

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 58

No. 5815

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

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$$e'' = e' - 0.37 (t-t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

FRIDAY: 1ST MARCH 1935

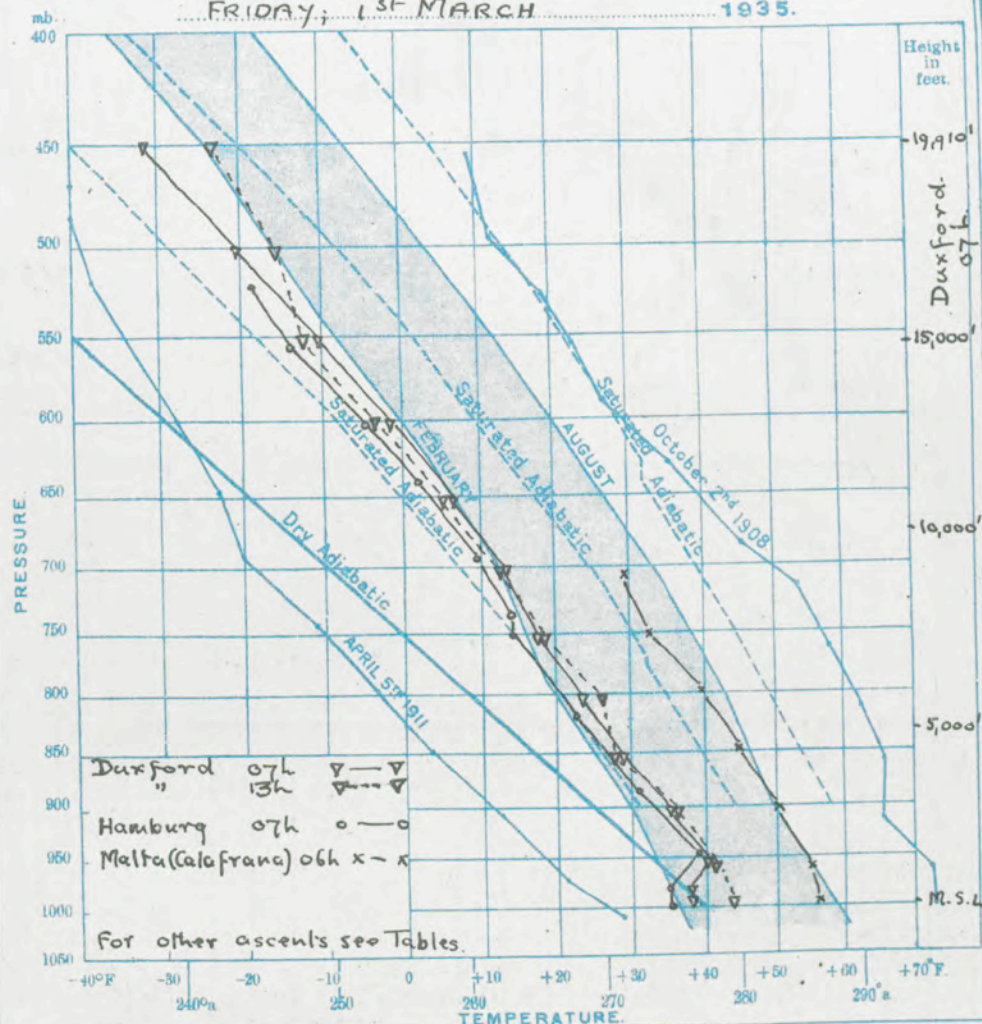


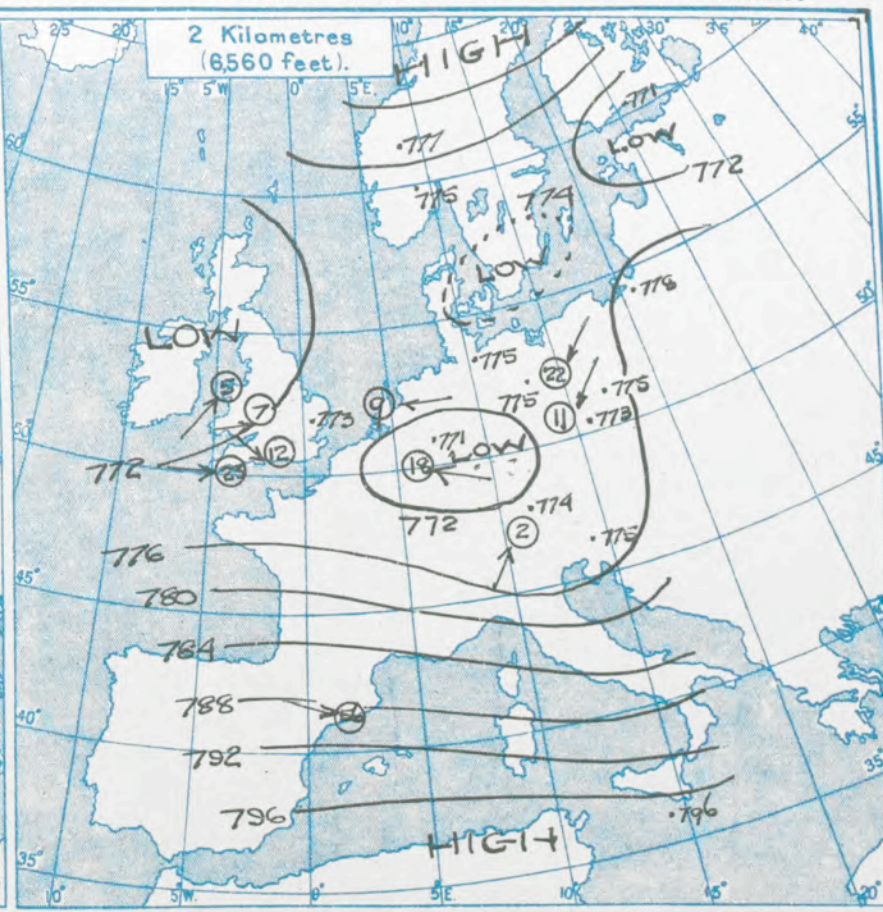
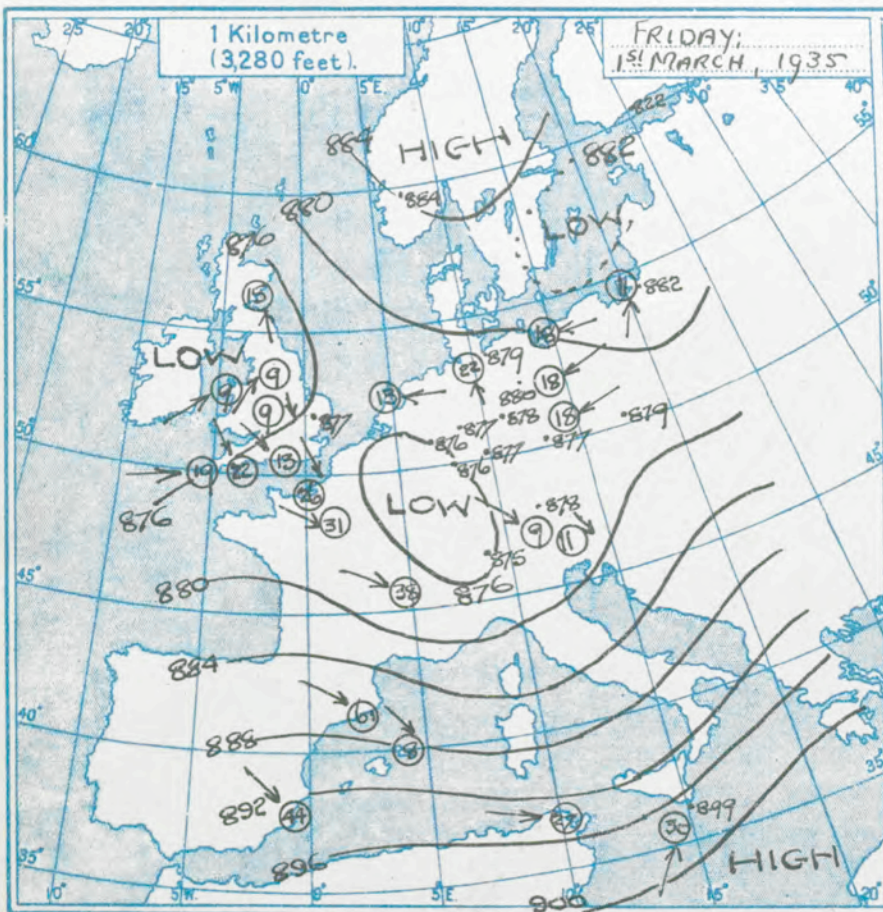
TABLE OF UPPER AIR TEMPERATURES RECORDED ON Friday, 1st MARCH 1935.

[illegible]

Issued on SATURDAY, 2nd MARCH, 1935.

Meteorological Office, Air Ministry
Kingway, London, W.C.2.

G. C. SIMPSON, C.B., D.Sc., F.R.S.,
Director



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 1st MARCH 1935.

Place	Croydon	South Farnborough	Boscombe Down	Calshot	Mansel	Bicester	Pen-broke	Upper Heyford	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Renfrew	Alder-grove	Malta	Place
Time	06h	07h	07h	07h	07h	10h	10h	09h	07h	08h	09h	07h	07h	07h	07h	08h	10h	08h	06h	Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Surf.	270 11	265 7	285 4	260 5	310 5	235 4	155 9	225 4	295 3	70 4	190 10	200 1	190 6	Ca 7m	220 3	145 2	135 4	180 12		Surf.
1000	295 17	310 20	295 17	310 29	320 13	305 5	175 21	260 6	305 13	235 9	195 25	285 9	250 7	220 8	175 13	175 15	180 15	185 23	210 26	1000
2000	(at 1000)	320 18	305 18	315 25	335 13	285 7	185 23	295 7	295 11	260 13	195 31	275 11		275 7	165 13	195 15	170 18	190 29	210 27	2000
3000		310 13	295 29	325 22		230 5	185 18	275 9	310 9	270 19	205 23	265 9		210 9	150 15		180 16		210 30	3000
4000		320 10				230 5		215 7	310 5	270 20	215 20	235 7		200 11	160 15		185 21			4000
5000		315 12				235 5		245 5	275 5	285 19		240 8		200 11						5000
6000		315 12				240 5		235 5	295 7	280 23		220 5								6000
8000		325 15				220 9		220 10	290 7			(at 6000)								8000
10000		320 15				225 8		210 7	300 5											10000
12000				10h 65h							10h 6							10h 6h		12000
Neph.				280 ?							270 120							260 90		Neph.
Place	Croydon	South Farnborough	Boscombe Down	Calshot	Worthy Down	Birchenhead	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Renfrew	Alder-grove	Malta	Place
Time	12h	12h	12h	12h	11h	08h	12h	13h	12h		12h	12h	12h	12h	12h	13h		12h	12h	Time
Type	b	b	b	b	b	b	b	b	b		b	b	b	b	b	b	b	b	b	Type
Surf.	230 4	225 4	190 8	200 10	230 5	Cal m	115 4	135 8	200 6		145 21	155 10	160 8	Cal m	175 8	135 8		145 13		Surf.
1000	225 5	215 7	180 7	225 18	230 7	-	205 4	160 12	200 11		155 28	165 15	175 9	185 7	190 10	135 16		130 17		1000
2000	215 14	215 9	195 8	230 15	230 6	135 8	55 8	175 15	205 10		135 26	170 13	175 13	170 13	175 13	140 13		150 24		2000
3000		205 14	190 15	215 11		165 6		165 11	185 11		170 22	165 22	175 13	165 13	175 15	110 18		160 28	250 31	3000
4000		215 12	195 17	210 10		160 4		165 17	190 14		175 31	175 24		165 22	165 13	165 15		160 31		4000
5000		210 16	210 16	230 16		120 6			185 10		165 27	165 13		165 22		165 18		165 31	260 25	5000
6000		205 10		225 14		125 5			190 15		155 26	175 14				150 22		165 28		6000
8000		195 13							205 16		155 23	185 13						155 23	700 37	8000
10000		210 16							200 18	Upper Heyford	160 13	115 20						Ci 13	250 37	10000
12000		210 15							130 16	230 120	175 21							270 60	280 63	12000
Neph.		230 35							130 15						180 72			270 60	280 63	Neph.
Place	Croydon	South Farnborough	Boscombe Down	Croydon	Mansel	Shoeburyness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Alder-grove	Malta	Place
Time	17h	17h		24h	17h		15h	16h	17h		16h	17h	17h	17h	16h	17h	17h	17h	17h	Time
Type	b	b		b	b		b	b	b		b	b	b	b	b	b	b	b	b	Type
Surf.	125 8	130 5		50 4	180 8		125 5	120 7	130 3		150 10	120 9	130 11	100 1	80 3	100 10	160	125 10		Surf.
1000	150 13	140 15		80 14	185 17		140 7	140 18	145 14		140 15	130 15	130 17	120 18	115 14	105 17	145	125 23	270 35	1000
2000	170 16	165 19		80 23	175 20		150 10	140 13	150 17		130 13	140 17	135 23	135 17		110 23	135	135 23	230 52	2000
3000	185 20	175 22		95 23	160 15		180 7	130 21	155 17		130 11	140 22		140 18			151	135 23	260 47	3000
4000	170 16	170 23		90 24	140 8		165 9	130 21	165 15		(2900)	140 25					155 12	135 23		4000
5000	155 14	165 20		90 23			135 15	130 21	135 15			135 21								5000
6000		160 19		90 21			145 20		145 17			135 20								6000
8000		700 21					165 11		150 21			145 22								8000
10000							165 11		300 21			160 18								10000
12000							130 15		150 21			145 12								12000
Neph.																				Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION. No. 5,816.

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$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

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DIAGRAM OF UPPER AIR TEMPERATURES.

SATURDAY, 2ND MARCH, 1935.

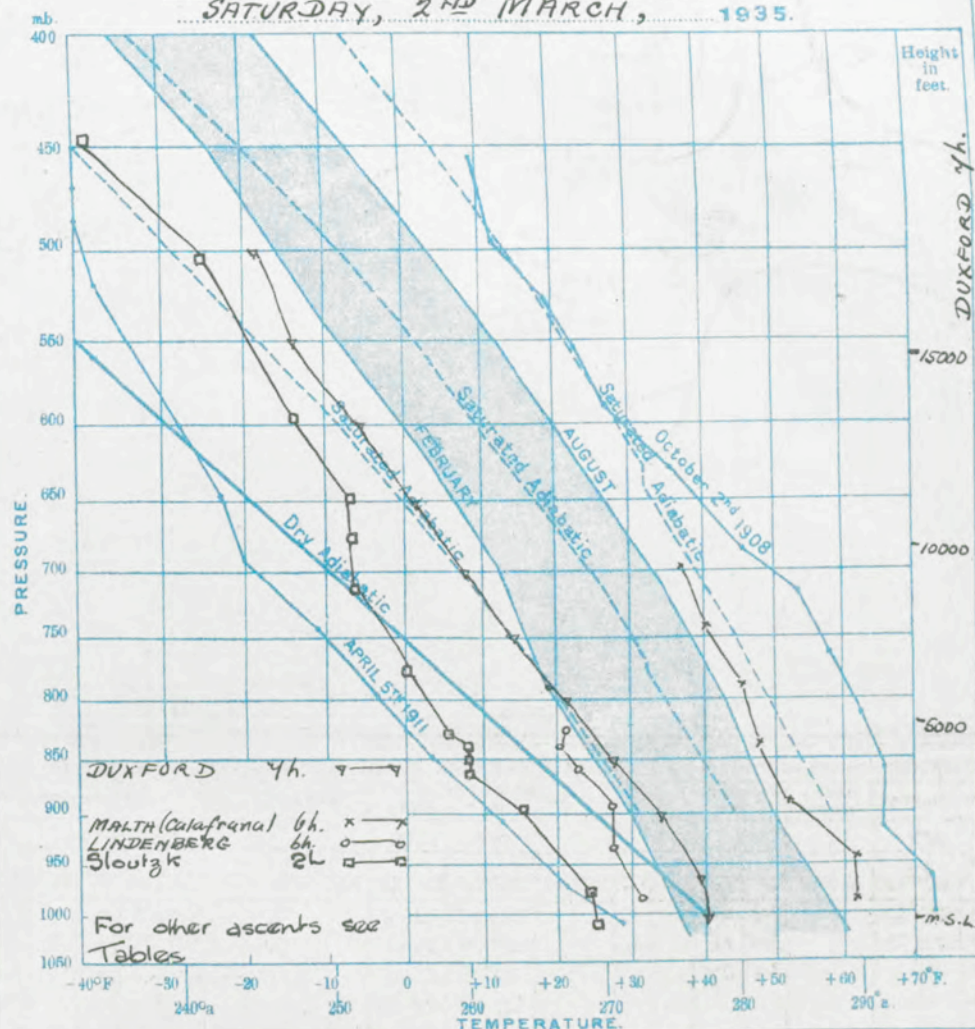
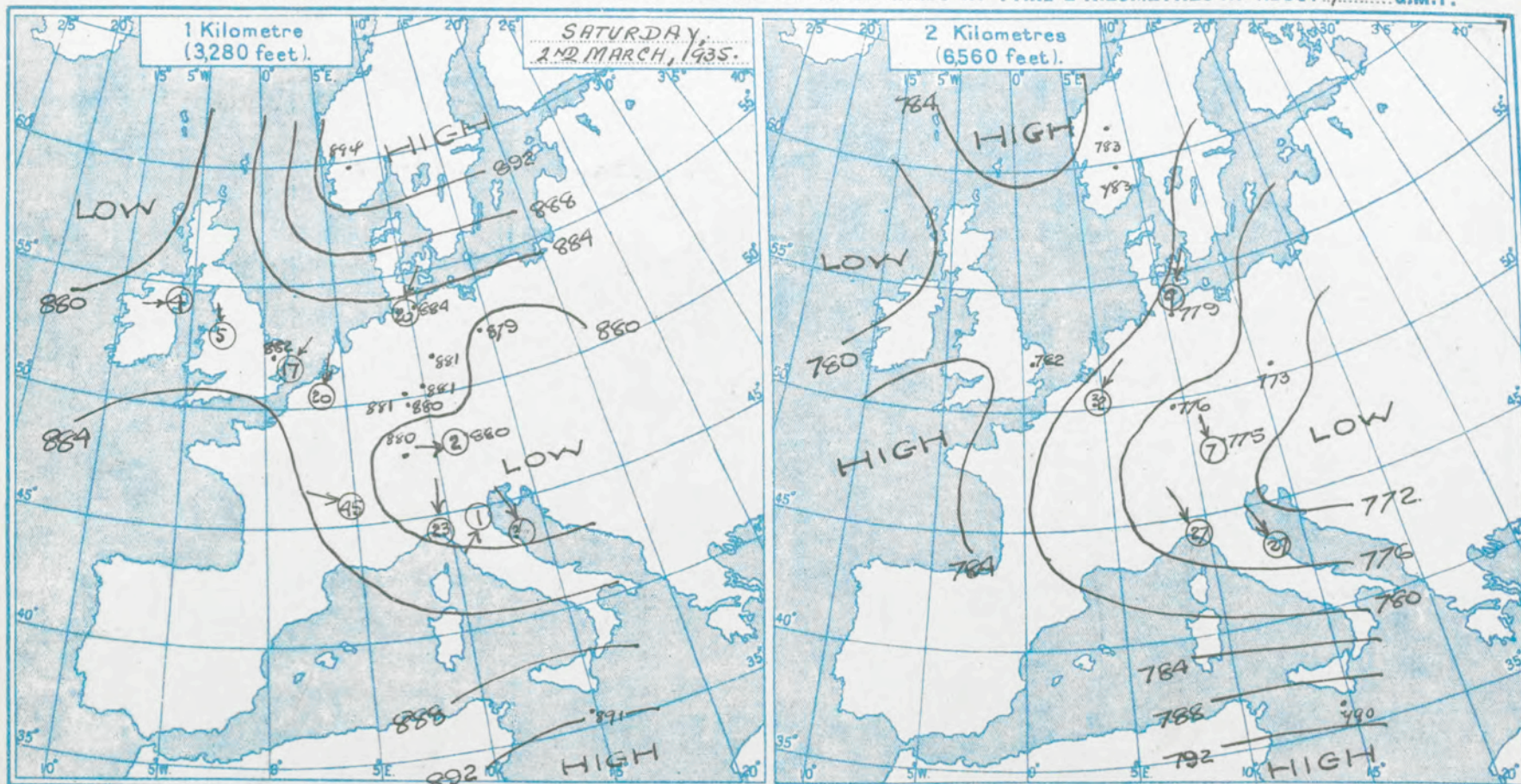


