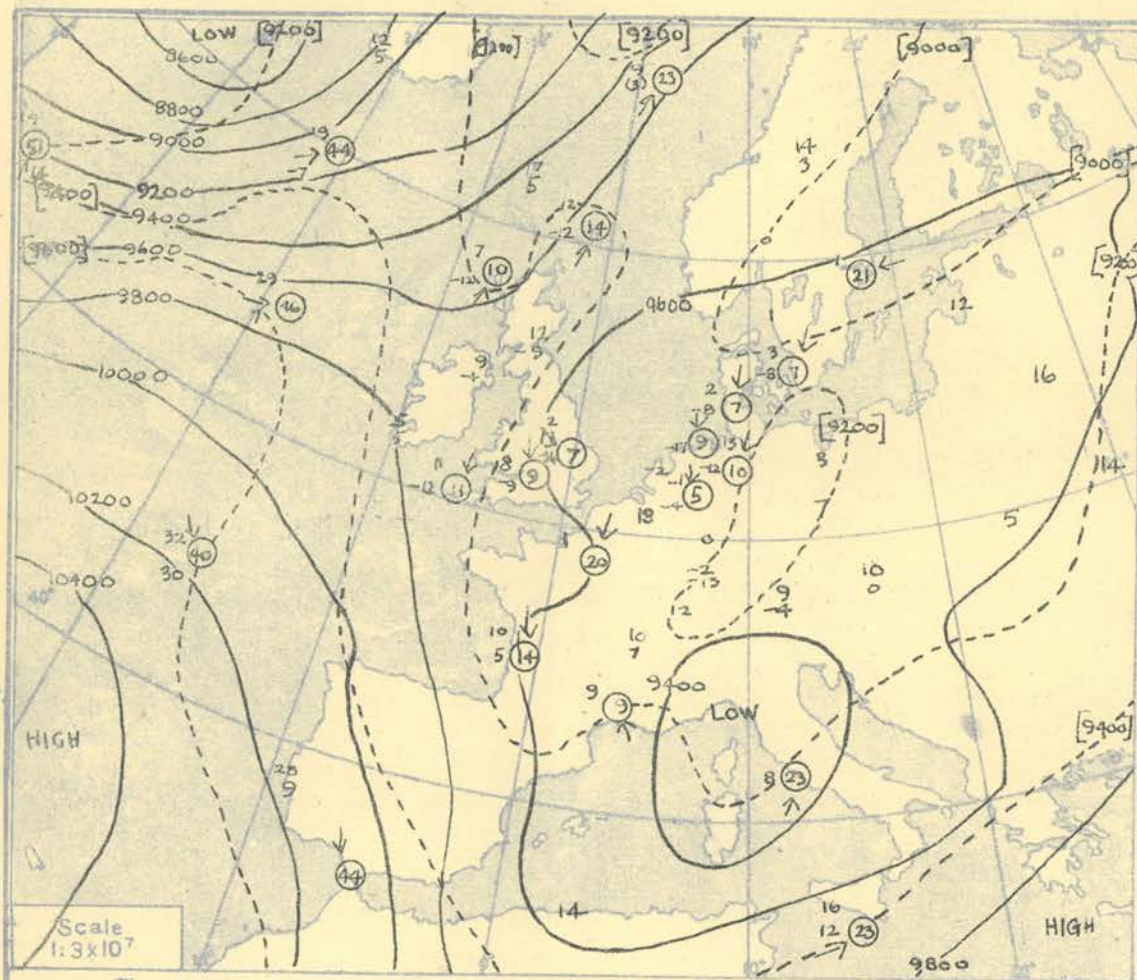


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION							
Time M.S.L. Surf (Freezing)	03h 1016.3 1000.6 135	G.M.T. mb mb mb 941	03h 1014.7 1012.9 941	G.M.T. mb mb mb 912	03h 1017.3 1008.4 907	G.M.T. mb mb mb	03h 1021.6 1016.8 941	G.M.T. mb mb mb 950	03h 1018.1 1007.3 917	G.M.T. mb mb mb 1900 + 830	Time M.S.L. Surf (Freezing)						
Pressure mb	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Pressure mb
Surf	02.7 39 32 157 18	00.5 38 34 CALM	00.2 31 28	02.3 39 36	01.2 30 27 210 02 04.4 39 22 165 03	02.9 41 37 070 06	00.3 41 35 100 07	Surf	02.7 39 32 157 18	00.5 38 34 CALM	00.2 31 28	02.3 39 36	01.2 30 27 210 02 04.4 39 22 165 03	02.9 41 37 070 06	00.3 41 35 100 07	Surf	
1000	4.4 39 32	3.9 38 22	4.4 34 30	4.5 37 33	5.3 34 25 264 14 5.6 31 23	4.8 40 36	4.3 41 35 116 09	1000	4.4 39 32	3.9 38 22	4.4 34 30	4.5 37 33	5.3 34 25 264 14 5.6 31 23	4.8 40 36	4.3 41 35 116 09	1000	
950	32.3 37 19 174 18	31.6 28 24 202 19	32.3 31 25	32.5 31 27	33.3 33 15 255 08	32.6 30 28 122 10	32.3 27 30 154 15	950	32.3 37 19 174 18	31.6 28 24 202 19	32.3 31 25	32.5 31 27	33.3 33 15 255 08	32.6 30 28 122 10	32.3 27 30 154 15	950	
900	25 02 191 16	24 21 215 13	26 20	26 23	22.6 250 06	21 07 199 09	25 19 119 07	900	25 02 191 16	24 21 215 13	26 20	26 23	22.6 250 06	21 07 199 09	25 19 119 07	900	
850	62.6 22 02 194 14	62.0 21 14 215 13	62.7 19 15	63.1 21 17	63.6 16 25 244 05	62.3 15 07 204 07	63.0 20 09 259 06	850	62.6 22 02 194 14	62.0 21 14 215 13	62.7 19 15	63.1 21 17	63.6 16 25 244 05	62.3 15 07 204 07	63.0 20 09 259 06	850	
800	18 03 202 15	13 21 215 13	18 09	15 08	09 32 271 05	09 11 235 04	17 03 042 09	800	18 03 202 15	13 21 215 13	18 09	15 08	09 32 271 05	09 11 235 04	17 03 042 09	800	
750	96.6 12 12 191 13	95.6 07 12 215 10	96.6 12 09	96.9 09 04	96.9 02 34 310 07	95.8 08 09 339 09	96.9 11 12 015 11	750	96.6 12 12 191 13	95.6 07 12 215 10	96.6 12 09	96.9 09 04	96.9 02 34 310 07	95.8 08 09 339 09	96.9 11 12 015 11	750	
700	05 20 198 13	01 20 268 12	05 22	05 17	01 23 352 14	01 12 327 19	03 10 355 14	700	05 20 198 13	01 20 268 12	05 22	05 17	01 23 352 14	01 12 327 19	03 10 355 14	700	
650	135 02 26 207 13	134 02 28 320 27	135 00 28	135 05 27	136 08 26 002 08	134 06 17 333 21	135 00 21 346 33	650	135 02 26 207 13	134 02 28 320 27	135 00 28	135 05 27	136 08 26 002 08	134 06 17 333 21	135 00 21 346 33	650	
600	10 34 202 08	04 33 327 41	07 36	01 34	12 32 004 17	15 14 342 21	03 34 352 54	600	10 34 202 08	04 33 327 41	07 36	01 34	12 32 004 17	15 14 342 21	03 34 352 54	600	
550	179 17 41 197 11	178 12 47 330 41	179 15 43	180 11 42	178 21 46 002 19	177 23 33 351 22	179 08 42 351 77	550	179 17 41 197 11	178 12 47 330 41	179 15 43	180 11 42	178 21 46 002 19	177 23 33 351 22	179 08 42 351 77	550	
500	230 36 59 208 06	230 38 58 336 58	231 33 60	245 33 57	229 41 53 002 24	228 39 53 347 30	232 31 57 355 78	500	230 36 59 208 06	230 38 58 336 58	231 33 60	245 33 57	229 41 53 002 24	228 39 53 347 30	232 31 57 355 78	500	
450	48 23.4 09	50 332 87	43	47	52 353 40	50 353 35	43 353 94	450	48 23.4 09	50 332 87	43	47	52 353 40	50 353 35	43 353 94	450	
400	293 61 216 19	296 68 333 69	295 55	61	292 62 355 48	291 60 346 42	296 56 346 42	400	293 61 216 19	296 68 333 69	295 55	61	292 62 355 48	291 60 346 42	296 56 346 42	400	
350	377 69 299 22	380 70 330 54	381 59	57	377 69 299 22	376 62 343 44	381 71 348 40	350	377 69 299 22	380 70 330 54	381 59	57	377 69 299 22	376 62 343 44	381 71 348 40	350	
300	68 311 25	69 302 35	69 302 35	69 302 35	64 353 41	64 344 39	61 346 39	300	68 311 25	69 302 35	69 302 35	69 302 35	64 353 41	64 344 39	61 346 39	300	
250	69 302 35	69 302 35	69 302 35	69 302 35	65 348 32	65 341 40	65 341 40	250	69 302 35	69 302 35	69 302 35	69 302 35	65 348 32	65 341 40	65 341 40	250	
200	71 320 31	71 320 31	71 320 31	71 320 31	67 330 33	67 339 33	67 339 33	200	71 320 31	71 320 31	71 320 31	71 320 31	67 330 33	67 339 33	67 339 33	200	
150	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	150	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	150	
100	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	100	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	100	
50	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	50	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	50	
00	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	00	71 320 31	71 320 31	71 320 31	71 320 31	70 339 33	70 339 33	70 339 33	00	
Inversion	880 mb 24° - 861 mb 25°	Inversion	1016 mb 31° - 992 mb 37°	Inversion	1016 mb 30° - 989 mb 37°	Inversion	1005 mb 29° - 988 mb 37°	Inversion	883 mb 30° - 850 mb 33°	Inversion	1016 mb 31° - 992 mb 37°	Inversion	1016 mb 30° - 989 mb 37°	Inversion	1005 mb 29° - 988 mb 37°	Inversion	
Tropopause	I 233 mb - 83° 34,500'	I 245 mb - 82° 33,700'	I 258 mb - 86° 32,700'	NR. 280 mb - NR 31,600'	I 260 mb - 69° 32,200'	I 256 mb - 68° 32,600'	I 258 mb - 65° 32,800'	I 197 mb - 88° 38,500'	Tropopause								
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION							
Time M.S.L. Surf (Freezing)	09h 1016.1 1005.9 883	G.M.T. mb mb mb 940	09h 1014.0 1012.1 940	G.M.T. mb mb mb	09h 1019.7 1010.7 910	G.M.T. mb mb mb	09h 1024.2 1019.2 948	G.M.T. mb mb mb 955	09h 1019.2 1008.4 880	G.M.T. mb mb mb	Time M.S.L. Surf (Freezing)						
Pressure mb	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Dir. Vel. knots	Pressure mb
Surf	02.7 40 34	00.5 42 40 180 12	02.3 40 37	00.6 33 30 186 03	01.2 30 24 170 02	04.4 30 26 CALM	02.9 43 40 157 10	Surf	02.7 40 34	00.5 42 40 180 12	02.3 40 37	00.6 33 30 186 03	01.2 30 24 170 02	04.4 30 26 CALM	02.9 43 40 157 10	Surf	
1000	4.2 40 34	3.7 40 38	5.1 39 36	5.6 36 30 146 06	6.2 32 24 261 12	6.2 32 27 184 09	5.1 43 40 184 30	1000	4.2 40 34	3.7 40 38	5.1 39 36	5.6 36 30 146 06	6.2 32 24 261 12	6.2 32 27 184 09	5.1 43 40 184 30	1000	
950	35 31	33 30 210 25	33 31 34	33 28 150 03	33 18 242 11	31 24 184 09	39 35 181 23	950	35 31	33 30 210 25	33 31 34	33 28 150 03	33 18 242 11	31 24 184 09	39 35 181 23	950	
900	32.2 33 23	31.6 28 24 218 28	33.0 31 27	33.3 27 22 001 01	33.8 22 07 235 10	33.7 23 19 194 10	33.2 34 30 185 16	900	32.2 33 23	31.6 28 24 218 28	33.0 31 27	33.3 27 22 001 01	33.8 22 07 235 10	33.7 23 19 194 10	33.2 34 30 185 16	900	
850	27 08	26 23 216 21	25 22	23 16 346 05	23 08 243 09	20 09 201 09	29 22 182 12	850	27 08	26 23 216 21	25 22	23 16 346 05	23 08 243 09	20 09 201 09	29 22 182 12	850	
800	62.8 23 03	62.1 22 01 216 22	63.5 21 16	63.5 16 14 339 06	64.1 17 26 257 09	63.7 16 01 209 09	64.1 28 11 128 05	800	62.8 23 03	62.1 22 01 216 22	63.5 21 16	63.5 16 14 339 06	64.1 17 26 257 09	63.7 16 01 209 09	64.1 28 11 128 05	800	
750	18 01 For	16 05 222 20	17 01	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	750	18 01 For	16 05 222 20	17 01	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	750	
700	13 06 winds	16 08 246 16	17 01	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	700	13 06 winds	16 08 246 16	17 01	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	700	
650	06 13	19 08 277 19	11 09	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	650	06 13	19 08 277 19	11 09	12 04 258 03	12 28 317 06	14 04 296 06	22 13 013 07	650	
600	135 01 22	135 09 01 276 29	136 05 12	135 01 22 341 14	135 04 27 009 14	135 04 15 350 19	137 06 21 357 25	600	135 01 22	135 09 01 276 29	136 05 12	135 01 22 341 14	135 04 27 009 14	135 04 15 350 19	137 06 21 357 25	600	
550	07 29 see	00 04 267 27	05 11	07 30 349 24	07 30 349 24	10 36 008 23	11 22 357 25	550	07 29 see	00 04 267 27	05 11	07 30 349 24	07 30 349 24	10 36 008 23	11 22 357 25	550	
500	179 17 39	180 09 14 270 19	181 03 16	179 14 40 355 54	179 14 40 355 54	179 14 40 355 54	182 05 29 354 60	500	179 17 39	180 09 14 270 19	181 03 16	179 14 40 355 54	179 14 40 355 54	179 14 40 355 54	182 05 29 354 60	500	
450	23 47 page 3	20 27 276 17	16 26 36	22 50 357 74	22 50 357 74	22 50 357 74	23 43 352 42	450	23 47 page 3	20 27 276 17	16 26 36	22 50 357 74	22 50 357 74	22 50 357 74	23 43 352 42	450	
400	221 34 57	232 33 38 276 34	234 25 37	231 32 59 354 82	231 32 59 354 82	231 32 59 354 82	235 25 47 347 78	400	221 34 57	232 33 38 276 34	234 25 37	231 32 59 354 82	231 32 59 354 82	231 32 59 354 82	235 25 47 347 78	400	
350	47	48 286 30	40 48	43 346 87	43 346 87	43 346 87	40 57 340 83	350	47	48 286 30	40 48	43 346 87	43 346 87	43 346 87	40 57 340 83	350	
300	284 62	295 63 283 36	298 54	298 54 356 81	298 54 356 81	298 54 356 81	300 55 340 95	300	284 62	295 63 283 36	298 54	298 54 356 81	298 54 356 81	298 54 356 81	300 55 340 95	300	
250	76 63	78 283 41	68 283 41	68 283 41	68 283 41	68 283 41	70 285 108	250	76 63	78 283 41	68 283 41	68 283 41	68 283 41	68 283 41	70 285 108	250	
200	64	62 288 06	69 288 06	69 288 06	69 288 06	69 288 06	64 350 64	200	64	62 288 06	69 288 06	69 288 06	69 288 06	69 288 06	64 350 64	200	
150	61	59 290 35	63 290 35	63 290 35	63 290 35	63 290 35	61 346 61	150	61	59 290 35	63 290 35	63 290 35	63 290 35	63 290 35	61 346 61	150	
100	62	61 300 21	65 300 21	65 300 21	65 300 21	65 300 21	62 343 45	100	62	61 300 21	65 300 21	65 300 21	65 300 21	65 300 21	62 343 45	100	
50	62	65 30															



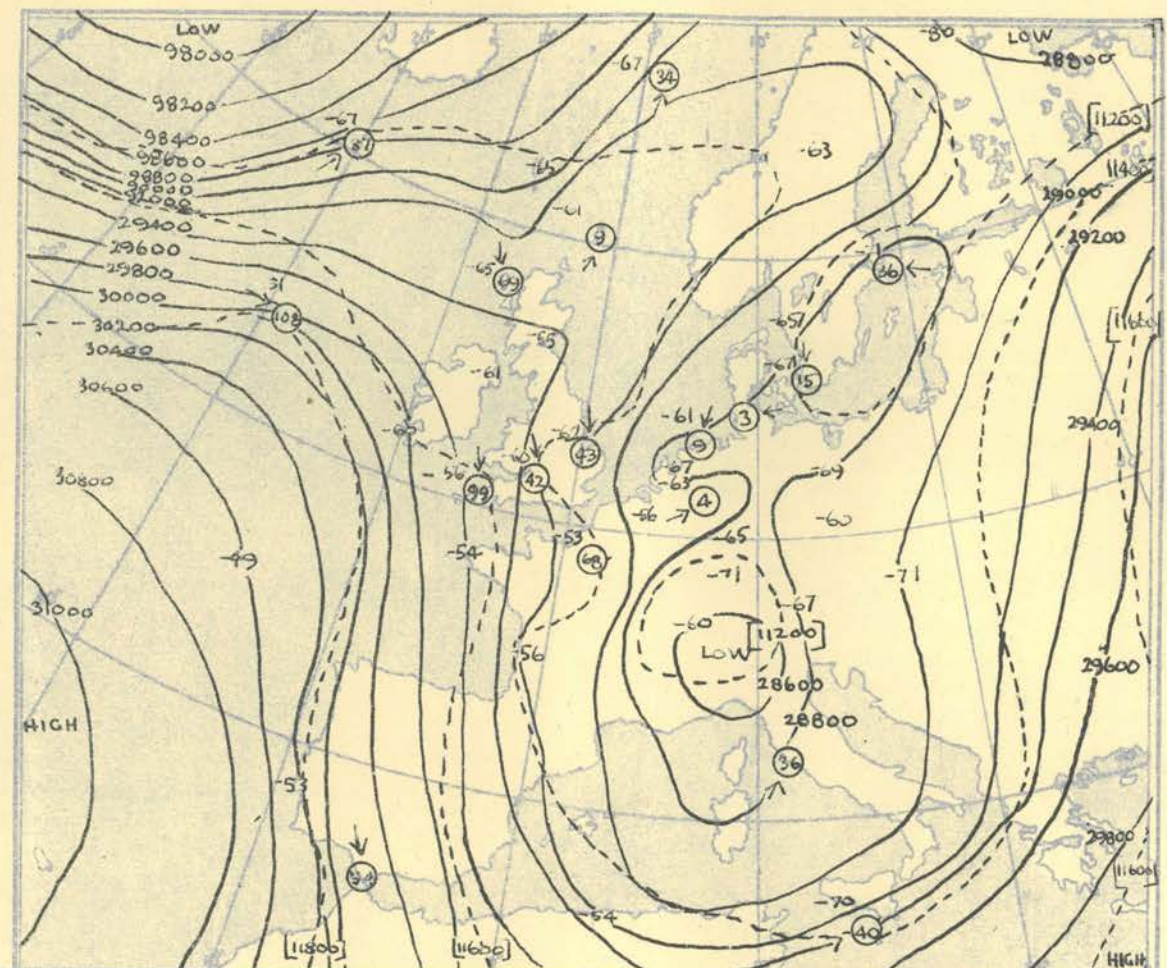
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



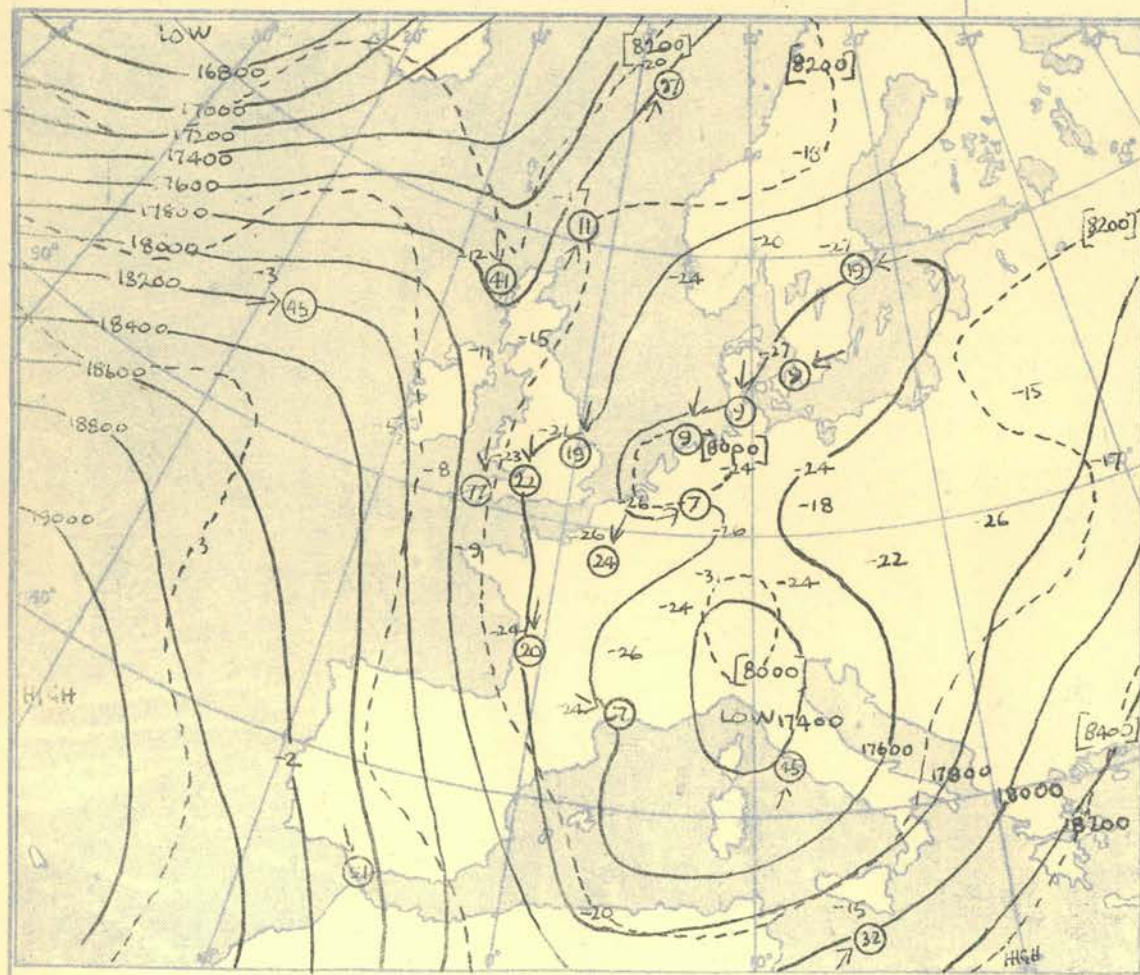
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

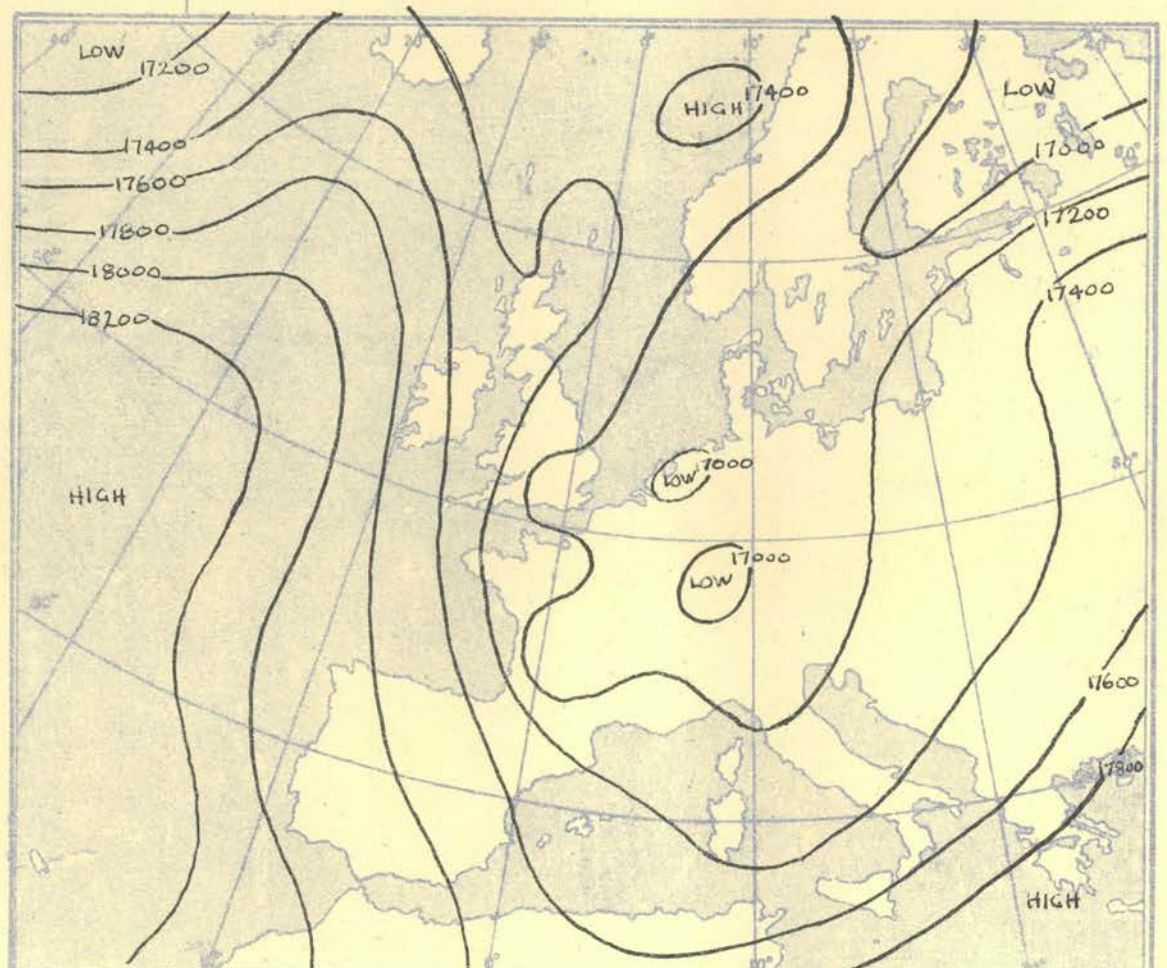
100 80 60 40 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

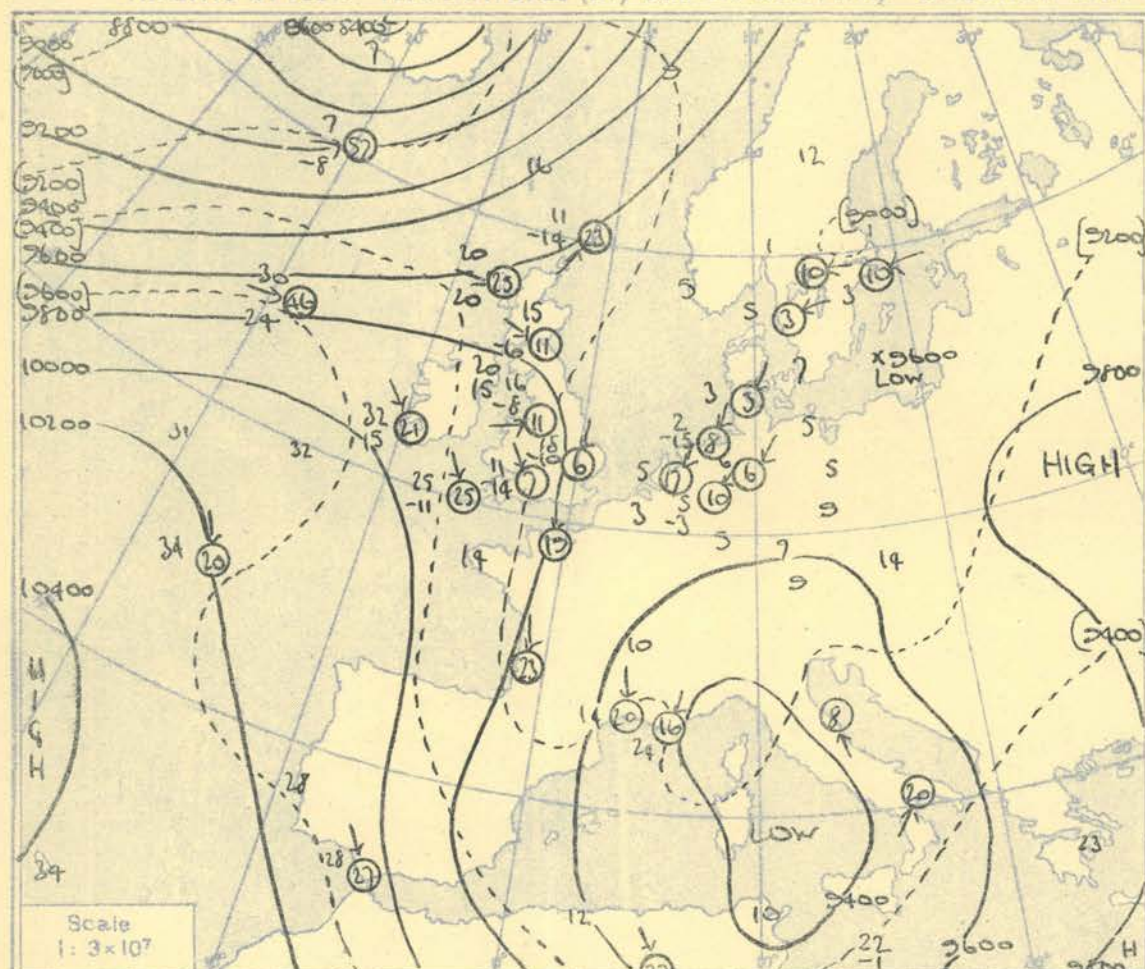
[illegible]

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

Ship	Weather Watcher				Weather Watcher				Weather Watcher				Weather Watcher				Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Ship				
Lat/Long	53° 8' N 18° 7' W				53° 8' N 18° 6' W				53° 8' N 18° 7' W				53° 8' N 18° 7' W				60° N 19° 9' W				59° 8' N 19° 9' W				59° 8' N 20° 1' W				60° N 20° 2' W				Lat/Long								
Pressure M.S.L. Surf Freezing	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.		G.M.T.		Time				
	M.S.L.		1006		mb		1008		mb		1006		mb		1004		mb		993		mb		991		mb		992		mb		994		mb		M.S.L.						
	Surf		1006		mb		1008		mb		1006		mb		1004		mb		993		mb		991		mb		992		mb		994		mb		Surf						
	Freezing		720		mb		750		mb		730		mb		710		mb		860		mb		855		mb		900		mb		920		mb		Freezing						
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb								
Surf	-	51	50	170	16	-	48	47	250	14	-	51	50	220	23	-	47	45	220	30	-	45	26	225	34	-	44	32	240	32	-	43	39	260	24	Surf					
1000	1-3	50	47	172	24	2-1	47	46	248	21	1-7	51	50	220	23	1-0	51	50	220	35	1-5	47	45	220	30	2-4	44	32	240	32	1-6	43	39	260	24	1000					
950	46	49	172	24	42	38	48	238	21	51	48	220	40	50	47	231	36	44	44	231	53	38	25	236	57	38	25	236	57	37	26	251	34	950							
900	27-9	50	49	213	20	30-5	43	40	238	23	30-5	42	40	213	45	29-8	43	43	238	51	15-6	53	25	222	52	25-8	32	19	236	57	26	4	256	30	900						
850	48	33	231	23	42	35	240	23	43	238	57	43	238	57	43	238	57	43	238	51	25	20	227	56	25	10	238	58	25	25	256	30	850								
800	61-9	43	21	242	47	62-0	36	32	251	23	62-4	40	36	260	46	61-5	39	36	240	35	57-3	24	13	232	48	56-0	17	13	240	53	56-8	21	12	257	27	800					
750	36	66	252	39	32	25	259	30	33	26	261	47	35	32	246	51	24	10	233	45	14	09	240	62	13	-2	238	54	17	-3	262	28	750								
700	57-2	29	67	261	46	57-0	27	15	259	36	57-6	30	30	263	46	56-9	31	27	233	49	10	-5	240	68	83	-9	8	239	57	90-8	12	-2	259	29	700						
650	21	01	263	49	19	05	253	43	27	13	262	48	26	21	235	56	13	17	232	39	03	-9	231	86	01	-27	239	63	05	-11	259	34	650								
600	13	02	253	46	13	03	252	53	13	13	257	43	13	03	235	59	12	03	235	59	12	-3	11	231	93	12	8	24	20	239	72	12	9	-1	262	39	600				
550	06	-3	247	35	04	-11	250	65	10	-15	248	41	11	05	227	52	-6	-3	238	76	-11	-19	218	109	-6	-2	239	69	-9	-2	260	44	550								
500	182	-3	-20	249	45	181	-6	-20	249	67	183	00	-46	249	56	183	02	-7	239	60	175	-16	-42	238	78	171	-21	-34	215	105	172	-16	-34	239	86	173	-19	-25	259	53	500
450	-13	-3	251	52	-17	-24	250	74	-10	-24	249	63	-8	-17	255	65	-27	-50	239	80	-33	-50	235	103	-26	-3	239	82	-22	-3	254	81	-22	-3	254	81	450				
400	235	-29	-58	256	51	234	-48	-40	252	78	237	-24	-32	251	81	236	-23	-32	268	69	226	-36	-55	226	87	222	-43	242	112	233	-38	-50	239	103	225	-27	-39	256	139	400	
350	-40	-60	267	69	-42	-12	257	50	-37	-52	254	75	-38	-50	241	60	-48	-21	218	87	-50	24	2	120	-50	24	1	112	-36	-4	260	163	-36	-4	260	163	350				
300	259	-51	273	108	258	-56	259	51	301	-53	262	71	300	-55	260	87	285	-67	210	87	285	-58	246	50	287	-49	241	51	284	-51	270	155	284	-51	270	155	300				
250	-68	281	108	73	261	55	72	267	82	(288)	-58	72	225	83	52	250	78	-51	241	88	-60	261	113	-60	261	113	-60	261	113	-60	261	113	-60	261	113	250					
200	384	70	284	79	381	-87	270	76	285	-82	279	81	374	-58	228	65	372	-53	250	60	375	-51	237	63	(218)	-57	-51	239	57	-51	239	57	-51	239	57	200					
170	-72	283	70	-52	288	71	-68	286	62	-68	286	62	-51	239	57	-51	239	57	-51	239	57	-51	239	57	-51	239	57	-51	239	57	-51	239	57	-51	239	57	170				
150	-66	267	57	-78	288	82	-65	277	42	-65	277	42	-53	244	53	-53	244	53	-53	244	53	-53	244	53	-53	244	53	-53	244	53	-53	244	53	-53	244	53	150				
130	-64	264	53	-71	286	52	-65	264	41	-65	258	24	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	130				
110	-67	264	42	-72	277	30	-65	258	24	-65	258	24	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	-52	245	53	110				
100	52-6	69	264	40	52-3	72	268	30	530	-67	257	21	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	100				
90	-69	264	38	-73	262	25	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	90				
80	-69	264	34	-74	262	25	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	-68	260	22	80				
70	-69	264	28	-76	266	26	-67	260	22	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	70				
60	(50)	-71	264	25	-76	262	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	-66	264	29	60			
Inversion				553 ms 44° 8' 52 ms 51°				Inversion				950 mb 42° 8' 70 ms 44°				Inversion				970 ms 50° 920 ms 54°				Isothermal				758-750 ms 33°				474-465 ms -5°									
Tropopause				1185 ms -88° 40100'				1170 mb -92° 41500'				1191 ms -83° 39500'				NR				1273 ms 30200'				1273 ms -79° 30500'				1350 ms -50° 26300'				1280 ms -58° 30500'				Tropopause					



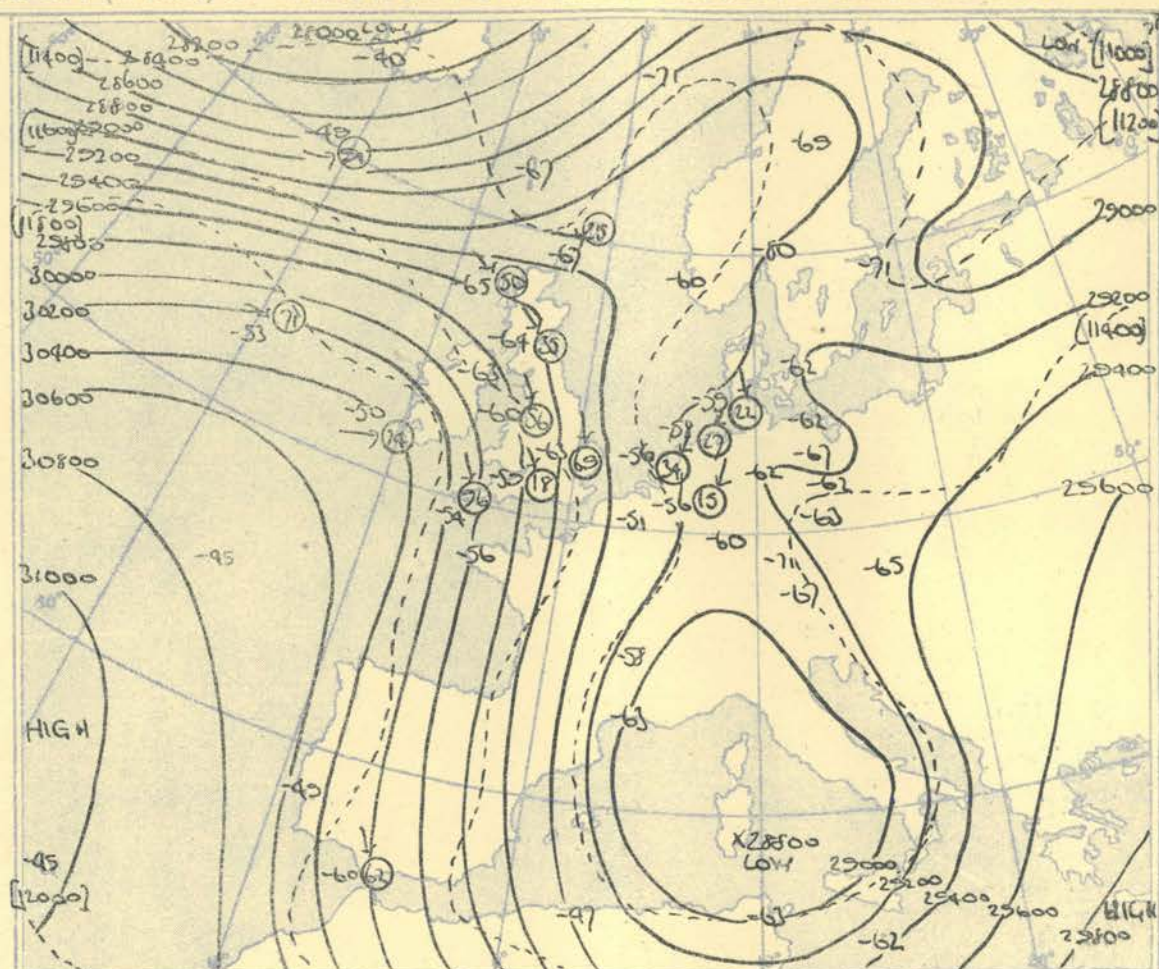
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

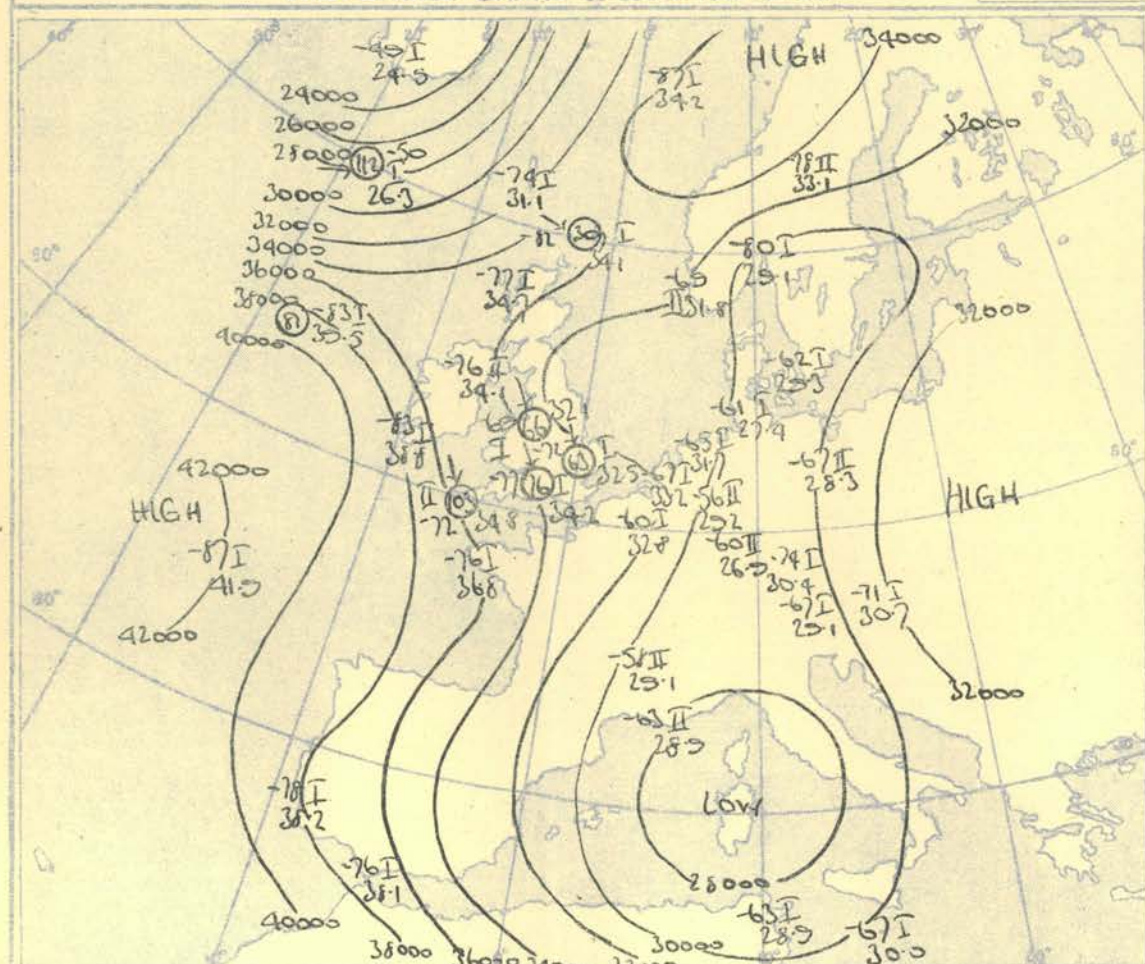
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of height of Tropopause.  
Temperature of Tropopause.

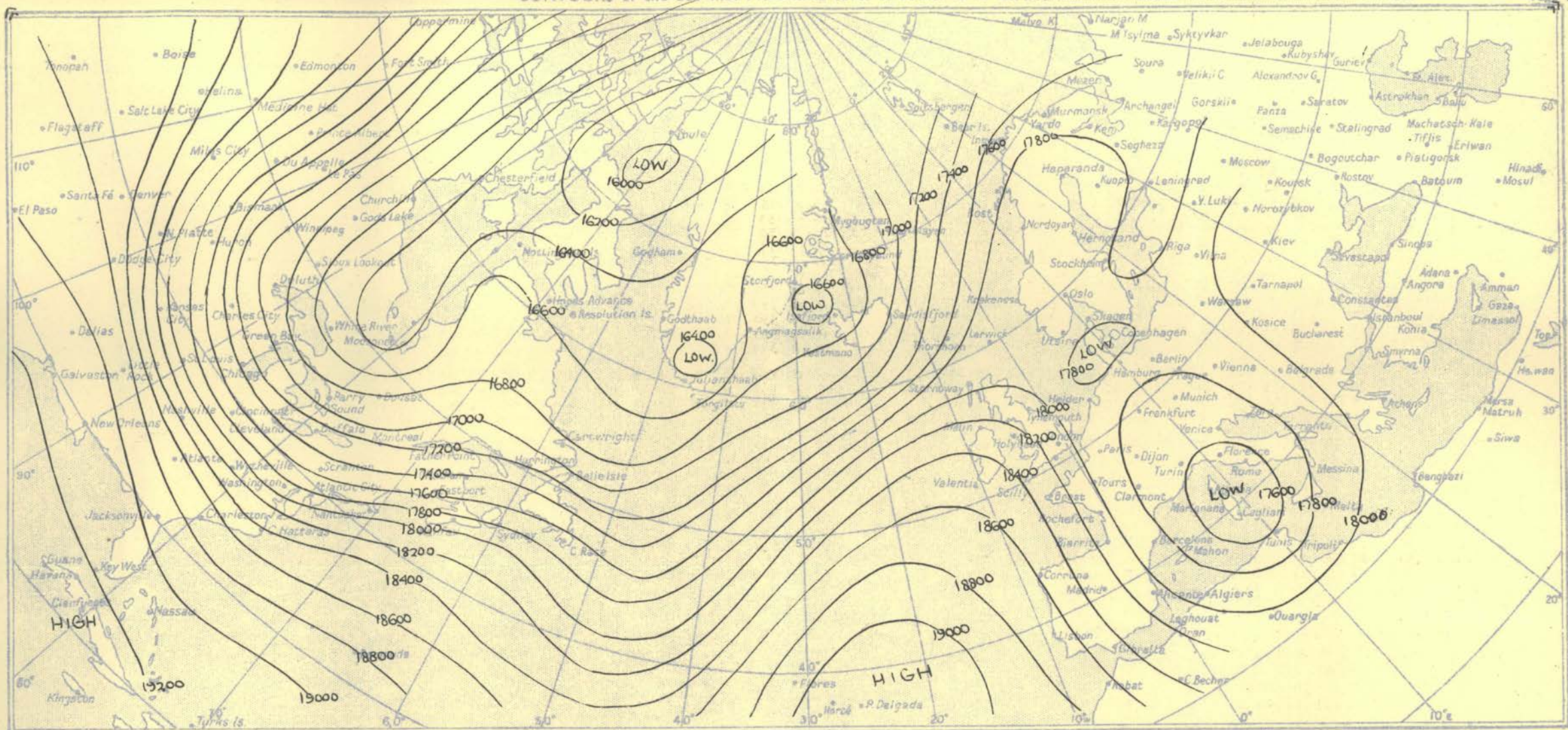
## NOTES ON THE AEROLOGICAL SITUATION.

Apart from a slight warming, the cold trough across Europe showed little change. The warm ridge off the British Isles moved slowly eastwards in the North. The upper trough in the Western Atlantic moved eastwards but, with the rapid advance of a surface depression towards Newfoundland, very rapid warming occurred on the western side of the trough.

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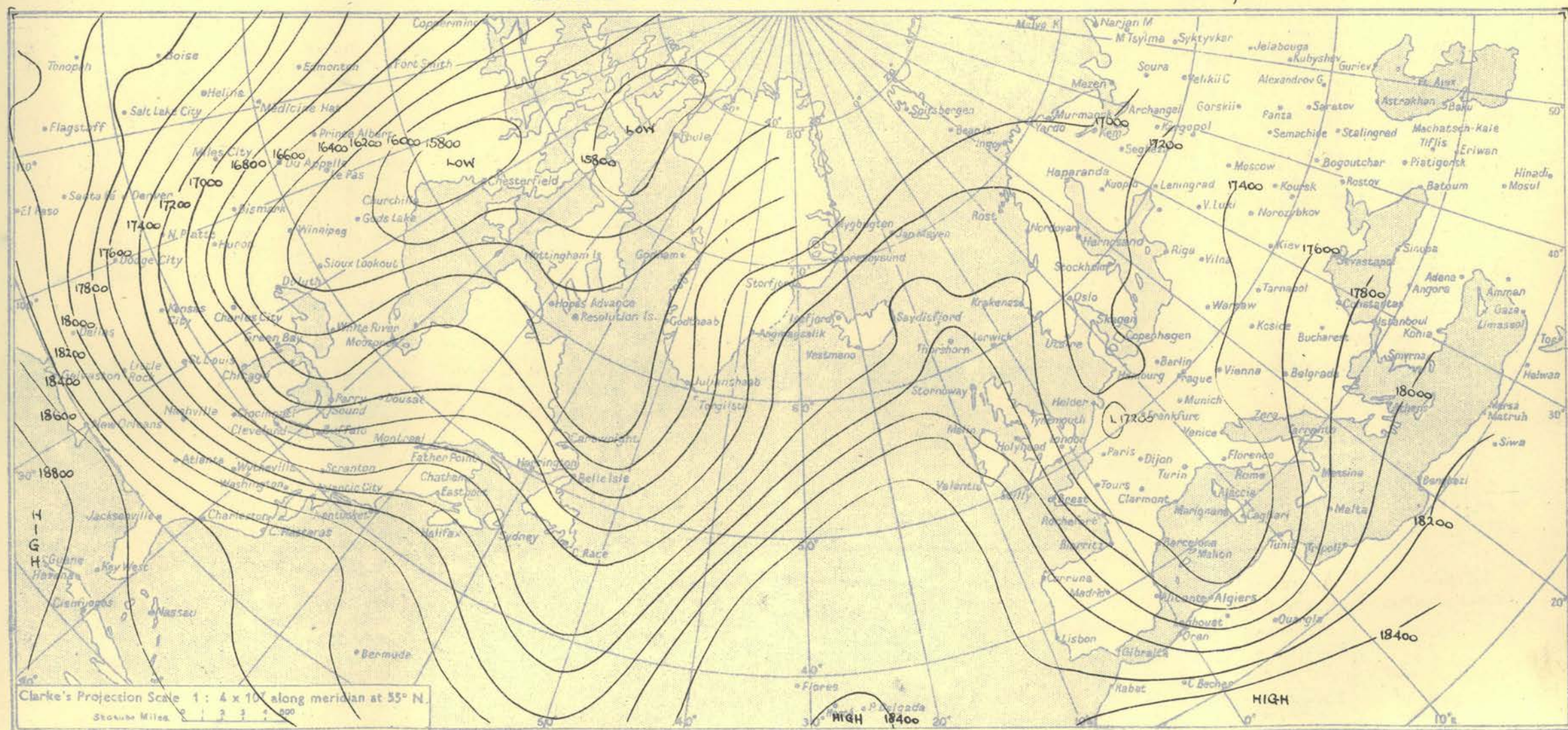
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

Wednesday 1<sup>st</sup> March, 1950.



Clarke's Projection Scale 1 : 4 x 10<sup>6</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.)

1st March.

Station	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				Station																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Pressure M.S.L. Surf Pressing	15h		G.M.T.		15h		G.M.T.		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 Pressing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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	1004.3		mb		1011.3		mb		1018.3		mb		1010.8		mb		1019.6		mb		1019.2		mb		1007.2		mb		1010.7		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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METEOROLOGICAL

LIDDA

VALENTIA

1016-6

1015

ASO

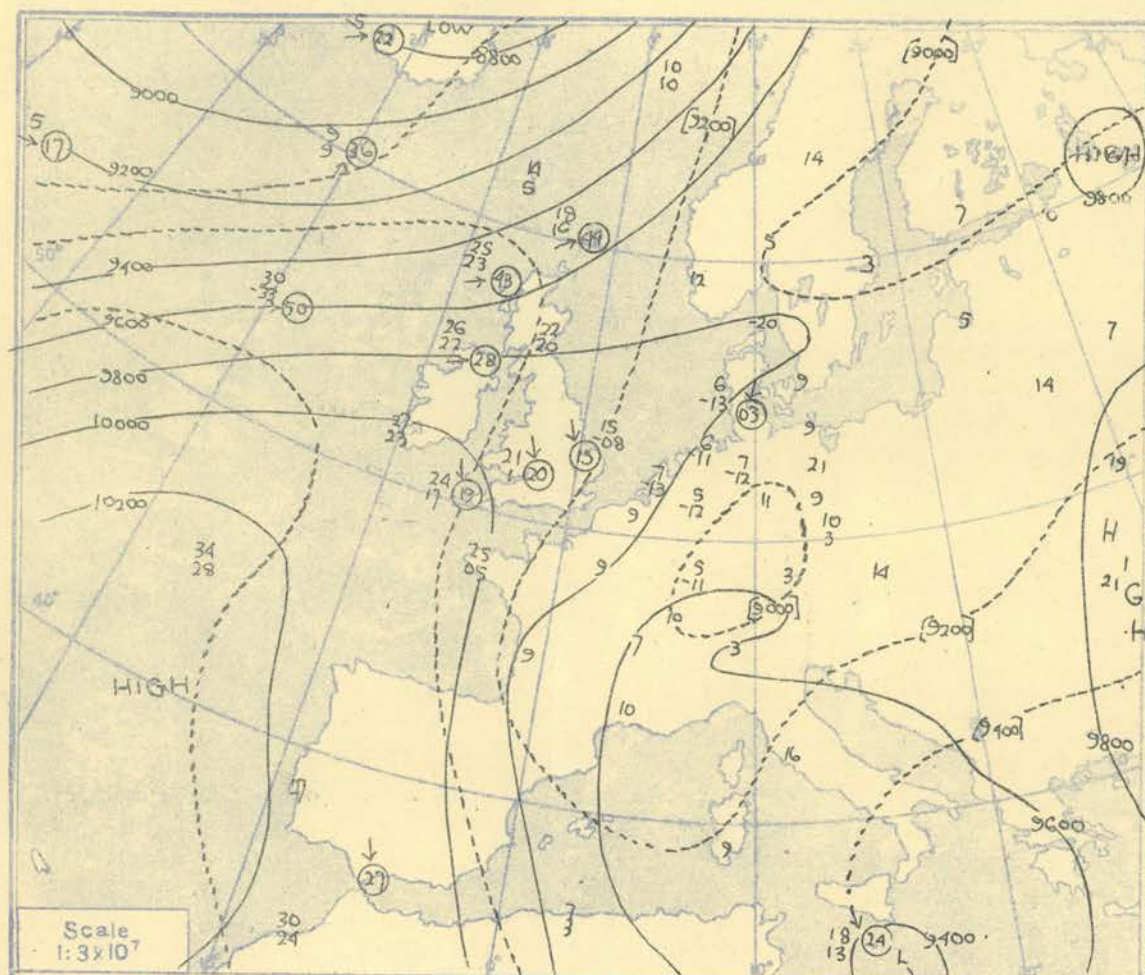
SEA

TIME

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										
			1007.1	996.7	mb	mb	1004.9	1002.9	mb	mb	1015.5	1014.6	mb	mb	1015.9	1007.0	mb	mb	1025.1	1020.3	mb	mb	1025.1	1020.3	mb	mb	1025.1	1020.3	mb	mb	1023.5	1012.8	mb	mb			1016.6	1015.5	mb	mb						
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb									
Surf	02.7	41	39	180	35	00.5	44	43	190	25	00.2	41	39	02.3	42	40	180	15	01.2	32	28	170	05	04.4	35	27	190	05	02.9	46	40	180	10	00.3	44	48	Surf									
1000	1.8	37	34	186	48	1.3	44	43	190	25	4.0	40	38	4.2	42	40	180	15	6.5	36	27	209	18	6.7	37	28	190	05	6.2	45	39	193	33	4.5	48	47	1000									
950	29.8	32	29	189	46	29.5	38	38	205	45	31.9	31	30	32.4	40	39	232	31	34.3	33	23	215	16	35	27	223	15	34.4	39	35	194	29	33.0	46	45	950										
900	27	25	202	45	27	35	35	243	44	27	32	26	30	27	37	37	246	30	27	20	19	218	13	34.6	30	23	233	16	34.4	34	24	202	25	33.0	46	45	900									
850	60.6	28	26	228	40	60.7	32	31	243	40	62.8	30	30	63.8	37	35	254	27	64.6	22	01	248	11	66.1	22	14	289	08	65.5	32	25	291	09	64.6	38	36	850									
800	23	22	236	42	23	29	27	249	39	25	25	25	25	28	28	252	27	28	17	-03	290	10	21	01	330	09	27	26	304	12	32	27	27	27	750											
750	95.0	18	16	241	44	95.5	15	13	253	43	97.5	22	22	98.7	25	22	256	28	98.6	15	-08	317	15	99.2	21	01	342	20	100	24	17	321	19	99.7	27	23	700									
700	134	09	05	240	53	135	12	06	255	40	137	10	09	138	11	05	265	32	137	04	-01	353	26	138	11	-01	350	30	140	12	06	334	29	139	23	10	650									
650	01	-04	249	53	05	-03	254	57	02	00	02	00	00	05	-02	279	42	01	01	-25	352	35	04	-13	346	32	08	-07	343	31	08	-04	08	-04	550											
600	179	-08	-14	247	57	180	-03	-10	255	60	182	-08	-10	183	-01	-06	300	45	182	-10	-29	347	41	183	-06	-23	343	37	185	-01	-13	342	36	185	-01	-11	500									
550	231	-19	-26	258	63	233	-14	-21	258	59	234	-16	-19	237	-11	-19	312	42	235	-21	-35	348	47	236	-15	-30	355	51	239	-12	-19	345	46	238	-10	-25	450									
500	298	32	29	189	46	29.5	38	38	205	45	31.9	31	30	32.4	40	39	232	31	34.3	33	23	215	16	35	27	223	15	34.4	39	35	194	29	33.0	46	45	400										
450	27	25	202	45	27	35	35	243	44	27	32	26	30	27	37	37	246	30	27	20	19	218	13	34.6	30	23	233	16	34.4	34	24	202	25	33.0	46	45	350									
400	60.6	28	26	228	40	60.7	32	31	243	40	62.8	30	30	63.8	37	35	254	27	64.6	22	01	248	11	66.1	22	14	289	08	65.5	32	25	291	09	64.6	38	36	300									
350	23	22	236	42	23	29	27	249	39	25	25	25	25	28	28	252	27	28	17	-03	290	10	21	01	330	09	27	26	304	12	32	27	27	27	250											
300	95.0	18	16	241	44	95.5	15	13	253	43	97.5	22	22	98.7	25	22	256	28	98.6	15	-08	317	15	99.2	21	01	342	20	100	24	17	321	19	99.7	27	23	200									
250	134	09	05	240	53	135	12	06	255	40	137	10	09	138	11	05	265	32	137	04	-01	353	26	138	11	-01	350	30	140	12	06	334	29	139	23	10	150									
200	01	-04	249	53	05	-03	254	57	02	00	02	00	00	05	-02	279	42	01	01	-25	352	35	04	-13	346	32	08	-07	343	31	08	-04	08	-04	100											
150	179	-08	-14	247	57	180	-03	-10	255	60	182	-08	-10	183	-01	-06	300	45	182	-10	-29	347	41	183	-06	-23	343	37	185	-01	-13	342	36	185	-01	-11	50									
100	231	-19	-26	258	63	233	-14	-21	258	59	234	-16	-19	237	-11	-19	312	42	235	-21	-35	348	47	236	-15	-30	355	51	239	-12	-19	345	46	238	-10	-25	40									
50	298	32	29	189	46	29.5	38	38	205	45	31.9	31	30	32.4	40	39	232	31	34.3	33	23	215	16	35	27	223	15	34.4	39	35	194	29	33.0	46	45	30										
0	27	25	202	45	27	35	35	243	44	27	32	26	30	27	37	37	246	30	27	20	19	218	13	34.6	30	23	233	16	34.4	34	24	202	25	33.0	46	45	20									
	60.6	28	26	228	40	60.7	32	31	243	40	62.8	30	30	63.8	37	35	254	27	64.6	22	01	248	11	66.1	22	14	289	08	65.5	32	25	291	09	64.6	38	36	10									
	23	22	236	42	23	29	27	249	39	25	25	25	25	28	28	252	27	28	17	-03	290	10	21	01	330	09	27	26	304	12	32	27	27	27	20											
	95.0	18	16	241	44	95.5	15	13	253	43	97.5	22	22	98.7	25	22	256	28	98.6	15	-08	317	15	99.2	21	01	342	20	100	24	17	321	19	99.7	27	23	10									
	134	09	05	240	53	135	12	06	255	40	137	10	09	138	11	05	265	32	137	04	-01	353	26	138	11	-01	350	30	140	12	06	334	29	139	23	10	0									
	01	-04	249	53	05	-03	254	57	02	00	02	00	00	05	-02	279	42	01	01	-25	352	35	04	-13	346	32	08	-07	343	31	08	-04	08	-04	0											
	179	-08	-14	247	57	180	-03	-10	255	60	182	-08	-10	183	-01	-06	300	45	182	-10	-29	347	41	183	-06	-23	343	37	185	-01	-13	342	36	185	-01	-11	0									
	231	-19	-26	258	63	233	-14	-21	258	59	234	-16	-19	237	-11	-19	312	42	235	-21	-35	348	47	236	-15	-30	355	51	239	-12	-19	345	46	238	-10	-25	0									
	298	32	29	189	46	29.5	38	38	205	45	31.9	31	30	32.4	40	39	232	31	34.3	33	23	215	16	35	27	223	15	34.4	39	35	194	29	33.0	46	45	0										
	27	25	202	45	27	35	35	243	44	27	32	26	30	27	37	37	246	30	27	20	19	218	13	34.6	30	23	233	16	34.4	34	24	202	25	33.0	46	45	0									
	60.6	28	26	228	40	60.7	32	31	243	40	62.8	30	30	63.8	37	35	254	27	64.6	22	01	248	11	66.1	22	14	289	08	65.5	32	25	291	09	64.6	38	36	0									
	23	22	236	42	23	29	27	249	39	25	25	25	25	28	28	252	27	28	17	-03	290	10	21	01	330	09	27	26	304	12	32	27	27	27	0											
	95.0	18	16	241	44	95.5	15	13	253	43	97.5	22	22	98.7	25	22	256	28	98.6	15	-08	317	15	99.2	21	01	342	20	100	24	17	321	19	99.7	27	23	0									
	134	09	05	240	53	135	12	06	255	40	137	10	09	138	11	05	265	32	137	04	-01	353	26	138	11	-01	350	30	140	12	06	334	29	139	23	10	0									
	01	-04	249	53	05	-03	254	57	02	00	02	00	00	05	-02	279	42	01	01	-25	352	35	04	-13	346	32	08	-07	343	31	08	-04	08	-04	0											
	179	-08	-14	247	57	180	-03	-10	255	60	182	-08	-10	183	-01	-06	300	45	182	-10	-29	347	41	183	-06	-23	343	37	185	-01	-13	342	36	185	-01	-11	0									
	231	-19	-26	258	63	233	-14	-21	258	59	234	-16	-19	237	-11	-19	312	42	235	-21	-35	348	47	236	-15	-30	355	51	239	-12	-19	345	46	238	-10	-25	0									
	298	32	29	189	46	29.5	38	38	205	45	31.9	31	30	32.4	40	39	232	31	34.3	33	23	215	16	35	27	223	15	34.4	39	35	194	29	33.0	46	45	0										
	27	25	202	45	27	35	35	243	44	27	32	26	30	27	37	37	246	30	27	20	19	218	13	34.6	30	23	233	16	34.4	34	24	202	25	33.0	46	45	0									
	60.6	28</																																												



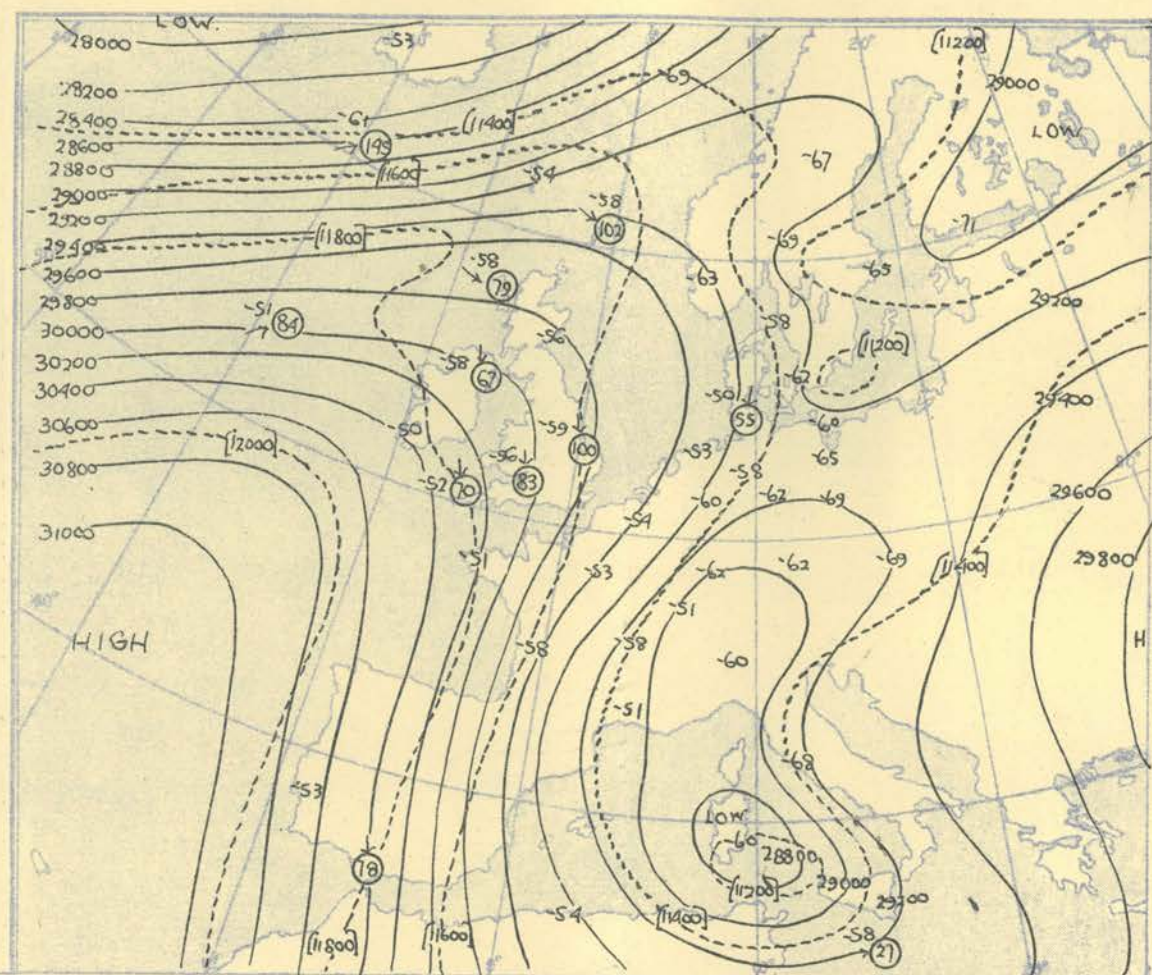
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



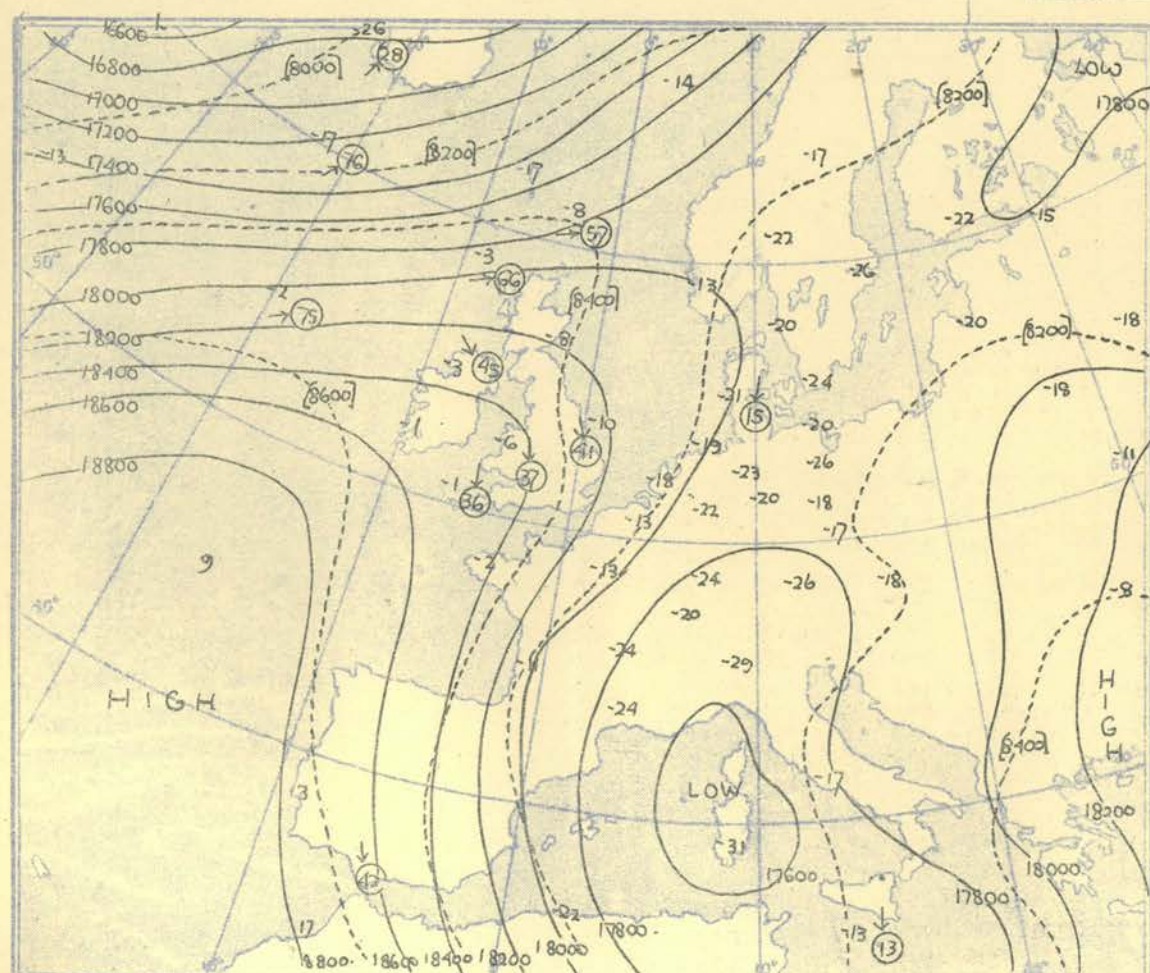
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

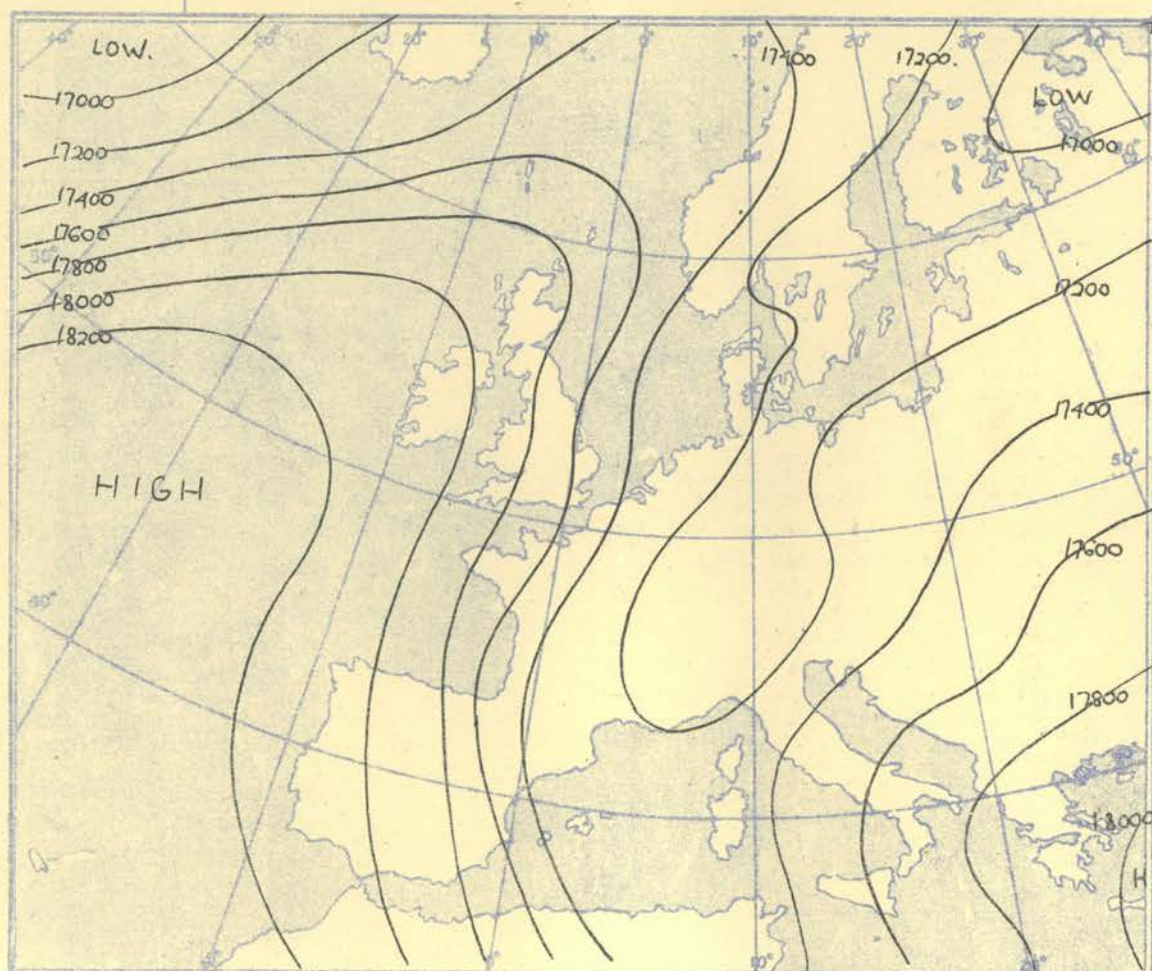
100 80 60 40 20 0 20 40 60 80 100 knots



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

54-1N 00-1E																												
Pressure mb	Time			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
	M.S.L.	Surf	Freezing																									
	mb	mb	mb																									
	mb	mb	mb																									
Surf	15h	1016	mb																									Surf
1000		1014	mb																									1000
950			mb																									950
900			mb																									900
850			mb																									850
800		790	mb																									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:-																												
8/8 Sr 985- 667 mb																												
Isothermal																												
999-979 mb 39°																												
962-900 mb 37°																												

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

Place	kerwick	Lossiemouth	lympne	Shadbury	haverhill	Leuchars															
Time	09h	09h	09h	09h	21h	21h															
Type	RADAR						PILAR			PILAR											
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
Surf.	191	27	240	09	CALM		200	14	190	20	220	15									
1,000	196	42	220	27	210	12	210	18	190	21	241	42									
2,000	198	42	240	37	210	16	220	18	230	26	242	38									
3,000	207	33	250	29	220	14	220	19	240	33	244	37									
4,000	229	25	250	27	230	12	220	07	250	34	253	30									
5,000	231	23	250	32	260	10	220	08	250	35	261	28									
6,000	219	19			280	08	250	10	250	35	263	30									
8,000	241	25					340	05	250	32	262	28									
10,000	253	32					340	25	260	25	261	29									
14,000	252	48					350	28	290	22	261	36									
18,000	255	51					350	45	300	27	249	42									
24,000	263	53					360	54	290	25	268	48									
30,000	269	89					350	71	300	34	271	49									
40,000	276	60					350	49	300	60	280	39									
50,000	286	33					350	23	280	21	276	23									
(49,000')									290	10											
									(56,000)												

## NEPHOSCOPE OBSERVATIONS

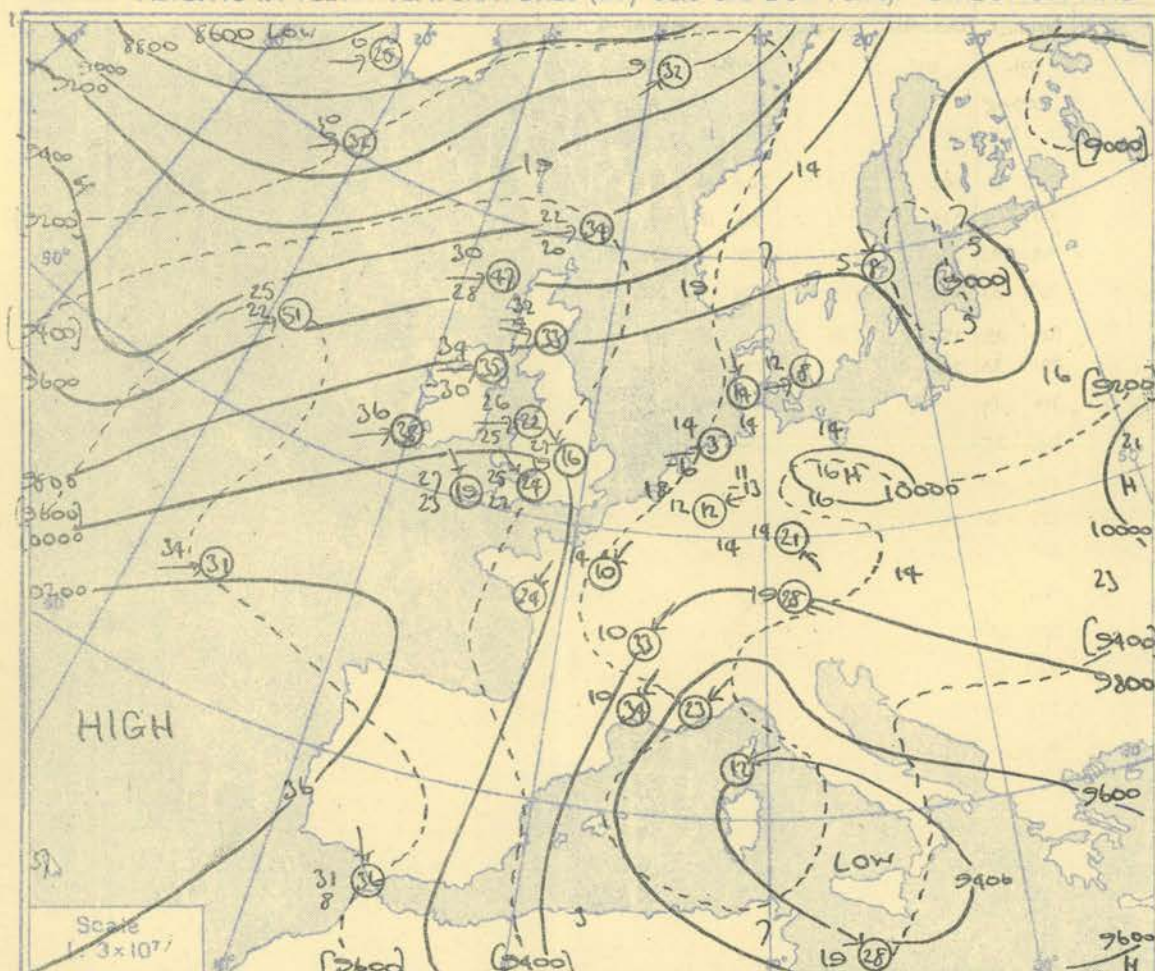
[illegible]

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

[illegible]



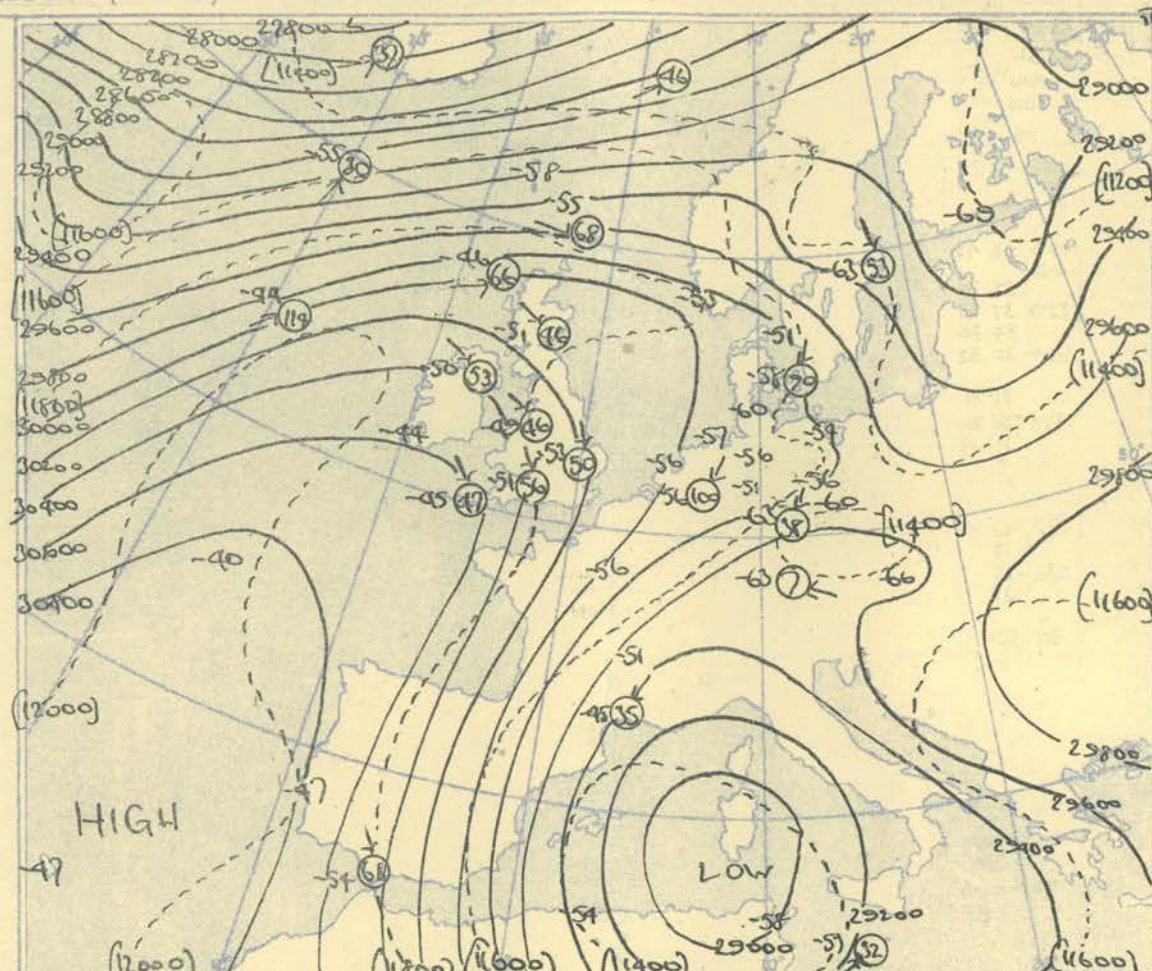
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

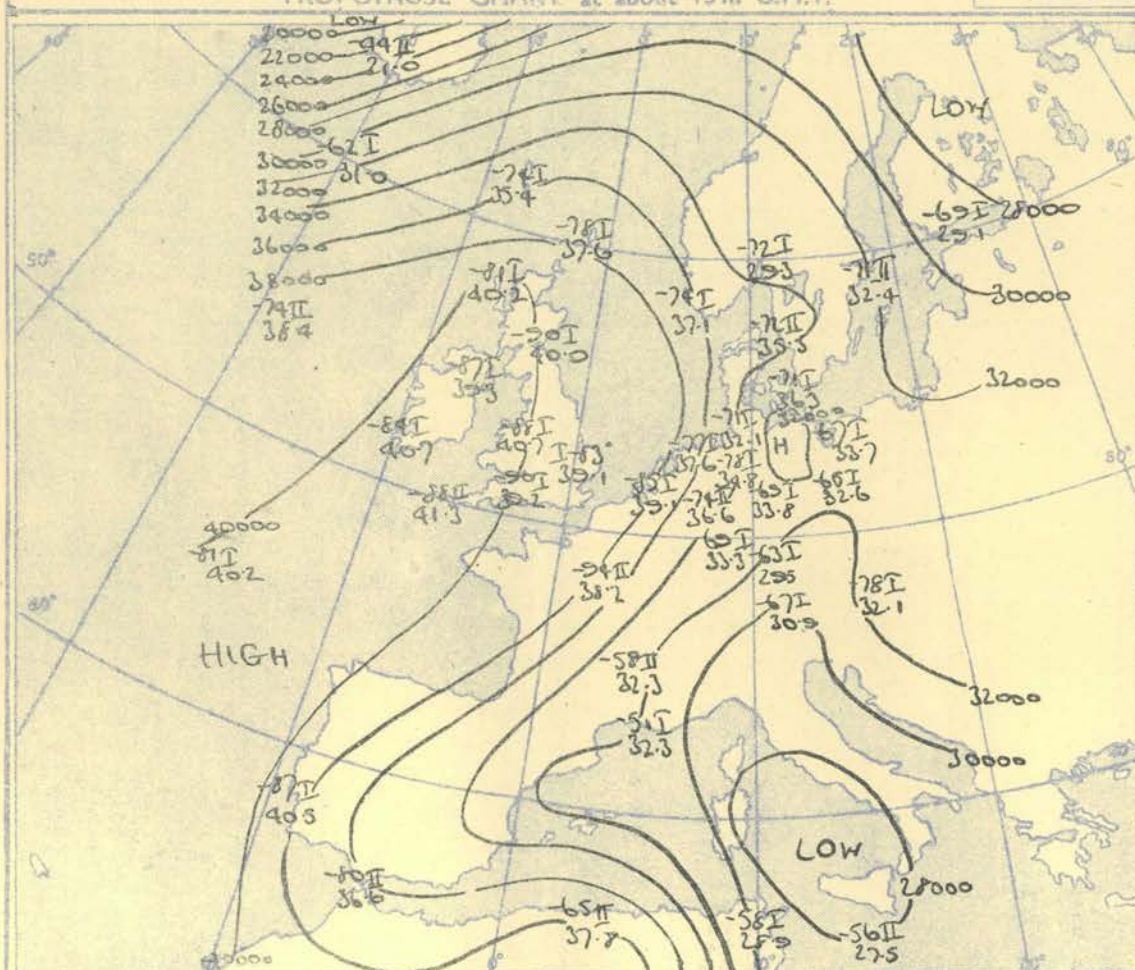
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52\frac{1}{2}^\circ$  N.

100 80 60 40 20 10 5 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.

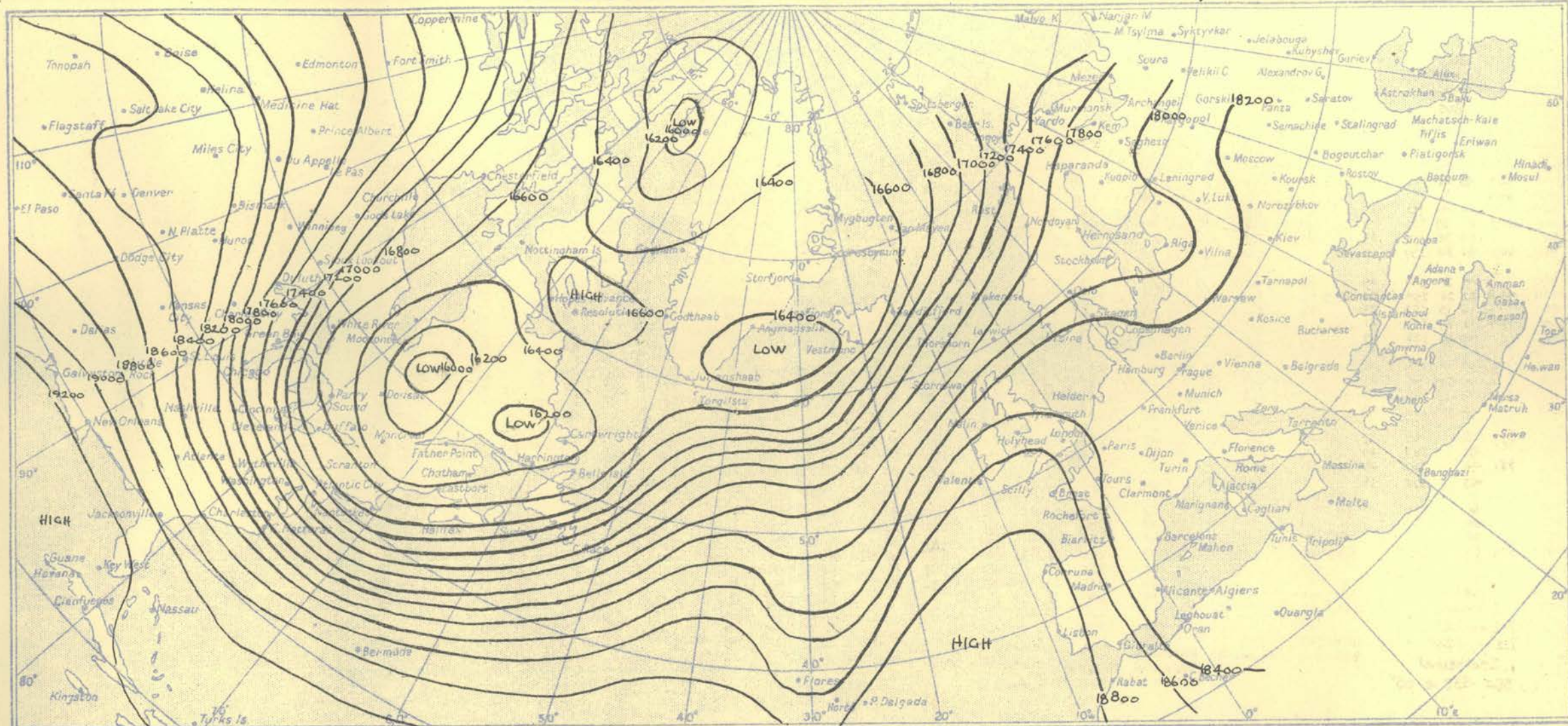
#### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over the West Mediterranean warmed slightly. The cold trough in Mid-Atlantic decreased markedly in size and intensity with the rapid advance of a warm ridge from West Atlantic.

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

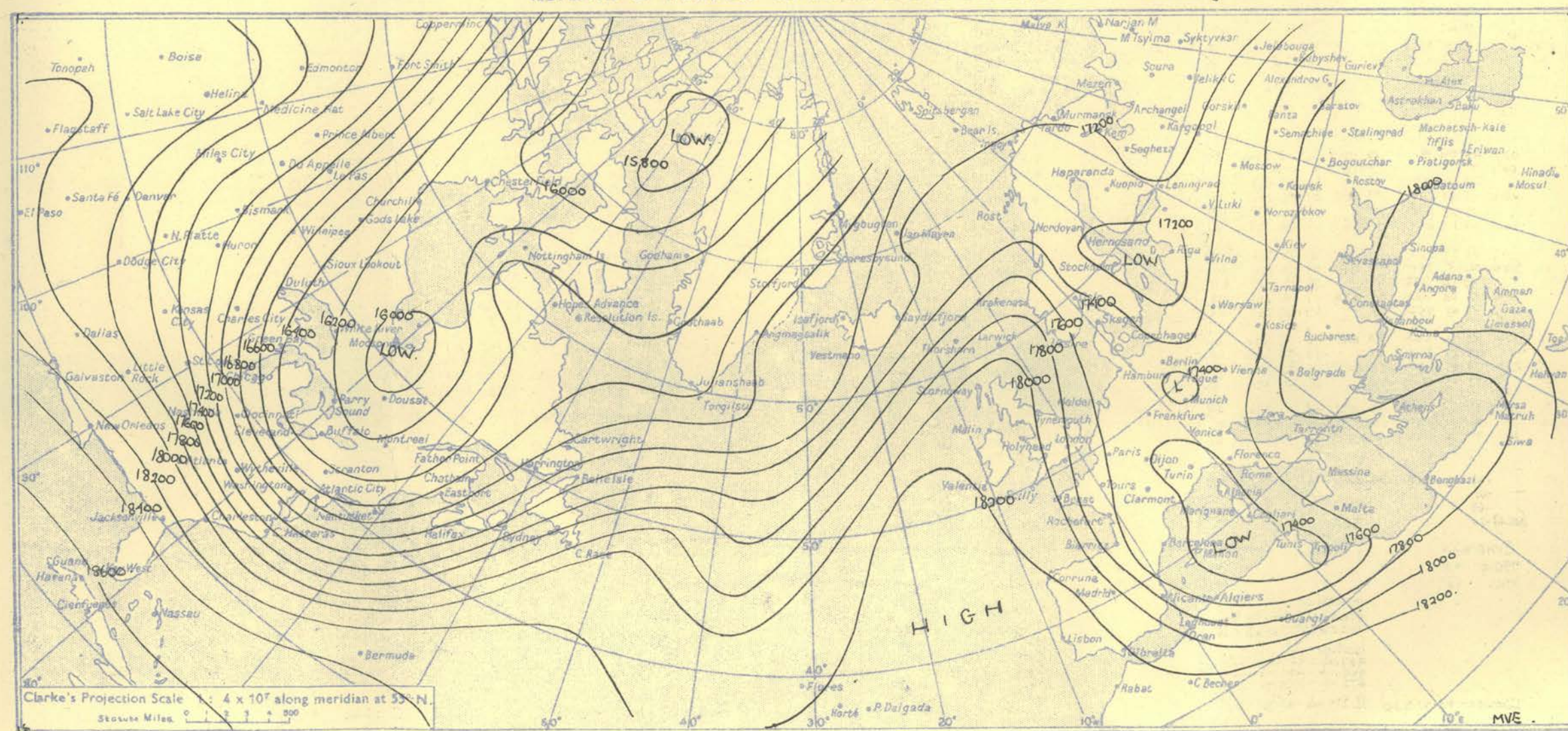




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 2<sup>nd</sup> March.

1950.





H.M.S.D. Press, Dunstable

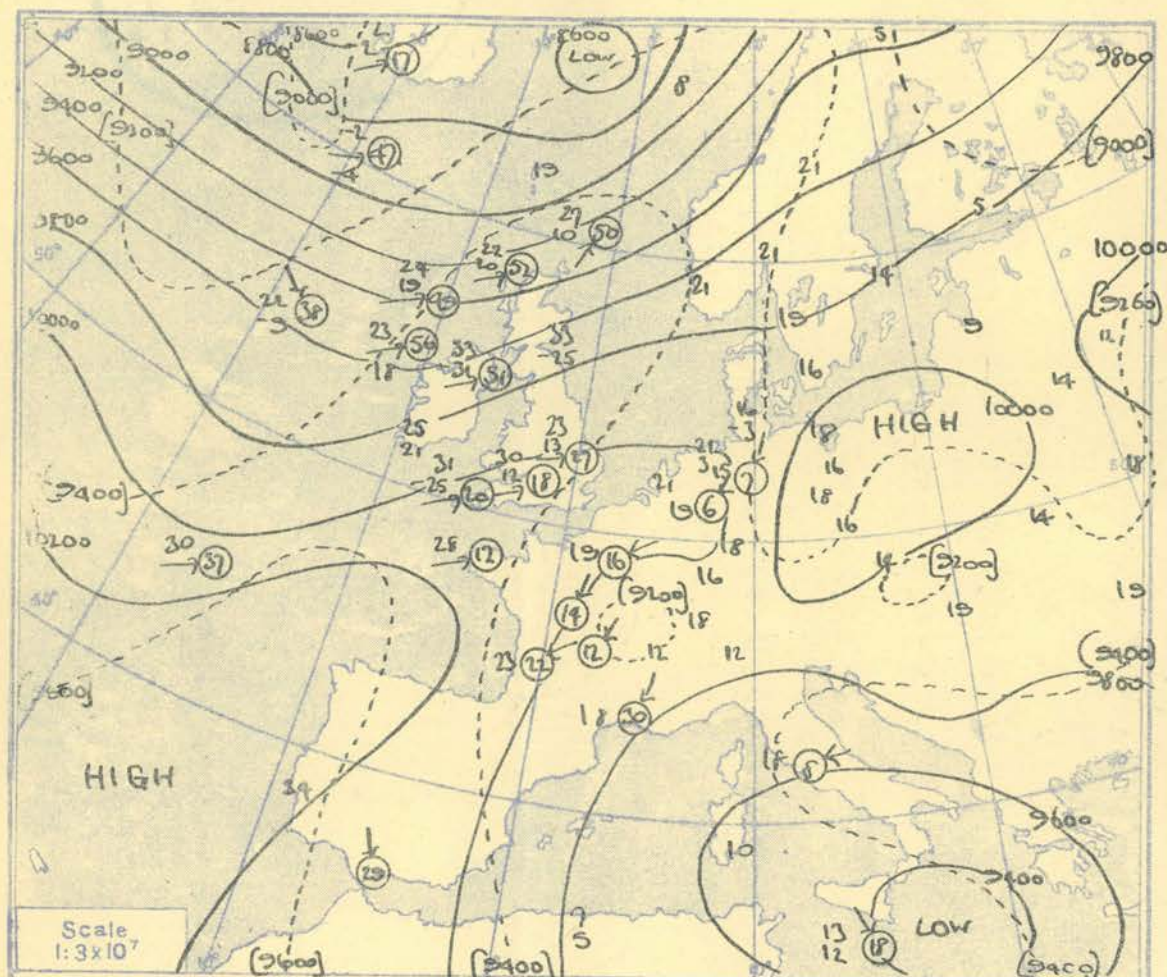


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																					
Time		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		G.M.T.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		Time																																									
M.S.L.		996.2		mb		996.0		mb		1007.0		mb		1010.4		mb		mb		mb		1021.7		mb		1022.6		mb		1021.6		mb		Time																																									
Surf		986.3		mb		994.1		mb		1006.2		mb		1001.8		mb		mb		mb		1017.1		mb		1006.2		mb		1010.1		mb		Surf																																									
Freezing		736		mb		800		mb		682		mb		685		mb		mb		mb		790		mb		773		mb		707		mb		Freezing																																									
Pressure		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Height		Temp.		Pressure																																									
mb		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		ft./100		°F.		mb																																									
Dir.		Vel.		knots		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		knots																																							
Surf		02.7		49		43		210		35		00.5		48		48		210		30		00.2		50		46		02.3		49		45		215		20		01.2		42		35		170		15		04.4		44		41		200		20		01.9		49		48		203		20		00.3		52		49		Surf	
1000		04.1		49		43		222		48		01.0		45		45		211		48		01.9		49		45		02.8		45		42		224		38		05.7		41		34		205		30		06.0		43		40		200		05.7		47		46		207		32		3.3		51		48		1000			
950		27.6		43		38		222		50		27.4		41		41		218		54		30.3		39		39		31.3		42		38		232		45		39		35		236		36		39		37		216		29		44		43		216		35		48		950											
900		36		33		222		50		37		36		223		57		37		30		37		30		37		36		32		237		45		40		37		242		27		38		35		240		26		34.1		43		223		33		31.9		44		900											
850		58.7		32		219		48		55.7		32		31		223		55		01.7		39		31		62.5		29		27		274		50		65.2		33		29		240		26		65.5		36		32		242		24		65.6		36		33		239		27		63.4		35		31		850			
800		33		12		210		49		37		21		22.6		52		38		7.14		38		05		232		48		28		24		241		27		29		26		251		19		34		06		232		24		29		25		750																	
750		27		10		209		50		37.4		22		20		230		52		37.1		33		25		97.7		33		31		230		51		100		23		13		256		27		101		30		12		263		18		01		31		25		235		20		98.2		25		700					
700		21		03		224		51		16		11		228		61		29		29		29		29		133		13		20		231		57		133		13		16		228		69		137		21		19		14		850																					
650		133		13		20		231		57		133		13		16		228		69		137		21		13		20		231		57		133		13		16		228		69		137		21		19		14		800																							
600		06		27		231		61		05		23		226		69		137		21		13		20		231		57		133		13		20		231		57		133		13		16		228																													



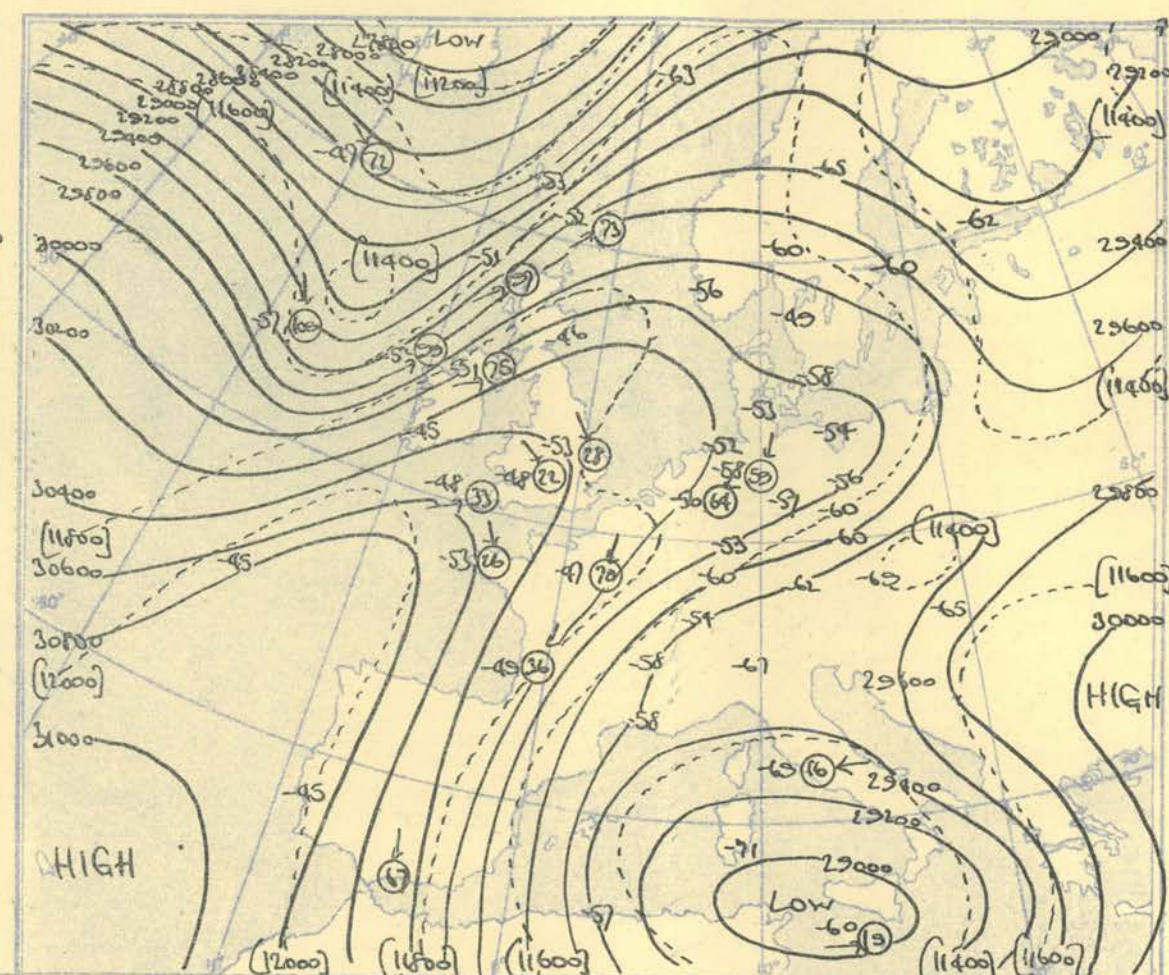
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



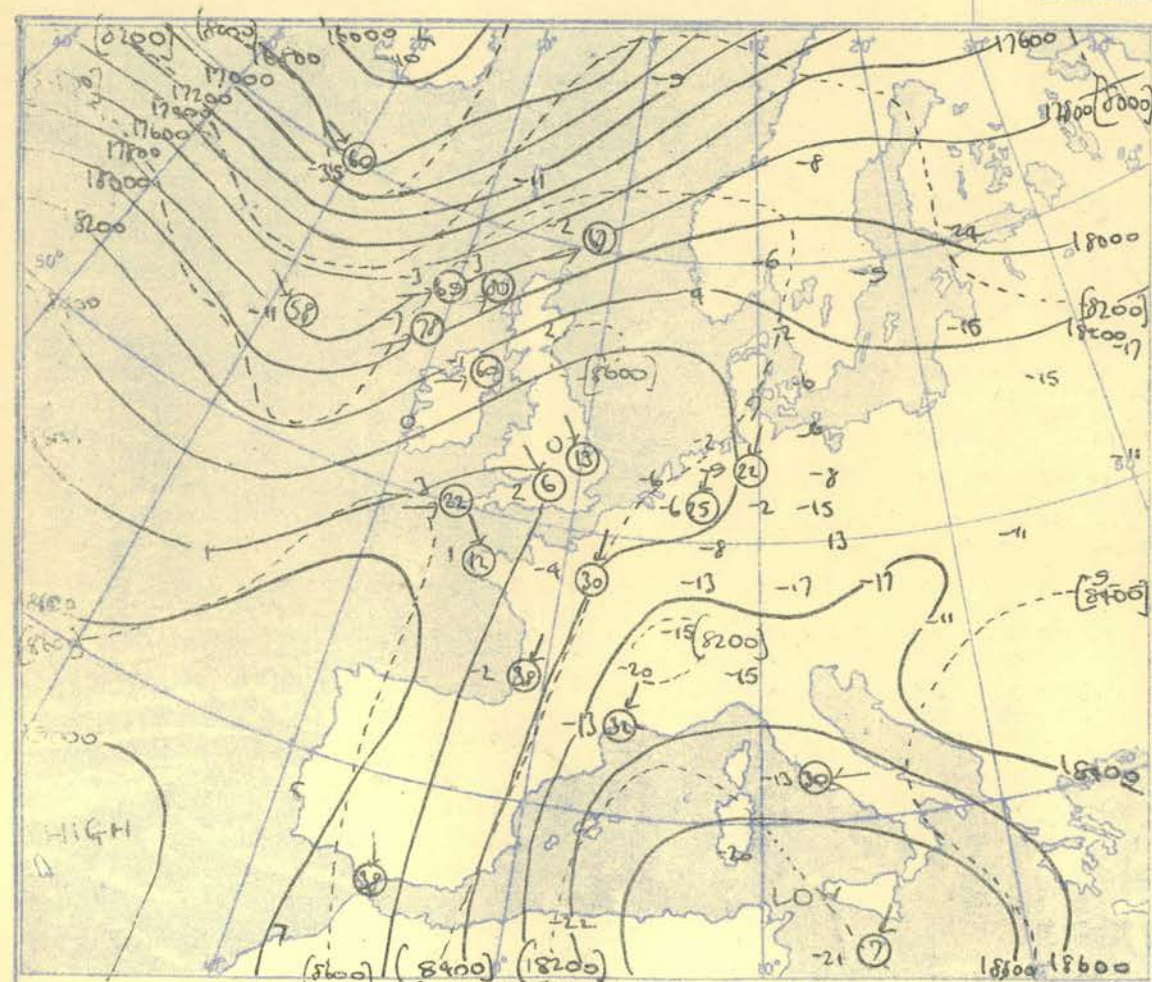
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

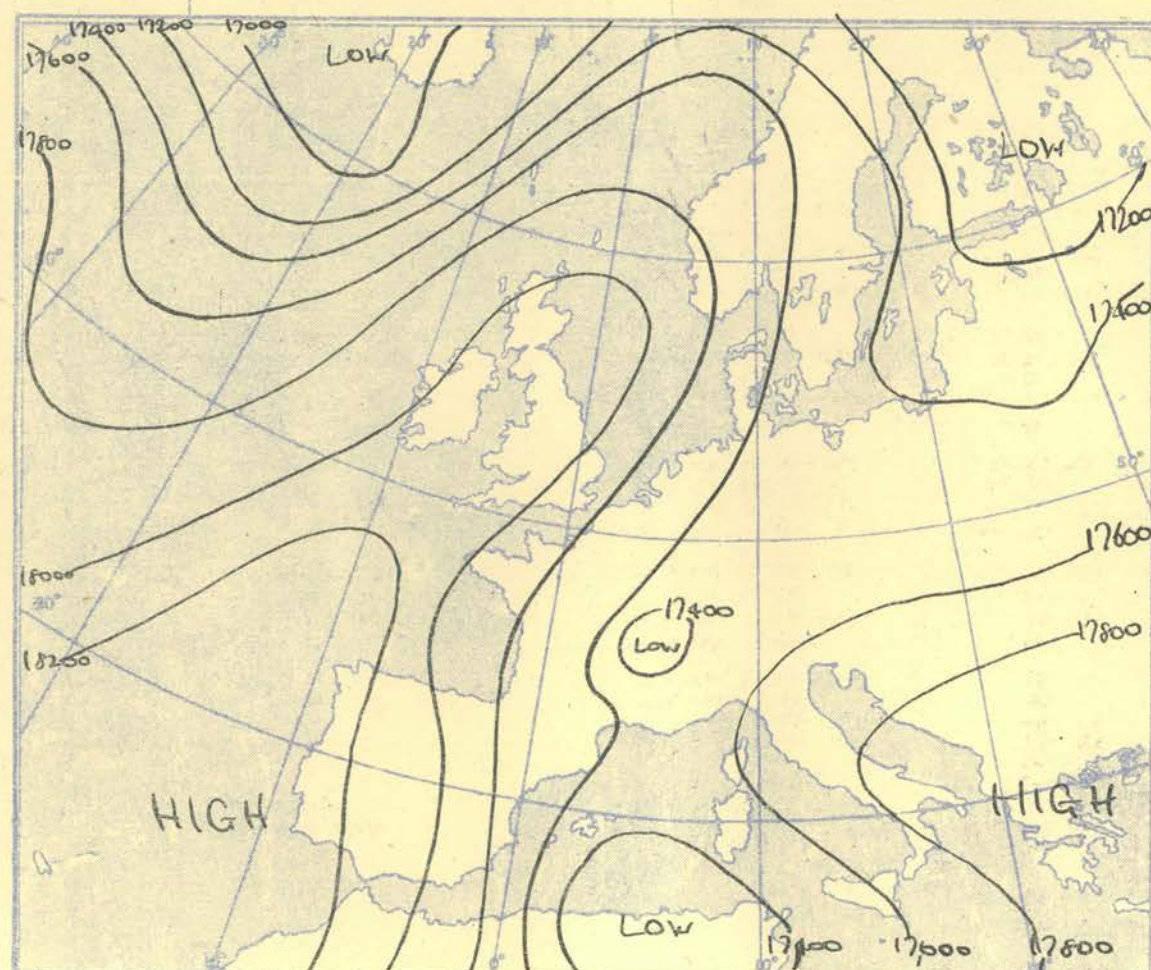
100 80 60 40 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure M.S.L. Surf Freezing	18-2 N 20-5 W			43-2 N 17-0 W			49-5 N 14-7 W			39-5 N 12-2 W			59-1 N 0-1 E			Time M.S.L. Surf Freezing
	13h	1023 mb	1029 mb	13h	1030 mb	1027 mb	15h	1029 mb	1025 mb	15h	1025 mb	1022 mb	15h	1019 mb	1017 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.	Pressure mb
Surf	8-7	47 39		8-2	53 48		7-7	48 42		6-9	56 53		5-2	53 50		Surf
1000		36 34			46 46			37 5			49 49			47 46		1000
950		38 10			38 38			30 30			47 47			31 3		950
900		44 30			43 17			39 17			44 44			36 36		900
850		39 29			41 1			33 17			41 41			65 1		850
800														33 32		800
750		36 22			35			33 25			35 35			27 25		750
700	104	28 17		104	31		102	28		103	35		99 9	26 18		700
650		21 15			24			25			27			19 14		650
600		17 13			18			18			16			11		600
550		11			7			8			10			-1		550
500	189	1		189	-2		187	-3		188	2		184	-10		500
450														-20		450
400		Cloud			Cloud			Cloud			Cloud			236	-31	400
350		3/8 Sc			8/8 Sc			5/8 Sc			4/8 Sc			-41		350
300		720-800+			730-800+			710-800+			750-800+			300 57		300
250		4/8 C			Inversion			2/8 As NR			8/8 C NR			Cloud		250
200					900-38°									8/8 Sc		200
170		Inversion			850-43°			Inversion			Isotermal			780-900+		170
		950-46.36°			Surface			900-30°			750-700+			35°		
		850-44°			Wind N'ly			850-39°			Surface					
		Surface			12-16 Kts			Surface			Wind N'ly					
		Wind N'ly			17-21 Kts			Wind N'ly			12-16 Kts					

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

Place	Lerwick		Alder Grove		Shoeburyness		Tiree		Pembroke Dock		Lorkhill		Liverpool		Leuchars		Place
Time	09h		09h.		10h		15h.		15h.		15h		21h		21h *		Time
Type	Radar Wind						Pilot						Pilot		Pilot		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	203	36	300	15	230	17	270	15	350	03	230	10	330	08	230	14	Surf.
1,000	254	39	300	20	220	27	270	27	020	09	232	21	330	18	250	26	1,000
2,000	254	35	300	22	230	28	270	42	340	17	251	19	310	18	270	29	2,000
3,000	242	33	300	21	230	31	275	54	340	17	260	20	300	19	280	32	3,000
4,000	228	38	290	31	260	20	270	45	290	19	260	18	290	20	280	33	4,000
5,000	221	45	280	36	260	18					262	20	280	26	280	34	5,000
6,000	221	45	270	39	270	15					262	22	280	29	290	37	6,000
8,000	223	52	270	44	260	21					257	24	290	32	290	40	8,000
10,000	223	52	280	50	260	21					258	27	290	34	290	41	10,000
14,000	222	66	280	52	280	16					270	26	300	36	280	60	14,000
18,000	216	70	290	54	250	22					280	35	300	39	280	55	18,000
24,000	210	101	280	31	260	21					258	38	330	57	310	81	24,000
30,000	214	110	240	62	270	23					236	44	340	84	320	106	30,000
40,000	213	115	250	52	270	25					247	32	330	62	310	70	40,000
50,000					290	12					303	18			290	30	50,000
											337	15					
											(58,000)						

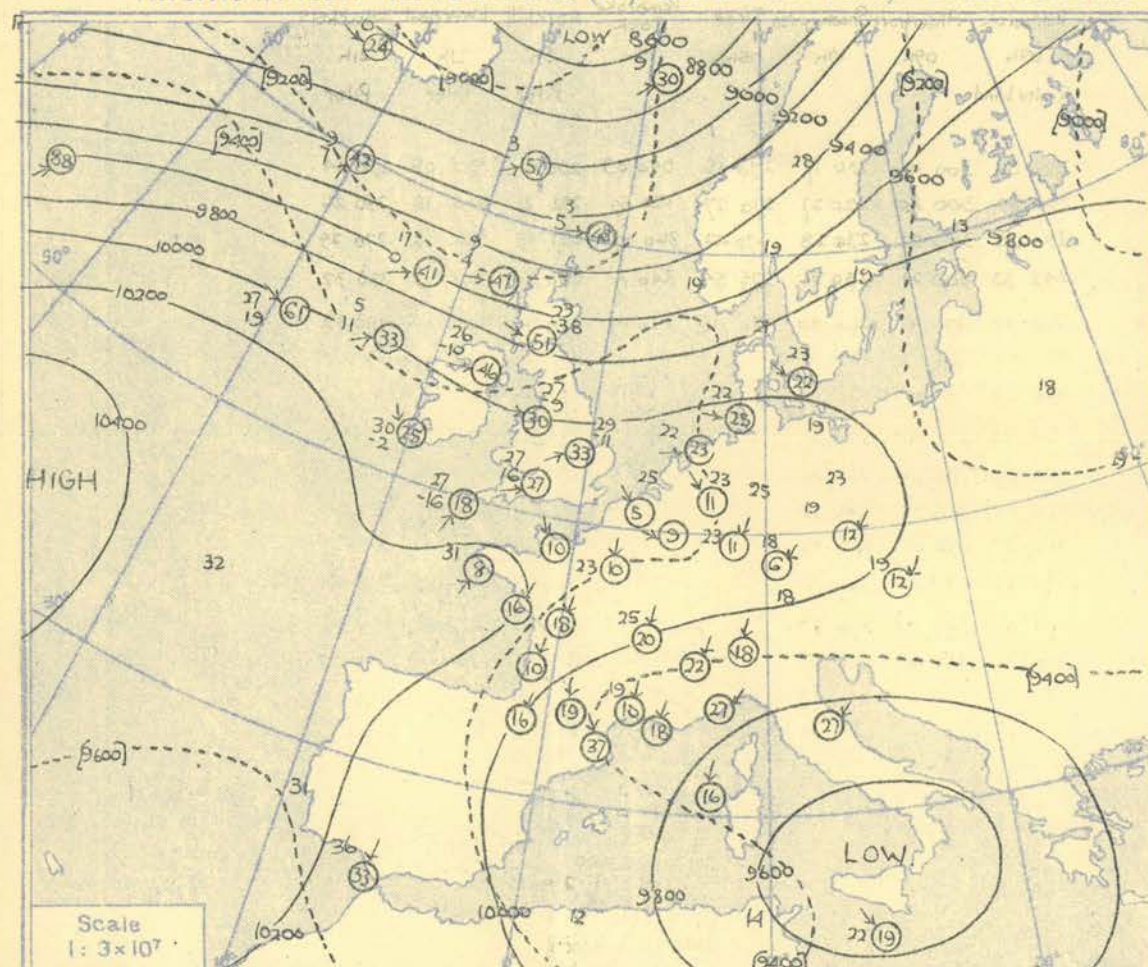
## NEPHOSCOPE OBSERVATIONS

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

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

Ship	WEATHER WATCHER.				WEATHER WATCHER.				WEATHER WATCHER.				WEATHER WATCHER.				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER OBSERVER				Ship														
Lat/Long	53-8N 18-6W.				53-8N 18-6W.				53-7N 18-6W.				53-8N 18-6W.				60-0N 19-8W.				59-9N 20-0W.				59-9N 20-2W.				59-8N 19-6W.				55-0N 10-5W.				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.				03h. G.M.T.				Time														
	1010 mb				1020 mb				1023 mb				1025 mb				993 mb				997 mb				1001 mb				1001 mb				1001 mb				M.S.L.														
	1010 mb				1020 mb				1023 mb				1025 mb				993 mb				997 mb				1001 mb				1001 mb				1001 mb				Surf														
	930 mb				925 mb				775 mb				715 mb				950 mb				920 mb				930 mb				800 + 885 mb				800 mb				Freezing														
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																		
Surf		45	46	300 28		45	36	290 23		48	41	230 27		50	49	240 25		39	32	260 30		39	34	266 36		41	36	230 25		47	40	250 24		50	50	220 35	Surf														
1000	2-7	43	36		5-2	42	34	275 24		6-0	44	38	335 37		6-6	47	46	241 49		-19		32	23	260 55		-10		39	30	265 53		41	36	230 25		47	40	1000													
950		35	28	305 46		35	28	276 24			37	30	242 36		41	40	242 40		44	37	253 43		25	21	260 44		26-9		39	30	265 53		34	31	239 42		40	36	253 50	950											
900	30-6	27	22	305 31		27	21	277 26		341	34	25	252 32		34-9	37	28	272 39		25-8		25	21	260 44		26-9		29	27	271 50		27-9		27	26	243 38		28-6		34	32	254 49	900								
850		20	15	305 30		20	15	275 25			36	29	256 36		39	28	272 39		18	16	260 57		22	22	273 45				22	20	246 39		38	0	256 48		38	36	232 54	850											
800	61-0	20	6	305 30		63-4		22 15		65-3	34	28	266 42		66-3	34	25	272 39		55-8		11	9	260 47		57-1		16	16	270 42		58-2		18	14	250 42		59-6		32	-32	259 47	800								
750		25-24		305 30		25	13	277 42			30	23	280 48		36	4	281 42		4	2	256 48		10	5	274 47				12	3	250 45		26	-20	262 50		28	23	241 42	750											
700	95-4	22-19		286 38		57-9		23 11		100	27	19	295 61		101	30-23		273 41		88-8		-2-4		249 47		90-5		4-15		273 53		81-8		2 7		250 47		94-1		19	3	264 58	700								
650		15-24		272 40		18	10	293 57			22	6	308 71			22-28		278 42		-10-15		247 48		4	-26	268 64				7	5	251 56		14	12	265 66		17	10	232 62	650										
600	135	8-30		273 46		137		16-2		140	15-1		303 65		1-11	15-15		286 39		126		-12-24		251 28		129		1-33		268 73		130	3-5		262 80		133		7	5	263 77	600									
550		-1-37		278 52		7-12		311 48			11-4		290 62			5-4		280 48		-29-33		265 49		-3-35		272 90		-4-17		270 84		-4-17		270 84				264 90		1-9		229 72	550								
500	179	-11-41		286 58		183	-3-18	291 51		186	2-17		288 48		186	-4-16		278 44		168		-35-43		278 60		173		-11-23		273 93		175	-13-24		271 88		178		-4-13		267 100	500									
450		-20-49		295 64		-14-26		288 67			-7-28		292 48			-12-22		287 47		-35-51		273 66		-16-24		272 111				-23-32		262 103				-13-20		273 100		-14-38		277 89	450								
400	231	-31-52		301 78		236	-26-35	281 72		240	-20-39		284 54		239	-24-36		273 46		218		-39-55		273 66		226		-22-29		277 134		227	-29-36		270 133		231		-24-32		273 120		232		-26-52	225 84	400				
350		-44		309 69		-40-49		290 75			-36-54		287 51			-28-52		276 45		-43				275 69		-37		-44		286 174		-40-47		279 151		(300mb)		-26				273 120		232		-26-52	225 102	350			
300	295	57		320 109		300	-57	293 81		305	-51		288 56		(320mb)	48				282		-47		280 72		291		-48		289 143		291	-54		287 164								276 150		273 120		232		-26-52	225 99	300
250		-72		320 23			-76	303 76			-68		295 55							-42				282 60				-48		298 89			-69		280 150								270 80					276 150	250		
200	380	-64		330 69		383	-76	336 81		389	-85		322 60						372		-49		267 60		380		-43		292 55		376	-63		270 80								260 58					276 150	200			
170		-61		323 60			-76 (185mb)				-82		330 48							-48				256 52				-41		287 50			-61		260 58								260 58					276 150	170		
150		-63		310 39							-67		322 30							-54				255 52				-41		281 50			-61		260 54								260 45					276 150	150		
130		-64		305 30							-67		322 28							-59				258 43		(320mb)		42					-60		260 45								262 51					276 150	130		
110	(10mb)	-66									-67									-58				264 39									-62		262 51											276 150	110				
100		-66									-67									-61				265 40									-66												276 150	100					
90											-67									-65				268 40									-65												276 150	90					
80											-67									-65															-65										276 150	80					
70											-67									-66															-66										276 150	70					
60											-67									-66															-66										276 150	60					
	Inversion. 824 mb 16°-770 mb 27°				Inversion. 830 mb 18°-764 mb 26° 715-22°-700-23° 628-15°-608-17°				(955mb) 67 Inversion. 900 mb 34°-870 mb 37° 650-22°-633-23° Isothermal. 932-900 mb 34°				Inversion. 955 mb 40°-935 mb 44° 780-32°-750-36°												Inversion. 600 mb 10°-573 mb 3° Isothermal. 700-650 mb 4°				Isothermal. 1001-1000 mb 41° 670-640-7° 610-595-3° 420-394-29°				Inversion. 877 mb 31°-850 mb 38° Isothermal. 193-777 mb 30° 675-662-15°				Isothermal. 1001-1000 mb 50° 794-776-31°														
Tropopause	I 240 mb -75° 34-200°				I 238 mb -80° 34-900°				I 97 mb -86° 39-200°				NR.				I 520 mb -36° 15-800°				I 315 mb -47° 28-000°				I 242 mb -71° 33-600°				NR.				NR.				Tropopause														

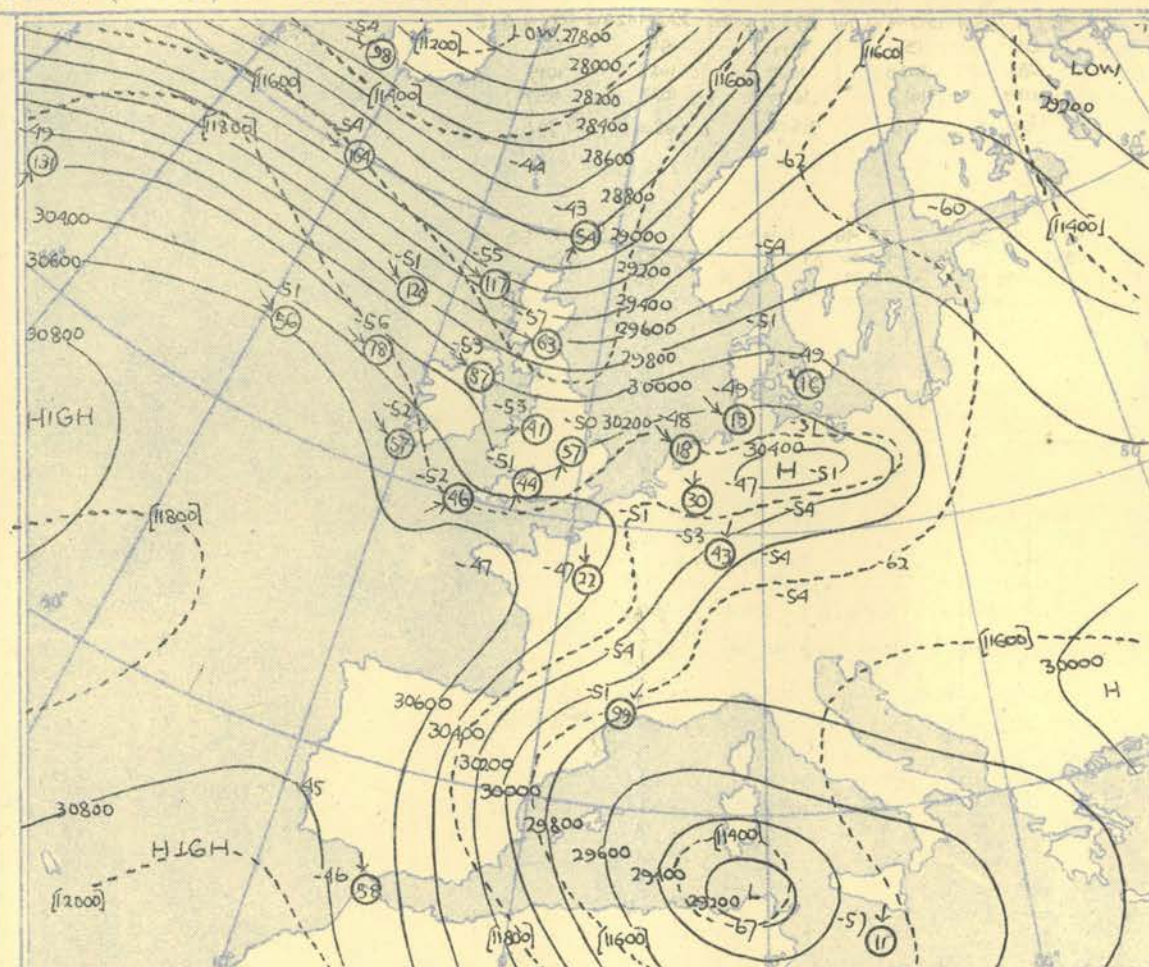




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

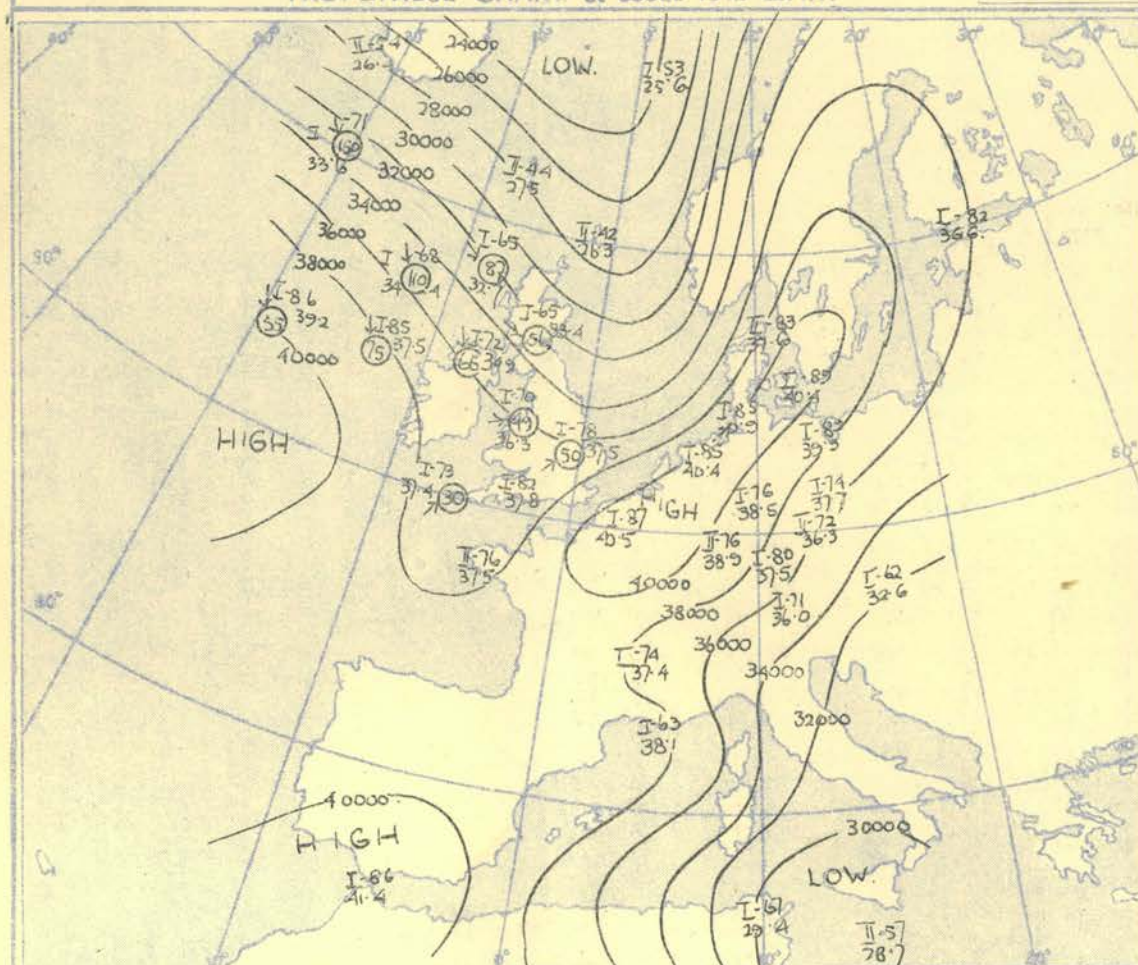
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 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.

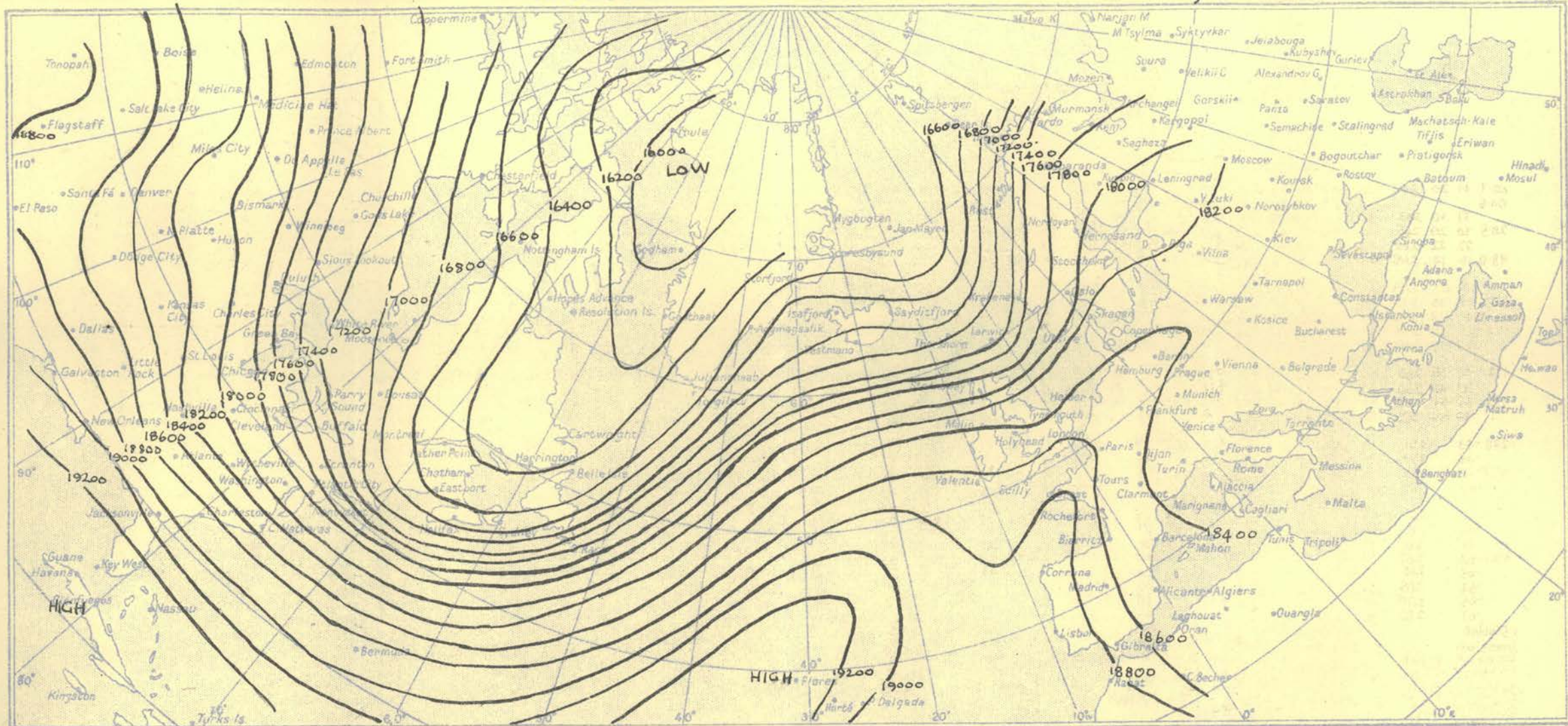


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

The cold trough moved rapidly over to Scandinavia, and the warm ridge (averaging over 30 mph. and increasing in intensity) reached Iceland. A cold trough developed in extreme West Atlantic and became complex with the fairly rapid advance of the Eastern part and a slower motion of the western edge.

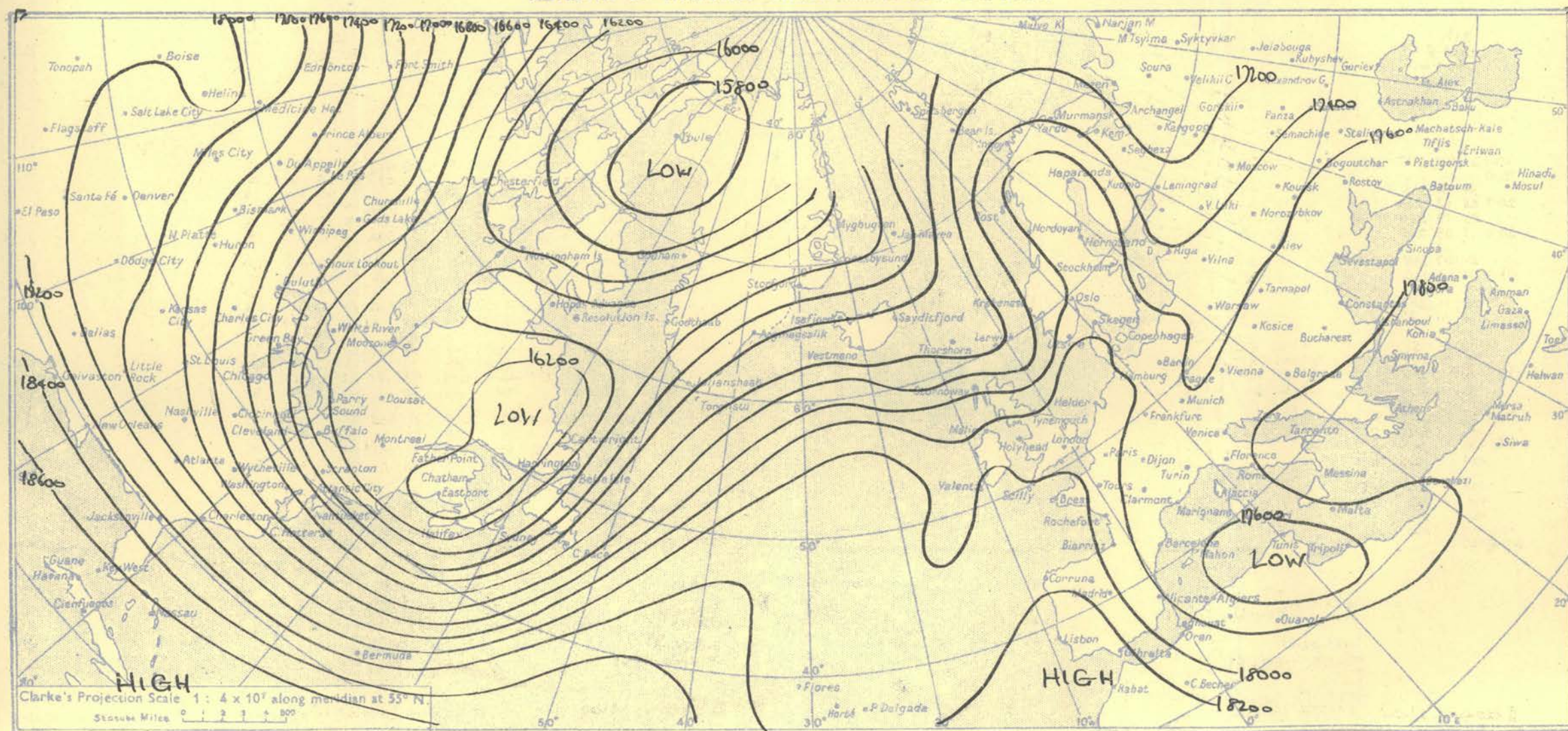




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

March 3-4

1950.





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

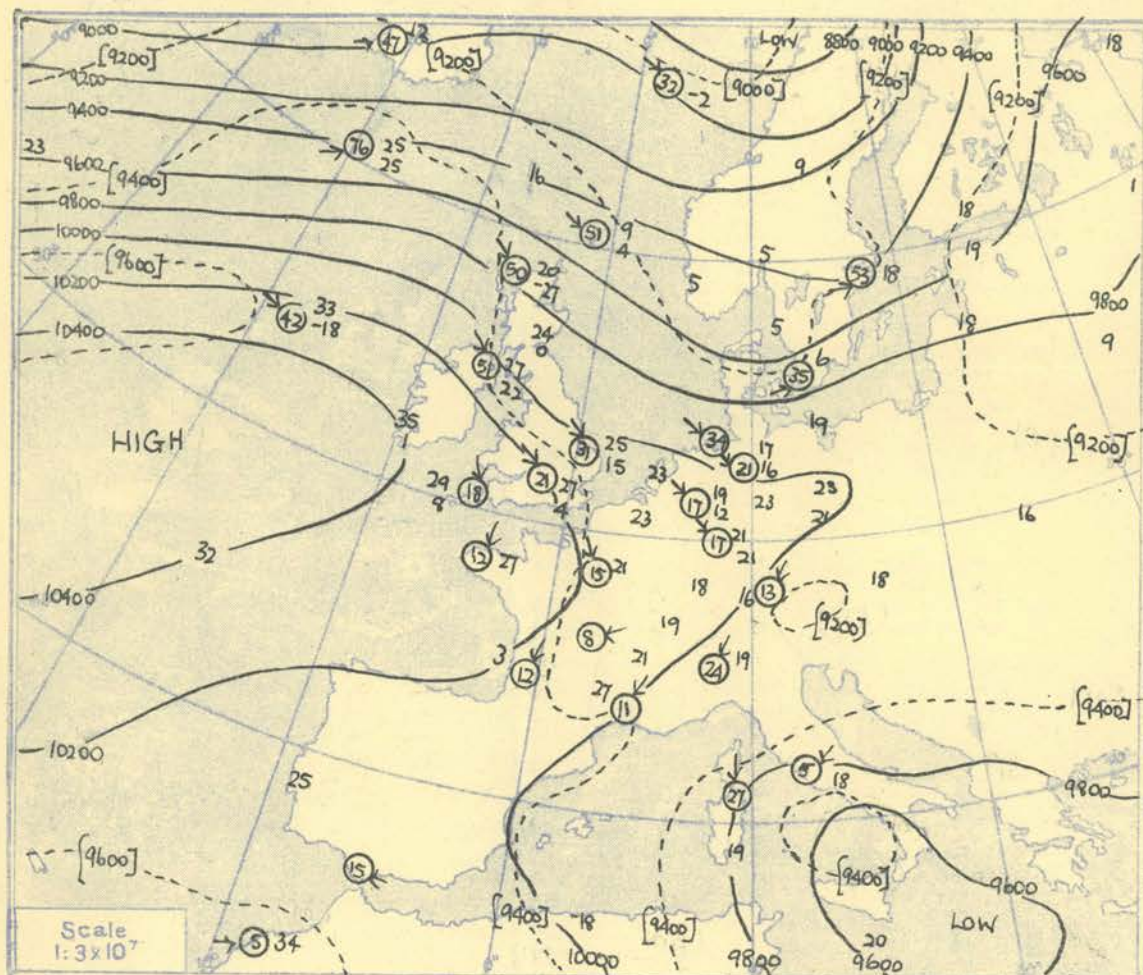
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure mb	Time M.S.L.	15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		Time M.S.L.								
		1001.6		mb		1011.7		mb		1014.5		mb		1020.5		mb		1019.1		mb		1021.6		mb		1024.2		mb		1024.4		mb										
		991.6		mb		1009.8		mb		1013.7		mb		1011.9		mb		1017.1		mb		1016.9		mb		1007.9		mb		1013.7		mb										
Freezing		912				915				891				900				835				773				747				780				725								
Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Pressure mb							
Surf	02.7	41	29	247	32	00.5	40	36	260	20	00.2	51	31	260	19	02.3	50	35	280	08	00.6	51	50	270	25	01.2	50	47	230	17	04.4	47	45		Surf							
1000	00.5				03.1	40	34			03.9	49	29			05.5	48	36	286	17		04.9	49	271	24	05.8	48	45	242	27	04.4	47	45		1000								
950		37	30	263	51		36	29	261	42		41	23	278	23		40	31	287	17		43	43	270	29		42	41	249	30		42	41		950							
900	28.5	30	29	245	41	31.0	20	24	263	44	32.1	33	20	286	20	33.8	32	26	290	17	33.5	38	38	264	31	34.1	41	38	253	30	34.7	40	39		900							
850	22	22	22	266	40		24	16	266	46		35	15	286	21		26	21	288	23		34	34	261	27		40	28	254	27		40	39		850							
800	58.8	16	14	268	49	61.5	18	8	266	48	62.5	17	04	287	30	64.5	28	14	274	29	64.6	30	30	264	28	65.6	34	24	264	22	66.1	35	28		800							
750																																				750						
700	92.2	03	03	269	47	95.2	09	-4	269	47	96.9	23	-38	274	51	99.2	26	-10	281	46	99.4	27	-9	283	30	100	29	-11	256	33	101	27	16		700							
650	06	-14	274	52		08	-17	272	61		15	-44	272	48		19	-23	281	30		19	-23	281	30		21	-04	254	32		22	-07			650							
600	130	-15	-19	273	51	133	04	-17	274	64	136	05	-27	272	58	139	16	-14	288	48	139	11	-41	292	37	140	13	-23	270	32	141	14	-14		600							
550	-24	-29	269	49	-5	-13	279	75		-03	-21	278	66		08	-21	292	47			03	-53	289	35		06	-26	270	32		06	-22			550							
500																																				500						
450	172	-27	-35	263	55	178	-10	-19	282	82	180	-11	-32	278	69	184	-1	-28	309	49	184	-3	-52	273	32	195	-03	-32	275	40	186	00	-28		450							
400	30	-42	260	54		-21	-29	290	85		-22	-23	278	57		-12	-38	322	55		-17	-57	273	33		-14	-46	270	43		-12	-39			400							
350	223	-35	-51	256	55	230	-32	-43	300	100	232	-34	-54	273	49	238	-25	-49	324	60	237	-38	-56	275	42	238	-24	-40	253	43	239	-24	-50		350							
300		-39	-55	253	60		-44		307	108		-48		266	52		-38	-58	332	74		-41		270	43		-36	-46	249	45		-36	-55			300						
250	288	-43		251	54	294	-55		305	117	296	-57		281	63	302	-53		332	87	301	-53		265	41	303	-50		240	57	304	-51			250							
200		-45		253	59		-62		301	87		-65		291	56		-69		321	70		-64		259	51		-68		246	60		-73			200							
170	377	-48		252	51	361	-51		291	53	382	-58		277	50	388	-64		204	51	386	-69		269	48	388	-76		252	50	388	-77			170							
150		-49		257	50		-57					-63		278	35		-58		296	36		-66		278	41		-67		265	30		-68			150							
130				260	42		-58					-59		276	41	449	-58		284	40		-61		277	31	448	-61		276	29		-67			130							
110		-56		262	31		-62					-57					-60		277	38		-61		280	31		-64		302	15		-67			110							
100		-61		261	33							-66					-61		298	23		-62		300	21		-63		305	15		-67			100							
90	52.7	-62		262	34						530	-66				535	-61		394	22	533	-60		307	16	533	-63		304	18	533	-67			90							
80		-63		265	33							-64					-61							296	15		-64		307	19		-68			80							
70		-64		268	34							-66					-63							289	19		-63		315	16		-69			70							
60		-67		270	25						637	-69					-62							310	15		-62		310	15		-69			60							
(56mb) 68 Inversion 818mb 16°-810mb 17° 52Tmb 28°-520mb 25° 363mb 30°-355mb 38° 265mb 45°-258mb 44° Isothermal 550mb-535mb -3° 52Tmb 28°-520mb 25° 363mb 30°-355mb 38° 265mb 45°-258mb 44° Isothermal 550mb-535mb -3°																																										
Inversion 677mb 07°-662mb 09° Isothermal 1010mb-988mb 40° 550mb-535mb -3° Inversion 800mb 17°-760mb 25° Isothermal 760-724mb 25° Inversion 830mb 23°-815mb 30° 795mb 28°-770mb 30° Isothermal 770-736mb 30° 662-632mb 22° Inversion 910mb 40°-885mb 42° 778mb 31°-773mb 32° Isothermal 730mb 29°-705mb 30° Inversion 784mb 33°-766mb 34° Isothermal 913mb-825mb 39° (30mb)-67 Inversion 838mb 35°-813mb 36° 750mb 28°-724mb 29° Inversion 885mb 33°-843mb 43° 834mb 42°-826mb 41°																																										
Tropopause	II 334mb-42° 26,300'				I 257mb-65° 32,700'				I 250mb-65° 33,400'				I 240mb-72° 34,900'				I 224mb-70° 36,300'				I 212mb-78° 37,500'				I 210mb-82° 37,800'				I 215mb-73° 37,400'				I 195mb-81° 39,600'				Tropopause					
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE													
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.								
		1007.8		mb		1016.0		mb		1025.9		mb		1024.3		mb		1024.3		mb		1024.3		mb		1027.0		mb		1028.5		mb										
		997.6		mb		1014.1		mb		1017.0		mb		1019.6		mb		1019.6		mb		1019.6		mb		1010.6		mb		1017.7		mb										
Freezing		934				922				902				810				791				770				770				770				770								
Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Pressure mb							
Surf	02.7	37	35	270	24	00.5	41	39	240	12					02.3	42	37	260	08						01.2	47	45	240	08	04.4	47	47	210	03	02.9	50	50	210	02	Surf		
1000	01.0				04.3	40	38				06.8	41	37	269	18		41	37	269	18						06.4	47	45	270	15	7.2	46	46		07.7	49	49	313	12	1000		
950		34	30	265	41		35	33	263	38		36	32	275	21		36	32	275	21							45	43	286	22		43	43	292	17		47	45	305	15	950	
900	29.7	28	27	263	44	32.2	30	29	264	42		31	25	290	27		31	25	290	27						34.9	41	37	293	26	35.5	41	39	291	21		36.2	40	35	302	15	900
850		23	19	266	49		25	24	265	46		25	21	296	30		25	21	296	30							36	27	289	27		34	32	290	21		35	32	298	12	850	
800																																										







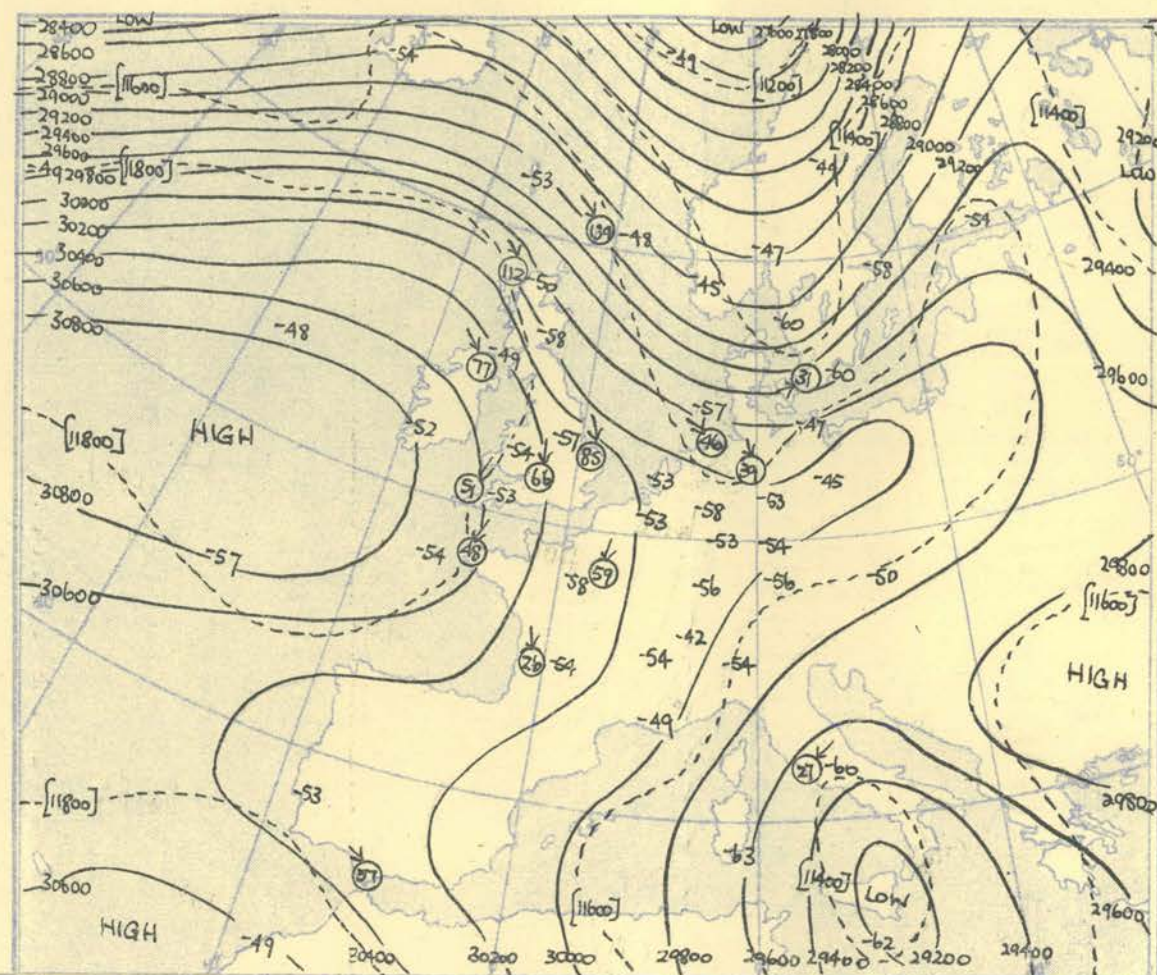
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



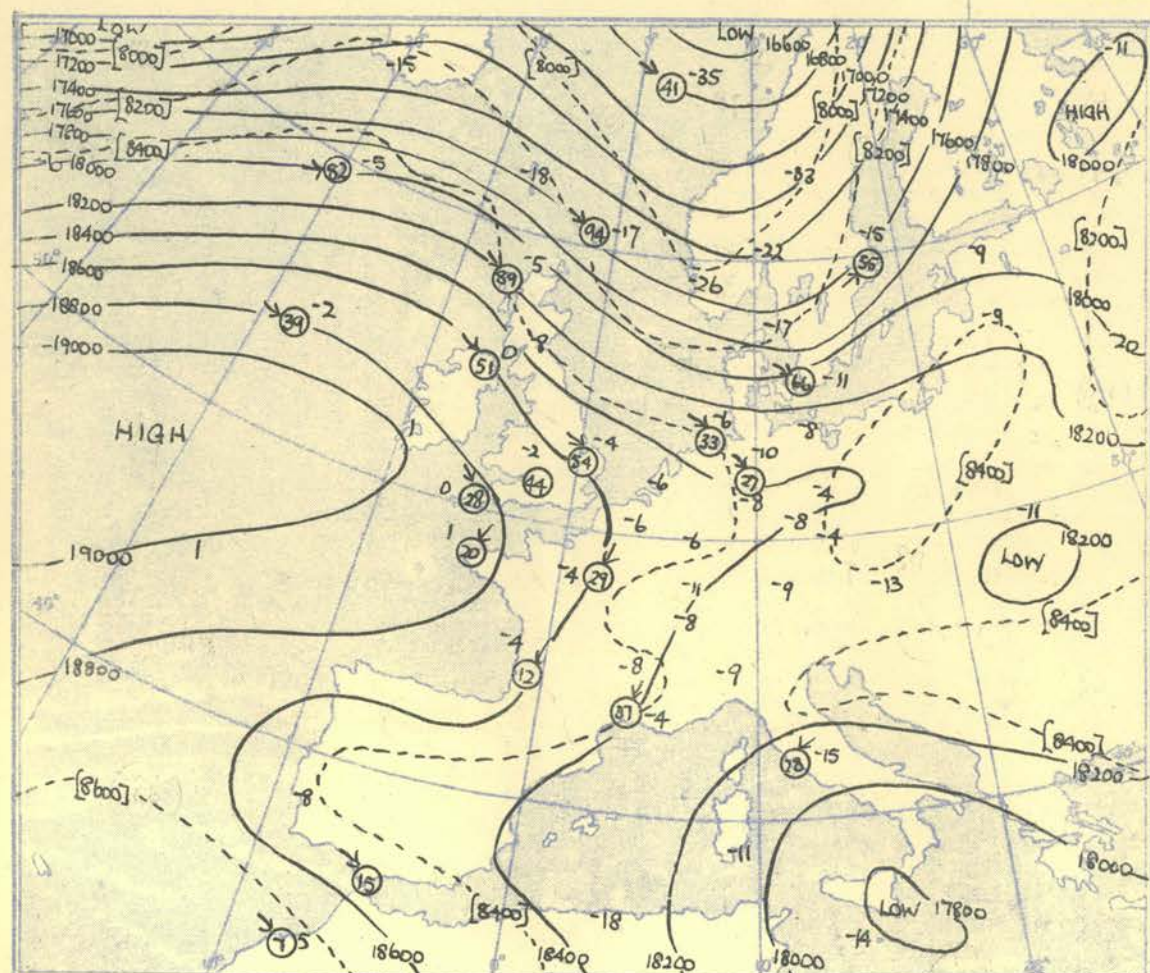
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

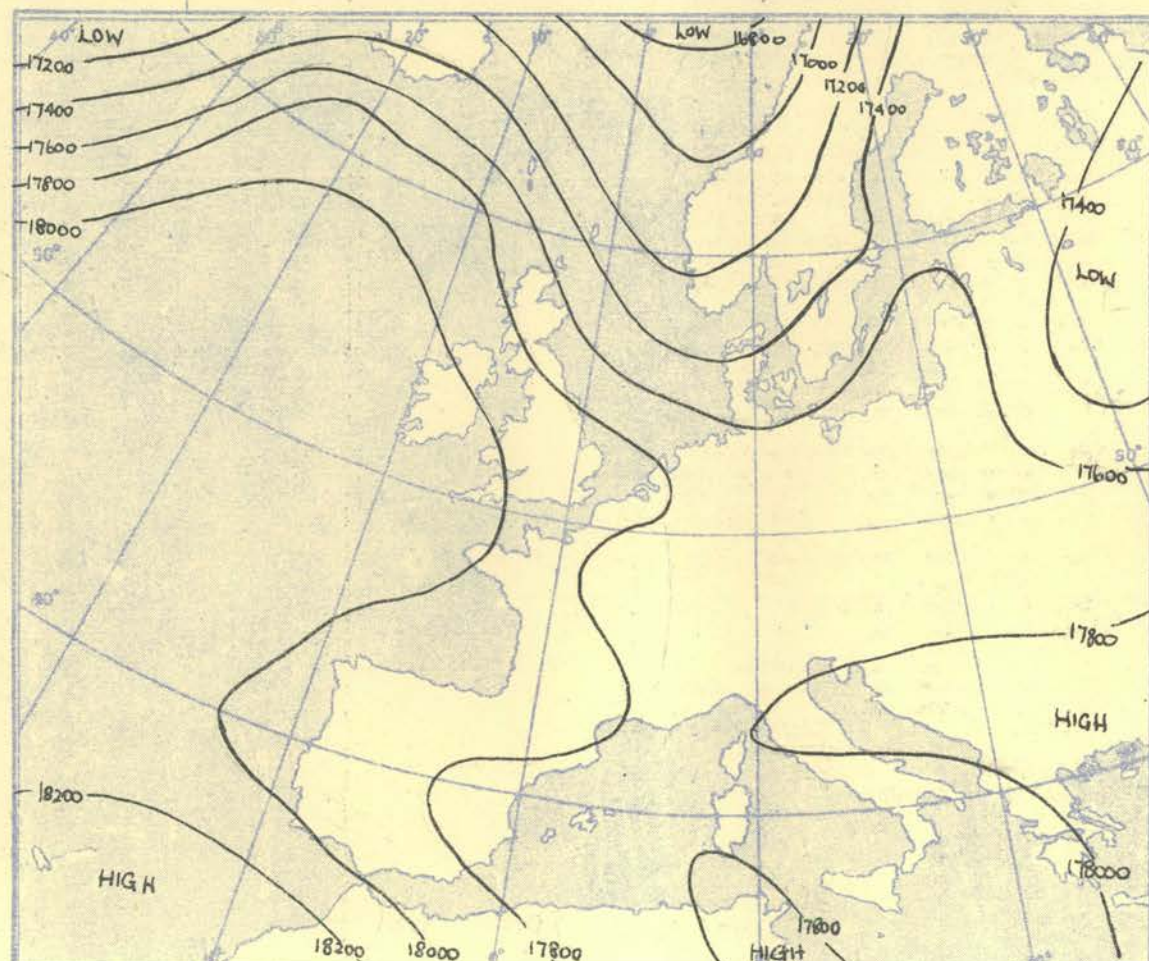
100 80 60 40 20 10 knots



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

48-2N 20-5W				43-2N 17-0W				49-5N 14-7W				39-5N 12-3W				59-1N 01-3E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Pressure mb	Time M.S.L. Surf Freezing	12h		mb	02h		mb	14h		mb	15h		mb	16h		mb	17h		mb	18h		mb	19h		mb	20h		mb	21h		mb	22h		mb	23h		mb	24h		mb	25h		mb	26h		mb	27h		mb	28h		mb	29h		mb	30h		mb	31h		mb	32h		mb	33h		mb	34h		mb	35h		mb	36h		mb	37h		mb	38h		mb	39h		mb	40h		mb	41h		mb	42h		mb	43h		mb	44h		mb	45h		mb	46h		mb	47h		mb	48h		mb	49h		mb	50h		mb	51h		mb	52h		mb	53h		mb	54h		mb	55h		mb	56h		mb	57h		mb	58h		mb	59h		mb	60h		mb	61h		mb	62h		mb	63h		mb	64h		mb	65h		mb	66h		mb	67h		mb	68h		mb	69h		mb	70h		mb	71h		mb	72h		mb	73h		mb	74h		mb	75h		mb	76h		mb	77h		mb	78h		mb	79h		mb	80h		mb	81h		mb	82h		mb	83h		mb	84h		mb	85h		mb	86h		mb	87h		mb	88h		mb	89h		mb	90h		mb	91h		mb	92h		mb	93h		mb	94h		mb	95h		mb	96h		mb	97h		mb	98h		mb	99h		mb	100h		mb	101h		mb	102h		mb	103h		mb	104h		mb	105h		mb	106h		mb	107h		mb	108h		mb	109h		mb	110h		mb	111h		mb	112h		mb	113h		mb	114h		mb	115h		mb	116h		mb	117h		mb	118h		mb	119h		mb	120h		mb	121h		mb	122h		mb	123h		mb	124h		mb	125h		mb	126h		mb	127h		mb	128h		mb	129h		mb	130h		mb	131h		mb	132h		mb	133h		mb	134h		mb	135h		mb	136h		mb	137h		mb	138h		mb	139h		mb	140h		mb	141h		mb	142h		mb	143h		mb	144h		mb	145h		mb	146h		mb	147h		mb	148h		mb	149h		mb	150h		mb	151h		mb	152h		mb	153h		mb	154h		mb	155h		mb	156h		mb	157h		mb	158h		mb	159h		mb	160h		mb	161h		mb	162h		mb	163h		mb	164h		mb	165h		mb	166h		mb	167h		mb	168h		mb	169h		mb	170h		mb	171h		mb	172h		mb	173h		mb	174h		mb	175h		mb	176h		mb	177h		mb	178h		mb	179h		mb	180h		mb	181h		mb	182h		mb	183h		mb	184h		mb	185h		mb	186h		mb	187h		mb	188h		mb	189h		mb	190h		mb	191h		mb	192h		mb	193h		mb	194h		mb	195h		mb	196h		mb	197h		mb	198h		mb	199h		mb	200h		mb	201h		mb	202h		mb	203h		mb	204h		mb	205h		mb	206h		mb	207h		mb	208h		mb	209h		mb	210h		mb	211h		mb	212h		mb	213h		mb	214h		mb	215h		mb	216h		mb	217h		mb	218h		mb	219h		mb	220h		mb	221h		mb	222h		mb	223h		mb	224h		mb	225h		mb	226h		mb	227h		mb	228h		mb	229h		mb	230h		mb	231h		mb	232h		mb	233h		mb	234h		mb	235h		mb	236h		mb	237h		mb	238h		mb	239h		mb	240h		mb	241h		mb	242h		mb	243h		mb	244h		mb	245h		mb	246h		mb	247h		mb	248h		mb	249h		mb	250h		mb	251h		mb	252h		mb	253h		mb	254h		mb	255h		mb	256h		mb	257h		mb	258h		mb	259h		mb	260h		mb	261h		mb	262h		mb	263h		mb	264h		mb	265h		mb	266h		mb	267h		mb	268h		mb	269h		mb	270h		mb	271h		mb	272h		mb	273h		mb	274h		mb	275h		mb	276h		mb	277h		mb	278h		mb	279h		mb	280h		mb	281h		mb	282h		mb	283h		mb	284h		mb	285h		mb	286h		mb	287h		mb	288h		mb	289h		mb	290h		mb	291h		mb	292h		mb	293h		mb	294h		mb	295h		mb	296h		mb	297h		mb	298h		mb	299h		mb	300h		mb	301h		mb	302h		mb	303h		mb	304h		mb	305h		mb	306h		mb	307h		mb	308h		mb	309h		mb	310h		mb	311h		mb	312h		mb	313h		mb	314h		mb	315h		mb	316h		mb	317h		mb	318h		mb	319h		mb	320h		mb	321h		mb	322h		mb	323h		mb	324h		mb	325h		mb	326h		mb	327h		mb	328h		mb	329h		mb	330h		mb	331h		mb	332h		mb	333h		mb	334h		mb	335h		mb	336h		mb	337h		mb	338h		mb	339h		mb	340h		mb	341h		mb	342h		mb	343h		mb	344h		mb	345h		mb	346h		mb	347h		mb	348h		mb	349h		mb	350h		mb	351h		mb	352h		mb	353h		mb	354h		mb	355h		mb	356h		mb	357h		mb	358h		mb	359h		mb	360h		mb	361h		mb	362h		mb	363h		mb	364h		mb	365h		mb	366h		mb	367h		mb	368h		mb	369h		mb	370h		mb	371h		mb	372h		mb	373h		mb	374h		mb	375h		mb	376h		mb	377h		mb	378h		mb	379h		mb	380h		mb	381h		mb	382h		mb	383h		mb	384h		mb	385h		mb	386h		mb	387h		mb	388h		mb	389h		mb	390h		mb	391h		mb	392h		mb	393h		mb	394h		mb	395h		mb	396h		mb	397h		mb	398h		mb	399h		mb	400h		mb	401h		mb	402h		mb	403h		mb	404h		mb	405h		mb	406h		mb	407h		mb	408h		mb	409h		mb	410h		mb	411h		mb	412h		mb	413h		mb	414h		mb	415h		mb	416h		mb	417h		mb	418h		mb	419h		mb	420h		mb	421h		mb	422h		mb	423h		mb	424h		mb	425h		mb	426h		mb	427h		mb	428h		mb	429h		mb	430h		mb	431h		mb	432h		mb	433h		mb	434h		mb	435h		mb	436h		mb	437h		mb	438h		mb	439h		mb	440h		mb	441h		mb	442h		mb	443h		mb	444h		mb	445h		mb	446h		mb	447h		mb	448h		mb	449h		mb	450h		mb	451h		mb	452h		mb	453h		mb	454h		mb	455h		mb	456h		mb	457h		mb	458h		mb	459h		mb	460h		mb	461h		mb	462h		mb	463h		mb	464h		mb	465h		mb	466h		mb	467h		mb	468h		mb	469h		mb	470h		mb	471h		mb	472h		mb	473h		mb	474h		mb	475h		mb	476h		mb	477h		mb	478h		mb	479h		mb	480h		mb	481h		mb	482h		mb	483h		mb	484h		mb	485h		mb	486h		mb	487h		mb	488h		mb	489h		mb	490h		mb	491h		mb	492h		mb	493h		mb	494h		mb	495h		mb	496h		mb	497h		mb	498h		mb	499h		mb	500h		mb	501h		mb	502h		mb	503h		mb	504h		mb	505h		mb	506h		mb	507h		mb	508h		mb	509h		mb	510h		mb	511h		mb	512h		mb	513h		mb	514h		mb	515h		mb	516h		mb	517h		mb	518h		mb	519h		mb	520h		mb	521h		mb	522h		mb	523h		mb	524h		mb	525h		mb	526h		mb	527h		mb	528h		mb	529h		mb	530h		mb	531h		mb	532h		mb	533h		mb	534h		mb	535h		mb	536h		mb	537h		mb	538h		mb	539h		mb	540h		mb	541h		mb	542h		mb	543h		mb	544h		mb	545h		mb	546h		mb	547h		mb	548h		mb	549h		mb	550h		mb	551h		mb	552h		mb	553h		mb	554h		mb	555h		mb	556h		mb	557h		mb	558h		mb	559h		mb	560h		mb	561h		mb	562h		mb	563h		mb	564h		mb	565h		mb	566h		mb	567h		mb	568h		mb	569h		mb	570h		mb	571h		mb	572h		mb	573h		mb	574h		mb	575h		mb	576h		mb	577h		mb	578h		mb	579h		mb	580h		mb	581h		mb	582h		mb	583h		mb	584h		mb	585h		mb	586h		mb	587h		mb	588h		mb	589h		mb	590h		mb	591h		mb	592h		mb	593h		mb	594h		mb	595h		mb	596h		mb	597h		mb

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

Place	W. WATCHER 53° 34' N 17° 50' W	Pembroke Jack	Leuchars	Leuchars	Aldergrove	Liverpool	Pembroke Jack					Place
Time	03h	09h.	15h	21h	09h.	21h.	21h.					Time
Type												Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	240 23	270 03	240 28	220 16	250 12	280 20	Calm					Surf.
1,000	240 37	240 20	260 42	260 36	264 27	280 33	290 11					1,000
2,000	240 39	240 21	270 43	270 36	277 28	290 35	310 13					2,000
3,000	250 40	240 17	280 47	290 38	299 33	300 34	330 25					3,000
4,000	250 40	280 21	290 49	290 40	302 34	300 35	350 15					4,000
5,000	250 41	250 21	290 54	300 38	304 36	300 37	330 11					5,000
6,000	260 43	240 21	290 52	300 39	310 39	310 38	340 25					6,000
8,000	270 42	240 30 (7,000')	300 42	300 43	316 46	310 38	340 23					8,000
10,000	270 42		300 51	300 42	316 46	310 32						10,000
14,000	260 46		310 53	300 49	310 49	310 33						14,000
18,000	270 39		310 56	300 56	317 53	310 28						18,000
24,000	270 47		300 59	300 59	309 55	320 21						24,000
30,000			310 67	290 61	312 53	320 34						30,000
40,000			310 66	300 60	316 40	320 42						40,000
50,000			315 57 (42,000')	300 31	283 35	310 20 310 22 (52,000')						50,000

18 MAR 1950

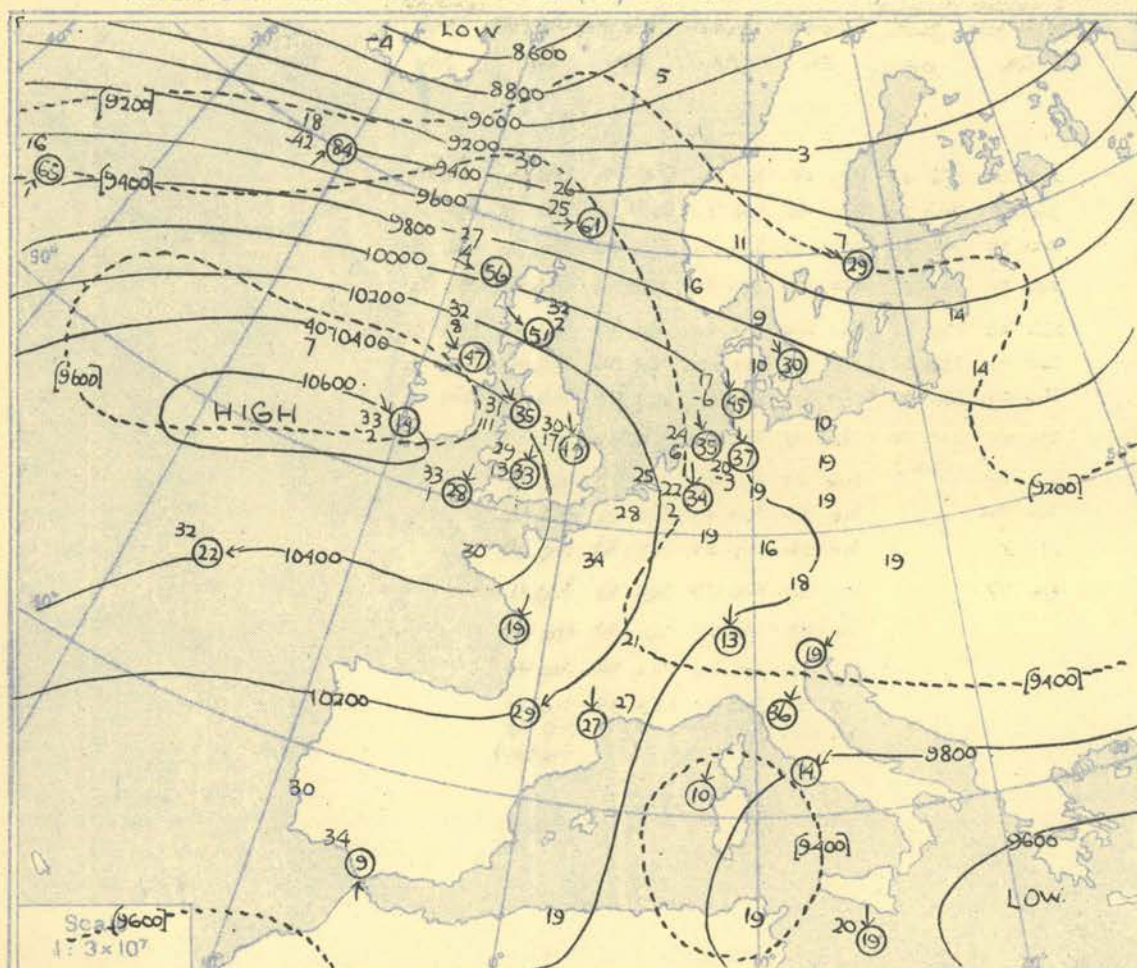
OFFICE

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

Ship	WEATHER WATCHER.				WEATHER WATCHER.				WEATHER OBSERVER.				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER																Ship	
Lat/Long	53° 34' 17.5 W.				54° 14' 16.2 W.				53° 54' 17.0 W.				59° 7' 20.0 W.				59° 8' 20.2 W.				59° 9' 19.9 W.																Lat/Long	
Pressure	Time	09h.			G.M.T.			09h.			G.M.T.			15h.			G.M.T.			09h.			G.M.T.			15h.			G.M.T.			G.M.T.			G.M.T.			Time
	M.S.L.	mb			mb			mb			mb			mb			mb			mb			mb			mb			mb			mb			mb			M.S.L.
	Surf	1026			mb			1026			mb			1027			mb			1001			mb			998			mb			1004			mb			Surf
	Freezing	69.5			mb			700			mb			660			mb			785			mb			870			mb			920			mb			Freezing
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure					
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb					
Surf		50	48			51	49	230	24		51	50		49	48	230	30		48	45	250	27		41	37	260	40						Surf					
1000	7.0	51	41		7.0	47	45	260	46	7.5	50	46		48	48	230	30	-6	48	45	250	27		41	37	260	40						1000					
950		52	28			45	36	270	47		47	30		44	44	235	48		43	43	247	48		36	32	260	59						950					
900	35.7	50	11		35.6	51	20	286	46	36.0	41	35		41	41	239	45	27.6	37	37	252	56	29.0	29	26	254	52						900					
850		46	01			49	12	272	55		40	27		39	39	253	55		32	29	255	63		21	19	253	55						850					
800	67.5	41	-3		67.5	49	19	270	54	67.6	47	21		33	33	257	60	58.5	27	16	249	76	59.2	23	5	253	60						800					
				page																																		
750		36	-1			38	6	272	65		45	6		29	29	258	69		26	22	243	85		20	-35	256	73						750					
700	103	33	-18		103	31	10	272	54	103	40	7		25	25	258	76		26	21	239	93	93.4	18	-42	254	84						700					
650		26	-23			23	04	278	46		30	2		18	18	249	81		21	07	244	92		16	-43	254	97						650					
600	143	17	-17		143	16	06	276	43	144	21	-12		11	09	252	75	134	14	-2	245	96	133	11	-47	256	100						600					
550		07	-12	winds.		09	-1	270	40		12	-19		04	00	260	65		03	-5	246	100		4	-50	256	105						550					
500	188	-2	-16		188	00	-11	260	39	190	2	-20		179	-5	-10	267	82	178	-4	-18	250	103	178	-5	-40	256	120					500					
450		-10	-24			-11	-23	271	41		-9	-26		-15	-21	260	92		-13	-17	255	103		-17	-28	256	125						450					
400	222	-23	-36		222	-21	-34	271	43	243	-22	-35		232	-27	-33	252	92	231	-25	-32	249	103	230	-24	-35	256	125					400					
350		-34	-54			-34	-46	272	48		-34	-50	(387mb)	-30	36		(362mb)	-34							-36	-53	256	135					350					
300	307	-48	-66		307	51		272	54	308	-48												(325mb)	-43								300						
250	(245mb)	68			(292mb)	54			(277mb)	-56																						250						
200																																200						
170																																170						
150																																150						
130																																130						
110																																110						
100																																100						
90																																90						
80																																80						
70																																70						
60																																60						
	Inversion	1026 mb 50° - 926 mb 53°				Isotermal	982 - 935 mb 45°				Inversion	865 mb 37° - 808 mb 48°				Isotermal	809 - 800 mb 33°				Isotermal	866 - 872 mb 32°				Isotermal	1004 - 1000 mb 41°											
		725 - 33° - 707 - 35°					850 - 800 - 49°															Inversion			750 mb 26° - 710 mb 27°					Inversion			820 mb 18° - 800 mb 23°					
							Inversion					935 mb 45° - 900 mb 51°																										
Tropopause	NR.				NR.				NR.				NR.				NR.				NR.																Tropopause	



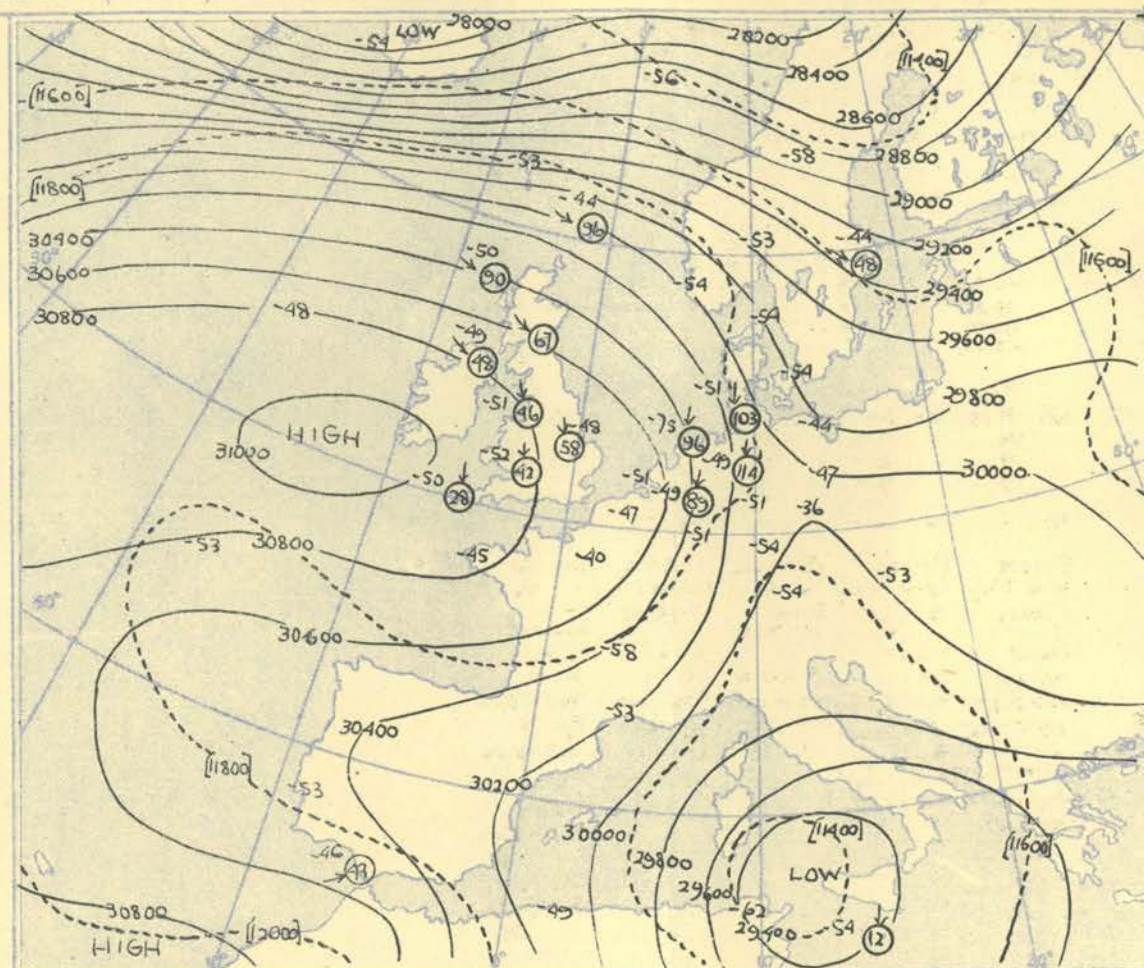
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

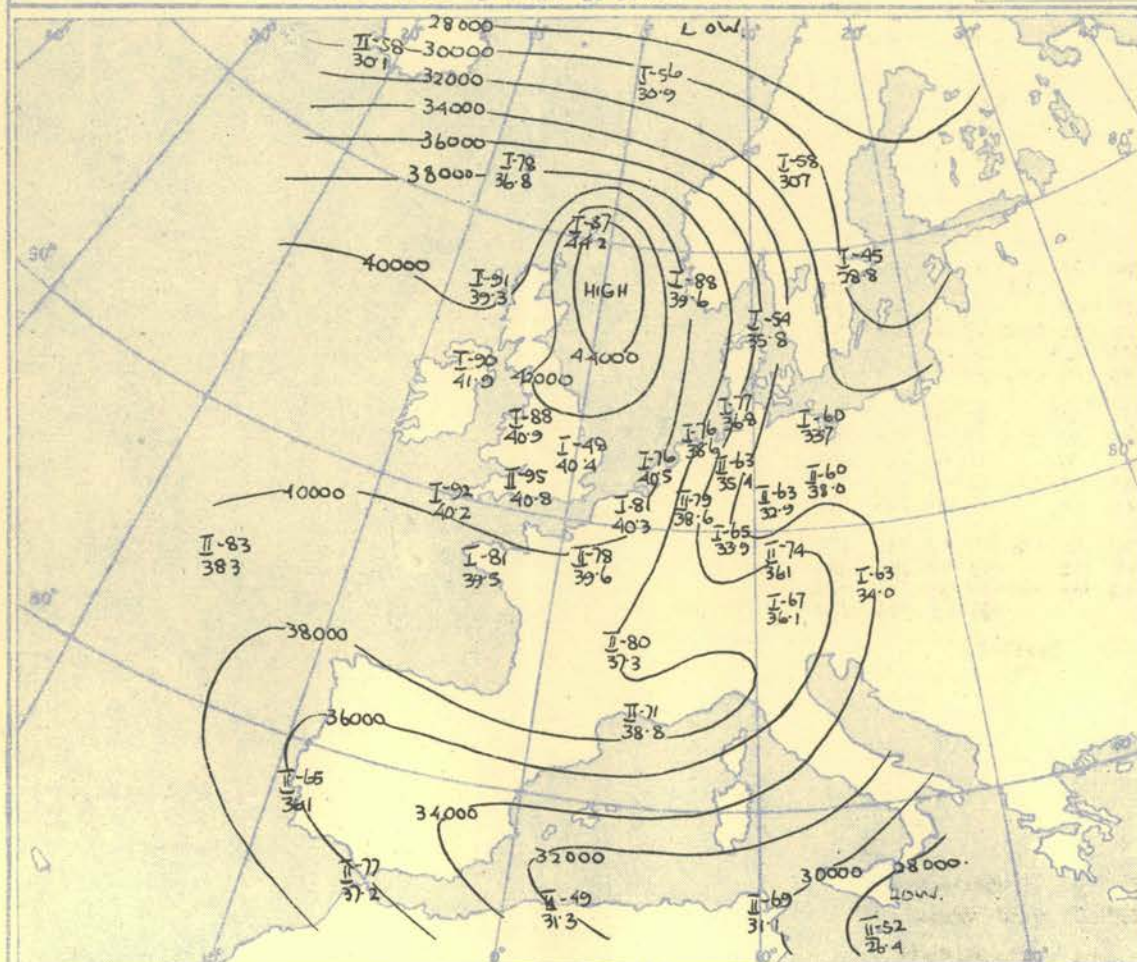
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

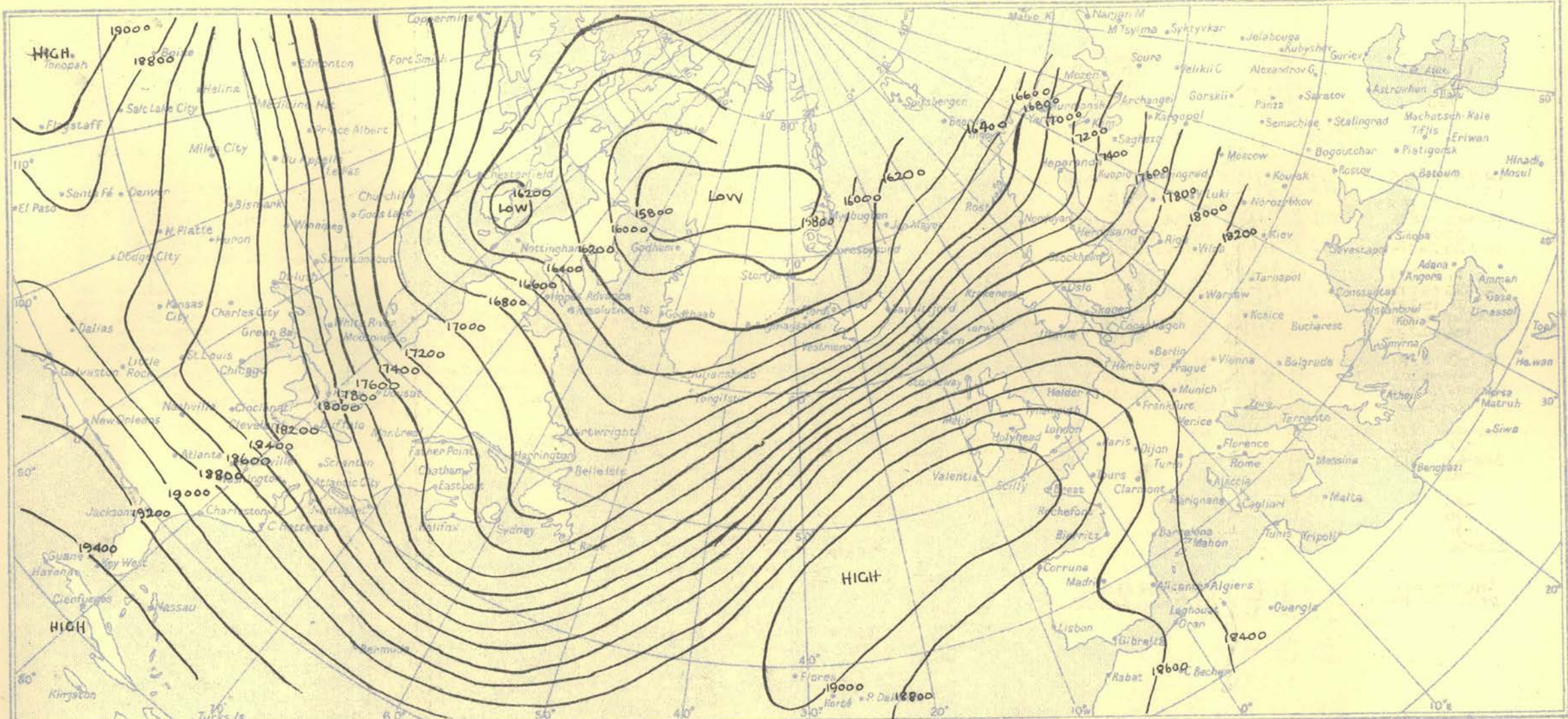
### NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge has moved into the North Sea and become to a large extent absorbed in the large tongue of warm air extending Northeastwards from the Azores over the British Isles. The cold trough off the East coast of America has warmed considerably on the western side and continued a slow eastward motion.

