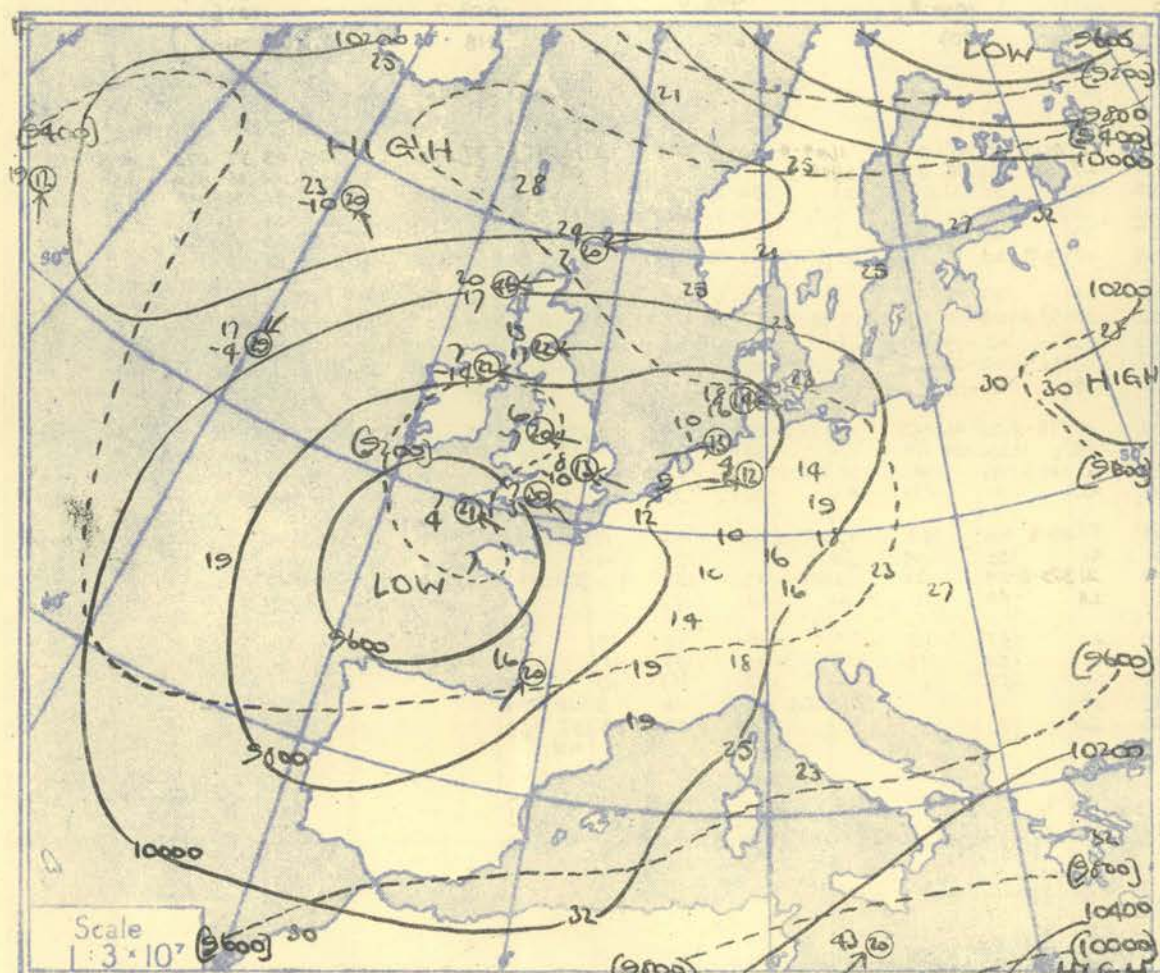


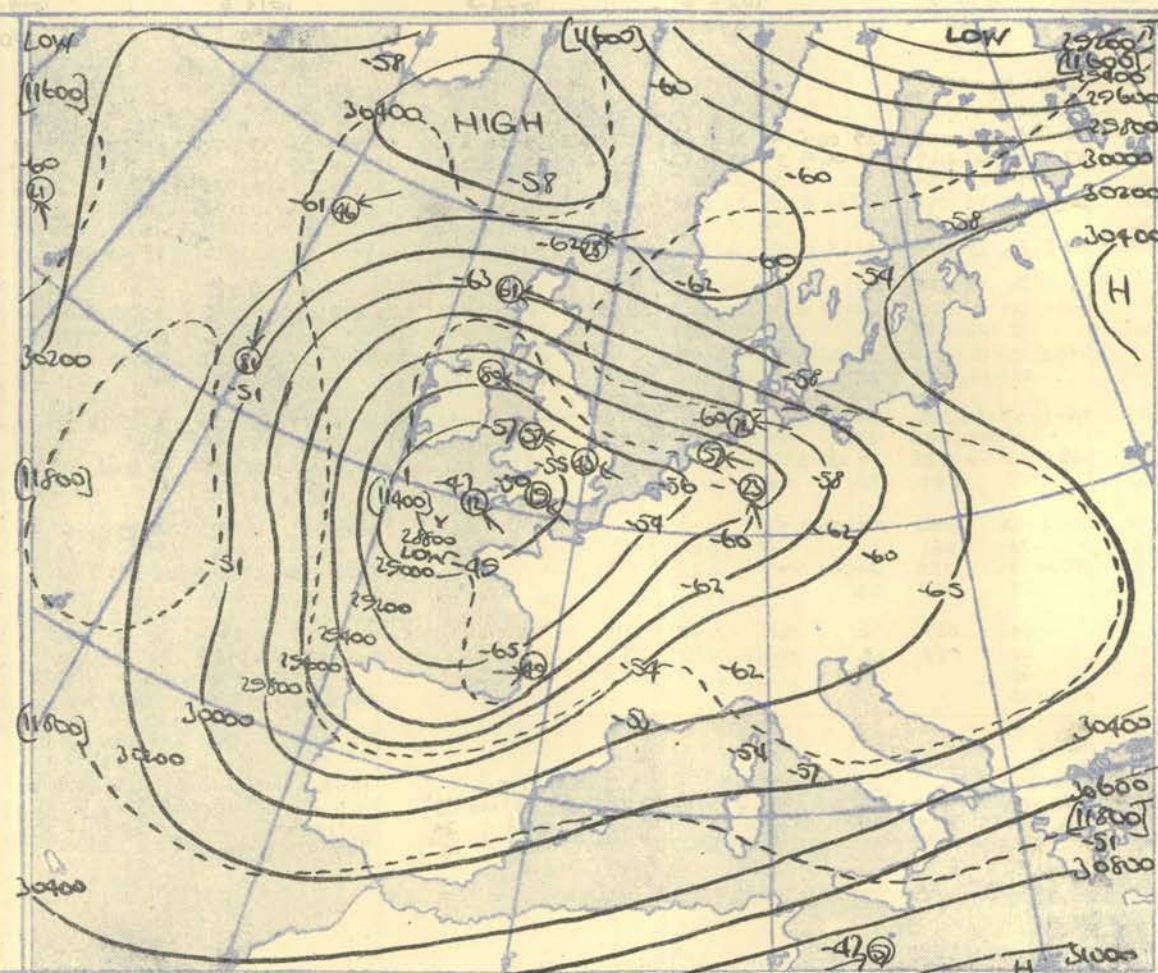
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h G.M.T.



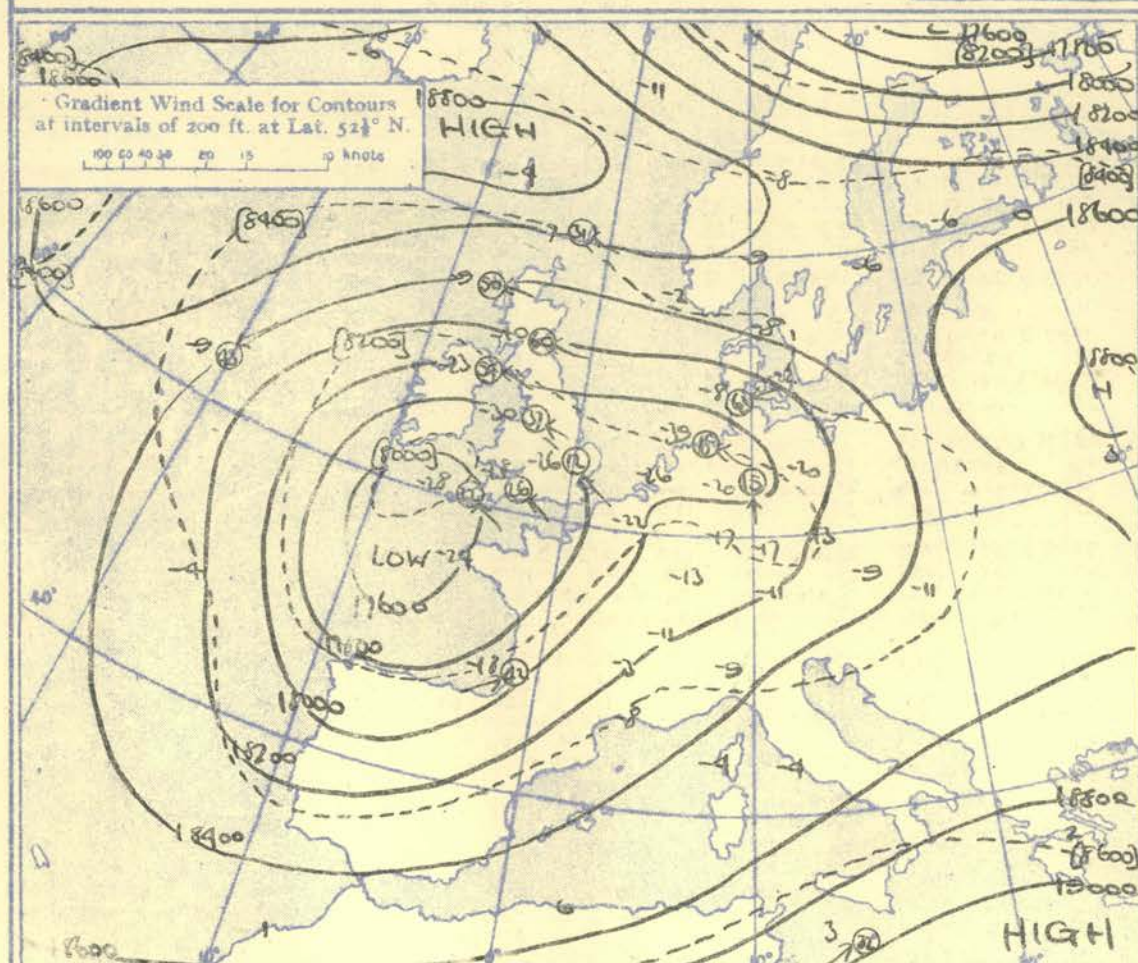
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

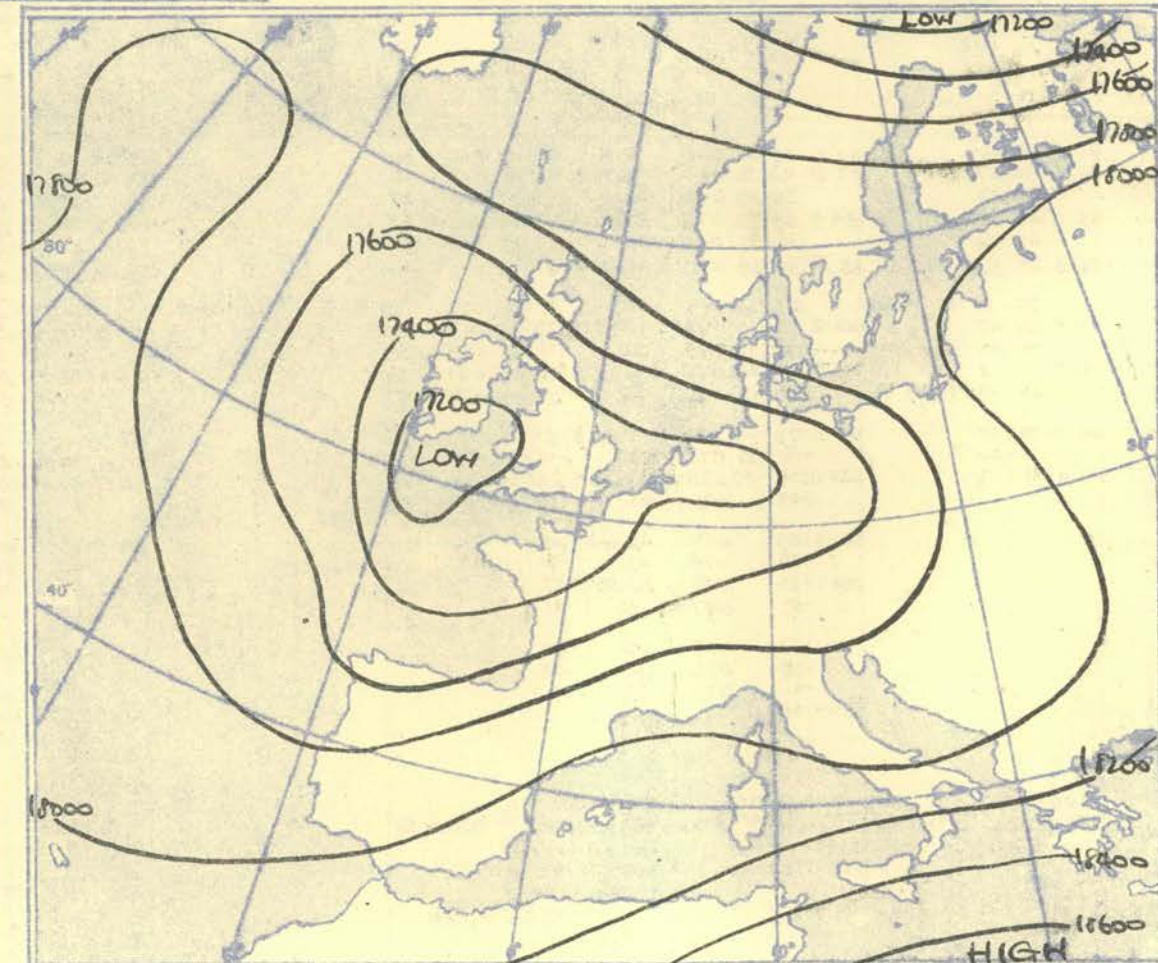
100 80 60 40 20 10 knots



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



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

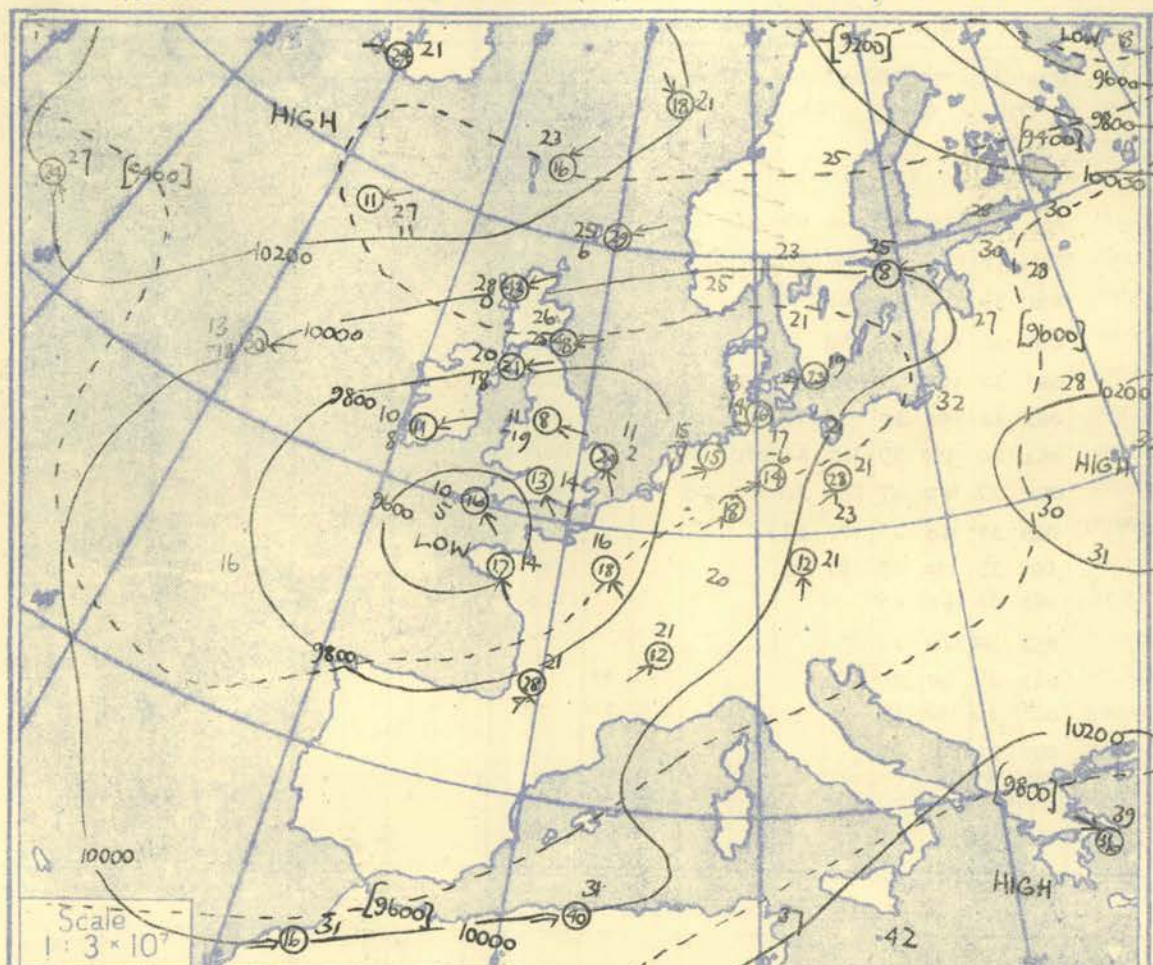


Isopleths of Thickness 500-1000mb.

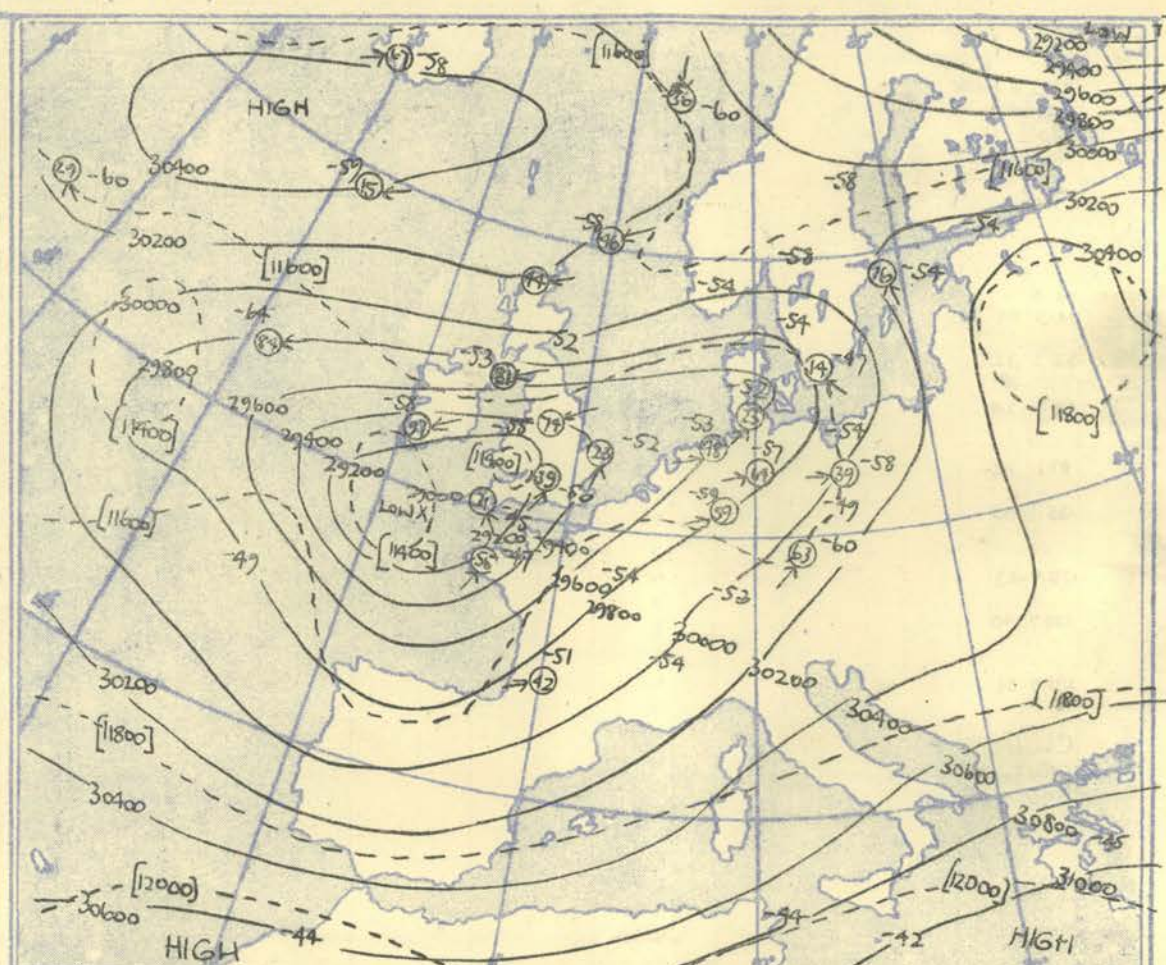
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

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

[illegible]

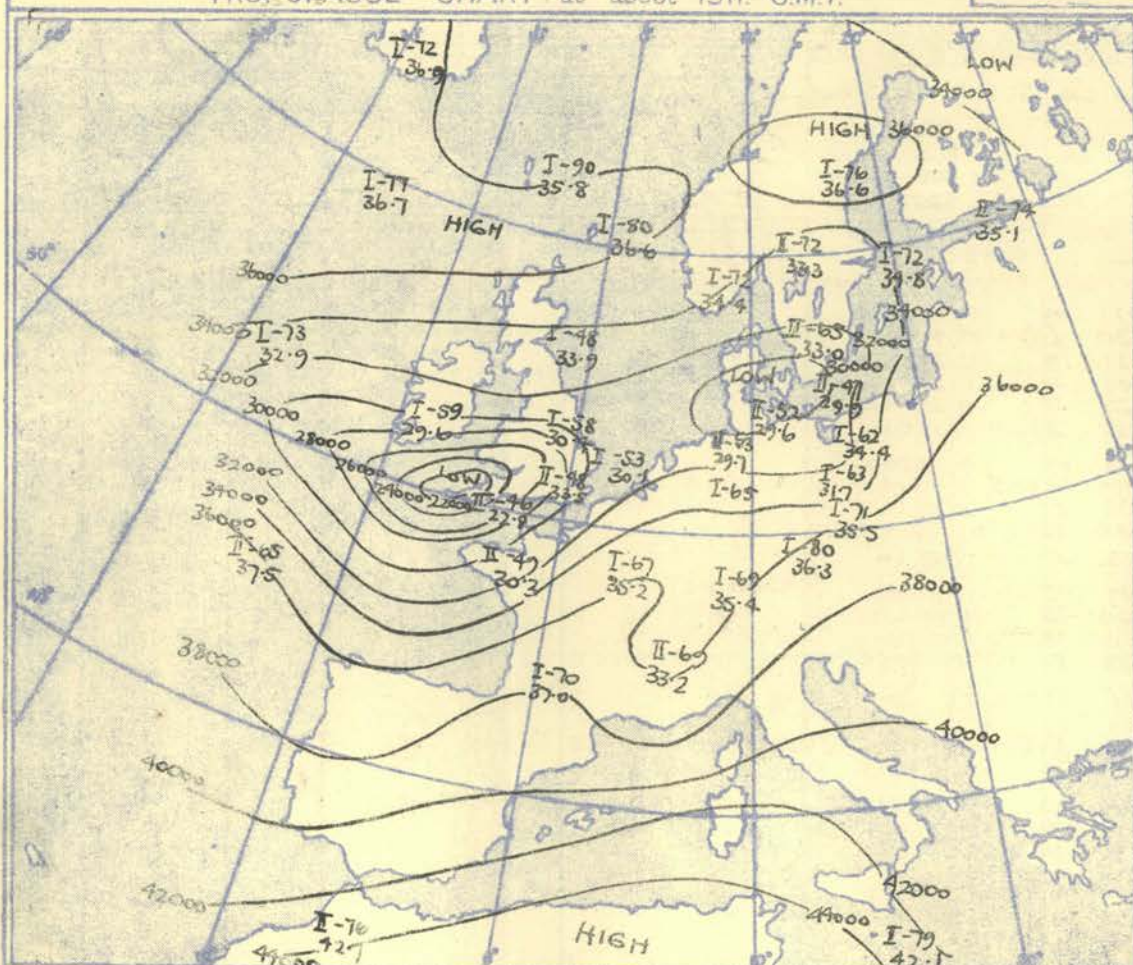


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



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.

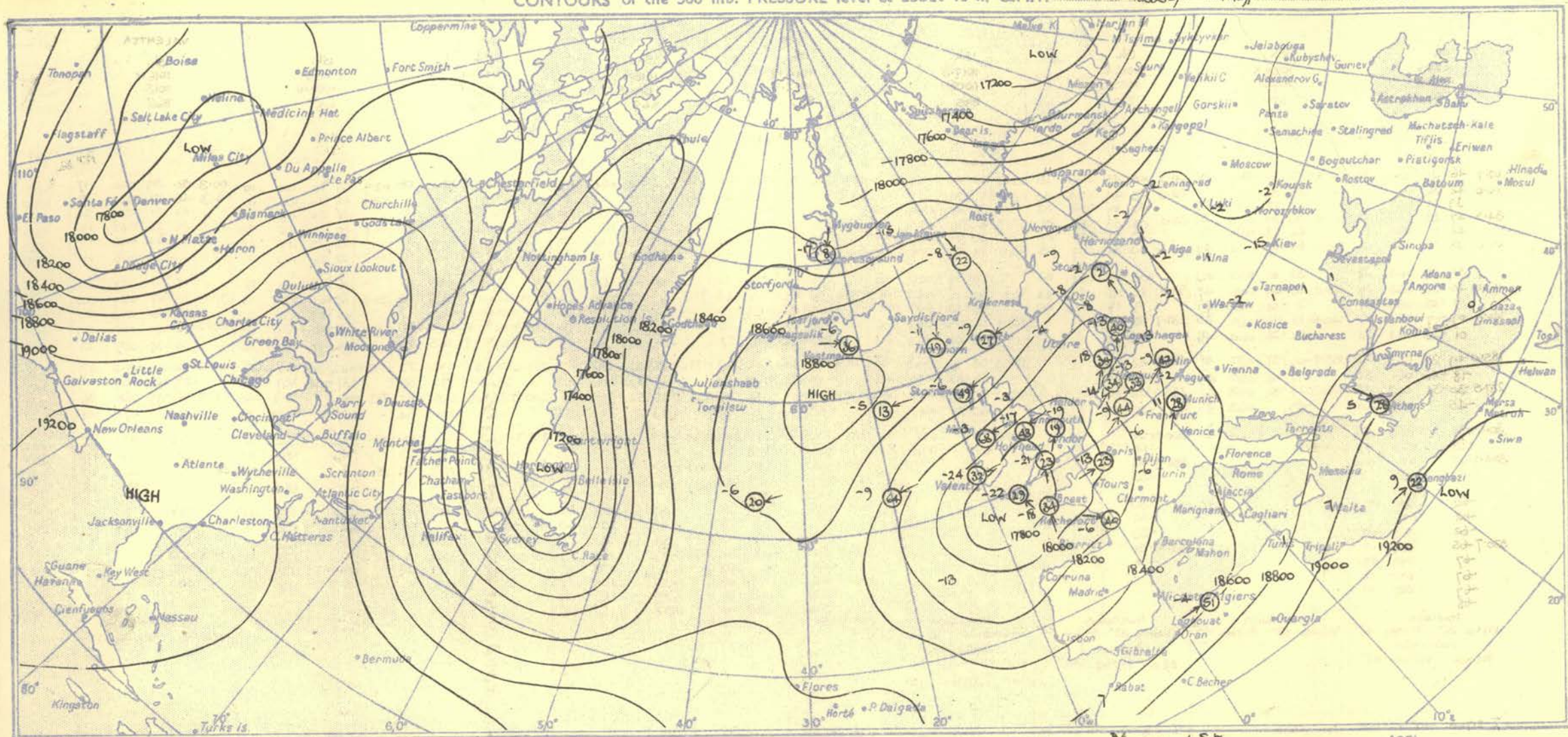
TROPORAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

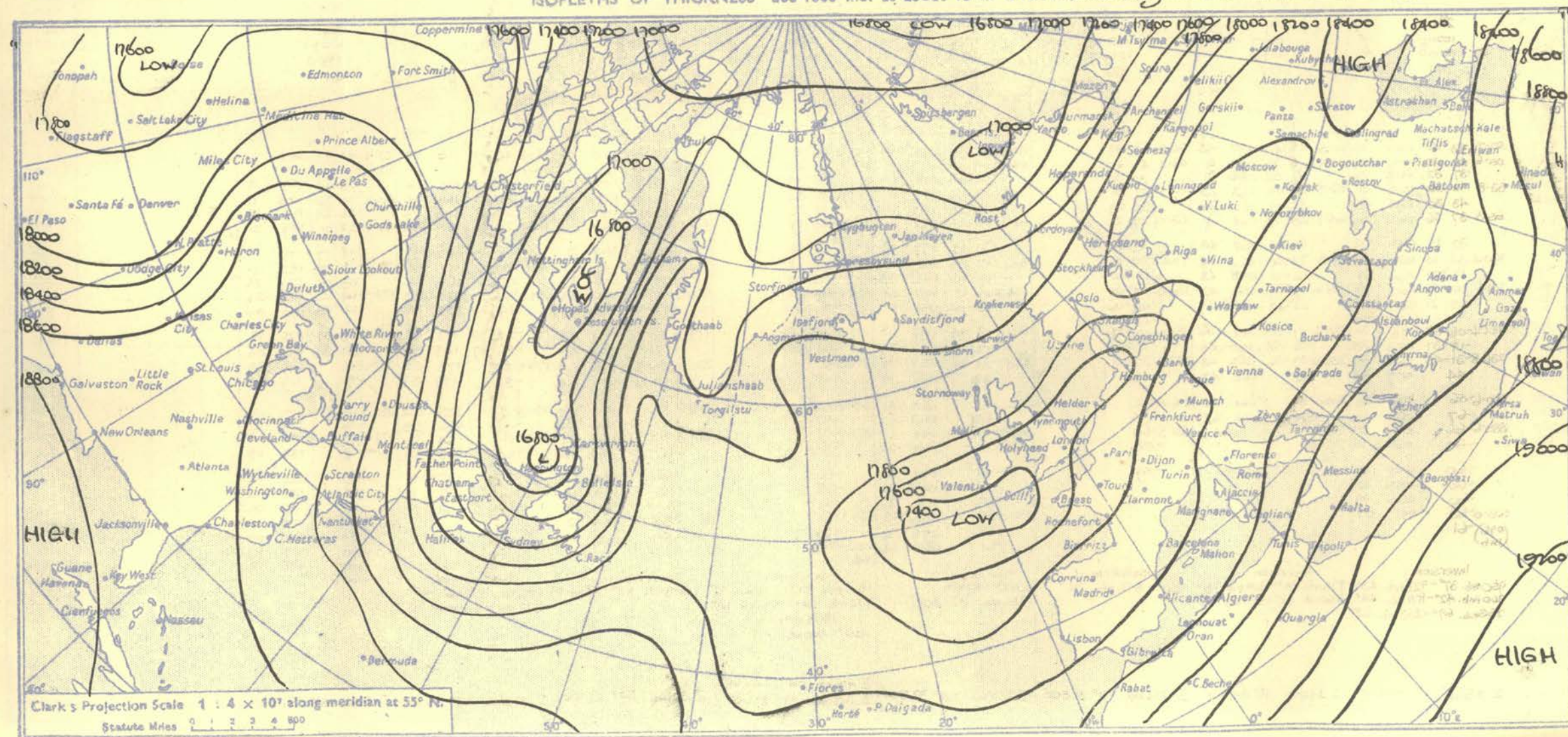
Well marked frontal trough is maintained over Southern North Sea and Denmark; main cold pool at upper levels continues to drift westsouthwest.



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

May 1st

1951.



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

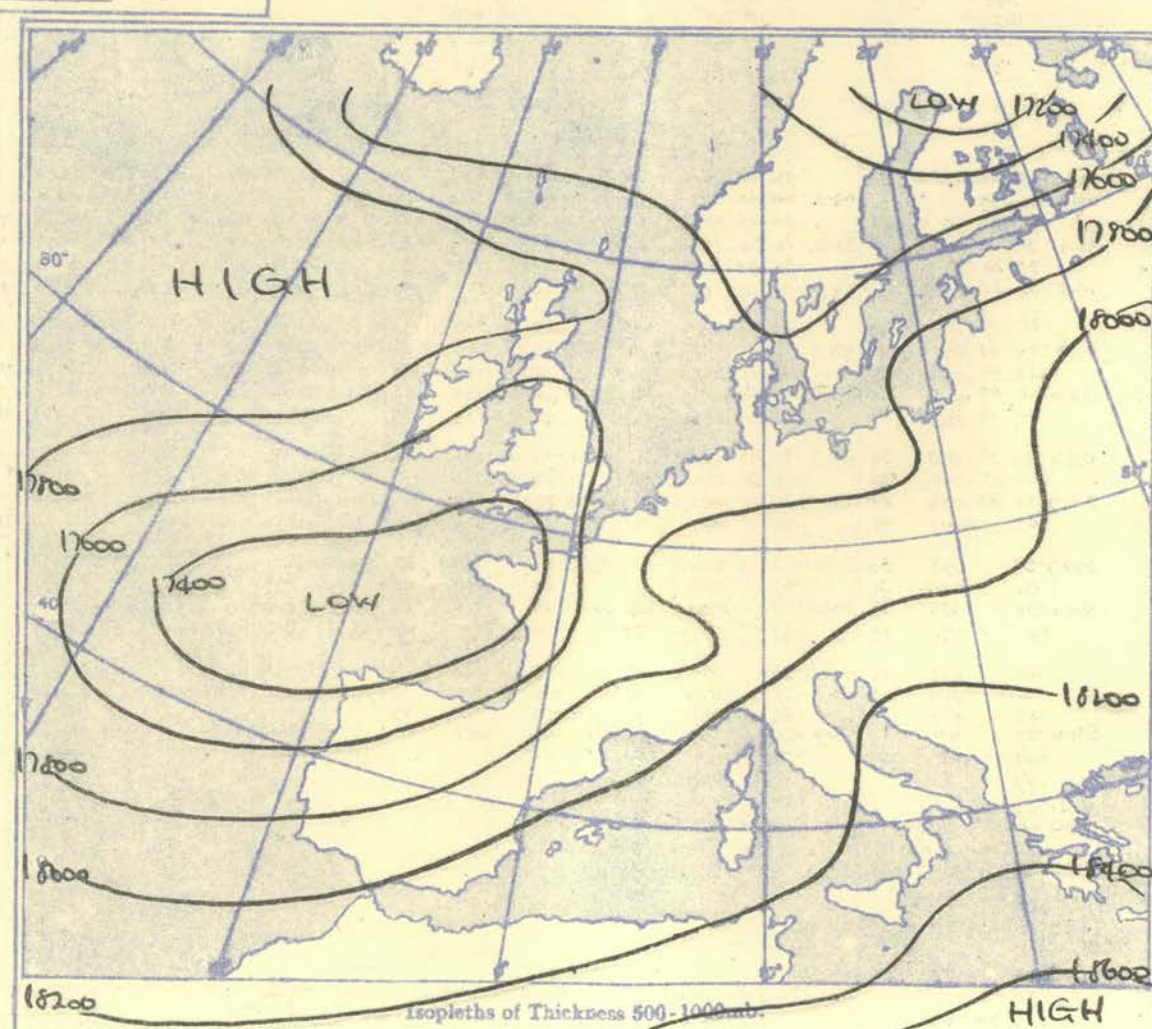
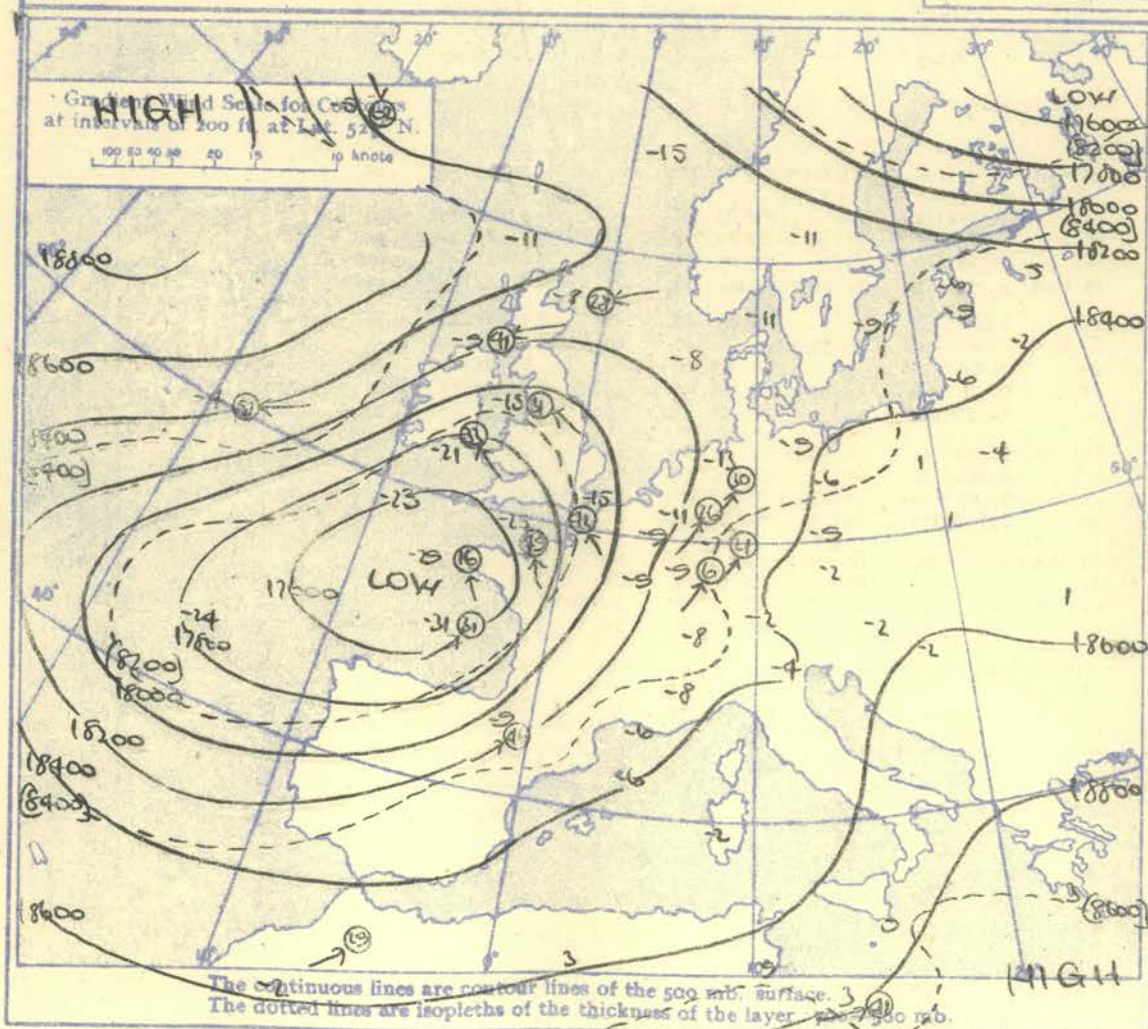
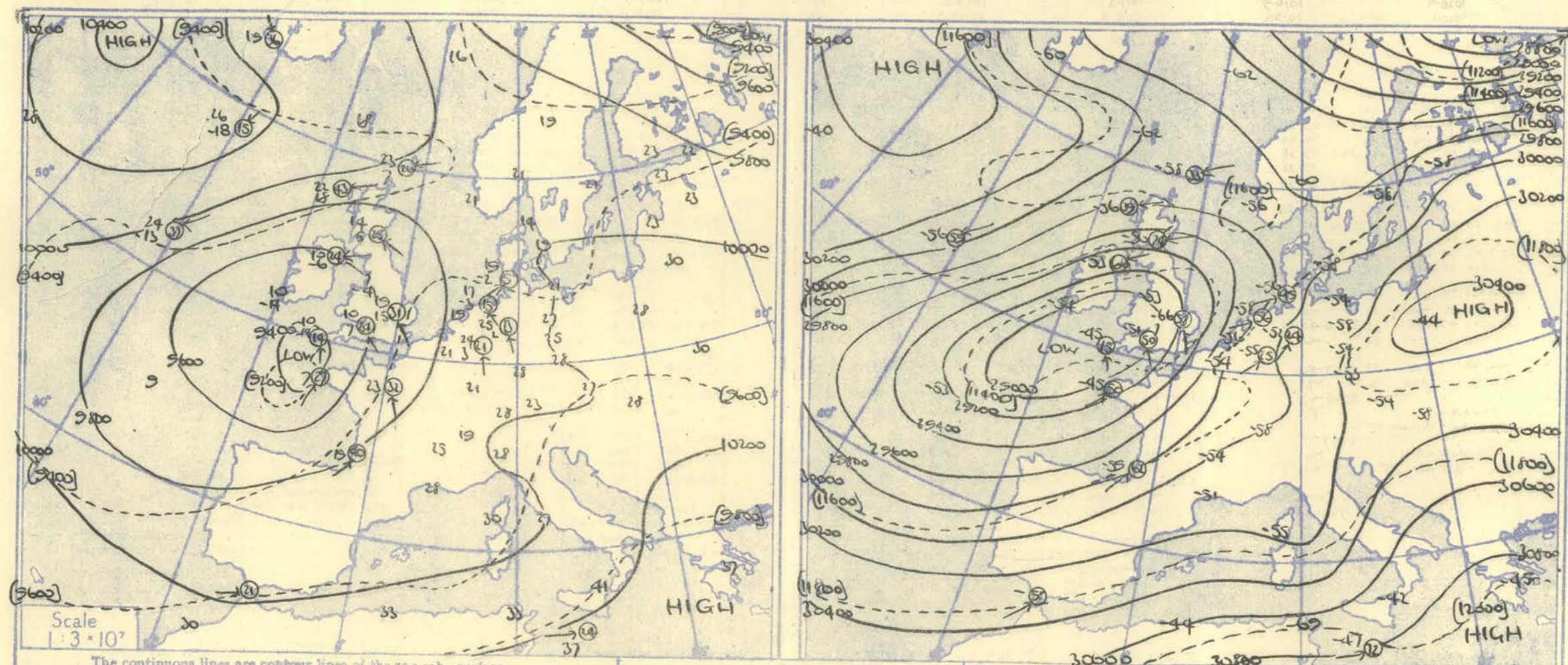
LERWICK										STORNOWAY										LEUCHARS										ALDERGROVE										LIVERPOOL										DOWNHAM MARKET										LARKHILL										CAMBORNE										VALENTIA										STATION																																																																																																																																																																																																																																																																																							
Time		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		Time																																																																																																																																																																																																																																																																																																																																			
M.S.L.		1022.6		mb		1023.8		mb		1016.6		mb		1017.5		mb		1014.8		mb		1015.1		mb		1013.1		mb		1011.2		mb		1016.1		mb		1015		mb		M.S.L.																																																																																																																																																																																																																																																																																																																																							
Surf		1012.4		mb		1022.1		mb		1015.5		mb		1008.1		mb		1012.8		mb		1010.5		mb		997.1		mb		1000.4		mb		865		mb		mb		Surf																																																																																																																																																																																																																																																																																																																																									
Pressure		750		mb		750		mb		770		mb		895		mb		872		mb		869		mb		850		mb		913		mb		865		mb		mb		Pressure																																																																																																																																																																																																																																																																																																																																									
Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure	Height	Temp.	Dew	Wind	Vel.	Pressure																																																																																																																																																																																																																																																																																																																																							
Surf	02.7	46	41	050	34	00.5	46	40	030	18	00.2	45	45	060	15	02.6	42	40	Calm	00.6	51	38	360	09	01.2	52	42	060	07	04.4	52	37	170	08	02.9	45	40	100	10	00.3	50	39	020	17																																																																																																																																																																																																																																																																																																																																					
1000	06.0	42	36	057	26	06.3	43	38	041	27	04.3	45	44	044	30	04.8	41	39	008	05	04.0	48	32	360	09	04.1	50	41	08.6	46	31	128	15	03.0	45	40	100	10	4.3	48	37	020	19																																																																																																																																																																																																																																																																																																																																						
950	34.3	47	23	062	42	34.4	46	33	045	37	32.4	34	33	064	38	32.7	32	29	008	07	32.2	36	23	092	07	32.4	36	27	131	15	32.1	39	28	122	13	31.1	30	27	116	20	32.5	36	26	042	19																																																																																																																																																																																																																																																																																																																																				
900	44	41	063	42	44	44	41	063	41	33	33	32	057	49	33	30	27	005	07	29	17	126	07	29	1	126	07	29	1	141	24	32	23	124	11	31.1	27	25	117	23	30	22	046	19																																																																																																																																																																																																																																																																																																																																					
850	66.0	38	15	064	29	66.0	39	17	062	39	67.3	33	32	057	55	68.6	28	24	008	08	62.9	24	07	122	09	63.3	23	15	157	22	63.1	25	17	129	10	61.7	22	20	122	21	63.3	22	15	050	19																																																																																																																																																																																																																																																																																																																																				
750	32	12	063	28	32	10	063	40	32	29	062	57	30	29	062	57	28	19	052	15	19	07	120	10	18	10	165	22	18	10	145	12	16	12	119	17	17	07	047	22	17	07	047	22																																																																																																																																																																																																																																																																																																																																					
700	101.0	25	06	055	29	101.0	28	00	056	43	98.2	26	25	066	48	98.1	20	18	083	21	97.0	11	14	113	08	97.3	11	02	162	24	97.1	14	01	145	13	95.6	10	05	126	16	97.2	10	07	049	23																																																																																																																																																																																																																																																																																																																																				
650	17	08	053	29	21	14	062	43	21	18	075	19	18	069	48	15	13	069	48	04	15	107	10	05	06	165	23	06	09	165	13	02	05	130	22	02	05	130	22	03	16	053	23																																																																																																																																																																																																																																																																																																																																						
600	40.3	07	17	055	27	40.6	13	16	065	38	137.7	13	09	07	02	137.1	12	06	062	66	135.1	05	19	117	18	135.5	01	12	178	20	135.3	02	15	183	20	133.6	05	10	131	25	135.2	05	25	051	27																																																																																																																																																																																																																																																																																																																																				
550	01	26	063	24	04	26	060	48	04	26	060	48	07	02	05	01	063	68	05	01	063	68	10	28	111	27	09	24	184	17	09	22	165	20	13	17	136	25	14	32	057	23																																																																																																																																																																																																																																																																																																																																							
500	185.0	09	37	057	27	185.7	06	37	057	49	182.9	03	09	063	68	182.3	03	10	068	68	178.8	17	34	080	43	179.3	19	36	188	19	179.0	21	33	190	23	177.0	22	30	148	28	178.6	24	40	068	32																																																																																																																																																																																																																																																																																																																																				
450	18	45	061	33	17	46	055	44	17	46	055	44	13	21	14	25	070	69	14	25	070	69	27	38	068	54	26	44	200	30	26	44	200	30	227.7	46	157	35	229.8	29	43	069	66																																																																																																																																																																																																																																																																																																																																						
400	237.5	30	54	063	38	238.3	29	56	058	48	235.9	24	35	073	66	235.3	27	37	073	66	230.4	34	47	066	70	230.8	36	54	208	36	230.3	38	48	201	52	227.7	46	157	35	229.8	29	43	069	66																																																																																																																																																																																																																																																																																																																																					
350	45	06	061	40	43	063	48	064	52	300.5	52	299.6	53	074	90	294.2	55	072	74	294.5	52	188	23	293.8	50	201	39	291.1	45	140	21	293.1	58	074	97	300	58	074	97	300	58	074	97	300	58																																																																																																																																																																																																																																																																																																																																				
300	301.1	53	066	46	300.5	52	299.6	53	074	90	294.2	55	072	74	294.5	52	188	23	293.8	50	201	39	291.1	45	140	21	293.1	58	074	97	300	58	074	97	300	58	074	97	300	58	074	97	300	58																																																																																																																																																																																																																																																																																																																																					
250	384.9	75	071	30	386.9	52	386.9	52	074	81	381.9	49	097	16	382.7	53	164	17	382.1	52	158	22	380.8	47	130	15	381.1	51	062	27	200	58	062	27	200	58	062	27	200	58	062	27	200	58																																																																																																																																																																																																																																																																																																																																					
200	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14	068	14	70	068	14																																																																																																																																																																																																																																																																																																																																	
150	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09	056	09	62	056	09																																																																																																																																																																																																																																																																																																																																	
130	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11	076	11	62	076	11																																																																																																																																																																																																																																																																																																																																	
110	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09	120	09	62	120	09																																																																																																																																																																																																																																																																																																																																	
100	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07	066	07	63	066	07																																																																																																																																																																																																																																																																																																																																	
90	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09	049	09	67	049	09																																																																																																																																																																																																																																																																																																																																	
80	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12	070	12	67	070	12																																																																																																																																																																																																																																																																																																																																	
70	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10	087	10	67	087	10																																																																																																																																																																																																																																																																																																																																	
60	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10	087	10	68	087	10																																																																																																																																																																																																																																																																																																																																	
Inversion 958mb. 36°-700mb. 47° Isothermal 900mb. -880mb. 47°										Inversion 916mb. 33°-867mb. 45°										Inversion 865mb. 32°-842mb. 34° Isothermal 830-782mb. 33°										Inversion 845mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638mb. 15°										Inversion 850mb. 30°-828mb. 31° Isothermal 865-845mb. 30° 660-638									

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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																														
Time M.S.L. Surf Freezing	03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		03h.		G.M.T.		Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																		
	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb																																																																																																																																																																																																																																																																																																																																																																																																				
Pressure	1020.4		1010.1		1016.9		1015.2		1017.2		1016.3		1013.5		1011.2		1010.3		1009.2		1006.5		1006.5		1006.5		1008.5		1007		Pressure																																																																																																																																																																																																																																																																																																																																																																																																				
Temp.	771		771		790		790		862		862		872		867		811		875		908		908		908		855.1		855.1		Temp.																																																																																																																																																																																																																																																																																																																																																																																																				
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		Height																																																																																																																																																																																																																																																																																																																																																																																																				
Temp.	°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.		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.		Wind																																																																																																																																																																																																																																																																																																																																																																																																				
Dir.	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		Vel.																																																																																																																																																																																																																																																																																																																																																																																																				
Surf	02.7	42	40	080	14	44	41		00.2	38	37	110	04	02.6	38	36	095	07	00.6	43	40		01.2	46	44	060	07	04.4	44	42	120	05	02.9	40	37	180	03	00.3	37	31	110	01	Surf																																																																																																																																																																																																																																																																																																																																																																																								
1000	05.4	41	39	072	16	44.8	42	39	04.5	38	37	153	15	03.5	35	30	108	13	02.0	42	39		02.8	46	44		02.5	41	39	155	18	01.8	38	32	188	17	02.3	39	33	108	01	1000																																																																																																																																																																																																																																																																																																																																																																																									
950		37	36	098	16		37	34		38	34	145	14							42	38			45	39	117	20																950																																																																																																																																																																																																																																																																																																																																																																																								
900	33.5	40	38	105	17	33.0	42	38	32.5	36	29	138	13	31.5	34	27	115	09	31.2	40	34	132	20	30.6	35	34	165	20	29.8	31	28	190	14	30.5	35	21	086	02	900																																																																																																																																																																																																																																																																																																																																																																																												
850		37	30	092	18		38	32		31	23	135	13		29	18	108	18		29	24			35	31	146	20																850																																																																																																																																																																																																																																																																																																																																																																																								
800	64.8	34	19	082	23	64.3	34	27	63.4	24	16	124	19	62.2	23	16	113	19	61.9	22	16			31	24	154	20	61.4	23	22	166	24	60.4	21	14	192	13	61.3	24	00	096	04	800																																																																																																																																																																																																																																																																																																																																																																																								
750		30	09	076	25		28	24		18	12	128	24		16	07	102	20		15	11			23	16	165	24																750																																																																																																																																																																																																																																																																																																																																																																																								
700	99.6	23	07	076	24	99.0	22	18	97.4	14	05	121	25	96.1	10	06	093	24	95.7	07	04			19	15	164	31	95.4	10	07	155	24	94.3	10	14	179	14	95.1	10	14		700																																																																																																																																																																																																																																																																																																																																																																																									
650		16	00	080	24		15	09		07	05	117	27		03	07	099	27		02	00			11	09	162	36																650																																																																																																																																																																																																																																																																																																																																																																																								
600	138.7	08	22	075	21	138.0	08	02	135.9	01	14	122	27	134.1	05	20	106	28	133.7	01	06			135.5	04	03	163	39	133.4	06	16	147	29	132.2	07	27	161	15	132.1	06	21		600																																																																																																																																																																																																																																																																																																																																																																																								
550		00	30	089	25		00	12		06	24	127	27		11	37	106	30		11	19			03	09	154	28		15	27	167	23	132.2	07	27	161	15	132.1	06	21		550																																																																																																																																																																																																																																																																																																																																																																																									
500	183.4	08	35	079	28	182.6	09	20	180.0	15	34	119	31	177.7	21	48	099	33	177.3	22	30			179.8	15	79	144	42	176.6	25	36	167	49	175.1	29	46	156	16	176.5	23	33		500																																																																																																																																																																																																																																																																																																																																																																																								
450		20	38	069	28		19	30		25	43	094	46		33	52	075	45		33	42			223.4	25	30	145	48		36	167	61		225.0	24	46	144	15		35	46		450																																																																																																																																																																																																																																																																																																																																																																																								
400	238.6	34	50	078	32	235.0	30	42	231.8	32	50	086	72	228.7	39	59	064	66	228.1	45				231.4	40	45	156	61	227.0	47		164	62	225.0	46		136	14	227.3	40	56		400																																																																																																																																																																																																																																																																																																																																																																																								
350		46		073	34		44			43		079	79		47		056	82		54				53			163	63		52		160	62		145	14		47		350																																																																																																																																																																																																																																																																																																																																																																																											
300	299.0	58		066	33	298.7	56		295.6	56		077	74	292.0	53		062	66	291.6	53				293.6	66		172	58	289.6	51		168	50	288.6	45		162	18	290.5	54		300																																																																																																																																																																																																																																																																																																																																																																																									
250		71		060	36		70			63		086	49		57		070	45		55				58			171	42						172	17		51		250																																																																																																																																																																																																																																																																																																																																																																																												
200						383.5	67		382.0	63		088	30	379.7	54		080	29	378.4	54				380.1	60		170	25						166	14		52		200																																																																																																																																																																																																																																																																																																																																																																																												
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150							59			59		098	20	441.8	58		081	22		61				441.6	59		155	19					52		162	10		57		150																																																																																																																																																																																																																																																																																																																																																																																											
130							61			59		096	15		58		093	20		59				59			160	16					56		135	09		57		130																																																																																																																																																																																																																																																																																																																																																																																											
110							62			59		087	14		57		096	14		60				58			149	19					58					60		110																																																																																																																																																																																																																																																																																																																																																																																											
100							62			59		082	14	528.3	60		066	15	526.6	60				528.3	59		131	07										60		100																																																																																																																																																																																																																																																																																																																																																																																											
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80							62			62		095	11		63		078	12		59				60														61		80																																																																																																																																																																																																																																																																																																																																																																																											
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Inversion 959 mb 36° - 909 mb 41°																														Inversion 950 mb 37° - 916 mb 43°																														Inversion 970 mb 37° - 950 mb 38°																														Inversion 959 mb 34° - 925 mb 37°																														Inversion 970 mb 39° - 956 mb 43°																														Inversion 1006 mb 46° - 968 mb 47°																														Inversion 996 - 964 mb 40°																														Inversion 800 - 778 " 21°																														Inversion 1007 mb 37° - 981 mb 44°																														Inversion 883 - 863 mb 33°																														Inversion 450 - 436 " 35°																																																																																																																							
Isothermal 826 - 811 mb 35°																														Isothermal 444.7 - 441.7 mb 35°																														Isothermal 1016 - 1000 mb 38°																														Isothermal 762 - 750 " 18°																														Isothermal 650 - 632 " 07°																														Isothermal 902 " 33° - 900 " 34°																														Isothermal 970 mb 39° - 956 mb 43°																														Isothermal 638 - 607 mb 00°																														Isothermal 725 - 700 mb 19°																														Isothermal 369 - 357 mb - 51°																														Isothermal 996 - 964 mb 40°																														Isothermal 800 - 778 " 21°																														Isothermal 883 - 863 mb 33°																														Isothermal 450 - 436 " 35°																													
Tropopause I 250 mb - 71°																														Tropopause I 235 mb - 74°																														Tropopause I 281 mb - 62°																														Tropopause I 305 mb - 54°																														Tropopause I 330 mb - 55°																														Tropopause I 293 mb - 67°																														Tropopause II 334 mb - 54°																														Tropopause I 428 mb - 47°																														Tropopause II 300 mb - 54°																														Tropopause																																																																																																																																																					
33,700'																														35,000'																														31,000'																														28,900'																														26,300'																														29,800'																														26,700'																														21,000'																														29,000'																														Tropopause																																																																																																																																																					
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION																																																																																																																																																																																																																																																																																																																																																																																														
Time M.S.L. Surf Freezing	09h.		G.M.T.		09h.		G.M.T.		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																																																																																																																																																																																																																																																																																																																																																																																																		
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Pressure	1020.6		1016.4		1017.3		1015.6		1016.6		1015.7		1011.1		1011.1		1007.6		1007.6		1010.7		1010.7		1010.0		1010.0		1006.5		995.7		Pressure																																																																																																																																																																																																																																																																																																																																																																																																		
Temp.	800		800		828		828		860		860		886		886		865		865		860		860		895		895		900		900		Temp.																																																																																																																																																																																																																																																																																																																																																																																																		
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		Height																																																																																																																																																																																																																																																																																																																																																																																																		
Temp.	°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.		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.		Wind																																																																																																																																																																																																																																																																																																																																																																																																		
Dir.	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		Vel.																																																																																																																																																																																																																																																																																																																																																																																																		
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2nd May 1951.

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



AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY														DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.													
48°14'N 17°0'W							49°54'N 14°7'W							52°12'N 02°12'W													
Time	M.S.L.	Surf	Freezing	Pressure	Height	Temp.	Time	M.S.L.	Surf	Freezing	Pressure	Height	Temp.	Time	M.S.L.	Surf	Freezing	Pressure	Height	Temp.	Time	M.S.L.	Surf	Freezing	Pressure	Height	Temp.
151	1003	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
1000	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
950	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
900	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
850	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
800	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
750	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
700	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
650	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
600	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
550	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
500	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
450	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
400	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
350	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
300	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
250	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
200	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005
170	999	mb	865	mb	1000	mb	1000	mb	875	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005	mb	885	mb	1010	mb	1005

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

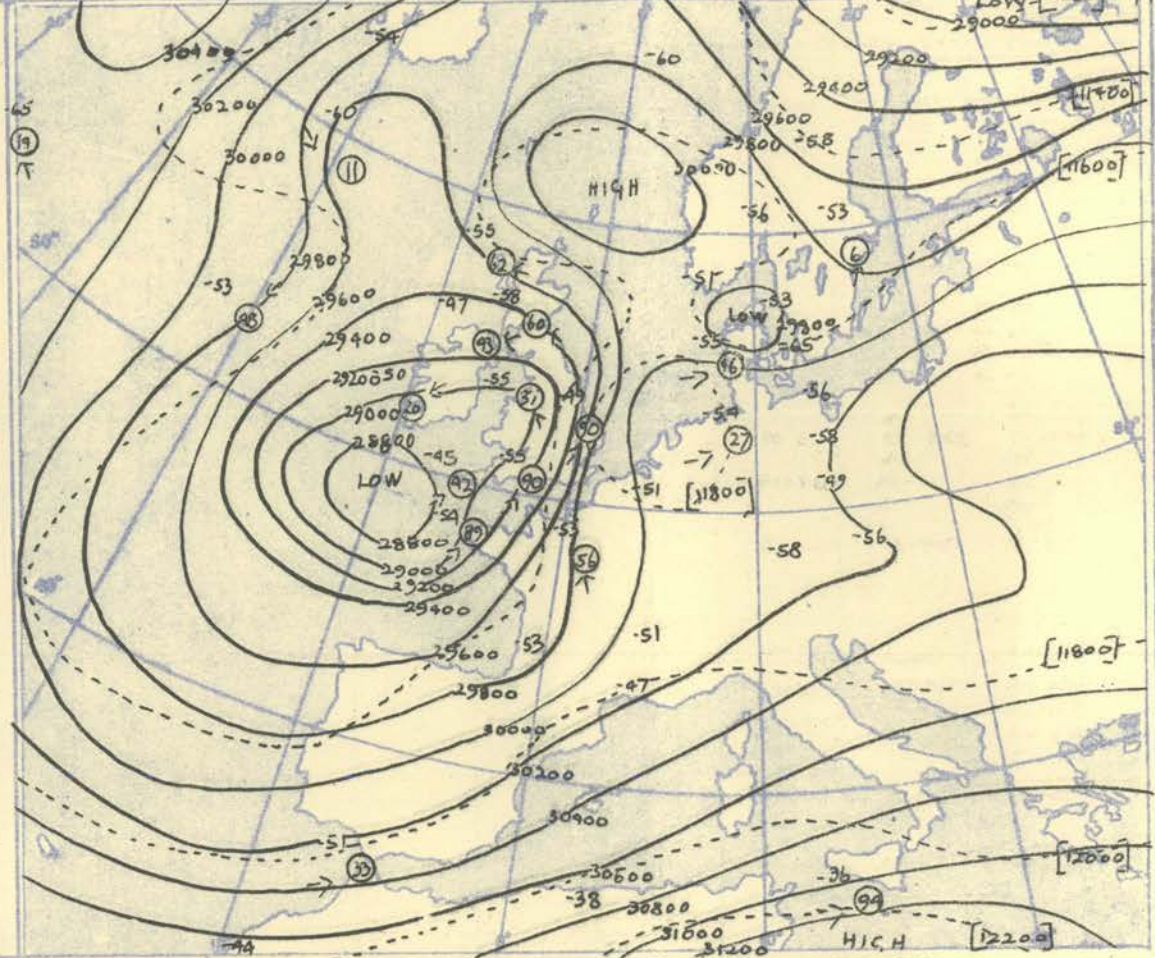
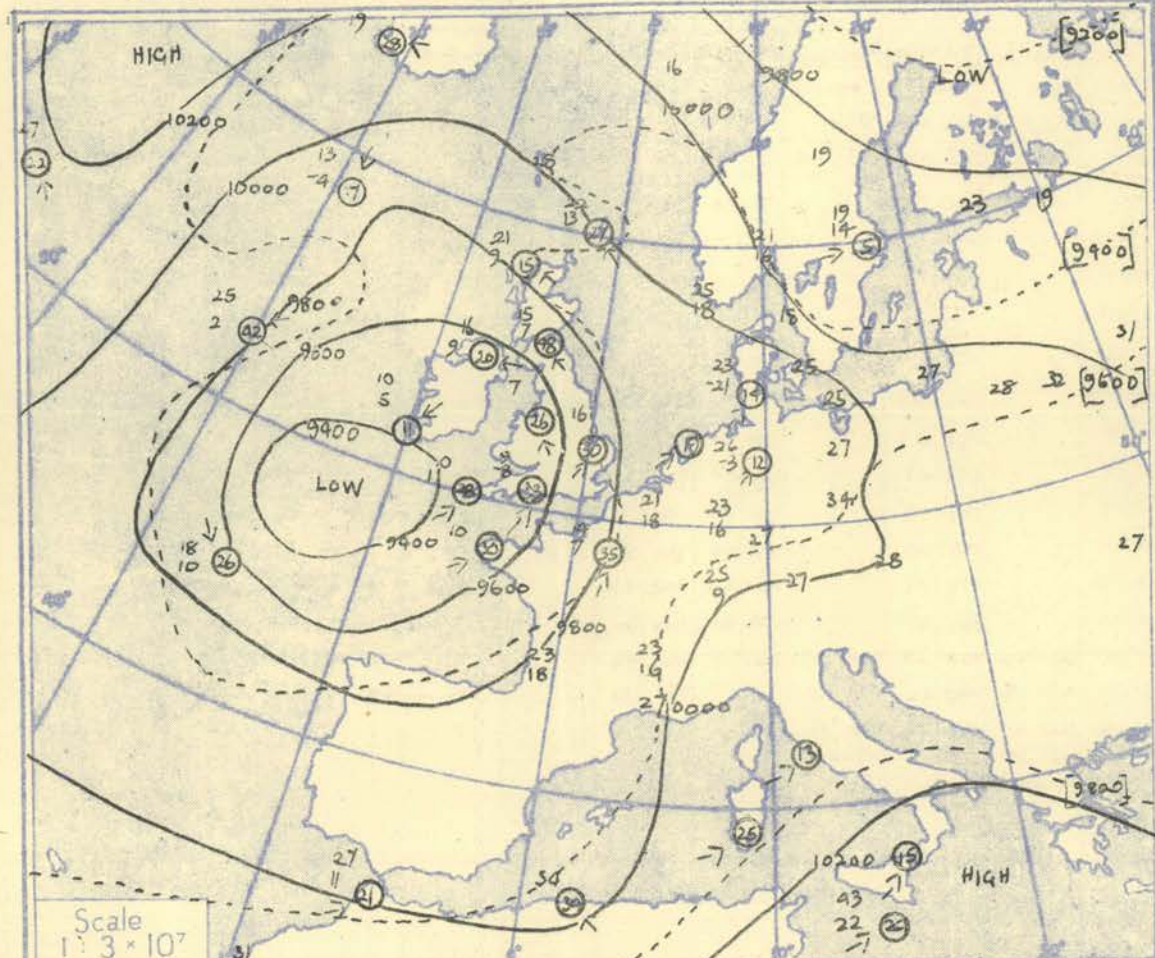
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																								NEPHOSCOPE OBSERVATIONS											
Place	Larkhill		Stornoway		Aldergrange		Shoebury		Uxbridge		Prestwick		Lympne		Lerwick		Stornoway		Place																
Time	03L		03L		09L		09L		13L		13L		15L		18L		21L		Time																
Type	Pilar.		Pilar		Pilar.										Radar.		Pilar		Type																
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.													
Surf.																																			
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8,000																																			
10,000																																			
14,000																																			
18,000																																			
24,000																																			
30,000	174	46																																	
40,000	157	18																																	
50,000	160	11																																	
	162	09																																	
	(51,000)																																		

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 EXPLORER										WEATHER EXPLORER										WEATHER RECORDER										WEATHER RECORDER										WEATHER RECORDER										WEATHER RECORDER										Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat/Long	52-4N 20-1W										52-2N 20-2W										52-3N 20-4W										52-6N 20-0W										58-9N 19-1W										58-9N 19-1W										58-7N 19-2W										59-0N 18-9W										Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure	03L G.M.T.										09L G.M.T.										05L G.M.T.										21L G.M.T.										03L G.M.T.										09L G.M.T.										05L G.M.T.										21L G.M.T.										G.M.T.										Time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1020 mb										1017 mb										1016 mb										1014 mb										1030 mb										1026 mb										1022 mb										1019 mb										mb											M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	1020 mb										1017 mb										1016 mb										1014 mb										1030 mb										1026 mb										1022 mb										1019 mb										mb												Surf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	760 mb										870 & 750 mb										780 mb										810 mb										875 & 760 mb										865 mb										950 mb										865 mb										mb											Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Pressure	Height	Temp.	Dew	Wind	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.

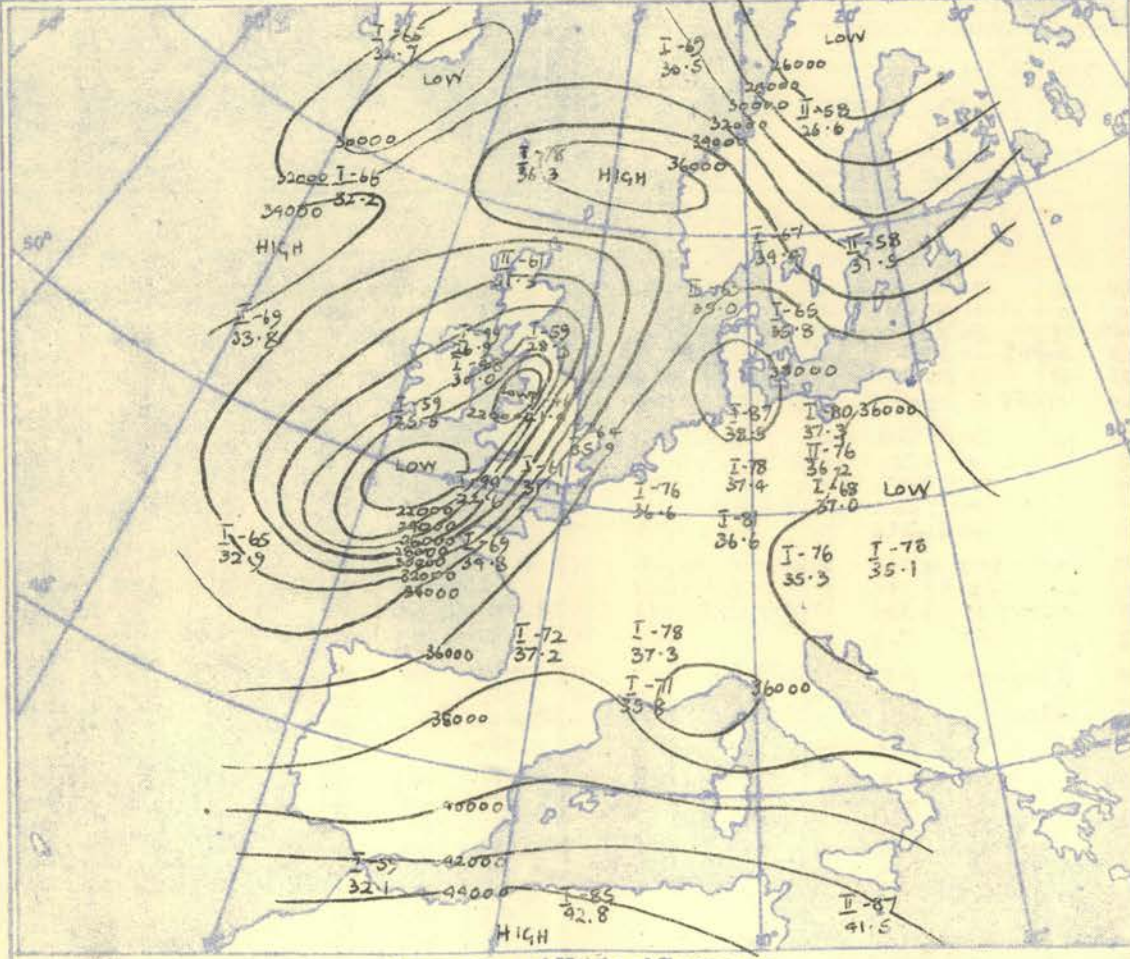


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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

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



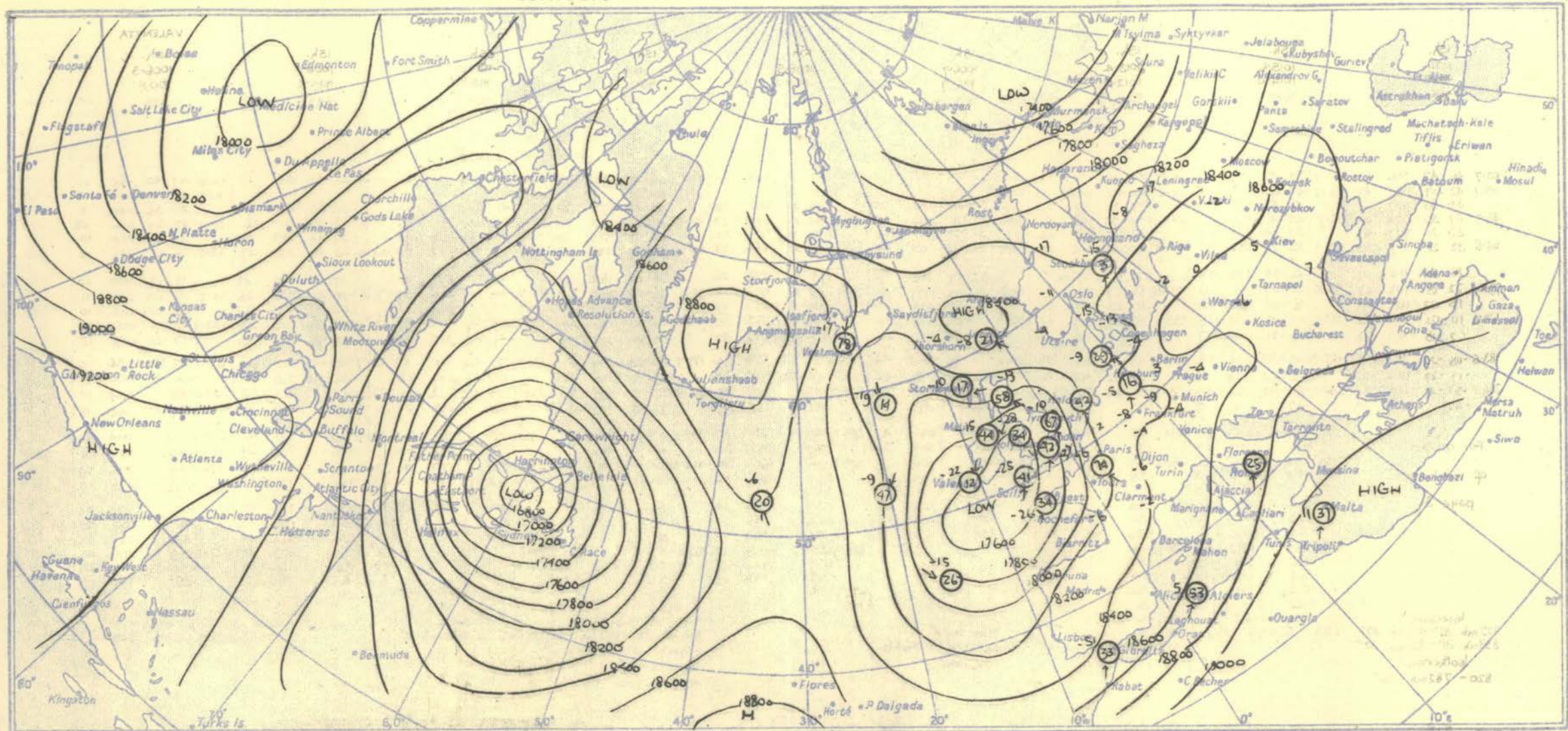
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

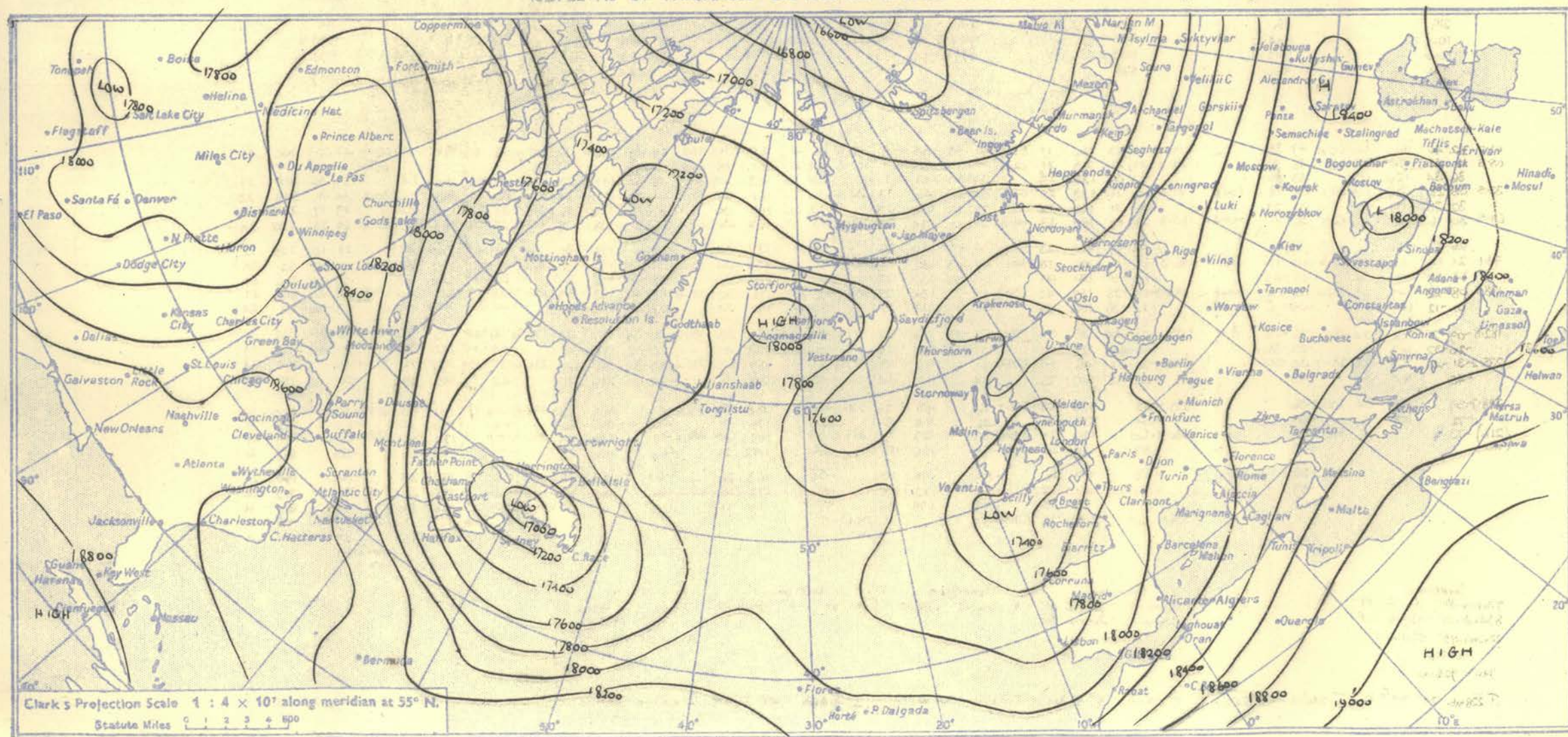
Main cold pool remained centred to the south west of the British Isles but a separate pool developed over the Irish Sea area. The warm ridge lying northwards across the Central Atlantic showed little change.

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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.



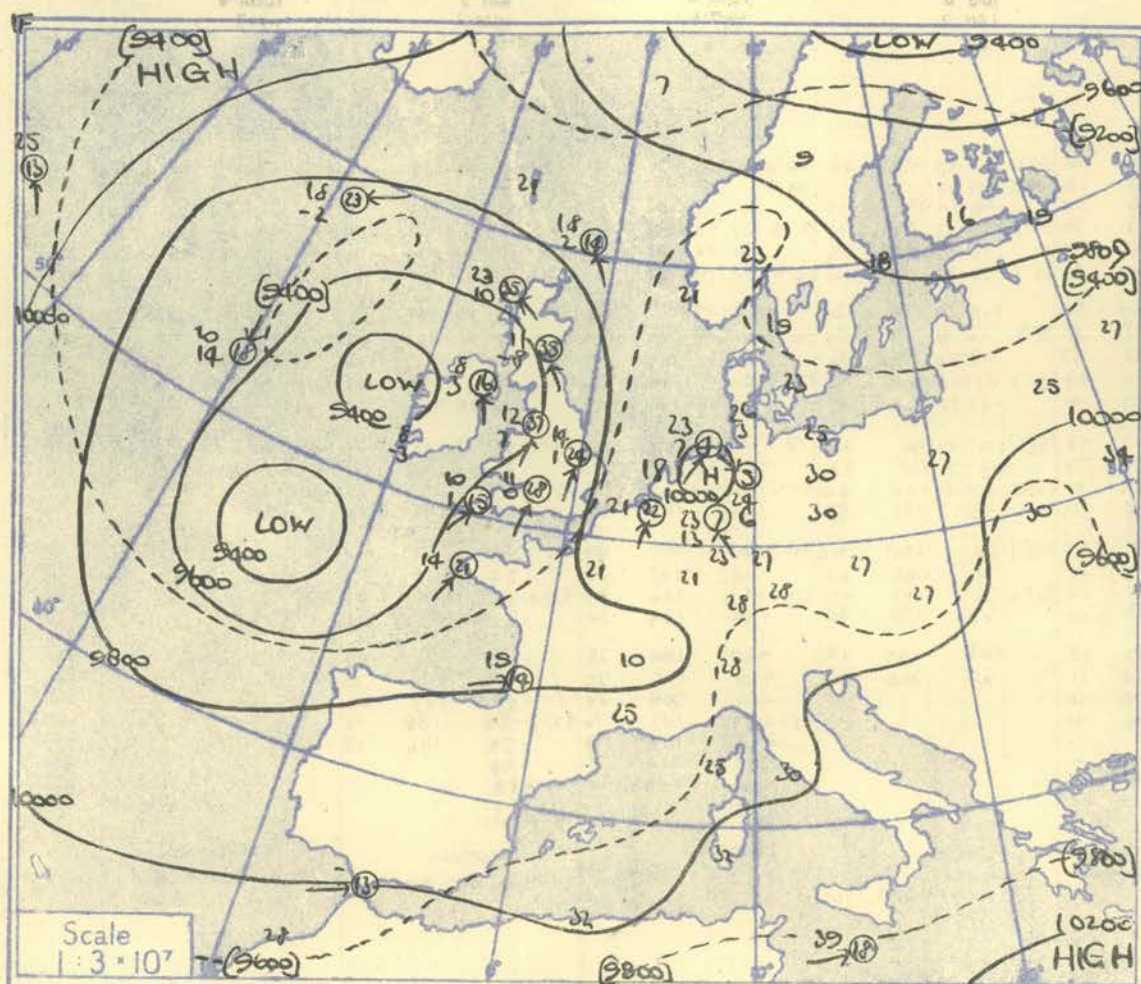
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure mb	Time M.S.L. Surf Freezing	15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		15h.		G.M.T.		Time M.S.L. Surf Freezing												
		1021.6	mb	1015.6	mb	1013.4	mb	1006.7	mb	1008.5	mb	1012.1	mb	1010.5	mb	1006.1	mb	1006.3	mb	1006.5	mb	1007.7	mb	994.3	mb	995.4	mb	100.5	mb	100.5	mb															
		782	mb	800	mb	811	mb	865	mb	879	mb	843	mb	883	mb	895	mb	855	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	42	150	03	00.4	50	42	030	12	00.2	46	41	010	30	02.6	45	43	115	10	00.6	52	35	140	15	01.2	57	39	180	15	04.4	49	37	200	20	02.9	46	43	180	15	00.3	49	40	060	10	Surf
1000	05.7	42	37	195	07	04.2	49	40	031	17	03.4	44	40	086	33	01.8	39	37	112	14	02.3	51	34	145	23	03.3	56	39	177	23	02.8	41	30	188	26	01.7	40	35	204	27	01.7	48	39	058	10	1000
950	36	33	197	08	46	33	091	17	39	36	105	25	39	36	105	25	39	37	112	14	42	27	145	23	48	36	177	23	41	30	188	26	40	35	204	27	40	34	040	11	950					
900	33.7	37	30	224	09	42	31	113	12	40	39	108	42	31	37	105	46	31	27	107	14	35	24	149	23	38	30	183	23	31.1	35	34	194	29	29.8	33	29	211	26	30.0	37	29	036	08	900	
850	33	21	237	03	37	24	132	11	37	34	105	46	31	27	107	14	31	27	107	14	28	18	159	23	33	28	187	25	28	19	198	27	27	23	213	26	31	22	020	10	850					
800	64.8	32	22	119	13	63.9	32	22	132	14	62.9	30	23	102	45	60.9	26	22	105	14	61.3	21	12	165	23	63.0	29	17	186	27	61.7	20	11	197	30	60.5	23	18	212	27	60.9	24	17	036	12	800
750	28	20	114	21	26	14	126	15	22	10	098	18	22	10	098	18	22	17	105	17	14	03	158	26	24	01	184	29	17	02	198	31	17	10	210	29	17	12	035	13	750					
700	99.5	22	13	108	27	98.5	21	09	111	15	97.2	15	07	101	42	15.2	16	09	097	20	95.0	07	02	154	26	97.4	16	03	183	30	95.6	09	08	204	33	94.5	10	01	212	28	94.7	10	05	026	11	700
650	15	02	103	27	16	01	104	18	10	05	106	54	10	02	086	23	10	02	086	23	01	12	153	27	08	14	185	36	02	15	206	31	03	11	216	27	04	05	018	10	650					
600	138.6	10	04	102	22	137.6	09	08	110	18	135.8	05	01	117	47	33.8	03	02	093	30	132.7	09	19	153	32	135.8	00	21	190	40	133.5	08	26	208	37	132.5	05	28	213	28	132.9	03	16	015	13	600
550	02	18	103	18	00	21	106	17	05	09	114	51	05	16	084	36	05	16	084	36	17	27	152	32	08	30	192	49	16	34	212	37	15	36	211	33	12	25	034	12	550					
500	183.5	08	20	104	21	182.3	10	33	096	17	180.0	13	18	112	58	178.0	15	29	084	44	175.7	28	38	158	34	179.7	10	35	197	67	176.4	27	43	210	42	175.7	25	45	212	41	176.5	22	35	056	12	500
450	17	23	104	21	22	44	094	26	25	32	103	66	24	41	082	61	24	41	082	61	40	50	166	38	11	35	195	81	26	42	207	48	36	54	215	45	34	46	050	12	450					
400	236.0	28	42	105	31	234.5	31	52	094	45	231.7	37	46	109	67	129.7	35	52	076	74	225.8	43	167	39	232.8	22	43	193	83	228.1	29	45	204	101	226.2	44	213	52	227.0	48	044	10	400			
350	42	104	39	39	42	096	63	49	105	56	49	105	56	49	105	56	46	072	69	41	166	36	35	53	192	86	42	198	99	44	212	39	59	060	18	350										
300	For remainder				298.5	55	095	62	294.6	58	116	60	293.5	47	081	43	289.9	45	159	37	297.8	49	190	90	292.1	55	195	90	290.6	45	211	42	289.2	50	064	20	300									
250	of winds see				385.1	54	096	26	381.4	59	100	21	383.5	45	100	21	378.8	55	161	23	384.2	64	186	54	379.1	55	179	31	379.6	48	202	39	378.2	49	071	14	250									
200	page 3.				53	096	23	58	091	20	54	108	15	57	155	14	55	146	15	54	152	11	57	168	22	51	192	15	51	181	13	51	100	09	150											
150					54	085	16	56	080	11	56	107	15	54	152	11	54	152	11	57	168	22	51	192	15	51	181	13	51	100	09	150														
130					54	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	130											
110					55	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	110											
100					56	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	100											
90					56	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	90											
80					56	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	80											
70					56	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	70											
60					56	082	08	56	091	09	54	108	15	57	153	17	53	143	09	53	136	12	53	168	22	51	192	15	51	181	13	51	100	09	60											
Inversion		722mb. 32°-900mb. 37°		833mb. 31°-820mb. 32°		Isothermal		820-782mb. 32°		Isothermal		688-668mb. 19°		(500)mb		Inversion		922mb. 38°-893mb. 41°		Max wind:-		381mb. 076° 86kts		24,000'		Inversion		815mb. 28°-792mb. 29°		518mb. 14°-493mb. 08°		Isothermal		493-467mb. 08°		Inversion		939mb. 38°-925mb. 40°								
Tropopause		N.R.		II 278mb. -61° 31,300'		I 315mb. -59° 28,300'		I 335mb. -49° 26,900'		I 422mb. -46° 21,400'		I 227mb. -64° 35,900'		I 275mb. -61° 31,100'		I 400mb. -44° 22,600'		I 350mb. -59° 25,500'		Tropopause																										
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION												
Pressure mb	Time M.S.L. Surf Freezing	21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		Time M.S.L. Surf Freezing												
		1010.7	mb	1014.0	mb	1013.9	mb	1007.7	mb	1009.6	mb	1014.2	mb	1012.3	mb	1009.8	mb	1009.6	mb	843	mb	861	mb	885	mb	885	mb	885	mb	885	mb															
		820	mb	850	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb	875	mb															
Surf	02.7	42	40	110	06	00.4	49	38	00.2	44	43	140	17	02.6	41	38	135	10	00.6	46	41	160	10	01.2	49	39	140	08	04.4	45	40	180	15	02.9	44	41	200	05	Surf							
1000	05.5	41	40	120	05	03.7	48	37	03.4	42	41	148	21	02.0	47	40	161	18	02.6	47	40	161	18	03.8	51	40	177	23	03.3	43	36	181	24	02.7	39	36	218	27	1000							
950	36	34	120	07	37	35	133	24	39	33	143	22	39	33	143	22	43	32	163	23	43	32	163	23	48	34	177	23	41	30	179	24	31.6	38	32	192	26	30.8	34	31	228	23	950			
900	33.5	36	28	157	03	32.1	38	28	31.4	35	26	133	25	30.1	34	27	146	23	30.9	36	26	161	27	32.4	41	30	179	24	31.6	38	32	192	26	30.8	34	31	228	23	900							
850	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	32	23	178	02	850					
800	64.5	30	16	116	06	63.0	26	11	62.3	23	17	147	23	60.8	21	17	144	24	61.7	23	13	168	32	63.4	26	21	198	28	62.5	25	16	197	33	61.6	24	13	232	24	800							
750	26	20	110	12	22	14	126	15	22	10	098	18	22	10	098	18	2																													

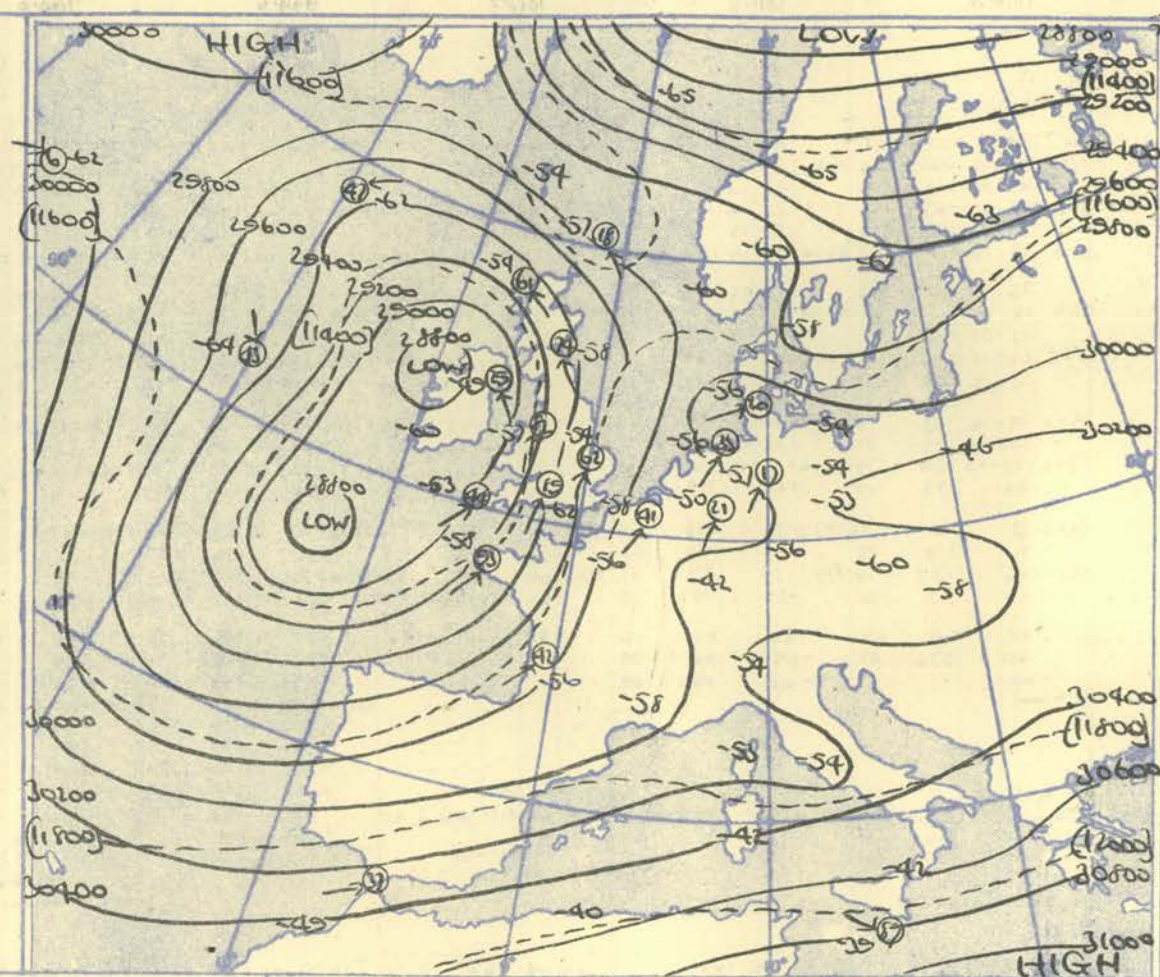
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				NALENTIA		STATION							
Pressure mb	Time M.S.L. Surf Freezing	03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		Time M.S.L. Surf Freezing	Pressure mb								
		1020.3		mb		1015.6		mb		1014.6		mb		1008.4		mb		1012.1		mb		1015.8		mb		1014.0		mb		1011.2		mb											
		1015.0		mb		1011.5		mb		1013.7		mb		999.6		mb		1010.0		mb		1011.2		mb		997.6		mb		1000.4		mb											
Freezing		86.1		mb		87.5		mb		87.6		mb		900		mb		888		mb		847		mb		858		mb		867		mb		880									
Wind		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Wind									
Temp.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		Temp.											
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		Height											
Surf		01.7		35		38		120		03		44		40		100		15		00.4		41		40		140		06		02.6		40		37		150							
1000		05.3		39		38		095		12		03.6		43		35		03.5		42		39		153		19		02.5		37		33		163		12							
950		41		35		148		12		03.6		40		28		114		24		41		33		154		22		03.7		39		35		178		24							
900		33.4		38		34		165		12		31.8		35		26		32.0		35		29		143		24		30.5		32		28		166		14							
850		30		37		188		13		29		19		127		30		28		27		23		170		16		31.3		34		31		193		28							
800		04.3		27		172		16		62.6		23		10		126		32		62.8		22		06		167		30		61.1		20		16		167							
750		25		05		160		14		17		02		125		33		17		15		150		35		13		08		162		17		19		16							
700		08.6		18		02		165		14		96.6		11		08		35		96.7		11		08		150		35		94.8		08		170		16							
650		12		03		165		16		04		17		137		42		05		18		152		37		00		08		184		16		04		09		183					
600		37.5		06		11		145		17		134.7		04		25		187		47		134.8		04		24		154		47		132.6		08		21		190					
550		00		19		138		21		15		36		132		50		14		33		154		49		17		27		179		17		15		28		185					
500		18.2		09		26		135		19		178.0		24		48		117		68		178.2		21		42		163		55		175.6		27		36		179					
450		20		35		135		21		22		44		097		72		28		48		176		74		28		48		188		14		28		48		184					
400		23.4		29		43		138		19		22.9		63		65		102		19		22.9		63		65		102		19		22.9		63		65		102					
350		42		148		19		46		110		73		46		163		83		49		163		83		49		163		83		49		163		83		49					
300		29.5		57		161		15		293.2		54		103		61		293.1		58		159		74		288.7		49		158		29		291.6		57		181					
250		71		139		15		61		100		43		59		58		58		58		58		58		58		58		58		58		58		58							
200		38.3		16		62		139		13		37.7		59		291		27		37.4		60		153		23		37.4		51		147		19		37.3		52					
170		62		115		10		59		092		15		61		108		18		54		129		16		56		176		24		63		188		24							
150		60		07		08		58		091		10		58		127		17		55		128		13		54		139		13		63		193		19							
130		61		07		07		59		091		09		61		127		17		55		118		12		59		184		11		65		200		20							
110		60						62		090		08								62		130		11		54		170		12													
100		(116 mb)																		526.4		58		09		526.5		57		181		11											
90																				60		116		09		56		178		11													
80																				61		128		07		54		176		24													
70																				62		136		08		54		(84 mb)															
60																				63		118		04		55		102		05													
		Inversion		374 mb 374 950 mb 41°		325 27° 816 28°		180 25° 770 26°		150thermol.		1010 1000 mb 39°				Inversion		500 mb 24° 450 mb 22° 1014 mb 41° 984 mb 43°		150thermol.		475 443 mb 25°				Inversion		739 725 mb 11°		150thermol.		830 mb 25° 795 mb 26°		150thermol.		1010 1000 mb 43°							
		Tropopause		I 240 mb -74° 34.500°						I 241 mb -62° 32.200°						I 274 mb -62° 31.300°				I 400 mb -50° 22.570°						I 306 mb -57° 28.700°				I 226 mb -77° 35.600°				I 273 mb -70° 31.300°				I 380 mb -51° 23.900°		I 325 mb -65° 27.000°		Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION									
Pressure mb	Time M.S.L. Surf Freezing	03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		Time M.S.L. Surf Freezing	Pressure mb								
		1019.5		mb		1012.7		mb		1015.4		mb		1011.5		mb		1014.5		mb		1015.7		mb		1013.9		mb		1011.4		mb											
		1009.3		mb		1012.1		mb		1014.6		mb		1001.9		mb		1012.5		mb		1011.1		mb		997.8		mb		1000.3		mb											
Freezing		84.2		mb		87.6		mb		87.0		mb		87.7		mb		87.5		mb		83.0		mb		85.4		mb		85.0		mb		85.0									
Wind		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Dir.		Vel.		Wind									
Temp.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		°F.		Temp.											
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		Height											
Surf		02.7		41		105		07		48		38		090		05		00.2		50		46		140		07		02.6		42		42		130		10							
1000		05.2		42		39		12		03.7		40		33		04.1		48		44		171		12		05.1		40		36		158		21									
950		33.3		37		34		128		12		42		27		143		17		36		23		167		12		31.3		35		28		163		14							
900		33		39		33		141		15		32.0		36		23		143		20		32.4		37		29		162		14		29		24		181							
850		33		26		164		17		30		16		138		21		29		24		167		14		29		24		181		24		27		62.8							
800		4.4		29		24		170		19		62.9		24		11		126		21		63.3		23		18		163		20		62.1		27		62.8							
750		23		18		162		18		18		04		126		24		19		03		171		28		17		11		163		29		7		13							
700		18		09		153		17		96.9		12		09		129		30		97.4		12		08		166		31		96.0		10		03		183							
650		17		06		179		18		04		16		129		33		06		16		169		34		04		07		183		27		04		05							
600		37.7		08		08		187		13		35.1		02		17		37		35.6		02		19		167		40		34.1		04		13		182							
550		01		22		182		16		13		26		121		39		10		24		161		44		12		21		177		28		13		17							
500		18.2		09		24		179		17		178.5		23		38		25		77.6		22		31		170		27		178.2		23		31		33							
450		19		32		181		23		32		47		133		61		25		33		145		71		25		33		40		172		52		18							
400		23.4		28		40		176		25		22.9		41		137		72		230.9		34		42		164		74		228.2		45		185		22							
350		60		52		173		18				For rest of						46		163		84		58		178		24		47		178		76		41							
300		29.0		56		172		18		Winds see		294.2		59		165		84		290.1		52		167		30		292.2		54		173		69		297.8							
250		72		171		19				page 3		380.2		62		159		25		978.8																							

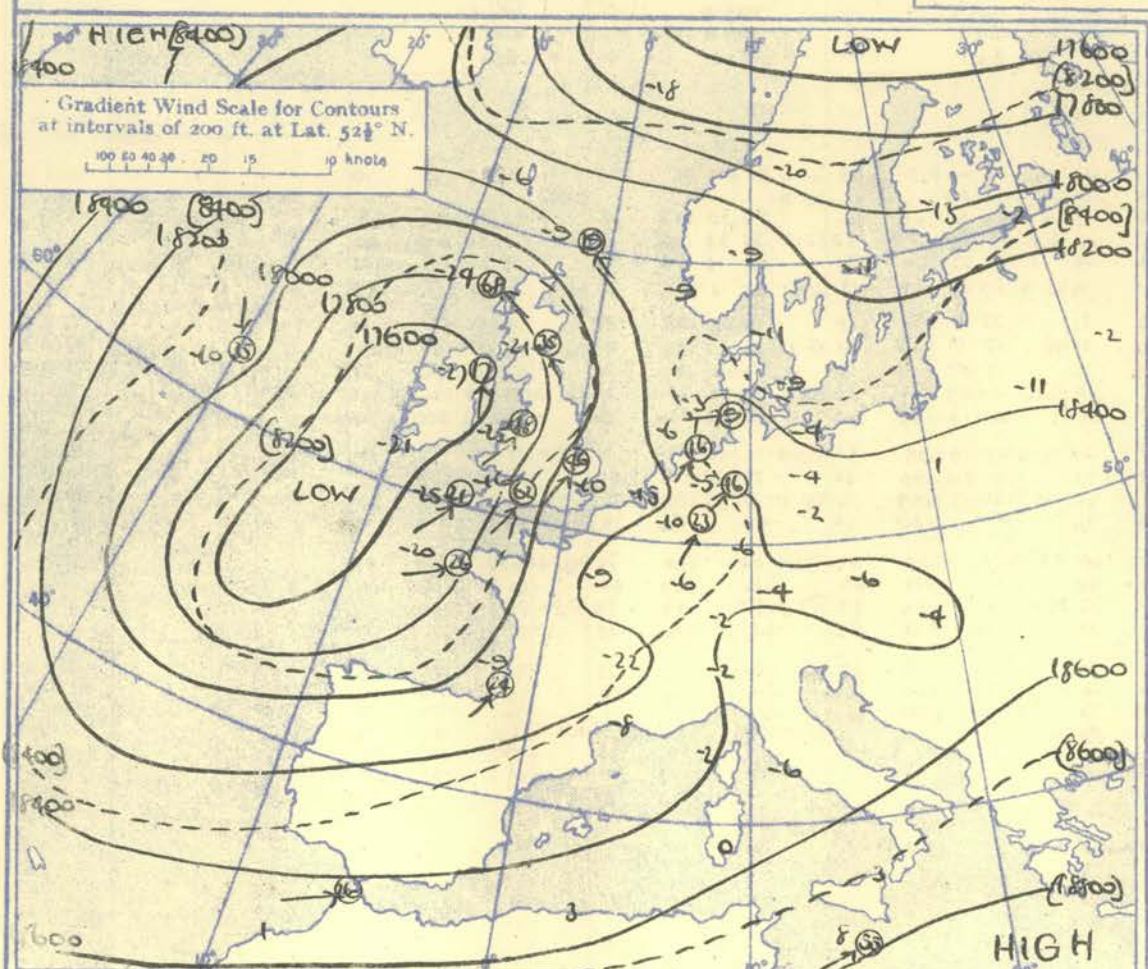
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h G.M.T.



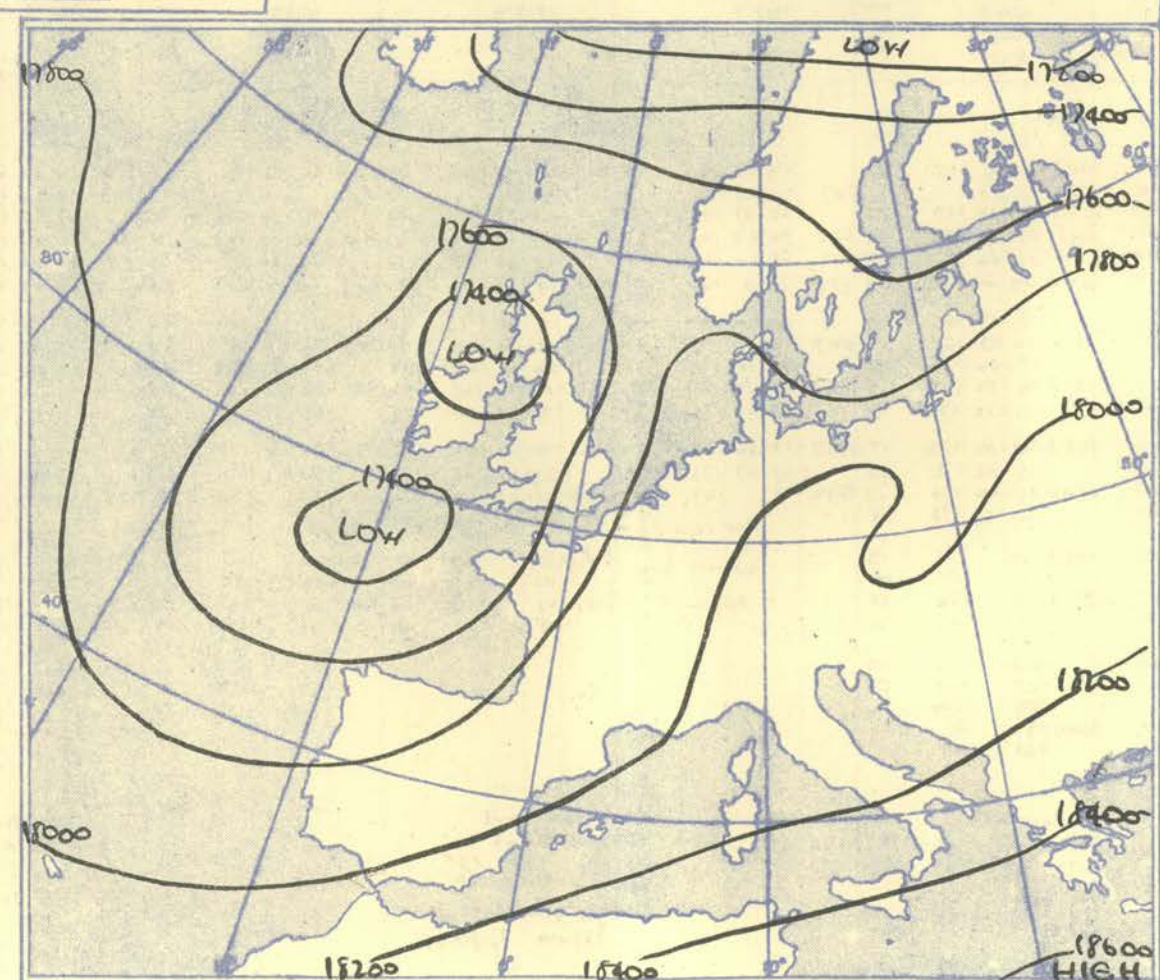
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000--700 mb.



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



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

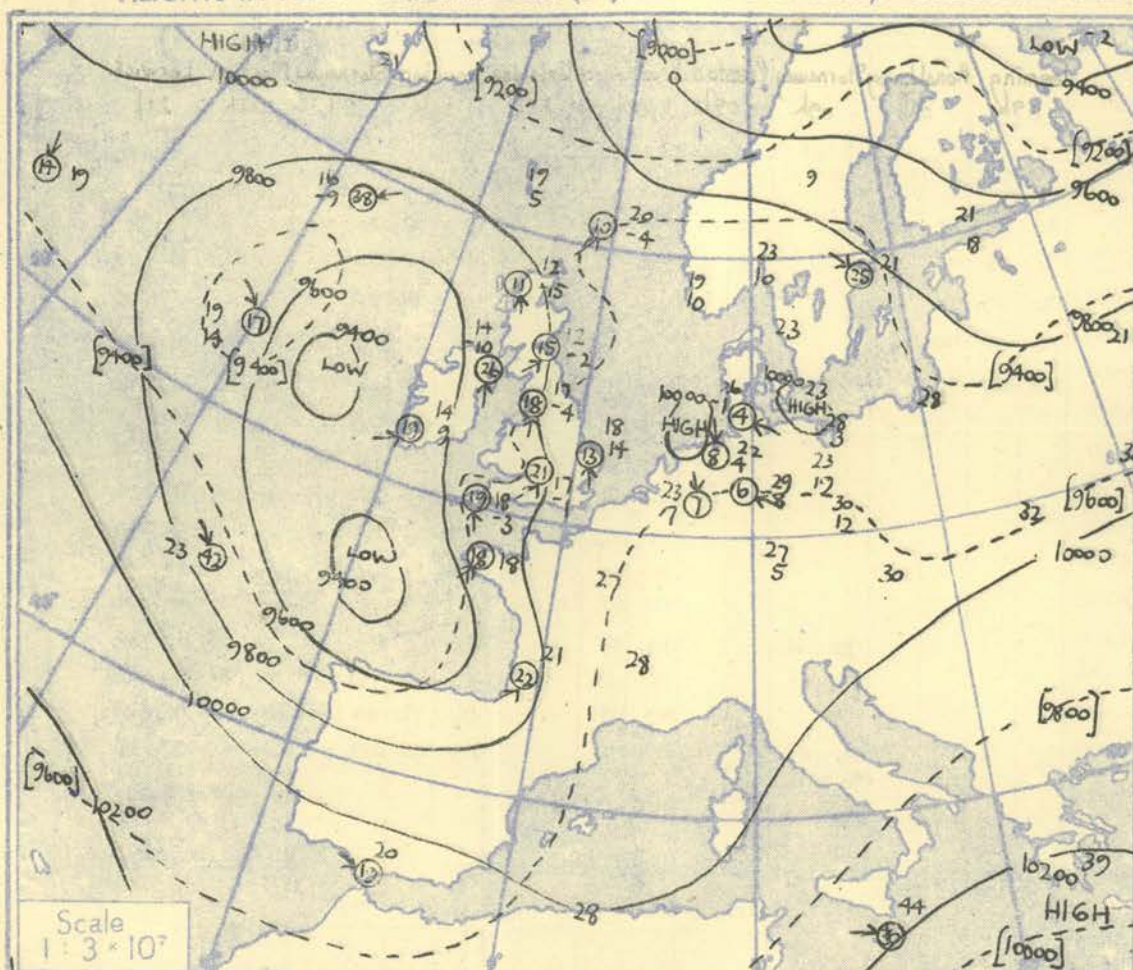


Isopleths of Thickness 500 - 1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																				DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																			
52° 12' N 02° 12' W																				Leeming Ronaldson Stornaway Preston Shearburgh Thirbridge Leuchars Stornaway Market Leuchars																			
Time M.S.L. 1013 mb																				Time M.S.L. 09h 09h 09h 09h 09h 09h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h 21h																			
Surf 1011.5 mb																				Surf 1011.5 mb																			
Freezing 840																				Freezing 840																			
Pressure mb																				Pressure mb																			
Height ft./100																				Height ft./100																			
Temp. °F																				Temp. °F																			
Dew °F																				Dew °F																			
Surf 0.4																				Surf 0.4																			
1000 3.5																				1000 3.5																			
950																				950																			
900 32.1 41 34																				900 32.1 41 34																			
850 34 29																				850 34 29																			
800 63.3 25																				800 63.3 25																			
750																				750																			
700 07.4 15																				700 07.4 15																			
650																				650																			
600 136.1 03																				600 136.1 03																			
550																				550																			
500 180.4 -15																				500 180.4 -15																			
450																				450																			
400 232.1 -37																				400 232.1 -37																			
350																				350																			
300 254.9 -64																				300 254.9 -64																			
250																				250																			
200																				200																			
170 Cloud																				170 Cloud																			
900-690mb																				900-690mb																			
440-390..																				440-390..																			
Inversion																				Inversion																			
680mb 12.6°																				680mb 12.6°																			
655.. 19.3°																				655.. 19.3°																			

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																																	
Ship		WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				Ship																			
Lat/Long		52° 8' N 13° 2' W				52° 9' N 19° 9' W				52° 8' N 20° 1' W				52° 7' N 20° 1' W				59° 0' N 19° 0' W				58° 3' N 19° 2' W				58° 9' N 19° 4' W				58° 9' N 19° 4' W				Lat/Long															
Pressure M.S.L. Surf Freezing	Time	03L		G.M.T.		09L		G.M.T.		15L		G.M.T.		21L		G.M.T.		03L		G.M.T.		09L		G.M.T.		15L		G.M.T.		21L		G.M.T.		G.M.T.	Time														
		1011		mb		1009		mb		1008		mb		1006		mb		1017		mb		1015		mb		1016		mb		1016		mb				mb	Surf												
		1011		mb		1009		mb		1008		mb		1006		mb		1017		mb		1015		mb		1016		mb		1016		mb						mb	Freezing										
		570		mb		865		mb		850		mb		840		mb		300, 825		mb		885		mb		890		mb		870		mb								mb	Freezing								
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	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.	ft./100	°F.	°F.	Dir. Vel.	mb																
Surf	03'1	46	39	345	20	47	42	340	22	48	41	300	19	47	42	010	19	46	43	060	25	46	42	050	30	47	44	045	26	47	44	059	24	Surf															
1000	47	40			02'5	47	42	352	20	02'2	47	42	016	47	42		04'6	44	40	064	18	04'0	44	40	058	39	04'2	45	39	057	28	04'4	45	42	059	24													
950	42	36	355	22	42	38	354	20	43	38	315	16	41	38	358	13	38	32	064	30	39	36	061	33	38	34	059	31	40	37	063	31	950																
900	31'4	36	32	353	22	30'8	31	31	351	20	30'6	38	34	323	14	29'8	37	34	345	15	32'7	31	22	061	40	32'2	34	32	060	31	32'3	33	28	065	35	900													
850	30	28	353	22	31	18	347	18	32	29	330	13	33	29	340	16	35	29	060	44	38	25	064	28	29	24	070	29	30	25	078	35	850																
800	62'3	32	22	353	22	61'8	30	09	348	17	61'6	29	21	330	15	60'8	27	22	336	18	63'5	29	19	058	45	63'1	29	22	070	31	63'1	26	17	070	29	63'5	25	18	076	32	800								
750	77	8	354	20	26	03	350	13	26	17	330	16	23	16	328	17	24	10	061	38	27	08	071	30	27	09	071	29	24	06	071	36	750																
700	57'0	20	14	357	18	56'4	20	01	349	15	56'3	19	14	331	17	55'1	16	10	079	19	57'9	18	02	070	33	57'8	24	06	061	34	57'4	16	09	061	38	57'9	18	05	070	35	700								
650	14	08	356	19	15	08	344	21	13	09	332	18	10	03	308	19	12	16	073	33	17	01	061	41	10	19	061	41	10	17	073	38	650																
600	35'9	06	05	356	20	35'3	07	09	344	25	35'1	07	10	327	23	33'7	05	07	323	18	36'7	05	22	050	33	36'9	08	04	055	40	36'0	05	06	062	49	36'5	02	17	073	43	600								
550	02	19	355	24	01	09	345	27	01	12	320	26	07	17	323	24	02	26	087	38	00	17	068	36	02	25	055	55	01	22	063	53	550																
500	180'4	10	27	355	33	180'0	06	13	320	29	179'9	07	21	311	30	177'9	15	32	310	30	181'1	12	40	084	42	81'6	06	42	065	50	180'4	09	31	050	57	180'0	09	27	064	58	500								
450	21	33	353	39	17	24	328	35	16	34	294	28	23	36	287	45	24	52	081	41	23	51	064	51	23	59	051	58	20	39	056	64	450																
400	232'3	34	43	342	39	232'4	28	36	321	49	232'6	27	46	279	27	229'8	29	49	275	58	232'8	38	58	076	41	234'5	27	53	077	57	232'9	30	59	052	64	233'4	30	48	044	69	400								
350	48		342	46	40	49	353	52	39	55	315	20	43		291	54	49		086	47	42		057	66	42		047	71	40	56	038	65	350																
300	295'3	64	343	43	107'0	53	328	40	297'0	52	338	17	293'9	51	354	19	295'6	62	077	47	298'6	57	053	60	296'8	56	055	80	297'9	53	055	75	300																
250	64	343	27		335	21		337	27		341	23	182'0	51	324	25	382'5	56	063	30	383'6	63	054	32	387'3	60	058	31	383'2	58	036	40	250																
200	381'3	59	358	19	383'9	53	027	22	384'1	52	345	23	182'0	51	324	25	382'5	56	063	30	383'6	63	054	32	387'3	60	058	31	383'2	58	036	40	200																
170	57	02	15		51	350	18		50	004	16		51	354	19		56	072	21		57		054	26		56	056	21		54	039	29	170																
150	59	032	14		51	004	15		51	017	12		52	003	13		58	070	18		51		053	21		56	034	19		55	051	21	150																
130	60	038	13		52	045	14		53	006	09		54	012	20		59				58		059	17		58	043	17		56	043	25	130																
110	60	057	11		52	046	12		54	325	05										60		060	11		61	053	12		54	025	19	110																
100	529'4	61	070	12	534'6	53	047	12	534'7	53	325	02									531'6	62	060	10	530'7	58	053	11		56	041	11		56	037	15	100												
90	61	068	10		53	051	10		53	325	01										61		060	15		61	053	11		56	041	11		56	037	15	90												
80	62				52	112	10		54	325	03										60					56	059	11		56	037	15		56	037	15	80												
70					53	178	8		54	145	03										60					56	059	11		56	037	15		56	037	15	70												
60					53				54	145	00															56	059	21		56	037	15		56	037	15	60												
Inversion		810 mb 26° - 800 mb 32°				Inversion				850 mb 31° - 827 mb 32°				Inversion				824 mb 29° - 866 mb 35°				Inversion				850 mb 28° - 846 mb 30°				Isothermal				850 - 840 mb 29°				Isothermal				815 - 800 mb 25°							
66° - 13° - 650° - 14°						Isothermal				1009 - 1000 mb 47°				458° - 0° - 550° - 1°				Isothermal				760° - 72° - 750° - 24°				Isothermal				866 - 850 mb 35°				Isothermal				840 mb 29° - 836 mb 30°				Inversion				800 mb 25° - 763 mb 26°			
Tropopause		I 270 mb - 62°				I 261 mb - 63°				I 272 mb - 62°				II 261 mb - 54°				II 300 mb - 62°				I 240 mb - 72°				I 260 mb - 70°				I 238 mb - 71°				Tropopause															
21° - 200°		32° - 600°				31° - 600°				32° - 600°				32° - 600°				29° - 600°				30° - 500°				32° - 700°				34° - 700°																			

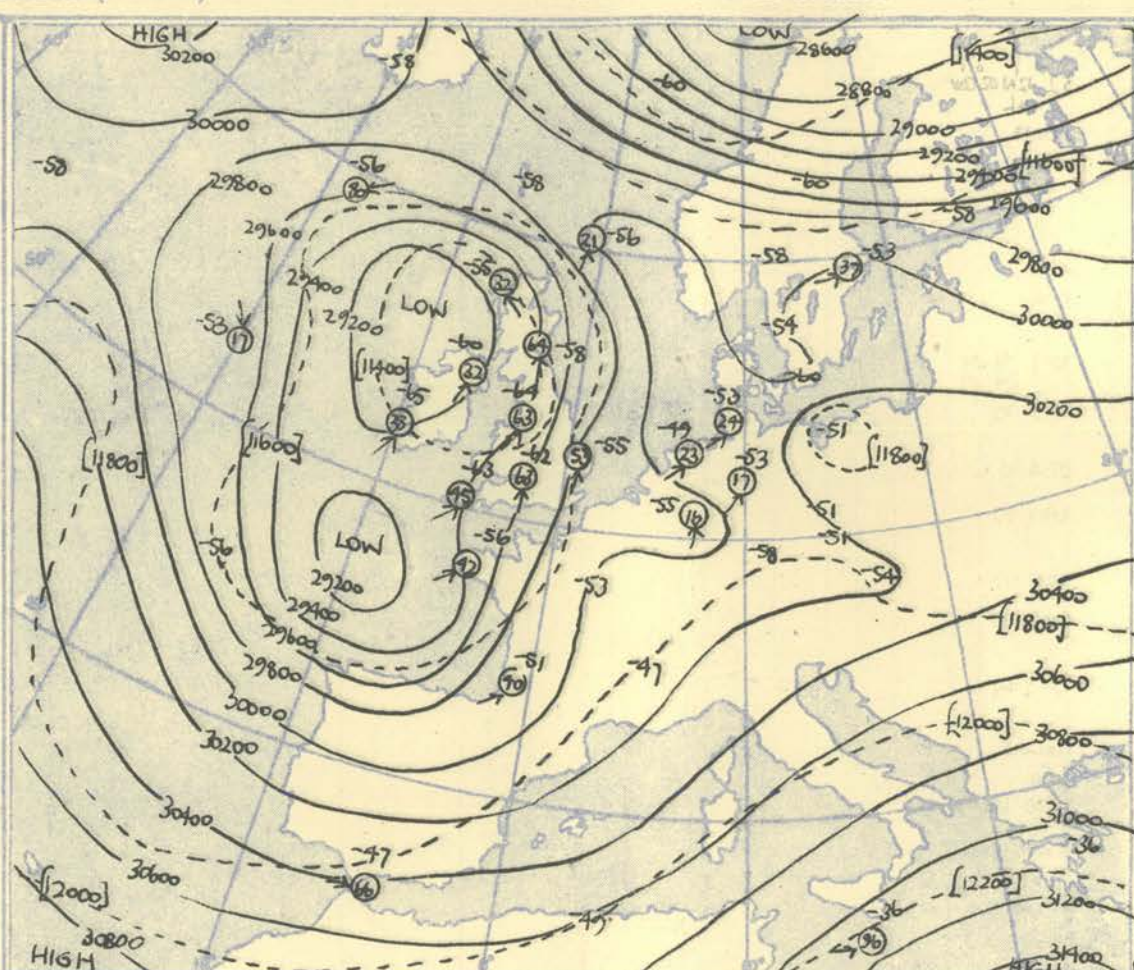
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15h G.M.T.



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

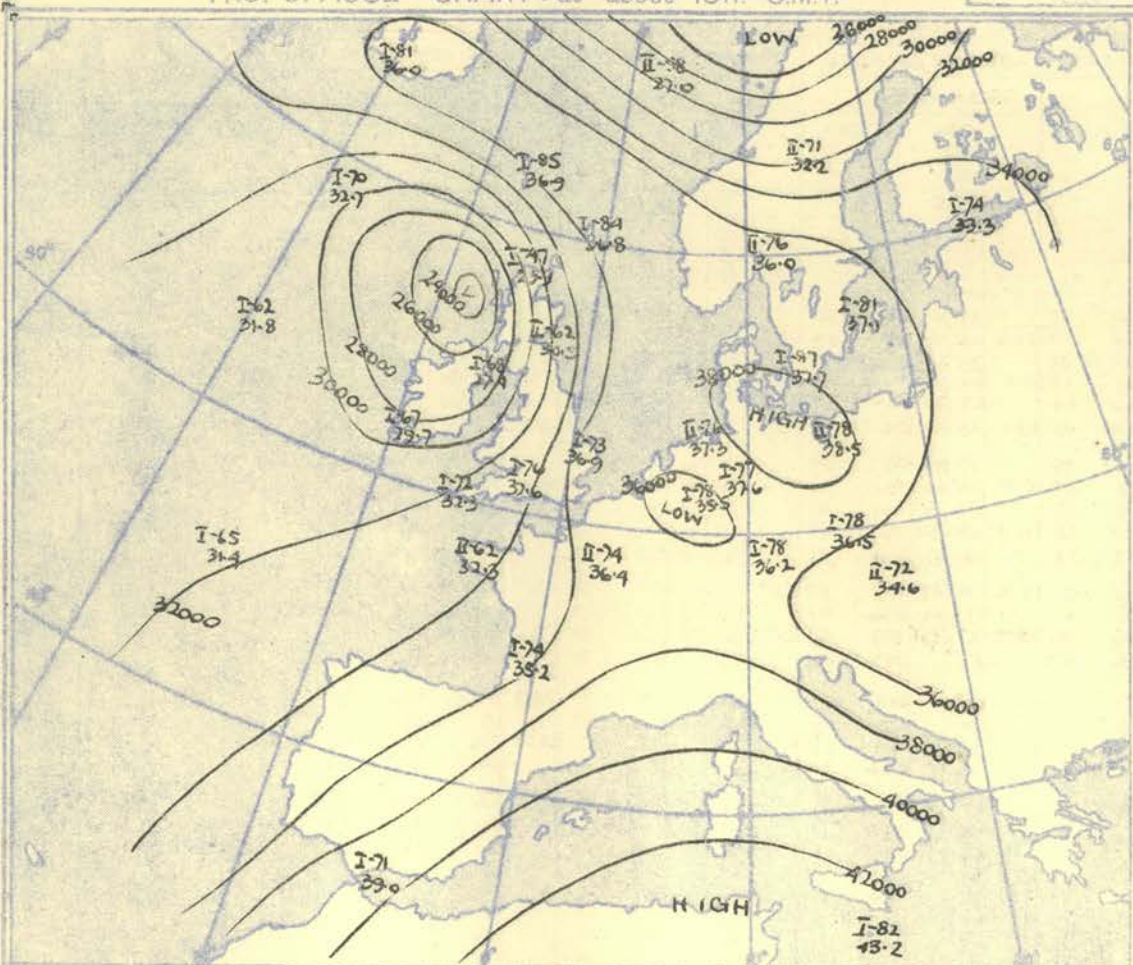
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

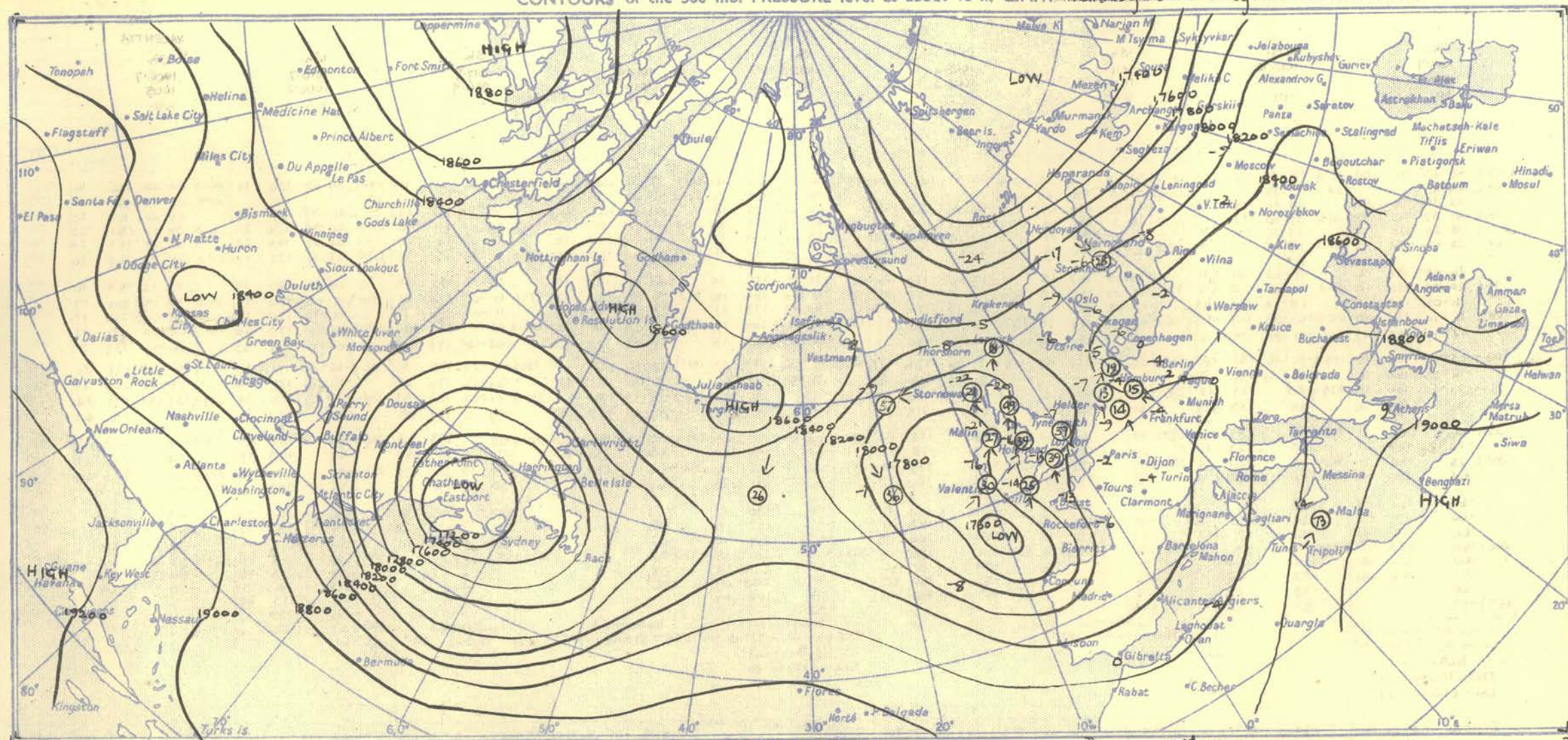
100 80 60 40 20 10 0 knots



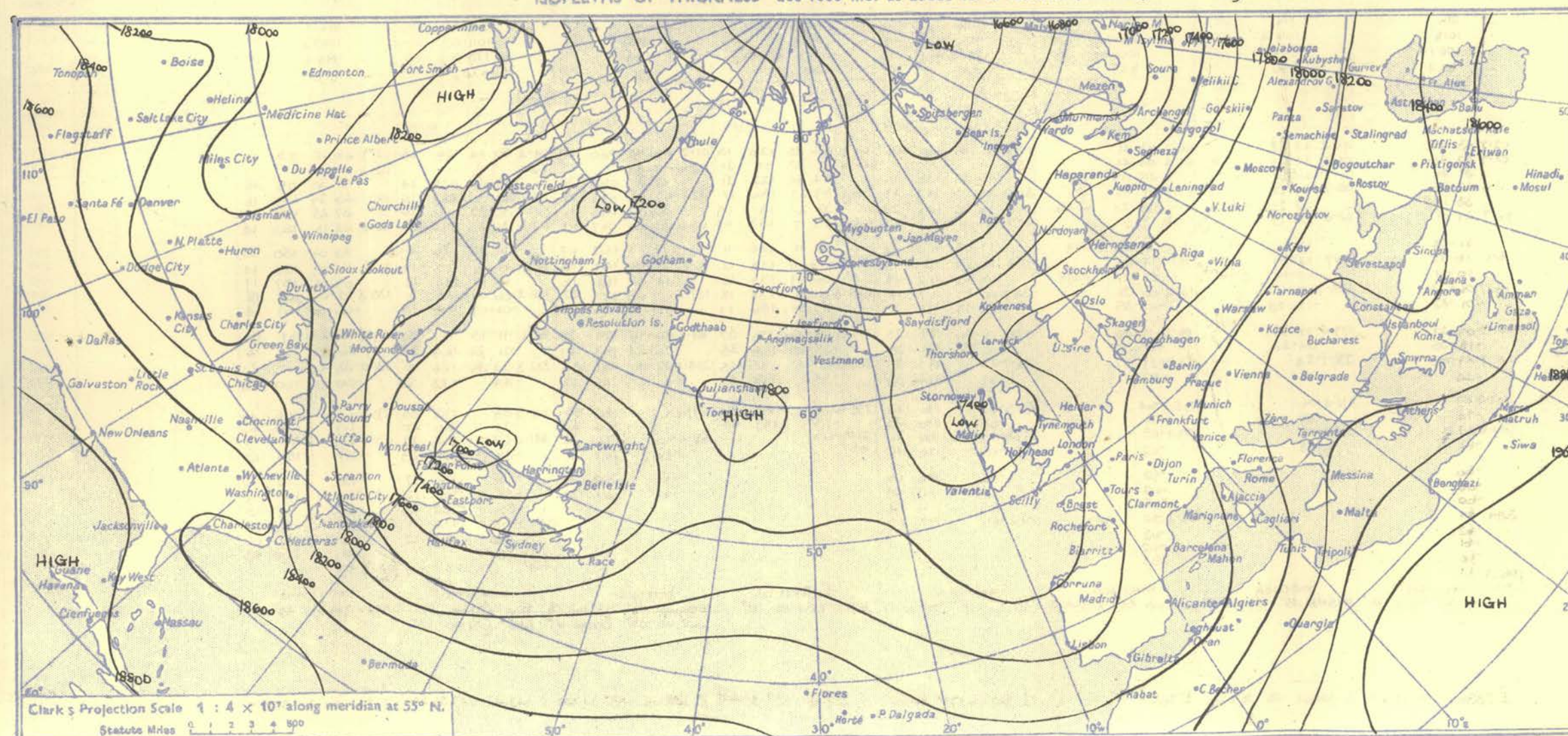
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

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





ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Thursday 3rd May 1951.

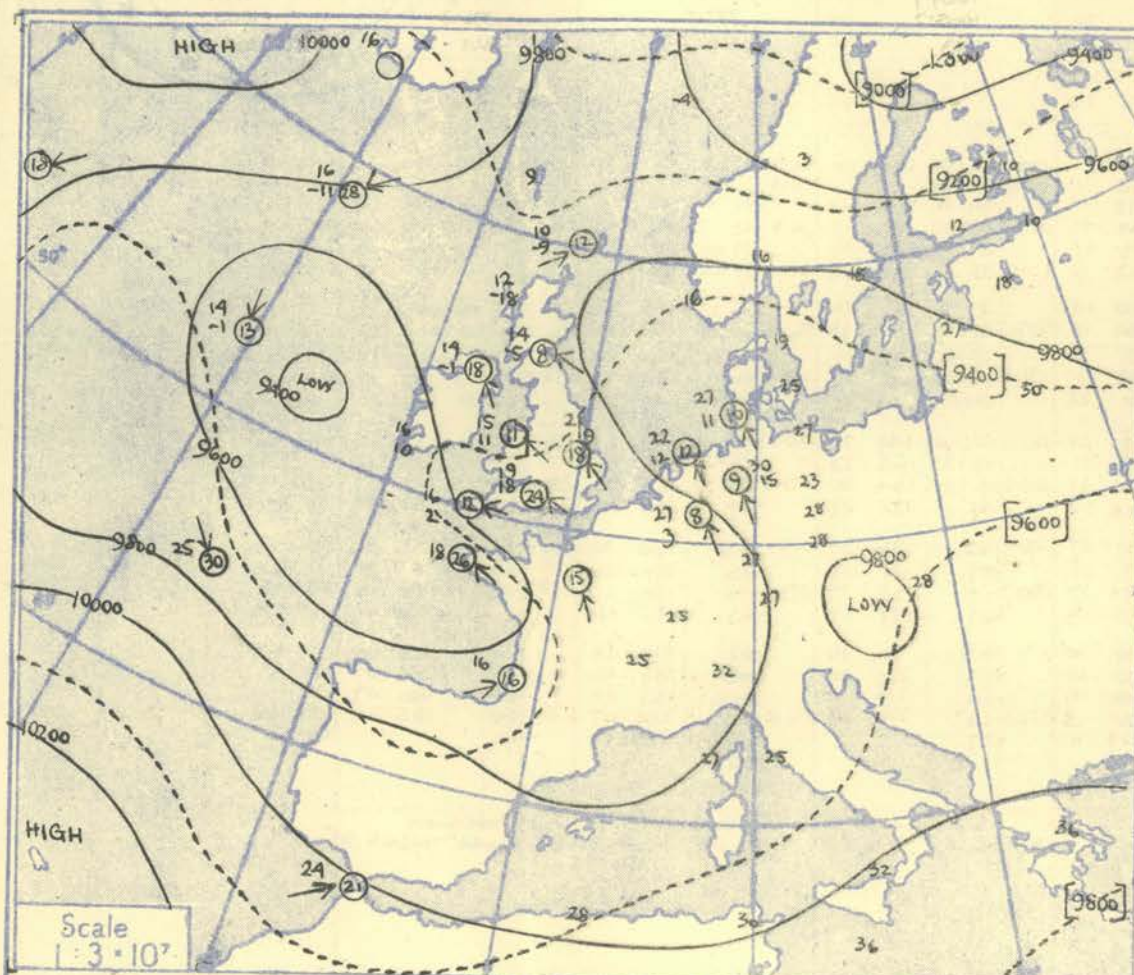


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

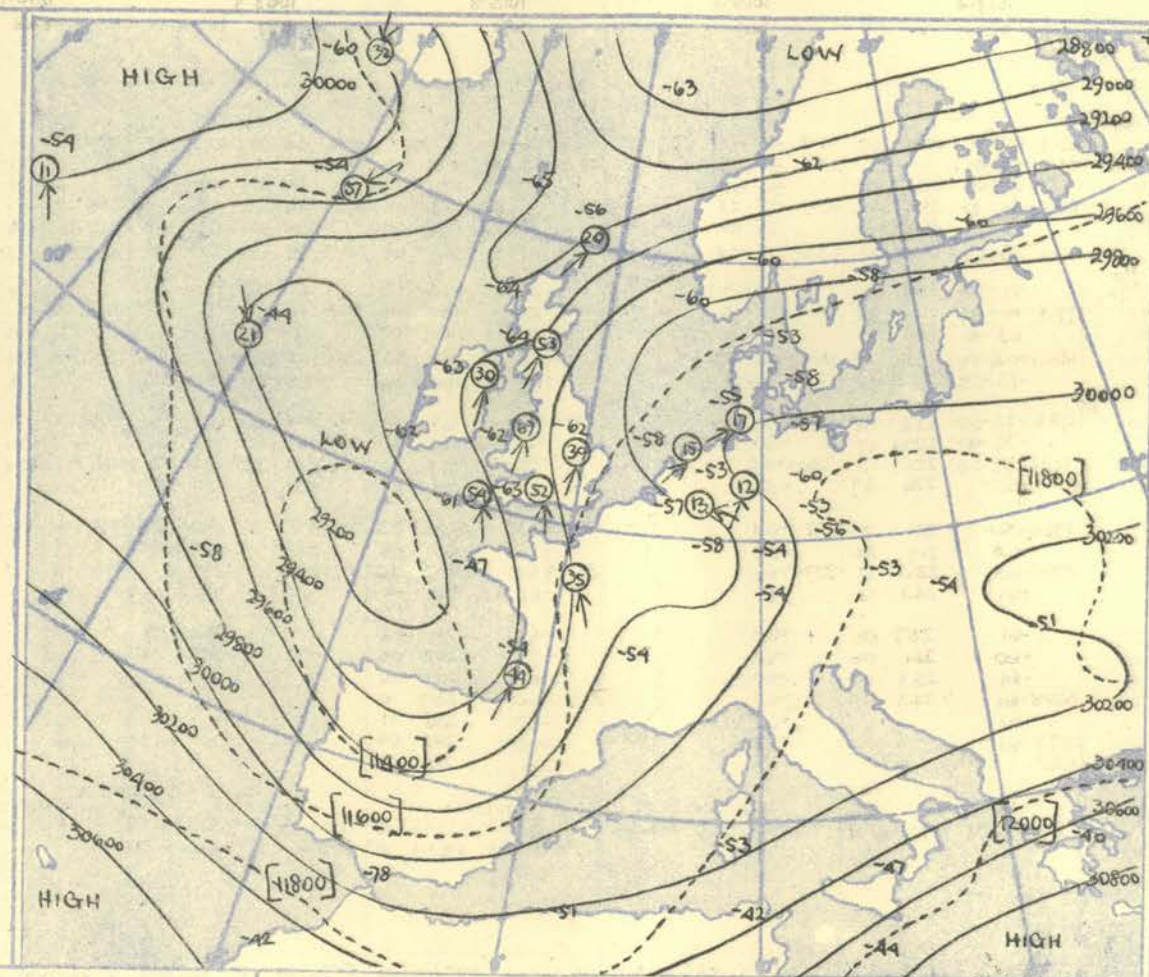
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																										
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																																																																																																																																																																																																																																																																																														
	1018.7		mb		1015.4		mb		1016.3		mb		1012.4		mb		1013.3		mb		1014.6		mb		1012.7		mb		1010.7		mb			1006.7		mb																																																																																																																																																																																																																																																																																											
	1008.5		mb		1013.8		mb		1015.2		mb		1003.2		mb		1011.3		mb		1010.1		mb		996.9		mb		1000.2		mb			1005		mb																																																																																																																																																																																																																																																																																											
800		mb		867		mb		858		mb		852		mb		829		mb		813		mb		828		mb		850		mb		850		mb																																																																																																																																																																																																																																																																																													
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb																																																																																																																																																																																																																																																																																														
Surf	02.7	45	43	170	03	00.4	55	39	160	06	00.2	54	45	120	10	02.6	53	37	140	20	00.6	60	36	170	10	01.2	57	52	045	08	04.4	57	41	100	09	02.9	54	43	120	18	00.3	54	45	170	16	Surf																																																																																																																																																																																																																																																																																	
1000	03.0	44	41	180	05	04.2	53	38	124	05	04.4	50	41	126	09	03.5	53	35	169	13	04.0	55	49	103	12	03.5	50	32	106	14	02.9	54	43	120	18	00.3	54	45	170	16	1000																																																																																																																																																																																																																																																																																						
950	33.2	41	32	182	05	32.6	37	25	142	07	32.8	38	3	192	10	31.9	38	22	160	23	32.4	42	29	151	13	32.7	42	38	118	13	31.5	40	34	150	23	30.3	38	32	161	23	950																																																																																																																																																																																																																																																																																						
900	38	38	23	176	08	27	20	150	11	63.7	26	15	186	19	62.5	25	09	175	23	63.6	28	20	172	13	63.9	30	26	162	14	63.4	28	15	150	10	62.6	27	19	172	19	61.2	26	22	162	20	900																																																																																																																																																																																																																																																																																		
850	64.5	32	10	174	08	63.4	24	05	158	11	63.7	26	15	186	19	62.5	25	09	175	23	63.6	28	20	172	13	63.9	30	26	162	14	63.4	28	15	150	10	62.6	27	19	172	19	61.2	26	22	162	20	850																																																																																																																																																																																																																																																																																	
750	26	04	188	06	17.4	12	15	155	11	97.7	12	02	187	15	96.9	14	10	172	26	97.8	17	04	184	18	98.3	18	14	183	13	97.7	17	01	188	21	97.0	18	03	170	19	95.3	14	09	201	19	750																																																																																																																																																																																																																																																																																		
700	16	09	194	15	135.5	03	30	157	15	135.8	04	14	177	28	135.2	01	26	180	29	136.4	03	23	209	29	137.2	07	03	210	25	136.4	04	11	189	30	135.8	04	10	173	20	135.7	02	04	198	32	700																																																																																																																																																																																																																																																																																		
650	04	19	192	17	11	37	151	16	12	27	177	37	180	27	12	31	180	27	12	31	180	27	12	31	180	27	12	31	180	27	12	31	180	27	12	31	180	27	12	31	180	27	650																																																																																																																																																																																																																																																																																				
600	183.2	05	24	182	18	179.1	22	46	136	21	179.3	20	45	172	49	178.8	21	39	188	27	180.5	16	36	199	39	181.1	07	12	172	37	180.6	13	23	175	39	180.0	14	23	171	25	177.9	16	29	199	30	600																																																																																																																																																																																																																																																																																	
550	16	33	184	16	229.9	43	136	30	229.3	42	175	60	229.6	45	218	20	231.1	40	55	196	59	234.7	28	33	178	44	232.4	37	47	185	43	231.6	39	45	178	34	229.4	39	53	198	40	550																																																																																																																																																																																																																																																																																					
500	40	54	189	20	272.9	55	139	52	273.2	58	164	64	274.2	60	174	32	274.2	64	190	63	279.1	55	186	53	275.4	62	183	63	274.2	63	188	45	279.9	65	203	38	500																																																																																																																																																																																																																																																																																										
450	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	450																																																																																																																																																																																																																																																																																				
400	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	400																																																																																																																																																																																																																																																																																				
350	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	350																																																																																																																																																																																																																																																																																				
300	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	300																																																																																																																																																																																																																																																																																				
250	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	250																																																																																																																																																																																																																																																																																				
200	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	200																																																																																																																																																																																																																																																																																				
170	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	170																																																																																																																																																																																																																																																																																				
150	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	150																																																																																																																																																																																																																																																																																				
130	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	130																																																																																																																																																																																																																																																																																				
110	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	110																																																																																																																																																																																																																																																																																				
100	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	100																																																																																																																																																																																																																																																																																				
90	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	90																																																																																																																																																																																																																																																																																				
80	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	80																																																																																																																																																																																																																																																																																				
70	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	70																																																																																																																																																																																																																																																																																				
60	383.8	78	184	21	380.1	56	122	42	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	174	37	379.5	58	60																																																																																																																																																																																																																																																																																				
Inversion 774mb 41°-750mb 42° 920mb 40°-700mb 41° Isothermal 720-705mb 21° 680-665mb 17°																																Isothermal 360-346mb 49°																																Inversion 285mb 66°-277mb 65° Isothermal 734-717mb 18°																																Isothermal 225-215mb 73°																																Isothermal 771-760mb 24° (045)-61																																Isothermal 999-941mb 48°																																																																																																																																																															
Tropopause I 215mb -84° 36,800'																																Tropopause I 383mb -47° 23,700'																																Tropopause I 284mb -62° 30,500'																																Tropopause I 320mb -68° 27,700'																																Tropopause I 285mb -66° 30,400'																																Tropopause I 215mb -73° 36,900'																																Tropopause I 258mb -76° 32,600'																																Tropopause I 262mb -72° 32,300'																																Tropopause I 272mb -67° 27,700'																																Tropopause																															
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																										
Pressure M.S.L. Surf Freezing	21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																														
	1018.1		mb		1016.4		mb		1016.7		mb		1013.4		mb		1012.4		mb		1013.9		mb		1011.5		mb		1009.2		mb			G.M.T.		Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																											
	1007.8		mb		1014.8		mb		1015.8		mb		1003.9		mb		1010.4		mb		1008.9		mb		996.5		mb		998.6		mb			mb			Pressure mb																																																																																																																																																																																																																																																																																										
84.4		mb		850		mb		833		mb		832		mb		850		mb		791		mb		820		mb		800		mb		mb		Pressure mb																																																																																																																																																																																																																																																																																													
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew																																																																																																																																																																																																																																																																																																

[illegible]

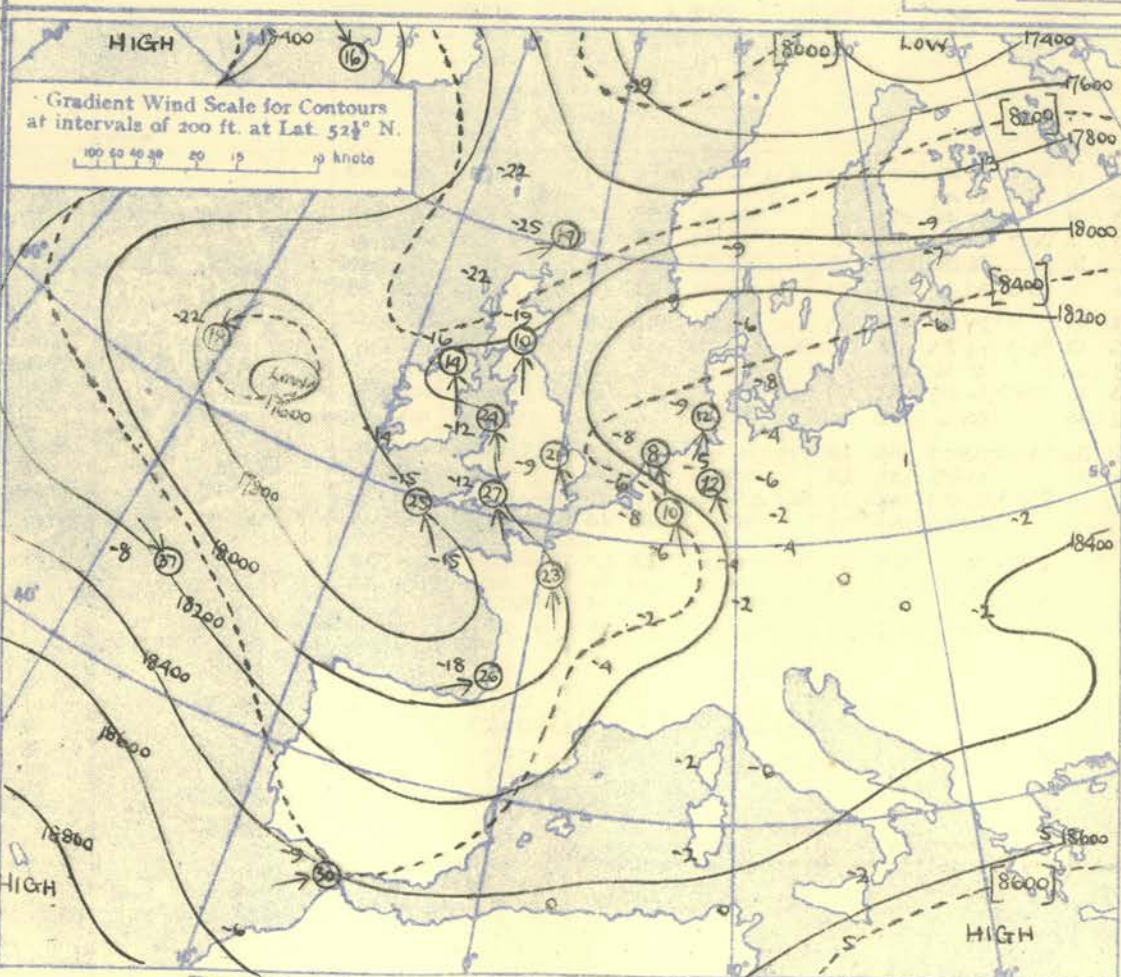
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb., and 300 mb., levels at about 03h G.M.T.



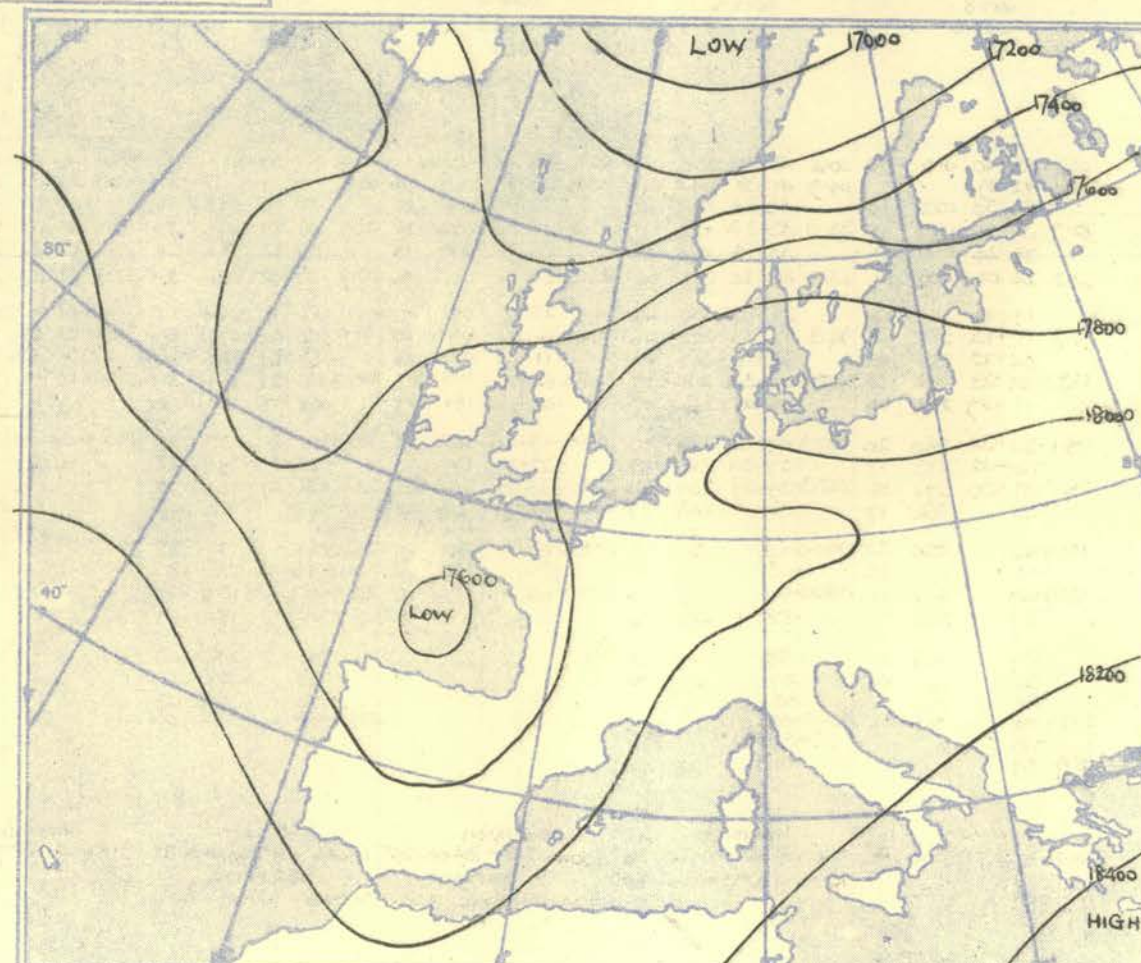
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



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



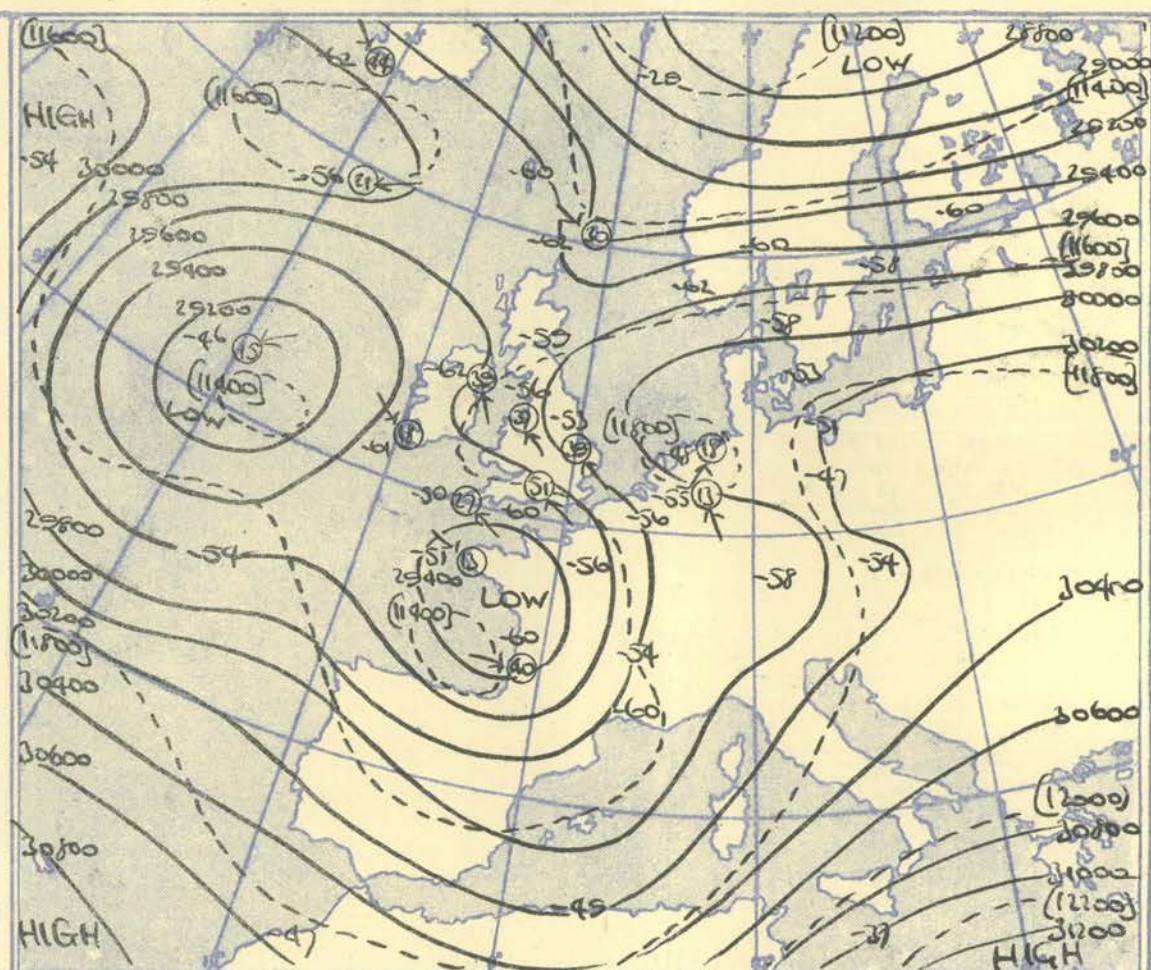
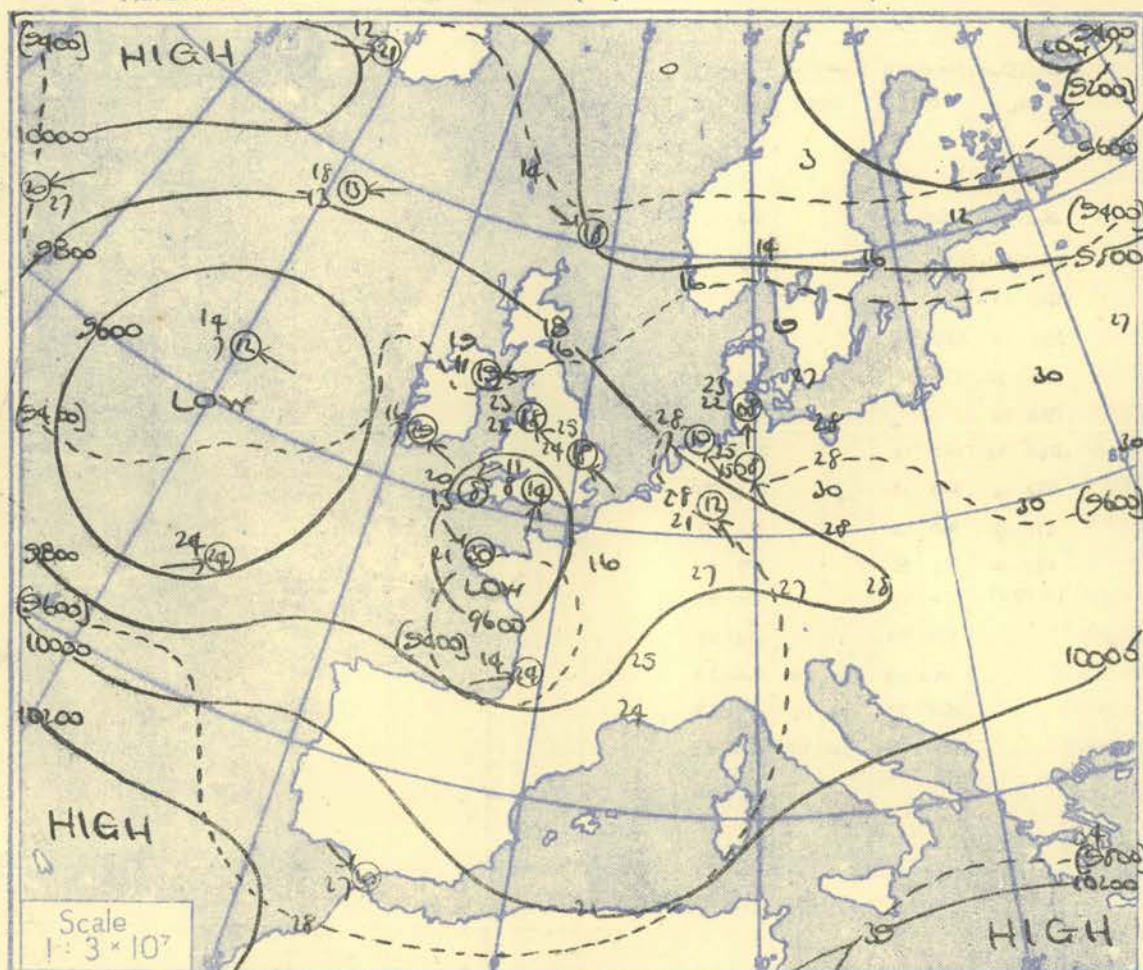
The continuous lines are contour lines of the 500 mb. surface.
The dotted lines are isopleths of the thickness of the layer 700—500 mb.



