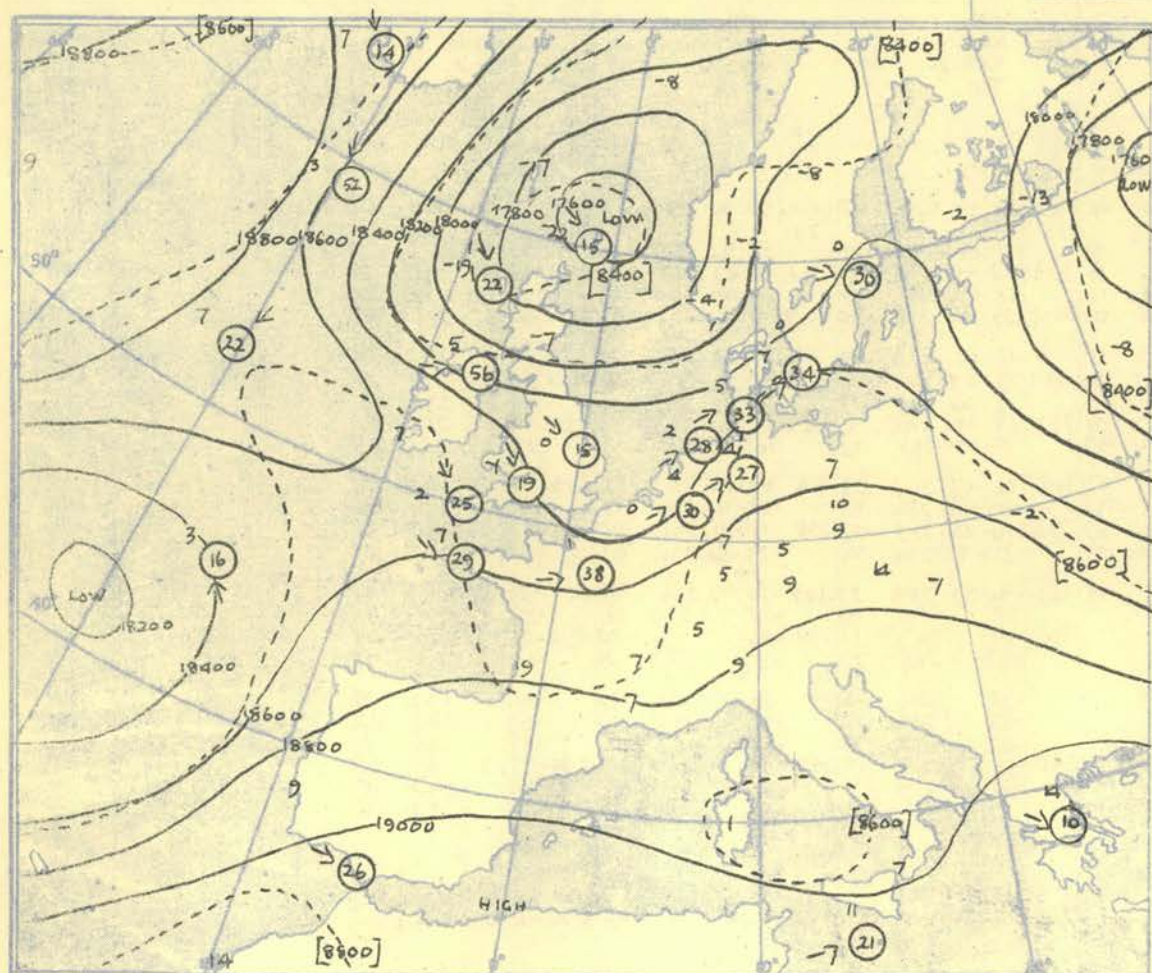
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

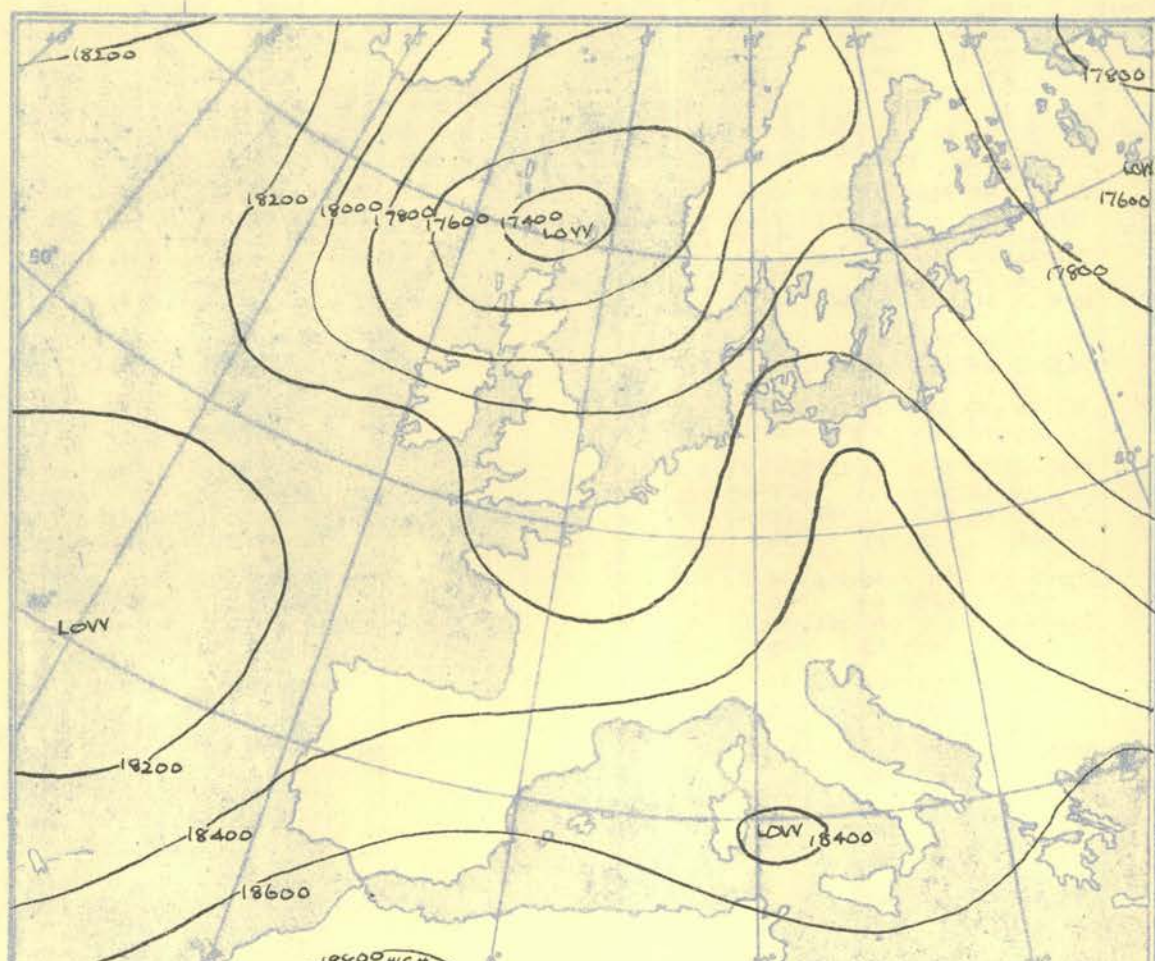
100 80 60 40 20 10 knots



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.



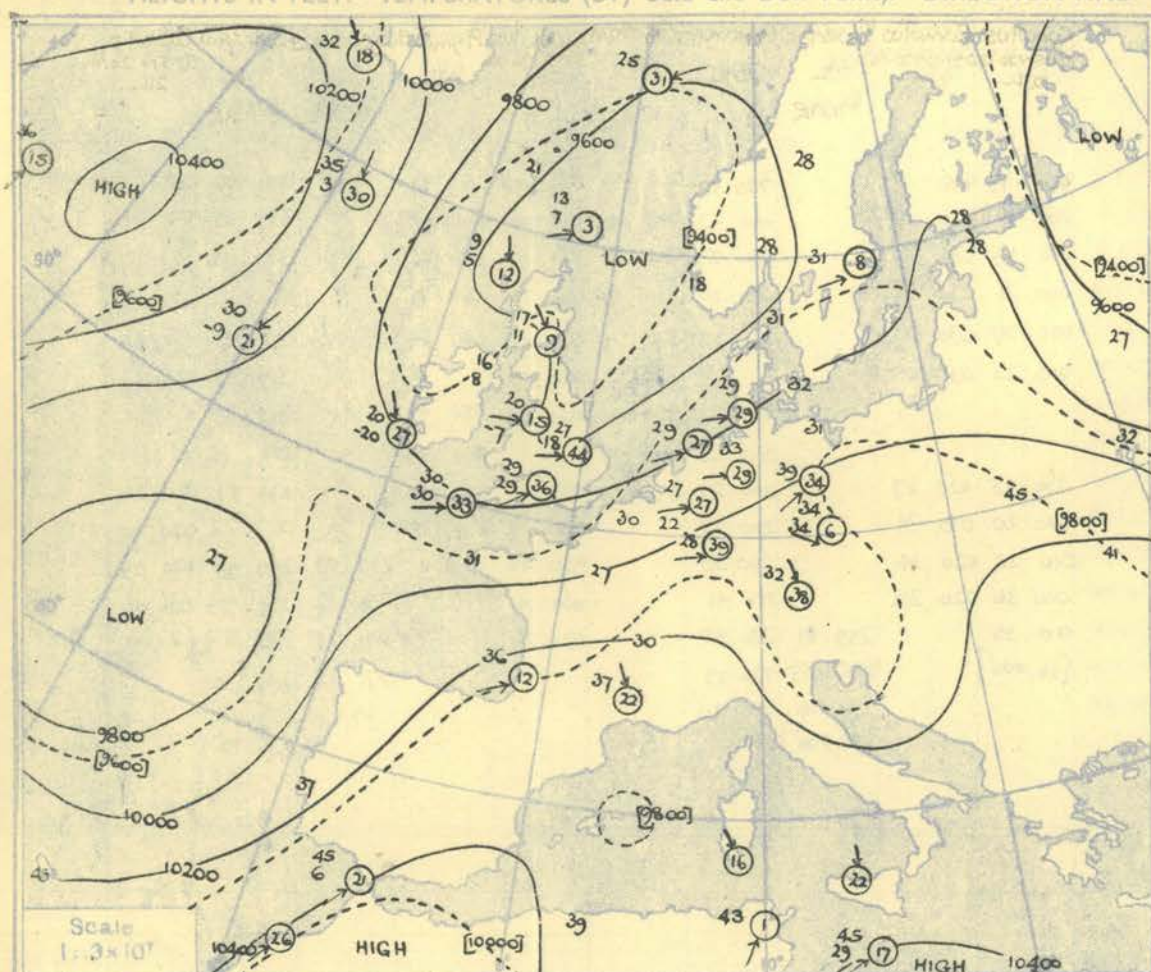
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS[illegible]

Time	}	Pressure
M.S.L.		
Surf		
Freezing		



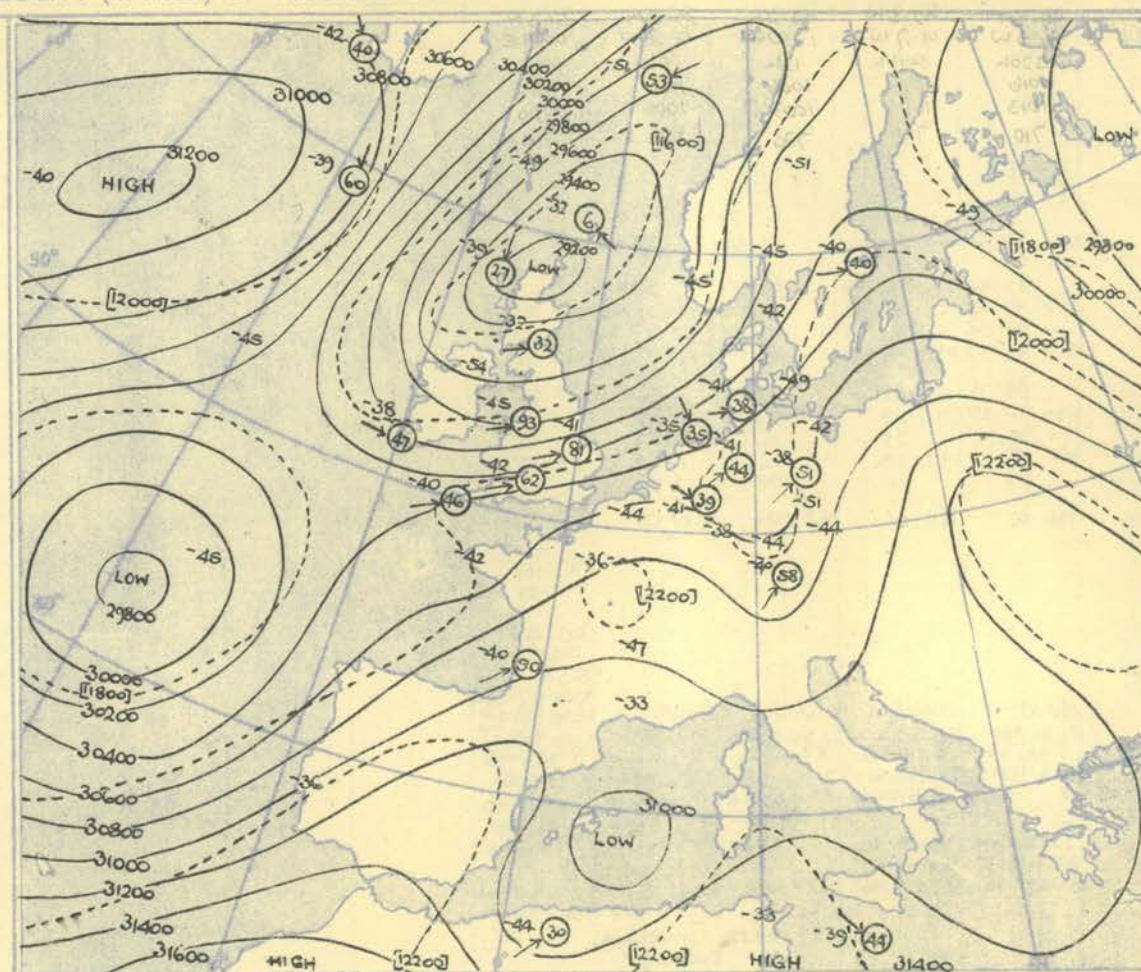
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

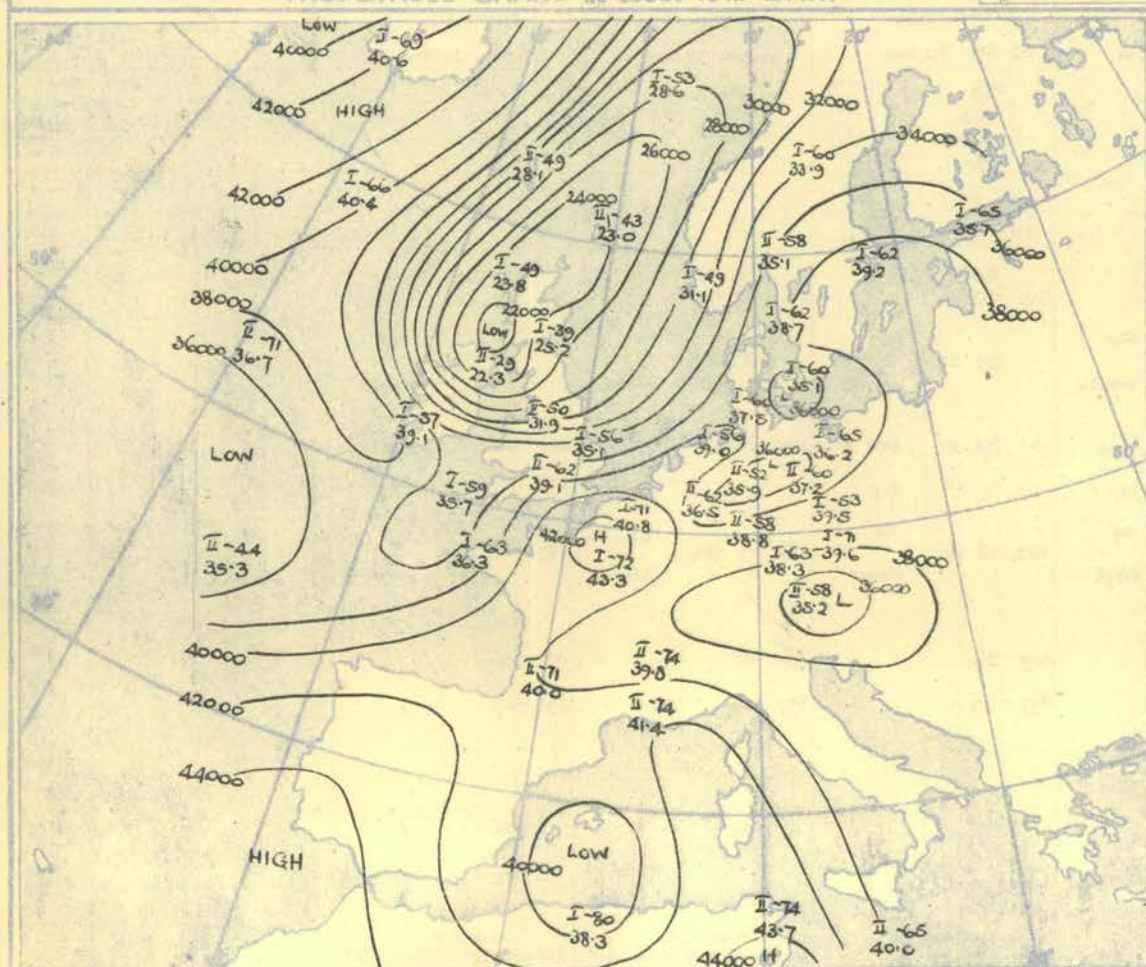
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

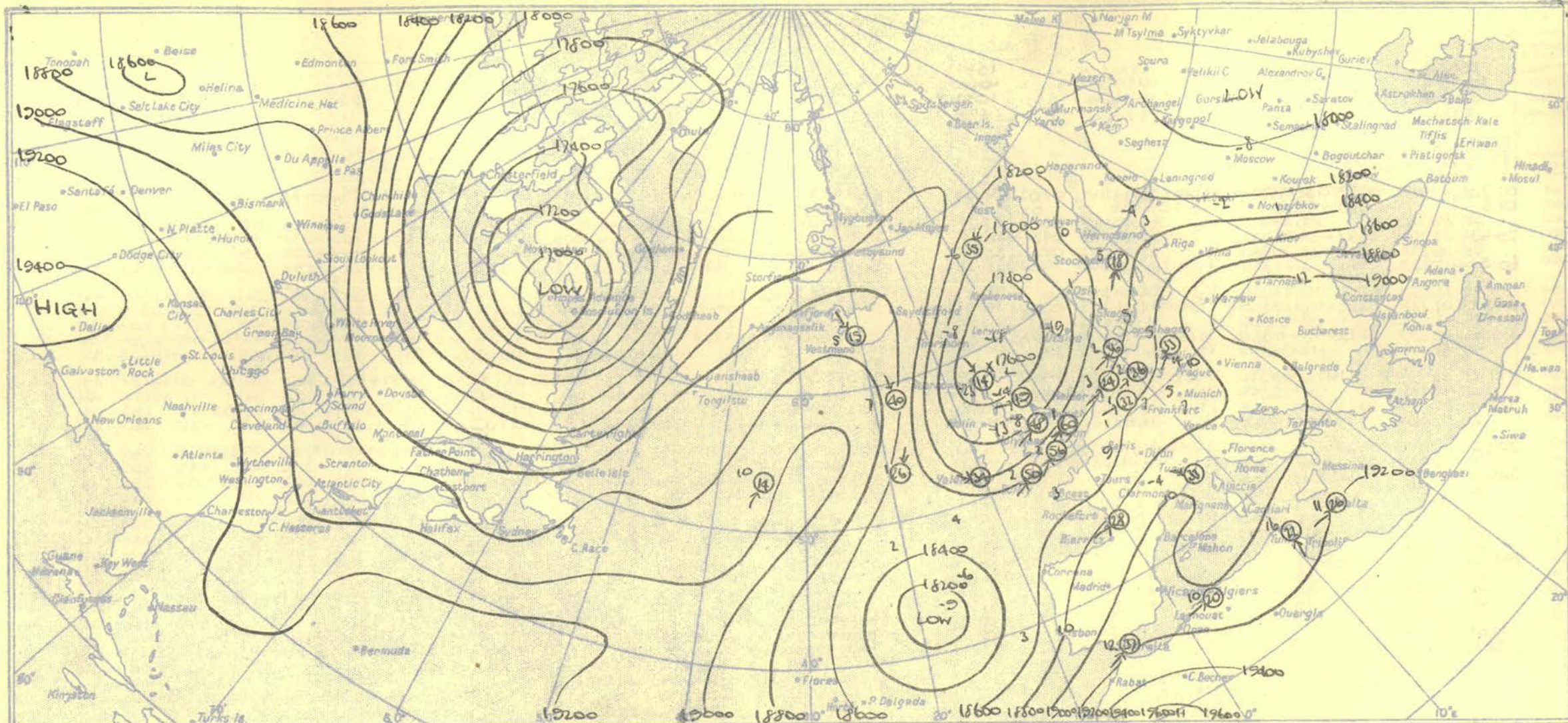
The cold pool off Northern Scotland filled slightly and moved irregularly southeastward to develop a strong southwesterly thermal gradient over Southeast England and the Southern North Sea.

The cold pool east of the Azores showed little change. A minor cold trough developed south of Greenland in the warm ridge dominating the Western Atlantic.

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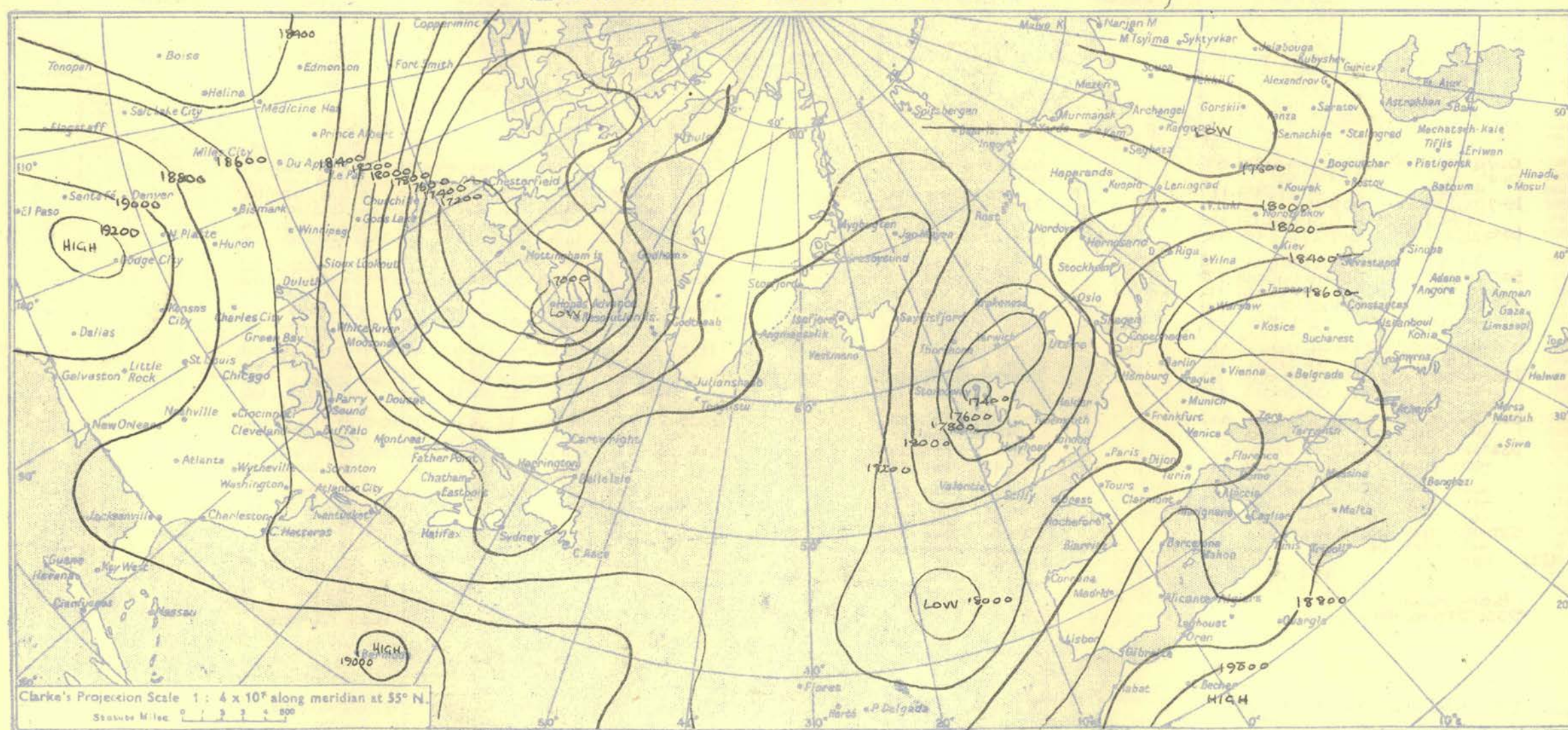
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

Wednesday 14<sup>th</sup> June 1950.



Clarke's Projection Scale 1 : 4 x 10<sup>6</sup> along meridian at 55° N.  
Statute Miles 0 100 200 300 400



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

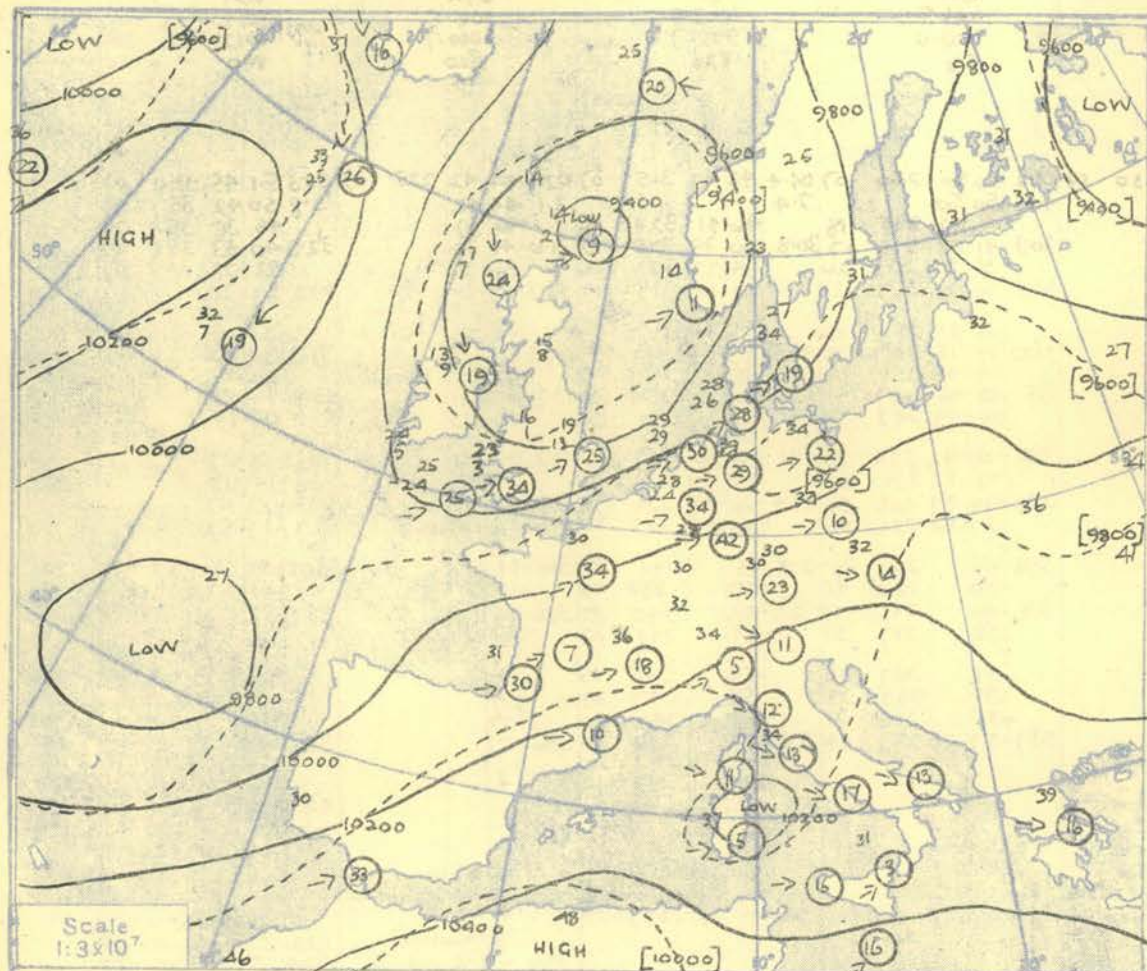
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION																																															
Pressure mb	Time	15hrs		G.M.T.	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind																																																
	M.S.L.					°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.	°F.	°F.	Dir.	°F.	°F.	Dir.																																										
	Surf			mb		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots	°F.	°F.	knots	°F.	°F.	knots																																										
Surf	Time	15hrs		G.M.T.	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																																																
1000	01.7	46	42	247	02	05	05	04	320	10	00	25	84	110	08	02	35	84	44		00	66	14	42	80	01	2	55	52	350	09	04	45	51	350	07	02	9	53	50	040	05	00	3	58	44	348	14	Surf																																			
950	01.3	41	36	253	03	02	34	94	3	02	05	64	44		02	01	48	38		07	05	94	4			02	1	58	52		02	2	45	39	334	08	3	4	56	43	352	14	1000																																									
900	29	63	33	266	04	30	4	34	33	34	12	11	30	6	08	4	8	38		30	7	41	38	266	06	30	84	5	41	30	6	30	94	45	276	13	31	4	47	44	271	11	32	2	42	33	005	15	950																																			
850	29	26	28	8	05	28	26	34	2	12	35	31	29	3	08	3	5	28		35	30	24	6	08	35	30	24	6	13	43	41	271	18	31	4	44	44	258	19	35	30	004	14	900																																								
800	60	52	4	152	59	06	61	1	23	21	33	3	3	14	61	8	30	26	309	10	62	3	28	21		61	8	30	15	24	8	07	62	4	37	08	265	17	62	6	37	33	259	22	63	2	41	41	254	30	63	4	35	-3	344	16	850																											
750	18	13	250	03	16	12	33	6	14	24	20	30	7	10	23	15				26	03	25	6	10		26	03	25	6	27	33	32	244	31	35	33	251	31	28	-17	329	20	750																																									
700	94	5	13	01	232	03	95	0	09	03	32	9	12	96	0	17	11	30	3	09	9	6	8	16	08	96	3	20	-72	62	18	97	3	27	18	230	44	97	8	29	29	243	36	98	5	30	30	251	33	98	1	23	-20	319	27	700																												
650	06	-2	L.V		03	-3	325	13	13	11	04	29	3	05	10	00				12	-11	262	18			12	-11	262	18	23	15	231	52	22	22	243	38	24	24	249	40	17	-2	304	31	650																																						
600	133	-2	10	257	03	133	-5	-11	330	14	133	02	-4	258	12	133	03	-6		135	06	-21	259	25	137	17	13	245	51	137	17	10	246	43	138	17	17	251	43	137	09	-5	292	34	600																																							
550	-11	18	L.V		-14	-20	328	14	14	-6	-12	288	14	14	-6	-16				-1	-24	252	37			11	06	242	58	09	05	252	31	10	06	253	47	00	-18	285	35	550																																										
500	177	18	32	L.V	176	-23	-29	332	14	179	-14	-20	268	19	180	-13	-23			180	-8	-29	254	48	183	01	-3	248	60	183	02	-4	258	56	184	02	-2	247	50	182	-9	-44	288	34	500																																							
450	29	42	173	04	-31	-25	346	20	20	-25	-30	263	23	23	-24	-39				-14	-38	253	68		-3	-9	248	56	-7	-18	253	60	-5	-17	250	53	-17	-58	274	46	450																																											
400	228	42	319	04	227	-44	344	31	23	231	-34	-42	252	37	232	-30	-43			233	-22	-45	247	74	237	-17	-24	246	58	237	-13	-27	247	59	238	-16	-28	246	51	233	-21	263	54	400																																								
350	36	004	04		-44	260	31		31	-36	48	251	34		-31	-49				-34	-56	244	78		-30	-37	248	69		-27	-33	247	54		-28	-44	243	48		-33	263	64	350																																									
300	292	32	059	04	291	-39	003	27	296	-32	-44	255	32	297	-34	-53				298	-43	241	93	303	-41	249	81	303	-42	246	62	304	-40	-54	245	46	300	-38	265	47	300																																											
250	30	031	05		-36	008	21		31	-47	257	27		-39	-59					-50	250	74		-54	249	65		-57	240	62		-53	250	48		-43	293	41	250																																													
200	385	31	043	03	383	-38	356	21					389	-39	-59					387	-46	259	40	381	-36	246	52	381	-62	248	39	382	-55	243	33	389	-56	291	36	200																																												
170	34	067	05		-40	360	12							-41						47	260	30		-53	249	31		-53	255	30		-57	248	26		-54	302	30	170																																													
150	38	112	07		-44	349	14							-42						47	246	21		-52	247	32		-53	253	28		-54	248	30		-53	302	21	150																																													
130	39	L.V			-46	007	10							-44						48	256	15		-51	249	26		-53	251	24		-53	249	20		-54	300	11	130																																													
110	42	L.V			-43	331	06							-48						49				-50	250	15		-54	251	13		-54	251	13		-52	248	16		-56	301	09	110																																									
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60					-49									-49						46				-46	051	08										-59	122	08	60																																													
																																	Isothermal				527-510 mb -46°												(66)				Isothermal				507-773 mb 30°																											
																																	Inversion				855 mb 40-840 mb 41°												Inversion				994-983 mb 53°																															
																																	Isothermal				468 mb -5-445 mb -3°																				Isothermal				475-460 mb -3°																							
																																	Tropopause				II 355 mb -43°				I 380 mb -49°				I 365 mb -39°				I 415 mb -29°				II 272 mb -55°				I 242 mb -56°				II 200 mb -62°				I 257 mb -57°				I 182 mb -51°				Tropopause											
																																	STATION				LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION											
Pressure mb	Time	21hrs		G.M.T.	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind	Height ft./100	Temp.	Dew	Wind																																												
	M.S.L.			mb		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.		°F.	°F.	Dir.	°F.	°F.	Dir.	°F.	°F.	Dir.																																						
	Surf			mb		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots		°F.	°F.	knots	°F.	°F.	knots	°F.	°F.	knots	°F.	°F.	knots																																			
Surf	Time	21hrs		G.M.T.	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	Height	Temp.	Dew	Wind																																								
1000	02.7	46	42	Calm	05	04	44	330	03				02	3	49	41	320	15							01	2	53	58	Calm	04	4	50	49	Calm	01	9	50	47	Calm							Surf																																						
950	01.4	42	40		02	1	47	42					02	7	45	38	315	22							01	1	52	51		2	4				02	7	47	39								1000																																						
900	29	7	36	35	L.V	30	3	36	31	355	13		31	1	40	34	318	14							30	6	42	35	202	06	31	04	335	274	12	31	3	37	32	310	16					950																																						
850	31	30		<5	31	28	355	13					31	28	304	19									30	6	37	36	196	10		35	31	280	16		38	32	310	24					900																																							
800	60	6	26	23		61	2	27	21	349	12		62	3	29	23	300	18							61	9	31	31	203	13	62	2	32	30	292	16	62	6	31	30	270	28					850																																					
750	20	16			23	14	001	17					23	16	301	24									28	28	217	16		30	27	243	21		27	26	247	32					750																																									
700	94	7	13	08	95	3	16	03	009	18			96	6	1																																																																					



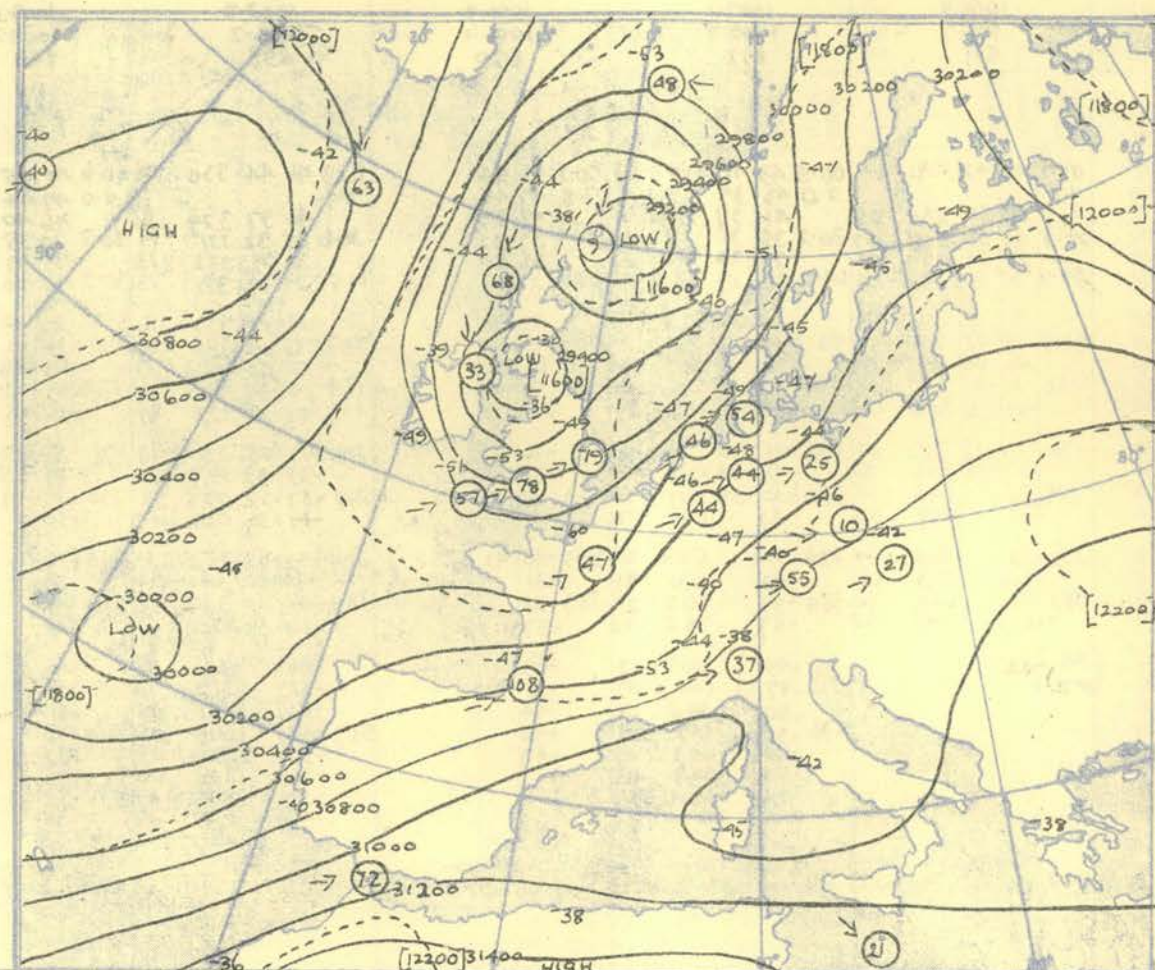
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION						
Pressure	Time 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										
		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												
1000	02.7	45	42	CALM	00.5	43	41	310	03	00.2	46	44		02.3	46	44	330	08	00.6	49	45	330	03	01.2	50	50	240	07	04.4	42	42	315	07	02.9	94	42	225	03	00.3	51	45	360	07	Surf
950	1.0				2.0	43	39			1.8	47	45		2.4					2.0	49	44			1.8	50	50		2.4					3.1	44	42		3.8	50	42	357	07	1000		
900	29.2	35	30	223	07	30.2	35	31	334	11	30.1	37	32	30.6	35	32	331	14	30.5	39	35		30.3	41	38	276	17	30.8	40	35	325	13	31.6	41	30		32.3	40	33	351	09	950		
850	28	24	229	09	29	24	340	13		32	30			31	29	332	13	31.5	33	29		31.5	30	21	267	25	62.0	30	19	317	17	62.8	29	20		33	28	352	09	900				
800	59.9	25	18	234	08	61.0	25	17	347	13	61.1	27	23	61.5	24	23	332	13	61.5	28	20		61.5	26	21	267	25	62.0	30	19	317	17	62.8	29	20		63.3	29	20		850			
750																																									750			
700	93.9	18	11	236	09	95.2	21	04	348	18	95.3	22	16	95.6	19	17	333	16	95.7	16	01		96.0	19	13	247	25	96.6	18	03	263	34	97.5	25	24		98.0	24	05		700			
650																																									650			
600																																									600			
550	132	01	15	262	08	134	02	02	006	24	134	01	07	134	01	07	323	17	134	01	13		135	08	16	247	41	136	10	22	254	45	137	13	21		137	14	05		550			





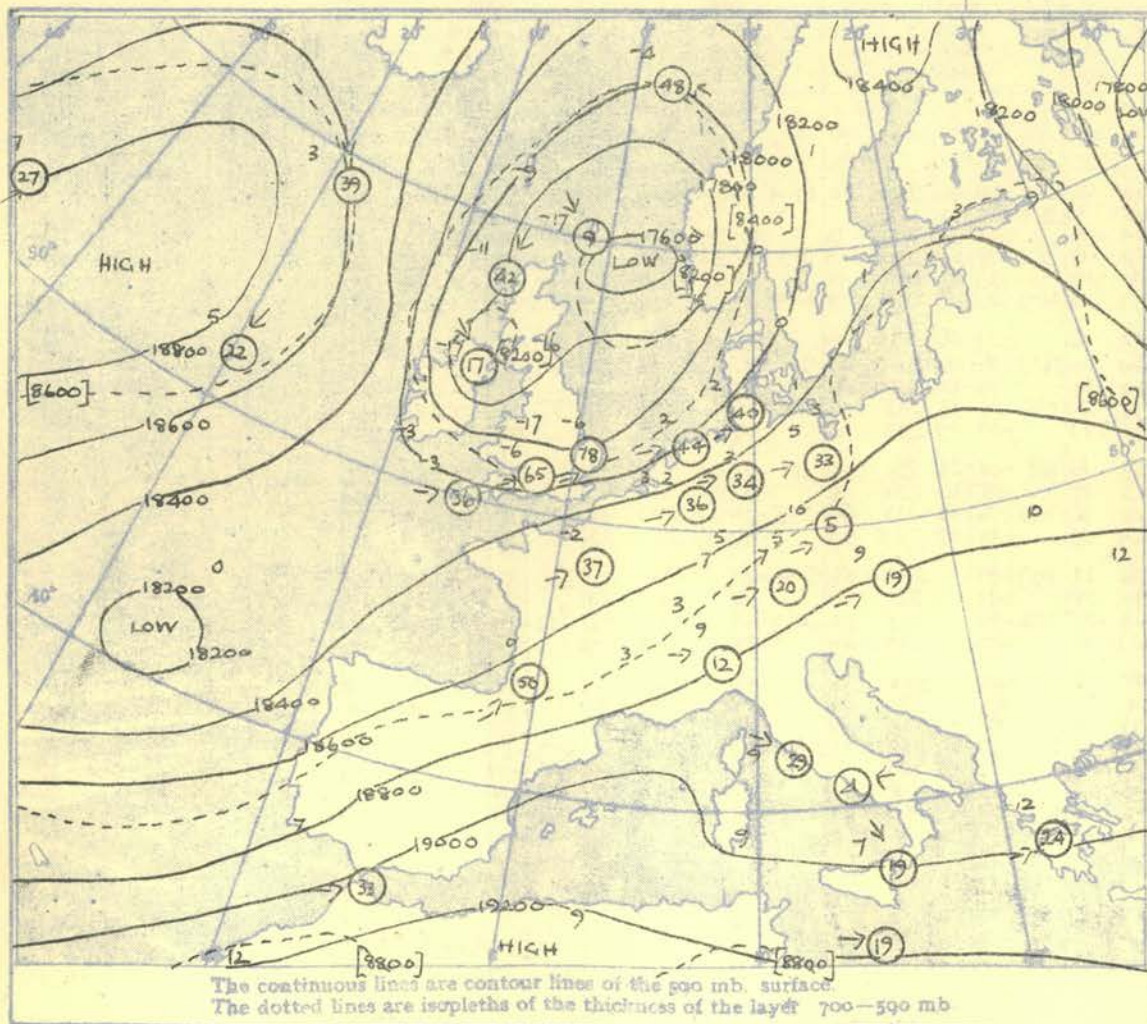
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



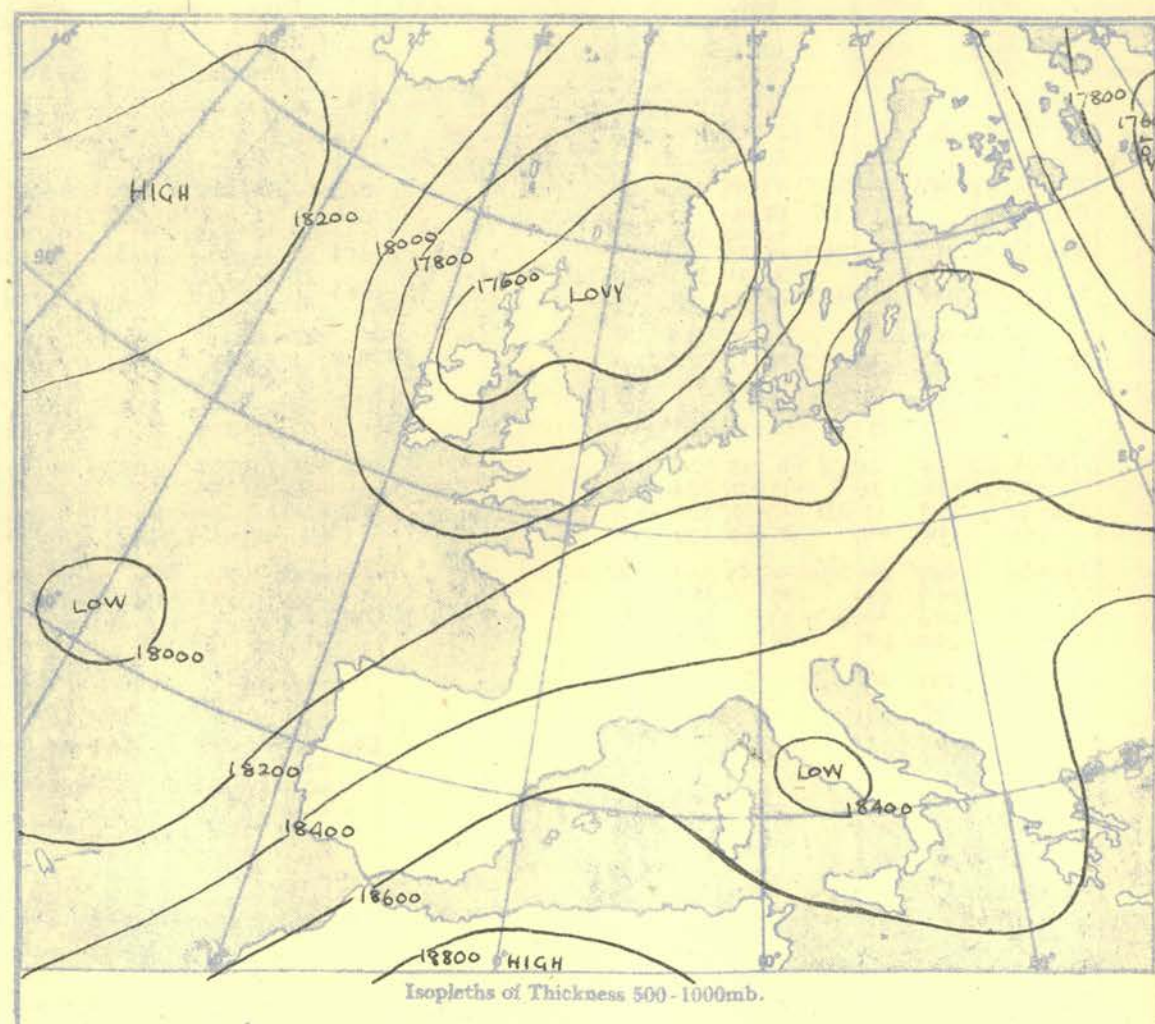
The continuous lines are contour lines of the 300 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

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

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.



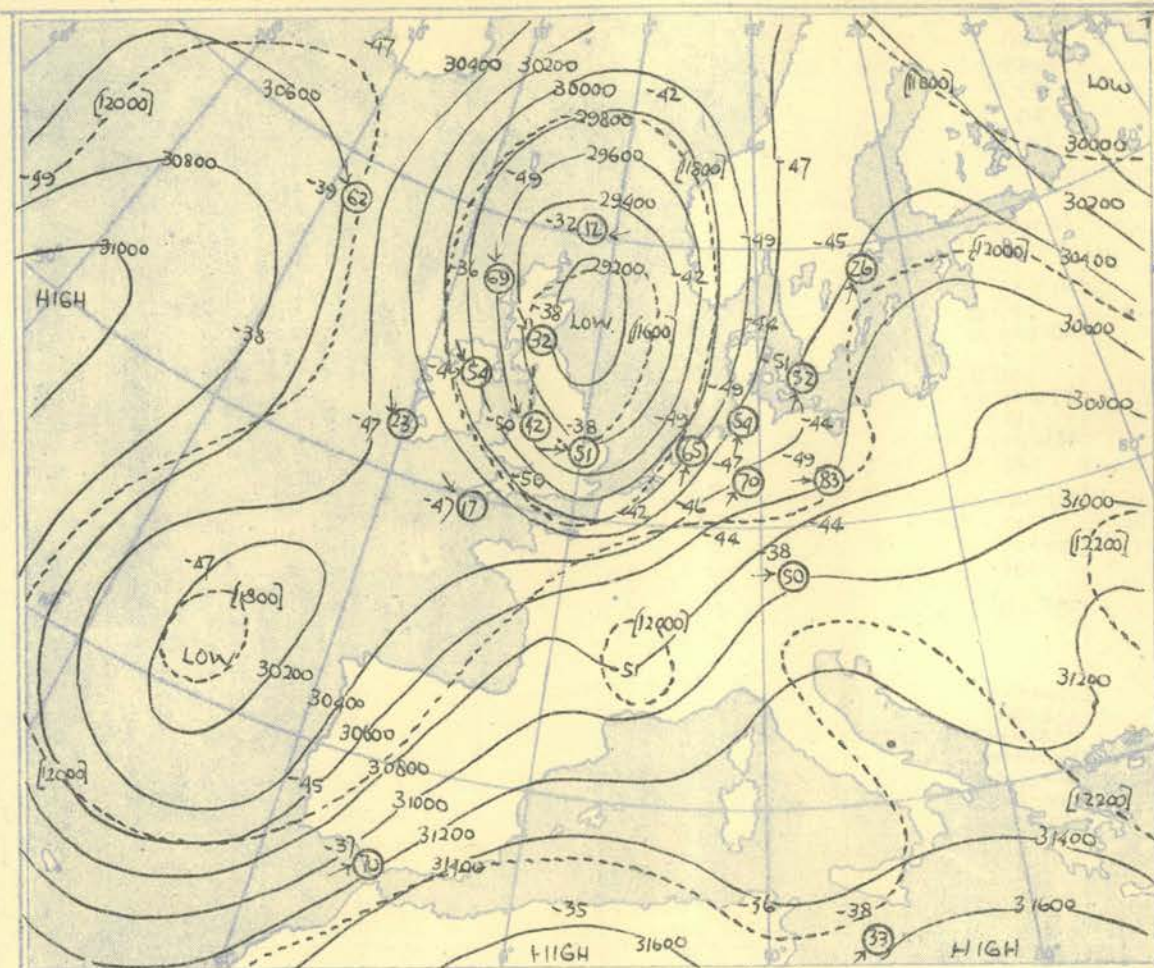
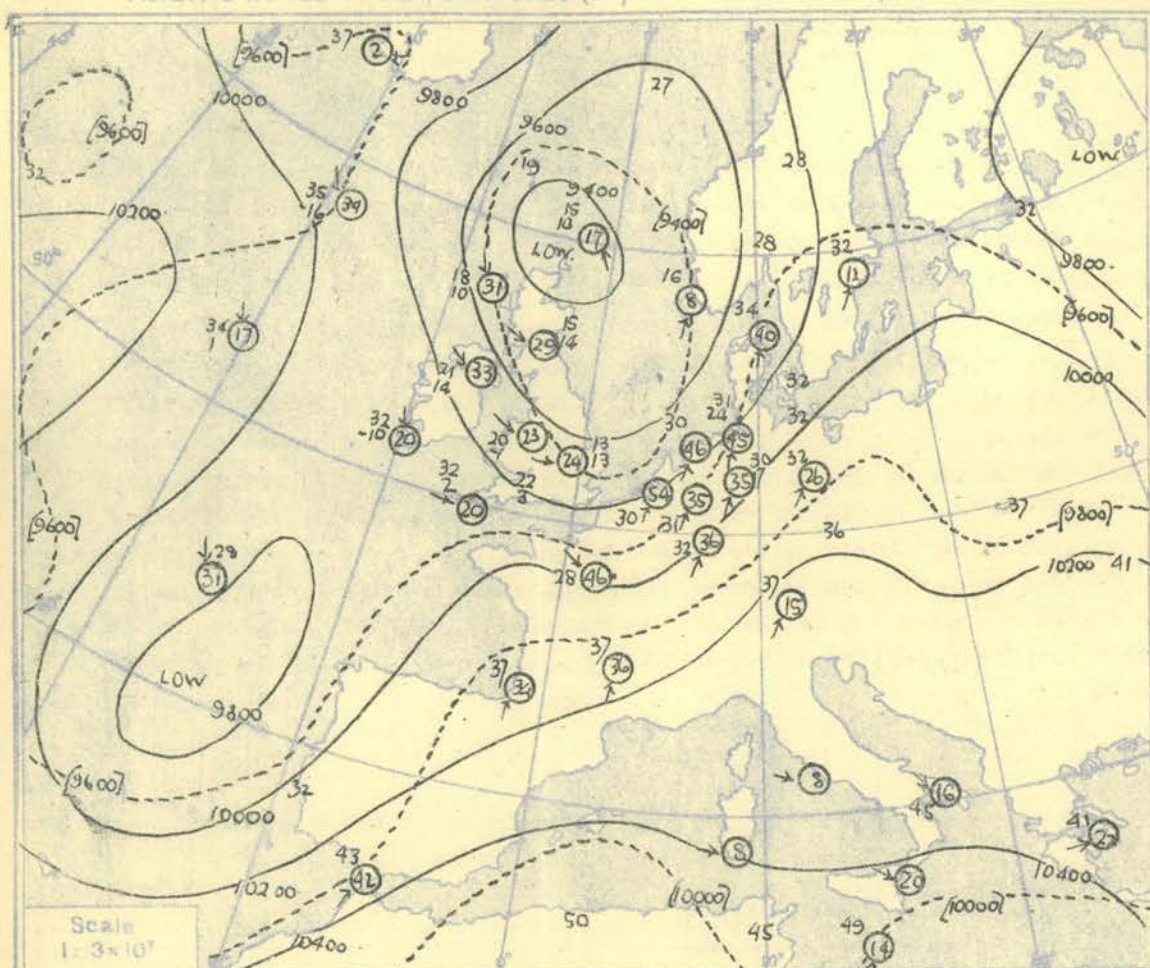
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

Ship	Weather Explorer.	Weather Explorer.	Weather Explorer.	Weather Explorer.	CUMULUS.	CUMULUS.	CUMULUS.	CUMULUS.	Ship									
Lat/Long	59°0' 19' 1W.	58°3' N 18' 1W.	58°3' N 18' 8W	59°0' N 18' 8W	52°5' N 20' 0W	52°5' N 20' 0W	52°5' N 20' 0W	52°5' N 20' 0W	Lat/Long									
Time M.S.L. Surf Pressure	03h 1018 1018 690	G.M.T. mb mb mb	09h 1015 1015 710	G.M.T. mb mb mb	15h 1013 1013 675	G.M.T. mb mb mb	21h 1011 1011 690	G.M.T. mb mb mb	03h 1020 1020 700	G.M.T. mb mb mb	09h 1020 1020 675	G.M.T. mb mb mb	15h 1021 1021 670	G.M.T. mb mb mb	21h 1020 1020 685	G.M.T. mb mb mb	Time M.S.L. Surf Pressure	
Surf	49 49 300	11	51 51 290	11	50 50 280	11	50 49 290	14	54 41	5'5	54 43	5'5	54 41	5'5	54 41	5'5	54 41	Surf
1000	48 46 308	13	49 49 306	15	50 48 297	15	50 42 294	18	54 39	5'5	54 39	5'5	54 39	5'5	54 39	5'5	54 39	1000
950	44 38 311	15	46 46 306	14	46 42 300	19	45 39 300	19										950
900	44 35 320	18	43 43 319	14	43 40 306	22	41 31 315	22										900
850	42 16 327	18	41 41 325	24	46 16 324	24	47 02 317	25	41 28		36 16	39 12	46 21					850
800	65 0 40 06 336	17	64 1 40 40 328	26	63 9 45 22 328	25	63 4 45 22 311	22	For		For		For					800
750	37 19 336	19	37 35 339	29	39 23 327	30	39 27 310	25										750
700	33 25 338	26	30 28 329	36	35 16 320	34	33 24 310	29	101 32 07 winds	101	34 15 winds	100 34 01 winds	101 34 28 winds					700
650	27 16 341	28	25 23 323	33	29 34 322	39	27 18 310	29										650
600	140 21 10 338	27	139 21 07 320	33	140 23 38 329	40	139 17 09 310	31	See		See		See					600
550	13 02 337	35	13 16 321	35	17 43 330	34	10 03 315	27										550
500	186 03 07 333	39	185 04 24 331	42	186 06 50 334	30	185 01 06 318	30	187 05 22 top	187	07 26 top	187 09 13 top	187 05 11 top					500
450	08 15 333	46	06 35 348	47	04 58 356	36	07 16 314	32										450
400	240 17 33 333	60	239 17 45 333	58	240 13 53 335	42	238 17 28 312	39	of		of		of					400
350	28 38 333	51	27 51 330	60	23 44 333	48	29 39 312	52	page		page		page					350
300	306 42 333	63	305 42 330	78	307 39 56 334	62	304 42 312 48	307 44			308 45	308 38	307 47					300
250	61 333	63	62 330	80	56 324	66	58 312 57											250
200	393 66 333	47	392 68 330	55	394 71 324	54	391 66 312 45	394 69			394 67	396 76	392 74					200
170	62 333	36	56 336	36	58 324	30	54 312 33											170
150	59 333	31	57 331	29	51 338	26	51 313 25											150
130	61 333	24	59 331	15	54 324	24	51 321 15											130
110	60 333	22	58 331	22	50 305	20	52 325 14											110
100	540 67 333	16																



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.



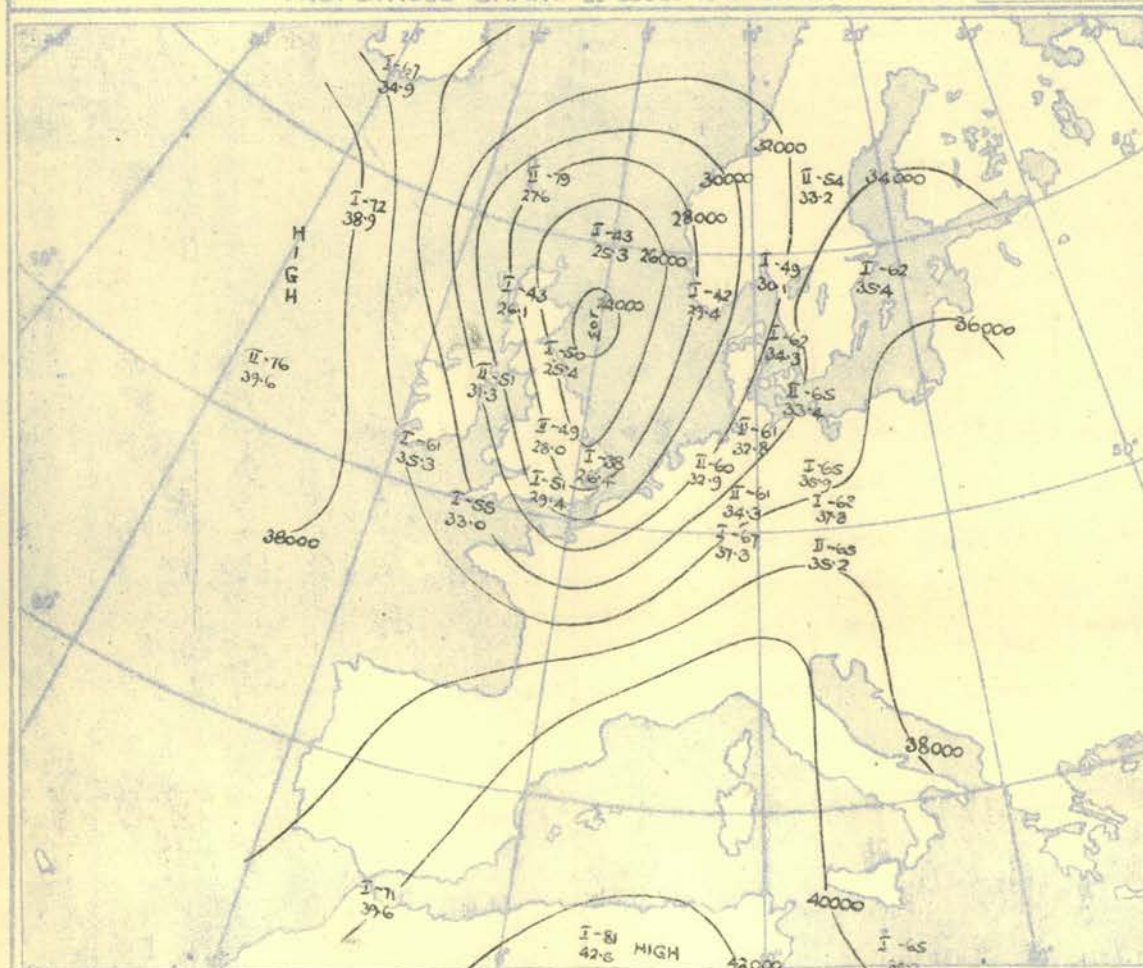
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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



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.

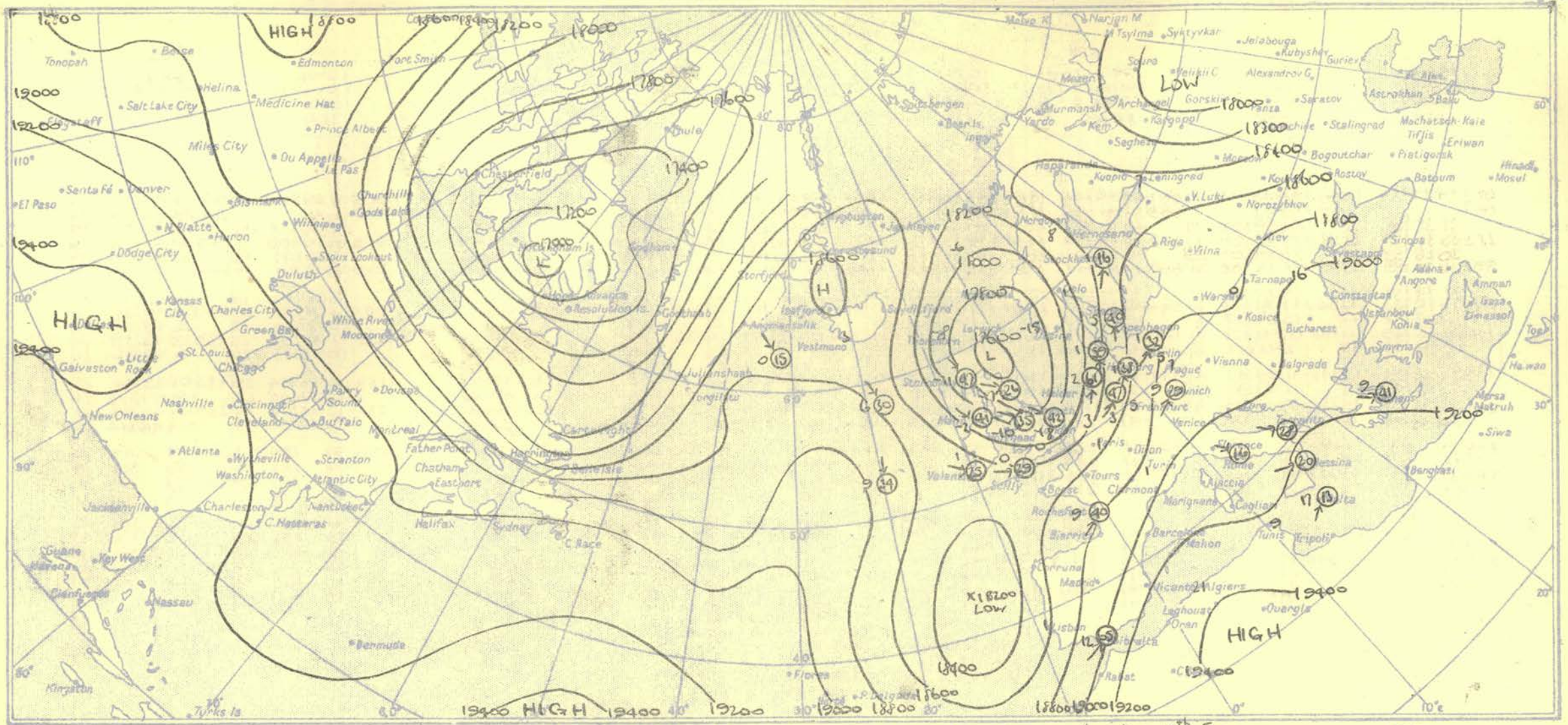
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool between Scotland and Norway moved little but swung a cold trough from Ireland across England to the Southern North Sea. The cold pool east of the Azores drifted slowly east. A warm ridge continued to dominate the Central Atlantic.

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

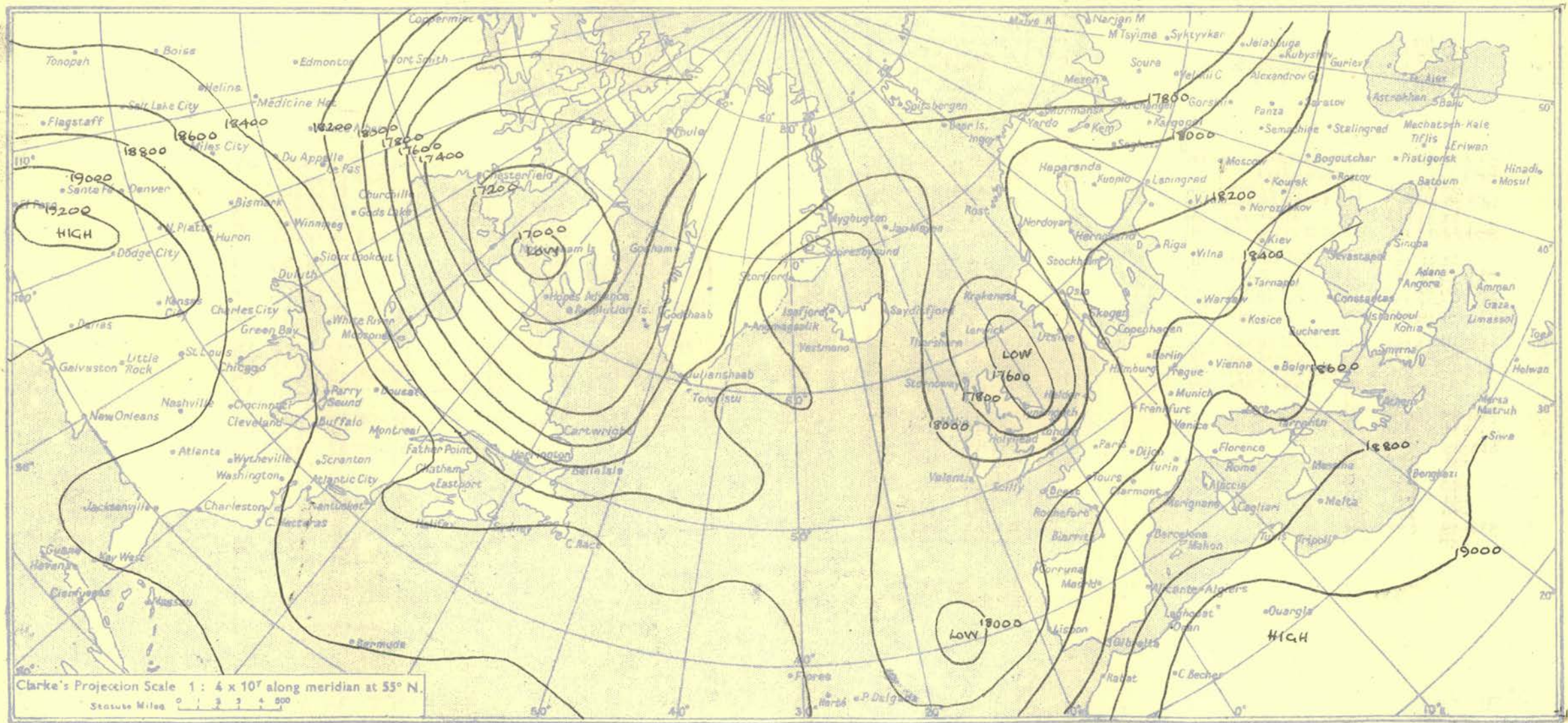




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 15th June.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> 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 M.S.L. Surf Pressure	15hrs 1000.7 990.7 865	G.M.T. mb mb mb	15hrs 1002.5 1000.5 850	G.M.T. mb mb mb	15hrs 1004.3 1003.5 832	G.M.T. mb mb mb	15hrs 1009.7 1009.2 826	G.M.T. mb mb mb	15hrs 1008.9 1007.2 837	G.M.T. mb mb mb	15hrs 1010.7 995.0 792	G.M.T. mb mb mb	15hrs 1014.0 1003.1 700	G.M.T. mb mb mb	15hrs 1014.8 1013 700	G.M.T. mb mb mb	Time M.S.L. Surf Pressure
	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Pressure mb	
Surf	02.7 45 43 133	10.0 54 45 340	12.0 54 43 290	14.0 53 46 300	15.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	12.0 53 43 290	Surf
1000	00.1	00.7 48 44	00.9 53 43 245	02.7 53 46	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	02.6 56 42 287	1000
950	41 38 158	21 42 35 302	21 45 36 250	22 47 38 270	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	18 46 31 295	950
900	28.3 33 32 139	23.9 0 37 34 303	23.3 38 32 254	22.3 31 39 33 276	21.3 1.1 39 26 297	18.3 1.2 41 34	31.5 46 30	32.5 43 30 303	11.3 2.7 41 37 334	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	900
850	30.2 26 159	27 32 25 303	29 32 31 262	20 36 31 280	27 32 21 294	17 34 33	35 32	35 26 271	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	12 38 31 330	850
800	59.2 26 22 159	25.6 0.1 28 308	31 60.3 27 26 277	22.6 2.5 30 27 283	27 62.1 31 13 290	26.2 3.2 26 26	63.3 33 19	63.3 36 13 267	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	14.6 4.0 38 21 338	800
750	21 13 158	21 24 20 303	36 22 21 284	23 37 33 297	26 26 06 292	22 19 19	26 19	23 08 292	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	750
700	93.4 15 10 153	17.9 4.3 18 10 321	31 24.6 16 15 280	25 27.1 21 14 302	33 26.7 20 12 293	23.9 6.0 13 13	26 19	23 08 292	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	700
650	06 03 148	20 18 04 328	31 10 08 277	23 17 17 308	33 14 12 289	21 06 2	21 06 2	23 08 292	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	19 34 13 338	650
600	132 01 5 149	21 133 07 6 328	31 133 03 1 277	22 136 14 14 311	37 136 07 12 297	26 138 1 9	137 18 12	139 17 12 291	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	600
550	-5 -13 153	19 -2 18 328	39 -6 13 290	21 16 16 18 317	39 -1 15 297	32 -9 18	137 18 12	139 17 12 291	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	23 139 19 23 329	550
500	176 15 23 154	15 178 11 29 335	47 177 17 23 290	26 182 4 23 318	41 180 19 27 298	38 178 18 29	183 00 27	184 00 26 274	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	29 185 01 33 320	500
450	-23 34 143	15 -21 37 337	53 -27 32 287	26 -14 28 319	48 -19 32 297	38 -26 42	-11 37	-12 37 273	28 -9 27 334	28 -9 27 334	28 -9 27 334	28 -9 27 334	28 -9 27 334	28 -9 27 334	28 -9 27 334	28 -9 27 334	450
400	228 36 43 153	15 230 33 44 326	60 229 35 43 277	31 238 25 44 319	53 233 30 43 306	42 230 31 50	236 24 48	238 23 48 274	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	26 239 21 31 332	400
350	-35 50 144	13 -41 330	60 -47 287	37 -38 56 325	56 -42 311	46 -36 56	-38 58	-36 56 253	24 -34 49 320	24 -34 49 320	24 -34 49 320	24 -34 49 320	24 -34 49 320	24 -34 49 320	24 -34 49 320	24 -34 49 320	350
300	293 32	052 12 293 36	31 69 293 38	300 32 299 49	323 54 297 50	318 42 293 38 58	301 50	302 47	294 17 304 47	313 23	301 50	302 47	294 17 304 47	313 23	301 50	302 47	300
250	385 32	089 06 367 35	348 20 384 35	283 18 388 42	304 28 386 42	263 23 386 43	46	50 267	25 -55 322	24	391 50	257 26 391 58	326 31	391 50	257 26 391 58	326 31	250
200	32	11 05	328 11	40 273 11	43 290 12	47 263 23	46	46	256 23	21	46	256 23	54 324	46	256 23	54 324	200
170	-38	085 03	40 313 09	41 270 09	46 300 21	44 275 20	44	47 259 24	54 324	21	46	256 23	54 324	46	256 23	54 324	170
150	-38	037 03	41 270 06	43 272 13	48 251 17	47	46	48 252 15	52 315	13	46	256 23	54 324	46	256 23	54 324	150
130	-41	085 02	43 270 06	43 255 12	48 244 21	49	46	48 252 15	52 316	12	46	256 23	54 324	46	256 23	54 324	130
110	542 44	135 03 542 44	539 43	542 43	12539 43	150 14 538 50	543 50	543 50	541 52	10	543 50	231 19 541 52	317 09	543 50	231 19 541 52	317 09	110
90	40	150 06	40	40	40	40	40	40	40	90	40	150 06	40	40	150 06	40	90
80	40	40	40	40	40	40	40	40	40	80	40	40	40	40	40	40	80
70	40	40	40	40	40	40	40	40	40	70	40	40	40	40	40	40	70
60	40	40	40	40	40	40	40	40	40	60	40	40	40	40	40	40	60
Max wind. 32.6 m/s 78 kts. 325 mb 28200'																	
(45)-42 Isothermal 850-826 mb 32'																	
Inversion 670ms 20-641ms 22' Isothermal 780-707ms 33'																	
(63)-50 Isothermal 850ms 35-829ms 39' 752ms 32-715ms 34'																	
Tropopause	I 359 mb -43° 25300'	I 365 mb -43° 26100'	I 363 ms -50° 25400'	II 282 ms -51° 31300'	II 324 mb -49° 28000'	I 343 mb -38° 26400'	I 310 ms -51° 29400'	I 265 ms -58° 33000'	I 240 ms -61° 35300'	Tropopause							
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION								
Time M.S.L. Surf Pressure	21hrs 1000.6 990.6 851	G.M.T. mb mb mb	21hrs 1002.3 1000.2 860	G.M.T. mb mb mb	21hrs 1010.8 1002.2 850	G.M.T. mb mb mb	21hrs 1010.0 1008.6 821	G.M.T. mb mb mb	21hrs 1011.2 995.4 740	G.M.T. mb mb mb	21hrs 1013.5 1008.0 725	G.M.T. mb mb mb	21hrs 1013.5 1008.0 725	G.M.T. mb mb mb	21hrs 1013.5 1008.0 725	G.M.T. mb mb mb	Time M.S.L. Surf Pressure
	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots	Pressure mb	
Surf	02.7 46 44 133	09.0 54 45 320	15	02.3 50 45 290	13	01.2 55 45 250	07 4.4	270 05 02.9 53 46 337	03	Surf							
1000	00.1	00.6 48 44	00.6 48 44	01.9	44 40 286	21	02.7 53 41	3.1	03.7 53 46	1000							
950	42 42 150	19 43 37 336	32	44 40 286	21	50 41 275	18	50 42 287	12	950							
900	28.4 36 36 140	18.2 30 36 303	33	31.3 39 36 291	24	42 36 280	22 31.8	43 36 290	10 32.2	900							
850	32 31 133	17 31 26 340	36	32 29 200	23	35 30 265	23	37 24 288	11	850							
800	59.3 28 27 134	18.5 29 27 339	31	62.3 26 23 205	24	62.6 25 22 251	20 63.1	34 12 286	13 63.3	800							
750	22.2 140	14 23 08 336	33	25 19 207	29	27 08 259	19	33 09 272	22	750							
700	93.6 15 13 150	18.4 2 16 8 338	32	26.													

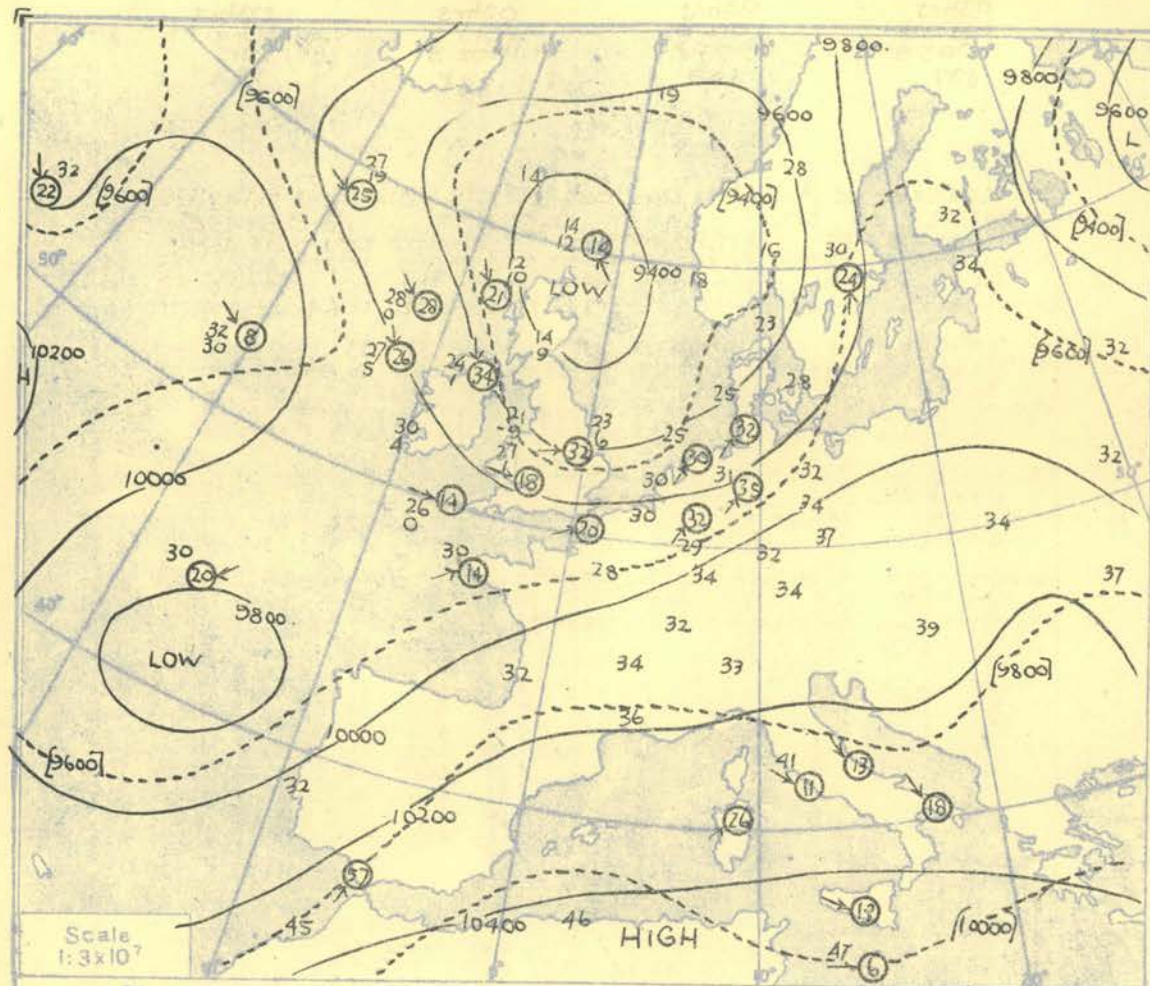


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Pressure	Time	03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	M.S.L.	1000.6				1003.1				1002.2				1009.4				1008.4				1010.4				1012.0				1013.1				1013.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Surf	990.5				1001.3				1001.4				1000.7				1006.4				1005.9				995.8				1002.5				1002.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Freezing	859				772				859				840				882				837				809				821.748				821.748																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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	ft./100	°F.	°F.	Dir. Vel. knots																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Surf	02.7	46	44	090	02.00	547	45	330	10	062	47	39	02.3	47	44	285	10	00.6	51	41	01.2	48	44	225	08	4.4	43	41	260	05	2.9	48	45	Calm	0.3	53	47	300	07																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
1000	00.1	43	42	107	00.34	47	46		00.64	63			02.3	48	43		02.3	50	40		02.8	48	43		3.2						03.5	49	46		3.9	54	45	302	05																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
950		43	42	107		41	40	312	23		41	35		44	39	291	22		44	37		48	38	253	18		47	38	298	08		49	44	303	09		48	40	313	11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
900	28.4	37	37	112	13	29	135	34	321	21	28	93	36	30.9	40	34	300	24	30	31	31.3	41	33	240	17	31.7	42	30	300	09	32.2	43	37	319	10	32.5	43	32	342	11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
850		31	31	117	16	30	29	327	21		31	27		33	30	309	26		29	27		34	25	240	16		37	25	273	09		36	32	317	10		42	33	347	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
800	59	22	25	113	17	60	024	23	333	24	59	27	22	62.0	30	23	311	25	61.3	25	18	62.4	27	21	261	17	63.0	31	15	256	12	63.3	38	09	282	10	64.1	36	30	345	11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
750		20	19	121	15	18	17	333	21		20	16		27	13	314	26		25	-2		22	15	269	21		30	06	259	16		33	09	256	13		32	27		750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
700	93	14	12	126	14	94.1	12	10	330	21	94	014	09	96.6	24	01	315	34	95.8	21	-9	96.9	23	06	264	32	97.8	27	01	267	18	98.5	26	00	267	14	99	23	004	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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600	132	-2	-4	127	12	133	04	02	329	42	132	01	-13	136	15	08	315	37	135	09	-8	136	12	-9	257	41	137	13	21	275	30	138	18	-30	285	18	139	16	-19	600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
550		-10	-12	122	13	-3	-6	331	48		-8	-22		06	-1	316	41		01	-17		02	12	256	46		04	-22	273	36		09	-37	278	19		10	-29	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
500	175	-19	-23	125	13	177	-12	-16	323	60	177	-17	-31	181	-3	-10	317	42	180	-8	-27	181	-8	-17	260	51	182	-5	-29	270	36	184	00	-38	268	19	185	02	-31	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
450		-31	-36	118	16	-23	-27	325	64		-26	-38		-14	-22	317	43		-21	-35		-18	-28	262	52		-14	-33	274	40		-11	-32	280	19		-7	-40	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
400	226	-46		117	16	229	-35	-40	326	75	228	-31	-41	234	-26	-34	317	51	232	-34	-48	234	-28	-39	257	66	235	-26	-38	265	40	237	-23	-33	269	27	238	-19	-50	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
350		-43		043	06	-45		328	68		-43			-40	-46	321	52		-48			-40	-49	247	72		-38	-53	257	47		-34	-46	273	22		-32	-57	350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
300	290	-36		016	06	293	-54				292	-44		299	-33		307	54	295	-55		298	-52		243	77	300	-53		251		48	302	-47	281		24	304	-47	300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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200	382	-37		025	05						382	-46		385	-53		311	31	383	-51		386	-51		244	39	385	-63		251		35	389	-58	280		22	390	-65	200																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
170		-40		012	03						-47			-50		308	21		-50			-51			249	29		-63				-56		259	19		-59	170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
150		-42		295	03						-49			-53		297	16		-53			-50			283	24						-54		257	21		(155)-58	150																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
130		-47		266	03						-51			-53		304	13		-52			-53			250	25						-53		265	20			130																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
110		-52		083	05						-53			-53		285	10		-53			-53										-56		253	16			110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
100	535	-52									-54			536	-54		282	10	533	-57		537	-58									-57		242	16			100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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		Isothermal				995-975 mb 46°								Inversion				627 mb 30°-815 mb 31°				Inversion				608 mb 24-775 mb 24°				Inversion				1006 mb 48-98 omb 996 mb 43-964 mb 49°				Inversion				52786 mb 29-710 mb 30°				Isothermal				1001 mb 48-989 mb 51°				Inversion				821 mb 32-800 mb 38°				Isothermal				1000-688 mb 30°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							



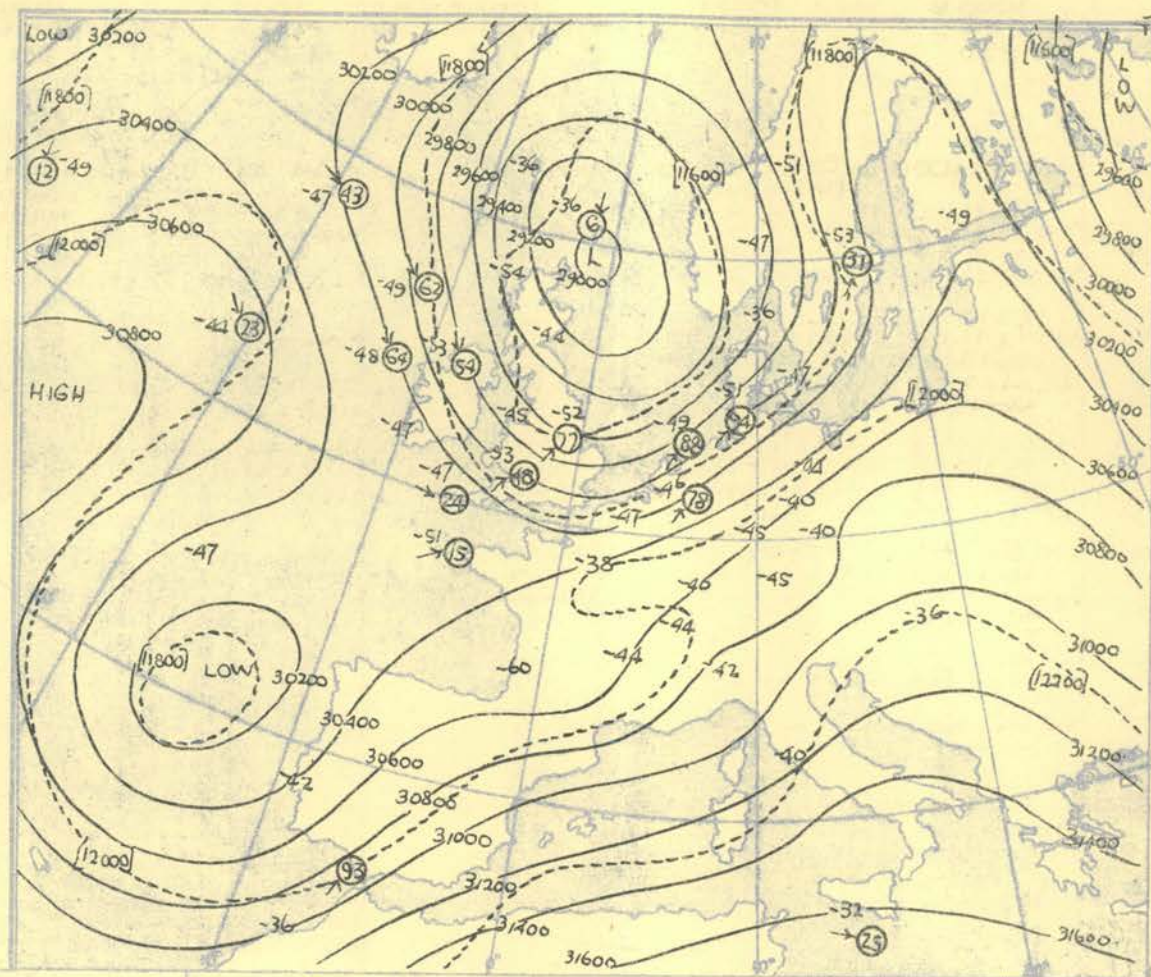
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



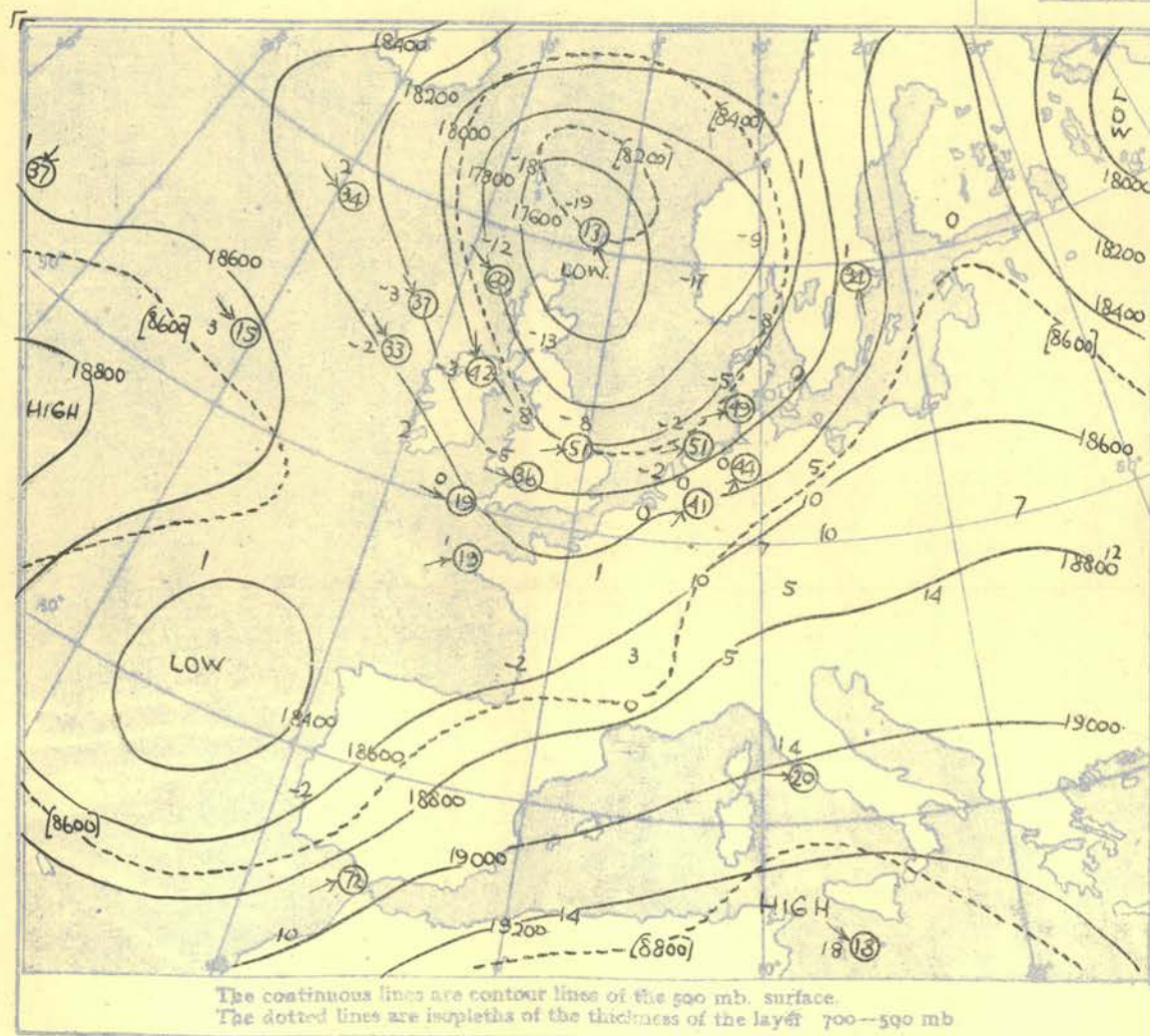
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52^\circ$  N

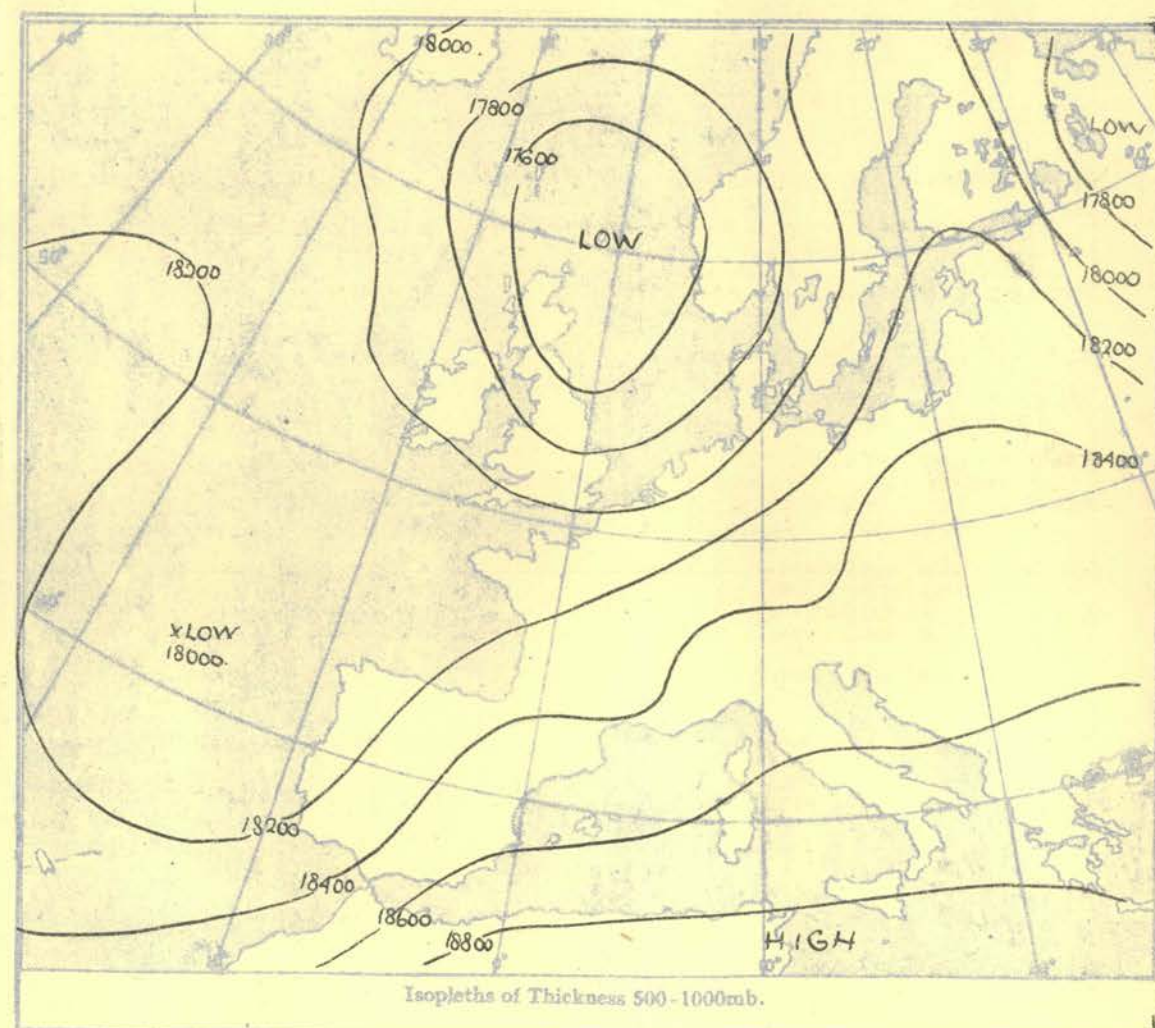
100 80 60 40 20 0 10 20 30 40 50 60 70 80 90 100 knots



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

48.2°N 20.5°W				49.5°N 14.7°W				51.3°N 0.4°E																				Time M.S.L. Surf Freezing			
12 hrs 1021 mb 1017 mb 650 mb				1345 hrs 1015 mb 1012 mb 820 mb				1421 hrs 1010.8 mb 999.4 mb 710 mb				mb mb mb mb				mb mb mb mb				mb mb mb mb				mb mb mb mb				Time M.S.L. Surf Freezing			
Pressure mb				Height ft./100 Temp. °F Dew °F				Height ft./100 Temp. °F Dew °F				Height ft./100 Temp. °F Dew °F				Height ft./100 Temp. °F Dew °F				Height ft./100 Temp. °F Dew °F				Height ft./100 Temp. °F Dew °F				Pressure mb			
Surf				01.0 57 57				01.0 57 49				03.1 65 47																Surf			
1000				057				04.3				03.1																1000			
950				47 46				48 44				55 24																950			
900				34.4 41 41				33.0 42 40				32.2 48 26																900			
850				37 37				42 38				40 31																850			
800				65.9 39 23				64.7 38 38				63.7 35 27																800			
750				40 30				35 21				35 32																750			
700				101 34 15				99 28 -				98.9 31 18																700			
650				29 -				24 -				24 21																650			
600				142 21 -				140 16 -				139 17 -																600			
550				12 -				09 -				07 -																550			
500				187 04 -				185 02 -				184 -																500			
450												-13 -																450			
400												238-25 -																400			
350												-43 -																350			
300												302-51 -																300			
250																												250			
200																												200			
170																												170			
Cloud				Cloud				Cloud																							
818 Sc 920				48 Sr 910				218 Cu 850																							
890				890				713 mb																							
818 Sc 830				618 Sc 830				218 Cs ar																							
800				750				approx																							
318 A 8540								25000'																							
530				Isothermal																											
				900-630																											
Inversion				mb 42.7				Inversion																							
850-750								760 mb 33.7																							
31°-40°								750 mb 35.5																							

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

Place	Cumulus 52-5W20N	Lymington 08hrs	Tangmere 0830hrs	Cumulus 52-5W20N	Shoeburyness 09hrs	Cumulus 52-6W20N	Leuchars 15hrs	Liverpool 21hrs	Cumulus 52-5W20N	Place	
Time	03hrs	08hrs	0830hrs	09hrs	09hrs	15hrs	15hrs	21hrs	21hrs	Time	
Type								Pilar	Pilar	Type	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	280	09	310	07	310	09	240	09	270	09	Surf.
1,000	290	12	260	08	280	10	290	10	270	10	1,000
2,000	290	12	240	11	280	12	280	07	320	10	2,000
3,000	300	13	270	13	290	08	280	10	270	09	3,000
4,000	310	09	270	14	310	08	280	10	280	11	4,000
5,000	310	08	280	16	310	08	280	10	270	15	5,000
6,000	320	10	280	16	290 15 (2000')		270 15				6,000
8,000						280 08	250 21				8,000
10,000	330 08					280 08	250 21	270 12			10,000
14,000						290 11	260 22	260 24			14,000
18,000	310 15					300 12	270 22	260 25			18,000
24,000	320 32					300 12	260 24	270 30			24,000
30,000	320 28 (28000')					270 42	250 36	270 28	300 59	294 60	30,000
40,000							240 30		280 18	278 21	40,000
50,000							220 23 (48000')		250 10	255 08	50,000
									260 05	230 07	60000'
									(55000')/(55000')	238 08 (62000')	

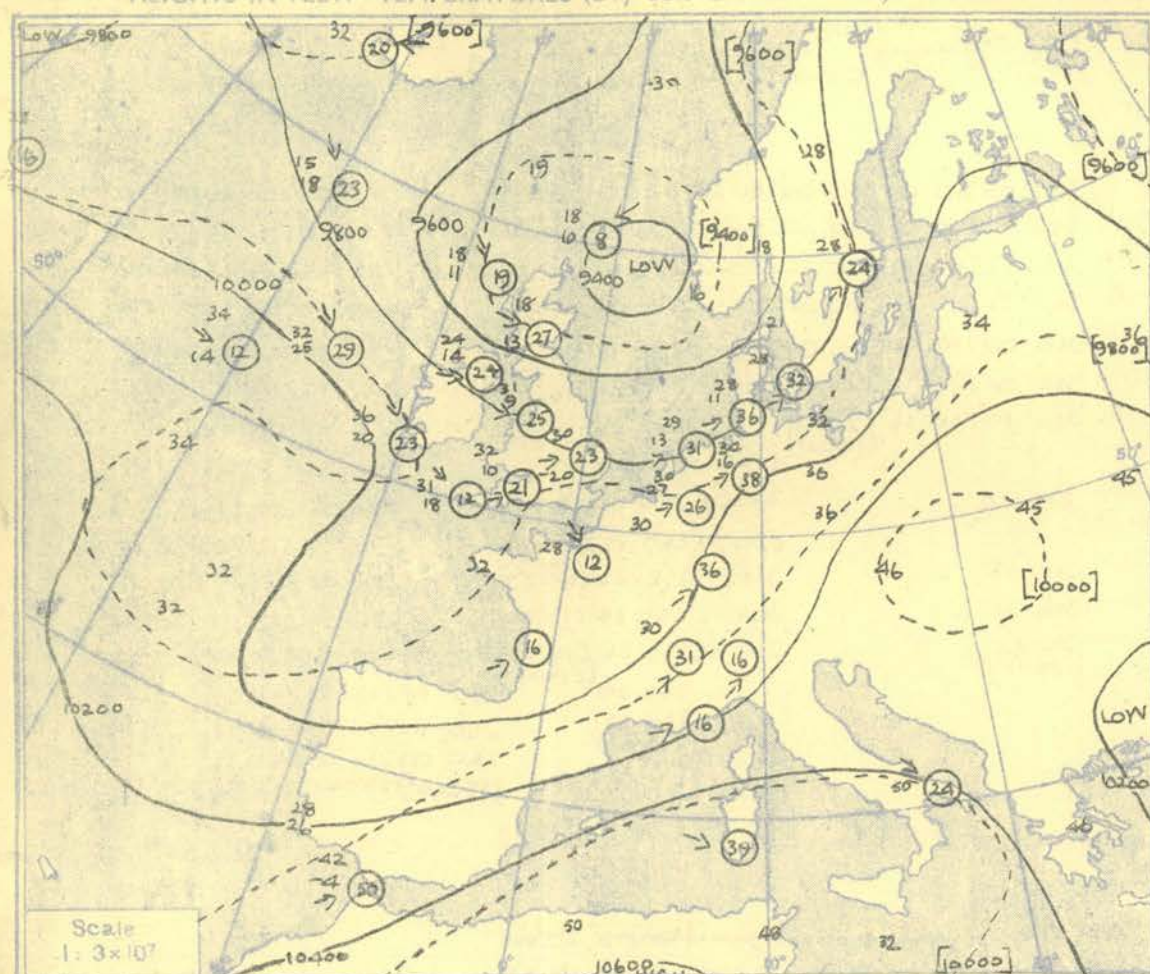
## NEPHOSCOPE OBSERVATIONS

Place	St Eval	Lymrae	Leeming	Lymrae	Leeming	St Eval	Place
Time Type	9h Ci	12h Cs	12h Cs	15h Ci	15h Cs	15h Ci	Time Type
Dir. Vel.	330 25	290 30	300 45	280 50	310 40	360 25	Dir. Vel.