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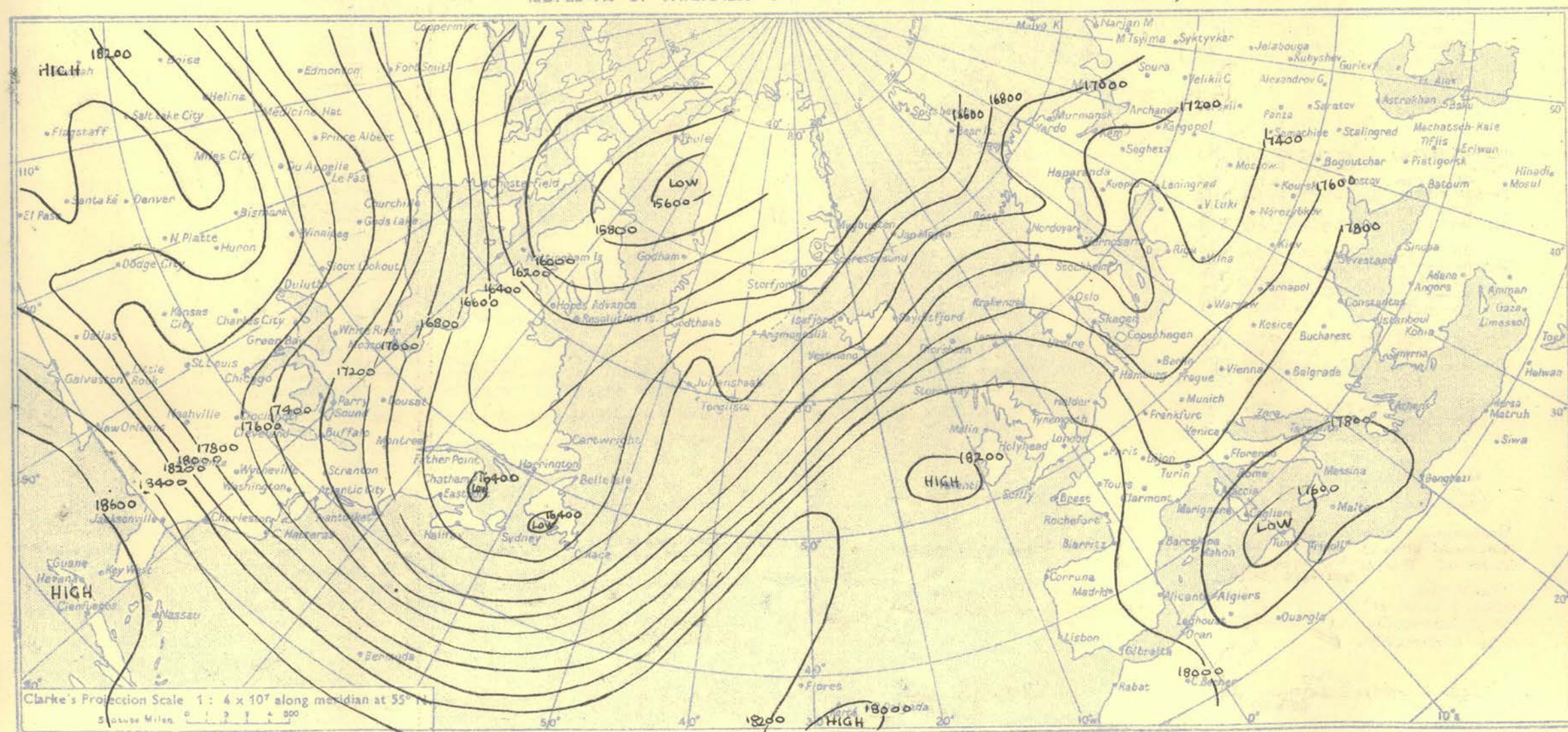




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 4<sup>th</sup> March.

1950.





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

4th March

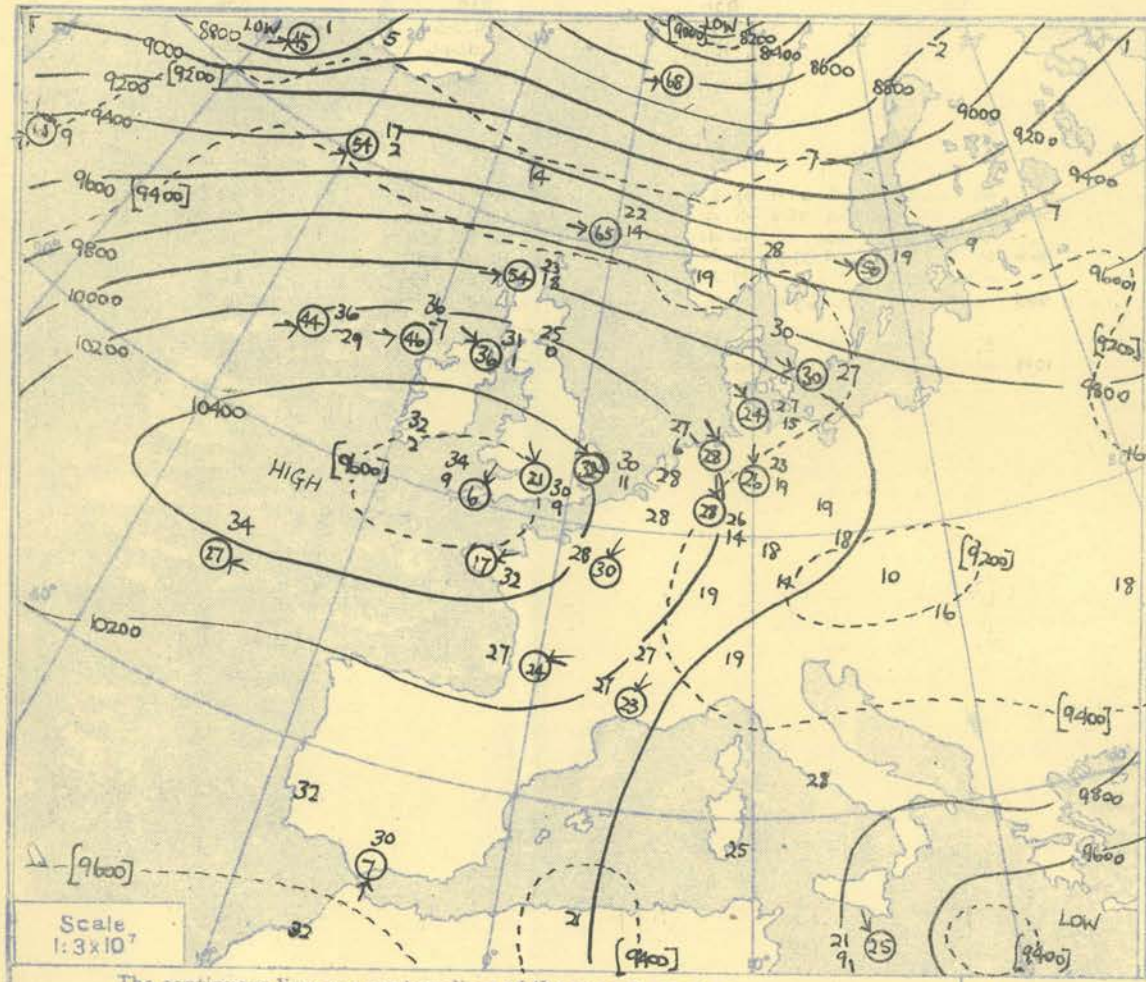
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	15hrs	Time
M.S.L.	1008.3	1016.0	1021.5	1028.5	1030.2	1029.4	1031.9	1035.4	1036	M.S.L.
Surf	998.2	1015.9	1020.7	1019.8	1028.1	1024.8	1015.6	1014.6	1034	Surf
Freezing	763	740	700	700	710	717	716	690	690	Freezing
Pressure	mb	mb	mb	mb	mb	mb	mb	mb	mb	Pressure
Height	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	Height
Temp.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Temp.
Dew	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Dew
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Wind
Surf	02.7 46 46 225	05.0 49 47 240	00.2 53 45 240	02.3 55 46 230	01.2 50 44 280	01.2 50 44 280	01.2 50 44 280	01.2 50 44 280	01.2 50 44 280	Surf
1000	02.1 43 43 261	04.8 48 46	05.8 50 43	07.7 52 43 273	07.9 52 43 273	07.9 52 43 273	07.9 52 43 273	07.9 52 43 273	07.9 52 43 273	1000
950	30.4 40 40 273	56.3 32 38 264	41.3 42 41 27	36.3 50 30 286	42.3 35 293	42.3 35 293	42.3 35 293	42.3 35 293	42.3 35 293	950
900	39.3 33 273	57 33 37 274	41.3 42 41 27	47 27 285	47 27 285	47 27 285	47 27 285	47 27 285	47 27 285	900
850	61.7 35 35 276	62.6 46 33 31 271	46.6 60 42 11	68.1 43 26 255	48.6 2 42 23 325	48.6 2 42 23 325	48.6 2 42 23 325	48.6 2 42 23 325	48.6 2 42 23 325	850
800	31 31 277	31 22 271	31 06	37 06	37 06	37 06	37 06	37 06	37 06	800
750	56.6 26 25 275	61.9 39 27 04 271	56.1 01 32 02	104 32 08 292	104 32 08 292	104 32 08 292	104 32 08 292	104 32 08 292	104 32 08 292	750
700	20 13 282	60 21 4 271	63 23 4	24 01 287	23 13 325	23 13 325	23 13 325	23 13 325	23 13 325	700
650	136 14 12 284	60 13 12 10 272	66 14 18 4	143 16 01 285	42 143 14 08 235	42 143 14 08 235	42 143 14 08 235	42 143 14 08 235	42 143 14 08 235	650
600	06 02 285	63 06 21 273	70 08 4	08 32 22	05 00 337	05 00 337	05 00 337	05 00 337	05 00 337	600
550	181 -3 -8 281	63 18 4 -3 275	75 18 6 -5 10	185 01 -11 250	48 185 -1 -10 332	48 185 -1 -10 332	48 185 -1 -10 332	48 185 -1 -10 332	48 185 -1 -10 332	550
500	09 14 282	63 14 -3 276	80 -15 10	3 -21 238	52 -11 15 330	52 -11 15 330	52 -11 15 330	52 -11 15 330	52 -11 15 330	500
450	235 -18 -24 284	77 23 7 -23 38 288	84 23 7 -26 32	243 -21 -32 293	46 242 -21 -26 330	46 242 -21 -26 330	46 242 -21 -26 330	46 242 -21 -26 330	46 242 -21 -26 330	450
400	25 26 288	87 -33 42 275	76	34 43 296	50 -35 41 328	50 -35 41 328	50 -35 41 328	50 -35 41 328	50 -35 41 328	400
350	301 -44	288 26 302 -50	274 20	308 -49	303 48 307 -51	326 46 307 -48	341 58 308 -52	356 42 309 -50	004 28	350
300	388 -68	313 21 367 -88	75	64 304 45	63 321 50	66 341 54	69 357 46	70 370 45	011 26	300
250	80	75	75	75	75	75	75	75	75	250
200	85	75	75	75	75	75	75	75	75	200
170	71	71	71	71	71	71	71	71	71	170
150	52.7 70	52.5 66		53.4 70	255 30 53 4 67	307 12	53.4 69	331 15	53.1 72	150
130				68 255 15	63 302 15	63 302 15	63 302 15	63 302 15	63 302 15	130
110				67 265 6	63 284 16	63 284 16	63 284 16	63 284 16	63 284 16	110
100				64 278 30	64 278 30	64 278 30	64 278 30	64 278 30	64 278 30	100
90										90
80										80
70										70
60										60
Inversion	88.5 mb 39° - 87.5 mb 41°	Inversion 900 mb 38° - 88.5 mb 42°	Inversion 900 mb 44° - 87.5 mb 47°	Inversion 922 mb 42° - 903 mb 51°	Inversion 955 mb 40° - 923 mb 51°	Inversion 955 mb 40° - 923 mb 51°	Inversion 955 mb 40° - 923 mb 51°	Inversion 955 mb 40° - 923 mb 51°	Inversion 955 mb 40° - 923 mb 51°	Inversion
Isobar	584 - 572 mb 9°	584 - 572 mb 9°		863 - 785 mb 42°	863 - 785 mb 42°	863 - 785 mb 42°	863 - 785 mb 42°	863 - 785 mb 42°	863 - 785 mb 42°	Isobar
Tropopause	I 155 mb - 87° 44200'	I 174 mb - 51° 32300'	N.R.	I 176 mb - 90° 41900'	I 184 mb - 88° 40700'	I 184 mb - 88° 40700'	I 184 mb - 88° 40700'	I 184 mb - 88° 40700'	I 184 mb - 88° 40700'	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time	21hrs	21hrs		21hrs		21hrs	21hrs	21hrs		Time
M.S.L.	1008.9	1019.9		1030.6		1029.8	1022.8	1035.5		M.S.L.
Surf	998.3	1017.9		1021.7		1025.1	1016.3	1014.6		Surf
Freezing	715	777		725		742	695	700		Freezing
Pressure	mb	mb		mb		mb	mb	mb		Pressure
Height	ft./100	ft./100		ft./100		ft./100	ft./100	ft./100		Height
Temp.	°F.	°F.		°F.		°F.	°F.	°F.		Temp.
Dew	°F.	°F.		°F.		°F.	°F.	°F.		Dew
Wind	Dir. Vel.	Dir. Vel.		Dir. Vel.		Dir. Vel.	Dir. Vel.	Dir. Vel.		Wind
Surf	02.7 47 45 247	05.0 49 48 240		02.3 49 43 254		01.2 46 44 225	01.2 46 44 225	01.2 46 44 225		Surf
1000	02.1 41 37 270	06.3 47 44		08.1 46 41 277		08.0 48 44 271	08.0 48 44 271	08.0 48 44 271		1000
950	30.5 38 05 274	60 33 6 38 265		36.6 50 27 278		36.7 50 32 333	37.4 51 23 353	38.0 50 30 043		950
900	39.15 270	65 40 38 267		46.12 278		44.27 335	47.26 001	46.22 050		900
850	61.7 36 31 271	64.6 50 35 322 65		68.3 40 13 275		68.4 37 22 332	69.3 43 22 012	69.7 40 42 17 056		850
800	35 23 282	69 25 26 264		34 13 284		33 17 318	38 14 005	37 11 053		800
750	26.9 30 06 278	76.10 025 13 267		104 30 14 287		104 28 12 333	105 33 17 001	105 32 7 012		750
700	22 6 277	74 19 02 268		24 08 281		21 05 337	25 12 002	25 12 004		700
650	137 14 4 275	75 13 11 08 270		143 17 12 283		143 13 05 335	145 17 05 356	145 17 3 352		650
600	03 3 275	73 04 6 271		10 12 285		07 1 342	09 02 352	08 4 345		600
550	182 -8 -15 280	76 18 4 -4 14 276		183 -2 -16 280		188 -2 -13 245	190 -1 -7 350	190 -1 -7 343		550
500	17 32 284	77 15 24 277		15 23 292		12 22 353	8 -17 351	11 22 347		500
450	23.4 31 42 284	84 23 7 -24 36 277		242 26 33 292		242 24 31 346	24 24 31 353	24 24 31 343		450
400	45 285	93 27 47 278		38 44 291		35 44 346	34 44 354	31 45 346		400
350	257 63	283 36 302 52	278 93	307 54	295 37	306 54	335 46	309 48	357 35	350
300	81 285	39 65		72 274	41	73 337	49	67 358	30	300
250	361 73	300 66 38 6 84		300 91	283 33	350 85	247 51	354 84	248 36	250
200	69	73		53 292	23	82 346	45	90 357	26	200
170	65	76		92 293	22	80 344	22	73 342	16	170
150	68	81		86 296	31	73 334	19	75 342	17	150
130	(142)	81						70 334	14	130
110		81						70 334	14	110
100		81						70 334	14	100
90		81						70 334	14	90
80		81						70 334	14	80
70		81						70 334	14	70
60		81						70 334	14	60
Inversion	868 mb 36° - 850 mb 39°	Inversion 900 mb 38° - 862 mb 42°		Inversion 950 mb 41° - 905 mb 50°		Inversion 1025 mb 46° - 1000 mb 48°	Inversion 1016 mb 44° - 920 mb 53°	Inversion 975 mb 42° - 933 mb 53°		Inversion
Isobar	950 - 922 mb 41°	887 - 868 mb 36°		905 - 892 mb 50°		800 - 776 mb 37°				Isobar
Tropopause	I 238 mb - 84° 34400'	I 200 mb - 84° 38600'		I 188 mb - 96° 40900'		I 180 mb - 53° 41100'	I 166 mb - 91° 43200'	I 178 mb - 95° 41900'		Tropopause





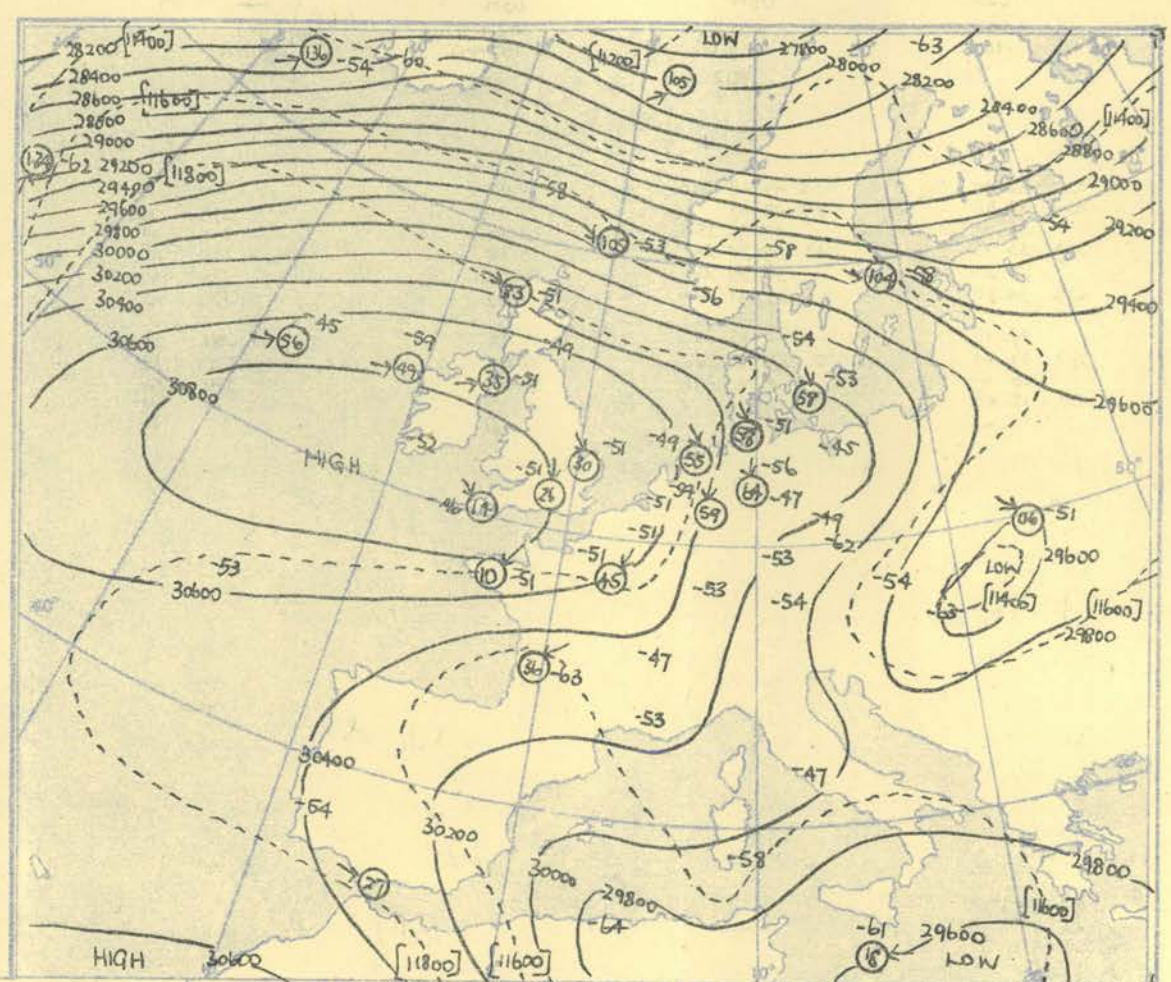
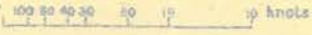


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.

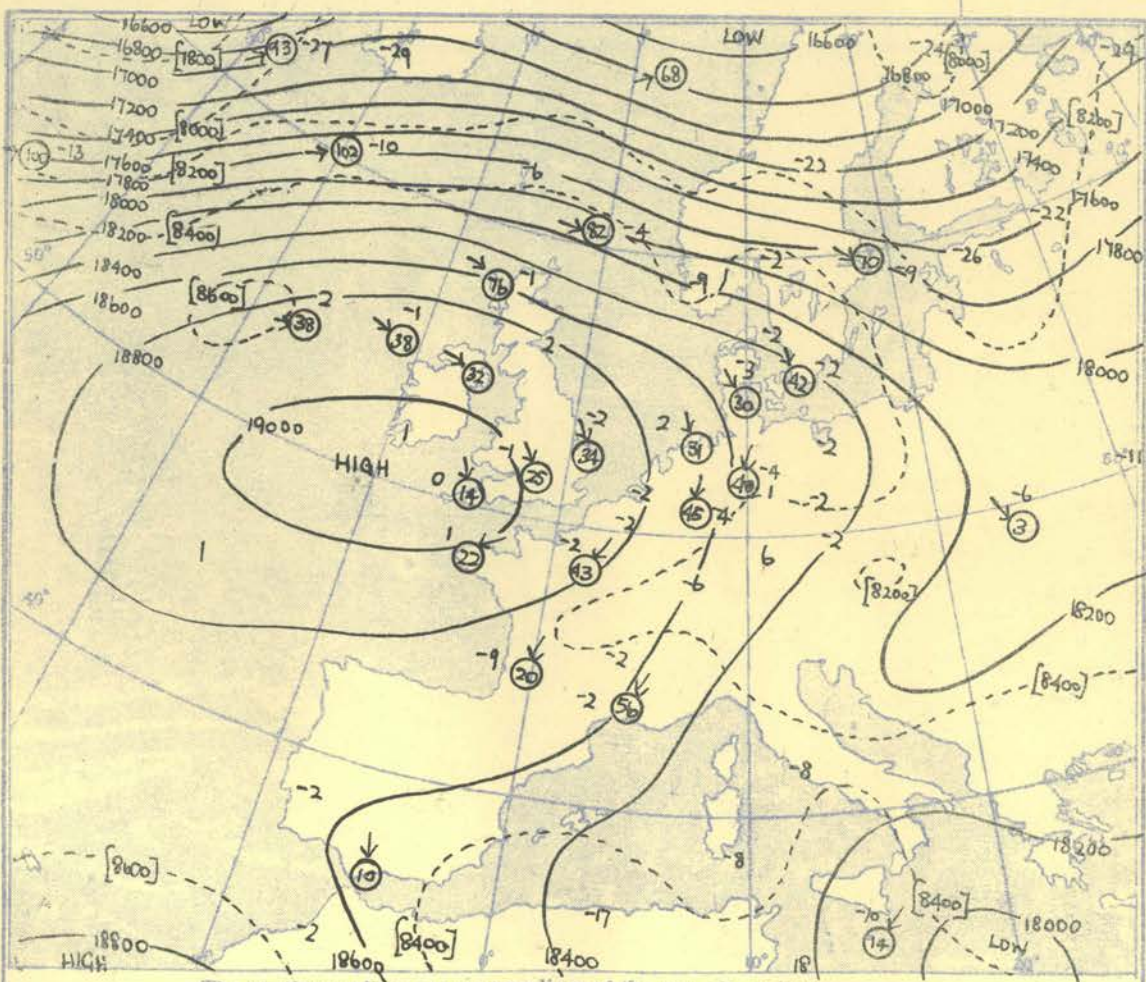


The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

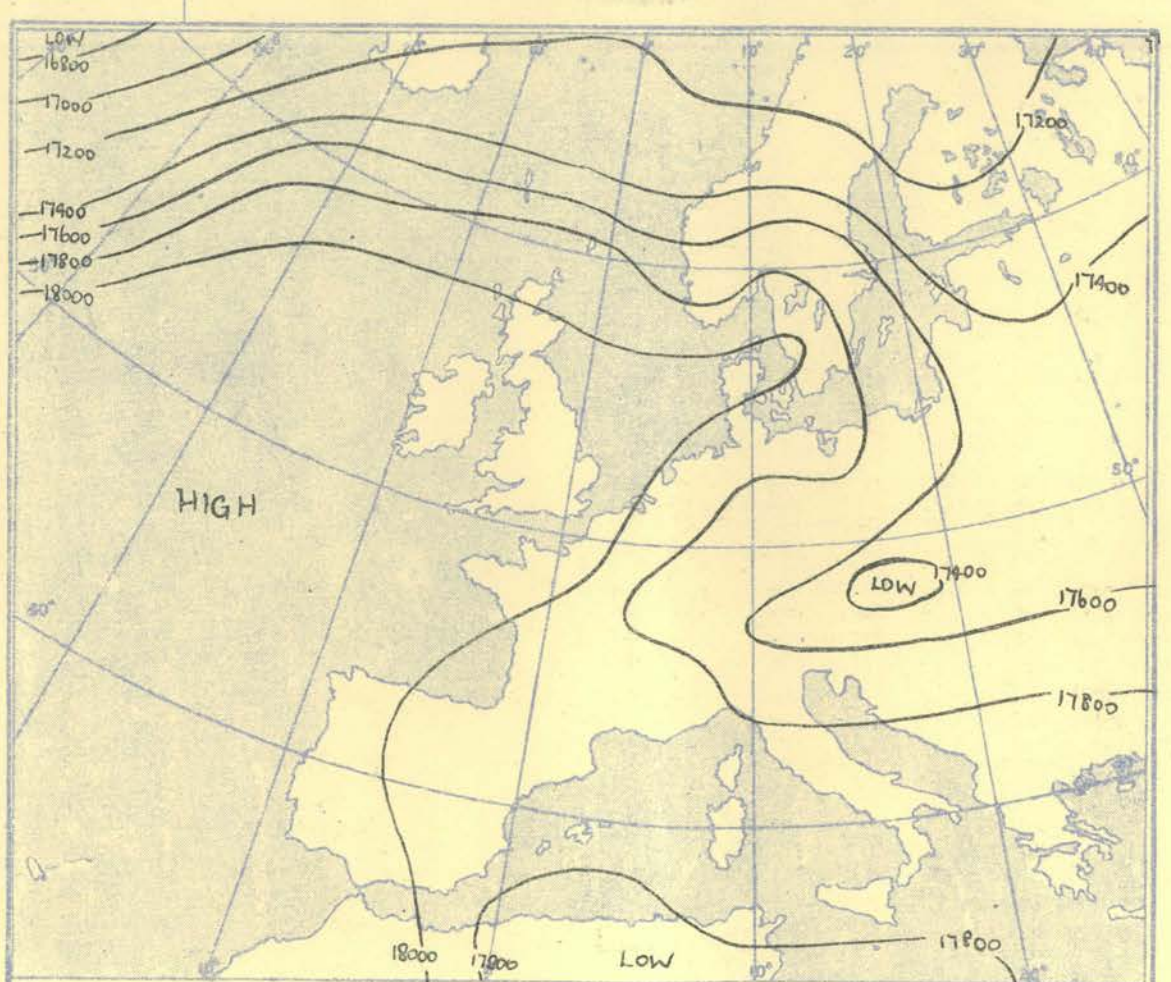
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N



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



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



Isopleths of Thickness 500-1000mb.



# AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

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

Time M.S.L. Surf Freezing	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.
Surf											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

No FLIGHTS RECORDED

## NEPHOSCOPE OBSERVATIONS

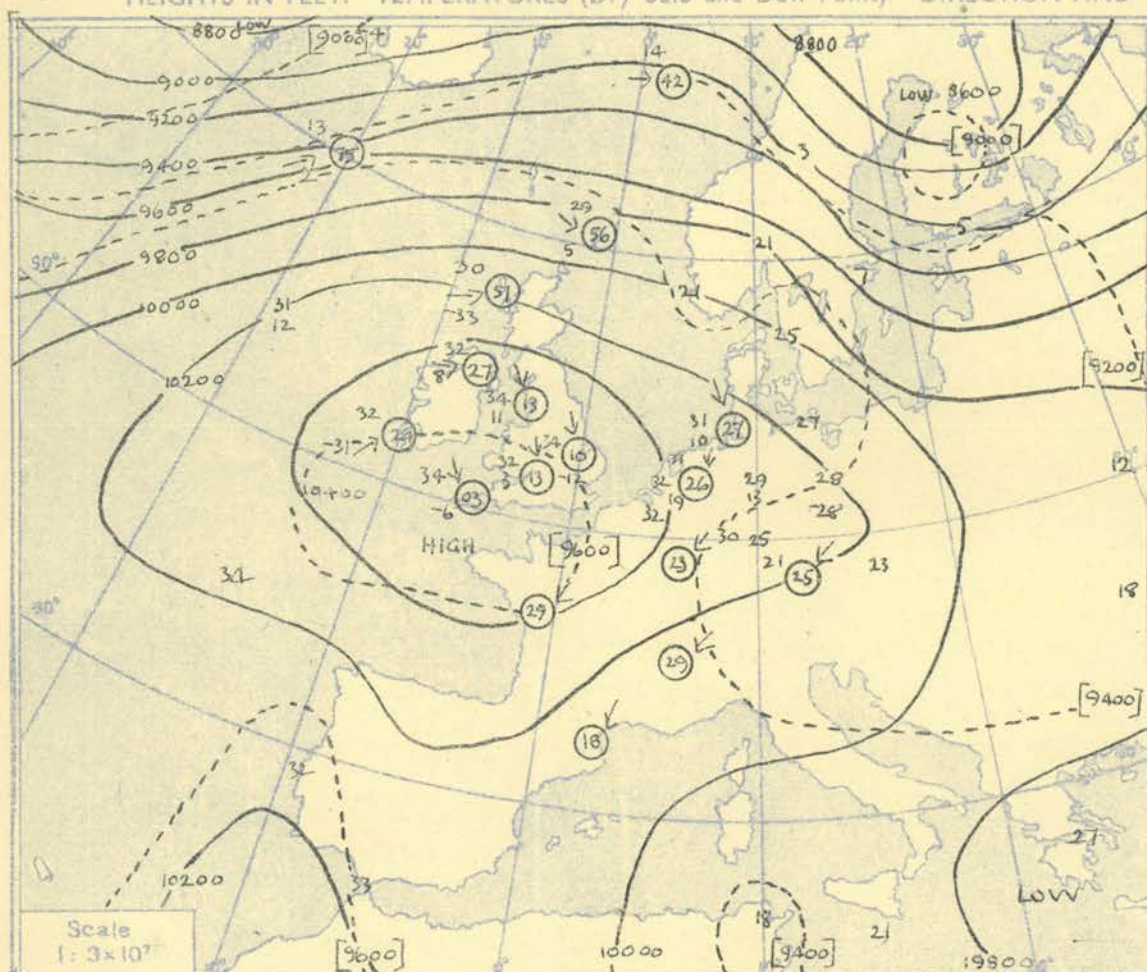
Place	Time Type	Dir. Vel.	Place	Time Type	Dir. Vel.

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

Ship	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER	WEATHER WATCHER	Ship
Lat/Long	53° 8' N 17° 8' W.	53° 7' N 18° 1' W.	53° 6' N 18° 3' W.	53° 6' N 18° 4' W.	60° 1' N 19° 8' W.	60° 2' N 19° 6' W.	60° 4' N 19° 7' W.	60° 3' N 19° 5' W.	53° 0' N 11° 2' W.	Lat/Long
Time M.S.L. Surf Freezing	03h G.M.T. 1027 mb 1027 mb 680.	03h G.M.T. 1025 mb 1025 mb 720.	15h G.M.T. 1025 mb 1025 mb 705.	21h G.M.T. 1023 mb 1023 mb 695.	03h G.M.T. 1006 mb 1006 mb 850.	03h G.M.T. 1003 mb 1003 mb 880.	15h G.M.T. 1007 mb 1007 mb 925.	21h G.M.T. 1007 mb 1007 mb 915.	03h G.M.T. 1028 mb 1028 mb 680.	Time M.S.L. Surf Freezing
Pressure mb										Pressure mb
Height ft./100										Height ft./100
Temp. °F.										Temp. °F.
Dew °F.										Dew °F.
Wind Dir. Vel. knots										Wind Dir. Vel. knots
Surf	50 47 230 23	50 49 235 30	51 48	51 49 210 32	45 39 170 28	46 39 235 23	44 41 245 25	43 40 222 20	50 48	Surf
1000	7.2 46 42 225 30	6.9 46 38 225 33	6.6 48 45	81 48 46 210 32	1.6 48 39 175 48	8 46 39 235 23	1.8 43 40 245 35	1.8 43 40 230 33	7.8 48 42	1000
950	43 35 225 26	39 33 225 22	42 39	42 39	40 36 186 42	39 33 237 50	36 35 239 45	36 35 230 33	45 34	950
900	35.5 36 32 227 38	35.0 36 32 224 40	35.0 38 35	34.4 35 31	29.7 35 34 211 39	28.9 34 23 244 49	29.7 29 29 241 46	29.9 30 30 230 31	35.9 39 32	900
850	45 2 228 40	42 26 223 45	44 29	40 19	32 32 228 43	29 14 251 53	23 22 241 50	27 27 230 33	49 19	850
800	67.1 41 3 232 43	66.4 39 15 223 46	66.6 42 23	64.7 38 6	60.5 26 16 235 41	59.6 24 7 255 58	60.0 19 12 240 60	60.3 22 20 215 41	67.6 42 2	800
750	39 -13 236 48	35 4 222 49	38 20	37 0	22 -8 235 52	22 12 248 58	20 1 240 71	20 20 213 56	36 7	750
700	103 36 29 239 44	102 36 12 221 45	102 31 12	101 33 4	94.8 17 2 235 54	93.8 18 11 239 69	94.1 13 2 239 79	17 17 218 69	103 36 7	700
650	27 35 238 37	23 38 221 45	28 8	24 7	12 6 233 64	13 3 235 78	7 4 237 72	11 11 220 72	28 22	650
600	143 20 40 239 36	141 15 44 222 39	142 20 1	141 18 7	134 7 4 234 77	133 8 5 235 85	133 1 0 237 83	133 4 4 234 77	143 20 28	600
550	12 46 240 44	4 48 222 45	11 10	8 12	-3 5 237 85	-1 13 232 102	-4 5 236 105	-3 3 234 84	12 27	550
500	188 2 54 241 38	187 -5 43 220 43	188 1 11	187 0 24	178 -10 13 239 102	177 -5 23 231 102	177 -10 13 235 108	177 -12 12 225 90	189 -1 33	500
450	242 22 34 233 39	239 27 54 228 63	241 22 41	240 25 42	231 31 40 233 105	230 28 42 236 115	229 31 34 230 109	229 28 30 230 109	242 27 48	450
400	33 39 238 44	40 60 227 66	36 52	38 54	32 41	34 48	34 48	35 37	43	400
350	307 45 240 56	304 56 229 72	306 53	304 53	304 53	304 53	304 53	304 53	306 53	350
300	63 240 63	74 226 66	70	71	71	71	71	71	71	300
250	303 82 235 64	387 78 226 68	390 84	388 84	388 84	388 84	388 84	388 84	388 84	250
200	87 235 66	82 225 60	74	75	75	75	75	75	75	200
170	78 231 54	77 224 50	68	71	71	71	71	71	71	170
150	80 225 48	76 225 48	71	73	73	73	73	73	73	150
130	77 225 42	80 225 48	74	74	74	74	74	74	74	130
110	533 79 225 38	527 79 225 46	533 71	533 71	533 71	533 71	533 71	533 71	533 71	110
100	81 228 36	76 228 36	69	69	69	69	69	69	69	100
90	75 234 36	84 228 36	71	71	71	71	71	71	71	90
80	77 234 42	76 228 36	74	74	74	74	74	74	74	80
70	79 234 44	76 228 36	72	72	72	72	72	72	72	70
60	(53mb) 76	907mb 35° 848mb 43°	Inversion.	Inversion.	Inversion.	Inversion.	Inversion.	Inversion.	Inversion.	60
	Inversion 886mb 34° 857mb 46°	882mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	885mb 37° 845mb 45°	
	isothermal 773-780mb 39°	685 29° 672 30°	805 38° 794 40°	805 38° 794 40°	805 38° 794 40°	805 38° 794 40°	805 38° 794 40°	805 38° 794 40°	805 38° 794 40°	
Tropopause	185mb -85° 40° 90°	190mb -50° 35° 800°	1708mb -85° 38° 200°	1794mb -85° 39° 300°	NR.	NR.	NR.	NR.	NR.	Tropopause



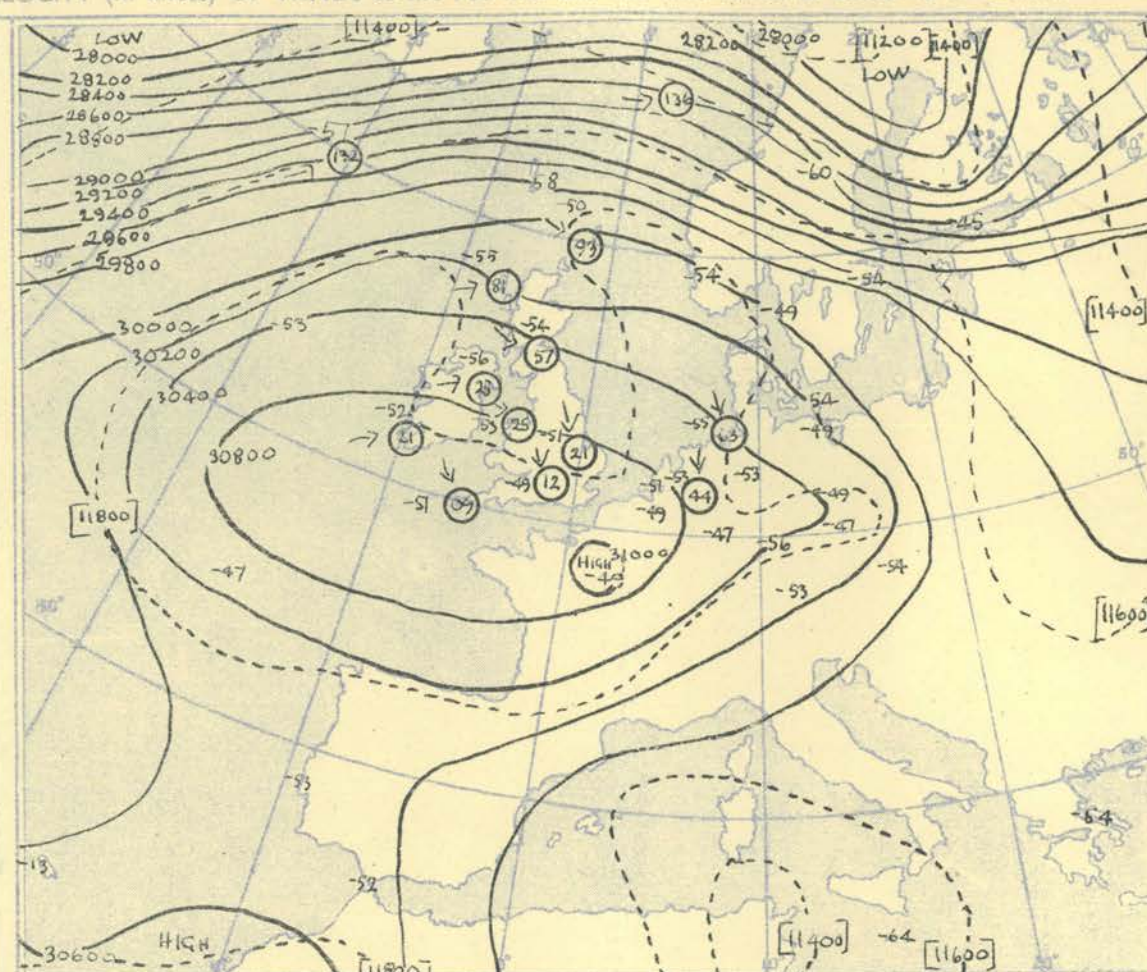
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point) DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

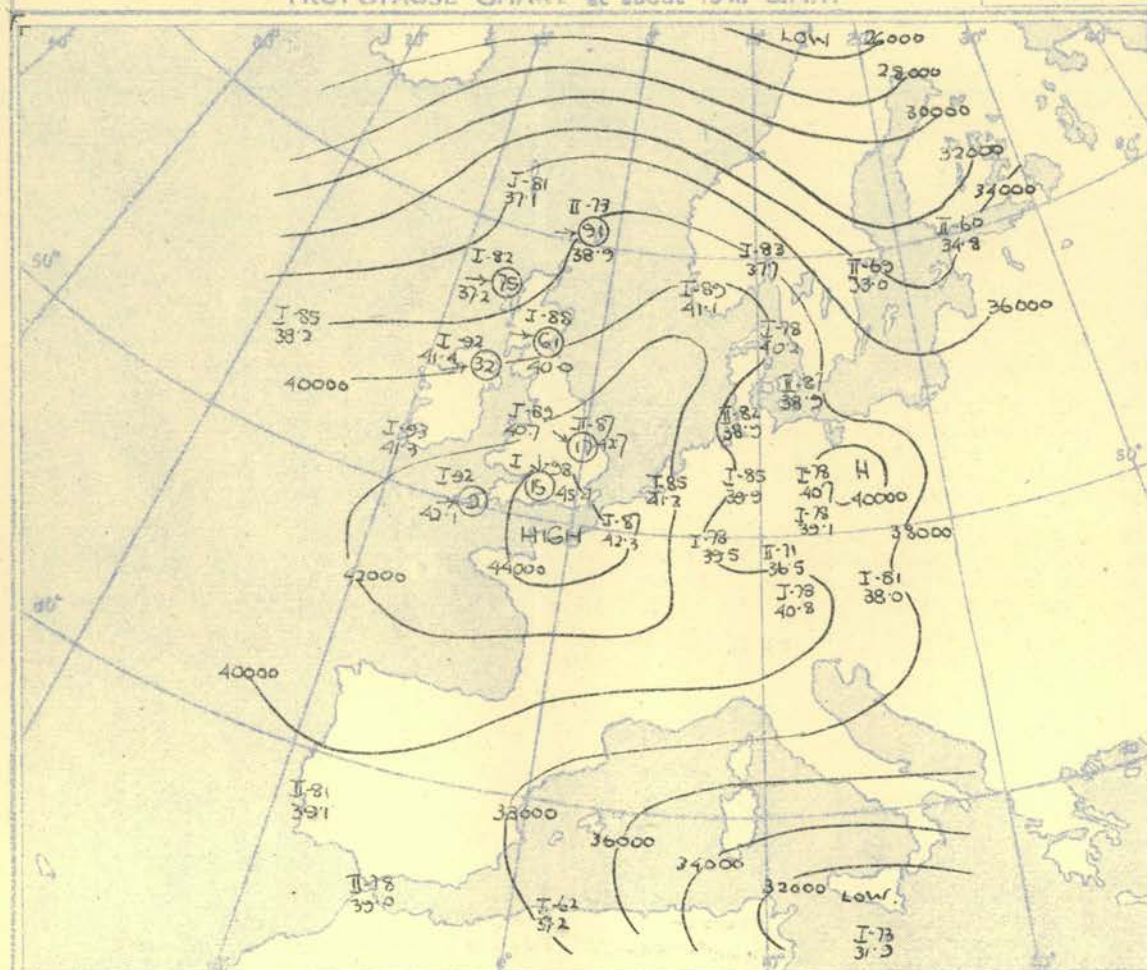
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 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.

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

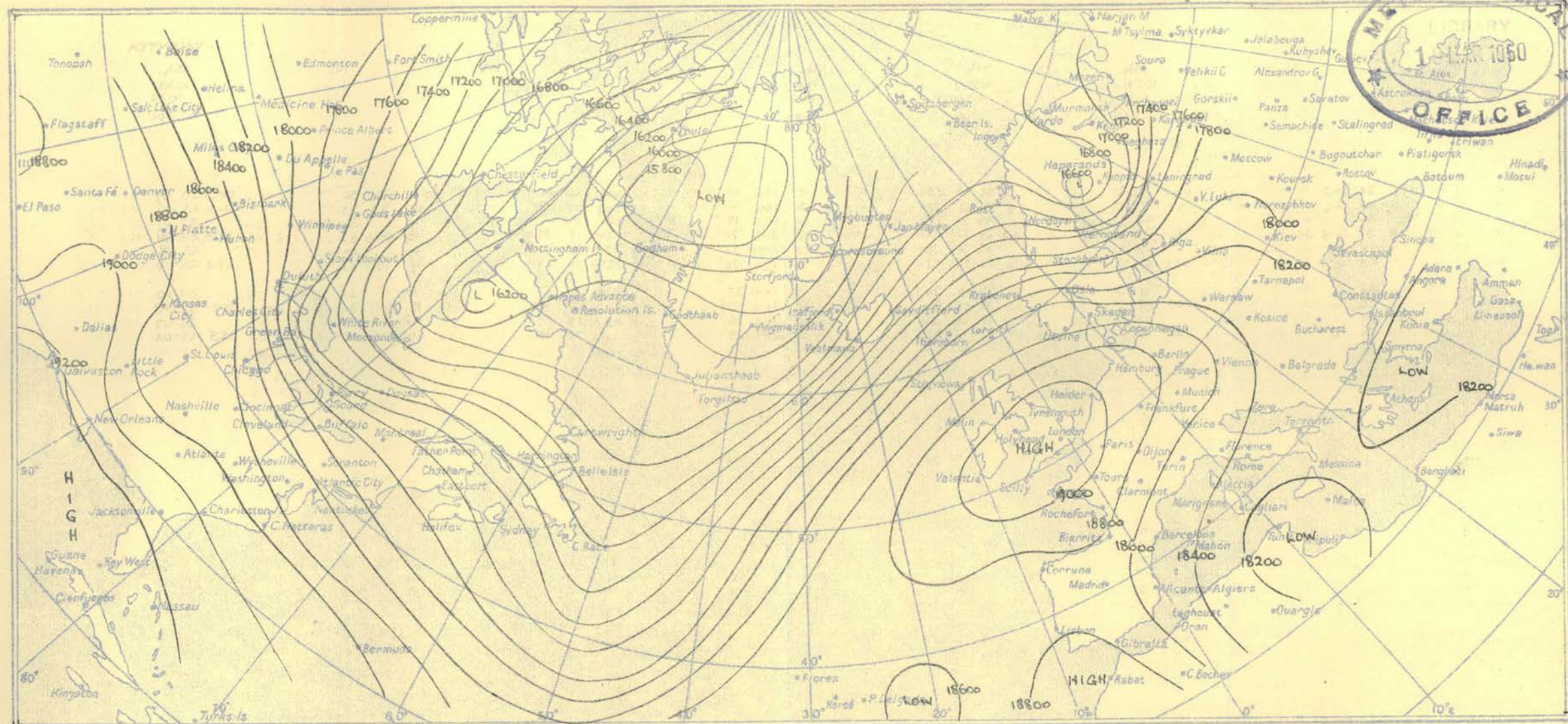


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

A large flat ridge of warm air enveloped the British Isles. The cold trough off the east coast of America moved slowly east and warmed appreciably. A cold pool in the Central Mediterranean cooled slightly and tended to move west.

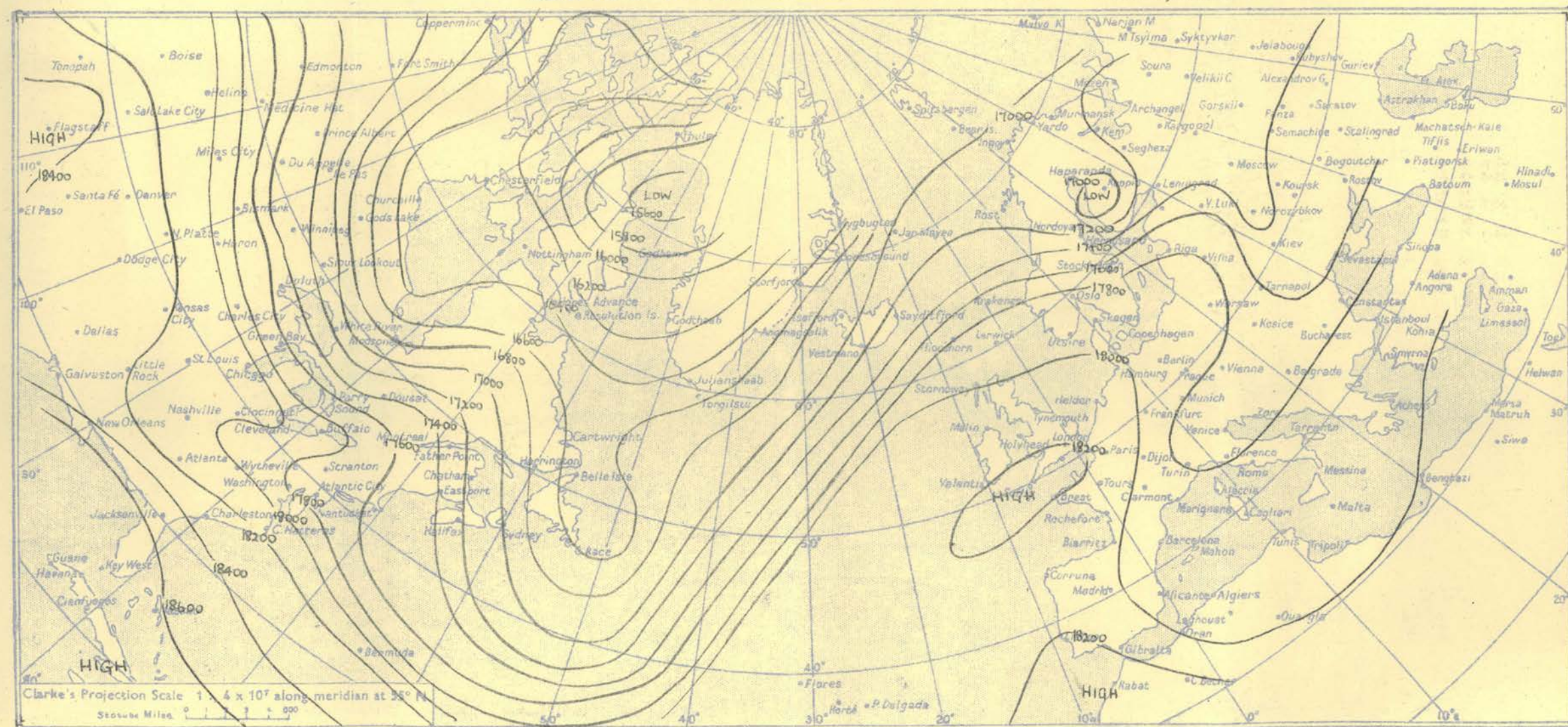




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Sunday 5th March

1950.



Clarke's Projection Scale 1 : 4 x 10<sup>7</sup> along meridian at 35° N  
Seas and Miles 0 1000



# 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.	Pressure mb				
		1017.9		mb		1024.5		mb		1029.4		mb		1032.7		mb		1034.2		mb		1032.8		mb		1034.1		mb		1034.6		mb				1033	mb		
		1007		mb		1022.7		mb		1028.6		mb		1024.0		mb		1032.1		mb		1027.8		mb		1017.7		mb		1023.8		mb						1032	mb
		800		mb		712		mb		668		mb		700		mb		682		mb		677		mb		700		mb		687		mb							
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				
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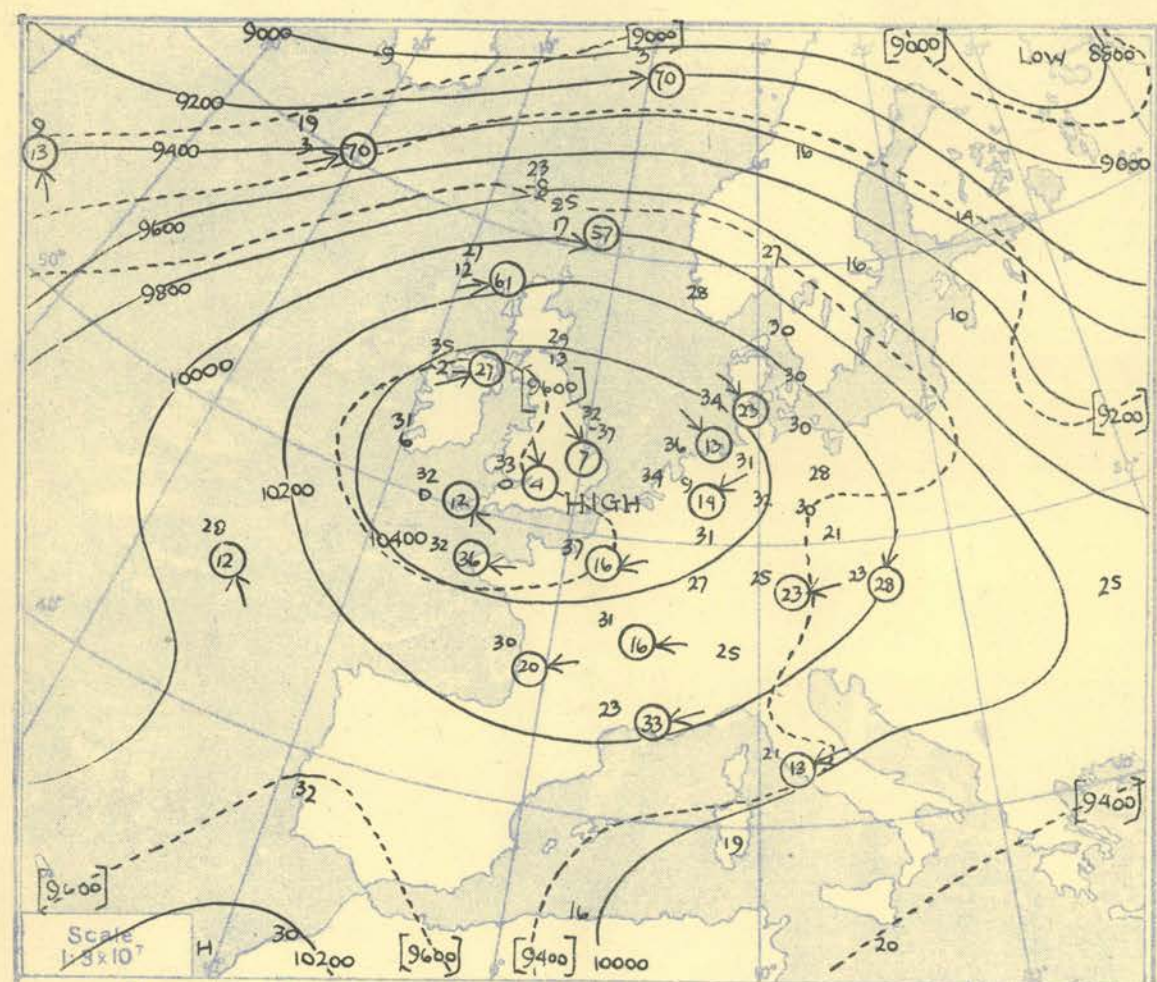


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure Time M.S.L. Surf Freezing	03h 1022.0 1011.8 752				03h 1026.0 1024.0 748				03h 1031.0 1030.2 718				03h 1032.8 1024.0 682				G.M.T. mb mb mb				03h 1035.6 1030.7 700				03h 1035.6 1018.7 688				03h 1034.1 1023.0 703				03h 1031.8 1030 765				Time M.S.L. Surf Freezing								
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																
	Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots												
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	46	44	236	30	00.5	48	45	225	12	00.2	45	43				02.3	44	40	180	07				04.4	34	34	150	04	02.9	38	37	CALM	00.3	42	40	100	04	Surf						
1000	05.8	45	44	251	48	07.0	45	43	228	30	08.2	45	41				08.6	52	46	196	15				09.2	37	36	113	14	08.9	48	46	103	06	8.5	44	42	142	07	1000					
950		41	40	251	42		40	38	233	40		45	39					49	39	214	18					47	39	062	08		58	31	099	10		46	43	180	21	950					
900	34.1	40	35	251	37	35.2	36	34	237	43	36.7	44	36				37.3	46	31	219	22				37.7	51	17	038	10	38.0	53	27	085	10	37.1	49	38	192	30	900					
850		35	32	253	33		41	33	237	53		44	33					46	26	237	27					48	23	053	10		48	23	078	14		49	24	199	29	850					
800	65.3	35	23	263	45	66.6	36	24	241	54	68.4	45	31				69.2	46	26	240	28				69.5	41	04	063	10	69.9	43	17	078	12	69.1	45	19	203	26	800					
750		32	23	268	56		32	15	244	55		37	22					43	01	248	27					39	07	054	08		38	08	085	12		38	14		750						
700	100	25	17	270	57	102	27	12	242	61	104	29	13				105	35	02	250	27				105	33	00	354	04	105	32	00	101	12	105	31	6		700						
650		20	13	267	57		21	04	244	62		21	08					25	04	253	31					29	13	038	02		24	00	135	09		25	4		650						
600	140	11	05	265	61	141	14	03	246	60	143	13	05				145	16	02	249	28				145	21	18	147	05	145	17	7	154	14	144	16	4		600						
550		05	06	269	65		07	11	248	59		04	04					05	07	237	33					11	21	168	06		06	13	168	17		6	11		550						
500	185	02	20	270	72	186	03	23	247	63	188	06	14				190	02	18	238	32				191	02	28	182	06	191	2	20	169	16	190	1	23		500						
450		14	29	268	77		14	34	245	63		17	25					12	28	242	34					15	42	238	06		13	35	211	05		14	36	134	16		450				
400	238	26	37	269	72	239	26	44	248	66	241	29	38				243	26	40	236	36					244	27	55	341	09	244	25	46	157	04	244	25	46	119	16	243	22	45		400
350		21		269	88		40	56	251	65		41						40	50	235	33					41		335	14		41		335	14		41		335	14		350				
300	302	58		266	87	304	55		248	70	305	55					307	56		259	30				308	53		035	06	308	52		L.V.		308	50		L.V.		308	50		300		
250		74		271	23		72		249	75		72						72		259	37					73		328	19		71		360	07		78		L.V.		308	68		250		
200	385	58		275	81	387	58		252	76	389	50					391	58		262	37				392	88		352	08	392	87		L.V.		392	86		L.V.		392	86		200		
170		81		273	75		86		246	75								94		263	38					79		294	12		93		222	07		95		L.V.		392	93		170		
150		72		274	66	445	77										448	85		254	31					79		280	09		82		269	05		88		245	05		150				
130		71		277	55		78											78		234	24					78		301	10		83		291	03		86		260	07		130				
110		76		277	51		79											77		248	20					78					81		337	05		81		265	05		110				
100	527	76		267	59	527	80										531	77		250	21					78					78		331	04		75		260	05		100				
90		75					74											76		262	25										78		301	05		78		260	05		90				
80		75					74											76		262	27										78		301	05		78		260	05		80				
70		78					77											76		248	29										78		301	05		78		260	05		70				
60	(5mb) 80																																								60				
Inversion 927.5 39°-900.4 40° 840.4 34°-787.3 36° Isothermal 230-221 mb - 82°				Inversion 888 mb 26°-855 mb 42° Isothermal 911-888 mb 36°				Inversion 877 mb 42°-814 mb 47° Isothermal 1030-915 mb 45°				Inversion Surf 44°-1008 mb 53° 872 mb 44°-833.4 47° Isothermal 550-534 mb 05°				Inversion 1031 mb 33°-1010 mb 46° 950 " 40°-910 " 50° 810 " 40°-780 " 41°				Inversion 1019 mb 34°-932 mb 51° 765 " 35°-750 " 39° Isothermal 932-875 mb 51°				Inversion 1020 mb 47°-962 mb 59° 966 " 43°-935 " 49° 538 " 3°-524 " 4° Isothermal 935-834 mb 49°				Inversion 1030 mb 42°-1000 mb 44° 966 " 43°-935 " 49° 538 " 3°-524 " 4° Isothermal 935-834 mb 49°																	
Tropopause I 189 mb -91° 39700'				Tropopause II 193 mb -91° 39500'				Tropopause II 206 mb -90° 38300'				Tropopause I 170 mb -94° 42500'				Tropopause I 195 mb -91° 39500'				Tropopause I 170 mb -93° 42600'				Tropopause I 174 mb -96° 42100'				Tropopause I 170 mb -93° 42700'				Tropopause													
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure Time M.S.L. Surf Freezing	09h 1020.4 1010.2 746				09h 1030.1 1028.0 726				G.M.T. mb mb mb				09h 1033.8 1024.7 700				09h 1035.1 1032.9 690				09h 1035.9 1031.3 680				09h 1036.5 1019.6 670				09h 1033.8 1022.9 682				G.M.T. mb mb mb												
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																
	Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots				Wind Dir. Vel. knots												
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	45	45	240	35	00.5	49	45	225	15				02.3	38	37	220	05	00.6	38	38	180	08	01.2	42	40	200	03	04.4	34	34	CALM	02.9	45	43	113	08	Surf							
1000	05.4	44	44			08.0	46	43	227	33				08.8	40	38	222	15	09.1	47	37	178	09	09.4	44	38	225	09	9.4	39	39	153	05	08.9	44	43									



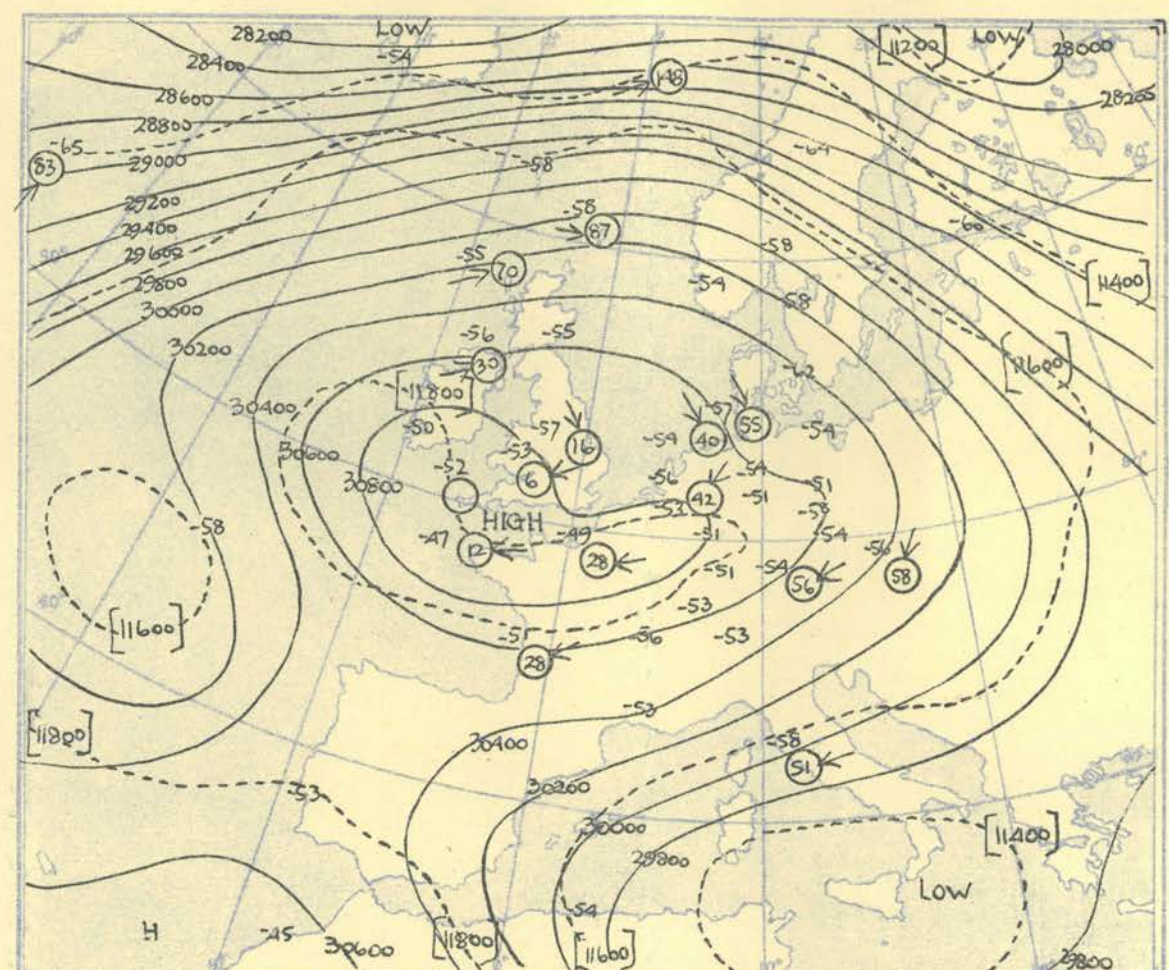
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



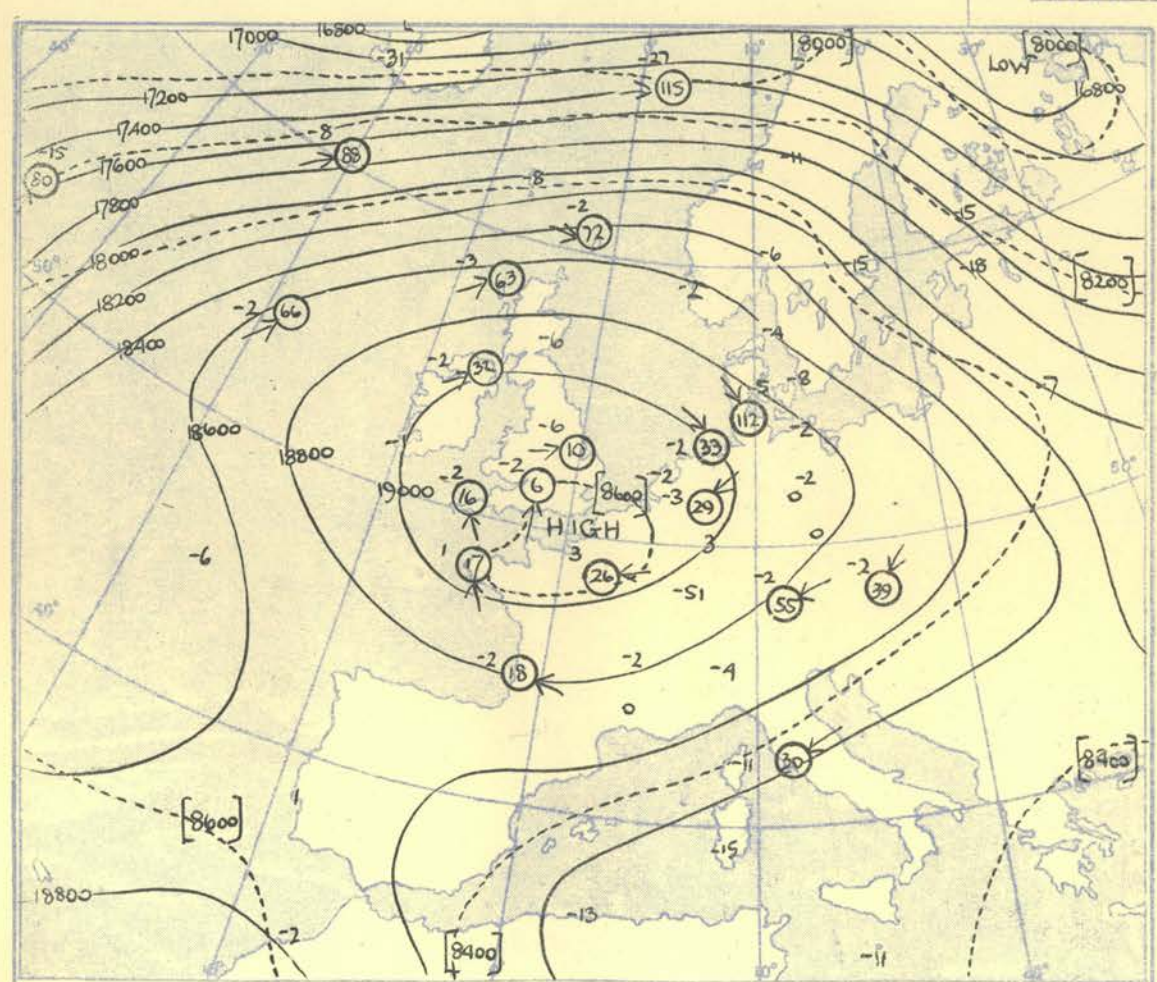
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

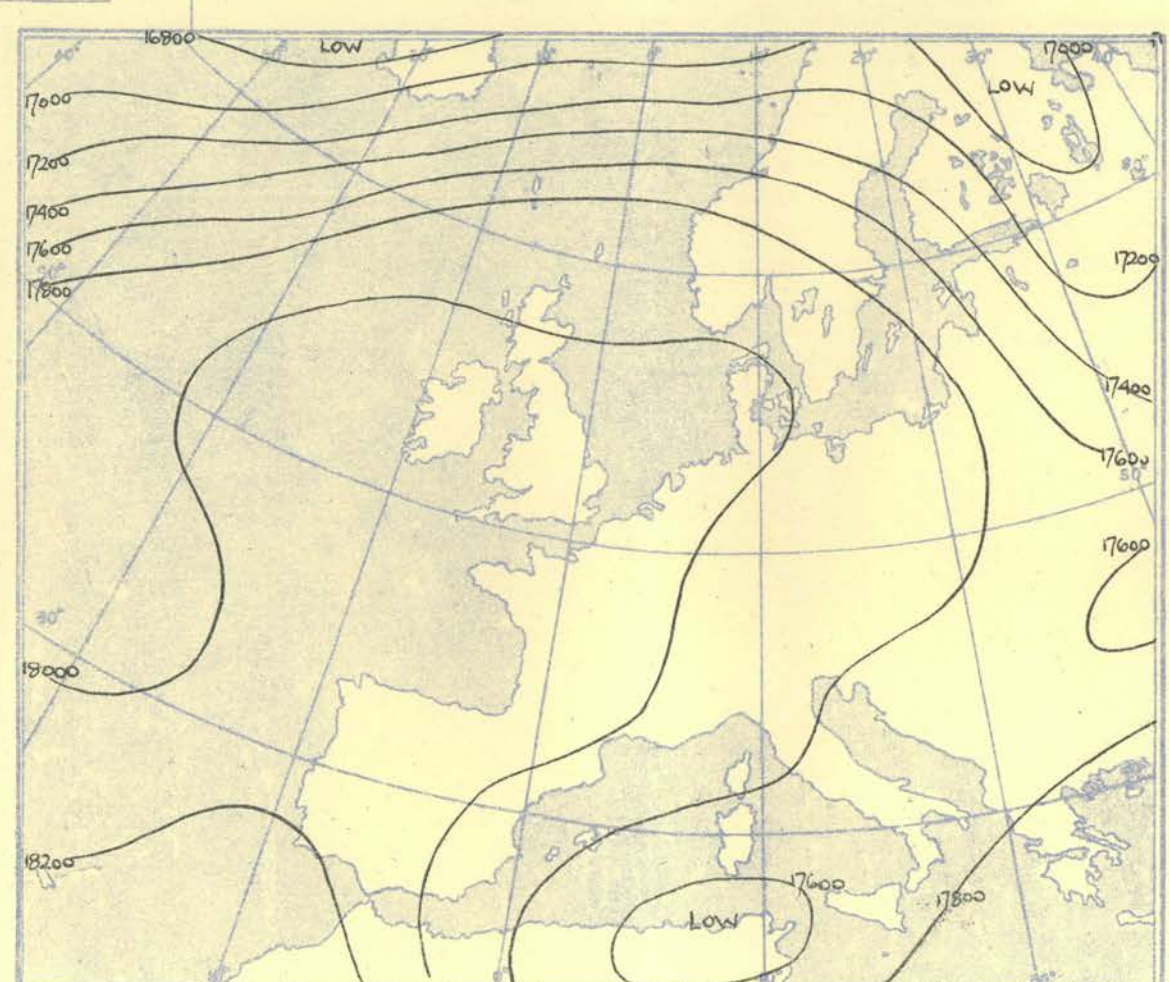
100 80 60 40 20 0 20 40 60 80 100  
in knots



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



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



Isopleths of Thickness 500-1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

Place	Lerwick	Weather Recorder 59° 8' N 19° 8' W		Leeming	Weather Recorder 59° 6' N 19° 8' W		Liverpool	Leuchars	Weather Recorder 59° 3' N 18° 8' W		Pownham Market	Place						
Time	09h	09h		09h	15h		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.	Feet	
Surf.	240	35	300	10	160	01	120	09	CALM	260	07	140	12	150	06			Surf.
1,000	244	54	270	15	290	03	130	16	150	04	270	18	170	23	190	10	1,000	
2,000	248	52	270	14	220	11	140	16	130	05	270	17	170	19	200	12	2,000	
3,000	258	51	260	12	230	13	150	16	150	07	280	18	160	18	170	11	3,000	
4,000	262	50	260	15	230	13	180	17	170	08	280	19	160	15	140	09	4,000	
5,000	266	50	250	20	240	12	190	20	180	08	280	21	170	16	140	07	5,000	
6,000	264	51	240	26			210	25	180	08	270	21	200	20	160	08	6,000	
8,000	262	53	230	44	230	14	230	36	180	09	260	24	220	27	180	08	8,000	
10,000	263	51	230	55	270	09	220	32	200	12	260	24	220	31	230	09	10,000	
14,000	266	68	230	56	260	09	230	47	230	16	250	33	220	43	250	12	14,000	
18,000	267	77	330	56			230	60	240	27	260	34	220	47	270	15	18,000	
24,000	262	80	220	107			230	68	260	22	260	40	220	61	250	18	24,000	
30,000	263	86	230	108					230	18	260	46	210	62	240	12	30,000	
40,000	264	96	230	120					250	15	270	42	(26000)		300	05	40,000	
50,000	264	58							270	17	270	43			300	08	50,000	
54,000'	254	50							260	12	(45,000)				320	15	(60,000)	
									(58,000)						300	13	(70,000)	
															250	16	(80,000)	
															250	24	(90,000)	

## NEPHOSCOPE OBSERVATIONS

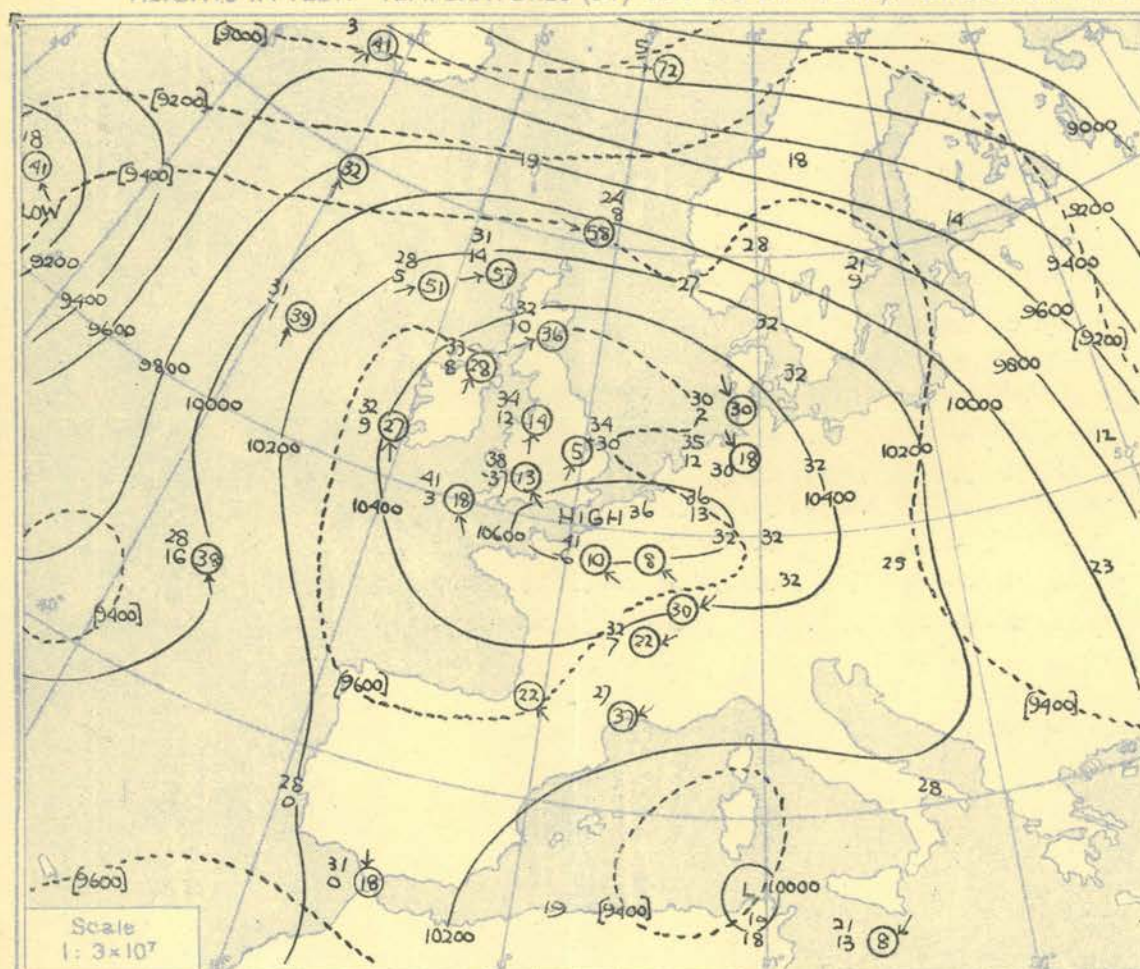
[illegible]

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

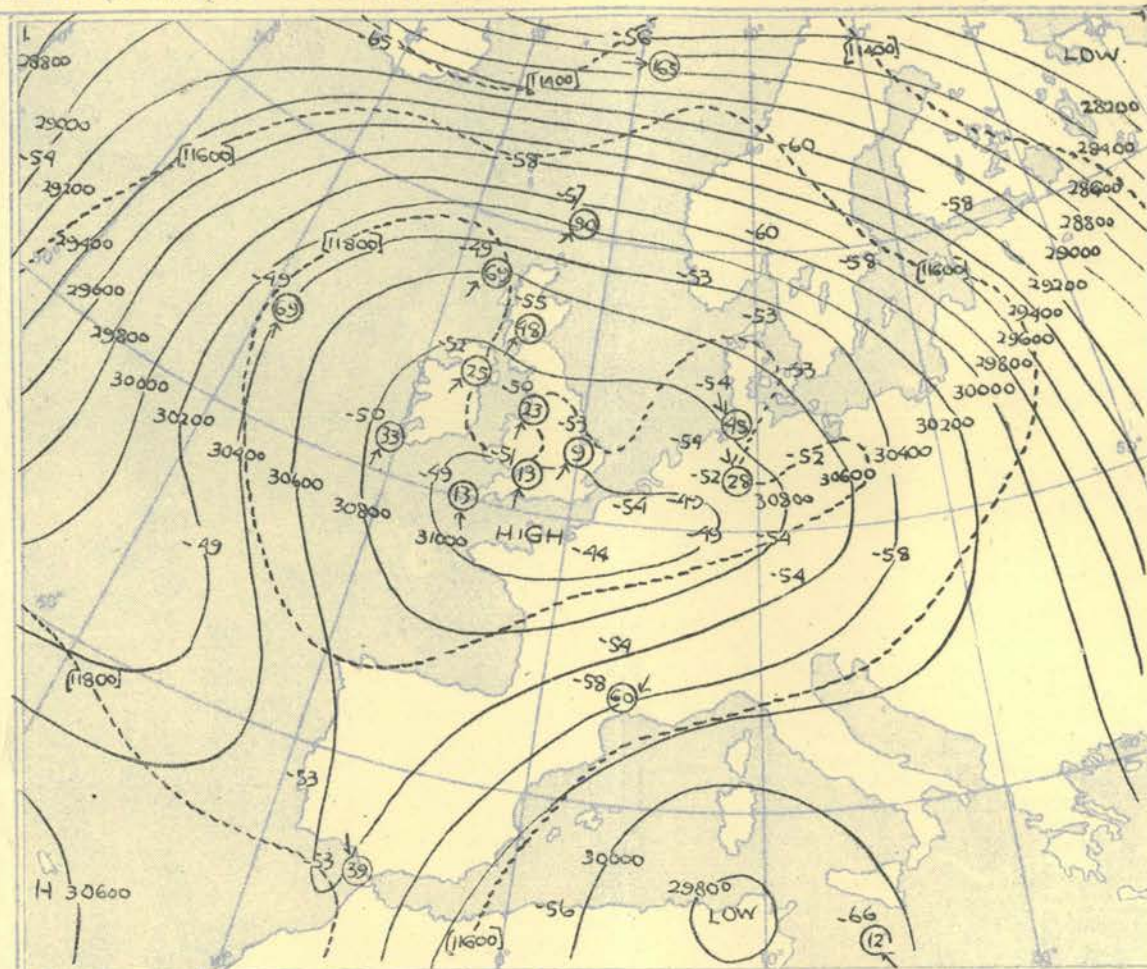
Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER EXPLORER				Ship	
Lat/Long	60°0N 20°0W.				59°8N 19°8W.				59°6N 19°8W.				53°5N 18°6W.				53°5N 18°9W.				54°7N 19°0W.				56°7N 10°2W.				Lat/Long	
Pressure	Time	03h		G.M.T.	09h		G.M.T.	15h		G.M.T.	03h		G.M.T.	09h		G.M.T.	15h		G.M.T.	03h		G.M.T.	15h		G.M.T.	03h		G.M.T.	Time	
	M.S.L.	1009		mb	1009		mb	1023		mb	1023		mb	1020		mb	1020		mb	1020		mb	1028		mb	1028		mb	M.S.L.	
	Surf	1009		mb	1009		mb	1023		mb	1023		mb	1020		mb	1020		mb	1020		mb	1028		mb	1028		mb	Surf	
	Freezing	945		mb			mb			mb			mb	705		mb	750		mb	865.4710		mb	725		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		40	35	280 20										50 49	220 23			51 47	190 17		55 52	170 20		49 46	204 17			Surf		
1000	2.5	39	34	275 40										5.9	47 44	210 21		5.5	48 45	173 21	5.5	51 47	170 27	7.5	47 44	199 130			1000	
950		33	32	267 36										34.3	42 39	210 27			41 38	179 23		41 37	172 61		43 40	207 32			950	
900	30.1	27	27	257 32											37 33	208 30		33.8	35 32	188 24	33.8	36 32	173 26	35.8	43 36	221 39			900	
850		23	23	252 36											34 27	205 32			33 28	196 22		31 27	170 44		48 28	243 48			850	
800	60.4	21	19	230 54	No Radio Sonde				No Radio Sonde					65.5	36 9	208 40		64.9	35 13	198 27	65.0	41 15	171 42	67.5	41 23	250 51			800	
750		20	13	227 67	ascent available.				ascent available.						35 8	207 46			32 15	196 34		37 12	182 39		35 13	237 55			750	
700	94.5	19	3	231 70										101	31 9	210 48		99.8	27 3	196 37	100	31 7	192 39	103	28 5	225 51			700	
650		12	-21	237 70											25 8	210 44			21 2	200 42		25 1	193 47		28 1	231 51			650	
600	133	3	-29	237 74	For winds see				For winds see					141	17 17	211 58		139	14 8	200 42	140	18 16	191 46	142	13 3	234 54			600	
550		-2	33	233 78	page 4.				page 4.						8 17	209 61			6 14	200 43		10 10	191 21		5 9	232 52			550	
500	178	-8		225 88										186	-2 16	207 66	185	-3 19	200 47	186	-1 27	188 51	187	-5 17	230 51			500		
450		-17		221 94											-13 20	212 63			-5 32	202 44		-13 20	186 59		-15 28	231 54			450	
400	231	-28		221 102										239	-25 37	212 57	238	-26 50	203 49	239	-23 38	191 57	240	-28 42	233 65			400		
350	(370 mb)	-35													-38 46	227 67		399	-39 59	212 64		-36 53	186 48		-46	237 60			350	
300														(327 mb)	-45			302	-55	213 67	304	-49	181 69						300	
250																		71		223 72		-63	191 72						250	
200																		386	-85	216 60	389	-80	185 58						200	
170																			-95	214 56		-80	195 46						170	
150																			-87	212 52		-70	200 44						150	
130																			-78	213 38		-69	192 43						130	
110																			-76	219 49		-66	217 57						110	
100																			525	-75	217 50	532	-65	228 48						100
90																			-77	220 33		-68	232 49						90	
80																			-79	229 42		-71	225 63						80	
70	Inversion.																		-81	244 51		-75	228 57		Inversion.					70
60	820mb 20° 800mb 21°																		-82	236 45		-73	242 45		920mb 41° 875mb 46°					60
																						-72	137 47		isothermal.					
																						-70	224 51							
																							270 42							
																						(830 mb)	-68							
																				</										



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 isotherms of the thickness of the layer 1000-700 mb.

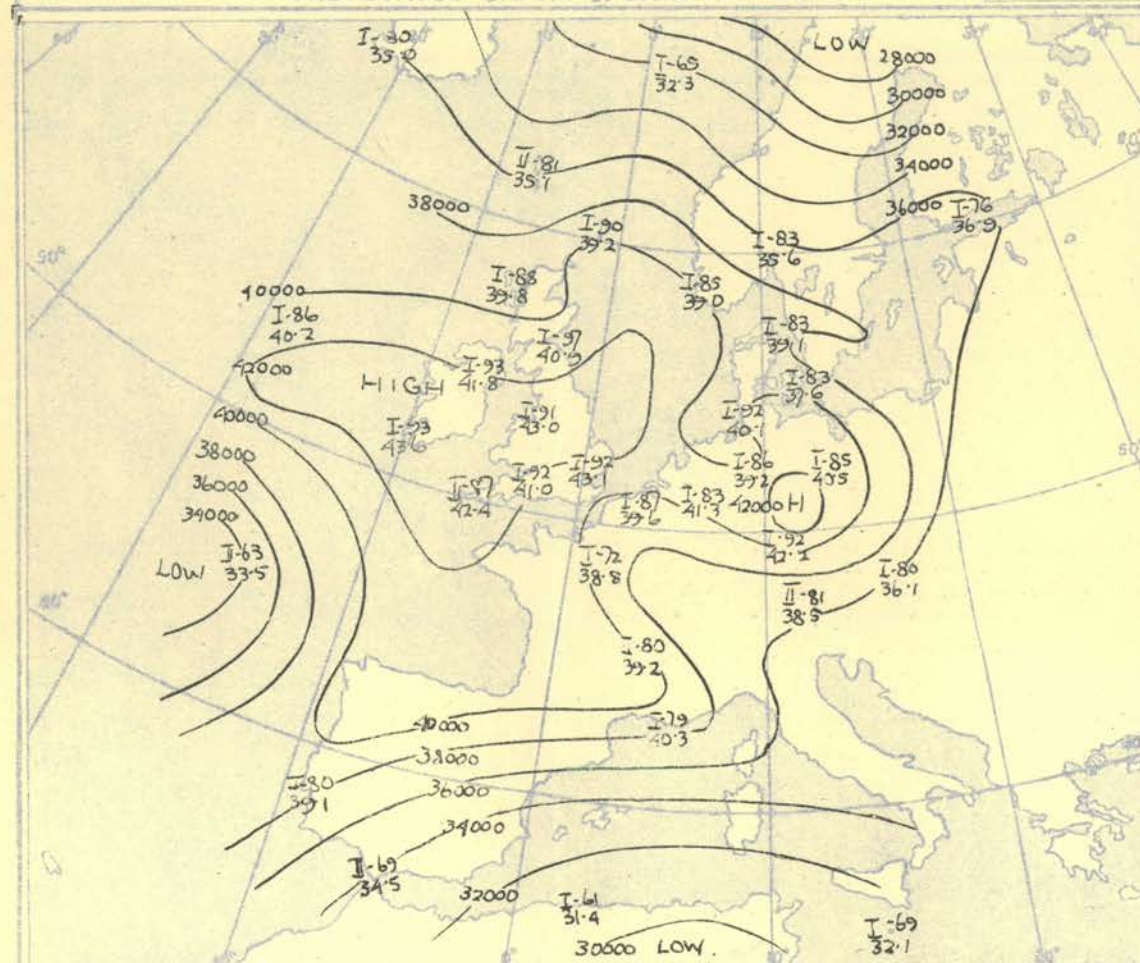


Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N

100 60 40 20 10 0 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.

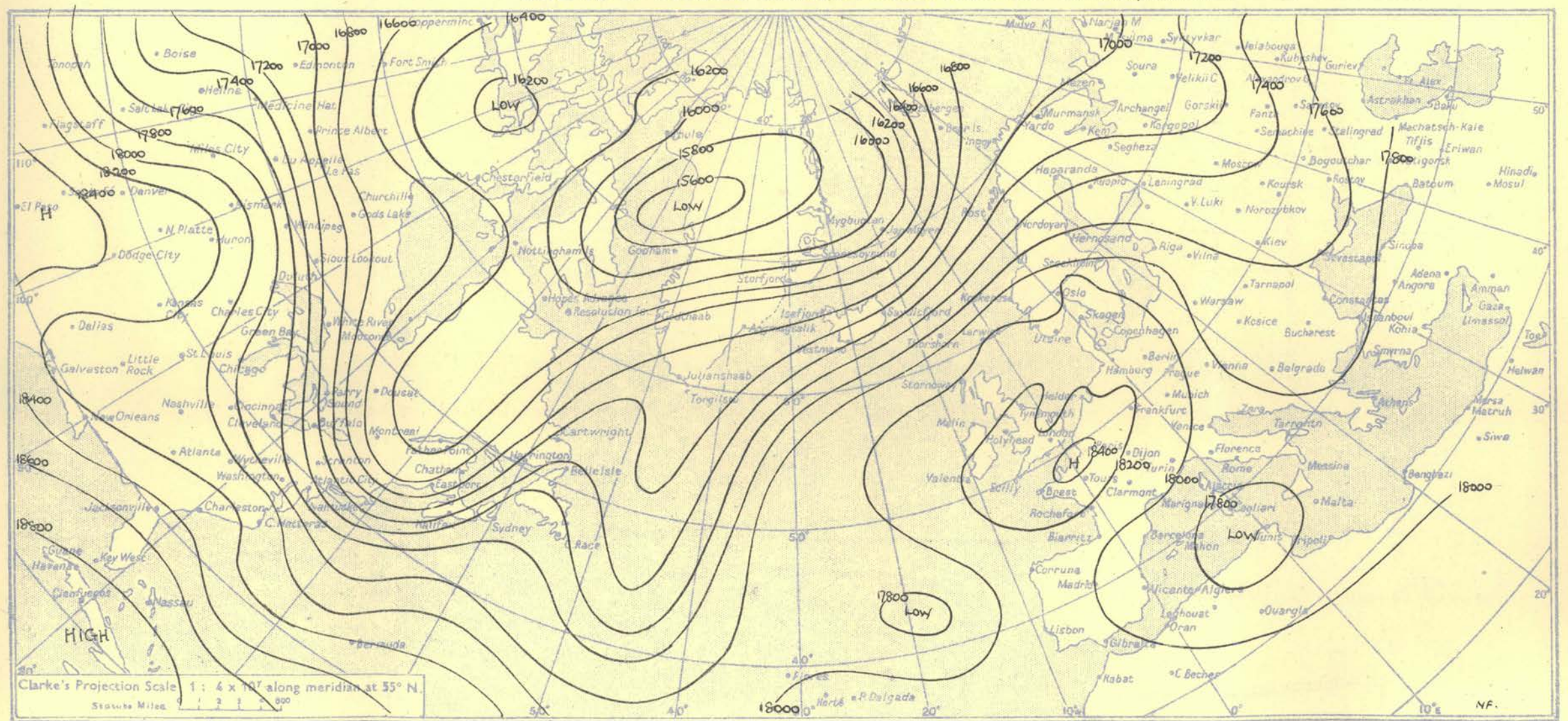
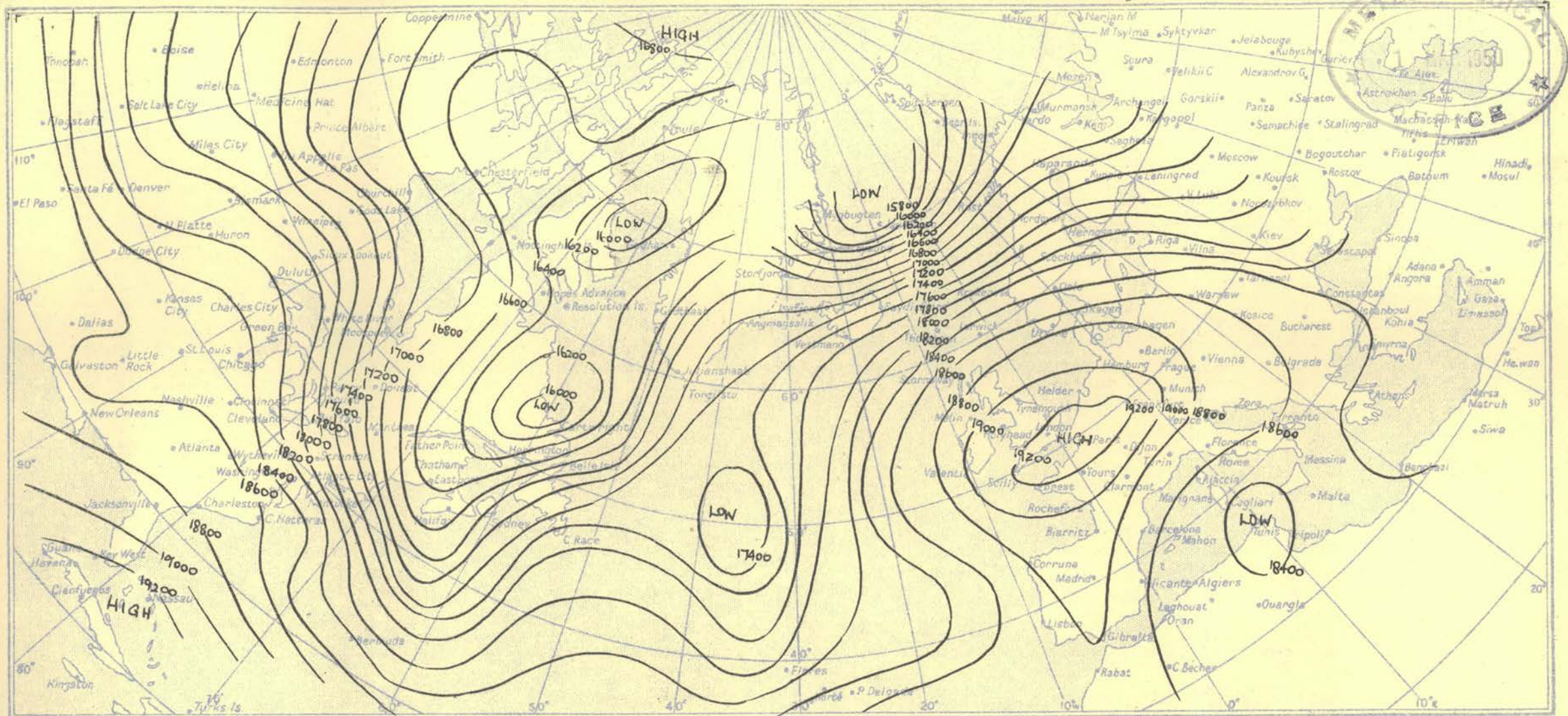
### NOTES ON THE AEROLOGICAL SITUATION.

The cold trough in the Eastern Atlantic warmed out considerably in the north but continued to move eastward in the south. The cold pool in the Central Mediterranean moved slowly west. In consequence the large warm ridge enveloping the British Isles was cooled from both sides in latitudes 35° to 45° N. and a warm pool formed over Northwest France.

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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.)

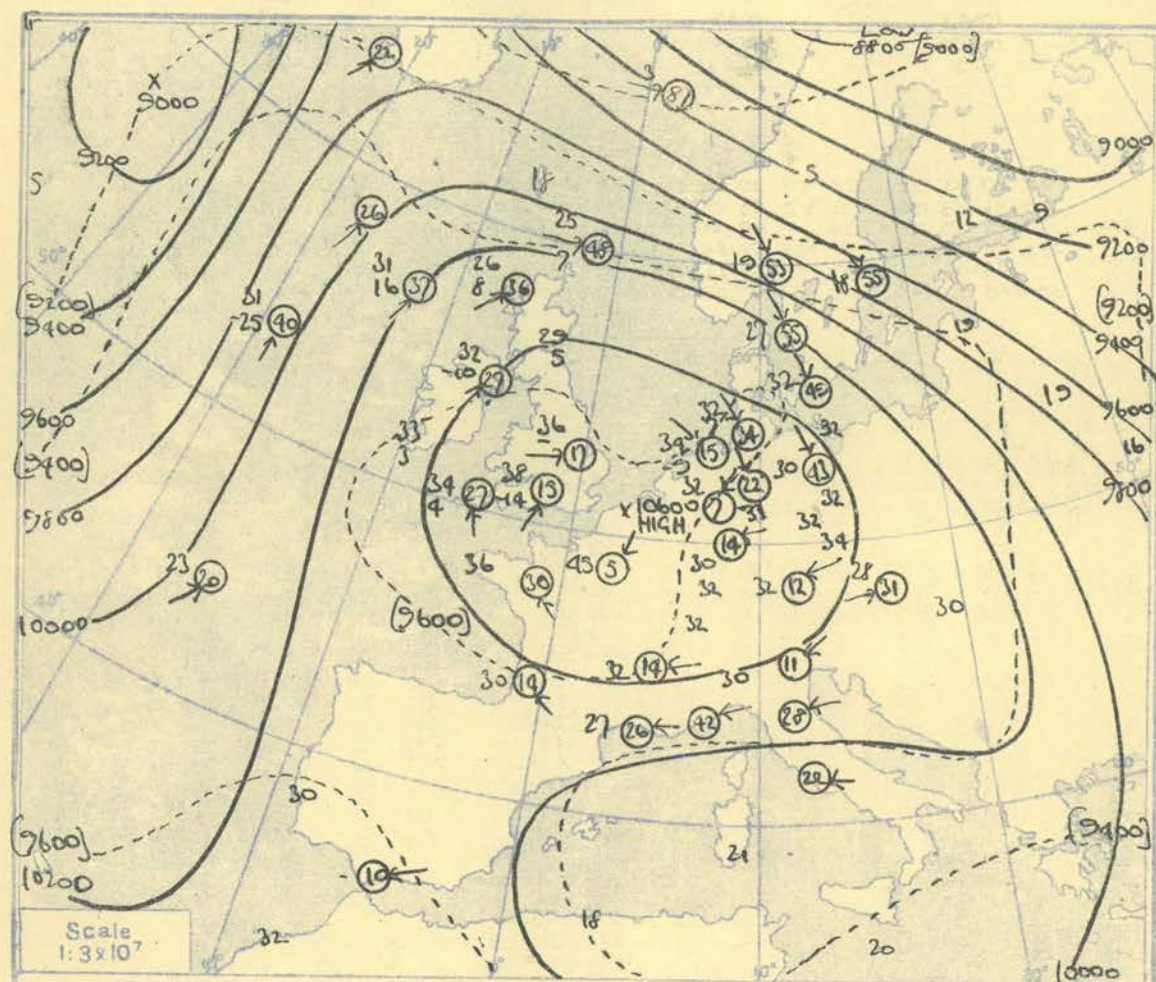
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Time M.S.L. Surf Pressure	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	Time M.S.L. Surf Pressure				
	1024.2 1014.0 759	mb mb mb	1029.1 1027.3 708	mb mb mb	1031.2 1030.5 697	mb mb mb	1033.6 1024.9 692	mb mb mb	1034.1 1032.0 688	mb mb mb	1035.5 1030.8 690	mb mb mb	1035.5 1019.0 662	mb mb mb	1032.8 1022.0 648	mb mb mb	1029.8 1027 695	mb mb mb																			
Pressure mb	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Pressure mb				
Surf	02.7	46	45	247 24	00.5	52	48	220 10	00.2	58	45	230 17	02.3	45	41	CALM	00.6	59	46	CALM	01.2	54	45	190 05	04.4	51	46	135 05	02.9	51	47	113 15	00.3	60	48	134 19	Surf
1000	6.4	46	45	261 37	7.9	49	45	230 22	8.3	53	42	246 23	8.9	45	38	218 06	9.3	55	40	292 02	9.5	48	40	220 07	9.5	48	43	120 05	8.8	49	46	129 29	7.9	59	41	144 21	1000
950		41	41	266 37		42	40	237 24		53	37	271 27		54	36	288 08		52	34	287 05		52	29	205 05		42	37	125 08		55	45	128 22		56	34	158 26	950
900	34.6	36	35	272 36	36.2	37	36	243 25	37.1	49	34	273 28	37.7	51	30	261 18	38.1	50	31	264 07	38.2	51	02	157 04	37.9	53	29	110 07	37.7	58	22	129 19	37.0	52	27	159 30	900
850		30	28	275 35		33	32	249 39		50	27	268 29		47	25	250 24		49	23	239 07		47	+10	135 06		49	06	109 10		52	17	126 19		48	22	163 32	850
800	65.6	33	26	277 38	67.4	40	27	248 51	69.1	46	23	260 29	69.5	44	21	260 22	70.1	45	12	210 09	70.0	45	-22	133 06	69.9	47	-03	131 09	69.8	47	24	124 19	68.9	41	14	172 30	800
750		31	17	276 47		36	14	250 54		41	15	256 30		39	12	221 25		40	16	187 10		40	-26	151 05		45	-13	157 10		43	12	134 20		38	11	169 33	750
700	100	24	08	273 58	103	31	14	249 57	105	32	10	253 36	105	33	08	220 28	106	34	12	186 14	106	34	-30	198 05	106	38	-37	165 13	106	41	03	160 18	104	33	09	168 27	700
650		20	-06	268 69		23	09	247 59		23	03	252 35		24	06	214 28		26	00	193 15		26	-36	221 09		30	-42	182 13		33	-10	165 21		29	27	183 21	650
600	140	14	00	264 74	142	15	04	248 63	144	15	01	251 33	145	16	00	220 27	146	20	-01	219 21	145	18	-26	249 13	146	22	-43	199 15	146	23	-18	160 26	144	21	-19	184 32	600
550		06	-06	261 73		07	-04	241 65		05	-08	249 32		10	-07	232 30		11	-09	230 21		07	-19	255 13		12	-4	200 12		15	-20	164 27		12	-19	180 38	550
500	185	-04	-14	267 75	189	00	-12	244 61	190	-03	-18	247 34	191	00	-18	232 34	192	00	-20	230 22	191	-04	-33	260 08	192	01	-36	203 09	192	05	-21	163 25	190	02	-26	178 40	500
450		-16	-25	266 81		-10	-22	244 66		-15	-28	254 41		-11	-29	227 32		-11	-32	210 20		-15	-43	253 08		-12	-39	214 07		-07	-24	161 21		-07	-29	187 34	450
400	238	-28	-35	255 81	241	-21	-37	248 67	243	-27	-39	256 49	244	-23	-41	227 33	245	-24	-44	218 16	244	-25	-57	229 10	245	-24	-45	210 08	246	-21	-34	177 15	244	-21	-41	192 35	400
350		-41		263 86		-35	-46	244 63		-40	-53	256 47		-35	-52	236 29		-36	-57	220 24		-38	-58	229 11		-36	-57	178 13		-36	-46	177 10		-35	-53	199 31	350
300	302	-57		262 90	306	-49		255 67	307	-55		256 48	309	-52		234 25	310	-50		223 23	308	-53		227 09	310	-51		197 13	311	-49		174 13	309	-50		190 33	300
250		-72		264 89		-67		254 74		-74		257 50		-70		240 35		-66		241 17		-68		285 09		-67		177 05		-64		168 14		-65		183 37	250
200	385	-88			391	-86			390	-92		263 51	393	-86		262 33	394	-81		263 19	393	-83		316 08	395	-86		137 06	396	-79		154 07	394	-80		198 37	200
170		-77				-79				-80		267 43		-81		255 31		-91		262 17		-91		290 11		-89		291 04		-87		173 09		-90		209 26	170
150		-66				-73				-74		268 32		-73		250 24		-80		267 26		-78		280 15		-81		280 08		-82		219 10		-89		217 27	150
130		-68				-71				-78		261 30		-72		254 22		-78		253 14		-78		283 16		-75		284 05		-77		208 06		-81		235 23	130
110		-72				-73				-78		258 39		-72		236 24		-77		261 15		-74		266 11		-75		240 05		-72		L.V.		-72		238 15	110
100	528	-73			533	-71			530	-73		259 36	535	-75		211 25	535	-73		247 15	533	-73		263 06	535	-75		252 04	527	-79		"		-72		241 16	100
90		-75				-70				-78		263 31		-75		265 25		-75		242 16		-74		290 09		-75		285 03		-75		263 06		-74		246 18	90
80		-77				-70				-79		267 28		-74		240 32		-76		265 16		-74		288 08		-76		300 03		-75		263 08		-77		245 19	80
70						-70				-75		260 31		-74		275 38		-73		249 16		-71		275 12		-77		310 02		-74		273 07		-75		247 22	70
60						-71				-81				-74				-74		263 19				284 11		-71		310 02		-74		279 06	650	-79		253 22	60
Inversion 845 mb 29°-820 mb 33°				Inversion 845 mb 32°-822 mb 39°				Inversion 980 mb 50°-950 mb 53°				Inversion																									



## 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					
		1028.1	1017.8	856.	mb	1030.4	1028.5	760	mb	1031.8	1030.9	729	mb	1032.0	1022.9	700	mb	1034.3	1029.6	679	mb	1033.7	1017.8	665	mb	1030.9	1020.2	670	mb	1027.0	1026	690	mb						
Pressure	Height	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	Temp.	Dew	Pressure					
mb	ft/100	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	Dir. Vel.	°F.	°F.	mb					
Surf	2.7	45	45	247	18	0.5	44	42	Calm	0.2	41	39																					Surf						
1000	7.4	44	44	269	25	8.0	42	41	213	18	8.3	52	41																					1000					
950		41	41	270	25		41	38	228	23		56	33																					950					
900	35.6	36	35	274	25	36.3	46	32	231	33	37.2	50	29																					900					
850		31	30	275	27		43	29	237	39		45	24																					850					
800	66.5	28	23	272	31	67.8	36	18	242	39	68.9	40	20																					800					
750		27	05	269	40		31	11	247	36		34	15																					750					
700	10.1	25	07	270	48	103	26	08	244	36	104	24	05																					700					
650		22	01	271	51		19	09	241	38		23	06																					650					
600	14.1	14	01	273	58	142	12	1	240	42	144	18	00																					600					
550		06	13	275	63		06	15	238	48		10	09																					550					
500	18.6	03	21	272	66	187	3	21	238	57	189	00	20																					500					
450		15	28	270	69		14</																																

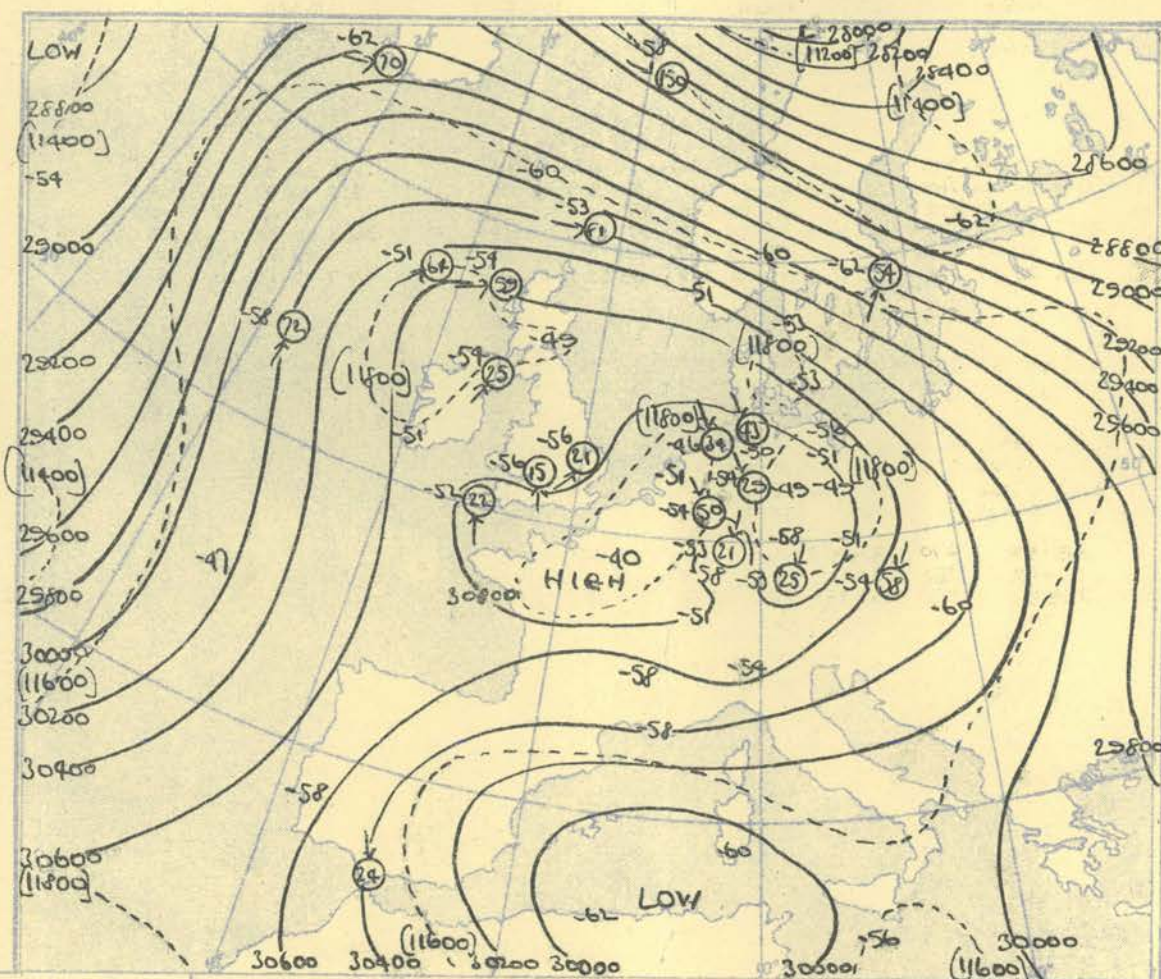




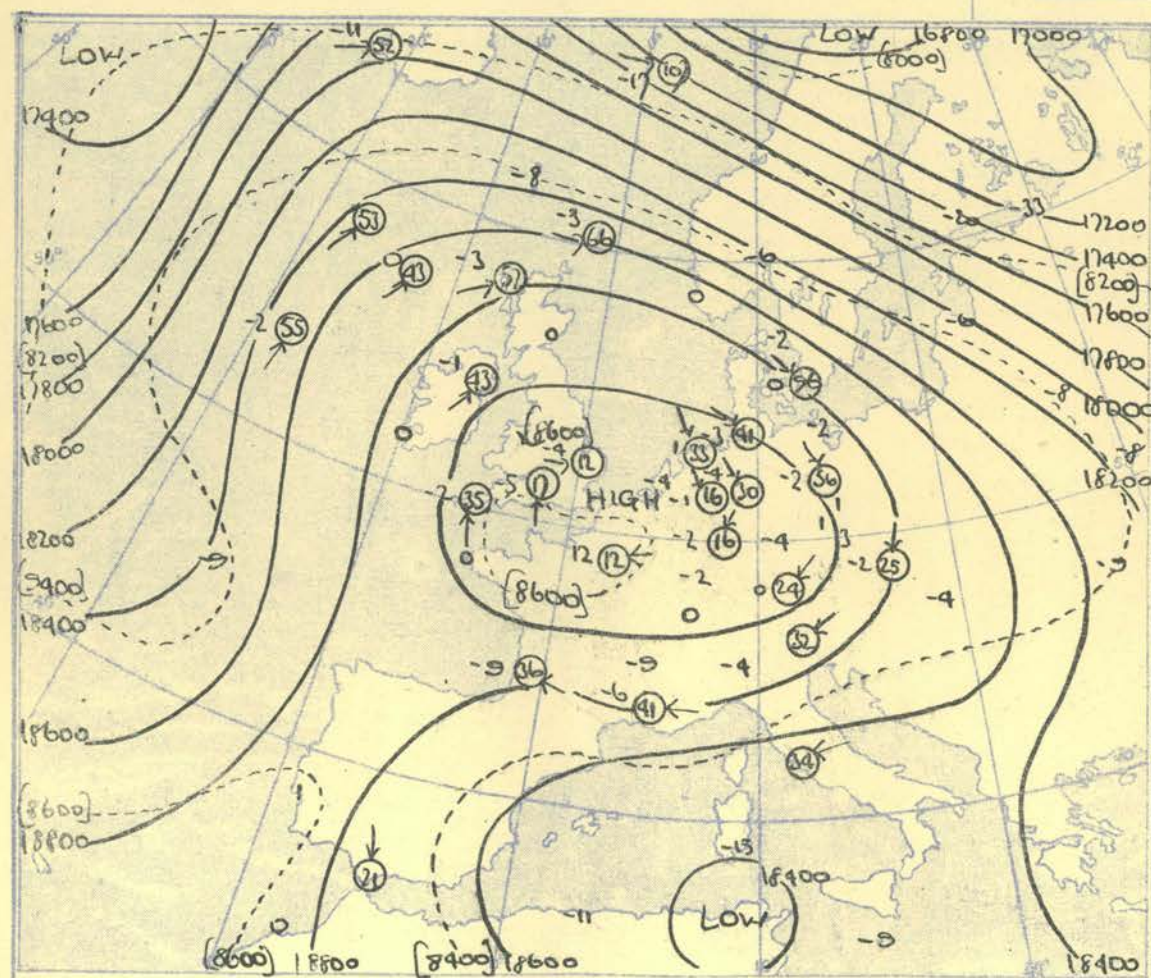
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

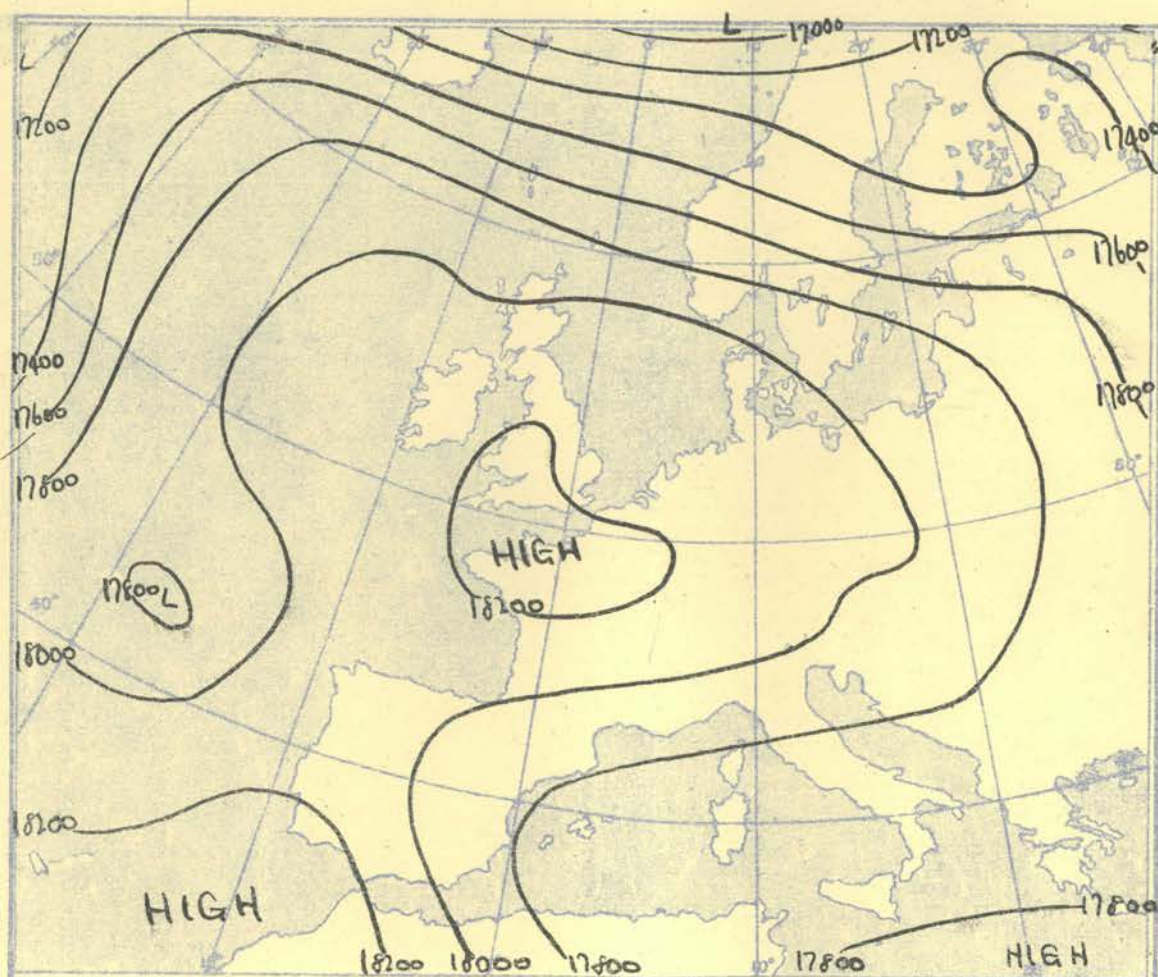
100 50 20 10 5 10 knots



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



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



Isopleths of Thickness 500—1000mb.



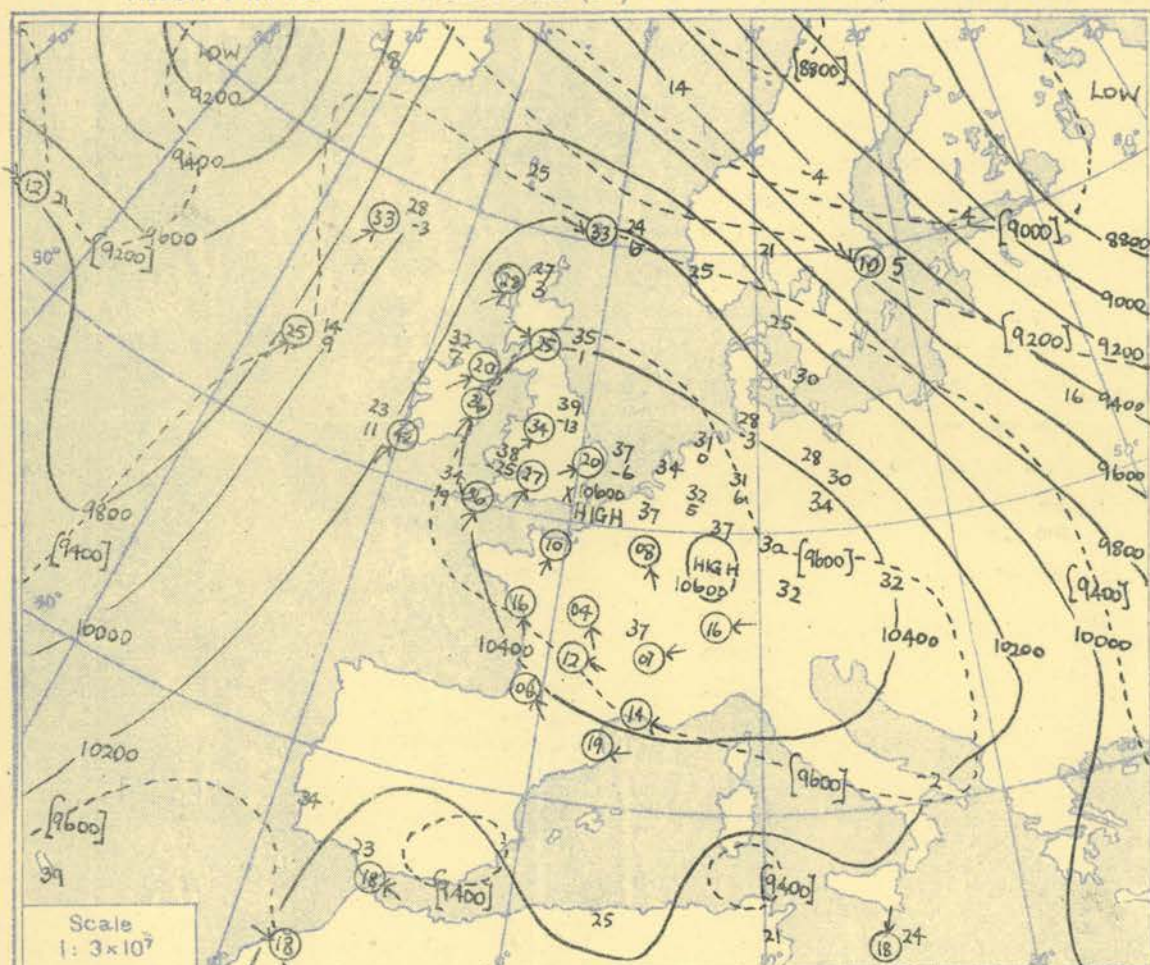
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

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

Ship	WEATHER RECORDER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				Ship				
Lat/Long	58° 9' N		17° 1' W		53° 8' N		18° 6' W		57° 6' N		12° 7' W		53° 8' N		18° 6' W		58° 1' N		14° 3' W		58° 5' N		15° 6' W		53° 8' N		18° 6' W		59° 0' N		17° 2' W		63° 8' N		18° 6' W		Lat/Long
Time	03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		09h		G.M.T.		09h		G.M.T.		15h		G.M.T.		15h		G.M.T.		21h		G.M.T.		21h		G.M.T.		Time
M.S.L.	mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		M.S.L.
Surf	mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		Surf
Freezing	mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		Freezing
Pressure	mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		Pressure
Height	ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		ft./100		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.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		Temp.
Dew	°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°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.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Dir. Vel.		Wind
Dir.	knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		Dir.
Vel.	knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		Vel.
Surf	1000		950		900		850		800		750		700		650		600		550		500		450		400		350		300		250		200		150		Surf
1000	4.6		5.0		4.4		3.7		4.2		6.6		4.1		5.5		5.0		4.6		3.9		3.4		4.8		3.5		4.3		3.3		2.8		2.3		1000
950	33.0		32.0		32.0		32.0		32.0		35.0		32.7		33.8		33.3		32.9		32.4		32.4		35.1		33.3		33.3		33.3		33.3		33.3		950
900	64.3		37		42		37		66.8		43		63.8		39		64.5		64.2		63.5		63.5		64.2		63.5		63.5		63.5		63.5		63.5		900
850	36		24		18		37		37		26		27		36		32		21		21		25		25		25		25		25		25		25		850
800	99.6		31		25		102		31		16		98.4		25		99.5		98.5		98.1		98.1		98.1		98.1		98.1		98.1		98.1		98.1		800
750	139		16		08		142		16		02		139		15																						



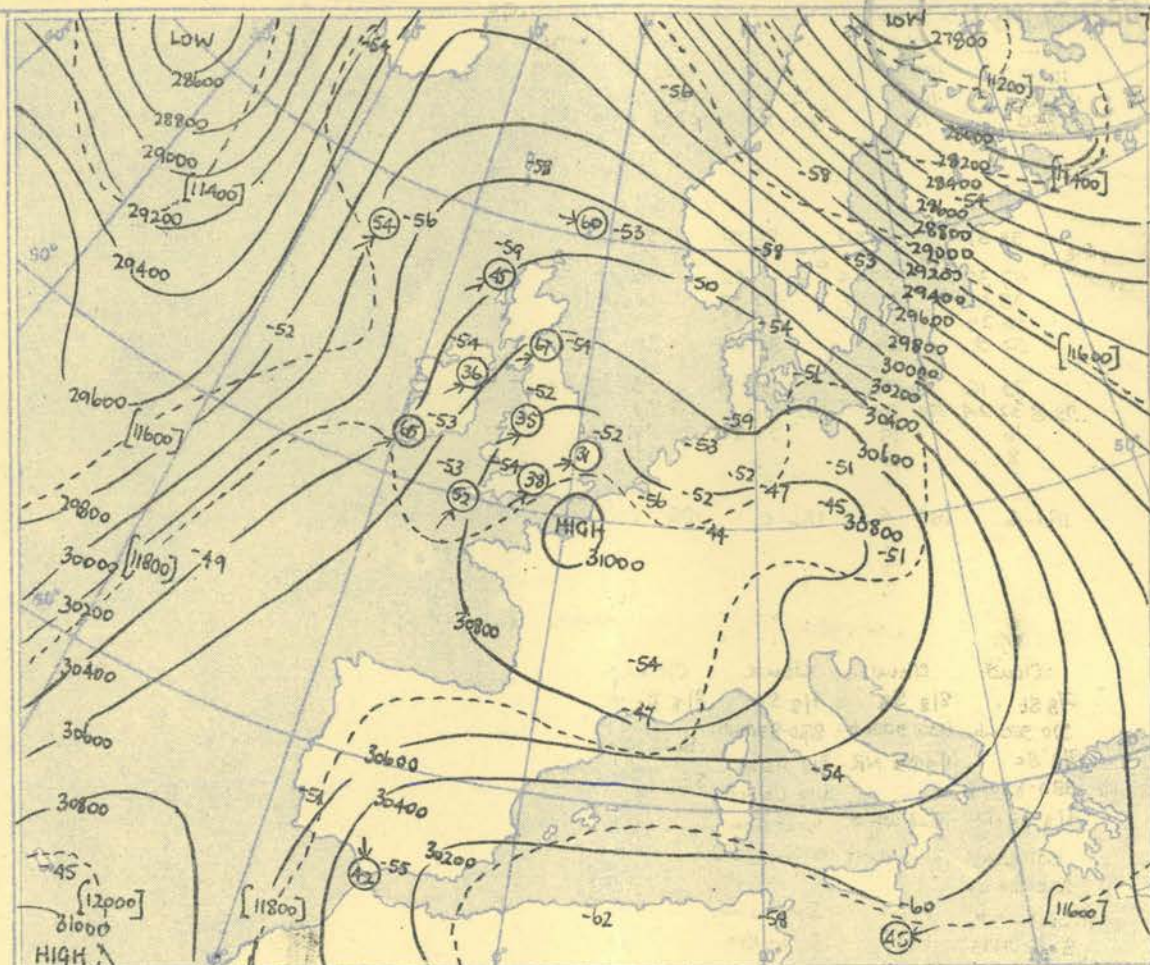
Tuesday 7th March. 1950.



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

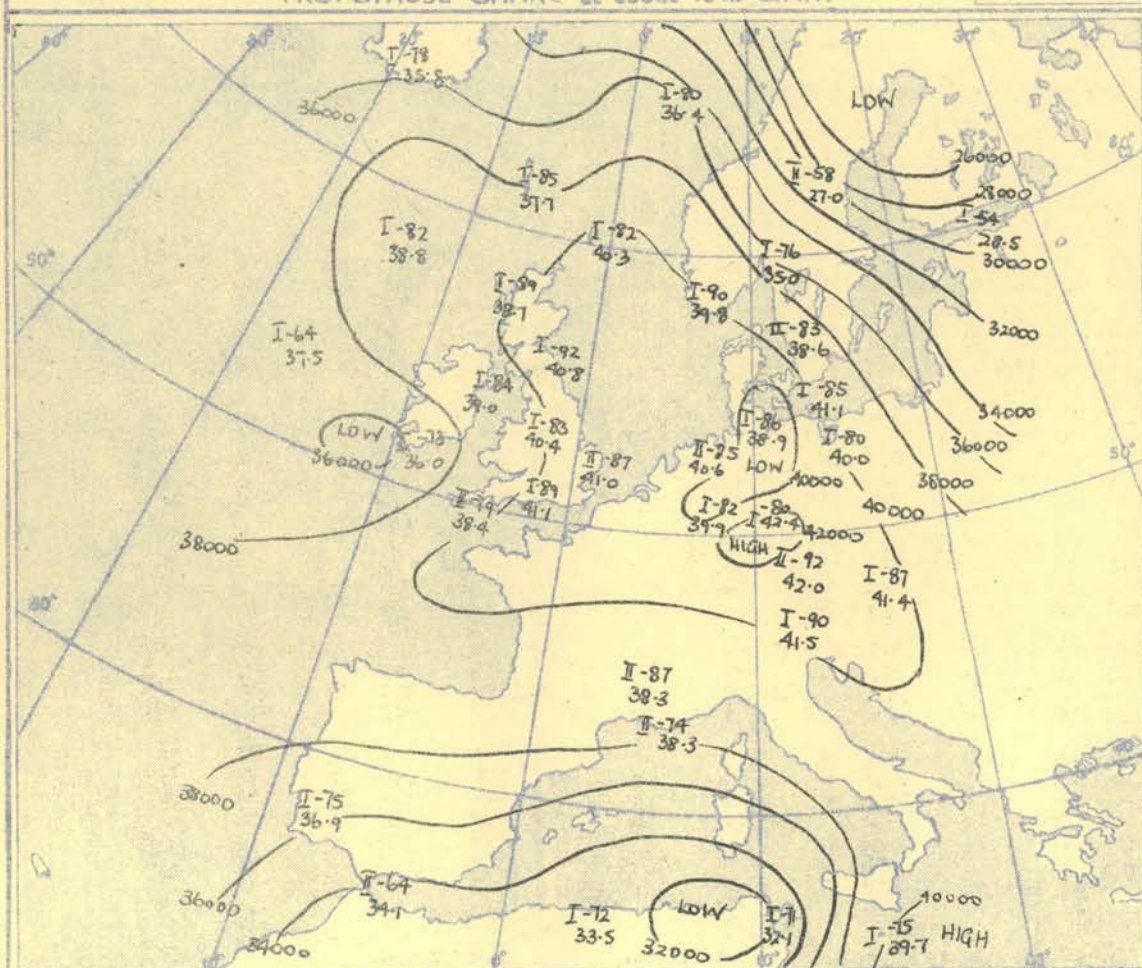
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 knots



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

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



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

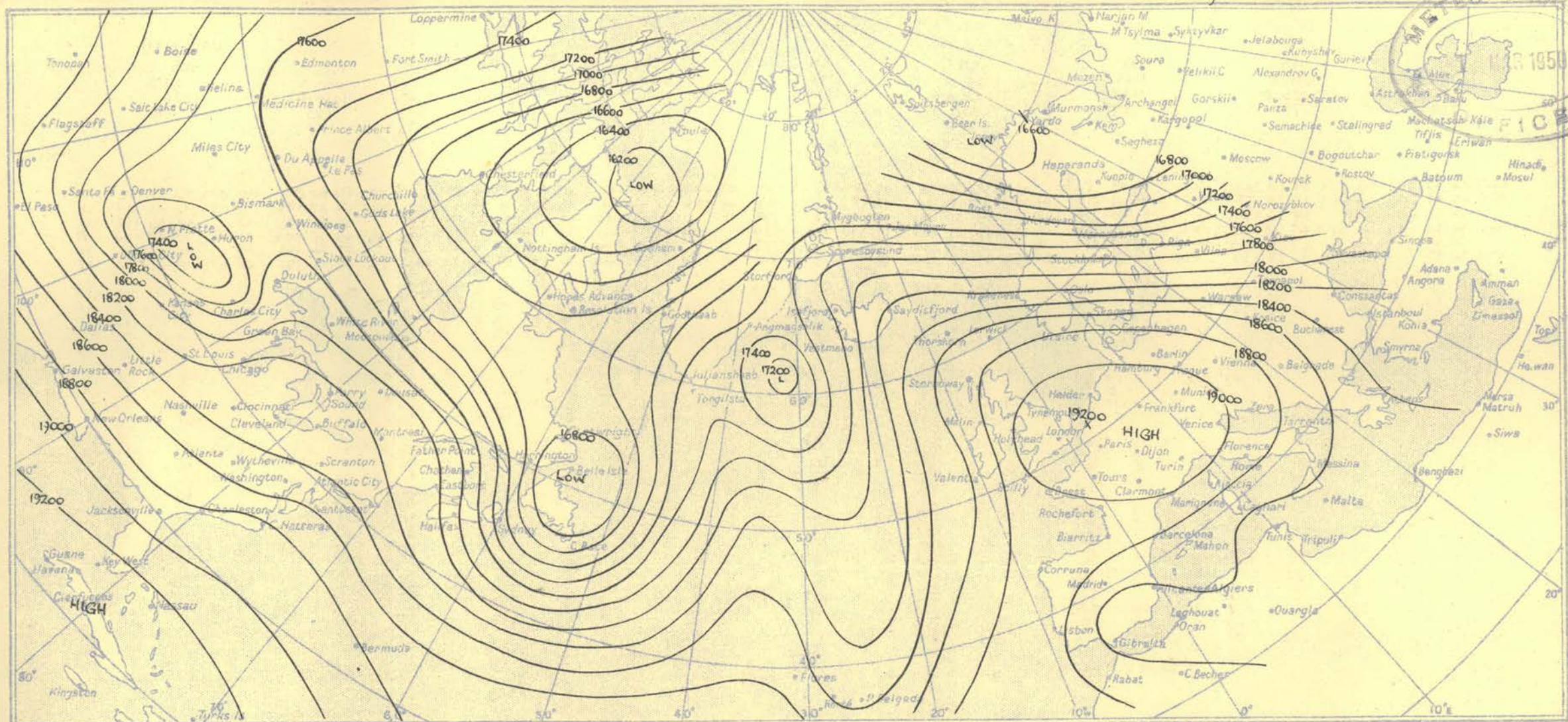
### NOTES ON THE AEROLOGICAL SITUATION.

The cold trough from the Davis Straits to Spain moved to just east of Iceland in the north, remained almost stationary in the south and continued to degenerate. The warm pool over Northwest France moved to the Alps. The cold pool in the Mediterranean continued its slow westward movement.

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

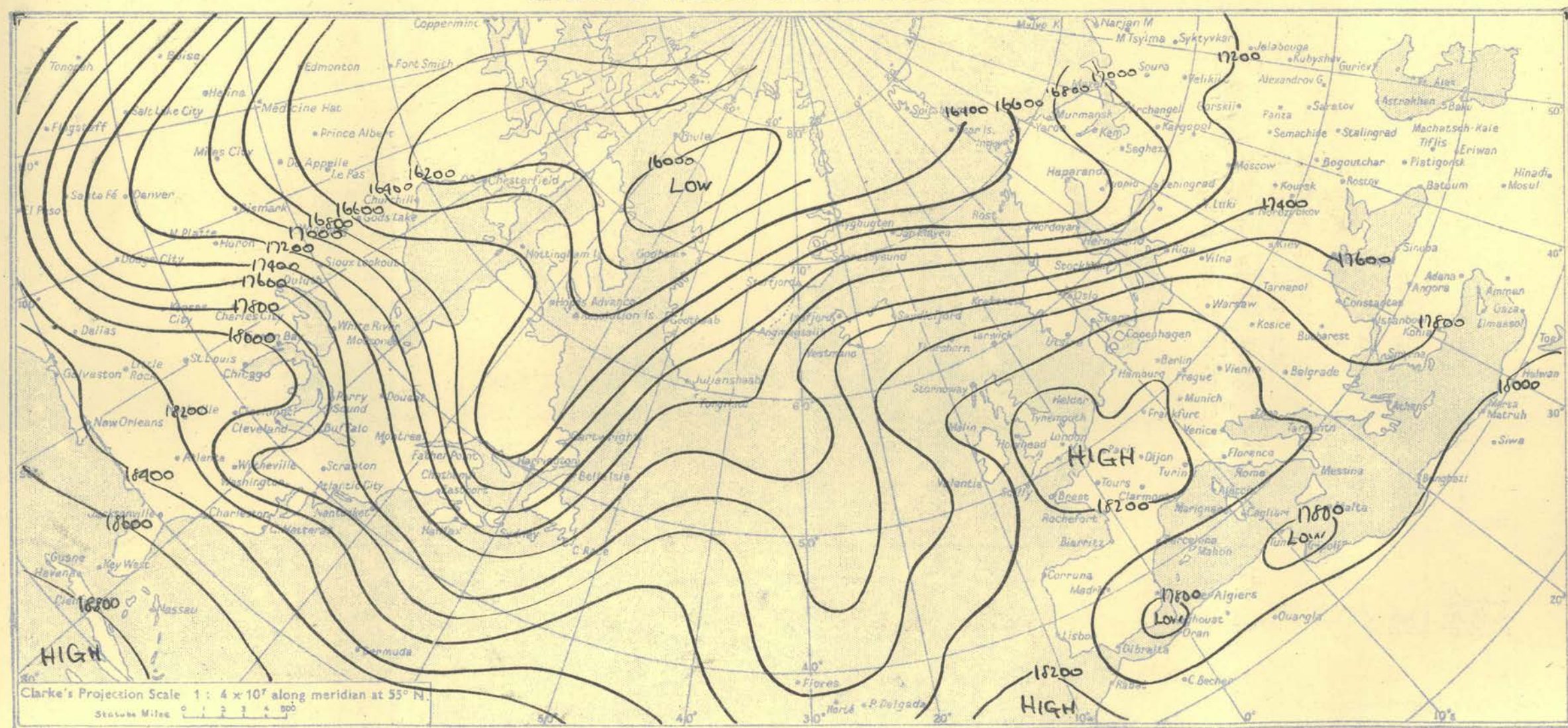




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

7<sup>th</sup> March

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																																			
	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.																																									
		1030.1 1019.7 770	mb mb mb	1028.0 1026.0 753	mb mb mb		1029.2 1028.4 683	mb mb mb		1029.0 1020.4 700	mb mb mb		1030.5 1028.5 657	mb mb mb		1031.4 1026.9 665	mb mb mb		1031.5 1015.5 660	mb mb mb		1030.2 1019.6 685	mb mb mb		1027.2 1026 775	mb mb mb																																														
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																							
Surf	02.7	44	43	157	02	00.5	49	44	200	10	00.2	52	42	Calm	02.3	53	45	170	05	00.6	52	43	150	03	01.2	60	48	190	07	4.4	59	46	160	05	02.9	59	50	135	09	00.3	52	45	150	10	Surf																											
1000	07.9	42	41	143	03	07.5	42	39	187	22	07.8	54	43	210	07	07.9	50	45	194	12	08.2	53	42	145	04	09.6	55	44	196	12	8.6	55	43	167	15	08.2	57	47	179	15	73	48	43	147	11	1000																										
950		38	37	150	05		39	36	199	23		51	35	211	18		49	31	196	12		53	36	199	15		51	40	224	13		50	37	190	13		52	39	196	18		42	40	182	18	950																										
900	36.0	36	34	175	05	35.7	47	34	216	22	36.6	49	28	212	19	36.5	48	28	203	17	37.1	54	27	220	17	37.4	53	34	245	12	37.5	53	32	204	14	37.1	49	31	205	23	35.7	43	38	156	27	900																										
850		35	30	271	07		47	15	328	23		47	19	219	18		46	24	205	20		54	07	219	17		51	19	248	13		53	16	210	18		47	24	198	26		40	21	183	34	850																										
800	67.2	34	23	281	24	67.6	40	13	232	24	68.4	44	16	244	20	68.4	43	18	205	22	69.2	48	05	210	17	69.4	49	06	259	16	69.7	52	06	210	20	69.0	47	15	193	29	67.2	35	21	194	37	800																										
750		31	11	277	29		34	06	226	24		39	10	257	23		39	12	205	26		44	-2	214	24		43	-1	256	20		45	-8	207	23		41	15	191	30		29	19	198	42	750																										
700	102	24	06	273	33	103	27	03	224	28	104	35	01	257	25	104	32	07	206	30	105	39	-13	215	34	105	37	-6	248	20	106	38	-25	201	27	105	34	09	185	36	1020	23	11	191	42	700																										
650		18	01	274	37		21	01	227	31		25	-1	250	32		24	00	203	35		30	-12	244	16		30	-12	244	16		30	-12	244	16		30	06	184	44		19	-1	192	50	650																										
600	141	13	-15	273	41	142	14	-3	232	35	144	19	-7	250	40	144	16	-10	205	41	145	20	-26	217	39	145	21	-18	248	15	146	20	-35	188	22	145	20	-03	184	51	1412	11	-10	191	59	600																										
550		105	-18	277	42		05	-12	236	33		9	-19	251	45		7	-17	204	41		10	-29	212	41		10	-28	247	20		10	-33	183	27		08	-14	187	48		2	-19	182	63	550																										
500	187	-04	-29	276	44	187	-5	-27	232	35	189	-3	-28	245	43	189	-4	-26	206	49	191	-2	-33	220	36	191	-1	-30	225	22	191	-1	-35	181	27	190	-02	-23	187	46	1862	-5	-27	182	69	500																										
450		-13	-34	278	47		-16	-35	227	32		-17	-39	242	38		-16	-36	205	49		-12	-43	227	34		-13	-37	224	20		-12	-44	194	24		-12	-32	186	50		72	-34	192	62	450																										
400	240	-26	-44	276	52	240	-30	-48	226	32	242	-28	-46	244	39	242	-27	-46	209	54	244	-24	-53	222	34	244	-25	-47	245	23	245	-25	-55	207	27	243	-27	-47	187	55	2393	-24	-51	222	50	400																										
350		-40	-57	277	56		-44		237	34		-39	-59	243	40		-40	-57	203	41		-39	-59	222	33		-37	-59	245	32		-38	-58	202	30		-41		187	55		-37		230	60	350																										
300	304	-53		276	60	304	-59		242	45	306	-54		247	37	306	-54		203	36	309	-52		215	35	309	-52		249	31	309	-54		207	38	307	-53		189	52	3039	-53		231	65	300																										
250		-66		274	69		-74		233	49		-70		249	33		-69		195	38		-67		216	37		-68		240	31		-73		203	39		-66		195	52		-68		210	60	250																										
200	390	-80		279	73	387	-89		237	47	390	-86		251	28	390	-84		209	33	393	-81		214	31	393	-83		248	23	393	-85		220	27	392	-80		200	34	3887	-75					200																									
170		-74		280	77		-76		247	44		-85		262	36		-77		231	29		-73		267	19		-83		257	18		-84		230	14		-75		212	18		-60				170																										
150		-68		275	46	447	-71		255	43	448	-73		268	36		-72		239	24		-71		264	14	451	-77		269	14	451	-76		258	10		-73		215	14		-61				150																										
130		-67		273	58		-75		254	48		-72		271	35		-65		264	34		-67		264	15		-72		287	15		-75		264	11		-70		197	08		-67				130																										
110		-72		276	48		-74		259	47		-71		279	37		-67		262	21		-68		267	08		-70		324	11		-72		284	08		-70		315	08		-67				110																										
100	533	-72		274	56	529	-76		260	50	532	-73		269	36	534	-69		262	21	537	-69		251	09	535	-70		296	05	534	-73		330	08	535	-71		347	12	5343	-72		-74				100																								
90		-69		274	55		-78		259	49		-77		269	36		-71		267	24		-71		250	09		-74		299	04		-76		346	09		-72		347	09		-74				90																										
80		-70		273	46		-79					-81		277	37		-75		276	33		-73		273	10		-76		301	07		-77		314	08		-74		321	09		-77				80																										
70		-70										-81		279	34		-77		282	34		-74		263	13		-76		303	16		-78		305	14		-74		300	10		-80				70																										
60	068mb	-73									635	-84		265	38		-76		280	35		-72		266	30		-72		298	21		-86		300	14		-76		306	10							60																									
																																	Inversion 950mb 38°-938mb 39° 872mb 34°-858mb 35° Isothermal 858mb-817mb 35° 673mb-663mb 20°				Inversion 937mb 38°-892mb 49°				Inversion (718mb)-78 1028mb 52°-1000mb 54°				Inversion 980mb 47°-963mb 49°				Inversion 1029mb 52°-990mb 53° 980mb 52°-900mb 54° Isothermal 900mb-850mb 54°				Inversion 958mb 50°-943mb 52° Isothermal 943mb-900mb 52°				Inversion 950mb 50°-915mb 53° Isothermal				Inversion 840mb 46°-828mb 48° Isothermal 670mb-650mb 30°				Inversion 908mb 39°-898mb 45° 457mb 13°-450mb 12° Isothermal. 950-932mb 42°							
																																	Tropopause I 187mb-82° 40,300'				Tropopause I 200mb-89° 38,700'				Tropopause I 184mb-92° 40,800'				Tropopause I 200mb-84° 39,000'				Tropopause I 190mb-83° 40,400'				Tropopause II 185mb-87° 41,000'				Tropopause I 183mb-89° 41,100'				Tropopause II 208mb-79° 38,400'				Tropopause II 230mb-73° 36,000'				Tropopause			
Station	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				Station																																			
	Time M.S.L. Surf Pressure	21h		G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.		21h	G.M.T.																																									
		1028.2 1017.9 760	mb mb mb	1026.7 1024.5 740	mb mb mb		1028.8 1019.8 760	mb mb mb		1028.8 1019.8 760	mb mb mb		1030.6 1025.6 666	mb mb mb		1031.4 1014.9 664	mb mb mb		1031.0 1020.1 712	mb mb mb																																																				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																			
Surf	02.7	43	43	113	09	00.5	45	41	190	08				02.3	39	38	Calm								01.2	50	46	160	06	4.4	46	41	Calm		02.9	47	44	130	05					Surf																												
1000	07.4	41	41	120	12	07.0	42	38	191	15				07.6	46	44	217	08							09.1	53	47	228	15	8.3	48	42	209	08	08.3	51	44	191	21					1000																												
950		37	36	130	13		35	32	196	19					47	42	223	13								50	37	250																																												

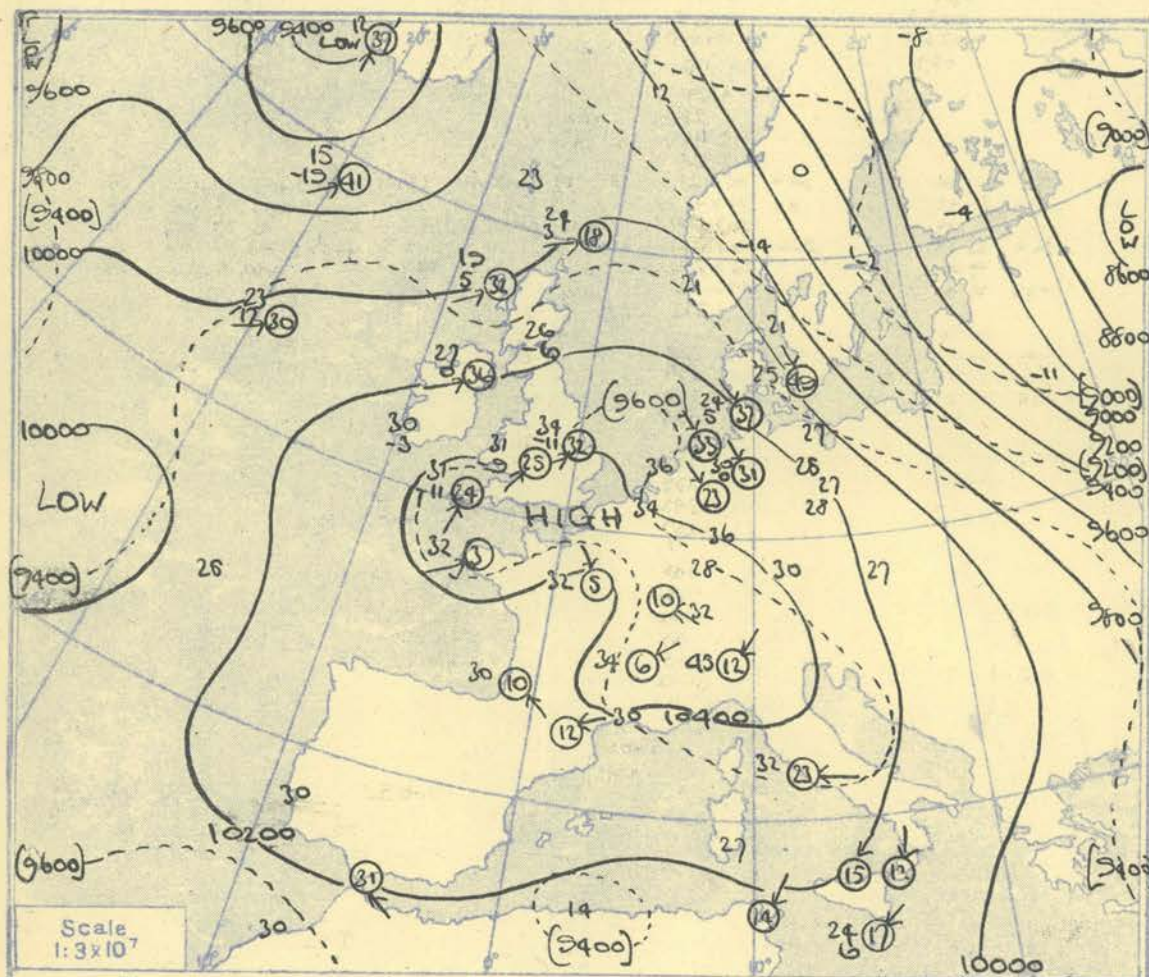


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																	
Pressure	Time	03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		Time																			
	M.S.L.	1025.3		mb		1024.6		mb		1025.9		mb		1028.9		mb		mb		1029.8		mb		1031.4		mb		1031.4		mb		1020.3		mb		M.S.L.																			
	Freezing	1015.0		mb		1022.7		mb		1025.0		mb		1019.9		mb		mb		1024.4		mb		1014.3		mb		1014.3		mb		1031.0		mb		Freezing																			
		793				790				757				772						689				725				705				710																							
Pressure	Height	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Temp.	Dew	Wind	Dir.	Vel.	Pressure																		
mb	ft./100	°F.	°F.	°F.	°F.	knots	°F.	°F.	°F.	°F.	knots	°F.	°F.	°F.	°F.	knots	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	mb																		
Surf	02.7	42	42	57	13	00.5	45	43	200	05	00.2	37	35				02.3	41	41	240	05					04.4	31	31	CALM	02.9	47	46	CALM	00.3	50	49	170	07	Surf																
1000	06.6	41	41	151	19	06.5	43	41	222	18	06.7	42	36				07.6	42	42	260	12					8.1	37	34	299	12	08.3	48	40	L.V.	7.8	49	47	186	13	1000															
950		36	34	151	18		39	37	239	18		47	32					44	37	276	15						50	28	281	12		50	31	258	10		43	39	205	21	950														
900	34.6	30	35	169	12	34.6	35	34	258	24	35.3	46	24				35.9	40	27	268	19					36.6	47	23	264	14	37.2	50	20	242	15	36.3	43	32	214	23	900														
850		33	24	205	11		29	28	262	29		43	26					36	11	248	22						44	15	246	16		46	07	240	16	40	15	216	23	850															
800	65.7	32	13	226	15	65.5	30	22	238	29	66.9	37	20				67.2	35	16	248	26						68.3	45	01	239	18	69.0	43	1	229	18	67.8	38	3		800														
750		29	07	233	16		26	12	237	31		31	11					29	04	253	31							37	03	241	21		39	13	223	22		38	1		750														
700	100	24	03	237	18	100	19	05	224	32	102	26	06				102	27	00	248	26							31	09	229	25	104	31	11	219	24	103	30	3		700														
650		17	2	237	20		12	8	230	36		20	25					20	02	235	34							24	20	216	28		24	11	219	22		22	0		650														
600	139	09	17	240	21	139	04	19	234	43	141	14	40				141	13	05	240	36							15	24	221	29	144	17	22	224	25	143	15	6		600														
550		00	16	244	22		5	31	236	46		09	13					00	08	242	40							05	34	222	31		08	38	216	29		7	12		550														
500	184	9	29	240	25	183	7	36	237	59	187	02	17				187	04	15	237	48							189	03	40	228	30	189	3	48	215	33	188	3	19		500													
450		19	41	233	29		16	43	238	74		13	28					15	17	255	52							189	03	40	228	30	189	3	48	215	33	188	3	19		450													
400	237	32	53	238	34	236	31	55	241	72	240	26	38				240	26	38	241	52							241	30	40	234	35	242	26	58	220	36	241	25	39		400													
350		43		252	49		44		240	81		40	50					40	51	243	48							45		254	37		39	59	219	33		38	52		350														
300	300	60		249	47	299	59		239	74	304	55					304	57		240	48							305	60		236	39	307	55		217	33	306	52		300														
250		73		240	43		71		238	73		73					387	75		249	60							387	77		238	38		70		27		70		250															
200	384	81		245	40	383	75		243	46	388	73					387	79		244	41							387	89		242	27	391	82		221	30	390	74		200														
170		76		257	42		69		240	43		71						72		252	36							79		257	22		78		237	24		64		170															
150		71		273	31	443	71		238	40		70					447	67		260	38							75		303	16		72		278	12		61		150															
130		72		284	46		72		262	45		68						66		270	45							73		318	15		68		316	09		63		130															
110		74		293	50		74		272	45		67						70		263	42							77		340	20		67		338	18		68		110															
100	(105.6)	76				527	73		270	43	532	70					531	75										79		357	18	534	66		506	72		76		100															
90							77					73						78											80		353	20				76		76		90															
80							80					75						81											83		342	20				81		81		80															
70																																								70															
60																																							60																
Inversion		327 to 333 - 700 to 36°		866 to 32 - 836 to 35°		Inversion		821 to 27 - 790 to 32°		516 to 9 - 508 to 7°		Isothermal		670 to 660 to 14°		508 to 465 to 7°		Inversion		Surf 37 - 972 to 48°		Inversion		Surf 41 - 966 to 45°		850 to 36 - 825 to 38°		Inversion		Surf 42 - 993 to 53°		929 to 18 - 900 to 50°		870 to 48 - 857 to 50°		Isothermal		993 to 960 to 53°		511 to 500 to 03°		Inversion		Surf 42 - 993 to 53°		929 to 18 - 900 to 50°		870 to 48 - 857 to 50°		Isothermal		993 to 960 to 53°		511 to 500 to 03°	
Tropopause		I 222 mb - 81°		36200'		I 210 mb - 77°		27300'		I 223 mb - 81°		36600'		I 214 mb - 84°		37300'		I 189 mb - 86°		40200'		II 216 mb - 89°		37100'		II 205 mb - 82°		38500'		I 224 mb - 81°		26700'		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause									
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																	
Pressure	Time	09h		G.M.T.		09h		G.M.T.		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.	1021.9		mb		1021.9		mb		mb		1028.4		mb		mb		1029.7		mb		1030.4		mb		1030.4		mb		1020.4		mb		1021.5		mb		M.S.L.																		
Freezing	1011.6		mb		1020.1		mb		mb		1019.6		mb		mb		1023.1		mb		1013.5		mb		1013.5		mb		1021.5		mb		1021.5		mb		Freezing																		
		912																																																					



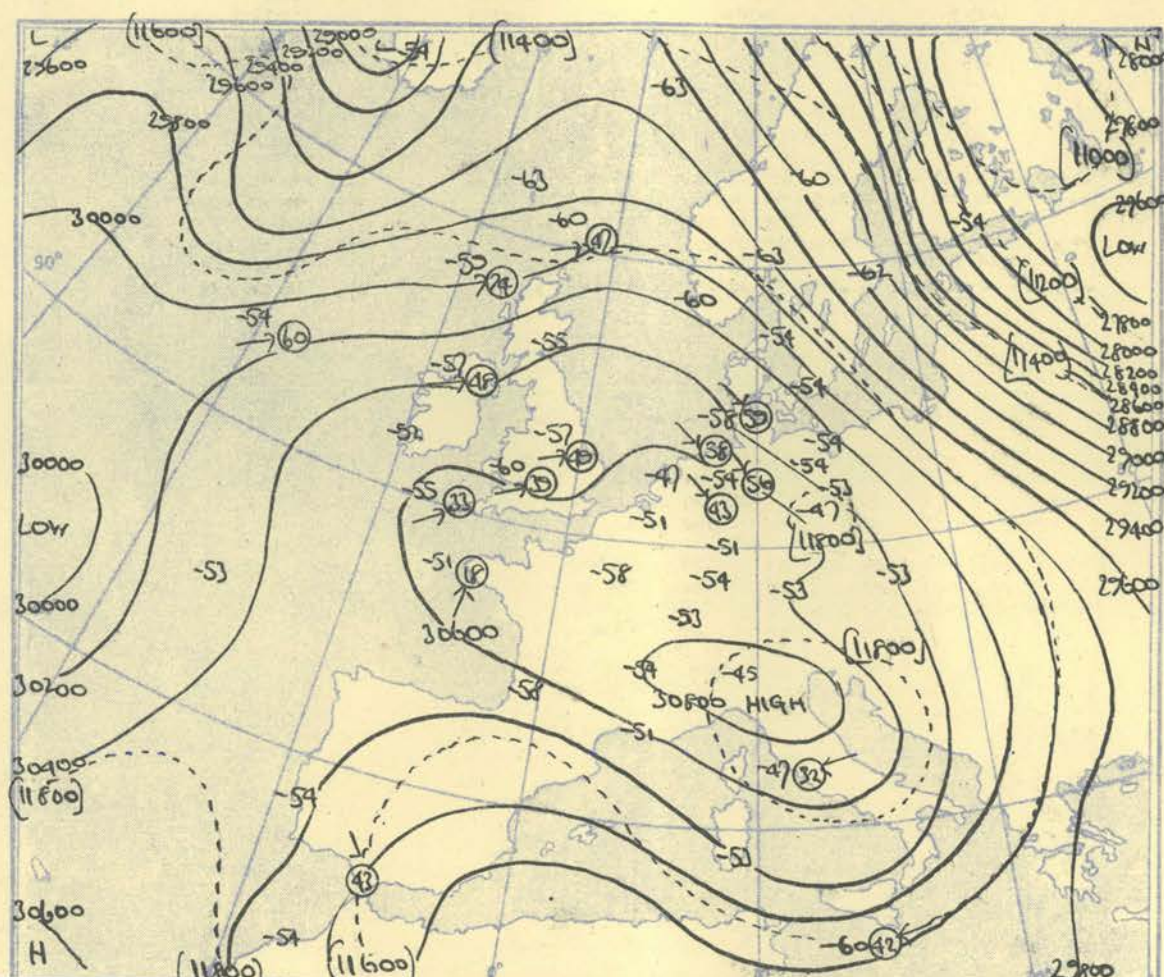
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb. levels at about 03 h. G.M.T.