TABLE OF UPPER AIR TEMPERATURES RECORDED ON SATURDAY, 2ND MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD 4h.				KONIGSBERG 7h.				MALTA (Calafra) 6h.				HAMBURG 4h.				MUNICH 4h.				Sloutzk 02.				UTTI 07h.				BERLIN 07h.			
1004	M.S.L.	—	—	997	92	35	98	980	660	62	45	1001	61	34	88	936	1662	20	92	1003	134	25	79	988	1021	10	45	992	184	35	87
965	1080	39	92	967	380	32	98	944	1640	62	45	960	1310	32	96	912	2300	34	98	981	660	23	—	949	2001	14	45	914	2300	28	98
900	2440	33.2	100	948	1310	34	80	841	3280	52	85	882	3280	23	94	835	4600	27	97	945	1640	13	—	886	3280	9	35	860	3340	24	98
850	4430	27.6	100	865	3940	28	98	839	4920	48	45	840	3610	24	86	741	6900	19	61	902	2620	7	—	828	4920	0	35	810	5900	18	98
800	6000	21.5	100	850	4270	28	98	790	6560	45	85	814	5240	18	68	706	8850	12	70	826	2380	7	—	773	6560	-8	35	788	6560	20	78
750	7640	13.8	—	743	7880	18	97	743	8200	40	45	763	6900	15	80	668	10400	4	48	885	3240	7	—	722	8200	-11	35	751	7230	16	66
700	9380	8.2	—	687	9840	10	90	698	9840	34	45	710	8850	9	49	580	13800	-5	34	883	4320	6	—	673	9840	-11	25	730	8200	17	52
650	11240	1	—	680	10170	9	88	652	11140	0	86	652	11140	0	86	511	16730	-14	37	883	4320	6	—	585	13120	-17	25	635	11480	4	-48
600	13200	-6	—	674	10500	9	88	642	11480	0	82	584	13800	-8	66	—	—	—	—	775	6560	0	—	506	16400	-29	25	574	14130	-6	50
550	15340	-14	—	620	12460	1	87	609	12790	-1	83	533	15760	-18	64	—	—	—	—	713	8540	-8	—	—	—	—	—	—	—	—	—
500	17620	-19	—	600	13120	-2	82	600	13120	-2	82	—	—	—	—	—	—	—	—	673	9840	-8	—	—	—	—	—	—	—	—	—
ISOTHERMAL LAYER—				WARSAW 09h.				LINDENBERG 6h.				COLOGNE 4h.				DARMSTADT 07h.				Utrecht 8h.				FRIEDRICHSHAFEN 7h.				HAMBURG 15h.			
Screen to 800 feet Temp. 40°F.				958	1027	36	95	983	248	32	96	993	157	36	91	984	448	41	83	976	670	36	95	948	1312	35	93	1008	61	35	85
Clouds—				923	2007	39	95	928	1470	27	98	905	2620	28	98	936	1640	37	97	940	1650	36	85	924	1970	33	87	941	1970	28	92
Low cloud 190 to 800 feet at aerodrome but on ground as thick fog elsewhere.				980	3280	36	96	843	2450	27	85	841	2450	27	81	844	2620	34	91	834	3280	34	75	910	2300	32	89	911	2620	24	98
St. G. 700 mb. Cu. and St. G. 470 770 mb. Rising Cu. cloud in N. G. 270 not reached.				828	4920	32	95	860	3440	23	95	785	6230	14	98	827	4920	27	70	830	4920	27	75	895	2950	32	76	840	4920	13	98
COLOGNE 16h.				778	6560	28	95	825	4400	20	98	744	6560	14	80	783	6230	20	41	779	6560	19	75	881	3280	31	84	783	6560	13	98
1003	157	46	56	730	8200	21	95	825	4420	21	80	656	10630	0	83	766	10170	14	60	779	8200	12	75	872	3610	30	72	760	7230	14	96
912	2620	32	63	Inversion				825	4400	20	98	650	—	1	75	641	10170	14	60	779	8200	12	75	872	3610	30	72	760	7230	14	96
901	2950	31	60	Pres. base 983 mb.				825	4400	20	98	558	14760	-13	45	650	11440	5	55	684	9840	5	85	800	5570	19	81	714	8850	8	94
848	4600	24	73	Temp. at base 36°				538	15430	-14	43	538	15430	-14	43	600	13120	-4	42	599	13120	-4	65	716	8540	10	93	670	10500	3	93
764	7230	13	75	Amount of Inv. 4°				532	15760	-14	42	549	15100	-13	34	549	15100	-13	34	522	16400	-18	55	632	11800	0	88	635	11800	0	89
672	10500	3	76	Thickness of Inv. 1903 ft.				520	16400	-20	41	502	17060	-24	31	502	17060	-24	31	522	16400	-18	55	533	15760	-17	94	601	13120	-6	70
																				Inversions											
																				Base press: 966 mb											
																				Base temp: 36° F											
																				Am't. of inv: 2° F											
																				Depth: 1279 ft.											

Meteorological Office, Air Ministry,
Kingsway, London, W.C.1.

G. C. SIMPSON, O.B.E., D.Sc., F.R.A.,
Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 2ND MARCH, 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valencia	Alder Grove	Malta	Place
Time	10		8h.			07	7h.		10	8h.		7h.	7h.				10	7h.	6h.	Time
Type	b											b								Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	325 8		300 4			335 15	360 9		335 6	320 15		300 3	40 6				280 10	200 4		Surf.
1000	330 9		315 16			335 14	25 15		335 11	320 25		315 11	45 4				275 11	245 5	280 66	1000
2000			315 24			10 15	35 15		355 9	315 33		325 9	55 4				265 11	250 6		2000
3000						20 18	40 14					355 5	15 4				280 17	160 4		3000
4000						20 16	35 11					250 8					285 20	250 8		4000
5000						20 15	40 14										280 22	250 5		5000
6000						Shell											285 18			6000
8000						Burst													Acu 13h	8000
10000						3000													260 108	10000
12000						40 13													Acu 13h 7h Ci	12000
Neph.						40 19													270 27 290 40	Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Croydon	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Sealand	Sealand	Manchester	Catterick	Leuchars	Renfrew	Hemphill Dock	Alder Grove	Valencia	Place
Time	12h	12h	12h	12h	16h					12h	12h	10	12h	13h	12h	12h	10	12h		Time
Type	b									b					b			b		Type
Surf.	320 4	310 4	340 4	330 6	310 4					305 15	Cal m.	300 2	345 8	170 4	145 8	125 1	270 3	210 5		Surf.
1000	330 7	330 12	335 13	310 7	335 6					315 17	310 7	310 13	345 13	135 9	155 13	145 6	315 7	215 12		1000
2000		330 10	340 12		350 11					315 9		310 13	345 12	135 9		190 7	335 10	240 15		2000
3000		1800'			350 9								15 9				335 15	250 13		3000
4000																	340 13	240 18		4000
5000																		240 14		5000
6000																		250 10	Acu 18h	6000
8000																		275 14	270 45	8000
10000																		290 13	270 16h	10000
12000																		290 16h	270 100	12000
Neph.													330 50			220 21		270 27		Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder Grove	Malta	Place
Time		17h.	17h.	17h.	17h.		18h.			17h.	17h.	17h.	17h.	17h.	17h.	17h.		17h.	17h.	Time
Type		b.								b.	b.			b.						Type
Surf.		275 2	340 4	300 6	25 10		25 4			310 13	190 4	285 2	125 6	145 6	135 9	90 1		215 5		Surf.
1000		300 10	330 11	315 11	5 14		25 14			305 15	200 11	275 5	130 7	155 16	145 15	175 3		215 11	290 43	1000
2000		325 15		320 17	330 15		355 10			300 16	235 9	320 6	160 5	160 13		180 8		220 15	300 68	2000
3000		355 14		320 19						310 17	275 9	325 7	180 4	165 7		175 12		240 15		3000
4000		340 13								310 18	260 8	305 7	195 1	200 5				240 15		4000
5000		330 11								315 17	275 7	290 7	295 3	225 5				250 16		5000
6000		330 11								305 17	300 6		305 7					240 17		6000
8000		315 14									305 7									8000
10000		310 19									305 9									10000
12000		330 27									Acu 18h									12000
Neph.		310 26									290 70	320 50								Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION.

No. 5817

UPPER AIR TEMPERATURES.

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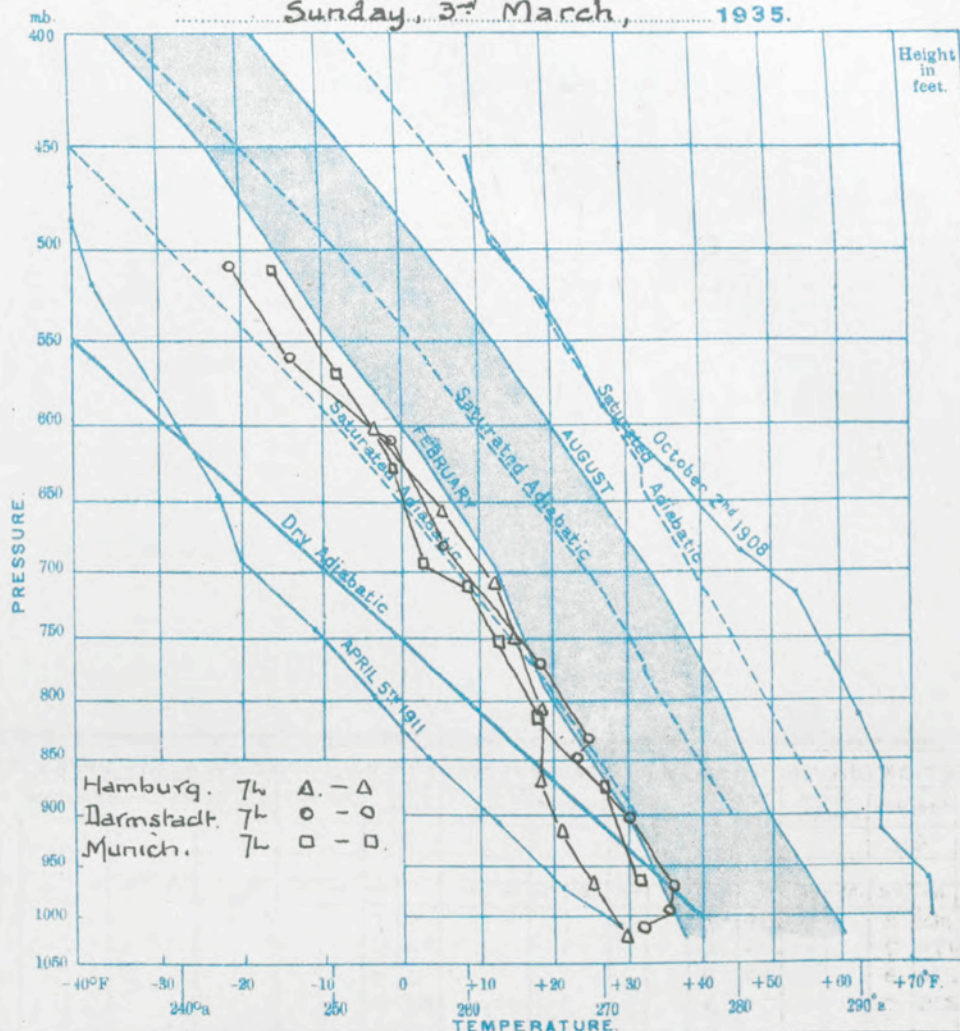
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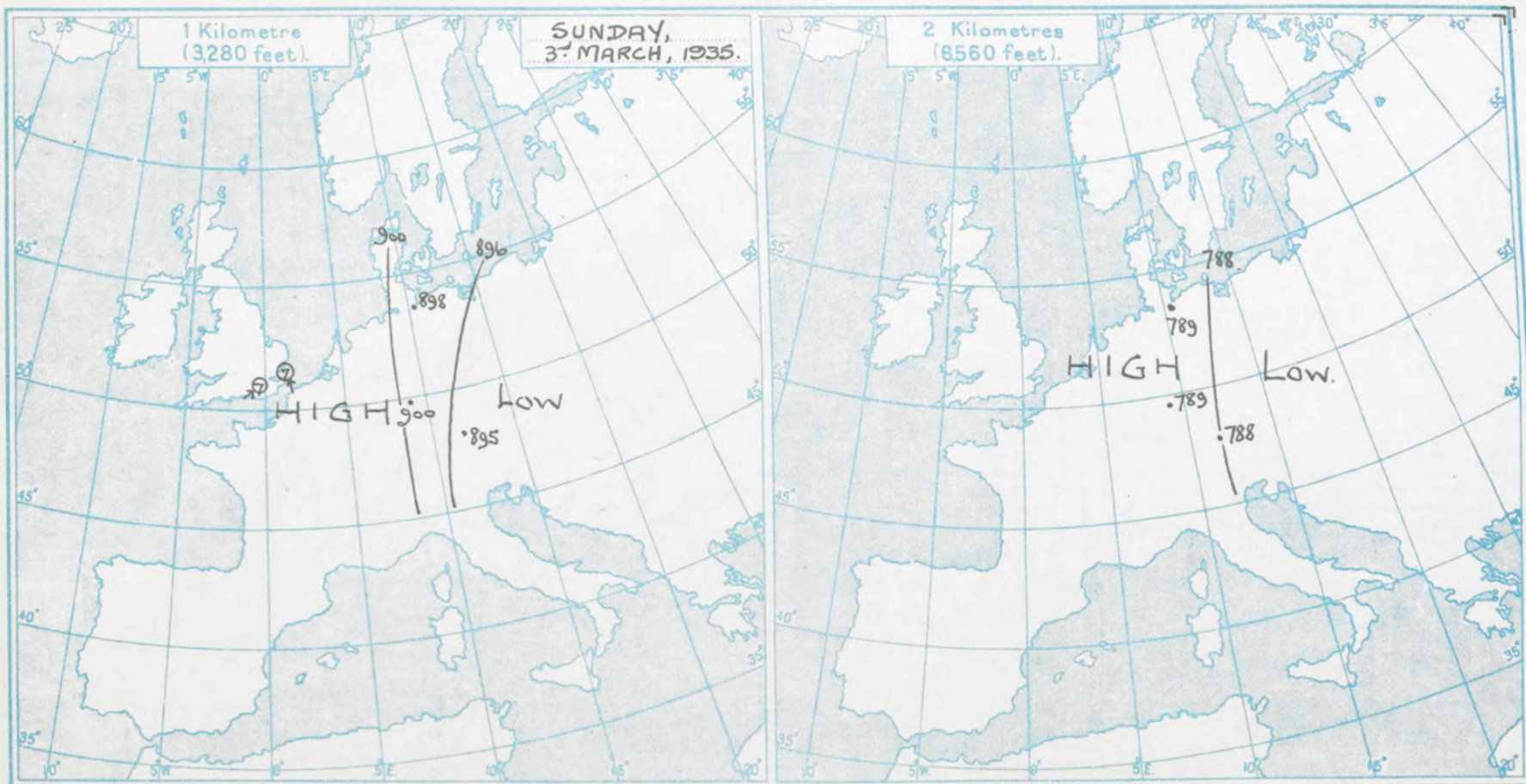
Sunday, 3rd March, 1935.TABLE OF UPPER AIR TEMPERATURES RECORDED ON SUNDAY, 3rd MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
Hamburg. 7h	M.S.L.	—	—	Munich. 7h	M.S.L.	—	—	Darmstadt. 7h	M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—
1017	61	30	92	954	1662	32	95	1004	445	32	90																				
960	1640	27	88	866	4270	27	85	985	980	36	70																				
910	2950	21	87	811	5900	19	79	962	1360	37	58																				
860	4270	18	86	750	7880	12	90	900	3280	30	58																				
802	6230	18	90	718	8850	9	88	847	4920	23	60																				
749	7880	14	92	681	10170	3	80	824	5570	25	46																				
708	9200	12	88	625	12460	1	50	764	7560	19	39																				
654	11140	5	86	566	14760	-8	39	676	10500	5	42																				
605	13120	-4	83	518	17060	-16	32	613	12790	-2	32																				
								556	15430	-13	30																				
								507	17390	-22	32																				
	M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—		M.S.L.	—	—

Meteorological Office, Air Ministry,
Kingway, London, W.C.2.

G. C. SIMPSON, O.B.E., D.Sc., F.R.S.,
Director.

Issued on Monday, 4th March, 1935.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 3 rd MARCH, 1935.																										
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place						
Time.	6h.		7h				7h													Time						
Type																				Type						
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet	
Surf.	140	5					115	7																	Surf.	
1000	175	7					115	13																	1000	
2000	230	9					115	11																	2000	
3000	235	7					155	7																	3000	
4000																									4000	
5000																									5000	
6000																									6000	
8000																									8000	
10000																									10000	
12000																									12000	
Neph.																									Neph.	
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester.	Catterick	Leuchars	Renfrew	Mildenhall	Alder-grove	Valentia.	Place						
Time.		13h		13h					12h	12h	12h				11h		12h			Time						
Type										b	b				b					Type						
Surf.		160	1						160	3	320	23	280	23							Surf.					
1000.		195	6						185	6	325	27	285	25							1000					
2000		245	9						1500 ft			300	27								2000					
3000		225	11						210	8		305	29.								3000					
4000																					4000					
5000																					5000					
6000																					6000					
8000																					8000					
10000																					10000					
12000																					12000					
Neph.																					Neph.					
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester.	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place						
Time.				17h												18h		17h	18h	Time						
Type																b				Type						
Surf.				105	15											300	15			Surf.						
1000				120	18											315	29			1000						
2000				140	15											315	38			2000						
3000				170	10											315	45.			3000						
4000																				4000						
5000																				5000						
6000																				6000						
8000																				8000						
10000																				10000						
12000																				12000						
Neph.																				Neph.						