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

Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Weather Watcher				Cymulus				Cumulus				Cumulus				Cumulus				Ship	
Lat/Long	59-0N 18-7W				59-0N 18-5W				59-0N 18-7W				58-9N 18-9W				54-6N 11-4W				52-5N 20-0W				52-5N 20-0W				52-5N 20-0W				52-5N 20-0W				Lat/Long	
Pressure	Time	03h G.M.T.			09h G.M.T.			15h G.M.T.			21h G.M.T.			03h G.M.T.			03h G.M.T.			09h G.M.T.			15h G.M.T.			21h G.M.T.			Time									
	M.S.L.	1009 mb			1007 mb			1007 mb			1005 mb			1010 mb			1018 mb			1016 mb			1015 mb			1013 mb			M.S.L.									
	Surf	1009 mb			1007 mb			1007 mb			1005 mb			1010 mb			1018 mb			1016 mb			1015 mb			1013 mb			Surf									
	Freezing	740			720			705			785			795			705			685			680			680			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.		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.		°F.	Dir. Vel.	ft./100		°F.	°F.	Dir. Vel.	ft./100	°F.
Surf	25	49	49	300	09	18	49	46	270	05	18	49	42	295	13	14	49	46	340	09	30	53	50	297	14	49	55	48	41	55	50	36	55	50	Surf			
1000	25	49	48	308	06	18	48	45	312	06	18	48	39	318	09	14	48	42	339	11	30	52	49			49	52	46	41	54	48	36	54	50	1000			
950	45	40	308	10	45	41	306	08	44	35	313	10	41	32	350	11	46	43	304	22	49	52	46			49	52	46	41	54	48	36	54	50	950			
900	310	46	22	310	13	303	43	38	292	14	302	39	31	310	16	297	36	27	087	10	318	40	38	298	20		45	45	For Winds	46	45	For Wind	39	39	For Winds	900		
850	42	36	304	22	44	38	285	22	45	25	303	21	38	23	027	13	39	35	286	19						45	45	For Winds	46	45	For Wind	39	39	For Winds	850			
800	626	41	30	305	21	620	40	33	284	26	618	41	29	288	18	610	34	20	025	17	627	33	29	286	20			For Winds	46	45	For Wind	39	39	For Winds	800			
750	33	24	307	22	36	24	288	28	37	21	281	15	29	15	009	15	26	20	298	24								For Winds	46	45	For Wind	39	39	For Winds	750			
700	978	27	17	299	25	974	30	23	296	24	972	31	18	292	23	958	23	10	337	17	995	27	05	308	26	101	32	30	100	34	30	100	34	14	998	34	18	700
650	21	13	200	27	26	02	303	22	27	11	296	34	27	11	296	34	19	01	325	20									For Winds	46	45	For Wind	39	39	For Winds	650		
600	139	15	08	304	35	137	18	07	300	23	137	18	05	295	33	135	12	01	315	22	137	15	12	320	29											600		
550	08	00	304	35	08	10	295	27	12	01	294	30	05	16	317	20	08	11	316	36															550			
500	183	02	07	304	34	183	00	16	297	35	183	11	09	295	27	180	04	28	338	17	182	02	19	321	33	187	03	06	187	05	00	186	03	02	186	05	06	500
450	07	18	311	35	03	29	295	36	02	19	300	23	02	19	300	23	13	39	329	22																450		
400	237	18	37	305	35	237	17	38	343	40	237	14	37	298	23	233	24	45	307	20	286	22	48	335	47											400		
350	31	49	305	35	29	45	313	41	29	49	297	24	36	56	284	21	34	57	322	60																350		
300	302	47	299	43	303	44	306	39	303	43	297	22	298	50	307	17	301	48	334	64																300		
250	66	304	40		47	302	35		61	299	24	60	320	17	320	17	64	334	64																	250		
200	388	57	305	26	391	52	295	26	391	51	296	18	385	53	327	21	387	62	338	50																200		
170	55	305	21		48	294	19		51	303	18	61	329	15	329	15	57	298	30																	170		
150	45	318	14		50	292	15		49	304	09	52	339	15	(65	56																				150		
130	56	308	08		52	301	11		47	303	06	45	329	09	mb)																					130		
110	56				50	308	06		43	303	07	54	330	04																						110		
100	56				50	308	06		43	303	07	54	330	04																						100		
90	54	316	05		48	305	07		45	315	03	53	332	04																						90		
80	53	321	04		47	311	05		44	309	05	55	333	05																						80		
70	53	323	04		46	315	04		48	309	05	53	333	05																						70		
60	52	323	05		45	312	06		41	309	05	51	333	05																						60		
	Inversion 933 mb 43° 900 mb 46° 03 mb 51°				Inversion 900 mb 39° 869 mb 45° 470° - 30° 456° - 20°				Inversion 900 mb 39° 864 mb 45° 700° - 31° - 694° - 32°				Inversion 887 mb 36° - 855 mb 38°				Inversion 750 mb 26° - 735 mb 30°				Inversion 875 mb 39° 875 mb 43°				Inversion 875 mb 39° 875 mb 45°				Inversion 875 mb 39° 846 mb 48°				Inversion 850 mb 39° 853 mb 43°					
	Isothermal 672 mb - 660 mb 27° 694° - 682° - 32°				Isothermal 864 - 800 mb 45°				Isothermal 855 - 839 mb 38°				Isothermal 714 - 700° - 32°				Isothermal 875 - 846 mb 45°				Isothermal 740 - 718 mb 36°				Isothermal 705 - 700 mb 34°				Isothermal 619 - 607° - 23°									
Tropopause	I 238 mb - 70° 35,200'				I 244 mb - 58° 34,700'				I 255 mb - 61° 33,800'				I 237 mb - 62° 35,000'				I 230 mb - 71° 35,000'				I 200 - 81° 39,300'				I 183 mb - 74° 41,300'				I 190 mb - 76° 40,600'				I 245 mb - 71° 34,900'				Tropopause	

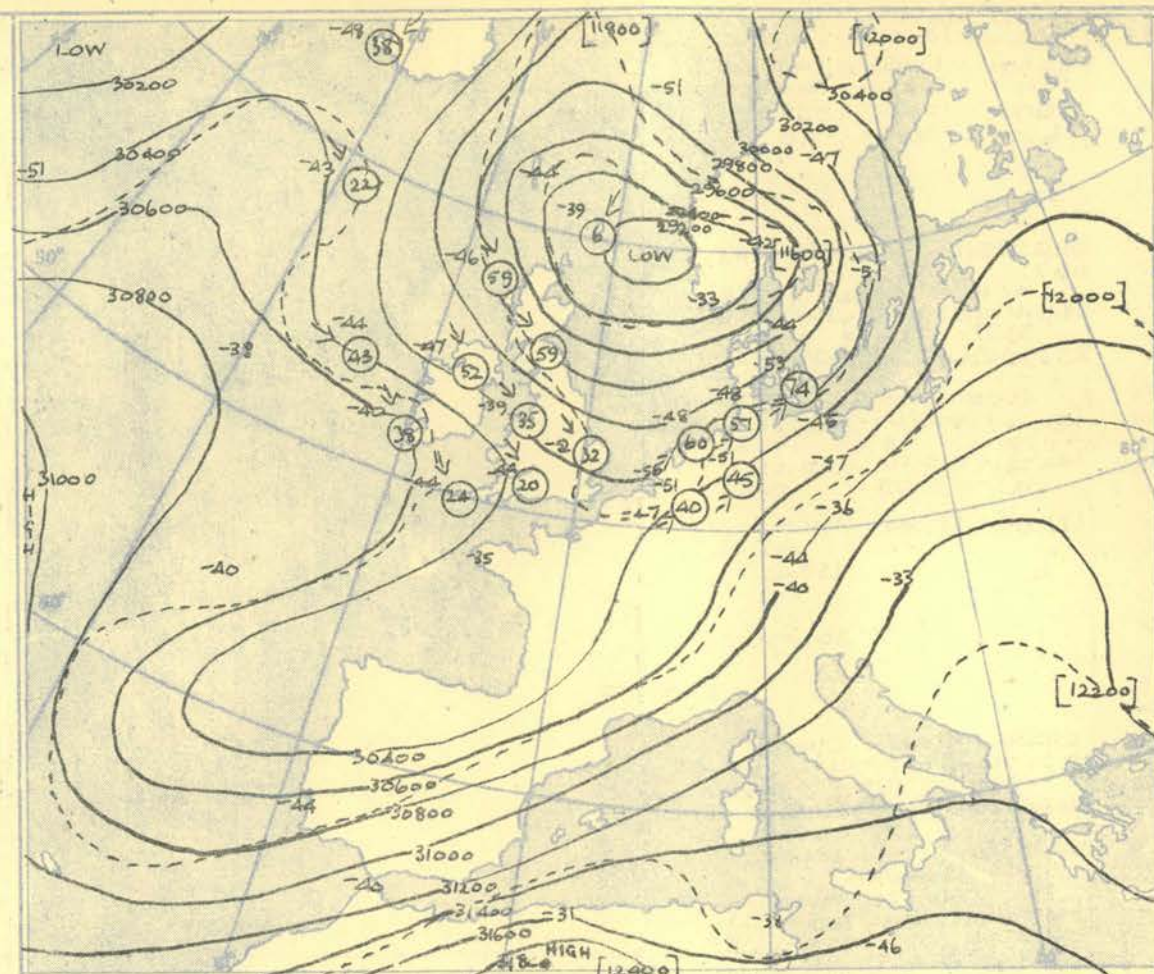




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

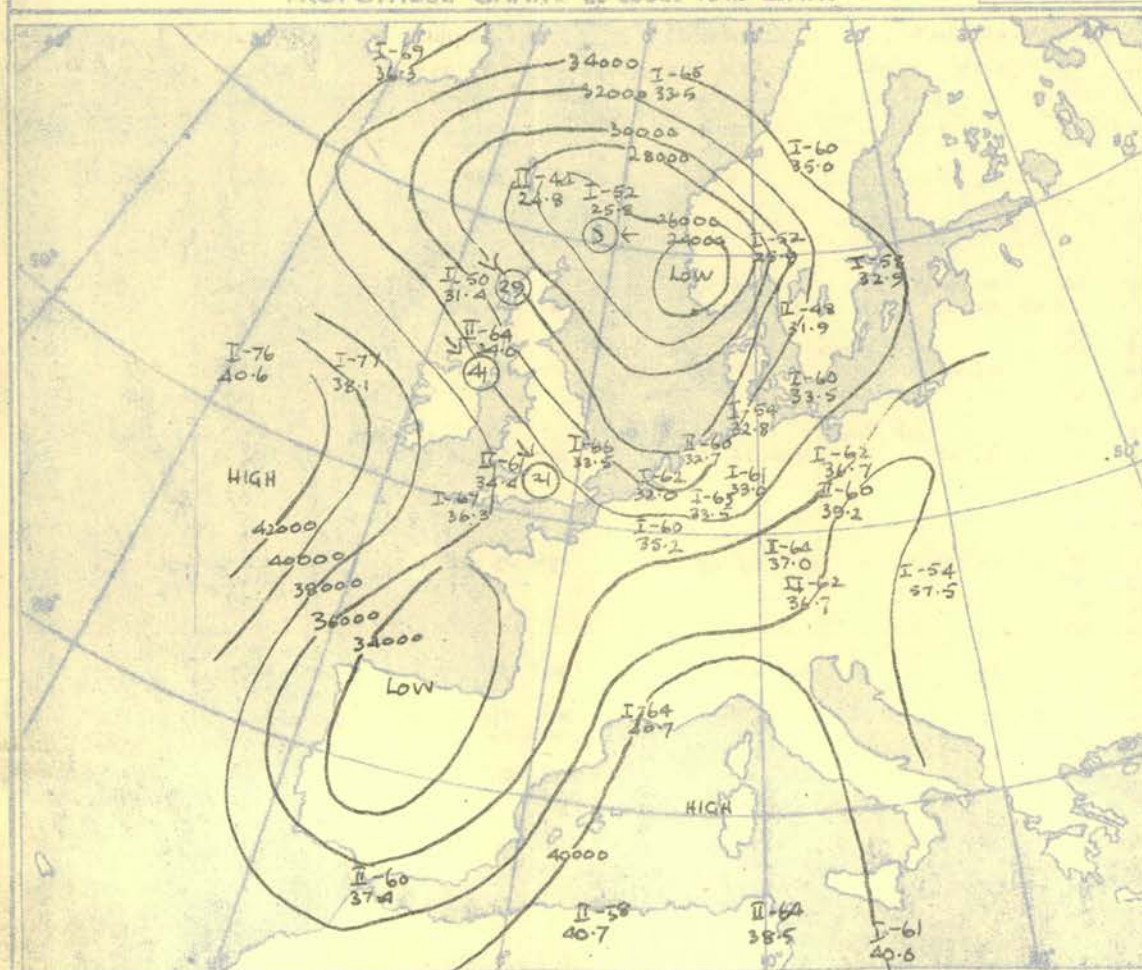
Gradient Wind Scale for Contours.  
at intervals of 200 ft. at Lat. 52° N.

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.

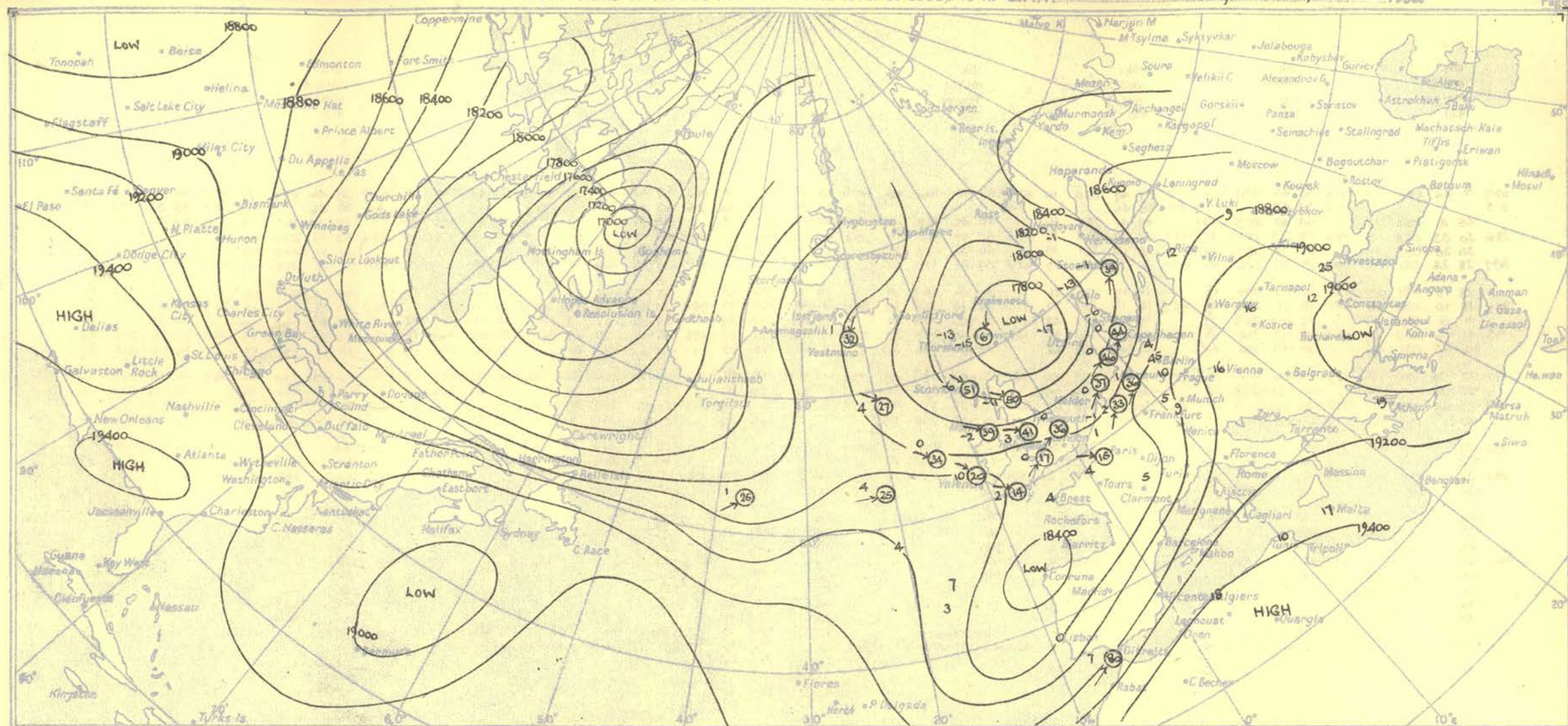


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool centred over the Northern North Sea showed little movement though there was slight warming later in the day both over this pool and also over the pool to the west of Portugal. The warm ridge in the Atlantic weakened somewhat in middle latitudes and left a warm pocket of air between Iceland and Greenland. The strong westerly thermal gradient over Eastern Canada began to enter the Atlantic with marked diffidence to the east.

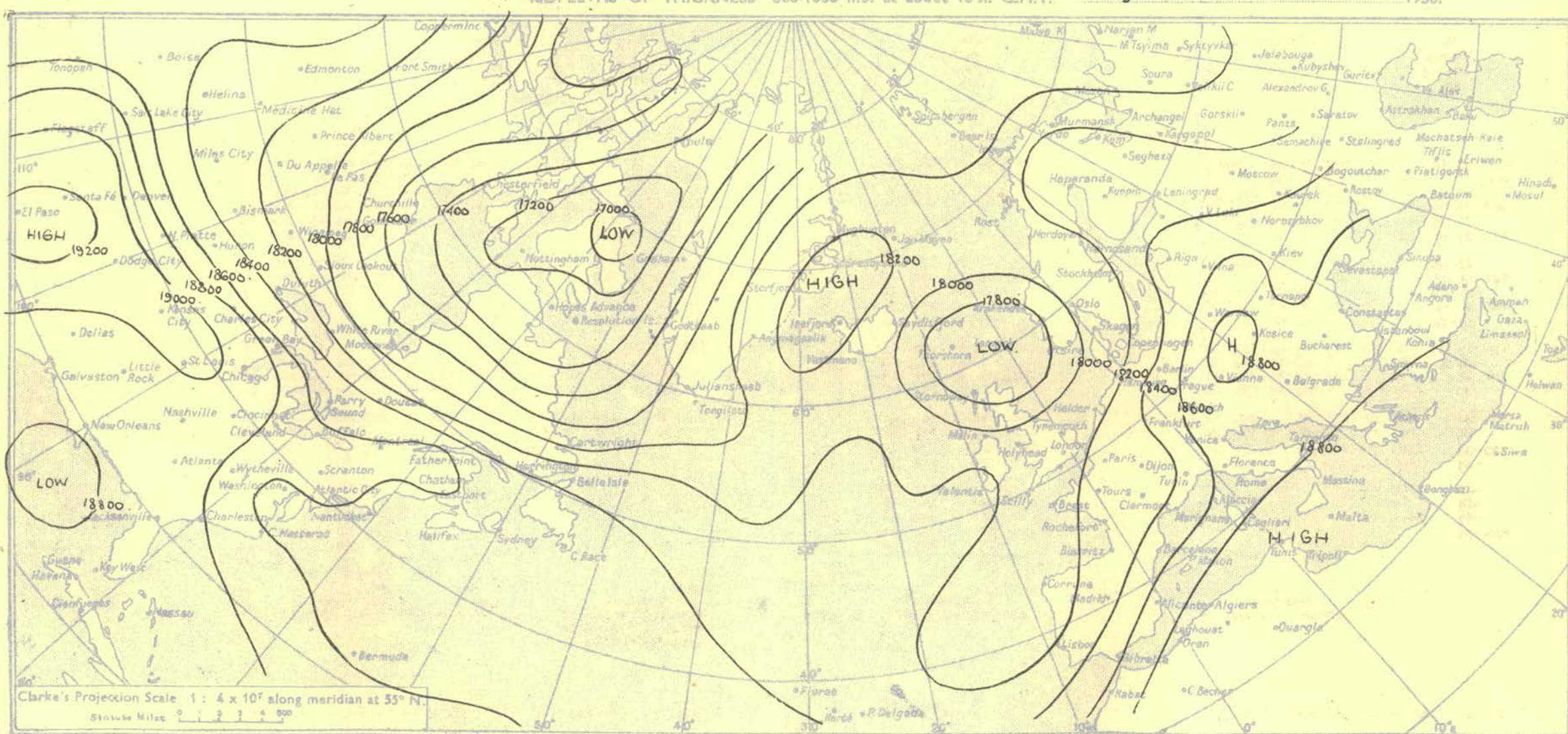




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Friday 16<sup>th</sup> June.

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 55° N.  
Statute Miles 0 1 2 3 4 5 6 7 8 9 10



# 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 Pressure	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.

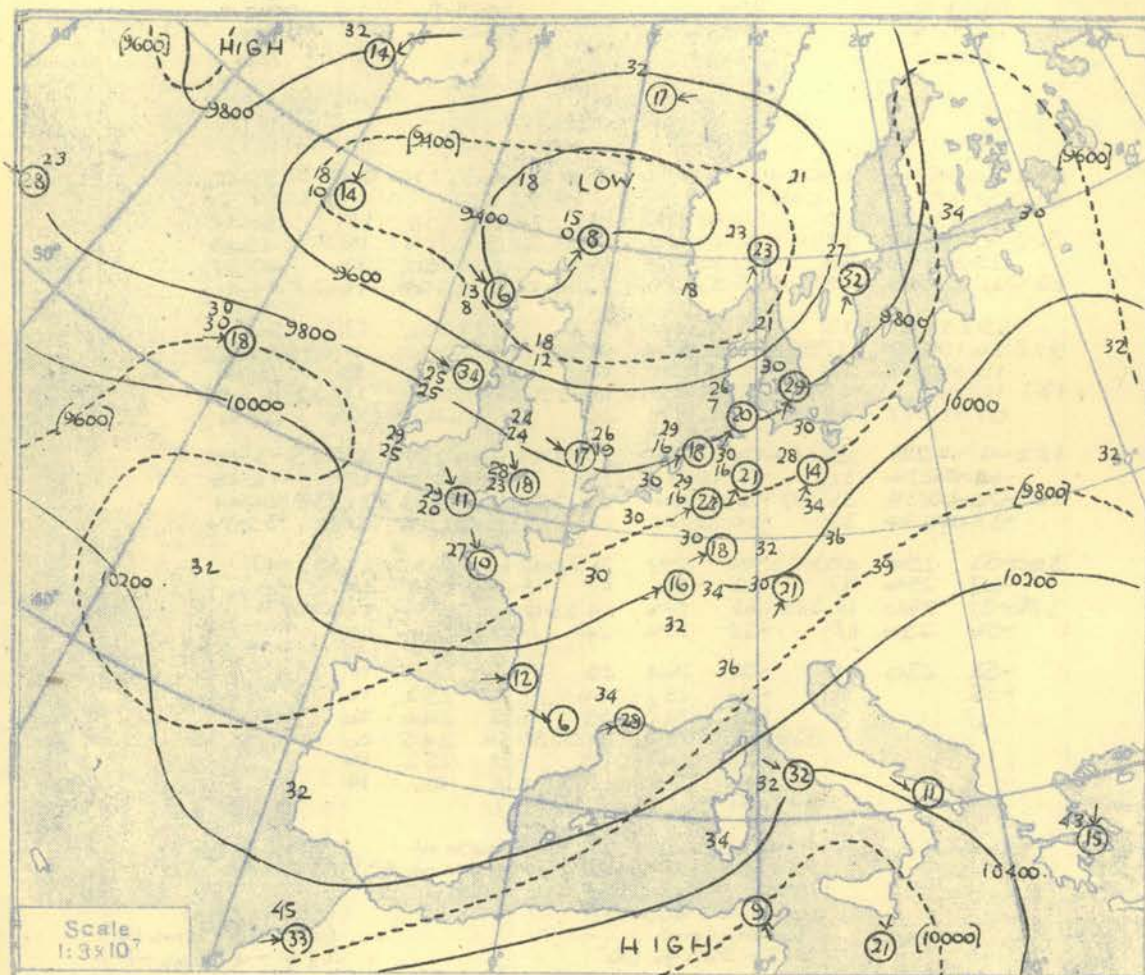


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L.	03hrs 1002.6	03hrs 1004.1	03hrs 1004.8	03hrs 1007.4	03hrs 1007.7	03hrs 1009.9	03hrs 1011.8	03hrs 1013.7	03hrs 1012.2	Time M.S.L.
Surf	992.6	1002.2	1004.0	998.5	1005.7	1005.4	995.6	1003.2	1011	Surf
Freezing	850	879	840	775	770	800	739	742	720	Freezing
Pressure mb	02.74242	00.54844	00.24946	02.35353	02.15650	01.25048	01.04445	02.55653	01.35553	Pressure mb
Height ft./100	007	01.14743	01.34945	01.9	02.15650	02.7	03.1	03.7	3.3	Height ft./100
Temp. °F.	44.42236	05 40.32260	10 45.39	48.48258	51.40	52.48257	50.48276	50.48278	50.48278	Temp. °F.
Dew. °F.	29.03834	09.29334	10.29739	30.64444	26.30945	31.54738	31.94742	32.54328	32.14323	Dew. °F.
Wind Dir. Vel. knots	04 25.25258	04 25.24288	10 33.31	40.40270	29 40.38	39.3245	43.39215	40.39292	40.39292	Wind Dir. Vel. knots
Temp. °F.	60.02819	08.60.123	11.60.828	62.13535	23.62438	63.03228	19.63.535	15.64.038	14.63.844	Temp. °F.
Dew. °F.	22.09249	06 18.14278	13 25.20	30.30284	30 31.30	29.23275	33 27.301	33 28.332	32 28.332	Dew. °F.
Wind Dir. Vel. knots	24.31500	08.94.113	16.95.018	97.02525	34.97.324	97.82619	17.98.528	18.99.129	11.99.229	Wind Dir. Vel. knots
Temp. °F.	09.42.73	10 07.01285	23 10.07	19.13251	26 21.19	19.12.272	22.12.291	22.12.317	22.12.317	Temp. °F.
Dew. °F.	133.02.102	14.132.01	22.134.08	136.12.062	38.137.16	137.12.082	25.138.17	18.139.15	18.139.15	Dew. °F.
Wind Dir. Vel. knots	-6.26261	15 -5.13286	27 00.11	05.12.85	43 07.1	67.12.77	28 10.01.271	20 11.02.302	17 09.24	Wind Dir. Vel. knots
Temp. °F.	177.16.267	13.177.14.252	34.179.8.14	182.4.102	49.182.2.9	182.4.12.273	29.184.00.826	19.184.01.11287	15.185.3.19	Temp. °F.
Dew. °F.	25.34.313	12 -23.31284	42 -18.21	14.18283	50 -11.19	-14.26276	32 -7.19287	19 -10.26298	19 -12.29	Dew. °F.
Wind Dir. Vel. knots	22.8.38.453	19.22.9.32.82	56.231.25.35	235.24.29.275	46.236.11.31	235.24.42.84	32.237.18.31291	25.238.17.28293	22.238.24.44	Wind Dir. Vel. knots
Temp. °F.	-50.344	17 -40.52282	66 -39.50	-36.42280	50 -33.42	-37.47284	37 -30.38288	28 -30.42296	21 -35.56	Temp. °F.
Dew. °F.	29.240	16.293.50	28.8 67.296.51	29.50	58.301.47	300.53	294 40.303.46	29.8 31.304.44	30.8 27.303.47	Dew. °F.
Wind Dir. Vel. knots	38.340	12 -52.291	45 -65	66 287	60 -63	67 296	37 -63 311	37 -62 338	36 -61	Wind Dir. Vel. knots
Temp. °F.	-40	293	10	280	48.387.60	386.60	280 48.389.63	28.6 24.390.63	31.8 22.210.71	Temp. °F.
Dew. °F.	-40	309	08	-59	-52	-56	256 28	-58 270	19	Dew. °F.
Wind Dir. Vel. knots	(135)-46	261 03	54	57	53	58	250 25	-55 264	18	Wind Dir. Vel. knots
Temp. °F.	130		56	60	54	58	257	-55 252	16	Temp. °F.
Dew. °F.	110		55	57	52	58	240	-55 240	20	Dew. °F.
Wind Dir. Vel. knots	100		53	54	52	58	236	-55 243	16	Wind Dir. Vel. knots
Temp. °F.	90		56	57	54	58	234	-55 233	14	Temp. °F.
Dew. °F.	80		55	58	55	58	234	-55 233	14	Dew. °F.
Wind Dir. Vel. knots	70		55	58	55	58	234	-55 233	14	Wind Dir. Vel. knots
Temp. °F.	60		55	58	55	58	234	-55 233	14	Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Temp. °F.										Temp. °F.
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
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Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										Temp. °F.
Dew. °F.										Dew. °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Temp. °F.										



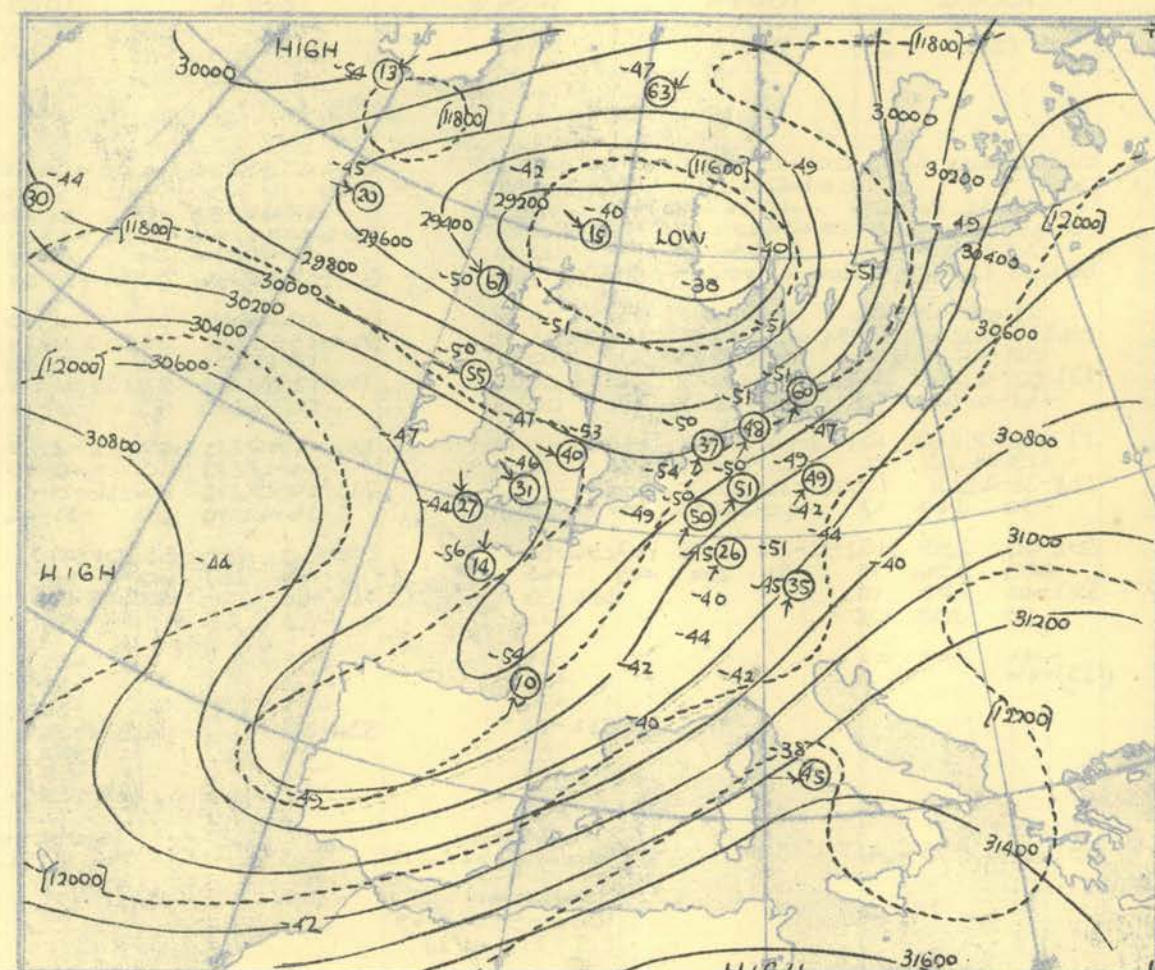
HEIGHTS IN FEET./TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



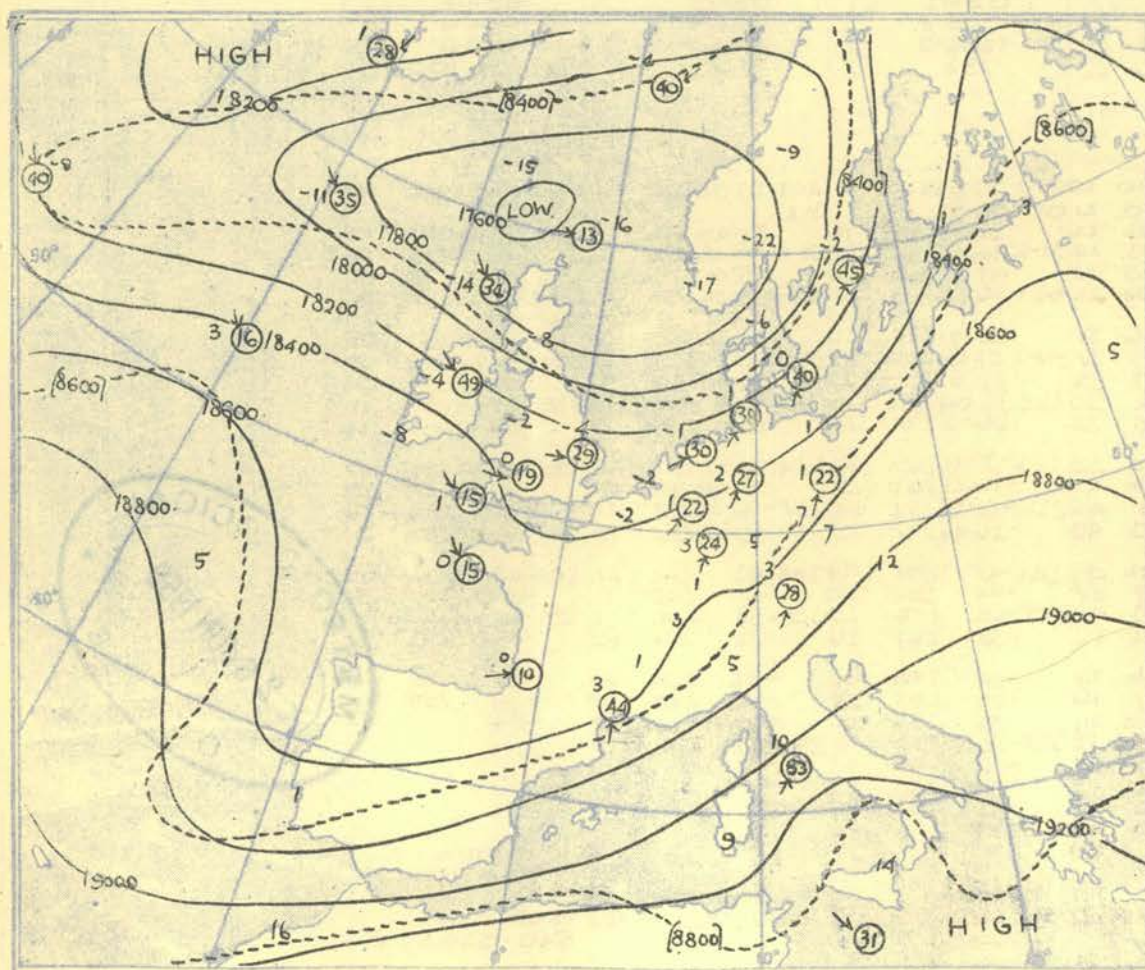
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

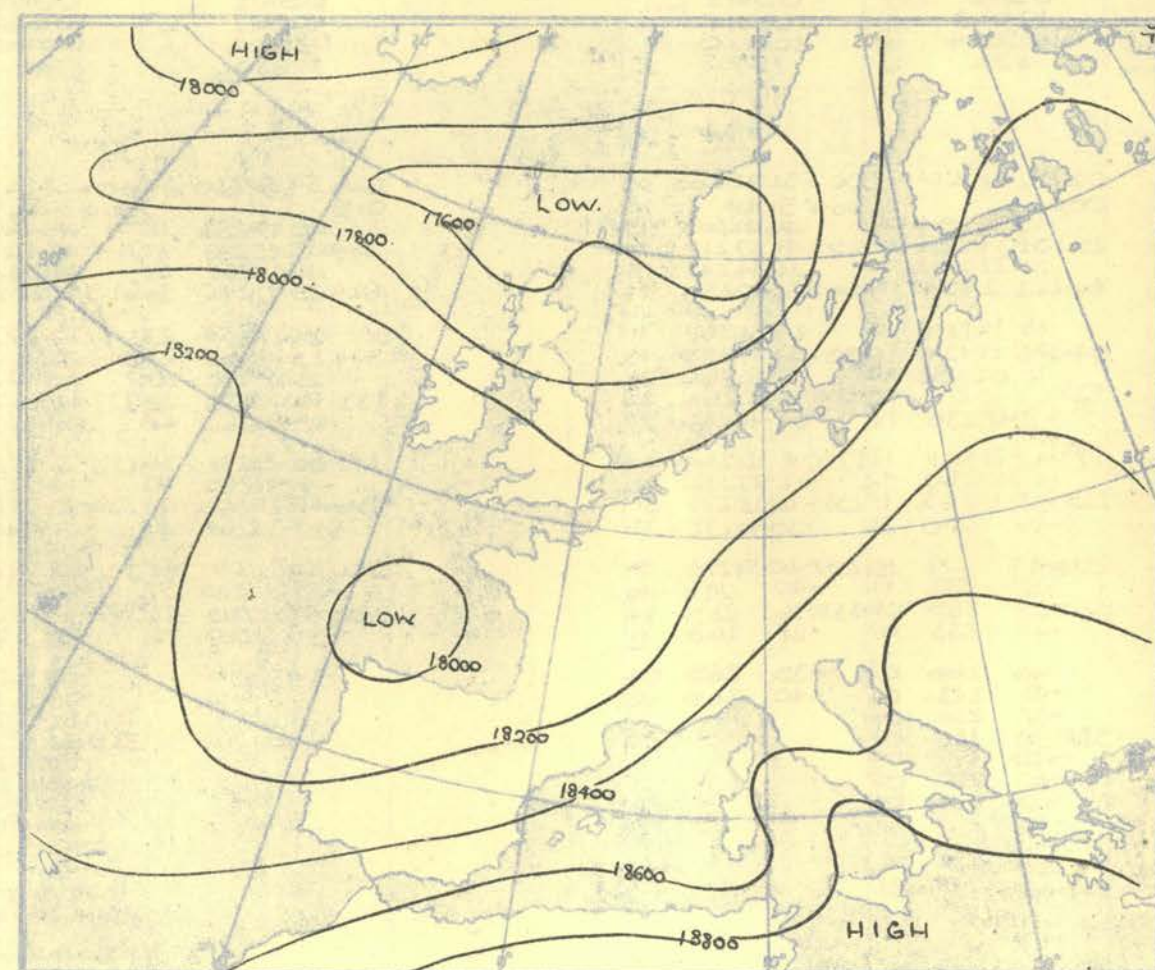
100 80 60 40 20 10 knots



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															DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																		
Pressure M.S.L. Surf Freezing	31.3°N 0.4°E	48.2°N 21.5°W	19.5°N 13.7°W												Place	Cumulus 31.3°N 19.5°N	03hrs	05hrs	08hrs	1045hrs	Lossie mouth 03hrs	Liverpool 21hrs	Lanark 21hrs	Leuchars 21hrs		Place							
	1410hrs 1012.7mb 1001.6mb 720 mb	1428 hrs 1012 mb 1001 mb 770 mb	1530hrs 1010 mb 1006 mb 740 mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	Time	03hrs	05hrs	08hrs	1045hrs	03hrs	21hrs	21hrs	21hrs		Time								
	Type														Type						Pilar	Radar	Pilar		Type								
Pressure mb	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Surf	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Surf		
Surf	03-164	54.0	51.0	53.0	51.0	53.0										Surf	250	10	250	12	250	14	280	05	250	12	112	07	240	09	Surf		
1000	03-5															1000	260	10	260	13	290	22	250	14	210	07	247	18	133	15	240	29	
950																950	270	11	270	14	300	17	270	18	210	11	251	20	135	17	240	29	
900	32-3	50.38	32.0	43.48	31.3	43.48										900	270	12	270	16	300	17		220	11	245	22	140	15	250	31	3,000	
850		44.35		40.40		42.41										850	270	14	270	16	250	12		230	09	250	22	143	14	250	35	4,000	
800	64.3	39.37	63.5	36.3	46.2	37.3	26									800	270	20	270	17	270	14		240	11	252	22	142	10	250	35	5,000	
750		38.27		32.22		30-										750								210	10	250	24	142	07	250	35	6,000	
700	99.6	29.85		28-		24-										700																8,000	
650		23-		15-		19-										650																	10,000
600	139	11	14	13	8	10	13	12								600	270	24	247	26	157	07	240	32								14,000	
550		09-		01-		04-										550																	18,000
500	185-1		183-6		182-5											500	270	18	270	23													24,000
450		-9-														450	280	18	270	25													30,000
400	239-19															400	280	16	270	21													40,000
350		-33-														350	280	16	270	28													50,000
300	304-45															300	(20000')																
250																250																	
200																200																	
170																170																	
	Cloud		Cloud		Cloud																												
	318 Cu 825		818 Cu 825		218 Cu 825																												
	718 Sc 780		710		850																												
	118 As 410		618 As 340		618 As 640																												
	117 Cs 300				610																												

NEPHOSCOPE OBSERVATIONS														
Place	Lymington	Lymington	Lymington											Place
Time Type	09h Cs	12h G	12h Ac											Time Type
Dir. Vel.	260 30	260 45	260 42											Dir. Vel.

## NEPHOSCOPE OBSERVATIONS

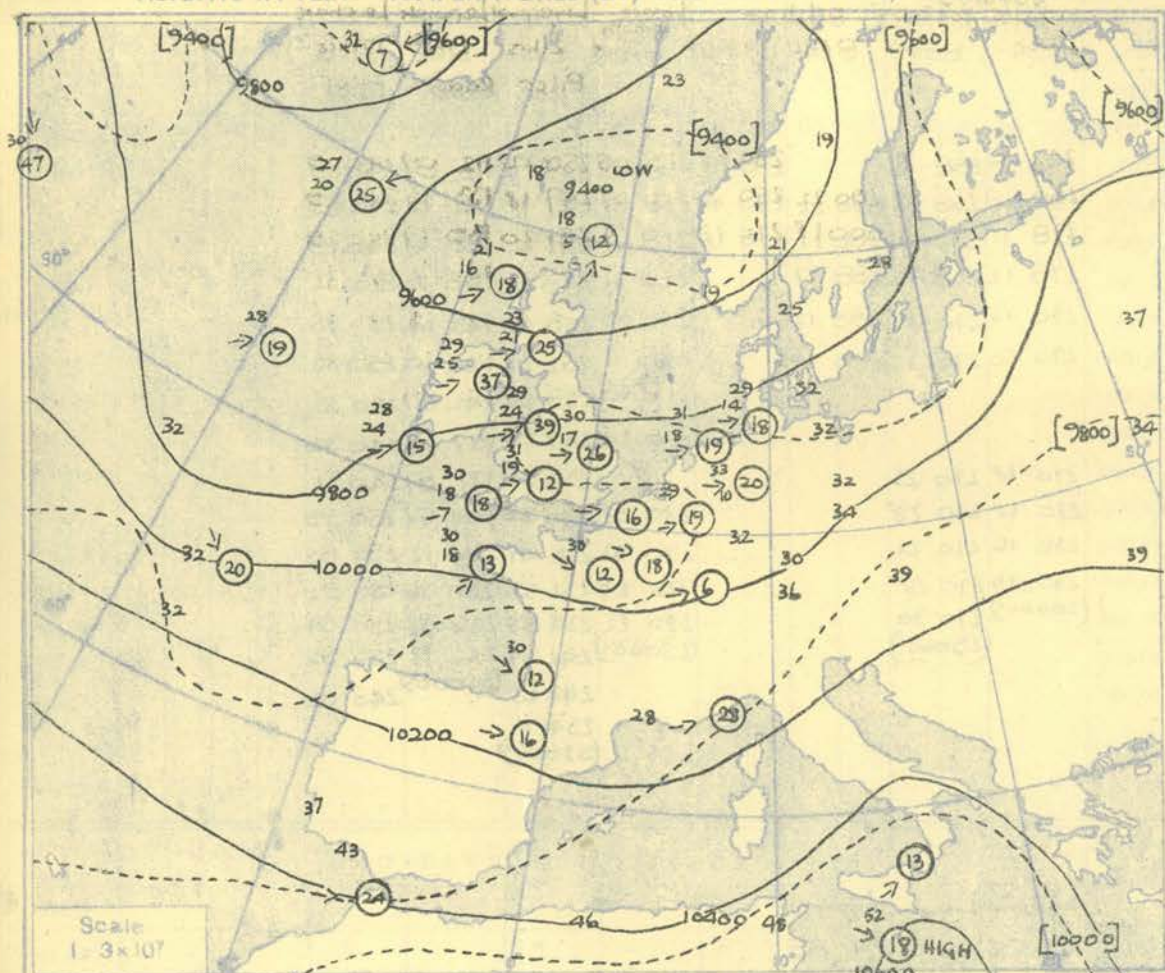
Place	Lymne	Lymne	Lymne												Place
Time Type	09h CS	12h G	12h AC												Time Type
Dir. Vel.	260 30	260 45	260 42												Dir. Vel.

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

Ship	Cumulus				Cumulus				Weather Watcher				Weather Watcher				Weather Explorer				Weather Explorer				Weather Recorder				Weather Recorder				Ship							
Lat/Long	52.3 N 19.0 W				52.5 N 20.0 W				52.6 N 18.7 W				52.6 N 19.5 W				58.9 N 18.7 W				58.9 N 18.5 W				58.9 N 18.5 W				59.0 N 19.0 W				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.			Time	15h G.M.T.			Time	21h G.M.T.			G.M.T.	Time						
	M.S.L.	1012 mb			M.S.L.	1009 mb			M.S.L.	1006 mb			M.S.L.	1006 mb			M.S.L.	1005 mb			M.S.L.	1005 mb			M.S.L.	1007 mb			M.S.L.	1009 mb			mb	M.S.L.						
	Surf	1012 mb			Surf	1009 mb			Surf	1006 mb			Surf	1006 mb			Surf	1005 mb			Surf	1005 mb			Surf	1007 mb			Surf	1009 mb			mb	Surf						
	Freezing	705 mb			Freezing	775 mb			Freezing	750 mb			Freezing	750 mb			Freezing	830 mb			Freezing	825 mb			Freezing	750 mb			Freezing	765 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							
	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		55	52			55	54			56	54	210	05		55	53	020	10		51	47	350	13		51	46	040	13		52	44	360	12	Surf						
1000		55	52			54	52			17	55	53			16	55	53			13	51	48		14	50	46	032	12	19	51	43	040	18	24	51	45	358	15	1000	
950											51	50	190	11		51	49	016	08		45	40	019	16		44	41	032	12		45	42	043	18		45	40	353	15	950
900										305	47	47	195	11	304	48	46	352	11	298	39	34	034	14	298	38	37	033	15	303	38	33	045	17	308	41	33	357	16	900
850		39	39	For Winds		39	36	For Winds		622	42	41	211	12		42	41	356	12		34	30	042	14		32	29	028	14		38	26	045	18		43	29	010	15	850
800				See Top				See Top		622	37	36	239	14	620	37	36	300	06	609	29	20	052	20	608	29	25	015	09	616	37	18	045	20	624	37	29	012	18	800
750				of Page				of Page.			32	32	257	21		32	32	318	10		25	11	049	18		24	19	023	08		31	27	050	20		32	27	011	21	750
700		30	30			27	18			973	28	27	263	19	970	26	26	350	04	953	18	10	360	14	953	24	12	050	09	967	27	20	053	05	975	29	21	014	22	700
650											21	19	260	18		20	19	048	07		12	-01	343	15		19	-01	067	12		20	13	048	21		23	14	022	25	650
600										137	14	12	252	18	136	13	11	L and V		134	05	-06	327	16	135	11	-11	094	17	136	13	05	035	18	137	17	07	024	27	600
550											06	03	248	23		06	03	" "	" "		-04	-20	308	20		05	-19	112	30		07	-04	036	21		10	-01	019	30	550
500		03	-26			-02	17			182	-03	-06	243	23	182	-06	-08	228	07	178	-11	-35	279	35	180	-04	-27	112	35	181	-03	-13	045	30	183	01	-13	014	33	500
450											-13	-17	240	19		-13	-20	233	07		-19	-50	272	40		-15	-36	098	41		-14	-26	046	36		-10	-26	014	35	450
400										235	-22	-27	238	19	235	-24	-31	323	08	231	-24	-57	261	42	233	-24	-43	091	46	234	-26	-27	048	36	236	-23	-37	014	34	400
350											-35	-43	241	14		-33	-42	301	08		-34	-57	258	32		-34	-51	092	61		-41		051	30		-36	-48	016	32	350
300		-44				-45				300	-46		253	14	300	-49		L and V		296	-45		276	20	298	-48		089	37	298	-58		057	26	301	-51		023	25	300
250											-59		249	11		-57		195	07		-49		328	13		-52		085	16		-55		070	13		-62		015	21	250
200		-62				-53				388	-54		223	07	387	-49		L and V		385	-48		306	06	386	-46		040	07	386	-48		354	09	388	-51		015	18	200
170											-53		254	06		-49		" "	" "		-51		290	08		-45		335	06		-50		347	09		-50		015	20	170
150											-53		264	08		-47		313	10		-52		304	06		-47		324	03		-49		004	11		-47		015	17	150
130											-53		272	10		-49		323	14		-55		336	09		-46		297	05		-48		320	10		-47		015	11	130
110										(113 mb)	-52					-53		349	11		-54		328	06		-45		110	07		-46		020	03		-49		005	12	110
100		-54				-51															536	-54		309	09	540	-45		103	06	538	-46		012	04	541	-49			100
90																					(82)	-53		348	09	(694 mb)	-44				-45		105	10	(098 mb)	-49			90	
80																																-43		Calm					80	
70																																-42							70	
60		(044 -54 mb)				(028 -44 mb)																																	60	
		Inversion. 826mb 372 804mb 41° Isothermal 1012 - 1000mb 55° 424 - 606.. 19°								Inversion 422mb 20° -40mb -19° Isothermal 711 - 692mb 28°								Inversion 410mb -25° -400mb -24° Isothermal 1005 - 1000mb 51° 609 - 489.. -11°								Inversion 450mb 32° -835mb 33° Isothermal 763 - 685mb 24°								Inversion 878mb 35° -850mb 38° Isothermal 918mb 40° -876mb 46° Isothermal 765 - 723mb 32°						
Tropopause	II 237mb -63° 35,70'				I 228mb -62° 36,200'				I 227mb -64° 36,200'				I 250mb -57° 33,900'				II 272mb -49° 31,700'				I 273mb -56° 31,800'				I 266mb -61° 32,500'				I 258mb -64° 33,400'				Tropopause							



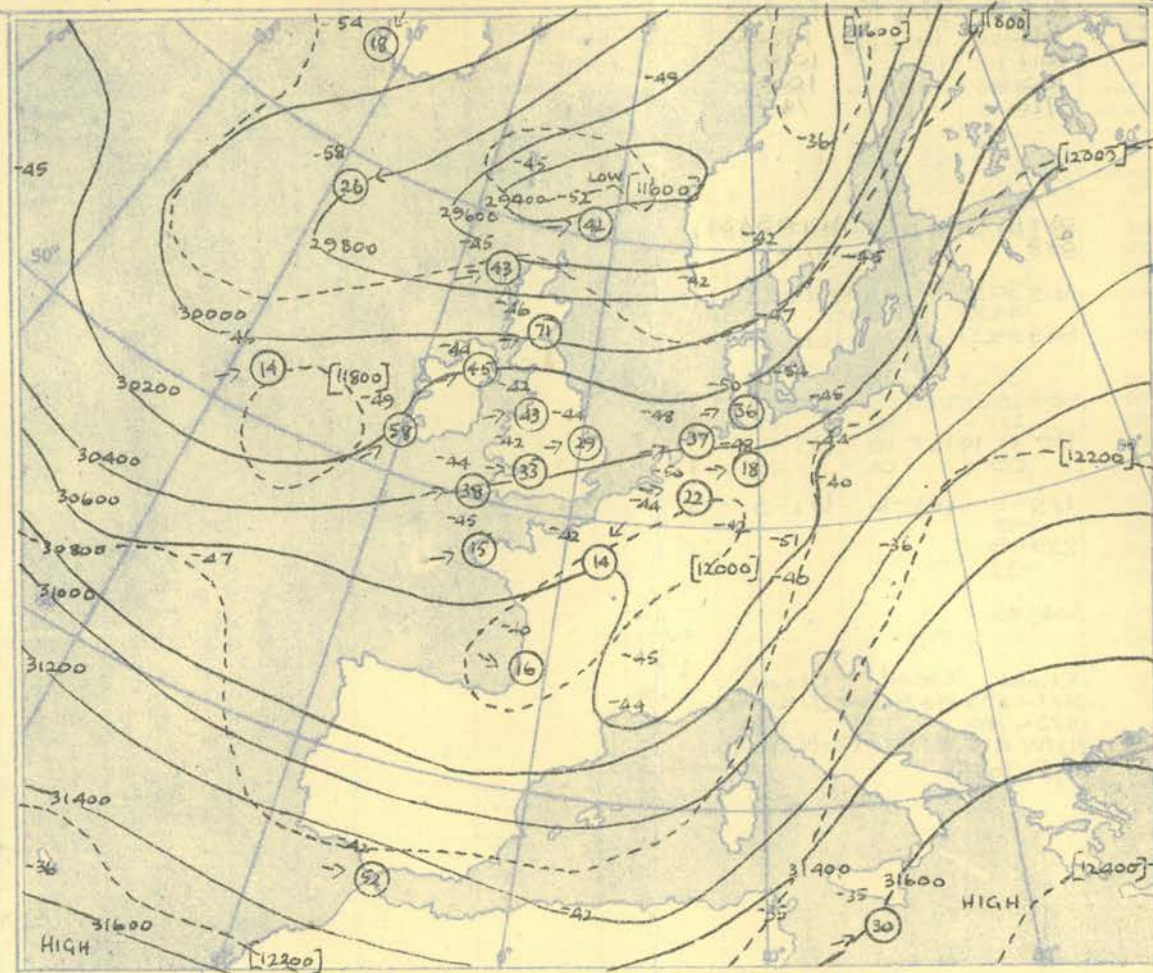
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (In knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

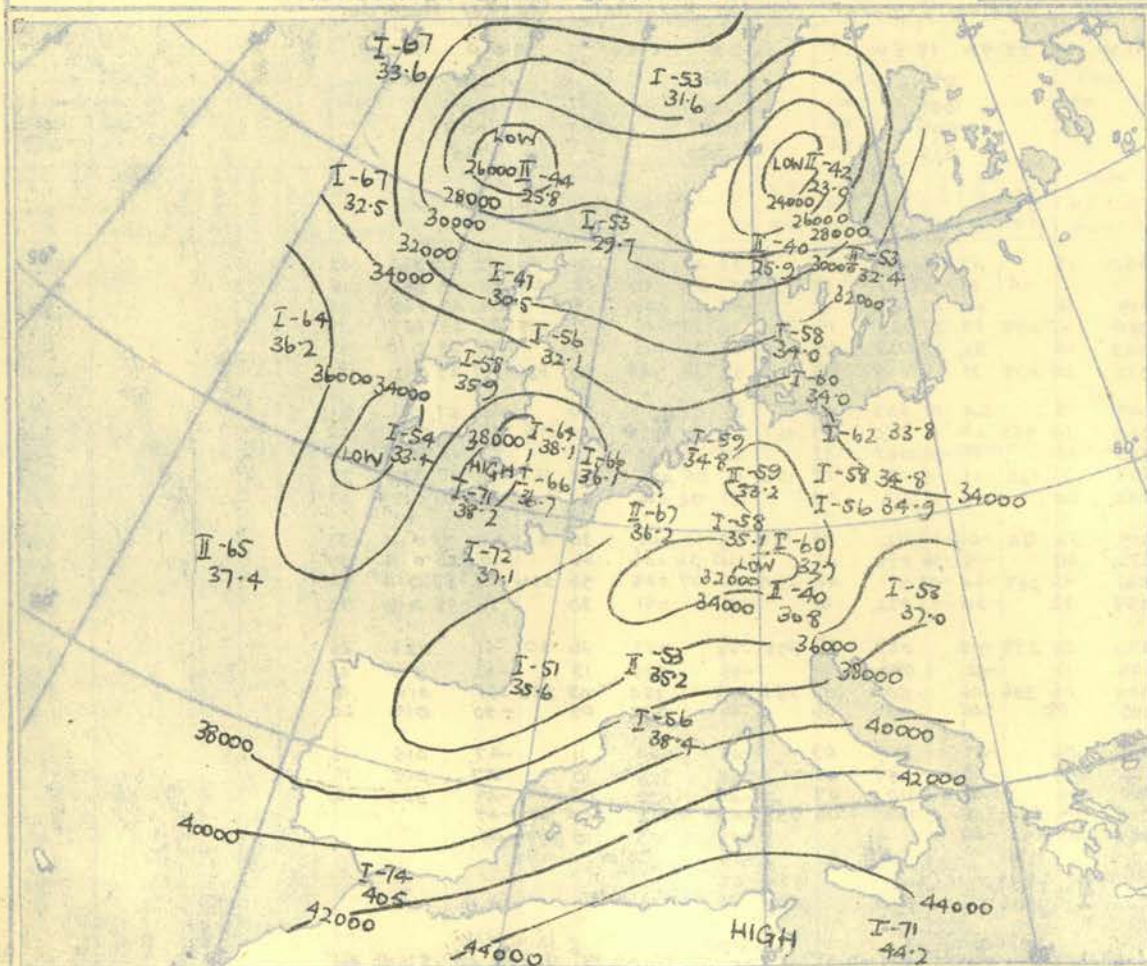
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

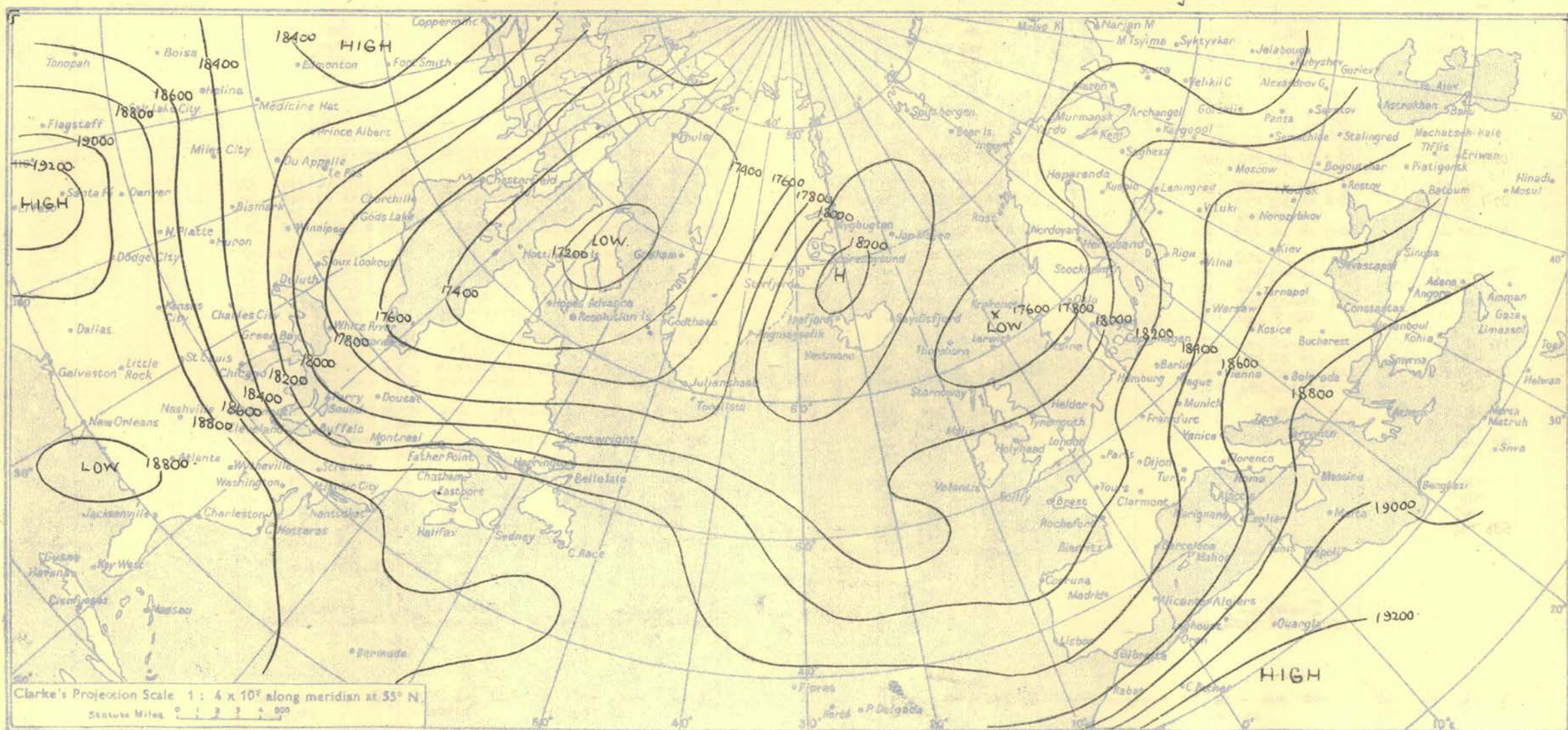
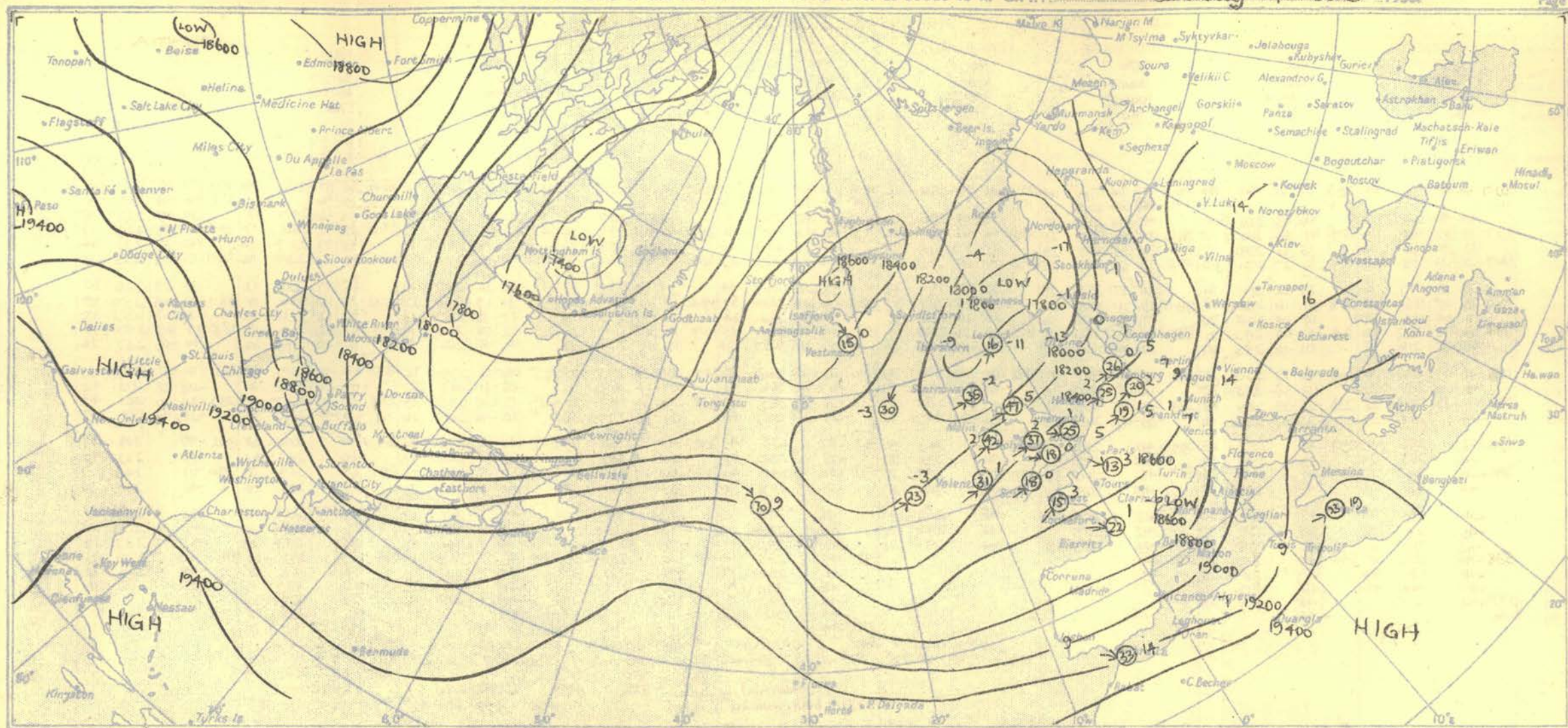
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool centred near the Shetlands showed little change though there was a tendency for a cold trough, extending north-westwards from this centre, to swing southeast. A warm pocket of air remained to the North of Iceland. A strong westerly thermal gradient extended from Newfoundland into the Northwest Atlantic.

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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.)

LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Pressure mb	Time M.S.L. Surf (Pressing)	Eh			G.M.T.			Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	15h			G.M.T.			Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	15h			G.M.T.			Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	15h			G.M.T.			Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		1004.5			G.M.T.							1006.3			G.M.T.							1010.7			G.M.T.							1013.9			G.M.T.								1010.0			G.M.T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		994.7			mb							997.9			mb							1006.2			mb							996.7			mb								1003.5			mb			1008			mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
847			mb			813			mb			790			mb			720			mb			711			mb			702			mb			710			mb			760			mb			Time M.S.L. Surf (Pressing)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
02.7			54			48			135			06			00.5			51			51			180			06			00.2			55			54			170			04			02.3			61			56			250			12			00.6			60			51			250			12			01.2			63			51			225			12			04.4			62			53			250			12			02.9			60			51			270			14			00.3			58			55			180			09			Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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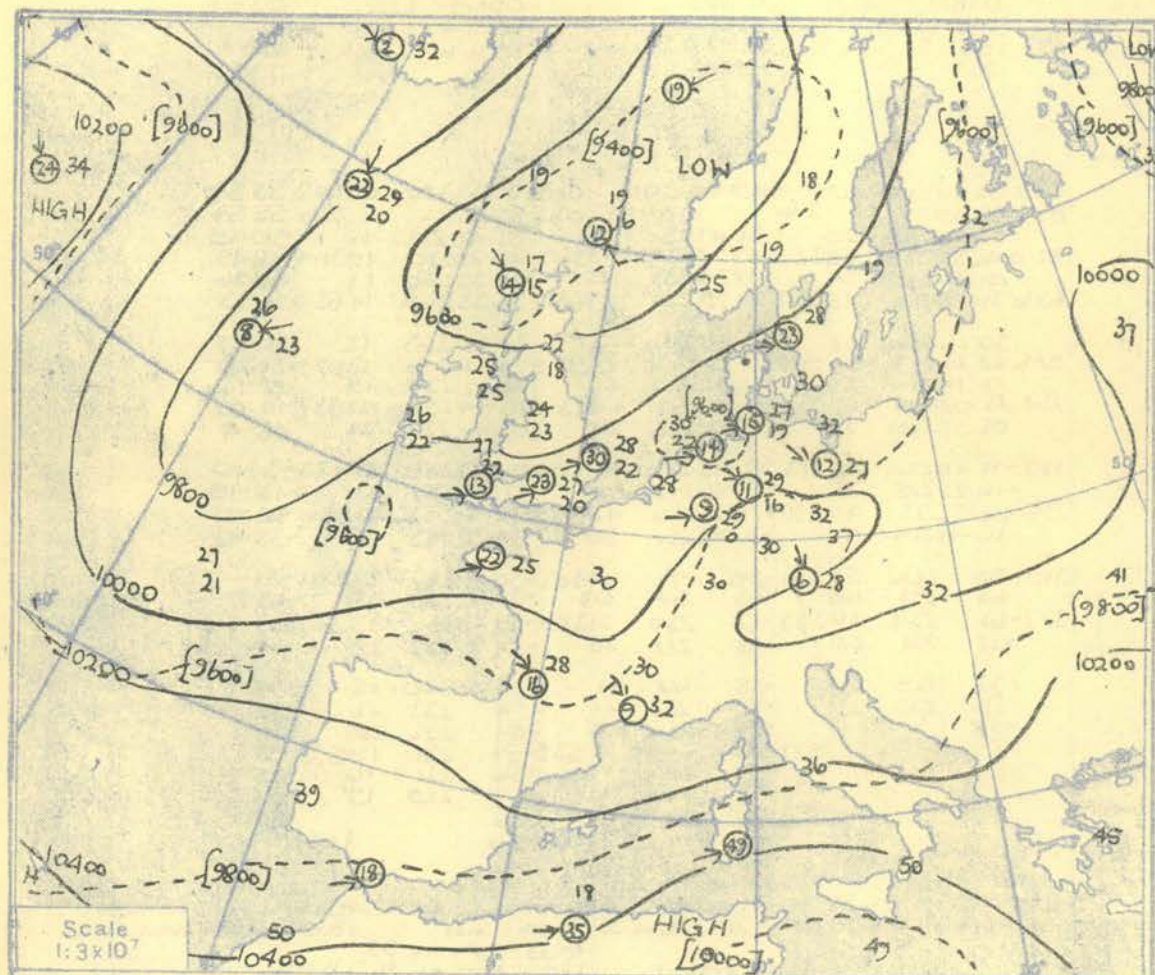


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	Station	
Pressure	Time M.S.L.	03hrs 1003.9	03hrs 1003.3	03hrs 1003.7	03hrs 1007.1	03hrs 1008.7	03hrs 1012.1	03hrs 1013.6	03hrs 1013.4	03hrs 1009.6	
	Surf	994.0	1001.4	1002.9	998.5	1006.7	1001.5	997.5	1002.6	1008.7	
	Freezing	84.8	85.0	77.6	76.9	77.2	76.3	74.0	75.0	77.0	
	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	Pressure mb
Temp.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	
	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	
	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	
	Surf	02.749 96079	09.00.3 4543 270	03.00.2 5352	02.3 53 52	00.6 55 50	01.2 53 43 210	08.4 49 48 Calm	02.9 55 52 180	03.00.3 55 54	Surf
Temp.	1000	01.0	00.9 45 42	01.0 52 51	01.9	02.4 54 49	03.2 53 49	3.6	03.5 55 51	2.6 55 54	1000
	950	44.4 110	21 43 39 290	11 48 46	49 47	49 44	52.4 42 46	30 51 47 251	13 51 45 222	21 50 49	950
	900	29.4 38 34 111	18 29 23 35 290	11 29 6 44 40	30.6 44 42	31.1 45 41	32.0 46 39 236	28 32.3 45 38 235	18 32.3 46 39 230	19 31.4 46 43	900
	850	32.30 116	20 32 29 284	10 40 36	40 38	40 37	41.3 38 28	24 38 34 233	23 40 38 260	18 40 36	850
Temp.	800	60.4 28 26 116	18 60.2 27 24 273	08 61.1 35 34	62.1 35 34	62.6 35 33	63.6 36 29 225	25 63.7 34 29 235	24 63.8 36 33 269	14 63.0 36 33	800
	750	24 19 104	16 23 21 281	13 29 27	30 30 No Winds	29 28	30 26 220	28 33 26 216	23 32 25 263	12 30 27	750
	700	94.7 19 16 116	12 94.5 17 132 84	14 96 02 18	97.0 28 28	97.5 24 23	98.6 28 22 217	30 98.7 27 20 214	23 98.9 27 22 241	13 97.9 26 22	700
	650	13 11 131	11 08 06 289	12 15 10	20 19 Radar	19 16	21 14 214	27 20 12 212	22 22 12 235	19 18 14	650
Temp.	600	134.06 03 157	14 133 06 062 81	12 135 09 04	137 13 10 U/S.	137 12 08	138 13 08 217	27 138 12 05 218	24 138 16 14 236	22 137 14 05	600
	550	-2.5 163	16 -1.13 270	13 02.3	05.7	05.01	05.7 215	30 05.3 223	29 07.21 236	24 06.4	550
	500	17.7 -11.15 188	22 178 -12.23 272	19 180 -7.12	182.4 -10	182.4 -11	183.4 -12 220	30 183 -2.18 223	34 184.00 -21 249	28 183.3 -10	500
	450	-22.26 193	29 -24.32 273	21 -17.20	-12.19	-15.22	-16.23 225	33 -12.26 219	38 -12.36 248	36 -13.19	450
Temp.	400	23.0 33.3 200	34.230 37.43 276	26 233 -26.31	235.23 -30	235.26 34	236.24 32 223	40 237.24 37 226	43 237.22 41.7	46 236.20 -27	400
	350	-42 219	55 -37 254	22 -40 48	-33.41	-38.47	-36.44 224	42 -36.48 221	50 -34.51 243	53 -35.48	350
	300	29.4 48	54.294 30	245 21 297.54	300.49	300.52	301.50 226	52 301.50 221	64 301.50 247	53 301.51	300
	250	43	15 37	265 13	-59	-61	64 231	60 218	60 235	43 235	250
Temp.	200	38.4 42	231 09	315 47	-51	-51	38.7 -63 234	36 388.58 230	31 389.57 235	38 387.57	200
	170	-42 207	06	-52	-50	-58	-58 231	25 -58 228	25 -54 237	25 -53	170
	150	-42	178 04	-50	-50	-54	-57 229	21 -58 228	21 -54 240	25 -54	150
	130	-47	152 03	-51	-49	-55	-55 235	22 -55 232	21 -59 233	22 -53	130
Temp.	110	-50	183 06	-51	-53	-56	-58	24 24	24 -54 232	20 -53	110
	100	53.50	192 06	536.51	-53	538.59	537.56	245 21 53.54	231 19 53.54	19 53.54	100
	90	50	168 05	-57	-53	-60	-56	244 12	231 16	-53	90
	80	(f5) -50		-57	-53	-60	-56	244 13	229 15	-53	80
Temp.	70										70
	60										60
	Inversion 1001 ms 45° - 990 ms 44° 643 ms 7° - 620 ms 8°										
	Tropopause	II 300 ms -44° 29400'	I 380 ms -44° 24100'	II 312 ms -53° 28800'	I 255 ms -69° 33500'	I 218 ms -64° 36800'	II 244 ms -66° 34600'	I 229 ms -65° 35900'	I 215 ms -60° 34100'	I 250 ms -63° 33900'	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		STATION	
Pressure	Time M.S.L.	09hrs 1001.5	09hrs 1004.3	G.M.T.	09hrs 1007.7	09hrs 1008.8	09hrs 1012.1	09hrs 1013.3	09hrs 1012.3	G.M.T.	
	Surf	991.6	1002.3	mb	999.1	1006.8	1007.7	997.4	1002.3	mb	
	Freezing	80.1	82.5	mb	75.6	77.2	75.4	73.4	77.0	mb	
	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	Pressure mb
Temp.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	
	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	Dew °F.	
	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	Wind Dir. Vel.	
	Surf	02.748 47 056	16.00.5 52 46 270	09	02.3 54 52 260	00.6 57 53 260	15.01.2 61 51 200	14.4.4 57 51 210	12.02.5 55 53 247	08	Surf
Temp.	1000	00.4	01.2 51 46	09	02.1	02.4 56 53 261	23.03.3 60 50	3.7	03.6 58 53	08	1000
	950	43 40 058	21 43 41 268	13	49 47 268	08 50 47 253	26 51 45 232	19 49 46 229	19 51 47 248	18	950
	900	28.7 39 35 058	21 29.6 39 38 287	13	30.9 47 45 267	15 31.2 45 42 253	27 32.1 44 37 243	21 32.4 44 40 233	20 32.3 46 42 272	14	900
	850	35 33 083	14 33 29 294	15	42 40 263	23 40 37 253	27 35 33 237	21 39 36 243	16 41 38 268	14	850
Temp.	800	59.9 32 30 108	14 60.7 31 25 257	12	62.5 37 35 254	21 62.6 35 32 249	25 63.6 36 27 235	18 63.8 33 30 244	14 63.8 33 31 264	13	800
	750	28 25 137	10 24 19 305	09	31 29 256	28 29 26 251	22 32 19 240	16 32 26 241	18 20 25 253	10	750
	700	94.6 23 20 136	12 95.1 17 14 315	10	97.8 28 20 262	28 97.9 25 22 247	21 98.6 25 19 233	24 98.9 28 19 241	21 98.7 25 18 252	14	700
	650	17 13 134	12 12 08 344	08	22 -1 274	25 18 06 242	21 19 13 234	28 21 14 245	24 21 07 261	12	650
Temp.	600	134 10 04 140	12 134 05 02 342	10	137 16 -7 276	25 137 12 01 244	21 138 11 02 235	27 138 13 -1 247	23 138 15 -7 244	17	600
	550	00.5 157	12 -3.5 004	09	09.10 273	32 04.8 251	20 04.4 232	32 06.12 246	31 09.11 248	23	550
	500	17.9 -9.19 166	17 178 -12.21 337	12	183 -1 -17 271	37 182 -5.14 258	21 183 -5.13 229	36 184.3 -19 247	36 184 01.42 254	28	500
	450	-21.36 163	12 -22.23 312	10	-12.27 272	38 -16.33 275	21 -15.26 229	42 -12.28 243	39 -7.18 252	36	450
Temp.	400	23.1 -31.41 163	05 230.34 40 280	13	236.22 37 274	4 235.26 38 294	24 236.25 40 223	50 237.22 37 254	42 238.17 29 251	43	400
	350	-39.50 191	32 -46 298	12	-33.47 276	45 -35.43 304	27 -36.54 221	60 -38.52 255	54 -30.42 250	43	350
	300	29.5 40	157 28 295.36	318 11	301.48	216 45 300.43	282 23 301.51	214 60 301.53	262 42 303.47	260 43	300
	250	-38	13 -35	308 11	-54	271 40 -53	268 32 -54	224 51 (277) -60	-63 264 44	44	250
Temp.	200	38.6 38	211 09 386.38	294 06	38.9 43	268 25 388.49	238 32 388.54	231 33	350.34 245 29	25	200
	170	-40	208 04	276 05	-45	254 20 -46	243 22 -52	231 25	-52 235 22	22	170
	150	-40	161 08	-43 266 06	-43	240 12	-47 240 18	-53 228 24	-51 233 20	20	150
	130	-42	137 03	-44 294 04	-44	-43	-43 220 18	-51 221 18	-50 230 18	18	130
Temp.	110	-41	146 09	-47 228 03	-46	-46	221 14	-50 225 16	-51 228 14	14	110
	100	54.2 42	146 08 541	172 09	-45	-45	213 11 53.52	215 13	54.1 -51 228 14	14	100
	90	43	137 05	136 04	-47	-47	203 13	-53 221 16	-52 231 14	14	90
	80	(f5) 44		155 05	-48	-48	187 08	-51 233 09			



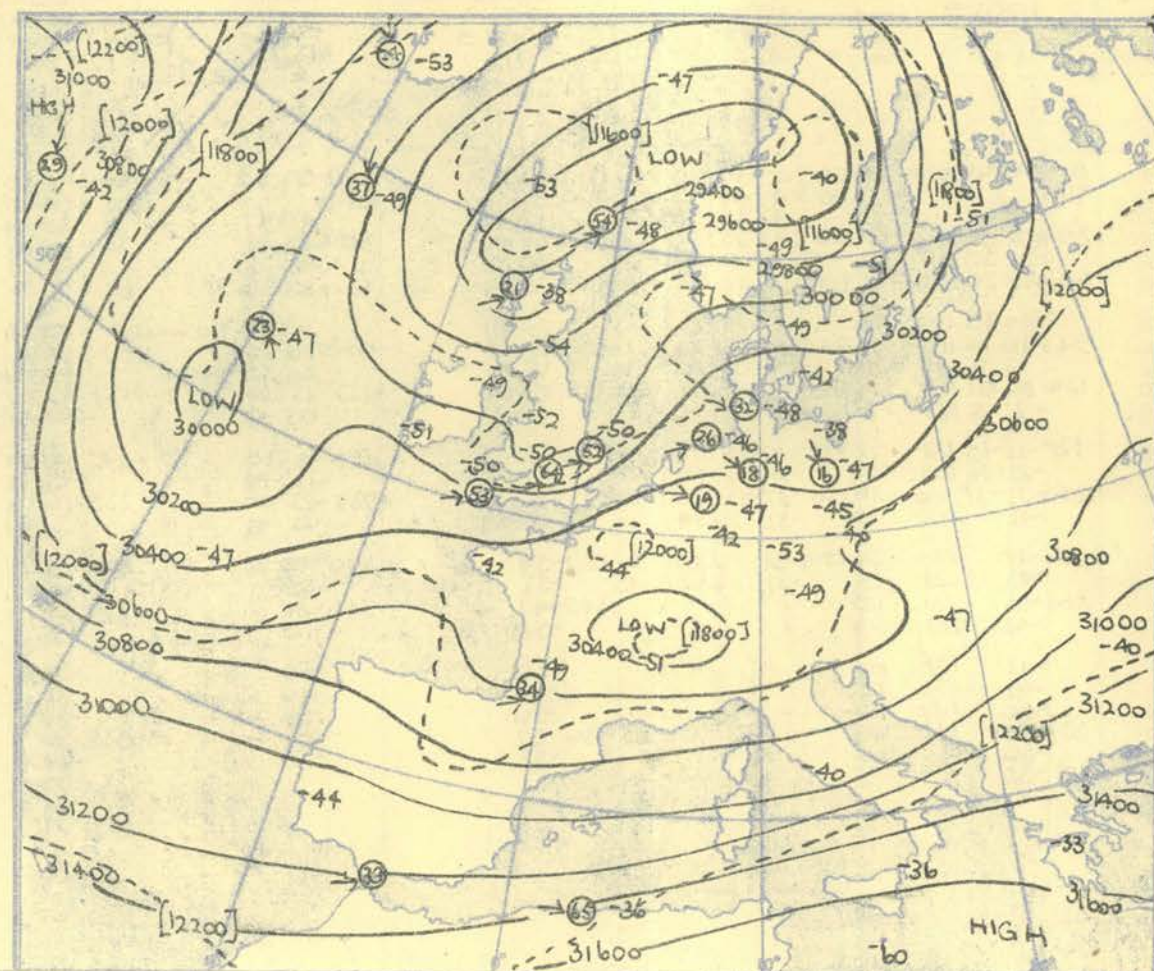
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (In knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03h. G.M.T.