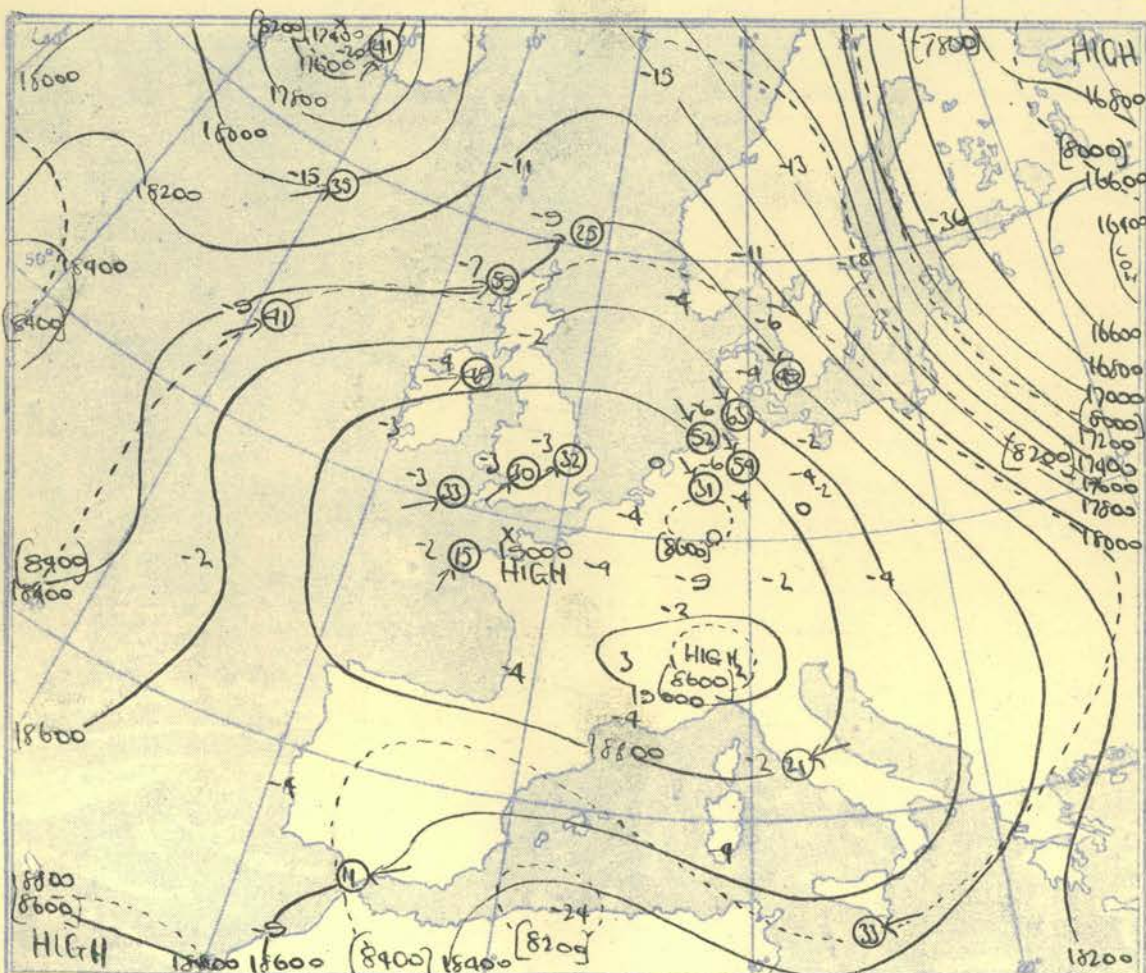
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

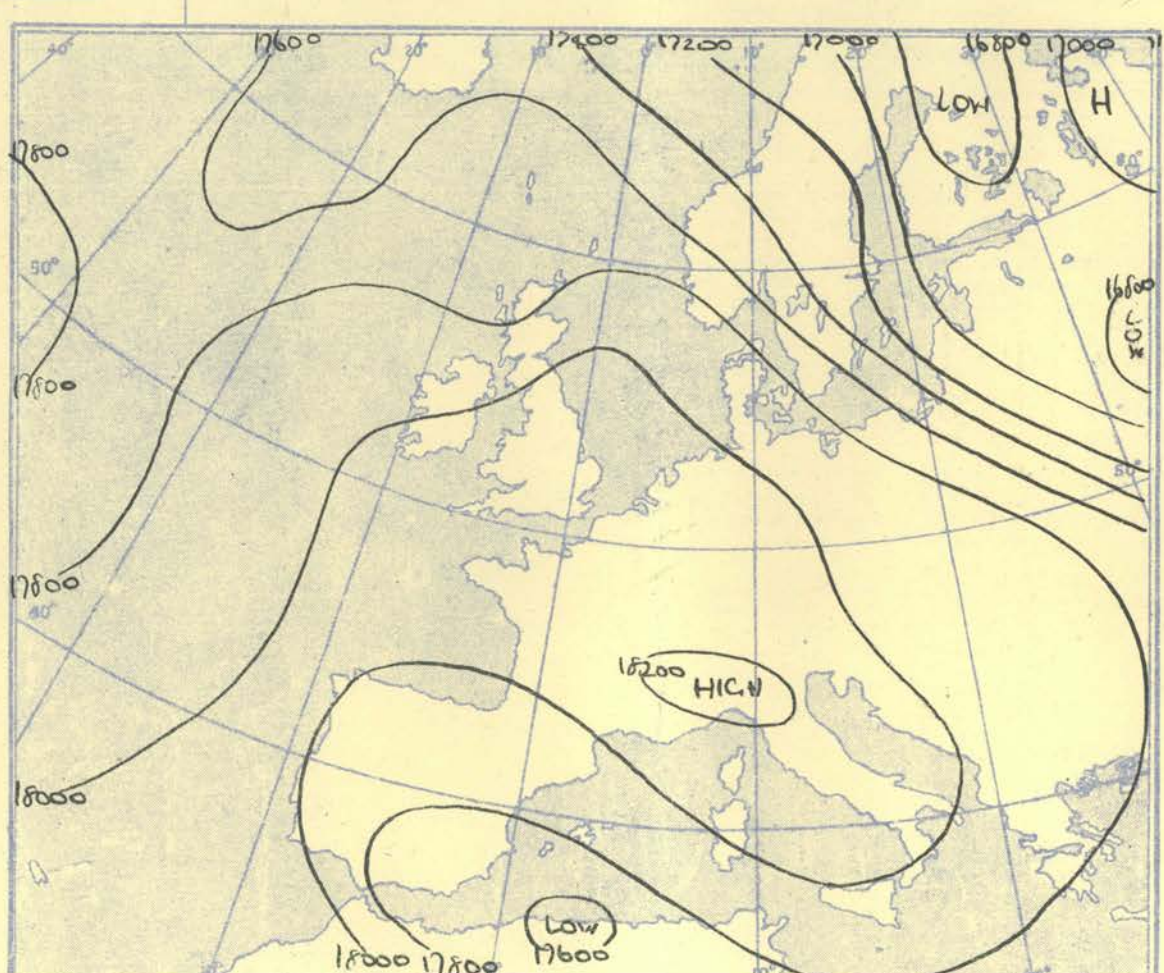
100 80 60 40 20 10 knots



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.





## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

Place	Downham	Biggin Hill	Lympe	Liverpool	Leuchars																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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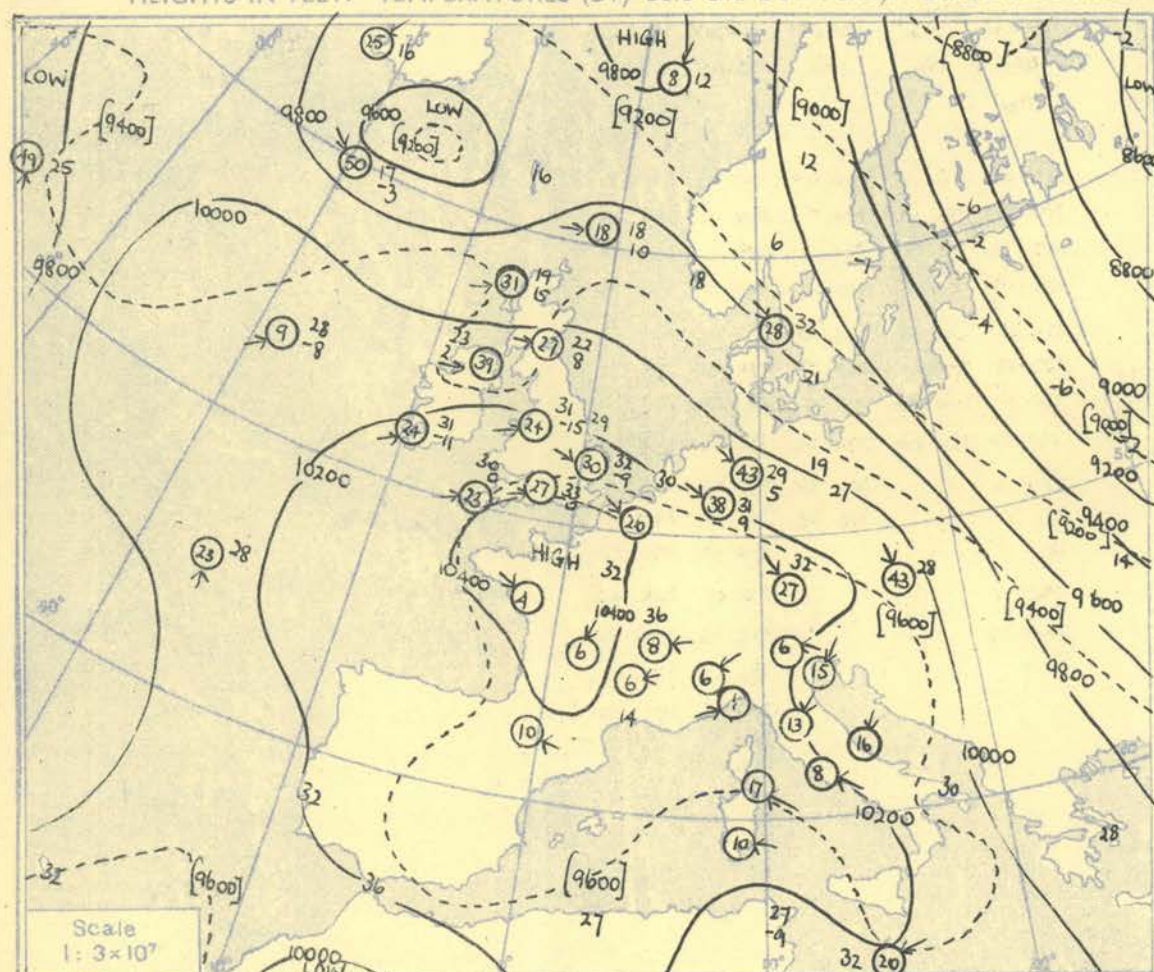
## NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				Ship																																																																						
Lat/Long	59.6N		18.4W		54.2N		18.7W		59.8N		19.7W		53.8N		18.6W		59.8N		19.8W		53.8N		18.6W		59.8N		20.1W		53.6N		18.5W		Lat/Long																																																														
Pressure	Time	03h		G.M.T.		03h		G.M.T.		09h		G.M.T.		09h		G.M.T.		15h		G.M.T.		15h		G.M.T.		21h		G.M.T.		21h		G.M.T.	Time																																																														
	M.S.L.	1013		mb		1021		mb		1012		mb		1022		mb		1014		mb		1023		mb		1014		mb		1023		mb		M.S.L.																																																													
	Surf	1013		mb		1021		mb		1012		mb		1022		mb		1014		mb		1023		mb		1014		mb		1023		mb		Surf																																																													
	Freezing	910		mb		780		mb		910		mb		800		mb		880		mb		730		mb		850		mb		770		mb		Freezing																																																													
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure																																																														
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb																																																														
Surf		46	40	230 19		48	48	018 18		45	43	235 21		48	44	030 18		45	43	270 23		44	45	045 18		47	46	310 23		47	39	045 25	Surf																																																														
1000	3.6	44	37	209 30	5.5	47	43	029 18	3.1	43	40	250 24	5.9	44	40	025 24	3.9	43	41	273 23	6.3	46	40	030 18	5.2	44	43	320 26	6.0	43	36	044 28	1000																																																														
950		37	26	220 33		45	38	330 06		37	33	255 21		39	34	026 17		38	37	279 24		39	32	032 14		37	37	320 25		37	31	045 18	950																																																														
900	31.6	30	22	229 31	34.0	33	35	241 10	31.1	31	26	261 22	34.1	39	34	055 05	31.9	34	34	287 33	34.5	40	34	038 10	33.2	33	30	324 24	34.1	35	31	069 12	900																																																														
850		25	14	231 28		39	33	202 12		27	22	268 24		36	30	140 03		28	27	300 36		39	32	049 07		32	23	337 23		34	31	124 11	850																																																														
800	102	27	07	225 31	65.4	34	28	202 24	61.6	22	14	275 26	66.3	32	27	212 05	62.5	23	20	301 37	65.9	35	25	117 06	64.2	31	16	339 30	65.2	33	23	130 09	800																																																														
750		21	14	217 40		29	24	202 30		20	06	275 29		26	12	218 07		19	06	308 39		34	00	178 08		27	01	335 42		31	10	134 08	750																																																														
700	96.5	15	19	212 41	101	23	17	204 30	95.7	16	05	275 35	99.9	21	14	210 18	96.6	17	03	301 50	101	28	08	219 09	98.8	20	11	332 46	100	26	03	139 07	700																																																														
650		09	24	205 44		17	09	208 34		07	10	275 37		16	31	207 24		14	12	300 59		17	17	232 10		13	19	330 48		18	07	147 07	650																																																														
600	135	02	20	202 43	140	10	10	206 39	134	02	17	275 41	139	10	43	207 24	135	11	26	303 70	140	07	19	223 14	138	12	23	330 59	134	10	11	141 12	600																																																														
550		05	20	198 45		00	23	206 37		04	22	272 45		03	41	224 22		07	38	303 80		05	22	192 15		05	33	330 60		02	22	134 16	550																																																														
500	179	15	23	198 55	185	04	37	206 41	178	16	34	278 45	184	06	44	232 30	181	04	47	307 92	185	07	32	152 15	183	05	43	330 63	184	07	20	135 21	500																																																														
450		23	37	196 62		17	37	209 66		24	46	284 52		18	52	238 36		15	56	311 94		20	43	170 06		17	58	330 68		16	31	130 30	450																																																														
400	231	35	44	197 67	237	28	39	210 76	230	33	56	307 100	237	21	58	229 36	234	26	58	311 89	237	32	53	161 22	236	24	56	325 69	237	29		122 18	400																																																														
350		49		198 66		42		210 72		44		321 96		45		220 28		43		311 93		43		152 29		43		326 72		43		124 18	350																																																														
300	(303)	62			301	54		212 60	294	54		322 77	300	59		220 06	298	55		311 81	301	54		163 27	299	58		329 77	(328)	47			300																																																														
250						62		221 54		63		308 58		67		CAL M		66		309 74		70		175 23		75		325 71					250																																																														
200								220 36	380	58		296 39	385	68		223 28	383	67		320 46	387	67		177 21	383	74		323 40					200																																																														
170								222 32		61		292 37		65		232 28		65		303 42		63		180 22		68		322 33					170																																																														
150						59		224 38		63		278 29		63		242 28		66		291 40		62		209 24		71		315 32					150																																																														
130						60		225 39		71		267 44		68		247 36		68		291 36		61		247 35		74		308 31					130																																																														
110						61		228 34		77		252 48		67		245 40		71		296 33		65		244 39		78		307 19					110																																																														
100						539	64	214 33	526	77		252 46	531	69		244 32	533	72		294 32		70		243 40		81		309 30					100																																																														
90						67		226 40		80		251 45	095	70		244 29		73		294 29		75		244 48		82		316 02					90																																																														
80						77		226 48		83		249 44				293 28		77		293 28		79		244 54		85		311 34					80																																																														
70								215 40								291 30		81		288 36		80		236 38		87		312 40					70																																																														
60																284 38		86		284 38	(058)	81				90		321 26					60																																																														
Inversion				850 mb 25°-835 mb 21°				Isothermal				835 - 800 mb 27°				Inversion				800 - 775 mb 22°				460 - 450 " - 24°				Inversion				960 mb 38°-912 mb 40°				Isothermal				612 - 600 mb 11°				Inversion				950 mb 39°-905 mb 41°				780 - 32°-750 - 34°				Isothermal				885 - 850 mb 39°				609 - 600 " - 07°				Inversion				623 mb 08°-600 mb 12°				955 mb 36°-933 mb 39°				900 - 35°-888 " - 36°				Isothermal				835 - 787 mb 33°				Inversion			
Tropopause	NR.				I 276 mb - 64° 31.900'				I 236 mb - 67° 34.600'				I 228 mb - 72° 35.600'				I 242 mb - 68° 34.300'				I 239 mb - 75° 34.900'				I 243 mb - 77° 34.500'				NR.				Tropopause																																																														

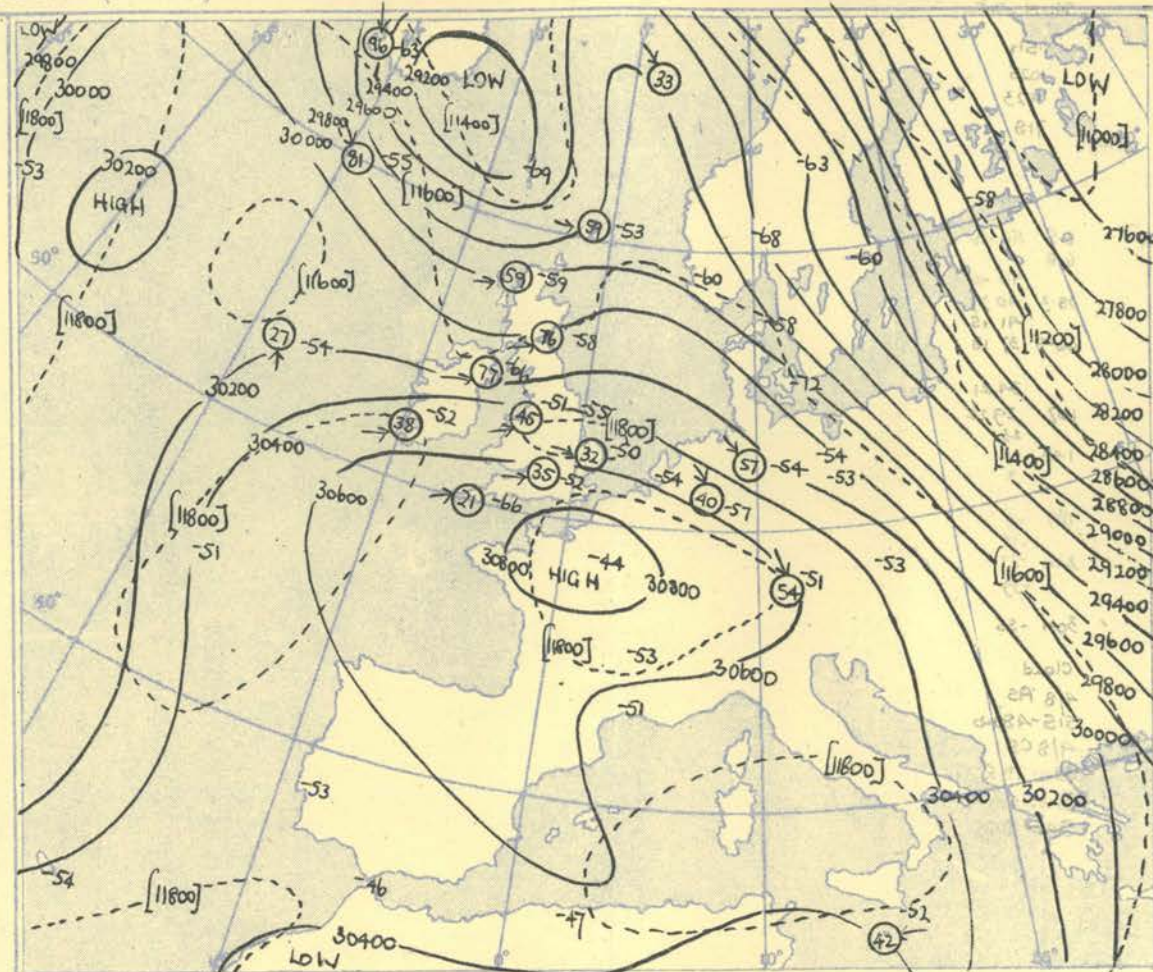




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

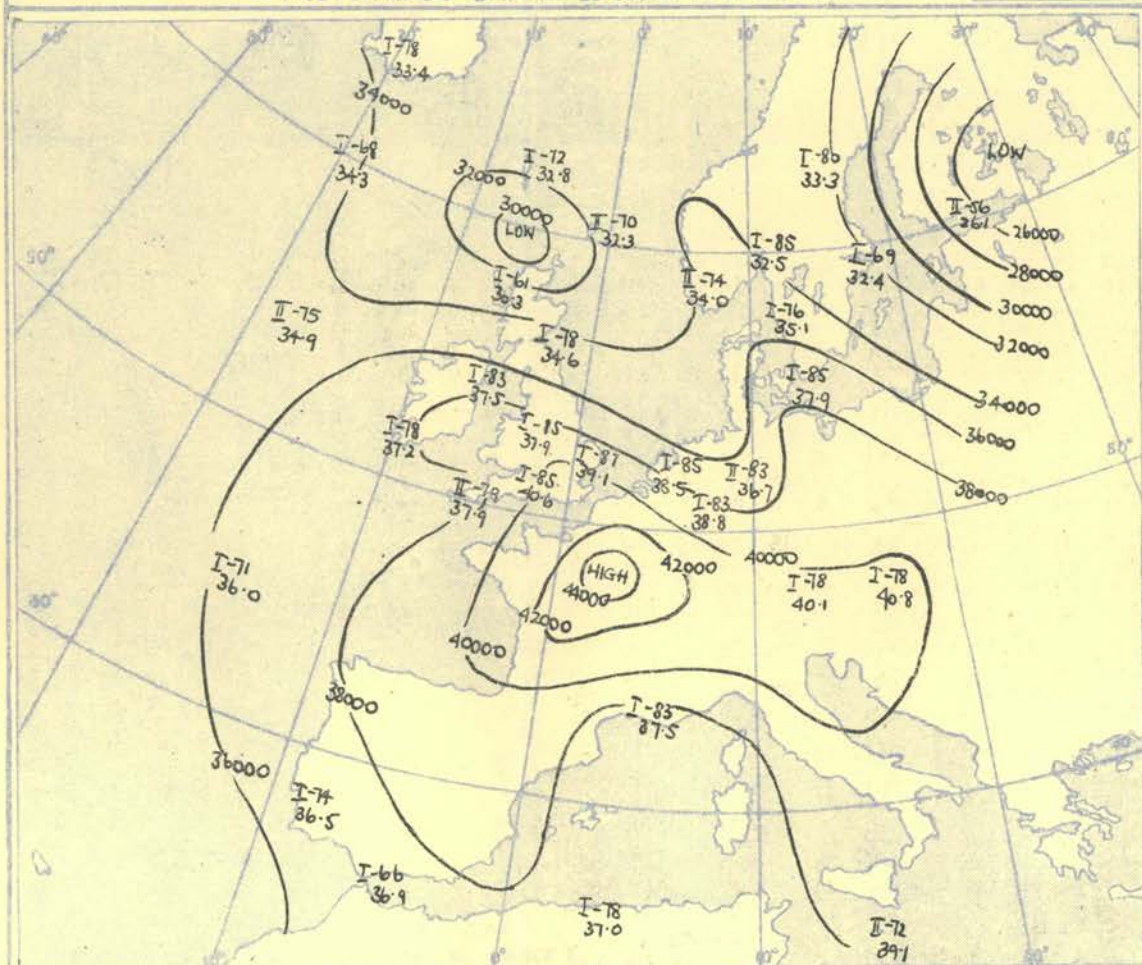
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

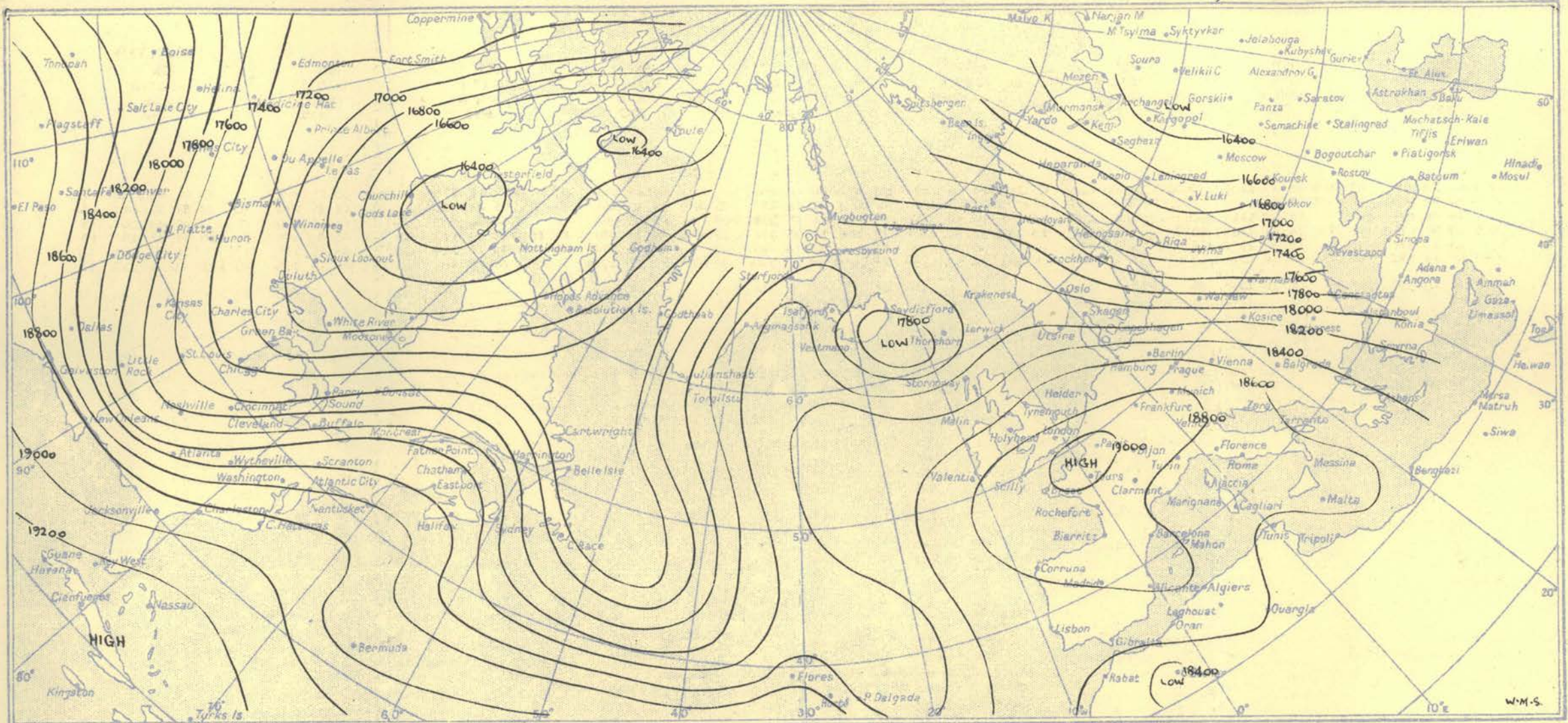
### NOTES ON THE AEROLOGICAL SITUATION.

A cold pool formed near Iceland and moved southeastwards towards Scotland. Very cold air spread southeastwards into the Atlantic from the Newfoundland area, associated with the surface depression in mid-Atlantic. There was rapid warming in the western Mediterranean.

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

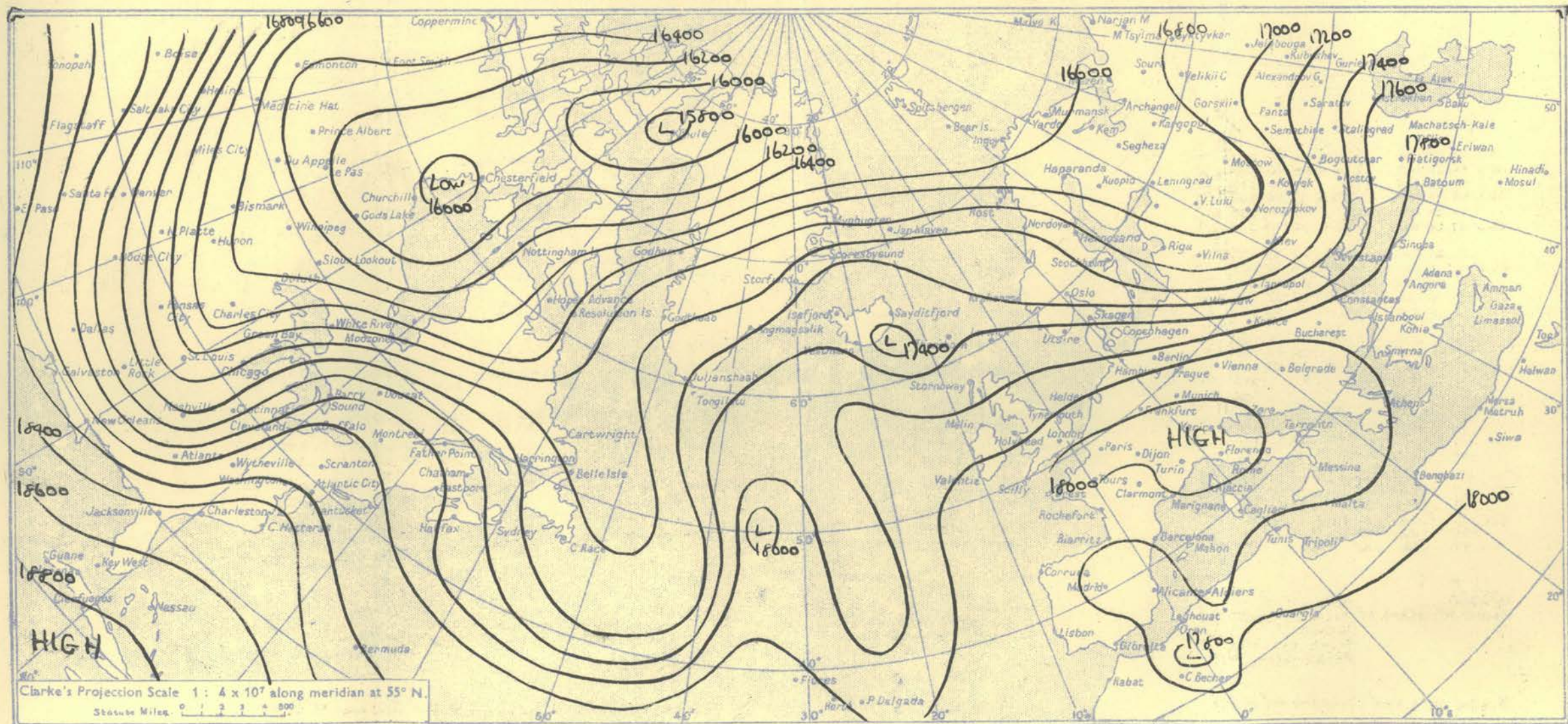




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

8<sup>th</sup> March

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.)

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.		15h		G.M.T.		15h		G.M.T.		Time M.S.L.																																																	
Surf		1020.4		mb		1019.5		mb		1022.8		mb		1027.1		mb		1027.0		mb		1025.5		mb		1027.1		mb		1019.2		mb		1030.0		mb		1027.6		mb		Surf																																																	
Freezing		892		mb		832		mb		782		mb		900		mb		705		mb		700		mb		692		mb		712		mb		710		mb		Freezing																																																					
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Pressure mb																																																		
Surf	02.7	41	38	112	10	00.5	49	47	220	10	00.2	51	46	220	12	02.3	49	46	260	08	00.6	51	44	286	10	01.2	56	44	290	07	04.4	57	45	170	08	02.9	50	47	315	3	00.3	55	48	190	7	Surf																																													
1000	05.4	40	38	146	14	05.2	48	45	220	10	06.1	49	42	263	27	07.3	47	45	261	16	07.3	48	42	287	15	06.9	53	41	300	13	7.5	55	41	280	12	08.0	48	45	274	10	7.4	51	46	197	14	1000																																													
950	36	35	155	10	4.4	40	221	30	4.6	36	273	2.4	3.9	38	259	17	4.4	40	308	09	4.8	33	293	15	5.4	36	275	14	5.2	41	269	13	4.5	41	201	15	4.5	41	201	15	950																																																		
900	33.3	33	191	0.4	33.6	33	34	236	30	34.5	39	30	272	23	35.4	32	32	259	15	35.6	36	35	281	13	35.5	48	31	281	18	36.4	50	29	272	15	36.8	49	31	259	16	35.9	41	33	221	18	900																																														
850	29	27	301	09	33	30	239	28	38	24	274	16	30	29	273	21	39	14	267	18	39	14	267	21	43	26	274	28	46	27	269	20	46	23	253	17	46	23	253	17	850																																																		
800	64.1	25	22	282	13	64.7	29	28	236	27	65.8	34	11	259	15	66.1	26	22	265	27	66.9	34	11	263	21	67.1	39	17	274	31	68.3	41	17	267	24	69.5	40	15	255	18	67.2	40	2	232	18	800																																													
750	24	20	273	14	2.4	21	246	24	2.8	15	263	21	2.7	16	259	34	3.6	01	261	21	3.6	05	281	28	4.0	07	268	27	3.8	03	252	21	3.8	03	252	21	3.7	-8	234	22	3.7	-8	234	22	750																																														
700	09.9	18	10	210	18	09.1	19	15	258	31	10.4	22	02	257	27	10.1	23	02	259	33	10.2	31	-15	263	24	10.2	32	-09	281	30	10.4	33	00	266	27	10.4	30	00	247	23	10.25	31	-11	236	24	700																																													
650	13	07	271	19	13	08	261	41	16	00	267	37	18	03	260	41	18	03	265	30	18	03	265	30	25	-12	273	31	25	-08	262	27	25	-8	240	25	25	-8	240	25	25	-16	233	28	650																																														
600	137	06	-12	272	18	13.8	05	00	254	45	14.0	10	-08	261	44	14.0	10	-04	261	47	14.2	14	07	259	31	14.2	17	-19	271	33	14.3	18	-16	259	27	14.4	17	-21	235	25	14.23	16	-16	738	30	600																																													
550	03	-21	273	18	-4	-10	247	50	01	-20	262	52	01	-13	258	47	05	01	262	34	08	-27	276	36	10	-22	260	27	09	-37	232	23	09	-37	232	23	6	-19	240	27	6	-19	240	27	550																																														
500	182	-12	-31	278	28	182	-13	-20	242	51	18.4	-08	-26	263	58	18.5	-08	-13	254	51	18.7	-02	-06	264	40	18.8	-03	-36	270	37	18.9	-03	-34	259	32	18.9	-1	-44	229	24	18.77	-1	-21	239	25	500																																													
450	-22	-40	82	38	-24	-31	235	52	-19	-37	262	61	-19	-23	253	53	-12	-17	261	41	-11	-44	270	40	-13	-43	257	36	-13	-51	225	28	-11	-26	236	28	-11	-26	236	28	-11	-26	236	28	450																																														
400	23.4	-33	-46	281	51	23.4	-36	-44	235	68	23.7	-31	-42	260	63	23.7	-30	-34	255	62	24.0	-23	-28	263	42	24.1	-23	-54	274	34	24.2	-25	-53	253	34	24.2	-27	-59	228	26	24.10	-23	-47	243	36	400																																													
350	-48	268	60	238	69	-43	261	78	-42	265	66	-36	-43	262	47	-35	-58	271	29	-36	-60	258	33	-41	222	22	-35	-49	243	36	-35	-49	243	36	-35	-49	243	36	-35	-49	243	36	-35	-49	243	36	350																																												
300	29.7	-63	267	59	29.7	-59	243	59	30.1	-58	262	76	30.1	-56	257	77	30.5	-51	263	45	30.6	-50	274	32	30.7	-52	257	35	30.6	-56	234	21	30.58	-52	239	38	30.58	-52	239	38	30.58	-52	239	38	30.58	-52	239	38	300																																										
250	-69	271	48	383	04	263	54	385	-67	275	52	385	-75	281	56	389	-81	269	42	39.1	-83	278	36	39.1	-80	261	35	39.1	-79	230	21	39.06	-77	242	30	39.06	-77	242	30	39.06	-77	242	30	39.06	-77	242	30	250																																											
200	-67	282	43	60	268	33	-65	294	37	-71	272	35	-68	283	37	-76	282	42	-71	284	30	-69	273	18	-66	294	19	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	200																																										
170	-67	282	43	60	268	33	-65	294	37	-71	272	35	-68	283	37	-76	282	42	-71	284	30	-69	273	18	-66	294	19	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	170																																										
150	-67	282	43	60	268	33	-65	294	37	-71	272	35	-68	283	37	-76	282	42	-71	284	30	-69	273	18	-66	294	19	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	-59	261	26	150																																										
130	-68	294	36	-66	287	41	-66	287	41	-66																																																																																	

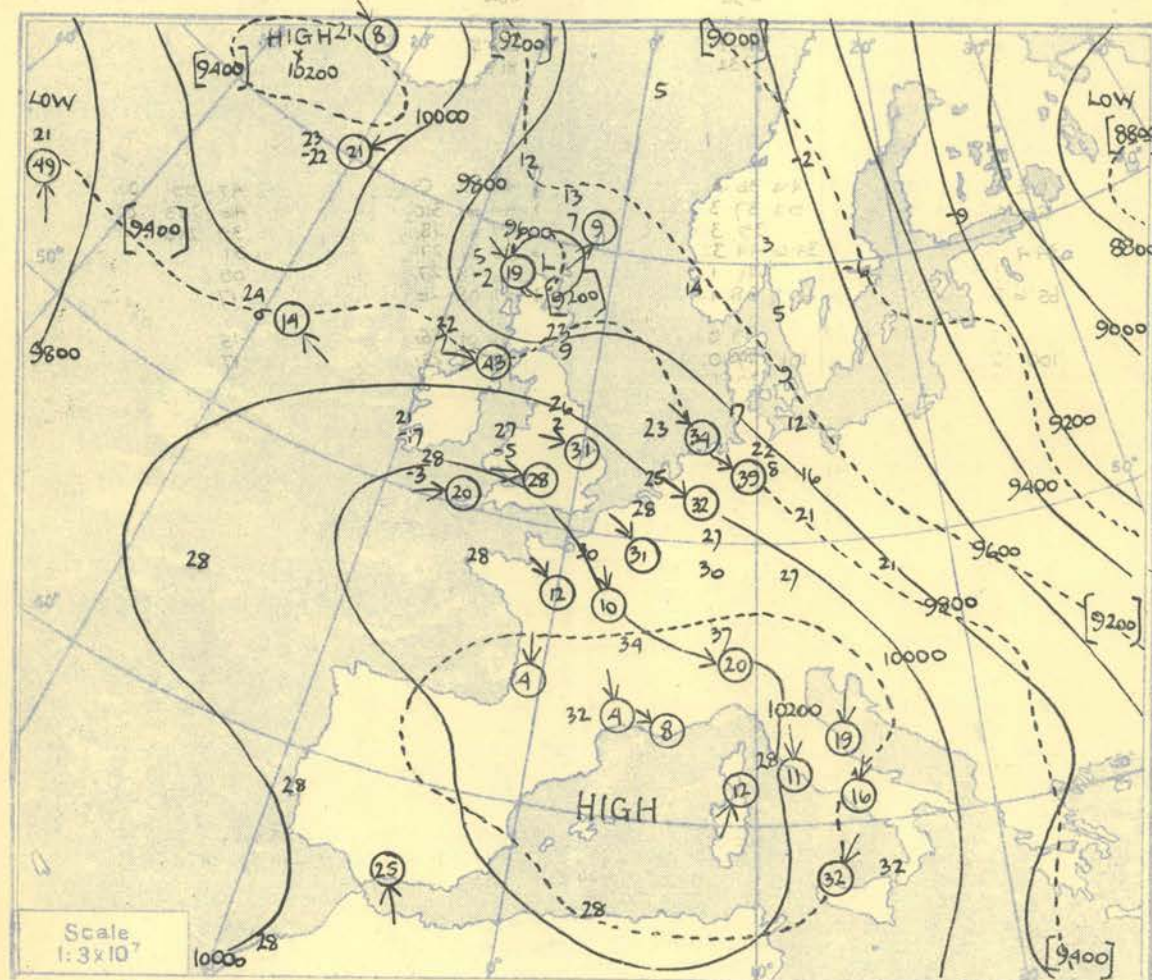


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Time M.S.L. Surf Freezing	034		G.M.T.		034		G.M.T.		034		G.M.T.		034		G.M.T.		034		G.M.T.		034		G.M.T.		034		G.M.T.		034		G.M.T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	1015.3	mb	1015.3	mb	1015.2	mb	1015.2	mb	1016.0	mb	1016.0	mb	1014.7	mb	1014.7	mb	1021.1	mb	1021.1	mb	1021.4	mb	1021.4	mb	1022.0	mb	1022.0	mb	1024.6	mb	1024.6	mb	1026.3	mb	1026.3	mb	1025.5	mb	1025.5	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb	1033.0	mb



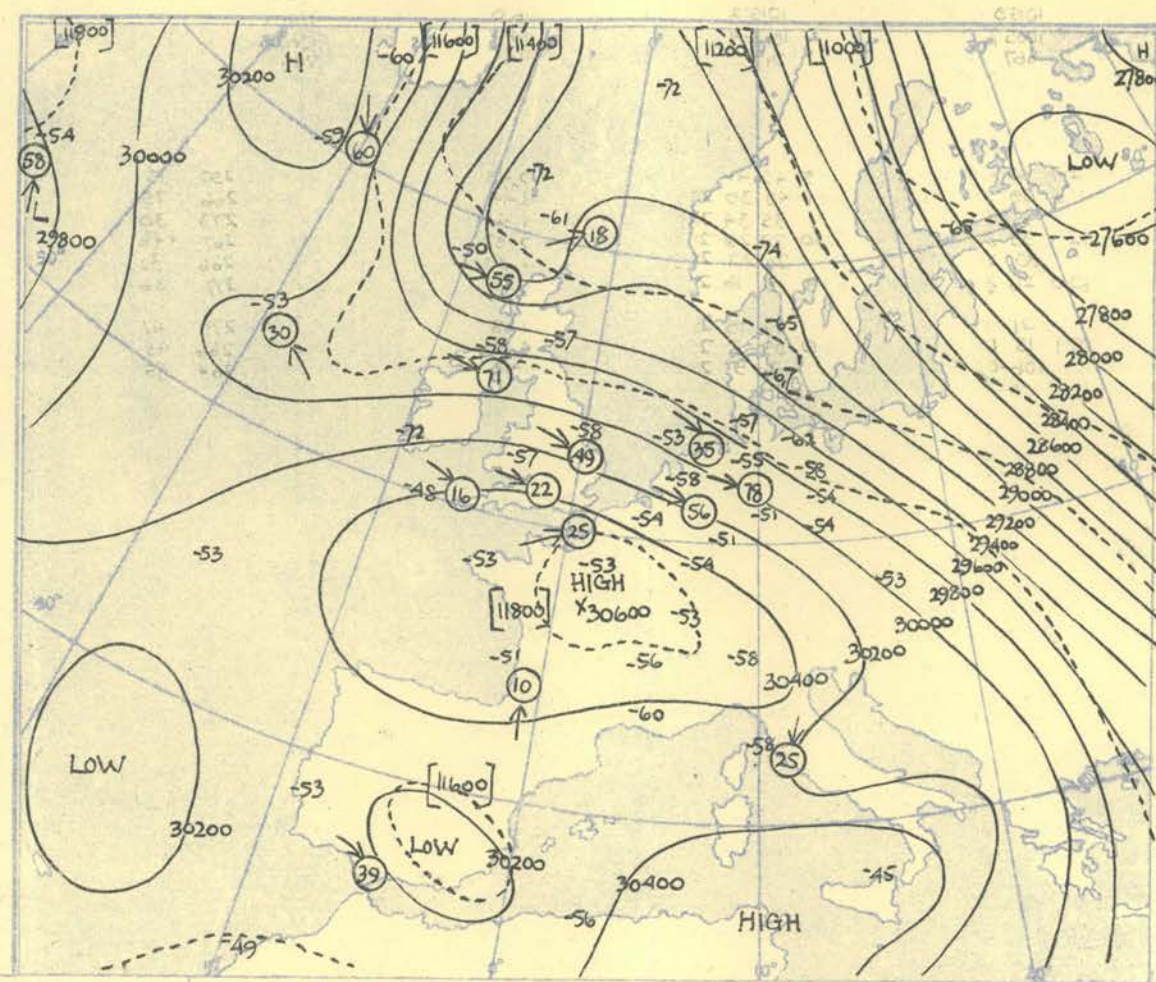
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



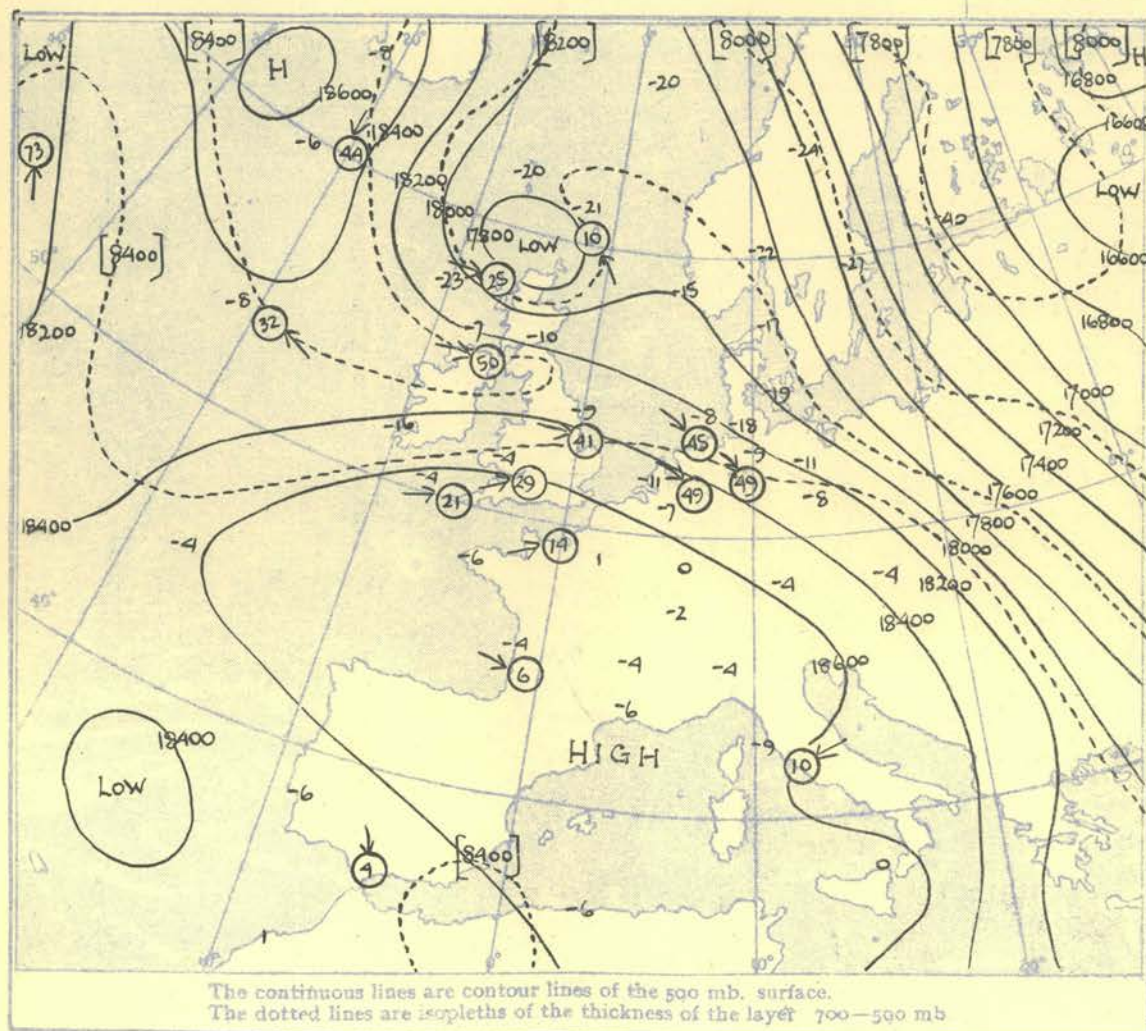
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

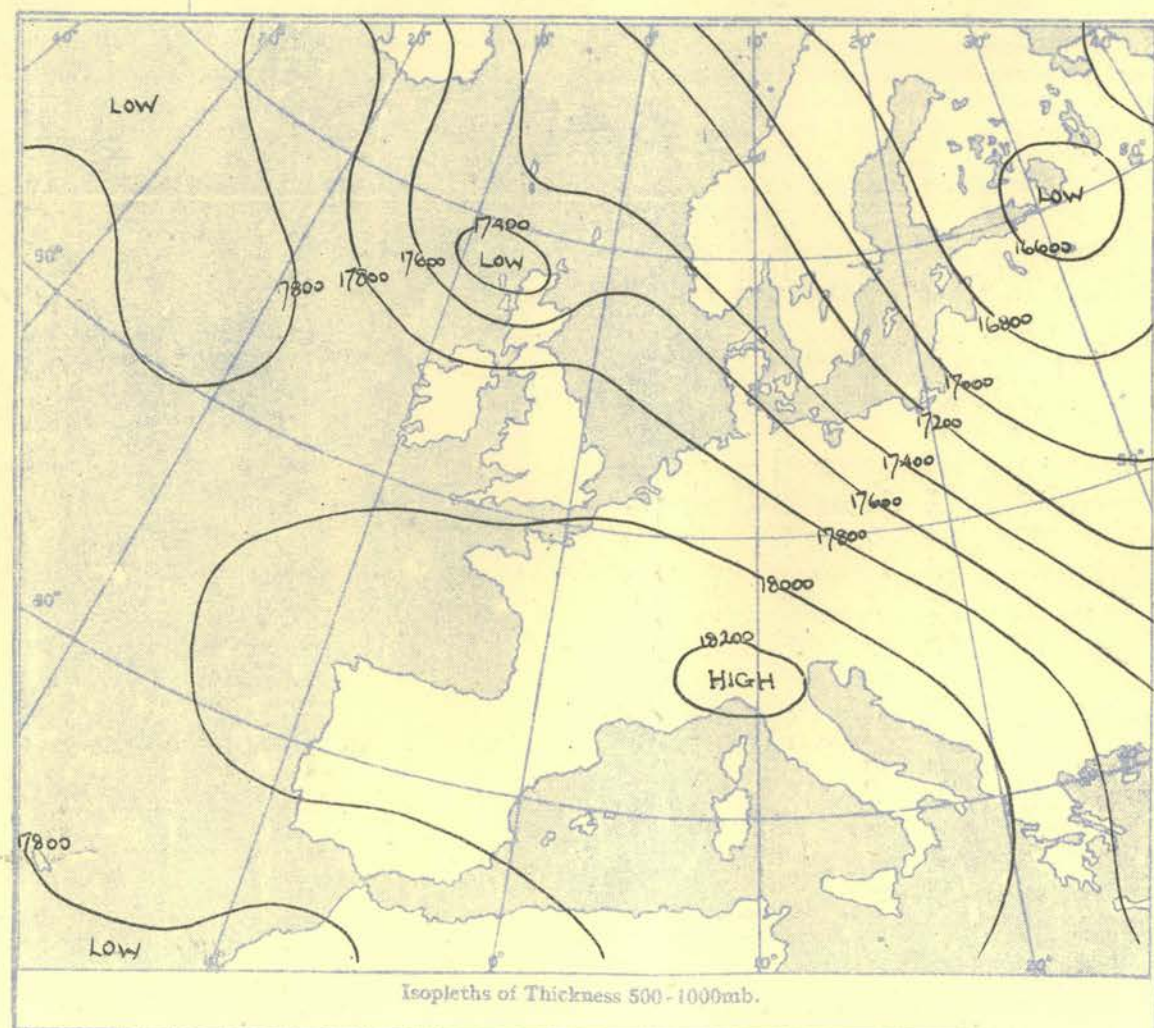
100 80 60 40 20 10 knots



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.



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



Isopleths of Thickness 500-1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Time	48°N 20°W	49°N 14°W	43°N 17°W	39°N 12°W	34°N 0°E	Time	Pressure
M.S.L.	1021 mb	1021 mb	1021 mb	1014 mb	1018 mb	M.S.L.	Pressure
Surf	1017 mb	1017 mb	1017 mb	1011 mb	1016 mb	Surf	Pressure
Freezing	825 mb	815 mb	730 mb	760 mb	860 mb	Freezing	Pressure
Pressure	Height	Temp	Dew	Height	Temp	Dew	Pressure
Surf	49.44	49.43	37.49	58.54	50.46	46.42	Surf
1000	5.6	47	5.6	49	4.8	46	1000
950	42	42	48	42	51	46	950
900	39	39	41	29	45	33.2	900
850	36	30	37	24	45	30	850
800	28	30	33	20	38	25	800
750	33	18	28	32	30	20	750
700	100	28	20	101	25	19	700
650	17	19	19	19	15	15	650
600	12	12	11	12	137	8	600
550	4	2	2	4	1	1	550
500	185-4	184-7	185-6	184-8	182-10	-20	500
450					235-30	-44	450
400							400
350							350
300	Inversion	Cloud.	Cloud.	Isothermal	28-61		300
250	800mb 28°	618 Sc	218 As	900-850mb	45°		250
200	750-33°	900-960mb	650mb				200
170	Cloud.	218 AsNR.	Surf wind.	Cloud.	618 Cu		170
	718 Sc		E-7-10kts.	118 As 650mb	250-800mb		
	940-890mb			418 Ac	750mb		
	Surf wind.	Surf wind.		Inversion	965mb 45°		
	Calm	Calm		E-7-10kts	950-46°		
				Isotermal.	1000-979mb 47°		
					750-700-19°		

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

Place	Ronaldsway	Shoebury	Leeming	Leuchars	Liverpool	Downham	Place
Time	15h.	15h.	15h.	21h.	21h.	21h.	Time
Type							Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	300	11	260	06	270	13	Surf.
1,000	290	21	280	17	230	22	1,000
2,000	310	17	290	18	230	25	2,000
3,000	320	10	310	18	270	19	3,000
4,000	310	13	310	18	240	15	4,000
5,000	320	19			014	34	5,000
6,000	310	22	300	15	230	22	6,000
8,000	310	18	280	30	230	32	8,000
10,000	310	26	280	27	260	25	10,000
14,000			280	27	046	36	14,000
18,000			270	35	042	52	18,000
24,000			270	37	048	54	24,000
30,000			280	42	041	33	30,000
40,000			290	39	313	40	40,000
50,000			300	54	298	54	50,000

## NEPHOSCOPE OBSERVATIONS

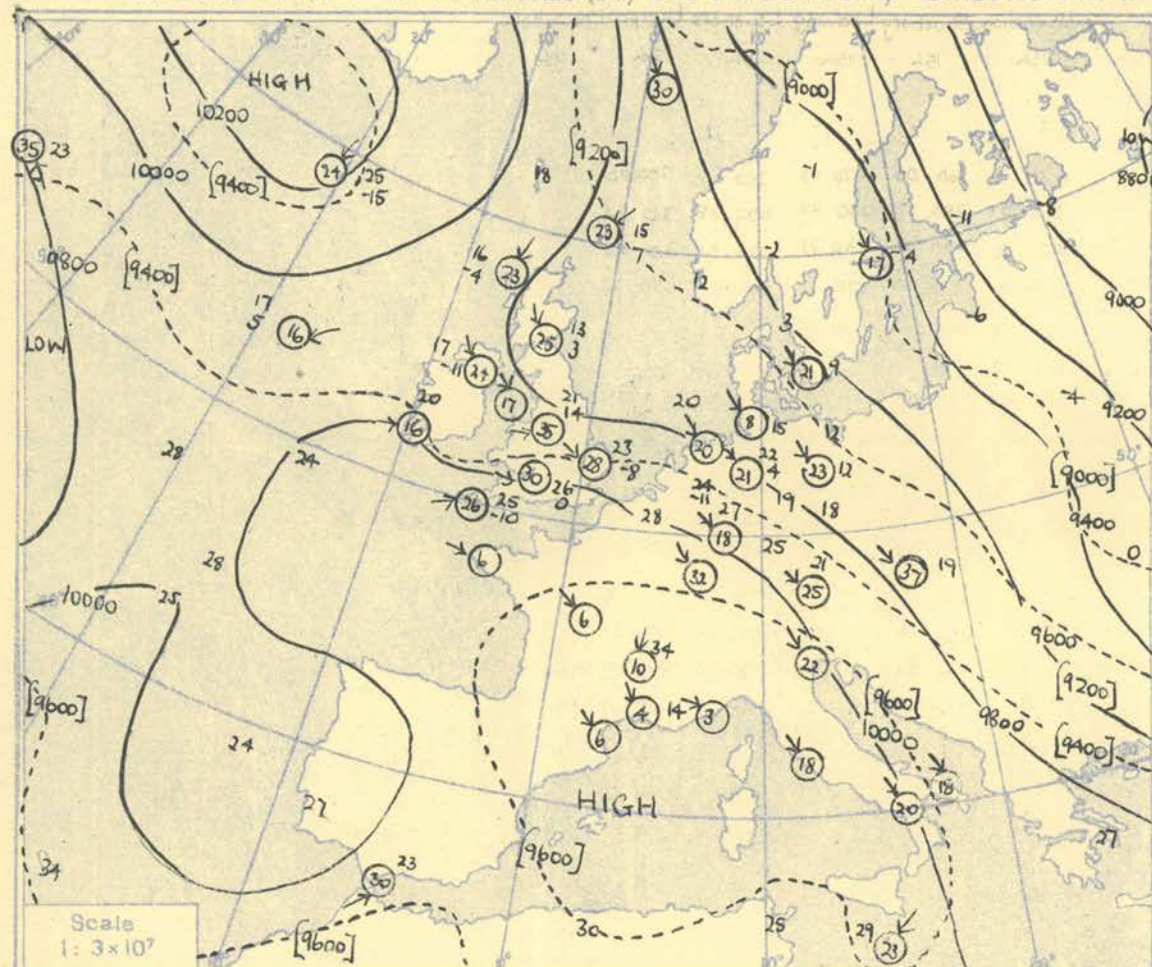
Place	Time	Type	Dir.	Vel.	Place	Time	Type	Dir.	Vel.

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

Ship	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	Ship
Lat/Long	69°N 20°W	53°N 18°W	59°N 20°W	53°N 18°W	59°N 20°W	53°N 18°W	59°N 20°W	53°N 18°W	Lat/Long
Time	03h	03h	09h	09h	15h	15h	21h	21h	Time
M.S.L.	1025	1022	1026	1020	1030	1021	1031	1021	M.S.L.
Surf	1025	1022	1026	1020	1030	1021	1031	1021	Surf
Freezing	870	800	790	840	765	850	890	890	Freezing
Pressure	Height	Temp	Dew	Wind	Height	Temp	Dew	Wind	Pressure
Surf	46	43	014	17	47	43	023	12	Surf
1000	6.6	42	36	024	21	45	40	059	1000
950	34.7	35	18	003	16	39	33	067	950
900	32	09	005	17	36	33	073	21	900
850	65.6	31	01	027	22	35	28	078	850
800									800
750	78	-05	050	20	27	11	044	19	750
700	100	23	-22	059	21	24	004	22	700
650	17	-33	042	22	17	-09	037	25	650
600	139	12	-41	021	21	139	08	-17	600
550	03	-50	356	40	-01	-22	115	27	550
500	185	-06	60	369	44	183	-08	-28	500
450	237	-15	-56	005	66	19	-35	116	450
400		-39	-56	004	57	236	-31	-47	400
350		-43		347	61	-42		104	350
300	301	-59		354	60	300	-53	101	300
250		-75		348	68	-67		121	250
200	385	-76		320	42	385	-61	216	200
170		-69		309	17	-62		232	170
150						-65		244	150
130						-68		260	130
110						-70		258	110
100						-74		249	100
90						-77		236	90
80									80
70									70
60									60
Inversion	937mb 35°-918mb 38°	Inversion	883mb 26°-860mb 37°	Inversion	944mb 35°-922mb 39°	Inversion	900mb 35°-870mb 36°	Inversion	878mb 30°-846mb 36°
Isotermal	870-813mb	Isotermal	888-829mb 36°	Isotermal	424-412mb -28°	Isotermal	825-800mb 34°	Isotermal	850mb 26°-810mb 27°
Tropopause	I 245mb -76°	I 213mb -71°	I 245mb -76°	I 250mb -64°	I 236mb -85°	I 238mb -60°	I 164mb -96°	I 229mb -70°	Tropopause



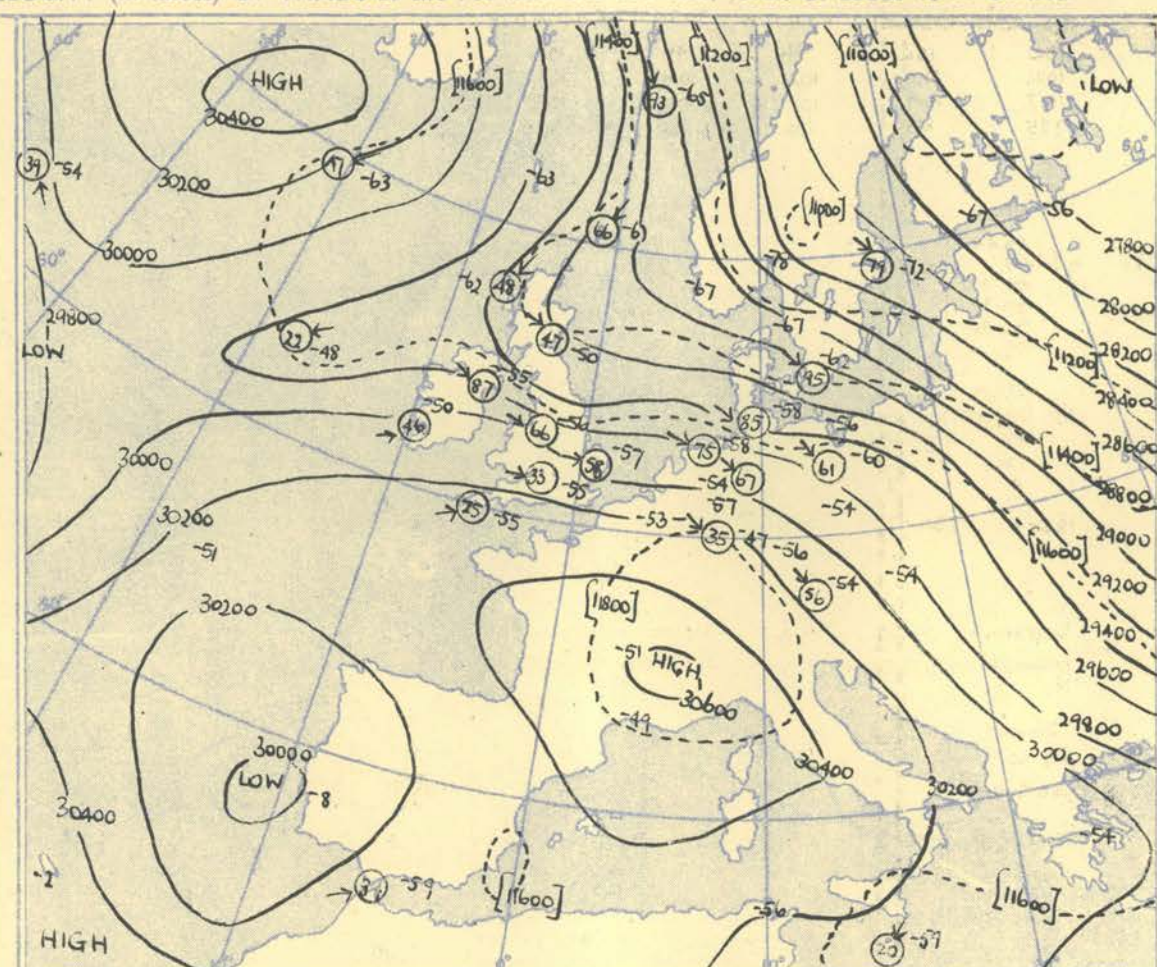
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

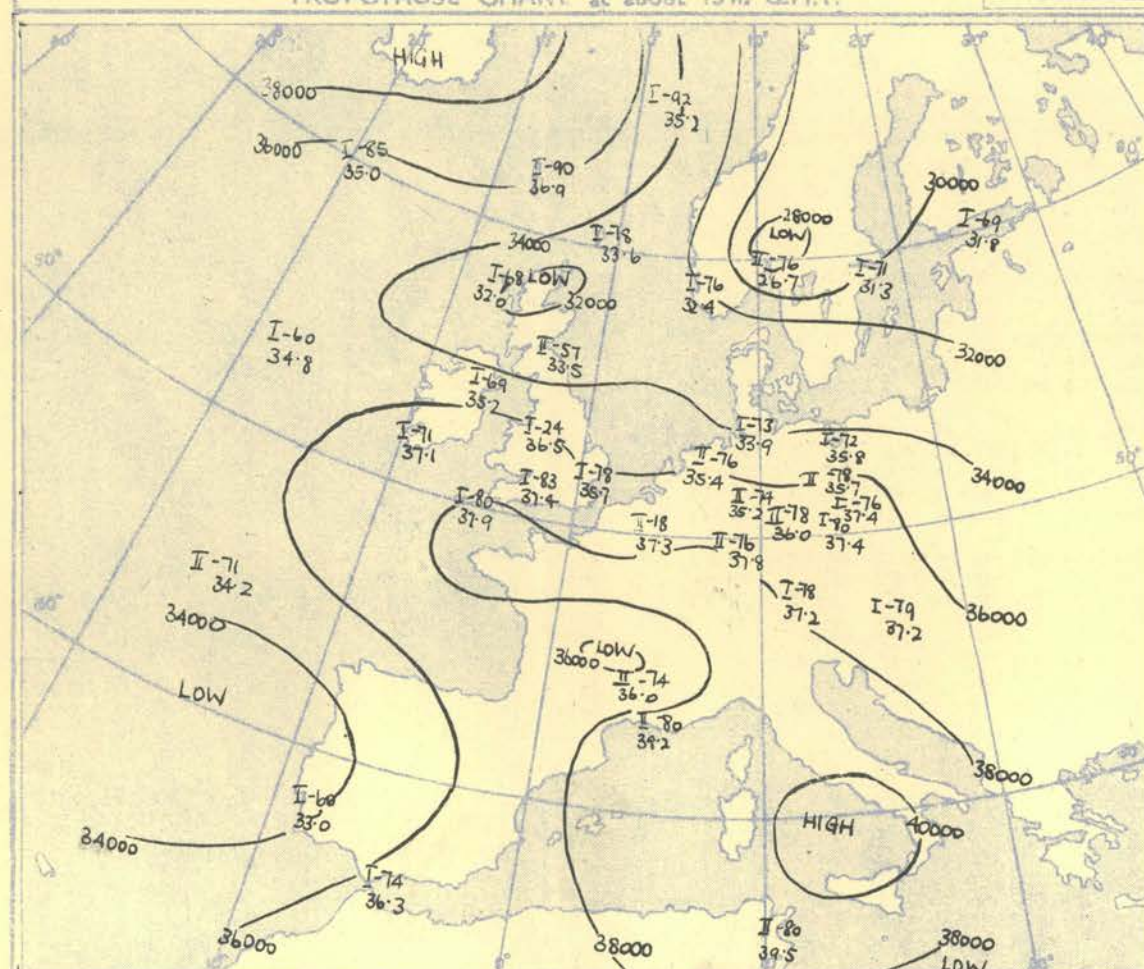
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

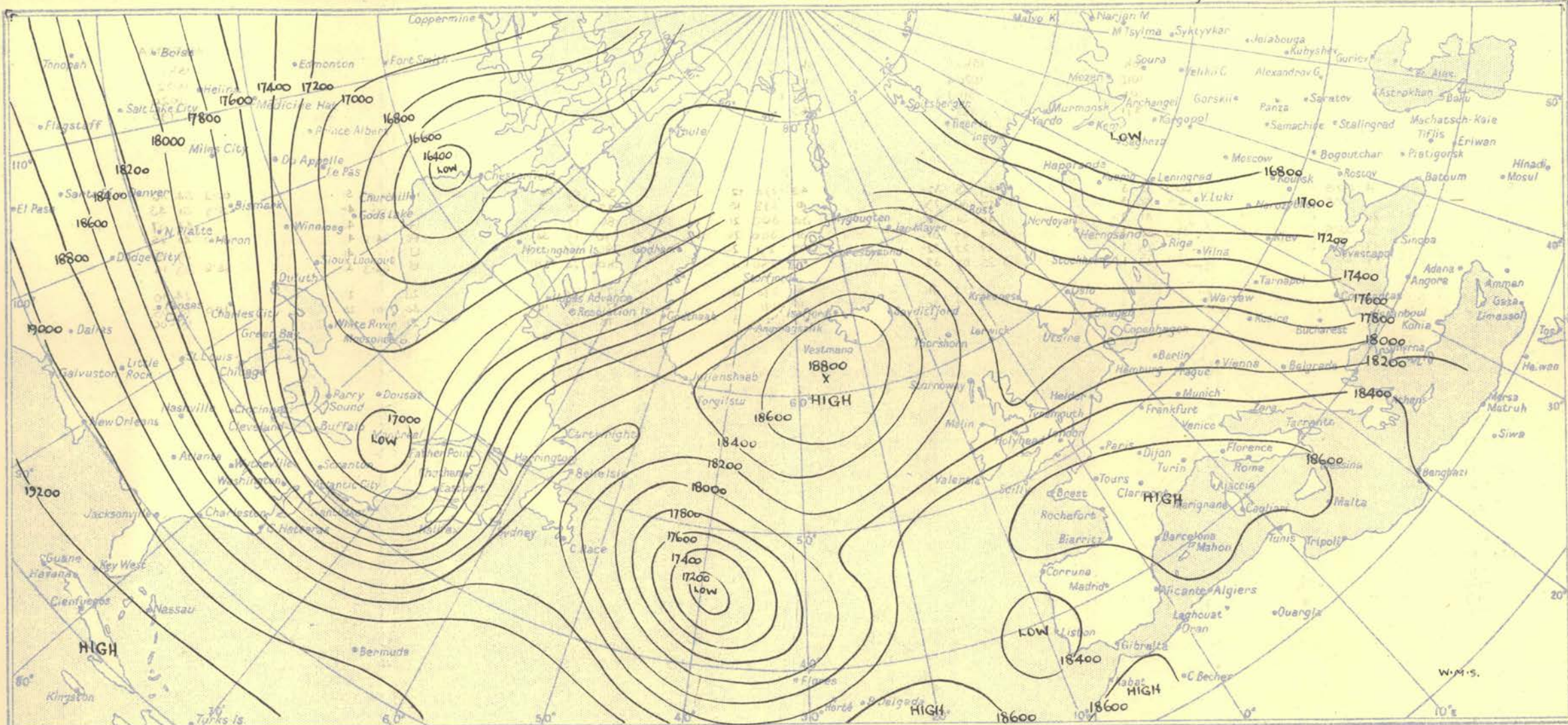
### NOTES ON THE AEROLOGICAL SITUATION.

A cold pool moved southeastwards across Scotland and Northern England. The supply of cold air from the northwest was cut off between Newfoundland and Greenland, while a closed cold pool became dominant in the region of the Atlantic northwest of the Azores. There was considerable warming in the Iceland and Greenland area.

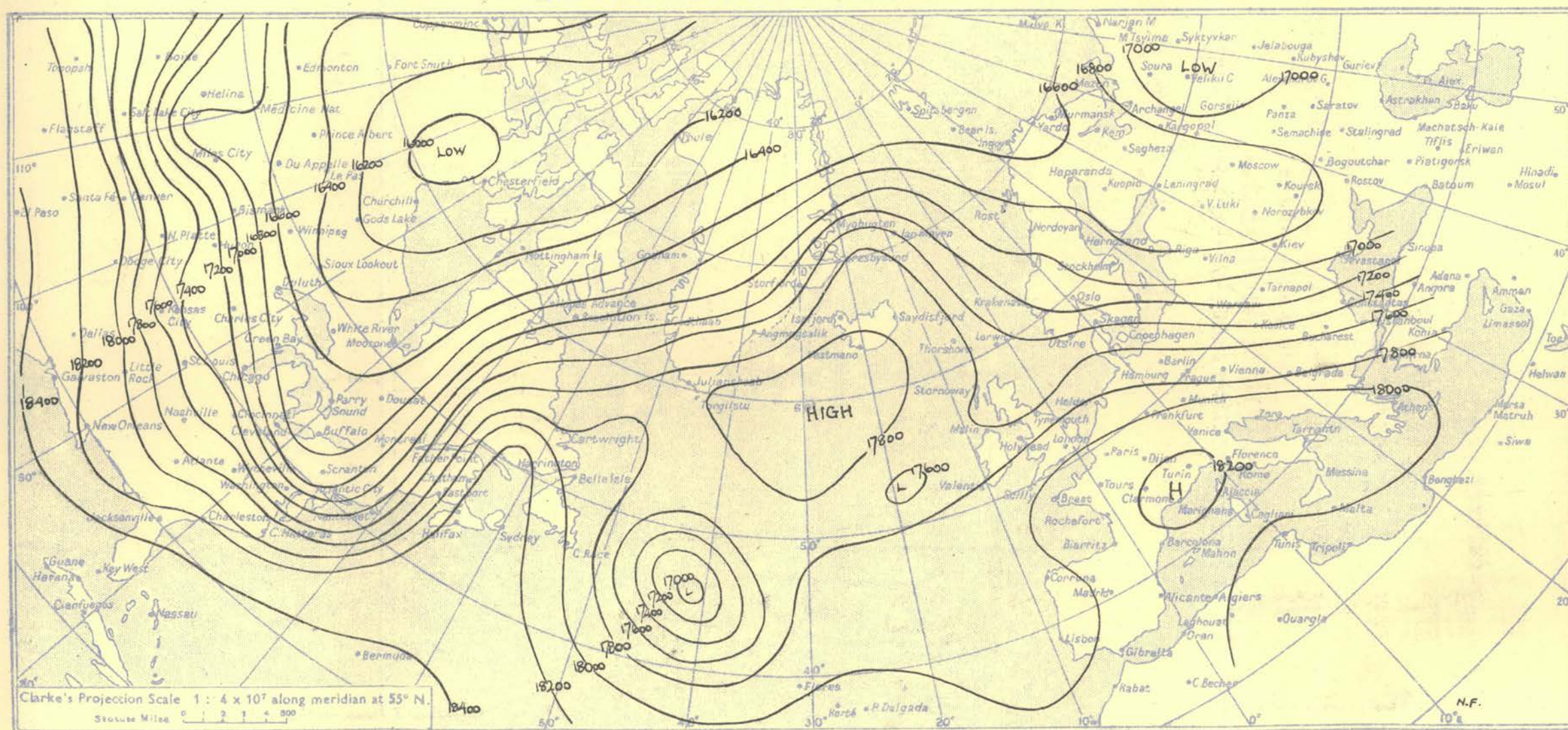
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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





H.M.S.O. Press Dunstable

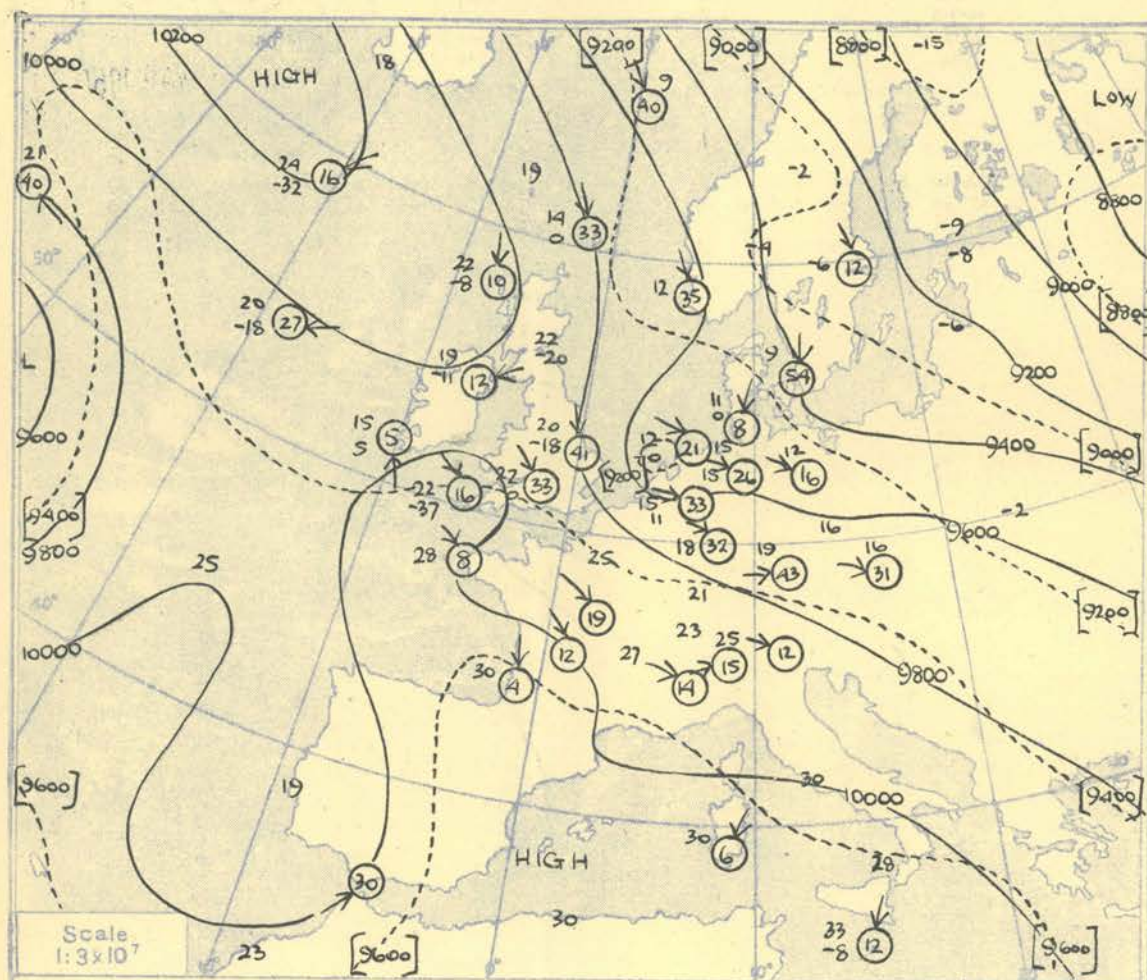


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				Station			
Pressure M.S.L. Surf (Freezing)	03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		Pressure M.S.L. Surf (Freezing)							
	1023.1	mb	1012.7	mb	1025.9	mb	1024.0	mb	1024.1	mb	1023.2	mb	1024.6	mb	1015.7	mb	1017.5	mb	1012.9	mb	1017.5	mb	1020.4	mb	1023.0	mb	1012.7	mb	1023.0	mb	1023.0	mb								
Temp.	943				800				948				860				904				904				917				818				835							
Height ft./100	Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Height ft./100							
Pressure mb	Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Pressure mb							
Wind Dir. Vel.	Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Wind Dir. Vel.							
Surf	02.7	31	34	290	08	05.0	42	40	Calm	00.2	41	38	02.3	35	33	Calm	01.2	43	40	310	14	04.4	39	36	02.9	46	44	360	13	00.3	44	42	100	02	Surf					
1000	6.0	40	37			6.3	38	35		6.3	38	35	6.4	39	36	012	10	4.6	42	39	331	34	5.4	40	37	6.1	44	42	002	07	6.2	43	40	105	03	1000				
950		33	28	330	21		36	29	061	05		32	31		38	32	014	11		37	34	342	33			42	36	357	08		40	37	132	07	950					
900	33.8	26	23	330	19	35.0	32	23	049	06	34.1	26	26	34.4	33	24	020	11	32.6	31	27	348	34	33.5	37	28	34.5	4.4	21	334	06	34.4	37	30	146	10	900			
850		20	18	330	17		34	15	033	11		28	21		31	19	026	12		29	14	355	35			37	18	323	07		34	22	141	07	850					
800	64.1	21	13	329	23	65.9	32	07	021	13	64.7	28	06	65.2	29	13	032	11	63.3	27	00	002	37	64.5	31	11	65.8	29	17	332	09	65.4	28	16	140	07	800			
750		19	09	329	30		26	-01	007	16		23	-02		23	00	050	09		28	-08	355	40		27	07		22	07	333	12		21	13	141	07	750			
700	98.1	14	00	330	31	101	22	-08	349	19	99.1	22	-20	100	19	-11	074	12	97.8	20	-18	350	41	99.1	22	00		22	-07	311	16	99.6	15	05	139	05	700			
650		12	-10	328	34		17	-13	345	18		13	-29		13	-33	083	18		12	-20	352	44		15	-12		15	-44	300	22		11	-11	122	04	650			
600	137	04	-20	328	35	140	09	-20	354	22	138	05	-36	139	06	-41	075	28	137	04	-29	358	46	138	07	-22		07	-50	289	26	138	05	-25		600				
550		-05	-15	333	37		-01	-25	355	27		-03	-37		-03	-49	078	29		-05	-39	354	50		01	-25		02	-54	289	30		-05	-32		550				
500		181	-14	-18	337	46	184	-09	-27	357	25	182	-13	-42	183	-12	-54	084	30	181	-15	-49	338	46	183	-06	-26		184	-09	-29	290	30	183	-15	-39		500		
450		-19	-24	340	51		-15	-30	353	27		-23	-48		-22	-55	085	34		-27	-59	328	52		-18	-36			-21	-29	285	31		-23	-46		450			
400	233	-31	-38	341	59	237	-31	-43	354	29	234	-35	-56	235	-33	-60	087	40	233	-34	-57	317	52	235	-30	-44		236	-31	-36	281	32	235	-34	-39		400			
350		-46		342	52		-45		010	31		-48		-46		088	39		-44		312	56		-42			3.		-42		280	33		-46		350				
300	296	-63		348	55	300	-68		019	38	297	-64							296	-55		306	66	299	-55			300	-58		287	27	298	-58		300				
250		-82		350	71		-78		023	50		-78								-67		305	75		-70				-74		290	26		-71		250				
200	378	-97		348	68	384	-91		011	37	379	-90							381	-67		296	80	383	-81			384	-78		288	28	382	-74		200				
170		-90		330	55		-93		034	36										-70		297	46		-75				-68		287	27		-67		170				
150		-90		318	55	439	-83		310	40										-72		299	55		-70				-68		280	34		-71		150				
130		-90		308	60		-86		304	46										-74		300	63		-71				-69		288	36	(142)	-81		130				
110		-89		305	66		-89		299	59										-76		300	64		-74				-75		284	39				110				
100	515	-90		306	64	529	-90		288	60									524	-80		294	66	526	-77			527	-79		278	40				100				
90		-93		309	64		-91		286	63										-82		292	67		-81				-83		272	54				90				
80		-97					-92		290	67										-83		285	64		-83				-86		268	49				80				
70							-94		291	70										-87		276	56		-86				-88		267	54				70				
60							-96		287	71															-91				-91		271	49				60				
Inversion				1013mb-37°-1000mb-40°				872mb-28°-850mb-34°				893mb-25°-850mb-26°				1016mb-35°-985mb-42°				861mb-26°-845mb-31°				1004mb-39°-993mb-41°				487mb-18°-478mb-17°				Inversion								
Isothermal				20°-825°-22°				732°-21°-721°-23°				Isothermal				768°-750mb-28°				786°-26°-768°-28°				Isothermal				900°-872mb-37°				Isothermal								
488°-16°-475°-14°												850°-800mb-28°				768°-750mb-28°				768°-750mb-28°				953°-915mb-38°				735°-20°-705°-23°				Isothermal								
												721°-709°-23°				255°-245°-67°																								



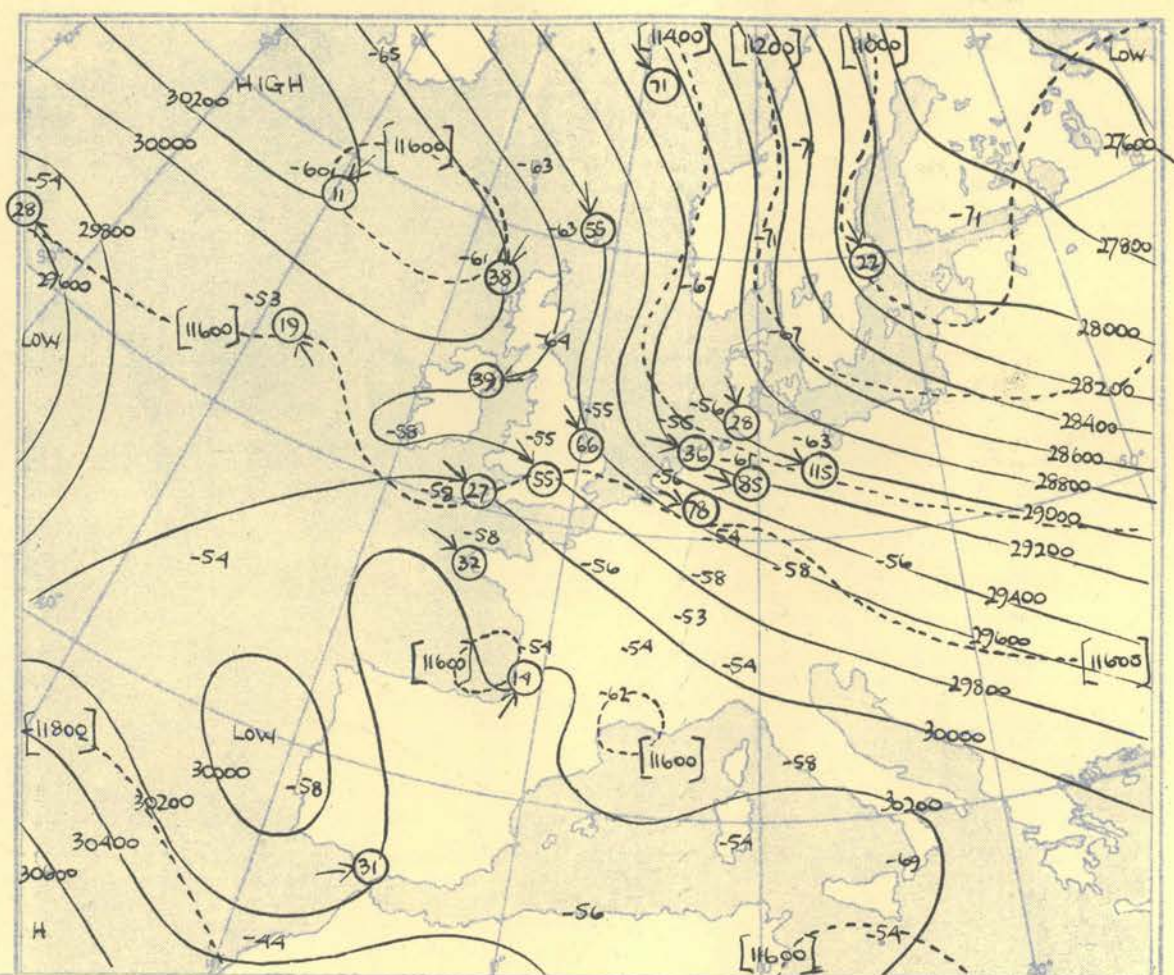
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



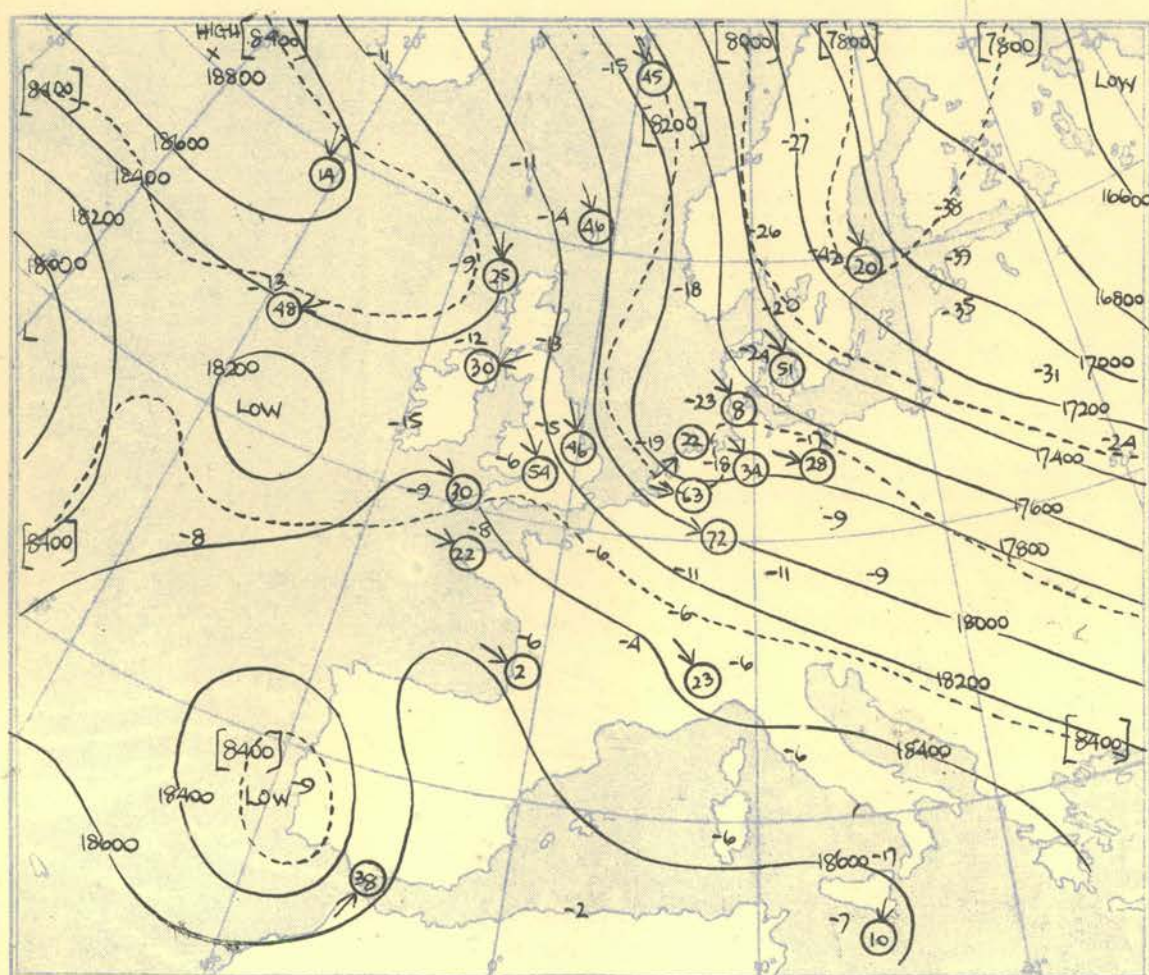
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

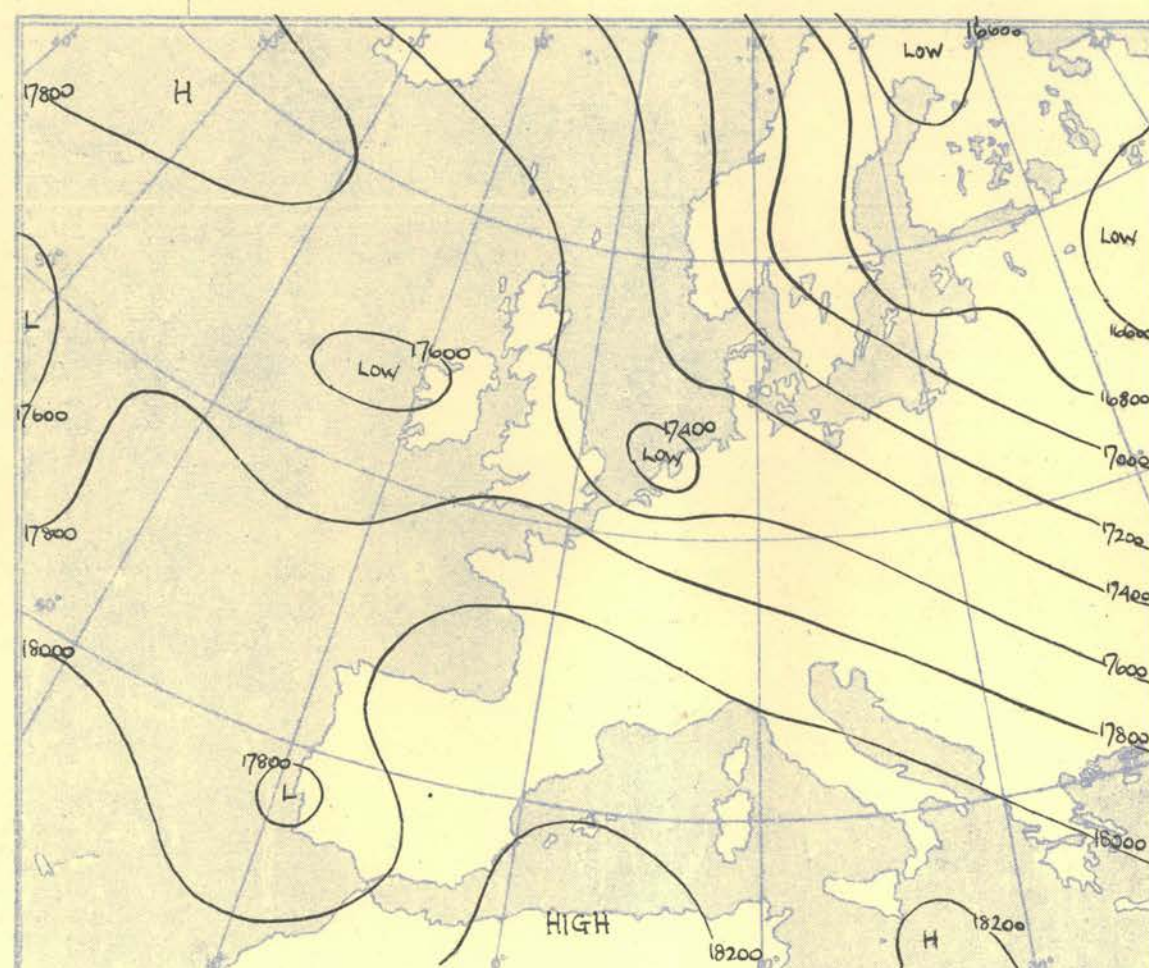
100 80 60 40 20 10 knots



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

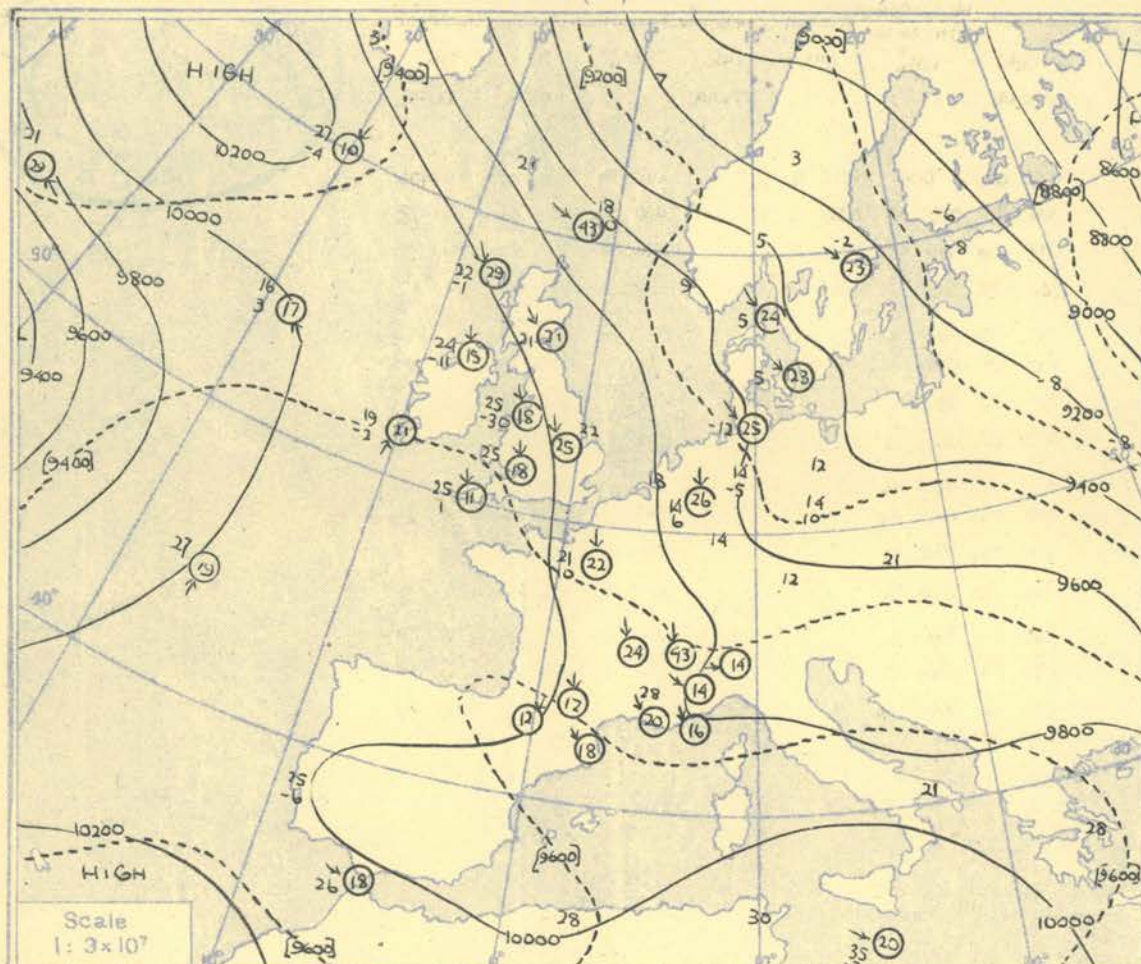
[illegible]

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

Ship	WEATHER EXPLORER.				WEATHER EXPLORER.				WEATHER EXPLORER.				WEATHER EXPLORER.				WEATHER OBSERVER.				WEATHER OBSERVER.				WEATHER OBSERVER.				WEATHER OBSERVER.				WEATHER OBSERVER.				Ship		
Lat/Long	59° 59' N 20° 1' W.				59° 58' N 20° 0' W.				59° 59' N 20° 0' W.				59° 59' N 19° 8' W.				54° 19' N 18° 1' W.				54° 0' N 18° 1' W.				54° 0' N 18° 1' W.				54° 0' N 18° 1' W.				54° 0' N 18° 1' 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.			G.M.T.		Pressure							
	M.S.L.	1031		mb	1030	mb		1028	mb		1025	mb		1023	mb		1023	mb		1024	mb		1022	mb			mb			mb									
	Surf	1031		mb	1030	mb		1029	mb		1029	mb		1023	mb		1023	mb		1024	mb		1022	mb			mb			mb									
	Freezing	325 4780		mb	920 4780	mb		755	mb		935 4760	mb		850	mb		860	mb		870	mb		880	mb			mb			mb									
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure						
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		47	40	Calm		46	43	360	02		47	43	270	11		44	39	280	17		48	42	085	26		49	46	080	25		50	50	100	15		49	48	140	10
1000	8.2	43	36		7.9	42	33	360	05	7.6	43	40	256	15	6.6	40	37	280	18	6.1	46	38	087	21	6.1	47	43	085	24	6.3	47	46	088	17	6.0	47	44	128	12
950		35	30			35	31	360	06		36	35	262	17		34	33	280	21		40	36	085	21		42	38	090	24		41	38	103	17		41	37	130	12
900	36.1	36	22		35.8	28	28	020	07	35.5	39	26	285	09	34.5	39	11	280	18	34.3	34	26	090	21	34.3	36	32	095	17	34.6	36	32	128	17	34.2	35	29	125	10
850		38	4	For		34	11	043	08		42	7	348	05		43	7	288	14		32	24	094	19		31	27	104	14		30	26	125	15		30	20	121	13
800	67.3	34	17		66.7	34	5	053	08	66.9	37	5	345	04	66.0	37	0	302	12	65.2	30	1	097	20	65.0	25	20	113	15	65.4	23	21	115	11	65.1	27	20	123	13
750		29	19	Winds		30	4	060	09		31	2	353	05		30	7	324	13		26	10	093	23		26	13	103	17		21	13	107	13		22	8	135	10
700	102	24	32		101	24	4	065	10	102	27	4	020	10	101	23	12	328	16	99.8	20	18	087	27	99.4	19	21	091	25	99.6	16	1	115	17	99.4	16	4	145	07
650		17	21	See		18	12	066	14		20	7	353	17		18	17	333	16		12	25	081	33		11	22	078	36		10	7	111	13		8	7	286	05
600	141	11	18		141	9	20	059	17	141	13	15	333	21	140	12	27	342	15	139	9	26	077	40	138	02	32	060	41	138	1	8	108	14	138	1	13	243	05
550		4	21	Page		1	25	050	15		3	20	358	09		2	29	353	15		4	26	073	47		5	48	051	49		7	29	106	23		6	22	251	03
500	186	6	29	3	185	11	33	041	15	186	7	29	016	10	185	6	36	015	16	183	13	40	072	48	182	13	54	063	54	182	15	39	098	33	182	14	39	255	27
450		19	41			23	39	022	18		17	37	036	24		14	42	045	19		23	48	076	54		22	55	082	48		22	54	065	49		21	38	243	43
400	239	30	51		237	36	50	352	22	239	30	49	035	21	238	26	54	064	21	235	35	50	081	48	234	34	59	083	58	234	31	58	060	43	234	34	49	245	48
350		44				52		336	26		46		026	27		41		092	22		45		100	27		44		078	36		43		132	18		45		249	25
300	302	60			300	69		330	28	302	61		036	33	302	56		071	24	298	53		101	19	298	56		078	25	298	59		097	06	297	60		253	58
250		77				90		335	26		79		027	31		72		054	30		63		253	08		65		078	11		72					236	10		
200	385	60			380	53		330	20	385	93		016	35	386	92		050	26	385	67		276	05	383	72		067	05	(24mb)	74				381	82		188	09
170		97				87		316	15		97		018	30		98		053	28		68		273	09		60		300	05						83		203	10	
150		89				91		312	30		90		013	23		96		040	24		69		280	08		69		266	17						84		204	18	
130		88				90		298	43		91		302	32		98		334	14		73		275	18		70		267	22						86		202	15	
110	(14mb)	91				97		283	50		92		290	47		97		330	18		75		275	27		78		264	25						80		298	33	
100					(15mb)	98				520	95		295	45	510	98		313	24	528	78		279	30	525	83		257	18						82		298	31	
90						94					94		297	51		100		307	30		81		270	28										91		290	27		
80						97					97		307	44		98		307	32		83		264	29										94		285	31		
70						99					99		303	36		96		310	36		85		262	23										98		281	32		
60																																				101		275	31



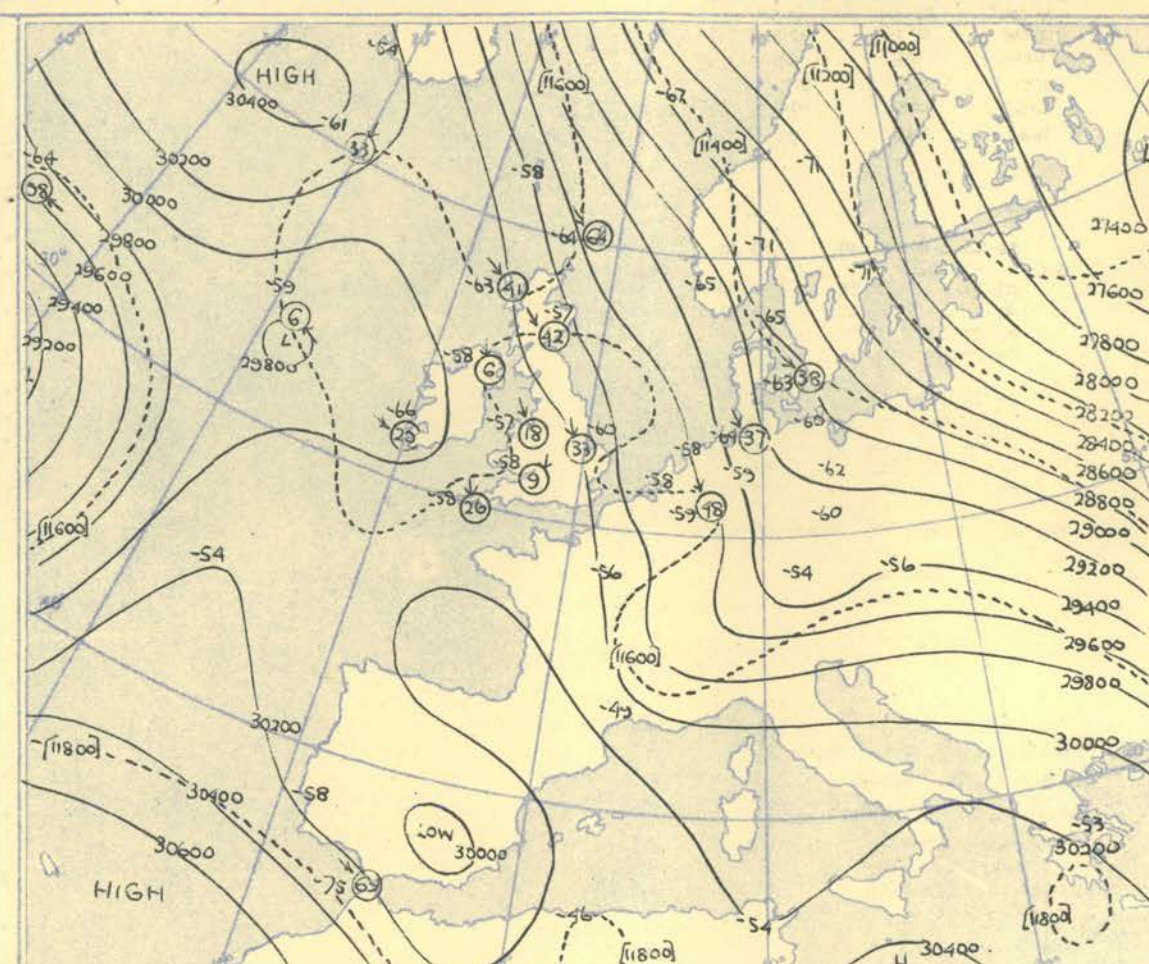
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

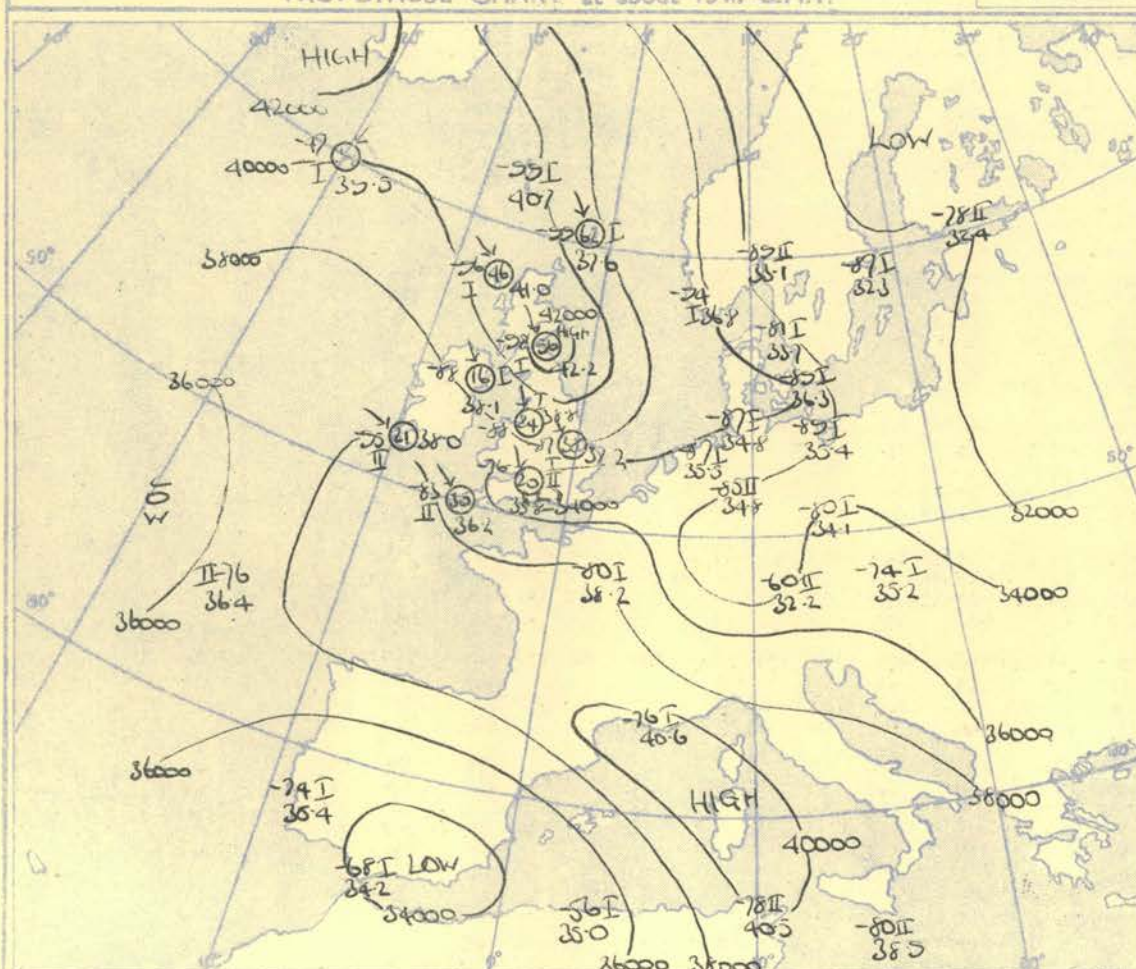
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52½° N.

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.

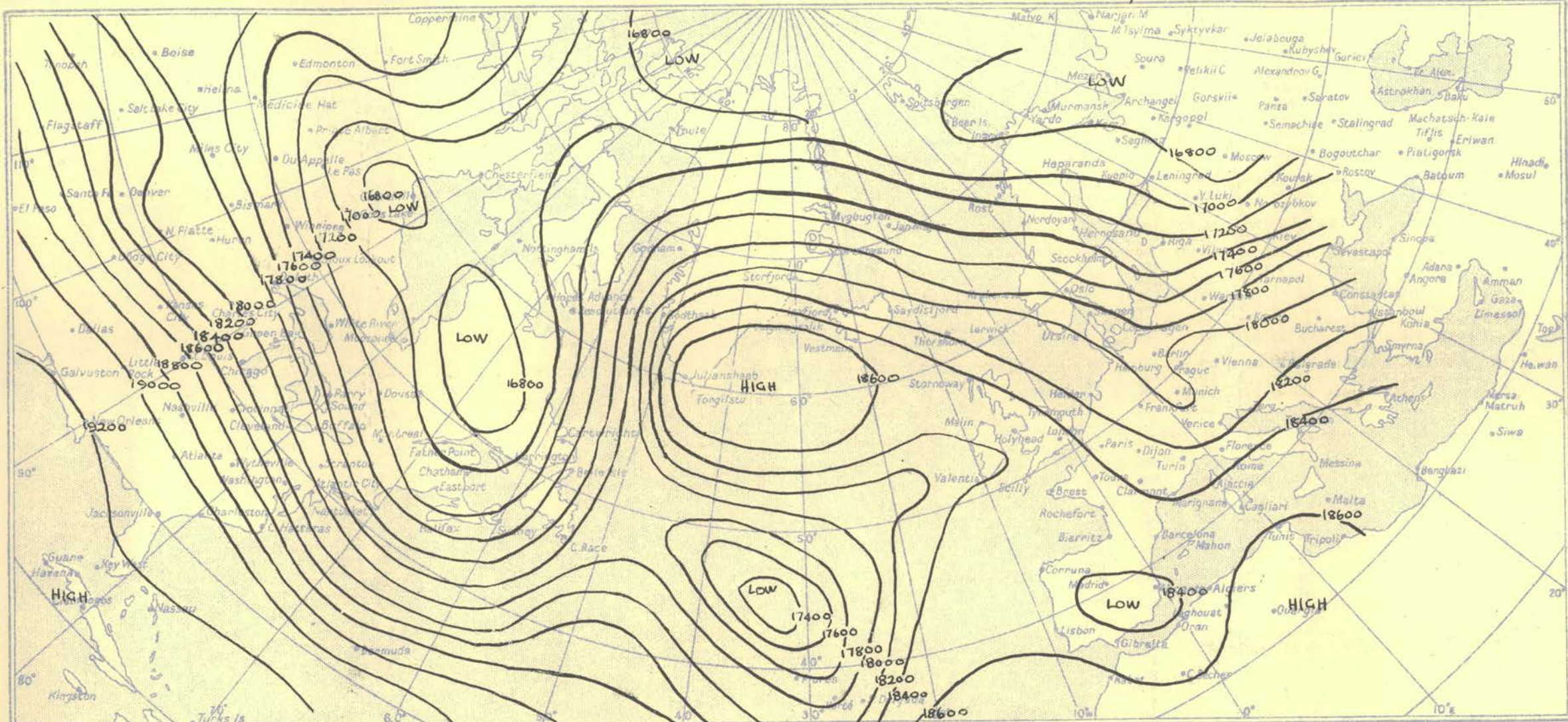
### NOTES ON THE AEROLOGICAL SITUATION.

The cold pool which had moved Southeastwards over Scotland lost its identity in the general West to Northwest thermal gradient which dominated Western Europe. Warming continued in the Denmark Strait, while a cold pool remained centred about 500 miles Northwest of the Azores.

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

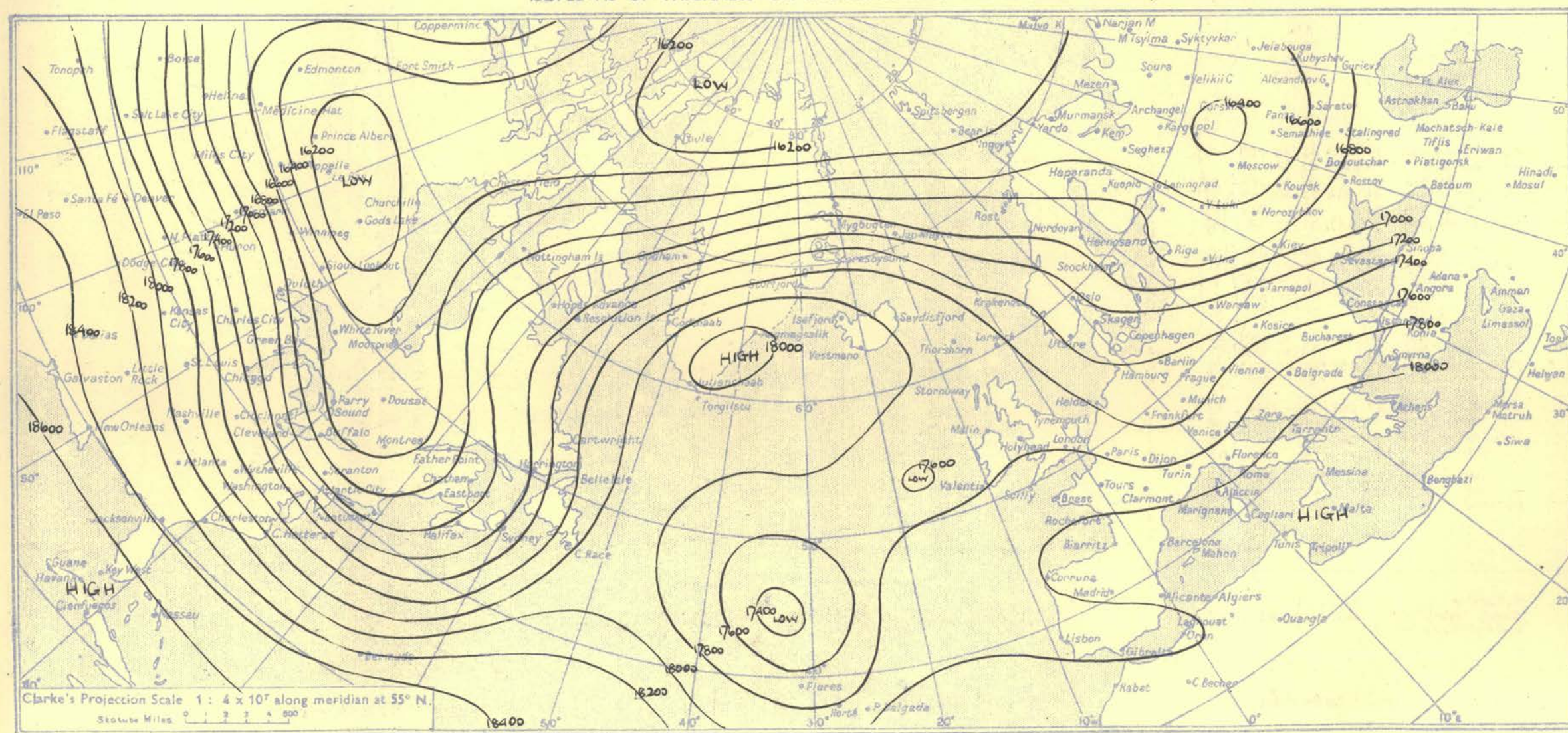




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Friday 10<sup>th</sup> March

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 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.		Pressure M.S.L. Surf Freezing																
	1014.1		mb		1024.4		mb		1022.4		mb		1021.6		mb		1025.2		mb		1023.2		mb		1025.2		mb		1024.5		mb			1024.8		mb		1025.7		mb		1024		mb		1024		mb	
	905		mb		828		mb		850		mb		780		mb		800		mb		816		mb		780		mb		730		mb			792		mb		820		mb		820		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	02.7	44	42	210	25	05.0	45	38	295	10	00.2	49	33	270	12	02.3	44	41	210	07	00.6	47	35	Calm	01.2	44	39	360	07	00.4	44	35	040	06	02.9	51	45	337	04	00.3	52	46	200	05	Surf				
1000	03.7	43	42			06.5	42	35	270	25	00.0	45	33	248	15	07.0	41	34	281	07	00.7	44	34	347	04	06.2	42	35	009	09	05	43	35		066	48	41	Calm	06	06.9	44	33	185	12	1000				
950		37	36	281	34		35	31	276	25		37		261	13		38	38	308	07		37	28	321	04		34	30	015	13		36	30	028	10		41	34	Calm		42	39	155	18	950				
900	31.7	32	30	286	32	34.4	29	25	287	22	34.0	31		286	13	35.1	32	31	326	12	34.7	29	22	325	06	34.0	36	25	018	13	34.4	30	23	016	10	34.9	40	30	020	08	35.2	36	35	129	15	900			
850		26	23	298	32		33	20	298	23		32		322	18		28	24	314	14		25	20	346	09		35	20	355	14		37	19	007	15		37	23	360	08		38	29	127	15	850			
800	62.2	22	19	303	36	65.2	30	10	303	26	64.8	29		332	21	66.0	34	24	311	13	65.4	32	-7	346	13	64.8	30	-11	332	19	65.4	34	04	354	17	66.2	33	-04	354	07	66.4	29	17	163	14	800			
750		22	01	308	41		27	-1	305	26		26		333	22		28	08	310	14		26	-7	345	16		15	-17	332	24		28	-11	333	15		28	-26	355	07		21	9	197	17	750			
700	096.5	18	00	311	43	100	22	-1	314	29	99.3	21		334	21	101	24	-11	324	15	100.0	25	-30	335	18	99.3	22	-24	330	25	100	25	-26	330	18	101	24	-19	346	11	100.7	19	-2	218	21	700			
650		14	00	312	44		17	-8	315	33		15		329	24		17	-26	309	14		19	-37	332	20		15	-15	337	27		18	-34	348	20		18	-03	336	15		13	-18	233	26	650			
600	135	04	-09	312	45	139	11	-19	318	38	138	06		330	28	140	09	-33	308	13	139	11	-28	330	23	135	08	-17	330	34	140	10	-42	332	20	140	12	-08	327	15	139.5	5	-26	247	23	600			
550		00	-20	312	47		02	-25	319	44		-02		333	34		00	-44	307	12		03	-29	326	25		08	-20	329	36		02	-51	341	11		03	-25	303	12		-3	-36	262	29	550			
500	180	-09	-40	311	49	184	-9	-27	311	43	183	-09		333	36	185	-10	-52	326	10	184	-5	-36	323	23	180	-8	-26	333	33	185	-6	-60	346	15	185	-07	-50	320	15	183.9	-13	-35	269	25	500			
450		-8	-51	314	47		-19	-32	313	38		-20		324	39		-19	-53	322	04		-15	-44	329	21		-18	-35	330	33		-16	-60	350	14		-18	-58	327	20		-23	-37	264	21	450			
400	232	-33	-51	324	51	236	-29	-40	322	36	235	-30		326	39	237	-30	-57	287	12	237	-29	-56	323	21	233	-30	-46	332	36	237	-27	-60	357	11	238	-30	-43	322	20	235.8	-35	-45	276	23	400			
350		-49		325	60		-45		317	46		-42		321	41		-44		292	04		-40	-60	312	17		-45		335	30		-41		020	09		-44		318	21		-49		286	24	350			
300	295	-64		327	64	300	-63		316	41	299	-57		317	42	301	-58		340	06	301	-57		321	18	296	-60		340	37	301	-58		027	09	301	-58		323	26	298.5	-66		293	20	300			
250		-82		330	60		-78		298	49		-73		320	49		-74		023	03		-72		327	15		-74		348	30		-76		344	20		-73		310	32		-79		264	17	250			
200	376	-96		329	62	382	-92		310	47	381	-90		317	56	384	-86		337	16	385	-87		331	24	380	-81		323	39	385	-80		325	29	385	-84		318	28	380.4	-95		282	21	200			
170		-88		312	63		-95		312	46		-96		315	56		-90		313	27		-88		317	37		-74		304	55		-76		309	40		-79		294	25		-90		292	20	170			
150		93		310	57	438	-89		312	54		-90		314	53	441	-84		305	43		-80		305	45	438	-72		301	57	444	-72		300	46		-74		283	33		-85		289	21	150			
130		-98		315	63		-84		310	60		-86		313	56		-80		297	53		-79		301	51		-74		299	54		-71		292	55		-70		289	38		-85		291	26	130			
110		-97		314	58		-84		310	54		-86		311	60		-80		301	56		-80		297	59		-77		297	61		-75		286	58		-75		282	39		-86		291	20	110			
100	512	-101				518	-94		310	50	520	-85		309	57	523	-82		294	56	525	-80		291	64	522	-78		293	66	527	-79		284	61	527	-78		271	41	5180	-89		-93		295	20	100	
90							-95					-84		307	63		-83		289	61		-81		291	64		-76		286	62		-79		282	61		-80		273	42		-93		291	21	90			
80							-98					-87		2																																			

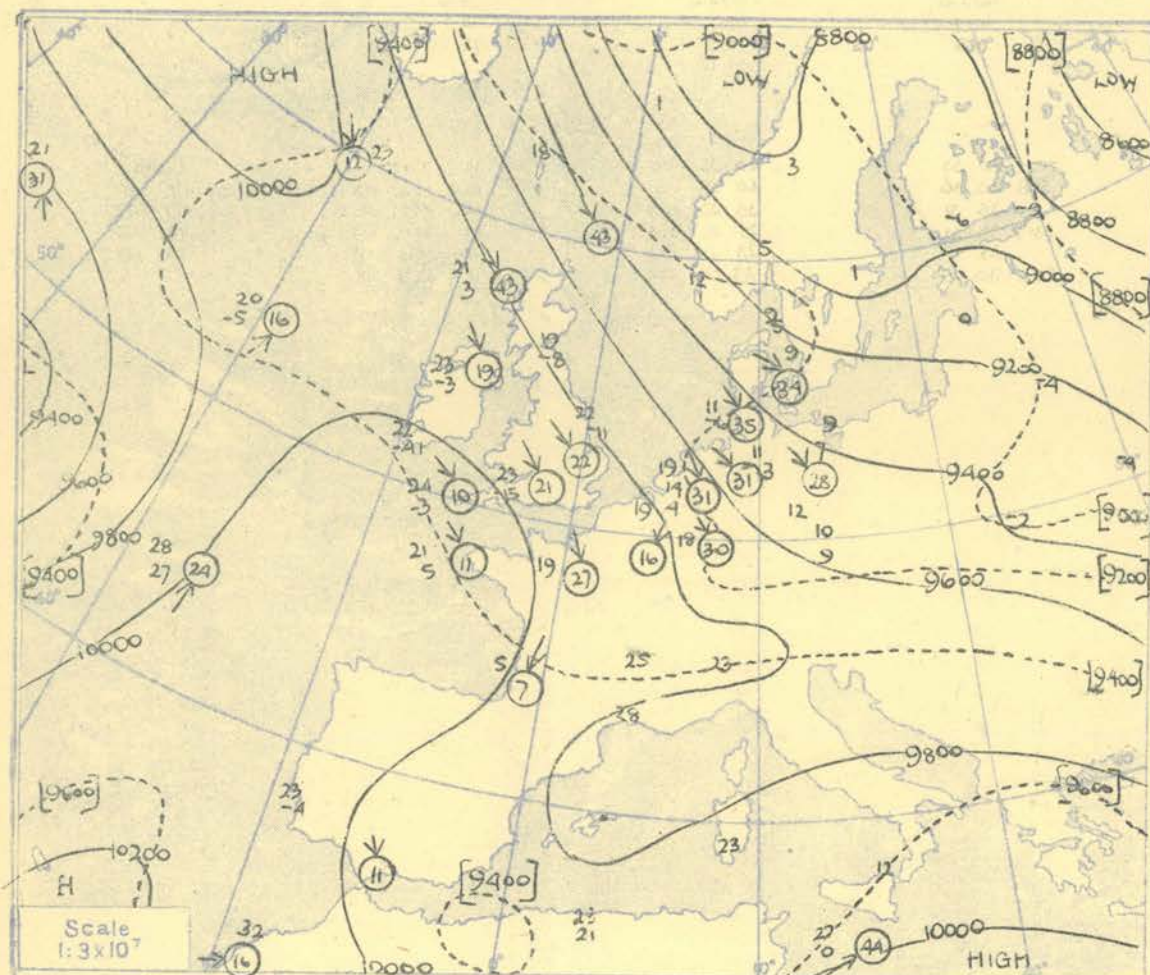


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure	Time	03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		Time					
	M.S.L.	1008.1		mb		1016.9		mb		1017.4		mb		1022.8		mb		1022.0		mb		1022.0		mb		1024.0		mb		1025.6		mb		M.S.L.					
	Surf	997.9		mb		1014.9		mb		1016.5		mb		1013.9		mb		1017.4		mb		1017.4		mb		1007.5		mb		1014.7		mb		Surf					
	Freezing	917		mb		78.8		mb		80.8		mb		90.0		mb		81.8		mb		81.8		mb		79.3		mb		89.2		mb		Freezing					
Pressure	Height	Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Pressure					
		°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.								
Surf	02.7	38	32	31.5	10	00.5	48	41	27.0	15	00.2	38	26	02.3	42	38	28.0	03	01.2	40	35	25.0	08	04.4	40	38	30.0	04	01.9	41	39	Surf							
1000	2.1	36	32	30.3	24	4.5	44	40	28.1	35	4.5	38	31	6.0	42	39	29.8	20	5.8	40	36	28.4	23	6.3	40	38	30.7	11	6.7	43	40	1000							
950	30.0	30	27	30.7	24	32.6	32	29	28.8	36	34.2	39	25	33.9	31	28	31.1	21	33.7	28	24	28.8	23	34.2	29	26	30.8	12	34.8	33	31	950							
900	26	22	31.1	27	32.0	33	31	30.5	44	63.3	31	02	64.8	32	21	32.9	18	64.5	30	15	30.7	20	64.9	33	08	32.4	19	65.7	30	11	32.8	08	900						
850	66.5	24	05	31.1	30	63.5	33	31	30.5	44	63.3	31	02	64.8	32	21	32.9	18	64.5	30	15	30.7	20	64.9	33	08	32.4	19	65.7	30	11	32.8	08	850					
800	66.5	24	05	31.1	30	63.5	33	31	30.5	44	63.3	31	02	64.8	32	21	32.9	18	64.5	30	15	30.7	20	64.9	33	08	32.4	19	65.7	30	11	32.8	08	800					
750	74.5	19	00	31.1	33	98.1	27	00	30.8	45	97.8	25	-02	99.0	23	03	31.9	19	99.1	22	-01	30.6	24	99.0	23	-03	32.8	19	100	24	-03	31.3	10	750					
700	94.5	14	-04	31.2	43	98.1	21	03	30.9	43	97.8	19	-08	99.0	16	24	30.2	22	99.1	16	-03	30.3	22	99.0	23	-15	32.2	21	100	17	-11	31.0	18	700					
650	10	-02	31.3	48	137	11	-11	31.9	37	137	05	-10	139	08	-33	30.4	19	139	08	-16	31.6	27	139	09	-32	31.0	15	140	10	-21	30.9	19	139	08	650				
600	133	06	05	31.6	56	137	01	-13	32.3	37	137	01	-16	139	00	-44	31.4	19	139	00	-27	32.1	32	139	00	-4	31.1	15	140	01	-18	32.3	17	139	00	600			
550	02	-11	32.0	63	182	09	-15	32.2	45	181	09	-19	183	09	-34	31.9	19	183	09	-32	32.4	35	183	11	-50	31.4	14	185	08	-23	32.9	20	184	09	550				
500	178	04	-20	32.3	58	182	07	-24	32.8	41	181	09	-26	183	09	-34	31.9	19	183	09	-32	32.4	35	183	11	-50	31.4	14	185	08	-23	32.9	20	184	09	500			
450	231	-30	-44	32.7	61	235	-28	-34	33.1	38	234	-29	-38	236	-30	-50	33.1	18	235	-32	-50	33.2	12	237	-30	-60	32.2	12	237	-30	-60	32.2	28	236	-34	450			
400	45	32.5	70	40	47	32.3	40	43	29.9	-59	297	-59	-77	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	400			
350	29.4	59	32.3	77	299	-56	58	33.1	40	297	-59	-77	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	03.2	18	299	-59	350				
300	77	32.8	81	33.2	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	332	40	300					
250	37.7	74	32.4	83	382	-91	35.1	55	380	-95	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	383	-92	250				
200	101	32.5	73	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	69	101	35.6	200			
150	105	32.6	62	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	45	107	34.3	150			
130	110	32.6	58	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	130			
110	105	32.6	58	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	42	108	33.0	110			
100	50.8	103	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	51.4	99	100				
90	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	90			
80	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	80			
70	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	70			
60	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	60			
Inversion		861 mb - 26° - 823 mb. 27°		860 mb - 26° - 845 mb. 36°		Surf - 38° - 980 mb. 39°		672 - 18° - 661 - 20°		874 mb - 27° - 847 - 35°		Isothermal 845 - 820 mb. 36°		Isothermal 611 - 582 mb. 05°		Inversion 895 mb. 30° - 870 mb. 37°		Inversion 885 mb. 26° - 845 mb. 34°		Isothermal 1017 - 1000 mb. 40°		Inversion 845 mb. 23° - 830 mb. 35°		Isothermal 1007 - 990 mb. 40°		Inversion 1015 mb. 42° - 983 mb. 44°		Isothermal 887 - 31° - 850 - 34°		Inversion 850 mb. 28° - 800 mb. 32°		(667 mb) Inversion							
Tropopause		I 150 mb. -105° 45,600'		I 133 mb. -111° 46,800'		I 174 mb. -104° 40,900'		I 176 mb. -102° 40,900'		I 193 mb. -91° 38,900'		I 200 mb. -89° 39,100'		I 196 mb. -92° 38,800'		II 205 mb. -91° 37,600'		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause		Tropopause					
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE																									



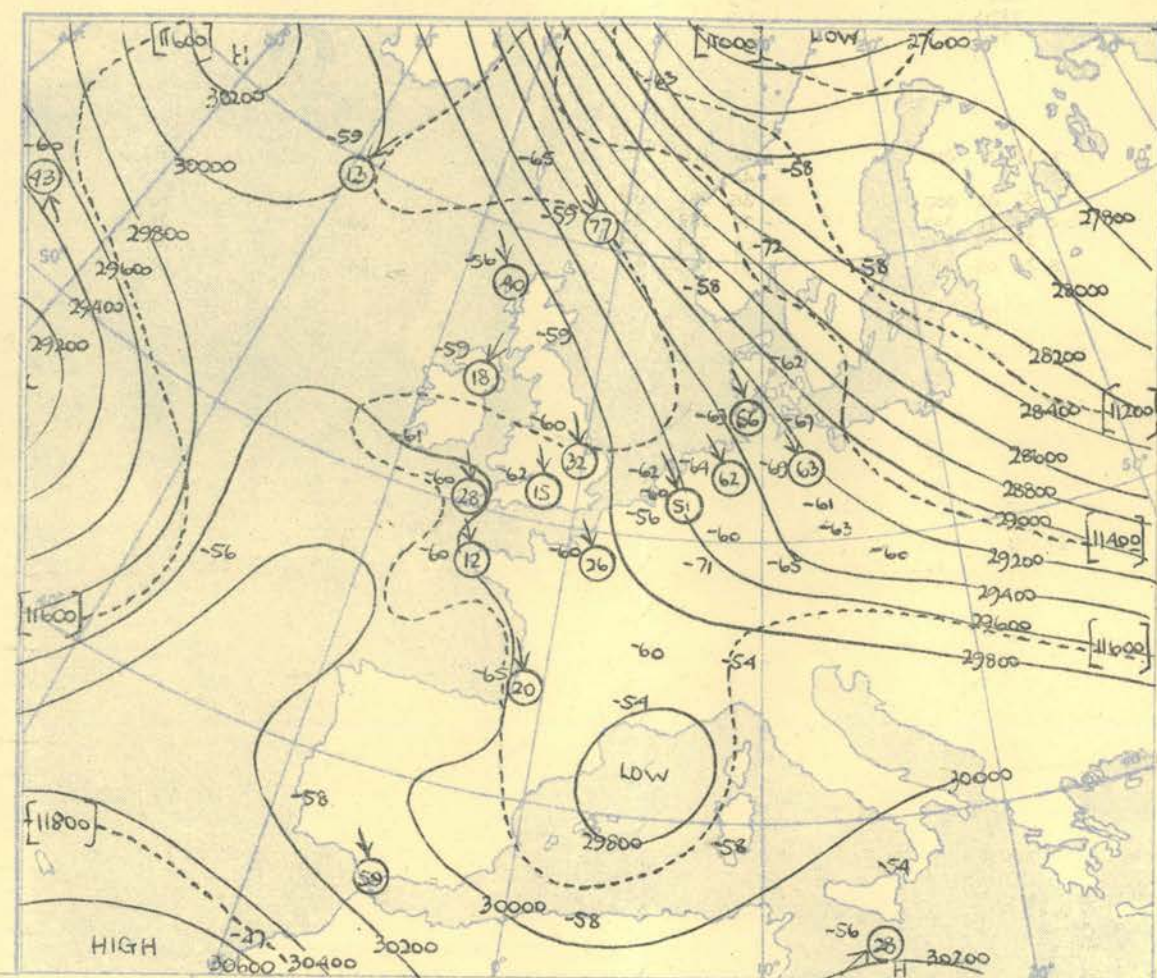
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



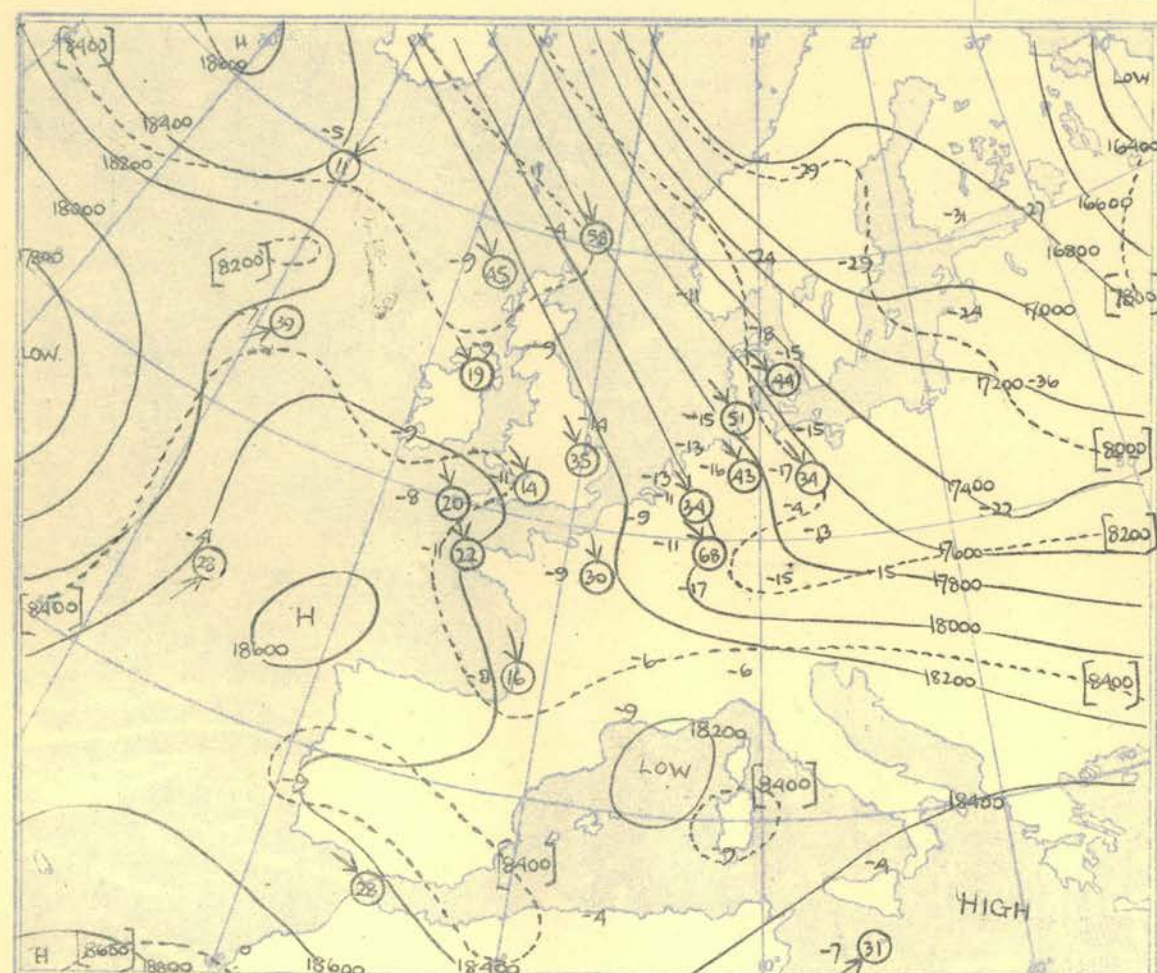
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

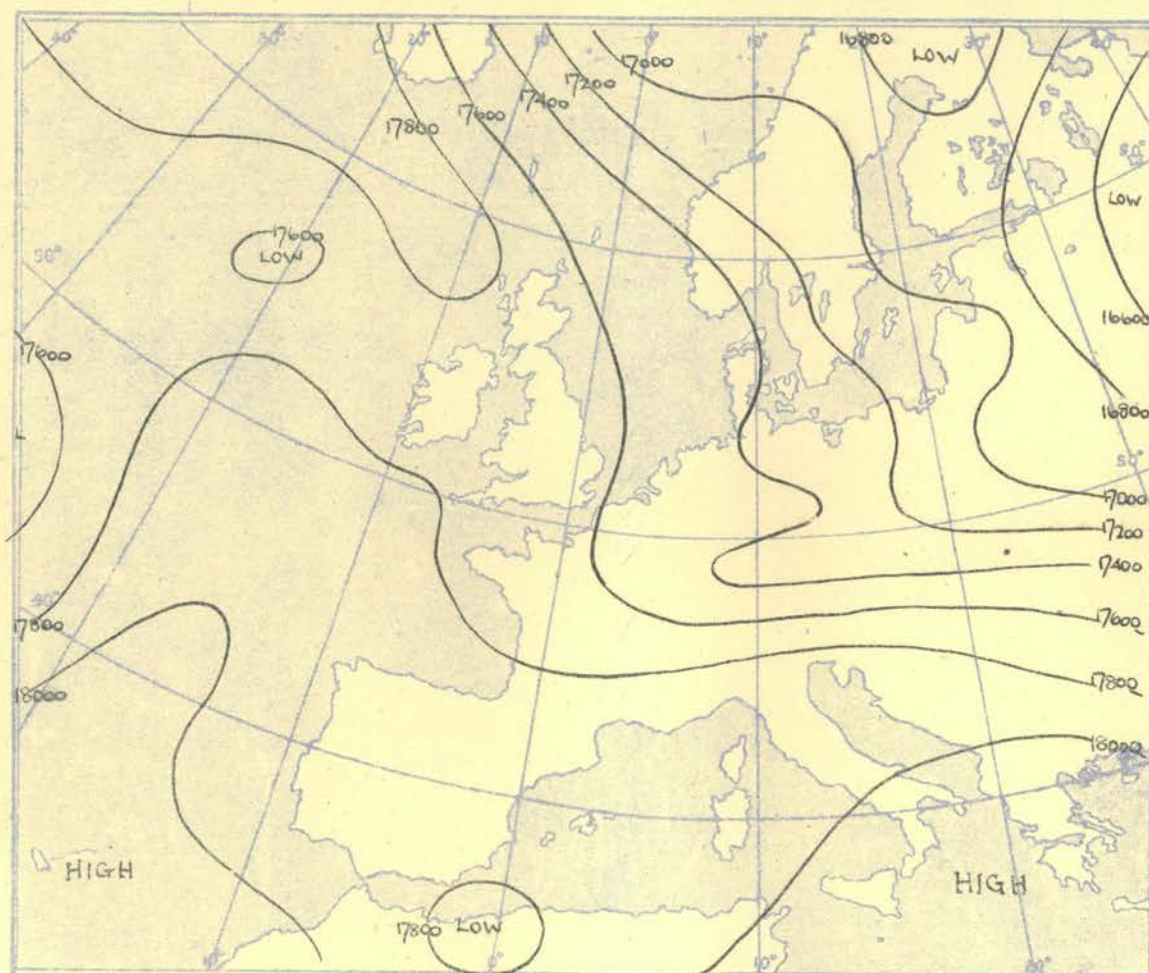
100 80 60 40 20 10 knots



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 M.S.L.

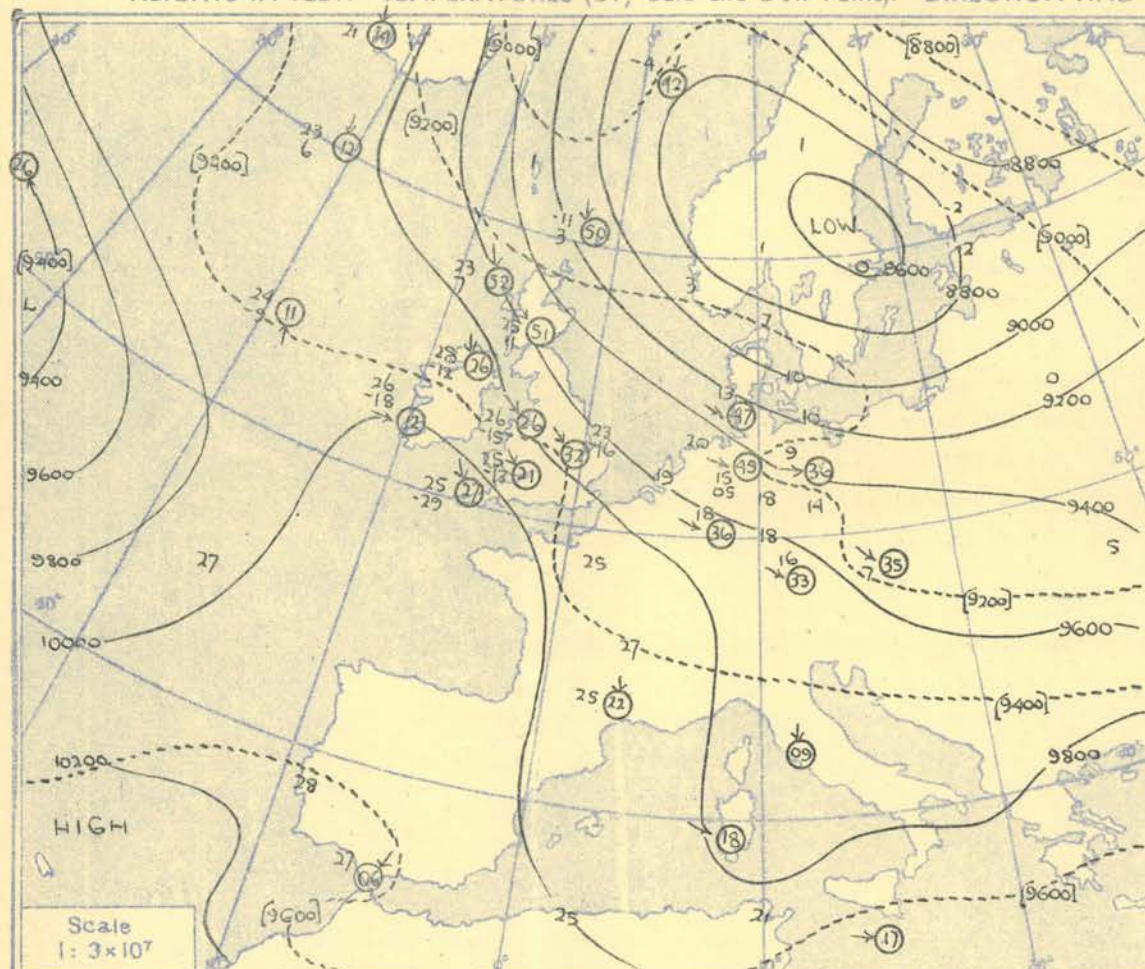
NEPHOSCOPE OBSERVATIONS

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

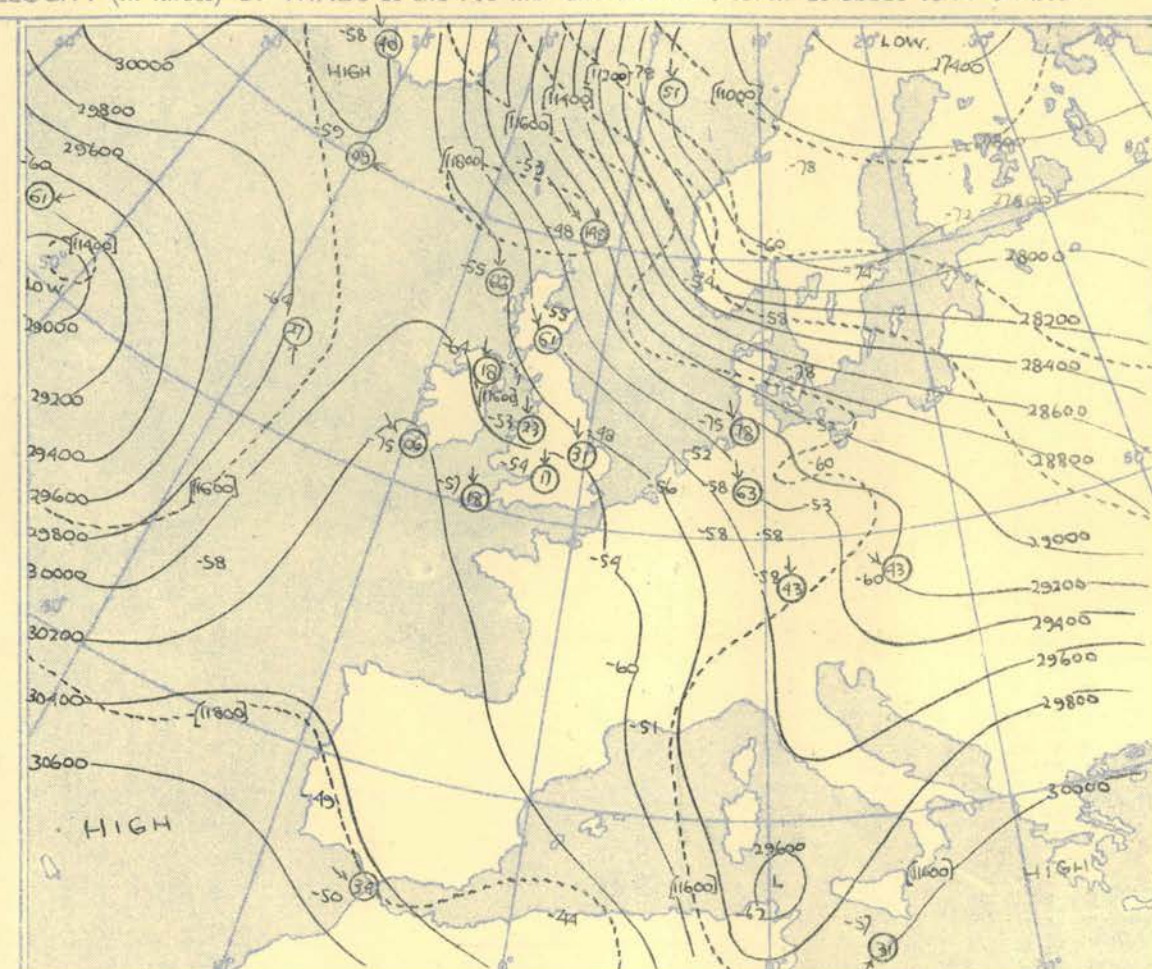
Ship	Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Weather Observer				Weather Observer				Weather Observer				Weather Observer								Ship								
Lat/Long	59° 7' N 19° 9' W				59° 8' N 20° 2' W				60° N 20° 3' W				60° N 20° W				54° N 18° 6' W				54° N 18° 6' W				54° N 18° 6' W				54° N 18° 6' W								Lat/Long								
Pressure	Time	03hrs			G.M.T.				05hrs	G.M.T.				15hrs	G.M.T.				21hrs	G.M.T.				03hrs	G.M.T.				05hrs	G.M.T.				15hrs	G.M.T.				21hrs	G.M.T.				G.M.T.	Time
	M.S.L.	1022			mb				1021	mb				1020	mb				1020	mb				1022	mb				1021	mb				1020	mb				1017	mb				mb	M.S.L.
	Surf	1022			mb				1021	mb				1020	mb				1020	mb				1022	mb				1021	mb				1020	mb				1017	mb				mb	Surf
	Freezing	780			mb				735	mb				230, 765	mb				220, 780	mb				850	mb				850	mb				855	mb				855, 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	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	-	42	41	270 17	-	43	41	300 18	-	43	41	080 02	-	50	47	135 03	-	50	46	130 07	-	54	46	140 13	-	5-	47	100 13	-	5-	47	100 13	-	5-	47	100 13	Surf								
1000	5-5	38	38		5-5	40	38	301 26	5-3	41	38	080 06	5-8	47	44	165 03	5-5	47	43	130 12	5-3	50	42	126 15	4-7	45	45	154 12								1000									
950		32	32			34	32	308 23		35	33	082 03		42	37	155 10		40	36	130 13		40	30	124 15		40	33	155 15								950									
900	53-3	40	23		33-4	38	26	318 20	33-2	28	321 18	0833-2	30	28	087 11	34-1	38	31	161 10	33-8	38	26	144 13	23-6	38	22	127 10	32-3	34	27 152 13						900									
850		35	10			41	13	318 18		34	14	340 08		32	26	164 12		32	24	162 12		31	18	076 08		23	24	136 14								850									
800	6-1	35	-13		64-8	38	02	341 17	64-0	33	11	352 10	64-0	33	14	051 07	65-0	25	18	151 13	64-6	25	17	174 07	64-5	24	18	052 07	63-8	34	-1 135 16						800								
750		29	-46	Forwinds		34	02	341 17		30	03	357 10		30	14	023 09		21	06	138 15		23	09	137 10		25	01	122 10		23	01	145 14					750								
700	53-8	23	-16	See	53-9	27	-5	340 18	53-8	23	06	005 12	53-7	22	08	025 07	53-2	20	-5	201 16	53-3	21	-6	137 12	53-3	24	-7	180 16	53-5	24	-7 151 16					700									
650		17	-11	top of		21	-14	345 12		16	-1	024 13		15	04	008 05		14	-9	210 21		17	-24	180 16		17	-15	153 13								650									
600	135	09	-41	page	137	14	-16	348 18	138	13	-17	004 07	138	09	-4	322 05	138	07	-16	216 23	138	11	-11	215 21	138	05	-25	180 16	138	07	-22 155 15					600									
550		04	-26			06	-22	356 11		07	-23	261 03		05	-19	235 06		00	-24	231 25		02	-28	195 27		02	-40	178 18		0	-30 162 15					550									
500		18	-5			185	02	-27 010 05		183	-4	40300 05		183	-3	-27 06		183	-7	-30240 39		183	-6	-36 186 27		183	-8	-50 155 27		182	-9	-38 163 23					500								
450		-16	-44			-10	-38	028 05		-13	-45	327 06		-17	-35	240 44		-17	-35	240 44		-17	-35	240 44		-17	-35	240 44		-17	-35	240 44		-17	-35	240 44		450							
400	237	-30	-56		238	-24	-45	028 06	236	-28	-56	343 06	226	-27	-52	41 07	235	-28	-44	236 39	236	-34	-57 170 23	235	-34	-57 170 23	24	-23	-34	-57 183 18					400										
350		-46				-28	-58	061 15		-43		080 06		-41		225 41		-50		225 14		-45		172 21		-45		172 21		-50		130 21					350								
300	300	-50			300	-54	07	15300-03	052	05	233-56		(347)	42			258	64	183	16	258	64	143	27	257	65	174	45							300										
250		-77				-71	07	11	28	080	10						-80	160	18		-78	112	24		-80	156	15								250										
200	382	-58			387	-50	039	11383-53		383	-51		383	-51			-83	150	15	380	-59	146	18	379	-58	120	22									200									
170		-101				-93	034	13	108								-84	143	12		-86	165	16		-88	115	18								170										
150		-93				-103	030	14									-84	140	12		-86	151	06		-85	116	03								150										
130		-93				-98	012	17	-26								-88	273	10		-84	331	09		(113)	-85	281	26							130										
110						-96	325	23	-33								-88	252	13																110										
100						-96	313	40	-36								-88	252	13																100										
90						-97	308	47	-36								-90	250	100																90										
80	Isothermal	553-535 mb 32°																																			80								
70	Inversion	235ms 32°-885mb 41°																																			70								
60																																					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.



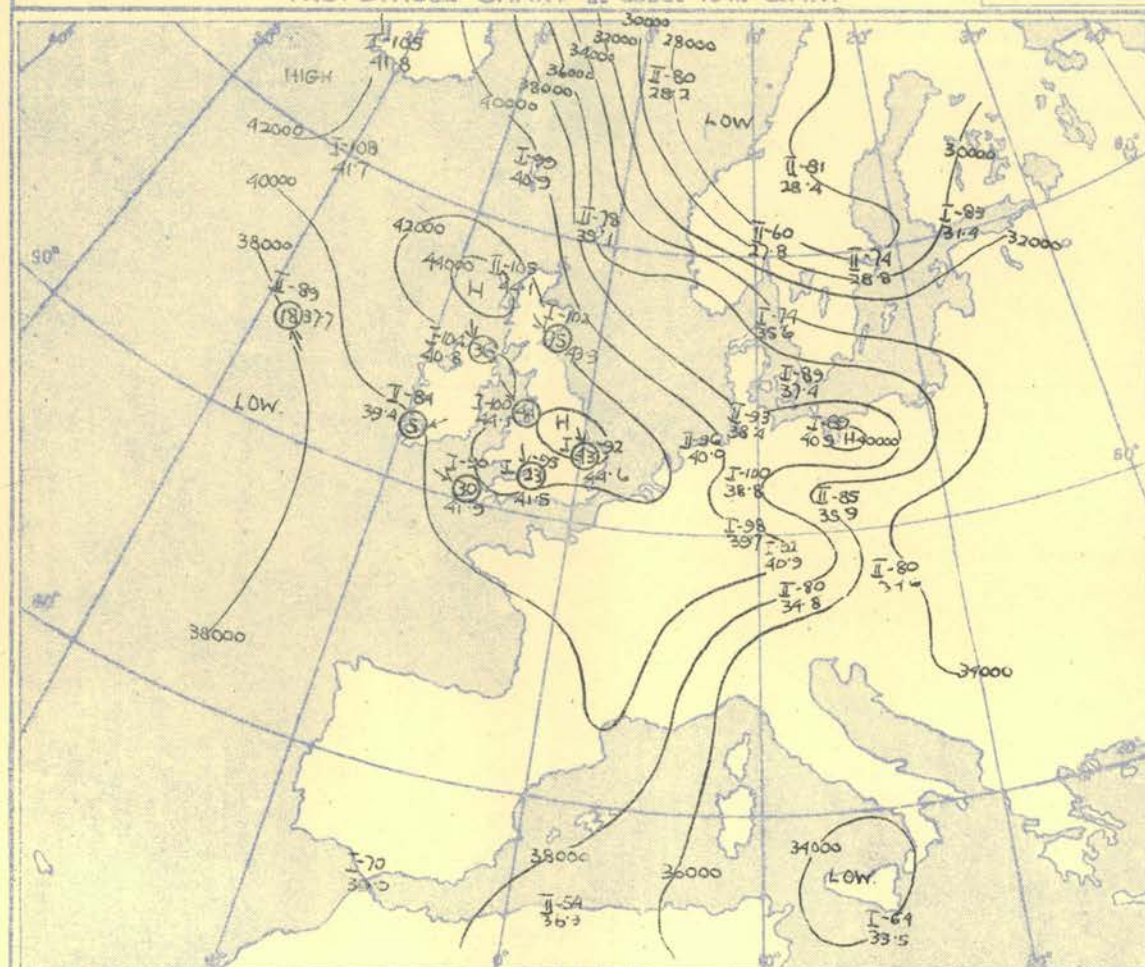
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



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.

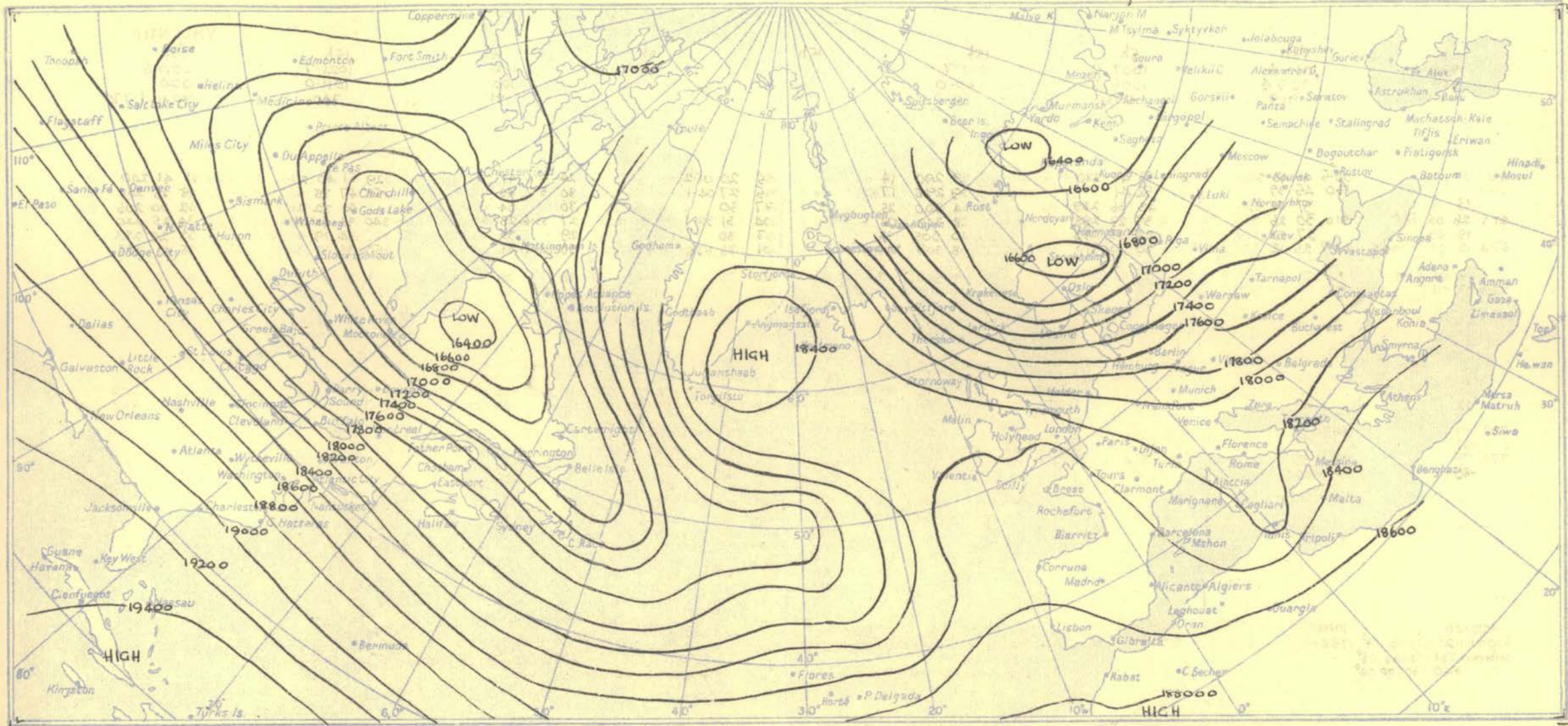
### NOTES ON THE AEROLOGICAL SITUATION.

A very pronounced warm ridge existed from Scotland across South Greenland to the Davis straits and was associated with a large anticyclone over Greenland. The cold pool north of the Azores moved north or north-northwest and filled up. Considerable cooling took place during the day over the North Sea and the northeast of 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.

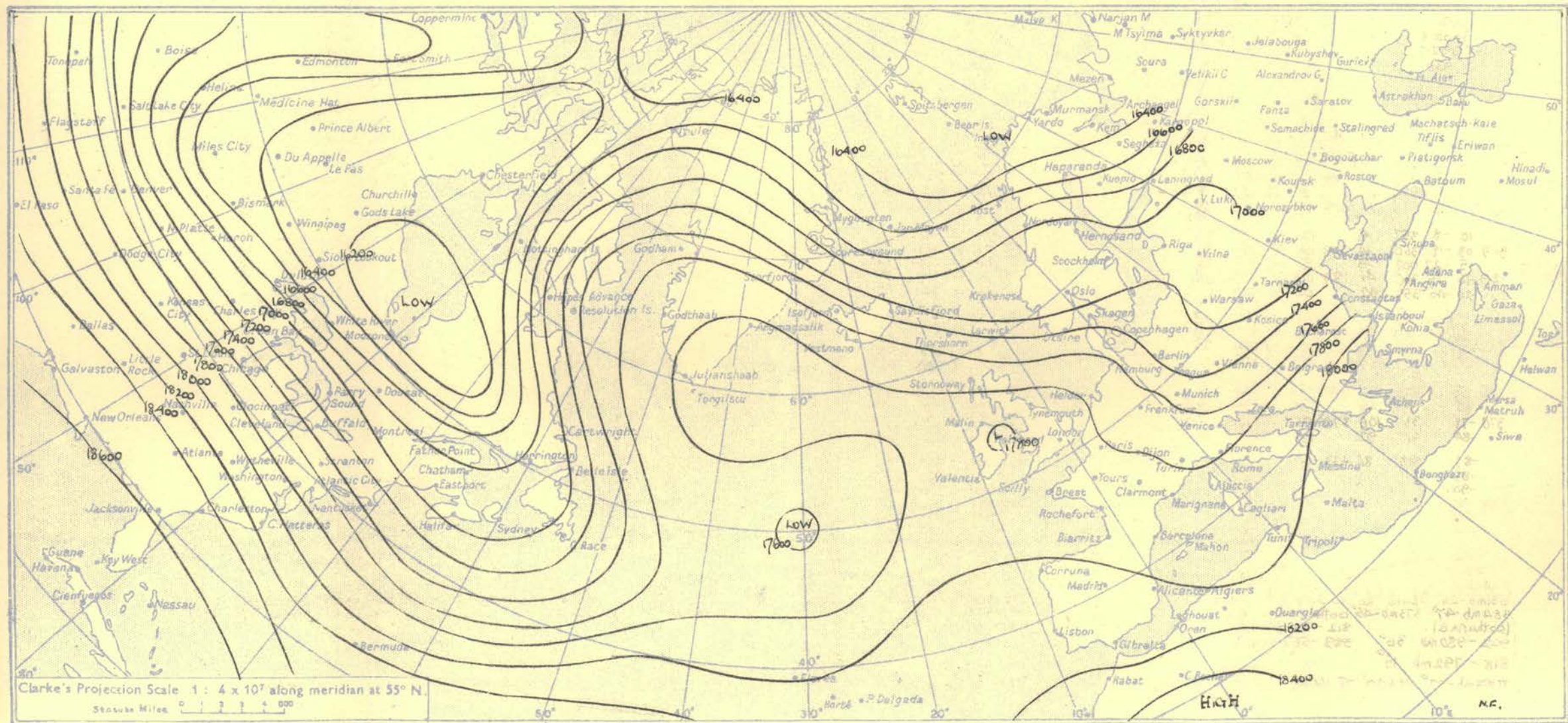




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 11<sup>th</sup> March

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

N.E.