Isopleths of Thickness 500-1000mb.

[illegible]

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																				
Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				Ship							
Lat/Long	52-6N		20-3W		52-6N		20-1W		52-5N		20-2W		52-4N		20-3W		59-0N		18-8W		59-1N		18-8W		59-1N		19-0W		59-1N		18-5W		Lat/Long			
Pressure { Time M.S.L. Surf Freezing	03L		G.M.T.		09L		G.M.T.		15L		G.M.T.		21L		G.M.T.		03L		G.M.T.		09L		G.M.T.		15L		G.M.T.		21L		G.M.T.		G.M.T.			
	1004		mb		1002		mb		1005		mb		1009		mb		1018		mb		1020		mb		1023		mb		1024		mb		mb			
	1004		mb		1002		mb		1005		mb		1009		mb		1018		mb		1020		mb		1023		mb		1024		mb		mb			
	855		mb		875		mb		830		mb		850		mb		880		mb		870		mb		865		mb		890		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		47	40	330 08		47	39	CALM		49	40	120 12		50	42	060 15		47	43	060 27		47	43	050 25		48	44	060 25		47	43	090 17	Surf			
1000	0-0	47	39	358 10	05-0	41	33	230 04	1-3	45	42	114 08	2-7	49	42	060 12	4-9	45	40	066 24	5-3	45	42	068 27	5-9	46	42	066 18	6-3	44	38	090 15	1000			
950		47	37	358 10		41	33	230 04		45	42	114 08		49	42	060 12		45	40	066 24		45	42	068 27		46	42	066 18		44	38	090 15	950			
900	29-5	37	29	358 12	28-7	37	26	220 05	29-7	39	34	106 10	30-7	37	35	108 16	33-1	34	32	071 27	33-4	33	30	085 24	34-1	37	31	078 22	34-4	33	29	090 14	900			
850		37	27	358 13		37	22	208 05		34	28	101 13		37	29	119 18		29	26	082 31		30	24	088 24		31	22	079 15		28	18	080 11	850			
800	60-5	31	22	358 13		29	22	208 05	60-9	28	21	094 12	61-7	26	23	125 19	63-9	25	11	090 27	64-1	25	18	086 21	65-1	27	15	079 13	65-2	27	07	065 05	800			
		25	18	355 13		24	17	193 05		21	11	090 13		22	14	120 21		22	-01	093 27		19	08	080 21		23	07	075 13		22	-11	LnV	750			
750		20	08	349 12		18	11			21	11	090 13		22	14	120 21		22	-01	093 27		19	08	080 21		23	07	075 13		22	-11	LnV	750			
700	74-6	14	-01	353 13	73-5	11	03	larger	75-1	14	07	093 12	76-0	15	09	118 20	78-1	16	-11	081 28	78-2	15	03	080 19	79-6	18	-03	074 13	79-5	18	-10	"	700			
650		07	-07	355 15		03	-06			04	01	101 12		11	09	119 21		09	-19	070 27		08	-05	080 20		12	-09	072 12		11	-20	"	650			
600	132-9	-01	-16	356 15	131-5	-05	-13	above	133-3	-03	-05	097 12	134-4	00		128 22	136-6	02	-28	077 27	136-7	01	-13	080 22	138-4	05	-19	100 13	138-1	03	-27	"	600			
550		-11	-26	001 16		-14	-22	max.		-13	-15	095 09		-09		124 22		-03	-28	077 41		-07	-24	080 20		-04	-22	073 16		-05	-22	045 05	550			
500	176-5	-22	-32	011 18	174-9	-23	-36	radar	176-7	-23	-28	084 06	178-2	-17		147 24	180-9	-11	-28	070 43	180-7	-14	-25	080 21	182-7	-12	-26	069 18	182-3	-13	-26	064 06	500			
450		-34	-43	028 25		-36	-50			-38	-43	339 01		-25		188 41		-20	-35	066 46		-23	-31	074 25		-21	-31	074 21		-23	-35	050 13	450			
400	227-2	-41		350 15	226-2	-50		elevation	227-2	-44		085 06	229-8	-37		202 55	232-1	-30	-42	059 50	232-7	-32	-40	055 30	234-9	-32	-42	062 24	234-2	-34	-48	043 19	400			
350		-43		300 22		-46				-43		071 16		-48		187 44		-40	-53	042 59	372-1	-38	-45			-43		050 27		-45		034 21	350			
300	291-1	-44		310 21	288-4	-46		013 06	291-1	-46		059 15	293-1	-52		177 32	297-3	-54		036 57					298-7	-56		070 21	297-7	-57		063 17	300			
250		-48		329 16		-46		032 09		-45		048 12		-49		213 21		-68		042 60						-67		058 22		-72		039 12	250			
200	380-4	-48		343 15	377-5	-50		017 08	380-5	-51		050 06	381-7	-51		064 31	382-2	-68		052 38				383-7	-62		047 21	382-2	-66		351 03	200				
170		-52		339 13		-51		011 09		-52		013 08		-52		058 28		-61		042 21						-60		035 11		-62		354 10	170			
150		-54		343 12		-54		010 13		-52		001 15		-53		054 21		-62		023 21						-59		023 12		-62		342 10	150			
130		-55		347 12		-56				-54		043 08		-55		008 12		-60		009 18						-57							130			
110		-56		347 12		-56				-56		002 08		-56		333 12		-62		355 24						-57							110			
100	530-1	-60							530-7	-56		039 04	531-5	-58		317 07	529-1	-63		358 14				532-2	-56							100				
90										-56		345 01		-58		320 10		-62		017 07												90				
80																																	80			
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Inversion 1000 mb 47°-980 mb 98° Isothermal 1004 - 1000 mb 47° Inversion 1005 mb 49°-995 mb 52° Isothermal 1000 - 991 mb 49° Isothermal 842 - 825 mb 28° Isothermal 940 - 910 mb 38° Inversion 833 mb 26°-813 mb 28° 195 - 782 - 27																																				
Tropopause	I 423 mb - 41° 21,300'				I 394 mb - 51° 22,700'				II 408 mb - 44° 22,500'				II 315 mb - 52° 28,200'				I 225 mb - 75° 35,700'				NR.				II 270 mb - 67° 32,100'				I 232 mb - 76° 35,100'				Tropopause			

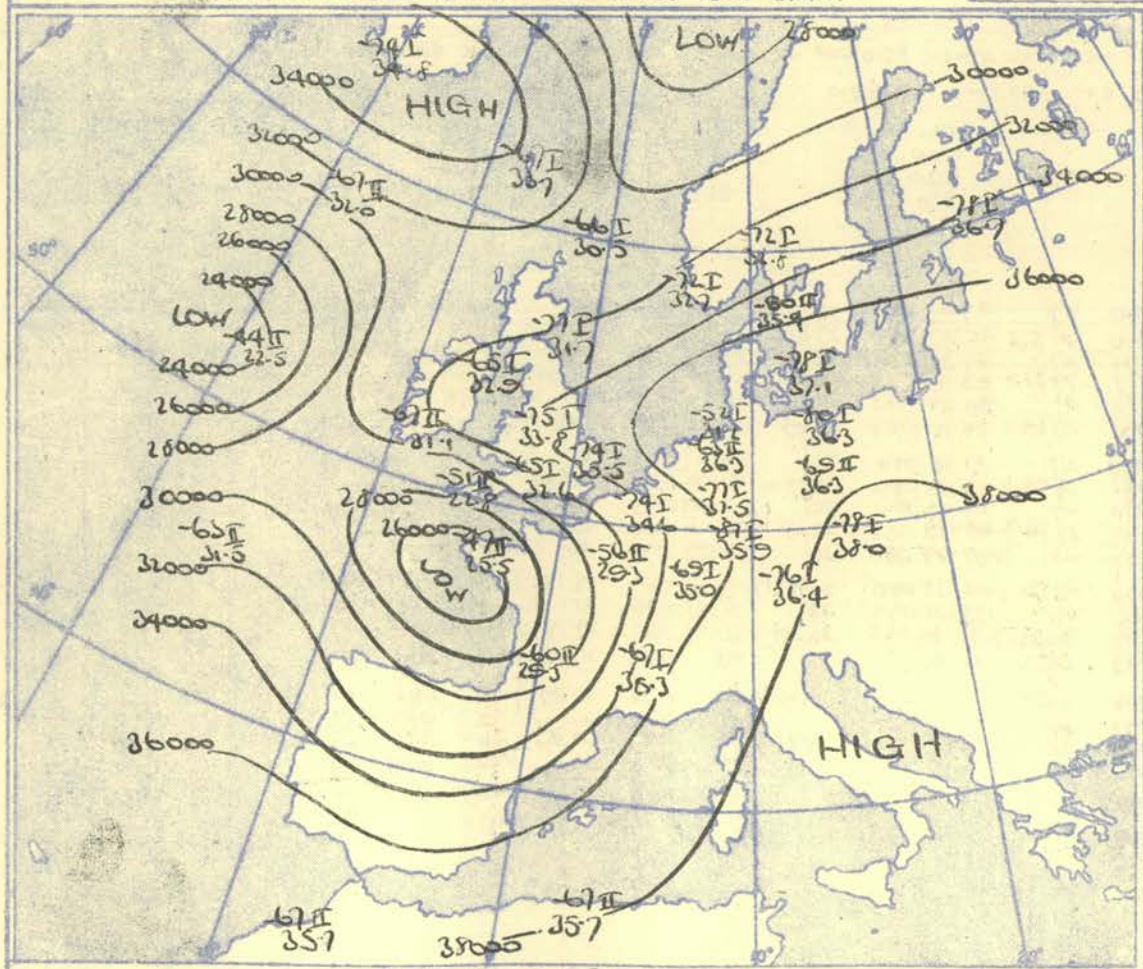


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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.



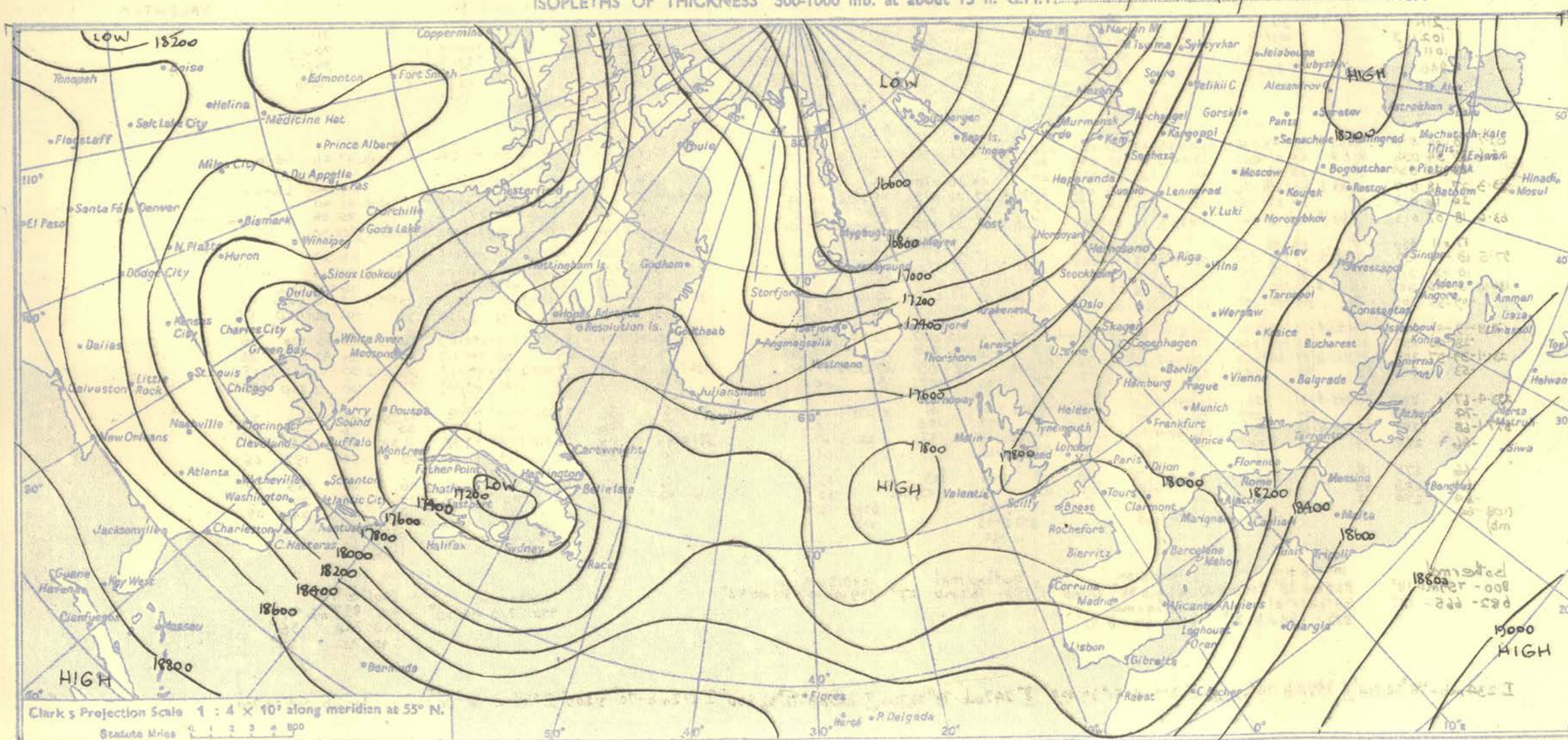
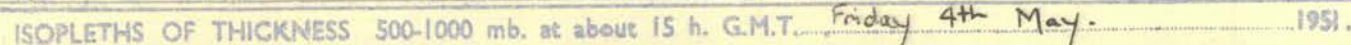
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The two cold pools off W. Ireland and in the Bay of Biscay continued to rotate counter-clockwise around each other, the first moving West and then Southwest whilst the second moved east into France and then turned northeast. The ridge in the Atlantic receded to the West.

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



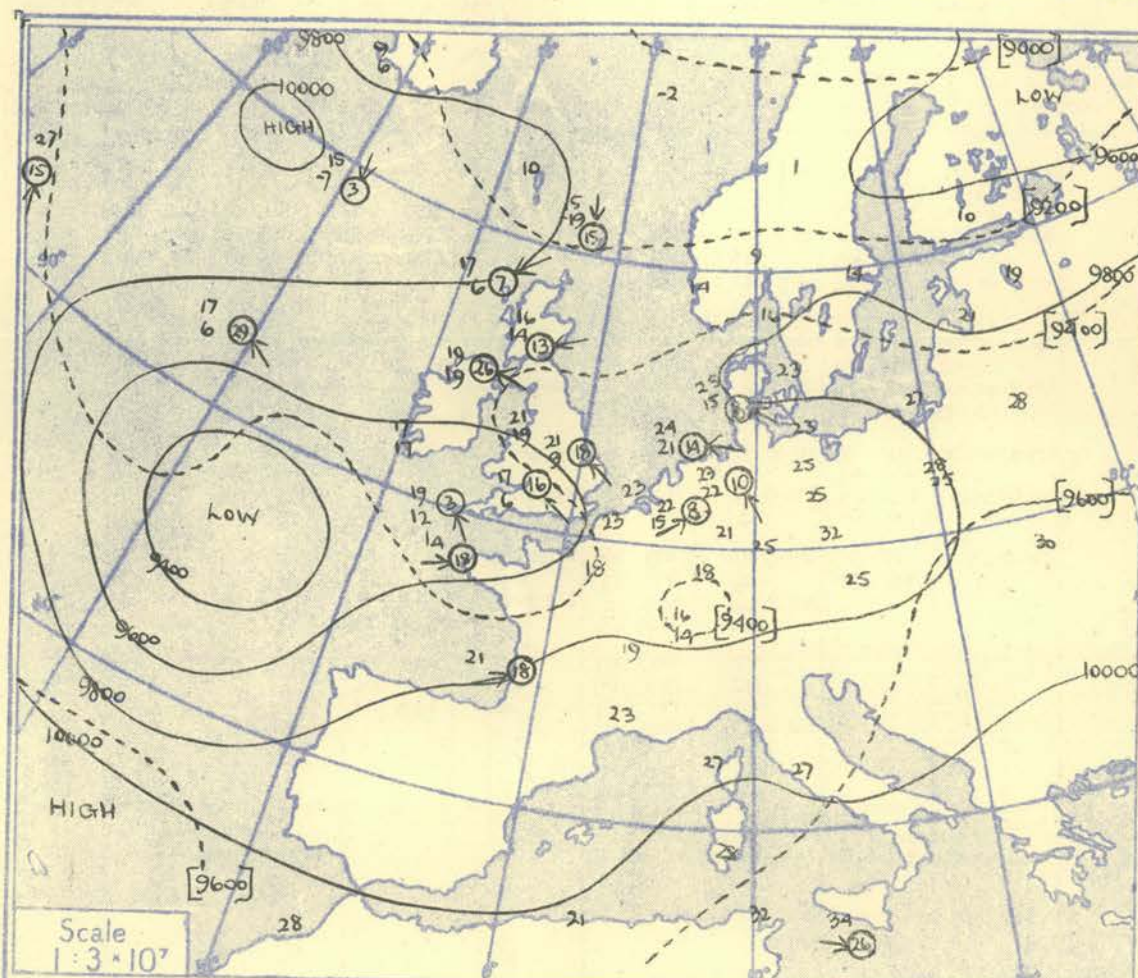
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Time M.S.L. Surf Freezing	Pressure mb	15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		15h		G.M.T.		Time M.S.L. Surf Freezing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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950	950	05-2	40	37	076	13	05-0	46	38	059	17	04-2	46	39	03-4	42	34	070	19	02-0	50	48	082	25	01-6	47	46	105	15	04-2	49	48	100	04	01-6	48	45	020	03	02-3	56	46	270	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
900	900	33-0	30	26	055	13	33-4	41	16	072	10	32-6	37	33	31-7	35	30	073	21	30-6	44	38	092	29	30-3	47	46	105	15	04-2	49	48	100	04	01-6	48	45	020	03	02-3	56	46	270	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
850	850	27-2	22	22	041	15		35	26	062	07		30	29	31	30	077	22		38	33	102	33		42	41	134	19		37	35	144	10		35	34	037	06		31-0	43	34	266	08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
800	800	63-5	22	15	026	12	64-6	30	16	043	10	63-5	28	27	42-6	31	26	077	23	61-9	30	27	104	30	61-9	37	36	146	20	61-3	31	28	162	09	61-1	31	30	064	08	62-2	29	24	080	26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
750	750	17-04	12	03	034	12		27	03	012	12		23	22	24	19	077	21		26	24	113	23		31	30	193	18		26	18	190	09		26	24	067	08		23	16	081	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
700	700	12-03	12	03	284	18	9-3	22	03	356	11	97-9	18	16	19	11	081	19		23	22	118	18		25	24	137	18		25	19	191	14		25	20	13	063	08		23	16	081	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
650	650	08-12	16	14	276	17		16	14	344	09		12	08	12	06	079	17		17	12	107	17		20	16	141	18		13	01	170	24		14	03	072	08		10	03	114	32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
600	600	00-28	20	16	295	16	138-4	09	20	305	08	136-7	06	02	13	05	082	13		13	06	115	18		13	09	142	20		18	03	138	21		13	08	14	068	07	135-2	02	06	110	32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
550	550	08-38	30	26	308	20		02	23	269	12		02	07	03	09	108	14		02	04	118	18		04	01	141	20		00	10	119	20		00	24	060	08		05	14	116	35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
500	500	179-8	16	49	288	27	183-2	05	31	260	14	181-2	11	18	180-3	11	17	199	19		180-7	08	15	121	21		181-4	04	09	193	21		179-5	09	19	138	20		179-4	10	36	077	09	179-4	15	26	138	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
450	450	27-55	28	22	282	27		14	39	251	13		21	28	22	28	156	26		18	25	124	24		23	23	25	30	139	28		13	18	141	28		22	46	095	14		26	38	141	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
400	400	231-2	33	59	280	29	236-1	24	47	237	18	233-3	32	40	232-3	35	41	162	22		32	233-2	29	35	127	23		234-5	25	30	139	34		231-8	31	41	126	42		231-5	33	55	096	24		231-0	37	49	155	14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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300	300	293-9	62		289	30	301-0	48		236	22	296-9	59		295-4	62		170	39		297-2	56	145	37		299-1	53		144	39		295-2	60	138	51		295-3	50	106	27		294-0	61	300	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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STATION	TIME	TYPE	REMARKS
VALENTIA	03h.	G.M.T.	
	1008h	mb	M.S.L.
	1006	mh	Surf
	835	mb	Freezing

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																												
Pressure mb	Time M.S.L. Surf Freezing	03h. 1021.6 1011.3 940	G.M.T. mb mb mb	03h. 1020.3 1018.6 910	G.M.T. mb mb mb	03h. 1017.4 1016.5 840	G.M.T. mb mb mb	03h. 1011.5 1002.0 814	G.M.T. mb mb mb	03h. 1007.8 1003.3 814	G.M.T. mb mb mb	03h. 1005.9 999.6 836	G.M.T. mb mb mb	03h. 1006.1 995.4 836	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T. mb mb mb	03h. 1008.1 1006 835	G.M.T

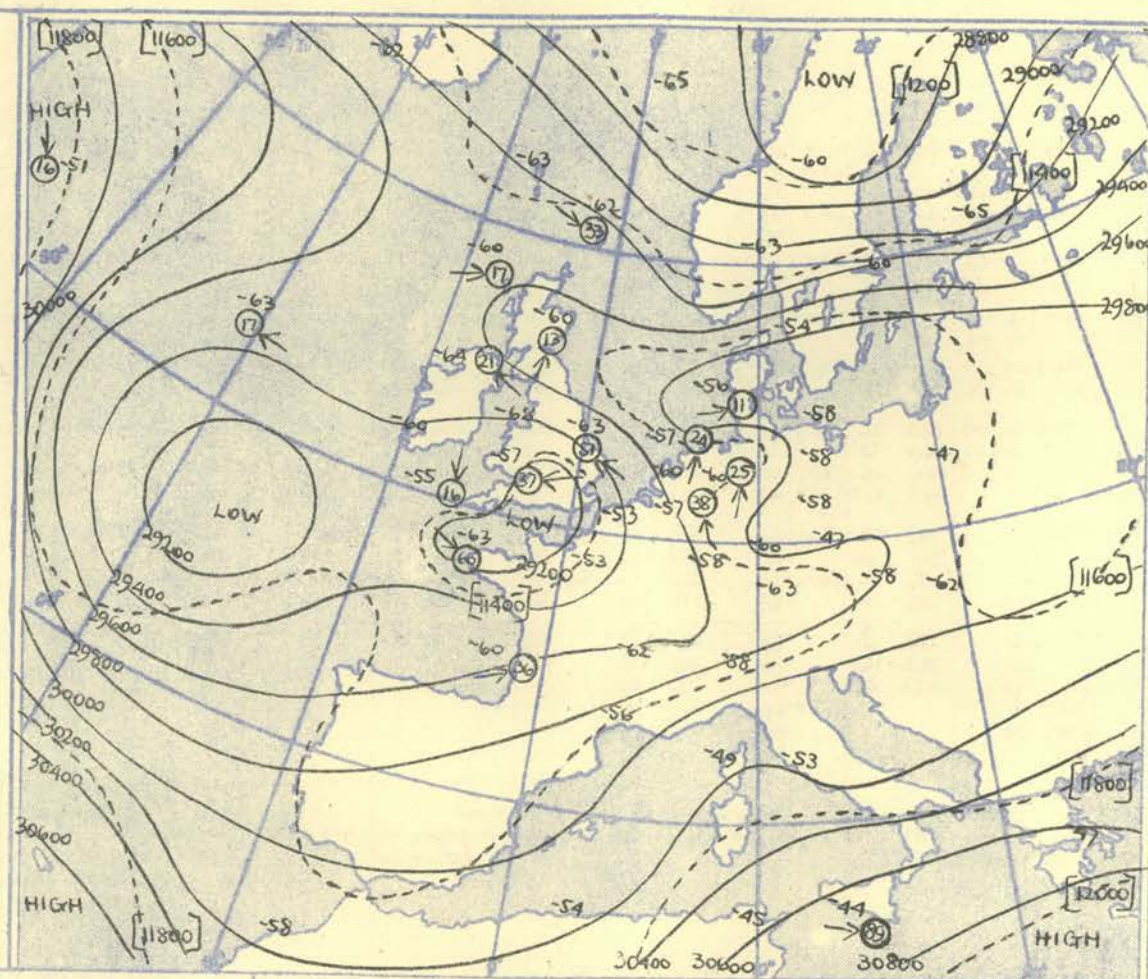
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



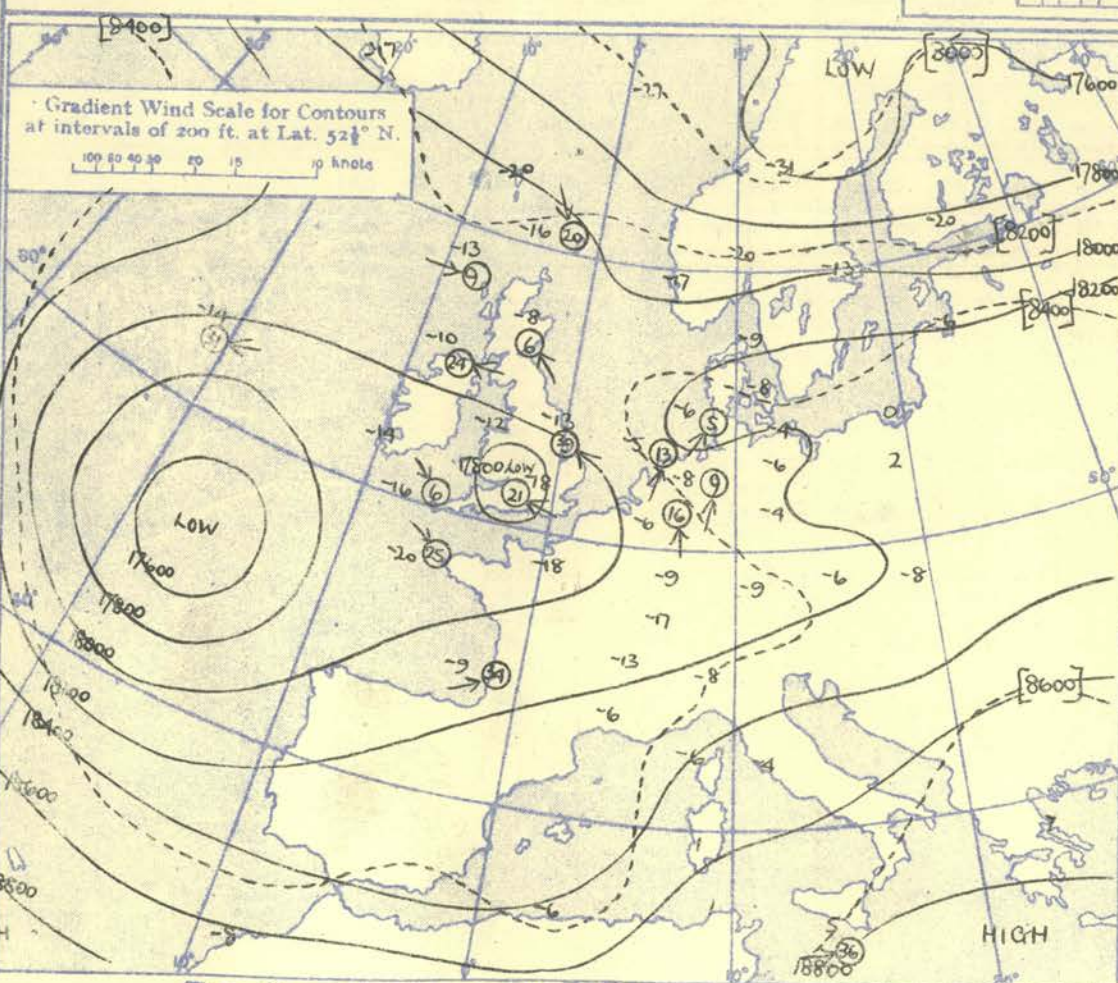
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

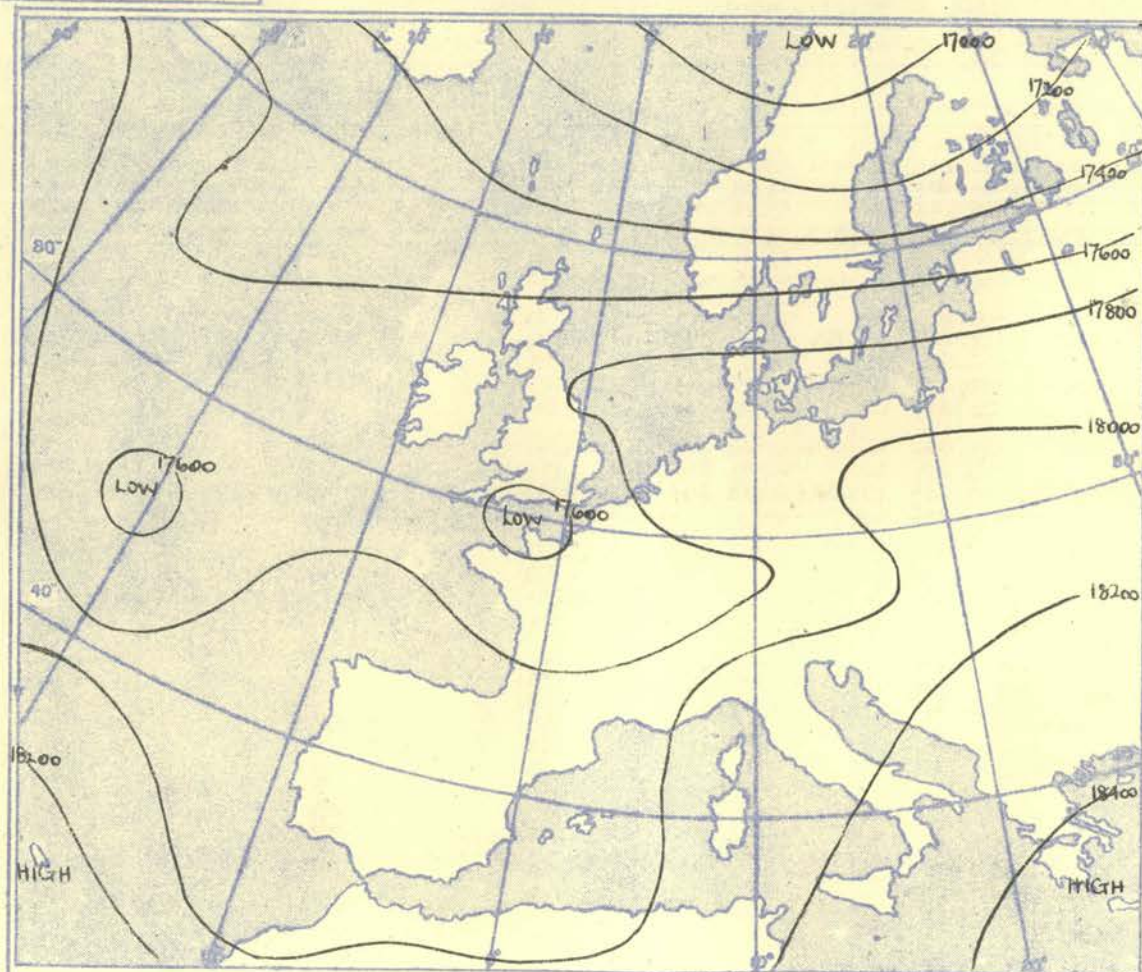
100 80 60 40 20 15 10 knots



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



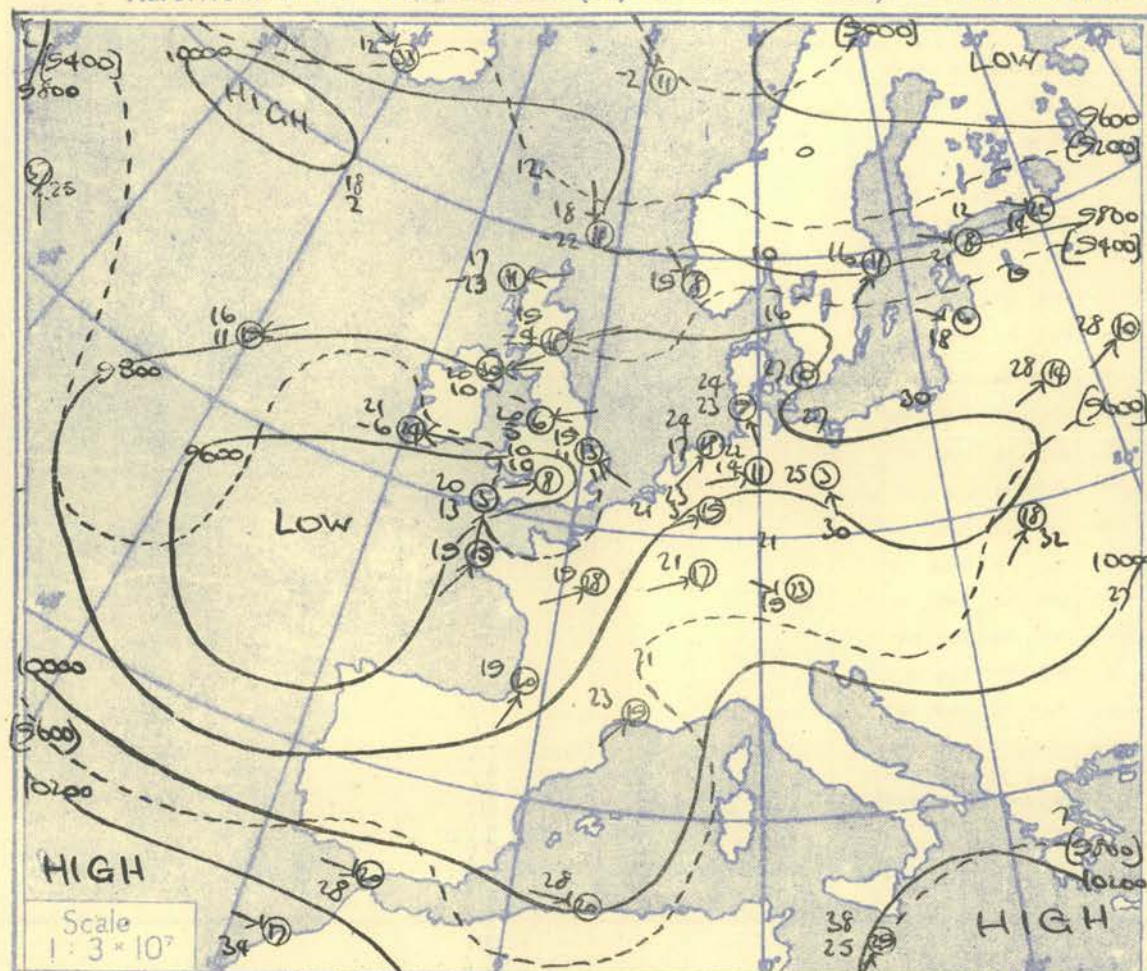
The continuous lines are contour lines of the 500 mb. surface.
The dotted lines are isopleths of the thickness of the layer 700-500 mb.



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.																			
52-12N 02-12W																				Place Leuchars, Lerwick																			
Time 1410																				Time 09L 15L																			
M.S.L. 1008.5 mb																				Type Pilar Radar																			
Surf 1007.0 mb																				Feet																			
Freezing 833																				Dir. Vel. Dir																			

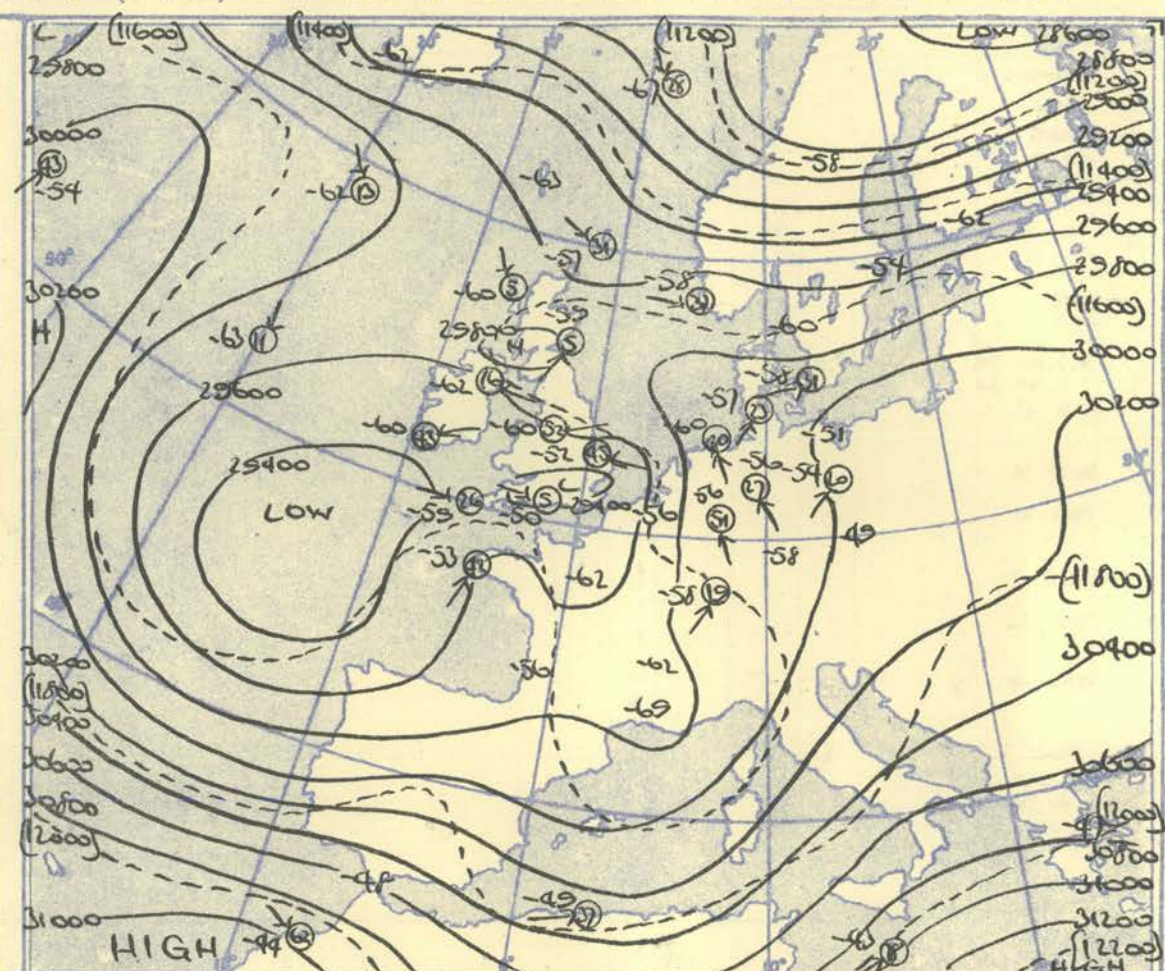
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., and 300 mb., levels at about 15h G.M.T.



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

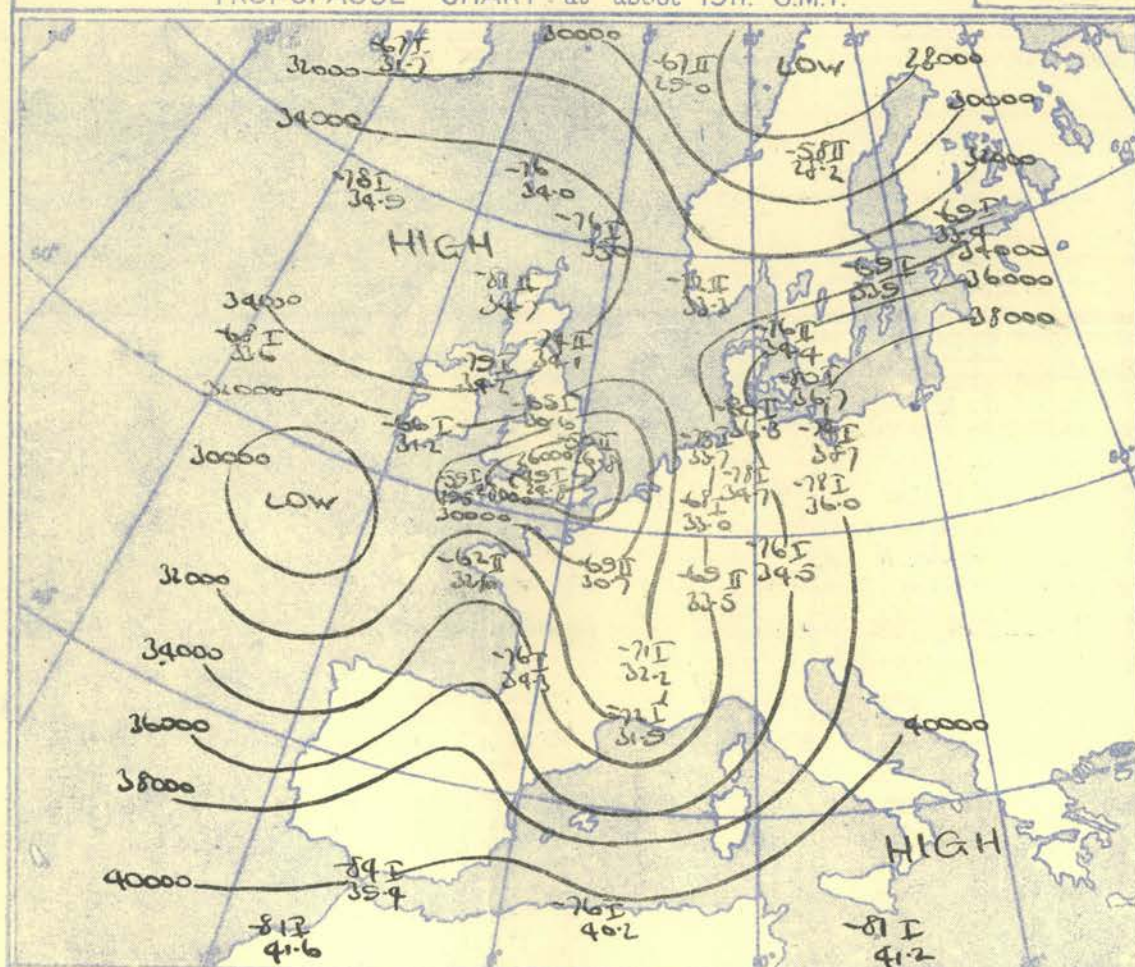
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 0 knots



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

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



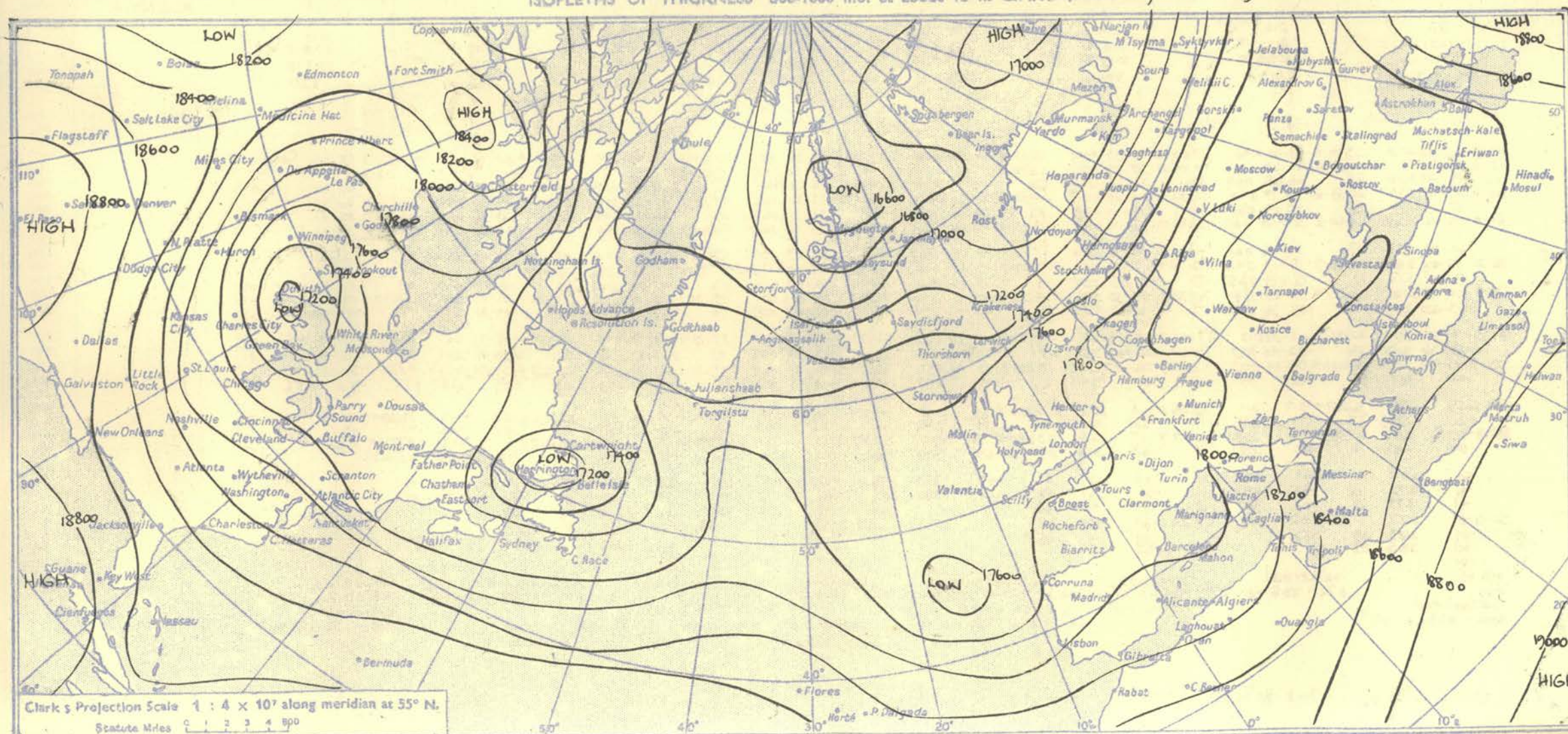
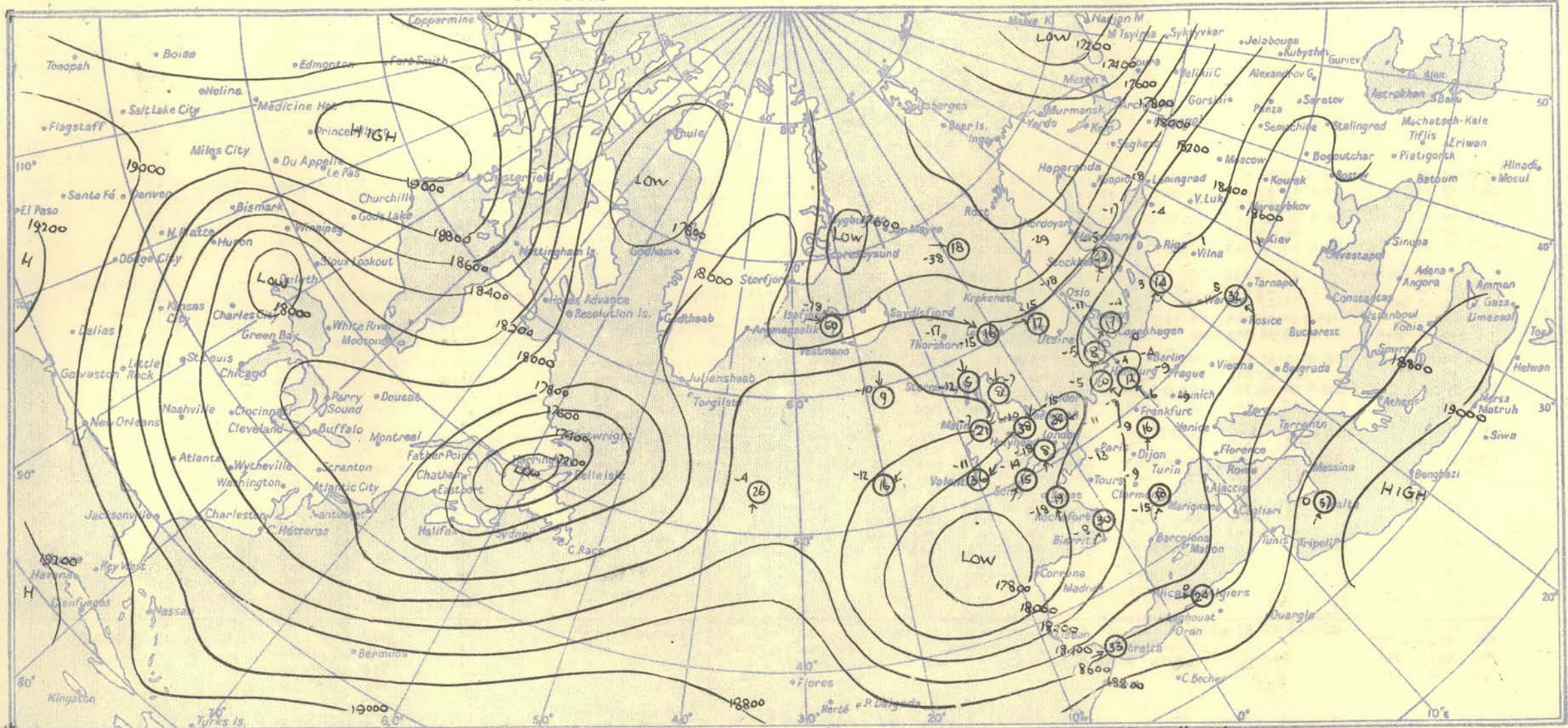
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Little of note.

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



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

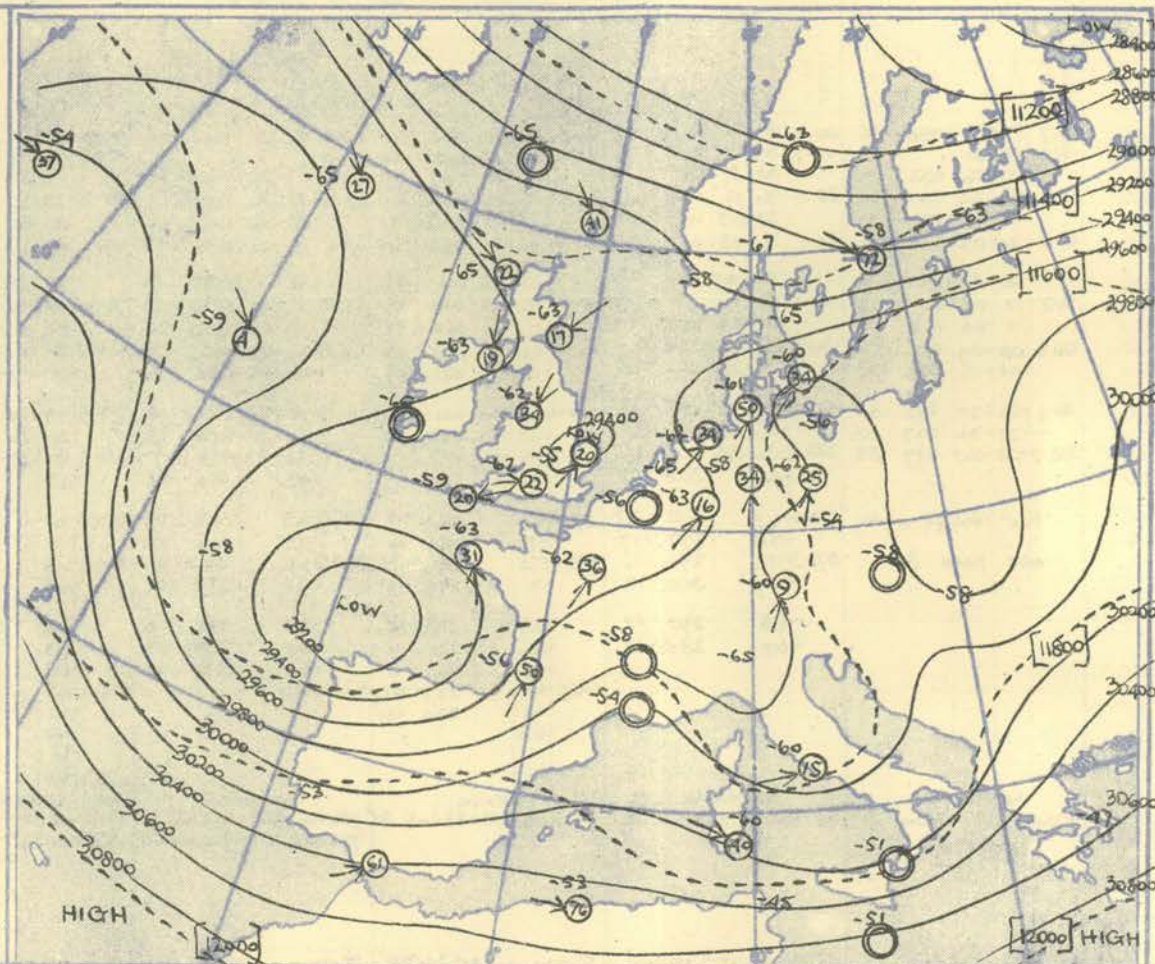
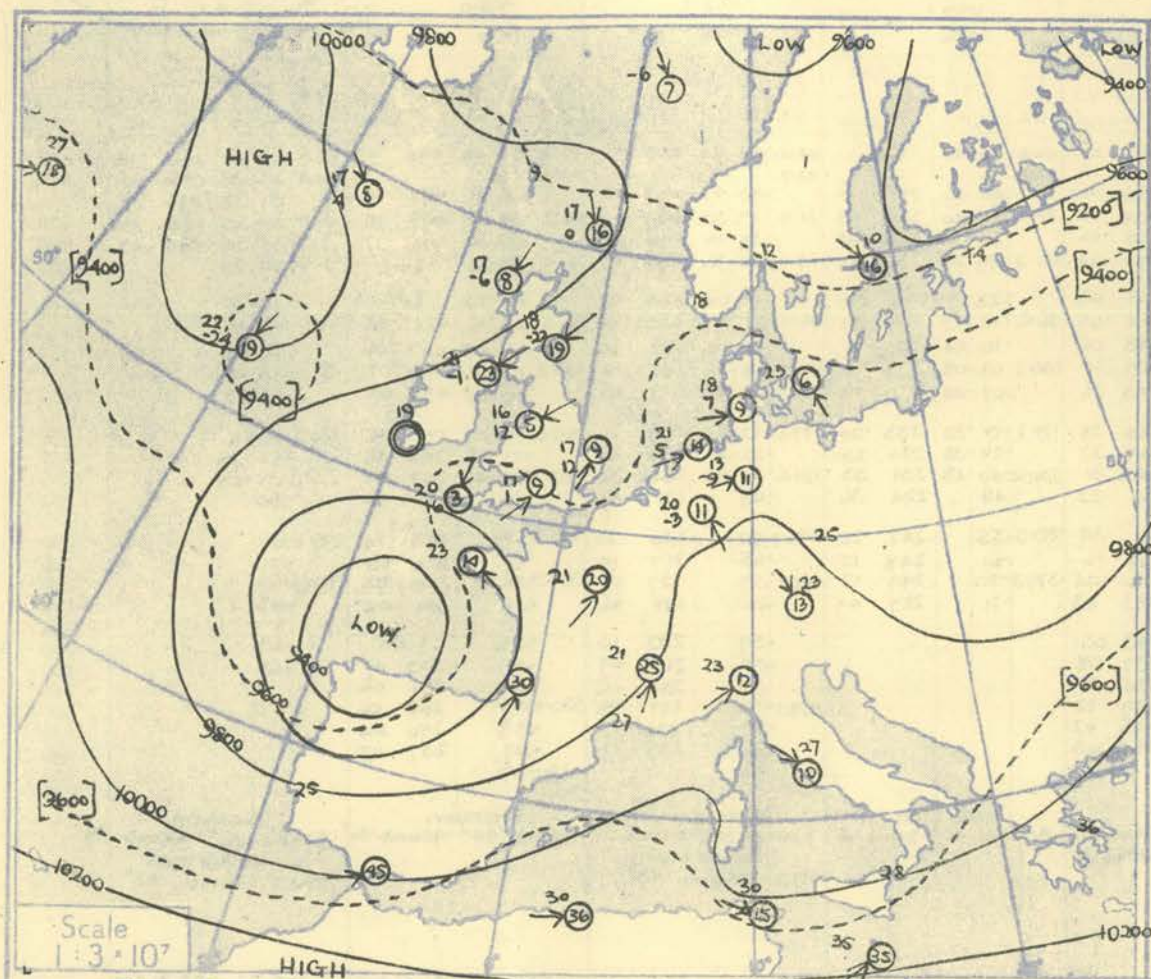
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION							
Time M.S.L. Surf Freezing	15h			G.M.T.	15h	G.M.T.			15h	G.M.T.			15h	G.M.T.			15h	G.M.T.			15h	G.M.T.			15h	G.M.T.			15h	G.M.T.			Time M.S.L. Surf Freezing											
	1021.3	mb		1020.5		mb		1017.7		mb		1014.7		mb		1010.1		mb		1007.9		mb		1007.8		mb		1007.3		mb		1008.1		mb		1007.1	mb							
Pressure	939				900				909				828, 873				810				815				932				830				830			Pressure								
Height ft./100																																				Height ft./100								
Temp.																																				Temp.								
Wind																																				Wind								
Dir.																																				Dir.								
Vel.																																				Vel.								
knots																																				knots								
Surf	02.7	45	33		00.4	47	34	060	20	00.2	46	35	080	35	02.6	46	90	040	20	00.6	49	42	060	15	01.2	54	52	020	10	04.4	49	44	200	07	01.9	51	47	180	03	00.3	55	42	Surf	
1000	05.6	42	31		05.4	45	32	052	30	04.7	44	33	065	30	03.9	39	34	070	21	02.8	48	42	062	27	02.2	48	44	057	06	02.1	49	44	200	07	01.9	51	47	180	03	00.3	55	42	1000	
950		33	23			38	27	073	23		38	29	065	25		39	34	070	21		41	35	069	17		48	44	057	06		45	39	165	08		44	46	200	09		47	39	950	
900	33.4	28	10		33.4	32	22	100	20	32.6	31	12	067	20	32.1	34	30	085	29	31.0	36	30	077	11	30.8	42	38	122	09	30.5	40	34	177	04	30.4	39	35	200	07	30.8	41	38	900	
850		26	05			26	15	087	16		29	06	065	19		34	27	087	27		35	28	Land V			36	33	122	12		34	28	230	03		35	31	198	05		34	34	850	
800	63.9	24	-20		64.0	27	09	063	19	63.3	29	05	059	20	63.1	31	15	078	26	62.2	31	23			62.0	30	29	105	12	61.7	28	22	247	05	61.5	29	26	196	04	61.9	27	27	800	
750		21	-39	For Winds		22	-18	060	13		25	-06	055	21		28	19	073	28		24	17	085	05		24	22	142	12		22	16	241	07		23	16	189	09		21	17	For Winds	
700	98.0	16	-09	See	98.3	17	-23	060	09	97.8	19	-10	051	18	97.9	20	10	071	30	96.7	20	05	072	06	96.5	19	11	131	13	95.9	16	10	232	08	95.9	20	13	176	03	96.2	21	-06	See	
650		10	-12	Page 3.		11	-27	058	09		13	-07	047	17		13	07	076	23		12	-01	090	11		12	03	116	13		10	04	228	06		13	-06	164	02		15	-17	Page 3.	
600	136.6	03	-18		137.0	04	-30	064	08	136.7	07	-08	044	18	137.0	09	03	065	18	135.5	04	-07	119	20	135.3	06	-12	111	14	134.5	02	-04	226	09	134.8	06	-12	170	03	135.2	08	-25		
550		-05	-25			-03	-34	042	06		00	-16	035	13		02	-06	058	24		-01	-13	084	29		-04	-22	113	16		-08	-13	226	06		-04	-21	248	12		-01	-35		
500	180.8	-15	33		181.4	-12	-39	358	05	181.4	-07	-24	029	08	181.9	-07	-16	065	27	180.2	-10	-19	067	38	179.6	-15	-35	102	24	178.5	-18	-22	226	08	179.1	-14	-26	261	15	179.8	-11	-43		
450		-24	-41			-22	-47	341	08		-19	-34	051	06		-17	-29	084	25		-19	-27	072	45		-25	-44	088	33		-30	-34	226	09		-22	-31	255	26		-22	-43		
400	232.5	-36	-51		233.4	-34	-56	341	06	233.8	-30	-44	156	04	234.5	-31	-47	094	22	232.6	-30	-38	084	51	231.4	-33	-49	078	64	229.7	-41		226	10	231.1	-33	-47	254	30	231.9	-34			
350		-49				-47		341	10		-43	199	04		-46			104	25		-45			53			-47	073	64		-48		228	11		-45		253	35		-48			
300	295.5	-61			296.6	-60		341	05	297.6	-59		202	05	297.9	-62		088	16	296.1	-60		085	82	294.9	-52		086	45	292.9	-50		264	05	294.6	-59		254	26	294.9	-60			
250		-71				-76		009	06		-73		258	04		-78		072	18		-66		088	27		-56		115	15		-53		217	08		-62		222	08		-63			
200	379.6	-69			382.0	-73		281	10	381.9	-64		282	04	381.6	-68		155	02	381.7	-59		091	06	382.4	-56		163	18	380.9	-52		217	09	381.1	-57		205	03	380.8	-59			
170		-62				-65		280	08		-60		251	05		-61		181	04		-58		187	07		-59		207	10		-62		201	08		-53		205	08		-59			
150		-64				-63		280	07		-61		228	06		-62		205	04		-58		231	07		-57		214	11		-52		214	13		-56		201	07		-59			
130		-59				-63		260	05		-60		243	07		-59		205	10		-58		235	12		-56		199	10	(139 mb)	-52		219	13		-55		238	07		-59			
110		-60				-61		263	09		-59		263	09		-61		290	06	(114 mb)	-55						-54		222	16	(mb)	-52				-55		245	08		-59			
90	526.9	-60			528.3	-61			529.4	-58		266	08	528.9	-58		283	06	(mb)						531.9	-54		232	14						-55		226	08	529.0	-59				
80		-59				-57			261	08		261	08		-54		250	05								-54		228	15						-55		179	10	065	-58				
70		-57				-56			247	08		247	08		-54		217	10								-54		277	13						-53		239	18						
60																																												
Isothermal 895-880 mb 27°					Inversion 854 mb 25°-831 mb 29°				Inversion 820 mb 28°-810 mb 32°				Inversion 873 mb 32°-850 mb 34°				Inversion 890 mb 35°-865 mb 36°				Isothermal 714-700 mb 19°																							
850-825-26°									Isothermal 895-868 mb 30°				Isothermal 822-791 mb 31°				Isothermal 730-713 mb 22°																											
765-750-21°																																												



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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION
Pressure (Freezing)	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time	03h.		G.M.T.	Time				
	M.S.L.	1021.1		mb	M.S.L.	1021.7		mb	M.S.L.	1018.2		mb	M.S.L.	1016.3		mb	M.S.L.	1012.2		mb	M.S.L.	1010.6		mb	M.S.L.	1009.9		mb	M.S.L.	1008.7		mb	M.S.L.	1012.6		mb	
	Surf	1010.8		mb	Surf	1020.1		mb	Surf	1017.4		mb	Surf	1006.5		mb	Surf	1010.2		mb	Surf	1006.1		mb	Surf	993.7		mb	Surf	998.0		mb	Surf	1011.0		mb	
	Freezing	919		mb	Freezing	945		mb	Freezing	960		mb	Freezing	847		mb	Freezing	882		mb	Freezing	836		mb	Freezing	838		mb	Freezing	840		mb	Freezing	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	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. 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	39	30	050 16	00.4	40	32	040 12	00.2	40	31	050 14	02.6	37	31	060 10	00.6	43	39	040 07	01.2	45	45	Calm	04.4	44	44	040 11	02.9	44	44	090 02	00.3	45	39	060 15	Surf
1000	05.5	40	31		05.7	39	30	063 21	04.8	37	28	048 24	04.3	33	26	065 15	03.3	42	37	039 15	02.9	45	45		02.7	44	44	040 11	02.4	44	44	090 02	03.4	44	38	056 15	1000
950		35	26	033 19		33	27	065 22		30	25	053 21		33	26	065 15		36	33	065 11		40	40	277 06		43	42	068 10		46	41	087 10		37	36	046 11	950
900	33.3	30	22	032 17	33.5	26	19	064 23	32.5	26	22	054 21	32.2	37	20	047 13	31.3	33	32	084 10	31.1	40	40	269 03	31.0	39	35	092 07	30.8	40	35	099 10	31.6	36	35	045 06	900
850		31	14	029 15		27	03	064 15		28	08	055 19		33	06	040 12		30	30	084 06		33	31	249 03		34	26	096 04		34	30	099 07		34	30	048 07	850
800	64.0	26	05	021 11	64.1	26	13	045 10	63.1	26	15	057 19	63.1	26	01	038 13	62.2	27	26	079 04	62.2	27	26	231 03	62.1	30	16	156 02	61.9	29	24	L.v.	62.6	29	25		800
750		20	03	067 11		22	05	031 10		23	22	059 19		22	03	056 18		22	17	075 03		22	19	196 06		24	06	223 07		25	22	L.v.		22	18		750
700	98.2	17	00	314 16	98.4	17	04	031 08	97.5	18	22	061 13	97.5	21	01	058 23	96.6	16	12	064 05	96.6	17	12	207 09	96.5	17	01	230 09	96.5	20	16	024 03	97.0	19	11		700
650		11	04	318 14		10	14	005 07		11	21	064 19		15	00	055 20		10	06	058 06		10	04	225 10		11	10	242 10		14	05	062 06		12	03		650
600	136.8	04	09	312 15	136.9	03	22	355 07	136.2	04	24	066 19	136.5	06	03	046 15	135.2	05	00	039 10	135.2	03	08	233 12	135.2	04	13	241 12	135.4	07	01	074 07	135.8	05	00		600
550		04	15	294 22		07	28	002 10		04	31	061 19		03	15	044 17		02	07	043 16		07	20	237 12		03	22	239 15		00	10	094 03		03	08		550
500	181.1	13	23	292 30	180.9	13	35	018 12	180.4	14	40	041 17	180.9	10	29	024 14	179.7	09	14	045 26	179.2	17	32	233 20	179.6	12	29	239 21	180.0	10	22	174 04	180.2	11	16		500
450		22	36	292 35		26	45	007 12		25	49	022 15		21	41	014 15		20	26	044 32		29	38	230 25		22	41	239 25		21	36	200 08		21	28		450
400	233.2	32	50	297 38	232.4	36	53	319 14	232.1	38	58	023 17	233.1	34	53	013 17	231.9	31	37	045 31	230.4	40	48	231 33	231.6	34	54	234 32	232.2	32	47	209 15	232.3	35	43		400
350																																					350
300	For rest of winds				295.5	65		302 22	294.9	63		044 17	296.3	63		008 19	295.3	62		031 34	295.5	55		242 20	294.7	62		240 22	295.6	59		085 20	295.1	65		300	
250	see page 3.					80		297 17		78		044 16		78		018 16		71		033 16		61		248 12		68		217 10		67		102 18		71		250	
200						72		296 16		74		326 07		66		002 09		67		336 04		70		249 12		59		227 02		58		120 04		65		200	
170						69		300 12		71		299 08		62		288 07		63		333 03		71		227 09		60		198 06		56		119 04		65		170	
150						68		290 12		68		283 08		63		282 08		64		243 05																150	
130						67		280 12		66		291 11		62		278 08		63		237 08																130	
110										65		261 11		63		281 07		62		274 11																110	
100																																					100
90																																					90
80																																					80
70																																					

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



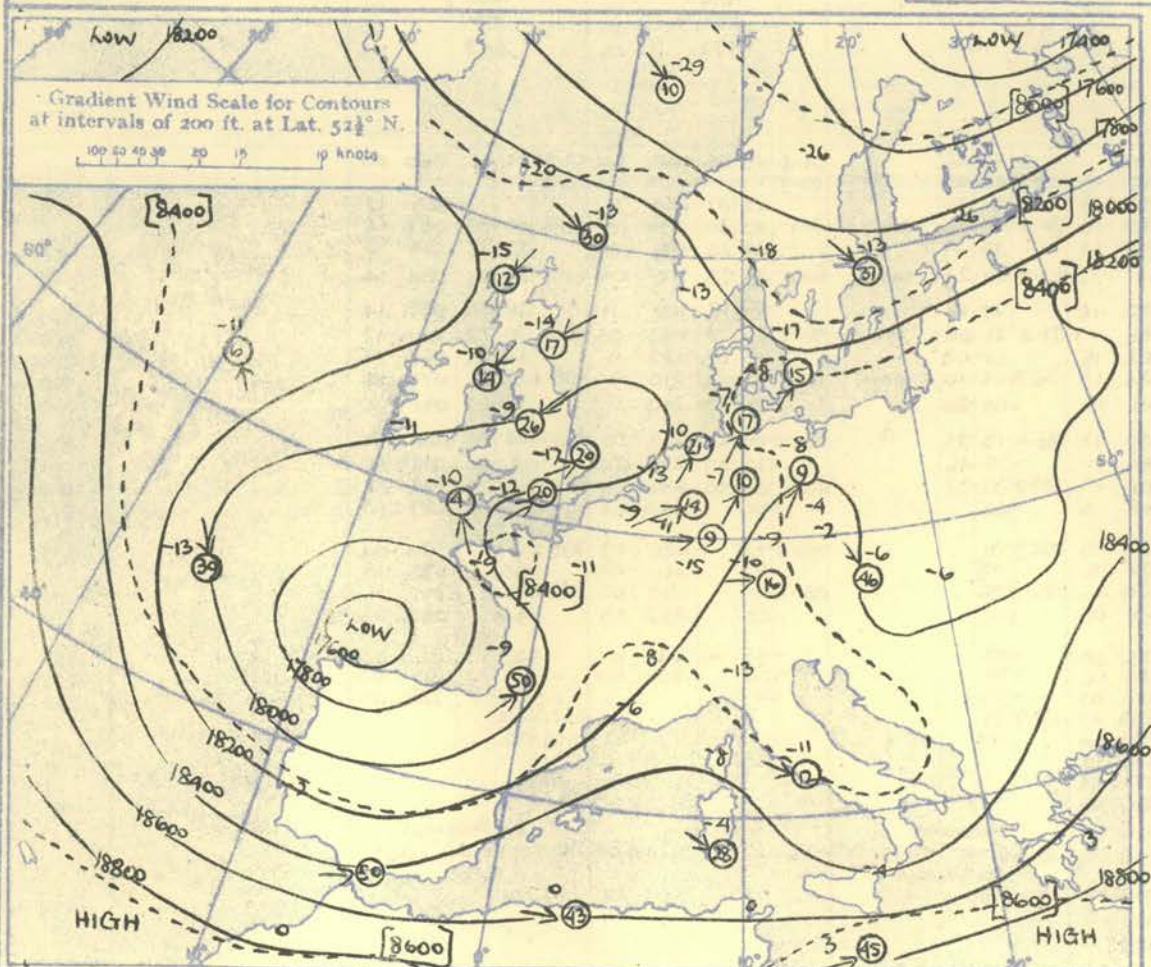
Scale
1:3 · 10⁷

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 20 10 5 knots

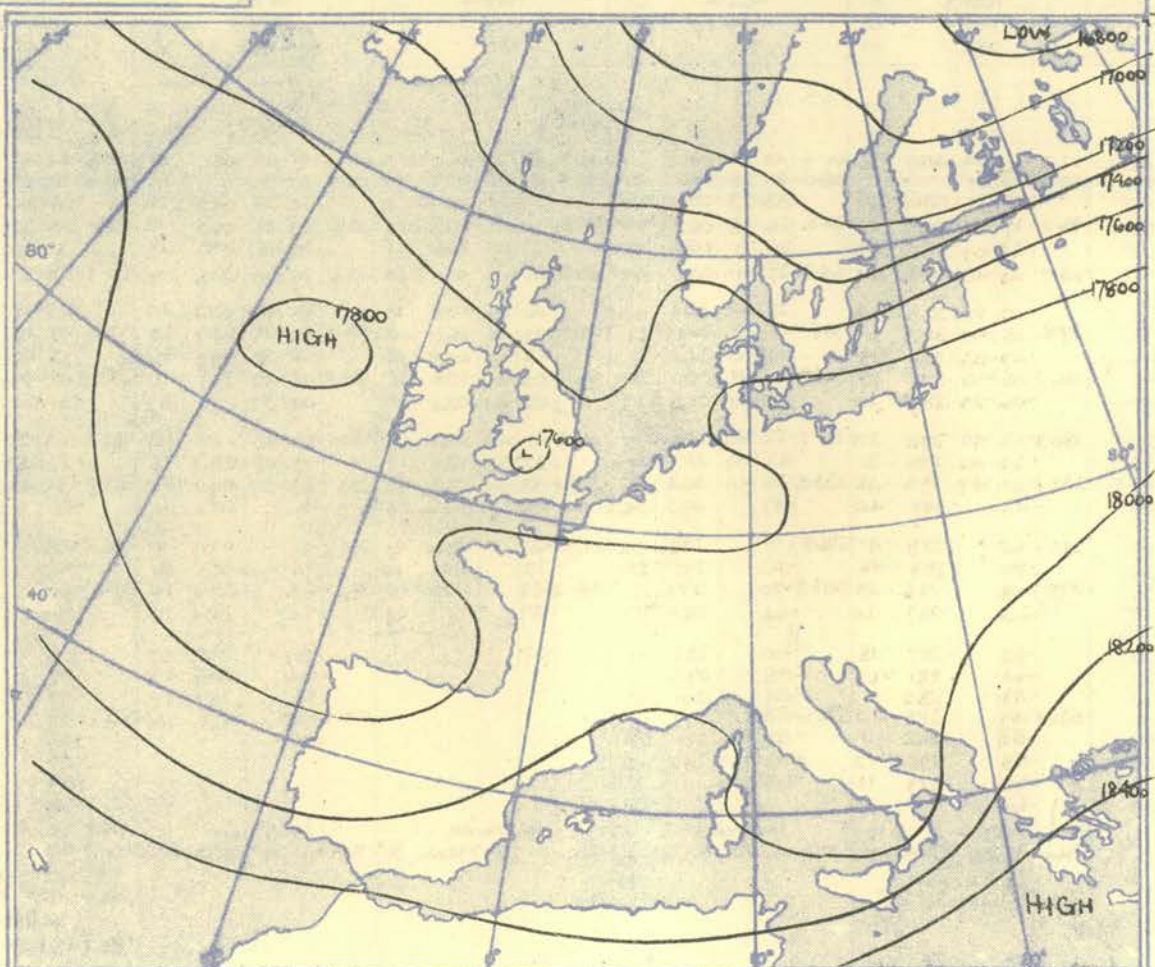
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500-300 mb.



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

100 50 20 10 5 knots

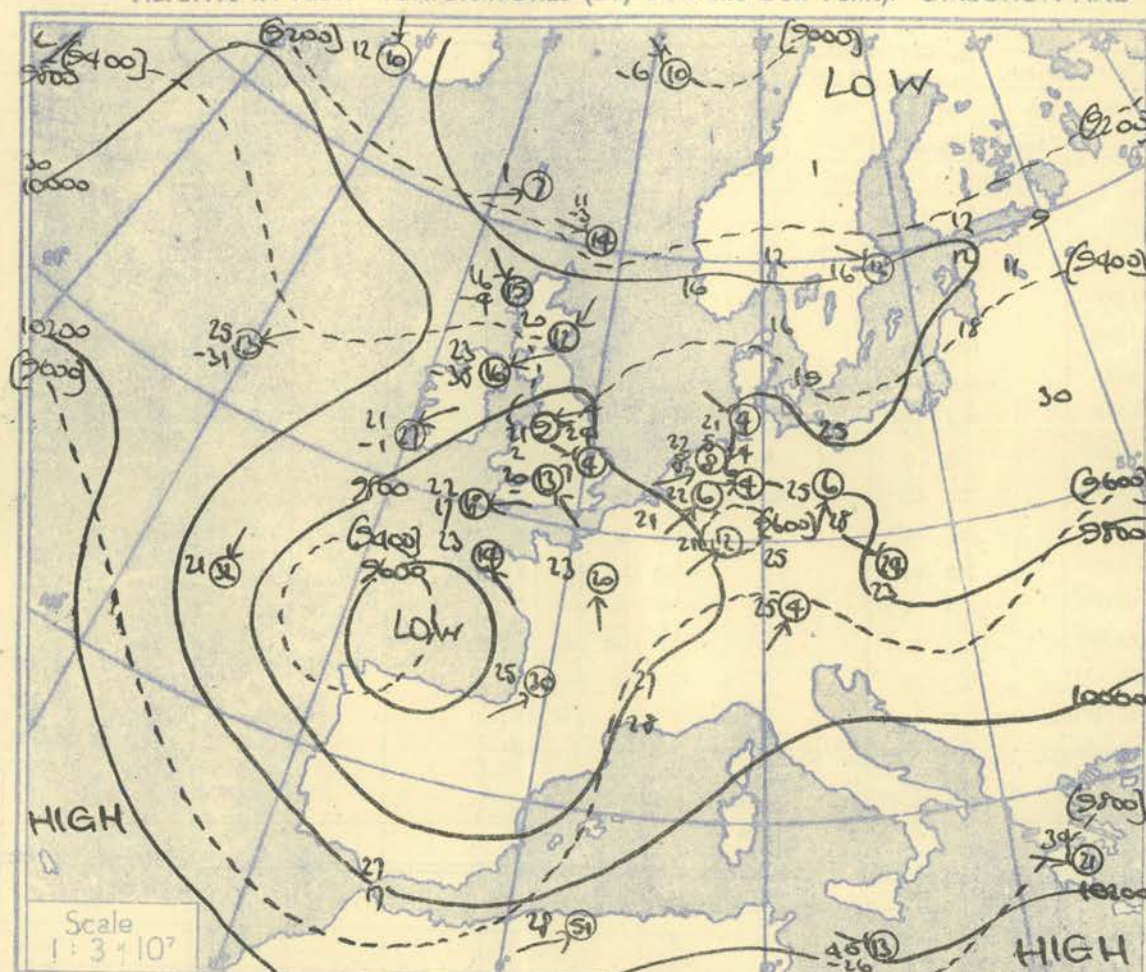
The continuous lines are contour lines of the 500 mb. surface.
The dotted lines are isopleths of the thickness of the layer 700-500 mb.



Isopleths of Thickness 500-1000mb.

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

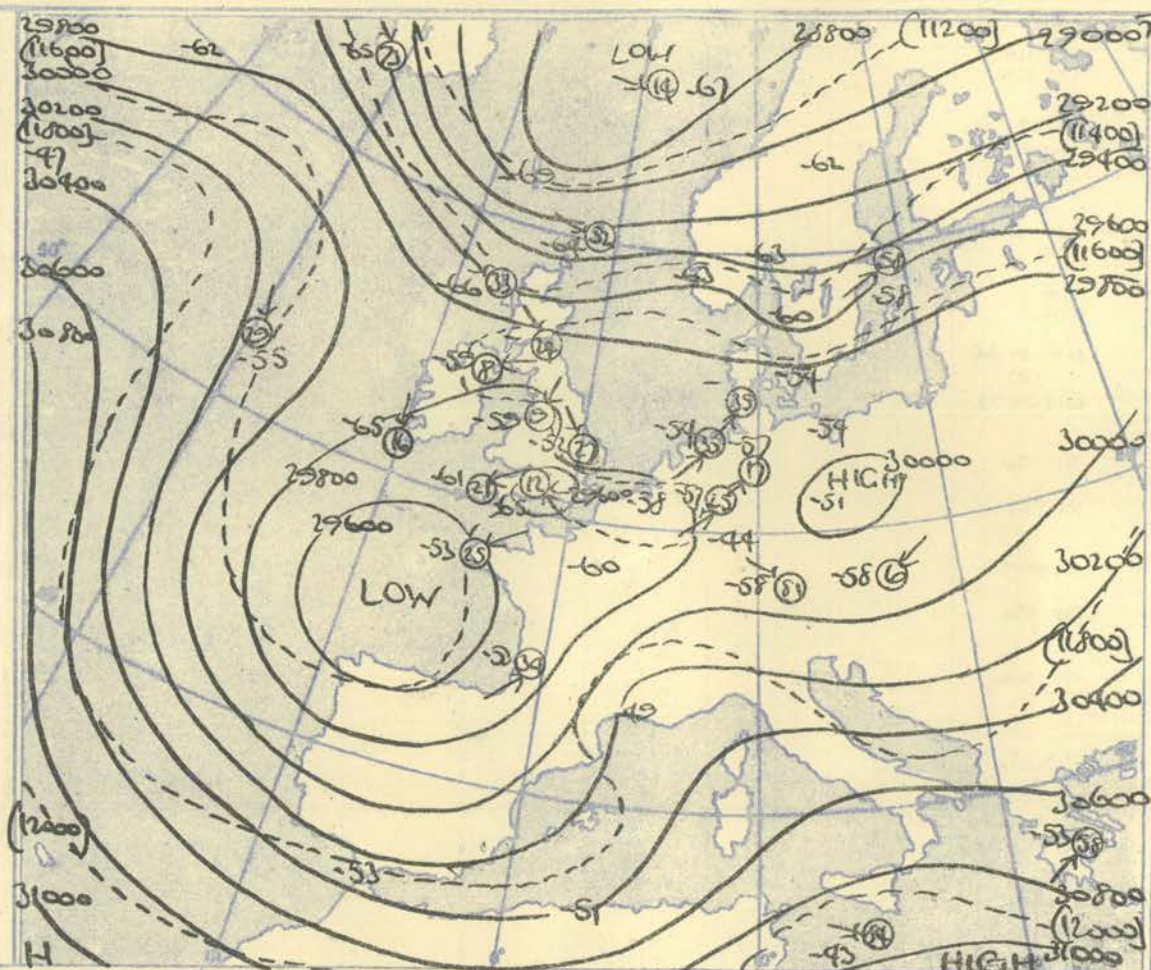
NEPHOSCOPE OBSERVATIONS[illegible][illegible]



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

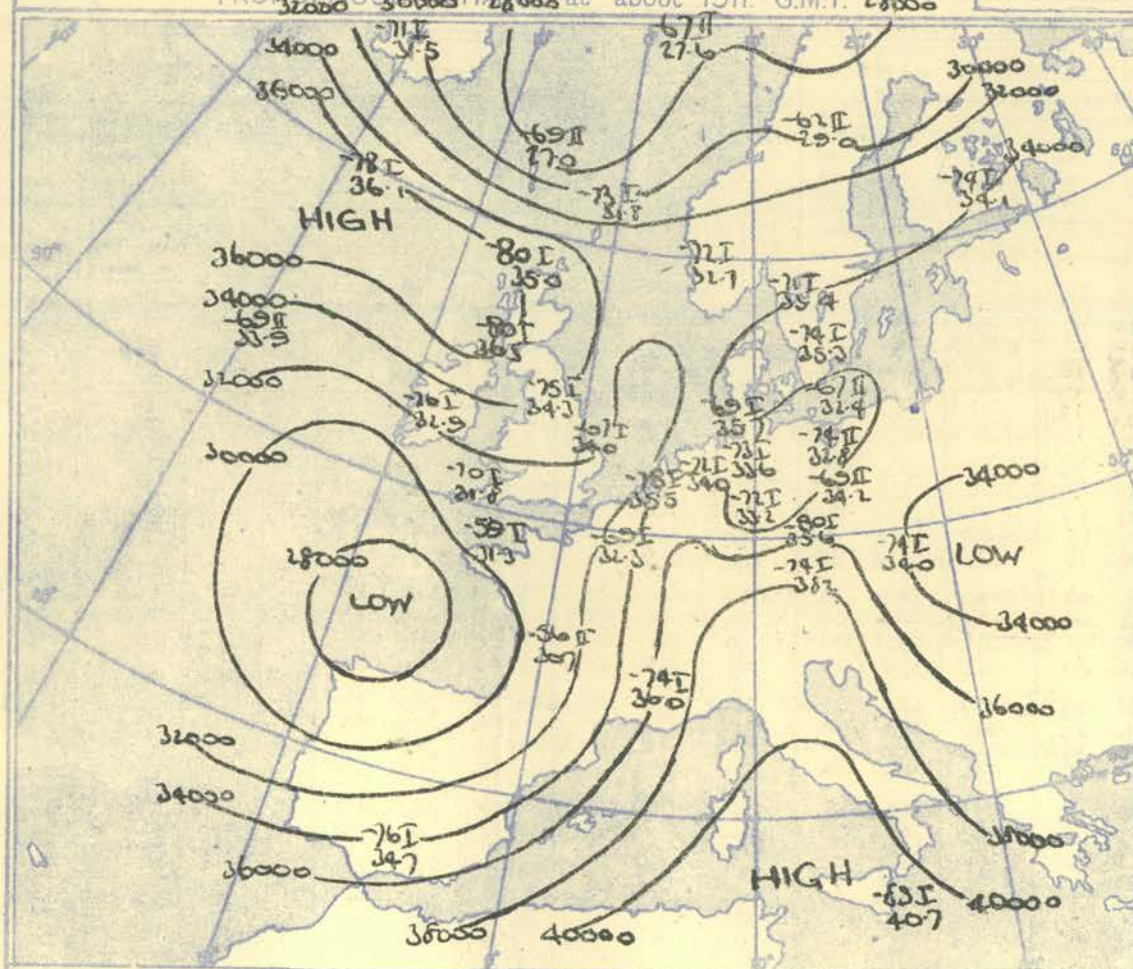
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

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



The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 300-390 mb.

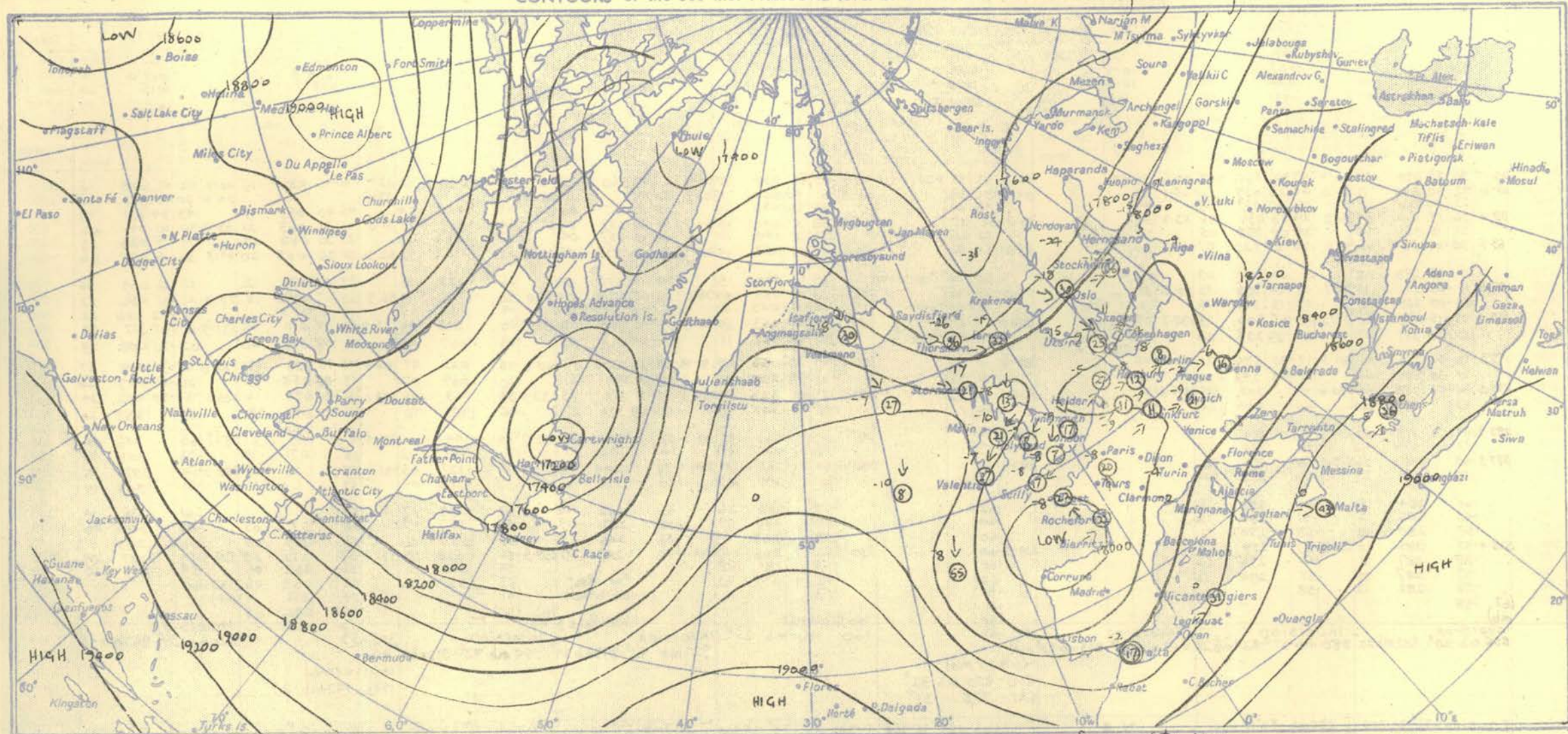
TROPOPAUSE CHART at about 15h G.M.T.



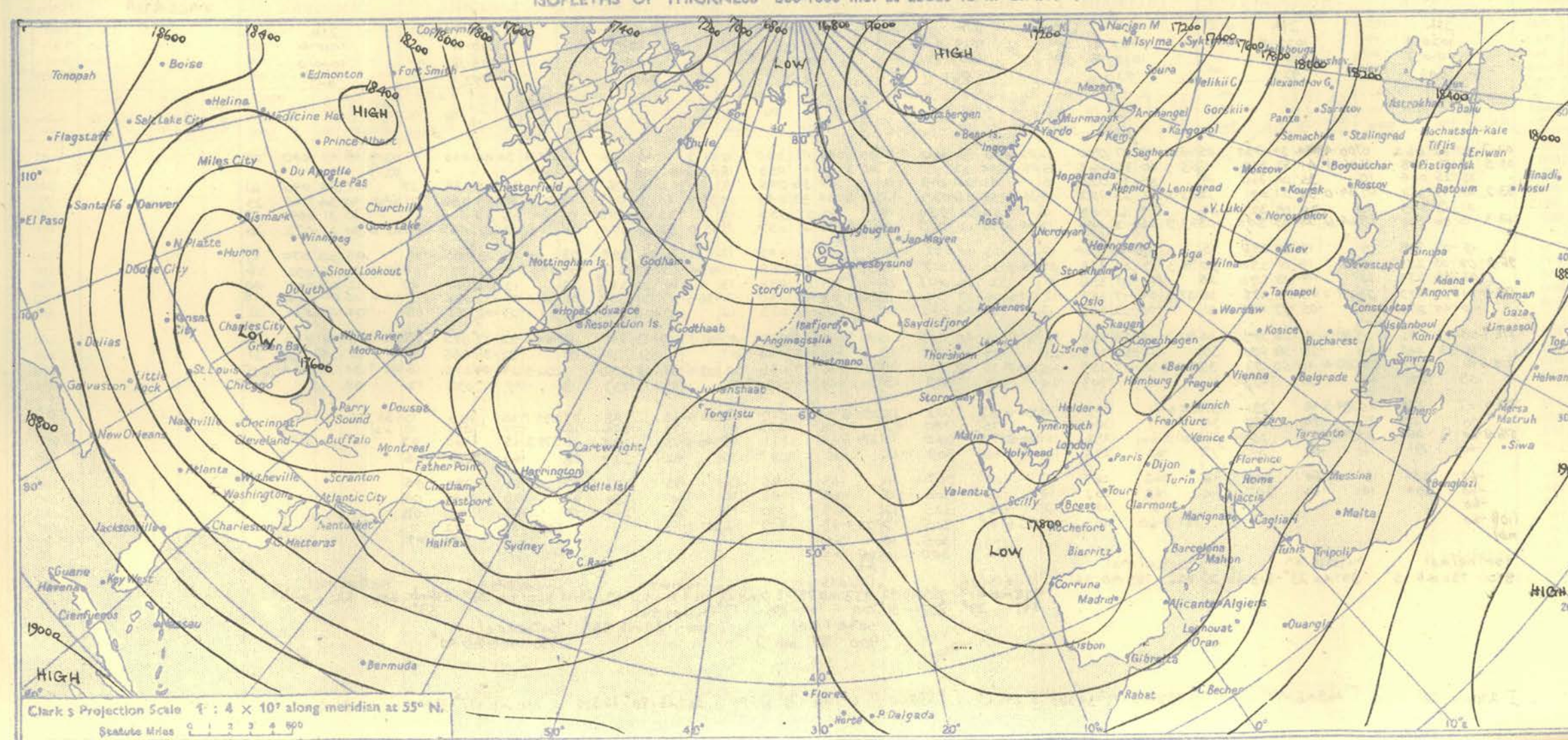
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Steady warming in mid-Atlantic, and cooling to North and Northeast of Scotland.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Sunday 6th May 1951.



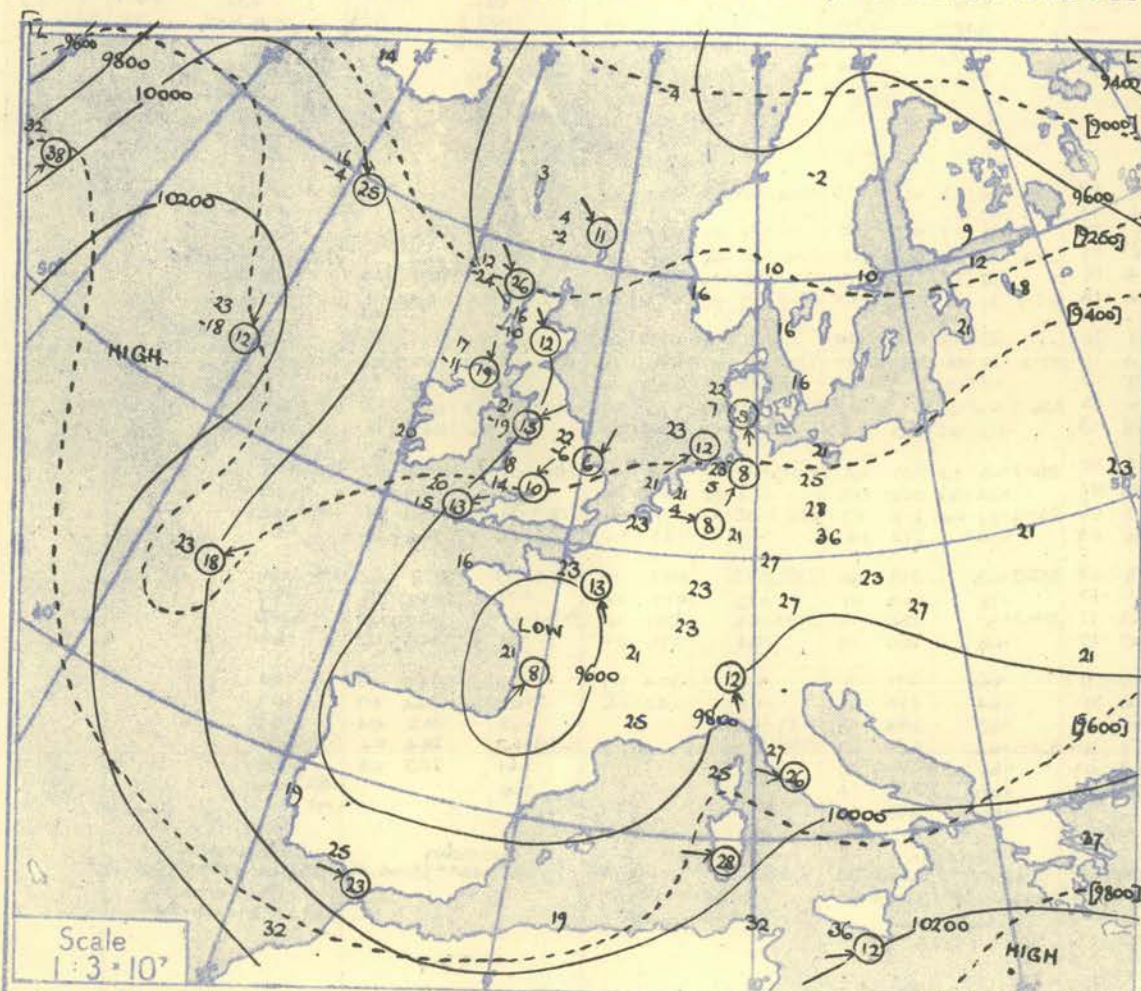
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION							
Time M.S.L. Surf Freezing	15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				Time M.S.L. Surf Freezing							
	1021.2 mb 1011.0 mb 943				1022.3 mb 1020.7 mb 921				1019.1 mb 1018.2 mb 888				1018.0 mb 1008.7 mb 850 & 860				1013.9 mb 1011.9 mb 850				1012.1 mb 1007.6 mb 781				1009.4 mb 993.4 mb 800				1008.3 mb 998.7 mb 810				1017.0 mb 1015 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	46	33	090	09	00.4	49	32	060	12	00.2	50	40	02.6	52	32	020	10	00.6	53	42	050	10	01.2	51	49	360	15	04.4	50	44	030	12	02.9	50	45	020	15	00.3	52	41	025	16	Surf
1000	05.6	12	30	090	10	06.0	44	28	039	15	05.1	48	04	04.9	51	33	03	03.8	61	40	047	15	03.3	50	48	02.6	02.6	030	12	02.5	04.6	50	40	025	16	04.6	50	40	025	16	1000			
950	33.4	26	19	010	09	33.9	29	13	036	06	33.3	34	03	33.3	37	27	03	32.2	36	32	046	15	31.7	43	37	349	03	31.1	44	067	17	31.0	41	30	057	19	43	34	031	19	950			
900	21	15	15	356	08	28	04	358	05	32	07	64.1	30	33.3	37	27	03	32.2	36	32	046	15	31.7	43	37	349	03	31.1	44	067	17	31.0	41	30	057	19	43	34	031	19	900			
850	63.7	20	04	304	06	64.5	26	05	329	07	64.1	30	06	64.2	31	15	06	63.2	29	22	062	15	63.1	34	25	297	05	62.4	32	102	12	62.3	31	26	068	20	64.3	32	15	037	26	850		
800																																									800			
750	15	05	278	08	16	00	301	09	15	08.7	20	26	For Winds	30	20	For Winds	25	17	066	15	28	15	273	04	26	128	13	27	21	079	12	27	16	039	25	27	16	039	25	750				
700	04	07	269	18	09	13	302	15	15	08.7	20	26	See Page 3.	25	15	044	14	14	06	043	10	16	04	276	04	20	146	13	96.9	22	17	082	18	98.8	21	01	036	27	700					
650	35.6	02	15	268	20	37.3	03	17	300	15	37.7	07	38.0	07	50	01	36.7	09	06	063	09	37.1	09	16	289	08	35.9	08	02	070	18	37.9	10	07	017	22	650							
600	10	25	271	27	07	23	295	20	00	00	00	00	01	47	Page 3.	00	00	26	067	11	00	24	313	10	03	007	07	01	08	061	20	02	21	008	29	600								
550	79.3	13	30	273	32	81.3	17	30	284	21	82.4	08	82.6	10	51	01	81.4	09	29	056	08	81.8	09	33	335	17	80.6	08	023	07	80.6	08	76	056	17	82.8	07	31	008	27	550			
500	29	38	281	40	29	40	292	22	18	18	53	235.1	23	57	04	233.6	23	50	323	09	23.4	31	316	23	329	33	169	05	233.0	31	45	074	16	235.0	35	54	002	24	500					
450	52	277	44	56	304	24	45	No Reports					48	61	mb	48	61	mb																						450				
400	292.9	64	278	52	294.8	66	294	23	298.7	59	73	382.8	67	63	60	297.1	59	73	023	09	298.5	52	320	27	295.9	65	144	12	276.4	61	069	21	297.7	65	356	17	250							
350	277.3	63	281	26	278.4	68	291	20	382.8	67	63	60	297.1	59	73	023	09	298.5	52	320	27	295.9	65	144	12	276.4	61	069	21	297.7	65	356	17	250										
300	57	284	18	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	62	64	292	18	300					
250	525.4	57	288	10	525.2	59	279	12	529.5	60	60	530.7	54	59	53	529.5	60	60	530.7	54	59	53	529.5	60	60	530.7	54	59	53	529.5	60	60	530.7	54	59	53	529.5	60	250					
200	58	287	11	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	60	294	14	200				
170	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	170				
150	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	150				
130	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	130				
110	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	110				
90	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	90				
80	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	80				
70	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	70				
60	58	282	12	58					58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	58				58	282	12	60				
Inversion 855 mb 20° - 832 mb 22° Inversion 880 mb 27° - 824 mb 28° Inversion 865 mb 28° - 843 mb 33° Isothermal 860-850 mb 32° 821-778.. 31° Isothermal 760-750 mb 25° Inversion 921 mb 42° - 892 mb 49° Inversion 944 mb 42° - 912 mb 47° Inversion 920 mb 39° - 862 mb 41° Isothermal 773-742 mb 27°																																												
Tropopause	I 265 mb -73° 31,800'				I 230 mb -80° 35,000'				N.R.				I 220 mb -80° 36,300'				I 242 mb -75° 34,300'				I 247 mb -67° 34,100'				I 267 mb -72° 32,100'				I 270 mb -70° 31,800'				I 258 mb -76° 32,200'				Tropopause							
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION							
Time M.S.L. Surf Freezing	21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				21h G.M.T.				Time M.S.L. Surf Freezing							
	1020.9 mb 1010.7 mb 945				1022.8 mb 1021.1 mb 922				1020.3 mb 1019.4 mb 920				1019.4 mb 1009.7 mb 861				1016.0 mb 1014.0 mb 862				1012.9 mb 1008.3 mb 802				1010.6 mb 994.5 mb 792				1010.6 mb 1000.0 mb 821															
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb							
Surf	02.7	40	32	060	07	00.4	44	34	350	05	00.2	42	37	090	12	01.6	45	33	360	12	00.6	47	41	050	10	01.2	46	44	020	16														

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

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time	03h.	03h.	03h.	03h.	03h.	03h.	03h.	03h.	03h.	Time
M.S.L.	1020.4	1021.2	1020.7	1020.2	1016.7	1015.3	1011.6	1012.3	1020.4	M.S.L.
Surf	1009.9	1019.6	1019.8	1010.6	1014.6	1008.7	995.4	1001.6	1019	Surf
Pressure	950	923	938	873	880	832	800	790	885	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
Pressure	mb	mb	mb	mb	mb	mb	mb	mb	mb	Pressure
Surf	02.7 31 30 060 02	00.4 41 36 040 06	00.2 29 29 040 04	02.6 37 35 Calm	00.6 43 41 025 07	01.2 44 44 010 13	04.4 45 43 030 22	02.9 47 43 060 25	00.3 44 37 050 10	Surf
1000	05.3 33 30 021 06	05.6 40 33 039 18	05.3 35 32 033 12	05.4 38 36 357 12	04.5 43 39 026 15	03.5 43 43 027 18	03.1 40 39 037 30	03.3 46 40 034 24	05.5 42 36 043 11	1000
950	32.9 25 21 011 08	38.4 30 25 013 13	38.1 29 20 043 07	33.5 35 25 001 11	32.5 34 28 031 19	31.7 37 36 039 17	31.4 41 38 055 21	31.8 43 34 045 21	33.7 35 31 046 11	950
900	19 14 011 10	24 20 005 11	27 10 037 09	30 16 006 14	30 25 034 18	34 27 044 15	38 29 063 14	39 32 043 13	27 26	900
850	62.9 13 09 010 11	63.8 18 14 001 12	63.7 26 03 032 09	64.3 28 01 011 18	63.3 29 16 036 18	62.7 29 15 043 13	62.7 32 21 054 09	63.2 33 29 044 11	64.5 31 24	850
800										800
750	09 02 044 09	14 09 001 19	21 01 013 10	23 04 004 19	27 09 047 20	25 09 037 10	26 20 026 08	27 24 044 11	26 18	750
700	06.3 04 02 032 11	07.6 12 24 004 26	08.0 16 10 004 12	08.7 17 11 035 19	07.9 21 09 043 15	07.3 22 06 029 06	07.2 18 14 026 10	07.8 20 15 046 13	09.0 20 25	700
650	02 13 028 15	07 32 000 29	07 03 007 10	11 14 047 21	13 16 027 15	14 15 039 07	12 03 035 10	14 11 048 13	13 23	650
600	134.1 06 26 267 20	135.9 01 35 298 34	136.4 00 14 000 12	137.3 08 16 030 19	136.8 06 27 026 15	136.3 06 24 044 07	135.9 05 03 075 07	136.8 08 03 046 13	137.9 05 44	600
550	14 34 256 24	07 42 297 35	08 24 000 13	04 27 022 18	02 33 028 13	03 32 031 06	03 12 036 07	01 06 047 12	04 46	550
500	177.3 24 40 254 28	179.9 17 50 299 36	180.2 17 33 000 14	181.5 15 35 032 20	181.3 11 42 016 10	180.7 13 43 031 02	180.3 12 19 031 06	181.5 09 17 027 15	182.2 15 50	500
450	33 46 258 34	27 57 001 27	28 40 000 14	27 45 032 21	23 51 042 07	24 53 020 03	22 52 084 06	19 35 034 15	25 58	450
400	228.0 44 259 45	231.3 38 58 002 41	231.6 41 299 28	232.9 40 56 030 24	233.1 36 59 035 06	232.4 37 60 028 07	232.3 35 42 033 14	223.9 31 47 050 19	233.8 38	400
350	55 258 49	50 009 38	55 296 29	51 033 24	49 040 09	50 272 10	49 033 14	45 040 22	52	350
300	290.0 64 261 42	294.1 63 308 43	293.7 67 288 30	295.5 65 006 21	296.1 61 278 03	295.2 63 318 05	295.3 65 052 15	297.5 59 029 22	296.2 66	300
250	60 278 26	68 308 36	73 281 30	76 299 24	73 286 13	78 003 07	75 077 14	71 042 18	77	250
200	376.5 57 295 16	379.4 61 303 29	377.5 68 295 21	379.3 69 324 20	380.2 66 303 12	378.5 70 250 10	379.6 64 230 05	382.4 62 020 08	379.5 70	200
170	56 315 14	56 312 22	63 293 27	67 313 19	62 302 12	65 260 10	64 296 09	61 343 10	68	170
150	56 318 14	60 317 20	63 285 10	65 315 17	63 302 11	66 291 11	64 304 09	60 344 08	69	150
130	57 318 13	60 324 21	63 285 16	67 315 14	63 300 11	64 275 10	61 242 06	61 344 07	69	130
110	58 308 11	60 328 12	63 298 13	66 298 08	61 280 11	63 254 10	61 242 06	62 312 04	67	110
100	525.4 57 294 12	527.3 59 327 10	523.9 65 294 12	524.8 65 293 15	527.3 61 277 11	524.5 64 241 10	529.8 62 284 04	524.2 66 225 08	524.2 66	100
90	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14	66	90
80	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14	66	80
70	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14	66	70
60	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14	66	60
Inversion	1010mb. 31°-79°mb. 36°	Inversion	1020mb. 29°-99°mb. 37°	Inversion	924mb. 34°-910mb. 35°	Inversion	936mb. 31°-920mb. 39°	Inversion	850mb. 27°-833mb. 31°	Inversion
Isokthermal	66.5 - 627mb. -0.2°	76.5mb. 13°-734mb. 15°	Isokthermal	850mb. 30°-835mb. 31°	Isokthermal	755mb. 24°-750mb. 25°	Isokthermal	870 - 845mb. 38°	Isokthermal	Isokthermal
887 - 818mb. 27°			986 - 958mb. 40°		1015 - 1000mb. 43°	750 - 722mb. 25°				
855 - 828mb. 30°			760 - 750mb. 27°							
Tropopause	I 310mb. -66° 28,300'	II 281mb. -69° 30,800'	I 268mb. -75° 31,700'	II 269mb. -74° 31,800'	I 232mb. -77° 34,900'	I 232mb. -81° 34,800'	I 250mb. -75° 33,300'	I 243mb. -78° 34,200'	I 240mb. -79° 34,200'	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE		STATION
Time	09h.	09h.	09h.	09h.	09h.	09h.	09h.	09h.		Time
M.S.L.	1020.7	1021.6	1020.3	1021.1	1017.5	1013.7	1012.7	1014.5		M.S.L.
Surf	1010.1	1019.9	1019.4	1011.1	1015.5	1009.2	996.5	1003.8		Surf
Pressure	953	950	946	900	900	845	811	771		Pressure
Height	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100	ft./100		Height
Temp.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.		Temp.
Dew	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.		Dew
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.		Wind
Pressure	mb	mb	mb	mb	mb	mb	mb	mb		Pressure
Surf	02.7 42 34 060 08	00.4 40 35 007 09	00.2 43 30 040 06	02.6 45 36 010 15	00.6 46 40 030 08	01.2 47 44 010 15	04.4 45 41 020 15	02.9 47 43 040 18		Surf
1000	05.3 40 33 009 09	05.7 38 34 007 09	05.3 40 27 046 07	05.5 43 35 015 24	04.8 44 37 027 12	03.7 46 43 019 20	03.4 38 36 027 30	03.9 46 42 027 27		1000
950	31 26 010 12	32 28 012 13	33 23 018 10	33 23 018 10	37 32 040 13	37 34 023 17	35 34 045 24	32.1 37 35 027 27		950
900	25 19 014 15	33.5 28 23 012 13	33.1 27 19 037 12	33.5 32 22 002 25	32.8 32 29 039 19	31.9 37 34 023 17	31.5 35 34 045 24	32.1 37 35 027 27		900
850	20 11 011 15	22 20 012 13	20 14 034 16	27 17 035 21	30 26 030 14	33 29 029 17	35 31 053 18	41 24 031 21		850
800	63.0 15 04 002 15	63.9 19 14 002 15	63.3 15 07 032 18	64.3 28 12 032 20	63.6 27 08 011 19	62.9 28 21 023 16	62.6 31 24 031 13	63.6 36 19 020 14		800
750	08 01 007 18	11 07 007 18	19 01 010 18	22 05 032 23	27 09 009 18	27 15 013 14	27 16 026 12	29 09 017 15		750
700	06.3 00 07 011 20	07.3 04 01 007 18	07.3 15 32 030 19	08.6 16 02 032 26	08.2 21 16 004 15	07.6 24 04 010 10	07.3 22 06 031 15	08.6 22 01 023 13		700
650	07 14 011 20	03 06 003 06	07 37 037 21	09 06 032 28	14 17 035 15	16 04 019 08	16 03 040 13	16 04 030 15		650
600	133.7 10 25 001 16	134.9 06 11 001 16	135.7 01 42 022 24	137.1 02 12 017 27	137.1 07 26 033 13	136.7 09 16 033 07	136.3 08 13 045 16	137.7 10 18 034 20		600
550	21 26 042 11	11 21 011 21	06 43 028 28	06 20 015 27	02 33 010 14	00 24 009 07	00 20 050 15	02 22 027 21		550
500	176.5 29 44 306 09	178.5 18 35 007 18	179.7 15 49 282 30	181.2 14 29 009 24	181.6 11 41 030 15	181.4 11 34 030 07	181.0 09 27 061 11	182.7 07 30 032 24		500
450	38 53 263 12	27 48 007 18	25 57 028 39	24 39 010 25	23 51 028 15	21 43 028 08	20 37 033 12	18 40 022 15		450
400	226.7 47 265 17	229.9 38 58 007 18	231.4 37 60 281 38	238.0 36 44 013 30	233.6 34 57 022 16	233.5 33 55 024 08	233.3 31 45 015 08	233.3 29 48 019 14		400
350	55 256 20	48 285 30	48 285 30	50 031 34	47 029 16	47 029 16	45 040 05	48 038 09		350
300	288.7 56 253 20	293.1 59 295 27	294.3 61 295 27	295.9 62 323 37	296.8 60 286 22	296.8 59 183 09	296.7 61 100 10	297.1 58 031 16		300
250	53 289 15	59 296 28	65 296 28	74 320 44	73 261 19	70 281 05	06 05 016 05	06 18 026 15		250
200	376.7 54 321 10	380.0 55 301 23	379.9 58 301 23	380.5 58 320 30	380.8 70 303 17	381.4 60 294 10	381.3 62 352 06	384.3 65 355 15		200
170	54 321 12	58 310 16	58 310 16	63 321 23	65 309 17	59 309 17	57 335 04	57 351 10		170
150	57 333 14	56 300 12	56 300 12	54 327 18	63 295 13	59 263 10	58 276 05	59 358 03		150
130	57 333 14	56 309 15	57 309 15	62 319 13	62 315 12	56 265 10	57 286 10	57 325 07		130
110	59 299 08	59 308 10	55 308 10	60 320 11	60 291 12	57 261 11	57 273 09	58 319 12		110
100	528.7 58 529.0 61	529.1 54 297 07	529.1 54 297 07	528.8 57 305 15	527.5 61 288 10	529.2 56 269 11	529.9 57 276 08	532.5 58 319 12		100
90	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14		90
80	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14		80
70	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14		70
60	56 294 12	59 313 09	63 293 15	66 293 15	61 283 09	64 265 14	61 265 14	61 265 14		60
Inversion	636mb. 19°-626mb. 7°	Isokthermal	802mb. 15°-784mb. 20°	Inversion	824mb. 24°-800mb. 28°	Inversion	785 - 750mb. 27°	Inversion	904mb. 34°-858mb. 37°	Inversion
Isokthermal	626 - 618mb. -7°	630 - 588mb. -06°	Isokthermal	808mb. 26°-794mb. 28°	Isokthermal	Isokthermal	Isokthermal	Isokthermal	Isokthermal	Isokthermal
785 - 750mb. 27°			824mb. 24°-800mb. 28°	808mb. 26°-794mb. 28°	785 - 750mb. 27°	904mb. 34°-858mb. 37°	703mb. 37°-861mb. 43°			
Tropopause	I 334mb. -58° 26,600'	II 308mb. -59° 28,600'	I 262mb. -70° 32,350'	I 240mb. -77° 34,300'	I 217mb. -77° 36,500'	I 230mb. -77° 36,200'				

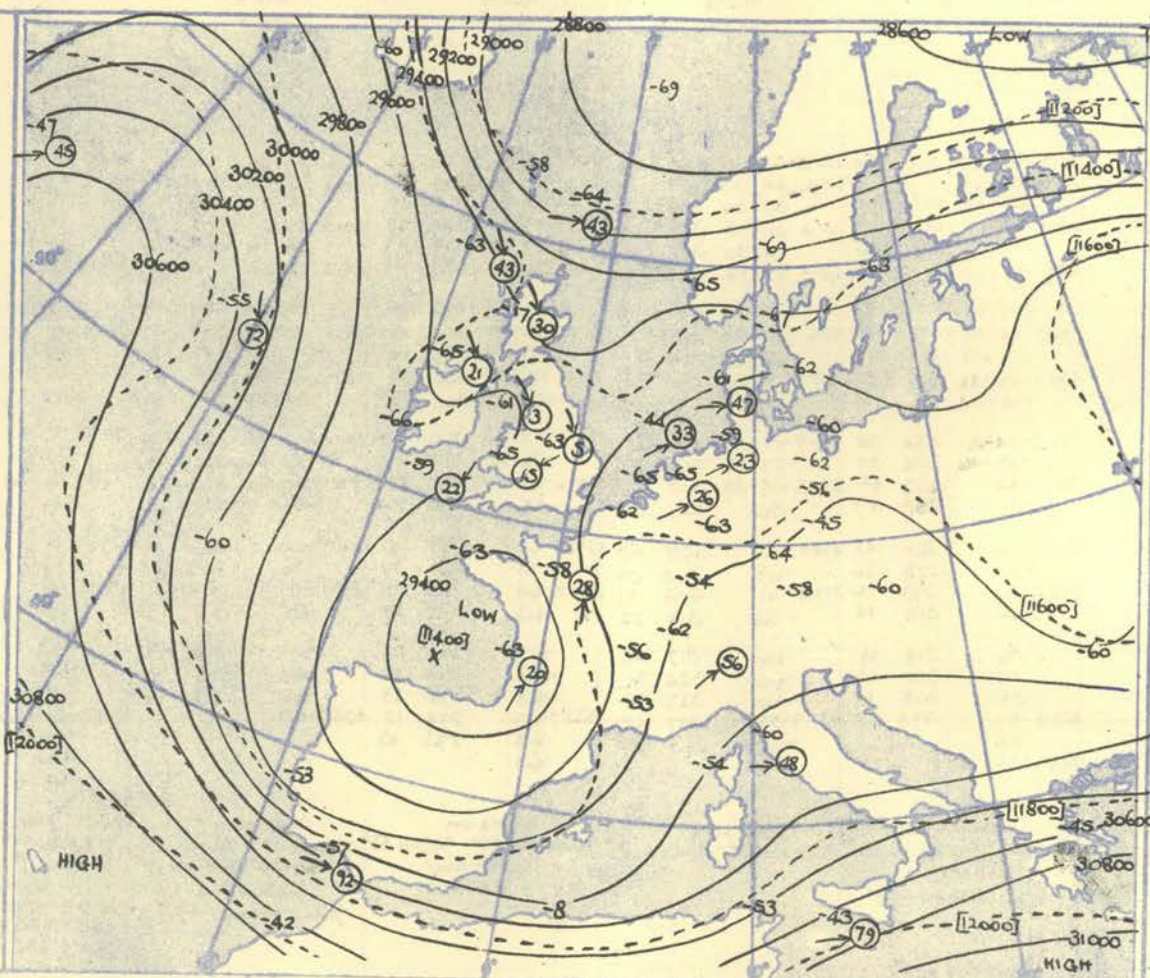
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



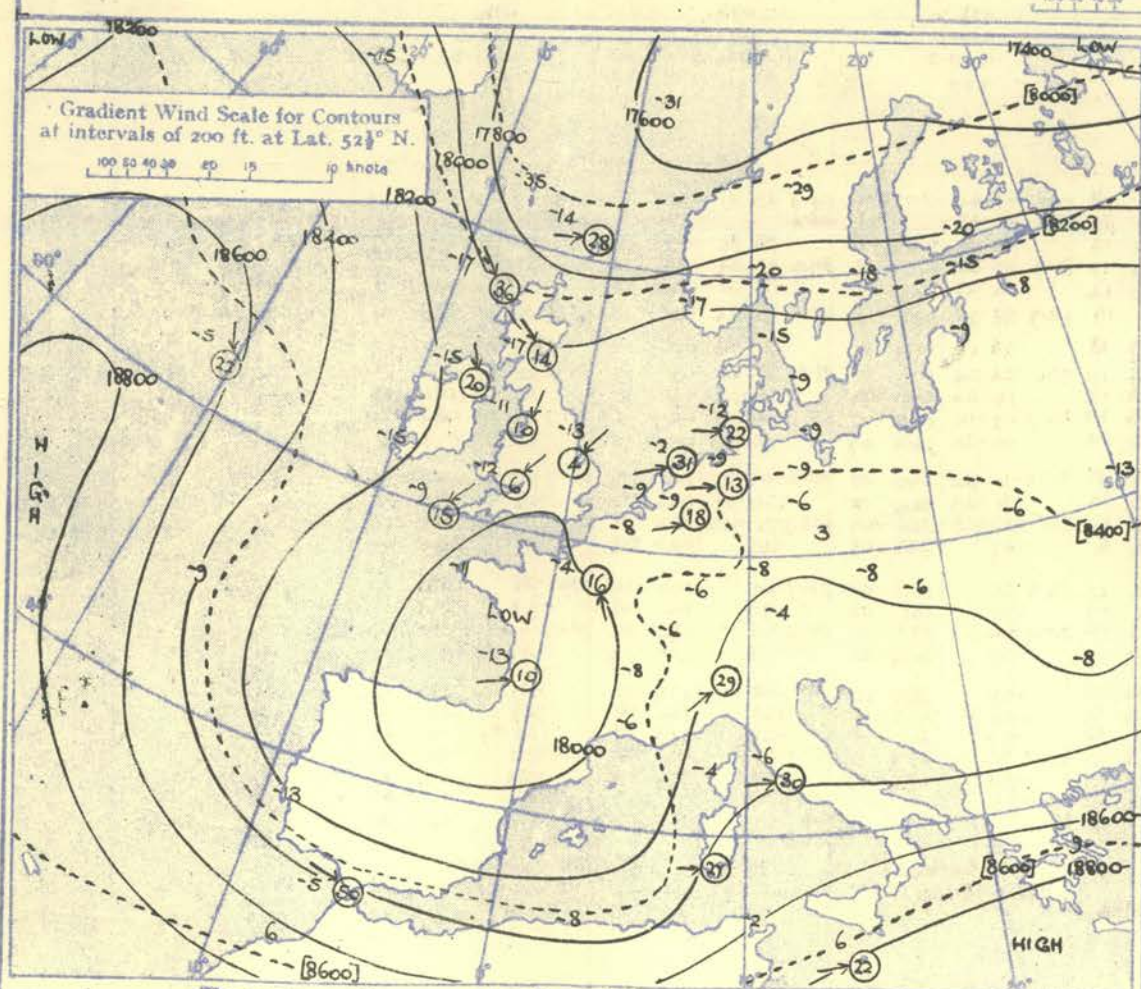
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

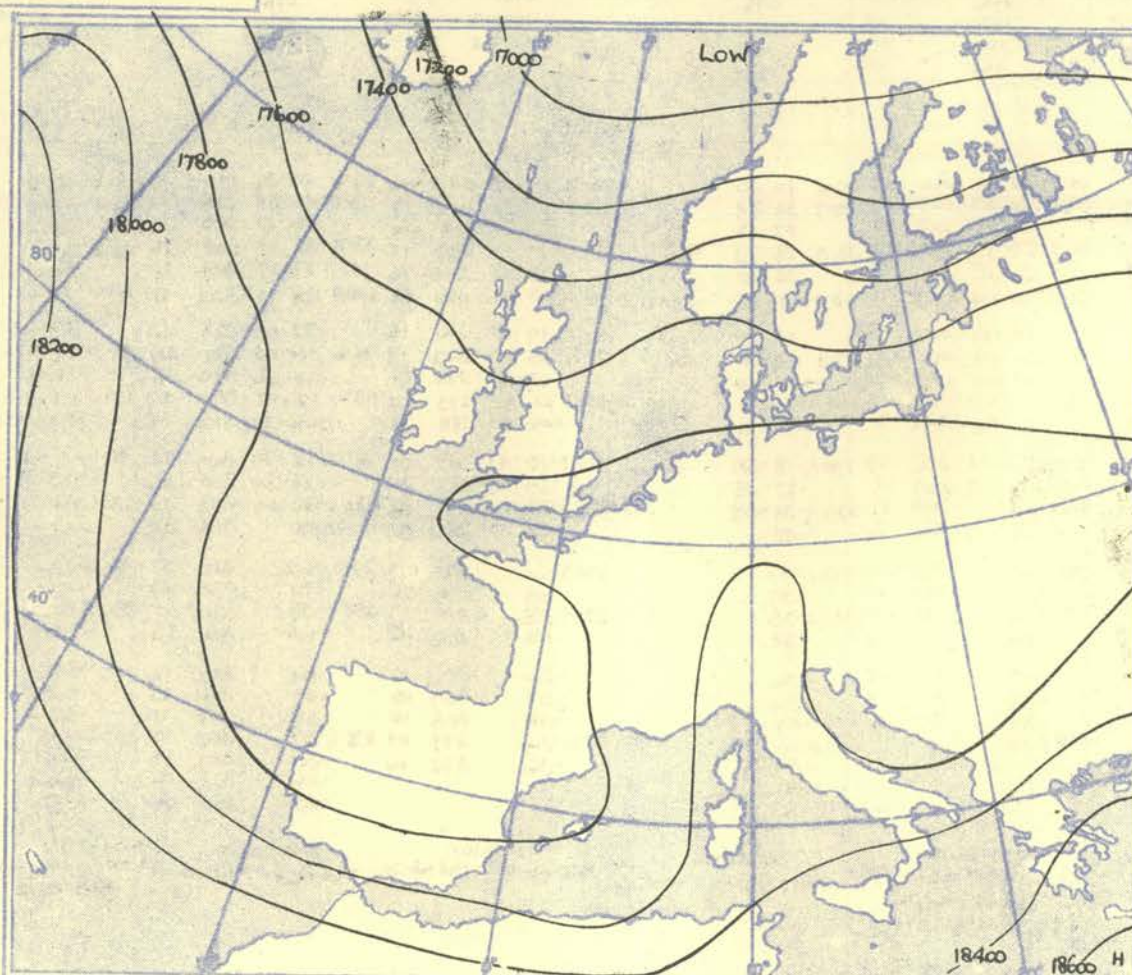
100 50 40 30 20 15 10 knots



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.

Monday 7th May.

1951

Page 3

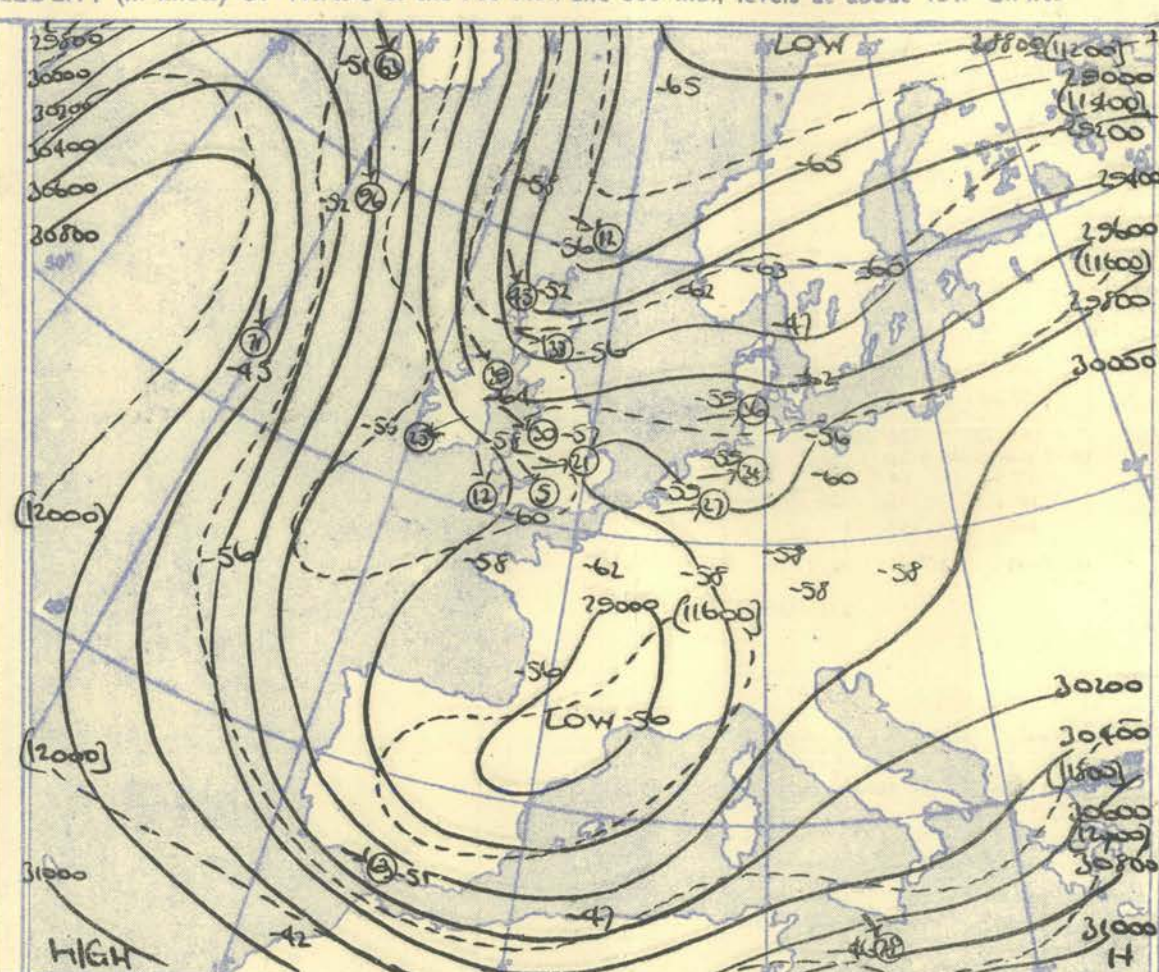
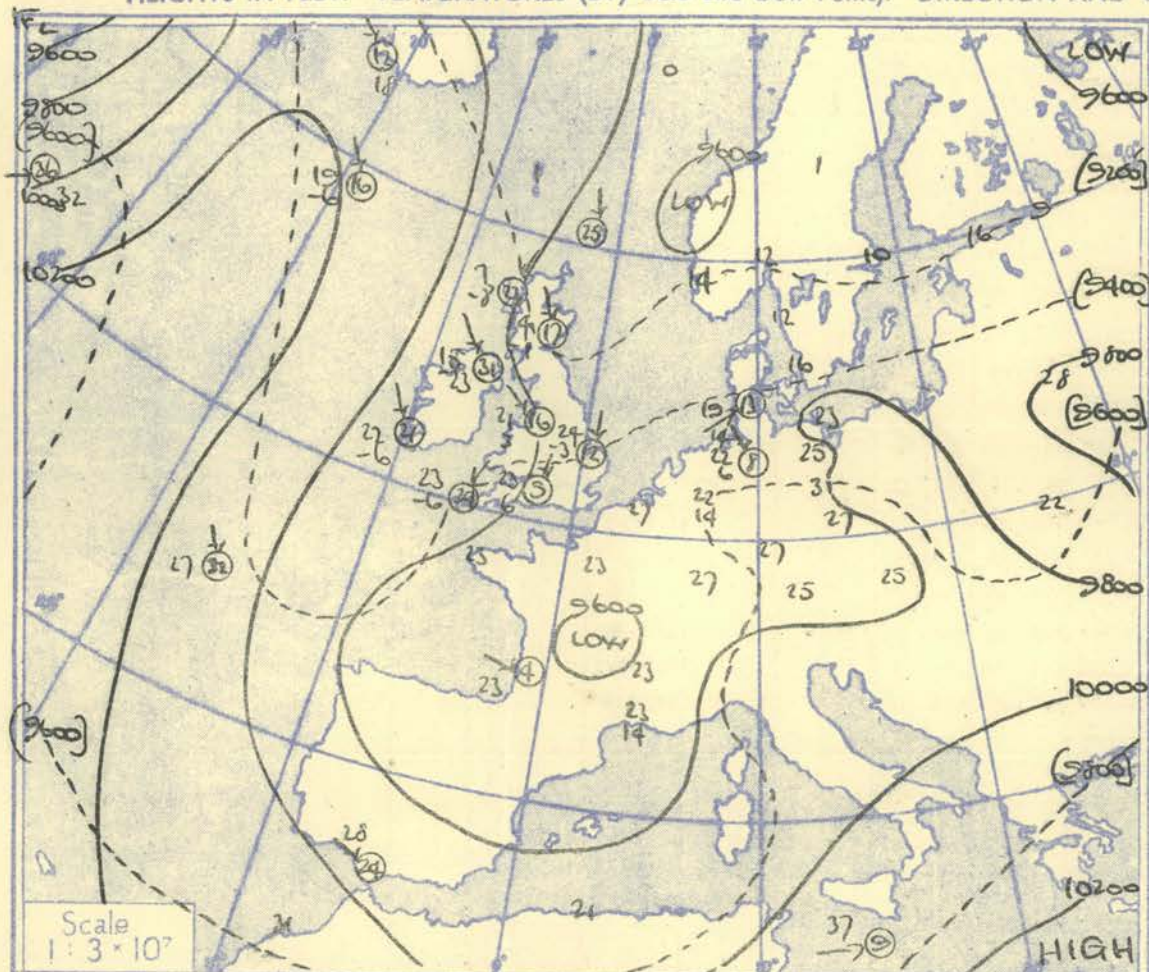


AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY																				DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.																			
48°N 17°W 47°N 12°W 52°N 02°W																																							
12h										14h										1355h																			
Time M.S.L. Surf Freezing										Time M.S.L. Surf Freezing										Time M.S.L. Surf Freezing																			
1028 mb 1024 mb 755 mb										1023 mb 1020 mb 790 mb										1016 mb 1014.5 mb 865 mb																			
Pressure mb										Pressure mb										Pressure mb																			
Height ft./100 Temp. °F Dew °F										Height ft./100 Temp. °F Dew °F										Height ft./100 Temp. °F Dew °F																			
Surf 1000 950 900 850 800										Surf 1000 950 900 850 800										Surf 1000 950 900 850 800																			
7.4 49 49 46 46 30 30 33 33 39 27 37 37										6.3 50 49 47 47 40 39 36 28 32 27 36 25 33 17										9.4 49 49 47 47 40 39 36 28 32 27 36 25 33 17																			
750 700 650 600 550										750 700 650 600 550										750 700 650 600 550																			
101.7 31 12 24 10 100.9 20 14 10 06 00										100.9 20 14 10 06 00										97.9 19 13 05 22 22																			
85.7 08 183.7 11 181.1 13										183.7 11 181.1 13										233.1 35 296.5 61																			
Cloud 8 Sc										Cloud 7 Cu										Cloud 4 Sc																			
8910-880mb 4 G.										890-880mb 6 Cs										890-880mb 7 Sc																			
8 N.R.										8 N.R.										8 N.R.																			
Inversion 950mb 30°										Inversion 950mb 30°										Inversion 950mb 30°																			
850-39° Surf Wind N 11 kts										850-39° Surf Wind N 11 kts										850-39° Surf Wind N 11 kts																			
7 11 kts										7 11 kts										7 11 kts																			

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

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																				
Ship		Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Ship		
Lat/Long		52.5°N 20.4°W				52.4°N 20.6°W				52.5°N 20.3°W				52.6°N 19.6°W				59°N 19°W				58.9°N 18.5°W				58.8°N 18.6°W				59.1°N 18.9°W				Lat/Long		
Pressure	Time	05hrs		G.M.T.		09hrs		G.M.T.		15hrs		G.M.T.		21hrs		G.M.T.		05hrs		G.M.T.		09hrs		G.M.T.		15hrs		G.M.T.		21hrs		G.M.T.		Time		
	M.S.L.	1031		mb		1031		mb		1033		mb		1033		mb		1031		mb		1032		mb		1033		mb		1034		mb			M.S.L.	
	Surf	1031		mb		1031		mb		1033		mb		1033		mb		1031		mb		1032		mb		1033		mb		1034		mb				Surf
	Freezing	903, 770.		mb		900		mb		760		mb		780		mb		955		mb		955		mb		940, 865		mb		940, 865		mb				
Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	Height	Temp.	Dew	Wind	Pressure	
mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	ft./100	°F.	°F.	Dir. Vel.	mb	
Surf	-	49.34	040	10	-	49.32	030	08	-	50.08	060	10	-	49.39	020	11	-	41.37	360	10	-	43.36	330	12	-	44.34	020	09	-	35.33	calm	Surf				
1000	8.2	46.35	041	09	8.4	45.31	033	13	8.8	47.33	072	09	8.8	45.33	019	12	7.9	38.34	350	10	8.2	38.32	354	09	8.9	40.31	045	06	9.04	10.33	04	1000				
950		38.32	040	09		39.29	042	11		41.25	067	09		40.33	018	11		31.27	348	10		31.26	008	09		34.25	075	05		34.24	336	03	950			
900	36.3	31.28	039	09	36.5	32.26	054	11	37.0	33.23	057	10	37.0	33.29	013	11	35.6	24.21	347	13	35.9	24.21	017	09	36.7	30.18	347	03	36.9	30.20	336	03	900			
850		37.29	031	11		34.26	050	11		41.10	040	11		33.20	008	11		25.17	342	17		29.08	003	11		31.00	318	06		31.09	335	05	850			
800	67.4	36.7	004	10	67.4	35.13	022	09	68.2	36.1	016	13	68.0	34.00	003	12	66.2	25.01	333	13	66.5	25.13	354	13	67.5	28.6	316	12	67.7	28.04	334	05	800			
750		29.10	348	10		28.12	348	12		31.2	348	19		29.05	002	15		21.02	322	21		22.1	346	13		24.03	322	13		26.03	333	06	750			
700	102.3	23.18	349	12	102.2	24.18	325	17	103.2	27.17	347	18	102.8	26.00	360	18	100.4	16.4	317	23	100.8	16.5	334	13	101.9	19.6	330	16	102.2	20.1	325	12	700			
650		17.15	325	09		20.26	326	15		22.10	349	14		22.4	357	21		9.10	326	26		11.21	319	16		12.40	328	21		15.9	327	23	650			
600	141.6	13.20	307	07	141.4	13.24	338	26	142.7	14.12	350	15	142.4	24.9	345	25	135.9	01.18	333	22	135.9	01.21	326	22	140.7	07.13	331	27	141.2	08.10	336	20	600			
550		05.40	331	15		06.37	335	26		07.26	343	22		07.12	348	27		7.25	323	27		5.29	326	22		00.23	339	24		01.13	326	23	550			
500	156.7	5.48	337	22	156.6	6.32	331	26	158.1	1.22	337	33	157.8	02.13	354	37	152.9	16.31	323	20	153.7	12.23	329	26	155.4	9.25	332	46	156.1	3.15	332	36	500			
450		17.57	347	30		16.34	316	49		7.30	338	48		7.23	337	43		16.39	326	23		22.44	336	48		20.35	330	84		12.22	335	52	450			
400	230.4	25.3	354	40	230.5	23.37	303	63	241.9	17.39	338	58	241.6	18.34	342	44	234.8	36.46	324	25	235.8	31.55	334	63	237.9	27.42	331	73	239.4	21.31	335	60	400			
350		41.35	54	53		35.50	327	57		31.53	342	65		32.49	347	61		47.32	322	22		42.33	322	73		39.52	338	86		33.33	335	66	350			
300	300.5	55.34	72	304.5	50.34	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	59.30	64	300		
250		70.34	74	67		62.34	78	62		62.34	78	62		62.34	78	62		62.34	78	62		62.34	78	62		62.34	78	62		62.34	78	62	250			
200	380.0	76.34	56	82.3	71.34	71.34	81.34	71.34	71.34	81.34	71.34	71.34	71.34	81.34	71.34	71.34	71.34	71.34	81.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	71.34	200			
170		71.32	45	74		64.34	58	71		64.34	58	71		64.34	58	71		64.34	58	71		64.34	58	71		64.34	58	71		64.34	58	71	170			
150		66.32	42	67		62.34	41	68		62.34	41	68		62.34	41	68		62.34	41	68		62.34	41	68		62.34	41	68		62.34	41	68	150			
130		67.30	34	67		63.33	33	66		63.33	32	66		63.33	32	66		63.33	32	66		63.33	32	66		63.33	32	66		63.33	32	66	130			
110		67.33	30	66		63.33	25	65		63.33	25	65		63.33	25	65		63.33	25	65		63.33	25	65		63.33	25	65		63.33	25	65	110			
100	582.7	67.34	15	63		63.33	26	63		63.33	26	63		63.33	26	63		63.33	26	63		63.33	26	63		63.33	26	63		63.33	26	63	100			
90		65.33	27	64		63.33	27	64		63.33	27	64		63.33	27	64		63.33	27	64		63.33	27	64		63.33	27	64		63.33	27	64	90			
80		64.33	26	64		63.33	26	64		63.33	26	64		63.33	26	64		63.33	26	64		63.33	26	64		63.33	26	64		63.33	26	64	80			
70	Inversion					63.33	21	60		63.33	21	60		63.33	21	60		63.33	21	60		63.33	21	60		63.33	21	60		63.33	21	60	70			
60	875 mb 27-850 mb 37					60.33	20	57		60.33	20	57		60.33	20	57		60.33	20	57		60.33	20	57		60.33	20	57		60.33	20	57	60			
	Isothermal																																			
	850-872 mb 37																																			
	Isothermal																																			
	563-567 mb 9																																			
	Isothermal																																			
	850-855 mb 41																																			
	Isothermal																																			
	861-850 mb 35																																			
	721-700 mb 26																																			
	550-516 mb 7																																			
	Isothermal																																			
	900-882 mb 24																																			
	Isothermal																																			
	870 mb 23-850 mb 29																																			
	Isothermal																																			
	850-845 mb 29																																			
	667-627 mb 15																																			
	Isothermal																																			
	1200 mb 71																																			
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	1245 mb 77																																			
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	1187 mb 86																																			
	Isothermal																													</						

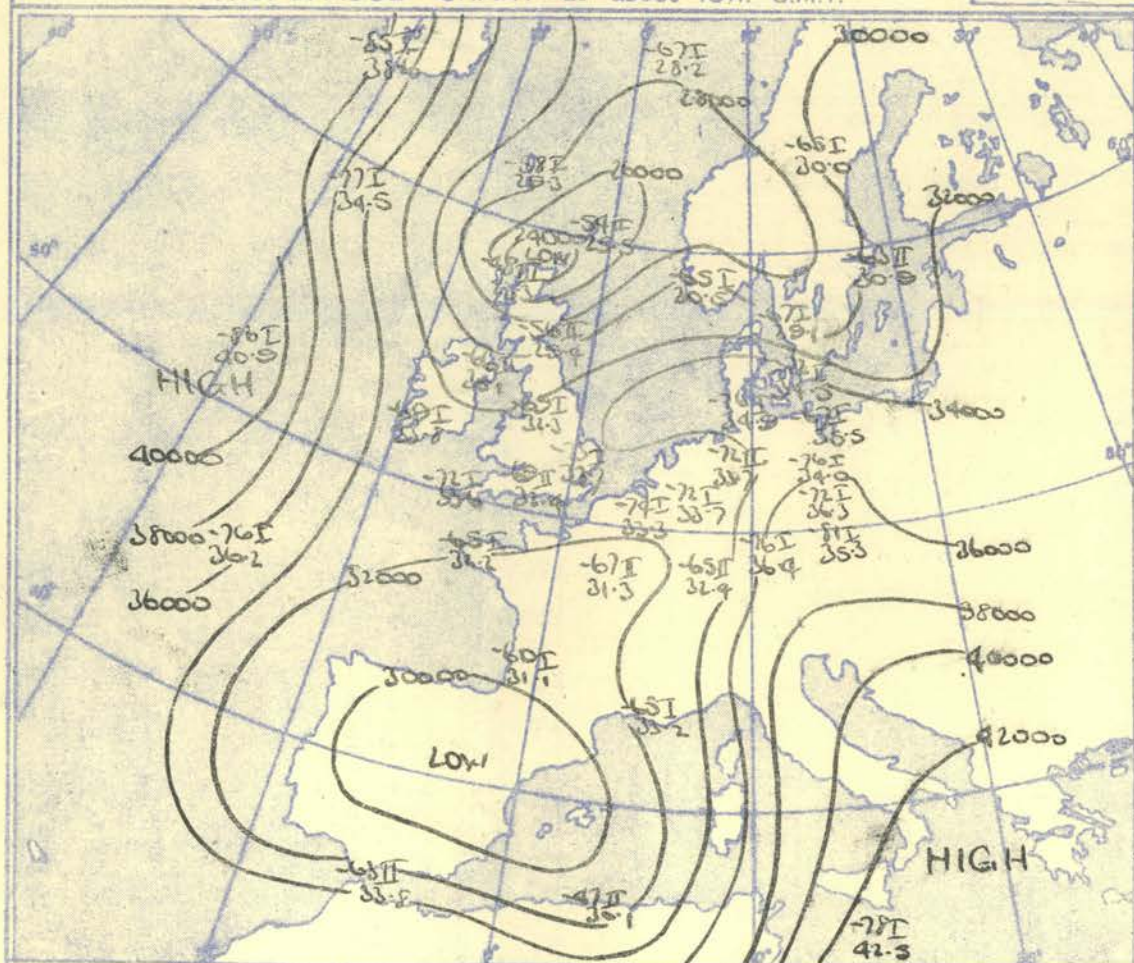
Page 4 HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., and 300 mb., levels at about 15h G.M.T.



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

100 80 60 40 20 10 0 knots

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

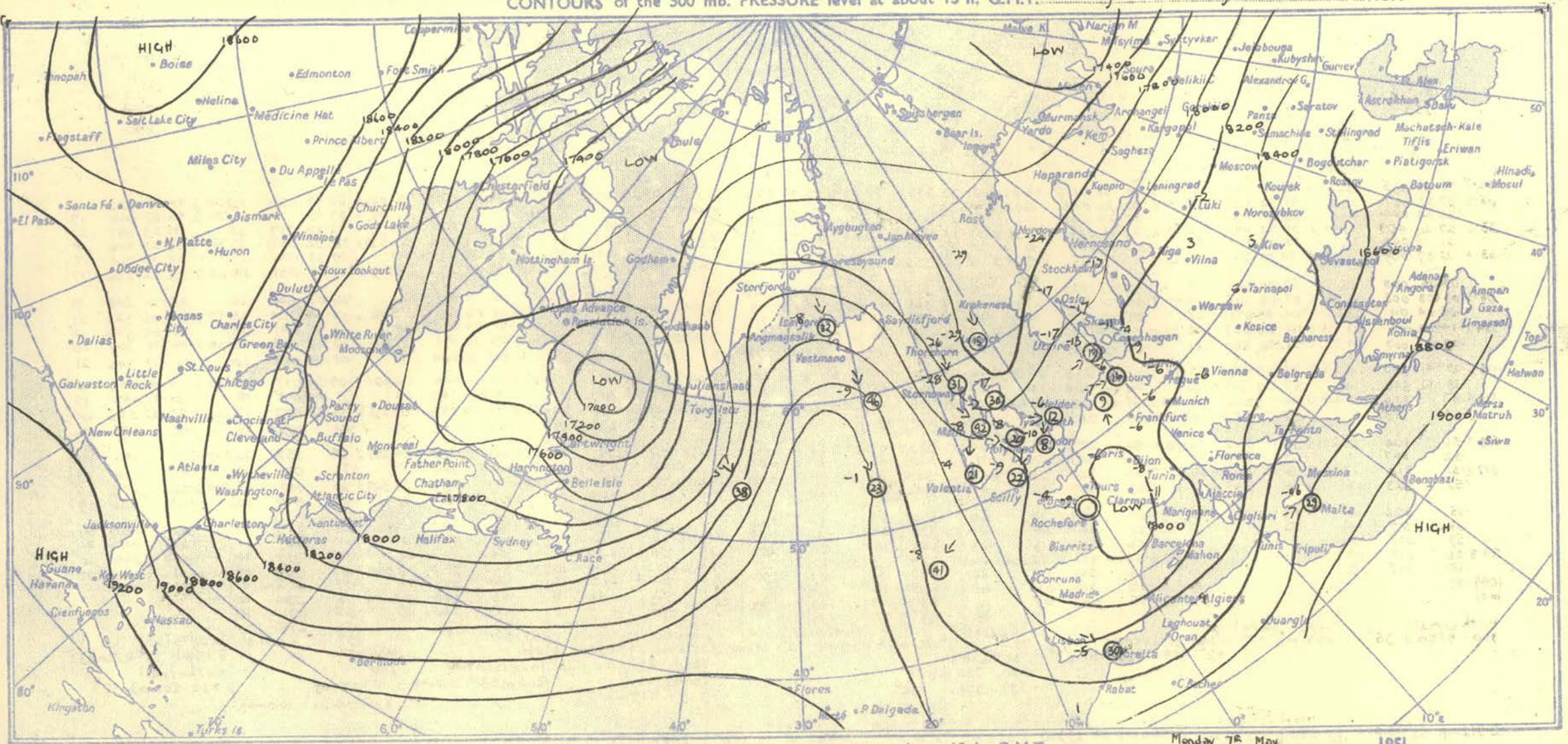


NOTES ON THE AEROLOGICAL SITUATION.

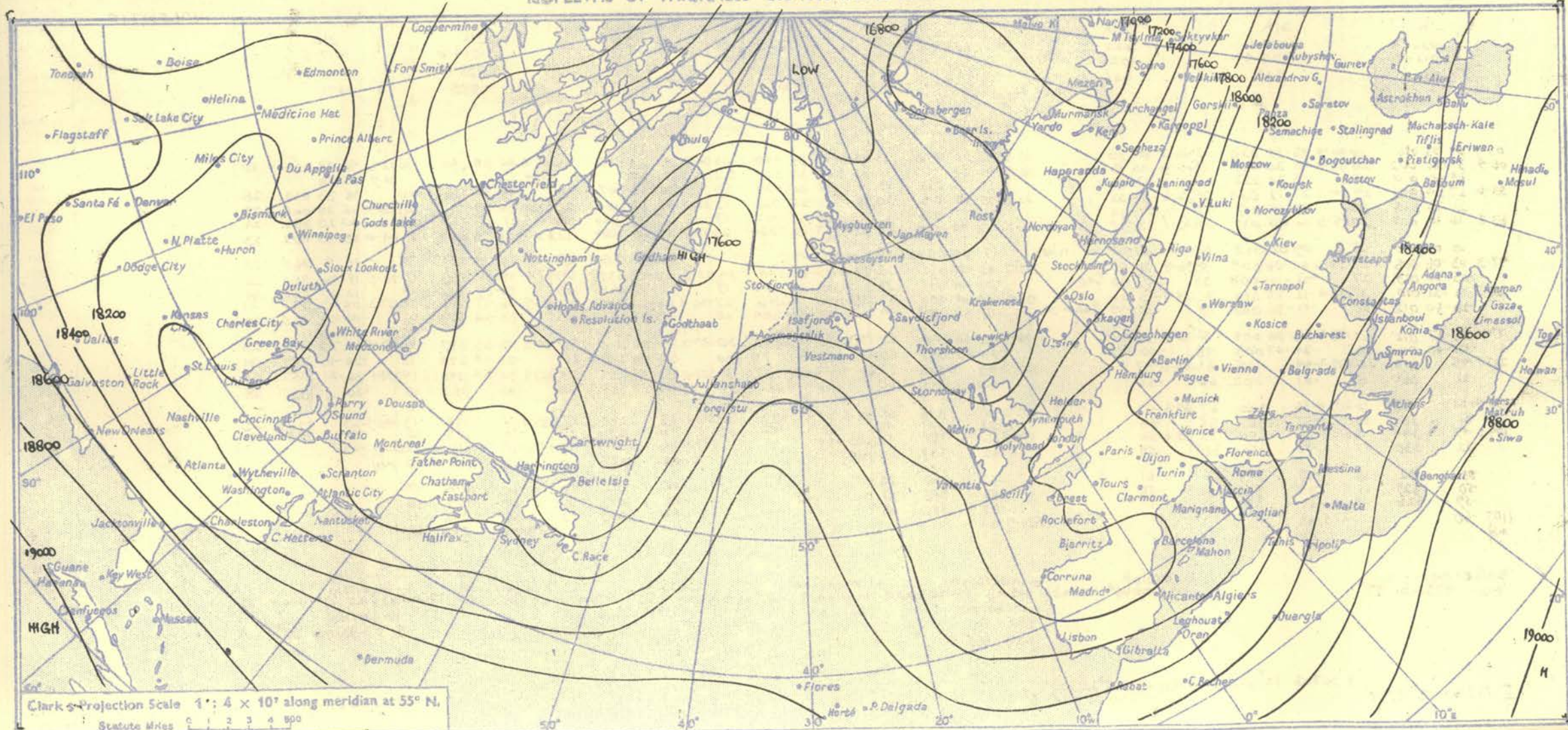
Continuation of the process noted yesterday - increasing amplitude of the wave in the 1000-500 mb thickness pattern over Eastern and Mid-Atlantic.

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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. Monday 7th May 1951.