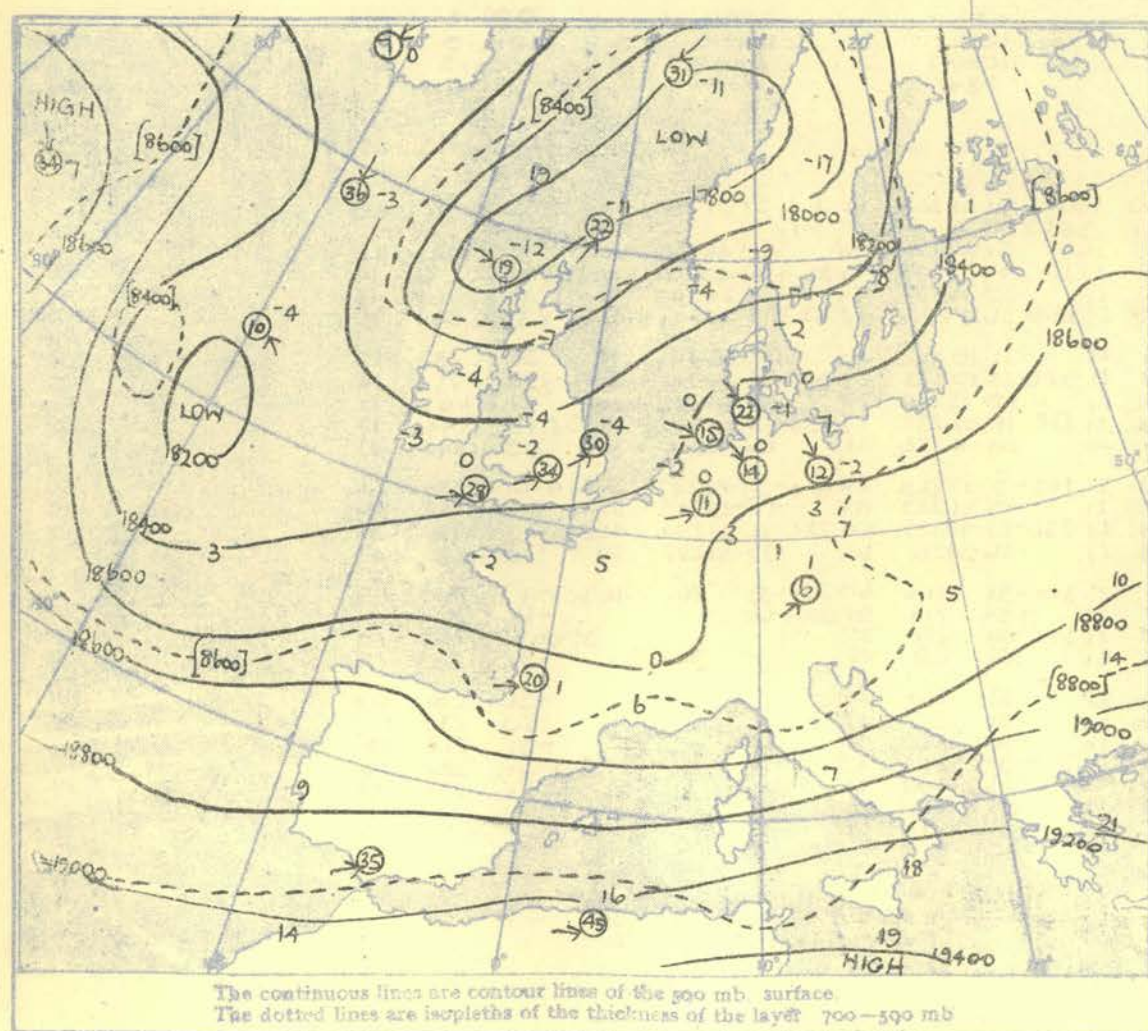
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

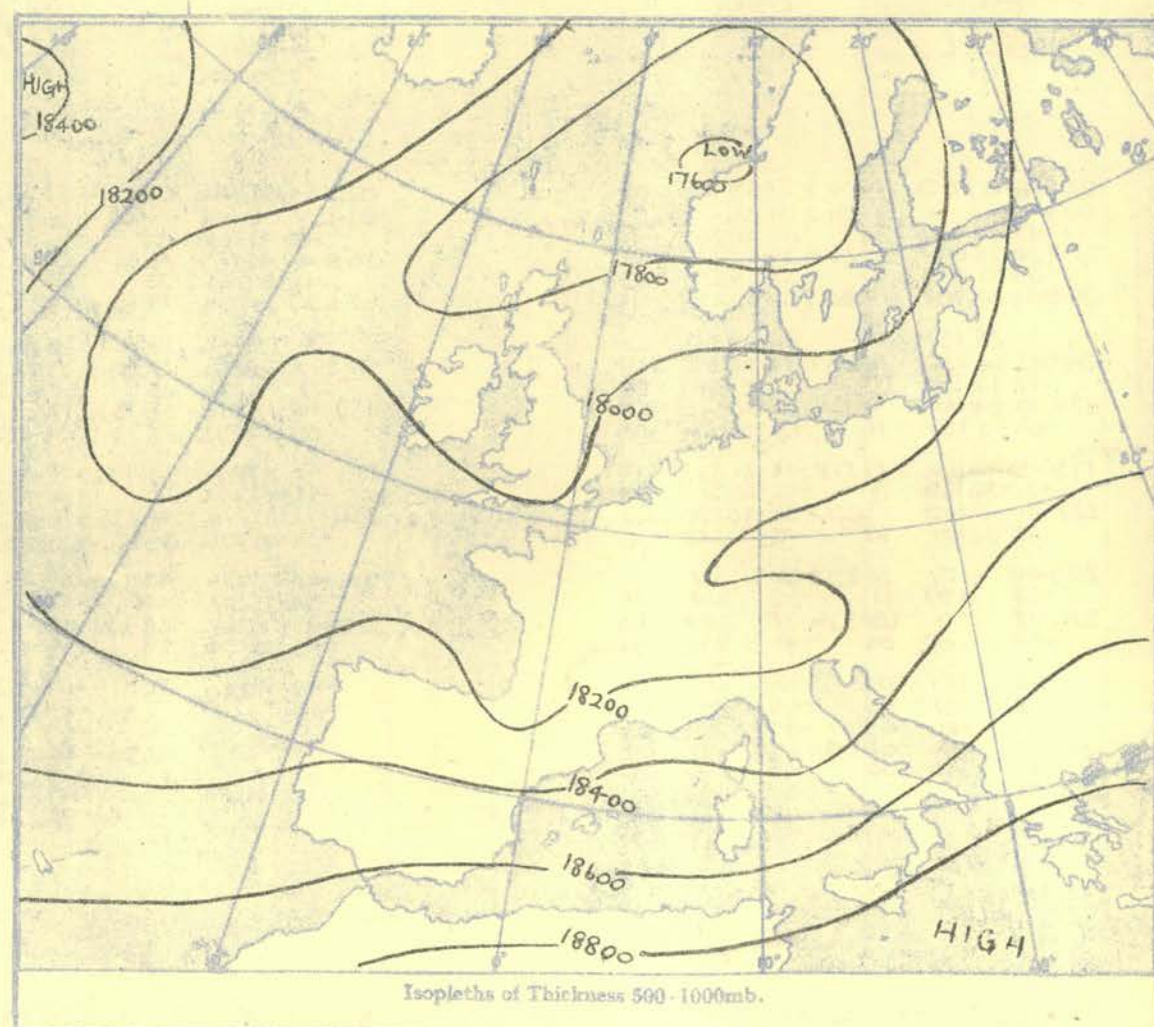
100 80 60 40 20 10 knots



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.



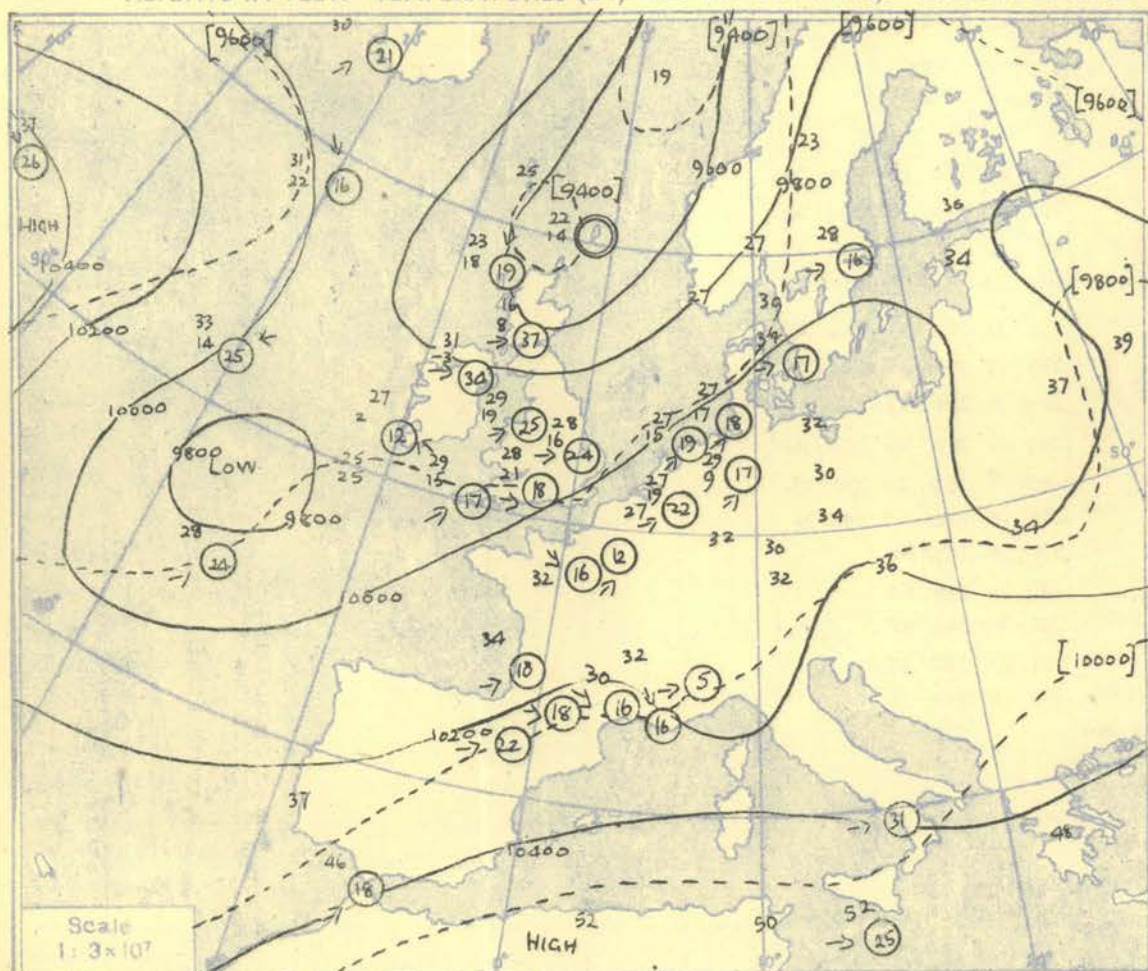
Isopleths of Thickness 500-1000mb.



NEPHOSCOPE OBSERVATIONS[illegible]



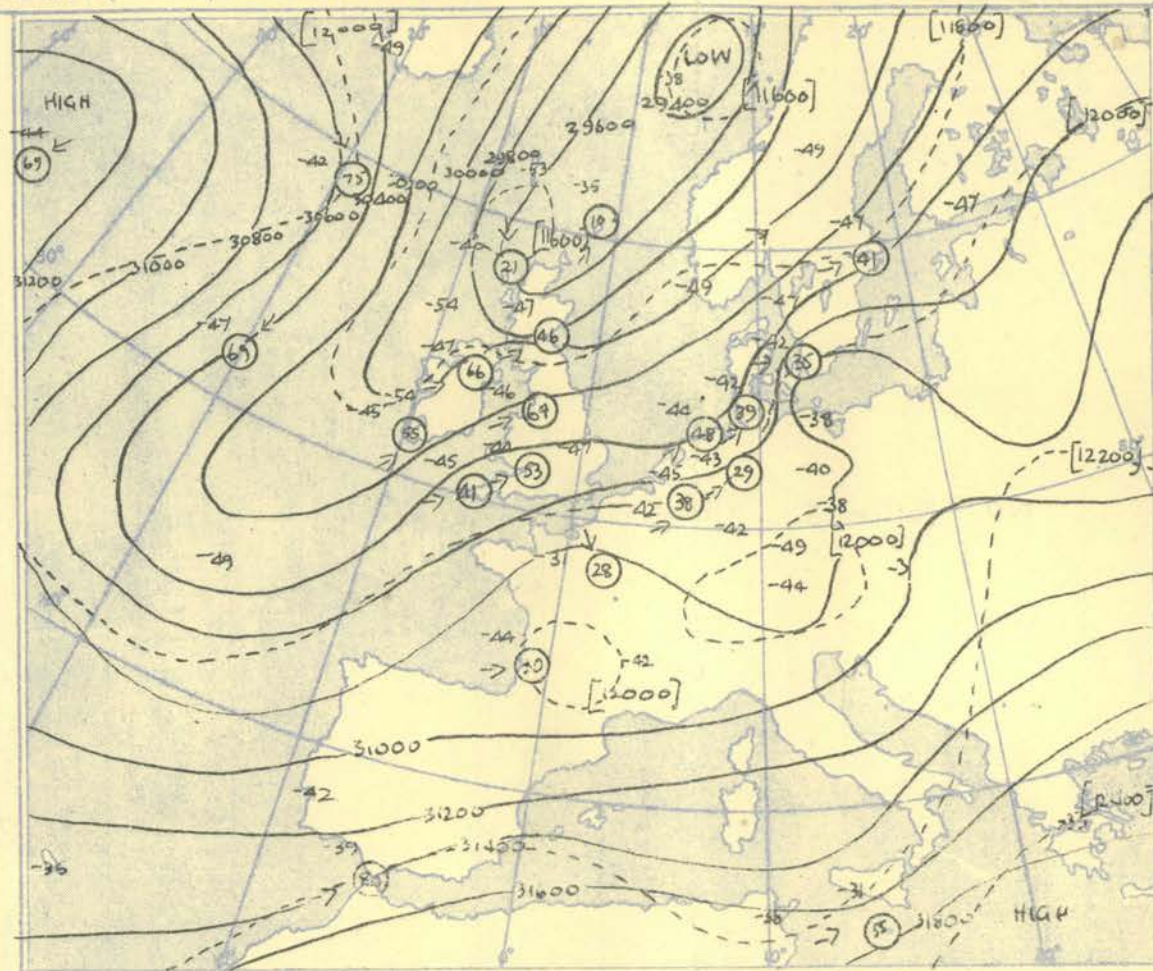
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

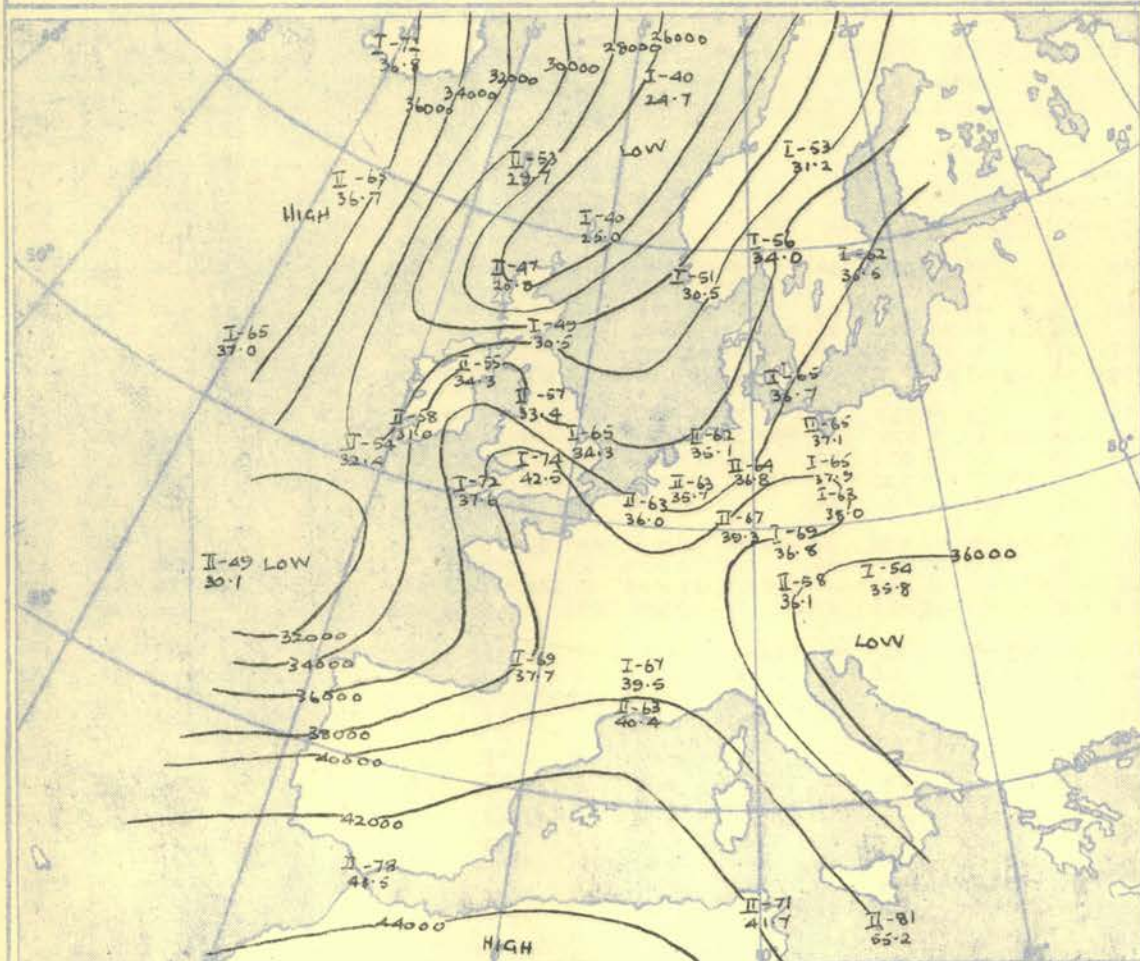
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 knots

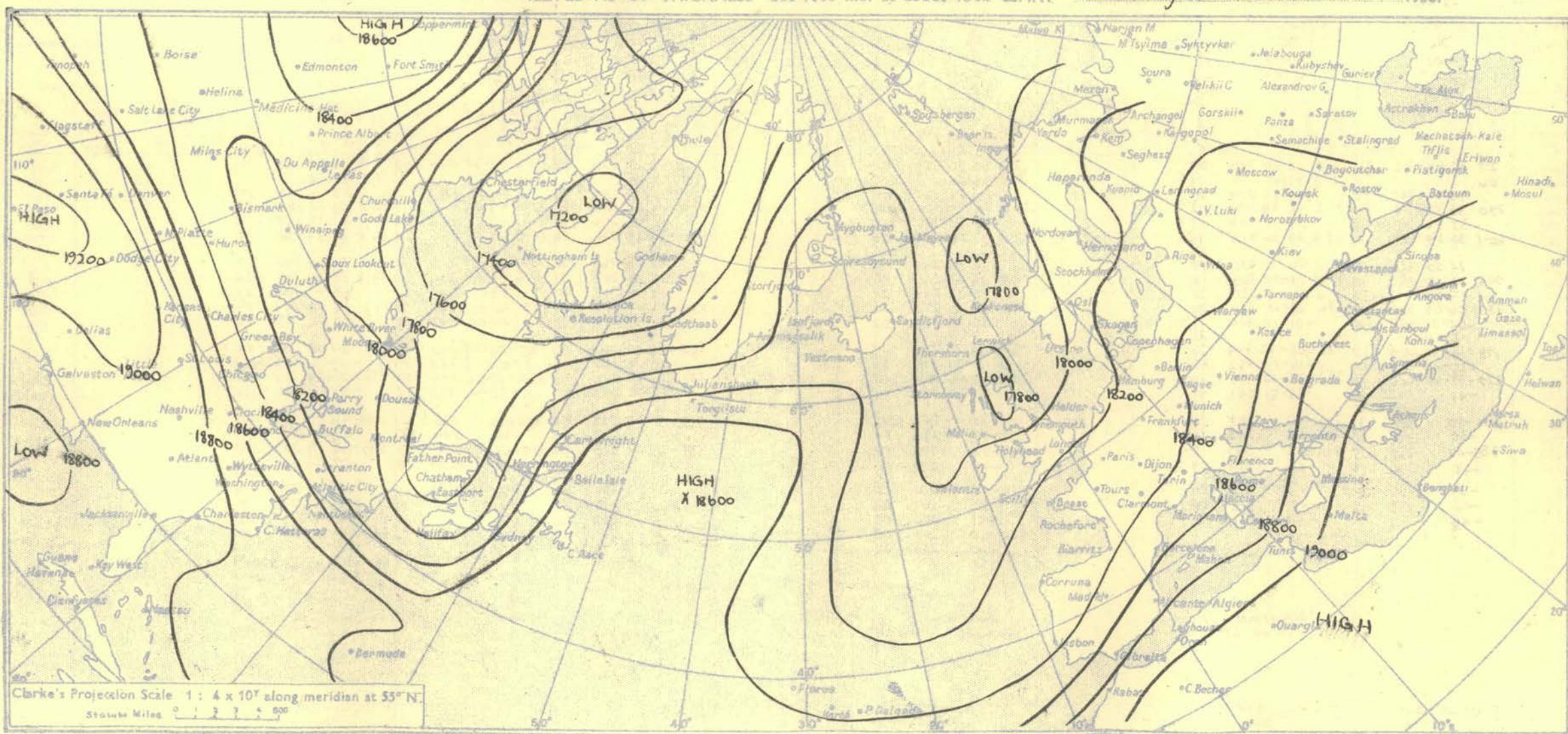
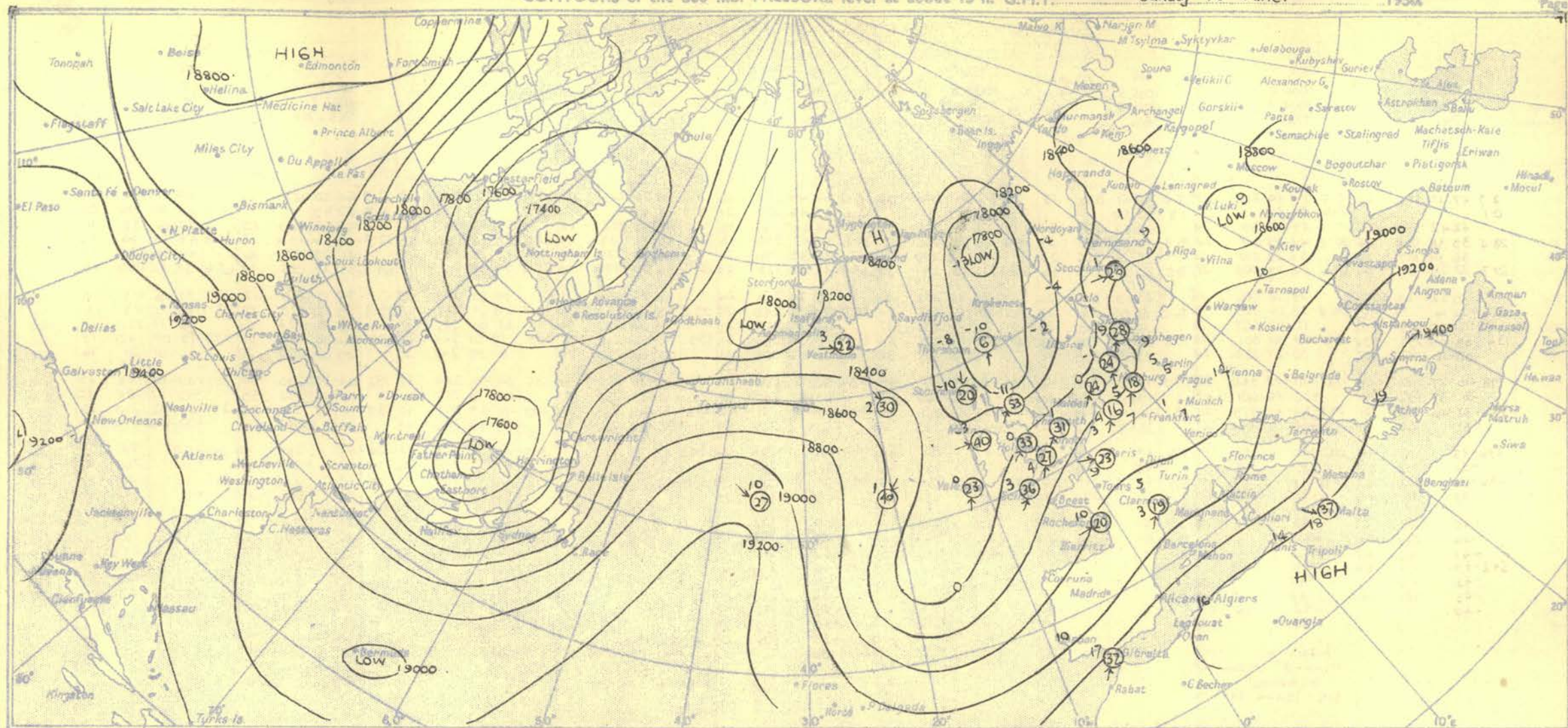


The continuous lines are contour lines of the 300 mb. surface.  
The dotted lines are isotherms of the thickness of the layer 500-300 mb.

# TROPOPAUSE CHART 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	
	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing	Time M.S.L.	Surf	Pressure	Freezing						
Pressure	154	1000.6	990.7	799.	154	1006.0	1004.2	778	154	1005.5	1004.7	816	154	1008.8	999	770.	154	1007.5	1009.5	726	154	1011.8	1007.4	735	154	1012.9	997.2	730	154	1013.6	1003.3	763.4729	154	1010.3	1009	740.		
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Dir.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Vel.	320	24	320	24	340	300	300	300	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13	320	13
Temp.	47	47	47	47	54	50	50	50	60	51	51	51	65	51	51	51	66	49	280	18	69	50	210	19	62	57	200	15	64	50	180	12	64	51	240	02		
Wind	320	24	320	24	340	300	30																															

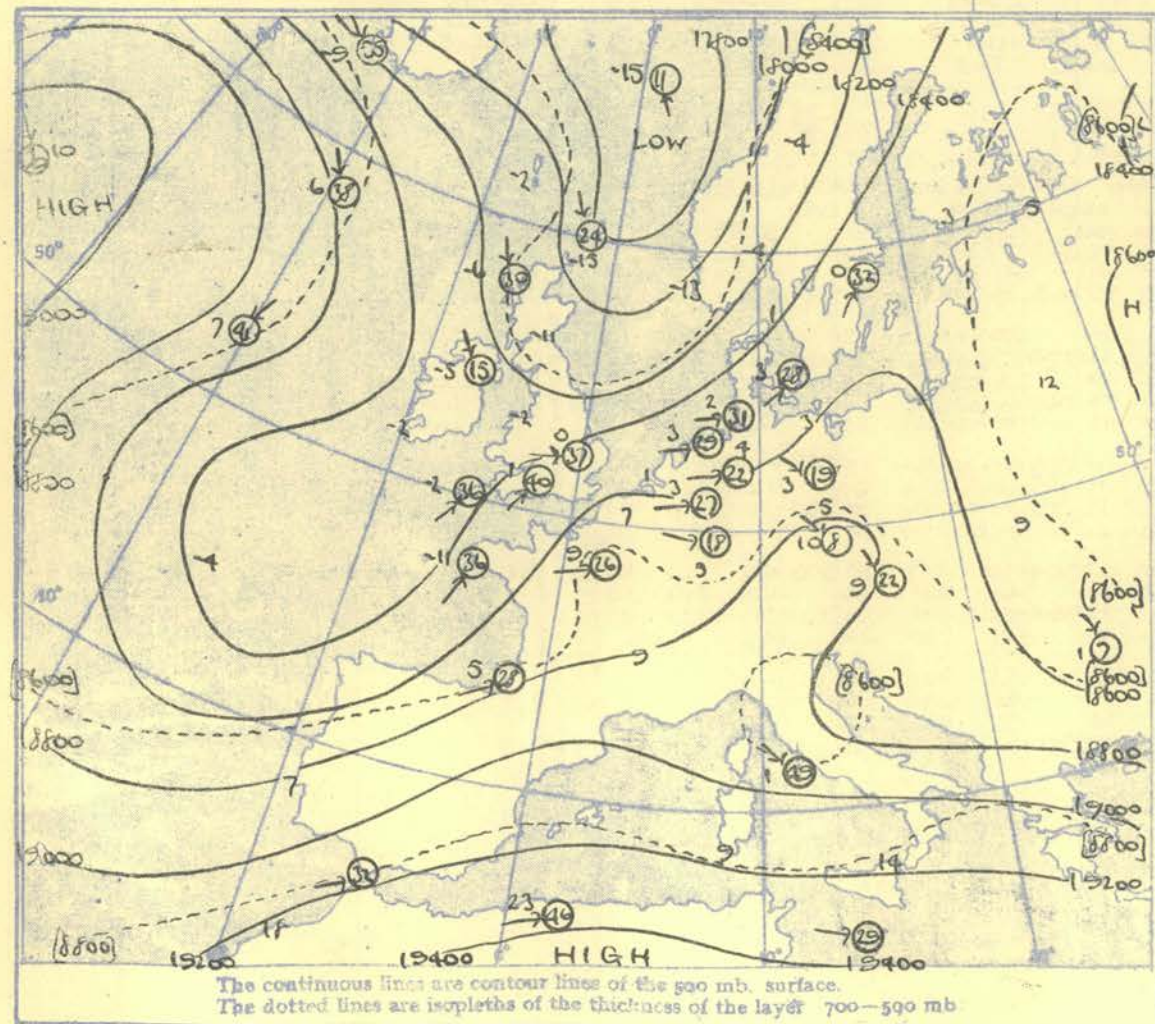
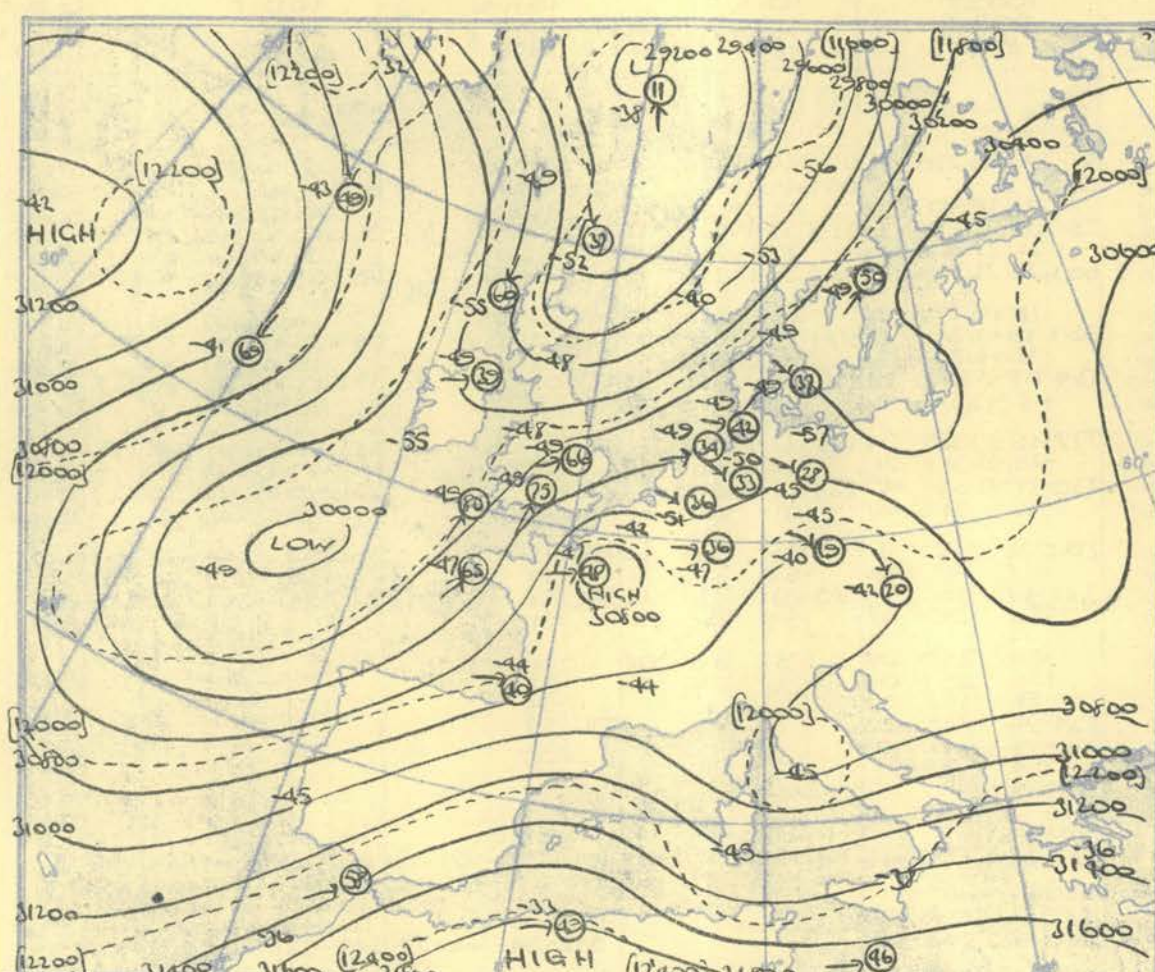
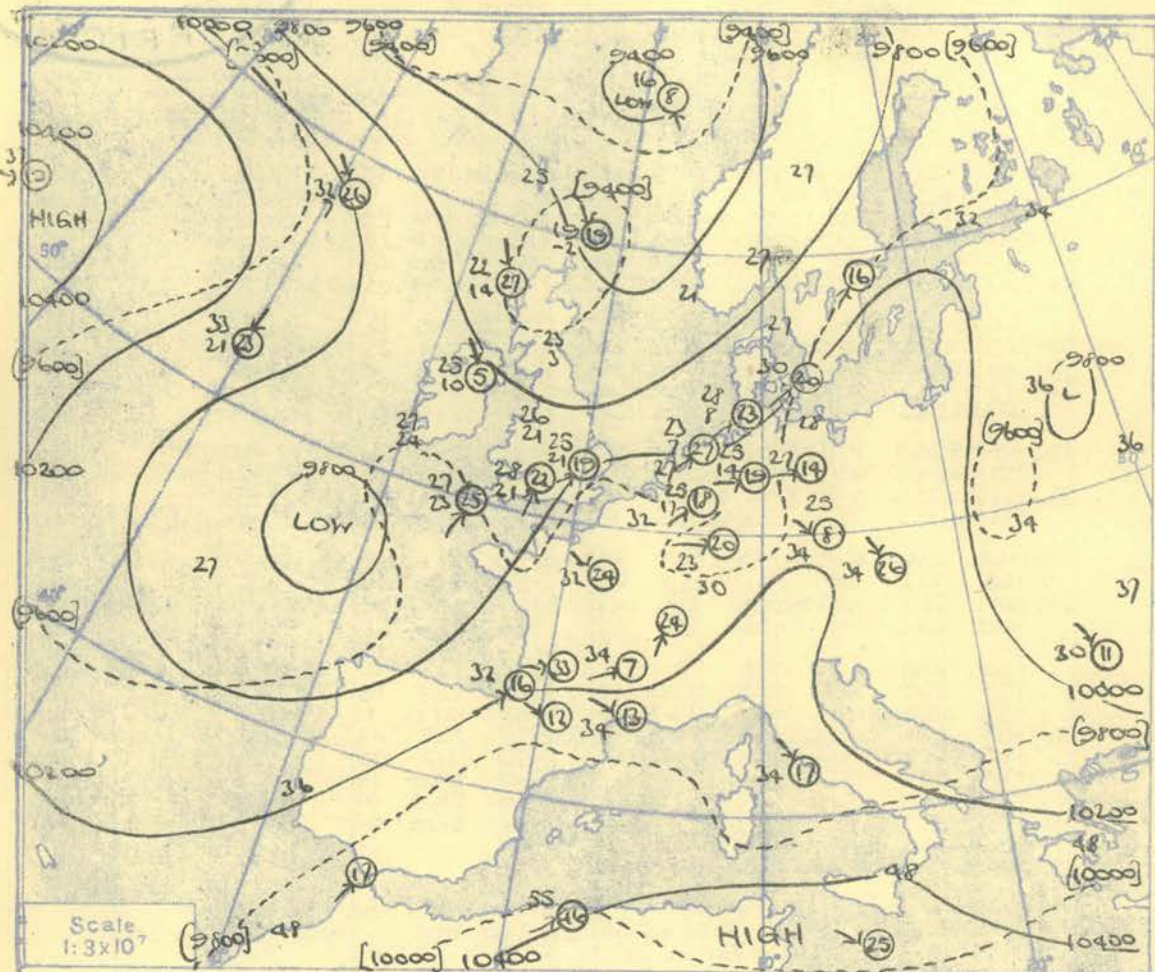


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia			
Time M.S.L.		03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs				03hrs			
Surf		1005.8				1012.0				1011.6				1013.8				1013.0				1014.3				1015.1				1011.8				1005.3			
Freezing		995.7				1010.1				1010.7				1005.0				1011.0				1010.0				999.2				1001.3				1000.3			
Pressure		848				811				820				768				770				751				726				748				750			
Height ft./100		02.7				00.5				00.2				02.3				00.6				01.2				04.4				03.2				03.2			
Temp.		47.43				44.43				42.41				42.41				56.55				56.55				54.53				53.50				56.53			
Dew		38.307				39.280				40.43				42.46				42.46				42.46				42.46				42.46				42.46			
Wind		270				270				270				270				270				270				270				270				270			
Dir.		13				08				08				08				08				08				08				08				08			
Vel.		270				270				270				270				270				270				270				270				270			
knots		13				12				13				13				13				13				13				13				13			
Surf		02.7				00.5				00.2				02.3				00.6				01.2				04.4				03.2				03.2			
1000		01.8				03.2				03.0				03.6				03.5				03.9				04.1				03.2				2.6			
950		41.38				42.39				43.43				45.42				47.42				49.42				51.42				53.42				55.42			
900		29.735				31.53				33.53				35.53				37.53				39.53				41.53				43.53				45.53			
850		32.28				34.28				36.28				38.28				40.28				42.28				44.28				46.28				48.28			
800		60.626				62.53				64.72				66.43				68.14				69.85				71.56				73.27				74.98			
750		25.16				26.03				26.90				27.77				28.64				29.51				30.38				31.25				32.12			
700		19.23				20.10				20.97				21.84				22.71				23.58				24.45				25.32				26.19			
650		12.56				13.43				14.30				15.17				16.04				16.91				17.78				18.65				19.52			
600		13.4				13.6				13.8				14.0				14.2				14.4				14.6				14.8				15.0			
550		-5.13				03.25				11.37				19.49				27.61				35.73				43.85				51.97				60.09			
500		17.8				18.1				18.4				18.7				19.0				19.3				19.6				19.9				20.2			
450		-25.32				-18.36				-11.40				-4.44				2.52				9.56				16.60				23.64				30.68			
400		230.37				234.29				238.21				242.13				246.05				250.00				253.92				257.84				261.76			
350		-45.34				-41.01				-36.68				-32.35				-28.02				-23.69				-19.36				-15.03				-10.70			
300		294.52				304.55				314.58				324.61				334.64				344.67				354.70				364.73				374.76			
250		-48.31				-42.35				-36.39				-30.43				-24.47				-18.51				-12.55				-6.59				-0.63			
200		382.47				385.53				384.1				386.51				389.54				393.89				398.59				403.59				408.59			
170		-50				299				07				54				338				11				51				54				54			
150		50				299				04				55				318				08				51				52				52			
130		51				297				04				56				292				06				52				52				52			
110		53				168				02				536				55				54				54				54				54			
100		534.54				158				03				536				55				54				54				54				54			
90		54				215				03				54				55				54				54				54				54			
80		54				215				03				54				55				54				54				54				54			
70		54				215				03				54				55				54				54				54				54			
60		54				215				03				54				55				54				54				54				54			
Inversion		781ms 24-750ms 33				1010ms 44-973ms 46				1011ms 42-992ms 51				1005ms 42-997ms 51				1010ms 42-997ms 51				1010ms 42-997ms 51				1010ms 42-997ms 51				1010ms 42-997ms 51							
Isothermal		885-855ms 33				860ms 32-821ms 33				770ms 25-756ms 29				880ms 37-827ms 38				880ms 37-827ms 38				880ms 37-827ms 38				880ms 37-827ms 38				880ms 37-827ms 38							
Tropopause		1288ms -55° 30200'				1260ms -64° 32800'				1250ms -54° 33600'				1250ms -57° 34100'				1250ms -57° 34200'				1217ms -73° 37200'				1222ms -69° 36800'				1258ms -59° 34000'				1294ms -57° 30500'			
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia			
Time M.S.L.		09hrs				09hrs				G.M.T.				09hrs				09hrs				09hrs				09hrs				09hrs				G.M.T.			
Surf		1007.7				1013.7				mb				1016.6				1014.6				1011.8				1015.2				1002.5				mb			
Freezing		997.7				1011.5				mb				1006.6				1012.6				768				999.5				772				mb			
Pressure		858				780				mb				742				785				mb				728				mb				mb			
Height ft./100		02.7				00.5				00.2				02.3				00.6				01.2				04.4				03.2				03.2			
Temp.		46.46				50.48				49.47				54.49				58.53				61.55				64.60				62.56				62.56			
Dew		40.279				43.42				43.42				48.44				52.46				55.49				58.52				56.51				56.51			
Wind		270				270				270				270				270				270				270				270				270			
Dir.		13				08				08				08				08				08				08				08				08			
Vel.		270				270				270				270				270				270				270				270				270			
knots		13				12				13				13				13				13				13				13				13			
Surf		02.7				00.5				00.2				02.3				00.6				01.2				04.4				03.2				03.2			
1000		02.0				03.6				03.6				04.0				04.0				04.4				04.4				04.4				04.4			
950		41.40				43.42				43.42				48.44				52.46				55.49				58.52				56.51				56.51			
900		30.326				31.93				31.93				36.38				40.33				43.38				46.43				49.48				52.53			
850		31.29				31.31				31.31				36.38				40.33				43.38				46.43				49.48				52.53			
800		61.230				63.024				63.024				68.47				72.42				75.37				78.32				81.27				84.22			
750		25.13				29.18				29.18				32.13				35.08				38.03				40.98				43.93				46.88			
700		95.922				26.03				26.03				29.08				32.03				35.08				38.03				40.98				43.93			
650		17.9259				22.12				22.12				25.07				28.02				30.97				33.92				36.87				39.82			
600		135.12				17.14				17.14				20.09				23.04				25.99				28.94				31.89				34.84			
550		04.17				09.24				09.24				12.19				15.14				18.09				21.04				23.99				26.94			
500		180.6				183.01				183.01				186.06				189.11				192.16				195.21				198.26				201.31			
450		233.25				236.26				236.26				239.31				242.36				245.41				248.46				251.51				254.56			
400		36.51				36.51				36.51				36.51				36.51				36.51				36.51				36.51				36.51			
350		298.46				302.47				302.47				302.47				302.47				302.47				302.47				302.47				302.47			
300		388.42				388.42				388.42				388.42				388.42				388.42				388.42				388.42				388.42			
250		42				10				10				10				10				10				10				10				10			
200		42				10				10				10				10				10				10				10				10			
170		42				10				10				10				10				10				10				10				10			
150		43				07				07				07				07				07				07				07				07			
130		43				07				07				07				07				07				07				07				07			
110		44				07				07				07				07				07				07				07				07			
100		542.44				L.Y				L.Y				L.Y				L.Y				L.Y				L.Y				L.Y				L.Y			
90		Inversion				825ms 28-800ms 30				850ms 31-818ms 35				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39							
80		Inversion				825ms 28-800ms 30				850ms 31-818ms 35				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39							
70		Inversion				825ms 28-800ms 30				850ms 31-818ms 35				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39							
60		Inversion				825ms 28-800ms 30				850ms 31-818ms 35				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39				873-852ms 39							
Tropopause		1270ms -53° 32100'				NR				1265ms -57° 32900'				1270ms -55° 32300'				1240ms -63° 33200'				1250ms -60° 33300'				NR				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.





## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

Place	W. Watcher 52° 41' 19" N		Prestwick		Shoeburyness		Leuchars		Liverpool		Rineanna		W. Watcher 52° 04' 19" N		Kerwick		Dowtham.			Place
Time	09k.		11k.		15k.		21k.		21k.		21k.		21k.		21k.		21k.			Time
Type							Pilar.		Pilar.											Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.		Feet
Surf.	350	12			210	06	260	09	Calm.	330	02	240	10	190	22	140	05			Surf.
1,000	330	12	350	13	200	11	250	21	262	05	220	04	250	11	230	39	200	16		1,000
2,000	330	05	230	05	210	11	258	19	258	05	170	06	270	16	230	33	220	16		2,000
3,000	340	10	290	04	210	10	257	18	242	08	200	07	280	15	240	31	220	14		3,000
4,000	350	15	010	03	220	14	256	18	237	11	190	06	300	15	240	29	230	14		4,000
5,000	350	21	310	03	220	17	252	20	232	12	150	07	330	18	240	30	230	14		5,000
6,000	350	21	340	09	230	19	248	19	229	14	130	07	340	19	240	30	230	17		6,000
8,000	350	21			230	22	251	22	214	16	050	07	340	15	250	29	230	24		8,000
10,000	360	24			220	25	247	21	211	14	070	09	330	16	250	32	220	19		10,000
14,000	010	29			230	32	256	24	216	13	070	07	340	27	250	39	230	25		14,000
18,000	020	39			230	32	269	24	212	12			340	26	250	52	240	23		18,000
24,000	010	48			220	42	316	18	218	10			320	29	270	62	240	28		24,000
30,000	010	51			220	66	332	21	055	34			340	39	270	70	240	32		30,000
40,000	030	71			220	62	301	12	263	06	.		350	34	260	72	250	24		40,000
50,000					(35° 000)				244	13					240	06	260	20		50,000
									259	09					26	07	230	08		60,000
									(59° 000)						070	09	070	07		70,000
															100	10	100	13		80,000
															(74° 000)		110	17		90,000
																	100	29		100,000

## NEPHROSCOPE OBSERVATIONS

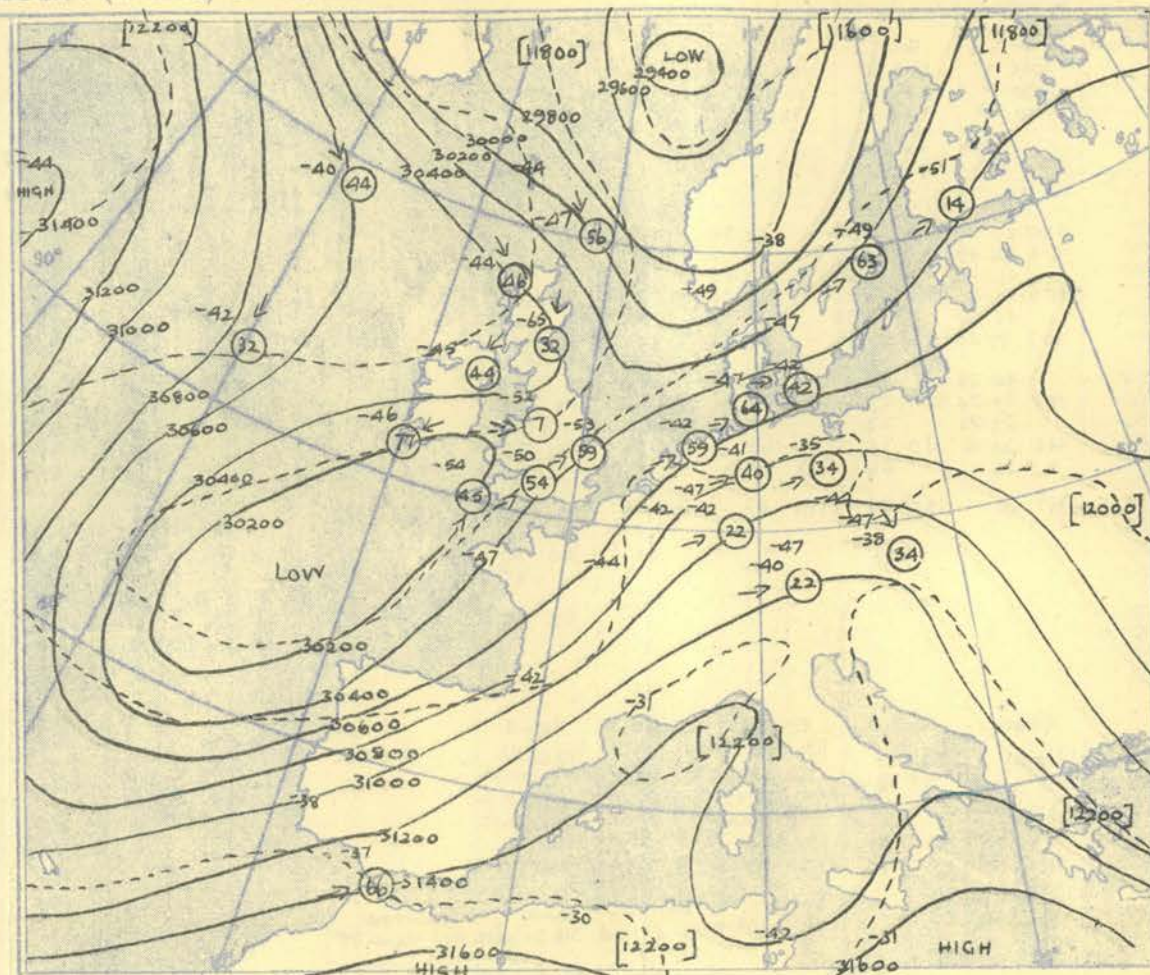
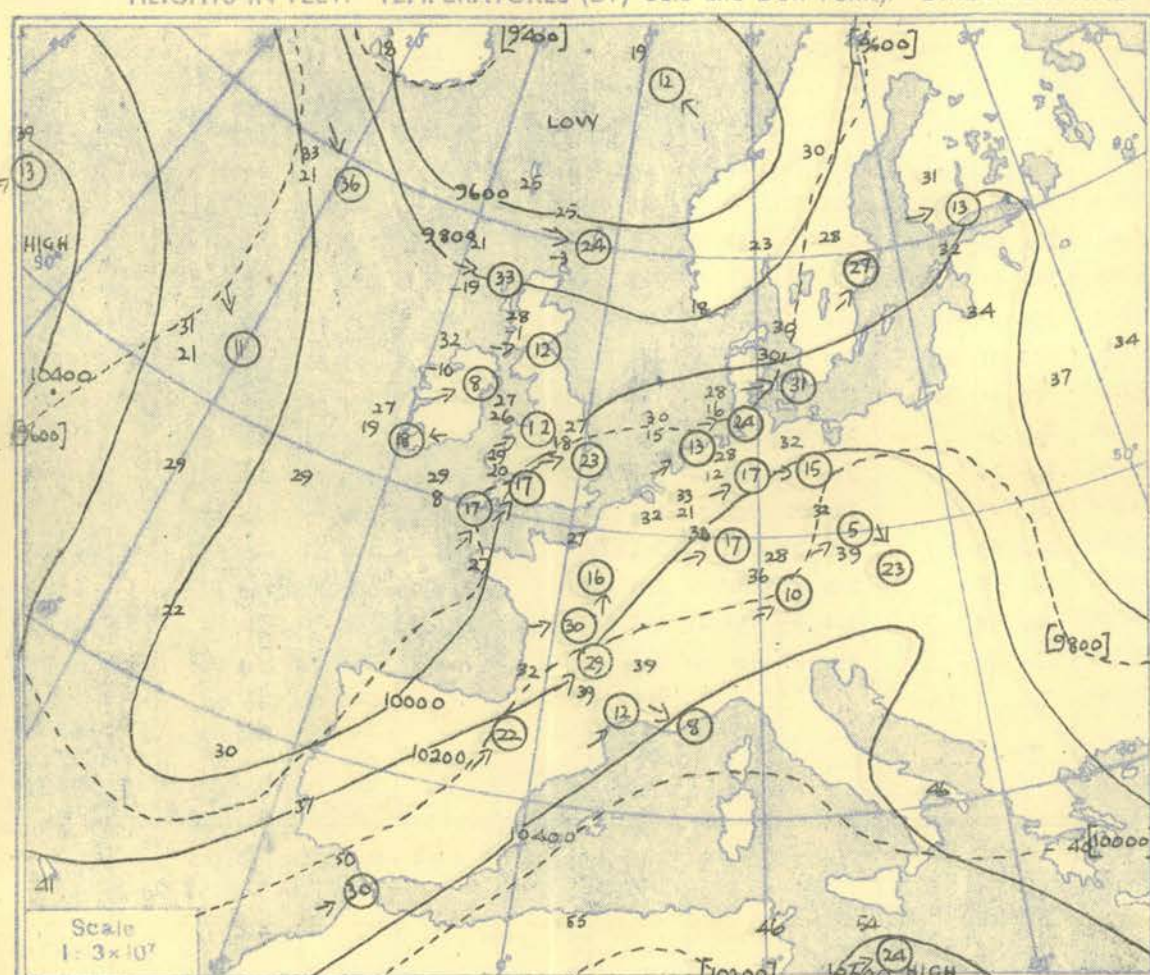
[illegible]

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

Ship	Weather Watcher				Weather Watcher				Weather Watcher				Weather Watcher				Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Ship						
Lat/Long	52-5N 19-9W				52-4N 19-9W				52-7N 19-9W				52-6N 19-9W				58-3N 18-7W				59-0N 19-0W				59-0N 18-9W				59-0N 18-8W				Lat/Long						
Pressure (Freezing)	Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Time M.S.L.		G.M.T.		Pressure (Freezing)										
	Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb		Surf		mb			Time M.S.L.									
	mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb												
690				705 and 670				705				690				700				660				690				670											
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																													Surf										
1000	55	54	46	010	13	54	55	47	15	54	57	45	280	10	54	53	40	49	288	18	3-6	48	45	290	18	3-5	49	48	300	16	1000								
950		52	45	013	15	54	53	45	15	54	54	45	265	05	49	52	50	43	46	288	18		41	40	290	25		44	44	293	20	950							
900	340	40	40	348	21	337	42	40	21	337	40	39	258	06	336	49	46	38	35	288	17	31-9	37	37	290	25	31-9	39	38	289	27	900							
850		45	18	351	22		47	37	22		48	37	268	07	46	43		40	33	279	21		40	33	293	26		39	38	293	20	850							
800	657	43	29	360	21	655	43	35	21	655	43	35	286	2	654	42	39	63-7	39	29	266	24	63-3	39	33	297	30	63-3	39	12	298	20	800						
750		58	23	014	24		35	33			37	31	309	12		38	36		36	23	268	25		40	34	299	34		38	25	319	28	750						
700	101	33	21	013	23	101	31	27	23	101	31	27	327	17	101	33	30	29-1	32	07	290	26	98-9	36	29	301	36	98-8	33	21	318	36	700						
650		27	11	016	29		30	22	29		26	05	355	22		28	25		27	19	312	24		31	25	301	34		27	15	303	38	650						
600	141	20	04	014	27	141	23	06	27	141	23	06	010	28	141	22	19	189	21	14	316	31	139	24	19	301	33	139	20	13	302	41	600						
550		14	-02	015	34		17	-05	34		12	-05	010	33		14	09		14	09	318	36		17	04	294	37		17	09	311	41	550						
500	187	07	-15	029	41	188	09	-13	41	188	09	-13	357	31	187	07	01	185	06	-03	327	38	186	08	-04	287	37	185	09	01	303	44	500						
450		-02	-14	031	40		00	-21	40		-04	-13	347	30		-02	-09		-03	-12	337	41		-01	-12	298	36		-01	-12	291	45	450						
400	241	-12	-24	032	51	242	-11	-31	51	242	-11	-31	350	36	242	-13	-21	289	-15	-22	342	40	240	-13	-25	313	37	240	-13	-28	311	39	400						
350		-24	-40	010	67		-23	-42	67		-27	-43	256	36		-25	-33		-23	-31	335	41		-23	-35	320	41		-26	-37	338	42	350						
300	388	-41		014	69	309	-38	-56	69	307	-42		001	32	307	-42		305	-43		327	49	307	-38	-49	318	46	306	-40	-51	313	44	300						
250		-60		014	74		-56		74		-59		004	36		-59			-60		332	58		-54		318	52		-55		332	41	250						
200	394	-81		022	69	215	-69		69	394	-77		012	30	394	-77		392	-78		348	66	394	-71		318	46	393	-69		301	44	200						
170		-76		025	59	mb			59		-69		016	29		-69			-68		001	54		-65		328	39		-59		322	35	170						
150		-70		025	39				39		-62		022	23		-62			-61		022	23											150						
130		-69		018	34				34		-61		018	17		-61			-61		018	17											130						
110		-69		021	27				27		-60		008	10		-60			-61		008	10											110						
100	637	-68		018	21				21									538	-61		348	37		-61		339	33		-57		329	34	100						
90	(099	-68																			335	24		-57		348	21		-51		328	27	90						
80	mb)																				334	5		-54		333	16		-51		328	10	80						
70																																		70					
60																																		60					
Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion							
880 mb 38° - 860 mb 45°				900 mb 42° - 873 mb 48°				904 mb 39° - 888 mb 43°				930 mb 45° - 894 mb 50°				810 mb 38° - 800 mb 39°				888 mb 36° - 869 mb 40°				575 mb 16° - 561 mb 19°				720 mb 61° - 691 mb 34°				Isothermal							
Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal			
860 - 850 mb 45°				694 - 30° - 680 - 33°				888 - 850 mb 43°								900 - 810 mb 38°				869 - 850 mb 40°				900 - 770 mb 39°				750 - 737 - 38°				650 - 644 - 27°				650 - 623 - 30°			
409 - 400 - -12°																																							
Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause							
I 190 mb - 85° 40,500'				II 218 mb - 69° 37,700'				I 184 mb - 83° 41,100'				N.R.				I 200 mb - 78° 39,200'				I 186 mb - 77° 41,000'				I 210 mb - 70° 38,300'				I 180 mb - 68° 41,900'											



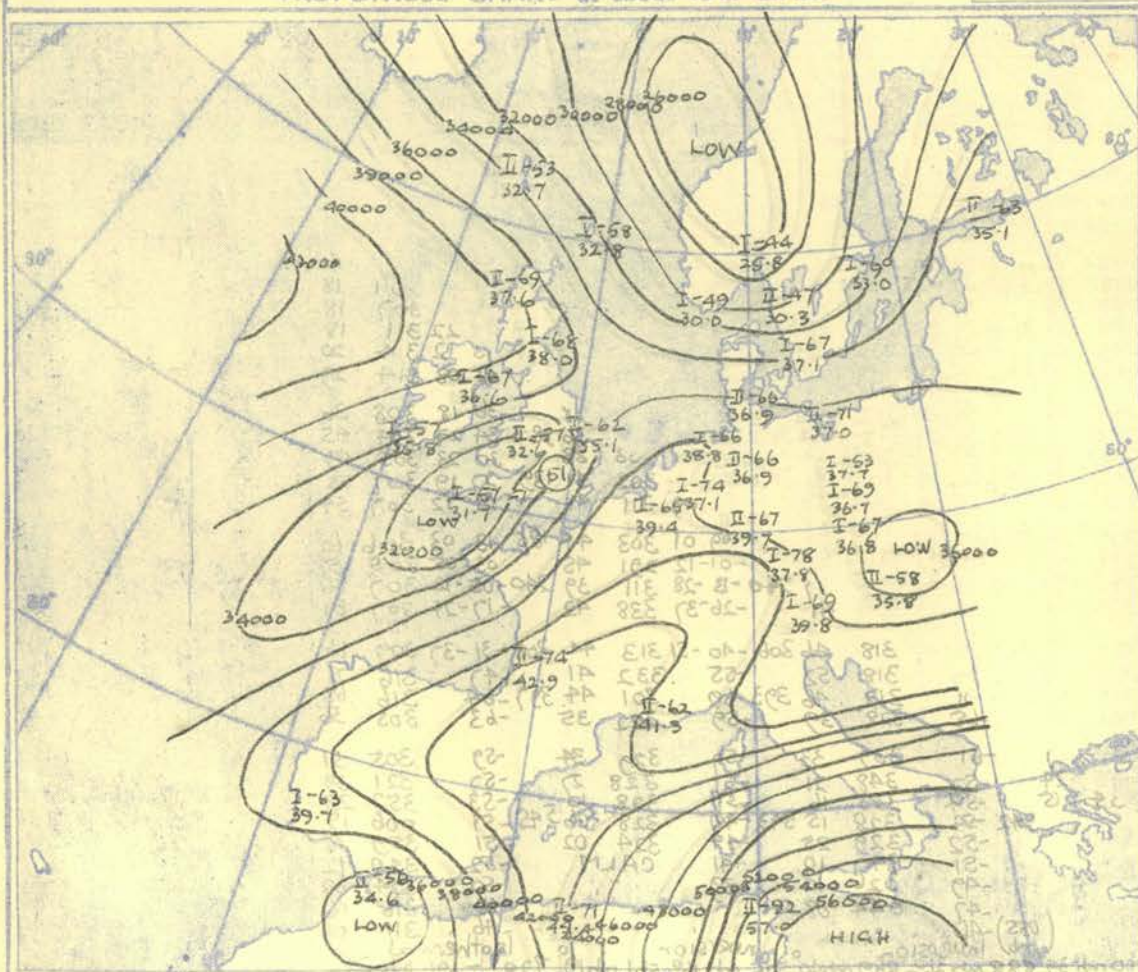
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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 15 h. G.M.T.



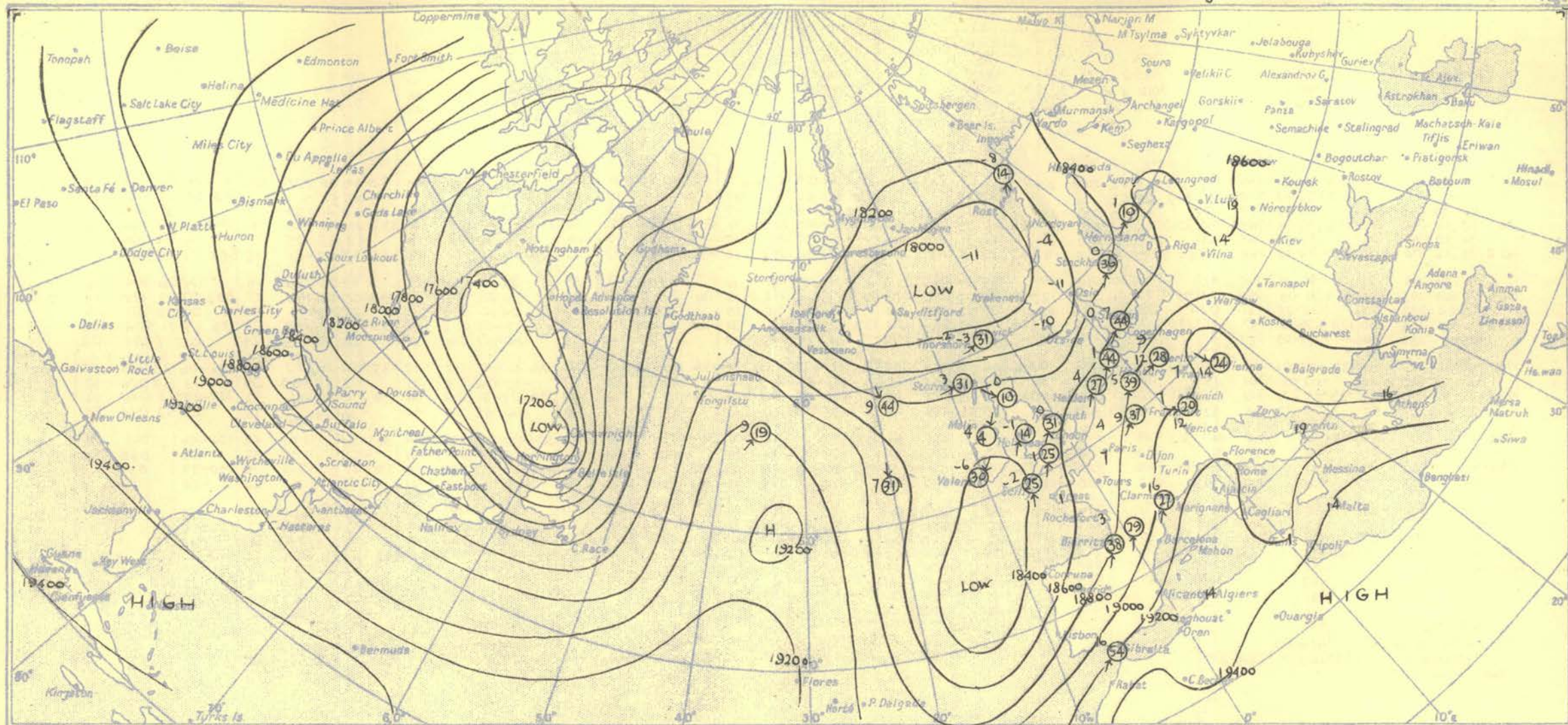
### NOTES ON THE AEROLOGICAL SITUATION.

The cold trough from west of Norway to the Azores moved east in its Northern portion but remained stationary from England to the Azores. A strong thermal zone became established from Newfoundland across Southern Greenland to Iceland while thicknesses remained high in mid-Atlantic.

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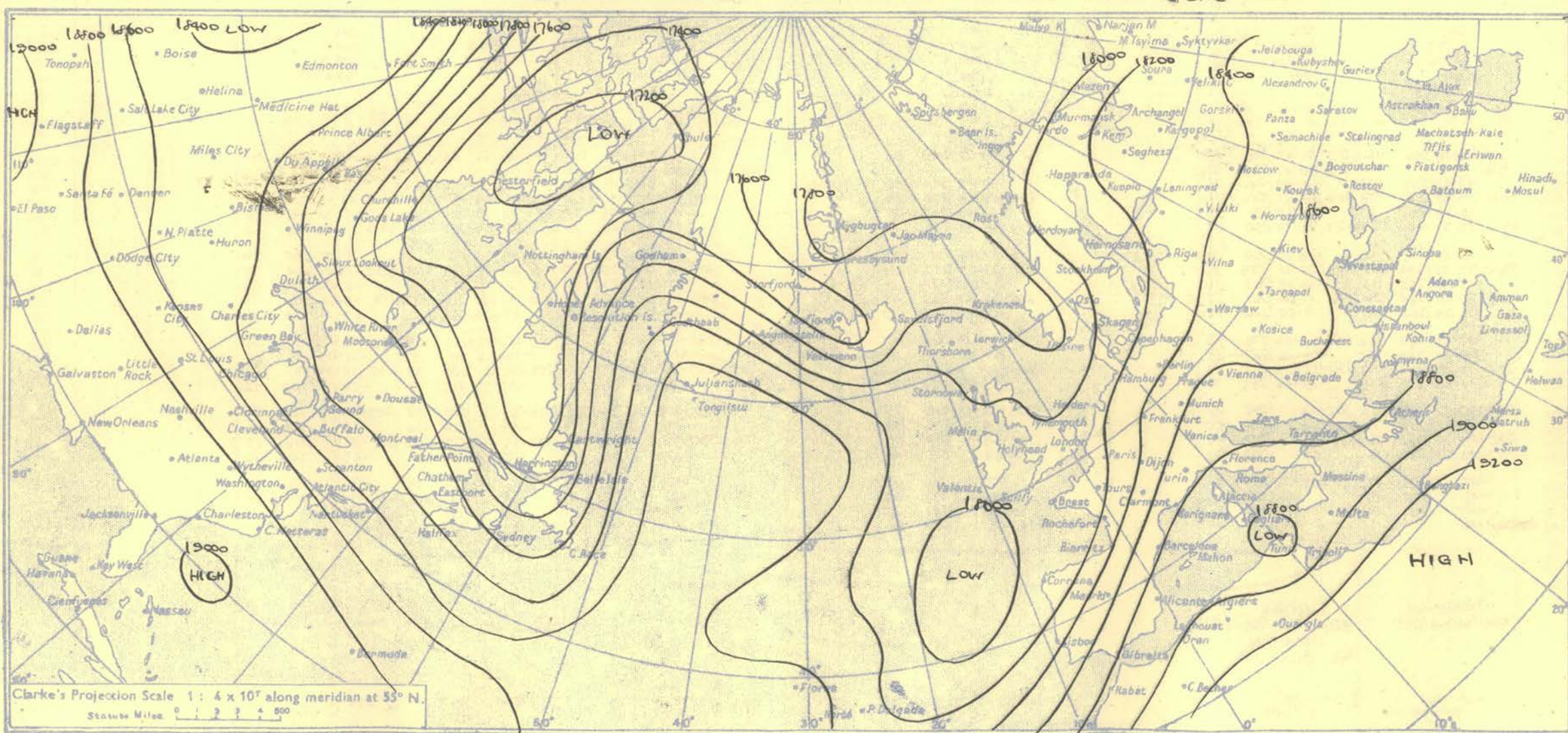
Meteorological Office, Air Ministry, Kingway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

June 19<sup>th</sup> 1950





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

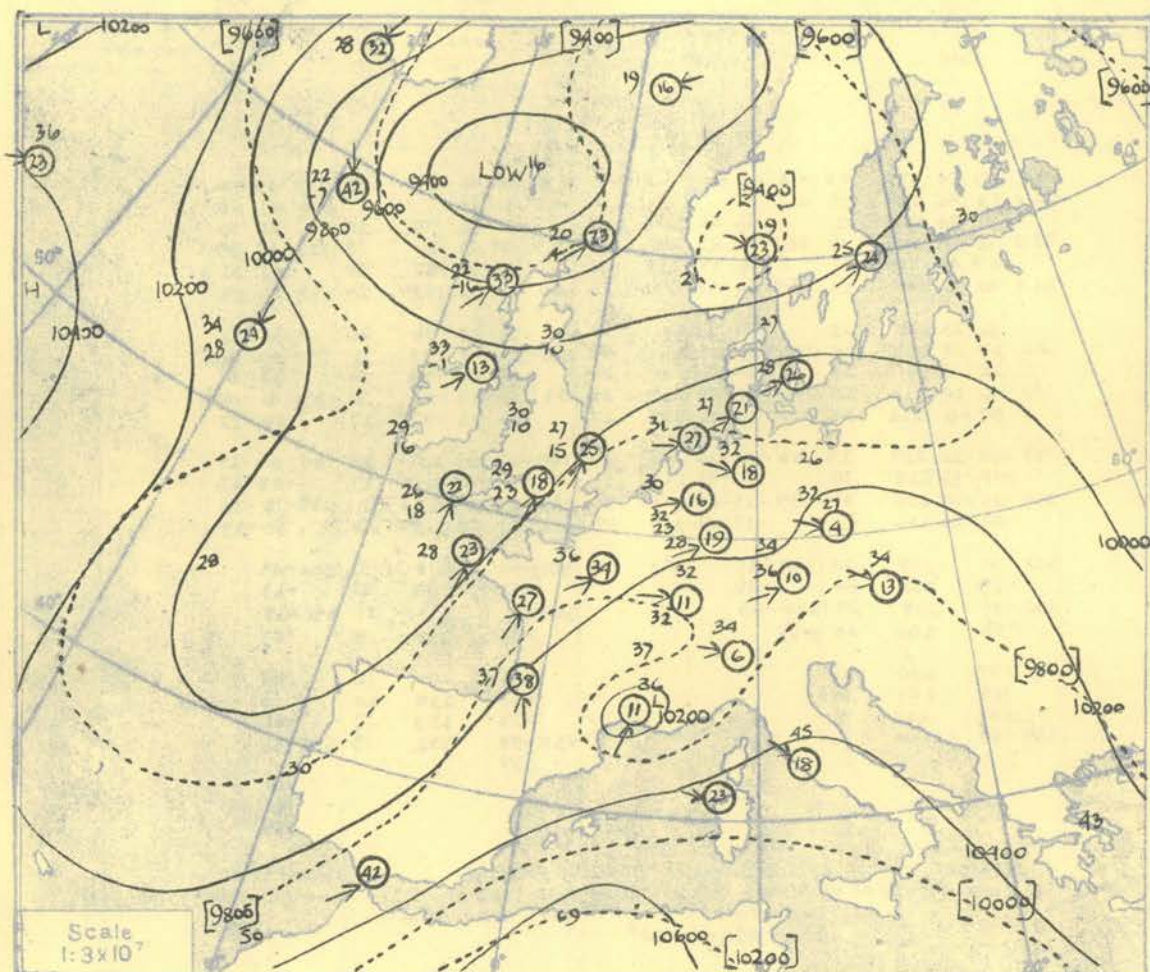
[illegible]



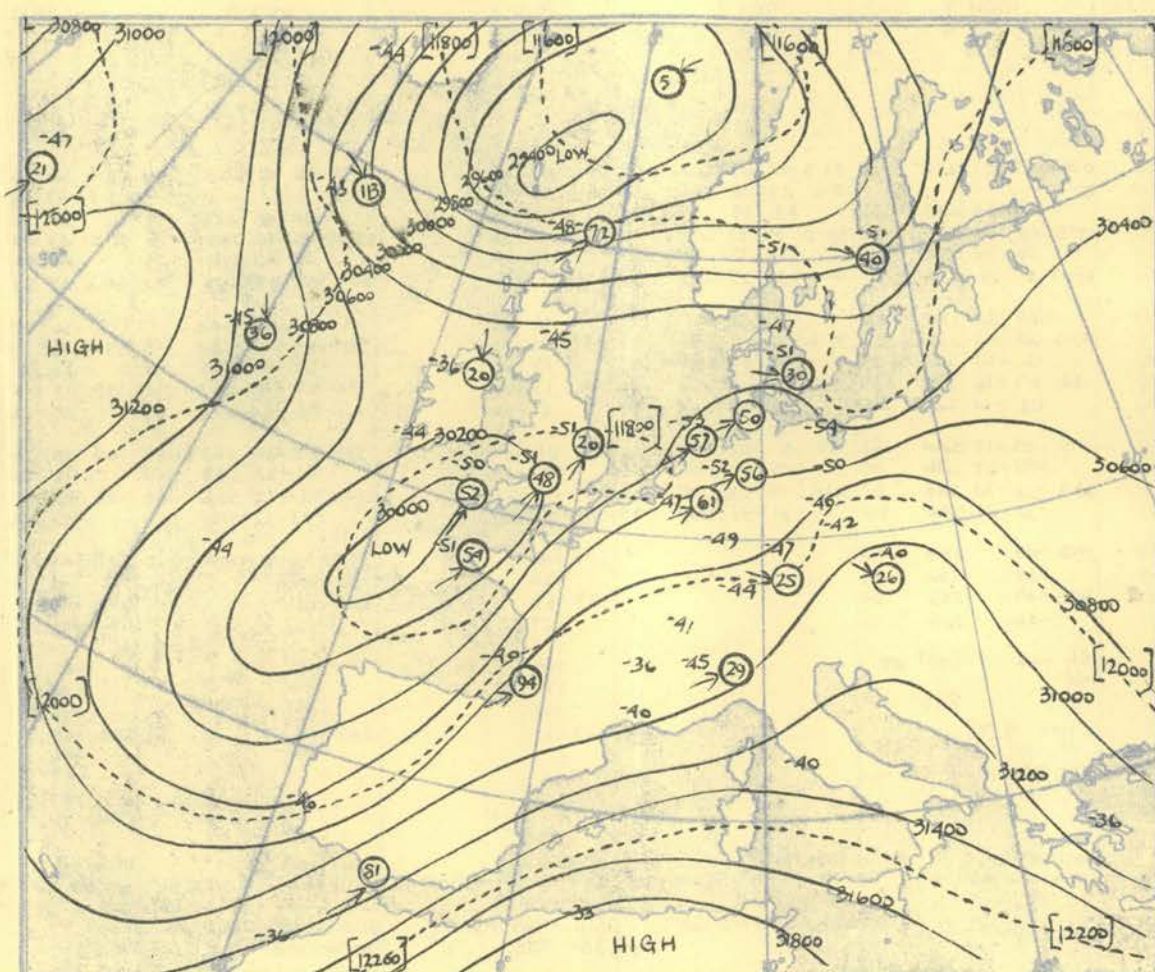
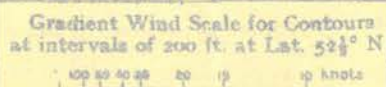
## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION			
Time M.S.L. Surf Freezing	Pressure mb	03h				03h				03h				03h				03h				03h				03h				03h				03h				Time M.S.L. Surf Freezing			
		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.										
		1004.3	mb			1006.3	mb			1010.3	mb			1012.9	mb			1012.8	mb			1014.5	mb			1016.0	mb			1013.5	mb			1012.6	mb						
		994.4	mb			1004.0	mb			1009.5	mb			1004.4	mb			1010.8	mb			1010.1	mb			998.9	mb			1002.7	mb			1011.9	mb						
		810	mb			830	mb			750	mb			666	mb			750	mb			746	mb			730	mb			760	mb			740	mb						
		02.7	47	47	214	15	00.5	48	47	260	05	00.2	49	44	02.3	55	51	220	06	00.6	54	53	01.2	57	54	175	08	4.4	52	50	Calm	02.9	57	56	135	08	20.3	49	48		
		01.1	44	44	247	24	01.6	47	46	266	26	02.8	49	44	03.5	54	50	226	12	03.5	57	55	04.0	58	55	229	18	4.1	52	50	Calm	03.5	51	55	135	08	20.3	49	48		
		29.5	40	39	235	25	30.0	39	37	249	30	31.3	43	38	32.4	40	44	230	15	32.5	49	44	33.0	50	44	208	15	33.1	52	42	210	07	32.3	47	46	181	21	22.3	47	39	
		36	35	35	232	25	34	33	238	29	38	34	34	34	48	42	236	23	40	40	23	40	40	46	40	205	17	46	39	203	15	42	36	187	19	22.3	47	39			
		60.7	31	29	234	27	61.1	29	29	242	29	62.8	37	30	64.2	39	33	243	22	64.2	38	34	64.9	40	36	208	21	64.9	40	35	202	18	64.0	37	32	193	20	63.9	36	29	
		25	21	234	24	28	02	247	29	32	19	38	23	242	17	32	27	32	27	32	27	32	27	32	27	25	34	29	201	19	34	24	196	20	33	23	750				
		95.2	20	04	236	23	96.6	22	16	250	33	97.9	36	10	99.7	33	01	244	13	99.4	30	10	100	27	15	222	25	100	29	23	201	18	99.0	26	18	198	22	99.1	29	16	
		12	14	243	29	19	05	255	37	23	03	140	23	18	140	23	18	247	12	139	18	05	140	16	04	233	24	140	18	09	209	25	138	16	13	192	24	139	16	16	
		03	14	243	46	08	07	255	51	10	05	186	08	30	263	08	186	00	26	10	35	185	03	24	227	27	186	01	26	213	27	184	04	31	201	29	184	01	29		
		179	03	13	244	53	180	01	02	256	51	183	00	04	241	01	22	298	08	238	22	47	238	25	45	225	31	239	23	43	213	34	236	29	51	213	30	238	18	30	
		233	22	34	248	61	234	19	23	257	54	237	17	21	23	32	018	13	32	56	303	36	51	008	20	303	48	303	51	222	20	304	51	223	48	301	50	218	52	304	49
		385	49	252	24	389	66	57	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	49	547	49	
		46	250	15																																					
		156	46	Cont. as																																					
		mb)		Pilar.																																					
		Max Wind.																																							
		50,000	247°	07 kts.																																					
		60,000	206°	03 ..																																					
		isothermal.																																							
		650 - 632 mb	12°																																						

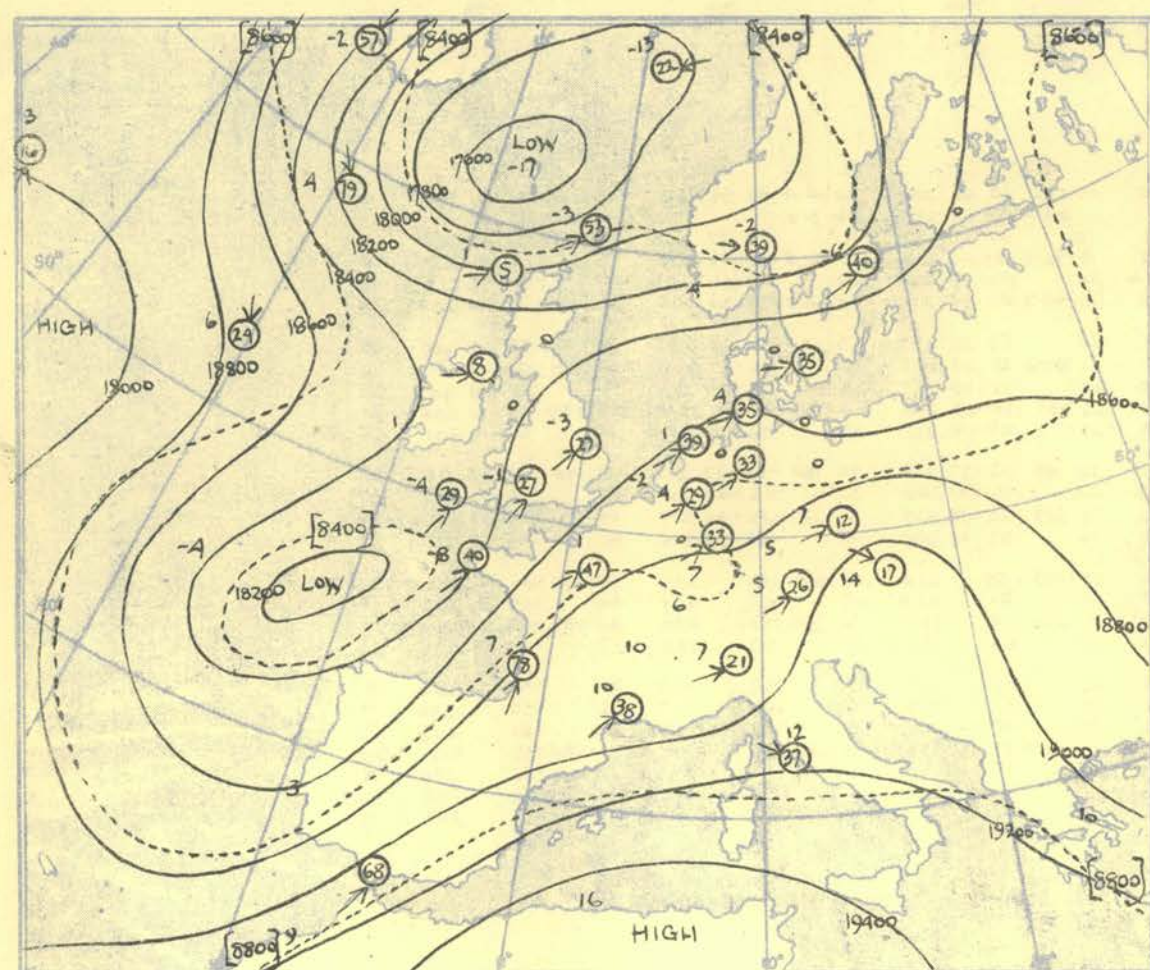




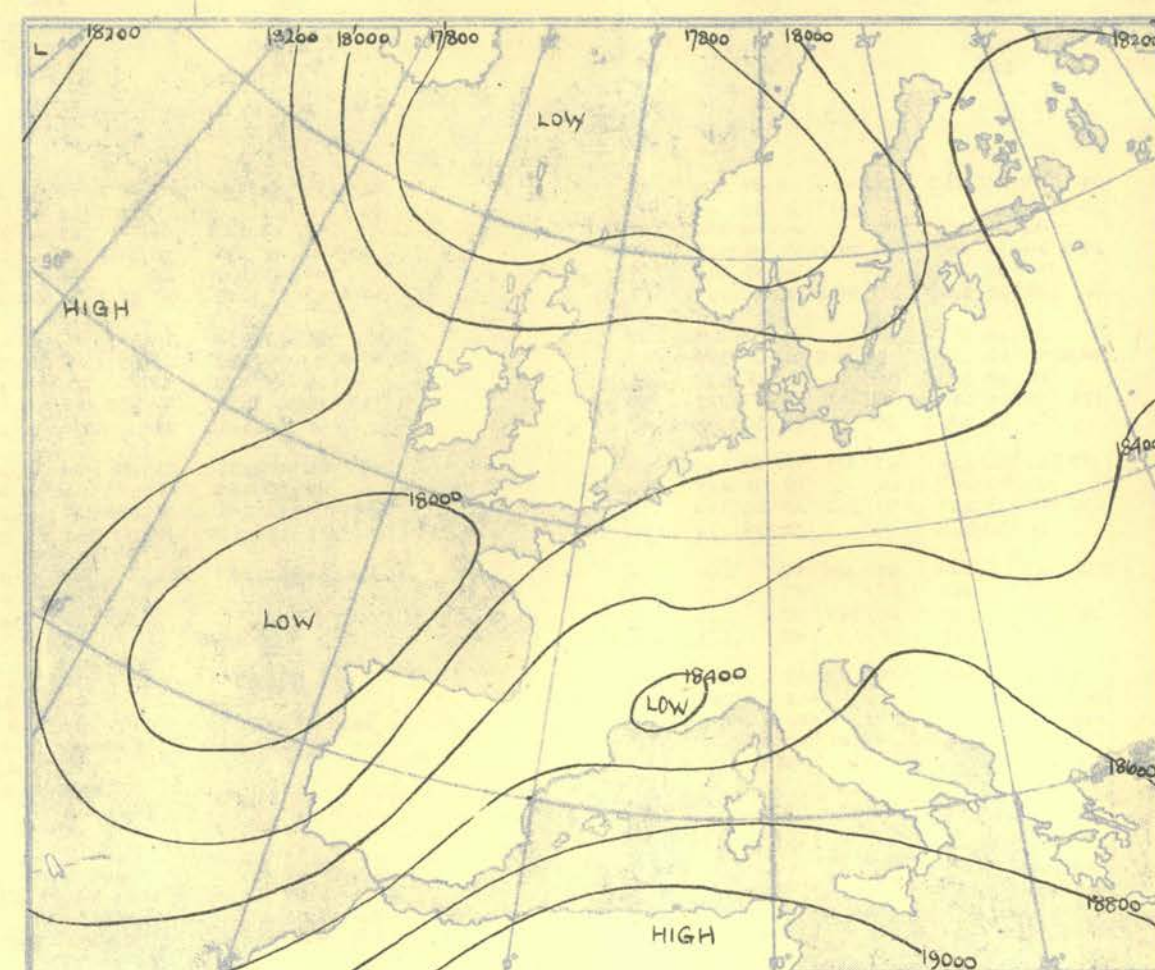
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



The continuous lines are contour lines of the 300 mb. surface  
The dotted lines are isopieths 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

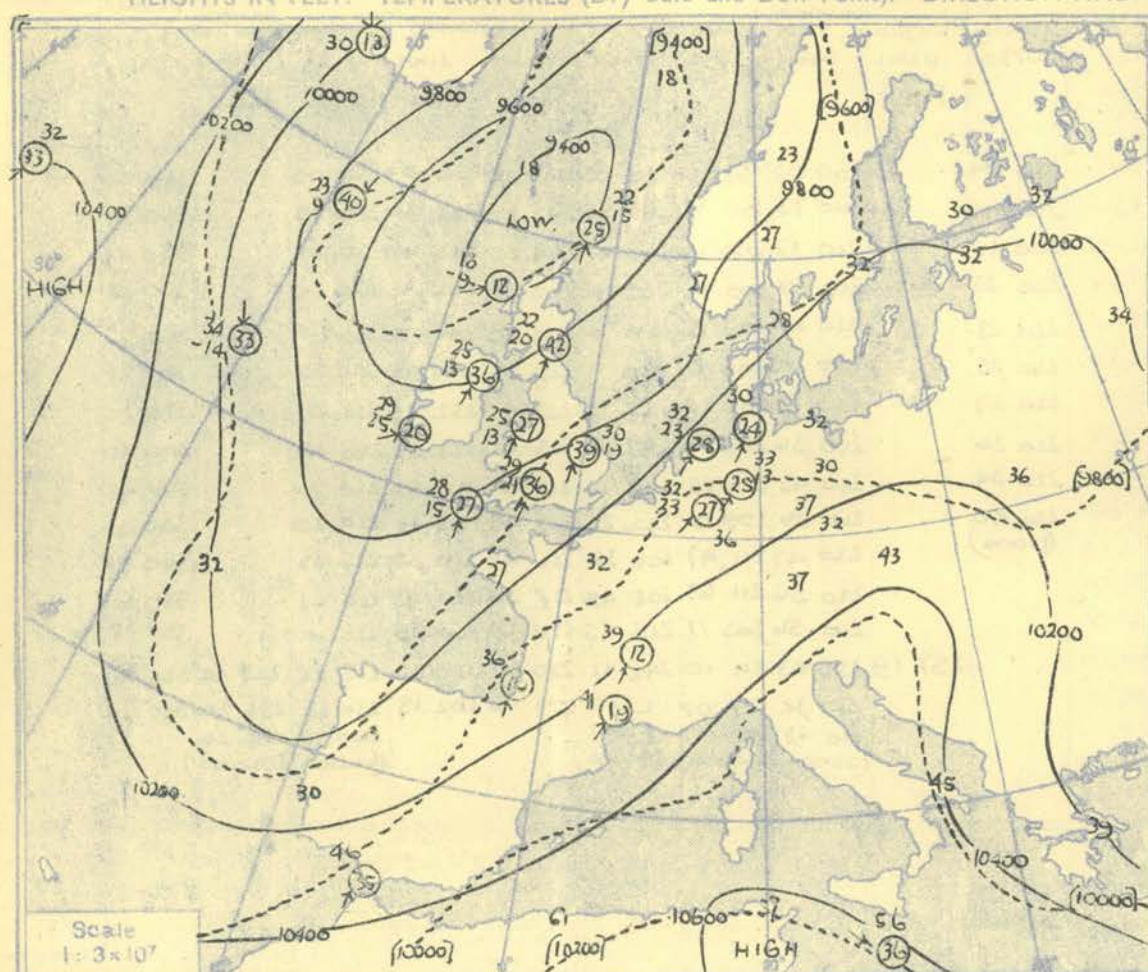


Isopleths of Thickness 500-1000mb.