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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Pressure M.S.L. Surf Freezing	15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Surf	02.7	37	26		00.5	45	40	340	20	00.2	63	41	280	40	02.3	47	39	290	14	00.6	46	42	285	20	01.2	47	39	275	24	4.4	41	36	300	03	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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900	27.5	26	05	For	31.0	30	26	329	32	30.2	33	29	288	41	33.1	31	28	303	28	32.3	32	30	304	31	32.1	31	31	290	27	33.6	28	23	308	20	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
850		19	03			27	20	319	36		24	23	298	42		28	20	305	32		24	22	303	30		41	19	293	29		35	27	315	20	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
800	57.4	12	01	Winds	61.7	25	12	321	37	60.9	30	20	310	50	64.0	33	08	305	29	63.0	33	14	301	36	63.2	35	03	292	30	64.7	31	19	317	21	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
750		06	02	See		22	10	311	45		26	11	317	51		30	06	303	27		32	06	302	33		29	08	303	30		29	11	318	18	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
700	90.6	03	11		96.0	23	07	308	57	95.5	25	11	315	51	98.8	23	02	310	26	97.9	26	05	306	29	98.0	23	03	304	32	99.4	25	01	330	15	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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400	226	21				23	27	311	65		23	28	303	48	235	32	48	326	18	235	26	40	339	26	235	25	36	310	32	237	28	53	353	20	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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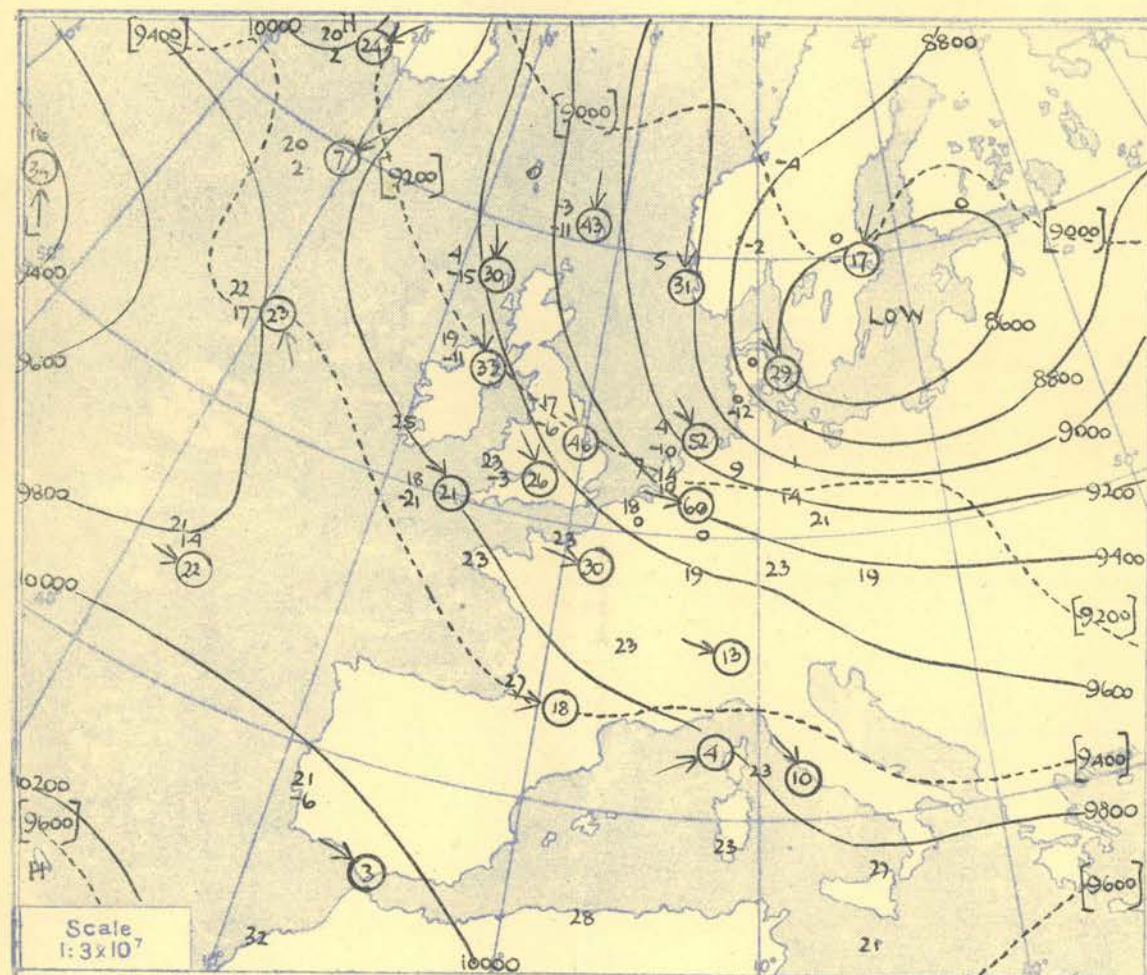


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure mb	Time	03h.		G.M.T.	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew	Wind Dir. Vel. knots	Height ft./100	Temp.	Dew



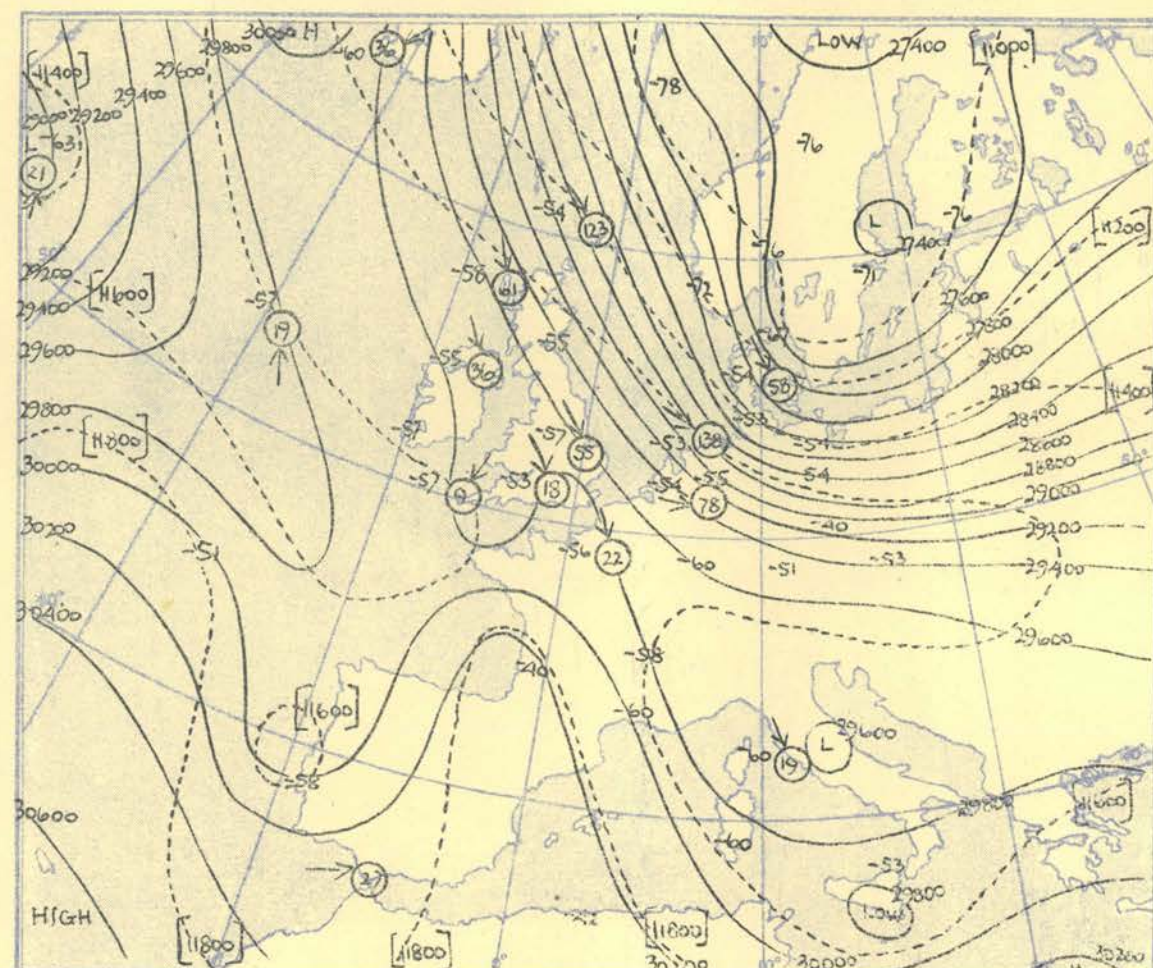
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



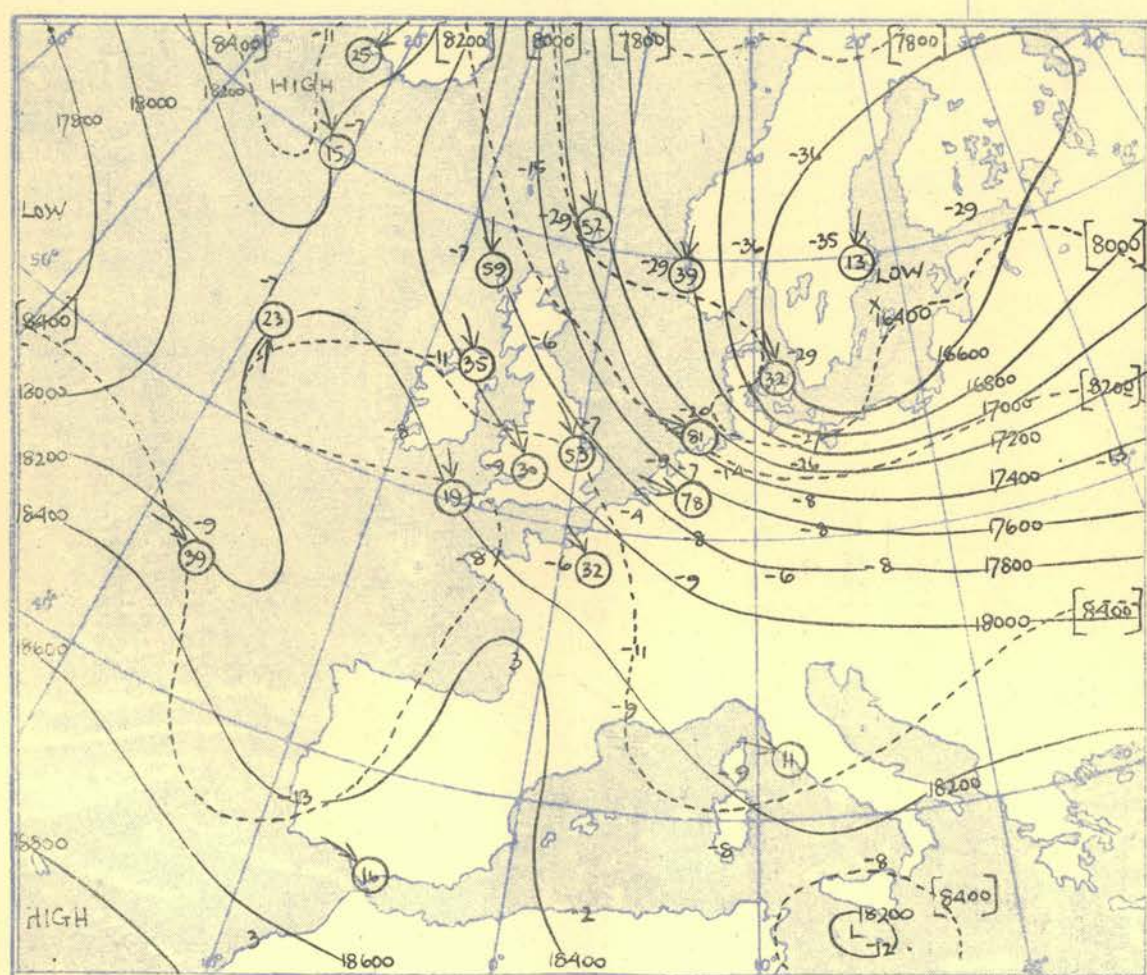
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

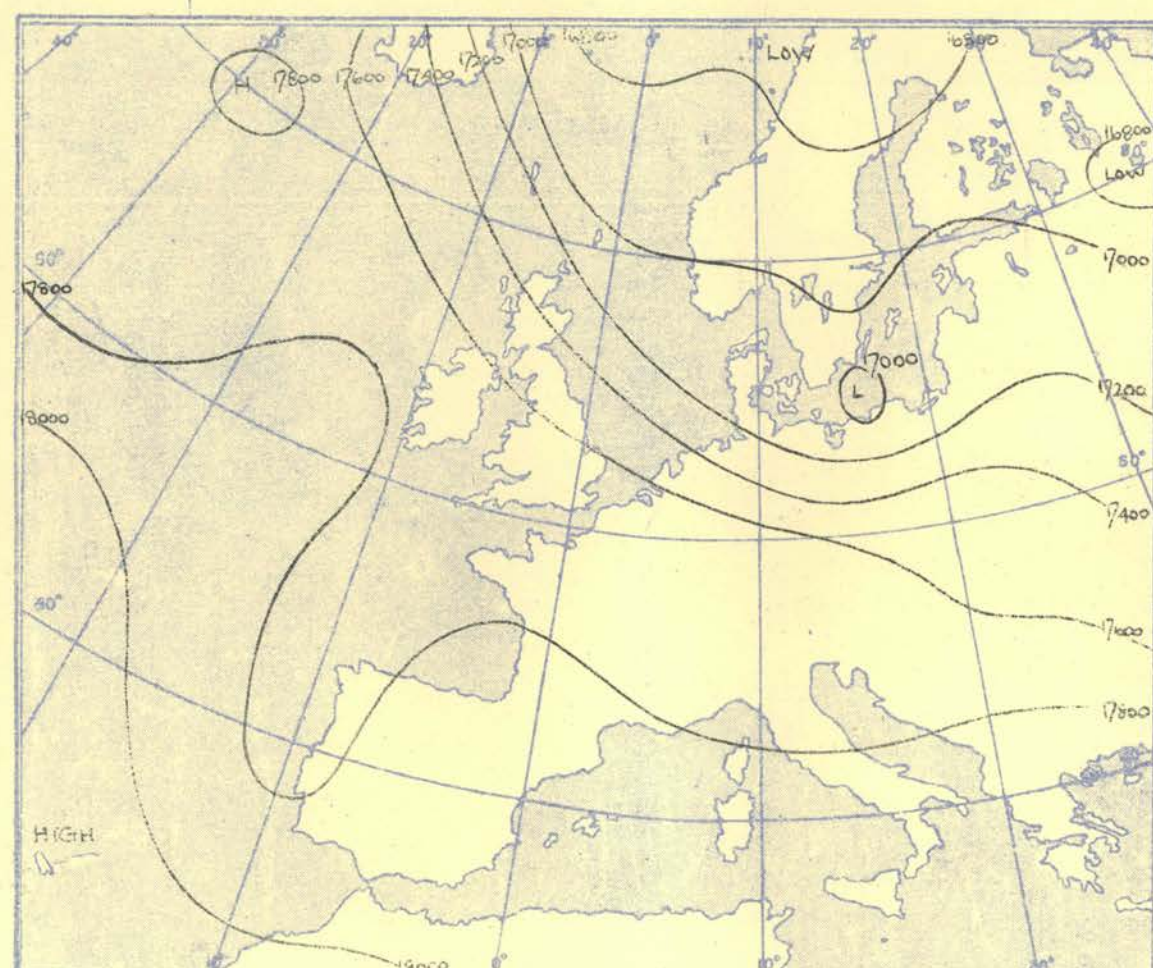
100 60 40 20 10 5 knots



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.



Pressure mb	51.0°N 16.0 W			51.6°N 12.8 W			43.2°N 17.0 W			39.5°N 12.2 W															Time M.S.L. Surf Freezing
	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F				
Surf	1.0	52	48	1.0	51	44		57	55		59	56											Surf		
1000	3.7			4.4			4.5	50	50	4.9	58												1000		
950		44	44		42	40		50	50		52	51											950		
900	32.3	40	38	32.8	42	28		46	46		47	46											900		
850		36	29		37	31		42	42		42												850		
800	63.5	31		64.1	30			37	36		37												800		
750		25			23			33	32		32												750		
700	98.2	23		98.6	21		100	30	21	101	28												700		
650		17			15			22			21												650		
600	137	09		138	08			16			13												600		
550		00			-01			07			07												550		
500	182	-09		182	-10		185	-01		185	-01												500		
450																							450		
400																							400		
350																							350		
300																							300		
250																							250		
200																							200		
170																							170		
	cloud:-			cloud:-			cloud:-			cloud															
	7/Sc 950- 8/920 mb 4/8 960- 1/8 950 mb 6/As around 8 400 mb			8/Sc 930- 8 910 mb 7/AC 780- 1/8 770 mb 3/AC 740- 1/8 700 mb 2/8 As around 1/8 400 mb			8/Sc 940- 1/8 920 mb 3/Sc 840- 1/8 820 mb 3/AC 820- 1/8 810 mb			8/Sc 870- 1/8 850 mb 8/Sc 790- 1/8 750 mb 8/AC 570- 1/8 550 mb															
				1/8			Surface wind W 12-16 Kts			Surface wind W 12-16 Kts.															
				1/8			12-16 Kts																		
				1/8			12-16 Kts																		
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				1/8			12-16 Kts											</							

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

Place	Weather Observer 5884	Lerwick	Leuchars	Lympne	Levchas	Liverpool													Place
Time	03h	09h	15h	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.	Feet
Surf.	200	20	238	15			340	05	270	08	310	05							Surf.
1,000	110	21	340	30			340	28	294	17	310	13							1,000
2,000	120	08	351	29			340	22	323	20	320	14							2,000
3,000	120	18	360	28			340	18	329	22	330	11							3,000
4,000	120	17	003	29			340	05	337	24	330	10							4,000
5,000	130	12	010	29			330	11	387	24	330	10							5,000
6,000	160	12	010	31			240	06	333	24	330	12							6,000
8,000	170	14	387	27			280	05	321	24	320	21							8,000
10,000	140	23	356	28					325	26	320	26							10,000
14,000	130	20	341	33					333	49	320	37							14,000
18,000	160	23	334	85					337	62	330	38							18,000
24,000	110	27	328	103					321	70	320	45							24,000
30,000	160	19	329	103	317	63			323	71	310	56							30,000
40,000	190	17	330	91	310	70			310	65	310	50							40,000
50,000			(36,000)								310	64							50,000

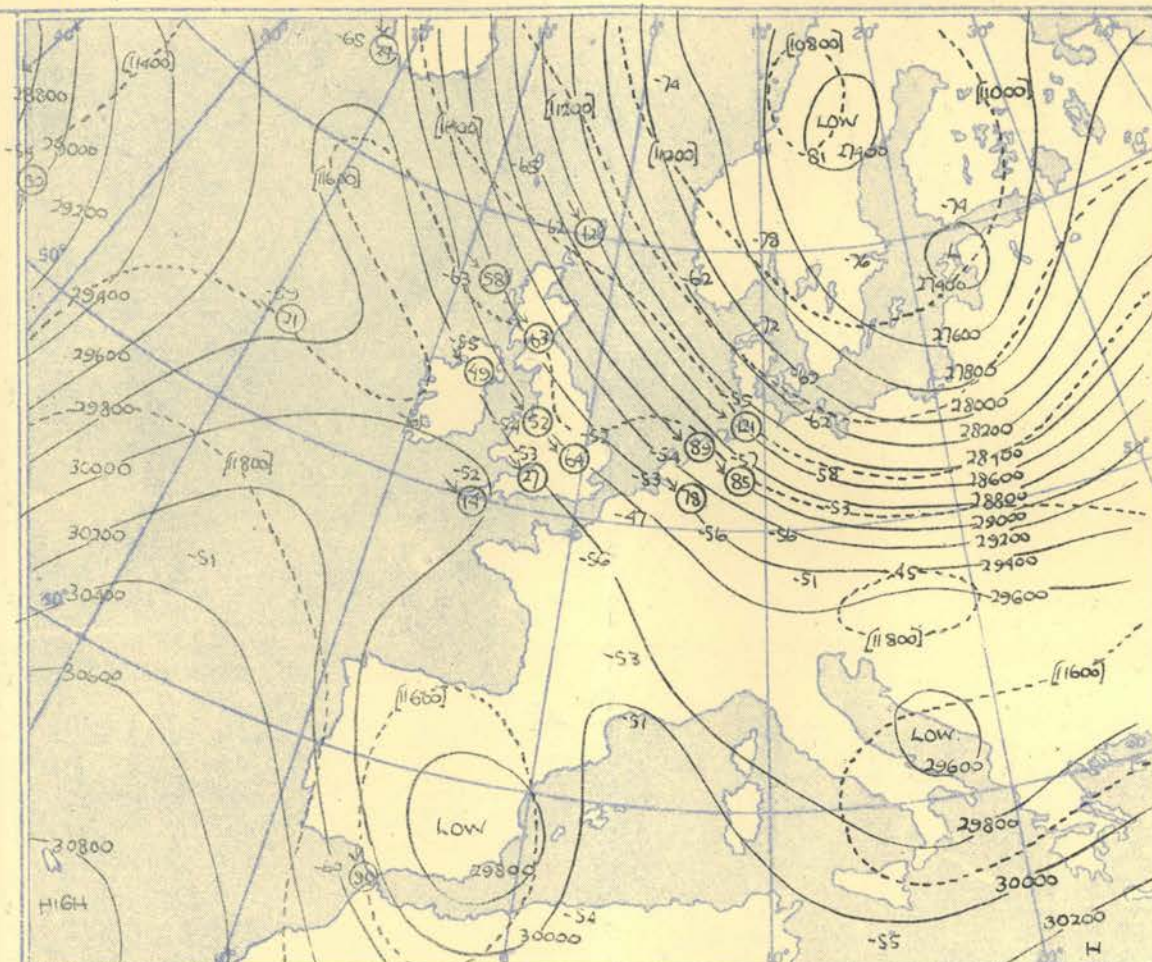
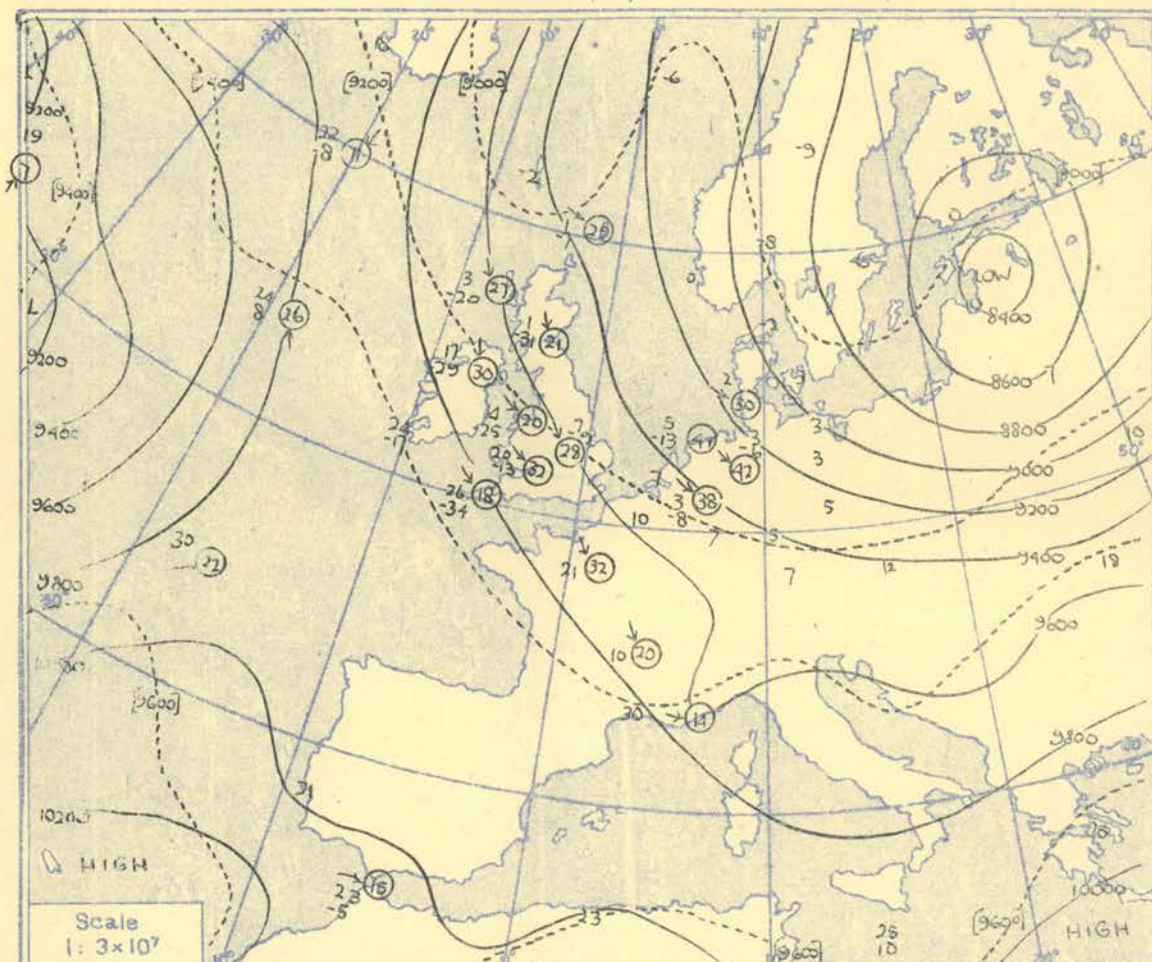
## NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				WEATHER EXPLORER				WEATHER OBSERVER				Ship																
Lat/Long	59.8 N		20.1 W		53.8 N		19.2 W		59.9 N		20.2 W		53.9 N		19.2 W		59.9 N		20.1 W		53.8 N		19.2 W		Lat/Long																
Pressure	Time	03h		G.M.T.		03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h		G.M.T.		21h		G.M.T.		G.M.T.															
	M.S.L.	1020		mb		1016		mb		1021		mb		1014		mb		1021		mb		1012		mb		mb															
	Surf	1020		mb		1016		mb		1021		mb		1014		mb		1021		mb		1012		mb		mb															
	Freezing	905		mb		820		mb		950		mb		850		mb		940		mb		840		mb		mb															
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	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.	mb																
Surf		44	42	095	20	50	49	130	20																Surf																
1000	5.4	41	36	110	27	42	48	47																	1000																
950		38	30	116	25		42	38																	950																
900	33.3	31	27	125	20	32.5	35	29		33.3	26	23	115	19	32.0	37	31	129	26	33.6	27	12	105	19	32.1	39	36	153	27	33.1	26	24	102	19	31.5	39	36	148	33	900	
850		25	22	134	14		35	26			22	21	118	14		32	27	136	24		21	09	093	09		37	30	159	28		20	20	110	14		33	29	157	30	850	
800	63.9	17	05	130	08	63.5	30	25		63.5	19	17	143	07	62.9	25	20	147	21	64.0	26	-36	067	08	66.3	32	19	161	31	63.4	28	16	119	12	62.6	27	24	160	27	800	
750		24	-01	038	05		28	20			27	-04	082	06		24	15	162	21		26	-04	058	12		24	16	16	31		25	08	108	11		27	24	152	26	750	
700	98.3	20	02	022	07	98.1	22	01		98.0	21	03	056	08	97.2	17	05	160	27	98.5	22	-08	049	11	97.9	24	08	162	26		97.8	20	03	068	09	96.9	20	-15	149	28	700
650		12	-02	359	04		17	-06			13	00	043	09		11	-06	165	27		16	-19	047	12		17	19	156	27		15	-01	042	06		15	-42	156	29	650	
600	137	07	-13	295	02	137	07	-18		137	04	-07	035	09	136	02	-24	173	28	138	10	-32	068	10	137	10	-35	170	34	137	09	-58	038	05	136	11	-47	211	12	600	
550		00	-35	293	09		00	-26			-02	-26	039	12		-06	-29	160	30		03	-36	083	09		02	-48	168	36		01	-20	068	03		03	-50	252	16	550	
500	182	-07	-47	315	15	182	-07	-32		181	-10	-36	010	12	180	-18	-39	143	29	183	-04	-41	067	12	182	-08	-50	127	33	182	-09	-29	118	03	181	-07	-30	266	12	500	
450		-19	-55	315	15		-19	-44			-22	-50	343	16		-30	-53	131	34		-21	-50	059	08		-20	-58	129	17		-21	-41	162	04		-18	-32	268	16	450	
400	234	-31	-58			234	-30	-52		233	-33	-60	242	16	231	-44		119	32	235	-32	-59	098	08	234	-33	-60	170	09	234	-35	-53	154	05	233	-30	-43	267	30	400	
350	(377)	-37	-60				-44				-46		307	14		-59		134	30		-43		CALM			-48		254	21		-45		212	08		-44		283	42	350	
300	mb					298	-57			297	-60		310	20	292	-75		150	24	(344)	-46				298	-59		290	21	297	-58		273	16	297	-60		296	37	300	
250							-74				-35		316	29		-82		190	33		mb					-77		283	40		-76				-80		284	30	250		
200						280	-93			280	-93		312	18	(281)	-81									281	-87		272	33		-90			379	-97		282	40	200		
170							-93				-93		302	20	mb										-85			276	30		-88			289	29		289	29	170		
150							-83				-83		298	22											-84			285	22		-82				-81		303	38	150		
130							87				87		325	39											-82			273	36		-82				-82		280	31	130		
110							91				91		321	41											-85			294	45	(110)	-86			-84		307	53	110			
100						517	-93				-93		312	45											519	-87		294	33	mb				-88		309	50	100			
90							-94				-94		(995 mb)												-89			302	36		-95				-95		296	44	90		
80																									-91			302	59		-97				-97		311	47	80		
70																									-92			301	57		-94				-94		312	50	70		
60																									-94			293	39		-99				-99					60	



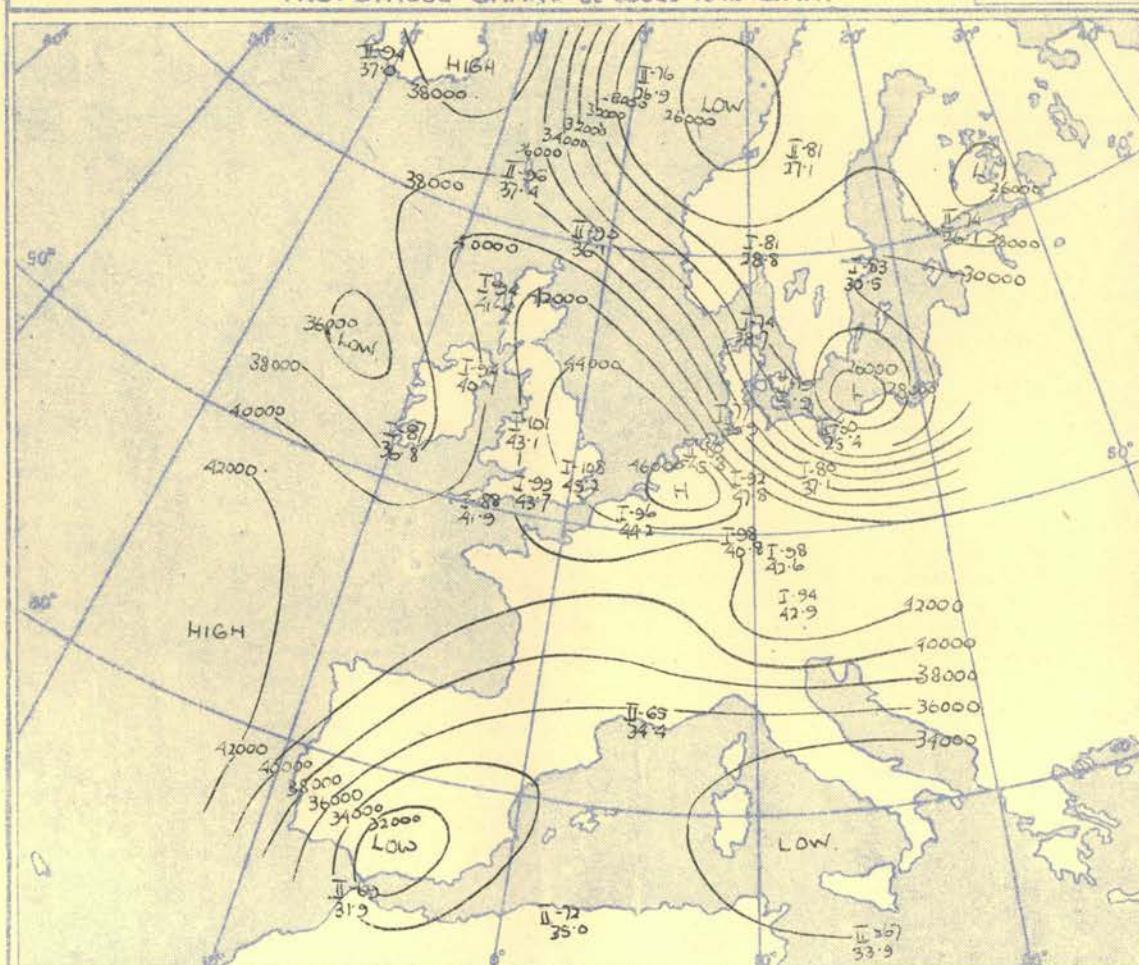


The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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 15 h. G.M.T.



Contour lines of Height of Tropopause.  
Temperature of Tropopause.

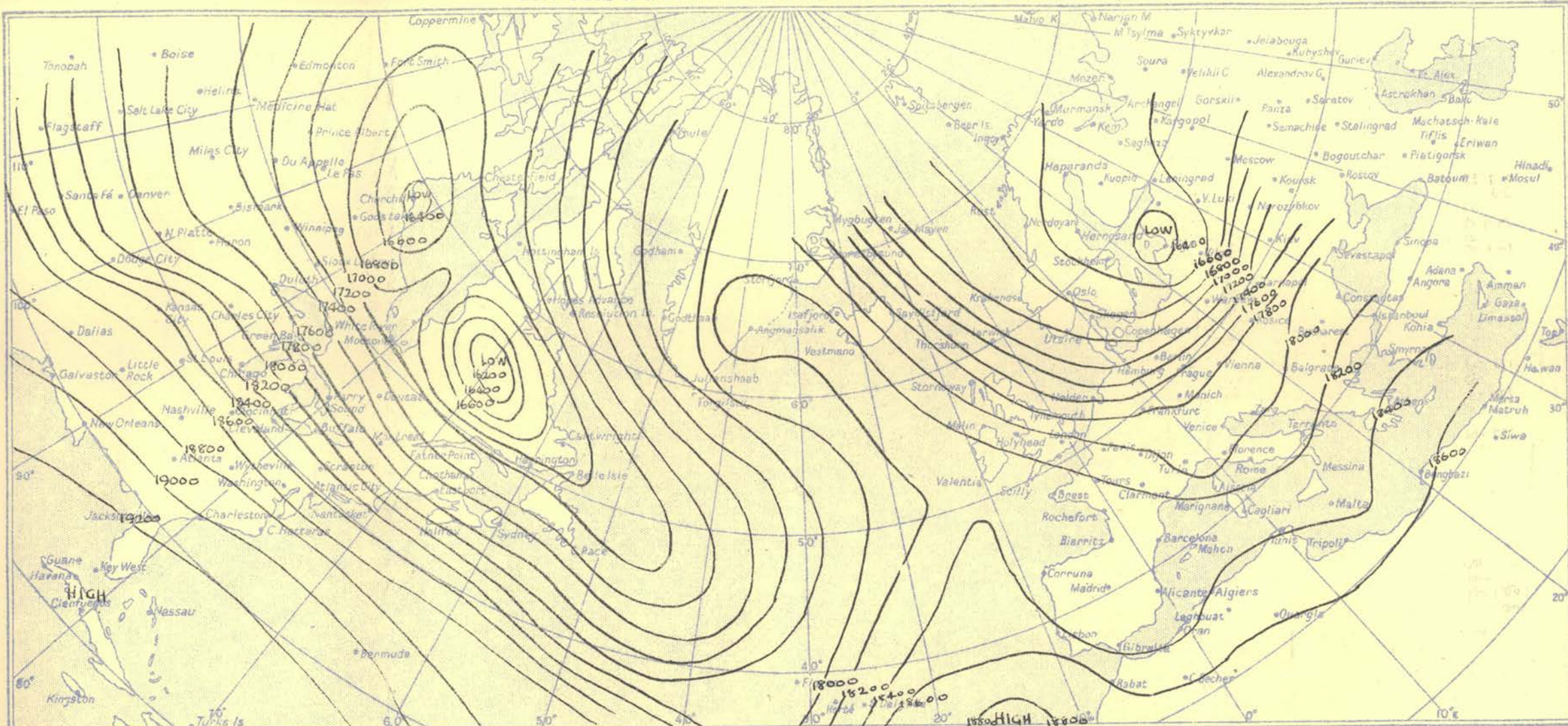
### NOTES ON THE AEROLOGICAL SITUATION.

A pronounced cold outbreak spread over Scandinavia and the Baltic while the northern part of the warm ridge in the Davis Straits became even more marked than yesterday; the southern part of this ridge was more indefinite at first but became established later about 500 miles west of Ireland. Marked cyclonic activity took place west of this ridge and northwest of the Azores.

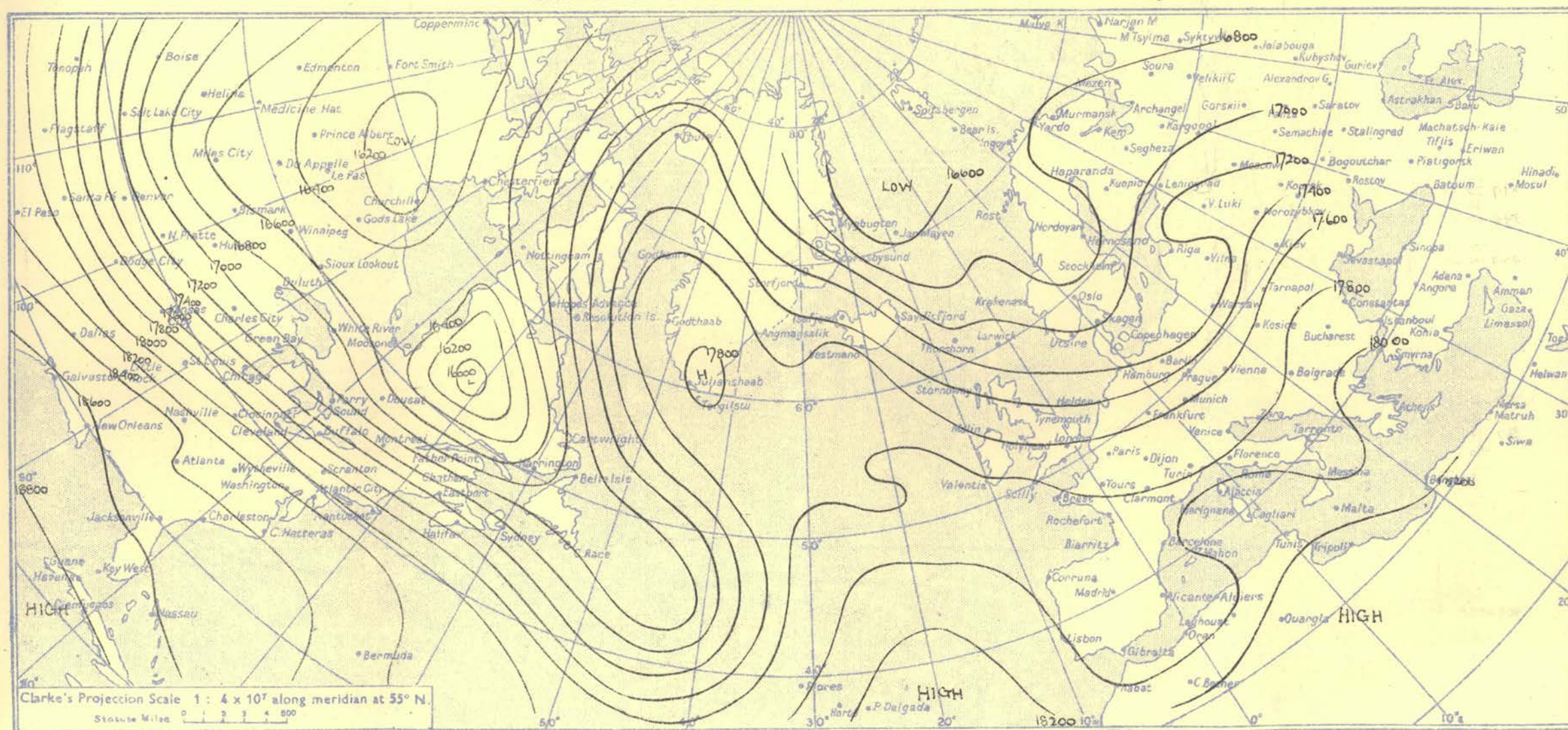
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 12<sup>th</sup> March. 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 M.S.L. Surf Freezing	15h 1009.0 998.7 939		G.M.T. mb mb mb		15h 1017.8 1015.7 745		G.M.T. mb mb mb		15h 1014.7 1013.9 939		G.M.T. mb mb mb		15h 1017.9 1009.1 920		G.M.T. mb mb mb		15h 1016.1 1014.1 938		G.M.T. mb mb mb		15h 1014.4 1009.8 921		G.M.T. mb mb mb		15h 1016.3 992.0 505		G.M.T. mb mb mb		15h 1017.3 1006.6 878		G.M.T. mb mb mb		15h 1017.4 1016 885		G.M.T. mb mb mb		Time M.S.L. Surf Freezing								
	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb								
Surf	02.7	35	35	315	12	005	43	33	330	12	00.2	46	34	300	16	02.3	45	33	350	08	00.6	46	28	320	08	01.2	47	35	350	10	04.4	46	31	360	16	02.9	50	41	337	05	003	52	39	Surf	
1000	2.3					04.7	40	31	331	22	03.9	45	32	299	24	04.7	43	31	343	09	04.3	42	27	324	18	03.8	45	34			4.1	46	31	360	16	04.7	49	40	337	05	47	49	33	1000	
950		38	28	327	29		40	27	331	22		34	25	306	22		36	26	340	10		34	24	318	11		37	29	332	13		39	27	344	12		42	35	289	15		42	29	950	
900	29.9	28	27	326	27	32.4	37	20	321	2	31.8	26	21	317	24	32.7	29	21	340	09	32.2	27	20	324	08	31.8	28	24	329	13	32.2	31	22	328	14	32.9	35	26	297	13	330	35	26	900	
850		21	20	321	25		19	13	325	20		18	14	319	22		23	16	340	07		22	12	347	12		22	17	325	13		25	18	296	15		27	20	304	15		27	21	850	
800	60.1	15	13	313	24	62.4	11	00	322	19	61.9	12	00	322	19	63.1	16	08	340	12	62.5	17	03	349	14	62.2	16	12	328	16	62.6	21	10	301	12	63.7	24	20	309	18	63.7	31	15	800	
750		08	06	311	26		09	-8	331	21		00	02	330	18		16	-14	339	17		12	-8	349	12		11	-01	333	16		18	-06	326	20		25	17	315	15		29	-9	For	750
700	93.4	01	-02	311	29	95.7	03	-20	332	27	95.1	01	-04	338	21	97.0	17	-29	332	30	96.2	14	-25	324	20	95.7	07	-09	332	25	96.7	20	-13	317	32	98.1	26	-34	316	18	98.5	24	-17	700	
650		-01	-15	311	29		04	-15	328	37		04	-03	326	36		14	-17	329	37		11	-29	320	32		14	-10	324	35		16	-12	312	35		19	-41	314	21		17	-30	Winds	650
600	131	-16	-27	314	27	134	01	-18	329	43	133	-03	-17	320	41	136	07	-16	326	37	135	07	-18	322	36	134	09	-13	335	45	136	11	-15	308	35	138	13	-46	312	23	137	9	-35	600	
550		-24	-31	318	37		-2	-20	330	44		-07	-23	323	48		-01	-14	324	39		00	-19	320	40		01	-18	306	45		03	-21	303	32		04	-52	306	25		1	-40	See	550
500	173	-27	-40	328	61	178	-12	-29	330	51	177	-13	-29	325	51	181	-11	-24	317	39	180	-9	-22	311	43	179	-07	-23	306	48	181	-05	-30	308	32	183	-5	-59	308	27	182.5	-8	-42	Page 3.	500
450		-32	-48	327	83		-20	-37	330	53		-22	-39	326	54		-20	-39	317	43		-22	-30	306	45		-19	-31	307	51		-14	-38	308	42		-13	-54	306	27		-18	-53		450
400	224	-3	-54	331	105	230	-33	-50	327	48	229	-32	-49	325	56	233	-29	-56	309	45	232	-29	-45	303	53	232	-29	-43	306	56	234	-27	-47	304	37	236	-23	-56	308	20	2350	-30		400	
350		-48		338	107		-48		324	53		-43		322	57		-42		308	44		-42		306	54		-39	-55	304	55		-38	-57	299	32		-31	-60	298	11		-45		350	
300	287	-62		327	101	293	-63		316	58	Continued				291	55		308	49	296	54		301	52	296	52		302	64	298	53		299	27	301	-52		293	14	2984	-61		300		
250		-76		329	107		-77		310	09		-73		297	45		-71		297	45		-71		293	51		-68		296	59		-67		280	29		-67		278	12		-78		250	
200	370	-90		322	102	376	-86		312	00		-93		296	37	380	-85		296	37	380	-85		283	50	380	-86		296	63	383	-84		275	30	385	-81		229	15	3811	-86		200	
170		-89					-93		312	06		-92		293	44		-95		293	44		-95		281	49		-96		291	59		-94		278	33		-88		260	16		-86		170	
150		-91				433	-88		312	63	for rest				439	89		305	48		44		295	54	436	-107		295	59		-98		285	35		-83		298	26		-85		150		
130		-92					-89		321	60	of winds					88		312	57		-90		305	54		-93		297	56		-90		299	44		-80		301	45		-86		130		
110		-96					-91		312	60	see					89		314	52		-92		316	51		-95		304	55		-88		299	52		-83		305	44		-87		110		
100	505	-98				525	-93				Page 3				517	89		314	54	516	-91		318	51	515	-94		304	58	519	-91		297	54	525	-85		303	49	5193	-90		100		
90		-99										-88		314	55		-88		311	65		-91		299	51		-93		294	66		-94		297	57		-85		305	55		-90		90	
80	(078)	-99										-88		304	67		-90		304	67		-91		304	64		-90		295	66	616mb	-94		296	62		-88		305	55		-90		80	
70												-90					-90					-90					-90		295	66	616mb	-94		296	62		-88		305	55		-90		70	
60												-90					-90					-90					-90		295	66	616mb	-94		296	62		-88		305	55		-90		60	
Inversion 513mb-28°-500mb-27°				Inversion 800mb 11°-781mb 13° 642mb 33°-660mb 05° isothermal				Inversion 796mb 15°-778mb 17° 750mb 18°-723mb 19° 676mb 15°-659mb 16°				Inversion. 733mb 11°-685mb 16° isothermal 430-415mb 21°				Inversion. 700mb 07°-650mb 14° isothermal. 797mb-784mb 15°				Inversion. 750mb 14°-723mb 21° isothermal 656mb-633mb 16°				Inversion. 766mb 21°-743mb 27° isothermal. 743mb 27°-710mb 27°				Inversion. 813mb 21°-800mb 31°																	

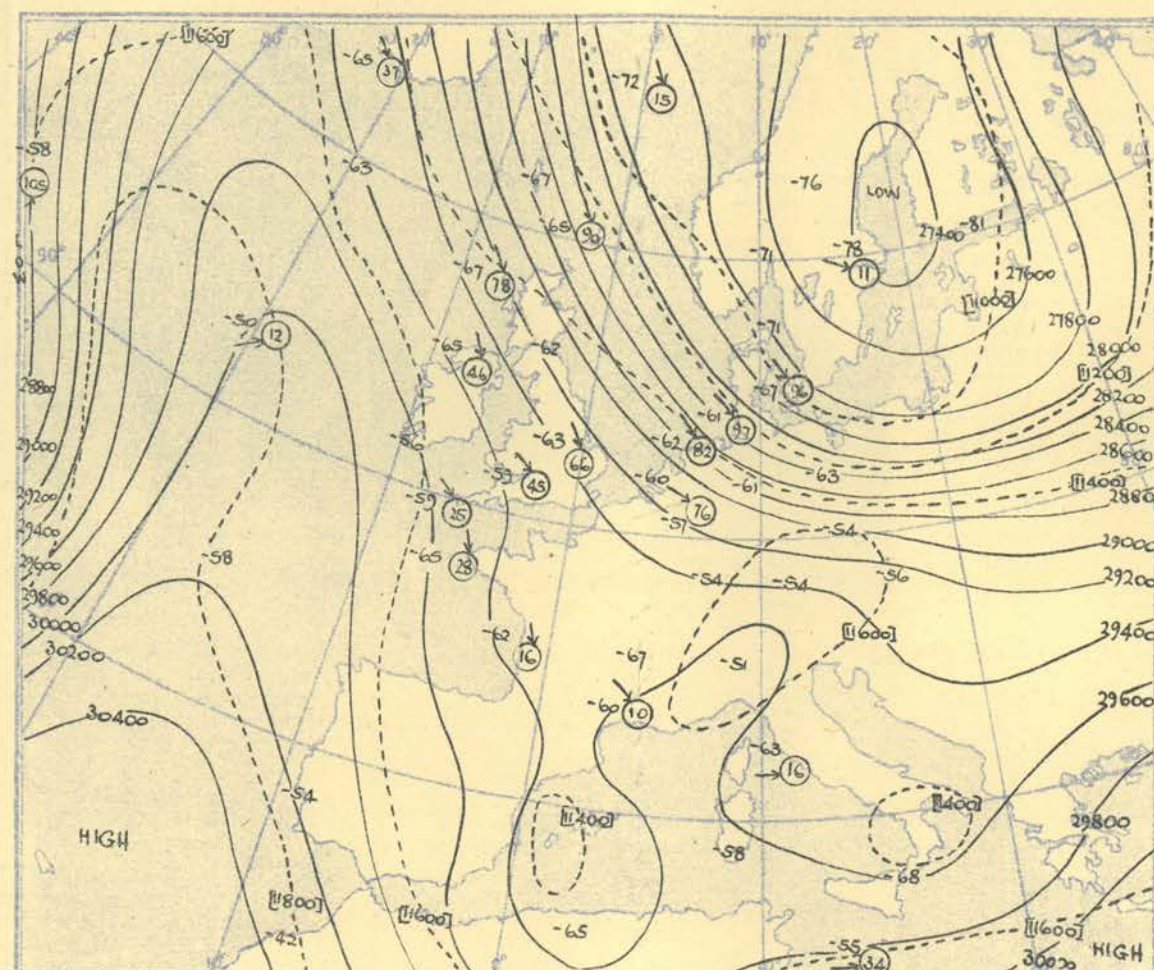
Tropopause		II 208mb-90°36,100'				I 167mb-94°41,400'				NR				I 151mb-94°40,100'				I 156mb-101°43,100'				I 147mb-108°45,200'				I 155mb-99°43,700'				I 170mb-88°41,900'				I 213mb-87°36,800'				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Feature	Time	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.	mb		1009.1		mb		mb		1018.7		mb		mb		1015.7		mb		1016.1		mb		1017.7		mb		mb		M.S.L.									
	Surf	mb		998.7		mb		mb		1009.7		mb		mb		1011.1		mb		999.7		mb		1006.9		mb		mb		Surf									
	Freezing	mb		987		mb		mb		933		mb		mb		948		mb		900		mb		868		mb		mb		Freezing									
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure						
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb						
Surf	017	29	28	349 16	00.5	37	30	330 18	02.3	36	31	340 03					01.2	36	31	Calm	04.4	39	28	Calm	029	46	42	Calm				Surf							
1000	2.3	27	23	330 34	04.7	36	28	335 26	04.9	37	32						04.1	37	33		4.3	38	24		047	45	41					1000							
950		27	23	330 34		31	24	342 25		34	30	343 15						32	27	343 08		38	24			40	37	287 10				950							
900	29.7	20	18	325 32	32.3	24	20	347 24	32.6	27	19	346 19					31.9	26	22	330 13	32.3	32	20		329	35	32	298 13				900							
850		14	11	320 28		16	14	344 25		21	15	347 19						20	15	317 14		25	16			30	26	306 20				850							
800	59.6	07	06	320 24	62.3	12	09	336 25	62.7	14	06	347 19					62.1	13	09	319 17	62.7	19	09		636	25	21	313 20				800							
750		01	06	319 21		08	08	335 24		14	09	344 21						05	00	307 21		17	07			21	12	313 17				750							
700	92.3	06	17	315 21	95.6	06	15	336 35	96.5	16	14	339 24					95.2	05	04	310 25	96.7	18	16		979	23	23	319 17				700							
650		13	33	323 27		05	16	337 44		15	10	333 31						04	08	313 30		15	16			17	20	318 21				650							
600	129	20	42	328 28	13.4	06	18	330 50	13.5	09	23	337 33					13.3	01	10	311 40	13.6	07	18		137	11	31	317 23				600							
550		24	47	332 51		30	32	335 54		02	28	331 58						04	15	316 44		02	22			04	41	313 21				550							
500	171	28	54	331 75	17.8	11	43	334 58	18.0	08	36	324 36					17.8	13	25	315 46	18.0	13	28		182	8	45	322 25				500							
450		32	54	329 95		23	46	334 63		20	40	328 35						24	36	318 49		18	39			19	59	322 24				450							
400	222	41		323 98	23.0	36	59	332 66	23.3	32	52	337 39					22.9	36	48	313 52	23.3	29	48		235	30	57	316 26				400							
350		52		329 95		50		328 66		42		336 37						47		308 57		43				43		314 21				350							
300	285	66		325 95	29.3	63		324 70	29.3	53		323 43					29.3	60		305 62	29.6	58			298	58		316 22				300							
250		78		325 94		77		324 67		69		312 52						75		297 65		72				77		301 24				250							
200	367	89		326 87	37.6	89		317 71	38.1	85		306 59					37.6	91		294 53	38.0	88			381	89		293 26				200							
170		90		321 85		92		312 70		90		314 51						96		293 54		91				85		311 33				170							
150		89		312 79	43.2	93		322 61	43.8	94		320 47					43.4	97		301 59		89				86		314 39				150							
130	(25)	91				91		322 61		92		323 52						91		304 63		87				86		314 46				130							
110	mb)	92				95				95								95		303 58		90											110						
100					51.2	95				97								96		296 61		90											100						
90						97				100																							90						
80																																		80					
70																																		70					
60																																		60					
Tropopause		I 155mb-91°37,500'				II 200mb-89°37,600'				I 150mb-94°44,100'				I 162mb-101°41,700'				II 200mb-88°38,000'				I 186mb-91°39,600'				Tropopause													
Inversion		999mb 290-987mb 32°				Inversion				Inversion				Inversion				Inversion				Inversion																	
Isothermal		723mb 06°-710mb 07°				750mb 14°-723mb 17°				1010mb 36°-980mb 38°				1011mb 36°-990mb 37°				999mb 39°-984mb 42°				750mb 21°-710mb 24°																	
Isothermal		775mb -62mb 09°				670mb -59mb 05°				670mb 14°-650mb 15°				711mb 03°-690mb 06°				755mb 16°-726mb 20°																					
Isothermal		500-071mb 28°				660mb -59mb 05°				800-750mb 14°				659-631mb 24°				677mb -661mb 17°																					



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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure mb	Time M.S.L.	03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		Time M.S.L.	Surf Freezing							
		Surf.	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									
																																				03h.	1008.9	998.5	1017.7	1015.7	988	1014.5
Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir.	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	28	24	337	23	00.5	34	32	34.0	12	00.2	34	28		02.3	35	34				01.2	35	32	260	08	04.4	32	28			02.9	43	41			Surf						
1000	2.3					4.6	33	26	34.5	24	5.7	33	27		4.9	35	33				4.0	36	32	265	11	4.2					4.7	43	41			1000						
950		25	20	335	32		27	21	34.5	25		29	22			31	25	34.2	28			34	27	277	13		36	32	350	02		38	35	338	08		950					
900	29.5	18	13	346	28	32.0	19	15	34.5	27	31.3	23	16		32.4	25	18	33.9	20			27	22	283	14	32.1	29	23	280	05	32.8	31	27	310	10	33.0	34	30	23.5	04	900	
850		13	05	343	25		13	12	33.6	26		16	11			19	15	33.5	20			20	16	289	15		22	18	284	08		26	21	290	13		27	23	278	07	850	
800	59.1	07	04	340	22	61.7	07	06	32.2	27	61.2	09	05		62.5	16	03	33.1	22			61.8	13	11	299	16	62.4	17	10	313	12	63.4	25	12	290	16	63.6	27	19	303	14	800
750		01	13	358	15		07	03	32.3	35		09	03			18	11	32.4	21				08	01	310	21		21	02	32.2	18		27	04	30.2	16		26	12	314	14	750
700	91.8	07	25	022	12	94.9	08	13	32.8	38	94.6	09	06		96.5	17	11	32.8	26				09	16	326	24		13	09	32.2	30		22	09	31.4	17	98.2	21	05	315	14	700
650		14	36	015	13		07	15	32.8	48		05	11			12	15	31.9	24				09	16	326	24		13	09	32.2	30		22	09	31.4	17		21	05	315	14	650
600	12.8	21	46	350	23	133	01	20	32.5	53	133	01	12		135	11	20	32.1	25				05	23	332	40	135	06	16	32.1	31		08	21	31.6	22	137	09	20	307	15	600
550		20	50	335	63		06	39	32.6	57		05	19			00	37	33.4	29				05	36	331	41		02	23	320	20		00	27	31.6	25		01	29		550	
500		17	22	48	331	78	177	14	45	31.9	60	177	14	33		180	12	47	34.0	30				15	44	328	46	180	12	42	32.3	32		10	35	31.3	26	182	08	38		500
450		32	53		81		25	46	32.7	64		25	43			232	12	55	33.5	33				25	44	320	56		23	44	32.4	32		21	46	31.3	25		18	45		450
400	122	44		328	88	229	37	56	32.4	70	229	36	52			232	37	60	33.1	42				34	54	320	56	232	34	54	32.0	36		32	56	31.0	22	235	29	54		400
350		55		330	86		51		32.1	68		49				50			33.1	44				50		315	59		46		31.1	42		44		30.5	22		42		350	
300	28.4	65		328	90	292	67		31.7	78	292	62				295	65		330	46				63		313	66	295	59		309	45		59		30.5	25	299	56		300	
250		77		325	95		80		32.1	78		74				283			32.3	53				78		312	71		75		31.3	41		74		31.1	27		72		250	
200	36.6	88		326	99	37.4	90		32.2	71	37.5	86				376	93		32.3	54				87		310	56	378	90		31.2	41		81		31.0	32	383	84		200	
170		88		328	83		89					90					88			31.6	64				91		309	57		92		31.0	45		77		31.4	42		81		170
150		90		326	78		87					88					88			31.6	64				85		307	65		88		31.4	50		78		31.5	48		79		150
130		91		321	76		93					92					92			31.3	63				88		307	60		85		31.6	49		79		31.6	49	(117)	79		130
110		92					97					94				513	95		31.9	71				89		308	65				31.3	54		83		31.3	54		81		110	
100						510	98					95					95		31.8	79						309	67				31.0	65		85		30.8	59		86		100	
90							100					101																												90		
80							101																																		80	
70							101																																		70	
60							100																																		60	
		Inversion 583mb-23°-544mb-19° Isothermal 183-964mb 27°				Inversion 777mb-04°-734mb-08° Isothermal 734-675mb 08° 1016-1003 34°				Isothermal 809-690mb 09°				Inversion 812mb-14°-770mb-20° 650-12°-620-14° Isothermal Surf.-982mb-35°				Inversion 1011mb-35°-990mb-38° 760-06°-715-13°				Inversion 999mb-32°-988mb-38° 783-17°-750-21° Isothermal 814-783mb 17°				Inversion 819mb-22°-782mb-29° Isothermal 1009-996mb 43°				Inversion 1016mb-36°-978mb-44° 833-24°-778-29°				Tropopause								
Tropopause		I 200mb-88° 36,700'				I 189mb-93° 38,500'				I 175mb-91° 40,100'				I 215mb-93° 36,100'				I 187mb-92° 38,800'				I 208mb-89° 37,000'				I 211mb-83° 36,900'				I 200mb-84° 38,300'				Tropopause								
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure mb	Time M.S.L.	09h.		G.M.T.		09h.		G.M.T.		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					
		Surf.	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb								
																																			09h.			1009.1	998.7	1017.7	1015.6	1016.0
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	Pressure mb							
Surf	02.7	31	28	340	20	00.5	31	28	330	10					02.3	37	34	270	06	00.6	37	33	320	05	01.2	33	30	280	03	04.4	33	29	330	02	02.9	42	36			Surf		
1000	2.3					4.6	30	26							4.8	36	33	338	15	5.9	37	31	322	18	3.9	33	29	317	13	4.2			4.6	42	35			1000				
950		29	23	339	33		26	20	34.9	21						31	26	34.9	13			30	26	330	18		34	26	313	16		34	23	347	10		36	30	001	11	950	
900	29.7	22	17	344	31	31.8	19	13	34.5	21					32.5	26	20	35.7	14	31.5	24	18	331	18	31.6	28	21	311	19	32.0	29	20	333	09	32.6	31	27	324	11		900	
850		15	13	351	24		13	08	34.5	22						20	13	34.4	24			18	12	320	18		21	15	301	21		22	15	296	09		26	22	295	16	850	
800	59.5	11	07	354	24	61.5	07	04	34.3	24					62.7	14	05	33.8	24	61.5	17	02	31.9	23	61.9	13	07	290	21	62.3	21	09	299	12	63.1	25	15	316	18		800	
750		04	01	354	20		10	08	337	34						20	06	33.4	26			16	06	32.2	30		12	08	305	26		21	00	31.6	19		27	02	32.2	16	750	
700	92.5	03	09	351	13	94.8	08	12	35.3	39					96.7	17	03</																									

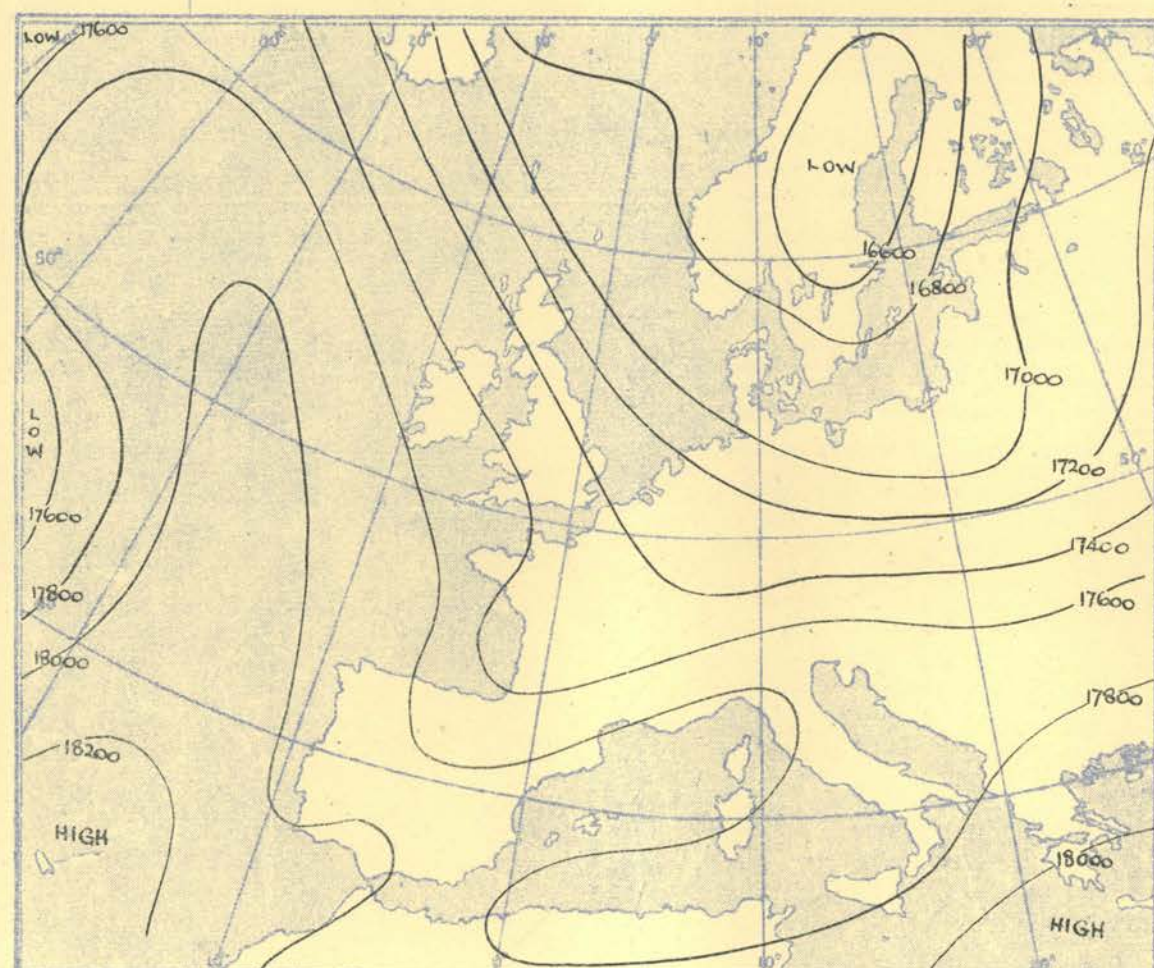




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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.



[illegible][illegible]

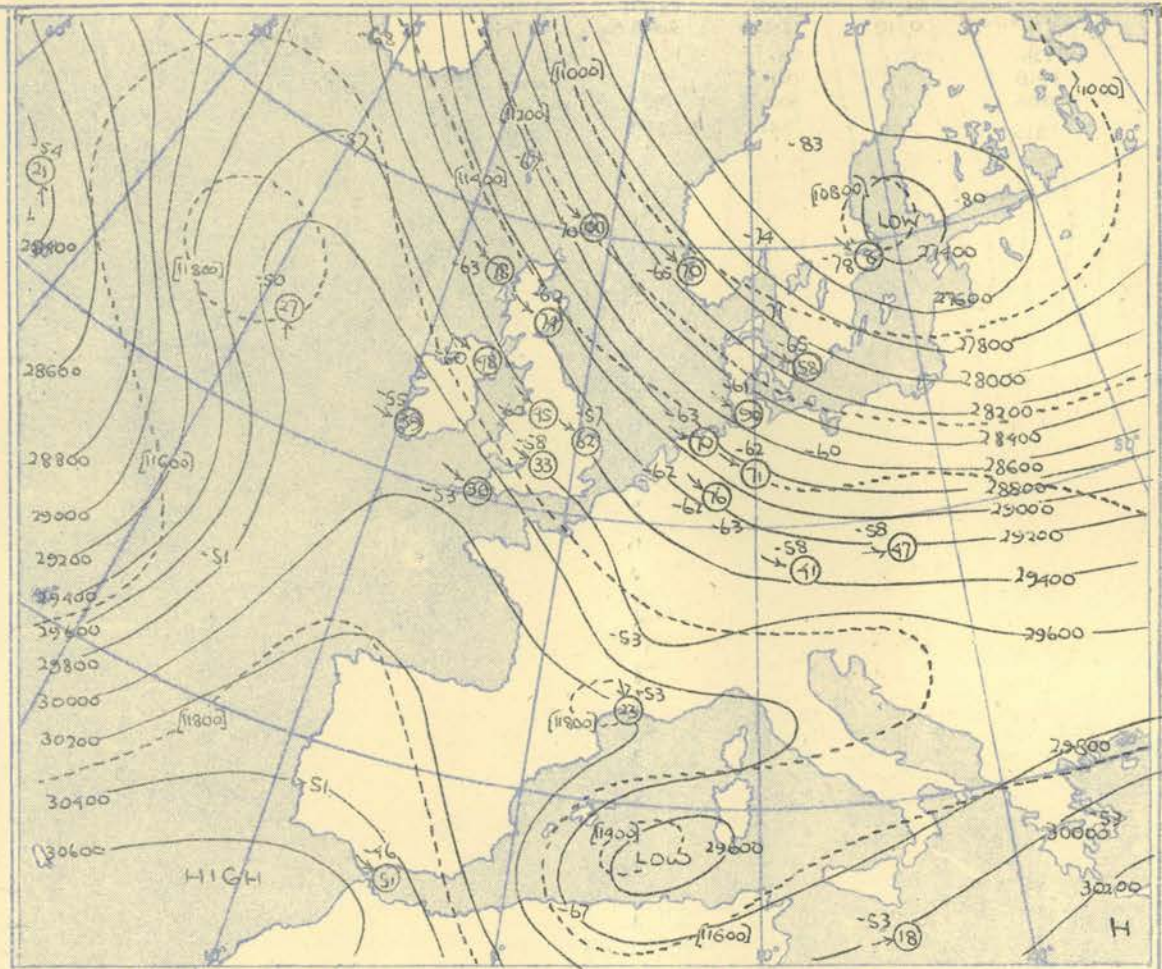
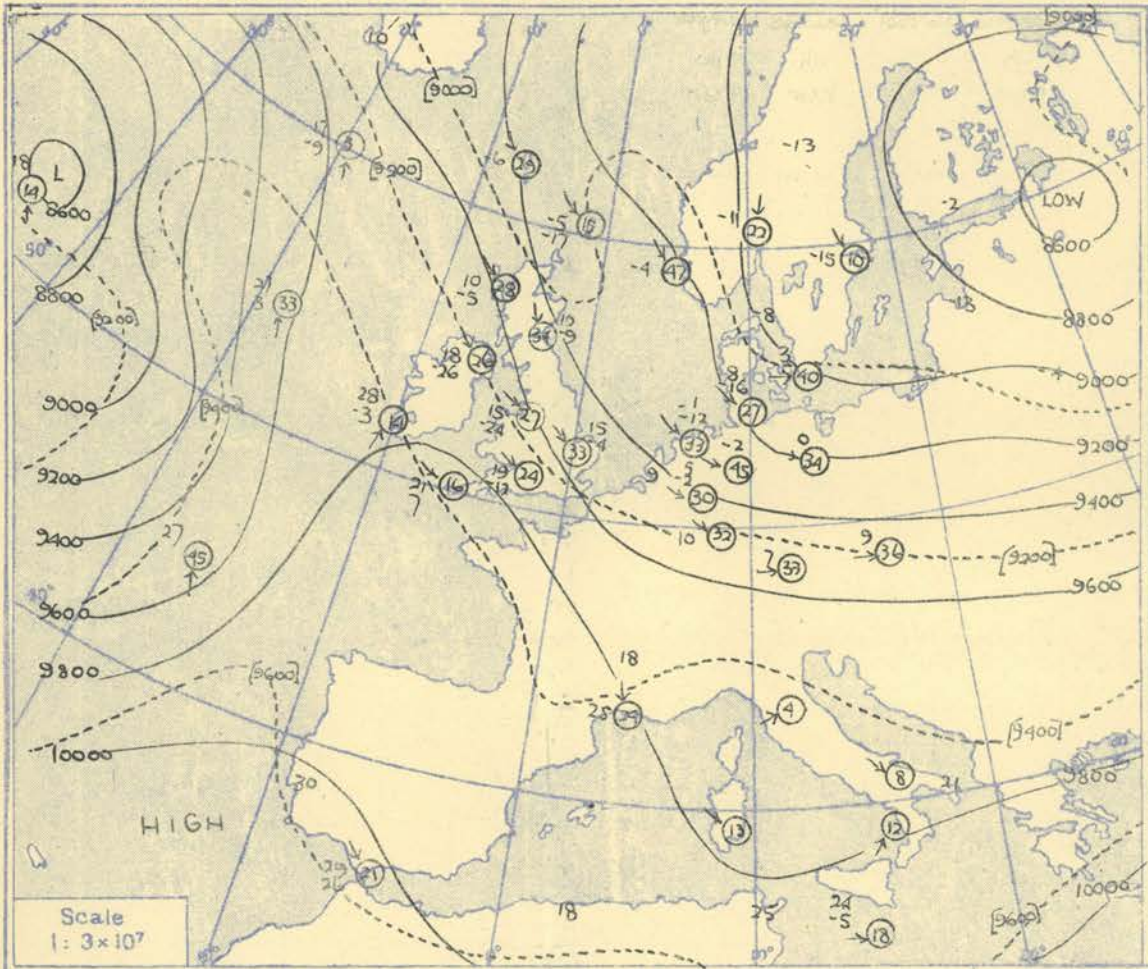
## NEPHOSCOPE OBSERVATIONS

[illegible]

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

[illegible]

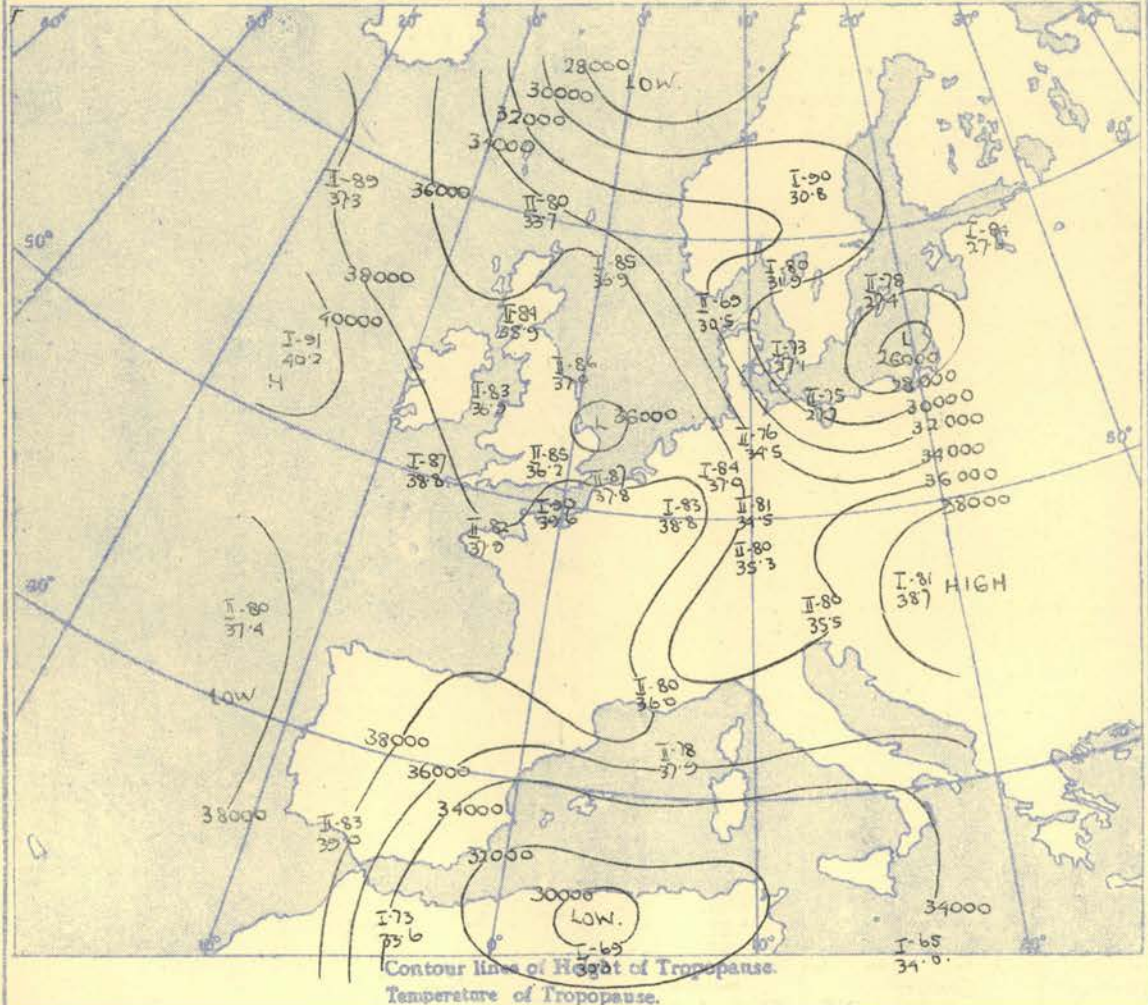




Gradient Wind Scale for Contours at intervals of 200 ft. at Lat 52½° N.

100 80 60 40 20 10 knots

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



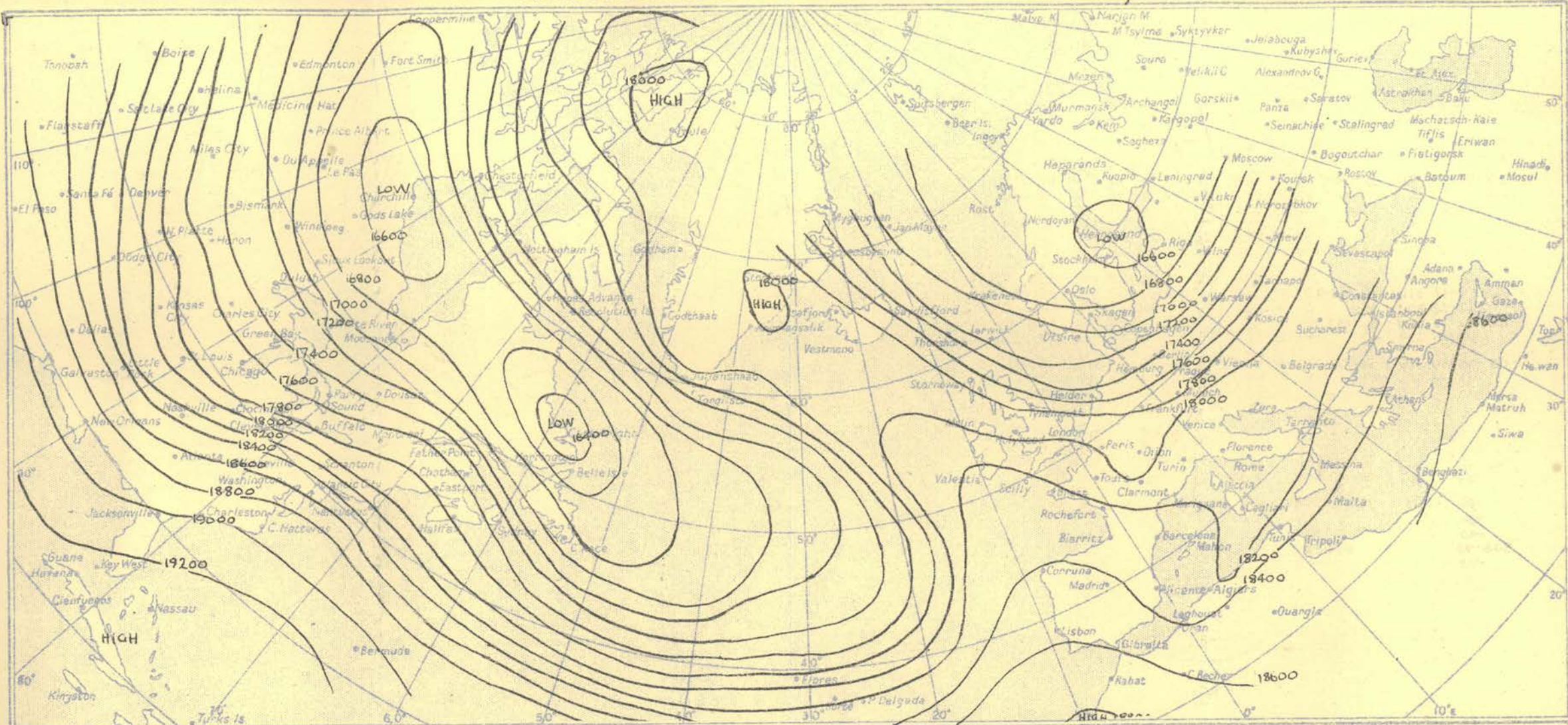
NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge from the Davis Straits to West of Ireland persisted and the southern end of this ridge moved east to about 10°W by the end of the day. The cold outbreak over Scandinavia persisted with little change. Cyclonic activity continued in Mid Atlantic west of the warm ridge.

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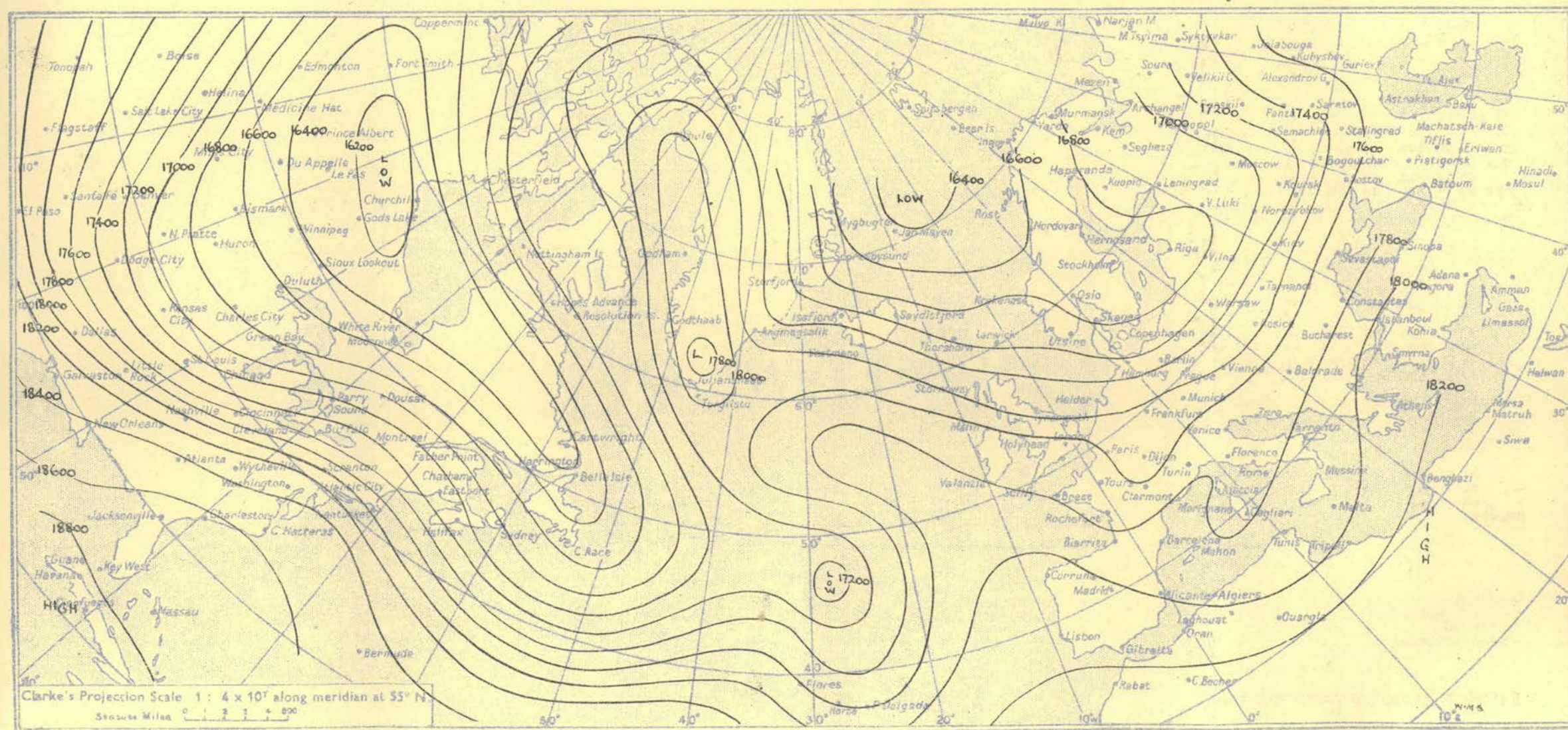
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

Monday 13<sup>th</sup> March, 1950.





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

Pressure	Time M.S.L.	Surf	Pressing	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				Station						
				15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.												
				1009.2	mb	998.9	mb	1016.9	mb	1015.0	mb	1014.6	mb	1013.8	mb	1008.9	mb	1000.1	mb	1015.7	mb	1013.6	mb	1015.7	mb	1011.1	mb	1015.7	mb	999.6	mb	1015.7	mb	1017.3	mb	1014.8	mb	1013.8	mb							
Surf	2.7	34	33	326	20	00.5	36	29	340	05	00.2	42	31	310	10	02.3	41	30	360	10	00.6	42	25	310	10	01.2	42	33	330	14	4.4	44	25	340	06	02.9	49	40	360	02	00.3	51	41	120	11	Surf
1000	2.4	29	24	315	24	04.5	34	25	324	16	03.7	39	28	326	15	04.8	40	29	342	15	04.2	40	23	306	12	04.1	40	31	337	18	4.3	43	25	340	06	04.9	47	38	360	02	04.0	49	40	134	15	1000
950	29.8	22	18	311	19	31.9	21	15	333	18	31.2	23	17	325	15	32.6	27	20	342	12	31.8	25	17	313	11	31.8	25	18	322	15	32.1	29	16	334	11	32.8	32	27	325	16	32.3	37	32	174	15	950
900	15	14	311	18	15	10	332	17	16	05	324	15	18	13	333	12	17	23	322	09	17	23	322	09	18	14	304	17	17	23	330	10	18	26	27	308	21	18	32	27	129	10	900			
850	59.6	08	07	312	16	01.7	09	04	335	16	01.1	09	09	329	15	02.8	22	05	332	11	01.9	17	21	325	17	01.7	10	08	299	20	02.5	24	17	304	14	03.4	30	19	299	21	03.3	28	16	242	12	850
800	02	4	312	16	07	04	332	20	09.4	07	05	329	28	08	07	335	27	10	310	25	09.5	18	24	318	27	09.5	15	4	313	33	09.9	19	12	311	24	09.7	21	07	302	16	09.8	23	-3	244	14	750
750	12.9	17	15	303	21	13.3	01	20	319	38	13.3	00	14	322	39	13.6	09	49	310	24	13.5	08	49	313	37	13.4	07	16	311	51	13.6	10	28	311	21	13.7	08	-11	308	23	13.6	10	-12	237	10	700
700	22	38	314	40	05	26	315	54	06	19	322	57	00	55	300	28	02	57	306	39	02	57	306	39	01	21	312	54	02	42	300	21	01	18	300	26	02	2	-28	234	08	650				
650	172	30	39	316	58	171	16	29	312	60	177	16	26	319	63	181	11	53																												

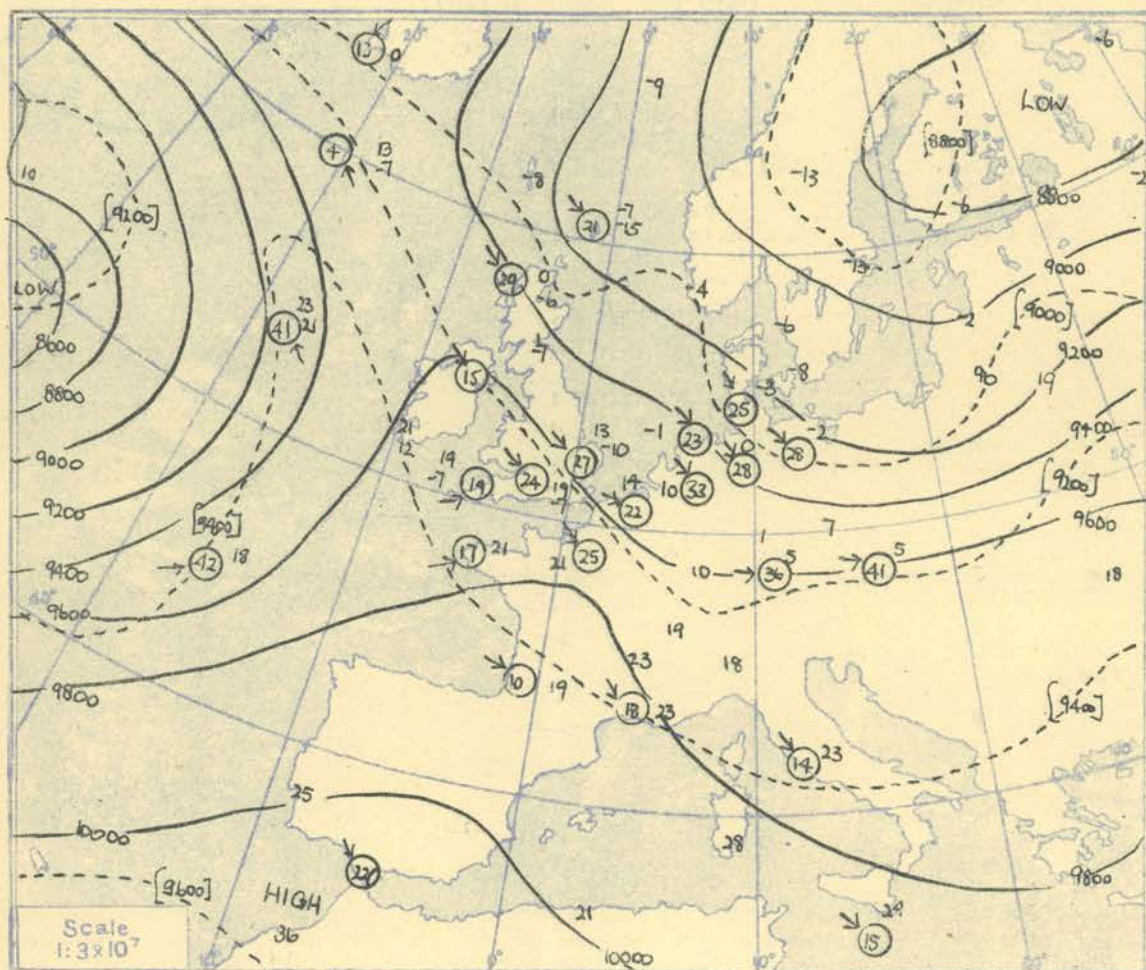


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION										
Time M.S.L. Surf Freezing	03hrs 1006.3 996.2			G.M.T. mb mb mb	03hrs 1013.8 1011.6 958			G.M.T. mb mb mb	03hrs 1014.0 1013.1 Surf			G.M.T. mb mb mb	03hrs 1016.4 1007.5 958			G.M.T. mb mb mb				G.M.T. mb mb mb	03hrs 1016.0 1011.5 961			G.M.T. mb mb mb	03hrs 1015.8 999.3 910			G.M.T. mb mb mb	03hrs 1014.7 1003.9 800			G.M.T. mb mb mb	03hrs 1009.4 1002.4 850			G.M.T. mb mb mb	03hrs 1009.4 1002.4 850			G.M.T. mb 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	027	28	26	292	08	005	33	252	40	05	002	27	21	023	35	30	04	33	31	050	05	012	35	31	050	04	33	31	050	03	44	37	135	10	03	50	46	Surf					
1000	24	26	306	18	035	37	25		035	37	25		035	37	25		043	35	31	060	05	043	35	31	060	04	35	31	060	03	44	37	135	10	03	50	46	1000					
950	28	25	17	204	25	311	24	183	14	31	021	14	19	31	25	23	255	10				31	25	23	255	12	31	2	24	243	09	035	44	37	950								
900	13	08	259	27	17	13	307	15	14	00			15	13	274	17						12	31	2	24	243	11	31	2	24	243	16	41	30	178	900							
850	58	50	01	254	27	61	1	10	06	315	18	60	5	11	18	274	17					13	21	12	264	13	21	12	264	15	28	23	212	13	34	28	156	850					
800																																						800					
750	00	-4	285	27	04	-1	320	24	05	-3			18	10	250	10						17	-3	285	27	110	24	07	284	22	22	10	243	16	25	09	750						
700	51	-2	-16	284	27	34	00	-6	306	29	34	0	-1	96	0	14	-12	288	15				27	110	19	-1	285	24	26	9	19	-7	244	19	26	0	700						
650	13	-18	283	29	-5	-11	303	39	-4	-7			09	-4	287	25						27	14	-14	282	27	12	-16	283	18	12	-16	283	18	15	0	650						
600	128	-24	-18	284	28	131	-11	17	301	49	131	-9	-15	135	05	-16	287	25				35	136	08	-21	281	25	136	06	-16	286	20	135	07	-3	600							
550	-27	-35	255	26	-14	-27	302	58	-10	-23			-2	-4	282	33						44	00	-29	287	31	01	-27	282	22	-2	-15				550							
500	170	-24	-43	304	30	175	-15	34	302	69	175	-15	36	175	-11	-24	288	38				178	-14	-46	257	47	181	-10	-39	284	37	181	-7	-29	261	24	180	-11	31	500			
450	41	303	43		27	44	303	73	-29	-43			26	30	251	42						26	-54	298	49	-2	-47	292	37	-19	-32	260	22	-19	-38			450					
400	220	-47	309	60	226	-36	306	72	226	-40	-52		231	-30	-38	253	46						230	-38	-58	302	51	233	-30	-53	308	40	233	-29	-32	262	28	232	-30	42	400		
350	-56	303	63		-48	303	75	-51					-43	291	52							-50	312	67	-45	300	52	-44	260	31	-45						350						
300	282	-66	305	66	285	-64	301	80	289	-62			255	-58	297	51						253	-64	313	84	296	-59	306	52	297	-57	258	33	295	-60			300					
250	366	-76	308	67	371	-51	300	78	371	-53			378	-74	297	55						375	-83	304	76	375	-51	300	67	380	-84	265	39	378	-88			250					
200	-75	307	61		-53	297	70	-53					-85	291	65							-77	296	69	-80	294	67	-81	271	44	-88						200						
170	-84	306	61		-81	294	63	-87					-84	292	60							-75	295	67	-79	292	58	-81	274	54	-79						170						
150	-87	306	64		-86			-84					-83	293	53							-80	294	70	-76	290	63	-76	277	58	-76						150						
130	505	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54	(45)				130						
110	509	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54					110						
90	509	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54					90						
80	509	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54					80						
70	509	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54					70						
60	509	306	63		510	308		509	306				516	304	60							518	303	61	520	82	286	58	520	80	277	54					60						
Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal			
590-565 mb -25°				605 mb -12-504 mb -10°				815 mb -10-753 mb -11°				711-670 mb -1°				615-553 mb -9°				800 mb -10-772 mb -11°				1011-990 mb -35°				995 mb -38-981 mb -26°				1004 mb -44-990 mb -46°				750-725 mb -25°							
410-400 mb -47°				680-660 mb -4°				338-330 mb -55°				785 mb -11-775 mb -21°				703-695 mb -13°				824 mb -17-750 mb -26°				215 mb -84-208 mb -82°				215 mb -84-208 mb -82°				215 mb -84-208 mb -82°				215 mb -84-208 mb -82°							
II 286 mb -63°				II 222 mb -88°				II 200 mb -93°				I 192 mb -97°				I 218 mb -88°				II 200 mb -91°				I 215 mb -84°				I 215 mb -84°				I 215 mb -84°				I 215 mb -84°							
29200'				34900'				37100'				38700'				35700'				36000'				36100'				36100'				36600'				36600'							
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION										
Time M.S.L. Surf Freezing	03hrs 1003.4 993.1			G.M.T. mb mb mb	03hrs 1011.8 1009.9 964			G.M.T. mb mb mb				G.M.T. mb mb mb	03hrs 1013.1 1004.0 944			G.M.T. mb mb mb	03hrs 1013.1 1011.0 948			G.M.T. mb mb mb	03hrs 1016.0 1011.5 958			G.M.T. mb mb mb	03hrs 1015.3 998.7 912			G.M.T. mb mb mb	03hrs 1011.0 1000.3 864			G.M.T. mb mb mb				G.M.T. mb mb mb							
	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb	Height ft./100	Temp. °F.	Dew °F									



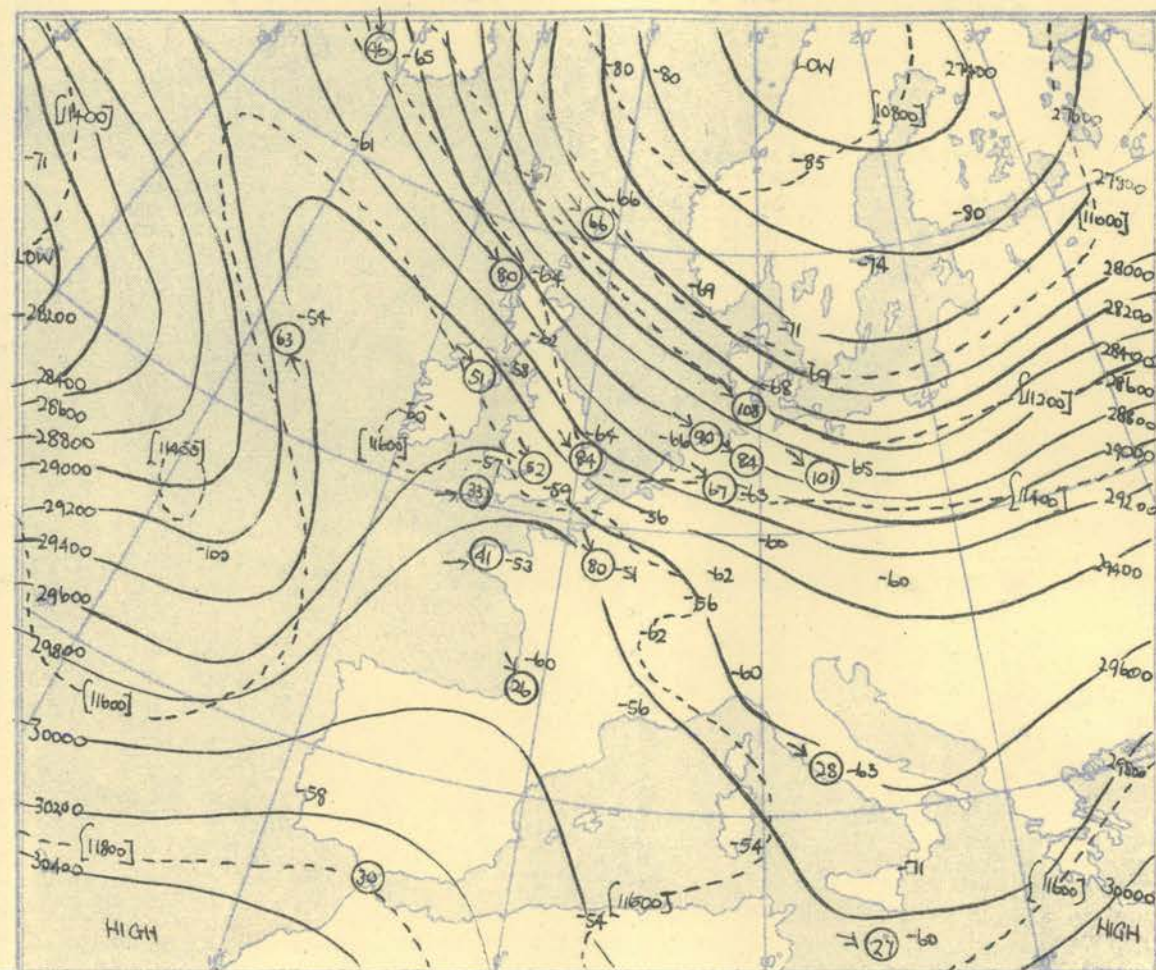
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



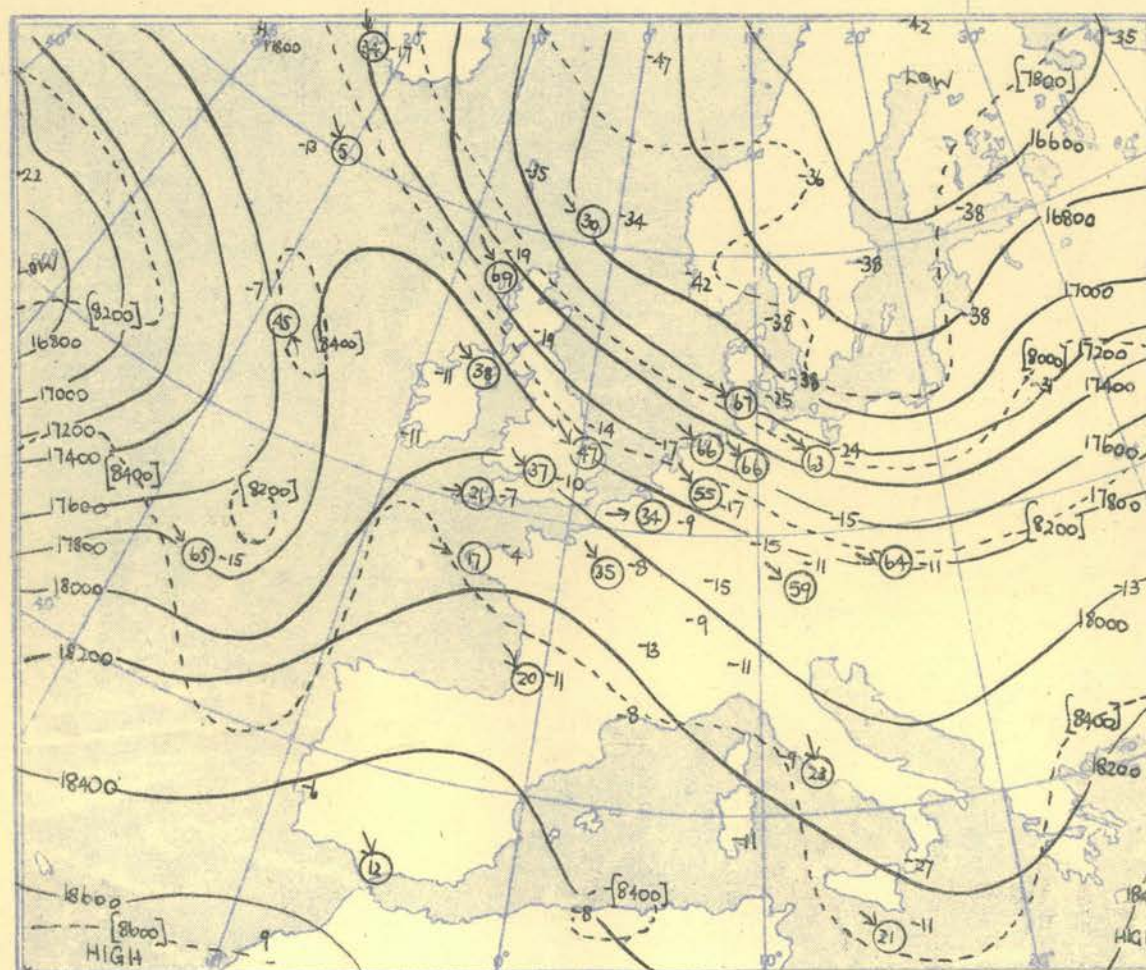
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

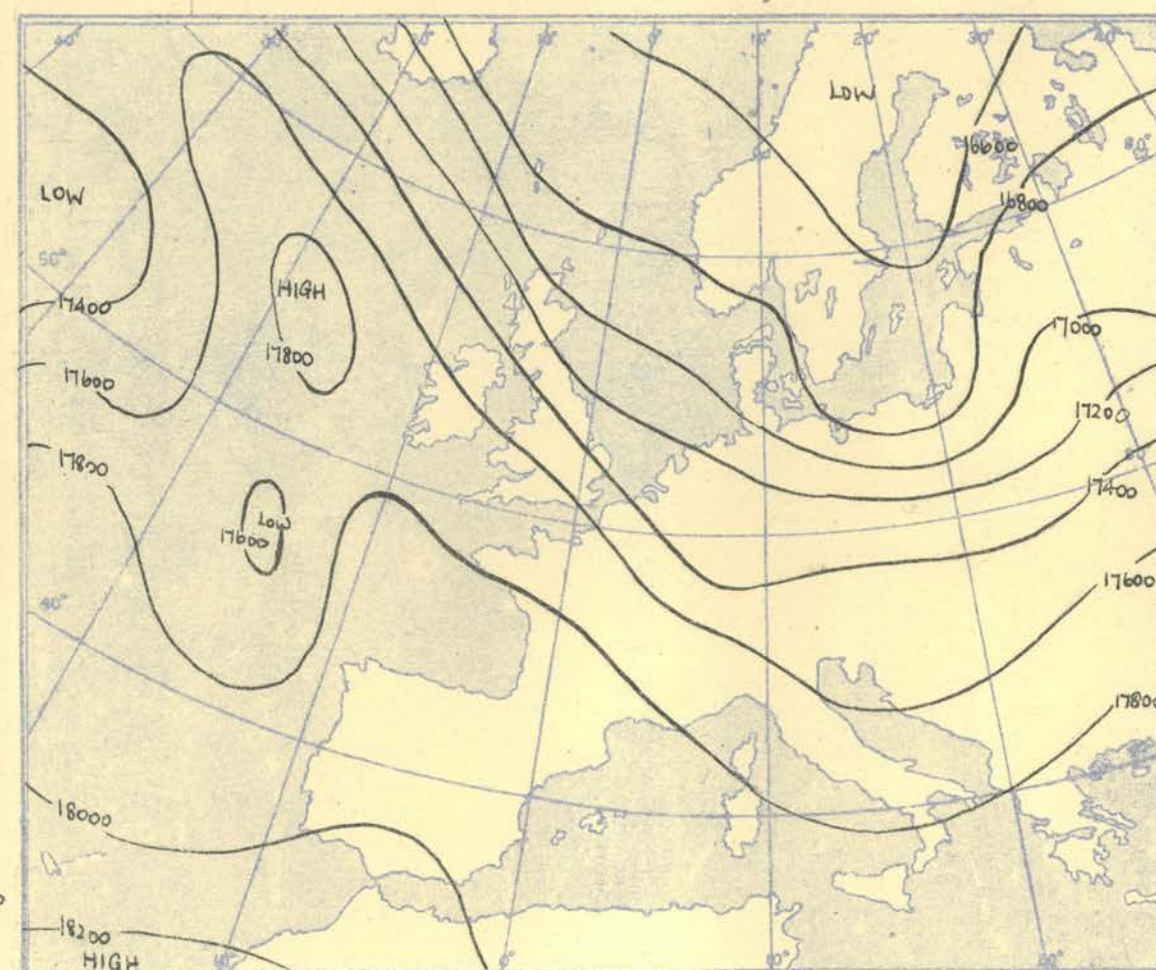
100 80 60 40 20 10 knots



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.

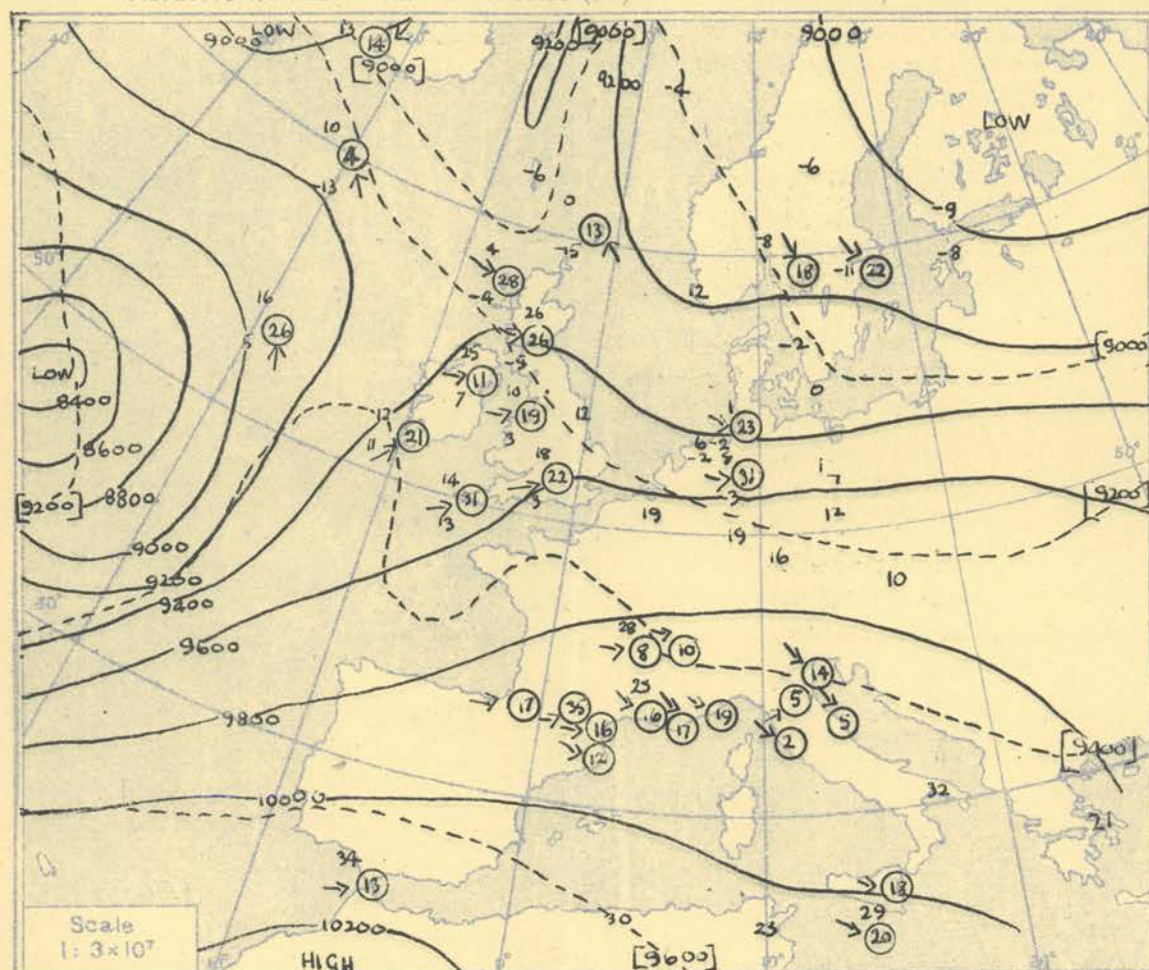


AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																	DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																
Time		M.S.L.		Surf		Freezing		Time		M.S.L.		Surf		Freezing		Time		M.S.L.		Surf		Freezing		Time		M.S.L.		Surf		Freezing			
Pressure	mb	Height	ft./100	Temp.	°F.	Dew	°F.	Pressure	mb	Height	ft./100	Temp.	°F.	Dew	°F.	Pressure	mb	Height	ft./100	Temp.	°F.	Dew	°F.	Pressure	mb	Height	ft./100	Temp.	°F.	Dew	°F.		
Surf	1000	0.5	40	25				Surf	1000	0.5	40	25				Surf	1000	0.5	40	25				Surf	1000	0.5	40	25					
950	900	30.3	25	-				950	900	30.3	25	-				950	900	30.3	25	-				950	900	30.3	25	-					
850	800	60.7	20	15				850	800	60.7	20	15				850	800	60.7	20	15				850	800	60.7	20	15					
750	700	90.6	15	12				750	700	90.6	15	12				750	700	90.6	15	12				750	700	90.6	15	12					
650	600	120.3	8	-				650	600	120.3	8	-				650	600	120.3	8	-				650	600	120.3	8	-					
550	500	150.7	-11	-				550	500	150.7	-11	-				550	500	150.7	-11	-				550	500	150.7	-11	-					
450	400	180.3	-17	-				450	400	180.3	-17	-				450	400	180.3	-17	-				450	400	180.3	-17	-					
350	300	210.7	-23	-				350	300	210.7	-23	-				350	300	210.7	-23	-				350	300	210.7	-23	-					
250	200	240.3	-43	-				250	200	240.3	-43	-				250	200	240.3	-43	-				250	200	240.3	-43	-					
170		294.55	-	-				170		294.55	-	-				170		294.55	-	-				170		294.55	-	-					
Cloud 318 AS 565-548																																	
NEPHOSCOPE OBSERVATIONS																																	
Place		Time		Type		Dir.		Vel.		Place		Time		Type		Dir.		Vel.		Place		Time		Type		Dir.		Vel.					
Odiham		5hrs Alt		15hrs Alt		15hrs Alt		280 60		Coningsby		5hrs Alt		15hrs Alt		15hrs Alt		280 57		Valentia		5hrs Alt		15hrs Alt		15hrs Alt		280 21					

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																																																					
Ship		Weather Explorer				Weather Observer				Weather Explorer				Weather Observer				Weather Explorer				Weather Observer				Weather Explorer				Weather Observer				Ship																																			
Lat/Long		59.7N 20.3 W				53.8N 18.9 W				60.0N 20.0 W				53.8N 18.9 W				59.9 20.1				53.6 18.6				60.0N 20.2 W				53.8N 18.9 W				Lat/Long																																			
Pressure	Time	03h		G.M.T.		03h		G.M.T.		09h		G.M.T.		09h		G.M.T.		15h		G.M.T.		15h		G.M.T.		21h		G.M.T.		Time																																							
	M.S.L.	1009		mb		995		mb		1008		mb		991		mb		1007		mb		991		mb		1004		mb		M.S.L.																																							
	Surf	1009		mb		995		mb		1008		mb		991		mb		1007		mb		991		mb		1004		mb		Surf																																							
	Freezing	905		mb		800		mb		940		mb		830		mb		950		mb		830		mb		940		mb		Freezing																																							
Pressure	Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Height	Temp.	Dew	Wind		Pressure																																						
				Dir.	Vel.				Dir.	Vel.				Dir.	Vel.				Dir.	Vel.				Dir.	Vel.				Dir.	Vel.		Dir.	Vel.	Dir.	Vel.																																		
Surf		44	37	090	23		51	49	128	34		41	33	070	28		50	46	160	17		40	29	080	32		51	47	175	15		Surf																																					
1000	24	43	36	112	31	-16					21	40	33	091	30	-25					18	38	27	068	33	-30						1000																																					
950		37	28	116	30		47	46	138	33		33	29	098	32		45	41	163	15		32	19	070	35		46	40	170	27		950																																					
900	303	31	22	122	26	270	42	41	146	39	297	26	22	104	33	260	39	34	159	19	294	24	15	078	34	254	39	33	179	22	289	27	26	084	32	249	38	29	126	35																													
850		25	16	120	20		37	36	150	42		19	17	106	30		34	29	156	22		18	8	092	29		33	26	181	22		20	19	082	36		33	25	136	33																													
800	607	21	11	117	13	583	32	31	153	40	598	15	8	110	23	571	29	24	163	23	596	12	3	104	26	564	29	15	174	23	589	14	13	084	31	559	30	25	143	34																													
750		15	5	114	07		27	26	142	35		10	2	097	11		23	18	167	23		11	-9	115	19		23	12	169	25		7	5	084	18		22	17	140	35																													
700	945	13	-7	124	04	929	21	19	139	38	933	10	-3	016	07	912	18	13	158	30	931	10	-13	117	04	908	16	5	169	26	923	9	-20	084	15	903	18	12	158	36																													
650		18	-18	LEV			15	11	141	42		9	-4	344	08		11	5	146	33		5	-23	Land V			9	-1	168	27		5	-15	054	08		12	6	159	36																													
600	1329	-1	-32	"		1319	8	3	141	39	1316	0	-12	288	09	1302	4	-4	140	34	1313	-2	38	293	10	1294	2	-12	170	27	1306	2	-28	298	09	1291	7	2	111	39																													
550		-4	-42	002	03		0	-6	143	41		-6	-21	260	11		-4	-13	137	34		-8	-30	301	11		-7	-21	177	21		-6	-36	281	08		-1	-7	116	40																													
500	1772	-13	-48	327	05	1766	-9	-17	142	45	1758	-14	-31	262	13	1746	-14	-22	130	42	1762	-17	-42	299	10	1735	-14	-32	191	24	1747	-15	-41	266	17	1739	-9	-16	163	47																													
450		-24	-50	281	12		-20	-28	142	45		-23	-32	293	15		-24	-33	136	54		-27	-45	288	13		-19	-40	110	39		-24	-37	269	21		-20	-28	172	45																													
400	2291	-33	-51	287	13	2289	-33	-42	146	42	2278	-32	-37	280	27	2263	-35	-44	139	55	2268	-36	-48	278	18	2258	-31	-51	238	44	2265	-35	-45			-24	-37	269	21		-20	-28	172	45																									
350		-48					-46		146	54		-46		146	54		-48		138	58		51						-47		232	50		-49				-47		201	58																													
300	2923	-61				2920	-63		146	61	2712	-59				2892	-64		144	66	2893	-68					2889	-62		209	46	2893	-65						2892	-62		193	48																										
250		-76					-76		145	48		-69		145	58		-69		145	58		-80					-78		199	34		-79			-78		154	48																															
200	3748	-94				3752	-78		145	39	3735	-71		158	39	3713	-87		158	39	3713	-87					3716	-78		193	35	3717	-88						3719	-79		209	39																										
170		-78					-79		146	29		-68		186	29		-68		186	29		-80					-72		180	33		-78			-78		239	69																															
150		-76					-79		166	18		-69		200	29		-69		200	29		-72					-73		176	26		-75			-72		242	42																															
130	(126mb)-76						-75		Calm			-70		218	33		-70		218	33		-78					-72		186	24		-78			-72		243	33																															
110							-77		231	18		-71		249	35		-71		249	35		-81					-71		208	24		-82			-71		252	33																															
100						5165	-78		242	26		-71		218	20	5171	-71		218	20	5121	-78					5151	-70	219	26	5124	-80		287	36	5151	-70	265	36																														
90							-80		236	20		-69		252	15		-69		252	15		-83					-70		233	28		-80			-70		266	34																															
80							-81		247	36		-67		273	18		-67		273	18		-82					-72		243	32		-83			-73		262	33																															
70							-81		252	46		-70		266	21		-70		266	21							-73		249	45		-87			-74		262	33																															
60						(665mb)-81						-72				(663mb)-72											-76		258	51	(64mb)-81							(62mb)-79																															
Inversion.		756mb 14°-750mb 15°				Isothermal.				734-698mb 13°				Inversion.				740mb 9°-725mb 11°				Isothermal.				687-650mb 9°				Inversion.				710mb 11°-775mb 12°				Isothermal.				775mb-761mb 12°				Inversion.				740mb-700mb 10°				Inversion.				743mb 6°-719mb 10°				Isothermal.				825-805mb 31°			
Tropopause		I 195mb-96° 38,000'				I 225mb-83° 35,100'				NR.				I 270mb-74° 31,200'				I 208mb-91° 36,300'				I 223mb-87° 34,900'				I 204mb-89° 36,800'				I 227mb-87° 34,500'				Tropopause																																			



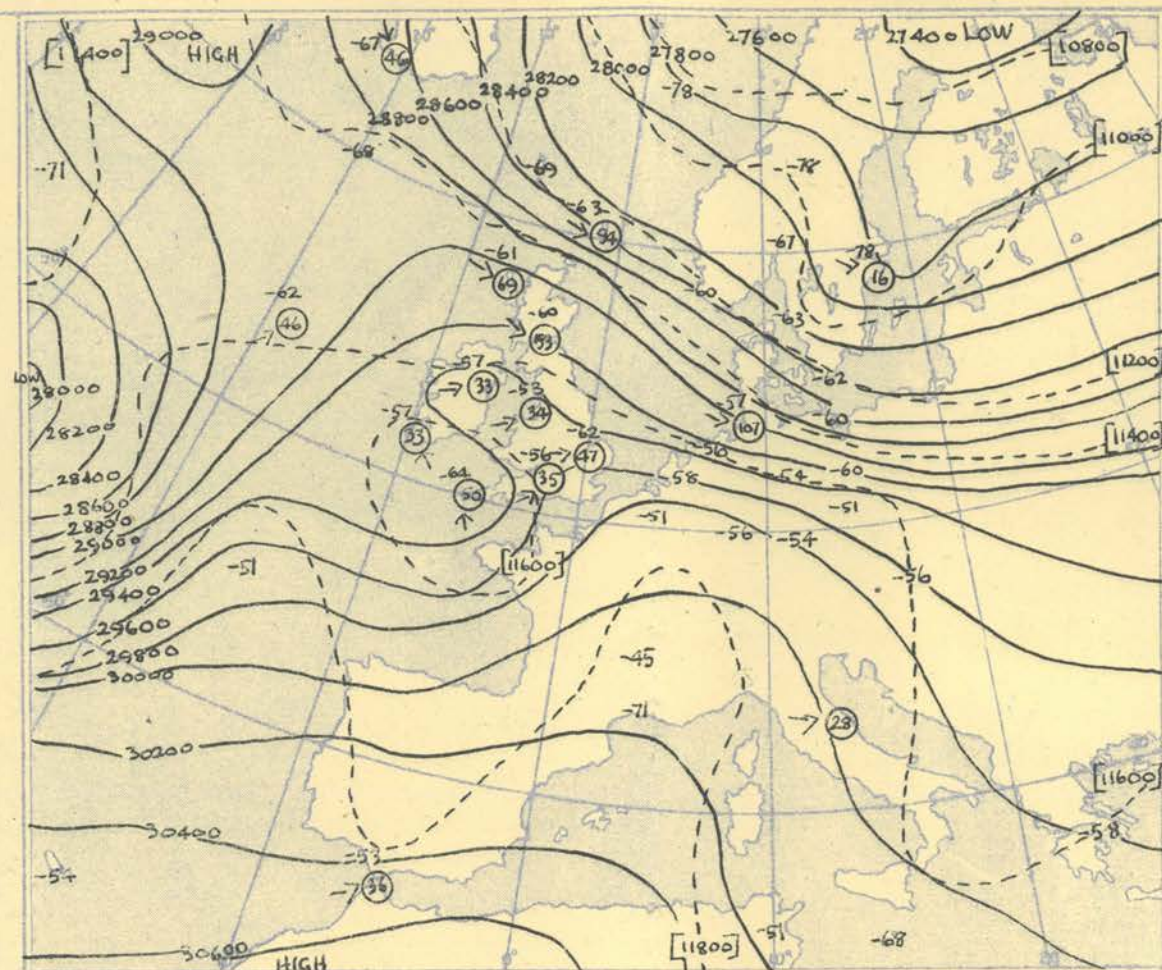
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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

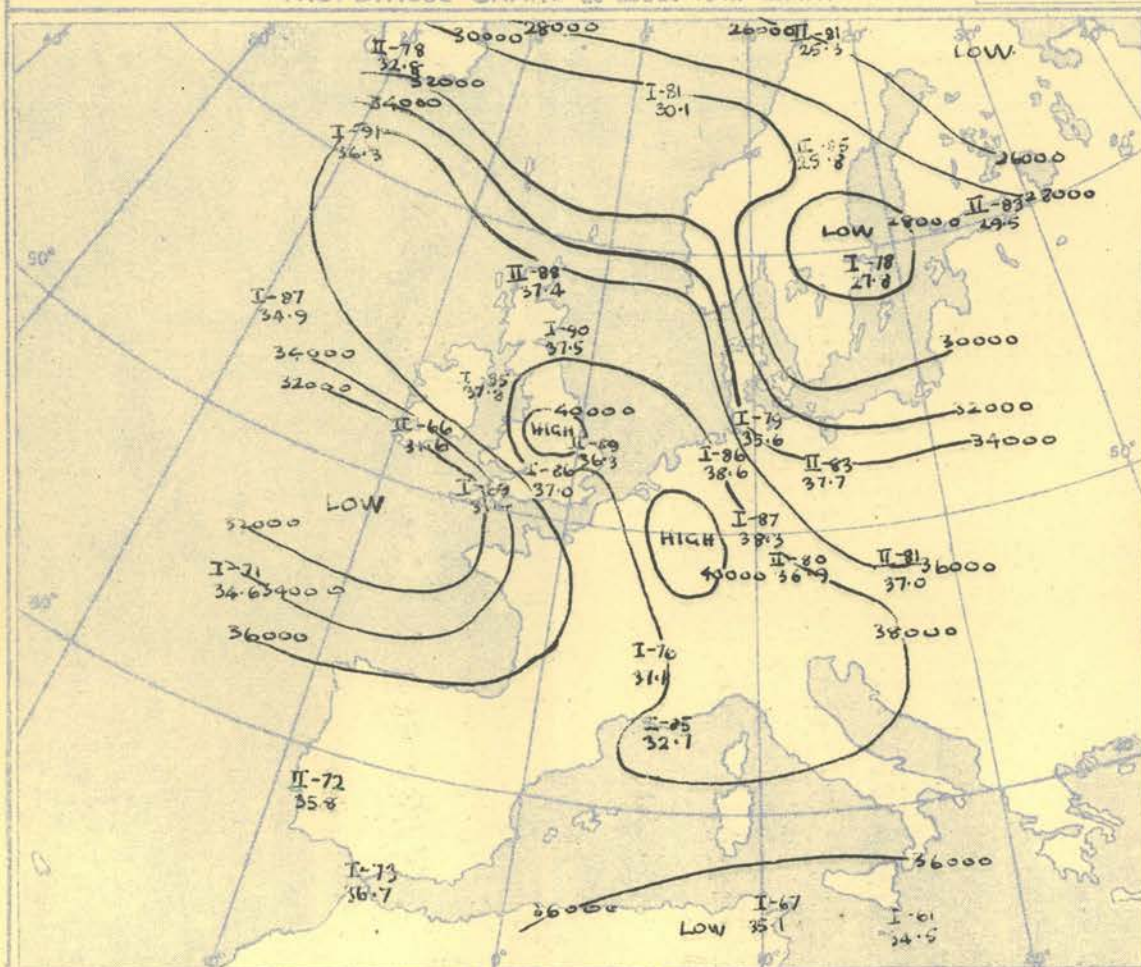
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 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.

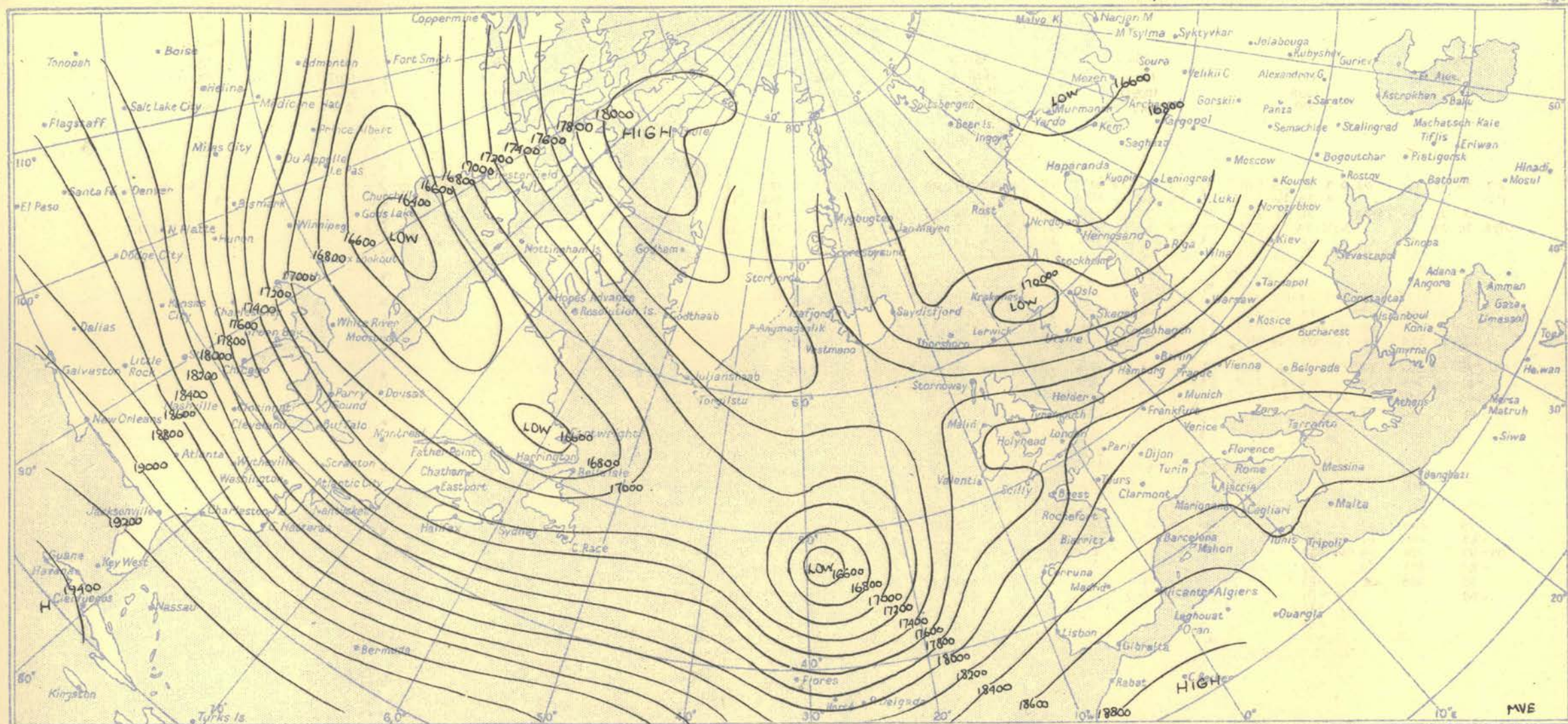
## NOTES ON THE AEROLOGICAL SITUATION.

No great change took place over Europe and the region between South Greenland and Norway, apart from a slow spread of somewhat warmer air over the British Isles and Western Europe. In the central and Western Atlantic there was a good deal of fluctuation of the thermal pattern in association with a vigorous cyclonic activity.

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

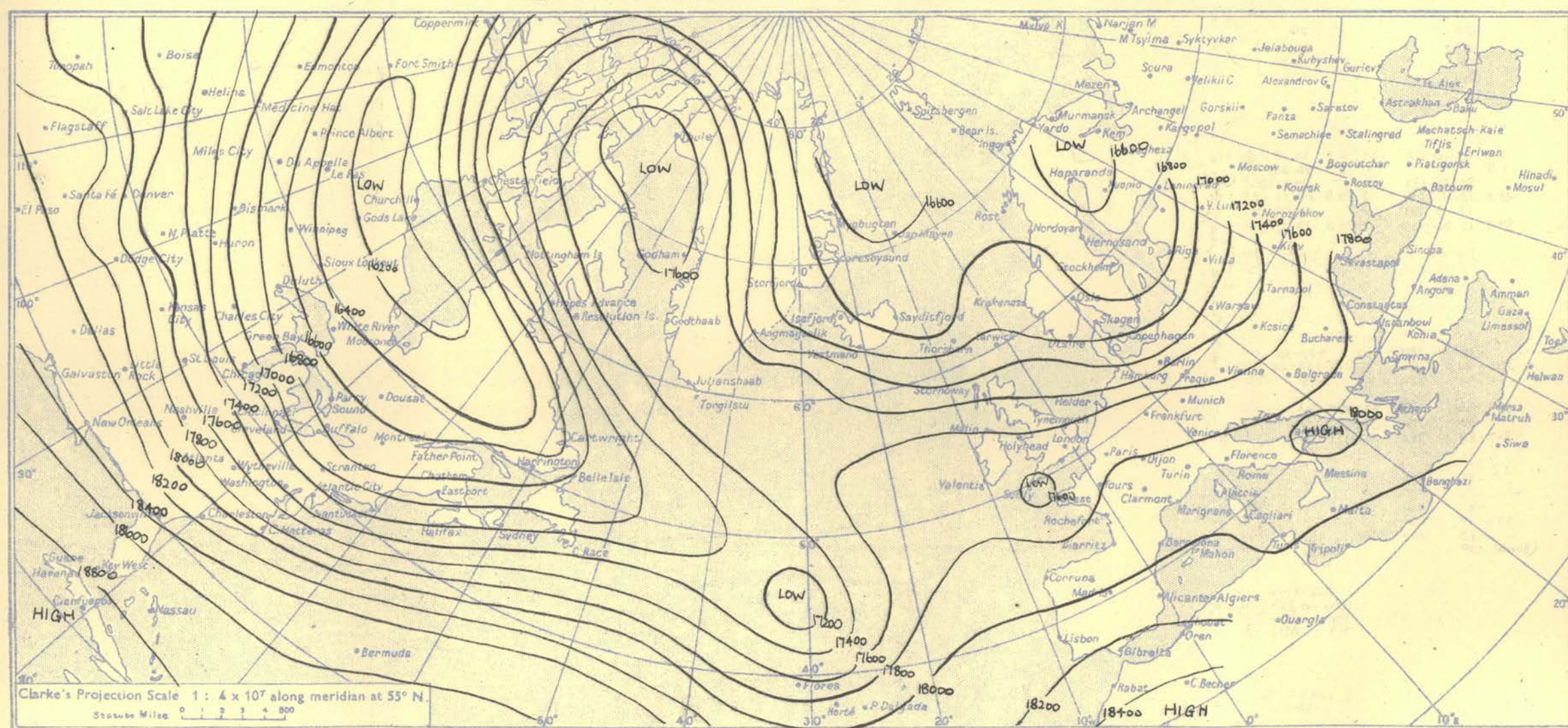




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Tuesday 14<sup>th</sup> March.

1950.





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

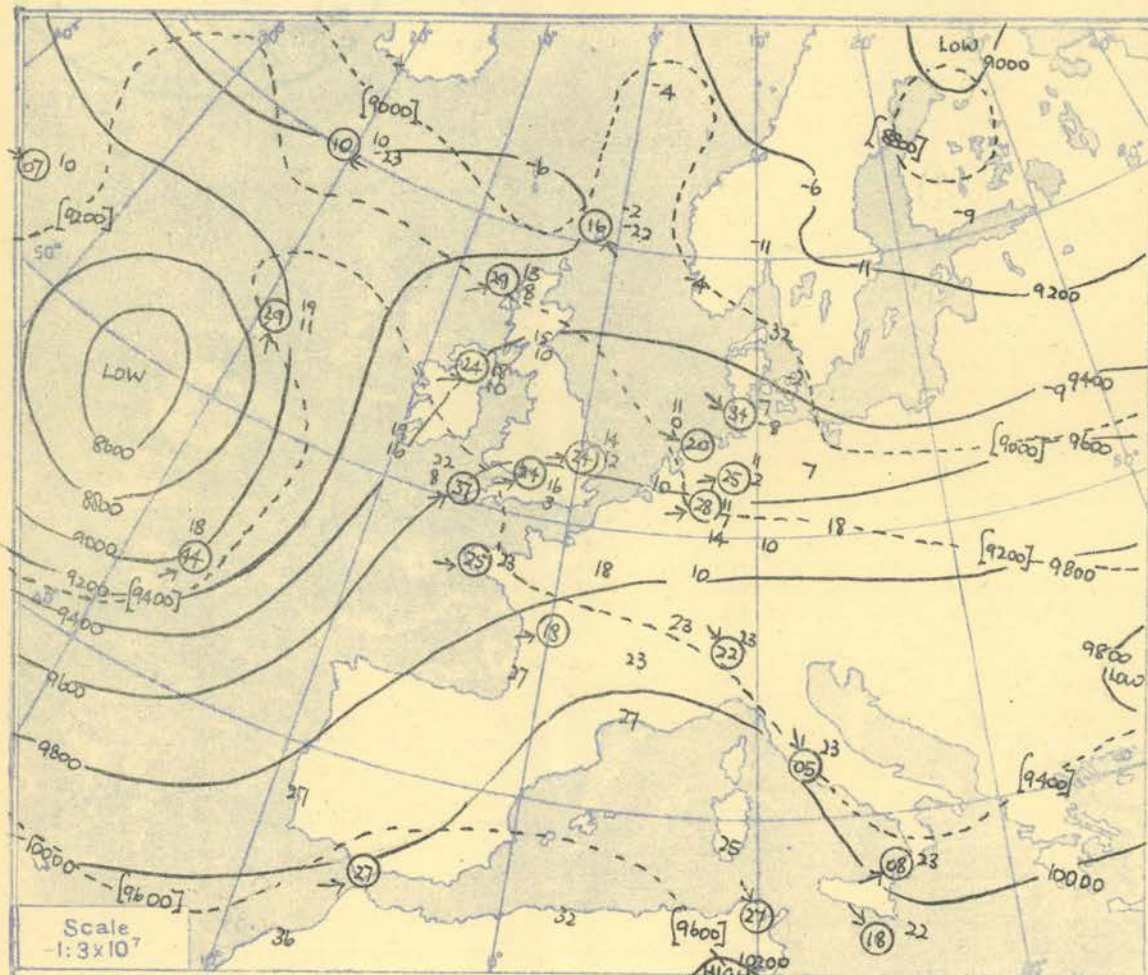
[illegible]



RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																									
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION							
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.		Time M.S.L.	Pressure						
		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb		mb											
		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf		Surf											
Freezing		986		986		970		970		950		950		950		950		950		950		950		950		950		950		950		950									
Height ft./100		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.		Dew		Temp.							
Wind		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.							
knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots		knots							
Surf		02.7		33		30		180		05		00.5		36		26		100		05		00.2		38		33		02.3		43		41		170		10					
1000		2.1		28		15		138		15		1.5		36		23		083		12		1.9		37		32		1.0		42		42		202		20					
950		27.5		23		21		133		12		27.0		23		17		088		16		29.6		31		28		29.2		37		37		220		16					
850		57.4		11		03		127		16		59.1		21		16		119		06		60.3		22		19		60.2		28		28		236		18					
750		04		-13		134		18		17		12		229		25		20		16		22		21		24.5		21		22		21		24.5		21					
700		72.4		-02		22		14.5		16		72.9		13		08		235		29		94.3		15		10		94.5		18		10		23.9		24					
650		09		-32		16.9		11		07		02		24.5		29		12		04		13.3		02		01		13.3		06		01		21.4		20					
600		12.9		-15		-37		22.6		09		13.1		00		05		25.4		36		13.3		02		01		13.3		06		01		21.4		20					
550		20		-44		27.4		31		-07		-13		26.2		37		-04		07		-02		-10		210		20		-02		10		210		20					
500		172		-25		-47		27.9		51		17.5		-16		-23		260		43		17.7		-14		-18		17.8		-12		-22		223		20					
450		32		-50		28.1		66		-28		-35		26.2		39		-22		-33		-22		-33		23.9		31		-24		-29		31		-24					
400		223		-42		28.2		73		22.7		-39		-47		25.8		44		22.9		-37		-43		23.9		-37		-43		23.9		-37		-43					
350		51		-51		28.2		83		-53		25.2		49		-50		29.3		-67		-86		-86		-86		-86		-86		-86		-86		-86					
300		285		-65		28.2		90		28.3		-70		24.5		48		29.1		-67		-86		-86		-86		-86		-86		-86		-86		-86					
250		36.8		-81		28.1		86		-85		26.2		40		37.3		-86		-86		-86		-86		-86		-86		-86		-86		-86		-86					
200		36.8		-82		28.0		66		-81		27.0		50		37.3		-86		-86		-86		-86		-86		-86		-86		-86		-86		-86					
170		36.8		-82		28.1		57		-83		27.6		50		37.3		-86		-86		-86		-86</																	



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.





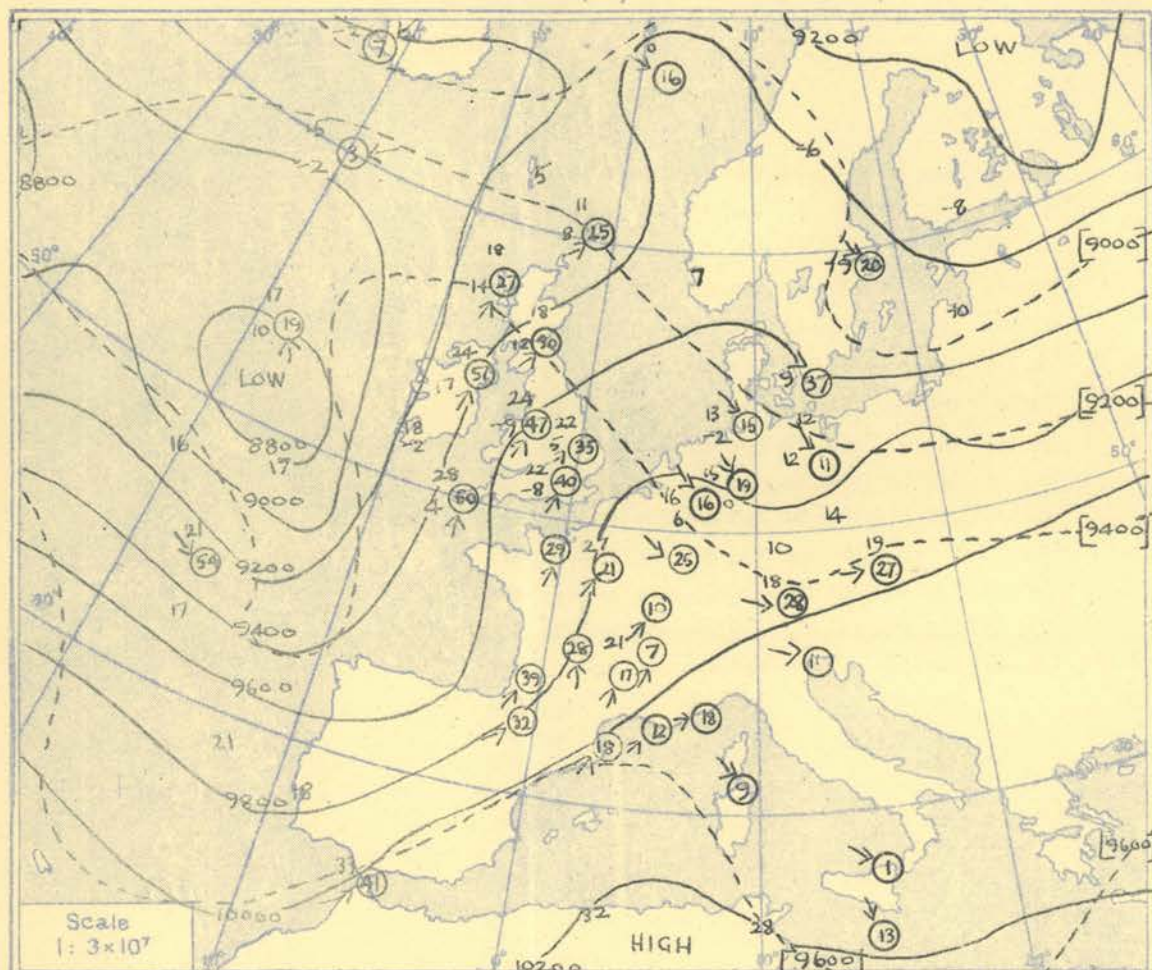
AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY															DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.														
Time			Time			Time			Time			Time			Time			Time			Time			Time			Time		
M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.			M.S.L.		
Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf			Surf		
Freezing			Freezing			Freezing			Freezing			Freezing			Freezing			Freezing			Freezing			Freezing			Freezing		
Pressure			Pressure			Pressure			Pressure			Pressure			Pressure			Pressure			Pressure			Pressure			Pressure		
mb			mb			mb			mb			mb			mb			mb			mb			mb			mb		
Height			Height			Height			Height			Height			Height			Height			Height			Height			Height		
ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100			ft./100		
Temp.			Temp.			Temp.			Temp.			Temp.			Temp.			Temp.			Temp.			Temp.			Temp.		
°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.		
Dew			Dew			Dew			Dew			Dew			Dew			Dew			Dew			Dew			Dew		
°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.		
Wind			Wind			Wind			Wind			Wind			Wind			Wind			Wind			Wind			Wind		
Dir. Vel.			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		
Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud			Cloud		
4/8 Sc 910-830mb.			4/8 Sc 930-900mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.			4/8 Cu 920-800mb.		
7/8 Cu 910-780mb.			7/8 Cu 930-900mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.			7/8 Cu 920-800mb.		
1/8 Cu 910-700mb.			1/8 Cu 930-900mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.			1/8 Cu 920-800mb.		
Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.			Surf. wind: 17-21kts.		
Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°			Isothermal 991-950mb 47°		

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

Ship	Weather Explorer				Weather Observer				Weather Explorer				Weather Observer				Weather Explorer				Weather Observer								Ship																										
Lat/Long	59-9 20-2				53-6 18-8				60-0 20-4				53-6 N 18-6 W				59-9 N 20-4 W				53-6 N 18-1 W				60-0 W 20-0				53-6 N 18-3 W								Lat/Long																		
Pressure	Time	03h			G.M.T.			03h			G.M.T.			09h			G.M.T.			09h			G.M.T.			15h			G.M.T.			15h			G.M.T.			21h			G.M.T.						G.M.T.								
	M.S.L.	1002			mb			981			mb			999			mb			980			mb			995			mb			980			mb			991			mb			978			mb			mb			M.S.L.		
	Surf	1002			mb			981			mb			999			mb			980			mb			995			mb			980			mb			991			mb			978			mb			mb			Surf		
	Freezing	950			mb			840			mb			920			mb			850			mb			920			mb			830			mb			930			mb			800			mb			mb			Freezing		
Pressure	Height	ft./100			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.			mb					
Surf		39 30 060 28						50 46 160 23						-4 40 30 060 30						-55 46 43 149 18						-14 36 29 078 42						-56 50 44 120 11						-24 39 37 055 40						-61 50 45						Surf					
1000	4	39 29 060 28			-54			50 46 160 23			-4			40 30 060 30			-55			46 43 149 18			-14			36 29 078 42			-56			50 44 120 11			-24			39 37 055 40			-61			50 45			1000								
950		32 16 074 33			47 43 173 24			47 43 173 24			36 26 074 29			46 43 149 18			36 29 078 42			29 22 079 42			29 22 079 42			47 39 117 15			40 33 122 18			255			29 28 061 49			225			48 43			950											
900	280	24 12 068 23			231 40 33 177 24			274 29 23 074 32			230 38 37 159 17			265 29 22 079 42			229 40 33 122 18			255			29 28 061 49			225			43 37			22 22 065 47			538			32 22			850														
850		16 08 083 24			34 29 171 24			21 19 073 34			32 31 160 21			28 20 081 43			34 28 130 18			559			17 17 070 37			538			32 22									800																	
800	581	11 03 096 20			542 29 24 163 24			576 15 13 077 29			540 27 27 158 21			568 24 12 089 38			540 28 24 141 15			559			17 17 070 37			538			32 22									800																	
750		09-10 099 14			25 19 155 28			08 00 063 21			22 11 156 19			12-8 092 28			23 18 146 19			17 15 088 28			26 16												750																				
700	915	10-23 090 10			888 19 11 152 29			911 10-13 094 14			883 15 6 160 21			907 15-2 086 3			883 17 10 149 19			897 13 9 101 24			885			20 10									700																				
650		04-22 062 04			12 05 146 37			06-23 139 08			9 1 161 21			11-5 262 4			10 4 149 19			8 6 088 14			13 2												650																				
600	1296	-2-20 235 04			1276 06-5 145 40			1294 01-30 219 10			1268 9-8 168 17			1294 6-11 262 3			1269 3-5 150 18			1281 2-7 072 13			1273			4-6									600																				
550		-10-23 243 11			-3-20 152 49			-7-37 252 11			-6-17 150 17			-4-17 253 5			-7-17 146 18			-6-11 088 06			-5-17												550																				
500	1734	-19-22 241 12			1721 -13-28 152 51			1735 -16-36 264 12			1708 -19-28 148 20			1738 -11-29 242 8			1710 -17-34 156 18			1723 -16-19 227 07			1715			-17-30									500																				
450		-28-28 258 20			-22-29 147 50			-27-35 161 15			-31-39 158 23			-20-37 234 15			-28-46 165 12			-25-30 250 12			-29-42												450																				
400	2247	-39-39 260 17			2242 -33-39 140 61			2250 -38-43 242 18			2218 -43 152 23			2260 -31-45 232 17			2224 -40-60 177 12			2239 -36-46 230 10			2227			-42									400																				
350		-53 263 15			(396mb) 34-40			(360mb) 48			-55 146 25			-43 241 23			-54 174 27			-51 168 08			-55												350																				
300	2870	-67									2840 -60 144 24			2896 -59 231 23			2844 -69 197 33			2864 -68 192 16			2847			-63									300																				
250		-79									-61 148 24			-73 221 27			-60 215 27			-71 226 20			-56												250																				
200	3695	-83									3702 -61 142 19			3741 -68 19			3701 -61 246 15			3694 -71 260 04			3712			-63									200																				
170		-75									-65 189 19			-64			-62 237 17			-65 233 24			-66 237 21			5170			-66									170																	
150		-78									-61 217 15			-63			-64 233 24			-66 237 21			5166			-67									150																				
130		-81									-62 237 17			-65			-66 237 21			-67 250 30			(085mb) -67												130																				
110	(28mb) 82										-64 233 24			-66			-67 250 30			-68 245 39			259 46												110																				
100											-67 239 31			-66			-65 257 37			(095mb) -76															100																				
90											-67 250 30			-67			-67 257 37			-68 245 39			259 46												90																				
80											-67 250 30			-67			-67 257 37			-68 245 39			259 46												80																				
70											-67 250 30			-67			-67 257 37			-68 245 39			259 46												70																				
60											-67 250 30			-67			-67 257 37			-68 245 39			259 46												60																				
Inversion.		770mb 06°-728mb 12°						Inversion.			750mb 08°-694mb 11°			Inversion.			332mb 59°-315mb 57°			Isothermal.			720-705mb 16°			Inversion.			780mb 14°-763mb 18°																										
Tropopause	II 263mb-78° 31,500'				NR.				NR.				II 292mb-61° 29,000'				II 250mb-73° 32,800'				I 300mb-69° 28,400'				I 257mb-84° 32,000'				I 315mb-66° 27,300'				Tropopause																						



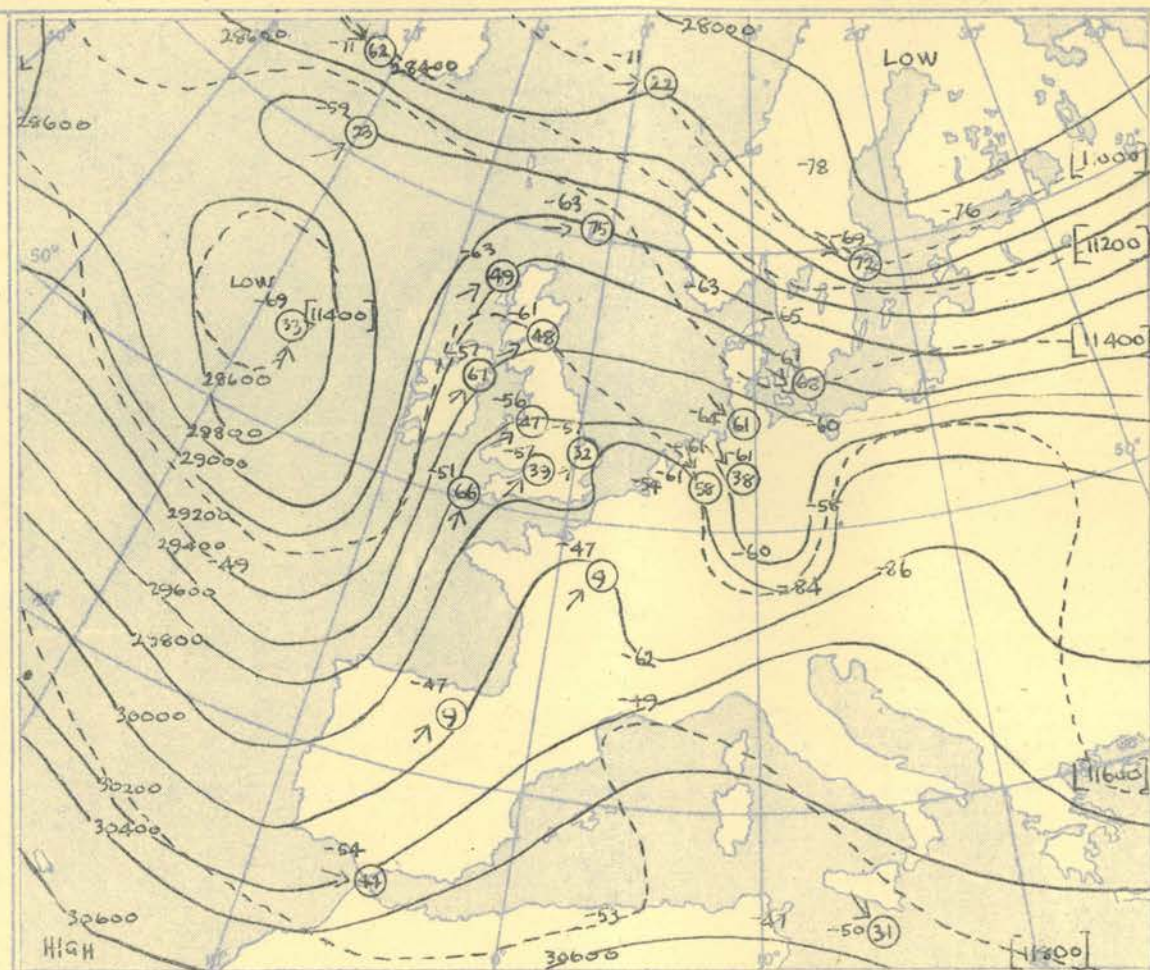
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

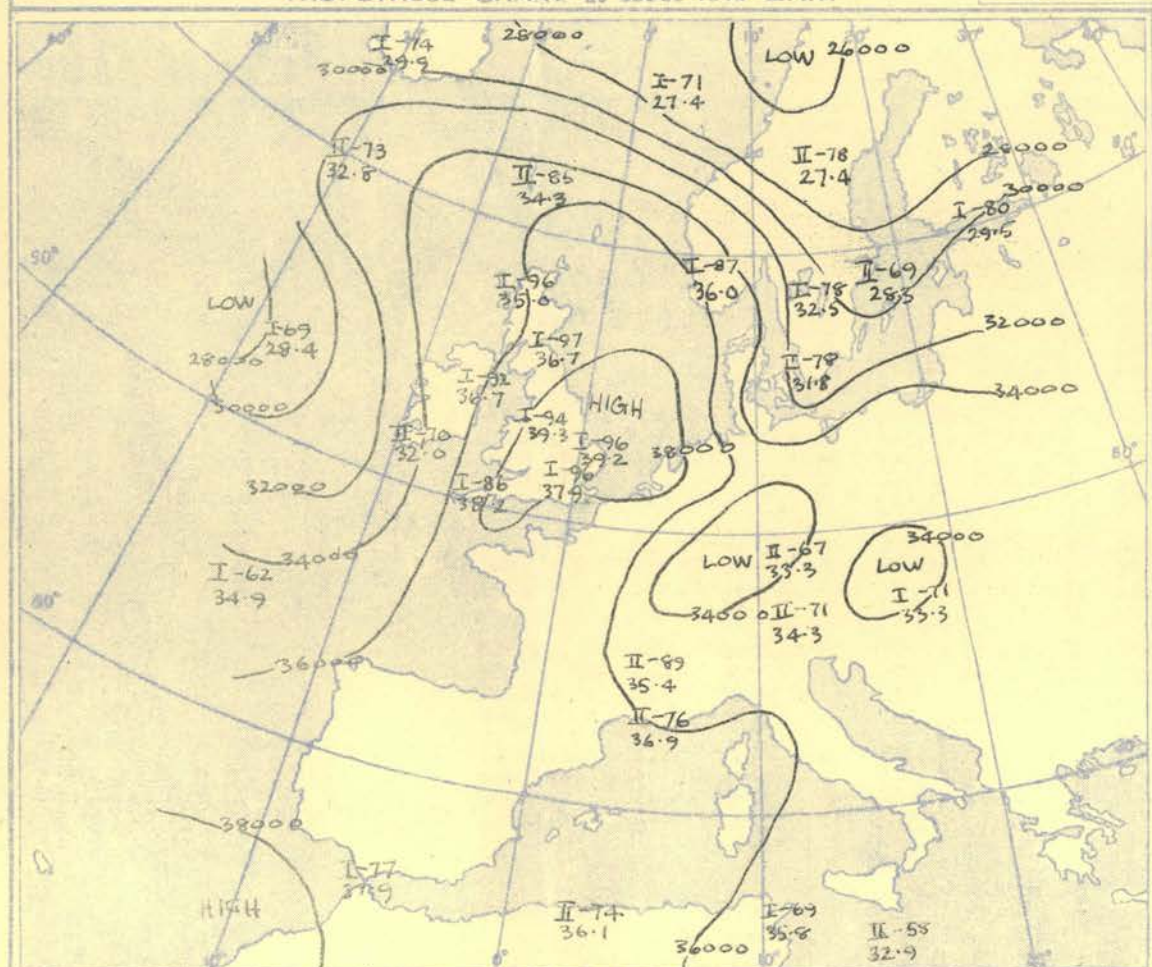
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

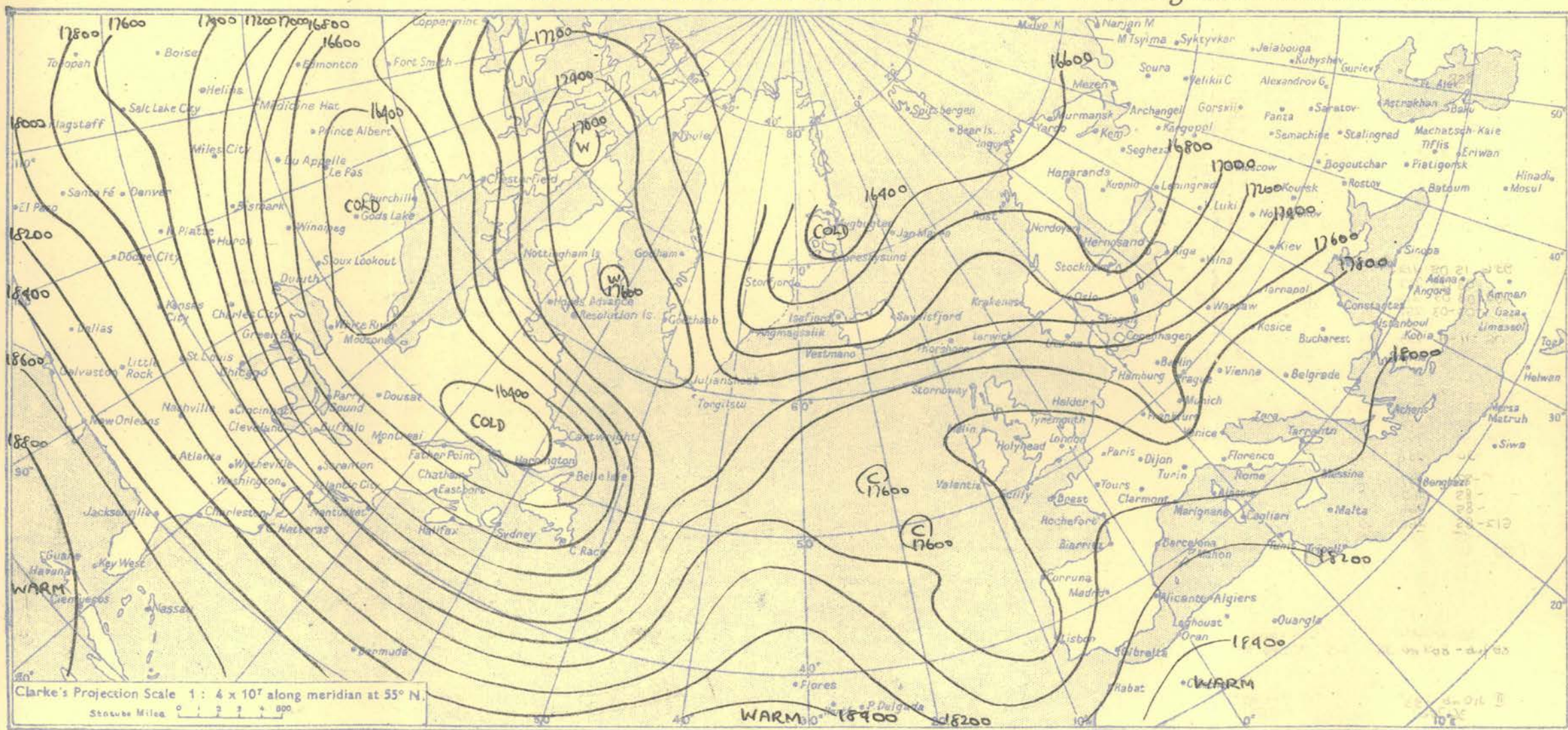
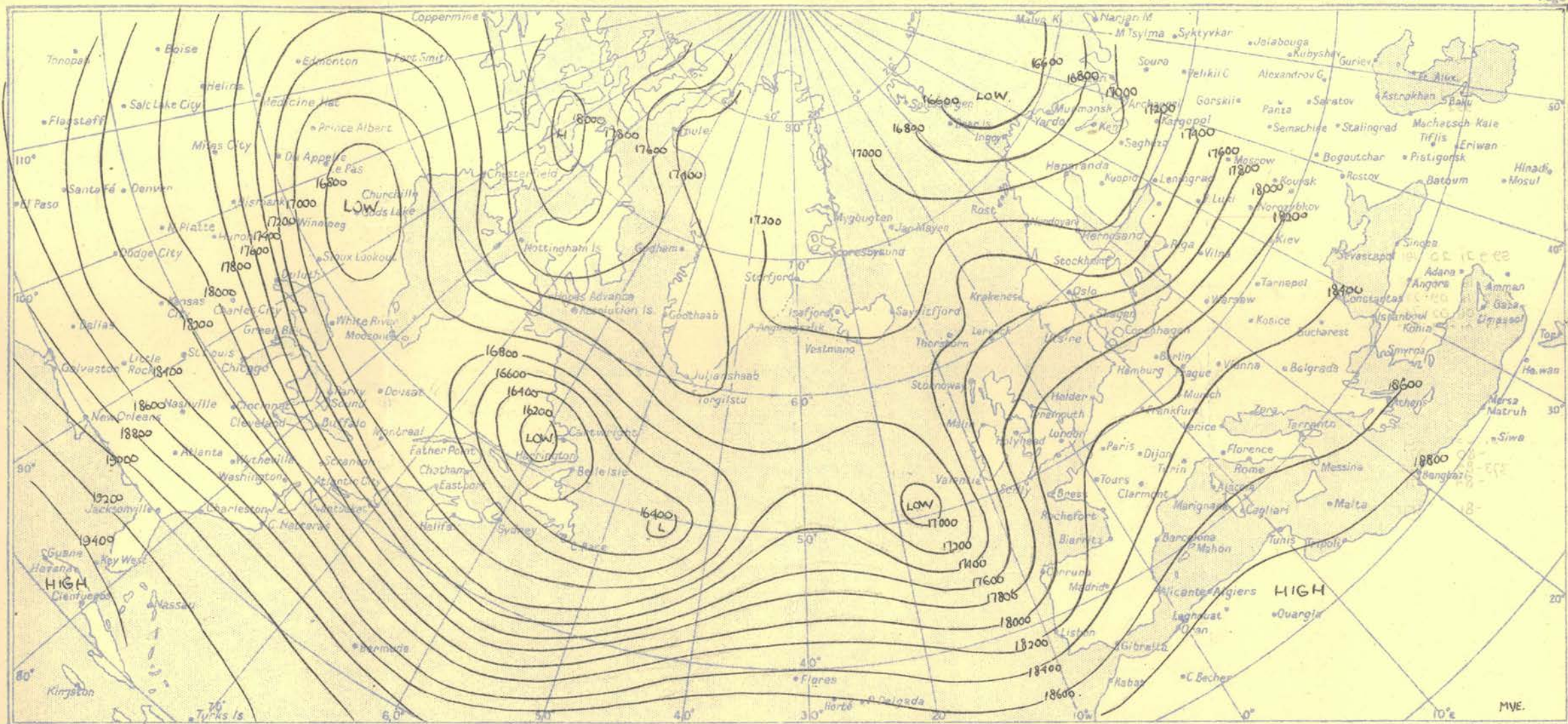
## NOTES ON THE AEROLOGICAL SITUATION.