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 5818.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fah.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

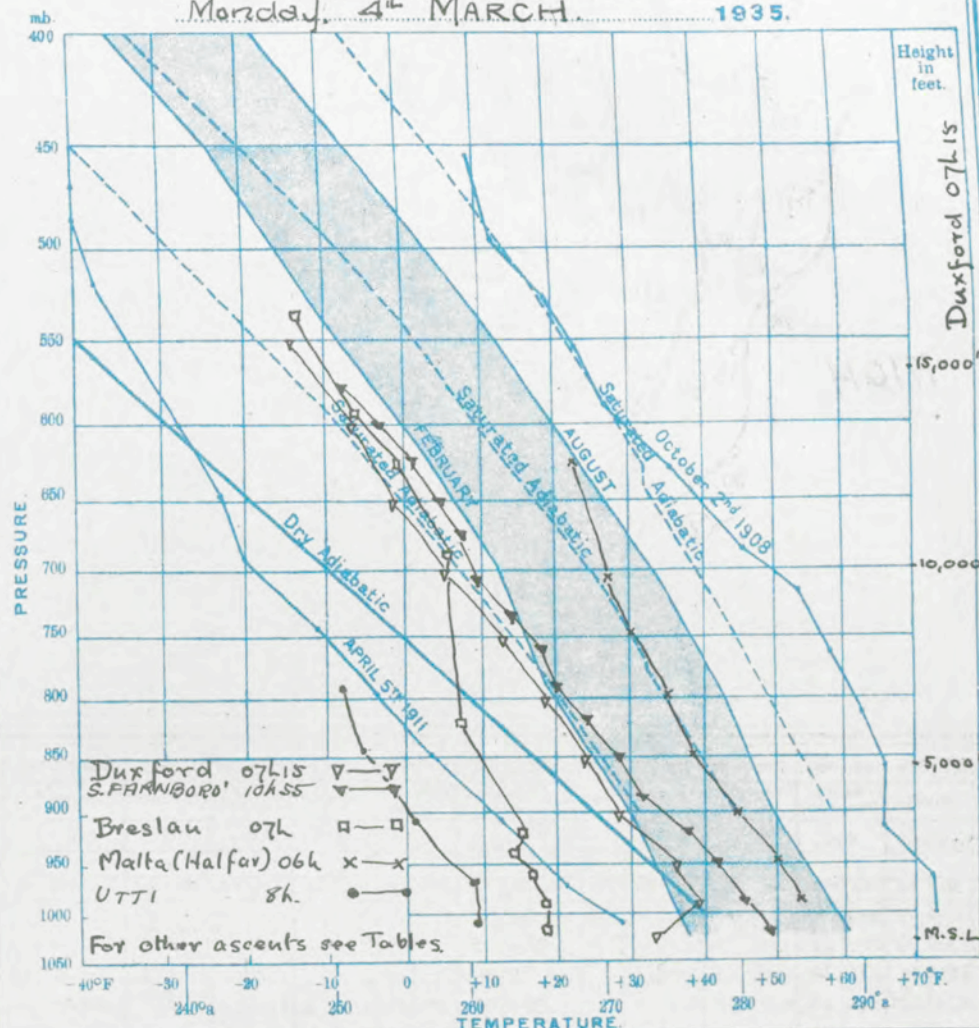
d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

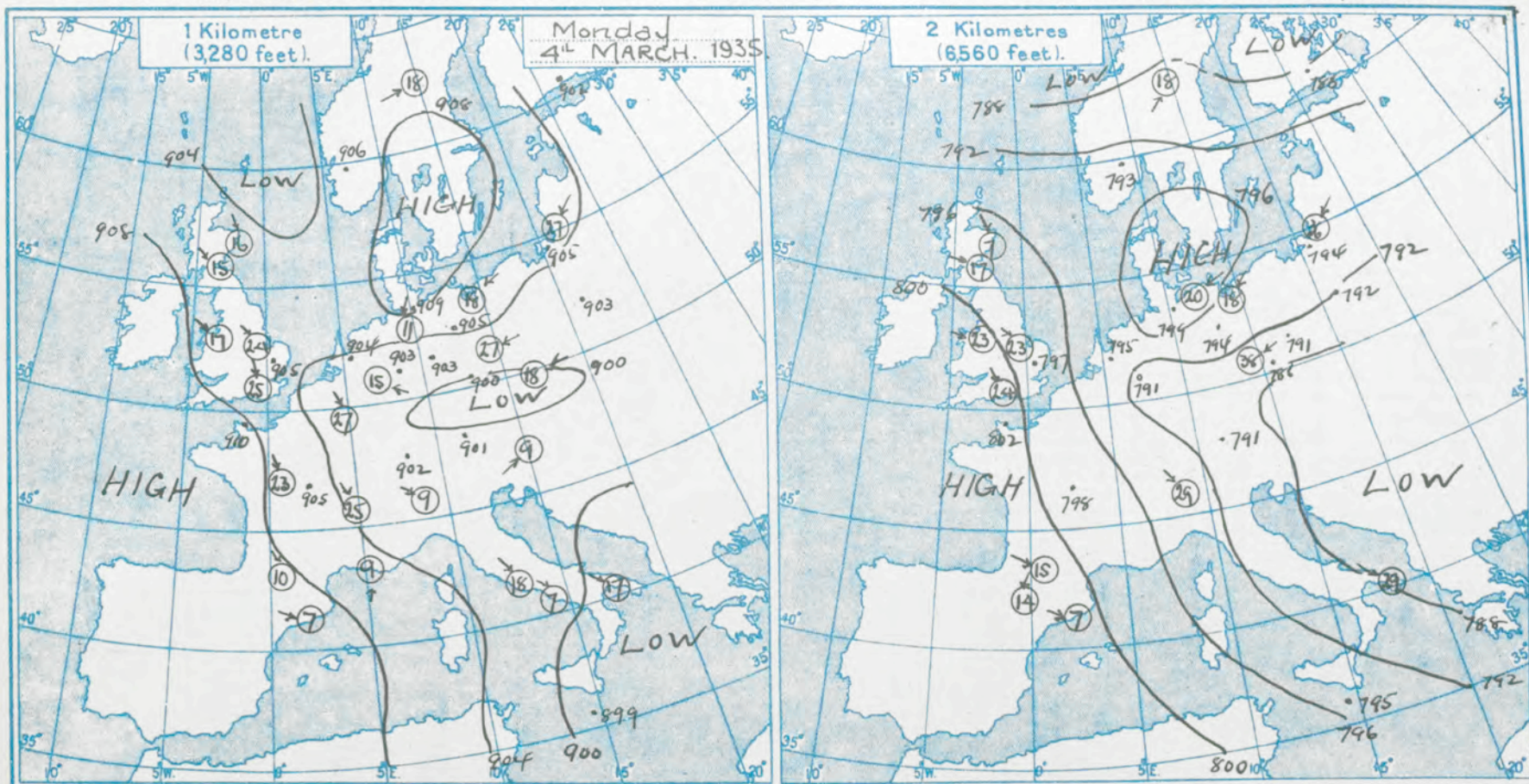
CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Monday, 4th MARCH 1935.TABLE OF UPPER AIR TEMPERATURES RECORDED ON Monday, 4th MARCH 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.												
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%												
Duxford 0715				DUXFORD 13430				Hamburg 07h				Munich 07h				Sloutzk 06h				S.FARNBORO' 10455				KONIGSBERG 8h				CHATEAUX 9h																			
1025.0	M.S.L.	—	—	1026.5	M.S.L.	—	—	1027	M.S.L.	—	—	959	M.S.L.	—	—	1020	M.S.L.	—	—	1017.6	M.S.L.	—	—	1028.9	M.S.L.	—	—	1025.5	M.S.L.	—	—	1025.5	M.S.L.	—	—												
984	1080	32.6	98	985	1090	44.8	43	971	1640	39	66	881	3940	22	90	1016	134	14	79	982	1200	44.9	—	954	1470	13	84	983	1100	36	—	1007	502	45	85												
950	2000	36.0	60	950	2050	37.6	65	911	3280	31	69	816	5900	16	91	1000	660	14	—	946	2140	42	—	940	2300	14	65	960	1740	37	—	983	1100	36	—												
900	3420	28.5	92	900	3490	30	95	867	4270	16	46	761	7560	11	88	960	1640	10	—	913	3150	37	—	825	5570	5	38	937	2410	36	—	960	1740	37	—												
850	4920	23.2	86	850	4980	23	95	824	5570	13	38	714	9200	6	80	900	3280	8	—	880	4120	32	—	804	6230	5	34	914	3050	32	—	960	1740	37	—												
800	6470	18.3	—	800	6520	14.5	—	769	7560	10	34	644	11,800	4	82	840	4920	3	—	848	5120	24	—	749	6400	3	35	842	2670	30	—	960	1740	37	—												
750	8110	12.0	—	750	8180	10	—	718	9200	5	31	580	14,130	13	77	785	6560	3	—	814	6080	24	—	648	7880	3	33	870	4320	28	—	960	1740	37	—												
700	9840	4.3	—	700	9910	4	—	671	10,830	1	29	520	16,730	24	73	735	8200	6	—	786	7040	20	—	648	11460	9	28	844	5000	25	—	960	1740	37	—												
650	11,700	1.6	—	650	11760	2.4	—	622	12,790	5	28	CHERBOURG 9h				687	9840	12	—	754	8020	18	—	635	12130	4	24	824	5600	23	—	960	1740	37	—												
600	13,660	7.4	—	600	13710	9.5	—	576	14,760	12	34	9h				600	13,120	24	—	728	9020	14	—	612	12790	4	24	804	6220	21	—	960	1740	37	—												
550	15,800	14.2	—	550	15860	14	—	540	16,090	18	41	9h				521	16,400	35	—	649	10930	4	—	541	15760	21	26	784	6870	9	—	960	1740	37	—												
Inversion				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25				500 18130 25							
Screen 32.6°F				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops				Thick haze to haze tops							
1000 ft. 39.0°F				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.				910 and 820 mb.							
Haze top approx 1006 ft. badly defined				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.				becoming thicker later.			
Cloud Str. 2/10 in S.E. approx 1000 ft.				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb				6.2 to 9.10 to approx 700 mb							
DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h				DARMSTADT 9h			
Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h				Breslau 07h			
Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h				Berlin 07h			
UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h				UTRECHT 8h							
COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h				COLOGNE 9h							
WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h				WARSAW 10h							
UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h				UTTI 8h							
1025.5	M.S.L.	—	—	1010	M.S.L.	—	—	1011	M.S.L.	—	—	1021	M.S.L.	—	—	1001	M.S.L.	—	—	1023.5	M.S.L.	—	—	986	M.S.L.	—	—	1005	M.S.L.	—	—	1005	M.S.L.	—	—												
983	880	53	85	966	1640	34	81	990	980	18	69	940	2300	18	63	963	1650	25	85	948	1970	23	81	948	1970	23	81	965	2001	9	65	1005	1021	9	75												
947	1860	50	95	855	3540	24	83	955	1640	16	78	900	3280	14	56	904	3280	14	95	844	4920	10	95	948	1970	23	81	948	1970	23	81	965	2001	9	65												
899	3280	44	—	795	6560	10	98	933	2300	14	67	847	4920	11	40	844	4920	11	85	835	5240	16	84	846	4920	9	45	842	4920	6	85	902	3280	1	75												
845	4920	38	—	754	6900	14	98	912	2950	15	52	810	6230	11	33	795	6560	18	85	800	6230	16	86	792	6560	3	45	788	6560	8	55	902	3280	1	75												
795	6560	35	35	734	8200	10	81	820	5570	7	37	711	9200	4	28	645	8200	12	85	650	11800	0	85	642	8200	1	45	642	8200	0	35	788	6560	8	55												
746	8200	30	95	700	9840	5	77	684	10,170	5	28	606	9840	4	28	698	9840	5	85	650	11800	0	85	642	8200	1	45	642	8200	0	35	788	6560	8	55												
701	9840	27	85	628	12460	3	85	623	12,460	1	26	556	11,140	1	26	610	12120	6	85	640	11800	0	85	642	8200	1	45	642	8200	0	35	788	6560	8	55												
618	13,120	22	95	542	14760	13	49	595	13,450	7	28	540	14,460	8	24	532	16400	18	45	593	13800	9	86	593	13800	9	86	593	13800	9	86	593	13800	9	86												
Inversion				521 16730 24 67				530 16,400 14 42				524 16,750 17 38				524 16,750 17 38				524 16,750 17 38				524 16,750 17 38				524 16,750 17 38				524 16,750 17 38				524 16,750 17 38											
Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb				Base press 1007 mb							
Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F				Wind of 140. 10 F							
Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb				Base press 876 mb							
Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F				Temp. 16°F							
Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F				Rise 5°F							
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Depth 854 ft.				Depth 854																																											



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 4th MARCH. 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Biggin Hill	Penbrook Dock	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	Aberdeen	Alder Grove	Valentia	Place
Time	06h.	07h.	07h.	07h.	06h.	07h.	10h.	07h.	07h.	08h.	09h.	07h.	07h.	07h.	08h.	08h.	07h.	07h.	10h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Surf.	275 10	270 7	320 7	280 8	325 15	Cal m	Cal m	270 10	265 5	35 3	290 14	270 5	Cal m	260 6	225 8	Cal m	280 8	220 9	170 12	Surf.
1000	330 16	320 23	325 17	345 19	330 19	320 18	295 13	305 20	310 13	280 12	280 20	295 23	295 13	290 28	290 16	260 7	308 19	255 15	290 22	1000
2000	355 29	335 28	340 20	335 16		35 29	295 12	315 22	335 25	290 13	290 18	305 21	300 19	305 29	280 19	275 12	325 21	295 15	215 17	2000
3000	360 25	340 26	340 23	335 17		350 27	310 11	315 24	330 23		290 17	300 17	290 19	325 23	320 15	275 13	330 16		225 23	3000
4000		350 23	335 23			345 35	290 14	320 23	335 23		290 14	295 22		325 23	335 10	290 15	20 9		220 23	4000
5000		345 20	325 23			345 38	285 20	320 26	345 21			300 27		320 22	345 6	285 20	5 5		225 24	5000
6000			320 24				290 19	320 23	325 20			300 23			295 17		340 7		240 25	6000
8000			300 21				300 22	325 22	325 21			300 28			290 22		315 11		255 23	8000
10000								(7,000)	(7,000)			290 33					290 13		Malta	10000
12000												07h Ci					07h AG		290 24	12000
Neph.												320 50					220 15		(11000)	Neph
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoebury Ness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	Bicester	Alder Grove	RAF	Place
Time	10h.	12h.	12h.	11h.	12h.	12h.	12h.	13h.	12h.	12h.	12h.	12h.	13h.	12h.	12h.	12h.	10h.	12h.	11h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Surf.	310 10	300 11	315 12	320 10	325 15	345 11	320 6	250 11	265 9	230 3	250 4	300 14	280 18	300 10	285 10	220 8	290 5	220 11	245 8	Surf.
1000	330 12	300 13	310 16	310 8	300 14	350 11	325 11	265 18	280 10	280 8	240 13	290 14	245 13	290 12	275 10	240 12	315 17	205 12	245 9	1000
2000	360 14	300 15	310 15	310 12		335 10	240 14	280 13	290 14	295 12	245 15	280 15	285 16	315 14	280 14	250 13	315 16	220 20	290 8	2000
3000	360 14	295 20	315 14	310 14		325 16		300 12	295 14	300 14		245 22		305 15	285 12	245 15	315 15	235 21		3000
4000	330 19		305 15	310 14		320 15		305 9	295 15	300 21		295 12		305 14	300 9	240 13	325 13	225 24	neph	4000
5000	325 14		305 11	305 13		325 19		295 11		275 14		295 20		310 14	280 12		330 15	235 21	10h AG	5000
6000	325 19		320 14	315 20		330 14				285 14		295 24		310 14	270 10		325 17	240 54	6000	
8000	315 14		315 18			12h. 1 mirror 335 16. (6000)						305 24		305 13	285 21		305 18	16h Ci. Valentia 350 15. 12h AG	8000	
10000	(7000)					13h Ci. (7000)								310 15	285 23		300 21	250 60	10000	
12000						300 45								315 16	300 14	16h AG	295 45	13h AG	12000	
Neph						300 45								325 36 (7000)	295 24 (7000)		270 30	280 27	250 55	Neph
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	RAF	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	RAF	RAF	Place
Time	14h.	14h.	14h.	14h.	14h.	14h.	14h.	16h.	14h.	14h.	16h.	14h.	14h.	14h.	16h.	14h.	16h.	14h.	18h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Surf.	275 9	335 5	280 3	280 10	Cal m	20 8	180 4	275 1	305 8	300 12	200 14	335 6	275 10	260 6	215 10	165 4		205 12	215 14	Surf.
1000	295 12	320 13	285 10	300 14	280 5	320 11	Cal m	280 13	295 9	300 13	210 23	275 8	285 12	260 14	225 15	195 24	300 38	205 28	225 29	1000
2000	305 14	300 13	290 13	310 12	300 13	310 14		310 15	285 14	295 10	220 22	260 13	265 14	240 20	235 18	200 29	310 37	215 34	230 27	2000
3000	315 15	295 12	300 13	315 14	285 18	315 15		320 15	290 14	290 13	230 23	240 14	275 14	305 11	245 15	210 33	310 57	230 31	245 24	3000
4000	315 14	295 11	315 13	315 11		295 15		310 15	300 16	290 16	245 24	265 16	280 15	300 14	245 15	230 33		245 30	250 25	4000
5000	315 14		320 11			285 13		305 20	300 14	290 14	255 24	295 23		290 11	235 20	230 34		250 32	255 26	5000
6000	315 19					280 14		310 18	305 14	305 13	265 25	295 21		265 19		240 36		245 36	260 31	6000
8000	325 19					290 33			320 29		275 31	300 21		280 23		235 35		255 35	255 33	8000
10000						320 49			320 31		(7000)	300 31						255 31	255 33	10000
12000	(7000)					14h Ci. (7000)			14h Ci. (7000)		14h Ci. (7000)	305 26		310 19				(7000)		12000
Neph						270 50					280 50	260 65		300 45			290 30			Neph

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 581

No. 5819

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t-t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e' is the saturation vapour pressure at temperature t'