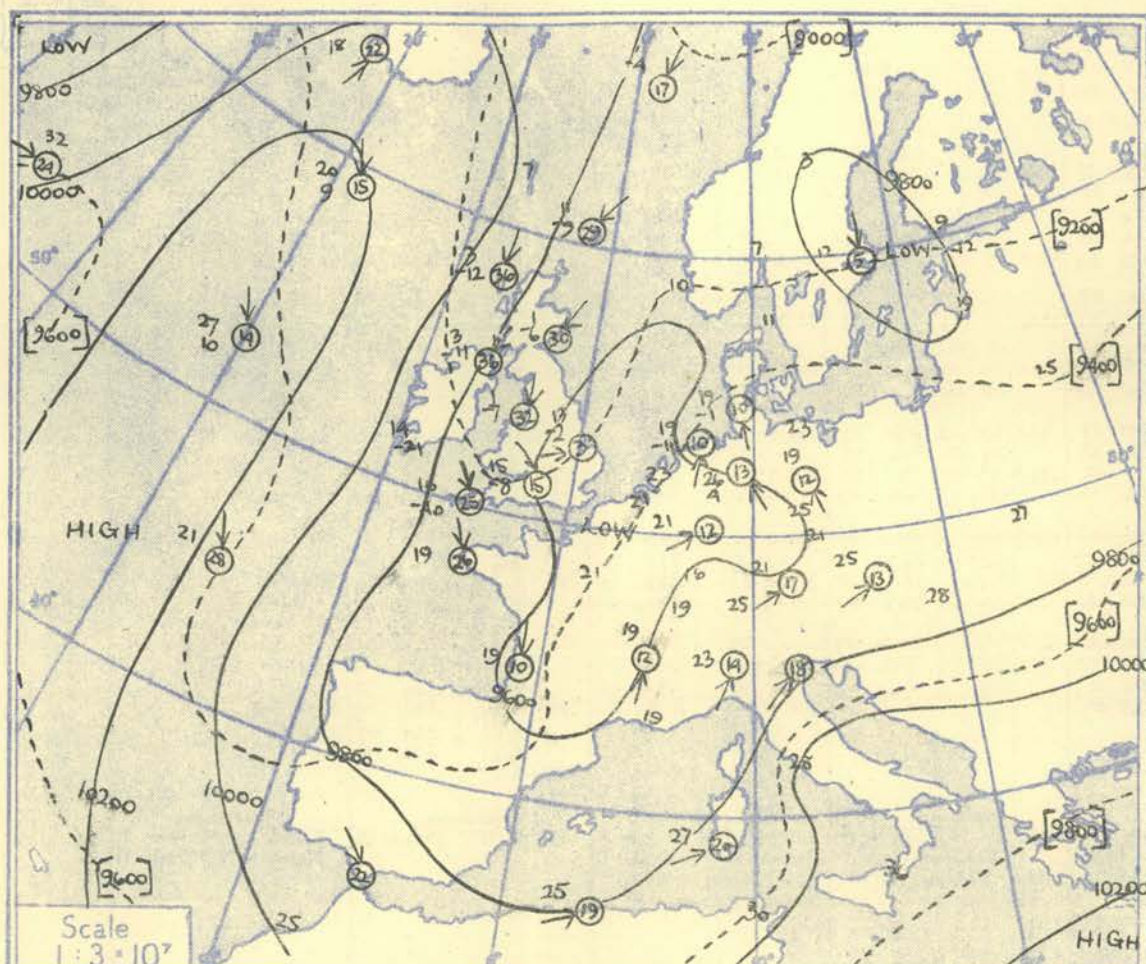
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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		1020.9		mb		1023.5		mb		1020.5		mb		1021.2		mb		1017.3		mb		1014.0		mb		1013.3		mb		1016.0		mb				Time	M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		1010.6		mb		1021.8		mb		1019.6		mb		1011.2		mb		1015.3		mb		1009.5		mb		997.2		mb		1005.4		mb						Time	M.S.L.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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1000	05.5	37	32	037	21	06.3	41	32	026	18	05.5	41	33	083	13	05.7	49	34	083	15	04.7	47	39	331	18	03.8	46	43	005	20	04.4	48	41	020	16	02.9	50	46	020	20	00.3	48	39	020	17																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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750	09	00	008	25	14	01	026	14	12	07	023	19	18	13	035	26	23	07	326	15	26	12	027	12	28	13	017	16	28	07	024	25	28	10	348	19	750	09	00	008	25	14	01	026	14	12	07	023	19	18	13	035	26	23	07	326	15	26	12	027	12	28	13	017	16	28	07	024	25	28	10	348	19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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</

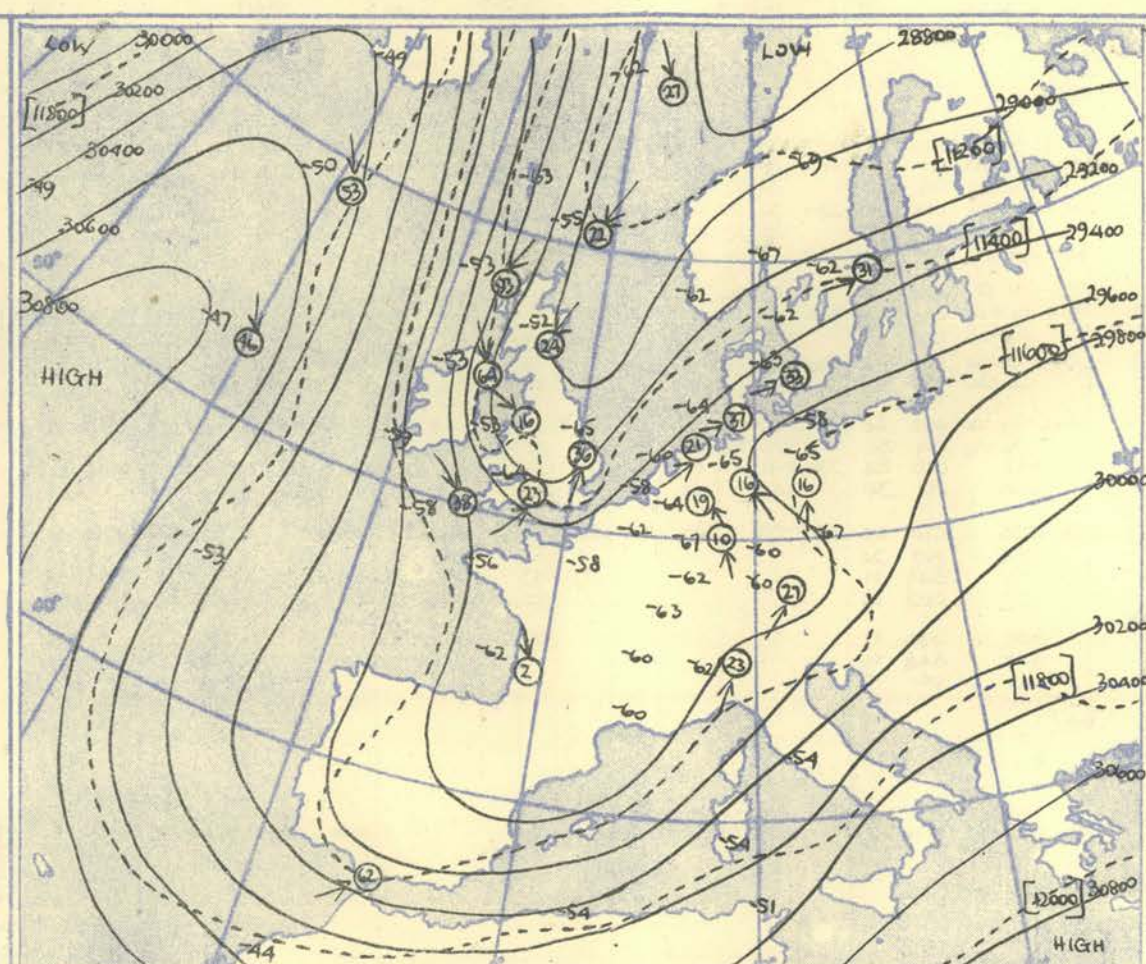
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



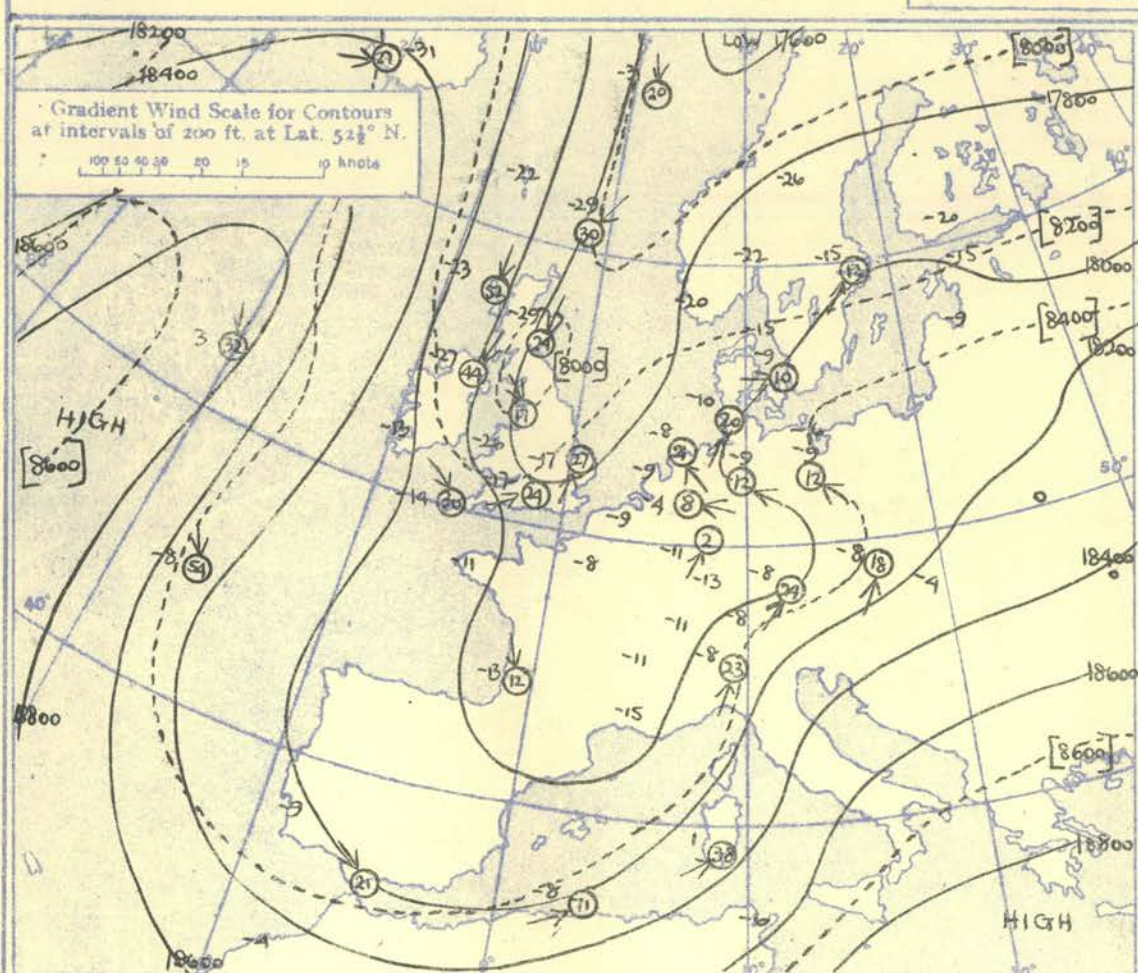
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

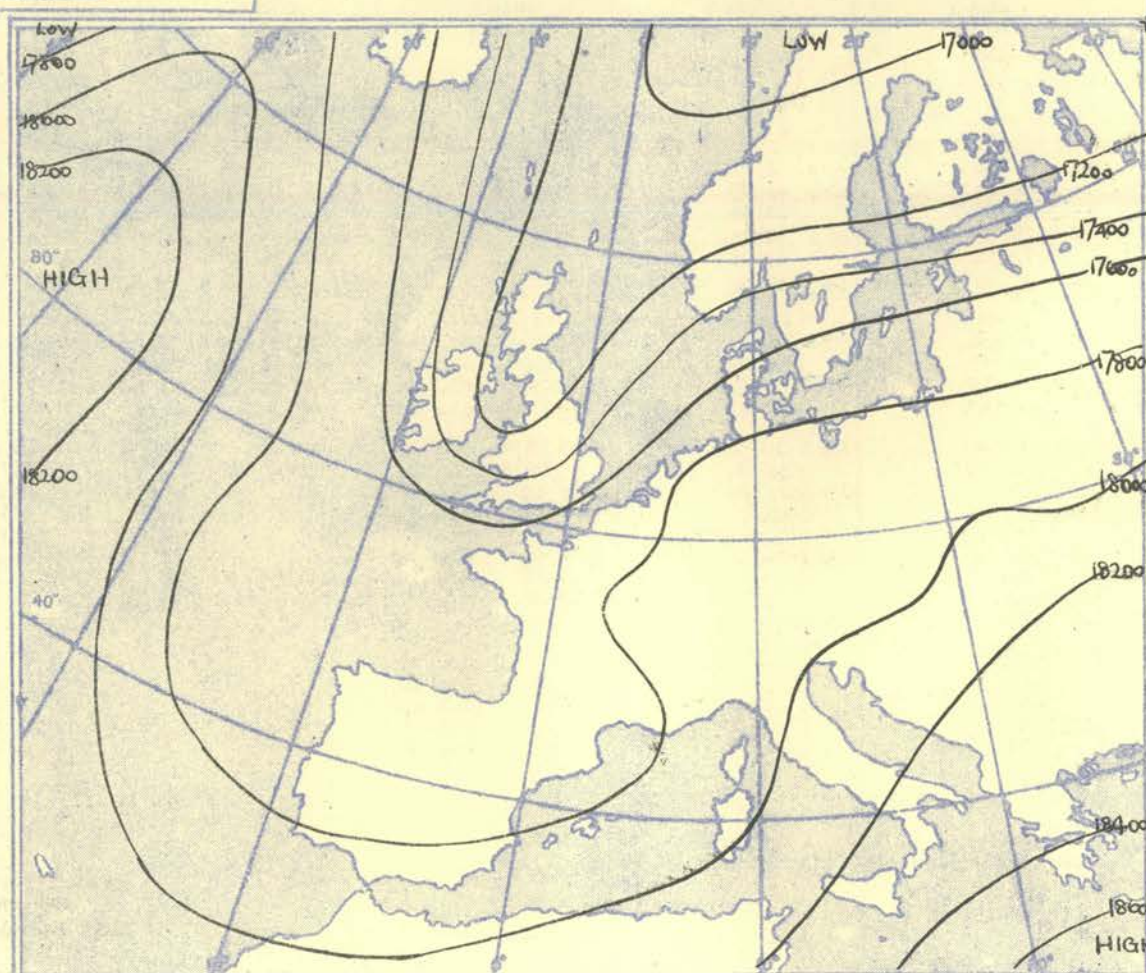
100 50 40 30 20 15 10 knots



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



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



Isopleths of Thickness 500—1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

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

Place	Stornoway		Lerwick		Shoeburyness		Collinstown		Leuchars		Lerwick		Stornoway		Place
Time	09h.		09h.		09h.		15h.		21h.		21h.		21h.		Time
Type	Pilar		Radar						Pilar		Radar		Pilar		Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	030	15	070	28	350	12	020	15	050	15	045	17	030	20	Surf.
1,000	008	28	028	30	360	30	010	21	046	36	032	23	041	22	1,000
2,000	012	27	029	31	010	30	010	33	047	35	032	23	042	23	2,000
3,000	015	25	031	31	010	30	360	24	047	33	033	24	044	23	3,000
4,000	022	25	031	32	020	30	360	21	042	33	034	23	044	25	4,000
5,000	029	29	031	31			360	19	040	33	034	22	043	24	5,000
6,000	028	25	030	30	030	23			042	39	032	19	042	24	6,000
8,000	019	29	030	27	030	09			052	32	026	13	041	25	8,000
10,000	020	34	033	24	070	08			054	27	023	11	038	26	10,000
14,000	013	44	031	24	180	14			090	15	026	19	025	39	14,000
18,000	017	60	030	27	190	26			150	21	022	27	027	48	18,000
24,000	012	78	025	31	180	41			186	22	032	63	024	72	24,000
30,000	018	85	019	32	160	31			033	18	024	95	019	86	30,000
40,000	007	40	011	30	200	02			025	26	009	30			40,000
50,000	(39,000')		001	15	230	10			012	16	003	14			50,000
			010	15	220	07			027	12	360	13			
			(56,000')		(52,000')				(51,000')		(52,000')				

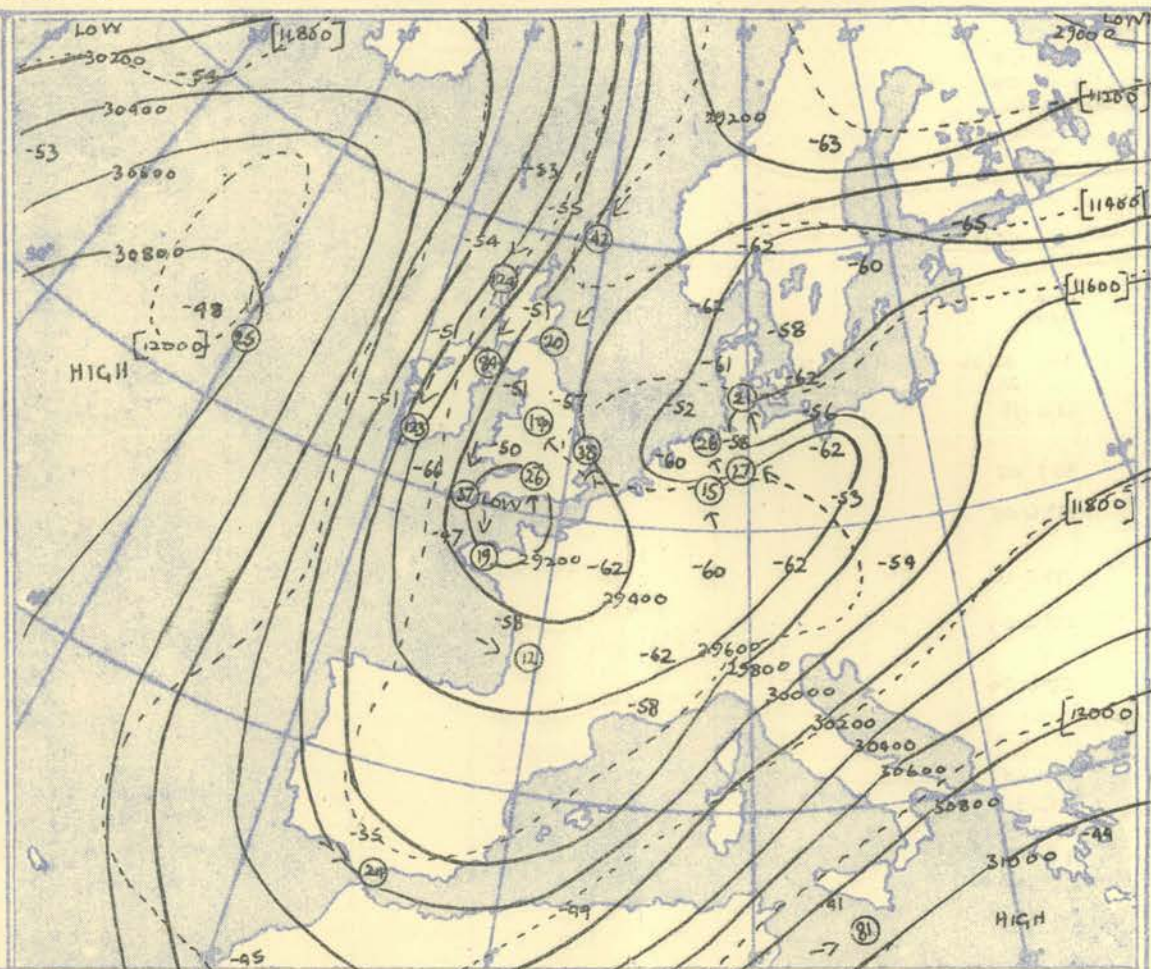
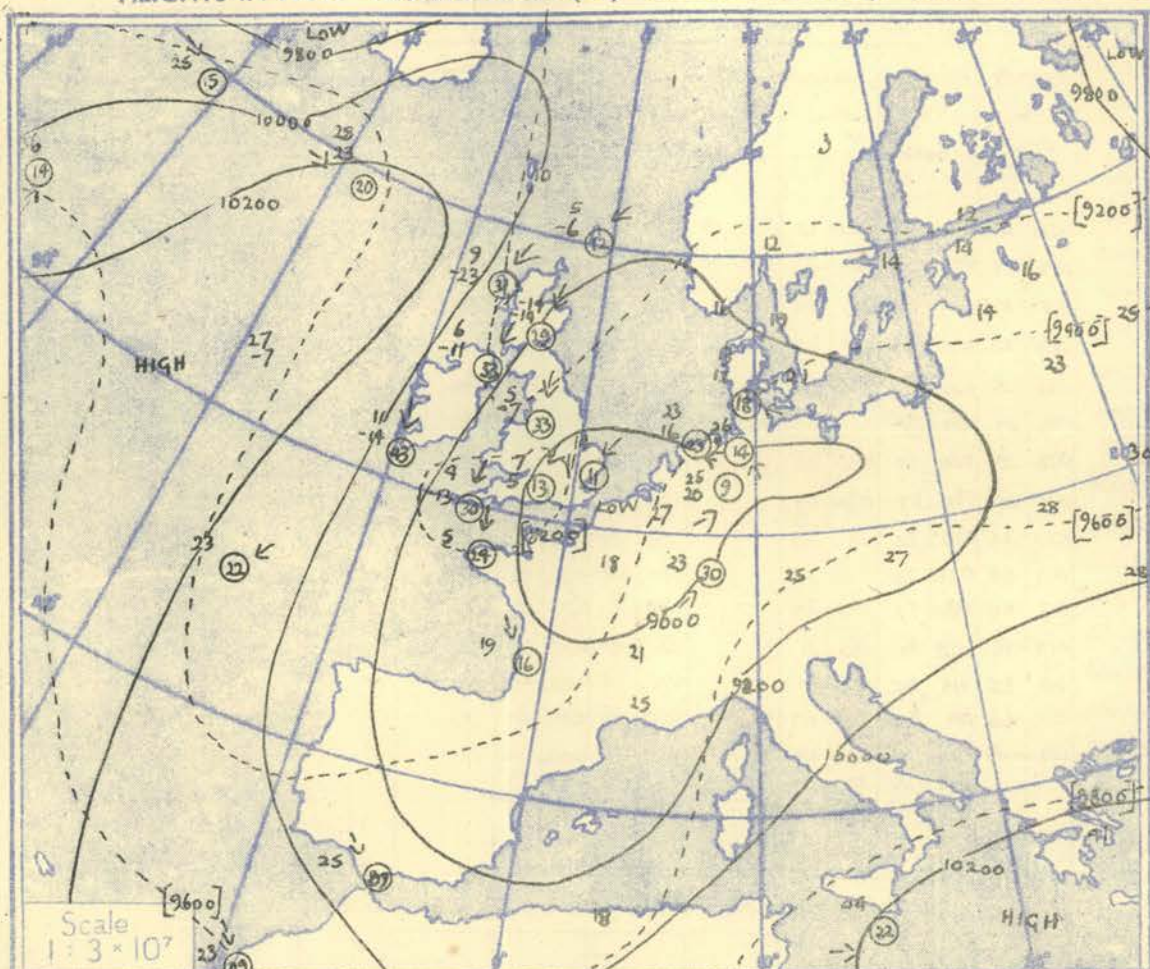
NEPHOSCOPE OBSERVATIONS

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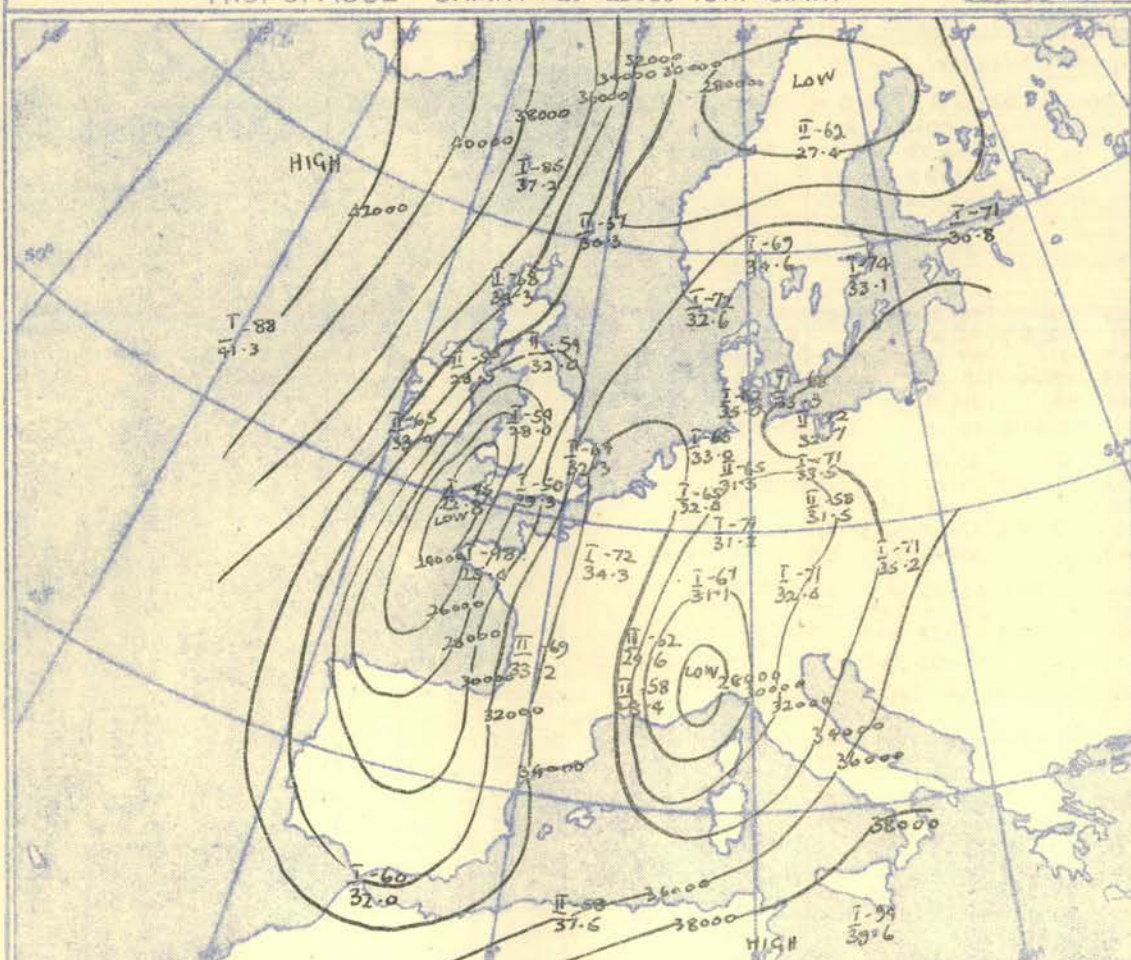
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Lat/Long	59°N 18.9 W				59°N 19.0 W				59°N 19.0 W				59°N 18.9 W				52°N 19.7 W				52°N 19.8 W				52°N 19.8 W				52°N 19.7 W				Lat/Long																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Pressure (Time M.S.L. Surf Freezing)	03h 1033 1033 935				G.M.T. -mb mb mb				09h 1032 1032 920 840				G.M.T. mb mb mb				15h 1031 1031 818				G.M.T. mb mb mb				21h 1028 1028 900				G.M.T. mb mb mb				03h 1033 1033 920				G.M.T. mb mb mb				09h 1033 1033 920 770				G.M.T. mb mb mb				15h 1033 1033 920 760				G.M.T. mb mb mb				21h 1033 1030 770 900				G.M.T. mb mb mb				G.M.T.	Time	Pressure																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

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

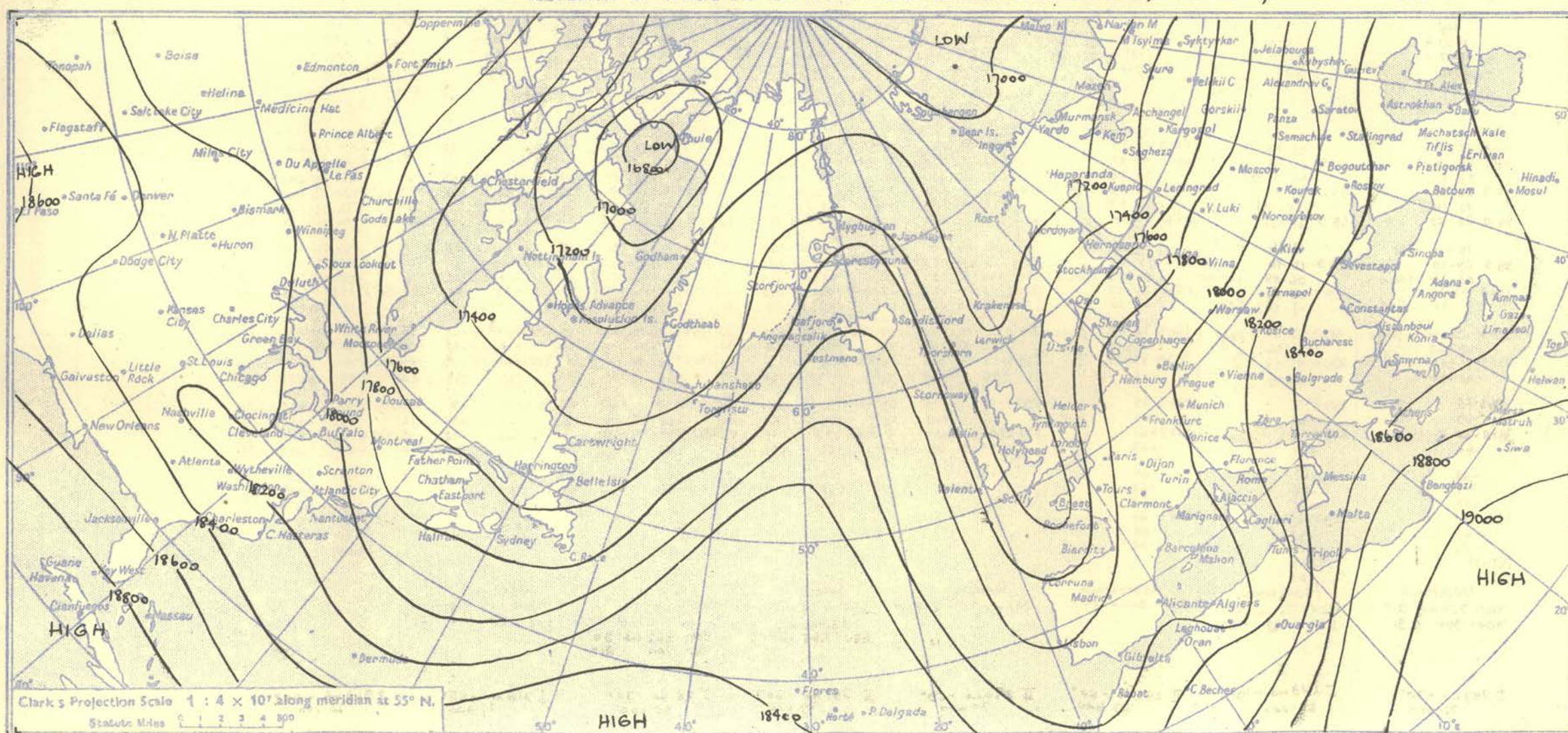
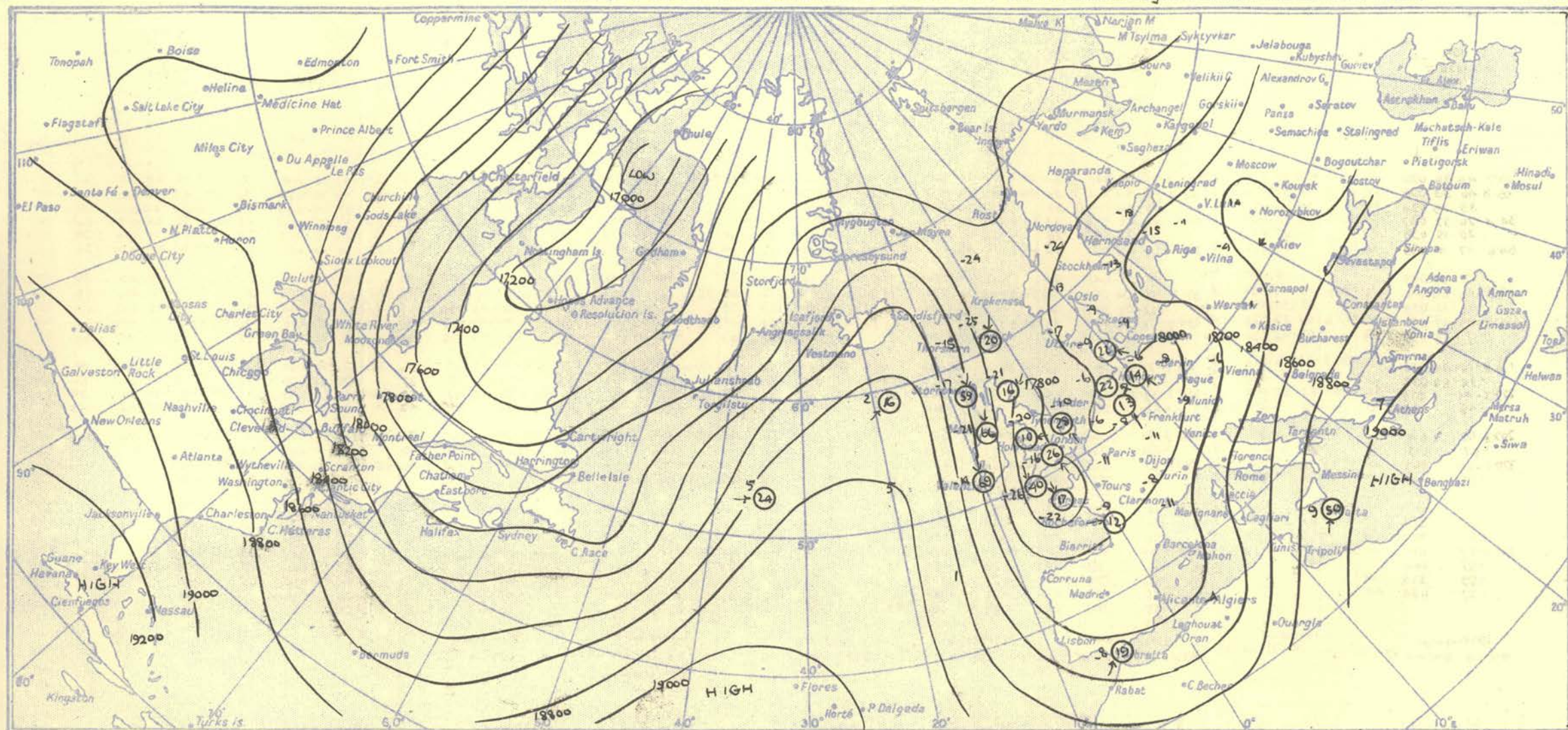


TROPOPAUSE CHART at about 15h G.M.T.



NOTES ON THE AEROLOGICAL SITUATION.

Strong northerly advection resulted in a marked southward elongation of the cold trough over the British Isles, and a cold pool was eventually cut off over southwest England. There is some evidence of dynamical cooling on the eastern side of the cold trough and warming on the western side resulting in its travelling almost due south with winds about 20 degrees east of north.

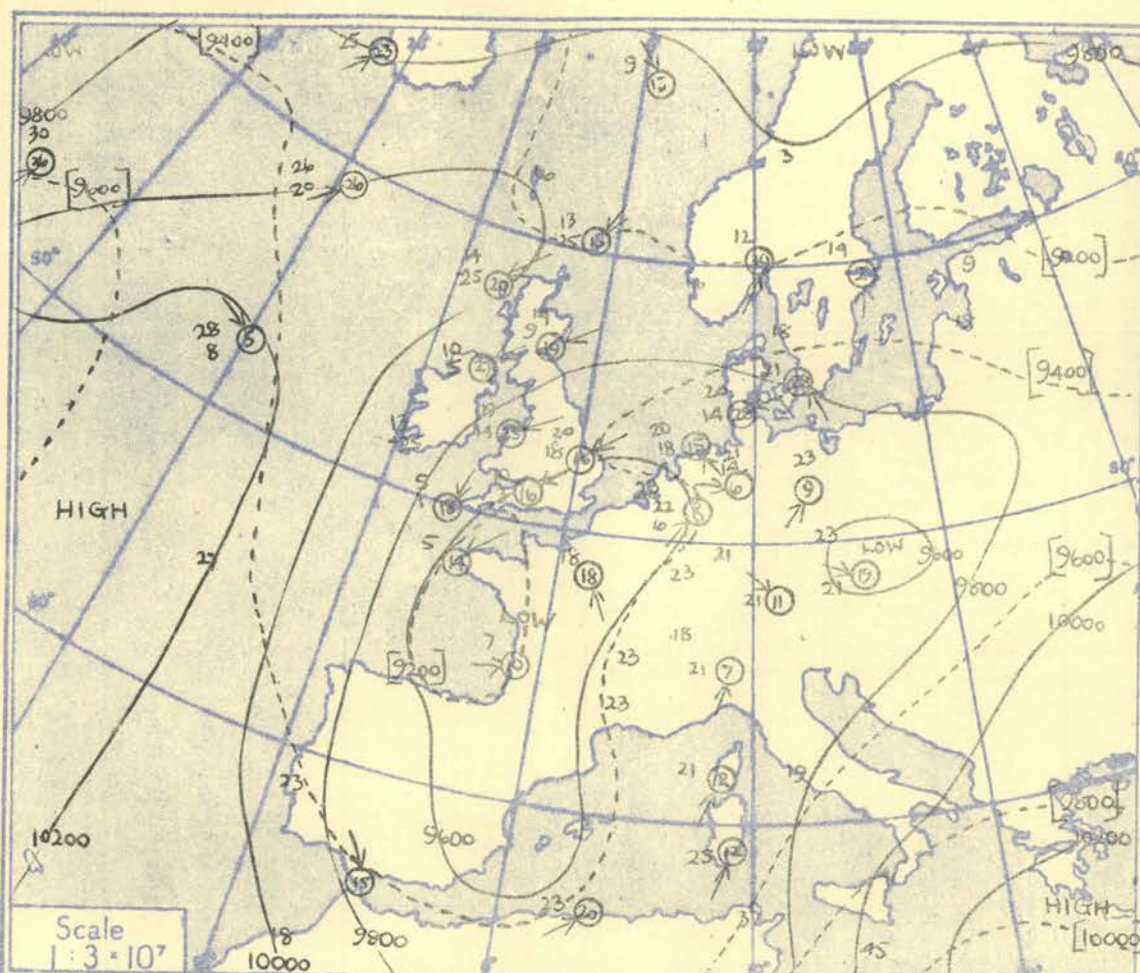


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																														
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Time M.S.L. Surf Freezing	15h		G.M.T.		15h		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													
	1025.5		mb		1028.9		mb		1020.5		mb		1023.6		mb		1016.2		mb		1011.9		mb		1013.8		mb		1009.0		mb		1026.3		mb											
	1015.3		mb		1027.3		mb		1019.6		mb		1013.7		mb		1014.2		mb		1007.3		mb		997.4		mb		1008.3		mb		1025		mb											
	94.4		mb		93.0		mb		92.5		mb		90.7		mb		89.2		mb		90.2		mb		91.5		mb		91.0		mb		90.0		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	36	050	27	48	35	030	18	00.2	46	45	030	30	02.6	49	35	026	18	01.2	44	41	350	30	04.4	41	36	360	16	02.9	47	35	010	15	00.3	51	39	010	16	Surf						
1000	06.8	40	33	029	24	07.8	41	32	036	25	05.4	43	42	012	30	06.3	46	24	353	30	04.4	48	30	015	24	03.1	44	41	350	30	03.7	44	36	360	16	05.2	46	35	353	31	07.1	47	36	004	20	1000
950	33.3	29	034	26	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	34.2	30	031	27	950	
900	34.4	26	22	037	27	35.6	28	20	032	24	33.4	28	28	024	83	34.3	31	16	014	27	32.5	33	20	020	29	31.2	31	29	004	26	31.6	30	22	019	29	33.2	31	23	002	33	35.2	32	14	013	26	900
850	20	15	038	20	22	08	032	23	22	08	032	23	22	08	032	23	24	11	026	27	26	13	008	30	26	13	008	30	26	13	008	30	26	13	008	30	26	13	008	30	26	13	008	30	850	
800	64.6	17	11	039	16	65.9	17	02	032	24	63.7	17	17	041	36	64.7	18	05	034	27	63.0	19	06	015	30	61.8	23	19	025	21	62.0	18	15	019	22	63.6	18	03	007	30	65.8	22	07	015	33	800
750	12	05	040	14	12	19	030	28	12	12	047	36	12	03	036	27	13	03	020	33	20	19	042	13	13	10	018	18	11	04	006	30	17	04	010	38	17	04	010	38	17	04	010	38	750	
700	98.1	05	06	040	12	99.6	09	28	028	31	97.3	06	06	062	29	98.3	06	11	020	33	96.6	05	08	022	33	95.9	14	11	081	11	95.6	07	05	021	13	97.1	04	13	006	30	99.7	11	14	006	40	700
650	01	12	039	14	03	30	025	33	02	02	057	26	02	02	057	26	00	24	033	27	10	05	112	10	00	03	058	08	04	21	010	31	05	15	005	47	05	15	005	47	05	15	005	47	650	
600	35.8	09	27	039	18	37.6	04	39	022	41	34.9	08	15	049	24	35.9	09	27	018	45	34.4	06	32	063	17	34.5	05	08	187	13	33.4	04	07	138	09	34.6	12	27	010	31	33.9	04	22	005	54	600
550	17	35	037	18	10	43	020	48	16	30	047	26	14	36	022	51	12	40	067	09	02	22	156	20	07	23	155	19	21	36	005	38	05	22	005	61	05	22	005	61	550					
500	178.9	25	44	034	20	181.3	17	46	022	59	178.1	21	36	081	16	179.2	21	44	022	66	177.9	20	49	108	10	179.0	10	33	161	28	177.3	16	32	163	26	177.4	26	44	005	40	182.1	14	31	003	69	500
450	34	52	032	26	34	51	023	63	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	30	45	104	15	450	
400	229.3	42	029	36	233.1	32	57	019	74	229.3	37	53	128	15	230.4	38	58	022	69	229.2	36	59	157	30	231.4	31	42	161	36	229.1	33	49	167	48	228.0	45	005	37	234.1	30	49	004	90	400		
350	48	013	49	40	020	115	45	144	15	43	016	82	47	160	37	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	42	161	45	350
300	292.5	55	013	42	297.2	53	018	124	293.0	51	046	20	294.2	51	017	84	292.6	51	126	14	295.4	57	160	38	293.0	50	161	26	291.7	46	004	37	298.6	51	010	123	300									
250	57	009	24	382.9	62	013	50	380.8	55	023	28	382.3	63	017	57	380.9	52	030	22	382.4	51	105	07	382.1	48	052	06	380.9	50	005	28	384.1	64	005	28	384.1	64	005	28	384.1	64	005	28	384.1	64	250
200	58	008	19	60	012	31	56	022	28	53	014	34	51	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	50	032	18	200
170	60	007	15	61	011	25	55	019	19	53	020	20	54	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	52	032	18	170
150	59	002	14	61	006	24	56	004	11	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	54	014	20	150
130	61	002	16	58	019	18	58	009	09	53	026	20	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	56	044	14	130
110	52.9	57	001	18	540.7	60	52.9	57	001	18	540.7	60	52.9	57	001	18	540.7	60	52.9	57	001	18	540.7	60	52.9	57	001	18</																		

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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Pressure 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									
	1027.8	mb			1029.4	mb			1024.2	mb			1023.8	mb			1016.2	mb			1009.0	mb			1012.8	mb			1014.8	mb			1024.5	mb												
	1017.4	mb			1027.7	mb			1023.3	mb			1014.8	mb			1014.1	mb			1004.0	mb			996.4	mb			1004.1	mb			1023	mb												
	937	mb			943	mb			941	mb			918	mb			923	mb			803	mb			913	mb			900	mb			900	mb												
Pressure Height Temp. Dew Wind Dir. Vel. knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	ft/100 °F. °F. °F. ° knots	Pressure mb														
Surf	02.7	39	31	040	16	00.4	42	33	040	18	00.2	39	38	040	14	02.6	41	34	025	15	00.6	42	37	360	20	01.2	45	45	345	12	04.4	41	38	350	08	02.9	43	39	020	18	00.3	43	32	020	07	Surf
1000	07.3	40	31	040	24	07.8	39	30	045	20	06.3	37	36	024	37	06.5	40	34	039	28	04.3	40	35	009	27	02.3	44	44	032	19	03.4	43	39	040	08	04.0	43	39	041	24	06.6	41	32	022	09	1000
950		34	25	040	22		33	25	050	20		33	32	033	35		35	30	039	28		35	31	012	33		42	41	032	19		36	34	060	19		43	39	041	24		35	28	025	12	950
900	35.0	27	19	041	21	35.6	27	17	041	18	34.1	26	26	042	34	34.4	30	26	044	28	32.1	30	26	020	37	30.6	40	38	042	21	31.3	30	27	008	18	32.0	32	25	039	25	34.5	32	21		900	
850		21	05	040	18		21	06	050	19		24	23	056	31		28	22	047	28		28	23	044	37		36	36	052	22		26	23	016	15		26	20	033	27		28	10		850	
800	65.3	22	08	036	15	65.9	22	01	050	17	64.6	21	20	061	29	65.1	25	18	043	21	62.8	27	22	062	37	61.9	32	32	057	20	61.8	22	19	033	10	62.6	20	15	028	24	65.2	26	00		800	
750		19	16	026	14		19	09	048	18		20	20	060	27		18	12	045	22		25	20	076	31		26	24	063	16		17	03	032	12		12	08	028	19		20	15		750	
700	77.3	13	25	021	15	100.0	14	25	049	20	98.8	14	07	059	19	99.9	10	05	054	27	97.2	19	14	084	25	96.3	20	18	066	16	94.8	10	03	073	16	96.3	05	01	033	18	99.3	13	25		700	
650		10	33	020	18		10	29	044	25		09	05	072	14		03	04	068	25		13	08	088	24		13	08	069	18		09	24	092	22		02	05	047	24		06	37		650	
600	137.9	03	38	024	19	138.6	05	33	038	28	137.3	03	01	083	10	137.2	03	17	077	16	136.0	05	01	083	25	135.3	06	01	075	16	133.2	01	18	097	23	134.2	04	19	060	28	137.6	01	47		600	
550		06	39	026	28		01	39	031	34		04	09	082	10		05	28	077	12		02	09	081	29		02	09	083	15		07	22	095	30		12	33	058	33		06	51		550	
500	182.1	13	42	023	33	183.3	04	41	029	39	181.6	13	23	144	03	181.4	13	35	084	12	180.5	11	21	090	27	179.7	11	22	081	15	177.2	16	48	103	35	177.6	22	42	063	29	181.9	08		500		
450		18	47	022	40		13	48	028	47		23	32	190	07		24	45	080	12		22	33	090	24		23	32	095	17		26	57	112	37		33	42	061	36		14		450		
400	234.5	29	44	018	46	236.4	24	57	027	55	233.6	35	44	218	09	233.2	37	57	035	18	232.4	35	46	095	20	231.6	37	55	097	15	228.7	37	60	117	37	228.4	42		061	31	234.7	28		400		
350		43		015	58		38	58	029	58		50		340	08		47		035	42		49		100	20		51		092	15		48		125	35		064	38		42		350				
300	298.3	57		018	71	300.8	55		021	66	296.4	59		043	42	296.5	56		035	78	295.4	60		074	16	294.2	65		093	19	291.7	62		120	34	291.6	49		054	36	298.5	58		300		
250		72		016	71		74		021	75		67		036	52		68		030	71		64		055	31		69		088	18		61		091	34		036	35		69		250				
200	382.6	70		011	23	384.3	82		020	46	381.6	65		043	33	382.1	67		035	50	381.3	59				379.1	62		088	15	377.9	56		063	21	380.2	52		031	35	383.7	65		200		
170		67		011	21		70		015	30		68		038	25		64		032	28		64					60		073	15		57		062	16		031	27		65		170				
150		65		002	20		69		018	25		66		022	18		67		028	25							62		070	09		58		062	12					65		150				
130		67		010	18		67		018	16		66		027	18		67		038	14							62		045	06		57		053	09					65		130				
110		67		008	11							66		001	09		67		025	10																				65		110				
100	528.1	64		357	10						527.0	65		017	12	527.6	68		012	11																</										

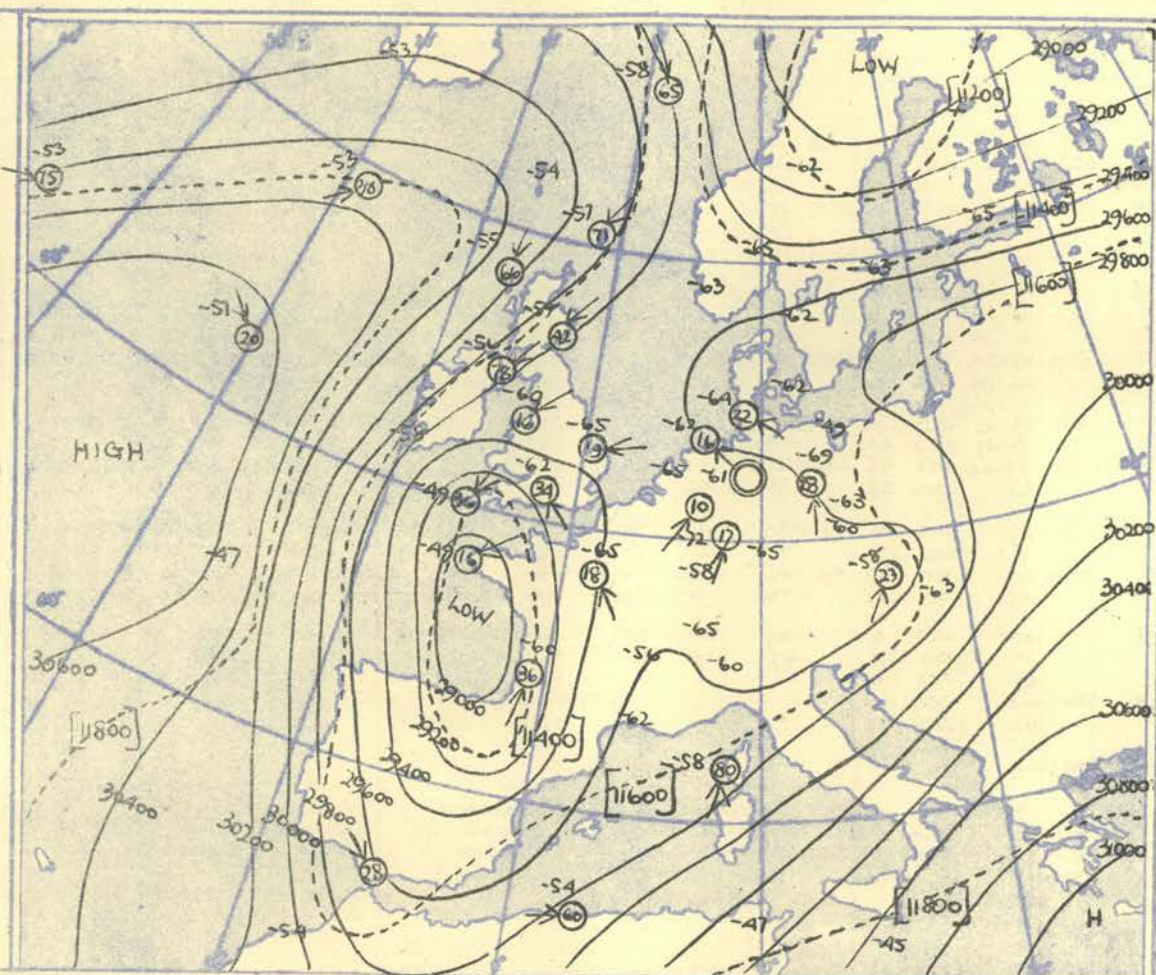
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



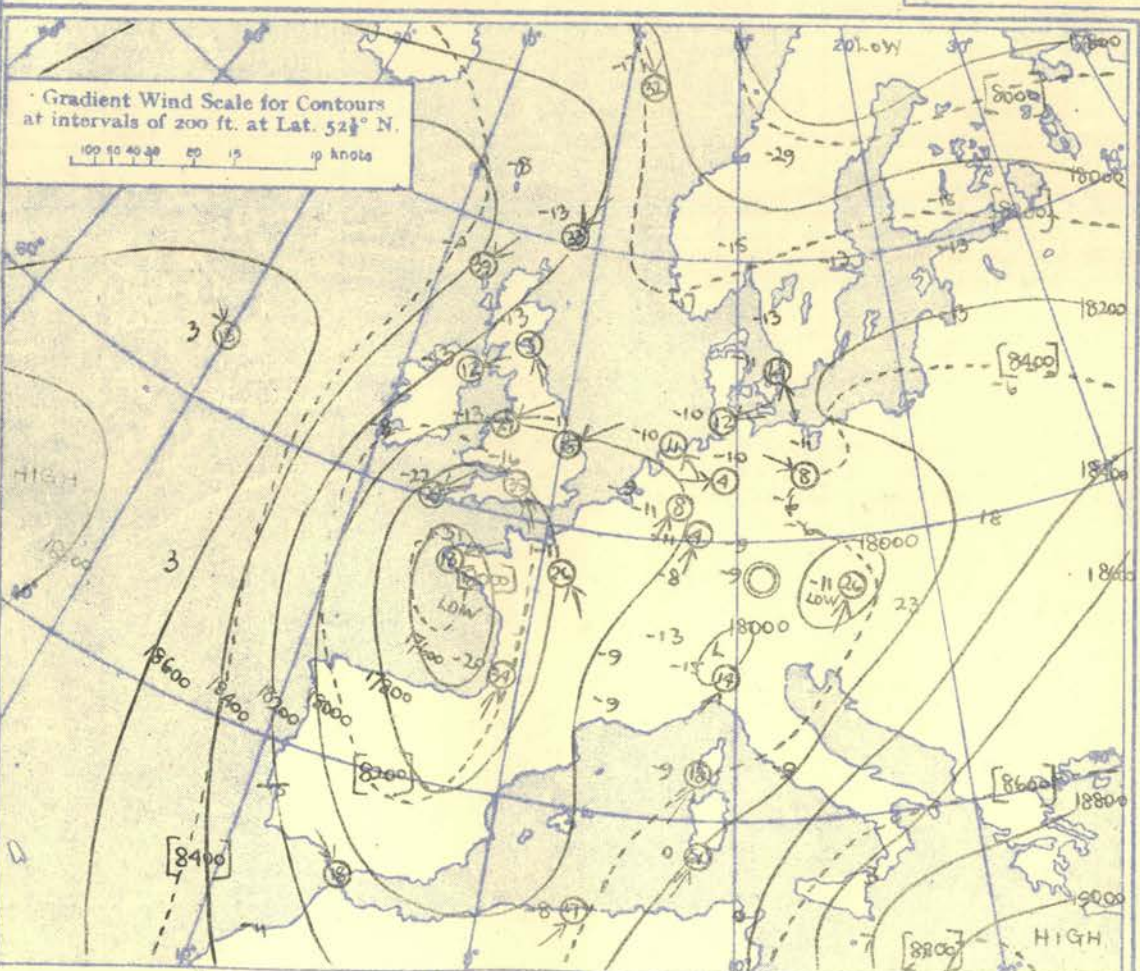
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

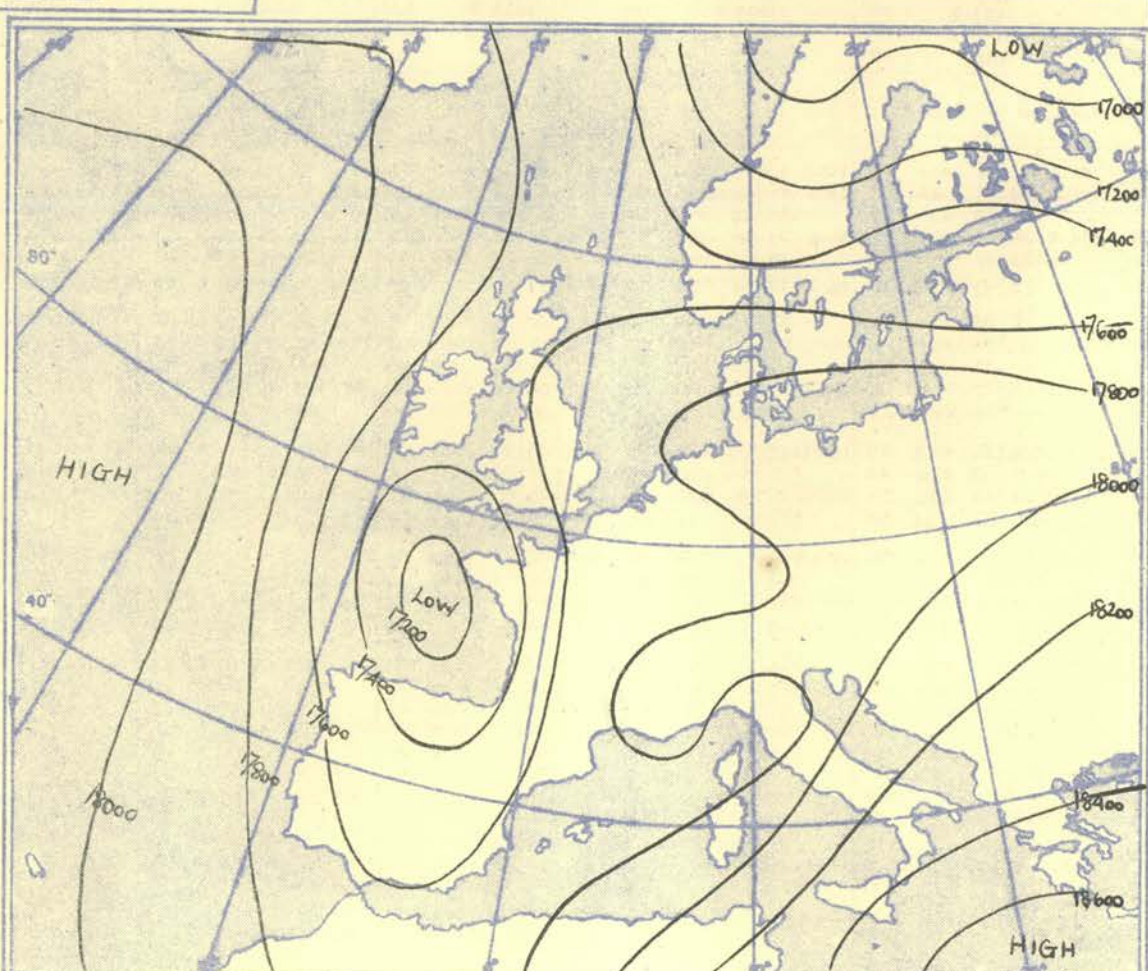
100 50 40 30 20 15 10 knots



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



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

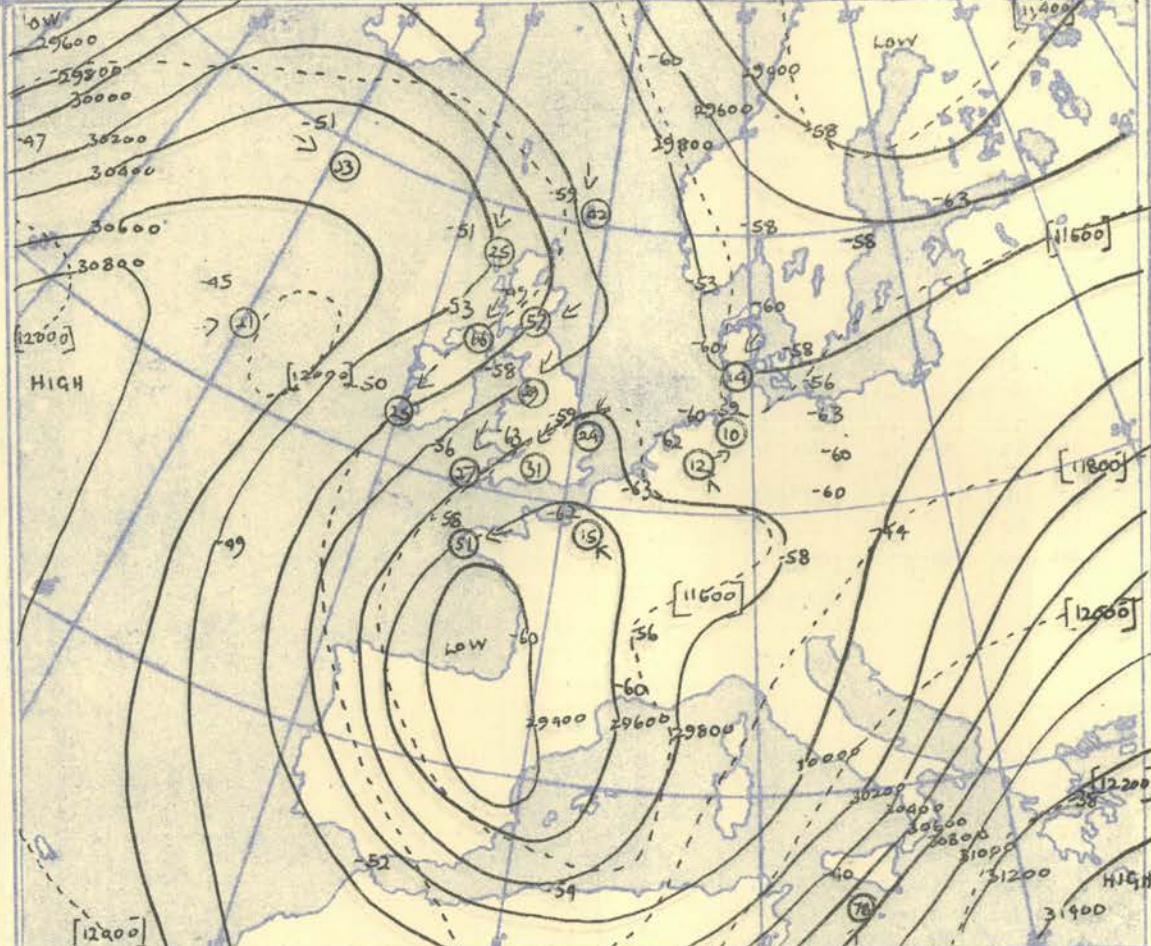
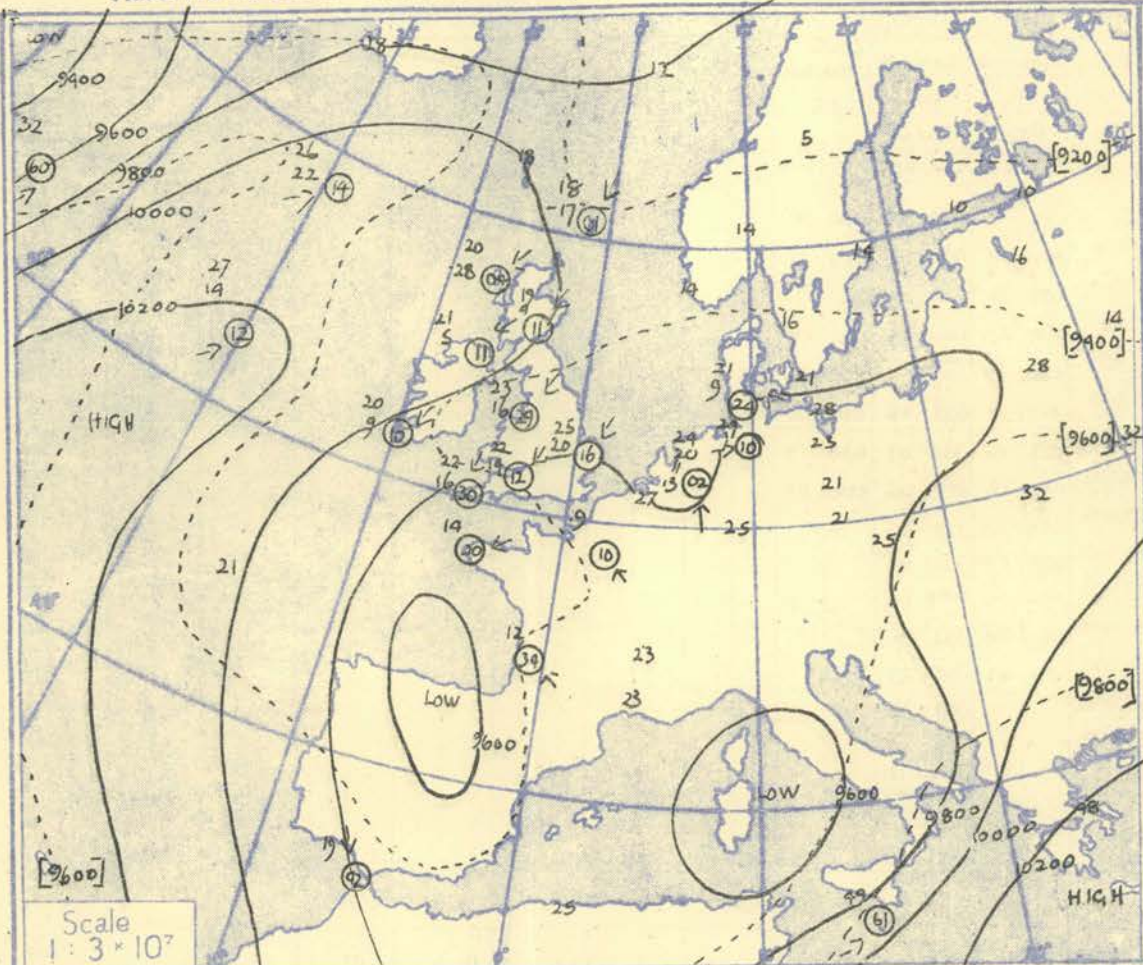


Isopleths of Thickness 500-1000mb.

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

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

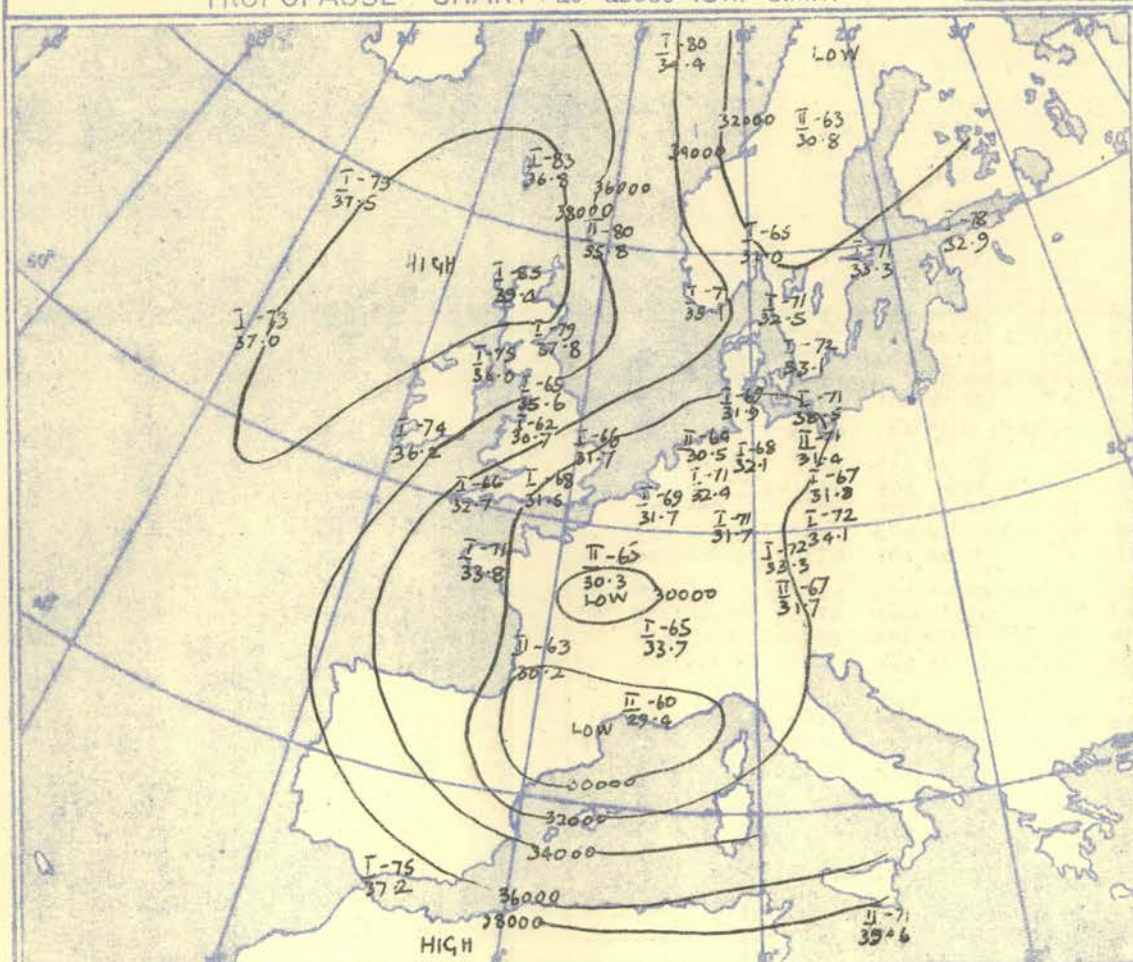
Ship	Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Explorer				Weather Explorer				Weather Explorer				Ship							
Lat/Long	59°N 18.9°W				58.9N 19W				59.0N 18.8W				58.9N 19.0W				52.8N 19.9W				52.8N 20W				53.0N 19.9W				52.5N 20.0W				Lat/Long			
Pressure	Time	03h G.M.T.			09h G.M.T.			15h G.M.T.			21h G.M.T.			03h G.M.T.			09h G.M.T.			15h G.M.T.			21h G.M.T.			G.M.T.			Time							
	M.S.L.	1025 mb			1021 mb			1021 mb			1026 mb			1028 mb			1027 mb			1026 mb			1025 mb			mb			M.S.L.							
	Surf	1026 mb			1021 mb			1021 mb			1020 mb			1028 mb			1027 mb			1026 mb			1025 mb			mb			Surf							
	Freezing	900 and 845 mb			765 mb			735 mb			735 mb			740 mb			880, 750 mb			750 mb			760 mb			mb			Freezing							
Pressure	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			Pressure				
	Temp.	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	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.			Temp.				
Surf	Dew	°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			°F.			Dew				
	Wind	knots			knots			knots			knots			knots			knots			knots			knots			knots			Wind							
Surf	Dir.	°			°			°			°			°			°			°			°			°			°			Dir.				
	Vel.	knots			knots			knots			knots			knots			knots			knots			knots			knots			Vel.							
Surf	Height	ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100			ft/100													



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

00 50 40 30 20 10 knots

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

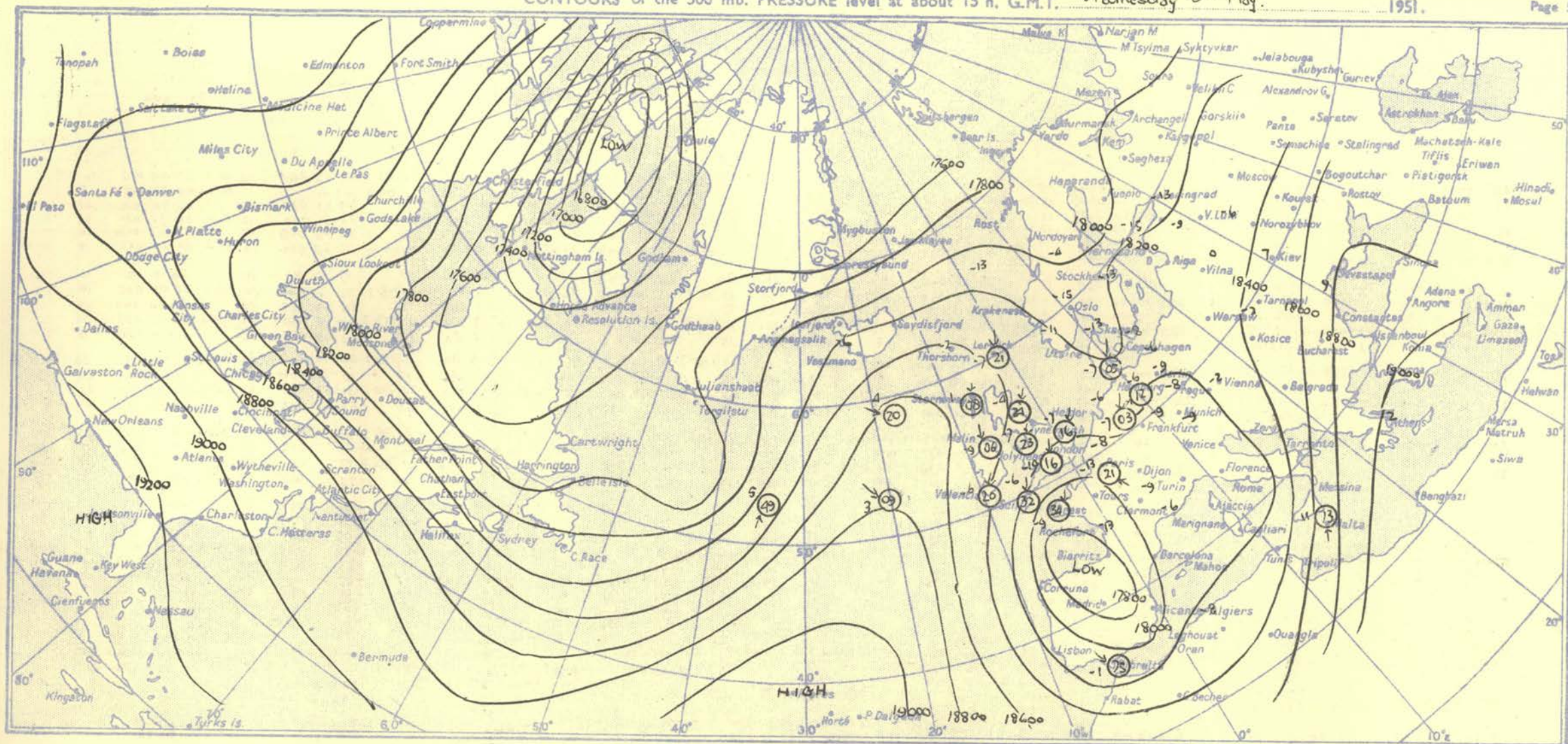


NOTES ON THE AEROLOGICAL SITUATION.

The cold pool continued to move southwards and became less intense. Considerable warming - partly dynamical and partly advection from the Low Countries - occurred over the British Isles.

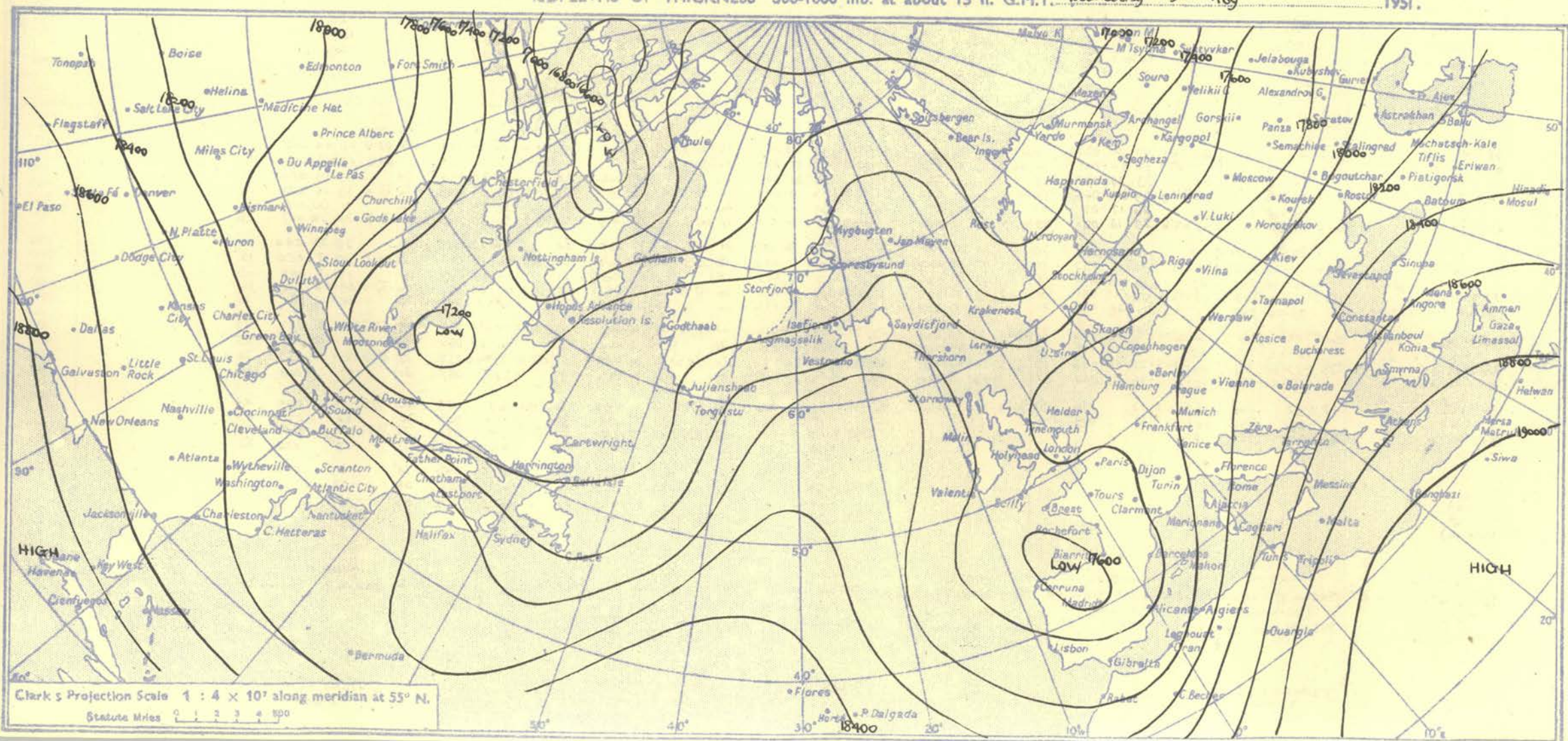
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Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



ISOPLETHS OF THICKNESS 500-1000 mb. at about 15 h. G.M.T. Wednesday 9th May

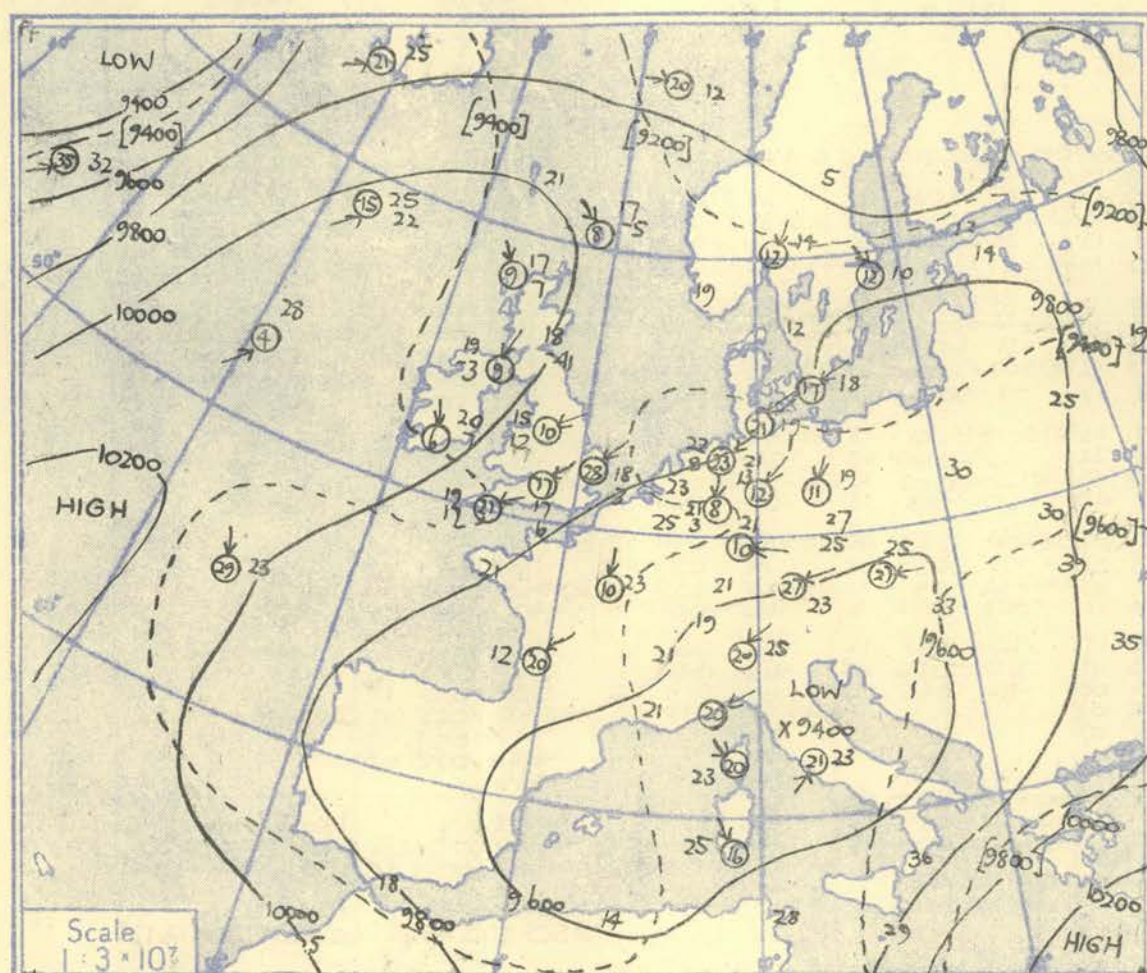
1951.



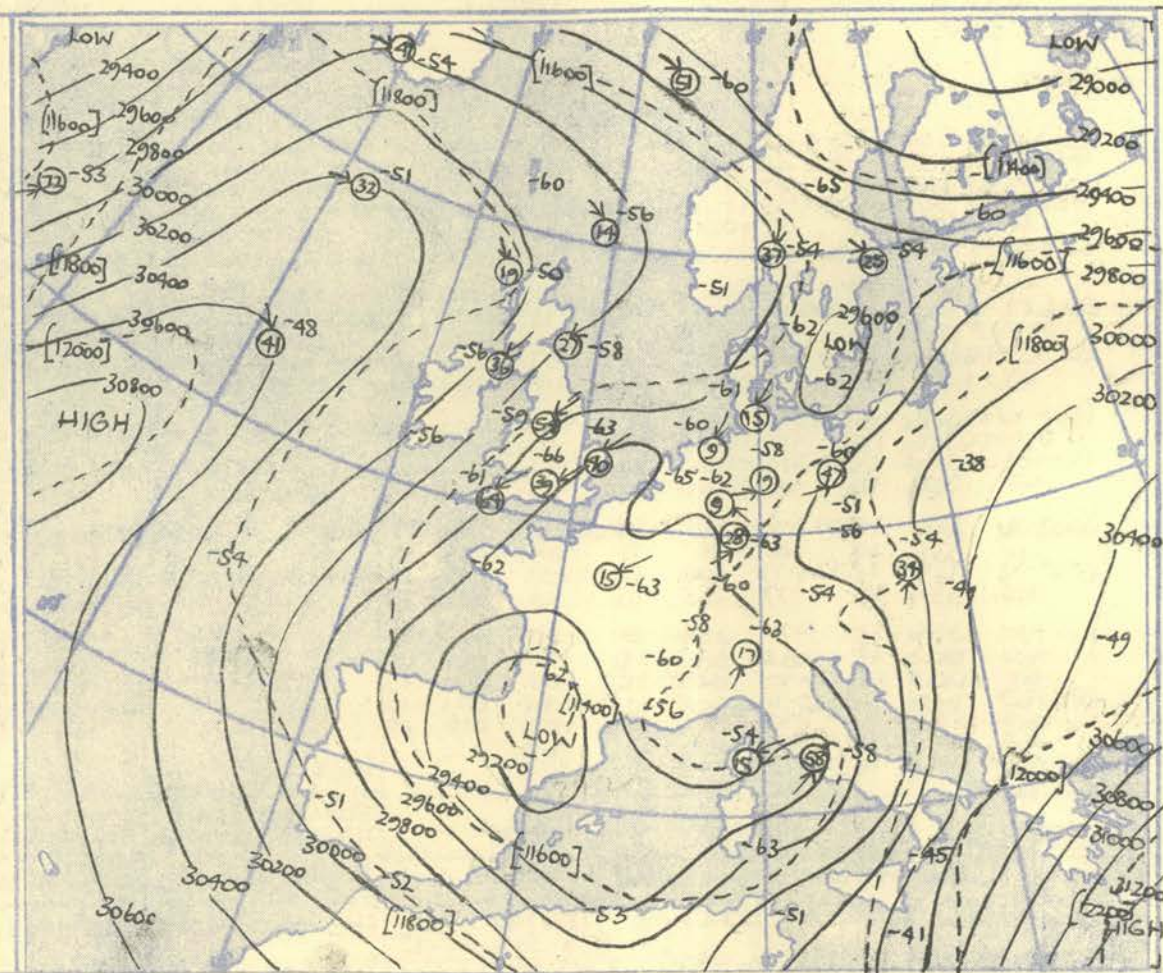
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION											
Time M.S.L. Surf Freezing	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. Surf Freezing															
	1027.8		mb		1029.0		mb		1026.2		mb		1024.7		mb		1018.6		mb		1013.5		mb		1013.7		mb		1016.2		mb		1023.4															
	1017.5		mb		1027.3		mb		1025.4		mb		1015.0		mb		1016.6		mb		1008.9		mb		797.4		mb		838, 817, 800		mb		860, 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	46	31	050	10	00.4	47	31	030	08	00.2	43	36	080	20	02.6	49	35	060	20	00.6	49	39	040	18	01.2	48	48	045	14	04.4	46	45	020	14	02.9	49	42	360	12	00.3	53	40	025	16	Surf		
1000	07.4	43	29	036	10	07.7	43	28	057	10	07.0	44	34	040	12	06.7	46	33	059	27	05.0	47	38	040	27	03.7	47	46	03.6	14	04.4	47	41	04.4	18	04.8	45	44	044	15	04.8	45	44	044	15	1000		
950		33	22	029	11		36	21	075	09		35	30	047	12		38	20	057	24		40	33	043	26		44	41	053	22		39	35	030	15		43	34	010	21		43	34	010	21	950		
900	35.1	26	17	021	16	35.7	32	14	088	07	35.0	31	27	054	12	34.8	32	28	064	21	33.2	36	30	066	30	32.1	43	40	060	22	31.9	36	35	032	12	32.6	34	31	040	14	34.6	36	32	041	22	900		
850		24	09	009	09		30	06	060	05		27	21	061	14		32	29	058	20		36	30	076	30		39	36	063	20		37	36	044	08		38	28	048	17		31	27	046	26	850		
800	05.5	24	08	008	06	06.6	27	22	052	04	05.7	27	18	063	14	05.7	28	23	062	21	04.5	35	28	073	31	03.5	35	32	068	13	03.1	33	30	052	07	03.6	32	28	056	18	05.6	32	22	048	19	800		
750		21	17	008	06		25	24	051	04		23	11	055	12		28	16	060	21		29	22	067	32		31	27	067	13		26	22	063	10		27	22	061	24		26	19	051	12	750		
700	09.7	18	17	360	07	10.0	20	28	030	04	100.1	19	04	035	11	100.2	21	05	054	11	09.4	23	16	058	29	08.5	25	20	066	16	09.9	22	14	071	12	08.2	22	16	064	30	100.1	20	09	045	10	700		
650		11	19	355	11		14	28	012	08		12	10	014	10		13	00	018	06		15	08	054	27		17	11	062	16		17	07	068	12		16	02	065	30		19	06	040	08	650		
600	38.5	06	26	350	12	14.0	11	19	017	12	138.9	06	34	006	09	139.1	08	09	010	07	138.4	06	01	061	26	137.8	14	137.1	10	07	032	13	137.3	09	14	060	29	139.4	11	16	033	08		01	16	033	13	600
550		01	27	360	13		08	12	015	15		02	49	034	16		01	28	355	08		01	18	065	25		03	05	064	18		01	19	074	16		03	19	062	32		01	24	033	13	550		
500	183.0	07	29	014	21	185.4	01	21	015	18	183.6	04	54	050	24	183.8	09	39	360	26	183.1	07	22	069	23	182.7	07	19	063	16	181.9	10	29	074	16	182.2	06	24	064	32	184.4	06	32	050	20	500		
450		15	31	010	24		10	25	002	16		14	48	044	25		16	46	040	35		17	30	046	18		18	38	060	20		22	40	076	15		19	39	066	32		13	40	049	20	450		
400	235.9	28	41	009	25	238.8	22	32	003	18	236.6	25	49	042	29	236.5	27	58	041	39	235.7	30	42	042	17	235.2	31	58	057	21	234.0	34	51	064	24	234.6	30	52	043	36	237.5	23	49	036	32	400		
350		43		008	35		35	43	009	24		36	59	035	45		40	60	041	49		43		061	30		46		053	23		47		059	24		43		055	30		35		030	68	350		
300	299.7	59		004	42	303.8	51		014	25	301.5	49		048	57	300.8	53		042	66	299.5	58		054	29	298.7	59		058	24	297.2	63		054	31	298.5	56		040	27	302.4	50		033	75	300		
250		79		359	42		67		017	31		66		042	39		70		037	64		62		044	42		63		057	23		64		059	24		64		042	32		67		025	72	250		
200	382.1	88		008	27	383.5	83		006	32	386.6	74		034	39	385.3	73		036	44	385.5	59		056	32	384.9	56		060	10	383.2	57		056	22	384.8	57		043	33	387.8	67		022	54	200		
170		79		353	21		73		005	24		66		040	24		65		037	24		58		054	19		56		063	15		57		075	16		55		047	29		64		021	39	170		
150		73		001	18		66		027	19		64		032	17		63		024	23		57		047	12		55		067	12		57		077	12		56		058	21		64		015	32	150		
130		72		003	17		63		016	16		62		032	12		60		026	16		56		034	09		52		100	07		55		076	08		53		039	18		61		027	23	130		
110		71		005	09		62		360	16		62		034	11		58		032	13		57		052	08		52		L.V.			52		071	04		55		029	18		63		029	17	110		
100	524.2	71		012	06	534.2	62		009	15	532.8	60		032	12	532.2	57		032	12	534.2	52		063	08	534.3	52				532.5	54		061	04	534.6	54		045	13	534.5	64		013		013	21	100
90		72		357	09		59					57		048	11		55		038	08		55		065	05		51					54		107	04		55		064	10		59		012	90			
80		72		325	11							56		034	08		53		360	03		56		086	03		50		164	05		53		168	07		55		061	12		59		006	07	80		
70		70		323	09							57		029	05		54		338	02		54		111	06		48		225	10		51		192	10		51		186	04		59			70			
60		64										57					53					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 03h G.M.T.



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



AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

[illegible]

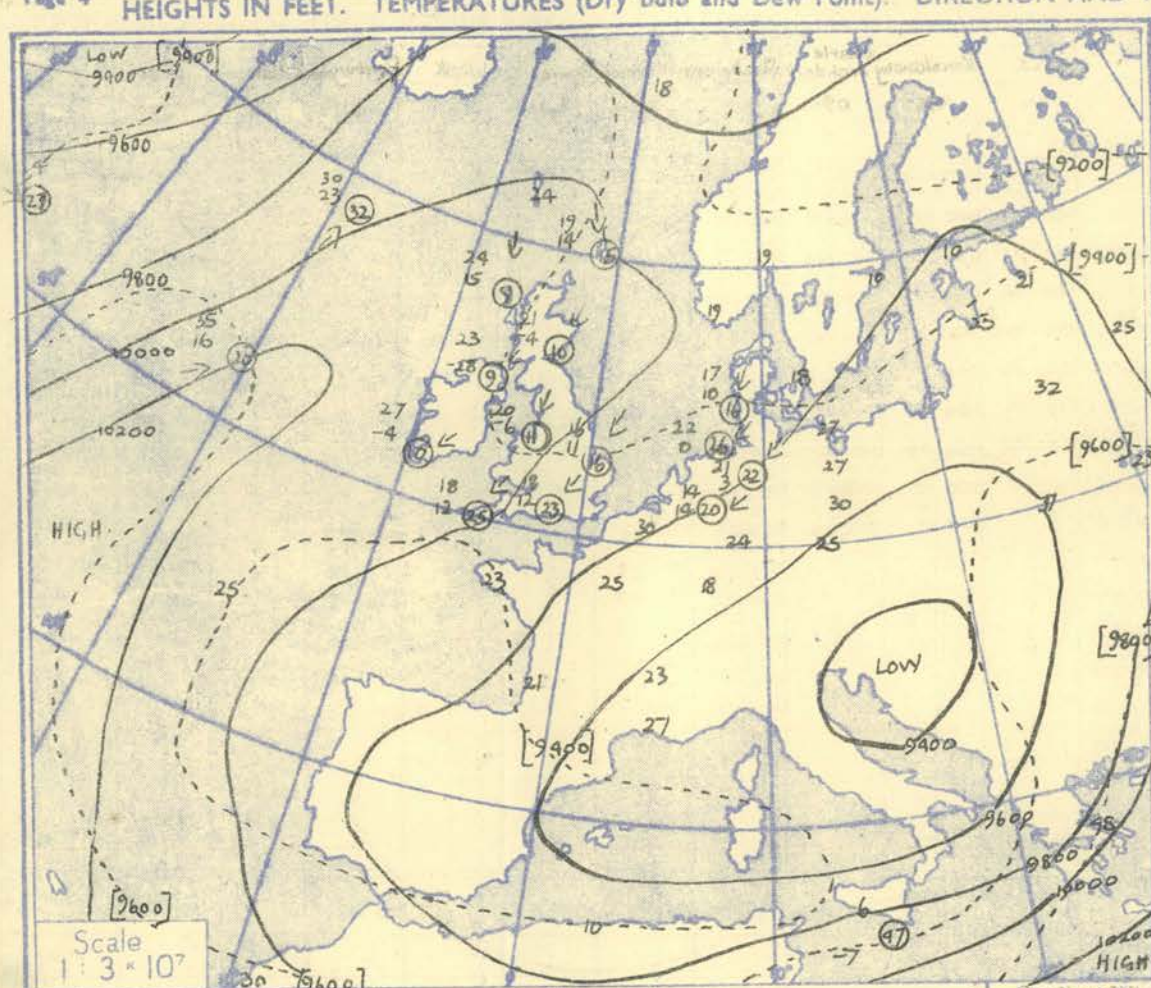
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

Place	Wick	Ronaldswoy	Castle Archdale	Shoeburyness	Shannon	Squires Gate	Wick	Shoeburyness	Aldergrove	Tirree	Place									
Time	09h.	09h.	09h.	09h.	09h.	10h.	11h.	13h.	15h.	21h.	Time									
Type											Type									
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet							
Surf.	140	03	080	07	CAAM	360	18	030	10		140	05	010	16	360	03	Surf.			
1,000	160	07	020	06	110	03	020	27	040	19	050	07	160	13	030	29	020	07	1,000	
2,000	180	06	060	09	040	12	050	32	060	18	040	11	190	08	030	26		020	02	2,000
3,000	190	04	070	03	070	12	050	35	050	15	050	10	270	06	040	29		160	10	3,000
4,000	350	06	350	10	040	21	050	36	060	07	020	09	130	10	050	31		350	08	4,000
5,000	010	07	030	14	030	07	050	38	030	11	030	10	310	13	060	31		100	03	5,000
6,000	120	07	040	08	340	07	060	39	020	15	030	13	330	12	050	32				6,000
8,000			350	12	050	15	060	33	050	05	030	15	240	12	040	32		020	02	8,000
10,000			050	11	050	16	050	35	030	13				050	25			060	04	10,000
14,000							030	19	040	22				030	19			060	02	14,000
18,000							030	07	030	22				350	07					18,000
24,000							030	05						340	05					24,000
30,000							050	32						040	28					30,000
40,000							040	21						050	22	028	30			40,000
50,000							070	11								020	18			50,000
																086	09			
																(60,000')				

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.

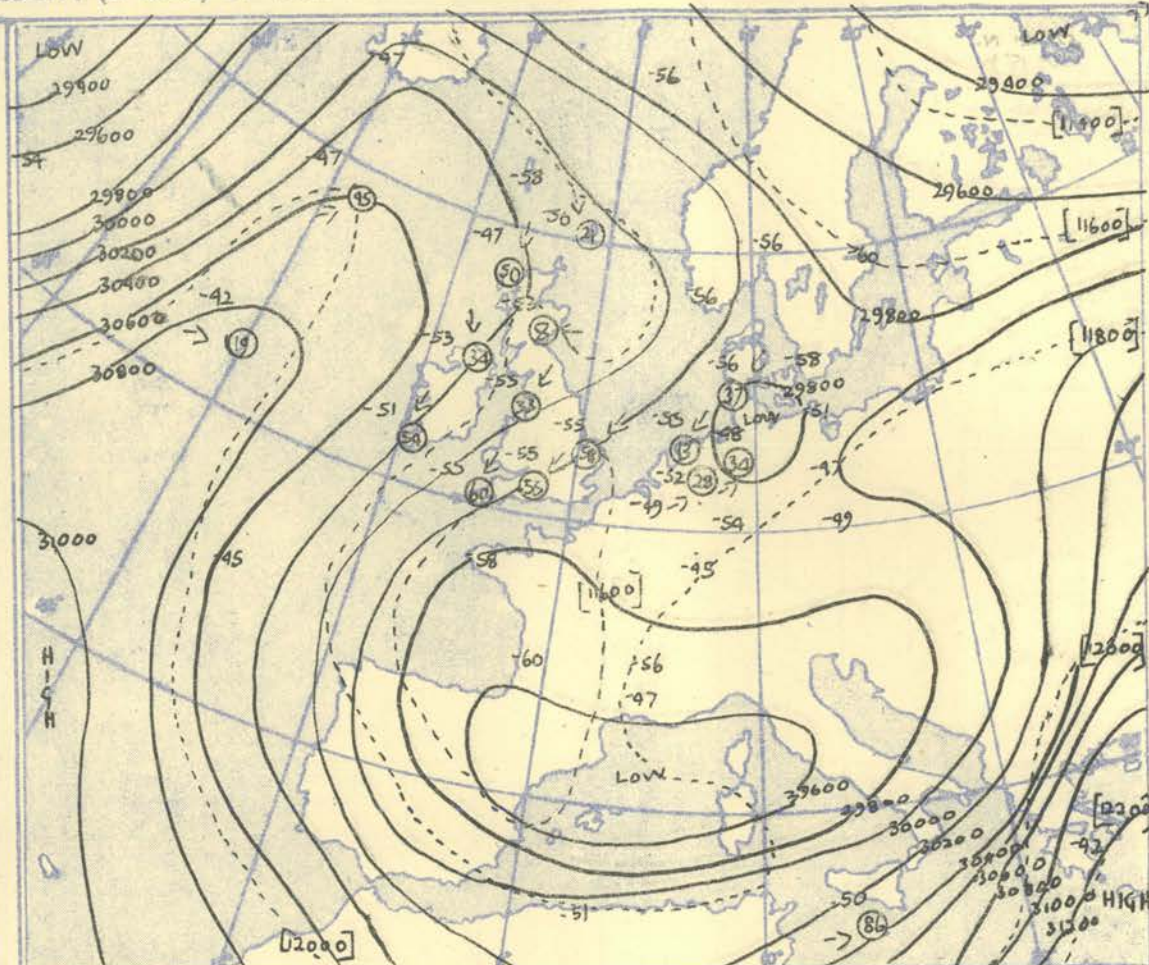
Ship	WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				Ship	
Lat/Long	59-0N. 18-8W.				58-9N. 19-0W.				59-0N. 19-0W.				58-9N. 19-1W.				52-5N. 19-9W.				52-7N. 19-9W.				52-9N. 19-8W.				52-6N. 19-9W.								Lat/Long					
Pressure	Time	08h. G.M.T.			Time	09h. G.M.T.			Time	15h. G.M.T.			Time	21h. G.M.T.			Time	08h. G.M.T.			Time	09h. G.M.T.			Time	15h. G.M.T.			Time	21h. G.M.T.			Time	Pressure								
	M.S.L.	1019 mb			M.S.L.	1017 mb			M.S.L.	1015 mb			M.S.L.	1012 mb			M.S.L.	1024 mb			M.S.L.	1022 mb			M.S.L.	1021 mb			M.S.L.	1019 mb			M.S.L.									
	Surf	1019 mb			Surf	1017 mb			Surf	1015 mb			Surf	1012 mb			Surf	1024 mb			Surf	1022 mb			Surf	1021 mb			Surf	1019 mb			Surf									
	Freezing	750 mb			Freezing	780 mb			Freezing	735 mb			Freezing	720 mb			Freezing	740 mb			Freezing	730 mb			Freezing	655 mb			Freezing	710 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																																Surf										
1000	25-1	49	48	190	26	49	49	180	28	50	47	190	28	50	50	190	26	51	45	165	20	52	46	160	23	52	44	165	27	52	48	162	26	1000								
950		48	48	198	24	04-5	47	47	184	29	03-9	49	47	185	33	03-4	49	49	192	39	06-5	49	44	177	21	06-1	50	44	173	34	05-7	52	42	169	28	950						
900		46	46	204	29		45	44	192	32		47	47	192	37		47	47	197	39		44	39	183	20		45	41	178	28		44	39	188	25	900						
850	33-7	43	43	209	29	33-0	44	41	194	33	32-5	47	47	198	39	32-0	46	46	204	38	34-9	39	35	188	16	34-6	42	35	187	20	34-2	48	35	192	28	850						
800		40	40	222	22		41	38	193	30		45	44	202	42		46	46	204	38		41	34	195	12		42	37	197	17		45	36	186	25	800						
	68-2	38	37	221	19	64-3	36	30	197	27	64-3	40	37	202	42	63-8	40	40	205	39	66-3	37	31	198	08	66-2	41	34	202	14	66-0	42	36	191	23	66-0	43	39	220	21		
750		33	32	215	19		30	27	214	21		35	34	199	36		35	35	206	36		38	28	198	04		35	30	203	12		38	24	210	21	750						
700	100-4	25	22	219	15	99-5	27	15	214	21	99-5	30	23	205	36	99-1	30	30	205	36	101-5	28	22	217	04	01-5	29	18	203	09	101-6	35	16	218	20	101-3	31	18	203	16	700	
650		23	05	223	22		22	01	207	24		23	17	194	33		24	24	213	33		22	10	263	06		28	06	208	08		31	15	215	16		25	08	212	20	650	
600	140-0	18	00	234	21	139-1	14	01	213	26	139-3	17	13	197	38	139-0	18	18	210	33	141-1	18	03	291	07	141-4	19	03	224	06	141-3	22	08	215	14	141-3	21	12	204	20	600	
550		09	05	239	23		06	01	221	30		12	08	206	37		12	07	222	39		12	01	329	12		14	00	237	06		14	00	217	18		13	01	205	19	550	
500	185-6	00	04	238	24	184-3	01	05	218	27	185-2	05	01	230	35	184-9	03	01	216	33	186-9	04	28	339	15	187-3	05	11	244	09	187-8	05	07	232	18	187-2	04	04	249	18	500	
450		09	15	241	27		10	05	223	29		07	13	224	39		07	13	217	39		07	29	347	15		05	21	248	09		04	12	216	15		07	16	253	12	450	
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300	304-1	51		261	32	302-7	48		263	42	305-1	47		222	45	304-3	48		209	53	306-0	48		336	41	306-9	47		298	29	308-2	42		262	19	306-6	50	258	42	300		
250		69		288	41		58					65		227	44		66		234	78		66		331	52		66		314	45		61		292	44		68		247	37	250	
200	388-5	80		274	34						390-3	79		237	36	389-3	73				390-8	82		324	64	391-8	83		319	60	394-0	82		283	47	390-9	81	267	32	200		
170		72		279	23							68		232	19		69					75		324	36		75		300	27		80		282	28					170		
150		66		279	24						(158)	64					66					70		324	23		72		283	30		69		278	17					150		
130		67		274	30						(mb)						66					70		324	14		69		276	11		68		260	07					130		
110	(126)	68															66					73		324	10		71		304	05		69		256	03					110		
100																						533-4	72		324	09		534-4	70		310	05	537-0	69		275	04					100
90																						69		324	12		67		331	05		67		029	05					90		
80																						(081)	68									65		033	07					80		
70																																62		354	04					70		
60																																								60		
	Inversion 692mb. 24°-675mb. 25°				Inversion 950mb. 45°-938mb. 46° 715mb. 26°-705mb. 27° Isotermal 975-950mb. 45° 705-700mb. 27°				Inversion 975mb. 46°-925mb. 49° 650mb. 23°-644mb. 24° Isotermal 865-850mb. 45° 715-688mb. 30°				Inversion 880mb. 46°-860mb. 47° Isotermal 940-880mb. 46°				Inversion 900mb. 39°-850mb. 41° 821mb. 37°-807mb. 38° 790mb. 36°-775mb. 37°				Inversion 913mb. 41°-868mb. 45° 832mb. 40°-800mb. 41° Isotermal 800-794mb. 41°				Inversion 1021mb. 52°-1008mb. 53° 920mb. 43°-900mb. 48° Isotermal 943-920mb. 43°				Inversion 1019mb. 52°-1008mb. 53° 962mb. 47°-934mb. 52° 865mb. 46°-850mb. 47°													
Tropopause	I 198mb. -81° 39,000'				N.R.				I 200mb. -79° 39,000'				I 215mb. -80° 37,400'				I 195mb. -83° 39,600'				I 191mb. -86° 40,200'				I 188mb. -85° 40,700'				I 24mb. -84° 37,600'				Tropopause									



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

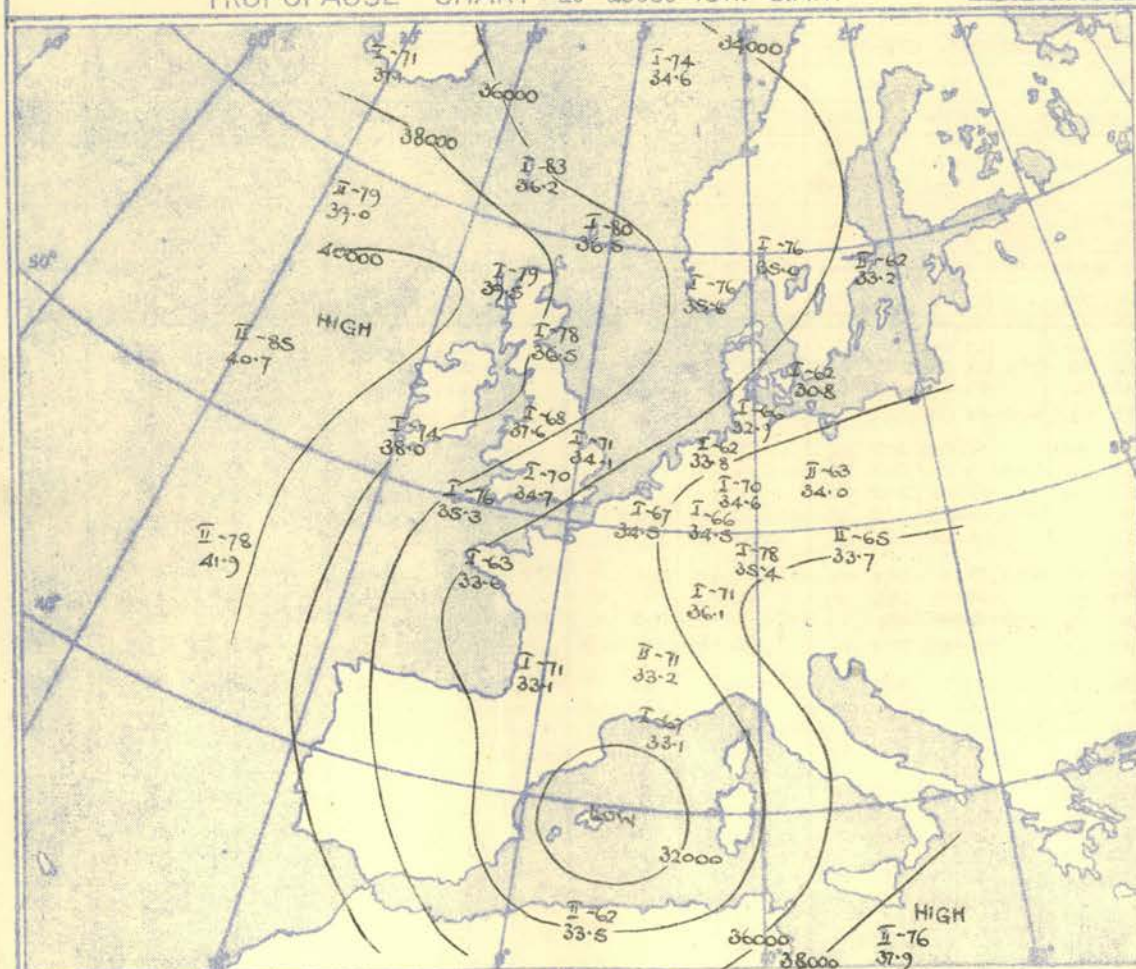
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

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.

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



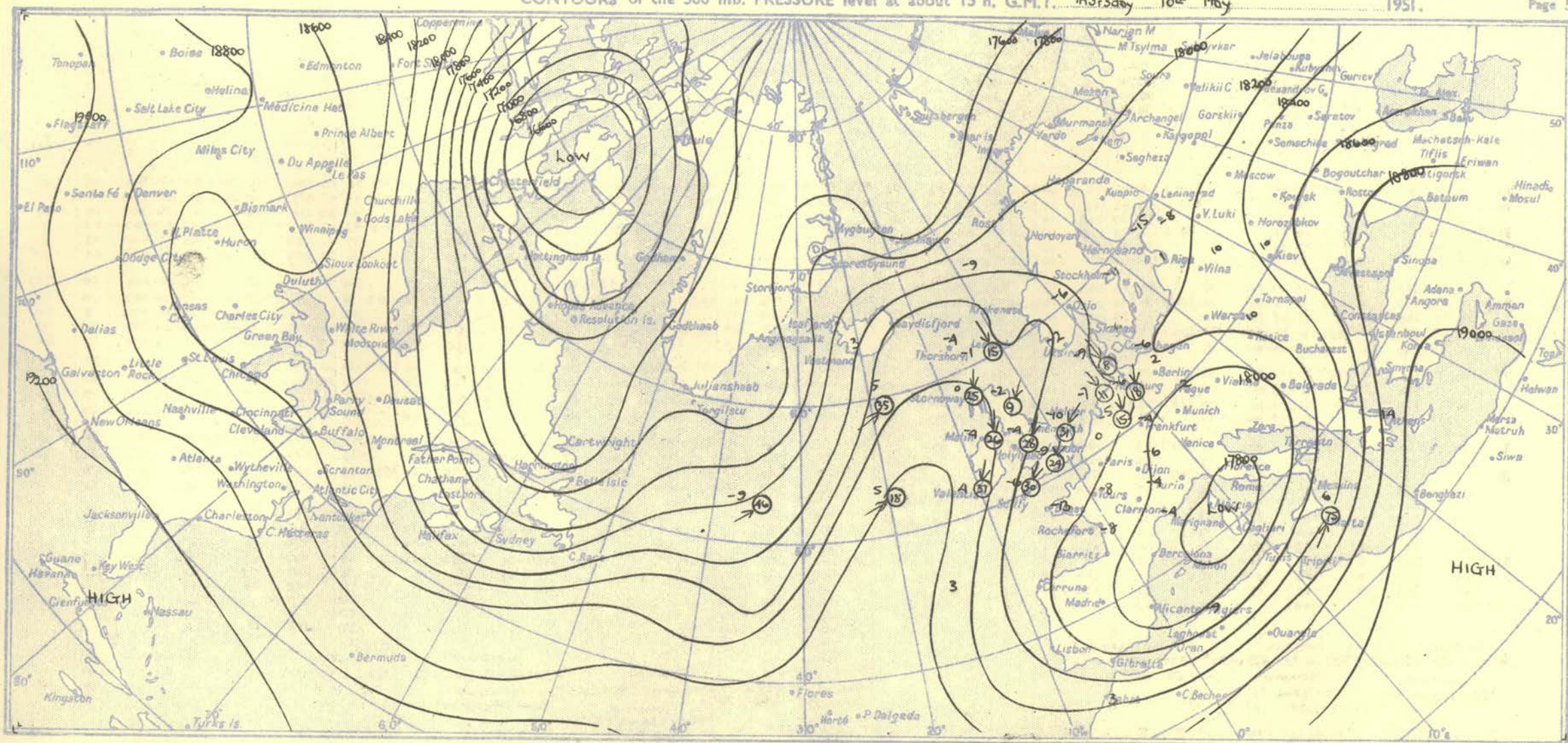
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool moved southeast into the West Mediterranean. The Atlantic warm ridge moved about 10° east with a cold trough forming on its western flank.

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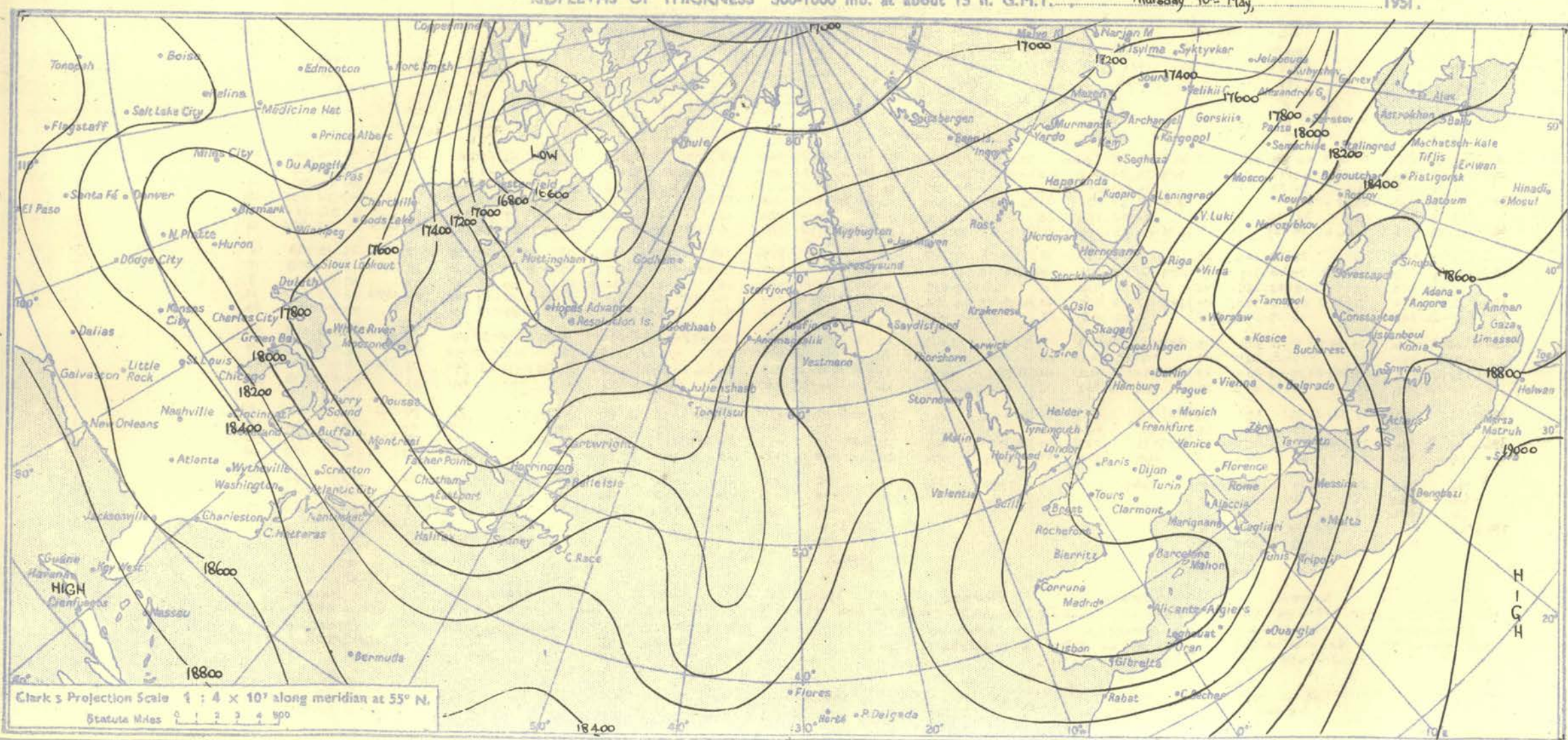
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
Nelson K. Johnson, K.C.B., D.Sc., Director.



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

Thursday 10th May,

1951.

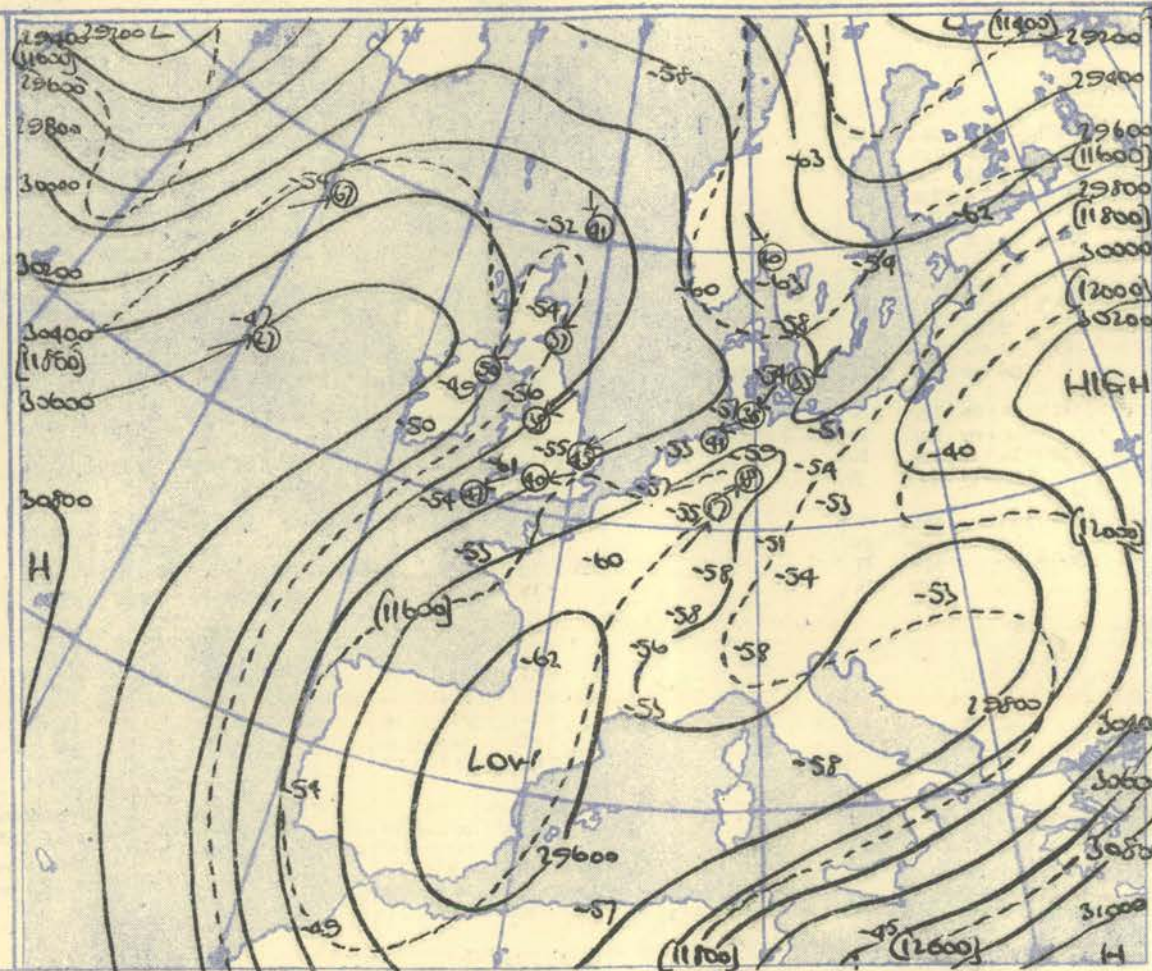


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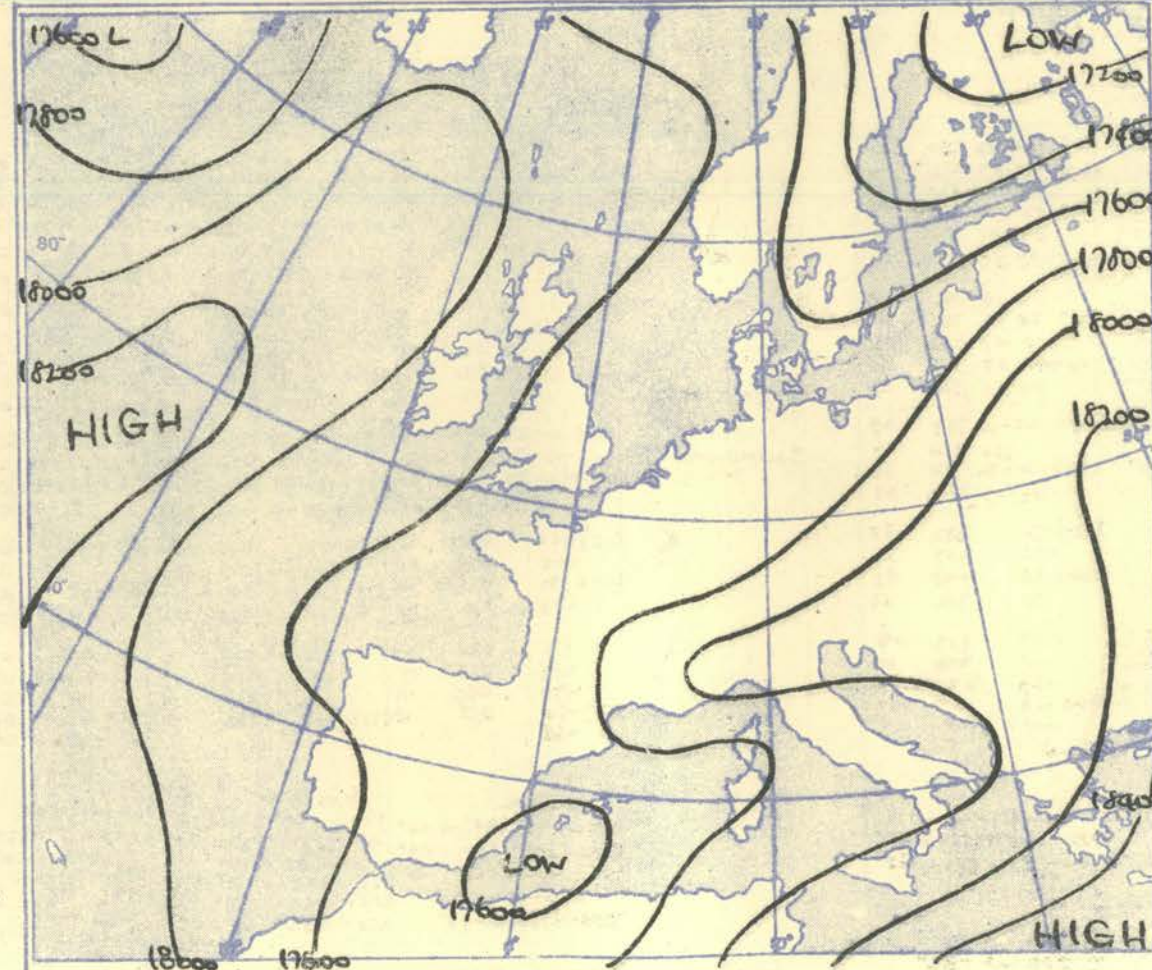
1951. Page 1

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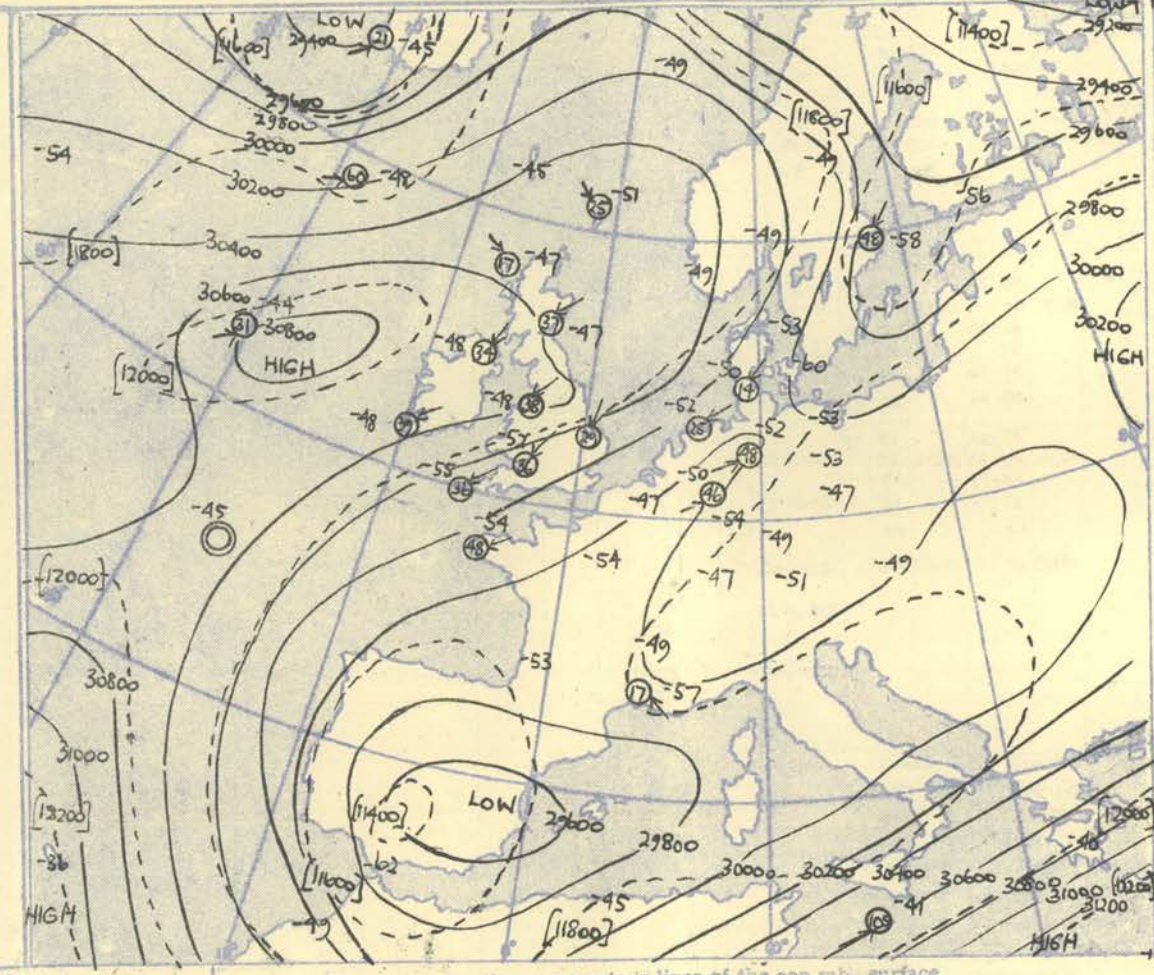
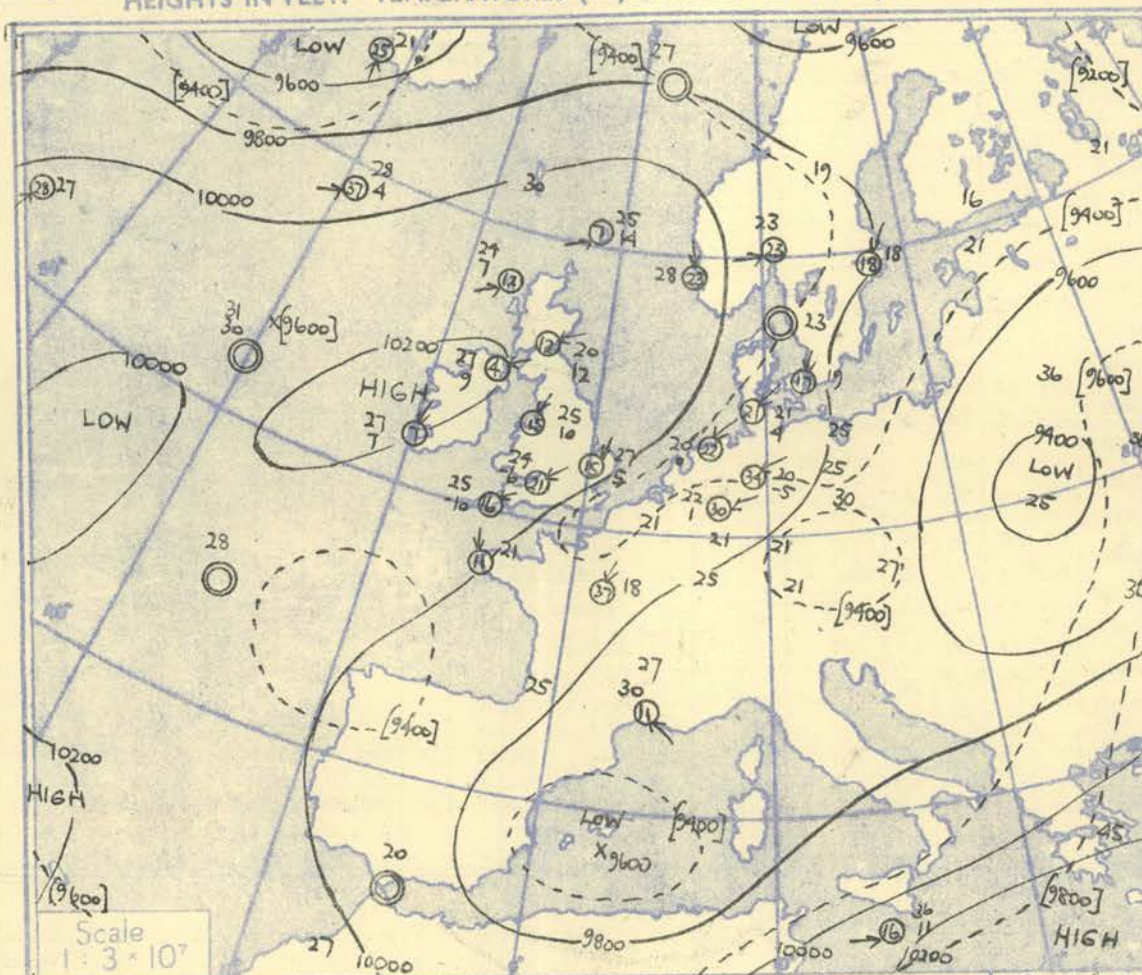
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb. levels at about 03 h G.M.T.



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



Isopleths of Thickness 500-1000mb.



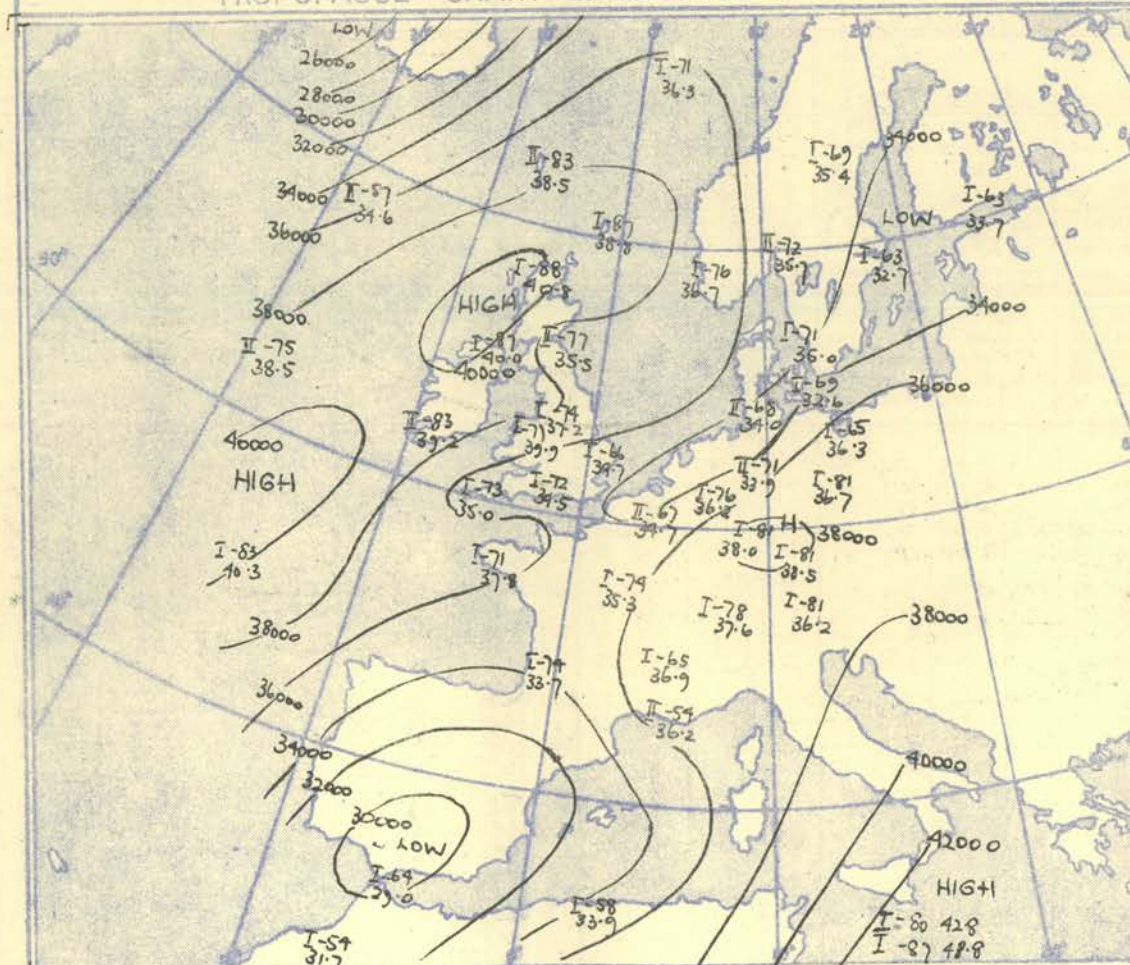
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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.

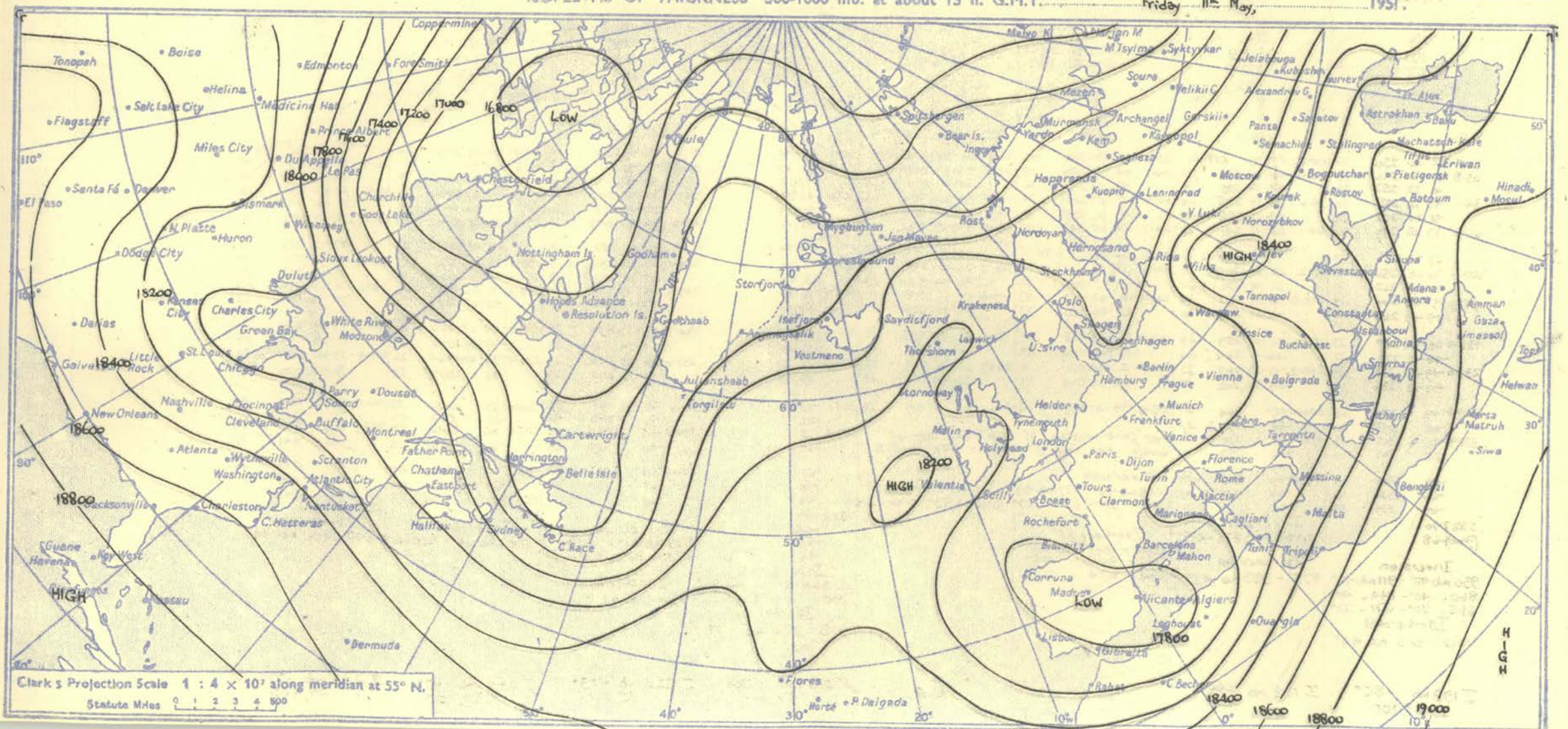
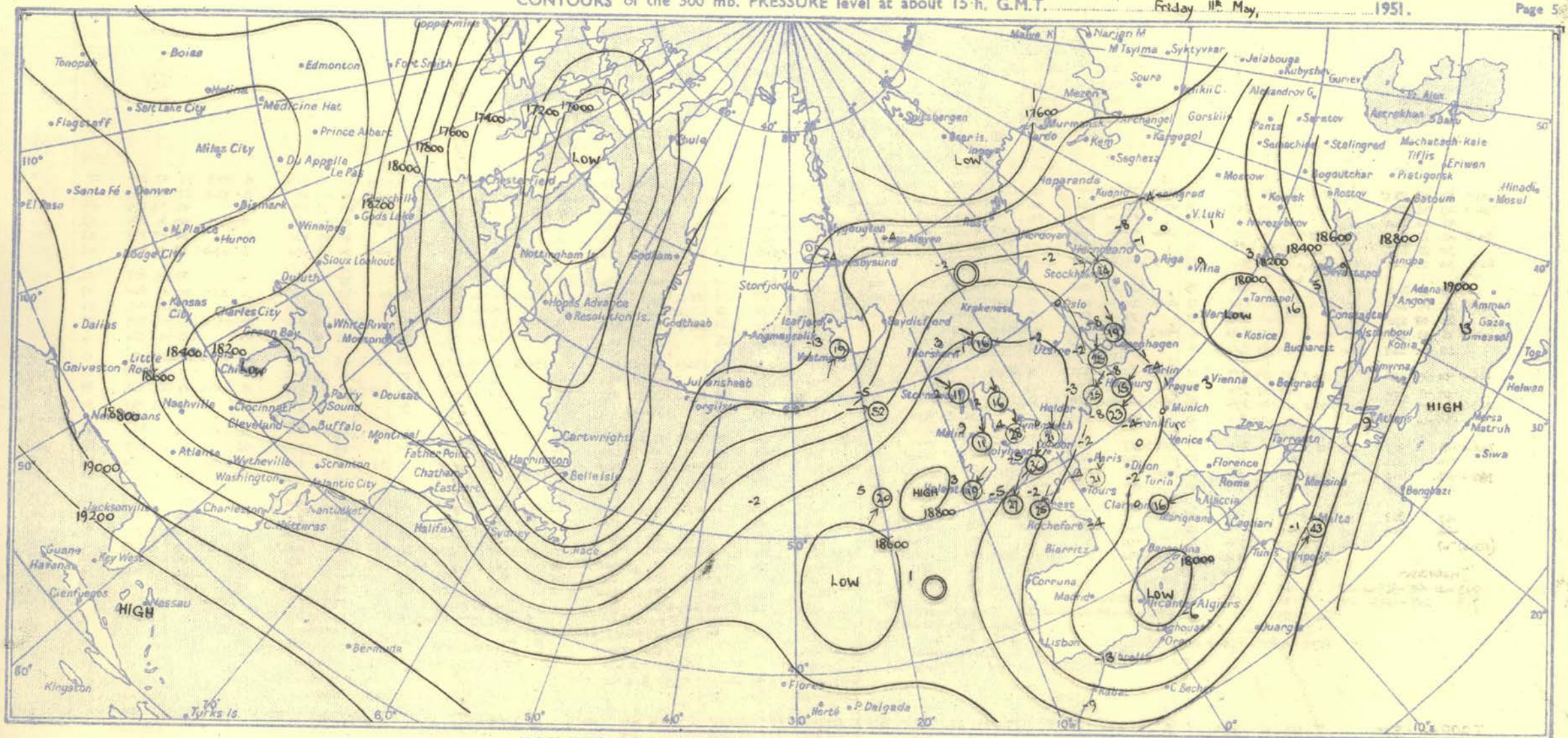
TROPOPAUSE CHART at about 15h. G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

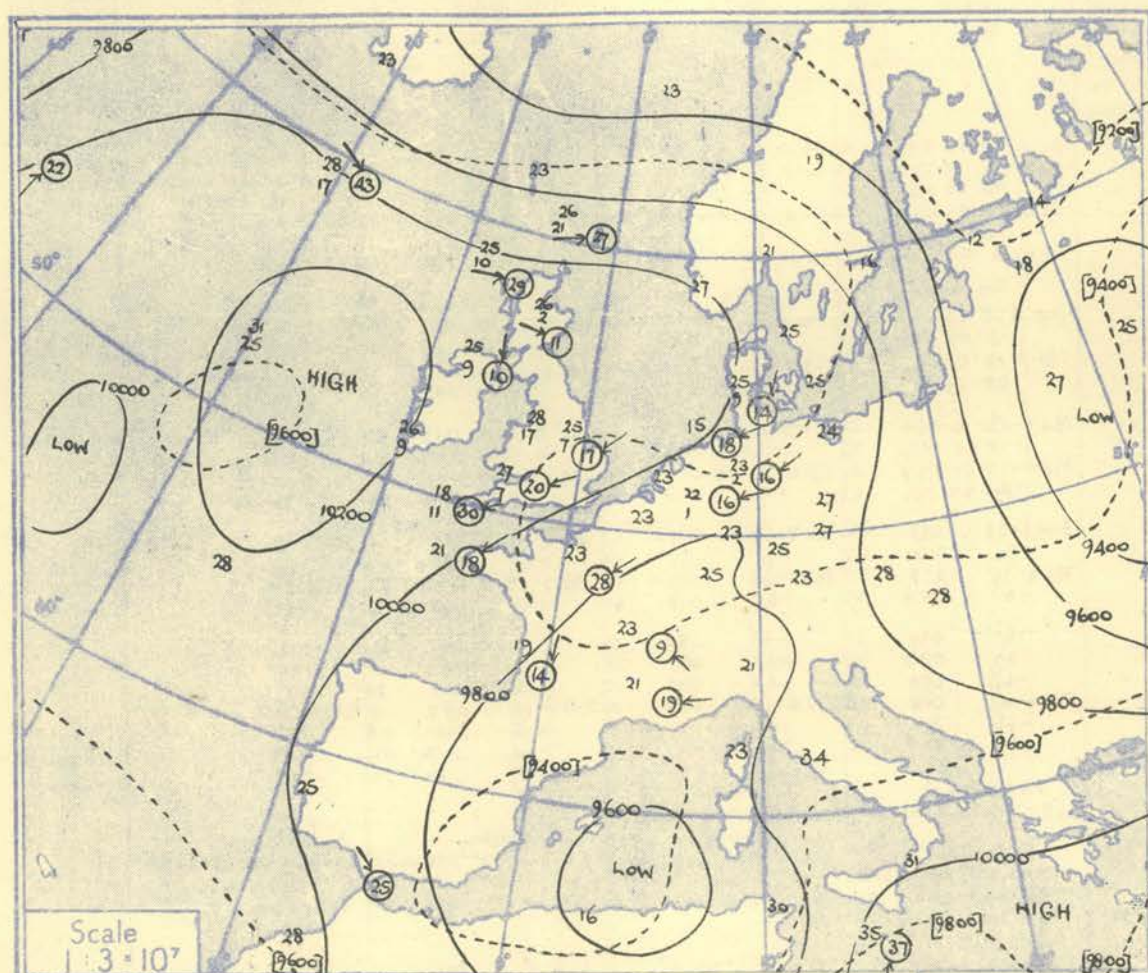
The cold pool in the Western Mediterranean moved little and filled slowly. The cold trough from the Baltic to Spain moved east a little in the north and became rather flat over Europe. The warm ridge in the Western Atlantic broadened as the cold trough in the central Atlantic collapsed. A very sharp trough at 300 mbs was shown up over Germany with horizontal wind shears of some 60 to 70 Kts between the lines Flensburg - Jever and Iserlohn - Hanover most of the day.