The warm air over Western Europe continued to extend slowly northeast into Southern Scandinavia, whilst a rather degenerate cold trough moved from the Atlantic into the British Isles. Deep cold air near Newfoundland spread quickly into the Atlantic on the southern side of a very deep depression in the central North 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.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure Surf 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	15h		G.M.T.	Time				
	M.S.L.	1006.5		mb	999.5	mb		1004.1	mb	998.4	mb		1004.5	mb	1011.0	mb	1008.6	mb	1001.9	mb	990.1	mb		989	mb		810	mb		810	mb		M.S.L.				
	Surf	996.3		mb	997.9	mb		1003.2	mb	989.9	mb		1002.5	mb	1006.6	mb	992.8	mb	991.4	mb	989	mb		989	mb		810	mb		810	mb		Surf				
Freezing	952	mb		950	mb		866	mb	775	mb		760	mb	792	mb		762	mb	770	mb		810	mb		810	mb		810	mb		810	mb		Freezing			
Pressure Surf	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	2.7	37	36	140 20	0.5	43	39	125 05	0.2	46	42	130 08	2.3	50	46	160 21	0.6	53	46	165 18	1.2	56	48	170 13	4.4	54	42	170 09	2.9	56	46	135 25	0.3	52	46	Surf	
1000	1.7				0.1				1.0	46	42		-0.5				1.3	52	46		3.0	55	47		2.4				0.5				-27			1000	
950		32	32	140 28		37	33	162 16		41	37	185 20		47	44	176 37		48	44	178 27		49	41	196 19		45	33	161 27		51	45	173 45		47	43	950	
900	29.4	28	27	147 30	28.0	36	33	182 23	29.3	36	34	205 26	28.1	44	41	192 44	29.5	42	38	203 37	31.7	44	37	231 22	30.9	42	29	188 17	29.3	48	40	186 43	26.0	41	38	900	
850		25	24	170 27		32	30	193 23		30	28	205 29		39	36	197 47		35	32	212 40		37	31	234 26		36	29	200 35		41	36	193 44		36	31	850	
800	59.5	21	20	191 21	59.0	27	20	197 17	60.1	25	22	205 28	59.7	34	33	198 47	61.3	34	32	213 42	65.0	33	35	231 28	62.1	31	26	205 38	60.9	36	29	194 46	57.2	31	25	800	
750		16	14	208 24		22	18	201 23		21	19	208 28		30	26	200 51		31	03	214 49		28	09	227 31		29	03	213 37		29	19	188 50		28	12	750	
700	93.7	11	09	221 25	93.3	18	14	204 27	94.3	18	12	220 30	94.4	24	17	207 57	96.1	24	09	218 47	97.6	22	05	224 35	96.9	22	08	211 40	95.8	28	04	180 50	91.6	18	-2	700	
650		06	03	245 26		10	06	212 24		11	06	235 33		16	11	210 59		17	09	227 42		15	08	246 34		15	-16	207 39		21	-04	178 52		12	-8	650	
600	132	01	03	250 30	132	03	-1	217 19	133	04	-01	234 35	134	09	07	208 54	135	09	-03	237 39	137	07	-07	267 34	136	08	-22	211 33	135	12	-14	178 52	130	5	-4	600	
550		06	-11	249 33		00	-4	220 36		-03	-09	230 33		02	-01	206 50		00	-07	240 48		00	-12	272 44		00	-29	217 38		02	-22	186 52		-3	-8	550	
500	176	-17	-22	254 36	177	-10	-17	219 36	177	-10	-18	234 34	178	-07	-13	209 42	180	-09	-16	238 54	181	-09	-22	263 53	181	-11	-38	221 44	180	-07	-30	190 63	175	-11	-16	500	
450		-27	-32	262 39		-18	-26	230 35		-18	-26	240 38		-17	-24	209 39		-18	-23	236 46		-16	-25	250 34		-20	-45	217 43		-15	-41	194 67		-21	-26	450	
400	228	33	-39	273 60	229	30	-40	220 35	230	31	-39	240 40	231	28	-38	214 42	233	28	-32	224 41	234	28	-36	253 32	233	33	-52	202 36	233	27	-46	193 63	227	-33	-38	400	
350		46		268 71		45		219 44		45		237 40		41		211 51		40	-45	221 44		42		252 27		44		206 39		36	-50	195 64		-45		350	
300	291	63		267 75	292	63		226 49	293	61		242 48	295	57		210 67	297	56		222 47	298	57		248 32	296	57		217 39	298	51		193 66	291	-61		300	
250		80		271 90		84		224 80		80		245 60		76		201 66		74		226 57		75		250 40		76		225 28		69		189 61		-70		250	
200	373	89		266 62	374	87		241 47	375	82		250 59	378	86		204 65	380	91		231 54	381	92		251 13	379	96		223 39	382	86		193 60	375	-68		200	
170		84		271 55		76		243 43		80		253 41		74		234 52		82		234 48		74		255 43		79		230 48		73		201 51		-65		170	
150		81		273 57		77		254 45		77		257 43		66		244 38		73		243 47		69		255 41		72		238 48		70		214 50		-62		150	
130		77		272 60		78		256 42		73		265 48		71		244 37		72		248 42		68		254 49		69		236 46		67		225 42		-60		130	
110		79		270 63		77		259 46		72		262 52		66		234 36		68		248 54		68		252 51		67		243 48		63				-62		110	
100	513	80		271 66	515	76			517	73		255 50	522	66		227 36	522	69		249 48	524	71		252 46	521	68		247 45	526	66			522	-64		100	
90		82		274 59		74		255 52		74		255 52		68		227 36		72		242 42		72		252 54		71		245 46		67				-65		90	
80		85		272 55		75				75				68				72		249 48		72		262 47		72		240 41		67				-64		80	
70		86		271 48		73				73				70				72		249 47		71		256 49		71				67				-64		70	
60	(69mb)	86												70				(58mb)	69																60		
				Isothermal. 920-890mb 36°				Isothermal. 1003-990mb 46° 740-726-200				Inversion. 810mb 34°-785mb 35° Isothermal. 890-810mb 41°				Inversion. 806mb 31°-762mb 32°				Inversion. 958mb 51°-923mb 52° Isothermal. 741-700mb 28°																	
Tropopause	I 103mb -90° 37.100°				I 115mb -90° 35.000°				I 208mb -97° 36.700°				I 210mb -92° 36.700°				I 188mb -94° 39.800°				I 95mb -96° 39.200°				I 200mb -96° 37.900°				I 200mb -86° 38.200°				I 261mb -70° 32.000°				Tropopause
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure Surf Freezing	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time	21h		G.M.T.	Time				
	M.S.L.	1001.6		mb	994.2	mb		1004.1	mb	996.6	mb		1004.5	mb	1011.0	mb	1008.6	mb	1001.9	mb	990.1	mb		989	mb		810	mb		810	mb		M.S.L.				
	Surf	996.3		mb	997.9	mb		1003.2	mb	989.9	mb		1002.5	mb	1006.6	mb	992.8	mb																			

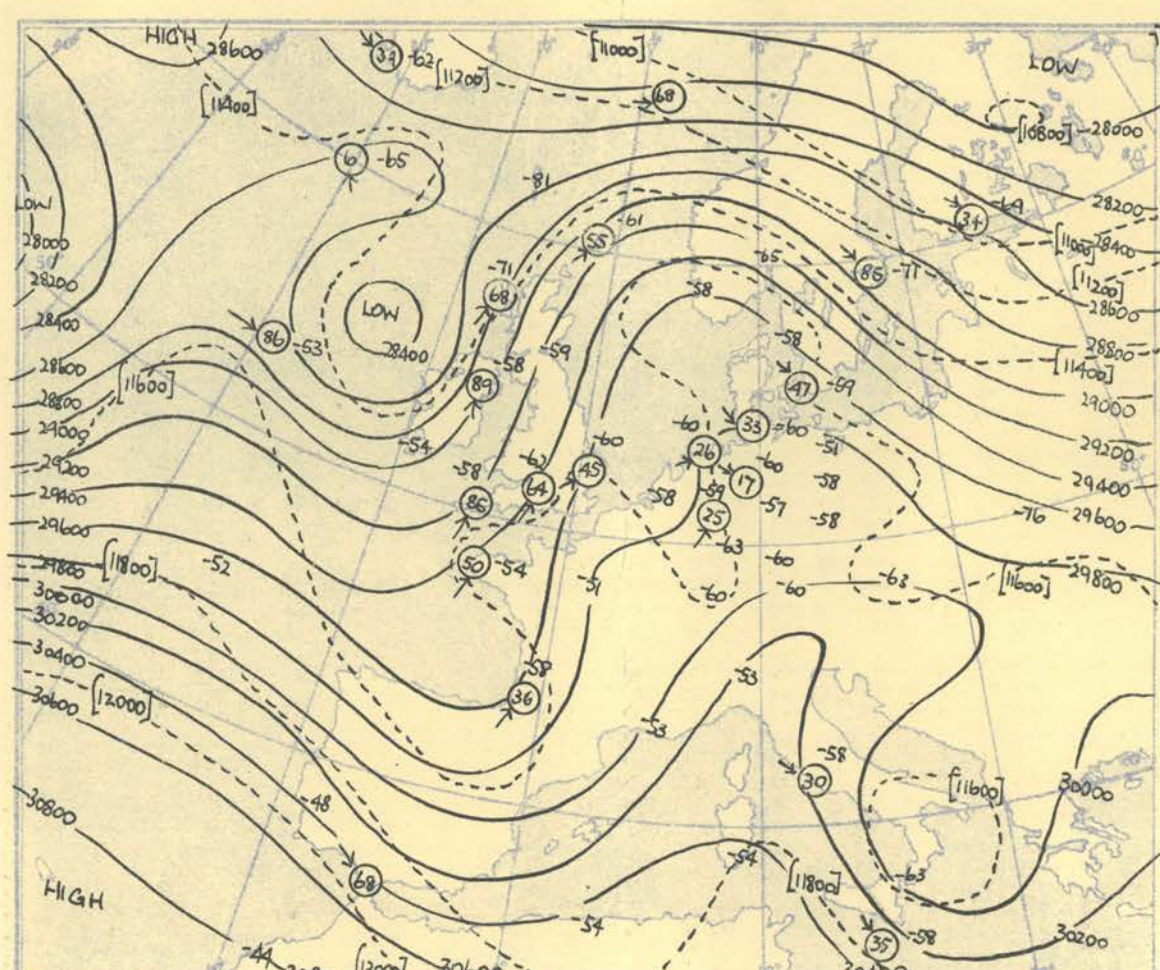
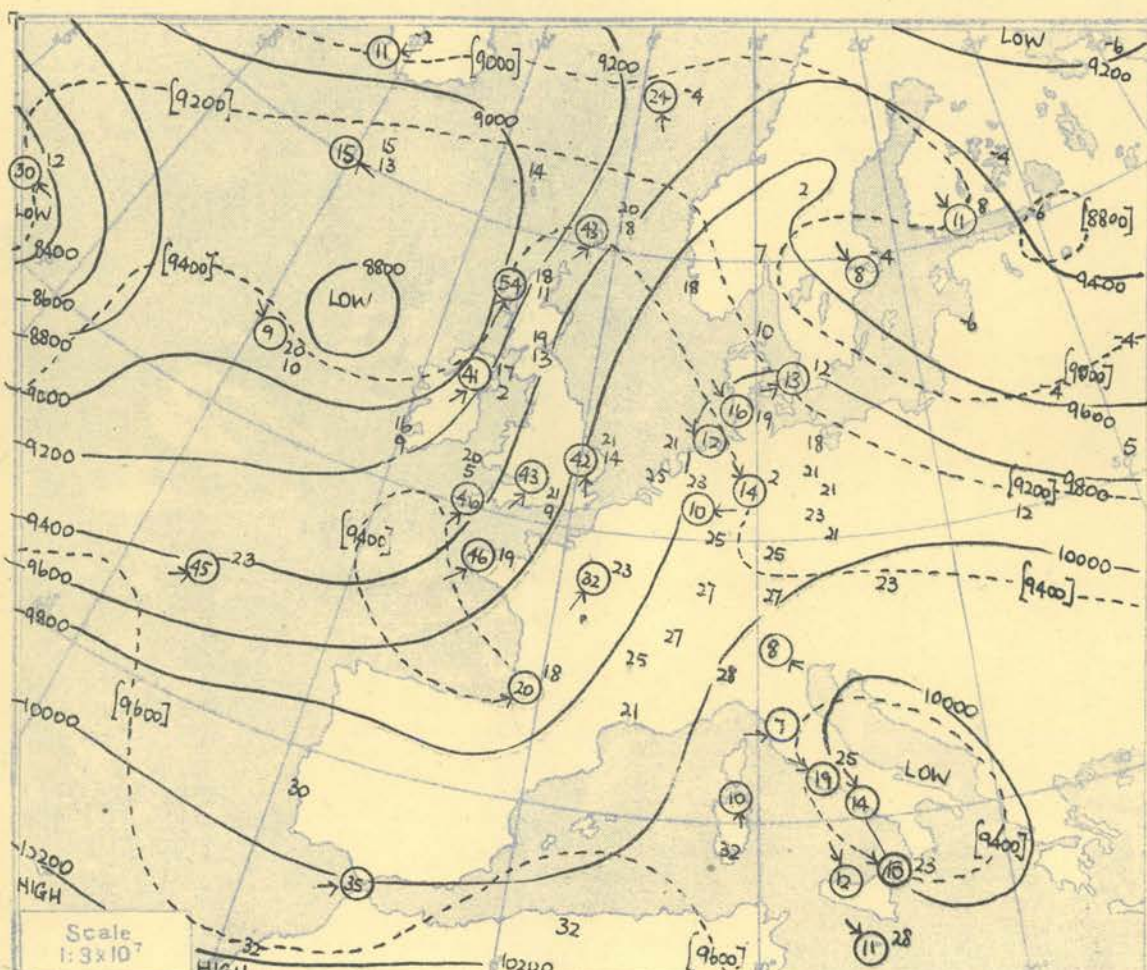


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure 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.		Time
	996.5		mb		983		mb		997.8		mb		991.7		mb		1003.9		mb		985.5		mb		996.9		mb		986.4		mb		985		mb		M.S.L.
	802		mb		815		mb		795		mb		812		mb		780		mb		781		mb		820		mb		830		mb		830		Surf		
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	44	44	191 21	05.0	47	45	180 10	00.2	47	44		02.3	48	45	160 17					01.2	48	40	135 14	04.4	51	41	180 15	02.9	49	48	180 18	00.3	49	46		Surf
1000	1.0				2.6				0.7				2.3								1.0				0.4				0.7				4.1				1000
950		41	41	178 37		47	40	182 38		46	40			46	42	178 33						52	37	168 39		47	41	190 27		48	46	203 47		48	44		950
900	27.4	42	31	202 38	25.9	41	37	186 42	27.9	45	35		26.1	42	35	187 39					29.9	51	37	184 40	29.0	45	38	194 33	27.9	41	37	208 42	24.5	42	39		900
850		37	32	211 41		36	33	193 46		39	33			36	28	188 41						43	32	186 39		40	32	191 40		35	34	210 39		36	34		850
800	58.7	32	31	211 41	57.1	30	26	189 55	59.3	32	29		57.4	30	19	190 41					60.5	35	28	189 39	60.5	34	26	188 45	59.1	30	23	213 41	55.8	29	25		800
750		26	23	207 43		24	20	186 57		25	18			25	12	193 41						27	22	187 38		27	21	190 45		25	19	215 45		23	18		750
700	70.2	20	18	207 43	91.5	18	11	184 54	93.9	19	13		91.8	17	07	198 41					90.2	21	14	180 42	95.3	21	09	195 43	95.6	20	05	214 46	90.1	16	09		700
650		14	09	216 42		11	01	192 45		11	06			14	08	187 47						14	03	179 49		13	10	198 44		14	02	210 46		10	01		650
600	132	07	04	223 45	130	04	07	196 40	133	04	01		131	06	01	179 62					135	08	07	184 52	134	06	03	198 41	132	06	03	210 48	129	02	11		600
550		02	17	222 55		04	14	190 39		04	08			02	07	175 62						00	08	186 55		03	07	196 42		04	18	205 50		06	21		550
500	177	11	24	221 47	175	15	25	187 40	177	13	17		175	11	16	179 71					180	10	15	190 56	179	12	17	200 50	177	14	23	200 51	175	16	31		500
450		20	29	215 39		25	35	186 43		24	29			21	27	178 73						20	28	193 54		23	28	203 60		24	40	195 60		28	39		450
400	229	32	40	228 37	226	37	47	186 51	229	33	39		228	32	39	179 79					232	28	37	200 46	231	32	37	193 57	229	26	47	188 78	224	40	50		400
350		45		231 36		53		186 64		43				43		175 90						42		201 45		46		188 65		46		185 83		54			350
300	272	61		232 55	288	71		186 68	293	59			291	58		172 89					296	60		203 45	294	62		190 64	292	58		183 83	287	54		300	
250		80		232 66		91		186 84		74				72		173 70						80		197 46		80		193 66		83		213 52		86		250	
200	374	100		226 71	369	88		227 47	376	81			376	70		191 53					378	73		198 46	377	79		217 50	378	67		232 37	374	57		200	
170		72		237 50		86		218 28		81				70		202 81						81		227 41		75		234 35		72		243 42		66		170	
150		87		240 56		82		220 20		82				70		229 35						77		232 40		76		236 33		68		243 40		73		150	
130		87		244 51		84		238 26		71				70		250 25						75		241 37		71		241 31		68		247 37		76		130	
110		88		257 45		87		210 31		75				71		214 18						75		237 45		71		247 38		69		248 32	(120 mb)	74		110	
100	511	88			507	88			517	77			519	72		213 24					519	74			520	72		248 33	522	69		246 40				100	
90		87				91				78				73		233 26																245 35				90	
80		87				92				78				74																						80	
70		88				92				77				77																						70	
60						92				80																										60	
Inversion 950 mb. 41° - 724 mb. 45° 983 mb. 41° - 963 mb. 45°																																					
Isothermal 997 - 972 mb. 47° 928 - 915 mb. 47° 450 - 436 mb. 24°																																					
Tropopause I 200mb. -100° 37,400' I 234mb. -97° 33,600' II 200mb. -81° 37,600' I 235mb. -74° 34,200'																																					
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure 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.		09h.		G.M.T.		Time		
	992.6		mb		983		mb		mb		987.1		mb		994.2		mb		1002.1		mb		985.7		mb		999.9		mb		mb		mb		M.S.L.		
	807		mb		850		mb		mb		830		mb		839		mb		800		mb																

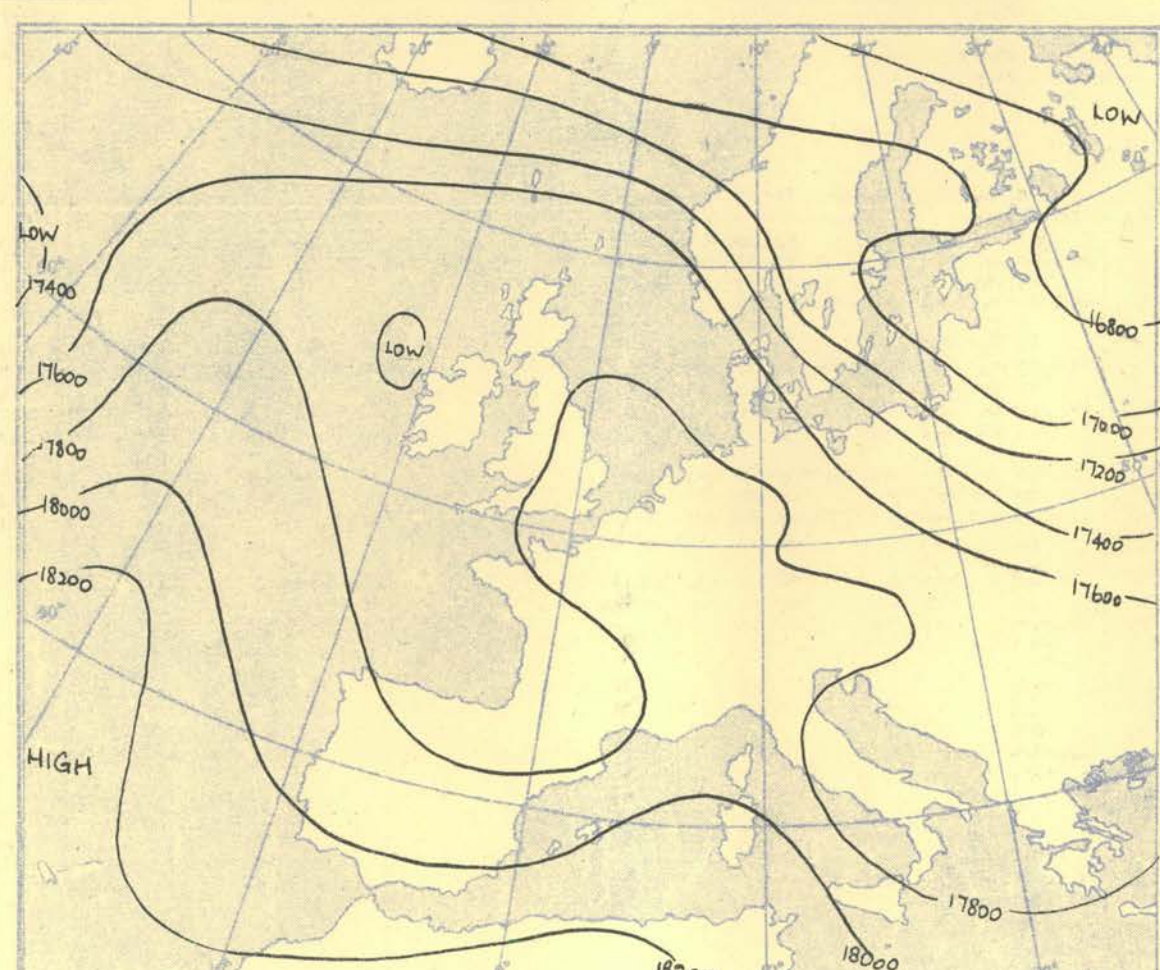
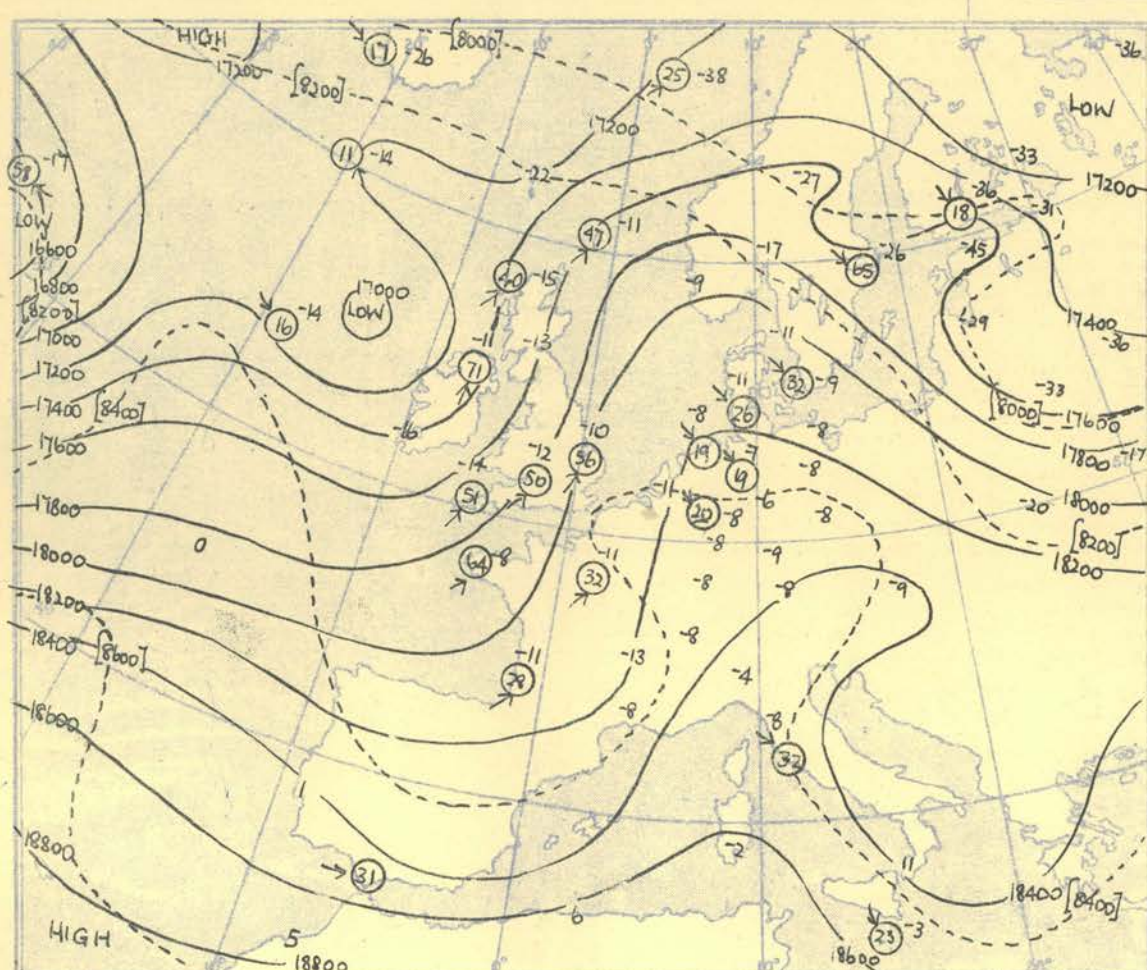


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



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.

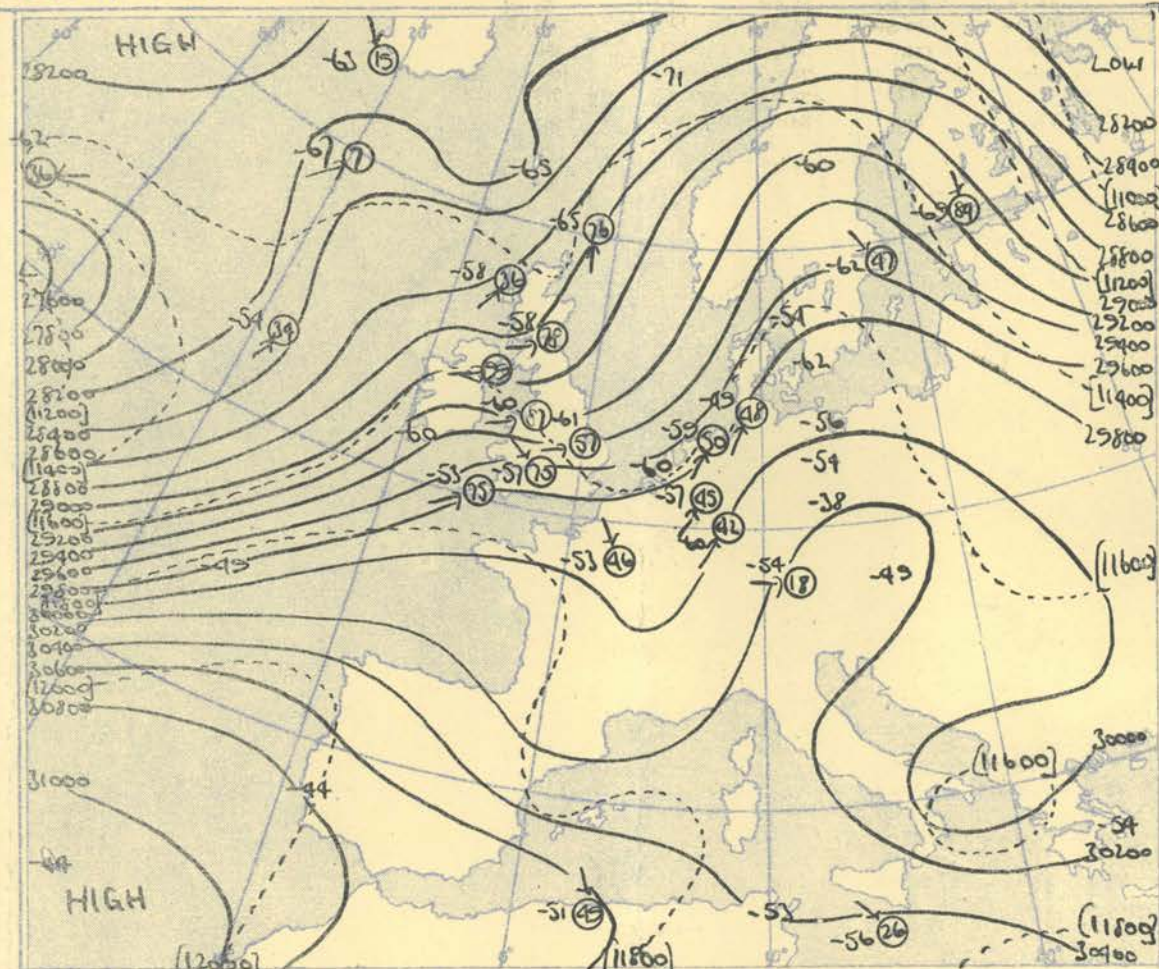
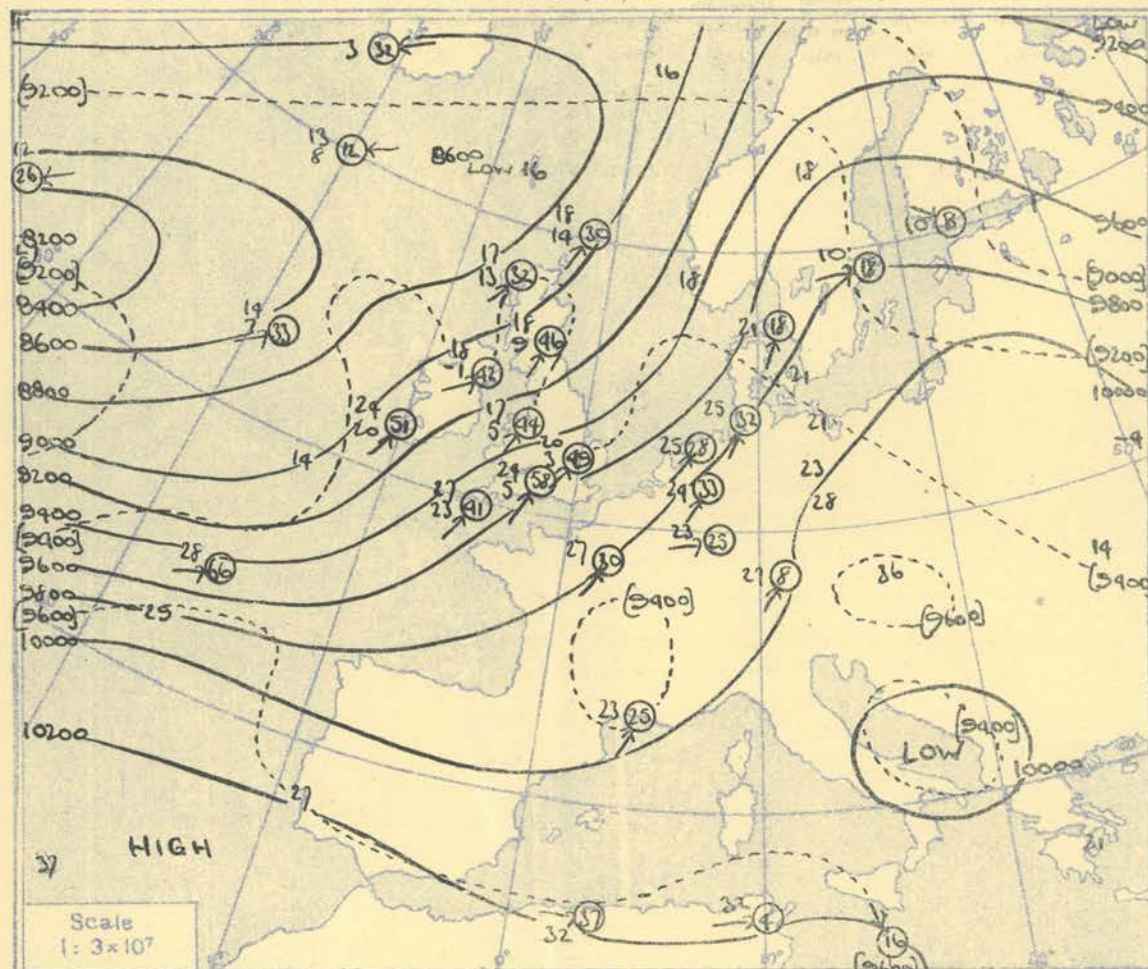
Isopleths of Thickness 500-1000mb.



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 Freezing			43-2N. 11-0W.			48-2N. 20-5W.			49-5N. 14-5W.			49-5N. 12-2W.			54-1N. 0-1E.									Time M.S.L. Surf Freezing					
Pressure mb	Height ft./100	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Dew. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F
Surf	5	51	51	44	38	52	48	62	59	0-5	53	45					Surf							Surf					
1000		51	51	-2-4		-3-0		4-3	61	0-0							1000							1000					
950		51	51														950							950					
900		46	46	25-8		25-5				28-7	42	41					900							900					
850		37	37	31	23	34	29										850							850					
800		38	23	56-7	26	23	56-6	27	23								800							800					
750		33	33														750							750					
700	97-0	29		90-8	11	-	90-7	14		100	38	94-6	20				700							700					
650		22															650							650					
600		13		123	-05	-	123	-01									600							600					
550		04		-15	-	-07											550							550					
500	182	-02		172	-26	-	173	-15		187	-03	178	09				500							500					
450																	450							450					
400																	400							400					
350																	350							350					
300																	300							300					
250																	250							250					
200																	200							200					
170																	170							170					
Cloud. 7/8 Ae 650-660mb. Isothermal 1002-350mb. 51°															Cloud. 4/8 Cu 920-750mb. 750mb. Surf wind: S.W. 7-10kts. Inversion 999mb-53° 978-54° 750-43°														
NEPHOSCOPE OBSERVATIONS																													
Place															Place														
Time Type															Time Type														
Dir. Vel.															Dir. Vel.														

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																																					
Ship	Weather Observer				Weather Observer				Weather Observer				Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Ship																								
Lat/Long	53-6°N 18-3°W				53-6°N 18-4°W				53-6°N 18-8°W				60°N 19-8°W				60°N 19-6°W				59-8°N 15-9°W				59-8°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.	975			mb			977			mb			973			mb			976			mb			988			mb			982			mb			980			mb			976			mb			mb			M.S.L.
	Surf	975			mb			977			mb			973			mb			976			mb			988			mb			982			mb			980			mb			976			mb			mb			Surf
	Freezing	810			mb			840			mb			850			mb			865			mb			925			mb			920			mb			915			mb			890			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	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	ft./100	°F.	°F.	Dir. Vel. knots	mb												
Surf	-	49	46	330	07	-	49	45	220	03	-	48	41	250	33	-	47	39	230	34	-	40	38	045	34	-	39	37	045	36	-	41	35	035	28	-	40	37	030	30	Surf												
1000	-5-8				-6-2					-7-3						-6-5					-3-2					-4-7					-5-5					-6-4					1000												
950		46	43	309	07		46	40	222	06		45	35				44	37	224	33		35	34	050	36		35	32	047	41		37	32	042	29		37	35	031	33	950												
900	22-6	40	37	308	10	22-3	39	33	203	06	21-2	38	33			21-9	37	31	235	30	24-7	28	28	054	28	23-1	25	28	049	31	22-6	30	28	041	33	21-6	33	32	031	35	900												
850		35	32	308	09		33	26	194	09		32	28				30	26	247	30		24	24	068	38		24	23	056	33		25	26	042	29		28	26	031	36	850												
800	53-8	31	26	308	09	53-4	29	17	164	10	52-2	25	21			52-8	23	19	244	30	55-2	20	20	075	35	53-5	20	18	072	27	53-2	21	15	047	22	52-2	26	23	040	25	800												
750		26	18	308	10		22	07	132	15		15	16	For			17	11	235	32		18	17	085	18		18	17	036	18		17	11	057	15		21	17	056	12	750												
700	58-4	20	10	308	09	57-3	16	02	179	21	56-3	14	07	Winds			86-7	11	02	232	34	89-3	15	13	099	15	87-5	12	12	078	11	87-2	13	08	057	12	86-4	15	10	064	06	700											
650		14	05	304	09		10	-10	159	20		05	-3	Sec				04	-6	232	33		05	06	103	12		07	06	048	11		05	03	063	10		12	04	084	03	650											
600	127	07	-6	283	08	126	01	-13	193	17	125	-1	-17	Top of			128	-3	-13	234	34	128	02	-3	050	12	126	00	-1	357	06	126	00	-6	052	06	125	04	-9	138	03	600											
550		-3	-22	264	15		-7	-13	213	28		-11	-25	page			-12	-33	242	28		-7	-12	078	15		-8	-10	339	04		-8	-75	158	04		-4	-14	211	03	550												
500	172	-14	-27	284	16	170	-17	-24	228	37	168	-21	-31				168	-22	-38	237	33	172	-14	-18	112	11	170	-16	-19	215	02	170	-17	-24	180	05	169	-14	-30	220	05	500											
450		-25	-39	260	15		-26	-38	230	42		-31	-41				-33	-43	238	24		-23	-28	125	08		-27	-30	209	06		-27	-35	211	03		-24	-34	220	05	450												
400	223	-38	-54	254	24	222	-38	-49	217	36	219	-45	-52				219	-45	227	20	224	-35	-40	138	04	221	-38	-42	226	08	221	-38	-46	219	11	221	-38	-51	220	10	400												
350		-46		262	69		-51		211	41		-47					-52		224	15		-49		175	04		-51		234	10		-52		220	08		-47		210	10	350												
300	287	-53		168	86	284	-64		226	47	283	-51					282	-54	237	18	287	-65		166	06	284	-67		232	08	283	-67		228	07	284	-61		252	28	300												
250		-64		270	58		-66		221	33		-56						-49		30			-78		016	04		-71					-74			-63		207	02	250													
200	373	-65		271	43	370	-55		238	36	371	-51					370	-49	195	36	371	-68		262	03	368	-65				368	-63		370	-59		-57				200												
170		-64		271	40		-60		262	65		-49						-48		215	38		-66		260	15		-72					-64							170													
150		-63		271	39		-61		270	67		-50						-50		212	33		-66		261	12	(57)	-76						-65						150													
130		-66		271	36		-64		274	58		-54						-48		231	33		-68		259	13								-67						130													
110		-67		271	41		-67		274	39		-62						-56		258	39		-72		260	24								-70						110													
100	519	-67		271	38	517	-68		274	33	511	-62					522	-60	258	40	(120)	-73																		100													
90		-68		271	43		-65		280	54		-62						-62		260	45																			90													
80		-69		271	42		-64		282	55		-64						-63		257	52																			80													
70		-64		271	43		-66		258	42		-66						-65		247	55																			70													
60		-67		271	44		-65		260	37		-68						-66		236	51																			60													
	(059)-67				(59)-64									isothermal																																							
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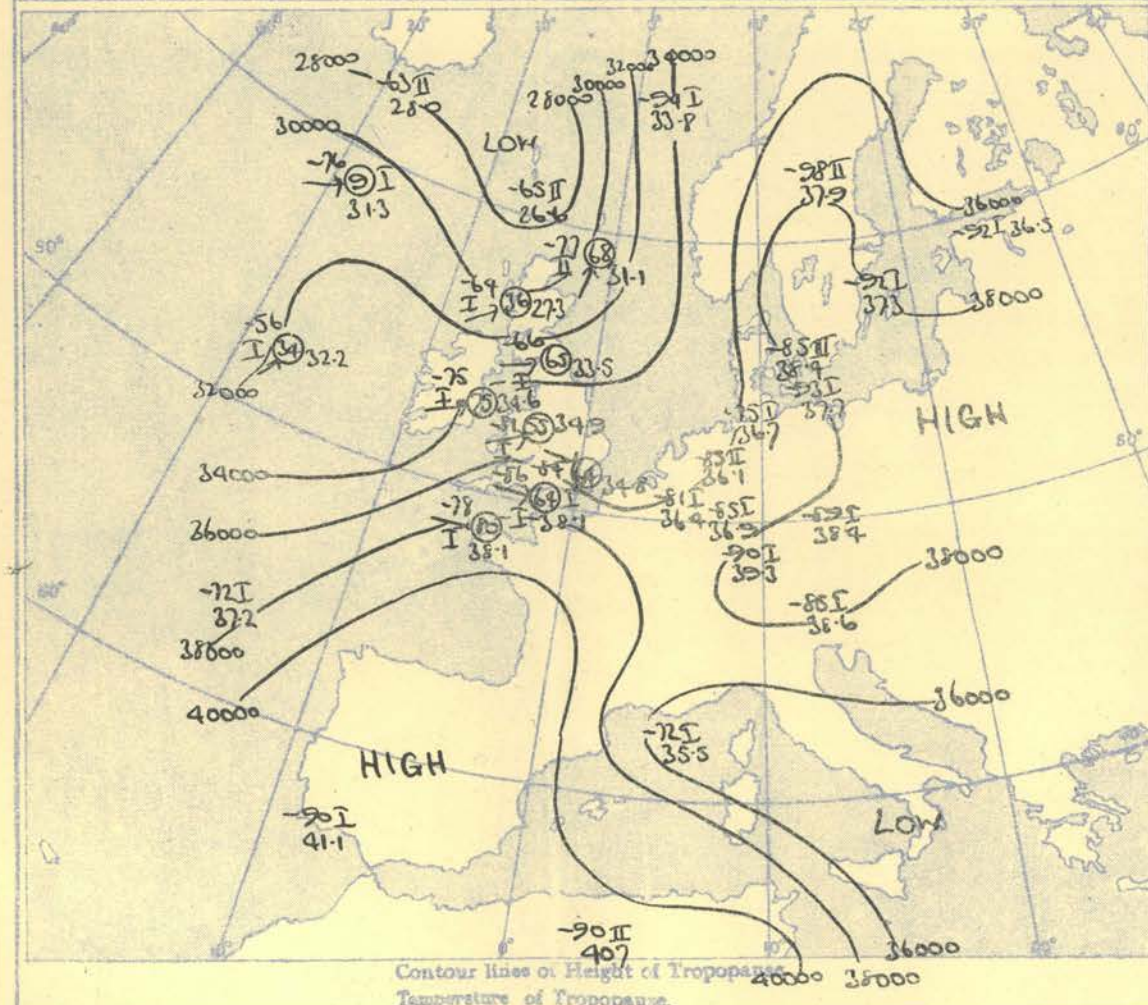




Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 0 knots

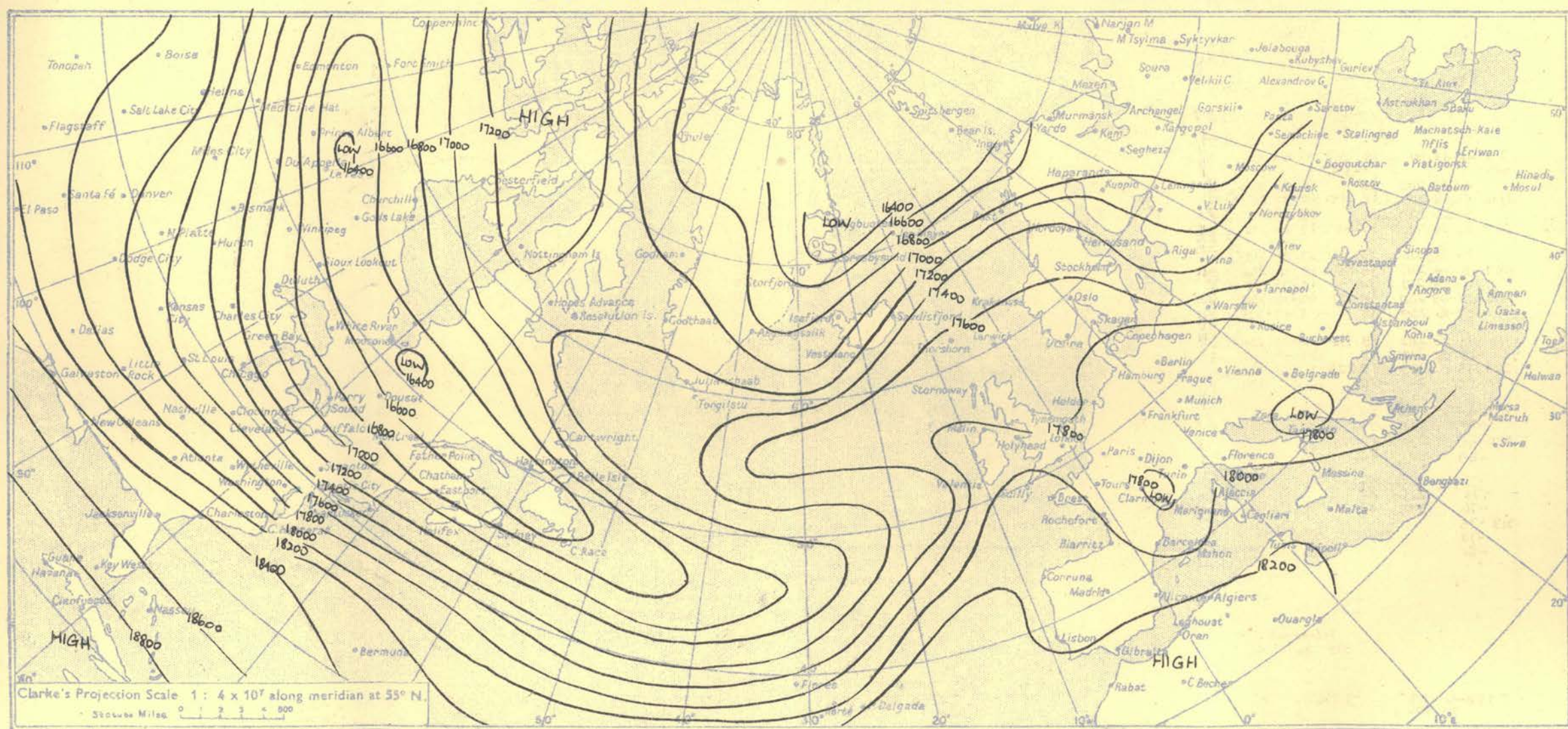
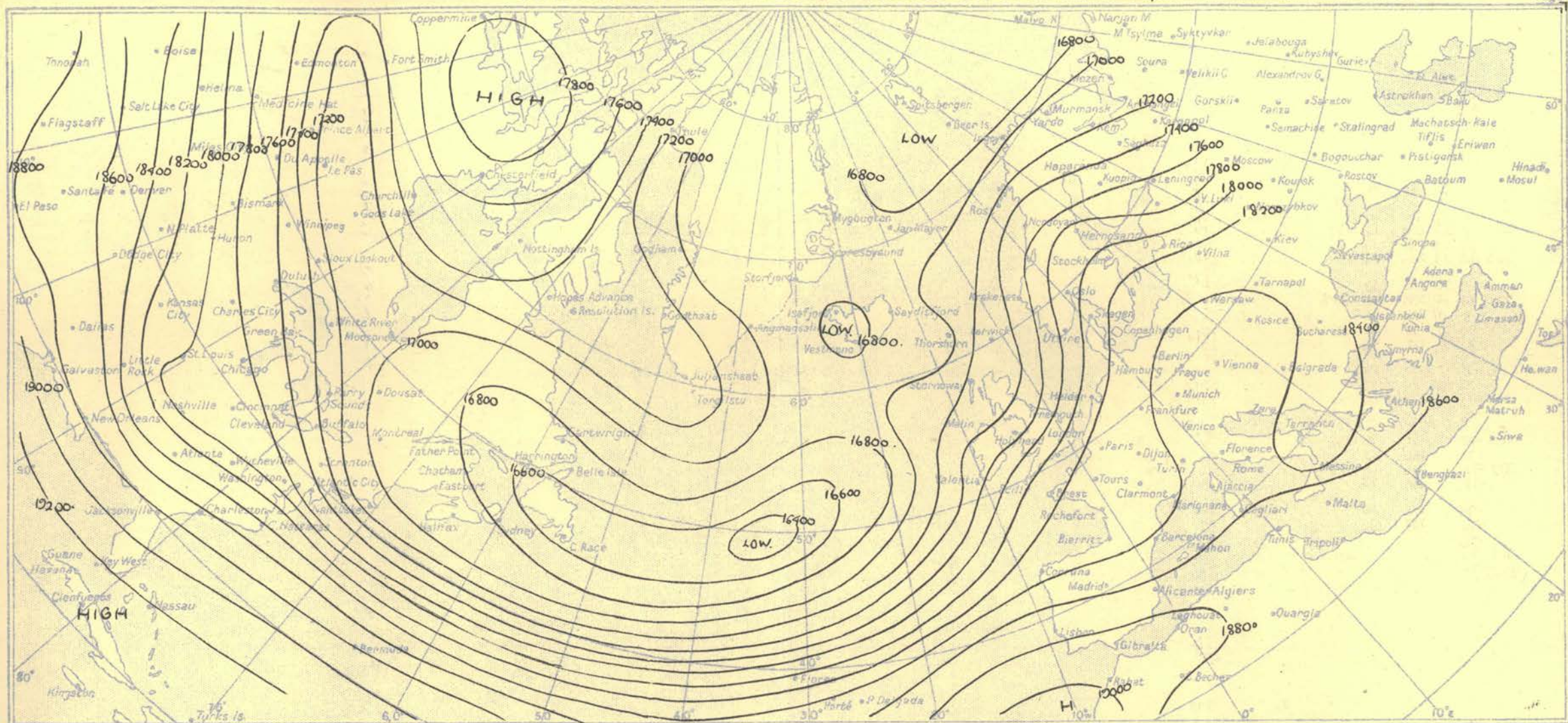
TROPOPAUSE CHART at about 15 h. G.M.T.



NOTES ON THE AEROLOGICAL SITUATION.

The Northeastwards spread of warm air continued over Europe, resulting in some warming as far North as Finland and North Scandinavia. There was a further extension eastwards of the cold tongue in the central North Atlantic, with rather colder air reaching the British Isles subsequently.







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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure	Time M.S.L. Surf Freezing	15h.		G.M.T.		15h.		G.M.T.		1500h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		Time M.S.L. Surf Freezing					
		mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb							
Surf	1000	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44															Surf					
950	950	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44															950					
900	900	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44															900					
850	850	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																850				
800	800	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																800				
750	750	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																750				
700	700	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																700				
650	650	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																650				
600	600	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																600				
550	550	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																550				
500	500	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																500				
450	450	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																450				
400	400	2.7	43	43	157	26	0.5	48	44	180	15	0.2	51	44	200	22	2.3	55	44																400				
350	350	2.7	43	43	157	26	0.5	48	44	180	15																												



March 1950 Page 1.

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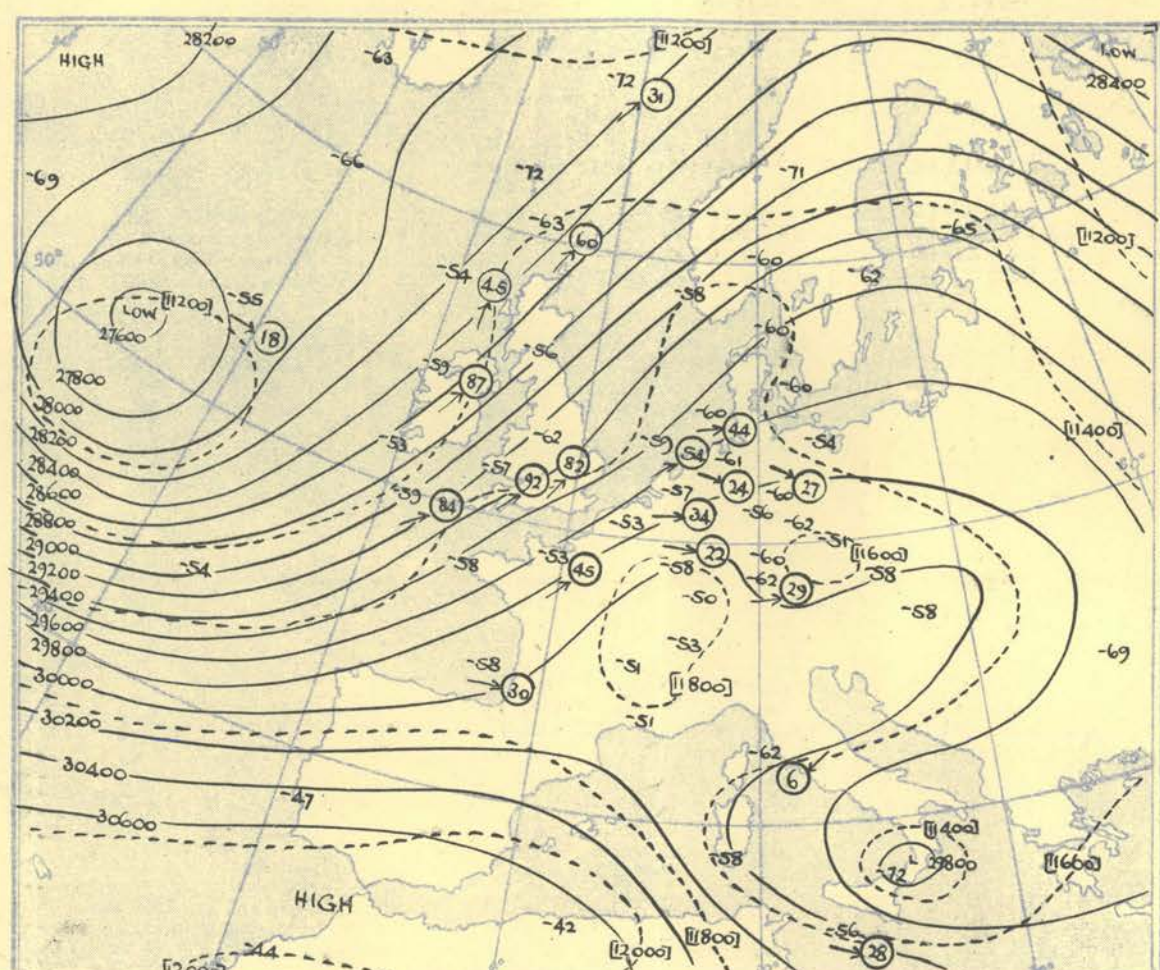
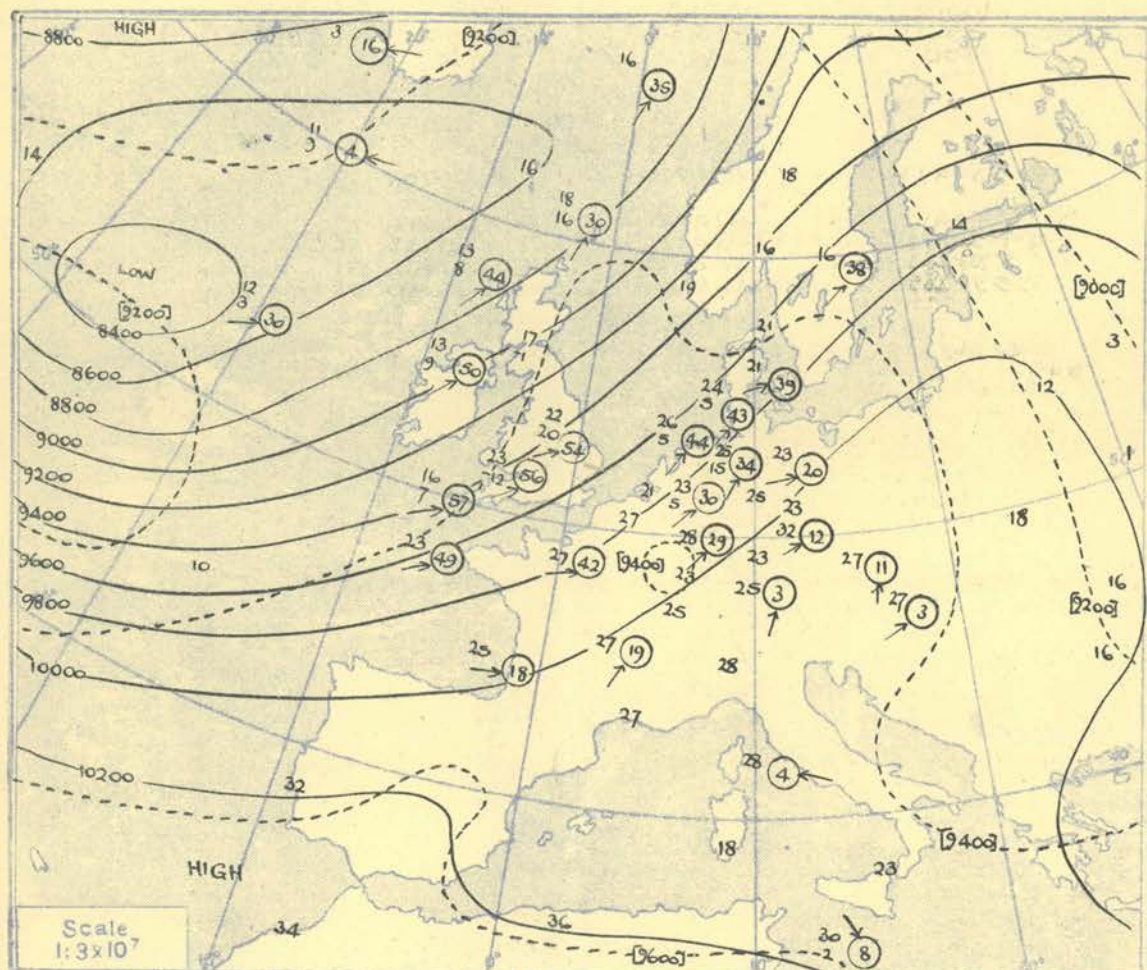
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M.S.L.  
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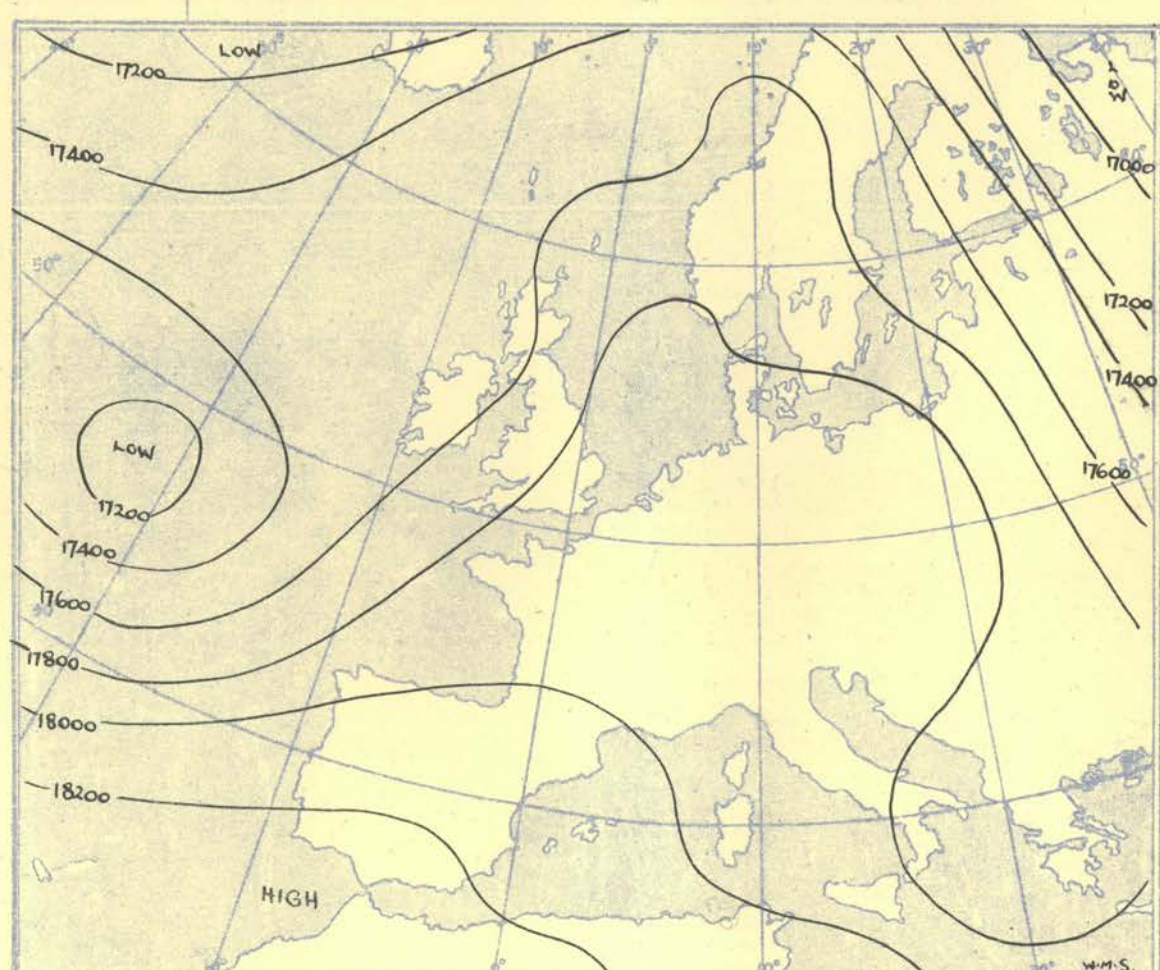
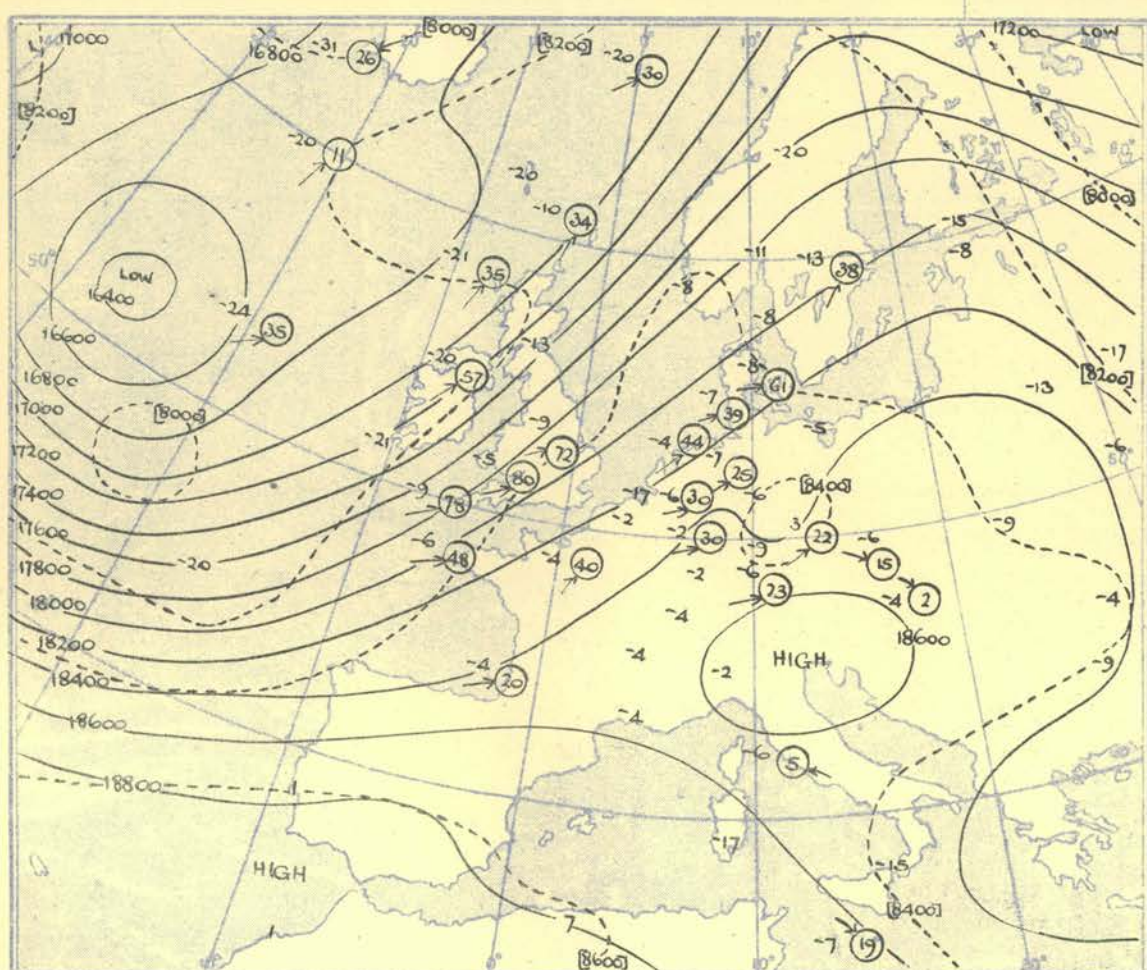


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



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

100	80	60	40	20	10	5
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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

54.1°N 0.1°E																																	
Pressure { Time M.S.L. Surf Freezing	15hrs			mb			mb			mb			mb			mb			mb			mb			mb			mb			Time M.S.L. Surf Freezing		
	997			mb			mb			mb			mb			mb			mb			mb			mb			mb			mb		
	997			mb			mb			mb			mb			mb			mb			mb			mb			mb			mb		
	890			mb			mb			mb			mb			mb			mb			mb			mb			mb			mb		
Pressure mb	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Height ft./100	Temp. °F	Dew °F	Pressure mb		
Surf	0.5																														Surf		
1000	0.5	49	44																												1000		
950		47	41																												950		
900	28.1	42	34																												900		
850		34	32																												850		
800	59	26	-																												800		
750		23	26																												750		
700	93.6	15	-																												700		
650		08	-																												650		
600	132	01	-																												600		
550		40	-																												550		
500	176	-17	-																												500		
450		-30	-																												450		
400	227	-39	-																												400		
350		-49	-																												350		
300	290	-59	-																												300		
250																															250		
200	Cloud																														200		
170	818 ft. c.																														170		
	844-805																																
	218 ft. c.																																
	455																																
	618 ft. c.																																
	840.																																
	5000																																
	on descent.																																
	Inversion																																
	997 ms 49°																																
	971 ms 51°																																

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

Place	Shoeburyness - Liverpool				Heathrow				Stornoway																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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## NEPHOSCOPE OBSERVATIONS

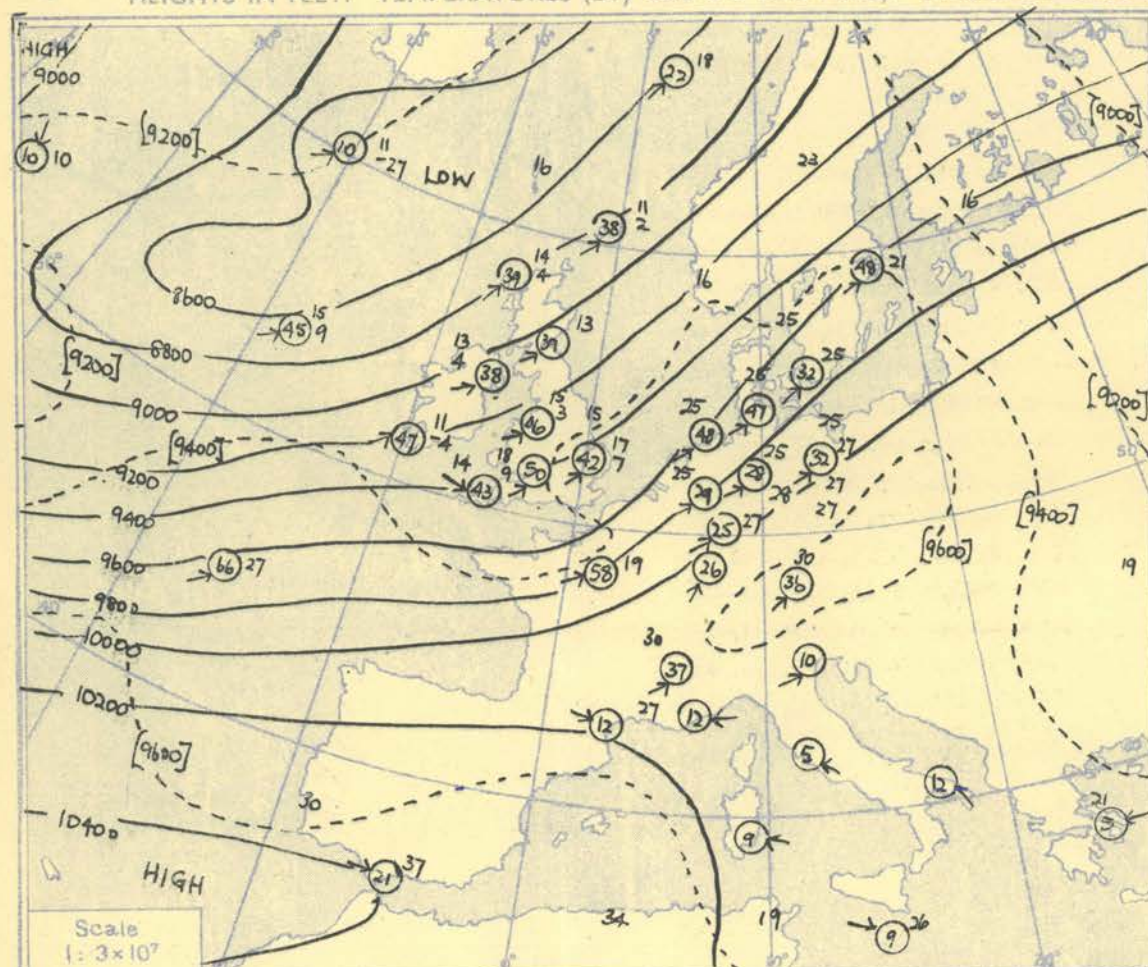
Place	Time Type	Dir. Vel.	Place	Time Type	Dir. Vel.

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

Ship	WEATHER OBSERVER.	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	Ship
Lat/Long	53.6 N 18.3 W	60.0 N 20.0 W	53.5 N 18.6 W	60.0 N 20.1 W	53.8 N 18.1 W	59.7 N 20.1 W	53.8 N 18.4 W	59.9 N 20.0 W	Lat/Long
Time M.S.L.	03h	03h	09h	09h	15h	15h	21h	21h	Time M.S.L.
Surf	975	974	975	974	975	975	973	997	Surf
Pressure mb	860	930	850	920	840	910	850	920	Pressure mb
Height ft./100	Temp. °F	Dew °F	Temp. °F	Dew °F	Temp. °F	Dew °F	Temp. °F	Dew °F	Height ft./100
Surf	48	41	39	35	48	40	235	37	Surf
1000	-6.8		-6.9		-6.9		-6.7		1000
950	44	38	34	31	45	38	235	30	950
900	21.5	36	27	27	21.5	37	21	235	900
850	30	26	27	27	30	27	235	43	850
800	52.3	24	17	237	51.2	22	22	045	800
750	18	10	237	30	17	16	060	09	750
700	86.3	12	03	237	85.1	11	09	076	700
650	04	-02	237	32	05	01	133	04	650
600	124	-04	-14	237	123	-02	-10	175	600
550	-14	-24	241	34	-11	-19	213	11	550
500	168	-24	-34	241	167	-20	-27	216	500
450	-36	-45	246	25	-32	-40	206	10	450
400	218	-49	239	31	218	-44	249	30	400
350	-59		253	27	-56				350
300	280	-55	255	18	280	-66			300
250	-53		241	26	-64				250
200	368	-48	241	37	365	-61			200
170	-50		240	34	-61				170
150	-52		237	29	-63				150
130	-57		236	33	-62				130
110	-55		240	39	-67				110
100	519	-64	240	42	512	-69			100
90	-63		239	40	-68				90
80	-65		239	42	-67				80
70	-68		239	42	-67				70
60	-69		239	36	(067) mb	-67			60
Isothermal 850 - 830 mb 24° 634 - 620 " 02°									
Tropopause	I 336 mb - 60°	I 280 mb - 68°	I 310 mb - 72°	I 286 mb - 64°	I 330 mb - 63°	I 285 mb - 68°	I 352 mb - 52°	I 281 mb - 81°	Tropopause
	25,500'	29,500'	27,400'	27,200'	26,100'	29,100'	24,800'	28,900'	



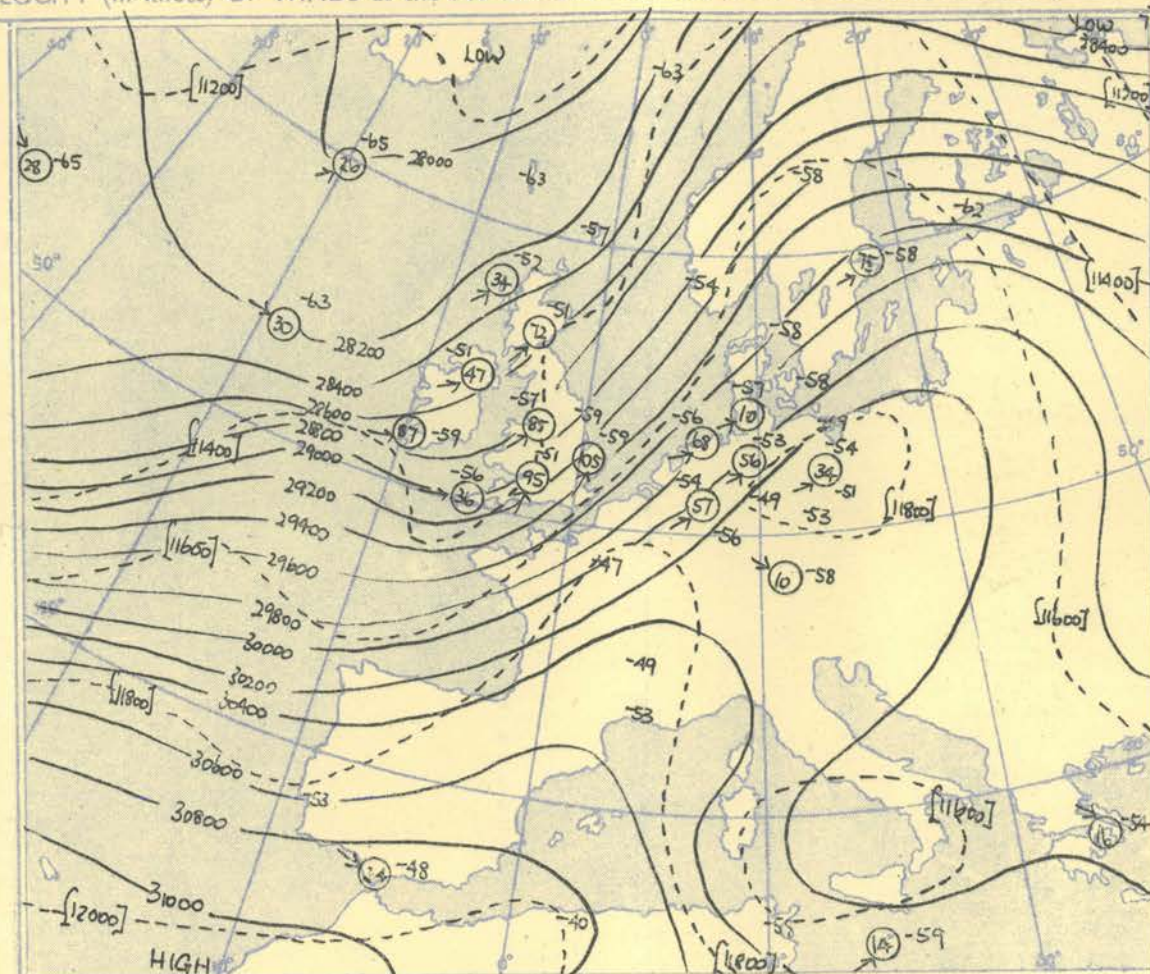
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

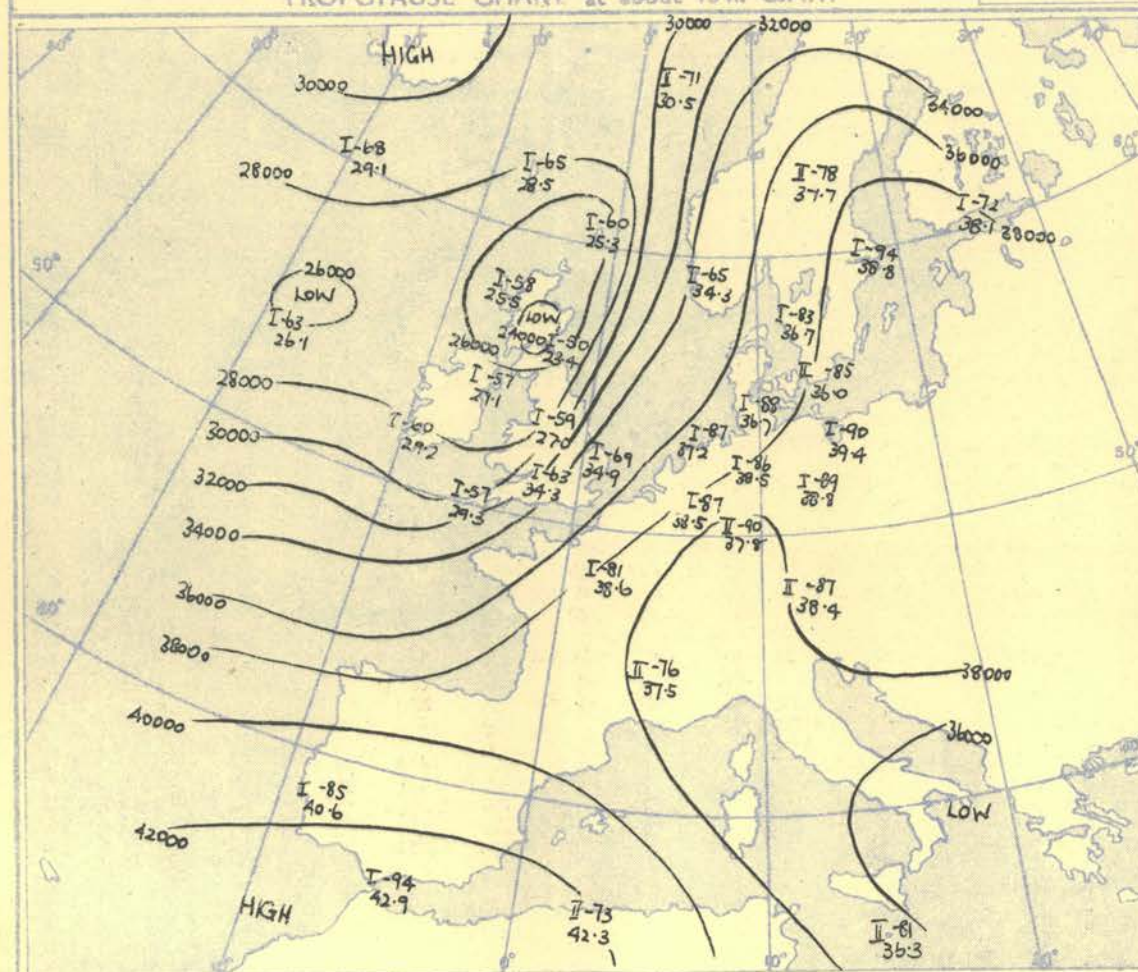
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat 52° N.

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.

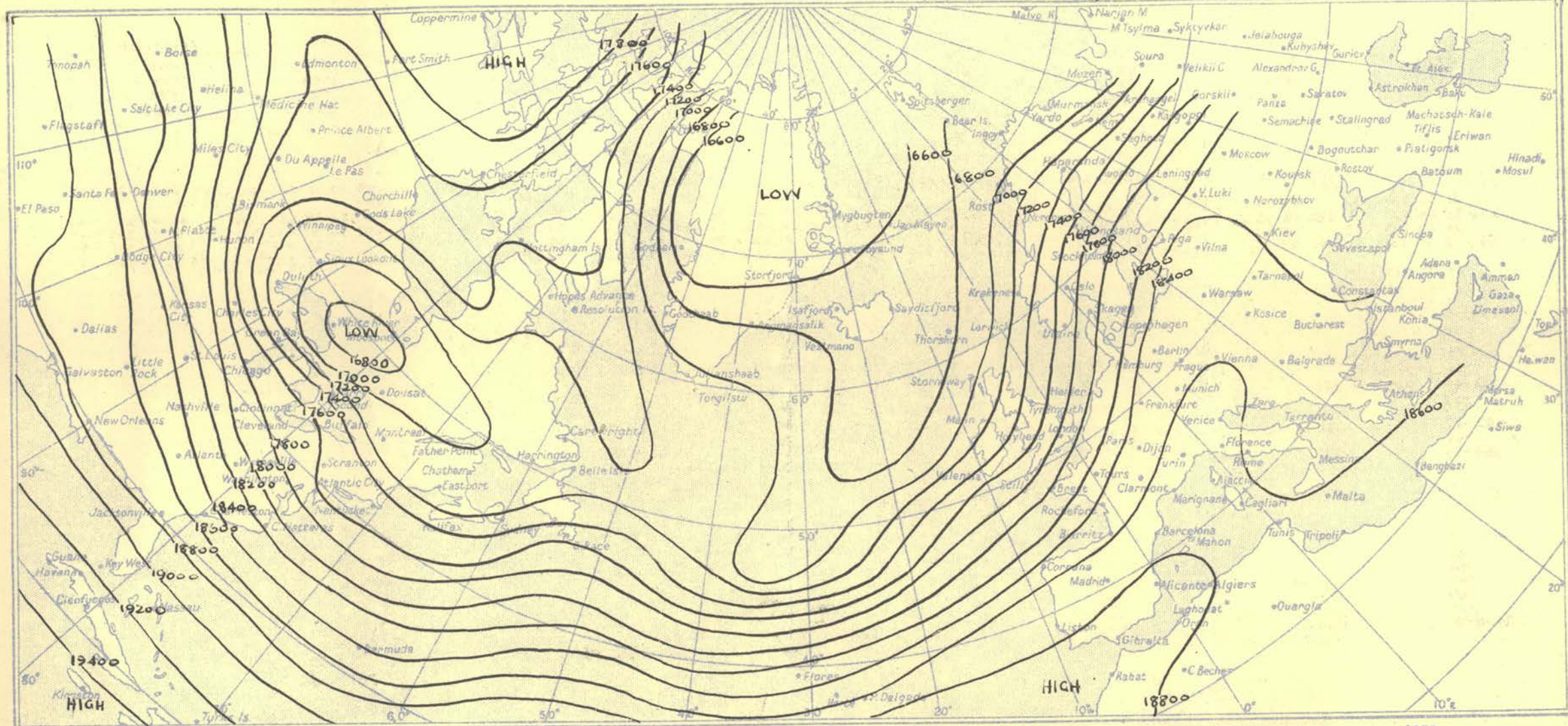
## NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge across Europe persisted and became somewhat stronger. The cold tongue of air in the Atlantic warmed considerably near Newfoundland and a cold pool became detached in the Central Atlantic. Some warming also became noticeable to the north of Bermuda. A cold trough moved across the British Isles but became weak.

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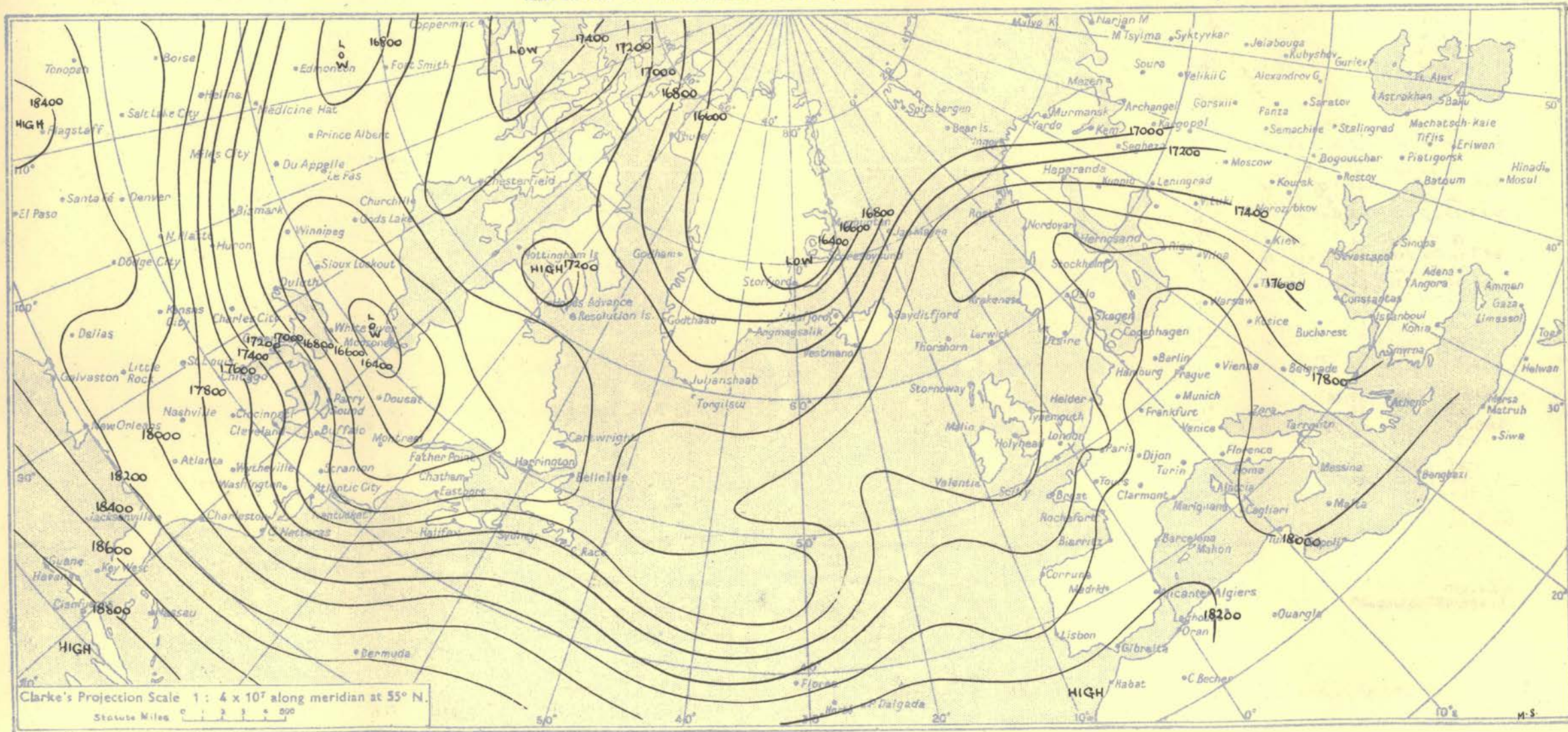
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

Friday 17<sup>th</sup> March, 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								
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)												
		972.9		mb		981.2		mb		983.0		mb		989.8		mb		995.6		mb		1001.2		mb		1001.4		mb		1003.4		mb														
		873		mb		845		mb		853		mb		848		mb		850		mb		827		mb		847		mb		855		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	027	46	38	203	28	005	43	41	190	25	002	46	45	200	19	023	47	39	229	23	006	53	28	232	28	012	51	48	190	23	44	53	45	225	20	029	50	42	203	18	003	51	46	220	25	Surf
1000	047	41	33	210	32	051	43	34	197	41	031	45	39	214	30	028	43	34	230	30	012	46	31	225	32	004	49	41	203	29	04	45	38	219	36	009	44	38	238	33	-17	46	42	222	40	1000
950	236	35	26	221	33	232	38	30	202	43	253	37	34	229	42	256	38	32	229	36	273	39	26	228	35	291	41	37	210	32	289	38	35	224	42	293	44	30	250	40	268	46	42	222	40	950
900	289	29	20	227	32	242	33	29	210	46	203	31	28	233	44	203	32	27	232	36	220	32	20	230	39	35	34	217	34	32	30	224	43	302	36	30	250	40	268	46	42	222	40	900		
850	343	22	14	231	31	242	27	23	214	44	203	25	23	232	41	203	25	23	232	36	220	25	13	234	47	602	29	27	225	37	599	27	24	218	43	602	25	18	263	46	578	26	17	229	47	850
800	396	16	07	229	36	242	21	15	216	40	203	19	18	233	39	203	19	18	233	39	203	19	18	233	39	203	19	18	233	39	203	19	18	233	39	203	19	18	233	39	203	19	18	233	39	800
750	449	11	05	226	32	242	14	04	217	39	203	13	09	235	39	203	13	09	235	39	203	13	09	235	39	203	13	09	235	39	203	13	09	235	39	203	13	09	235	39	203	13	09	235	39	750
700	502	05	04	221	28	242	07	04	219	40	203	05	04	230	41	203	06	06	236	41	203	07	12	231	46	947	10	04	222	42	943	18	09	227	50	943	14	01	269	43	918	11	04	223	47	700
650	555	03	01	223	24	242	01	03	220	40	203	03	01	230	43	203	03	01	230	43	203	03	01	230	43	203	03	01	230	43	203	03	01	230	43	203	03	01	230	43	203	03	01	230	43	650
600	608	02	01	223	24	242	01	03	220	40	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	600
550	661	02	01	223	24	242	01	03	220	40	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	203	02	01	230	43	550
500	714	03	02	222	28	242	02	03	222	39	203	03	02	232	44	203	03	02	232	44	203	03	02	232	44	203	03	02	232	44	203	03	02	232	44	203	03	02	232	44	203	03	02	232	44	500
450	767	04	02	223	32	242	03	04	223	36	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	450
400	820	04	02	223	32	242	03	04	223	36	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	203	04	02	233	44	400
350	873	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	350
300	926	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	300
250	979	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	250
200	1032	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	200
170	1085	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	170
150	1138	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	150
130	1191	05	03	223	36	242	04	05	223	38	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	203	05	03	233	44	130
110	1244	05	03	22																																										

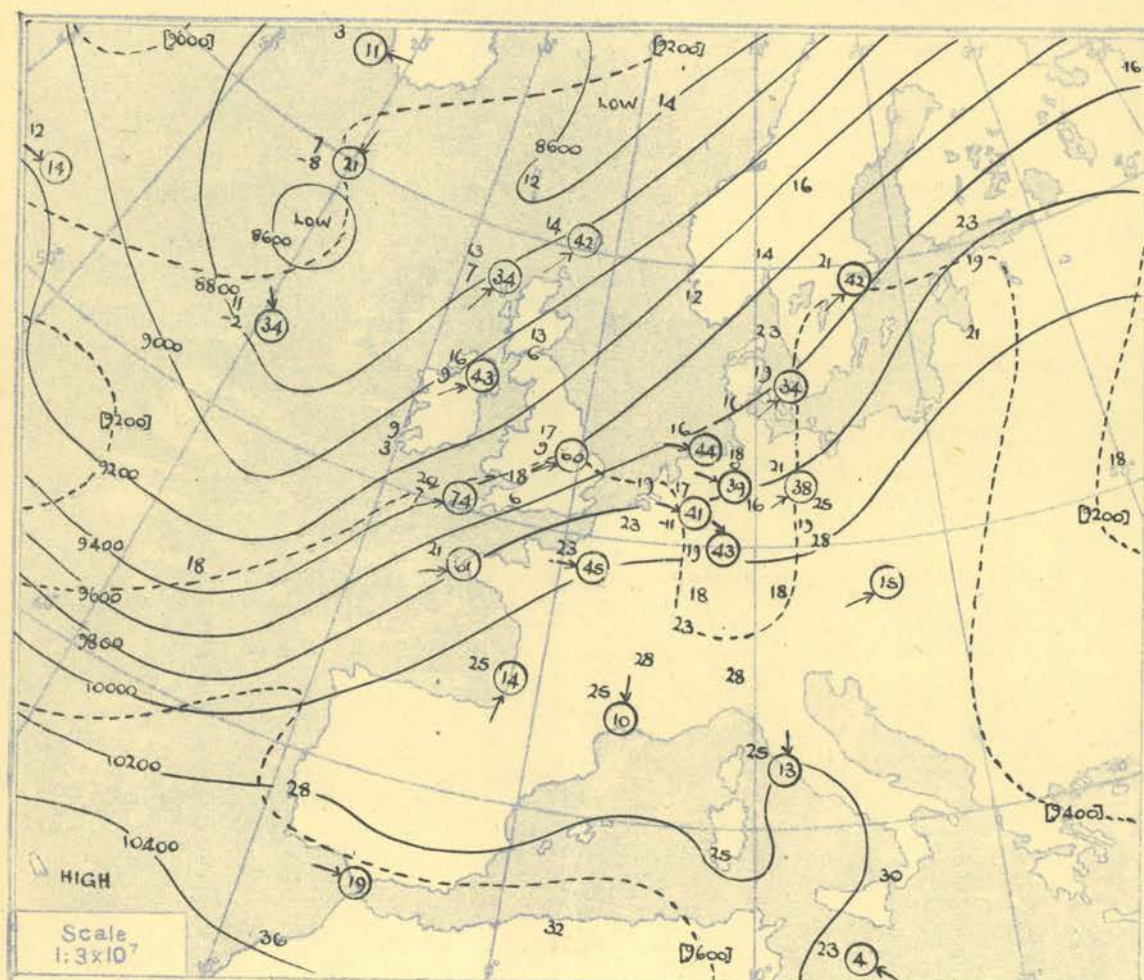


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	Station			
Time M.S.L. Surf Freezing	03hrs 283.8 273.9 853	G.M.T. mb mb mb	03hrs 283.8 281.9 860	G.M.T. mb mb mb	03hrs 281.3 290.4 820	G.M.T. mb mb mb	03hrs 1006.1 1001.6 829	G.M.T. mb mb mb	03hrs 1003.4 992.9 803	G.M.T. mb mb mb	03hrs 992.7 991 870	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	Pressure mb
Surf	2.7 43 39 213 30 00.5 44 42 200 25 00.2 45 33				02.3 44 41 200 18		01.2 47 43 170 20 44 50 44 220 28		02.3 51 48		0.3 47 40 200 17		Surf
1000	-4.4				-3.2		01.6 47 43		010		-2.0		1000
950	42 37 218 39				42 39 211 34		42 39 213 47		48 43		44 35 231 31		950
900	23.8 38 34 223 37 238 30 35 219 39 258 38 31				25.1 38 37 223 35		29.9 38 37 223 54 30.3 41 38		29.6 41 41		26.4 36 32 232 31		900
850	31 29 235 40				34 32 230 38		36 31 233 55		37 33		30 22 232 30		850
800	54 62 22 229 25 54 72 15 226 36 56 9 29 18				56.1 28 27 231 39		61.0 28 26 237 54 61.5 31 26		60.9 31 30		57.5 24 02		800
750	20 16 223 54				22 18 230 37		21 17 235 62		25 21	Sec p	17 00		750
700	88.8 14 08 215 42 88.8 13 07 231 34 91.2 13 06				90.4 16 09 230 43		95.3 17 09 234 60 96.0 18 06		95.4 20 07	3 for	91.4 09 03		700
650	06 00 212 40				08 04 230 48		13 02 235 52		15 08	winds.	04 13		650
600	127 -2 -8 214 46 127 -2 -14 216 34 129 -2 -10				129 -1 -6 228 52		134 05 06 234 50 135 03 00		134 03 01		129 -3 -21		600
550	-10 -16 223 44				-8 -23 222 69		-6 -13 240 57		-5 -15		-4 -32		550
500	171 -15 -23 227 35 171 -20 -32 222 23 173 -16 -25				173 -17 -46 228 74		174 -16 -24 57 175 -14 -18		175 -14 -21		173 -21 -37		500
450	-30 -39 222 33				-27 -58 234 84		-27 -32 254 57		-24 -29		-32 -44		450
400	22 44 208 23 222 46 224 18 224 41				22 40 60 232 108		230 35 46 253 60 231 37 43		230 37 41		224 40 39		400
350	-60 223 24				-54 236 105		-53 252 74		-49		-53		350
300	283 -70 235 27 283 -64 223 31 287 -66				286 -69 238 107		292 -70 257 72 294 -62		293 -64		286 -67		300
250	-60 227 31				-73 229 57		-83 255 66		-75		-65		250
200	369 -57 228 43 370 -57 220 42 372 -64				370 -61 228 58		323 -70 225 48 377 -69		377 -67		-60		200
170	-53 228 38				-56		-68 242 39		-63		(220)		170
150	-56 228 45				-60		-64 230 37		-62				150
130	-55 225 38				-64		-64 238 40		-60				130
110	(125) -60				-67		-68 233 36		-62				110
100					-67		-68 233 36		-62				100
90					-66		-69 244 39		-61				90
80					-70		-68						80
70													70
60													60
Isothermal Surf - 259 ms 45°													
Tropopause	II 323 ms -68° 26700'	I 313 ms -65° 27400'	I 269 ms -71° 31000'	II 271 ms -79° 30700'		I 255 ms -85° 32700'	I 225 ms -85° 36300'	I 245 ms -82° 33700'	I 284 ms -69° 29100'	Tropopause			
Station	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		Station			
Time M.S.L. Surf Freezing	03hrs 286.4 276.6 851	G.M.T. mb mb mb	03hrs 286.5 284.5 857	G.M.T. mb mb mb	03hrs 293.9 285.3 864	G.M.T. mb mb mb	03hrs 1007.2 1002.7 787	G.M.T. mb mb mb	03hrs 1007.3 991.3 788	G.M.T. mb mb mb		G.M.T. mb mb mb	Time M.S.L. Surf Freezing
Pressure mb	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. 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 44 39 225 25 00.5 43 41 200 12				02.3 42 37 200 13 00.6 47 46 210 20 01.2 51 43 200 24 4.4 50 44 200 25 02.9 51 46 170 25		01.2 51 43 200 24 4.4 50 44 200 24 4.4 50 44 200 25 02.9 51 46 170 25		02.9 51 46 170 25				Surf
1000	-3.7				-0.6		01.3 45		00.3				1000
950	43 36 223 41				42 37 209 31		219 45		46 42 191 55				950
900	24.6 38 33 223 33 24.3 33 31 223 23				26.6 37 32 221 36 28.3 40 35 226 45 30.4 37		230 52 30.4 38 37 210 39		28.8 40 37 199 57				900
850	32 29 225 27				30 28 219 38		238 61		38 29 203 56				850
800	55.6 28 24 220 27 55.0 22 26 214 26				57.4 29 19 230 41 59.4 28 25 222 55 61.7 34		240 66 61.7 32 29 219 56 60.1 34 24 207 55		60.1 34 24 207 55				800
750	21 10 217 29				19 07 229 48		241 64		26 18 208 52				750
700	89.9 14 08 215 30 88.9 11 08 210 24				91.4 11 03 230 55 93.8 19 13 218 62 96.3 20		238 54 96.2 17 10 215 63 94.4 20 04 209 32		94.4 20 04 209 32				700
650	06 -1 219 31				05 -10 230 63		234 53		13 03 216 52				650
600	128 -3 -12 221 30 127 -3 -13 214 26				130 -1 -18 218 67 133 05 02 232 60 135 04		228 57 135 01 07 216 63 134 04 07 217 53		134 04 07 217 53				600
550	-12 -21 224 26				-8 -27 231 71		-5 228 61		-5 14 212 60				550
500	172 -23 -31 231 26 171 -22 -29 190 20				174 -16 -38 241 83 177 -12 -45 229 59 179 -14		236 61 179 15 -21 227 60 180 -86 -29 221 61		180 -86 -29 221 61				500
450	-35 -43 238 24				-27 -43 240 53		233 56		-23 -29 230 58				450
400	227 -45 238 29 221 -46 187 21				225 -37 -53 229 103 229 -34 -43 229 71 231 -33		224 60 231 -36 40 223 61 230 -64 48 229 64		230 -64 48 229 64				400
350	-61 232 24				-52 225 108		-45 225 72		-50 222 64		-50 229 72		350
300	284 -64 230 34 283 -62 203 30				288 -66 233 106 292 -65 230 78 294 -64		230 73 293 -65 228 63 292 -35 225 89		292 -35 225 89				300
250	-61 228 39				-73 236 81		233 64		-18 230 66		-18 226 74		250
200	370 -59 225 38 369 -57 229 24				371 -64 234 48 377 -68 234 40		239 54 377 -71 230 51 376 -29 235 43		376 -29 235 43				200
170	-56 223 38				-57 231 40		-64 234 48		-38 235 43				170
150	-58 226 35						-61 229 36		-38 231 32				150
130	-60 227 37						-60 230 31		-35 224 44				130
110	-61 231 48						-64 231 33						110
100	518 -63 232 43						-64 231 33						100
90	-67 232 46						-61 232 35						90
80	-67 233 37						-60 230 31						80
70	-66 238 44						-64 231 33						70
60	-66						-64						60
Isothermal 826 - 800 ms 28°													
Tropopause	I 310 ms -67° 27600'	I 328 ms -66° 32800'		NR	I 253 ms -74° 32800'	I 242 ms -83° 33800'	I 245 ms -82° 33400'	I 250 ms -82° 33700'		Tropopause			



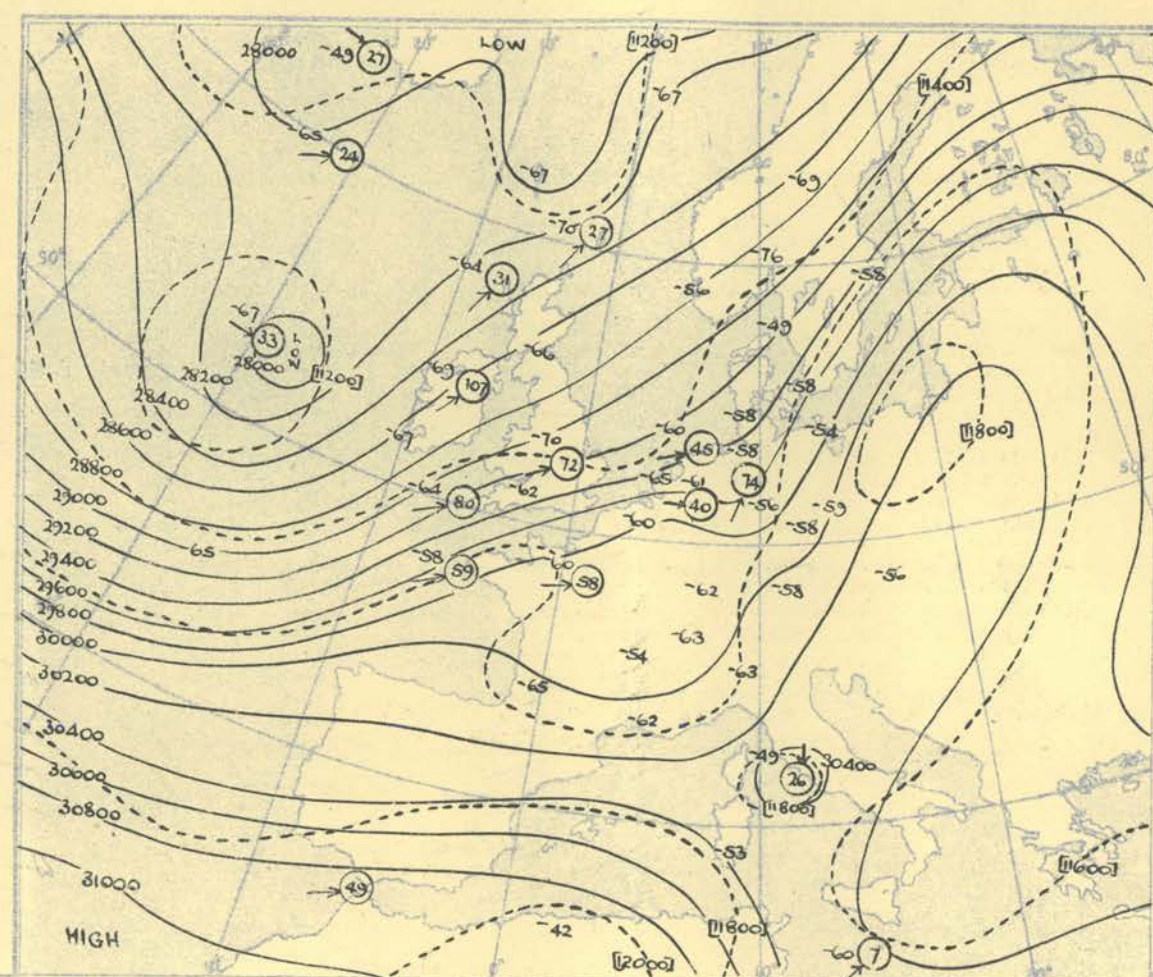
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



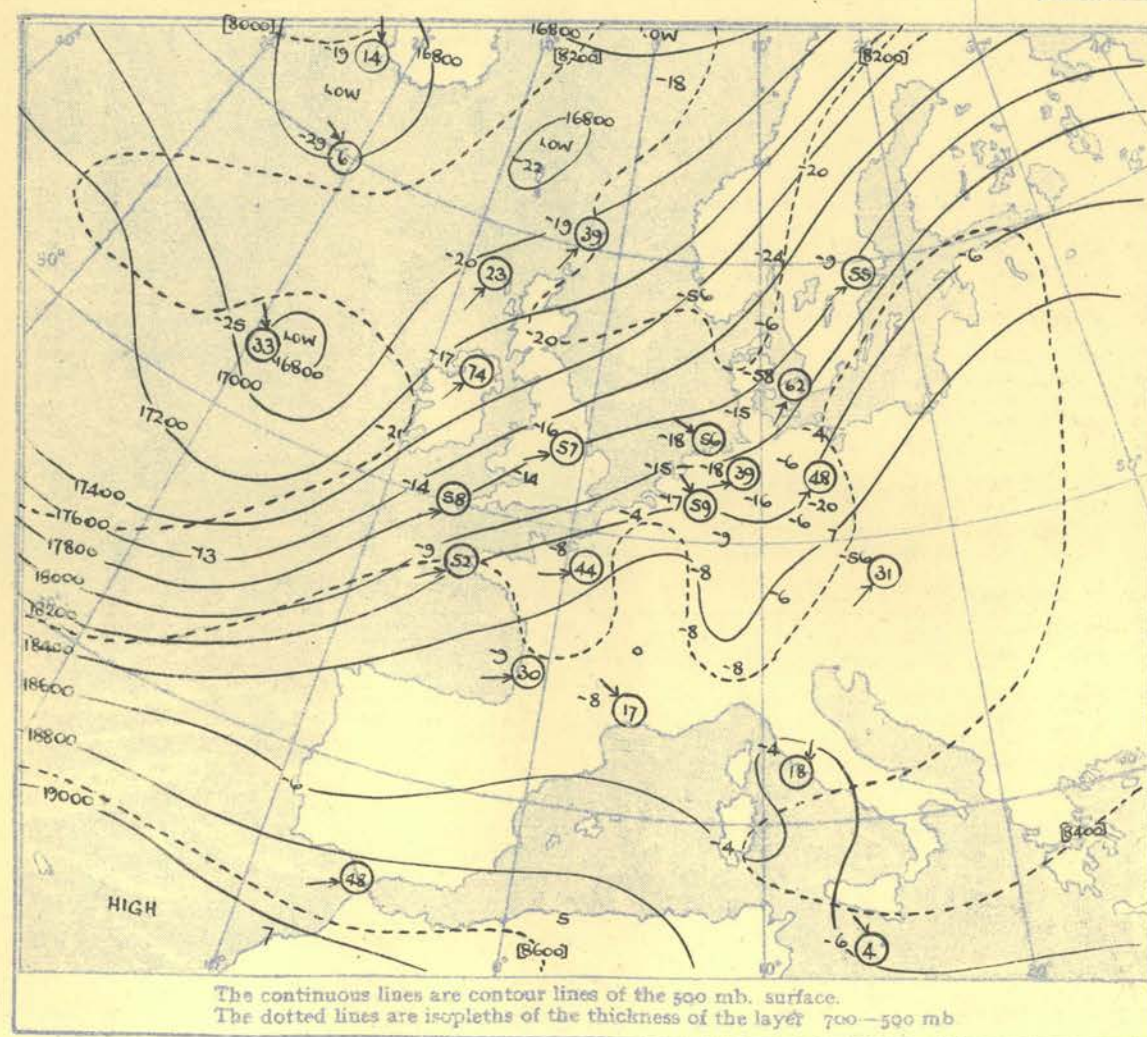
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

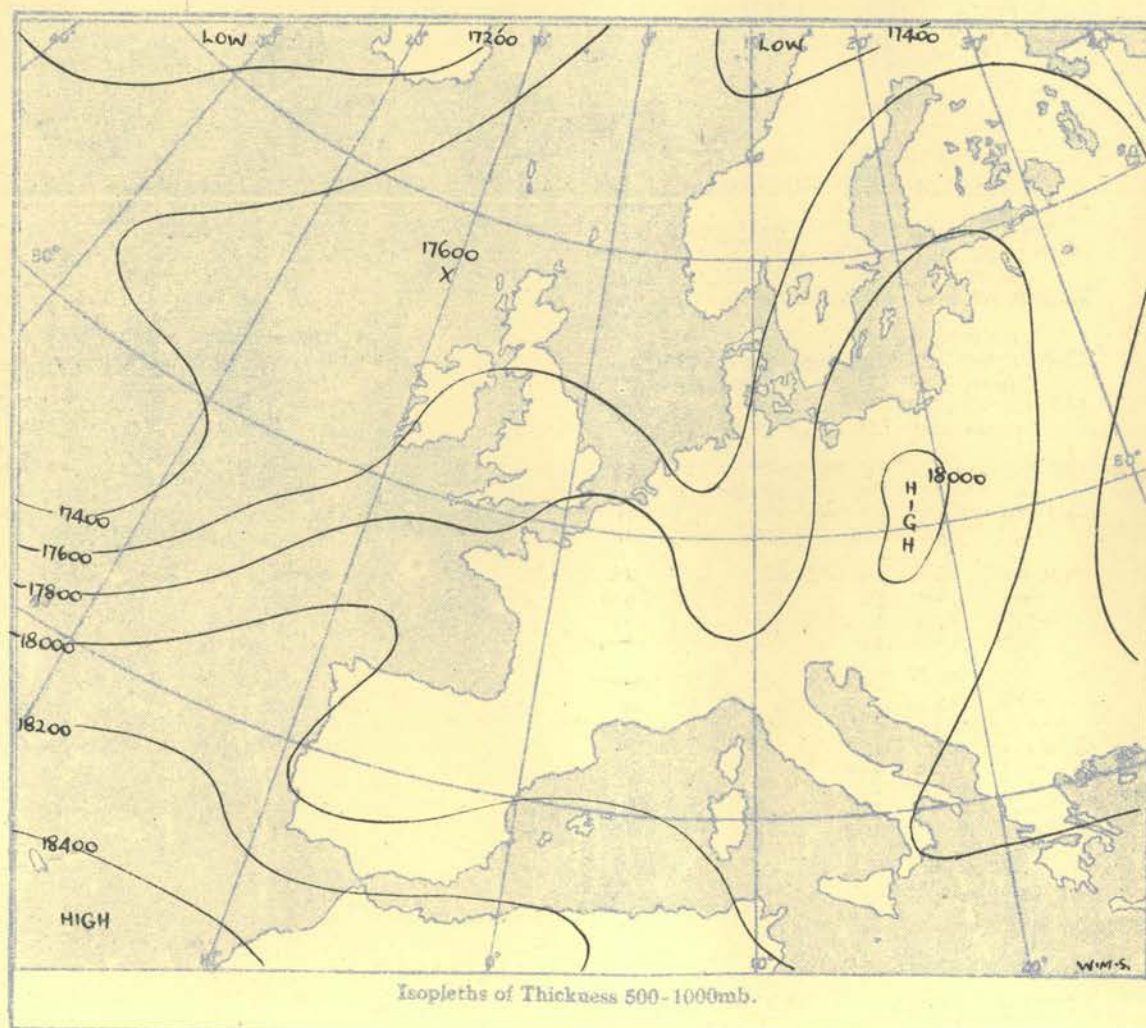
00 20 40 60 80 100 120 140 160 180 200



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.



		40-20°W			50-20°W			54-10°E			43-20°W			39-50°W											
Pressure	Time	13hrs	15hrs	-	15hrs	13hrs	15hrs	Time	M.S.L.	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb		
	M.S.L.	1005 mb	1001 mb	1006 mb	1001 mb	1016 mb	1020 mb		M.S.L.	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb		
	Surf	1005 mb	997 mb	1003 mb	1000 mb	1012 mb	1015 mb		Surf	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb		
	Freezing	820 mb	820 mb	780 mb	782 mb	815 mb	850 mb		Freezing	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb		
Pressure		Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Pressure		
mb		ft./100	°F	°F	ft./100	°F	°F	ft./100	°F	°F	ft./100	°F	°F	ft./100	°F	°F	ft./100	°F	°F	ft./100	°F	°F	mb		
Surf		-	4936	01-05	3450	01-05	480	3545	03	5347	-	5347	-	5156	-	5156							Surf		
1000		02-34	48	-	00-25	4018	01-08	4545	-	-	3-2	50	-	50	-	50							1000		
950		40	-	-	4648	-	-	4545	-	-	43	41	-	48	-	47							950		
900		30-63	32-28	-	3530	333	41	41	2043	39	26	21	-	39	-	-							900		
850		3020	-	-	3428	-	-	3634	-	-	28	-	-	32	-	-							850		
800		61423	-	-	50727	22616	32360	3327	-	-	26	-	-	30	-	-							800		
750		10	-	-	25	-	-	29	-	-	21	-	-	25	-	-							750		
700		95512	-	-	93917	-	-	96422	-	-	95022	4	-	957	21	-							700		
650		04	-	-	12	-	-	15	-	-	1409	-	-	18	-	-							650		
600		134-3	-	-	13203	-	-	13507	-	-	13408	-	-	10	-	-							600		
550		-	-	-	-7	-	-	00	-	-	-1	-	-	03	-	-							550		
500		176-17			-180-6			-179-11			-179-20			-184-2						500					
450								-21												450					
400								231-33												400					
350								-48												350					
300		Cloud.			Cloud.			Cloud.			294-65			Cloud.			Cloud.			300					
250		6186			880			3186			950			818			5690			250					
200		810			820			820			820			820			820			200					
170		2186			350			818			5690			3186			950			170					
		400						818			5690			3186			950								
								818			5690			3186			950								
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								81																	

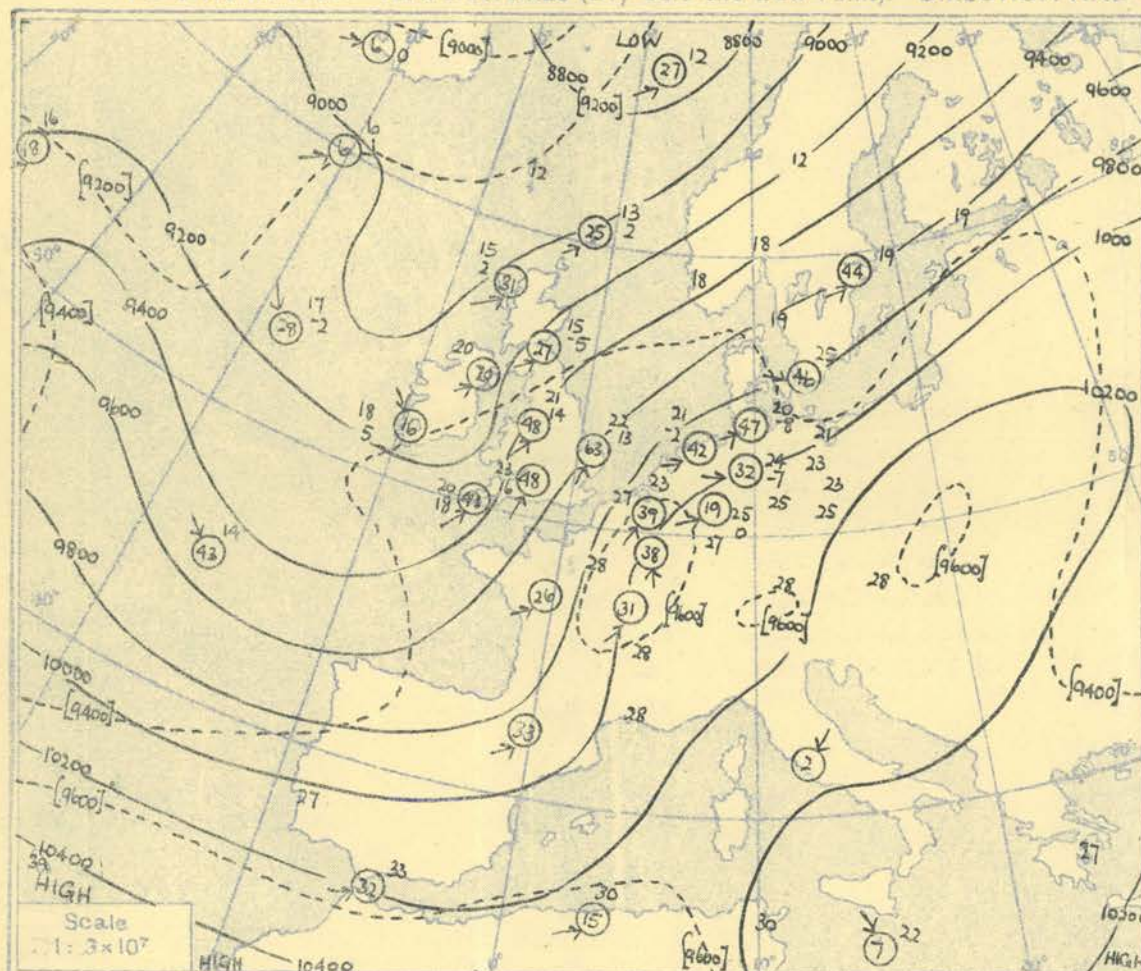
Place	Alder Grove		Camborne		Lensaick		Leochards		Liverpool		Place				
Time	08hrs	21hrs	08hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	21hrs	Time				
Type	Pilot	Pilot					Pilot	Pilot			Type				
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.			Calm	200	30		190	10	045	08	170	30			Surf.
1,000			"	202	66		220	12	115	08	170	25			1,000
2,000			"	215	64		220	13	182	16	180	26			2,000
3,000			238	05	224	63		210	15	201	22	190	33		3,000
4,000			273	09	229	61		210	15	203	27	200	37		4,000
5,000			281	08	232	59		210	16	204	32	200	37		5,000
6,000			300	08	234	60		210	15	204	34	200	38		6,000
8,000			314	12	237	71		220	16	208	38	200	36		8,000
10,000			282	07	237	74		210	18	212	42	200	30		10,000
14,000			206	24	233	74		220	27	214	42	200	29		14,000
18,000			190	26	232	58		220	44	209	52	200	41		18,000
24,000			190	66	228	69		220	76	213	60	200	50		24,000
30,000	237	93	200	68	230	80	180	71	230	87	221	67	210	80	30,000
40,000	238	103	256	30	236	70	224	27	240	26	232	35	230	35	40,000
50,000	(32000)		(34000)		243	21	250	33					240	27	50,000
60000					(45000)		240	26							
70000							260	54							
80000							260	56							
85000							260	32							

## NEPHOSCOPE OBSERVATIONS

[illegible][illegible]



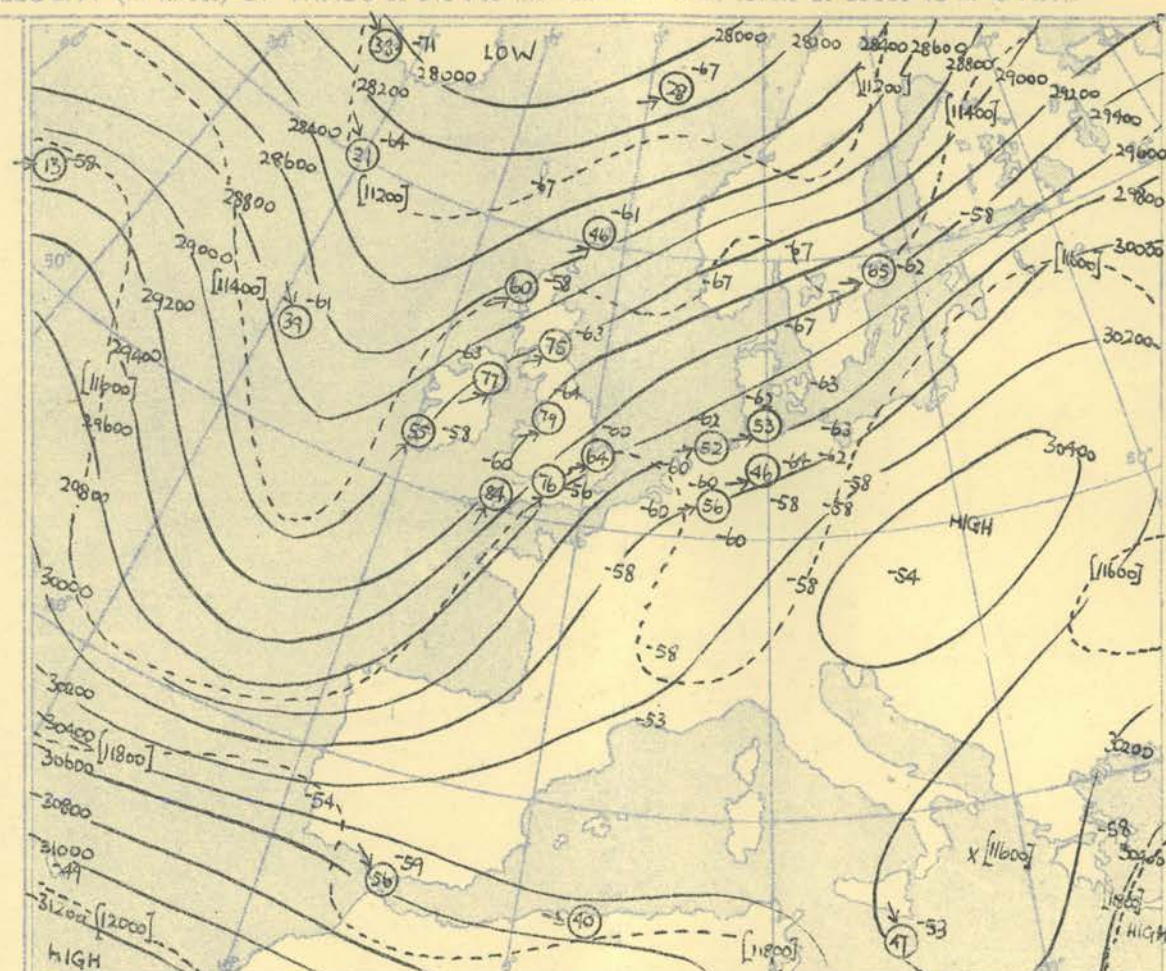
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15 h. G.M.T.



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.

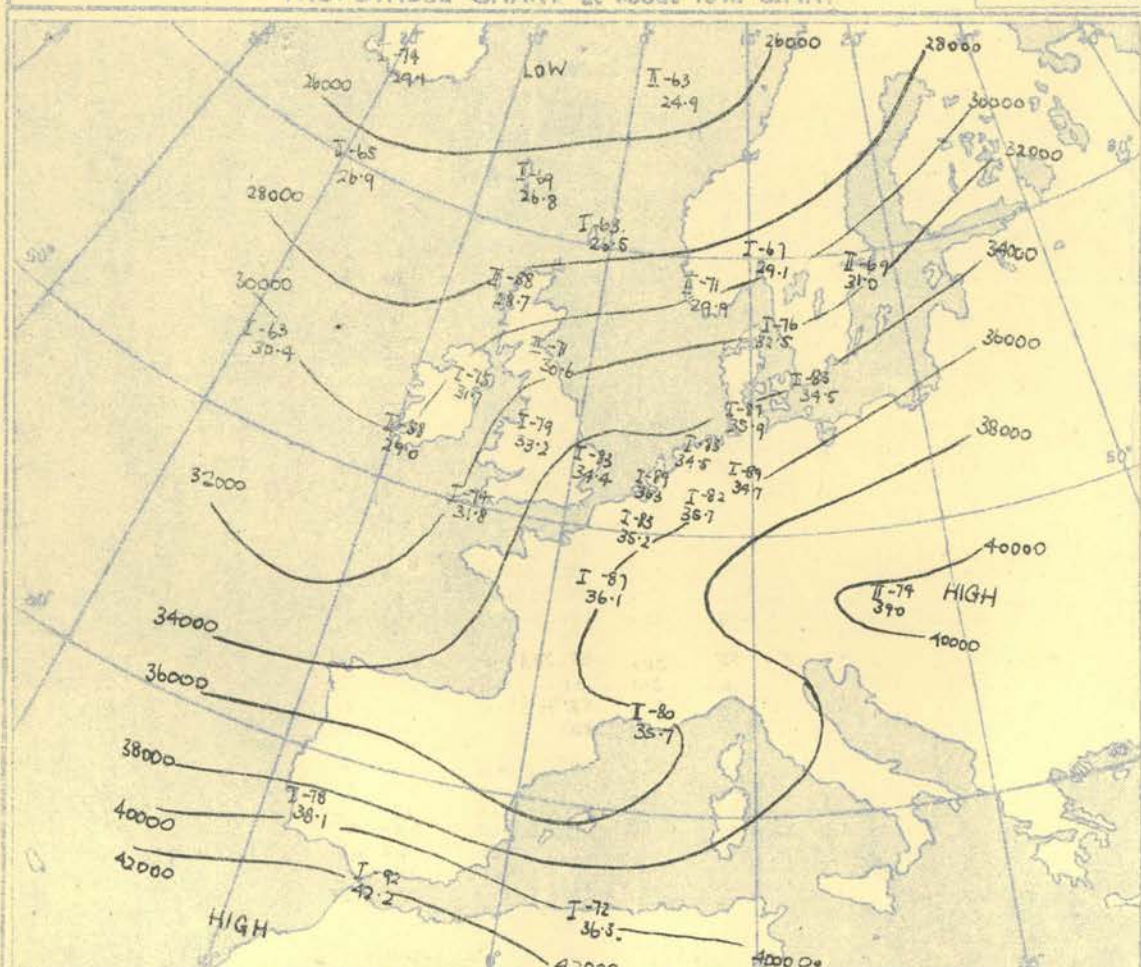
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

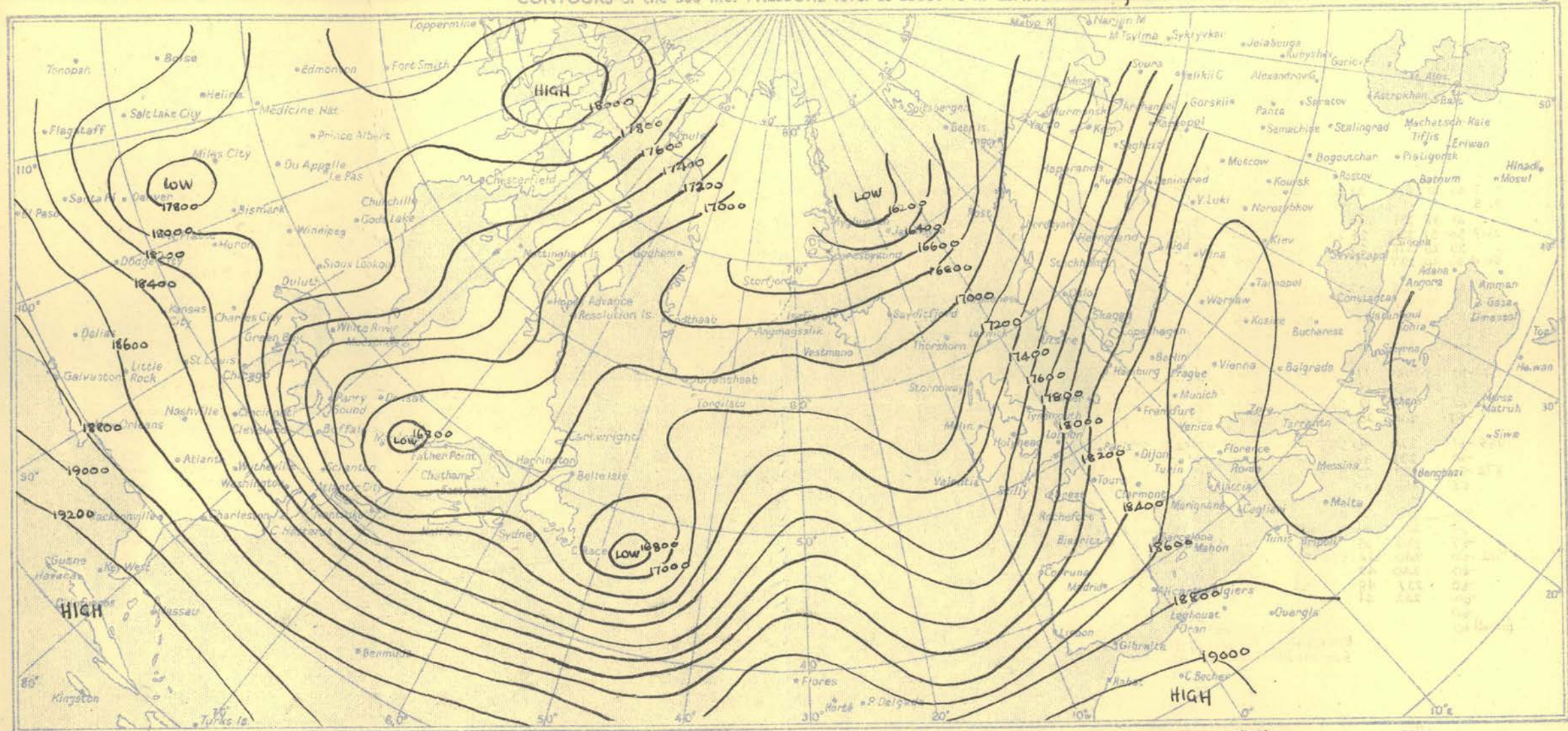
### NOTES ON THE AEROLOGICAL SITUATION.

There was no appreciable change in the European area apart from some warming in the extreme north. The cold trough in the Central Atlantic moved eastwards to the west of Ireland and off Portugal. A very pronounced warm ridge developed in association with the surface depression moving northeast from the Bermuda region, this ridge also moved steadily eastwards.

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

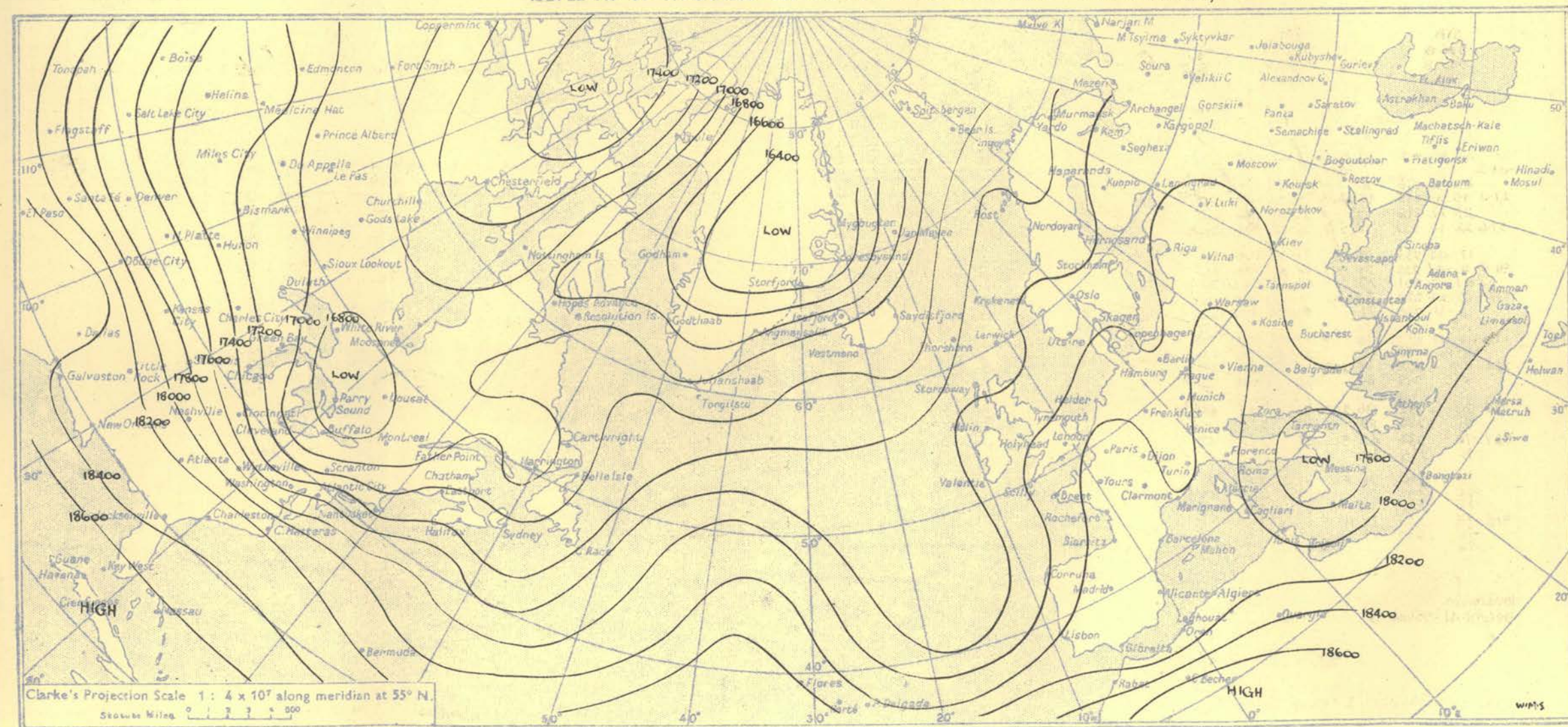




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Saturday 18<sup>th</sup> March,

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



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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																											
Pressure M.S.L. Surf Freezing	Time	15h		G.M.T.		15h		G.M.T.		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																																																																																																																																																																																																																																																																																																																																																																																																																																														
		990.9	mb	981.0	mb	990.8	mb	988.8	mb	995.7	mb	994.9	mb	993.0	mb	984.5	mb	997.5	mb	995.5	mb	1003.4	mb	999.1	mb	1003.1	mb	987.3	mb	995.1	mb	984.7	mb			992.1	mb	991	mb																																																																																																																																																																																																																																																																																																																																																																																																																																										
		873				865				847				810				828				775				790				785						840																																																																																																																																																																																																																																																																																																																																																																																																																																													
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																																																																																																																																																																																																																																																																																																																																																																																																																																																
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900	900	25.7	34	31	230	24	25.7	35	30	208	29	27.2	39	31	246	24	26.5	45	40	200	16	29.0	48	39	170	31	29.9	45	33	187	39	29.4	41	35	199	52	27.3	43	42	197	50	46	39	258	11																																																																																																																																																																																																																																																																																																																																																																																																																																				
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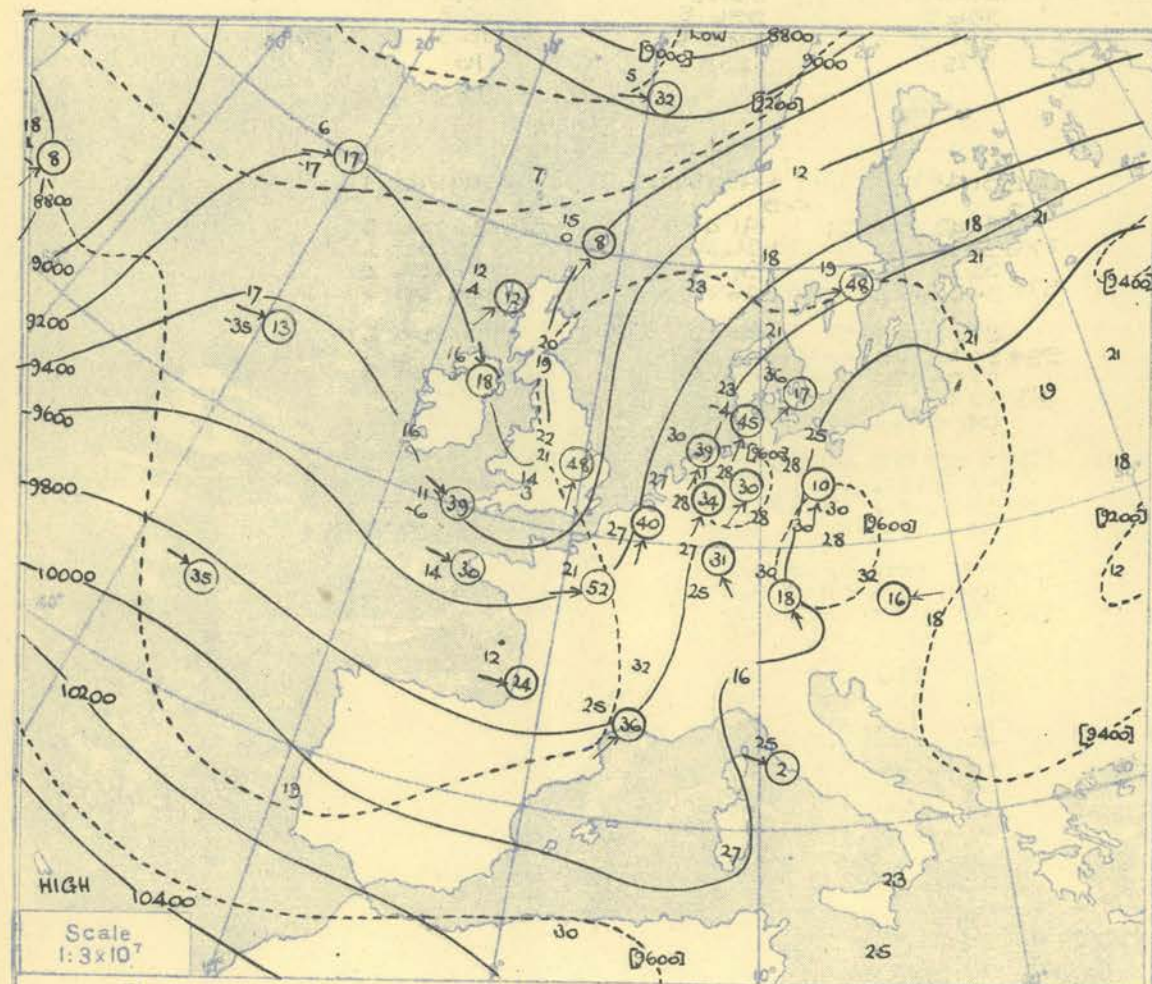


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valencia	STATION			
Time M.S.L.	03hrs 996.7 mb	03hrs 994.1 mb	03hrs 993.8 mb	03hrs 994.9 mb		03hrs 996.9 mb	03hrs 996.6 mb	03hrs 1000.8 mb	03hrs 1002.2 mb	Time M.S.L.			
Surf	996.7 mb	992.2 mb	992.9 mb	995.8 mb		992.5 mb	980.6 mb	990.3 mb	1001 mb	Surf			
Freezing	84.8	86.5	81.7	85.3		82.8	85.8	87.0	85.0	Freezing			
Pressure mb	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Pressure mb
Surf	02.7 42.42 140	01.0 44.42 140	05.0 44.44	02.3 42.40 calm		01.2 51.48 180	13.4 4.45 45 220	15 02.9 48.44 270	12 03 49.40	Surf			
1000	0.9 41 40 L.V. < 5	01.6 41 38 153	10 42 42	51.3 41 38 308 07		0.9 45.43 208	31 41 41	00.2 42.38 284	0.6 43 39	1000			
950	27.2 33 26 "	26.6 35 34 172	12 26.6 40 40	26.7 37 34 219 12		27.6 33 35 202	32 27.3 36 36	28.5 37 25 253	33 28.9 37 36	950			
900	32.22 "	31 31 163	12 34 34	31 27 31 6 16		33 35 134	33 31 31	29 26 292	29 31 28	900			
850	58.1 25 15 183	03 57.5 25 25 183	12 57.7 31 31	57.7 27 19 309 13		57.8 30 30 183	45 58.2 26 26	59.3 24 04 290	33 59.9 27 13	850			
800										800			
750	22 03 187	05 18 17 186	14 26 26	22 03 318 17		27 27 180	51 20 19	19 01 290	38 21 14	750			
700	02.3 15 00 194	08 31.5 12 07 210	12 32.3 20 19	31.5 16 03 327 18		33.4 22.2 189	48 32.3 14 03	33.3 11 06 290	39 34.1 16	700			
650	09.3 220 14	08 9 228	14 14 13	07 11 321 17		17 08 190	46 03 12	03 10 289	33 10	650			
600	131 09.4 217	22 180 00.4 228	20 131 07 04	130 00 12 324 14		133 10 01 187	43 131 03 23	131 06 20 292	33 133 02	600			
550	4.9 205 34	9 38 228	23 00.3	7.6 314 09		04.9 193	59 2.33	16 30 290	34 2.8	550			
500	17.5 12.7 213	52 17.4 20 48 224	23 17.6 5.13	17.5 17 26 221 10		17.8 5 19 192	63 17.5 7 43	17.3 26 35 289	31 17.7 19	500			
450	22.2 26 214	61 20 56 214	36 18.24	28 38 171 16		17 31 190	69 17 47	36 45 289	36 27	450			
400	22.7 34 38 216	69 22.5 21	63 22.8 30 36	22.6 42 54 148 33		23.0 42 48 3	62 22.8 31 49	22.5 50 285	32 22.8 32	400			
350	47 217 78	53 20.2 71	43	53 162 30		44 188 65	43	51 282 23	41	350			
300	290.62 219	87 28.7 63	204 52 292 57	288.37 203 21		294.60 190	68 291 63	287.56 217	24 292 52	300			
250	73 220 72	64 213 34	73	62 243 16		73 134 69	63	60 276 23	23 66	250			
200	375.65 227	42 373 64	235 24 377 69	375.61 267 20		377 199 36	376 64	374.62 283	24 378 65	200			
170	60 238 48	58 241 31	67	60 277 24		66 217 30	63	66 281 21	53	170			
150	60 250 34	57 244 35	65	63 260 23		66 226 34	63		(168-53)	150			
130	60 248 33	60 246 27	64	63 260 23		65 231 30	61			130			
110	61 242 31	63 246 27		65 260 27		63 232 18	60			110			
100	523.62 241	32 520 66	244 31	522.65 265 26		523.64 224	18 523 60			100			
90	(29) 62	70 249 31		66		64 224	26 63			90			
80						65 243 24	65			80			
70						66 244 15	66			70			
60						67 215	66			60			
Isothermal 950-912 mb 41°										Isothermal 620-610 mb 4°		Inversion 870 mb 4-800 3°	
										550-538 mb 2°			
Tropopause	I 255 ms -76° 32500'	I 281 ms -66° 30100'	II 245 ms -75° 33400'	II 360 ms -53° 25000'		I 225 ms -90° 35200'	I 268 ms -71° 31600'	II 380 ms -55° 23700'	I 232 ms -71° 34700'	Tropopause			
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		STATION			
Time M.S.L.	09hrs 997.5 mb	09hrs 996.0 mb		09hrs 998.9 mb	09hrs 997.1 mb	09hrs 999.2 mb	09hrs 1003.9 mb	09hrs 1007.6 mb		Time M.S.L.			
Surf	997.5 mb	994.1 mb		999.3 mb	995.1 mb	994.8 mb	997.8 mb	997.0 mb		Surf			
Freezing	87.3	85.2		86.8	87.2	84.2	86.6	87.0		Freezing			
Pressure mb	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Height ft/100	Temp. °F	Dew °F	Wind Dir. Vel.	Pressure mb
Surf	02.7 42.42 Calm	00.5 45.43 040 12		02.3 46.42 310 15	00.6 44.42 255 15	01.2 46.43 220 15	4.4 46.42 260 12	02.9 49.45 253 14		Surf			
1000	0.7 39 38 064 12	01.1 40 39 052 17		53.2 41 35 313 24	0.7 40 38 262 26	0.2 40 38 236 27	1.0 42 38 255 25	02.0 43 40 281 32		1000			
950	27.4 34 31 054 14	27.2 37 32 036 15		27.9 36 30 314 28	27.4 35 32 266 32	28.1 38 35 248 27	29.3 36 31 264 33	30.4 36 33 285 32		950			
900	29 22 045 14	31 28 023 13		30.4 31.5 31	30.27 266 33	33 29 248 24	30.27 268 37	30 28 291 32		900			
850	58.1 26 13 034 17	58.1 23 23 007 10		58.8 28 13 313 31	58.2 25 22 265 32	59.1 26 23 249 23	60.2 27 10 269 35	61.3 26 18 290 31		850			
800										800			
750	21 02 022 13	19 18 016 09		22 07 311 26	20 18 218 32	24 16 249 25	21 04 271 33	23 06 289 30		750			
700	22.3 13 04 343 10	22.1 12 06 020 08		28.1 17 3 311 27	22.4 15 08 252 36	24 14 241 28	24 14 274 43	25 6 17 4 289 29		700			
650	11 08 229 10	07 00 318 06		10 16 311 27	08 02 300 37	15 01 233 28	06 15 266 31	05 15 294 27		650			
600	131 08 00 191 25	131 00 12 281 07		132 01 26 308 21	131 01 6 251 33	132 08 5 225 30	133 2 25 267 32	134 00 28 258 27		600			
550	00 5 191 37	7 23 240 07		8 37 309 18	5 14 271 31	2 16 221 36	10 28 263 28	7 38 307 33		550			
500	17.6 8 13 193	42 17.5 19 38 228 10		17.6 18 46 318 21	17.5 12 25 268 32	17.7 11 26 202 56	17.7 13 32 252 22	17.8 15 44 313 46		500			
450	19 26 158 40	28 46 209 17		21 51 309 22	24 44 272 31	16 33 192 81	30 45 295 21	23 53 313 60		450			
400	22.8 31 39 199	52 22.6 35 51 182 48		22.7 32 55 308 19	22.7 35 55 268 31	23.0 27 43 187 100	22.7 44 256 139	23.0 25 56 322 74		400			
350	46 194 66	47 181 52		35 305 51	43 267 28	40 55 182 26	45 267 27	36 53 323 96		350			
300	29 61 201	86 290 55 221 23		292 48 311 54	291 46 262 27	294 56 180 87	291 51 261 29	292 55 48 321 125		300			
250	74 210 67	58 245 20		58 304 38	57 256 23	58 186 50	58 268 21	66 321 111		250			
200	378 67 219 37	37 57 258 23		379 58 288 27	379 56 266 23	380 59 228 23	378 63 267 23	380 68 316 45		200			
170	66 240 32	53 259 28		58 282 21	58 281 24	57 233 13	64 270 23	64 308 27		170			
150	63 242 35	35 245 30		66 280 30	59 280 17	59 240 20	61 287 17	63 252 22		150			
130	60 244 37	37 248 30		53 277 24	54 271 18	56 243 22	58 260 18	66 300 25		130			
110	61 248 33	39 249 32		58 255 24	55 273 13	60 249 13	60 263 12	64 302 22		110			
100	522.62 250 33	52.5 55 259 31		52.7 58 275 14	52.8 57 272 14	52.9 60 277 14	52.5 61 268 13	52.7 64 271 13		100			
90	63 252 31	52 248 25		57 267 14	60 267 14	57 267 14	63 271 13	64		90			
80	65 255 28			61 256	61 256		60			80			
70										70			
60										60			
Inversion 690ms 112° 656ms 12°										Inversion 835-800 ms 28°		Isothermal 464ms 46° 455ms 15°	
										Isothermal 793-769 ms 27°		Isothermal 515ms 506ms 18°	
Tropopause	I 259 ms -75° 32300'	II 200ms -55° 29000'		II 250 ms -58° 33100'	II 271 ms -50° 31300'	II 280 ms -62° 30200'	I 230 ms -61° 34900'	I 216 ms -76° 36500'		Tropopause			



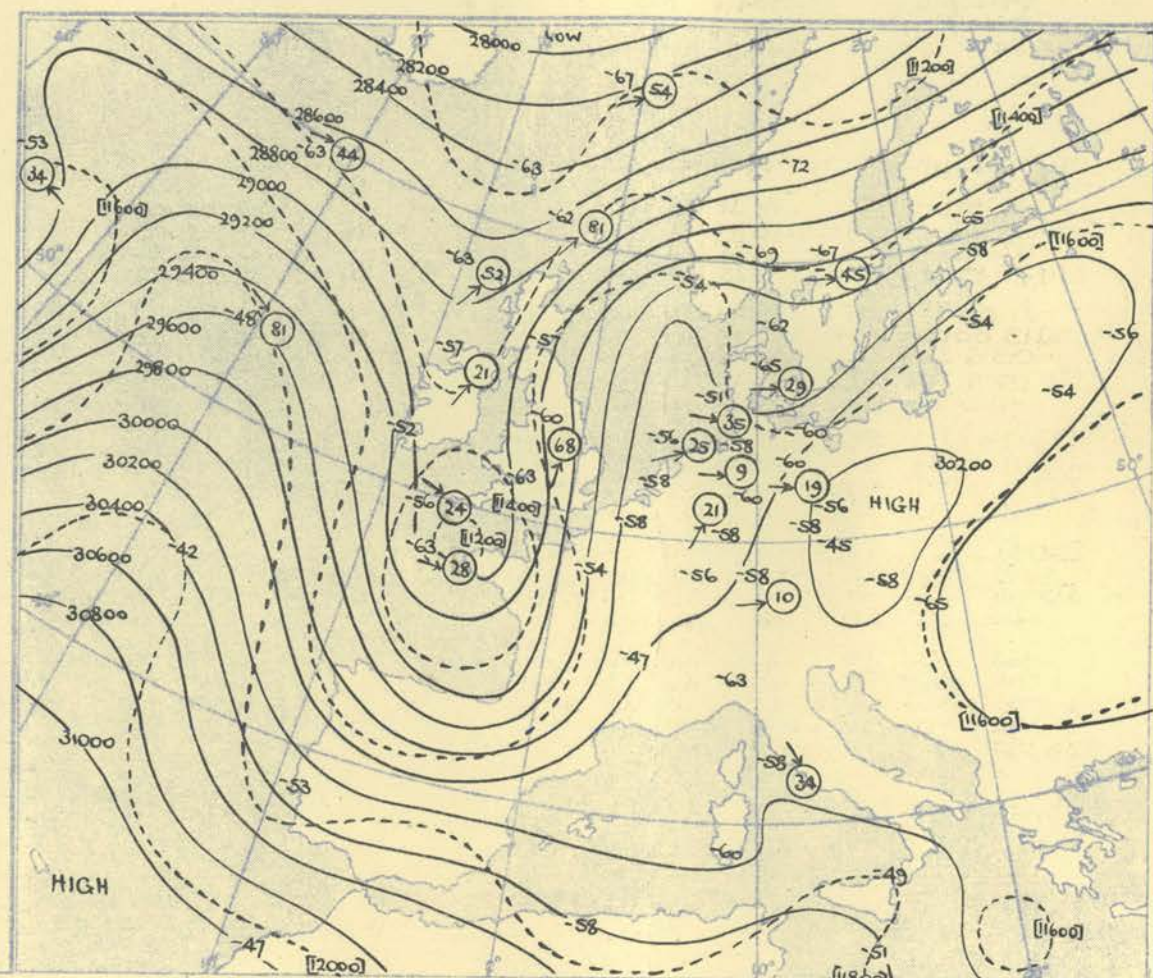
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



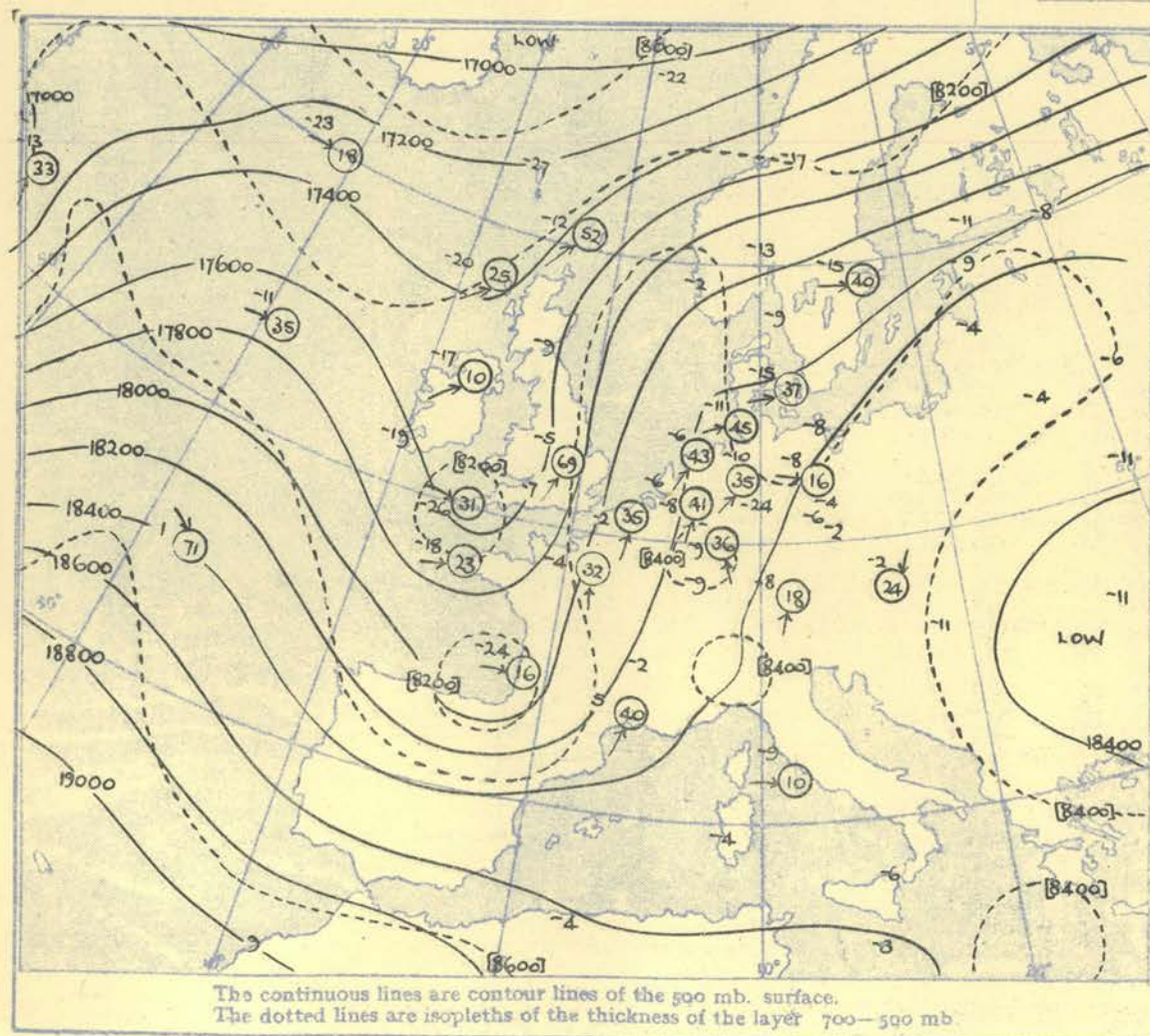
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

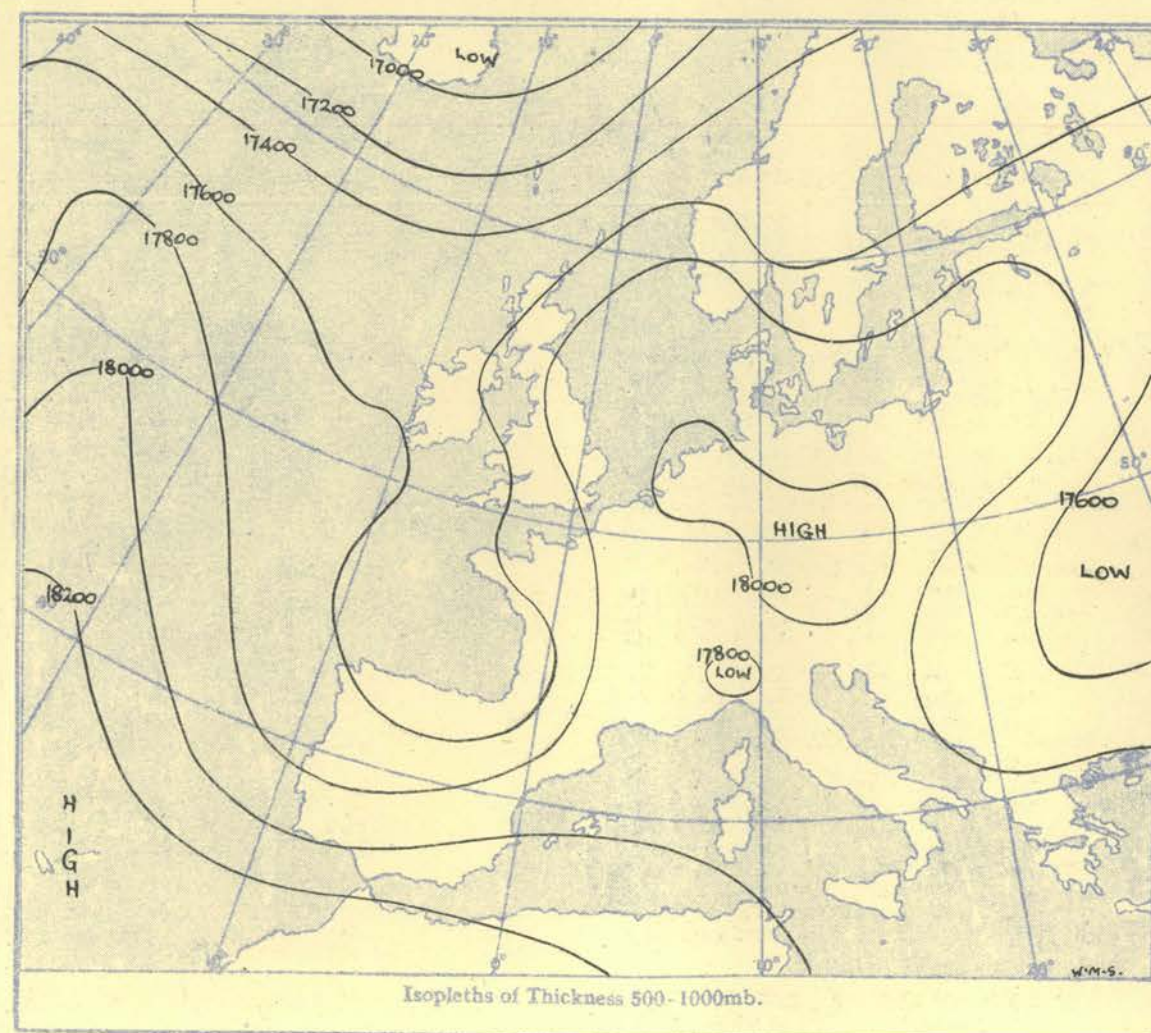
100 80 60 40 20 10 knots



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.

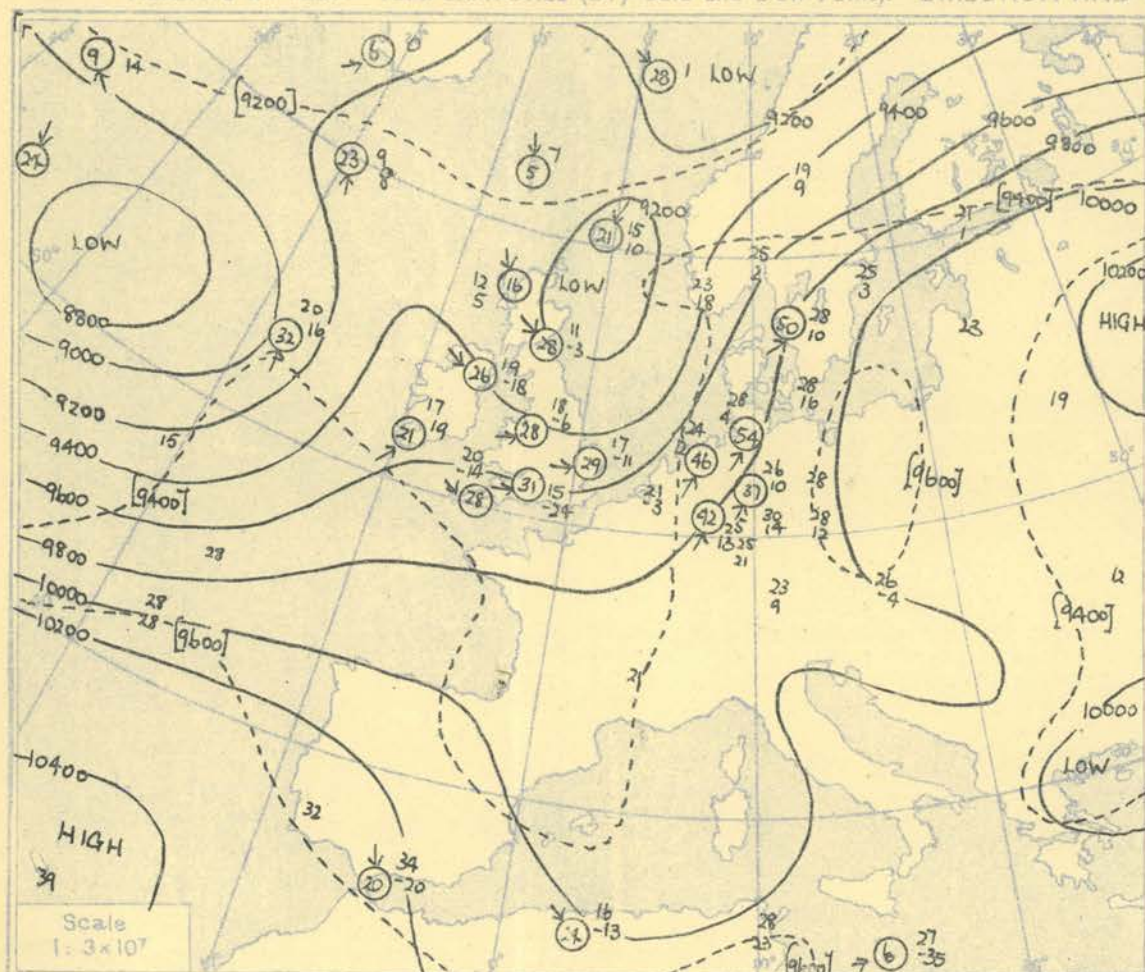


## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHROSCOPE OBSERVATIONS

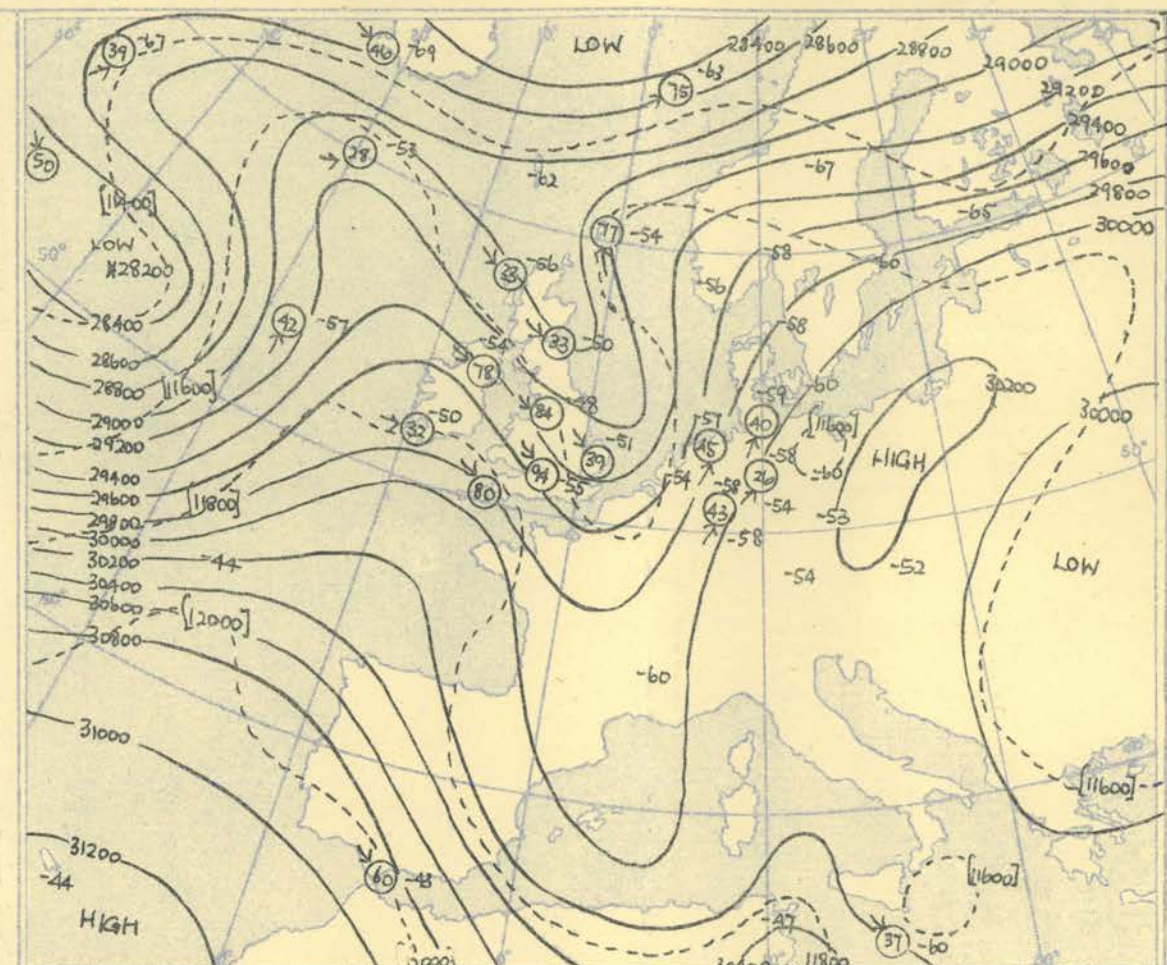
Ship	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER EXPLORER	Ship																																											
Lat/Long	53.6 N 18.9 W	60.0 N 20.1 W	53.8 N 18.9 W	60.0 N 20.0 W	53.6 N 18.9 W	59.9 N 19.9 W	53.6 N 18.6 W	59.9 N 20.1 W	Lat/Long																																											
Time M.S.L. Surf Freezing	03h 1003 1003 890	G.M.T. mb mb mb	03h 1001 1001 935	G.M.T. mb mb mb	09h 1000 1002 895	G.M.T. mb mb mb	15h 990 990 890	G.M.T. mb mb mb	15h 1001 1001 920	G.M.T. mb mb mb	21h 987 987 840	G.M.T. mb mb mb	21h 1000 1000 890	G.M.T. mb mb mb	G.M.T. mb mb mb	Time M.S.L. Surf Freezing																																				
Pressure Height Temp. Dew Wind Dir. Vel.	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	mb ft/100 °F. °F. knots	Pressure Height Temp. Dew Wind Dir. Vel.																																				
Surf	9	47	34	280	11	4	42	30	CALM	-1	47	35	155	21	5	41	30	CALM	-2.7	48	48	135	40	3	42	41	140	17	-3.6	50	46	220	20	45	39	120	20	Surf														
1000	9	46	33			4	41	28			4	40	29			40	29					5	40	29			41	38	136	42	28.2	33	29	135	45	51	28.2	25	25	153	23	24.8	37	33	223	25	28.2	33	31	127	24	850
950	29.1	40	39	262	11	28.2	34	14	266	03	40	31	153	21	28.2	34	17	154	09	25.5	33	29	135	45	28.2	25	25	153	23	24.8	37	33	223	25	28.2	33	31	127	24	800												
900	29.1	34	27	260	10	28.2	27	13	283	04	28.1	33	13	164	24	28.2	27	165	09	25.5	33	29	135	45	28.2	25	25	153	23	24.8	37	33	223	25	28.2	33	31	127	24	800												
850	29.1	27	22	258	08	28.2	20	06	268	07	28.1	25	14	176	24	28.2	24	197	11	25.5	28	24	136	51	28.2	25	25	153	23	24.8	37	33	223	25	28.2	33	31	127	24	800												
800	59.9	27	-0.9	259	07	58.4	18	-0.2	254	12	58.7	29	-0.2	182	24	58.5	17	02	190	12	56.3	26	22	142	48	58.8	21	21	162	25	55.8	29	17	227	21	58.9	25	22	143	22	800											
750	23	-22	261	09	12	-10	244	15	22	00	184	25	11	03	214	14	24	20	160	36	24	20	160	36	24	20	160	36	24	20	160	36	24	20	160	36	24	20	160	36	24	20	750									
700	94.2	17	-35	263	13	91.9	06	-17	251	17	93.0	15	05	196	27	92.0	02	-06	222	15	90.8	20	16	170	32	92.6	09	08	169	23	89.9	14	-08	208	21	92.9	10	06	156	16	700											
650	133	10	-48	261	13	130	-02	-25	254	21	132	08	07	206	18	130	-05	-32	224	16	130	09	04	187	40	131	-04	-01	190	12	128	-01	-13	220	22	131	-04	-10	150	11	650											
600	133	03	-53	253	14	130	-10	-33	240	17	132	08	07	2																																						





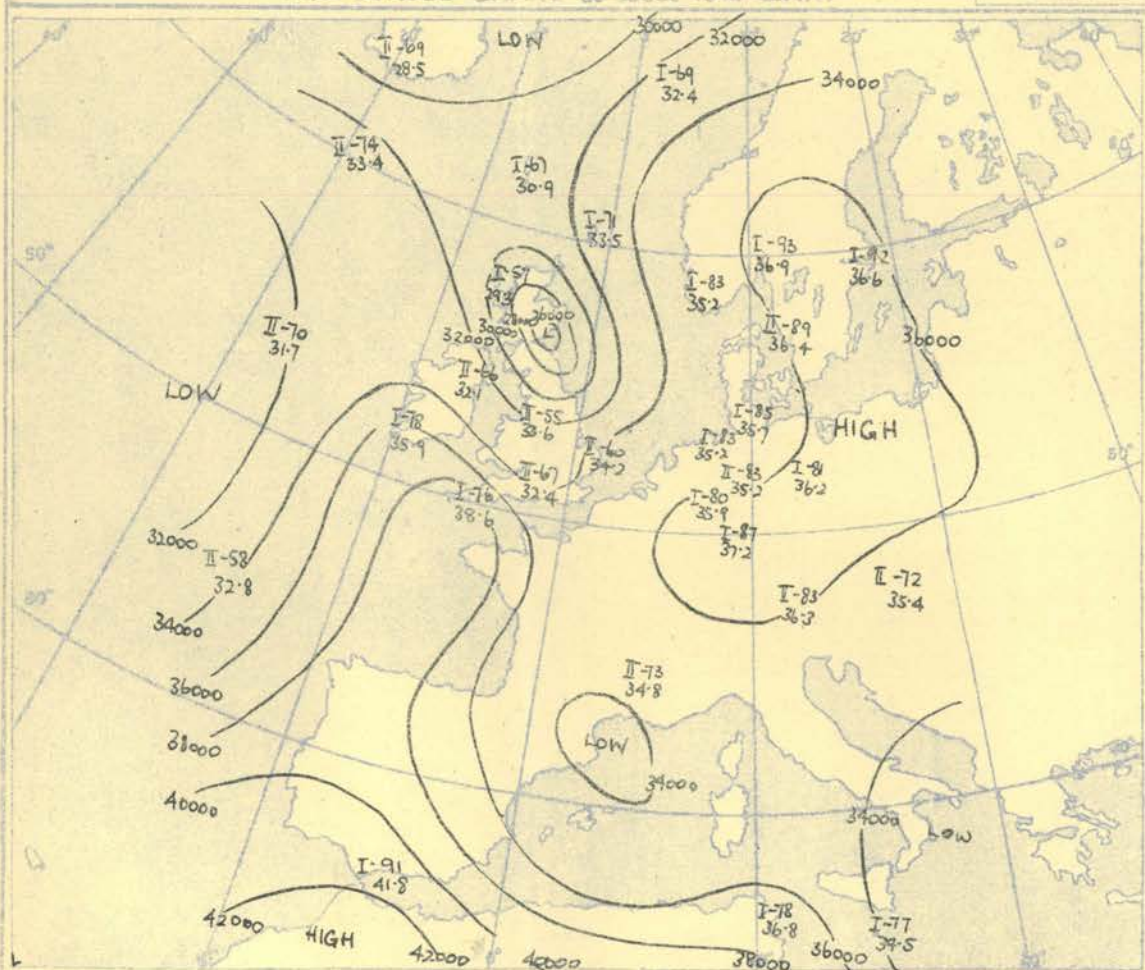
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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.

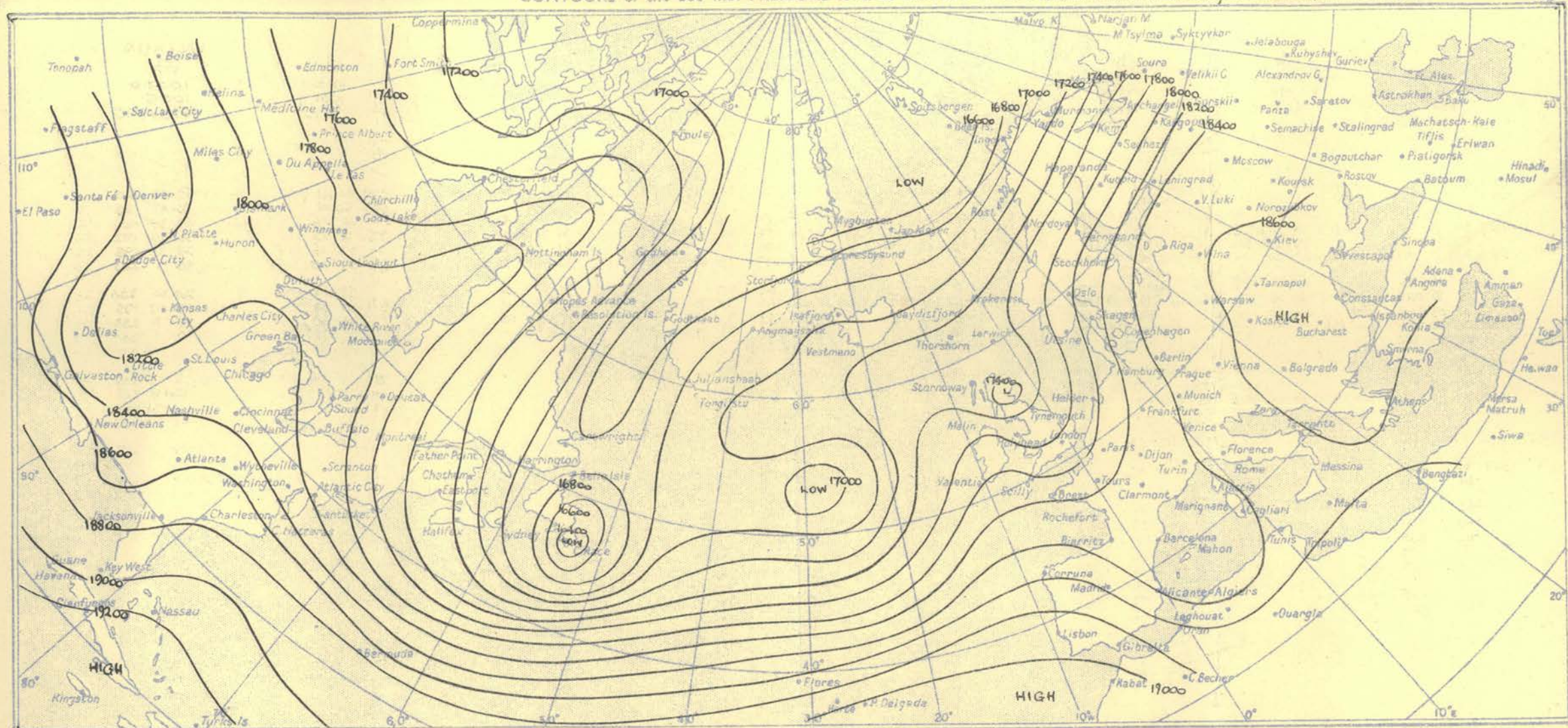


Contour lines of Height of Tropopause.  
Temperature of Tropopause.

### NOTES ON THE AEROLOGICAL SITUATION.

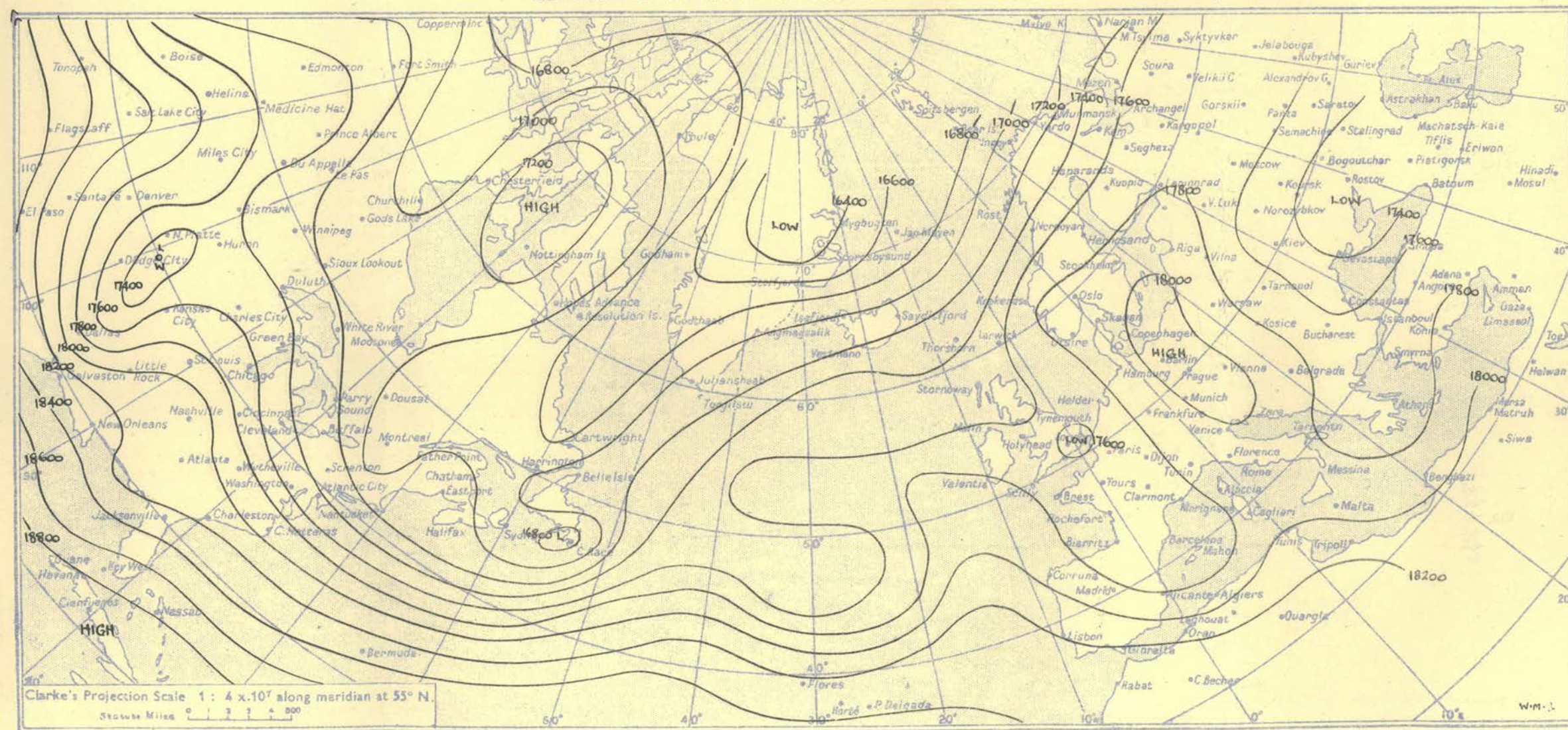
A cold upper trough moved eastwards across the British Isles, France and the Western Mediterranean during the day. The warm ridge, associated with the large surface depression in the Atlantic, moved eastwards and reached Ireland, the Bay of Biscay and Portugal. A further cold trough behind the surface depression moved quickly east but warmed out slowly in its passage over the sea. Further very cold air spreading into the Atlantic south of Newfoundland produced another intense cold trough in Western Atlantic.





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

Sunday 19<sup>th</sup> March, 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

W.M.S.