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

TUESDAY, 5th MARCH

1935

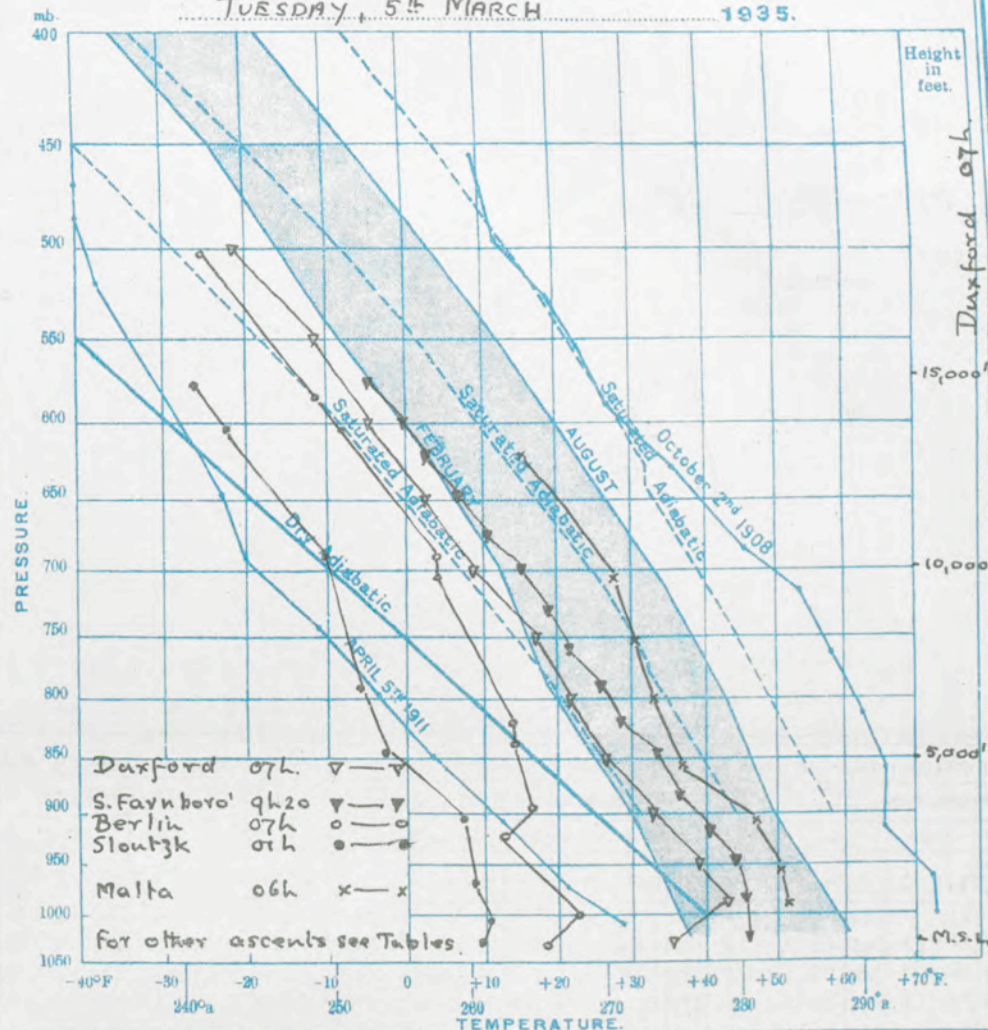
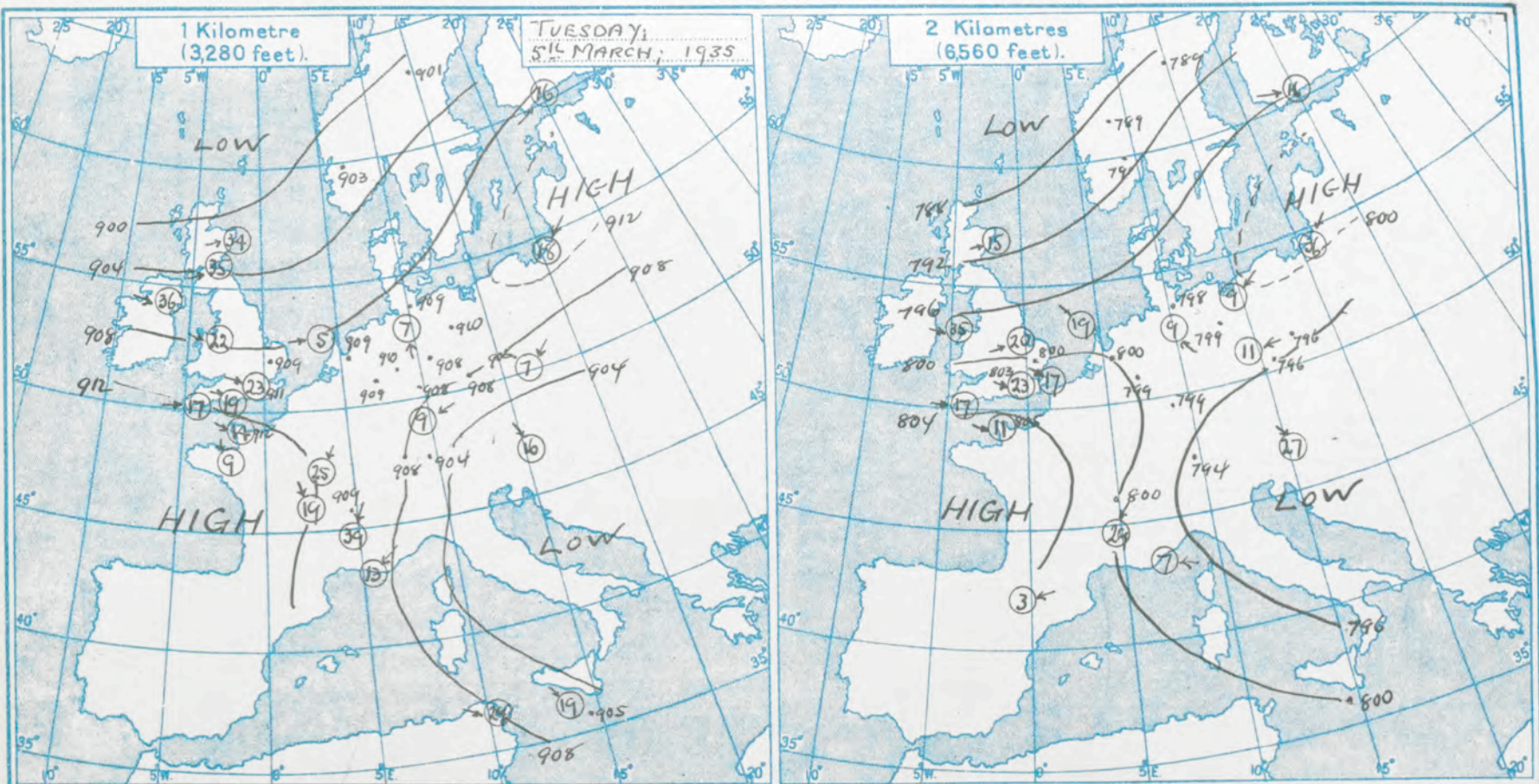


TABLE OF UPPER AIR TEMPERATURES RECORDED ON TUESDAY, 5th MARCH 1935

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.												
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%												
Duxford 07L				DUXFORD 13h20				Berlin (Aero) 07L				Hamburg 07L				Cologne 07L				Utrecht 08L				BICESTER 11h				S. Farnboro' 9h20															
1028.0	M.S.L.	—	—	1027	M.S.L.	—	—	1028	M.S.L.	—	—	1031	M.S.L.	—	—	1025	M.S.L.	—	—	1005	M.S.L.	—	—	1029	M.S.L.	—	—	1030	M.S.L.	—	—												
1024.5	100	35.2	98	1023.5	100	50.2	—	1028	184	18	76	1031	61	19	83	1025	157	32	93	1005	670	36	85	1029	270	46.7	76	1021.3	230	45	—												
986	1090	42.2	73	985	1090	46	—	1000	980	22	62	980	1310	19	70	937	2300	22	93	968	1650	32	85	980	1250	42.8	85	980	1310	44	—												
950	2090	38.7	78	950	2080	39.7	—	920	2950	12	68	951	2800	16	70	925	2620	22	95	909	3250	27	75	950	2110	40	92	940	2250	43	—												
900	3500	32.0	85	900	3510	33	—	895	3610	16	40	819	2930	13	72	850	4920	15	92	854	4920	21	85	900	3550	35	83	911	3250	40	—												
850	5000	26.5	100	850	5010	26.5	—	835	5240	13	36	888	3940	17	58	770	7560	7	90	800	6560	16	65	850	5060	20.2	82	879	4240	36.5	—												
800	6590	21.0	100	800	6580	22	100	821	5900	13	33	840	5240	14	48	745	8200	9	90	750	8200	10	45	800	6610	21.4	94	846	5210	33	—												
750	8250	17.0	—	750	8240	16	—	705	9530	3	28	745	8200	8	40	718	9200	7	76	702	9840	5	45	750	8300	16	—	816	6160	28	—												
700	9990	8.3	—	700	10000	9.5	—	690	10170	3	28	657	11480	0	38	618	12790	8	75	614	13120	-6	55	700	10050	8.4	—	785	7200	25	—												
650	11830	1.5	—	650	11860	2.6	—	581	14130	-12	27	604	13450	-8	37	572	14760	-16	71	532	16400	-23	70	650	11900	2.1	—	756	8150	21	—												
600	13800	-6.2	—	600	13850	-5	—	503	17720	-26	27	560	15430	-15	36	532	16400	-23	70	Inversion				650	11900	2.1	—	699	10160	14	—												
550	16950	-12.0	—	550	16950	-13	—	LYONS 9h...				CHERBOURG 7h...				Base press. 1028 mb				Base temp. 32°F				600	13890	4	—	673	11100	10	—												
500	18280	-22.0	—	500	18290	-22	—	909	3280	28	—	912	3280	34	—	805	6560	25	—	Amt. of inv. 4°F				500	16300	24	—	647	12100	6	—												
Inversion				400 to 900 to approx 700 mb tops to 650 mb.				500 6560 19				703 9840 9				716 13120 3				523 16400 -11				Depth. 361 ft.				St. G. and N. St. to H. and N.W. with high and low cloud joining up.				Flying level 7500 ft. 18°F. Aero cloud 610-598 mb, layer -40°F											
Screen 35.2°F				AST 510 620-600 mb top not reached.				S. FARNBORO' 15h50				Breslau 07L				Darmstadt 07L				Sloutzk 01L.				OSTERSUND 9h				G. 930-800 mb varying amounts 50-70.				G. St. not reached.				MUNICH 7h							
Thick haze to well defined top 910 mb.				1029.3 M.S.L.				1020.6 230				1019 420				1017 445				1026 134				963 1640				901 3280				967 162				954 470							
Fog & mist 5/10 in S.				982 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
Sta. 4/10 810-800 mb				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
AST 510 620-600 mb				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
AST 710 510 mb to top not reached.				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
Malta (Hal Fay) 06L				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
989 880 51				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
954 1260 50				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
905 3280 47				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
852 4920 37				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
800 6560 32				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
751 8200 30				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
706 9840 28				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
620 13120 15				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845 4420				784 6160				740 5200				740 5200				725 2450			
				952 1240 44				977 1310 19				979 1310 28				965 1640 8				903 3280				845																			



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. TUES 5th MARCH 1935.																																									
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Dranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place																					
Time	00h.	07h.	07h.	07h.	06h.	08h.	07h.	07h.	07h.	07h.	09h.	07h.	07h.	07h.	07h.	08h.	07h.	08h.	06h.	Time																					
Type																					Type																				
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																				
Surf.	235	7	240	5	230	3	240	8	210	10	210	9	235	4	230	9	215	6	60	2	260	12	245	4	245	6	170	3	255	10	230	15	220	5	230	10	Surf.				
1000	285	13	295	23	275	19	285	20	255	9	275	22	245	18	255	30	255	21	255	15	265	22	280	14	260	26	285	11	255	35	250	29	240	27	255	26	330	25	1000		
2000	265	11	275	22	285	25	275	22	265	12	275	23	245	19	265	28	270	27	265	17	275	25	280	20			265	20	265	15	260	38	250	33	265	33	340	21	2000		
3000	280	9	280	20	265	19	275	19	275	13	285	23	250	21	270	30	275	24	265	17	275	23	280	22			260	35	255	34	255	34	275	36	340	19	3000				
4000	240	9	285	20	280	19			285	17	280	21			265	28	270	18	260	17	285	23					260	33			255	27					4000				
5000	305	9	285	19	265	25			285	19	285	23			260	20	270	19	260	19	280	29									260	25					5000				
6000	310	14	290	17	275	26			295	17	10h G.				255	20	320	23	270	17	275	35									265	15					6000				
8000			310	15	285	23			315	16	290	50																			260	27					8000				
10000	Biggin Hill (7,000')																														260	25					10000				
12000	07h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	12000					
Neph	270	60	320	45	270	50	290	50	320	45	290	30	270	42	290	45															270	80	320	45			Neph				
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Felix-stowe	Dranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Valentia	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Malta	Place																						
Time	12h.	12h.	13h.	11h.	12h.	10h.	12h.	13h.	12h.	11h.	12h.	12h.	10h.	12h.	12h.	12h.	07h.	12h.	12h.	Time																					
Type	b	b			b	b	b	b		b	b	b	b	b	b	b	b	b	b	Type																					
Surf.	240	15	250	8	250	16	265	11	275	12	245	15	215	9	265	14	240	16	250	10	250	16	245	16	190	6	265	11	260	20	235	16	215	11	230	12	Surf.				
1000	245	15	265	13	255	11	270	14	265	14	260	24	255	14	265	14	235	15	255	21	255	18	285	14	235	10	265	25	265	24	280	28	260	24	240	16	1000				
2000	255	13	275	24	270	16	280	25	275	23	265	24	275	22	275	25	245	18	260	21	285	28	285	21	245	13	280	26	270	28	240	29	270	23	275	25	2000				
3000			265	20	275	21	280	26	280	21	275	35	270	18	285	25			270	24	280	29	285	20	240	14	275	23	275	35			270	18	285	30	330	7	3000		
4000			270	29	275	25	280	30			280	31	270	14	280	24			275	33	280	25			275	33	280	25	275	22	280	42	265	19	285	34			4000		
5000			275	24	280	30	285	34			280	31			275	41			280	31	275	41			280	22	285	43			270	19					5000				
6000			275	26	280	29	280	29			280	29			280	29			280	29	280	29			280	29	280	29	280	29	280	29	280	29			6000				
8000	Kew 10h. G.S.	240	30																													280	19					8000			
10000	230	60	285	24																												280	18					10000			
12000	10h. ACu	240	18	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	10h. ACu	12000					
Neph	260	42	320	45	290	54	240	30	240	45																					280	80	330	135			Neph				
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Milden-hall	Manston	Felix-stowe	Dranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Malta	Place																					
Time	14h.	14h.	14h.	14h.	14h.	14h.	14h.	16h.	14h.	14h.	16h.	17h.	14h.	14h.	16h.	14h.	18h.	14h.	16h.	Time																					
Type	b				b	b	b	b		b	b	b	b	b	b	b	b	b	b	Type																					
Surf.	250	14	270	10	280	14	250	13	260	10	260	12	260	4	260	9	275	13	275	13	250	10	290	15	275	19	290	10	290	15	315	4	230	16	260	5	Surf.				
1000	265	22	275	22	275	14	265	27	245	25	260	21	265	22	280	24	285	21	270	17	265	26	285	21	280	26	270	22	290	23	290	20	245	22	285	19	1000				
2000	275	24	275	23	275	25	280	27	240	28	265	19	260	25	285	33	290	27	300	17	270	23	275	30	295	28	275	34	290	37	290	19	260	25	285	25	2000				
3000	275	33	280	30	275	36	290	31	245	24					290	29	285	25			275	26	295	32	295	29	285	36	295	41	290	35	260	26	285	24	250	4	3000		
4000																					285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	4000
5000																					285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	5000
6000																					285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	6000
8000																					285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	8000
10000	Biggin Hill 14h. G.S.																				285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	10000
12000	10h. ACu																				285	32	280	23			295	31	285	35	295	31	300	37	295	34	260	25	285	43	12000
Neph	330	72																			320	48																Neph			

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 5820

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

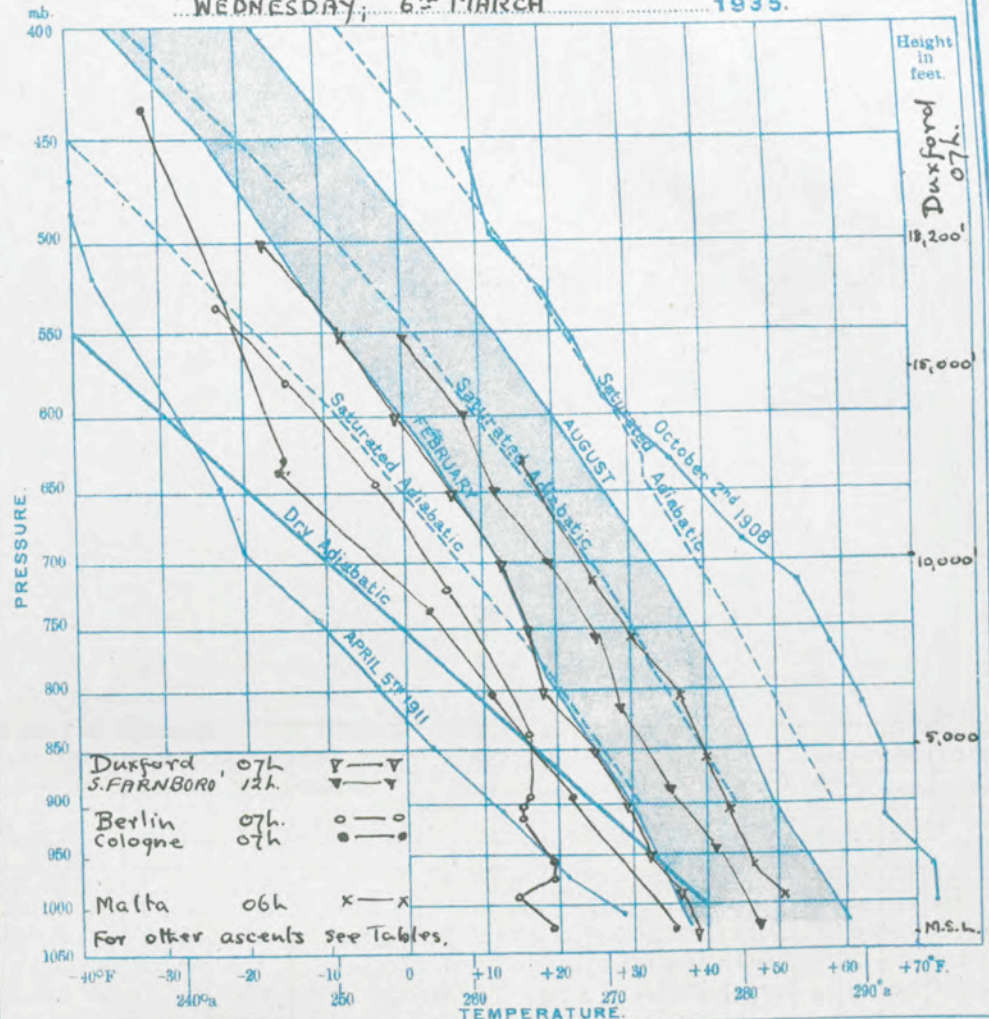
d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