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. Surf Pressure	43.2°N 17°W				39.5°N 12.2°W				51.3°N 0.4°E												Time M.S.L. Surf Pressure	Direction	Leeming		Alder Grove		Shoeburyness		Lewick		Stornoway		Leuchars		Liverpool		Downham Market		Wickham		Wickham		Time	
	13hrs	1019	mb	780	15hrs	1016	mb	750	1405hrs	1008	mb	700	mb	mb	mb	mb	mb	mb	mb	mb			mb	0730	08hrs	14hrs	15hrs	15hrs	15hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	Type					
Height ft./100	Temp.	Dew	Temp.	Dew	Height ft./100	Temp.	Dew	Height ft./100	Temp.	Dew	Height ft./100	Temp.	Dew	Height ft./100	Temp.	Dew	Height ft./100	Temp.	Dew	Height ft./100	Temp.	Dew	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet					
Surf	-	60	50	-	62	56	03	1	72	56												Surf																Surf						
1000	51				4.3				02.6													1000																1,000						
950		52	48		54	53																950																950						
900		44	44		48	43	32	1	54	49												900																900						
850		40	39		43	40			51	40												850																850						
800		36	27		33		64	3	46	36												800																800						
750		36	13		32				39	35												750																750						
700	101	30	23		100	27			32	27												700																700						
650		26	13		18				27													650																650						
600		20			12		140	18														600																600						
550		13			03				09													550																550						
500	187	03			184	-6			186	00												500																500						
450									-13													450																450						
400									239	-21												400																400						
350									-35													350																350						
300									305	-43												300																300						
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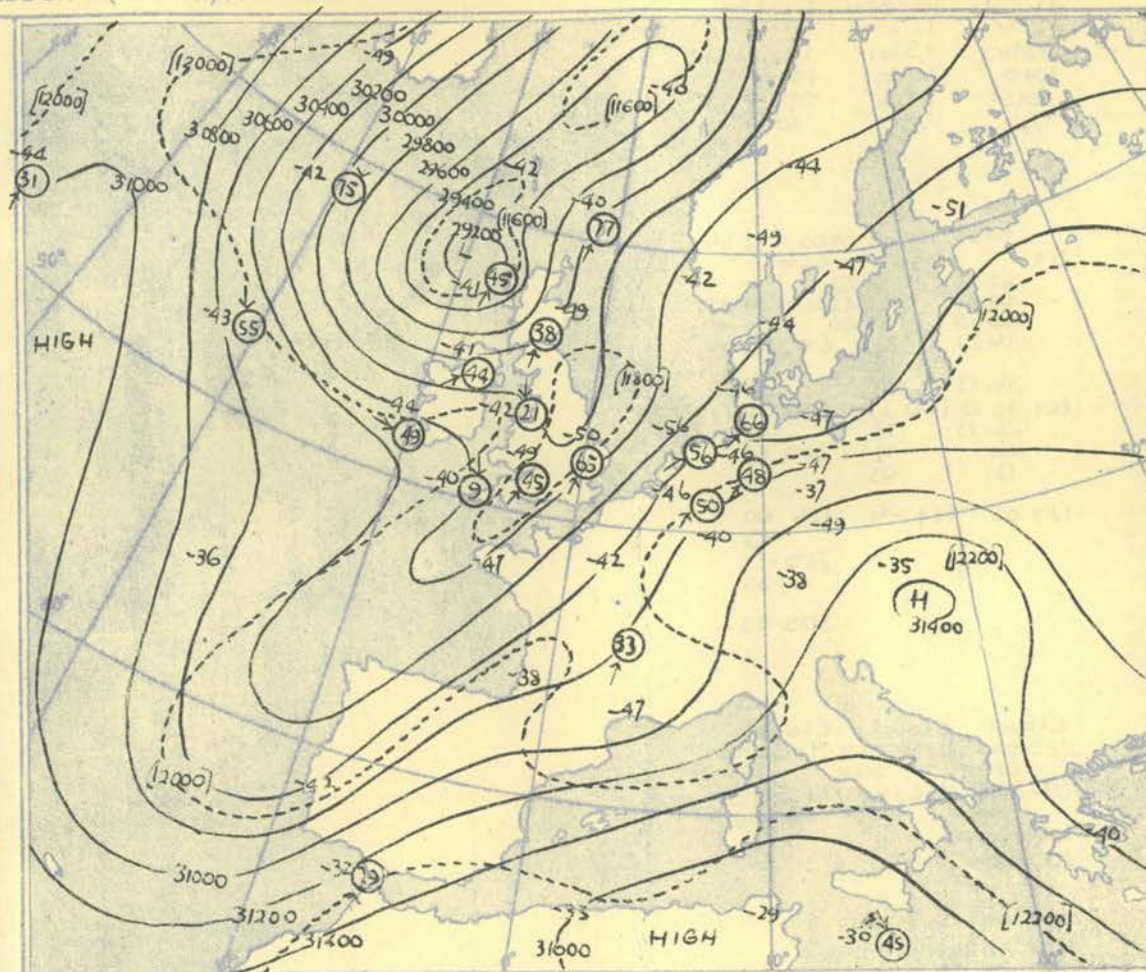




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

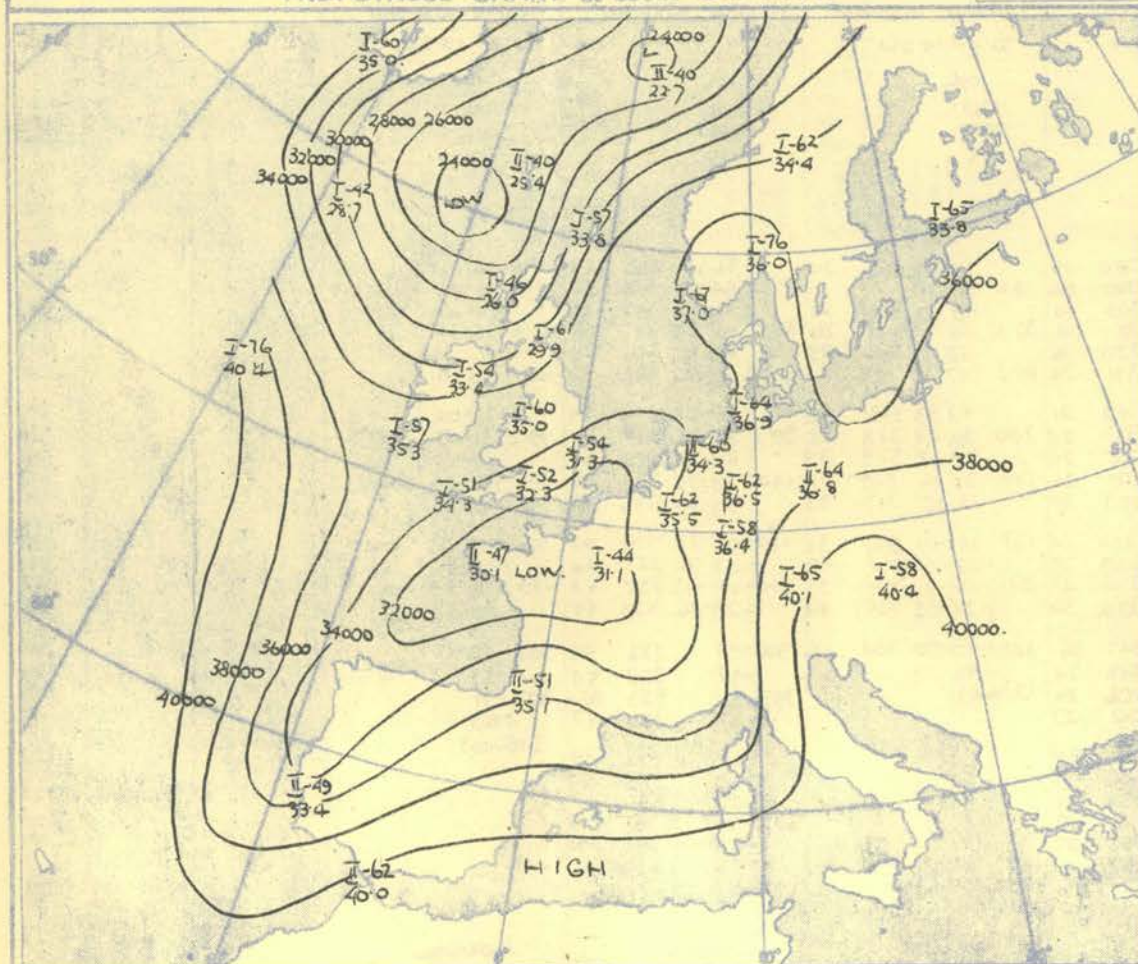
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.



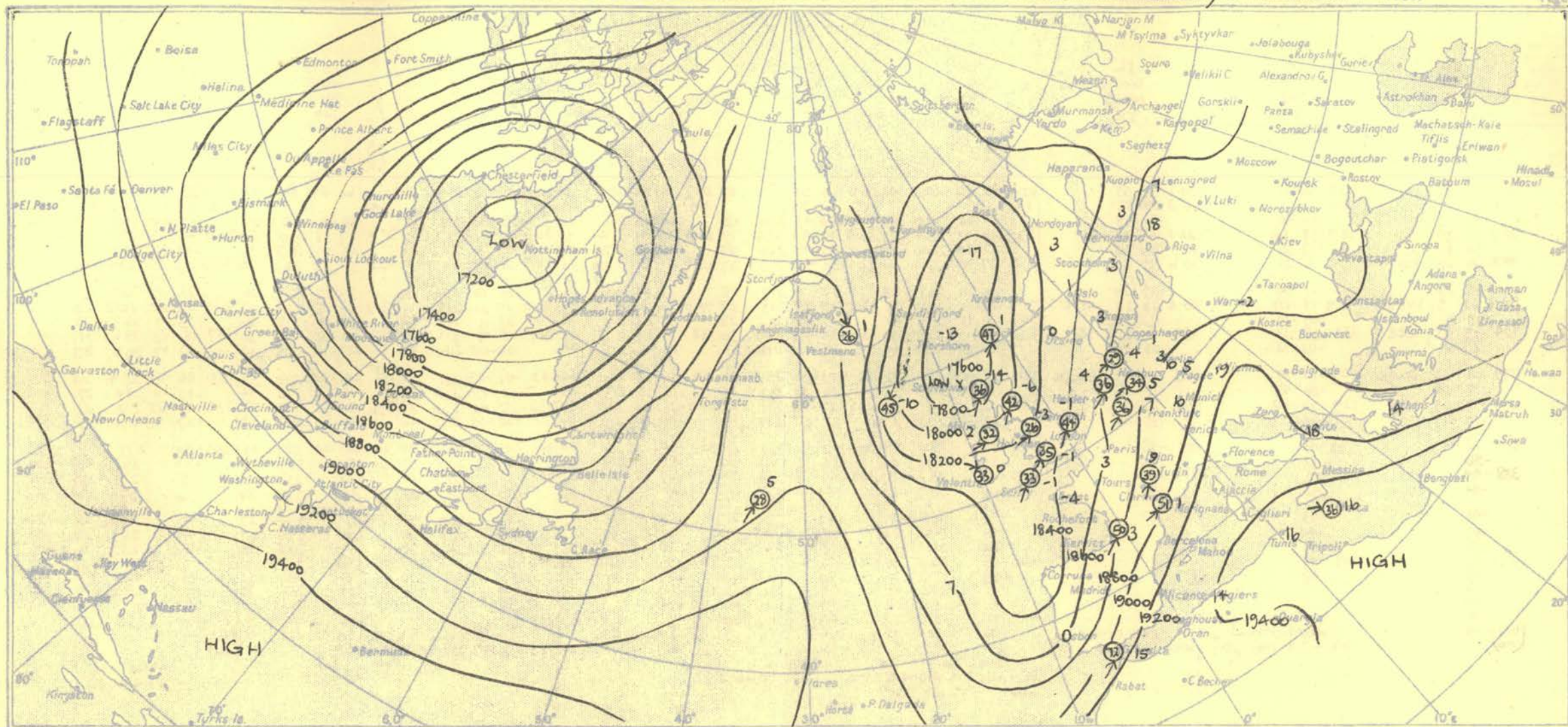
Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

A cold pool developed early in the day east of Iceland and moved southwards to West of Scotland. Cyclogenesis developed to the east of this pool resulting in a depression over Scotland.

The cold trough persisted from the Irish Sea to West of Portugal. Thickness remained high in mid-Atlantic.

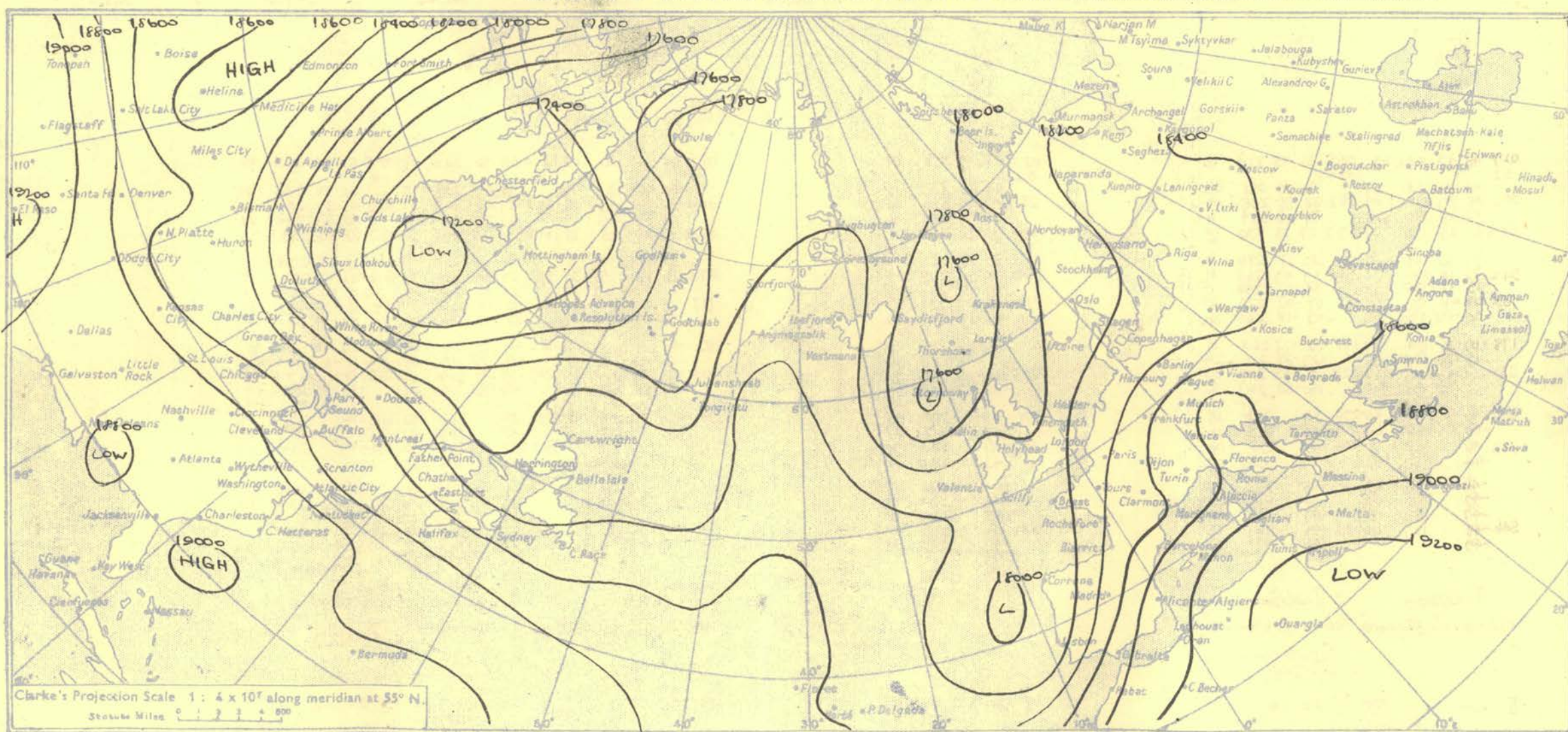




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

20th June

1950.





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

[illegible]



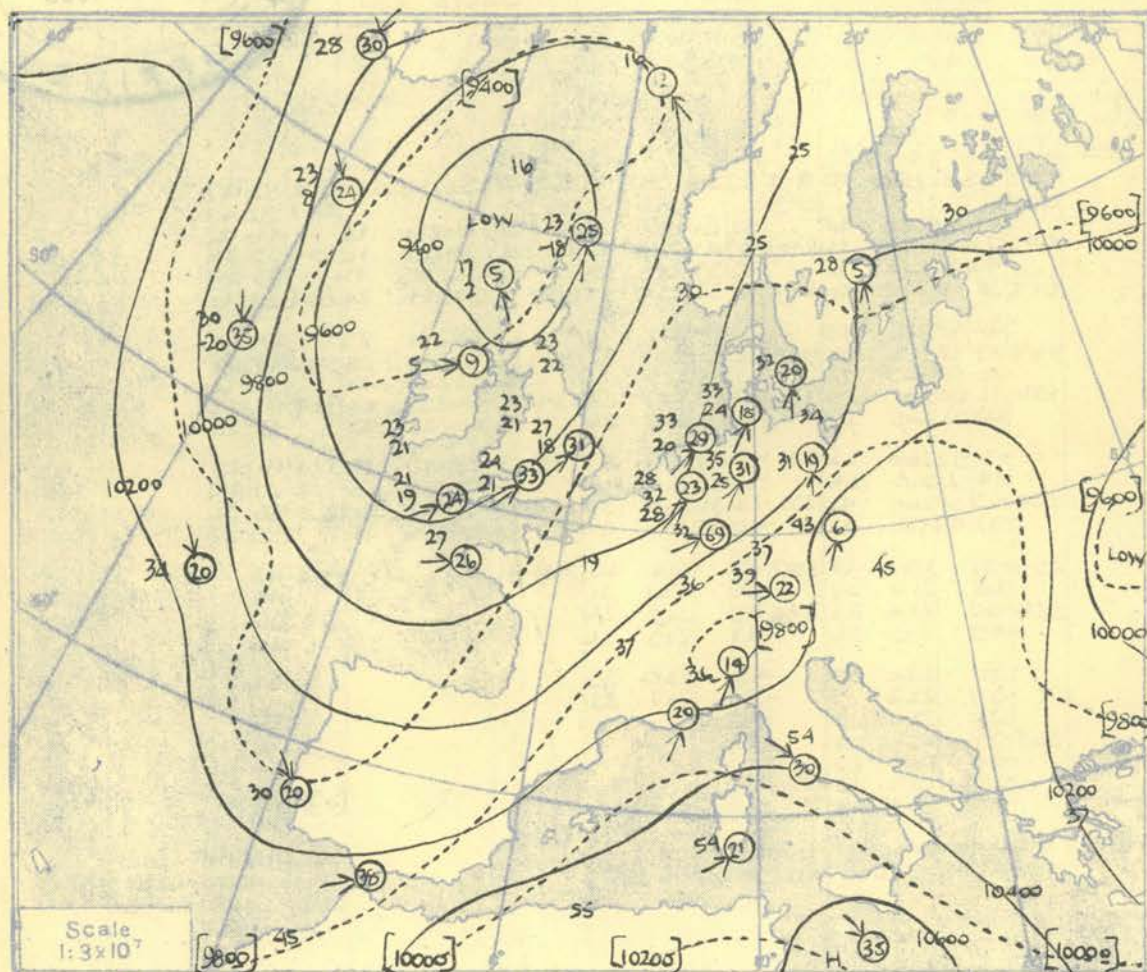
## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)



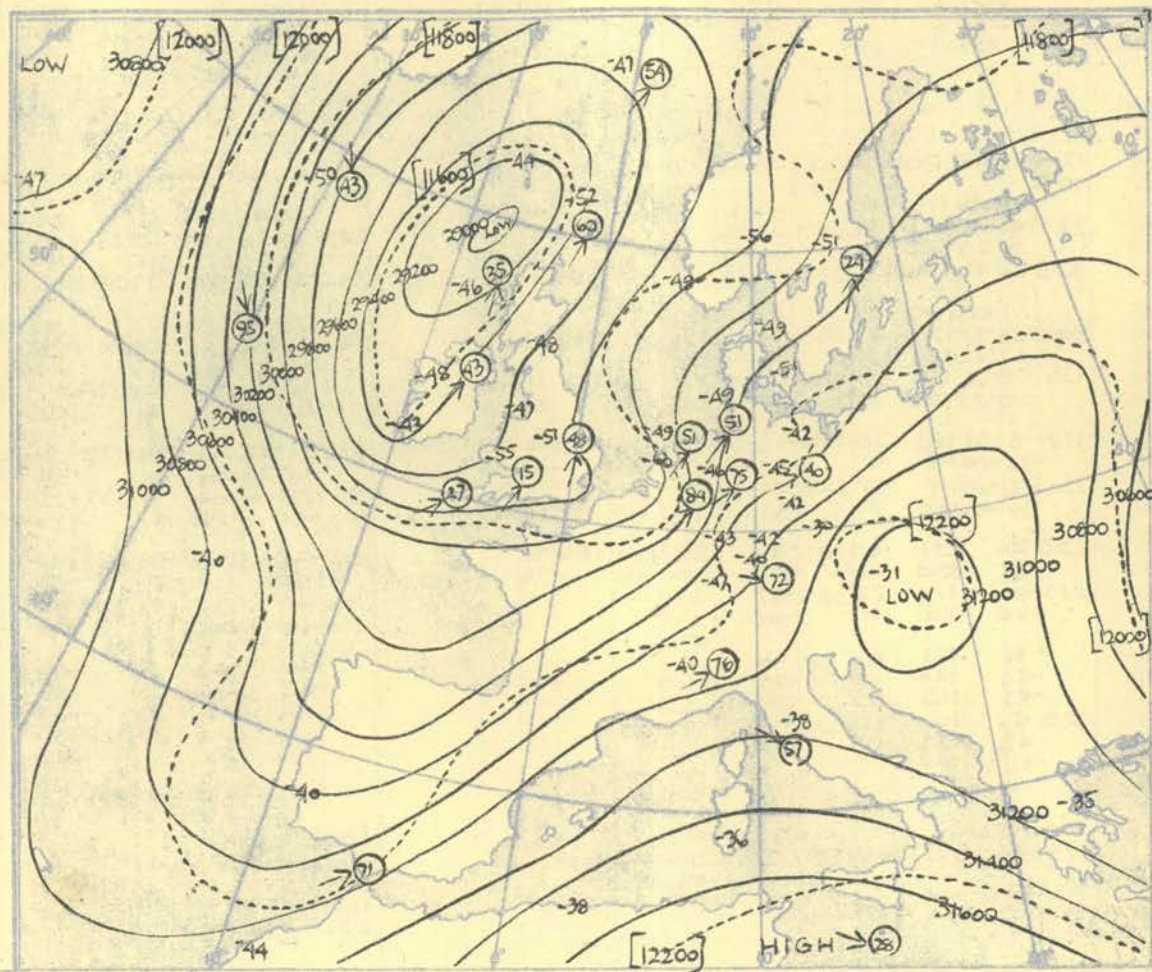
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time M.S.L.	03hrs G.M.T. 098.2 mb 988.2 mb 790	03hrs G.M.T. 099.4 mb 997.3 mb 850	03hrs G.M.T. 099.1 mb 998.3 mb 810	03hrs G.M.T. 1000.6 mb 991.9 mb 828	03hrs G.M.T. 998.8 mb 996.8 mb 769	03hrs G.M.T. 1002.1 mb 997.7 mb 798	03hrs G.M.T. 1003.3 mb 997.6 mb 755	03hrs G.M.T. 1002.9 mb 991.5 mb 805	03hrs G.M.T. 1002.9 mb 991.5 mb 805
Pressure mb	02.746 48 Calm	00.846 45 Calm	00.251 51	02.342 41 Calm	00.654 51	01.255 51 190 10 4.4 55 54 190 15	02.953 52 225 05	0.352 47	Surf
1000	0.5	00.2	00.3	00.2	00.3	00.6	00.5	01.1	1000
950	46.46 176 10	42.41 L.V	46.46	44.43 305 07	50.48	54.48 231 18	52.51 197 21	49.46 251 18	950
900	27.941 40 177 12	28.137 35 L.V	28.241 41	28.635 36 317 05	28.443 42	29.548 44 228 16	29.243 35 258 21	15.296 39 36	900
850	38.251 82 16	32.31 L.V	36.36	24.31 322 10	40.36	42.38 213 18	43.37 213 20	38.32 265 16	850
800	59.33 12 186 22	58.927 25 L.V	59.331 31	59.731 23 314 12	59.935 32	61.238 29 214 20	61.437 33 230 22	60.625 26	800
750	27.051 90 22	19.17 196 03	28.27	28.13 253 13	30.27	32.18 223 29	31.28 231 24	27.23 251 23	750
700	94.023 18 192 28	93.117 02 154 08	94.223 22	94.220 52 252 05	94.823 21	96.327 18 213 31	96.324 21 231 33	95.21 19 245 24	700
650	17.22 193 26	11.00 200 11	17.16	16.01 244 17	17.13	20.09 209 28	17.14 229 31	16.13 241 21	650
600	133.09 23 193 28	132.04 178 11	133.11 09	134.10 6 234 21	134.10 07	136.12 03 212 29	136.10 07 227 28	134.10 06 252 20	600
550	00.28 192 35	4.16 183 14	04.01	02.14 227 21	02.1	05.32 205 32	01.2 215 26	03.00 253 19	550
500	178.3 32 193 35	176.15 28 185 23	179.4 08	178.7 23 213 24	179.7 12	181.3 12 200 37	181.9 12 207 27	179.5 09 247 19	500
450	13.24 188 47	27.38 183 31	15.26	18.35 208 31	14.18	14.21 210 36	16.23 216 45	16.30 256 25	450
400	231.26 34 188 48	22.834 46 188 51	231.25 30	231.25 4 204 37	232.23 28	234.23 38 208 41	233.28 36 200 31	232.25 40 41 31	400
350	38.44 190 51	43.183 49	34.41	41.193 48	34.40	37.44 191 41	40.49 189 37	38.48 236 36	350
300	253.52 197 60	292.46 193 35	296.48	293.48 210 43	297.47	299.51 192 48	297.55 214 15	294.43	300
250	383.46 184 25	382.42 L.V	383.46	385.41 231 13	375.44	386.50 214 32	385.43 219 36	383.50	250
200	44 174 11	44 L.V	44	44 240 13	43	49 215 36	47 223 36	49	200
150	43 168 09	46 L.V	43	44 243 12	46	50 220 30	49 230 35	52	150
130	43 144 09	45 L.V	43	45 218 09	47	52 223 35	52 217 35	56	130
110	43 163 09	50 L.V	43	45 218 09	47	53 232 33	56	57	110
100	535.43 147 10	535.50 L.V	535.43	528.51	528.51	538.54 221 23	538.54 221 23	534.54	100
90	43 134 09	45 L.V	43	(20) 53	53	58 224 13	58 224 13	54	90
80	43		43			62 208 14		54	80
70								54	70
60								54	60
Inversion	743 mb 26.72/m	797-985 mb 46°		992 mb 42.98/m	47°	998 mb 55.98/m	56°	1002-1000 mb 52°	
Isotermal	977-957 mb 47°	740-708 mb 1°		822-784 mb 31°		410-400 mb 28°		415-400 mb 36°	
Tropopause	I 235 mb -60° 33200'	I 334 mb -46° 26700'	II 265 mb -55° 32400'	I 251 mb -50° 30200'	I 250 mb -50° 32800'	I 250 mb -63° 33800'	I 290 mb -51° 30500'	NR	I 300 mb -45° 29400'
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time M.S.L.	03hrs G.M.T. 098.8 mb 988.9 mb 765	03hrs G.M.T. 098.8 mb 997.0 mb 865	G.M.T. mb mb mb	03hrs G.M.T. 099.4 mb 990.9 mb 818	03hrs G.M.T. 996.7 mb 994.7 mb 787	03hrs G.M.T. 999.2 mb 994.8 mb 766	03hrs G.M.T. 999.3 mb 993.6 mb 782	03hrs G.M.T. 999.4 mb 988.4 mb 768	G.M.T. mb mb mb
Pressure mb	02.751 49 Calm	00.553 45 040 03		02.354 50 330 02	08.006 55 50 Calm	01.260 53 200 10	04.457 54 200 10	1002.9 54 51 340 12	Surf
1000	0.4	0.3		0.2	0.9	0.3	0.3	0.4	1000
950	46.45 130 06	43.37 018 03		46.40 319 12	48.45 242 07	52.45 217 18	51.49 215 15	50.49 315 31	950
900	28.143 33 188 09	28.137 37 018 04		28.440 33 304 12	27.743 41 229 05	28.647 41 215 20	28.547 42 222 16	28.443 42 215 28	900
850	40.34 179 13	27.26 002 03		34.27 299 13	38.38 231 09	40.33 204 23	41.36 224 21	40.37 295 23	850
800	59.635 32 176 13	59.023 21 018 04		59.331 23 295 11	58.133 31 232 09	60.135 31 200 24	60.034 31 220 26	59.833 31 273 22	800
750	31.29 180 15	20.17 030 04		27.19 294 05	28.26 228 12	30.25 197 24	29.28 223 27	30.26 262 21	750
700	94.326 24 182 29	93.216 12 168 03		94.221 11 289 08	93.21 19 216 11	95.026 22 197 23	94.23 231 26	94.725 02 262 26	700
650	20.18 178 29	10.05 164 07		16.3 245 09	16.14 205 17	19.13 199 25	18.16 232 27	18.52 56 30	650
600	134.14 09 172 30	132.02 12 167 14		133.09 04 203 10	133.09 04 203 10	134.11 06 205 26	134.11 07 235 28	134.11 02 249 37	600
550	06.3 166 35	6.21 163 18		01.19 224 14	03.5 209 23	05.01 212 29	03.3 223 27	02.18 236 39	550
500	179.2 8 165 36	176.74 28 172 30		178.8 26 204 22	178.5 12 212 26	180.3 10 210 31	179.6 13 219 28	179.6 29 229 39	500
450	13.23 170 36	23.37 171 43		18.33 197 30	14.31 209 26	14.21 212 27	15.21 213 29	16.42 245 43	450
400	232.24 32 164 43	232.8 35 47 52		231.29 43 208 50	231.73 46 201 30	233.26 35 210 29	232.25 33 213 30	232.28 41 208 45	400
350	31.42 151 43	41.163 43		38.33 196 32	35.55 192 36	38.45 213 20	39.45 207 33	39.49 213 40	350
300	298.41 163 48	292.43 167 27		293.40 203 23	295.45 192 33	297.47 240 21	296.51 213 34	296.43 227 39	300
250	386.48 175 46	41.174 11		387.34 259 08	385.40 213 25	386.44 207 36	386.44 213 31	387.40 260 30	250
200	44 164 19	42.116 07		45 243 07	41 218 25	41 211 36	41 226 34	40 244 24	200
150	44 166 18	43 168 07		40 263 10	41 223 23	44 217 32	42 231 32	43 244 28	150
130	44 167 13	43 166 03		40 267 09	43 223 21	44 215 37	43 210 27	44 234 38	130
110	44 143 05	45 160 06		41 234 09	41 210 11	47 204 34	46 215 27		110
100	540.44 132 12	536.46 148 06		542.41 180 12	540.42 192 18	540.50 209 33	540.47 227 25	See p 3 for remainder of winds.	100
90	44 133 13	45		40 263 12	46 266 23	51 223 28	(93) 48		90
80	44 142 14			40 263 12	44 267 18				80
70	44 145 13								70
60	44 143 13								60
Isotermal	887-865 mb 42°	351-340 mb 31°		834-818 mb 32°		343-337 mb 40°		800-785 mb 35°	
Tropopause	I 235 mb -59° 35300'	II 330 mb -43° 27400'	II 343 mb -41° 26500'	I 276 mb -54° 31300'	II 275 mb -53° 31600'	I 278 mb -52° 31600'	II 333 mb -43° 27300'		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.



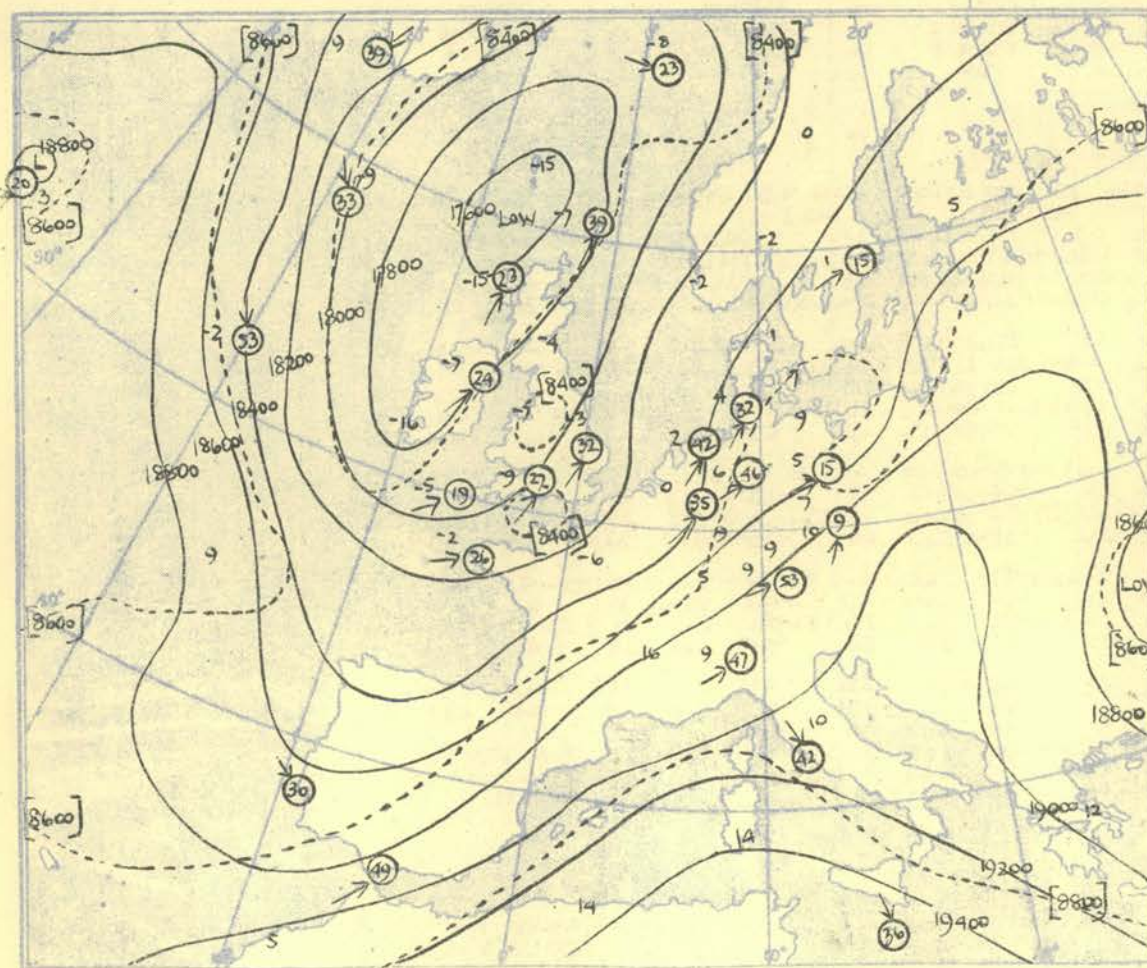
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



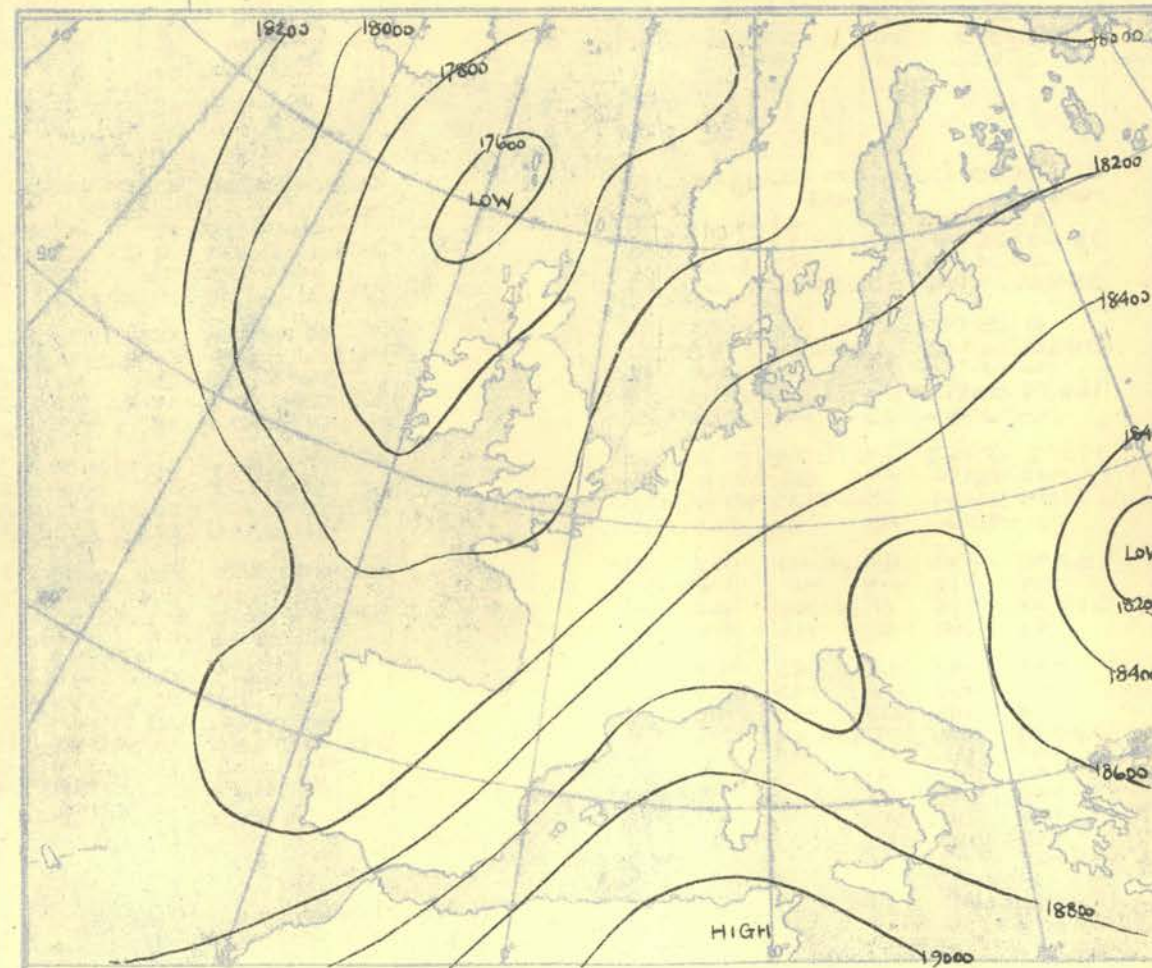
The continuous lines are contour lines of the 300 mb. surface  
The dotted lines are isopietha of the thickness of the layer 500 - 300 mb.

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

100 80 60 40 20 0 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.

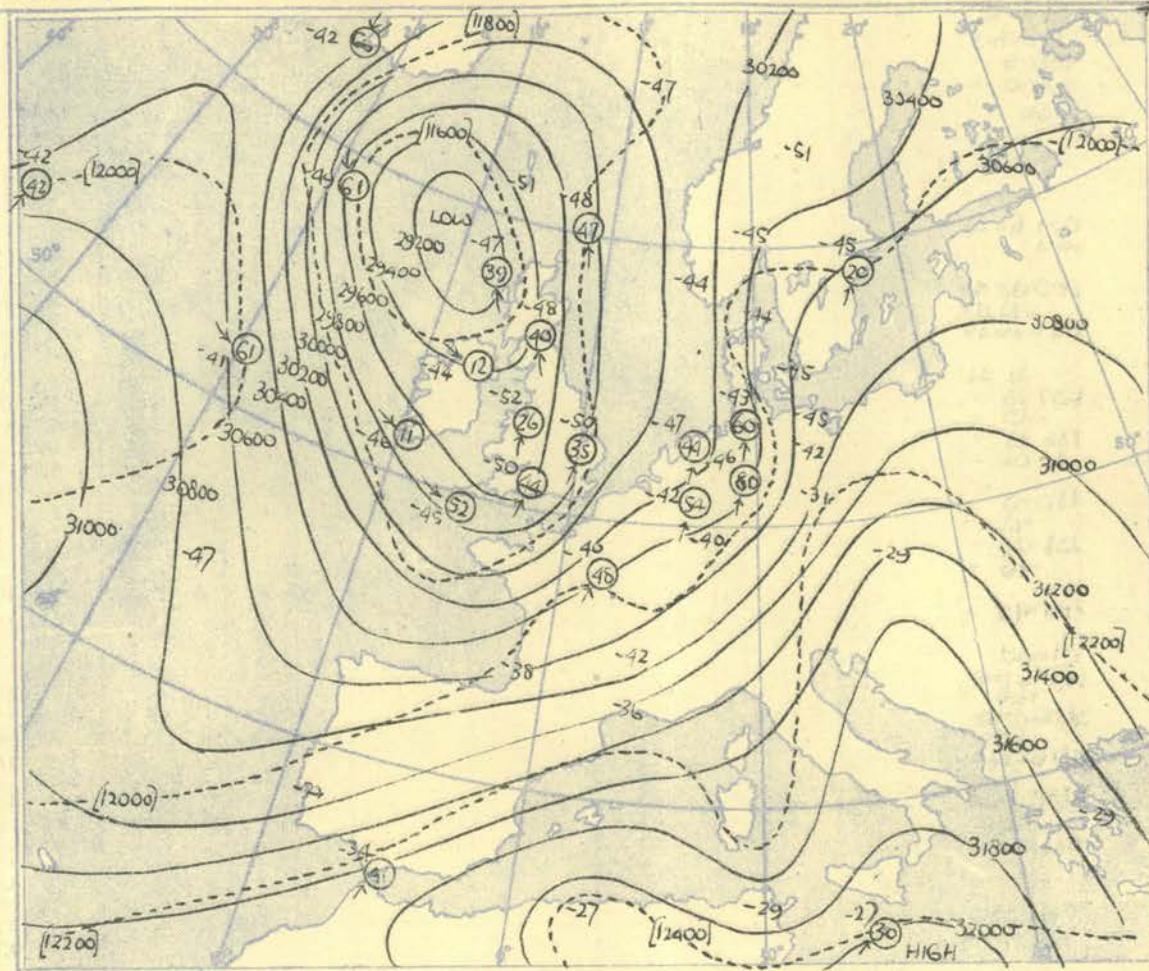
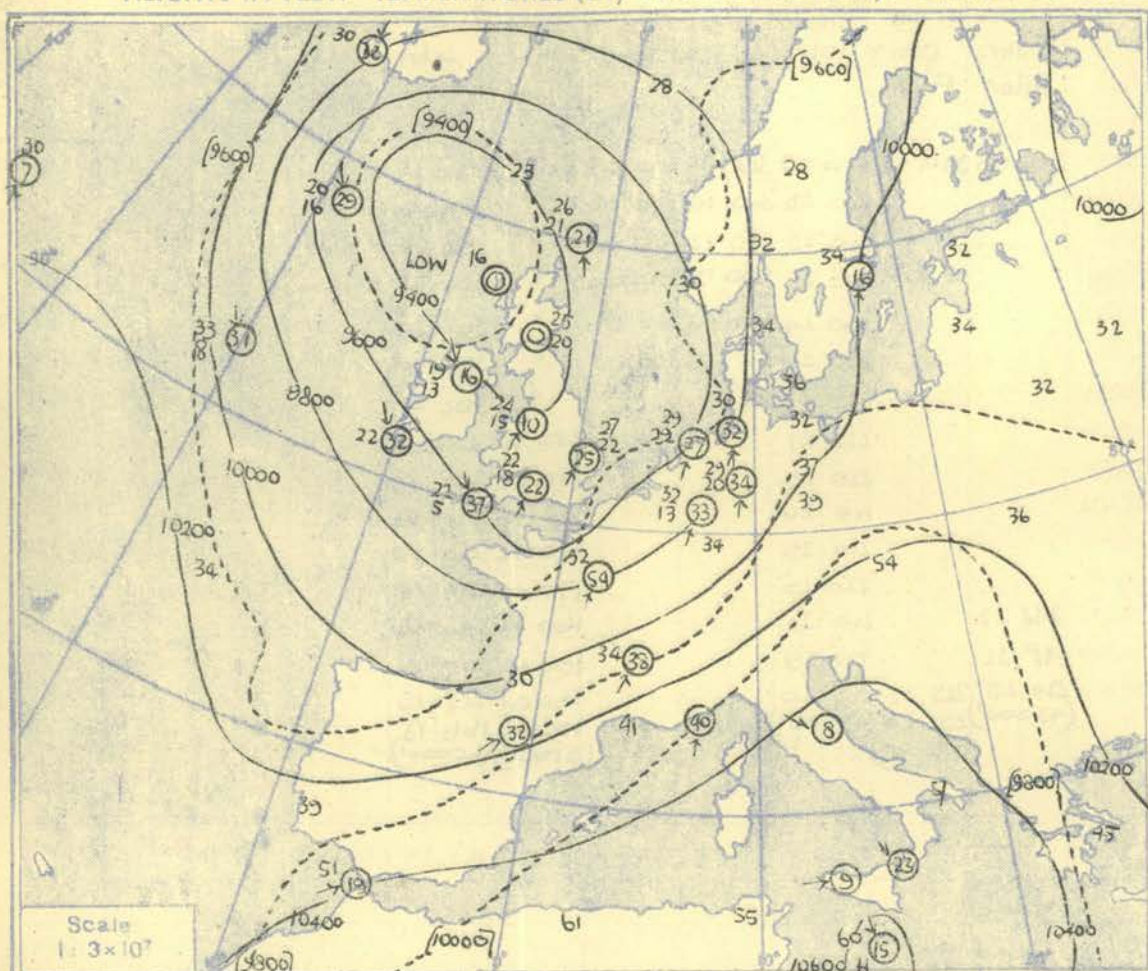


## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

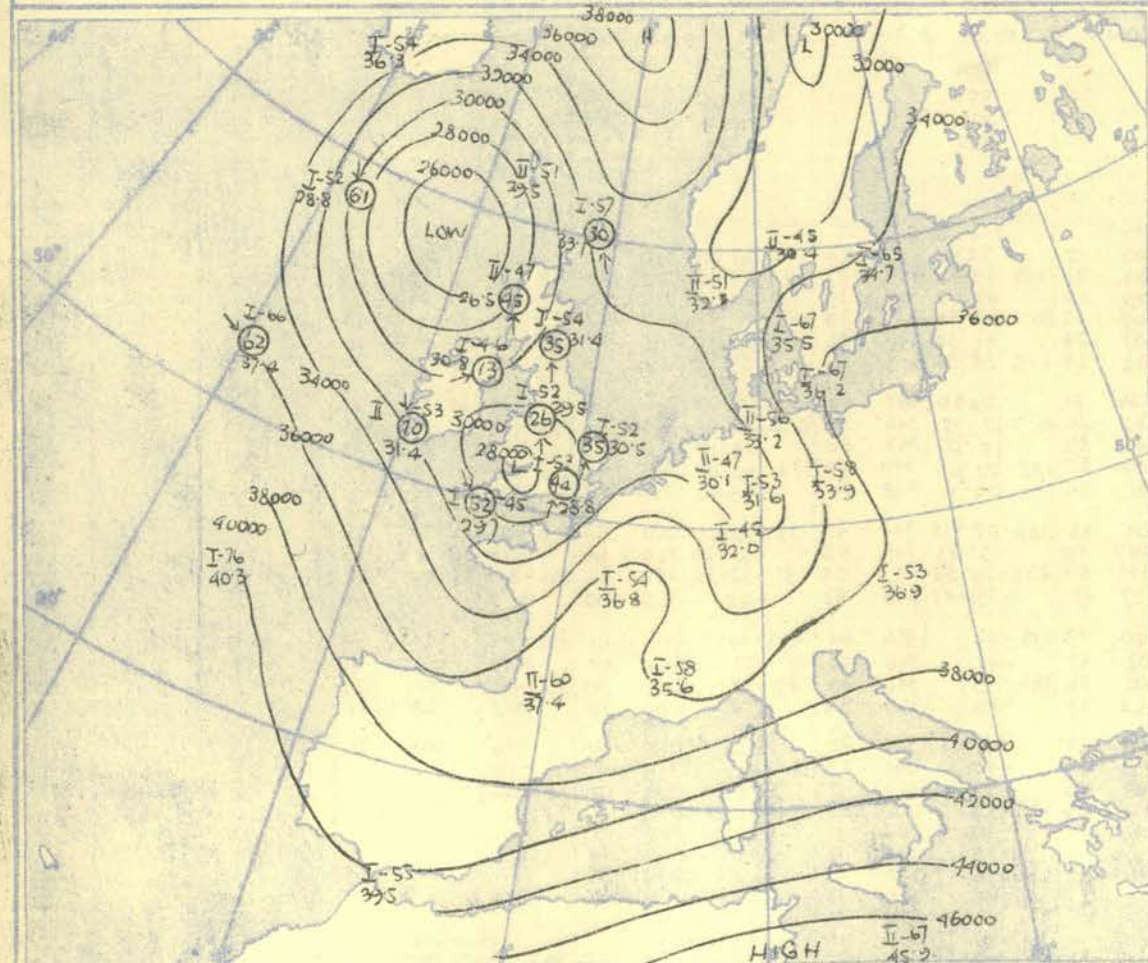
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																	
Place	C. n. borne		Shoeburyness		Kongalowsky		Leeming		Leuchars		Liverpool		Shannon				Place
Time	03hrs	05hrs	10hrs	1430hrs	15hrs	21hrs	24hrs	20hrs									Time
Type	Pilar	Pilar															Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	225	03	240	12	210	09	300	11	110	05	Caln	280	15	290	12		Surf.
1,000					210	35	310	10	300	06	"	284	21	300	21		1,000
2,000					210	25	290	12	300	08	"	293	23	310	21		2,000
3,000					220	25	300	13	310	06	"	300	23	310	20		3,000
4,000					230	24	300	16	320	06	"	301	20				4,000
5,000					230	26			320	08	"	306	20				5,000
6,000					230	27					"	302	20				6,000
8,000					220	27					280	05	295	15			8,000
10,000					230	25					180	05	291	15			10,000
14,000					40	26					170	16	271	13			14,000
18,000					210	29					170	12	220	19			18,000
24,000					220	25					170	29	190	18			24,000
30,000	248	27			210	33					160	32	242	15			30,000
40,000	248	32			210	39					190	10	240	16			40,000
50,000	234	25	225	32	220	30					160	08	218	15			50,000
	(45000')		252	24	(47000')						170	10	166	13			
			(58000')								(58000')	(60000')					



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.



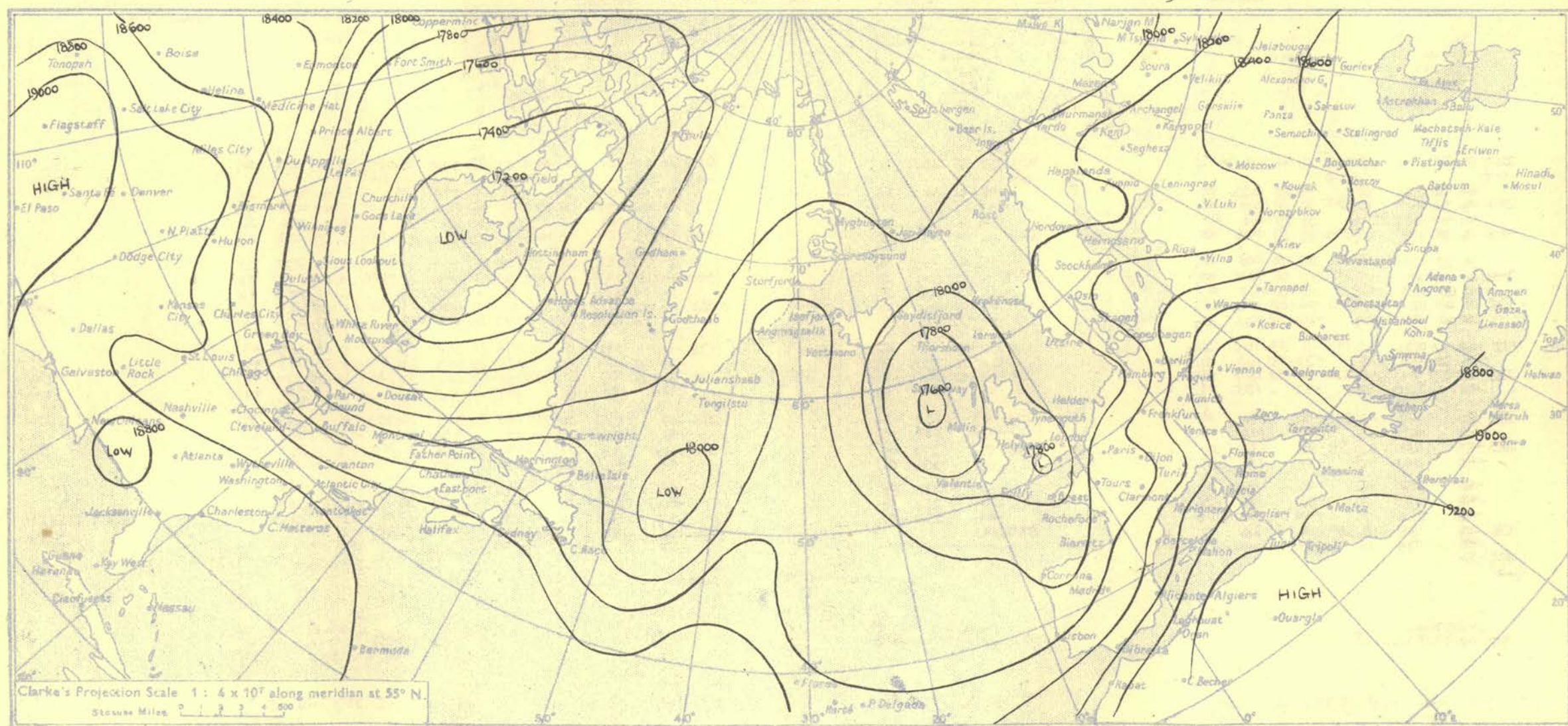
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool remained west or northwest of Scotland all day, but an associated trough in the thickness lines moved eastwards across Southern England during the afternoon. A marked warm ridge persisted in mid-Atlantic and also over the European continent about 15°-20° E.

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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.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.		15L		G.M.T.																																																																																																																																																																																																																																																																																																																																						
	Surf		998.7		mb		999.8		mb		997.0		mb		999.3		mb		997.5		mb		997.3		mb		998.3		mb		1004.0		mb		1007.4		mb																																																																																																																																																																																																																																																																																																																																		
	Pressing		988.8		mb		997.8		mb		996.2		mb		991.4		mb		995.5		mb		993.0		mb		982.6		mb		993.7		mb		1006		mb																																																																																																																																																																																																																																																																																																																																		
Pressure mb	Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Pressure mb																																																																																																																																																																																																																																																																																																																														
	Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots																																																																																																																																																																																																																																																																																																																																
	Surf		1000		950		900		850		800		750		700		650		600		550		500		450		400		350		300		250		200		170		150		130		110		90		70		60																																																																																																																																																																																																																																																																																																																						
Isothermal 957 - 915 mb 47° 867 - 840 - 43°																																								Inversion 870 mb 37°-830 mb 39°																																								Isothermal 650 - 631 mb 19°																																								Max wind 353mb 207° 88Kts Isothermal 800 - 780 mb 30° 338 - 323 - 39°																																								Inversion 762 mb 26°-742 mb 27°																																																																																																																																																																																																							
Tropopause I 258 mb -57° 33,100'																																								Tropopause II 338 mb -47° 26,500'																																								Tropopause I 277 mb -54° 31,400'																																								Tropopause I 283 mb -46° 30,800'																																								Tropopause I 300 mb -52° 22,500'																																								Tropopause I 290 mb -52° 30,500'																																								Tropopause I 310 mb -53° 28,800'																																								Tropopause I 300 mb -48° 27,700'																																								Tropopause I 279 mb -53° 31,400'																																							
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																		
Pressure mb	Time M.S.L.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		21L		G.M.T.		Time M.S.L.																																																																																																																																																																																																																																																																																																																																
	Surf		998.4		mb		999.8		mb		1004.0		mb		997.4		mb		997.4		mb		1002.1		mb		1007.3		mb		996.8		mb		996.8		mb																																																																																																																																																																																																																																																																																																																																		
	Pressing		988.5		mb		998.0		mb		993.4		mb		992.8		mb		992.8		mb		986.2		mb		986.2		mb		813		mb		813		mb																																																																																																																																																																																																																																																																																																																																		
Pressure mb	Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Height ft./100		Temp.		Dew		Wind		Dir. Vel.		Pressure mb																																																																																																																																																																																																																																																																																																																														
	Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots		Dir. Vel.		knots																																																																																																																																																																																																																																																																																																																																
	Surf		1000		950		900		850		800		750		700		650		600		550		500		450		400		350		300		250		200		170		150		130		110		90		70		60																																																																																																																																																																																																																																																																																																																						
Inversion 989 mb 51°-972 mb 52°																																								Inversion 810 mb 29°-795 mb 30°																																								Isothermal 377 - 363 mb -38°																																								Isothermal 758 - 740 mb 28° 525 - 510 - 07°																																																																																																																																																																																																																																															
Tropopause I 265 mb -61° 38,300'																																								Tropopause II 323 mb -45° 27,800'																																								Tropopause I 307 mb -57° 28,800'																																								Tropopause I 306 mb -46° 29,000'																																								Tropopause I 257 mb -51° 33,000'																																																																																																																																																																																																							

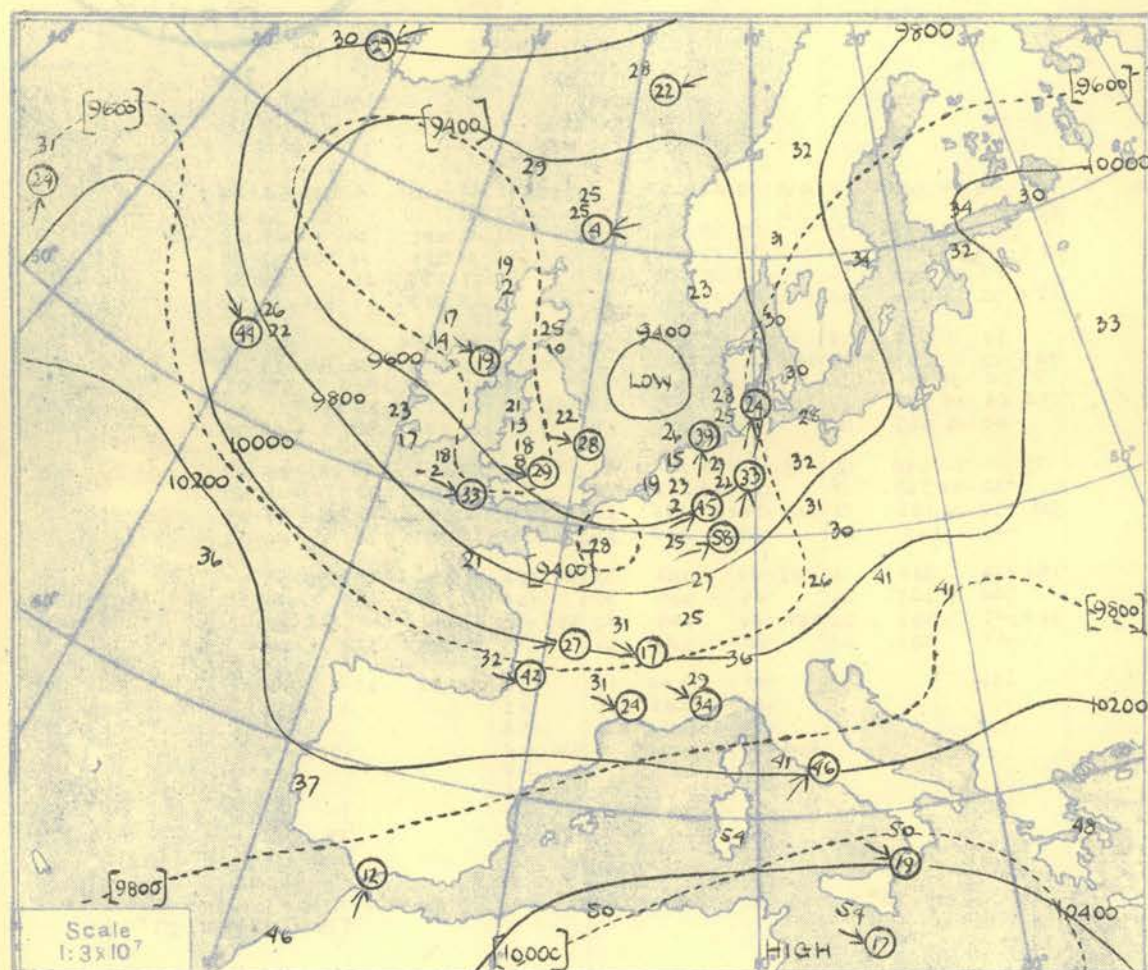


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		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.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T	



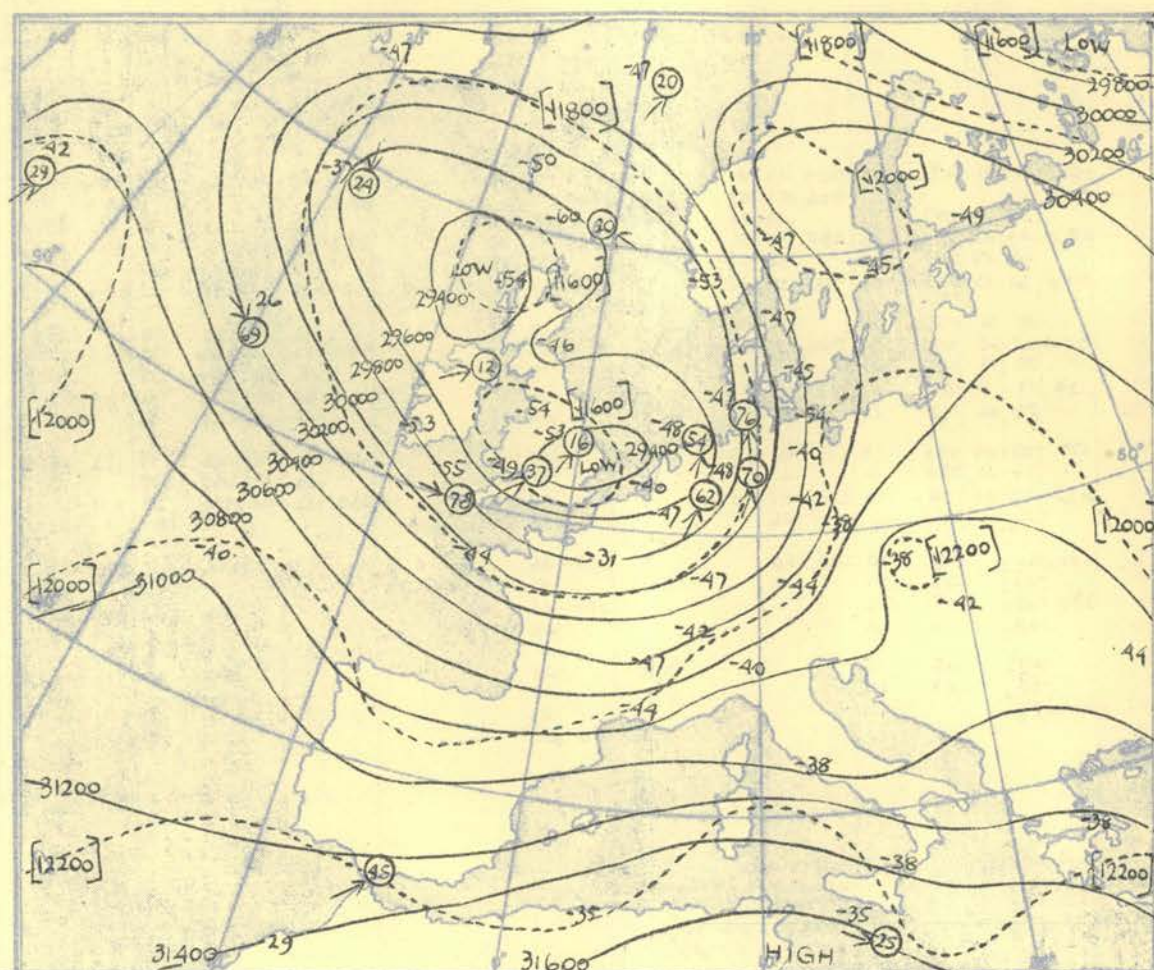
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03h. G.M.T.



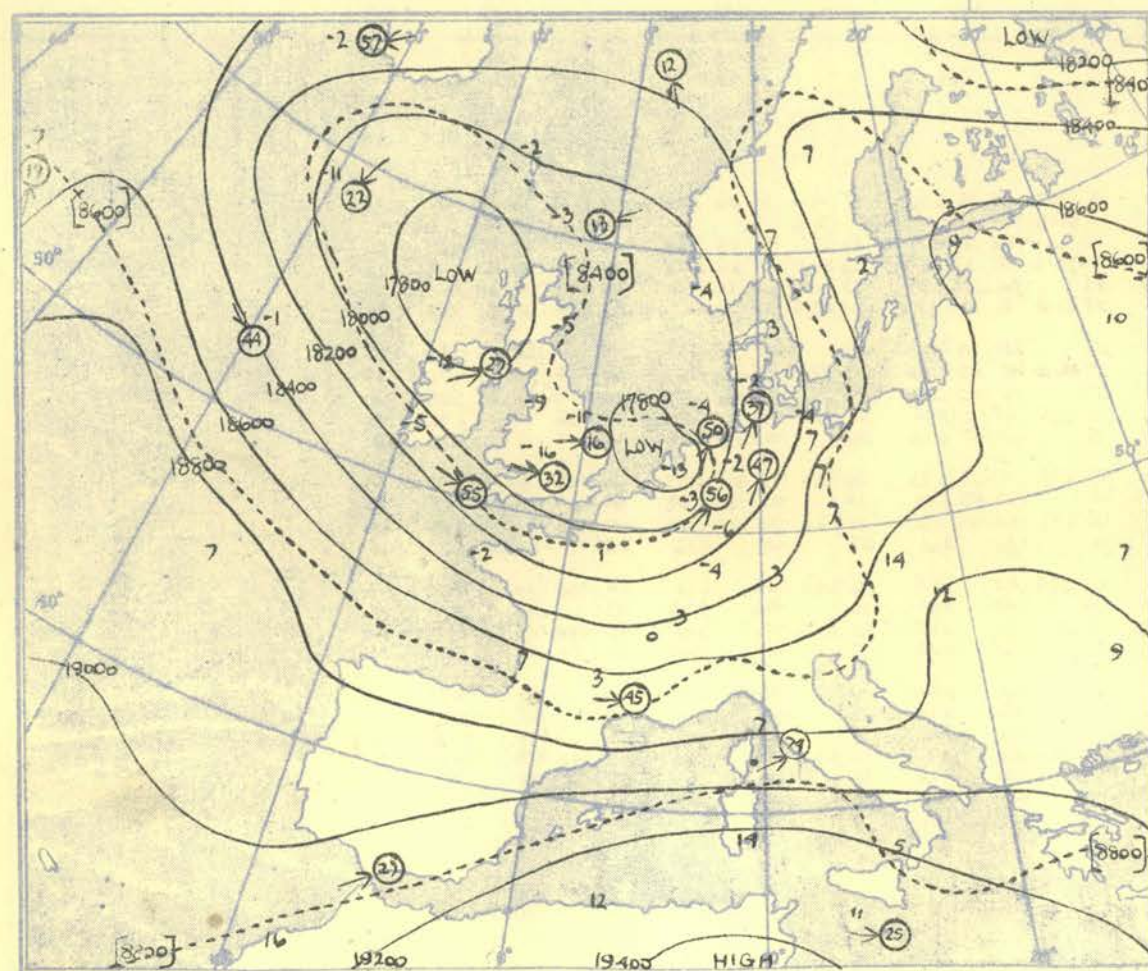
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

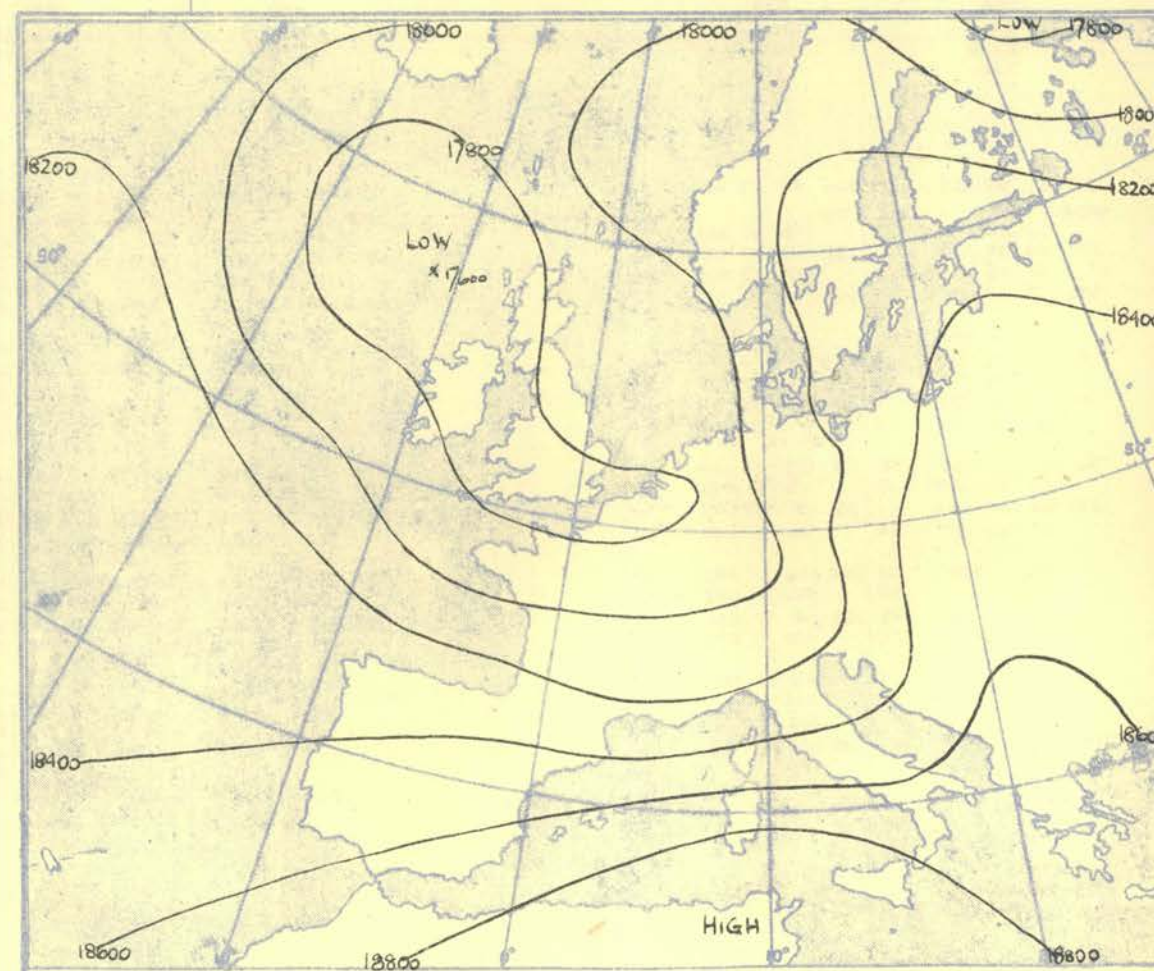
100 80 60 40 20 10 knots



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.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure		Time		48.2N 21.5W			49.5 N 5.7W			43.2N 17.0W			39.5N 12.2W			51.3N 00.4E												Time					
M.S.L.		Surf		Freezing			M.S.L.			Surf			Freezing			M.S.L.			Surf			Freezing			M.S.L.			Surf			Freezing		
mb		mb		mb			mb			mb			mb			mb			mb			mb			mb			mb			mb		
ft./100		ft./100		ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100		
°F		°F		°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
°F		°F		°F			°F			°F			°F			°F			°F			°F			°F			°F			°F		
Surf		Surf		Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf		
1000		1000		1000			1000			1000			1000			1000			1000			1000			1000			1000			1000		
950		950		950			950			950			950			950			950			950			950			950			950		
900		900		900			900			900			900			900			900			900			900			900			900		
850		850		850			850			850			850			850			850			850			850			850			850		
800		800		800			800			800			800			800			800			800			800			800			800		
750		750		750			750			750			750			750			750			750			750			750			750		
700		700		700			700			700			700			700			700			700			700			700			700		
650		650		650			650			650			650			650			650			650			650			650			650		
600		600		600			600			600			600			600			600			600			600			600			600		
550		550		550			550			550			550			550			550			550			550			550			550		
500		500		500			500			500			500			500			500			500			500			500			500		
450		450		450			450			450			450			450			450			450			450			450			450		
400		400		400			400			400			400			400			400			400			400			400			400		
350		350		350			350			350			350			350			350			350			350			350			350		
300		300		300			300			300			300			300			300			300			300			300			300		
250		250		250			250			250			250			250			250			250			250			250			250		
200		200		200			200			200			200			200			200			200			200			200			200		
170		170		170			170			170			170			170			170			170			170			170			170		
Cloud		Cloud		Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud		
8 Sc		8 Sc		8 Sc			8 Sc			8 Sc			8 Sc			8 Sc			8 Sc			8 Sc			8 Sc			8 Sc			8 Sc		
940-920mb		940-920mb		940-920mb			940-920mb			940-920mb			940-920mb			940-920mb			940-920mb			940-920mb			940-920mb			940-920mb			940-920mb		
Isothermal		Isothermal		Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal		
850-800		850-800		850-800			850-800			850-800			850-800			850-800			850-800			850-800			850-800			850-800			850-800		
7 Ac		7 Ac		7 Ac			7 Ac			7 Ac			7 Ac			7 Ac			7 Ac			7 Ac			7 Ac			7 Ac			7 Ac		
6 Ci		6 Ci		6 Ci			6 Ci			6 Ci			6 Ci			6 Ci			6 Ci			6 Ci			6 Ci			6 Ci			6 Ci		
Isothermal		Isothermal		Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal			Isothermal		
550-500mb		550-500mb		550-500mb			550-500mb			550-500mb			550-500mb			550-500mb			550-500mb			550-500mb			550-500mb			550-500mb			550-500mb		

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

Place	Lympne		Ronaldsway		Aldergrove		Wetherby		Lollinschwa		Leeming		Shoeburyness		Cambridge		Liverpool		Leuchars		Place
Time	03h		03h		03h		03h		03h		09h		09h		15h		21h		21h		Time
Type													Pilar		Pilar		Pilar		Pilar		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	250	09	300	15			310	12	270	11	300	16	270	10	270	15	270	15	320	05	Surf.
1,000	270	33	290	27			280	21	250	24	290	29	260	20	270	15	267	18	300	06	1,000
2,000	280	42	300	31			290	22	260	28	290	30	270	19	269	22	273	17	290	07	2,000
3,000	280	33	300	29			300	24	260	27	310	29	270	20	269	24	274	18	290	08	3,000
4,000	270	40	300	26			310	25	260	23	300	19	270	22	268	25	274	18	290	11	4,000
5,000	270	31					310	26	270	21	310	16	270	26	264	24	272	20	280	11	5,000
6,000							310	25					270	29	266	24	269	21	290	10	6,000
8,000							300	27			310	24	270	30	274	27	264	20	310	06	8,000
10,000							300	44					270	29	277	29	266	20	210	01	10,000
14,000							310	49					270	35	278	37	271	28	147	09	14,000
18,000							310	44					270	31	287	48	273	31	100	18	18,000
24,000							310	52					270	18	287	56	288	54	110	24	24,000
30,000					150	12	300	69					270	44	294	50	285	50	100	25	30,000
40,000					270	09	310	40					260	24	288	39	268	27	Land V		40,000
50,000					N.V.		310	09					230	20	263	16	256	07	..	..	50,000
															186	12	098	05	(48,000)		
															123	07					
															(63,000)						

## NEPHOSCOPE OBSERVATIONS

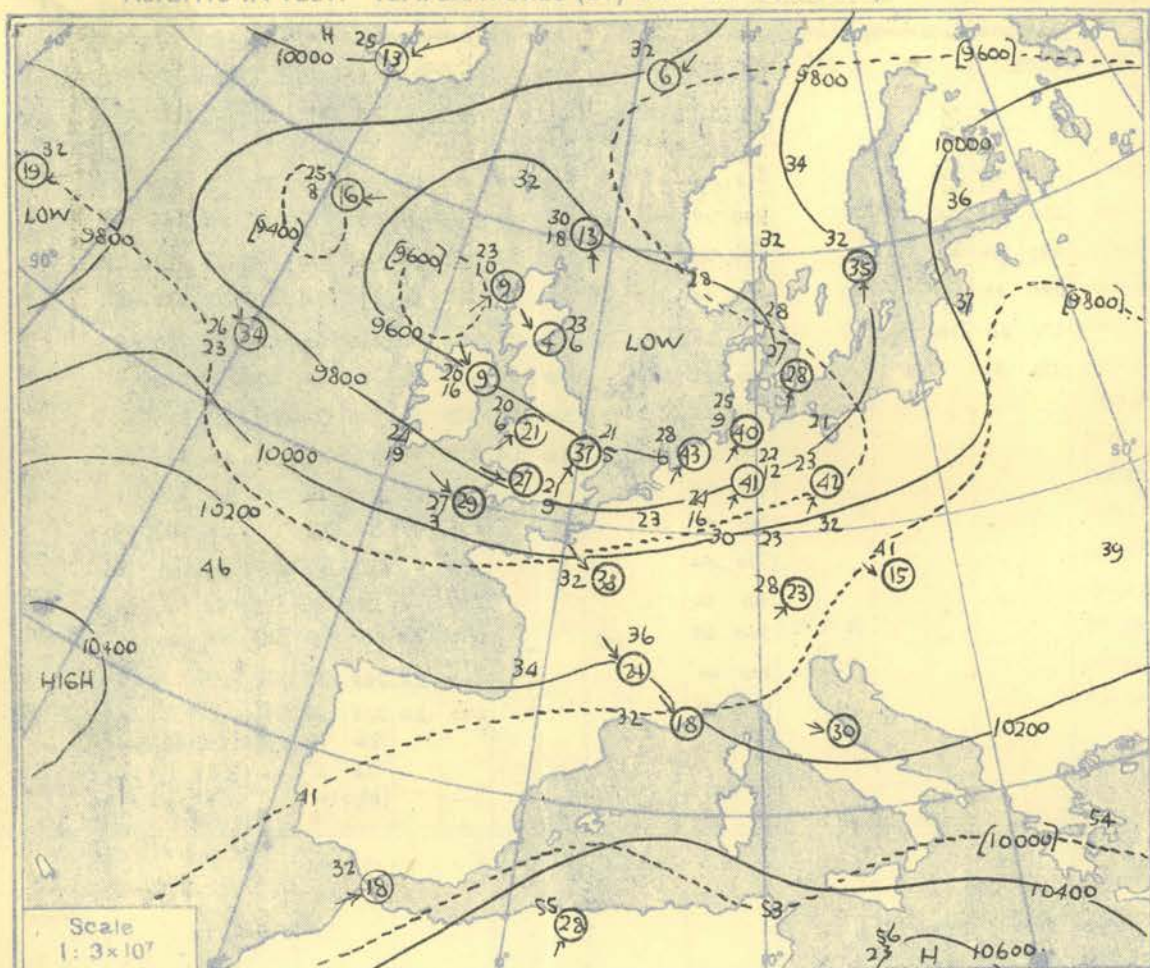
Place	Valentia	Valentia								Place
Time Type	39h	Ac 12h	Ci							Time Type
Dir. Vel.	280	36	250	07						Dir. Vel.

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

Ship	Weather Recorder.				Weather Recorder.				Weather Recorder.				Weather Recorder.				Weather Recorder.				Weather Recorder.				Weather Recorder.				Weather Recorder.				Ship							
Lat/Long	59°N 18°W.				59°N 19°W.				58°N 18°W.				59°N 19°W.				52°N 20°W.				52°N 20°W.				52°N 19°W.				52°N 19°W.				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	G.M.T.										
	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										
	Surf	mb			Surf	mb			Surf	mb			Surf	mb			Surf	mb			Surf	mb			Surf	mb			Surf	mb										
	(Freezing)	mb			(Freezing)	mb			(Freezing)	mb			(Freezing)	mb			(Freezing)	mb			(Freezing)	mb			(Freezing)	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		50.46	040	05	50.46	050	15	52.47	040	15	50.48	360	11	53.50			55.53	270	14	55.53	280	14	55.53	260	02								Surf							
1000	1.5	50.46	045	05	1.8	49.46	050	13	2.3	50.46	062	10	2.8	48.47	010	15	3.6	51.48															1000							
950		43.41	042	07		43.39	049	17		44.41	064	14		43.42	020	15		45.40															950							
900	29.8	37.36	037	13	30.2	38.34	048	19	307	38.36	069	15	31.1	40.40	031	20	32.1	45.36															900							
850		33.32	026	15		32.28	048	18		33.33	072	14		38.38	041	22		43.37															850							
800	60.8	29.26	019	14	61.2	27.23	048	16	61.8	35.23	073	14	62.5	34.33	046	24	63.5	35.30	For														800							
		22.17	010	13		21.17	048	13		31.16	078	10		29.28	047	26		32.26																						
750		19.03	007	16	95.4	17.11	048	12	96.8	25.08	088	16	97.3	23.22	049	26	98.5	26.22	winds														750							
700		12.14	360	19		13.05	057	13		19.02	098	22		17.16	052	28		21.17															700							
650		06.03	368	17	134	05.04	091	17	136	12.09	096	26	137	10.07	050	24	138	15.10	See														650							
600		-01.13	009	18		-01.16	110	24		04.18	093	30		05.01	051	21		09.09															600							
550		-11.24	013	22	179	-10.27	113	27	181	-06.20	095	39	182	-04.10	061	21	183	-01.11	top														550							
		-22.32	010	23		-20.34	110	25		-16.23	102	46		-13.17	049	21		-11.24																						
500		-34.44	360	22	231	-34.45	115	27	234	-28.37	097	45	235	-25.29	046	21	237	-22.49	page														500							
450		-37.49	340	28		-36.51	095	29		-40.47	091	60		-38.43	050	26		-35.58															450							
400		-37.49	340	28		-36.51	095	29		-40.47	091	60		-38.43	050	26		-35.58															400							
350		-37.49	340	28		-36.51	095	29		-40.47	091	60		-38.43	050	26		-35.58															350							
		-37.55	351	24	296	-39.60	087	26	298	-52	092	60	299	-50	054	27	302	-49																						
300		-38.52	338	22		-38.58	082	19		-42	070	23		-45	069	22		-65															300							
250		-39.59	347	15	387	-39	001	18	388	-40	005	21	389	-44	079	19		-69															250							
200		-47	027	15		-42	002	23		-44	034	21		-46	041	12	(218mb)																200							
170		-47	042	22		-44	003	18		-44	048	16		-46	050	11																	170							
		-51	055	21		-43	021	13		-44	079	16		-46	073	10																	150							
130		-53	063	18		-46	054	13		-44	081	12		-47	058	10																	130							
110		-53	063	18		-46	054	13		-44	081	12		-47	058	10																	110							
100	539	-55	068	18	541	-49	063	12	541	-44	075	06	542	-47	039	14																	100							
90		-57	071	14		-49	070	16		-46	079	09		-44	069	14																	90							
80		-52	076	09		-48	071	21		-45	068	16		-43	095	12																	80							
70		-52	074	13		-47	079	21		-44	067	18		-44	093	09																	70							
60		-52	070	09		-47	105	15		-43				-44	075	09																	60							
		-52	070	06		-46				-42				-42	105	10																								
	(45 mb)	Inversion 755 mb 20°-715 mb 21° Isothermal. 1006-1000 mb 50°					Inversion 390 mb 37°-382 mb 36° Isothermal. 84 mb 32°-809 mb 36°					(35 mb) 39 Isothermal. 913-900 mb 40°					Isothermal. 950-900 mb 45°					Inversion 874 mb 40°-850 mb 41° Isothermal. 816-785 mb 38°					(35 mb) 40 Isothermal. 44 mb 6°-435 mb 5°													
Tropopause	II 400 mb -34° 23.100					I 364 mb -40° 25.300					II 304 mb -52° 29.500					II 301 mb -50° 29.400					I 228 mb -71° 36.000					I 220 mb -68° 37.000					I 200 mb -69° 39.500					I 210 mb -72° 38.100				Tropopause

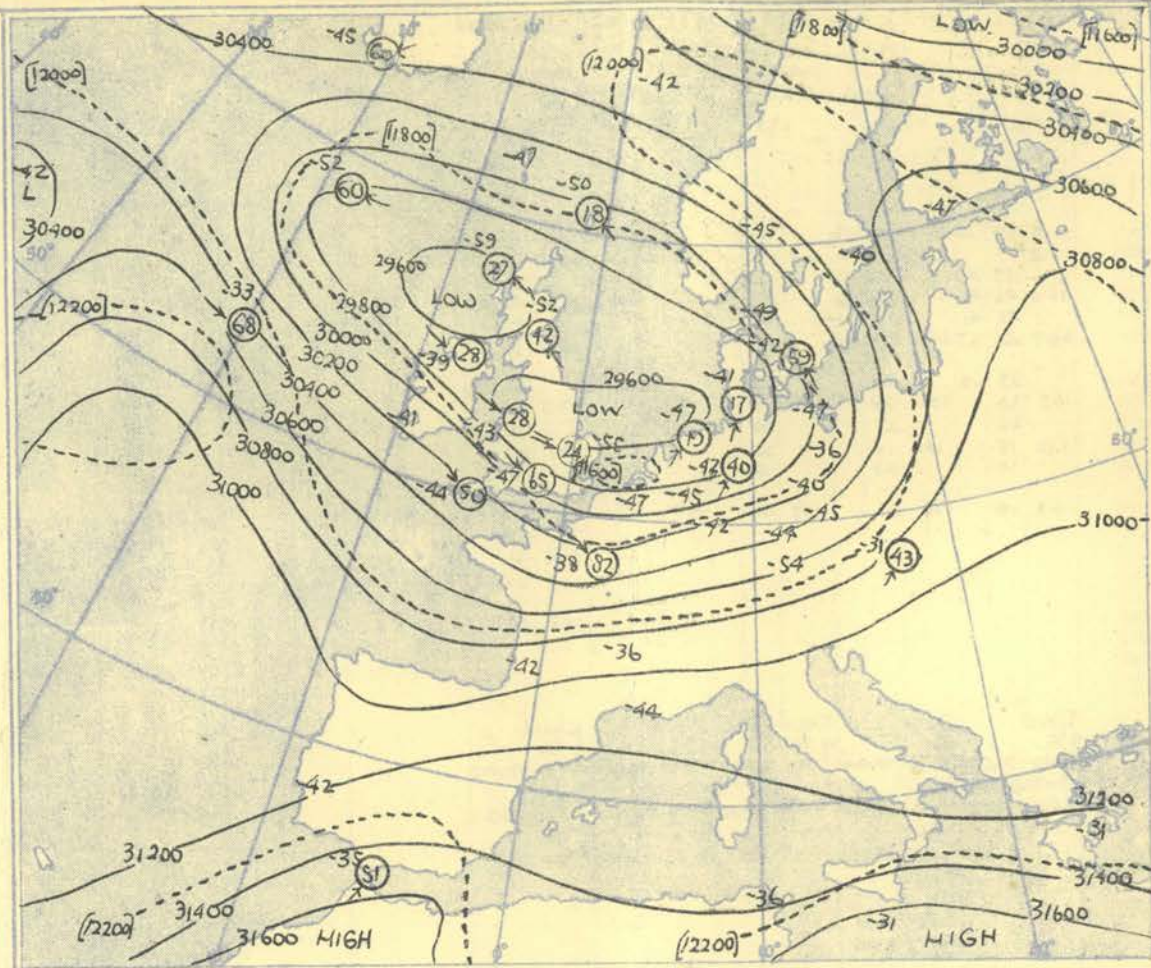


Page 4 HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



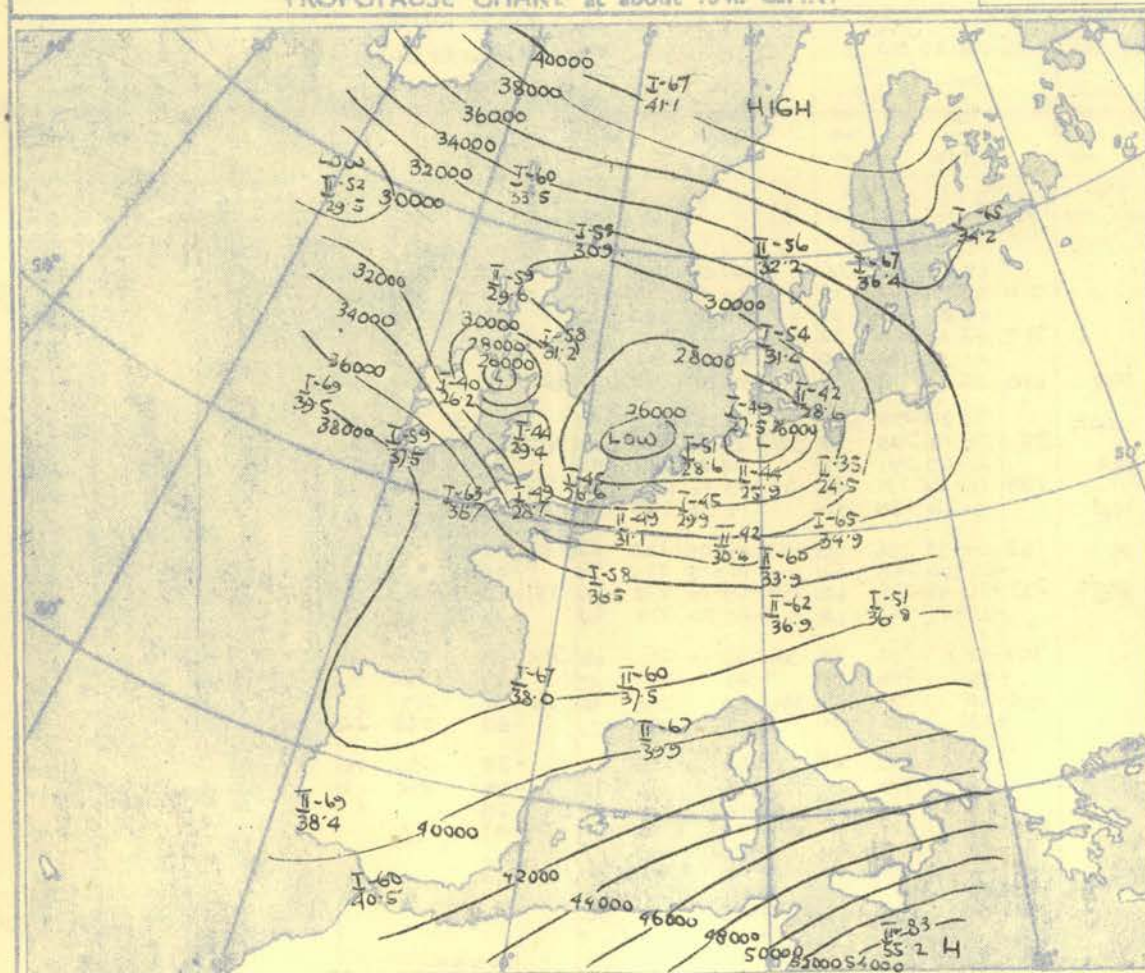
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.  
100 80 60 40 20 10 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.