# 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	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	15h	G.M.T.		Time													
	M.S.L.	996.2			M.S.L.	1000.3			M.S.L.	996.1			M.S.L.	1002.5			M.S.L.	1003.8			M.S.L.	1006.3			M.S.L.	1008.8			M.S.L.	1012.4			M.S.L.	1007.6												
	Surf	986.2	mb		Surf	998.4	mb		Surf	995.3	mb		Surf	993.9	mb		Surf	1001.8	mb		Surf	1002.0	mb		Surf	993.0	mb		Surf	1001.8	mb		Surf	1005												
	Freezing	882	mb		Freezing	890.0	mb		Freezing	860	mb		Freezing	857	mb		Freezing	848	mb		Freezing	850	mb		Freezing	862	mb		Freezing	872	mb		Freezing	820.880												
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											
Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	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	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots	knots												
Surf	02.7	43	41	023	20	00.5	47	43	030	12	00.2	51	43	300	20	02.3	51	41	281	15	00.6	51	42	270	18	01.2	54	40	230	20	4.4	54	41	270	10	02.9	51	41	260	18	00.3	50	41	180	13	Surf
1000	01.1				00.1				03.0		01.1					00.7				15	01.0				18	01.7				2.4				02.3				18	50	41	180	14	1000			
950		39	38	035	25		40	36	014	19		43	34	312	28		46	41	284	22		45	31	273	26		47	35	248	31		47	37	260	21		42	36	252	24		43	35	180	22	950
900	26.9	34	32	039	24	28.3	33	30	027	12	27.3	36	34	312	28	29.2	37	33	284	21	29.5	39	25	273	29	30.3	39	30	249	31	31.0	37	28	252	24	31.6	36	32	247	21	30.1	36	29	192	26	900
850		29	26	036	27		28	25	016	15		31	26	317	27		30	26	284	23		33	22	280	27		32	24	249	32		30	23	253	27		29	25	247	23		28	21	198	22	850
800	57.6	24	20	031	32	59.0	24	21	010	17	58.2	24	16	309	23	60.1	25	21	284	24	60.5	28	17	277	29	61.2	26	18	253	32	61.9	25	07	260	28	62.5	29	08	257	27	61.0	30	-5	203	23	800
750		19	16	016	28		18	14	353	14		17	09	310	22		23	13	290	25		25	08	268	30		24	-02	260	32		20	-05	261	28		27	-19	267	29		24	10	200	26	750
700	91.7	15	10	028	21	93.0	12	05	343	16	92.1	11	-03	308	28	94.5	19	-16	291	26	94.9	18	-6	263	30	95.5	17	-11	262	29	96.0	15	-24	265	31	97.1	20	-24	270	28	95.4	17	9	195	21	700
650		10	05	068	17		06	00	340	19		06	-11	306	32		12	-38	293	29		12	-25	272	30		10	-19	261	28		08	-34	271	31		14	-30	272	29		15	11	233	31	650
600	130	05	00	126	17	131	-3	-12	315	16	130	-02	-22	295	37	133	02	-50	300	30	134	05	-31	280	33	13.4	06	-32	259	30	135	-01	-41	280	33	136	07	-36	280	31	134.4	10	5	245	34	600
550		00	-05	140	21		-11	-26	291	15		-11	-31	286	33		-05	-57	304	33		-3	-39	283	37		-09	-37	258	30		-08	-47	289	37		00	-44	288	34		3	-2	239	34	550
500	175	-08	-15	154	25	175	-18	-43	280	16	174	-18	-32	283	25	178	-09	-51	304	41	178	-10	-45	292	39	178	-20	-48	250	30	179	-17	-55	298	46	181	-4	-28	299	45	179.4	-3	-7	252	46	500
450		-18	-25	170	30		-25	-53	306	19		-30	-42	277	23		-17	-55	304	45		-16	-51	303	54		-31	-55	250	27		-20	-57	302	55		-11	-19	296	50		-12	-18	262	45	450
400	227	-29	-37	173	36	227	-33	-60	308	32	225	-41		276	18	230	-25	-58	301	74	231	-23	-56	305	69	229	-37	-60	275	30	231	-26	-63	313	74	234	-21	-28	302	67	232.6	-24	-31	262	52	400
350		-40	-49	170	63		-44		309	35		-49		292	28		-38	-58	301	74		-33	-60	307	80		-44		284	37		-41		315	81		-32	-39	300	57		-37	-47	263	57	350
300	292	-54		168	77	290	-56		298	33	288	-50		287	33	295	-54		299	78	296	-48		306	84	293	-51		288	39	295	-55		314	94	306	-45		298	80	297.2	-50		267	52	300
250		-69		184	51		-57		283	33		-53		281	31		-66		288	73		-55		301	61		-58		284	32		-67		311	78		-61		303	84		-68		256	84	250
200	377	-63		234	26	377	-57		271	30	376	-56		269	24	380	-63		297	44		-52		288	31	380	-61		268	27	360	-68		290	36	366	-76		302	87	302.3	-68		270	37	200
170		-61		245	28		-58		252	27		-58		255	26		-59		278	29	384	-54		271	30		-63		274	23		-62		284	30		-70		305	45		-64		273	32	170
150		-62		235	30	439	-59		254	49		-58		249	25	442	-59		273	21		-54		272	26	441	-60		277	19	441	-63		286	20		-65					-62			150	
130		-60		241	35		-58		260	39		-60		257	27		-58		268	26		-52		265	18		-57		260	16		-62	</													

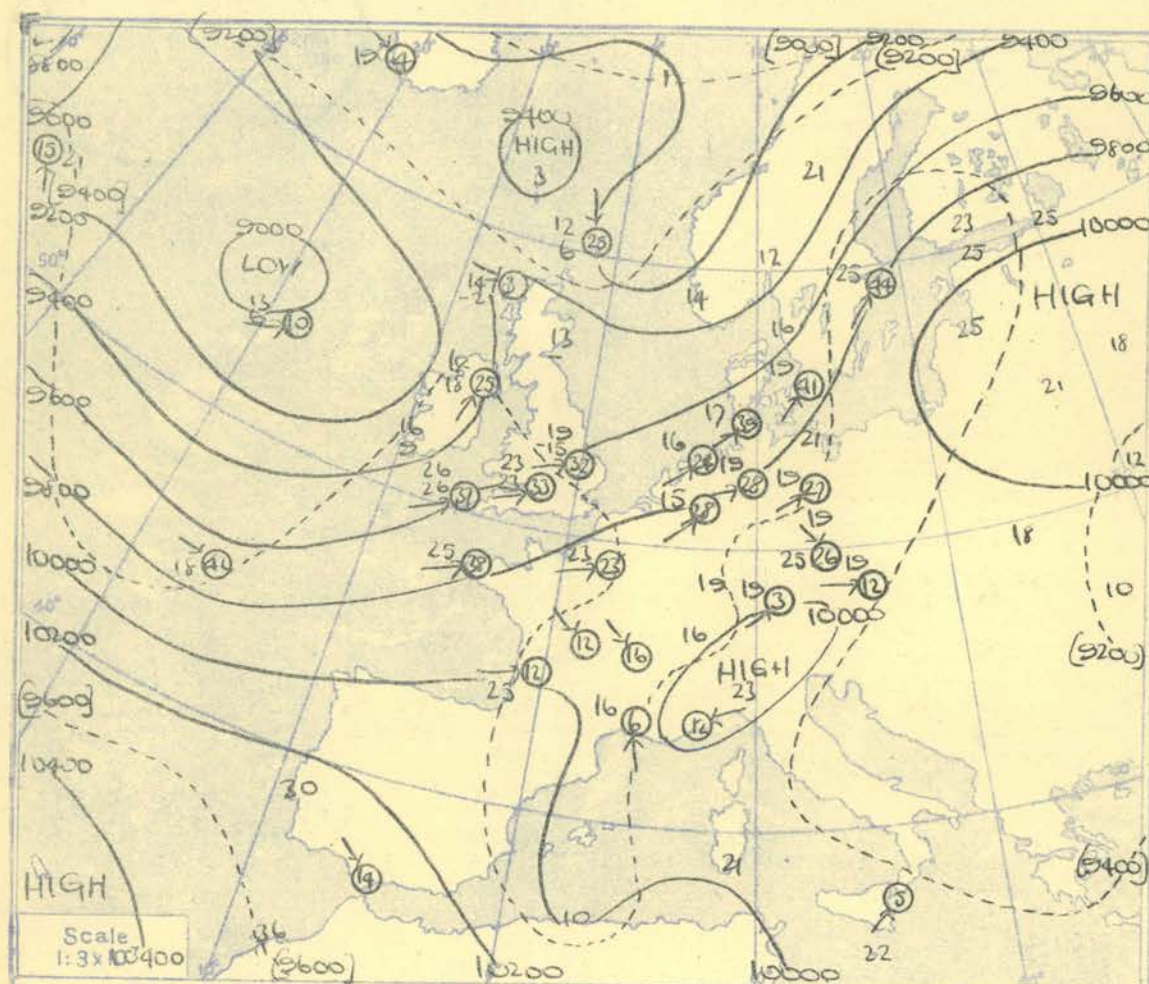


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				METEOROLOGICAL OFFICE	
Pressure	Time M.S.L. Surf Freezing	03hrs 1001.7 959.4 244		G.M.T. mb mb mb		03hrs 1004.6 1002.7 900		G.M.T. mb mb mb		03hrs 1006.0 1005.1 880		G.M.T. mb mb mb		03hrs 1002.6 974.0 850		G.M.T. mb mb mb		03hrs 1012.7 1007 865		G.M.T. mb mb mb		03hrs 1011.0 994.8 820		G.M.T. mb mb mb		03hrs 1004.6 994.1 830		G.M.T. mb mb mb							
		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		
Surf		02-3735				00-54239080				100-24039				02-34543150				01-24340170				4-44644160				02-55150180				0-34946	Surf				
1000		01-1				01-54239				01-640				02-34543150				02-14440				2-9				02-55150180				-0-6	1000				
950		3329				3733076				04				4239155				4239216				4242184				4848221				39	950				
900		27-62723				29-53228082				1829624				3735162				3737206				31-23737206				29-94545294				40279	900				
850		2118				2623095				11				3232170				3333216				3333216				4040251				44	850				
800		57-81817				60-22612177				0660322				55-82728180				62-23005231				62-23030223				61-43636249				3665902824	800				
750		1612	See p3			20-13245				02				2323187				2727225				2727225				3131247				34	750				
700		21-61206	For			24-31421278				0394313				24-21818187				37-02323237				37-02323237				36-42626244				37	700				
650		06-2				06-30277				08				1413205				1817237				1817237				2019236				42	650				
600		130-01-08	Winds			03-32262				2013305				1330506213				1361311244				1361311244				10-25233				60132	600				
550		02-19				-1-38263				14				02-121222				0604242				0604242				09-24223				50	550				
500		174-15-35				177-545278				2217807				178-6-9208				182-2-5246				182-2-5246				30181-5-16				215	500				
450		-2445				-16-43268				27				-16-26213				-11-16240				-11-16240				-15-22157				33	450				
400		226-3558				230-7750265				27230-28				231-28-33209				235-23-28235				235-23-28235				233-28-35188				45228	400				
350		-48				-40-60271				27				-4220941				-30-41240				-30-41240				-4120053				-48	350				
300		289-60				294-57				2584529460				295-58				302-52				302-52				41297-53				210	300				
250		61				-70				26244				-74				-68				-68				-67				213	250				
200		375-60				379-68				25433378-68				379-66				385-74				385-74				36283-63				225	200				
170		60				-58				26129				-62				-65				-65				-63				252	170				
150		60				-55				26025				-62				-63				-63				-65				244	150				
130		60				-62				25834				-63				-66				-66				-65				277	130				
110		60				-63				26134				-67				-63				-63				-65				281	110				
100		523-60				527-64				26626				530-63				531-63				531-63				529-65				526	100				
90		60				-64				26521				-64				-63				-63				-65				526	90				
80		60				-64				26520				-64				-63				-63				-65				526	80				
70		60				-64				26520				-64				-63				-63				-65				526	70				
60		60				-64				26520				-64				-63				-63				-65				526	60				
		Inversion 750-732ms16°				Inversion 831ms24°-800ms20°				Inversion 755ms16°-735ms18°				Inversion 264ms68°-254ms66°				Inversion 841ms27°-826ms30°				Inversion 850-837ms33°				Inversion 528ms4°-514ms3°									
		Isothermal 750-732ms16°				Isothermal 627-524ms3°				Isothermal Surf-558ms40°				Isothermal 264ms68°-254ms66°				Isothermal 826-785ms30°				Isothermal 850-837ms33°				Isothermal 528ms4°-514ms3°									
Tropopause		I 280ms-64° 30400'				I 236ms-72° 34500'				I 232ms-78° 34800'				I 220ms-77° 36000'				I 230ms-76° 35400'				I 231ms-76° 35400'				I 220ms-71° 36300'				I 325ms-57° 27300'				Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION	
Pressure	Time M.S.L. Surf Freezing	09hrs 1006.5 996.3 236		G.M.T. mb mb mb		02hrs 1004.7 1002.8 900		G.M.T. mb mb mb		03hrs 1006.0 1005.1 880		G.M.T. mb mb mb		03hrs 1002.6 974.0 850		G.M.T. mb mb mb		03hrs 1012.7 1007 865		G.M.T. mb mb mb		03hrs 1011.0 994.8 820		G.M.T. mb mb mb		03hrs 1004.6 994.1 830		G.M.T. mb mb mb							
		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		
Surf		02-73729				00-54236090				15				02-34644135				00-64846176				4-44848215				102-95049203				12	Surf				
1000		01-7				01-34135				15				02-34644135				00-64846176				1-7				01-4				28	1000				
950		3324016				3730100				24				4342237				4342206				4545217				4445220				28	950				
900		27-2722028				29-3730100				25				3837237				3840217				4040217				4141227				25	900				
850		2215032				2622101				22				3433237				3636230				3737227				3427226				26	850				
800		39-62620				592211100				15				590252326				61-63030221				61-43432220				61-02917235				27	800				
750		4-44009				22-15109				08				2424224				2727204				30-26226				31	2310232				29	750			
700		30-41217341				123401523173				03				330181818				3482019198				36-124-53219				309531703233				34	700				
650		05-26293				09-27210				05				1308178				20	1412200				16-58219				33	11-4230			33	650			
600		132-2-33278				05-30286				06				132063278				20	1340700203				1351005256				3613403-7227				36	600			
550		-3-33279				00-28243				08				-2-29193				21	01-23210				-1-43223				-4-22222				37	550			
500		176-11-46283				177-7-15230				13				177-11-31205				178-05-34208				180-7-23211				4317815-28217				44	500				
450		-18-52280				-16-26227				19				-22-35203				-17-36202				-18-29203				-26-37209				46	450				
400		228-31-58280				230-27-31225				21				229-3446201				231-28-37194				233-29-39202				5									



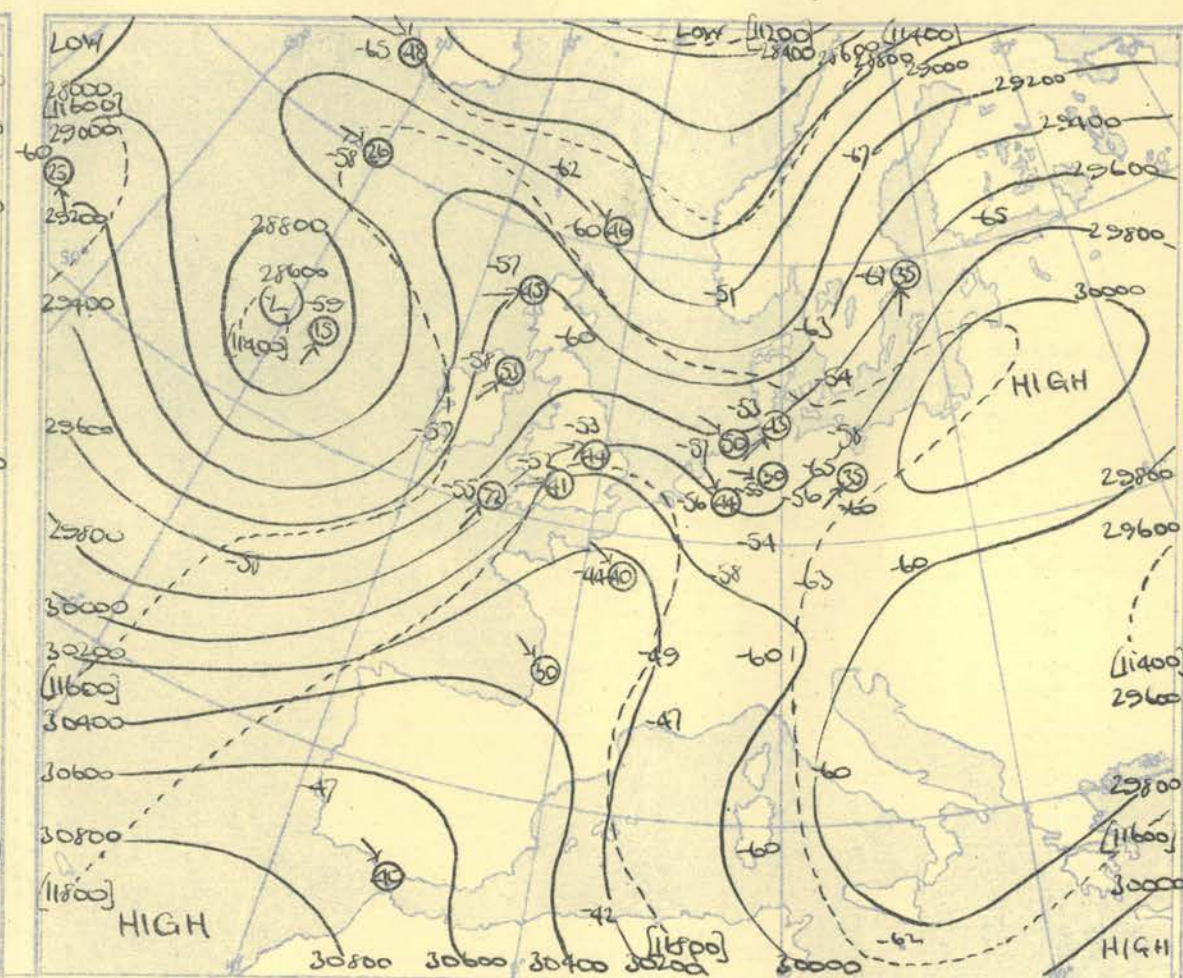
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



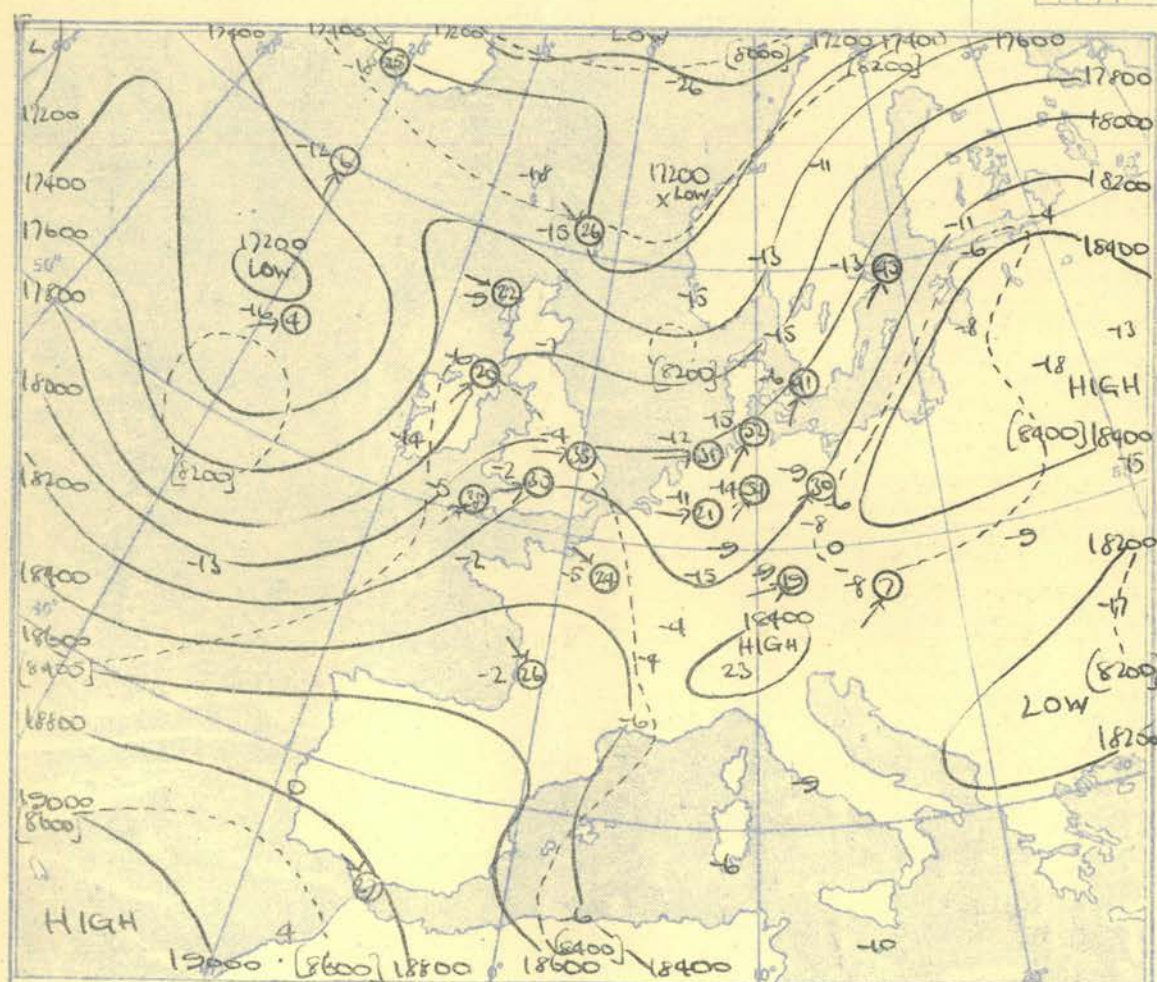
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

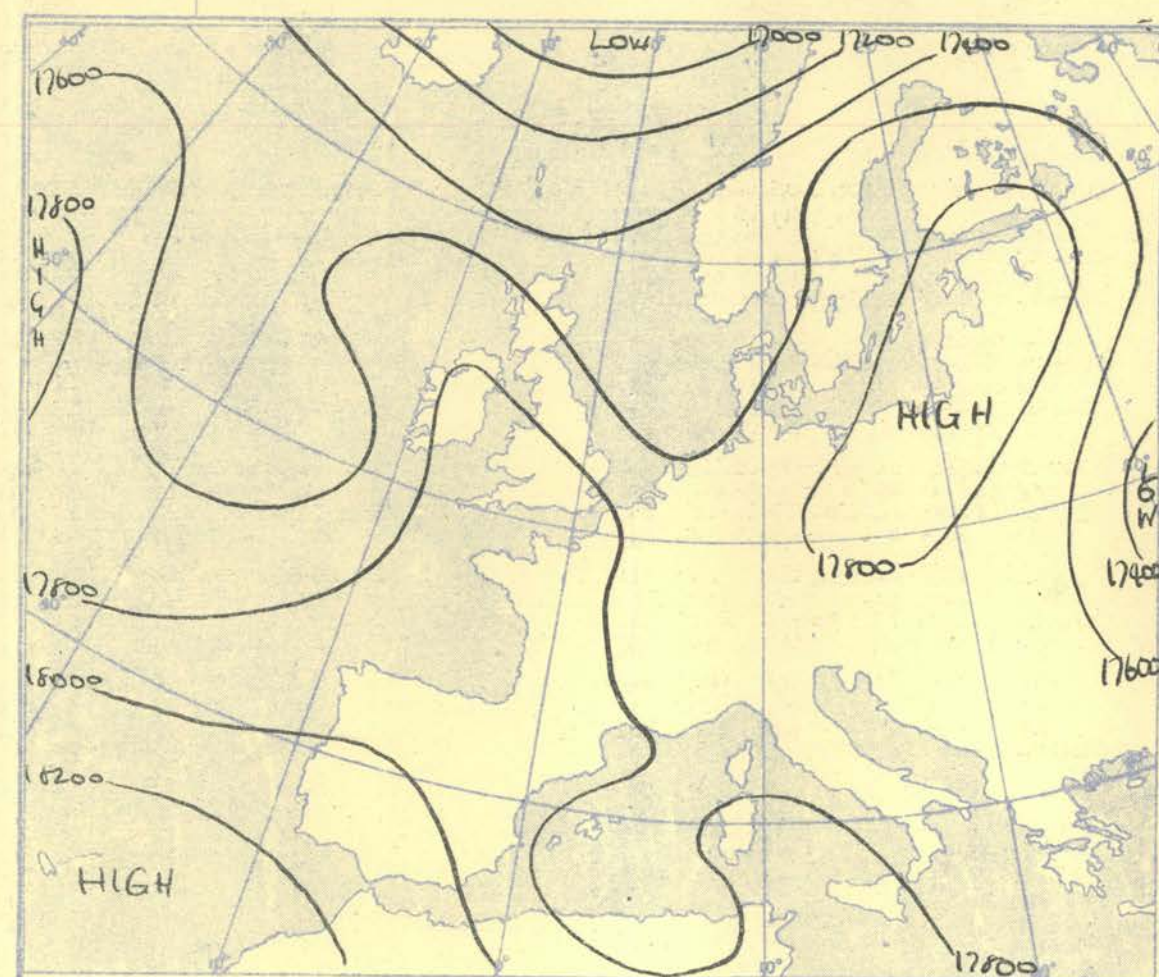
100 80 60 40 20 10 knots



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.

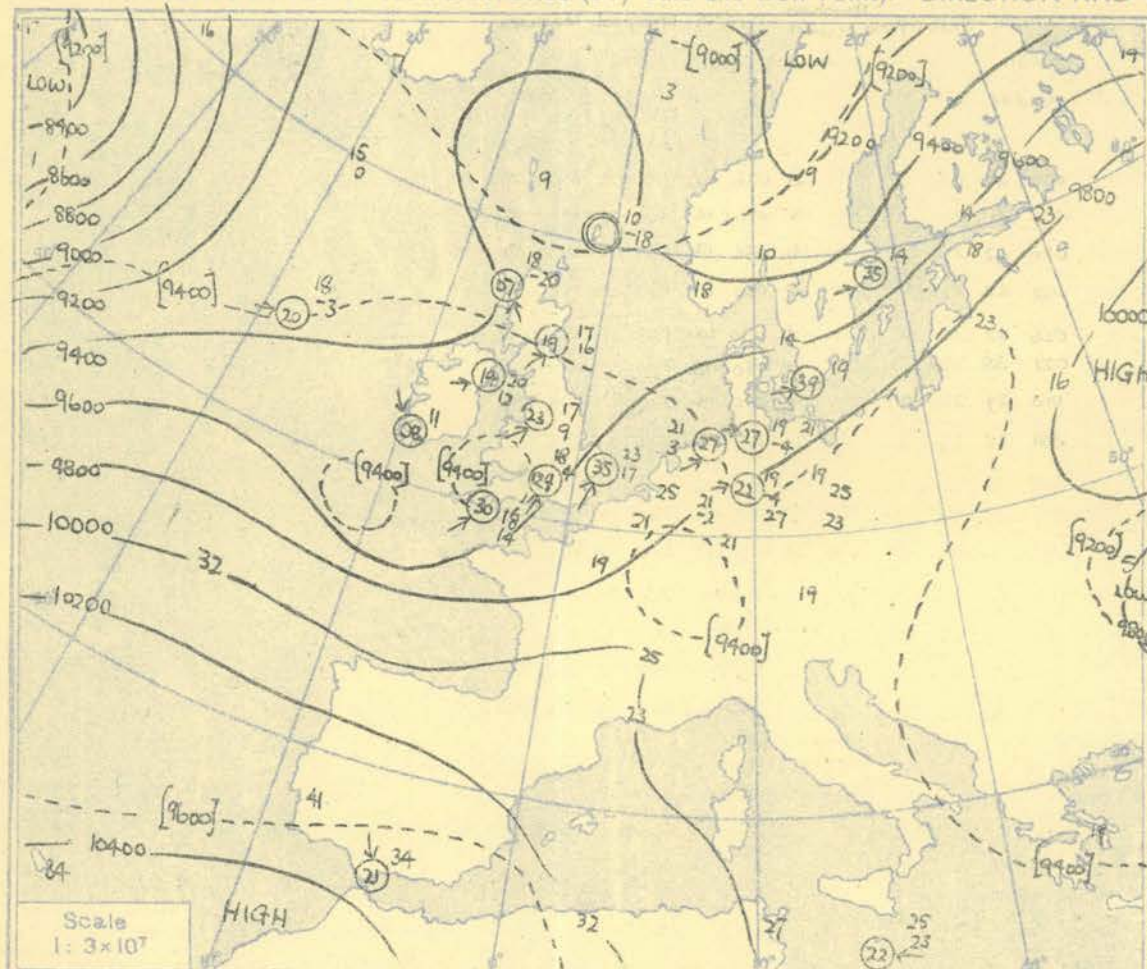


Isopleths of Thickness 500-1000mb.





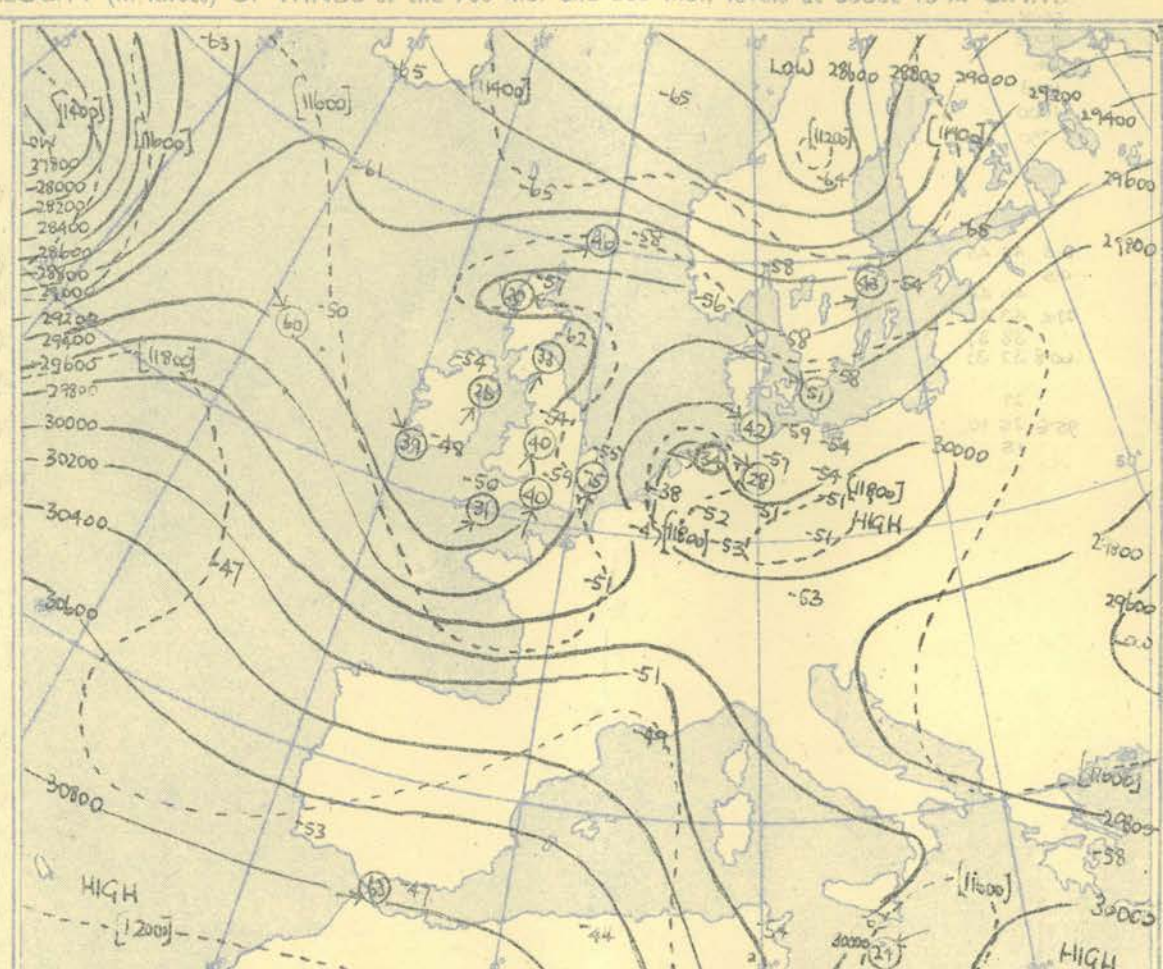




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

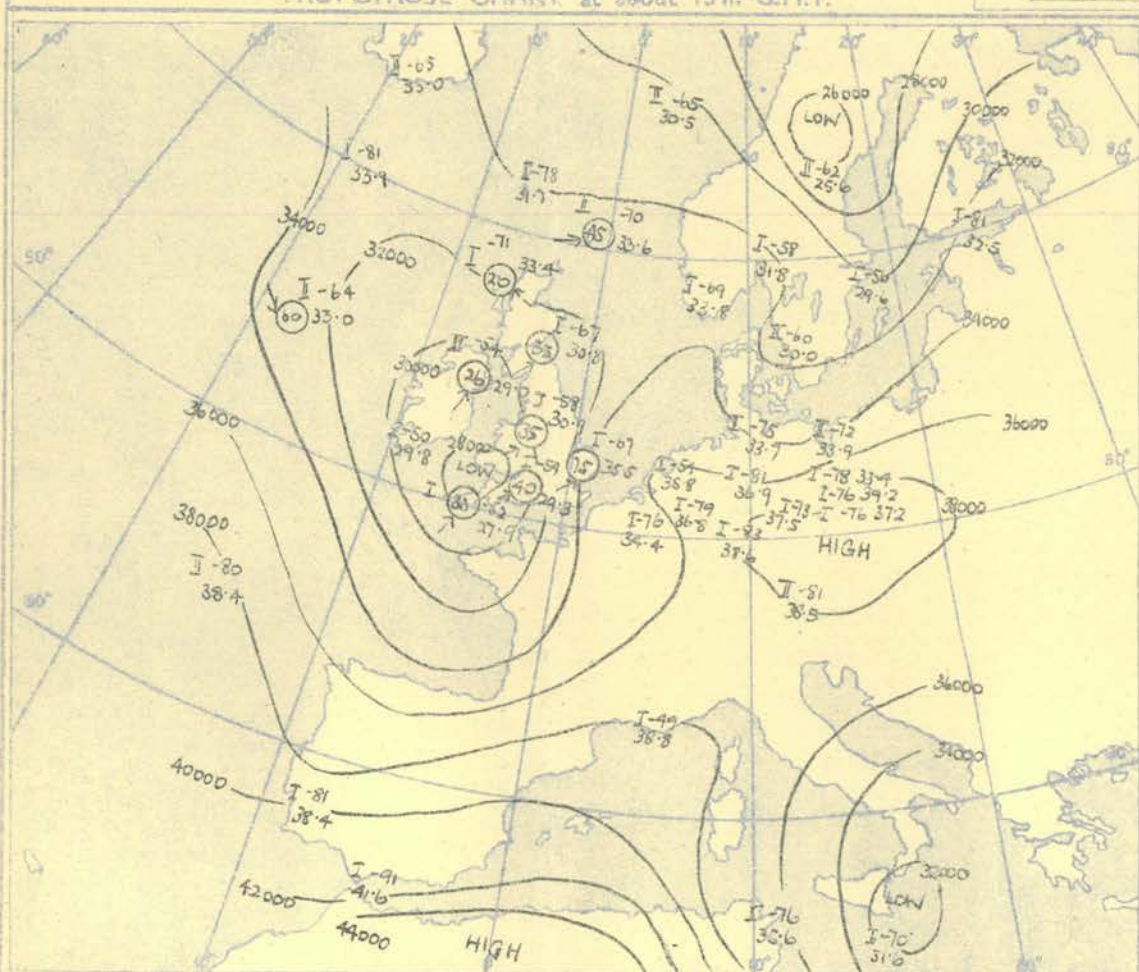
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

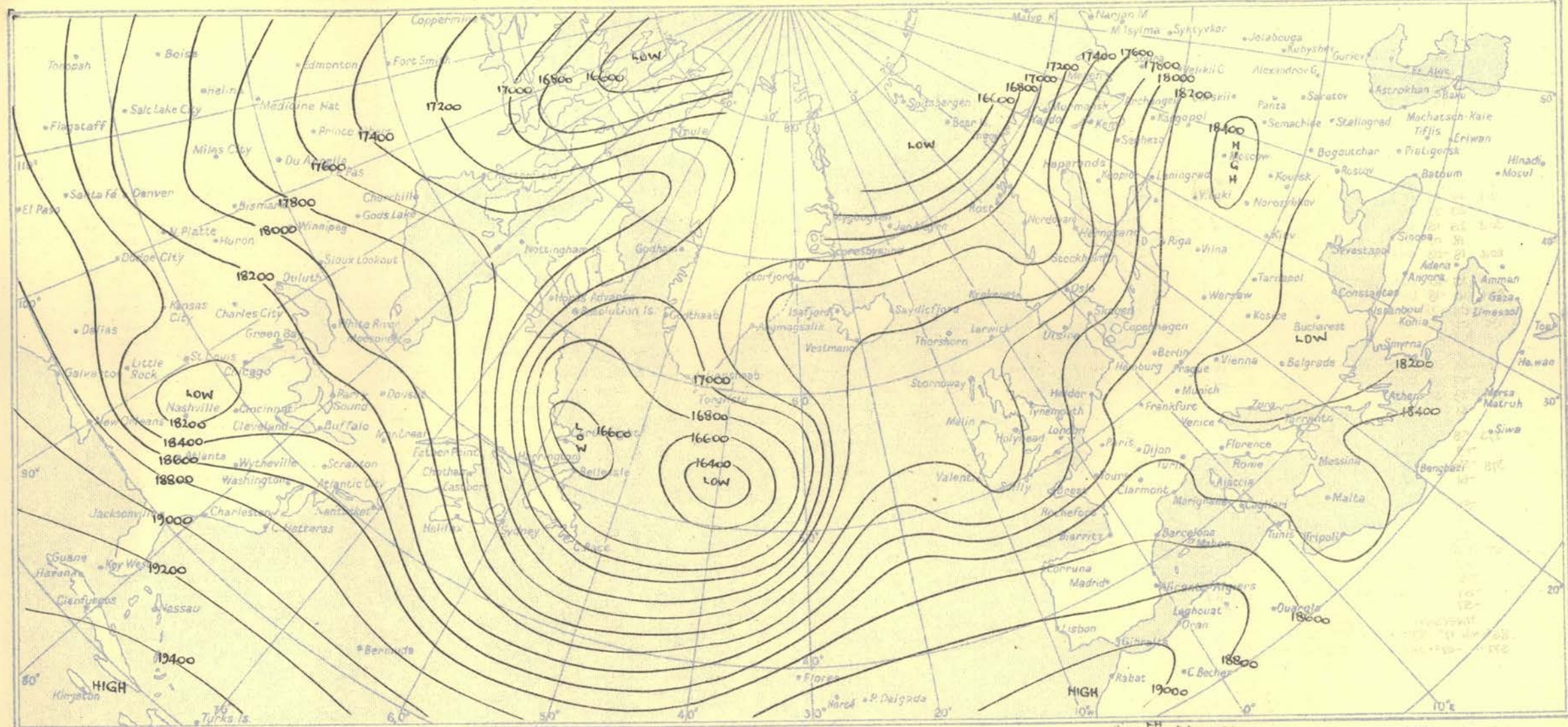
### NOTES ON THE AEROLOGICAL SITUATION.

Cold troughs existed along longitudes 10°E, 15°W and 60°W - the last being the most intense. The warm ridge between these Atlantic troughs has become more intense in the last twenty four hours in association with the slower eastward translation of the Atlantic systems.

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

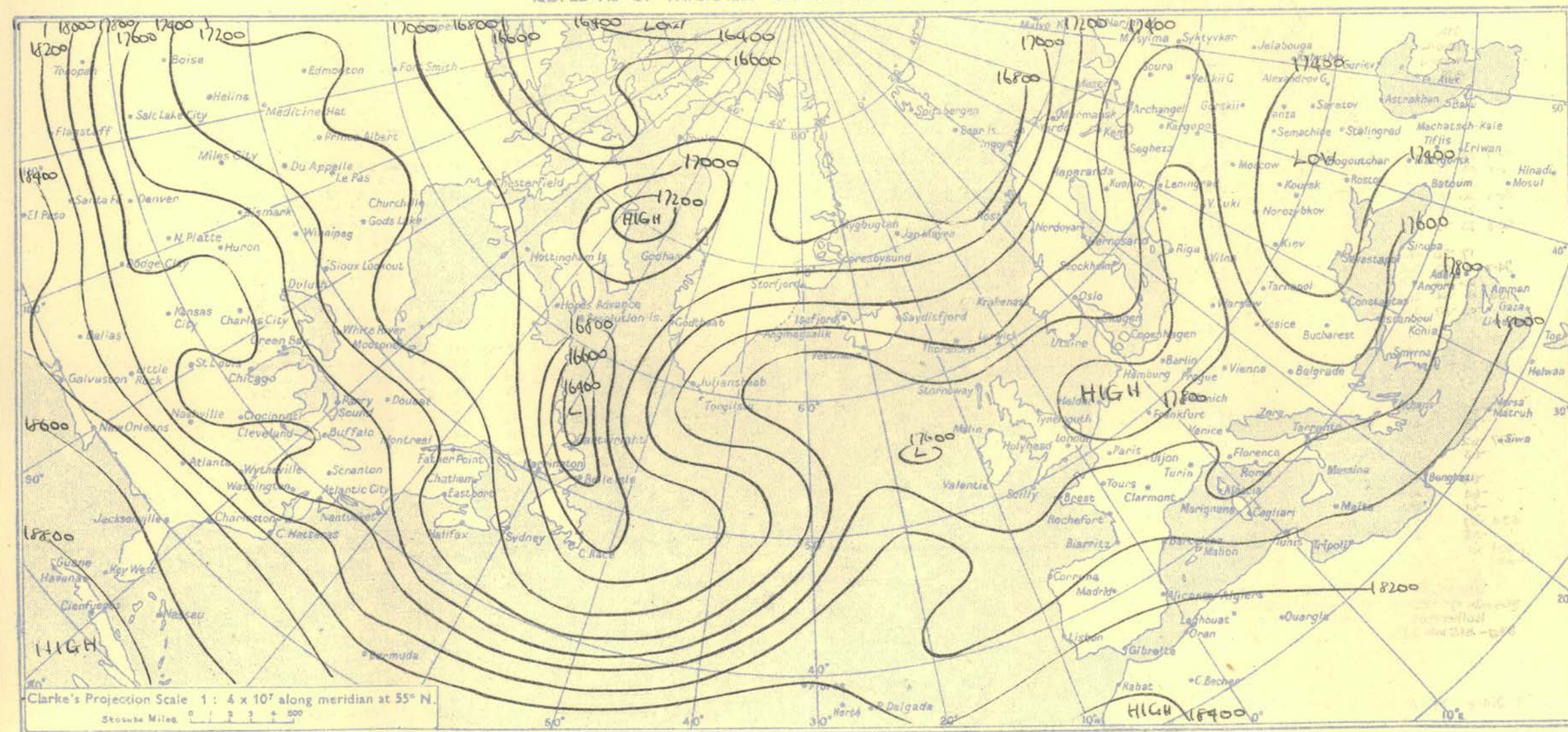




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

20<sup>th</sup> March

1950.





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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure Time M.S.L. Surf Freezing	15h.		G.M.T.		15h.		G.M.T.		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					
	1010.3		mb		1004.8		mb		1005.0		mb		1000.4		mb		1001.8		mb		1006.2		mb		1005.6		mb		1003.7		mb		1000.4					
	948		mb		882		mb		887		mb		890		mb		832		mb		800		mb		831		mb		835		mb		830					
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb					
Surf	02.7	40	27	034 10	00.5	44	37	090 20	00.2	43	42	060 17	02.3	54	48	220 08	00.6	55	41	230 15	01.2	54	51	180 10	04.4	54	45	210 15	02.9	50	46	180 20	00.3	54	50	260 08	Surf	
1000	2.7	40	27	034 10	1.3	43	36		1.2	42	41		0.1				00.8	55	41		1.7				1.5				1.0	50	46	180 20	00.3	54	50	260 08	1000	
950		33	22	039 12		39	31	099 30		38	38	110 19		48	42	227 10		48	38	232 17		46	43	218 18		48	39	218 22		44	37	216 33		46	39	271 08	950	
900	30.3	25	15	051 11	29.3	34	27	102 27	29.3	33	33	120 18	28.7	41	35	236 10	29.4	41	33	237 18	30.3	42	36	234 24	30.1	41	34	230 23	29.4	39	32	222 27	28.6	40	36	294 09	900	
850		18	07	074 10		28	23	106 20		29	29	138 20		36	32	241 10		34	27	233 15		38	29	237 29		34	29	236 27		33	29	224 25		34	29	316 08	850	
800	60.4	18	03	055 08	60.1	22	17	108 14	60.1	27	27	196 18	60.0	31	27	242 15	60.6	29	24	217 18	61.6	32	20	227 24	61.2	28	22	230 27	60.5	29	25	224 26	59.7	30	26	315 07	800	
750		15	10	025 06		24	08	110 11		22	22	217 15		26	20	252 20		24	17	223 21		29	15	208 40		24	12	230 25		24	20	219 29		27	19	310 05	750	
700	94.1	10	18	044 09	94.4	18	20	132 07	94.5	17	16	204 19	94.5	20	12	244 14	95.0	17	09	224 23	96.3	23	17	197 35	95.6	18	04	216 24	94.8	18	14	222 30	94.3	20	11	310 03	700	
650		04	28	000 09		11	06	173 08		11	07	203 25		12	04	238 15		11	01	210 24		16	04	198 29		12	07	218 27		12	06	224 35		13	05	325 05	650	
600	132	00	33	291 16	133	06	00	195 14	133	03	05	202 27	133	06	02	223 16	134	05	13	206 25	135	09	18	206 33	134	05	13	219 30	134	05	03	221 36	133	05	02	304 09	600	
550		02	43	283 22		00	05	210 13		03	28	186 27		04	11	204 15		01	17	203 24		01	27	202 36		04	19	213 34		04	11	212 33		04	13	29 11	550	
500		177	08	42 268 27	178	08	14 192 16	178	11	34 198 20	178	14	24 198 16	178	08	29 194 27	180	10	34 202 39	179	16	29 210 36	178	14	21 210 36	178	14	21 210 36	178	14	21 210 36	178	14	21 210 36	178	14	21 210 36	500
450		17	51	272 32		18	24 164 15		24	43 210 18		24	43 210 18		24	43 210 18		19	36 193 39		20	42 204 46		25	40 208 39		25	40 208 39		24	30 202 33		24	30 202 33		24	30 202 33	450
400	229	29	56	261 37	230	28	35 103 10	229	37	54 211 26	229	34	41 190 23	231	31	44 195 37	232	30	42 192 57	230	36	51 197 43	230	36	51 197 43	230	36	51 197 43	230	36	51 197 43	230	36	51 197 43	230	36	51 197 43	400
350		41		264 41		40	40 097 18		49		202 28		44		182 27		43		192 44		42		197 56		49		195 43		45		204 46		43		301 39	350		
300	293	58		261 43	294	57		099 20	292	62		201 33	293	54		194 26	295	54		197 40	296	55		207 75	293	59		208 40	294	50		224 31	293	48		300 29	300	
250		69		252 40		71		125 22		57		200 32		50		209 17		59		206 32		62		193 49		53		205 31		46		248 26		50		293 34	250	
200	378	56		260 36	380	60		212 26	379	57		237 34	382	48		217 19	382	52		222 22	383	55		229 25	381	53		246 23	382	48		268 20	382	50		282 37	200	
170		61		260 37		60		224 35		58		240 25		51		242 16		50		237 15		56		247 14		58				48		268 19		49		269 24	170	
150		59		271 37		53		243 32		58		245 24		54		244 21		55		234 13		60		238 15		52				52		253 21		51		269 30	150	
130		57		260 31		57		236 28		58		263 27		54		250 27		59		248 15		61		258 17		56				56		264 20		51		276 27	130	
110		56		254 31		61		242 36		61		259 25		51		254 24		59		260 18		61		278 15		56				56		275 22		56		265 24	110	
100	527	54		257 35	528	59		257 40	528	58		276 25	532	51		263 18	531	61		264 18	531	60		290 14		60				60		308 16	533	54		278 21	100	
90		55		262 35		56		248 30		58		310 12		52		268 18		57		286 15		59		295 11		59				59		302 20		55		258 18	90	
80		58		270 30		58		247 35		57		291 10		52		282 16		56		297 16		60		307 12		60				60		303 09		59		271 11	80	
70		57		261 33		54		264 32		53		264 25		53				59		308 14		60		310 08		58				58		307 10		59			70	
60		57				53				53				53				59		290 10		60		310 08		58				58		293 09		59			60	
Inversion 856mb 17°-835mb 19° 650mb 22°-775mb 24° 630mb 07°-612° 08°																																						
Isothermal 815-792mb. 27° 680-668mb. 14°																																						
Isothermal 780-771mb. 27°																																						
(50) 59 (40) 57 (33) 55																																						
Isothermal 786-762mb. 30°																																						
(44) 58 (30) 50 (30) 50																																						
Tropopause	I 245mb. -70° 33,600'				I 250mb. -71° 33,400'				I 279mb. -67° 30,800'				I 305mb. -54° 29,000'				I 281mb. -58° 30,900'				I 229mb. -67° 30,500'				I 300mb. -59° 29,300'				I 320mb. -52° 27,900'				I 308mb. -50° 28,800'				Tropopause	
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				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					
	1010.6		mb		1006.4		mb		1003.7		mb		1000.4		mb		1006.8		mb		1005.9		mb		1005.6		mb		1004.6		mb		1000.4					
	938		mb		906		mb		841		mb		833		mb		830		mb		830		mb		830		mb		833		mb		830					

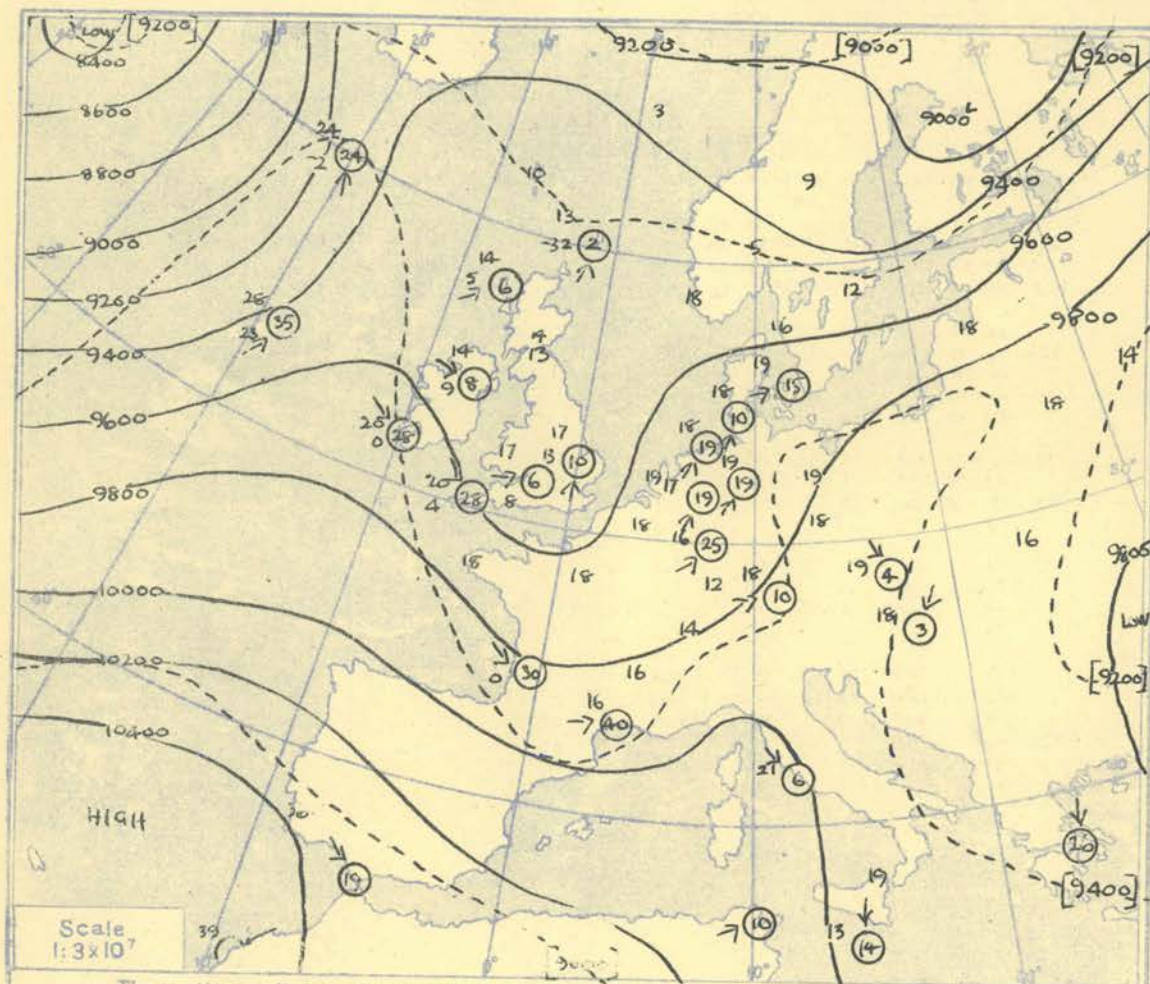


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION					
Pressure Time M.S.L. Surf Freezing	03h 1011.5 1001.3 428				03h 1007.2 1005.4 900				03h 1007.6 1006.7 950				03h 1007.1 998.3 852								03h 1007.4 1002.9 842				03h 1006.5 990.4 840				03h 1008.5 998.0 848				03h 1010.3 1009 840				Time M.S.L. Surf Freezing					
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb								G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb													
	Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots													
Surf	02.7	39	28	045	04	0.5	44	35	110	05	00.2	43	43		02.3	39	28	CALM			01.2	43	42	120	03	04.4	45	43	CALM	02.9	49	47	293	10	00.3	47	44	200	05	Surf		
1000	3.0	39	28			2.0	43	36			2.0	42	42		1.9	44	38	299	07			1.9	44	41	226	09	1.7	43	43	285	09	2.3	43	42	300	27	2.8	47	44	206	06	1000
950		36	21	052	10		38	30	115	04		39	39			44	38	299	07				44	41	226	09		43	43	285	09		43	42	300	27		44	40	263	13	950
900	31.0	28	18	057	13	30.0	32	25	136	07	30.1	35	25	30.1	38	32	299	07			30.3	39	34	216	09	30.0	36	34	242	09	30.6	37	37	305	29	31.2	38	32	265	16	900	
850		21	12	071	13		29	22	169	05		32	32		30.1	38	32	299	07			61.3	33	29	208	07	61.0	33	31	295	09	61.6	37	32	308	30	62.2	33	26	273	19	850
800	61.3	23	03	080	08	60.7	24	19	165	05	61.0	28	28	61.0	26	26	291	07				26	24	202	08	61.0	27	26	296	09	61.6	27	26	315	32	62.2	31	14	283	23	800	
750		19	22	120	03		20	13	206	05		22	22		20	20	283	07			95.6	22	18	196	09		21	19	287	08		24	18	326	32		26	05	294	27	750	
700	95.4	13	32	125	02	94.9	14	03	257	06	95.4	14	13	95.2	14	09	276	08				17	13	194	10	95.3	17	08	273	06	96.0	20	04	320	28	96.7	20	00	295	28	700	
650		09	43	127	02		04	00	253	05		07	01		08	00	273	10				10	06	200	10		09	09	278	04		12	00	310	27		12	08		650		
600	134	02	54	121	01	133	03	13	226	04	134	01	01	134	01	08	274	09			134	03	03	207	13	134	01	15	025	02	135	04	10	300	26	136	07	16		600		
550		02	57	131	02		03	17	231	04		08	17		11	18	280	08				05	12	206	12		07	20	073	09		05	25	304	27		01	24		550		
500		09	51	012	04	478	11	28	068	06	478	18	29	477	21	29	285	09			478	15	22	213	12	478	17	29	073	07	479	13	34	306	32	481	02	30		500		
450		20	50	04	03		24	40	083	05		29	41		31	40	297	10				27	32	214	13		28	40	066	09		21	43	308	66		10	37		450		
400	231	31	58	042	03	230	36	51	075	14	229	38	52	228	41		314	14			230	39	45	201	15	229	39	51	027	09	231	28	51	313	92	234	23	48		400		
350		46		024	01		47		059	29		50			51		311	18				49		192	20		51		335	18		38	58	313	103		34	57		350		
300	294	63		029	02	293	61		060	28	292	63		291	57		303	23			293	55		191	15	292	53		316	31	296	51		312	102	299	47		300			
250		71		265	06		67		005	10		60			57		306	23				55		240	13		55		311	30		61		310	88		63		250			
200	379	64		260	22	378	63		283	15	378	56		378	59		301	26			381	53		248	12	380	56		295	27	382	62		314	86	385	64		200			
170		63		258	30		60		269	24		59			59		288	25				52		267	13		59		301	26		60		315	39	385	55		170			
150		61		268	33	439	61		282	25		60			60		292	28				56		268	12		60		298	20		58		317	39		60		150			
130	(136 mb)	61					60		283	31		60			60		294	22				62		280	12		60		291	24		60		321	41		60		130			
110							62		280	21		65			61		277	16				59		296	18		64		305	21		64					65		110			
100						525	64		271	25	526	63		526	64		274	21			530	62		305	18	527	67		317	18	530	64		64			64		100			
90							65		262	22		60			63		280	28				62		317	18		68		318	11		64					64		90			
80																						61		323	18		68					66					66		80			
70																																	68					68		70		
60																																							60			
Inversion				Inversion				Isothermal				Inversion				Inversion				Inversion				(057) mb				Inversion				Inversion				Inversion						
1001 mb 39° - 994 mb 40°				880 mb 30° - 866 mb 31°				600 - 586 mb - 01°				998 mb 39° - 960 mb 45°				1003 mb 43° - 981 mb 46°				800 - 787 mb 26°				1000 mb 47° - 985 mb 49°				1009 - 1006 mb 47°				829 - 800 - 31°				620 - 500 - 02°						
840 " 20° - 792 " 24°				818 - 804 mb 25°																																						
Tropopause	I 258 mb - 73°				I 273 mb - 70°				I 311 mb - 64°				II 300 mb - 57°								II 300 mb - 55°				II 342 mb - 53°				II 260 mb - 61°				I 219 mb - 74°				Tropopause					
32,600'				31,300'				28,400'				29,100'								29,300'				26,300'				32,700'				36,600'										
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION					
Pressure Time M.S.L. Surf Freezing	09h 1012.6 1002.3 932				09h 1009.8 1007.9 870				G.M.T. mb mb mb				09h 1010.8 1002.0 845				09h 1009.6 1007.5 825				09h 1008.9 1004.5 843				09h 1010.2 994.0 852				09h 1013.7 1003.1 800				G.M.T. mb mb mb				Time M.S.L. Surf Freezing					
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																	
	Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots				Height Temp. Dew Wind Dir. Vel. knots																	
Surf	02.7	40	30	067	10	00.5	45	41	135	08				02.3	42	40	CALM	00.6	42	41	310	05	01.2	47	46	CALM	04.4	46	45	320	08	02.9	50	49					Surf			
1000	3.3	40	30			2.6	44	40			2.6	44	42	2.4	47	46		2.6	44	42	310	12		47	46		2.7				3.4	49	48					1000				
950		35	24	062	15		39	36	165	11		41	37		46	40	002	05				46	40	002	05		41	41	335	15		43	40				950					
900	31.1	28	20	063	11	30.7	35	32	188	10	31.0	37	33	31.2	42	37	309	09			30.9	40	31	330	06	30.9	36	36	341	15	31.7	38	31				900					
850		21	15	063	09		30	27	207	11		33	29		35	21	305	08			62.0	33	28	308	06	61.9	31	26	338													



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	Camborne	Leeming	Leeming	Leuchars	Liverpool	Derwick	Downham Market	Place					
Time	09h	09h	15h	21h	21h	21h	21h	Time					
Type	PILAR			PILAR	PILAR			Type					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	293	08	350	01	360	04	100	07	CALM	CALM			Surf.
1,000	297	21	340	08	010	05	203	06	250	05	140	10	1,000
2,000	304	21	320	08	350	04	211	07	240	05	140	10	2,000
3,000	303	19	320	08	290	08	228	08	240	05	160	06	3,000
4,000	304	19	340	14	290	10	232	08	230	07	180	03	4,000
5,000	304	21					237	09	230	09	280	06	5,000
6,000	305	24	300	10	300	12	237	08	230	08	240	10	6,000
8,000	303	25	280	08	320	15	243	07	240	06	200	14	8,000
10,000	306	27	300	08			264	09	300	07	230	12	10,000
14,000	310	43	300	13			302	17	330	16	210	12	14,000
18,000	309	57	290	10			309	26	340	30	210	10	18,000
24,000	315	85	[17,000]				325	41	320	49	240	09	24,000
30,000	313	123					314	49	310	53	250	08	30,000
40,000	317	54					294	24	300	34	260	25	40,000
50,000	313	48					269	18	280	13	260	30	50,000
	[41,000]								280	15	270	29	[60,000]
									[53,000]		260	29	[70,000]
											250	28	[80,000]
											260	30	[89,000]

## NEPHOSCOPE OBSERVATIONS

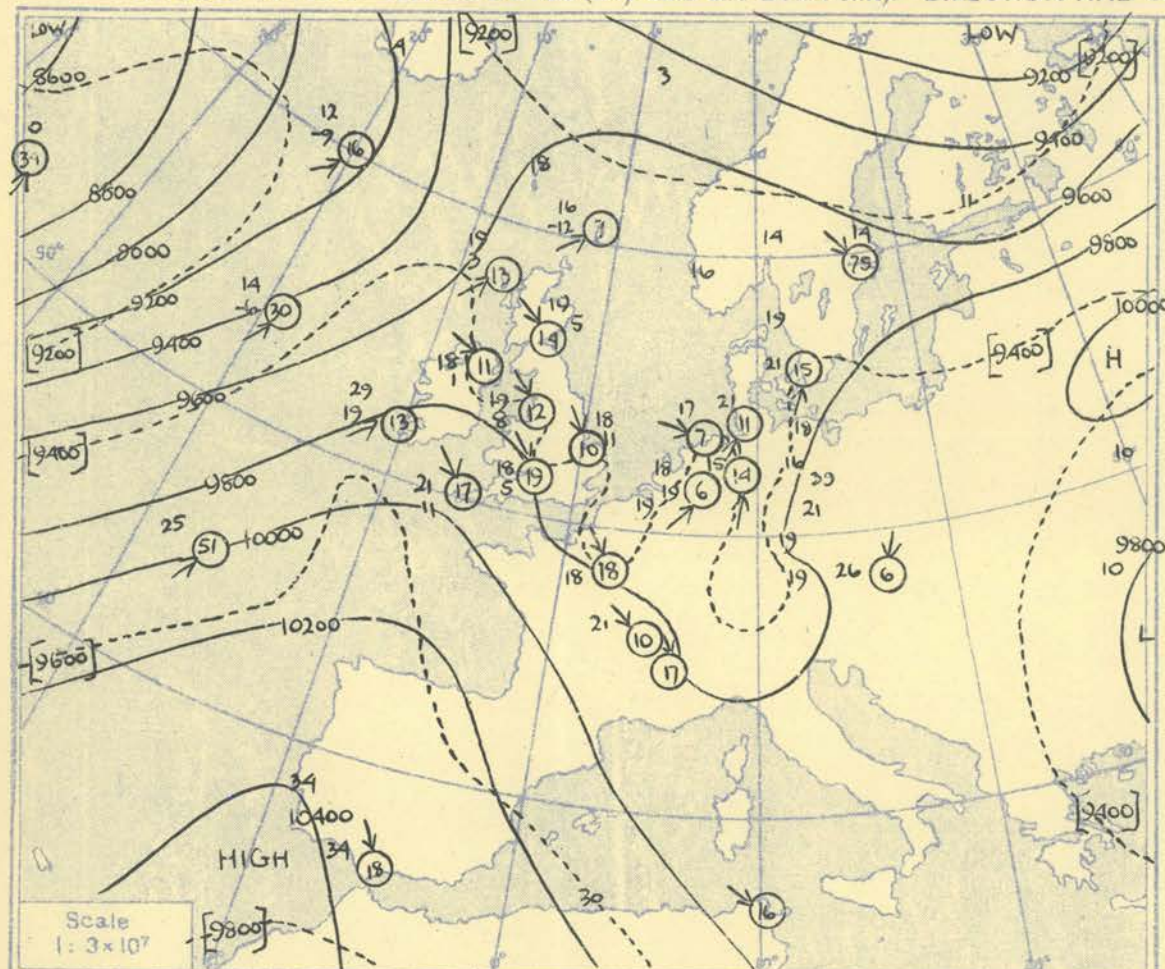
[illegible]

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

Ship	WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER			
Lat/Long	53-6N 18-6W				53-9 N. 18-9 W				53-6 N. 19-2W				53-6 N 19-2W				60-0 N 20-2W				59-9N 20-1W			
Time M.S.L. Surf Freezing	03h G.M.T. 999 mb 999 mb 750 mb				09h G.M.T. 999 mb 999 mb 845 mb				15h G.M.T. 1004 mb 1004 mb 855 mb				21h. G.M.T. 1005 mb 1005 mb 890 mb				03h G.M.T. 997 mb 997 mb 870 + 820 mb				09h G.M.T. 992 mb 992 mb 830 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



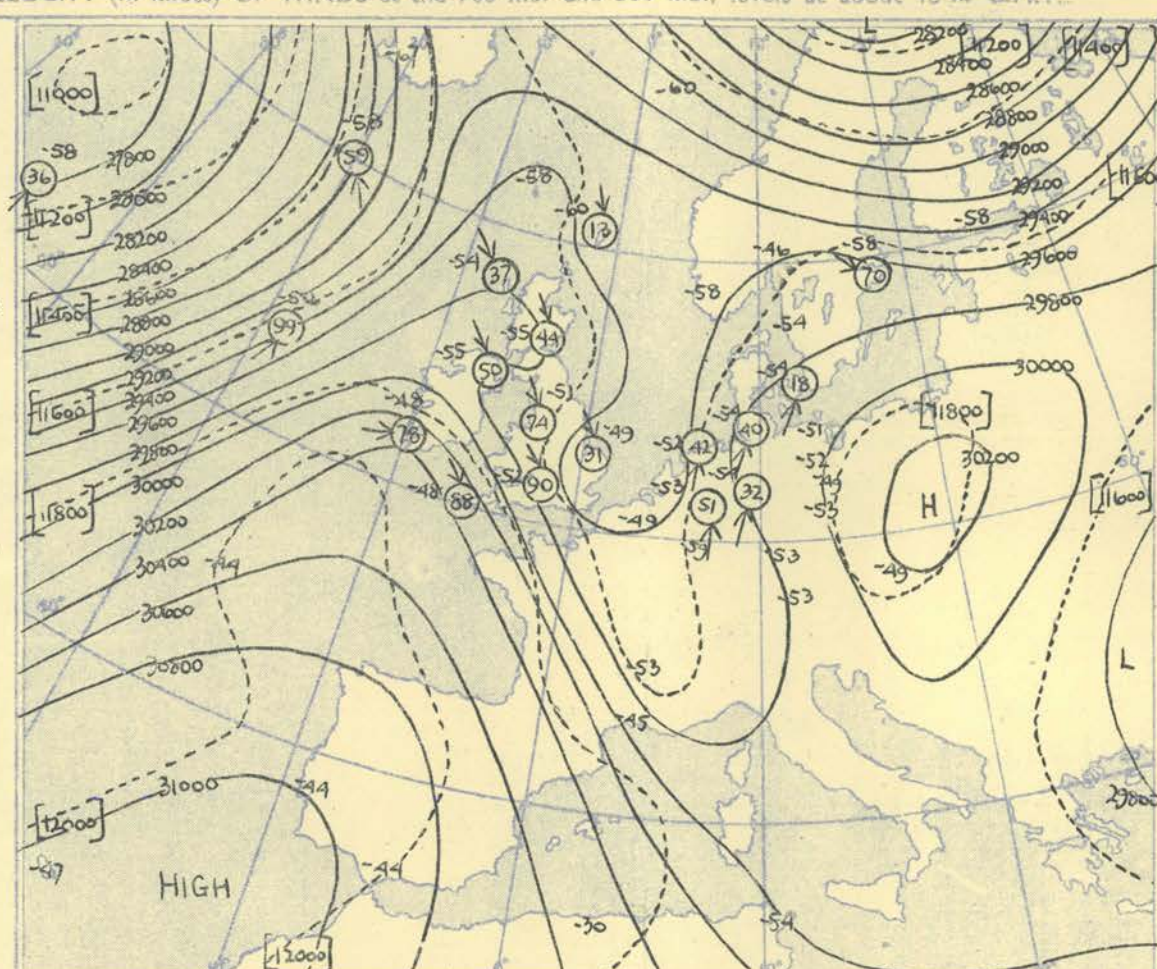
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

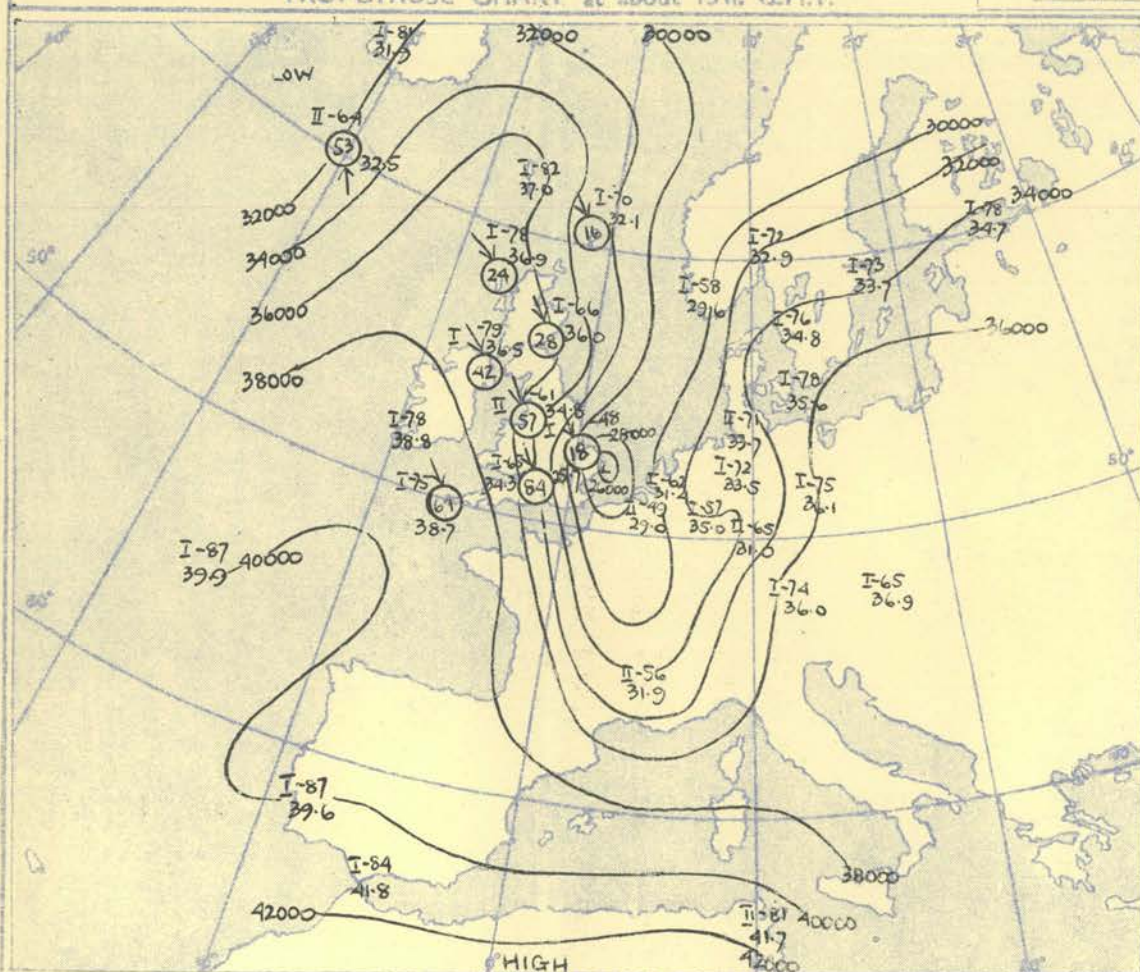
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

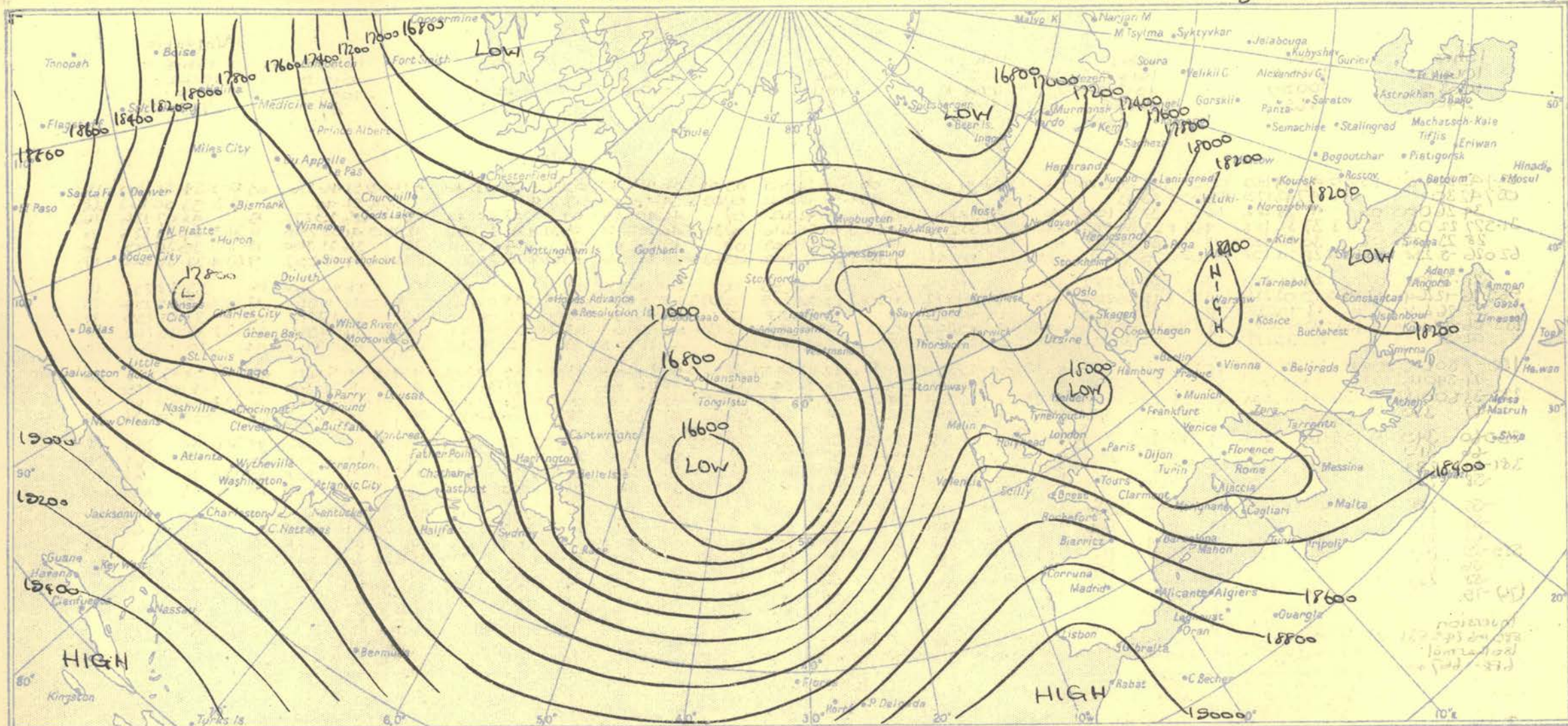
### NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge now between 15 and 20 degrees West has continued to grow northwards with the almost northward movement of the large depression south of Greenland. A cold trough over France and the British Isles is slow moving and gradually warming out. There is a large pool of cold air to the southwest of the Greenland low.

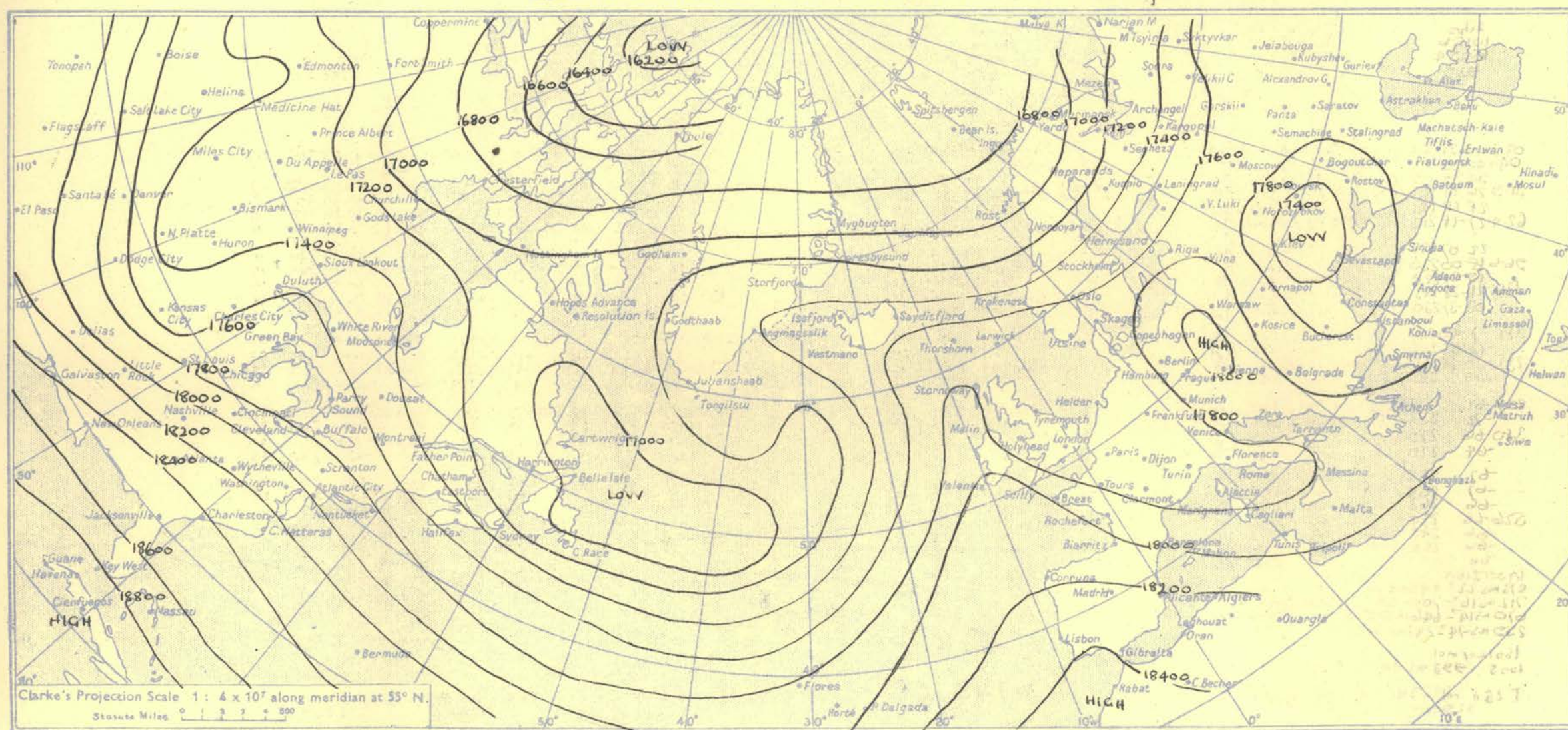
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Tuesday 21<sup>st</sup> March. 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	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time	15hrs			Time																		
	M.S.L.	1014.1			M.S.L.	1011.8			M.S.L.	1014.0			M.S.L.	1013.1			M.S.L.	1013.2			M.S.L.	1012.4			M.S.L.	1012.3			M.S.L.	1015.3			M.S.L.	1012.2																	
	Surf	1003.9			Surf	1003.7			Surf	1013.2			Surf	1004.8			Surf	1011.2			Surf	1007.8			Surf	996.7			Surf	1005.4			Surf	1010																	
	Freezing	940			Freezing	865			Freezing	817			Freezing	864			Freezing	822			Freezing	826			Freezing	832			Freezing	777			Freezing	735																	
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.	°F.	Dir. Vel.	mb																		
Surf	02.7	43	30	090	10	0.5	45	44	140	03	01.3	45	44	0.80	06	02.3	53	41	Calm	00	06.5	51	31	0	01.2	56	49	345	03	04.4	56	43	340	Surf																	
1000	03.7	42	30		3.1	47	43	179	18	03.7	43	43		03.5							03	03.6	51	48	312	07	03.3	54	48	340	12	03.4	52	44	1000																
950		34	26	080	09	41	38	182	13		38	38	106	06	45	38	211	03			03	46	40	313	07		46	40	345	08	47	40	344	950																	
900	31.9	22	085	08	31.3	37	32	185	14	31.8	33	34	261	04	31.9	37	33	212	10	32.1	41	34	316	07	31.8	40	35	343	06	32.1	41	35	336	900																	
850	28	22	147	02		30	26	185	15		31	31	263	07		30	25	227	13		36	28	303	08		35	31	347	07		34	28	341	850																	
800	62	026	-5	238	03	62	-28	24	158	13	62	-80	19	272	08	62	-8	25	18242	11	63	-3	22	302	09	63	-0	29	24	336	07	63	-2	28	24	342	800														
750		21	-23	278	07		24	14	219	13		24	16	282	10		22	-12	265	12		26	19	293	12		20	18	317	03		22	13	328	750																
700	26.3	16	-12	264	07	26.5	15	03	236	13	27.2	19	05	234	14	27.1	18	01	272	11	27.7	19	08	295	12	27.3	18	11	318	10	27.5	18	05	323	700																
650		12	-26	L	Y	12		13	238	12		15	-01	303	10		14	-10	283	11		13	00	318	07		12	03	303	13		12	-4	324	650																
600	135	06	-48	"	135	10	-29	257	13	136	09	-16	322	14	136	08	-15	308	13	137	08	-P	328	13	136	04	-8	308	13	136	05	-14	322	28	138	15	-24	311	600												
550		02	-52	"		02	-35	273	15		02	-24	331	15		02	-21	340	15		-2	-19	343	16		-6	-18	308	13		-5	-26	319	36	09	-27	311	44	10	05	271	24	550								
500	180	-7	-50	019	04	181	-7	-32	278	15	181	-7	-32	336	15	181	-4	-27	339	28	181	-14	-28	344	23	180	-16	-32	308	13	181	-15	-34	322	40	184	00	-4	314	49	184	01	-7	274	29	500					
450		-21	-54	016	08		-14	-31	280	23		-17	-39	353	32		-16	-40	331	32		-18	-36	340	36		-27	-42	296	13		-23	-41	324	55		-8	-38	311	52		-8	-29	319	52	450					
400	232	-33	60	012	11	233	-29	-50	300	33	234	-29	-50	351	31	234	-28	-52	321	34	233	-28	-45	343	42	232	-40	-53	296	10	232	-31	-51	324	81	237	-19	-36	303	53	238	-20	-44	267	42	400					
350		-47		350	13		-40	-60	306	37		-41		343	40		-40	-60	312	55		-41		341	48		-47		323	18		-40	-60	322	53		-34	-46	308	63		-34	-46	308	63	350					
300	295	60	349	13	298	-54	300	37	298	-55	339	44	298	-55	313	50	298	-51	331	74	295	-49	317	31	297	-52	320	90	303	-48	306	88	303	-48	306	88	303	-48	306	88	303	-48	306	88	300						
250		-66	319	16		-60	308	42		-63	320	32		-71	318	49		-59	322	57		-53	311	33		-64	319	84	308	-64	305	81		308	-64	305	81		308	-64	305	81	250								
200	381	-61	284	24	382	-66	288	24		384	-53	300	26	382	-74	301	42	384	-60	322	43	383	-54	309	29	383	-57	312	40	388	-74	308	64	388	-78	308	64	388	-78	308	64	388	-78	200							
170		-58	251	17		-62	273	27		-55	300	26		-72	282	32		-57	314	31		-54	311	26		-60	312	36		-57	299	24		-63	309	27		-59	309	27		-59	309	27	170						
150		-55	281	28		-61	250	27		-57	306	24		-69	274	21		-56	308	33		-56	323	24		-60	318	30		-61	309	27		-63	305	22		-61	305	22		-61	305	22	150						
130		-57	277	30		-62	256	24		-58	284	24		-70	263	19		-60	307	21		-60	309	22		-60	308	23		-64	308	23		-63	288	19		-63	288	19		-63	288	19	130						
110		-62	279	29		-62	243	31		-58	284	15		-70	263	19		-60	307	21		-60	309	22		-60	308	23		-64	308	23		-63	288	19		-63	288	19		-63	288	19	110						
100	529	-55	268	27	527	-62	270	31	534	-68	253	21	526	-71	256	17	533	-60	298	13	532	-61	300	16	531	-61	300	16	533	-61	305	13	535	-61	305	16	535	-61	305	16	535	-61	305	16	100						
90		-56	273	28		-63	259	18		-58	257	23		-71	272	24		-59	261	18		-56	305	13		-61	300	16		-63	304	14		-63	304	14		-63	304	14		-63	304	14	90						
80		-58	257	29		-61	267	31		-57	257	22		-71	254	22		-60	263	21		-61	307	10		-61	307	10		-61	304	08		-61	285	12		-61	285	12		-61	285	12	80						
70	(24)	-79				-56	253	25		-57	262	16		-70	252	18		-56	261	14		-56	315	06		-56	315	06		-56	315	06		-56	315	06		-56	315	06		-56	315	06		-56	315	06	70		
60						-58	264	27		-58	264	27																																			60				
				Inversion 880ms 24°-838ms 13° Isothermal 688-667ms 14°								Inversion 827ms 26°-800ms 25° Isothermal 713-678ms 19° 650-623ms 13° 466-450ms 14°								Inversion 840ms 30°-827ms 33° Isothermal 616-593ms 09°								Inversion 770ms 24°-750ms 26° Isothermal 568-538ms 46° 472-450ms 18°								Inversion 743ms 19°-723ms 21°								Inversion 648ms 18°-620ms 20°							
Tropopause				I 266ms -70° 32100'				I 215ms -78° 36900'				I 225ms -66° 36000'				I 218ms -79° 36500'				I 238ms -61° 34800'				I 257ms -48° 25700'				I 242ms -68° 34300'				I 202ms -78° 38700'				I 200ms -78° 38800'				Tropopause											
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION														
Pressure	Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time	21hrs			Time																		
	M.S.L.	1015.6			M.S.L.	1011.6			M.S.L.	1014.0			M.S.L.	1014.0			M.S.L.	1016.7			M.S.L.	1016.7			M.S.L.	1016.9			M.S.L.	1017.0			M.S.L.																		
	Surf	1005.4			Surf	1003.6			Surf	1005.3			Surf	1005.3			Surf	1012.2			Surf	1000.6			Surf	1000.6			Surf	1006.4			Surf																		
	Freezing	935			Freezing	850			Freezing	828			Freezing	828			Freezing	840			Freezing	830			Freezing	740			Freezing	740			Freezing																		
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind																															



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

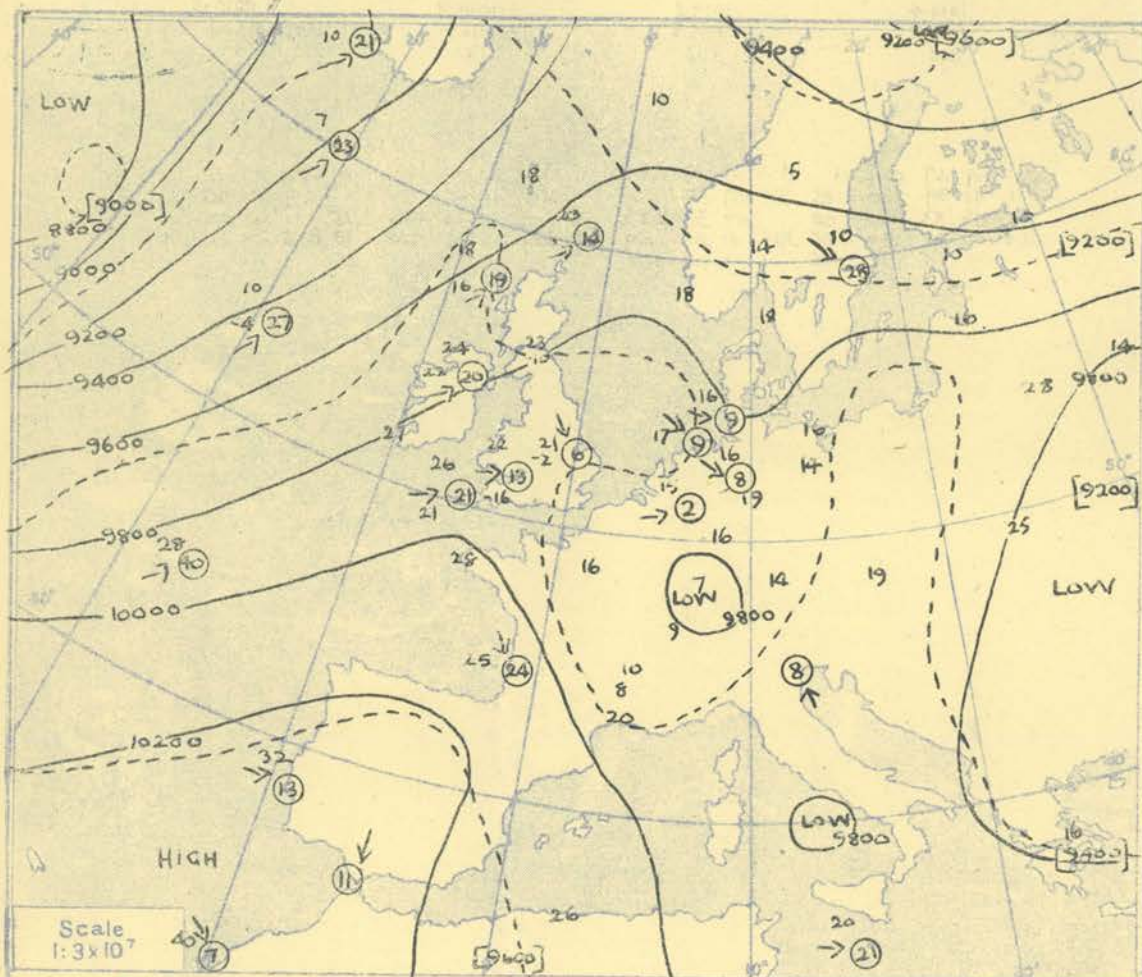
STATION	LERWICK										STORNOWAY										LEUCHARS										ALDERGROVE										LIVERPOOL										DOWNHAM MARKET										LARKHILL										CAMBORNE										VALENTIA										STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Pressure Time M.S.L. Surf Freezing	03h 1016.4 1006.2 86.9										03h 1010.3 1008.4 84.8										03h 1015.9 1015.0 85.0										03h 1013.5 1004.8 75.2																				03h 1019.4 1014.7 82.8										03h 1019.3 1002.8 800										03h 1016.9 1006.3 770										03h 1010.5 1004.5 755.720																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	G.M.T. mb mb mb										G.M.T. mb mb mb										G.M.T. mb mb mb										G.M.T. mb mb mb																				G.M.T. mb mb mb										G.M.T. mb mb mb										G.M.T. mb mb mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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 1000 950 900 850 800	02.7 4.3 34 32.2 30 62.9	38 38 28 35 24 23	32 32 28 28 24 15	169 190 195 210 227	10 11 11 11 13	00.5 2.8 41 31.1 32 62.1	46 45 41 37 32 30	45 44 40 36 31 28	180 197 207 214 237	12 35 35 29 25	00.2 4.1 40 32.3 32 63.3	36 40 40 36 32 29	36 40 40 32 23 14			02.3 3.6 42 34.9 37 62.2	45 42 38 41 30 37	44 38 34 30 201 33	180 193 197 201 205	15 24 26 23 19			01.2 5.1 46 33.5 35 64.6	39 41 33 40 26 29	39 39 280 280 280 276	CALM 03 05 05 05	04.4 5.1 47 33.6 35 64.7	38 39 37 31 25 32	37 37 222 209 212 229	CALM 05 07 07 06	02.9 4.5 47 33.0 41 64.6	50 49 48 45 39 37	49 48 186 205 227 252	180 186 205 212 227 252	10 25 18 14 13	00.3 2.9 31.5 41 63.1	52 51 48 45 41 36	51 50 47 44 40 35	Surf 1000 950 900 850 800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
750 700 650 600 550	23 97.2 17 136 02	09 20 05 12 25	228 06 251 18 227	14 24.2 16 244 20	14 16 14 136 00	96.5 24.2 251 08 04 208	22 19 18 04 04	235 215 199 202 208	25 19 24 33 39	27 23 17 11 02	04 10 11 08 10			98.1 24 21 137 04	29 22 16 04 05	210 203 198 194 204	17 20 20 23 33			99.1 15 15 138 02	12 02 09 15 20	276 327 340 340 349	05 06 11 18 24	27 99.3 15 138 04	02 22 27 12 35	02 267 266 327 334	10 09 03 13 21	32 26 21 16 09	32 252 257 273 288	11 21 12 21 19	31 27 21 15 07	30 26 20 13 07	750 700 650 600 550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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300 250 200 170	298 381 64	60 81 64		264 254 253 252	22 27 26 30	295 379 66	63 75 79 66	245 241 217 225	78 67 51 33							299 384 70	57 74 78 70	251 258 246	63 72 31			300 384 63	55 72 71 63	328 326 326 316	63 66 31 20	300 383 73	56 74 87 73	321 314 314 312	67 60 45 32	302 386 75	55 71 85 75	283 284 281 276	50 66 52 26	301 66 386 65	51 68 74 65	300 250 200 170																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion
921 mb 30° - 900 mb 35°	832 mb 30° - 816 mb 31°	Surface 36° - 996 mb 41°	1005 mb 45° - 981 mb 46°	1015 mb 39° - 962 mb 43°	1003 mb 38° - 980 mb 49°	965 mb 46° - 950 mb 47°	750 mb 31° - 727 mb 33°
790 " 22° - 767 " 24°			828 " 34° - 800 " 37°	616 " 11° - 600 " 12°			
			245 " 75° - 218 " 77°				
Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal
1006 - 989 mb 38°	967 - 932 mb 41°	996 - 970 mb 41°	955 - 910 mb 42°	766 - 726 mb 24°			
738 - 710 " 21°		750 - 733 " 27°	682 - 650 " 21°	490 - 478 " 10°			
Tropopause	I 203 mb - 83°	I 206 mb - 86°	NR. 335 mb - NR	I 188 mb - 81°	I 225 mb - 80°	I 203 mb - 90°	I 206 mb - 87°
	27,700'	37,300'	27,400'	39,600'	38,000'	38,100'	38,000'
							I 223 mb - 79°
							21,300'
							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.

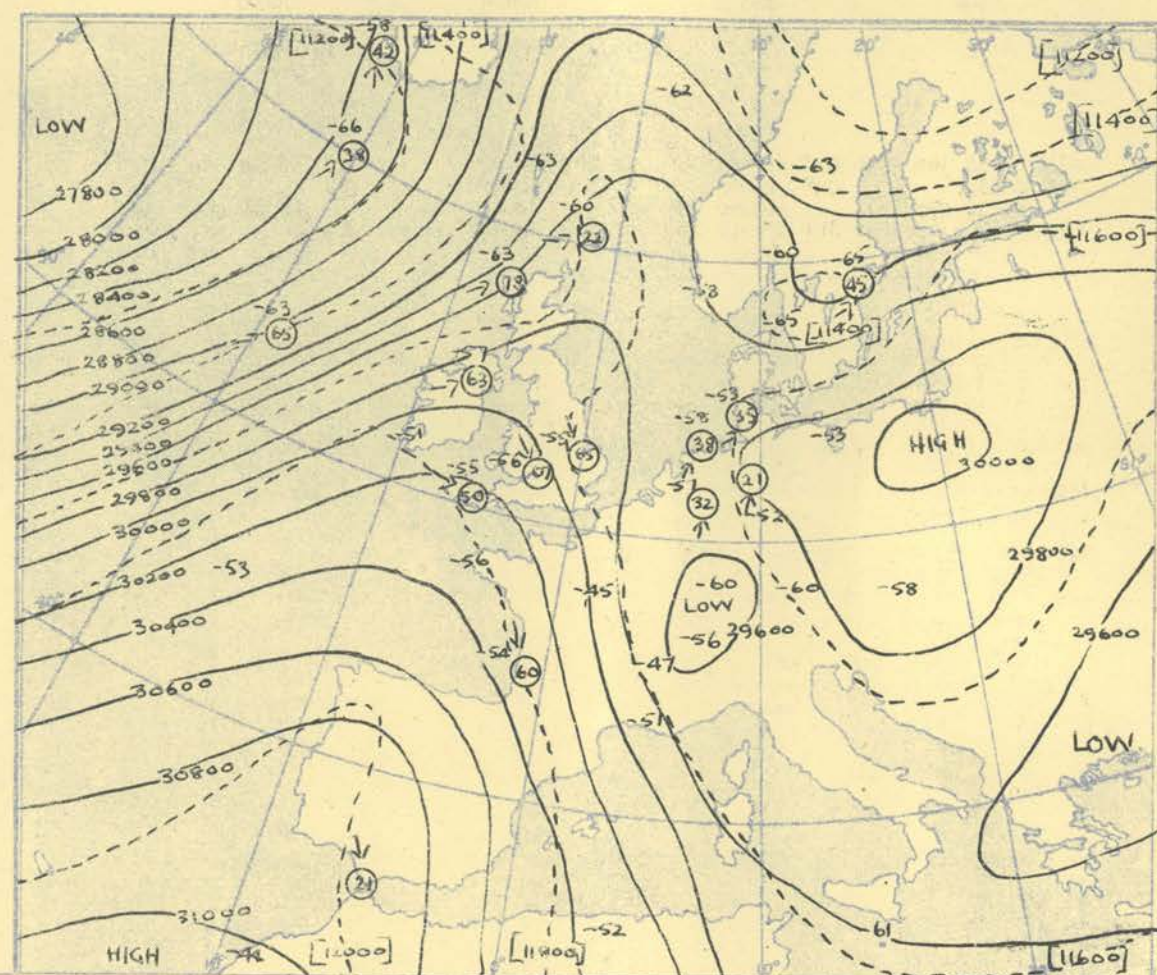


Scale  
1:3x10<sup>7</sup>

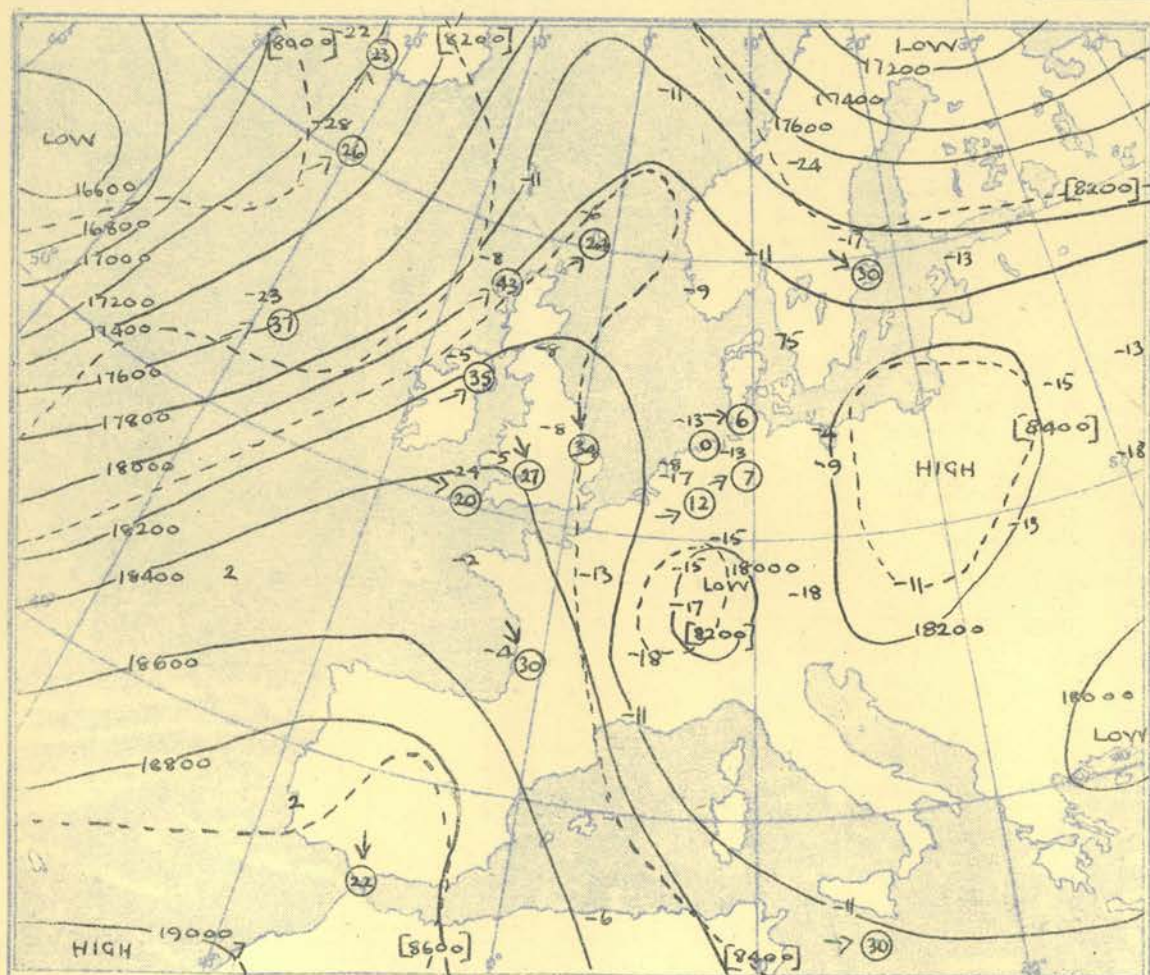
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

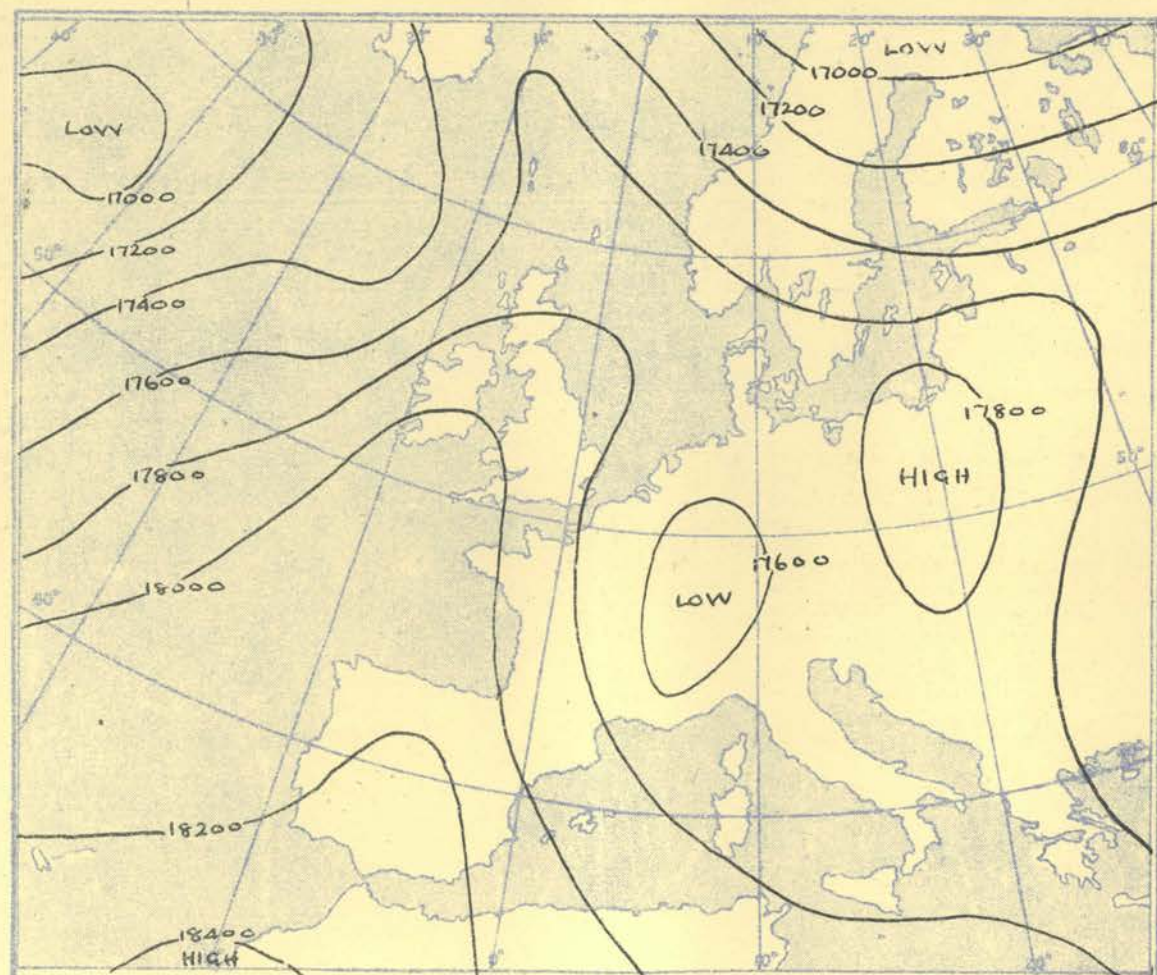
100 80 60 40 20 10 knots



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.



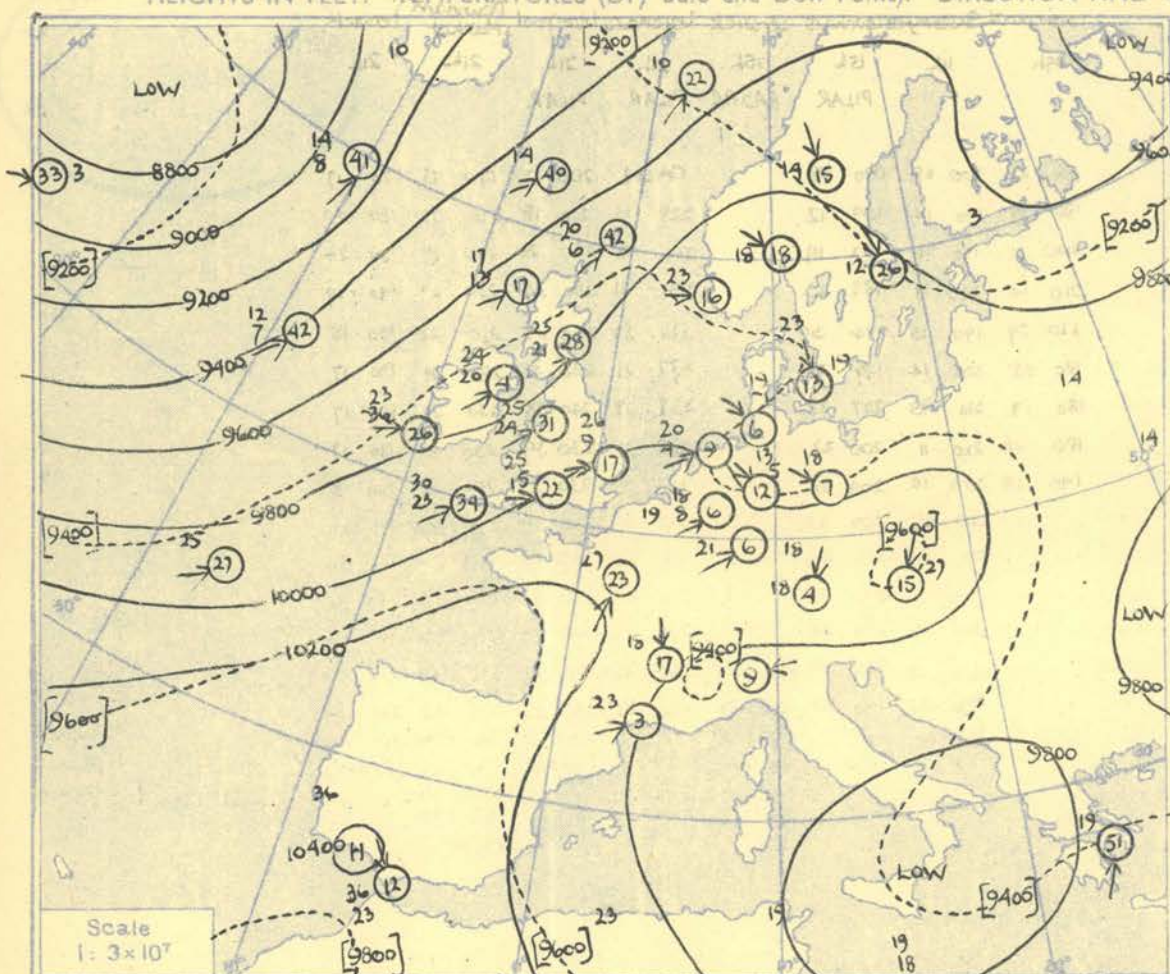
## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS

[illegible]

## NEPHOSCOPE OBSERVATIONS

Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER					Ship							
Lat/Long	60°01'N 19°8'W				60°11'N 19°8'W				60°14'N 19°8'W				60°14'N 19°8'W				53°8'N 18°9'W				53°8'N 18°6'W				54°0'N 18°6'W				54°0'N 18°9'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.	1000		mb	999	mb		994	mb		992	mb		1005	mb		1003	mb		1002	mb		1003	mb			mb		M.S.L.												
	Surf	1000		mb	999	mb		994	mb		992	mb		1005	mb		1003	mb		1002	mb		1003	mb			mb		Surf												
	Freezing	870		mb	880	mb		850	mb		850	mb		880	mb		840	mb		860	mb		880	mb			mb		Freezing												
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure												
	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb												
Surf	-01	46	43	200	12	-04	47	43	155	22	-16	48	45	140	25	-22	47	45	185	22	1-3	49	42	200	23	08	51	45	185	25	Surf										
1000																														1000											
950		40	30	193	16		40	39	165	24		43	38	152	41		43	43	187	30		42	36	190	27		44	41	185	33	950										
900	28-1	33	21	201	21	278	34	25	170	29	26-7	37	30	163	46	261	37	33	193	35	29-6	34	28	192	29	292	37	32	187	37	900										
850		27	11	210	22		30	15	176	33		32	25	171	49		32	22	193	36		29	19	193	25		33	20	188	39	850										
800	58-6	21	02	215	20	585	24	07	186	30	57-7	26	19	176	47	56-9	26	15	195	39	60-3	24	07	198	22	60-2	29	05	194	41	800										
750		14	-10	217	21		17	02	190	30		21	15	176	43		17	-01	202	24		24	02	204	26		19	9	209	42	750										
	700	92-4	07	-12	217	23	925	11	-01	189	32	91-9	14	8	183	41	91-0	13	-4	190	42	94-2	10	-04	212	27	94-6	18	00	208	39	700									
	650		-01	-20	217	22		05	-05	201	33		8	-3	187	43		5	-10	188	52		01	-11	233	27		10	-14	202	40	650									
	600	130	-10	-30	217	23	131	-05	-12	213	30	130	0	-14	193	45	129	-4	-10	185	58	132	-05	-20	233	27	133	02	-29	200	43	600									
550		-20	-40	216	25		-15	-22	198	33		-8	-20	196	53		-13	-16	182	64		-13	-29	234	36		-07	-29	205	40	550										
500		173	-28	-49	213	26	174	-26	-31	198	38	174	-18	-27	195	60	173	-22	-29	185	72	176	-23	-42	239	37	177	-18	-48	210	48	500									
	450		-39	-59	212	30		-38	-44	202	50		-28	-39	190	63		-32	-43	180	70		-31	-50	242	48		-28	-56	214	48	450									
	400	223	-30		212	31	224	-50		217	47	226	-41		187	63	223	-43		180	72	227	-40	-60	235	51	229	-39	-59	217	51	400									
	350		-60		209	34		-60		230	51		-51		195	66		-54		178	67		-50		231	60		-50		219	55	350									
300		284	-66		209	38	285	-63		235	53	288	-63		199	66	286	-60		165	66	289	-63		226	65	291	-65		219	52	300									
	250		-63		200	23		-66		216	50		-70		196	44		-61		174	54		-72		226	60		-72		206	58	250									
	200	370	-61		188	26	371	-59		207	45	373	-65		195	50	372	-56		183	60	374	-60		226	51	376	-62		212	54	200									
	170		-63		201	46		-60		207	44		-58		201	46		-56		188	42		-61		226	57		-58		206	63	170									
150		-62		199	45		-61		207	40		-58		211	51		-60		206	47		-61		226	49		-56		206	65		-67		205	70	150					
	130		-61		205	42		-56		209	43		-52		207	39		-52		218	51		-59		226	46		-56		206	69		-61		205	74	130				
	110	(104b)	-57		187	37		-52		197	39		-48		197	48	521	-55		195	48		-55		211	63	525	-56		211	63	521	-54		205	51	110				
	100		-52					-53		198	52		-55		198	52		-55		188	60		-57		211	62	(360)	-57		208	46		-58		205	74	100				
	90							-51		191	48		-55		191	48		-55		188	57		-59		206	39		-57		206	27		-57		206	27	90				
	80							-52		191	52		-59		191	52		-59		188	46		-59		206	27		-59		206	27		-59		206	27	80				
	70							-53		191	46		-51		191	48		-49					-51		191	48		-51		206	27		-51		206	27	70				
	60							-54		191	39		-49		191	39		-49					-49		191	39		-49		206	27		-49		206	27	60				
	Tropopause	I 272 mb -19° 30600'					I 315 mb -65° 27500'					I 283 mb -72° 35200'					I 325 mb -61° 26800'					I 262 mb -74° 31900'					II 278 mb -72° 30800'					II 279 mb -69° 30500'					I 250 mb -67° 32800'				

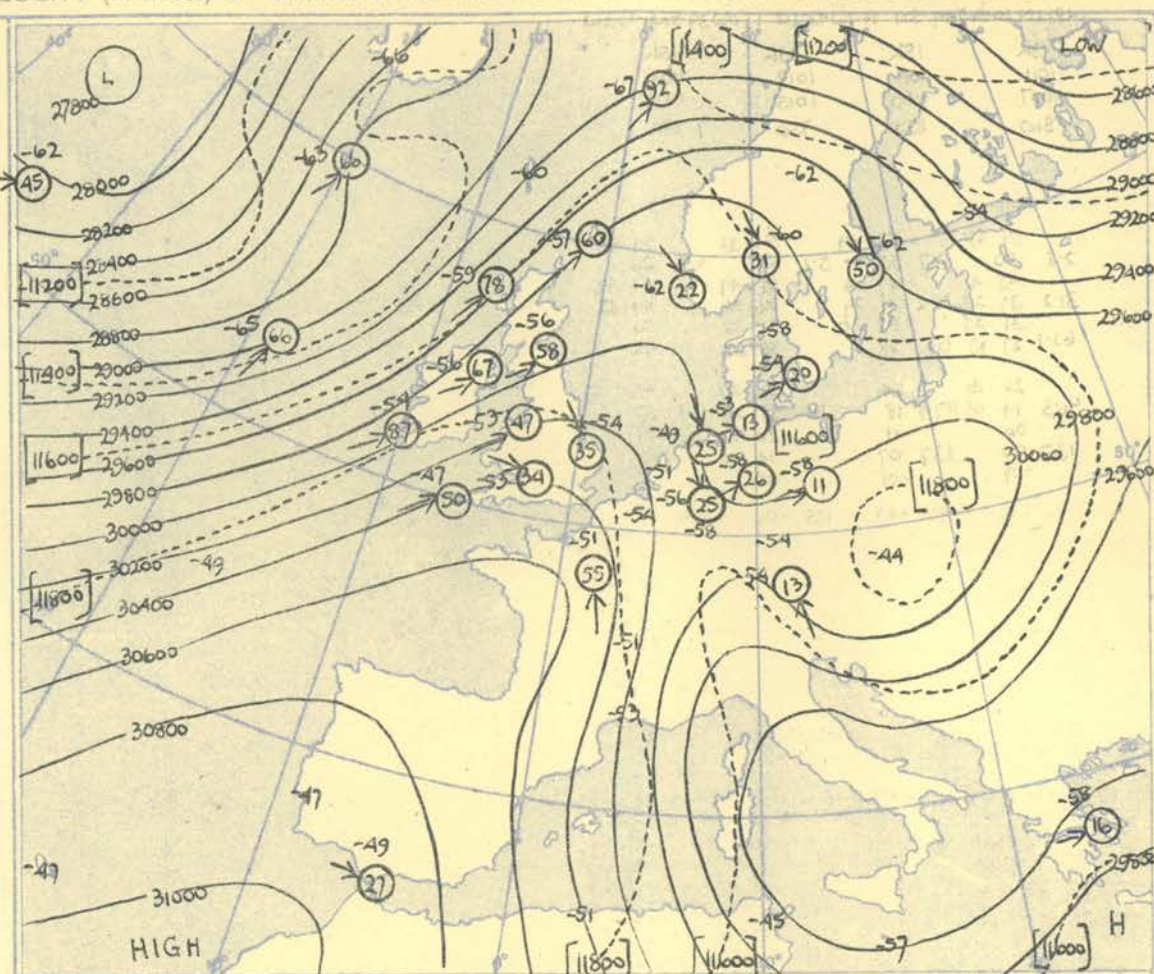




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

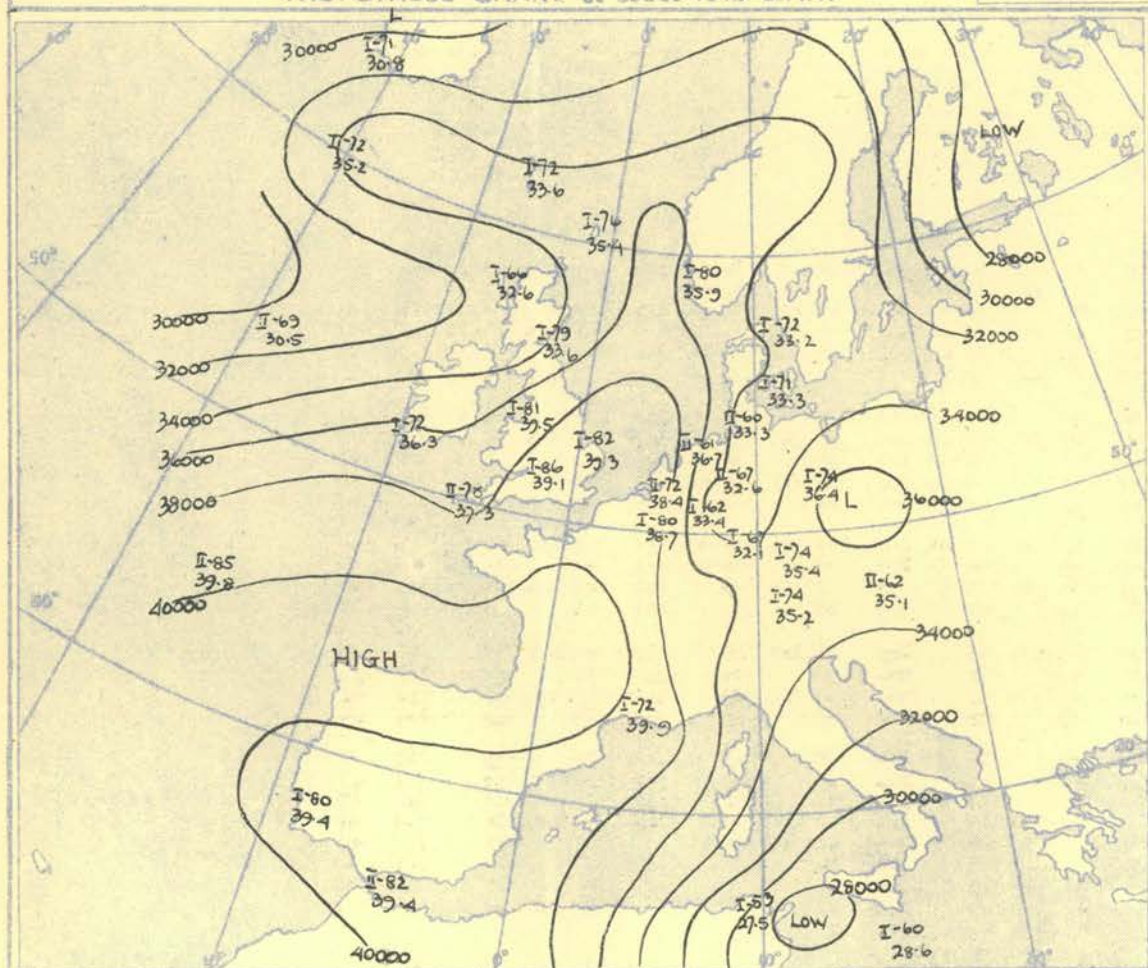
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

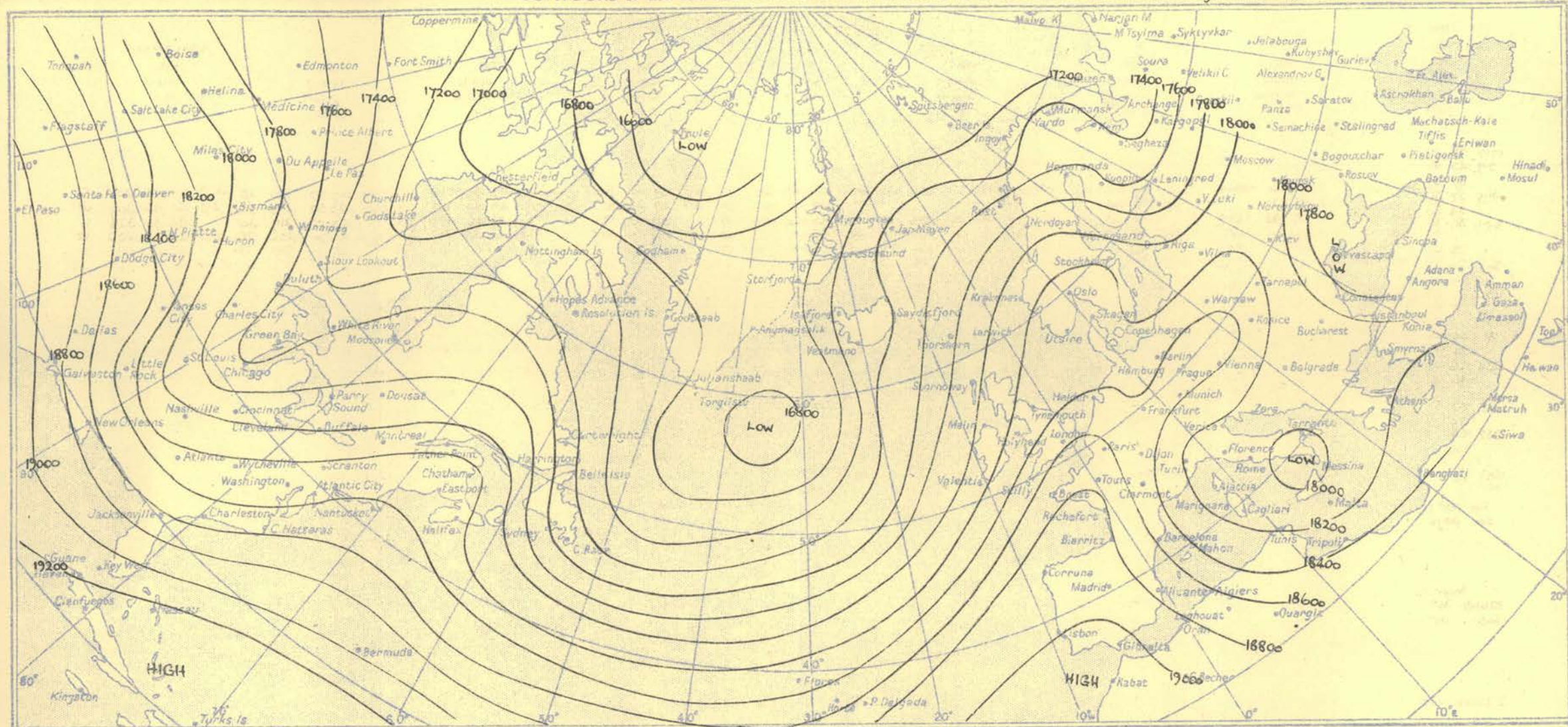
### NOTES ON THE AEROLOGICAL SITUATION.

The large warm ridge has continued to move east at about twenty miles per. hour, followed by a rather broad cold trough occupying most of the West Atlantic. An intense thermal gradient has formed to the north of a low just off the east coast of the United States of America. A relatively cold trough has appeared in the Central Mediterranean.

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For special arrangements for supply to schools and colleges, see Form 2452.

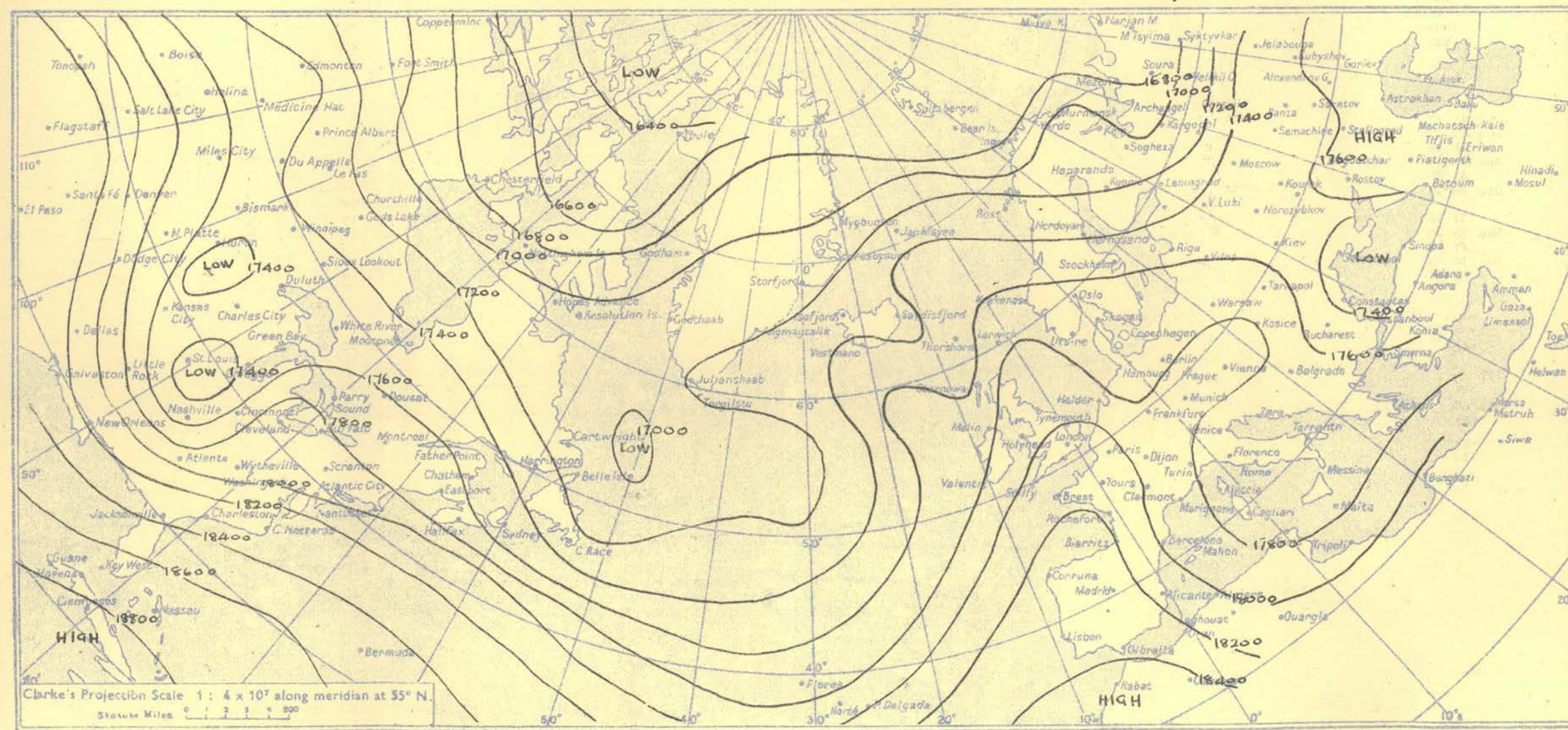
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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

Wednesday 22<sup>nd</sup> March, 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	ISH.		G.M.T.		ISH.		G.M.T.		ISH.		G.M.T.		ISH.		G.M.T.		ISH.		G.M.T.		ISH.		G.M.T.		ISH.		G.M.T.		ISH.		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							
		1011.7	1001.6	827		1011.0	1009.0	881		1011.8	1011.0	800		1009.7	1001.1	772		1013.7	1011.7	770		1017.7	1014.2	765		1018.6	1002.5	760		1016.7	1006.1	722		1011.8	1010	770		

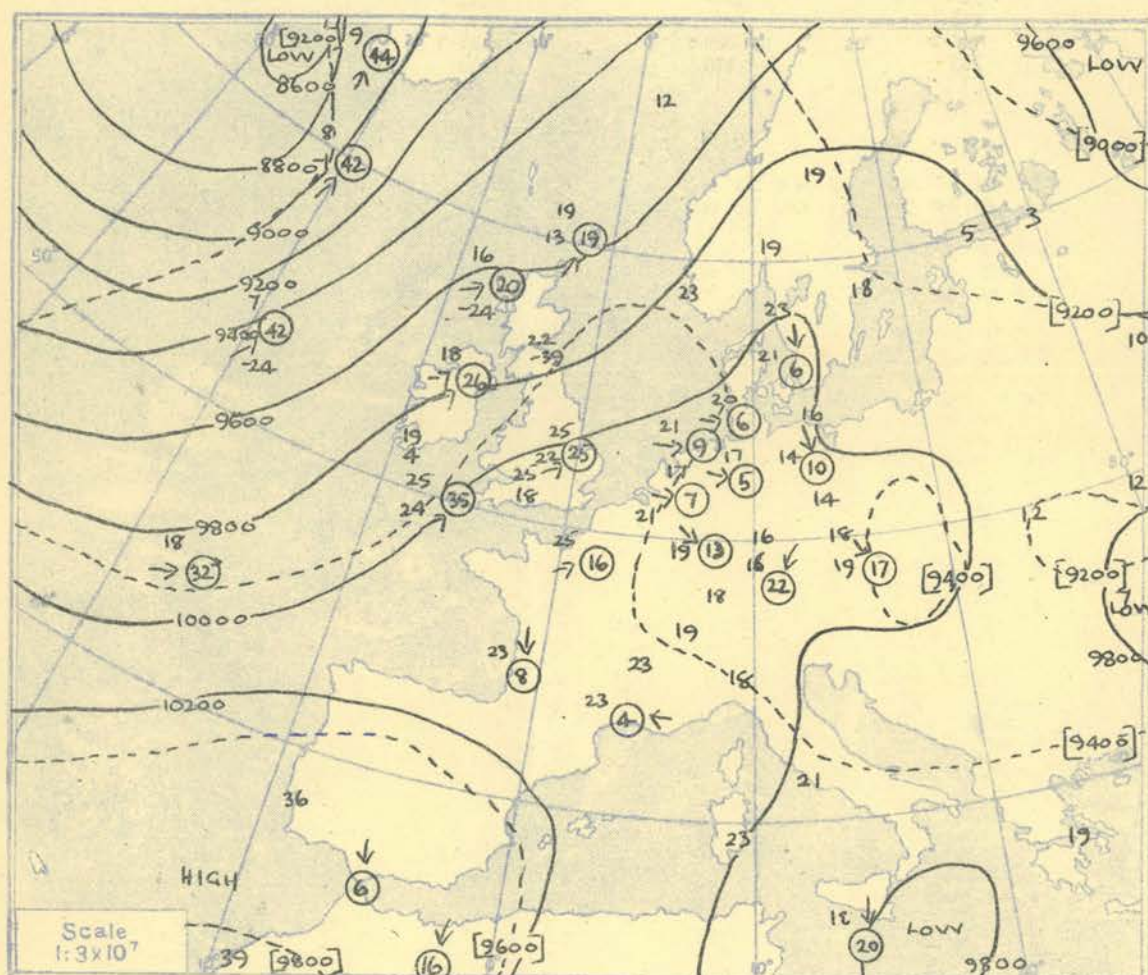


METEOROLOGICA  
VALENTIA  
03h  
31 May 1950  
1015  
840  
OFFICE

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Pressure mb	Time M.S.L. Surf Freezing	03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		03h		G.M.T.		Pressure mb					
		1008.0	mb	mb	mb	1011.9	mb	mb	mb	1012.4	mb	mb	mb	1015.9	mb	mb	mb	1018.7	mb	mb	mb	1018.7	mb	mb	mb	1018.5	mb	mb	mb	1018.7	mb	mb	mb						
		998.2	mb	mb	mb	1010.0	mb	mb	mb	1011.6	mb	mb	mb	1007.4	mb	mb	mb	1018.0	mb	mb	mb	1002.6	mb	mb	mb	1001.7	mb	mb	mb	1015	mb	mb	mb						
Surf	02.7	43	43	157	06	00.5	39	37	CALM	00.2	46	44		02.3	37	37	230	08														Surf							
1000	2.2					3.2	42	39		3.3	46	43		4.2	38	38	238	06														1000							
950		40	39	173	06	4.2	42	36	218	16	43	37		4.1	41	41	246	08														950							
900	30.4	34	32	177	06	31.4	36	30	227	14	31.6	36	33	32.3	36	36	260	11														900							
850		31	28	194	07	31	19	245	14	31	36	23		33	14	267	14															850							
800	61.3	28	24	207	10	62.4	29	02	255	16	62.7	29	10	63.3	30	12	255	16														800							
750		24	19	216	15	24	25	261	16	25	25	08		25	01	244	23															750							
700	96.8	19	13	214	19	96.7	16	24	256	20	97.2	22	39	97.7	18	07	246	26														700							
650		14	08	211	23	11	28	254	25	17	48			10	15	245	29															650							
600	135	08	00	207	27	135	06	39	250	28	136	10	48	136	05	24	238	31														600							
550		00	09	209	29	02	02	240	33	02	51			00	00	33	227	25														550							
500	179	10	20	216	27	180	11	53	236	40	181	07	50	181	07	47	224	41														500							
450		21	33	216	35	21	54	230	47	18	58			17	52	225	45															450							
400	232	33	47	213	32	232	33	60	230	46	234																												



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.

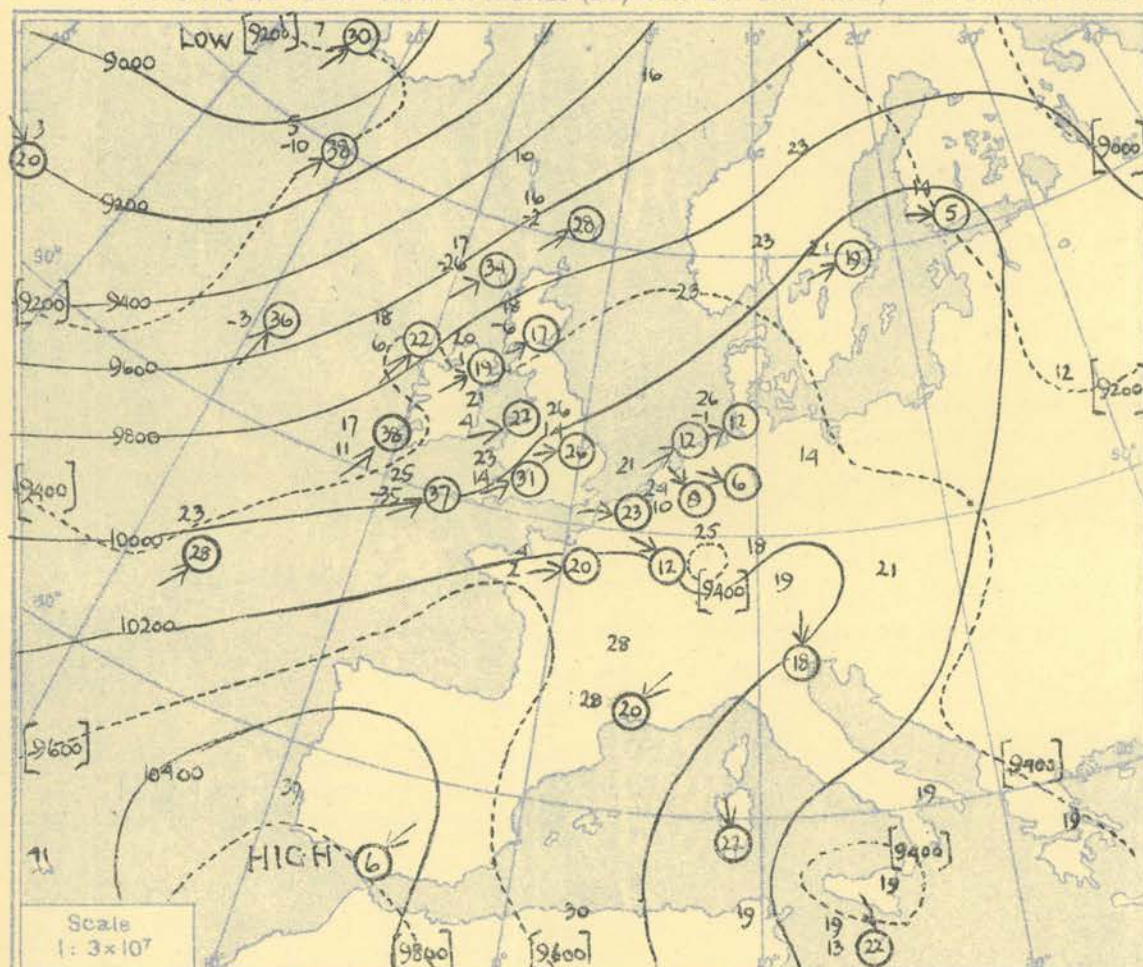
NEPHOSCOPE OBSERVATIONS									
Place	Renfrew	Middleton	Middleton						Place
Time Type	12h Ci	12h Ci	15h Ac						Time Type
Dir. Vel.	220 60	230 50	220 36						Dir. Vel.

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

Ship	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER WATCHER	Ship		
Lat/Long	59-9N 19-3W	59-9N 19-7W	60-1 N 19-6W	60-1 N 19-6W	53-6 N 18-9W	53-6 N 18-9W	54-0 N 18-6W	54-0 N 18-9W	56-6 N 10-9W		Lat/Long		
Time	09h	09h	15h	21h	09h	09h	15h	21h	21h		Time		
M.S.L.	993	993	995	998	1006	1007	1009	1012	1012		M.S.L.		
Surf	993	993	995	998	1006	1007	1009	1012	1012		Surf		
Freezing	900	880	900	910	905	890	890	880	860		Freezing		
Pressure	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	mb
Surf	1000	45	39	190	20	44	40	210	28	44	40	210	28
950	30	34	24	25	38	36	208	33	39	27	209	24	37
900	262	32	30	201	33	34	206	34	268	32	21	203	31
850	24	20	202	37	28	28	201	31	25	15	216	32	31
800	547	22	13	202	36	568	21	21	197	20	574	19	9
750	15	6	202	40	16	15	195	28	13	-1	215	34	13
700	305	8	-1	202	42	306	9	4	200	37	910	5	10
650	0	-8	202	45	0	-9	202	44	-3	-13	210	40	40
600	128	-8	-17	202	52	128	-7	-15	202	42	129	-10	24
550	17	-25	202	52	-16	-23	202	39	-20	-33	205	43	38
500	171	-29	-36	202	46	172	-26	-34	202	42	171	-29	-42
450	221	-40	-46	202	46	-36	-43	202	55	-38	-51	210	55
400	65	-52	201	42	232	-47	206	57	221	-49	210	68	69
350	282	-61	201	46	284	-61	222	51	283	-69	210	68	283
300	368	-59	201	39	371	-54	207	40	368	-61	210	46	371
250	170	-53	201	39	-54	207	47	-57	210	52	1740	-63	-60
200	150	61	201	37	-49	207	50	-58	210	53	Inversion		
150	130	63	201	44	-52	203	47	-59	210	43	435	16	-440
110	100	64	201	44	-52	207	51	-58	210	46	425	16	-430
90	80	64	201	44	-52	207	51	-58	210	59	519	-57	516
70	60	64	201	44	-52	207	51	-58	210	55	519	-57	516
50	40	64	201	44	-52	207	51	-58	210	44	519	-57	516
30	20	64	201	44	-52	207	51	-58	210	35	519	-57	516
10	0	64	201	44	-52	207	51	-58	210	26	519	-57	516
0	0	64	201	44	-52	207	51	-58	210	17	519	-57	516
0	0	64	201	44	-52	207	51	-58	210	8	519	-57	516
0	0	64	201	44	-52	207	51	-58	210	0	519	-57	516
0	0	64	201	44	-52	207	51	-58	210	0	519	-57	516
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0	0	64	201	44	-52	207	51						



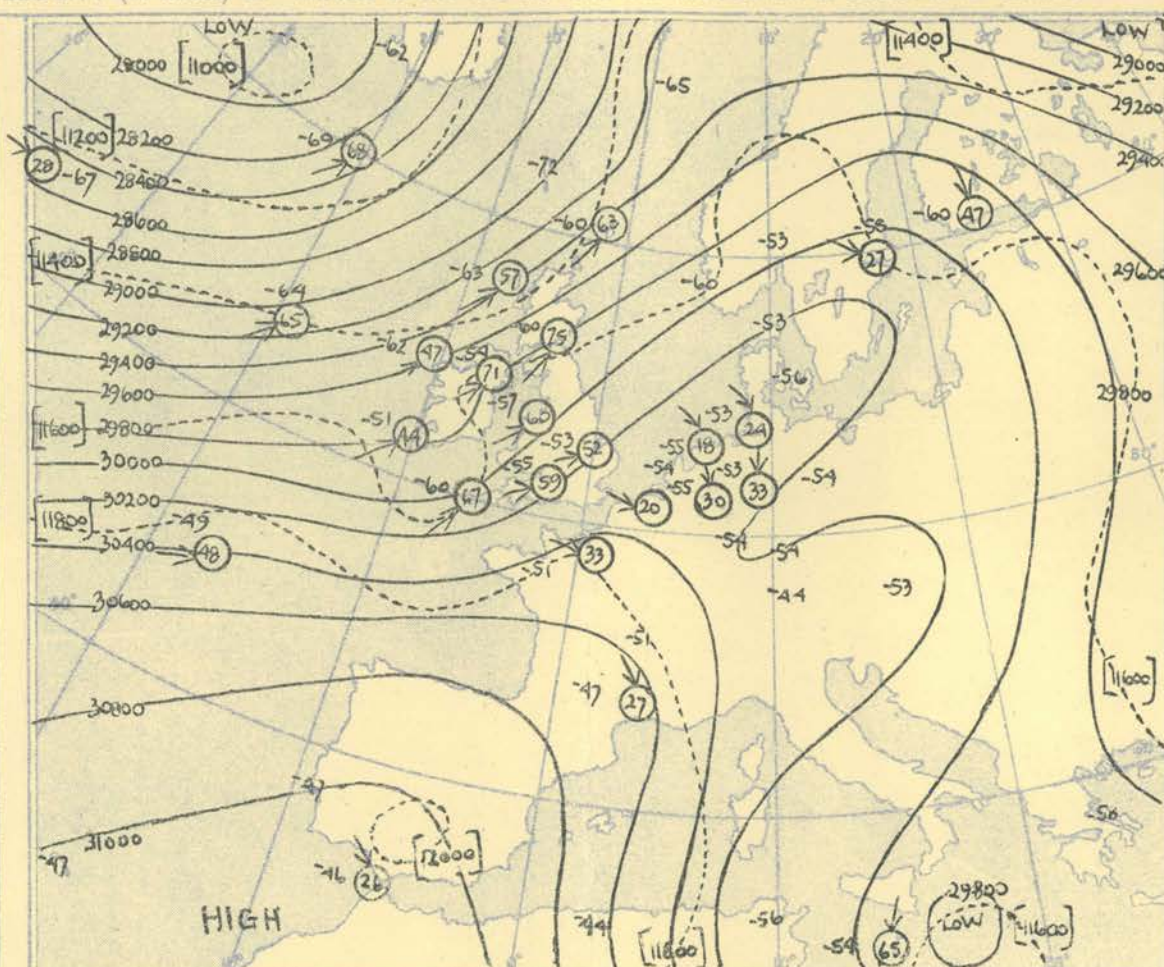
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

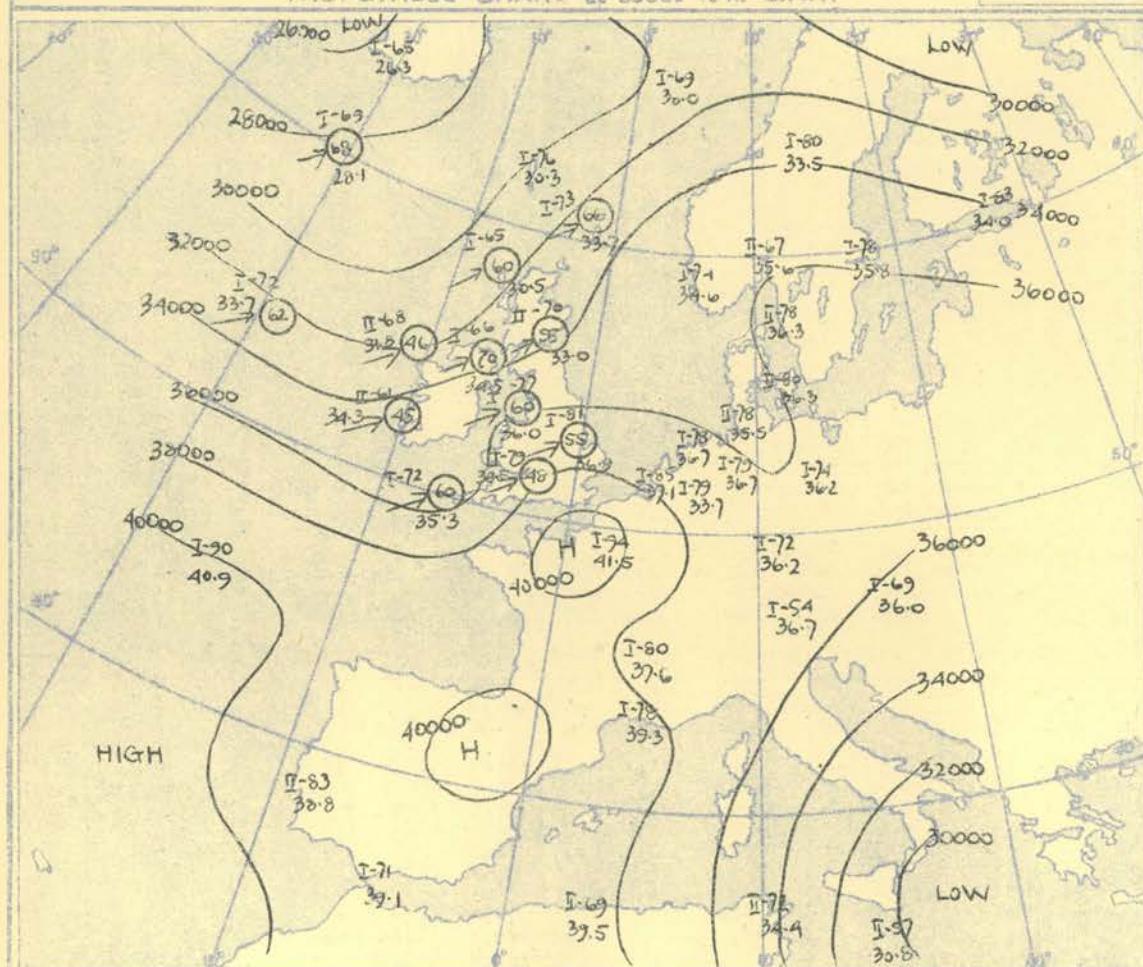
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

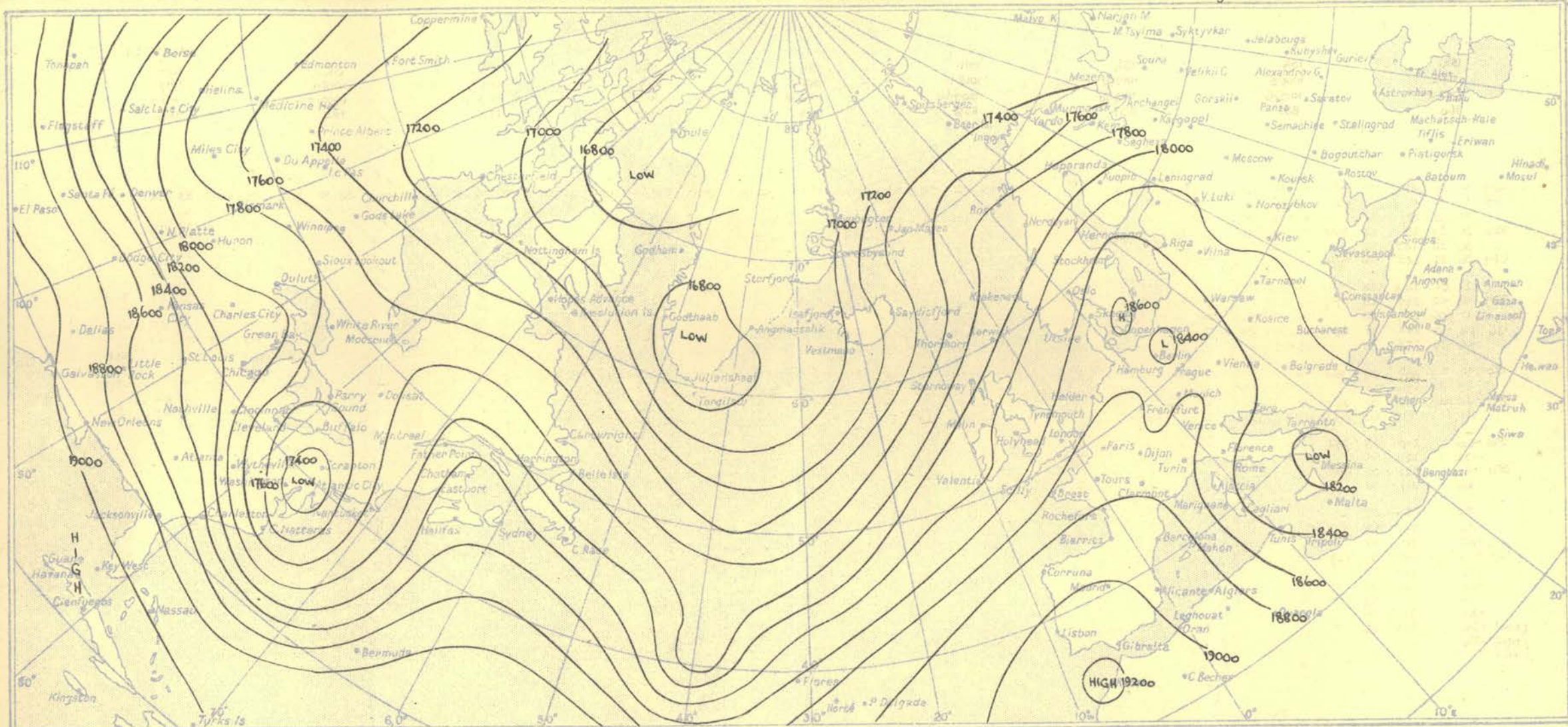
### NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge has remained almost stationary over France and Spain and extended over Scandinavia. The cold trough in West Atlantic has been maintained by a north-northwest air stream through Davis Straits and the strong thermal difference has moved steadily eastwards. The relatively cold trough persists in the east and central Mediterranean.

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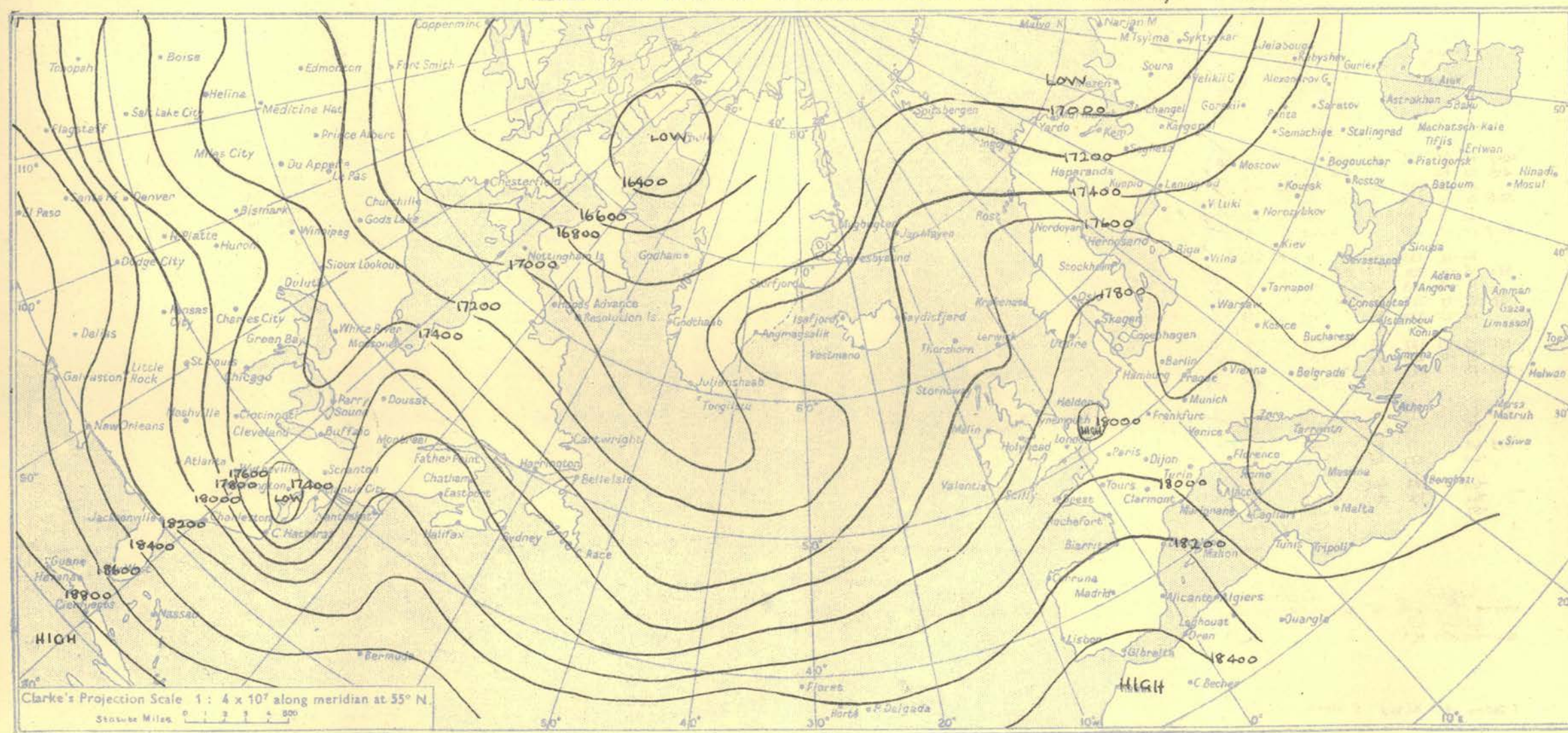
Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
Nelson K. Johnson, K.C.B., D.Sc., Director.





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

Thursday 23rd March, 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 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.		Time M.S.L.											
			1014.2	mb	1014.5	mb		1018.0	mb		1018.1	mb		1018.8	mb		1019.8	mb		1019.3	mb		1019.3	mb		1019.3	mb		1019.3	mb		1019.3	mb	1019.3	mb	1019.3	mb	1019.3	mb	1019.3	mb	
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb									
Surf	02.7	43	40	225	20	00.5	54	46	180	15	00.2	54	44	02.3	54	46	200	05	00.6	57	41	Calm	01.2	57	54	215	05	04.4	53	52	210	15	02.9	53	51	203	12	00.3	55	54	Surf	
1000	3.8	48	40			3.9	52	43	183	14	4.8	51	41	5.0	52	44	203	08	5.1	54	39	020	06	5.4	55	53	239	12	5.4	53	52		4.9	52	51		4.6	49	47	1000		
950		41	35	237	17		46	35	225	20		44	37		44	39	206	07		46	36	051	09		50	49	239	14		47	47	212	19		48	48		44	38	950		
900	32.0	36	29	242	24	32.4	39	32	234	22	33.2	37	31	33.4	39	30	208	08	33.6	40	34	205	06	34.2	45	44	239	16	34.0	44	44	220	21	33.5	45	45	230	29	33.0	38	34	900
850		30	23	242	28		32	24	223	26		31	26		34	21	215	12		40	30	228	08		41	38	238	20		40	38	219	23		41	35	229	30		38	30	850
800	62.7	26	13	242	26	63.4	27	12	223	29	64.2	30	19	64.5	31	12	217	18	65.1	36	14	226	14	65.7	36	32	238	23	65.5	35	32	228	26	65.0	34	30	225	34	64.0	28	25	800
750		22	01	244	25		22	-14	223	35		25	04		26	07	228	16		29	08	225	20		31	27	245	24		29	25	239	28		27	16	222	-36		22	18	750
700	96.9	16	-02	247	28	97.7	17	-26	222	34	98.7	18	-06	99.0	20	01	234	19	100	21	04	228	22	101	26	14	248	26	100	23	14	245	31	99.8	25	-35	223	37	98.3	17	11	700
650		11	-06	249	33		10	-17	227	36		14	-19		13	-06	234	21		13	02	224	21		19	12	248	28		17	10	237	32		21	-40	222	37		11	03	650
600	136	04	-15	244	28	136	01	-17	218	39	138	06	-30	139	08	-10	228	29	139	08	-10	228	29	140	14	-08	250	29	140	10	06	226	33	139	11	-47	225	37	137	04	-03	600
550		-06	-24	224	31		-08	-19	214	42		-04	-33		-02	-14	229	15		03	-21	228	39		06	-11	248	32		02	-03	222	36		01	-54	220	43		-03	-10	550
500	180	-16	-33	212	39	180	-18	-26	222	43	182	-12	-31	183	-11	-23	225	18	184	-09	-23	226	43	185	-04	-14	241	32	185	-07	-15	230	33	184	-08	-50	219	48	181	-11	-20	500
450		-23	-37	215	48		-30	-37	220	49		-22	-37		-19	-27	223	34		-20	-28	226	48		-14	-21	229	40		-17	-25	224	37		-20	-49	211	55		-22	-30	450
400	232	-35	-47	211	57	231	-42		230	58	234	-32	-44	235	-29	-37	222	48	236	-30	-37	223	53	238	-27	-34	229	41	237	-30	-42	230	42	236	-31	-48	214	59	233	-33	-40	400
350		-48		210	62		-53		230	64		-45			-40	-48	219	60		-43		221	54		-40	-46	232	43		-43		229	48		-43		211	61		-45		350
300	295	-60		210	63	294	-63		225	57	297	-60		299	-54		214	71	300	-57		222	60	303	-53		226	52	301	-55		230	59	300	-60		212	67	297	-51		300
250		-72		221	66		-63		219	63		-60			-64		220	70		-72		222	65		-69		230	62		-70		224	61		-69		220	65		-60		250
200	380	-62		221	55	380	-61		224	54	382	-64		386	-56		220	54	384	-72		228	53	387	-69		234	50	385	-73		230	48	385	-63		223	57	384	-62		200
170		-60		217	54		-59		223	54		-62			-51		224	49		-65		229	47		-61		232	40		-67		230	46		-60		227	50		-62		170
150		-58		220	54		-57		218	56		-59			-51		230	51		-64		226	51		-61		235	37		-64		231	44		-59		235	45		-59		150
130		-54		215	53		-54		215	48		-56			-51		224	51		-69		222	45		-60		227	30		-61		232	40		-57		231	42		-58		130
110		-53		216	51		-54		217	48		-53			-50		221	44		-60		224	41		-57		224	36		-62		229	30		-55		229	38		-59		110
90	529	-56		226	52	529	-54		223	48	531	-54		537	-49		221	43	531	-57		230	36	535	-59		236	19	531	-60		228	30	533	-58		228	35	532	-59		90
80		-56		230	47		-56		223	48		-56			-48		221	44		-59		221	45		-61		233	22		-63		228	29		-62		221	29		-58		80
70		-55		227	46		-56		220	43		-59			-46		220	43		-61		220	43		-61		234	17		-63		227	21		-62		223	23		-56		70
60		-57		220	43		-56		222	41		-59			-49		220	34		-65		220	30		-65		230	11		-65		227	21		-61		223	23		-55		60
	(400)	-56		229	36		-56								-50		220	40		-52					-52		208	16														
	(400)	-54													-49		220	30																								

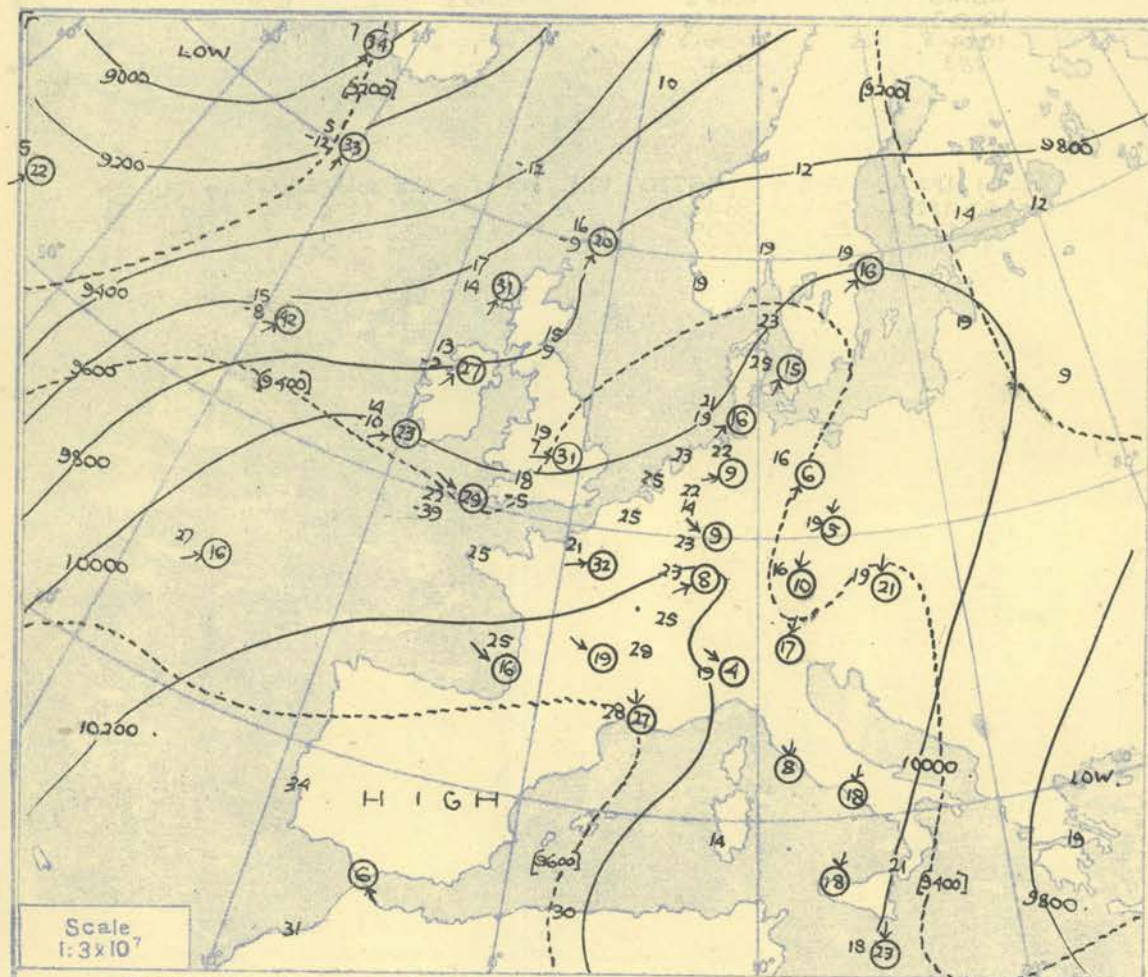


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Pressure M.S.L. Surf Freezing	03hrs 1017.1 1006.8 851				G.M.T. mb mb mb				03hrs 1013.8 1011.6 850				G.M.T. mb mb mb				03hrs 1017.9 1017.0 860				G.M.T. mb mb mb				03hrs 1019.0 1010.2 860				G.M.T. mb mb mb				03hrs 1023.3 1014.8 788				G.M.T. mb mb mb				03hrs 1022.6 1006.3 804				G.M.T. mb mb mb				03hrs 1025.3 1014.6 795				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb 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800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb mb				03hrs 1022.9 1022 800				G.M.T. mb mb			



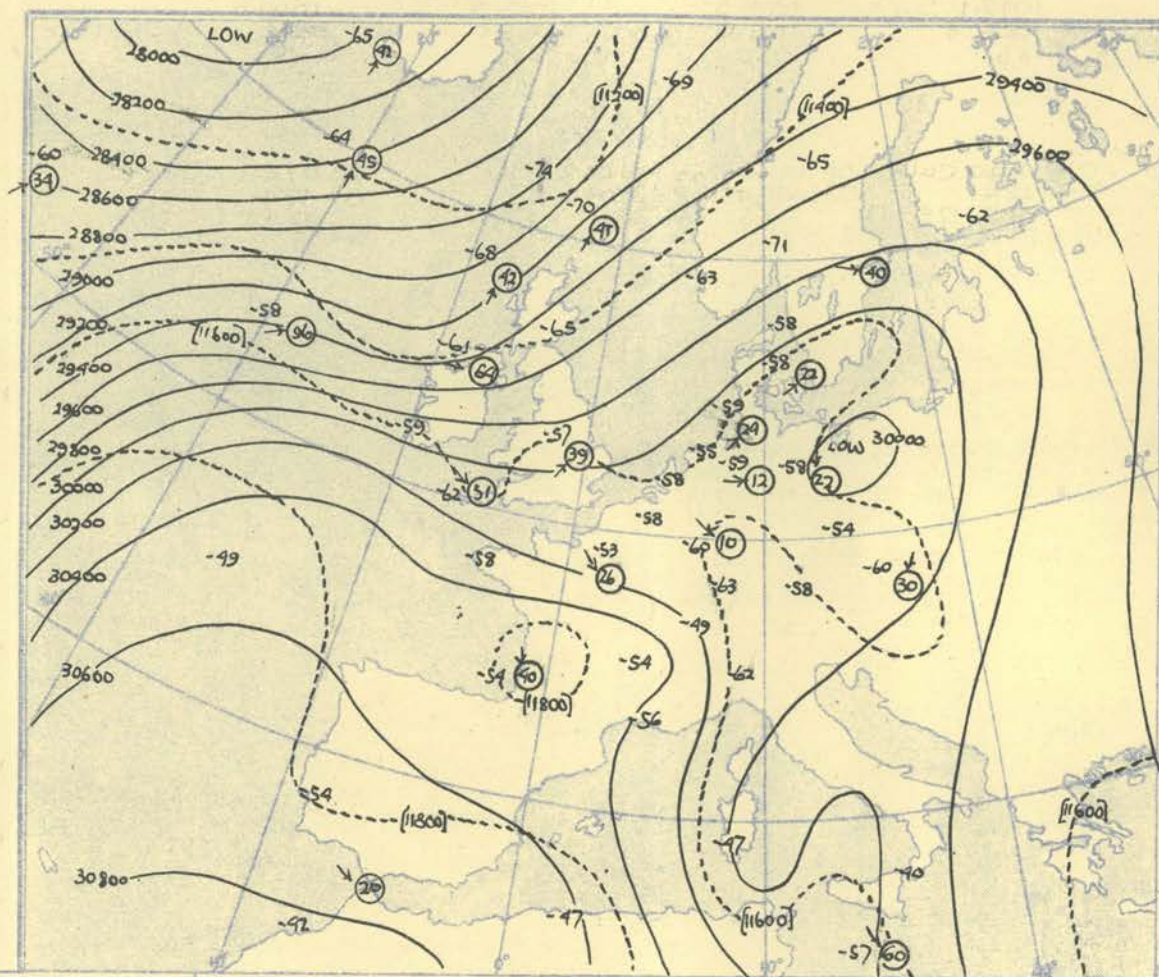
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



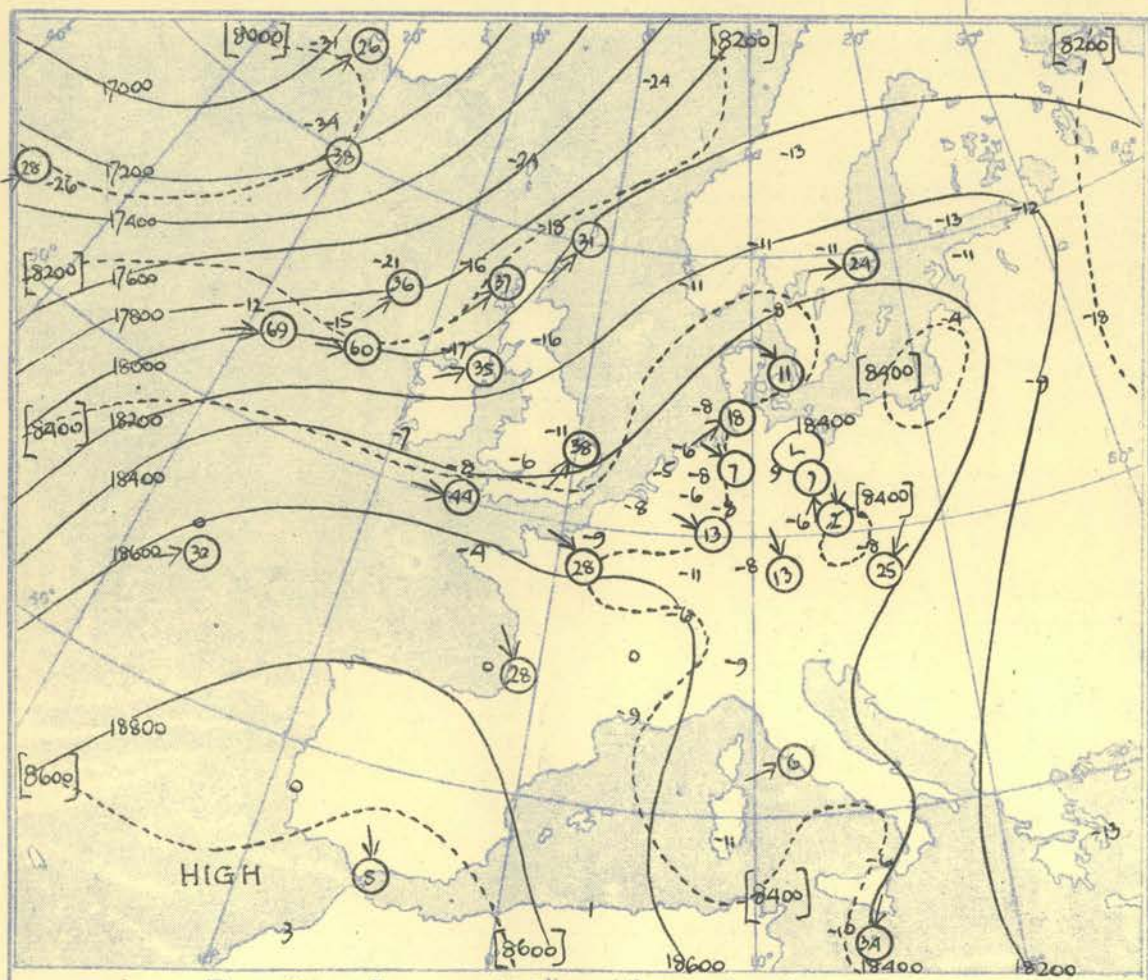
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

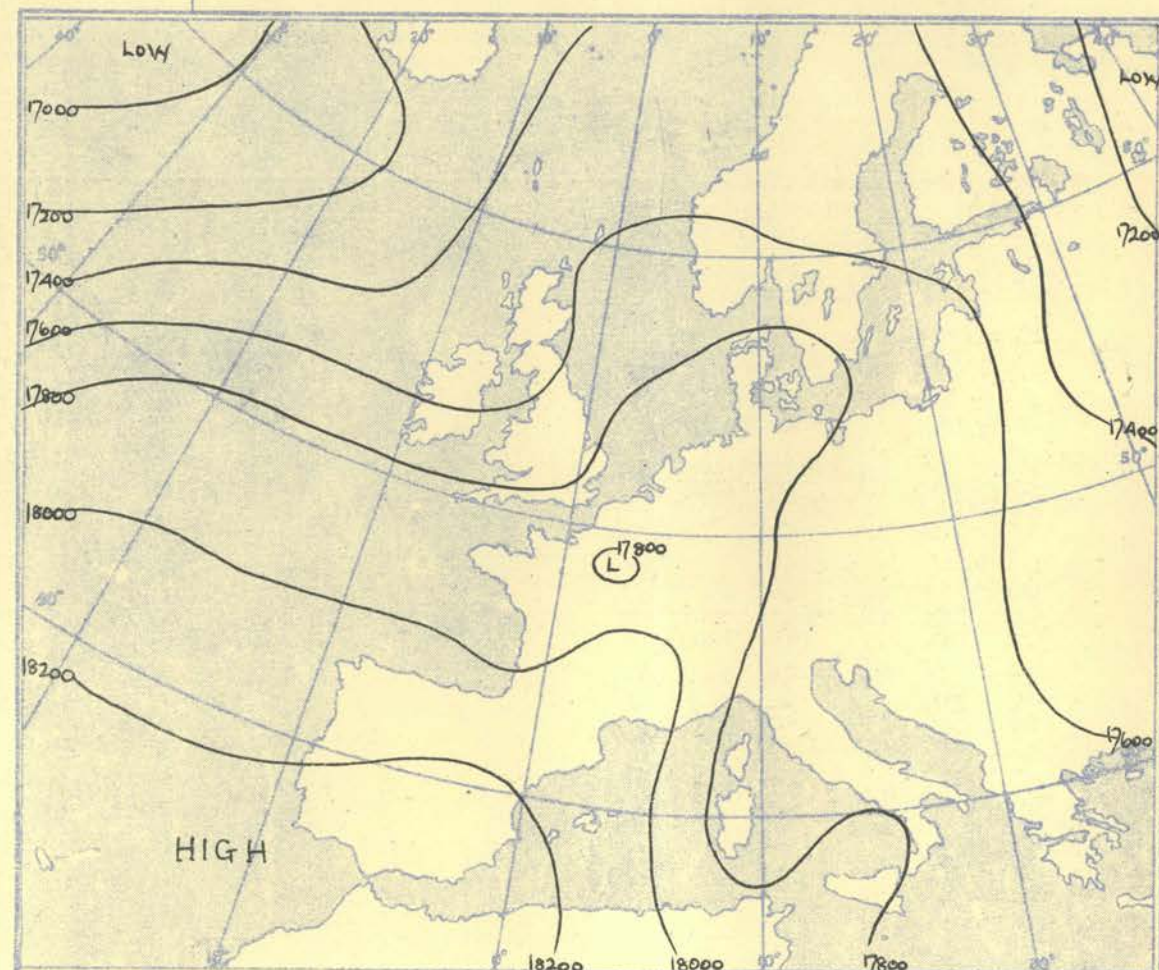
100 60 40 20 0 20 40 60 100 knots



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

[illegible]

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

[illegible]

## NEPHOSCOPE OBSERVATIONS

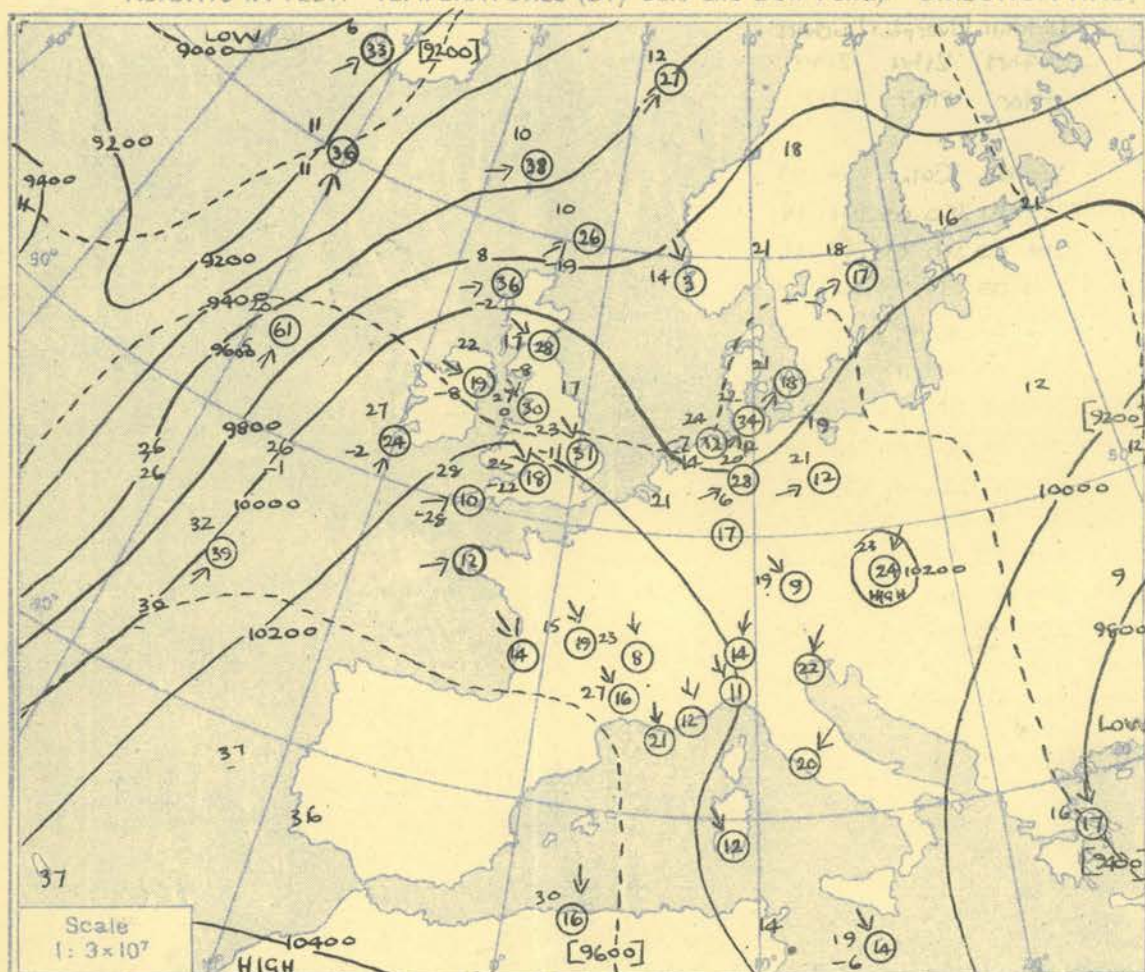
Place	Collins-Shawbury Town			Collins-Tangmere Town			Place
Time Type	09hr Ci	12hr Ci	12h Ci	12hr Ac	15hr Ci	15hr Ci	Time Type
Dir. Vel.	230 45	300 195	300 35	220 30	290 45	290 40	Dir. V

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

[illegible]

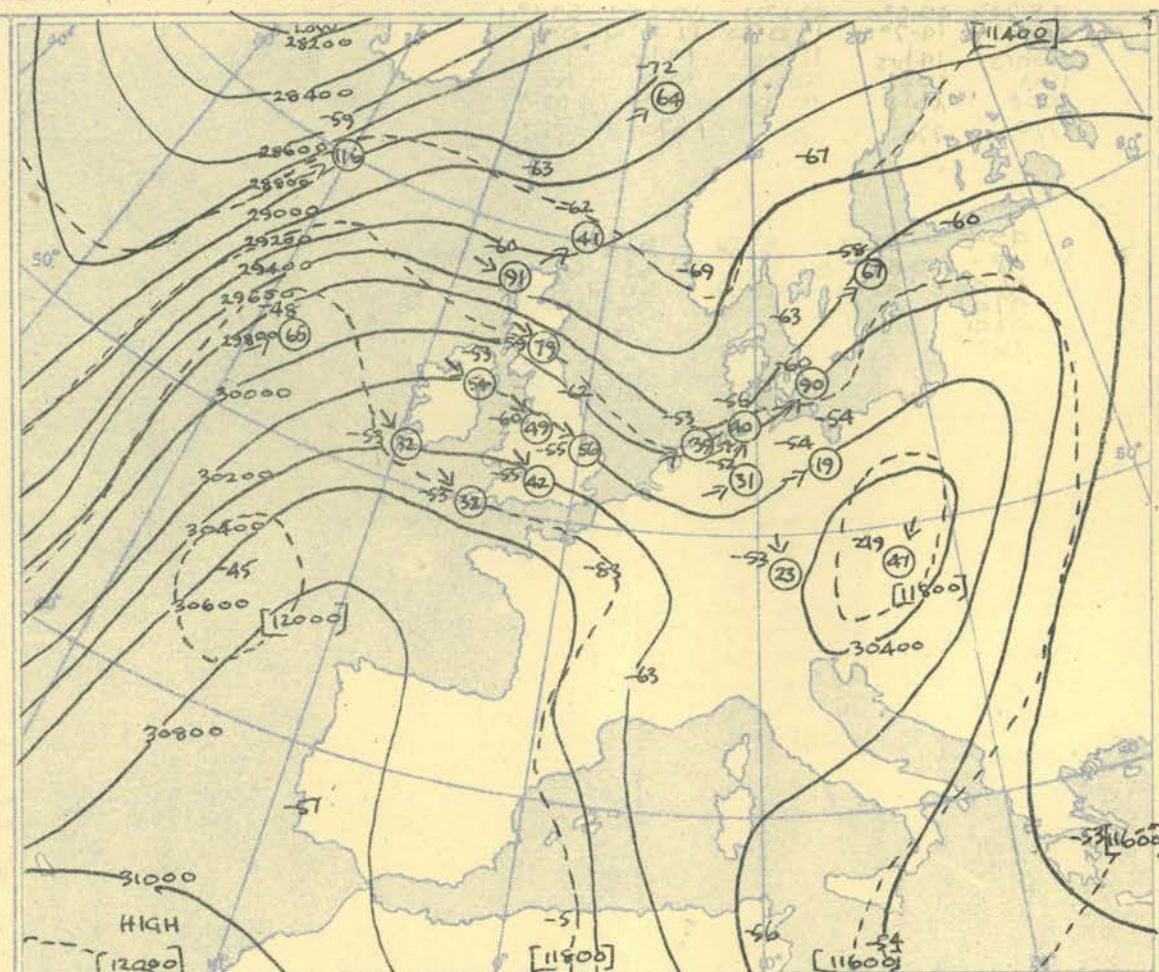


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.