WEDNESDAY, 6th MARCH 1935.TABLE OF UPPER AIR TEMPERATURES RECORDED ON WEDNESDAY, 6th MARCH 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity								
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%								
Duxford 07h				S. FARNBORO 12h				Hamburg 07h				Berlin (Aero) 07h				Cologne 07h				CAZAU 9h				LIST 9h.				S. FARNBORO 14h 20											
1030.0	M.S.L.	—	—	1031.1	M.S.L.	—	—	1020	61	24	98	1017	184	19	80	1019	157	36	98	913	3280	36	—	961	20	10	75	1022.8	230	40	—								
1026.5	100	38.6	95	1022.4	130	44	—	993	660	23	92	990	660	14	85	893	3610	22	98	805	6560	26	—	900	3200	9	85	984	1300	47	—								
984	1080	36.5	100	944	2400	41	—	964	1310	27	98	964	1310	19	79	800	6230	11	59	805	6560	26	—	843	4820	10	85	950	2250	44	—								
950	2000	32.0	100	877	4350	35	—	886	3610	23	98	882	1640	16	74	735	8540	3	52	704	9840	12	—	784	6400	10	85	915	3250	34	—								
900	3410	29.3	100	814	6290	28	—	803	6230	17	98	809	2950	18	87	629	12130	15	70	740	8100	10	75	740	8100	10	75	882	4200	37	—								
850	4910	24.5	—	754	8270	25	—	736	8200	9	94	900	3280	15	81	624	12460	16	71	692	9780	10	75	692	9780	10	75	850	5200	32	—								
800	6460	17.5	—	698	10270	19	—	673	10500	2	90	890	3610	16	75	430	16090	32	71	607	12490	8	75	607	12490	8	75	819	6190	31	—								
750	8110	16.5	—	644	12310	12	—	622	12460	8	90	837	5240	16	60	—	—	—	—	—	—	—	—	—	—	—	—	788	7200	29	—								
700	9890	11.7	—	597	14180	7	—	577	14130	15	83	716	9200	8	50	—	—	—	—	—	—	—	—	—	—	—	759	8180	27	—									
650	11750	6.0	—	550	16220	0	—	553	15430	18	73	643	11800	4	47	—	—	—	—	—	—	—	—	—	—	—	730	9180	23	—									
600	13740	1.0	—	—	—	—	—	—	—	—	—	578	14460	15	49	—	—	—	—	—	—	—	—	—	—	—	702	10150	19	—									
550	15880	8.2	—	—	—	—	—	—	—	—	—	531	16400	23	54	—	—	—	—	—	—	—	—	—	—	—	675	11180	17	—									
500	18200	17.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	650	12120	14	—									
Cloud Neph. 10/10				—				—				—				—				—				—				—				—				—			
1000 ft. to top not reached. Rain falling at base.				—				—				—				—				—				—				—				—				—			
Malta (Halfar) 06h				LYONS 12h				Breslau 07h				Munich 07h				Utrecht 08h				FRIEDRICHSHAFEN 9h.				CHATEAUROUX 9h.				—											
992	880	51	65	1081.9	M.S.L.	—	—	1014	420	9	88	965	1662	30	69	1002	1670	39	85	1029	M.S.L.	—	—	1083.5	M.S.L.	—	—	—	—	—	—								
956	1860	47	85	1006.4	653	34	85	988	880	13	79	928	2620	27	68	965	1670	36	85	950	1970	30	80	914	3280	34	—	—	—	—	—								
901	3280	43	75	960	1260	34	—	907	3280	9	78	920	2950	27	60	907	3280	28	85	835	5240	16	80	806	6560	25	—	—	—	—	—								
853	4920	40	55	927	2850	30	—	876	3940	10	63	848	4920	18	63	851	4920	23	85	820	5900	18	72	708	9840	16	—	—	—	—	—								
801	6360	37	75	914	3190	29	—	848	4920	13	49	798	6560	10	79	798	6560	18	75	770	7860	10	94	624	13120	5	—	—	—	—	—								
752	8200	30	95	892	3500	28	—	782	6900	7	43	765	7560	9	72	740	8200	10	75	760	7860	10	96	—	—	—	—	—	—	—	—								
707	9840	25	85	870	4500	27	—	766	7560	7	41	741	8540	10	72	701	9840	3	65	698	9840	3	98	—	—	—	—	—	—	—	—								
623	13120	16	—	844	5150	25	—	693	9840	2	38	691	10170	5	80	612	13120	8	55	656	10500	2	98	—	—	—	—	—	—	—	—								
Inversion				824	5760	24	—	—	—	—	—	640	12130	1	82	—	—	—	—	628	12790	6	97	—	—	—	—	—	—	—	—	—							
Base press: 1016 mb				809	6390	23	—	—	—	—	—	577	14130	13	82	Inversion				—				—				—											
Amt. of inv: 2°F				784	7010	21	—	—	—	—	—	538	16090	19	81	Base press: 1024 mb				—				—				—											
—				750	8310	17	—	—	—	—	—	520	17060	24	79	Base temp: 36°F				—				—				—											
—				713	9590	12	—	—	—	—	—	—	—	—	—	Amt. of inv: 4°F				—				—				—											
—				677	10900	9	—	—	—	—	—	—	—	—	—	Depth: 835 ft.				—				—				—											
—				642	12210	3	—	—	—	—	—	—	—	—	—	—				—				—				—											
—				610	13530	0	—	—	—	—	—	—	—	—	—	—				—				—				—											
—				578	14850	6	—	—	—	—	—	—	—	—	—	—				—				—				—											

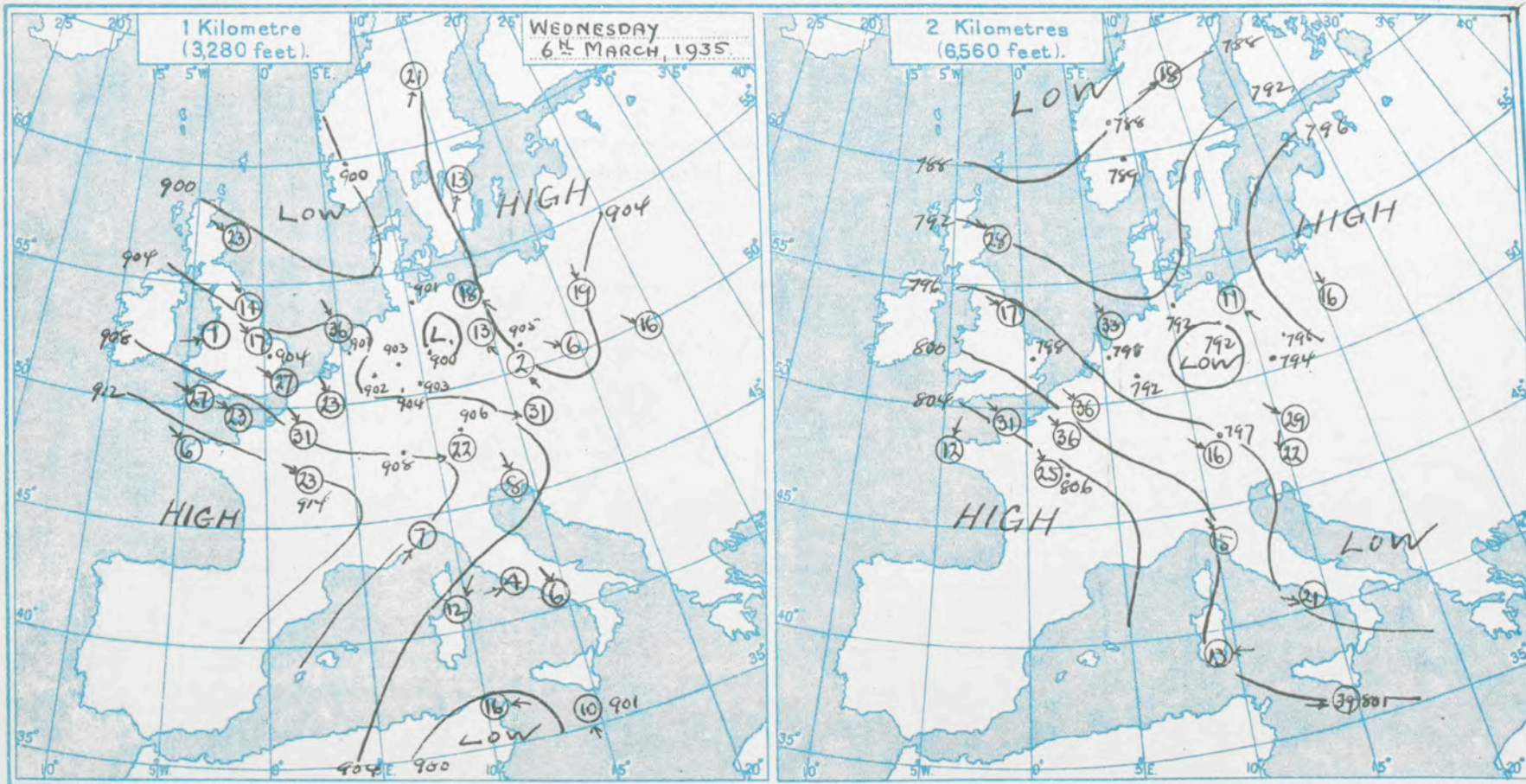
Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

G. C. SIMPSON, O.B. D.Sc., F.R.S., Director.

Meteorological Office, Air Ministry,
Kingway, London, W.C.2.

G. C. SIMPSON, C.B., D.Sc., F.R.S.,
Director.

Issued on THURSDAY, 7th MARCH 1935.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. WED: 6th MARCH, 1935.

Place	Croydon	South Farnboro	Brycham New Farn	Mildenhall	Manslow	Croydon	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Pembroke Dock	Sealand	Manston	Catterick	Leuchars	Valentia	Aberdeen	Alder-grove	Malta	Place																					
Time	00h.	10h.	08h.	07h.	06h.	06h.	07h.	07h.	10h.	07h.	10h.	07h.	10h.	07h.	07h.	10h.	07h.	08h.	06h.	Time																					
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet																					
Surf.	275	12	260	4	300	10	285	5	315	15	270	6	290	6	260	8	315	3	250	3	315	15	170	2	305	15	290	3	245	6	210	16	260	10	210	6	Surf.				
1000	310	23	295	7	330	19	320	19	335	21	255	15	325	20	295	15	325	4	295	21	335	23	45	2	320	18	305	17	285	10	220	11	300	31	260	15	1000				
2000	325	31	15	7	340	20	330	13	335	23			325	24	345	17	15	3	300	28	345	29			340	21	335	15	290	11	220	11	310	27			2000				
3000	325	27	30	17	345	17	335	14	320	27			335	27	335	17	15	16	305	27	340	30	265	1	350	18	335	14	310	13			320	23			3000				
4000	330	25	360	19	325	24	335	22	320	37			330	29									(al-3000)				330	14	310	17			325	24			4000				
5000	330	32	320	21																								345	17					335	22			5000			
6000																												325	35					330	28			6000			
8000																																							8000		
10000																																							10000		
12000																																							12000		
Neph.																																							Neph.		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Mildenhall	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Malta	Alder-grove	Worthy Down	Place																					
Time	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	Time																					
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																					
Surf.	360	4	Caln	90	1	105	3	300	12	340	10	290	9	350	4	340	8	335	12	285	8	330	6			360	5	235	4	235	10			270	10	Caln	Surf.				
1000	350	9	335	3	105	6	285	4	320	14	350	13	315	14	355	9	325	8	330	14	320	14	310	8			325	11	265	9	265	12	180	3	265	19	85	4	1000		
2000	340	11	360	5			265	11	350	14	350	14	340	16	350	10	320	8	335	26	330	24	335	11			330	4	265	13	290	22	180	3	270	24	35	11	2000		
3000	345	13	(1500)				265	20					345	19	325	11					325	24	335	14			320	14			285	24	190	3	270	10	360	10	3000		
4000							350	26																			320	28			295	20			275	15			4000		
5000																											340	31					295	19			275	15			5000
6000																											340	24					275	25			275	15			6000
8000																											335	27					335	28			335	28			8000
10000																											335	27					335	28			335	28			10000
12000																																									12000
Neph.																																									Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Mildenhall	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Malta	Alder-grove	Valentia	Place																					
Time	14h.	14h.	14h.	14h.	14h.	14h.	14h.	16h.	14h.	14h.	14h.	14h.	14h.	16h.	16h.	16h.	16h.	14h.	18h.	Time																					
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																					
Surf.	20	6	350	1	10	5	20	10	355	5	25	6	65	3	50	2	345	8	320	15	290	5	320	9	330	8	310	3	305	8	250	4			275	3	160	12	Surf.		
1000	15	11	5	11	15	12	15	14	5	15	5	11	5	15	15	6	355	11	350	18	315	20	315	15	315	10	315	14	275	11	275	13	30	21	285	11	165	15	1000		
2000	15	19	10	16	15	13	10	21	360	14	360	11	5	16	35	8	10	14	5	14	315	16	320	14			330	15	240	22	240	15	40	9	260	12	140	16	2000		
3000	15	21			5	13	15	19	355	18	5	15	5	16	145	16	10	20	10	16	310	14	325	23			340	13	315	21	245	16	60	13	270	11			3000		
4000																													325	21	310	11			265	10			4000		
5000																													325	19	325	13							5000		
6000																																									6000
8000																																									8000
10000																																									10000
12000																																									12000
Neph.																																									Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,821.

UPPER AIR TEMPERATURES.

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The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

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$$e'' = e' - 0.37 (t-t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrl.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

THURSDAY, 4TH MARCH, 1935.

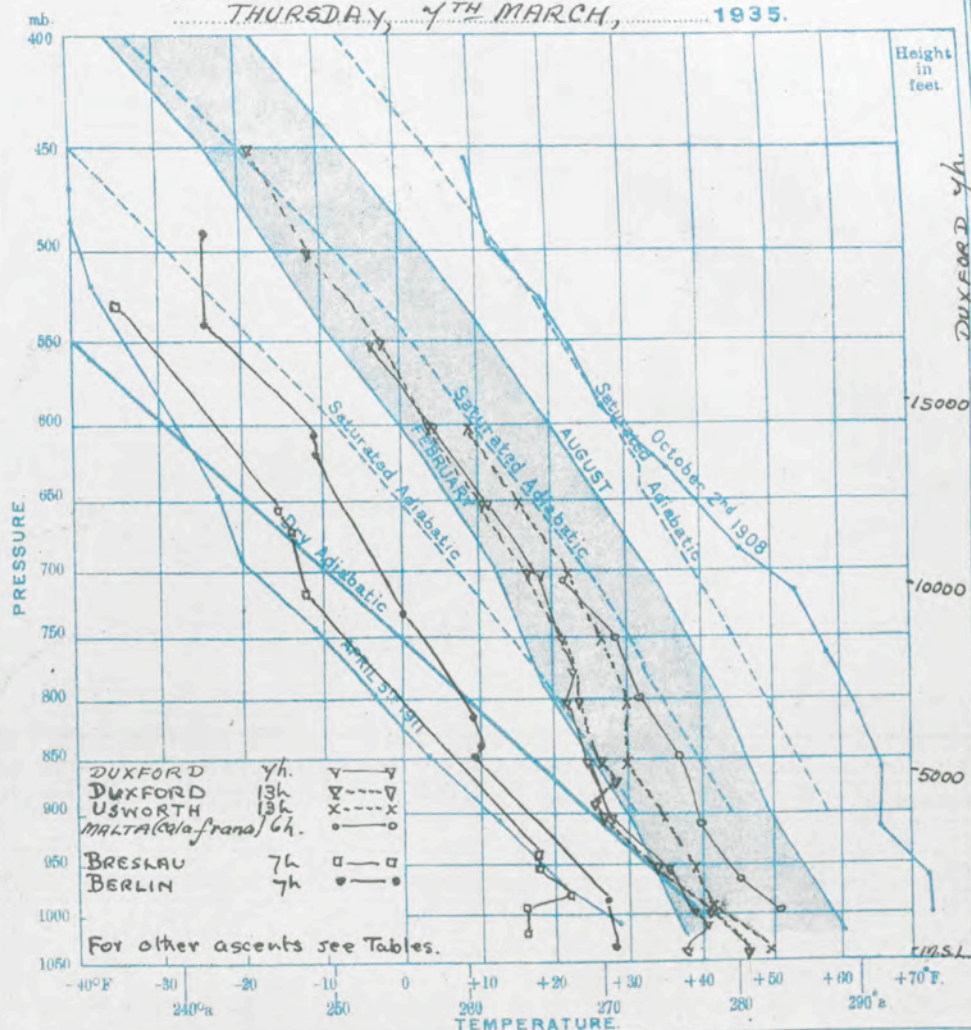
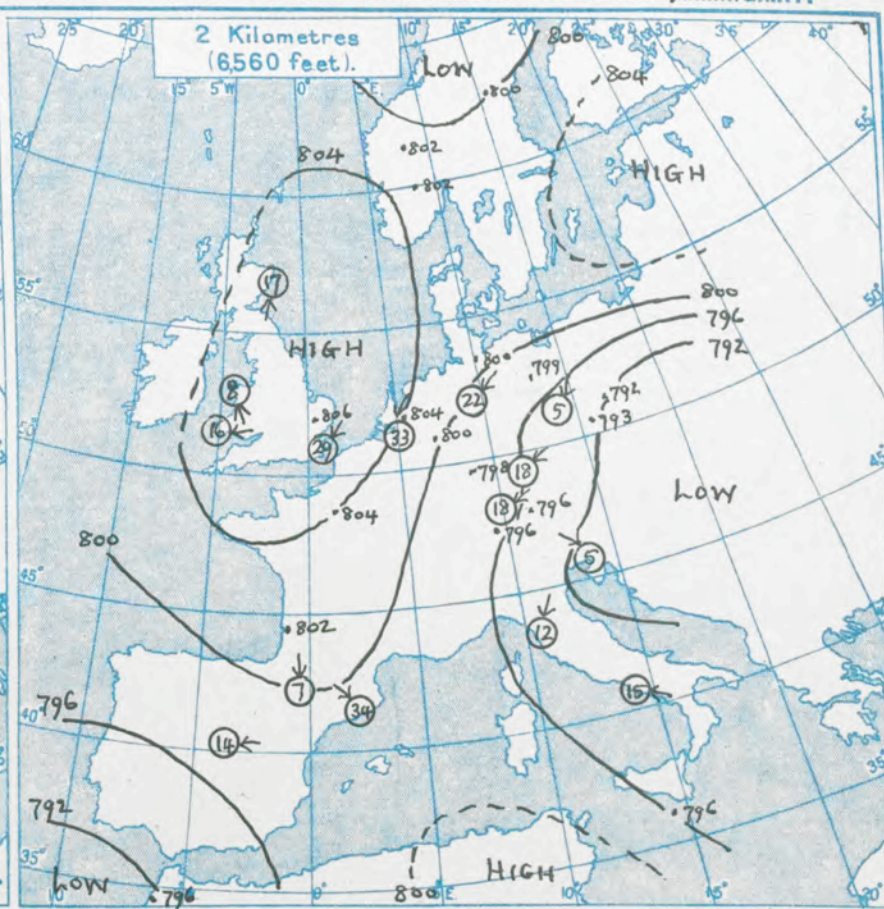
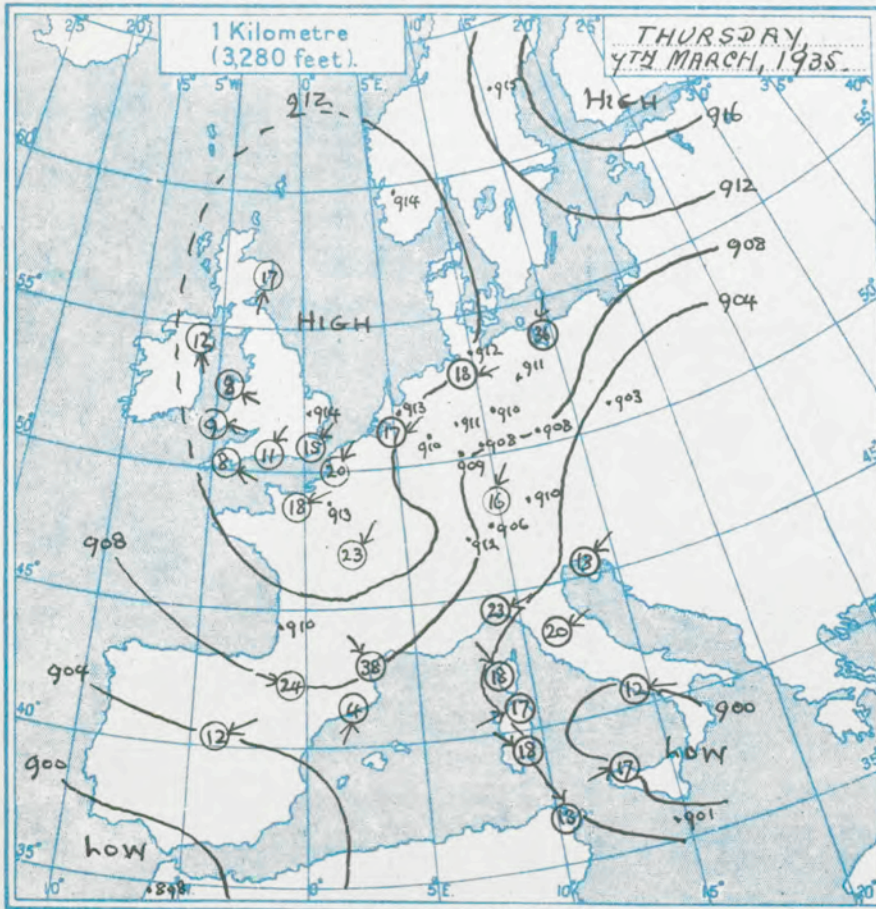


TABLE OF UPPER AIR TEMPERATURES RECORDED ON THURSDAY, 4TH MARCH, 1935.