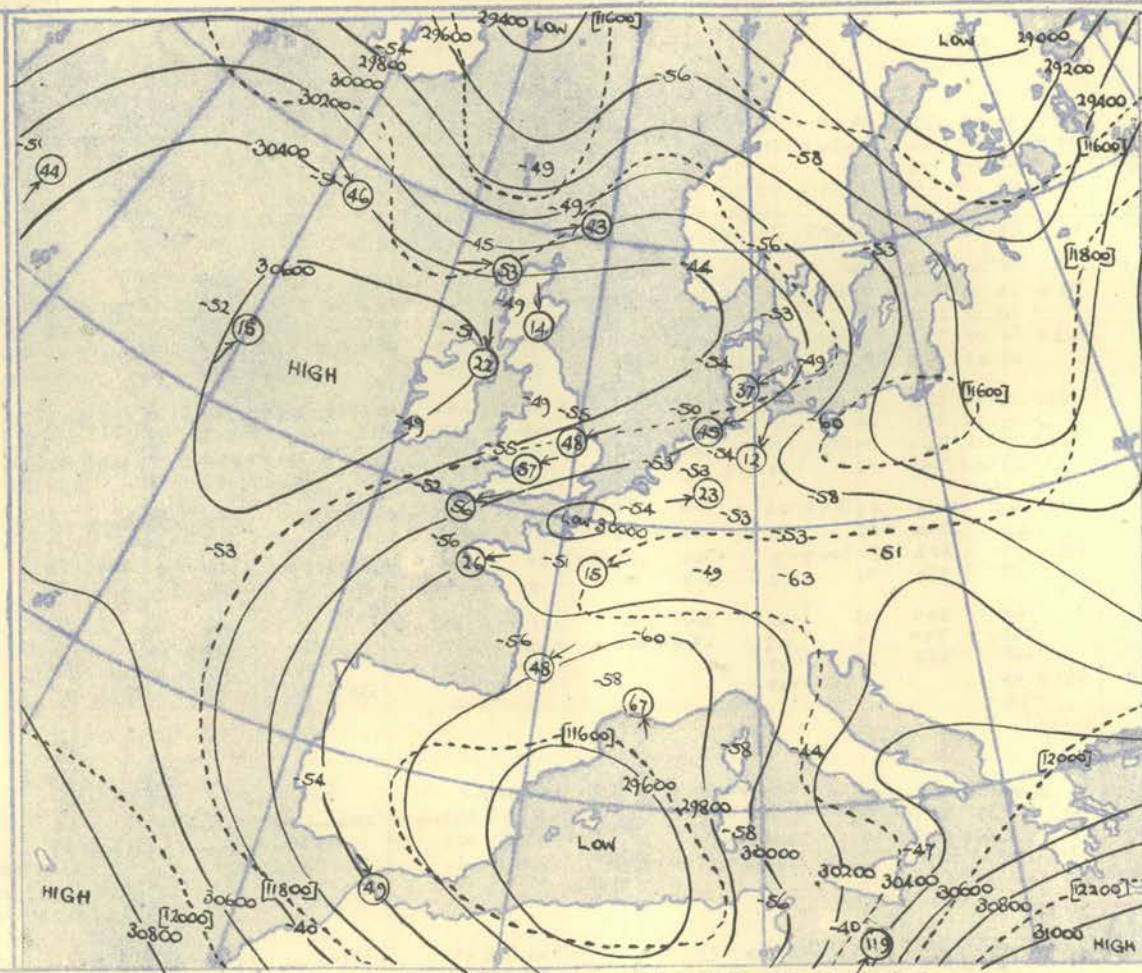
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Time M.S.L. Surf Freezing	Pressure mb	ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		ISH		G.M.T.		Time M.S.L. Surf Freezing	Pressure mb												
		1023-9	1013-8	mb	mb	1024-7	1023-1	mb	mb	1025-8	1025-0	mb	mb	1025-7	1016-1	mb	mb	1025-1	1023-1	mb	mb	1023-3	1018-8	mb	mb	1022-1	1006-1	mb	mb	1024-1	1013-4	mb	mb			1026-1	1025	mb	mb								
		782				765				769				773 + 757				750				772				862				777				740													
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	50	38	280	13	00-4	52	40	180	10	00-2	57	45	110	10	02-6	61	36	CALM	00-6	56	32	360	07	01-2	55	45	020	15	04-4	57	39	040	15	02-9	52	41	020	15	00-3	55	47	270	08	Surf		
1000	06-4	45	35	260	24	06-7	50	38	204	18	07-0	47	37	047	06	07-0	57	34	129	02	06-9	52	29	326	09	06-4	53	44	013	21	06-1	54	36	042	21	06-5	49	40	011	12	07-0	52	40	269	04	1000	
950	06-4	45	35	260	16		46	28	214	16		47	37	047	06		50	32	127	04		46	26	010	06		47	42	030	18		45	26	042	21		45	25	036	17		48	38	272	03	950	
900	34-8	42	26	260	14	35-2	42	11	227	14	35-6	42	31	254	06	35-7	43	23	112	03	35-3	41	24	046	06	35-0	39	36	043	16	34-5	37	21	045	21	34-9	42	20	030	15	35-7	43	31	286	03	900	
850	38	23	262	14		40	12	227	15		38	29	023	07		37	04	048	01		38	08	051	07		39	36	042	16		30	15	045	19		38	09	030	15		38	20	009	03	850		
800	66-2	34	23	263	15	66-5	35	07	221	17	66-9	34	24	074	07	67-0	35	05	014	03	66-5	35	00	051	07	66-3	36	07	036	15	65-5	30	07	043	19	66-2	34	09	034	13	67-0	37	11	042	05	800	
750		28	18	262	10		30	11	221	15		29	18	068	09		31	10	045	04		32	08	047	10		30	04	038	15		27	02	040	21		30	09	034	14		33	09	025	06	750	
700	101-1	25	14	263	07	01-3	24	07	230	12	101-7	20	12	058	12	102-0	27	09	043	08	101-5	25	10	033	15	101-2	27	05	038	15	100-1	24	06	036	21	101-1	25	10	040	16	102-1	27	07	008	07	700	
650		20	08	270	11		20	05	248	13		22	00	047	13		22	04	028	06		20	06	028	21		22	13	034	15		19	04	037	18		20	08	044	20		23	02	015	06	650	
600	140-5	15	03	267	15	140-7	15	23	248	11	141-2	16	12	038	09	141-6	20	04	027	12	141-1	19	00	032	24	140-8	27	10	037	15	139-5	12	07	040	18	140-5	15	02	046	20	141-8	17	05	009	09	600	
550		08	02	268	16		09	28	246	11		09	12	028	15		11	25	012	11		13	13	035	26		09	02	040	16		04	08	036	22		05	10	049	23		10	14	034	16	550	
500	186-0	01	09	283	16	186-3	02	34	279	11	186-8	02	16	032	15	187-4	02	17	012	15	186-9	04	17	028	28	186-3	00	08	031	24	184-5	05	19	033	28	185-7	05	17	045	27	187-6	03	25	037	19	500	
450		09	07	286	18		08	23	296	09		10	25	039	17		06	25	021	21		06	24	032	30		10	21	033	22		16	29	030	27		16	25	042	21		07	34	048	23	450	
400	239-5	21	31	321	10	240-0	20	31	296	08	240-5	20	34	039	21	241-2	19	36	024	22	240-9	18	36	035	32	239-7	23	32	022	18	237-2	28	40	028	29	238-5	27	36	037	18	241-4	18	43	028	29	400	
350		34	46	322	18		32	44	310	13		32	48	033	26		32	51	026	34		32	48	032	35		36	45	018	18		41	025	32		40	50	037	35		30	54	027	37	350		
300	304-4	51		323	25	305-5	47		310	17	305-9	47		029	37	306-6	48		030	29	306-3	48		032	38	304-5	52		018	29	301-3	56		029	36	302-7	55		041	36	307-2	48	031	39	300		
250		72		322	34		66		316	27		66		026	42		67		023	44		66		035	46		76		026	34		70		035	44		76		043	46		76		029	50	250	
200	388-2	87		329	33	390-4	85		322	24	390-9	77		021	38	391-3	84		022	44	391-6	75		037	58	390-6	61		040	29	386-6	63		039	33	387-8	64		044	41	392-2	83		024	46	200	
170		70		321	17		76		318	11		77		030	23		74		027	28		73		037	30		61		042	25		61		048	26		64		040	29		75		027	29	170	
150		67		323	12	448-8	70		326	09	449-7	71		022	14		71		018	15		65		042	21	452-0	61		043	22	447-7	60		052	20		61		041	26		71		023	25	150	
130		66		314	09		68		356	12		65		013	12		72		037	13		65		048	19		58		049	16		57		046	13		63		041	17		70		029	20	130	
110	(22mb)-67						70		356	06		70					70		030	09		65		048	17		57		043	07		58		038	05		59		037	15		70		029	15	110	
100						533-2	69		340	06	534-3	70				534-2	68		017	11		537-0	63		027	10	538-9	56		012	06	534-6	55		030	06	534-7	60		032	09	535-2	68		023	12	100
90							67		336	07		67					67		022	06		61		005	09		54		034	03		52		340	04		50		071	09		66		031	14	90	
80							65		324	05		65					65		017	05		60		070	08		54		269	10		53		209	05		58		164	08		63		042	04	80	
70							63		332	06		63					63					57		190	06		54		04	09		57		272	06		56		244	09		56		244	09	70	
60							59		332	06		59					59					55		272	06		54		04	09		57		272	06		56		244	09		56		244	09	60	
Tropopause		I 200 mb - 87° 38,800'				I 183 mb - 88° 40,800'				II 212 mb - 77° 35,500'				I 191 mb - 87° 40,000'				I 221 mb - 74° 37,200' I 193 mb - 77° 39,900'				I 246 mb - 66° 34,700'				I 244 mb - 72° 34,500'				I 241 mb - 73° 35,000'				II 200 mb - 83° 39,200'				Tropopause									
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION													
Time M.S.L. Surf Freezing	Pressure mb	21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		21h.		G.M.T.		Time M.S.L. Surf Freezing	Pressure mb												
		1022-0	1011-8	mb	mb	1023-9	1022-3	mb	mb	1025-3	1024-4	mb	mb	1025-6	1016-3	mb	mb	1024-8	1022-8	mb	mb	1023-7	1019	mb	mb	1023-4	1007-0	mb	mb	1024-1	1013-3	mb	mb			G.M.T.	Time M.S.L. Surf Freezing										
		771				752				759				778				814				802				830				782																	
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	40	230	06	00-4	49	39	CALM	00-2	43	40	080	04	02-6	53	35	CALM	00-6	46	40	01-2	45	39	020	10	34-4	44	33	030	06	02-9	47	41	CALM	10	02-4	46	35	019	10	06-4	46	35	019	10	Surf
1000	05-8	44	40	246	22	06-4	46	38	238	21	06-7	44	38	166	05	07-0	54	33	009	03	06-7	47	32	047	17	06-3	43	40	041	18	06-2	49	37	042	17	06-4	46	35	019	10	06-2	49	37	042	17	1000	
950		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	Time M.S.L.	Surf	Freezing	G.M.T.	03L		G.M.T.		mb	03L		G.M.T.		mb	03L		G.M.T.		mb	03L		G.M.T.		mb	03L		G.M.T.		mb	03L		G.M.T.		mb	Time M.S.L.	Surf	Freezing																																																																																																																																																																																											
					1018.8	765	1022.4	763		1023.9	768	1026.1	765		1024.9	805	1024.4	804		1024.4	800	1024.3	794		1026.8	750																																																																																																																																																																																																						
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	02.7	44	42	225	19	00.4	49	43	220	06	00.2	39	38	Cal	02.6	40	38	Cal	00.6	38	36	01.2	37	36	340	04	04.4	34	31	030	03	02.9	43	41	Cal	00.3	42	40	050	02	Surf																																																																																																																																																																																							
1000	04.7	43	41	254	36	06.0	47	41	228	21	06.3	45	39	257	09	06.8	51	40	004	03	06.5	41	35	06.4	41	39	039	12	06.3	36	32	06.5	48	43	035	08	07.2	44	40	006	01	1000																																																																																																																																																																																						
950		40	39	247	38		41	35	251	24		48	36	254	10		47	34	220	03		47	25			40	20	036	10		40	29	053	18		45	33	051	11		46	36	075	01	950																																																																																																																																																																																			
900	33.2	40	38	247	38	34.4	40	34	259	28	34.8	48	29	249	12	35.3	42	31	270	04	34.9	41	27	34.5	38	04	038	03	34.5	36	22	048	18	35.0	40	30	057	15	35.7	42	26	145	02	900																																																																																																																																																																																				
850		40	33	250	33		36	30	267	28		40	31	246	13		38	24	260	04		35	26			36	23	043	12		34	13	049	18		34	27	053	13		37	13		850																																																																																																																																																																																				
800	64.4	38	35	255	30	65.7	36	30	266	28	66.2	37	32	254	12	66.7	36	18	292	02	66.1	31	22	65.6	31	04	045	18	65.5	32	09	049	20	66.1	31	16	047	20	67.0	31	03		800																																																																																																																																																																																					
750		30	20	253	30		31	26	266	28		29	19	280	10		30	16	385	05		26	0			26	10	044	7		27	11	049	20		26	11	039	27		32	13		750																																																																																																																																																																																				
700	99.6	26	24	248	27	100.7	25	10	268	29	101.1	26	02	292	11	101.6	25	09	356	10	100.8	28	17	100.3	25	07	050	17	100.2	22	07	045	20	100.7	18	11	038	30	102.0	26	03		700																																																																																																																																																																																					
650		20	16	260	31		22	09	278	27		21	14	290	12		23	01	018	09		23	08			19	03	055	19		18	11	040	22		20	05	043	27		28	01		650																																																																																																																																																																																				
600	139.0	14	10	262	32	140.3	16	14	280	27	140.7	15	19	290	14	141.2	17	13	350	08	140.5	17	04	139.7	15	15	052	22	139.5	13	01	049	25	140.0	15	02	045	27	141.6	19	04		600																																																																																																																																																																																					
550		07	03	259	33		09	16	283	34		10	10	290	16		10	24	341	11		09	10				05	052	23		06	07	053	28		07	11	040	27		11	13		550																																																																																																																																																																																				
500	184.4	00	05	262	37	185.8	01	27	286	37	186.3	03	10	294	16	186.8	02	40	341	12	186.1	03	25	184.9	03	32	054	26	184.8	04	17	052	28	185	3	02	045	28	187.4	03	13		500																																																																																																																																																																																					
450		09	16	257	40		11	44	291	40		08	14	288	14		4	28	343	13		09	36			13	44	056	36		16	29	049	29		13	39	047	30		08	13		450																																																																																																																																																																																				
400	237.9	21	28	252	39	239.2	23	54	286	43	240.0	21	26	302	15	240.4	21	29	350	19	239.7	21	46	238.9	25	54	058	41	237.6	27	39	051	34	238.4	26	43	042	34	241.2	19	30		400																																																																																																																																																																																					
350		33	44	243	42		28	58	247	48		36	42	312	14		34	42	367	21		34	57			39	59	055	43		41		056	48		39	55	046	41		32	40		350																																																																																																																																																																																				
300	302.2	40		244	43	304.5	48		249	53	305.0	49		329	14	305.5	51		355	22	304.9	49		302.3	55		053	48	301.8	55		055	57	302.8	52		049	56	306.7	49		300																																																																																																																																																																																						
250		64		240	45		61		252	58		68		324	18		69		357	26		67				70		061	53		71		051	49		65		044	63		250																																																																																																																																																																																							
200	388.4	84		252	30	390.9	71		266	49	389.7	84		334	20	389.8	86		356	20	389.6	83		386.8	75		053	37	386.7	68		052	37	388.2	68		043	52	391.6	84		200																																																																																																																																																																																						
170		68		279	21		66		305	19		79		344	14		74		006	17		81				67		053	27		65		049	31		67		042	33		170																																																																																																																																																																																							
150		66		306	15		65		300	15		71		350	10		72		014	15		72				67		046	24		67		050	29		64		041	24		150																																																																																																																																																																																							
130		65		324	14		65		288	09		68		350	10		71		027	16		71				67		039	18		67		049	28		65		042	27		130																																																																																																																																																																																							
110		67		323	14		69					72		009	12		72					74				67		050	12		64		052	15		66		042	20		110																																																																																																																																																																																							
90	533.3	69				535.7	69									532.8	71									67		050	08		532.4	66		66		026	10	533.6	63		042	15	533.0	74		90																																																																																																																																																																																		
70		70																									68		347	06		66					044	05		69			70																																																																																																																																																																																					
60		62																									62		283	05		66				039	05		65			60																																																																																																																																																																																						
					Inversion					Isothermal					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion																																																																																																																																																																														
					908 mb 39°-86 smb 41°-950 mb 31°-918 mb 41°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°					1023 mb 39°-983 mb 49°-1016 mb 40°-1000 mb 51°																																																																																																																																																																																			
					27°-210 mb -78°					850 mb 36°-813 mb 38°					723°-25°-695°-27°					711°-700 mb 25°					724°-72°-700°-28°					724°-72°-700°-28°					724°-72°-700°-28°					724°-72°-700°-28°					724°-72°-700°-28°					724°-72°-700°-28°																																																																																																																																																																														
					I 200 mb -84°					I 215 mb -77°					I 205 mb -84°					I 186 mb -88°					I 185 mb -84°					I 223 mb -77°					I 255 mb -70°					I 218 mb -73°					I 186 mb -90°					I 186 mb -90°																																																																																																																																																																														
					38°-800°					38°-800°					38°-800°					40°-500°					40°-500°					36°-300°					33°-700°					37°-1000°					40°-700°					40°-700°																																																																																																																																																																														
STATION					LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE										STATION																																																																																																																																																																														
Pressure	Time M.S.L.	Surf	Freezing	G.M.T.	09L		G.M.T.		mb	09L		G.M.T.		mb	09L		G.M.T.		mb	09L		G.M.T.		mb	09L		G.M.T.		mb	09L		G.M.T.		mb	Time M.S.L.	Surf	Freezing																																																																																																																																																																																											
					1018.8	765	1022.4	763		1023.9	768	1026.1	765		1024.9	805	1024.4	804		1024.4	800	1024.3	794		1026.8	750																																																																																																																																																																																																						
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure																																																																																																																																																																																											
mb	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	ft/100	°F.	°F.	Dir. Vel. knots	mb																																																																																																																																																																																											
Surf	02.7	45	45	300	18	00.4	49	43	300	10	00.2	54	39	290	10	02.6	48	40	Cal	00.6	52	41	Cal	01.2	46	42	350	02	04.4	48	37	030	08	02.9	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38	Cal	00.3	51	38</

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

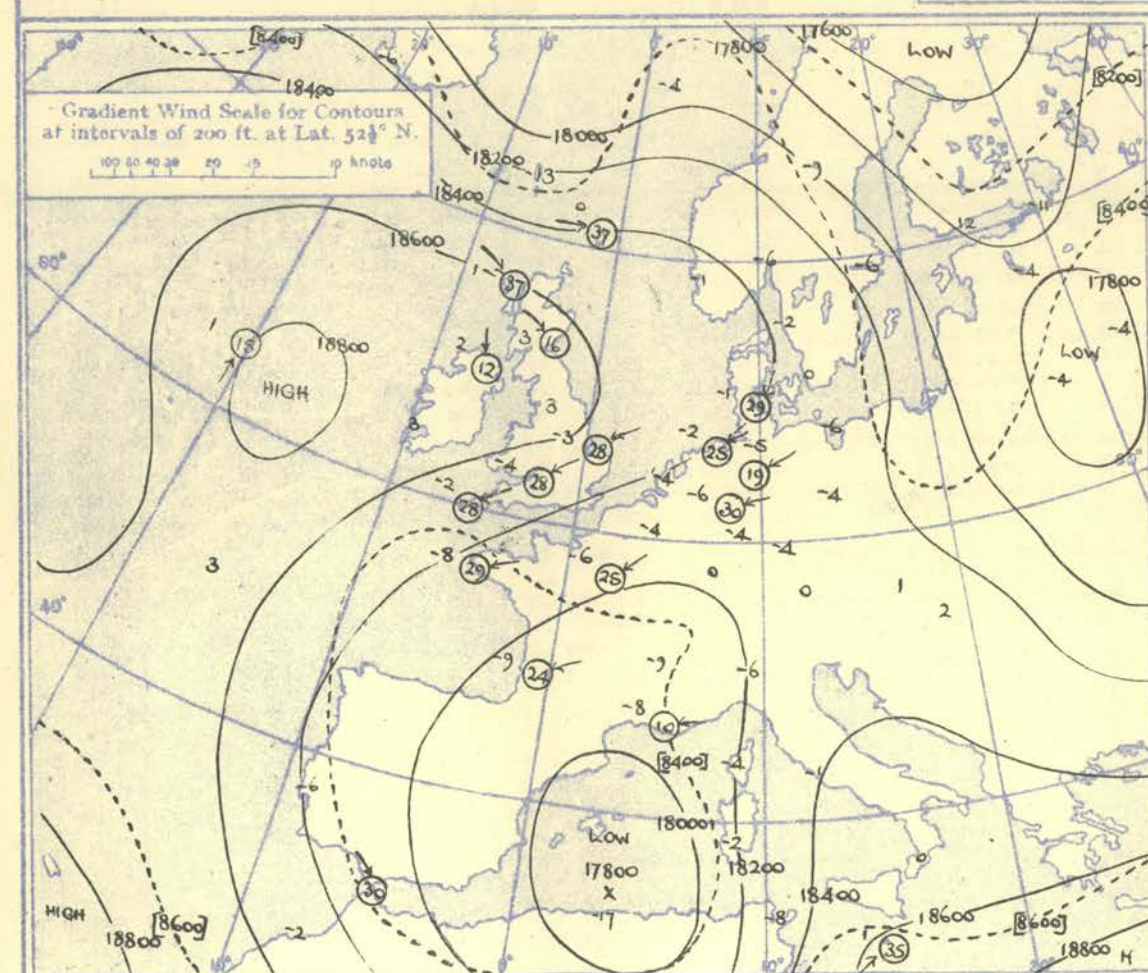


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

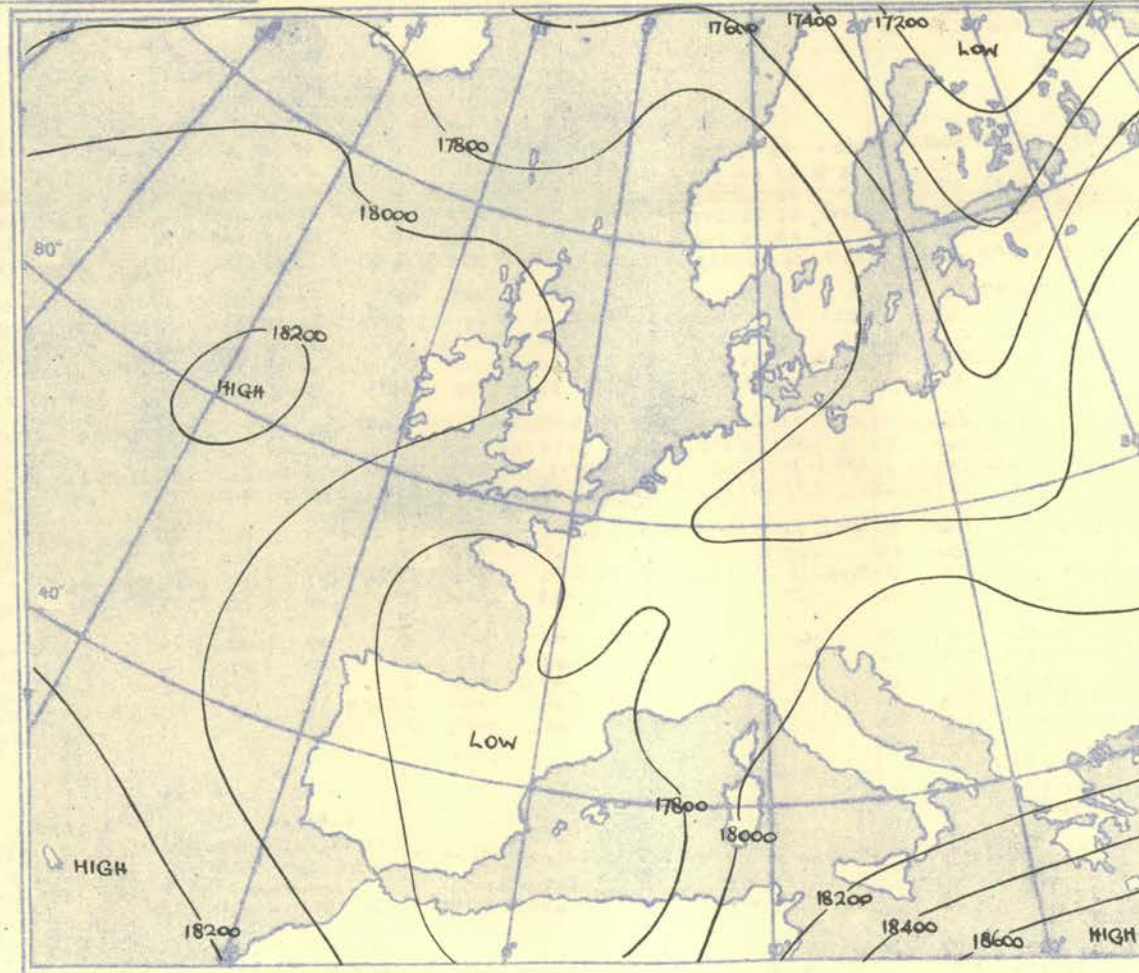


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

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



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

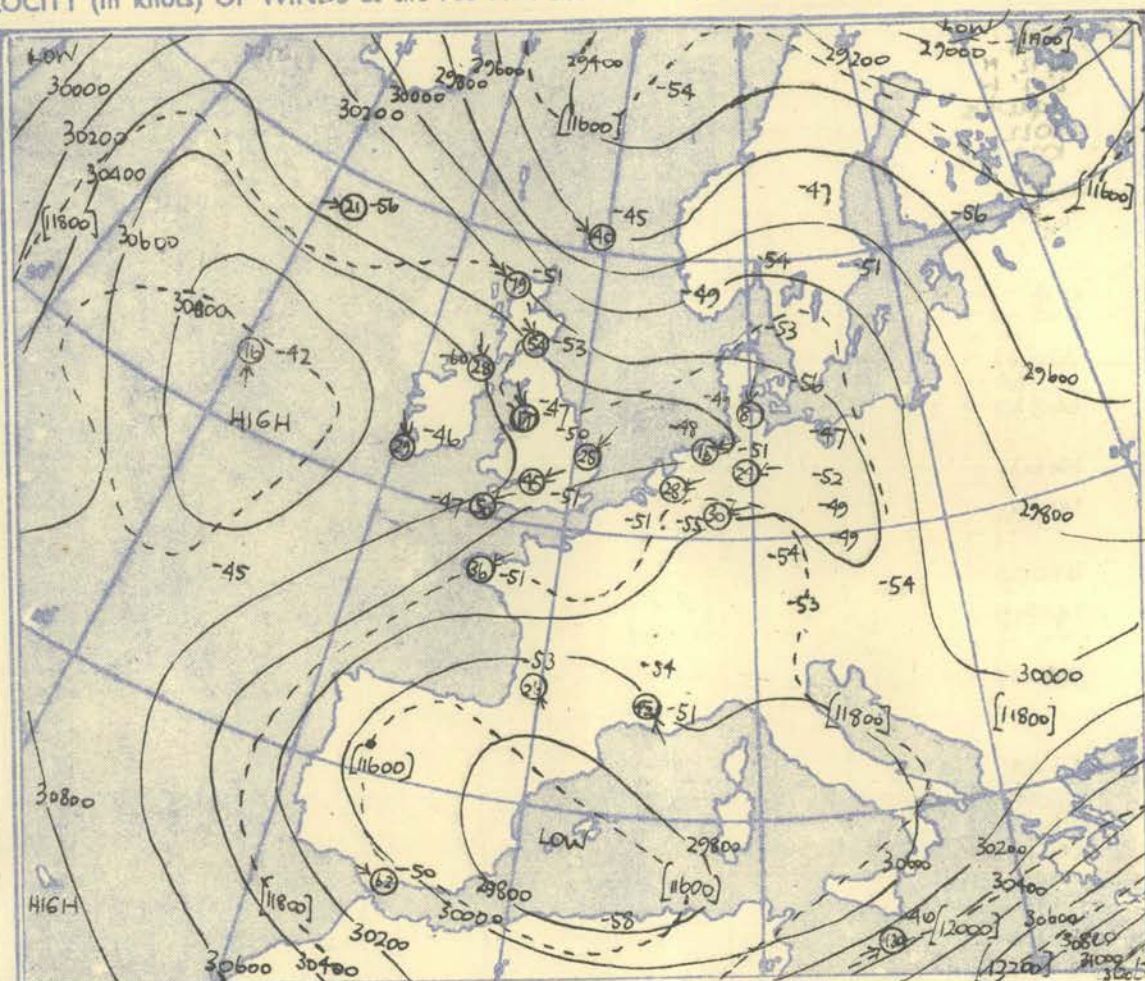
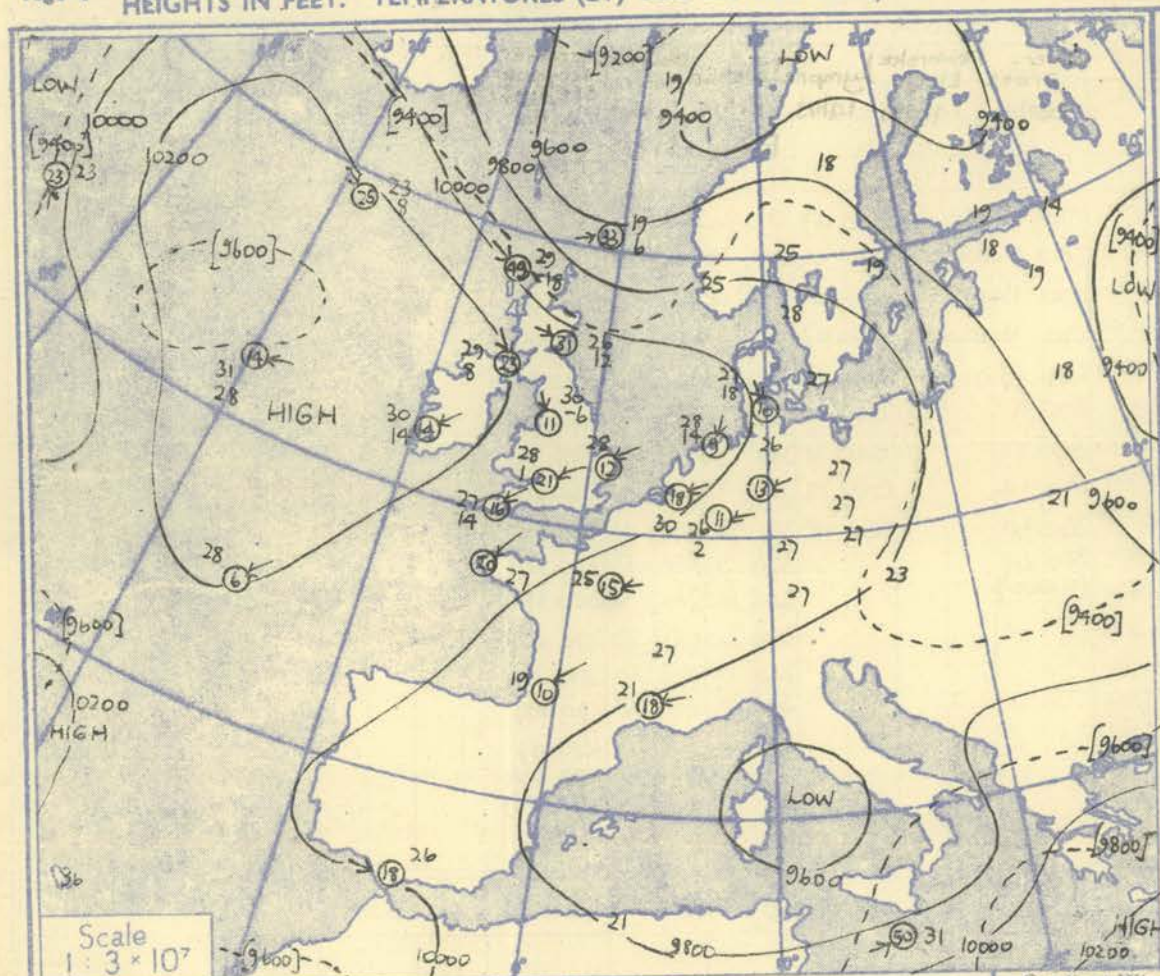


Isopleths of Thickness 500-1000mb.

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

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

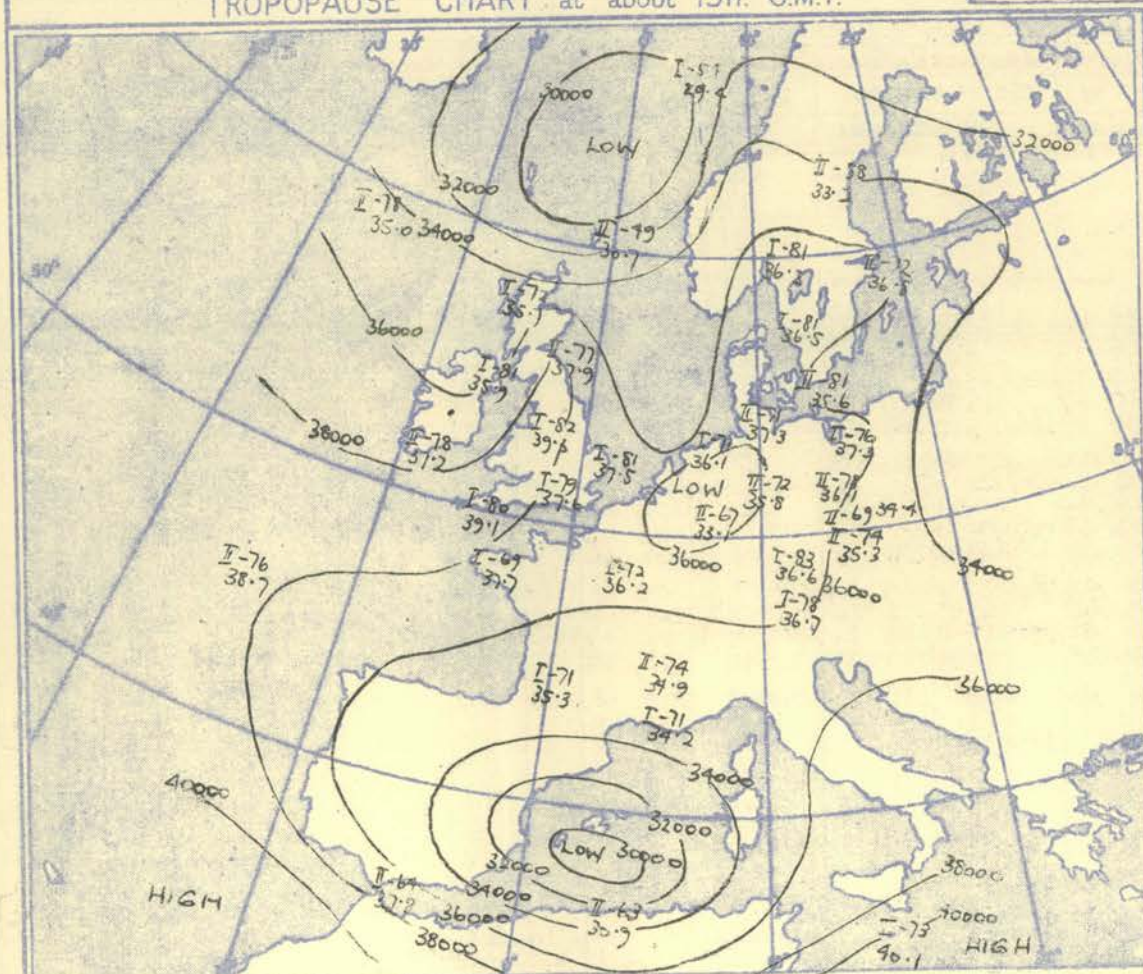
Ship	Weather Explorer										Weather Explorer										Weather Explorer										Weather Recorder										Weather Recorder										Weather Recorder										Weather Recorder										Ship										
Lat/Long	52.5°N 20.1°W										52.6°N 20.1°W										52.6°N 19.2°W										52.6°N 19.9°W										59°N 19.2°W										59°N 19.1°W										59°N 19°W										58.9°N 19°W										Lat/Long
Pressure	Time					G.M.T.					Time					G.M.T.					Time					G.M.T.					Time					G.M.T.					Time					G.M.T.					Pressure																														
	03 hrs					09 hrs					15 hrs					21 hrs					03 hrs					09 hrs					15 hrs					21 hrs					G.M.T.																																								
	M.S.L.					mb					mb					mb					mb					mb					mb					mb					mb					M.S.L.																																			
	Surf					mb					mb					mb					mb					mb					mb					mb					mb					Surf																																			
Freezing	710					710					705					735					740					730					770					760					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	-	51.50	020	17		-	52.52	190	09	-	52.49	180	11	-	53.47	140	10	-	48.48	250	18	-	47.47	270	23	-	48.46	290	16	-	46.46					Surf																																													
1000	67	51.50	063	09	7-0	52.52	280	06	7-5	53.51	202	09	7-8	52.45	143	07	5-6	46.46	252	15	6-5	46.41	287	18	7-2	44.41	322	10	7-9	44.44					1000																																														
950		50.50	029	06			50.49	240	06		48.48	191	07		46.38	156	09		41.41	258	21		44.40	287	24		47.38	326	18		47.44					950																																													
900	35	48.47	333	06	5-6	48.47	230	06	3-6	46.46	171	07	3-4	44.38	122	09	3-9	40.40	263	23	4-9	47.38	327	23	3-6	47.41									900																																														
850		46.43	270	03			45.45	210	09		45.43	110	09		43.35	113	15		24.34	280	27		43.36	307	39		42.33	316	22		46.38					850																																													
800	67	40.38				67.6	41.39	190	04	67.9	41.40	096	08	67.1	40.32	119	12	65.2	36.28	297	37	66.6	38.15	307	35	67.3	36.24	322	24	68.3	39.33					800																																													
750		36.32					37.33		LY		37.33	084	14		33.29	118	13		33.25	299	42		34.16	306	38		29.17	307	25		31.24				750																																														
700	102	7	31.25			108	1	30.26	LY		103.4	28.088	14	100	9	29.118	12	100	3	28.17	293	43	10	7	29	13	311	30	102	1	23.08	296	25	103.4	24.17	See top of page for winds	700																																												
650		24.19					26.21	093	18		26.21	093	18		24.10	117	13		22.07	256	40		20.05	298	31		19.01	297	30		21.05				650																																														
600	142	6	17.15			142.9	17.13			143.3	19.15	115	19	143.2	17.08	133	10	139.2	15.00	293	38	14.13	16.01	293	29	141.4	11.2	295	32	142.9	15.00					600																																													
550		10.07					11.07				13.08	167	16		10.02	144	14		08.9	292	39		08.10	293	27		04.41	303	30		06.43				550																																														
500	188	20.1	-2.183	18	188.7	02.3				189.2	04.3	158	19	188.9	00.15	170	16	185.4	-1.20	288	48	186.8	-2.18	284	34	186.4	-7.22	308	28	188.1	-2.20					500																																													
450		-8.10	205	14		-6.11	135	22			-5.14	152	14		-7.35	188	19		-9.30	283	48		-10.28	275	29		-15.20	291	26		-12.31				450																																														
400	241	9.19	-3.214	13	242.6	18.22	126	18	243.2	15.24	166	16	242.7	-14.47	173	18	239.0	-30.42	281	42	240.2	-22.44	286	31	239.2	-24.41	290	27	241.3	-24.39					400																																														
350		-35.39	201	13		-32.37	163	13			-27.36	170	16		-32.50	173	17		-35.55	283	35		-38.58	261	33		-41.27	28	24		-38.52				350																																														
300	306	2.52			189	15.30	2.47		190	18.30	4.42	176	16	306.2	2.48	178	15	304.0	0.51		292	46		-56.73	282	33	308.8	-6.8	279	28					300																																														
250		-6.8			209	19			128	20				-6.8		205	13		-67								-64.27	279	28					250																																															
200	391	7.76			258	17.50	8.78		126	18		(255)		390.3	7.9	208	12										-64.27	272	18					200																																															
170		-67			289	08			200	06				-69		187	03										-66.26	262	12					170																																															
150		-68			048	08			-65					-68		053	06											-62.28	259	06					150																																														
130		-68			144	03			-66					-69		286	09																	130																																															
110		-67			calm				-66					-68		331	06																	110																																															
100		-66							-66					-68		331	06																	100																																															
90		(103)							-64					-69		027	07																	90																																															
80									-64					-68		024	06																	80																																															
70																																				70																																													
60																																				60																																													
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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 10 20 30 40 50 60 70 80 90 100 knots

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



NOTES ON THE AEROLOGICAL SITUATION.

The old cold trough over Europe and the cold pool over the Western Mediterranean continued to degenerate. A new cold trough formed to the east of Iceland moved Southeastward and cut-off a cold pool in sea area Forties. A cold pool in the Western Atlantic also degenerated to form a shallow cold pool.

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

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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION	
Time M.S.L. Surf Freezing	Pressure mb	ISK.		G.M.T.		ISK.		G.M.T.		ISK.		G.M.T.		ISK.		G.M.T.		ISK.		G.M.T.		ISK.		G.M.T.		ISK.		G.M.T.		ISK.		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							
		1013-1	1003-1	888		1021-4	1019-8	800		1019-1	1018-3	750		1024-6	1015-0	748		1023-3	1021-3	758		1021-7	1017-3	772		1021-7	1005-9	971		1024-2	1013-5	971		1027-2	1025	715			
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971						715							
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		888				800				750				748				758				772				971						715							
		888				800				750				748				758				772				971													

METEOROLOGICAL
VALENTIA
08L
1026.4
1025
730

G.M.T.	Time
Lat	N.S.L.
Long	Serif
Wind	Pressure

STATION

LERWICK

STORNOWAY

LEUCHARS

ALDERGROVE

LIVERPOOL

DOWNHAM MARKET

LARKHILL

CAMBORNE

VALENTIA

Time M.S.L. Surf Pressure

03L G.M.T. mb mb mb

1010.9 1000.7 869

03L G.M.T. mb mb mb

1022.2 1020.9 860

03L G.M.T. mb mb mb

1019.7 1017.8 797

03L G.M.T. mb mb mb

1023.8 1014.7 870, 856, 748

03L G.M.T. mb mb mb

1020.8 1018.8 722

03L G.M.T. mb mb mb

1017.7 1013.1 732

03L G.M.T. mb mb mb

1020.1 1003.6 742

03L G.M.T. mb mb mb

1023.7 1012.4 767

03L G.M.T. mb mb mb

1026.4 1025 730

Pressure mb

Height ft./100

Temp. °F. °C.

Dew °F. °C.

Wind Dir. Vel. knots

Surf 1000 950 800 750 700 650 600 550 500 450 400 350 300 250 200 170 150 130 110 100 90 80 70 60

Inversion 913 mb 34° - 300 mb 35° 180 m thermal 825 - 768 mb 26°

Inversion 890 mb 31° - 878 mb 32° 800 - 30° - 780° 31° 255° - 68° - 250° - 47° 180 m thermal 720 - 675 mb 23°

Inversion 1019 mb 46° - 1005 mb 49° 850° 23° - 818° 33°

Inversion 860 mb 31° - 848 mb 36° 800° 33° - 776° 34°

Inversion 920 mb 31° - 882 mb 39° 180 m thermal 882 - 815 mb 39°

Inversion 1013 mb 45° - 950 mb 48° 822° 36° - 800° 38° 756° 32° - 750° 33° 180 m thermal 510° 489 mb 30°

Inversion 1003 mb 43° - 985 mb 49° 854° 38° - 836° 35° 180 m thermal 930° 910 mb 44°

Inversion 927 mb 41° - 836 mb 45° 616° 16° - 600° 17° 180 m thermal 600° 589 mb 17°

Tropopause

NR.

I 237 mb -70°

III 262 mb -60° 32.800°

II 155° -63° 44.000°

NR.

I 230 mb -80° 35° 800°

I 215 mb -80° 37° 400°

I 210 mb -83° 37° 600°

I 216 mb -81° 37° 200°

I 204 mb -78° 38° 500°

STATION

LERWICK

STORNOWAY

LEUCHARS

ALDERGROVE

LIVERPOOL

DOWNHAM MARKET

LARKHILL

CAMBORNE

Time M.S.L. Surf Pressure

09L G.M.T. mb mb mb

1014.3 1004.2 893

09L G.M.T. mb mb mb

1024.6 1023.0 910

09L G.M.T. mb mb mb

1019.0 1018.2 891

09L G.M.T. mb mb mb

1023.9 1014.1 776, 790

09L G.M.T. mb mb mb

1020.1 1018.0 730

09L G.M.T. mb mb mb

1017.5 1013.0 850

09L G.M.T. mb mb mb

1020.1 1002.9 743

09L G.M.T. mb mb mb

1022.7 1012.0 700

Pressure mb

Height ft./100

Temp. °F. °C.

Dew °F. °C.

Wind Dir. Vel. knots

Surf 1000 950 800 750 700 650 600 550 500 450 400 350 300 250 200 170 150 130 110 100 90 80 70 60

Inversion 800 mb 22° - 783 mb 26° 750° 24° - 739° 26° 180 m thermal 720 - 700 mb 23°

Inversion 889 mb 29° - 868 mb 34° 750° 26° - 719° 30° 180 m thermal 858 - 809 mb 34°

Inversion 853 mb 27° - 792 mb 31° 180 m thermal 694 - 664 mb 21°

Inversion 904 mb 34° - 881 mb 41° 786° 31° - 776° 32° 180 m thermal 827 mb 21° - 806 mb 34° 805° 747 mb 34°

Inversion 827 mb 21° - 806 mb 34° 805° 747 mb 34°

Inversion 788 mb 24° - 760 mb 30° 180 m thermal 906 mb 32° - 871 mb 39° 871° - 835 mb 39°

Inversion 867 mb 39° - 838 mb 42° 180 m thermal 913 - 900 mb 41° 825° 875° 41°

Tropopause

I 262 mb -68° 32° 700°

II 228 mb -72°

II 260 mb -63° 33° 100°

I 228 mb -73° 36° 200°

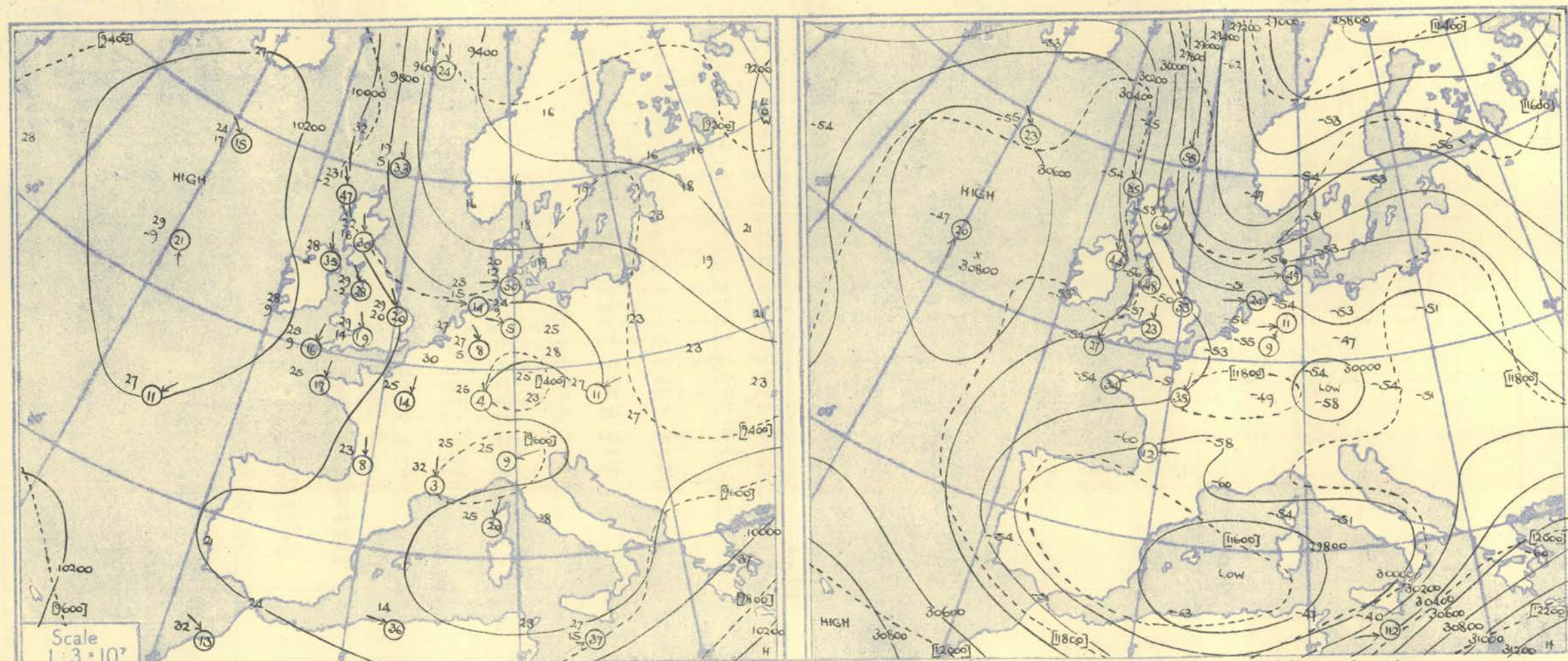
I 230 mb -70° 36° 000°

I 239 mb -67° 34° 700°

NR.

I 216 mb -80° 37° 400°

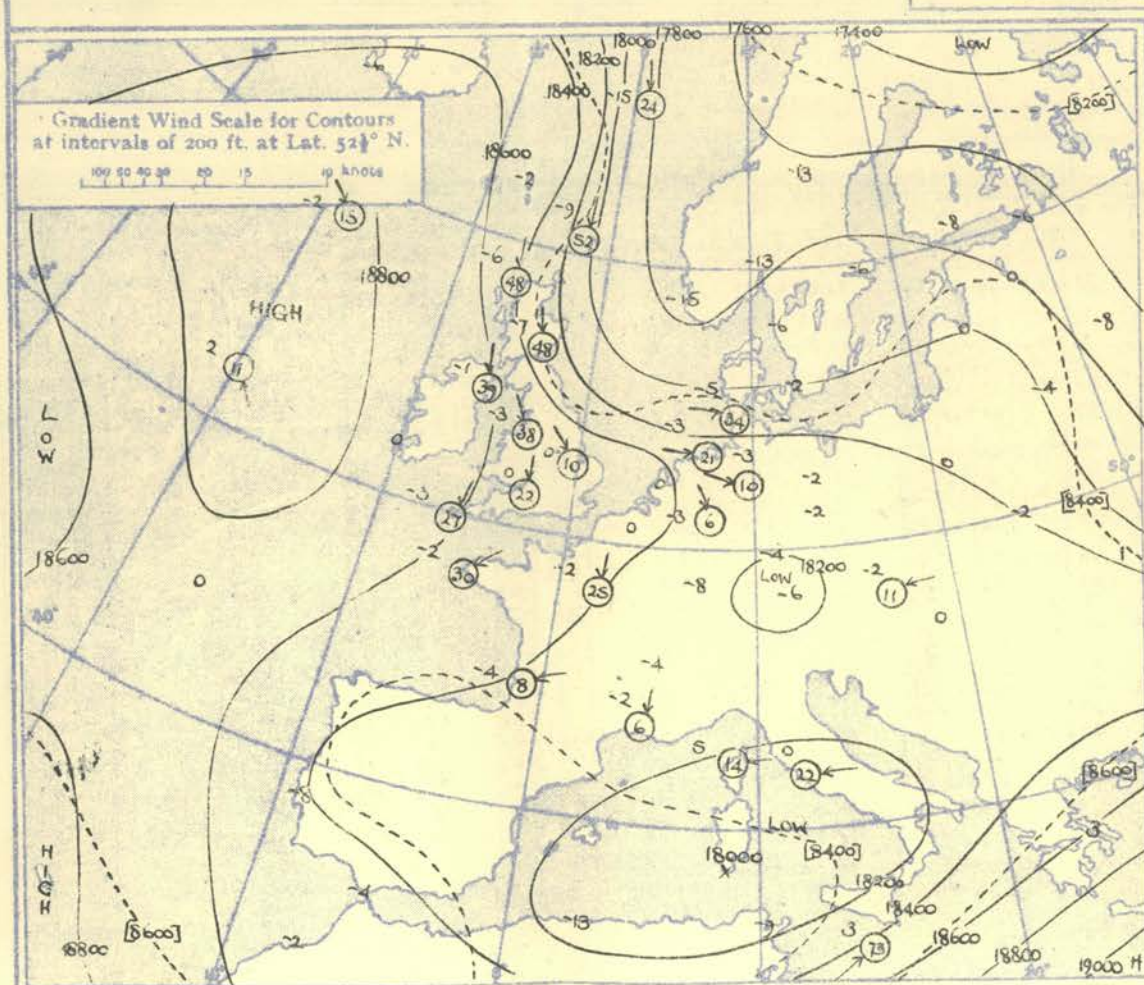
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



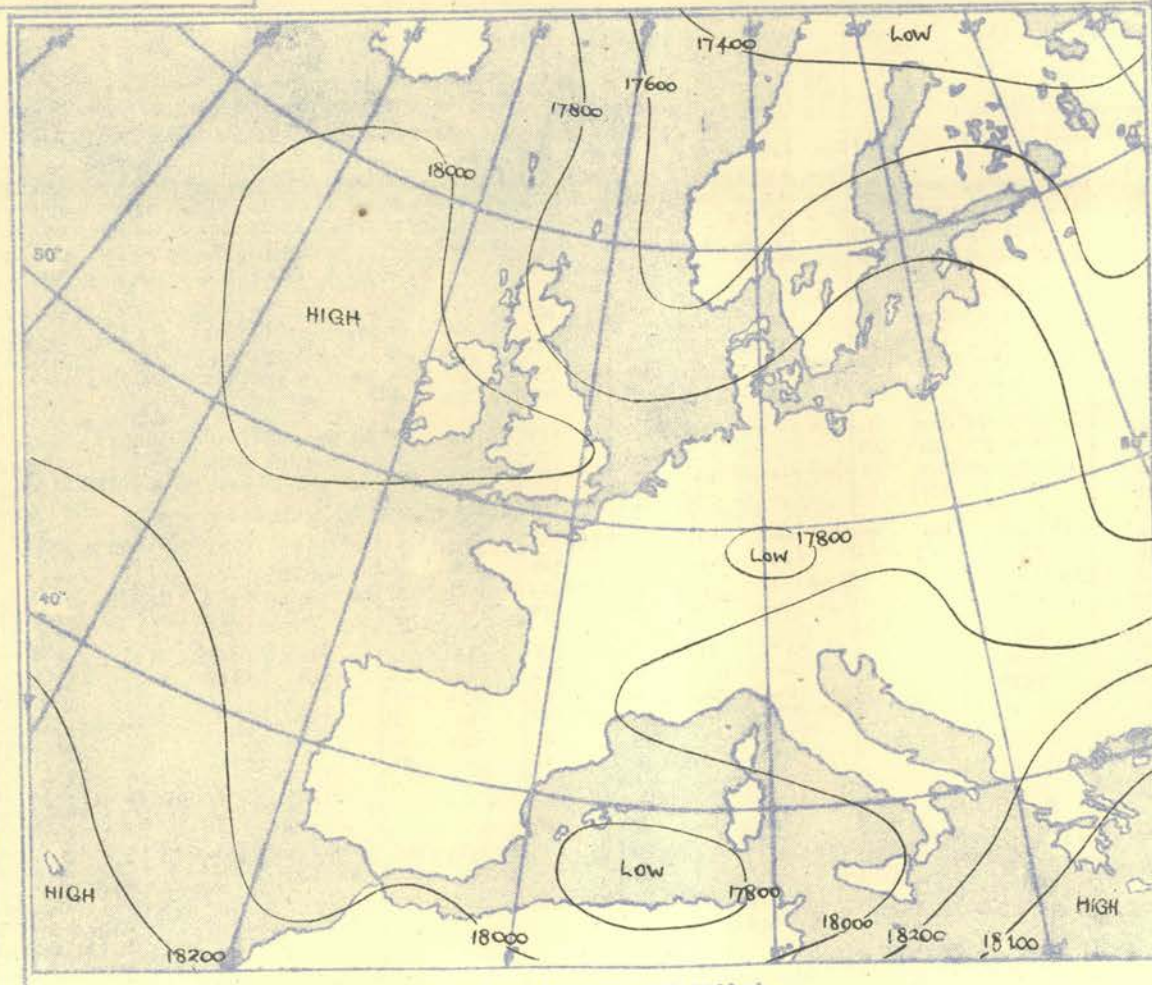
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

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



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

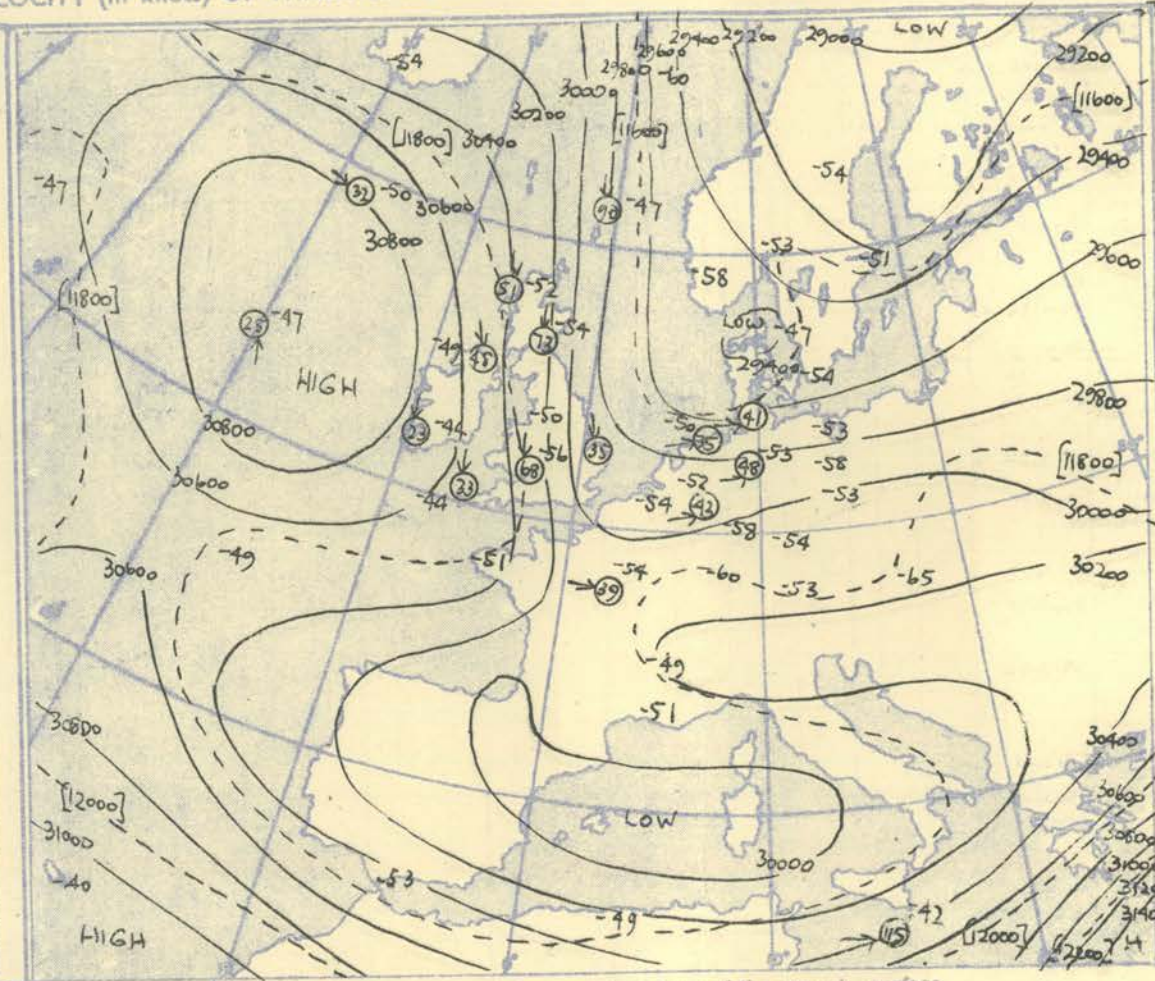
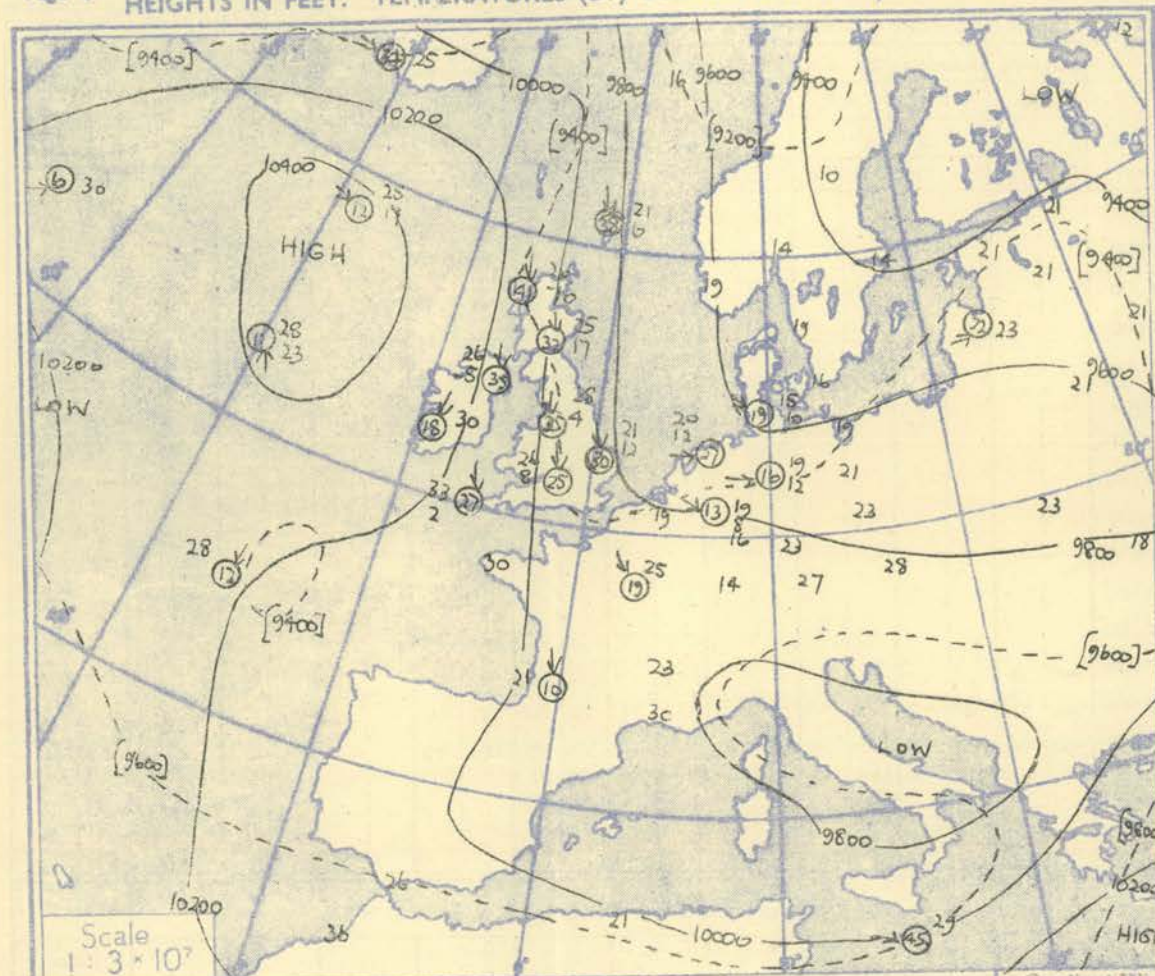


Isopleths of Thickness 500-1000mb.

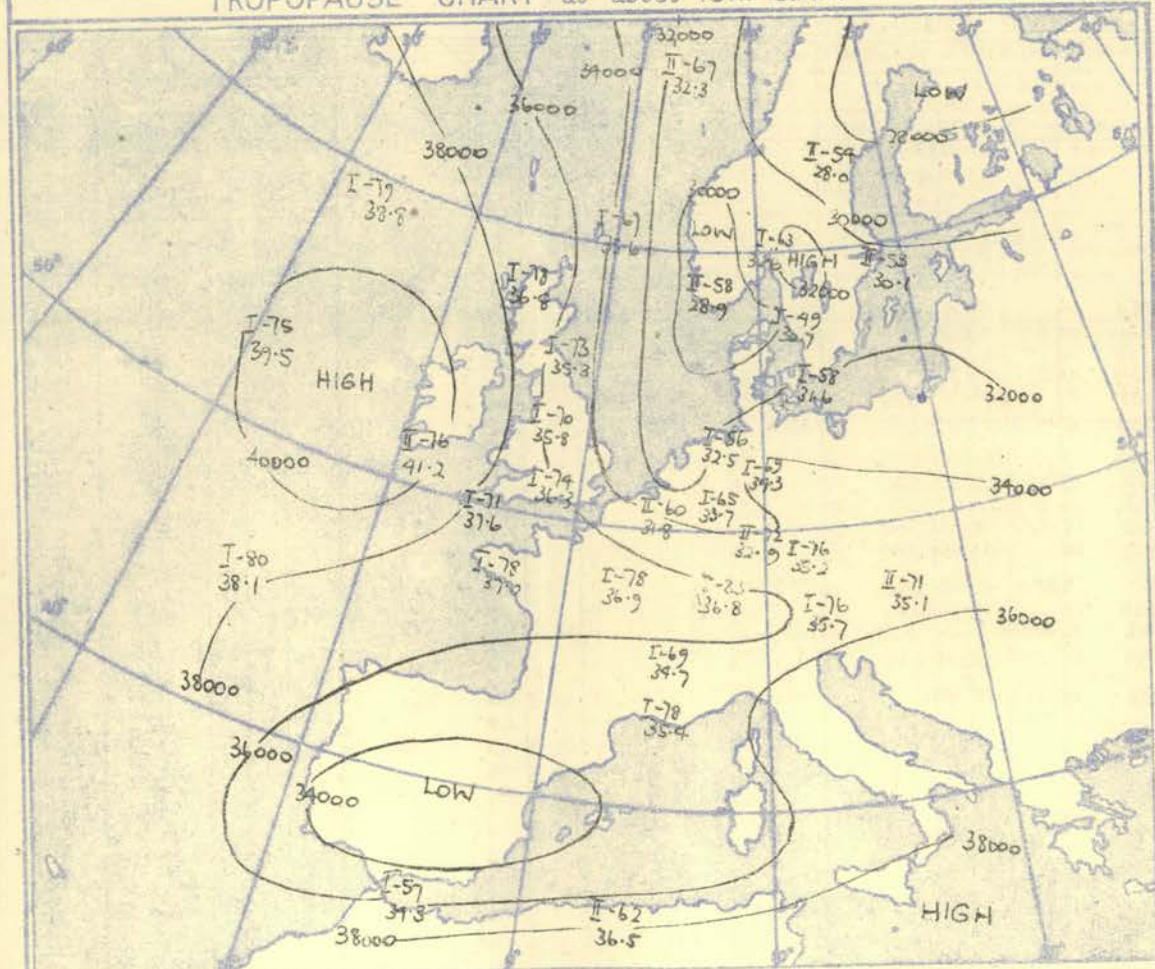
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

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

Ship	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER EXPLORER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER	WEATHER RECORDER	Ship
Lat/Long	52.7N 20.2W	52.8N 20.1W	52.5N 20.1W	52.3N 20.1W	58.9N 19.0W	58.9N 19.0W	58.9N 19.0W	58.8N 19.0W	Lat/Long
Time	03L	09L	15L	21L	03L	09L	15L	21L	Time
M.S.L.	031	1031	1032	1032	1031	1033	1033	1033	M.S.L.
Surf	1031	1031	1032	1032	1031	1033	1033	1033	Surf
Freezing	725	720	740	740	755	760	760	770	Freezing
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure
Surf	8.6	52 49	130 08	52 49 09 06	8.6	51 45	126 05	51 45 10 06	Surf
1000	43 35	121 08	46 39	103 04	47 39	141 06	45 38	148 04	1000
950	41 21	123 10	36 9	42 36 128	37 2	44 35	145 09	37 3	950
900	43 32	124 14	43 27	139 16	45 38	145 15	43 34	150 08	900
850	36 28	118 14	68 5	41 32 132	19 68 9	41 34 134	16 68 9	40 27 151	850
800	34 17	123 16	36 28	188 12	33 27	122 15	33 24	152 11	800
750	29 09	134 21	108 9	30 14	125 09	04 2	28 23	133 11	750
700	23 05	132 19	23 15	143 09	23 18	143 11	21 14	153 11	700
650	16 06	129 16	143 8	18 12	126 15	143 9	16 11	153 14	650
600	10 10	129 15	09 05	139 17	13 07	156 16	09 08	173 13	600
550	02 35	188 11	189 5	04 19	156 20	189 7	04 17	160 21	550
500	09 29	145 12	06 19	160 17	07 24	158 25	09 30	198 21	500
450	24 23	159 20	243 4	18 35	169 20	243 5	18 35	157 28	450
400	31 48	189 23	32 53	179 20	30 47	166 31	35 54	226 26	400
350	307 9	47 182	20 309	0 47 182	22 309	2 47 162	25 307	51 219	350
300	65 166	17 17	62 190	23 16	395 1 75	238 19	398 76	244 18	300
250	393 1	76 173	13 394	8 73 200	16 395	1 75 238	19 398	76 244	250
200	70 158	07 158	07 158	07 158	07 158	07 158	07 158	07 158	200
150	537 0	70 158	07 158	07 158	07 158	07 158	07 158	07 158	150
130	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	130
110	537 0	70 158	07 158	07 158	07 158	07 158	07 158	07 158	110
100	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	100
90	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	90
80	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	80
70	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	70
60	84 mb	68 151	06 151	06 151	06 151	06 151	06 151	06 151	60
Inversion	907 mb 70° - 850 mb 73°	1031 mb 52° - 1013 mb 53°	900 mb 44° - 869 mb 45°	909 mb 42° - 872 mb 45°	1000 mb 44° - 975 mb 47°	983 mb 41° - 958 mb 45°	1018 mb 44° - 974 mb 50°	995 mb 45° - 960 mb 50°	Inversion
Isenthal	886 - 42° - 870° - 44°	845 - 807° - 42°	869 - 850 mb 45°	600 - 595 mb 14°	600 - 595 mb 14°	958 - 950 mb 51°	950 - 900 mb 50°	1000 - 995 mb 45°	Isenthal
Tropopause	I 216 mb - 78°	I 219 mb - 75°	I 200 mb - 75°	I 221 mb - 76°	I 215 mb - 75°	I 205 mb - 79°	I 235 mb - 79°	I 235 mb - 79°	Tropopause



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

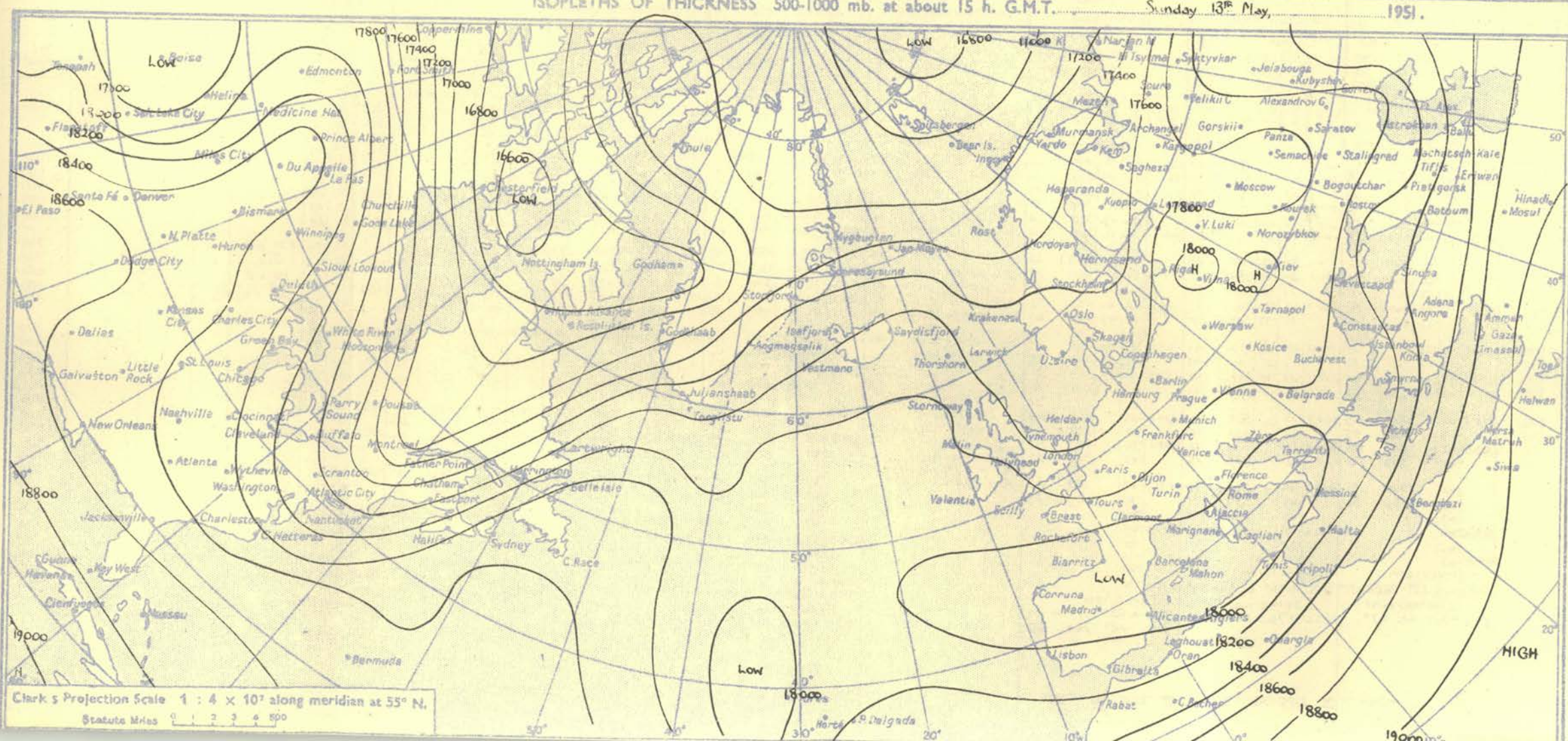
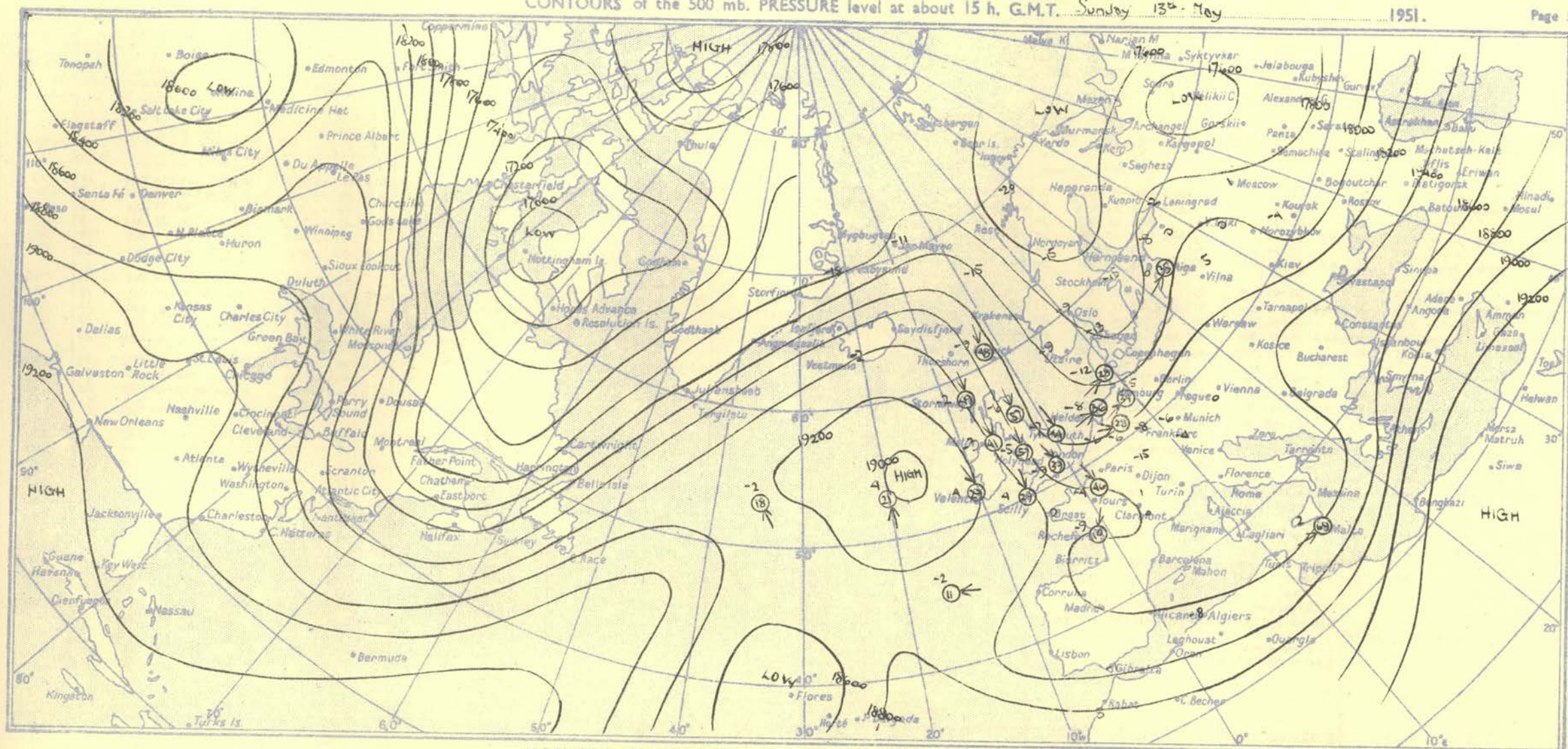


NOTES ON THE AEROLOGICAL SITUATION.

Contrast with yesterday - renewed outbreak of cold air over Western Europe in the rear of the Scandinavian depression.

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

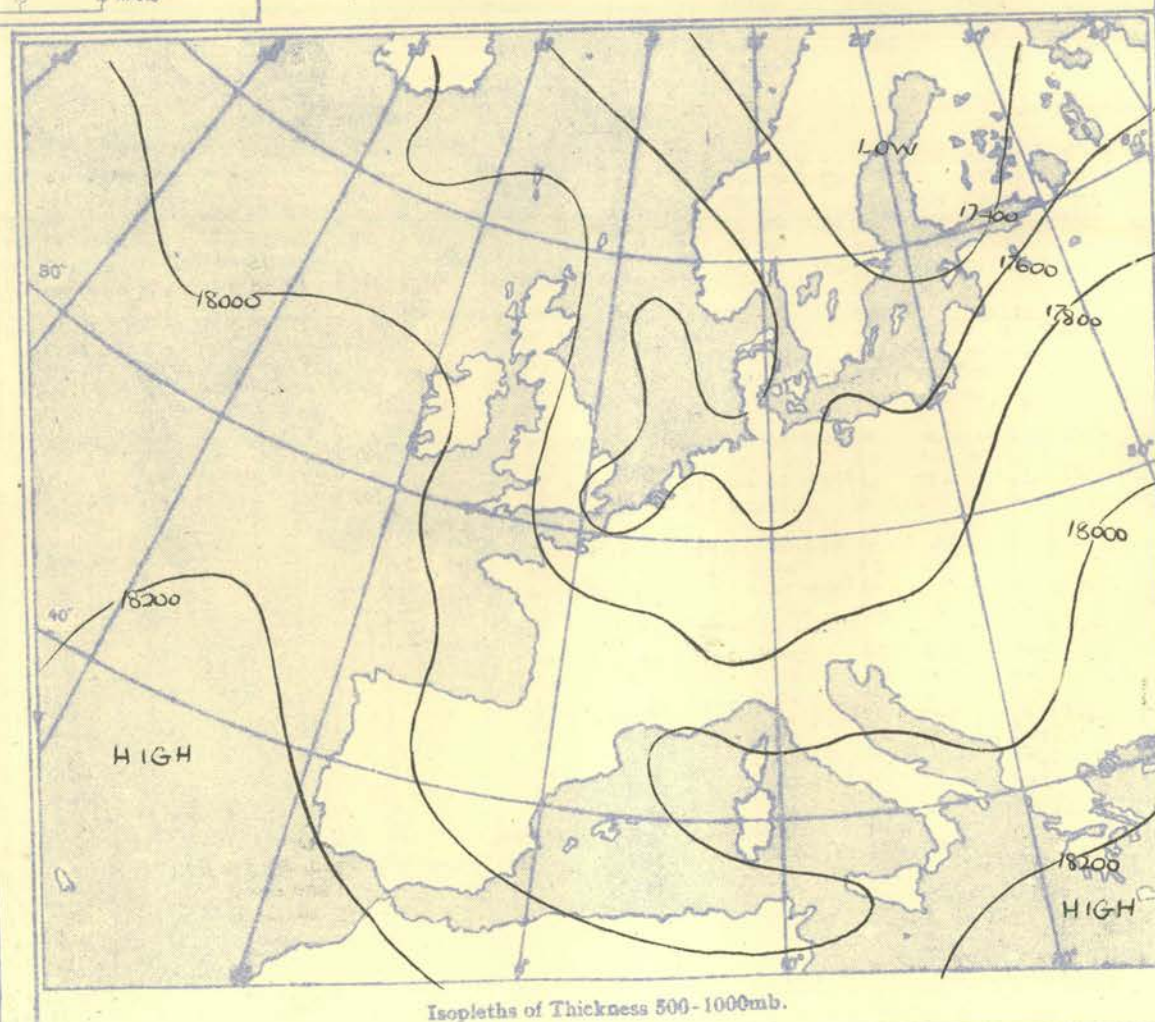
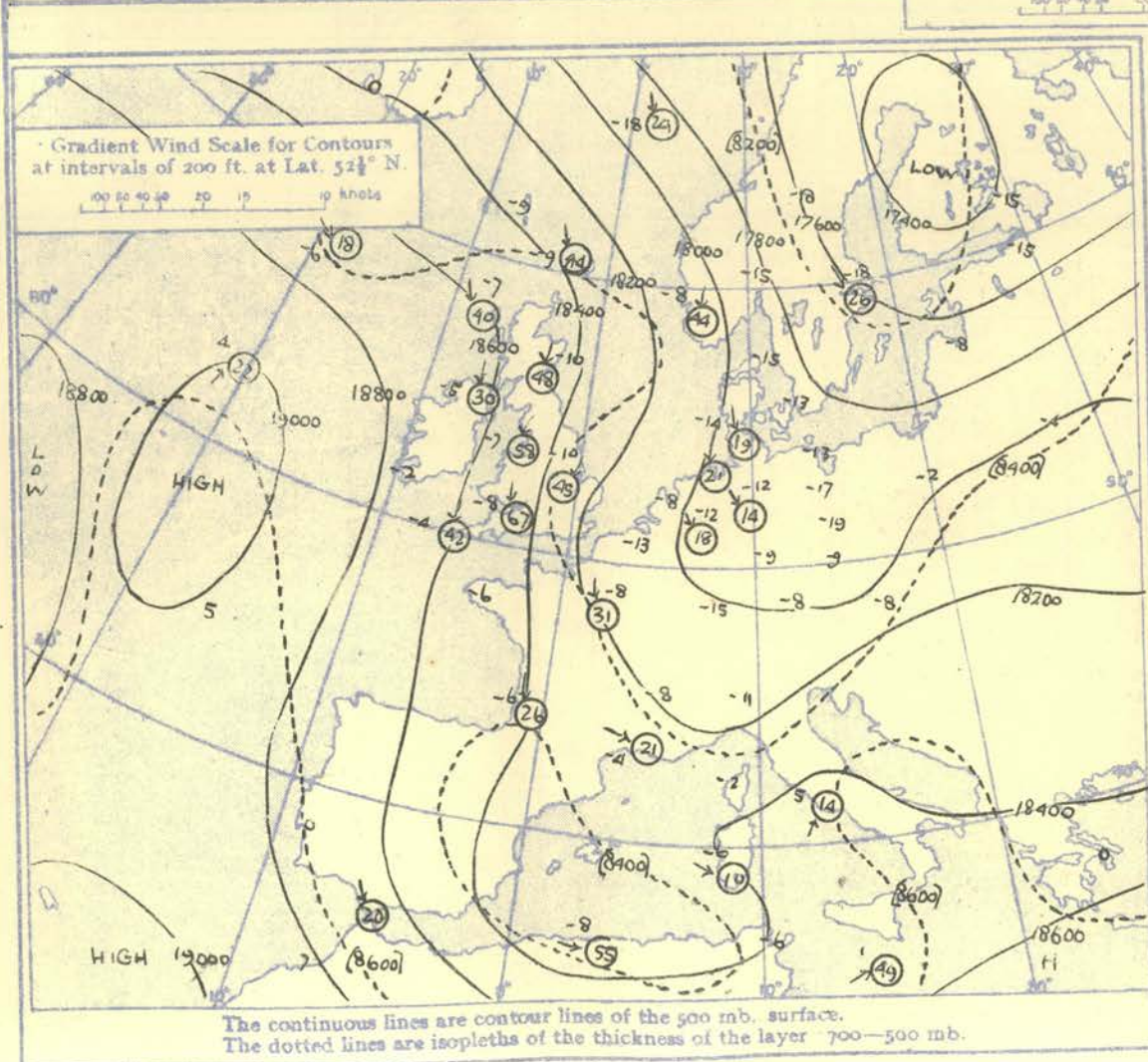
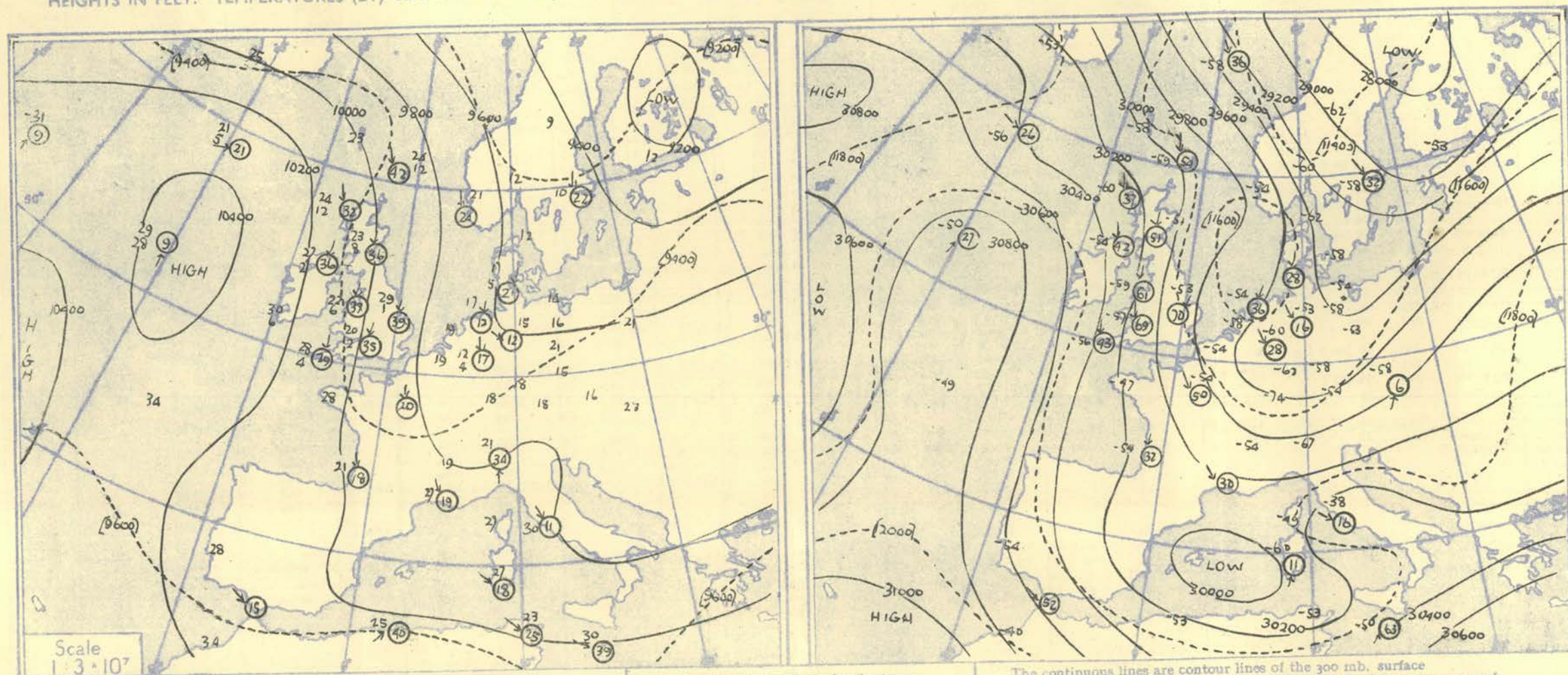


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

STATION		RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)										STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Time M.S.L.	Surf	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	0

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

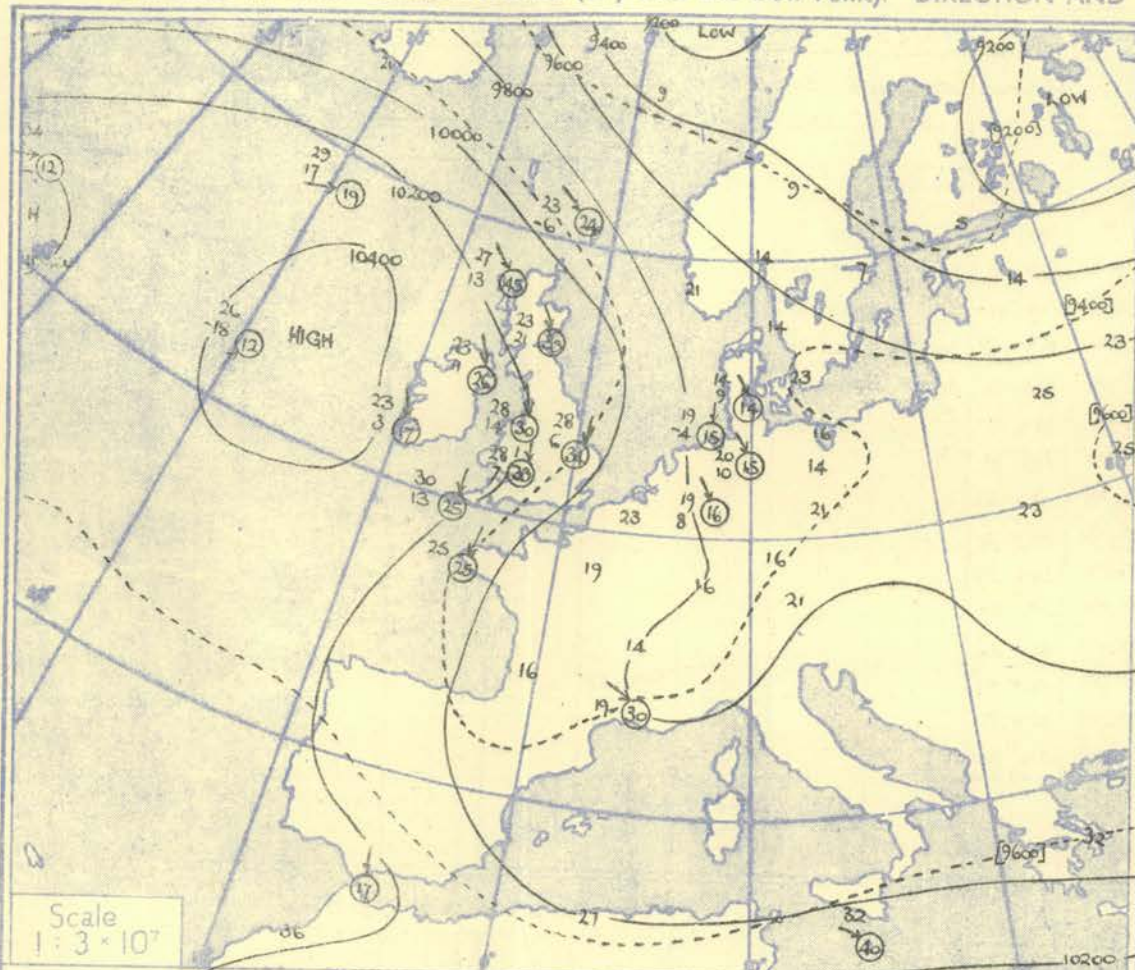


DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

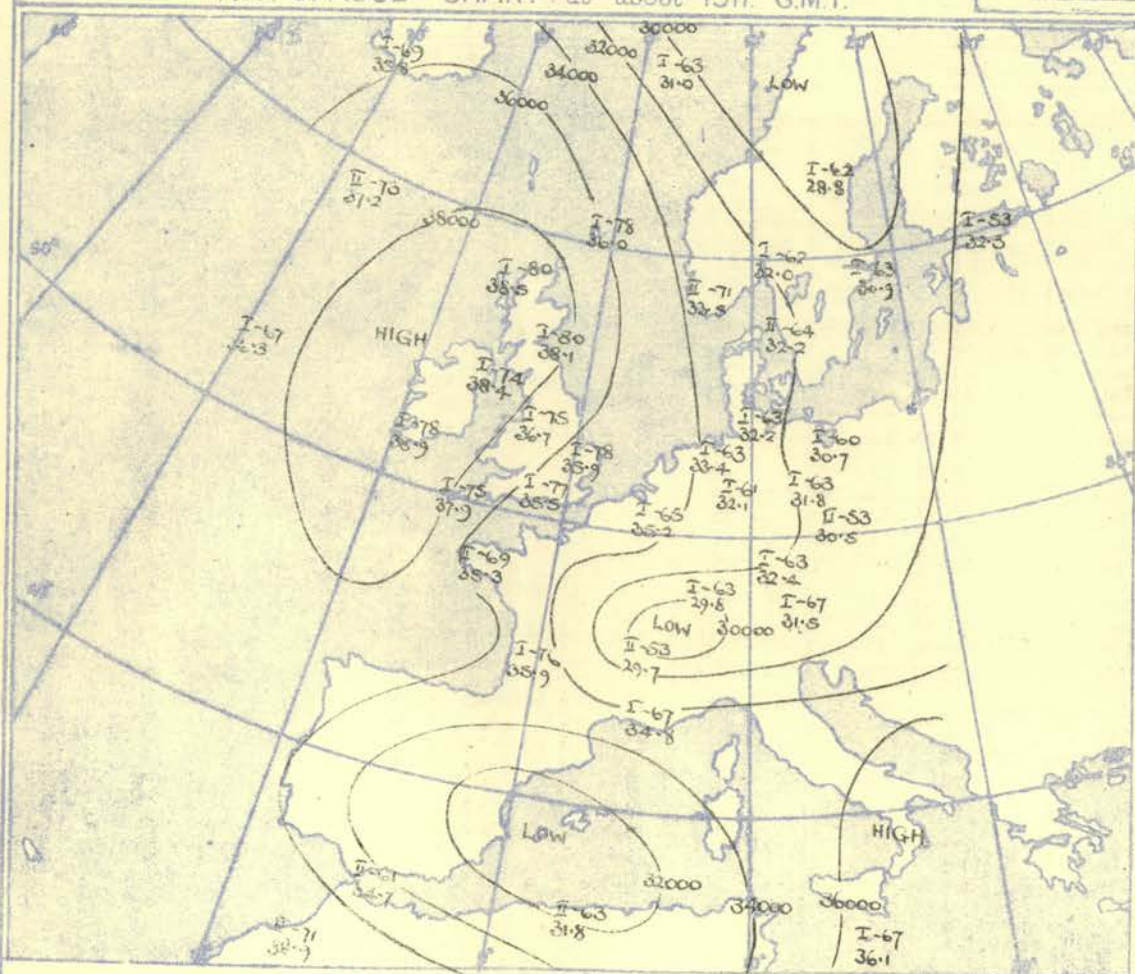
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																										Ship																																																																																																																																																																																																																																						
Ship	WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER EXPLORER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER				WEATHER RECORDER						Lat/Long	Time	Pressure																																																																																																																																																																																																																											
Lat/Long	52-4N. 20-1W.				52-3N. 20-2W.				52-3N. 20-2W.				52-3N. 20-3W.				58-9N. 18-9W.				59-0N. 18-9W.				59-0N. 18-9W.				59-0N. 18-9W.							G.M.T.	M.S.L.	Surf	Freezing																																																																																																																																																																																																																									
Time	03h.		G.M.T.		07h.		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.																																																																																																																																																																																																																																	
	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	M.S.L.	mb	mb	mb	mb	mb	mb	mb																																																																																																																																																																																																																												
Freezing	720		mb		765		mb		745		mb		800		mb		790		mb		750		mb		720		mb		720		mb		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	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.	ft./100	°F.	°F.	Dir. Vel.	ft./100	°F.	°F.	Dir. Vel.	mb																																																																																																																																																																																																																											
Surf		52	50	140	03	58	49	160	02		54	48	170	07		55	50	180	10		47	46	270	15		48	48	240	20		48	47	270	17		48	48	250	12	Surf																																																																																																																																																																																																																								
1000	08-9	53	52	184	03	09-0	49	43		09-0	52	39		08-8	50	48	215	11	08-1	42	42	240	12	08-0	46	46	266	17	07-8	46	43	262	19	07-3	48	46	263	09	1000																																																																																																																																																																																																																									
950		48	44	183	06		45	36			47	33			45	42	243	11		41	31	243	17		42	41	266	18		47	41	261	19		42	42	263	16	950																																																																																																																																																																																																																									
900	37-5	43	40	174	07	37-5	41	36		37-6	42	30		37-2	41	37	254	10	36-5	45	33	245	21	36-3	40	39	267	21	36-3	45	42	259	22	35-6	41	39	269	21	900																																																																																																																																																																																																																									
850		43	39	156	11		41	24			44	29			37	33	247	10		40	27	250	22		42	19	268	25		42	33	258	24		42	28	274	22	850																																																																																																																																																																																																																									
800	69-2	40	34	153	13	68-9	36	14	213	06	69-2	37	06		68-5	32	28	257	11	67-8	33	22	262	27	67-9	38	23	265	20	68-0	41	01	259	19	67-2	37	33	279	21	800																																																																																																																																																																																																																								
750																																						750																																																																																																																																																																																																																										
700		36	32	171	07		30	18	213	08		33-21	229	15		26	21	274	13		27	15	262	18		32	23	259	20		36	13	259	19		35	28	278	22	700																																																																																																																																																																																																																								
650	104-5	29	28	183	09	104-0	26	12	199	08	104-2	26-11	207	12	103-2	21	11	283	07	102-6	21	15	269	21	103-0	27	20	250	22	103-3	29	17	255	19	102-6	30	11	276	22	650																																																																																																																																																																																																																								
600		23	21	185	11		21	11	207	13		21-11	229	14		15	01	260	11		14	05	272	20		21	13	240	22		22	15	253	21		23	08	276	24	600																																																																																																																																																																																																																								
550	144-3	17	07	189	15	143-6	14	01	234	18	143-7	14-12	258	18	147-2	08	06	252	16	141-6	09	03	274	18	142-6	15	09	239	22	142-9	15	08	261	23	142-3	16	00	255	22	550																																																																																																																																																																																																																								
		11-04	209	13		-09-07	248	19		06-15	252	19		-02-13	252	18		01-08	299	21		08-01	256	17		08-03	271	21		08-03	271	21		10-04	287	22		10-04	287	22																																																																																																																																																																																																																								
500	190-0	04	15	252	22	189-2	02	17	250	31	189-2	01	33	247	22	186	7	11	252	18	186-4	06	11	296	18	188	11	00	12	272	17	188-4	01	11	281	16	187-9	01	11	288	20	500																																																																																																																																																																																																																						
450		-07	25	255	21		-10	28	250	24		-11	39	252	31		-23	33	257	14		-16	21	295	12		-09	18	292	14		-09	23	283	15		-09	18	297	23	450																																																																																																																																																																																																																							
400	243-8	19	35	236	15	242-7	21	38	252	20	242-6	24	55	250	32	238-8	32	48	263	33	239-2	29	33	277	18	241-7	20	30	292	19	242-0	20	33	296	15	241-6	18	24	310	33	400																																																																																																																																																																																																																							
350		-33	47	238	19		-32	48	248	21		-37	56	236	22		-38	55	268	33		-43		286	13		-32	42	280	13		-31	49	329	16		-30	36	321	37	350																																																																																																																																																																																																																							
300	309	1	50	240	27	308	1	47	246	23	307	4	50	241	26	303	2	49	283	21	303	0	56	285	26	306	9	43	281	11	307	5	47	336	27	307	3	45	307	38	300																																																																																																																																																																																																																							
250		-65		249	29		-61		258	24		-63		247	37	(263)	-57							287	31		-69		289	18		-63		339	39		-61		216	44	250																																																																																																																																																																																																																							
200	394	5	70	273	22	394	1	74	277	28	393	3	67	297	27	(mb)				387	7	71	287	30	393	0	73	299	26	393	1	71	341	41	393	1	70	329	52	200																																																																																																																																																																																																																								
170		-66		284	12		-70		302	20		-63		334	27								-67	298	25		-67		310	25		-64		328	24		-67		322	30	170																																																																																																																																																																																																																							
150																							-67	307	28		-64		307	27		-64		319	21		-63		320	28	150																																																																																																																																																																																																																							
130	(146)	-66					-68		309	11		-67		343	25								-68	303	27		-64		303	26		-63		304	22		-62		315	27	130																																																																																																																																																																																																																							
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100							-69		339	19		-71		346	10								(092)	-68		312	14		300	16		-63		301	14					100																																																																																																																																																																																																																								
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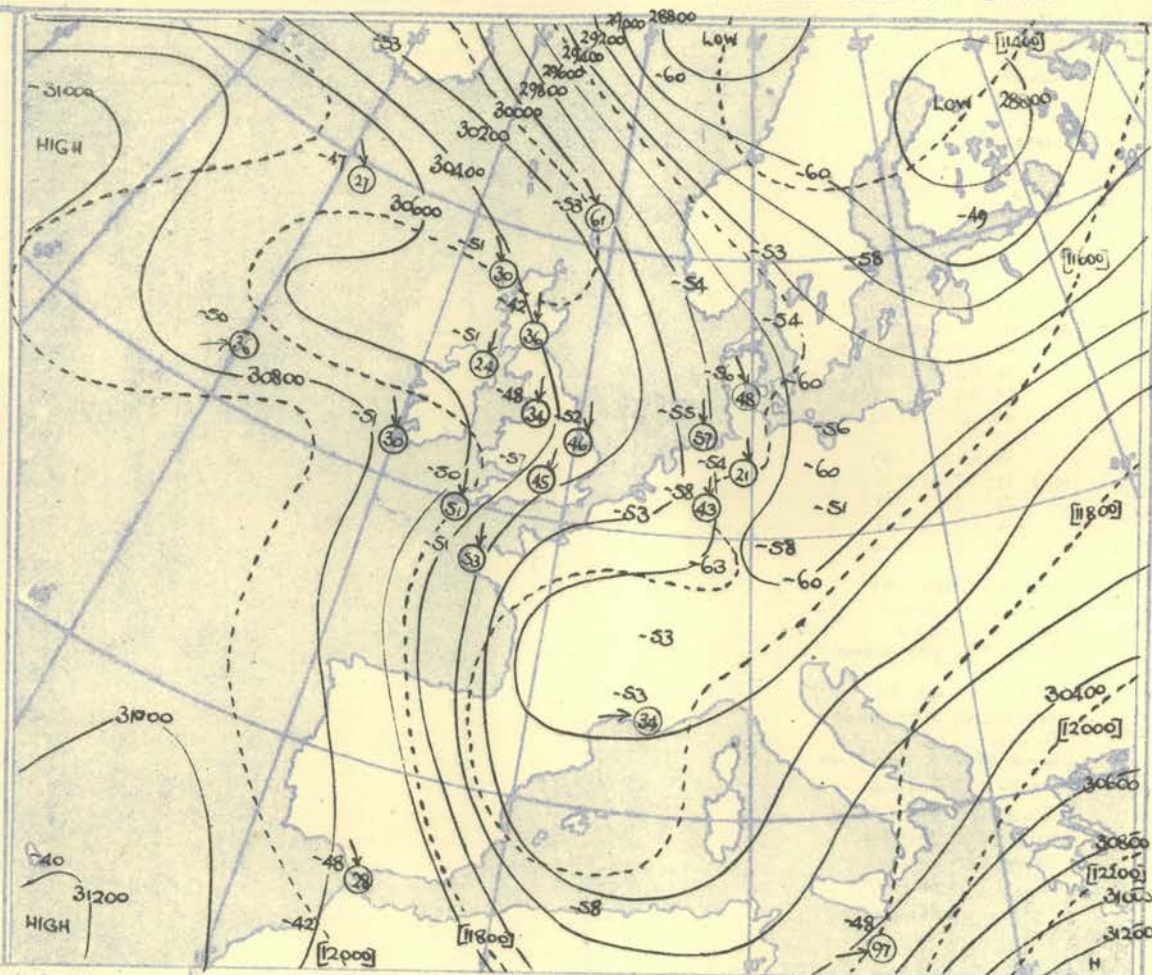
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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



Contour lines of Height of Tropopause.
Temperature of Tropopause.

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 knots



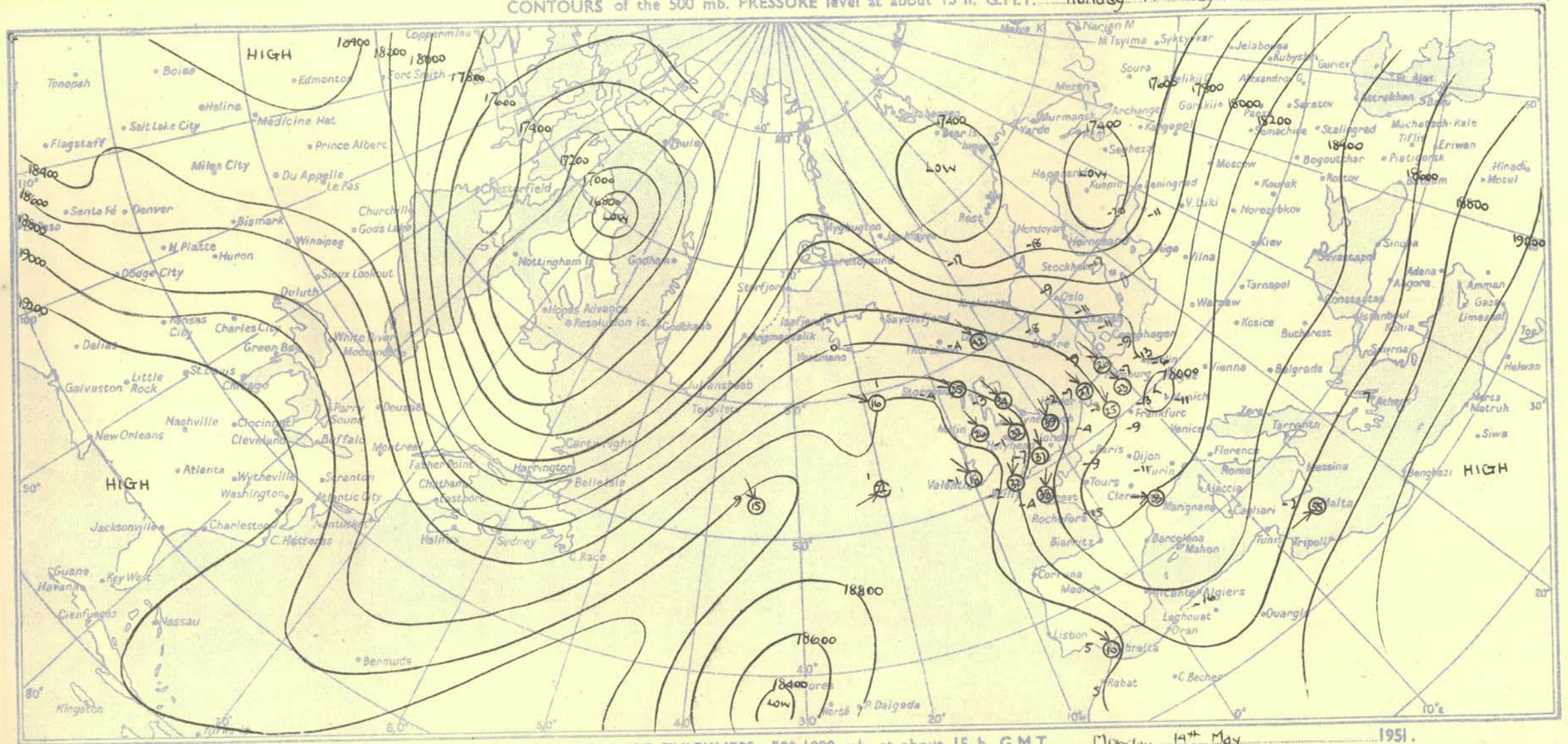
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500-300 mb.

NOTES ON THE AEROLOGICAL SITUATION.

No material change during the day.

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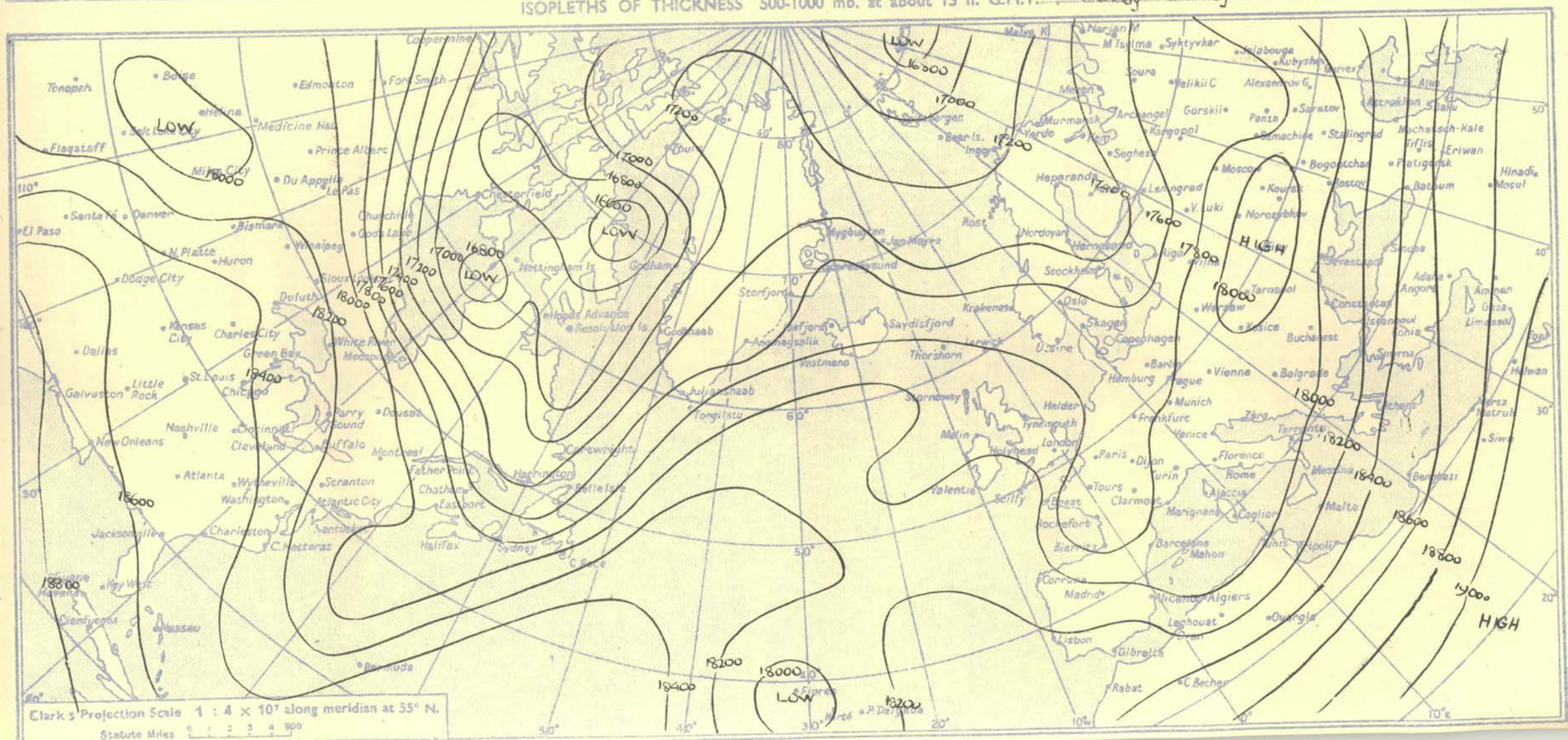
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
Nelson K. Johnson, K.C.B., D.Sc., Director.



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

Monday 14th May

1951.



Clark's Projection Scale 1 : 4 x 10⁷ along meridian at 55° N.

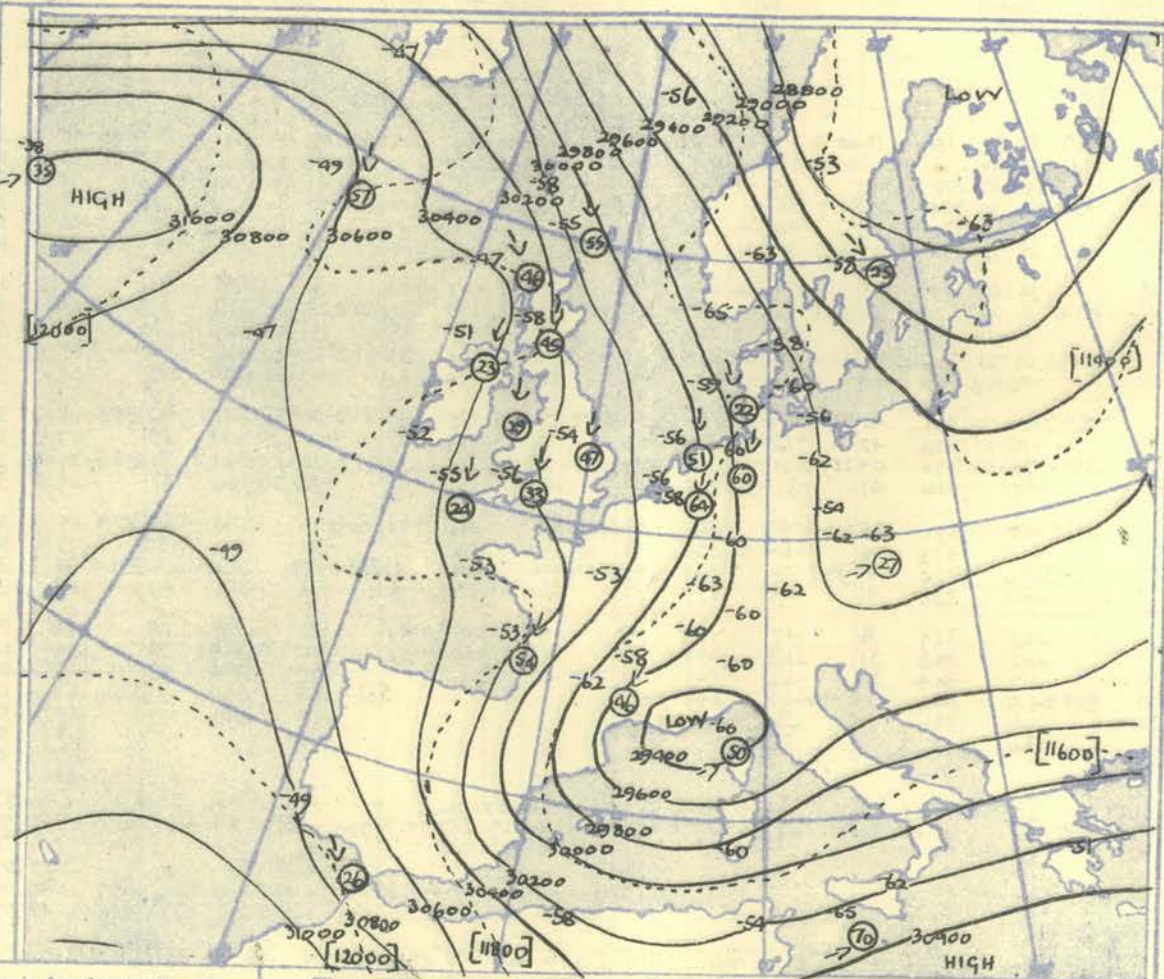
Statute Miles 0 1 2 3 4 500

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

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION										
Time 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														
	1017.7	mb	1025.0	mb	1023.0	mb	1022.1	mb	1023.0	mb	1022.8	mb	1025.9	mb	1023.9	mb	1024.0	mb	1025.1	mb	1024.0	mb	1025.1	mb	1028.2	mb	1028.2	mb	1031	mb	1029	mb															
	830	mb	778	mb	790	mb	766	mb	738	mb	750	mb	775	mb	732	mb	720	mb	720	mb	720	mb	720	mb	720	mb	720	mb	720	mb	720	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	44	310	16	00.4	52	46	270	15	00.2	61	55	320	10	02.6	55	44	380	15	00.6	54	37	300	12	01.2	46	39	350	18	04.4	52	37	040	14	02.9	50	44	360	08	00.3	59	45	360	12	Surf	
1000	04.7	45	43		18	00.8	48	41	270	20	00.1	58	50	315	12	07.8	53	41	340	20	06.8	49	35	304	18	06.4	43	36	360	20	06.8	50	35		18	07.6	47	42	351	20	08.3	55	43	026	10	1000	
950	32.9	40	39	307	21	35.2	43	37	294	31	34.8	39	28	325	21	36.4	46	35	360	24	35.2	42	33	354	14	34.4	31	27	348	28	35.0	32	23	005	17	36.0	42	33	353	14	37.0	45	34	044	15	950	
850	34.9	34	33	319	21	41	27	301	32	40	34	31	28	343	28	42	29	360	25	40	31	28	300	20	38	23	359	29	36	21	008	22	39	28	008	15	43	27	037	17	850						
800	63.9	29	25	316	22	66.7	35	28	309	34	66.1	34	31	347	55	68.0	36	25	002	25	60.7	31	25	005	23	65.3	33	08	010	31	66.0	33	13	014	26	67.4	38	26	018	18	68.7	41	20	021	15	800	
750	23	08	313	26	28	23	314	38	28	27	346	35	30	21	003	27	33	20	001	28	32	20	011	33	32	20	011	33	32	20	011	33	32	20	011	33	32	20	011	33	32	20	011	33	750		
700	98.3	23	09	318	24	101.5	27	13	319	45	100.9	23	21	340	35	102.9	23	11	353	27	101.8	28	14	355	30	100.3	28	06	010	34	100.9	28	07	005	33	102.5	30	13	010	25	103.9	29	03	344	17	700	
650	19	09	324	27	19	08	322	39	19	08	322	39	20	15	328	25	17	01	337	26	17	01	337	26	22	08	356	30	21	02	006	37	20	03	005	33	24	04	007	28	22	05	330	17	650		
600	137.7	11	09	326	33	140.9	11	00	322	37	140.3	13	07	357	35	142.1	13	01	335	25	141.4	17	05	357	31	139.8	14	00	003	37	140.3	11	06	007	38	142.3	17	03	004	29	143.8	16	08	332	21	600	
550	03	15	320	37	04	12	324	36	05	05	320	36	05	05	320	36	09	04	353	30	09	04	353	30	07	13	001	40	03	10	003	38	08	05	010	32	08	05	010	32	08	05	010	32	550		
500	182.7	04	22	317	42	186.0	04	23	326	35	185.5	03	19	321	34	187.2	05	15	343	26	186.9	01	13	350	32	185.1	02	32	356	39	185.3	07	23	360	37	187.8	12	13	013	32	189.0	01	15	341	18	500	
450	12	29	319	47	13	35	324	35	12	28	324	31	12	32	345	27	12	32	345	27	12	32	345	27	14	40	356	35	14	40	356	35	17	36	013	36	17	36	013	36	17	36	013	36	450		
400	235.8	23	34	323	47	239.1	22	46	325	39	238.9	24	46	346	32	240.2	25	42	346	30	240.2	25	42	346	30	238.2	25	43	010	45	238.0	27	45	015	41	241.0	23	34	007	38	242.4	23	31	333	27	400	
350	35	45	320	55	36	55	328	28	38	47	348	31	36	54	345	27	35	46	011	30	35	46	011	30	37	53	017	48	37	53	017	48	43	312	48	36	48	003	46	36	45	332	28	350			
300	300.7	53	335	61	304.0	51	324	29	303.4	42	344	36	305.0	51	351	24	305.2	48	014	34	302.9	52	013	46	301.9	57	016	45	305.9	50	359	51	307.2	51	332	30	307.2	51	332	30	307.2	51	332	30	307.2	51	300
250	74	33	321	63	76	32	317	32	76	32	341	39	76	32	348	29	76	32	348	29	76	32	348	29	76	32	348	29	76	32	348	29	76	32	348	29	76	32	348	29	76	32	348	29	250		
200	284.8	70	324	43	288.9	79	325	30	286.6	79	344	39	286.0	78	346	33	286.5	69	002	36	287.4	69	007	39	286.4	67	356	41	391.1	73	355	57	392.3	77	327	33	392.3	77	327	33	392.3	77	327	33	392.3	77	200
170	62	33	324	32	68	32	329	38	65	32	347	31	68	32	345	35	60	35	357	35	60	35	357	35	60	35	357	35	60	35	357	35	60	35	357	35	60	35	357	35	60	35	357	35	170		
150	58	33	324	26	448.6	60	334	41	448.6	62	346	22	448.6	62	346	22	448.6	62	346	22	448.6	62</																									

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																									23 MAY 1951		STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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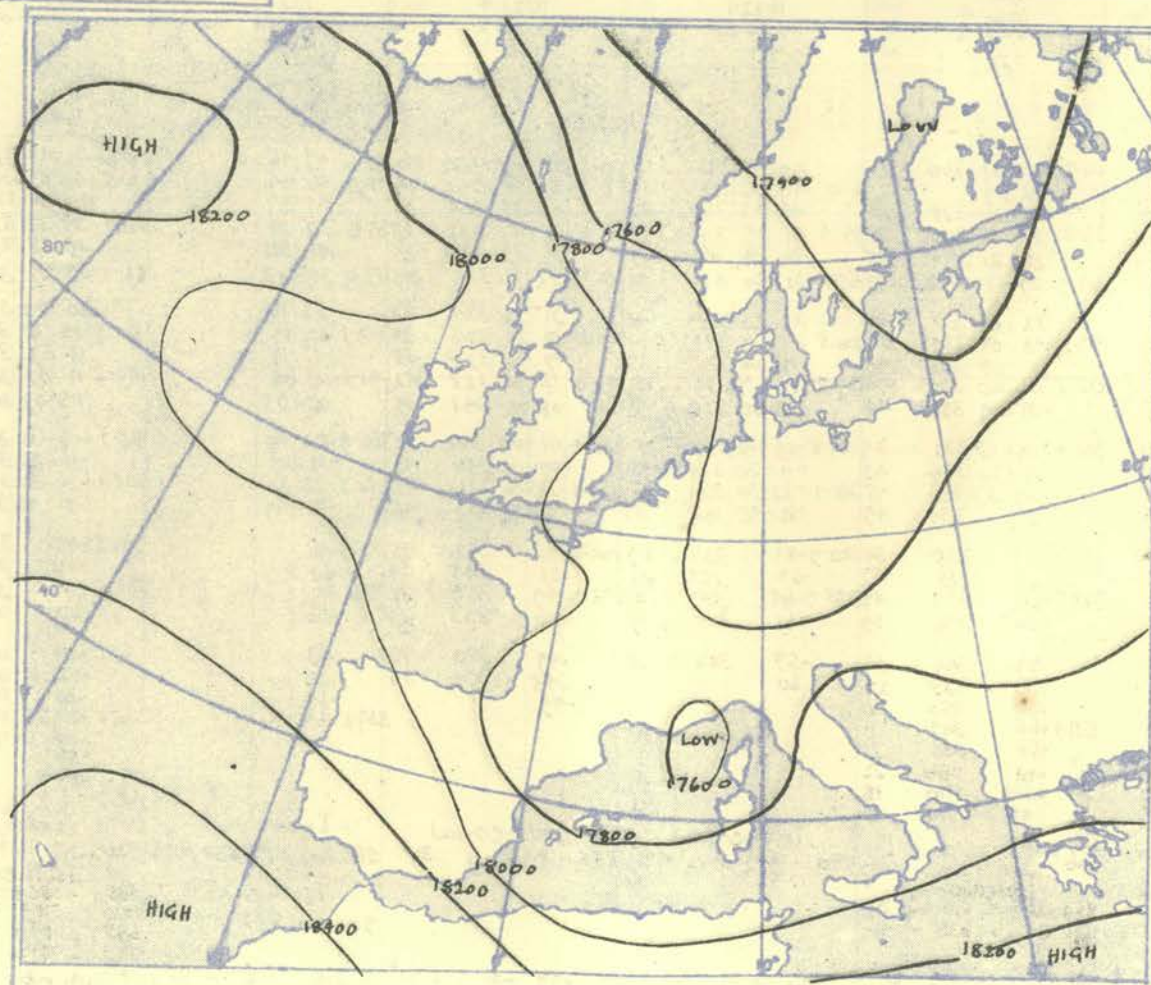
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



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

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

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



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

Isopleths of Thickness 800-1000mb.

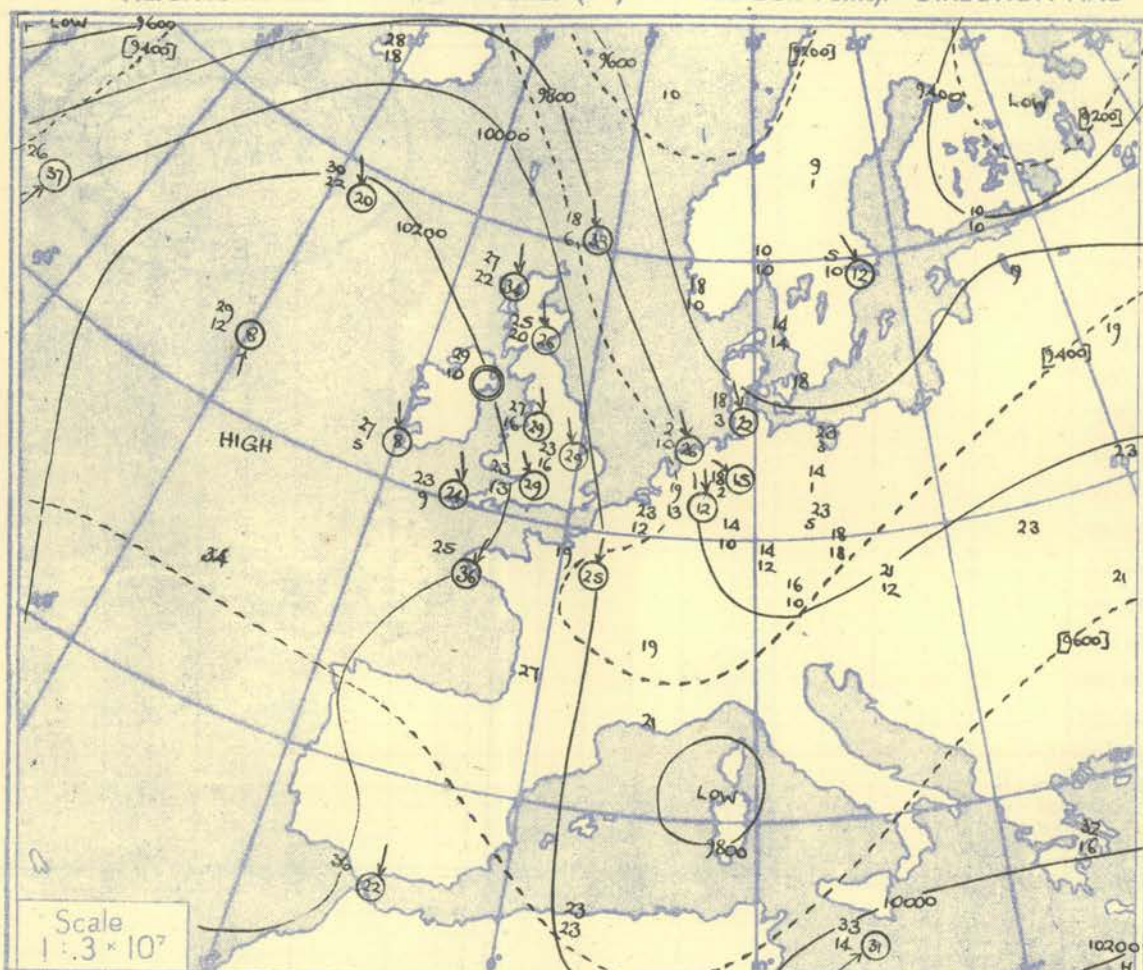
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

Ship

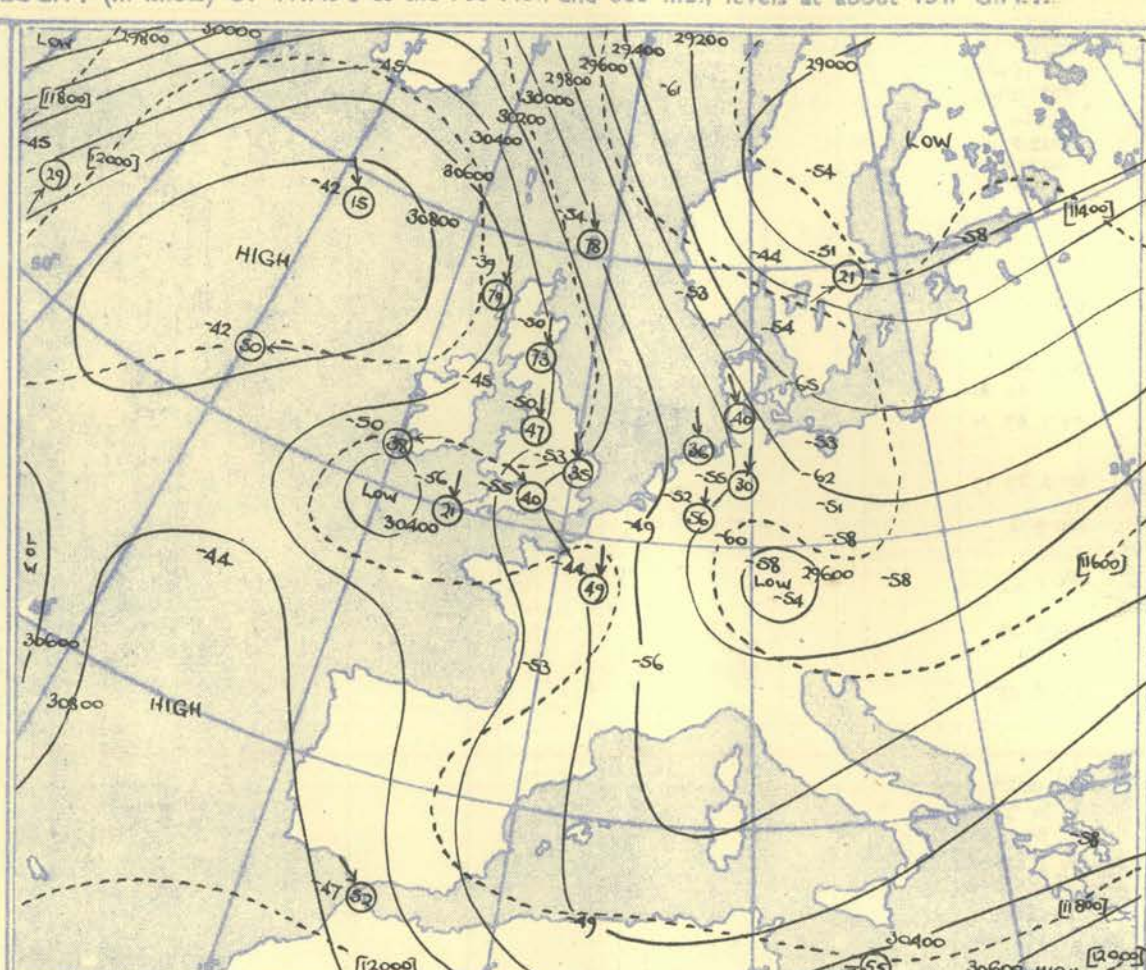
RADE SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (HEIGHTS 2000 FT. & 100 FT.)																					Ship																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Lat/Long	59.1N. 18.2W.				59.0N. 18.3W.				59.0N. 18.3W.				59.8N. 18.3W.				52.3N. 20.2W.				52.1N. 20.4W.				52.0N. 20.0W.				52.5N. 20.0W.					G.M.T.	Time																																																																																																																																																																																																																																																																																																																																																																																																																																													
Pressure	Time	M.S.L.	Surf	Freezing	03h.	G.M.T.	mb	1027	mb	1026	G.M.T.	mb	1026	G.M.T.	mb	1025	G.M.T.	mb	1031	G.M.T.	mb	1031	G.M.T.	mb	1029	G.M.T.	mb	1028	G.M.T.	mb	1028	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.	mb	755	G.M.T.

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

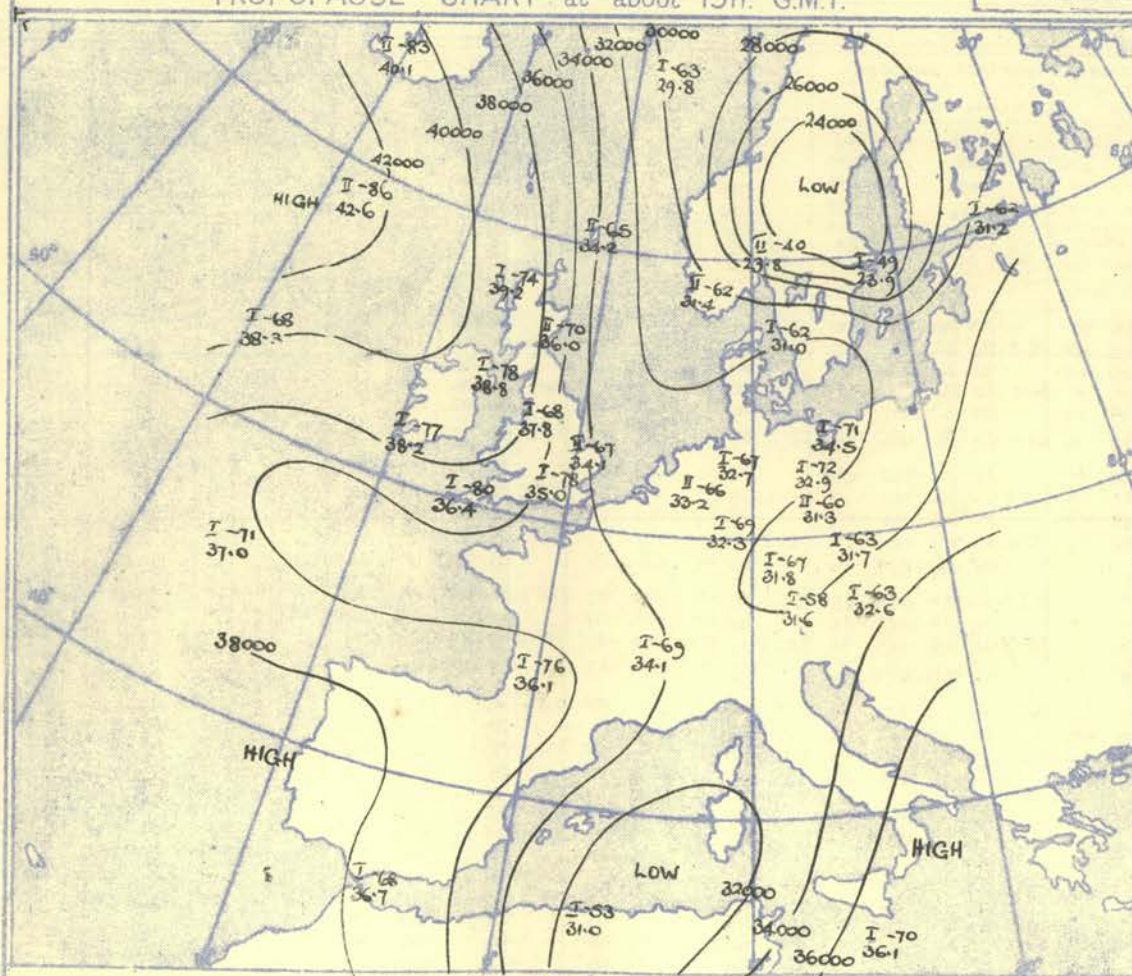


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 0 knots



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

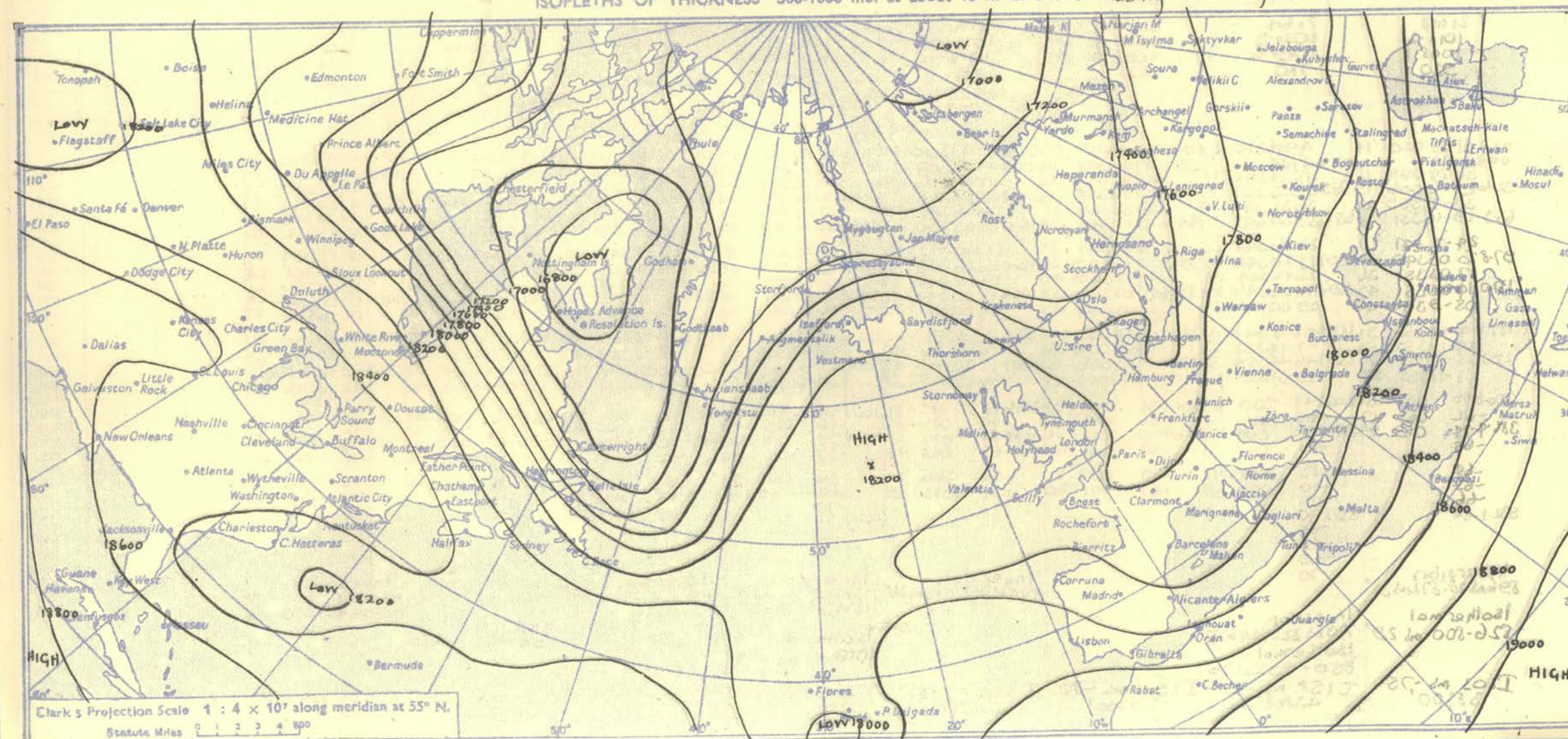
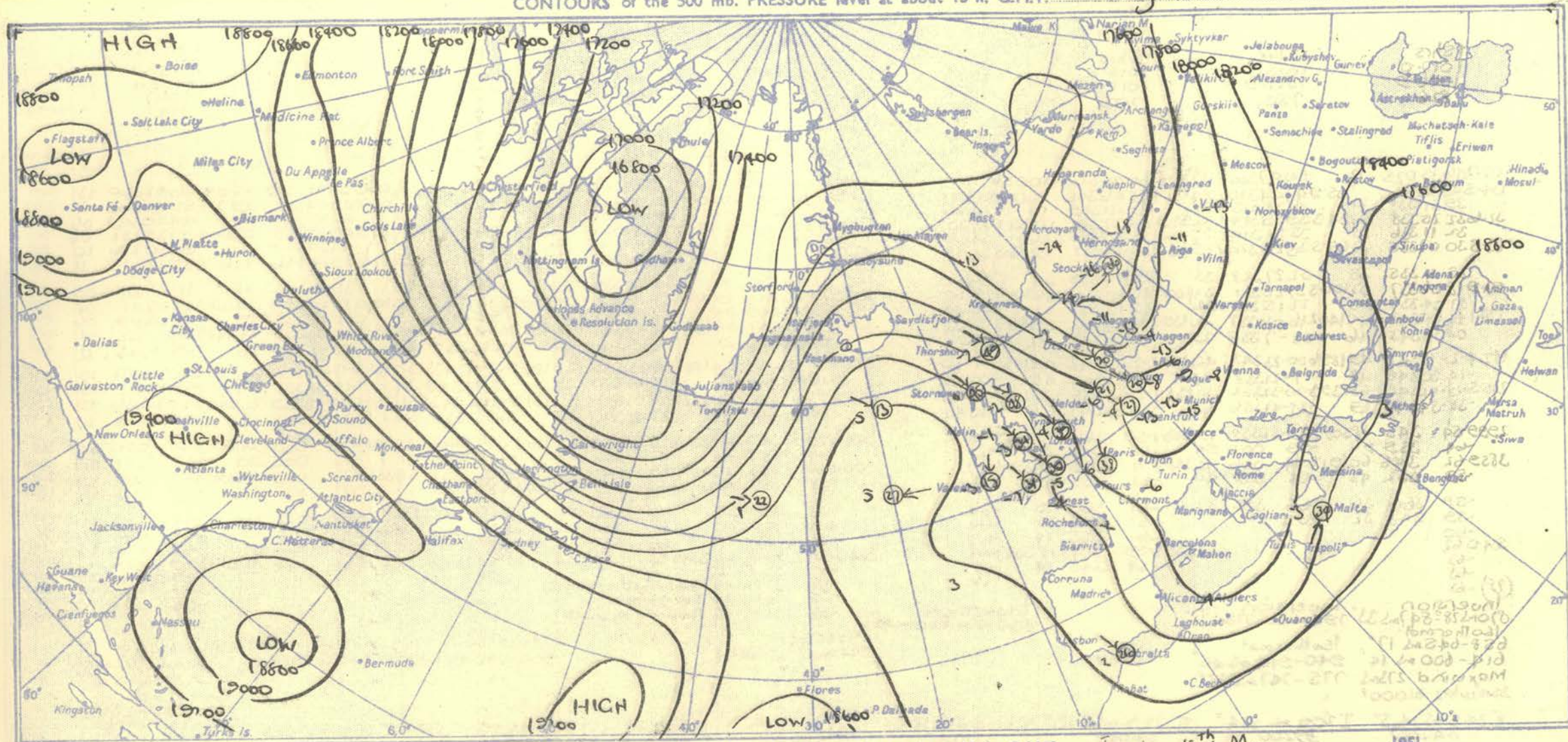


NOTES ON THE AEROLOGICAL SITUATION.

Main features are the quasi-stationary trough from the Baltic countries to central France and the subsidiary cold trough to west of the surface warm sector which moved southwards over the North Sea and eastern districts of Great Britain.

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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.)

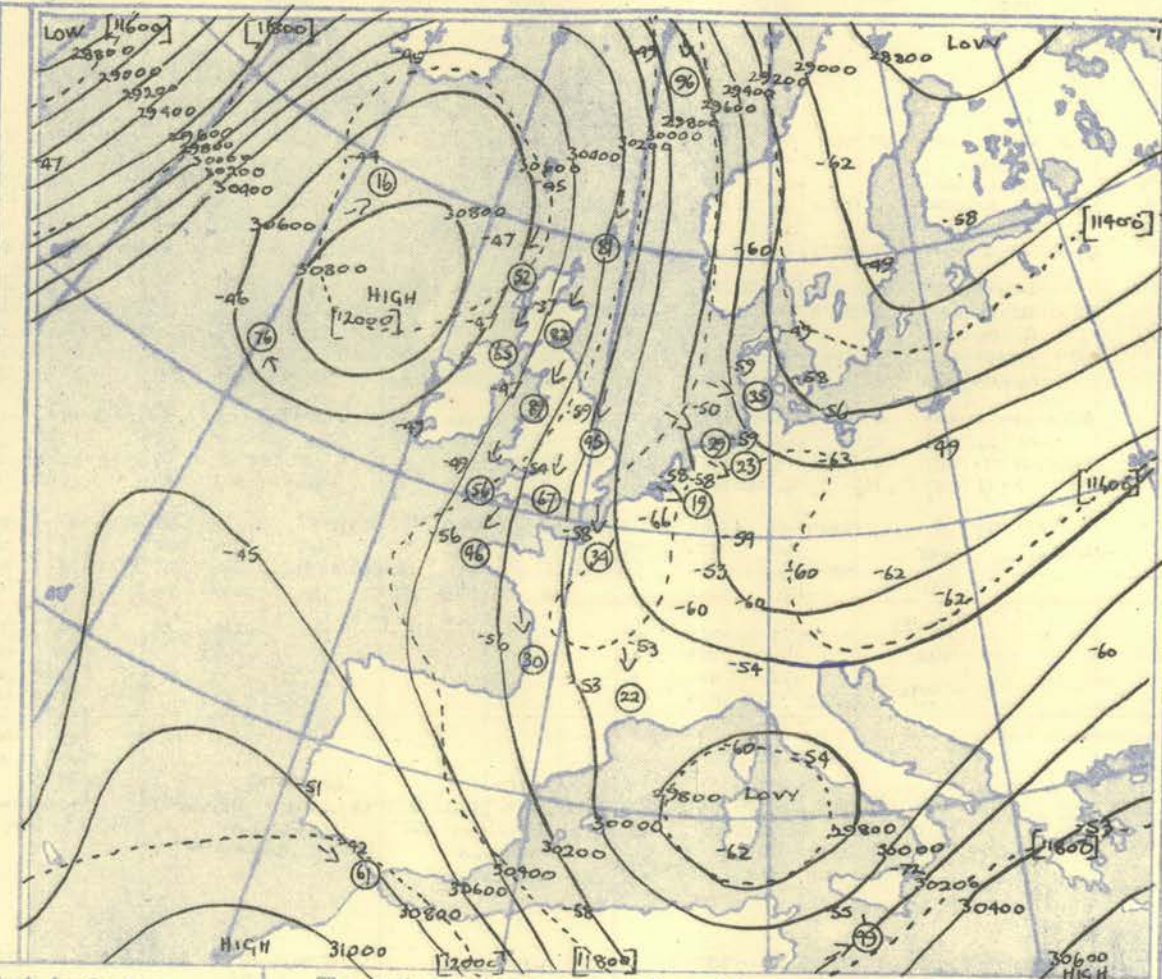
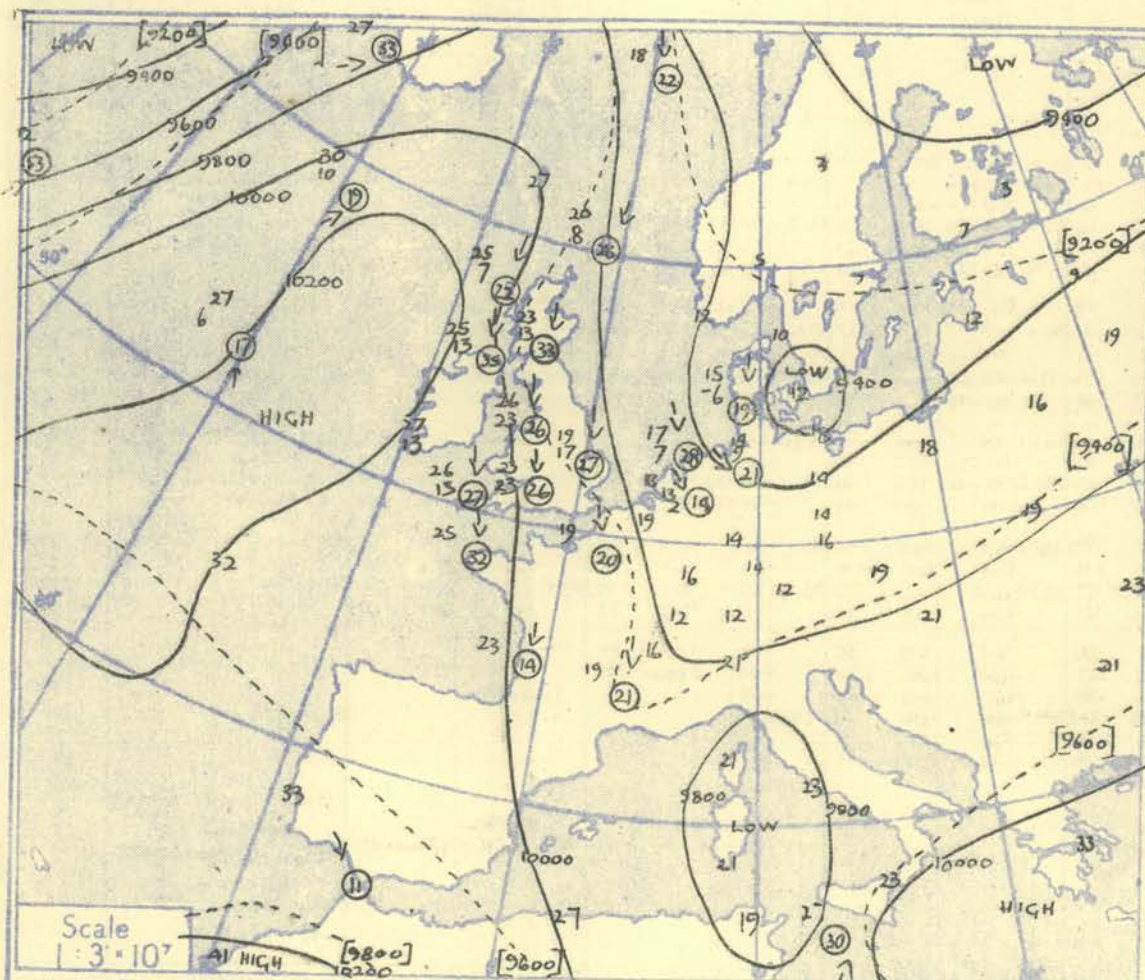
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L.	15hrs 1007.0 mb	15hrs 1020.3 mb	15hrs 1018.8 mb	15hrs 1025.7 mb	15hrs 1023.1 mb	15hrs 1020.0 mb	15hrs 1022.2 mb	15hrs 1026.8 mb	15hrs 1029.1 mb	Time M.S.L.
Surf (Freezing)	1006.9 mb	1021.9 mb	1018.0 mb	1018.8 mb	1021.1 mb	1018.5 mb	1006.1 mb	1016.0 mb	1027 mb	Surf (Freezing)
Pressure mb	826	750	793	720	750	780	770	750	715	Pressure mb
Height ft./100	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100
Surf	02.74635 025 12	5047320 120.2	6046320 1002.6 32.43	0.6 51 45 300	15 01.2 55 50 350	024.4 82 46 020	11 02.9 52 48 350	12 03.5 56 48 360	13	Surf
1000	04.34535 21	05.34744 315 23	05.15846 306 19	06.3 48 44 301	24 08.4 52 48 355	12 6.0 51 45	07.2 45 44 338	19 7.8 52 46 360	11	1000
950	32.632 25 338	21 34.3 39 333 23	22 38.9 44 37 241	42 39 312 24	45 41 324	11 44.4 03 346	17 51.2 53 47	25 44.4 03 48	06	950
850	32 11 336	35 31 314	25 24 37 241	43 26 313 23	43 29 323 23	17 34.4 40 40 333	24 35.9 40 35 343	27 36.4 47 35 281	06	850
800	63.5 30 07 335	33 65.5 30 26 320	29 65.2 33 28 337	66.3 41 12 326	21 65.1 33 29 337	22 41 35 043	28 44 30 350	26 42 30 276	10	800
750	25 11 335	35 32 27 328	33 29 24 335	32 19 330	23 28 23 339	29 30 23 344	29 32 13 334	18 32 17 311	09	750
700	27.9 18 06 337	33 100.5 27 22 331	34 100.1 28 20 334	101.5 27 16 244	29 100.0 23 16 338	29 100.9 23 13 337	29 102.5 23 09 349	24 102.9 27 05 318	08	700
650	17 04 337	36 22 15 333	36 19 13 337	19 14 343	31 17 07 343	31 15 07 337	31 17 04 355	19 20 02 319	06	650
600	131.1 14 00 340	41 140.2 16 06 337	40 139.5 14 07 337	141 013 08 347	34 139.2 12 03 241	26 139.9 07 02 337	26 141.7 11 01 355	24 142.3 15 02 312	08	600
550	08.1 13 343	46 08.7 338	43 06.3 342	06.0 13 346	37 03.3 341	34 02.3 338	33 03.7 354	26 04.9 325	12	550
500	182.4 2.15 347	49 185.6 00 23 343	45 184.7 2.12 342	186.2 3.9 240	34 184.2 4.13 346	39 184.8 5.11 343	30 186.6 7.16 351	31 187.6 3.20 003	15	500
450	14.30 346	48 7.21 338	48 12.23 344	10.21 348	36 14.24 353	39 18.24 345	34 19.31 351	32 13.23 028	15	450
400	235.5 35.41 346	63 239.3 20 3352	62 238.1 21 34 356	239.6 22 37 351	38 237.2 24 35 346	39 237.5 21 33 343	36 239.6 24 45 359	25 240.7 24 43 036	19	400
350	35.543 45	69 28.41 356	63 25.53 001	36.48 349	41 37.45 340	35 40 338	36 31.8 360	17 38.56 029	27	350
300	299.9 54 343	78 306.2 39 53 358	79 303.1 50 360	304.6 50 343	47 301.8 53 338	35 301.8 55 320	40 304.2 56 359	21 305.4 50 051	38	300
250	385.9 61 346	60 391.6 74 006	73 388.7 71 353	390.4 66 357	40 387.2 68 342	33 387.3 70 357	34 388.1 76 009	26 390.4 75 039	29	250
200	59 552 42	65 358 40	61 353 49	58 558	40 355 40	34 348 34	27 355 27	23 355 25	28	200
150	58 360 36	64 355 37	61 360 35	58 008 34	60 350 34	65 353 24	69 357 26	71 010 21	150	150
130	59 348 32	62 355 37	63 003 33	60 008 30	61 359 29	64 006 22	70 011 19	67 010 28	130	130
110	54 062	55 653	55 653	58 358 21	65 357 19	63 357 15	69 356 08	69 019 18	110	110
90	54 062	55 653	55 653	58 358 18	54 163 357	15	69 355 11	69 019 18	90	90
70	54 062	55 653	55 653	58 358 15	54 163 357	15	69 355 11	69 019 18	70	70
60	54 062	55 653	55 653	58 358 13	54 163 357	15	69 355 11	69 019 18	60	60
<p>Inversion 870ms 28.84ms 33° Isothermal 658-645ms 17° 614-600ms 14° Max wind 27ms 350m kts 32000'</p> <p>Inversion 795ms 630-715ms 32° Isothermal 840-814ms 40° 775-747ms 32°</p> <p>Inversion 850ms 34-820ms 40°</p> <p>Inversion 921ms 43-853ms 44°</p> <p>Inversion 900ms 40-875ms 43° 964ms 46-950ms 52 542ms 3-551ms 4° Isothermal 771-750ms 32° 252-245ms 68°</p>										
Tropopause	11245ms -65° 34200'	1200ms -74° 39200'	11225ms -70° 36000'	1204ms -78° 38800'	1213ms -68° 37800'	11250ms -67° 34100'	11258ms -78° 35000'	1125ms -80° 36400'	1208ms -77° 38200'	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION
Time M.S.L.	21hrs 1018.3 mb	21hrs 1021.3 mb	21hrs 1019.1 mb	21hrs 1023.9 mb	21hrs 1021.0 mb	21hrs 1018.3 mb	21hrs 1020.6 mb	21hrs 1029.2 mb	21hrs 1029.2 mb	Time M.S.L.
Surf (Freezing)	1018.1 mb	1021.6 mb	1018.3 mb	1014 mb	1019.0 mb	1013.7 mb	1004.4 mb	1014.6 mb	1014.6 mb	Surf (Freezing)
Pressure mb	930	770	832	775	761	821	729	780	780	Pressure mb
Height ft./100	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100
Surf	02.741 33 020 14	49 46310 080.2	48 46110 0502.6 49 47300	0.6 48 45 320	15 01.2 48 48 301	4.45 44 010 03	02.9 46 47 350	10	Surf	
1000	04.340 32 18	05.647 44 18	05.147 46 348 14	05.7 48 45 322	24 04.9 47 46 302	10 5.6 51 44	06.9 46 45 330	15	1000	
950	32.6 29 004 18	43 35 245 18	43 41 348 13	42 41 316 24	44 41 308 10	46 41 350 18	44 41 340 22	22	950	
850	32.6 29 006 19	35 33 353 17	33 36 348 16	34 37 338 17	40 36 326 15	42 35 320 13	42 34 344 17	27	850	
800	30.2 353 24	36 32 354 17	34 33 348 18	37 33 333 23	35 30 334 21	38 37 315 16	42 28 334 27	27	800	
750	63.3 29 16 351	28 65.2 35 30 347	27 64.6 29 18 348	24 6.0 35 350 33	65.4 32 18 324	23 64.5 29 23 339	21 65.3 37 28 331	17 66.9 35 23 332	26	750
700	24.2 347 28	33 26 348 33	26 24 347 31	29 25 331 38	25 25 331 38	25 18 347 27	34 15 340 28	28 18 17 334 27	750	700
650	27.8 20 05 349 31	100.2 28 20 346 38	99.3 22 20 349 36	100.3 26 21 338 30	99.1 19 11 346 31	99.1 19 11 346 31	100.6 18 06 340 33	101.7 23 06 349 24	700	650
600	17 03 351 36	22 12 349 38	17 13 349 40	19 18 346 27	21 14 337 33	18 06 350 36	20 11 339 33	18 04 356 24	650	600
550	130 14 00 351	42 139.8 16 06 346 36	138 60 03 350 38	140 12 09 341 27	138 8 13 07 341 24	138 8 13 07 341 24	140 16 08 344 32	140 07 00 354 24	600	550
500	05.9 356 46	09 00 346 36	01 16 354 43	04 00 351 32	06 01 343 38	01 9 350 39	09 03 344 30	02 33 346 29	550	500
450	182.4 18 355 51	185.4 01.5 248 37	183.3 7.18 355 46	185.5 3.7 351 32	185.0 3.8 346 36	182.9 1.8 352 41	185.7 00.6 348 32	185.2 12.16 349 30	450	450
400	14.28 352 53	7.14 353 51	16.24 00 4 56	12.7 356 40	14.20 348 45	18.28 344 37	8.14 351 35	20.25 344 35	400	400
350	235.3 23 37 355 59	72.29 24.6 34 354 56	236 1.24 35 006 67	238 7.22 30 009 52	238 0.24 32 360 53	235.3 20 41 349 53	237.5 25 40 359 37	237.5 25 40 359 37	350	350
300	33 48 355 59	25 37 355 61	24 46 014 81	26 43 018 57	36 43 003 57	43 355 47	29 38 362 40	42 016 42	300	300
250	300.6 46 009	103 005 244 359	67 301.7 31 016	99 300 6 53 015	72 302.8 51 012	67 299 1 59 002	54 305 4 42 005	48 301 2 59 021	250	250
200	386.4 74 019	39 391 4 76 016	8 286 0 79 018	76 387 8 81 027	58 387 8 73 013	64 383 3 69 004	43 350 2 55 003	46 385 4 73 024	200	200
170	65 017 71	05 017 71	00 48 68	00 8 24	01 11 42	05 358 33	04 007 37	71 017 20	170	170
150	64 008 48	00 8 48	00 8 32	00 8 32	01 0 32	05 360 27	05 353 32	70 016 16	150	150
130	63 003 39	00 3 39	00 8 32	00 8 32	01 0 32	05 360 27	05 353 32	70 016 16	130	130
110	66 003 39	00 3 39	00 8 32	00 8 32	01 0 32	05 360 27	05 353 32	70 016 16	110	110
90	66 003 39	00 3 39	00 8 32	00 8 32	01 0 32	05 360 27	05 353 32	70 016 16	90	90
70	66 003 39	00 3 39	00 8 32	00 8 32	01 0 32					

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.	03L	03L	03L	03L	03L	03L	03L	03L	03L
Surf	1020.0	1021.7	1020.8	1021.2	1018.4	1016.4	1018.1	1022.3	1024.0
Freezing	1009.7	1020.1	1019.9	1011.6	1016.4	1011.8	1001.9	1011.6	1024.0
Pressure mb	949	786	852	755	790	840	809	750	740
Height ft./100	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.	Temp. Dew Wind Dir. Vel.	Temp. Dew Wind Dir. Vel.
Surf	02.7 40 33 010 07	00.4 47 45 050 05	00.2 44 43 Calm	02.6 48 47 330 15	00.6 47 46 335 10	01.2 48 48 350 10	04.4 48 43 360 09	02.9 50 47 330 12	00.3 49 44 040 03
1000	05.2 39 32 010 07	05.8 45 43 002 15	05.5 43 42 032 12	05.7 47 46 332 29	05.0 46 45 337 15	04.4 47 46 008 21	04.9 42 39 346 25	06.1 49 46 325 20	06.9 47 42 024 06
950	32.8 27 20 006 16	34.0 38 33 002 21	33.6 34 32 015 15	34.1 42 39 348 31	33.3 39 36 348 16	32.8 38 35 009 21	33.2 38 37 353 24	34.5 38 36 339 24	35.3 42 39 019 07
900	30.2 20 005 20	36.3 31 002 25	32.9 007 18	40 36 358 30	37 33 349 18	33 30 003 22	36 35 003 17	41 28 326 31	42 23 020 06
850	63.6 27 22 005 25	65.2 34 30 004 27	64.6 27 24 007 24	65.6 36 30 358 34	64.6 33 29 351 18	63.8 29 27 350 26	64.4 31 30 333 20	65.9 39 22 327 31	66.9 38 19 020 06
800	24 -07 005 26	28 20 006 23	24 16 008 27	31 24 353 38	28 24 351 18	25 23 341 28	27 23 335 25	32 15 329 29	33 12 020 06
750	98.0 20 08 005 28	99.9 24 19 008 22	99.1 23 13 009 33	100.7 25 13 353 35	99.5 26 23 352 26	98.4 19 17 339 23	99.2 23 23 340 26	101.0 26 13 331 27	102.1 27 13 020 06
700	18 06 003 37	21 14 011 24	21 13 008 35	20 15 348 20	21 18 359 31	14 12 340 31	19 19 341 31	20 07 329 28	20 06 020 06
650	137.1 12 -03 001 38	139.3 15 07 010 30	138.4 14 04 007 37	140.2 16 08 348 29	139.0 14 08 354 29	137.4 08 05 341 33	138.7 13 10 346 32	140.4 14 04 333 24	141.5 13 00 020 06
600	06 -09 360 42	09 -02 358 34	07 -04 006 42	08 00 355 31	07 -01 357 40	00 -06 348 34	04 02 341 31	07 03 348 25	07 -07 020 06
550	182.4 -02 -22 001 47	184.9 02 -09 338 34	183.8 02 -15 006 52	185.6 00 -06 003 38	184.3 01 -09 001 42	182.1 08 -17 354 32	183.6 05 -07 337 29	185.7 02 -05 354 27	186.9 00 -09 020 06
500	10 -26 004 52	08 -18 353 37	14 -26 011 60	08 -14 010 49	12 -17 002 46	18 -26 357 34	14 -20 353 34	12 -15 357 29	07 -13 020 06
450	235.8 -21 -31 005 69	238.6 19 -29 358 39	236.8 22 -39 013 66	239.6 17 -28 017 52	237.5 14 -32 013 52	234.6 31 -40 358 43	236.6 24 -30 353 43	238.9 24 -28 004 38	240.6 19 -26 020 06
400	-33 -43 007 76	-31 -40 005 51	-25 -38 021 81	-30 -41 012 53	-35 -44 015 78	-45 004 40	-38 -44 357 50	-34 -39 014 45	-32 -39 020 06
350	-35 -45	304.1 -47 010 52	303.3 -37 -49 020 82	305.0 -47 028 65	302.6 -47 025 89	298.2 -59 005 45	301.1 -54 010 67	303.9 -49 023 56	305.9 -49 020 06
300	(341 mb)	-69 026 58	-48 027 90	-64 036 68	-65 030 103	-63 008 55	-66 014 71	-66 034 79	-67 020 06
250	For	388.8 -83 023 53	392.4 -57 027 85	390.3 -81 040 75	387.9 -75 033 87	383.9 -64 012 47	386.7 -65 020 42	389.0 -78 035 52	390.6 -86 020 06
200	Rest of	-51 010 41	-66 023 79	-76 008 48	-71 004 45	-64 015 39	-62 011 26	-69 016 29	-81 020 06
150	Winds	-75 003 29	-69 026 28	-68 012 39	-68 012 39	-64 015 35	-62 011 26	-72 010 29	-77 020 06
130	See	-71 017 23	-66 023 79	-66 012 39	-66 012 39	-64 015 35	-62 011 26	-72 010 29	-77 020 06
110	page 3.	-73 024 14	-66 023 79	-66 012 39	-66 012 39	-64 015 35	-62 011 26	-72 010 29	-77 020 06
100		-73 029 15	-66 023 79	-66 012 39	-66 012 39	-64 015 35	-62 011 26	-72 010 29	-77 020 06
90									
80									
70									
60									
Inversion	905 mb 26° - 881 mb 30°	668 mb 20° - 650 mb 21°	778 mb 24° - 730 mb 25°	935 mb 41° - 918 mb 43°	563 - 540 mb 07°	920 - 878 mb 38°	885 mb 36° - 838 mb 43°	926 mb 38° - 900 mb 45°	900 - 879 mb 45°
Tropopause	NR	I 179 mb -89°	NR	I 183 mb -87°	I 213 mb -77°	I 277 mb -63°	I 247 mb -67°	I 215 mb -78°	I 191 mb -89°
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time M.S.L.	09L	09L	09L	09L	09L	09L	09L	09L	09L
Surf	1021.8	1023.0	1022.3	1021.9	1019.0	1017.0	1017.0	1020.4	1020.4
Freezing	1011.6	1021.4	1021.4	1012.0	1017.0	1012.4	1000.9	1009.7	1009.7
Pressure mb	837	732	945	750	837	827	800	762	762
Height ft./100	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.	Temp. Dew Wind Dir. Vel.	Temp. Dew Wind Dir. Vel.
Surf	02.7 45 43 010 04	00.4 49 45 Calm	00.2 44 39 010 14	02.6 48 45 340 07	00.6 49 46 075 07	01.2 47 43 005 14	04.4 49 48 020 20	02.9 49 49 337 10	05.5 48 47 336 15
1000	05.8 41 29 006 03	06.2 47 44 010 09	05.9 38 040 21	05.6 47 44 012 12	05.1 47 43 070 15	04.6 43 38 020 20	04.6 43 42 010 10	05.5 48 47 336 15	05.5 48 47 336 15
950	35.2 34 20 006 07	42 39 010 09	31 019 21	42 41 018 12	43 41 070 10	38 34 017 10	43 42 010 10	43 42 010 10	43 42 010 10
900	33.6 33 12 005 12	34.5 40 34 010 11	33.6 31 019 21	33.9 39 048 15	33.4 38 36 030 12	32.5 32 29 015 23	32.9 39 39 23	33.9 38 37 352 24	33.9 38 37 352 24
850	37.0 34 002 18	46 29 011 20	28 019 24	37 33 048 16	33 30 006 16	32 28 008 27	36 35 008 27	35 34 350 29	35 34 350 29
800	64.5 28 09 006 21	66.0 37 31 011 25	64.2 24 020 25	65.2 35 30 029 19	64.5 30 26 005 18	63.3 30 16 001 28	64.2 32 30 001 28	65.1 34 33 349 32	65.1 34 33 349 32
750	37 13 008 23	33 24 020 31	26 028 26	32 25 351 20	24 19 002 29	22 15 360 28	27 25 002 28	31 29 351 34	31 29 351 34
700	99.1 23 11 009 29	101.2 28 22 022 31	98.7 23 024 30	100.3 28 23 347 33	99.1 22 10 005 29	97.7 20 12 359 30	99.0 22 20 005 30	100.0 26 23 352 30	100.0 26 23 352 30
650	18 11 012 34	23 17 020 25	19 022 31	23 16 012 22	18 -01 012 30	16 07 001 33	18 15 001 33	19 16 349 28	19 16 349 28
600	138.4 14 06 014 39	141.0 17 09 024 24	138.0 12 024 35	140.0 16 08 020 22	138.4 14 -09 017 33	136.8 10 -01 004 38	138.2 13 06 004 38	139.5 14 08 351 28	139.5 14 08 351 28
550	07 -01 010 43	11 03 018 24	04 029 39	11 02 023 27	07 -18 018 36	04 -12 006 45	06 -05 006 45	07 00 358 28	07 00 358 28
500	193.8 -02 -14 011 49	196.8 05 -02 015 25	193.1 -05 025 43	195.8 06 -08 024 33	193.7 -02 -31 023 42	191.8 -05 -21 008 50	193.5 -03 -20 008 50	194.9 -01 -10 009 30	194.9 -01 -10 009 30
450	10 -22 012 53	04 -10 018 26	12 024 51	03 -17 022 34	11 -48 022 55	18 -31 008 52	14 -24 008 52	11 -19 009 36	11 -19 009 36
400	237.2 -17 -32 013 60	241.0 -13 -21 028 29	236.3 -20 023 59	240.0 -14 -27 025 37	237.1 -19 -46 025 67	234.4 -31 -43 010 76	236.4 -26 -42 010 76	238.2 -23 -31 019 76	238.2 -23 -31 019 76
350	-32 -55 014 73	-24 -35 032 39	-31 024 56	-28 -39 020 37	-31 -54 026 76	-42 019 73	-37 -52 019 73	-37 -41 027 76	-37 -41 027 76
300	302.8 -47 016 75	307.6 -40 -53 025 43	302.0 -44 029 43	300.4 -38 -49 025 52	302.7 -45 029 52	298.4 -52 026 99	301.3 -46 026 99	303.4 -46 034 72	303.4 -46 034 72
250	-64 015 70	-37 024 43	-58 034 75	-56 033 54	-62 031 85	-58 027 80	-60 027 80	-64 036 56	-64 036 56
200	388.2 -79 018 64	394.3 -76 031 46	388.4 -75 040 73	393.5 -74 042 68	388.7 -75 043 68	385.5 -58 021 50	388.3 -63 014 40	389.1 -73 023 37	389.1 -73 023 37
150	-80 014 45	-88 030 36	-78 027 51	-83 026 52	-64 034 40	-55 014 40	-55 014 40	-71 023 37	-71 023 37
130	-70 008 32	-80 027 27	-70 026 32	-63 025 37	-63 026 27	-58 017 29	-57 017 29	-67 021 33	-67 021 33
110	-63 007 24	-67 037 17	-63 026 32	-66 025 37	-62 027 20	-59 017 23	-59 017 23	-65 022 24	-65 022 24
100	-67 005 20	-67 037 17	-63 026 32	-66 025 37	-62 027 20	-59 017 23	-59 017 23	-65 022 24	-65 022 24
90	531.2 -67	-67 037 17	-63 026 32	-66 025 37	-62 027 20	-59 017 23	-59 017 23	-65 022 24	-65 022 24
80	(46 mb)								
70									
60									
Inversion	916 mb 30° - 879 mb 34°	915 mb 38° - 892 mb 40°	781 mb 22° - 764 mb 26°	240 mb 61° - 235 mb 60°	57 mb Inversion	803 mb 28° - 841 mb 33°	350 mb -57° - 345 mb 36°	926 mb 38° - 900 mb 45°	900 - 879 mb 45°
Tropopause	I 175 mb -87°	I 167 mb -89°	I 175 mb -82°	I 174 mb -84°	I 190 mb -77°	I 241 mb -59°	I 216 mb -64°	I 212 mb -74°	I 191 mb -89°

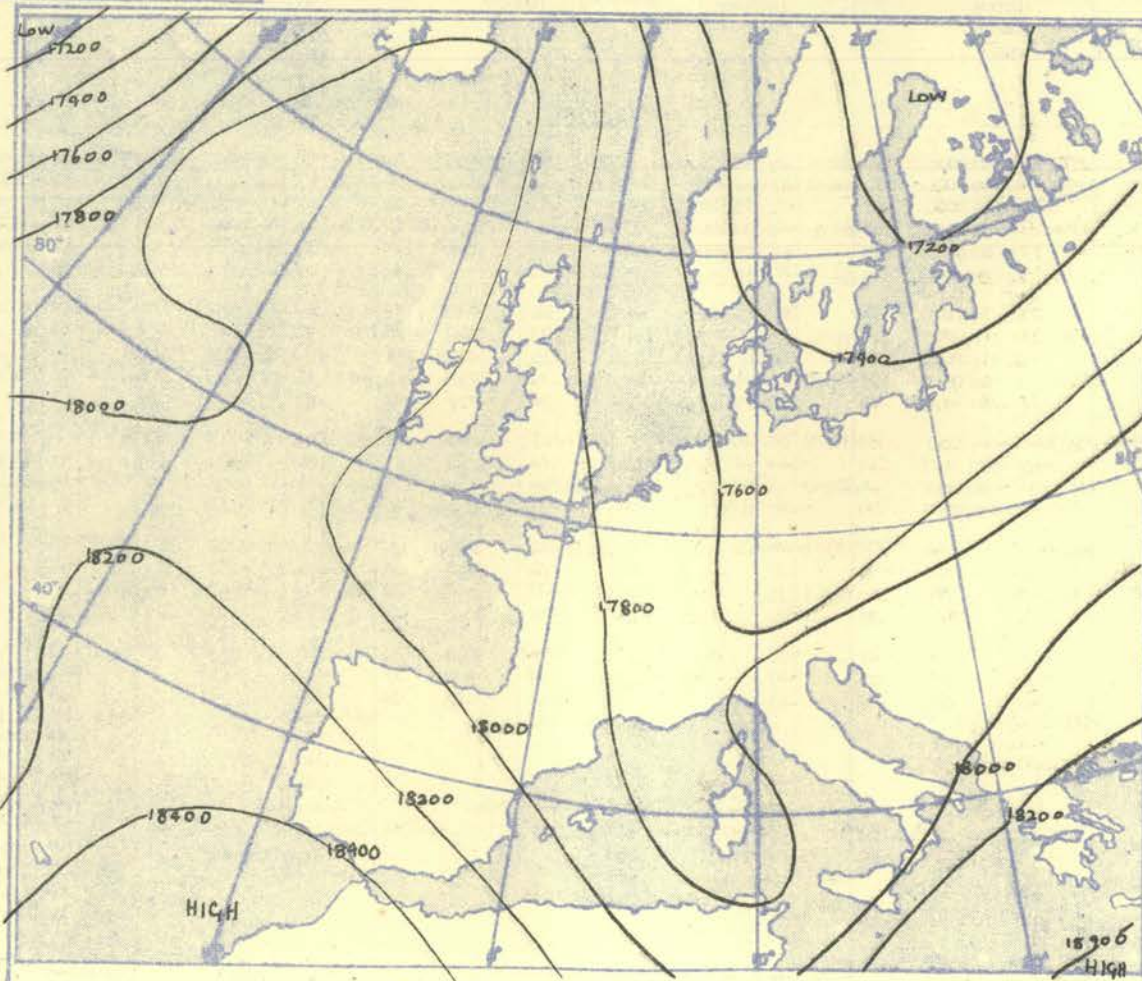
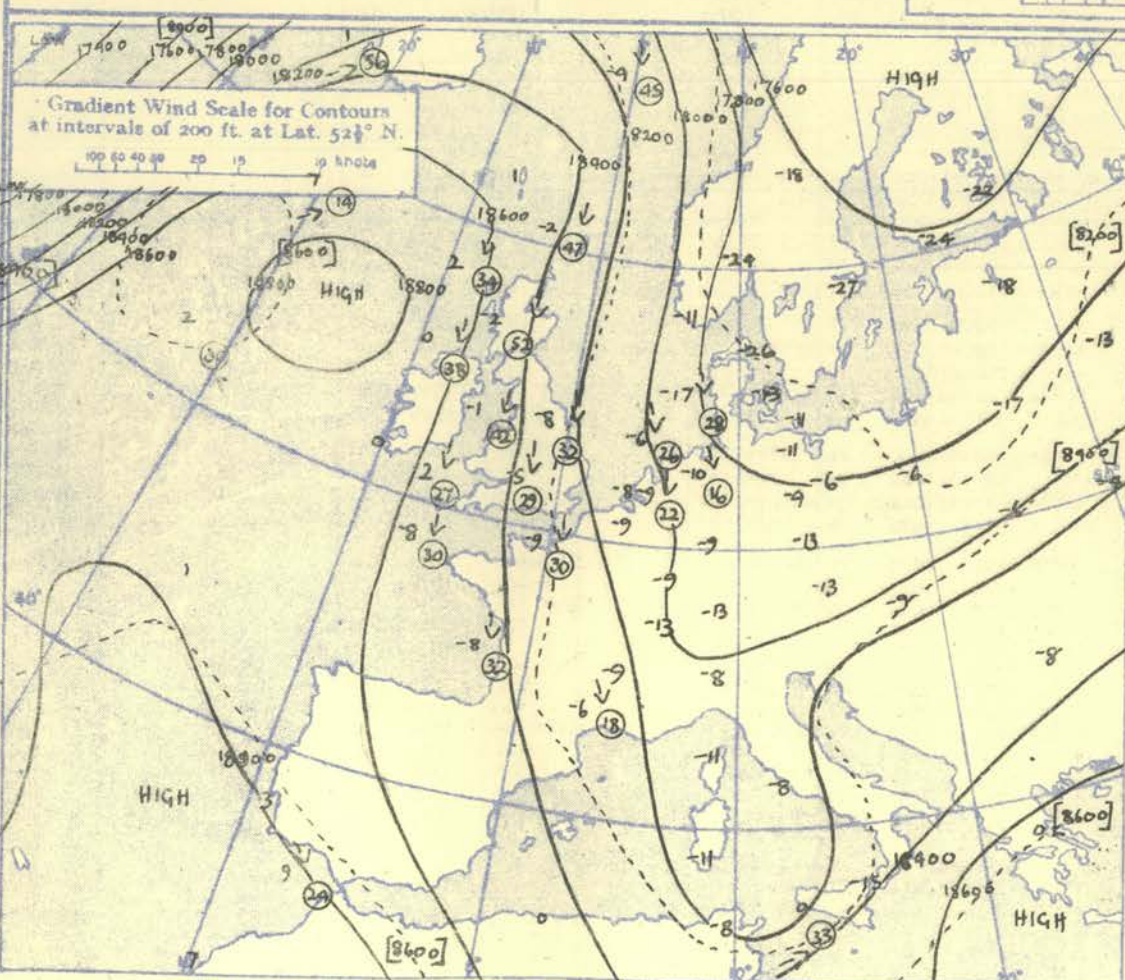
Wednesday 16th May 1951.