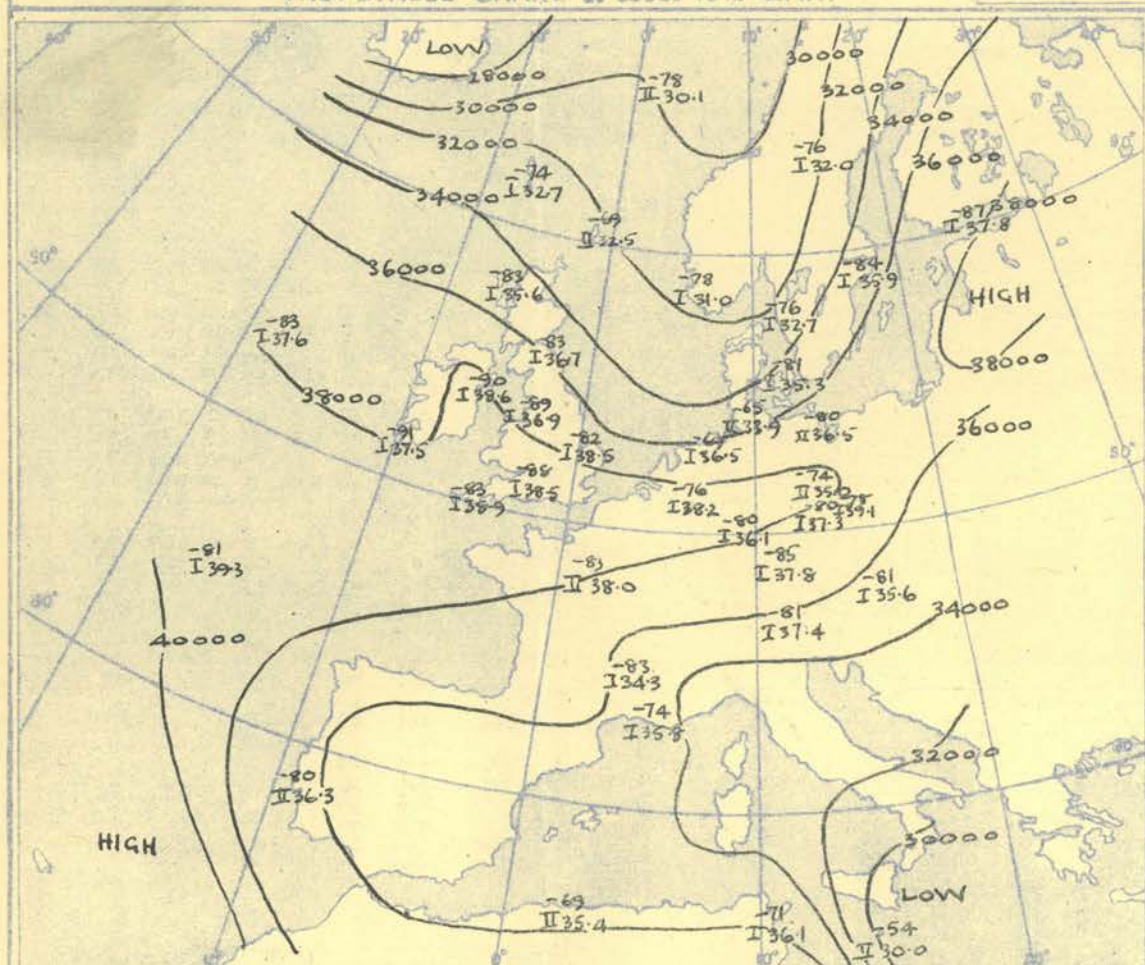


Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 Knots



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



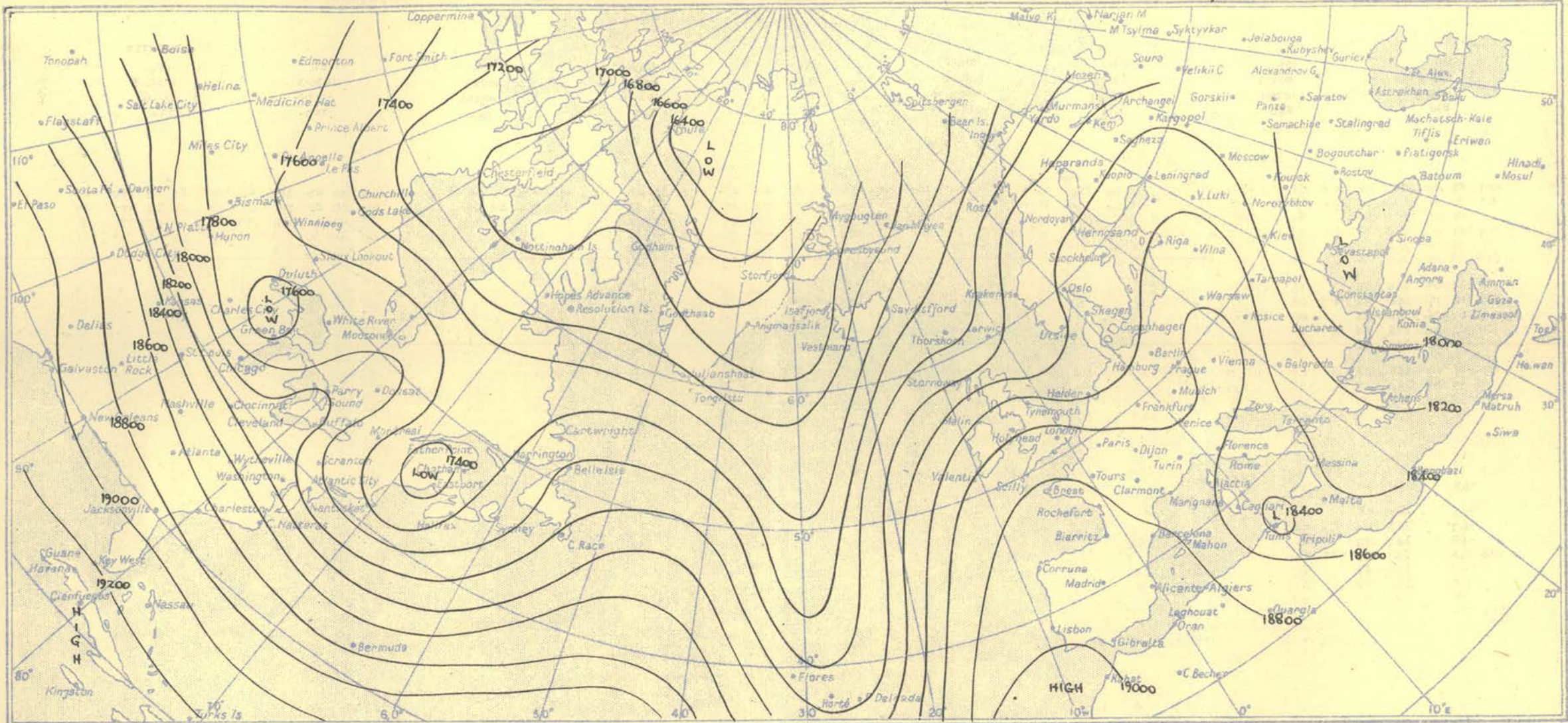
## NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge from Spain to Scandinavia moved slowly S.E. wards and became less well defined, while a new ridge was developing from West of Portugal to Iceland. The cold trough in the Atlantic moved eastwards and became sharper with its axis from West of Iceland to West of the Azores at the end of the day. Relatively cold air persisted in the Eastern Mediterranean.

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

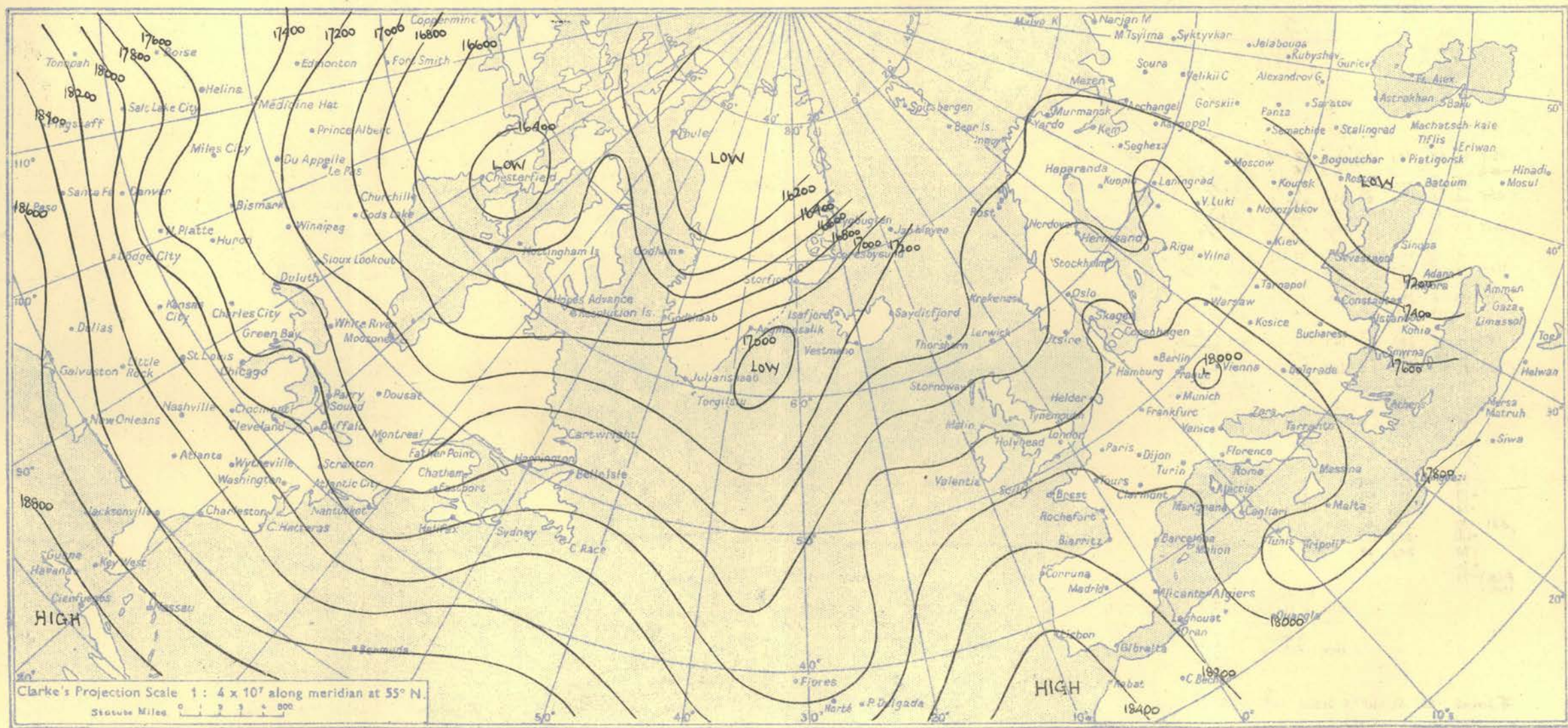




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Friday, 24<sup>th</sup> March

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	15h.		G.M.T.		15h.		G.M.T.		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 Pressure										
	1016.9	mb	1016.9	mb	1022.2	mb	1022.2	mb	1023.5	mb	1023.5	mb	1026.9	mb	1026.9	mb	1028.1	mb	1028.1	mb	1026.3	mb	1026.3	mb	1028.1	mb	1028.1	mb	1030.3	mb	1030.3	mb		1026.8	mb	1026.8	mb						
Freezing	870	mb	870	mb	885	mb	885	mb	809	mb	809	mb	815	mb	815	mb	874	mb	874	mb	828	mb	828	mb	783	mb	783	mb	750	mb	750	mb	790	mb	790	mb							
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb										
Surf	02.7	48	43	258	26	00.5	52	250	12	00.2	57	39	260	15	02.3	56	52	200	04	00.6	54	43	300	12	01.2	56	46	270	13	04.4	56	39	340	05	Surf								
1000	4.5	46	42	258	26	6.0	49	255	27	6.3	53	36	270	21	07.3	52	36	211	06	7.6	47	37	300	15	7.1	53	43	288	15	7.6	54	37	1000										
950	39	32	271	32	4.1	41	261	24	46	32	285	20	44	33	238	07	41	33	299	13	45	38	295	18	47	37	301	21	36.2	40	32	950											
900	32.7	33	271	32	34.2	33	250	28	34.9	37	24	285	21	36.7	36	24	248	08	35.9	35	30	298	13	35.6	38	34	301	21	36.2	40	32	900											
850	28	19	268	27	29	250	36	34	20	325	15	34	08	262	07	32	22	302	16	32	30	302	16	32	30	302	21	34	18	36	11	268	04	850									
800	63.3	22	10	264	26	65.0	25	249	30	65.9	30	00	345	19	66.6	31	01	272	06	66.7	27	11	314	22	66.6	30	06	301	20	67.4	33	04	800										
750	17	-06	255	25	18	257	30	23	-07	325	24	26	-09	283	07	22	01	314	28	27	-04	303	22	27	-04	303	22	28	-18	For	32	-18	267	10	750								
700	97.2	10	-19	241	26	98.9	08	264	36	100	17	-08	310	28	101	22	-08	281	19	101	27	00	315	30	102	23	-11	306	31	102	25	-22	700										
650	105	04	-26	228	28	06	268	41	10	-12	305	30	19	-03	284	24	12	-03	318	26	12	-03	318	26	142	23	-28	309	36	142	22	-23	650										
600	103	-03	-36	235	34	137	-01	274	42	139	03	-19	300	39	140	11	-07	290	29	141	12	-12	304	32	141	17	-30	316	38	142	15	-27	600										
550	-10	-45	240	33	-07	280	59	-02	-23	315	51	02	-12	279	41	02	-17	298	37	07	-36	315	44	07	-36	315	44	05	-35	See	07	-09	234	10	550								
500	179	-18	-52	248	37	181	-13	277	66	183	-09	-30	311	57	185	-07	-17	266	41	186	-08	-22	291	43	186	-03	-39	312	53	187	-06	-39	500										
450	230	-28	-56	250	38	233	-22	278	70	236	-18	-39	302	62	238	-16	-25	266	43	239	-20	-30	282	42	239	-13	-43	310	49	239	-17	-39	450										
400	230	-38	-58	250	39	233	-31	278	72	236	-30	-51	300	71	238	-27	-37	273	42	238	-32	-40	292	44	239	-24	-52	306	50	239	-26	-39	400										
350	230	-50		250	38	233	-45	282	72	236	-43		298	71	238	-38	-49	283	47	238	-45		299	46	239	-38	-58	303	49	239	-39	-51	350										
300	293	-62		250	41	297	-60	281	91	299	-59		300	79	303	-53		287	54	301	-60		299	49	304	-55		302	56	304	-55		300										
250	378	-69		270	50	380	-76	277	89	383	-75		302	90	386	-72		286	60	386	-78		297	58	387	-70		302	61	387	-75		250										
200	378	-66		249	45	380	-75	287	63	383	-69		285	55	386	-70		288	63	384	-82		300	58	387	-80		301	41	387	-87		200										
170	378	-63		246	43	380	-68	287	63	383	-67		268	42	386	-76		280	48	384	-76		267	35	387	-78		284	43	387	-75		170										
150	525	-63		242	48	525	-68	267	40	529	-66		267	40	529	-66		271	45	529	-65		265	35	532	-65		283	38	532	-71		150										
130	525	-62		243	44	525	-68	267	40	529	-64		265	36	529	-66		255	39	529	-67		263	32	532	-63		270	29	532	-69		130										
110	525	-63		242	45	525	-61	267	40	529	-62		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		110										
100	525	-63		241	42	525	-60	267	40	529	-61		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		100										
90	525	-63		236	49	525	-60	267	40	529	-61		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		90										
80	525	-64		233	50	525	-60	267	40	529	-61		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		80										
70	525	-58		232	51	525	-59	267	40	529	-60		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		70										
60	525	-60		232	51	525	-56	267	40	529	-60		265	36	529	-66		260	36	529	-67		249	39	532	-63		255	28	532	-69		60										
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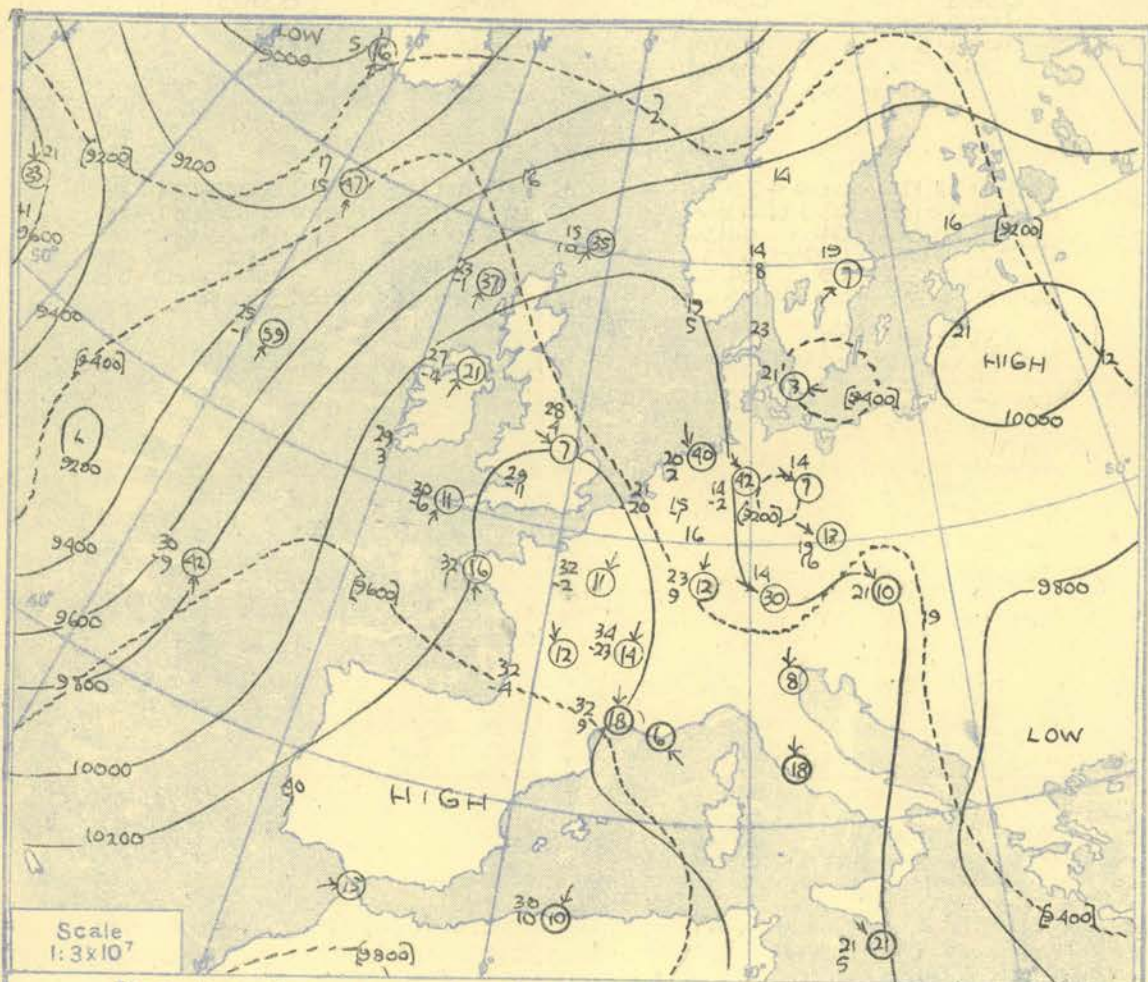


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION			
Pressure	Time	03hrs			G.M.T.		03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	03hrs	G.M.T.	Time							
	M.S.L.	1023.7			mb		1021.4	mb	1027.5	mb	1028.9	mb	1027.4	mb	1028.5	mb	1027.3	mb	1028.5	mb	1027.3	mb	1027.3	mb	1027.3	mb	1027.3	mb	1027.3	mb	1027.3	M.S.L.								
	Surf	1013.4			mb		1018.5	mb	1026.6	mb	1017.3	mb	1025.3	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	mb	1023.9	Surf								
	Freezing	850			mb		815	mb	819	mb	768	mb	758	mb	758	mb	758	mb	758	mb	758	mb	758	mb	758	mb	758	mb	758	mb	758	Freezing								
Pressure	Height	ft./100			Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Temp.	Dew	Pressure							
	Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots			Dir.	knots						
Surf	02.7	44.4	23.6	15	0.5	46.4	18.0	15	00.2	36.35			02.3	42.39	17.5	0.8			01.2	41.38	12.0	02	4.4	39.36	Calm	02.9	43.41	13.5	03	0.3	49.43	15.2	18	Surf						
1000	06.2	43.35	24.0	25	05.7	47.41	15.1	33	07.1	42.37			06.3	46.39	17.6	2.1			07.7	46.39	10.4	03	7.6	43.40		07.1	44.39	15.8	21	5.6	47.43	15.4	24	1000						
950		40.32	23.7	25		43.38	20.7	37		41.34				41.28	18.4	2.5				41.34	06.6	04		44.36			44.23	15.8	18		41.40	16.2	33	950						
900	34.3	36.23	23.4	24	34.0	38.28	21.2	38	35.3	39.17			35.2	36.18	19.2	3.0			35.3	35.10	02	06	36.1	37.31		35.4	35.24	15.7	19	33.8	38.30	17.4	24	900						
850		32.12	23.8	22		35.22	21.2	38		36.05				34.07	19.2	2.9				34.22	33.1	09		34.20			43.1	16.2	26		41.00	18.0	31	850						
800	65.1	27.12	24.1	24	65.1	30.09	21.3	34	66.4	29.5			66.3	33.9	19.3	2.8				31.01	32.2	03	67.1	35.1		66.3	38.22	18.7	14	65.3	39.04			800						
750		21	12.2	24	30		26.13	21.6	32		24.4			31.7	22.0	2.1				33.00	32.1	07		32.3			34.17	21.5	11		35.4			750						
700	33.3	15	10.2	5.2	33	33.3	16	12.2	37	10.1	21.0			10.1	21.0	2.1				28.04	31.5	10	10.2	29.11			30.6	25.2	11	10.1	29.03			700						
650		14	13	26.1	34		16	10.2	35		16.1			22.3	23.9	2.7				13.1	31.5	10		23.21			23.3	27.8	11		22.02			650						
600	138	08.0	26.1	30	13.9	07.2	22.6	34	140	08.2			14.1	14.9	23.8	2.7				10.12	31.8	11	14.2	16.25			15.6	27.8	11	14.0	16.8			600						
550		00.2	26.2	36		03.2	23.3	34		01.5				04.17	24.9	3.1				01.23	31.7	11		06.33			03.12	25.9	11		07.14			550						
500	183	5.12	27.1	41	18.4	7.12	22.9	35	185	7.5				186.5	24.25	3.8				6.22	31.8	14	18.7	4.27			18.7	3.17	25.3	11	185	4.23			500					
450		13.1	18.2	18		52	17.2	25.0	38		17.2	20			12.3	20.2	4.2				15.25	32.0	16		14.30			13.1	26.2	12		14.36			450					
400	23.6	24.28	28.4	52	23.6	27.31	24.9	46	23.7	23.33			23.3	24.40	24.2	3.1				23.28	40.31	23	24.0	25.41			24.0	25.33	23.8	13	23.9	26.42			400					
350		38.4	42.8	57		40.43	25.0	54		41				38.5	31.5	2.9				43.31	31.5	29		39.55			35.5	24.0	10		40.50			350						
300	300.5	280		62	300.5	263	57	301.5	6				303.5	33	255	33				302.5	33.9	30	304.5	3			304.5	24.8	12	303.5	6			300						
250		70	283	74		76	264	60		74				70	263	33				78	34.7	33		70			76	288	13		74			250						
200	384.5	273		70	383	26.8	63	384.5	3				387.5	26.6	32					80	31.4	34	388.5	20			387.5	21.4	14	386.5	20			200						
170		88	274	50		83	254	51		86				57	261	31				70	306	28		83			84	269	23		76			170						
150		84	272	46		78	24.8	41		79				80	266	30				68	296	24		79				79	268	25		77			150					
130		75	268	40		75	260	42		76				73	270	30				65	276	21		76				76	279	27		73			130					
110		73	260	41		74	262	39		75				72	250	33				64				71				75	257	21				110						
100						74	253	33	52	73				73	260	31								52.9	69			52.8	75	260	27				100					
90						73				73				71	259	35												74	280	25					90					
80						71				72				69	244	39												73							80					
70																																				70				
60																																				60				
Isothermal		690-650ms 14°		Inversion		101.5ms 46-1000ms 47°		Surf 36-993ms 45°		1017ms 42°-1000ms 46°										Inversion		1015ms 41°-1016ms 47°						Inversion		1015ms 39°-985ms 48°		1016ms 43°-970ms 46°		Inversion		971ms 37°-850ms 42°				
						600ms 7°-575ms 8°		150ms 25°-725ms 47°		716ms 21°-700ms 22°																														
								Isothermal		921-877ms 39°																														



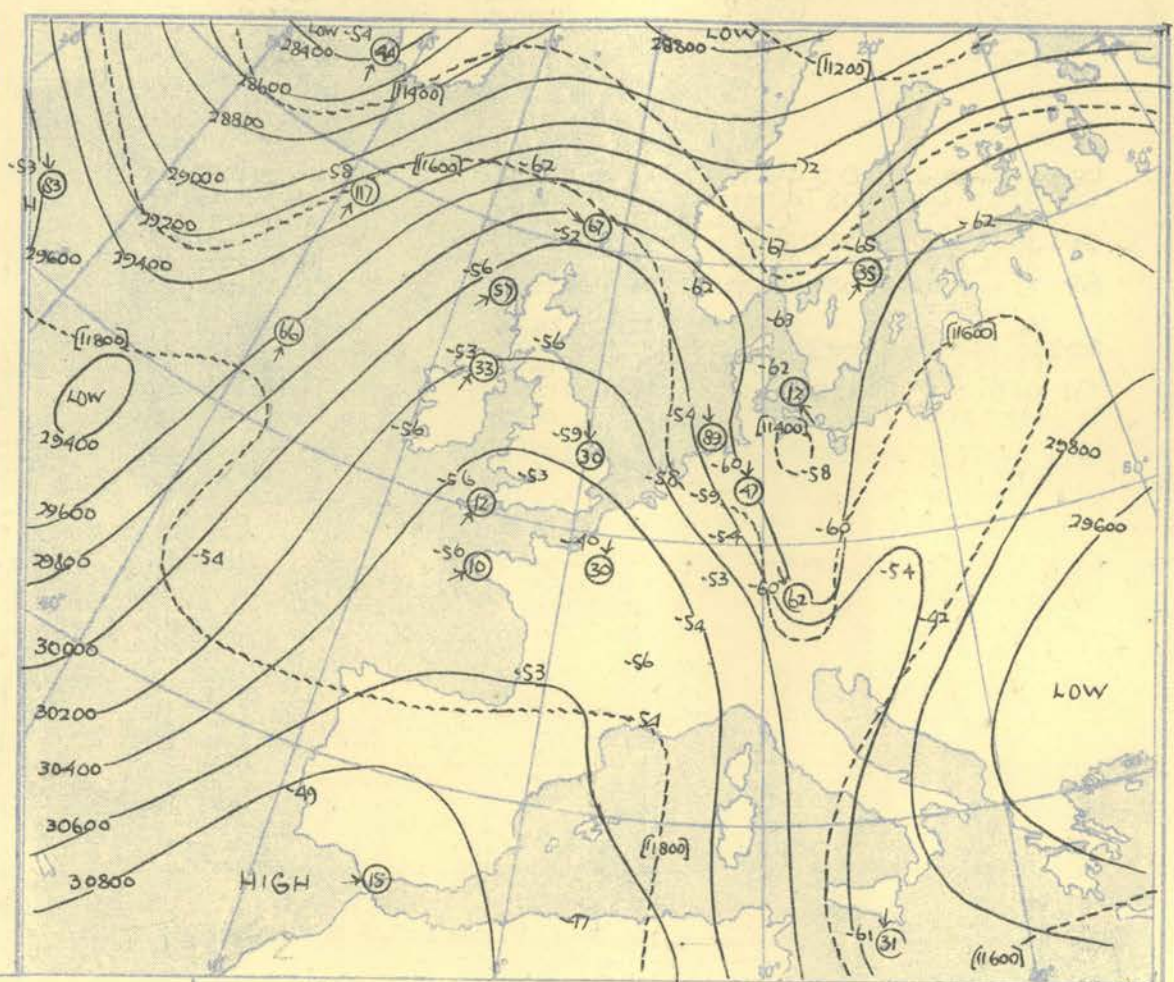
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



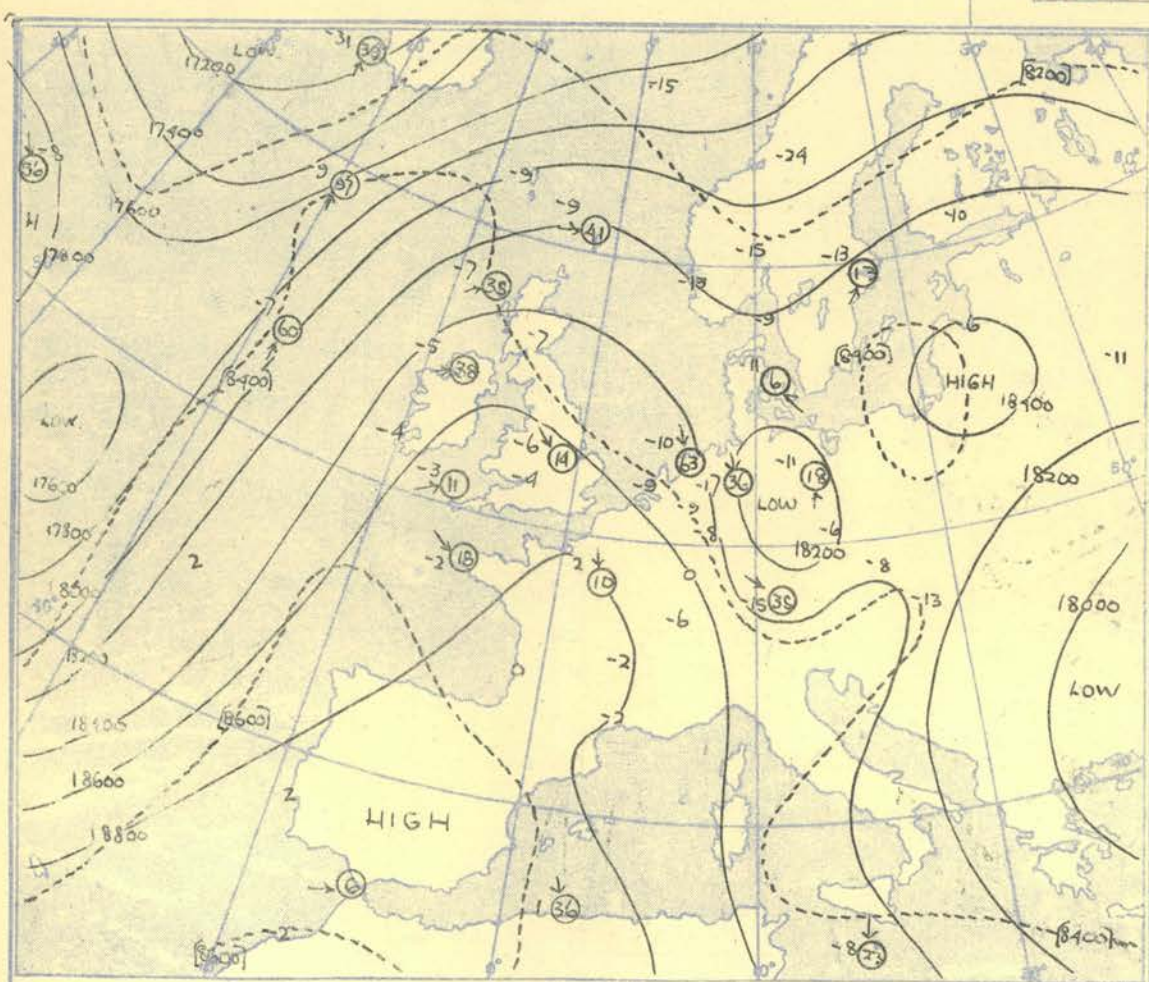
Scale  
1:3x10<sup>7</sup>

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.

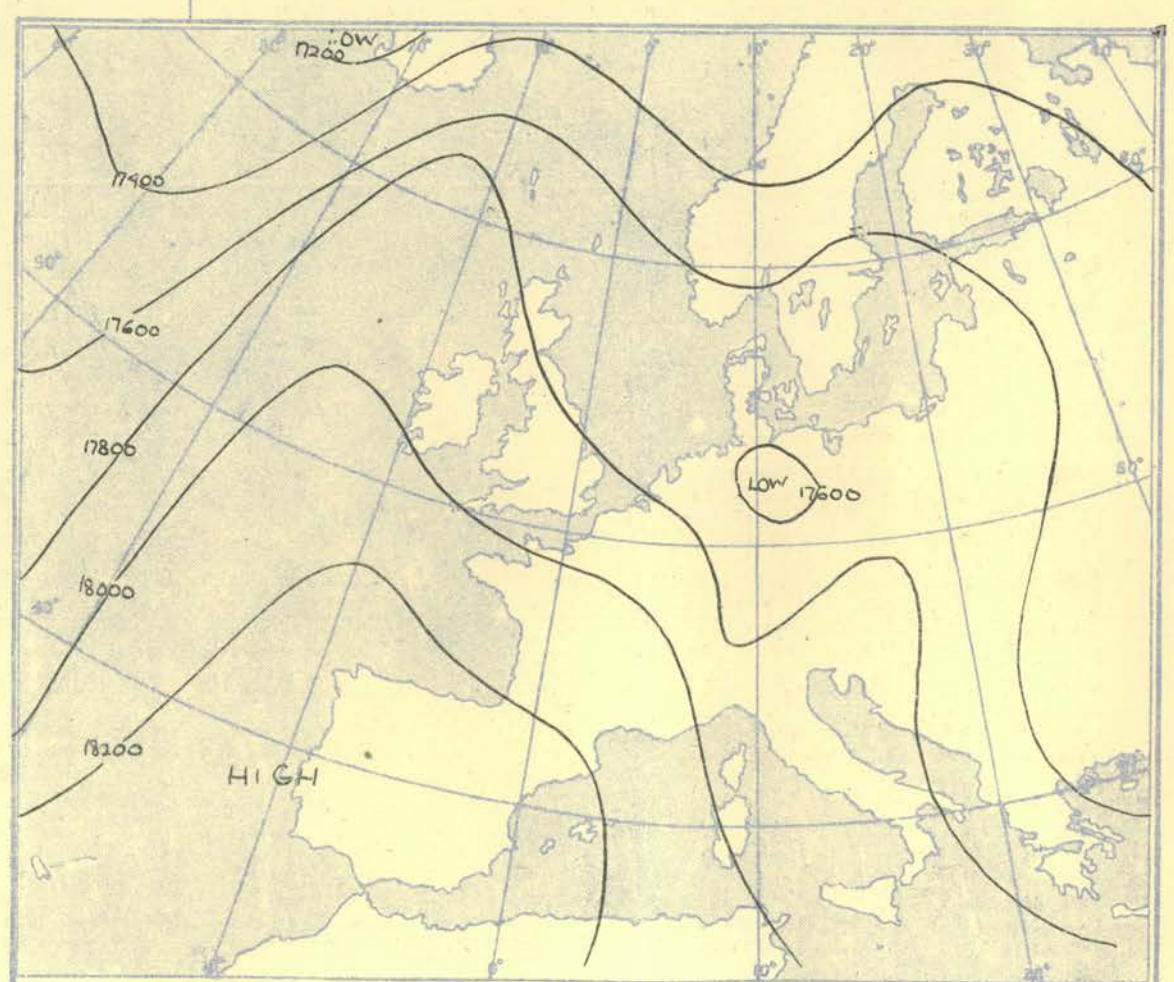
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N



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.

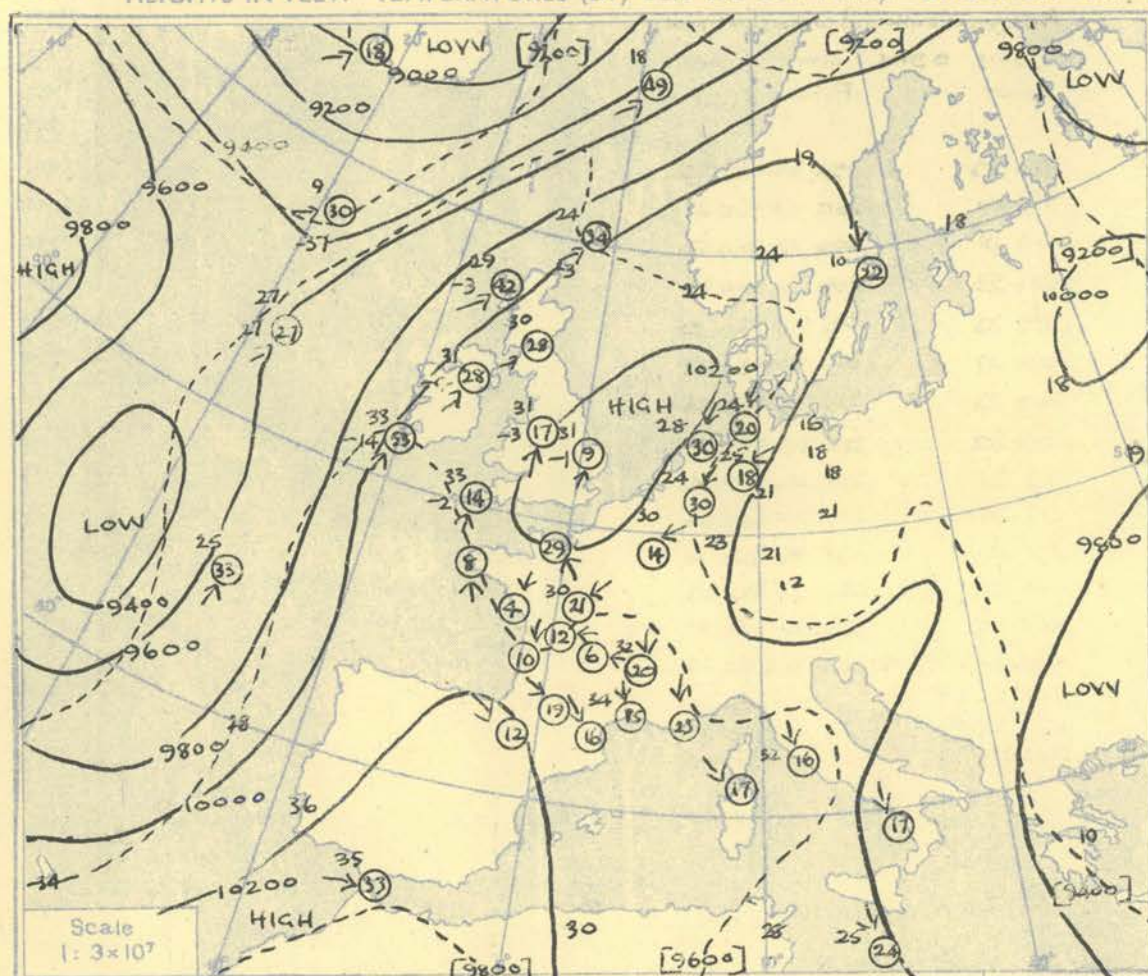
NEPHOSCOPE OBSERVATIONS

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

Ship	Weather Observer				Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Watcher				Weather Watcher				Weather Watcher				Weather Observer				Ship												
Lat/Long	53.7 N 17.8 W				53.3 N 18.4				53.4 18.0				53.2 W 18.2 W				53.5 N 19.6 W				58.8 N 18.5 W				58.9 18.6				59.0 18.9				53.3 N 12.7 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.	Time																
	M.S.L.	1004		mb	M.S.L.	1004		mb	M.S.L.	1006		mb	M.S.L.	1011		mb	M.S.L.	998		mb	M.S.L.	999		mb	M.S.L.	1005		mb	M.S.L.	1009		mb	M.S.L.																
	Surf	1004		mb	Surf	1004		mb	Surf	1006		mb	Surf	1011		mb	Surf	998		mb	Surf	999		mb	Surf	1005		mb	Surf	1009		mb	Surf																
	Freezing	760		mb	Freezing	750		mb	Freezing	750		mb	Freezing	770		mb	Freezing	905		mb	Freezing	910		mb	Freezing	910		mb	Freezing	920		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		51	50	195	30	51	51	180	20	52	52	190	18	45	45	360	24	40	40	190	11	41	36	310	14	44	30	250	17	43	33	280	18	50	48	165	20	Surf											
1000	10	50	49		10	51	51	180	20	51	51		17	45	45	020	30	-7			-3	41	36	310	14	12	44	29		25	42	31		34	49	43	191	30	1000										
950		45	45	188	42	46	46	45	35	48	48	207	24	41	41	020	26				17	36	35	298	24		37	25	252	21		36	25	274	23	44	38	206	27	950									
900	295	40	40	190	51	295	42	42	200	36	304	46	46	210	20	311	39	39	018	15	273	31	31	292	21	291	30	22	257	26	305	30	20	275	23	318	39	35	212	22	900								
850		34	34	195	56	41	41	209	36	41	41	213	18	38	38	255	03				19	26	26	209	19		23	16	261	25		24	14	271	32	39	29	217	25	850									
800	608	37	12	197	60	610	37	57	210	33	619	37	37	210	20	624	35	35	210	06	573	33	33	199	33	681	20	19	270	12	595	17	9	268	21	610	18	05	284	30	631	35	21	214	31	800			
750		31	-2	200	58	32	31	208	38	32	32	204	24	30	30	188	10				67	18	17	255	13		13	-7	267	24		12	-6	284	32	31	-1	210	33	750									
700	958	25	-1	204	59	18	13	205	42	970	27	27	206	27	473	25	25	191	12	921	17	15	182	67	921	18	17	238	27	930	9	-37	462	30	946	08	-9	282	34	980	25	-1	210	35	700				
650		19	-2	207	58	18	13	205	46		20	19	198	35		19	6	207	12			14	12	182	80		5	-40	259	33		05	-20	271	39		18	-7	211	39	650								
600	1351	11	-3	204	57	4	-8	205	52	1365	13	4	198	39	1366	12	1	214	15	1311	8	4	197	78	1310	9	6	215	77	1312	0	-55	299	51	1327	-2	-41	275	4	1373	11	-2	209	40	600				
550		1	-7	201	55	1805	-5	-11	203	63	5	-4	201	40	5	-3	212	24				0	-4	203	88		2	-1	194	90		-6	-29	220	68		-8	-20	273	31		2	-12	209	40	550			
500	1799	-7	-10	204	60	-14	-19	200	70	1817	-5	-10	203	41	1818	-5	-27	201	24	1759	-9	-13	201	97	1759	-6	-9	193	84	1755	-10	-19	210	87	1767	-16	-57	271	46	1822	-8	-20	210	43	500				
450		-14	-16	205	63	2334	-24	-30	198	74		-14	-27	203	43		-19	-38	203	19		-19	-24	197	103		-17	-21	206	76		-18	-26	203	94		-18	-58	284	55		-17	-28	207	54	450			
400	2329	-25	-27	213	64		-36	-42	201	78		-37	-43	193	65	2342	-34	-50	212	26	2283	-30	-36	199	108	2285	-30	-35	207	66	2279	-30	-38	215	105	2291	-28	-56	296	67	2348	-28	-36	207	53	400			
350		-37	-41	219	66	(333A)	-40	-44		2993	-53		185	71		-45		213	27		-44		198	112		-44		201	66		-43		220	96		-38	-58	309	66		-40	-48	204	40	350				
300	(345A)	-39	-42												2976	-58		208	27	2918	-58		201	117	2923	-57		214	70	2917	-55		215		91	2935	-51		303		59	2988	-59		201		62	300	
250															-68		201	11		-74		198	100		-67		211	82		-58		212		75		-63		284		56		-74		204		72	250		
200															3823	-72		219	09	3761	-70					3771	-67		206	65	3786	-57		212		58	3784	-71		215		51	3822	-83		206		60	200
170															-71		224	10		-67					-63		205	72		-58		213		56		-66		264		48		-84		223		33	170		
150															(155mb)	-70										165	-62					-58		217		51		-69		251		45		-81		230		28	150
130																																-58		217		42		-69		251		50		-76		238		26	130
110																																-58		222		40		-68		256		44		-74		250		28	110
100																																-58		225		33	5232	-08		258		31	5230	-74		257		27	100
90																																-58		221		30		-69		254		36		-76		261		27	90
80																																-59		224		35								-76		263		30	80
70																																-59		226		34								-77		264		34	70
60																																-58		228		82									-78			60	
	Inversion	950mb 34°-825mb 40°				Isobarical	800-1000mb 51° 912-865mb 42°								Isobarical	850-825mb 26° 804-718mb 23° 760-746mb 21°					Isobarical	750-700mb 18°					Isobarical	650-528mb 13° 550-528mb -6°					Isobarical	750-730mb 13° 550-528mb -6°					Inversion	500mb -16°-184mb-1288mb 38°-851mb 40°					Inversion	500mb -16°-184mb-1288mb 38°-851mb 40°			
Tropopause	NR				NR				NR				I 214mb-73° 26,900'				II 258mb-74° 32,300'				I 253mb-66° 32,900'				I 275mb-60° 31,000'				I 208mb-73° 36,900'				I 204mb-66° 27,600'				Tropopause												



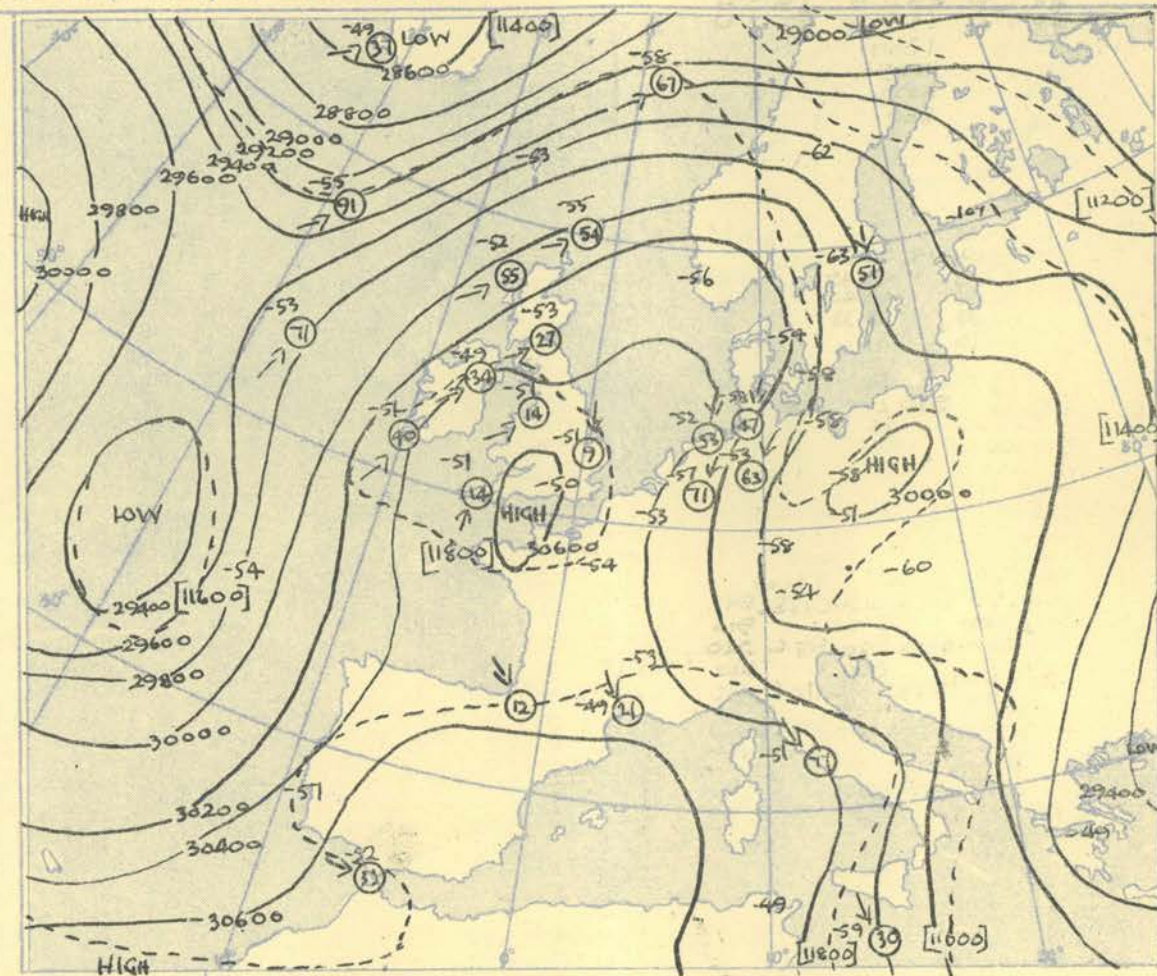
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

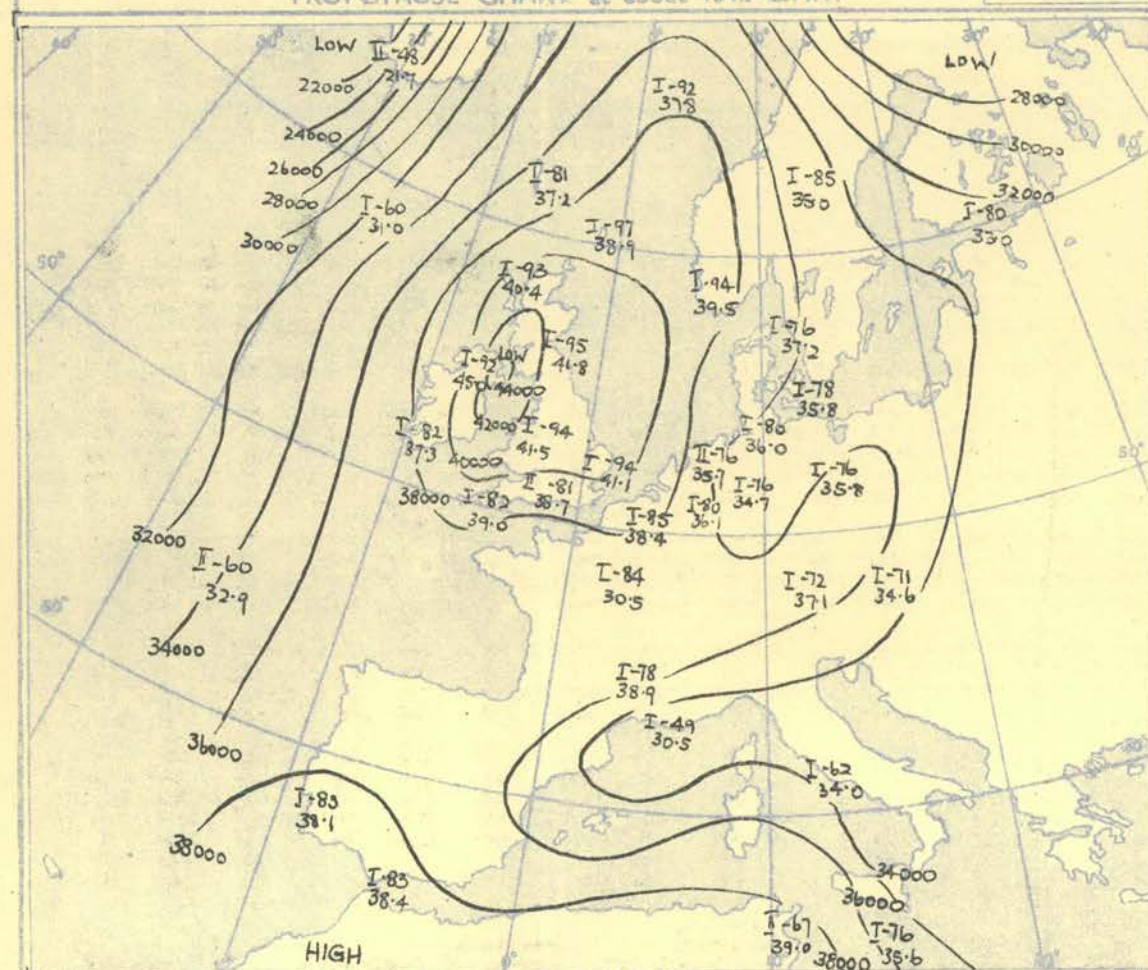
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

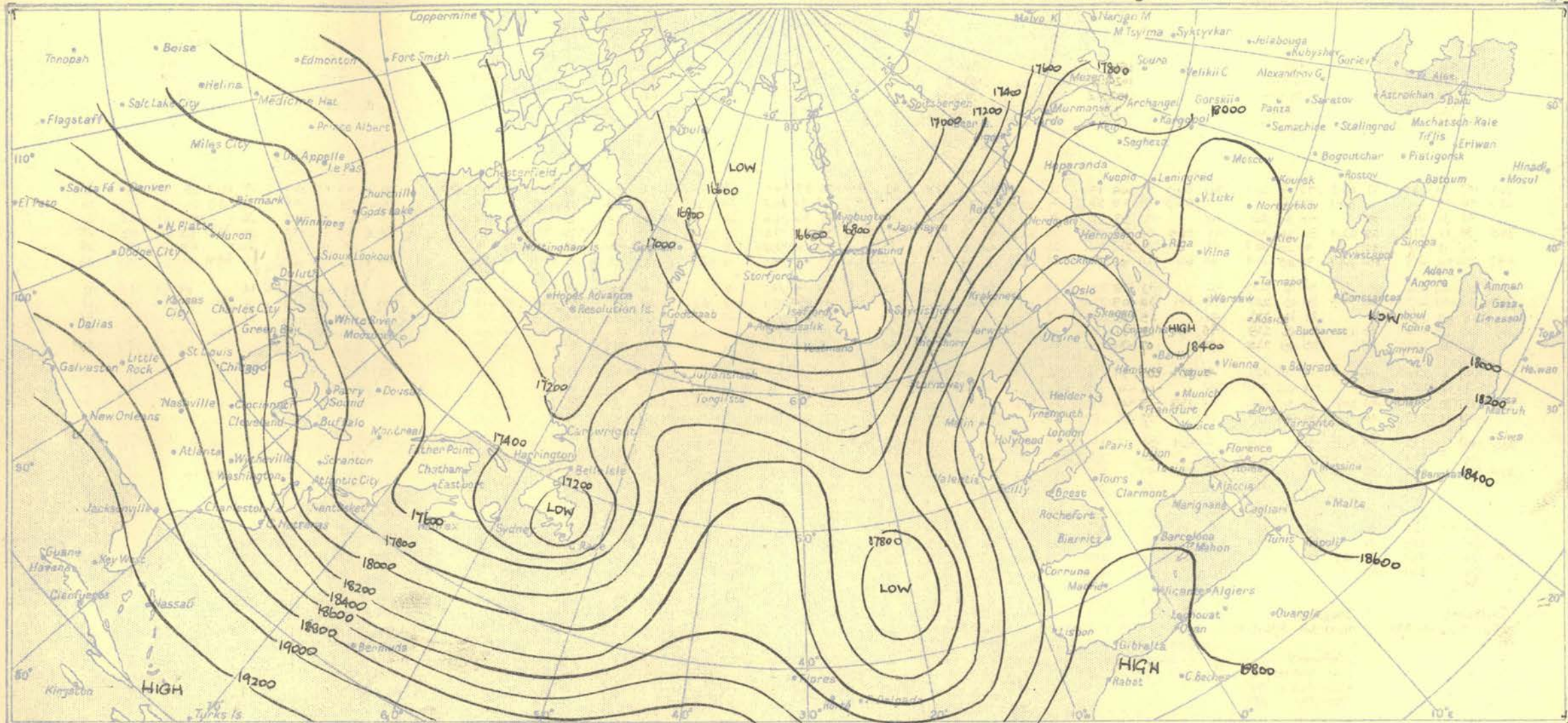
## NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge from West of Portugal to East of Iceland moved slowly east especially in the north. The cold trough in the Atlantic moved little and there was a tendency for a cold pool to develop north of the Azores. A new ridge formed east of Newfoundland and moved little while relatively cold air still persisted to the Eastern Mediterranean.

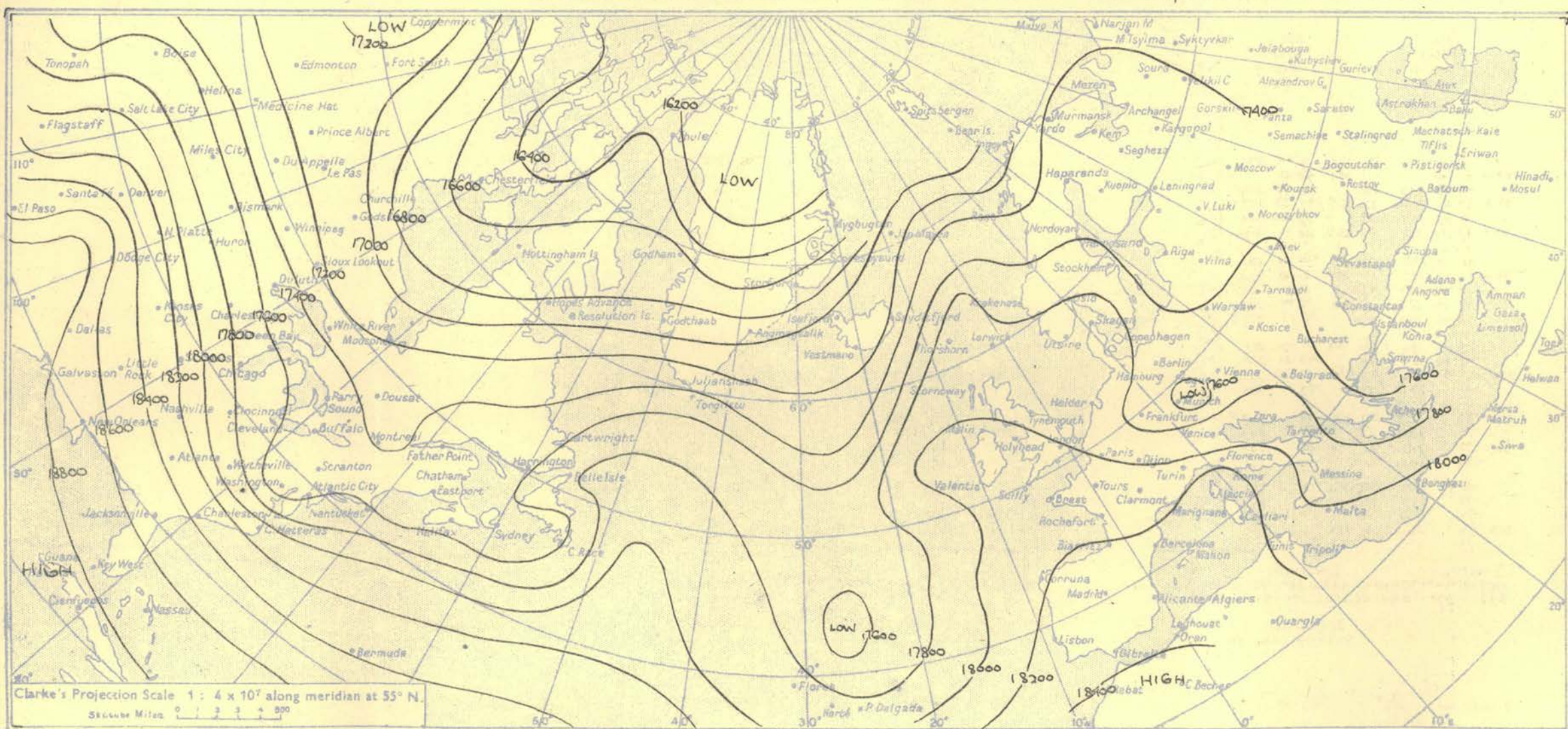
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Saturday 25<sup>th</sup> March. 1950.



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



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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Pressure Time M.S.L. Surf Freezing	15h. 1019.5 1009.5 786				15h 1017.4 1015.5 728				15h 1024.0 1023.2 715				15h 1021.7 1013.1 710				15h 1024.6 1022.6 728				15h 1027.0 1023.0 711				15h 1025.2 1009.2 702				15h 1021.7 1011.2 695				15h 1016 1014 695				Time M.S.L. Surf Freezing									
	G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb				G.M.T. mb mb mb																	
	Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100				Height ft./100													
	Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.				Temp. °F.													
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	47	40	191	17	00.5	49	41	200	30	00.2	57	44	190	10	02.3	56	41	178	17	00.6	60	39	164	18	01.2	56	42	090	08	04.4	56	41	130	13	02.9	55	45	157	15	00.3	53	47	150	22	Surf
1000	05.2	46	39			04.7	47	39			06.5	52	38	221	21	05.9	54	40			06.7	54	40	162	20	07.1	52	38	128	12	6.9	54	40			5.9	53	44	143	24	4.3	51	42	147	26	1000
950		42	31	213	30		40	34	201	44		45	35	217	21		47	37	181	22		47	36	166	20		45	25	127	13		46	37			45	25	145	26		45	25	153	32	950	
900	33.5	38	21	218	29	32.9	36	26	205	46	35.0	38	31	205	22	34.5	41	30	188	25	35.3	39	30	174	21	35.7	43	11	136	15	38.4	39	24			34.4	47	27	153	25	33.0	55	36	180	28	900
850		36	12	217	30		40	00	202	45		33	20	212	26		44	18	193	27		44	18	180	18		39	02	146	13		40	19			48	11	173	20		48	29	196	28	850	
800	64.7	53	04	215	35	64.2	37	09	214	44	66.1	34	08	213	27	66.0	41	25	206	25	66.6	37	10	194	15	67.0	36	03	142	12	66.9	40	00			66.3	46	05	167	15	64.9	41	27	198	33	800
750		29	08	216	37		34	08	227	42		33	28	220	28		35	40	208	18		34	19	185	15		35	01	138	14		38	06			39	04	166	12		39	03	194	92	750	
700	99.4	24	03	227	34	99.3	29	05	227	42	101	30	09	231	28	101	31	11	210	28	102	31	03	190	17	102	31	01	191	09	102	32	13			102	33	02	179	14	100	37	14	190	73	700
650		18	03	230	32		21	07	227	41		25	15	232	27		25	06	215	27		24	07	217	14		22	08	238	09		23	05			27	15	196	14		26	23	191	31	650	
600	139	10	03	233	30	139	14	06	229	45	141	15	31	236	27	141	19	05	218	26	141	16	03	237	11	142	14	15	250	07	142	16	00			142	20	08	202	14	140	19	17	186	33	600
550		01	10	238	34		05	09	228	48		07	31	235	31		07	10	222	23		06	25	228	10		06	25	283	07		09	07			10	15	201	12		09	11	187	35	550	
500	183	08	10	248	36	184	4	15	227	42	186	03	34	240	31	187	00	17	222	23	187	03	26	014	05	187	01	15						187	01	23	200	14	186	01	12	186	39	500		
450		16	20	254	36		14	26	226	43		14	40	244	32		11	23	218	26		11	23	218	09		11	23	016	07		10	21			10	31	189	21		12	18	188	34	450	
400	236	28	32	253	40	237	26	32	227	49	239	25	49	246	32	240	22	41	222	31	240	23	35	216	19	240	23	40	006	07	241	20	34			241	21	42	181	15	239	24	32	186	33	400
350		40	45	253	46		39	44	227	52		37	55	252	30		34	49	227	33		37	49	228	12		36	52	345	10		34	47			36	54	189	17		34	45	189	40	350	
300	300	55		252	54	301	52		226	55	304	53		241	27	305	49		220	34	305	51		240	14	305	51		356	09	306	50				306	51		187	14	304	51		190	40	300
250		74		257	59		67		231	68		70		247	29		62		227	33		68		216	13		68		008	14		67			68		202	10		67		191	46	250		
200	384	74		262	52	386	65		233	62	388	67		259	25	391	80		214	28	389	88		257	14	390	86		005	17	391	81				390	82		242	10	289	76		211	33	200
170		82		257	41		86		236	52		92		261	30		89		218	20		89		268	15		81		330	15		76			73		251	20		69		209	24	170		
150		77		255	36	443	76		239	45		80		267	27	449	92		245	24		77		266	18		77		300	16		79			70		254	20		66		230	25	150		
130		74		262	40		72		239	38		72		262	24		79		254	28		77		271	18		76		292	17		69			69		251	24						130		
110		74		259	31		73		239	37		72		264	28		74		257	28		74		262	37		70		295	27		67			65		264	20						110		
100	525	74		264	32	527	73				528	72		268	28	530	74		258	27	529	72		276	30	531	69		300	26	535	65				534	64		267	19					100	
90		74		261	33							69		259	28		73		258	24		69		264	25		69		280	23		65			63		267	20						90		
80		74										68		262	31		72		262	28		69		257	23		67		278	27		64			61		274	16						80		
70		74										69		267	30		70		264	27		67		265	27		64		283	20		62			61		269	10						70		
60																																														

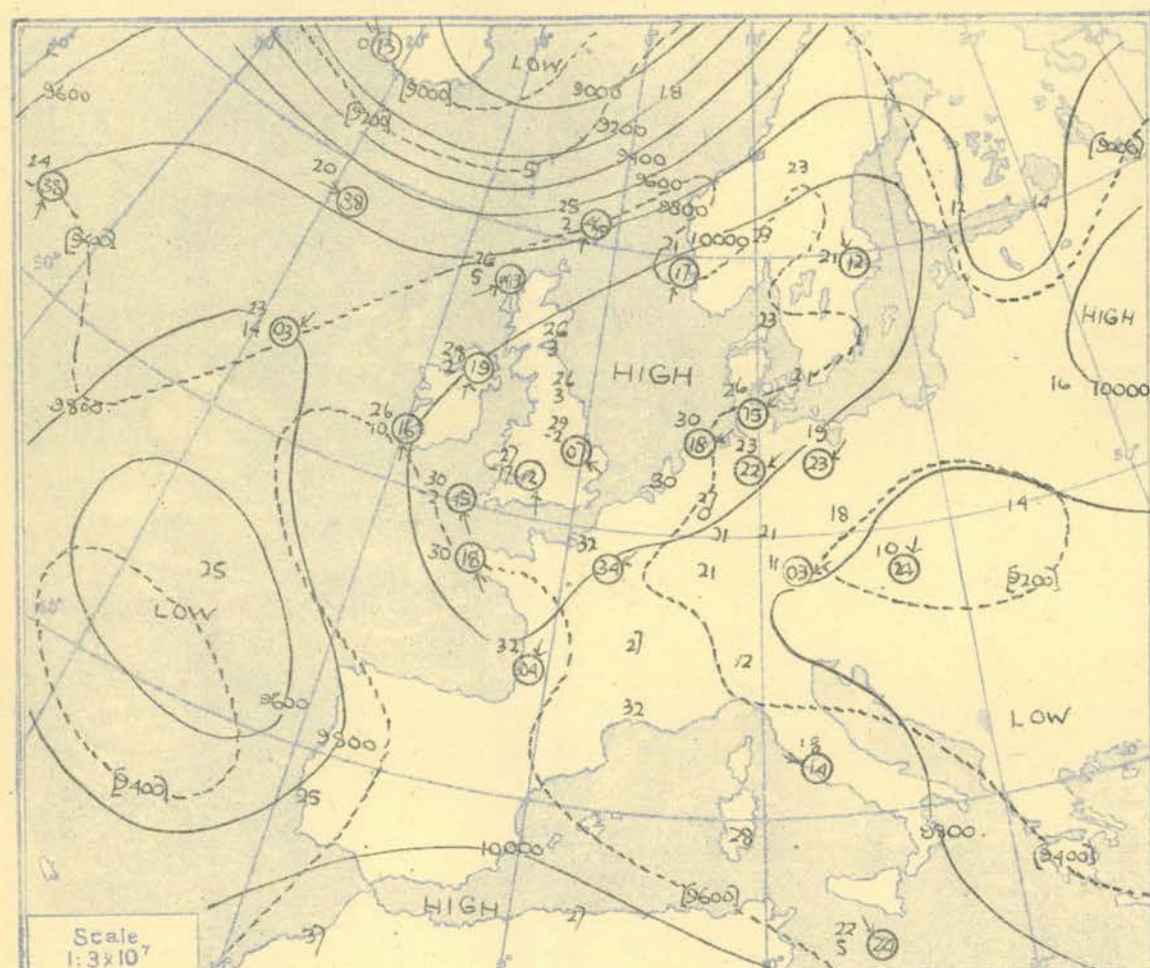


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs
M.S.L.	1014.6	1015.7	1021.1	1020.7	1020.7	1024.1	1022.2	1018.8	1015.5
Surf	1006.6	1013.7	1020.2	1011.7	1011.7	1019.5	1005.7	1008.2	1014
Freezing	750	837	750	735	735	718	741	710	738
Pressure	mb	mb	mb	mb	mb	mb	mb	mb	mb
Height	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100
Temp.	°F	°F	°F	°F	°F	°F	°F	°F	°F
Dew	°F	°F	°F	°F	°F	°F	°F	°F	°F
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Surf	02-45 41 203	00-5 45 48 200	00-2 43 42	02-3 41 37 160	02-3 41 37 160	01-2 43 40 100	02-4 43 39 110	02-3 48 43 135	02-3 51 47 098
1000	03-5 44 37 223	04-2 48 47 225	05-6 46 45	05-4 45 39 175	05-4 45 39 175	07-6 41 38 115	05-5 48 38	05-1 45 45 135	07-4 50 46 103
950	32-1 40 36 234	32-3 35 35 242	32-3 35 35 242	33-9 45 20 213	33-9 45 20 213	33-7 46 26 112	15 43 31 122	33-7 44 28 150	33-7 44 28 150
900	33 26 231	33 23 243	33 23 243	33-9 45 20 213	33-9 45 20 213	33-7 46 26 112	15 43 31 122	33-7 44 28 150	33-7 44 28 150
850	63-1 32 18 225	40 63-5 28 28 243	41 63-1 38 07	63-4 35 02 210	63-4 35 02 210	67-5 41-5 110	08 65-7 42-9 135	17 65-4 45-15 141	13 64-7 40 28 167
800									
750	32 05 221	44 27 14 238	46 32 13	33-4 248	33-4 248	37 03 116	07 34-12 149	13 37 00 142	12 35 16 167
700	27-5 25 01 218	46 36-2 26 05 236	43 100 26 03	101 28 40 211	101 28 40 211	103 29-2 106	07 101 27-17 156	12 101 30-2 152	15 99-5 26 10 169
650	17 00 210	51 19-1 235	60 21-6	21 40 212	21 40 212	20-9 075	03 20-23 166	12 25-13 158	15 17 03 174
600	137 07-04 223	57 138 11-6 212	53 140 11-2	140 14-7 214	140 14-7 214	142 11-15 043	03 140 12-23 162	11 141 17-23 157	12 139 12-5 177
550	-01-08 216	61 03-1 226	61 02-10	06-27 215	06-27 215	06-24 025	03 08-14 154	12 03-20 144	07 04-40
500	182-03-11 229	64 183-5 14 226	63 185-05 18	185-40-17 222	185-40-17 222	187-2-20 328	03 188-4-26 165	06 186-2-24 152	07 184-5-21
450	-12-19 233	66 -14-21 229	66 -16-27	-13-26 215	-13-26 215	-10-28 328	03 -13-36 146	06 -14-34 182	12 -15-30
400	233-23-32 235	70 235-26-36 230	72 237-30 40	238-25-44 215	238-25-44 215	241-23-44 118	03 239-26-46 145	07 239-24-44 188	16 237-27-41
350	-36-47 232	67 -40-50 229	68 -44	-37-57 210	-37-57 210	-37-56 133	07 -43 141	05 -37-60 179	18 -41
300	200-51	70 300-53	227 68 301-55	303-51	303-51	306-51	02 303-57	156 06 304-53	184 18 301-56
250	-68	234	72 -74	-63	-63	-69	04 -74	173 06 -70	154 17 -70
200	384-85	233	74 384-83	228 71 384-91	228 71 384-91	390-88	05 386-88	206 11 388-84	204 05 386-78
170	-83	238	58 -80	228 56 -81	228 56 -81	-86	06 -73	302 18 -74	217 12 -76
150	-77	242	45 -71	-81	-81	-76	13 -73	303 18 -70	248 10 -73
130	-76	256	44 -71	-83	-83	-74	15 -71	285 13 -69	283 14 -71
110	-71	259	39 -67	-74	-74	-78	13 -69	280 12 -67	276 12 -70
100	625-72	260	26 527-68	524-74	524-74	531-72	18 529-72	531-69	270 15 528-73
90	-73		-66	-76	-76	-73	21 -69	-67	-72
80			-68						
70									
60									
Inversion	825 m 29°-775 m	Inversion 35° 755 m 28°-786 m 30°	Inversion Surf 43°-1005 m 46°	865 m 36°-873 m 40°	865 m 36°-873 m 40°	Inversion 950 m 36°-885 m	Inversion 976 m 35°-940 m 47°	Inversion 1008 m 48°-964 m 50°	Inversion 930 m 42°-855 m 53°
Isothermal	550-520 m 34°	Isothermal 730-700 m 26°	Isothermal 880-865 m 36°	719-710 m 28°	719-710 m 28°		Isothermal 940-900 m 47°	Isothermal 1008 m 48°-964 m 50°	Isothermal 930 m 42°-855 m 53°
Tropopause	1186 m -90°	1184 m -88°	1194 m -91°	1125 m -80°	1125 m -80°	1185 m -91°	1200 m -88°	1190 m -86°	1185 m -83°
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs	03hrs
M.S.L.	1015.4	1018.8		1021.7	1021.7	1024.7	1021.6	1018.3	
Surf	1005.3	1017.5		1012.5	1012.5	1019.2	1005.1	1007.6	
Freezing	825	840		738	738	715	715	716	
Pressure	mb	mb		mb	mb	mb	mb	mb	
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.	
Surf	02-7 43 42 281	09 00-5 44 42	Calm	02-3 44 41 185	03 00-6 37 33 140	15 01-2 43 38 120	07 4-4 35 37 160	13 02-9 48 46 113	12 02-9 48 46 113
1000	04-1 42 41	05-3 42 38 289	15	05-8 44 39	05-8 44 39 21 143	18 06-3 40 35 110	09 5-7 35 36	04-5 47 45 116	30 04-5 47 45 116
950	39 26 255	28 37 36 255	14	43 31 196	05 45 18 143	14 34 30 113	09 5-7 35 36	41 40 120	24 41 40 120
900	32-1 36 35 244	32 33-4 37 36 238	24	34-1 43 20 198	07 34-0 47-19 167	11 34-2 43-22 113	07 33-9 46 07	33-2 43 26 126	15 33-2 43 26 126
850	34 33 242	41 33 31 242	27	42 40 200	12 45-21 185	12 47-21 093	13 46-43	48-20 125	14 48-20 125
800	633 29 26 247	43 34 42 27 250	32	65-6 35-10 202	13 65-7 40-26 158	14 65-9 41-11 078	17 65-6 42-13	650 43-23 121	13 650 43-23 121
750	24 20 248	45 28 23 253	36	33 40 206	15 35-25 207	15 37-15 074	16 36-6	100 37-28 121	15 100 37-28 121
700	27 20 13 243	48 39-0 23 05 253	43	10-1 26 40 217	17 10-1 25-21 207	16 10-1 30-26 066	10 10-1 30-13	100 30-20 128	22 100 30-20 128
650	15 05 241	56 17 03 263	47	22-2 222	22-8 202	10 22-30 060	13 24-21	140 27-05 117	17 140 27-05 117
600	137 08-3 243	62 138 09 03 253	51	140 14-6 227	24 140 16-4 154	06 14 18-44 044	11 14 18-32	140 16-30 115	11 140 16-30 115
550	00-6 241	68 02-9 253	53	06-20 230	27 07-6 169	04 10-26 040	07 08-37	07-2 1104	12 07-2 1104
500	181-8-14 239	72 183-5-30 253	56	185-4-16 235	24 186-00-21 189	03 186-00-23 093	07 186-2-31	186-4-21 114	15 186-4-21 114
450	-17-28 241	74 -15-42 258	54	-17-23 238	22 -5-33 231	07 -10-29 066	03 -11-35	-14-37 137	14 -14-37 137
400	234-28-34 236	79 236-28-56 254	54	238-30-36 244	23 239-19-38 217	13 240-22-41 127	03 239-23-50	239-24-45 154	16 239-24-45 154
350	-41	78 -41 240	58	-44	238	15 -33-54 139	04 -35-60	-37-60 145	11 -37-60 145
300	298-57	87 300-56	63	302-58	231 24-305-48	229 15 305-50	001 04 304-49	303-51	142 12 303-51
250	-72	86 -73	63	-71	228 58 -350-77	248 10 389-83	017 08 385-43	-67	137 13 -67
200	382-71	241 66 384-82	61	-81	228	280 11 -80	001 11 -80	388-83	142 08 388-83
170	-72	246 45 -73	47					-80	160 05 -80
150	(160)-73	-70 251	30					-71	150 251 06 -71
130		-69 259	28					-71	150 259 06 -71
110		-67 266	38					-71	150 266 06 -71
100								-71	150 266 06 -71
90								-71	150 266 06 -71
80								-71	150 266 06 -71
70								-71	150 266 06 -71
60								-71	150 266 06 -71
Inversion	750-730 m 24°	Inversion 794 m 26°-771 m 30°		1013-546 m 44°	1000 m 34°-955 m	915 m 42°-885 m 45°	915 m 42°-885 m 45°	915 m 42°-885 m 45°	915 m 42°-885 m 45°
Isothermal	550-500 m 37°	Isothermal 557-540 m 2°		673-650 m 21°	524 m 45°-900 m	47 915 m 42°-885 m 45°	585 m 37°-512 m 46°	560 m 47°-527 m 48°	560 m 47°-527 m 48°
Tropopause	1240 m -73°	1200 m -82°				1200 m -77°	1187 m -85°	1186 m -86°	1156 m -84°



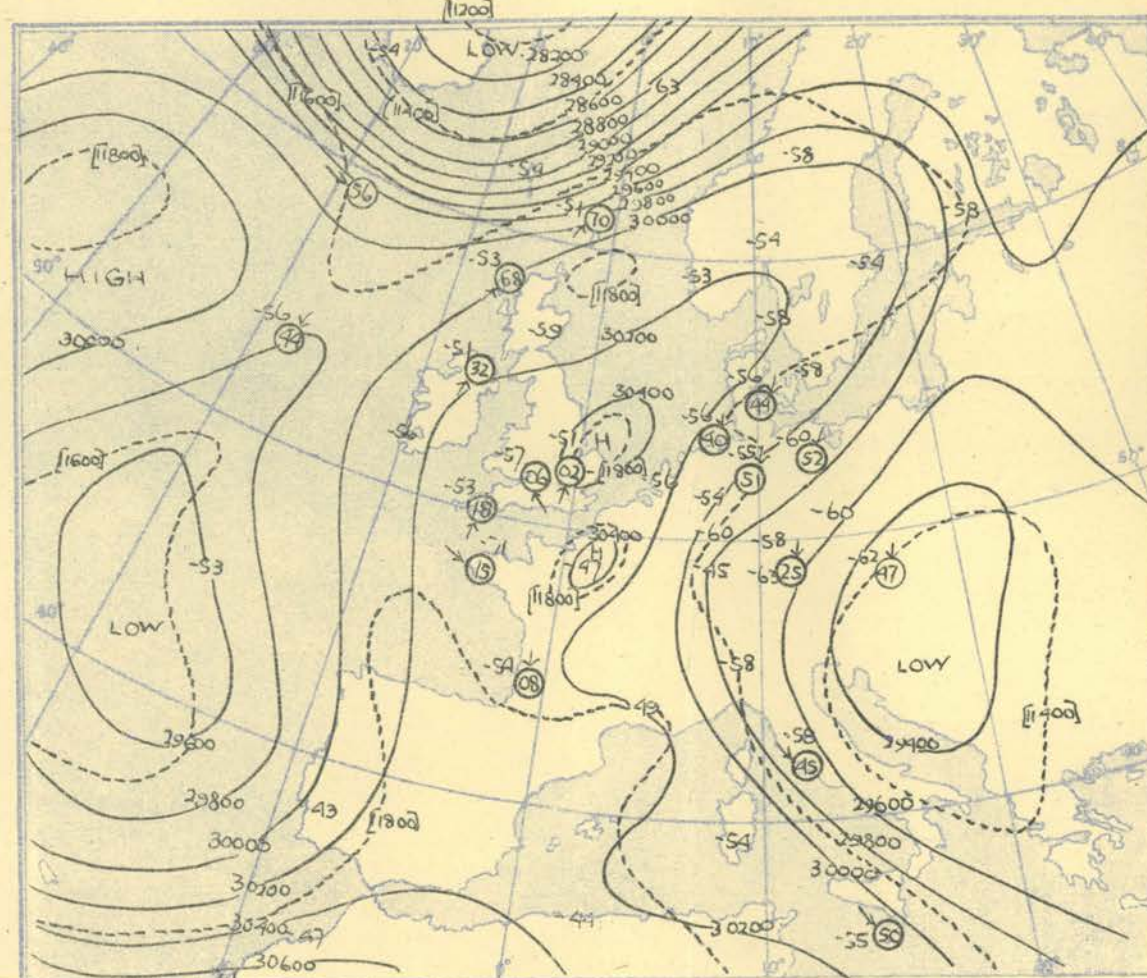
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



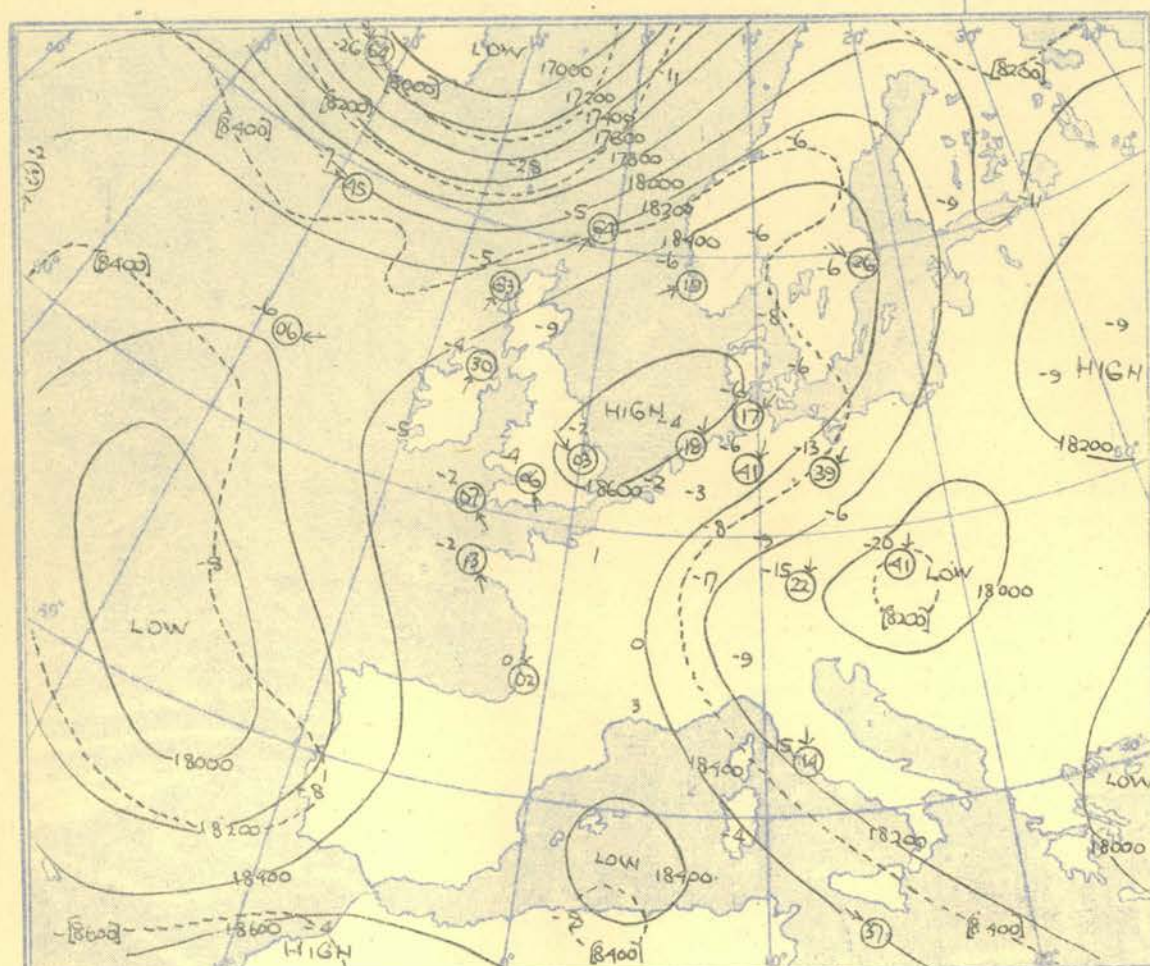
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

Gradient Wind Scale for Contours  
at intervals of 300 ft. at Lat.  $52^\circ$  N

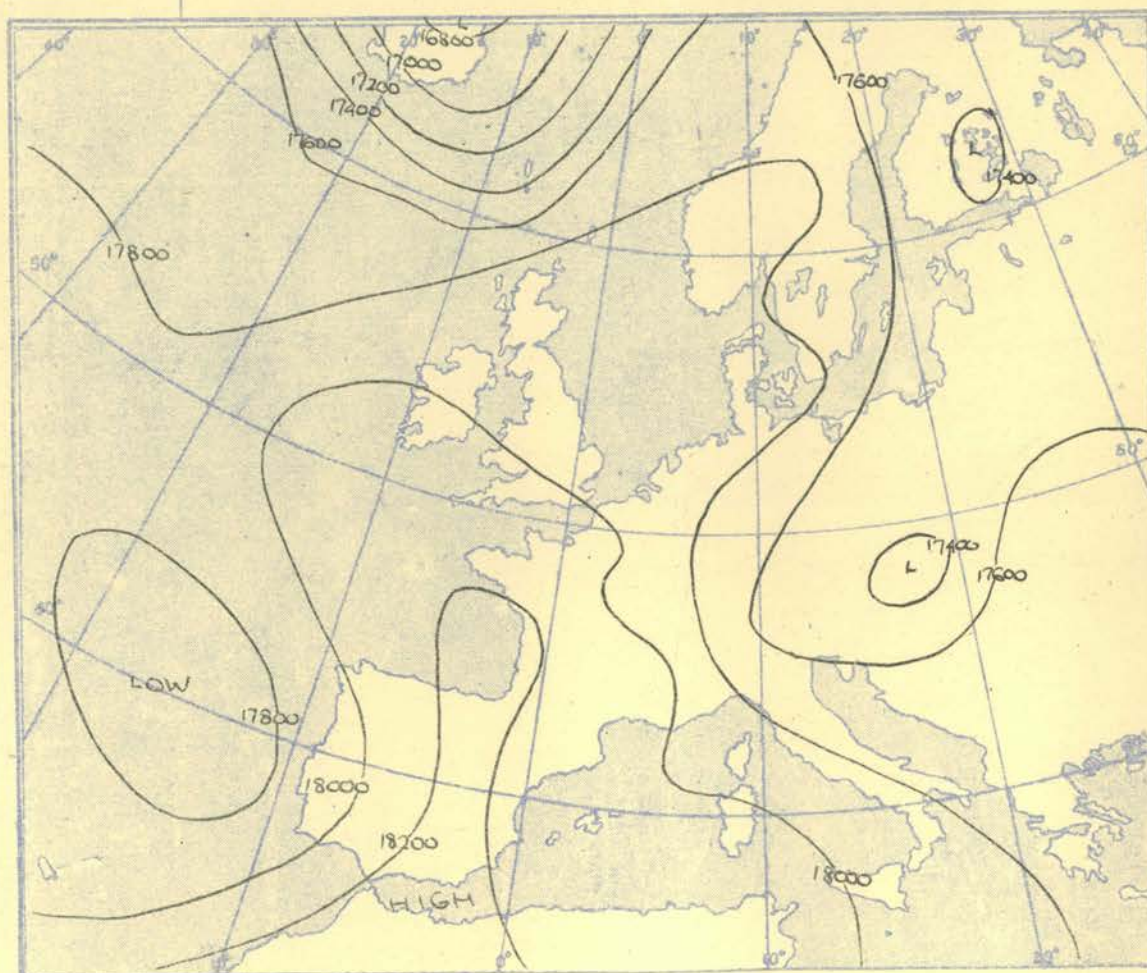
100 80 60 40 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.



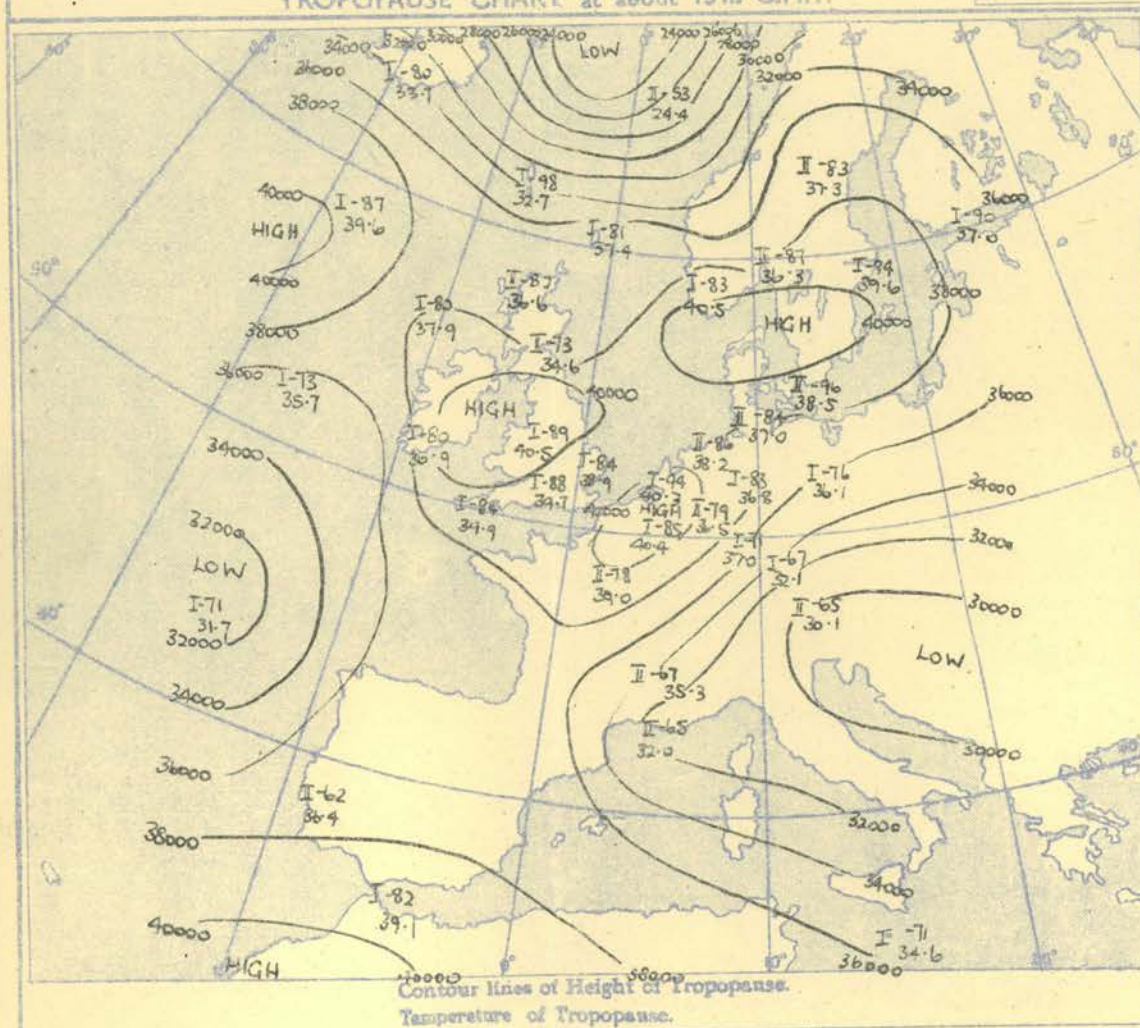
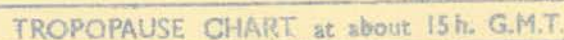
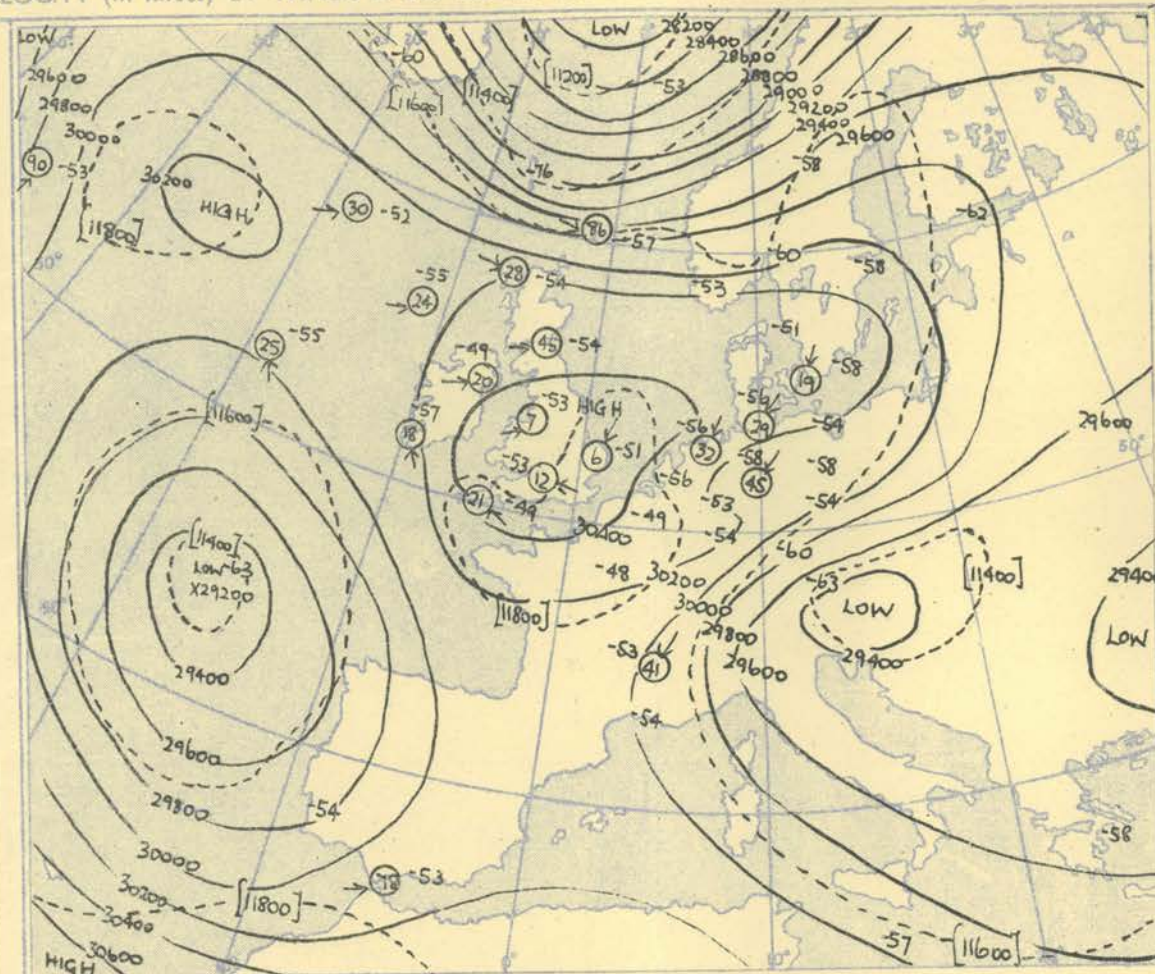
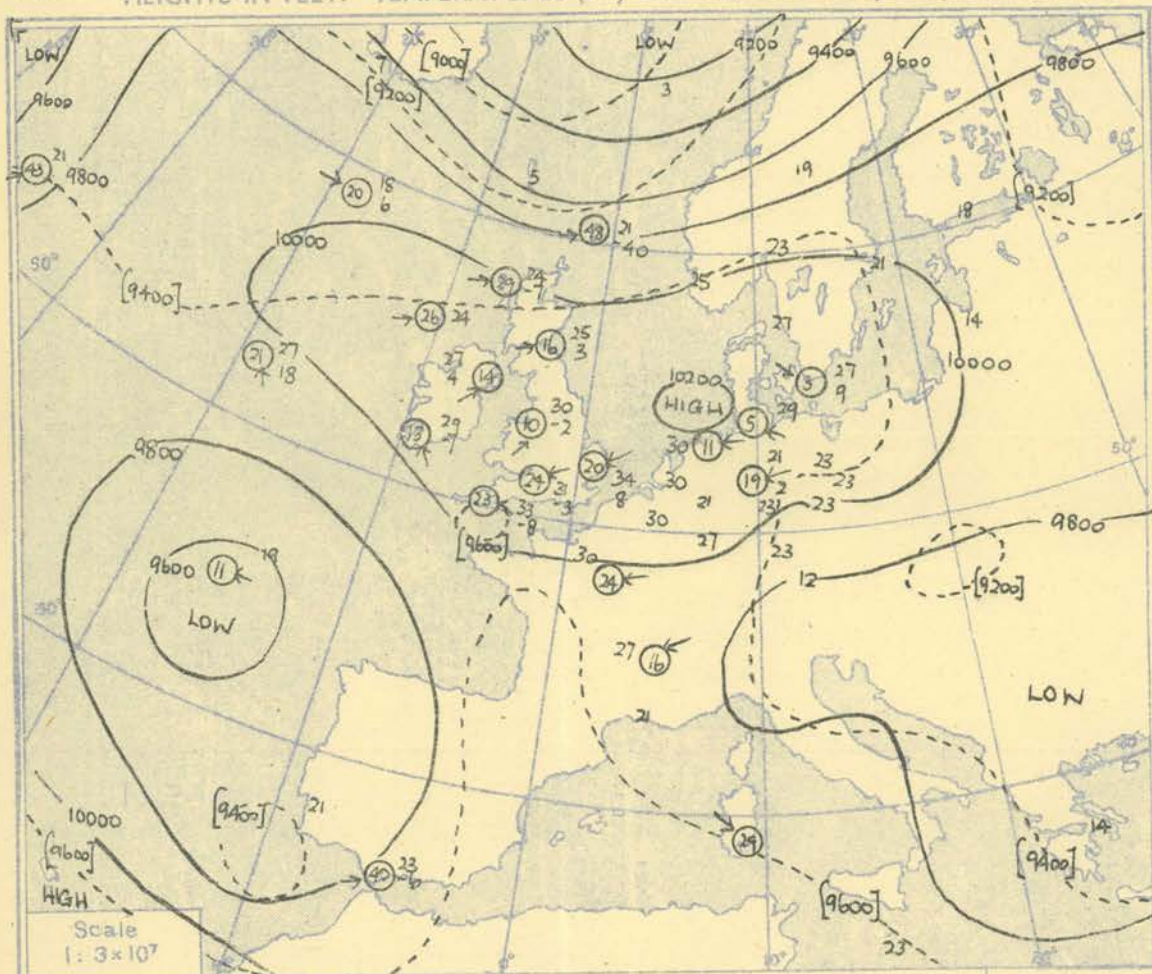
## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

## 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				Weather Observer				Ship					
Lat/Long	59-0N 19-1W				59-0N 19-0W				59-0N 19-0W				59-0 19-1				52-9N 19-0W				52-8N 19-9W				52-4N 19-8W				52-2N 19-8W				55-0N 11-1W				Lat/Long					
Time M.S.L. Surf Freezing	03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h		G.M.T.		03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h		G.M.T.		03h		G.M.T.		Time M.S.L. Surf Freezing					
	1015	mb	1015	mb	1019	mb	1019	mb	1024	mb	1024	mb	1027	mb	1027	mb	1014	mb	1014	mb	1015	mb	1015	mb	1017	mb	1017	mb	1018	mb	1018	mb	1017	mb								
Pressure	920				900				925				930				790				820				770				750				770				Pressure					
Height ft./100																																					Height ft./100					
Temp. °F.																																					Temp. °F.					
Dew °F.																																					Dew °F.					
Wind Dir. Vel. knots																																					Wind Dir. Vel. knots					
Surf	41	43	28		51	43	36		64	46	40		72	46	34	Winds	37	47	39	025	21	46	44	020	23	51	50	060	20	50	50	065	15	50	47	Surf						
1000		41	27			42	35			43	34			42	31	mainly		45	39	027	39	41	42	040	33	46	49	064	21	48	50	074	18	44	49	1000						
950		37	24			38	32			36	27			35	26	light and		39	38	033	36	39	39	042	30	46	46	064	21	48	50	074	18	44	49	950						
900		28	20		331	32	27		343	28	23		351	27	20	variable	318	35	35	045	24	323	38	32	046	17	331	43	39	064	27	334	43	41	084	16	329	42	900			
850		22	7			27	22			30	14			29	13	Reading		36	36	062	12		36	35	048	15		39	35	083	19		43	33	097	09		36	850			
800	630	21	-40		637	21	2		649	27	6		658	29	13	impossible	631	33	33	068	05	634	29	28	062	17	645	36	30	151	09	650	38	35	120	08	642	37	31	800		
750		20	-40			29	-21			24	8			24	10	to high		27	22	Calm		26	18	067	15		32	28	151	15		32	26	124	10		29	23	750			
700	972	20	-40		983	26	-15		993	18	6		1003	17	05	elevation	977	23	14	050	03	980	23	15	070	13	996	27	18	137	21	1001	26	17	132	12	990	24	8	700		
650		13	-41			20	-5			12	3			17	8	Calm		17	8	Calm		16	8	081	12		9	9	125	25		18	13	146	16		17	-3	650			
600	1361	9	-37		1377	16	-2		1382	12	3		1392	12	01	gyro.	1369	11	7	203	08	1372	12	-12	086	12	1369	12	-12	127	27	1395	13	0	127	24	1382	11	-13	600		
550		2	-40			10	-4			7	-6			04	-09			4	-5	140	05		4	-21	082	17		3	-21	125	27		5	78	107	27		6	-13	550		
500	1811	-7	-45		1835	3	-10		1835	-3	-15		1843	-05	-19		1819	-6	-24	078	06	1823	-9	-34	082	21	1841	-6	-27	133	26	1847	-4	-19	122	26	1834	-4	-19	500		
450		-18	-52			-6	-19			-13	-23			-14	-26			-17	-42	070	15		-20	-45	102	20		-15	-31	134	19		-15	-24	140	36		-15	-36	450		
400	2339	-28	-56		2373	-17	-29		2366	-24	-33		2373	-26	-40		2345	-29	-53	048	30	2346	-35	-58	068	22	2369	-26	-30	145	18	2375	-27	-38	136	38	2362	-27	-37	400		
350						-30	-42			-36	-46			-39	-59			-41		035	35		-46		050	48		-39	-54	154	30		-40	-46	135	35		-40	-53	350		
300					3031	-45			3012	-52			2984	-56						022	44	2979	-59		045	55	3013	-55		150	25	396	-56		151	33	3003	-54			300	
250						-59				-70				-61						018	43		-70		057	45			116		24		164	33		-70			250			
200					3893	-76			3855	-84			3834	-70						009	13	3825	-69		055	29	3865	-68		121		21	3657	-78		157	26	3849	-79			200
170						-70				-75				-68						283	12		-69		028	09			114		12		-73		137	15		-73			170	
150										-70				-67						269	15		-67		310	18		-66		052	08		-73		180	09		-73			150	
130														-66						268	10		-63		296	10		-66		020	06		-73		145	08		-72			130	
110														-69						247	11		-70		287	08		-65		330	09		-73		004	08		-73			110	
100														-69						224	18	5275	-70		280	10	5320	-62		315	09	5285	-73		336	07		(13mb)-72			100	
90														-69						209	13		-69		280	10		-62		297	08		-73		328	15			90			
80																											-62		280	08		-73		325	13			80				
70																											-61		220	12		-73		353	08			70				
60																											-58					-73		030	08			60				
Inversion		850mb 22°-825mb 26°		Inversion		800mb 21°-750mb 29°		Inversion		884mb 26°-850mb 30°		Inversion		884mb 24°-836mb 30°		Inversion		910mb 32°-885mb 37°		Inversion		910mb 37°-700mb 38°		Isothermal		950-921mb 45°		Isothermals		700-850mb 43°		Inversion		835mb 35°-818mb 39°								
Isothermal		750-700mb 20°						Isothermal		800-770mb 27°				669mb 13°-645mb 16°								Isothermal		900-890mb 38°		770-732mb 32°		750-735mb 32°		750-735mb 32°		934-911mb 43°										
Tropopause	NR				I 194mb -78° 39,600'				I 190mb -81° 39,600'				I 188mb -84° 39,900'				II 222mb -74° 36,200'				I 216mb -73° 31,700'				I 230mb -73° 35,700'				II 241mb -76° 34,700'				II 200mb -79° 38,500'				Tropopause					





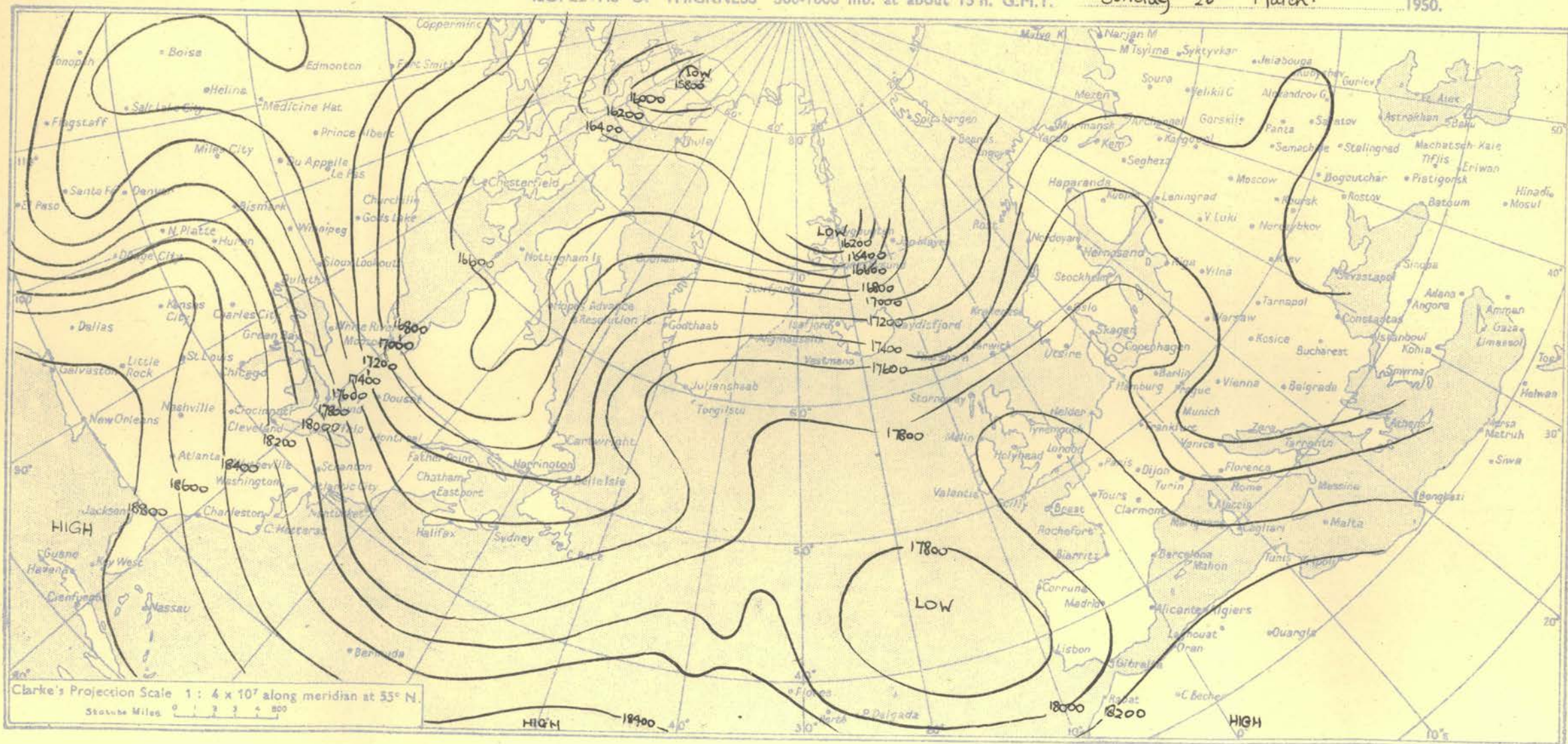
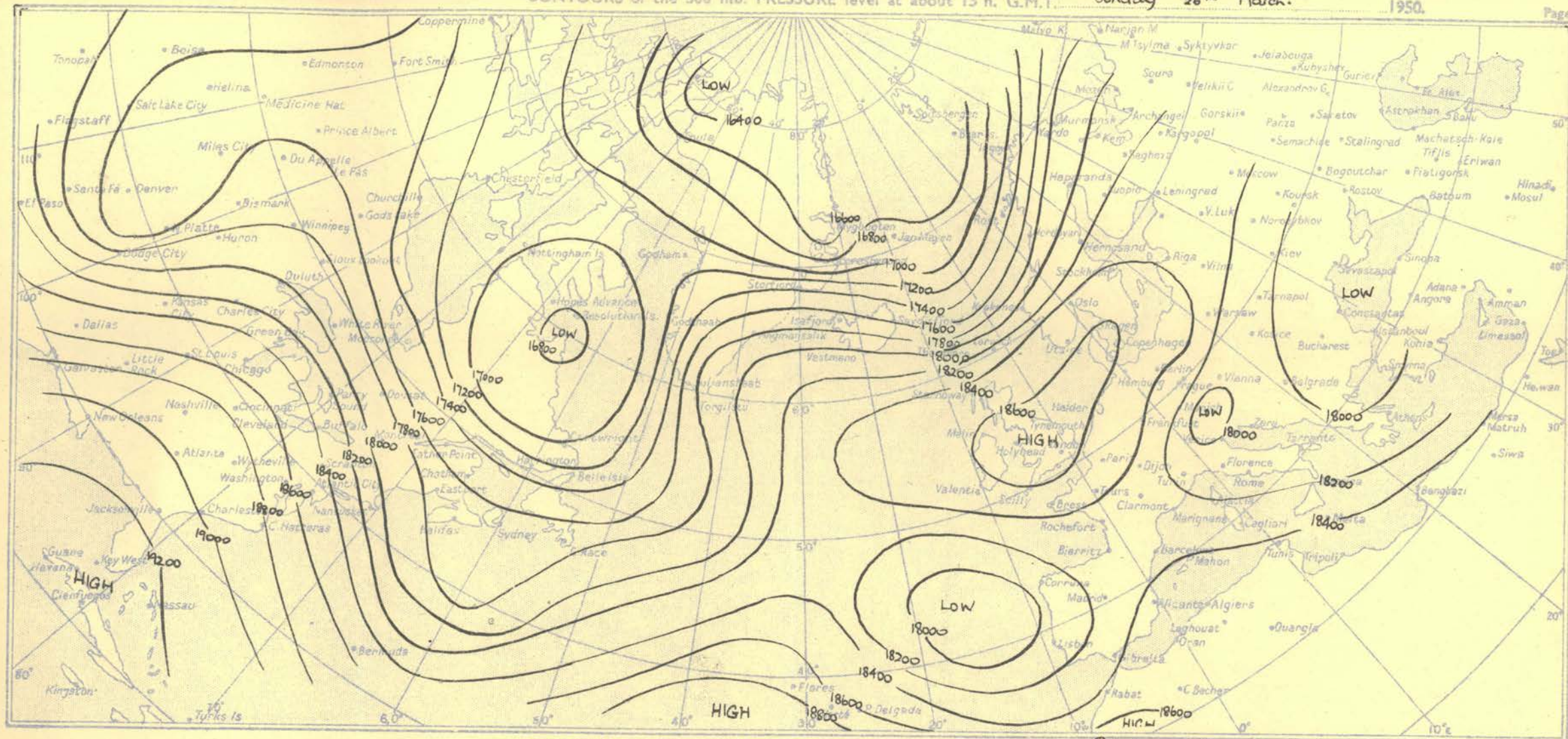
## NOTES ON THE AEROLOGICAL SITUATION.

The warm ridge moved eastwards especially in the north and reached a position from Finland to England and thence through West France to North Africa by the end of the day. The Atlantic cold trough weakened and the southern part of it formed a cold pool which moved from north of the Azores to west of Portugal. A strong thermal belt developed across Southern Greenland and Iceland.

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







## DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON

DAILY AEROLOGICAL RECORD OF THE METEOROLOGICAL OFFICE, LONDON

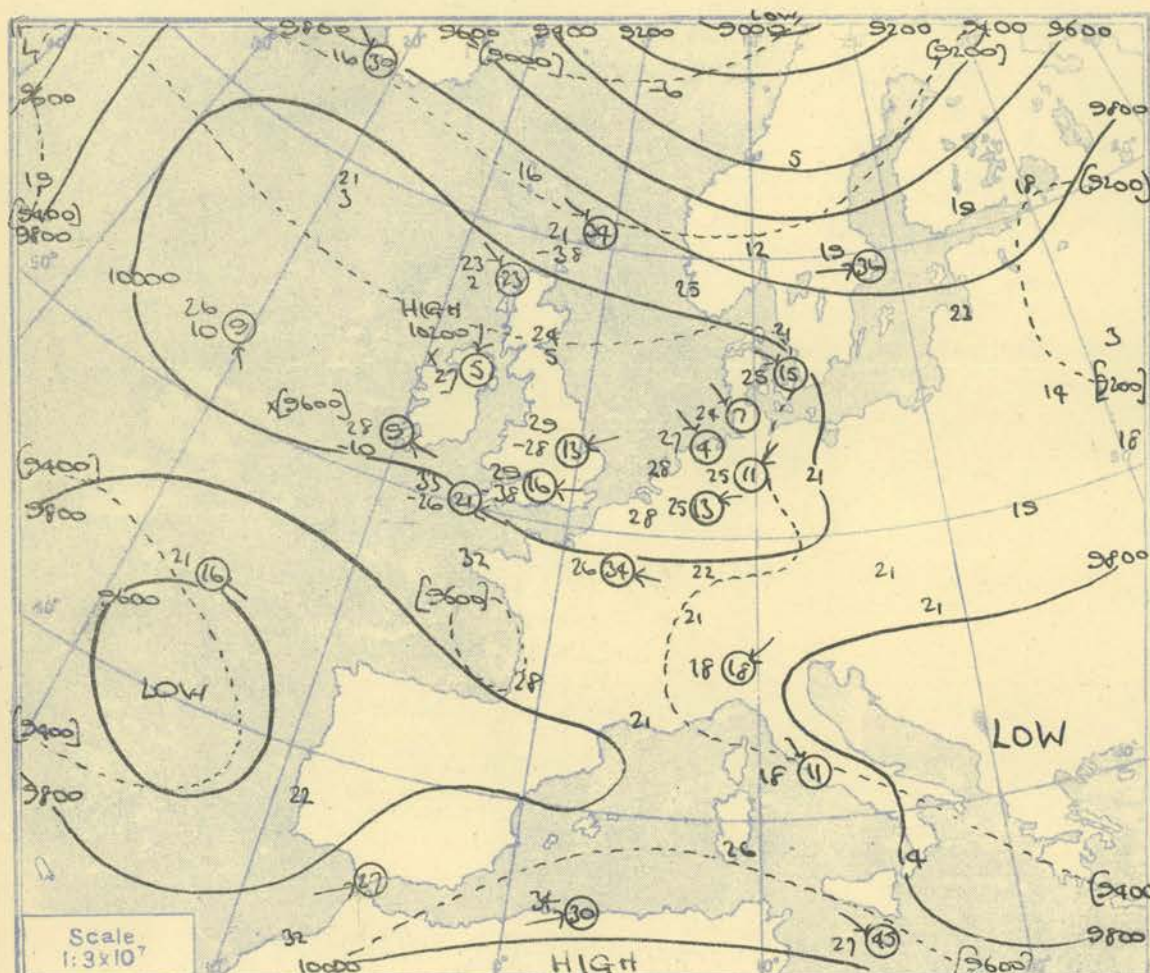


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

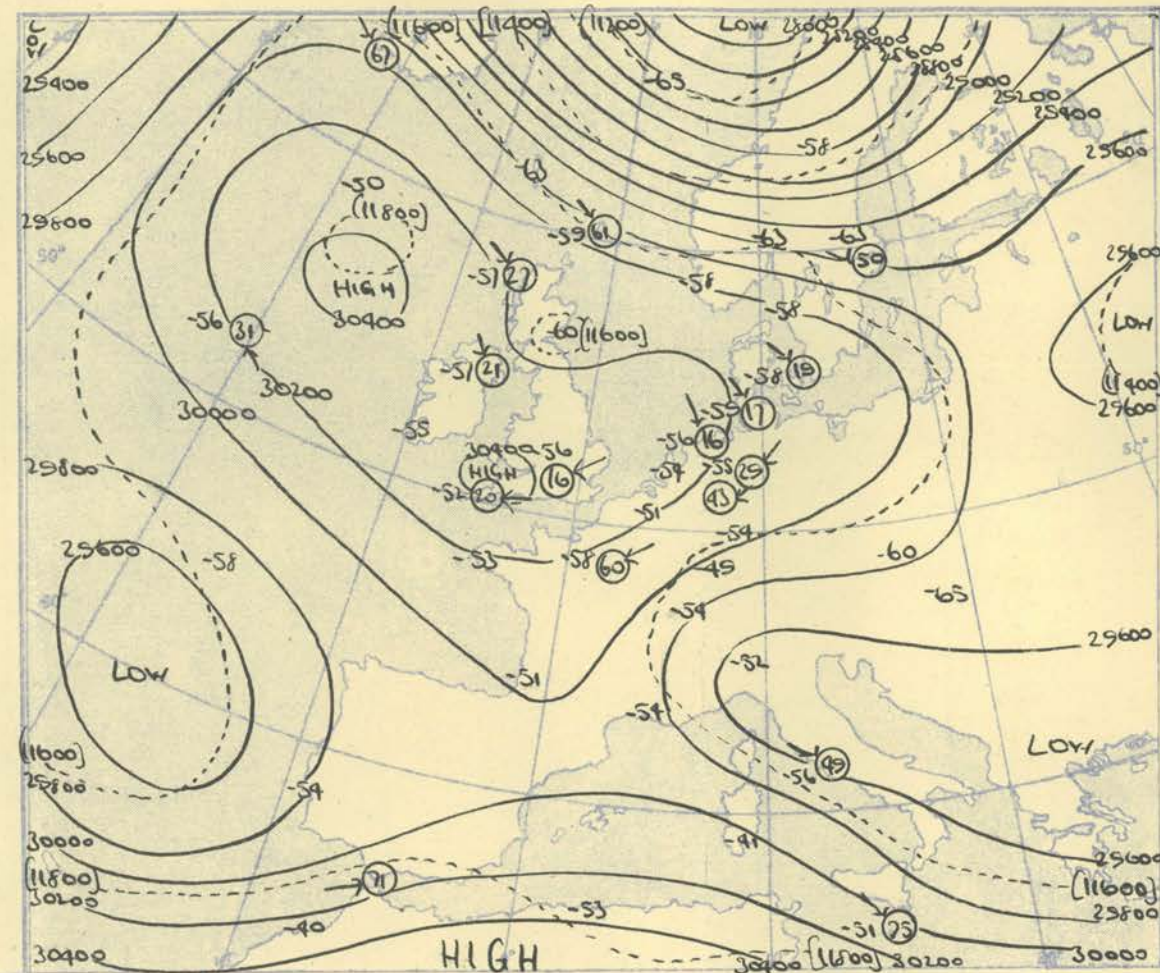
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time	03hrs	03hrs	03hrs	03hrs		03hrs	03hrs	03hrs	03hrs	Time
M.S.L.	1025.0	1028.8	1027.7	1025.4		1023.6	1005.2	1017.6	1021.2	M.S.L.
Surf	1014.7	1026.5	1026.5	1016.5		1019.0	1021.7	1008.8	1020	Surf
Freezing	535	800	764	745		728	720	690	750	Freezing
Pressure										Pressure
Height										Height
Temp.										Temp.
Dew										Dew
Wind										Wind
Dir.										Dir.
Vel.										Vel.
Surf	02.737 33 310	08 05 037 36340	03 00 1.46 41	02.337 32 080 04		01.239 39 040 03	04.435 38 035 04	02.744 40 090 03	03 41 37 030 01	Surf
1000	06.539 33	07.643 37345	09 07.442 37	06.747 32 032 03		06.243 40 106 03	05.740 38	05.245 40 102 21	05.745 38 052 04	1000
950	35.28 294	31 32345	37 31	47 036 04		44.26 106 10	43.33 038	45.33 103 24	47.32 102 11	950
900	24.227 23 299	17 35.631 28336	08 35.5 37 37	35.244 44 037 04		34.6 39 29 088	1934.0 38 15 102	33.6 43 34 113	24 34.3 47 114 12	900
850	26 18 303	20 29 23 201	11 32 31	44 038 04		41 26 073	15 44 08 039	39 13 112	21 47 3 037 14	850
800	64.4 18 06 303	22.66 332 00 233	17 66 6 35 30	56.8 35 038 05		66.1 36 07 015	12 65 5 35 20 034	65.0 34 17 101	26 66 0 42 034 14	800
750	24.25 303	27 29 00 185	18 30 13	33 034 03		34 6 074	15 34 30 033	38 14 031	21 35 3 100 11	750
700	28.7 21 30 298	34 101 23 02 287	23 101 24 03	102 27 036 03		101 29 21 066	13 101 29 38 031	100 33 26 036	21 101 28 10 031 09	700
650	16 24 294	40 17 3 282	24 17 2	14 20 304 03		22 13 033	13 21 48 030	27 35 110	23 19 16 030 10	650
600	13.8 10 17 253	41 140 11 52 286	24 141 10 4	141 20 300 10		14 15 13 048	11 140 12 46 086	140 20 40 101	23 140 10 46 106 14	600
550	02 18 290	40 05 7 281	29 01 26	02 29 13		07 15 043	12 03 44 068	12 46 100	22 07 12 104 16	550
500	183 7 21 251	46 185 4 15 278	31 186 7 38	186 7 293 03		186 02 18 054	13 185 4 32 055	186 02 37 053	22 186 4 22	500
450	18 26 252	49 16 23 282	30 18 50	15 297 08		14 31 041	11 15 40 051	10 33 087	20 12 33	450
400	235 30 41 258	53 23 27 2928	20 238 31 58	235 29 302 12		235 27 46 056	14 235 27 51 051	240 23 45 100	18 235 24 43	400
350	44 236 53	-41 301 30	44	42 304 13		40 57 010	16 40 63 043	37 57 050	26 38 57	350
300	299 55	27 61 302 57	295 27 301 60	303 57 306 21			302 56 043	304 52 051	26 303 55	300
250	76 306 57	75 296 29	75	73 295 16			71 048	68 083	26 75	250
200	382 82	292 54 385 87	301 31 384 65	386 83 293 21			386 87 064	389 87 052	23 386 89	200
170	76 290 50	83 300 33	80	74 310 15			84 060	76 050	14 86	170
150	77 287 43		8	74 310 15			76 010	73 051	07 85	150
130	78 284 42		79	74 310 15			75 353	73 024	05 83	130
110	79 281 41		80	74 310 15			74 356	73 322	07 81	110
90	80 278 40		81	74 310 15			73 359	73 300	12 80	90
80	81 275 39		82	74 310 15			72 362	73 298	12 79	80
70	82 272 38		83	74 310 15			71 365	73 301	10 78	70
60	83 269 37		84	74 310 15			70 368	73 303	06 77	60
Inversion	1015ms37-987ms40°		Inversion	842ms31-870ms36°		Inversion	910ms38-882ms41°	Inversion	1020ms41-985ms47°	
814ms16-755ms25°			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	Inversion	935ms46-918ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°		910ms38-882ms41°	41° 966ms45-928ms40°	915ms40-885ms47°	887ms46-870ms48°	
			842ms31-870ms36°	107ms37-958ms50°						



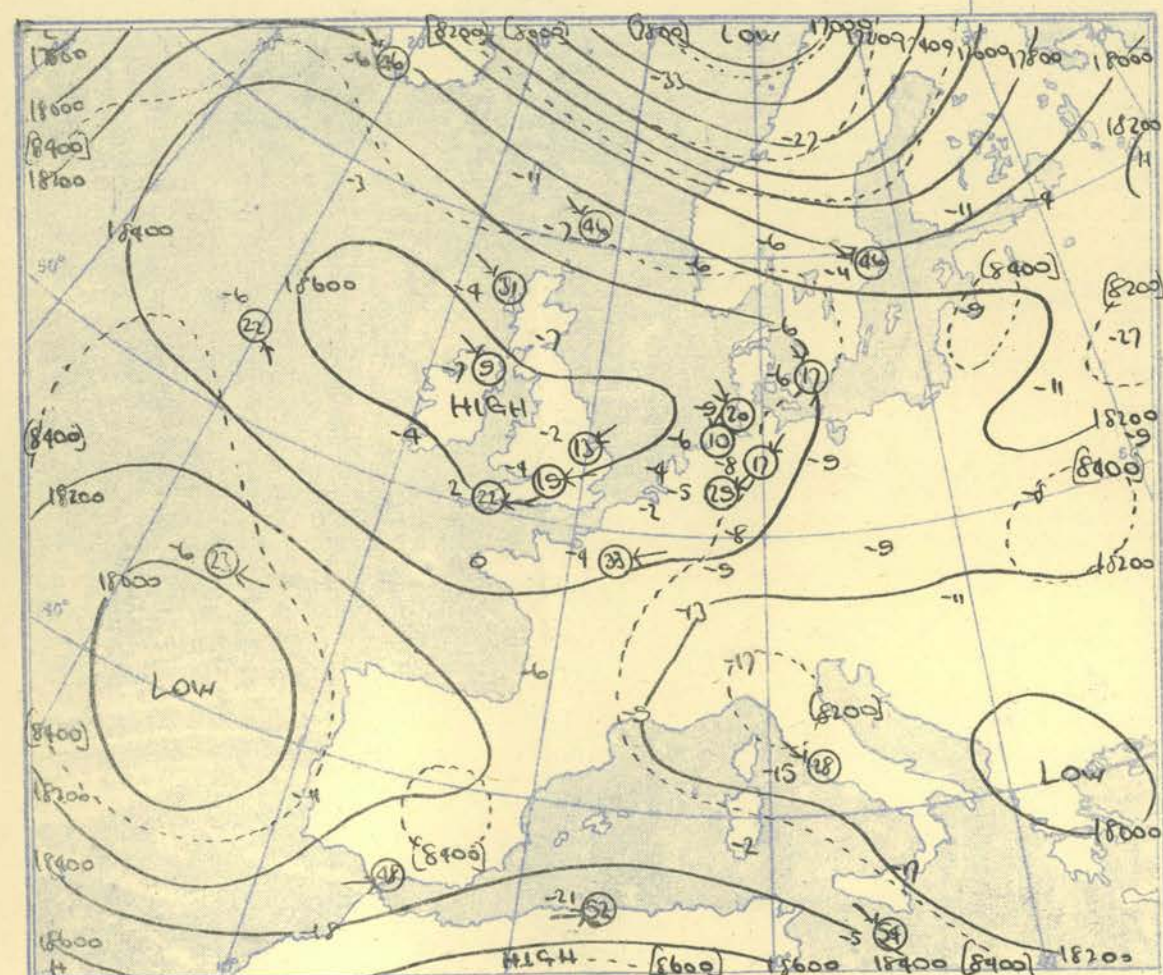
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



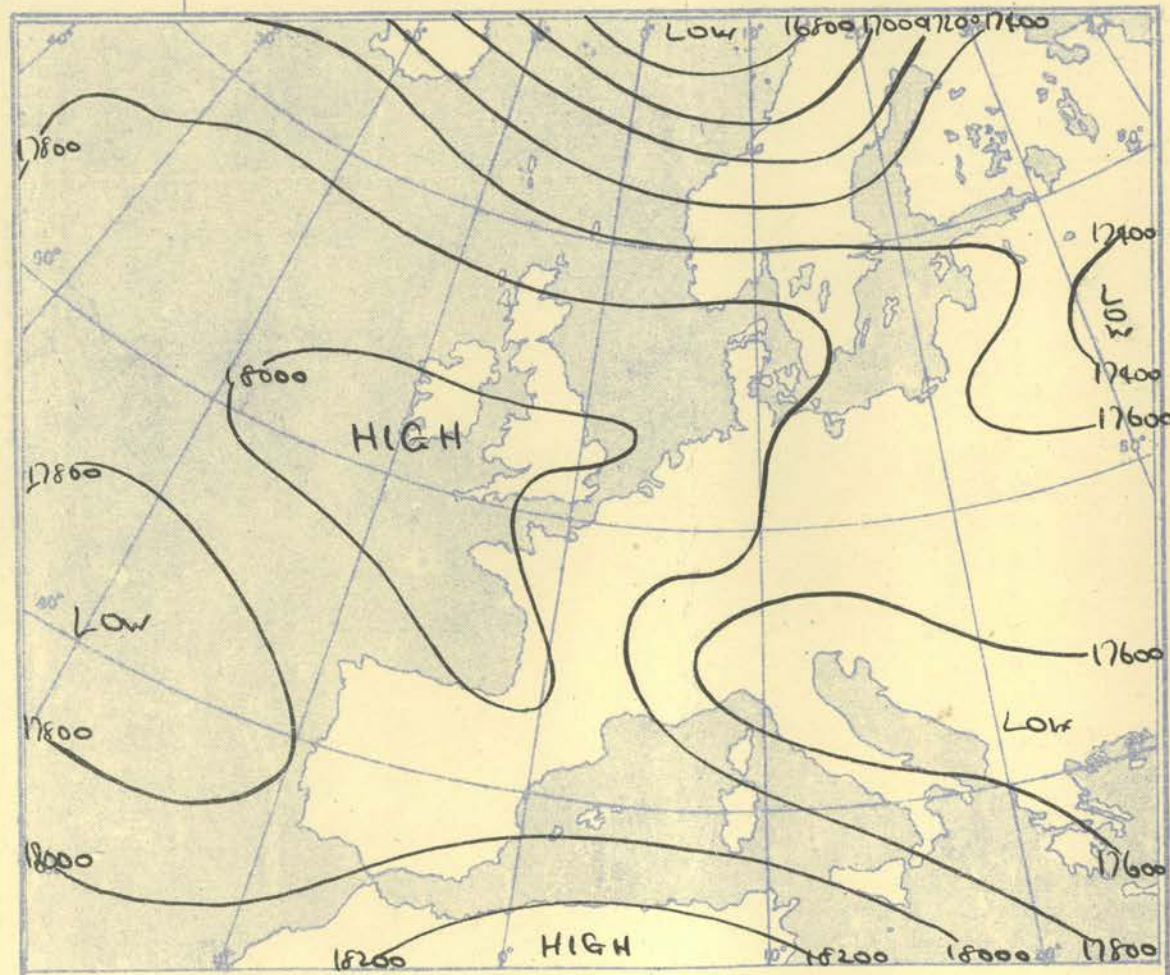
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.



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.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Pressure		48°2N. 20°SW.			49°5N. 14°7W.			43°2N. 17°0W.			49°5N. 12°2W.			54°1N. 0°1E.												Time M.S.L. Surf Freezing	
Time M.S.L. Surf Freezing		13h. 1026 mb 1022 mb 720 mb			14h. 1028 mb 1021 mb 705 mb			13h. 1012 mb 1009 mb 805 mb			15h. 999 mb 1002 mb 770 mb			15h. 1030 mb 1029 mb 760 mb			mb mb mb			mb mb mb			mb mb mb				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Height ft./100	Temp. °F.	Dew °F.	Pressure mb		
Surf		54	51		52	49		57	51		53	52	0.5	43	37										Surf		
1000	6.9	50		6.6	50		3.3	57			2.5			7.9											1000		
950		44			43			48							33	33									950		
900		36	36		29	39		42				46	46	35.8	39	12									900		
850		44			43			37				41			39	-04									850		
800		41	41		42			31				35		67.1	36	17									800		
750		35	35		37			25				29			31	18									750		
700	102	30		102	31		77.7	20		95.7	25		102	24	18										700		
650		21			23			14			16			20	16										650		
600		12			14			06			08		141	10											600		
550		02			-01			-08			00			04											550		
500	186	-07		187	-05		181	-14		180	-10		187	-05											500		
450														-17											450		
400														239	-29										400		
350														-43											350		
300																									300		
250																									250		
200																									200		
170																									170		
Cloud.		3/8 Sc 940-			Cloud.			Cloud.			Cloud.			Cloud.													
910mb.		910mb.			910mb.			910mb.			910mb.			910mb.													
Inversion		Inversion			Inversion			Inversion			Inversion			Inversion													
900mb. 36°		900mb. 36°			900mb. 39°			900mb. 39°			900mb. 39°			900mb. 39°													
850° 44°		850° 44°			850° 43°			850° 43°			850° 43°			850° 43°													

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

Place	Camborne		Sheeburyness		Lympe		Ronaldsway		Downham Market		Liverpool		Leuchars						Place
Time	09h.		10h.		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.			040	07	040	17	100	10	030	10	080	08	Calm						Surf.
1,000			050	20	050	20	100	12	040	15	080	15	089	10					1,000
2,000			070	19	050	22	090	13	050	14	080	13	086	10					2,000
3,000			080	17	050	22	110	12	050	13	080	12	067	08					3,000
4,000			070	13	050	17			050	11	080	10	084	07					4,000
5,000			090	13	060	22			040	10	060	08	353	08					5,000
6,000			080	14					030	09	050	10	346	08					6,000
8,000			070	17					030	11	040	11	331	11					8,000
10,000			070	16					030	11	030	10	327	12					10,000
14,000			060	19					010	18	010	10	334	13					14,000
18,000			060	18					030	16	010	12	331	11					18,000
24,000			050	23					040	24	040	14	311	09					24,000
30,000			030	23					050	24	050	19	008	09					30,000
40,000	067	22	030	20					040	26	040	23	330	21					40,000
50,000	325	11							350	16	350	22							50,000
60,000									320	28									
70,000									310	33									
80,000									300	32									

## NEPHOSCOPE OBSERVATIONS

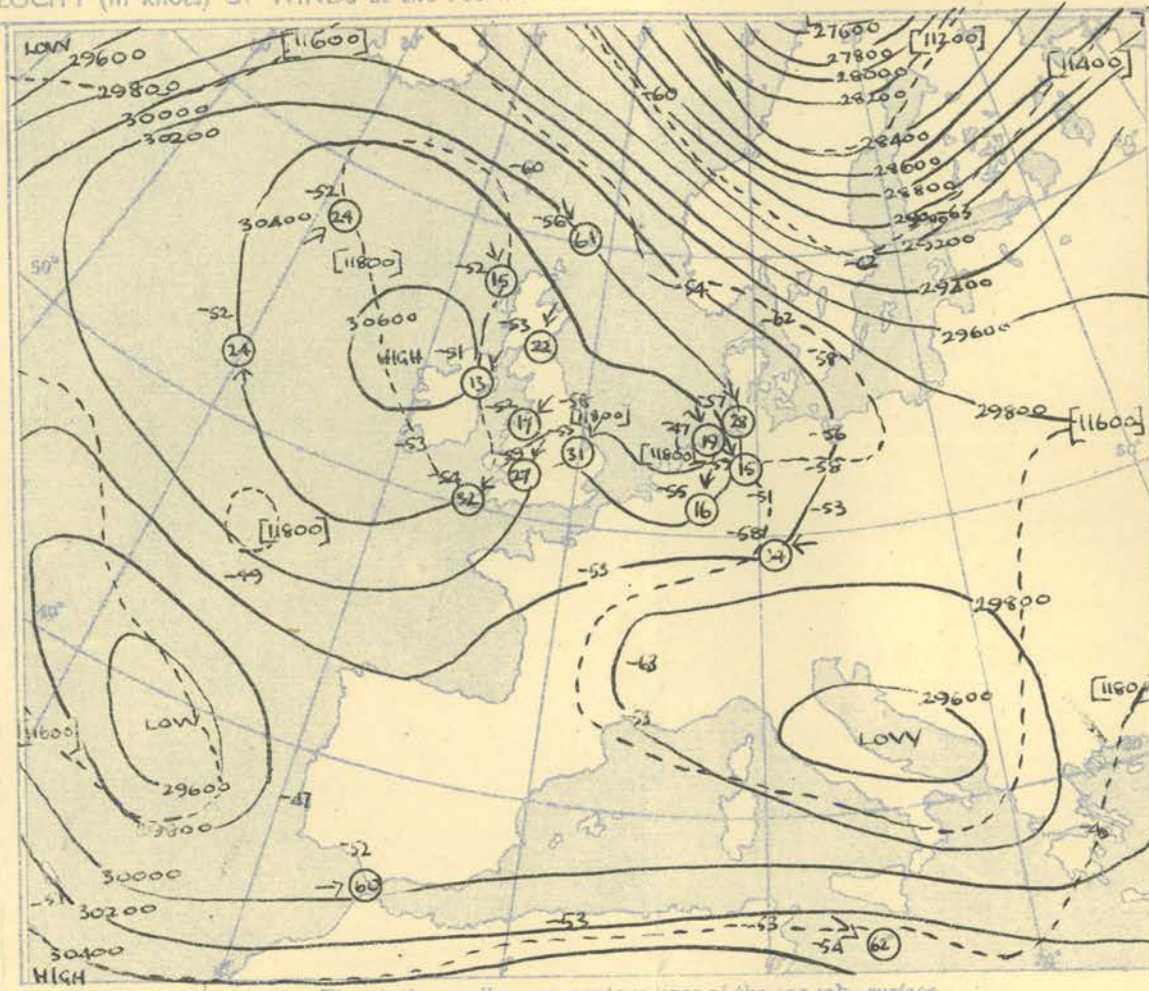
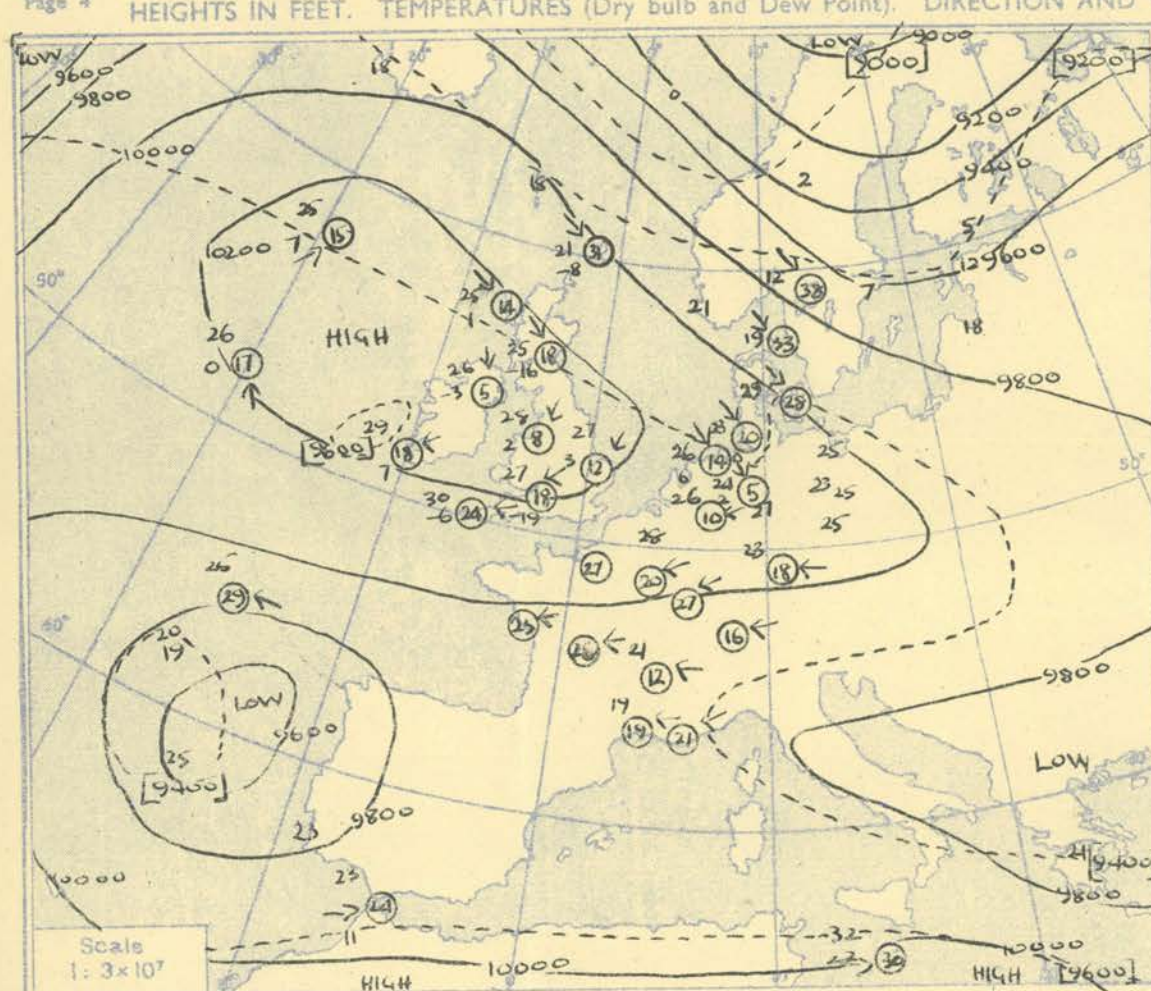
[illegible]

## 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	52.7 N 20 W				52.3 N 20.4 W				52.5 N 20.3 W				52.5 N 20.3 W				59 N 19 W				59 W 19 W				58.6 N 17.6 W				58.0 N 15.9 W				Lat/Long								
Pressure	Time	03h		G.M.T.	M.S.L.	09h		G.M.T.	Surf	15h		G.M.T.	Freezing	21h		G.M.T.	Time	03h		G.M.T.	M.S.L.	09h		G.M.T.	Surf	15h		G.M.T.	Freezing	21h		G.M.T.	M.S.L.	03h		G.M.T.					
	mb	1021		mb		mb	1024			mb	mb	1026		mb	mb	1027		mb	mb	1029		mb	mb	1031		mb	mb	1033		mb	mb	1034		mb	mb						
	°F.	750		°F. <th>°F.</th> <td colspan="2">755</td> <td>°F.<th>°F.</th><td colspan="2">740</td><td>°F.<th>°F.</th><td colspan="2">705</td><td>°F.<th>°F.</th><td colspan="2">920</td><td>°F.<th>°F.</th><td colspan="2">915 and 790</td><td>°F.<th>°F.</th><td colspan="2">905 and 790</td><td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td></td></td></td></td></td>		°F.	755			°F. <th>°F.</th> <td colspan="2">740</td> <td>°F.<th>°F.</th><td colspan="2">705</td><td>°F.<th>°F.</th><td colspan="2">920</td><td>°F.<th>°F.</th><td colspan="2">915 and 790</td><td>°F.<th>°F.</th><td colspan="2">905 and 790</td><td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td></td></td></td></td>	°F.	740		°F. <th>°F.</th> <td colspan="2">705</td> <td>°F.<th>°F.</th><td colspan="2">920</td><td>°F.<th>°F.</th><td colspan="2">915 and 790</td><td>°F.<th>°F.</th><td colspan="2">905 and 790</td><td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td></td></td></td>	°F.	705		°F. <th>°F.</th> <td colspan="2">920</td> <td>°F.<th>°F.</th><td colspan="2">915 and 790</td><td>°F.<th>°F.</th><td colspan="2">905 and 790</td><td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td></td></td>	°F.	920		°F. <th>°F.</th> <td colspan="2">915 and 790</td> <td>°F.<th>°F.</th><td colspan="2">905 and 790</td><td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td></td>	°F.	915 and 790		°F. <th>°F.</th> <td colspan="2">905 and 790</td> <td>°F.<th>°F.</th><td colspan="2">910 and 835</td><td>°F.<th>°F.</th></td></td>	°F.	905 and 790		°F. <th>°F.</th> <td colspan="2">910 and 835</td> <td>°F.<th>°F.</th></td>	°F.	910 and 835		°F. <th>°F.</th>	°F.						
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	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	080	15	50	47	080	15	52	51	070	16	50	44	090	15	45	33		46	37		46	37		46	37		46	37		Surf								
1000	55	48	43	092	18	63	49	49	093	18	69	50	44	097	17	73	47	39	087	15	78	41	30		82	42	35		86	43	34		91	42	35	1000					
950		45	39	088	22		43	43	103	13		44	39	095	16		44	31	090	14		35	28		561	36	30		366	31	24		371	30	22	950					
900	340	40	32	088	22	347	47	26	108	13	354	43	26	095	17	358	51	18	106	12	357	28	24		561	30	24		366	31	24		371	30	22	900					
850		46	30	092	18		44	37	108	11		45	22	095	19		47	21	116	12		32	13			34	20			35	16			34	24	850					
800	656	39	22	094	15	663	38	32	105	10	670	40	20	094	15	676	43	23	132	07	665	31	12		669	33	14		676	33	-10		678	27	17	800					
750		32	19	105	09		31	25	099	10		33	-8	134	14		38	-27	141	04		27	8			28	9			29	8			28	-8	750					
700	1008	26	10	113	09	1013	26	9	101	12	1021	26	0	156	17	1030	31	-32	145	03	1011	21	3		1015	22	6		1024	25	7		1024	25	-16	700					
650		18	-1	122	12		21	4	110	13		20	-8	151	14		23	-38	158	07		18	8			17	5			21	-2		18	-12	650						
600	1401	11	-7	133	15	1409	16	6	120	16	1415	13	-33	123	15	1426	14	-27	174	09	1403	12	3		1407	14	3		1419	15	-15		1417	11	-11	600					
550		2	-15	130	17		0	-4	135	17		5	-27	123	13		6	-28	188	11		5	-4			9	-4			8	-30		5	-11	550						
500	1851	-6	-24	125	22	1858	-11	-14	148	20	1866	-5	-26	138	13	1879	-4	-36	192	08	1855	-3	-13		1863	-2	-13		1873	-2	-45		1867	-6	-22	500					
450		-16	-31	132	24		-21	-23	144	21		-16	-28	159	17		-16	-46	192	16		-12	-24			-14	-22			-12	-53		-16	-29	450						
400	2379	-27	-40	132	28	2379	-33	-36	140	19	2393	-29	-42	166	19	2406	-29	-56	200	18	2387	-24	-35		2393	-28	-36		2405	-24	-57		2395	-27		2395	-27	400			
350		-40	-53	137	35		-47		142	23		-39	-51	167	21		-41		201	16		-36				-42				-37	-60		-40	-50	350						
300	3020	-56		118	31	3011	-59		140	34	3036	-52		146	24	3046	-56		196	14	3034	-50			3031	-58			3051	-52		3037	-54			300					
250		-71		120	42		-73		144	37		-67		170	29		-72		205	15		-69				-74				-69			-68		250						
200	3861	80	124	25	3848	83		160	24	3834	-78		162	13	3883	-82		184	12	3880	-85			3865	-81			3896	-83		3881	-84			-84	200					
170		-73		140	14		-76		046	15		-75		126	10		-73		240	03		-62			(190mb)	-76				-78				-84	170						
150		-74		148	14		-73		050	10		-72		050	31		-72		150	05		-73								-72				-80	150						
130		-72		184	6		-71		028	10		-72		346	08		-70		162	09		-71								-73				-76	130						
110		-72		311	09		-70		528	09		-72		335	12		-72		174	14		-74								-71				-77	110						
100	5289	-72		317	09	5275	-74		319	10	5312	-72		328	11	5313	-73		174	12	5296	-75							5321	-70		5286	-80		100						
90		-72		326	06		-75		312	10		-72		038	06		-74					-73								-72				-79	90						
80		-72		320	05		-72		310	08	(684mb)	-72										-71								-73				-77	80						
70		-72		316	04	(65mb)	-70															-71								-69				-80	70						
60																						-71								-69				-80	60						
	inversion 900mb 40°-85mb 47°				inversion 935mb 40°-900mb 64°				inversion 924mb 41°-879mb 49°								inversion 895mb 27°-850mb 32°				inversion 877mb 27°-850mb 34°				inversion 895mb 30°-877mb 35°				inversion 900mb 30°-886mb 36°												
	650mb 21°-628mb 24°				628mb 24°												isothermal 670-640mb 18°				isothermal 822mb 30°-800mb 31°				isothermal 850-810mb 34°				isothermal 877mb-850mb 35°				isothermal 886-865mb 36°								
	879-860mb 45°																																								
Tropopause	I 200mb-80°38'600'				I 200mb-83°38'500'				I 215mb-89°37'300'				I 228mb-81°36'300'				I 187mb-90°49'200'				I 210mb-87°37'600'				I 200mb-83°39'000'				I 187mb-86°40'500'				Tropopause								

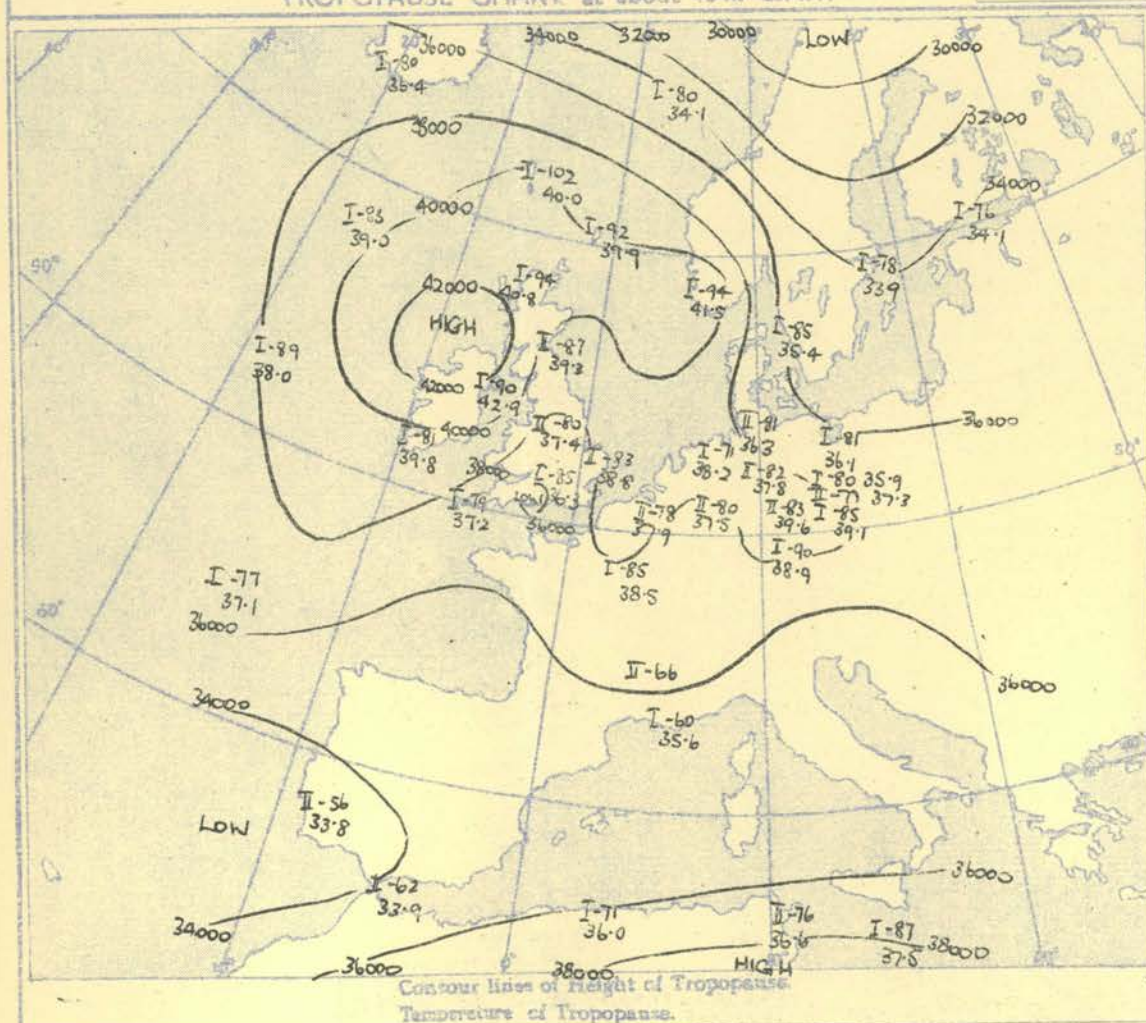


HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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

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



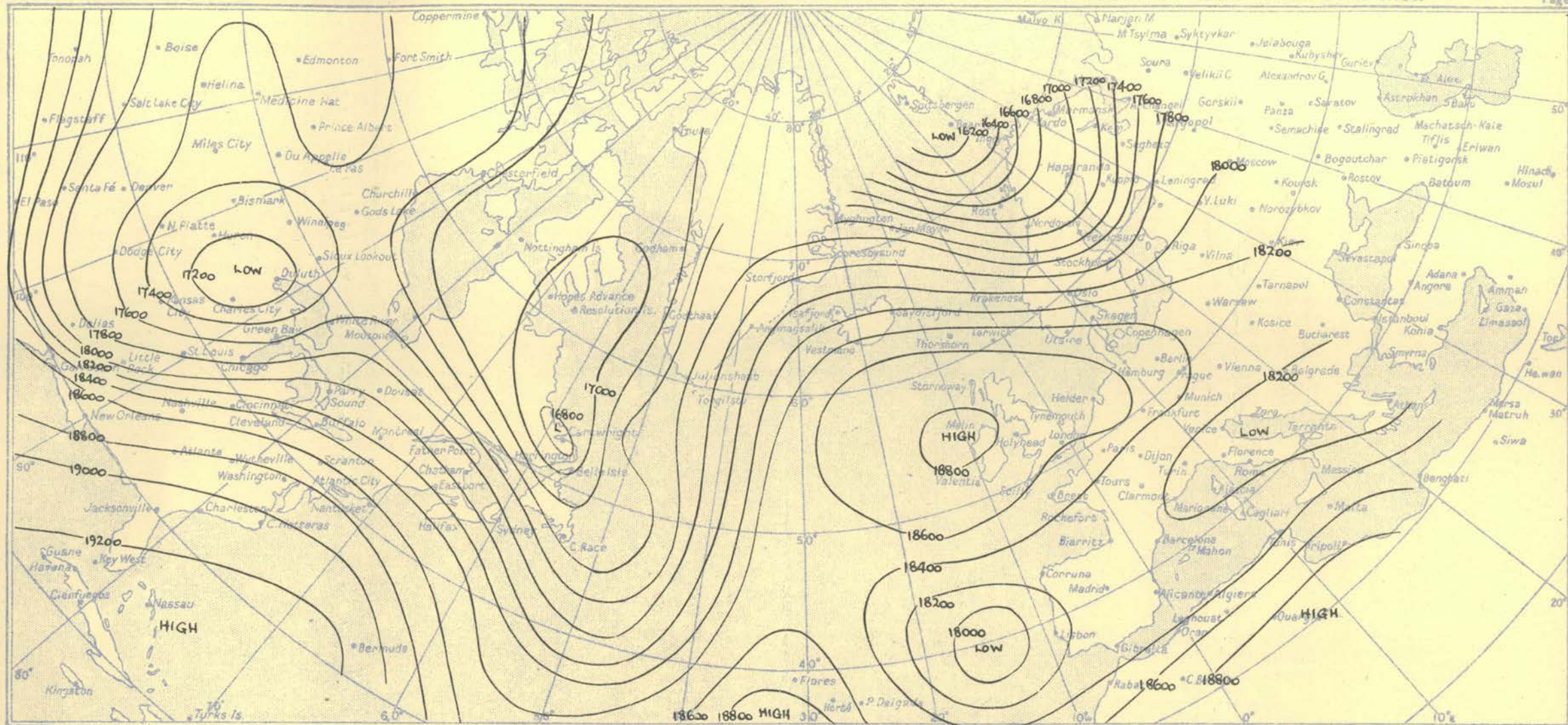
## NOTES ON THE AEROLOGICAL SITUATION.

The cold pool off Portugal moved slowly east whilst the cold air in the Northern Mediterranean moved west. This cooled the warm ridge over Spain to cut off an irregular warm bubble off lands end, which then moved slowly west and declined. Considerable cooling by advection took place over Scandinavia to transfer the strong thermal belt across Southern Greenland and Iceland to the Southern Baltic.