[illegible]



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 4TH MARCH, 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Shoeburyness	Cranwell	Upper Heyford	Plymouth	Upper Heyford	Holyhead	Bircham Newton	Catterick	Leuchars	Renfrew	Worthy Down	Alder Grove	Valentia	Place
Time	6h.	7h.	7h.	7h.	7h.	7h.	9h.	7h.	7h.	7h.	9h.	8h.	8h.	7h.	10h.	10h.	6h.	7h.	6h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	25 8	120 1	60 1	70 2	10 4	Cal'm	40 10	Cal'm	110 5	40 3	105 3	Cal'm	90 5	Cal'm	55 3	200 8	45 3	140 8		Surf.
1000	55 8	85 9	95 9	115 9	30 13	55 50	40 10	100 7	65 4	85 4	120 9	135 4	70 10	Cal'm	140 9	190 19	55 11	145 15	40 14	1000
2000	50 15	65 12	100 9	65 9	35 16		55 13	45 4	195 3	95 4	125 4	110 9	45 10		115 11	195 14	45 13	145 18	60 15	2000
3000	50 14	50 14		45 11			60 14		50 9	105 8	100 6	125 8	40 11		100 9	205 14	45 15	145 21		3000
4000							45 14				55 13	125 11	20 13		110 13	195 15	40 14	145 19		4000
5000							40 21				35 22	145 13	35 18		110 15	200 18	20 25			5000
6000							40 16				25 23	165 8	40 19		90 16	200 14	20 24			6000
8000							9h 1 mirror 40 38 (9000)					55 23	45 20		75 17		30 24			8000
10000							40 38 (9000)					55 23	35 32		65 19		35 29 (7000)			10000
12000							40 38 (9000)	10h 61				55 23								12000
Neph.							40 38 (9000)	20 50				60 35 (7000)								Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Worthy Down	Alder Grove	Valentia	Place
Time	09h.	12h.	12h.	11h.	12h.	12h.	12h.	13h.	12h.	11h.	12h.	12h.	12h.	12h.	11h.	13h.	09h.	12h.	13h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Surf.	95 8	65 3	115 4	125 12	35 12	95 12	50 12	125 4	85 4	85 10	5 3	145 6	160 8	160 1	360 1	Cal'm	85 1	160 10	160 13	Surf.
1000	75 15	100 6	105 9	110 13	35 13	65 11	60 15	100 7	60 5	85 13	100 7	160 11	140 7	130 6	215 7	185 5	90 8	165 18	145 18	1000
2000	75 14	165 5	110 16	85 12	55 11	50 10	50 12	90 7	80 11	100 11	135 10	105 9	115 5	160 6	195 10	200 8	90 11	185 15	150 44	2000
3000	45 15	65 9	100 7	65 13		35 13	55 9	80 10	80 11	105 15	160 14	95 9	55 6	75 4	210 9	195 11	60 15		165 46	3000
4000	30 21	155 13	45 7	65 18		50 19					110 11		30 5	25 4	200 12	175 8	50 18		165 35	4000
5000	30 28	(at 3500)		50 25		55 27					100 16				195 13	155 7	30 25			5000
6000	30 13			50 32		60 25					95 15				85 9	105 9				6000
8000	35 24										130 15					110 7				8000
10000	40 43										95 9					80 6				10000
12000	25 50								11h 40 AG							45 18 (20,000)				12000
Neph.									360 63											Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Alder Grove	Malta	Valentia	Place
Time	17h.	17h.	17h.	17h.	17h.	15h.	17h.	16h.	17h.	17h.	17h.	17h.	17h.	17h.	16h.	17h.	17h.	17h.	18h.	Time
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type
Surf.	90 12	75 5	80 6	130 8	55 10	90 10	20 10	85 2	60 6	110 10	Cal'm	125 5	170 5	Cal'm	160 3	250 6	140 10		145 4	Surf.
1000	70 11	60 12	80 14	125 11	60 13	45 9	45 15	80 8	70 11	105 16	195 4	145 12	145 7	95 5	185 12	190 9	155 15	30 5	165 12	1000
2000	60 14	65 12	75 15	75 9	55 17	40 13	45 15	50 5	70 12	110 14	155 7	155 11	130 17	75 5	210 9	185 13	160 20		160 44	2000
3000	45 15	60 15	75 11	45 14	50 17	40 14	40 15	55 9	65 10	95 15	165 7	165 7	115 11	100 5	235 8	175 13	175 19	360 11	155 40	3000
4000	65 15	45 11	55 9	40 16		35 11		50 7	60 9	75 19	145 10			45 5		170 14	175 18		100 10	4000
5000	55 19					40 9		65 10	65 11		130 10			35 11			160 18	340 17		5000
6000	55 23					80 19		65 11	65 13					50 14			145 11			6000
8000	40 34					55 19		40 17	95 19					30 13						8000
10000	50 47					(7,000)		35 35						55 12						10000
12000	(9,000)													45 27						12000
Neph.																				Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,822.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

FRIDAY, 8TH MARCH, 1935

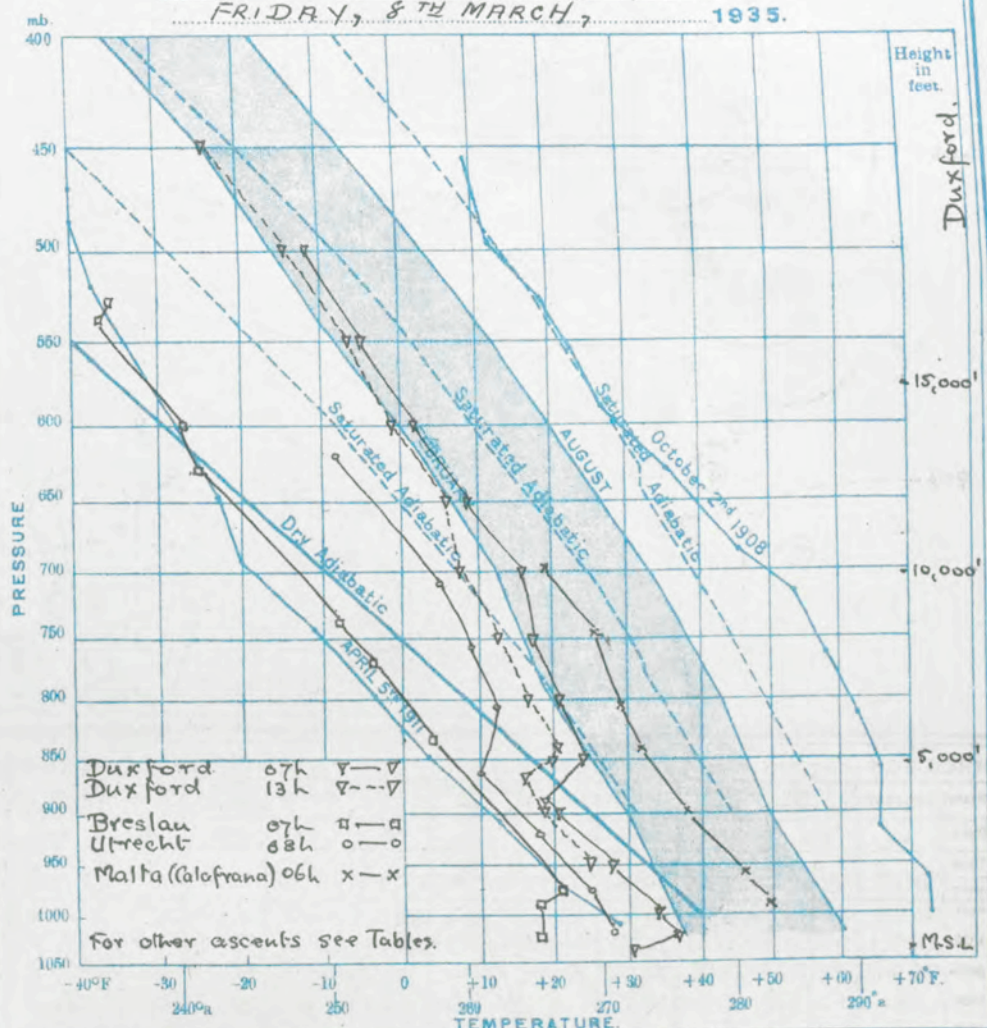


TABLE OF UPPER AIR TEMPERATURES RECORDED ON FRIDAY, 8TH MARCH, 1935

[illegible]

Issued on SATURDAY, 9TH MARCH, 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Biggan Hill	Widened hall	Remondy	Malton	Place																			
Time	6h.	8h.	yh.	yh.	6h.	yh.	yh.	yh.	yh.	yh.	yh.	yh.	yh.	yh.	yh.	6h.	yh.	10h.	yh.	Time																			
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																		
Surf.	60	3	60	4	40	1	10	4	65	8	65	16	80	14	30	2	30	8	25	5	Caltn	140	2	55	9	Caltn	240	1	Caltn	65	5	110	15	110	15	300	25	1000	
1000	40	21	60	14	35	15	45	21	65	13	65	18	40	19	45	8	45	14	90	14	150	7	125	13	120	11	80	6	135	13	60	19	90	24	110	14	300	26	2000
2000	40	23	40	23	45	15	40	25	40	14	40	16	40	18	85	10	45	13	95	14	140	5	105	13	105	13	95	8	80	11	65	25	40	20	110	15	300	27	3000
3000			65	16			65	25			45	18							105	14	120	3	85	13			80	4	90	5	60	23	60	23	55	16	240	23	4000
4000			(2700)																100	14			45	15			25	1	50	24	55	31	55	14			4000		
5000																							60	15			90	1	50	24	60	19					5000		
6000																							65	14			180	1	50	25							6000		
8000																										90	13									8000			
10000																										85	16									10000			
12000																										(11000)											12000		
Neph.																											80	54									230	120	Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Bicester	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Birkenhead	Leuchars	Renfrew	Aberdeen	Alder Grove	Valentia	Place																			
Time	12h.	13h.	12h.	12h.	12h.	9h.	12h.	13h.	12h.	11h.	12h.	12h.	12h.	8h.	12h.	13h.	11h.	12h.	13h.	Time																			
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																			
Surf.	70	15	70	12	45	8	70	14	80	15	80	6	55	20	90	11	65	12	60	12	95	8	115	9	105	10	70	5	105	14	60	13	145	12	135	10	140	17	Surf.
1000	85	14	75	21	65	27	85	17	75	18	90	11	60	25	95	27	70	20	75	17	105	9	115	9	105	9	95	17	135	18	105	13	175	15	130	17	140	14	1000
2000	75	17	65	19	70	17	65	19	75	27	65	21	55	21	9																								

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION. No. 5,823.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

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$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

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All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

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On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

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DIAGRAM OF UPPER AIR TEMPERATURES.

SATURDAY, 9TH MARCH, 1935.

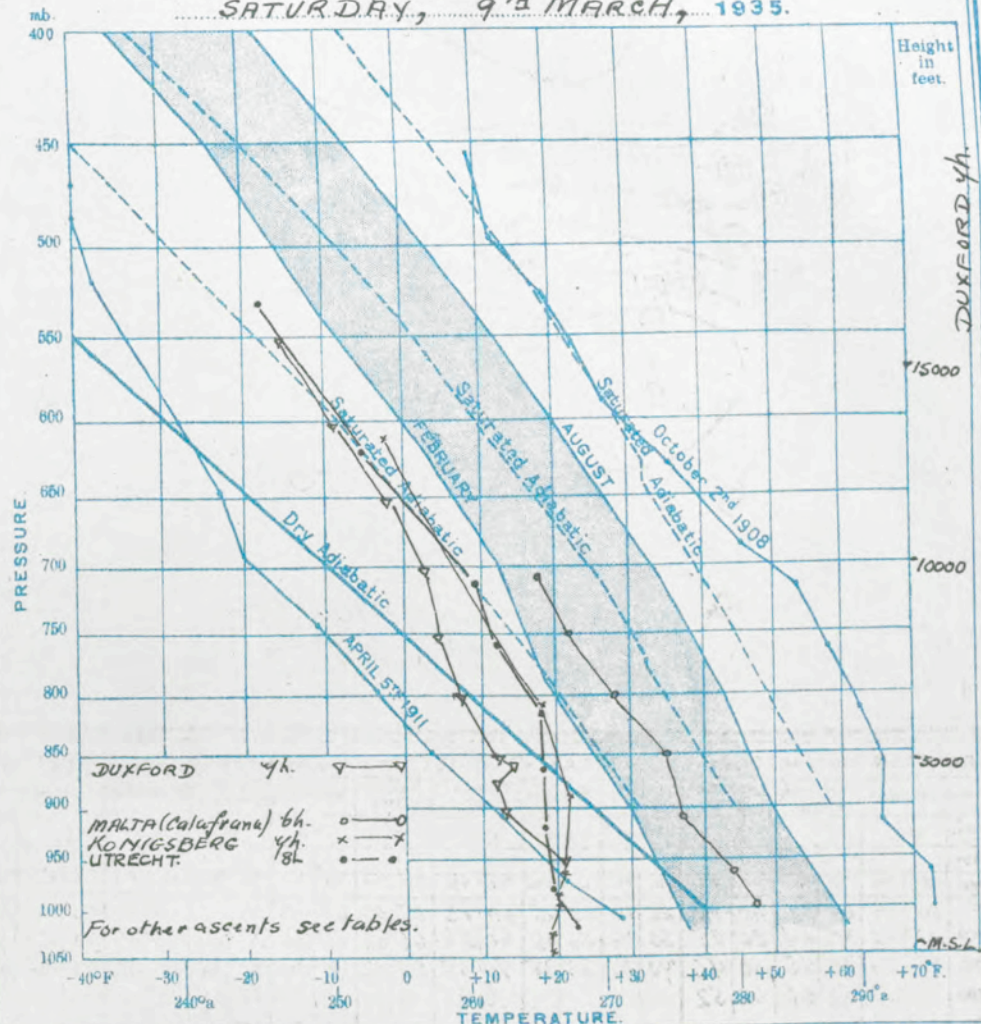
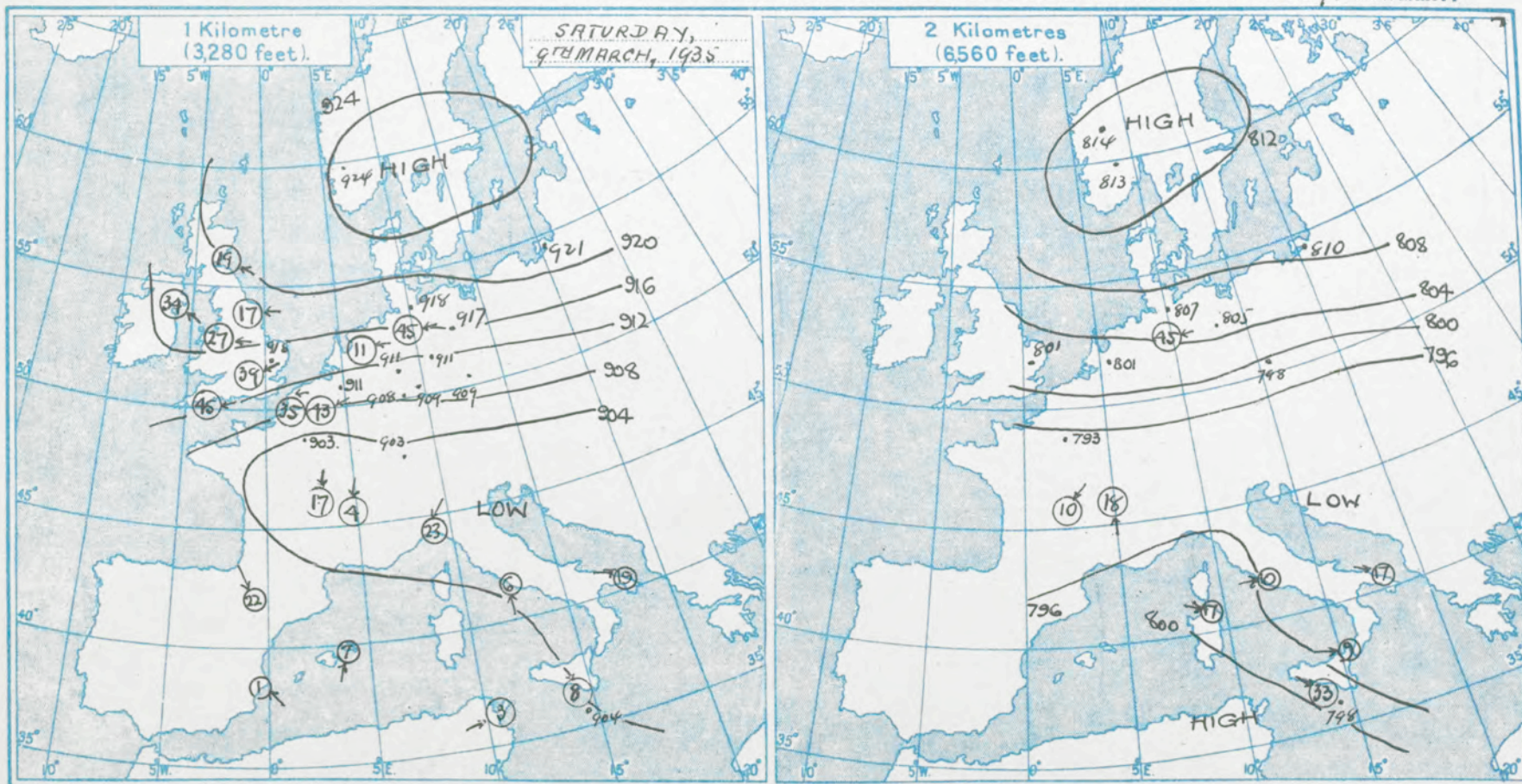