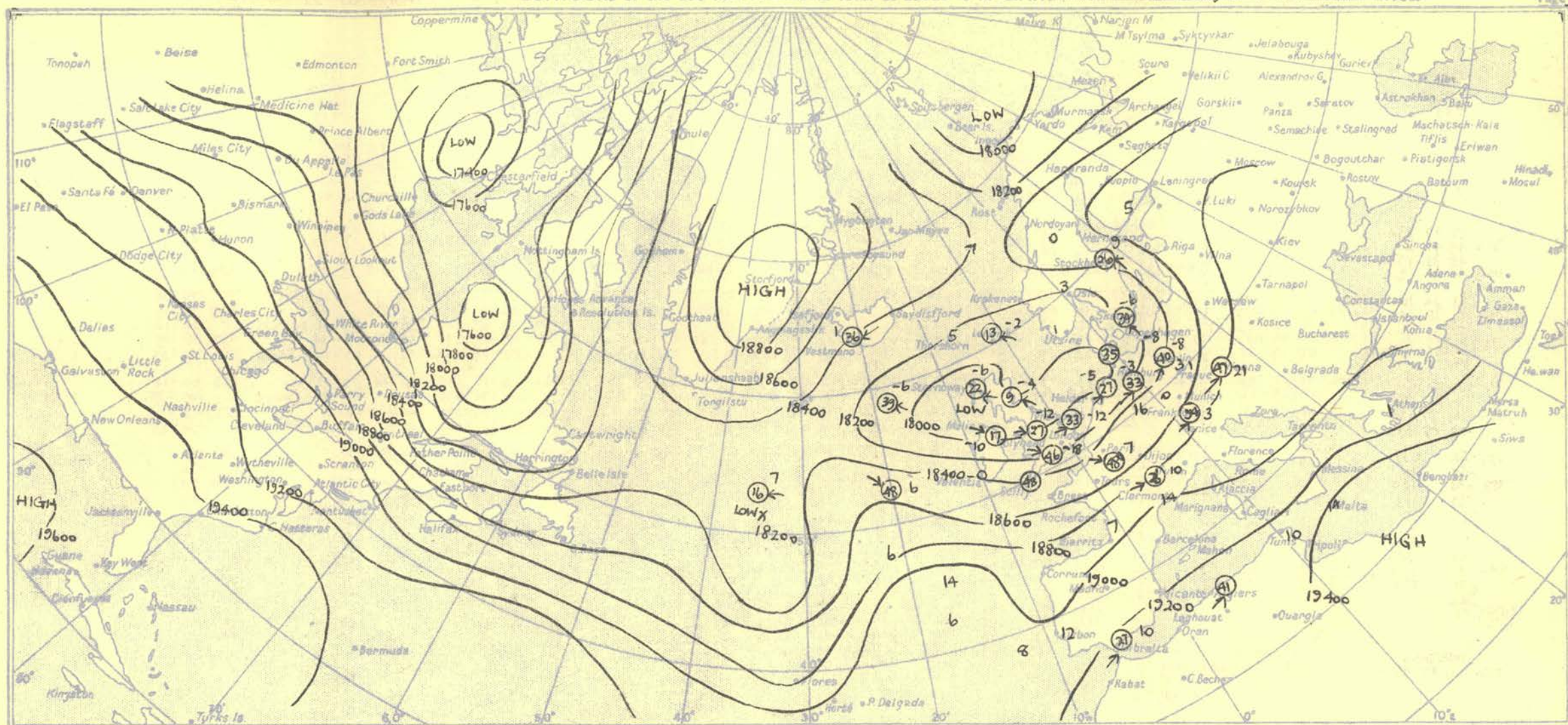
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over Britain persisted but became orientated E-W and warmed out somewhat. A small cut-off pool developed in Mid-Atlantic. Otherwise the thermal pattern over the Atlantic remained weak and indefinite.

RATES of SUBSCRIPTION: Single copy 2d. or post free 3d. One calendar month 7/- One quarter 18/- One year 70/-  
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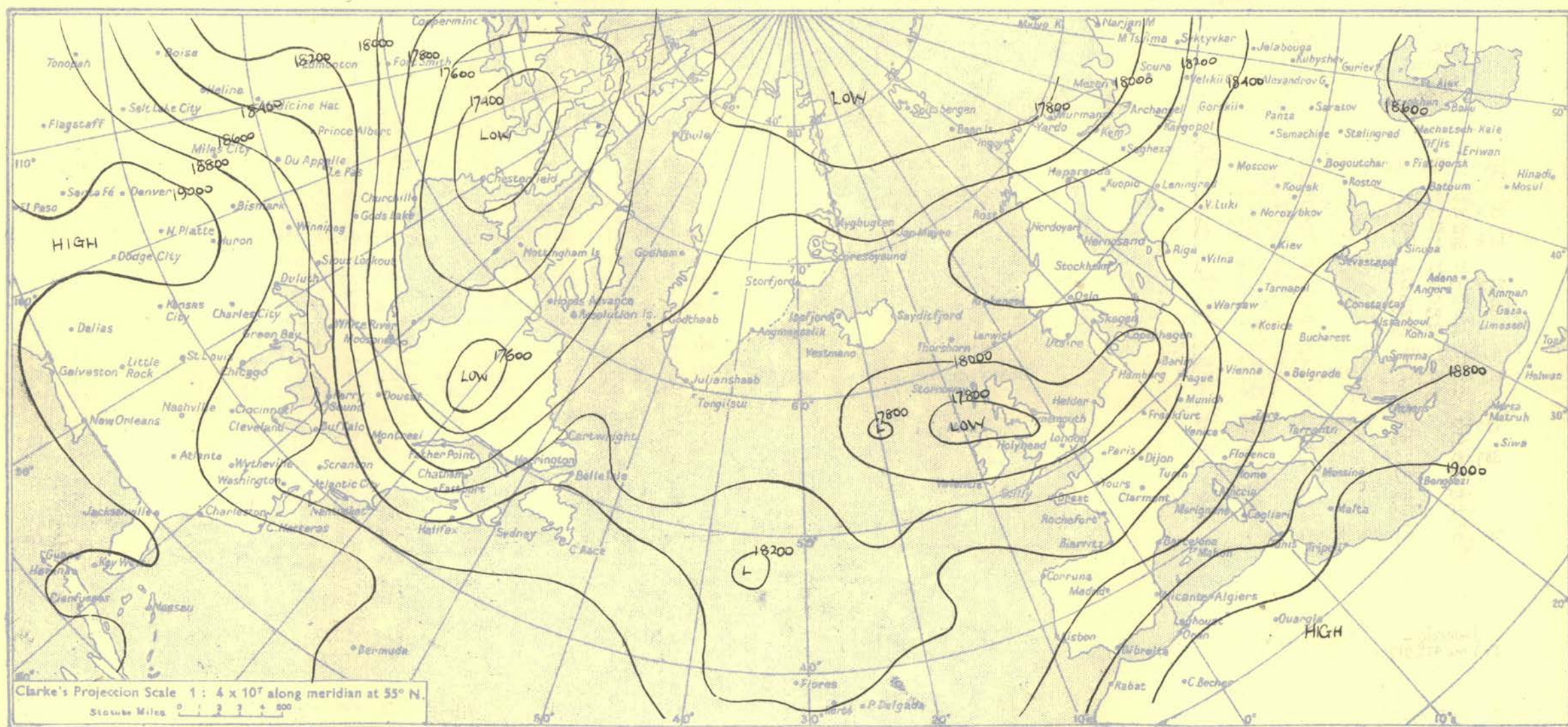




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 22<sup>nd</sup> June 1950

1950.





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

[illegible]

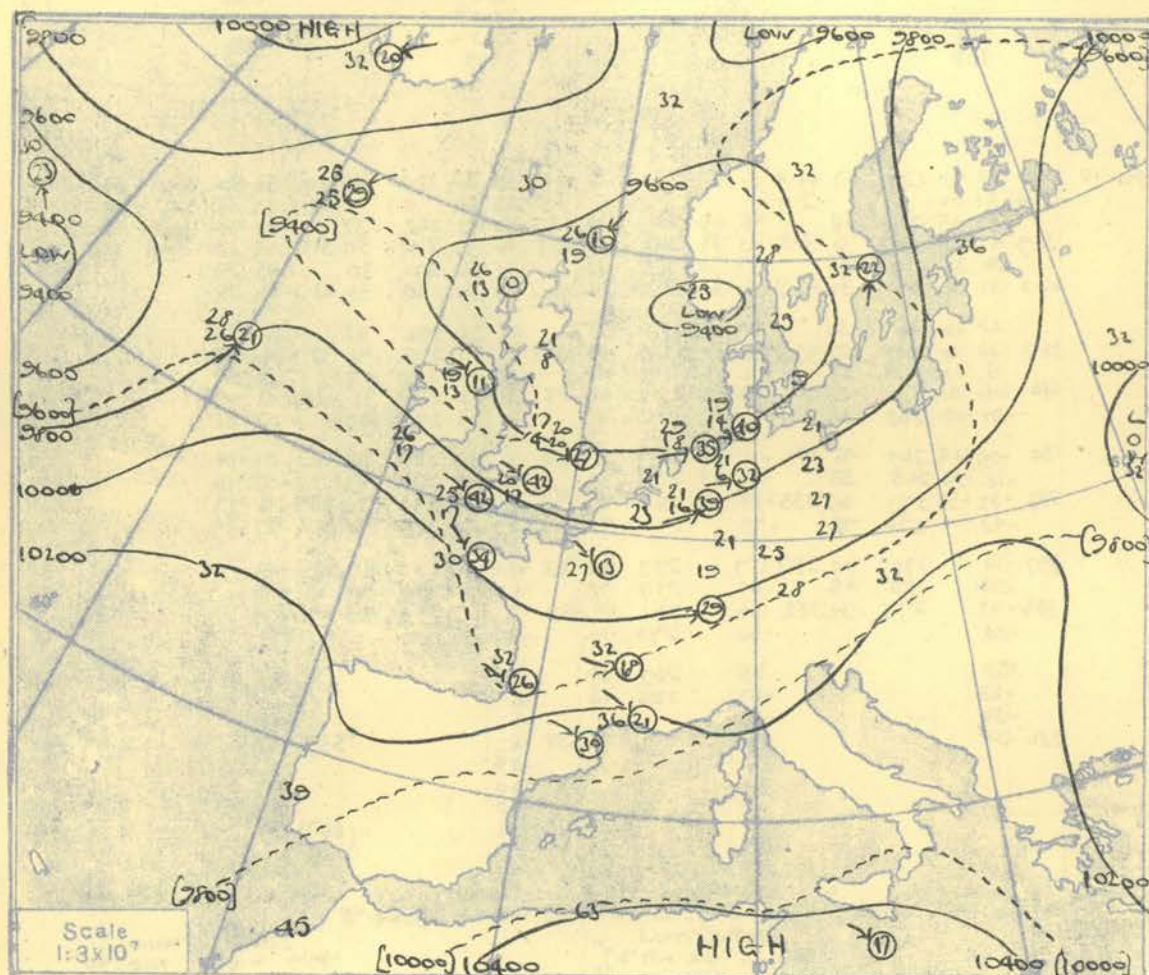


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]



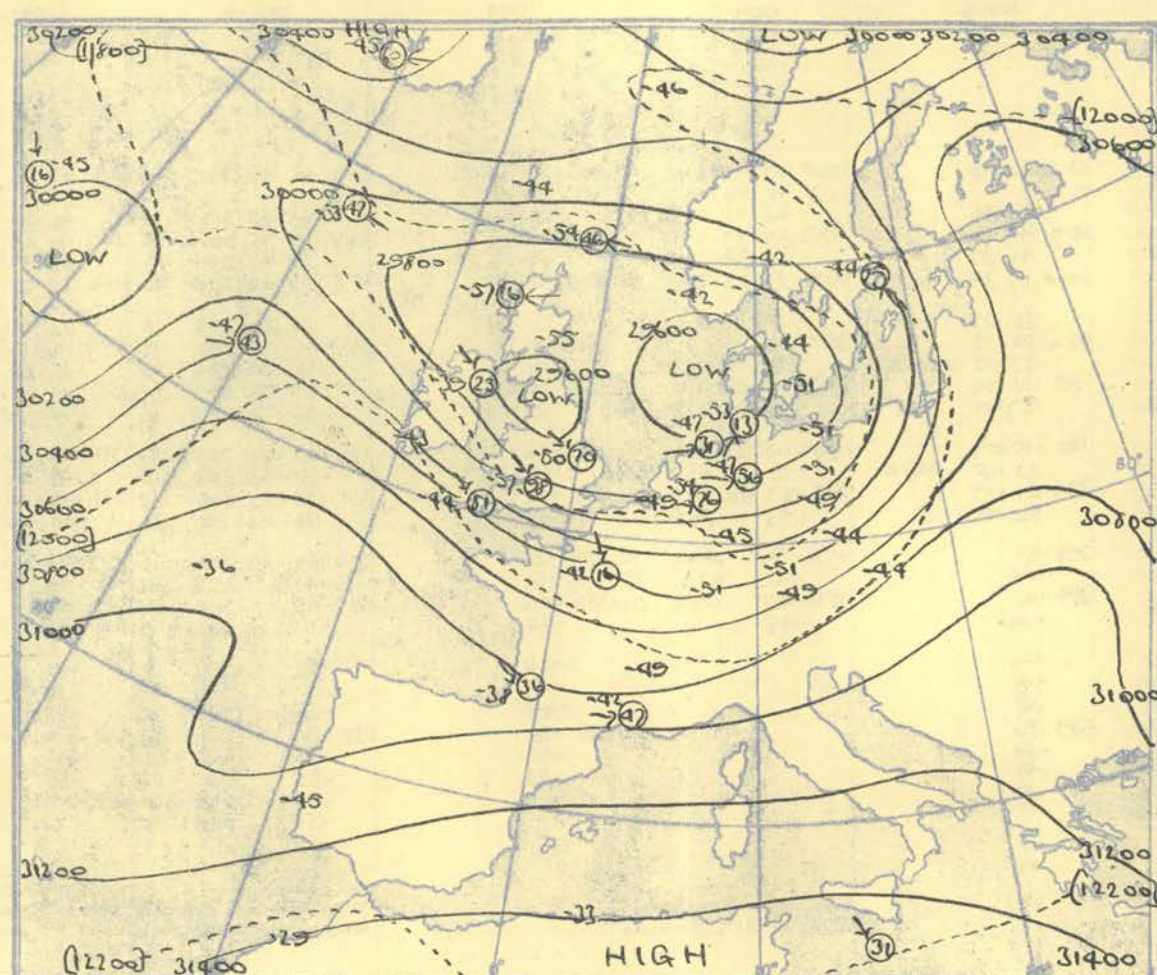
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



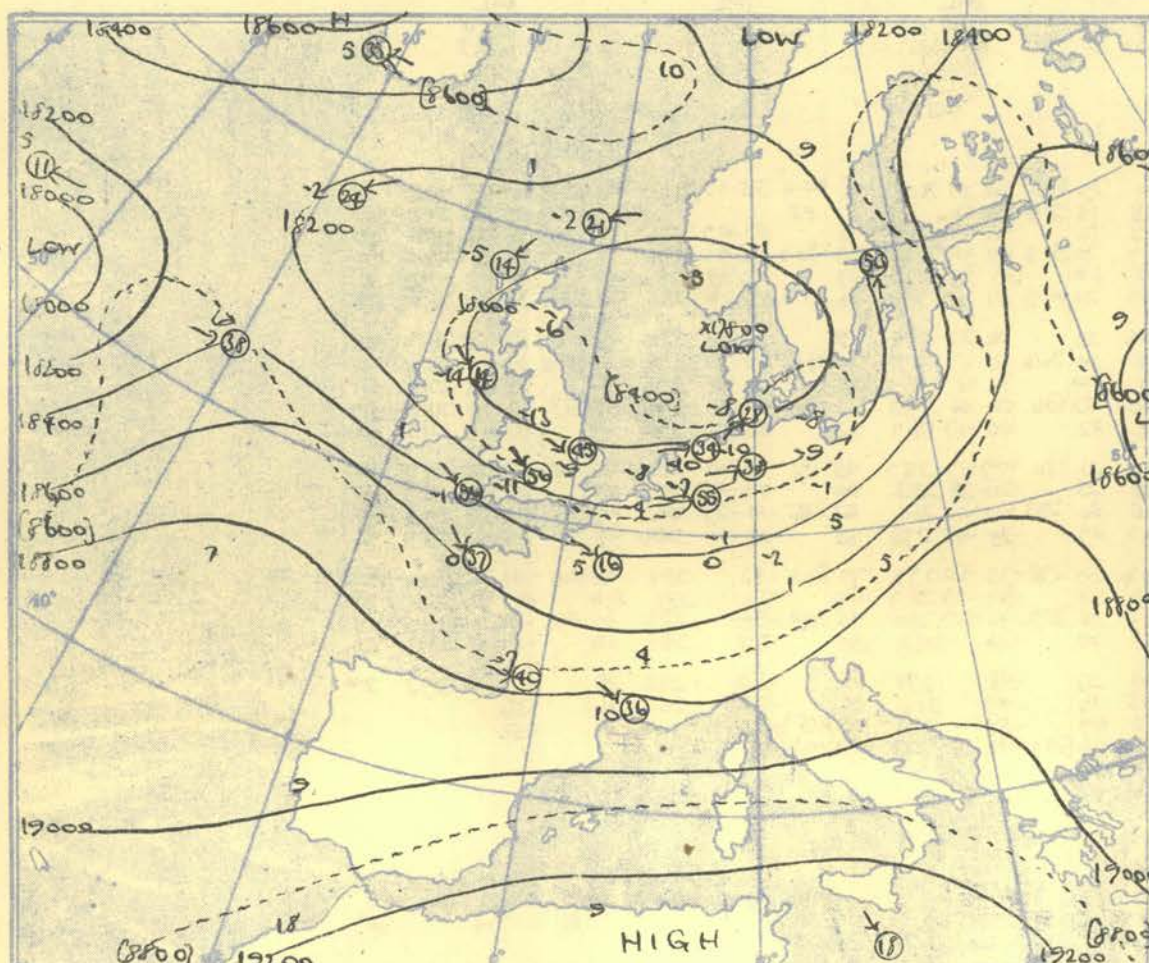
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

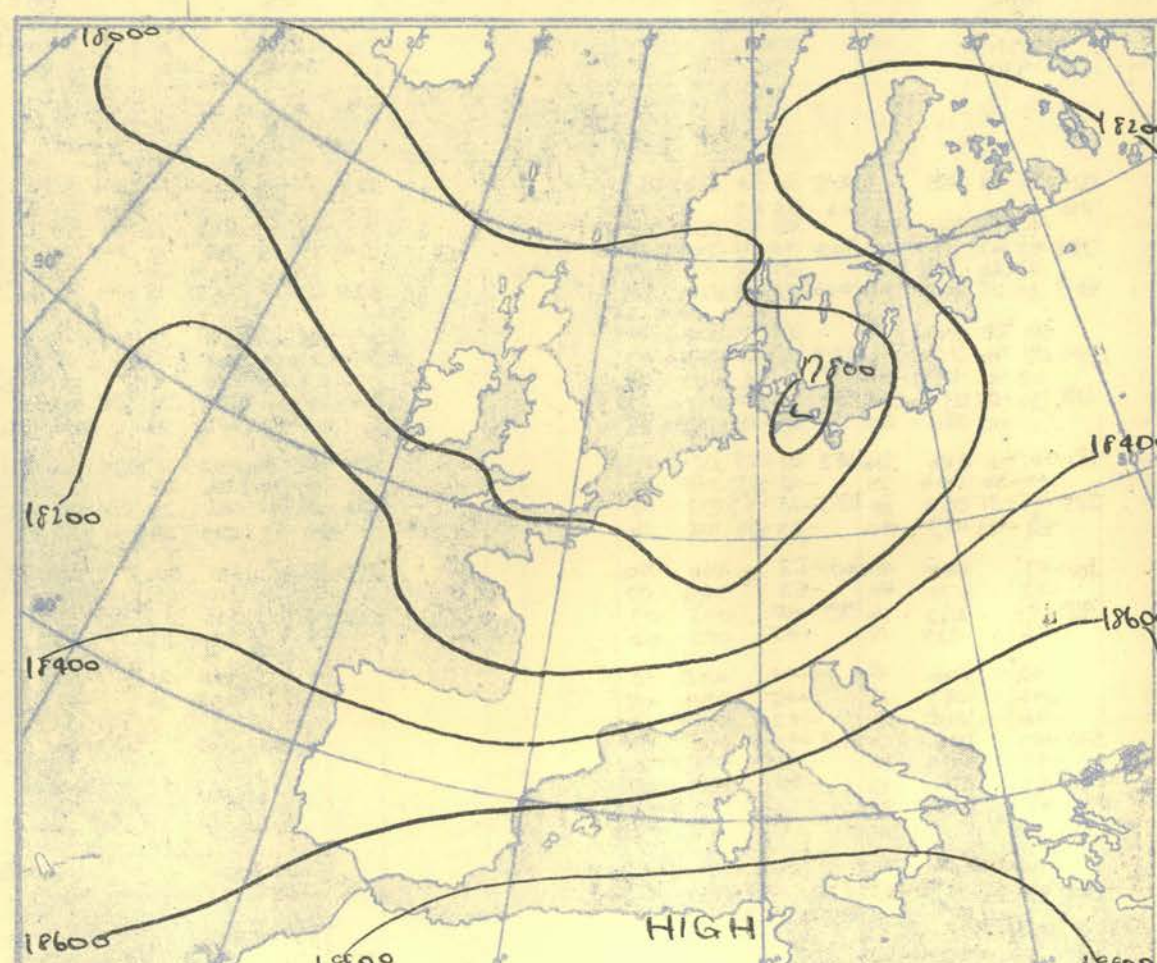
100 80 60 40 20 10 knots



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.

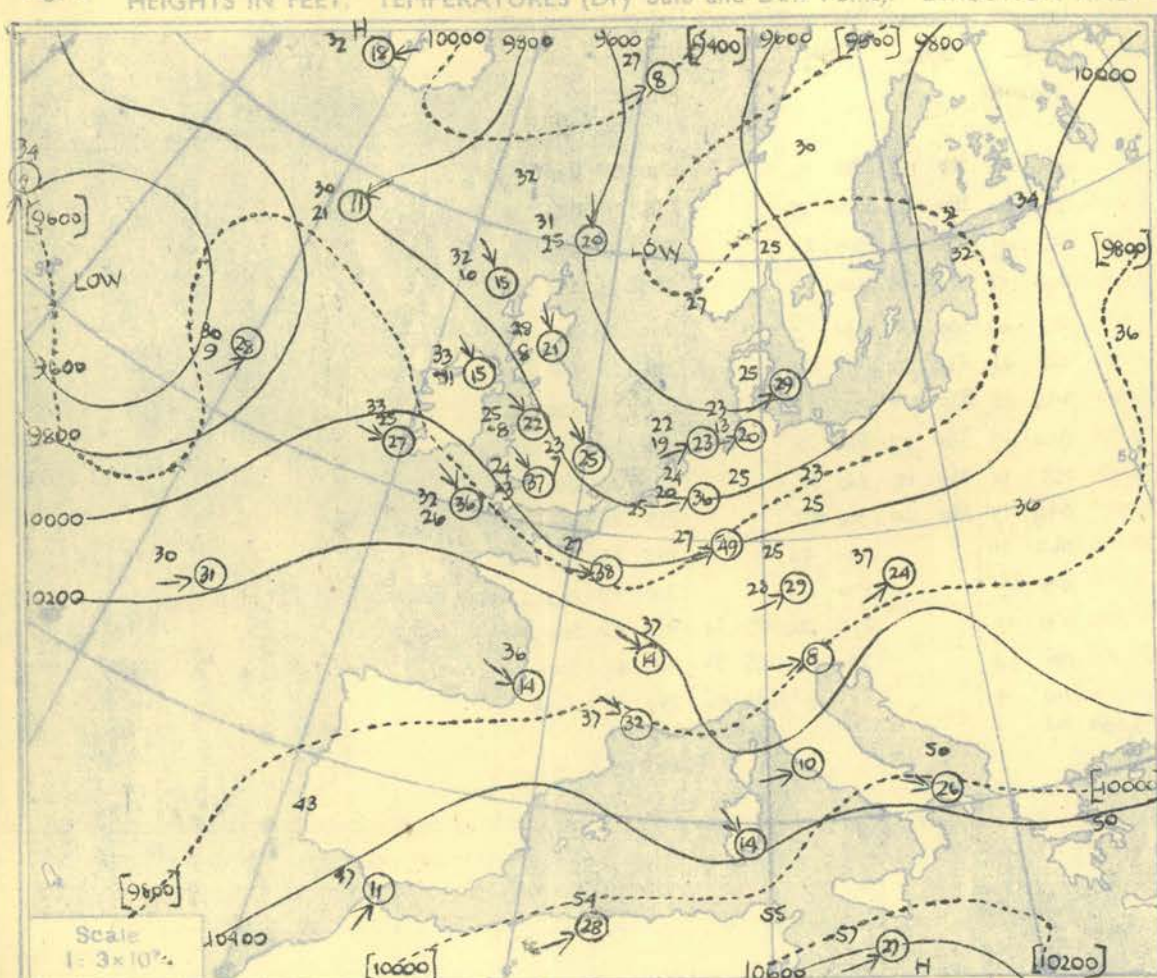


## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above MSL

NEPHOSCOPE OBSERVATIONS[illegible]Ternstroem 6/11/02



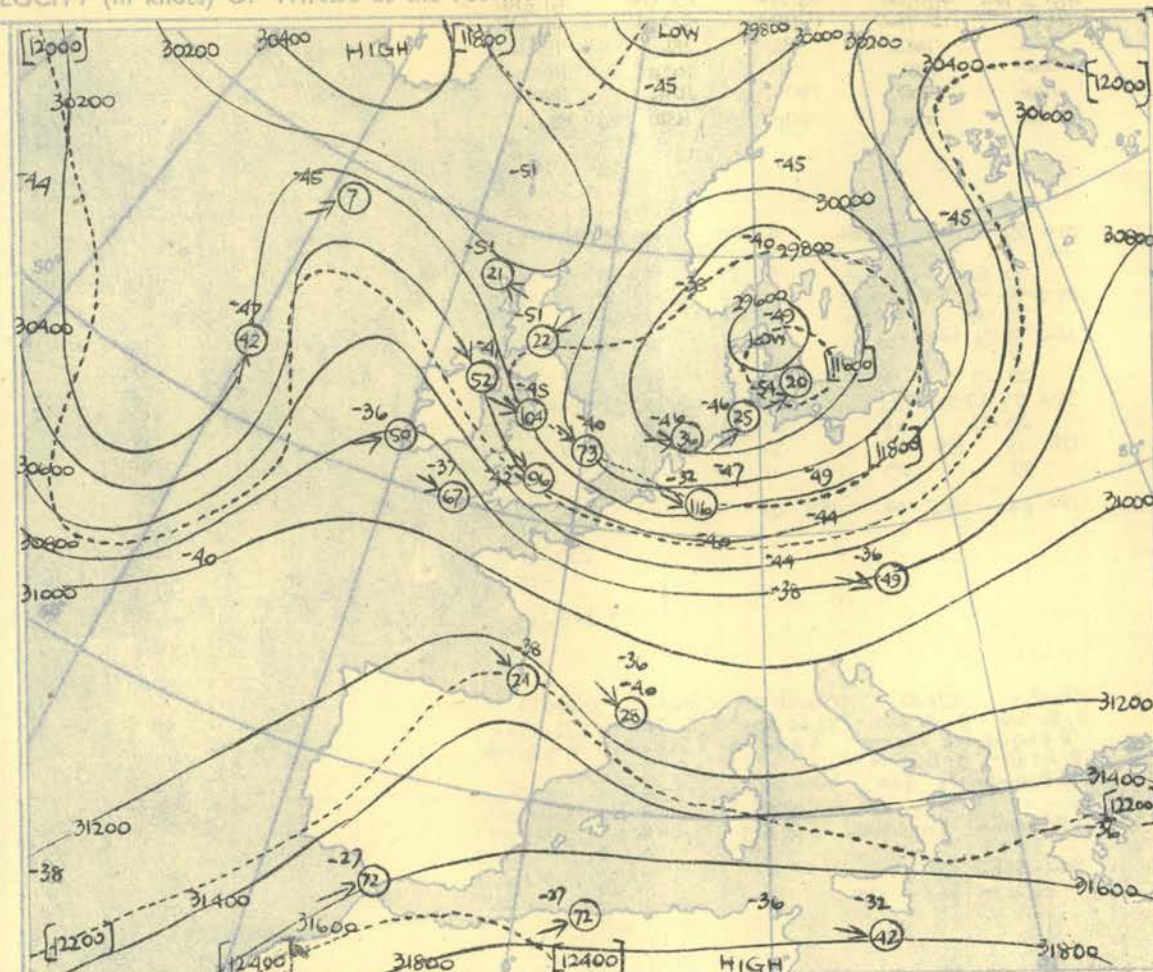
HEIGHTS IN FEET, TEMPERATURES (Dry bulb and Dew Point), DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

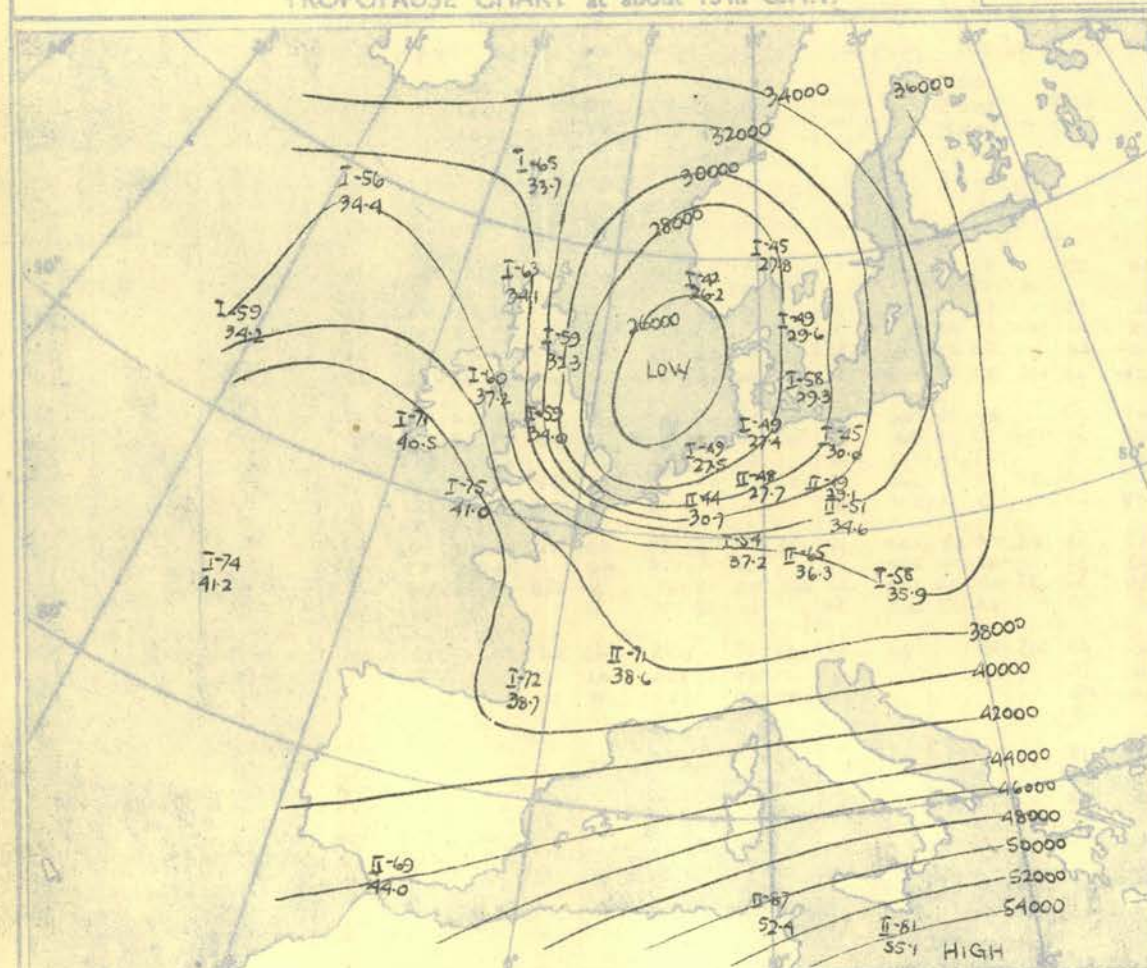
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

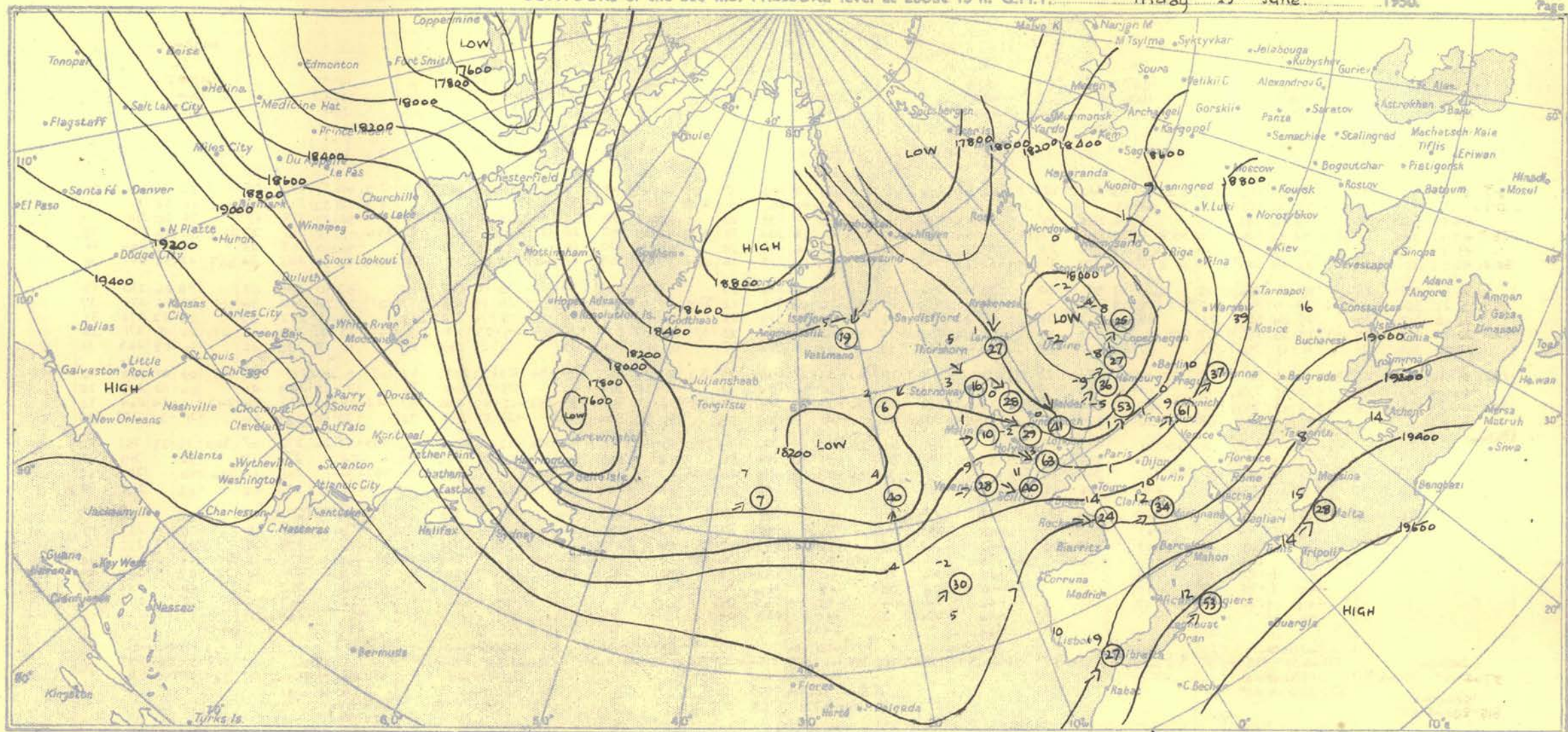
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over Britain moved eastwards during the day with warming and subsidence occurring over much of the United Kingdom and to the West of Ireland with the formation of a warm ridge there. A cold trough penetrated south-westwards to Iceland with a cold outbreak from Greenland. The pronounced cold trough over East Canada moved eastwards with a cold pool forming over Newfoundland.

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

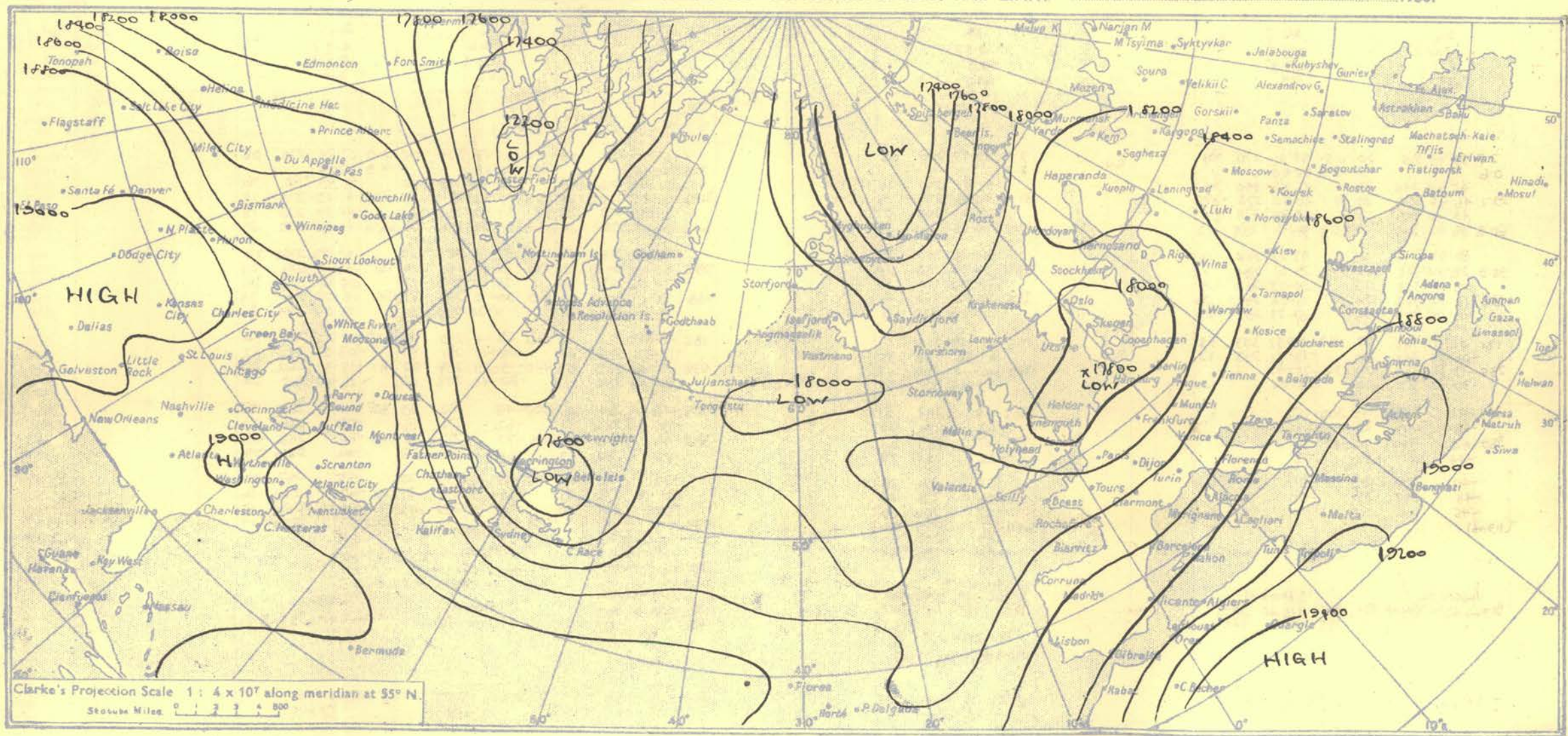




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

June 23<sup>rd</sup>

1950.





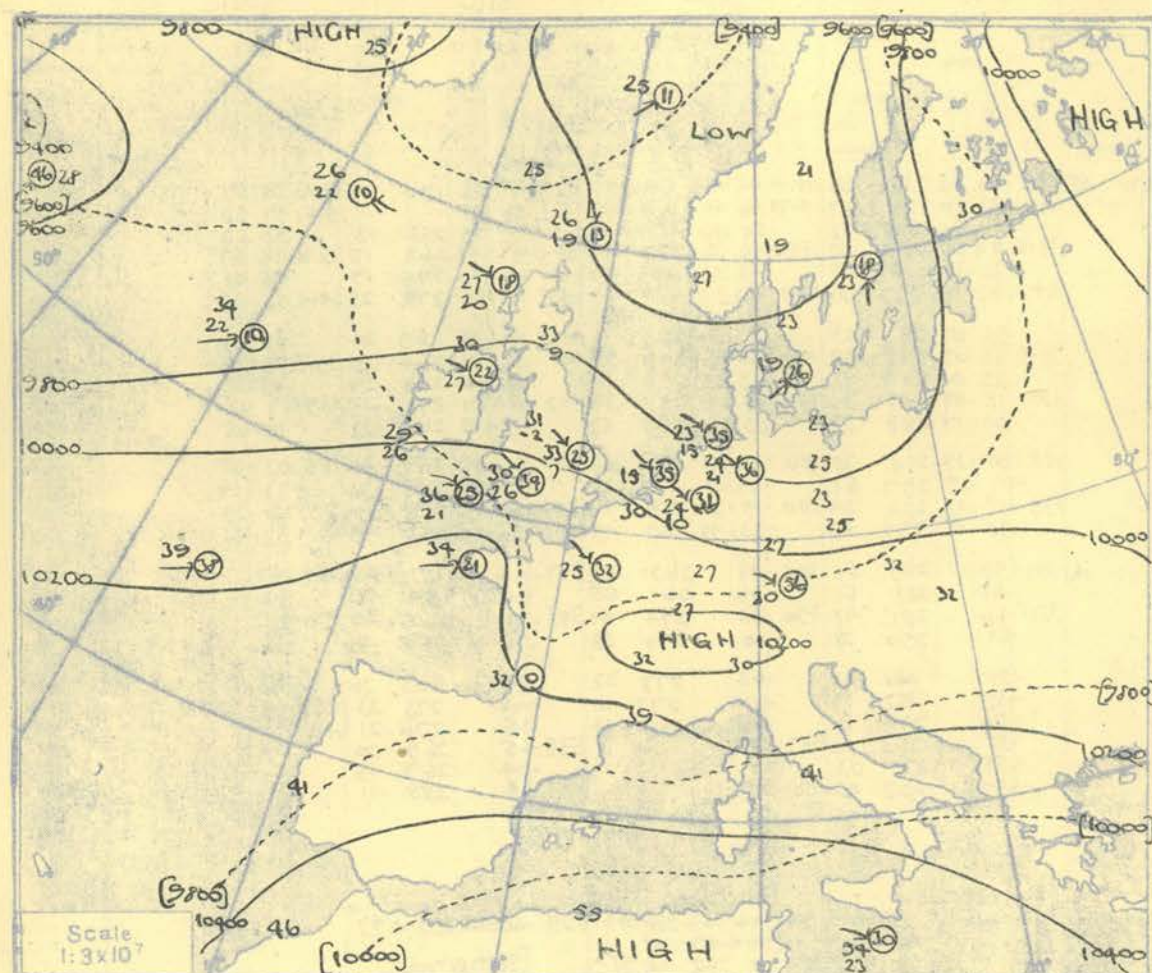




STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA
Time M.S.L.	03L	03L	03L	03L	03L	03L	03L	03L	03L
Surf	994.0	1009.6	1010.0	1013.8	1013.9	1015.9	1017.6	1018.6	1012.3
Freezing	772	745	695	726	708	694	713	673	730
Pressure	Height ft./100	Height ft./100	Height ft./100	Height ft./100	Height ft./100	Height ft./100	Height ft./100	Height ft./100	Height ft./100
Surf	02.7	00.5	00.2	02.3	00.6	01.2	01.2	02.9	00.3
1000	1.0	2.6	2.6	3.7	3.7	4.3	4.3	5.1	3.6
950	44	45	48	49	50	50	50	52	52
900	44	45	48	49	50	50	50	52	52
850	40	41	43	44	45	46	46	48	48
800	34	35	36	37	38	39	39	41	41
750	30	31	32	33	34	35	35	37	37
700	26	27	28	29	30	31	31	33	33
650	21	22	23	24	25	26	26	28	28
600	16	17	18	19	20	21	21	23	23
550	07	08	09	10	11	12	12	14	14
500	18	19	20	21	22	23	23	25	25
450	10	11	12	13	14	15	15	17	17
400	23	24	25	26	27	28	28	30	30
350	33	34	35	36	37	38	38	40	40
300	29	30	31	32	33	34	34	36	36
250	24	25	26	27	28	29	29	31	31
200	18	19	20	21	22	23	23	25	25
170	12	13	14	15	16	17	17	19	19
150	8	9	10	11	12	13	13	15	15
130	5	6	7	8	9	10	10	12	12
110	3	4	5	6	7	8	8	10	10
100	2	3	4	5	6	7	7	9	9
90	1	2	3	4	5	6	6	8	8
80	0	1	2	3	4	5	5	7	7
70	0	1	2	3	4	5	5	6	6
60	0	1	2	3	4	5	5	5	5
Isotermal	950 - 888 mb 44°	845 - 800 mb 35°	Inversion 1009 mb 50° - 970 mb 51° 872 - 36° - 837 - 40° Isothermal 787 - 708 mb 39° 674 - 657	Inversion 1005 mb 51° - 998 mb 52°	Inversion 825 mb 35° - 788 mb 39° Isothermal 980 - 950 mb 52°	Inversion 1011 mb 46° - 996 mb 54° 786 - 31° - 770 - 31° 750 - 35° - 735 - 36°	Inversion 1001 mb 45° - 980 mb 51° Isothermal 980 - 962 mb 51° 646 - 635 - 22°	Inversion 829 mb 38° - 793 mb 47° Isothermal 757 - 736 mb 41°	I 196 mb - 70° 32,500'
Tropopause	I 218 mb - 72° 36,700'	I 265 mb - 62° 32,700'	I 252 mb - 65° 33,300'	I 215 mb - 71° 37,500'	I 222 mb - 72° 36,700'	I 220 mb - 71° 37,000'	I 206 mb - 77° 38,500'	I 211 mb - 73° 38,300'	I 196 mb - 70° 32,500'



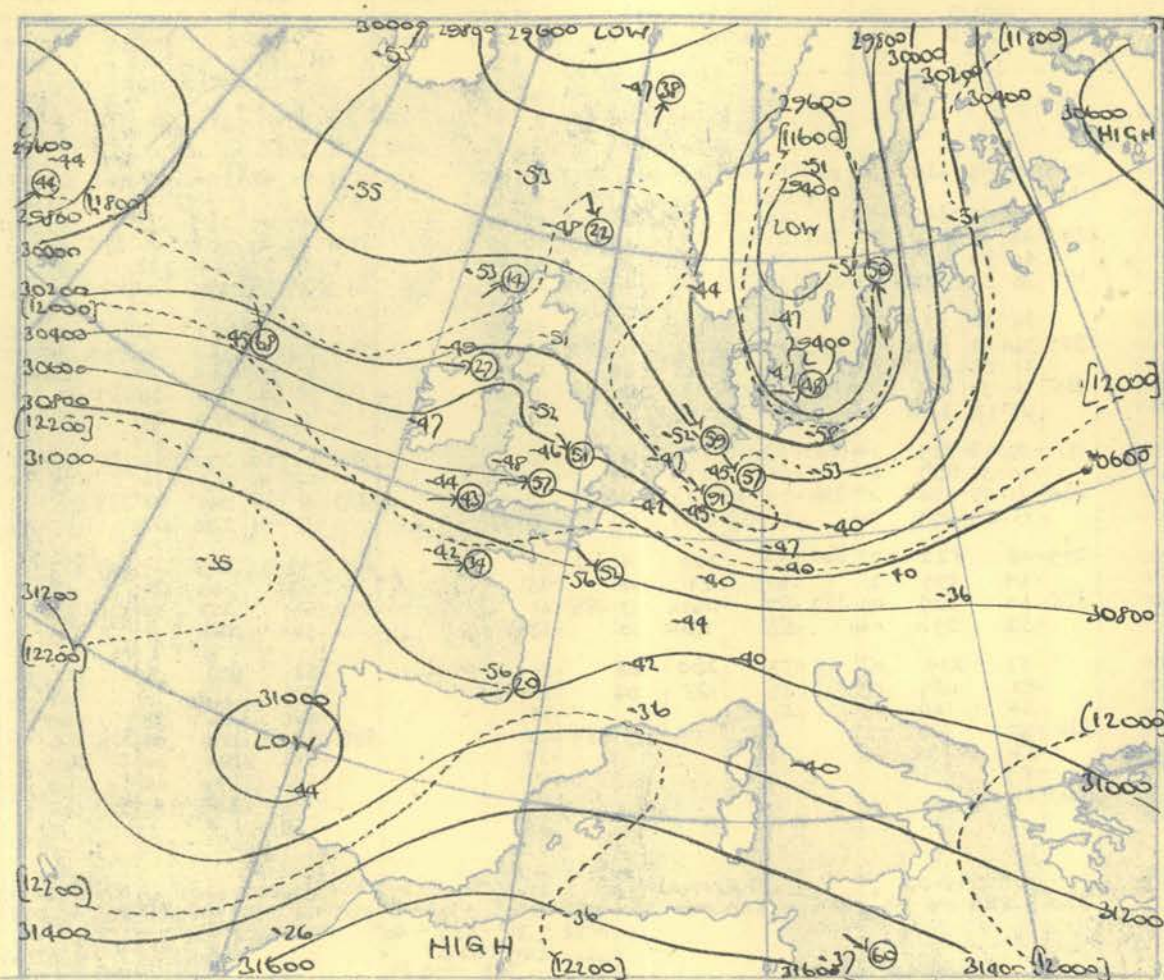
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



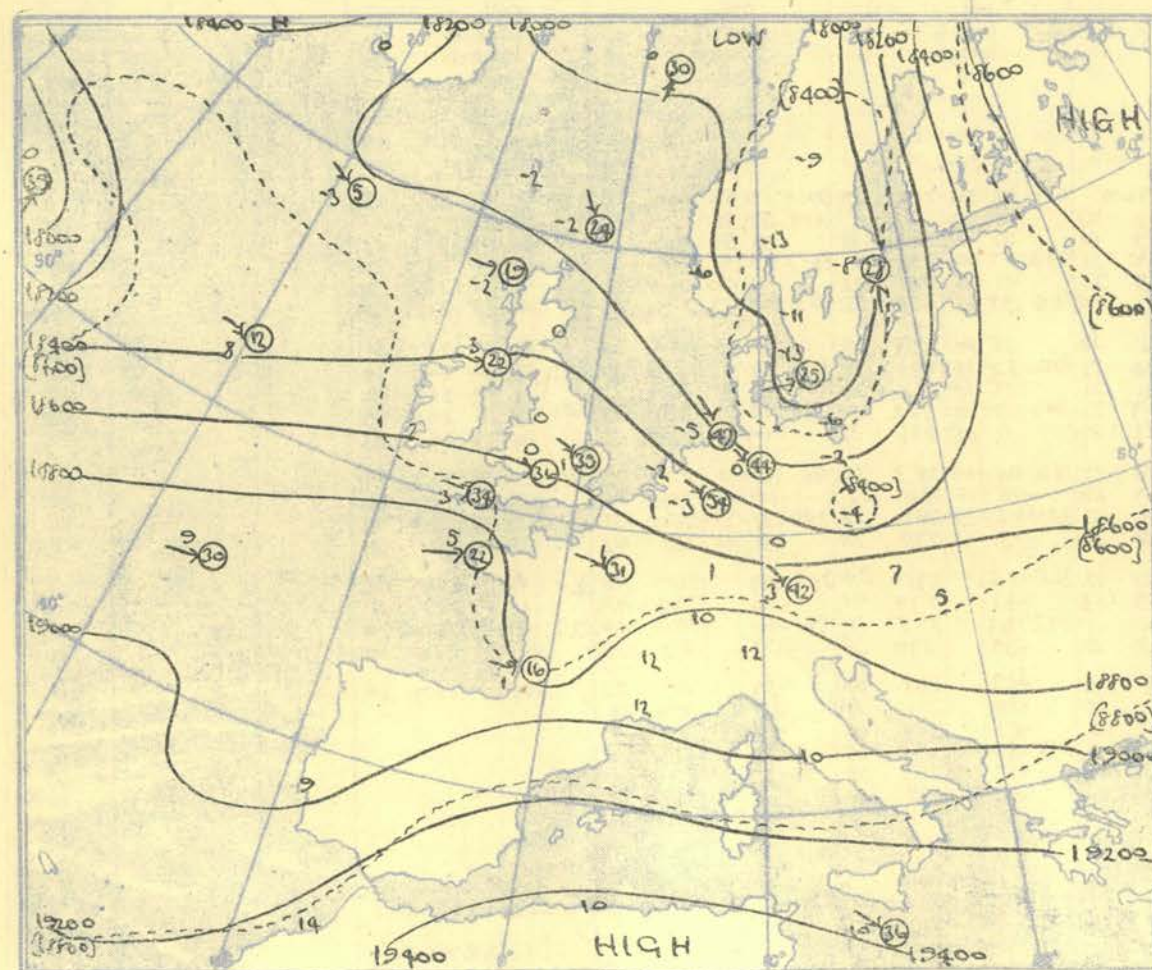
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

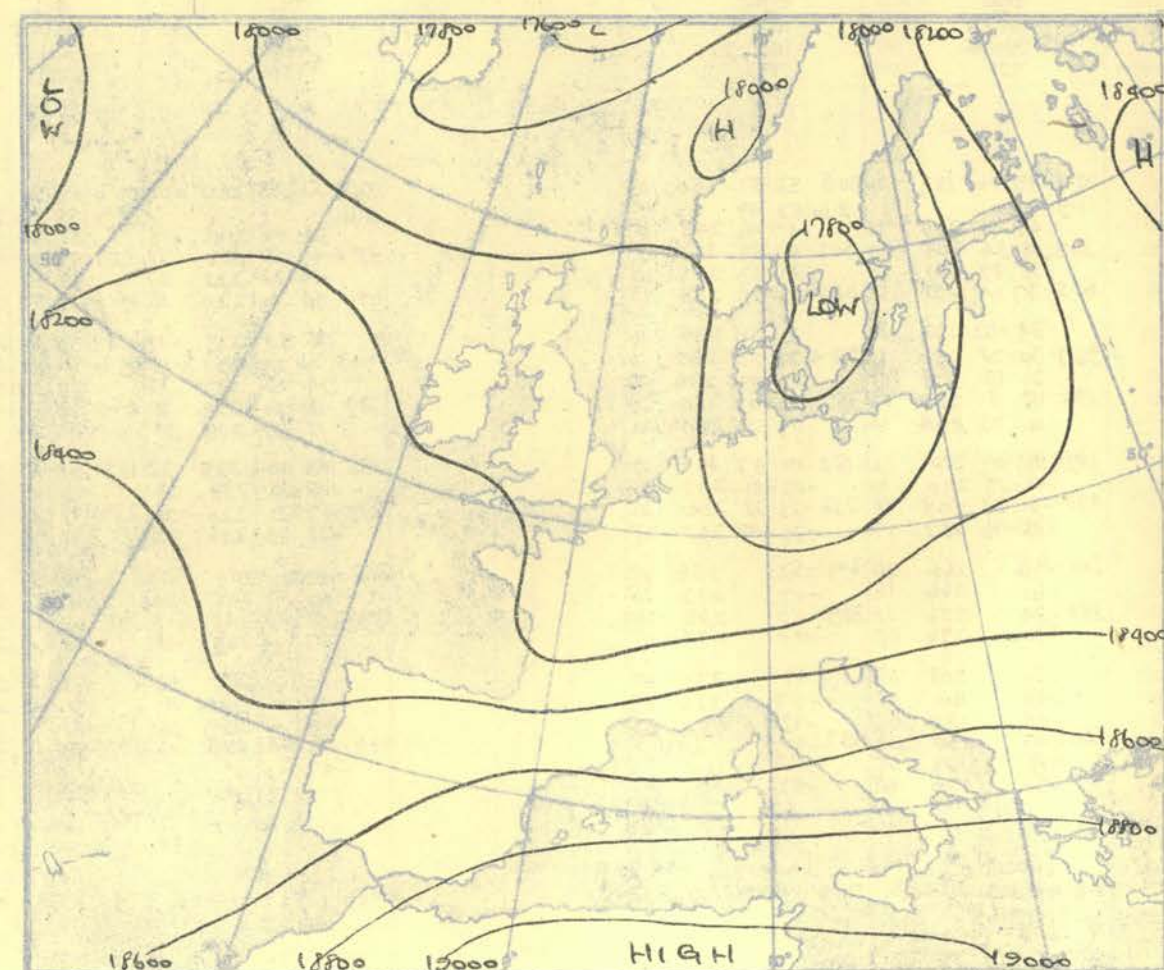
100 80 60 40 20 10 0 knots



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.



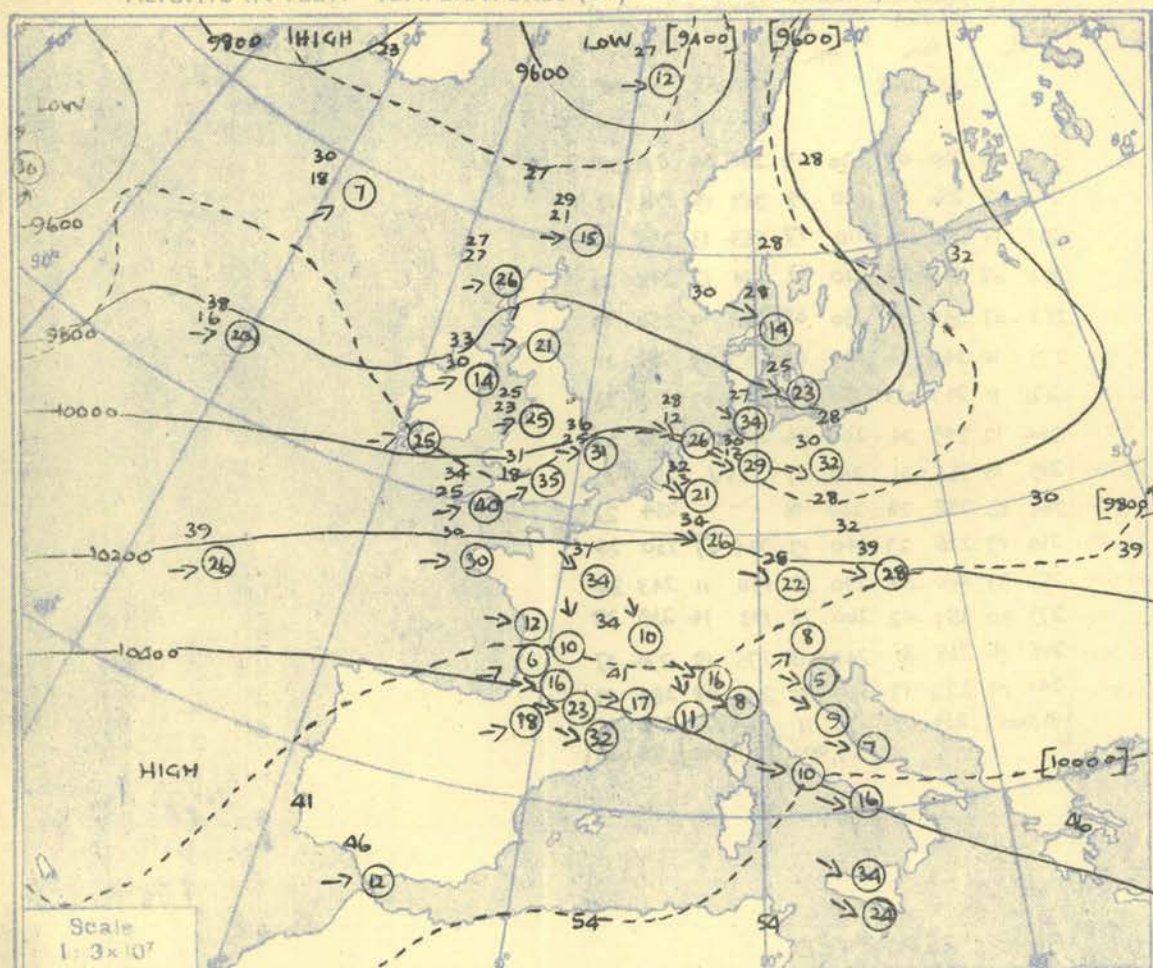
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

## NEPHOSCOPE OBSERVATIONS

[illegible]



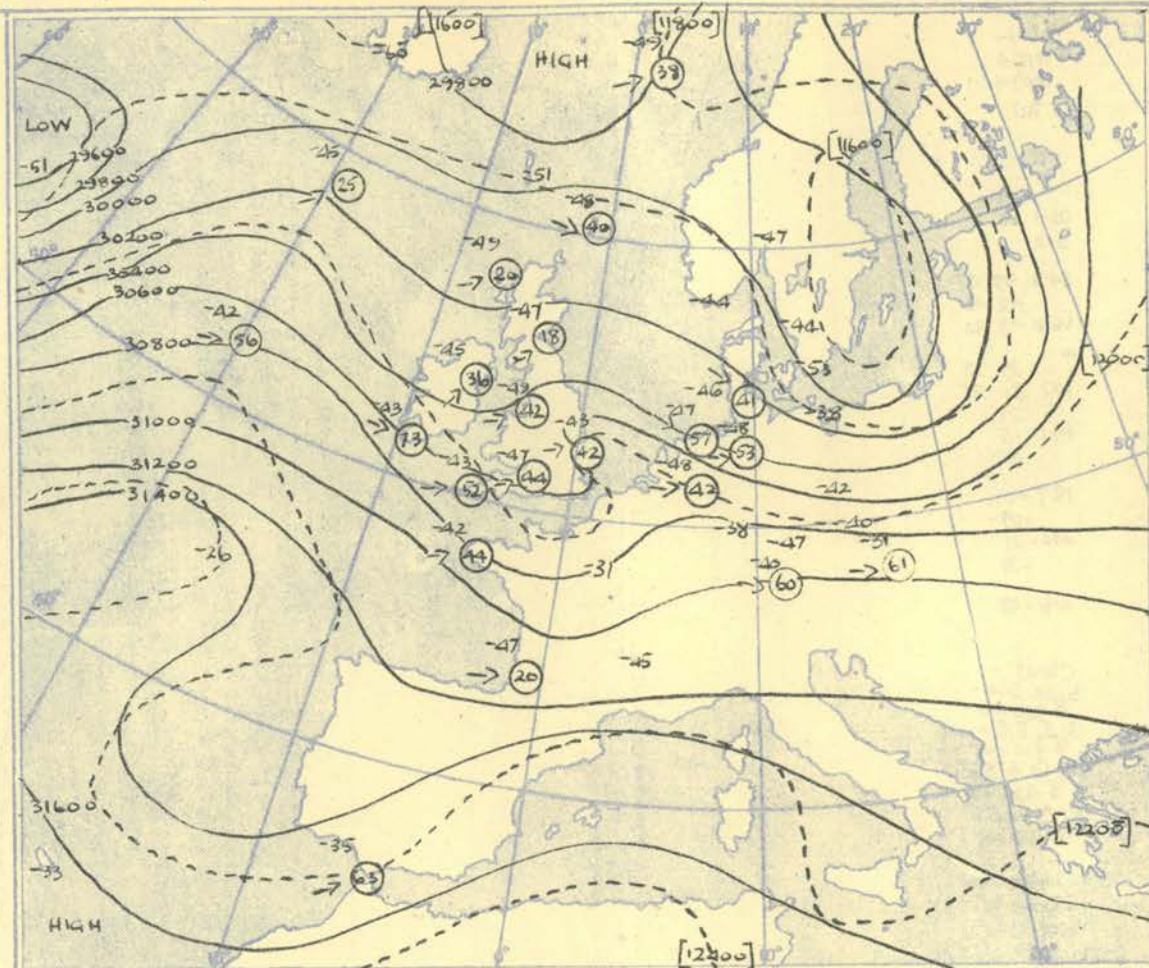
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



The continuous lines are contour lines of the 700 mb. surface.  
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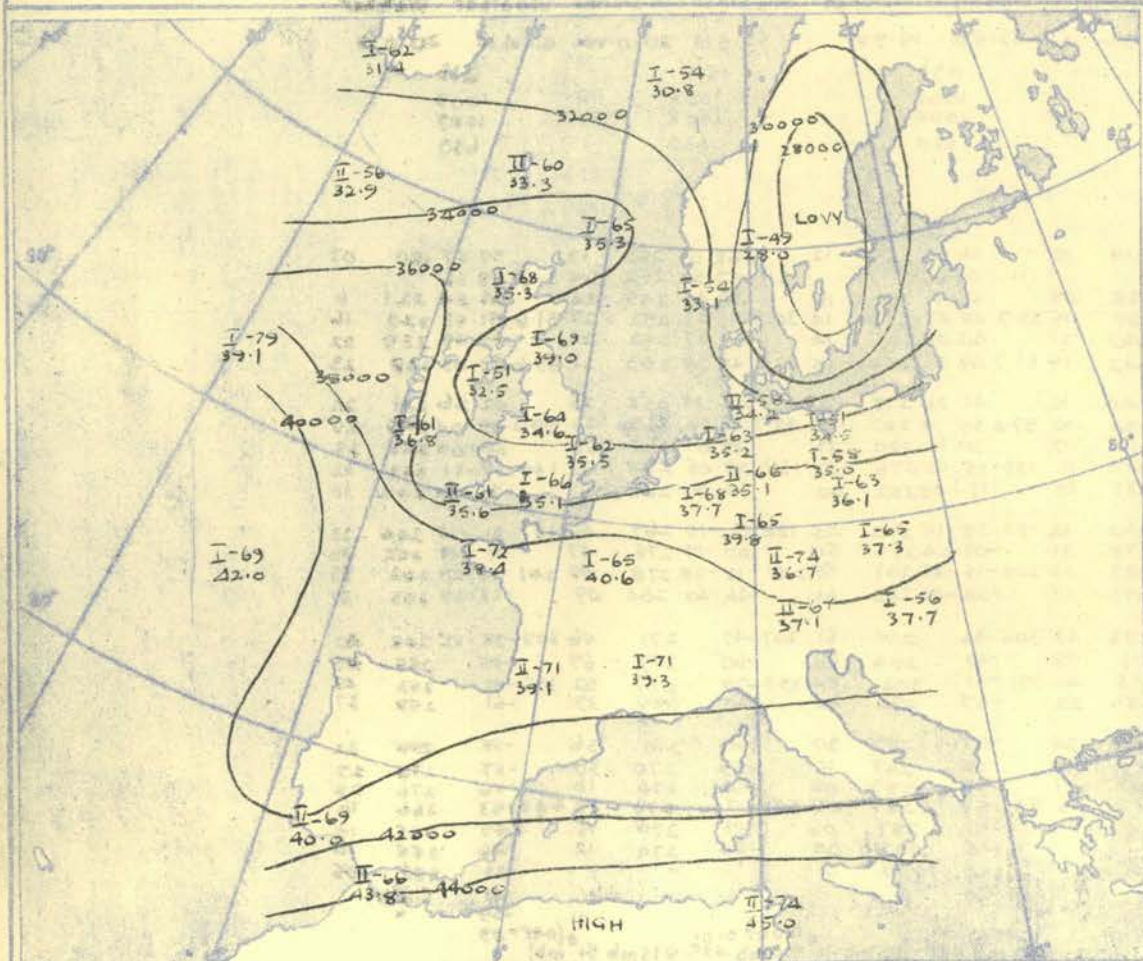
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause  
Temperature of Tropopause

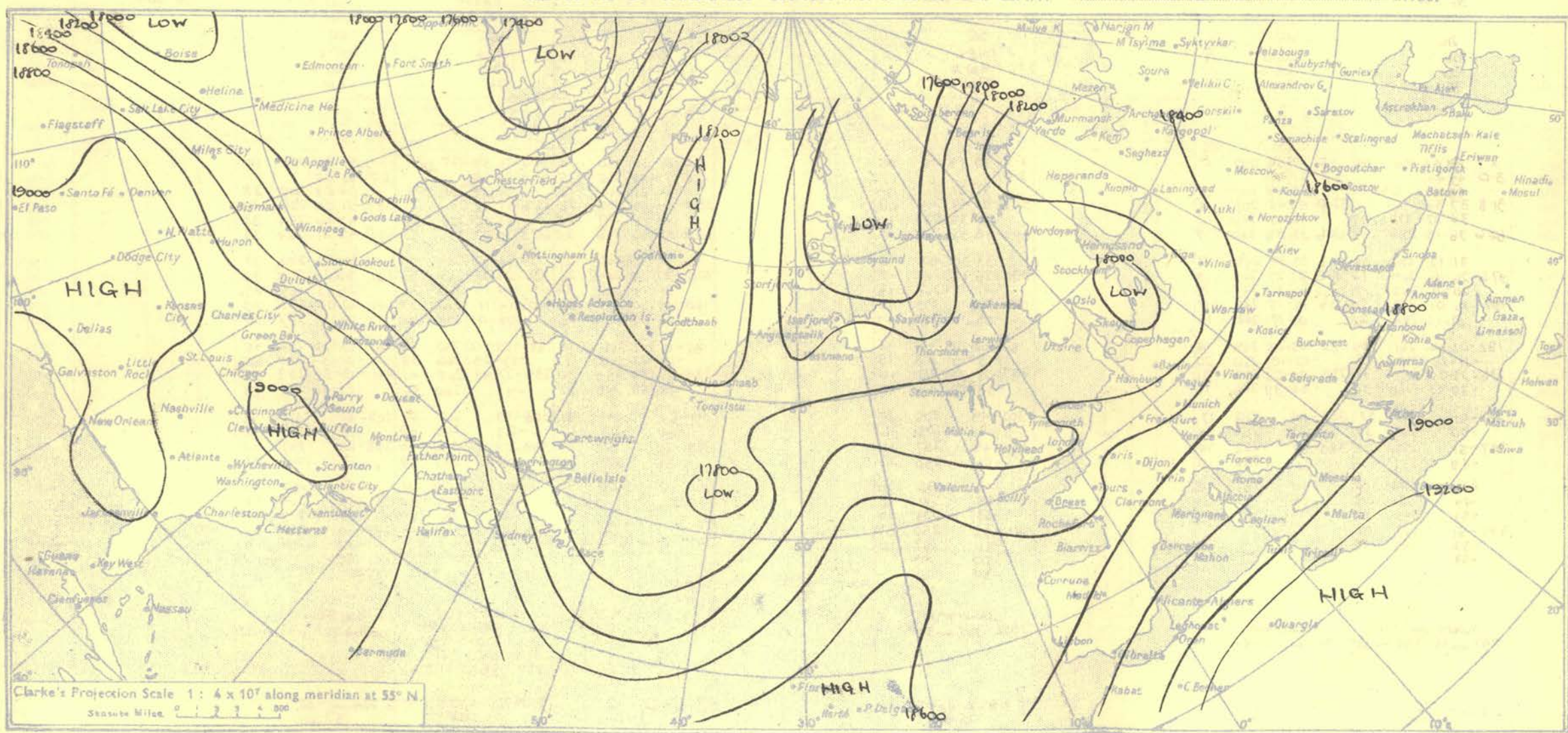
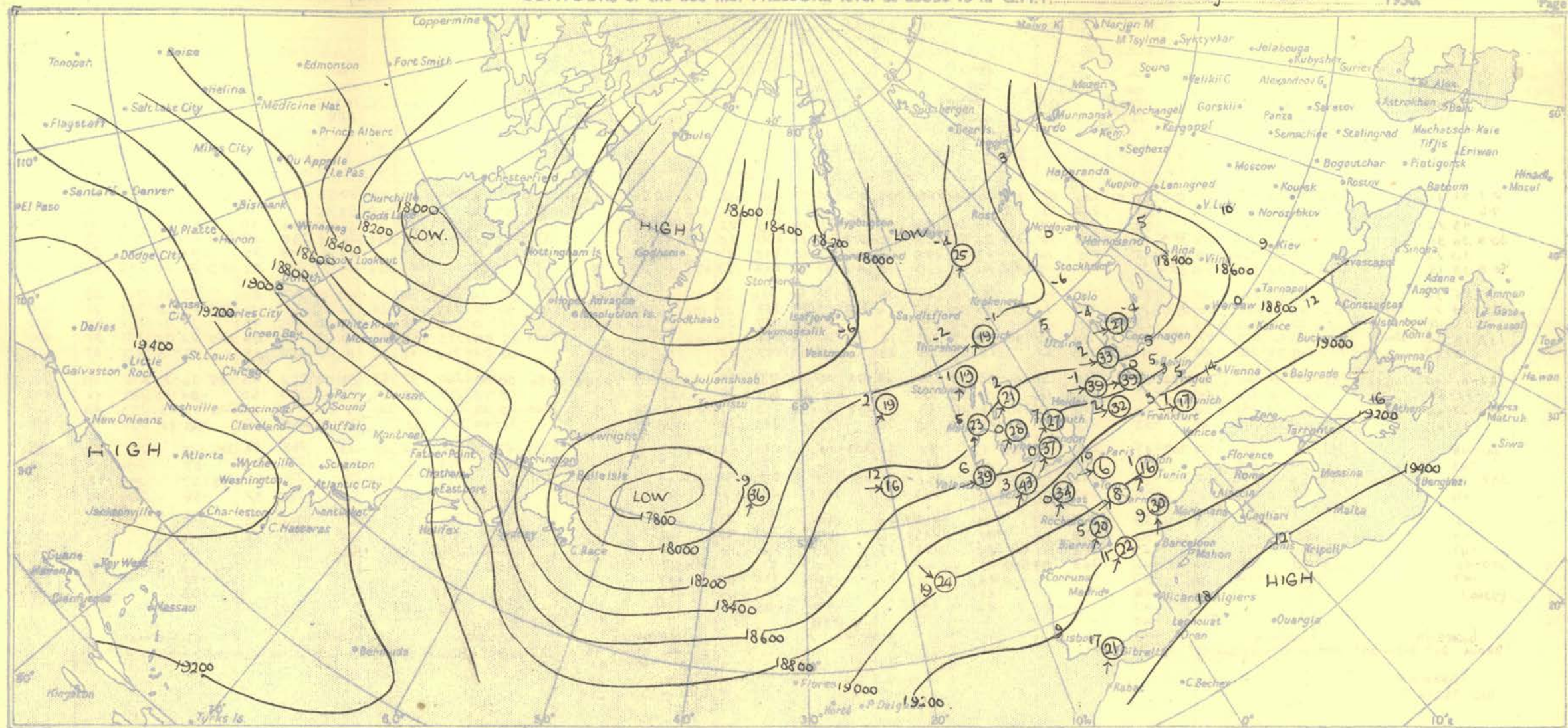
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over the North Sea continued to move eastwards to the Baltic whilst a cold trough formed over England resulting in appreciable rain in the warm sector. The warm ridge to the west of the British Isles intensified and the cold pool over Newfoundland moved eastwards into the Atlantic but became less intense.

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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION											
Time M.S.L. Surf Freezing	15h		G.M.T.		15h		G.M.T.		12		G.M.T.		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												
	1009.7		mb		1010.1		mb		1011.1		mb		1011.6		mb		1014.2		mb		1016.2		mb		1017.4		mb		1018.1		mb		1011.8		mb														
	999.8		mb		1008.3		mb		1010.3		mb		1003.2		mb		1012.2		mb		1011.8		mb		1001.8		mb		1008.5		mb		1010		mb														
725		mb		760		mb		727		mb		687		mb		753		mb		670		mb		702		mb		688		mb		725		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	52	41		0.5	57	56	210	03	0.2	66	51	240	07	2.3	60	58	260	05	0.6	62	55	230	12	1.2	65	56	200	08	4.4	64	57	240	05	2.9	59	56	203	12	0.3	60	56	215	14	Surf				
1000	2.6				2.8	55	54			3.1	63		254	21	3.2			260		3.3	60	54	231	19	4.4	64	56			5.0	58	55			3.2	58	54	220	16	1000									
950		43	34			47	47	210	11		53		258	17		56	54	258	08		53	48	229	22		59	50				51	47	224	30		52	50	240	22	950									
900	30.8	36	31		31.4	41	41	228	08	31.3	46		263	15	32.3			258	10	32.8	47	44	230	25	33.7	48	43			33.8	48	45	230	30	32.1	47	45	240	23	900									
850		30	23			40	40	256	13		43		270	16		47	45	258	15		43	40	240	25		48	43				44	41	233	30		44	42	251	22	850									
800	61.8	35	13		62.8	35	35	261	24	63.4	39		273	19	64.2	41	39	253	19	64.4	37	34	238	23	65.7	44	35			65.5	41	32	249	22	65.6	44	32	240	32	63.9	41	30	245	22	800				
750		34	30			31	31	256	25		34		275	19		37	35	245	16		31	38	236	25		41	28	For			37	24	249	30		40	29	248	36		35	33	241	23	750				
700	96.3	29	21	For	97.3	27	27	260	26	99.0	29		272	21	99.6	33	30	232	14	99.4	25	23	233	25	101	36	25			101	34	25	247	35	101	34	25	244	40	99.2	29	25	251	25	700				
650		23	10			20	20	260	39		23		270	22		28	25	225	14		20	18	237	22		25	10	Winds			25	10	248	37		26	20	245	43		27	01	261	30	650				
600	137	18	02	Winds	137	16	16	255	23	138	17		272	20	140	22	17	217	18	139	16	12	249	24	142	22	16			141	19	15	244	46	139	22	00	272	35		22	00	272	35	600				
550		10	07	See		08	08	255	20		11		263	20		15	07	213	23		08	03	247	25		16	08	See			08	02	260	42		11	03	245	48		15	18	272	37	550				
500	182	01	40	page	183	01	01	245	19	184	02		260	21	186	05	03	204	23	184	00	06	237	28	188	07	03	page.			186	00	08	260	37	187	03	08	252	43	185	06	23	275	39	500			
450		12	53			09	10	236	24		07		256	18		03	09	200	22		10	28	240	28		05	16				09	18	257	35		06	15	257	50		04	30	282	43	450				
400	236	22	40	3	236	22	23	229	16	238	19		252	16	240	13	20	183	21	238	21	38	250	27	242	15	28	9.			240	20	28	261	31	241	15	30	259	50	240	17	43	289	48	400			
350		33	47			33	36	228	21		32		226	20		28	35	182	25		33	47	243	34		28	45				32	40	253	39		26	45	258	65		28	45	297	71	350				
300	301	4	8		302	49		226	20	303	47		213	18	306	45		192	36	303	49		240	42	308	43				305	47		251	44	307	43		265	52	306	43		297	73	300				
250		63				64		268	21		61		229	16		47		222	21		63		229	30		60					64		253	52		59		271	59		57		296	59	250				
200	388	50			388	53		250	15	390	63		244	19	395	42		252	24	390	53		250	31	396	49				391	63		265	42	394	58		271	48	393	57		290	48	200				
170		46				53		267	12		50		268	15		42		263	17		51		269	28		49					55		266	30		55		265	37		56		284	40	170				
150		46				51		261	15		50		249	14		44		262	20		50		271	23		50					55		269	28		51		256	28		55				150				
130		46				51		263	10		50		258	16		45		242	16		53		262	20		47					56		268	21		54		266	24		56				130				
110		47				48		170	08		47		256	10		45		235	17		50		264	18		46					56		259	17		56									110				
100	540	48			539	50		170	04	541	46		243	08	549	45		L.V.			541	50		273	11	548	47				541	53		241	12		542	54		542	54					100			
90		47				51		176	03		47					44							50			47						51		255	10		53								90				
80	(936)															43							49			47						51		276	04		53								80				
70																42							48									46													70				
60																							48									46													60				
Inversion.		840mb 29°-810mb 35°		Inversion.		200mb 41°-880mb 42°								(b7n)						Isothermal.		850mb-831mb 48°		Inversion.		815mb 39°-800mb 41°		Inversion.		835mb 42°-800mb 44°		Inversion.		669-644mb 27°															
Isothermal.		810-755mb 35°																				775°-740° 41°																											
650°-630° 29°																						591°-581° 21°																											
Tropopause		I 236mb-65° 35° 300°		I 236mb-68° 35																																													

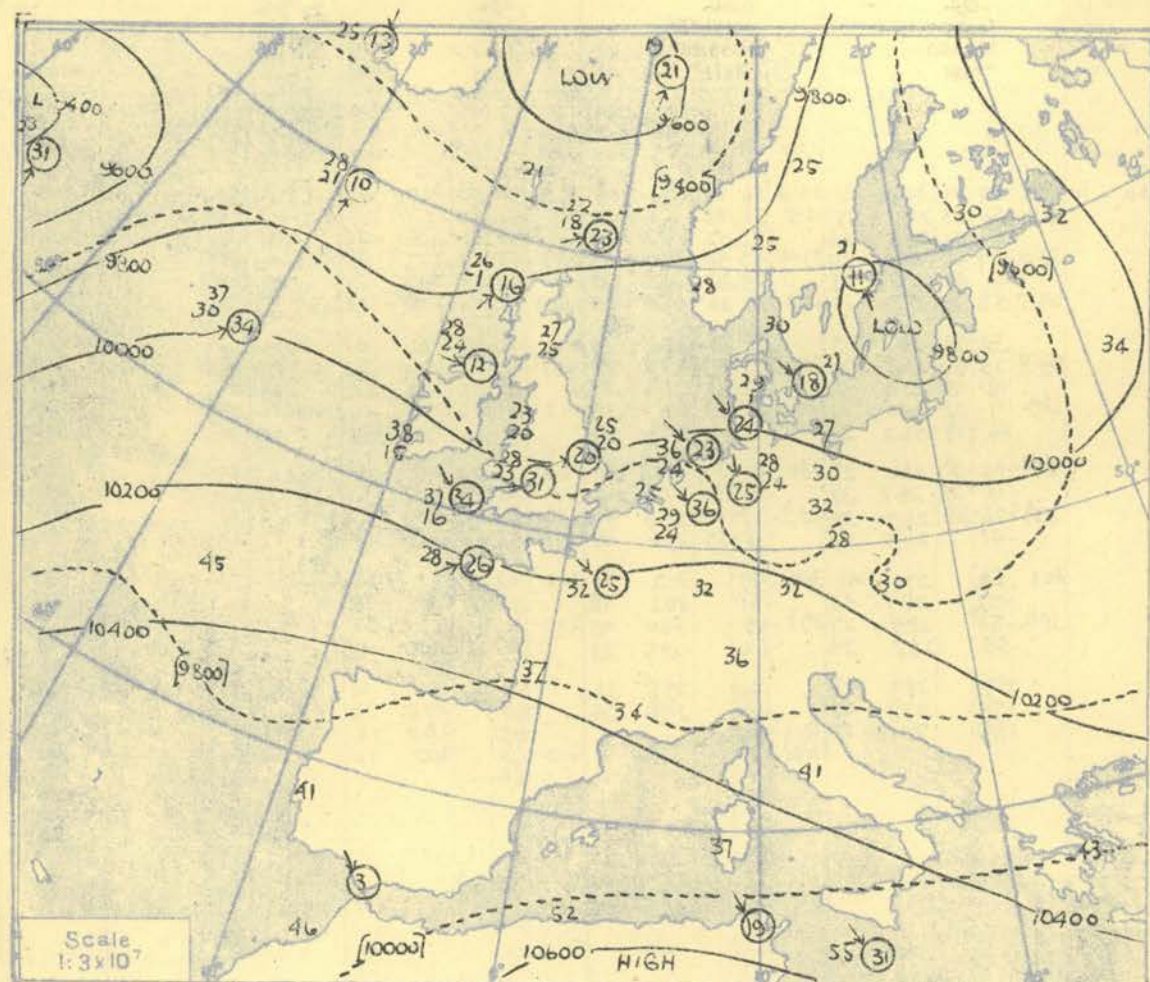


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

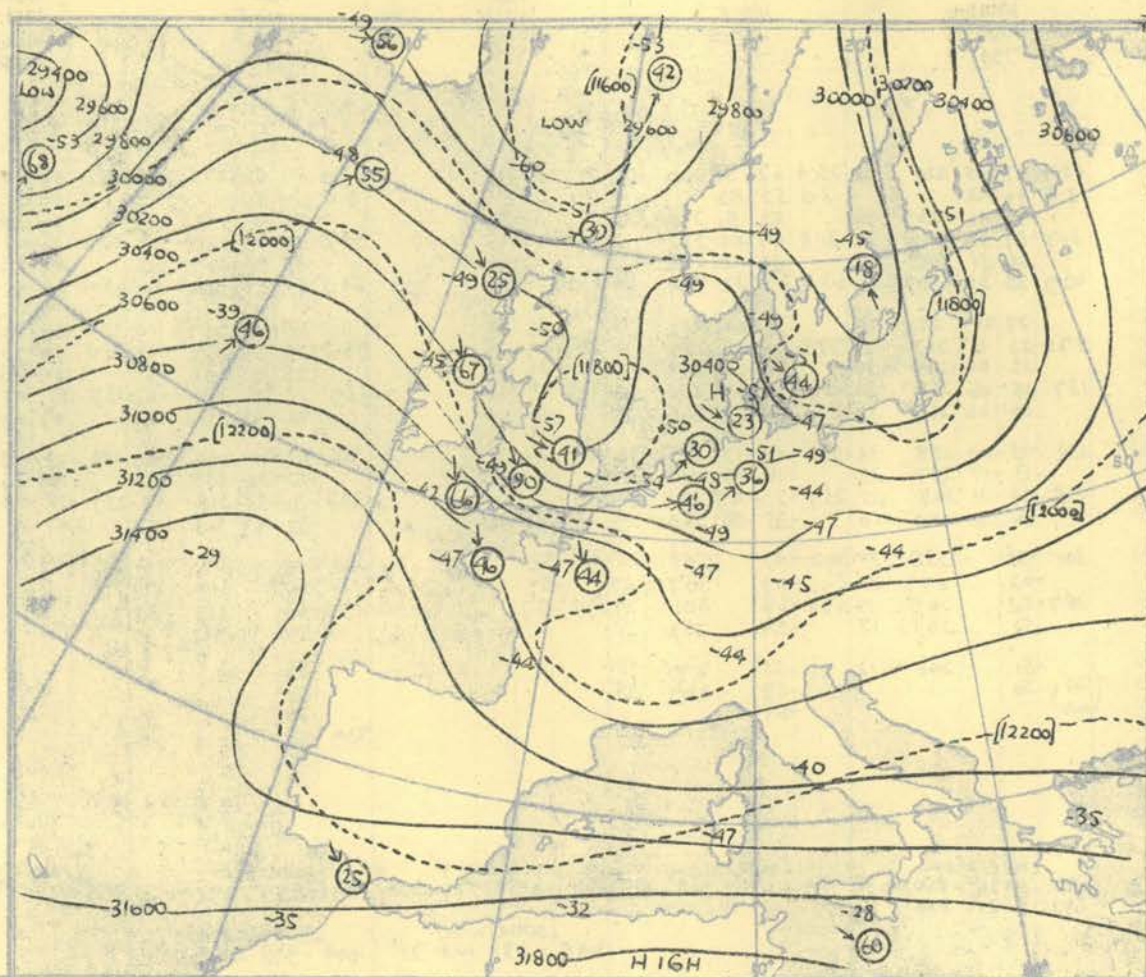
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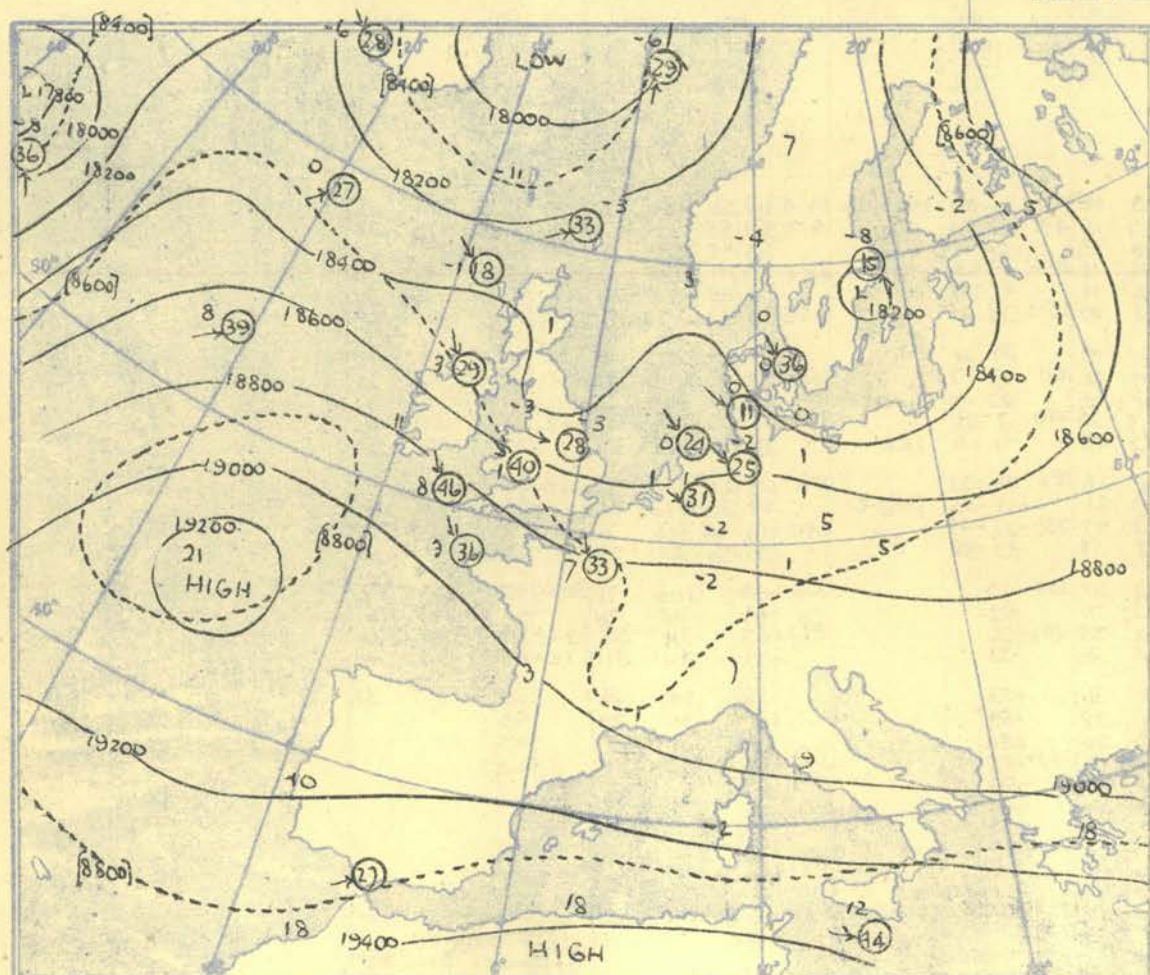
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



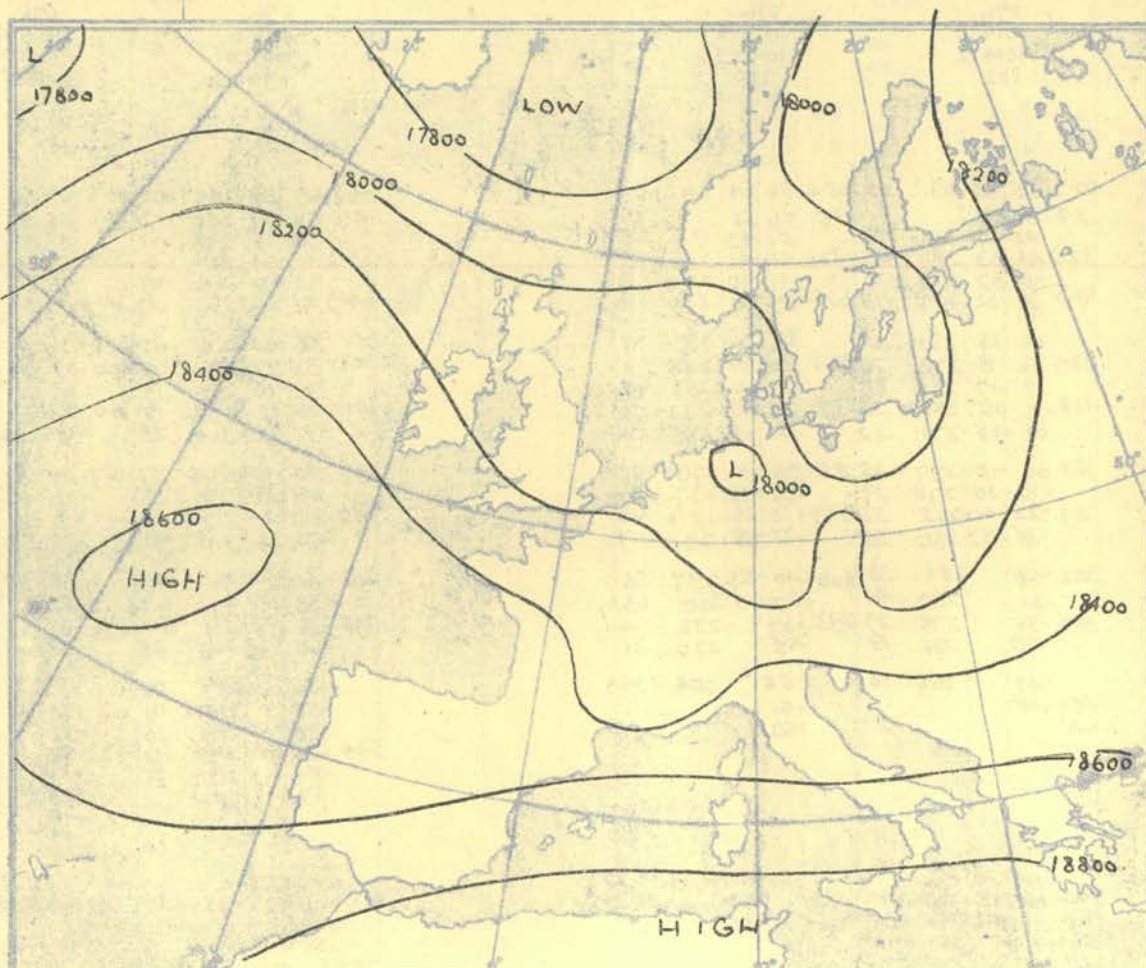
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



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

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

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY												DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																			
48.2N 21.5W				49.5N 14.7W				43.2N 17.0W				39.5N 12.2W																			
Time M.S.L. 1012				Time M.S.L. 1018				Time M.S.L. 1024				Time M.S.L. 1026																			
Surf. 1008				Surf. 1014				Surf. 1020				Surf. 1022																			
Pressure 610				Pressure 615				Pressure 620				Pressure 580																			
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.
Surf	81.0	60	56	01.0	60	60		62	62			75	73							Surf	79	04		260	06	CALM					
1000	3.2			4.9				6.5				7.1								1000	275	10		253	22	295	09				
950		60	58		59	57		63	63			70	64							950	269	09		255	21	274	11				
900	32.6	57	57	34.2	59	56		59	59			60	52							900	272	10		251	20	257	13				
850		53	53		55	51		55	55			59	36							850											
800	65.0	50	48	66.7	49	46		49	49			53	29							800	275	10		244	20	238	15				
750		45	45		46	39		47	31			38	09							750	276	11		238	19	228	15				
700	101	41	28	103	39	39		105	43	29		105	41	15						700	276	12		228	18	227	15				
650		35	32		36			36	18			36								650											
600	142	30		143	30			29	25			36								600	301	10		248	16	276	15				
550		22		21				22				25								550	337	12		258	19	297	19				
500	188	14		190	15			192	15			193	19							500	323	18		282	25	303	30				
450																				450											
400																				400	324	25		273	31	296	30				
350																				350	329	32		286	39	298	33				
300																				300	325	62	333	35	297	57	315	48			
250																				250	318	36	45,000	305	78	322	74				
200																				200	308	20	327	21	304	21	331	20			
170																				170	312	10				021	05				
Cloud:- 8/1000 - 820 mb				Cloud:- 3/1000 - 1870 mb				Cloud:- 7/1000 - 1890 mb				Cloud:- 1/1000 - 1890 mb																			
1/8 AS about 8600 mb				8/1 AS 700 - 8670 mb				8/8 SC 930 - 910 mb				2/1 AC about 18500 mb																			
Isothermal 1008-950 mb 60				5/1 AS 480 - 18 T.N.R				Surface wind SW 7-10 KTS				Surface wind NW 2-6 KTS																			
				Isothermal 950-900 mb 59°																											

5 - JUL 1950

OFFICE

NEPHOSCOPE OBSERVATIONS												
Place	Sh	Eval										Place
Time Type	15L	CS										Time Type
Dir. Vel.	310	80										Dir. Vel.