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



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

100 80 60 40 20 10 knots



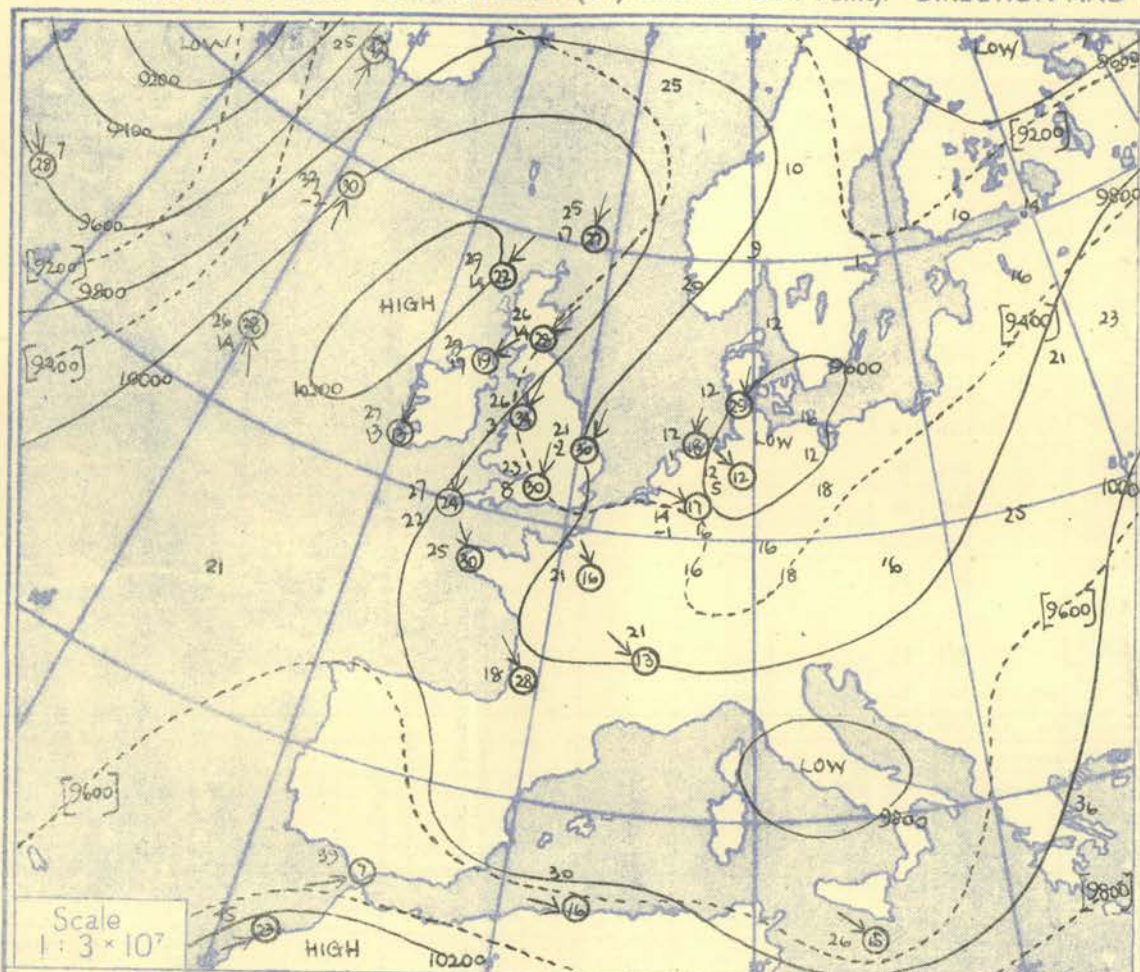
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

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

Ship		WEATHER EXPLORER		WEATHER EXPLORER		WEATHER EXPLORER		WEATHER EXPLORER		WEATHER RECORDER		WEATHER RECORDER		WEATHER RECORDER		WEATHER RECORDER		Ship																										
Lat/Long		52-5N 19-9W		52-5N 20-0W		52-8N 19-9W		52-9N 19-7W		53-0N 18-2W		53-0N 18-1W		53-0N 17-8W		53-2N 17-7W		G.M.T. Time M.S.L. Surf Freezing																										
Pressure	Time M.S.L. Surf Freezing	03L G.M.T. mb		09L G.M.T. mb		15L G.M.T. mb		21L G.M.T. mb		03L G.M.T. mb		09L G.M.T. mb		15L G.M.T. mb		21L G.M.T. mb		G.M.T. Time M.S.L. Surf Freezing																										
		1026 mb	1026 mb	1024 mb	1024 mb	1021 mb	1021 mb	1020 mb	1020 mb	1023 mb	1023 mb	1021 mb	1021 mb	1018 mb	1018 mb	1017 mb	1017 mb																											
750		805 1720		740		770		720		715		690		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	Pressure mb																							
Surf	54	49	145	15	53	46	130	16	55	48	165	14	54	46	165	15	49	46	215	05	49	47	180	06	50	49	180	18	46	50	47	170	22	Surf										
1000	6-9	51	47	167	09	6-4	51	44	141	18	59	52	44	175	13	5-5	53	44	186	15	6-3	47	44	224	12	5-6	47	44	197	13	5-0	49	48	184	18	4-6	49	47	179	18				
950	46	43	172	10	47	41	167	13	47	38	183	14	47	38	192	14	4-4	41	34	193	18	34-6	37	34	220	15	33-9	37	32	202	28	23-5	42	42	195	32	33-0	38	34	202	35			
900	35-4	40	37	184	11	36-0	42	36	203	11	34-5	42	35	181	14	34-0	41	34	193	10	34-6	43	20	206	18	31	31	202	29	34-9	38	31	199	33	34	30	203	30						
850	36	33	195	12	38	31	210	12	37	30	178	14	37	31	192	10	35-3	35	25	194	14	66-2	39	22	202	19	65-3	37	34	200	29	64-9	38	18	193	33	64-1	32	27	202	34			
800	66-7	35	27	183	13	66-3	31	24	192	15	65-8	34	14	177	18	65-3	35	25	194	14	66-2	39	22	202	19	65-3	37	34	200	29	64-9	38	18	193	33	64-1	32	27	202	34				
750	32	16	169	16	36	08	176	17	33	17	173	25	31	17	190	19	30	14	195	17	35	19	199	34	35	08	193	34	35	08	193	32	31	12	200	40								
700	1018	27	06	166	17	101-4	29	11	170	20	100-9	26	14	166	28	100-3	26	10	186	19	100-5	30	10	199	19	100-3	31	02	204	28	100-2	23	02	185	30	99-0	27	04	199	41				
650	21	-01	170	15	26	03	164	22	18	04	162	25	21	02	194	21	20	13	200	19	27	-10	208	24	26	-10	185	34	2	26	-10	185	34	21	-06	199	42							
600	41-3	15	-01	160	13	40-9	15	-06	161	23	40-2	13	-12	169	22	39-8	13	-06	189	20	41-3	18	10	200	20	40-5	21	-15	208	27	40-2	22	-19	184	33	38-6	17	-18	185	46				
550	11	-18	121	19	08	-21	157	25	04	-24	168	20	03	-15	183	14	03	-15	183	14	03	201	16	14	19	14	19	202	31	15	-17	184	31	11	-29	184	48							
500	187-0	02	-32	105	30	186-4	01	-28	142	34	185-4	01	-32	158	40	184-9	03	-25	169	12	187-1	07	-07	218	14	186-6	08	-17	197	29	186-4	07	-22	189	36	189-4	04	-21	191	43				
450	09	39	112	34	05	34	123	53	08	41	153	48	11	35	173	55	238-3	19	44	150	21	04	231	13	07	-26	181	28	03	-23	190	39	03	-23	190	39	07	-15	185	55				
400	240-6	20	47	136	43	240-3	-15	-44	117	63	239-0	-19	-46	150	55	238-3	19	44	150	55	238-3	19	44	150	55	238-3	19	44	150	55	238-3	19	44	150	55	238-3	19	44	150	55				
350	31	-56	117	54	-27	-56	121	69	-34	-57	144	68	-34	-57	154	38	-29	-34	209	13	-29	-45	181	31	-27	-45	185	50	-29	-46	186	57	-29	-46	186	57	-29	-46	186	57				
300	306-2	-46	107	76	306-5	-43	126	72	304-2	-49	148	78	303-7	-44	154	37	307-3	-44	154	37	307-3	-44	154	37	307-3	-44	154	37	307-3	-44	154	37	307-3	-44	154	37	307-3	-44	154	37	307-3	-44	154	37
250	-61	100	82	60	129	69	64	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	62	-57	151	34	
200	392-0	-75	110	42	393-0	-69	135	37	386-9	-76	138	42	389-6	-71	151	30	393-0	-70	151	30	393-0	-70	151	30	393-0	-70	151	30	393-0	-70	151	30	393-0	-70	151	30	393-0	-70	151	30	393-0	-70	151	30
170	-71	117	20	-68	135	24	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18	-68	153	18		
150	70	119	12	-68	135	13	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14	-65	161	14		
130	-72	124	07	-66	135	06	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25	-69	210	25		
110	-72	193	19	-65	135	07	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12	-67	184	12		
100	535-6	-70	200	27	538-3	-63	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06	534-2	-67	135	06
90	70	186	18	-64	135	06	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04		
80	-71	037	34	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04	-66	135	04		
70	-68	018	16	-62	135	04	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06	-55	135	06		
60	(8)	-67		-55	135	03																																						
Inversion		840 mb 35°-825 mb 37°		Inversion		800 mb 31°-772 mb 37°		Inversion		810 mb 33°-783 mb 37°		Inversion		824 mb 33°-770 mb 37°		Inversion		800 mb 37°-867 mb 44°		Inversion		882 mb 37°-864 mb 41°		Inversion		858 mb 37°-825 mb 40°		Inversion		830 mb 31°-785 mb 33°		Inversion		800 mb 31°-772 mb 37°		Inversion		800 mb 31°-772 mb 37°						
Isothermal		782 - 767 mb 33°		Isothermal		600 - 593 mb 15°		Isothermal		539 - 518 mb 02°		Isothermal		528 - 520 mb 00°		Isothermal		550 - 530 mb 10°		Isothermal		364 - 344 mb 41°		Isothermal		781 - 765 mb -37°		Isothermal		900 - 886 mb 38°		Isothermal		900 - 886 mb 38°		Isothermal		900 - 886 mb 38°						
Tropopause		I 207 mb - 71°		Tropopause		I 210 mb - 69°		Tropopause		I 203 mb - 71°		Tropopause		I 208 mb - 71°		Tropopause		I 150 mb - 92°		Tropopause		I 175 mb - 82°		Tropopause		I 175 mb - 82°		Tropopause		I 175 mb - 82°		Tropopause		I 175 mb - 82°		Tropopause		I 175 mb - 82°						

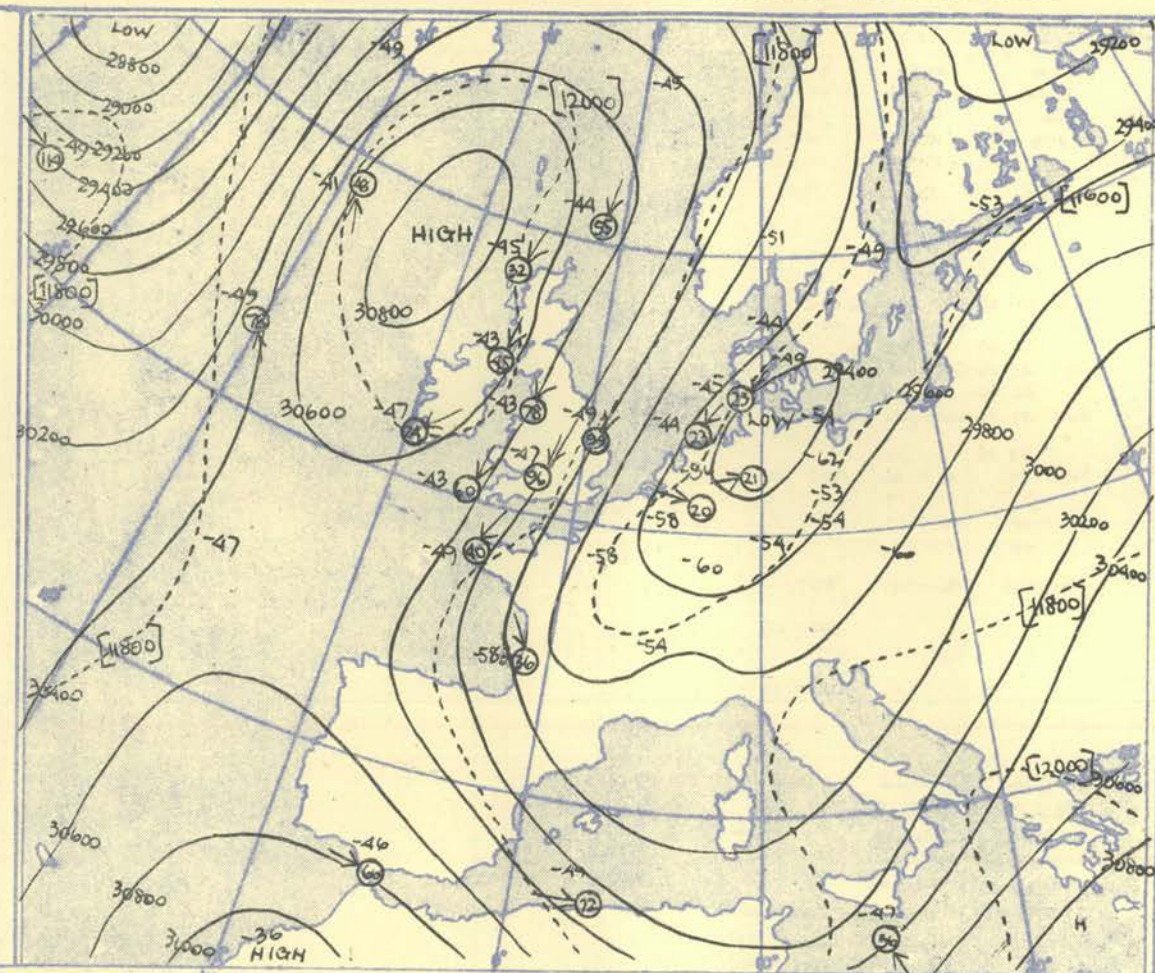
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., and 300 mb., levels at about 15h G.M.T.



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

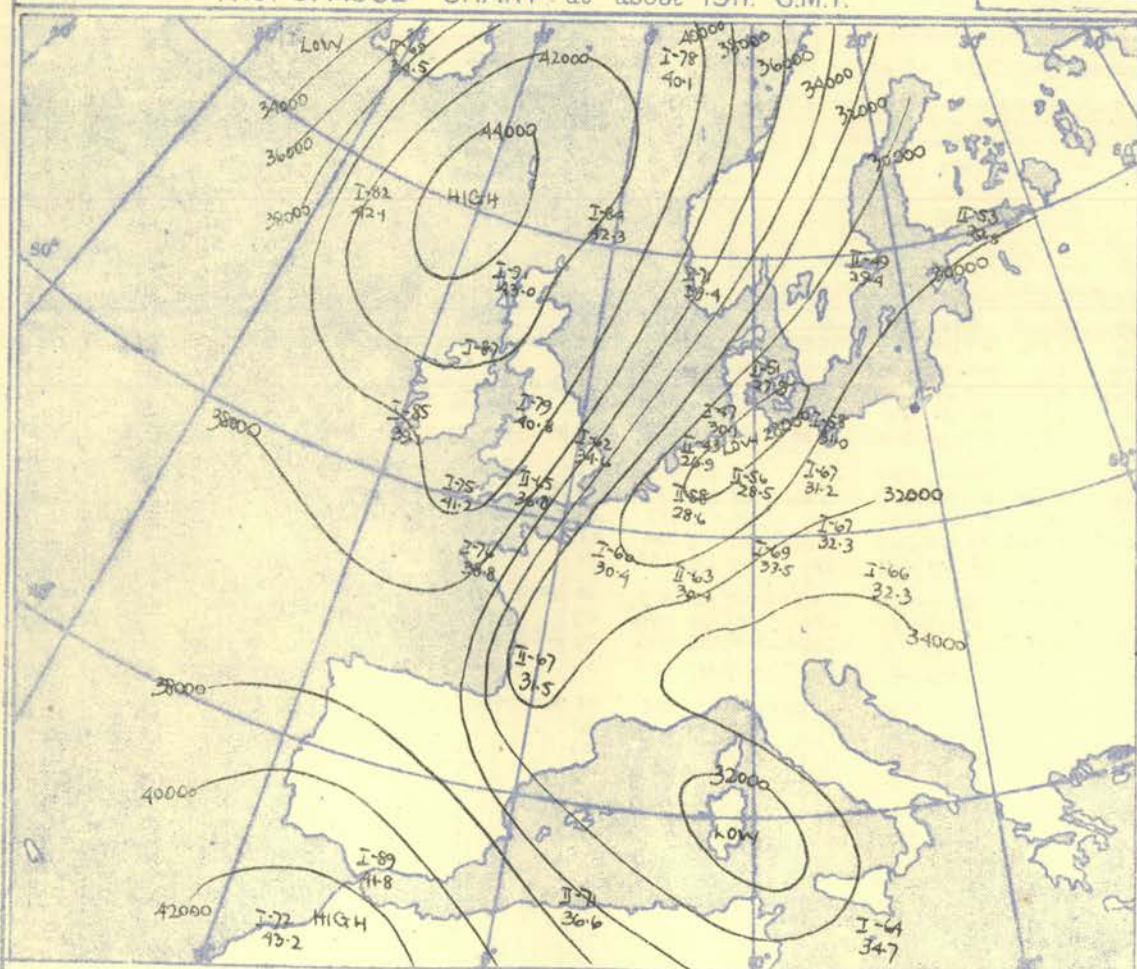
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 knots



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

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



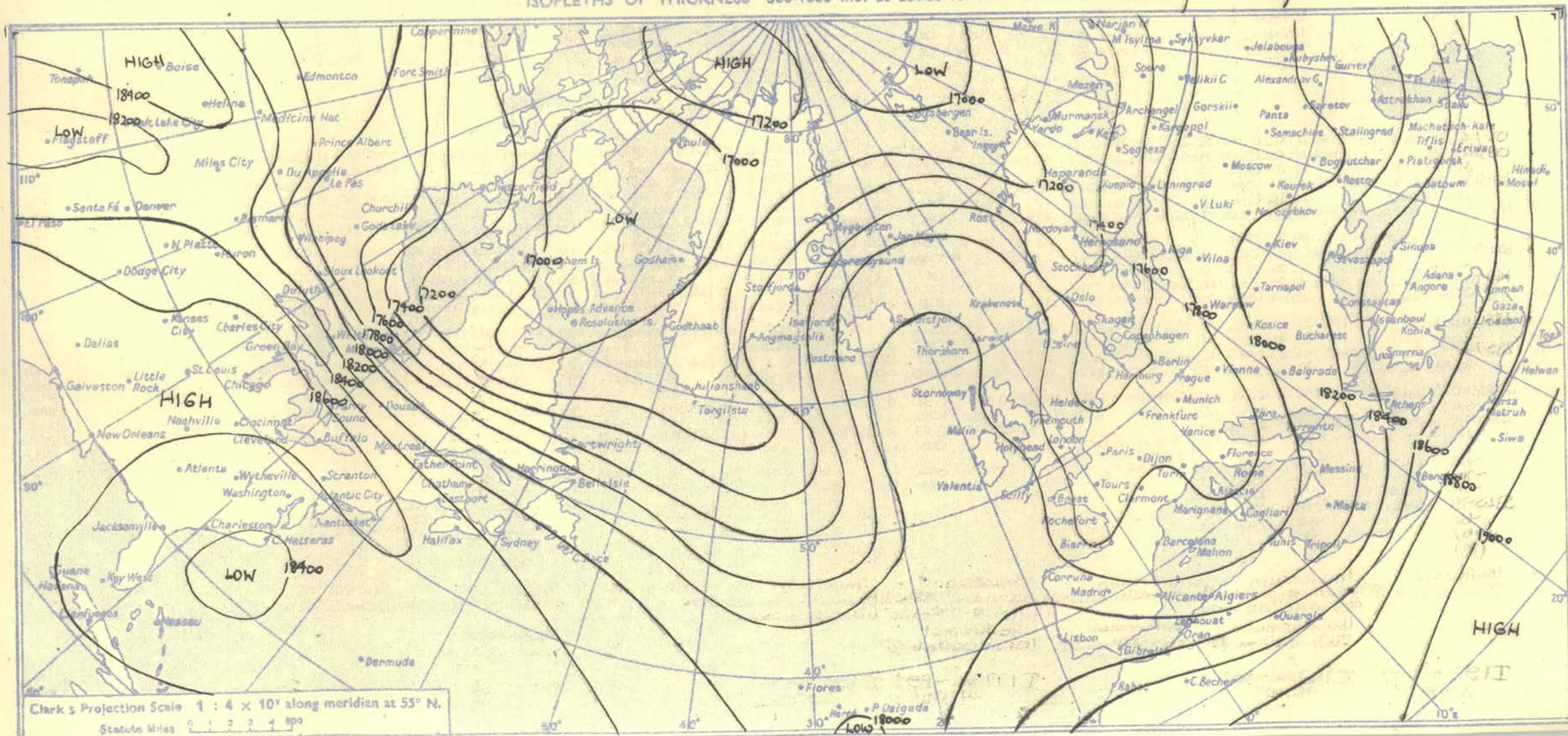
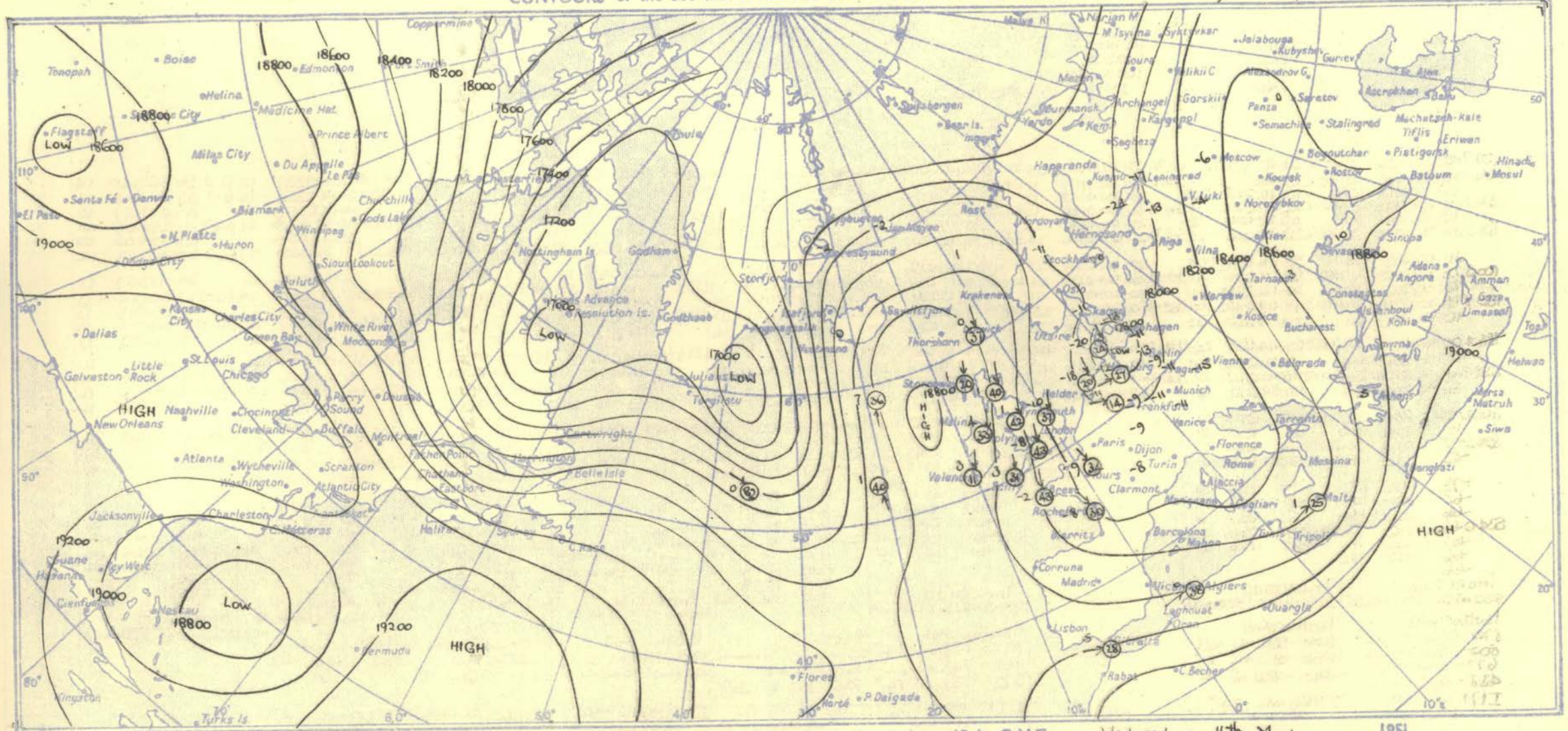
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Main features:— Persistence of the quasi-stationary trough from the Baltic to Southern France, and the gradual disappearance of the subsidiary cold trough indicated on charts for 15th.

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



(Heights above M.S.L.)

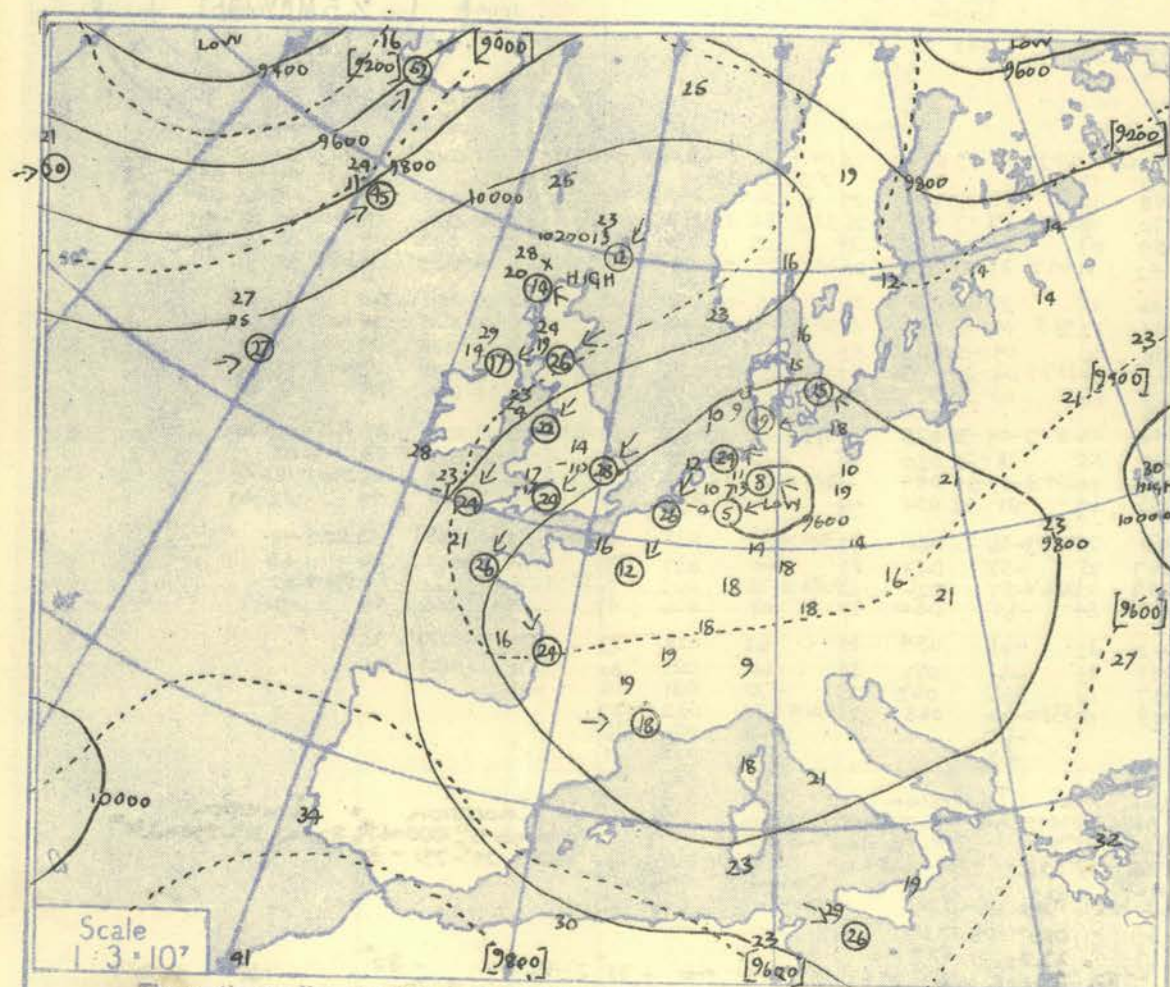
[illegible]

[illegible]

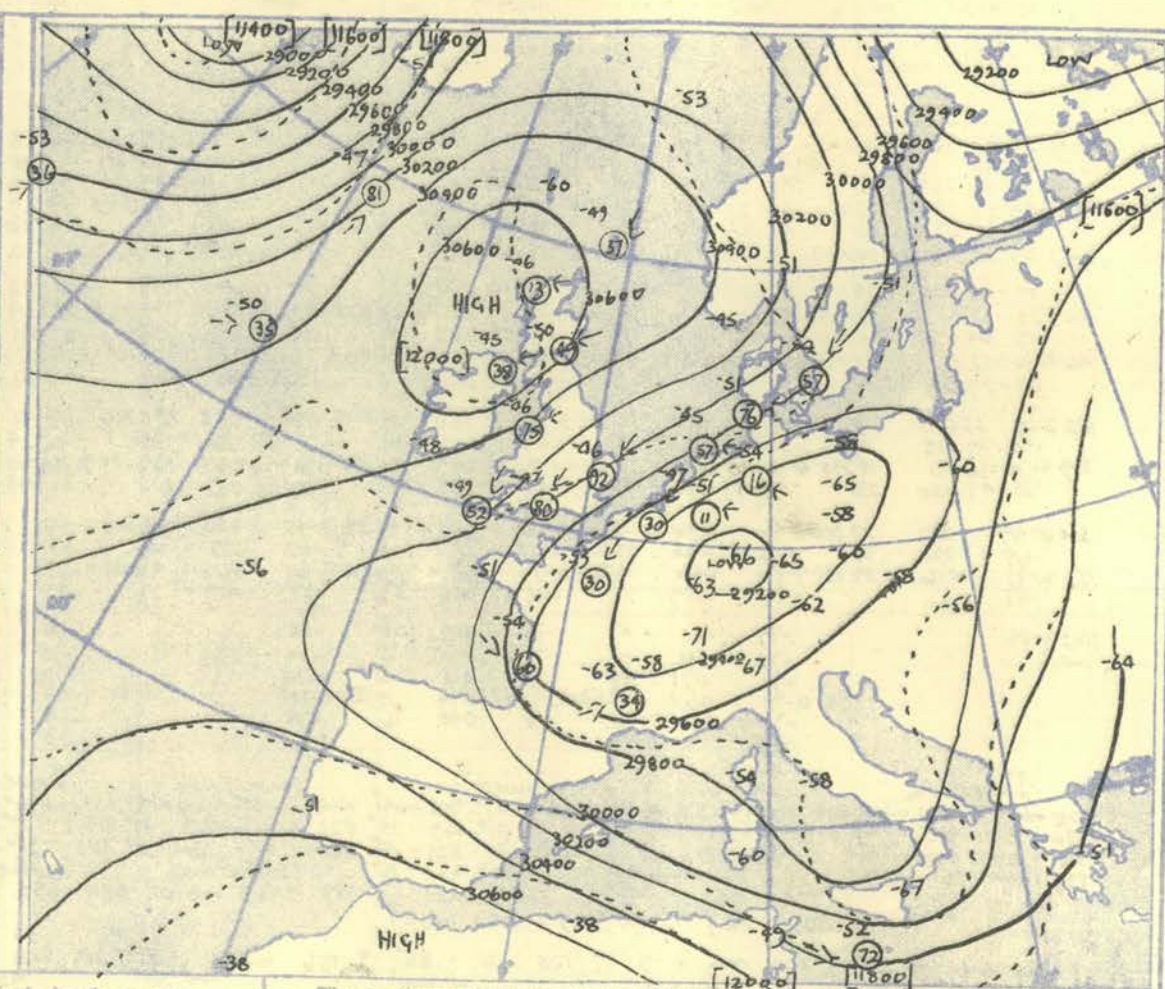
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Thursday 17th May 1951.

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

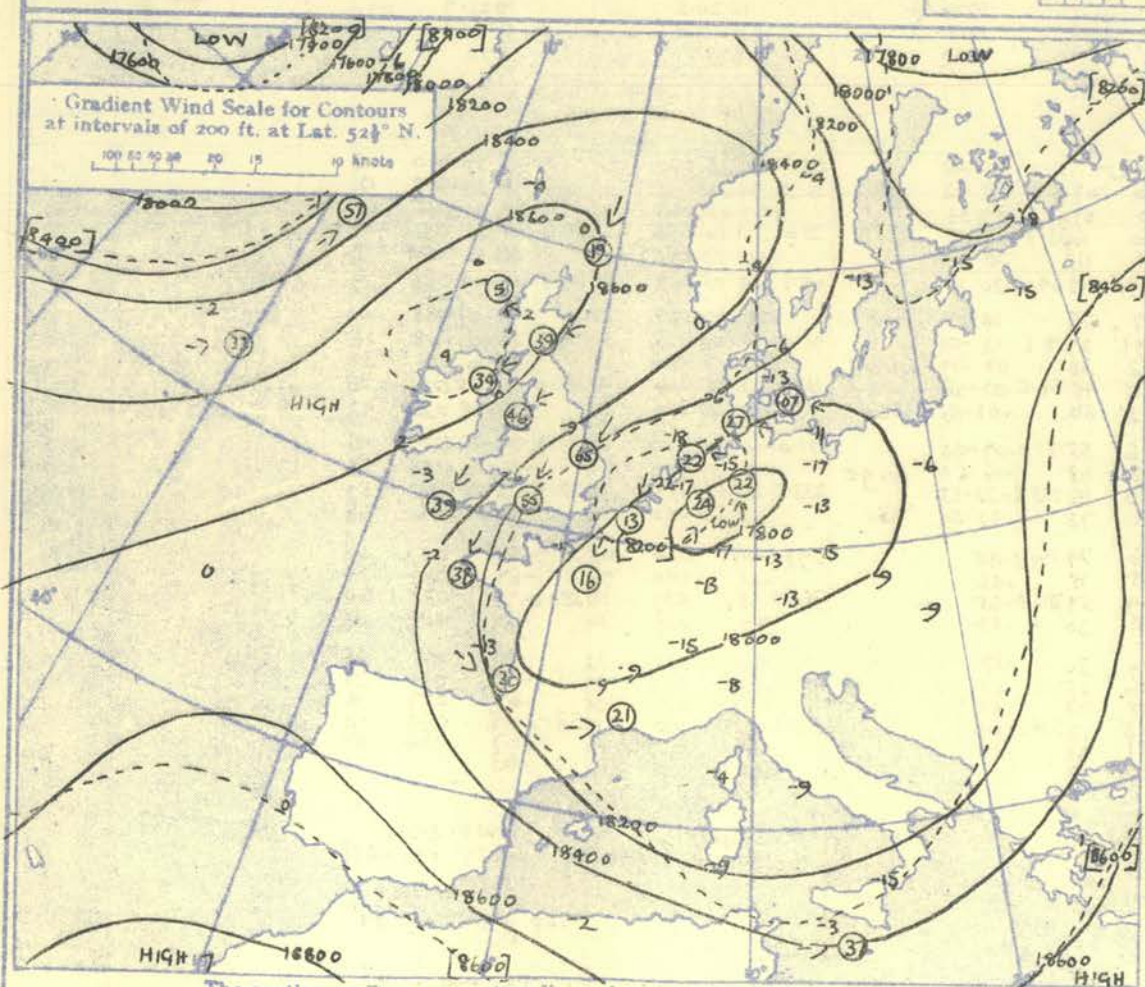


The continuous lines are contour-lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000--700 mb.

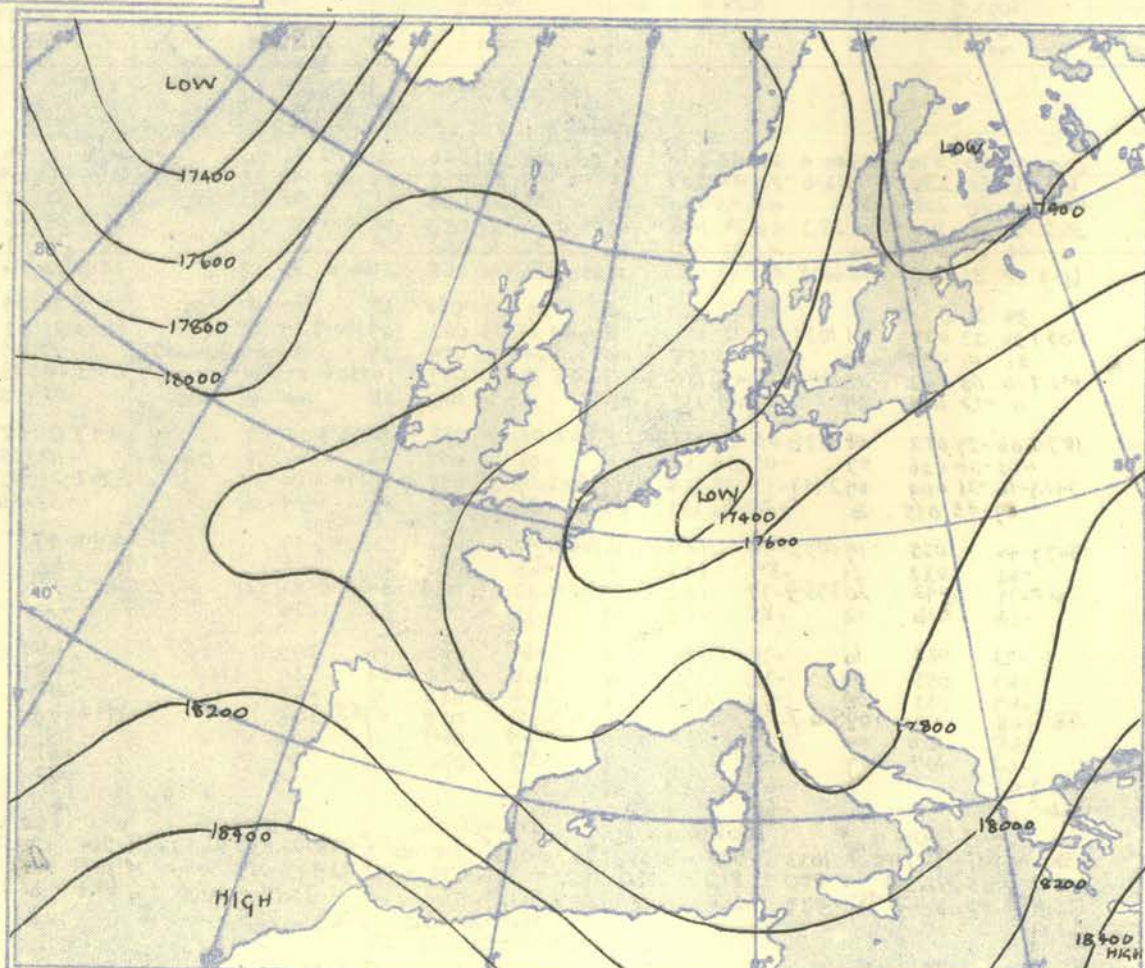


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^{\circ}$ N

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



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



Isopleths of Thickness 500 - 1000mb.

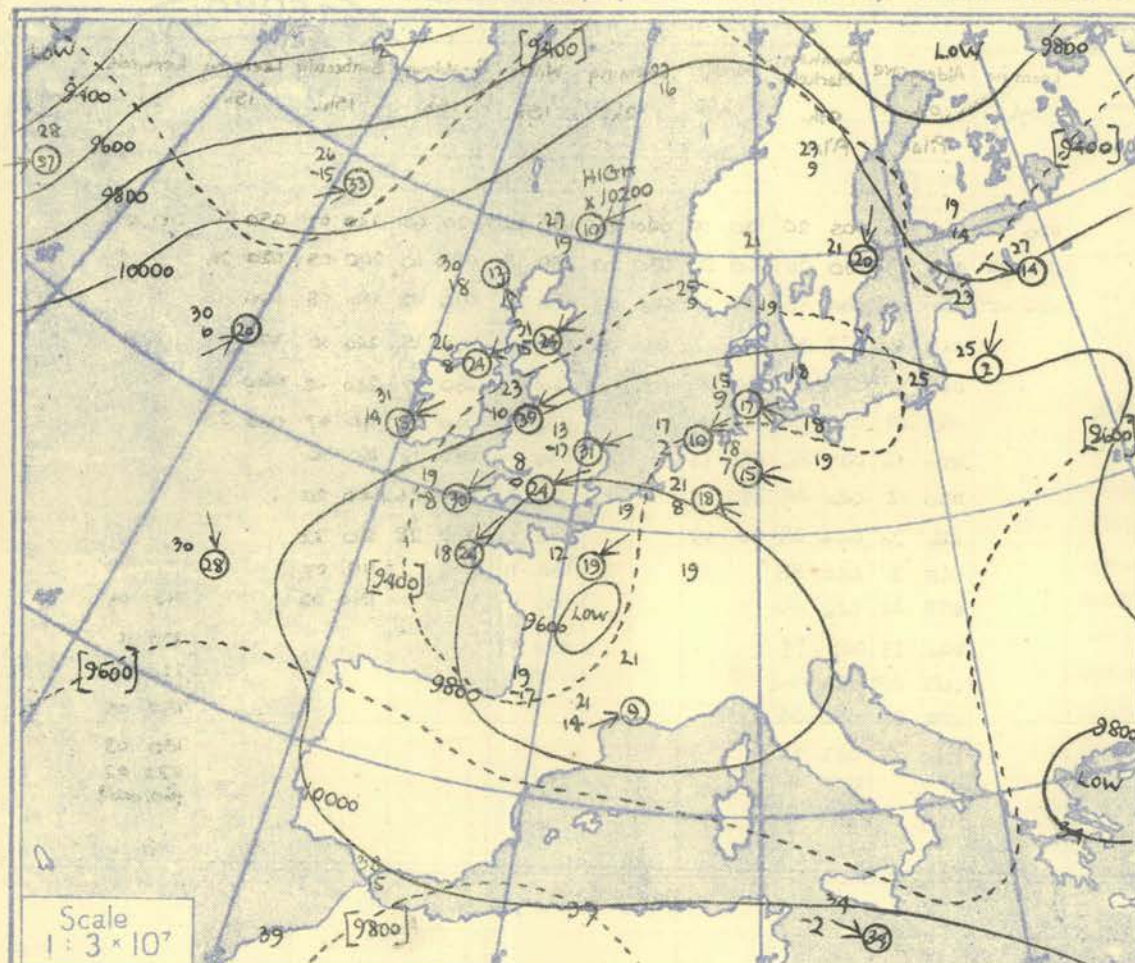
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

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

[illegible]

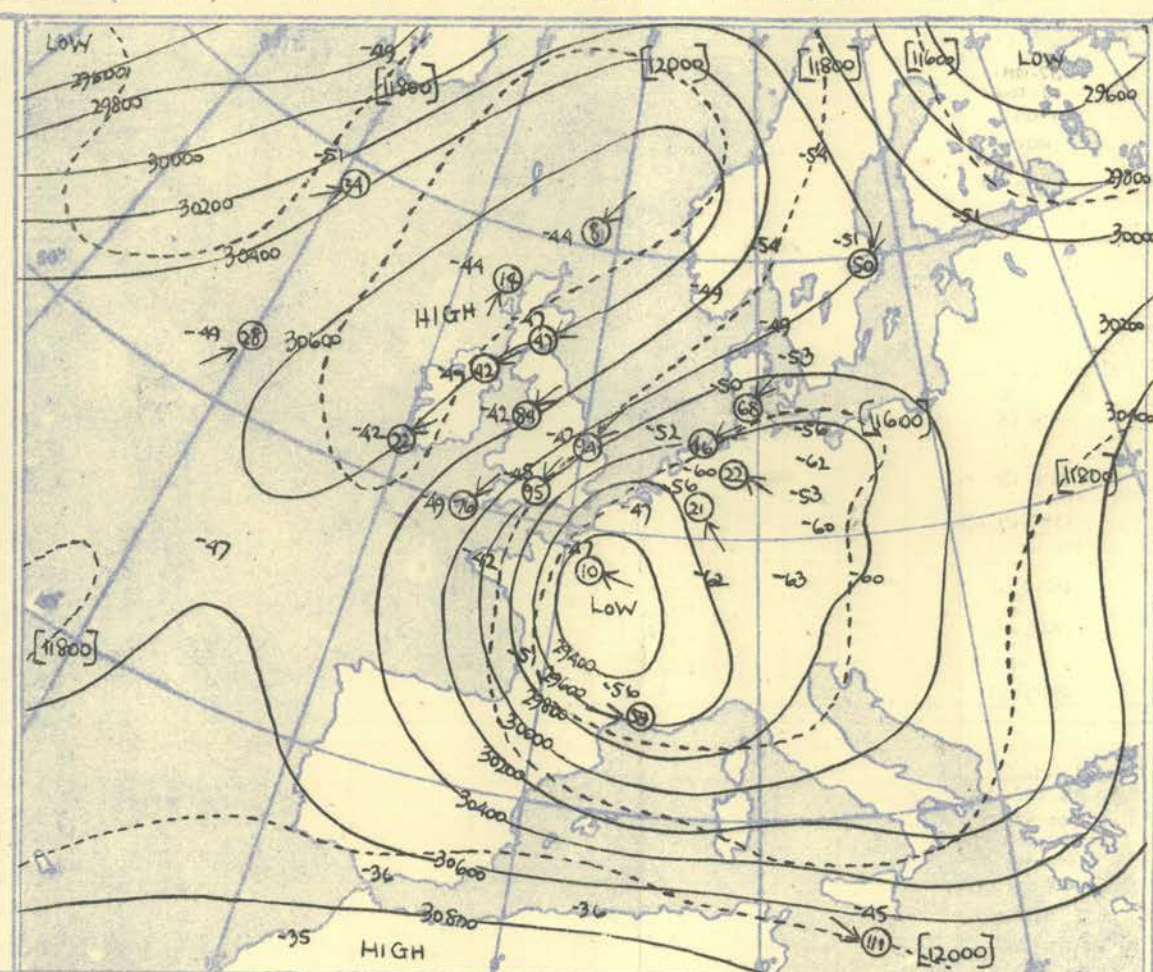
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. and 300 mb. levels at about 15h G.M.T.



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

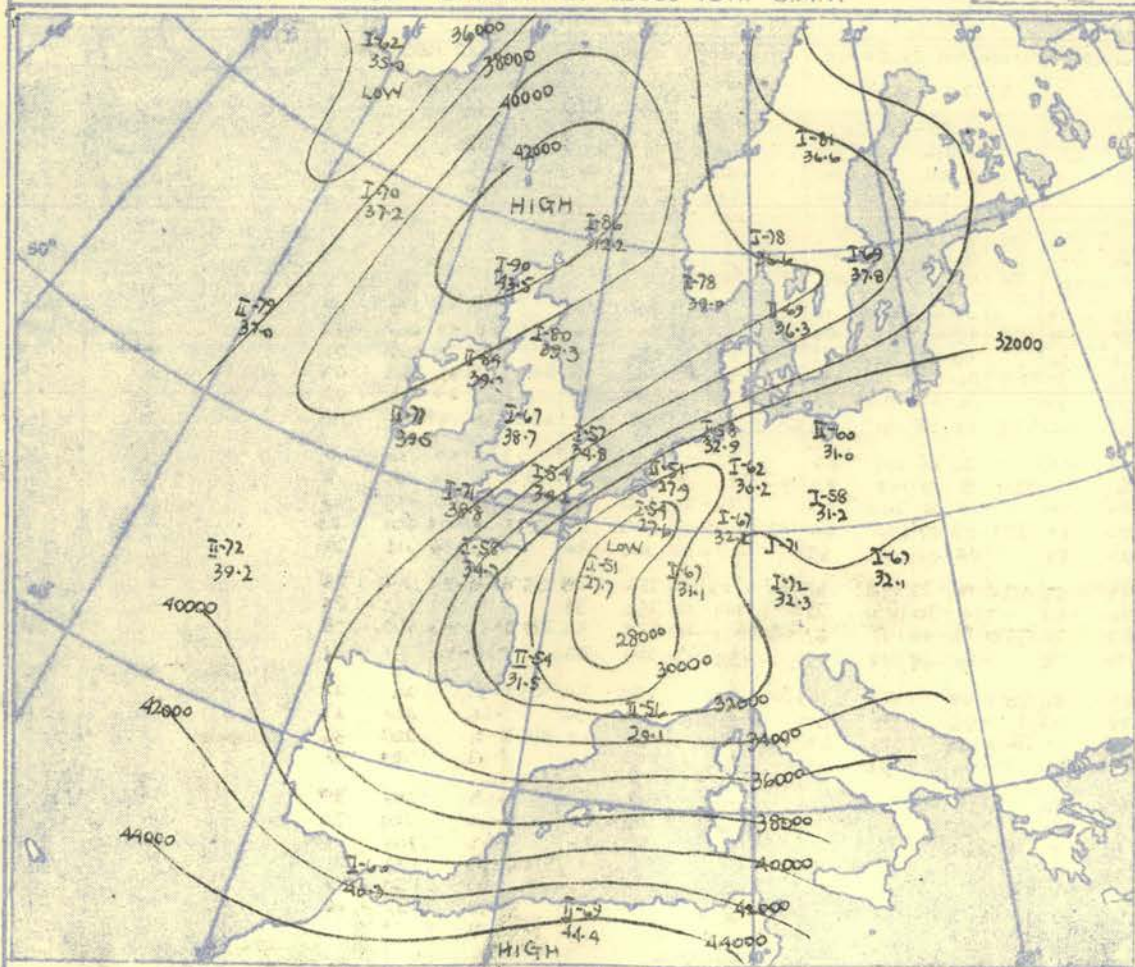
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

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 15h G.M.T.



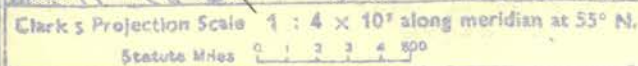
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Strong advective and dynamical cooling over South Scandinavia together with advection of cold air southwestwards across North France resulted in the cutting off of a cold pool over North-west France. There was also remarkable relaxation of a cold trough in Mid-Atlantic ahead of the intense development of a depression south of Greenland.

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N. J. JOHNSON, K.C.B., D.Sc., Director.



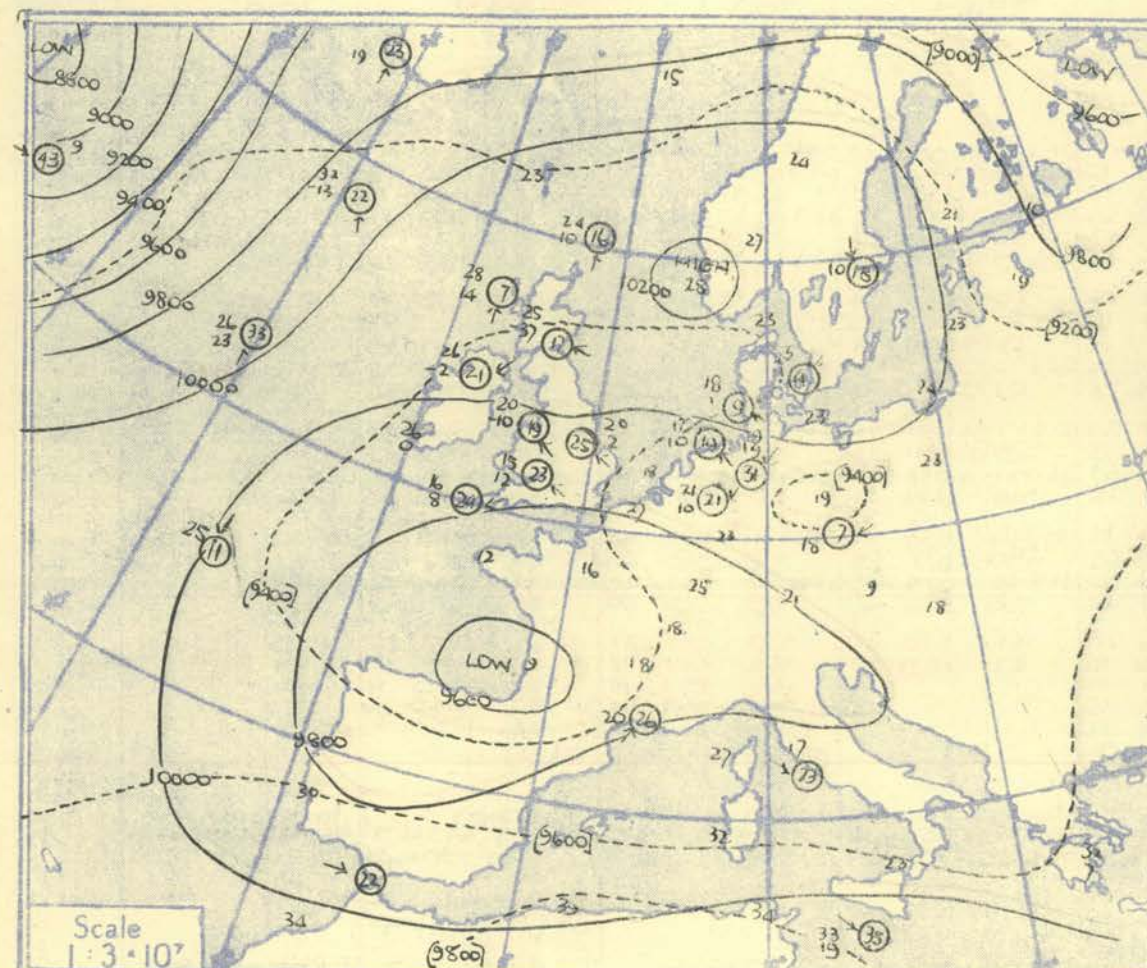
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valentia	STATION					
Time M.S.L. Surf Pressing	15 hrs 1026.6 1016.4 750	G.M.T. mb mb mb	15 hrs 1024.8 1023.2 732	G.M.T. mb mb mb	15 hrs 1027.3 1026.4 750	G.M.T. mb mb mb	15 hrs 1022.1 1020.1 843	G.M.T. mb mb mb	15 hrs 1018.6 1002.4 861	G.M.T. mb mb mb	15 hrs 1020.2 1010.2 870	G.M.T. mb mb mb	15 hrs 1022.7 1021 705	G.M.T. mb mb mb	Time M.S.L. Surf Pressing
Pressure mb	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Pressure mb
Surf	02.7 5039 200	100.4 57 44 210	08.0 2 50 42 140	09.0 2.6 57 36 080	08.0 0.6 58 33 060	15.0 1.2 53 43 030	18.0 4.4 53 35 030	20.0 1.9 51 46 360	12.0 3 55 49 270	07	Surf				
1000	01.1 4534 204	100.6 75 53 150	08.0 7.3 44 37 120	10.6 7.5 43 35 074	12.0 6.1 58 31 064	21.0 5.3 50 40 022	21.0 5.0 45 36 025	29.0 5.6 48 35 017	12.6 1 53 48 254	07	1000				
950	41.2 4621 6	01.5 5032 188	08.0 3.7 43 37 103	09.0 4.3 43 37 058	12.0 4.8 50 30 052	21.0 4.3 43 36 046	24.0 4.5 40 028	29.0 5.6 48 35 017	12.6 1 53 48 254	07	950				
900	35.3 43 28 155	01.5 44 33 232	06.5 4.4 43 37 050	08.5 4.3 43 37 058	11.4 6.4 40 26 062	12.3 6.3 43 39 056	26.3 4.3 25 031	29.4 4.3 29 062	13.4 8.4 44 34 047	08	900				
850	43 28 157	07.3 35 18 78	08.0 3.7 43 37 050	08.5 4.3 43 37 058	11.4 6.4 40 26 062	12.3 6.3 43 39 056	26.3 4.3 25 031	29.4 4.3 29 062	13.4 8.4 44 34 047	08	850				
800	66.9 38 27 108	05.6 6.6 36 24 146	15.6 6.3 35 05 082	15.6 6.3 35 05 082	16.5 5.5 25 13 074	18.6 4.3 23 12 066	28.6 4.2 23 14 043	32.6 4.2 26 05 036	26.6 2.3 36 04 015	12	800				
750	32 22 080	07.3 34 24 131	24.3 32 13 070	22.2 29 08 060	21.2 13 074	23.0 09 080	31.16 09 050	26.24 24 24 24 052	24.3 37 14 034	13	750				
700	102.0 19 070	10.1 83 18 126	13.1 6.3 13 065	24.1 00 26 08 062	24.9 8.2 23 13 068	33.9 3 13 083	31.9 8.1 08 053	24.9 2.8 19 082	30.1 0.5 31 14 028	13	700				
650	22 14 086	08.2 26 11 107	06.2 25 10 063	23.24 04 045	21.23 23 058	44.09 49 084	31.06 12 050	27.15 11 027	37.26 08 034	19	650				
600	141.7 18 00057	02.1 41.7 19 16 148	06.1 41.5 21 2 067	26.1 40 16 7 037	23.1 39 32 19 054	48.1 36 8 05 51 079	34.1 36 30 20 061	41.1 38 4 11 16 025	42.1 41 3 22 1 036	18	600				
550	12 27 302	04.12 19 172	09.13 11 016	29.11 22 042	22.12 21 051	50.1 56 072	40.1 13 044	62.08 15 025	52.17 13 009	14	550				
500	187.5 06 32 157	03.1 87.6 05 24 182	14.1 87.5 04 11 057	33.1 86 30 4 26 050	30.1 85 40 28 053	57.1 81 40 52 066	49.1 80 7 10 34 041	70.1 83 7 1 21 023	60.1 87 8 08 32 036	13	500				
450	4 18 157	03.2 24.1 8 16 36 170	12.12 4 11 055	36.4 21 052	29.4 23 046	62.21 52 063	68.21 42 040	72.11 19 023	70.2 32 035	17	450				
400	241.7 14 31 117	03.2 41.7 19 16 148	13.2 41.7 16 33 063	35.2 40 4 40 048	28.2 39 4 43 046	66.2 36 31 53 060	69.2 39 31 52 041	80.2 37 0 23 25 024	73.2 41 1 4 42 045	20	400				
350	17 41 071	03.30 48 182	13.30 46 060	37.32 33 058	29.38 34 049	72.33 60 057	86.35 56 041	94.36 53 026	76.37 55 031	20	350				
300	307.8 44	03.40 30 6 44	19.2 14 30 4 47	06.3 47 30 58 49	06.1 42 30 58 42	05.5 84 38 5 47	06.1 34 39 8 48	04.2 35 30 58 49	02.7 16 30 58 42	04.4 12	300				
250	60	040	13	072 49	06.3 42	05.5 85	05.5 75	04.0 74	030 70	066 17	250				
200	394.0 79	04.8	15.8	052 39 30 8 3	06.1 29 39 4 66	05.2 63 39 6 2 56	05.8 50 38 6 054	03.6 49 38 6 2 71	02.6 51 39 4 77	046 23	200				
170	63	063	09	052 26	040 24	05.1 48	05.1 28	04.3 38	020 32	046 16	170				
150	72	067	07	058 23	73	050 22	044 39	056 21	016 23	043 14	150				
130	71	100	07	070 12	70	054 16	048 24	057 16	024 11	041 13	130				
110	70	107	07	070 08	69	050 08	049 23	057 16	031 10	038 13	110				
100	56 4 6	112	065 35 26 9	066 07 53 3 69	071 09 53 2 62	049 12 53 5 55	049 13 53 5 58	055 11 53 4 67	040 13 53 2 68	085 05	100				
90	68	115	09	044 05	68	058 07	046 12	057 09	027 21	052 05	90				
80	64	084	03	090 06	61	058 06	066 06	050 09	059 02	087 03	80				
70	(69)	64	64	58	58	58	58	58	58	58	70				
60	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	Inversion	60				
	67ms 42-850ms 41°	800ms 36-785ms 31°	930ms 33-800ms 35°	655ms 26-688ms 30°	655ms 26-688ms 30°	655ms 26-688ms 30°	655ms 26-688ms 30°	655ms 26-688ms 30°	655ms 26-688ms 30°	655ms 26-688ms 30°					
	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal	Isothermal					
	969-950ms 41°	848-800ms 36°	717-680ms 30°	375-688ms 31°	375-688ms 31°	375-688ms 31°	375-688ms 31°	375-688ms 31°	375-688ms 31°	375-688ms 31°					
Tropopause	I 175ms -86°	I 163ms -90°	I 199ms -80°	I 197ms -84°	I 197ms -84°	I 240ms -57°	I 246ms -54°	I 200ms -71°	I 200ms -71°	I 200ms -71°	Tropopause				
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE			STATION				
Time M.S.L. Surf Pressing	21 hrs 1027.1 1016.8 760	G.M.T. mb mb mb	21 hrs 1026.7 1024.1 753	G.M.T. mb mb mb	21 hrs 1027.9 1027.0 810	G.M.T. mb mb mb	21 hrs 1023.1 1021.1 876	G.M.T. mb mb mb	21 hrs 1018.3 1002.5 867	G.M.T. mb mb mb	21 hrs 1020.2 1009.5 860	G.M.T. mb mb mb			Time M.S.L. Surf Pressing
Pressure mb	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Height ft/100 Temp. Dew Dir. Vel. knots	Pressure mb
Surf	02.7 4440 200	06.0 4 49 45 Caln	0.2 42 39 090	06.0 2.6 51 36 070	04.0 0.6 50 42 030	10.0 2.4 46 44 020	12.0 4.4 45 40 040	02.9 4.8 41 030	10	Surf					
1000	07.1 43 36 200	10.0 6.3 48 43 010	08.0 7.3 41 36 034	09.0 6.5 50 39 070	10.0 6.3 48 41 086	21.0 5.6 48 42 049	24.0 5.0 45 40	05.3 4.8 41 015	21	1000					
950	43 23 203	09.0 46 39 010	08.0 4.1 21 113	05.0 44 30 078	12.0 4.3 37 074	19.0 4.4 40 061	26.0 4.2 38 050	27.0 4.5 36 020	21	950					
900	35.5 43 22 209	06.3 5 43 35 287	08.3 5.6 37 13 134	05.3 4.9 39 27 079	15.3 4.6 25 32 061	16.3 9.3 32 074	24.3 3.3 26 33 064	28.3 3.9 38 79 043	24	900					
850	41 31 202	05.3 39 29 220	07.3 32 04 086	08.3 33 16 082	18.3 29 21 063	16.3 33 26 087	22.3 30 23 065	25.3 30 21 054	26	850					
800	67.0 37 21 197	07.6 8 37 26 187	07.6 6.5 31 19 072	10.6 5.3 28 13 080	17.6 5.5 27 12 065	20.6 4 8 29 21 091	22.6 4.1								

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

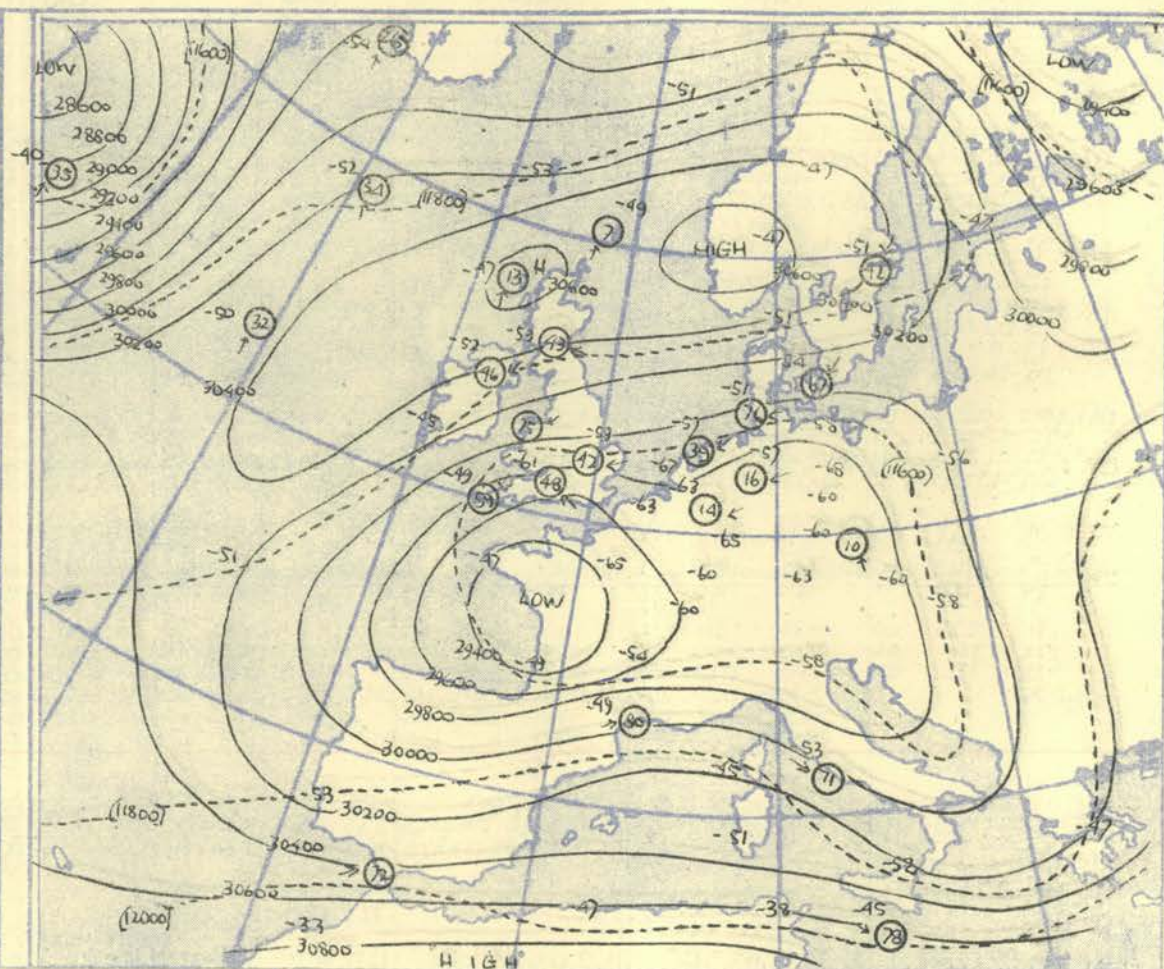
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valencia	STATION
Time M.S.L.	03 hrs 1016.8	03 hrs 1016.6	03 hrs 1016.5	03 hrs 1016.2	03 hrs 1016.0	03 hrs 1016.3	03 hrs 1016.1	03 hrs 1016.8	03 hrs 1016.7	03 hrs 1016.5
Surf	1016.5	1016.0	1016.6	1016.2	1016.5	1016.1	1016.8	1016.7	1016.5	1016.5
Freezing	79.3	79.7	85.1	87.8	82.1	82.5	81.8	86.8	86.8	86.8
Pressure mb	1016.5	1016.0	1016.6	1016.2	1016.5	1016.1	1016.8	1016.7	1016.5	1016.5
Height ft./100	02.7	06.4	02.4	02.6	02.6	01.2	04.4	02.9	02.9	02.9
Temp.	40.3	42.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
Dew	39.2	40.1	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Surf	02.7	06.4	02.4	02.6	02.6	01.2	04.4	02.9	02.9	02.9
1000	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
950	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
900	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
850	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
800	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
750	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
700	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
650	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
600	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
550	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
500	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
450	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
400	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
350	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
300	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
250	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
200	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
170	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
150	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
130	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
110	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
100	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
90	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
80	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
70	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
60	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
Inversion	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0
Isobaric	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0
Tropopause	1175 m - 91°	1175 m - 88°	1175 m - 84°	1175 m - 86°	1175 m - 84°	1175 m - 84°	1175 m - 84°	1175 m - 84°	1175 m - 84°	1175 m - 84°
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	Valencia	STATION
Time M.S.L.	09 hrs 1016.1	09 hrs 1016.3	09 hrs 1016.2	09 hrs 1016.4	09 hrs 1016.5	09 hrs 1016.3	09 hrs 1016.6	09 hrs 1016.8	09 hrs 1016.7	09 hrs 1016.5
Surf	1016.9	1016.7	1016.3	1016.4	1016.5	1016.3	1016.6	1016.8	1016.7	1016.5
Freezing	77.1	78.5	86.7	85.0	83.9	81.0	77.1	81.0	81.0	81.0
Pressure mb	1016.9	1016.7	1016.3	1016.4	1016.5	1016.3	1016.6	1016.8	1016.7	1016.5
Height ft./100	02.7	06.4	02.4	02.6	02.6	01.2	04.4	02.9	02.9	02.9
Temp.	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
Dew	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
Surf	02.7	06.4	02.4	02.6	02.6	01.2	04.4	02.9	02.9	02.9
1000	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
950	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
900	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
850	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
800	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
750	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
700	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
650	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
600	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
550	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
500	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
450	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
400	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
350	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
300	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
250	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
200	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
170	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
150	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
130	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
110	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
100	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
90	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
80	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
70	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
60	07.0	13.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0	07.0
Inversion	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0
Isobaric	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0	1017.5-1018.0
Tropopause	1191 m - 86°	1177 m - 86°	1195 m - 82°	1196 m - 78°	1206 m - 68°	1178 m - 57°	1192 m - 62°	1192 m - 62°	1192 m - 62°	1192 m - 62°

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

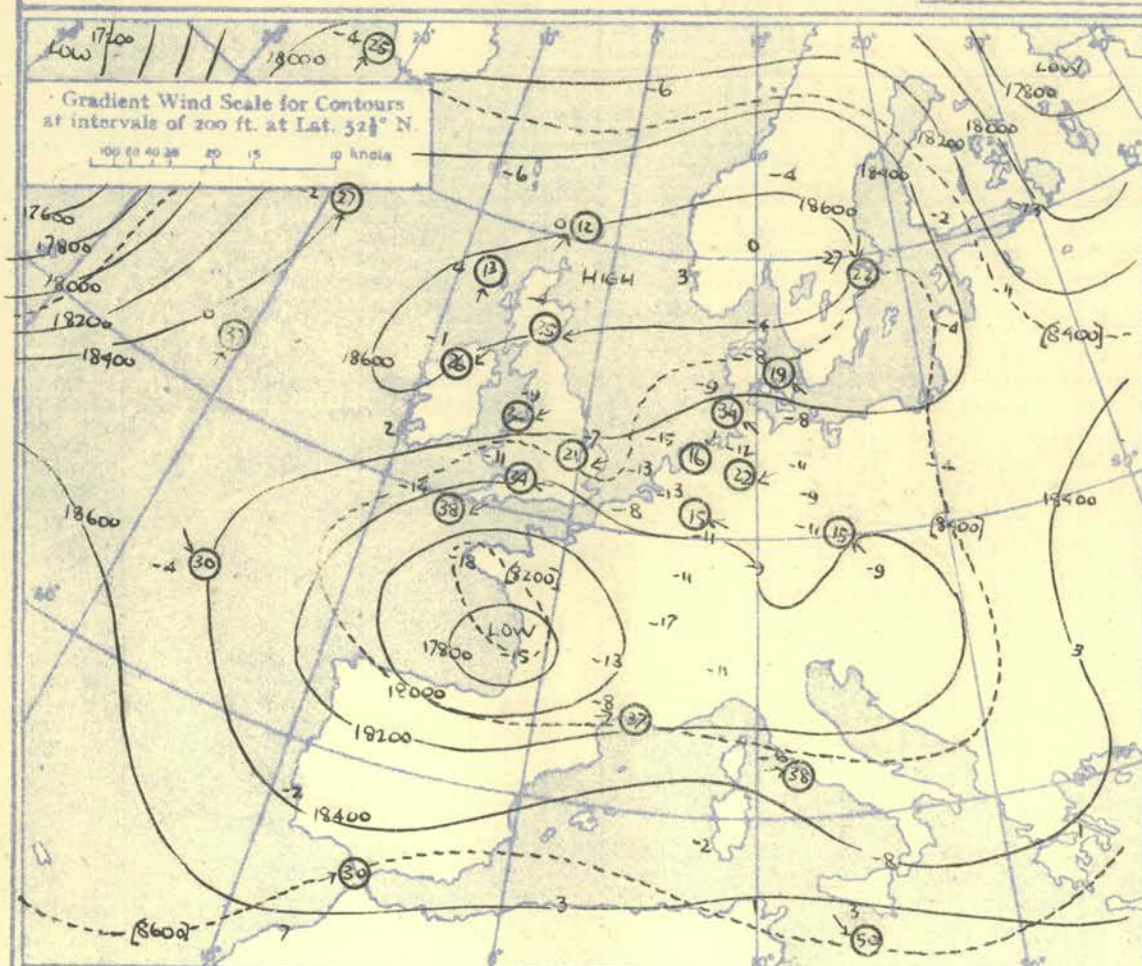


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

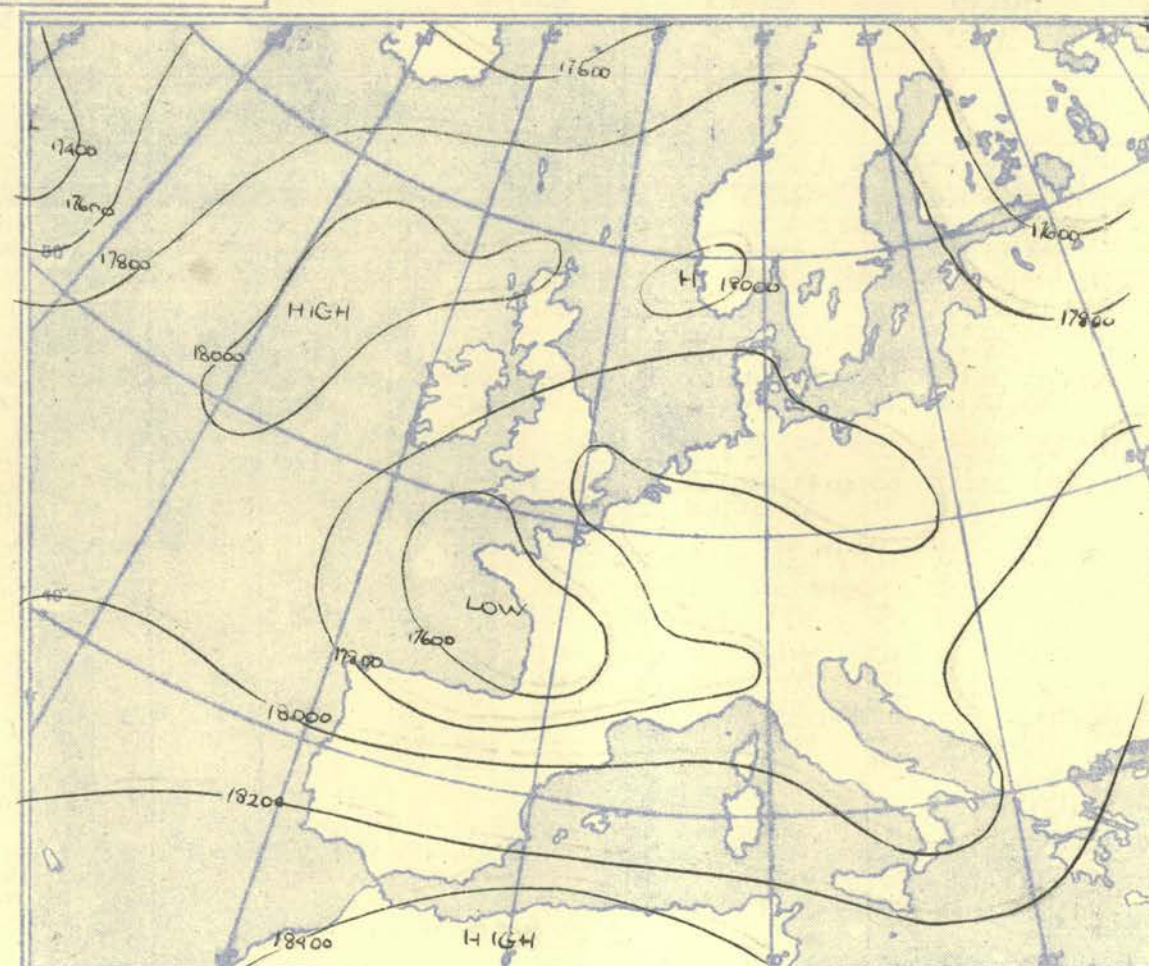
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52 $\frac{1}{2}$ ° N.
100 80 60 40 20 10 knots



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.

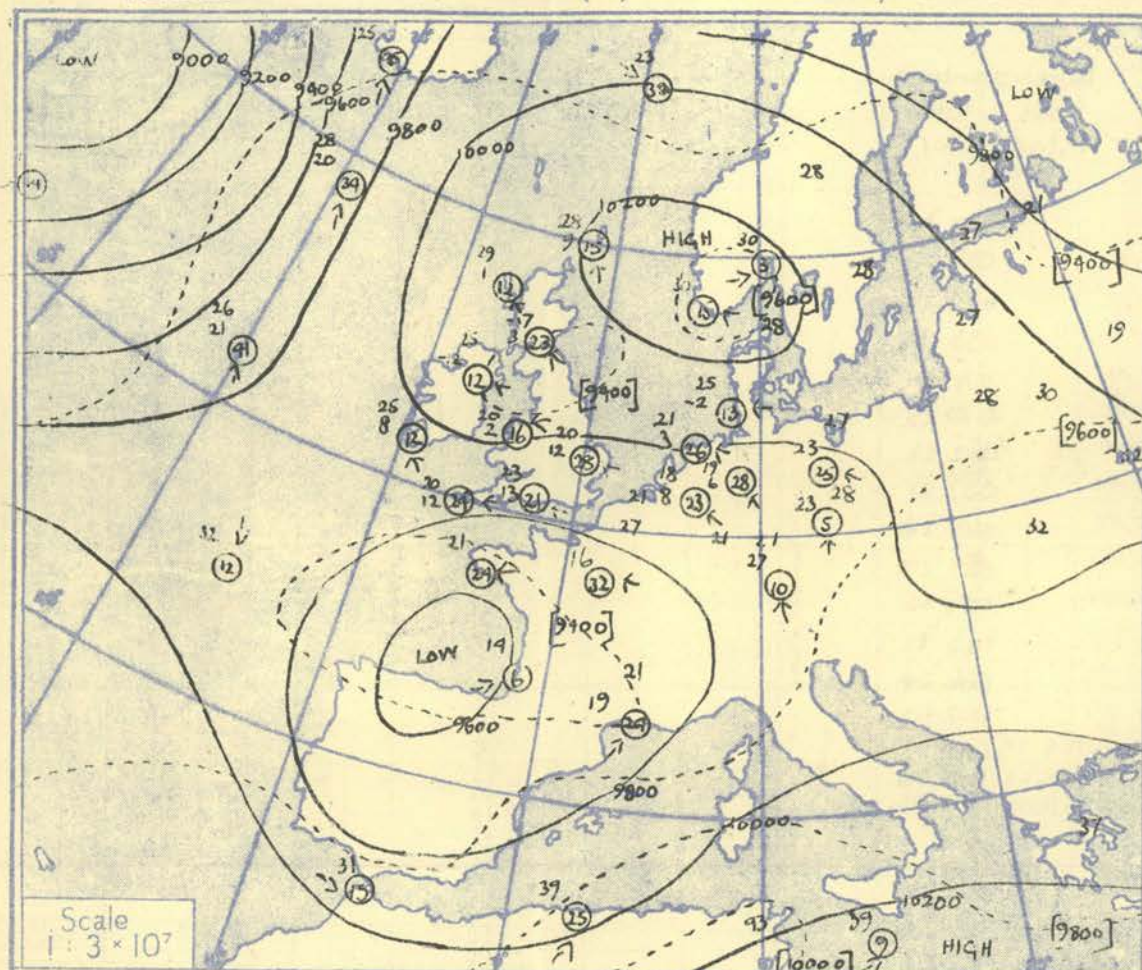
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

NEPHOSCOPE OBSERVATIONS

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY, AND WIND WGT. 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2

[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 15h G.M.T.

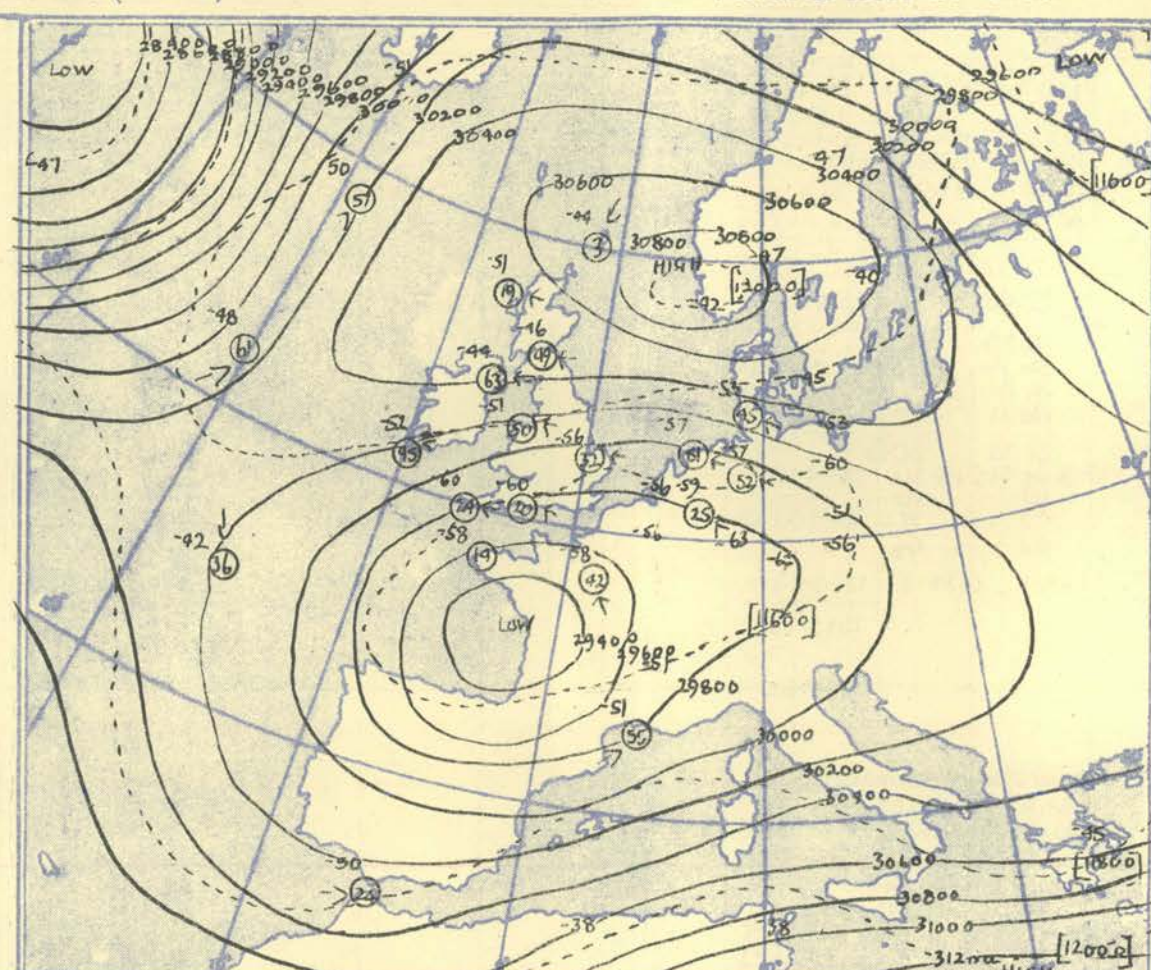


Scale
1:3 × 10⁷

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

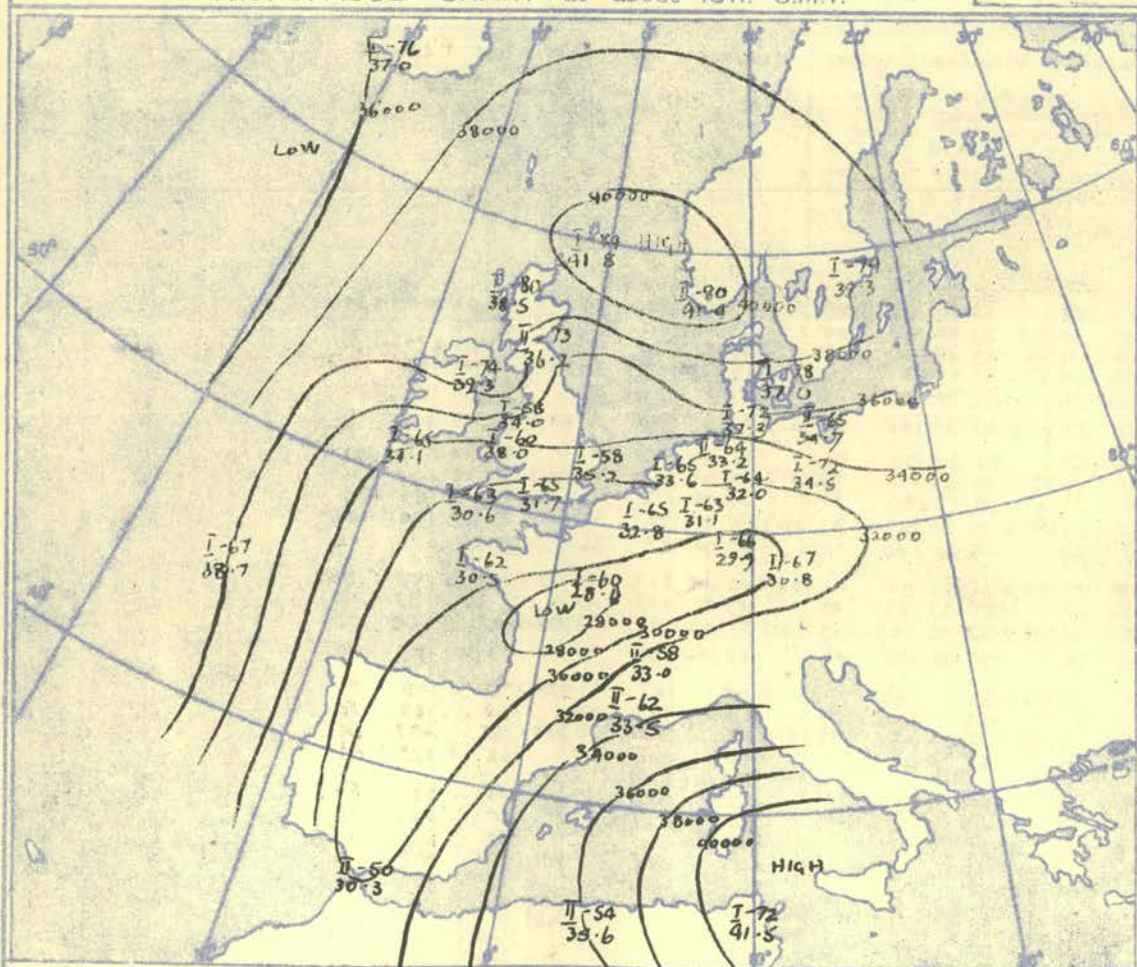
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 0 knots



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

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



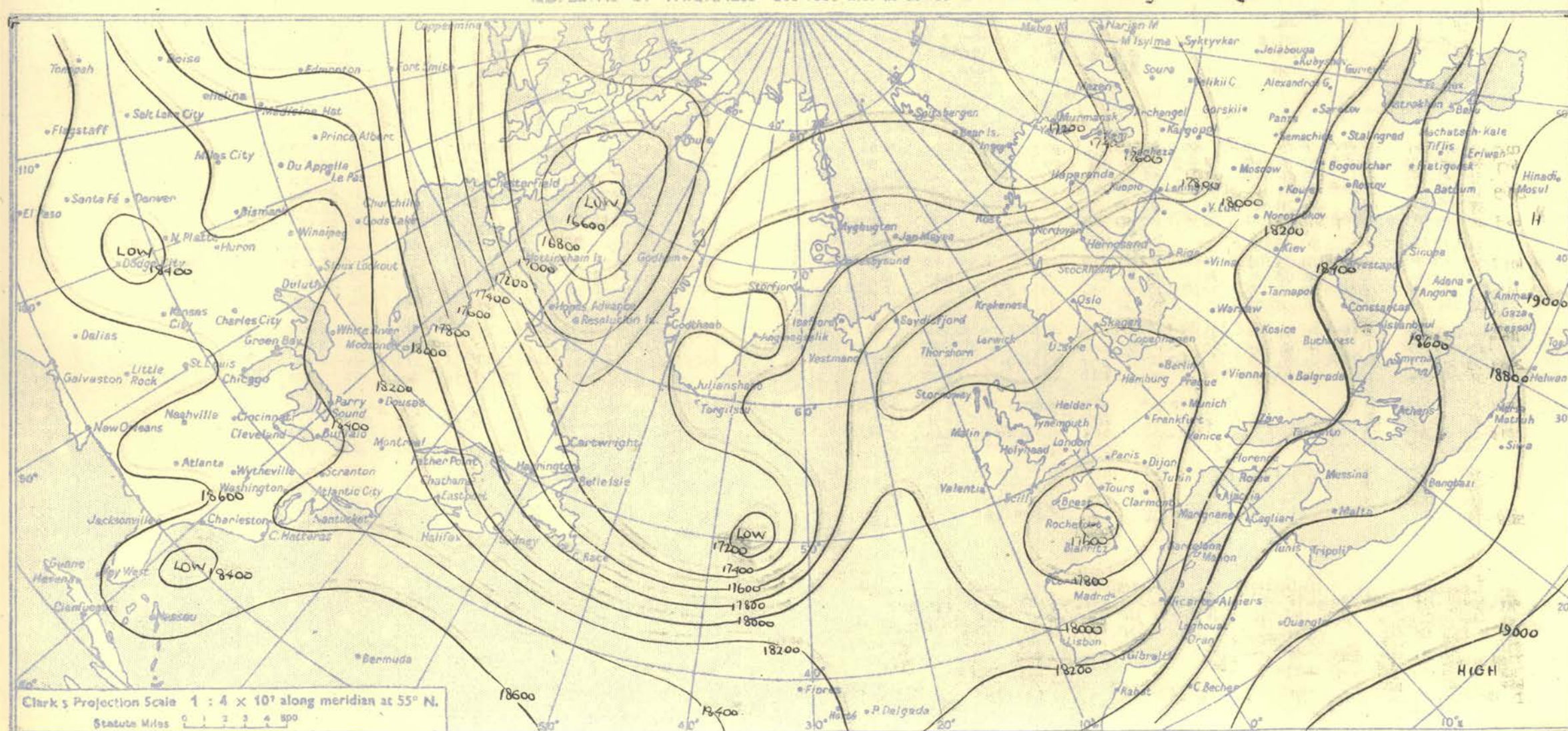
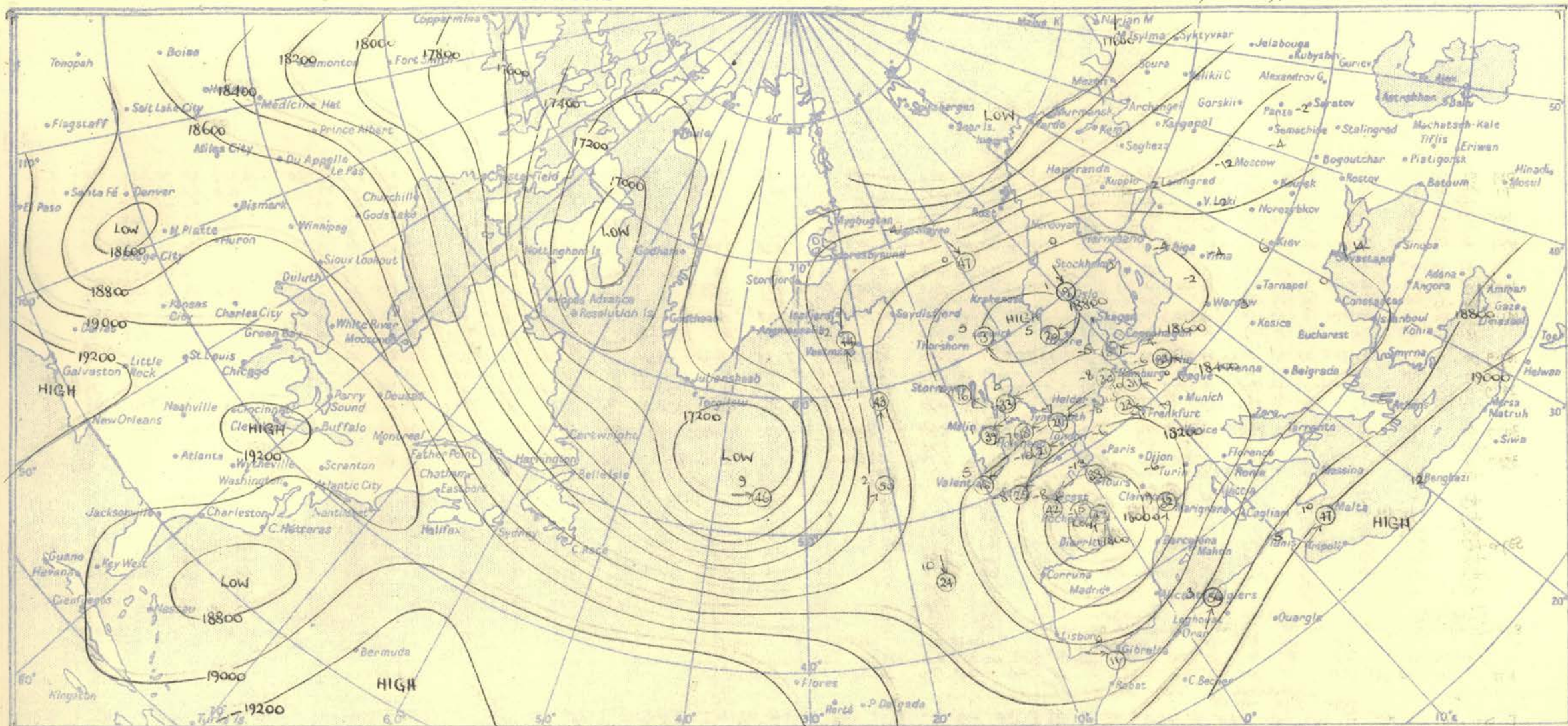
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool continued to drift slowly southwest into the Bay of Biscay, and there was a strong southeastwards penetration of cold air in mid-Atlantic.

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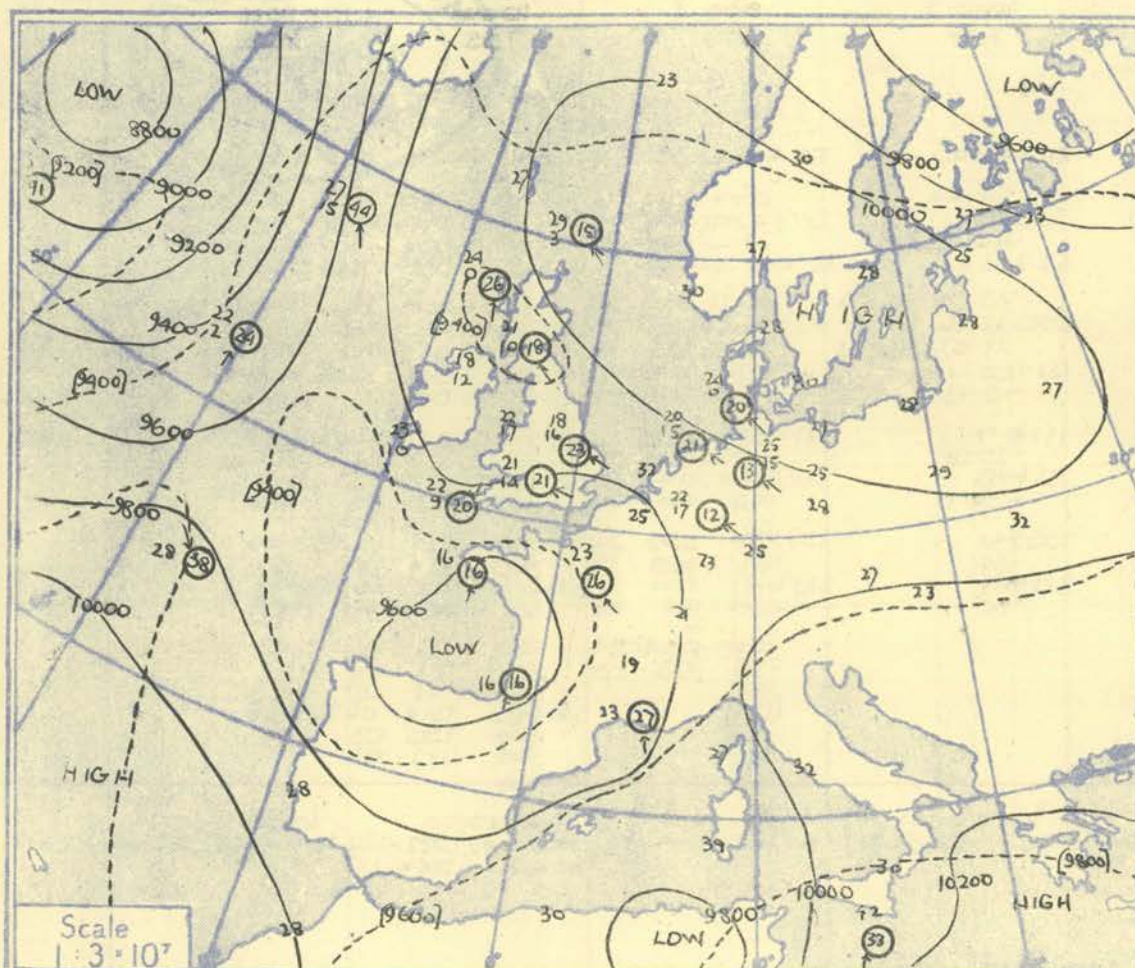


STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION																																				
Time M.S.L. Surf Freezing	15L 1026.5 1016.2 750	G.M.T. mb mb mb	15L 1024.6 1023.0 760	G.M.T. mb mb mb	15L 1025.6 1014.8 848	G.M.T. mb mb mb	15L 1022.3 1013.6 868 + 829	G.M.T. mb mb mb	15L 1018.9 1016.9 800	G.M.T. mb mb mb	15L 1017.2 1015.3 808	G.M.T. mb mb mb	15L 1013.9 998.2 725	G.M.T. mb mb mb	15L 1015.1 1004.4 773	G.M.T. mb mb mb	15L 1019.7 1018 840	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	Pressure mb																									
Surf	02.7	51	43	190	05	00.4	52	44	050	05	00.2	52	45	100	09	02.6	57	35	085	12	00.6	63	39	085	15	01.2	64	47	060	20	04.4	60	45	050	25	02.9	55	48	020	15	00.3	55	45	280	05	Surf
1000	7.1	47	38	164	13	6.6	48	41	055	08	6.9	46	39	114	10	6.3	52	30	094	14	5.2	60	39	087	21	4.9	58	43	063	30	3.9	53	39	058	29	4.1	54	47	5.3	52	44	272	06	1000		
950		45	31	171	15		46	37	097	06		45	34	133	13		45	26	104	12		46	34	092	21		51	40	072	30		53	39	058	29		52	47		46	41	277	05	950		
900	35.5	43	24	186	12	35.0	42	33	117	10	35.3	40	34	150	13	34.7	37	139	11	34.2	46	34	092	20	33.8	46	36	083	30	32.8	46	37	065	26	32.9	46	40		33	34	008	04	900			
850		40	06	208	10		37	22	115	09		33	28	160	17		34	17	154	13		39	30	096	19		38	31	091	32		39	34	068	28		38	33		33	29	104	09	850		
800	67.0	38	08	183	08	66.3	35	05	130	07	66.2	26	21	160	21	65.6	30	02	150	11	65.6	32	23	094	17	65.2	31	24	091	33	64.2	34	28	070	29	64.3	34	29		64.9	31	12	135	14	800	
750		32	19	167	14		31	00	144	11		26	08	138	22		25	07	128	11		26	12	082	15		25	18	091	31		27	24	074	25		30	21		28	06	147	13	750		
700	102.1	28	09	162	15	101.3	29	01	133	12	100.8	27	03	112	23	100.2	25	02	094	12	100.2	20	02	077	16	99.7	20	12	070	28	99.0	23	13	078	21	99.0	20	12		99.6	25	08	133	12	700	
650		26	06	166	15		26	09	131	11		24	00	089	29		21	06	064	16		20	17	081	15		15	03	072	24		16	02	080	21		18	06		18	22	119	08	650		
600	41.9	21	06	191	10	41.1	18	22	126	10	40.6	19	04	080	22	39.7	18	18	070	27	39.3	09	15	088	14	38.7	08	09	097	20	38.1	08	14	081	27</											

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

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time M.S.L.	03hrs 1024.4	03hrs 1020.2	03hrs 1022.2	03hrs 1017.6	03hrs 1016.2	03hrs 1013.3	03hrs 1011.9	03hrs 1010.1	Time M.S.L.
Surf	1014.0	1018.3	1021.3	1007.9	1014.2	1008.7	995.8	995.8	Surf
Freezing	737	838	818	805	792	798	807	815	Freezing
Pressure mb	1024.4	1020.2	1022.2	1017.6	1016.2	1013.3	1011.9	1010.1	Pressure mb
Height ft./100	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Height ft./100
Temp. °F	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Temp. °F
Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind
Surf	02-736 36 Calm	0-44037 Calm	0-2 38 37 220	0702-6 47 38	0-6 48 36	01-2 49 43	04-4 46 45 050	01-2 49 43	Surf
1000	06-4 42 39 190	11 05-4 44 43	05-9 40 35 120	0604-7 49 40	04-4 47 36	03-3 43 41	03-2 46 43 080	03-2 46 43 080	1000
950	41 33 188	09 41 37 182	07 41 27 123	06 42 27	43 37	50 42	46 43 080	46 43 080	950
900	34-6 36 24 185	09 33-8 40 20 193	11 34-1 36 27 126	1033-2 44 25	32-9 45 29	33-3 43 41	31-7 43 40 101	31-7 43 40 101	900
850	35 13 174	12 34 29 179	09 35 11 126	16 35 25	39 33	40 38	37 35 096	37 35 096	850
800	65-8 36 06 166	16 64-9 27 23 149	14 65-2 30 16 127	16 64-4 31 21	64-3 33 30	64-7 33 32	63-0 31 30 091	63-0 31 30 091	800
750	32 08 158	18 26 06 145	22 24 13 030	15 26 16	26 22	25 24	26 26 052	26 26 052	750
700	100-8 29 150	18 26-5 24 00 146	26 29-7 21 10 134	18 29-9 18 12	26 22	25 24	26 26 052	26 26 052	700
650	24-8 139	12 20-9 138	25 13 01 135	24 18 06	14 08	11 07	26 26 052	26 26 052	650
600	140-6 18-3 132	18 18-8 14-22 126	28 135-6 17-5 132	28 131-6 04-4	18-0 06 00	18-1 05-1	26-7 07-16 104	26-7 07-16 104	600
550	08-7 132	18 06-35 119	30 -2-7 118	32 -12-15	-1-8	-5-13	-1-26 107	-1-13 049	550
500	186-202-21 133	21 184-1-3 43 111	33 183-1-9 23 117	34 182-1-9 23	182-6-9-21	182-4-7-17	181-3-9-24 108	181-3-9-24 108	500
450	239-9-19 28 100	26 237-1-23 47 103	38 235-3-30 42 114	33 234-1-31	234-8-24-4	233-6-42	233-7-31 45 114	233-7-31 45 114	450
400	31-41 057	27 39-54 100	52 -43 109	51 -43	48-48	48-56	48-56	48-56	400
350	305-5-46	100 23 201-5-54	101 57 293-5-58	103 55 293-5-57	291-6-66	291-6-66	291-6-66	291-6-66	350
300	100 037 27	090 60	097 57	097 57	63	63	63	63	300
250	101 303-5-7-78	109 41 303-6-7-78	108 40 303-6-7-78	108 40 303-6-7-78	63-5-55	63-5-55	63-5-55	63-5-55	250
200	101 303-5-7-78	109 41 303-6-7-78	108 40 303-6-7-78	108 40 303-6-7-78	63-5-55	63-5-55	63-5-55	63-5-55	200
170	101 303-5-7-78	109 41 303-6-7-78	108 40 303-6-7-78	108 40 303-6-7-78	63-5-55	63-5-55	63-5-55	63-5-55	170
150	116 20	115 22	121 35	121 35	61	61	61	61	150
130	116 20	115 22	121 35	121 35	61	61	61	61	130
110	116 20	115 22	121 35	121 35	61	61	61	61	110
100	116 20	115 22	121 35	121 35	61	61	61	61	100
90	116 20	115 22	121 35	121 35	61	61	61	61	90
80	116 20	115 22	121 35	121 35	61	61	61	61	80
70	116 20	115 22	121 35	121 35	61	61	61	61	70
60	116 20	115 22	121 35	121 35	61	61	61	61	60
Inversion	1014-336-575 m 44	1019 m 40-570 m 50	1021 m 35-562 m 43	1008 m 47-1000 m 49	955 m 44-925 m 47	1005 m 49-963 m 51	996-934 m 46	1001 m 47-982 m 52	Inversion
Isobaric	750-730 m 32	660-640 m 20	850-843 m 35	1000-950 m 49	745-720 m 25	745-720 m 25	745-720 m 25	745-720 m 25	Isobaric
Tropopause	1190 m 86	1216 m 78	1260 m 73	1285 m 61	1282 m 75	1333 m 60	1314 m 56	1275 m 67	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	STATION
Time M.S.L.	09hrs 1023.0	09hrs 1018.3	09hrs 1020.1	09hrs 1014.8	09hrs 1013.3	09hrs 1011.3	09hrs 1011.0	09hrs 1010.1	Time M.S.L.
Surf	1012.9	1016.7	1015.3	1004.7	1011.3	1007.9	994.9	999.5	Surf
Freezing	770	782	802	793	795	774	826	787	Freezing
Pressure mb	1023.0	1018.3	1020.1	1014.8	1013.3	1011.3	1011.0	1010.1	Pressure mb
Height ft./100	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Temp. °F	Height ft./100
Temp. °F	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Dir. knots	Temp. °F
Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind
Surf	02-7 48 43 170	02 0-4 52 42 060	03 0-2 50 43 070	12 02-6 52 35	0-6 50 41 085	10 01-2 56 48 065	08 04-4 49 49 060	04 01-5 51 47 157	Surf
1000	06-4 46 40	04-5 50 38 157	05 05-4 46 37 097	14 05-8 51 35	03-6 49 40	03-4 56 47	02-9 47 36 088	02-7 45 42 129	1000
950	43 36 132	08 46 30 149	12 42 28 057	17 42 28	46 39 100	23 42 091	21 41 35 088	19 41 35 088	950
900	34-5 35 27 086	08 33-3 41 27 146	16 33-6 36 24 057	22-4 44 33	32-2 45 37 106	28 32-2 48 39 096	24 31-5 41 35 088	21 31-2 44 34 122	900
850	38 14 092	06 38 23 150	17 31 17 108	20 38 29	39 33 112	30 41 33 101	27 35 33 084	16 35 27 106	850
800	65-8 35 08 171	05 64-5 34 11 162	16 64-5 32 15 126	20 63-8 32 25	63-6 33 28 119	27 63-8 33 24 114	25 62-6 31 29 091	18 62-6 33 13 099	800
750	30 09 149	14 29 10 153	19 28 12 116	17 26 19	28 22 127	24 29 18 112	23 27 25 104	24 28 19 093	750
700	100-7 26 06 152	16 29-3 23 02 154	29 22 06 117	21 28 5 23 16	38-4 22 13 126	22 38-7 23 14 114	20 37-2 21 13 116	21 37-5 25 06 080	700
650	20-3 147	17 18-5 147	33 16 00 113	27 13 08	15 07 126	24 16 01 126	20 16 13 116	25 20-1 06 066	650
600	140-2 15-10 133	13 138-10-6 141	33 138-2 07-8 120	23 137-4 05-5	137-5 10 00 123	25 137-8 08 00 134	21 136-4 09 03 112	21 136-9 13-13 051	600
550	06-13 128	21 00-10 133	36 3-73 122	31 01-12	02-5 121	21 02-7 139	27 01-4 113	28 03-16 058	550
500	188-5-3-17 128	23 182-7-30 124	39 182-7-11 24 123	36 182-1-8-24	182-3-7-20 129	22 182-6-16 139	27 181-2-7-14 115	30 181-1-7-28 062	500
450	12-24 122	28 17-30 125	47 20-31 129	45 27-36	17-36 142	27 18-30 140	25 17-25 124	33 20-42 056	450
400	137-7-25 32 117	34 235-7-29 44 123	52 235-0-31 43 129	49 234-7-28 46	234-7-31 47 144	28 235-1-31 42 151	27 235-2-7-36 128	42 234-2-31 48 019	400
350	36 43 114	40 46 130	58 46 130	58 46 130	45	45	45	45	350
300	303-5-50	108 42	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	300
250	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	250
200	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	200
170	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	170
150	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	150
130	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	130
110	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	110
100	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	100
90	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	90
80	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	80
70	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	70
60	108 42	106 43	295-6-57	295-6-57	298-4-60	129 23 298-6-61	163 34 297-9-58	148 44 297-0-45	60
Inversion	877 m 41-862 m 46	833 m 34-820 m 35	880 m 43-965 m 44	850 m 30-830 m 34	959 m 44-902 m 49	971 m 50-953 m 54	978 m 47-962 m 48	930 m 41-891 m 44	Inversion
Isobaric	992-975 m 40	730-700 m 23	560-538 m 3	730-700 m 23	745-720 m 25	745-720 m 25	745-720 m 25	745-720 m 25	Isobaric
Tropopause	1188 m 82	NR.	NR.	1285 m 62	1282 m 75	1286 m 60	1291 m 62	1226 m 61	Tropopause

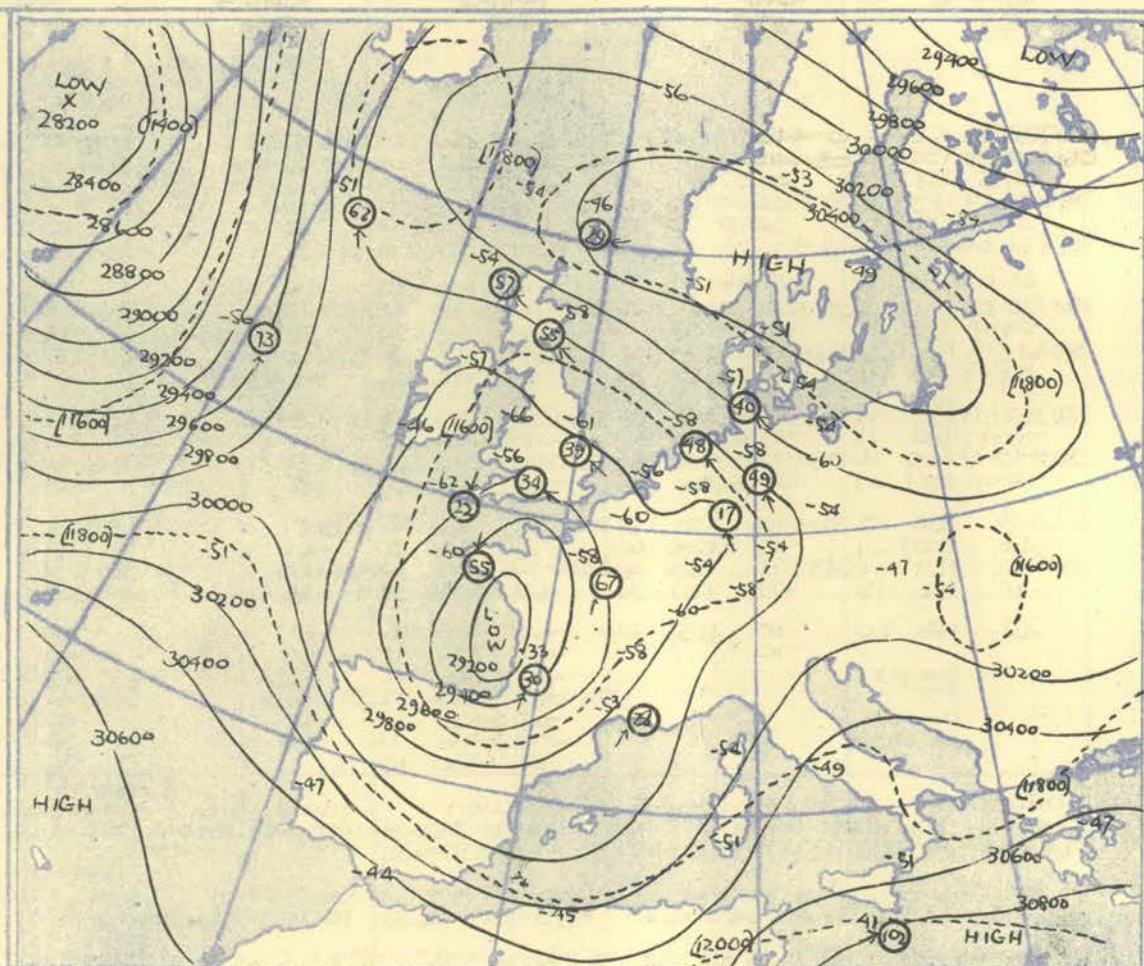
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb, 500 mb and 300 mb, levels at about 03h G.M.T.



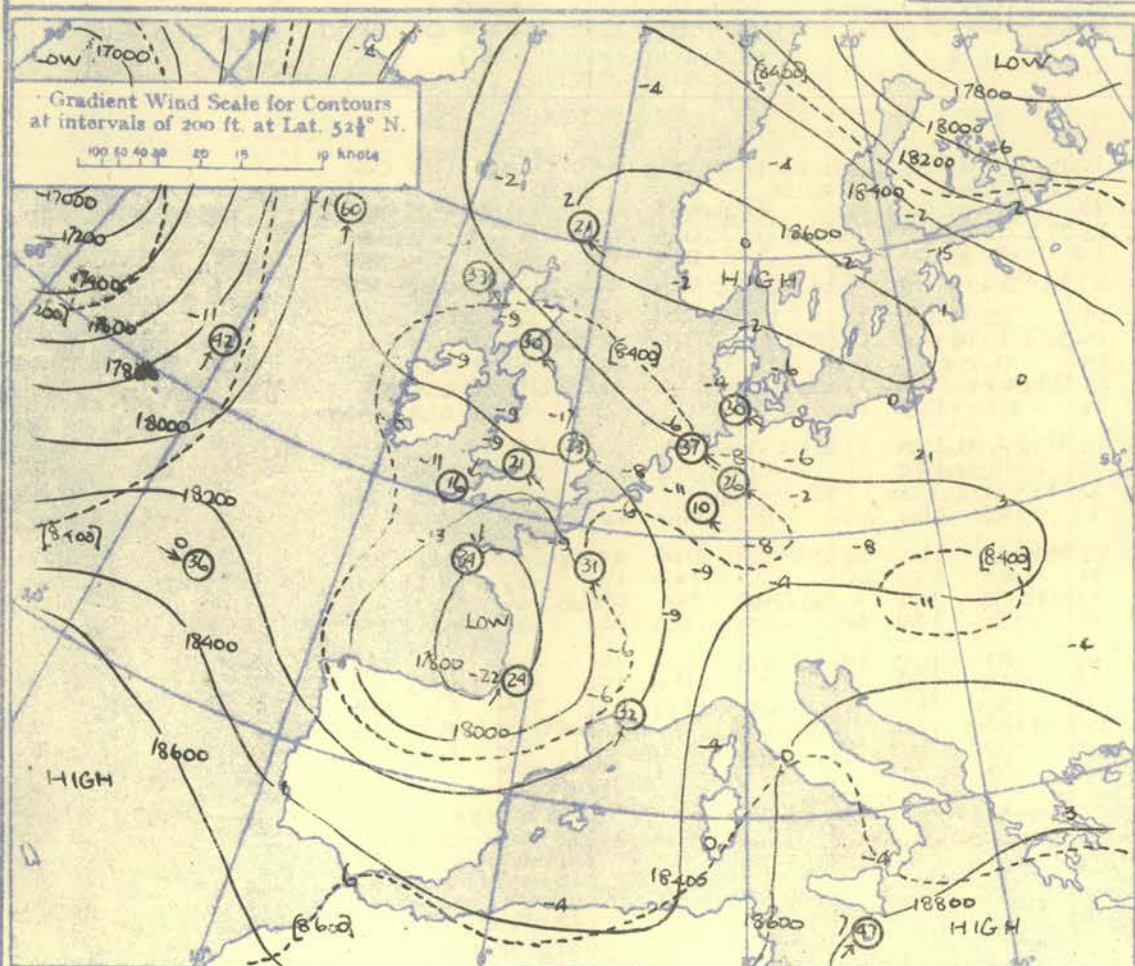
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

100 80 60 40 20 10 0 knots



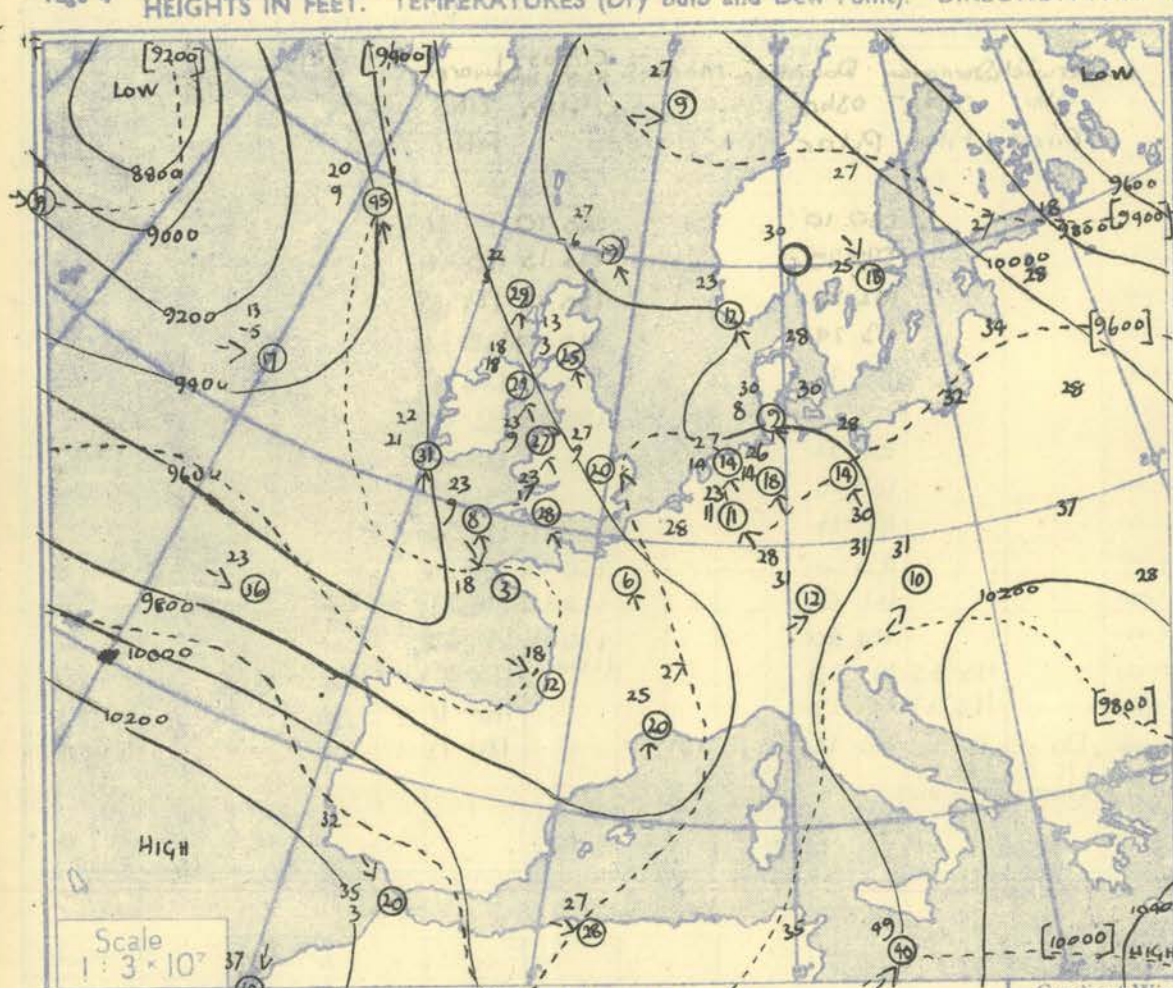
The continuous lines are contour lines of the 300 mb. surface.
The dotted lines are isopleths of the thickness of the layer 500—300 mb.



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

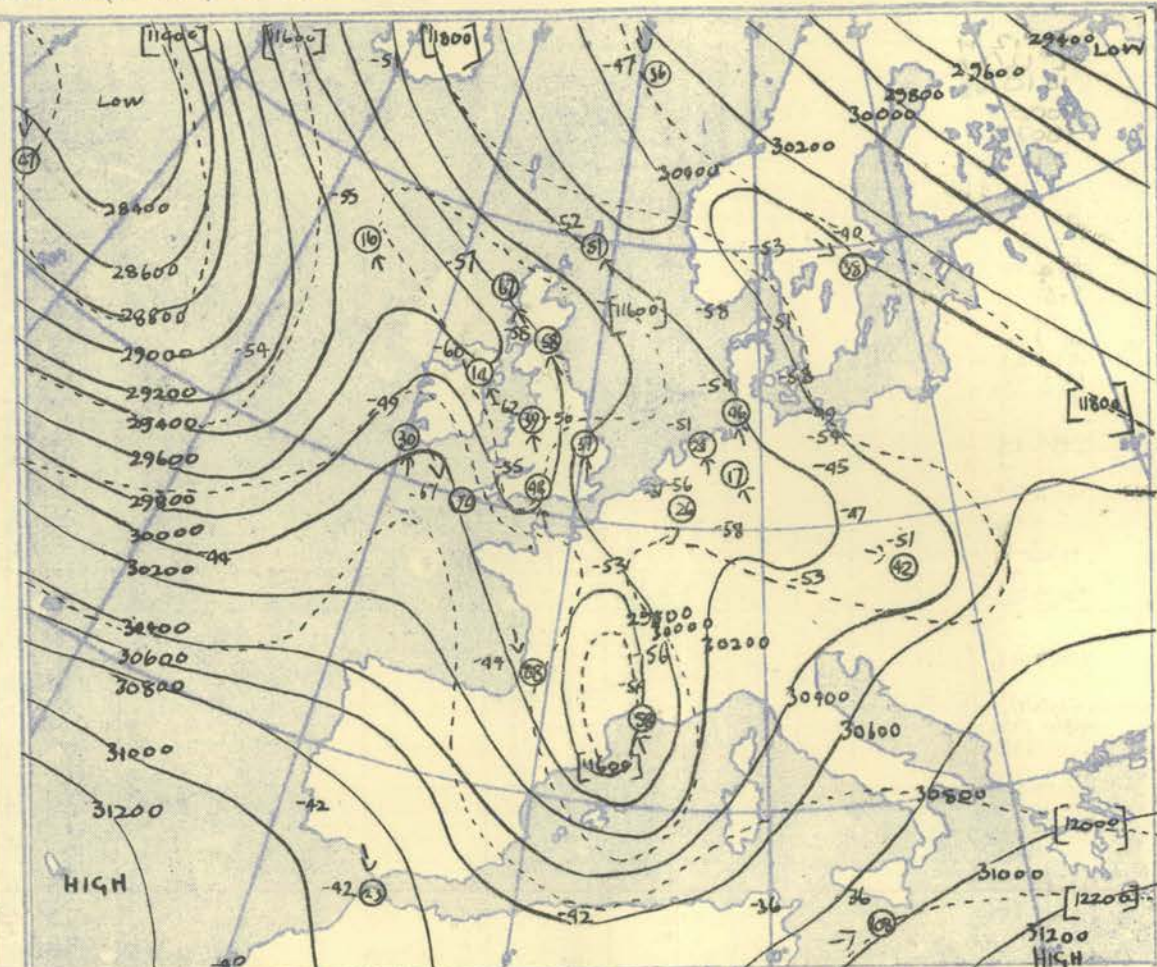
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS

Ship		Weather Recorder				Weather Recorder				Weather Recorder				Weather Recorder				Weather Explorer				Weather Explorer				Cirrus				Ship												
Lat/Long		58-4°N 17°W				58-3°N 16-9°W				58-2°N 16-8°W				57-9°N 16-2°W				56-7°N 10-7°W				52-7°N 20°W				52-3°N 19-3°W				52-5°N 20-0°W				Lat/Long								
Pressure	Time	03h G.M.T.				09h G.M.T.				15h G.M.T.				21h G.M.T.				09h G.M.T.				03h G.M.T.				09h G.M.T.				15h G.M.T.				G.M.T.								
	M.S.L.	1008 mb				1006 mb				1004 mb				1003 mb				1013 mb				1002 mb				1000 mb				1000 mb				mb								
	Surf	1008 mb				1006 mb				1004 mb				1003 mb				1013 mb				1002 mb				1000 mb				1000 mb				mb								
	Freezing	750 mb				810 mb				820 mb				810 mb				810 mb				825 mb				830 mb				860 mb				mb								
Pressure		Height	Temp.	Dew	Wind	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.	Pressure											
Surf		ft./100	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	mb											
1000		2-3	50	48	140	28	1-6	49	47	1-2	50	48	120	28	1-0	50	48	122	26	3-5	50	46	199	33	0-5	46	41	286	09	46	36	282	16	0-1	53	39	290	14				
950		30-7	45	44	153	31	45	43	141	32	48	40	134	32	46	42	129	29	46	40	160	39	46	41	286	09	46	36	282	16	46	36	282	16	46	36	282	16				
900		37	40	34	157	36	30-1	41	37	144	33	29-8	42	31	142	40	39-5	42	36	132	34	32-1	44	39	151	35	29-0	40	35	277	09	28-5	39	35	306	15	28-5	38	25	287	13	
850		37	37	26	159	45	36	31	147	29	36	26	143	42	38	34	153	39	37	24	153	38	25	29	265	10	34	30	319	16	31	19	282	13	31	19	282	13				
800		62-0	36	19	159	44	61	3	31	27	142	22	61-0	30	18	148	42	60-9	31	27	133	37	63-4	30	28	151	35	60-2	29	24	247	12	59-6	28	24	309	15	59-4	25	12	280	14
750		32	22	157	28	29	24	145	23	23	15	150	49	26	21	132	39	26	20	148	35	25	18	224	15	23	19	296	11	23	19	296	11	23	19	296	11	23	19	296	11	
700		27	15	153	44	96-2	24	18	155	26	95-4	20	09	154	49	95-4	17	13	136	41	98-0	20	09	145	32	94-8	22	02	206	24	94-0	18	05	262	12	93-6	13	05	242	17		
650		20	06	149	46	21	05	157	29	13	-04	152	38	12	03	139	39	15	-05	145	27	16	-14	191	32	11	-16	233	17	06	-14	191	32	11	-16	233	17	06	-14	191	32	
600		136-6	14	-05	153	44	135-7	15	-05	190	41	134-3	07	-15	150	32	134-1	04	-11	135	35	137-0	09	-13	143	29	133-9	08	-21	176	43	132-7	04	-27	197	18	131-9	02	-23	209	14	
550		08	-16	156	56	08	-11	130	42	00	-23	146	37	-05	-23	136	42	-05	-23	136	42	-02	29	177	41	-04	-40	182	30	-04	-40	182	30	-04	-40	182	30	-04	-40	182	30	
500		182-0	-01	-25	155	60	181-2	-01	-19	131	44	179-0	-09	-33	138	45	178-3	-13	-33	136	42	181-8	-07	-28	135	31	178-4	-11	-24	169	42	177-0	-11	-53	169	35	175-8	-14	-34	265	13	
450		-12	-36	159	59	-12	-29	135	52	-18	-40	134	38	-23	-41	135	39	-17	-37	131	31	-16	-29	175	57	-8	-68	160	34	-8	-68	160	34	-8	-68	160	34	-8	-68	160	34	
400		236-3	-23	-45	159	63	234-4	-23	-39	118	49	231-5	-30	-49	128	38	230-3	-33	-51	142	34	234-5	-27	-42	123	34	231-1	-26	-31	157	82	229-4	-29	-56	141	55	227-5	-35	55	227-5	-35	
350		-36	-59	149	64	-36	-51	121	52	-44	127	28	-44	138	25	-40	-57	122	41	-40	-57	162	80	-40	-57	162	80	-40	-57	162	80	-40	-57	162	80	-40	-57	162	80			
300		300-1	-51	147	62	299-3	-52	127	295-3	-55	127	14	294-8	-56	145	26	298-7	-55	114	48	295-4	-56	180	73	293-4	-54	168	44	391-2	-54	168	44	391-2	-54	168	44	391-2	-54	168	44		
250		-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63	147	-68	152	63		
200		384-7	-68	147	46	384-7	-63	118	381-9	-54	127	35	380-3	-54	162	32	384-7	-65	097	44	382-6	-55	197	34	381-9	-48	184	28	379-5	-46	184	28	379-5	-46	184	28	379-5	-46	184	28		
170		-61	153	32	147	-59	153	32	147	-54	127	30	-54	144	30	-59	096	41	-55	183	33	-55	183	33	-55	183	33	-55	183	33	-55	183	33	-55	183	33	-55	183	33			
150		-62	156	32	147	-58	156	32	147	-55	124	24	-53	151	24	-61	097	25	-58	218	38	-58	218	38	-58	218	38	-58	218	38	-58	218	38	-58	218	38	-58	218	38			
130		-62	166	21	147	-60	166	21	147	-55	144	15	-54	159	22	-58	104	19	-60	229	28	-60	229	28	-60	229	28	-60	229	28	-60	229	28	-60	229	28	-60	229	28			
110					532-8	-57				-56																																
100						-57				-55																																
90						-55				-55																																
80						-55				-55																																
70						-55				-55																																
60						-55				-55																																
		Inversion				Inversion				Inversion				Inversion				Inversion				Inversion				Inversion																
		863mb 36°				750mb 28°				972mb 47°				950mb 48°				975mb 48°				745mb 24°				730mb 25°																
		820-34°				805-36°				812-800mb 31°				732-710mb 21°				895-877-41°				990-478mb -13°				1053-48mb																
		805-790mb 36°				775-750-28°																																				
Tropopause		I 218mb-77°36,700				I 220mb-71°36,400				I 270mb-64°31,800				I 255mb-68°33,000				I 257mb-63°33,200				I 282mb-60°30,900				I 295mb-55°29,100				I 297mb-56°29,300				Tropopause								

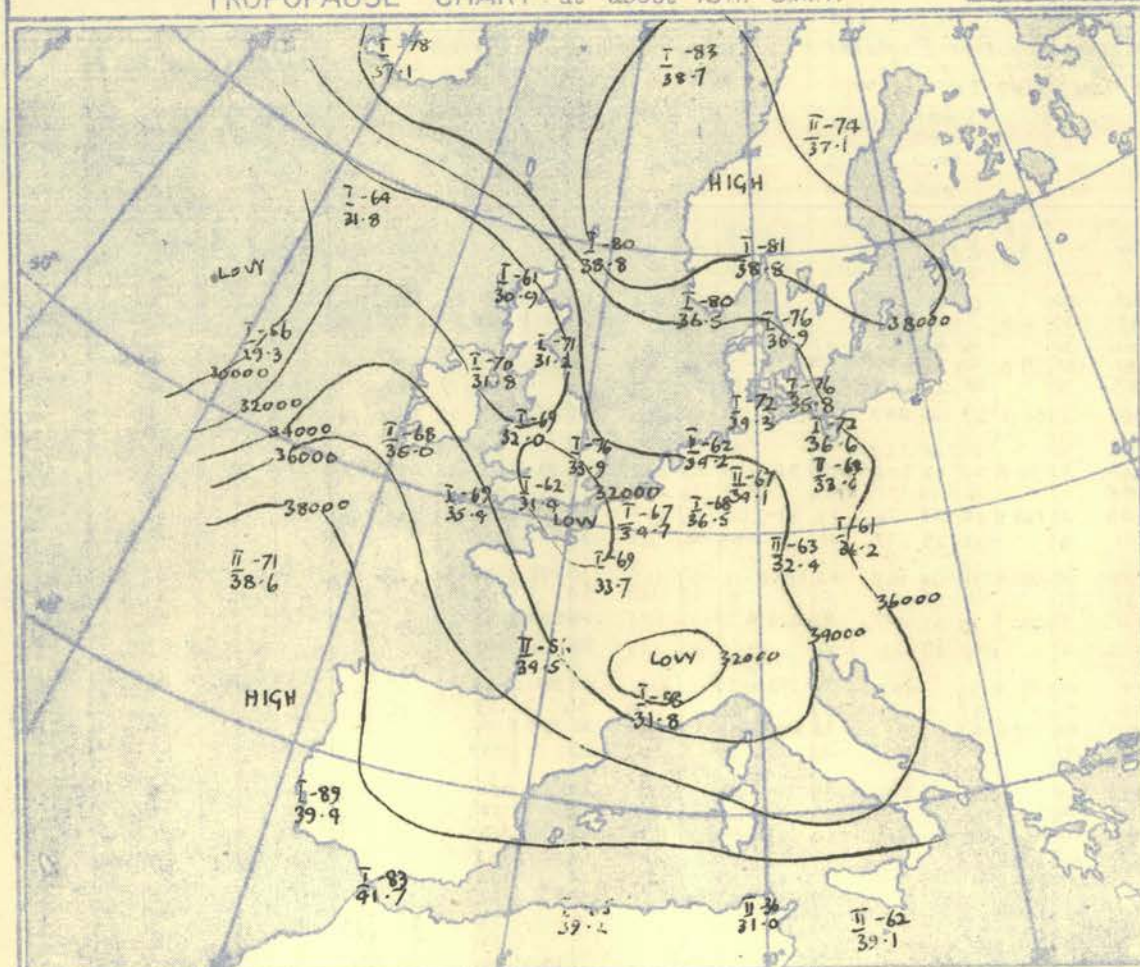


Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 knots



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

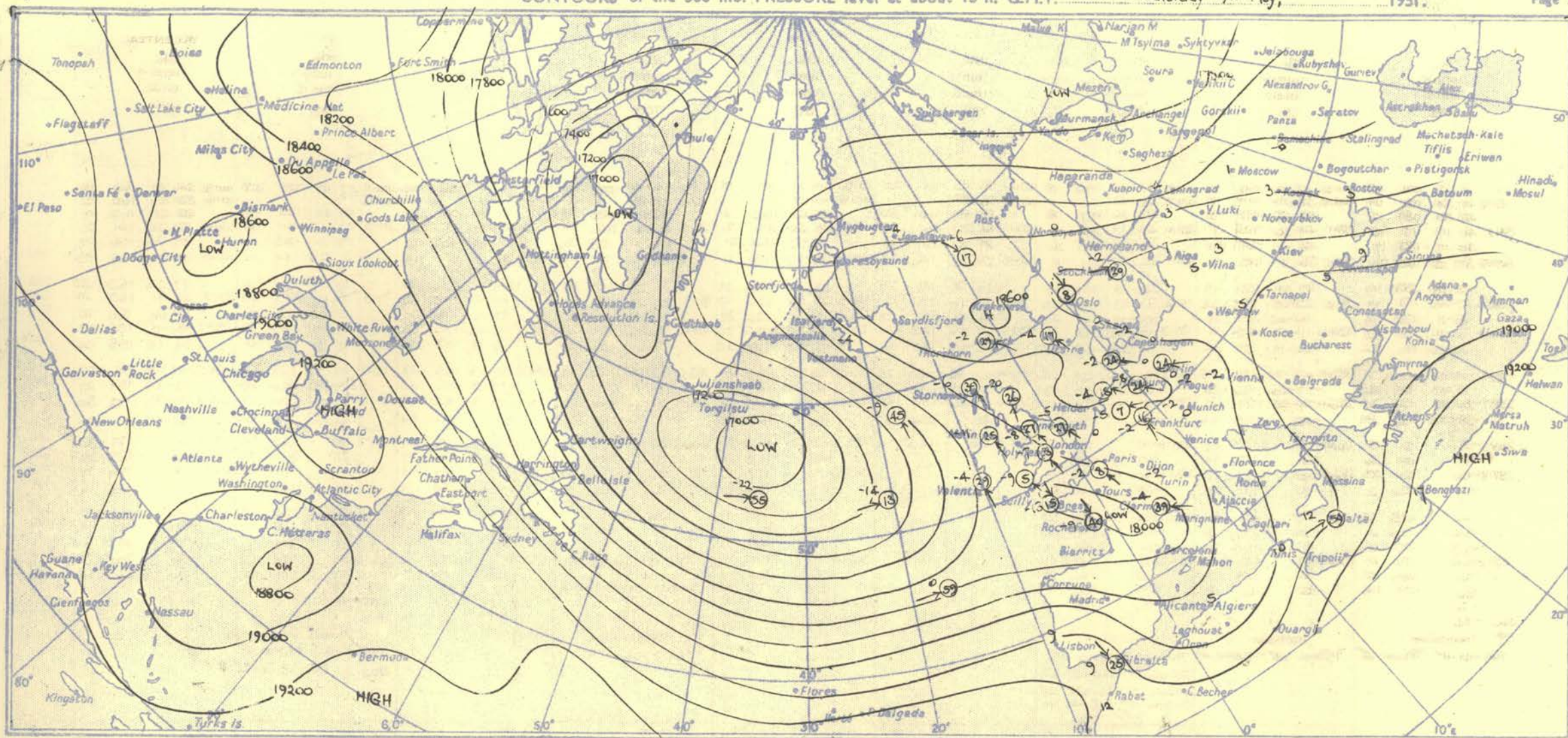


NOTES ON THE AEROLOGICAL SITUATION.

The cold pool remained almost stationary over the Bay of Biscay and the Southeastwards penetration of cold air towards this region continued. Considerable warm advection occurred over southeast Europe.

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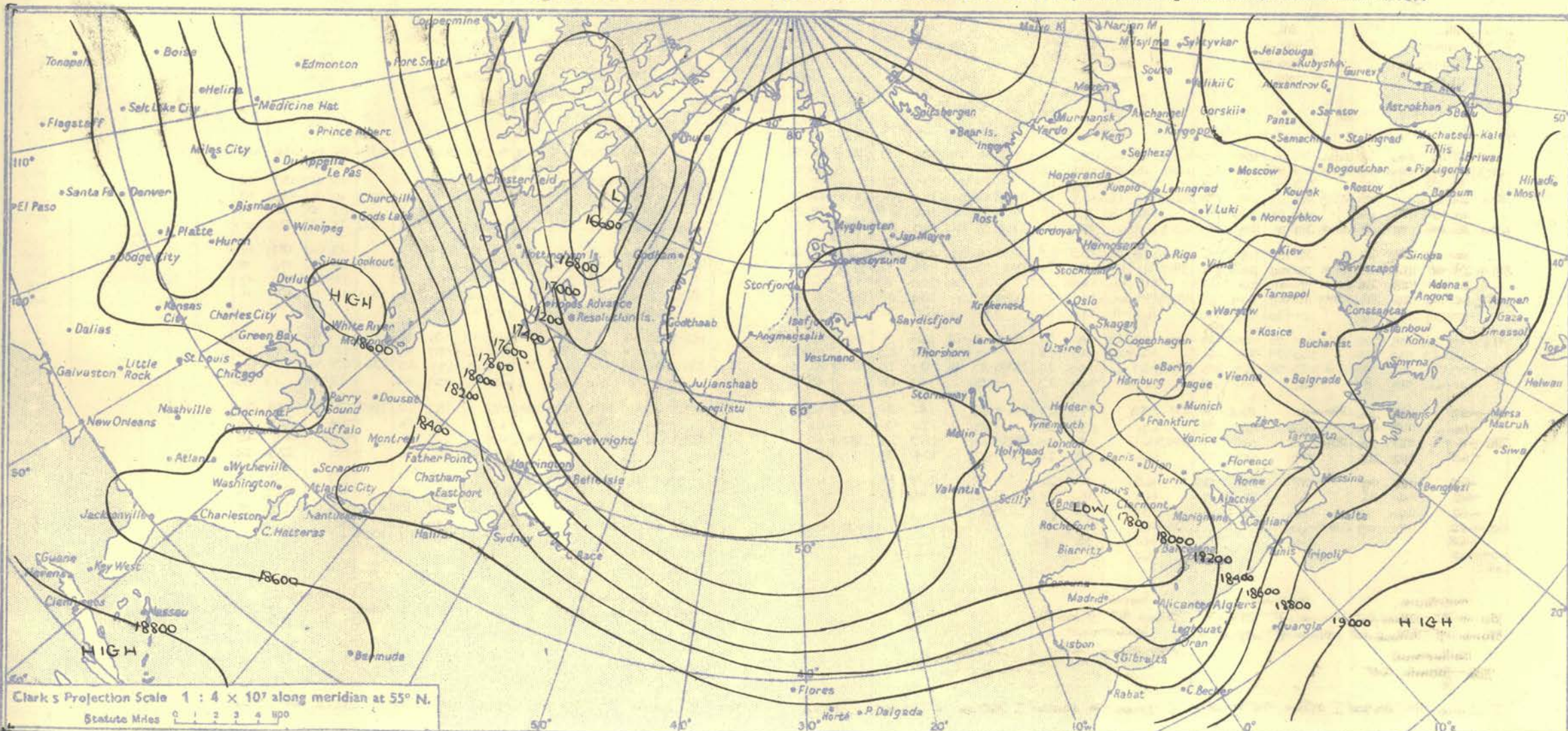
Meteorological Office, Air Ministry, Kingsway, London, W.C.2
NELSON K. JOHNSON, K.C.B., D.Sc., Director.



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

Saturday 19th May

1951.



Clark's Projection Scale 1 : 4 x 10⁷ along meridian at 55° N.
Statute Miles 0 1 2 3 4 5 6 7 8 9 10

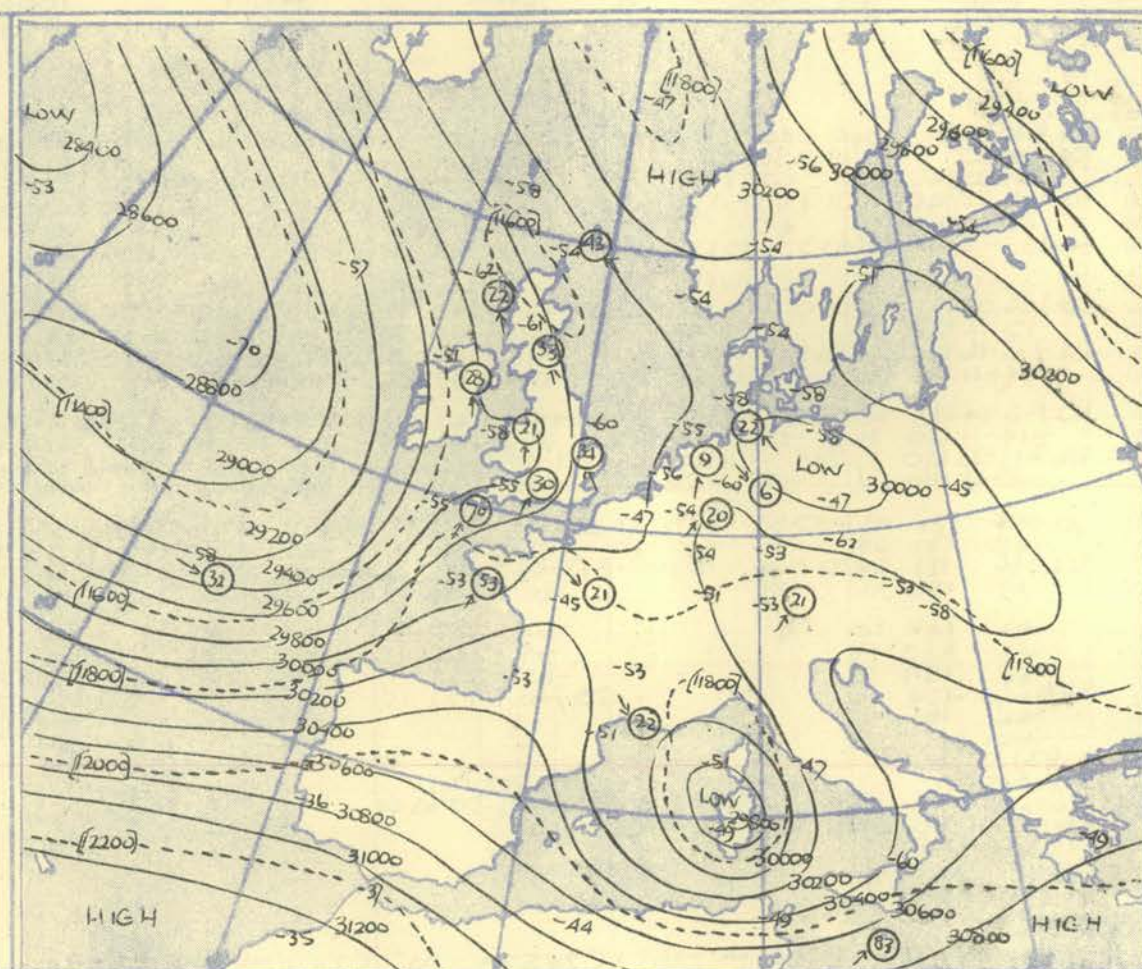
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK						STORNOWAY						LEUCHARS						ALDERGROVE						LIVERPOOL						DOWNHAM MARKET						LARKHILL						CAMBORNE						VALENTIA						STATION
Pressure Time M.S.L. Surf Freezing	15h.			G.M.T.			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												
	1021.5			mb			1015.6			mb			1017.5			mb			1011.5			mb			1010.1			mb			1010.5			mb			1009.5			mb			1009.3			mb			1005.9			mb			
	1011.5			mb			1014.0			mb			1016.7			mb			1002.9			mb			1008.1			mb			1006.2			mb			993.7			mb			998.8			mb			1004			mb			
	750			mb			770			mb			800			mb			796			mb			787			mb			759			mb			792			mb			807			mb			800			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	53	37	100 08	00.4	60	40	060 12	00.2	52	45	090 15	02.6	56	43	110 15	00.6	64	47	070 18	01.2	64	47	075 10	04.4	55	51	230 05	02.9	57	47	135 03	00.3	54	47	160 10	Surf																		
1000	05.8	47	34	071 09	04.3	58	36	092 12	04.7	48	43	097 18	03.4	56	43	110 30	02.8	63	47	070 18	02.9	63	48	075 10	02.6	45	37	119 20	02.6	49	42	165 09	01.6	53	47	160 12	1000																		
950		43	30	089 12		52	27	093 13		42	36	097 18		50	37	110 30		55	43	105 21		56	43	093 18		45	37	119 20		49	42	165 09		48	45	162 19	950																		
900	34.2	41	19	112 15	30.1	49	20	105 17	32.9	43	33	106 19	32.1	44	33	110 33	31.9	48	40	118 21	32.0	50	41	116 18	31.3	45	37	119 20	31.3	43	27	161 08	30.2	48	40	161 22	900																		
850		40	17	123 17		43	11	129 20		36	30	125 21		39	32	139 42		42	33	134 21		45	33	123 20		38	35	121 22		37	31	155 10		37	36	156 29	850																		
800	65.5	37	15	135 20	64.7	36	11	142 20	65.1	32	20	141 19	63.5	33	30	146 39	63.4	34	27	126 21	63.8	38	26	121 19	62.8	32	28	121 24	62.6	31	26	149 12	61.5	32	31	154 33	800																		
750		32	06	133 19		29	09	138 19		22	15	153 19		27	25	141 32		28	20	126 22		31	21	115 18		24	24	124 25		29	17	145 10		27	26	163 33	750																		
700	100.6	27	06	131 19	99.5	22	05	130 24	99.4	13	03	148 25	98.2	20	20	136 29	98.3	23	09	126 27	98.9	27	09	117 20	97.6	23	17	129 28	97.3	23	09	143 08	96.2	22	21	165 31	700																		
650		28	11	133 19		16	02	127 28		00	12	141 32		14	13	137 28		16	06	126 28		21	08	128 25		19	06	129 31		15	04	136 06		15	09	160 32	650																		
600	140.2	16	18	132 22	138.6	11	09	132 31	137.2	07	20	148 31	137.2	07	06	142 26	137.5	10	03	132 26	138.4	13	05	130 26	136.9	11	04	132 33	136.4	09	00	142 03	135.2	08	11	156 33	600																		
550		06	20	131 26		02	19	132 36		17	30	168 27		00	07	142 24		02	05	140 25		05	03	137 27		03	08	108 34		01	16	136 01		04	14	158 34	550																		
500	185.6	02	33	129 29	183.5	08	29	132 39	180.4	20	34	169 26	181.9	10	24	140 25	182.3	08	14	145 27	183.6	05	13	147 27	181.8	07	18	145 38	181.1	09	38	138 05	180.2	04	18	161 29	500																		
450		13	43	127 30		17	40	132 40		25	38	172 33		21	38	148 32		18	25	149 27		15	26	157 23		17	28	156 43		19	52	360 05		12	24	164 27	450																		
400	238.7	24	52	129 35	236.1	29	52	127 51	232.0	35	46	174 34	234.0	34	46	149 29	234.7	31	41	154 34	236.5	27	40	168 23	234.5	27	38	162 48	233.6	27	59	330 29	233.4	22	32	192 30	400																		
350		38	58	126 39		42		128 66		45		171 43		48		154 22		46		162 32		41		178 30		41		159 54		33	55	301 54		34	45	191 25	350																		
300	303.3	52		121 51	300.0	57		125 67	295.6	58		129 58	297.1	60		145 14	298.1	62		166 39	300.6	56		178 37	298.7	55		156 48	298.8	49		293 74	298.5	49		177 30	300																		
250		69		109 60		61		127 50		67		132 41		63				63		164 30		76				58		166 27		65		306 28		64		168 22	250																		
200	387.8	80		120 43	386.5	60		132 35	380.9	60		143 31	384.3	56			384.3	56		177 15	385.7	58		159 23	385.5	54		187 14	384.8	59		264 09	384.7	58		196 27	200																		
170		69		126 2		51		135 25		58		146 22		57				57		168 12		56		166 16		54		189 13		58		262 13		55		194 19	170																		
150		66		128 23		55		140 11		60		152 22		55				55		157 11		56		163 17		53		189 13		56		232 15		56		190 21	150																		
130		66		136 21		54		157 17		61		151 15		57				57		164 15		57		150 18		53		159 07		57		205 10		56		188 18	130																		
110		63		157 16		51		164 18		61		151 20		58				58		162 14		58				56		158 10		58		209 09		56		189 16	110																		
100	533.3	64		151 15	536.7	52		147 18	527.7	61		151 19	530.4	57			530.4	57		161 12		56				56		172 14	533.3	57		198 15	534.1	56		200 12	100																		
80		62		145 15		52		148 17		62		156 18		56				56		164 12		56				56		180 16		59		197 12		56		220 14	80																		
80		60		159 14		50		161 18		59		160 16		55				55		173 14		55				56		190 16		57				56			70																		
70		54								50		160 15		55				55				55				56		193 16		51				56			60																		
60	Inversion 900mb. 41°-88mb. 42°						Inversion 91.5mb. 43°-700mb. 49°						Inversion 970mb. 40°-730mb. 43° 725mb. 15°-710mb. 16° 670mb. 01°-660mb. 02° 545mb. -18°-528mb. -16° Isothermal 430-870mb. 43°												Isothermal 916-896mb. 50°																														

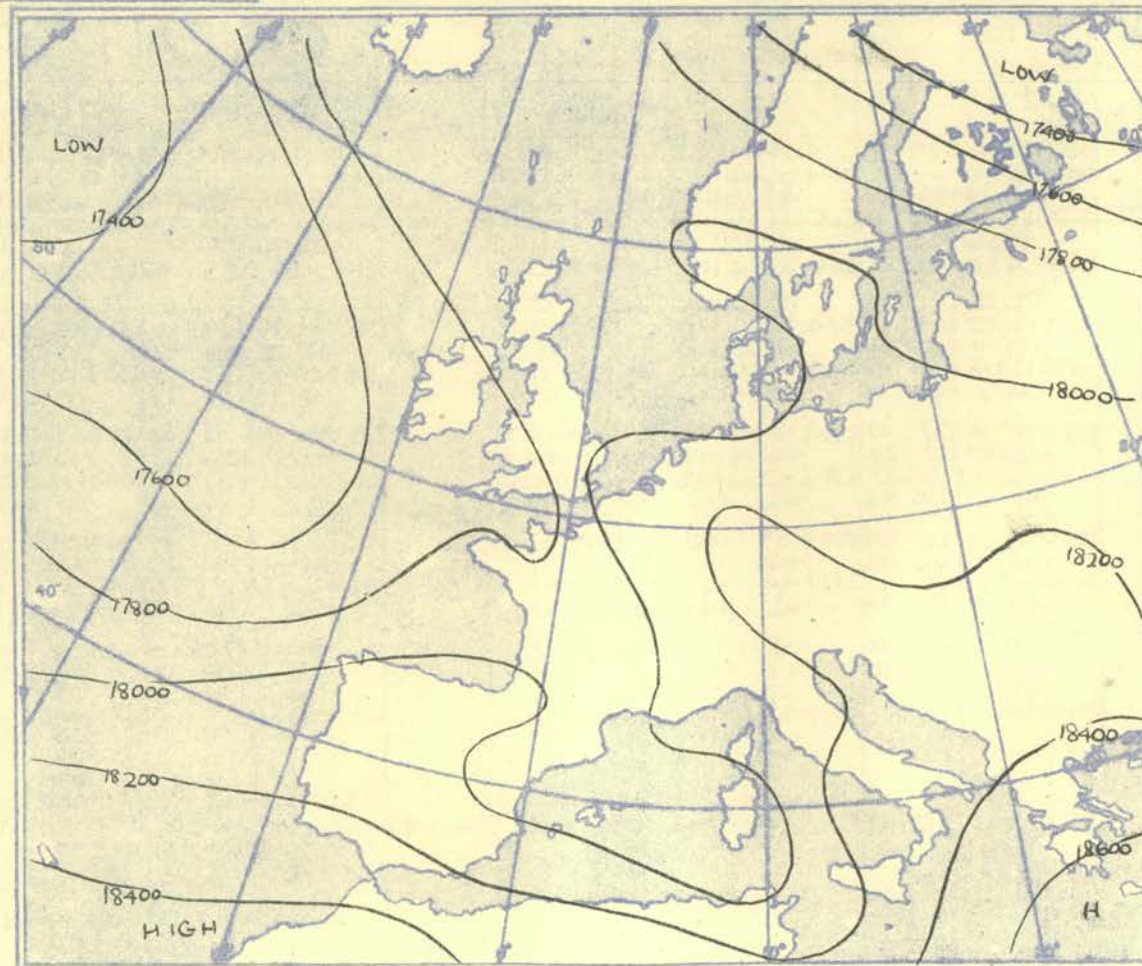
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

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



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



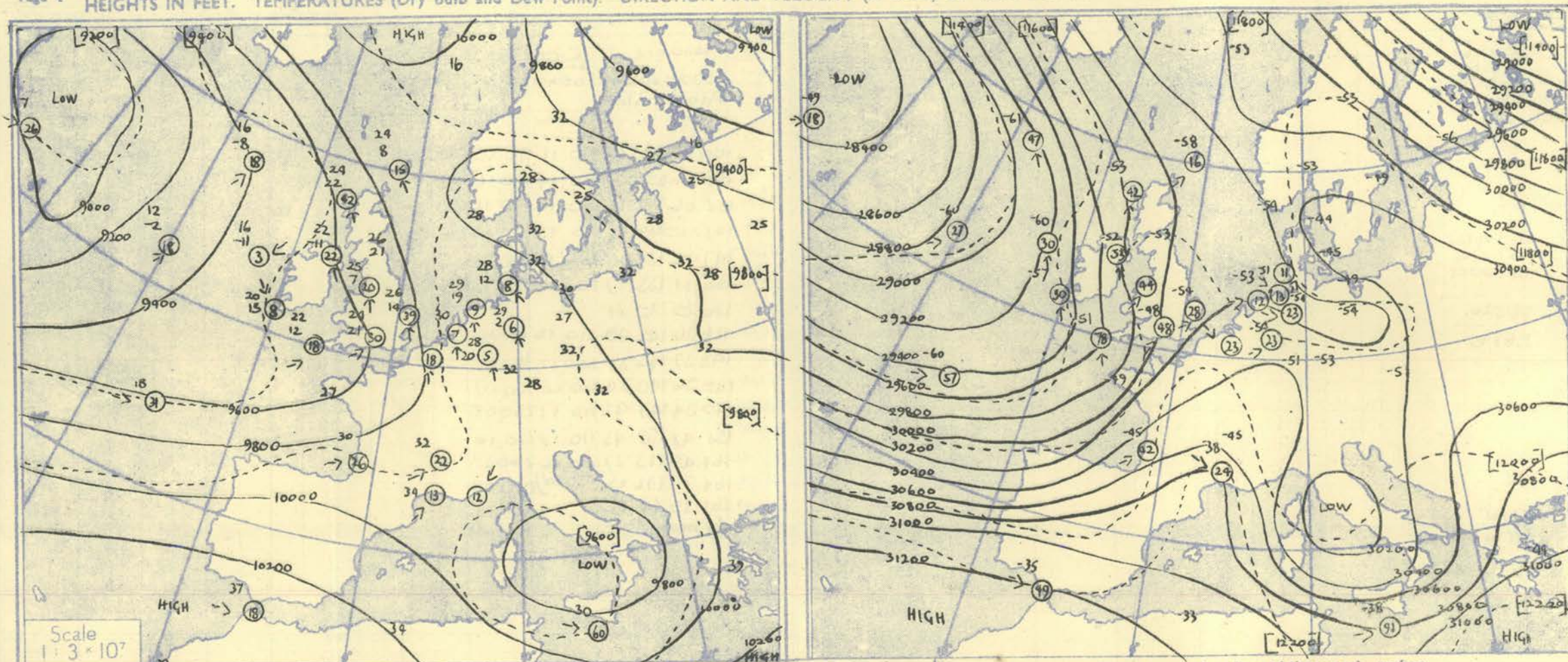
Isopleths of Thickness 500-1000mb.