TABLE OF UPPER AIR TEMPERATURES RECORDED ON SATURDAY, 9TH MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD 7h.				MALTA (CALAFRA) 6h.				KÖNIGSBERG 7h.				SLOUTZK 02h.				FRIEDRICHSHAFEN 10h.				LINDENBERG 7h.				DARMSTADT 7h.							
103.9	M.S.L.	—	—	99.7	660	47	65	104.4	92	19	84	103.5	134	20	84	102.4	M.S.L.	—	—	104.1	M.S.L.	—	—	103.9	M.S.L.	—	—				
103.5	100	29	95	99.6	1640	44	75	102.5	330	19	73	101.0	660	18.5	—	97.7	1312	15	90	102.4	348	16	86	101.9	445	25	69				
99.6	1060	26	77	99.4	3280	37	85	99.5	1310	20	57	98.2	1310	18	—	93.8	2300	9	88	98.0	1640	16	72	95.0	2300	18	46				
95.0	2280	20.5	93	99.4	4920	35	65	99.0	1640	20	49	97.3	1640	18	—	88.6	3610	12	79	94.0	2620	12	72	88.0	4270	10	52				
90.0	3670	18	—	99.4	6560	28	85	96.0	2300	21	42	91.3	3280	19	—	87.1	4270	14	58	91.5	3280	16	65	86.1	4600	11	52				
85.0	5100	12	—	99.4	8200	22	75	88.0	4600	22	33	85.7	4920	18	—	86.0	4920	12	50	88.0	3940	17	60	84.0	5240	14	48				
80.0	6620	7.5	—	99.4	9840	17	—	80.5	6900	18	30	80.3	6560	15	—	84.0	5240	12	49	85.8	4920	16	57	80.3	5900	10	48				
75.0	8240	4	—	—	—	—	—	61.0	13450	-3	28	70.5	9840	7	—	77.0	7230	5	48	74.2	8540	10	42	78.5	6800	10	50				
70.0	9860	2.5	—	—	—	—	—	—	—	—	—	61.9	13120	1	—	67.0	10830	-9	48	65.5	11480	0	36	75.6	7860	7	51				
65.0	11800	-2.5	—	—	—	—	—	—	—	—	—	54.1	16400	-9	—	59.0	13800	-18	48	—	—	—	—	73.7	8540	7	52				
60.0	13750	-4.5	—	—	—	—	—	—	—	—	—	47.0	19660	-22	—	57.1	14460	-18	48	—	—	—	—	66.4	11140	-3	59				
55.0	15830	-7.5	—	—	—	—	—	—	—	—	—	40.9	23000	-23	—	—	—	—	—	—	—	—	—	58.6	14130	-17	63				
INVERSION -																															
87.5 mb. 12°F.																															
88.0 mb. 14°F.																															
8.6 to 8.90-8.75 mb.																															
Thick haze to haze																															
Top in cloud.																															
HAMBURG 7h.				UTRECHT 8h.				BERLIN 7h.				TRAPPES 8h.				CHATEAUXROUX 9h.				MUNICH 7h.				BRESLAU 8h.							
104.1	M.S.L.	—	—	103.7	M.S.L.	—	—	103.4	134	20	70	90.3	3280	13	—	90.0	3280	10	—	103.2	M.S.L.	—	—	103.9	M.S.L.	—	—				
100.2	980	23	66	101.2	670	23	75	99.0	1310	18	71	79.3	6560	-1	—	78.8	6560	-1	—	96.6	1667	18	85	102.3	420	20	83				
96.2	1470	18	40	91.3	3280	18	55	96.0	1470	14	72	60.2	9840	-9	—	68.4	3640	-15	—	90.1	3280	10	92	91.3	3280	9	50				
92.7	2450	13	45	85.6	4920	18	55	93.4	2450	15	72	60.3	13120	-20	—	59.5	13120	-23	—	87.5	4270	10	91	88.5	3940	16	74				
89.2	3440	18	61	80.3	6560	18	45	85.4	4920	18	70	52.3	16400	-25	—	—	—	—	—	83.9	5240	10	74	83.6	5570	14	63				
84.8	5240	15	57	75.2	8200	12	45	76.7	7860	14	58	45.5	19680	-33	—	—	—	—	—	76.3	7560	5	55	81.2	6230	16	60				
82.4	5900	17	50	70.5	9840	9	45	65.5	11800	3	48	39.3	23000	-41	—	—	—	—	—	72.3	8850	1	57	77.8	7230	14	46				
77.6	1560	11	54	61.7	13120	-6	45	56.0	15480	-11	41	34.0	26300	-47	—	—	—	—	—	69.6	9840	-2	59	71.7	9200	8	43				
73.5	8850	11	44	53.8	16400	-18	45	50.1	18050	-24	43	—	—	—	—	—	—	—	—	62.8	12460	-11	77	68.5	1070	7	43				
68.1	10880	5	44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60.8	13120	-11	78	60.0	13800	9	33				
62.1	13120	-3	45	Inver. 947 mb.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60.1	13450	-9	74	52.5	17000	-22	39				
57.9	14760	-10	44	Base temp. 18°	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54.6	15700	-18	66	—	—	—	—				
54.1	16400	-18	44	Amt. inver 2°	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54.0	16090	-18	64	—	—	—	—				
				Thickness 870 ft.																											



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 9th MARCH, 1935.

Place	Croydon	P. m. b. r. a. t. e. D O C K	Boscombe Down	Calshot	Manston	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Malta	Place
Time	0h.	b.	5h.	7h.	6h.	8h.	7h.	7h.	8h.	7h.	9h.	7h.	7h.	4h.	7h.	8h.	10h.	7h.		Time
Type																				Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	80 19	65 22	40 18	25 16	55 25	60 13	65 30	65 10	40 15	40 20	95 26	105 9	80 10	80 3	145 8	115 10	105 20	115 15		Surf.
1000	80 15	45 24	35 25	50 19	55 35	65 26	65 35	85 26	55 28	60 29	95 27	95 22	85 23	80 15	125 15	130 15	110 30	120 22		1000
2000	75 24	45 25	50 40	40 16	55 35	70 35	65 32	90 34	60 46	70 36	95 35	100 24	85 25	90 14	130 21	100 20	115 32	120 34		2000
3000		85 31	65 52			70 43			65 39	75 45		95 24		90 14	120 19	100 21	135 23	120 34	350 8	3000
4000									70 46			90 24				105 21	130 30			4000
5000																			350 14	5000
6000																				6000
8000																			310 33 (7000')	8000
10000																				10000
12000																				12000
Neph.																				Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Birchington	Felixstowe	Mildenhall	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Manston	Alder-grove	Malta	Place
Time	10h.	12h.	12h.	12h.	12h.	8h.	12h.	17h.	13h.	12h.	12h.	12h.	12h.	12h.	12h.	13h.	10h.	12h.	17h.	Time
Type	b.	b.				b.	b.			b.	b.	b.		b.	b.	b.		b.		Type
Surf.	55 24	60 23	50 19	55 28	50 30	45 25	50 34	85 25	60 20	65 25	80 26	90 16	90 28	125 10	120 10	75 9	65 32	115 13		Surf.
1000	65 33	55 23	55 29	55 36	80 29	65 23	60 44	70 31	65 33	50 33	85 30	80 23	80 34	80 16	110 22	85 22	65 37	105 23		1000
2000		60 27	60 29		75 37	75 44	60 56	70 44	60 36	50 38		75 27		85 21	110 19	90 23	65 44	110 23		2000
3000		(1840')	60 48			70 35	65 56		60 50	55 51		75 29		75 32	100 18	90 33			80 8	3000
4000									60 45			75 44		70 34						4000
5000																			40 7	5000
6000																			36 8	6000
8000																				8000
10000																				10000
12000																				12000
Neph.																				Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place
Time	17h.	17h.	17h.	17h.							17h.		17h.		16h.	18h.	12h.		18h.	Time
Type	b.	b.									b.				b.	b.				Type
Surf.	65 20	65 23	60 20	65 30							80 25		90 30		90 10	70 17	120 15		90 19	Surf.
1000	70 19	65 26	60 31	60 29							80 28		80 27		90 21	80 30	120 19		100 19	1000
2000	65 40	60 29	65 40								80 47		85 34		95 20	85 34	120 19		100 19	2000
3000											80 52				95 23	85 29	125 20		105 28	3000
4000											(2,700')					85 42	115 21		110 38	4000
5000																			100 48	5000
6000																				6000
8000																				8000
10000																				10000
12000																				12000
Neph.																				Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5824

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

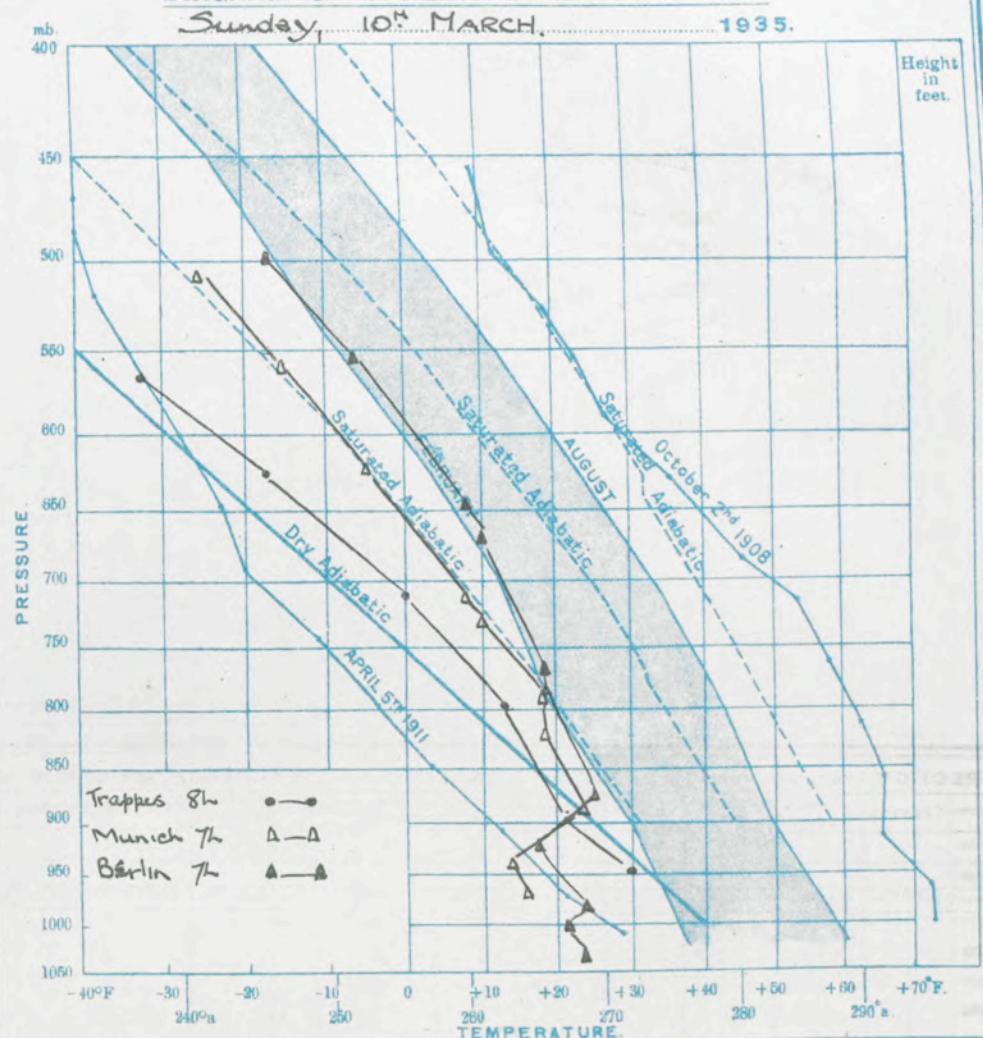
b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

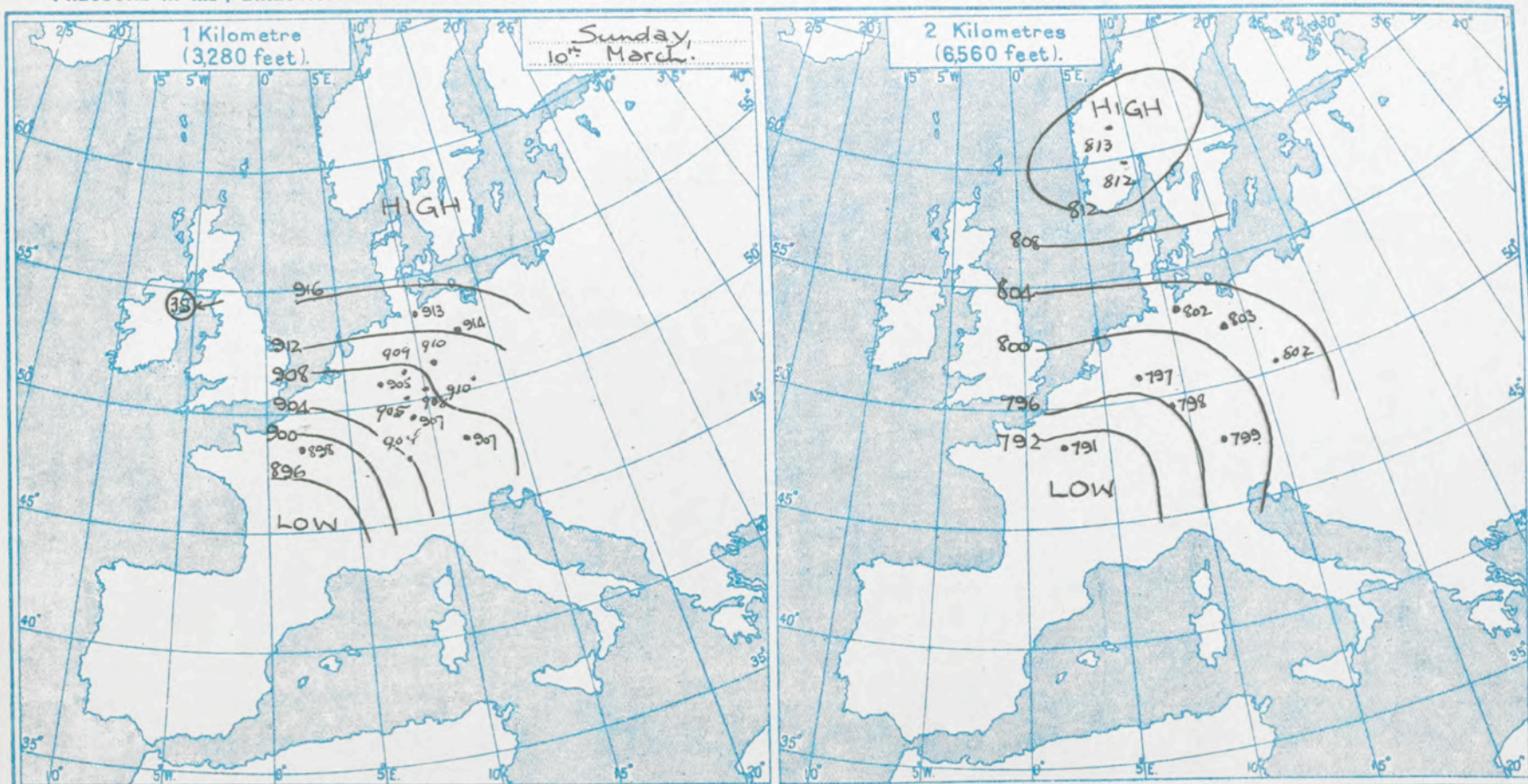
DIAGRAM OF UPPER AIR TEMPERATURES.**TABLE OF UPPER AIR TEMPERATURES RECORDED ON Sunday, 10th March, 1935.**

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
Cologne 7h				Hamburg 7h				Darmstadt 7h				Munich 7h				Berlin 7h				Breslau 7h											
1030.0	M.S.L.	—	—	1038.6	M.S.L.	—	—	1030.0	M.S.L.	—	—	1031.6	M.S.L.	—	—	1040.2	M.S.L.	—	—	1024	M.S.L.	—	—								
1023	157	23	66	1037	61	25	78	1015	445	24	69	965	1662	15	91	1033	182	23	75	1024	420	23	82								
972	1640	18	69	970	1970	21	80	1004	660	25	67	939	2300	14	90	938	980	21	75	993	980	21	82								
940	2300	17	70	954	2300	23	76	923	2620	17	68	882	3940	23	56	981	1640	24	42	995	1310	22	79								
922	2950	18	71	930	2950	22	75	897	3610	27	61	817	5300	18	45	919	3280	18	75	910	3610	13	89								
903	3280	22	46	895	3940	27	61	853	4920	23	53	790	6900	18	39	870	4600	25	43	883	4270	21	69								
864	4600	19	46	859	4920	23	54	786	6560	16	53	724	9200	10	35	770	7880	19	38	837	5570	19	50								
821	5900	18	46	829	5900	23	48	781	6900	17	52	709	9530	9	34	756	8200	19	34	826	6230	21	47								
723	8850	5	53	747	8540	18	36	682	10500	5	50	622	12790	-5	30	661	11480	10	33	805	6560	18	42								
704	9530	5	50	670	11140	12	33	638	12130	0	51	553	15430	-16	28	645	12130	9	32	715	9530	9	32								
587	14130	-9	51	614	13450	3	36	562	15100	-17	51	503	17420	-26	27	551	16090	-7	38	688	10500	5	30								
516	17060	-24	48	580	14760	-2	38	501	18060	-30	49					495	18700	-17	40	649	11800	3	29								
				570	15240	-2	38													585	14460	-8	33								
				510	18050	-13	40													523	17060	-17	38								
Trappes 8h				Slutzk 0215																											
M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—
898	3280	30	—	1026	134	32	85																								
891	6560	21	—	1010	660	31	—																								
795	9840	13	—	972	1640	31	—																								
709	13120	0	—	868	4920	27	—																								
633	16400	-17	—	804	6560	21	—																								
561	19680	-33	—	754	8200	14	—																								
498	23000	-45	—	707	9840	14	—																								
442	26300	-51	—	680	10830	14	—																								
				620	13120	10	—																								
				542	16400	-8	—																								
				477	21670	-	—																								
				407	23000	-48	—																								
				360	26300	-43	—																								
				307	29560	-57	—																								
				270	32800	-71	—																								
				253	34120	-74	—																								

Meteorological Office, Air Ministry,
Kingsway, London, W.C.2.

G. C. SIMPSON, C.B., D.Sc., F.R.S.,
Director.

Issued on Monday, 11th March, 1935.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 10 th MARCH. 1935.																						
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Malta	Place		
Time			4h		10h		4h									4h		4h	6h	Time		
Type																5				Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet	
Surf.					50	10			65	35							85	10	45	20	Surf.	
1000					65	20			60	44							85	30	45	29	1000	
2000					65	35			65	37							85	33	80	35	2000	
3000																	85	44	80	35	3000	
4000																					4000	
5000																					5000	
6000																					6000	
8000																					8000	
10000																					10000	
12000																					12000	
Neph.																					Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place		
Time	10h	12h		12h	15h	12h			12h						12h					Time		
Type	-	b													b					Type		
Surf.	60	25	70	22		65	22	60	30	75	30				60	12				Surf.		
1000	65	29	70	26		80	17	70	31	80	35				75	25				1000		
2000			65	24		95	23	65	40	80	37				45	25				2000		
3000			1820	fr																3000		
4000																				4000		
5000																				5000		
6000																				6000		
8000																				8000		
10000																				10000		
12000																				12000		
Neph.																				Neph.		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place		
Time											14h							17h		Time		
Type																				Type		
Surf.											100	22						85	21	Surf.		
1000											100	23						70	29	1000		
2000																		70	29	2000		
3000																				3000		
4000																				4000		
5000																				5000		
6000																				6000		
8000																				8000		
10000																				10000		
12000																				12000		
Neph.																				Neph.		

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,825

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

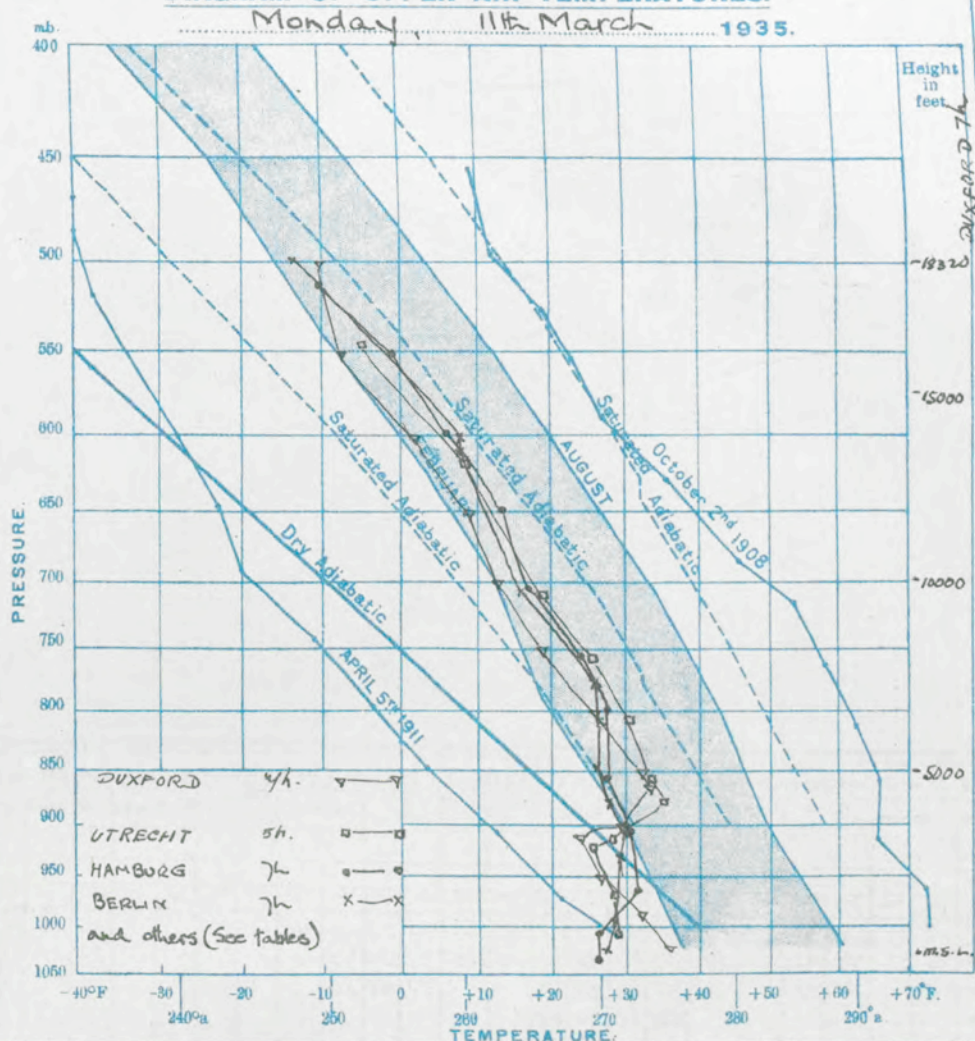
b = balloon with tail.

d = double theodolite ascent.