## NEPHOSCOPE OBSERVATIONS

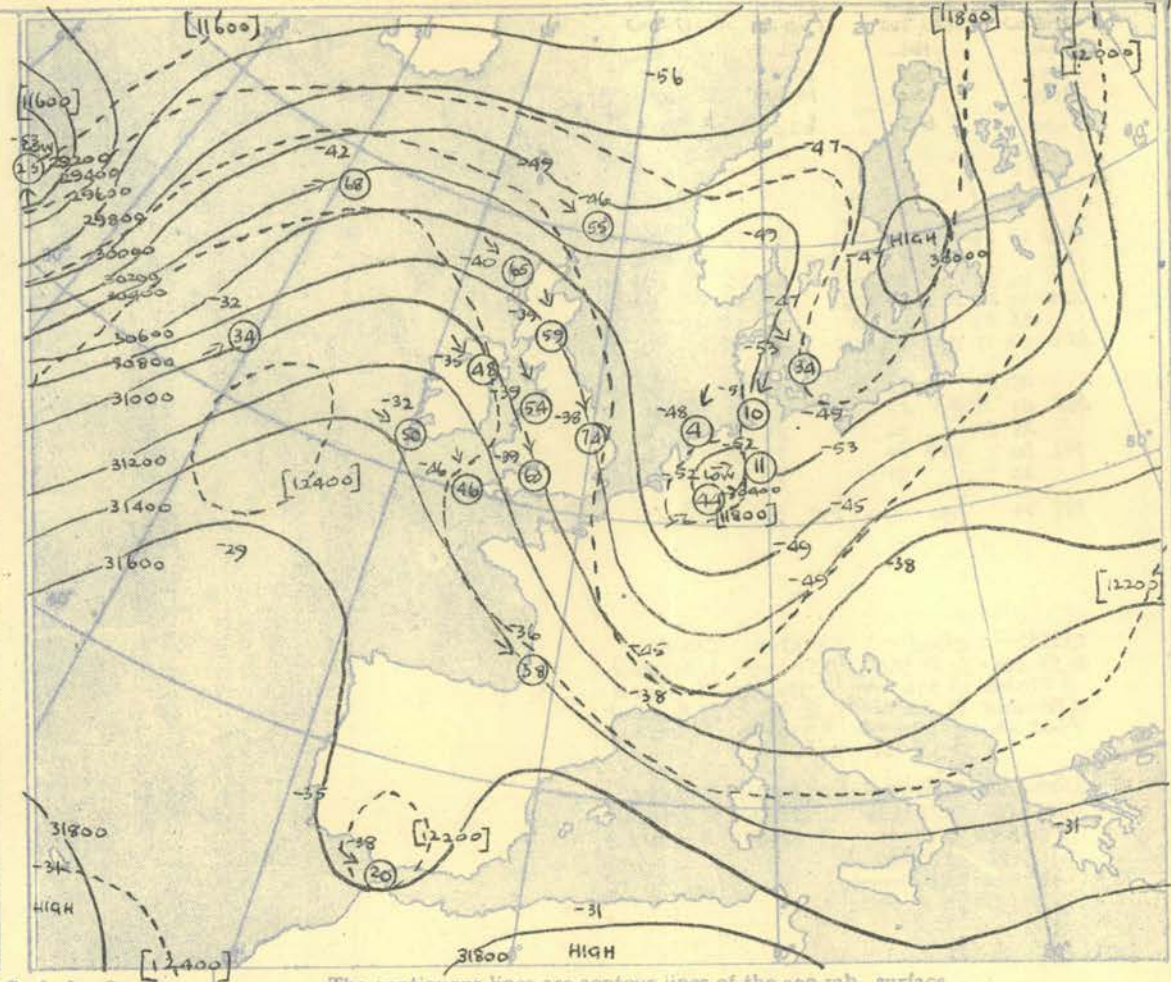
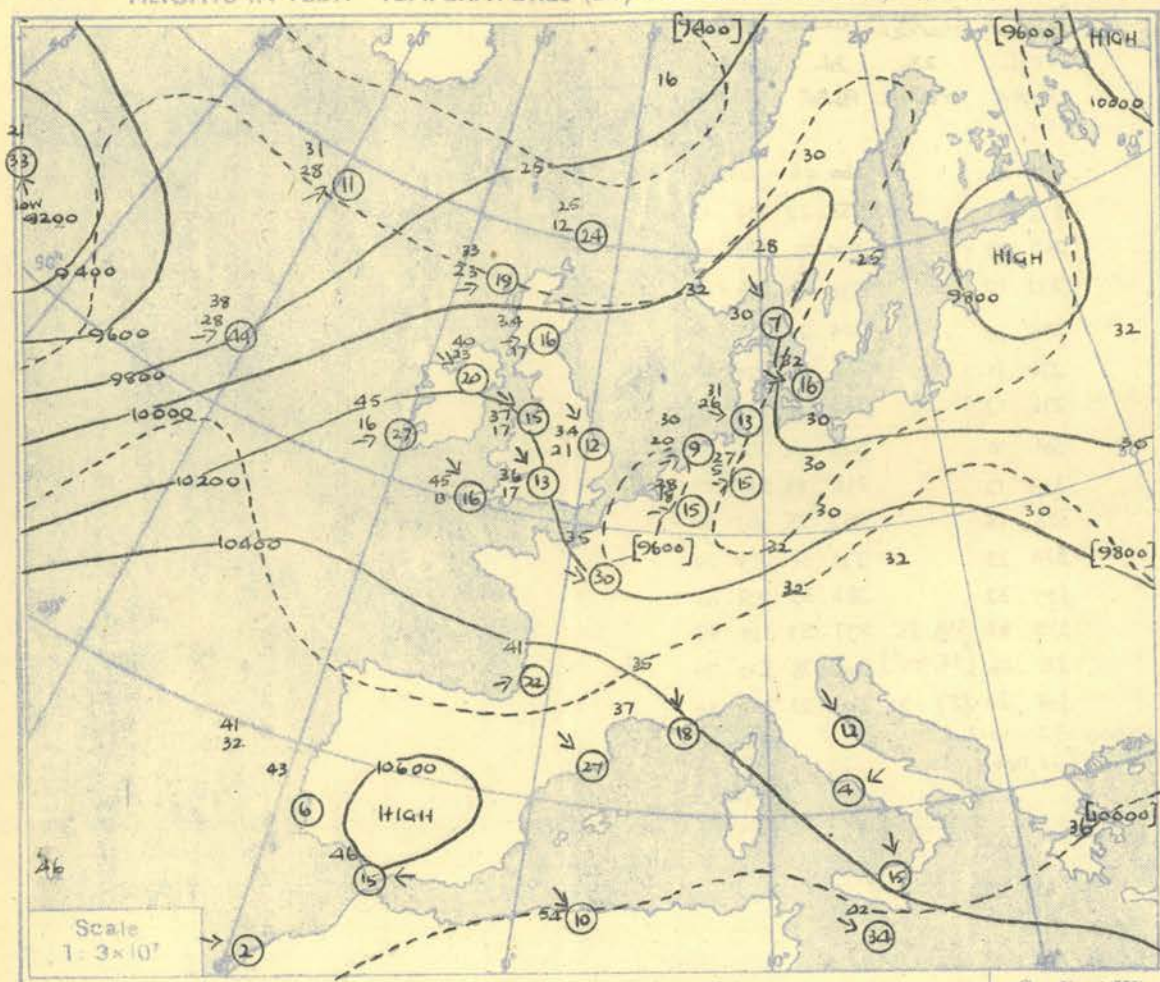
Place	Time	Type	Dir.	Vel.	Place	Time	Type	Dir.	Vel.
Sh Eval	15h	Cs	310	80					

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

Ship		Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Weather Watcher				Weather Watcher				Weather Watcher				Weather Watcher				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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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.

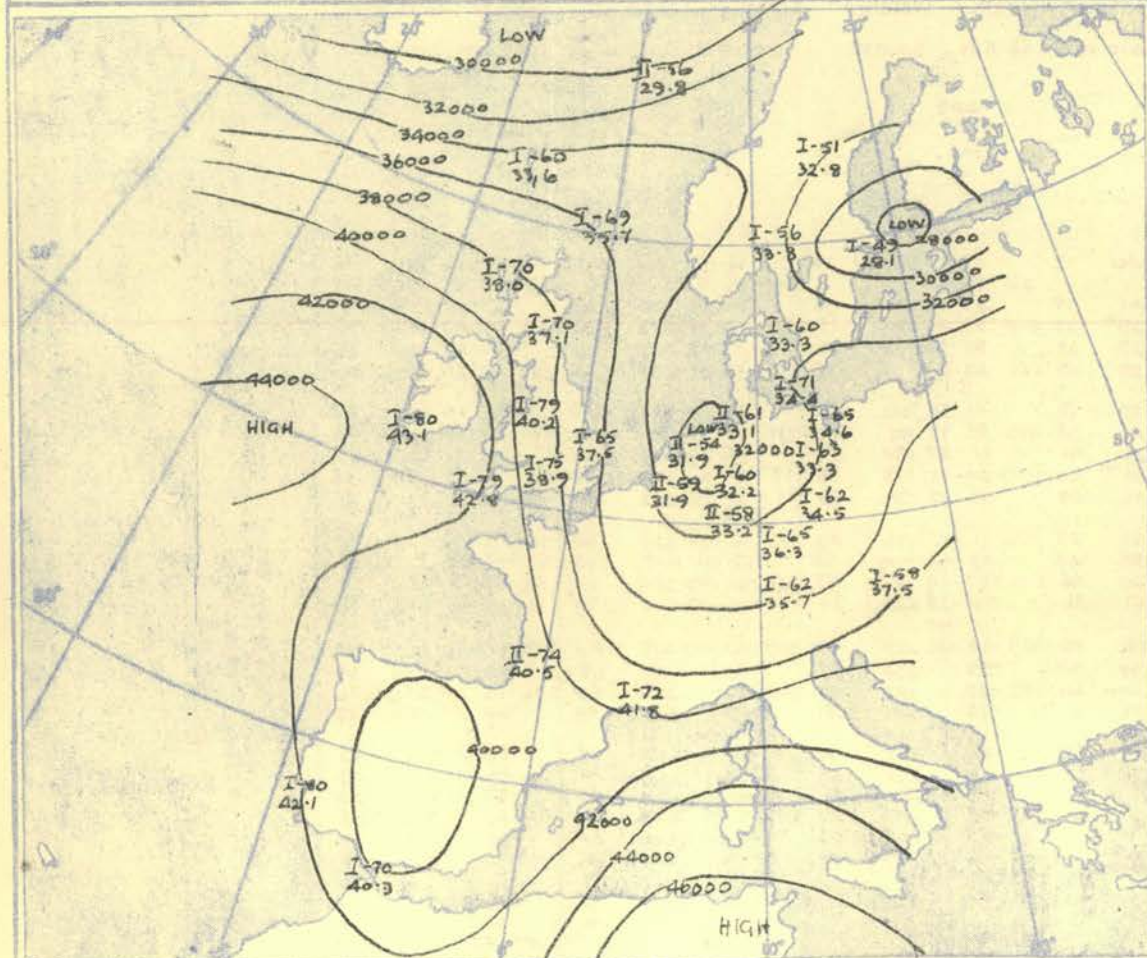


The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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.

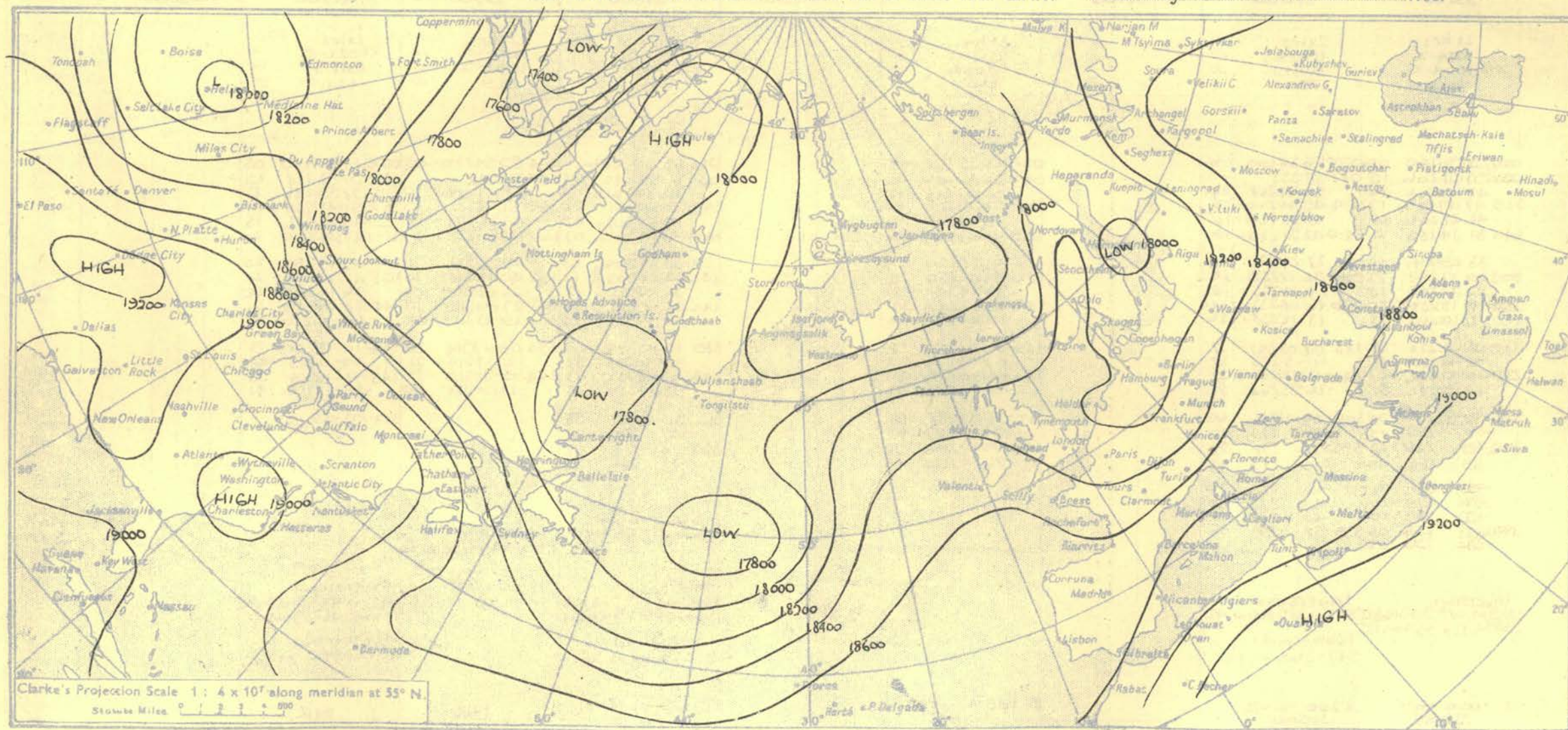
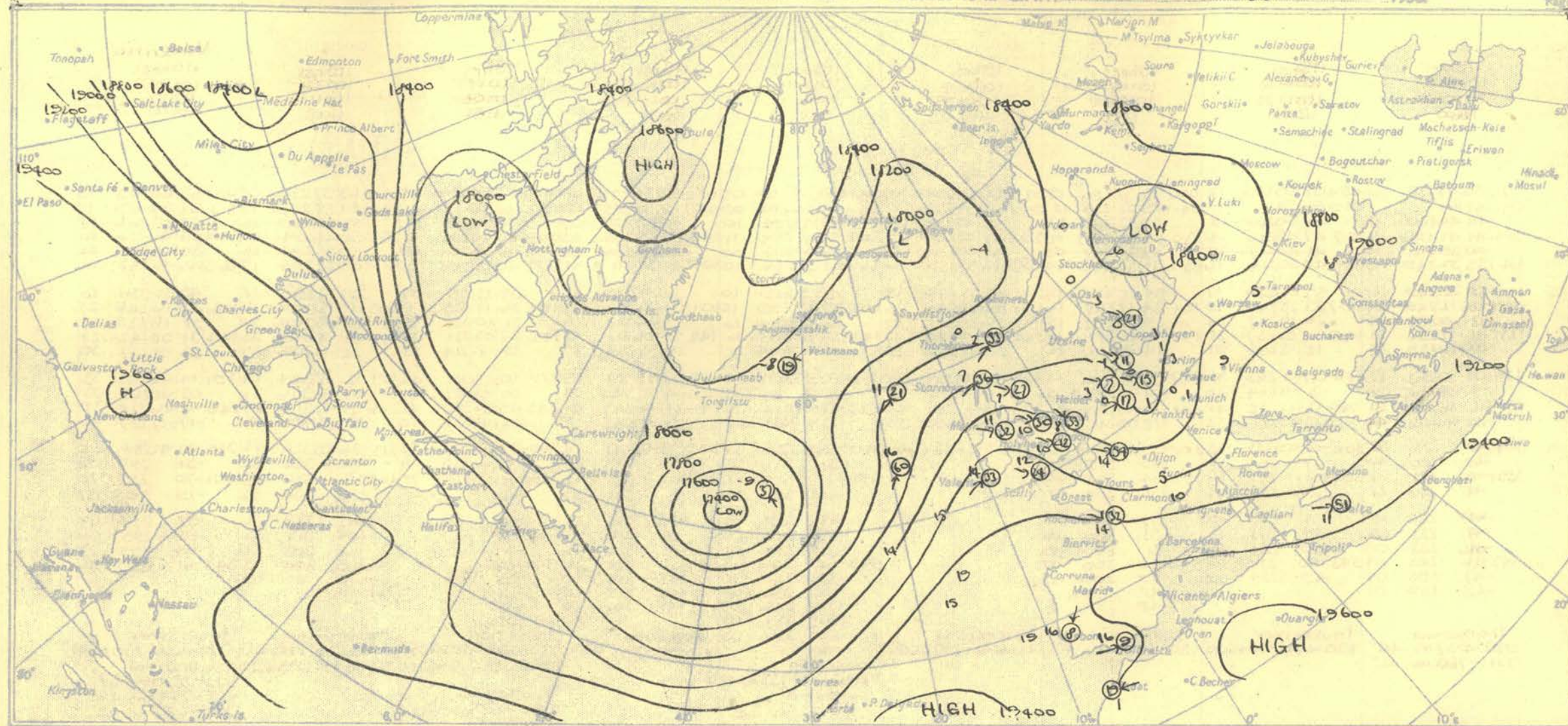
NOTES ON THE AEROLOGICAL SITUATION.

The thermal structure connected with the surface frontal system over the British Isles in the morning shows marked instability in the warm sector, a subsided warmer air behind the so-called cold front. The pattern over the central and eastern Atlantic suggests the possibility of the formation of a depression in a position west of Scotland and south of Iceland. This depression would be likely to follow an easterly track.

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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)	15hrs 1015.5 1005.5 760	G.M.T. mb mb mb	15hrs 1014.3 1012.3 698	G.M.T. mb mb mb	15hrs 1014.6 1013.8 680	G.M.T. mb mb mb	15hrs 1016.4 1008.0 617	G.M.T. mb mb mb	15hrs 1016.1 1016.1 652	G.M.T. mb mb mb	15hrs 1018.7 1012.4 623	G.M.T. mb mb mb	15hrs 1018.7 1003.0 650	G.M.T. mb mb mb	15hrs 1022 1011.5 608	G.M.T. mb mb mb	15hrs 1019.7 1017 610	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	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 50 48 135	08 05.4 58 50 180	12 00.2 75 57 250	13 02.3 64 55 250	10 06.6 67 57 300	08 01.2 69 54 275	06 4.4 67 54 290	15 02.9 63 57 270	08 0.3 65 60 183	Surf									
1000	09.2 48 46	03.9 56 54	04.1 69 52 230	18 04.8 63 54 236	12 05.1 64 55 298	09 04.7 67 52 285	09 5.2 66 53	06.1 61 55 275	15 5.3 62 57 185	1000									
950	44 44 170	11 51 50 208	13 53 43 240	17 55 47 238	13 55 48 232	10 59 47 295	09 59 50 291	14 53 47 285	20 57 46 206	950									
900	32.6 42 42 156	11 32.7 47 45 215	14 33.3 52 39 250	12 33.8 48 43 240	13 34.2 51 43 284	11 34.0 51 43 304	09 34.4 50 48 292	11 35.0 50 44 294	24 34.4 54 46 220	900									
850	40 39 241	16 41 40 247	15 47 32 257	09 43 40 242	14 46 37 273	09 46 39 306	09 46 38 304	09 50 33 294	20 50 45 221	850									
800	64.1 35 32 249	17 64.3 40 30 244	16 65.2 41 30 240	10 65.5 44 37 250	20 66.1 42 31 266	10 65.9 44 30 311	11 66.2 40 22 308	09 67.1 49 27 295	17 66.3 46 43 243	800									
750	31 22 249	21 37 26 239	17 34 22 237	14 43 33 274	19 41 25 289	10 38 27 322	12 34 23 317	12 47 17 299	18 43 31 236	750									
700	98.5 25 12 249	24 99.7 33 23 248	19 101 34 17 247	16 101 40 23 281	20 102 37 17 299	16 101 34 21 330	12 102 36 17 325	13 103 45 13 300	16 103 45 16 246	700									
650	21 -01 255	24 26 16 247	24 29 05 257	18 30 -9 281	22 32 09 294	20 29 10 323	15 32 10 323	23 38 05 304	28 38 16 239	650									
600	138 16 -22 256	23 140 20 03 257	30 141 24 00 287	18 142 30 -4 280	27 142 26 00 308	20 142 24 06 328	19 142 27 03 321	27 144 31 -1 303	33 144 31 08 242	600									
550	10 -29 259	28 15 -3 260	33 14 -9 292	22 21 -7 282	28 17 -11 304	22 16 -7 334	27 16 -8 324	33 22 -6 306	27 23 -9 252	550									
500	184 02 -30 261	33 186 07 -1 263	36 187 07 -21 292	27 189 11 -14 280	32 189 10 -27 318	30 188 08 -19 337	33 189 10 -19 332	42 191 12 -8 304	24 191 14 -12 243	500									
450	-3 -34 263	34 -3 -11 264	40 -01 -17 305	33 01 -17 283	33 00 -21 324	38 -4 -32 340	34 00 -26 327	43 01 -26 306	21 03 -11 269	450									
400	238 -16 -36 273	31 240 -13 -21 275	49 241 -12 -27 310	42 244 -9 -21 291	40 243 -13 -28 324	36 241 -15 -43 442	45 243 -15 -36 330	43 246 -9 -27 314	27 246 -4 -16 278	400									
350	-30 -46 283	44 -25 -33 281	55 -12 -39 311	43 -21 -28 300	39 -13 -40 322	48 -24 -49 345	69 -24 -44 318	50 -22 -44 322	33 -17 -27 287	350									
300	304 46 288	55 306 40 49 286	63 308 39 59 320	59 312 33 44 302	48 310 35 53 326	54 309 38 60 342	74 310 37 58 332	63 313 36 55 326	46 314 32 42 288	300									
250	-63 290 49	-57 252 83	-55 315 66	-53 304 16	-51 312 24	-53 316 23	-59 316 23	-64 315 21	-69 295 26	250									
200	301 -52 281	31 304 68 281	64 308 64 305	50 304 28	39 6 -77 329	72 397 62 337	62 396 41 328	78 400 73 336	75 402 70 297	200									
170	-48 275	21 -56 283	42 -56 304	28 -54	-64 317 44	-51 330 37	-62 330 37	-70 330 52	-79 303 58	170									
150	-48 266 13	-54 283 29	-54 304 24	-53 304 16	-53 315 24	-53 316 23	-59 316 23	-64 315 21	-69 295 26	150									
130	-47 237 09	-54 278 23	-53 300 09	-51 300 09	-58 313 24	-51 326 16	-57 326 16	-61 303 21	-64 295 23	130									
110	543 46 261	04 543 50 270	08 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	110									
100	-47 192 04	-49 291 05	-49 300 02	-48 300 02	-51 332 08	-48 313 08	-48 309 06	-48 309 06	-48 309 06	100									
90	-45 150 01				-51 337 03	-50 336 03	-50 336 03	-50 336 03	-50 336 03	90									
80					-45					80									
70										70									
60										60									
Isothermal 957-937 ms 44° 771-760 ms 32°										Inversion 830 ms 38°-800 ms 40° Isothermal 587-565 ms 14°									
Tropopause 1235 ms -69° 35700'										Tropopause 1213 ms -70° 38000'									
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION									
Time M.S.L. Surf (Freezing)	21 hrs 1014.2 1004.2 740	G.M.T. mb mb mb	21 hrs 1013.6 1011.5 700	G.M.T. mb mb mb	21 hrs 1017.0 1008.6 620	G.M.T. mb mb mb	21 hrs 1018.5 1014.0 640	G.M.T. mb mb mb	21 hrs 1021.0 1003.2 629	G.M.T. mb mb mb	21 hrs 1021.8 1012.3 621	G.M.T. mb mb mb	21 hrs 1021.8 1012.3 621	G.M.T. mb mb mb	21 hrs 1021.8 1012.3 621	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	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 51 51 140	09 05.4 56 54 190	06 02.3 63 55 190	08 04.7 63 55 206	12 05.1 64 55 298	09 04.7 67 52 285	09 5.2 66 53	06.1 61 55 275	15 5.3 62 57 185	Surf									
1000	08.8 51 51 206	15 03.7 55 53	12 04.7 63 55 206	17 55 47 238	13 55 48 232	10 59 47 295	09 59 50 291	14 53 47 285	20 57 46 206	1000									
950	49 49 216	16 50 49 218	17 55 47 238	13 55 48 232	10 59 47 295	09 59 50 291	14 53 47 285	20 57 46 206	24 34.4 54 46 220	950									
900	32.5 47 47 227	17 32.4 45 42 220	14 33.3 52 39 250	12 33.8 48 43 240	13 34.2 51 43 284	11 34.0 51 43 304	09 34.4 50 48 292	11 35.0 50 44 294	24 34.4 54 46 220	900									
850	42 42 246	18 40 33 226	15 47 32 257	09 43 40 242	14 46 37 273	09 46 39 306	09 46 38 304	09 50 33 294	20 50 45 221	850									
800	64.1 37 34 250	21 64.0 42 31 230	19 65.3 46 42 264	20 66.1 42 31 266	10 65.9 44 30 311	11 66.2 40 22 308	09 67.1 49 27 295	17 66.3 46 43 243	20 50 45 221	800									
750	33 29 247	24 37 29 231	24 43 28 260	24 43 28 260	19 41 25 289	10 38 27 322	12 34 23 317	12 47 17 299	18 43 31 236	750									
700	99.3 29 17 247	23 99.5 32 17 235	19 101 34 17 247	16 101 40 23 281	20 102 37 17 299	16 101 34 21 330	12 102 36 17 325	13 103 45 13 300	16 103 45 16 246	700									
650	23 21 249	25 24 24 235	25 24 24 235	25 24 24 235	22 32 09 294	20 29 10 323	15 32 10 323	23 38 05 304	28 38 16 239	650									
600	139 17 15 254	30 139 16 08 233	27 142 26 00 308	27 142 26 00 308	20 142 24 06 328	19 142 27 03 321	27 144 31 -1 303	33 144 31 08 242	33 144 31 08 242	600									
550	12 10 267	33 13 12 238	30 141 24 00 287	30 141 24 00 287	28 17 -11 304	22 16 -7 334	27 16 -8 324	33 22 -6 306	27 23 -9 252	550									
500	185 07 02 274	37 185 07 03 247	28 189 11 04 267	28 189 11 04 267	32 189 10 02 274	30 188 08 01 273	33 189 10 01 273	42 191 12 00 273	24 191 14 00 273	500									
450	-2 -6 270	41 -1 -5 255	38 07 03 274	38 07 03 274	33 00 -21 324	38 -4 -32 340	34 00 -26 327	43 01 -26 306	21 03 -11 269	450									
400	239 -14 -21 272	47 240 -13 -19 256	44 244 -9 -21 291	44 244 -9 -21 291	40 243 -13 -28 324	36 241 -15 -43 442	45 243 -15 -36 330	43 246 -9 -27 314	27 246 -4 -16 278	400									
350	-24 -39 282	58 -26 -33 266	52 -16 -22 287	52 -16 -22 287	48 -24 -49 345	69 -24 -44 318	50 -22 -44 322	33 -17 -27 287	33 -17 -27 287	350									
300	306 39 53 290	72 306 40 46 266	66 312 31 38 282	66 312 31 38 282	54 309 38 60 342	74 310 37 58 332	63 313 36 55 326	46 314 32 42 288	46 314 32 42 288	300									
250	-56 293 85	-52 270 80	-50 287 63	-50 287 63	-51 312 24	-53 316 23	-59 316 23	-64 315 21	-69 295 26	250									
200	393 69 286	62 393 72 278	400 70 290	400 70 290	39 6 -77 329	72 397 62 337	62 396 41 328	78 400 73 336	75 402 70 297	200									
170	-59 284 44	-70 275 42	-76 294 66	-76 294 66	-64 317 44	-51 330 37	-62 330 37	-70 330 52	-79 303 58	170									
150	-55 281 32	-63 266 30			-53 315 24	-53 316 23	-59 316 23	-64 315 21	-69 295 26	150									
130	-54 279 27	-62 273 25			-58 313 24	-51 326 16	-57 326 16	-61 303 21	-64 295 23	130									
110	-53 267 10	-60 282 13			-51 326 16	-51 326 16	-57 326 16	-61 303 21	-64 295 23	110									
100	542 63 264	06 539 58 293	06 539 58 293	06 539 58 293	07 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	07 543 50 300	100									
90	-54 236 06				-51 332 08	-48 313 08	-48 309 06	-48 309 06	-48 309 06	90									
80					-51 337 03	-50 336 03	-50 336 03	-50 336 03	-50 336 03	80									
70					-45					70									
60										60									
Inversion 953 ms 48°-943 ms 50° 568 ms 12°-554 ms 13°										Inversion 835 ms 38°-800 ms 42° Isothermal 587-565 ms 14°									
Tropopause 1210 ms -69° 38300'										Tropopause 1200 ms -72° 39300'									
Tropopause 1210 ms -69° 38300'										Tropopause 1200 ms -72° 39300'									

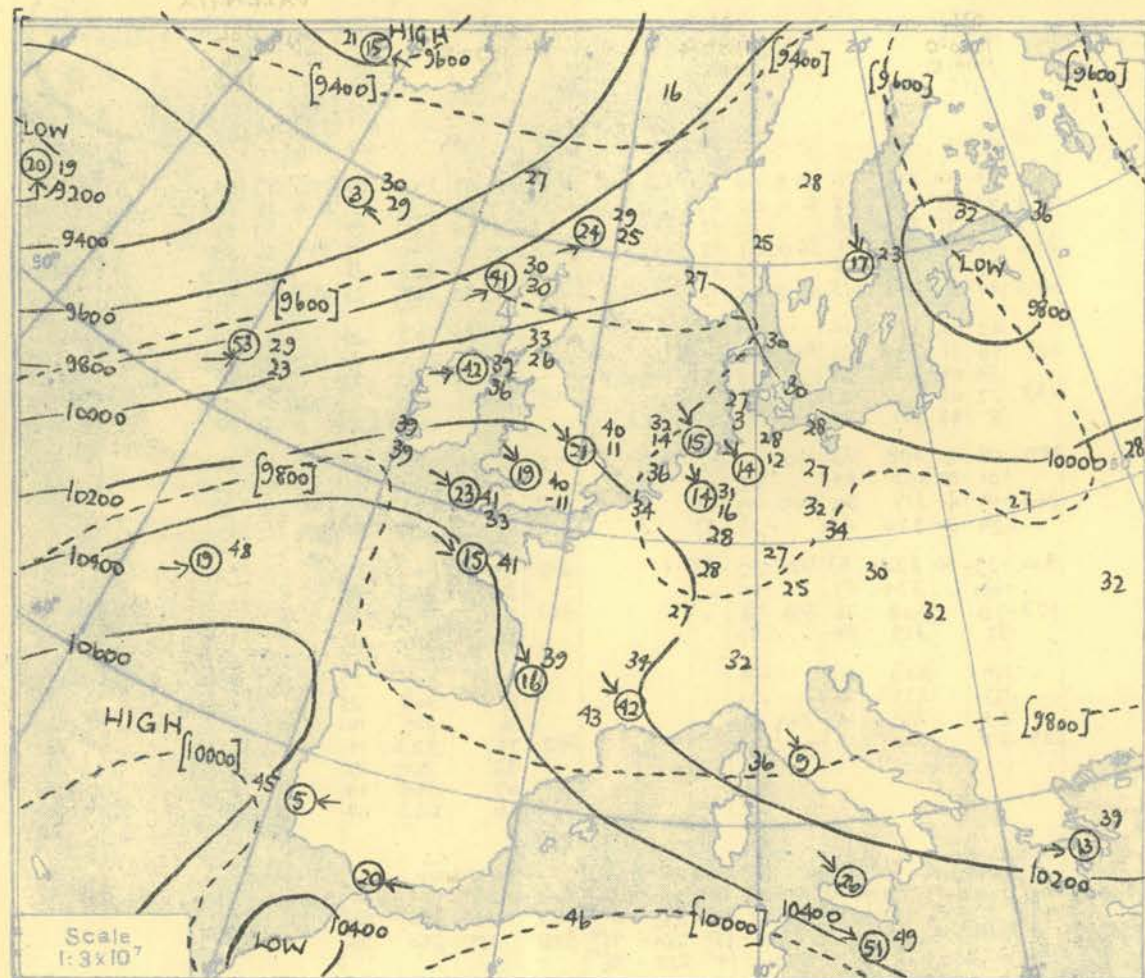


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVEPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure	Time M.S.L.	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.	Pressure							
		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	Freezing	Surf	Freezing											
Surf	1000	2.7	3.3	51	51	180	03	0.5	54	54	200	15	0.2	57	54	4.1	56	53	2.3	62	58	200	15	0.6	57	52	6.4	60	55	246	08	6.0	52	62	6.2	59	59	225	08	00.3	59	59
950	900	32.0	46	45	211	13	31.3	46	46	207	32	33.0	50	46	33.5	49	46	209	30	34.3	53	49	34.6	51	46	244	11	35.0	51	42	35.3	54	50	240	17	33.6	56	55				
850	800	63.6	38	36	202	23	63.1	38	36	197	32	64.8	44	40	65.6	47	44	233	36	66.3	46	35	66.4	40	34	253	15	67.2	48	12	67.6	51	43	268	23	65.9	47	46				
750	700	98.9	34	31	210	22	98.3	34	34	213	41	100	33	26	101	39	36	256	42	102	41	17	102	40	11	297	21	103	40	11	103	41	33	268	23	102	39	39				
650	600	139	23	16	237	27	138	23	23	248	50	140	25	22	142	29	25	255	46	143	23	15	143	27	01	305	23	144	28	06	145	30	23	276	22	143	30	12				
550	500	15	10	233	29	18	18	251	46	21	18	189	14	03	259	47	190	14	09	244	06	17	244	08	13	298	33	190	11	08	247	05	07	289	31	03	20					
450	400	239	03	03	252	39	239	02	03	241	40	243	02	05	244	06	17	265	54	245	06	11	244	09	16	317	39	245	09	14	247	05	08	289	39	245	09	28				
350	300	24	31	258	51	22	45	249	53	14	17	312	30	39	260	53	312	34	44	310	39	46	310	39	46	320	53	312	39	48	315	35	55	300	37	388	12	30				
250	200	39	56	267	67	397	63	265	62	400	62	401	67	77	275	69	400	72	83	377	76	328	76	377	76	328	76	398	78	80	402	74	304	52	86	311	50					
150	130	641	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
110	100	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
90	80	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
70	60	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
Inversion		592 mb 50° - 950 mb 51°		580° - 130° - 550° - 15°		Inversion		900 mb 46° - 875 mb 48°		850 mb 46° - 838 mb 47°		Inversion		882 mb 47° - 844 mb 50°		978 mb 56° - 963 mb 58°		1016 mb 56° - 991 mb 62°		Inversion		1006 mb 50° - 990 mb 54°		967 mb 54° - 933 mb 56°		Inversion		950 mb 54° - 928 mb 55°		927 mb 56° - 910 mb 58°		Inversion		950 mb 54° - 928 mb 55°		927 mb 56° - 910 mb 58°						
Tropopause		I 190 mb -69°		40,400'		I 200 mb -69°		39,400'		I 173 mb -72°		43,000'		I 168 mb -79°		43,700'		I 177 mb -82°		42,200'		I 177 mb -84°		42,400'		I 157 mb -90°		45,200'		NR.		Tropopause										
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVEPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure	Time M.S.L.	09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		Time M.S.L.	Pressure							
		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	Freezing	Surf	Freezing											
Surf	1000	2.7	3.3	51	51	180	03	0.5	54	54	200	15	0.2	57	54	4.1	56	53	2.3	62	58	200	15	0.6	57	52	6.4	60	55	246	08	6.0	52	62	6.2	59	59	225	08	00.3	59	59
950	900	32.0	46	45	211	13	31.3	46	46	207	32	33.0	50	46	33.5	49	46	209	30	34.3	53	49	34.6	51	46	244	11	35.0	51	42	35.3	54	50	240	17	33.6	56	55				
850	800	63.6	38	36	202	23	63.1	38	36	197	32	64.8	44	40	65.6	47	44	233	36	66.3	46	35	66.4	40	34	253	15	67.2	48	12	67.6	51	43	268	23	65.9	47	46				
750	700	98.9	34	31	210	22	98.3	34	34	213	41	100	33	26	101	39	36	256	42	102	41	17	102	40	11	297	21	103	40	11	103	41	33	268	23	102	39	39				
650	600	139	23	16	237	27	138	23	23	248	50	140	25	22	142	29	25	255	46	143	23	15	143	27	01	305	23	144	28	06	145	30	23	276	22	143	30	12				
550	500	15	10	233	29	18	18	251	46	21	18	189	14	03	259	47	190	14	09	244	06	17	244	08	13	298	33	190	11	08	247	05	07	289	31	03	20					
450	400	239	03	03	252	39	239	02	03	241	40	243	02	05	244	06	17	265	54	245	06	11	244	09	16	317	39	245	09	14	247	05	08	289	39	245	09	28				
350	300	24	31	258	51	22	45	249	53	14	17	312	30	39	260	53	312	34	44	310	39	46	310	39	46	320	53	312	39	48	315	35	55	300	37	388	12	30				
250	200	39	56	267	67	397	63	265	62	400	62	401	67	77	275	69	400	72	83	377	76	328	76	377	76	328	76	398	78	80	402	74	304	52	86	311	50					
150	130	641	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
110	100	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
90	80	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
70	60	541	54	293	06	545	61	263	39	71	68	534	63	280	15	542	68	66	67	539	67	330	13	539	67	330	13	mb	71	542	73	323	14	76	309	16						
Inversion		592 mb 50° - 950 mb 51°		580° - 130° - 550° - 15°		Inversion		900 mb 46° - 875 mb 48°		850 mb 46° - 838 mb 47°		Inversion		882 mb 47° - 844 mb 50°		978 mb 56° - 963 mb 58°		1016 mb 56° - 991 mb 62°		Inversion		1006 mb 50° - 990 mb 54°		967 mb 54° - 933 mb 56°		Inversion		950 mb 54° - 928 mb 55°		927 mb 56° - 910 mb 58°		Inversion		950 mb 54° - 928 mb 55°		927 mb 56° - 910 mb 58°						
Tropopause		I 190 mb -69°		40,400'		I 200 mb -69°		39,400'		I 173 mb -72°		43,000'		I 168 mb -79°		43,700'		I 177 mb -82°		42,200'		I 177 mb -84°		42,400'		I 157 mb -90°		45,200'		NR.		Tropopause										



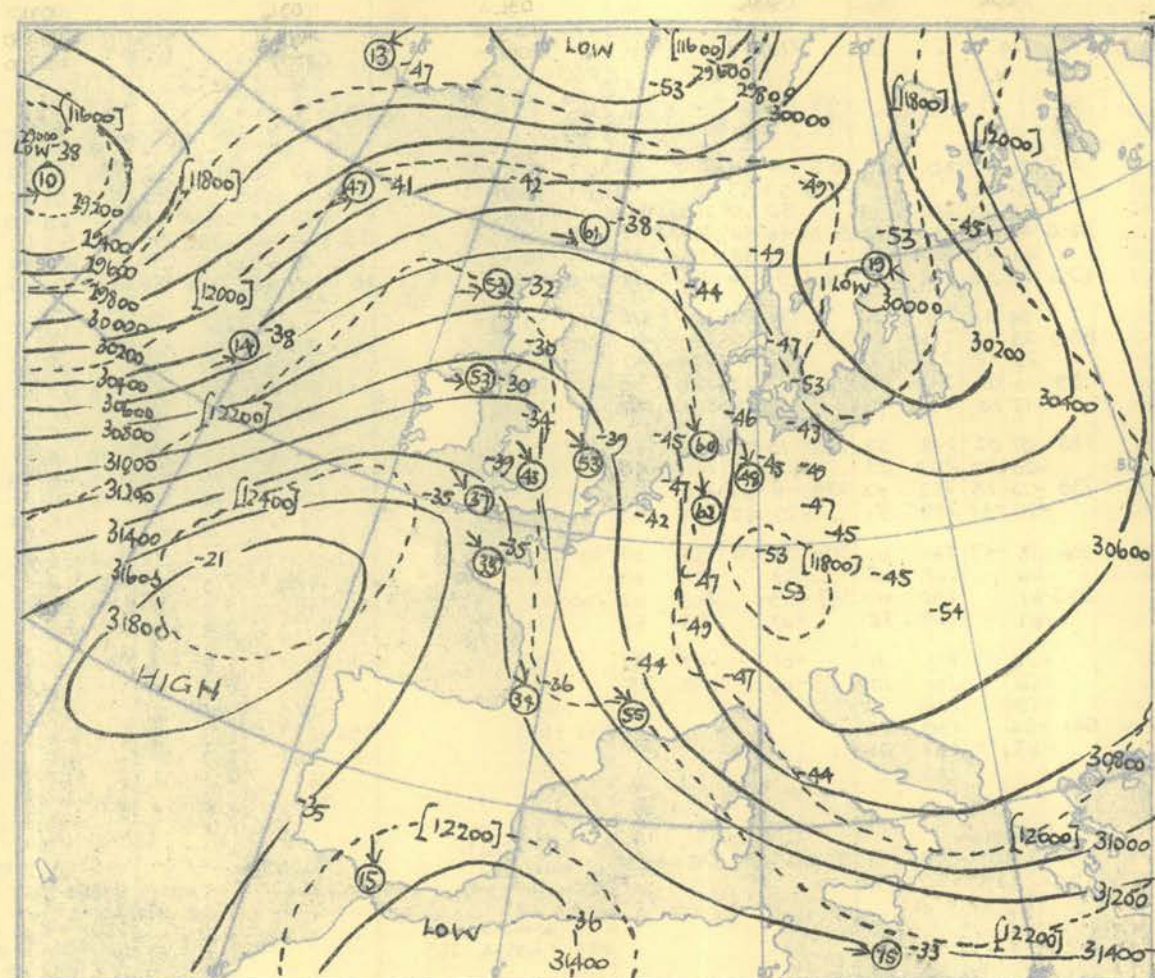
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



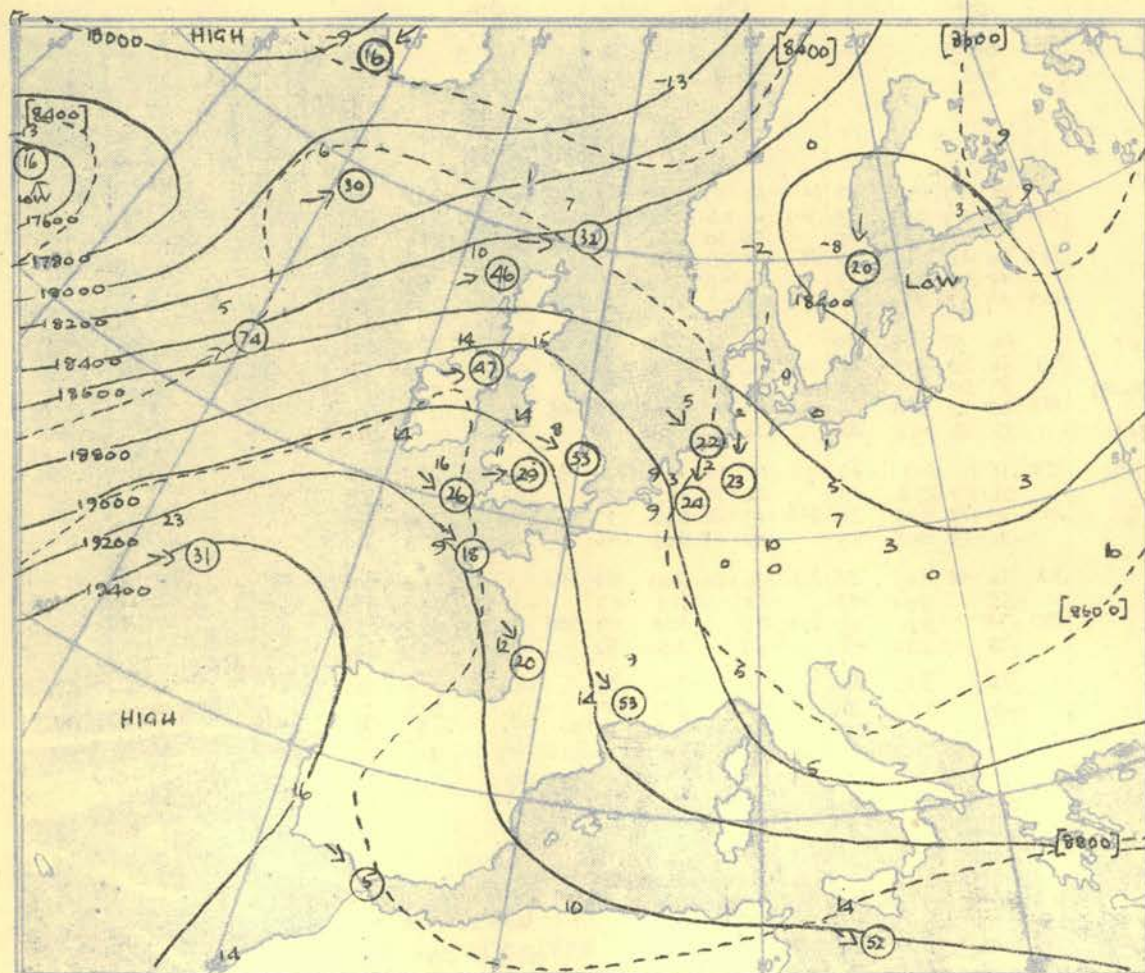
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

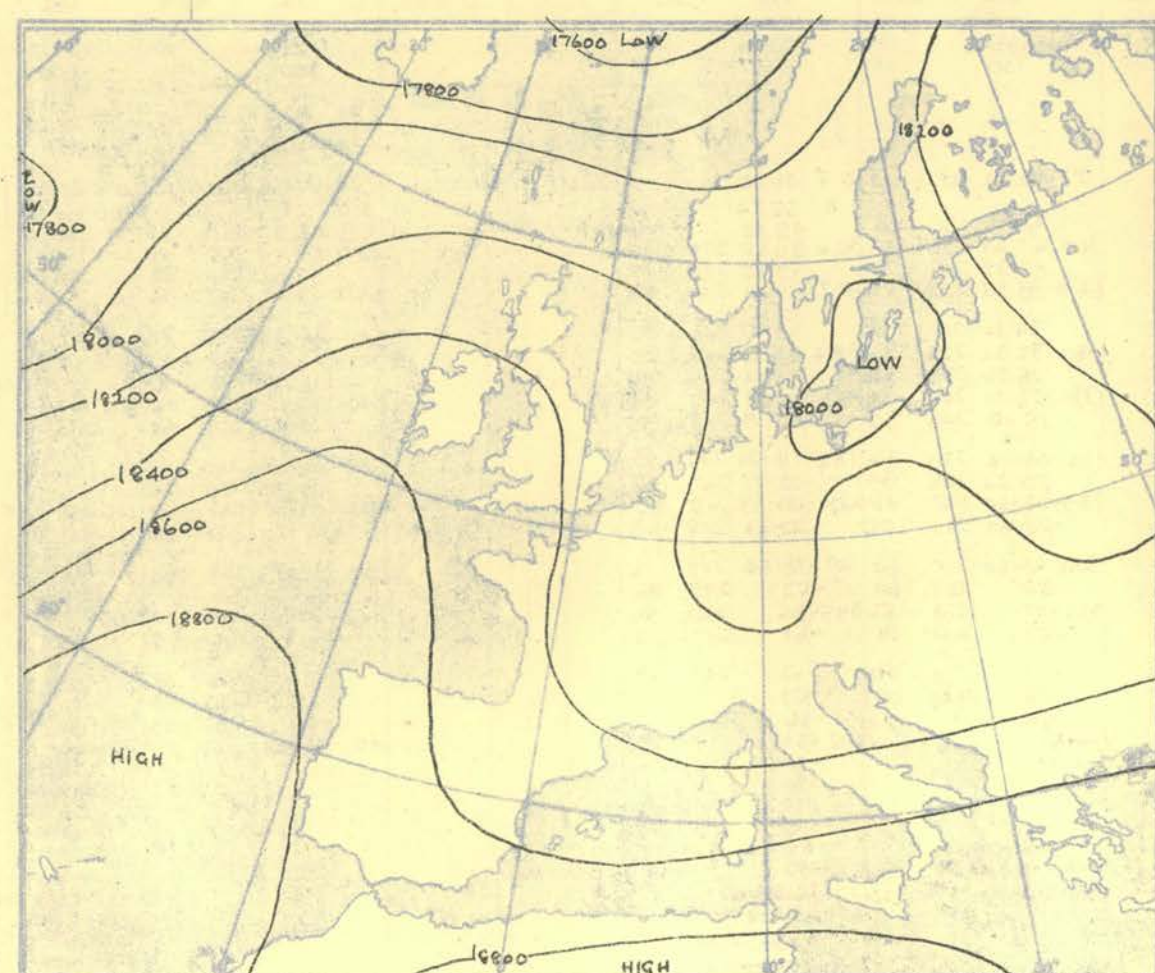
100 80 60 40 20 10 knots



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.

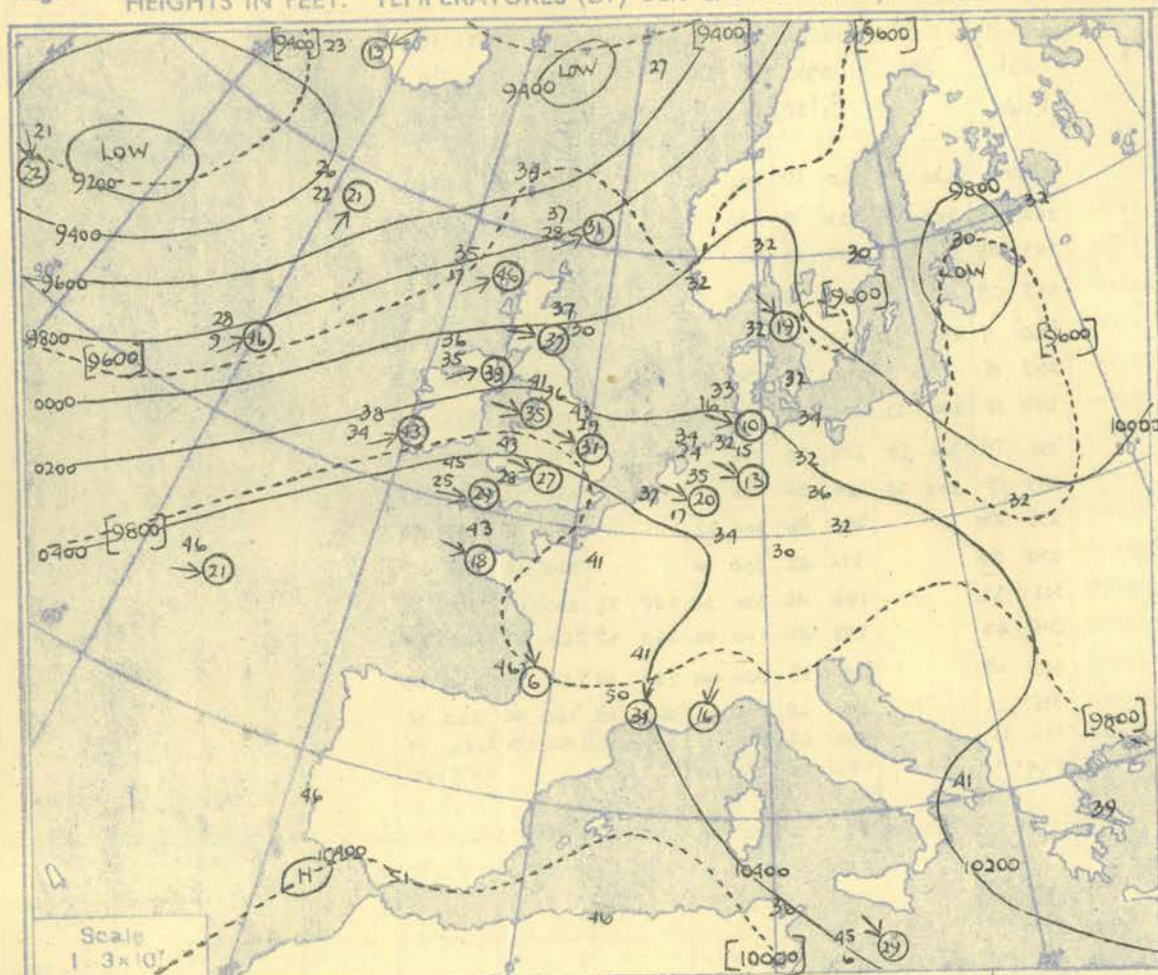


## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above 5000'

NEPHOSCOPE OBSERVATIONS[illegible][illegible]



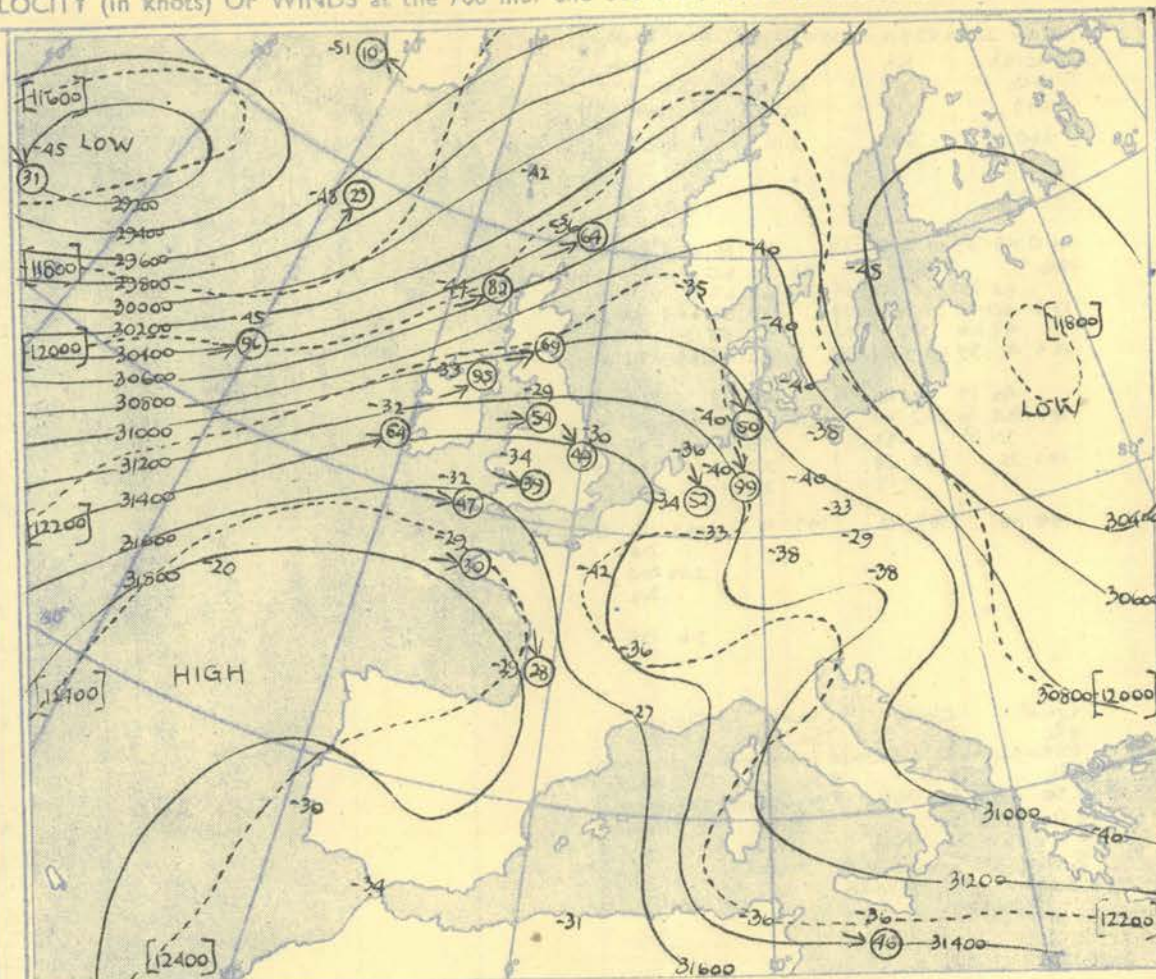
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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

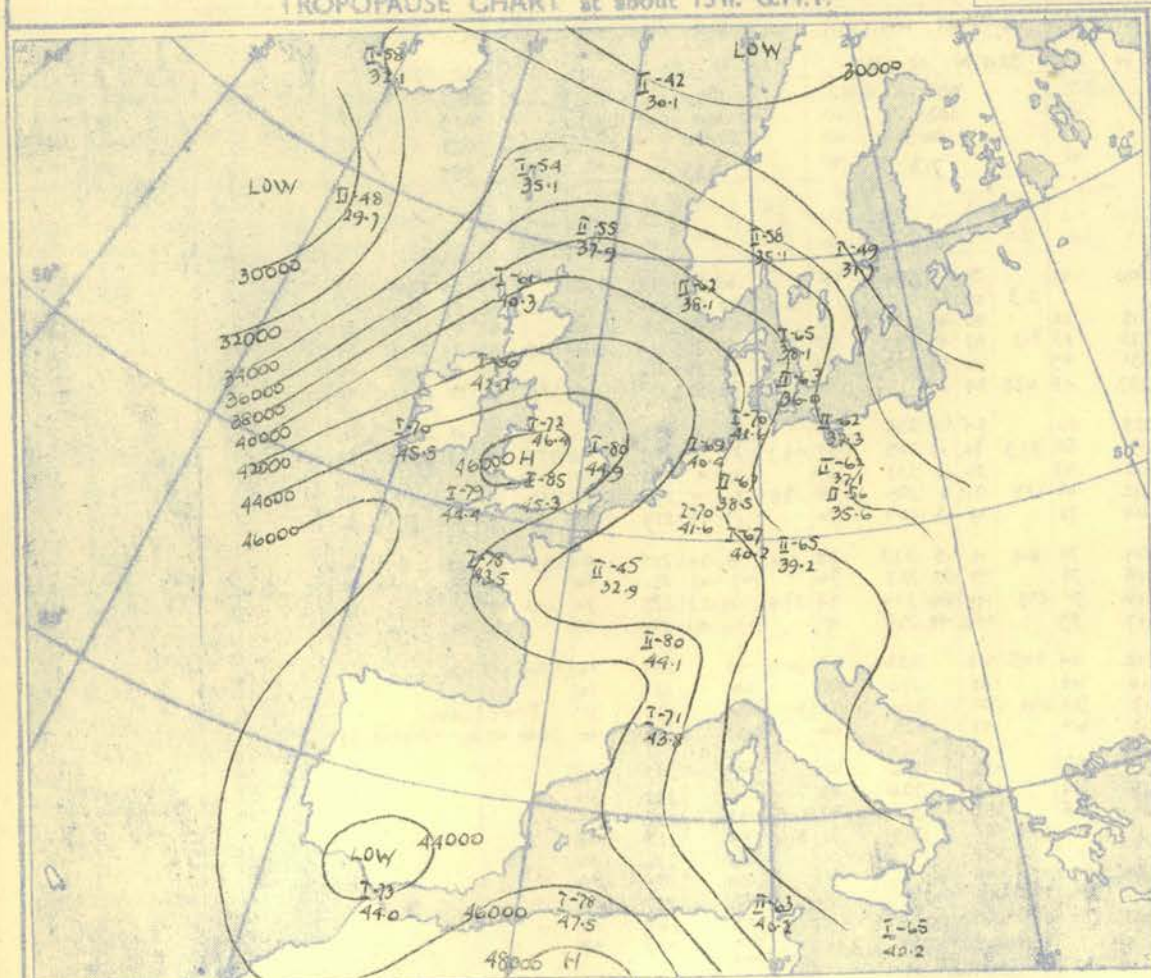
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat 52½° N.

100 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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

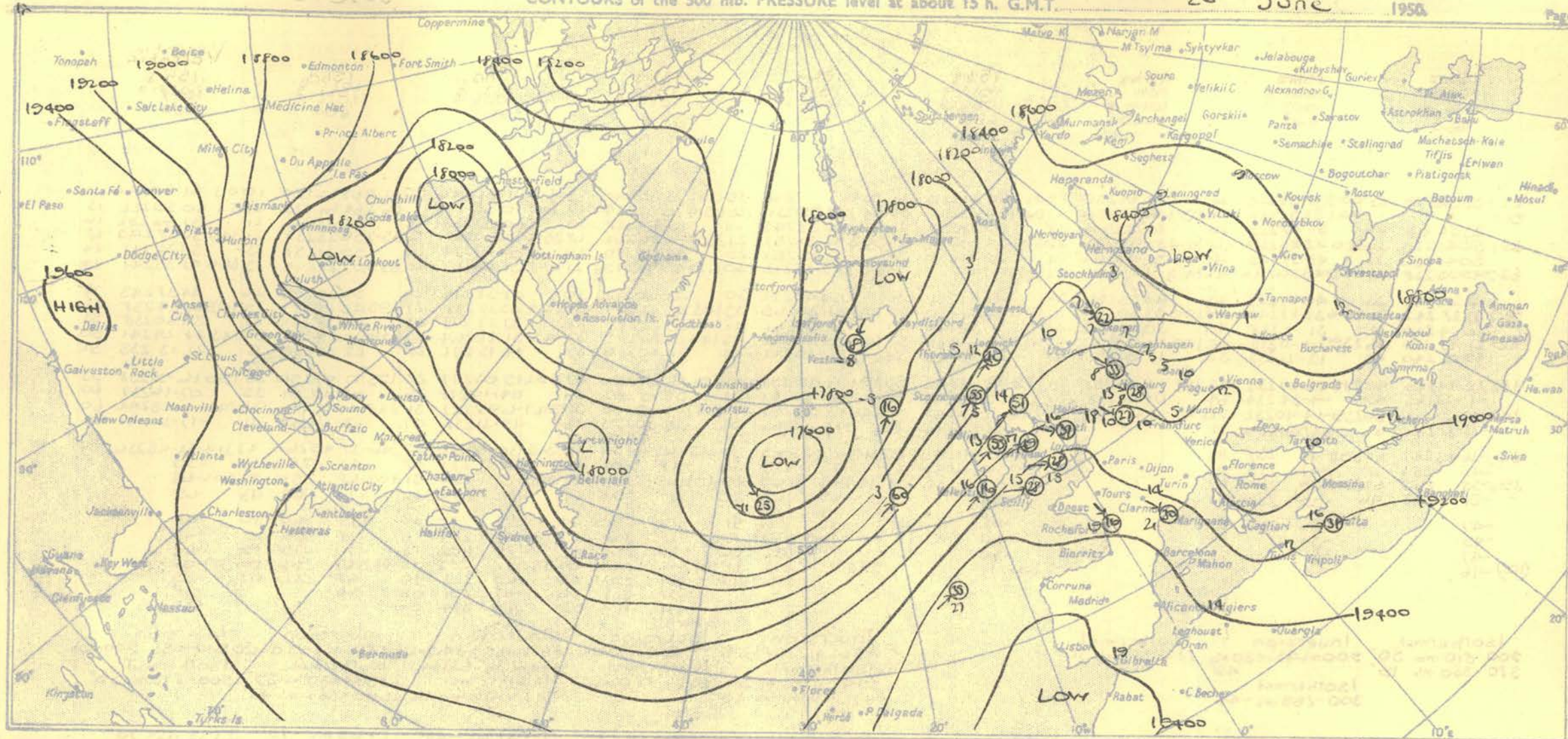
### NOTES ON THE AEROLOGICAL SITUATION.

Ascents in the warm sector air over the British Isles showed temperatures as high as any previously recorded in June, and was unusually moist. There was some subsidence during the day.

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

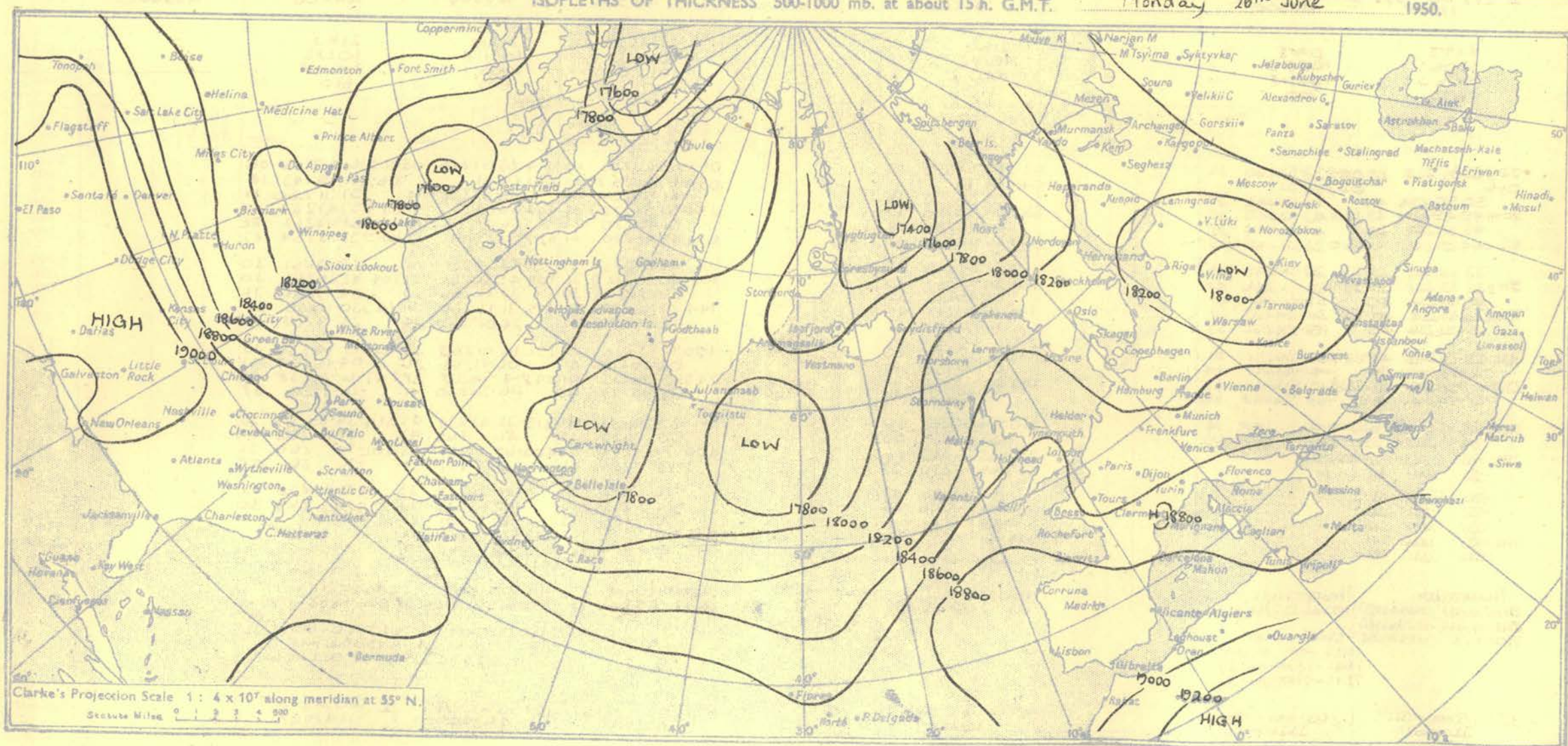




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Monday 26<sup>th</sup> June

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> 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				Valencia				STATION													
Pressure	Time M.S.L. Surf (Freezing)	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	15hrs		G.M.T.	mb	Time M.S.L. Surf (Freezing)																	
		1006.3	996.4	660		1007.9	1005.9	660		1011.2	1010.4	662		1015.4	1015.2	665		1017.2	1015.2	690		1019.2	1014.8	628		1021.4	1021.4	600		1022.5	1012.4	600			1018.9	1017	630														
		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	Temp.	Dew	Wind											
Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure																
mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb																
Surf	02.7	59	56	18	23	00	55	54	23	26	00	2	70	61	25	0	19	02	3	64	62	21	0	20	08	6	22	10	13	4	4	71	51	24	0	09	02	9	65	62	18	0	10	0	3	61	60	22	0	12	Surf
1000	01.7	55	52	21	26	02	57	52	21	29	03	1	68	60	25	0	21	04	2	64	63	22	0	30	04	8	67	59	23	1	7	6	0	70	58	0	06	3	64	61	22	0	21	5	1	60	59	22	0	13	1000
950		55	52	21	26		51	48	22	29		60	53	26	0		59	58	23	27		60	53	24	0		62	54	23	19		60	53	23	0		59	58	23	21		57	56	23	0	16	950				
900	30.7	50	48	22	30	01	45	43	23	35	02	4	52	43	26	0	29	33	5	54	53	24	0	27	35	05	8	46	26	18	36	4	50	26	13	35	7	55	53	23	21	34	3	56	24	0	18	900			
850		50	47	23	31		49	37	24	41		51	46	26	0	31		51	51	25	31		53	45	26	0		54	48	27	29		54	47	27	20		55	51	25	23		54	34	23	0	24	850			
800	62.9	45	33	23	31	62	34	30	24	42	42	64	5	51	37	26	0	32	65	7	47	47	25	4	34	66	7	49	45	27	20	67	3	57	33	26	20	6	53	57	24	0	25	800							
750		43	30	24	33		40	27	23	43		45	33	26	0	36		42	42	25	31		44	40	27	0	30		48	38	27	24		52	30	25	0	26		44	38	24	0	36	750						
700	98.7	31	28	24	31	98	6	33	17	40	46	100	37	30	26	0	37	102	3	36	33	25	0	39	103	41	34	26	0	35	103	43	27	27	0	105	45	25	0	27	29	103	38	23	0	4	700				
650		30	24	24	32		31	-1	23	48		30	23	26	0	38		31	30	24	47		38	23	26	0	42		38	23	28		40	18	25	0	28		34	30	23	0	5	650							
600	35	22	13	23	36	139	24	-11	23	48	140	24	08	51	43	142	26	23	24	53	144	33	08	58	45	144	28	28	37	143	31	22	26	27	146	32	14	24	30	143	28	24	24	0	50	600					
550		19	03	24	40		15	-22	23	52		18	02	55	47	26	15	24	2	54	26	-10	26	1	44	24	10	28	37	24	13	27	28	25	04	23	0	33	22	13	23	0	52	550							
500	185	12	-14	40	40	185	06	-27	23	55	187	14	-9	25	51	189	13	11	24	53	191	17	-19	25	49	191	16	01	29	37	192	15	03	27	28	193	17	07	25	0	33	190	16	-9	23	55	500				
450		-1	-25	42	49		-4	-34	23	64		04	-14	25	57		05	00	24	63		06	-19	26	51		05	-5	29	36		04	-10	27	26		03	-10	26	0	38		07	-16	23	60	450				
400	240	-10	-15	24	56	239	-14	-40	23	72	242	-8	-15	25	66	244	-5	-12	23	65	246	-3	-32	26	62	247	-4	-15	30	39	247	-6	-18	27	31	248	-01	-18	25	38	246	-4	-18	24	60	400					
350		-23	-31	24	62		-27	-31	23	72		-18	-25	24	63		-15	-42	26	52		-16	-30	23	43		-15	-31	27	47		-15	-32	25	41		-17	-36	24	64		-17	-36	24	64	350					
300	307	-36	-45	24	64	305	-44	-23	82		312	-33	-41	24	53	315	-29	-53	26	54	315	-30	-46	29	49	315	-34	-48	28	39	316	-32	-45	26	47	314	-32	-45	23	64		-31	-45	23	64	300					
250		-45	-54	25	78		-47	-53	91		-50	-50	24	87		-45	-53	90	50		-48	-50	41	54		-54	-54	48	47		-47	-54	56		-47	-54	56		-47	-54	56		-47	-54	56		-47	-54	56	250	
200	395	-55	-65	25	62	394	-53	-23	67		401	-62	-25	78		-69	-69	26	49	403	-69	-29	44	303	-70	-28	51	405	-68	-23	53	402	-65															200			
170		-51	-65	46	-59	236	53				-65					-72				50		-71		47		-50		-77		265	43															170					
150		-47			-56	234	48				-63					-76						-76		41		-76		-72		263	36																150				
130		-49			-54						-60													49		-73		-80		254	28																130				
110		-47			-51						-60													287		-66		-75		303	13																	110			
100	(10)	-46									-60													548		-61		-78		285	06																100				
90																								548		-61		-78		285	06																	90			
80																								548		-61		-78		285	06																	80			
70																								548		-61		-78		285	06																	70			
60																								548		-61		-78		285	06																	60			
		Isothermal 200-810 mb 50° 510-550 mb 15°				Inversion 200 mb 45°-450 mb 49° Isothermal 300-265 mb -44°				Isothermal 882-782 mb 51°								Inversion 715 mb 41.270° mb 42° Isothermal 510-892 mb 56° 672-663 mb 40°				Inversion 777 mb 47.2750-48° Isothermal 922-880 mb 58° 718-706 mb 44°				Inversion 878 mb 57-840 mb 58° Isothermal 644 mb 36-633 mb 37° Isothermal 718-706 mb 44°				Inversion 880 mb 55-850 mb 59° Isothermal 850-820 mb 59° 650-665 mb 43°				Inversion 891 mb 58-910 mb 58° Isothermal 900-875 mb 56°																	
Tropopause		II 217 mb -35° 37900'				I 192 mb -61° 40300'				NR				I 180 mb -66° 42200'				I 150 mb -72° 46400'				I 160 mb -80° 44900'				I 157 mb -85° 45300'				I 165 mb -75° 44400'				I 155 mb -70° 45500'				Tropopause													
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION																	
Pressure	Time M.S.L. Surf (Freezing)	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	21hrs		G.M.T.	mb	Time M.S.L. Surf (Freezing)																	
		1006.3	996.3	670		1009.5	1007.8	700		1015.5	1015.2	627		1019.5	1015.0	627		1021.8	1006.1	609		1023.3	1012.8	610																											
		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	Temp.	Dew	Wind											
Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure																
mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb	ft./100	°F.	°F.	Dir. Vel. knots	mb																
Surf	02.7	53	51	22	25	00	58	53	23	0	02	36	62	25	0	12				01	2	69	62	22	10	4	4	65	61	21	0	05	02	5	61	60	20	0	06									Surf			
1000	01.6					02.7	57	52			04	46	61							05	4	67	61	24	21	06	1	64	61			06	3	61	61	23	0	18									1000				
950		30	50	25	44		52	47	24	30		33	57	26	16					61	57	25	24		24		59	52	25	14		57	51	25	0	21										950					
900	30.4	49	49	25	37	31	5	45	43	35		33	57	26	19					54	54	27	24		24		56	54	25	15		53	47	25	0	20															

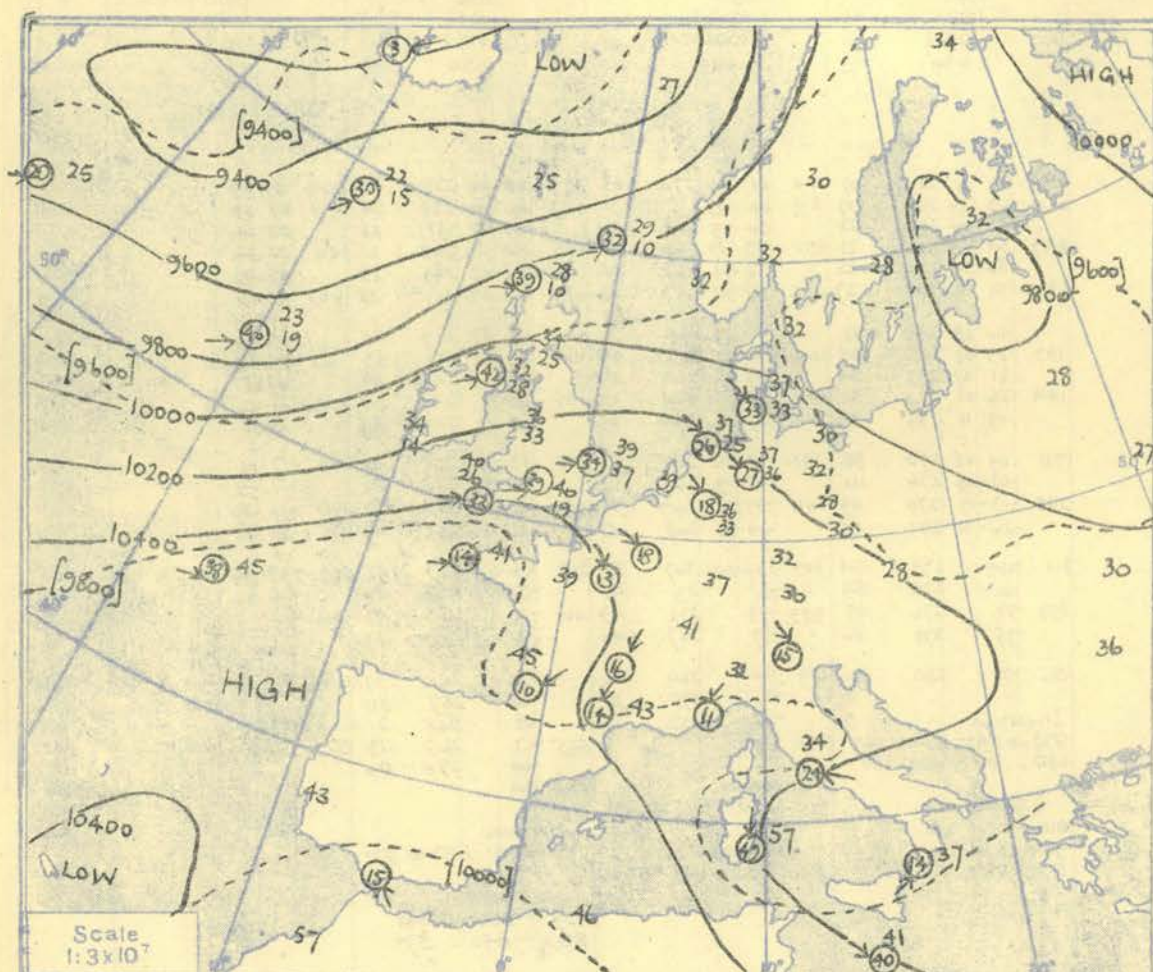


27<sup>th</sup> June 1950  
VALENTIA  
03h  
1018.1  
1016  
685.