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

NEPHOSCOPE OBSERVATIONS

Ship	Weather Observer	Weather Observer	Weather Observer	Weather Observer	Cirrus	Cirrus	Cirrus	Cirrus	Weather Explorer	Ship
Lat/Long	57.3°N 15.7°W	57.8°N 16.7°W	58.1°N 17.0°W	58.9°N 17.8°W	52.5°N 20.0°W	52.5°N 20.0°W	52.5°N 20.0°W	52.5°N 20.0°W	52.6°N 19.3°W	Lat/Long
Time	03h	09h	15h	21h	03h	09h	15h	21h	09h	Time
M.S.L.	mb	mb	mb	mb	mb	mb	mb	mb	mb	M.S.L.
Surf	999	997	1003	1006	1000	1002	1002	1003	1003	Surf
Freezing	815	795	850	850	870	875	875	850	850	Freezing
Pressure	51.49	50.9	50.7	51.6	50.40	50.40	50.40	50.40	50.40	Pressure
Height	1000	1000	1000	1000	1000	1000	1000	1000	1000	Height
Temp.	47.45	42.38	42.38	44.10	43.34	43.34	43.34	43.34	43.34	Temp.
Dew	32.39	37.33	37.33	37.32	36.28	36.28	36.28	36.28	36.28	Dew
Wind	37.36	35.26	35.26	32.15	32.26	32.26	32.26	32.26	32.26	Wind
Dir.	59.5	58.5	58.5	59.2	59.2	59.2	59.2	59.2	59.2	Dir.
Vel.	29	28	28	27	27	27	27	27	27	Vel.
Knobs	23	23	23	23	23	23	23	23	23	Knobs
Temp.	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	Temp.
Dew	03.14	03.14	03.14	03.14	03.14	03.14	03.14	03.14	03.14	Dew
Wind	177.1	176.3	176.3	177.1	177.1	177.1	177.1	177.1	177.1	Wind
Dir.	13	13	13	12	12	12	12	12	12	Dir.
Vel.	24	21	21	24	24	24	24	24	24	Vel.
Knobs	32	32	32	32	32	32	32	32	32	Knobs
Temp.	229.1	228.2	228.2	229.1	229.1	229.1	229.1	229.1	229.1	Temp.
Dew	32	34	34	32	32	32	32	32	32	Dew
Wind	43	47	47	44	44	44	44	44	44	Wind
Dir.	57	58	58	57	57	57	57	57	57	Dir.
Vel.	57	58	58	57	57	57	57	57	57	Vel.
Knobs	292.9	291.5	291.5	292.9	292.9	292.9	292.9	292.9	292.9	Knobs
Temp.	72	65	65	72	72	72	72	72	72	Temp.
Dew	378.0	377.8	377.8	378.0	378.0	378.0	378.0	378.0	378.0	Dew
Wind	58	53	53	58	58	58	58	58	58	Wind
Dir.	58	53	53	58	58	58	58	58	58	Dir.
Vel.	60	60	60	60	60	60	60	60	60	Vel.
Knobs	526.3	526.3	526.3	526.3	526.3	526.3	526.3	526.3	526.3	Knobs
Temp.	150	150	150	150	150	150	150	150	150	Temp.
Dew	130	130	130	130	130	130	130	130	130	Dew
Wind	110	110	110	110	110	110	110	110	110	Wind
Dir.	100	100	100	100	100	100	100	100	100	Dir.
Vel.	90	90	90	90	90	90	90	90	90	Vel.
Knobs	80	80	80	80	80	80	80	80	80	Knobs
Temp.	70	70	70	70	70	70	70	70	70	Temp.
Dew	60	60	60	60	60	60	60	60	60	Dew
Wind	245mb-74° 33, 600'	261mb-68° 32, 100'	275mb-67° 31, 100'	289mb-60° 30, 000'	312mb-65° 27, 900'	261mb-68° 31, 900'	294mb-59° 27, 600'	294mb-59° 27, 600'	294mb-59° 27, 600'	Wind
Dir.	245mb-74° 33, 600'	261mb-68° 32, 100'	275mb-67° 31, 100'	289mb-60° 30, 000'	312mb-65° 27, 900'	261mb-68				

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



Scale
1:3 x 10⁷

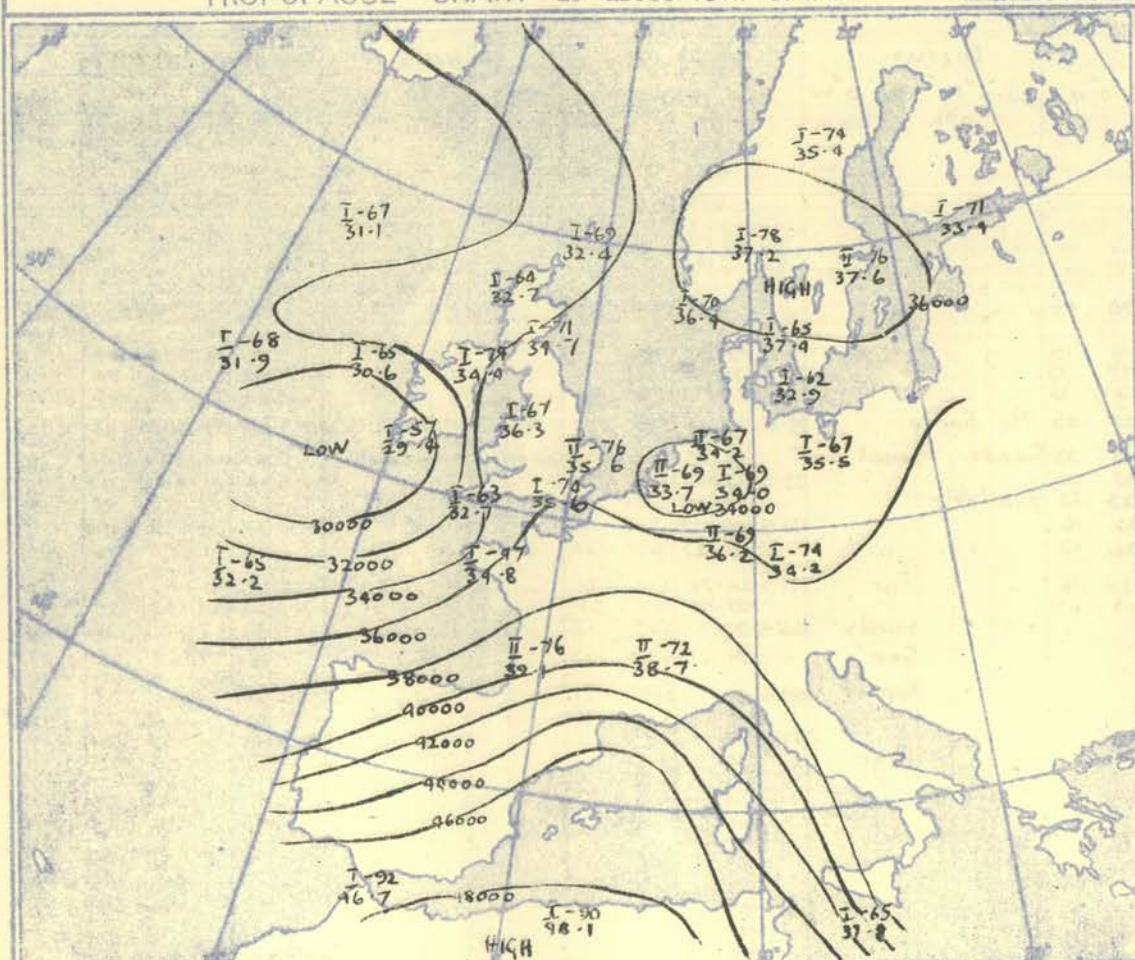
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

100 50 40 30 20 10 0 10 knots

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

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



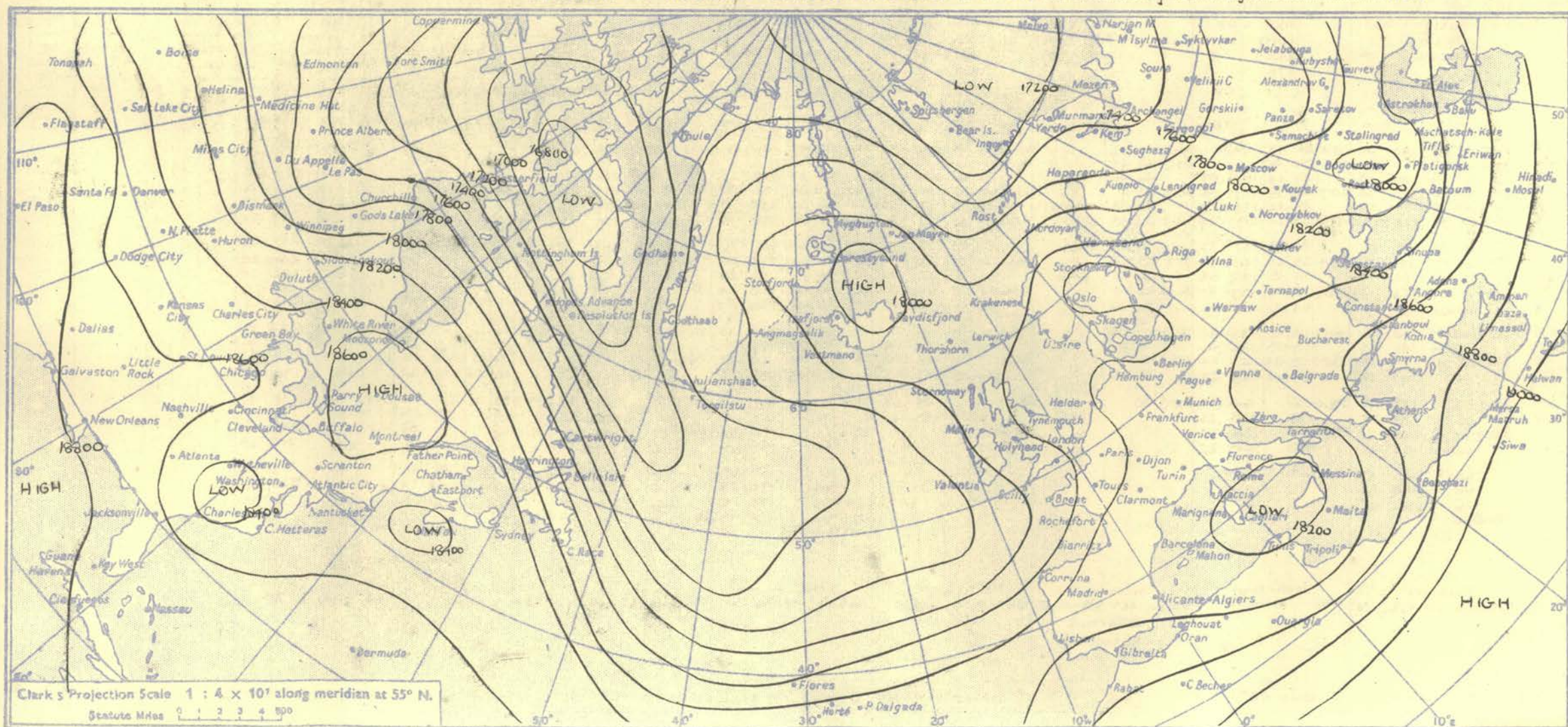
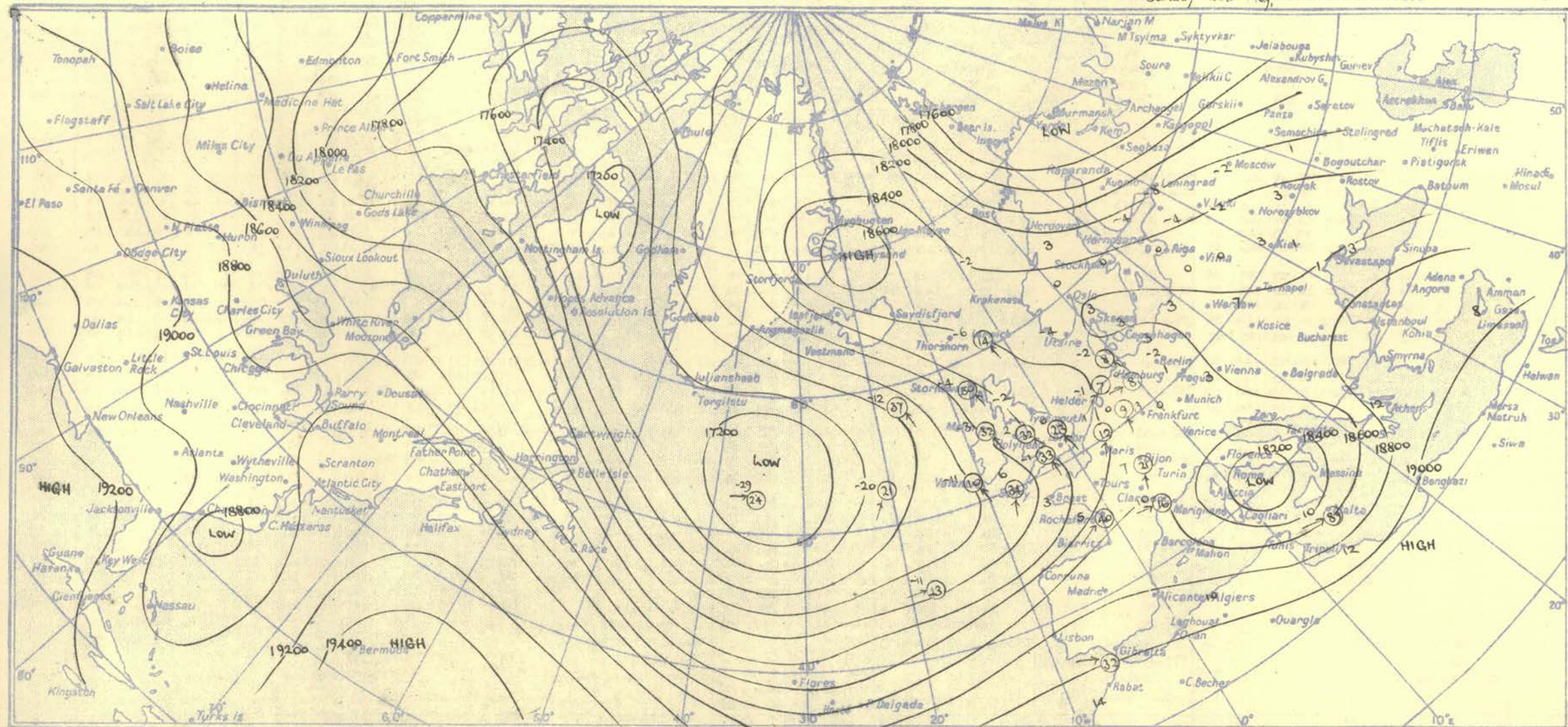
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over the Pyrenees moved southeast into the Mediterranean and rapidly warmed out. The large and rather flat cold trough occupying the North Atlantic persisted with a minor warm ridge moving round its perimeter.

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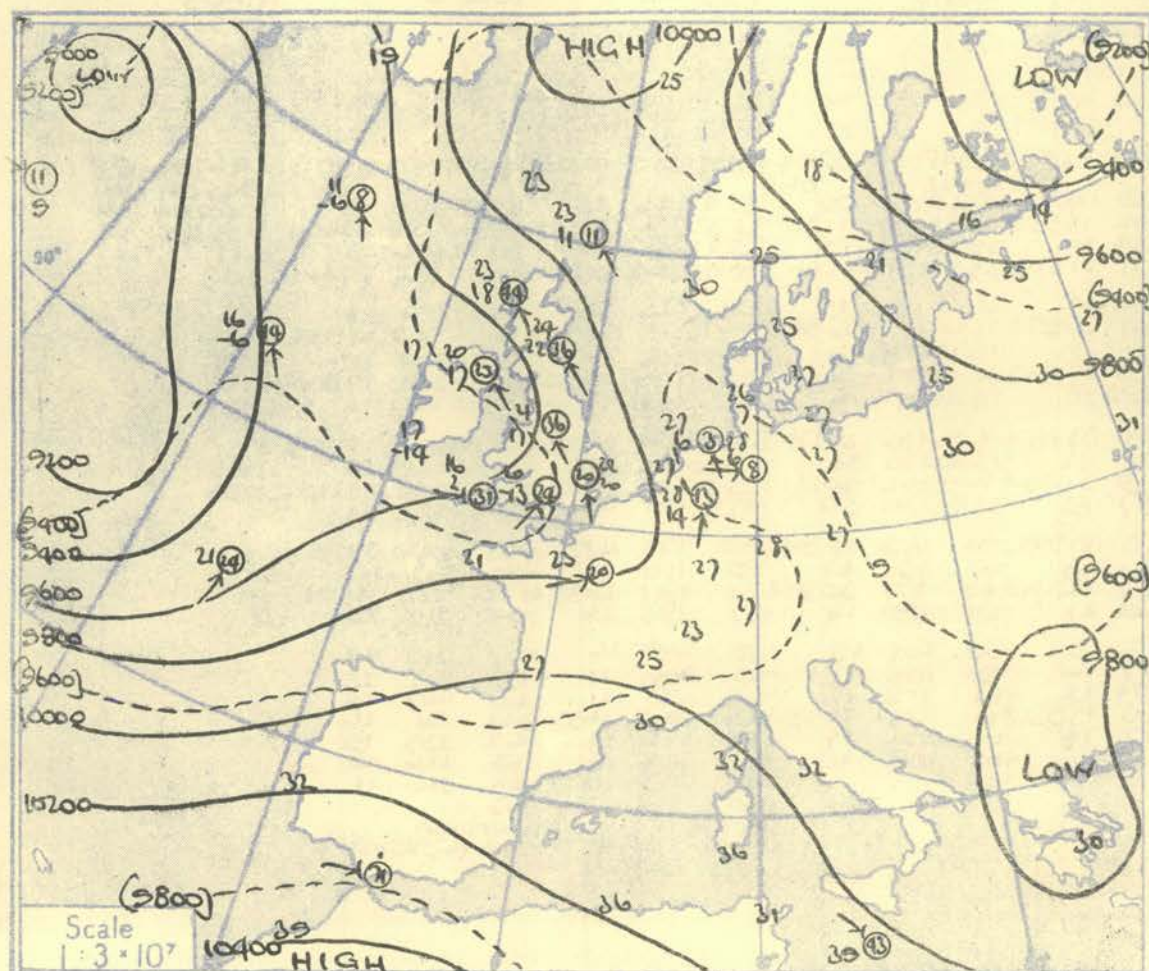


[illegible]

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

STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				Valentia				STATION	
Time M.S.L. Surf Pressure		03hrs 1014.3 1004.2 750		G.M.T. mb mb mb		03hrs 1007.5 1005.9 784		G.M.T. mb mb mb		03hrs 1007.9 1007.1 779		G.M.T. mb mb mb		03hrs 1004.2 995.4 825		G.M.T. mb mb mb		03hrs 1005.4 1005.4 810		G.M.T. mb mb mb		03hrs 1008.5 1004.0 785		G.M.T. mb mb mb		03hrs 1009.0 992.7 820		G.M.T. mb mb mb		03hrs 1009.5 998.8 837		G.M.T. mb mb mb		03hrs 1006.5 1005 840		G.M.T. mb mb mb		Time M.S.L. Surf Pressure	
Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Pressure mb					
Surf		02.74444050		13.045048130		08.0024746		02.64847110		07.065049180		08.0124948120		07.0444241230		06.0294644240		05.035046290		05.035046290		05.035046290		05.035046290		05.035046290		05.035046290		05.035046290		05.035046290		05.035046290		Surf			
1000		03.844440		02.05048130		02.14645		01.34544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		01.54544124		1000			
950		51.23090		18.4843138		17.4240		45.44124		47.42189		48.44211		43.41255		45.40250		45.40250		45.40250		45.40250		45.40250		45.40250		45.40250		45.40250		45.40250		45.40250		950			
900		32.54721030		17.006483803		16.3044137		35.84139126		30.04238192		30.94438197		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		900			
850		40.17054		18.3934126		28.3932		35.34126		36.35184		33.35191		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		850			
800		64.03918088		16.6202425124		34.6173424		61.03023134		26.613430171		21.623332151		22.6172905234		26.6202509254		24.6112703		24.6112703		24.6112703		24.6112703		24.6112703		24.6112703		24.6112703		24.6112703		24.6112703		800			
750		32.11094		14.2823123		41.2825		35.23133		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		750			
700		39.02311120		11.969231812		44.2825		44.2825		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		700			
650		15.11121		12.1812132		43.1816		43.1816		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		650			
600		18.41624106		16.6363		44.1358		44.1358		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		600			
550		01.28102		12.03513		44.0500		44.0500		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		550			
500		15.8443124		10.1813		42.1810		42.1810		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		500			
450		13.49137		11.1626132		43.1116		43.1116		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		450			
400		23.64252121		15.2341		44.2343		44.2343		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		400			
350		41.124		18.2550140		45.3542		45.3542		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		350			
300		30.65126		0.25845		44.2551		44.2551		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		300			
250		7.70		10.10		43.10		43.10		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		250			
200		35.271139		15.2468		41.3184		41.3184		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		200			
170		6.7140		15.15		40.12		40.12		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		170			
150		63.127		14.62		42.18		42.18		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		150			
130				63.157		16.63		43.16		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		130			
110				28.666		53.63		63.64		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		110			
90						62.60		62.60		26.25162		28.26190		23.307383251		21.3093930257		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		24.301393288		90			
80		Inversion		1000ms44.99ms52		1600ms51.0ms50		Inversion		920ms41.95ms41		Isothermal		950-900ms42		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		993ms43.92ms46		80			
70		Isothermal		682-656ms20				Inversion		920ms41.95ms41		Isothermal		950-900ms42		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		993ms43.92ms46		70			
60								Inversion		920ms41.95ms41		Isothermal		950-900ms42		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		Inversion		993ms43.92ms46		993ms46.98ms48		993ms43.92ms46		60			
Tropopause		4250ms-70°		33800'		I228ms-82°		35800'		I211ms-80°		37400'		I260ms-66°		32500'		I255ms-65°		33100'		I255ms-67°		33500'		I285ms-62°		30500'		I277ms-59°		31200'		I285ms-64°		30400'		Tropopause	
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				STATION					
Time M.S.L. Surf Pressure		03hrs 1013.2 1003.1 721		G.M.T. mb mb mb		03hrs 1006.8 1005.2 774		G.M.T. mb mb mb		03hrs 1008.0 1007.1 810		G.M.T. mb mb mb		03hrs 1003.5 993.8 847		G.M.T. mb mb mb		03hrs 1006.3 1004.3 832		G.M.T. mb mb mb		03hrs 1009.8 1005.3 758		G.M.T. mb mb mb		03hrs 1010.7 994.7 828		G.M.T. mb mb mb		03hrs 1011.2 1000.6 800		G.M.T. mb mb mb		Time M.S.L. Surf Pressure					
Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Height ft./100 Temp. °F. °C. Wind Dir. Vel. knots		Pressure mb							
Surf		02.74641060		14.045045110		07.024847100		07.0264948130		100.65346160		100.125447215		09.0445145250		09.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		10.0195348203		Surf			
1000		03.846410		1.85045		02.14747		02.14747		01.8		02.75448		02.5		03.15348		03.15348		03.15348		03.15348		03.15348		03.15348		03.15348		03.15348		03.15348		03.15348		1000			
950		48.20068		17.4844104																																			

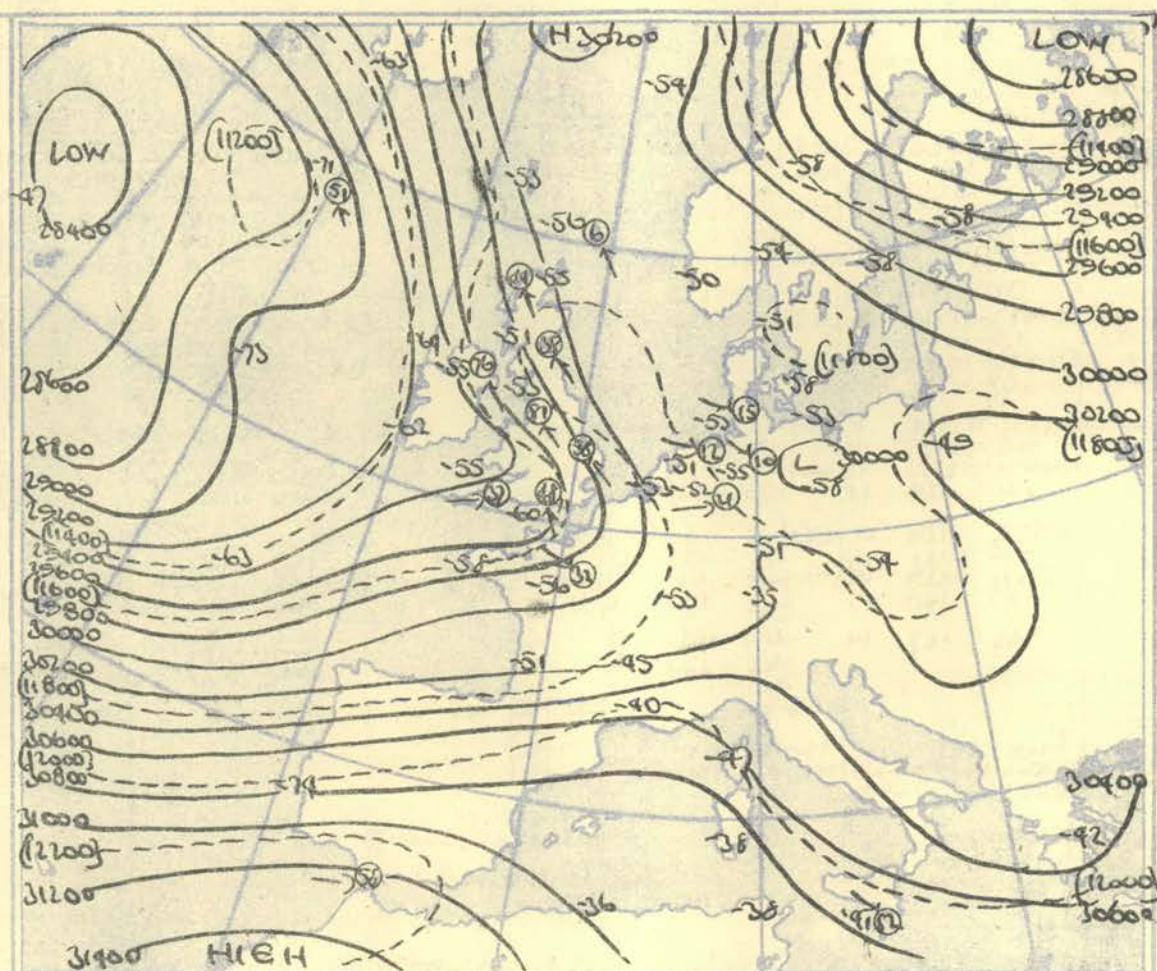
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb. levels at about 03h G.M.T.



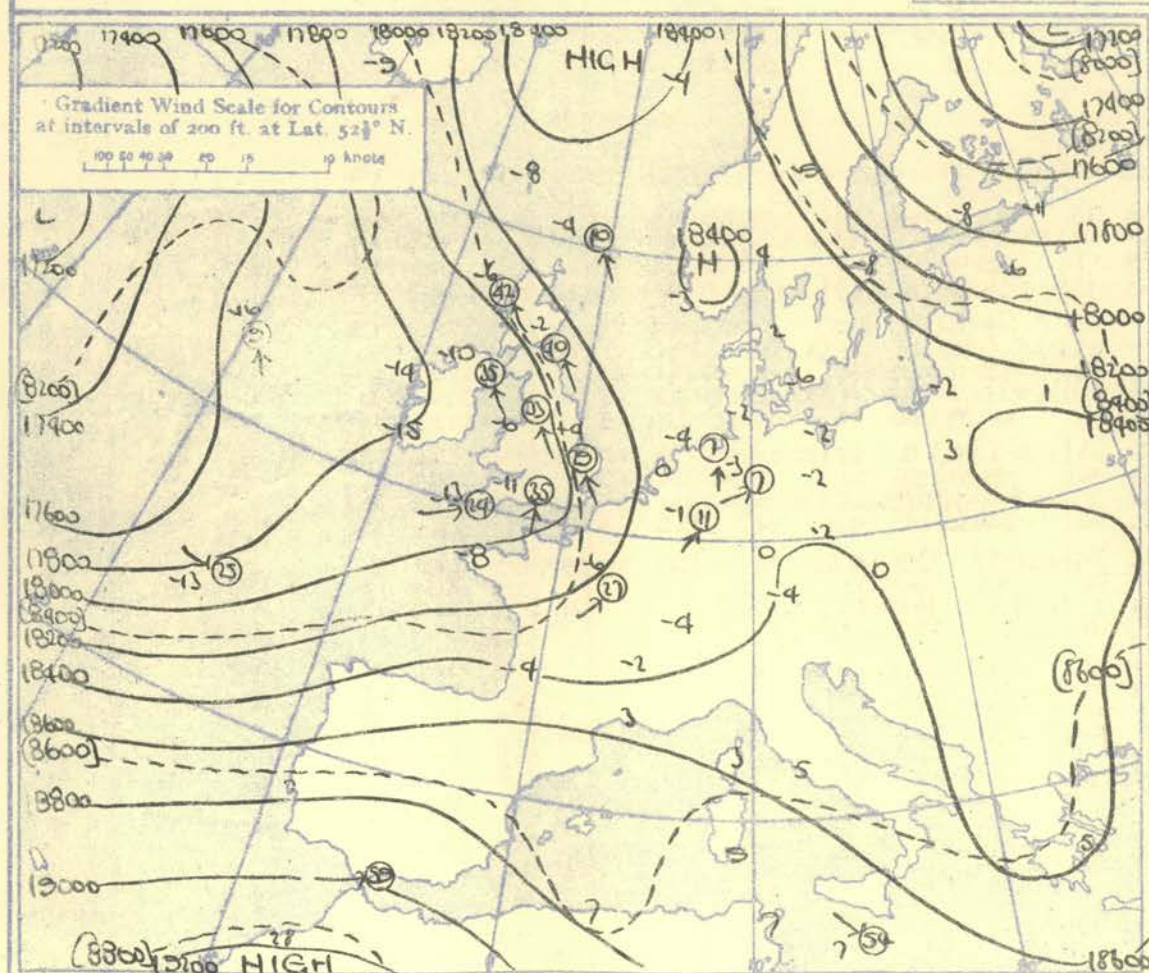
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

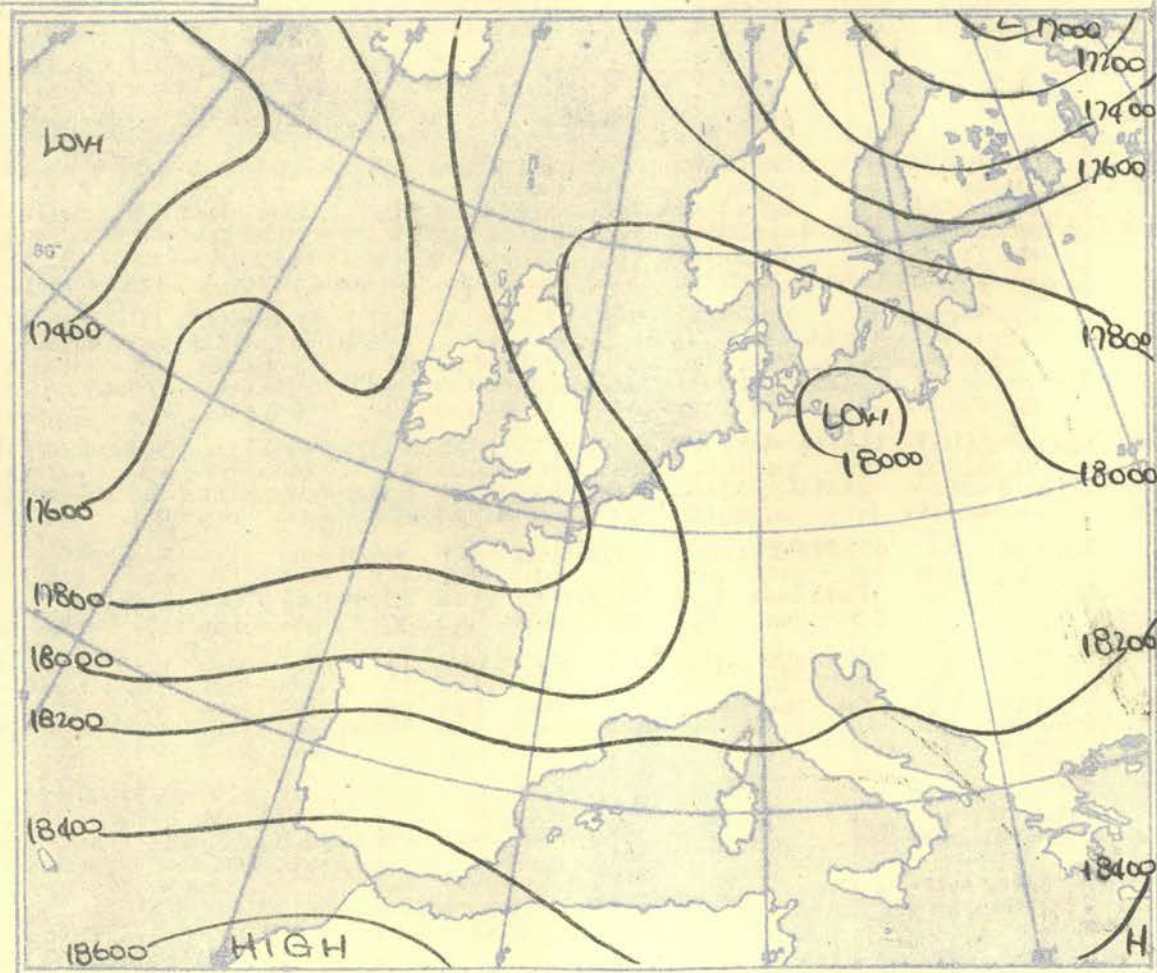
100 50 40 30 20 10 knots



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



The continuous lines are contour lines of the 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.

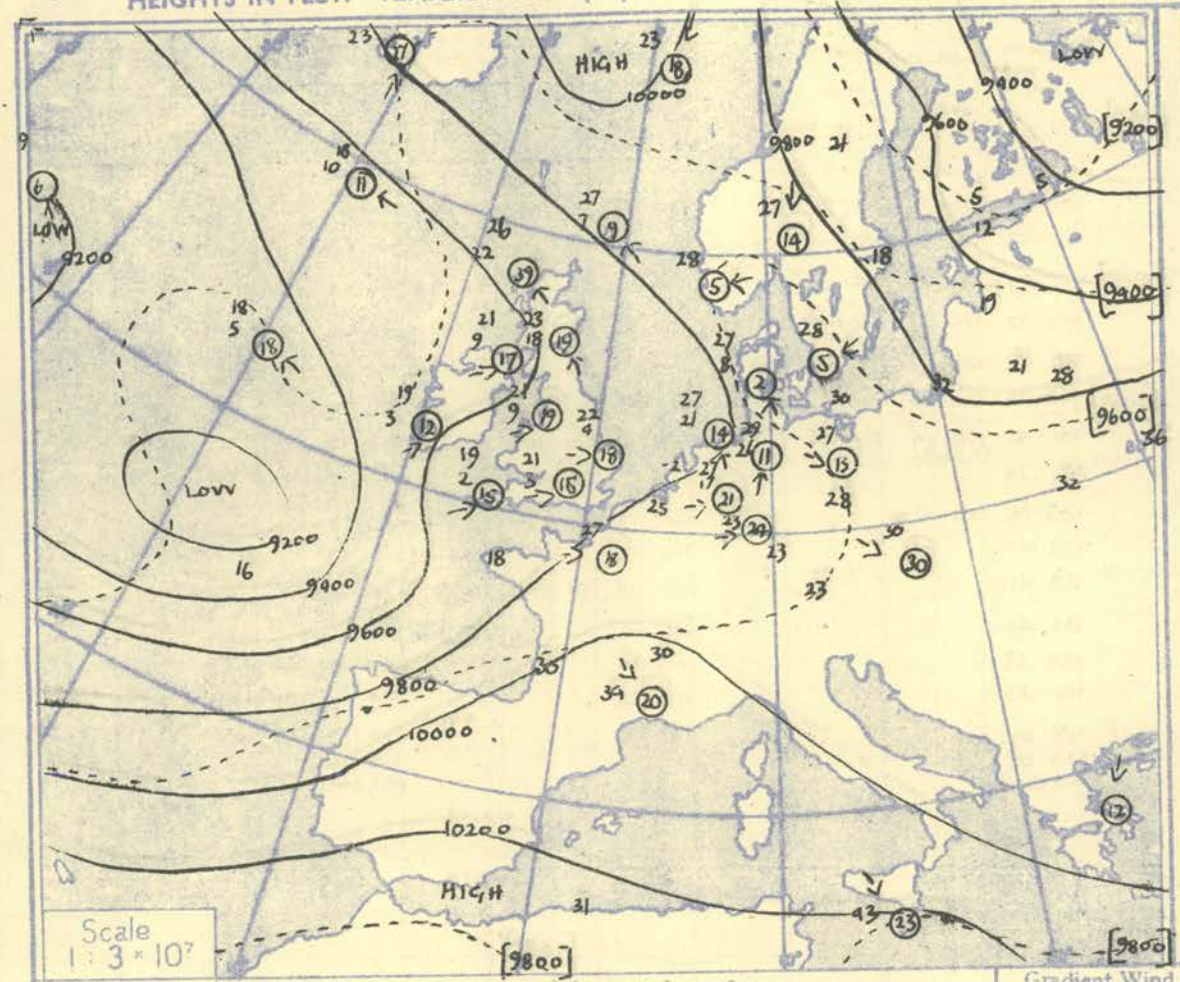
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.														
Place														
Time														
Type														
Feet														
Surf.														
1,000														
2,000														
3,000														
4,000														
5,000														
6,000														
8,000														
10,000														
14,000														
18,000														
24,000														
30,000														
40,000														
50,000														
NEPHOSCOPE OBSERVATIONS														
Place														
Time Type														
Dir. Vel.														

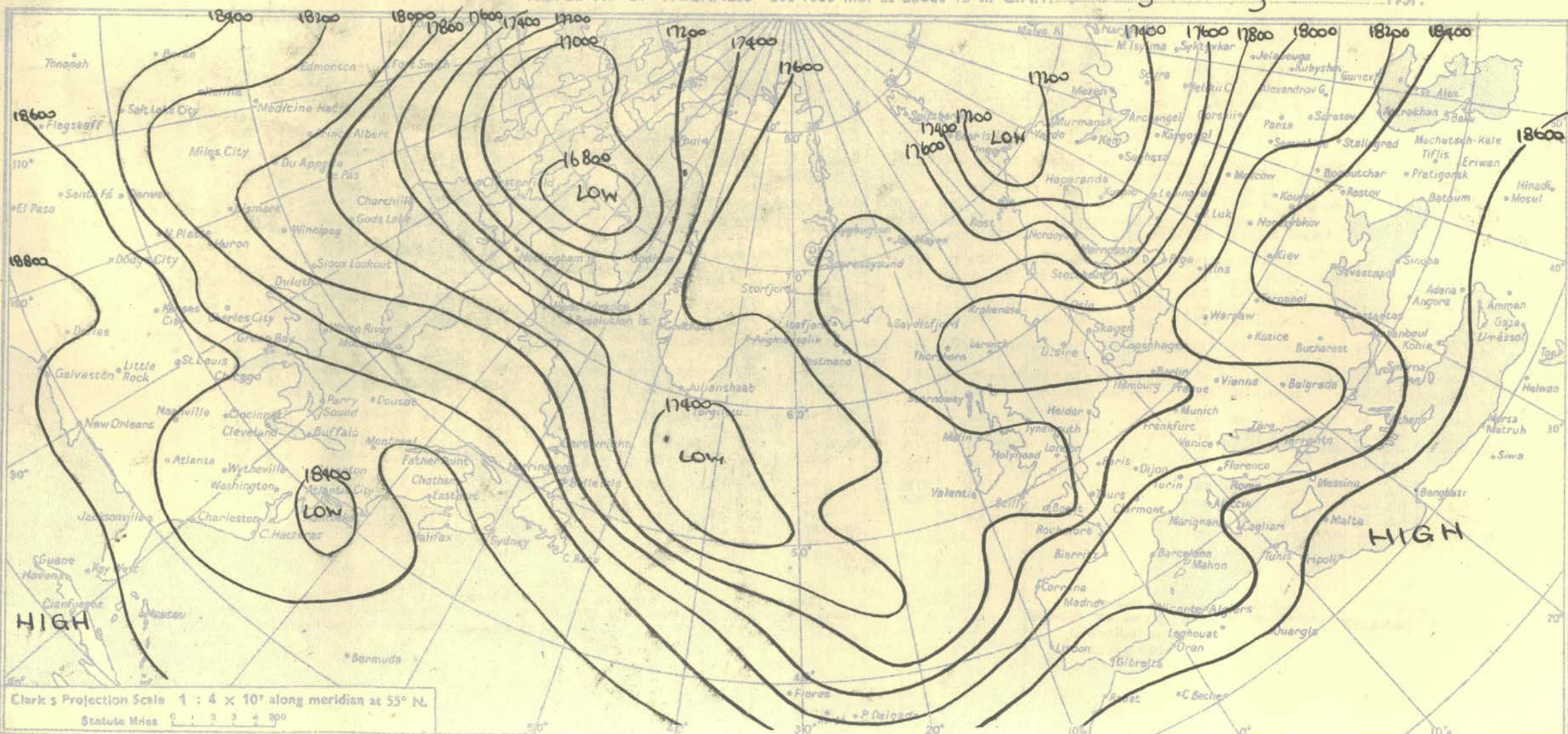
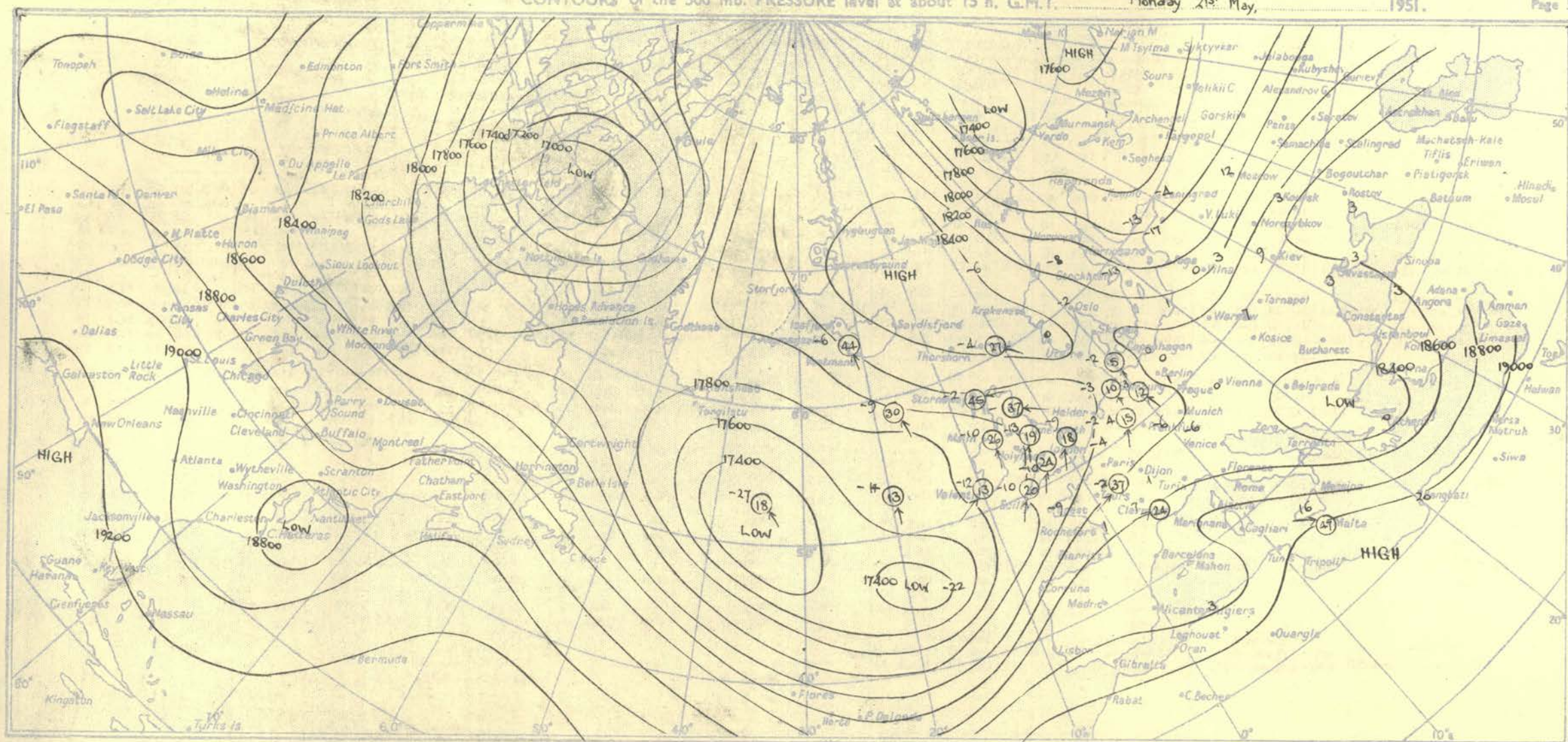
NEPHOSCOPE OBSERVATIONS

[illegible]

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

[illegible]





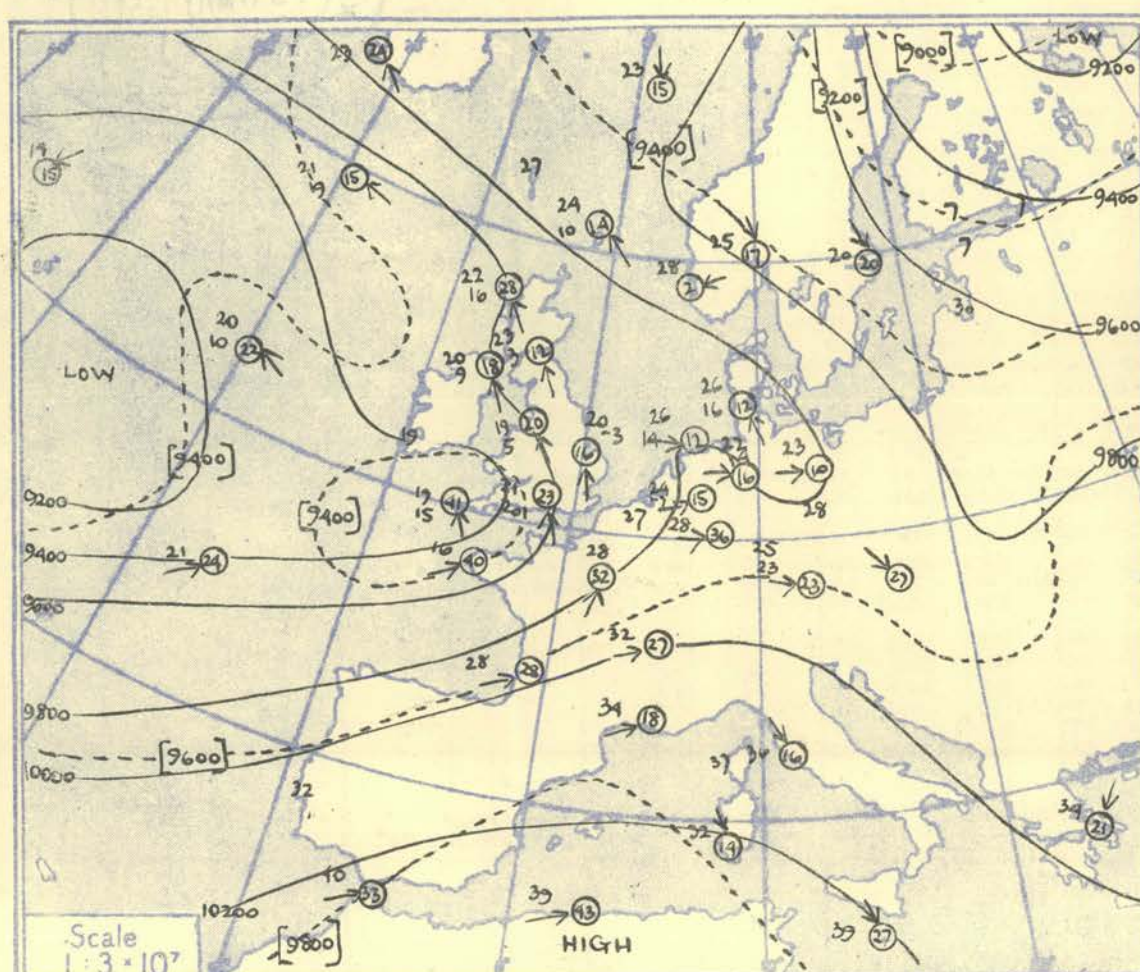
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure mb	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.		Time M.S.L.	Surf Pressure																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			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																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			735	735	778	778	790	790	813	813	831	831	822	822	815	815	800	800	800	800																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	Dew °F.	Wind Dir. Vel.	Temp. °F.	D

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

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L.	03h	03h	03h	03h	03h	03h	03h	03h	03h	Time M.S.L.
Surf	1011.8	1007.9	1009.3	1006.7	1007.6	1003.3	1007.0	998.6	998.2	Surf
Freezing	771	815	818	816	825	791	834	833	800	Freezing
Pressure mb	1011.8	1007.9	1009.3	1006.7	1007.6	1003.3	1007.0	998.6	998.2	Pressure mb
Height ft/100	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Height ft/100
Surf	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	02.7 44 42 080	Surf
1000	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	03.1 43 41 095	1000
950	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	31.7 49 36 104	950
900	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	43.3 36 30 137	900
850	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	29.20 144 08	850
800	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	24.10 125 149	800
750	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	21.00 112 121	750
700	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	15.12 113 23	700
650	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	06.12 113 23	650
600	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	600
550	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	550
500	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	500
450	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	450
400	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	400
350	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	350
300	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	300
250	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	250
200	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	200
170	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	170
150	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	150
130	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	130
110	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	110
100	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	100
90	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	90
80	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	80
70	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	70
60	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	01.01 113 23	60
Inversion	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	984 mb 92° - 944 mb 52°	Inversion
Tropopause	211 mb - 75° 37,500	247 mb - 77°	250 mb - 71° 33,518	314 mb - 56° 28,500	260 mb - 67° 22,800	263 mb - 70° 32,300	337 mb - 48° 26,700	268 mb - 72° 31,500		Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L.	09h	09h	09h	09h	09h	09h	09h	09h	09h	Time M.S.L.
Surf	1011.6	1008.9	1009.6	1006.7	1005.3	1008.3	1004.4	998.4	998.2	Surf
Freezing	750	840	803	823	805	857	800	808		Freezing
Pressure mb	1011.6	1008.9	1009.6	1006.7	1005.3	1008.3	1004.4	998.4	998.2	Pressure mb
Height ft/100	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Temp. Dew	Height ft/100
Surf	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	02.7 45 43 080	Surf
1000	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	03.1 45 43 080	1000
950	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	31.7 47 39 115	950
900	42.28 119	42.28 119	42.28 119	42.28 119	42.28 119	42.28 119	42.28 119	42.28 119	42.28 119	900
850	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	63.3 38 22 116	850
800	32.14 116	32.14 116	32.14 116	32.14 116	32.14 116	32.14 116	32.14 116	32.14 116	32.14 116	800
750	26.00 116	26.00 116	26.00 116	26.00 116	26.00 116	26.00 116	26.00 116	26.00 116	26.00 116	750
700	19.07 115	19.07 115	19.07 115	19.07 115	19.07 115	19.07 115	19.07 115	19.07 115	19.07 115	700
650	12.15 114	12.15 114	12.15 114	12.15 114	12.15 114	12.15 114	12.15 114	12.15 114	12.15 114	650
600	06.20 114	06.20 114	06.20 114	06.20 114	06.20 114	06.20 114	06.20 114	06.20 114	06.20 114	600
550	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	550
500	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	500
450	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	450
400	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	400
350	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	350
300	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	300
250	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	250
200	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	200
170	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	170
150	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	150
130	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	130
110	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	110
100	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	100
90	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	90
80	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	80
70	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	70
60	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	01.04 114	60
Inversion	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	975 mb 92° - 945 mb 53°	Inversion
Tropopause	212 mb - 73° 37,300	247 mb - 69°	232 mb - 65° 25,350	275 mb - 68° 31,200	245 mb - 64° 34,200	260 mb - 65° 32,700	343 mb - 48° 26,100	213 mb - 59° 28,500		Tropopause

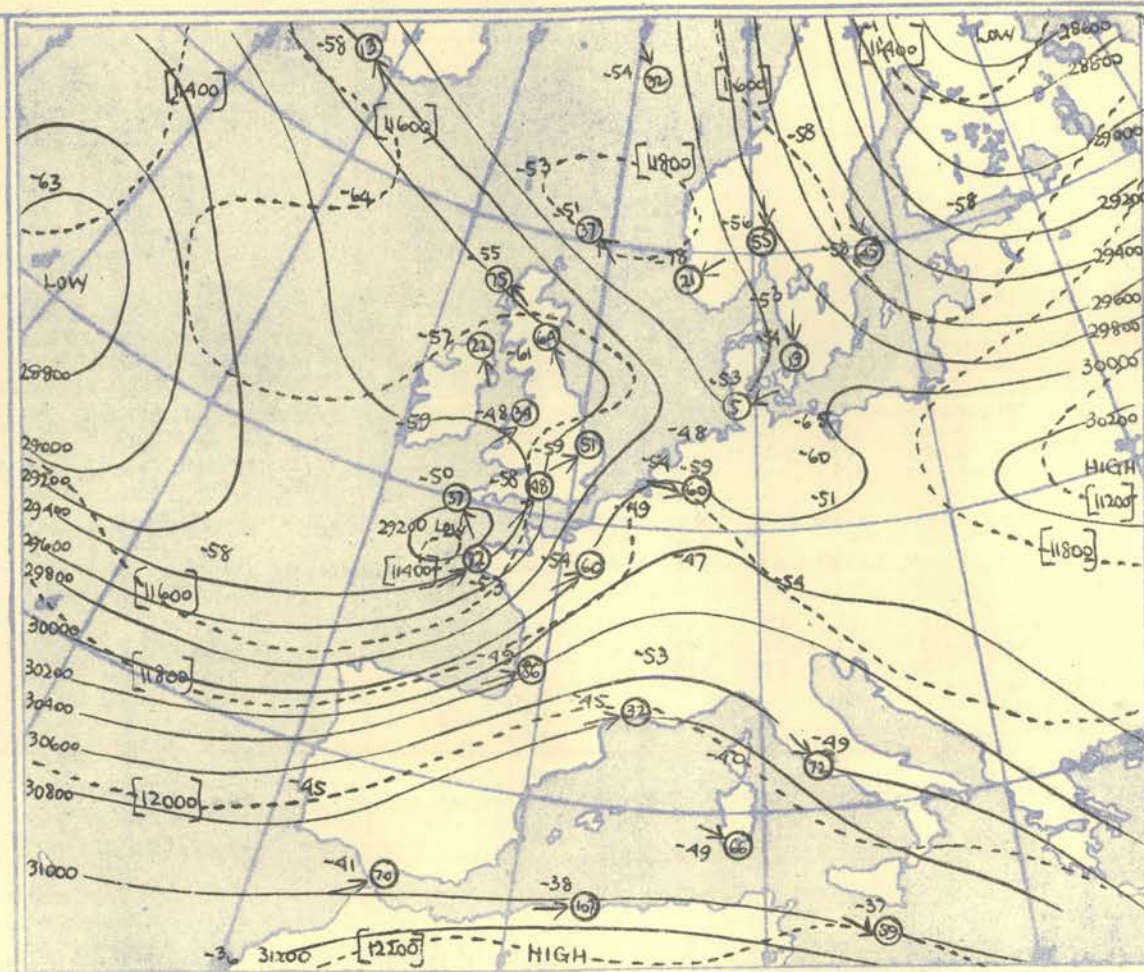
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



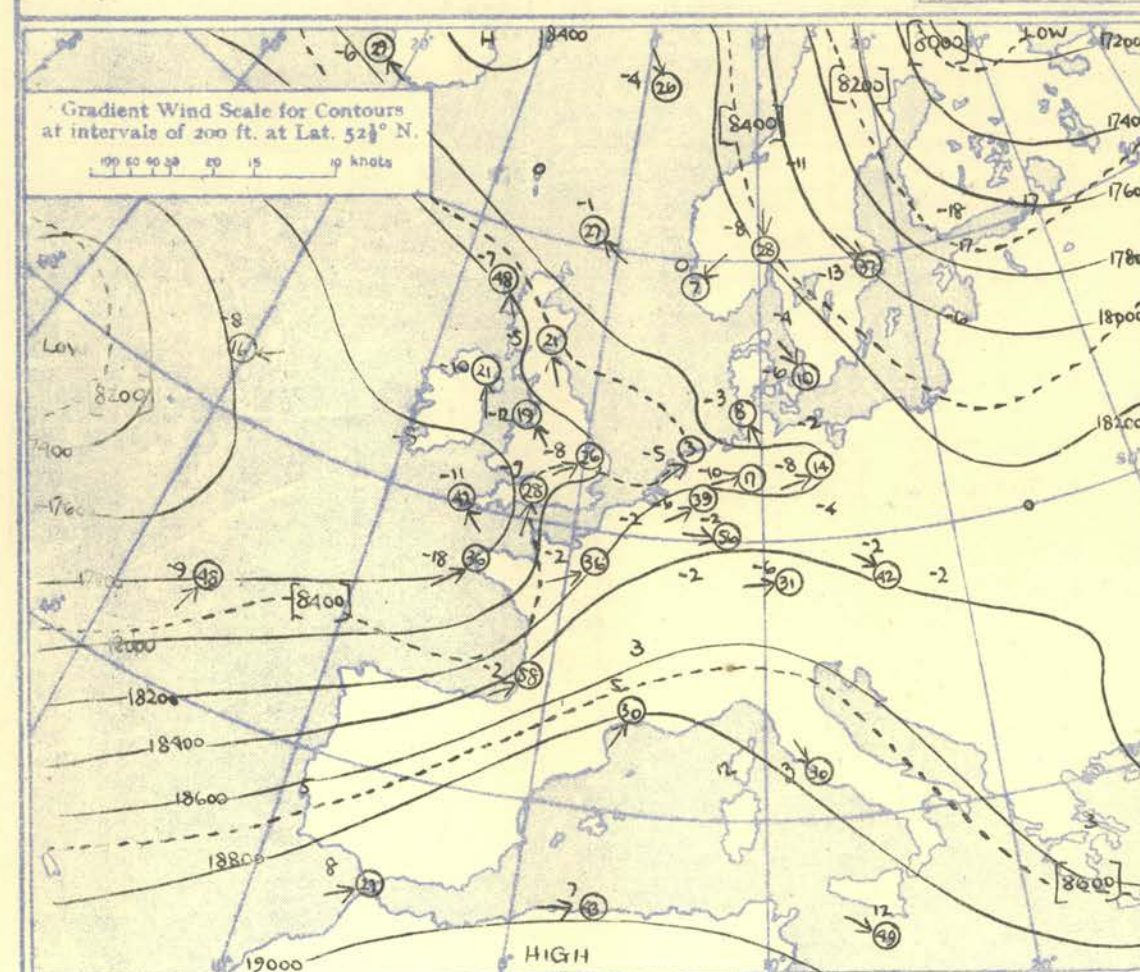
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

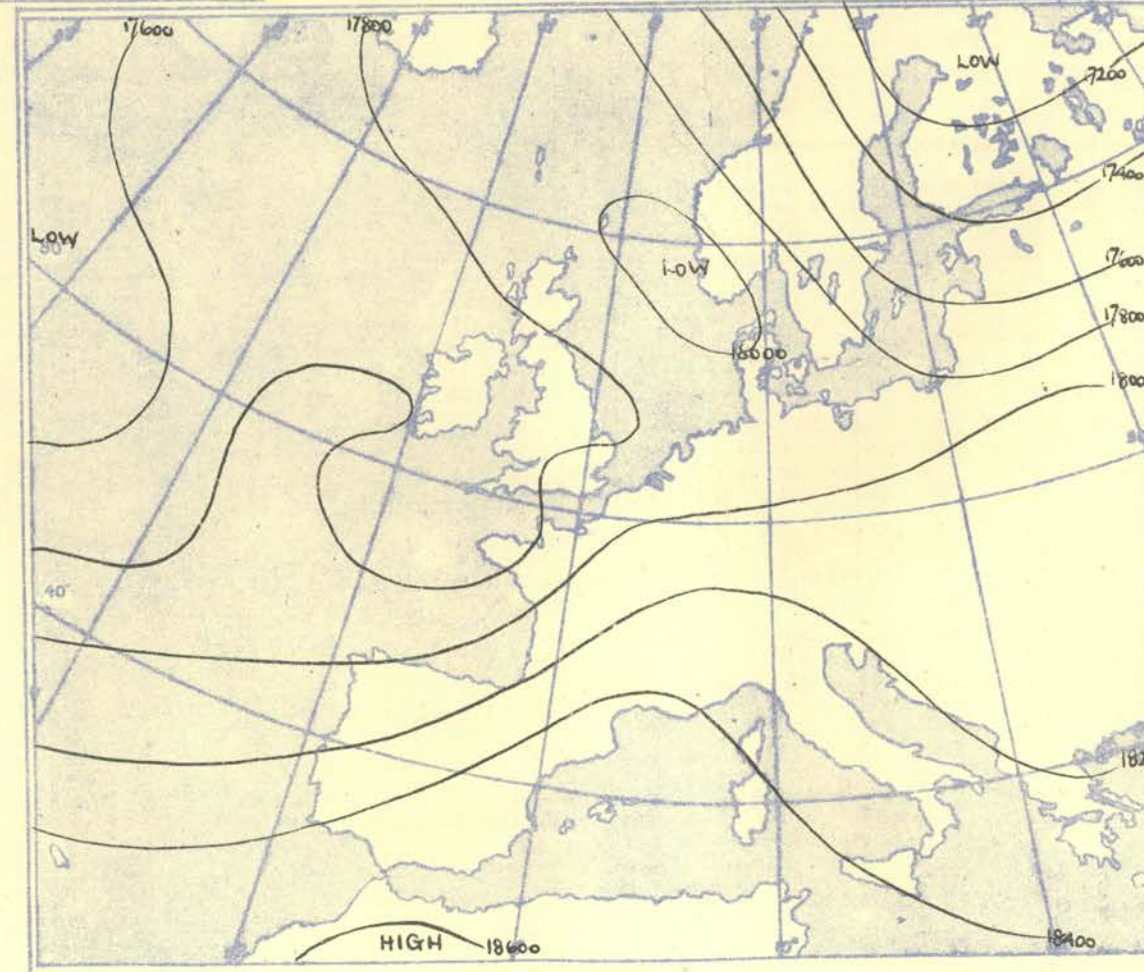
100 80 60 40 20 10 knots



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	Pressure	Height	Temp.	Dew	Time	Pressure	Height	Temp.	Dew
1430h	mb	ft./100	°F.	°F.	Time	Pressure	Height	Temp.	Dew
1004	mb	ft./100	°F.	°F.	1004	mb	ft./100	°F.	°F.
1002.5	mb	ft./100	°F.	°F.	1002.5	mb	ft./100	°F.	°F.
810	mb	ft./100	°F.	°F.	810	mb	ft./100	°F.	°F.
Surf	mb	ft./100	°F.	°F.	Surf	mb	ft./100	°F.	°F.
1000	mb	ft./100	°F.	°F.	1000	mb	ft./100	°F.	°F.
950	mb	ft./100	°F.	°F.	950	mb	ft./100	°F.	°F.
900	mb	ft./100	°F.	°F.	900	mb	ft./100	°F.	°F.
850	mb	ft./100	°F.	°F.	850	mb	ft./100	°F.	°F.
800	mb	ft./100	°F.	°F.	800	mb	ft./100	°F.	°F.
750	mb	ft./100	°F.	°F.	750	mb	ft./100	°F.	°F.
700	mb	ft./100	°F.	°F.	700	mb	ft./100	°F.	°F.
650	mb	ft./100	°F.	°F.	650	mb	ft./100	°F.	°F.
600	mb	ft./100	°F.	°F.	600	mb	ft./100	°F.	°F.
550	mb	ft./100	°F.	°F.	550	mb	ft./100	°F.	°F.
500	mb	ft./100	°F.	°F.	500	mb	ft./100	°F.	°F.
450	mb	ft./100	°F.	°F.	450	mb	ft./100	°F.	°F.
400	mb	ft./100	°F.	°F.	400	mb	ft./100	°F.	°F.
350	mb	ft./100	°F.	°F.	350	mb	ft./100	°F.	°F.
300	mb	ft./100	°F.	°F.	300	mb	ft./100	°F.	°F.
250	mb	ft./100	°F.	°F.	250	mb	ft./100	°F.	°F.
200	mb	ft./100	°F.	°F.	200	mb	ft./100	°F.	°F.
170	mb	ft./100	°F.	°F.	170	mb	ft./100	°F.	°F.

Cloud
4 Cu
8 907-762mb
5 Ac As
8 698-442..
4 Cs
8 382-357..
Inversion
334mb-51-
320...-49

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

Place	Cambarne	Cambarne	Cirrus	Ronaldsway	Liverpool	Cambarne	Stornaway	Stornaway	Stornaway	Stornaway	Place	
Time	03h	09h	09h	09h	09h	15h	15h	21h	21h	21h	Time	
Type					Pilar	Pilar	Pilar	Pilar	Pilar	Pilar	Type	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet	
Surf.	100	25	230	25	080	32	090	14	140	12	225	30
1,000	130	39	220	42	080	34	100	30	135	20	230	39
2,000	140	33	230	42	080	36	080	29	138	27	237	40
3,000	150	33	230	44	090	38	070	31	135	27	240	39
4,000	150	36	240	44	090	42	070	31	129	28	243	40
5,000	450	36	240	42	090	41	070	34	122	29	246	39
6,000	150	36	240	40					113	30	248	41
8,000	150	36	240	42					111	26	254	44
10,000	160	41	240	46	080	32			107	27	253	45
14,000	150	39	240	45	090	28			192	28	255	43
18,000	120	42	240	45	090	18			119	28	263	37
24,000	110	40	240	46	140	24			133	30	269	49
30,000	150	37	240	34					133	29	261	74
40,000	210	25	230	19					176	16	247	32
50,000	200	12	210	16					185	11	241	25
	190	18							202	11	197	15
	(57,000')								(53,000')	(55,000')	(48,000')	

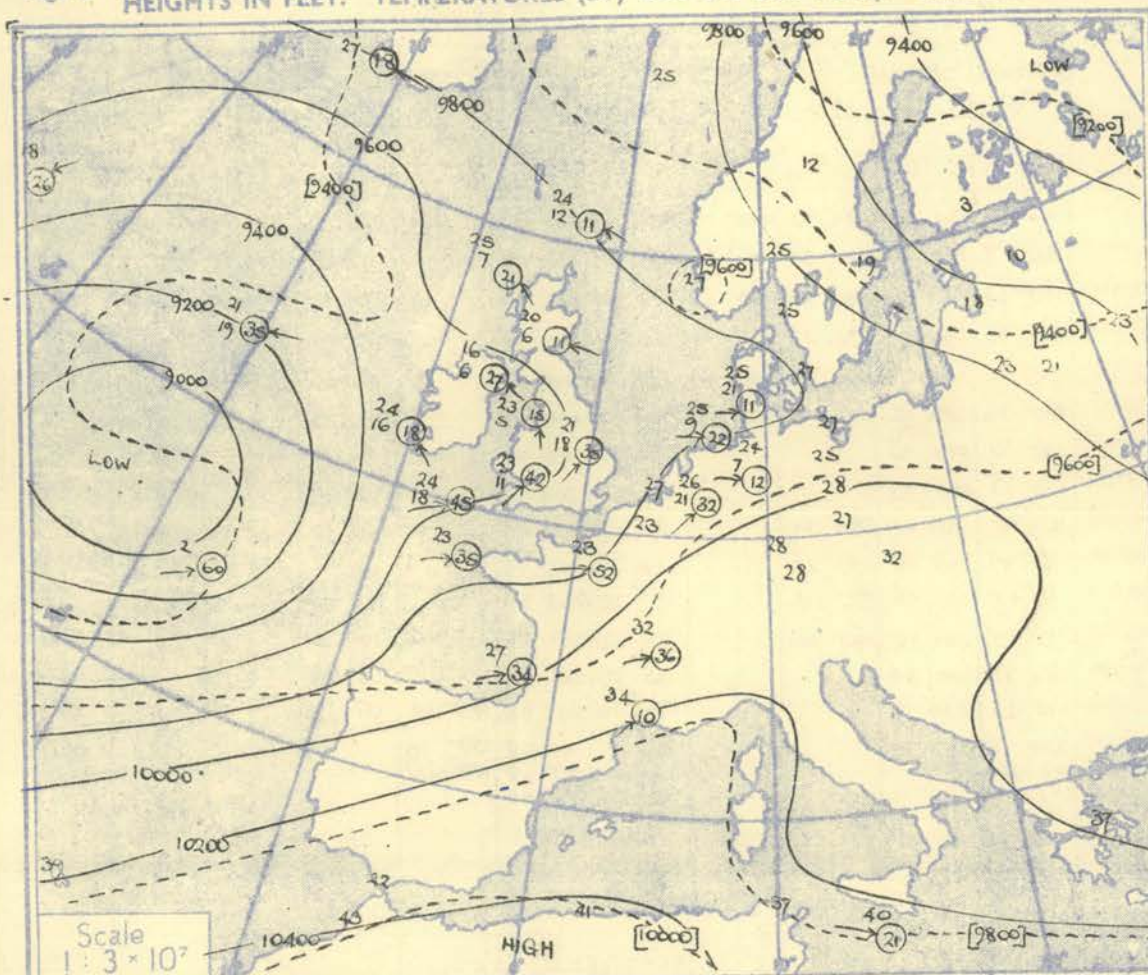
NEPHOSCOPE OBSERVATIONS

Place	None	Reported	Place
Time Type			Time Type
Dir. Vel.			Dir. Vel.

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

Ship	WEATHER OBSERVER				WEATHER OBSERVER				CIRRUS				CIRRUS				CIRRUS				CIRRUS				Ship								
Lat/Long	58-7N. 18-7W.				58-8N. 18-8W.				58-9N. 19-0W.				58-9N. 19-3W.				52-5N. 20-0W.				52-5N. 20-0W.				52-5N. 20-0W.				52-5N. 20-0W.				Lat/Long
Pressure	Time	03h.		G.M.T.	09h.	G.M.T.		15h.	G.M.T.		21h.	G.M.T.		03h.	G.M.T.		09h.	G.M.T.		15h.	G.M.T.		21h.	G.M.T.		G.M.T.		Time					
	M.S.L.	1003		mb	1002	mb		1004	mb		1006	mb		995	mb		995	mb		991	mb		991	mb		mb		M.S.L.					
	Surf	1003		mb	1002	mb		1004	mb		1006	mb		995	mb		995	mb		991	mb		991	mb		mb		Surf					
	Freezing	810		mb	830	mb		810	mb		775	mb			mb			mb		800	mb			mb		mb		Freezing					
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure				
mb	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb				
Surf		50	49	080 12		49	47			50	48	115 18		51	49	140 16		52	47	080 26		53	49	090 30					Surf				
1000	00.9				00.6					01.2				01.7							02.3								1000				
950		45	45	074 16		43	40				43	43			45	43	150 13		46	41	080 22		47	42	074 40				950				
900	29.3	40	40	077 18	29.0	38	35			29.6	39	36			41	39	151 12		42	38	084 26		43	39	091 46				900				
850		35	35	089 22		35	24			30.2	37	32			37	32	151 11		38	29	090 27		39	36	097 44				850				
800	60.5	31	31	095 22	60.1	28	20			61.5	33	26			33	26	150 12		34	29	094 24		35	32	088 40				800				
750		26	26	094 17		26	13				25	21			28	18	148 14		29	22	094 24		30	32	088 40				750				
700	95.1	21	19	087 15	94.6	19	11			95.4	19	07			25	00	147 14		26	18	093 26		27	27	087 41				700				
650		15	10	085 22		11	03				16	03			16	03	146 14		27	20	095 22		28	27	087 35				650				
600	134.1	07	03	085 27	133.3	05	12			134.3	07	46			135.5	08	14	140 16		29	10	102 21		29	27	087 34				600			
550		02	08	085 31		03	24				03	50			00	12	137 18		30	07	08 18		30	27	104 37				550				
500	178.7	11	18	085 30	177.7	13	28			178.7	13	28			180.2	09	22	135 23		31	08 32		31	27	116 29				500				
450		21	31	088 43		22	41				22	55			21	35	134 23		32	18	078 16		32	27	105 23				450				
400	230.8	31	47	091 57	229.7	32	57			230.8	35	58			232.3	34	47	132 27		33	18		33	27	116 19				400				
350		44				44					47				47		135 30		34	09	160 09		34	27	116 19				350				
300	294.4	60			293.5	54					49				295.4	60		137 29		35			35	27	128 19				300				
250		69				49					58				58		138 28		36				36	27	125 31				250				
200					380.6	53					53				382.5	53	133 27	377.8	67				37	27	133 34				200				
170						49					52				52		120 24		38		56		38	27	146 33				170				
150						49					52				52		127 21		39		56		39	27	151 23				150				
130						52					54				54		137 17		40		54		40	27					130				
110						51					55				55		135 18		41		56		41	27					110				
100					531.7	51					55				55		135 13	526.8	57				52	27					100				
90						51					57				57		134 12		42		59		50	27					90				
80						51					57				57		131 10		43		59		49	27					80				
70						55					55				55		134 08		44		59		48	27					70				
60						58					58				58		134 09		45		59		48	27					60				
						53				(050)-53		135 12	(050)-58		(043)-53		135 12		46		(050)-58		(043)-45										
						mb				mb		Isokthermal	mb		mb		Isokthermal		46		mb		Isokthermal										
												800-783mb. 33°					840-830mb. 33°		47				505-500mb. -6°										
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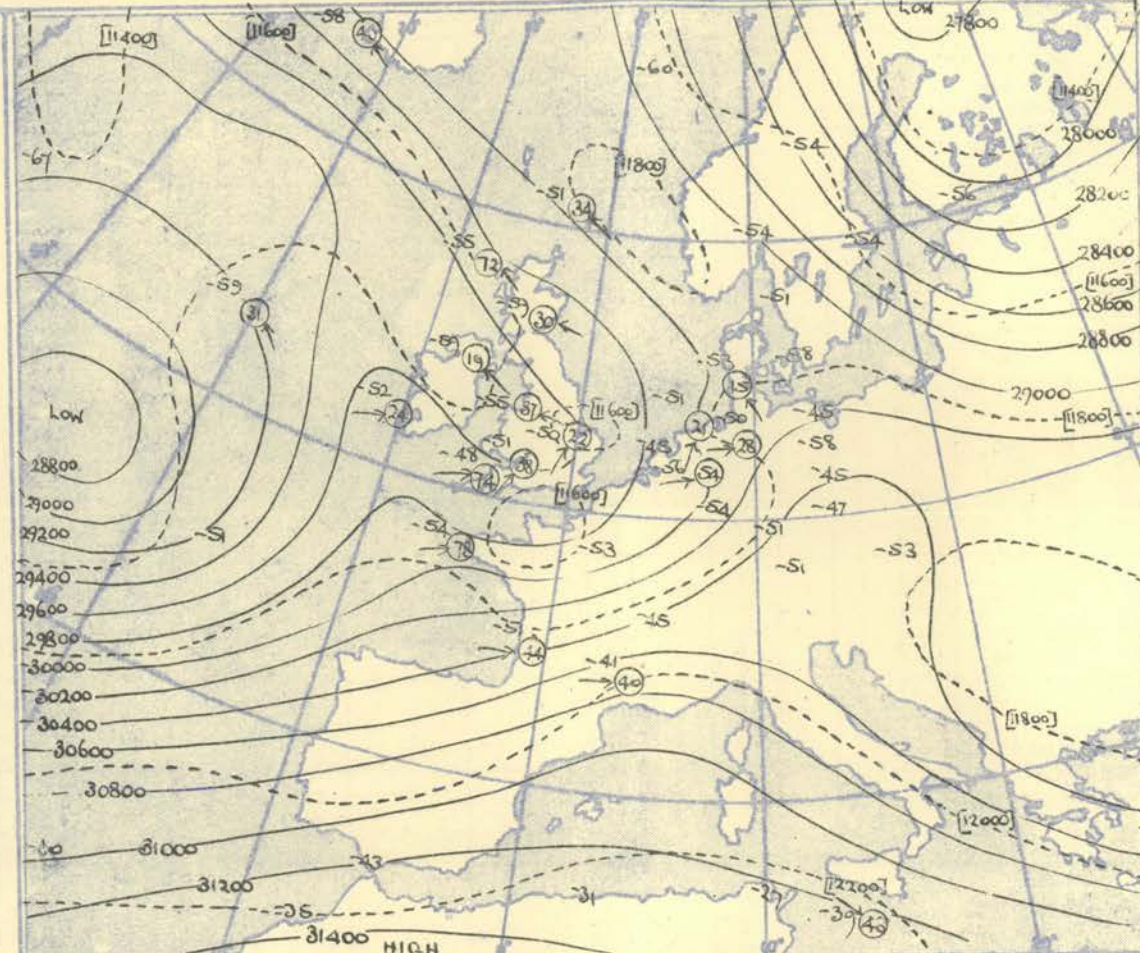
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., and 300 mb., levels at about 15h G.M.T.



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

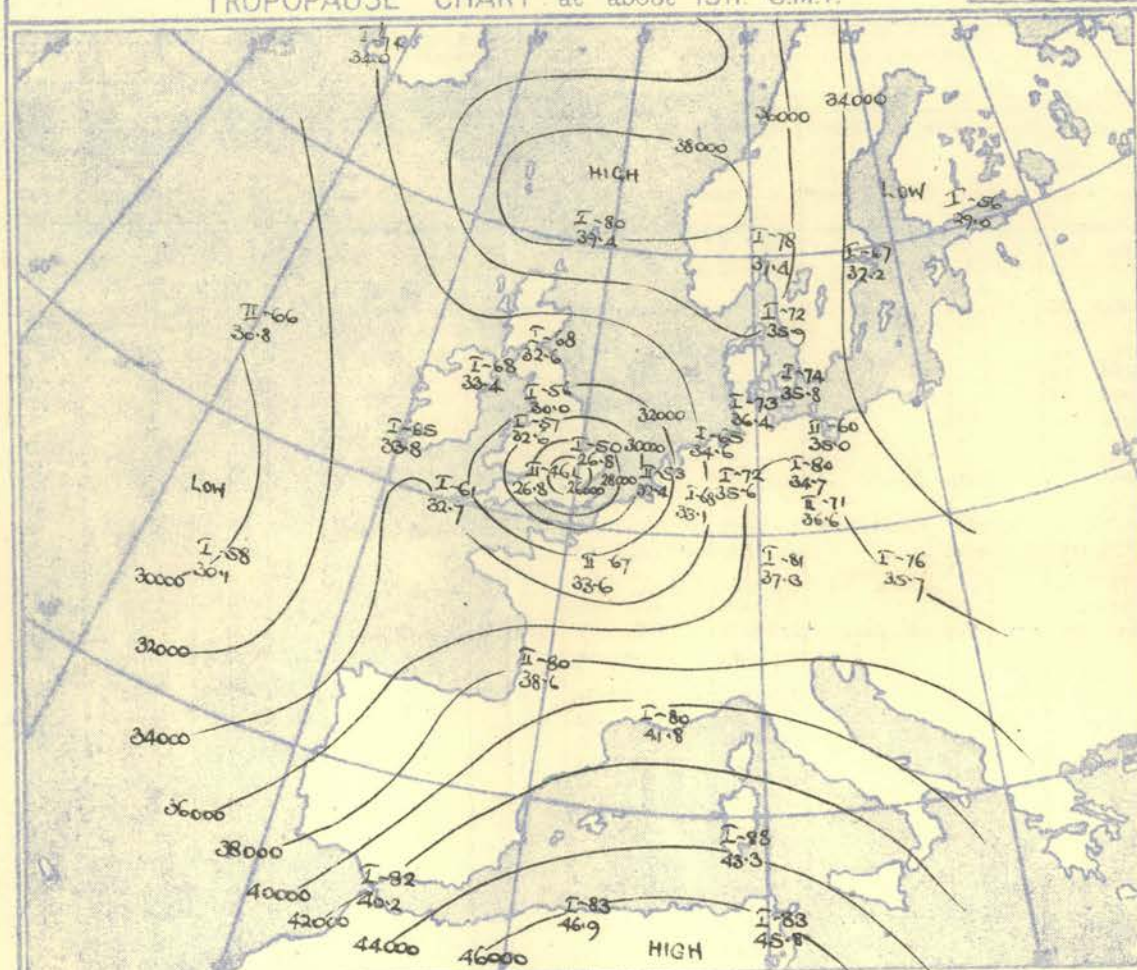
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. $52\frac{1}{2}^\circ$ N.

100 80 60 40 20 10 knots



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

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



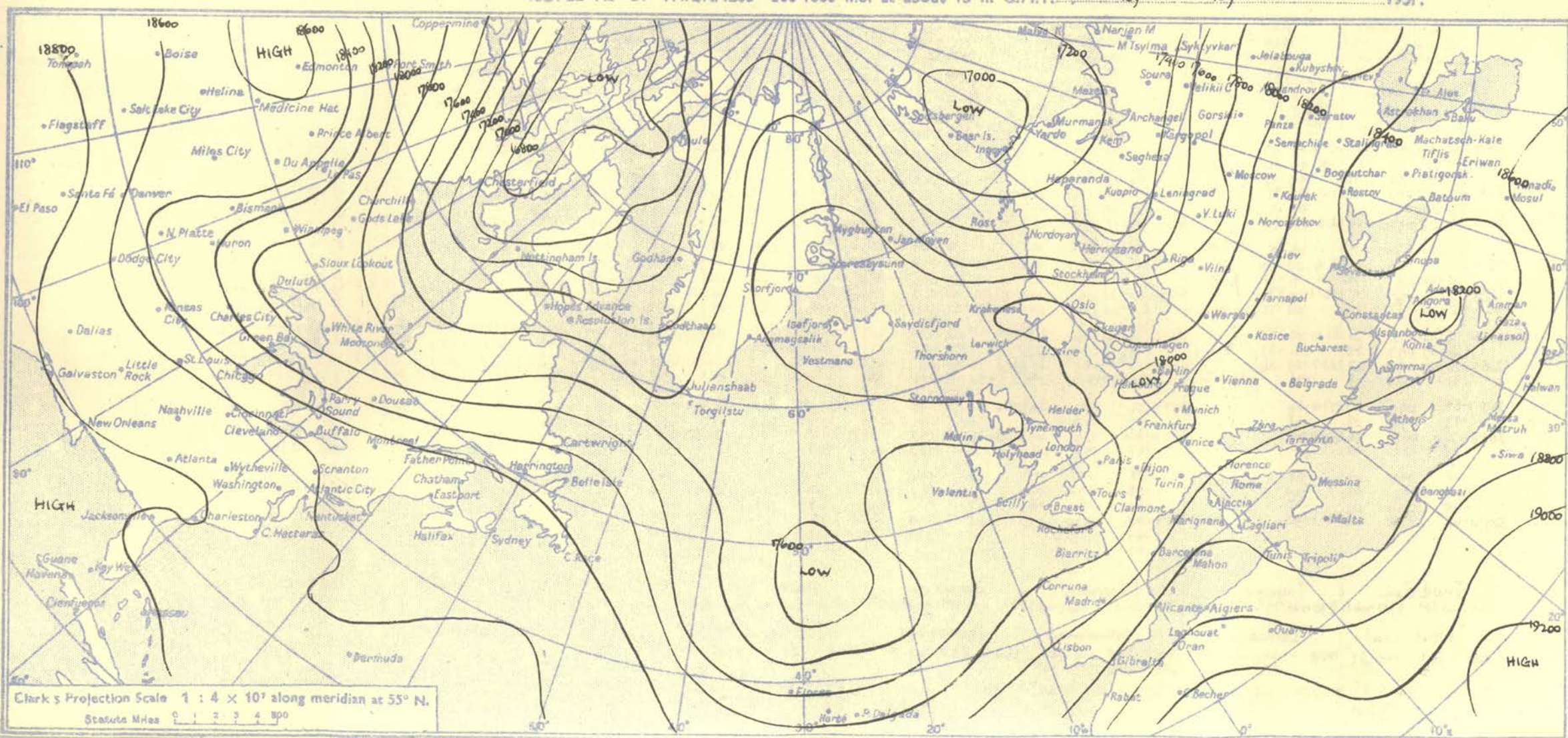
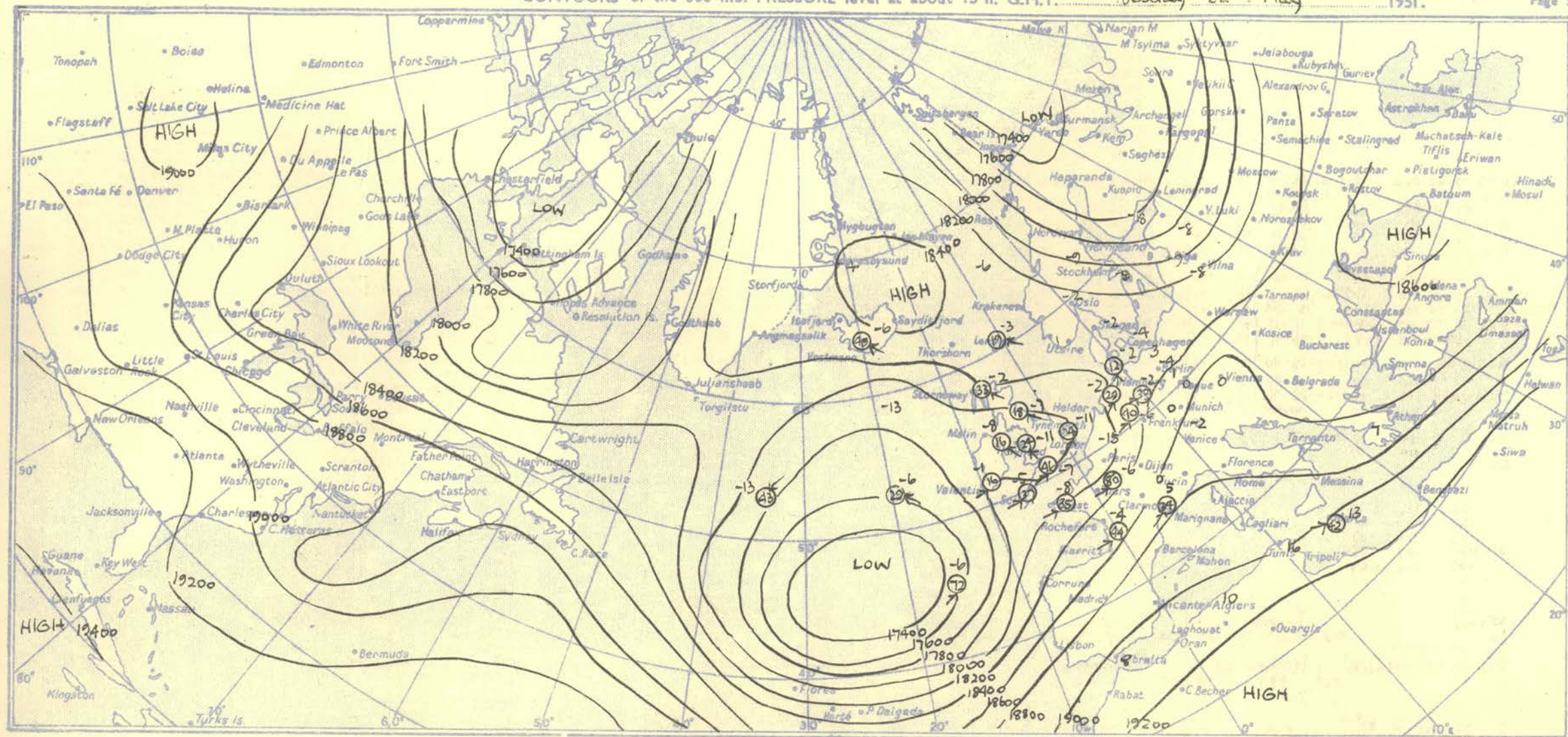
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The main cold trough aloft continued to be south-southeast from Greenland. A minor trough moved north-eastwards across the British Isles during the day and eventually a detached cold pool formed over the North Sea. The warm ridge across Denmark and South Norway weakened slowly.

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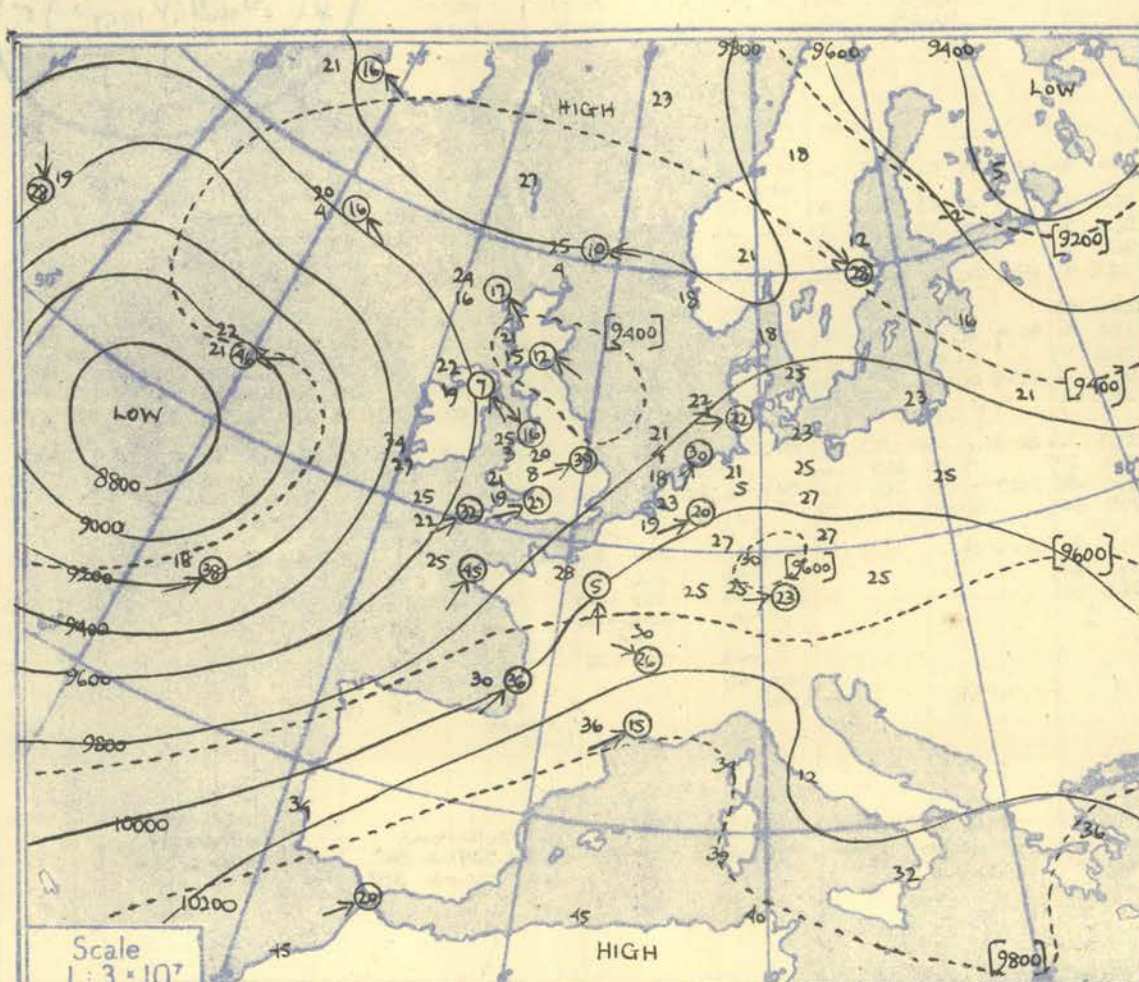


RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION											
Time M.S.L. Surf Pressure	15h 1012.0 1002.0 768	G.M.T. mb mb mb	15h 1009.5 1007.9 765	G.M.T. mb mb mb	15h 1008.9 1007.9 811	G.M.T. mb mb mb	15h 1005.7 1002.1 797	G.M.T. mb mb mb	15h 1006.7 1002.5 806	G.M.T. mb mb mb	15h 1005.4 987.7 767	G.M.T. mb mb mb	15h 1005.6 995.1 792	G.M.T. mb mb mb	15h 1003.3 1001 825	G.M.T. mb mb mb	15h 1003.3 1001 825	G.M.T. mb mb mb	Time M.S.L. Surf Pressure		
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	Pressure mb
Surf	02.7 49 42 060	15 00.4 54 48 040	05 00.2 49 47 130	06 02.6 60 43 070	15 00.6 54 41 090	10 01.2 55 53 170	10 01.4 56 50 220	22 02.9 54 50 225	30 00.3 56 48 170	04	Surf	02.7 49 42 060	15 00.4 54 48 040	05 00.2 49 47 130	06 02.6 60 43 070	15 00.6 54 41 090	10 01.2 55 53 170	10 01.4 56 50 220	22 02.9 54 50 225	30 00.3 56 48 170	04
1000	3.2 47 36 085	13 2.6 54 47 016	10 2.4 49 48 120	11 1.3 51 40 095	17 1.1 47 38 07	19 1.9 55 53 205	26 1.5 51 47 213	30 48 45	0.9 55 47 165	05	1000	3.2 47 36 085	13 2.6 54 47 016	10 2.4 49 48 120	11 1.3 51 40 095	17 1.1 47 38 07	19 1.9 55 53 205	26 1.5 51 47 213	30 48 45	0.9 55 47 165	05
950	31.7 46 31 111	12 31.3 44 37 038	06 31.0 43 34 112	12 30.1 42 33 094	19 29.7 40 33 117	19 30.6 43 38 210	31 30.3 44 39 219	42 30.3 42 39	29.6 43 39 118	10	950	31.7 46 31 111	12 31.3 44 37 038	06 31.0 43 34 112	12 30.1 42 33 094	19 29.7 40 33 117	19 30.6 43 38 210	31 30.3 44 39 219	42 30.3 42 39	29.6 43 39 118	10
900	41 19 116	14 38 31 108	05 37 26 105	05 35 30 085	19 35 30 131	16 38 35 208	32 38 33 221	45 38 37	36 33 114	15	900	41 19 116	14 38 31 108	05 37 26 105	05 35 30 085	19 35 30 131	16 38 35 208	32 38 33 221	45 38 37	36 33 114	15
850	03.2 36 12 116	07 02.7 33 24 08	08 02.3 31 07 115	04 01.3 28 1089	18 00.9 32 27 158	15 01.9 32 30 212	20 01.7 33 27 224	44 01.6 33 29	60.8 32 25 123	16	850	03.2 36 12 116	07 02.7 33 24 08	08 02.3 31 07 115	04 01.3 28 1089	18 00.9 32 27 158	15 01.9 32 30 212	20 01.7 33 27 224	44 01.6 33 29	60.8 32 25 123	16
800	30 10 116	09 31 16 113	12 26 08 115	21 13 096	24 27 19 156	16 27 24 215	31 30 21 223	43 27 26	For	750	30 10 116	09 31 16 113	12 26 08 115	21 13 096	24 27 19 156	16 27 24 215	31 30 21 223	43 27 26	For	750	
750	18.1 24 12 110	11 17.6 25 07 111	21 16.9 26 06 115	19 15.6 16 06 100	27 05.5 23 05 167	15 16.6 21 18 219	35 06.5 23 11 226	42 06.3 24 18	95.6 24 16 123	08	750	18.1 24 12 110	11 17.6 25 07 111	21 16.9 26 06 115	19 15.6 16 06 100	27 05.5 23 05 167	15 16.6 21 18 219	35 06.5 23 11 226	42 06.3 24 18	95.6 24 16 123	08
700	20 10 101	14 18 04 107	21 15 15 102	15 10 102	27 16 10 143	11 15 10 219	33 17 01 230	40 16 05	winds	700	20 10 101	14 18 04 107	21 15 15 102	15 10 102	27 16 10 143	11 15 10 219	33 17 01 230	40 16 05	winds	700	
650	13.5 13 07 109	18 36.9 11 17 118	22 35.9 09 20 117	16 34.3 07 13 082	25 34.6 07 16 148	12 35.6 08 01 220	25 35.7 10 05 236	40 35.4 08 07	134.9 14 03 225	15	650	13.5 13 07 109	18 36.9 11 17 118	22 35.9 09 20 117	16 34.3 07 13 082	25 34.6 07 16 148	12 35.6 08 01 220	25 35.7 10 05 236	40 35.4 08 07	134.9 14 03 225	15
600	06 14 112	19 06 13 126	25 00 19 129	18 01 12 094	24 02 16 148	18 02 10 221	26 03 16 244	48 03 16	See	600	06 14 112	19 06 13 126	25 00 19 129	18 01 12 094	24 02 16 148	18 02 10 221	26 03 16 244	48 03 16	See	600	
550	18.2 13 03 21 114	19 18.2 13 03 21 114	33 18.0 13 03 21 114	18 17.0 13 03 21 114	16 17.1 13 03 21 114	24 18.0 13 03 21 114	24 18.0 13 03 21 114	46 18.0 13 03 21 114	180.3 01 22 227	16	550	18.2 13 03 21 114	19 18.2 13 03 21 114	33 18.0 13 03 21 114	18 17.0 13 03 21 114	16 17.1 13 03 21 114	24 18.0 13 03 21 114	24 18.0 13 03 21 114	46 18.0 13 03 21 114	180.3 01 22 227	16
500	12 29 110	20 16 43 125	37 17 37 150	17 19 32 109	20 19 48 117	31 21 26 218	24 21 26 218	34 21 26	page	500	12 29 110	20 16 43 125	37 17 37 150	17 19 32 109	20 19 48 117	31 21 26 218	24 21 26 218	34 21 26	page	500	
450	235.8 24 41 114	27 235.0 28 46 114	31 233.2 30 46 114	20 231.4 31 43 120	24 231.5 28 56 109	42 232.2 35 40 221	23 233.1 29 44 242	29 233.0 28 42	238.5 24 47 206	16	450	235.8 24 41 114	27 235.0 28 46 114	31 233.2 30 46 114	20 231.4 31 43 120	24 231.5 28 56 109	42 232.2 35 40 221	23 233.1 29 44 242	29 233.0 28 42	238.5 24 47 206	16
400	37 53 111	30 40 54 115	61 43 131	24 45 24	23 41 13	45 47 232	25 44 242	35 48 35	3. 37 59 194	16	400	37 53 111	30 40 54 115	61 43 131	24 45 24	23 41 13	45 47 232	25 44 242	35 48 35	3. 37 59 194	16
350	300.5 51 14	34 297.2 55 119	72 296.1 59 116	30 294.9 59 106	19 295.6 55 101	37 295.7 50 214	22 297.2 51 242	38 297.6 48	298.1 52 230	24	350	300.5 51 14	34 297.2 55 119	72 296.1 59 116	30 294.9 59 106	19 295.6 55 101	37 295.7 50 214	22 297.2 51 242	38 297.6 48	298.1 52 230	24
300	385.5 79 109	30 109	382.5 58 139	26 380.8 55 165	14 383.5 50 209	38 384.3 50 212	22 385.6 51 228	28 384.9 55	384.6 57 215	27	300	385.5 79 109	30 109	382.5 58 139	26 380.8 55 165	14 383.5 50 209	38 384.3 50 212	22 385.6 51 228	28 384.9 55	384.6 57 215	27
250	71 115	21 115	55 158	16 55	12 52	11 50	21 52	26 53	56 200	20	250	71 115	21 115	55 158	16 55	12 52	11 50	21 52	26 53	56 200	20
200	64 126 08	63 167 08	57 168 09	56 177 10	53 206 17	53 225 16	52 240 21	54 21	49 199 20	150	200	64 126 08	63 167 08	57 168 09	56 177 10	53 206 17	53 225 16	52 240 21	54 21	49 199 20	150
150	63 167 05	58 195 05	57 195 05	57 174 12	53 202 11	53 202 11	53 215 15	56 15	51 180 23	110	150	63 167 05	58 195 05	57 195 05	57 174 12	53 202 11	53 202 11	53 215 15	56 15	51 180 23	110
100	530.7 61 167	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	100	100	530.7 61 167	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	531.5 58 222	100
90	62 167 05	56 213 07	56 213 07	56 213 07	56 213 07	56 213 07	56 213 07	56 213 07	56 2												

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)																																							
LERWICK					STORNOWAY					LEUCHARS					ALDERGROVE					LIVERPOOL					DOWNHAM MARKET					LARKHILL					CAMBORNE				
Time	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.	03h.	G.M.T.											
Surf	1011.8	mb	1009.2	mb	1009.5	mb	1007.8	mb	1008.0	mb	1006.0	mb	1005.2	mb	1008.0	mb	1006.0	mb	1005.2	mb	1005.2	mb	1005.2	mb	1005.2	mb	1005.2	mb											
Freezing	780	mb	770	mb	833	mb	817	mb	815	mb	815	mb	815	mb	815	mb	815	mb	815	mb	815	mb	815	mb	815	mb	815	mb											
Pressure	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb											
Height	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.	ft./100	Temp.	Temp.	Temp.											
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.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.											
Surf	02.7 43 40	070 18	00.4 45 45	060 10	00.2 41 41	Calm	02.6 42 39	Calm	00.6 50 48	250 10	01.2 49 46	195 12	04.4 50 49	Calm	02.9 52 49	160 20	00.3 55 52	Surf	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb											
1000	03.1 42 40	079 11	02.5 46 43	083 08	02.5 44 40	090 03	02.0 48 41	091 15	02.2 47 42	260 20	02.8 46 43	244 33	03.1 47 46	222 21	02.3 50 45	185 34	00.7 54 50	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb	1000	mb										
950	03.6 47 45	096 09	03.1 44 35	081 05	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	950	mb	950	mb	950	mb	950	mb	950	mb	950	mb										
900	04.0 41 30	096 06	04.0 40 30	081 05	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	900	mb	900	mb	900	mb	900	mb	900	mb	900	mb										
850	04.4 34 24	096 05	04.4 34 24	081 05	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	850	mb	850	mb	850	mb	850	mb	850	mb	850	mb										
800	04.8 29 09	087 06	04.8 29 09	087 06	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	800	mb	800	mb	800	mb	800	mb	800	mb	800	mb										
750	05.0 25 04	085 10	05.0 25 04	085 10	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	750	mb	750	mb	750	mb	750	mb	750	mb	750	mb										
700	05.1 19 01	086 11	05.1 19 01	086 11	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	700	mb	700	mb	700	mb	700	mb	700	mb	700	mb										
650	05.3 12 09	088 14	05.3 12 09	088 14	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	650	mb	650	mb	650	mb	650	mb	650	mb	650	mb										
600	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	600	mb	600	mb	600	mb	600	mb	600	mb	600	mb										
550	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	550	mb	550	mb	550	mb	550	mb	550	mb	550	mb										
500	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	500	mb	500	mb	500	mb	500	mb	500	mb	500	mb										
450	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	450	mb	450	mb	450	mb	450	mb	450	mb	450	mb										
400	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	400	mb	400	mb	400	mb	400	mb	400	mb	400	mb										
350	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	350	mb	350	mb	350	mb	350	mb	350	mb	350	mb										
300	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	300	mb	300	mb	300	mb	300	mb	300	mb	300	mb										
250	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	250	mb	250	mb	250	mb	250	mb	250	mb	250	mb										
200	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	200	mb	200	mb	200	mb	200	mb	200	mb	200	mb										
170	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	170	mb	170	mb	170	mb	170	mb	170	mb	170	mb										
150	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	150	mb	150	mb	150	mb	150	mb	150	mb	150	mb										
130	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	130	mb	130	mb	130	mb	130	mb	130	mb	130	mb										
110	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	110	mb	110	mb	110	mb	110	mb	110	mb	110	mb										
100	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	100	mb	100	mb	100	mb	100	mb	100	mb	100	mb										
90	05.4 03 16	084 19	05.4 03 16	084 19	03.8 40 28	094 06	03.5 41 34	100 15	03.7 42 37	264 22	03.2 41 35	252 37	03.6 42 29	233 26	03.0 46 41	206 32	28.2 48 35	90	mb																				

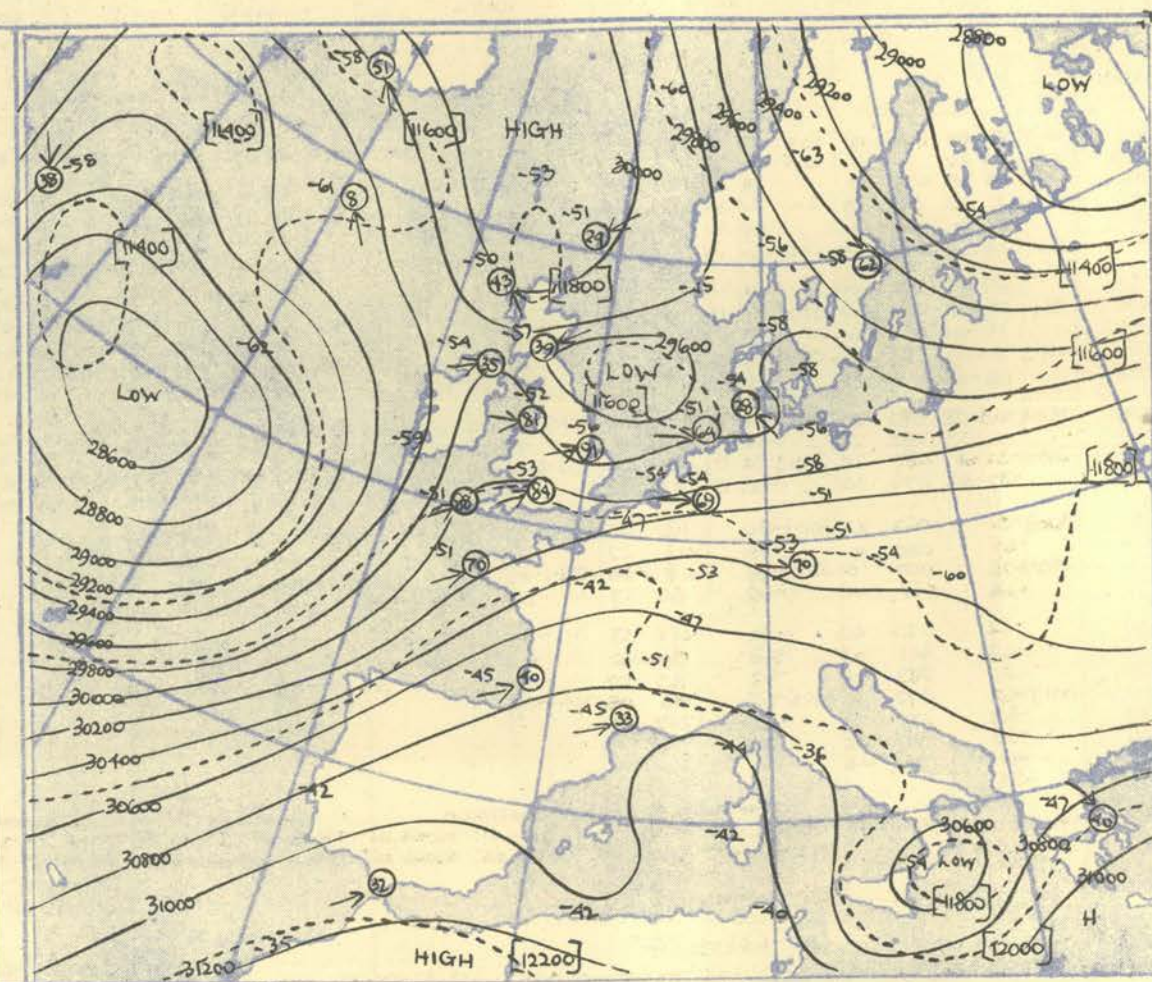
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



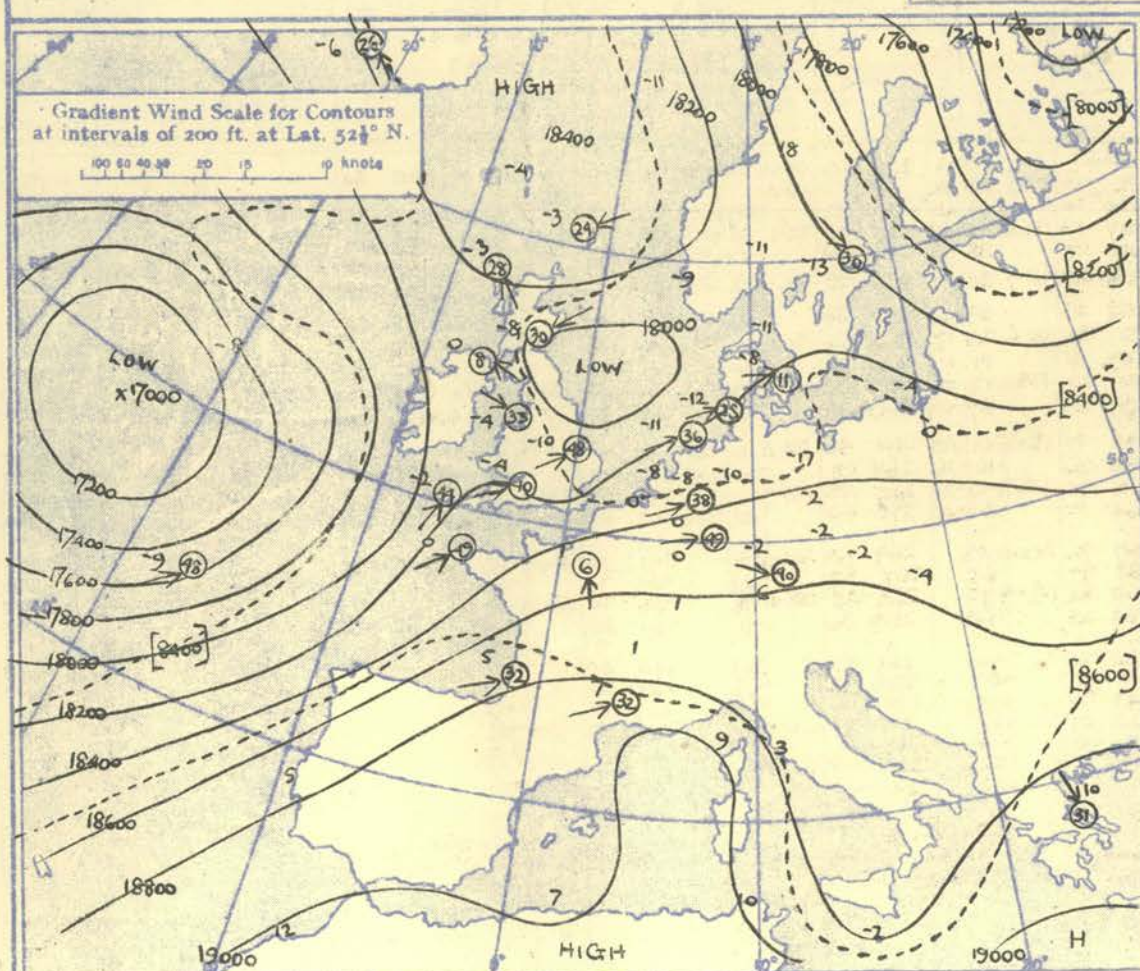
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52 1/2° N.

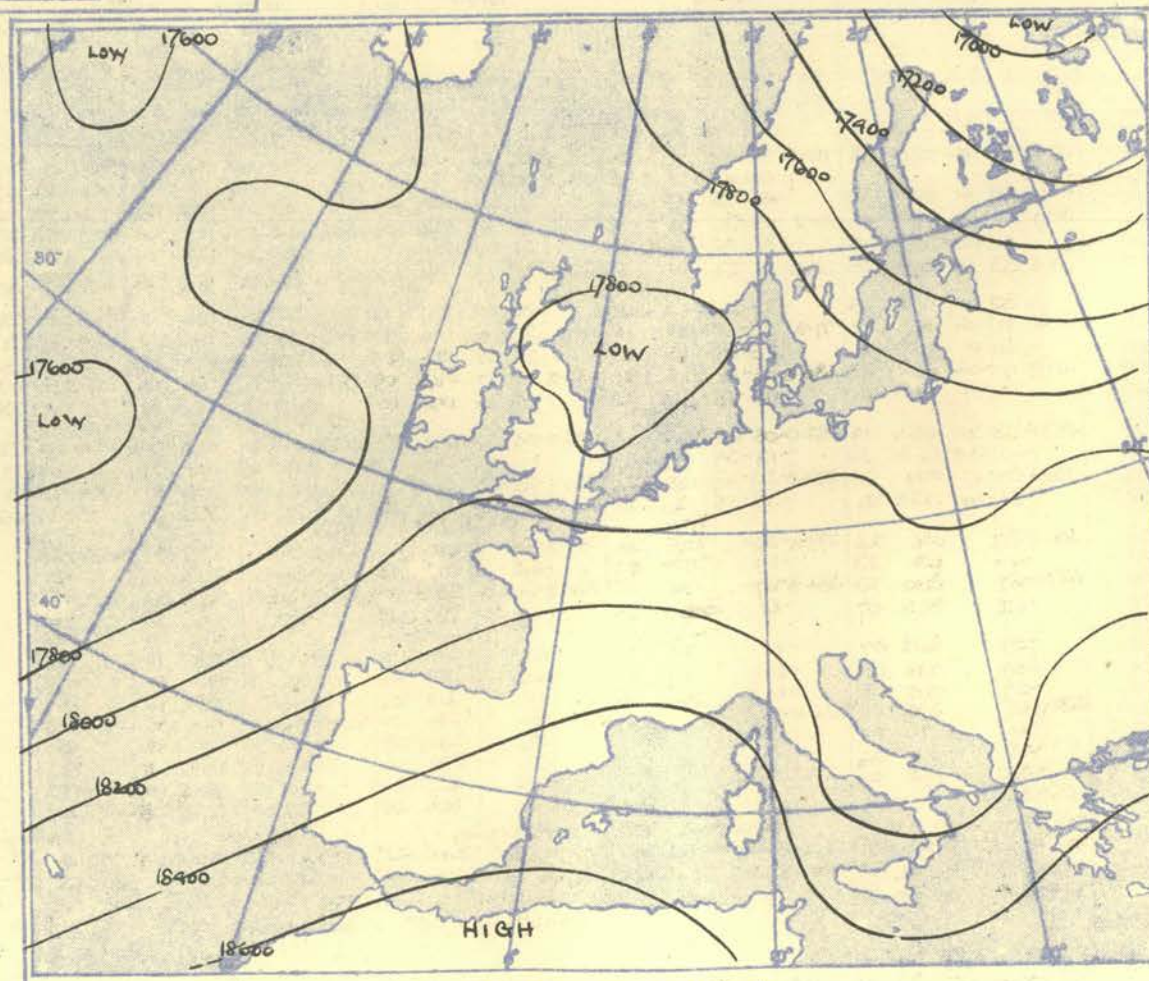
100 80 60 40 20 10 0 knots



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



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



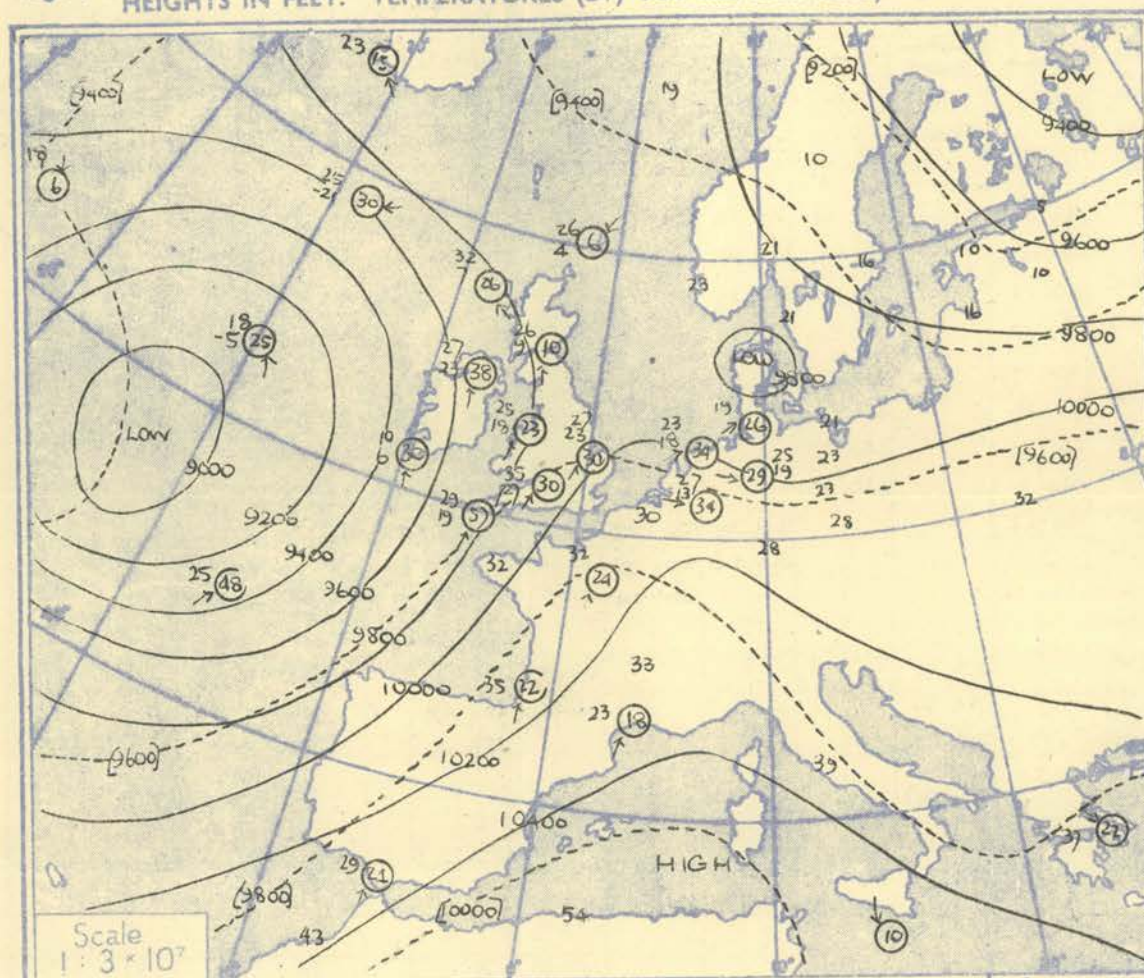
Isopleths of Thickness 500-1000mb.

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

[illegible]

BSERVER	WEATHER OBSERVER	WEATHER OBSERVER	WEATHER OBSERVER.	Ship
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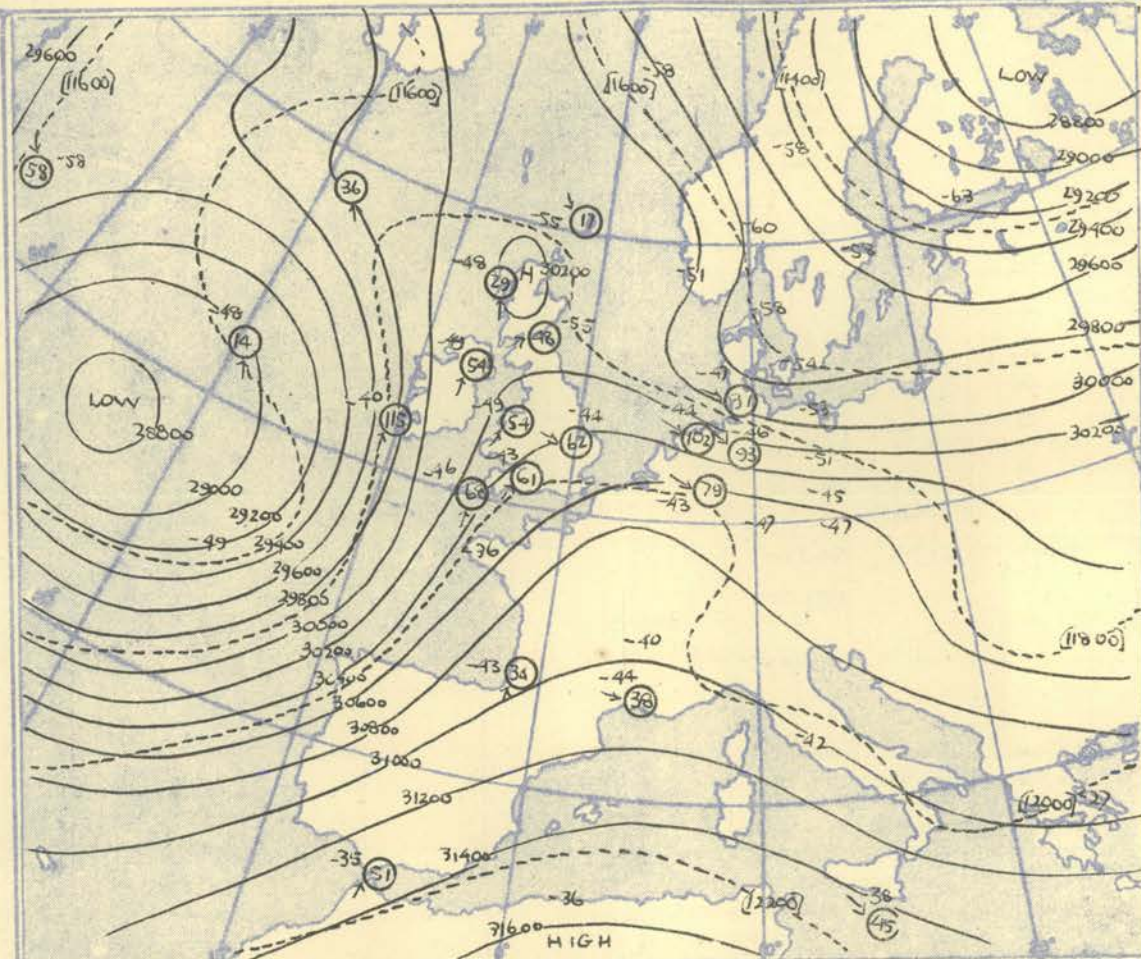
Ship	CURRENTS.				CURRENTS.				CURRENTS.				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER.				Ship				
Lat/Long	52° 5N 20° 0W				52° 5N 20° 0W				52° 5N 20° 0W				58° 7N 19° 4' W				58° 8N 19° 5' W				58° 8N 19° 6' W.				58° 8N 19° 3' W				Lat/Long				
Pressure Time M.S.L. Surf Freezing	03L G.M.T.				09L G.M.T.				15L G.M.T.				21L G.M.T.				03L G.M.T.				09L G.M.T.				15L G.M.T.				21L G.M.T.				G.M.T. mb M.S.L. Surf mb Freezing
	986 mb				987 mb				987 mb				1009 mb				1008 mb				1007 mb				1004 mb								
	986 mb				987 mb				987 mb				1009 mb				1008 mb				1007 mb				1004 mb								
	820 mb				810 mb				800 mb				770 mb				760 mb				820 mb												
Pressure Height ft./100 Temp. Dew Wind Dir. Vel. knots	Surf 1000 950 900 850 800 750 700 650 600 550 500 450 400 350 300 250 200 170 150 130 110 100 90 80 70 60	48 3-8 44 24-4 35 55-6 28 30-4 16 129-6 01+07 174-3-08-19 -18-31 226-8-30 -45 290-3-62	47 44 39 35 30 28 22 09 13 03 +07 -08-19 -31 -30 -45 -62	150 128 113 072 073 087 082 087 082 083 084 0																													



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

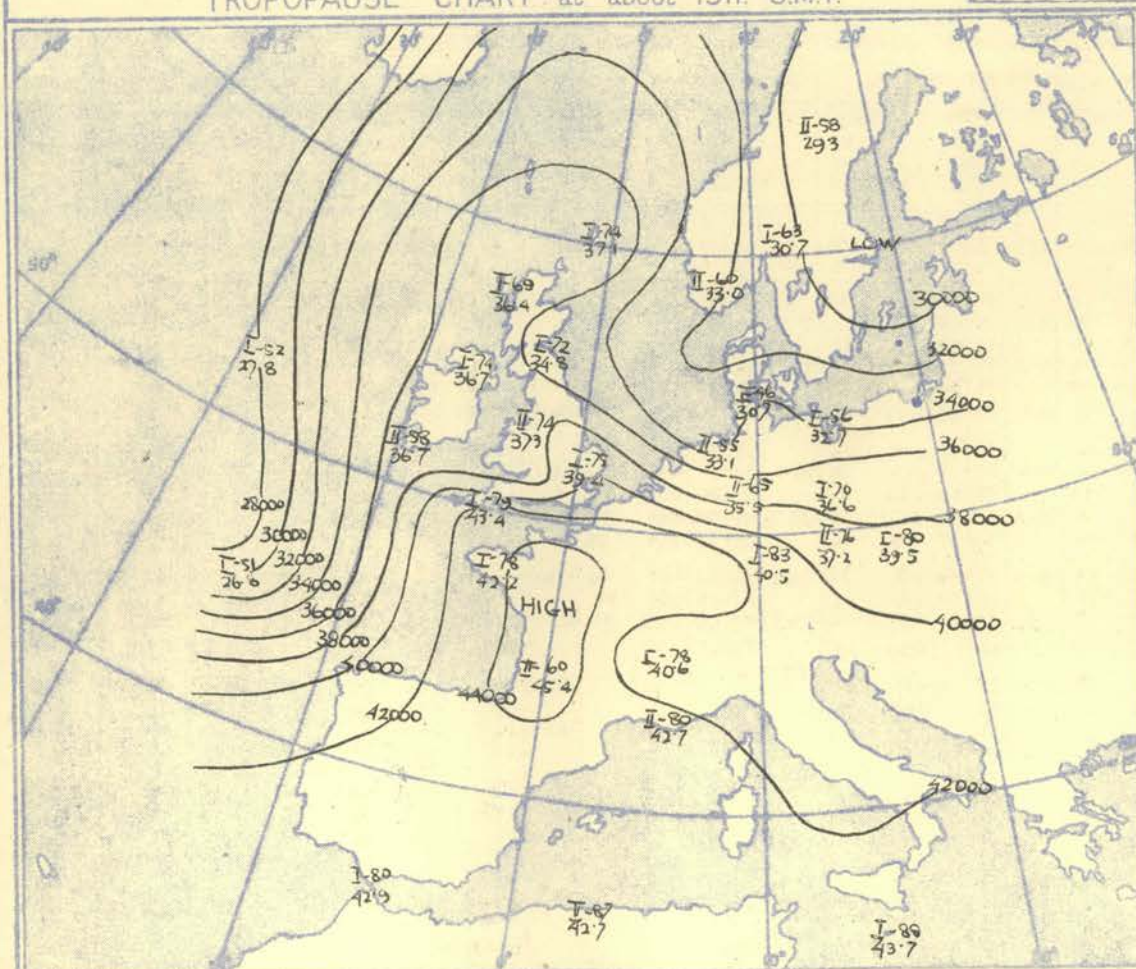
Gradient Wind Scale for Contours
at intervals of 200 ft. at Lat. 52° N.

100 80 60 40 20 10 knots



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

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



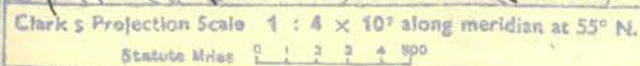
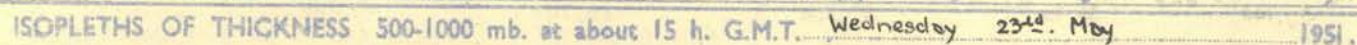
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over the North Sea warmed out rapidly, and a strong upper warm ridge developed northwards across the British Isles. Little change elsewhere apart from a slight warming over the Atlantic cold trough.

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

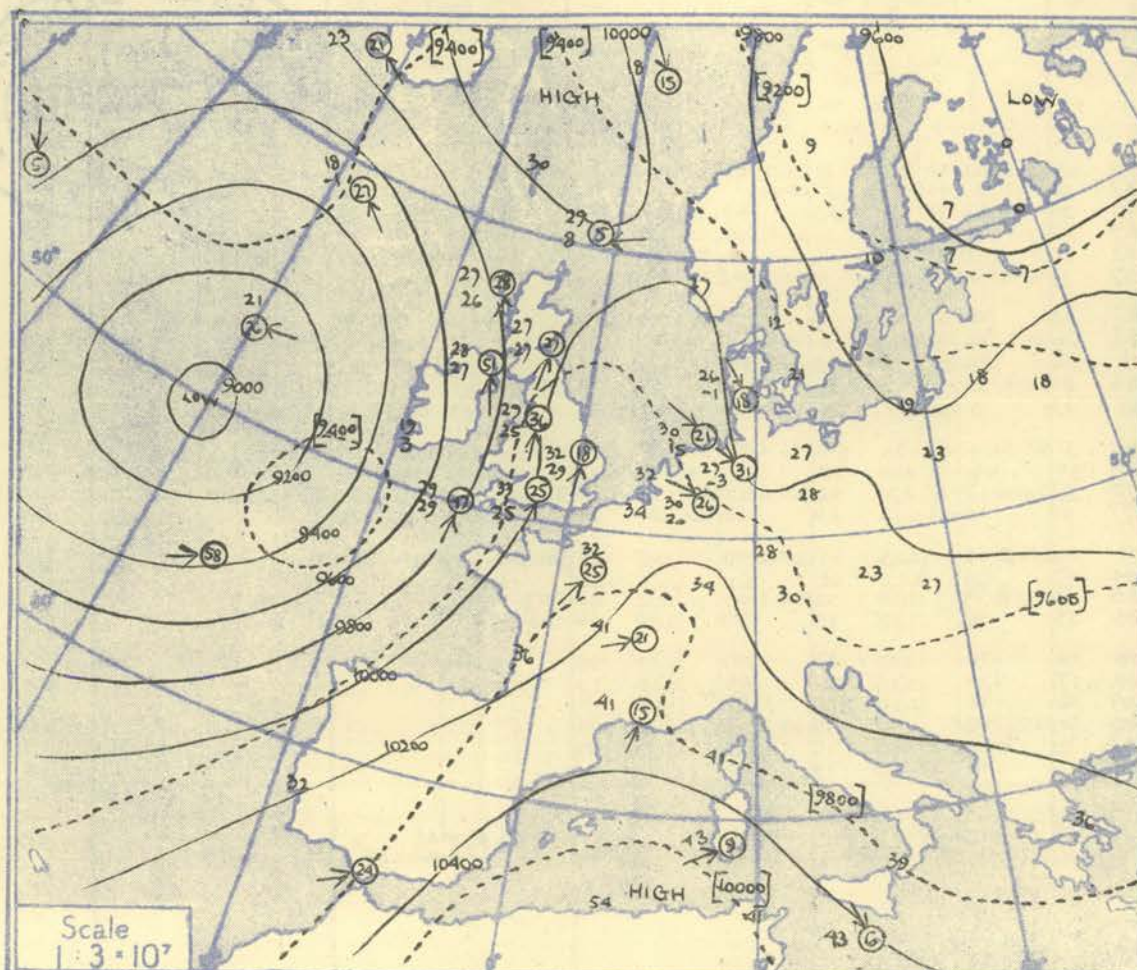


STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION																																							
Time M.S.L. Surf Pressure	15L 1015.0 1005.0 741	G.M.T. mb mb mb	15L 1011.0 1009.4 700	G.M.T. mb mb mb	15L 1013.8 1013.0 770	G.M.T. mb mb mb	15L 1008.2 998.8 766	G.M.T. mb mb mb	15L 1011.9 1009.9 765	G.M.T. mb mb mb	15L 1015.0 1010.6 760	G.M.T. mb mb mb	15L 1012.9 996.8 678	G.M.T. mb mb mb	15L 1009.4 997.0 720	G.M.T. mb mb mb	15L 1002 1000 800	G.M.T. mb mb mb	Time M.S.L. Surf Pressure																														
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	Pressure mb																												
Surf	02.7	48	38	970	17	00.4	55	47	120	10	00.2	48	47	090	07	02.6	53	49	130	20	00.6	60	51	150	15	01.2	63	51	195	08	04.4	63	49	120	13	02.7	59	54	157	15	00.3	56	49	170	15	Surf			
1000	4.0	46	38		2.9	55	46			3.7	43	42				2.3	53	49	130	20	00.6	60	51	150	15	01.2	63	51	195	08	04.4	63	49	120	13	02.7	59	54	157	15	00.3	56	49	170	15	1000			
950																																																	950
900	32.3	45	41	268	08	31.7	46	35	123	12	32.2	43	38	200	10	31.0	47	43	156	44	32.2	49	38	165	48	43	32	275	10	32.6	50	41		30.9	45	42	126	30	29.3	49	43	156	28	900					
850		40	29	280	05		39	30	137	24		37	32	208	10		41	38	165	48																												850	
800	63.8	34	22	341	02	63.2	34	22	142	24	63.6	34	26	200	11	62.6	36	33	174	43	63.8	37	31	200	29	64.7	35	30	264	15	64.3	39	31		62.6	41	38	198	47	60.5	32	25	170	29	800				
750		33	14	040	06		33	14	137	24		30	18	194	10		31	29	180	33																												750	
700	98.7	26	04	050	06	98.3	32	07	137	24	98.6	26	09	182	10	97.5	27	23	176	38	98.7	26	18	225	23	99.8	27	23	250	30	99.7	35	27		97.9	29	19	209	57	95.3	22	06	178	30	700				
650		22	01	051	07		25	02	146	27		20	02	149	16		24	17	176	39																												650	
600	138.3	15	09	039	08	138.2	18	09	145	29	138.0	13	10	139	17	137.3	17	06	182	44	138.8	18	08	275	28	139.5	18	14	259	35	139.7	20	14		137.8	19	10	206	54	134.4	10	01	186	47	600				
550		08	17	027	10		10	16	142	26		04	18	143	19		09	04	188	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 Pressing	03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.				03h G.M.T.																																																																																																																																																																																																																																																																																										
	1019.2 mb				1012.1 mb				1015.8 mb				1008.5 mb				1012.0 mb				1015.2 mb				1011.0 mb				1007.9 mb				1000.3 mb				1000.3 mb																																																																																																																																																																																																																																																																																										
	1009.1 mb				1010.5 mb				1014.9 mb				999.0 mb				1010.0 mb				1010.6 mb				995.0 mb				997.4 mb				1000.0 mb				1000.0 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	02.7	41	36	085	11.00.4	52	45	090	10.00.2	47	47	100	13.02.6	50	49	160	15.00.6	58	50	130	08.01.2	55	95	090	10.04.4	55	50	090	07.02.9	56	54	157	25	00.3	53	51	Surf																																																																																																																																																																																																																																																																																										
1000	05.1				03.3	54	46		04.1	46	46	146	09.02.4	49	41	174	03.3	58	51	137	20.04.1	57	45	139	27.03.0	65	56	137	29.02.2	52	52	170	44	0.6	63	51	1000																																																																																																																																																																																																																																																																																										
950		36	32	085	06	52	41	142	21	45	45	152	11	49	41	174	25	56	47	150	23	62	46	139	27	65	56	137	29	52	52	170	44	0.6	63	51	950																																																																																																																																																																																																																																																																																										
900	33.3	44	15	081	05.32.1	47	38	159	25.32.6	49	46	156	15.31.1	49	29	176	30.32.3	50	42	169	27.33.4	57	42	141	20.32.5	59	45	157	30.31.0	49	49	179	42	29.3	43	42	900																																																																																																																																																																																																																																																																																										
850		40	27	065	02	42	36	155	28	44	41	158	21	44	24	178	36	46	40	183	33	50	36	159	16	51	41	164	30	44	170	42	29.3	43	42	850																																																																																																																																																																																																																																																																																											
800	61.8	37	17	069	03.63.7	35	31	145	28.64.3	39	38	163	23.62.8	35	25	173	40.64.2	42	36	187	39.65.6	44	37	203	11.64.8	47	29	178	30.62.8	39	39	178	45	60.5	31	27	800																																																																																																																																																																																																																																																																																										
750		34	09	082	06	29	26	145	28	32	32	173	22	32	29	166	41	36	32	187	35	38	33	218	13	40	20	194	26	34	34	187	49	24	18	750																																																																																																																																																																																																																																																																																											
700	99.9	29	08	088	05.98.7	27	26	150	98.99.4	27	27	189	27.98.0	28	27	166	51.99.6	29	25	187	36.10.1	32	29	203	18.10.4	33	25	201	25.98.1	29	29	188	47.95.0	24	19	13	700																																																																																																																																																																																																																																																																																										
650		23	01	066	06	22	21	155	33	24	16	193	27	23	21	162	48	22	17	191	36	26	22	207	23	25	21	200	26	23	23	187	42	16	11	650																																																																																																																																																																																																																																																																																											
600	139.6	16	04	322	03.138.4	16	11	156	36.139.2	20	12	189	21.138.0	17	14	158	48.139.3	15	10	186	34.141.4	20	12	214	23.140.4	17	19	194	28.137.8	17	17	184	52.131.0	09	06	600																																																																																																																																																																																																																																																																																											
550		10	-17	351	03	10	-10	161	31	14	08	186	21	07	04	162	50	08	03	182	33	13	02	219	23	10	04	191	31	10	09	183	51	00	-03	550																																																																																																																																																																																																																																																																																											
500	185.1	00	-26	321	07.189.0	01	-14	168	30.185.2	06	00	210	24.183.0	00	-04	172	56.184.8	00	-04	185	31.187.0	04	-07	224	25.186.1	01	-08	193	33.183.5	00	-03	178	55.178.8	-08	-12	500																																																																																																																																																																																																																																																																																											
450		-10	-36	315	12	-11	-22	176	33	-06	-12	215	27	-09	-16	171	64	-10	-14	190	39	-06	-13	224	27	-10	-14	192	35	-10	-16	178	62	-19	-24	450																																																																																																																																																																																																																																																																																											
400	238.6	-21	-48	307	16.237.4	24	-33	196	42.239.2	-18	-23	221	25.237.0	-20	-30	176	55.238.3	-21	-29	192	37.241.0	-17	-27	221	26.239.5	-22	-27	193	37.240.0	-22	-28	177	70.231.2	-32	-39	400																																																																																																																																																																																																																																																																																											
350		-34	-57	304	15	-37	-45	191	44	-30	-35	218	25	-35	-45	172	65	-35	-42	197	40	-30	-41	215	26	-35	-40	200	39	-36	-43	181	72		350																																																																																																																																																																																																																																																																																												
300	303.7	-50		296	24.302.0	-53		187	47.304.8	-44			302.0	-49		181	59.303.3	-51		201	42.306.8	-44		225	31.304.6	-48		207	49.301.8	-51		181	80		300																																																																																																																																																																																																																																																																																												
250		-62		287	25	-68		197	46	-60			387.0	-74			388.2	-79		204	47	-60		242	42	-62		206	62		-66			250																																																																																																																																																																																																																																																																																													
200	389.1	-79		295	30.386.6	-79		192	31.390.8	-78			387.0	-74			388.2	-79		205	43.392.8	-79		242	42	-62		203	60		(213-78 mb)			200																																																																																																																																																																																																																																																																																													
170		-67		274	12	-67		175	26	-77				-64			206	33		206	33		-86	232	43		-77	200	46				170																																																																																																																																																																																																																																																																																														
150		-64		302	09	-63		176	17	-74				-63				208	29		208	29		-73	230	33		-71	214	35			150																																																																																																																																																																																																																																																																																														
130		-64		277	07	-68		169	12	-68				-64				208	17		208	17		-70	235	23		-69	215	23			130																																																																																																																																																																																																																																																																																														
110		-63		293	06	-65		163	09	-67				-60				209	16		209	16		-71	236	15		-69	219	18			110																																																																																																																																																																																																																																																																																														
100	534.7	-62		293	06.531.7	-63		161	08.533.7	-67			533.0	-60			533.0	-66		205	16.535.2	-68		230	19.533.2	-66		219	14				100																																																																																																																																																																																																																																																																																														
90		-60		334	04	-62				-66				-66				204	12		204	12		-66	209	15		-65	224	14			90																																																																																																																																																																																																																																																																																														
80		-59		335	08					-66				-66										-65	235	13		-62					80																																																																																																																																																																																																																																																																																														
70		-67		020	06					-65				-65										-64									70																																																																																																																																																																																																																																																																																														
60		-53																																60																																																																																																																																																																																																																																																																																													
Inversion 950 mb 35°-918 mb 46° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 1011 mb 52°-985 mb 56° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 964 mb 42°-900 mb 49° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 999 mb 50°-980 mb 51° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 973 mb 56°-961 mb 57° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 1011 mb 55°-940 mb 63° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 995 mb 55°-945 mb 66° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																Inversion 272-266 mb -60° Isothermal 782-770 mb 32° 736-715 mb 28° 587-567 mb 13°																																																																																															
Tropopause I 205 mb -80° 38,500'																																Tropopause II 205 mb -79° 38,000'																																Tropopause I 187 mb -83° 40,500'																																Tropopause I 210 mb -79° 37,700'																																Tropopause I 200 mb -79° 38,822'																																Tropopause I 173 mb -87° 42,200'																																Tropopause I 188 mb -84° 40,200'																																N.R.																																N.R.																																Tropopause																															
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																																																																																																																																																																																																																																																																										
Pressure M.S.L. Surf Pressing	09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.				09h G.M.T.																																																																																																																																																																																																																																																																																										
	1020.2 mb				1011.3 mb				1015.5 mb				1007.2 mb				1011.1 mb				1013.1 mb				1010.3 mb				1011.1 mb				1000.6 mb				1000.6 mb																																																																																																																																																																																																																																																																																										
	1010.0 mb				1009.7 mb				1014.6 mb				997.8 mb				1009.1 mb				1008.7 mb				995.0 mb				995.0 mb				1000.6 mb				1000.6 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	02.7	46	37	085	10.00.4	51	45	110	13.00.2	46	46	090	15.02.6	53	52		20.00.6	54	53		03.0	61	46	090	15.04.4	55	55		03.0	54	50	180	12	Surf																																																																																																																																																																																																																																																																																													
1000	05.4	44	37		03.0	50	44		04.7	45	45		02.0				03.0	53	52		03.0	61	46		03.0	55	55		03.0	54	50	180	12	1000																																																																																																																																																																																																																																																																																													
950		36	29	073	09	55	46	128	15	46	45	124	19	49	48		31.8	52	51		33.0	62	41	131	35	53	52		31.7	49	46	207	26	950																																																																																																																																																																																																																																																																																													
900	33.5	45	19	073	06.31.9	50	40	145	19.32.6	46	44	136	21.30.7	46	45		313																																																																																																																																																																																																																																																																																																														

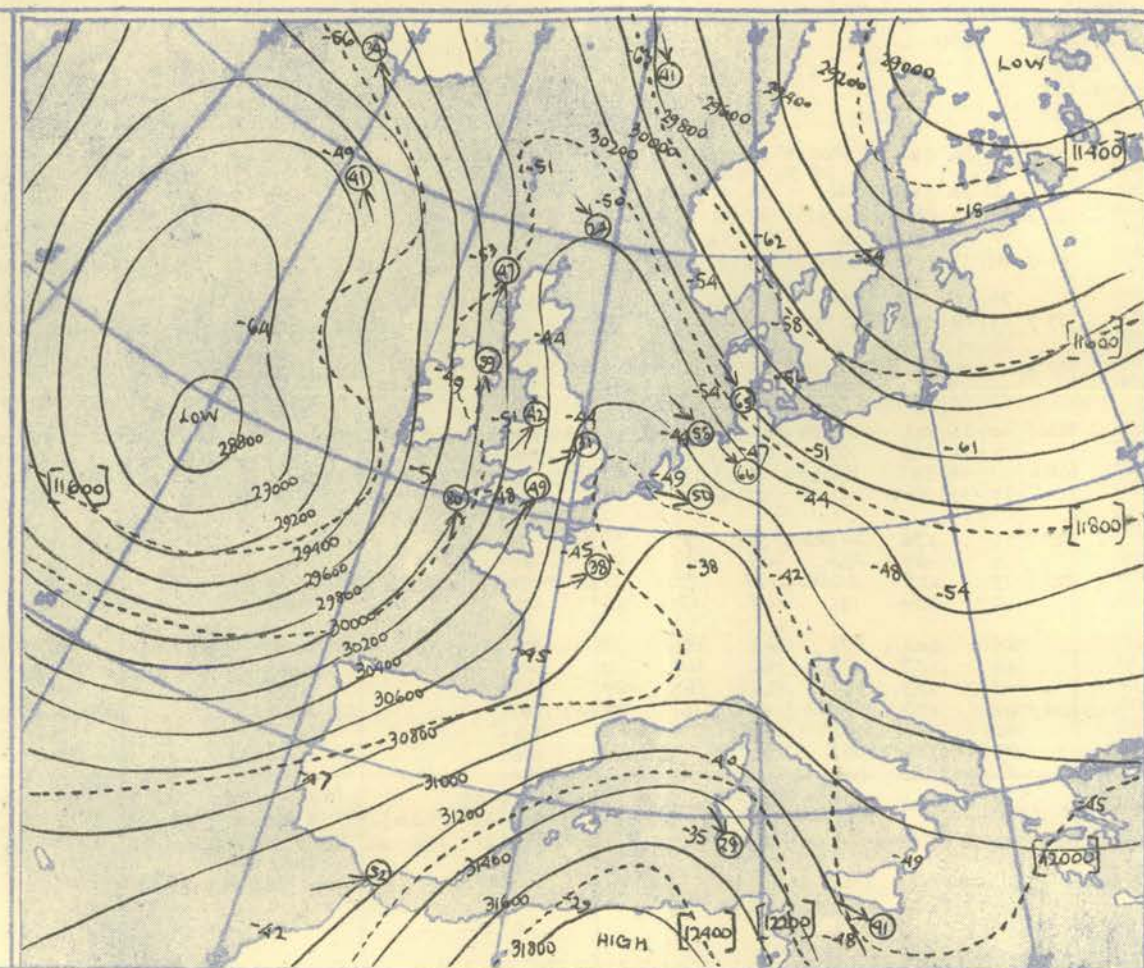
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



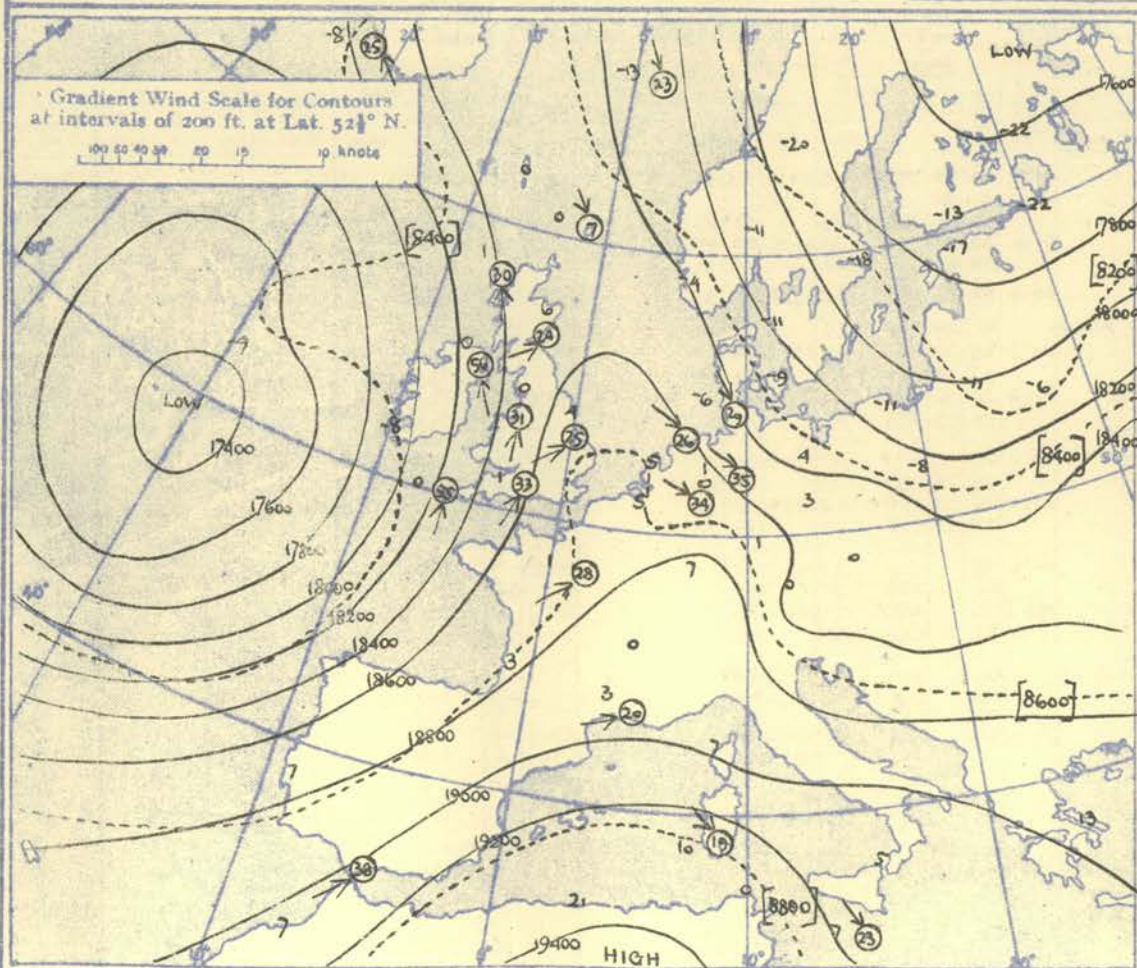
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

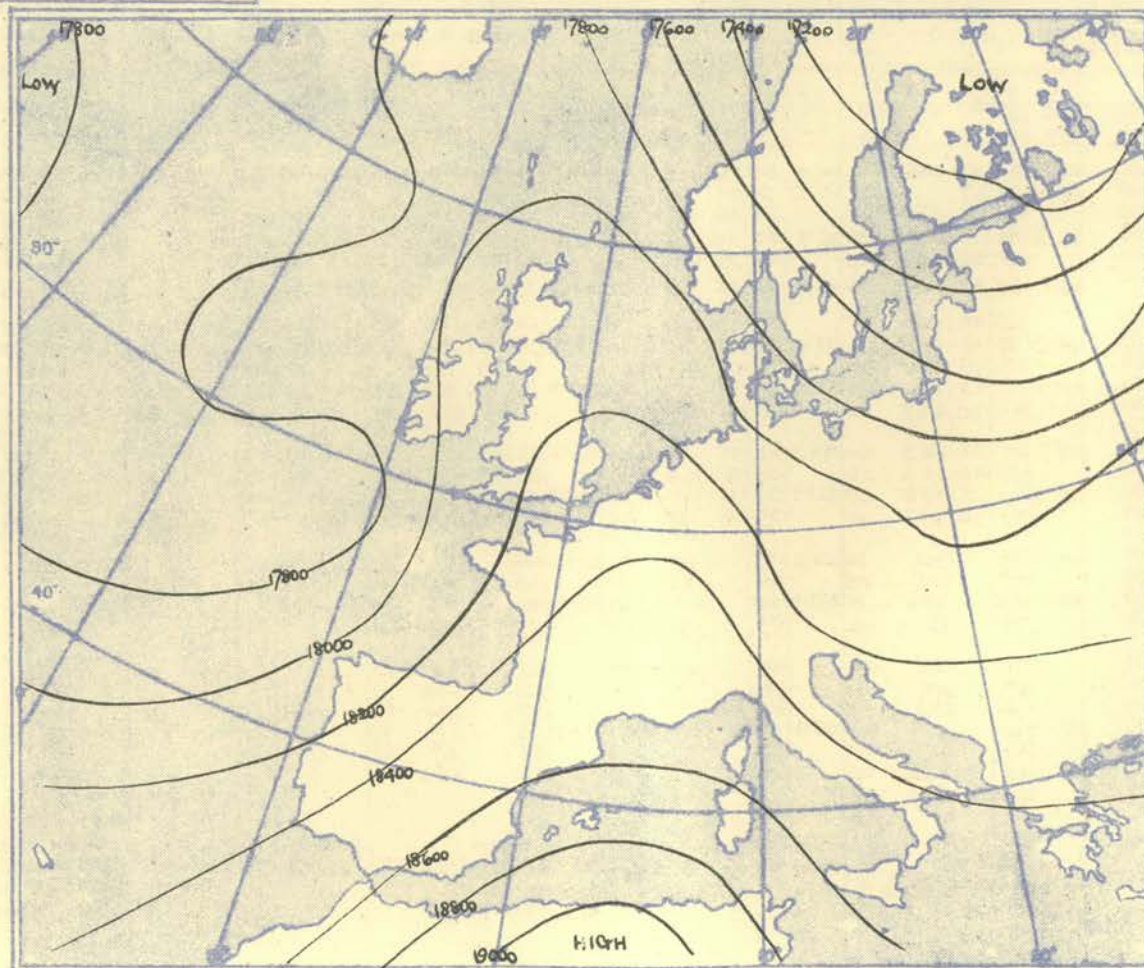
100 80 60 40 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.