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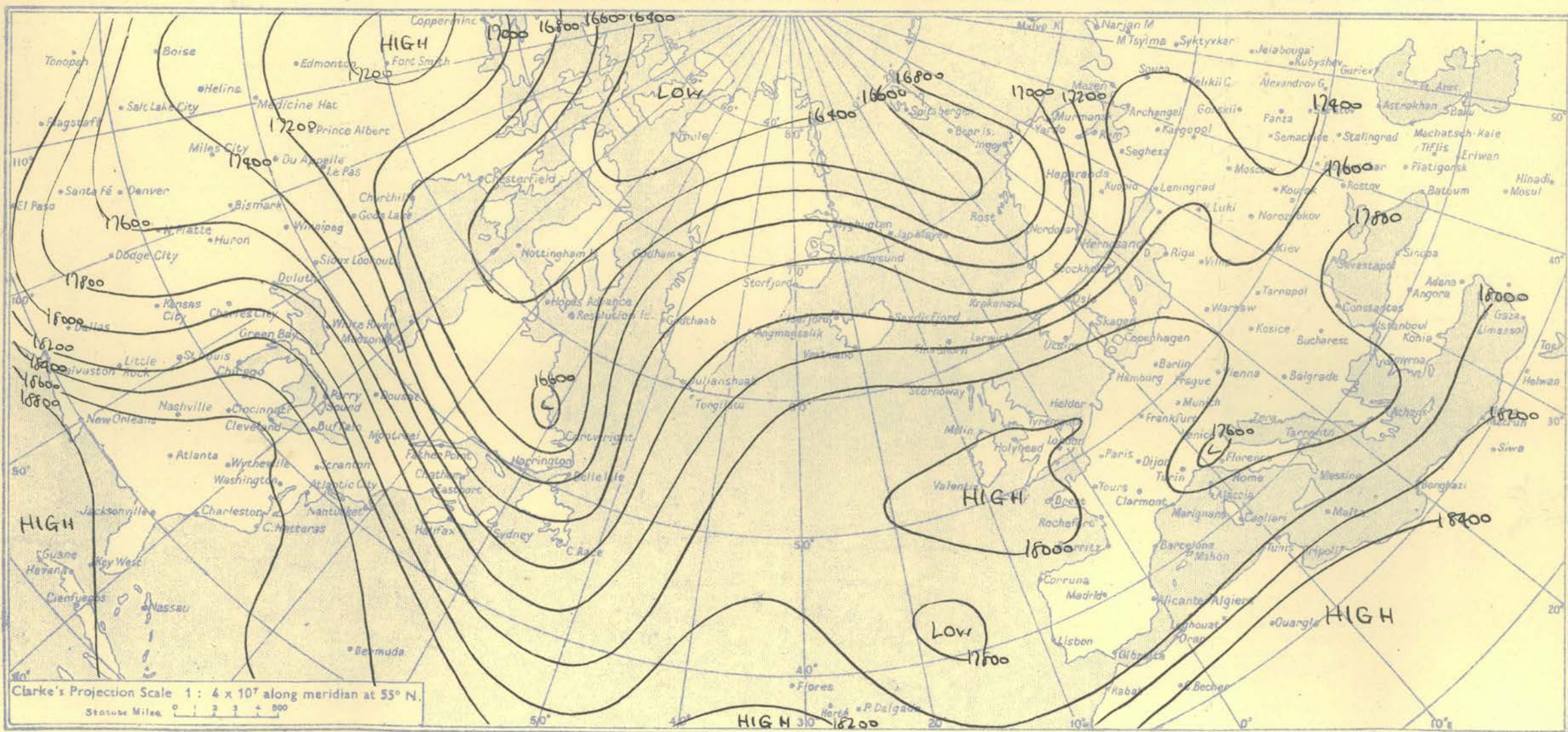




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

March 27<sup>th</sup>

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 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				
	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							
918	1029.9	1019.6	1032.7	1030.7	1031.3	1030.4	1029.7	1021.1	1027.6	1025.6	1025.7	1021.2	1024.0	1017.9	1022.2	1011.6	1024.6	1023	720																		
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb				
Surf	02.7	45	32	315 13	00.5	48	38	040 04	00.2	51	39	070 08	02.3	55	38	065 07	00.6	52	41	090 12	01.2	54	45	030 13	04.4	57	46	090 06	02.9	55	39	090 48	00.3	58	49	170 07	Surf
1000	07.9	43	32	315 17	8.7	43	30	036 06	8.3	47	35	080 06	8.1	51	36	068 08	7.4	49	39	087 12	6.7	50	42	044 21	6.5	56	45	102 24	6.0	53	38	102 24	6.6	56	45	204 06	1000
950		36	28	326 16		36	27	027 07		40	28	079 06		45	32	068 08		43	36	093 10		45	40	089 14		47	36	063 15		47	32	098 25		50	39	107 09	950
900	35.8	29	22	320 17	36.6	30	25	357 07	36.5	33	26	009 06	36.6	42	30	068 09	35.8	41	28	089 07	35.1	38	35	095 12	35.0	40	20	067 15	34.6	47	27	090 25	35.4	44	34	092 15	900
850		23	17	316 17		32	11	326 08		32	19	326 08		41	08	066 07		43	14	053 08		42	19	060 12		43	06	072 16		45	14	080 22		46	20	085 21	850
800	66.2	21	02	314 22	67.4	33	15	321 08	67.4	35	00	316 10	68.1	38	23	044 05	67.3	38	07	044 06	66.7	39	04	057 12	66.5	37	11	073 16	66.3	42	04	081 21	67.1	43	03	086 25	800
750		22	-14	312 28		28	-02	318 09		30	-09	313 14		32	02	028 05		34	04	045 08		38	16	045 12		32	-07	083 20		36	00	085 21		36	-01	081 21	750
700	100	21	-08	306 31	102	25	01	314 14	102	25	06	312 18	103	26	-03	352 05	103	28	02	033 07	102	27	03	040 12	101	27	-19	076 18	102	30	-06	086 24	102	29	-07	075 18	700
650		17	-04	304 34		21	00	311 15		19	-16	317 17		20	-06	348 06		22	-05	358 09		22	01	038 11		20	-28	074 16		22	-15	085 24		22	-07	081 19	650
600	140	12	-04	304 40	142	16	-10	311 14	142	13	-14	317 19	142	12	-17	020 07	142	14	-10	005 10	141	14	02	030 10	141	11	-27	065 20	141	13	-23	085 24	142	16	-06	080 18	600
550		02	-09	304 43		08	-21	308 12		05	-10	313 19		06	-25	044 07		05	-16	020 12		04	-09	029 13		02	-20	059 21		07	-25	077 21		07	-15	072 13	550
500	185	-09	-19	303 50	187	-01	-28	294 12	187	-04	-20	329 19	188	-03	-28	052 04	187	-03	-24	027 20	187	-06	-21	029 16	186	-07	-22	054 21	186	-03	-31	069 22	187	-03	-24	069 12	500
450		-17	-30	308 45		-12	-33	290 14		-13	-39	332 16		-13	-35	058 03		-13	-35	024 20		-17	-33	037 17		-18	-31	055 22		-16	-41	066 23		-14	-34	063 11	450
400	237	-28	-41	314 50	240	-25	-46	321 11	240	-24	-39	331 18	241	-24	-50	012 06	240	-25	-46	036 16	239	-27	-47	052 23	239	-30	-45	056 23	239	-28	-51	061 24	240	-26	-46	064 27	400
350		-40	-57	322 57		-37	-60	342 12		-39	-54	336 17		-37	-60	011 11		-37	-58	054 16		-39	-56	051 24		-44		036 24		-40	-60	064 27		-39	-58		350
300	301	-56		324 61	305	-52		330 15	304	-53		007 22	306	-51		015 13	305	-52		043 17	304	-55		050 31	302	-59		023 27	303	-54		062 32	215	-53			300
250		-72		319 68		-69		331 21		-69		017 27		-65		028 17		-68		040 27		-70		036 27		-76		015 22		-69		051 24		-69			250
200	385	-87		320 63	389	-87		321 21	388	-85		015 27	391	-80		020 15	390	-81		023 20	388	-83		027 24	385	-80		028 24	388	-77		069 24	389	-80			200
170		-84		315 56		-80		301 24		-82		322 24		-89		012 12		-72		358 18		-77		007 19		-75		018 16		-71		037 24		-72			170
150		-78		303 51		-78		305 32		-77		325 28		-86		350 11		-72		006 15		-75		011 17		-73		010 15		-67		337 14		-70			150
130		-78		302 50		-77		306 30		-74		305 21		-77		005 11		-70		337 15		-73		346 15		-74		341 15		-66		324 10		-70			130
110		-78		301 51		-76		303 30		-76		320 30		-79		345 14		-70		326 19		-73		329 18		-72		330 15		-67		337 14		-67			110
100	525	-78		312 42	530	-76		301 31	529	-75		317 27	580	-80		322 17	533	-71		326 20	530	-72		320 23	527	-72		328 14	532	-68		345 12	533	-68			100
90		-78		309 47		-77		299 34		-74		311 20		-79		321 18		-72		325 21		-71		301 16		-75		313 08		-67		313 08		-69			90
80		-77		302 51		-78				-73		302 28		-76		330 12		-77		320 18		-68		304 15		-66		278 11		-66		278 11		-68			80
70		-75		307 53						-70		301 33		-76		334 16		-72		311 18		-71		277 23		-69		292 15	(078 mb)	-68						70	
60	(063mb)	-74								-70		306 33		-77		343 20	(058 mb)	-72		305 20	(058 mb)	-67		300 20													60
Inversion 778mb. 21°-764mb. 22° Isothermal 800-775mb. 21° 764-734-22°																																					
Inversion 867mb. 26°-840mb. 36° Isothermal 721-685mb. 25°																																					
Inversion 860mb. 30°-865mb. 35° (050 mb) Inversion 870mb. 39°-837mb. 43° Isothermal 777-763mb. 35°																																					
Inversion 923mb. 40°-860mb. 44°																																					
Inversion 907mb. 35°-875mb. 46° 767mb. 31°-740mb. 33°																																					
Inversion 913mb. 44°-900mb. 47° Isothermal 927-913mb. 44° 880-870mb. 46° 733-716mb. 33°																																					
Inversion 884mb. 42°-																																					

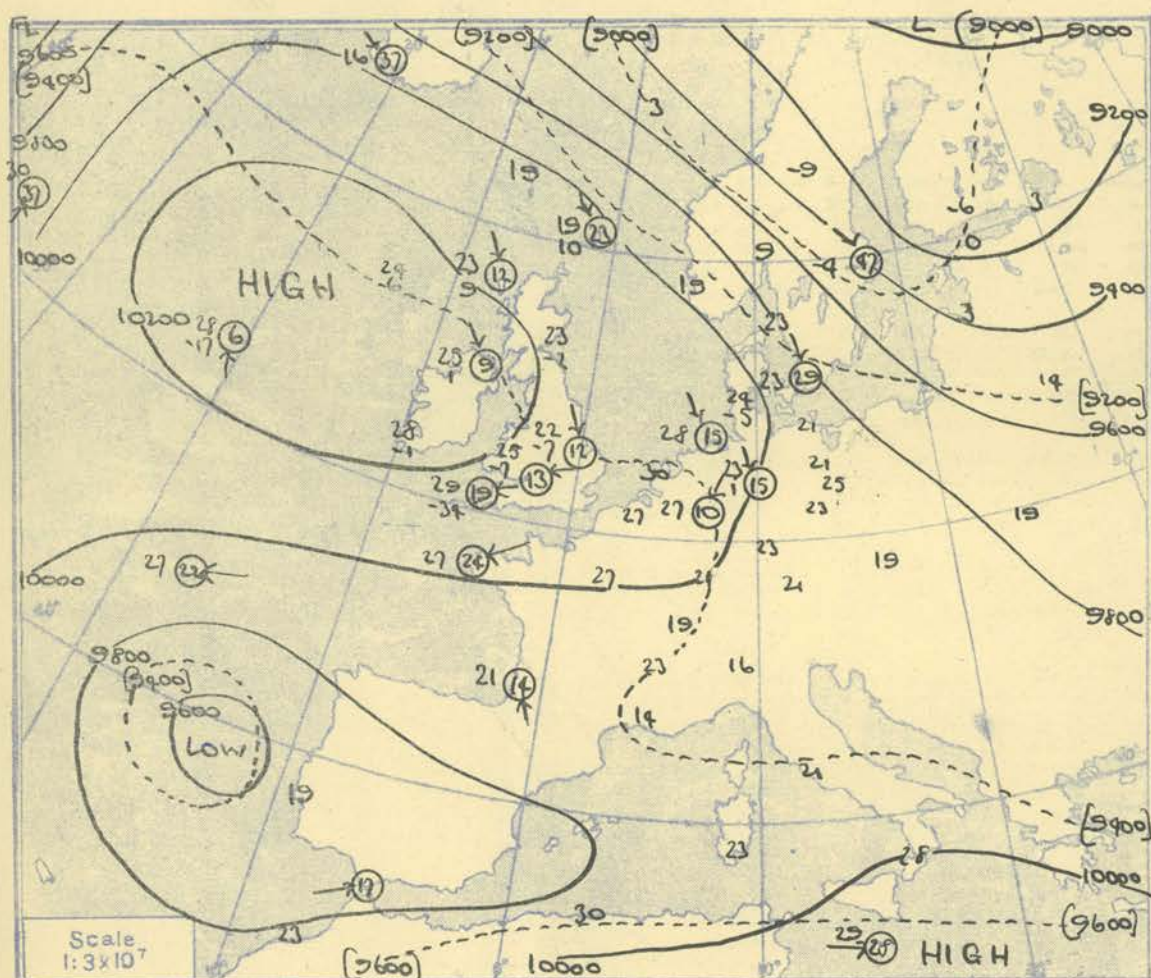


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA 1950				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.				Time M.S.L. Surf Freezing								
		1030.5 1020.1 959				1031.4 1029.4 921				1031.9 1031.0 785				1030.9 1021.9 770				1029.2 1027.1 771				1028.1 1023.5 768				1026.8 1010.2 759				1024.9 1014.0 728				1026 750 FIC												
		Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. Vel. knots	Height ft./100	Temp. °F	Dew °F	Wind Dir. 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	027	33	30	Calm	050	37	34	315	03	002	40	37	023	40	38	Calm	006	43	37	Calm	012	44	38	040	08	44	43	39	110	18	029	40	38	Calm	003	39	36	060	02	Surf						
1000	079	36	32	322	17	082	41	37	022	09	083	41	38	023	40	38	Calm	006	43	37	Calm	012	44	38	040	08	44	43	39	110	18	029	40	38	Calm	003	39	36	060	02	1000					
950		31	24	319	15		35	29	015	07		36	27		39	34	106	04	07	8	39	28	064	10	07	4	41	37	062	16	7	1	42	39		22	73	49	41	075	03	950				
900	356	25	21	312	15	361	29	27	285	06	363	31	27		35	28	060	05	36	6	33	30	084	06	34	30	063	18	7	1	42	39		22	44	21	091	23	46	34	080	04	900			
850		22	15	305	18		34	07	293	06		30	18		34	25	017	04			31	27	053	05	35	07	041	09		40	-30	082	14		42	-20	073	18	44	8	850					
800	659	25	-06	300	18	670	29	09	311	08	672	33	-02		672	34	-3	349	08	66	7	35	10	344	10	66	4	34	09	015	07	66	5	37	-16	061	14	663	36	-29	077	21	675	40	5	800
750		22	10	306	20		28	15	319	10		28	-06		30	7	327	08		29	10	318	14		29	-11	354	10		31	-03	061	15		33	-31	078	22		32	2	750				
700	100	19	10	317	23	102	23	09	316	12	102	23	-02		25	01	320	09	102	25	05	323	14	101	22	-07	349	12		101	25	-07	053	13	101	29	-34	078	19	1025	28	-1	700			
650		15	-03	314	25		18	06	308	14		21	00		18	93	323	08		18	-05	336	13		16	-16	005	11		20	-12	044	10		21	-40	067	21		22	-3	650				
600	139	09	-01	301	31	141	11	02	283	15	141	14	-09		12	91	313	12	141	13	-23	336	13	140	11	-31	035	07	141	11	-19	050	12	141	12	-21	066	22	1420	12	-5	600				
550		00	-10	301	40		03	-06	281	18		06	-19		03	-12	298	11		05	-23	313	11		02	-27	036	15		01	-28	059	14		02	-12	064	24		2	-24	550				
500	184	-10	-19	295	45	186	-7	-14	280	21	187	-04	-24		187	-6	-24	291	08	186	-6	-36	290	12	185	-09	-27	032	14	186	-07	-45	055	16	186	-8	-30	067	24	1870	-7	-32	500			
450		-18	-24	294	45		-17	-24	280	23		-15	-33		239	-29	-53	226	08	239	-28	-48	321	06	238	-34	-55	042	24	238	-30	-54	073	21	238	-29	-51	079	28	2396	-28	-40	450			
400	236	-31	-36	295	42	238	-29	-37	273	24	239	-27	-45		-42		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	400				
350		-44		284	45		-41		266	26		20	-57																													350				
300	300	-57		290	48	302	-55		265	31	304	-53			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	300			
250		-73		290	54		-71		242	34		-69			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	250			
200	383	-90		291	57	386	-88		273	32	388	-90			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	200			
170		-89		298	54		-80		295	28		-83			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	170			
150		-81		309	51	444	-80		306	32	445	-79			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	150			
130		-83		312	53		-80		312	34		-81			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	130			
110		-82		310	51		-83		309	34		-79			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	110			
100	522	-83		309	50	526	-82		310	35	528	-79			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	100			
90		-84		302	48		-82		318	35		-81			302	-57		204	10		-40	-60	232	02		-46		065	24		-43		073	31		-43		074	35		-40	-54	90			
80		-86		306	49										306	49																									80					
70		-87		307	51										307	51																									70					
60	(65mb)-87																																								60					
Inversion		1029mb 33°-1000mb 36°				Inversion 1030mb 37°-1017mb 42°				Inversion 1031mb 40°-1010mb 42°				Inversion 860mb 32°-810mb 35°				Inversion 913mb 29°-890mb 34°				Inversion 934mb 31°-920mb 36°				Inversion 940mb 34°-902mb 41°				Inversion 1014mb 40°-990mb 46°				Inversion 1026mb 39°-1010mb 49°												
Isothermal		860-825-820-810-800-785-750mb 28°				Isothermal 860-825-820-810-800-785-750mb 28°				Isothermal 860-825-820-810-800-785-750mb 28°</																																				



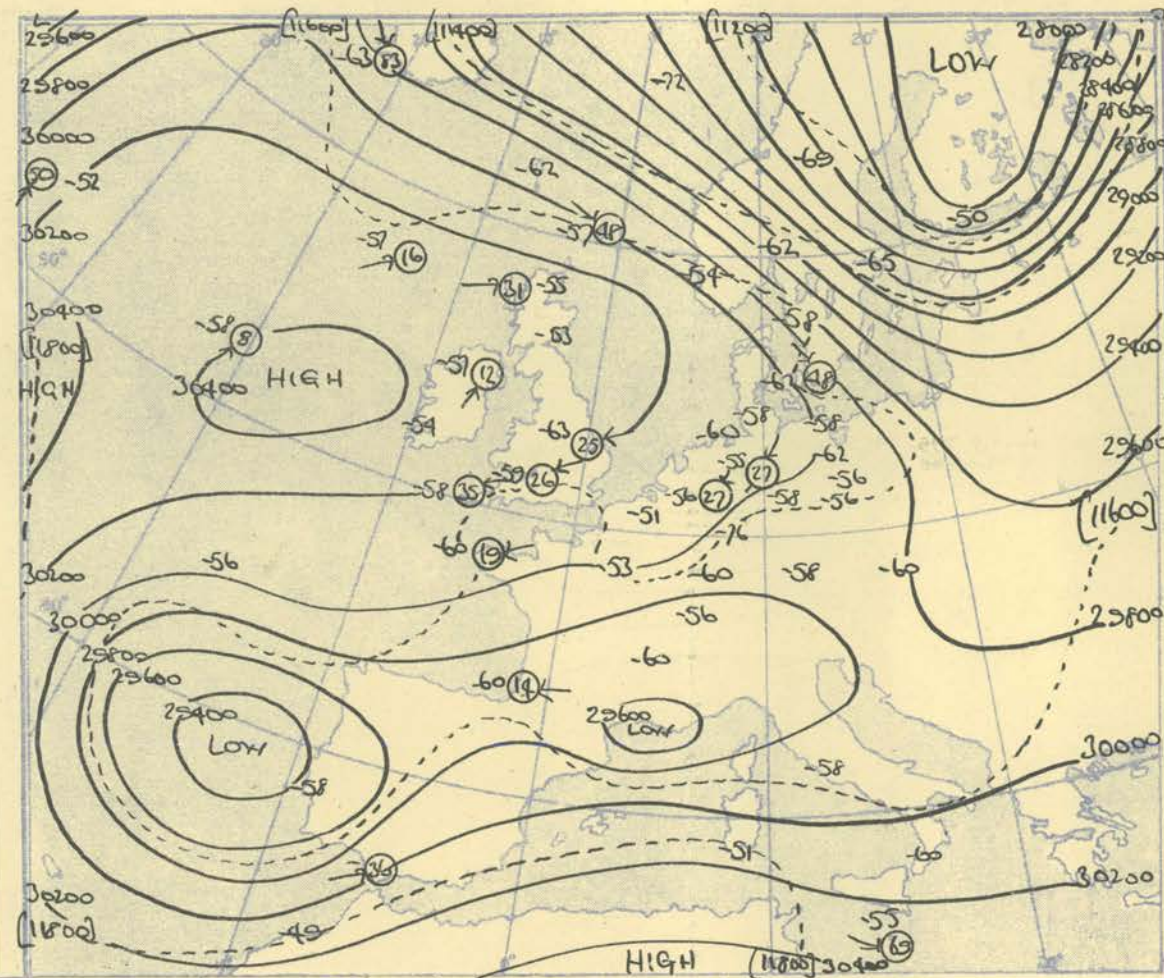
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb.; levels at about 03 h. G.M.T.



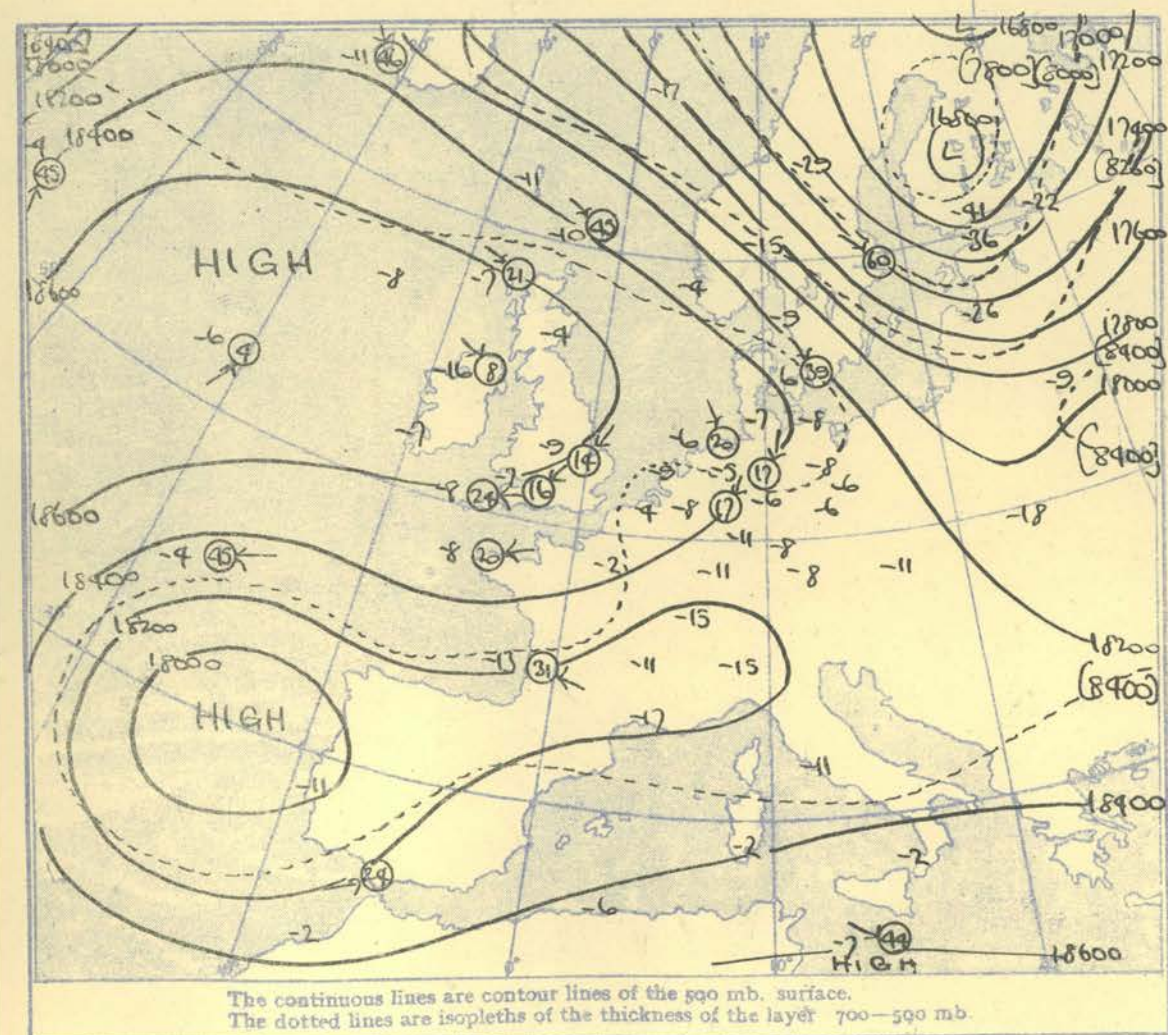
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

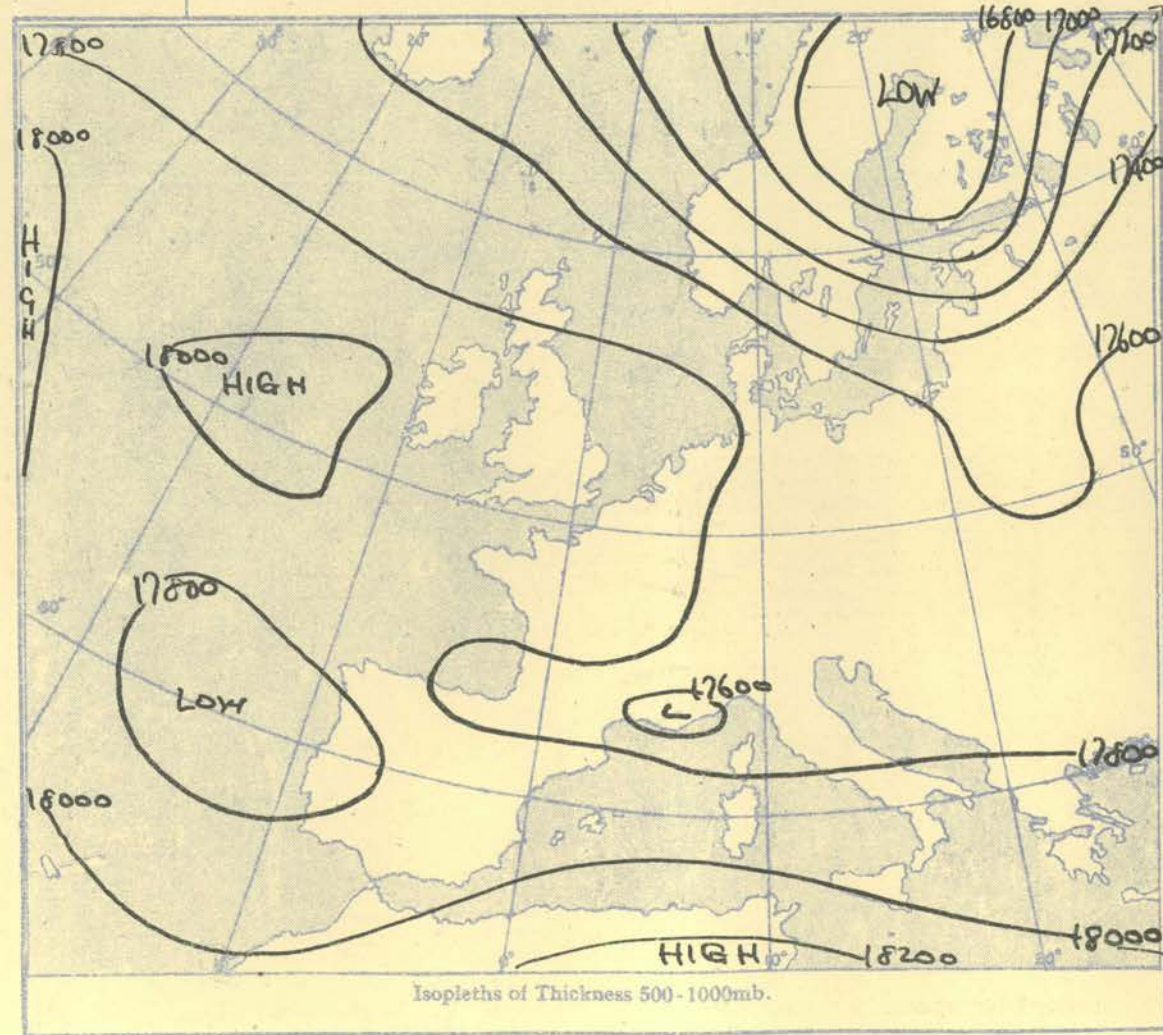
100 80 60 40 20 10 0 knots



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



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



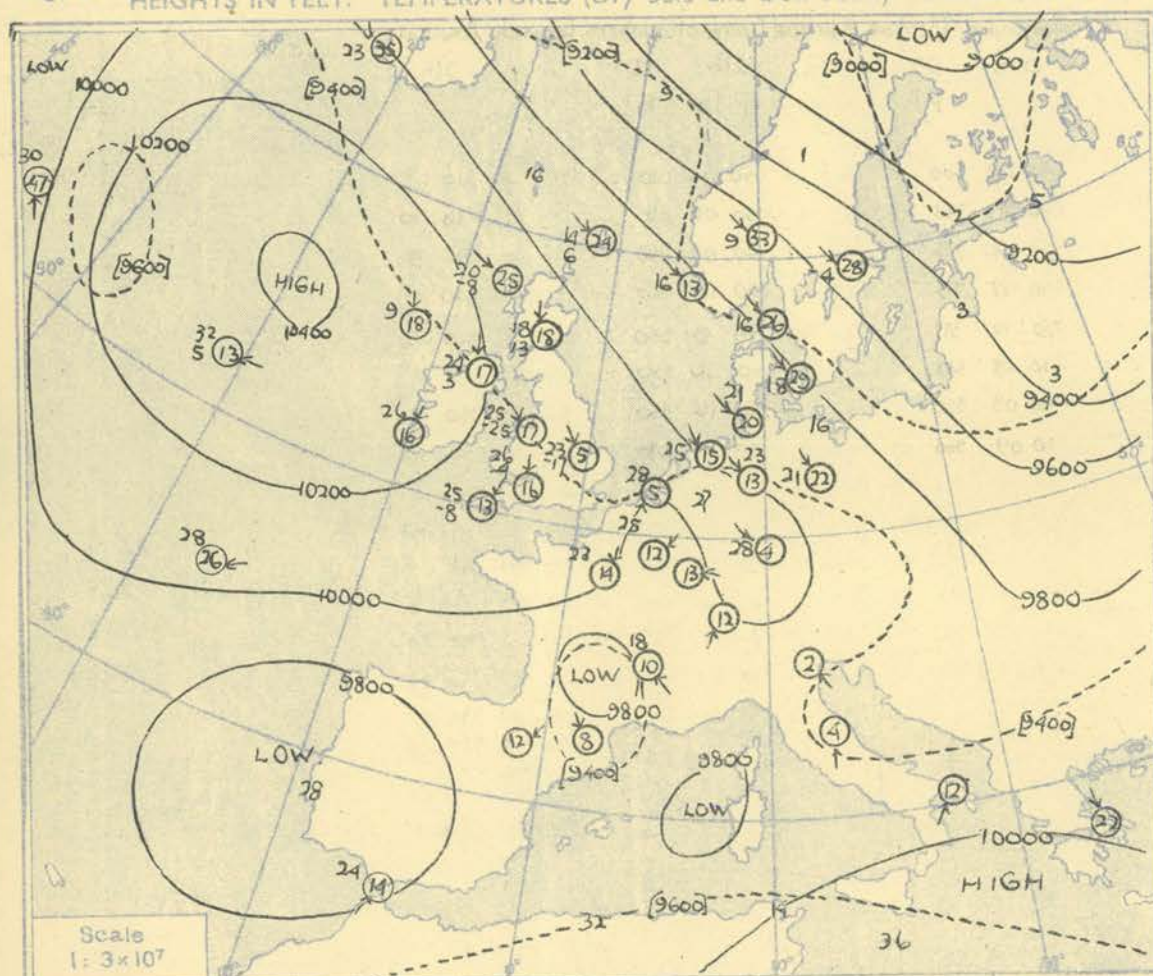
Isopleths of Thickness 500-1000mb.



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

Ship	WEATHER RECORDER												WEATHER RECORDER												WEATHER RECORDER												WEATHER WATCHER												WEATHER WATCHER												WEATHER WATCHER												WEATHER WATCHER												Ship																																															
Lat/Long	52°N 20°W												52°N 20°W												52°N 20°W												52°N 20°W												57°N 14°W												57°N 12°W												56°N 10°W												55°N 08°W												Lat/Long																																			
Pressure	03h G.M.T.												03h 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																							
	1028 mb												1028 mb												1029 mb												1029 mb												1033 mb												1032 mb												1031 mb												1030 mb												mb												mb												M.S.L.											
	1028 mb												1028 mb												1029 mb												1029 mb												1033 mb												1032 mb												1031 mb												1030 mb												mb												mb												M.S.L.											
	730												715												700												715												930-840												925												915-740												900												mb												mb												Surf											
Pressure	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Height	Temp.	Dew	Wind	Dir.	Vel.	Pressure																																																																																									
Surf	74	50	45	080	12	13	7.5	50	46	100	12	16	7.7	48	41	107	12	15	7.9	48	44	099	12	15	8.7	42	32	115	12	15	8.5	42	35	023	15	18	8.3	44	37	010	18	18	7.8	48	43	015	12	Surf																																																																																				
1000		50	45	080	13	13	7.5	47	45	100	16	16	7.7	48	41	107	12	15	7.9	48	44	099	12	15	8.7	42	32	115	12	15	8.5	42	35	023	15	18	8.3	44	37	010	18	18	7.8	48	43	015	12	1000																																																																																				
950	35.8	40	38	080	17	17		40	40	100	16	16		42	40	113	15	15		42	42	114	09	12	36.6	35	26	114	14	14	36.4	36	29	024	16	19	36.3	37	31	017	18	18	35.8	38	34	018	15	950																																																																																				
900		50	45	080	14	14	36.0	50	4	097	16	16	36.1	47	13	122	20	20	36.3	48	26	125	12	12	36.6	37	22	114	17	17	36.4	38	21	021	16	16	36.3	39	25	029	15	15	35.8	39	27	034	21	900																																																																																				
850		46	18	091	12	12		46	10	096	14	14		48	2	124	18	18		46	20	121	14	14		38	1	118	17	17		31	19	013	15	15		31	15	013	18	18		31	24	038	23	850																																																																																				
800	67.6	42	11	109	13	13	67.7	42	14	095	12	12	67.3	42	6	125	16	16	68.0	42	16	120	14	14	67.5	30	12	120	15	15	67.2	29	2	354	12	12	67.1	34	3	340	12	12	66.7	33	23	035	21	800																																																																																				
750		35	8	137	11	11		36	1	098	12	12		36	1	120	14	14		36	15	123	11	11		29	8	121	14	14		29	10	312	12	12		33	1	358	24	24		25	13	018	18	750																																																																																				
700	103	28	17	145	06	06	103	30	8	099	11	11	103	32	5	098	13	13	103	30	14	126	10	10	102	24	6	L.V.			102	23	4	305	16	16	102	27	4	351	18	18	101	24	0	006	18	700																																																																																				
650		20	25	107	08	08		30	8	112	09	09		24	1	081	15	15		23	7	100	09	09		17	3	"				17	2	301	21	21		20	20	333	31	31		17	13	002	24	650																																																																																				
600	142	11	20	100	08	08	142	13	19	135	09	09	143	16	8	110	09	09	143	16	2	076	07	07	141	11	14	"			141	10	23	312	22	22	141	12	46	332	30	30	141	10	23	001	30	600																																																																																				
550		4	24	135	05	05		5	24	142	08	08		8	16	150	09	09		7	10	071	04	04		2	19	"				1	36	325	25	25		3	53	334	25	25		3	34	001	30	550																																																																																				
500	187	6	33	200	04	04	188	4	33	180	03	03	188	3	28	164	10	10	188	4	19	025	02	02	186	8	31	"			186	8	35	318	30	30	187	8	50	387	27	27	186	6	49	353	30	500																																																																																				
450		16	42	212	08	08		16	43	225	04	04		13	39	233	06	06		16	31	016	04	04		19	32	"				19	41	310	32	32		20	60	334	35	35		16	57	358	36	450																																																																																				
400	240	28	53	225	06	06	240	28	52	240	07	07	241	26	52	303	03	03	241	28	44	020	06	06	239	31	45	"			238	33	54	305	32	32	239	32	59	314	30	30	238	28	56	016	44	400																																																																																				
350		41		200	04	04		43		285	07	07		38	60	303	03	03		42		048	02	02		43		202	13			45		310	37	37		44		312	30	30		43		025	51	350																																																																																				
300	304	58		208	08	08	304	59		250	12	12	306	51		220	09	09	305	59		Calm			303	57		224	16		302	57		310	39	39	302	57		305	44	44	302	57	057	57	300																																																																																					
250		73		217	10	10		74		232	18	18		66		225	20	20		74		258	06	06		72		227	22			71		293	47	47		68		310	39	39	302	57	071	033	58	250																																																																																				
200	388	82		217	12	12	388	77		235	13	13	391	74		247	12	12	389	75		313	08	08	386	84		222	23		386	78		281	59	59	388	64		297	27	27	386	76	031	32	200																																																																																					
170		75		154	63	63		74		150	04	04		68		325	08	08		73		050	07	07		77		221	15			75		284	35	35	(192mb)	63			74		028	25	170																																																																																							
150		75						72		680	03	03		64		036	13	13				024	10	10		76		211	10			72		298	32	32							013	22	150																																																																																							
130		21						69						65		050	16	16				358	11	11		77		193	08			71		304	29	29							74		350	24	130																																																																																					
110		75						69						68		054	15	15				345	12	12		78		170	07			74		309	23	23										110																																																																																						
100	530	76					531	70					536	66		052	15	15	532	76		008	27	27	527	79					529	78		311	24	24										100																																																																																						
90		76						66						66		005	29	29				005	29	29		79						80		311	23	23										90																																																																																						
80		76						66						66		352	29	29				352	29	29		80						81		311	24	24										80																																																																																						
70		76						66						66		385	21	21				385	21	21		79						80		321	39	39										70																																																																																						
60		76						61						61		353	21	21	(6mb)	71		353	21	21	(6mb)	79						77		324	37	37										60																																																																																						
	Inversion. 943mb 35°-300mb 50°												Inversion. 950mb 40°-310mb 51°												(50mb)-56												Inversion. 915mb 30°-872mb 35°												(64mb)-74												Inversion. 885mb 28°-781mb 35°												Inversion. 878mb 28°-820mb 33°																																																											
	Isothermal. 1028-1000mb 50°																								Inversion. 937mb 41°-877mb 51°												Isothermal. 816-806mb 49°												Inversion. 910mb 40°-300mb 48°												Inversion. 800-30°-762° 31°												Isothermal. 815-800mb 30°												Inversion. 880mb 26°-861mb 32°												Isothermal. 820-800mb 33°																																			
Tropopause	II 219mb-80° 36.000												I 228mb-80° 36.000												I 222mb-74° 36.300												I 222mb-82° 36.600												II 230mb-77° 35.700												II 230mb-77° 35.700												I 265mb-70° 35.700												I 211mb-82° 35.500												Tropopause																																			

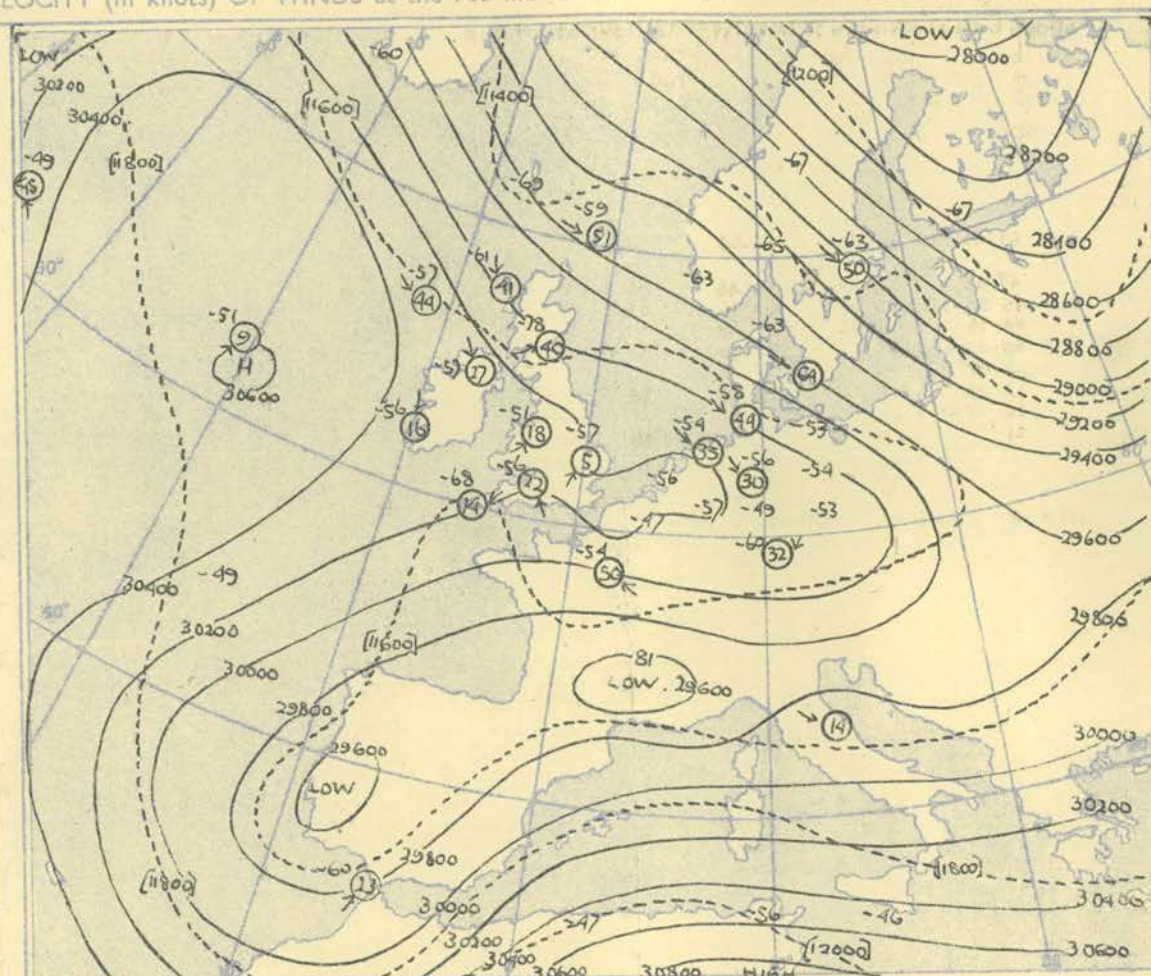




The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

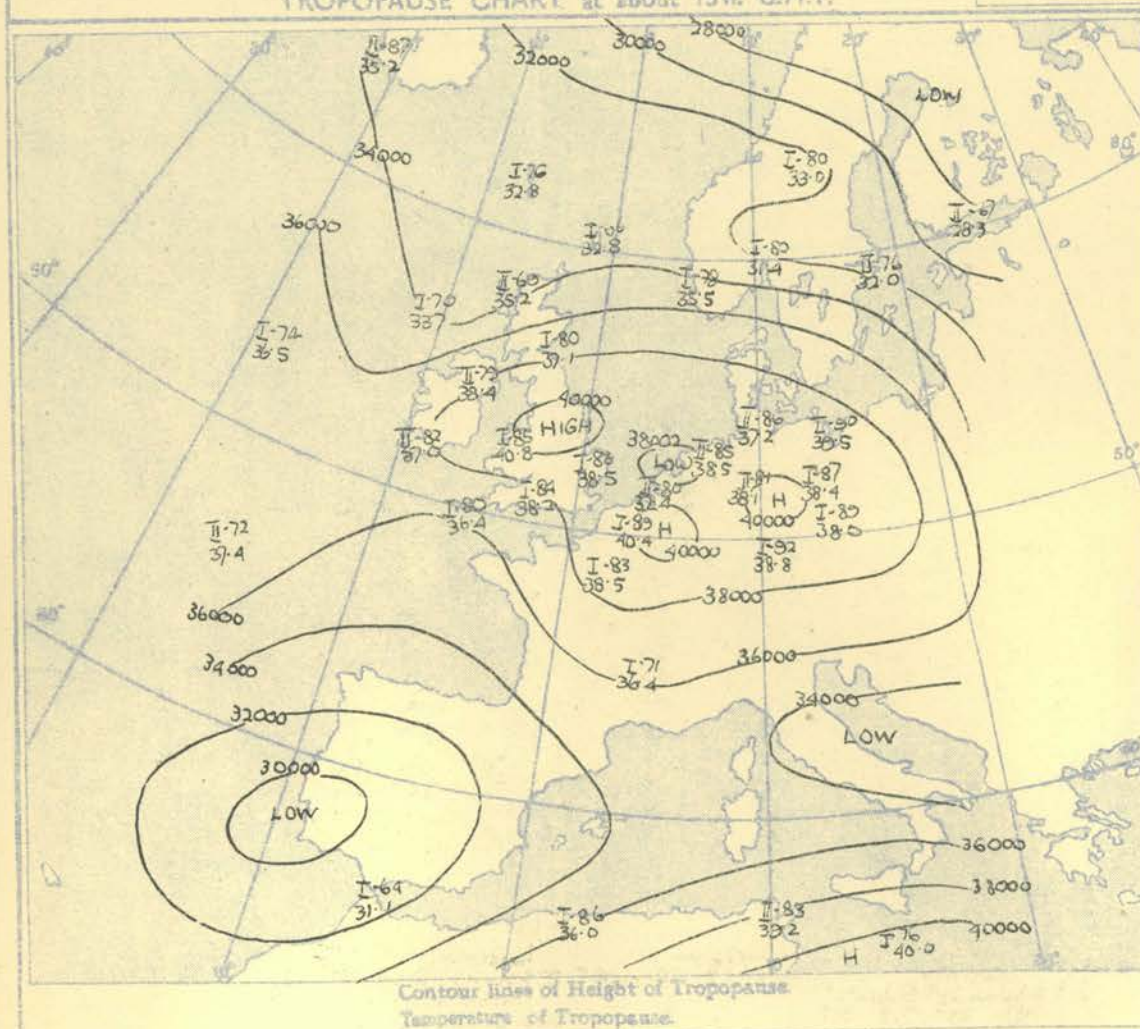
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.



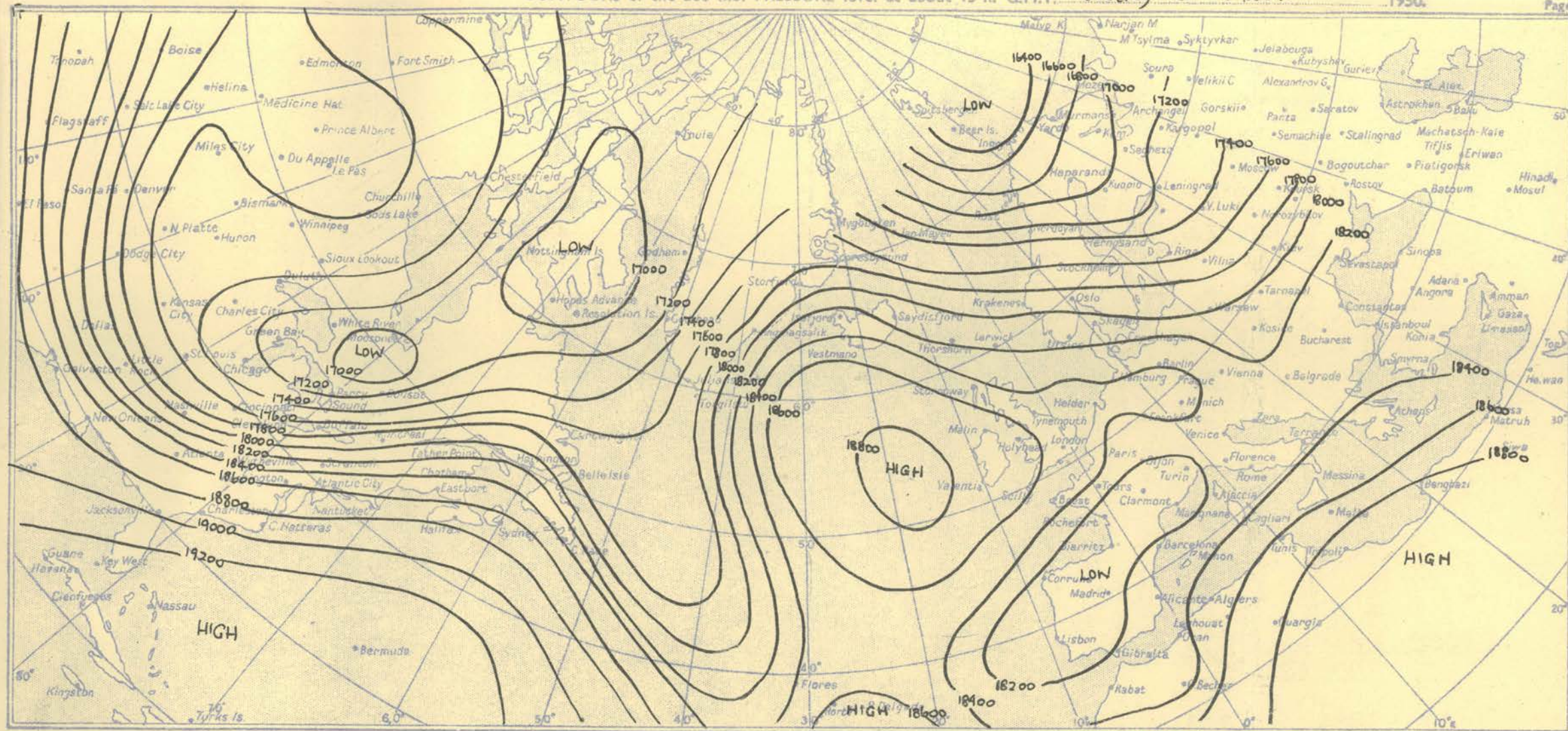
### NOTES ON THE AEROLOGICAL SITUATION.

A weak cold trough developed over the British Isles by slight cooling from the northeast. The warm bubble in sea area Shannon continued to move slowly west and joined a warm pool in the Central Atlantic. A cold trough in the Western Atlantic warmed out appreciably. The cold trough over Spain remained weak and irregular.

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

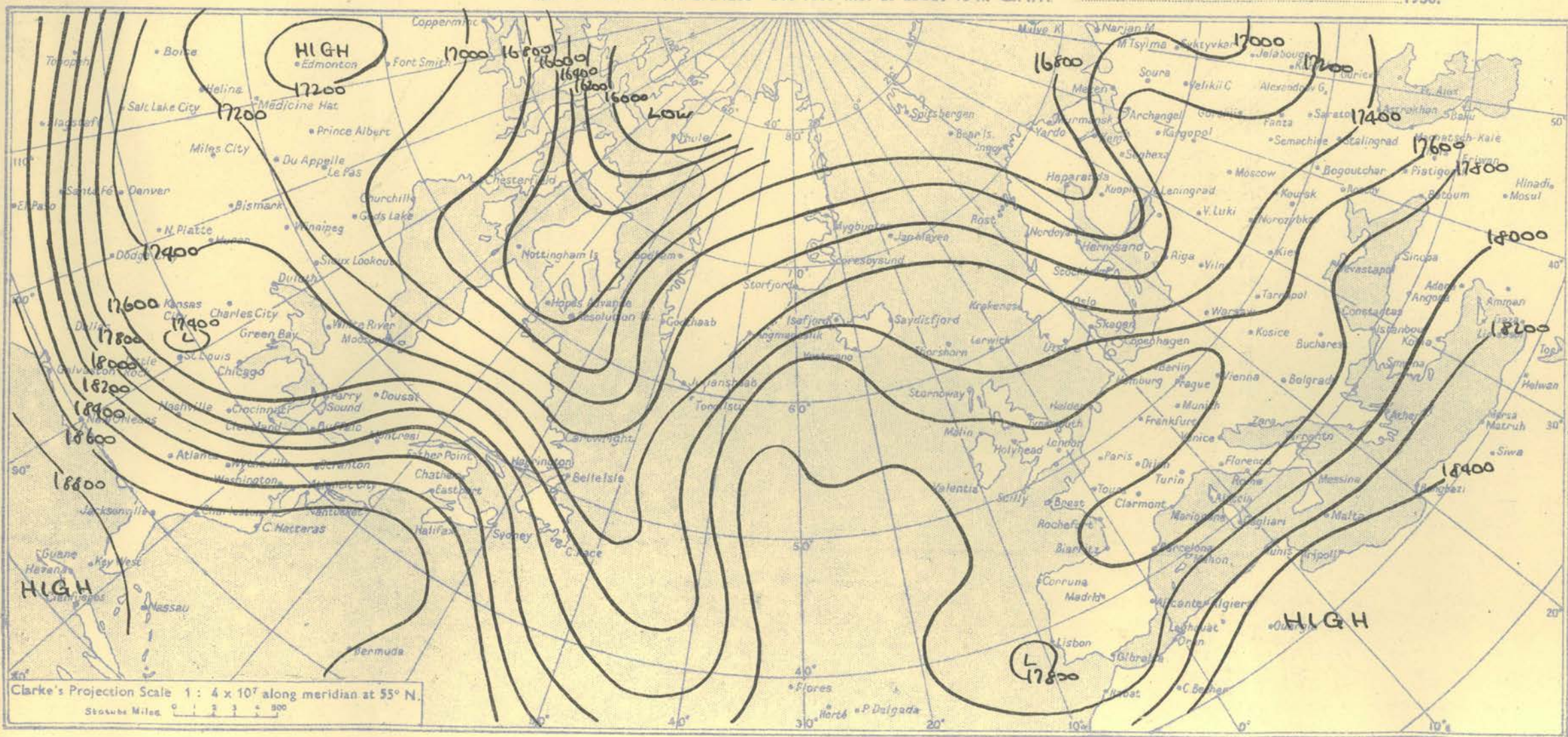




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

28<sup>th</sup> March.

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 Pressure	Freezing	15L	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15h	G.M.T.	15L	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.												
				1023.6	mb	1029.4	mb	1027.0	mb	1028.9	mb	1026.8	mb	1025.6	mb	1025.3	mb	1025.4	mb	1013.4	mb	1027.5	mb	1026.1	mb	1020.2	mb	1024.8	mb	1021.5	mb	1008.9	mb	1014.7	mb	Freezing						
				926	mb	910	mb	900	mb	755	mb	776	mb	780	mb	760	mb	750	mb	800	mb	800	mb	800	mb	800	mb	800	mb	800	mb	800	mb	800								
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb									
Surf	02.7	45	39	247	16	00.5	48	37	310	08	00.2	51	41	210	02	02.3	50	39	CALM	00.6	48	34	CALM	01.2	49	38	CALM	04.4	44	37	040	10	02.9	48	42	337	05	Surf				
1000	6.3	43	37	274	24	8.0	43	33	306	15	7.2	46	38	282	08	7.8	47	37	"	7.2	45	32	032	01	7.0	43	34	030	10	6.7	43	37	"	6.8	46	41	012	06	1000			
950		36	31	284	24		37	27	324	16		38	34	244	06		39	32	025	08	38	29	040	03		34	28	033	10		35	33	058	14		39	35	036	08	950		
900	34.1	29	24	293	24	36.0	31	25	321	17	35.3	32	29	321	10	36.0	35	31	005	08	35.2	30	26	070	08	34.9	28	25	038	08	34.7	37	24	063	12	35.0	44	32	063	09	900	
850		23	18	297	24		24	19	312	18		26	24	326	13		29	26	355	14		35	24	009	01		36	19	355	09		40	02	022	11		44	04	060	09	850	
800	64.4	21	11	293	25	66.7	27	12	301	17	66.0	29	26	327	15	67.1	39	33	344	14	66.2	34	05	343	10	65.9	34	07	329	08	66.1	37	05	005	12	66.6	38	14	048	12	800	
750		21	09	293	25		24	10	313	21		24	19	333	17		31	19	336	16		30	16	320	12		29	08	327	07		31	01	005	14		32	06	042	13	750	
700	98.5	14	06	290	24	101	20	08	319	25	100	18	13	338	18	102	24	03	336	17	101	25	25	316	17	101	23	01	327	05	101	26	04	354	16	102	25	08	034	13	700	
650		06	00	288	29		14	03	327	28		13	07	322	18		22	05	336	24		20	20	310	17		17	06	327	06		19	12	354	14		20	18	043	11	650	
600	137	01	07	290	31	140	06	06	329	29	139	07	02	297	21	141	12	02	340	25	140	13	19	309	14	140	10	04	327	08	140	11	22	020	11	141	12	23	045	11	600	
550		08	13	292	33		03	17	329	31		00	14	299	24		02	04	340	18		07	19	286	14		04	14	315	06		04	37	029	10		04	33	039	13	550	
500	181	16	23	289	37	184	12	26	329	29	184	10	22	291	25	186	07	19	340	21	186	05	35	282	16	185	04	26	313	08	185	07	30	039	12	186	05	47	052	13	NOT AVAILABLE	500
450		26	32	286	40		24	39	329	29		21	31	284	29		17	27	333	21		14	43	266	16		17	37	305	06		16	39	036	11		18	45	049	19	450	
400	232	38	47	282	43	236	36	60	333	37	236	33	42	283	34	239	28	36	336	27	239	26	54	259	18	238	29	47	212	06	238	30	54	034	05	239	30	52	046	20	400	
350		51		277	47		50		336	40		44		269	37		41		336	24		39	59	244	19		42		216	05		43		119	14		45		049	18	350	
300	295	59		279	51	299	61		321	41	300	59		262	40	303	57		331	27	303	51		229	18	301	57		238	05	302	56		112	22	302	60		067	14	300	
250		64		283	52		67		299	37		72		263	39		72		324	22		66		232	19		72		281	03		73		103	27		74		074	24	250	
200	380	66		295	49	384	67		296	39	383	78		280	38	387	79		311	22	388	81		260	18	385	88		331	06	386	76		051	13	386	78		068	17	200	
170		69		309	46		72		304	39		72		315	37		72		328	21		77		313	19		72		332	17		76		328	09		70		044	15	170	
150		72		307	43		73		315	40		72		313	32		73		335	24		72		329	22		73		334	21		71		356	20		71		017	16	150	
130		71		302	48		70		318	37		76		317	35		75		336	26		73		337	25		74		331	24		67		347	20		73		010	16	130	
110		76		315	52		77		317	35		77		320	37		77		336	24		76		340	22		74		226	24		72		328	19		73		353	14	110	
100	524	78		317	51	527	77		317	42	526	79		320	34	529	78		333	22	530	76		331	24	527	74		318	28	530	73		334	20	529	73		347	16	100	
90		80		320	55		79		317	42		80		319	39		78		333	30		75		322	28		74		322	30		72		312	24		72		352	21	90	
80		80					80		317	41		80		320	40		78		335	30		76		321	29		72		307	33		70		302	28		72		334	15	80	
70							81		316	44		80		382	42																										70	
60							81		325	50		79		324	37																										60	
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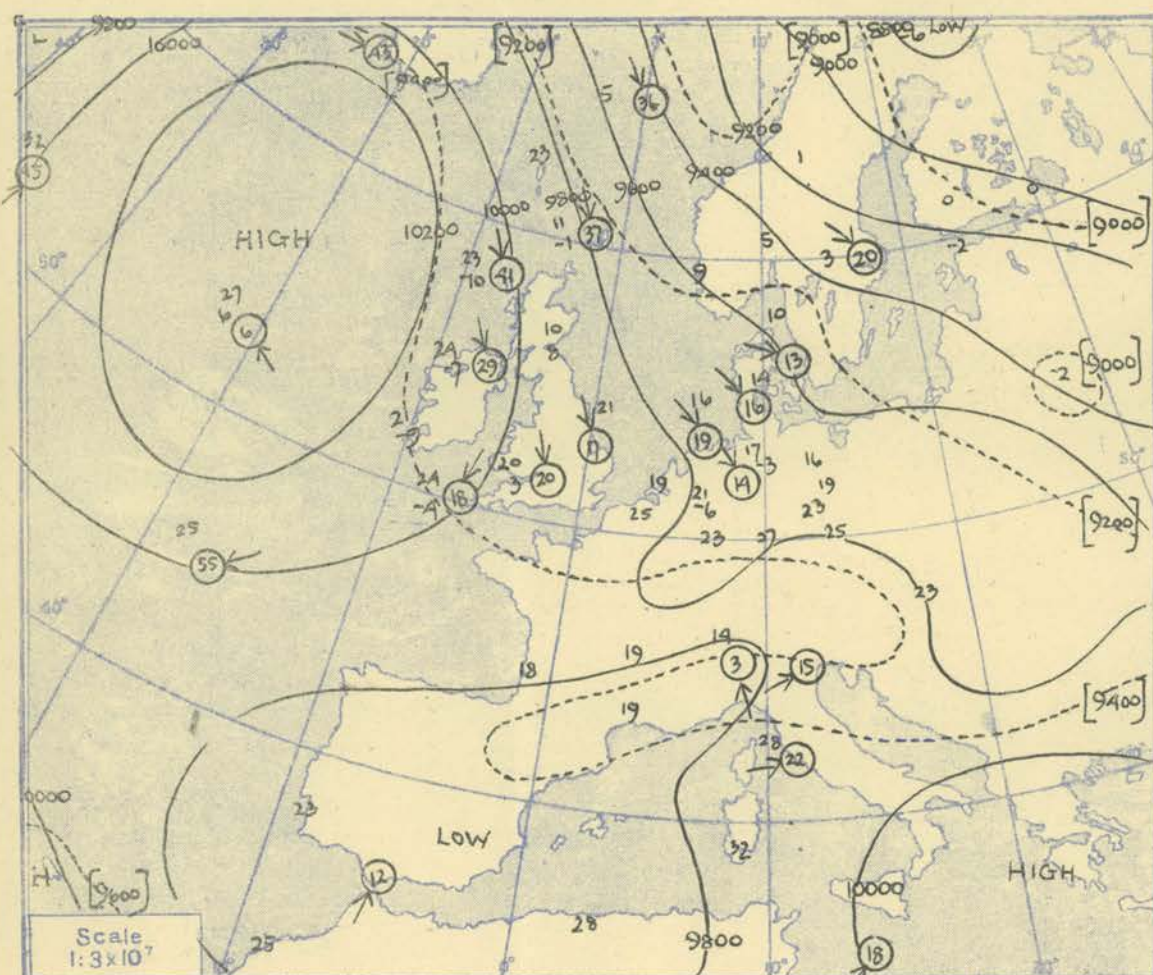


## RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia							
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.									
M.S.L.		1018.0		mb		1024.9		mb		1023.7		mb		1027.5		mb		1022.5		mb		1021.7		mb		1021.6		mb		1023.3		mb									
Surf		1000.8		mb		1023		mb		1022.9		mb		1018.9		mb		1018.1		mb		1018.1		mb		1005.9		mb		1012.8		mb									
Freezing		890		mb		850		mb		871		mb		910		mb		950		mb		950		mb		826		mb		775		mb									
Pressure		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.									
Surf		02-742	36.315	12	00-347	46300	03	00-241	34	02-339	36.350	10	07-339	35.360	23	06-038	35.330	15	3-9	38.31	03	06	02-943	37.070	06	0-3	47.440	06	0-3	47.440	06	0-3									
1000		04-742	33	25	06-645	43305	24	06-742	34	07-339	35.360	23	06-038	35.330	15	3-9	38.31	03	06	02-943	37.070	06	0-3	47.440	06	0-3	47.440	06	0-3	47.440	06	0-3									
950		32-8	33.26	23	34-8	36.332	27	34-3	34.28	35-2	33.016	21	35-7	27.23	025	12	33-6	25.20	036	24	34-3	30.26	043	13	7-9	45.430	047	10	7-9	45.430	047	10									
850		27	22.334	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32	26.323	30	32									
800		63-420	14.331	33	65-1	26.21	32.9	35	63-1	25.18	32	66-029	16.010	32	64-430	02.358	17	64-230	-3	013	14	65-2	34-2	-20.36	17	665	35	13	665	35	13										
750		15	03.331	38	22	18.332	36	18	11	26	06.354	33	101	24	-7.350	29	99-021	05.355	17	98-7	20	03.358	20	100	24	-4	015	18	29	02	29	02									
700		57-211	-1.336	37	100	23-10	33.4	41	99	110	08	101	24	-7.350	29	99-021	05.355	17	98-7	20	03.358	20	100	24	-4	015	18	29	02	29	02										
650		59-9	23.6	35	16-24	34.0	50	14-12	34.1	57	138	07-22	140	10	-25.003	32	138	05	-33.46	19	138	07	-3	34.6	20	139	09	-11	010	21	141	13	-38								
600		135-4	-13.336	42	139	07-26	34.1	57	138	07-22	140	10	-25.003	32	138	05	-33.46	19	138	07	-3	34.6	20	139	09	-11	010	21	141	13	-38										
550		-11-26	33.9	49	-1-21	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33	34.0	55	-5-33									
500		175-49	-7.341	54	184	-8-24	33.9	60	182	-10-31	185	-9	-25.358	36	183	-8	-21.326	24	182	-11	-25.348	17	184	-8	-26.007	21	186	-9	186	-9	186	-9									
450		-15-37	34.1	57	-19-35	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40	34.4	57	-21-40									
400		230-40	-49.341	62	23	-6-31	34.2	62	234	-32.45	237	-35	-49.010	43	235	-29	-41.320	28	234	-34	-52.322	20	236	-31	-40.010	21	238	-34	238	-34	238	-34									
350		-49	34.5	76	-48	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46	34.2	69	-46									
300		293-55	34.5	71	300	-55	35.4	64	297	-60	300	-62	01.6	48	299	-34	28.0	33	298	-58	28.0	13	300	-60	01.4	17	301	-62	301	-62	301	-62									
250		-63	34.1	60	-78	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76	35.7	78	-76									
200		375-67	33.7	49	383	-73	34.2	54	381	-77	383	-80	35.3	38	384	-79	35.3	38	384	-79	35.3	38	384	-79	35.3	38	384	-79	35.3	38	384	-79									
170		-69	33.1	50	-72	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76	33.0	45	-76									
150		-72	32.9	53	-74	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73	32.9	47	-73									
130		-74	32.9	51	-76	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73	32.9	45	-73									
110		-76	32.2	63	-78	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77	32.2	46	-77									
100		522-77	33.2	63	526-75	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81	33.2	52	-81									
90		-79	33.2	48	-84	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83	33.2	44	-83									
80		(75)-82																																							
70		Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion			
60		1008ms42-992ms48				771ms21-710ms24				1023ms41-1000ms48				910ms32-890ms34				1019ms37-1000ms				1006ms37-1000ms				867ms26-830ms				700ms21-690ms				180ms21-690ms							
		750ms15-732ms16				693ms9-671ms15				768-720ms26				880ms25-834ms31				874ms21-832ms31				867ms26-830ms				700ms21-690ms				180ms21-690ms				180ms21-690ms							
		Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal				Isothermal			
		767-750ms15				671-655ms15				768-720ms26				880ms25-834ms31				874ms21-832ms31				867ms26-830ms				700ms21-690ms				180ms21-690ms				180ms21-690ms							
		Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause				Tropopause			
		2285ms-620				225ms-84				247ms-77				220ms-87				213ms-78				200ms-87				200ms-84				250ms-75				250ms-75							
		39400'				35900'				33700'				32200'				37100'				38100'				38300'				32300'				32300'							
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION							
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.									
M.S.L.		1018.9		mb		1024.8		mb		1023.3		mb		1027.3		mb		1022.5		mb		1021.2		mb		1021.6		mb		1023.3		mb									
Surf		1000.6		mb		1022.8		mb		1022.9		mb		1018.9		mb		1018.1		mb		1018.1		mb		1005.1		mb		1012.8		mb									
Freezing		968		mb		874		mb		858		mb		860		mb		860		mb		825		mb		828		mb		808		mb									
Pressure		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.									
Surf		02-737	29.349	16	005	47.443	03	02-346	43	00-644	45	03	01-240	37.320	10	4-4	38.36	010	07	02-944	38.043	10	06-243	37.043	17	06-243	37.043	17	06-243	37.043	17										
1000		04-936	27	066	46.38	333	18	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644	41	06-644									
950		30	23.346	27	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38	31.348	18	38									
850		32-423	22.356	29	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6	33.28	18	34-6									
800		20	06.354	25	29	18.359	21	31	29	18.359	21	31	29	18.359	21	31	29	18.359	21	31	29	18.359	21	31	29	18.359	21	31	29	18.359	21	31									
		62-623	-10.355	34	63-5	27.053	27	66-021	20	65-024	20	008	28	64-1	24.17	013	33	63-5	15	04	013	26	65-1	31	13	028	24	65-1	31	13	028	24									
750		20	-12.357	37	25	-2.353	37	26	12	See page 5 for winds.	17	15	008	32	20	13.355	27	26	05	012	24	28	14	037	24	28	14	037	24	28	14	037									
700		967	14	-12.357	37	100	21	-9.353	46	10-023	-4	59	022	16.352	38	58-2	17	04.333	33	58-2	17	04.333	33	58-2	17	04.333	33	58-2	17	04.333	33	58-2									
650		07	-18.351	40	14	-15.354	50	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16	-17	16									
600		138	00	-24.353	57																																				



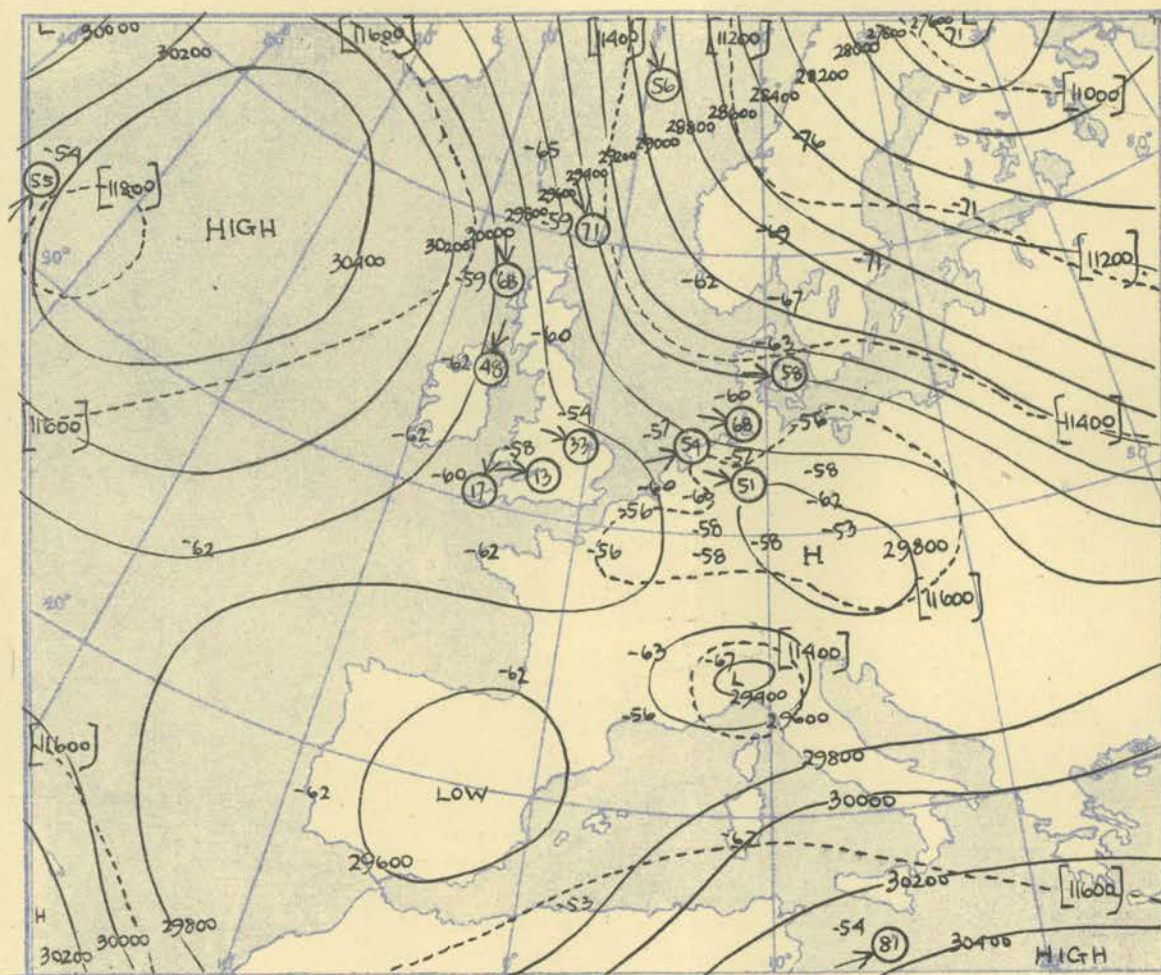
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



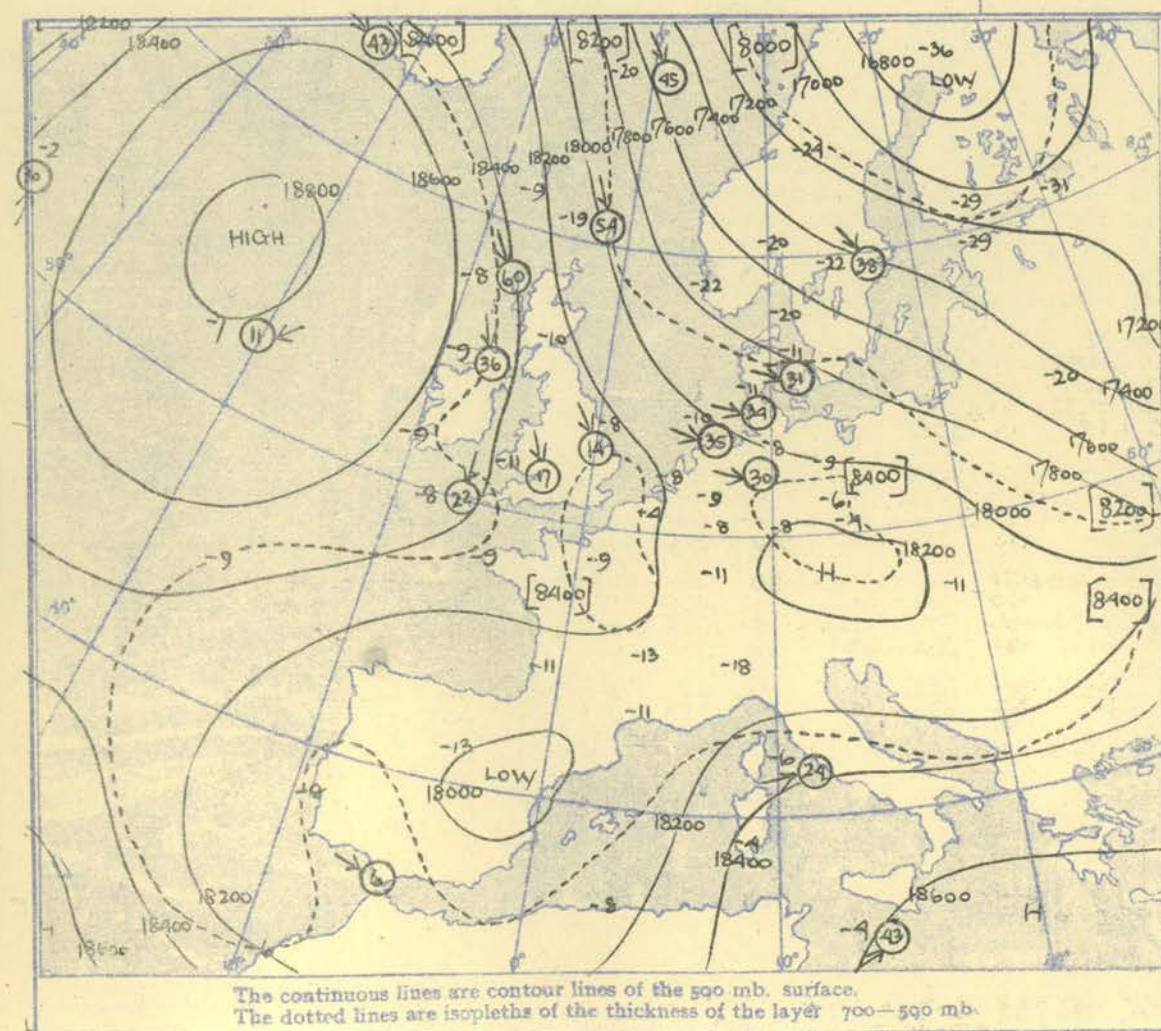
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

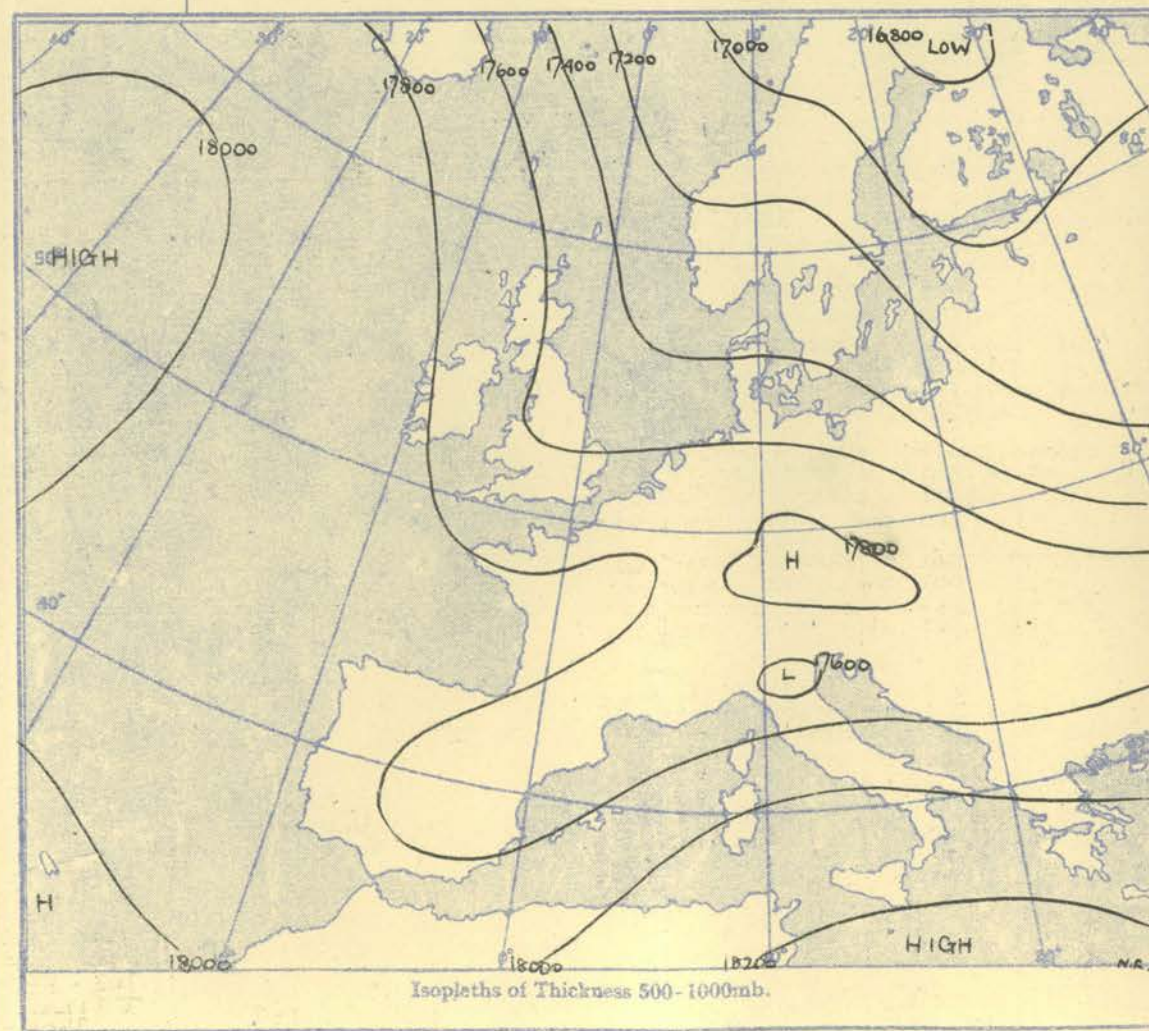
100 50 20 10 5 knots



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



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



Isopleths of Thickness 500—1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

[illegible]

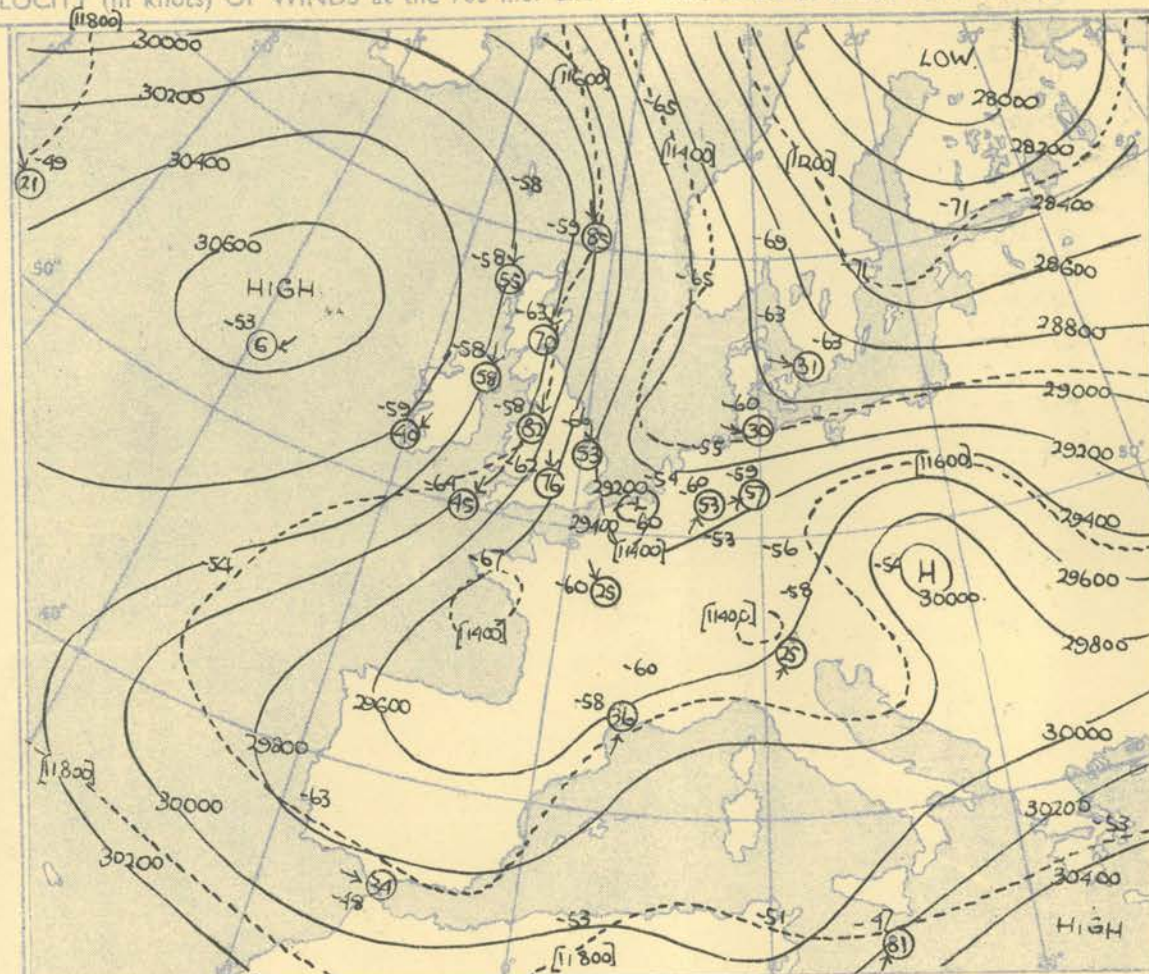
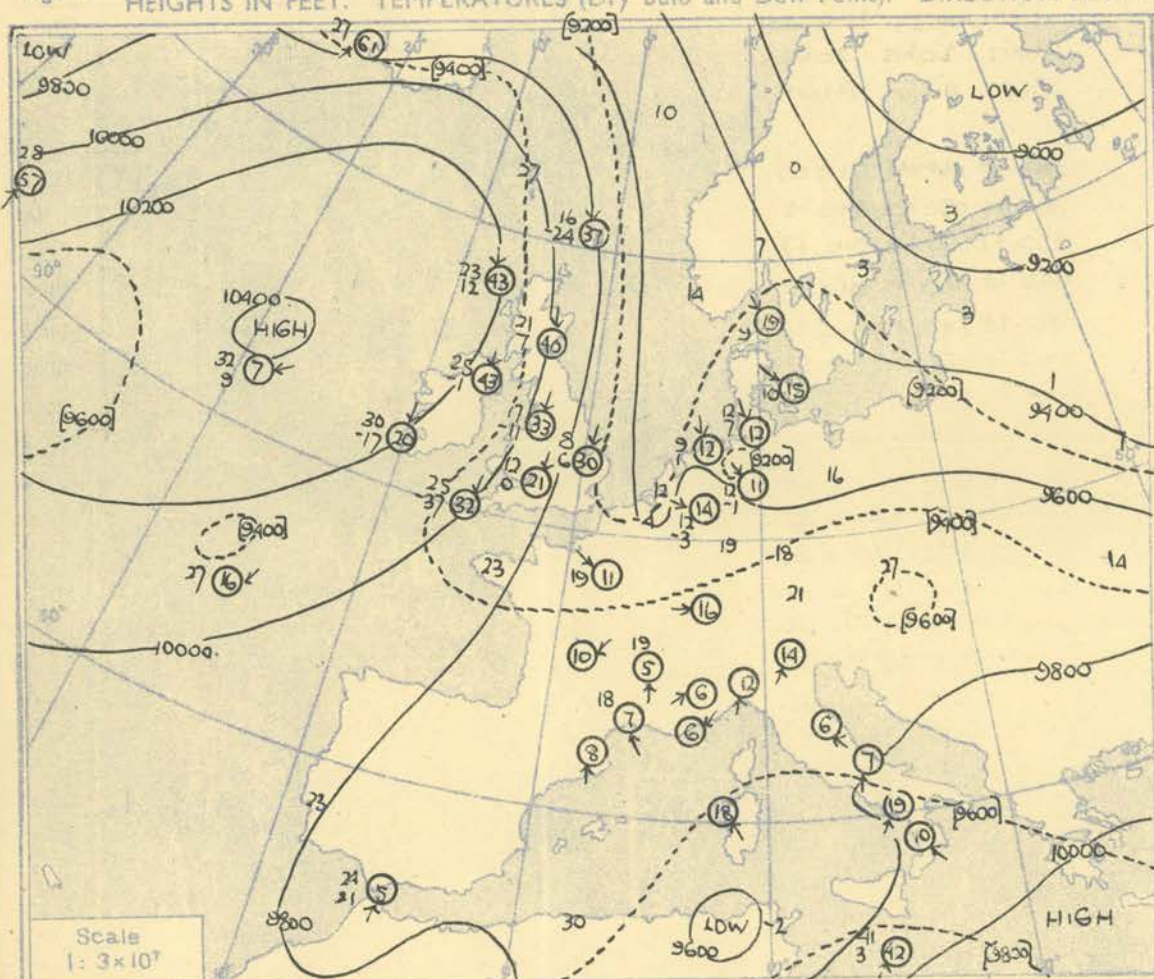
## NEPHOSCOPE OBSERVATIONS

[illegible]

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

Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER																				Ship			
Lat/Long	52°5N 20°2W				52°5N 19°7W				52°3N 19°7W				52°4N 19°8W																				Lat/Long			
Pressure	Time	G.M.T.			Time	G.M.T.			Time	G.M.T.			Time	G.M.T.															Time							
	M.S.L.	mb			1030	mb			1032	mb			1032	mb															M.S.L.							
	Surf	mb			1030	mb			1032	mb			1032	mb															Surf							
	Freezing	mb			710	mb			700	mb			725	mb															Freezing							
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure			
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb			
Surf		50	47	070	10	50	45	070	12	50	42	090	10	50	43	100	08																Surf			
1000	8.1	47	37	100	15	8.2	47	43	087	15	8.5	47	41	100	16	8.6	47	42	134	07													1000			
950		41	40	100	10		41	38	106	10		43	40	105	14		40	38	126	09													950			
900	36.4	44	18	103	8	36.4	36	30	118	8	36.8	39	38	113	12	36.8	35	35	125	05													900			
850		44	6	103	8		44	-17	110	5		47	32	105	10		43	20	124	03													850			
800	68.1	41	12	104	8	68.1	41	-11	100	7	68.5	42	25	089	10	68.4	40	13	121	06													800			
750		34	4	105	7		37	-3	100	9		37	15	085	08		36	08	121	03													750			
700	103	27	6	106	6	103	30	-6	093	5	104	32	9	079	07	104	28	03	242	04													700			
650		20	0	106	6		23	-12	042	3		25	0	071	07		21	-6	252	06													650			
600	143	12	8	106	8	143	15	-19	052	4	143	17	-11	050	07	143	15	-15	269	05													600			
550		3	-16	037	10		5	-27	115	3		10	-21	034	05		07	-21															550			
500	188	-7	-28	053	11	188	-5	-38	129	8	189	-1	-32	092	06	188	-4	-31															500			
450		-19	-38	018	12		-16	-50	134	9		-12	-40	156	07		-15	-31															450			
400	240	-32	-50	015	9	241	-28	-56	136	9	242	-25	-50	037	05	241	-28	-52															400			
350	(355mb)	-44					-42		126	15		-38	-57	095	11		-41																350			
300						305	-57		111	19	307	-53		085	06	305	-58																300			
250							-72		103	15		-70		Calm			-72																250			
200						389	-79		041	20	391	-80		026	06	389	-73																200			
170							-71		020	20		-65		354	09		-66																170			
150							-70		005	22		-63		339	19		-67																150			
130							-70		358	16		-66		339	24		-69																130			
110							-71		360	13		-66		003	27		-72																110			
100						532	-72		360	16	536	-66		348	39																		100			
90							-74		360	24		-66		341	38																		90			
80							-76		340	36		-67		340	31																		80			
70						(62mb)	-77		350	28		-68		341	29																		70			
60												-70		344	21																		60			
		Inversion .					Inversion .					Inversion .					Isothermal .																			
		950mb 41° - 882mb 46°					896mb 35° - 880mb 46°					894mb 37° - 858mb 47°					910 - 895mb 35°																			
																	Inversion																			
																	895mb 35° - 840mb 44°																			
Tropopause		NR					I 209mb - 82° 38.000'					I 203mb - 82° 38.800'					I 231mb - 78° 35.900'																			Tropopause

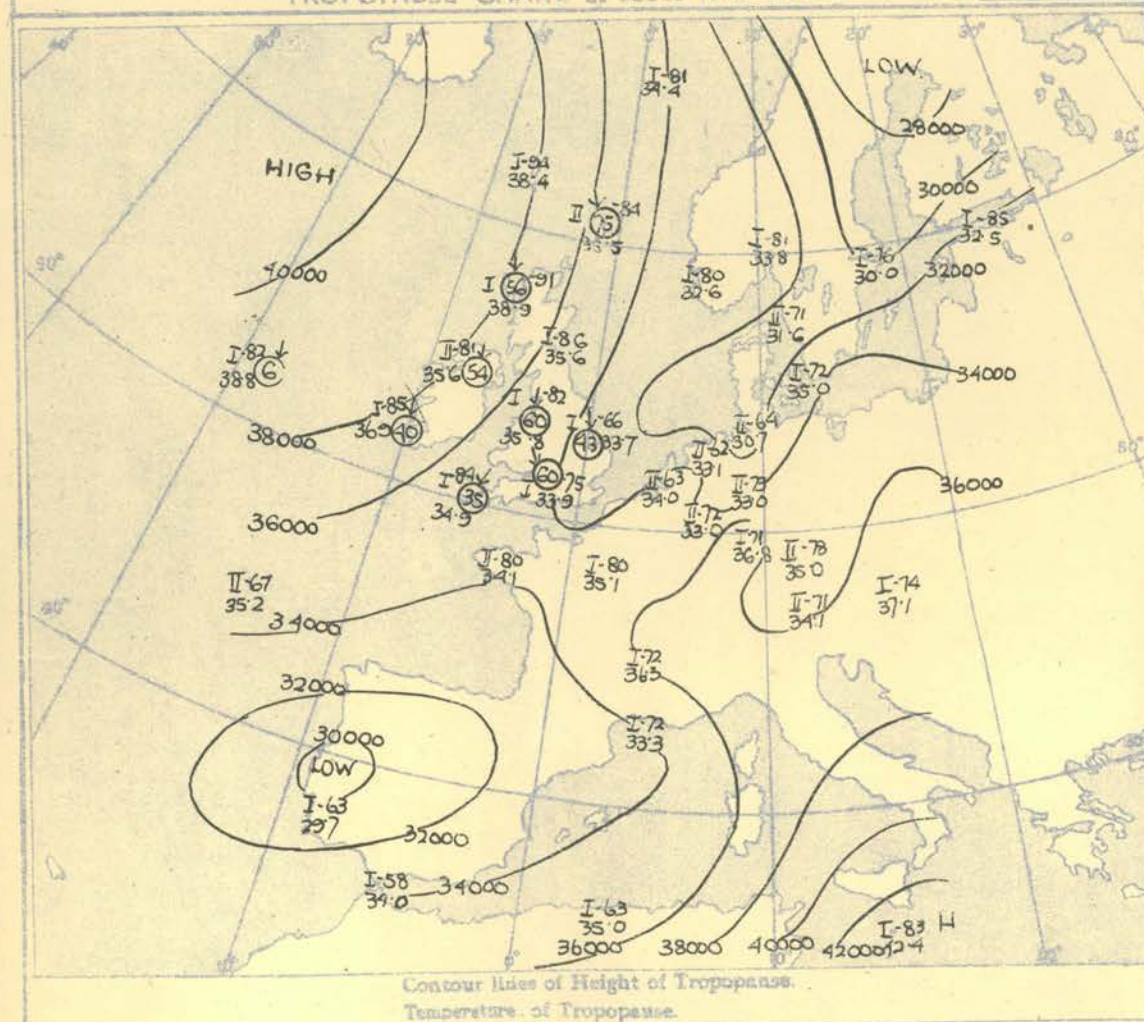




Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 54° N.

100 80 60 40 20 10 0 10 knots

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



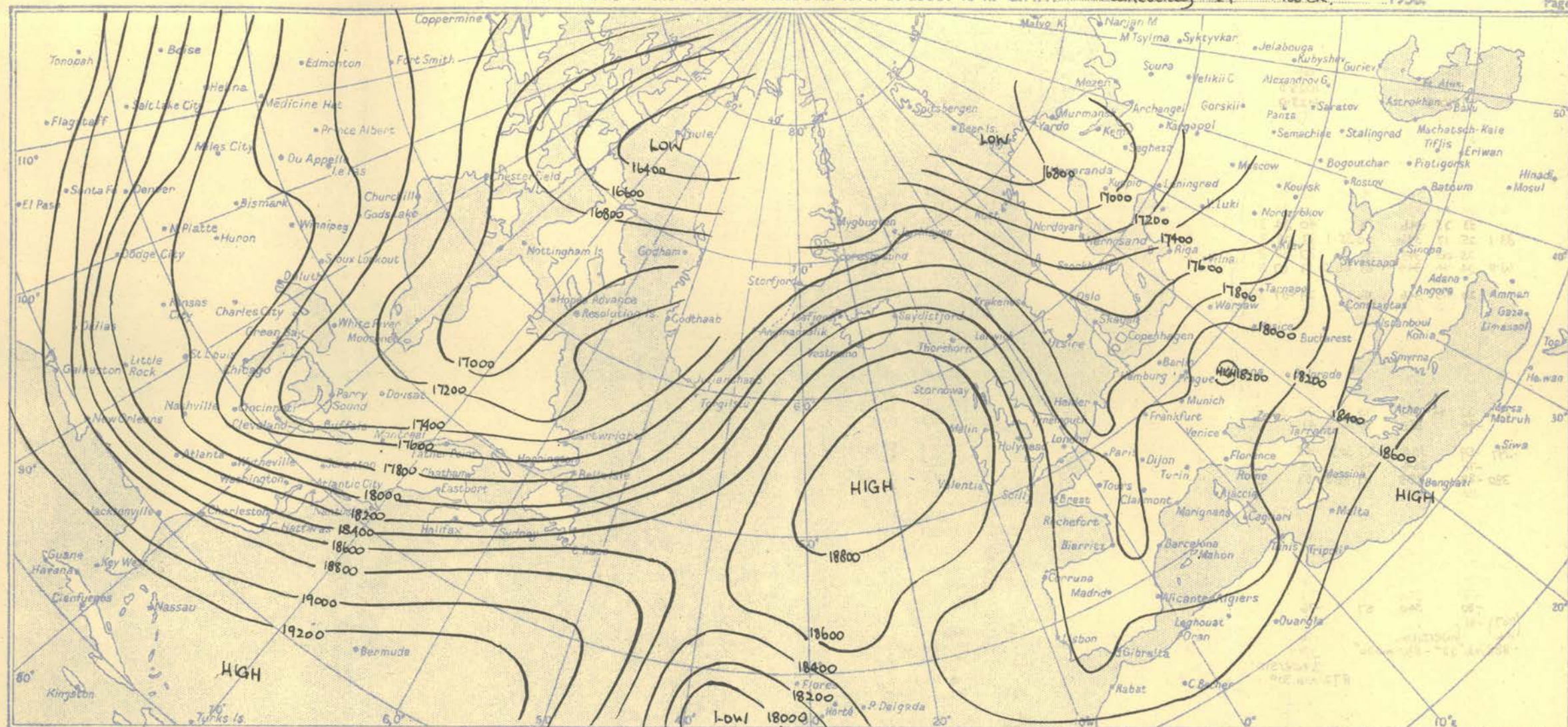
## NOTES ON THE AEROLOGICAL SITUATION.

The cold trough over the British Isles moved south intensified and reinforced the old cold pool over Spain. Considerable warming took place in the Western Atlantic where a warm ridge extended rapidly northeastward to join up with the warm pool in the Central Atlantic and leave a feeble cold pool west of the Azores.

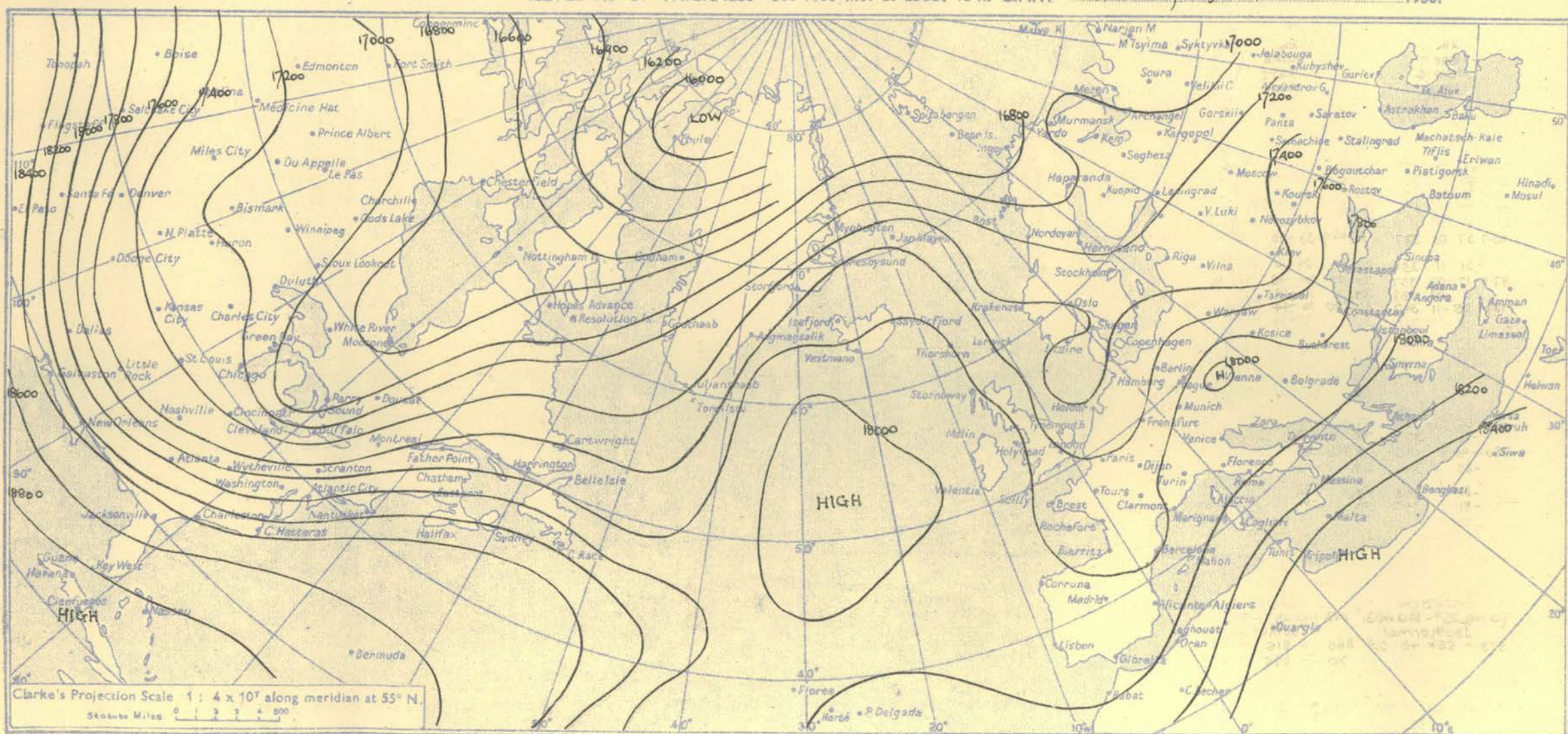
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Meteorological Office, Air Ministry, Kingway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Wednesday 29<sup>th</sup> March 1950.



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



## 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	15h		G.M.T.		15h		G.M.T.		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																										
	1020.6	mb	1010.3	mb	1025.8	mb	1023.9	mb	1021.8	mb	1021.0	mb	1025.2	mb	1016.5	mb	1021.9	mb	1019.9	mb	1019.3	mb	1014.7	mb	1019.5	mb	1005.3	mb	1022.7	mb	1011.9	mb		1028.2	mb	1027	mb	815	mb																				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																						
Surf	02.7	41	28	349	14	30.5	50	40	320	10	00.2	54	38				02.3	50	44	350	15	00.6	53	42	350	15	01.2	45	41	350	13	04.4	51	40	360	09	02.9	51	43	360	15	00.3	50	40	360	08	Surf												
1000	5.5	39	24	345	15	6.9	46	39	331	16	5.8	50	33				6.8	48	42	350	23	5.9	51	40	353	16	5.1	42	40	351	24	5.2	51	40	360	16	6.0	48	41	00.5	18	7.6	46	38	018	12	1000												
950		33	23	346	17		40	34	337	16		42	31					41	34	356	25		45	36	360	17		35	34	355	22		42	34	00.6	16		40	36	011	21		39	35	031	16	950												
900	33.1	25	17	346	20	35.1	33	28	346	15	34.1	34	26				35.1	37	30	001	27	34.4	38	29	007	21	33.1	31	31	359	21	33.5	34	28	017	16	34.2	33	24	022	24	35.8	34	33	039	19	900												
850		25	00	345	25		32	18	350	20		28	24					30	17	008	38		33	23	013	21		26	26	359	29		28	23	021	24		30	16	039	30		35	27	033	26	850												
800	63.5	24	14	344	33	66.0	31	07	349	27	64.8	24	16				66.1	30	00	010	34	65.4	26	17	004	02	63.7	21	21	003	24	64.1	23	15	021	31	65.0	29	05	035	32	66.9	30	14	026	31	800												
750		20	15	346	36		29	07	350	35		26	18					31	03	010	39		22	05	004	26		15	13	360	26		17	10	020	31		32	32	027	30		35	08	025	27	750												
700	97.7	16	24	347	37	101	23	12	353	41	99.3	21	27				101	25	01	009	43	99.8	17	11	009	33	97.5	08	06	356	30	98.1	12	00	011	31	100	25	37	025	32	103	30	17	026	20	700												
650		09	13	345	42		17	01	354	44		16	24					18	01	006	46		14	15	010	39		03	10	358	36		09	18	003	39		18	42	018	34		23	21	030	18	650												
600	136	04	08	351	48	140	10	01	350	49	138	08	11				140	11	03	007	46	139	09	23	011	50	135	02	18	359	37	137	04	28	360	44	139	12	46	015	33	141	15	15	032	20	600												
550		02	16	354	53		02	05	351	52		02	11					04	09	008	49		04	28	012	60		08	28	002	37		01	40	001	55		03	41	020	34		06	21	032	21	550												
500	181	10	20	349	61	185	05	13	354	50	183	05	26				185	05	18	009	49	184	06	34	010	62	179	17	39	004	39	181	10	53	002	74	184	08	50	025	35	187	05	31	028	22	500												
450		20	31	349	61		16	25	354	45		19	39					16	30	013	57		17	42	006	67		28	50	006	43		20	60	36.0	79		20	60	024	46		16	40	035	30	450												
400	233	32	43	353	73	238	28	36	351	45	236	32	46				238	30	43	010	60	236	30	48	009	69	231	39	59	007	50	233	32	60	002	86	236	32	59	031	42	239	28	52	044	35	400												
350		44		353	78		42		357	57		46						43		013	57		43		018	74		44		011	54		47		004	85		48		030	49	41	047	39	350														
300	297	59		355	85	302	58		359	55	299	63					302	58		014	58	300	68		016	82	294	58		005	55	297	62		360	76	299	64		029	45	303	57		043	40	300												
250		76		354	94		75		008	63		80						76		028	56		75		017	84		65		005	43		74		351	63		009	41		76		042	46	250														
200	380	85		355	67	88.5	88		003	56	382	77					385	84		023	51	384	71		006	98	379	85		348	35	381	68		347	34	382	76		004	32	387	78		018	38	200												
170		74		349	57		76		357	49		74						74		010	33		70		345	38		67		335	36		69		337	30		356	28		70		006	32	170														
150		75		344	56		74		346	40		74						72		014	36		70		347	40		71		335	38		68		344	31		72		343	31		69		346	32	150												
130		75		335	55		76					75						72		008	40		71		344	40		68		337	34		69		350	26		74		344	32		69		345	33	130												
110		74		329	50		74					82						76					73		342	40		74		331	30		75					75		345	28		73		345	25	110												
100	522	75		342	47	527	75				523						528	78				528	72		343	38		524	76		330	31	525	77		525	75		350	31	531	74		75		341	29	100											
90		77		342	46		76					81						78					73		347	35		77		334	37		77					78		348	31		75		350	28	90												
80		78		344	49		77					80						78					75		348	35		79		332	35		79					79		337	29		77		360	34	80												
70		80		340	57		76					82						78					76		348	35		79		328	40		79					79		337	29		75		350	28	70												
60	(067)	81					76					82						78					76		348	35		79																			60												
				Inversion 888 mb 23°-830 mb 26°								Inversion 811 mb 23°-783 mb 28°				Inversion 840 mb 28°-816 mb 32°				(065) Isothermal 676 - 657 mb 15°				Isothermal 679 - 665 mb 05°								Inversion 859 mb 29°-829 mb 32°				Inversion 886 mb 39°-850 mb 35°																							
				Inversion 872 mb 30°-850 mb 32°				Inversion 810 mb 30°-800 mb 31°				Inversion 800 mb 30°-770 mb 33°				Inversion 940 - 927 mb 40°																				Inversion 782 mb 28°-743 mb 36°				Inversion 900 - 886 mb 34°				Inversion 850 - 841 mb 35°															
				872 mb 30°-850 mb 32°				810 mb 30°-800 mb 31°				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																											
				810 mb 30°-800 mb 31°				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																															
				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																																			
				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																																			
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				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																																			
				800 mb 30°-770 mb 33°				940 - 927 mb 40°																																																			



## 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. 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.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		1017.2	mb	1017.2	mb	1023.8	mb	1023.8	mb	1023.1	mb	1022.3	mb	1022.3	mb	1026.2	mb	1017.2	mb	1017.2	mb	1015.4	mb	1015.4	mb	1021.7	mb	1021.7	mb	1022.9	mb	1022.9	mb	1027.9	mb	1027.9	mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Temp. °F.	Dew °F.	Wind Dir. Vel. knots																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
																																					900	mb	900	mb	850	mb	850	mb	800	mb	800	mb	933	mb	933	mb	903	mb	903	mb	860	mb	860	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb	760 and 900	mb



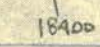


Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat.  $52\frac{1}{2}^{\circ}$  N

100 80 60 40 30 20 10 knots



HIGH



H

Isopleths of Thickness 500-1000mb.



## DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WIND

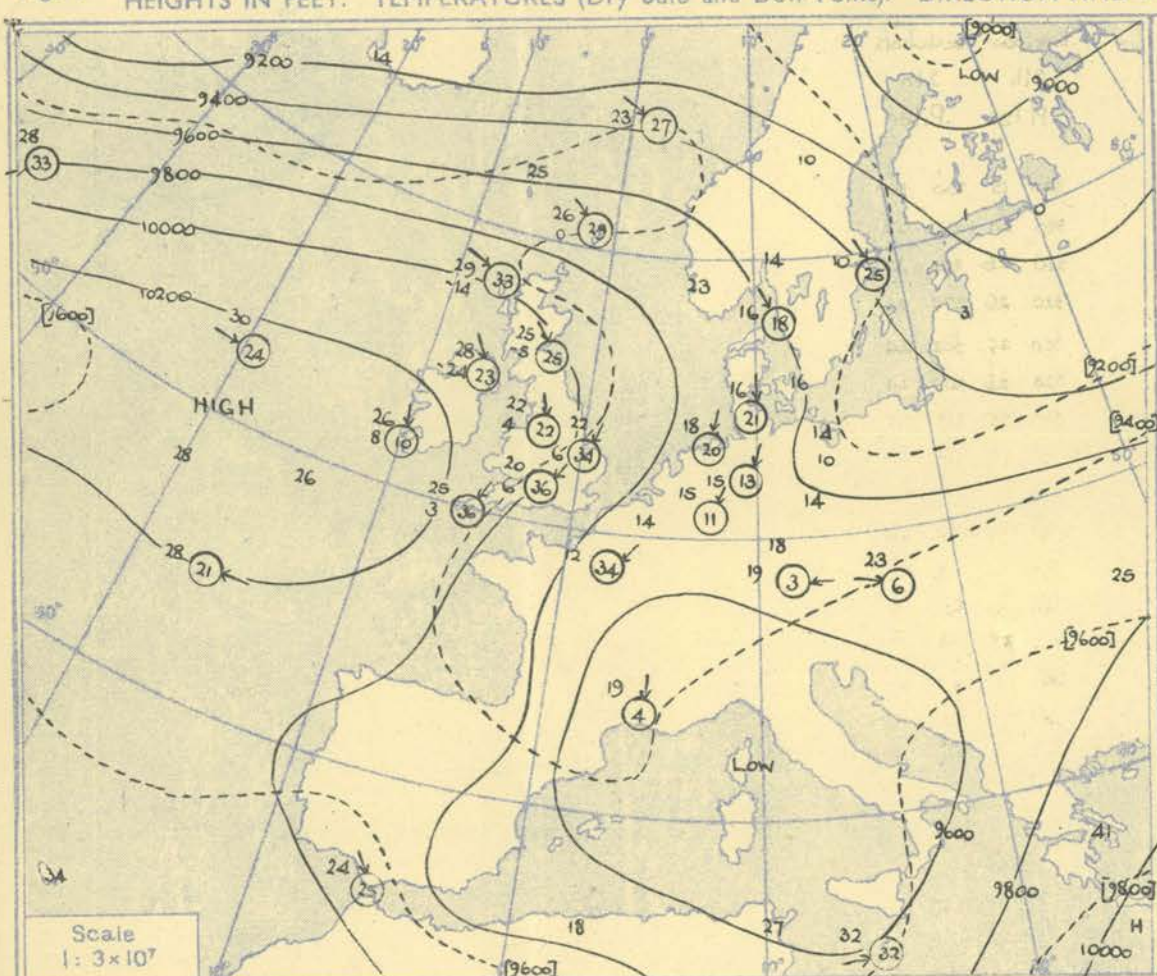
A circular library stamp from the Meteorological Office. The outer ring contains the text "METEOROLOGICAL" at the top and "OFFICE" at the bottom, separated by two five-pointed stars. The center of the stamp contains the word "LIBRARY" at the top and the date "11 APR 1950" in the middle. The stamp is overlaid on a document with a grid pattern and some faint, partially legible text.

## NEPHOSCOPE OBSERVATIONS

Ship		WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER WATCHER				WEATHER WATCHER												Ship	
Lat/Long		52-8N. 19-8W.				52-6N. 19-7W.				52-6N. 19-9W.				52-6N. 19-8W.				56-3N. 09-SW.				56-7N. 10-8W.												Lat/Long	
Pressure	Time	08h. G.M.T.				09h. G.M.T.				15h. G.M.T.				21h. G.M.T.				15h. G.M.T.				21h. G.M.T.												Time	
	M.S.L.	mb				mb				mb				mb				mb				mb												M.S.L.	
	Surf	mb				mb				mb				mb				mb				mb												Surf	
	Freezing	mb				mb				mb				mb				mb				mb												Freezing	
		725				710				890 + 715				900 + 720				710				890 + 720													
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	40	190	06	49	40	205	06	52	44	235	12	50	41	245	22	48	45	260	17	50	46	260	17								Surf		
1000	8.4	46	39	224	06	46	39	245	18	7.7	47	218	18	6.9	46	39	246	27	46	42	285	32	47	43	240	30							1000		
950		40	38	222	09	40	36	245	17		41	202	20		38	34	240	30	41	40	286	42	41	37	246	25							950		
900	36.6	34	34	209	09	36.3	33	30	245	15	35.7	34	228	25	34.9	32	32	240	31	34.2	35	35	281	46	33.3	34	28	247	23				900		
850		43	14	207	09	42	21	244	12		43	232	26		43	27	250	33					27	20	250	23							850		
800	68.1	40	10	222	06	67.6	40	05	244	12	67.0	41	240	24	66.5	42	253	33	65.4	40	11	281	41	64.4	40	23	261	30					800		
750		35	01	241	07	37	00	244	10		37	255	25		38	06	255	29		36	15	282	45	35	08	272	40						750		
700	103	29	02	245	10	103	30	06	246	08	102	30	271	24	102	29	07	243	28	101	31	25	283	52	39	07	270	43					700		
650		20	06	244	09		23	14	250	05		21	268	17		13	10	250	31		26	23	286	48		23	38	265	46					650	
600	143	12	16	231	04	143	16	27	258	05	142	14	253	16	14.1	13	23	250	30	14.0	17	20	286	45	13.9	16	43	262	46					600	
550		06	25	264	03		07	31	270	06		06	257	16		05	33	246	26		07	24	294	51		06	50	270	42					550	
500	188	04	39	297	06	188	03	41	279	06	187	04	263	14	187	05	46	246	26	186	02	33	297	55	185	04	58	290	46					500	
450		15	49	314	07		16	57	306	08		16	274	18		15	50	256	22		13	41	299	55		14	55	279	33					450	
400	241	30	60	315	18	241	29	56	320	10	240	30	270	15	239	27	59	270	15	239	25	38	303	48	238	24	57	266	30					400	
350		44		294	15		43		316	11		45	260	09		38	58	305	11		36	48	303	40		39	59	252	17					350	
300	304	57		283	07	305	56		315	09	303	54	283	07	304	51		330	12	304	51		304	34	302	52		253	10					300	
250		72		333	14		71		320	06		63	079	03		67		345	33			68		306	36		70		268	17				250	
200	388	81									389	78	015	30	389	83		352	51	388	84		317	54	386	87		295	24					200	
170		72									75		359	36	(172)	79					82		328	54		91		318	27					170	
150		72									72		358	38							76		341	66	(155)	82								150	
130		73									75		001	34							75		345	56										130	
110		74									72										74		343	54										110	
100	531	76									70										74		336	54										100	
90		76																			74		329	50										90	
80		77																			74		323	46										80	
70		77																			74		322	36										70	
60	(056) mb	76																			74		321	36										60	
		Inversion 905mb. 33°-850mb. 43° Isothermal 850-833mb. 43°				Inversion 890mb. 32°-860mb. 43°				Inversion 880mb. 30°-865mb. 44°				Inversion 880mb. 30°-868mb. 45° Isothermal 830-795mb. 42°				Inversion 854mb. 31°-820mb. 41°				Inversion 850mb. 27°-810mb. 41° Isothermal 473-463mb. -11°													
Tropopause		I 200mb. -81° 38,800'				N.R.				I 195mb. -80° 39,500'				I 180mb. -88° 41,000'				I 195mb. -86° 39,400'				I 171mb. -91° 41,900'								Tropopause					



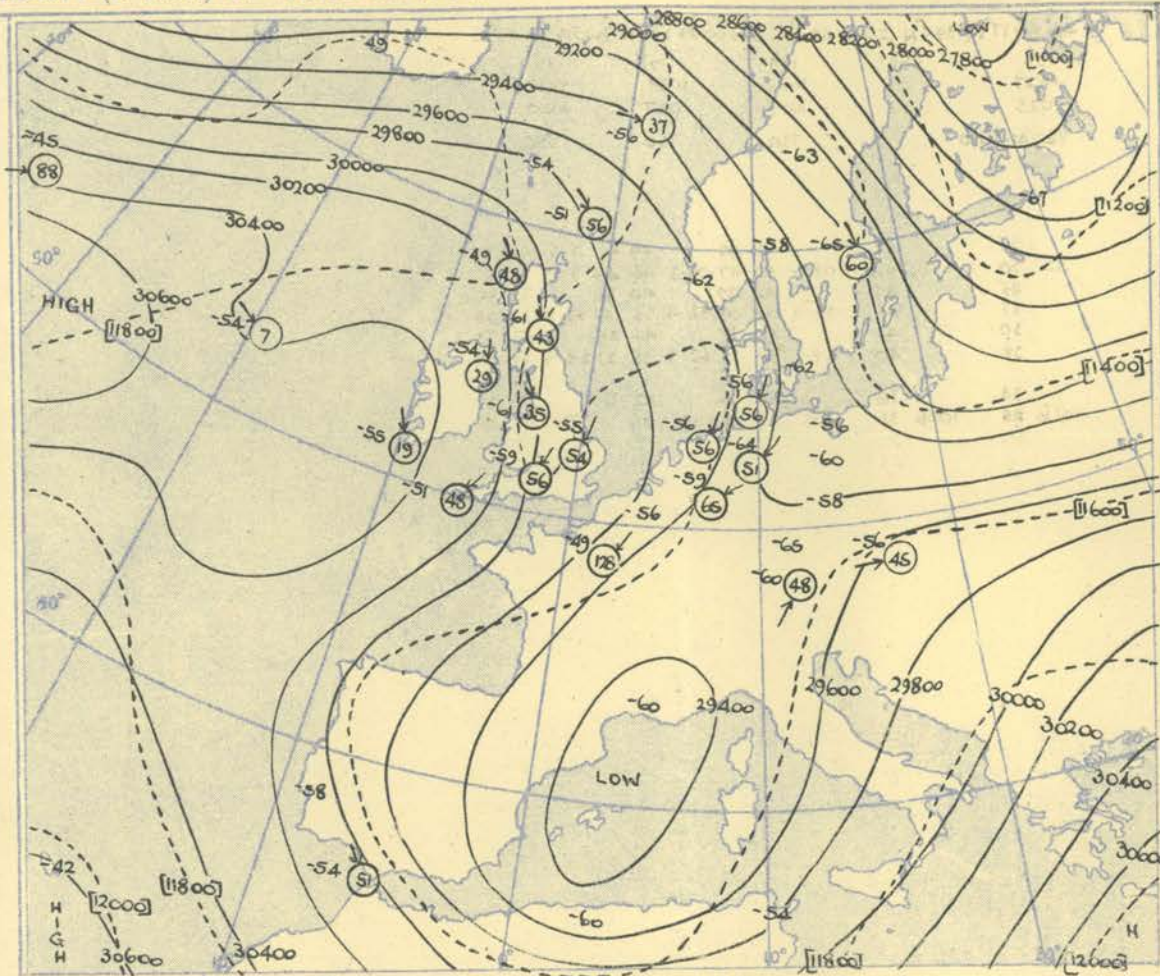
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb., levels at about 15 h. G.M.T.



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.

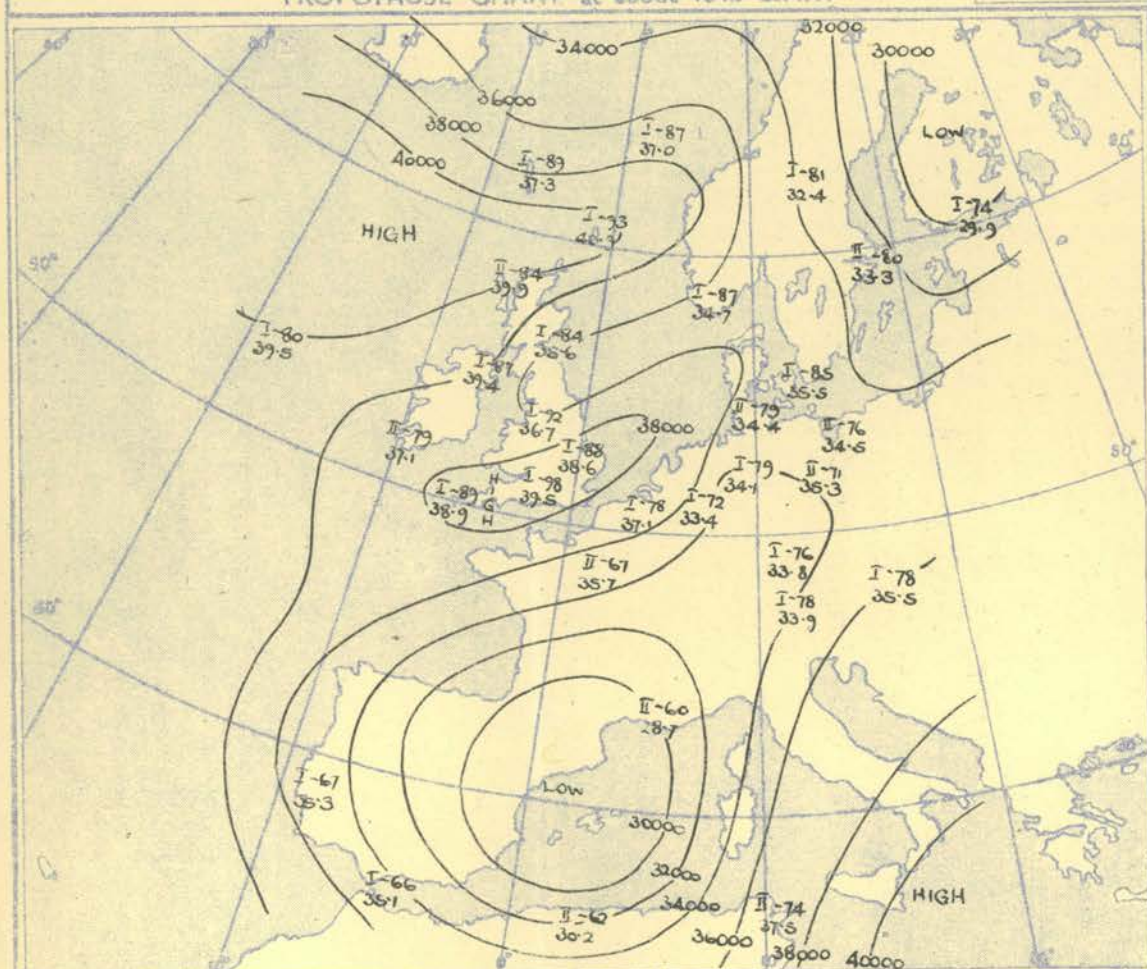
Gradient Wind Scale for Contours  
at intervals of 200 ft. at Lat. 52° N.

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.

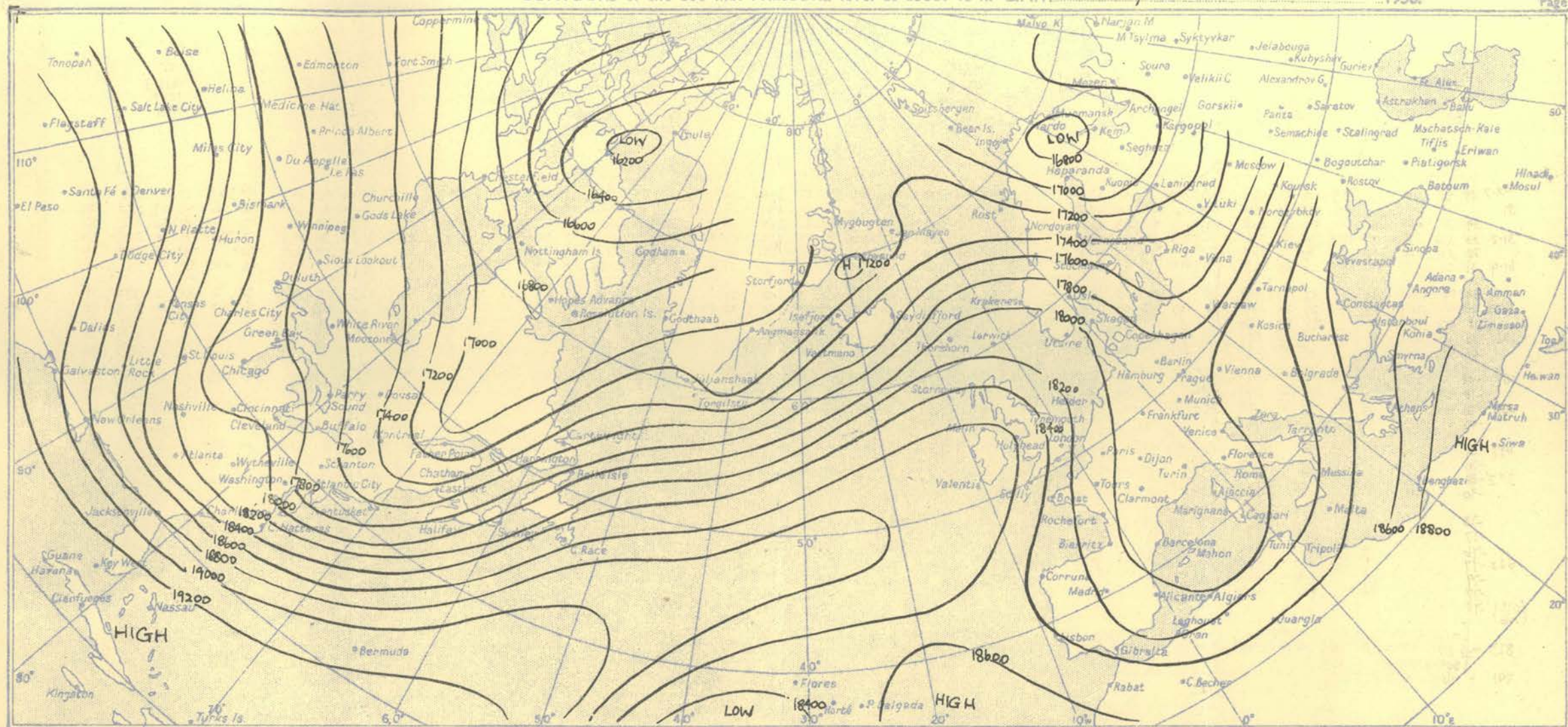
## NOTES ON THE AEROLOGICAL SITUATION.

A massive warm ridge, stretching from the Western Atlantic to Scandinavia, dominated the situation: this warm ridge extended slowly northeastwards and spread warmer air across much of Scandinavia. Disturbed weather was associated with the rather strong thermal gradient in a zone from Newfoundland to Northern Norway. A cold tongue from West Russia to Spain moved only slightly eastwards in the Northern section.

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

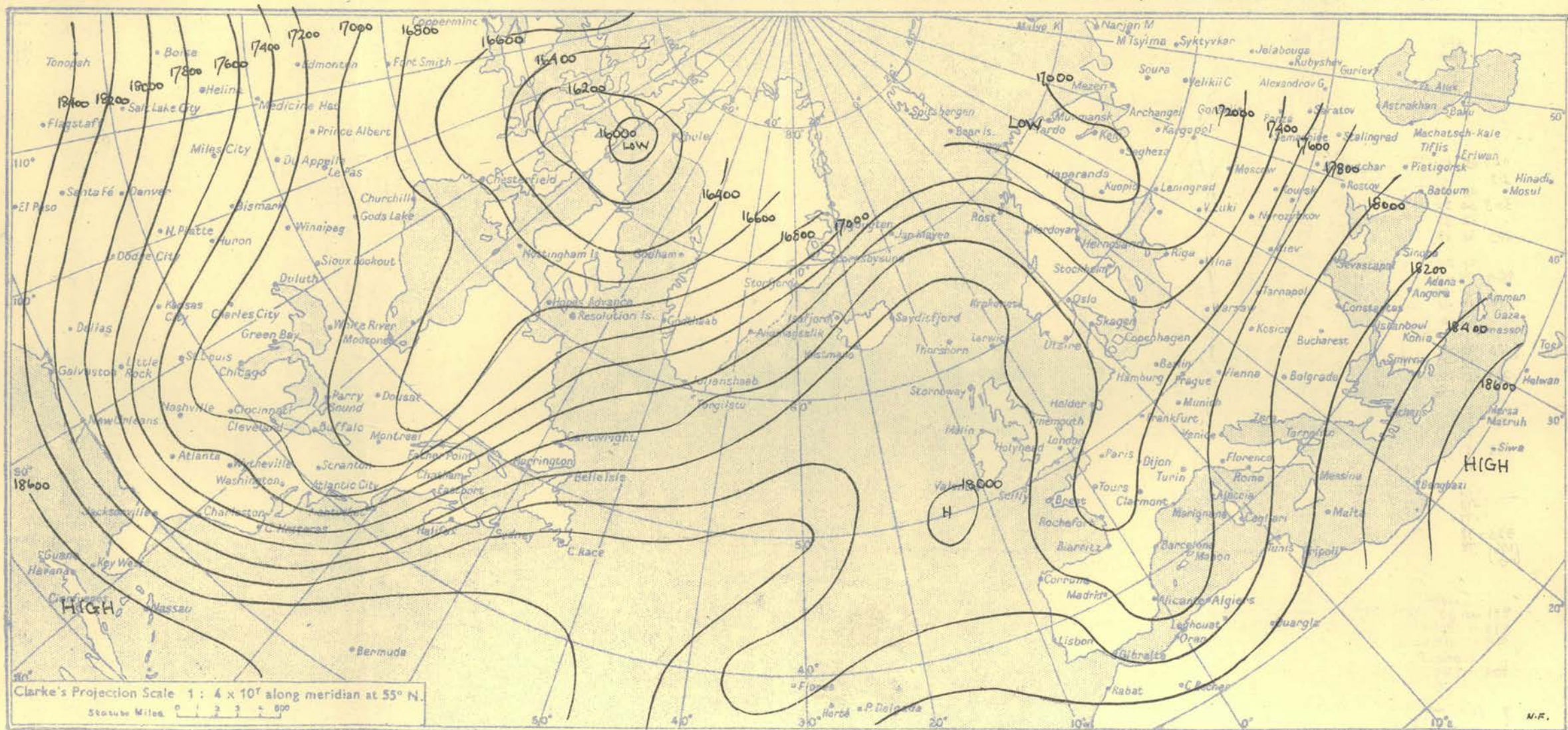




ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T.

Thursday 30th March

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

N.F.



# 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	15L		G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		15L	G.M.T.		Time M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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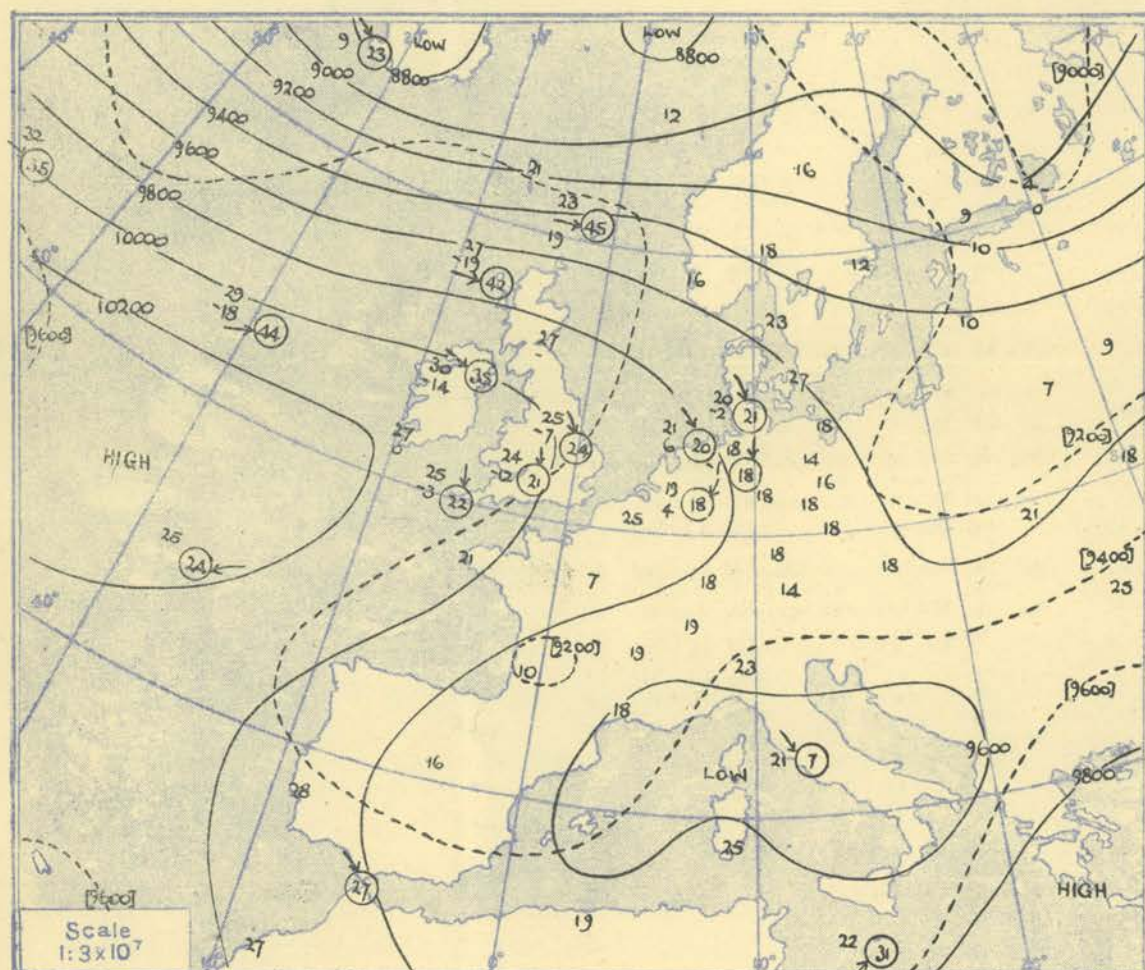


1950.		Page 1
VALENTIA.		STATION
03h	G.M.T.	Time
1026.8	mb	M.S.L.
1026	mb	Surt
740	mb	Freezing
		Pressure

[illegible]



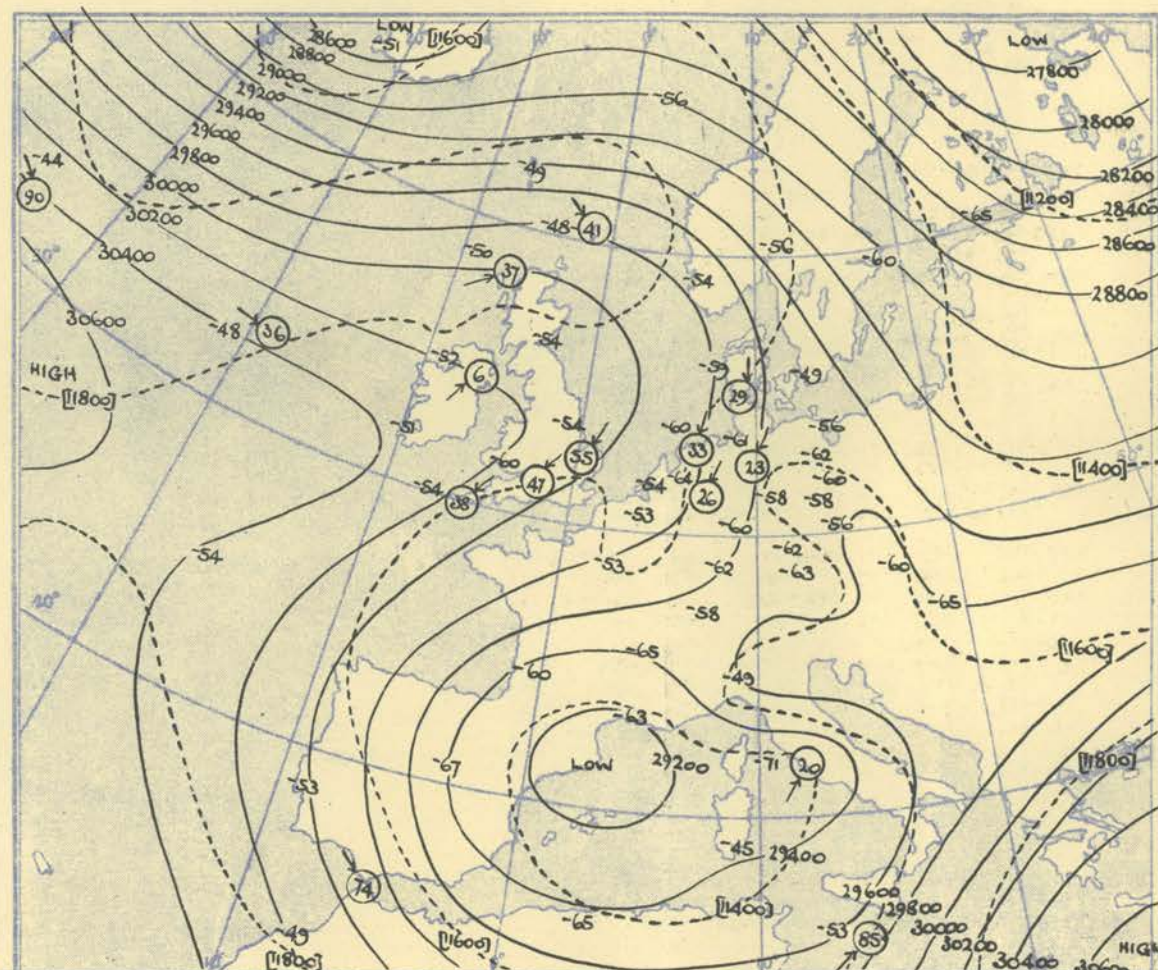
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03 h. G.M.T.



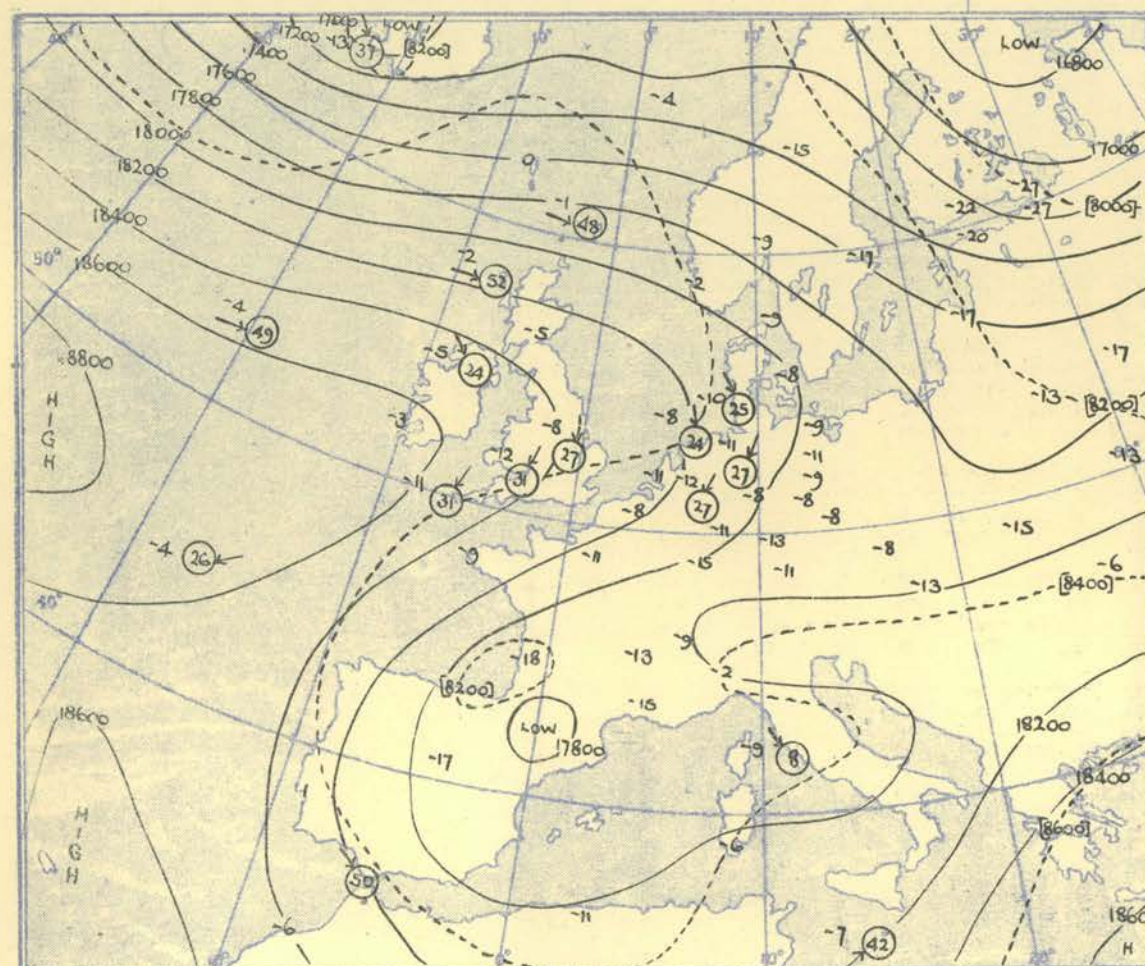
The continuous lines are contour lines of the 700 mb. surface.  
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

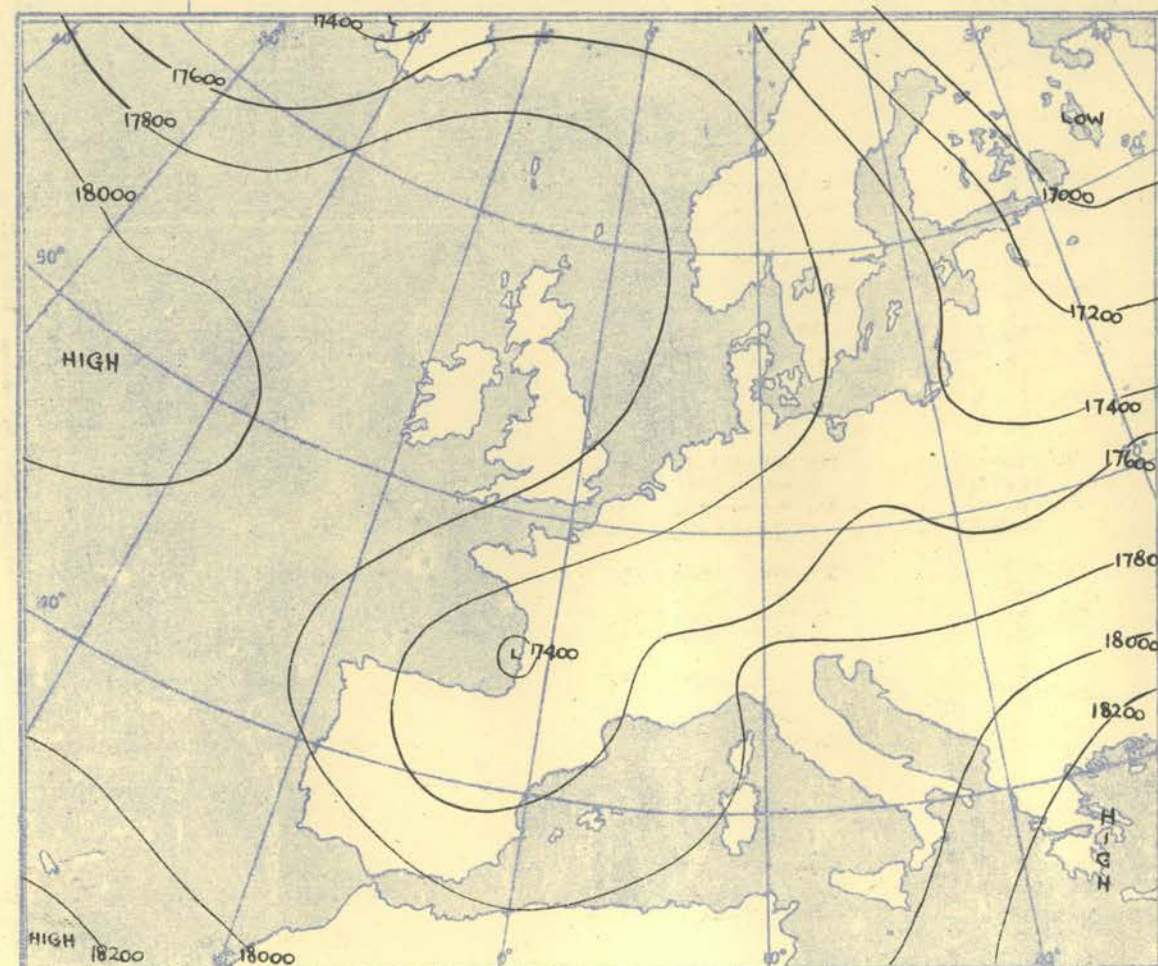
100 50 40 30 20 15 10 knots



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



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



Isopleths of Thickness 500-1000mb.



## AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

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

Place	Lerwick		Weather Recorder 52°N 19°W		Shoeburyness		Liverpool		Leuchars										Place
Time	09h		09h		11h		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.	Feet
Surf.	260	32	250	25	300	07	270	15	270	20									Surf.
1,000	240	42	260	31	290	14	267	30	266	33									1,000
2,000	250	45	260	40	300	20	272	36	277	33									2,000
3,000	260	46	270	51	300	22	274	39	279	35									3,000
4,000	270	45	270	50	320	25	276	36	281	37									4,000
5,000	260	45	270	46	320	28	281	38	281	36									5,000
6,000	260	45	270	46	330	32	280	37	278	35									6,000
8,000	260	45	270	37	330	35	279	40	271	36									8,000
10,000	250	53	280	48	340	30	277	42	274	41									10,000
14,000	250	53	290	48	350	25	278	55	283	38									14,000
18,000	250	54	280	52	360	22	280	55	278	37									18,000
24,000	250	59	290	67	010	21	261	60	269	41									24,000
30,000	240	54	300	65	050	33	253	63	271	43									30,000
40,000	250	45	330	56	020	32	304	37	304	40									40,000
50,000			320	20	010	34	334	39	319	43									50,000
							345	40	332	49									
							[53,000']		[52,000']										

NEPHOSCOPE  
LIBRARY  
13 APR 1950  
OFFICE

### NEPHOSCOPE OBSERVATIONS

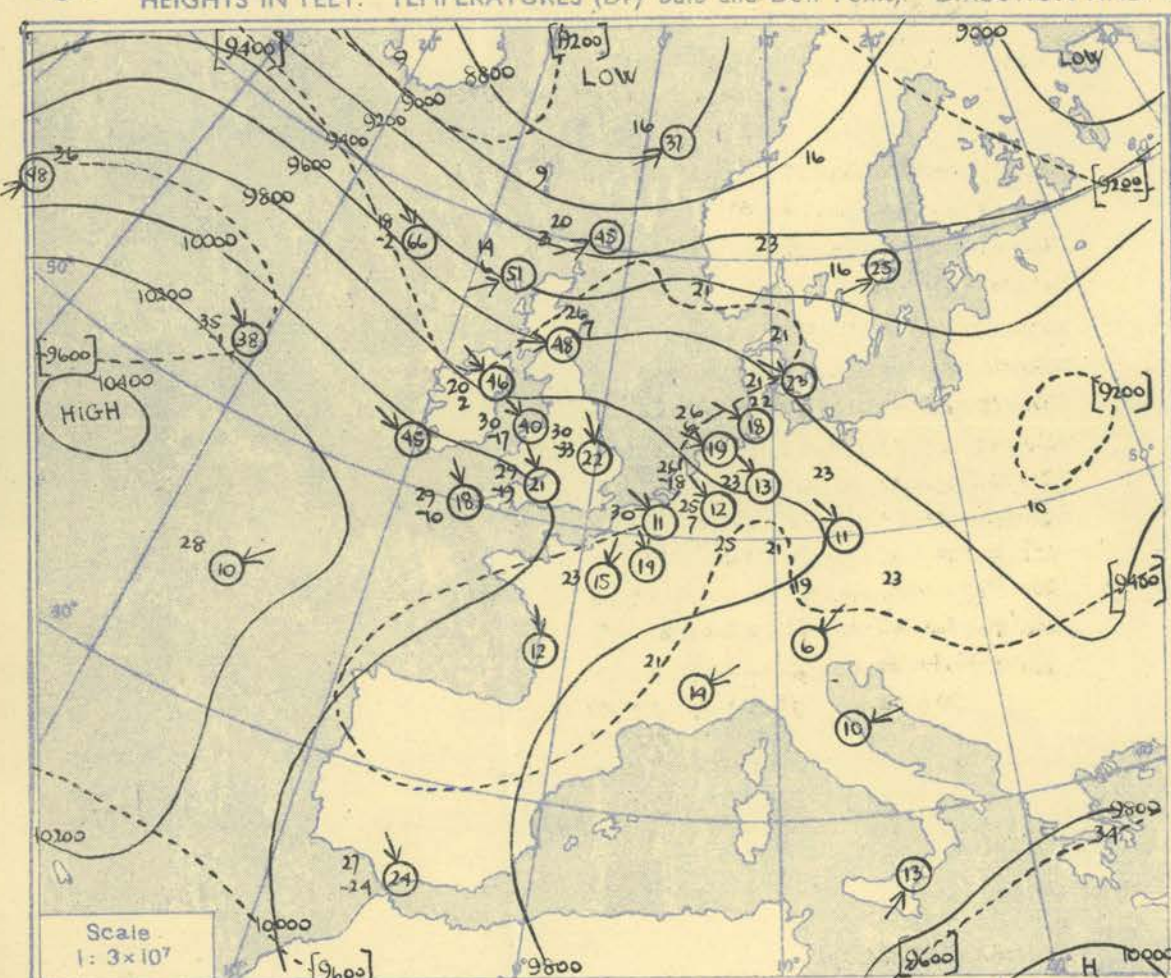
Place																			Place
Time Type	NONE REPORTED.																		Time Type
Dir. Vel.																			Dir. Vel.

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

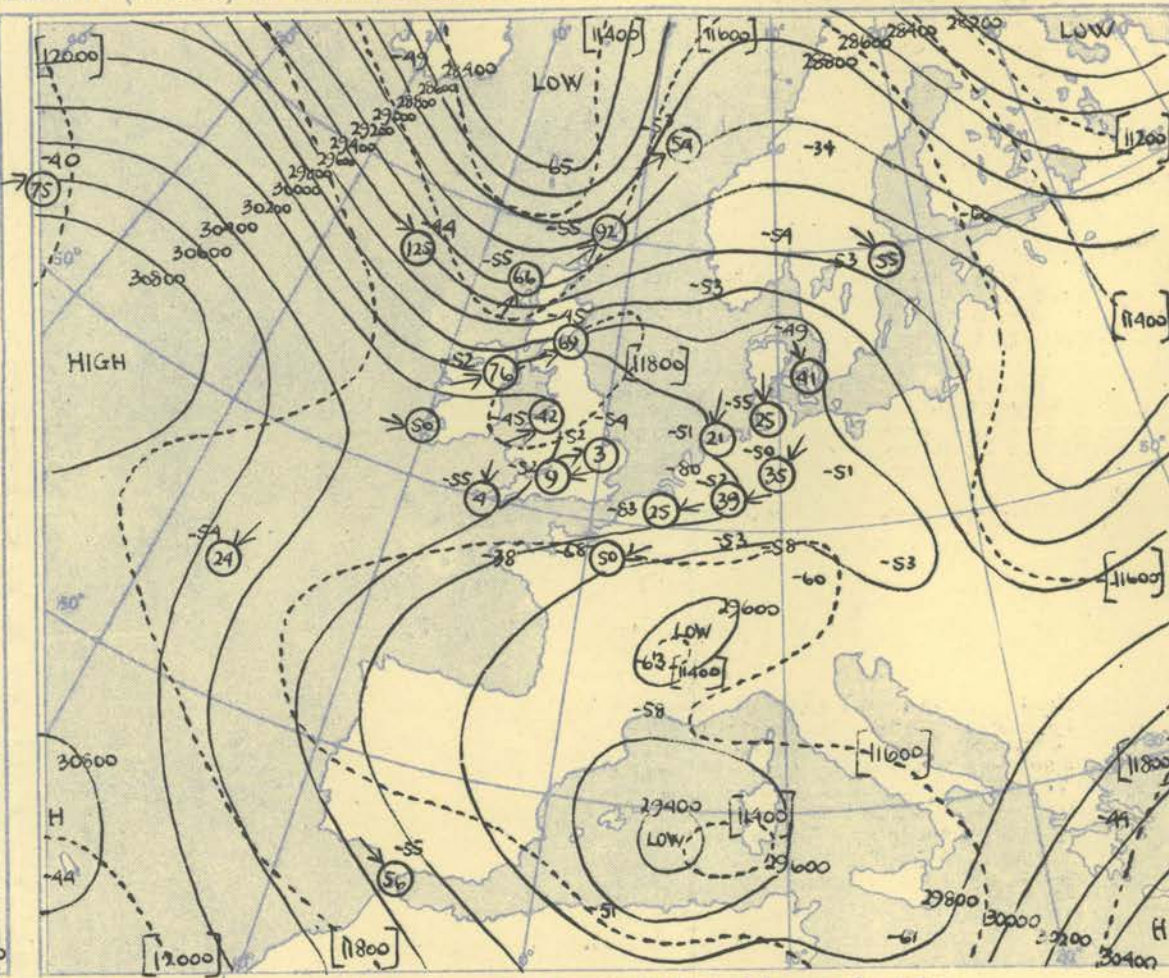
Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				WEATHER WATCHER				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Lat/Long	52.7 N. 19.5 W				52.7 N 19.8 W				52.6 N 19.9 W				52.6 N 20.1 W				56.8 N 12.0 W				57.1 N 13.0 W				57.3 N 14.0 W				57.5 N 15.1 W				Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Pressure (Time M.S.L. Surf Freezing)	03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h		G.M.T.		03h		G.M.T.		09h		G.M.T.		15h		G.M.T.		21h		G.M.T.		G.M.T. Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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	1023		mb		1020		mb		1020		mb		1020		mb		1011		mb		1006		mb		1005		mb		1005		mb																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	720		mb		750		mb		680		mb		715		mb		880 + 740		mb		800 + 870		mb		870		mb		865		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		50.42		250 21	51.47			255 25		51.48			26 26	50.49			25 34	3.0	46.45			21 21	1.6	48.46			252 24	1.2	47.45			280 27	1.4	48.47			290 25	Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1000	61	47.39		247 24	5.4	49.46			5.3	51.49			26 29	5.4	49.49			34 34	46.44			27 34	1.6	47.44			233 42	1.2	47.43			280 27	1.4	47.46			290 25	1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
950		41.34		255 33		43.42				46.44			42 42		48.48			36 36	41.39			40 40		43.36			233 42		40.36			275 51		42.39			269 33	950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
900	34.3	34.32		258 36	33.8	41.41			33.9	47.31			38 38	34.0	47.24			35 34	35.34			39 39	29.9	36.30			254 43	29.4	35.30			274 54	29.7	36.30			272 39	900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
850		43.3		261 36		38.38				47.24			38 38		44.33			32 32	32.26			34 34		30.25			257 45		30.25			276 58		30.23			274 46	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
800	65.8	41.25		261 40	65.1	34.34			65.8	45.15			34 34	65.8	45.15			28 28	37.31			35 35	60.9	32.13			258 42	60.3	24.17			279 62	60.5	24.2			281 45	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
750		35.20		260 45		32.4				41.0			36 36		35.27			29 29	33.29			39 39		27.3			260 44		22.6			283 64		29.13			286 52	750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
700	101	29.18		261 44	100	26.42				35.1			38 38	101	29.12			28 28	30.25			48 48	97.5	29.18			252 45	95.4	19.1			266 44	94.5	18.2			285 66	700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
650		21.18		265 48		21.20				27.12			39 39		26.29			44 44	21.3			54 54		14.1			265 56	13.4	10.10			271 44	13.3	14.6			282 60	650																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
600	141	14.21		265 46	140	13.11			142	21.12			46 46	141	20.18			29 29	14.1			137		14.1			265 56		8.17			261 50	13.3	14.6			279 48	600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
550		5.36		264 46		4.20				16.1			46 46		13.12			30 30	56			57		5.7			267 55		-3.14			257 56		-1.28			295 68	550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
500	186	4.43		263 49	185	-4.30			188	7.9			46 46	187	3.1			30 30	54			182		-3.19			265 61	179	-14.36			255 54	178	-11.34			296 75	500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
450		-14.34		260 47		-18.41				-5.20			31 31		-7.13			30 30	44			44		-11.28			263 61		-26.47			251 54		-20.42			296 84	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
400	239	-22.31		270 40	237	-27.53			242	-21.34			54 54	241	-18.28			29 29	42			236		-20.37			258 55	230	-40.60			259 61	230	-30.54			290 98	400																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
350		-34.44		277 46		-38.60			(378)	-28.40					-31.39			30 30	46			46		-34.46			255 57		-45			251 67		-34.60			306 98	350																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
300	304	-48		276 36	302	-52								306	-46			32 32	57			301		-47			256 93	293	-54			238 67	295	-44			313 125	298	-49			307 96	300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
250		-66		272 46	(282)	-57									-66			32 32	61			61		-63			243 43		-63			235 55		-50			303 122	250																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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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.

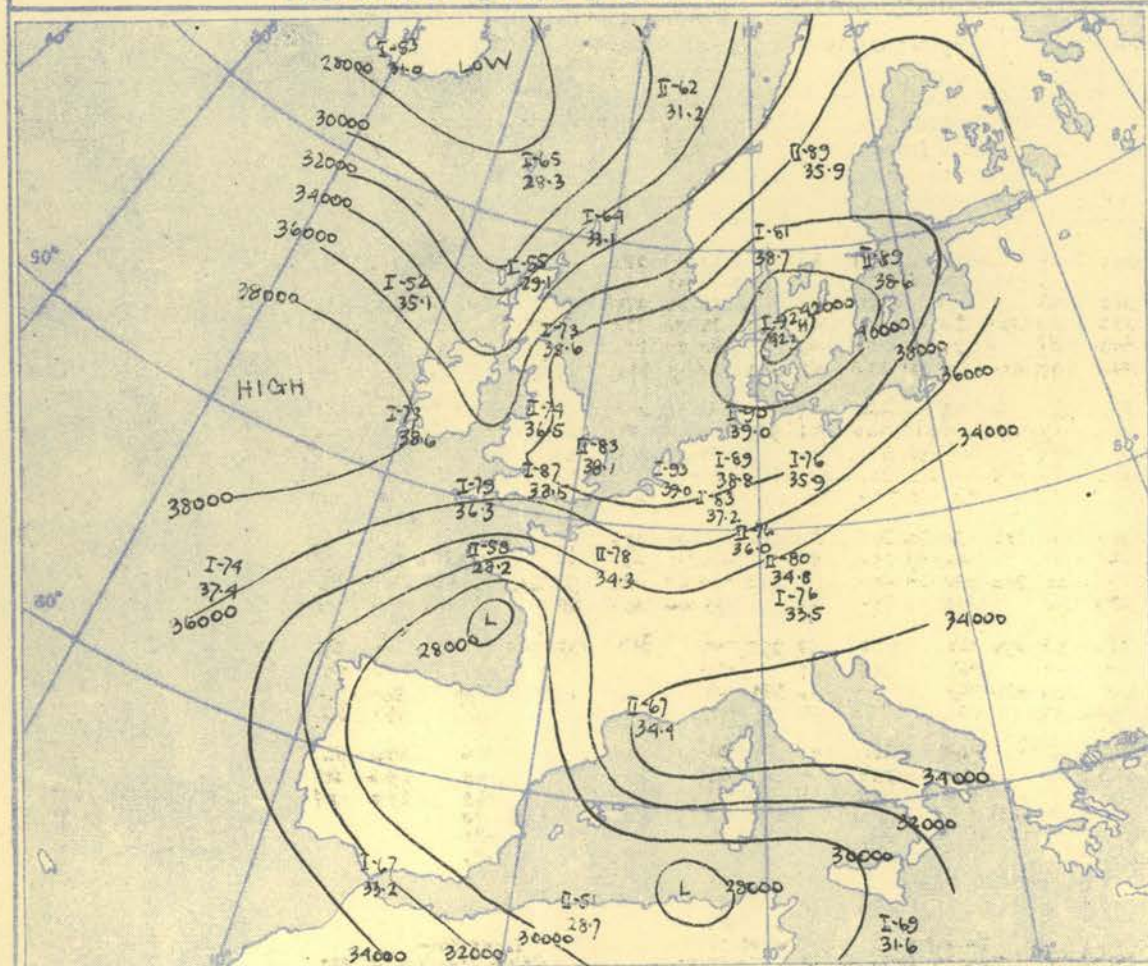


Gradient Wind Scale for Contours at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 5 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.

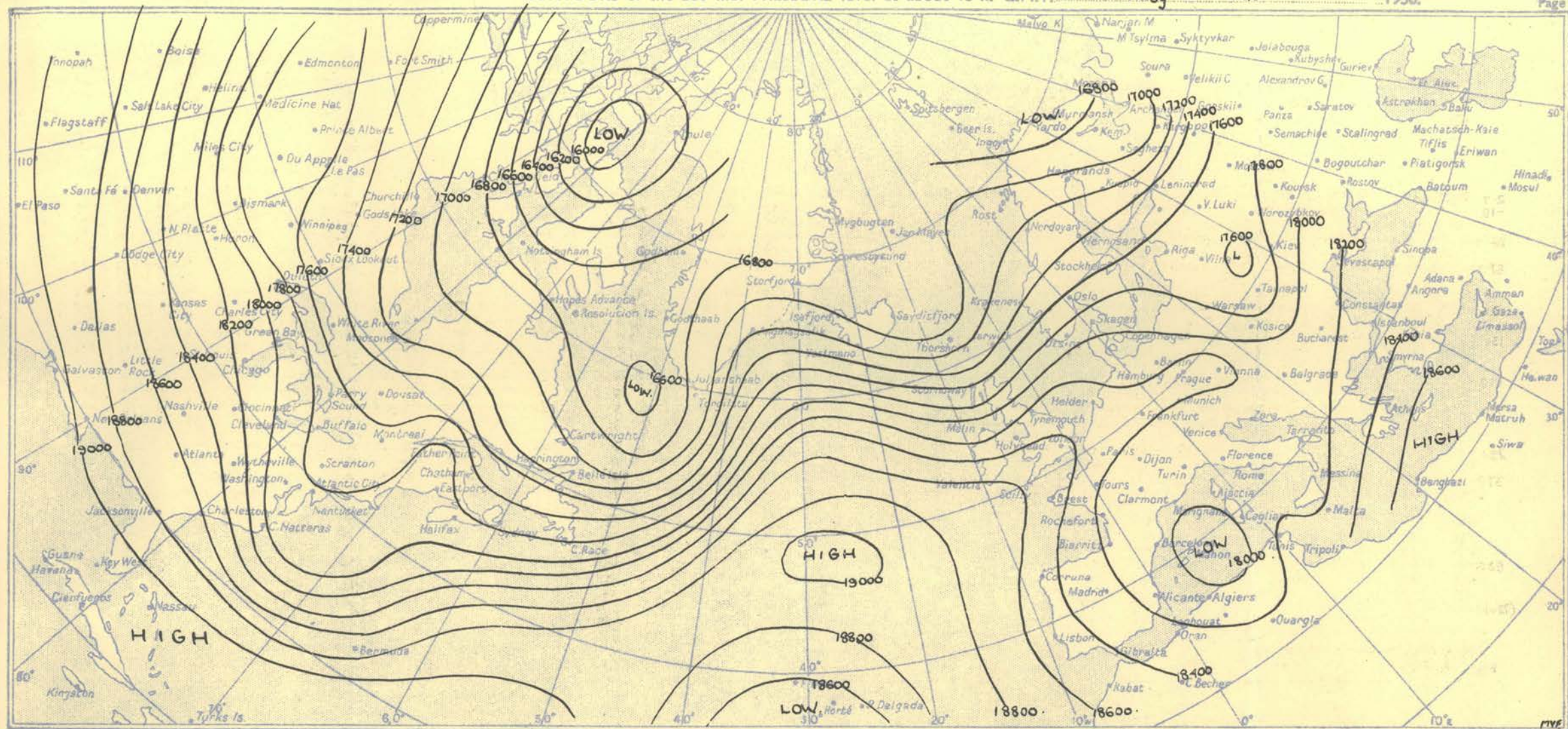
## NOTES ON THE AEROLOGICAL SITUATION.

A rather weak cold tongue near West Iceland at the beginning of the day moved southeast and developed into a sharp cold trough from the north of Iceland to the North Sea. A mass of warm air was left in the Central Atlantic, but a new outbreak of cold air burst into the Northwest Atlantic. Some warming took place over central Europe with the consequence that an irregular area of rather cold air was cut off over East Spain and the western Mediterranean.

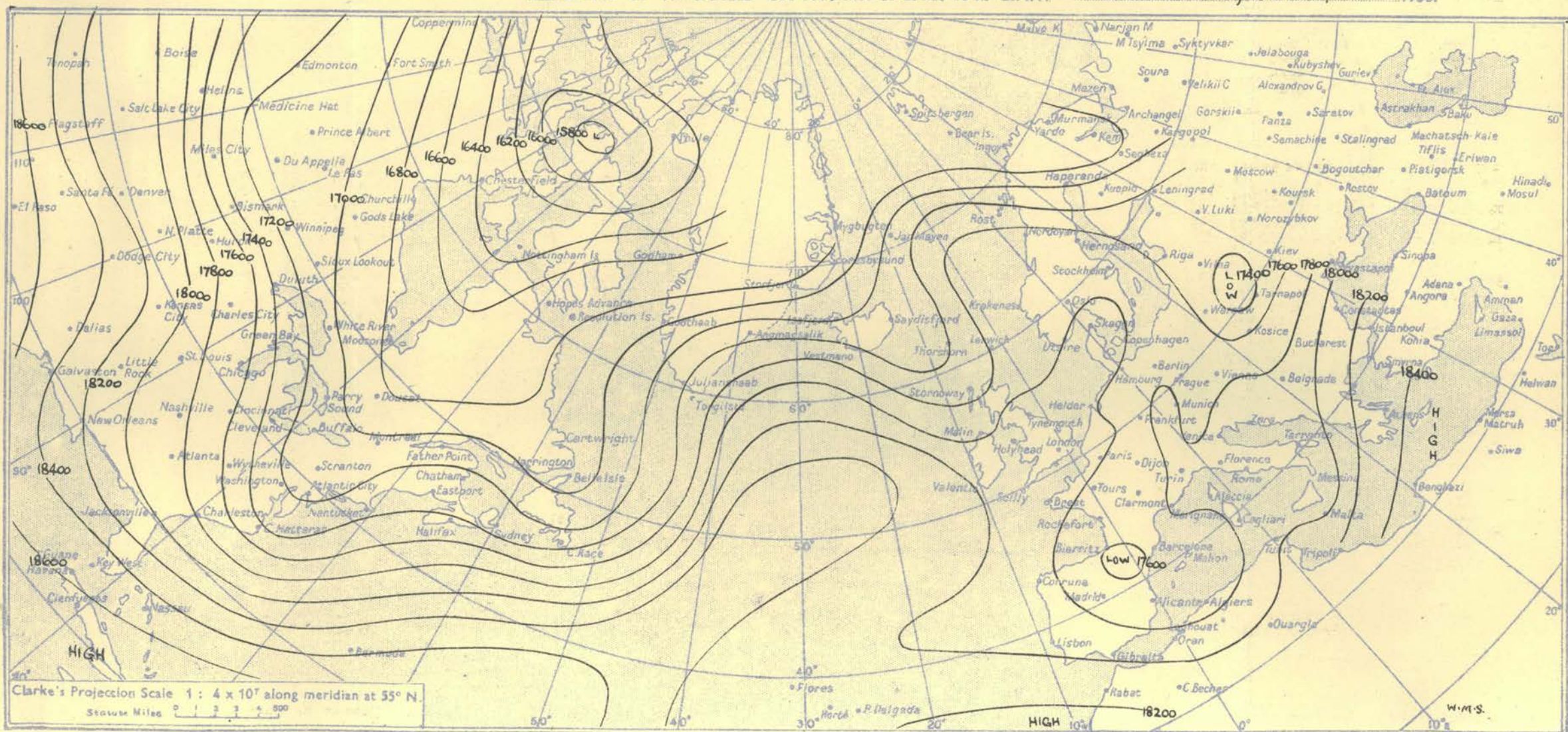
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc., Director.





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





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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Time M.S.L. Surf Freezing	15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		Time M.S.L. Surf Freezing													
	954.8		mb		1001.8		mb		1006.3		mb		1014.4		mb		1016.5		mb		1017.2		mb		1020.0		mb		1023.6		mb															
	984.9		mb		999.8		mb		1006.1		mb		1006		mb		1014.5		mb		1012.5		mb		1003.8		mb		1012.9		mb															
843		mb		881		mb		800		mb		840		mb		715		mb		717		mb		718		mb		715		mb		740		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	48	43	247	22	0.5	50	43	250	25	0.2	53	45	220	25	2.3	49	42	260	20	0.6	50	41	265	20	1.2	51	41	250	12	4.4	49	40	310	10	2.9	49	44	300	10	0.3	53	50	260	16	Surf
1000	-15					0.5	50	43			1.9	52	44			3.9					4.4	48	40	268	27	4.5	49	40	272	17	5.3	48	39		6.3	47	42	283	21	5.8	50	44	261	19	1000	
950		44	41	260	42		42	37	258	33		44	37	261	42		42	38	265	37		41	36	274	30		41	34	283	19		41	35	302	16		42	38	304	20		45	39	268	26	950
900	26.9	38	36	263	42	28.8	34	31	260	34	30.3	39	33	268	39	32.2	37	34	270	37	32.7	36	33	284	31	32.8	35	31	296	21	33.6	34	30	299	17	34.6	36	32	313	23	34.2	38	33	274	29	900
850		33	29	260	43		28	24	264	38		34	29	275	42		33	30	277	35		30	27	279	32		28	24	309	20		29	24	307	21		38	31	310	30		35	30	287	27	850
800	57.9	29	16	259	42	59.6	23	20	267	42	61.4	32	23	277	45	63.2	29	26	279	39	63.6	33	26	276	34	63.8	42	22	313	26	64.7	40	17	312	24	65.9	38	18	311	26	65.5	37	30	287	33	800
750		26	08	260	45		21	10	262	49		28	19	276	46		27	22	273	46		36	29	274	39		36	29	311	19		35	02	311	22		37	06	317	20		33	10	280	42	750
700	92.4	20	03	257	45	93.7	14	06	256	51	96.1	26	07	271	49	97.8	20	02	274	49	98.9	30	27	277	40	99.0	30	33	312	22	99.9	29	19	313	21	101	29	10	312	18	101	27	12	279	45	700
650		14	03	257	50		07	06	254	50		19	10	272	47		18	12	276	50		21	34	276	40		20	30	308	24		19	24	316	18		21	17	313	16		21	9	280	46	650
600	131	07	14	263	51	132	00	12	258	50	136	14	15	270	48	137	11	16	274	53	138	12	43	273	39	138	12	32	305	25	139	12	27	318	18	141	15	25	307	12	140	15	25	283	42	600
550		02	16	259	54		07	24	254	55		07	21	268	52		07	23	267	54		07	50	266	40		06	41	310	25		03	31	322	20		06	35	298	14		7	12	288	37	550
500	176	12	28	251	55	176	15	42	246	57	181	02	17	265	54	182	06	30	264	43	184	1	56	259	42	184	4	49	308	18	184	06	36	332	17	186	4	43	310	16	185	2	21	287	38	500
450		22	41	250	65		24	54	252	59		11	21	251	55		15	39	258	70		11	53	259	39		13	47	305	20		15	40	332	17		14	48	319	17		11	33	290	37	450
400	228	32	47	245	73	228	35	58	252	59	235	18	29	245	62	235	24	47	255	61	237	22	55	274	39	237	22	52	309	13	237	23	45	338	16	239	24	50	316	11	239	23	48	279	35	400
350		44		245	72		45		247	60		30	41	245	62		39	59	245	69		34	67	257	39		37	69	310	08		38	58	006	13		37	60	348	06		38	55	264	43	350
300	292	53		237	32	291	55		232	66	300	45		243	69	299	52		246	76	302	48		246	42	302	52		253	03	302	52		062	09	303	55		008	04	303	52		267	50	300
250		64		236	75		66		252	48		61		242	70		67		245	69		64		236	37		68		197	09		70		075	08		69		008	11		63		273	42	250
200	378	56		251	57	379	55		272	39	386	73		243	71	385	63		260	41	388	76		285	28	386	83		339	09	386	86		020	18	388	78		005	26	389	72		298	40	200
170		56		280	45		61		285	46		71		255	60		63		285	40		80		292	30		72		354	17		75		005	33		73		004	39		59		318	45	170
150		56		294	45		61		273	37		63		264	55		67		306	42		75		321	29		74		359	25		76		004	33		73		007	37		60		322	37	150
130		60		297	33		63		270	33		61		295	37		63					72		322	27		73		351	28		74		359	28		73		006	36		65		336	32	130
110		67		260	29		64					64		303	31		68					71		326	25		72		353	23		74		001	30		75		001	38						110
100	526	67		260	31	526	66			532	66		305	26	531	69					530	72		333	26	529	72		355	19	526	72		002	29	530	76		002	32						100
90		69		261	30		71				68		310	30		70					74		345	33		74		353	31		72		354	27		76										