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA					
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.							
		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						
Surf	02.7	52	49	247	28	00.5	53	51	230	05	00.2	54	52	02.3	59	56	230	10	00.6	62	58	01.2	64	61	220	07	4.4	61	60	270	05	02.9	60	60	225	05	00.3	59	59
1000	02.2	47	44	255	39	03.1	54	50	237	04	04.0	55	52	04.7	58	55	236	15	05.0	61	56	05.4	63	59	251	19	5.9	60	59	270	06	06.3	60	60	228	24	4.9	58	58
950	30.8	43	41	255	35	31.8	44	38	242	30	32.9	49	38	33.7	53	44	239	15	34.3	56	51	34.7	54	54	271	22	35.1	57	49	268	22	35.5	54	51	243	21	34.0	53	52
900	40	31	258	35	41	33	247	33	46	38	42	39	239	32	42	39	239	32	46	47	44	67.1	51	41	263	27	67.5	52	44	263	25	67.9	53	35	251	25	66.1	48	45
850	62.3	37	19	257	34	63.3	37	23	247	33	64.7	42	39	65.6	42	39	239	32	66.6	47	44	67.1	51	41	263	27	67.5	52	44	263	25	67.9	53	35	251	25	66.1	48	45
800	35	18	249	30	33	18	247	36	38	34	38	34	246	40	38	33	239	40	41	35	46	23	263	32	46	29	264	30	47	37	247	28	39	26	750	39	26		
750	29	10	246	32	28	10	246	39	100	29	14	101	32	28	246	42	102	36	33	34	104	40	19	263	29	104	40	19	263	29	104	40	26	247	33	102	34	14	
700	25	03	246	32	23	01	238	43	29	14	141	22	00	243	48	143	25	21	19	11	144	26	21	278	34	144	27	09	264	32	145	28	249	34	142	21	5		
650	19	04	246	47	138	19	11	233	42	141	22	00	243	48	143	25	21	19	11	144	26	21	278	34	144	27	09	264	32	145	28	249	34	142	21	5			
600	11	12	247	55	12	22	230	45	17	19	187	08	03	243	42	189	11	00	190	09	05	270	38	191	10	10	267	37	191	13	26	251	42	188	7	1			
550	10	37	250	63	06	39	231	55	241	11	39	242	11	45	247																								
500	10	37	250	63	06	39	231	55	241	11	39	242	11	45	247																								
450	23.7	20	45	253	70	23.8	17	37	235	60	24.1	11	39	242	11	45	247																						
400	30.2	45	256	79	30.4	45	256	79	30.8	38	53	30.9	38	44	248	87	31.1	36	45	31.1	44	273	54	31.3	39	50	267	37	31.4	36	54	253	42	30.9	39	48			
350	38.9	55	254	62	39.1	57	242	73	37	56	60	39.6	58	247	76	39.9	75	52	27.1	75	39.7	73	276	45	39.9	73	272	43	40.1	70	262	47	39.6	76	250	40	38.9	55	
300	51	243	40	57	242	73	37	56	60	39.6	58	247	76	39.9	75	52	27.1	75	39.7	73	276	45	39.9	73	272	43	40.1	70	262	47	39.6	76	250	40	38.9	55			
250	55	233	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26	
200	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
150	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
130	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
110	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
90	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
80	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
70	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
60	59	54	239	36	53	236	21	18	53	238	16	13	54	239	18	54	240	19	54	241	20	54	242	21	54	243	22	54	244	23	54	245	24	54	246	25	54	247	26
Tropopause		I 240 mb -66° 35200'				I 245 mb -59° 34900'				N.R.				I 205 mb -69° 39100'				I 200 mb -75° 39900'				I 215 mb -73° 38200'				I 163 mb -78° 44100'				I 74 mb -74° 41500'				I 193 mb -77° 40400'				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE									
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.							
		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	02.7	54	50	225	25	00.5	57	54	200	03				02.3	59	57	250	08	00.6	60	57	05.4	62	59	242	16	6.1	64	58	250	12	02.9	61	61	190	10			
1000	02.5	47	43	254	31	03.0	50	54	217	21				04.4	55	54	228	20	03.0	58	55	05.4	62	59	242	16	6.1	64	58	250	12	06.2	60	60	222	29			
950	31.1	42	36	253	30	31.9	42	41	204	24				33.4	53	49	238	25	34.1	54	49	34.7	56	55	262	15	35.3	56	51	257	22	35.5	56	56	231	21			
900	40	29	250	30	39	37	233	24						49	48	242	33		49	46		67.0	51	50	262	23		56	43	256	27		57	45	249	26			
850	62.6	36	18	245	30	63.1	34	34	242	26				65.4	43	42	242	37	66.2	46	41		67.0	49	42	261	30	67.6	52	32	265	32	68.1	54	43	244	29		
800	31	13	235	37	26	25	247	27						36	26	241	39		40	35			46	33	272	36		45	31	253	30		47	37	245	29			
750	28	07	236	29	23	16	233	36						31	31	246	43		35	32			40	33	270	41		39	19	251	32		40	30	243	34			
700	22	01	239	31	18	04	237	31						27	20	248	43		31	27			40	33	270	41		39	19	251	32		40	30	243	34			
650	13	15	241	35	13	01	235	34						141	22	10	248	47		26	22			40	33	270	41		39	19	251	32		40	30	243	34		
600	07	18	242	36	04	07	228	38						15	10	242	58		19	07			40	33	270	41		39	19	251	32		40	30	243	34			
550	183	01	30	236	45	182	09	19	220	41				187	05	00	240	62		189	10	07			40	33	270	41		39	19	251	32		40	30	243	34	
500	23.6	20	43	239	52	23.6	19	23	226	57				242	12	24	246	70		244	16	16			40	33	270	41		39	19	251	32		40	30	243	34	
450	31	48	239	57	31	35	224	54						27	38	246	74		16	26					40	33	270	41		39	19	251	32		40	30	243	34	
400	30.2	46	239	62	30.1	49	228	38						30.8	44	244	82		31.2	26	37				40	33	270	41		39	19	251	32		40	30	243	34	
350	38.9	51	239	69	38.9	51	236	63						39.6	54	238	88		40.1	26					40	33	270	41		39	19	251	32		40	30	243	34	
300	51	236	39	32	240	51								52	240	73			62						40	33	270	41		39	19	251	32		40	30	243	34	
250	48	235	33	45	53	240	49							45.9	55	241	44		62						40														



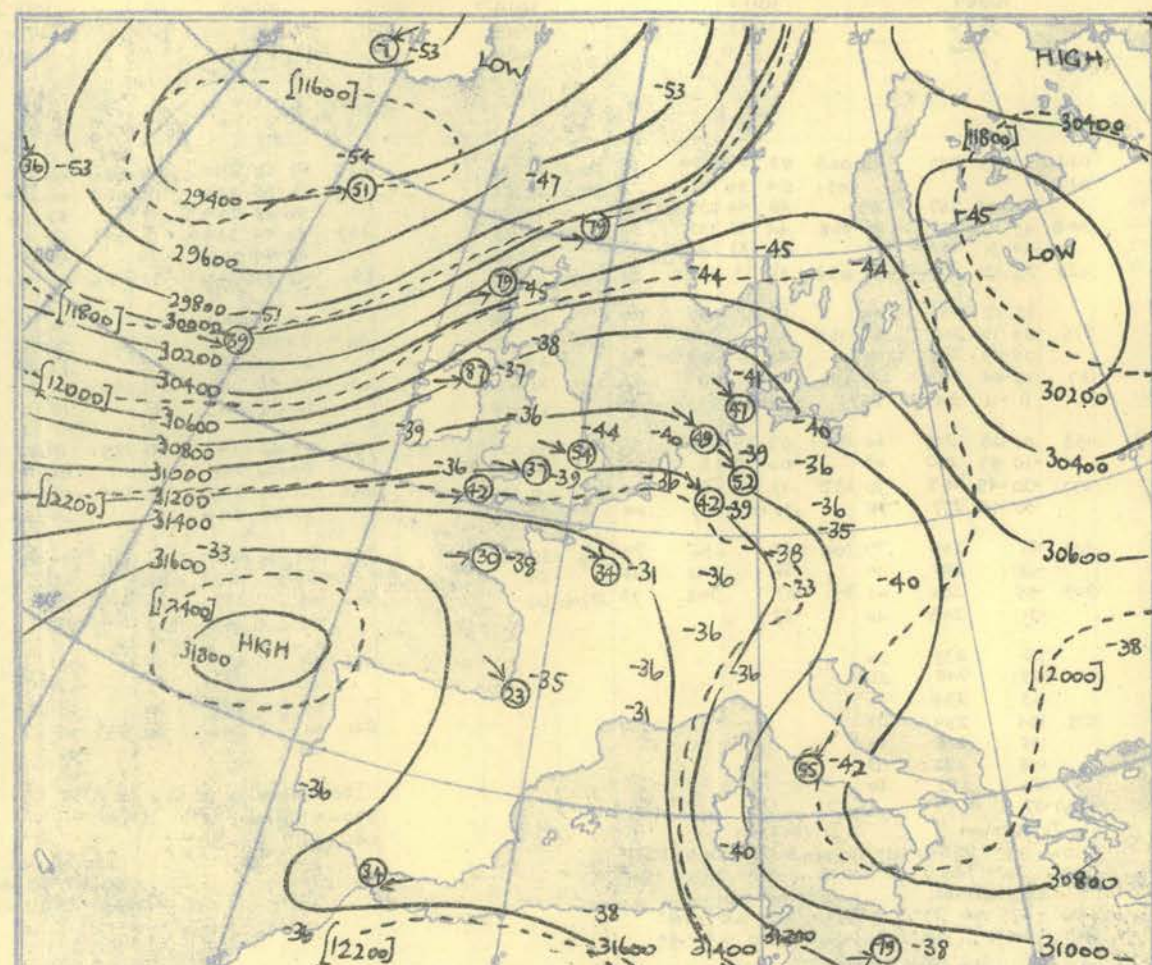
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



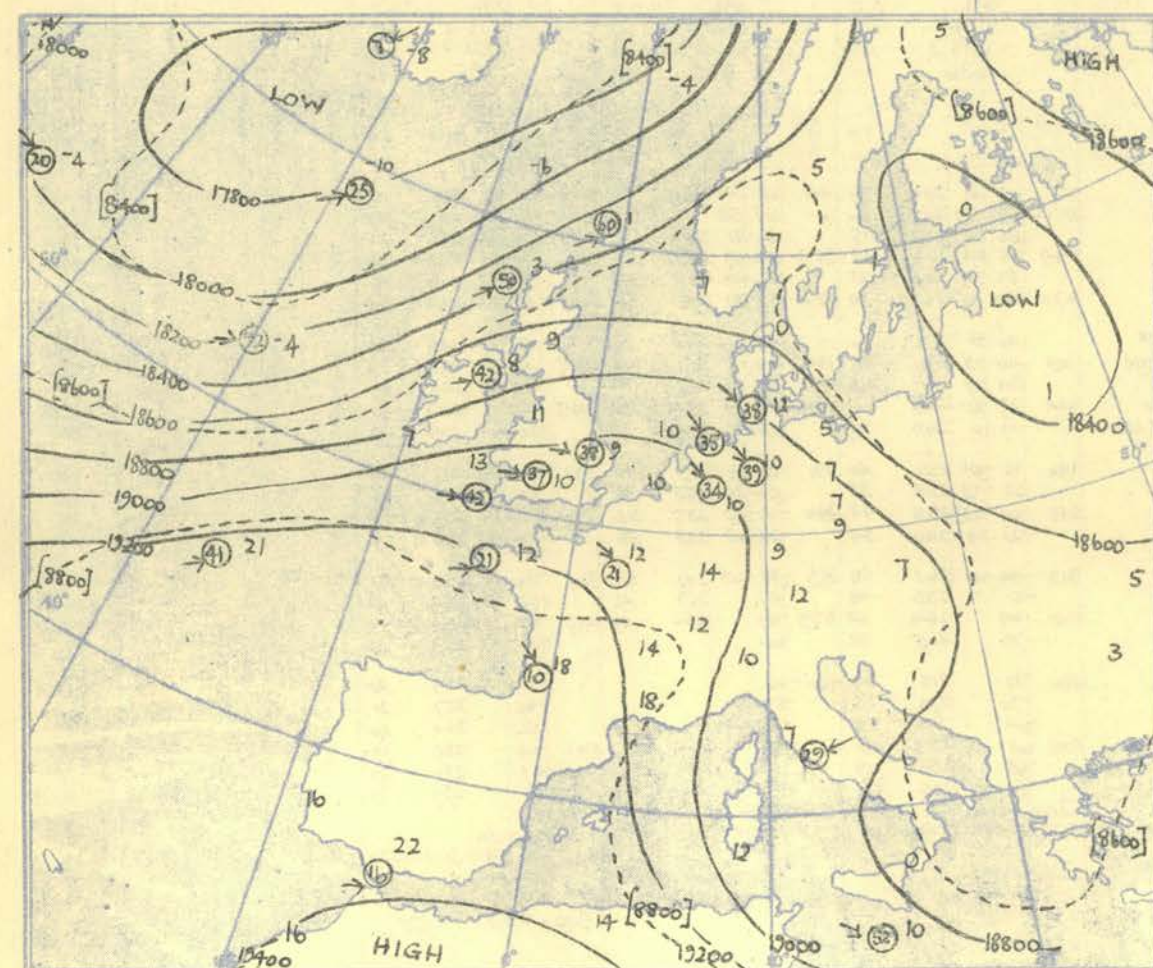
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

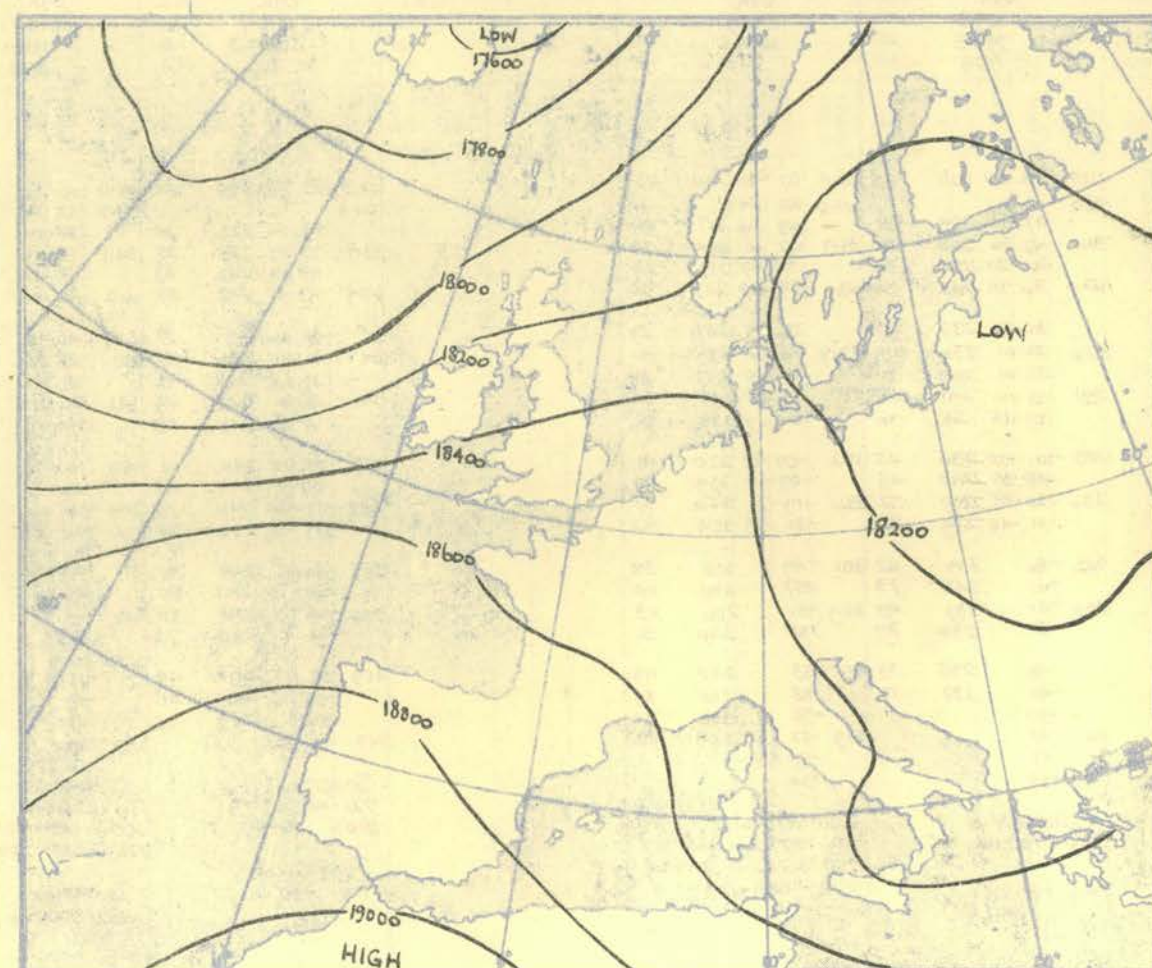
100 80 60 40 20 10 0 knots



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 0-600 ft. above M.S.L.

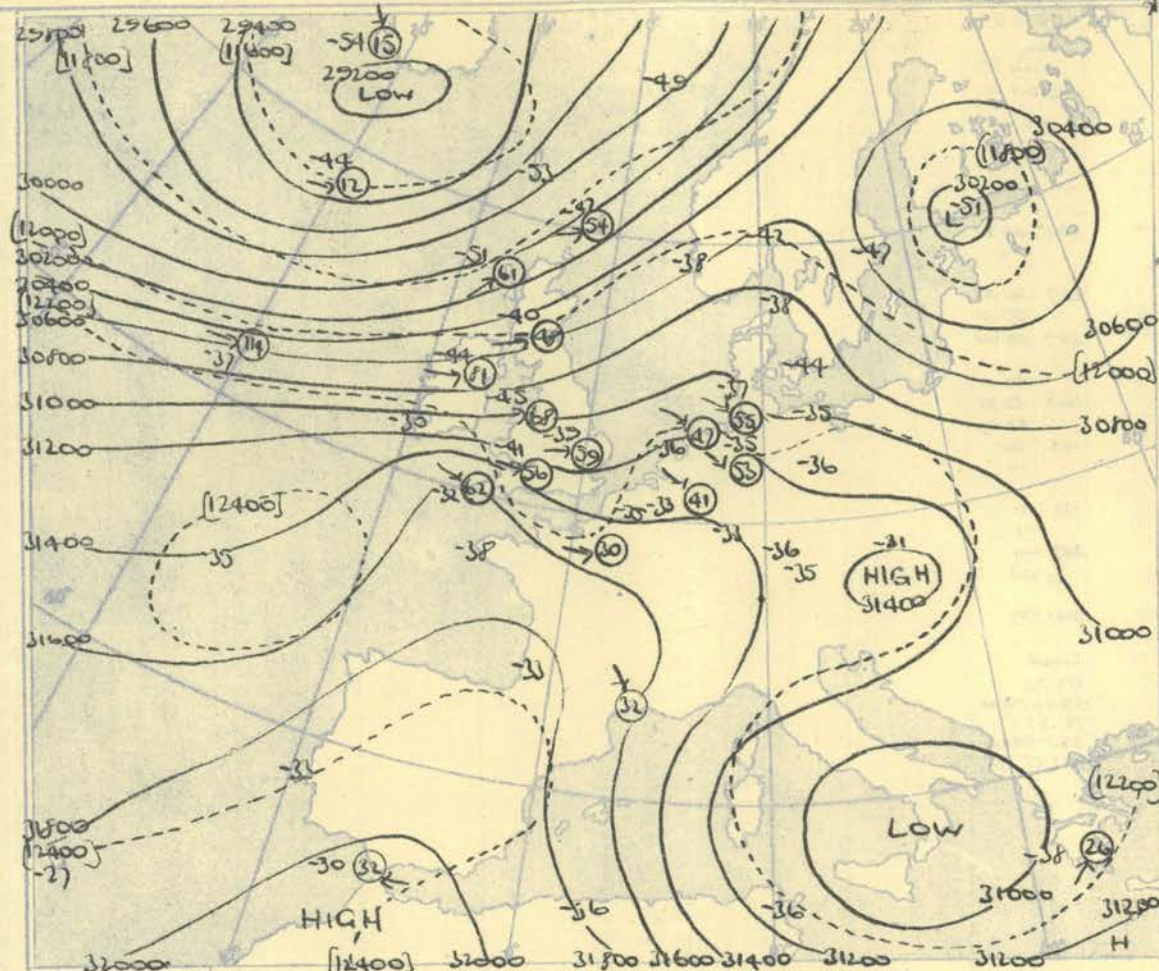
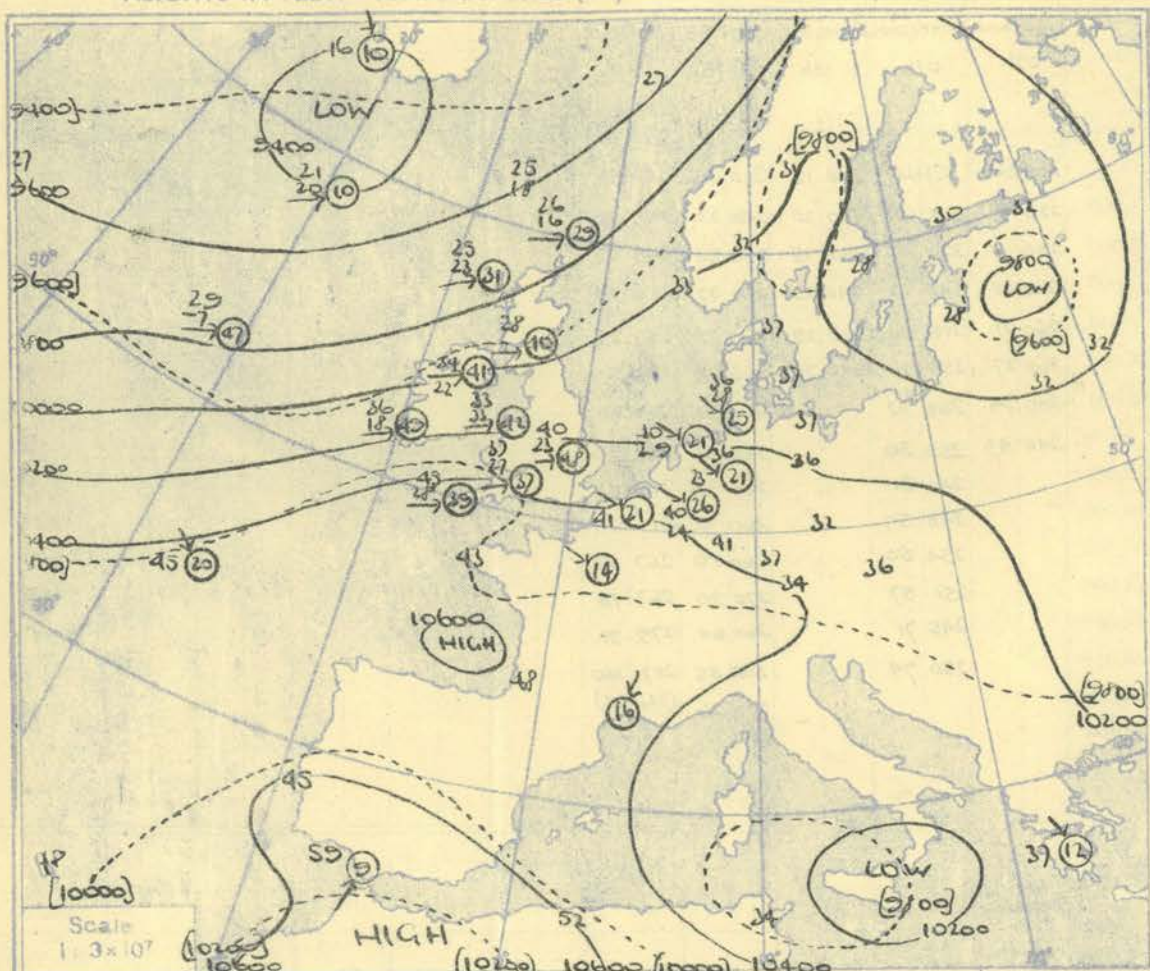
el.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.

## NEPHOSCOPE OBSERVATIONS

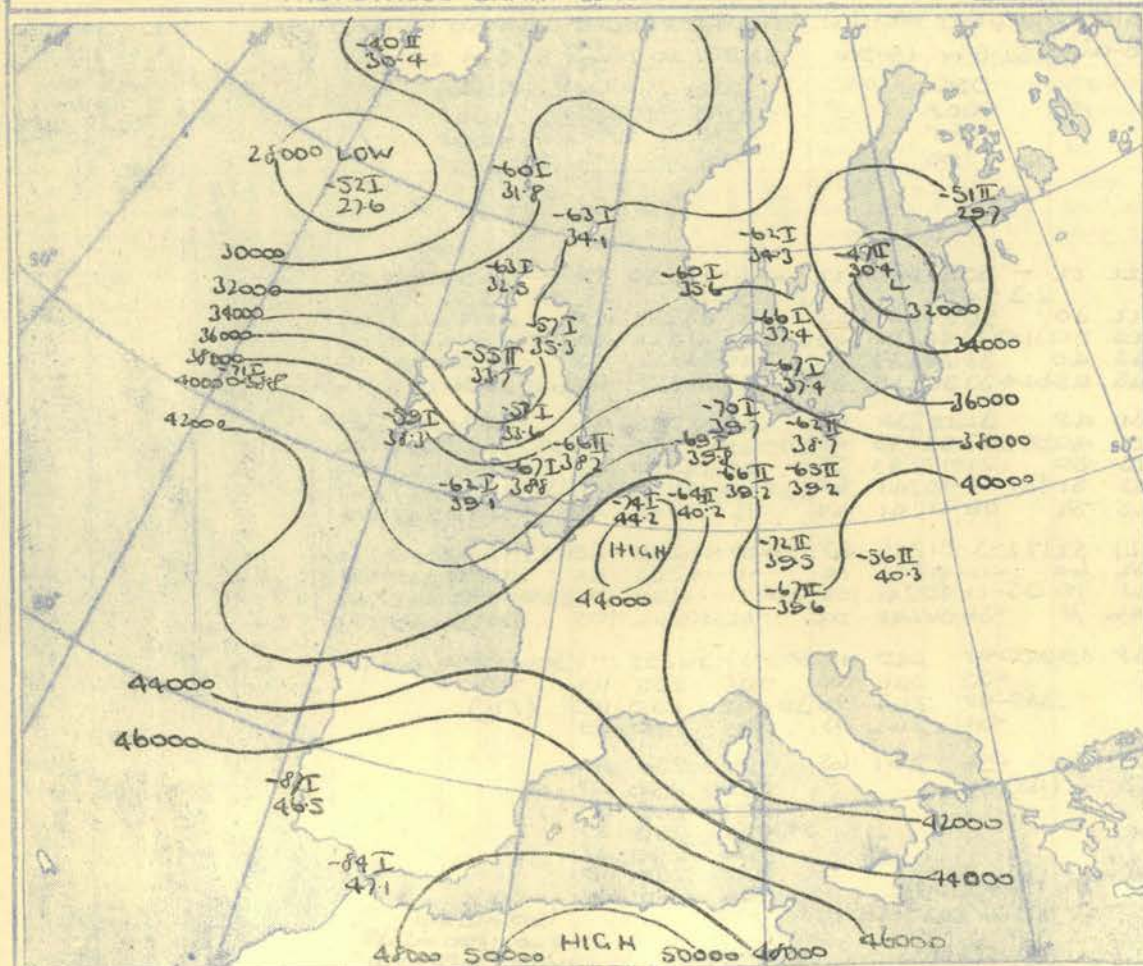
Ship	Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Weather Watcher				Weather Watcher				Weather Watcher				Weather Watcher				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Lat/Long	58.9°N 19.1°W				59.0°N 19.0°W				59.1°N 18.8°W				59°N 19°W				52.5°N 20.0°W				52.5°N 19.9°W				52.5°N 20.2°W				52.5°N 20.0°W				Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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.		1000		mb		998		mb		997		mb		999		mb		1008		mb		1008		mb		1010		mb		1008		mb		M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Surf		1000		mb		998		mb		997		mb		999		mb		1008		mb		1008		mb		1010		mb		1008		mb		Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Freezing		815		mb		790		mb		810		mb		810		mb		790		mb		790		mb		725		mb		715		mb		Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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900		26	54	35	210		24	28	04	41	222		14	27	7	43	246		06	25	5	43	293		11	31	0	44	40	215		30	31	0	43	41	236		33	31	3	44	41	232		29	30	9	43	42	228	07	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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800		59	73	30	27	213		24	59	4	33	33	212	12		39	0	31	31	245	08		50	7	31	26	256	13		62	4	33	30	235		45	62	4	33	32	235		36	62	8	37	22	235		40	62	5	39	36	222	16	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
750		27	26	218	27		27	26	204	15		26	25	239	09		27	26	292	13		28	25	231	48		32	24	238	48		35	10	245	46		34	31	219	25		34	31	219	25	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
700		94	42	15	215		30	94	1	22	172	10		17	37	21	26	227	10		94	3	21	13	288	20		97	3	23	15	226	40		97	3	27	08	243		43	97	9	29	7	249		47	97	7	31	27	219	40	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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550		-1	-12	216	30		-3	-7	158	24		-1	-5	237	07		00	-15	270	27		05	-10	225	52		06	-21	241	64		13	-30	248	60		17	10	248	74		17	10	248	74		17	10	248	74	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
500		17	10	-22	216		25	17	14	-26	206	26		17	10	-14	237	07		17	8	-40	-30	270	34		18	2	-4	-14	227	52		18	2	-3	-31	246	68		18	4	07	-16	249	69		18	5	10	02	248	75		18	5	10	02	248	75	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
450		-21	-33	221	30		-25	-33	206	28		-26	-23	306	04		-21	-39	273	32		-12	-21	232	60		-11	-41	248	74		-1	-14	253	82		00	-9	239	81		00	-9	239	81		00	-9	239	81	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
400		230	-32	44	221		34	229	-34	42	208	36		229	-31	34	306	04		230	-33	-44	271	33		235	-21	-31	238	70		235	-22	-49	241	84		237	-11	-22	255	94		239	-41	-19	241	84		239	-41	-19	241	84	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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250		46		220	51		-42		201	33		-35		256	23		-46		288	52		-54						-55		251		100		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255		114		-58		255	



Page 4 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 15 h. G.M.T.



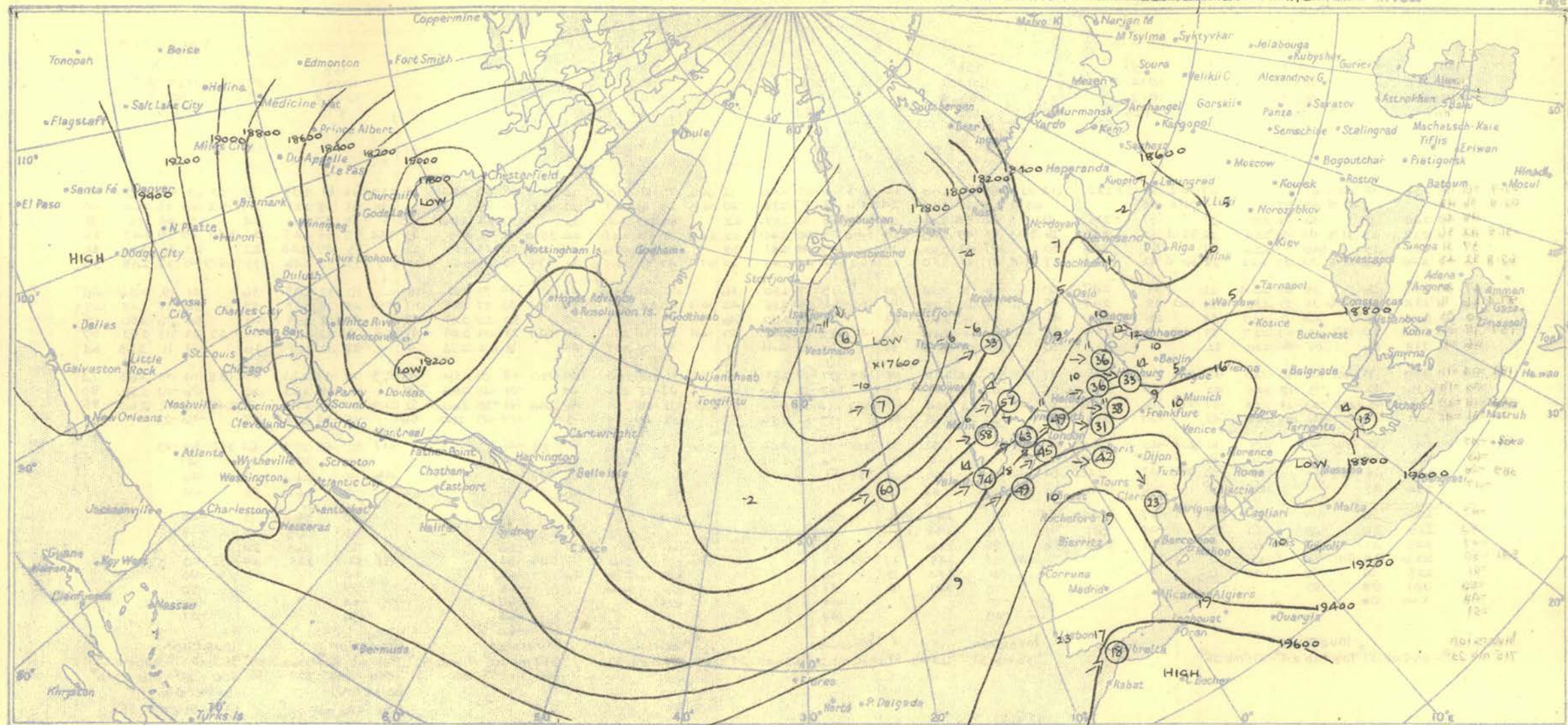
## NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over the Baltic persisted though with some loss of intensity. The thermal gradient over the Atlantic exists as a band running WSW-ENE undistorted by any major ridge or trough

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

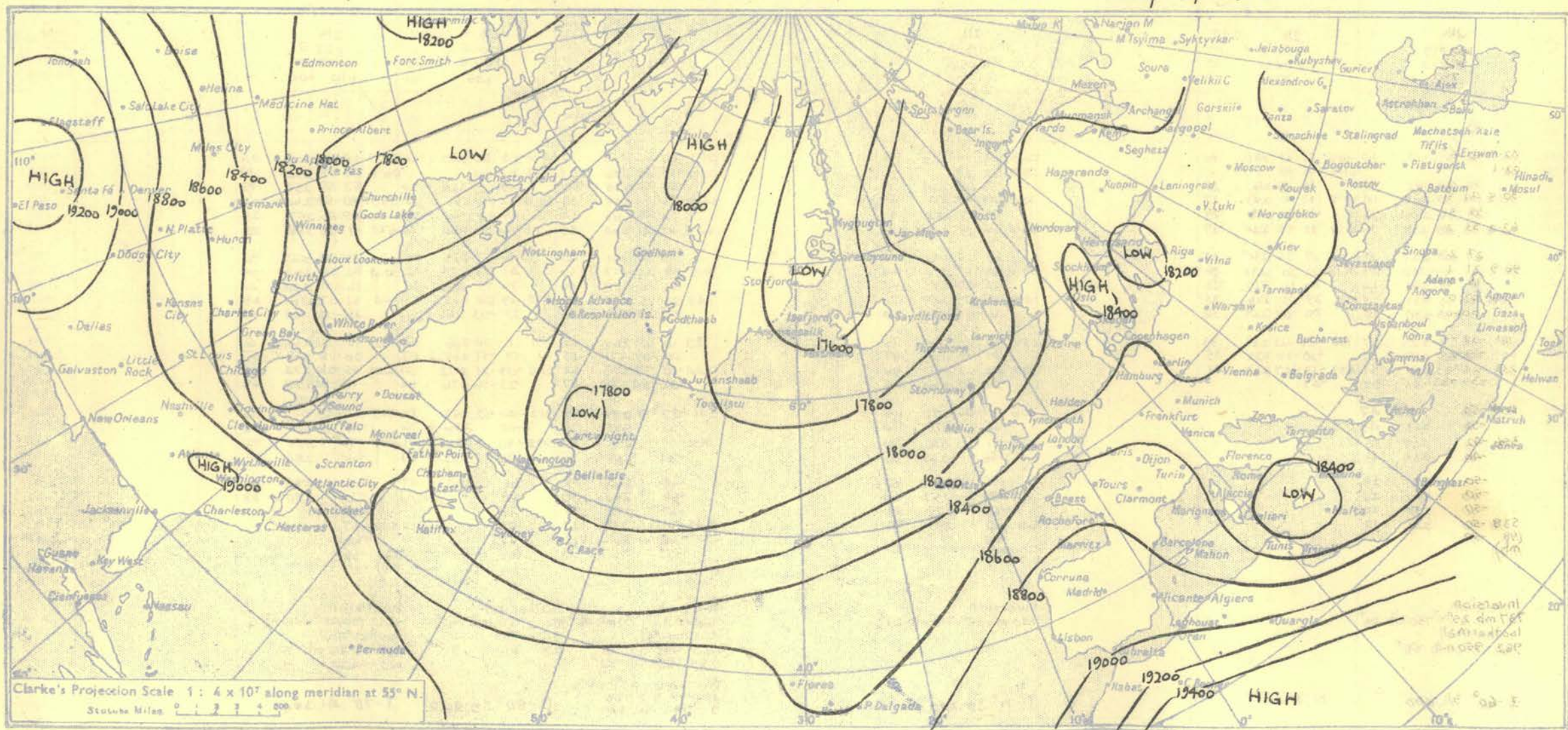




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 27<sup>th</sup> June.

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 Forecast	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 Forecast
		1010.4				1009.0				1014.2				1014.2				1018.7				1018.9				1020.6				1022.1				1019.3																
		mb				mb				mb				mb				mb				mb				mb				mb				mb																
80.4				78.8				72.5				69.0				69.2				64.0				66.5				57.2				67.0																		
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	56	48	203	15	00.5	61	58	200	07	00.2	65	57	230	14	02.3	69	61	200	14	00.6	65	59	240	12	01.2	71	61	210	10	4.4	69	60	230	18	02.9	64	61	203	10	00.3	63	58	210	13	Surf				
1000	02.8	56	48			02.5	59	57		07	03.4	64				03.9	68	61	235	24	04.6	63	57	238	20	05.3	69	60	237	21	6.2	65	59		06.1	61	58	223	27	5.2	60	55	220	14	1000					
950		48	40	22.4	19		52	52	219	21		57		235	23		60	54	246	23		58	53	239	22		60	53	240	22		57	54	246	20		58	57	236	24		51	44	236	18	950				
900	31.5	42	36	22.2	23	31.3	45	44	22.4	22	32.4	50		237	26	33.3	53	49	250	24	34.0	53	50	240	22	34.8	55	50	246	24	35.4	52	52	253	21	35.4	57	55	245	21	34.1	48	39	243	25	900				
850		37	31	23.1	23		40	37	22.4	31		47		240	30		47	43	250	24		49	48	241	28		52	49	256	25		50	43	259	22		53	49	248	22		43	36	246	32	850				
800	62.8	32	28	24.0	24	62.8	34	30	22.2	28	66.4	42		246	37	62.5	41	37	250	25	66.2	45	45	243	35	67.1	48	42	265	32	67.6	50	30	257	30	67.9	55	37	246	33	65.9	45	27	248	39	800				
750		27	24	23.8	28		28	26	22.4	26		35		247	40		34	31	248	31		39	37	250	36		45	30	260	42		44	33	252	38		50	32	243	36		41	19	246	44	750				
700	97.4	26	16	23.4	29	97.6	25	23	23.0	31	100	28		247	40	106	34	22	248	41	102	33	33	255	42	10.3	40	23	258	48	10.3	32	27	247	37	10.4	48	28	251	39	10.1	36	18	248	49	700				
650		20	03	22.9	32		24	13	22.7	34		26		243	45		26	15	246	43		26	24	250	46		33	15	257	49		30	20	249	43		40	14	253	40		30	16	250	55	650				
600	137	15	-04	23.4	30	137	13	-02	22.7	33	139	19		238	48	141	22	11	246	44	142	22	19	248	59	144	26	11	256	48	144	23	02	249	45	145	34	22	251	48	142	23	13	253	59	600				
550	06	-11	23.8	26		05	-04	23.0	32		13		237	50		15	08	246	53		16	12	241	61		19	04	257	48		18	04	254	51		28	02	251	46		17	11	263	64	550					
500	182	-04	-18	23.9	33	182	-03	-10	23.0	35	185	04		242	57	187	06	-02	246	58	188	07	-17	251	63	190	11	02	260	49	190	18	01	256	48	193	18	-03	261	49	188	14	03	263	74	500				
450		-09	-18	23.6	42		-13	-18	22.5	42		-05		246	65		-01	-10	248	56		-04	-12	246	65		02	-25	256	48		-03	-25	256	47		-02	-08	264	54		-06	-02	259	80	450				
400	236	-18	-29	23.5	45	235	-23	-29	22.8	47	239	-16		246	61	241	-12	-22	254	67	242	-14	-28	252	67	245	-12	-38	254	46	244	-15	-38	260	52	249	-02	-17	271	59	244	-06	-12	260	85	400				
350		-31	-45	24.1	54		-35	-45	22.8	52		-27		238	60		-27	-36	260	84		-29	-52	256	72		-25	-49	258	52		-27	-49	260	56		-15	-34	277	58		-16	-27			350				
300	301	-47		24.5	54	300	-51		21.9	61	305	-40		228	68	308	-44		232	81	308	-45		246	68	312	-39	-55	256	59	311	-41													300					
250		-63		23.6	54		-52		22.4	56		-55		230	70		-55		255	81		-54		244	79		-54		243	66		-55		275	57		-47								250					
200	389	-48		23.2	48	389	-45		23.2	52	494	-47		240	64	396	-50		250	62	396	-51		248	65	399	-67		248	65	398	-63													200					
170		-47		23.4	43		-49		23.5	50		-46		246	61		-46		246	52		-57					-62		257	46		-65												170						
150		-47		23.4	36		-49		23.5	39		-47		243	45		-51		243	46		-59					-64		267	37		-68												150						
130		-50		23.0	30		-49		23.4	33		-49		241	41		-56		248	51		-59					-61		272	30		-69												130						
110		-47		22.5	21		-47		23.2	27		-51		241	36		-55		240	37		-55					-61		259	19		-66													110					
100	541	-50		22.6	24	541	-50		23.2	21				547	-54		-52		254	13	545	-55				546	-61		262	17	543	-64													100					
90		-51		22.5	15		-50		24.0	12					-52				254	27		-54					-59		275	16		-62													90					
80		-50		23.1	08		-50								-50				281	15		-51					-56		246	10		-63													80					
70		-48		2.4	06										-50							-48					-55						-64													70				
60		-51													-49							-44											-60													60				
Inversion		715 mb 23° - 695 mb 27°		Inversion		708 mb 24° - 695 mb 25°				Inversion		750 mb 34° - 722 mb 37°		Inversion		650 mb 26° - 636 mb 27°		Isothermal		867 - 826 mb 52°		Inversion		857 mb 50° - 815 mb 52°		650 - 30° - 640 - 31°		Inversion		956 mb 58° - 936 mb 59°		950 mb 51° - 940 mb 52°		850 - 48° - 816 - 46°		Isothermal		600 - 582 mb 34°		537 - 508 mb 15°										
Tropopause		I-63° 34,100'		I-63° 32,500'		I-244mb-57° 35,300'		II-55° 33,700'		I-57° 33,600'		II-66° 38,200'		I-67° 38,800'		I-62° 39,100'		I-218mb-59° 38,300'		Tropopause																														
STATION	LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE					VALENTIA					STATION				
Pressure mb	Time M.S.L. Surf Forecast	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 Forecast
		1007.9				1006.4				1005.5				1013.9				1017.8				1020.5				1022.5				1012.0				1019.3																
		mb				mb				mb				mb				mb				mb				mb				mb				mb																
790				793																650				635				610				600																		
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	52	50	157	10	00.5	55	53	200	05						02.3	63	55	240	15						01.2	67	60	225	17	4.4	63	60	240	05	02.9	60	59	203	03					Surf					
1000	02.1					01.8	55	53								03.9	62	54								05.0	65	59	236	27	5.7	62	60		06.1	59	58	232	19					1000						
950		50	44	192	18		49	45	236	25							56	49	244	19							59	54	248	30		59	59	255	20		57	55	255	19					950					
900	30.5	44	39	200	14	30.5	43	41	247	27						32.9	48	43	251	21						34.3	56	54	258	34	35.0	54	54	265	23	35.3	54	51	264	21					900					
850		39	36	20.4	12		38	34	243	29							43	37	252	30							53	48	263	34		49	49	265	27		49	45	257	25					850					
800	62.2	33																																																

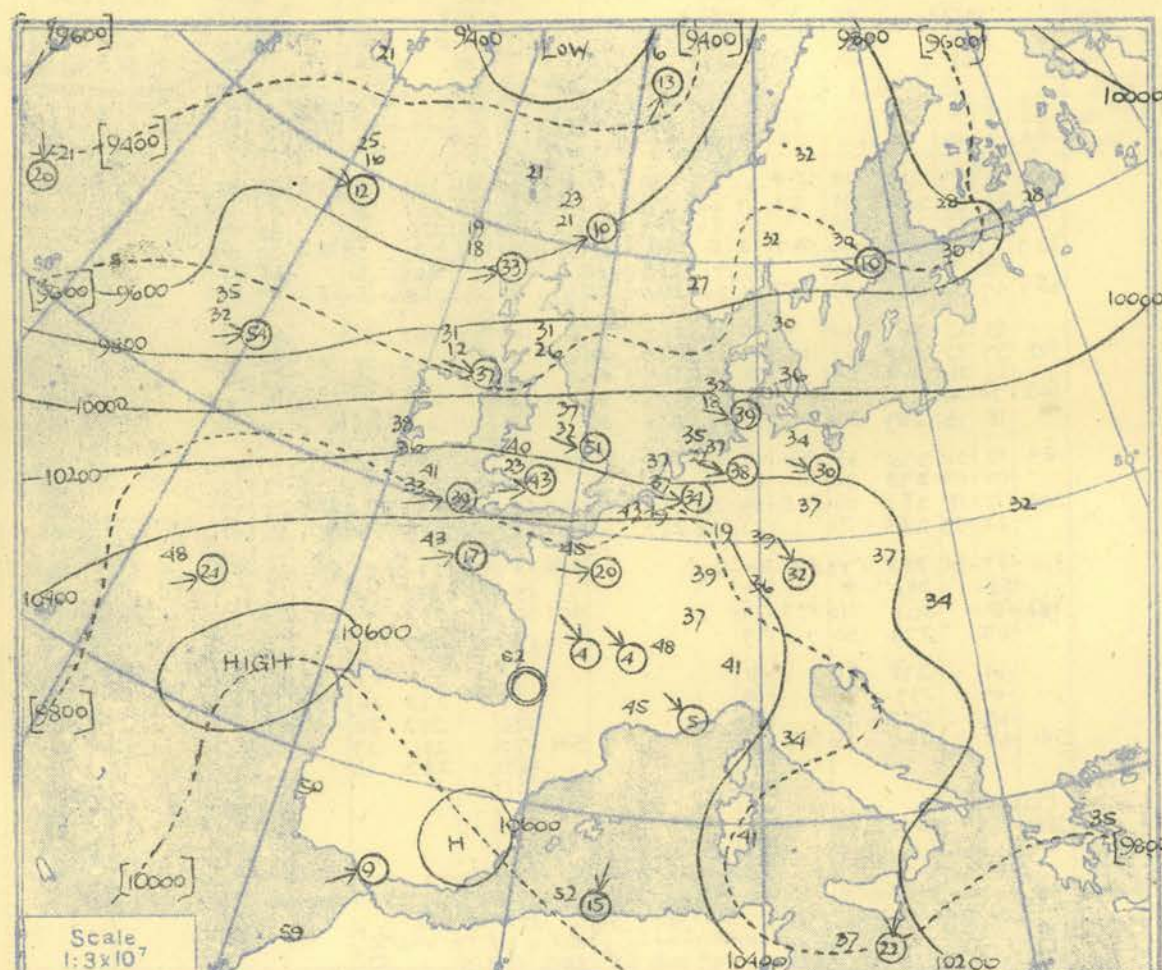


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

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	Pressure mb								
																																	Time M.S.L.	Surf Freezing						
Surf	02.7	51	51	203	12	00.5	53	50	200	05	00.2	56	52	02.3	57	53	230	16	00.6	60	53	01.2	61	59	220	10	04.4	61	59	250	10	02.9	60	60	203	08	00.3	58	55	Surf
1000	1.3				17	53	50			2.8	55	51		3.9	51	47	238	22	4.5	59	53	4.8	60	58	226	24	5.5	61	60		5.9	59	59	221	21	4.2	57	54	1000	
950		47	45	242	24	48	47	239	18		53	45			51	47	238	22		55	49		57	45	270	28		56	56	264	20		54	54	228	22		52	49	950
900	29.8	43	41	234	18	30.4	43	42	244	30	31.7	50	39	32.7	46	42	253	32	33.5	50	45	33.9	52	44	269	30	34.7	52	51	263	23	35.0	52	52	252	24	33.2	49	47	900
850		37	35	229	14		36	36	249	33		46	37		40	36	255	35		45	39		48	39	264	30		49	41	259	20		53	57	260	30		51	48	850
800	61.1	33	31	227	12	61.6	31	31	248	33	63.6	43	39	64.2	36	32	259	33	65.3	42	34	65.9	47	35	268	39	66.7	51	24	261	35	67.3	53	41	260	30	65.4	47	45	800
750		30	28	222	14		25	25	245	32		38	35		30	26	264	36		38	35		43	32	267	44		46	26	262	38		47	37	262	34		42	40	750
700	96.0	23	21	216	10	96.2	19	18	245	33	97.0	31	26	99.3	31	12	262	37	101	35	31	102	37	32	268	51	103	40	23	266	43	103	41	33	265	39	101	38	26	700
650		17	13	201	12		12	10	249	33		24	17		24	01	263	52		30	26		30	26	269	54		31	19	269	48		36	26	265	48		36	26	650
600	135	10	05	206	15	135	04	02	254	35	139	18	10	139	20	11	262	50	141	25	20	142	24	20	272	57	143	27	12	273	51	144	30	18	268	37	142	26	18	600
550		04	02	217	21		04	06	259	38		13	10		14	09	265	70		19	13		18	13	269	56		19	08	274	55		25	01	269	48		19	06	550
500	180	04	10	203	16	179	13	24	264	48	185	06	35	185	08	03	270	84	188	11	05	189	10	06	270	63	190	11	02	274	56	191	16	10	267	54	188	11	09	500
450		13	20	213	18		24	39	266	64		03	40		00	05	270	84		04	04		00	06	270	66		02	276	61		04	20	269	54		02	18	450	
400	234	24	32	198	15	232	18	38	268	97	239	13	48	240	11	18	268	84	243	07	14	243	12	18	281	69	245	09	26	276	65	247	03	26	257	60	243	11	32	400
350		43		199	20		29	50	272	117		25	56		22	33	267	97		19	30		24	32	283	71		22	35	282	65		17	41	267	60		22	41	350
300	298	47		234	30	298	45		274	81	306	39	59	307	38	48	272	104	310	34	48	310	39	51	285	77	312	40	52		314	37	57	274	55	310	39	58	300	
250		40		252	38		50		271	93		55			36		277	104		52			38		58	282	81		57			272	45		58			250		
200	388	43		243	30	387	44		268	70	394	46		394	69		273	81	398	71		397	78		301	70	399	77		401	76		283	42	397	72			200	
170		43		248	30										57		267	63		73				65		279	53		79			279	45		74			170		
150		45		249	29										58		267	57		66				64		278	51		71			276	43		71			150		
130		46		246	27										62		267	45		68				67		297	53		69			275	36	139	72			130		
110		46		251	20															63				65		254	25	542	71			282	30					110		
90	(10)	46																		63													281	27					90	
80																				63													282	15					80	
70																				63																			70	
60																				63																			60	
Inversion 44.0 mb - 26.40 mb - 18°																																								
Inversion 75.0 mb 30.2 711 mb 32.480 mb 01.470 mb 08°																																								
Max wind: 280° 115 kts 35,500' 240 mb																																								
Tropopause I 317 mb - 54° 28,500'																																								
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	Pressure mb								
																																	Time M.S.L.	Surf Freezing						
Surf	02.7	52	51	247	14	00.5	55	51	200	10				02.3	55	54	200	12	00.6	60	53	235	08	01.2	64	55	240	11	04.4	65	59	220	15	02.9	63	58	203	08		Surf
1000	1.2				2.0	53	49							3.3	51	50	204	14	4.4	58	51	235	15	5.1	61	53	250	22	5.4	64	58		5.9	63	58	221	18		1000	
950		47	45	263	24	46	43	238	24						51	50	204	14		58	48	236	15		56	49	262	25		56	53	250	16		56	55	231	22		950
900	29.8	43	40	271	17	30.5	39	37	241	22					44	42	216	23		46	43	239	14		52	39	271	29	34.6	55	52	267	20	35.1	59	47	257	22		900
850		39	33	272	16		33	26	262	25					44	42	216	23		42	41	252	26		49	37	274	32		56	48	268	30		57	43	257	27		850
800	61.3	34	30	276	18	61.7	33	26	262	25					42	40	235	31	65.0	44	42	264	38	66.2	48	44	278	34	67.2	53	45	267	34	67.7	54	38	254	25		800
750		28	23	264	16		31	17	266	27					39	37	241	38		43	41	268	55		43	39	281	36		47	39	267	39		49	36	260	28		750
700	95.9	21	14	253	15	96.5	25	05	266	28					37	34	252	46	101	39	36	268	57	102	40	35	277	47	103	40	34	266	39	104	44	29	260	33		700
650		15	07	261	15		19	04	265	30					32	24	255	51		33	26	270	59		35	29	276	49		33	25	263	41		37	21	260	36		650
600	135	08	01	257	15	136	13	17</																																



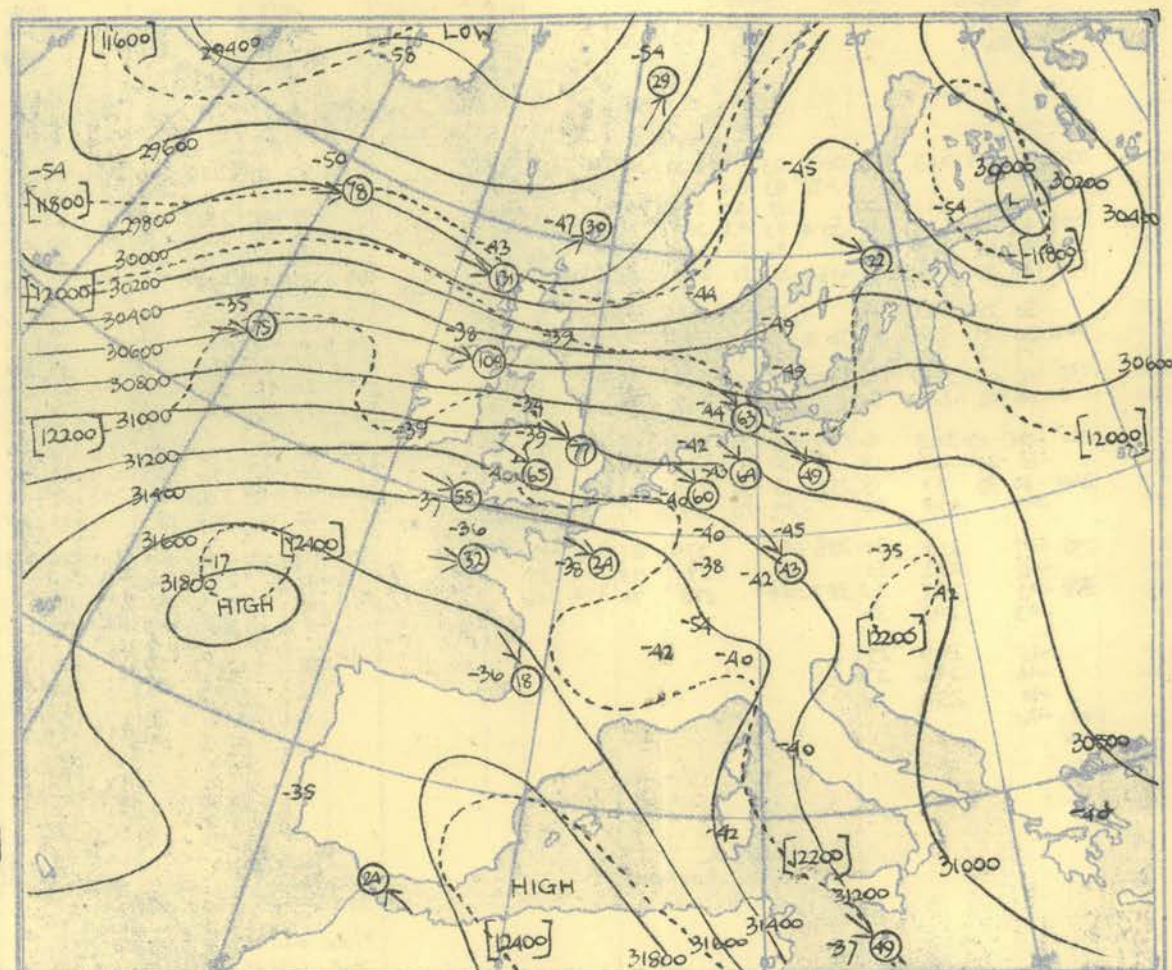
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



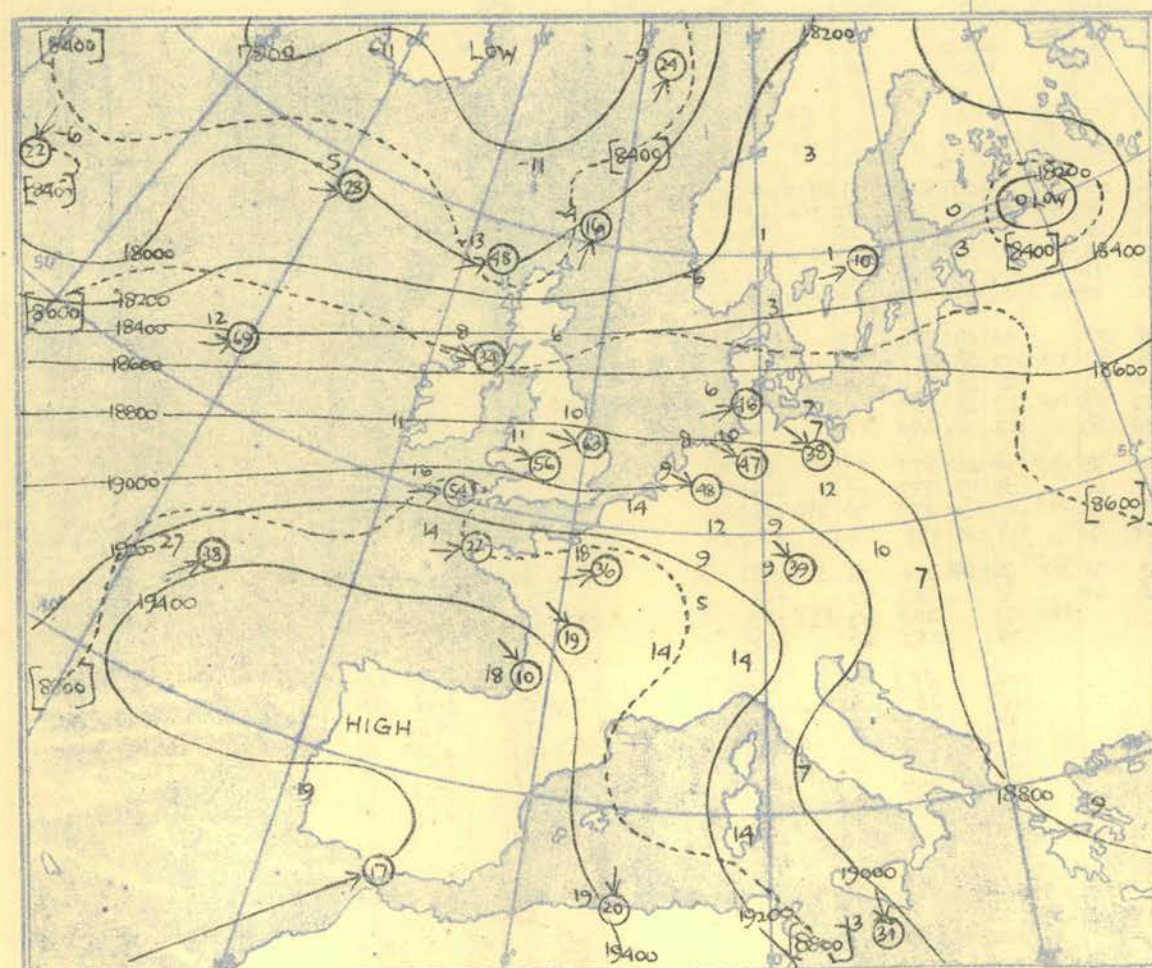
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

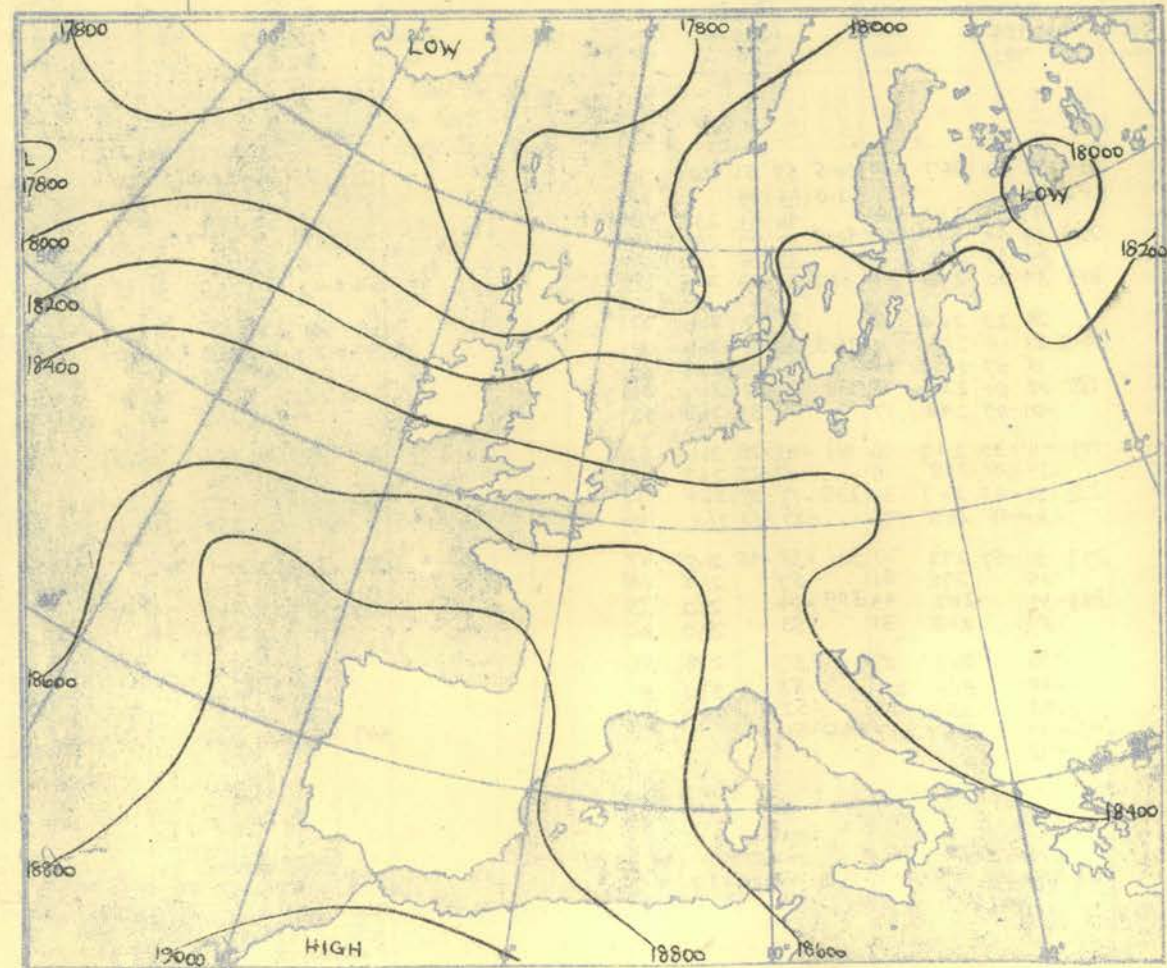
100 80 60 40 20 10 knots



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.



## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above 9.8 ft.

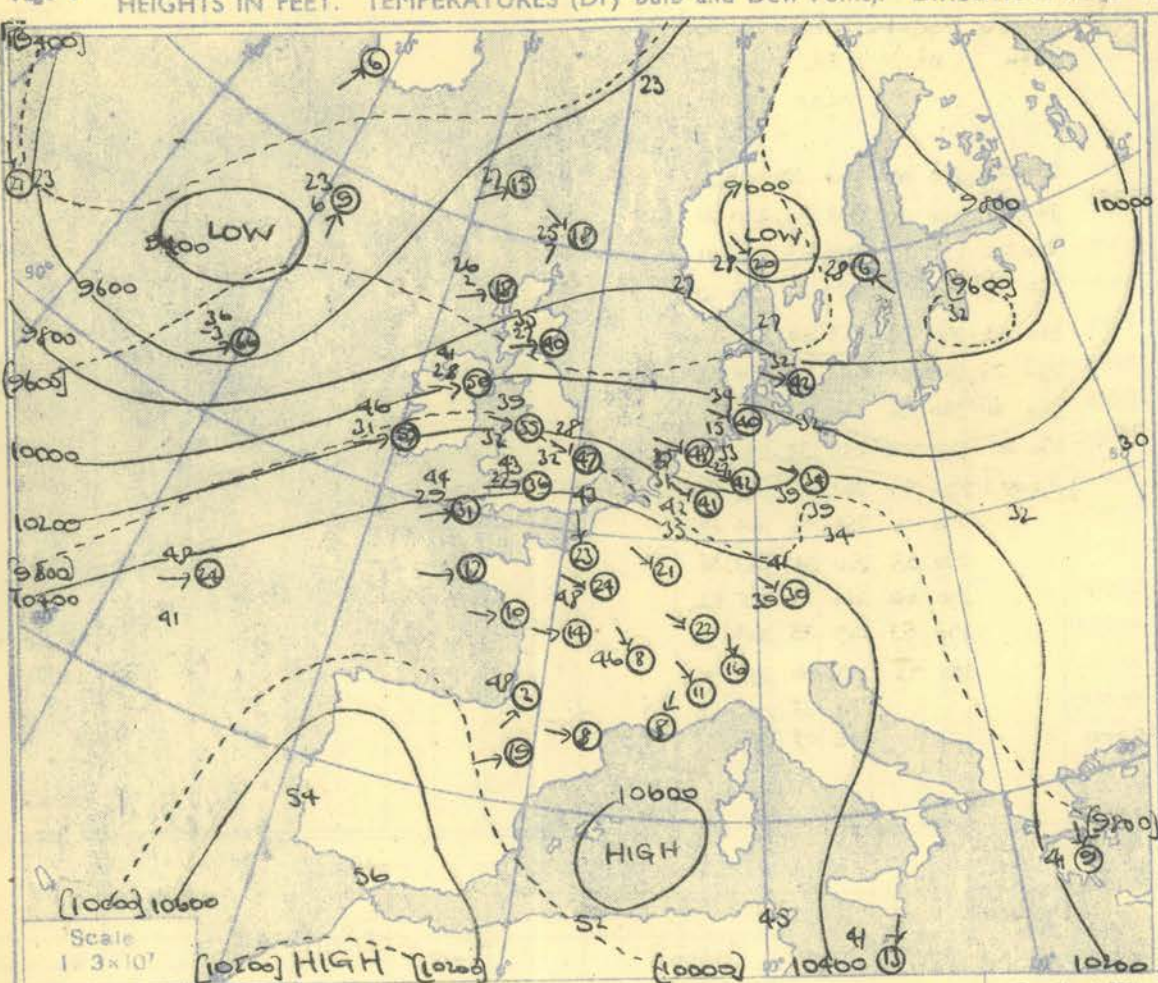
NEPHOSCOPE OBSERVATIONS							
Place Defford							Place
Time Type 09h Ac							Time Type
Dir. Vel. 270 84							Dir. Vel.

NEPHOSCOPE OBSERVATIONS							
Place Defford							Place
Time Type 09h Ac							Time Type
Dir. Vel. 70 84							Dir. Vel.

Ship	Weather Watcher										Weather Watcher										Weather Recorder										Weather Recorder										Weather Recorder										Weather Recorder										Ship
Lat/Long	52.5°N 20°W					52.4°N 20°W					52.7°N 20.1°W					52.5°N 20.2°W					59°N 19°W					59°N 19°W					59.1°N 18°W					59.0°N 19.0°W					Lat/Long																				
Pressure M.S.L. Surf Freezing	03hrs 1003 1003 675					09hrs 999 999 670					15hrs 997 997 655					21hrs 999 999 700					03hrs 1002 1002 780					09hrs 1002 1002 780					15hrs 1001 1001 790					21hrs 997 997 780					G.M.T. 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	-	59	59	210	18	-	59	58	210	20	-	59	51	225	25	-	56	47	250	31	-	52	48	260	10	-	56	48	Calm	-	56	49	085	11	-	53	48	060	18	Surf																					
1000	0.7	58	58			0.2					-0.7					0.4						0.6					0.3										1000																								
950		55	55	227	35		55	55	220	31		53	49	228	41		50	50	258	49		48	47	250	10		49	44	69	03		47	42	107	09		47	46	076	20	950																				
900	2.9	54	54	233	40	2.8	54	48	221	46	2.2	46	43	230	50	2.3	43	43	262	52	2.3	43	40	255	11	2.9	43	38	196	03	2.8	41	35	119	08	2.7	41	41	075	23	900																				
850		50	50	239	45		50	49	221	48		44	37	231	50		41	37	264	51		38	33	259	10		36	31	200	03		36	28	120	09		37	36	065	23	850																				
800	6.2	46	46	243	48	6.1	46	43	224	52	6.0	44	25	231	55	5.9	39	32	265	46	6.0	33	226	7	10.6	35	24	208	04	6.0	33	23	127	09	5.9	33	25	062	18	800																					
750		40	37	239	51		40	39	228	58		41	03	228	62		37	24	258	42		30	25	274	12		29	16	214	05		28	13	155	07		29	22	069	16	750																				
700	9.7	35	32	243	54	9.6	34	33	227	60	9.5	36	3	223	66	9.5	32	13	251	44	9.5	36	25	16	277	12	9.5	25	03	227	07	9.4	23	06	184	09	9.3	24	13	056	14	700																			
650		30	27	243	58		30	25	232	58		31	-16	217	62		25	04	248	42		19	06	266	13		19	-5	242	09		20	-5	159	09		20	13	098	12	650																				
600	13.8	24	22	242	60	13.7	22	15	236	54	13.6	21	-2	207	67	13.5	18	-5	244	40	13.5	12	-1	260	20	13.5	12	-5	241	13	13	4	-6	197	12	13.3	14	13	180	06	600																				
550		18	16	238	58		16	12	240	56		15	-21	43	70		11	-8	235	44		04	-10	263	26		03	-4	242	20		05	-2	211	18		06	05	203	05	550																				
500	18.5	12	08	245	63	18.3	11	07	242	67	18.2	10	-10	222	82	18.1	02	-14	227	52	18.0	-5	-17	263	28	18.0	-4	-26	237	29	17.9	-5	-16	222	22	17.9	-3	-4	218	08	500																				
450		03	00	233	62		03	00	238	78		03	-2	218	93		-4	-23	242	86		-18	-21	260	30		-13	-37	234	30		-14	-20	231	22		-14	-16	213	10	450																				
400	24.0	-7	-12	230	66	23.9	-6	-9	233	84	23.7	-8	-22		104	22.6	-12	-32	244	102	22.3	-24	-41	258	39	22.3	-23	-45	234	36	22.2	-24	-35	236	22	22.1	-26	-28	201	10	400																				
350		-10	-25	229	94		-17	-16	231	97		-14		(375)			-24	-37	244	117		-35	-52	250	55		-34	-52	240	42		-37	-51	218	24		-40	-53	170	14	350																				
300	30.7	35	-41	227	75	30.6	-32	-36	230	97						30.2	-38	-52	224	116	29.8	-50						245		78	29	-52	236	53	29.7	-53		223		26	29	6	57	181	22	300															
250		-53		223	102		-52		230	109							-50		216	134		-49					263		54		-49			236	57		-49			225		41		-67		219	25	250													
200	29.5	-70		234	93	29.5	-58		230	96						29.1	-52		220	85	28.6	-45					264		46	37	-43			236	44	38.5	-43			227		46	38	-43		221		36	200												
170		-58		234	63		-58		230	66							-51		208	83		-45					254		39		-43			236	43		-42		237		40		-53		210		31	170													
150		-58		234	54		-52		230	60							-53		214	72		-45					247		24		-43			241	39		-42		238		37		-44		226		28	150													
130		-62		234	43		-52		230	40							-56		228	58		-47					230		27	(134)	-44					-44		210		31		-44		238		28	130														
110		-63		234	22		-57		230	38							-58					-48					245		28							-44		220		31		-43		222		14	110														
100	54.2	-62		234	34	54.5	-54		230	34						54.0	-59					-48					238		12							-44		220		31		-43		222		14	100														
90							-54		230	30							-57		Max wind			-49					248		10							-42								214		10	90														
80							-53		230	23							-53		253	mb		-49					253		09							-41								208		19	80														
70							-47		230	20							-54		226	12 fths		-48					253		09							-39								239		06	70														
60							-48										-56					-51					252		06							-44								203		12	60														
																	-53					-49					252		06																	203		12													
																	-50					-45					252		06																																
																									</																																				



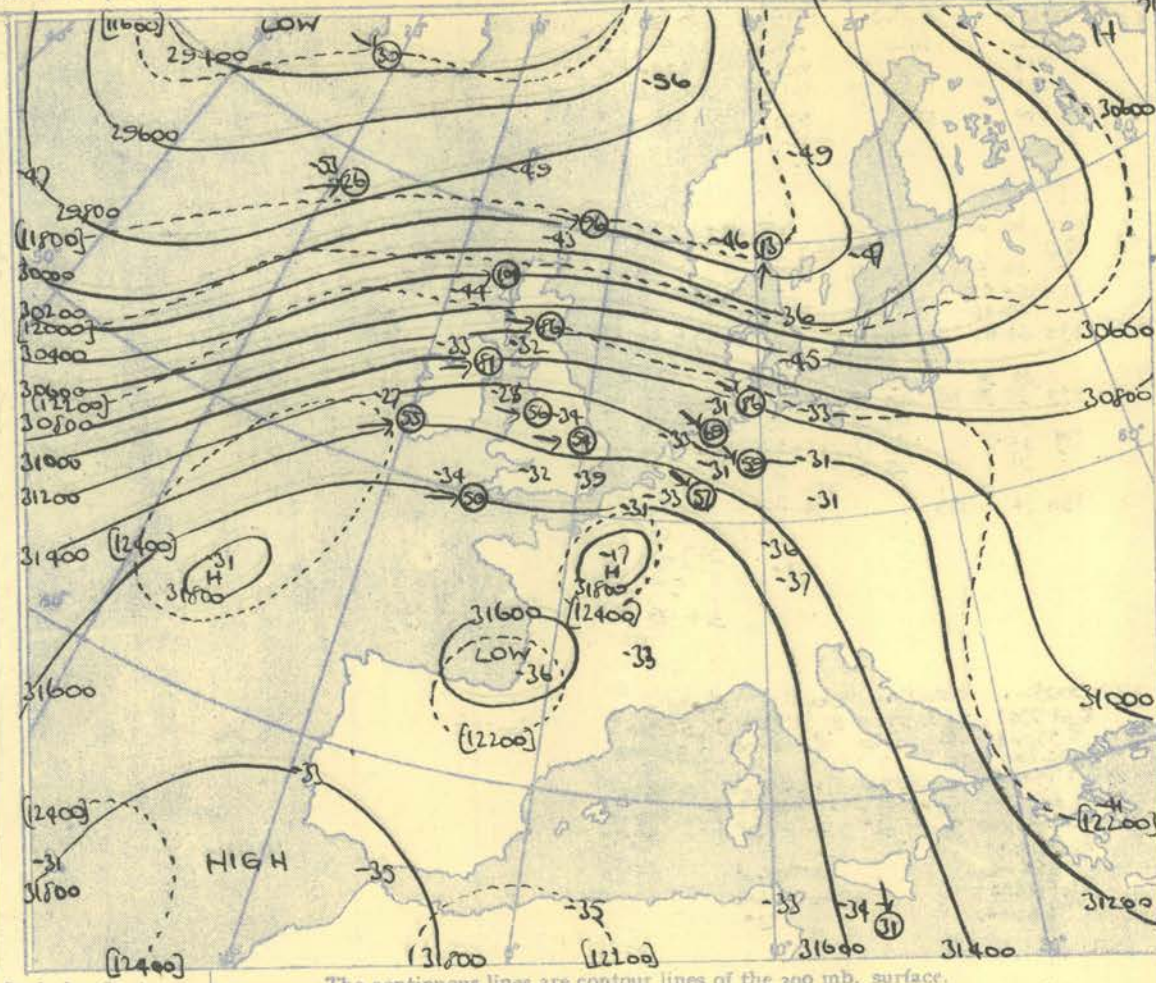
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

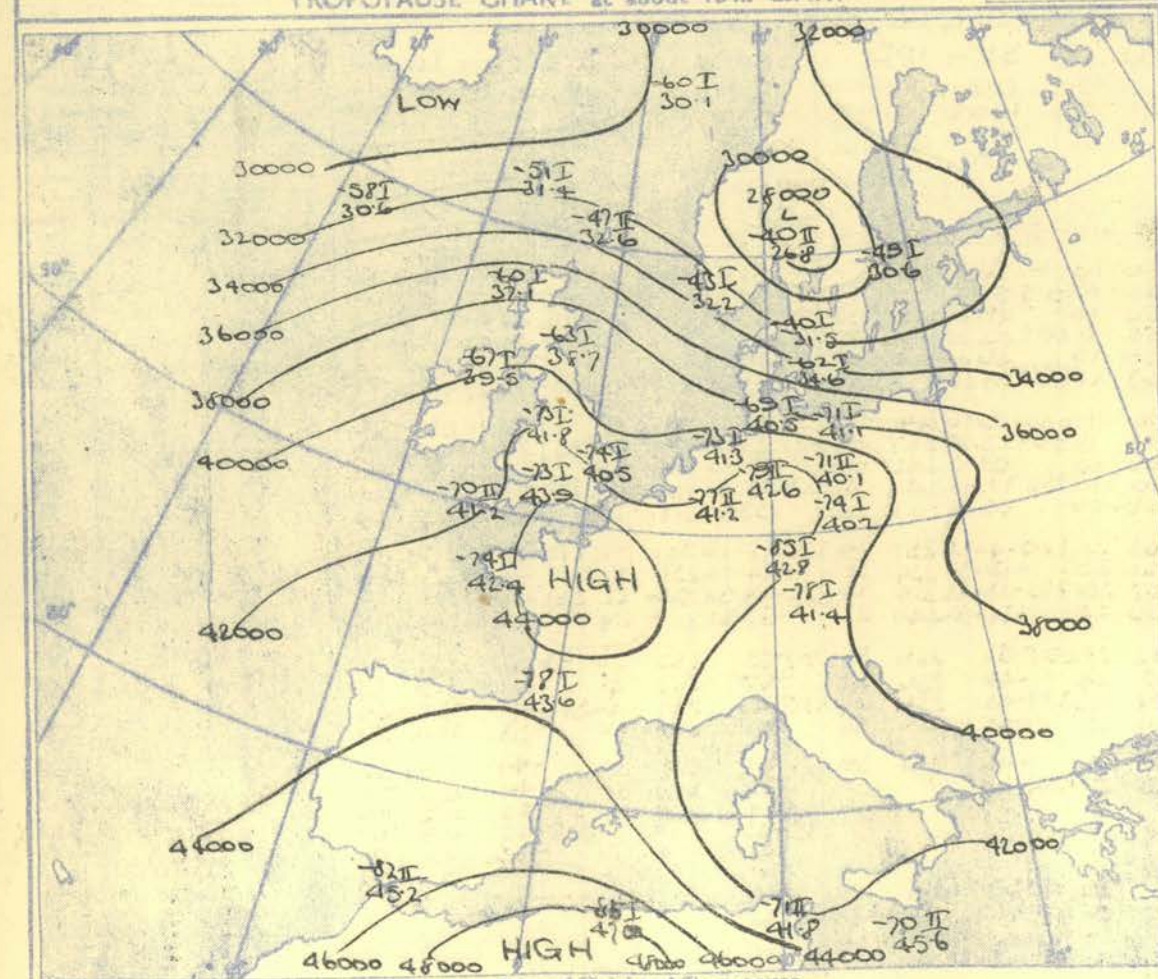
Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

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.

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



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

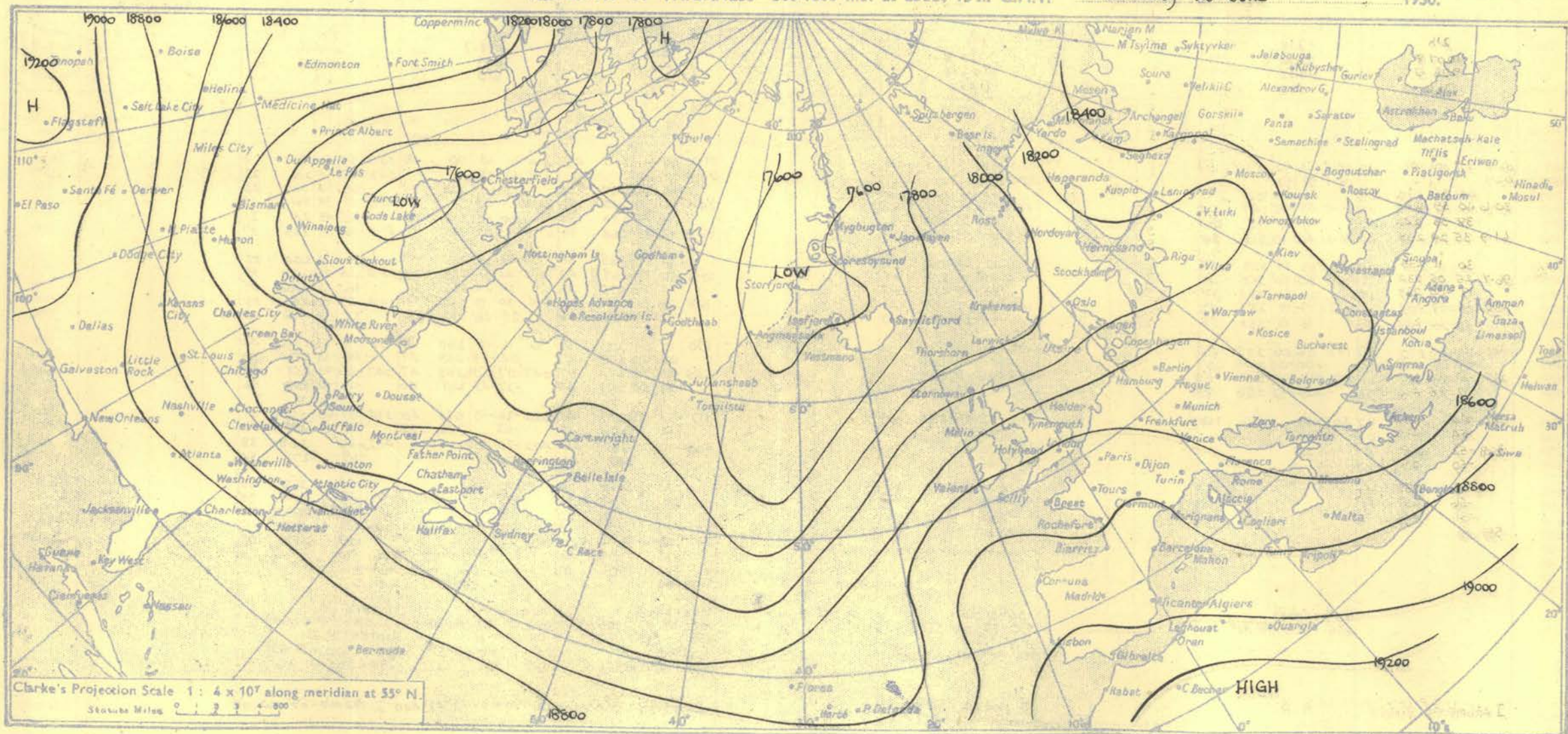
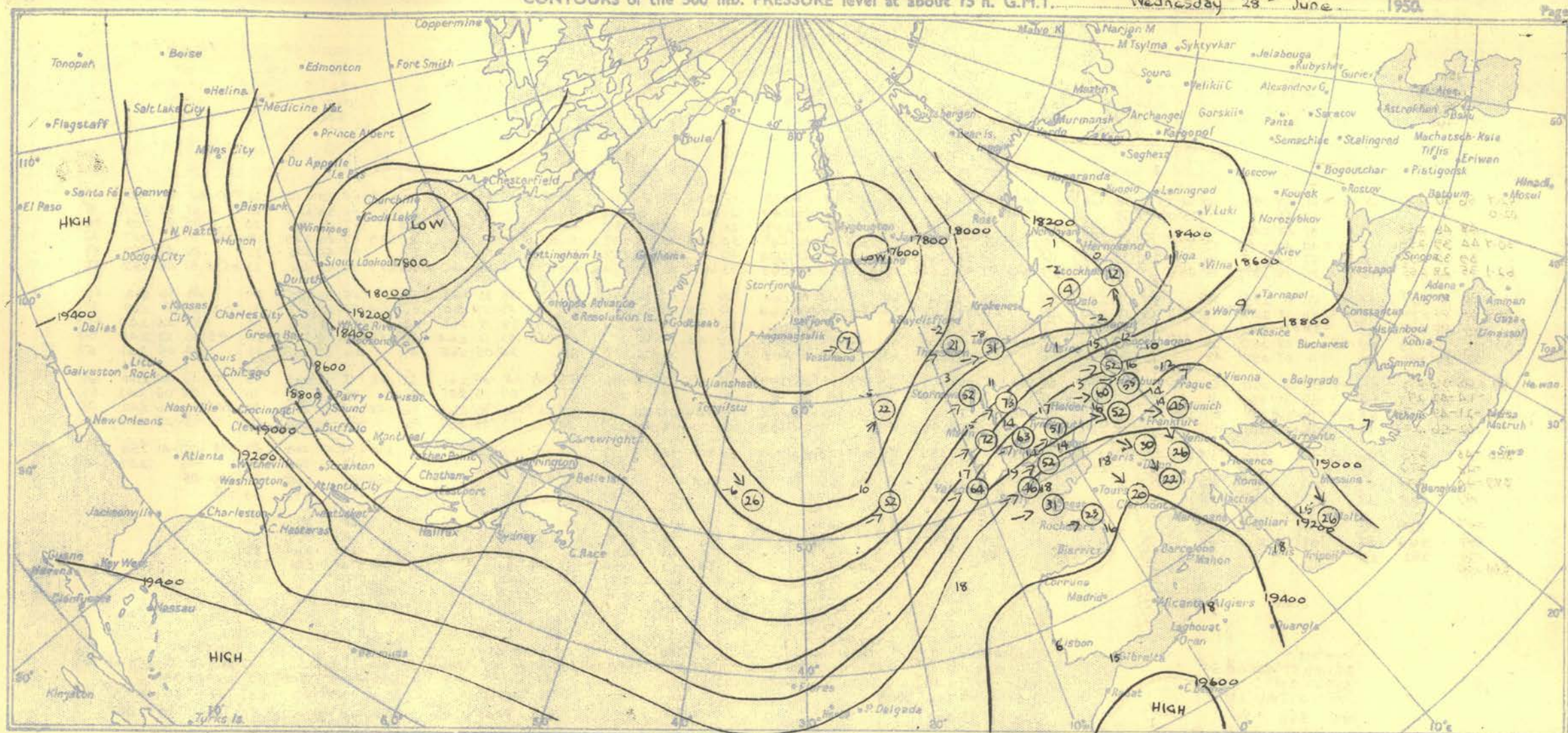
### NOTES ON THE AEROLOGICAL SITUATION.

A cold trough about 25°E has moved little in the last 24 hours, while a well-marked cold trough has developed in mid-Atlantic behind a deepening low.