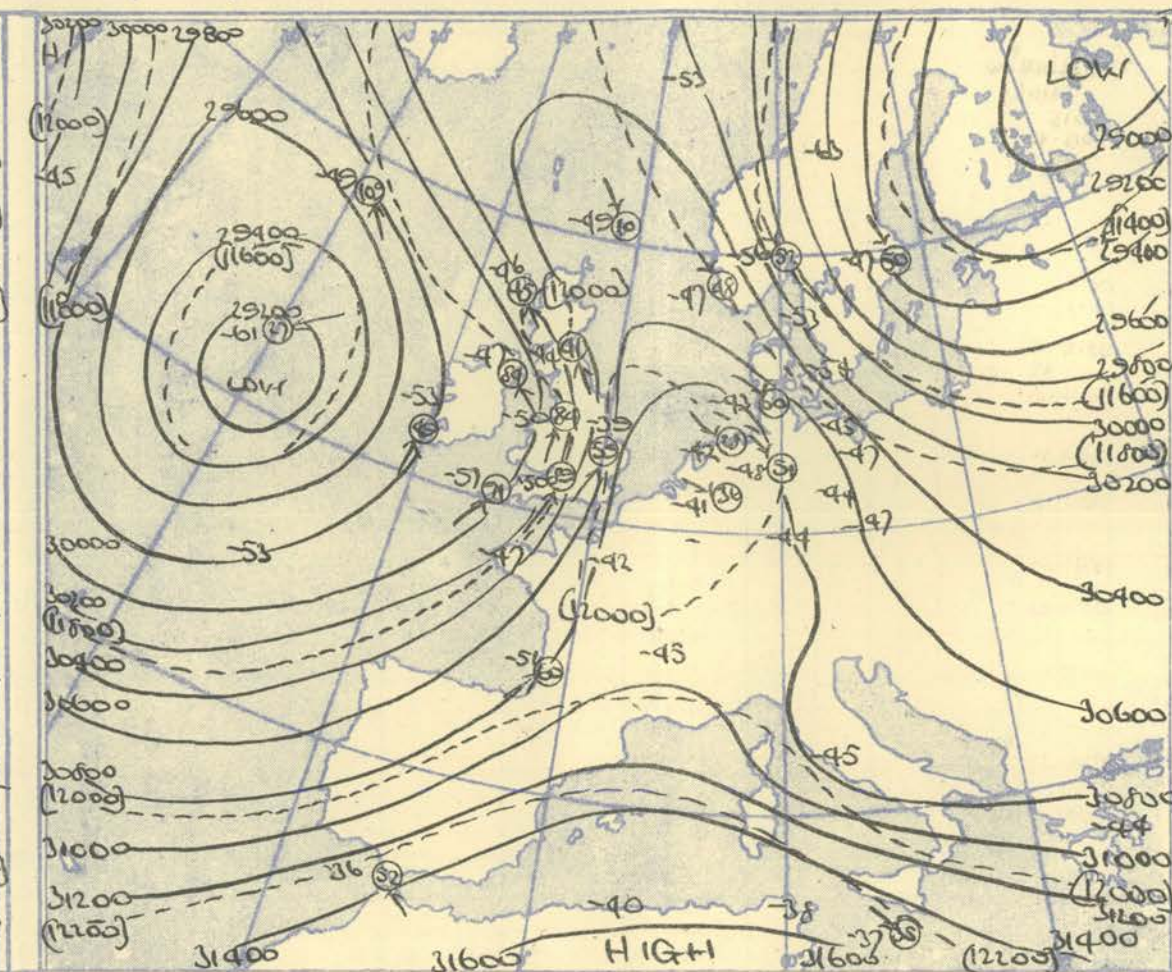
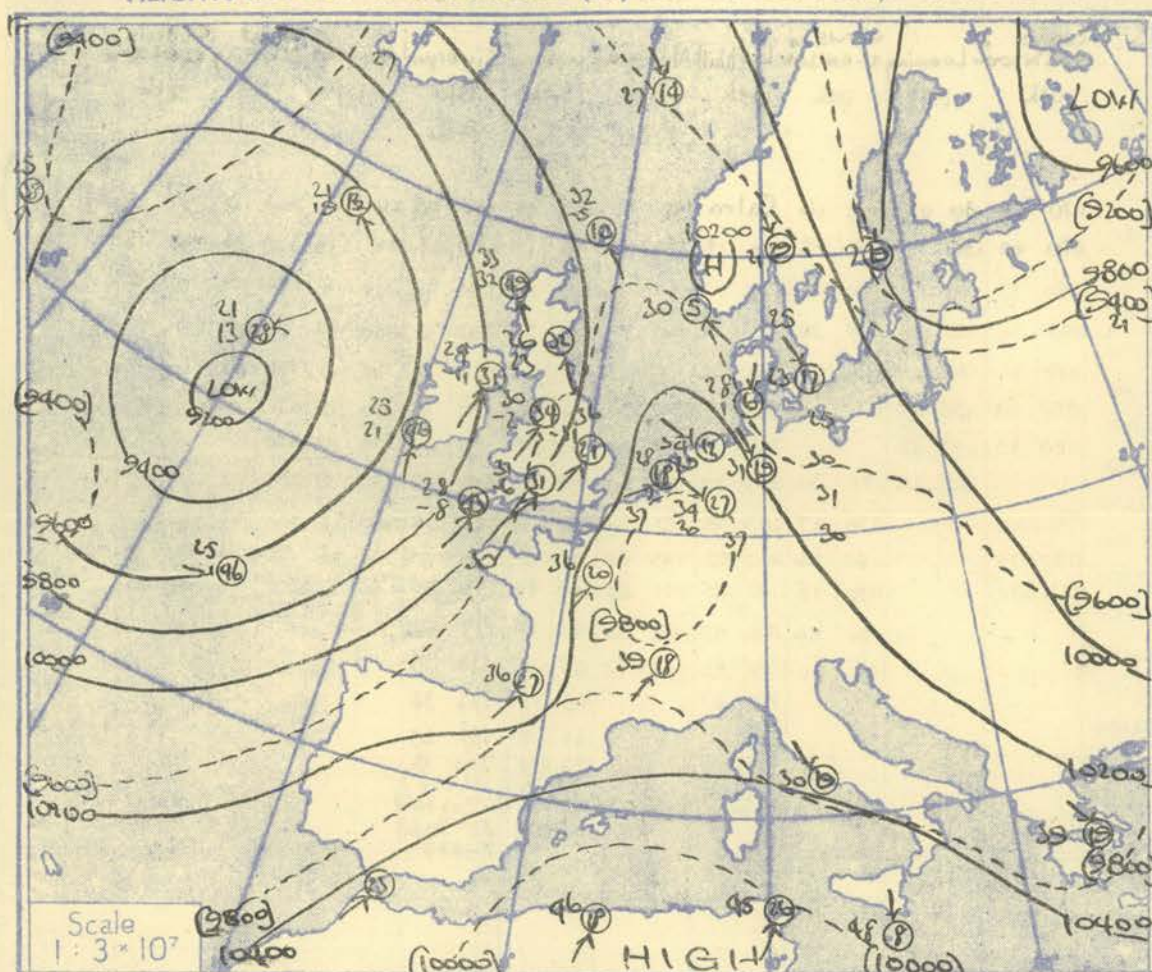
AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY															
Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.	Time M.S.L.
1410	1015	1013.5	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb	mb
710															
Surf	1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300
20.4	04.1	33.3	49	43	69.9	40	100.3	31	140.1	13	185.1	07	237.7	28	302.3
Cloud	3 Cu.	8982-800mb													

DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.															
Place	Time	Type	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.
Cirrus	03h	09h	09h	09h	09h	09h	09h	09h	09h	09h	09h	09h	09h	09h	09h
Surf	070	28	130	09	060	26	Cal	m	140	12	148	15	280	05	210
1,000	070	40	130	19	070	27	244	14	150	31	176	19	299	09	210
2,000	080	37	140	43	070	29	232	17	154	31	184	18	264	06	210
3,000	070	36	150	36	070	28	227	18	160	34	203	20	202	10	200
4,000	070	31	130	25	070	22	225	22	162	33	191	24	194	14	200
5,000	070	32	130	29	070	33	218	26	163	37	170	27	195	18	230
6,000	080	35	140	35			209	25	165	40	154	38	197	20	240
8,000			130	35	080	30	207	32	164	42	149	41	208	28	240
10,000	090	26			090	27	203	38	172	50	147	36	207	34	220
14,000	080	25			080	26	200	42	149	50	153	54	205	45	170
18,000	(11,000)				080	25	196	45	144	63	157	44	199	54	
24,000					080	26	186	47	148	72	161	51	179	76	
30,000					122,000	178	42	142	72	167	57	180	79		
40,000						192	67			168	77	182	38		
50,000						203	25			165	70	199	20		
60,000						205	09			(42,000)	200	18			
						203	08			Max Wind (51,000')					
						(63,000')				167° 90 kts Max Wind					
										36,350' 69° 90 kts					
										30,600'					



NEPHOSCOPE OBSERVATIONS															
Place	Time	Type	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.
Plymouth Calshot	15h	15h													
Dir. Vel.	190	83	220	75											

RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.																																			
Ship		Weather Observer				Weather Observer				Weather Observer				Weather Observer				Cirrus				Cirrus				Cirrus				Cirrus				Ship	
Lat/Long		59-0°N 19-0°W				59-0°N 19-0°W				59-0°N 18-8°W				59-1°N 19-0°W				51-5°N 20°W				00hrs				15hrs				21hrs				Lat/Long	
Pressure	Time	03hrs		G.M.T.		03hrs		G.M.T.		15hrs		G.M.T.		21hrs		G.M.T.		03hrs		G.M.T.		00hrs		G.M.T.		15hrs		G.M.T.		21hrs		G.M.T.			
	M.S.L.	1003		mb		1004		mb		1003		mb		1004		mb		986		mb		mb		mb		990		mb		mb		mb			
	Surf	1003		mb		1004		mb		1003		mb		1004		mb		986		mb		mb		mb		990		mb		mb		mb			
	Freezing	810		°F.		803		°F.		800		°F.		820		°F.		800		°F.		°F.		°F.		810		°F.		°F.		°F.			
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	Pressure			
mb	ft./100	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	°F.	°F.	Dir. Vel. knots	mb			
Surf	-	56.4	9.0	20	-	49.4	0.8	10	-	51.4	0.5	13	-	51.4	0.5	12	-	52.5	0.7	23	-	56.4	9.0	23	-	56.4	9.0	23	-	56.4	9.0	23	Surf		
1000	0.9	45.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	10.0		
950	29.3	40.4	11.3	24	38.6	10.2	13	1.3	45.4	0.7	14	1.1	44.4	13.1	10	3.8	48.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	950		
900	59.3	34.4	11.0	22	38.6	10.8	20	2.6	45.4	0.7	14	1.1	44.4	13.1	10	3.8	48.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	900		
850	60.5	31.4	11.0	22	38.6	10.8	20	2.6	45.4	0.7	14	1.1	44.4	13.1	10	3.8	48.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	850		
800	60.5	31.4	11.0	22	38.6	10.8	20	2.6	45.4	0.7	14	1.1	44.4	13.1	10	3.8	48.4	10.6	24	43.3	10.0	13	1.3	51.4	0.8	14	1.1	44.4	13.1	10	3.8	48.4	800		
750	75.0	25.1	11.0	24	25.1	11.5	22	2.4	24.4	10.4	11	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	750	
700	94.9	16.1	11.0	24	25.1	11.5	22	2.4	24.4	10.4	11	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	700	
650	10.1	11.0	11.0	24	25.1	11.5	22	2.4	24.4	10.4	11	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	10.7	07	2.8	21.1	650	
600	133.5	02.2	10.9	20	13.4	10.5	23	3.4	10.5	12.3	14	13.9	04.0	10.3	05	13.0	00.8	15.15	10.8	18	15.15	10.8	18	15.15	10.8	18	15.15	10.8	18	15.15	10.8	18	15.15	600	
550	7.28	11.1	11.1	33	3.43	10.6	22	04.13	13.5	13	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	11.0	26.35	550	
500	175.4	3.5	11.2	36	17.8	10.6	23	18.0	5.23	12.8	20	17.8	13.1	11.2	32	17.4	7.9	20	17.8	10.6	23	18.0	5.23	12.8	20	17.8	13.1	11.2	32	17.4	7.9	20	17.8	500	
450	30.41	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	450	
400	228.4	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	400	
350	50	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	350	
300	291.7	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	300	
250	43	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	250	
200	380.3	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	200	
170	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	170	
150	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	150	
130	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	130	
110	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	110	
100	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	100	
90	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	90	
80	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	80	
70	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	70	
60	55	10.9	4.2	42	24.3	10.8	24	15.30	13.0	32	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	20	23.30	11.8	46	60	
Isothermal		894-818 m 33°		Inversion		920 m 41-910 m 42 (36)-46		Isothermal		842-827 m 43°		Inversion		941 m 23-930 m 24°		Isothermal		842-827 m 43°		Inversion		941 m 23-930 m 24°		Isothermal		842-827 m 43°		Inversion		941 m 23-930 m 24°		Isothermal		842-827 m 43°	
Tropopause		I 366 m -40°		II 341 m -48°		II 263 m -58°		II 262 m -62°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		II 267 m -70°		Tropopause	

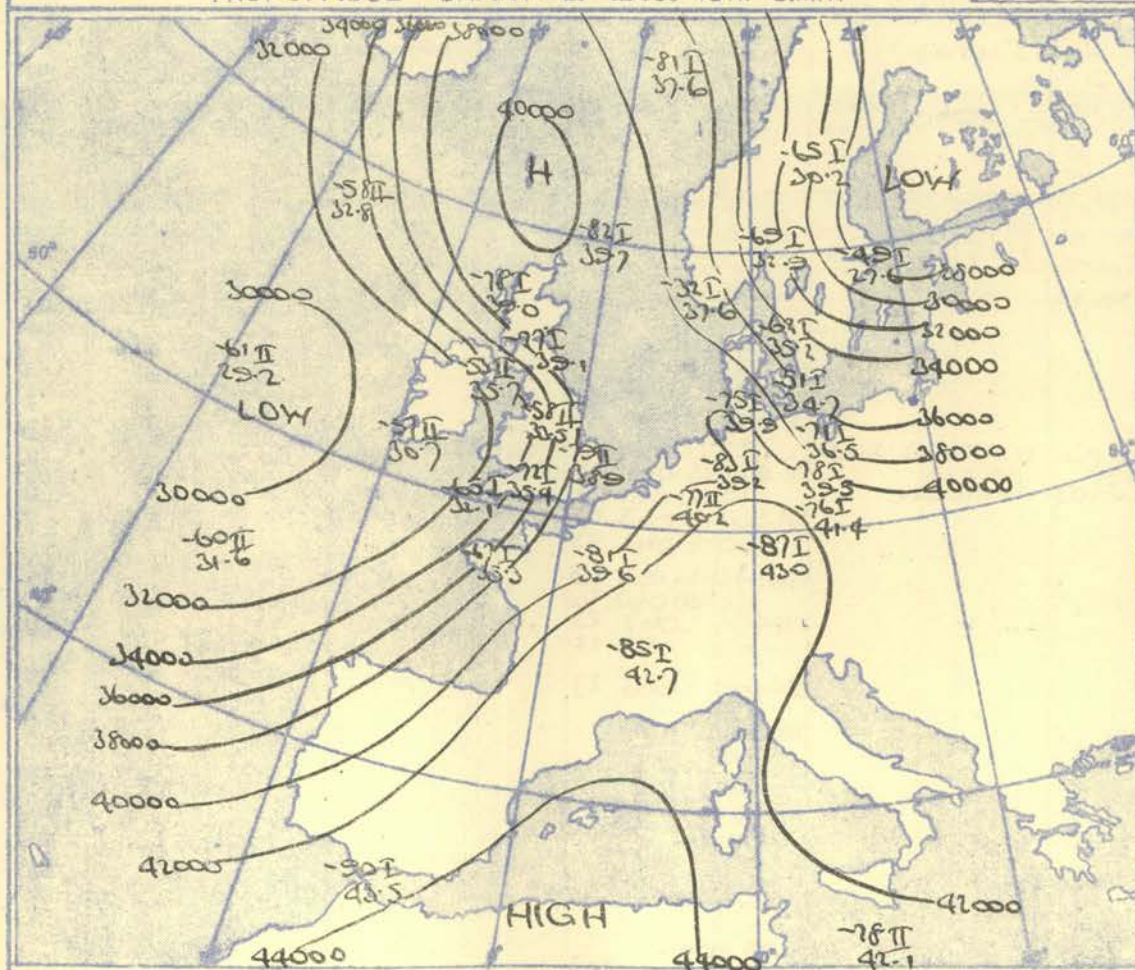


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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.

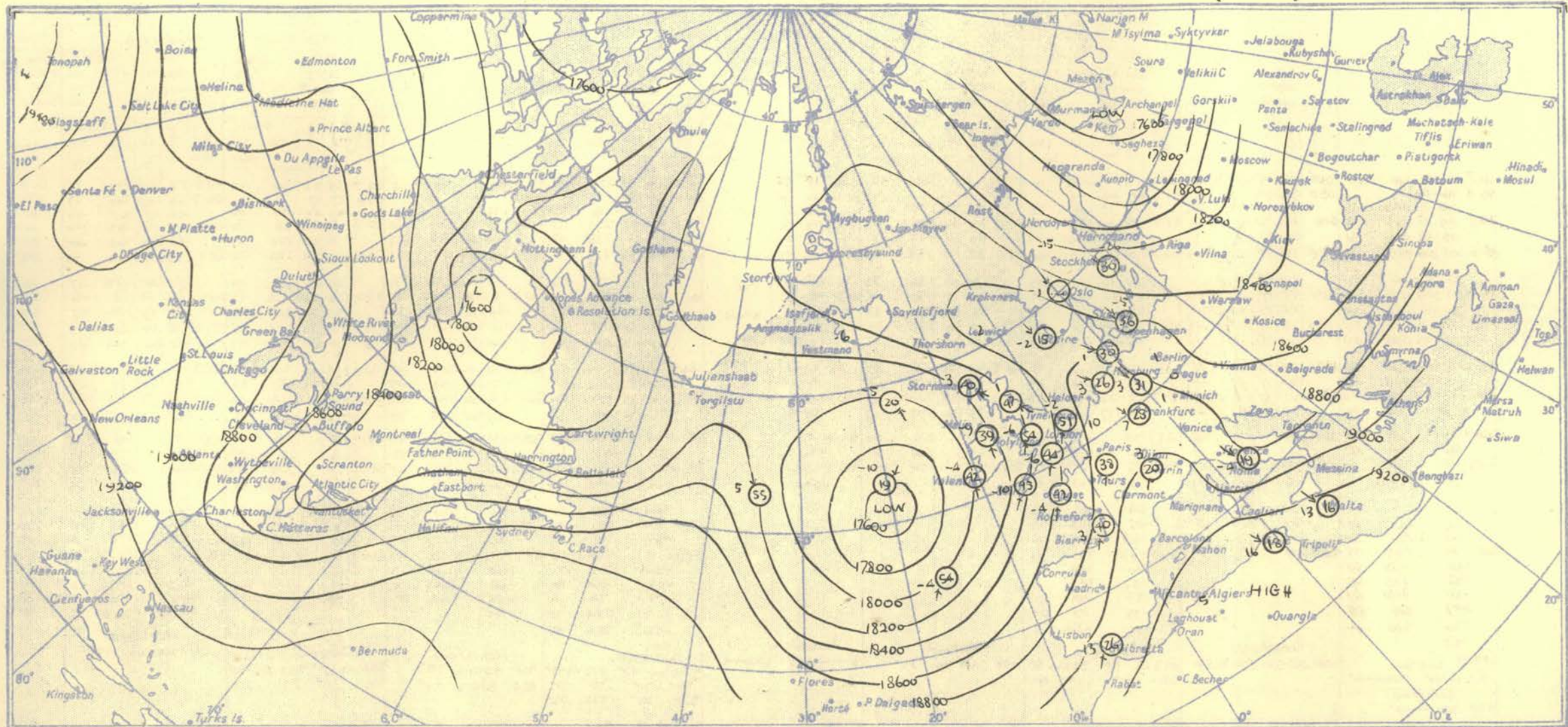
TROPOPAUSE CHART at about 15h. G.M.T.



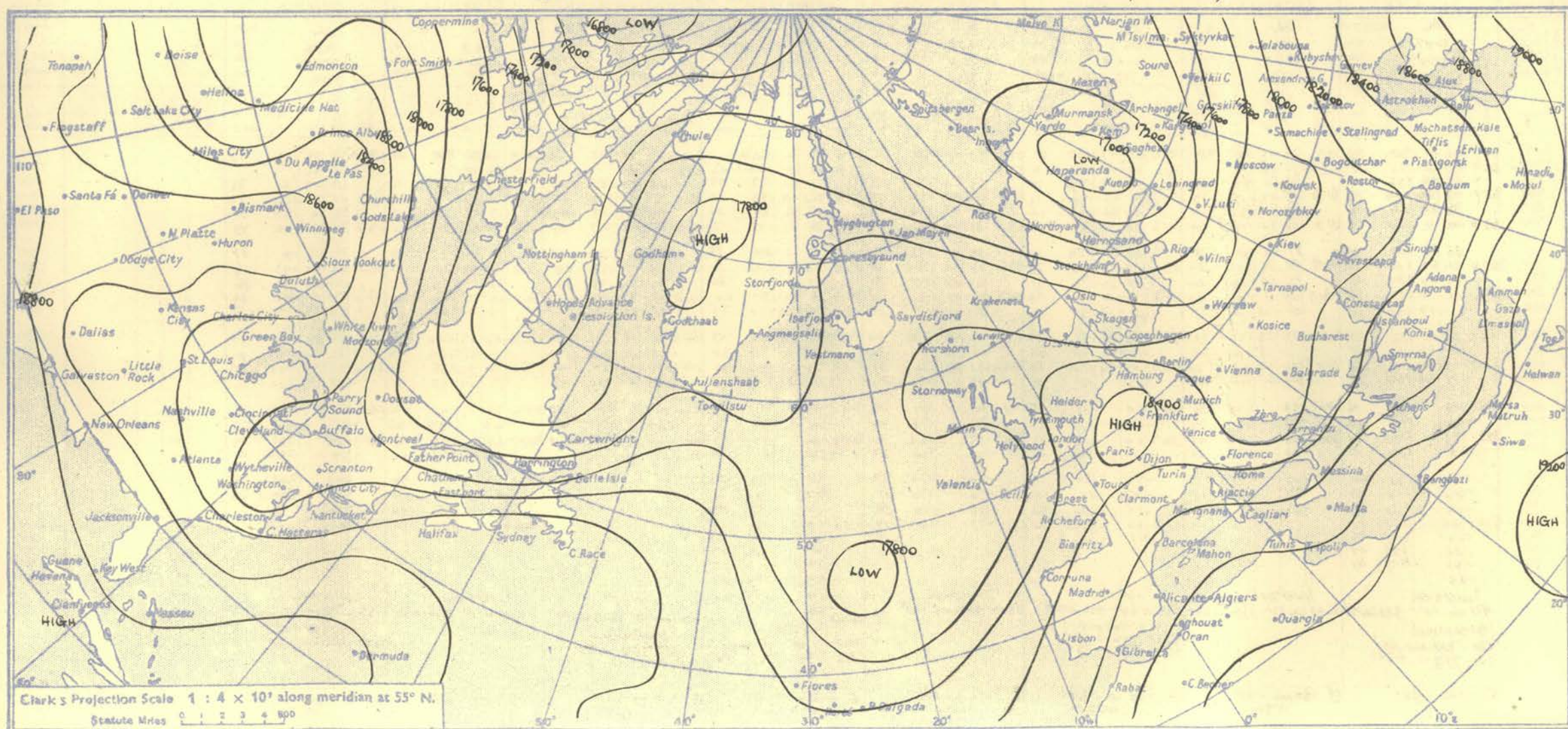
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Continued development of the warm ridge extending Northwards over Western Europe and the North Sea, and Northwards over Iceland and Greenland, accompanied by slow Eastward movement over the North Sea. Some warming in the cold trough west of Biscay.



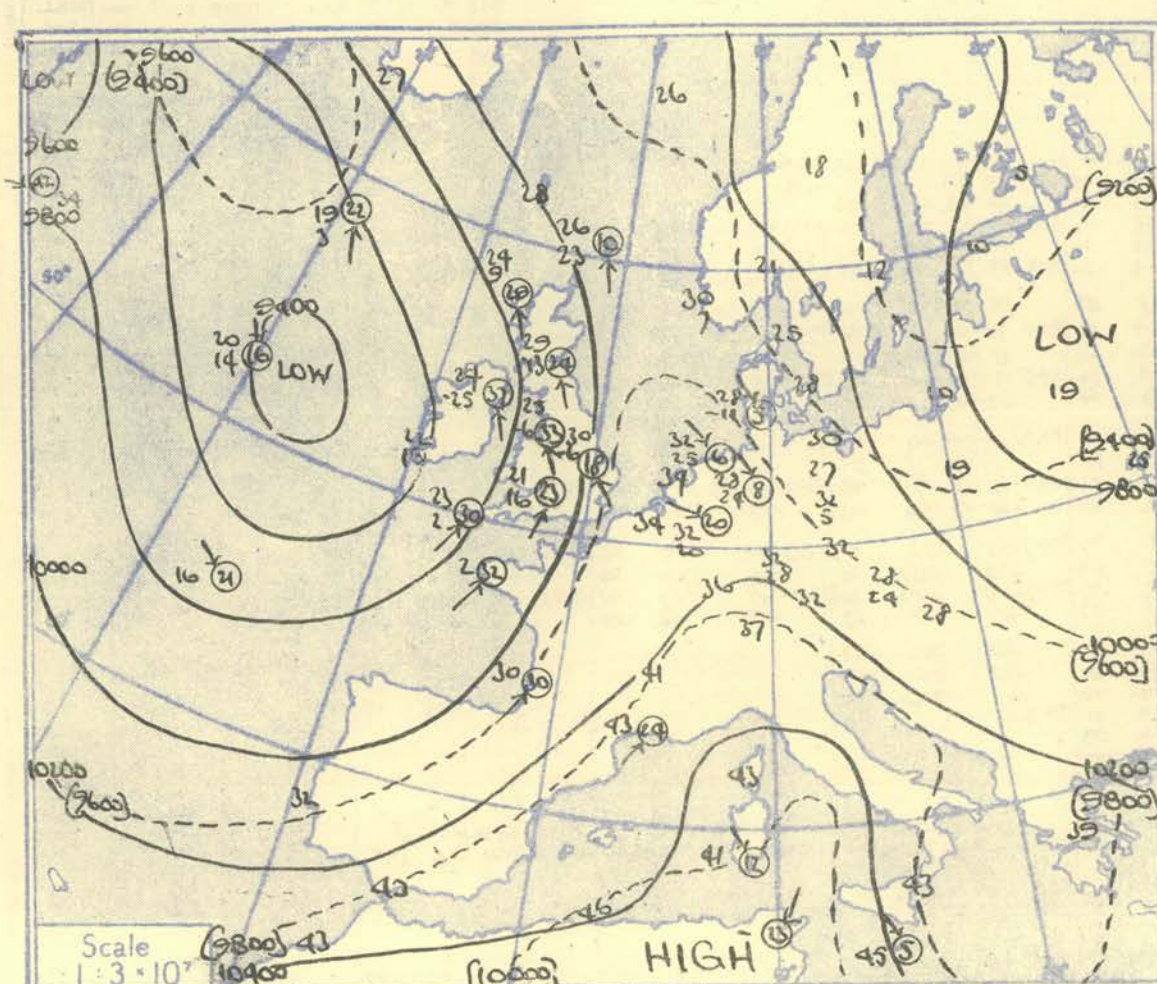
ISOPLETHS OF THICKNESS, 500-1000 mb. at about 15 h. G.M.T. Thursday 24th May



TEGE

This block contains a detailed meteorological report for the period from 1900 to 1901, covering various stations including Lerwick, Stornoway, Leuchars, Aldergrove, Liverpool, Downham Market, Larkhill, Camborne, and Valentia. The report includes a large table of atmospheric data (pressure, temperature, wind, etc.) and a series of smaller tables and notes detailing specific observations, such as inversions, isotherms, and wind directions. The data is presented in a structured, tabular format, with columns for time, station, and various meteorological parameters.

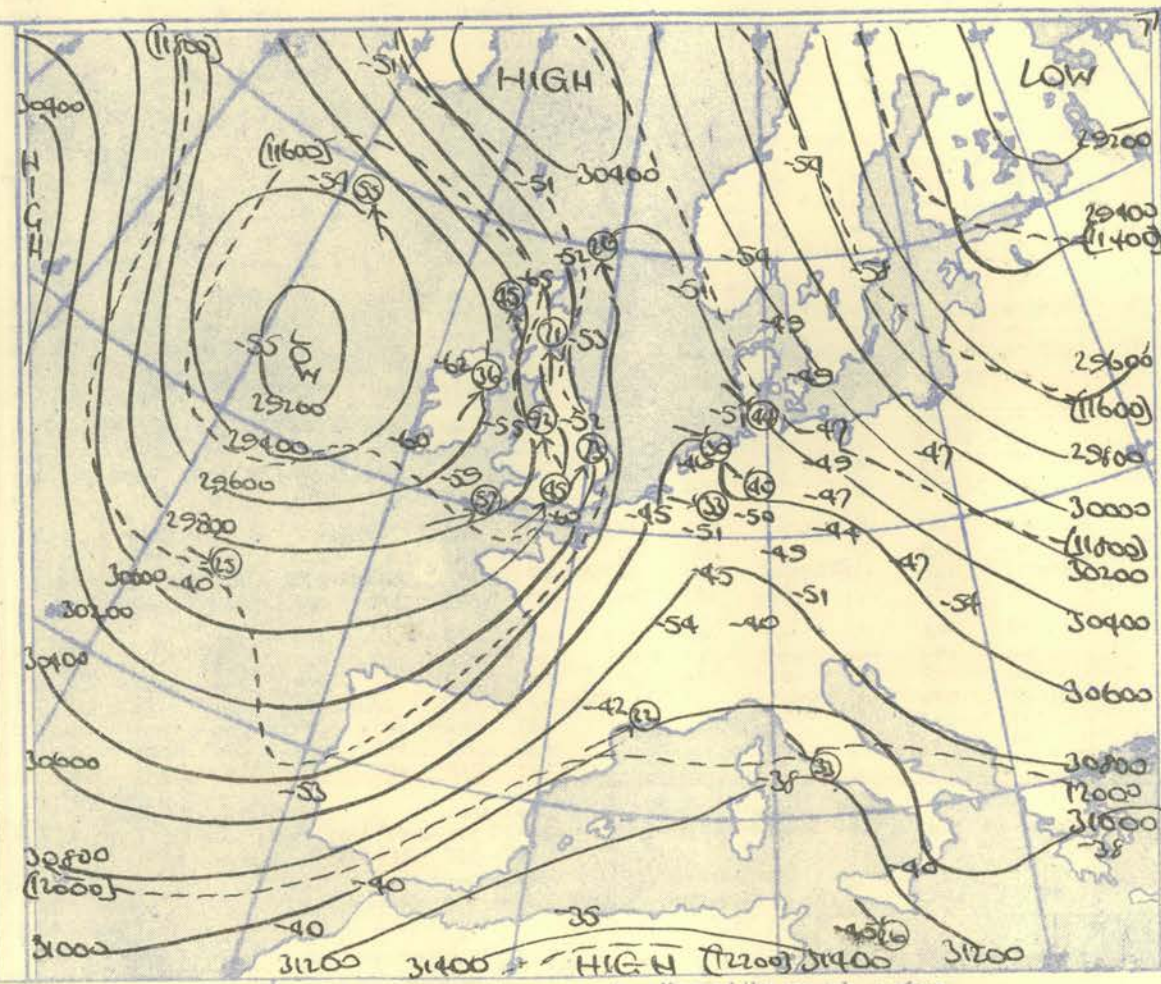
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



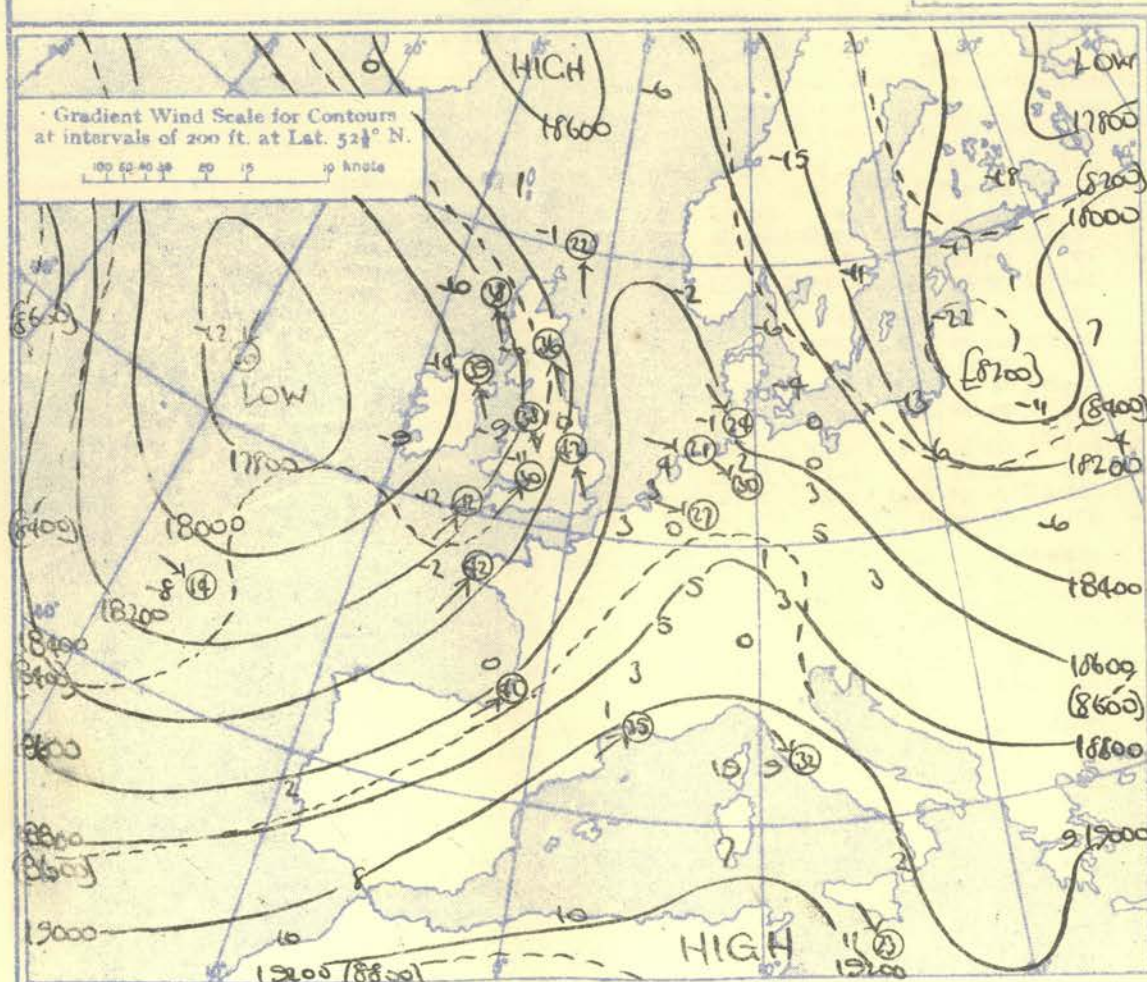
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

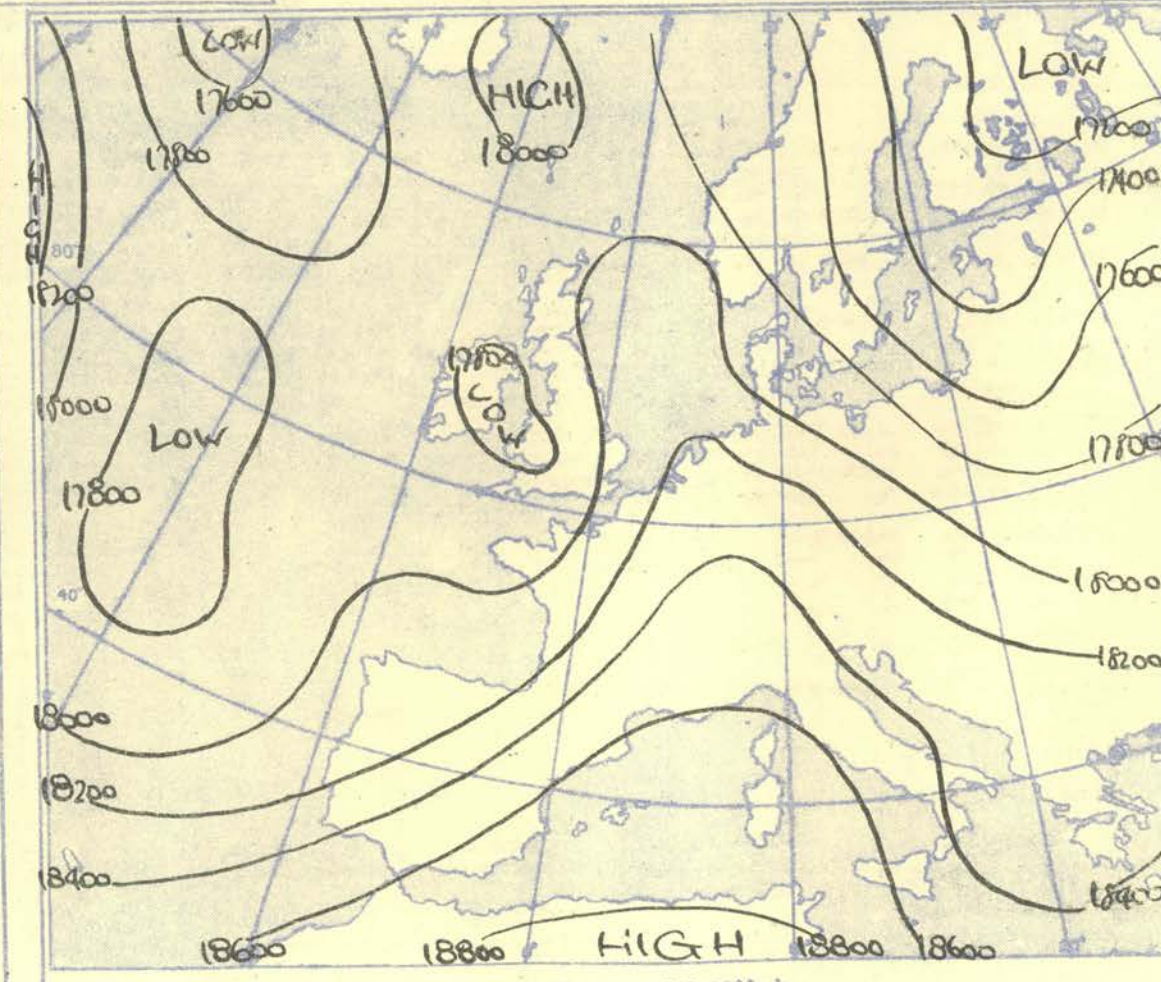
100 50 40 30 20 15 10 knots



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.



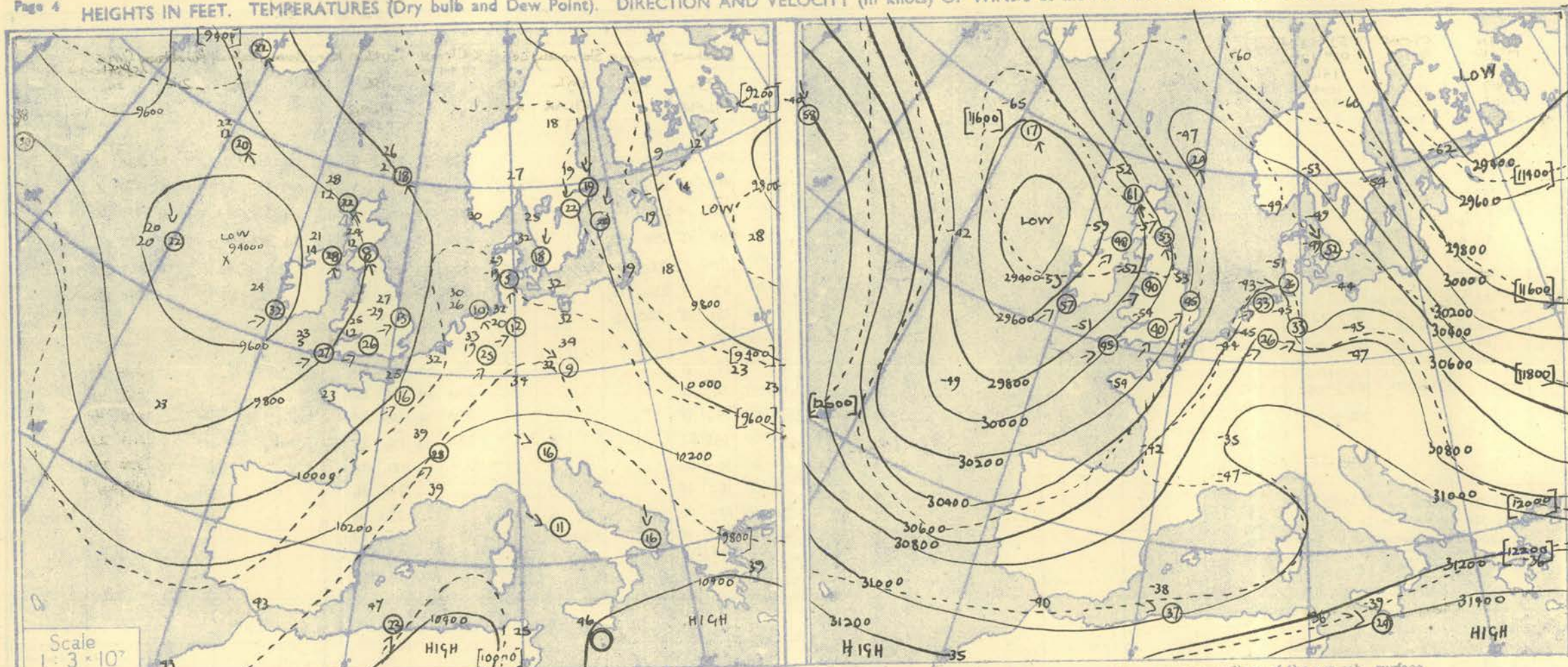
Isopleths of Thickness 500—1000mb.

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

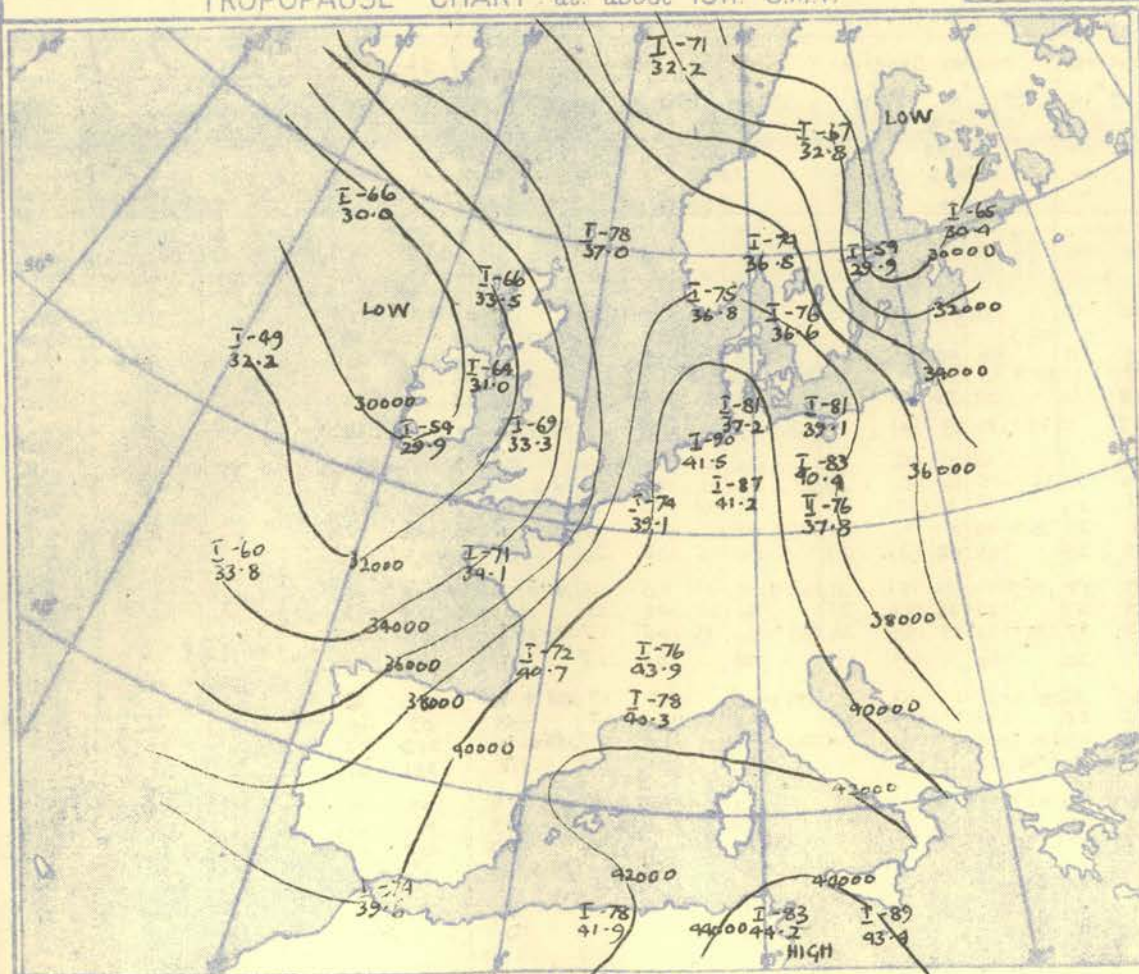
NEPHOSCOPE OBSERVATIONS

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Ship	Cirrus				Cirrus				Cirrus				Cirrus				Weather Observer				Weather Observer				Weather Observer				Weather Observer				Ship				
Lat/Long	52.5N 20.0W				52.5N 20.0W				52.5N 20.0W				52.5N 20.0W				59.1N 18.9W				59.1N 19.0W				59.1N 19.3W				59.1N 19.3W				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.	997	mb			mb			1002	mb				mb			1006	mb			1008	mb			1009	mb			1011	mb			mb	M.S.L.			
	Surf	997	mb			mb			1002	mb				mb			1006	mb			1008	mb			1009	mb			1011	mb			mb	Surf			
	Freezing	810	mb			mb			815	mb				mb			820	mb			815	mb			795	mb			800	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		52	50	350	19			For Winds	53	50	320	19				For Winds	50	49	130	12	02.3	50	48	070	15	02.6	51	49	080	20	3.0	50	47	080	17	Surf	
1000	-0.7								53	50	321	19					49	48							02.6	50	47	100	24	3.0	50	47	095	21	1000		
950		48	48	344	21			See	46	45	329	24				See	46	40	132	11	02.8	46	39	090	15	02.6	49	43	105	24		43	38	097	20	950	
900	26.0	43	42	347	20			Top of	40	40	342	25				Top of	42	34	137	12	03.0	42	38	113	20	02.6	49	43	109	20	31.3	39	33	100	21	900	
850		37	35	350	20			No	36	36	339	20				No	35	29	148	12	03.8	36	35	124	21	02.6	41	28	105	21		38	22	100	25	850	
800	59.3	31	29	352	24	No	Ascent	Top of Page	60.6	31	31	332	23			Top of Page	61.4	30	25	157	14	02.1	30	29	131	18	02.5	33	26	104	23	62.5	32	09	099	24	800
750		25	22	350	20				26	26	332	26					25	16	173	17		25	21	136	16		25	17	105	24		28	03	096	20	750	
700	93.9	20	14	353	16				20	20	332	22					19	03	174	22	06.7	18	16	131	23	07.2	22	12	105	20	07.2	24	09	097	21	700	
650		13	05	354	16				15	12	349	22					16	09	161	25		12	10	127	26		15	05	105	17		15	17	098	21	650	
600	132.9	06	04	351	16				134.4	07	03	349	26				134.9	06	13	151	27	06.5	05	01	130	26	136.2	08	01	105	19	136.2	07	02	102	17	600
550		02	16	356	17				10	06	335	18					02	18	140	25		03	08	136	27		00	05	105	20		01	23	103	18	550	
500	177.3	12	29	006	20				179.0	10	16	343	25				179.4	12	31	137	27	179.9	11	15	151	31	180.8	10	17	105	18	181.0	09	34	106	10	500
450		23	40	059	26				20		354	31					25	43	115	27		21	26	154	31		21	31	105	21		21	46	109	13	450	
400	229.2	36		364	28				231.4	34		342	40				231.1	36	54	118	29	232.1	32	39	150	28	232.9	34	43	105	17	233.2	33	55	109	20	400
350		50							36		342	45					46		119	30		46		149	32		48		105	17		47		105	21	350	
800	292.1	55							296.3	42							294.5	54		116	55	295.4	61		151	30	295.9	65		105	17	296.4	60		104	16	300
250		53							309.5	49							309.5	58		58		309.5	51		139	20		115	07		53		102	14	250		
200	(225 mb)	52							323.1	50							322.0	53		081	133	323.5	49		121	14	323.6	51		120	07	324.0	52		313	07	200
170									51								54		120	12	(190	50				51		124	07		52		331	07	170		
150									52								56		124	06	mb)					52		124	06		53		335	15	150		
130									52								59		124	05						54		124	03		55		006	10	130		
110									53								60									53		124	03		54		009	05	110		
100									53								60									53		534.2	51		534.5	54				100	
90									52								60									51									90		
80									52								60									51									80		
70									52								60									51									70		
60									52								60									51									60		
Tropopause				I 324mb-60° 27,500'				I 266mb-99° 32,200'				II 283mb-56° 30,600'				I 300mb-61° 29,500'				I 295mb-66° 30,000'				I 300mb-60° 29,600'				Tropopause									



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

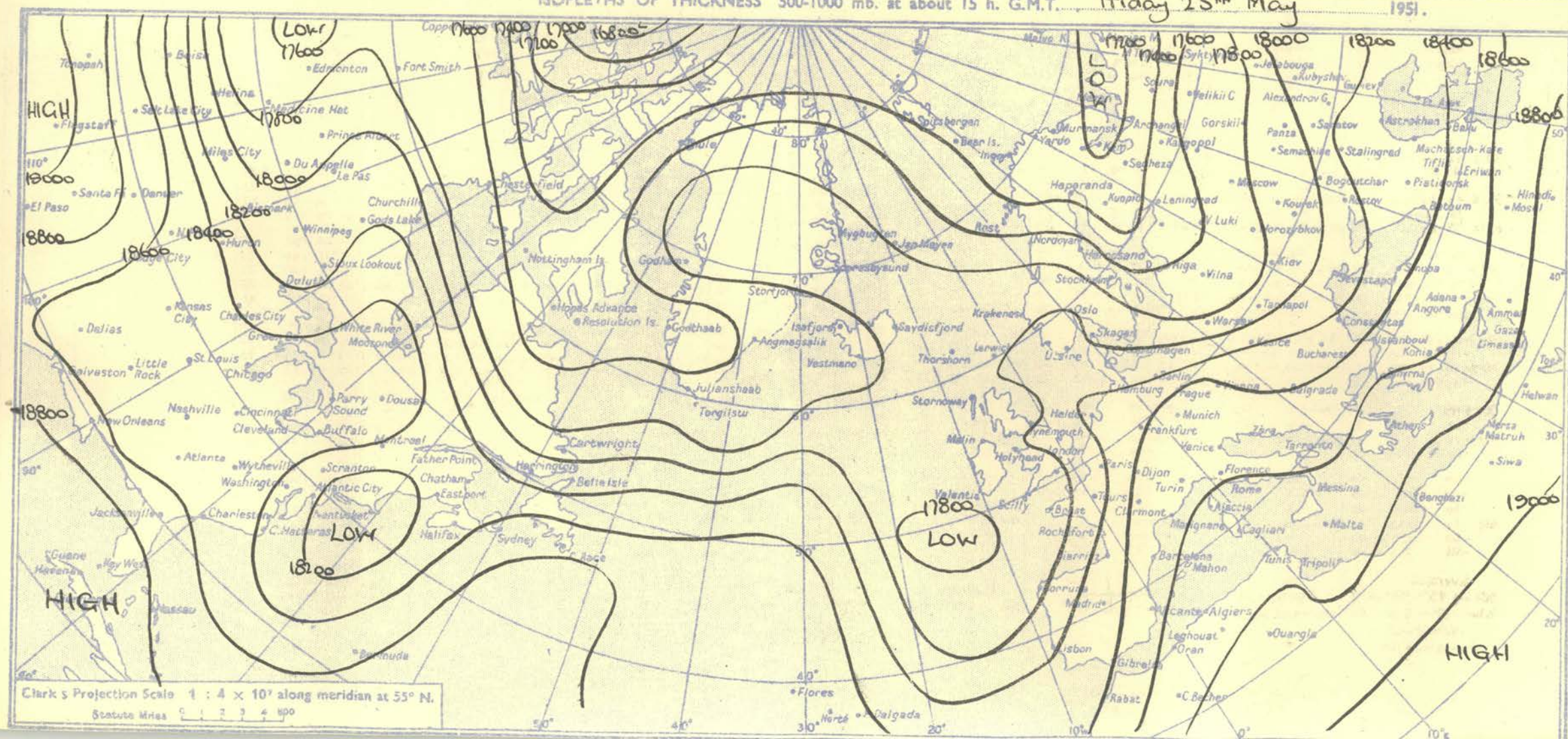
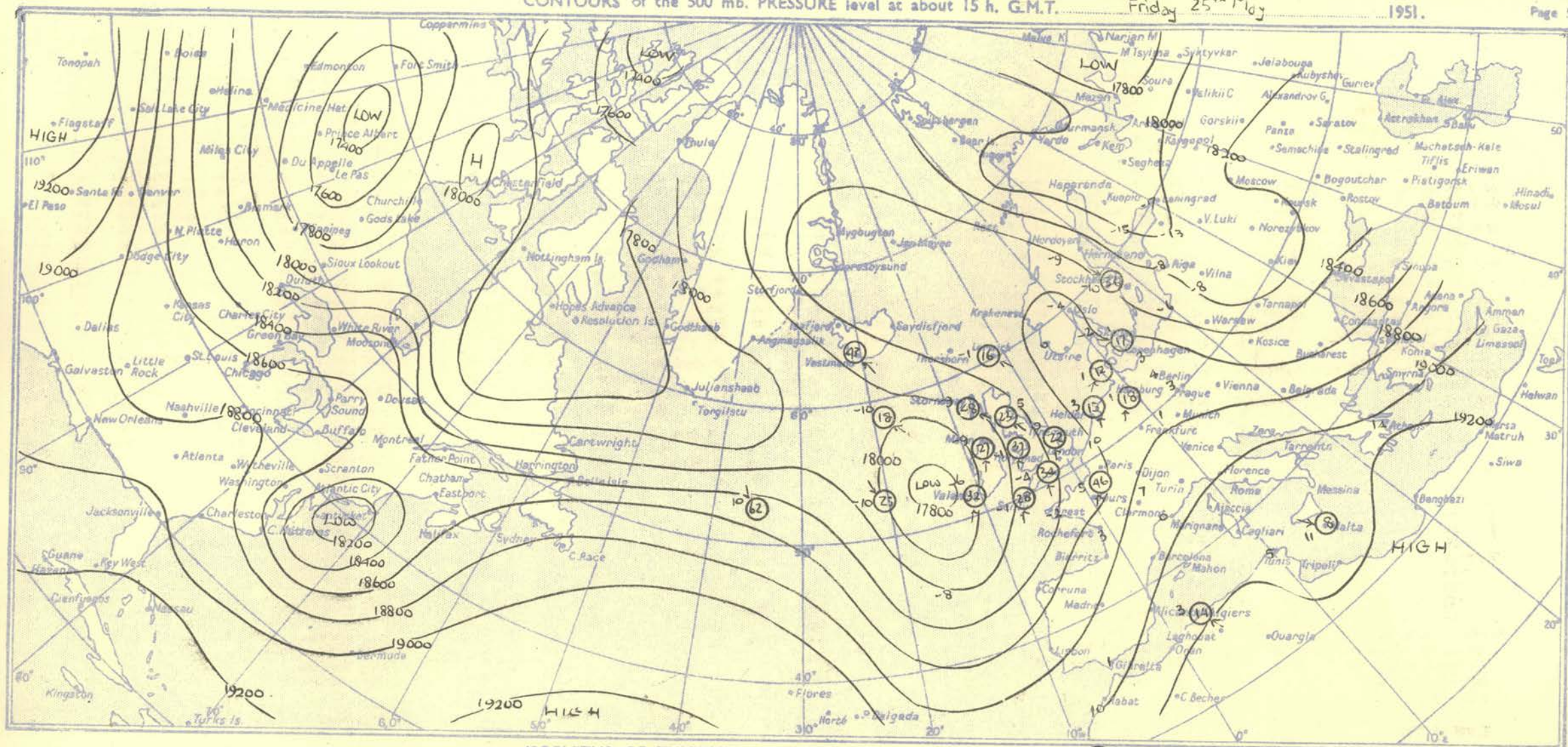


NOTES ON THE AEROLOGICAL SITUATION.

Little of note.

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



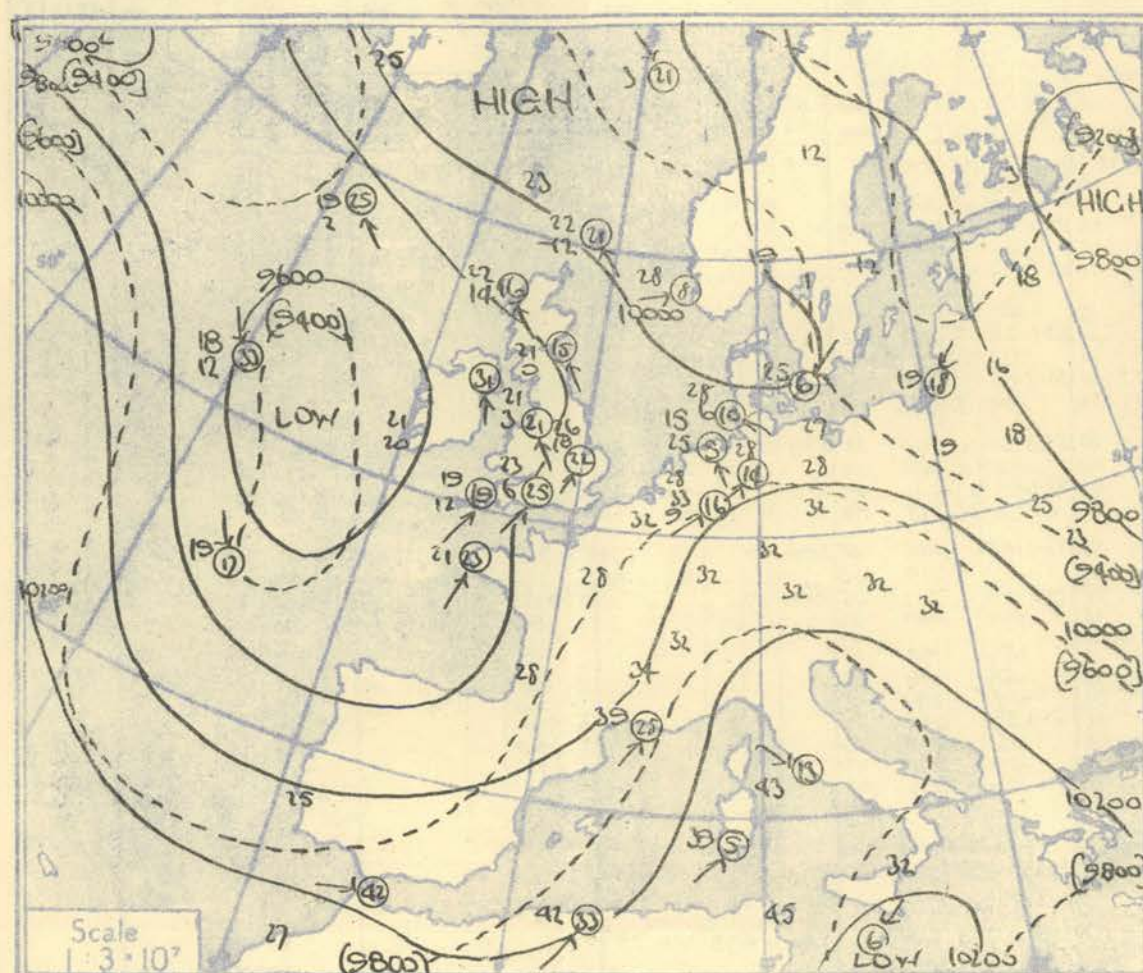
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																																				
Pressure Time M.S.L. Surf Freezing	15L				15L				15L				15L				15L				15L				15L				15L				15L				15L				Time M.S.L. Surf Freezing																																
	1020.4				1013.6				1014.7				1000.0				1012.6				1014.2				1014.9				1012.6				1002.2				1001.0																																				
	763				736				711				796				781				756				792				787				770																																								
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	49	45	130	11	00.4	56	49	030	08	00.2	47	47	080	10	02.6	59	51	140	20	00.6	66	47	160	12	01.2	67	47	255	08	04.4	61	49	210	15	02.9	55	51	190	10	00.3	45	53	180	16	Surf																											
1000	05.5	48	45	133	18	03.7	55	47		05.9	46	46	095	10	02.7	47	43	151	27	03.5	53	37	172	14	04.0	56	43	236	12	04.1	51	41			03.4	48	45	198	30	00.6	55	53	180	28	1000																												
950		41	38	131	18		52	40	078	18		46	46	140	10		47	43	151	27		46	46	140	10		56	43	236	12		51	41				48	45	198	30		48	46	185	28	950																											
900	33.9	46	27	130	18	32.6	48	33	114	19	32.5	47	47	171	13	31.4	42	39	159	33	32.5	48	34	185	13	33.7	48	40	233	18	33.0	44	38			32.0	43	40	200	28	29.3	43	41	183	30	900																											
850		41	21	125	16		42	31	130	20		42	38	186	13		38	35	162	32		41	29	200	15		40	36	230	10		37	29				38	31	198	28		39	37	186	32	850																											
800	65.4	36	12	116	18	64.2	35	28	144	19	64.1	36	33	162	19	62.7	33	28	162	32	64.1	35	25	200	15	64.6	34	31	221	09	64.3	33	24	For		63.4	34	22	201	29	60.7	35	30	190	33	800																											
750		31	10	118	16		34	25	140	21		29	22	157	09		27	23	164	28		28	20	188	16		31	07	217	10		27	23	Winds			27	15	203	30		30	18	194	33	750																											
700	100.3	26	02	124	16	99.3	28	12	132	22	98.9	24	12	153	08	97.5	21	14	165	28	99.0	26	13	186	19	99.6	27	29	213	13	99.1	25	12			98.1	23	05	204	27	95.6	24	10	195	32	700																											
650		21	14	118	21		19	07	115	21		19	11	151	14		15	07	172	25		21	02	193	30		20	40	196	21		19	04	Sec			19	06	200	28		17	07	188	33	650																											
600	139.8	14	12	108	21	138.6	10	09	113	29	138.2	11	09	147	18	136.5	07	03	170	24	138.5	05	09	198	33	139.1	16	43	201	25	138.4	10	15			137.4	12	17	197	27	134.8	10	03	188	32	600																											
550		08	07	109	18		02	18	121	44		05	17	144	19		01	11	168	26		05	15	190	35		09	49	193	23		05	22	page			06	26	200	28		02	10	191	29	550																											
500	185.2	01	08	118	16	183.4	09	23	124	48	183.3	05	30	159	23	181.3	09	23	172	27	183.7	01	22	193	37	184.6	00	55	196	22	183.6	04	29			182.7	01	36	193	28	179.8	06	23	188	32	500																											
450		10	16	125	18		19	27	136	51		17	37	167	26		20	34	178	29		12	34	196	40		11	53	199	24		10	38				13	53	194	30		17	31	189	29	450																											
400	238.7	19	27	100	24	235.8	29	40	139	46	235.9	32	49	164	28	233.5	32	46	186	29	236.9	29	43	203	41	238.0	23	56	186	30	236.5	28	47			235.8	26	58	199	35	232.4	29	40	190	36	400																											
350		32	50	110	23		39	51	130	59		49	171	33		46	203	46	203	46		39	58	204	44		38	58	188	37		40	54				38	58	206	40		42	190	48	350																												
300	304.3	47		132	24	300.2	52		125	61	299.2	57		164	33	297.0	59		201	48	301.3	52		202	40	302.6	53		199	45	300.7	54				300.4	51		215	45	296.5	53		193	57	300																											
250		68		128	28		65		127	44		64		163	33		59		196	39		67		202	40		72		202	44		72				67		224	47		50		192	27	250																												
200	389.4	10		137	20	386.4	57		142	23	385.5	59		172	21	384.0	61				387.3	58		206	30	387.5	60		210	34	386.0	61				387.0	54		210	30	385.3	45		204	21	200																											
170		02		139	10		63		142	21		54		175	15		55					53		188	25		61		212	25		62				51		206	24		47		23.8	13	170																												
150		60		154	10		55		134	12		56		172	12		55					55		196	21		58		213	19		57				51		217	18		47		25.7	11	150																												
130		58		166	07		55		143	07		55		173	09		54					52		338	11		60		217	16						51					47		L.V.		130																												
110		58		124	03		52		113	06		53		180	09		54					53		194	07		59		218	11													51		110																												
100	536.9	56		041	03	536.4	52		128	06	535.0	52				533.7	55					53.5		50		536.0	56		220	12															53.8	51	100																										
90		56		021	02		51		128	04		52					51					51		130	10		56		212	10																52		90																									
80		56		080	03		51		096	02		57					51					49		238	07		54		230	15															51		80																										
70		55		L.V.			50		062	03		49					48					46		305	13		52		238	15															49		70																										
60		58																				45		328	06																				60																												
(b2mb) Inversion 945 mb 40° - 922 mb 40° Isothermal. 958 - 945 mb 41° 922 - 900 - 46°																																						Inversion 955 mb 45° - 906 mb 49° 980 - 074 - 566 - 08° Isothermal. 988 - 955 mb 45°																																			
Tropopause I 218 mb -78° 37.000°																																						I 255 mb -66° 33.500°				I 253 mb -65° 33.700°				I 282 mb -64° 31.000°				I 298 mb -62° 33.300°				I 246 mb -76° 35.000°				I 253 mb -73° 35.700°				I 250 mb -67° 35.900°				I 296 mb -54° 29.200°				Tropopause			
STATION																																																																									

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	03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		03L		G.M.T.		Time M.S.L. Surf Freezing													
		03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.																
		1010.3	mb	1010.1	mb	1012.0	mb	1013.6	mb	1014.7	mb	1013.9	mb	1010.8	mb	1001.1	mb	1010.0	mb	1009.7	mb	1014.3	mb	1009.7	mb	1012.8	mb	1009.8	mb	1009.2	mb	1003.7	mb														
Surf	1000	02.7	47	47	100	08	00.5	48	46	120	03	00.2	47	47	080	09	02.6	50	47	120	12	00.6	50	48	CALM	01.2	48	48	CALM	04.4	47	46	CALM	02.9	52	50	180	07	00.3	51	51						
950	950	33.8	43	41	113	15	3.6	49	46	130	12	3.2	45	45	075	13	2.9	46	42	150	24	3.2	51	48	128	06	3.8	50	47	137	04	3.5	51	46	146	16	2.7	46	44	176	23	1.0	50	50			
900	900	40	40	39	139	21	19	32.3	46	29	132	12	32.2	45	41	108	07	31.4	44	37	162	24	31.9	43	41	116	05	32.7	48	37	216	09	32.1	45	42	167	17	31.2	42	36	173	21	29.5	42	42		
850	850	65.2	35	17	136	17	63.8	34	27	137	15	63.5	32	29	140	09	62.7	30	23	160	24	63.1	28	26	157	11	64.2	34	24	192	15	63.6	33	30	193	21	62.5	31	23	176	21	60.8	38	38			
800	800	28	06	132	17	28	18	134	15	25	22	145	10	24	18	155	27	23	15	153	12	31	22	177	19	26	22	202	27	25	18	178	19	21	26	21	26	21	26	21	26	21	26				
750	750	100.0	22	12	129	21	98.6	22	14	128	16	98.1	21	00	145	15	97.1	18	14	151	31	97.6	21	03	162	21	99.1	26	18	195	22	98.3	23	06	197	25	97.1	19	12	189	19	95.6	21	20			
700	700	17	26	123	25	16	07	130	18	15	08	141	22	13	02	152	31	13	02	152	31	13	02	152	31	13	02	152	31	13	02	152	31	13	02	152	31	13	02	152	31	13	02	152	31	13	
650	650	39.2	12	10	115	29	37.7	11	05	143	20	37.1	08	14	145	22	36.0	10	03	150	28	36.5	05	14	165	18	38.7	16	24	193	21	37.5	09	13	187	24	35.9	06	13	195	20	34.7	08	04			
600	600	07	01	114	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	15	144	23	04	
550	550	184.5	02	11	122	18	82.8	02	25	148	24	82.0	05	38	149	23	80.7	09	25	147	25	81.0	09	30	161	30	84.3	01	10	200	32	82.3	06	11	188	39	80.3	10	29	195	25	79.4	11	17			
500	500	13	23	124	17	14	42	149	27	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	45	146	28	17	
450	450	237.6	25	33	126	21	235.8	20	48	146	22	234.7	30	50	148	22	233.2	31	44	147	41	233.7	26	31	164	41	233.0	19	27	211	49	235.6	22	26	191	65	232.7	30	52	182	43	231.4	35	42			
400	400	40	49	123	20	40	58	143	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	162	26	43	
350	350	302.0	53	106	22	300.0	55	170	25	298.5	58	183	25	297.2	57	157	55	298.0	55	186	55	303.7	45	208	55	300.6	50	196	74	296.7	56	184	60	294.7	51	180	49	292.7	48	176	25	290.7	44	172			
300	300	71	088	29	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	170	20	70	
250	250	386.8	06	115	14	385.1	65	129	22	383.6	53	169	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163	71	163
200	200	62	122	01	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	138	11	62	
150	150	61	CALM		62	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61	118	08	61
130	130	59	CALM		63	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59	101	07	59
110	110	58	055	05	63	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58	133	07	58
100	100	54.9	055	06	63	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54	112	07	54
90	90	60			64	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60	104	06	60
80	80	60			64	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60
70	70	60			64	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60
60	60	60			64	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60	107	05	60
Inversion		910 mb 42° - 900 mb 43°		1012 mb 48° - 990 mb 50°		950 mb 42° - 927 mb 45°		935 mb 44° - 920 mb 45°		1010 mb 50° - 977 mb 53°		1010 mb 48° - 984 mb 51°		997 mb 47° - 966 mb 52°		500 - 06° - 479 - 05°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°		Isothermal 730 - 695 mb 23°					
Tropopause		I 210 mb - 75°		I 234 mb - 71°		I 250 mb - 68°		I 265 mb - 68°		I 232 mb - 79°		I 215 mb - 74°		I 215 mb - 74°		I 288 mb - 59°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°		I 325 mb - 56°					
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION									
Pressure	Time M.S.L. Surf Freezing	09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		09L		G.M.T.		Time M.S.L. Surf Freezing													
		09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.																
		1010.3	mb	1010.2	mb	1014.7	mb	1013.0	mb	1014.7	mb	1013.9	mb	1010.8	mb	1001.2	mb	1010.0	mb	1009.7	mb	1014.3	mb	1009.7	mb	1012.8	mb	1009.8	mb	1009.2	mb	1003.7	mb														
Surf	1000	02.7	47	47	100	08	00.5	48	46	120	03	00.2	47	47	080	09	02.6	50	47	120	12	00.6	50	48	CALM	01.2	48	48	CALM	04.4	47	46	CALM	02.9	52	50	180	07	00.3	51	51						
950	950	33.8	43	41	113	15	3.6	49	46	130	12	3.2	45	45	075	13	2.9	46	42	150	24	3.2	51	48	128	06	3.8	50	47	137	04	3.5	51	46	146	16	2.7	46	44	176	23	1.0	50	50			
900	900	40	40	39	139	21	19	32.3	46	29	132	12	32.2	45	41	108	07	31.4	44	37	162	24	31.9	43	41	116	05	32.7	48	37	216	09	32.1	45	42	167	17	31.2	42	36	173	21	29.5	4			

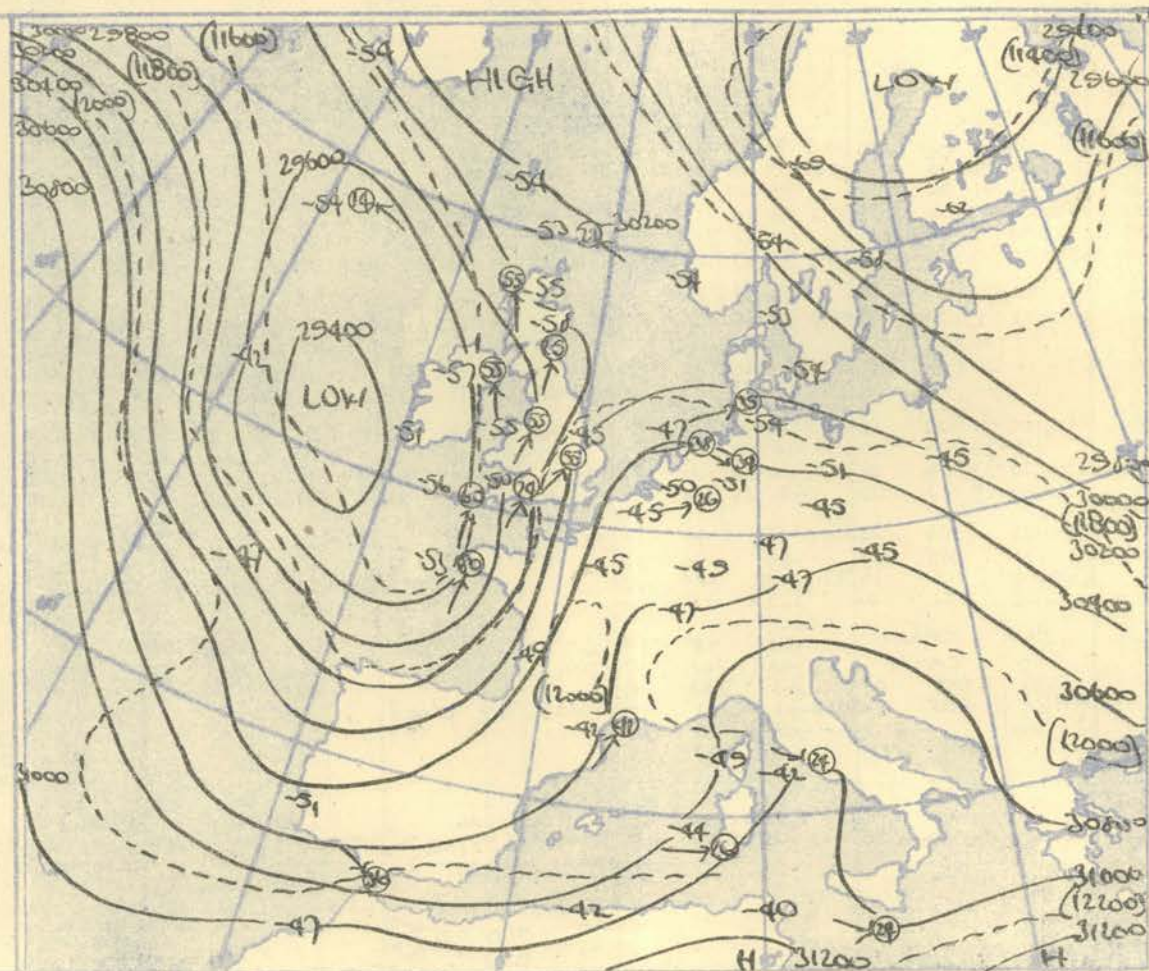
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb. levels at about 03h G.M.T.



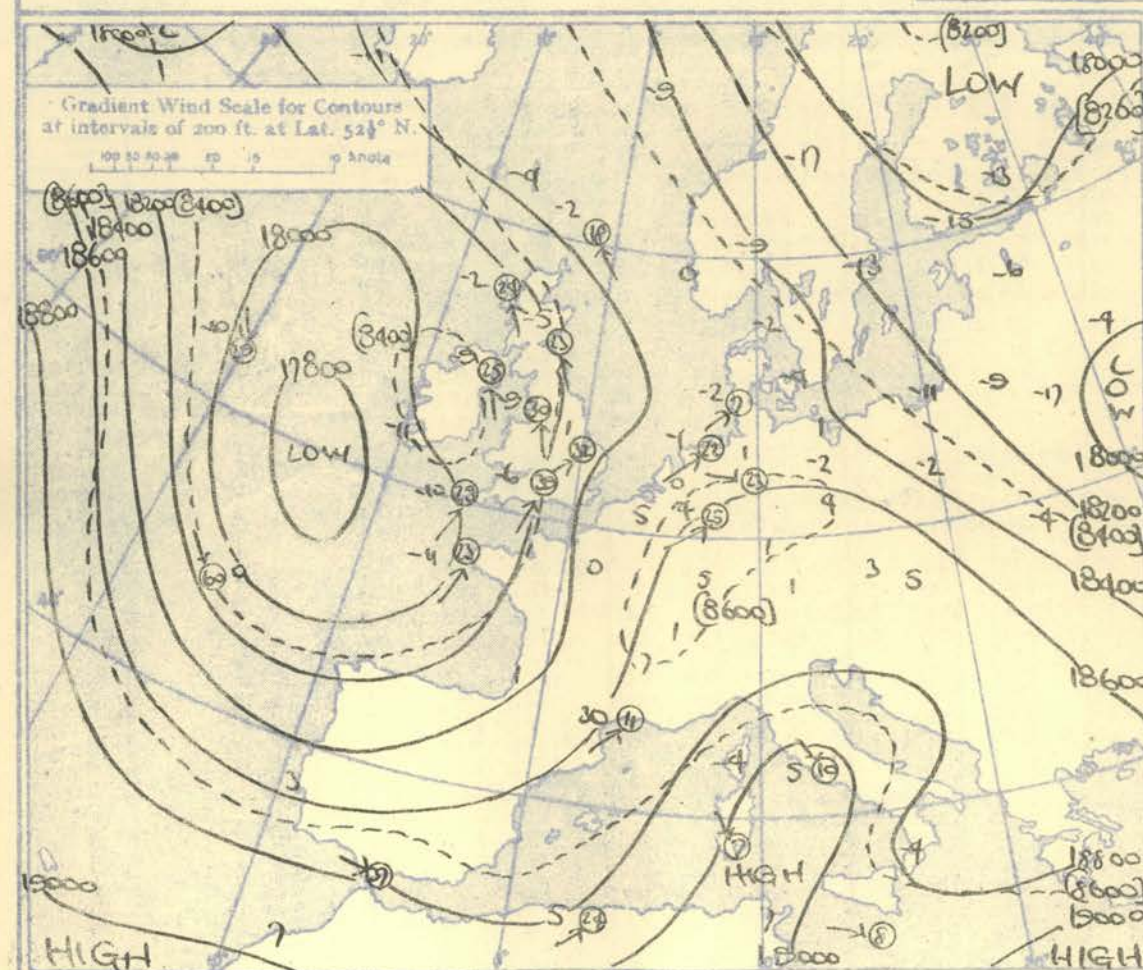
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

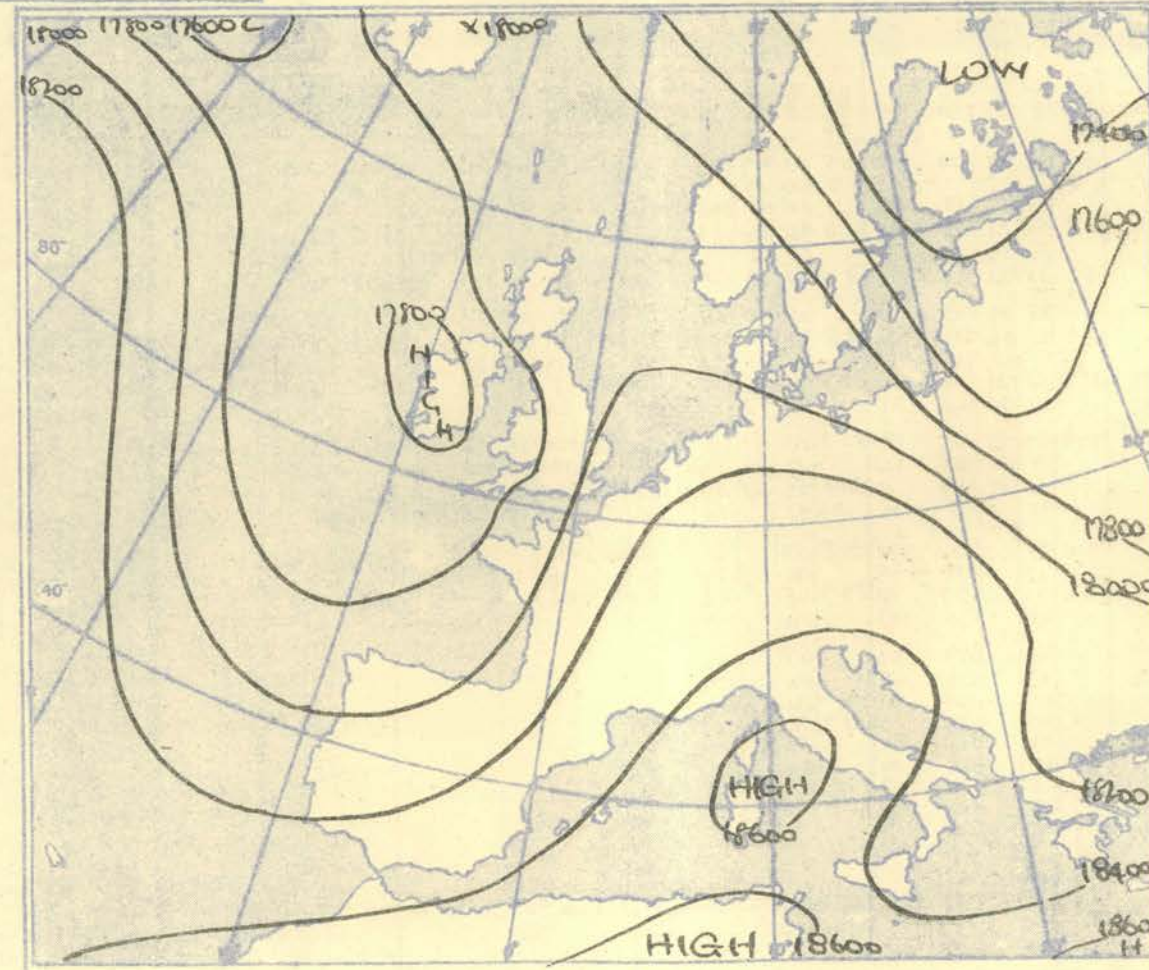
100 80 60 40 20 10 5 knots



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.



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



Isopleths of Thickness 500—1000mb.

AIRCRAFT OBSERVATIONS OF TEMPERATURE AND HUMIDITY

Time M.S.L.	Surf	Pressure	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Height	Temp.	Dew	Time M.S.L.	Surf	Pressure
mb	mb	mb	ft/100	°F	°F	ft/100	°F	°F	ft/100	°F	°F	ft/100	°F	°F	ft/100	°F	°F	ft/100	°F	°F	mb	mb	mb
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		

NONE REPORTED.

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

Place	Leuchars	Aldergrove	Lymington	Cirrus	Shannon	Ronaldsway	Aldergrove	Lerwick	Ronaldsway	Cirrus	Place
Time	03h	09h	09h	09h	09h	15h	15h	15h	21h	21h	Time
Type	PILAR	PILAR					PILAR	RADAR			Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.		150 05		320 18	130 17	090 12		100 13	060 09	190 19	Surf.
1,000		118 12	050 25	390 20	140 23	090 09		099 12	030 16	360 19	1,000
2,000		126 15	070 16	350 20	150 23	110 07		099 13	030 16	360 21	2,000
3,000		128 17	070 17	360 21	160 22	130 11		103 10	020 07	360 18	3,000
4,000		128 18	070 18	010 20	150 18	130 10		104 09	030 09	010 16	4,000
5,000		131 18	050 18	340 21	150 16	130 09		076 08	040 08	010 14	5,000
6,000		131 18	050 21		150 20	110 10		060 09	020 11		6,000
8,000		126 20	060 22			120 09		084 12			8,000
10,000		130 21	090 17	330 24		110 06		107 17		360 16	10,000
14,000		125 23	140 20	330 24		130 09		112 16		340 24	14,000
18,000		140 30		320 36		(11,000')		115 14		340 20	18,000
24,000		156 38		330 60				110 08		330 69	24,000
30,000		160 39						253 14		330 90	30,000
40,000	172 15	163 15					143 16	266 06			40,000
50,000	155 08	(38,000')					L.V.	L.V. (5Kb)			50,000
60,000	162 18	(53,000')					"	020 06		(59,000')	

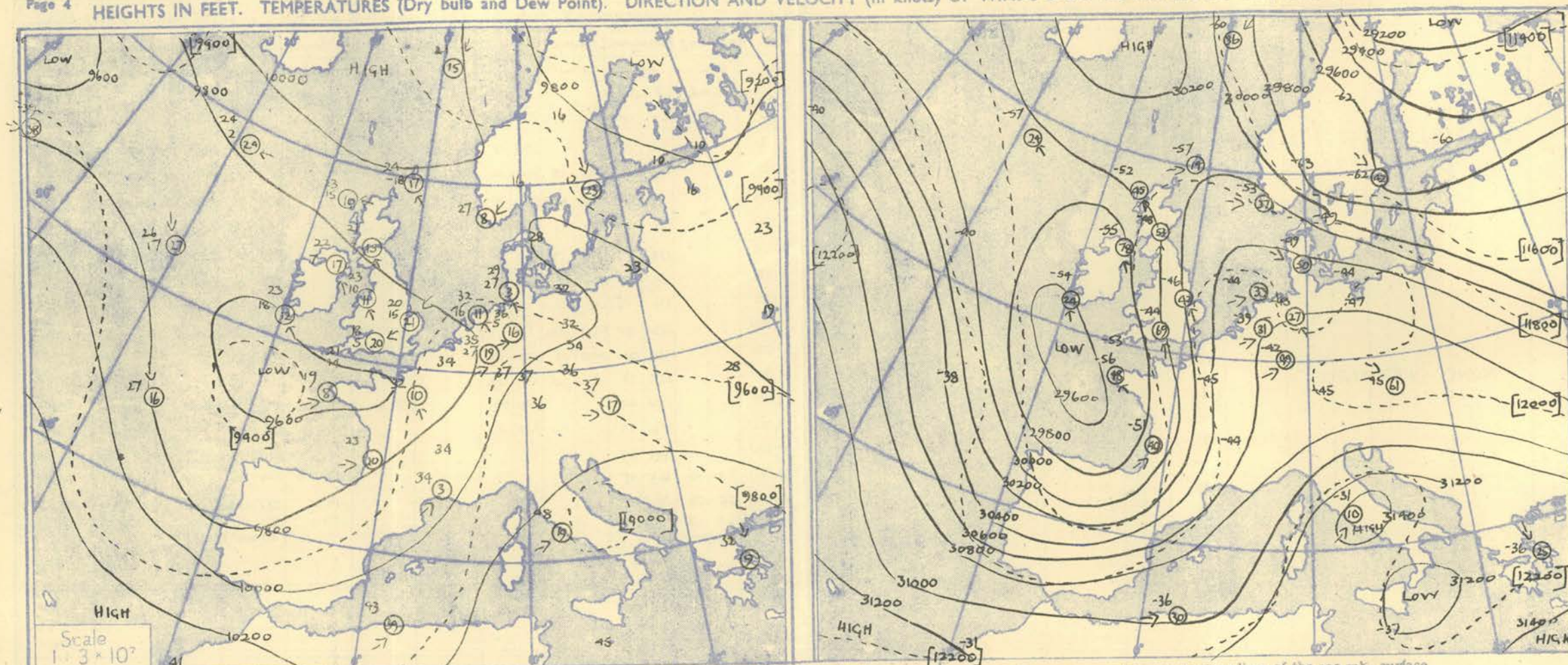
NEPHOSCOPE OBSERVATIONS

Place	Plymouth	Rineanna									Place
Time Type	09h Ac	15h Ci									Time Type
Dir. Vel.	160 36	130 60									Dir. Vel.

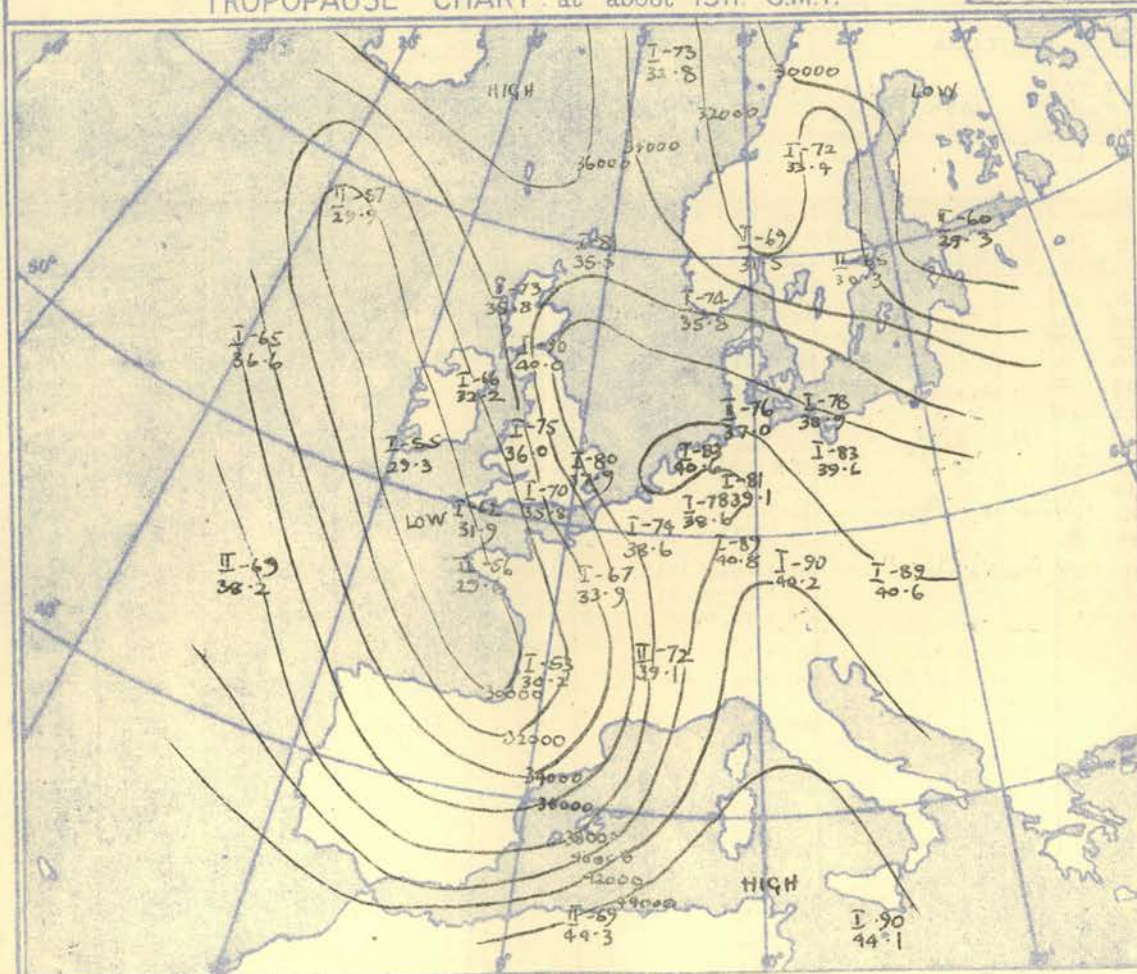
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	Weather Observer	Weather Observer	Weather Observer	Weather Observer	Cirrus	Cirrus	Cirrus	Cirrus	Ship
Lat/Long	59° 1' N 19° 4' W	59° 1' N 19° 4' W	59° 0' N 19° 1' W	59° N 18° 5' W	52° S N 20° 0' W		52° S N 20° 0' W		Lat/Long
Time M.S.L.	03h	09h	15h	21h	03h	09h	15h	21h	Time M.S.L.
Surf	1013	1014	1014	1015	1006	1006	1008	1008	Surf
Pressure	815	810	780	850	850	850	806	806	Pressure
Height	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	ft/100	Height
Temp.	°F	°F	°F	°F	°F	°F	°F	°F	Temp.
Dew	°F	°F	°F	°F	°F	°F	°F	°F	Dew
Wind	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Wind
Surf	50 48 090 20	49 47 080 20	51 49 080 18	50 48 090 19	52 51 320 16		54 50 340 17		Surf
1000	03-5 49 46 090 24	03-8 47 44 074 27	03-9 49 49 088 21	04-2 49 46 090 18	01-7 52 49 325 16		02-3 53 50 341 17		1000
950	47 36 089 25	44 40 075 25	44 45 088 19	44 44 096 21	44 42 337 17		47 45 345 19		950
900	32-0 42 34 085 32	32-3 44 31 077 21	32-3 44 38 093 17	32-7 44 40 099 24	30-2 48 38 330 18		30-9 42 42 335 24		900
850	37 33 088 28	37 27 078 24	41 35 096 18	36 32 101 23	33 33 323 18		39 37 354 17		850
800	63-3 30 25 094 28	63-6 31 21 081 28	63-9 35 28 092 20	64-1 34 27 102 25	61-3 27 27 322 24		62-3 31 31 004 17		800
750	23 04 102 27	25 17 086 30	29 17 092 22	29 22 100 21	23 20 318 21	No Radio	30 25 360 17	No Radio	750
700	97-5 19 02 114 26	98-1 26 09 091 24	98-7 24 02 092 24	98-9 23 11 094 21	95-7 18 12 324 33		97-3 26 17 357 27		700
650	13-13 119 22	14 01 095 24	17-02 092 19	19 01 092 19	13 03 330 32		19 07 353 25		650
600	136-4 06 22 107 19	137-1 09 02 100 22	137-8 11 08 092 18	138-2 12 09 090 19	134-7 06 06 342 31	Sonde Ascent	136-7 11 02 329 51	Sonde For	600
550	05-24 098 19	01-12 109 21	03-22 092 14	07-15 088 14	01-16 334 33		03-12 334 36		550
500	180-6 16 27 095 10	181-8 10 26 109 16	182-8 07 34 088 16	183-5 02 20 088 30	179-3 10 27 331 29	Available	181-8 07 25 336 50	Ascent Winds	500
450	25-37 092 11	22 90 102 16	17-36 090 21	12-28 093 21	22 41 331 27		13-30 331 50		450
400	232-3 37 47 090 16	233-8 35 53 100 16	235-4 28 44 094 22	236-7 23 38 088 26	231-5 30 26 331 27		239-9 18 46 329 88		400
350	53 090 14	47 110 20	41 097 28	25-51 089 28	40 28 350 17		29 327 108	Available See	350
300	295-0 54 092 14	297-1 55 122 25	299-5 47 099 24	301-7 51 092 21	295-9 49 55 55		301-1 40 58 58	Top of	300
250	53 094 08	52 152 12	57 131 09	61 029 04	55 360 10		388-4 62 59 59	Page.	250
200	283-0 55 072 54	285-1 53 05 55	286-9 53 072 06	288-5 55 360 10	383-6 56 57 57		388-4 62 59 59		200
170	54 043 05	55 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		170
150	56 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		150
130	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		130
110	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		110
100	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		100
90	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		90
80	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		80
70	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		70
60	58 024 04	53 152 12	55 131 09	61 029 04	55 360 10		388-4 62 59 59		60
Isotermal	982-963mb 48°	Inversion 970mb 42°-936mb 47°	Inversion 950mb 44°-933mb 45°	Inversion 919mb 44°-906mb 45°	Inversion 413mb 30°-404mb 29°		040-51 mb Inversion 788mb 29°-774mb 32°		
		Isotermal 936-925mb 47°	Isotermal 911-889mb 44°	Isotermal 833-810-35°	Isotermal 1006-1000mb 52°		Isotermal 907-900mb 42°		
			758-747-29°	589-570-20°	702-900-38°		650-648-19°		
Tropopause	326mb-59° 27,600	308mb-56° 29,100	300mb-57° 29,900	259mb-63° 33,500	267mb-55° 32,100		223mb-65° 36,600		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 15h G.M.T.



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

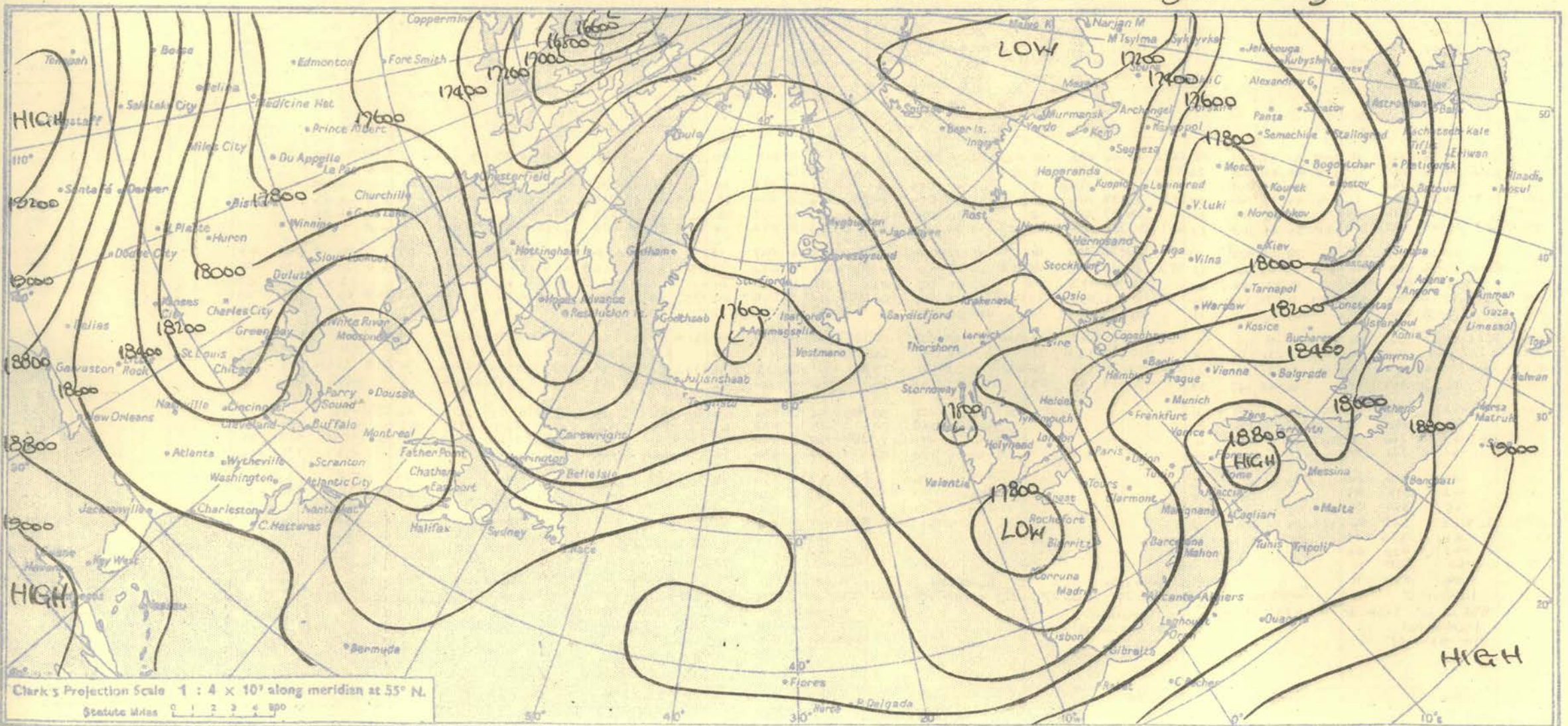
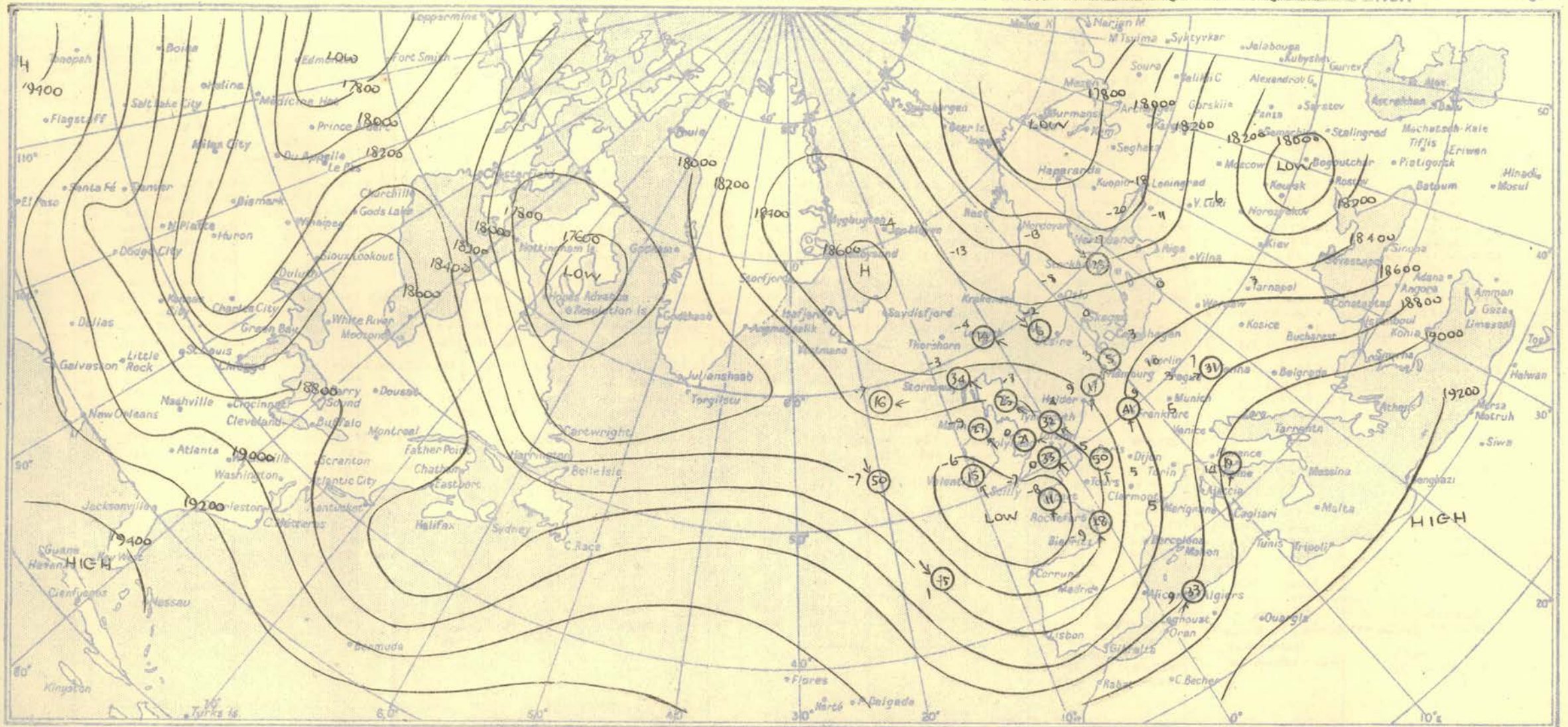


NOTES ON THE AEROLOGICAL SITUATION.

Very persistent upper trough from south Greenland to southwest Ireland and Bay of Biscay.

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



Tropopause	I 231 mb -81° 35.500	I 230 mb -73° 35.800	I 186 mb -90° 40.000	I 268 mb -66° 32.200	I 229 mb -75° 36.000	I 209 mb -80° 31.900	I 228 mb -70° 35.800	I 271 mb -62° 31.940	NR.	Tropopause
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STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE								STATION				
Pressure mb	Time M.S.L. Surf Freezing	21L	G.M.T.		21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			21L	G.M.T.			Time M.S.L. Surf Freezing				
		1020.3	mb		1014.5	mb			1013.1	mb			1009.0	mb			1005.5	mb			1002.9	mb			1003.7	mb			1005.8	mb											
		1010.1	mb		1012.9	mb			1012.3	mb			999.3	mb			1003.5	mb			998.4	mb			987.8	mb			995.2	mb											
	787	mb		789	mb			780	mb			775	mb			777	mb			742	mb			823	mb			816	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	45	38	080	11	00.5	51	45	080	18	00.2	46	46	070	15	02.6	52	46	090	15	00.6	57	48	020	08	01.2	49	48	030	15	04.4	49	49	Calm	02.9	50	49	Calm	Surf		
1000	05.4	44	41	080	17	03.9	49	43	079	24	03.5	45	45	078	13	02.9					01.5	57	48			00.8					01.0				01.6				1000		
950		37	34	046	15		44	39	097	26		42	41	078	15		51	47	055	16		53	42	023	14		45	44	031	25		49	39	022	16		46	45	L.V.	950	
900	3.5	36	32	040	12	32.4	43	38	108	30	31.8	39	38	078	19	31.2	46	35	055	10	30.4	46	39	024	13	29.3	45	43	039	26	29.6	44	34	023	22	30.1	41	35	"	900	
850		36	20	036	09		39	35	113	30		38	37	086	15		41	30	071	08		40	36	023	18		39	36	053	24		36	30	022	30		36	32	"	850	
800	6.7	33	08	050	09	63.0	33	29	105	22	63.1	34	33	090	13	62.7	33	24	070	10	61.9	33	30	034	19	60.8	36	34	078	23	60.8	29	27	029	29	61.4	31	29	"	800	
750		30	00	065	07		28	24	095	22		28	28	090	16		27	17	098	11		29	21	047	19		33	30	123	20		25	23	034	25		26	23	064	03	750
700	100.0	25	-16	069	07	98.7	25	09	098	23	97.3	25	-12	093	20	97.4	24	07	109	11	96.8	21	13	052	22	95.9	29	26	144	22	95.3	21	18	087	15	96.0	20	15	078	05	700
650		18	-16	079	08		19	-18	108	16		18	-12	103	13		17	01	110	09		12	07	032	24		23	19	136	18		15	12	044	13		12	07	085	05	650
600	138.9	12	-21	084	09	138.1	11	-33	124	16	137.2	11	-22	093	22	136.6	08	-01	088	06	135.6	07	02	068	20	135.7	17	12	128	18	134.4	10	07	097	14	134.8	06	01	096	09	600
550		05	-33	066	07		03	-27	115	21		05	-22	120	32		00	-06	093	06		07	03	089	12		10	04	132	23		06	03	117	19		-02	-04	093	10	550
500	184.1	-01	-33	004	05	183.1	-05	-13	110	19	182.4	00	-10	142	27	181.4	-05	-14	097	12	180.8	00	-04	120	14	181.4	-02	-05	138	32	173.6	-01	-04	121	21	179.3	-04	-04	090	12	500
450		-13	-26	314	06		-14	-21	132	18		-10	-20	133	21		-16	-23	119	24		-10	-16	133	22		-07	-13	141	36		-12	-15	120	26		-21	-25	094	19	450
400	237.2	-25	-46	270	10	236.1	-25	-32	123	25	236.0	-18	-29	156	26	234.3	-25	-32	137	29	234.3	-21	-24	137	36	235.1	-21	-29	138	38	232.8	-24	-28	116	31	231.5	-32	-36	099	27	400
350		-38	-56	265	22		-38	-45	147	33		-33	-43	142	28		-41		148	39		-36	-41	134	42		-35	-44	137	43		-37	-41	116	37		-45		113	34	350
300	3018.5	-52		258	22	3006.5	-55		179	41					2985.5	-56		157	52	2991.5	-54		136	52	3001.5	-50		139	53	2975.5	-52		127	44	2951.5	-58		123	34	300	
250		-68		260	32		-70		176	52					-69		148	50		-73		136	61		-68		133	50		-69		131	44		-58		131	24	250		
200	386.5	-64		266	31	385.4	-66		139	11					384.0	-60		150	11	383.4	-67		148	25	384.9	-71		133	33	383.3	-60		140	23	382.1	-53		132	08	200	
170		-64		321	07		-60		124	09					-60		130	07		-62		140	14		-66		168	24		-61		143	15		-53		121	04	170		
150		-63		342	06		-59		081	05					-58						-63		154	10		-63					-61		150	13		-55				150	
130		-62		332	05		-59		046	56					-59						-63		129	05		-61					-61		170	07		-56		330	05	130	
110		-65		354	04		-59		351	06					-60						-61		041	02							-61					-57				110	
100	532.8	-62		344	06	532.2	-59		018	07							530.3	-62					041	02							(120mb)					-57				100	
90		-62		338	05		-59																																90		
80		-63		020	09																																		80		
70		-60		030	11																																		70		
60		-56		026	11																																		60		
Inversion		885 mb 31° - 843 mb 37°		Inversion		711 mb 24° - 700 mb 25°		Inversion		737 mb 25° - 721 mb 27°		Inversion		973 mb 49° - 950 mb 51°		Inversion		1000 mb 57° - 985 mb 58°		Inversion		978 mb 44° - 905 mb 46°		Inversion		983 mb 49° - 964 mb 50°															
Isothermal		950 - 913 mb 37°						Isothermal		525 - 500 mb 00°						Isothermal		752 - 742 mb 29°				Isothermal		850 - 833 mb 39°																	
Tropopause		227 mb - 77° 36.100				275 mb - 75° 35.200				MR				00 mb - 69° 32.800				229 mb - 81° 35.500				219 mb - 78° 36.600				255 mb - 70° 33.300				265 mb - 63° 32.200						Tropopause					

1951		Page
VALENTIA		STATION
931	6-105	Time
1006 3	mb	M.S.L.
1005	mb	Spri
780	mb	Pressure

[illegible]

Scale 1:3 x 10⁷

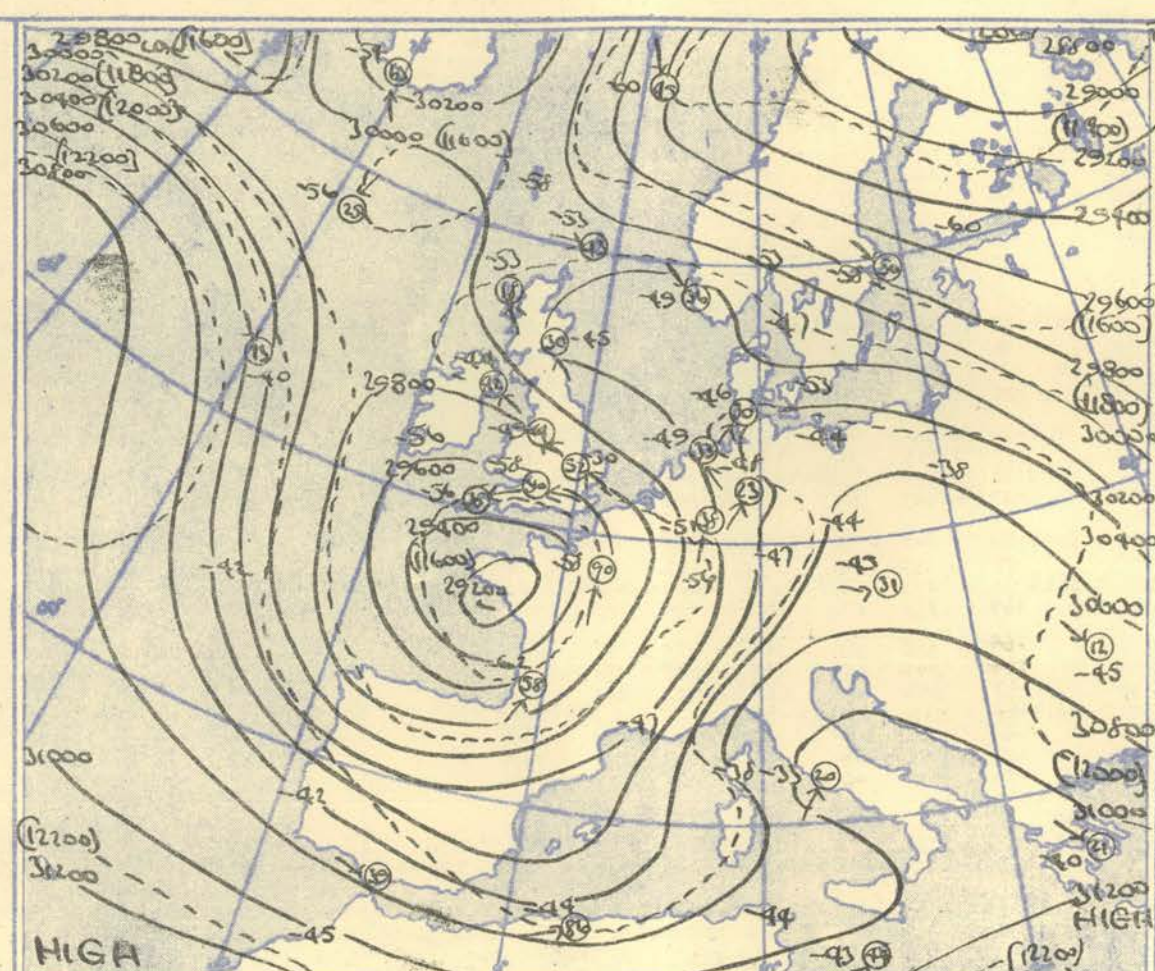
Average Speed (Knots)

Time (Hours)

100 80 60 40 20 0

0 5 10 15

10 Knots



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

100 50 20 10 knots

18400 (8600) 18600 (8800) 18800 (9000) 19000 (9200) 19200 (9400) 19400 (9600) 19600 (9800) 19800 (10000) 20000 (10200) 20200 (10400) 20400 (10600) 20600 (10800) 20800 (11000) 21000 (11200) 21200 (11400) 21400 (11600) 21600 (11800) 21800 (12000) 22000 (12200) 22200 (12400) 22400 (12600) 22600 (12800) 22800 (13000) 23000 (13200) 23200 (13400) 23400 (13600) 23600 (13800) 23800 (14000) 24000 (14200) 24200 (14400) 24400 (14600) 24600 (14800) 24800 (15000) 25000 (15200) 25200 (15400) 25400 (15600) 25600 (15800) 25800 (16000) 26000 (16200) 26200 (16400) 26400 (16600) 26600 (16800) 26800 (17000) 27000 (17200) 27200 (17400) 27400 (17600) 27600 (17800) 27800 (18000) 28000 (18200) 28200 (18400) 28400 (18600) 28600 (18800) 28800 (19000) 29000 (19200) 29200 (19400) 29400 (19600) 29600 (19800) 29800 (20000) 30000 (20200) 30200 (20400) 30400 (20600) 30600 (20800) 30800 (21000) 31000 (21200) 31200 (21400) 31400 (21600) 31600 (21800) 31800 (22000) 32000 (22200) 32200 (22400) 32400 (22600) 32600 (22800) 32800 (23000) 33000 (23200) 33200 (23400) 33400 (23600) 33600 (23800) 33800 (24000) 34000 (24200) 34200 (24400) 34400 (24600) 34600 (24800) 34800 (25000) 35000 (25200) 35200 (25400) 35400 (25600) 35600 (25800) 35800 (26000) 36000 (26200) 36200 (26400) 36400 (26600) 36600 (26800) 36800 (27000) 37000 (27200) 37200 (27400) 37400 (27600) 37600 (27800) 37800 (28000) 38000 (28200) 38200 (28400) 38400 (28600) 38600 (28800) 38800 (29000) 39000 (29200) 39200 (29400) 39400 (29600) 39600 (29800) 39800 (30000) 40000 (30200) 40200 (30400) 40400 (30600) 40600 (30800) 40800 (31000) 41000 (31200) 41200 (31400) 41400 (31600) 41600 (31800) 41800 (32000) 42000 (32200) 42200 (32400) 42400 (32600) 42600 (32800) 42800 (33000) 43000 (33200) 43200 (33400) 43400 (33600) 43600 (33800) 43800 (34000) 44000 (34200) 44200 (34400) 44400 (34600) 44600 (34800) 44800 (35000) 45000 (35200) 45200 (35400) 45400 (35600) 45600 (35800) 45800 (36000) 46000 (36200) 46200 (36400) 46400 (36600) 46600 (36800) 46800 (37000) 47000 (37200) 47200 (37400) 47400 (37600) 47600 (37800) 47800 (38000) 48000 (38200) 48200 (38400) 48400 (38600) 48600 (38800) 48800 (39000) 49000 (39200) 49200 (39400) 49400 (39600) 49600 (39800) 49800 (40000) 50000 (40200) 50200 (40400) 50400 (40600) 50600 (40800) 50800 (41000) 51000 (41200) 51200 (41400) 51400 (41600) 51600 (41800) 51800 (42000) 52000 (42200) 52200 (42400) 52400 (42600) 52600 (42800) 52800 (43000) 53000 (43200) 53200 (43400) 53400 (43600) 53600 (43800) 53800 (44000) 54000 (44200) 54200 (44400) 54400 (44600) 54600 (44800) 54800 (45000) 55000 (45200) 55200 (45400) 55400 (45600) 55600 (45800) 55800 (46000) 56000 (46200) 56200 (46400) 56400 (46600) 56600 (46800) 56800 (47000) 57000 (47200) 57200 (47400) 57400 (47600) 57600 (47800) 57800 (48000) 58000 (48200) 58200 (48400) 58400 (48600) 58600 (48800) 58800 (49000) 59000 (49200) 59200 (49400) 59400 (49600) 59600 (49800) 59800 (50000) 60000 (50200) 60200 (50400) 60400 (50600) 60600 (50800) 60800 (51000) 61000 (51200) 61200 (51400) 61400 (51600) 61600 (51800) 61800 (52000) 62000 (52200) 62200 (52400) 62400 (52600) 62600 (52800) 62800 (53000) 63000 (53200) 63200 (53400) 63400 (53600) 63600 (53800) 63800 (54000) 64000 (54200) 64200 (54400) 64400 (54600) 64600 (54800) 64800 (55000) 65000 (55200) 65200 (55400) 65400 (55600) 65600 (55800) 65800 (56000) 66000 (56200) 66200 (56400) 66400 (56600) 66600 (56800) 66800 (57000) 67000 (57200) 67200 (57400) 67400 (57600) 67600 (57800) 67800 (58000) 68000 (58200) 68200 (58400) 68400 (58600) 68600 (58800) 68800 (59000) 69000 (59200) 69200 (59400) 69400 (59600) 69600 (59800) 69800 (60000) 70000 (60200) 70200 (60400) 70400 (60600) 70600 (60800) 70800 (61000) 71000 (61200) 71200 (61400) 71400 (61600) 71600 (61800) 71800 (62000) 72000 (62200) 72200 (62400) 72400 (62600) 72600 (62800) 72800 (63000) 73000 (63200) 73200 (63400) 73400 (63600) 73600 (63800) 73800 (64000) 74000 (64200) 74200 (64400) 74400 (64600) 74600 (64800) 74800 (65000) 75000 (65200) 75200 (65400) 75400 (65600) 75600 (65800) 75800 (66000) 76000 (66200) 76200 (66400) 76400 (66600) 76600 (66800) 76800 (67000) 77000 (67200) 77200 (67400) 77400 (67600) 77600 (67800) 77800 (68000) 78000 (68200) 78200 (68400) 78400 (68600)

A hand-drawn map of Europe and surrounding regions, illustrating a weather system. The map features a grid of latitude and longitude lines. Key elements include:

- Isobars:** Hand-drawn contour lines representing pressure levels. Labeled values include 18000, 17600, 17200, 17800, 18200, 18400, 18600, and 18800.
- Weather Systems:**
 - A **LOW** (Low Pressure System) is marked in the central North Atlantic, with a central pressure of 17600.
 - A **HIGH** (High Pressure System) is marked in the North Atlantic, east of the LOW, with a central pressure of 18600.
 - Another **LOW** is indicated in the upper right corner of the map.
- Geographical Features:** The outlines of Europe, North Africa, and parts of Asia are visible.
- Latitude/Longitude:** A latitude line is labeled 40° on the left side.

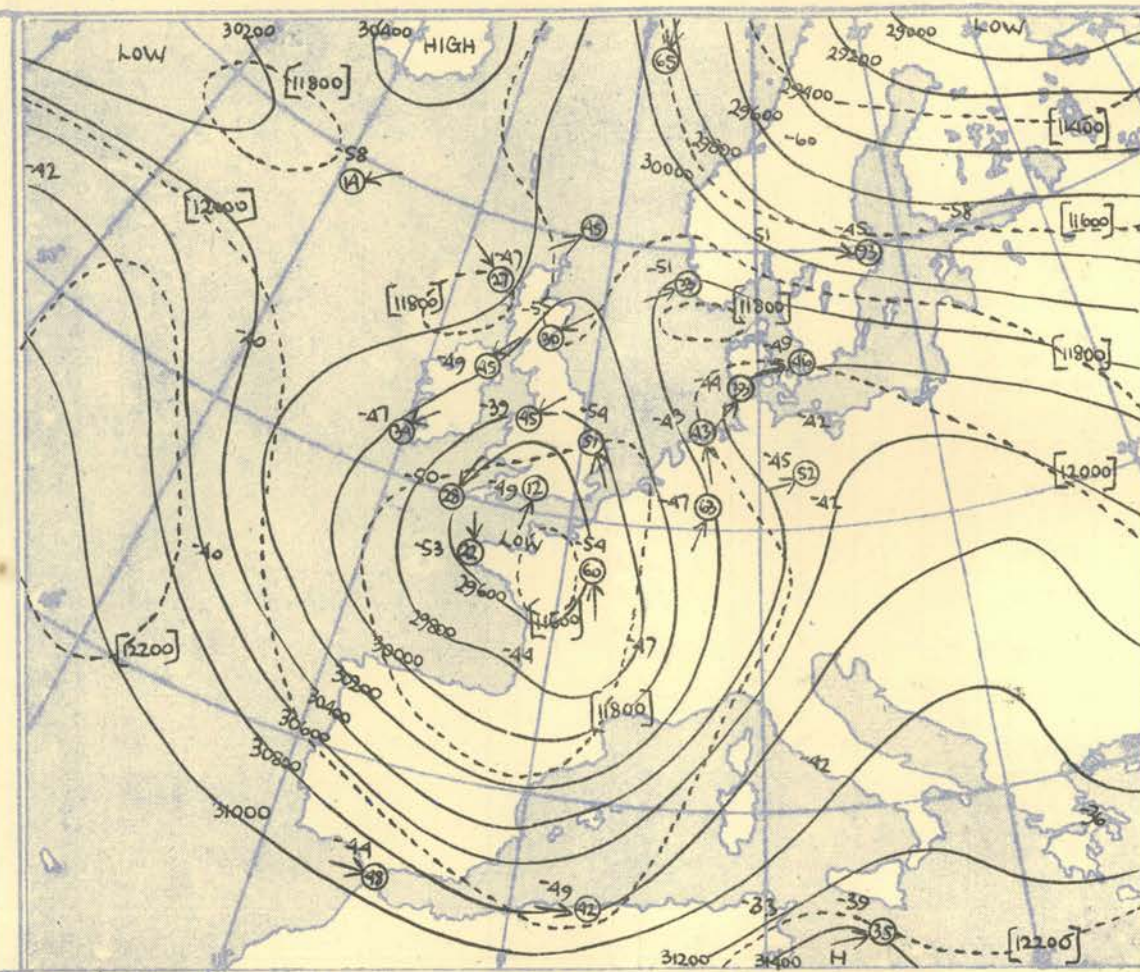
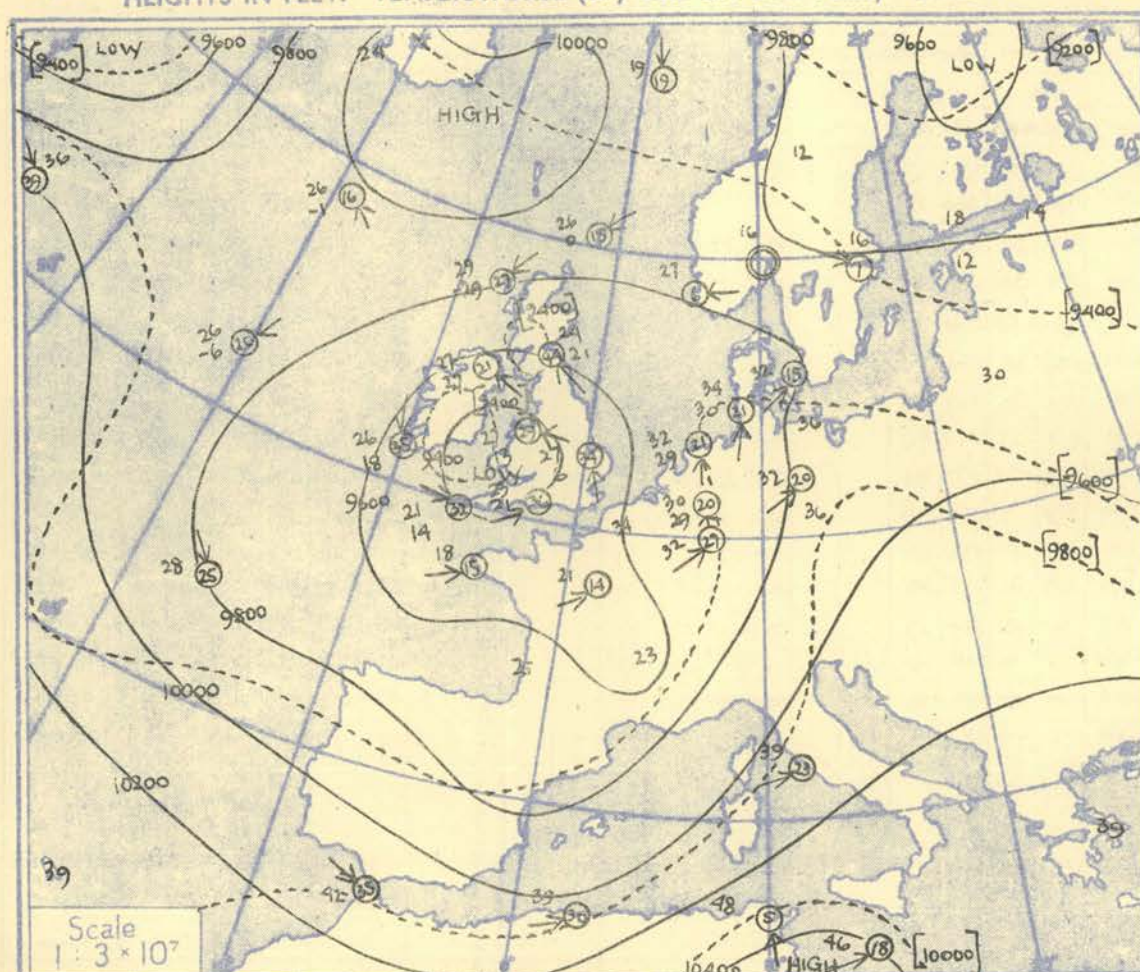
Isopleths of Thickness 500-1000mb.

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 OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				CIRRUS				CIRRUS				CIRRUS				CIRRUS				Ship									
Lat/Long	59-0 N. 18-SW.				59-0 N 18-4W				59-1 N 18-3W				59-1 N 18-3W				52-5 N 20-0W				52-5 N 20-0W				52-5 N 20-0W				52-5 N 20-0W				Lat/Long									
Pressure	Time	03h.		G.M.T.	09h.	G.M.T.		15h.	G.M.T.		21h.	G.M.T.		03h.	G.M.T.		09h.	G.M.T.		15h.	G.M.T.		21h.	G.M.T.		G.M.T.																
	M.S.L.	1016		mb	1018	mb		1019	mb		1021	mb		1010	mb		1010	mb		1013	mb		1013	mb		mb																
	Surf	1016		mb	1018	mb		1019	mb		1021	mb		1010	mb		1010	mb		1013	mb		1013	mb		mb																
	Freezing	800		mb	790	mb		770	mb		735	mb		800	mb		800	mb		765	mb		765	mb		mb																
Pressure	Height	ft./100	Temp.	Dew	Wind	Height	ft./100	Temp.	Dew	Wind	Height	ft./100	Temp.	Dew	Wind	Height	ft./100	Temp.	Dew	Wind	Height	ft./100	Temp.	Dew	Wind	Height	ft./100	Temp.	Dew	Wind	Pressure											
	mb		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots		°F.	°F.	Dir. Vel. knots	mb												
Surf			49	48	080	12		47	45	065	12		51	48	100	13		52	44	085	13		53	50	020	10					Surf											
1000	04-4		47	43	095	12	04-9	47	45	068	12	05-2	48	41	099	15	05-4	49	41	087	16	03-0	52	48	015	11	03-6	53	48	058	11	1000										
950			41	36	103	13		41	41	075	12		41	37	101	16		42	36	094	17		46	43	006	13		49	39	056	11	950										
900	32-7		41	35	107	15	33-3	44	35	087	13	33-5	43	20	102	19	33-9	37	33	096	19	31-6	41	37	007	12	32-2	40	32	055	11	900										
850			38	27	110	15		39	28	100	14		40	11	103	18		42	19	088	19		36	31	011	10		37	27	055	12	850										
800	64-0		32	18	119	15	64-7	34	21	106	14	64-9	36	15	101	18	65-4	39	04	080	17	62-8	32	23	044	11	63-4	34	20	055	12	800										
750			24	12	114	17		27	15	110	14		30	17	099	15		34	30	071	15	No	30	10	040	12	No	30	10	055	13	750										
700	98-5		20	04	140	21	99-4	21	10	103	13	99-8	26	01	099	16	100-6	29	06	082	14	97-8	27	00	348	16	98-5	26	06	035	20	700										
650			15	-13	105	17		16	-15	097	12		21	-22	098	18		22	-08	093	16	Ascent	22	-11	344	17	Ascent	21	-18	357	20	650										
600	137-5		08	-18	098	13	138-6	11	-20	090	7	139-3	15	17	096	21	140-2	17	-43	097	17	137-4	16	-19	339	16	138-0	14	-26	329	20	600										
550			01	-43	092	17		02	-20	089	26		08	-14	092	21		11	-47	096	18	See	08	-24	349	26	See	06	35	005	22	550										
500	182-2		-08	-47	081	22	183-6	-04	-31	085	36	184-8	00	-16	091	20	186-0	02	-54	093	17	No Radio-Sonde Ascent Available See Page 3 for Winds	183-0	02	-32	350	29	183-4	01	-41	021	18	No Radio-Sonde Ascent Available See Page 3 for Winds									
			-18	-58	046	39		-15	-46	083	42		-11	-29	090	21		-09	-51	089	16			00	-44	340	65	188-8	-04	35	021	09										
	234-6		-32	-57	039	37	236-3	-28	-56	080	43	238-1	-25	-47	086	20	239-6	-21	-54	076	13			237-5	-10		315	61														
			-42		038	25		-41		074	40		-40	-59	082	15		-36	-59	064	08				-24		335	63														
300	293-5		-56		017	25	300-7	-49		057	28	302-2	-58		086	14	304-4	-52		046	09		304-2	-40		325	73	303-8	-40			300										
250			-64		350	39		-60		010	41		-67		074	14		-65		041	19				-58							250										
200	384-1		-64		348	27	387-6	-59		358	39	387-3	-69		020	24	389-8	-70		359	24			391-3	-67			391-0	-69			200										
170			-63		340	27		-63		346	35		-65		360	32		-67		349	38				-68							170										
150			-66		350	21		-65		339	33		-65		351	30		-65		346	25			-67								150										
130			-63		009	12		-63		338	32		-65		341	30		-63		345	22			-65								130										
110			-65		011	07		-60		349	18		-67		348	30		-64		344	16			-65								110										
100	530-4		-67		010	10	534-6	-58		353	15	532-9	-65		354	18	535-6	-65		347	14		536-6	-66			536-8	-65				100										
90			-67		001	10		-61		346	14		-66		356	15		-64		356	16			-67								90										
80			-66		354	12		-57		333	13		-62		356	13		-63		009	15			-68								80										
70			-64					-53		330	17		-59		005	11		-59		028	15			-69								70										
60	(6nd)-64							-52		011	14		-58		028	07		-55		022	07			-68								60										
	Inversion	923 mb 38°-910 mb 41°				(4nd)-50	Inversion				932 mb 39°-909 mb 44°				Inversion	910 mb 35°-850 mb 42°				(3nd)-65	Inversion				500 mb 2°-495 mb 3°																	
		Isothermal				950 mb 41°-916 mb 45°				Isothermal				330-316 mb -40°																												
		910-900 mb 41°																																								
		I 265 mb -70°				II 250 mb -60°				I 229 mb -75°				II 232 mb -69°				II 244 mb -61°																								
		32,500'				34,000'				35,900'				35,800'				35,000'																								
Tropopause																																										Tropopause

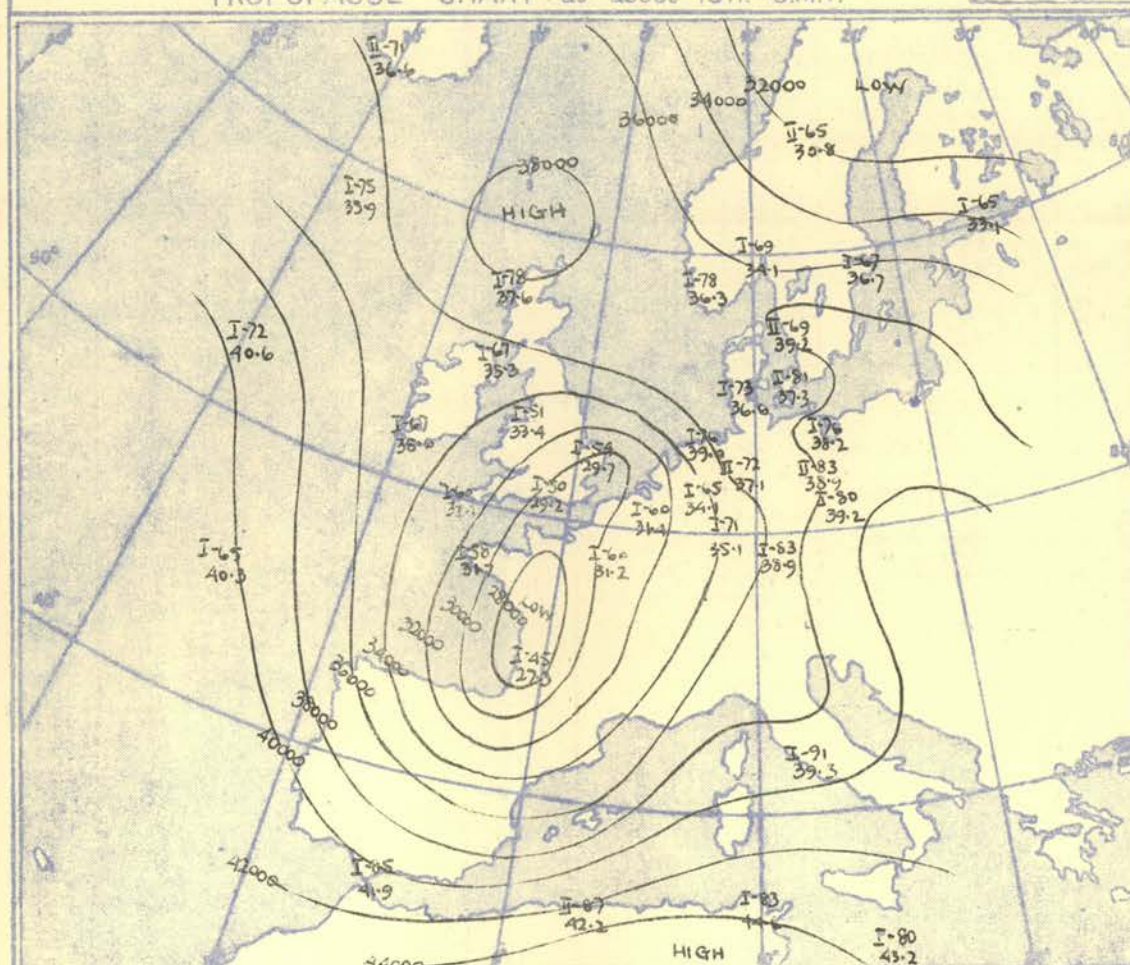


The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

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.

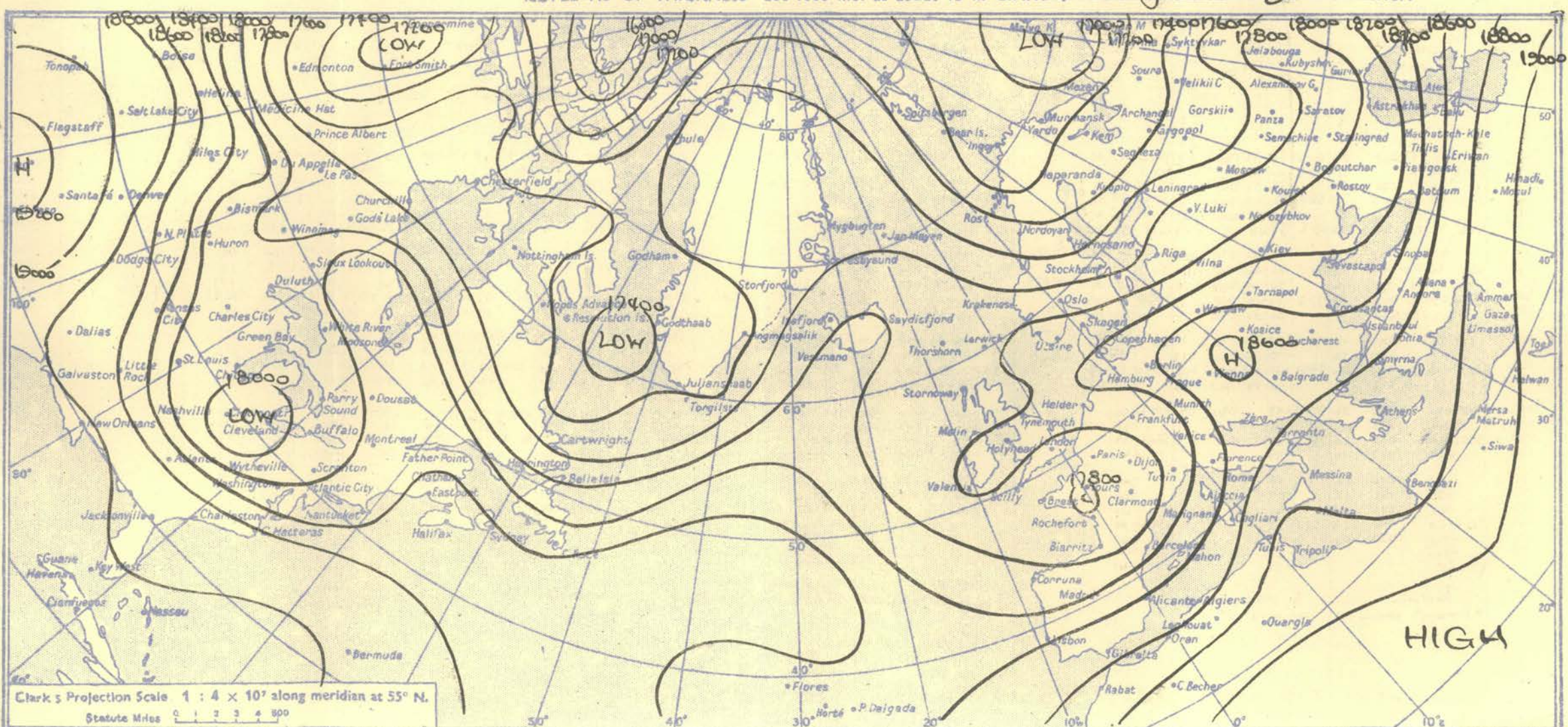
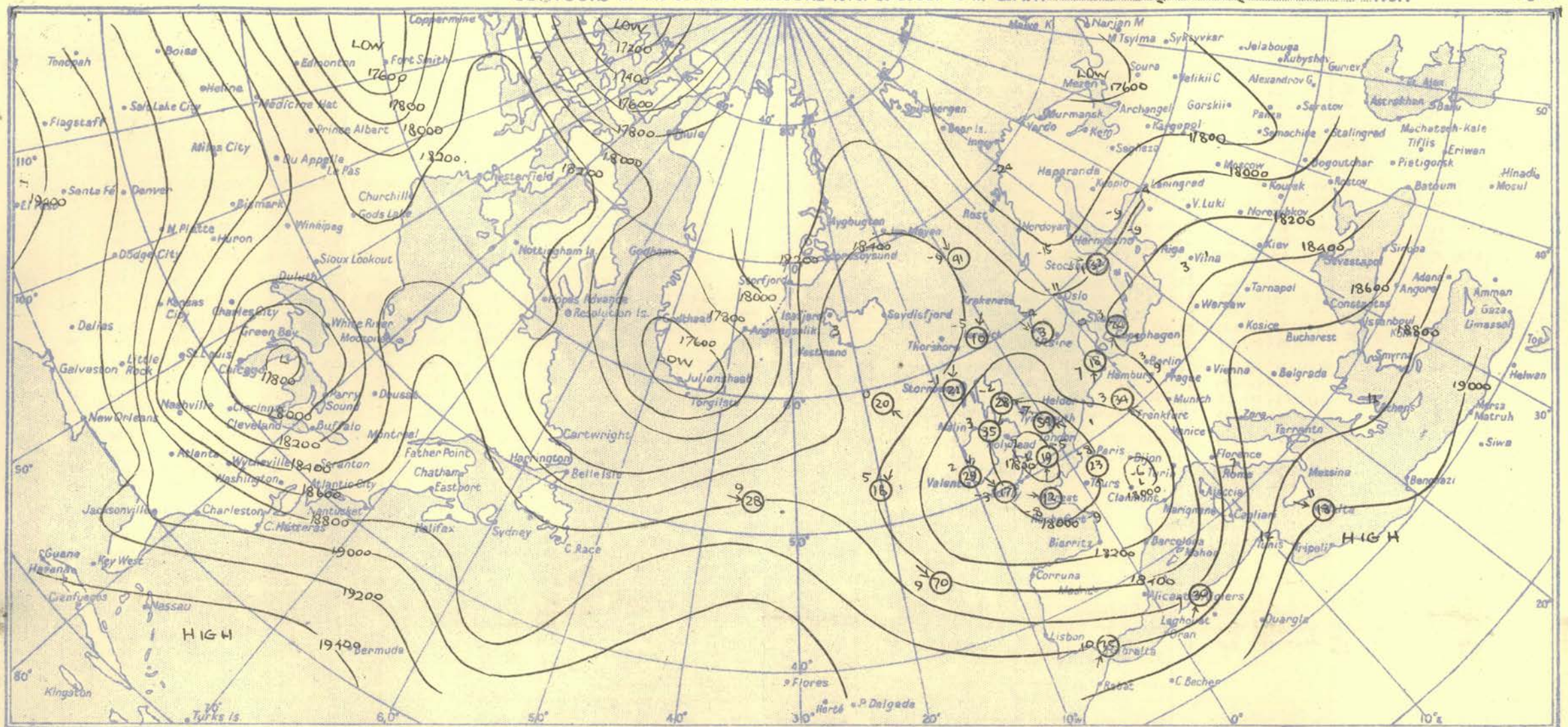
TROPOPAUSE CHART at about 15h G.M.T.



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

Though trough from South Greenland to Bay of Biscay still persists, it is already beginning to break down with a closed upper cold pool being formed over Bay of Biscay.

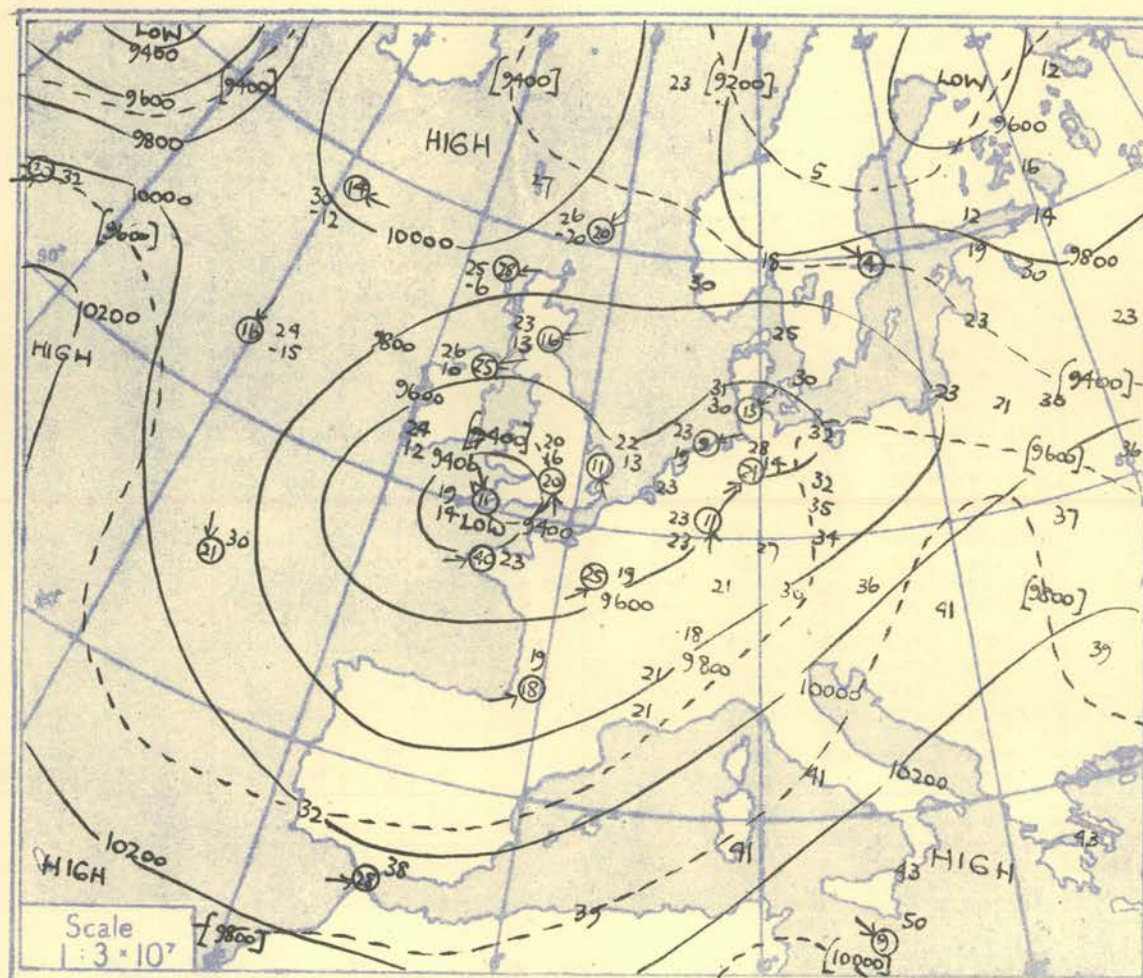


STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L. Surf Pressure	1015.8 1005.7 732	1014.4 1012.8 730	1008.0 1007.1 804	1003.6 994.4 787	994.7 992.7 749	998.3 994.0 739	997.1 981.3 809	999.7 999.1 850	1004.1 1003 795	Time M.S.L. Surf Pressure
Pressure mb	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	1000 950 900 850 800	Pressure mb
Height ft./100	02.7 04.2 32.4 42.17 63.9	00.4 03.9 32.1 42.02 63.4	00.2 02.1 30.3 42.25 61.3	02.6 01.1 29.3 34.33 60.4	00.6 -01.5 48.46 40.38 37.34	01.2 -00.5 49.43 43.38 37.33	04.4 -00.8 46.43 40.38 35.33	02.9 -00.1 43.39 37.36 32.30	00.3 01.1 55.45 49.40 43.36	Height ft./100
Temp. °F.	46 45 38 41 37	48 46 40 38 38	46 44 38 36 32	46 44 36 33 33	51 49 46 43 40	56 45 43 40 37	60 48 46 43 40	48 43 40 37 34	48 43 40 37 34	Temp. °F.
Dew °F.	38 38 33 31 11	35 33 29 26 12	33 31 27 25 27	33 33 33 33 33	49 46 43 40 37	45 43 40 37 34	48 46 43 40 37	43 40 37 34 31	43 40 37 34 31	Dew °F.
Wind Dir. Vel. knots	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	For Winds See page 8.	Wind Dir. Vel. knots
Surf 1000 950 900 850 800	02.7 04.2 32.4 42.17 63.9	00.4 03.9 32.1 42.02 63.4	00.2 02.1 30.3 42.25 61.3	02.6 01.1 29.3 34.33 60.4	00.6 -01.5 48.46 40.38 37.34	01.2 -00.5 49.43 43.38 37.33	04.4 -00.8 46.43 40.38 35.33	02.9 -00.1 43.39 37.36 32.30	00.3 01.1 55.45 49.40 43.36	Surf 1000 950 900 850 800
750 700 650 600 550	183.2 138.2 138.2 138.2 138.2	183.6 138.2 138.2 138.2 138.2	181.0 135.6 135.6 135.6 135.6	180.7 135.0 135.0 135.0 135.0	178.7 133.4 133.4 133.4 133.4	179.7 134.3 134.3 134.3 134.3	178.0 133.0 133.0 133.0 133.0	178.2 133.0 133.0 133.0 133.0	178.2 133.0 133.0 133.0 133.0	750 700 650 600 550
500 450 400 350	183.2 138.2 138.2 138.2	183.6 138.2 138.2 138.2	181.0 135.6 135.6 135.6	180.7 135.0 135.0 135.0	178.7 133.4 133.4 133.4	179.7 134.3 134.3 134.3	178.0 133.0 133.0 133.0	178.2 133.0 133.0 133.0	178.2 133.0 133.0 133.0	500 450 400 350
300 250 200 170	183.2 138.2 138.2 138.2	183.6 138.2 138.2 138.2	181.0 135.6 135.6 135.6	180.7 135.0 135.0 135.0	178.7 133.4 133.4 133.4	179.7 134.3 134.3 134.3	178.0 133.0 133.0 133.0	178.2 133.0 133.0 133.0	178.2 133.0 133.0 133.0	300 250 200 170
150 130 110 100 90 80 70 60	183.2 138.2 138.2 138.2	183.6 138.2 138.2 138.2	181.0 135.6 135.6 135.6	180.7 135.0 135.0 135.0	178.7 133.4 133.4 133.4	179.7 134.3 134.3 134.3	178.0 133.0 133.0 133.0	178.2 133.0 133.0 133.0	178.2 133.0 133.0 133.0	150 130 110 100 90 80 70 60
Inversion 913 mb 35°-898 mb 42° 898 " 42°-865 " 43° 763 " 33°-750 " 34°	Inversion 887 mb 31°-854 mb 43° 446 " 13°-420 " 11°	Inversion 842 mb 31°-820 mb 33° 130th thermal 900-870 mb 34°	Inversion 844-830 mb 34° 72°-714° 28°	Inversion 410 mb 24°-397 mb 21° 31 " 42°-291 " 36°	Inversion 765 mb 33°-750 mb 34° 130th thermal 832-800 mb 35°	Inversion 866 mb 38°-850 mb 39° 773 " 29°-750 " 30°	Inversion 866 mb 38°-850 mb 39° 773 " 29°-750 " 30°	Inversion 866 mb 38°-850 mb 39° 773 " 29°-750 " 30°	Inversion 866 mb 38°-850 mb 39° 773 " 29°-750 " 30°	Inversion 866 mb 38°-850 mb 39° 773 " 29°-750 " 30°
Tropopause	N/R	I 213 mb -78° 37.600°	N/R	I 233 mb -67°	I 253 mb -51° 33.400°					

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

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L.	03h	03h	03h	03h	03h	03h	03h	03h	03h	Time M.S.L.
Surf	1015.7	1015.3	1009.0	1005.4	1002.2	1003.7	1001.1	997.6	999.3	Surf
Freezing	760	766	818	800	811	805	811	835	804	Freezing
Pressure mb	1005.7	1013.7	1008.2	995.8	1000.2	999.2	985.1	987.1	1004	Pressure mb
Height ft./100	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Height ft./100
Surf	42.7	46.3	46.4	47.4	47.4	46.4	46.4	46.4	46.4	Surf
1000	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	1000
950	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	950
900	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	900
850	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	850
800	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	800
750	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	750
700	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	700
650	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	650
600	138.1	138.1	138.1	138.1	138.1	138.1	138.1	138.1	138.1	600
550	06.38	06.38	06.38	06.38	06.38	06.38	06.38	06.38	06.38	550
500	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	500
450	14.54	14.54	14.54	14.54	14.54	14.54	14.54	14.54	14.54	450
400	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	400
350	36.59	36.59	36.59	36.59	36.59	36.59	36.59	36.59	36.59	350
300	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	300
250	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	250
200	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	200
170	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	170
150	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	150
130	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	130
110	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	110
100	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	100
90	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	90
80	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80
70	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	70
60	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	60
Inversion	939 mb 34° - 890 mb 40°	933 mb 34° - 870 mb 40°	954 mb 40° - 940 mb 41°	760 mb 26° - 735 mb 29°	1000 mb 51° - 990 mb 52°	972 mb 45° - 954 mb 48°	715 - 673 mb 20°	711 mb 21° - 685 mb 28°		Inversion
Isotermal	1006 - 985 mb 42°			268 - 256 mb - 61°						Isotermal
Tropopause	I 229 mb - 74°	I 244 mb - 67°	I 235 mb - 73°	I 232 mb - 67°	I 267 mb - 67°	I 272 mb - 67°	I 307 mb - 59°	I 315 mb - 48°	I 253 mb - 60°	Tropopause
STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L.	09h	09h	09h	09h	09h	09h	09h	09h	09h	Time M.S.L.
Surf	1016.2	1016.7	1011.6	1008.8	1005.4	1004.9	1003.2	999.7	999.3	Surf
Freezing	720	763	828	818	800	800	814	832	804	Freezing
Pressure mb	1006.1	1015.9	1010.8	999.1	1003.4	1000.5	987.2	989.1	1004	Pressure mb
Height ft./100	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Temp. °F.	Height ft./100
Surf	02.7	00.4	00.2	02.6	00.6	01.2	04.4	02.9	02.9	Surf
1000	4.2	4.7	3.1	4.7	4.7	4.4	4.4	4.4	4.4	1000
950	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	950
900	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	900
850	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	850
800	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	800
750	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	750
700	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	700
650	23.22	23.22	23.22	23.22	23.22	23.22	23.22	23.22	23.22	650
600	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	600
550	12.24	12.24	12.24	12.24	12.24	12.24	12.24	12.24	12.24	550
500	189.6	189.6	189.6	189.6	189.6	189.6	189.6	189.6	189.6	500
450	08.40	08.40	08.40	08.40	08.40	08.40	08.40	08.40	08.40	450
400	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3	400
350	33.60	33.60	33.60	33.60	33.60	33.60	33.60	33.60	33.60	350
300	303.5	303.5	303.5	303.5	303.5	303.5	303.5	303.5	303.5	300
250	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	250
200	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	200
170	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	170
150	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	150
130	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	130
110	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	110
100	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	100
90	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	90
80	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80
70	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	70
60	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	60
Inversion	940 mb 36° - 894 mb 41°	945 mb 35° - 922 mb 41°	965 mb 41° - 953 mb 43°	723 mb 23° - 700 mb 24°	1000 mb 51° - 990 mb 52°	972 mb 45° - 954 mb 48°	715 - 673 mb 20°	711 mb 21° - 685 mb 28°		Inversion
Isotermal	831 - 800 mb 40°			958 - 942 mb 42°						Isotermal
Tropopause	I 215 mb - 78°	I 232 mb - 77°	I 226 mb - 69°	N.R.	I 260 mb - 65°	I 271 mb - 65°	I 315 mb - 54°	I 327 mb - 51°		Tropopause

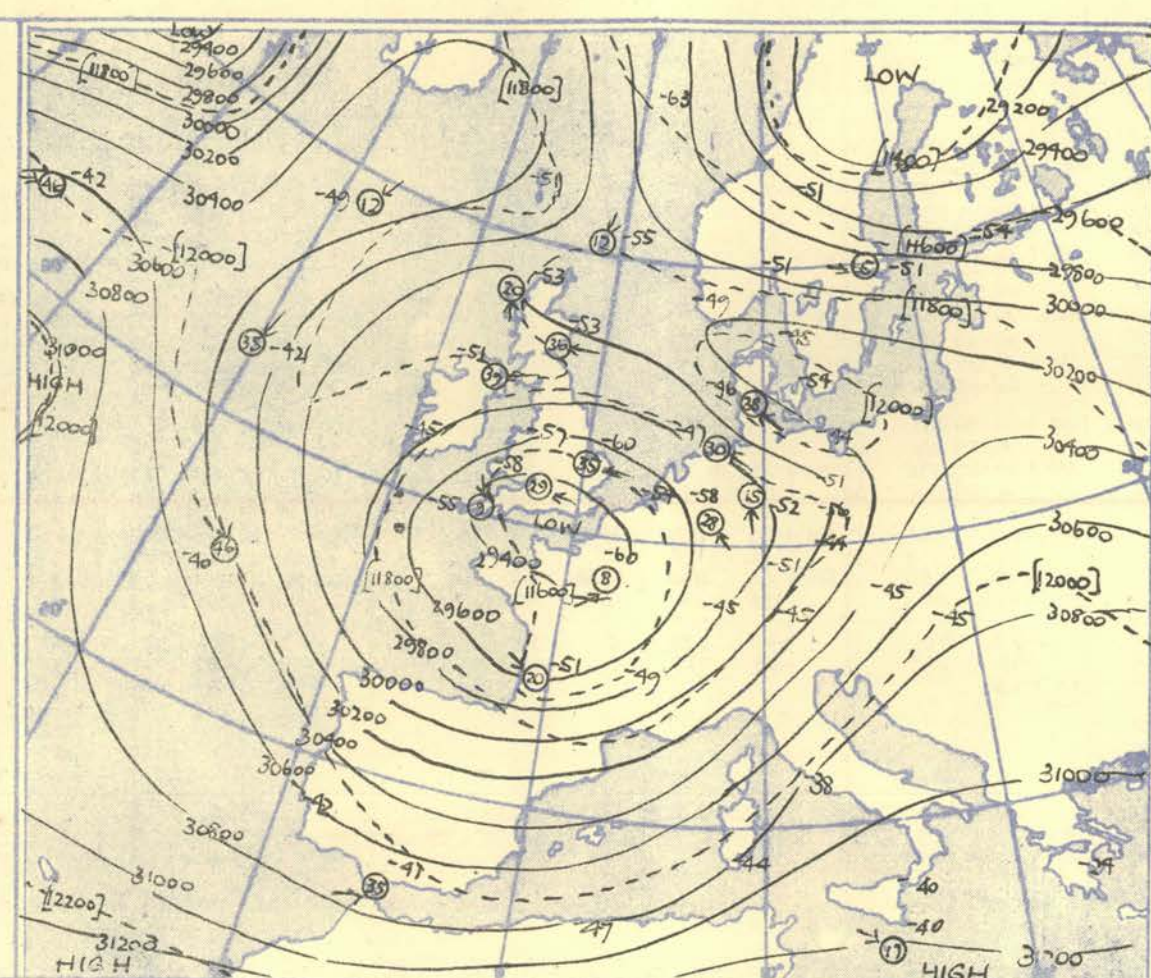
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03h G.M.T.