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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 (Freezing)	Time		15h G.M.T.			Time		15h G.M.T.			Time		15h G.M.T.			Time		15h G.M.T.			Time		15h G.M.T.			Time		15h G.M.T.			Time		15h G.M.T.			Time	Pressure											
	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf	mb	mb	mb	M.S.L.	Surf											
	Freezing					Freezing					Freezing					Freezing					Freezing					Freezing					Freezing				Freezing		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	56	50	250	14	00.5	61	53	190	10	00.2	60	58	Calm	02.3	63	61	235	18	00.6	67	54	230	15	01.2	75	61	215	18	4.4	74	61	220	15	02.9	64	58	210	12	00.3	62	58	200	15	Surf			
1000	02.0				02.1	60	53			03.0	59	58			03.4					03.9	65	55	240	21	04.7	72	59	225	21	5.3	72	59		05.7	61	56	224	22	4.0	61	57	201	18	1000				
950		48	46	253	16		61	47	242	14		52	50	229	10		57	57	248	32		59	54	239	28		63	52	238	24		63	52	248	14		57	51	235	20	950							
900	30.7	44	39	255	13	30.9	44	42	246	13	31.8	47	44	215	13	32.7	52	52	255	37	33.3	56	46	245	34	34.3	55	48	257	31	34.9	58	48	266	21	34.9	59	40	243	18	331	51	47	227	32	900		
850		39	32	253	12		37	34	235	16		43	40	217	16		52	52	261	36		55	42	260	40		53	47	269	37		56	44	259	27		59	46	242	22		55	47	230	37	850		
800	62.1	35	28	255	13	62.4	35	18	227	15	63.5	37	33	224	19	65.0	49	47	262	39	65.7	50	38	263	53	66.7	52	39	274	46	67.4	52	36	260	32	67.5	56	42	241	23	65.4	51	46	232	42	800		
750		30	18	267	17		31	11	230	16		33	29	246	27		45	39	261	50		44	35	264	54		47	36	271	47		48	33	263	37		49	35	239	25		49	36	236	50	750		
700	96.9	25	07	279	18	97.3	26	02	241	16	99.0	32	27	262	40	10.1	41	28	262	56	10.2	39	32	266	55	10.3	41	32	271	47	10.4	43	27	260	36	10.4	44	29	242	31	10.2	46	31	239	57	700		
650		20	06	279	20		21	12	240	19		29	24	271	42		34	24	264	59		32	25	264	66		34	26	274	50		38	19	261	40		38	23	260	34		39	24	240	57	650		
600	136	12	14	279	25	137	14	08	250	28	139	23	16	266	47	142	28	17	264	61	142	27	15	269	66	144	27	18	271	53	145	32	12	264	44	145	32	14	252	38	143	30	22	240	54	600		
550		02	26	281	30		11	07	256	42		20	13	264	56		22	08	258	69		22	15	268	62		23	03	277	53		24	05	263	47		26	07	257	43		24	05	241	57	550		
500	181	08	36	279	31	183	03	01	250	52	186	11	05	267	63	189	15	02	253	72	189	14	06	257	63	190	17	29	271	57	192	14	05	261	52	192	19	12	263	46	190	17	04	240	64	500		
450		14	42	277	45		06	07	255	61		02	05	265	69		06	01	254	76		09	01	267	63		07	45	265	51		07	15	265	56		09	21	257	50		08	05	242	65	450		
400	234	21	49	278	67	237	18	24	261	67	241	07	16	271	75	244	05	11	257	68	245	01	16	262	58	246	06	50	270	63	247	05	30	267	56	248	04	33	255	49	245	02	16	242	68	400		
350		32	56	273	75		26	40	261	103		18	28	267	81		17	24	258	67		14	28	268	64		18	45	269	48		19	43	267	43		18	45	259	48		13	28	248	60	350		
300	300	43		273	96	303	44		260	104	308	32	43	270	86	312	33	41	255	81	313	28	43	266	56	313	34	57	272	54	315	32	56													300		
250		48		270	92		55		259	101		52		273	102		51		256	77		46		266	57		53		277	47		50														250		
200	389	44		273	57	391	52		261	76	396	62			400	66		260	73	402	66			266	401	73		277	53	403	67		50													200		
170		49		268	43		51		262	48		57				65		261	69		67					74			283	48		70														170		
150		47		269	36		51		260	42		55				54		258	47		65					64			285	36		67													150			
130		49		266	27		51		264	48		58				56		252	36		62					62			278	28		68														130		
110		50		252	25							58				60					61					64			286	23		67														110		
100	541	50									545	57					548	58								546	62		290	19	548	65		68													100	
90												52						55									61			277	13		68														90	
80												50						52									61			276	10		63														80	
70												51						52									61																				70	
60												53						52									61																					60

Inversion 850 mb 37°-828 mb 39°  
Isothermal 595°-575 mb 14°  
385-368...21

Isothermal 910-840 mb 52°  
613-595...28°  
Max Wind 156° 96kts  
323 mb 29,400'

Inversion 900 mb 56°-872 mb 57°  
460-06°-447...10°

Inversion 856 mb 52°-837 mb 46°

Inversion 907 mb 57°-881 mb 59°  
479-10°-468...11°  
Isothermal 900-59°-887...60°  
862-824 mb 56°

Inversion 950 mb 57°-933 mb 60°  
900-59°-887...60°  
Isothermal 983-950 mb 57°  
933-917 mb 60°-550-637 mb 64°

Inversion 900 mb 51°-850 mb 55°  
Isothermal 782-760 mb 50°  
718-700...46°

Tropopause	I 266mb-47° 32,600'				I 220mb-60° 37,100'				I 209mb-63° 38,700'				I 205mb-67° 39,500'				I 185mb-73° 41,800'				I 196mb-74° 40,500'				I 177mb-73° 43,900'				I 192mb-70° 41,200'				N. R.				Tropopause																																																																																																																																																										
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																										
Pressure (mb)	Time		21h		G.M.T.		21h		G.M.T.		G.M.T.		21h		G.M.T.		G.M.T.		21h		G.M.T.		21h		G.M.T.		21h		G.M.T.		G.M.T.		Time M.S.L.																																																																																																																																																														
	M.S.L.		1007.9		mb		1004.0		mb		mb		1010.8		mb		mb		1016.2		mb		1018.7		mb		1019.5		mb		mb			Pressure (mb)																																																																																																																																																													
	Surf		998.0		mb		1002.1		mb		mb		1002.4		mb		mb		1011.7		mb		1003		mb		1009.0		mb		Surf																																																																																																																																																																
	Pressing		766		mb		730		mb		mb		645		mb		mb		632		mb		610		mb		613		mb			Pressing																																																																																																																																																															
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	53	49	191	02	00.5	53	52	090	09																							Surf																																																																																																																																																														
1000	02.1					01.1	53	52					03.0																				1000																																																																																																																																																														
950		45	45	246	08		43	48	130	19				55	55	224	34																950																																																																																																																																																														
900	30.6	40	39	245	08	29.8	45	45	141	22			32.1	55	55	238	34																900																																																																																																																																																														
850		38	38	242	07		41	41	183	30				52	52	258	24																850																																																																																																																																																														
800	61.9	35	24	238	08	61.4	40	40	213	38			64.3	47	47	258	24																800																																																																																																																																																														
750		30	11	235	09		35	35	228	45				42	42	261	26																750																																																																																																																																																														
700	36.7	25	05	234	11	36.7	30	30	232	45			10.0	38	38	243	27																700																																																																																																																																																														
650		19	-04	239	14		26	26	234	47				33	33	232	37																650																																																																																																																																																														
600	136	14	-17	259	16	137	19	19	237	42			141	29	29	235	46																600																																																																																																																																																														
550		06	-20	268	25		13	13	232	38				21	20	240	57																550																																																																																																																																																														
500	181	-02	-23	270	37	183	06	06	235	45			188	13	10	244	58																500																																																																																																																																																														
450		-09	-18	272	50		-04	-04	241	57				04	00	256	69																450																																																																																																																																																														
400	235	-21	-28	269	61	237	-16	-18	247	64			243	06	-11	253	75																400																																																																																																																																																														
350		-32	-38	270	91		-29	-32	256	83				-19	-23	250	76																350																																																																																																																																																														
300	300	-44		272	112	303	-43		252	118			310	-32	-37	254	59																300																																																																																																																																																														
280		-54		275	106									-52																			280																																																																																																																																																														
260	388	-52		269	57								398	-70																			260																																																																																																																																																														
240		-50		267	43									-65																			240																																																																																																																																																														
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60																																		60																																																																																																																																																													
Isothermal 855-805mb 41°																																Isothermal 950-885mb 55° Max Wind. 254 90kts 335mb 28,500																																Inversion. 1012mb 69°-995mb 70° 569 - 20° 550 - 21° Isothermal 940-900mb 61° 920-900mb 60°																																Inversion 980mb 58°-960mb 63° Isothermal 940-900mb 61° 535-521 - 21°																																Inversion 960mb 53°-920mb 63° Isothermal 920-900mb 63° 590-565 - 26°																																Tropopause																															
Tropopause	I 236mb-56° 35,500'				N. R.				II 208mb-70° 39,000				I 200mb-70° 40,000				II 180mb-72° 42,400				I 182mb-69° 42,100				Tropopause																																																																																																																																																																						

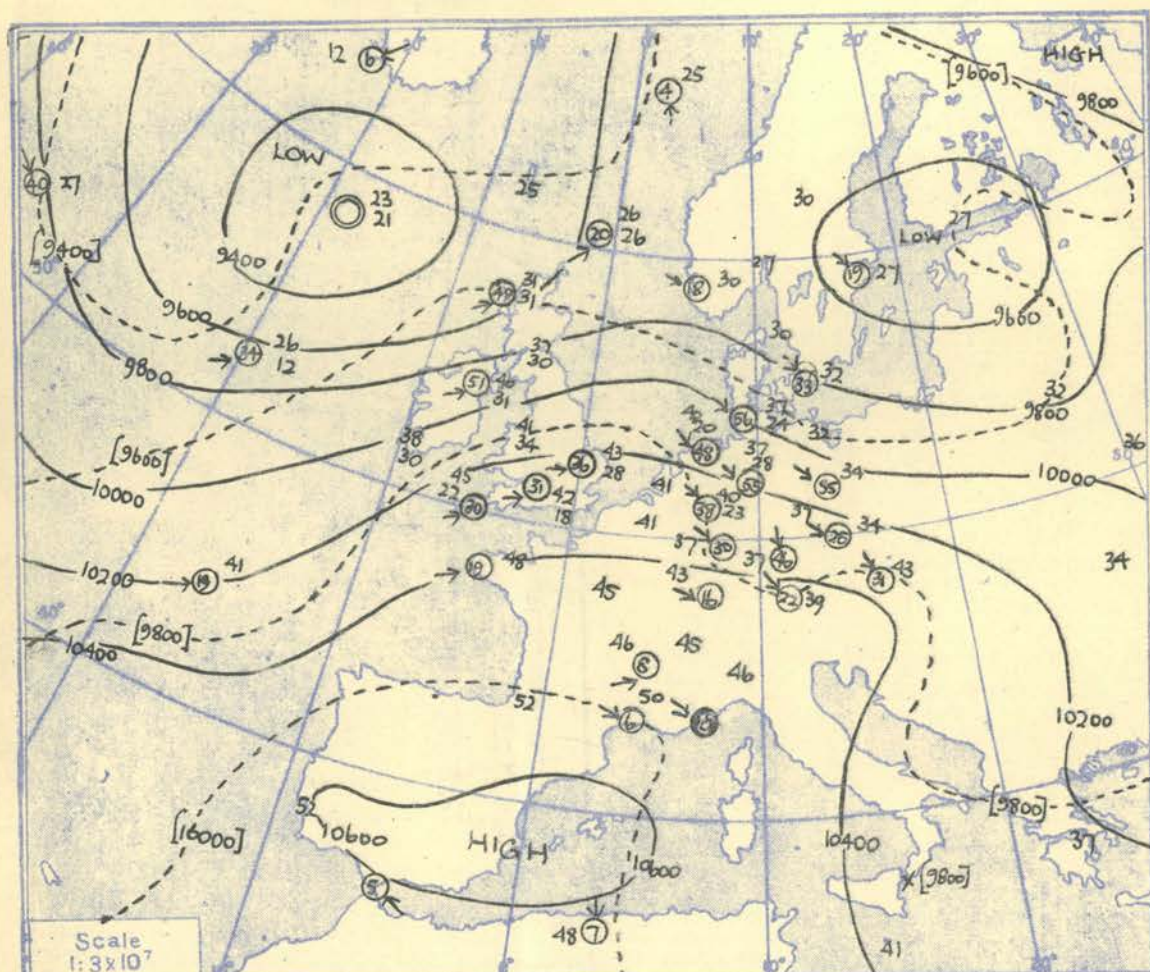


**RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)**

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA			
Pressure mb	Time M.S.L.	03h.		G.M.T.		02h.		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	Freezing	Surf	Freezing						
		1006.3		mb		998.9		mb		1006.4		mb		1008.2		mb		1012.6		mb		1015.5		mb		1018.1		mb		1017.4		mb					
		996.3		mb		997.1		mb		1005.6		mb		999.8		mb		1010.6		mb		1011.1		mb		1002.2		mb		1006.9		mb					
		805		mb		650		mb		655		mb		650		mb		650		mb		622		mb		633		mb		562		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					
Surf	01.7	51	50	112	00.3	56	55	180	00.2	60	58		02.3	60	58	200	12	00.6	58	52		01.2	60	59	190	09	4.4	56	56	200	15	02.9	57	56	210		
1000	01.6				00.3				01.7				02.3					02.5				04.3															
950	48	44	149	17	52	51	211	32	01.7	55	54		02.3	55	51	218	24	02.5	59	51		04.3	60	59													
900	30.3	44	39	165	18	28.7	50	49	215	33	30.9	53	52	31.3	52	48	223	32	32.8	61	41		33.9	66	56	242	26	34.3	60	45	237	22	04.8	57	55	210	
850	40	35	176	15	46	46	220	35	30.9	49	46		31.3	51	48	240	37	32.8	59	45		33.9	66	56	242	26	34.3	64	27	239	27	34.0	63	35	235		
800	61.7	31	28	152	13	60.5	41	41	230	38	63.0	45	41	63.4	48	45	236	46	65.4	53	43		66.6	53	40	251	30	67.0	61	30	240	27	66.8	61	37	233	
750		27	24	148	16	35	34	231	37	41	36		63.4	48	45	236	46	65.4	53	43		66.6	53	40	251	30	67.0	55	29	248	27	66.8	58	36	233		
700	96.5	26	26	199	20	37	31	230	40	07.9	37	30		99.4	44	38	235	48	47	38			48	33	244	32		50	23	251	30		52	30	232		
650	22	21	233	25	32	32	227	42	07.9	37	30		99.4	40	31	238	51	102	41	34			103	43	38	247	36	103	42	18	251	31	103	45	22	233	
600	136	17	16	247	32	136	26	219	44	139	25	19			32	24	237	53		32	28			103	43	38	247	36	103	42	18	251	31	103	45	22	233
550	11	10	249	37	19	18	221	46	139	25	19		140	26	19	238	58	142	26	21		144	29	12	257	41	144	29	11	256	34	144	35	2	244		
500	182	04	01	248	39	183	10	07	221	53	186	12	07	186	12	06	244	68	189	11	07		144	29	12	257	41	144	23	35	260	42		30	19	246	
450	236	07	11	248	45	236	11	05	230	65	241	04	02	241	04	02	241	67		03	02		190	15	22	265	50	191	11	47	258	45	192	19	14	246	
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350	236	28	32	251	81	237	27	35	232	88	241	04	02	241	04	02	241	67		03	02		245	04	31	269	49		02	48	261	48		08	20	247	
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250		57		255	107		56				54			398	50		239	83		54			401	53		267	43		58	261	36		51		253		
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150		53		262	40	453	56			457	63			459	67		256	53		75			460	70		274	32	45.8	75	268	30		76	265	33		
130		55		257	33	56				62				460	60		261	35		73			460	63		281	28		79	265	24		78	262	29		
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100	529	54		245	20	Inversion			543	61			544	67		246	24	543	75				544	63		268	21		77	275	16	546	76	268	27	546	
90		53		248	20	700 mb 31° - 682 mb 35°				63			544	68		246	24		70			544	63		268	21		77	275	16	546	76	268	27	546		
80		54		248	13	Isobaric				6																											

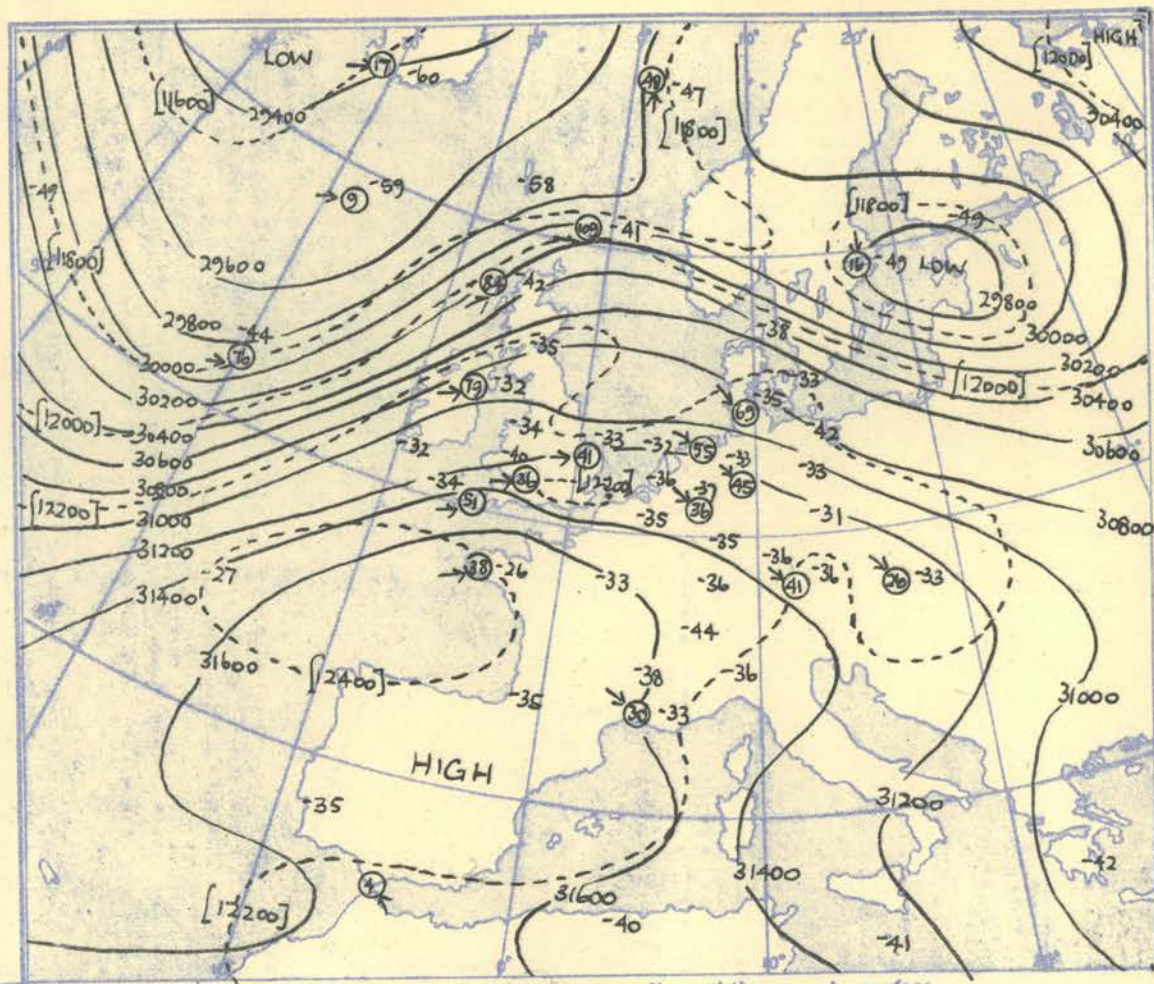


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.

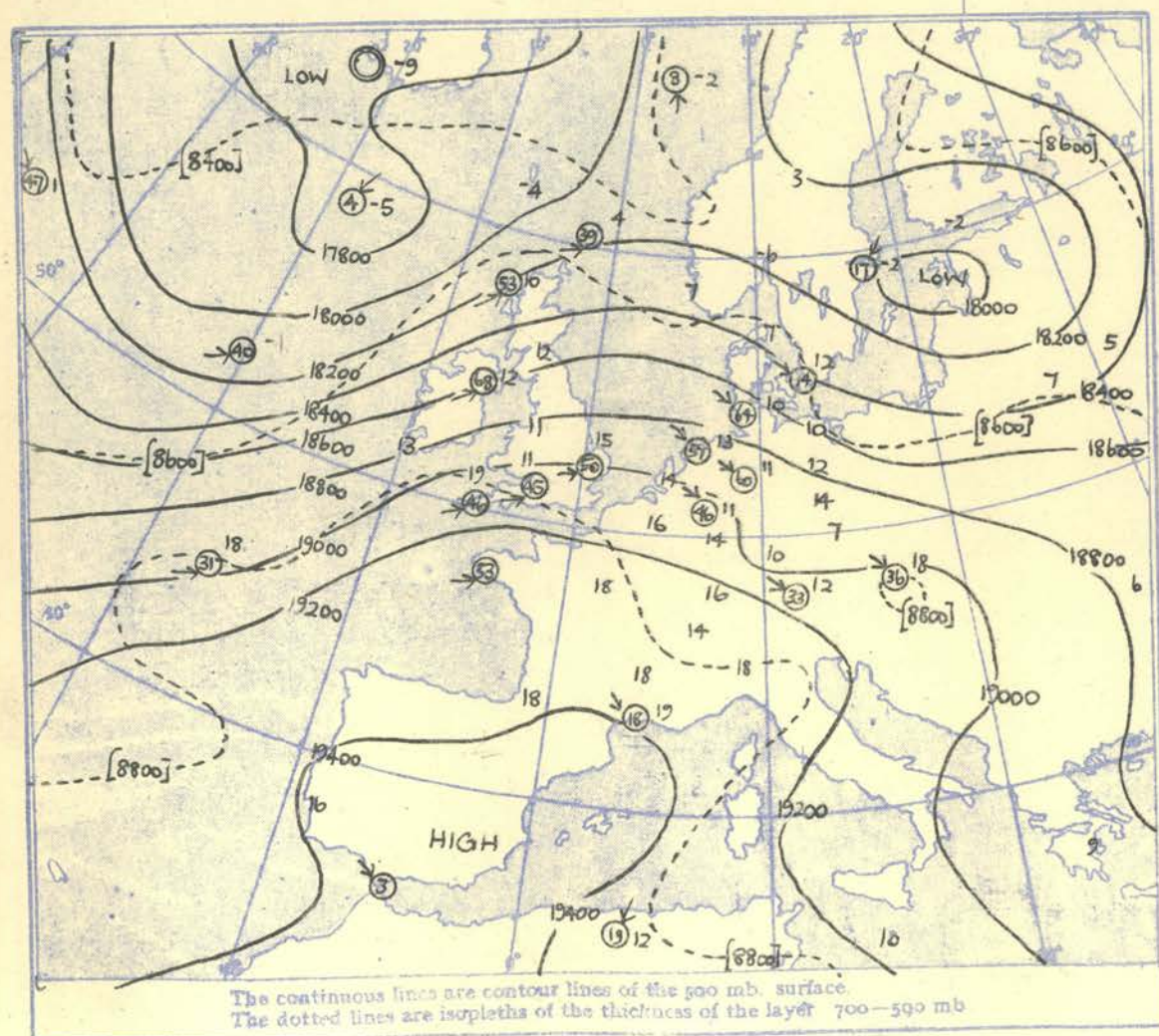


The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

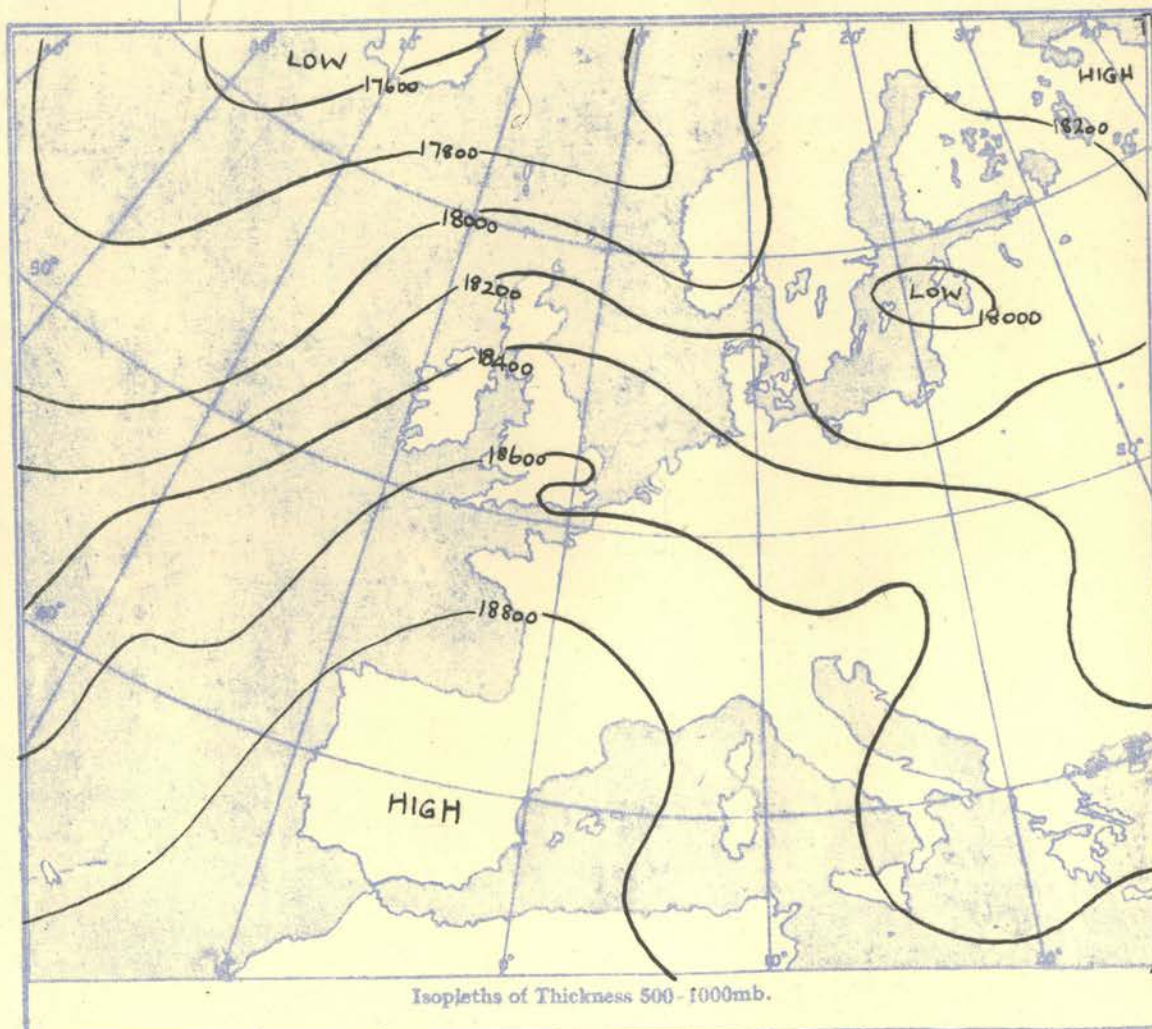
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N



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.



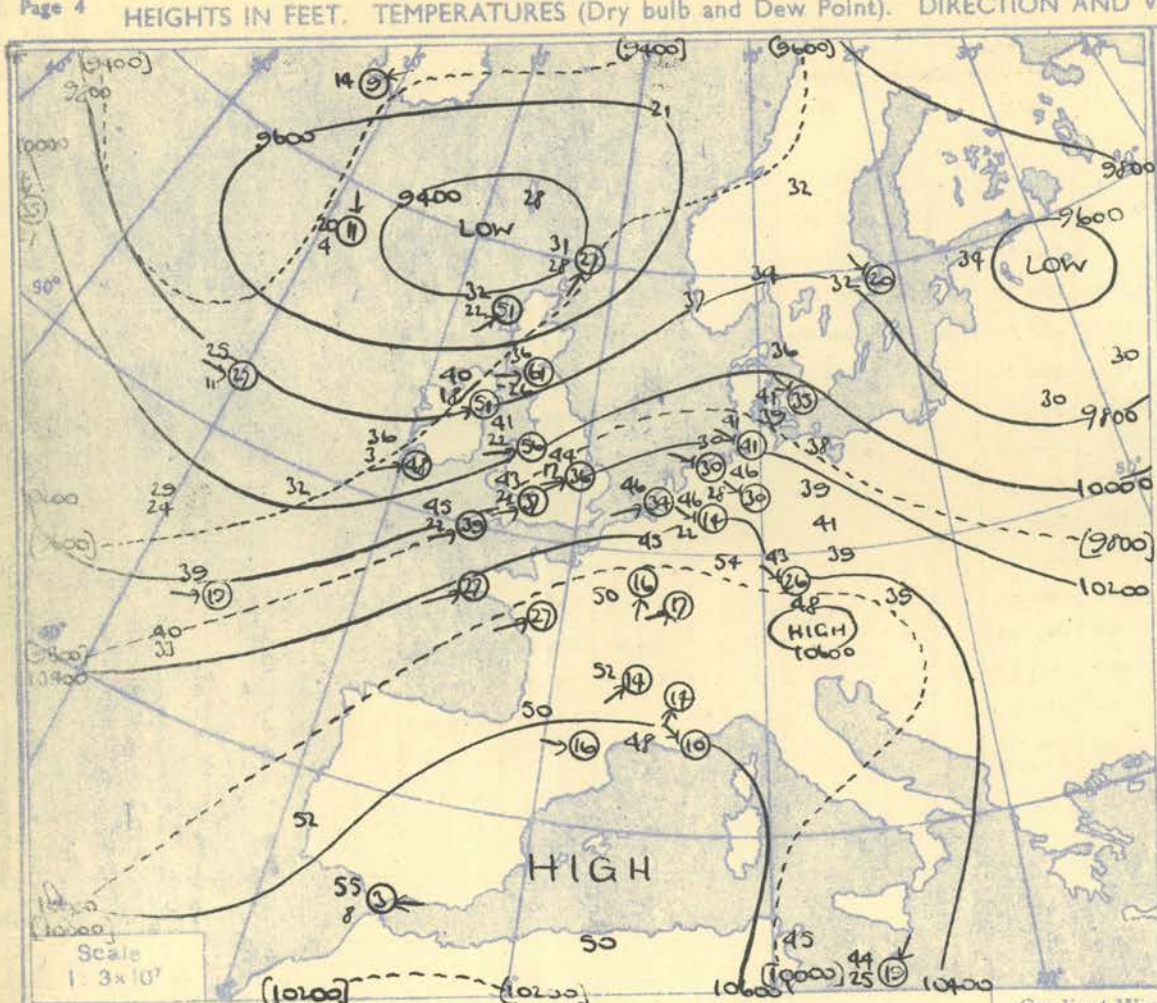
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

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

[illegible]



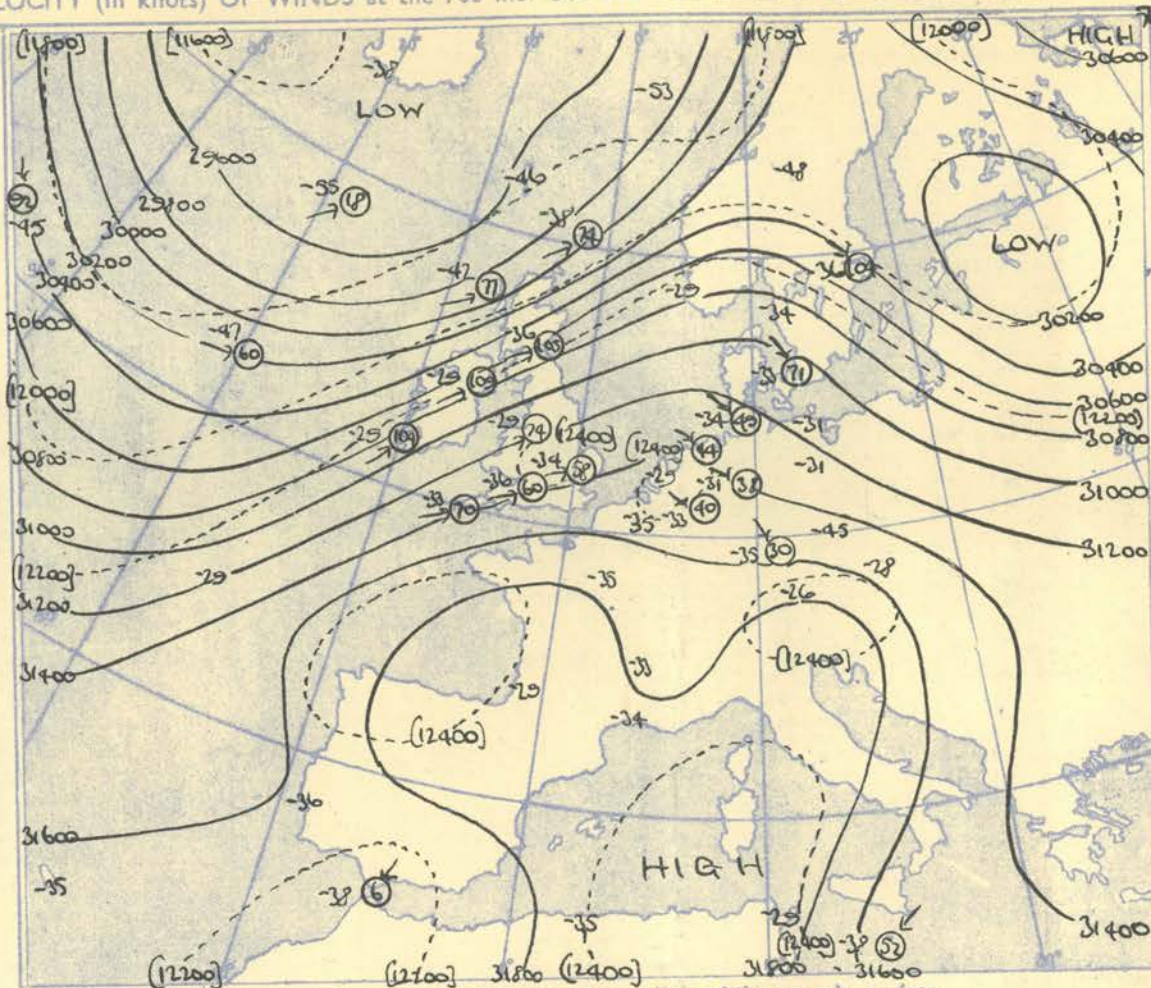
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

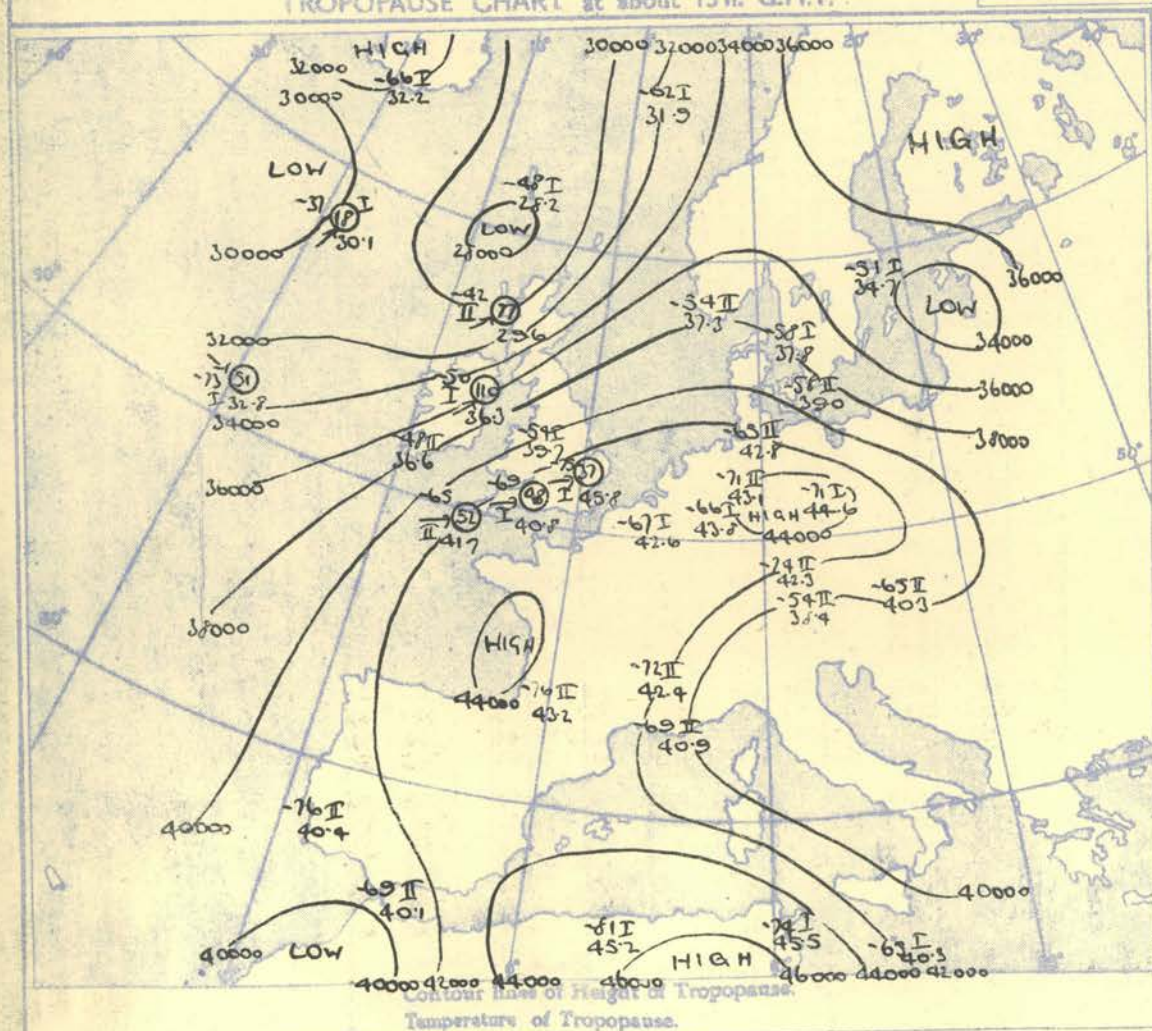
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

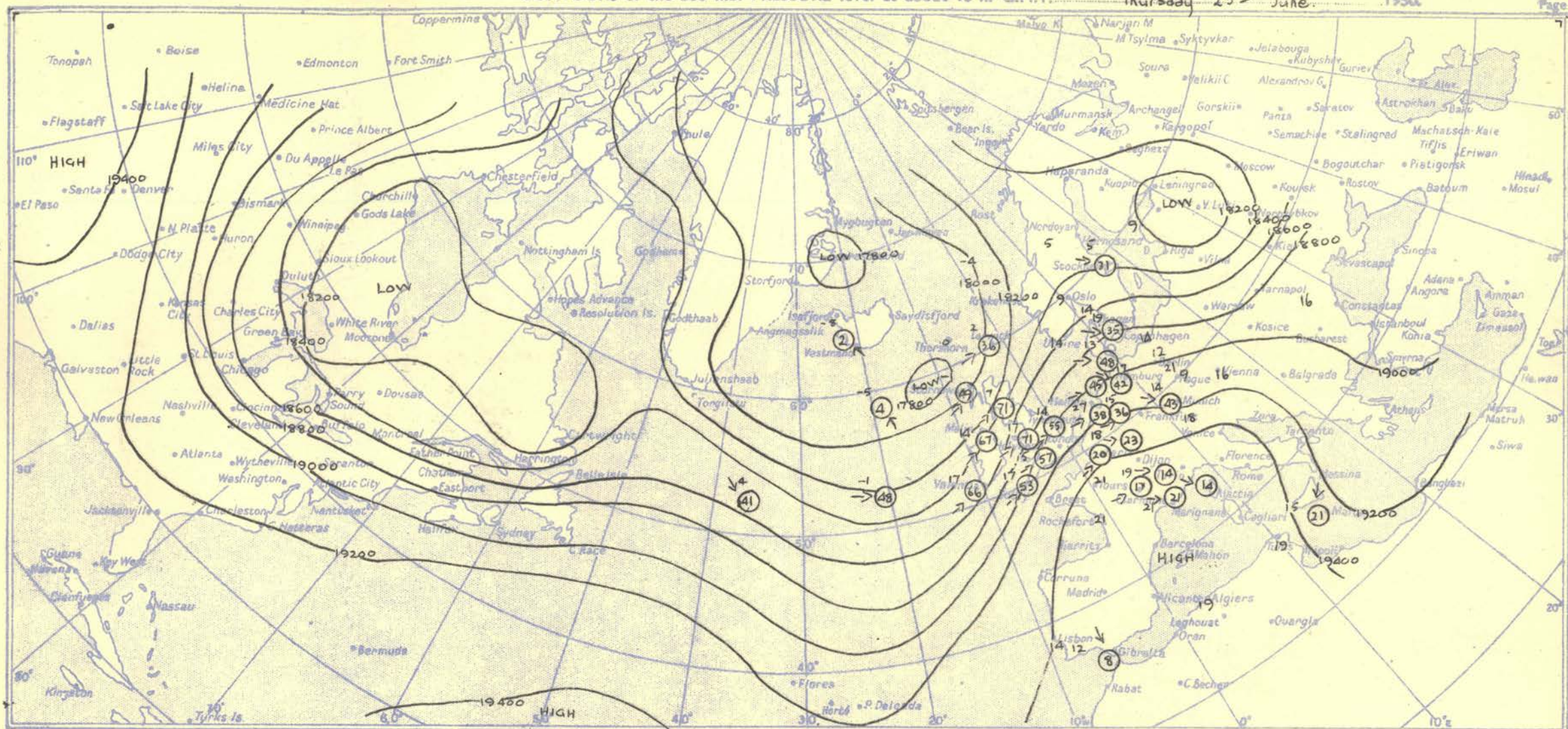
### NOTES ON THE AEROLOGICAL SITUATION.

The cold trough on the Atlantic travelled eastward at nearly 20 m.p.h. and ahead of it the warm ridge intensified due to subsidence over France and South England. A cold pool persisted over the Baltic States.

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

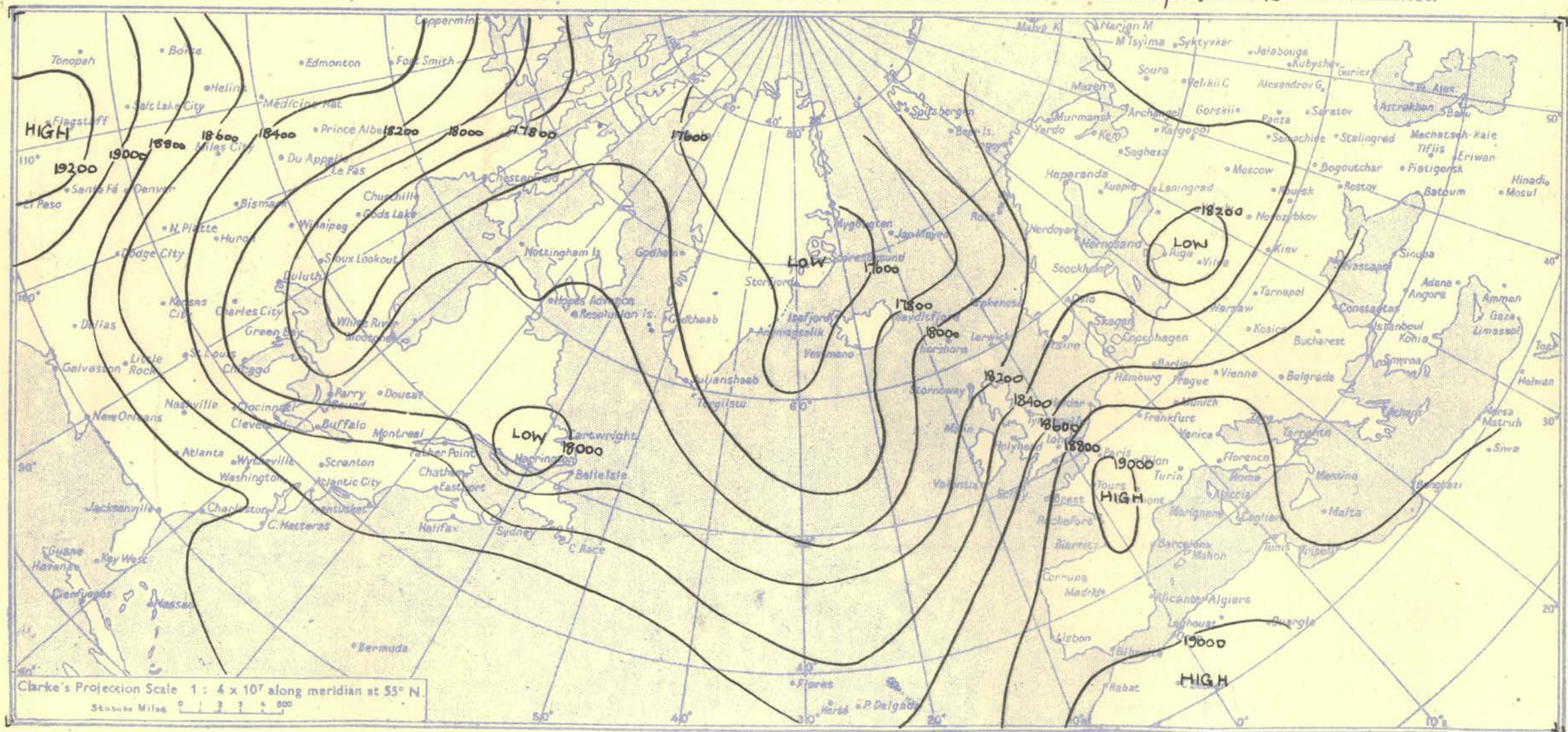




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 29<sup>th</sup> June

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				15h				15h				15h				15h				15h				15h				15h				15h				Time M.S.L. Surf Freezing					
	996.4				995.3				1002.3				1005.9				1008.8				1011.6				1013.4				1015.1				1011.8									
	986.6				993.4				1001.5				997.5				1006.8				1007.4				998.1				1004.6				1010									
718				700				655				640				610				618 765				610				610				650										
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	57	56	230	24	00.5	58	55	190	20	00.2	65	57	260	17	02.3	62	57	260	15	00.6	69	57	01.2	79	57	200	15	04.4	73	58	230	15	02.9	62	57	180	15	00.3	61	55	Surf
1000	01.1				00.1					00.6	65	57			01.6	62	57			02.5	68	57		03.3	77	57			03.9				04.1	61	56	206	24	3.2	60	54	1000	
950		51	49	245	33		52	51	211	39		57	52	248	30		57	52	258	19		63	56		67	52	230	22		63	55	236	21		56	53	226	24		53	49	950
900	27.8	46	44	239	31	27.6	46	45	223	39	29.7	49	46	244	38	30.7	50	47	258	19	32.0	55	52	33.2	65	41	245	27	33.5	62	46	237	22	33.4	60	50	236	27	32.2	48	42	900
850		44	44	227	26		41	38	231	38		45	42	241	43		45	43	247	26		54	51		62	37	247	31		61	41	240	28		60	39	240	30		44	35	850
800	59.5	41	41	203	25	59.2	39	32	235	42	61.5	41	25	244	48	62.6	48	18	240	42	64.4	50	47	66.0	56	35	240	33	66.2	56	30	241	34	66.0	56	36	241	32	65.9	45	25	800
750		35	32	204	24		37	28	235	46		42	16	244	59		43	36	238	49		45	41		49	23	241	34		50	32	237	36		50	32	241	34		41	14	750
700	94.8	31	38	203	27	94.6	32	22	232	51	97.0	36	26	245	61	98.4	40	18	237	51	10.0	41	22	10.2	44	17	242	36	10.3	43	21	234	37	10.2	45	22	236	39	99.5	36	03	700
650		26	23	203	26		26	12	235	48		31	17	245	61		34	22	234	53		36	21		36	14	239	40		37	19	230	41		37	08	235	40		32	04	650
600	135	18	15	211	28	135	21	00	237	45	137	24	13	239	62	139	26	22	232	56	141	31	05	143	30	06	237	45	143	31	13	229	43	143	30	06	235	44	140	27	14	600
550		11	13	238	35		10	14	234	44		17	04	233	72		20	06	234	55		23	13		23	03	243	54		24	03	231	45		27	07	237	51		21	19	550
500	180	02	34	236	36	180	01	26	233	49	184	07	13	238	71	186	14	21	233	67	188	17	05	190	14	08	244	55	191	15	07	237	57	191	17	27	230	53	187	12	27	500
450		09	44	240	38		10	38	235	57		00	31	240	83		07	31	232	76		09	02		03	19	246	54		06	20	237	46		07	37	233	53		03	34	450
400	234	20	54	239	48	234	24	46	233	61	238	07	50	237	85	241	02	45	233	90	244	02	27	245	06	32	247	61	246	08	32	236	47	246	05	25	236	55	242	03	39	400
350		32	59	235	61		34	52	232	67		21	54	234	93		15	51	234	105		15	38		19	42	244	56		21	41	241	52		18	55	239	65		15	47	350
300	300	38	58	233	74	299	42		235	77	306	36	59	245	105	309	29	51	233	109	312	29	47	313	34	56	252	58	313	36	57	248	60	314	33	60	242	70	310	29	56	300
250	(284 mb)	40	60			40	233		233	69	394	42		229	66	394	47		233	123		42	402	47		249	51		52		255	60		47		240	73		44	250	250	
200						394	42		229	66	394	42		229	66	394	47		230	104		63		72			242	44		67		258	48		61		250	60		49	200	
170							47		229	57		62			51			232	67		59						245	44		68		254	29		65		248	46		55	170	
150							48		228	53		60			50			220	60		61						246	37		69		247	32		66		246	42		55	150	
130							46		231	51		53			49					59							250	32		69		245	34		67		247	29		55	130	
110							44		234	38		50			48					58							254	25		70		265	25		66				57	110		
100						538	41		234	38	544	51			51		551	51		51						546	66		260	24	545	66		283	22	549	67		550	57	100	
90							45					58			54			54		58							249	15		63		295	19		66				57	90		
80							48					56			51			55		55							233	08		60		141	14		63				57	80		
70												51			47			45		45							246	06	674	63					56				56	70		
60												55			43			50		50							60	06	674	63					55				55	60		
Inversion 876 mb 43°-850 mb 44° Isothermal 305-285 mb -42° Inversion 800 mb 41°-793 mb 43° 716-39°-696-40° Inversion 205 mb -54°-197 mb -52° Isothermal 900-889 mb 65° Isothermal 716-705-45° Max Wind 246 mb 35400 232° 135 Kts.																																										
Inversion 912 mb 63°-900 mb 65° 442-01°-435-02° Isothermal 900-889 mb 65° Isothermal 716-705-45° 535-525-20°																																										
Inversion 919 mb 58°-900 mb 62° Isothermal 900-864 mb 62°																																										
Inversion 915 mb 56°-923 mb 60° Isothermal 923-850 mb 60° 591-570-29°																																										
Inversion 818 mb 42°-800 mb 45°																																										
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Tropopause II 259 mb -49° 33,500'																																										
Tropopause I 150 mb -74° 45,900' II 200 mb -66° 39,900' I 195 mb -63° 40,600'																																										

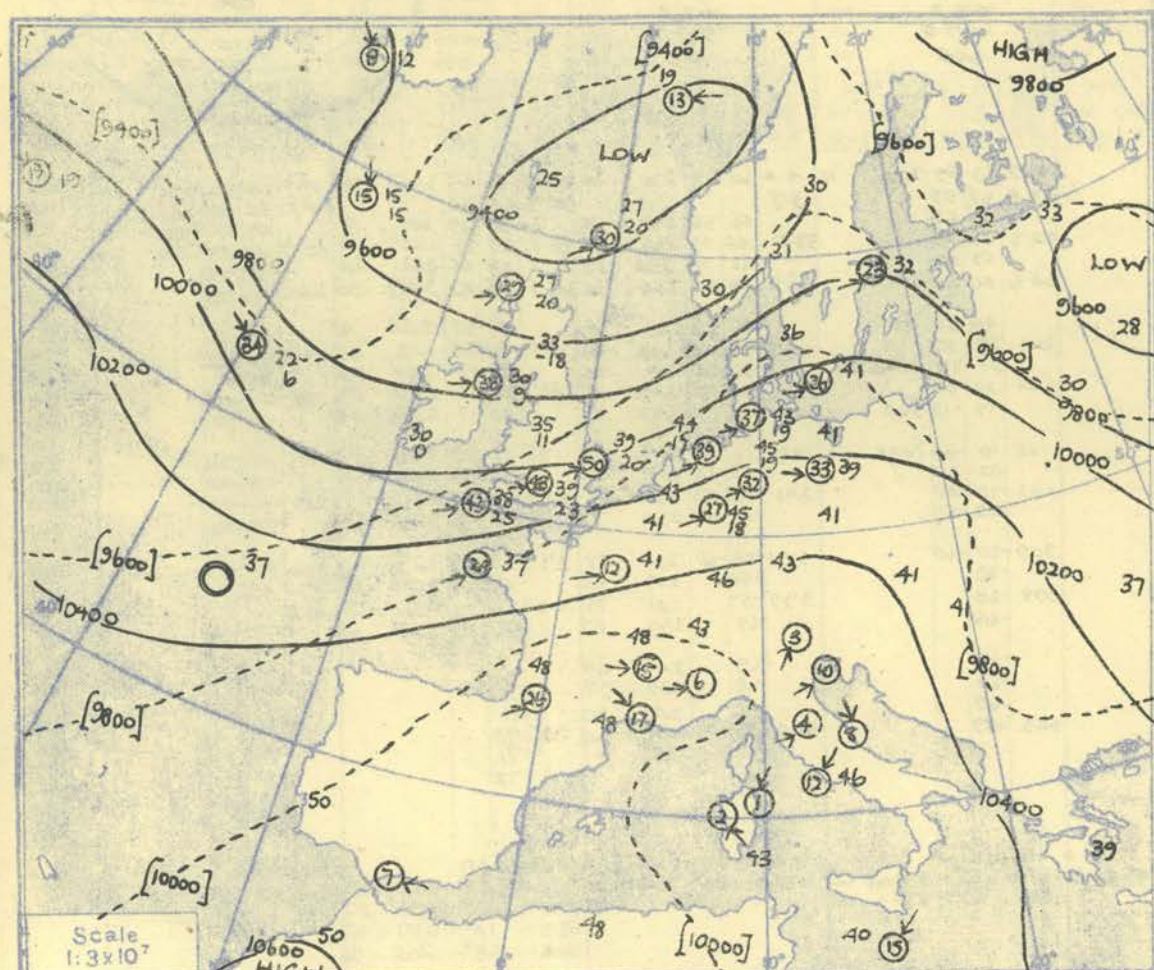


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure mb	Time M.S.L. Surf Freezing	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					
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		985.0		mb		996		mb		1001.1		mb		1008.6		mb		1007.0		mb		1011.3		mb		1013.4		mb		1015.7		mb							
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.					
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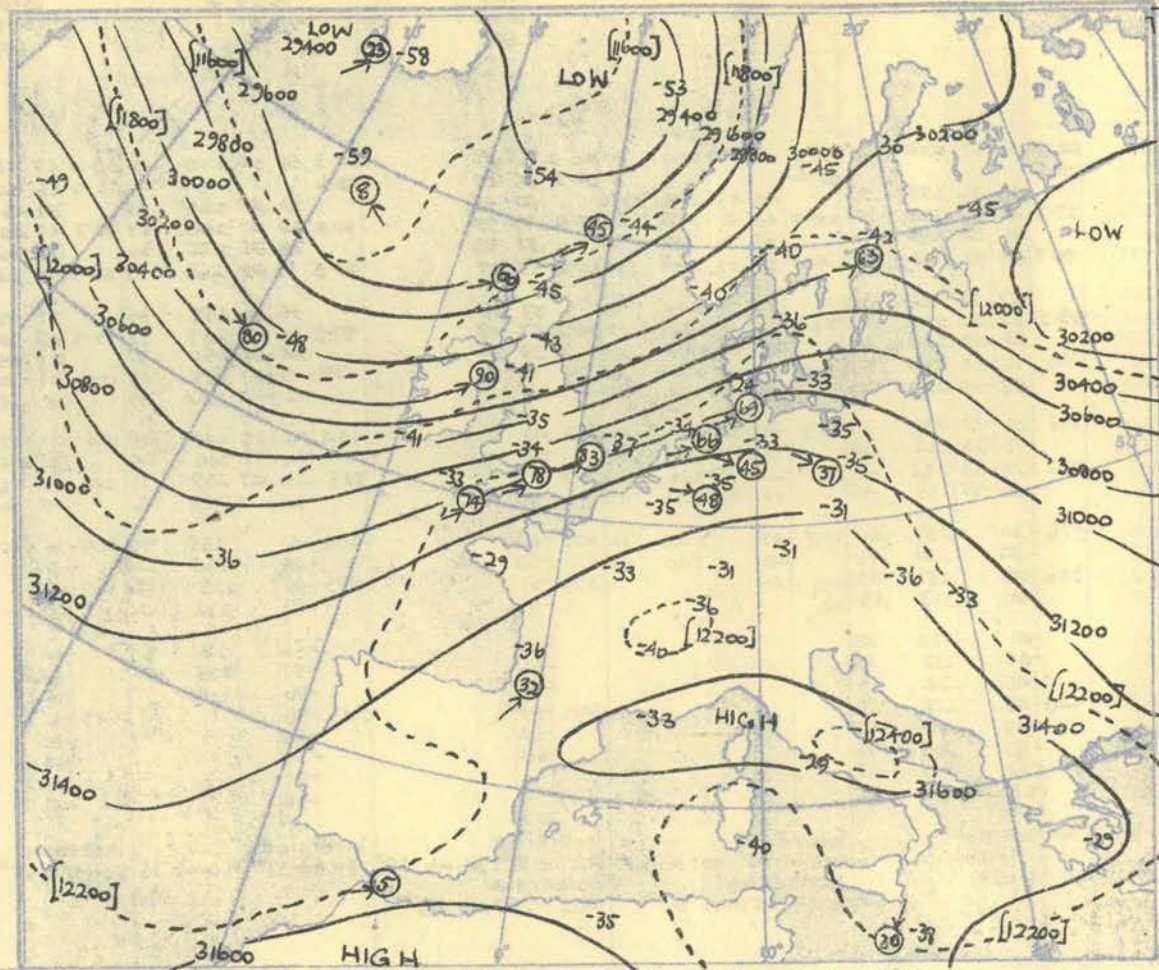
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



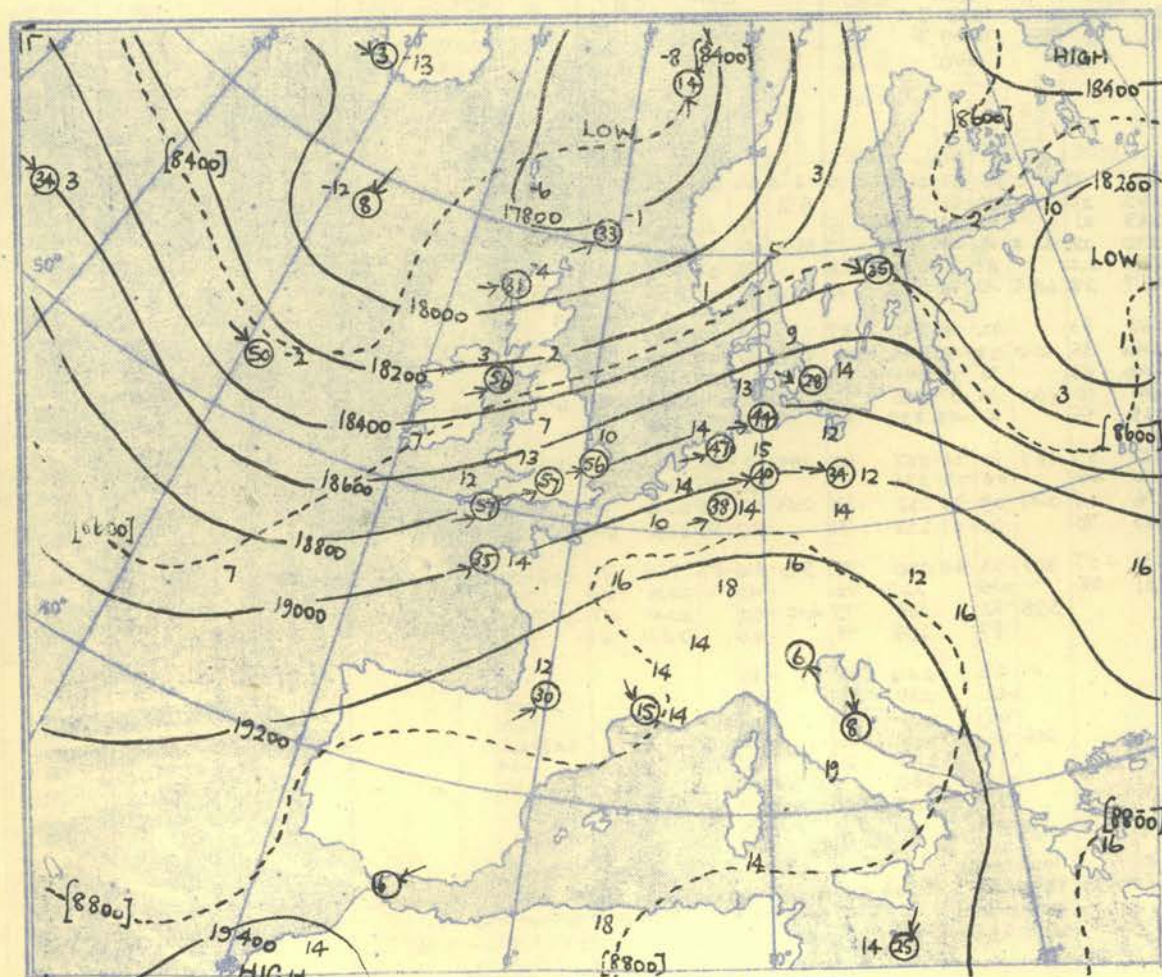
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 54° N

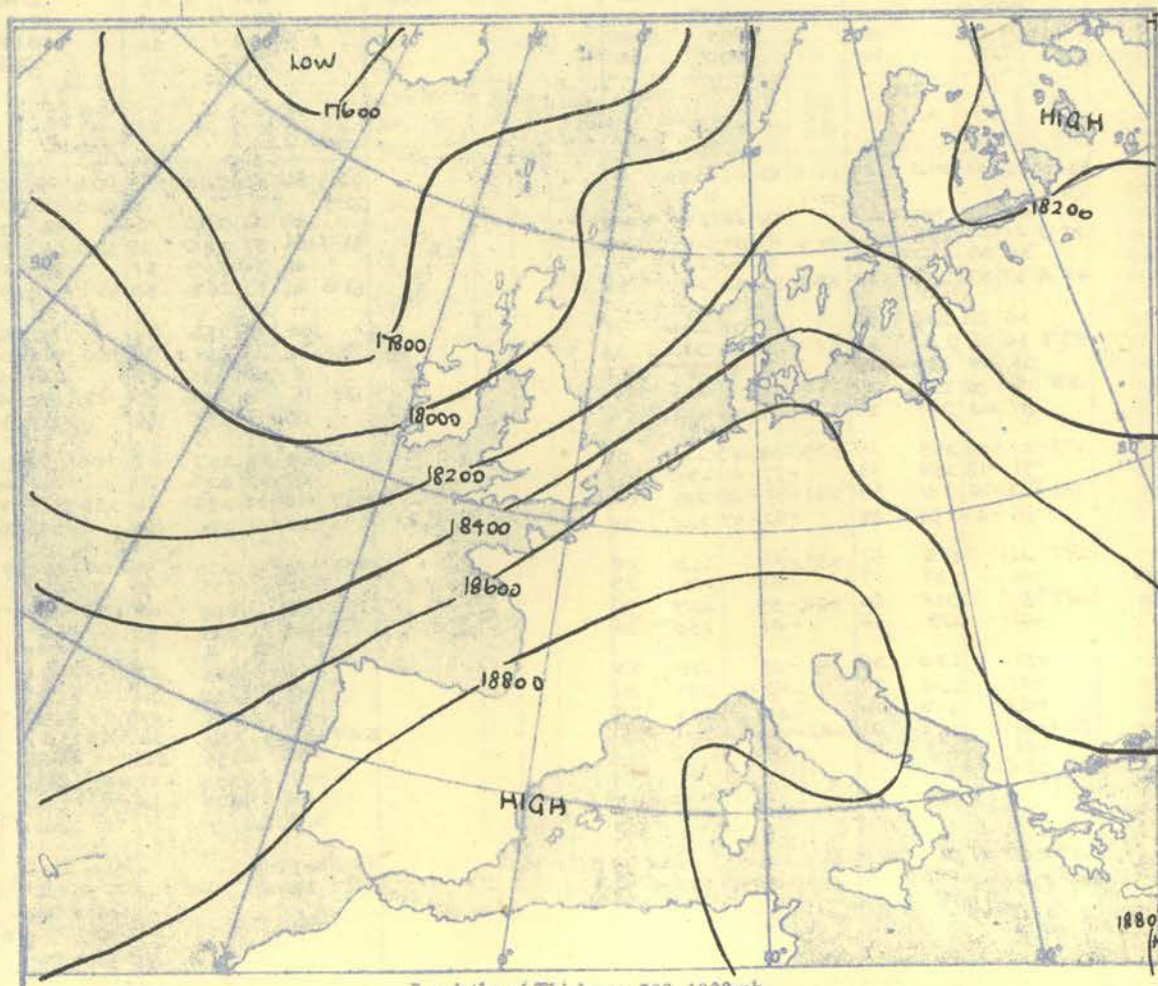
100 80 60 40 20 10 knots



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	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	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Pressure mb		
	Time M.S.L. Surf Freezing	Time M.S.L. Surf Freezing	Time M.S.L. Surf Freezing																														
Surf	1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170															
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
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1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
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1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170																
1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	250	200	170		</														

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

Place	Downham		Ronaldsway		Shoeburyness		Stornaway		Leeming		Ronaldsway		Lympne		Liverpool		Leuchars		Place
Time	03h		03h		09		15h		21h		21h		21h		21h		21h		Time
Type															Pillar		Pillar		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	220	11	270	15	300	04	270	10	240	15	290	08	270	08	270	15	270	16	Surf.
1,000	260	25	260	36	290	08	270	27	250	36	290	15	260	24	272	21	274	33	1,000
2,000	270	27	270	32	260	13	260	27	250	30	290	22	260	23	279	23	276	33	2,000
3,000	260	31	270	28	250	14	260	27	270	38	280	29	260	18	284	23	286	35	3,000
4,000	260	32	270	23	250	17	260	28	260	50	270	30	270	20	282	26	289	35	4,000
5,000	250	37	270	25	250	26	260	29	270	60	270	32	290	17	283	27	291	36	5,000
6,000	140	37			250	35	270	28	280	50	260	36	260	24	283	30	293	38	6,000
8,000	230	44			260	39	270	28	280	40					284	33	289	36	8,000
10,000	230	50			240	42	270	26							279	34	293	36	10,000
14,000	240	58			240	50	270	21							273	44	293	30	14,000
18,000	240	56			240	55	260	22							264	71	301	26	18,000
24,000	240	69			240	64	220	29							257	99	330	18	24,000
30,000	240	83			230	72	210	16							257	110	265	35	30,000
40,000	250	76			230	55	330	40							254	67	248	43	40,000
50,000	240	30			220	47	330	24									243	31	50,000
					(45,000)												206	11	60,000
																	263	10	70,000

## NEPHOSCOPE OBSERVATIONS

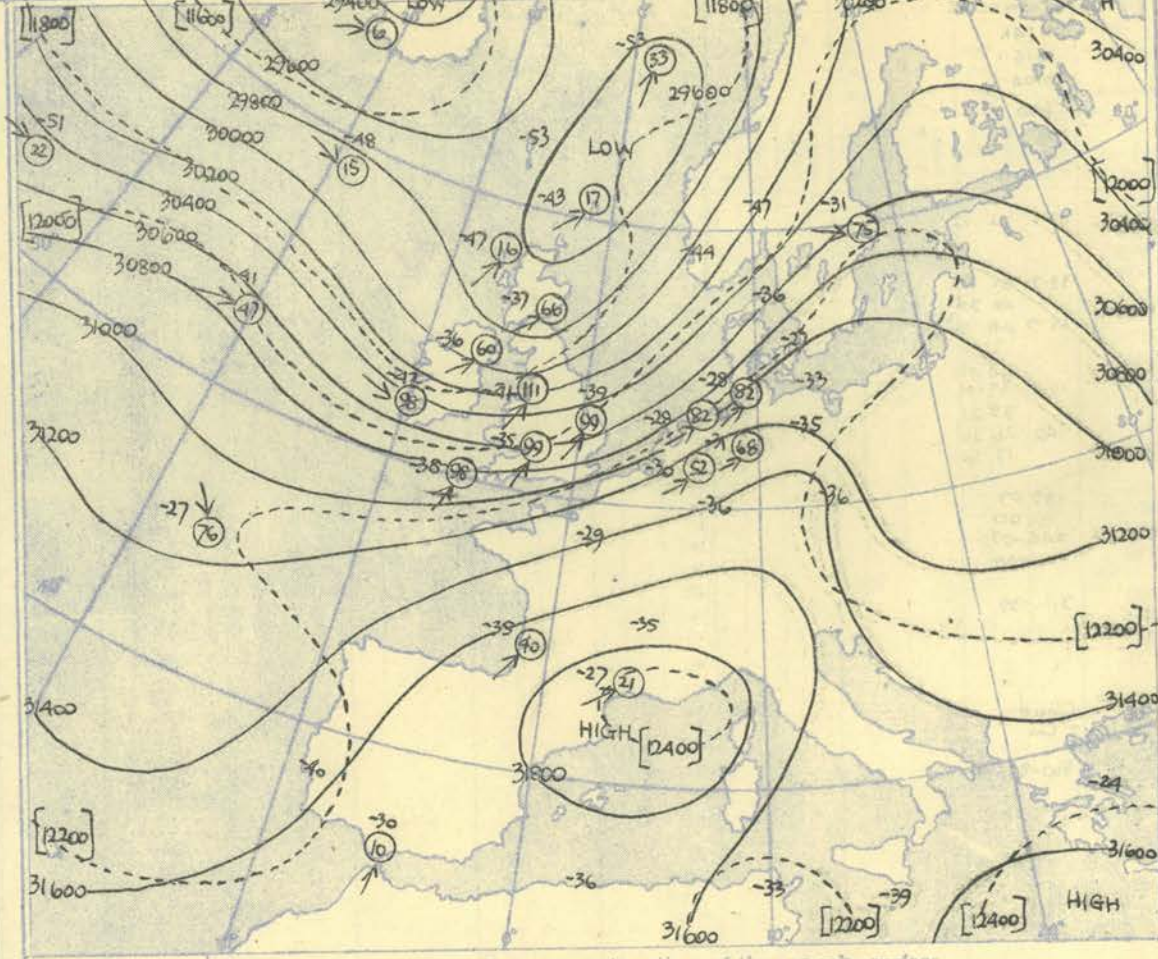
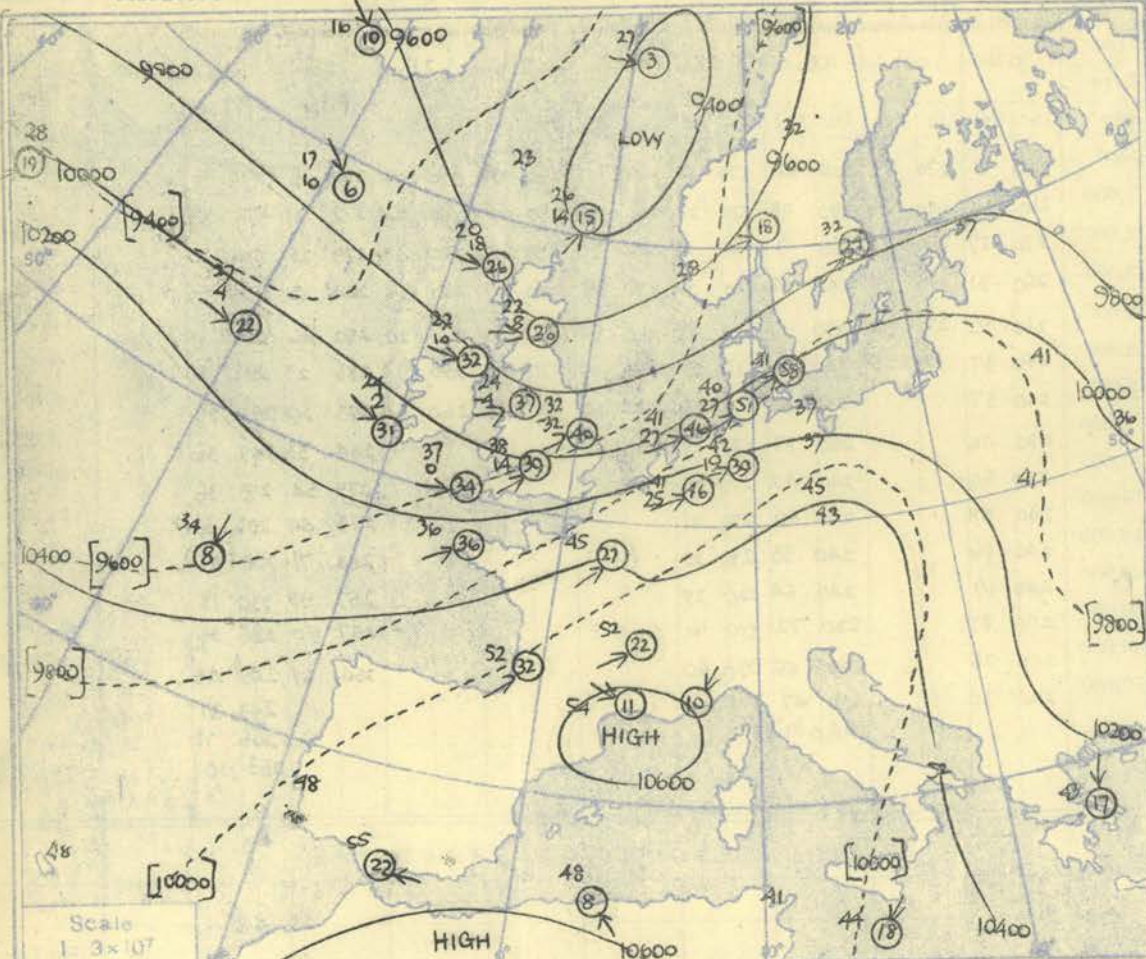
[illegible]

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

Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				Ship
Lat/Long	59-1 N 19-1 W				59-0 N 19-0				59-0 N 19-0 W				59-0 N 19-0 W				52-5 N 20-1 W				52-5 N 19-9 W				52-5 N 20-0 W				52-5 N 20-0 W				Lat/Long
Pressure M.S.L. Surf Freezing	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.		G.M.T. Time M.S.L. Surf Freezing				
	03h.	mb	09h	mb	15h	mb	21h.	mb	03h	mb	09h	mb	15h	mb	21h	mb	03h	mb	09h	mb	15h	mb	21h	mb	03h	mb	09h	mb					
	1008	mb	1011	mb	1015	mb	1016	mb	1017	mb	1019	mb	1022	mb	1023	mb	1022	mb	1019	mb	1022	mb	1023	mb	1023	mb	1023	mb					
850	mb	850	mb	850	mb	860	mb	845	mb	810	mb	840	mb	840	mb	840	mb	845	mb	810	mb	840	mb	840	mb	840	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	Pressure mb				
Surf		49.44	020	17	50.47	360	13	53.41	305	13	51.44	285	13	51.44	285	13	54.46	295	17	55.47	270	20	56.45	295	14	54.46	300	12	Surf				
1000	2.1	48.44	351	15	48.45	014	09	4.0	51.42	294	09	4.2	49.43	285	10	4.8	52.46	285	24	53.45	288	24	53.45	288	12	54.46	300	12	1000				
950		42.42	353	15	42.42	010	17		44.41	297	12		41.40	291	10		46.43	285	30	48.43	290	24	46.43	278	15	42.39	291	12	950				
900	304	37.37	353	15	37.37	357	15	324	38.31	305	14	32.5	36.30	290	09	32.3	39.33	285	24	42.38	291	20	39.35	275	18	34.4	39.35	287	16	900			
850		32.32	353	14	32.32	347	15		32.31	330	14		21.29	280	07		33.31	283	24	36.35	292	28	33.31	272	18	33.31	282	22	850				
800	614	27.26	002	15	27.27	344	14	634	27.26	340	08	634	25.25	268	07	644	30.22	282	27	31.26	292	24	28.23	272	18	26.24	282	21	800				
750		21.19	002	16	24.21	342	15		22.22	331	04		17.17	270	09		25.14	286	28	28.16	302	25	28.12	270	20	26.15	283	23	750				
700	957	15.15	336	15	18.16	352	11	977	17.10	312	04	975	12.7	275	10	990	22.6	286	34	24.7	304	26	27.04	271	22	26.10	284	19	700				
650		12.11	315	14	10.7	356	11		15.4	290	13		8.1	274	15		17.1	286	39	23.2	299	31	24.1	273	24	12.4	284	18	650				
600	135	4.3	312	12	13.5	6.1	338	14	13.7	7.4	274	14	13.6	1.12	270	18	13.8	12.10	286	49	13.9	19.7	34	14.0	21.6	273	30	13.9	12.6	600			
550		-4.5	324	09	-1.4	326	16		0.7	272	13	-5.13	265	18		4.19	286	47	10.0	291	42	14.12	273	33	7.3	279	24		550				
500	179	-12.23	006	09	-8.11	301	16	182	-7.18	260	14	180	-13.24	261	24	183	-3.25	286	50	18.5	1.9	293	49	18.6	5.14	268	45	18.4	0.1	500			
450		-19.21	061	05	-17.20	299	08		-16.29	242	21		-23.27	260	24		-14.31	286	60	-9.17	288	55	-4.12	272	54	-7.9	260	30	450				
400	231	-32.34	107	10	-26.30	286	03	234	-27.39	236	22	232	-33.47	265	29	236	-28.42	286	65	23.9	-14.24	279	69	24.0	-14.20	272	49	23.8	-12.15	400			
350		-46	114	08	-40.44	CALM			-38.50	239	13		-45	268	37		-34.50	289	84	-27.34	287	69	-28.32	272	46	(381.4)	-12.16		350				
300	295	-59	113	08	-56			299	-48	277	15	295	-57	269	32	301	-48	286	80	30.5	-41	292	78	30.6	-41	272	47			300			
250		-54	009	04	-53	306	03		-41	290	24		-55	269	32		-50	281	63	-56	294	92	-60	272	54	79.4	mb 25°-77°	28°	250				
200	382	-46	280	08	-43	261	18	389	-36	280	18	383	-49	269	27	390	-47	285	45	39.3	-51	293	65	39.3	-69	270	50	63.8	-10°-61°-13°	200			
170		-46	259	07	-42	261	28		-35	278	13		-47	269	22	(180.4)	-49			-51	288	64	-57	257	48				170				
150		-48	274	10	-42	261	21		-34	262	12		-47	269	18		Inversion			-51	279	40	-53	248	46				150				
130		-48	318	17	-39	254	19		-33	242	11		-46	269	16		830 mb 30°-815 mb 32°			-50	271	26	-54	242	48	423-381 mb -12°			130				
110		-49			-41	247	16		-33	259	09		-45	269	08					-49	256	28	-56	239	41				110				
100	335	-50			-41	247	10		-33	205	08	536	-45	278	06					-50	249	27	542	-55	240	34			100				
90		-50			-40	247	11		-32	169	05		-44	306	05					-49	261	18	-51	266	22				90				
80	(884)	-50			-38	247	09		-31	140	03	(82.4)	-43							-47	275	11	-51	270	19				80				
70					-38	247	07		(76.4)	31										-46	287	06							70				
60					-38	247	07													-46	287	06							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.

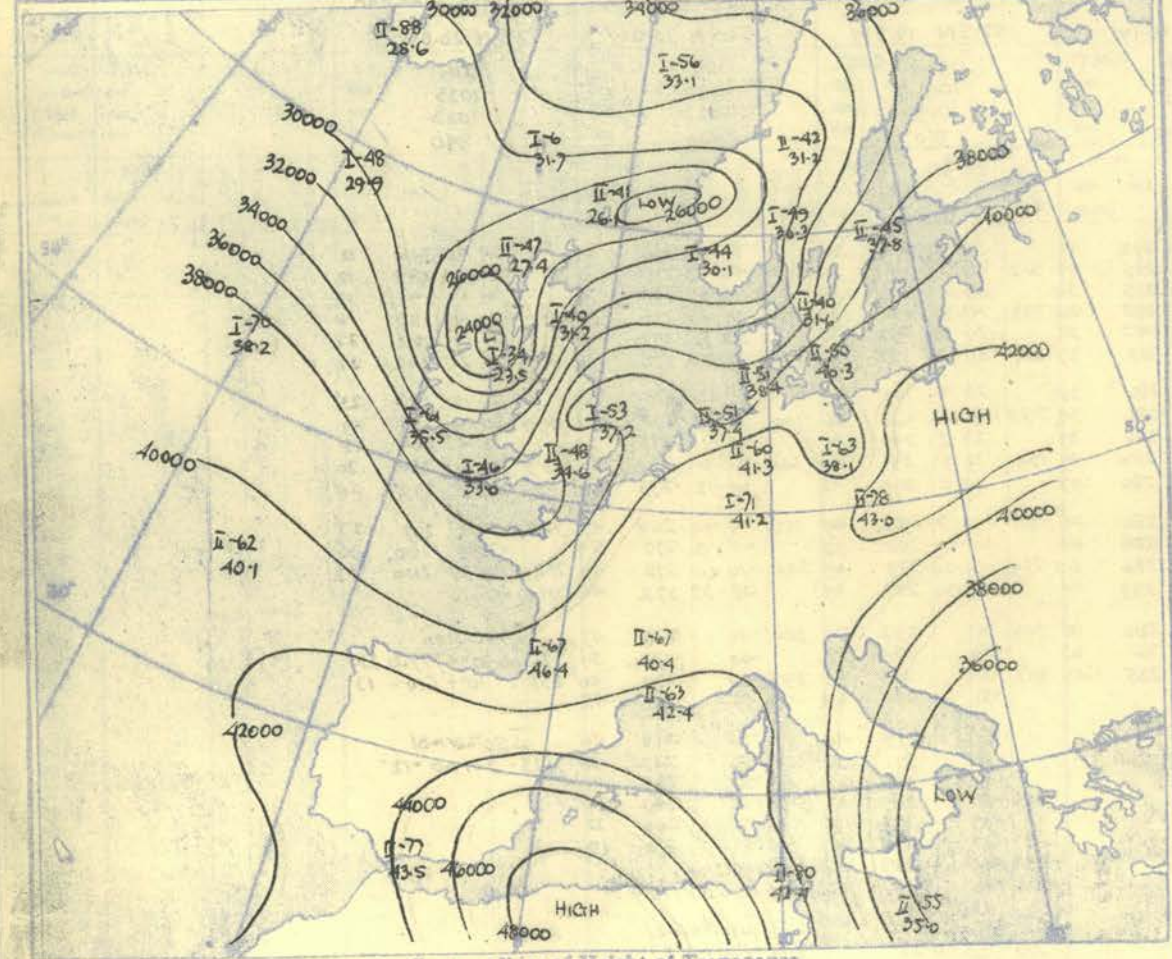


The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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.

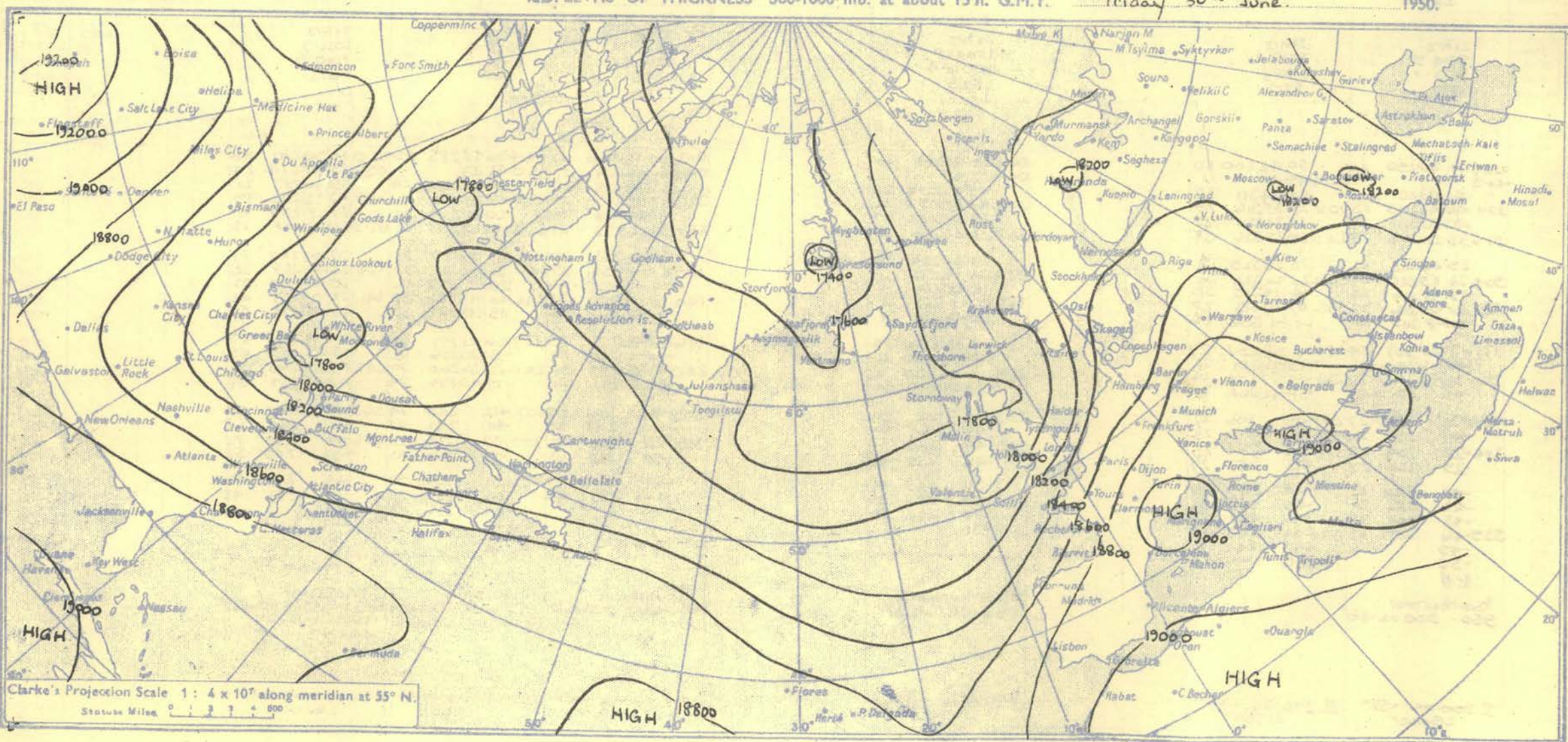
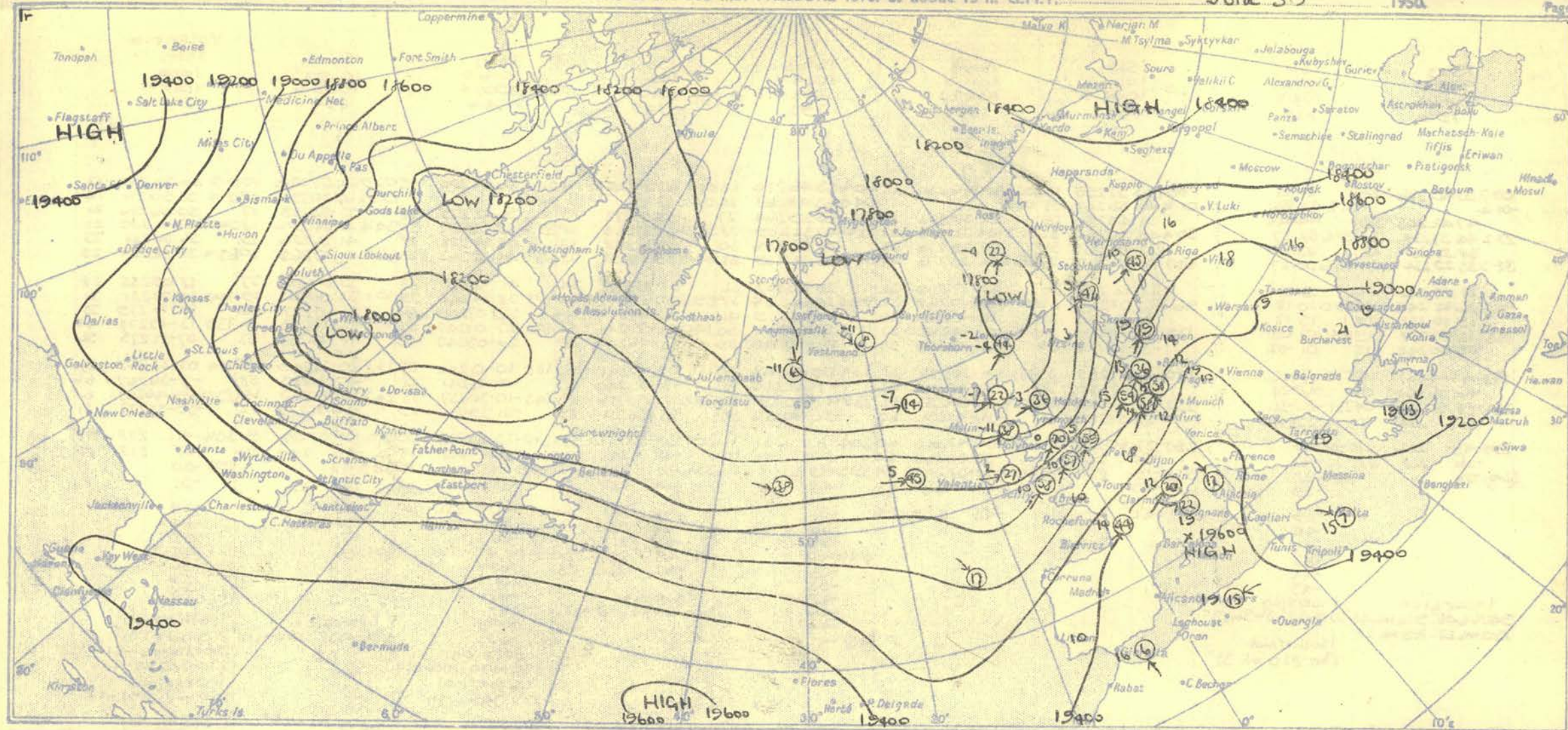
NOTES ON THE AEROLOGICAL SITUATION.

The cold trough on the Atlantic continued to move eastward and crossed the British Isles to reach Norway. A minor cold trough south of Greenland moved southeastward and intensified to the west of Ireland.

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







# 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 995.0 988.2 796	15hrs 1018.7 1002 820	15hrs 1004.1 1004.9 809	15hrs 1011.9 1003.5 795	15hrs 1014.1 1012.1 793	15hrs 1014.4 1010.0 709	15hrs 1016.0 1000.4 646	15hrs 1020.1 1005.6 650	15hrs 1020 1018 820	Time M.S.L. Surf 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	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 51.45 236 20	01.2 51.50	00.2 51.55	01.6 51.58	04.0 51.63	13.0 51.68	14.0 51.69	15.0 51.70	16.0 51.71	Surf
1000	01.4 47.42 243 30	01.2 44.42	01.6 44.45	01.6 44.48	04.0 47.43	13.0 47.48	14.0 47.49	15.0 47.50	16.0 47.51	1000
950	47.42 243 30	44.42	44.45	44.48	47.43 243 30	47.48 243 30	47.49 243 30	47.50 243 30	47.51 243 30	950
900	27.2 44.37 234 21	21.2 44.37 234 21	21.2 44.37 234 21	21.2 44.37 234 21	27.2 44.37 234 21	27.2 44.37 234 21	27.2 44.37 234 21	27.2 44.37 234 21	27.2 44.37 234 21	900
850	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	38.3 31.23 18	850
800	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	58.5 33.23 234	800
750	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	750
700	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	27.2 44.37 234	700
650	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	133 12.07 238	650
600	05.00 243	05.00 243	05.00 243	05.00 243	05.00 243	05.00 243	05.00 243	05.00 243	05.00 243	600
550	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	178.4 -14.23	550
500	46.36 248	46.36 248	46.36 248	46.36 248	46.36 248	46.36 248	46.36 248	46.36 248	46.36 248	500
450	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	231.28 50.26	450
400	41	41	41	41	41	41	41	41	41	400
350	259.43	259.43	259.43	259.43	259.43	259.43	259.43	259.43	259.43	350
300	36	36	36	36	36	36	36	36	36	300
250	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	250
200										200
170										170
150										150
130										130
110										110
100										100
90										90
80										80
70										70
60										60
Inversion 540 mb 45.5 - 24 mb 46.5 - 570 mb 52.5 - 565 mb 3.5										
Isothermal 800-820 mb 33.5										
Tropopause II 350 mb -41° 26100'										
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L. Surf Pressure	21hrs 994.9 988.1 777	21hrs 1017.2 1007 830	21hrs 1014.8 1006.4 825	21hrs 1014.8 1006.4 825	21hrs 1014.8 1006.4 825	21hrs 1015.7 1011.4 742	21hrs 1016.4 1002.5 700	21hrs 1021.7 1002.9 673	21hrs 1021.7 1002.9 673	Time M.S.L. Surf 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	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 51.50 253 20	02.4 49.48	02.3 56.48 280 20	02.3 56.48 280 20	02.3 56.48 280 20	02.3 56.48 280 20	02.3 56.48 280 20	02.3 56.48 280 20	02.3 56.48 280 20	Surf
1000	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	01.5 46.46 301 28	1000
950	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	46.46 301 28	950
900	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	27.1 46.42 308 23	900
850	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	40 33.30 27	850
800	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	58.6 35.25 308 23	800
750	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	29 24.31 23	750
700	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	93.4 23 13.31 24	700
650	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	15 13.31 24	650
600	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	133 07.03 316 27	600
550	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	01.8 31.3 26	550
500	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	171 -7.20 307	500
450	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	46.26 304 23	450
400	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	230.28 37.31 29	400
350	41	41	41	41	41	41	41	41	41	350
300	259.43	259.43	259.43	259.43	259.43	259.43	259.43	259.43	259.43	300
250	36	36	36	36	36	36	36	36	36	250
200	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	(210) 36	200
170										170
150										150
130										130
110										110
100										100
90										90
80										80
70										70
60										60
Isothermal 950-900 mb 46.5										
Tropopause II 300 mb -53° 29400'										