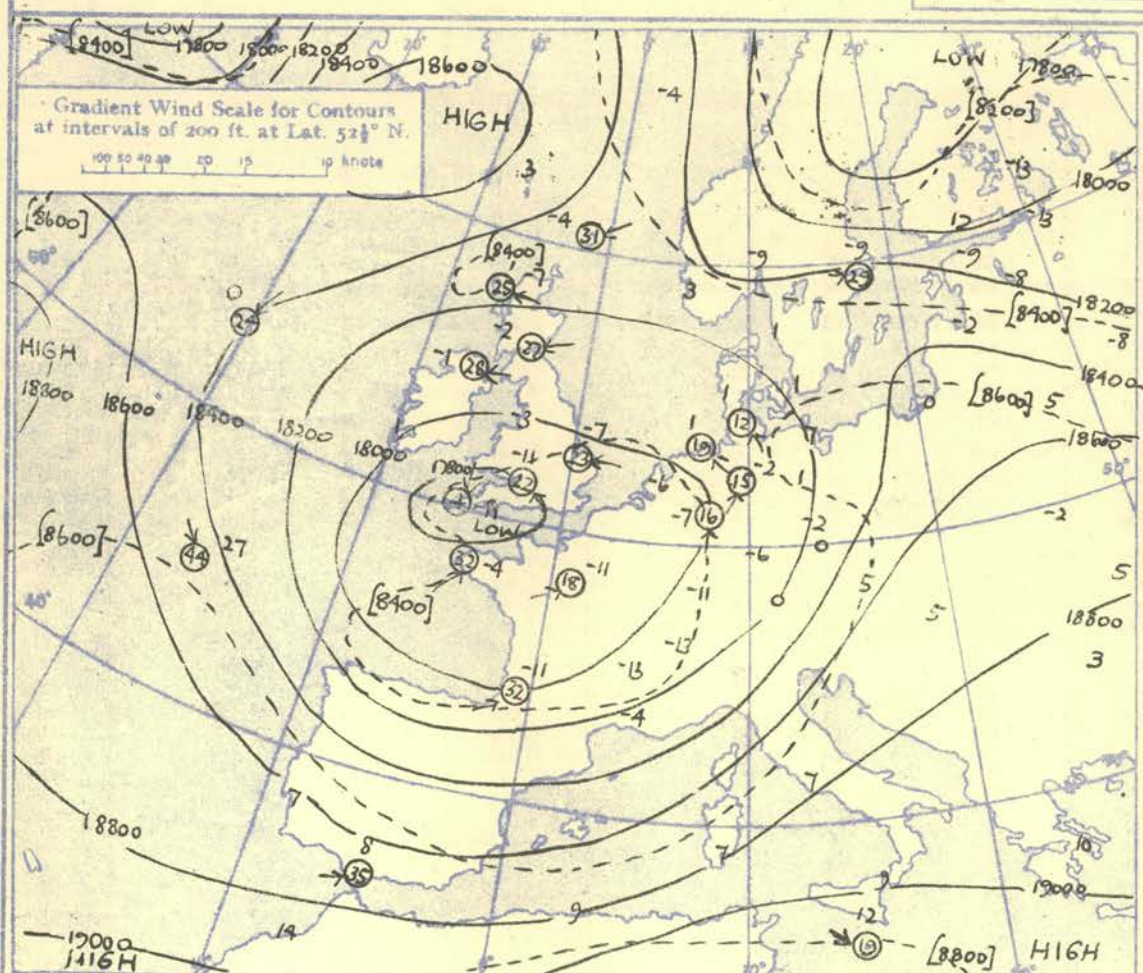
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

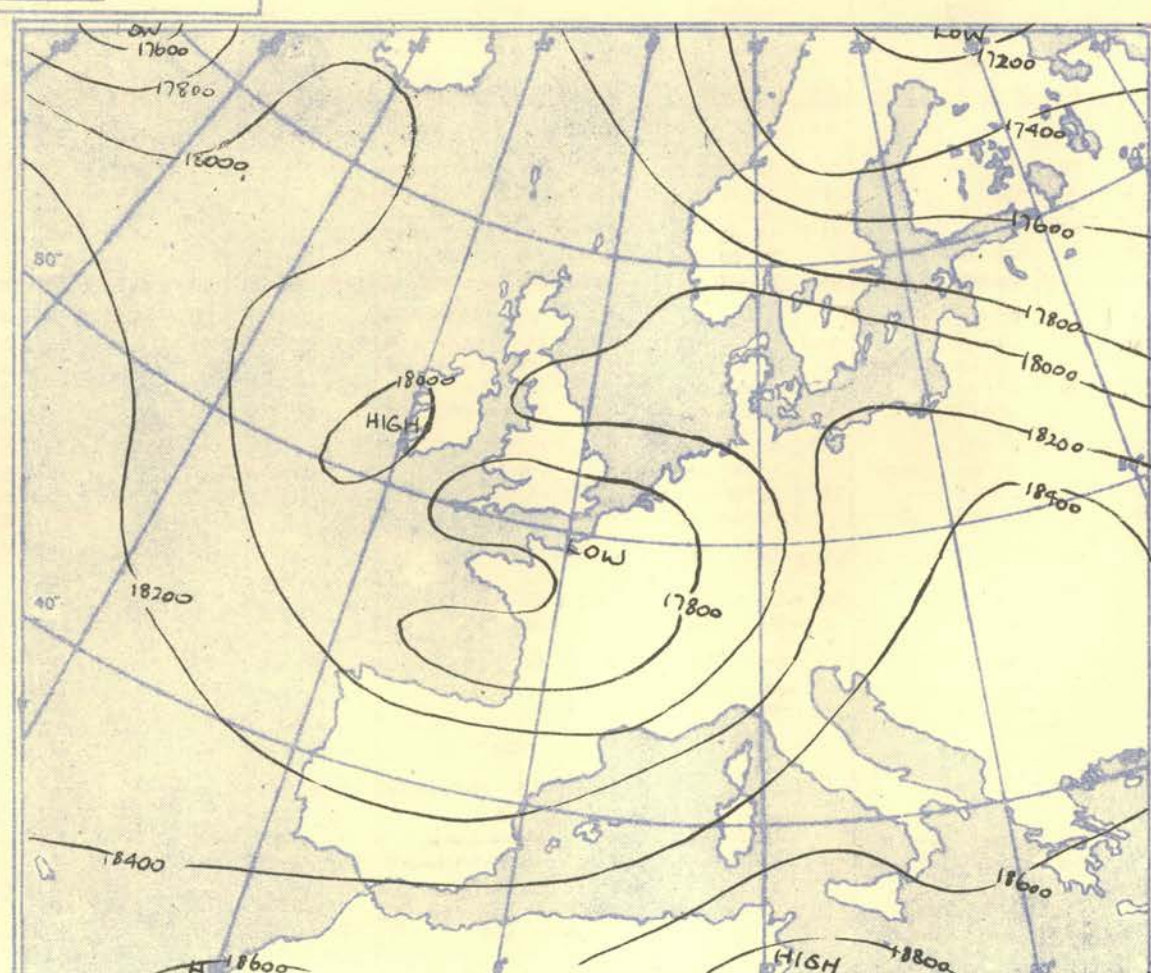
100 80 60 40 20 10 knots



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.

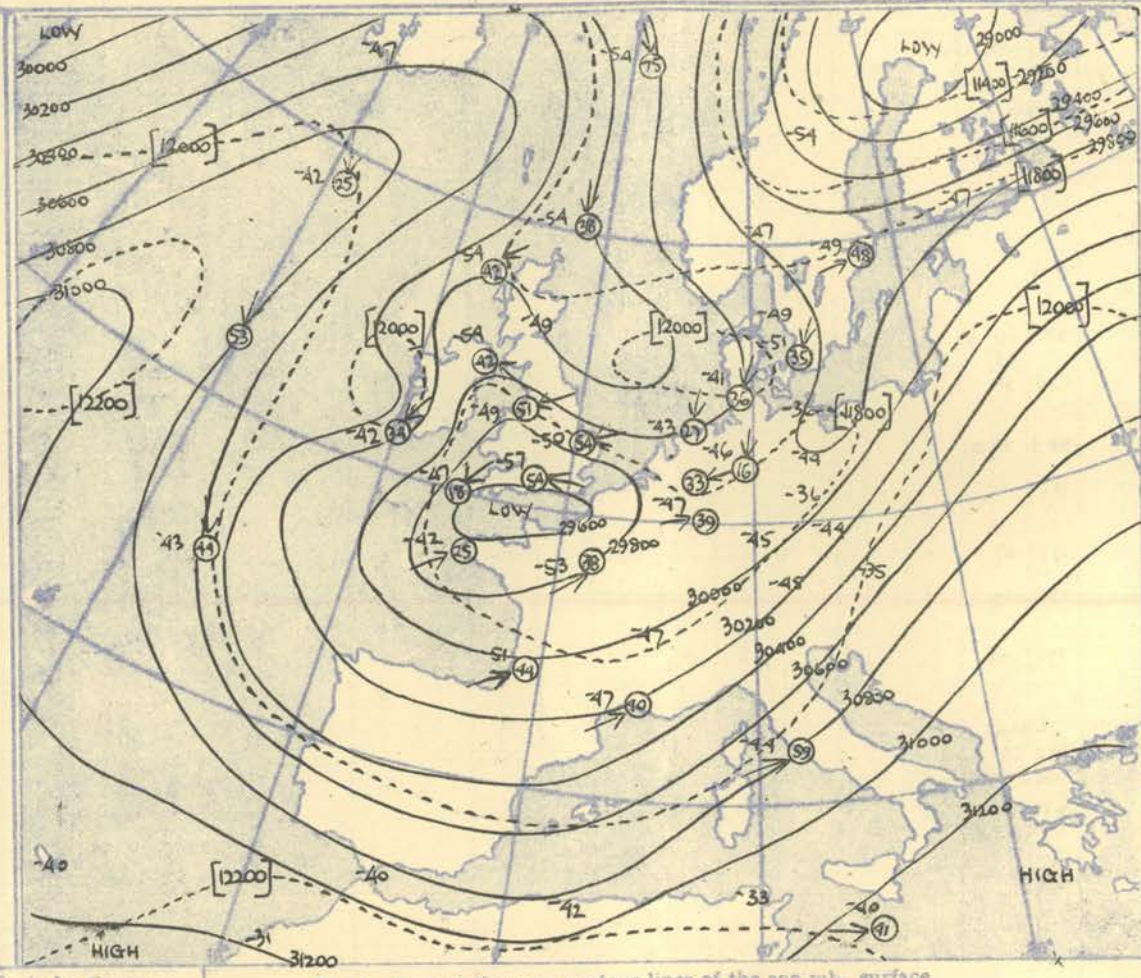
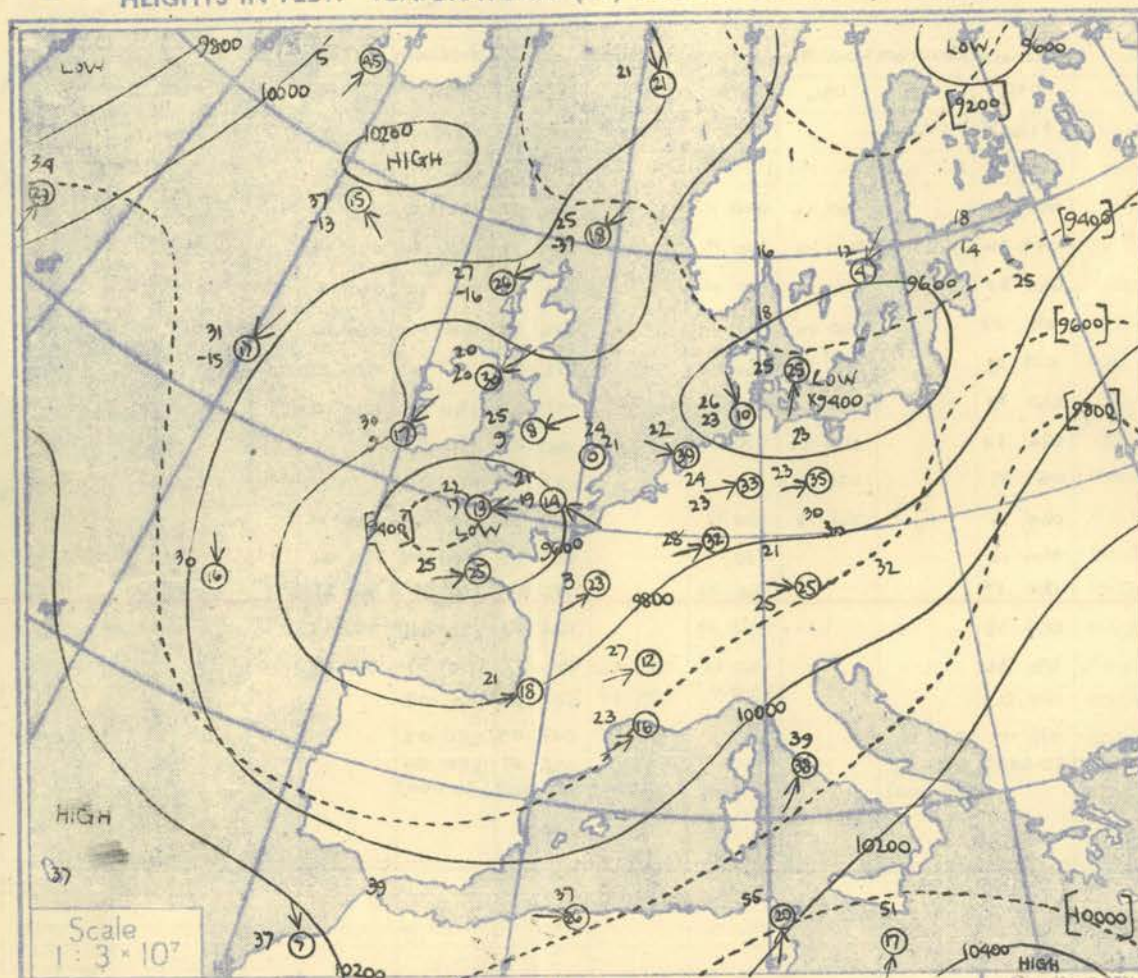
Place	Leuchars	Leuchars	Ronaldsway	Cirrus	Aldergrove	Herwick	Shoebury	Cirrus	Place								
Time	03L	09L	09L	09L	09L	09L	10L	15L	Time								
Type	Pilar	Pilar			Pilar	Radar			Type								
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet		
Surf.	050	20			060	14	030	18			040	27	120	01	020	10	Surf.
1,000	040	36			060	18	020	13			029	32	140	06	020	13	1,000
2,000	063	35			090	15	010	14			041	31	180	14	020	12	2,000
3,000	076	39			090	18	350	16			048	31	190	08	020	10	3,000
4,000	079	42			070	18	360	18			052	29			020	08	4,000
5,000	083	39			060	22	010	15			057	26	180	06	020	10	5,000
6,000	084	34			060	18	030	14			060	24	170	07			6,000
8,000	087	27			050	21					053	23	170	06			8,000
10,000	084	16			050	19	030	17			047	21	190	09	010	17	10,000
14,000	064	14					030	7			053	28	160	09	360	21	14,000
18,000	061	27					360	28			052	40	120	19	360	27	18,000
24,000	084	35					350	38			064	42	120	34	350	35	24,000
30,000	091	36					360	60	059	48	062	37	100	53	360	53	30,000
40,000	079	12					(29.000)		059	20	044	21	120	03			40,000
50,000	078	12	055	11					038	10	048	09	240	02			50,000
	(42.000)		056	07					08.1m		026	07	250	04			
			(60.000)						(57.000)		(57.000)		(56.000)				

NEPHOSCOPE OBSERVATIONS

[illegible]

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

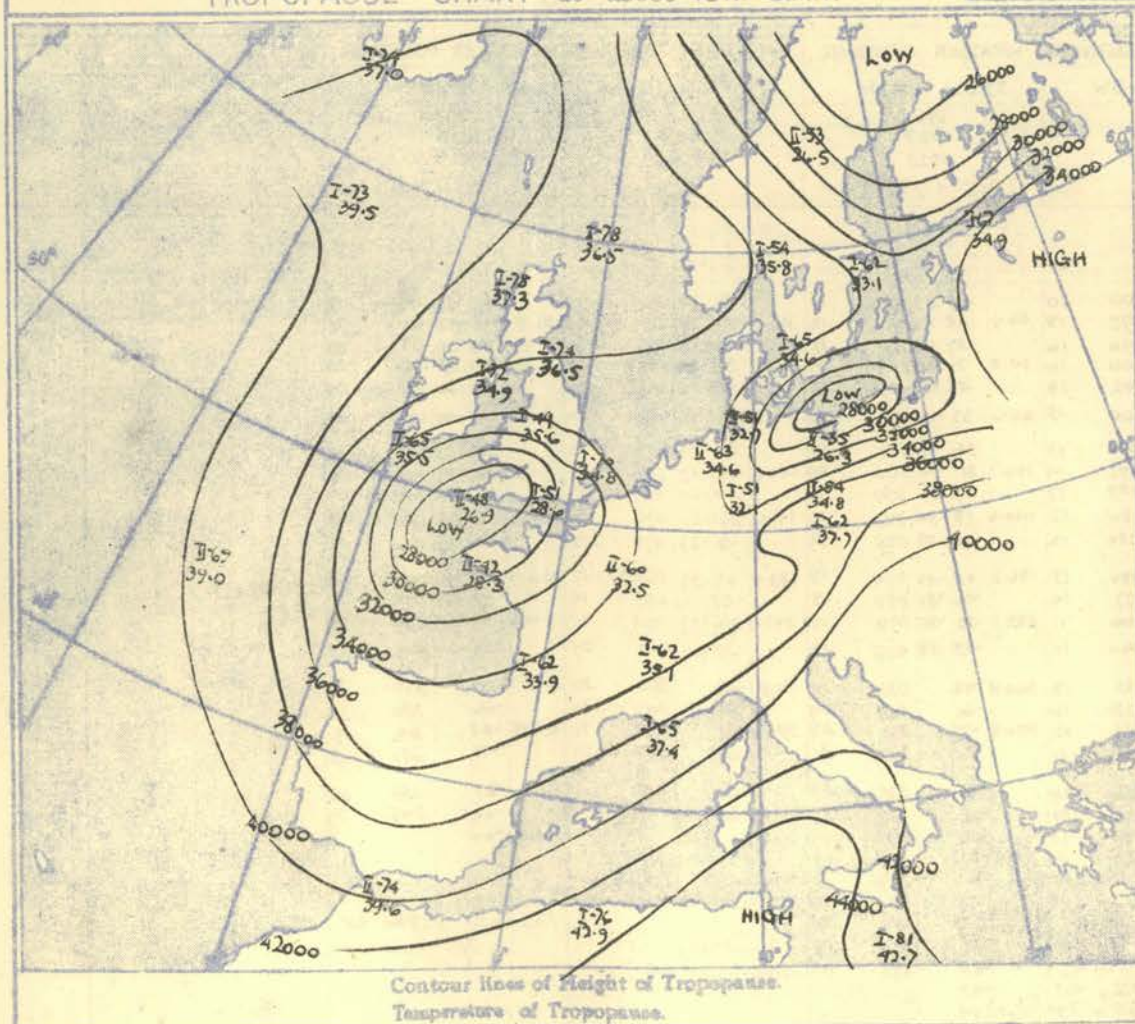
[illegible]



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

100 50 40 30 20 10 knots

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



Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

The cold pool over Northwest France persisted and drifted slowly west. Slight warming south of Greenland coupled with rather rapid cooling in Southern Scandinavia and Northern Germany led to the collapse of the old cold trough from Greenland to the Bay of Biscay and the formation of a new cold trough with its axis from Sweden to Germany.

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



Monday 28th May 1951.

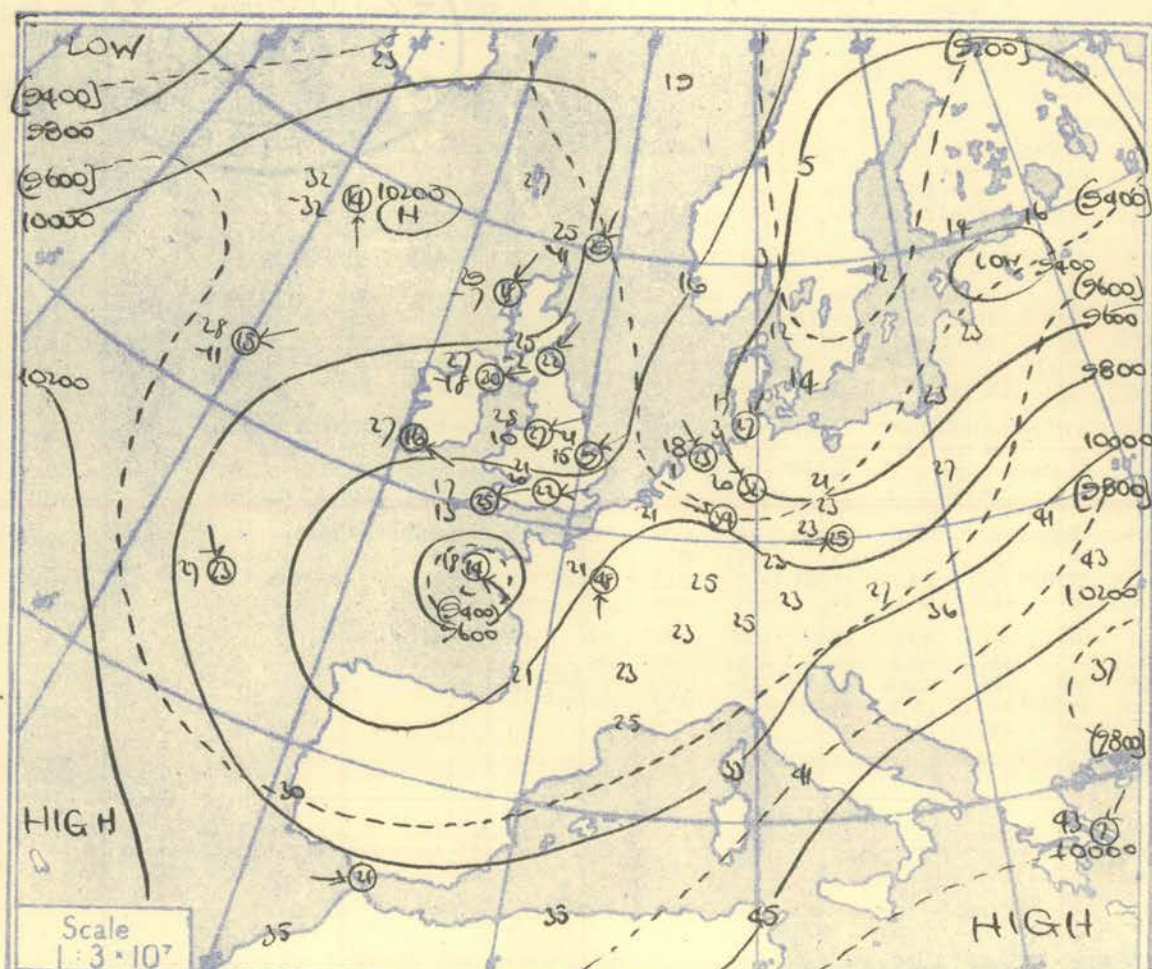
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.)

[illegible]

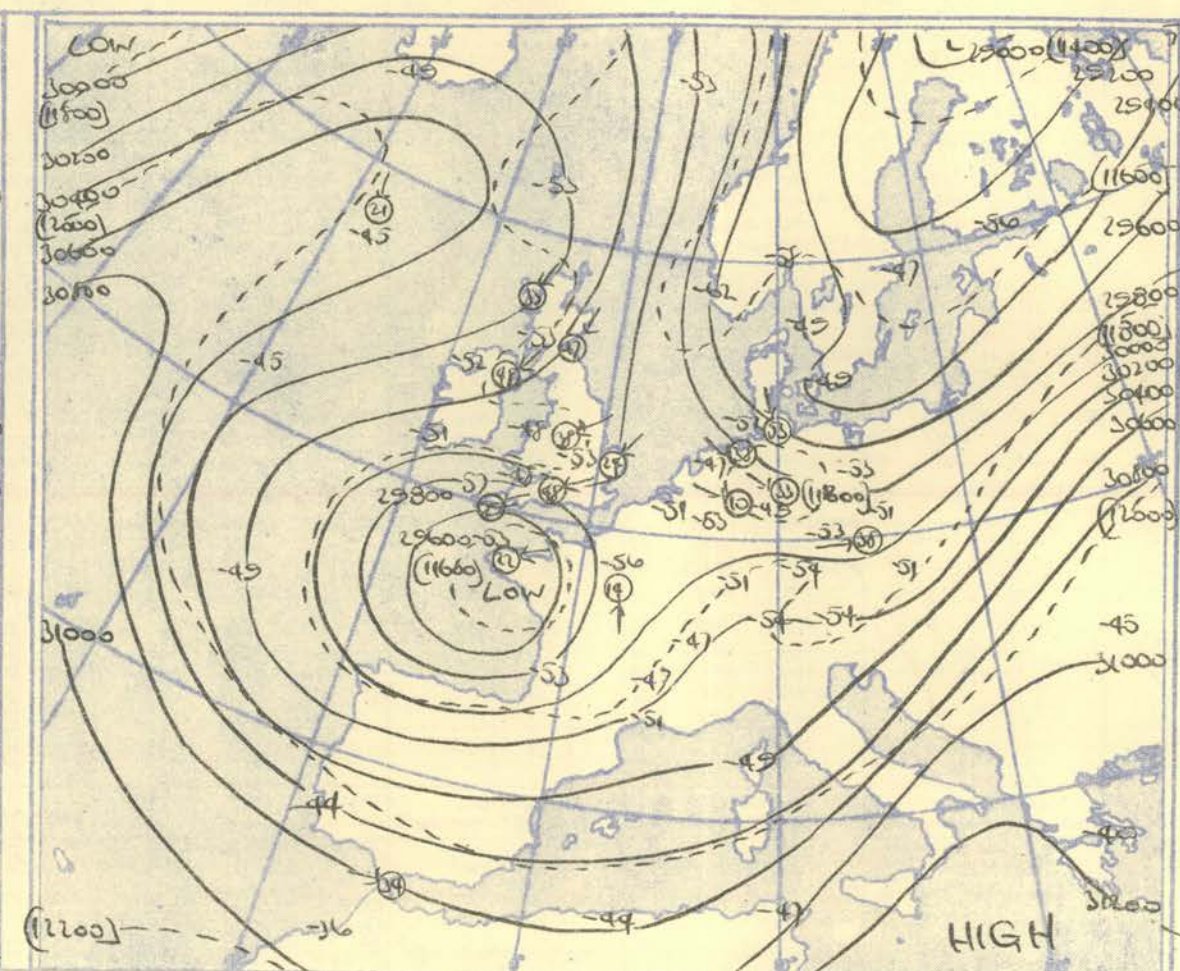
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7 - JUN 1951

STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure	Time	M.S.L.	Surf	Freezing	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	03L	G.M.T.	Pressure								
1000	02.7	42	36	020	17	00.4	45	38	060	12	00.2	35	35	CALM	02.6	43	40	084	05	00.6	48	44	060	07	01.2	48	45	045	09	01.4	51	50	090	08	02.9	60	49	070	1000						
950	5.5	41	35		6.1	43	37		5.2	37	36	337	03	5.0	43	39		4.2	47	42	068	21	3.9	47	44		2.9	47	46	088	22	2.6	46	45	074	14	3.7	46	39	066	950				
900	33.5	39	08	017	20	31.4	38	29	061	16	31.4	38	29	061	16	31.4	38	29	061	16	31.4	38	29	061	16	31.4	38	29	061	16	31.4	38	29	061	16	31.4	38	29	061	900					
850	37	03	015		21	40	04	051		12	37	23	057		08	36	25	084	20	37	30	101	25	33	38	34	077	12	33	35	091	23	33	36	089	19	36	36	096	850					
800	64.7	34	-02	011	21	65.8	38	-06	045	15	64.7	31	15	075	11	64.6	35	05	080	23	63.8	32	28	095	07	63.7	32	30	072	10	62.9	33	28	092	25	62.4	31	30	088	22	63.6	33	24	073	800
750	30	-04	009		26	34	-07	044		15	29	14	058		16	26	-05	064		28	25	085		8	27	24	066		09	26	28	093	25	24	21	082	21	21	082	13	21	082	750		
700	09.6	25	-11	005	29	100.9	39	-07	041	18	99.5	25	-02	040	22	99.3	27	-18	066	30	98.7	28	10	054	21	98.5	21	15	064	09	97.5	21	20	092	22	96.9	11	13	079	25	96.6	27	06	073	700
650	18	-16	360		32	25	-15	037		20	20	-10	031		22	21	-27	061	36	22	-08	081		28	16	-03	068		21	17	13	090	19	09	05	084	25	09	05	084	25	09	05	084	650
600	138.9	13	-21	359	34	140.7	17	-21	035	21	138.9	14	-15	031	24	138.9	18	-30	065	30	138.3	14	-21	073	28	137.6	12	-25	065	24	136.7	11	05	091	18	135.5	06	-03	083	29	138.1	15	04	083	600
550	04	-24	359		40	0	-23	021		25	07	-26	037		24	11	-43	062	32	08	-25	068		33	05	-37	063		23	04	-05	093	17	-02	-18	078	30	-02	-18	078	30	-02	-18	078	550
500	184.0	05	-19	360	42	186.3	01	-35	022	28	184.2	03	-34	036	28	184.6	00	-46	056	33	183.7	00	-29	067	37	182.9	-03	-50	063	23	181.8	-05	-17	093	16	180.1	-10	-24	079	32	183.6	01	-22		500
450	15	-22	005		44	09	-44	024		30	14	-42	034		26	12	-34	058	35	12	-36	062		38	14	-47	059		33	15	-26	085	20	14	-32	083	37	14	-32	083	37	14	-32	083	450
400	236.8	26	-31	003	49	239.9	19	-54	019	35	237.2	-25	-49	037	34	237.8	-27	57	052	39	237.1	-22	-46	058	42	235.9	-26	-54	054	24	234.7	-25	-33	086	27	232.4	-31	-45	084	42	237.1	-23	-98		400
350	(380)	-30	-36		32	-59	023		33	-39	-59	034	41	-39	-59	053	42	-35	-57	057	41	-35	-57	057	41	-35	-57	057	41	-35	-57	057	41	-35	-57	057	41	-35	-57	057	41	-35	-57	057	350
300					305.4	-48		028	33	301.6	-53		035	47	302.3	-52		066	48	302.2	-48		066	38	300.3	-53		043	24	299.7	-49		079	48	296.6	-57		075	59	301.8	-51			300	
250					65			036	30			69		041	49			059	48			65		056	29			030		17		64		073	49		082	42		-70			250		
200					390.6	-81		040	31	386.0	-78		042	32	387.2	-78		056	43	388.2	-63		053	28	384.7	-79		046	14	385.7	-63		088	27	383.0	-57		055	31	386.4	-68			200	
170					-71			037	21			69		036	18			063	19			-58		048	16			043	09		-89		069	15		-58		029	11			170			
150					-66			028	8			-67		082	18			034	23			57		041	11			038	06		-56		051	06		-59		005	09			150			
130					-64			016	14									028	16			59		030	11			-61			285	06		-59		049	03			130					
110					-64			011	13									037	09			56		054	07			-66			286	06		-60		343	02		125			110			
100					535.6	-65		003	15									035.4	08			536.9	-56		0350	04			531.1	-61		293	06		534.0	-60		343	02		mb			100	
90					-62			033	13									026	09			-56		312	04			-61			195	09		-60			CALM				90				
80					-59			017	08									054	18			-57		318	04			-60						-60		133	02				80				
70					-59			007	08									048	06			-57		340	04			-62						-59		179	03				70				
60																																										60			
Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					Inversion					
934 mb 33° - 907 mb 30°					950 mb 38° - 905 mb 42°					1017 mb 35° - 949 mb 42°					980 mb 43° - 950 mb 45°					753 mb 27° - 743 mb 29°					623 mb 05° - 600 mb 06°					850 mb 36° - 834 mb 39°					274 mb - 64° - 250 mb - 60°					781 mb 31° - 750 mb 33°					
Isothermal					Isothermal					Isothermal					Isothermal					Isothermal					Isothermal					Isothermal					Isothermal					Isothermal					
632 - 620 mb 16°					828 - 823 mb 40°					949 - 893 mb 42°					1009 - 980 mb 43°					746 - 726 - 731 - 28°					274 - 64° - 250 - 60°					842 - 833 - 38°					600 - 587 - 08°										
NR.					I 203 mb - 62°					I 205 mb - 81°					I 202 mb - 80°					I 240 mb - 68° - 35,000'					I 200 mb - 79°					I 235 mb - 70°					I 274 mb - 64° - 31,600'					I 222 mb - 81°					
					38,700'					38,200'					38,500'					38,500'					38,500'					35,200'					35,000'					36,400'					
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION								
Pressure	Time	M.S.L.	Surf	Freezing	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	09L	G.M.T.	Pressure								
1000	02.7	44	37	050	24	00.4	47	37	080	14	00.2	47	44	CALM	02.6	51	45	CALM	00.6	52	43	080	05	01.2	55	45		04.4	51	49	070	14	02.9	54	51	090	10			1000					
950	5.7	42	32	022	24	6.6	43	34	050	19	6.0	44	44		5.7	50	44		5.3	50	42	072	16	4.8	52	44		4.1				3.2	54												

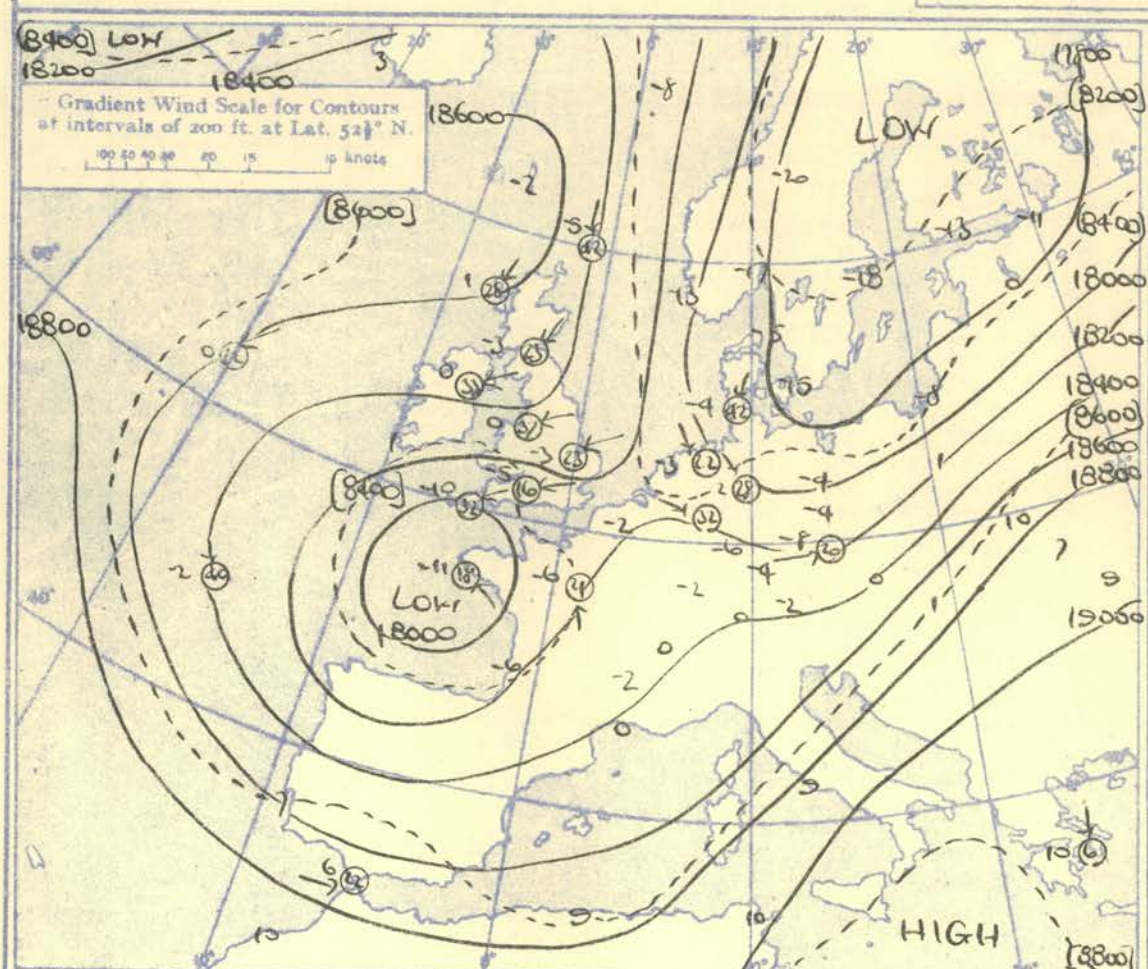
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb. 500 mb. and 300 mb., levels at about 03 h G.M.T.



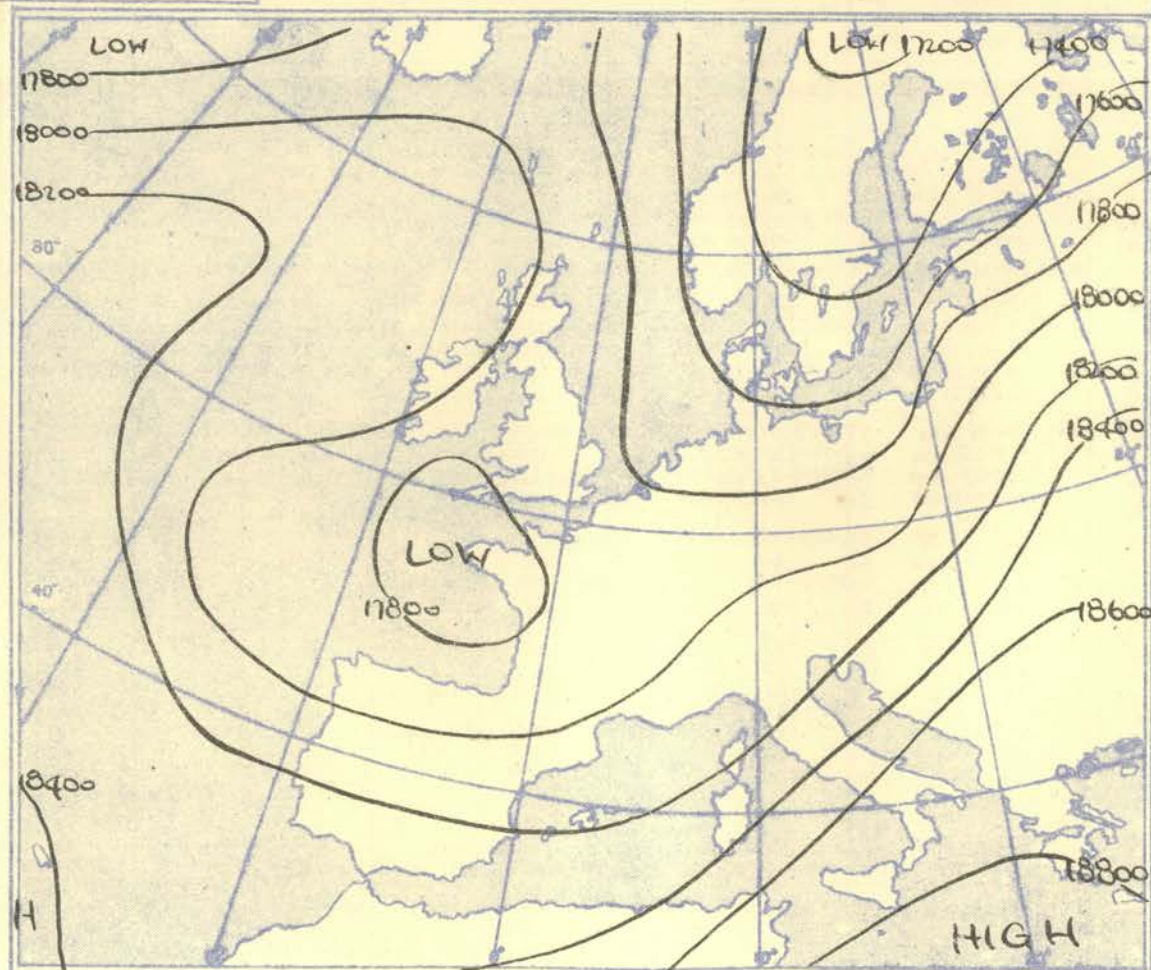
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.



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



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

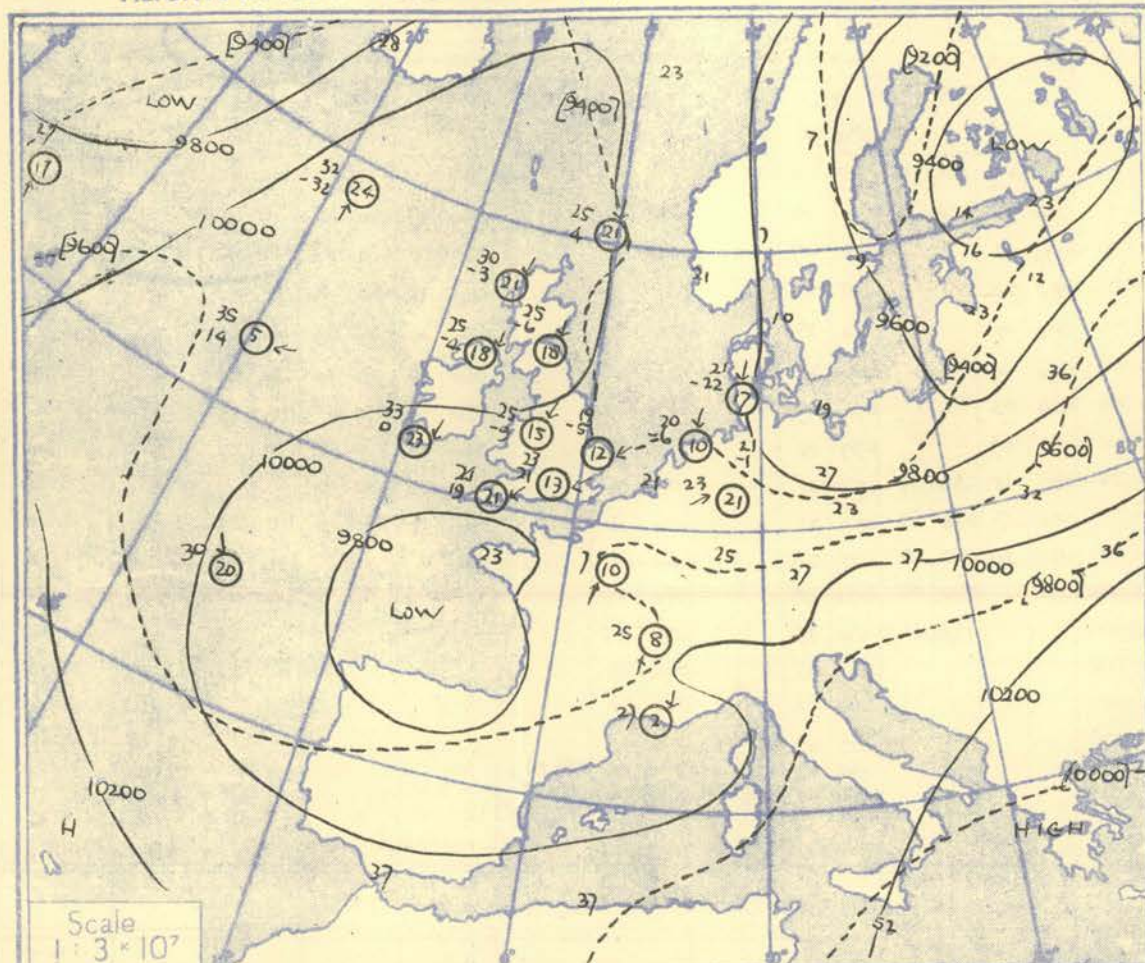


Isopleths of Thickness 500-1000mb.

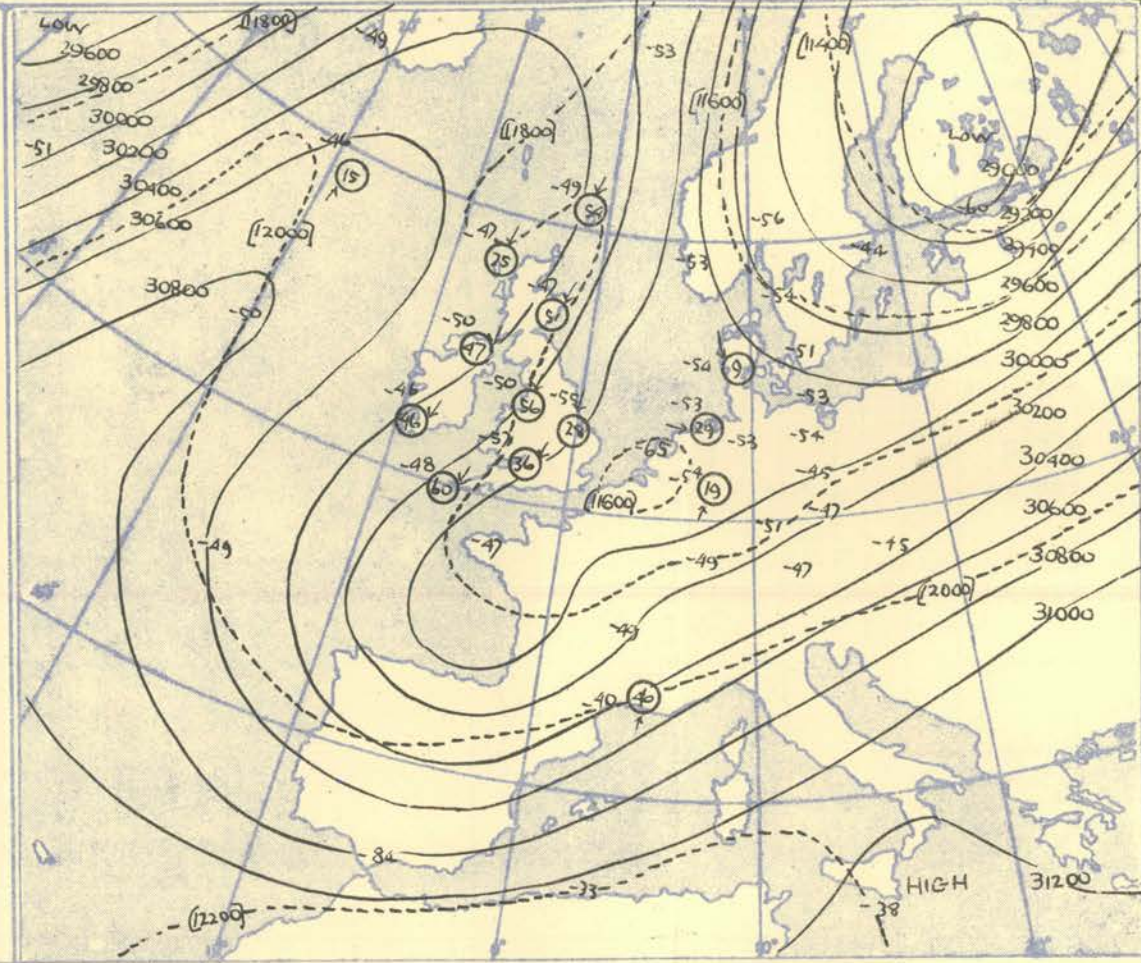
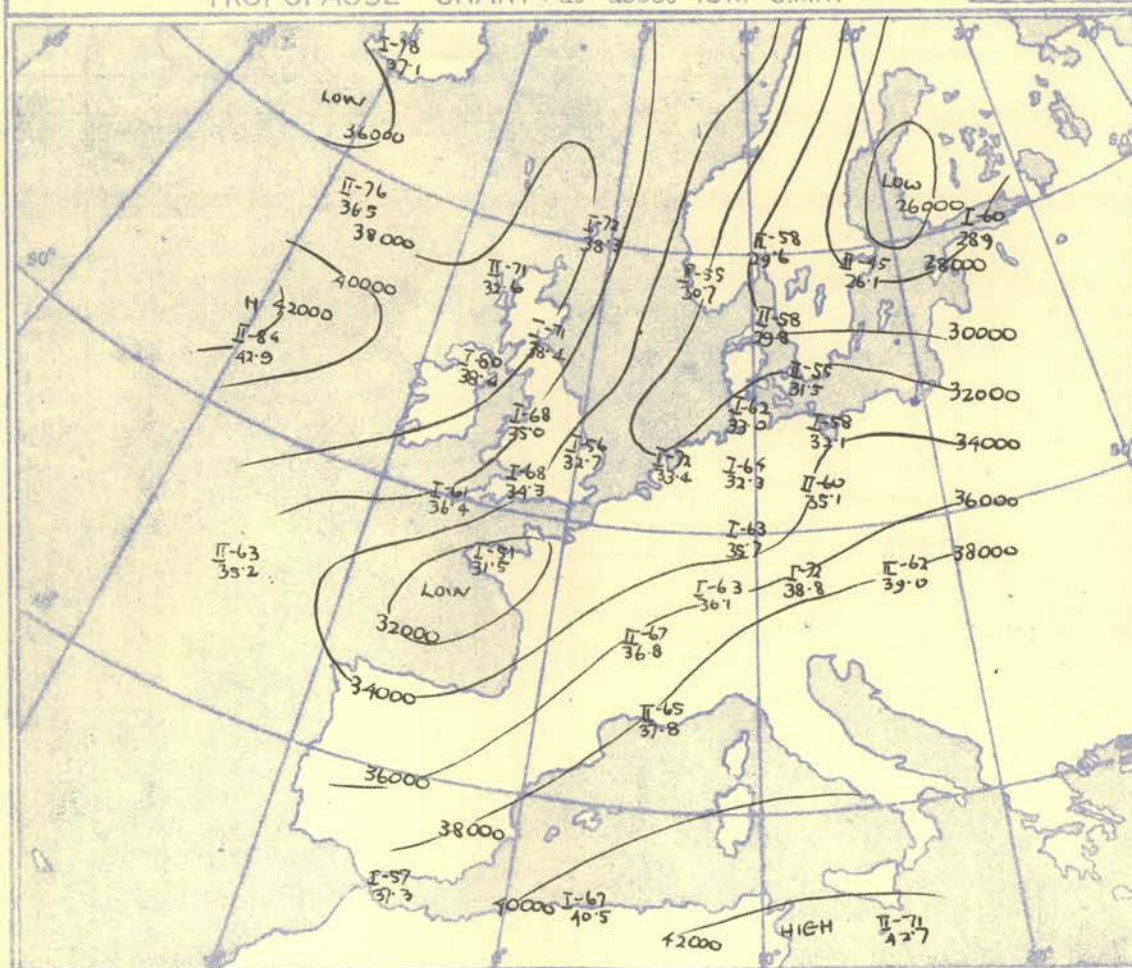
DIRECTION (degrees from N) and VELOCITY (knots) of UPPER WINDS at heights above M.S.L.

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

Ship	WEATHER OBSERVER.				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				CIRRUS				CIRRUS				CIRRUS				CIRRUS				CIRRUS				Ship
Lat/Long	59° 04' 19.2 W.				59° 04' 19.2 W				59° 04' 18.9 W				59° 04' 19.1 W.				52° 54' 20.0 W.								52° 54' 20.0 W.												Lat/Long
Pressure	Time	031.		G.M.T.	09L		G.M.T.	15L		G.M.T.	21L		G.M.T.	03L		G.M.T.	09L		G.M.T.	15L		G.M.T.	21L		G.M.T.			G.M.T.	Time								
	M.S.L.	1025		mb	1024		mb	1022		mb	1020		mb	1021		mb				1022		mb						mb	M.S.L.								
	Surf	1025		mb	1024		mb	1022		mb	1020		mb	1021		mb				1022		mb						mb	Surf								
	Freezing	900.700		mb	900.705		mb	700		mb	705		mb	760		mb				665		mb						mb	Freezing								
Pressure	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Height	Temp.	Dew	Wind	Pressure				
	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	ft./100	°F.	°F.	Dir. Vel. knots	mb				
Surf		49 38	140	14		48 39	140	18		50 42	170	21		50 47	170	27		52 40	080	02													Surf				
1000	06.7	49 34	151	09	06.3	48 38	160	16	06.0	47 39	164	24	05.4	48 44	167	30	05.8	49 37	041	06													1000				
950		38 30	147	13		37 33	164	16		39 33	165	23		42 36	184	28		43 32	041	08													950				
900	34.8	31 26	149	12	34.4	32 23	168	18	34.2	33 29	167	22	33.7	37 32	205	27	34.1	34 20	045	08													900				
850		45 03	152	12		44 02	176	18		44 -18	177	24		46 -11	208	25		42 07	050	13													850				
800	66.1	39 -17	155	14	65.8	42 -06	184	18	65.6	40 -26	190	24	65.4	41 -25	212	26	65.6	37 -01	052	13													800				
750		37 -28	163	15		38 -14	188	20		35 -29	205	26		37 -28	211	24		31 -07	052	15													750				
700	101.5	32 -32	166	14	101.2	31 -17	194	20	100.9	32 -32	208	24	100.8	36 -32	209	27	100.7	28 -11	043	15													700				
650		27 -35	167	14		27 -32	198	19		27 -35	207	25		26 -38	206	25		22 -14	031	14													650				
600	141.5	21 -40	169	14	141.2	21 -33	181	19	140.9	-01 -41	206	27	140.7	18 -42	203	31	140.4	16 -13	022	16													600				
550		12 -46	174	16		13 -40	188	20		13 -46	202	30		10 -48	203	27		10 -25	016	10													550				
500	187.4	03 -43	184	14	187.1	04 -50	192	21	186.9	04 -52	197	29	186.4	02 -09	203	25	186.0	00 -34	017	12													500				
450		-06 -60	190	18		-06 -57	195	20		-05 -60	190	24		-08 -16	203	20		-10 -45	034	18													450				
400	241.2	-16 -57	198	07	241.0	-19 -60	196	10	240.9	-17 -57	190	22	240.2	-18 -26	210	19	239.5	-22	035	16													400				
350		-30 -57	012	07		-33 -60	185	02		-31 -58	205	18		-30 -39	222	18		-31															350				
300	307.0	-45		21	306.2	-49	360	03	306.6	-46	266	15	306.0	-44	230	24	305.2	-43															300				
250		-65	003	16		-65	003	06		-65	218	15		-60	257	18		-58															250				
200	391.7	-80			391.4	-79	275	03	391.9	-78	226	18	392.2	-72	269	28	391.9	-76															200				
170		-73				-78	236	06		-67	242	18																					170				
150		-67				-63	242	05		-63	255	15																					150				
130		-65				-63	328	04		-60	281	09																					130				
110		-67				-63	345	08		-60	281	09																					110				
100	53.67	-66			536.9	-62			538.2	-60																							100				
90		-65								-57																								90			
80										-54																								80			
70										-50																								70			
60																																			60		
	Inversion	892 mb 30° 865 mb 49°			Inversion	900 mb 32° - 862 mb 45° 771° 38° - 760° 39°			Inversion	900 mb 33° - 869 mb 44°			Inversion	908 mb 35° 870 mb 48°			Inversion	885 mb 32° - 876 mb 42°			Inversion	828 mb 39° - 875 mb 46° 828° - 42° - 815° - 44° 700° - 35° - 693° - 36°															
	Isotermal.	812 - 772 mb 39°			Isotermal.	826 - 794 mb 42° 639 - 670° 30°			Isotermal.	869 - 844 mb 44° 683 - 671° - 31°			Isotermal.	740 - 727 mb 30°			Isotermal.				Isotermal.	704 - 700 mb 35° 550° - 545° - 16°															
Tropopause	I 205 mb -81° 387° 00°				I 212 mb -81° 37° 00°				II 228 mb -76° 36° 500°				I 205 mb -73° 387° 00°				M.R.					II 170 mb -84° 42° 00°										Tropopause					

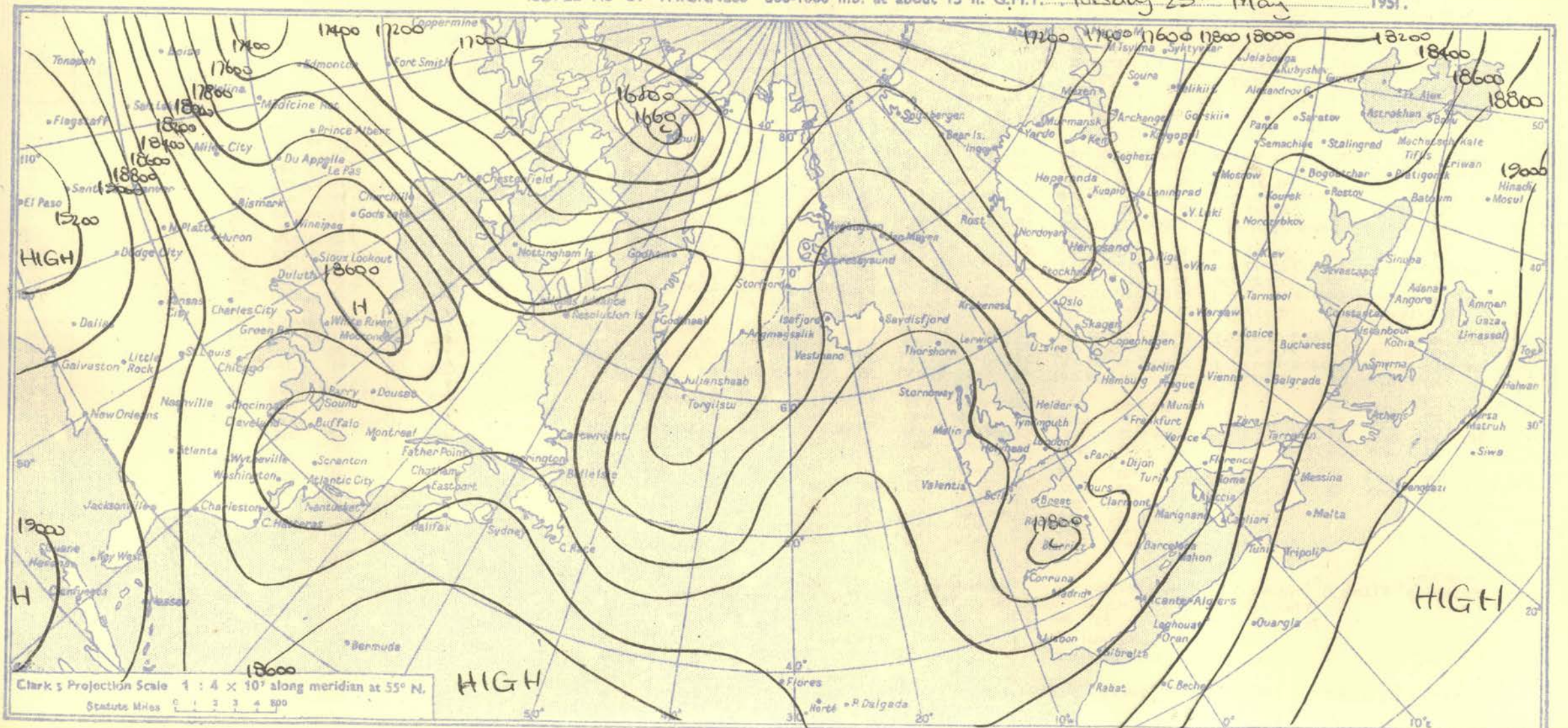
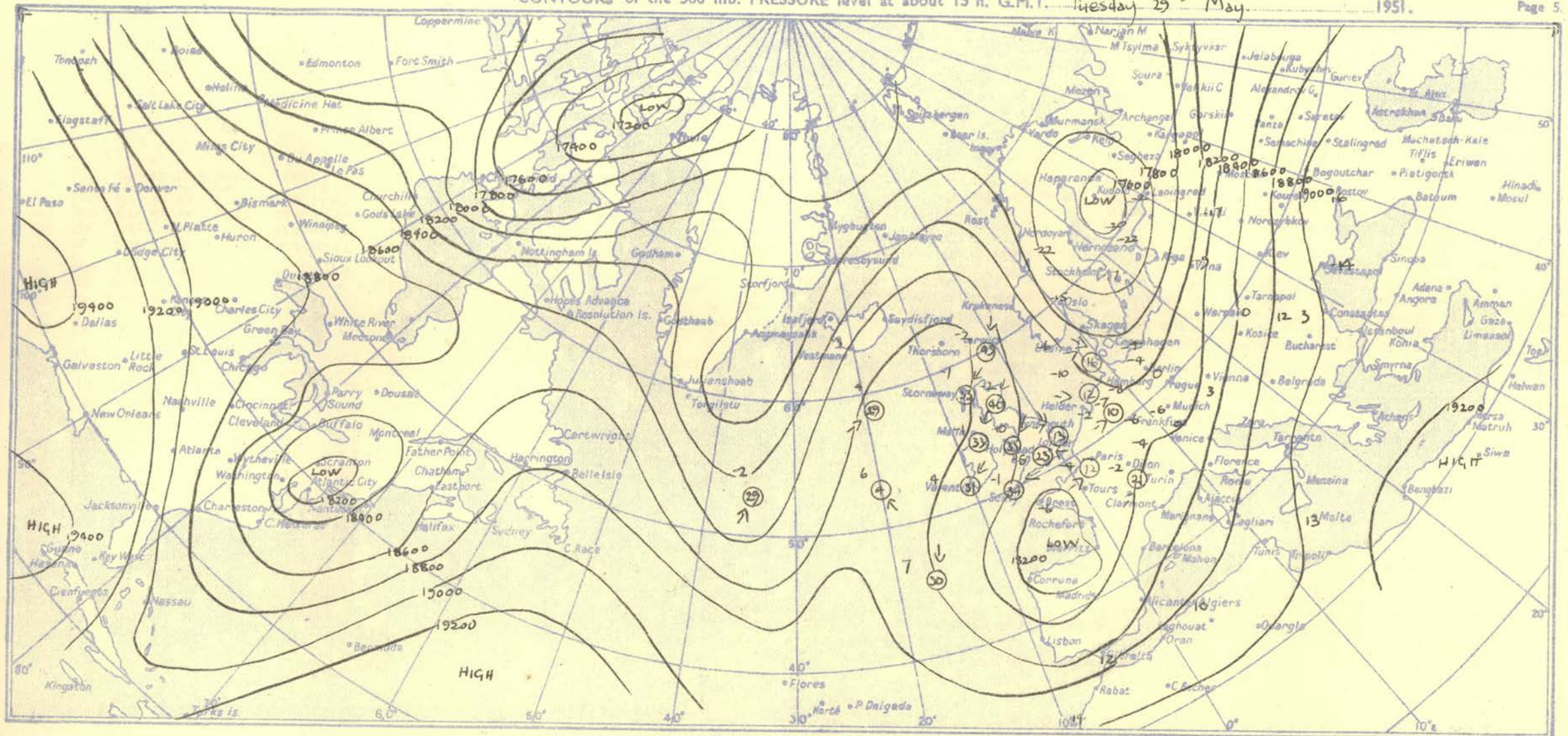


TROPOPAUSE CHART at about 15h G.M.T.



NOTES ON THE AEROLOGICAL SITUATION.

The old cold pool over Biscay warmed out and the cold trough over Scandinavia moved a little east to the Baltic. The warm ridge south of Iceland intensified a little.



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. 1023.3 mb 1013.1 mb 790	15h G.M.T. 1024.2 mb 1022.6 mb 712	15h G.M.T. 1023.0 mb 1022.2 mb 800	15h G.M.T. 1021.3 mb 1011.8 mb 808, 786, 767	15h G.M.T. 1019.4 mb 1017.4 mb 800	15h G.M.T. 1018.7 mb 1014.2 mb 847	15h G.M.T. 1016.3 mb 1000.2 mb 810	15h G.M.T. 1014.1 mb 1003.7 mb 775	15h G.M.T. 1019 mb 1017 mb 690	Time M.S.L. Surf (Freezing)
Pressure mb	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Pressure mb
Surf	02.7 47 35 060	1804.4 50 40 050	1600.2 64 45 130	1002.6 62 48 Calm	1005.4 60 43 090	1012.2 60 45 045	1504.4 53 49 050	1302.9 57 50 090	1200.3 62 52 060	Surf 1000
1000	06.2 43 33 028	2406.5 45 37 063	1806.2 49 41 12	05.9 58 45 03	05.4 58 39 095	0705.1 55 40 080	04.4 48 49 079	03.9 56 49 080	05.1 60 50 060	950
950	35 31 024	18 43 32 051	12 40 36 "	03 48 38 091	09 50 38 084	09 47 38 080	16 45 41 079	24 45 39 079	22 34.1 46 46 129	900
900	34.3 39 14 021	1134.8 44 27 047	1034.4 36 29 013	05 41 43 36 102	11 33.7 47 35 080	15 33 30 084	15 37 33 090	18 39 35 076	20 42 36 190	850
850	36 01 020	15 43 17 039	12 37 16 017	07 35 23 058	15 38 31 109	15 33 30 084	15 37 33 090	18 39 35 076	20 42 36 190	800
800	65.5 34 07 018	1666.4 40 11 038	14 65.6 32 03 021	1365.7 31 08 055	10 65.4 32 15 090	1664.8 28 19 084	1664.2 31 28 088	1664.1 35 29 075	20 65.7 37 27 360	750
750	29 08 015	19 33 02 033	18 29 01 023	19 30 02 044	15 25 07 077	17 22 11 094	16 27 25 085	16 29 24 074	21 35 11 057	700
700	100.3 29 05 021	21101.6 30 03 030	21100.4 25 06 030	18100.6 25 09 034	18100.1 25 09 061	19 19 05 084	1298.9 23 21 085	1399.0 24 17 082	21100.9 33 00 058	650
650	19 01 014	24 24 09 024	24 19 01 034	19 11 031	22 20 17 049	18 15 21 049	12 17 13 096	10 19 12 078	21 28 09 061	600
600	139.7 13 06 014	34141.4 17 16 023	28139.7 12 09 026	32139.9 13 21 033	27139.5 14 23 042	25 138.10 9 26 035	12138.2 10 03 037	11138.4 14 04 077	27140.4 20 19 059	550
550	06 10 015	39 09 24 020	24 07 16 024	36 07 31 036	31 06 29 021	29 01 18 010	13 04 09 078	17 06 02 074	34 12 33 047	500
500	185.0 02 20 017	43186.9 01 33 016	33185.0 02 23 029	40185.2 01 28 032	33184.8 03 24 020	33182.8 07 20 352	15183.2 05 23 071	23183.7 01 17 069	34186.8 04 33 045	450
450	12 30 015	43 12 43 019	34 12 26 031	41 11 25 038	36 13 36 027	47 17 22 351	17 14 30 064	26 10 24 063	43 06 41 044	400
400	238.2 23 42 012	43240.1 23 53 017	37238.3 22 34 028	43238.5 23 36 033	40237.9 22 47 034	52235.3 30 36 339	16236.1 27 41 094	27237.2 20 39 061	51240.7 18 47 042	350
350	35 51 017	51 37 60 016	33 34 45 032	45 38 51 033	40 34 57 035	54 41 005	27 40 53 041	32 32 48 061	59 31 64 047	300
300	303.2 49 014	54305.0 47 015	25303.6 47 029	51303.3 50 033	47302.9 50 034	56299.4 55 015	28300.2 57 051	36302.4 98 061	60306.2 46 053	250
250	64 012	52 60 007	30 62 030	55 64 039	49 65 039	54 64 039	25 67 051	35 58 058	59 63 058	200
200	388.7 72 008	45391.2 71 010	30389.6 70 032	46388.4 79 040	45388.6 67 044	36385.5 58 023	14386.3 59 056	14389.7 52 068	25391.9 73 047	170
170	66 001	29 63 020	21 63 023	28 69 026	24 60 046	18 58 002	10 55 039	12 52 028	11 66 030	150
150	61 009	24 58 020	16 59 024	16 67 021	20 65 027	18 57 331	07 55 001	16 52 066	10 62 025	130
130	60 027	21 57 013	14 60 021	14 64 023	12 67 023	09 59 325	05 57 311	06 53 360	07 53 010	110
110	61 014	14 56 015	07 60 018	09 64 026	09 64 026	04 534.4 65 337	04 534.4 65 337	04 534.4 65 337	04 534.4 65 337	100
100	535.4 58 358	08539.1 54 040	06536.8 59 009	10533.4 64 009	09 63 349	07 60 318	03 55 236	08 535.4 63 215	07 58 216	90
90	58 347	06 51 078	03 58 03	00 63 64	64 64	55 55	51 51	52 52	52 52	80
80	53 347	06 51 078	03 58 03	00 63 64	64 64	55 55	51 51	52 52	52 52	70
70	53 347	06 51 078	03 58 03	00 63 64	64 64	55 55	51 51	52 52	52 52	60
60	53 347	06 51 078	03 58 03	00 63 64	64 64	55 55	51 51	52 52	52 52	60

STATION	LERWICK	STORNOWAY	LEUCHARS	ALDERGROVE	LIVERPOOL	DOWNHAM MARKET	LARKHILL	CAMBORNE	VALENTIA	STATION
Time M.S.L. Surf (Freezing)	21h G.M.T. 1024.3 mb 1014.1 mb 772	21h G.M.T. 1024.0 mb 1022.4 mb 727	21h G.M.T. 1024.0 mb 1023.2 mb 785	21h G.M.T. 1021.1 mb 1011.8 mb 775	21h G.M.T. 1020.3 mb 1018.3 mb 815	21h G.M.T. 1020.5 mb 1015.9 mb 814	21h G.M.T. 1017.4 mb 1001.3 mb 811	21h G.M.T. 1015.9 mb 1005.3 mb 788	21h G.M.T. 1015.9 mb 1005.3 mb 788	Time M.S.L. Surf (Freezing)
Pressure mb	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Height ft./100 Temp. °F. Dew °F. Wind Dir. Vel. knots	Pressure mb
Surf	02.7 45 30 040	1004.4 42 40 050	1000.2 46 41 120	0202.6 57 43 Calm	00.6 54 45 090	1001.2 46 42 015	1504.4 52 41 060	1502.9 53 48 090	05 04.4 52 48 085	Surf 1000
1000	06.5 42 31 026	1506.4 44 38 059	0606.4 46 35 062	0505.9 56 39 095	0805.6 53 43 088	1705.5 45 41 048	04.7 47 37 075	04.4 52 48 085	24 48 43 085	950
950	34 29 022	15 46 32 050	06 36 35 062	10 50 35 032	07 48 39 094	11 45 41 048	14 47 37 075	24 48 43 085	24 48 43 085	900
900	34.3 39 14 021	1534.9 46 16 047	0934.5 34 26 010	1534.6 44 35 019	0834.2 43 33 040	0833.9 42 33 053	1233.2 39 31 078	2533.0 44 37 072	22 33 31 069	850
850	37 16 010	16 43 07 044	10 35 13 360	18 38 21 017	09 37 24 050	11 37 25 067	13 37 24 085	22 33 31 069	16 39 31 069	800
800	65.4 34 13 011	1766.5 39 01 040	1365.5 33 03 016	1966.0 33 10 024	1165.5 30 20 058	1165.1 30 22 061	1264.4 31 21 081	1864.4 33 25 065	15 18 64 4 33 25 065	750
750	29 05 015	15 34 03 040	18 30 00 030	20 29 02 028	17 22 13 061	11 24 16 059	11 27 20 067	14 28 21 076	15 28 21 076	700
700	100.2 26 04 017	21101.7 29 17 040	21100.3 24 01 039	22100.8 25 03 041	1999.7 20 00 090	1699.5 16 09 063	0999.0 20 16 061	1099.1 23 16 075	15 1099.1 23 16 075	650
650	20 15 019	30 23 29 030	20 17 05 040	25 19 03 049	27 15 08 042	20 16 02 054	10 11 08 067	07 17 05 067	18 07 17 05 067	600
600	139.7 15 23 015	35141.4 17 30 021	20139.5 11 15 037	32140.2 15 06 044	39138.7 09 06 042	23138.50 9 09 043	13137.6 03 05 040	08138.3 10 01 072	20 08138.3 10 01 072	550
550	05 24 009	34 09 37 021	23 06 18 034	37 07 08 042	39 02 12 047	30 00 13 036	16 03 25 045	10 02 12 061	23 02 12 061	500
500	180.9 02 25 011	39186.7 02 45 021	27184.7 03 20 036	38185.6 02 21 043	41183.6 04 21 048	41183.2 07 16 030	15181.9 13 30 029	09188.2 06 29 051	29 09188.2 06 29 051	450
450	13 28 012	37 13 43 019	27 14 29 034	42 12 28 039	38 13 30 045	52 12 28 031	15 24 32 022	09 17 27 056	30 09 17 27 056	400
400	238.0 23 36 015	37240.0 24 42 039	27237.7 26 40 037	42238.9 22 37 035	37236.7 24 41 046	60235.4 28 39 040	27233.7 36 42 017	08235.8 28 42 042	42 08235.8 28 42 042	350
350	36 57 029	44 35 57 042	27 36 50 042	48 34 48 039	58 38 50 042	60 38 50 033	27 49 031	13 41 045	55 13 41 045	300
300	302.7 52 025	46 025 46	302.5 52 045	52309.0 47 033	44301.3 53 040	60300.1 51 032	19296.5 46 044	12299.9 54 047	68 12299.9 54 047	250
250	70 029	54 029 54	70 041 54	027 51 64	035 51 66	035 61 62	20 72 036	26 72 036	63 26 72 036	200
200	387.4 78 013	34 013 34	386.7 78 027	42389.1 81 030	39386.6 72 038	43386.7 59 039	19380.7 71 031	16385.9 61 048	23 16385.9 61 048	170
170	67 008	24 008 24	74 026 30	77 025 29	63 25 29	63 25 29	69 021 19	69 021 19	12 69 021 19	150
150	63 007	19 007 19	70 029 22	69 030 20	64 031 16	58 012 11	69 020 08	62 020 08	08 62 020 08	130
130	65 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	110
110	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	100
100	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	90
90	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	80
80	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	70
70	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	60
60	63 003	16 003 16	67 010 14	69 033 21	62 028 10	59 008 10	63 010 08	63 010 08	03 63 010 08	60

Inversion
903mb 29°-872mb 39°Inversion
987mb 43°-962mb 47°
925-45°-908-47°Inversion
945mb 35°-933mb 37°
877-32°-850-35°
bothermal
850-830mb 35°Inversion
805-787mb 33°bothermal
740-710mb 21°
732-215-70°Inversion
975mb 42°-950mb 48°
685-14°-665-18°
bothermal
1001-985mb 52°

Tropopause II 217mb-78° 37,100

N.R.

II 222mb-78° 37,500

II 213mb-80° 37,600

II 232mb-70° 35,600

II 202-73° 38,500

II 243mb-63° 39,500

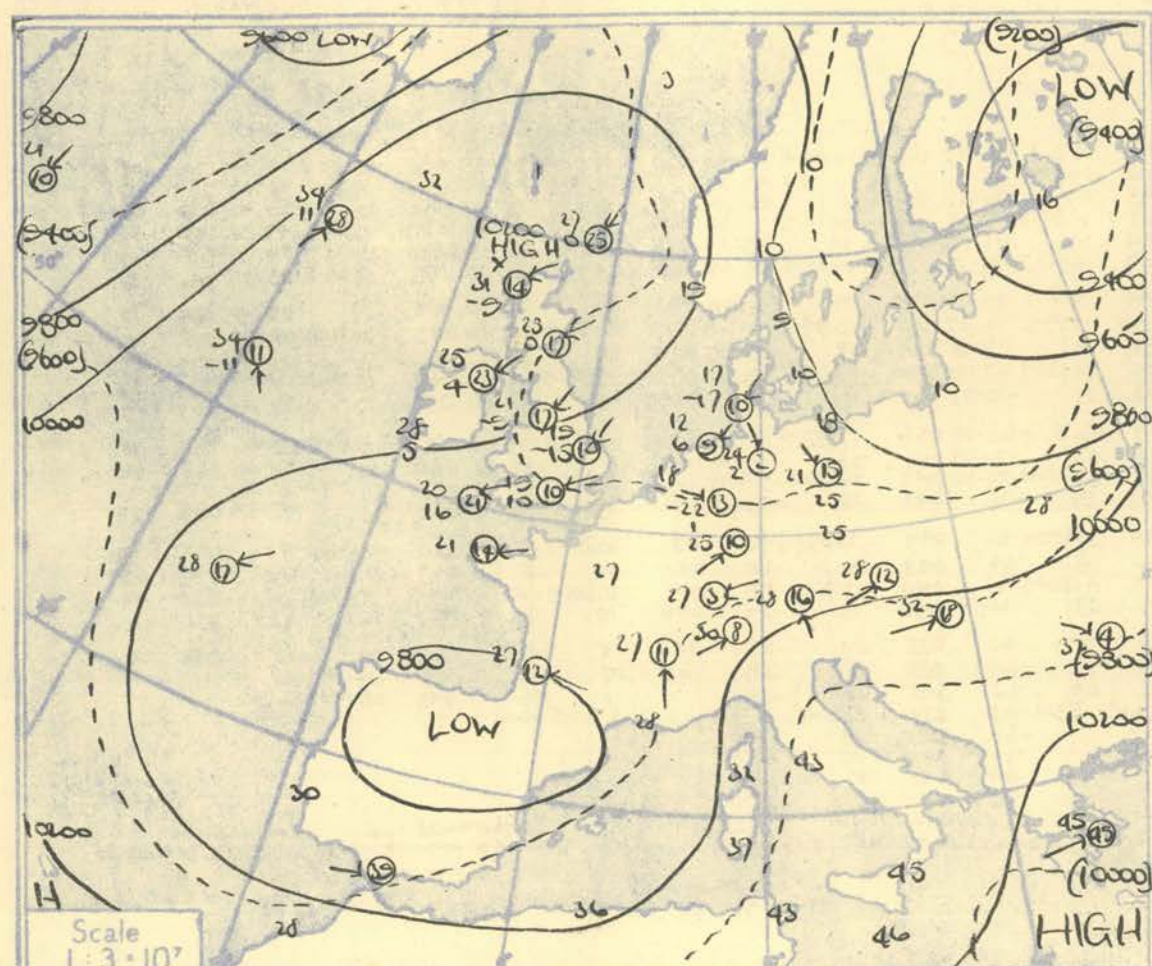
II 255mb-73° 33,100

II 232mb-67° 35,300

Tropopause

May 30th 1951.

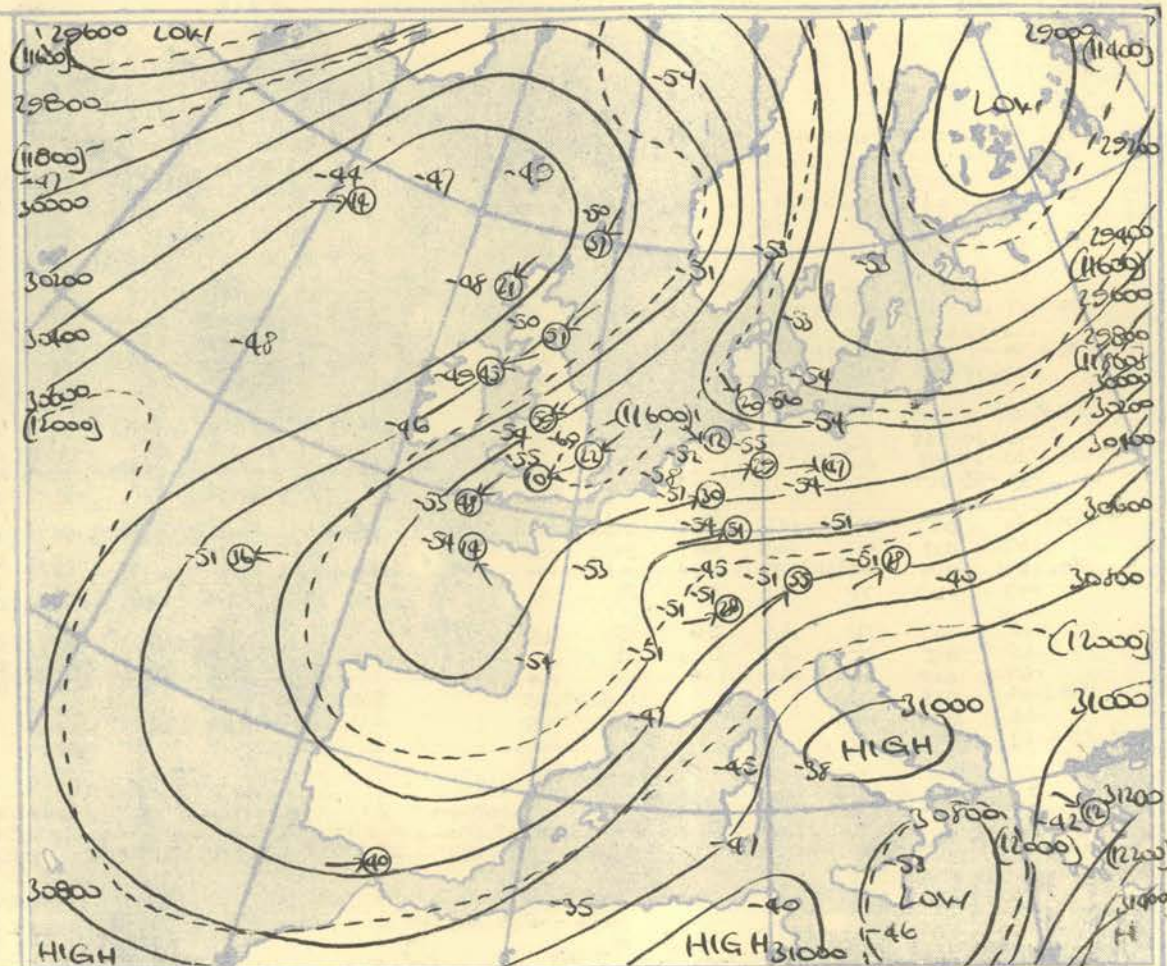
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h G.M.T.



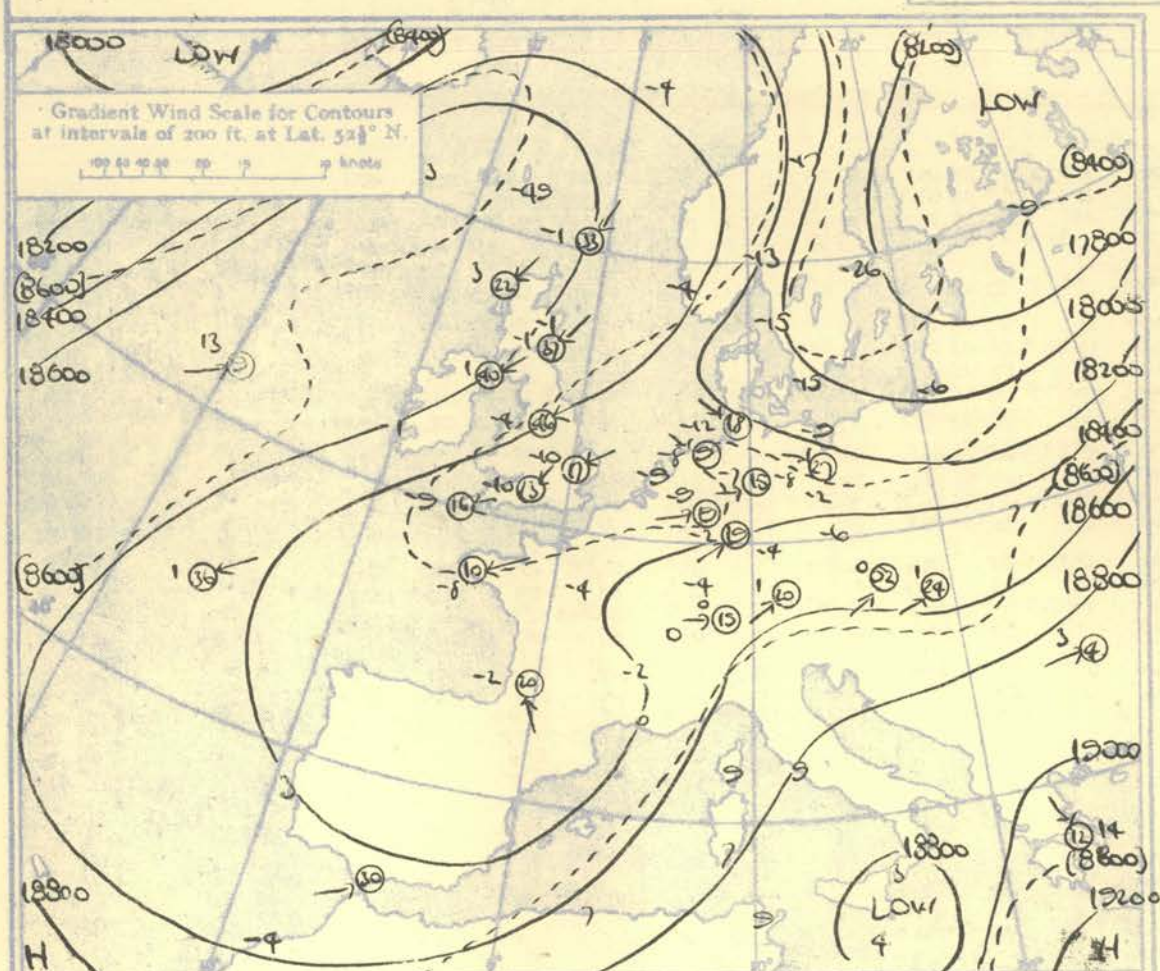
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000-700 mb.

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

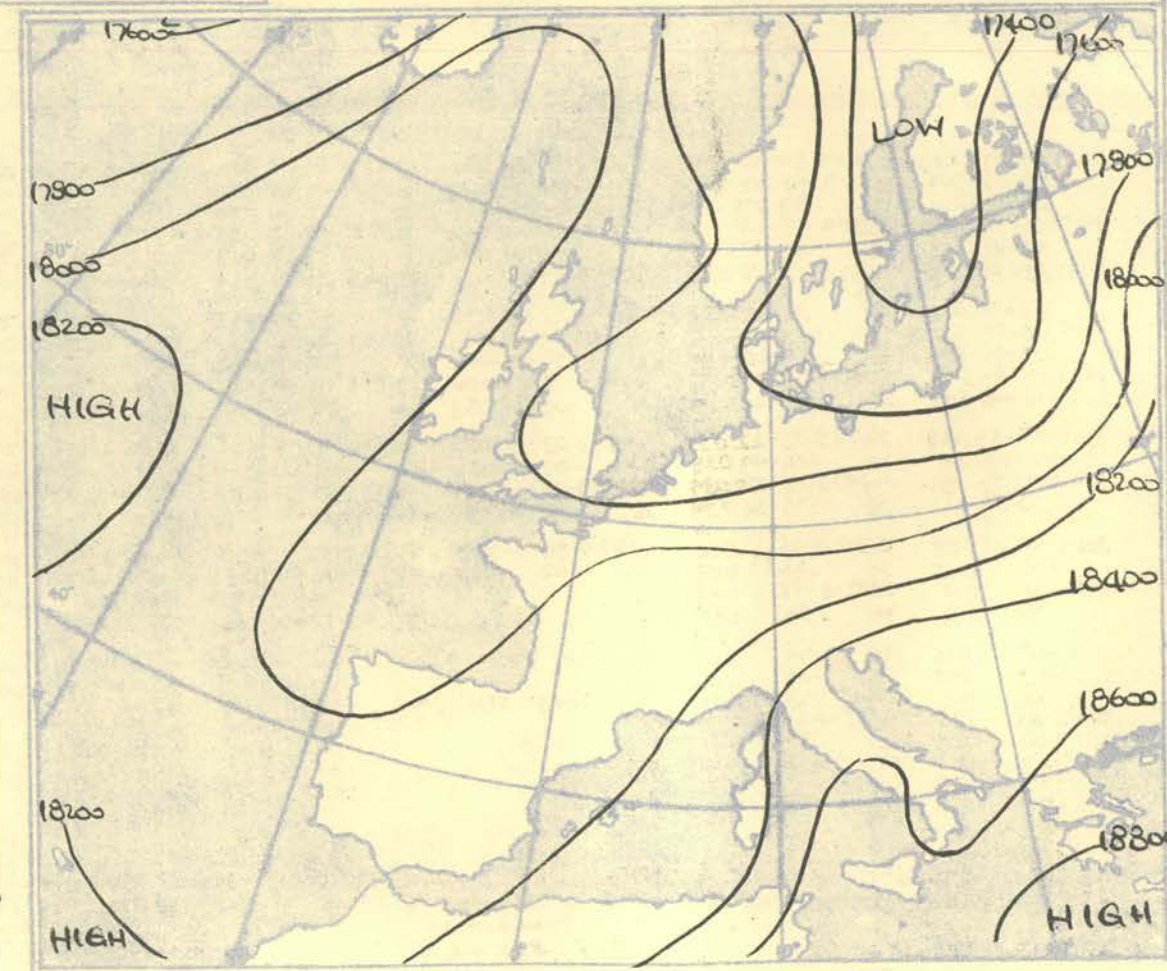
100 50 40 30 20 10 knots



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



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



Isopleths of Thickness 500-1000mb.

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

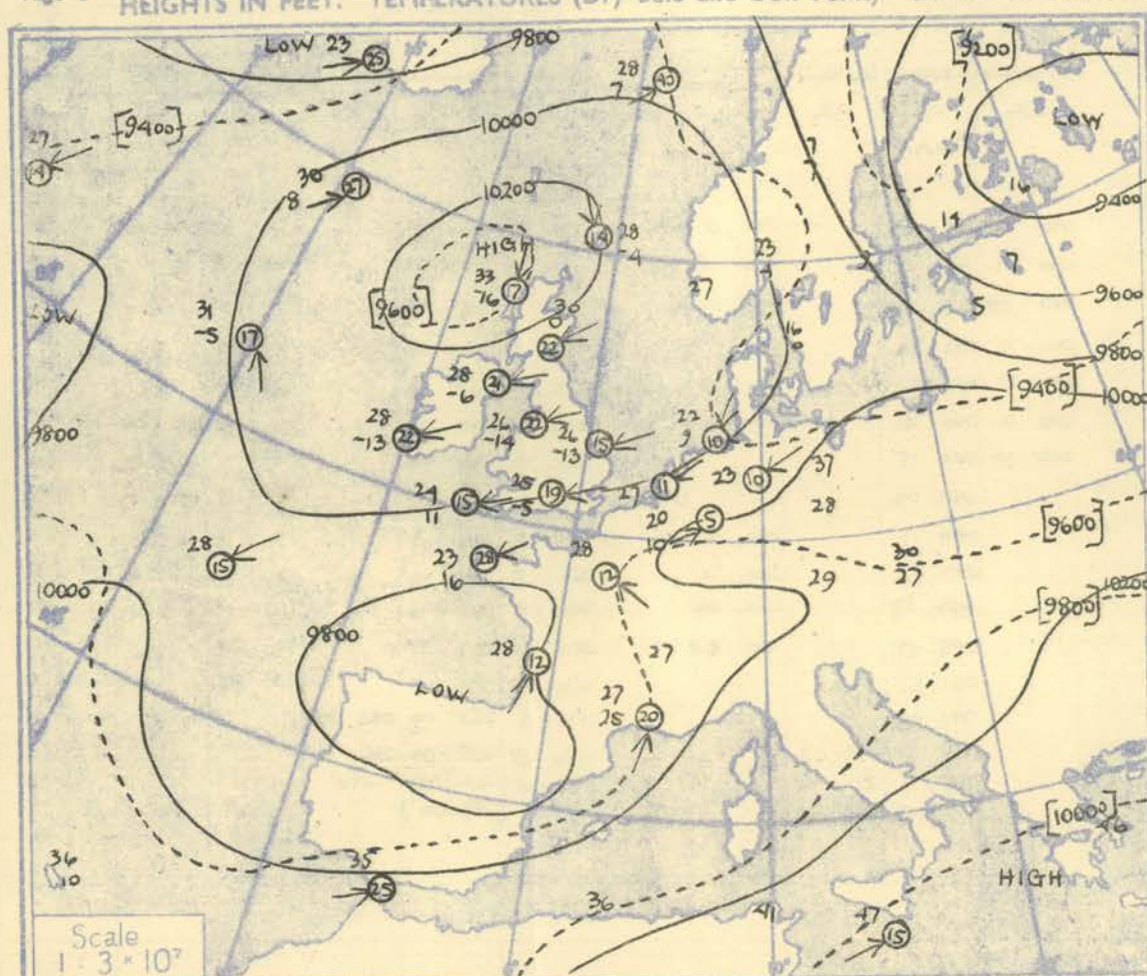
[illegible]

NEPHROSCOPE OBSERVATIONS

[illegible]

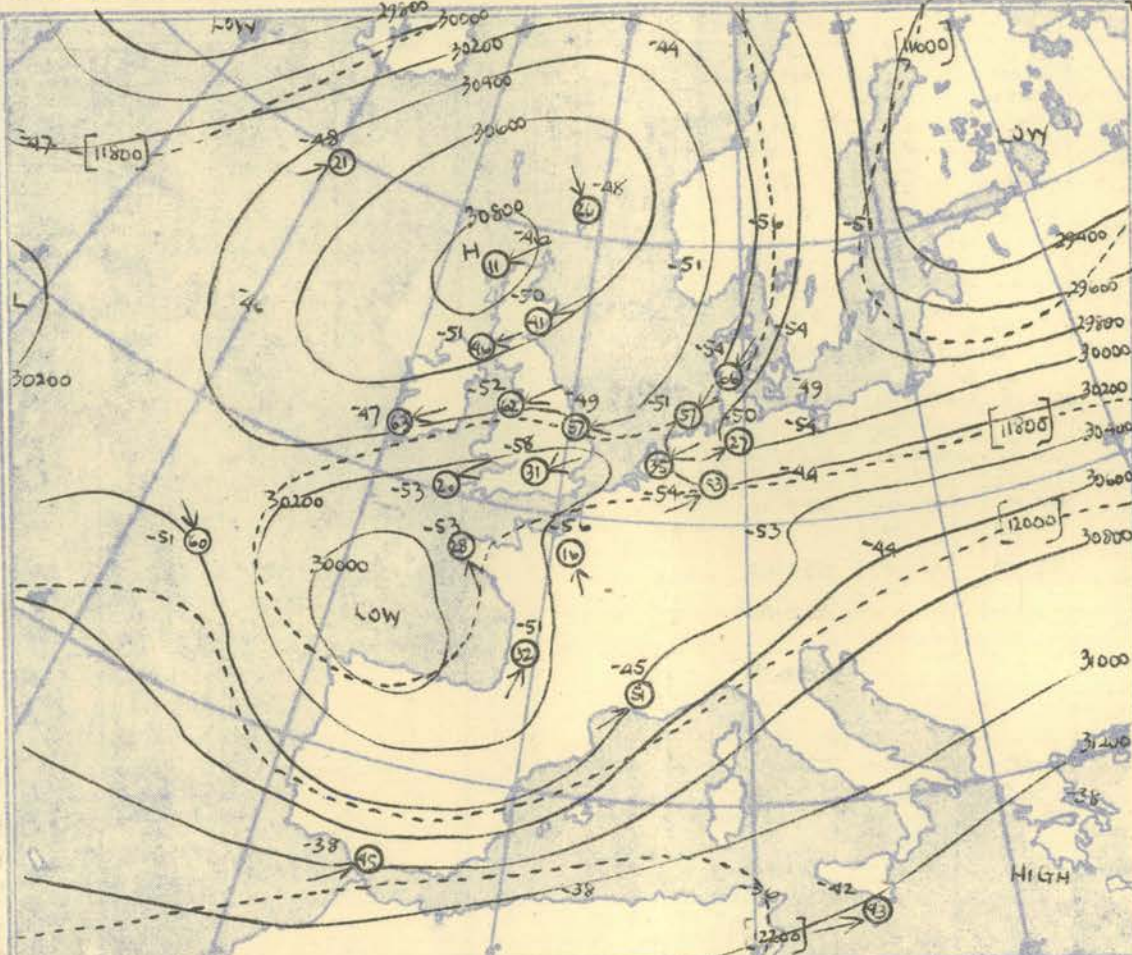
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Heights above M.S.L.) FROM SHIPS.

Ship	WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				WEATHER OBSERVER				CIRRS				CIRRS				CIRRS				CIRRS				Ship
Lat/Long	58°9'N 19°0'W				59°9'N 18°8'W				58°8'N 18°6'W				58°7'N 18°8'W				52°5'N 20°0'W				52°5'N 20°0'W				52°5'N 20°0'W				52°5'N 20°0'W				Lat/Long
Pressure 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
	1019 mb				1019 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				
	1019 mb				1019 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				
	1019 mb				1019 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				1020 mb				
Pressure mb	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Height ft./100	Temp. °F.	Dew °F.	Wind Dir. Vel. knots	Pressure mb				
Surf		51	48	185	25	31	47	180	26	53	48	185	26	51	48	190	23	53	46	150	14	55	46	140	14	55	46	140	14	55	Surf		
1000	05-2	49	46	177	30	45	43	180	30	45	41	190	33	45	41	190	30	45	41	190	30	45	41	190	30	45	41	190	30	45	1000		
950		44	41	186	30	45	39	194	32	40	39	196	31	45	41	206	31	45	41	206	31	45	41	206	31	45	41	206	31	45	950		
900	05-6	41	38	195	28	39	35	206	31	44	25	207	30	44	25	211	31	44	25	211	31	44	25	211	31	44	25	211	31	44	900		
850		41	38	195	28	39	35	206	31	44	25	207	30	44	25	211	31	44	25	211	31	44	25	211	31	44	25	211	31	44	850		
800		41	38	195	28	39	35	206	31	44	25	207	30	44	25	211	31	44	25	211	31	44	25	211	31	44	25	211	31	44	800		
750	65-3	43	11	197	25	65-4	46	13	209	28	65-2	40	19	217	31	65-8	44	12	206	30	65-8	40	18	120	09	65-2	41	06	147	20	750		
700		39	06	200	24	40	07	201	28	36	09	212	31	36	15	203	27	38	00	135	08	No	Radio-Sonde	35	00	139	20	No	Radio-Sonde	750			
650	100-8	34	11	204	25	101-0	34	25	203	24	100-4	30	08	209	27	101-3	35	22	206	28	101-3	34	11	144	11	100-6	31	05	140	17	650		
600		29	14	206	30	27	19	205	26	24	09	208	25	29	34	200	25	28	15	158	12	Ascent	Available	23	12	137	20	Ascent	Available	700			
550	141-0	21	16	206	29	141-0	21	14	206	26	140-2	18	16	207	31	141-4	22	39	202	25	141-5	20	19	165	12	140-3	16	19	135	14	550		
		13	12	206	25		14	08	206	29		11	24	204	38		13	36	204	30		12	24	180	11		07	26	132	14			
500	187-1	05	01	207	25	187-1	06	00	208	25	186-0	03	17	201	32	187-3	04	46	204	28	187-4	01	32	221	09	185-8	02	36	127	11	500		
450		05	08	207	23		06	14	209	21		10	18	203	29		05	44	204	24		07	36	273	10		12	45	110	12	450		
400	241-1	17	20	210	21	241-1	13	24	211	15	239-7	20	31	202	32	241-3	17	25	204	18	241-3	18				239-0	22				400		
350		30	37	231	18		27	39	212	15		32	43	197	30		30	42	204	20		32					33				350		
300	306-9	44		237	14	307-2	43		211	18	305-1	48		198	21	307-1	46		204	10	306-8	48				304-5	46				300		
250		55		240	12		61		208	18		65		192	7		64		204	10		66					61				250		
200	394-4	61		231	20	393-1	78		205	18	390-3	80		197	16	392-5	79		204	09	391-6	86				390-5	75				200		
170		68		234	18		75		205	15		82		203	16		76		204	12		86					70				170		
150		72		247	13		68		208	10		77		209	15		68		204	05		78					65				150		
130		66		253	12		63		209	03		73		233	10		66		204	01		75					64				130		
110		62		279	09		62												204			74					63				110		
100							63															73					62				100		
90							62															72					62				90		
80							59															72					61				80		
70							55															71					60				70		
60							55																									60	
																								</									



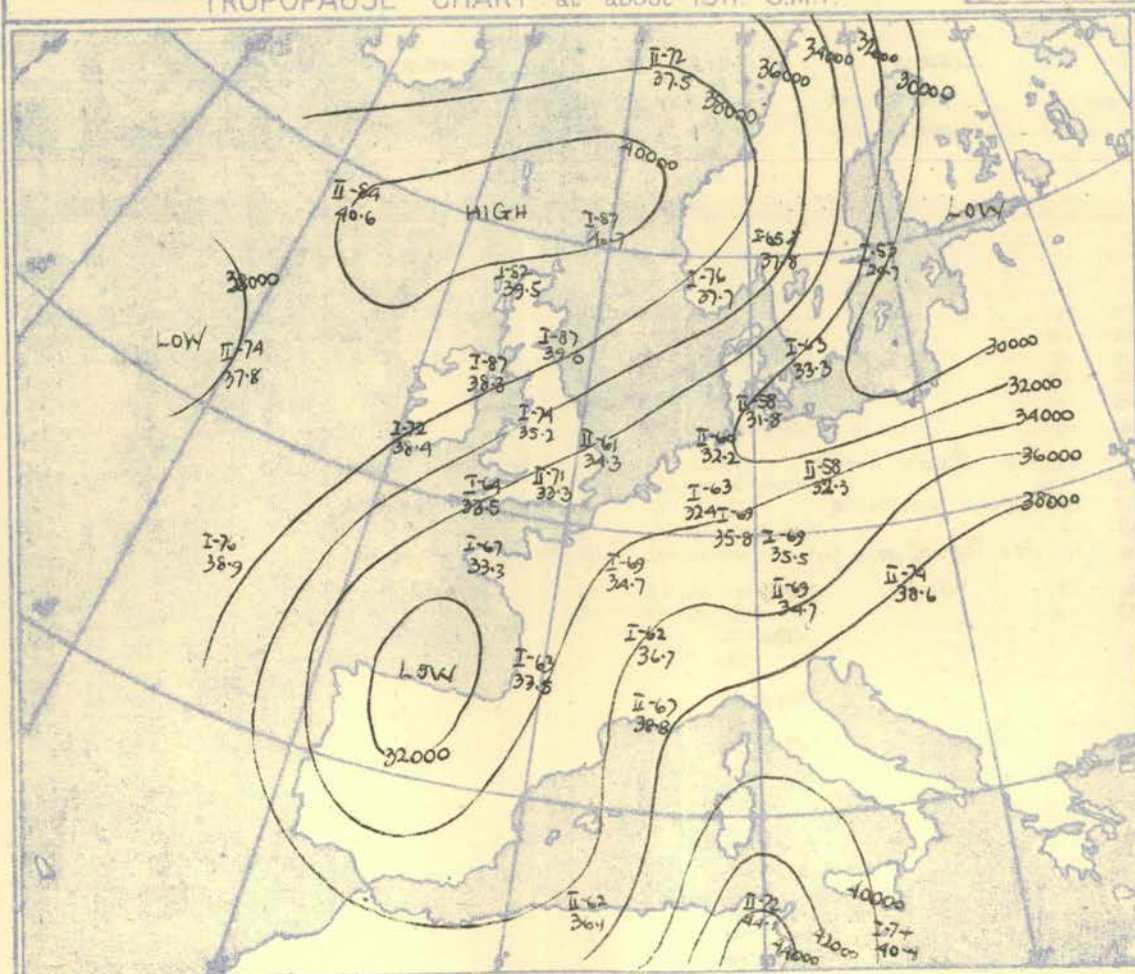
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isotherms of the thickness of the layer 1000-700 mb.

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



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 15h G.M.T.



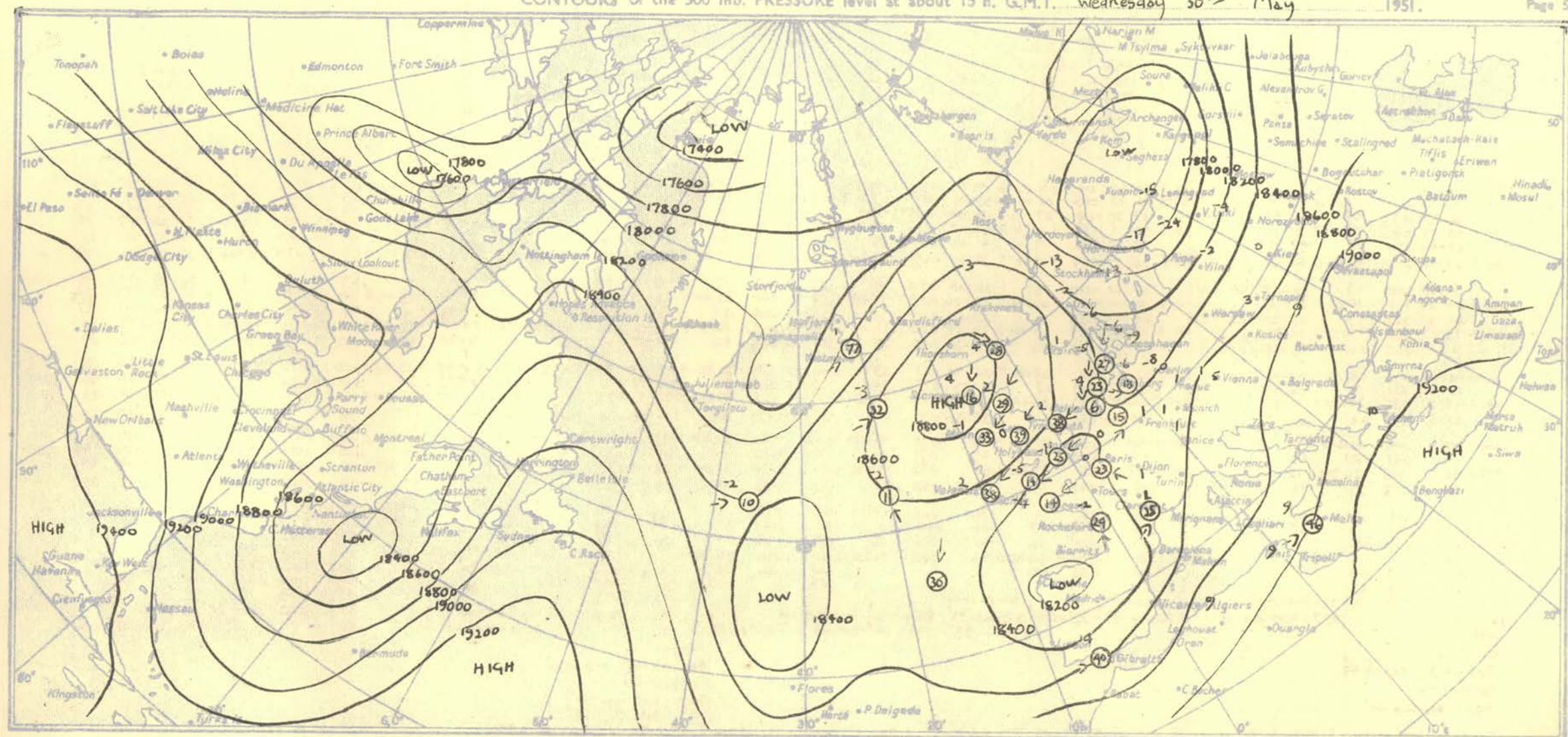
Contour lines of Height of Tropopause.
Temperature of Tropopause.

NOTES ON THE AEROLOGICAL SITUATION.

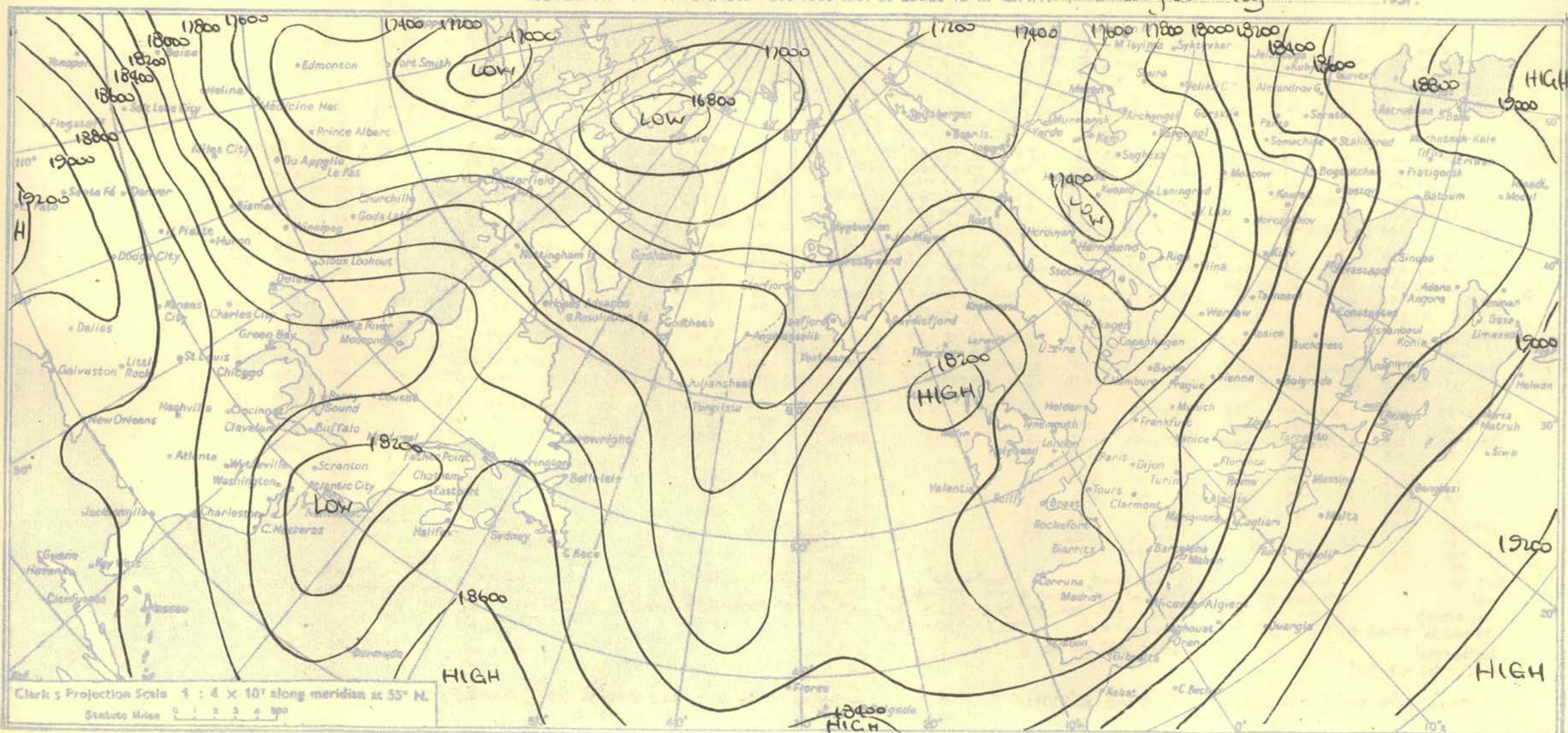
little change in the situation.

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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 30th May 1951.



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

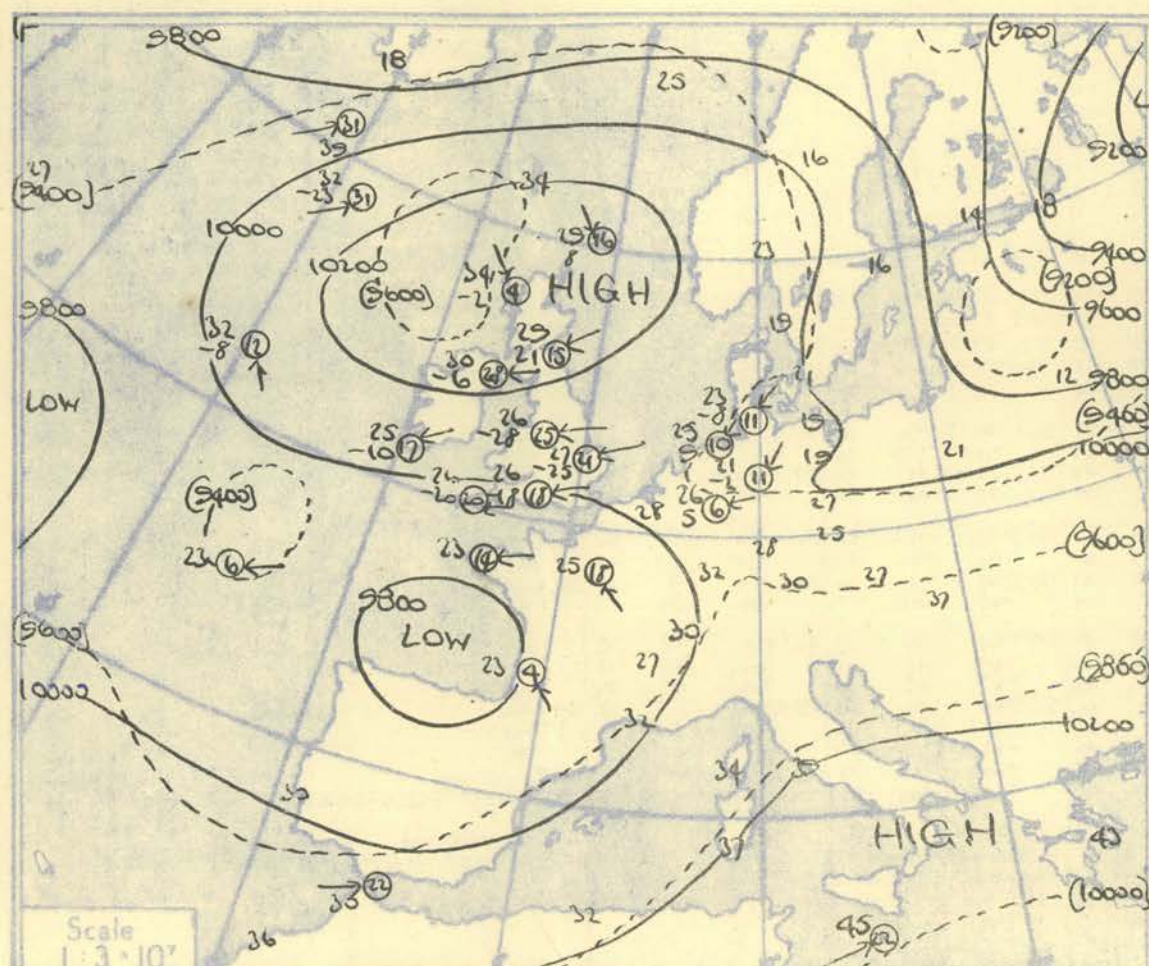
STATION	LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION																										
Time M.S.L. Surf Freezing	15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				15h G.M.T.				Time M.S.L. Surf Freezing																										
	1026.8 mb				1025.6 mb				1027.2 mb				1024.9 mb				1024.9 mb				1021.9 mb				1020.1 mb				1018.9 mb				1021.7 mb																														
	1016.6 mb				1024.0 mb				1026.4 mb				1015.3 mb				1022.7 mb				1017.5 mb				1003.9 mb				1008.4 mb				1021 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	38	200	07.00.9	54	38		00.2	60	44	100	05	02.6	58	44	090	06.00.6	51	38	080	06.01.2	56	39	065	06.04.4	58	47	050	10	02.9	61	47	070	10	00.3	60	49	170	09																							
1000	07.1	49	35	210	07.06.9	53	39		07.3	46	42	085	06	06.8	53	41	088	07.06.5	47	36	077	12.05.9	52	37	074	15.05.4	57	46		10	05.2	59	45	090	12	06.1	58	47	241	07																							
950		36	29	240	07	51	36			37	30	064	07		46	38	020	06	41	31	059	15	44	36	084	11	48	40	048	17	50	40	078	19	53	40	242	03																									
900	35.1	35	14	265	07.35.7	50	27		35.4	40	15	056	10	35.3	41	18	038	13.34.7	34	28	062	18.34.4	38	34	100	09.34.0	40	35	057	17.33.9	44	33	078	24	35.1	47	38	107	06																								
850		47	06	277	08	47	12			38	32	062	13		41	20	054	18	40	15	062	20	34	09	090	08	36	23	059	17	39	24	080	27	40	31	110	12																									
800	66.7	40	26	296	12.67.6	44	01		66.7	36	19	049	14	66.7	36	11	069	16.66.0	37	04	063	19.65.4	34	06	059	09.65.2	31	07	059	18.65.4	34	17	079	24.66.5	53	25	091	18																									
750		34	30	308	13	38	07	For Winds		34	12	050	18		33	03	074	16	32	08	062	17	32	12	058	14	29	00	067	19	29	10	077	18	25	18	079	18																									
700	101.9	28	39	316	14.03.1	33	16	See	101.8	30	00	065	22	101.7	28	06	073	21.101.0	26	14	056	22.100.4	26	13	063	15.00.0	25	05	072	19	100.2	24	11	076	15	01.2	28	13	075	22																							
650		24	37	328	19	28	22			24	02	052	21		22	11	069	30	21	27	066	27	19	01	068	14	17	12	061	14	18	05	078	16	22	14	079	27																									
600	141.6	17	43	331	22.193.2	21	29	Page 3.	141.6	17	09	049	23	141.3	14	08	064	32.140.6	17	34	068	28.139.8	15	19	058	17.39.1	06	15	080	18.39.4	12	08	076	15	140.8	17	29	077	32																								
550		11	47	330	26	13	35			10	22	048	26		17	10	061	29	10	36	068	32	09	27	067	28	01	17	070	20	03	15	079	16	10	48	067	39																									
500	187.3	04	52	330	28.189.1	09	41		187.2	02	11	046	29	186.7	01	15	067	33.186.2	00	30	070	39.185.4	02	34	069	38.183.7	11	25	088	25.184.4	05	23	075	19	186.5	02	42	066	38																								
450		06	60	331	32	06	49			10	17	053	27		11	25	077	34	10	35	067	39	08	39	072	39	22	35	095	30	14	33	082	10	08	42	066	46																									
400	241.2	17	57	332	30.243.1	16	56		240.7	22	30	053	36	240.1	23	38	076	46.239.6	22	44	072	45.239.0	21	46	073	43.235.9	31	47	107	16.237.4	25	41	095	24	240.1	20	47	069	43																								
350		32	59	353	24	30				34	43	061	36		37	30	073	41	37	57	074	54	34	55	074	51	43	100	17	38	53		33	54	069	54																											
300	306.8	48		344	26.308.9	46			305.9	50		058	41	304.9	51		073	46.304.4	52		072	62.304.2	49		073	57.299.5	58		082	31	302.0	53		077	26	305.3	47	071	63																								
250		64		339	30	62				67		060	39	308.9	53		071	51		71	62	62		61		072	50		078	34		084	33		062	074	63																										
200	302.0	82		357	26.394.6	75			300.4	87		071	39	308.9	53		075	40.389.3	71		076	33.391.0	58		073	21.384.3	66		089	18	388.1	60		083	24	391.3	71	064	44																								
170		78		008	21	74				81		041	15		74		058	23		62	082	18		53		085	15		62	085	09		089	20		67	051	32																									
150		70		001	10	71				76		054	13		70		068	17		63	069	18		56		075	08		63	081	09		091	11		63	058	19																									
130		68		344	12	68				64		058	09		66		090	13		61	051	11		54		086	06		63	137	05		092	09	132	63																											
110		66		020	07					63		069	06		65		095	05		59	048	04		55		137	03		62	119	03		093	09	mb)																												
100	535.1	64		017	07				534.1	61		061	04	533.0	66		088	06	536.2	60		56	040	6		183	03	531.0	58		167	12	536.9	59		115	06																										
90		62		030	04					58		055	02						56	536.2	60		55		51		263	05		58		60		102	06																												
80		62		015	05														56	536.2	60		55		51		258	06		57		57		158	10																												
70		62		015	04														56	536.2	60		55		51		192	06		55		55		170	12																												
60	(65 mb)																		56	536.2	60		55		51		210	14		55		55		170	12																												
																																Isothermal				Inversion				Inversion				Inversion				Isothermal								Inversion							
																																927-900 mb 50°				950mb 37°-923mb 41°				875mb 39°-862mb 42°				900mb 34°-870mb 42°				850-800 mb 39°				900-875mb 40°								750mb 25°-719mb 30°			
																																703mb 32°-885mb 44°																															
																																885-865 mb 44°																															

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STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure mb	Time M.S.L.	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	03h. G.M.T.		Wind Dir. Vel. knots	Height ft./100									
		Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing	Surf	Freezing	Surf	Freezing	Surf	Freezing	Surf
Surf	02.7	40	38	230	04	00.4	44	40	CALM	00.2	42	41	CALM	02.6	46	42	100	12	00.6	41	39	085	12	01.2	44	41	030	11	04.4	40	37	050	12	02.9	47	43	080	04	Surf			
1000	07.0	41	39	230	13	07.1	50	41	"	07.4	41	39	066	03	07.0	51	47	076	18	06.7	43	37	096	24	06.1	45	41	079	27	05.5	40	37	051	05.1	47	42	070	06	1000			
950	36	35	258	13		49	40	"		39	32	079	07		53	49	084	18		41	36	115	21		47	38	086	23		43	35	074	30		46	35	051	13	950			
900	35.2	45	25	272	13	35.8	48	16	"	35.7	42	17	082	08	35.9	48	33	081	19	34.9	36	23	116	17	34.5	39	31	085	21	33.7	39	31	084	27	33.6	40	27	050	18	900		
850	44	20	297	14		77	17	217	08	42	04	082	09		42	02	083	20		38	05	095	17		37	20	085	21		39	06	087	23		37	20	058	20	850			
800	66.9	41	14	360	17	67.6	43	05	217	06	67.2	40	04	082	11	67.5	38	03	086	16	66.1	38	03	087	16	65.7	37	09	085	21	65.0	37	02	087	20	64.9	36	07	055	19	800	
750	36	11	306	17		37	05	291	03	34	15	071	14		34	09	082	19		31	16	089	20		33	26	084	21		33	20	085	20		32	24	070	18	750			
700	102.2	29	08	316	16	101.9	34	02	339	4	102.3	29	21	064	15	102.7	30	06	080	28	101.0	26	20	089	25	100.8	27	25	080	21	100.0	26	18	083	18	100.0	26	20	070	17	700	
650	21	07	325	13		28	15	014	10		24	25	056	18		23	15	074	32		22	26	085	25		23	35	083	24		19	19	083	17		20	18	077	15	650		
600	141.8	16	06	343	10	143.0	19	23	024	11	142.1	19	30	056	23	142.4	17	23	074	38	140.6	16	12	080	28	140.5	17	43	087	26	139.4	13	24	091	17	139.3	13	16	077	15	600	
550	13	04	343	12		11	33	031	13		11	35	056	24		10	33	072	34		09	10	078	34		09	37	086	28		04	36	089	21		06	20	077	15	550		
500	187.6	05	02	342	11	186.7	02	44	028	13	187.9	03	41	047	24	188.1	01	43	072	34	186.2	01	15	082	37	186.1	00	37	080	34	184.5	05	48	087	23	184.6	04	31	070	18	500	
450	08	14	345	11		08	50	027	13		05	48	055	24		09	51	074	34		11	27	082	36		10	45	079	39		15	56	088	31		15	44	070	17	450		
400	241.4	19	24	344	11	242.4	20	60	009	11	241.9	17	57	069	21	241.8	20	60	074	38	239.6	22	39	079	40	239.5	22	55	081	40	237.3	27	60	089	39	237.4	27	51	070	17	400	
350	380mb	22	27			380mb	22	59	061	06		31	58	072	23		36	59	071	39		36	52	083	49		35	58	085	46		41		090	44		42		070	15	350	
300	Inversion					307.6	51	077	03	307.5	45	086	21	306.7	51	070	40	304.3	53	083	53	304.3	54	082	50	301.4	56	087	46	301.4	57	087	46	301.4	57	087	46	301.4	57	087	46	300
250	1016	mb	40°	1000mb	41°		67	355	06		64	098	28		68	075	40		70	083	61		70	082	54		70	082	54		69		089	48		68		089	48	250		
200	935	mb	36°	912	45°		84	129	07	392.8	84	095	29	391.1	85	080	30	388.7	74	088	33	389.3	69	087	30	386.6	64	087	30	386.6	64	087	30	386.6	64	087	30	386.6	64	200		
170							77	097	07		71				73		089	21		64		103	14			102	17		102	17		105	17		105	17		105	17	170		
150	Isotherm					450.6	72	086	04	(160mb)	67				70	094	16		68		100	10	449.7	64	106	13	447.4	64	102	12				125	10		125	10	150			
130	366	mb	36°	36°	45°		70	102	06						70	130	09		65		092	10			111	11		111	11		111	11		111	11		111	11	130			
110	912	mb	36°	36°	45°		67	094	03	Inversion						67			65		134	05			159	03		159	03		159	03		159	03		159	03	110			
100							535.2	66	078	03	958	mb	38°	926	mb	45°			65		163	06	535.5	64	192	05	533.0	63	192	05	533.0	63	192	05	533.0	63	192	05	533.0	63	100	
90							66	078	03	Isotherm						66			65		210	05			210	05		210	05		210	05		210	05		210	05	90			
80							65				862	mb	815	mb	42°				65		160	03			160	03		160	03		160	03		160	03		160	03	80			
70										Isotherm						820	mb	810	mb	39°			161	07			161	07		161	07		161	07		161	07	70				
60										Isotherm									61		180	07			180	07		180	07		180	07		180	07		180	07	60			
Tropopause		N.R.				II 188 mb -87° 40,400'				I 200 mb -84° 39,300'				I 195 mb -86° 39,700'				II 230 mb -78° 36,000'				I 229 mb -72° 36,200'				I 231 mb -71° 35,700'				I 250 mb -68° 34,900'				I 213 mb -76° 37,500'				Tropopause				
STATION		LERWICK				STORNOWAY				LEUCHARS				ALDERGROVE				LIVERPOOL				DOWNHAM MARKET				LARKHILL				CAMBORNE				VALENTIA				STATION				
Pressure mb	Time M.S.L.	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100	09h. G.M.T.		Wind Dir. Vel. knots	Height ft./100									
		Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing			Surf	Freezing	Surf	Freezing	Surf	Freezing	Surf	Freezing	Surf
Surf	02.7	47	41	230	08	00.4	33	40	CALM	00.2	49	45	290	03	02.6	49	42	110	05	00.6	50	41	070	12	01.2	55	36	060	20	04.4	52	43	070	20	01.9	51	44	010	08	Surf		
1000	06.8	45	42	294	09	07.0	52	39	CALM	07.4	43	40	219	09	07.0	47	40	110	10	06.8	46	39	076	18	06.2	52	33	075	27	05.1	51	42	070	20	05.0	50	43	070	08	1000		
950	42	25	287	13		49	35	225	06		44	35	266	07		39	35	102	13		44	35	095	20		45	30	082	29		44	38	078	26		44	39	067	18	950		
900	35.1	48	14	273	14	35.7	48	28	233	10	35.7	46	23	118	05	35.2	49	24	092	13	35.0	36	29	109	21	34.6	38	26	084	33	33.6	43	26	093	23	33.4	42	30	082	20	900	
850	47	09	278	15		48	20	214	07		44	18	083	15		41	09	090	21		36	11	104	20		40	18	091	30		40	29	101	19		43	19	079	26	850		
800	66.9	44	01	282	13	67.5	43	05	207	10	67.3	40	11	081	16	66.7	40	07	086	22	66.1	36	09	096	18	65.9	37	11	093	25	65.1	38	06	092	23	65.0	40	12	088	15	800	
750	38	00	293	10		37	00	318	02		36	02	078	15		36	04	083	24		30	09	087	18		31	16	092	22		34	06	087	25		35	08	092	18	750		
700	102.3	33	05	306	12	102.9	32	10	023	06	102.6	30	06	077	15	101.9	39	01	083	23	101.0	25	14	085	25	100.9	28	19	088	24	100.2	27	06	084	24	100.2	28	01	087	22	700	
650	27	04	317	13		28	18	038	03		20	15	082	18		22	06	084	25		22	07	087	28		24	30	095	26		21	09	091	21		20	03	091	17	650		
600	142.3	21	09	323	14	142.9	20	24	051	16	142.0	11	21	090	19	141.5	17	09	088	27	140.5	16	04	095	30	140.7</																

May 31st 1951.

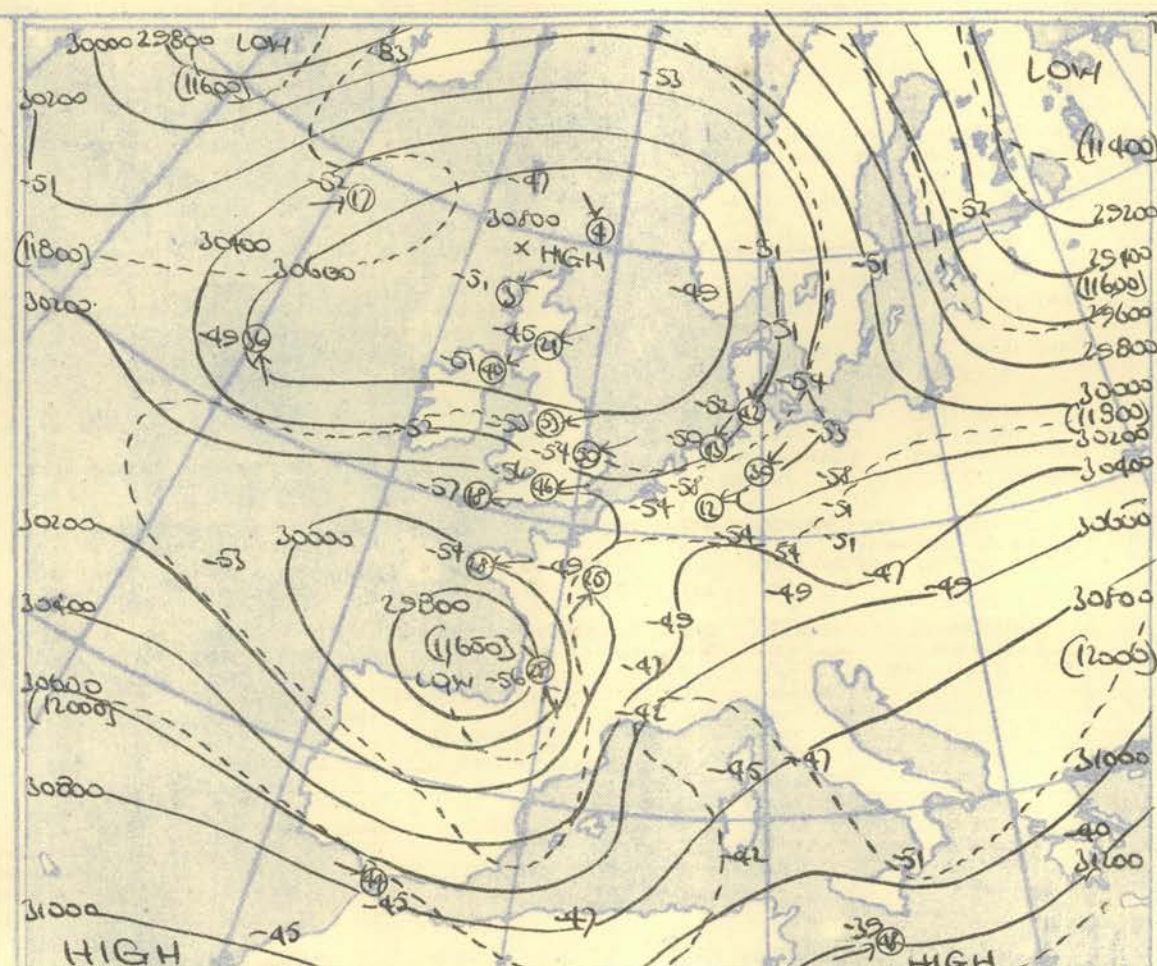
HEIGHTS IN FEET. TEMPERATURES (Dry bulb and Dew Point). DIRECTION AND VELOCITY (in knots) OF WINDS at the 700 mb., 500 mb. and 300 mb., levels at about 03h G.M.T.



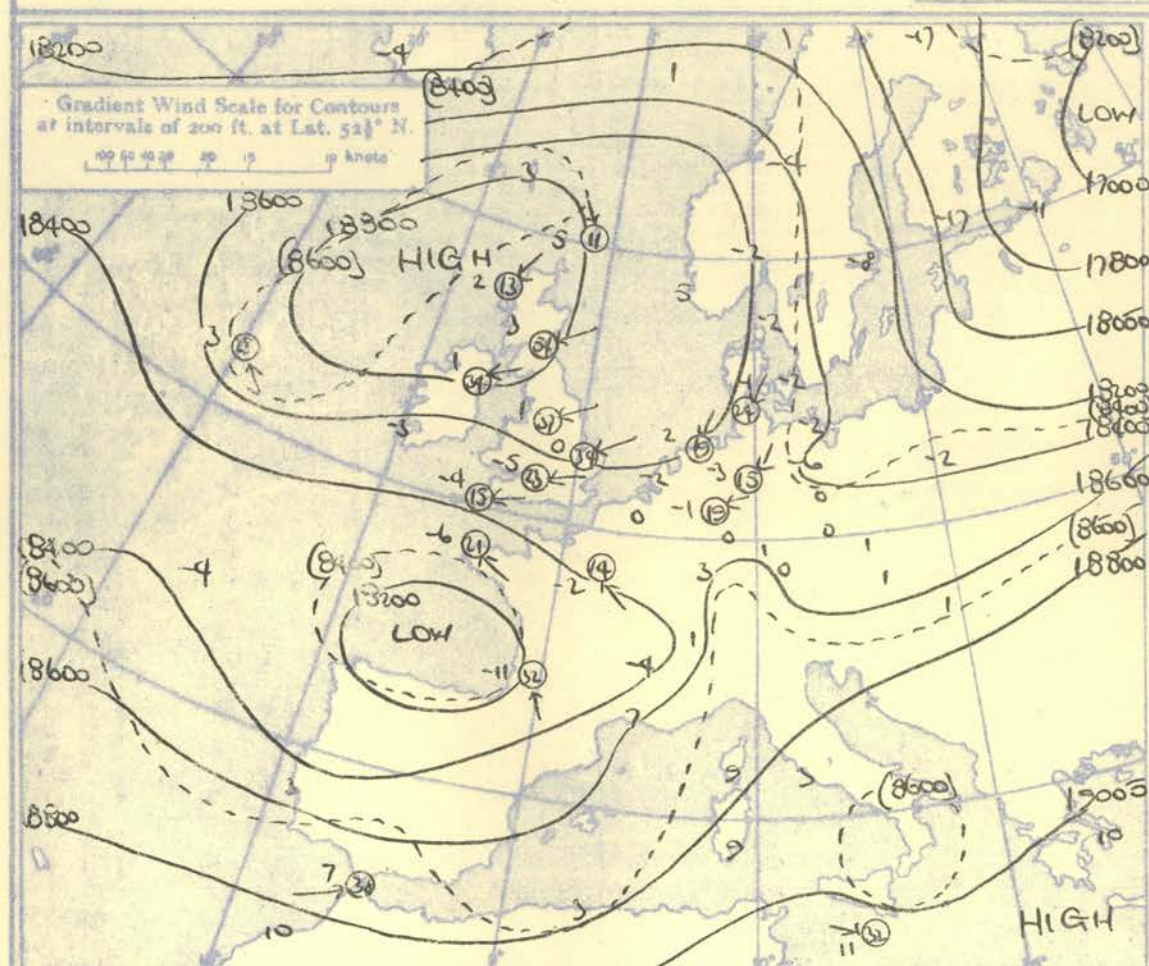
The continuous lines are contour lines of the 700 mb. surface.
The dotted lines are isopleths of the thickness of the layer 1000—700 mb.

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

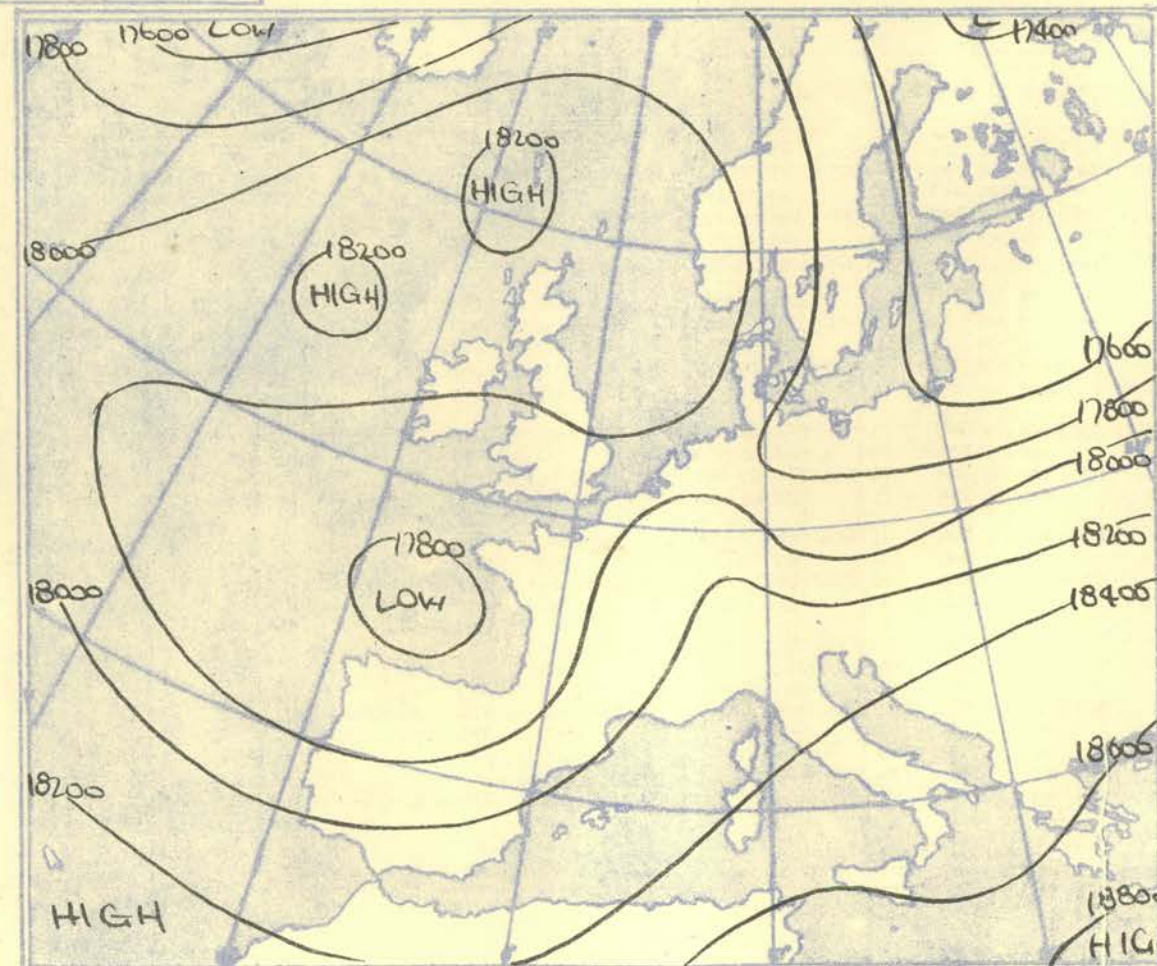
100 80 60 40 20 10 knots



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



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



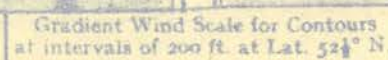
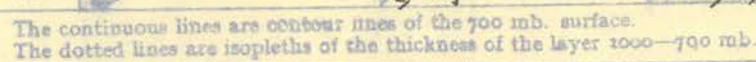
Isopleths of Thickness 500—1000mb.

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

NEPHOSCOPE OBSERVATIONS

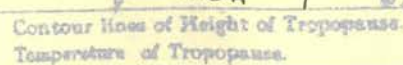
RADIO-SOUNDINGS OF TEMPERATURE, HUMIDITY AND WIND (Height above M.S.L.) FROM SHIPS.

[illegible]



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.

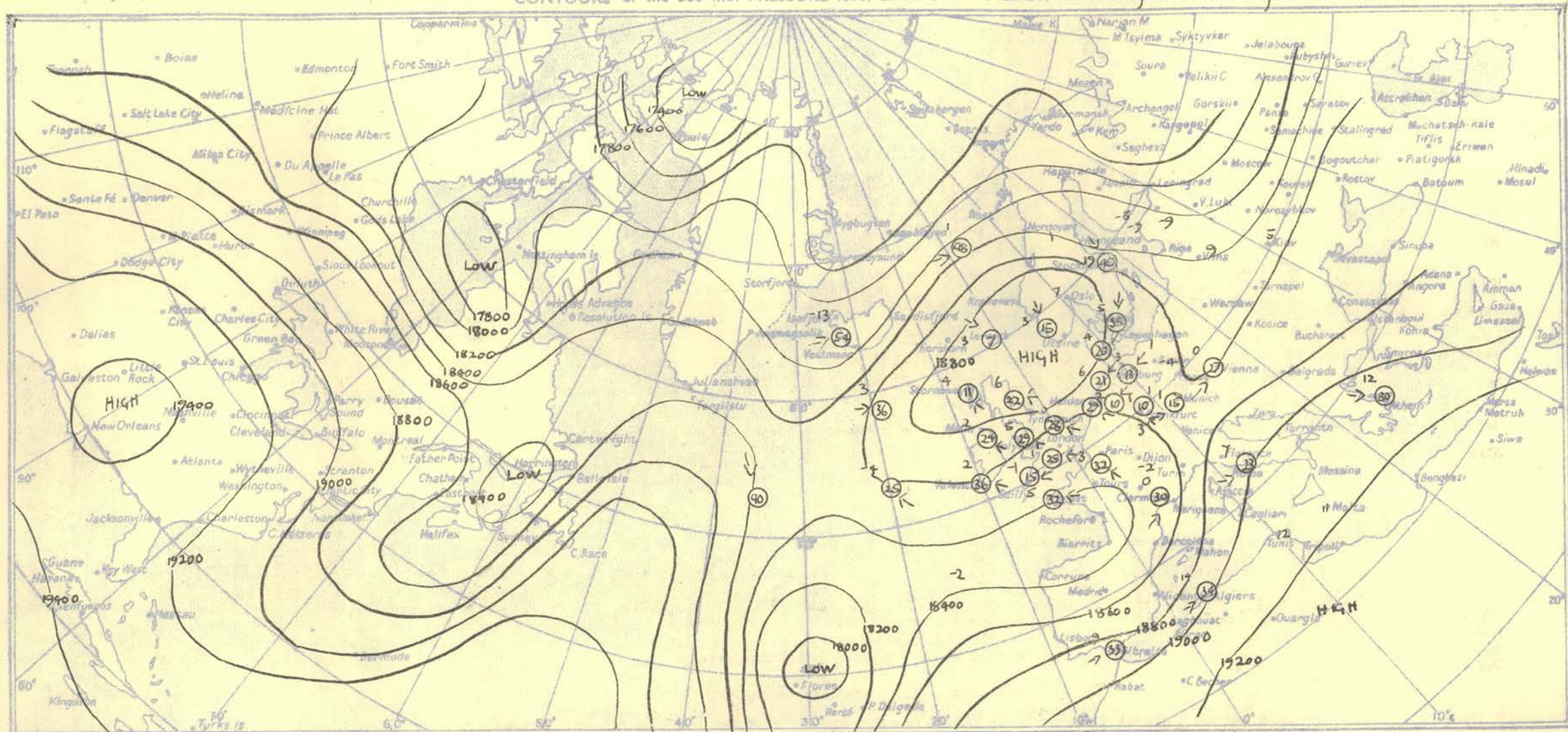


NOTES ON THE AEROLOGICAL SITUATION.

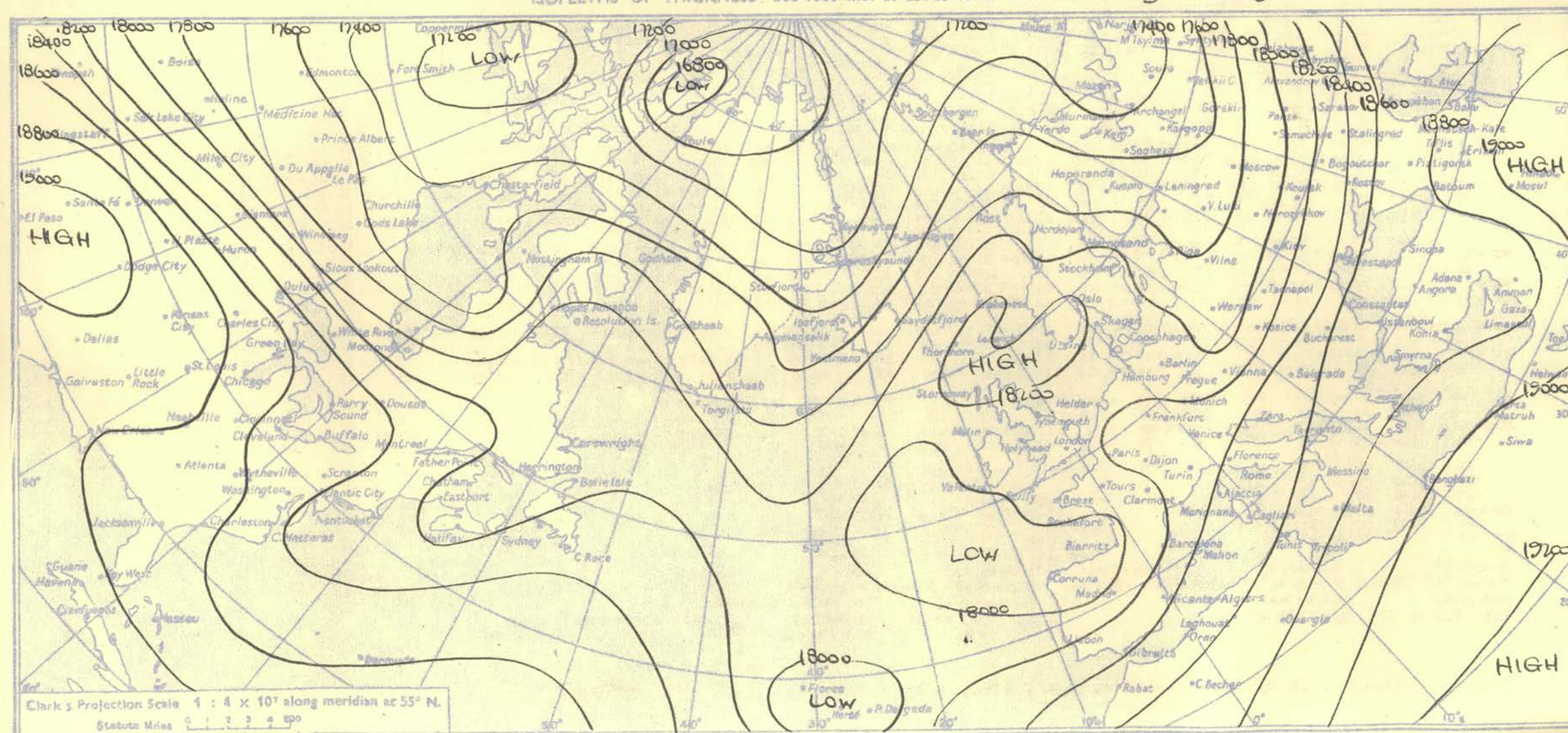
Steady warming throughout the day over the North Sea and Central Europe resulted in a marked modification of the thermal pattern, a detached pool of warm air forming over the North Sea. The deepening depression near the Azores was associated with much cooling at all heights in this area.

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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. Thursday 31st May 1951.



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. 1024.6 mb 1014.6 mb 67.7				15h G.M.T. 1025.8 mb 1024.2 mb 67.5				15h G.M.T. 1025.8 mb 1025.0 mb 70.6				15h G.M.T. 1026.0 mb 1015.9 mb 73.5				15h G.M.T. 1022.5 mb 1020.5 mb 73.0				15h G.M.T. 1021.6 mb 1017.2 mb 75.0				15h G.M.T. 1017.1 mb 1001.4 mb 72.3				15h G.M.T. 1016.9 mb 1006.5 mb 73.6				15h G.M.T. 1021.2 mb 1019 mb 74.5				Time M.S.L. Surf Freezing										
Pressure mb	Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Height ft./100	Temp. °F.	Wind Dir. Vel. knots		Pressure mb										
Surf	02.7	59	43	280	13	00.4	56	48	070	05	00.2	59	50	120	10	02.6	60	38	110	08	00.6	62	35	084	12	01.2	60	38	070	18	04.4	62	41	080	20	02.9	58	51	360	07	00.3	60	46	280	08	Surf	
1000	06.6	50	30	258	15	07.0	55	41	015	09	07.0	56	44	223	04	06.8	54	34			06.2	59	35	087	18	05.9	56	37	076	27	04.8	61	40		07	05.7	57	43	228	08	1000						
950	49	24	264		16	52	43	225	07		51	33	247	12	46	31	100	10			53	31	089	18	47	34	084	26	53	36	061	29	51	46	074	16	49	38	125	05	950						
900	35.3	49	19	269	15	35.8	49	30	215	10	35.9	48	22	076	03	35.4	42	21	104	12	35.0	44	23	094	19	34.6	40	22	090	25	33.7	45	21	076	26	33.4	45	42	094	19	34.4	43	33	078	08	900	
850	46	15	270		15	50	04	214	09		45	21	086	12	42	11	108	18			38	07	101	21	42	21	098	23	41	28	105	23	43	37	094	21	36	24	099	11	850						
800	67.1	42	12	279	17	67.7	43	08	190	07	67.6	42	09	100	12	66.9	38	05	102	24	66.4	40	01	102	20	66.0	38	06	105	21	65.2	37	23	110	18	65.0	39	26	092	18	65.8	39	05	105	15	800	
750		37	07	285	15		36	19	160	06		36	08	101	12		34	03	For Rest			34	09	105	19		32	03	105	22		33	16	102	20		33	17	088	18		33	01	107	15	750	
700	102.5	36	03	298	10	103.1	35	29	092	06	102.9	31	01	099	13	102.1	27	12			101.6	30	02	108	24	101.0	27	02	107	22	100.4	30	12	102	21	100.2	27	09	086	20	100.9	27	03	103	14	700	
650		27	03	306	10		29	34	076	09		27	07	097	16		22	13	Of Winds			26	23	109	24		24	09	106	23		24	03	105	21		21	01	080	16		23	08	091	18	650	
600	142.5	20	15	313	08	143.2	22	39	102	11	142.9	21	13	098	18	141.8	19	16			141.5	20	14	110	27	140.7	18	17	103	24	140.1	16	01	105	17	139.7	15	04	098	19	140.5	17	16	084	21	600	
550		13	21	312	07		13	17	123	12		14	03	102	22		12	20	See			19	18	107	27		10	17	099	25		09	04	108	18		07	00	108	14		11	23	091	29	550	
500	188.4	03	29	310	07	189.2	04	09	141	11	188.9	06	05	105	22	187.6	02	30	Page 3			187.5	05	23	106	29	186.3	00	24	102	28	185.6	01	19	106	25	185.1	01	17	109	15	186.3	02	31	091	36	500
450		07	40	279	10		06	18	151	07		04	15	102	21		07	26				07	31	100	36		10	29	106	33		11	26	106	27		12	30	112	25		07	38	087	42	450	
400	242.0	19	49	262	19	243.2	17	37	179	09	243.1	15	25	105	20	241.4	20	34				241.3	19	42	106	39	239.7	22	37	105	41	239.0	24	39	108	24	238.3	25	38	108	15	240.1	19	48	088	43	400
350		32	59	255	21		30	50	178	07		28	39	111	24		32	48				33	54	107	45		36	50	106	48		38	52	113	29		39	50	127	21		32	59	094	46	350	
300	307.5	47		251	26	308.9	46		189	15	309.1	43		118	25	306.9	48					306.6	50		105	53	309.7	50		105	53	303.5	53		109	36	302.6	55		135	20	306.5	47	093	43	300	
250		63		252	33		63		194	17		62		109	27		66					67		106	50		65		103	58		64		106	27		73		117	25		60		090	48	250	
200	323.0	79		250	28	324.4	79		187	14	324.9	81		116	27	321.8	79					321.6	72		107	36	320.1	71		102	32	389.3	67		121	23	387.9	62		107	22	392.6	58		097	31	200
170		83		249	20		74		175	08		75		116	21		67					63		124	19		66		121	17		63		127	20		59		118	20		57		111	19	170	
150		76		241	14		63		172	06		69		133	07		65					62		126	15		63		133	11		63		133	12		60		133	16		55		114	16	150	
130		69		246	08		62		174	07		64		136	07		63					62		129	11		63		134	10		61		132	12		60		148	08		54		123	12	130	
110		66		249	05		58		216	06		64		138	07		62					59		176	10		60		133	10		60		162	09		59		168	09		52		164	08	110	
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