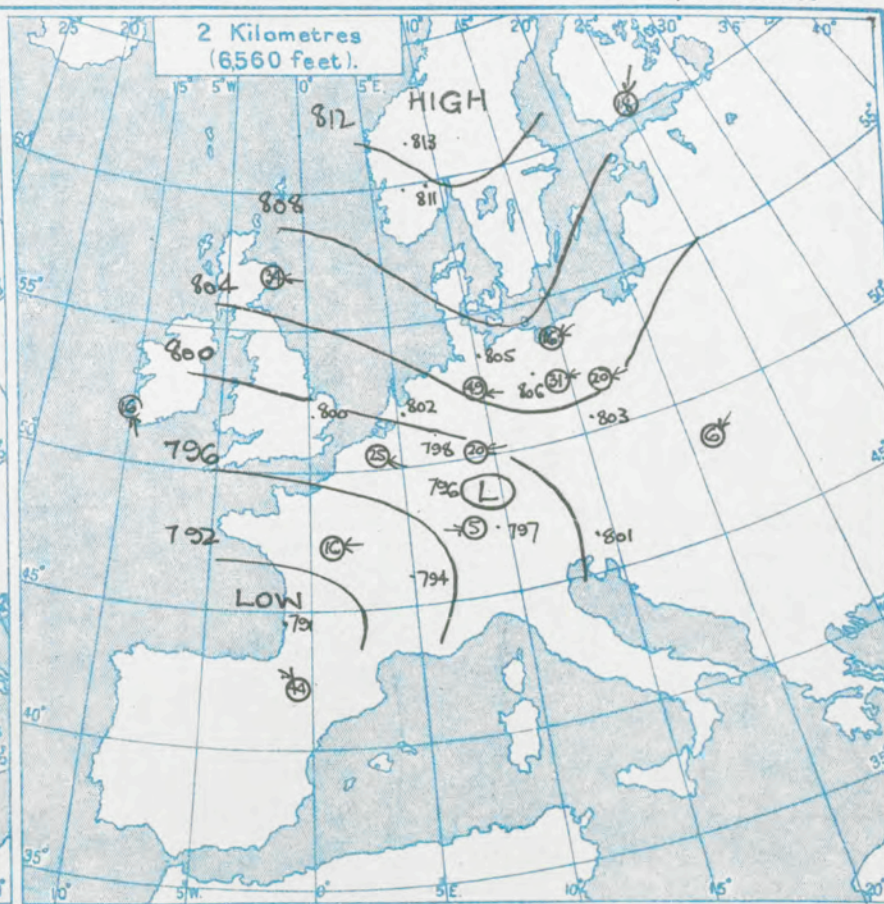
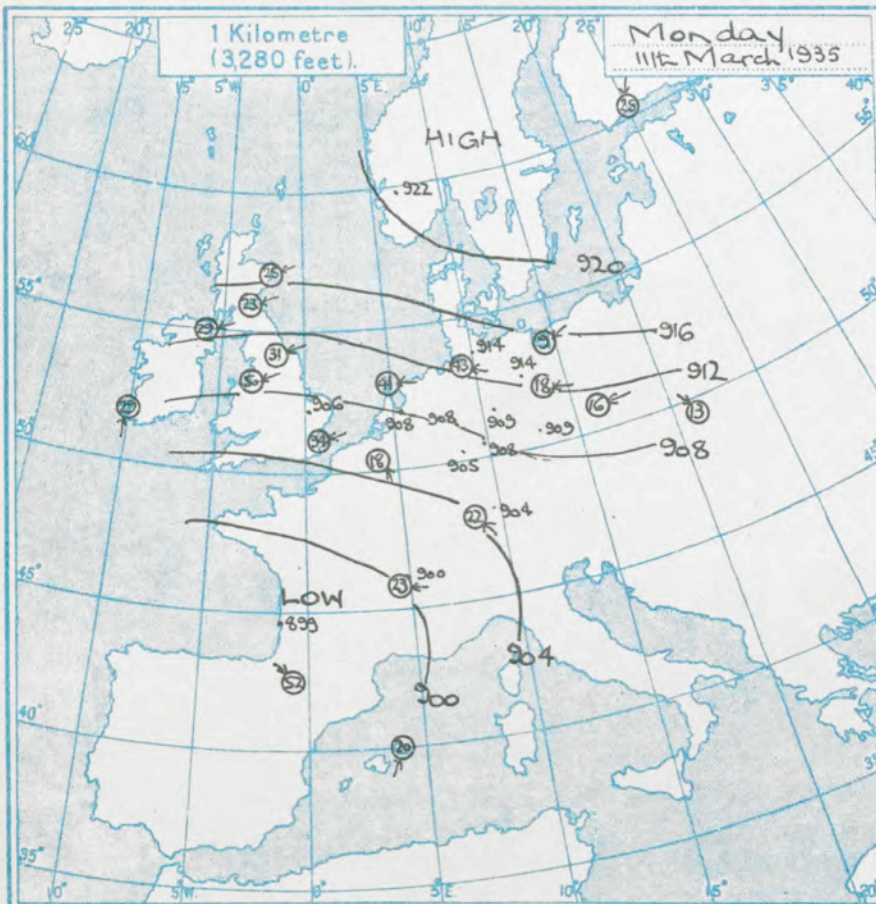
On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

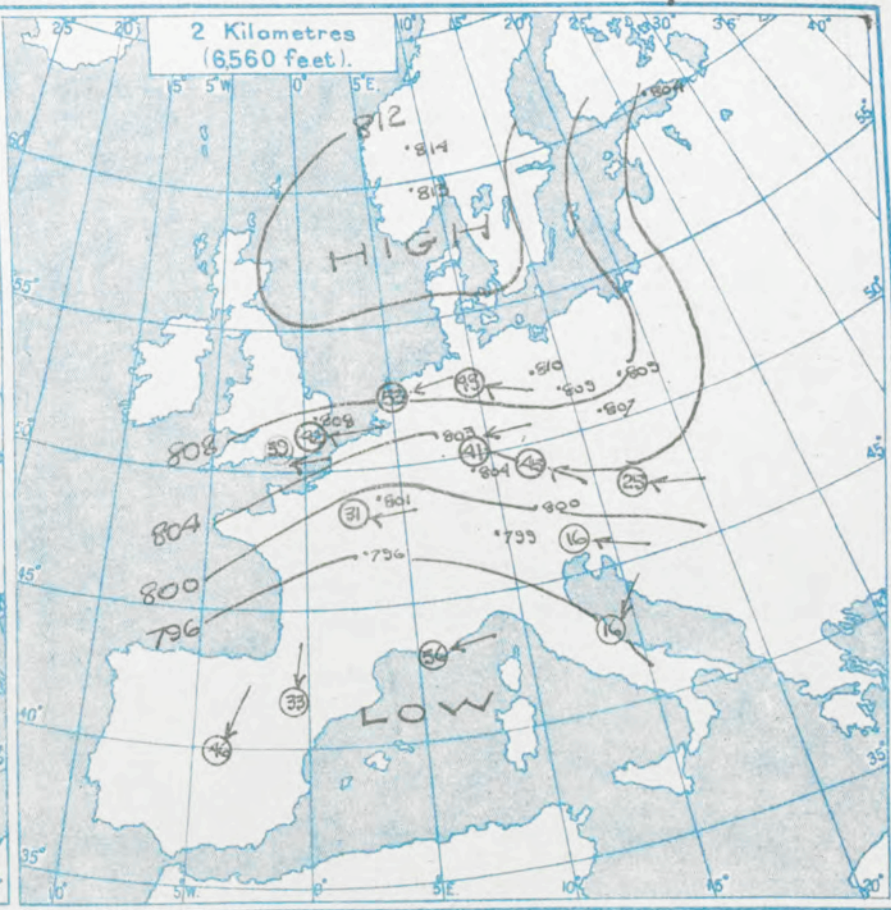
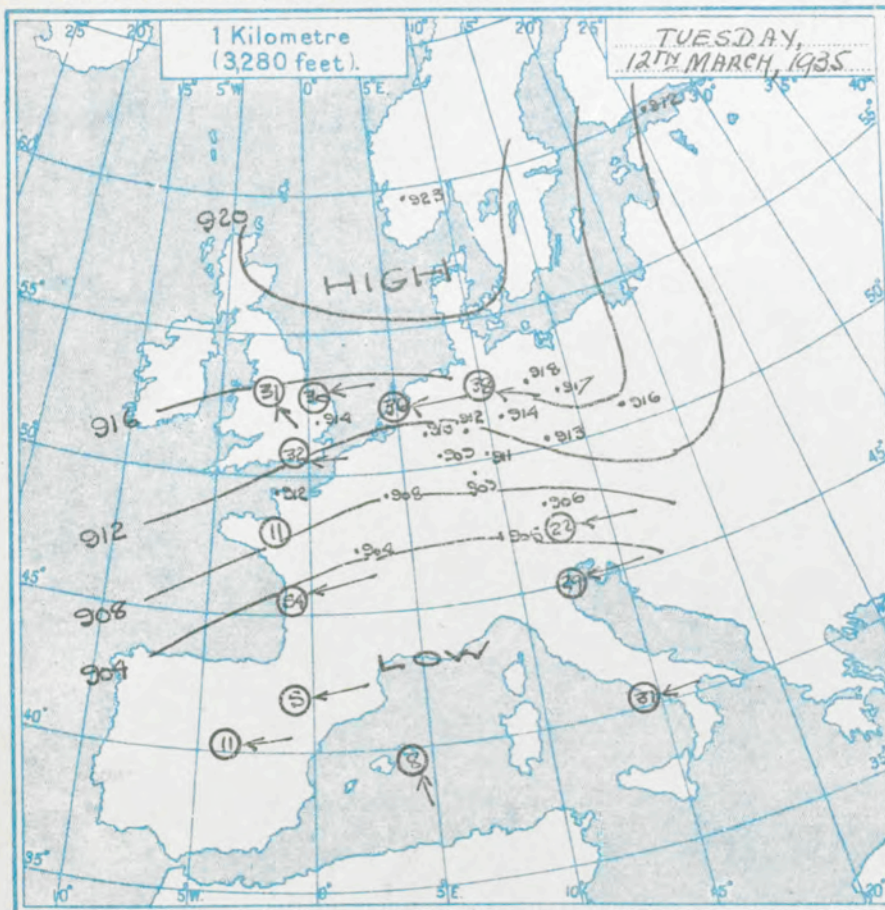
These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.**TABLE OF UPPER AIR TEMPERATURES RECORDED ON Monday, 11th March, 1935.**

TEMPERATURES AND RELATIVE HUMIDITIES RECORDED ON 11th March 1935.																																							
Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.								
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%								
DUXFORD 4h.				DUXFORD 16h.				COLOGNE 4h.				FRIEDRICHSHAFEN 6h.				UTRECHT 8h.				DARMSTADT 9h.				DIJON 14h.				MUNICH 16h.											
1028	M.S.L.	—	—	1030	M.S.L.	—	—	1029	M.S.L.	—	—	1026	M.S.L.	—	—	1005	M.S.L.	—	—	1015	M.S.L.	—	—	904	M.S.L.	—	—	963	M.S.L.	—	—								
1024.5	100	35	81	1027	100	41.3	75	1023	157	29	60	995	1312	25	90	1005	670	28	75	1015	445	33	59	904	380	43	—	963	1662	37	56								
987	1060	31	94	989	1070	34.6	68	960	1640	24	60	945	2300	21	90	968	1650	27	75	925	2620	23	59	799	6560	36	—	910	4220	27	60								
950	2050	26.5	94	950	2140	29.0	95	938	2300	25	55	914	2450	34	54	908	3280	27	65	890	3840	30	51	704	9840	19	—	861	4220	27	60								
900	3440	24	61	900	3560	32.3	52	861	4600	32	30	860	4600	36	50	853	4420	32	53	872	4220	29	50	—	—	—	—	827	5900	33	46								
850	5000	21.5	68	850	5060	35.5	71	846	5240	33	24	800	6560	28	52	802	6560	30	45	814	5260	27	43	—	—	—	—	758	8200	27	43								
800	6560	25	89	800	6660	30.0	62	792	6900	26	24	770	7560	27	49	753	8200	25	45	783	7230	27	40	—	—	—	—	674	11400	16	49								
750	8220	18	—	750	8320	24.0	83	764	7680	20	24	726	9200	19	60	706	9840	18	45	706	9840	18	45	—	—	—	—	—	—	—	—								
700	9880	12	—	700	10110	17.5	—	708	9840	14	24	708	9830	18	58	670	13120	Y	35	688	10500	15	36	—	—	—	—	587	14400	1	44								
650	11850	8	—	650	11980	8.5	—	603	13800	-1	25	652	11500	10	57	543	16400	-6	25	606	13450	1	29	—	—	—	—	550	16000	-6	43								
600	13660	1	—	600	13990	3.0	—	525	17060	-12	25	601	13800	1	54	INVERSION				595	14130	1	29	—	—	—	—	510	17720	-15	42								
550	16080	-5	—	550	16150	4.0	—	579	14760	-1	54									510	17720	-15	29																
500	18320	-11	—	500	18460	-12.0	—																																
INVERSION.				Well defined haze top 305mb. Thin steam 310 315-305mb. Clear 310 not reached.				BERLIN 7h.				BRESLAW 8h.				LYONS 10h.				REIMS 10h.				Cologne 15h.				Hamburg 16h.											
910mb. 22.5°F.				870mb. 32.3°F.				Inversion 305mb. 25°F. 860 = 370				1038				1039				930				906				1022				1036							
S.G. 810 930-910mb.				A.G. 210 not reached.				1031				1031				998				990				934				934				912				973			
				Berlin 16h.				998				998				947				947				934				934				934				934			
				1030				906				906				904				904				904				904				904				904			
				976				848				848				848				848				848				848				848				848			
				917				807				807				807				807				807				807				807				807			
				889				774				774				774				774				774				774				774				774			
				810				706				706				706				706				706				706				706				706			
				763				612				612				612				612				612				612				612				612			
				725				600				600				600				600				600				600				600				600			
				647				495				495				495				495				495				495				495				495			
				529																																			
				520																																			
				17720																																			



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 11th March 1935.																																									
Place	Croydon	South Farnboro	Boscombe Down	Bircham Newton	Manston	Mildenhall	Felixstowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester.	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place																					
Time.	10h.	7h.	11h.	8h.	6h.	7h.	7h.	7h.	7h.		9h.	7h.	7h.	6h.	7h.	8h.	7h.	7h.	6h.	Time																					
Type	b			b				b			b	b	b	b	b	b				Type																					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																				
Surf.	60	27	55	15	50	16	80	20	70	25	80	20	70	30	60	14	65	13			Surf.																				
1000	75	33	70	32	55	38	80	30	75	52	85	28	75	37	75	30	70	22			1000																				
2000			70	31			85	50	75	24					80	40	70	43			2000																				
3000			(1700)				105	50	80	34											3000																				
4000																					4000																				
5000																					5000																				
6000																					6000																				
8000																					8000																				
10000																					10000																				
12000																					12000																				
Neph.							10h C.														Neph																				
					60	75	120	35																																	
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Manston	Felixstowe	Oranwell	Upper Heyford	Mildenhall	Holyhead	Sealand	Manchester.	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Valentia	Place																					
Time.	12h	12h	12h	12h	10h	12h	12h	13h	12h	12h	12h	12h	12h	13h	12h	12h	13h	12h	8h.	Time																					
Type	b	b			b	b	b	b		b	b	b	b	b	b	b	b	b	b	Type																					
Surf.	75	25	85	15	60	11	50	12	75	25	55	22	70	21	65	19	65	19	80	20	90	30	80	17	95	35	55	15	90	8	80	16	50	10	80	22	60	22	Surf.		
1000	60	27	75	20	65	22	55	19	90	18	75	21	70	29	80	33	60	43	85	22	75	26	85	21	85	41	80	16	70	23	80	26	70	13	85	29	65	14	1000		
2000	70	32	65	20	65	32	80	30	85	25	70	23			75	35	65	49	75	29			85	25			95	24	85	25	80	30	100	10	85	29	90	10	2000		
3000	(1400)								35	29	80	20							60	24	85	34			85	31			100	30	90	46	100	26	105	12	85	31	90	29	3000
4000																													105	32	95	33			90	18	95	29	95	40	4000
5000																																									5000
6000																																									6000
8000																																									8000
10000																																									10000
12000																																									12000
Neph.							30	20	110	35	90	45																												Neph	
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Worthy Down	Felixstowe	Mildenhall	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester.	Catterick	Leuchars	Renfrew	Alder-grove	Croydon	Valentia	Place																					
Time.	17h	17h	17h	16h	17h	16h	17h	17h	17h	17h	17h	17h	17h	17h	16h	18h	17h	24h.	18h	Time																					
Type	b	b			b	b					b	b		b	b	b				Type																					
Surf.	75	20	65	14	60	13	50	16	50	25	60	14	50	20	80	14	75	17	65	23	75	24	90	14	80	27	50	12	255	10	70	16	90	17	40	4	70	6	Surf.		
1000	65	26	65	17	65	19	60	17	65	19	55	19	55	29	80	29	65	27	75	26	80	48	85	21	85	21	60	22	90	22	85	33	100	28	55	14	85	9	1000		
2000	65	41	55	19	60	31	50	19	70	25	55	19	65	32	85	33	60	25	70	27			90	20			65	22	140	29	95	38	105	26	70	33	120	11	2000		
3000	55	33	55	21	75	22	70	24	55	21																			90	27	65	24	115	34	115	27	75	33	145	10	3000
4000			(2450)		90	30																							110	31	110	31	120	39	80	26			110	19	4000
5000																																									5000
6000																																									6000
8000																																									8000
10000																																									10000
12000																																									12000
Neph.							60	50																																Neph	



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 12TH MARCH, 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Biggin Hill	Felixstowe	Oranwell	Upper Heyford	Milden Hall	Holyhead	Sealand	Manchester	Rembroke Dock	Leuchars	Renfrew	Bicester	Alder Grove	Valentia	Place
Time	6h.	7h.	7h.	7h.	7h.	6h.	7h.	7h.	7h.	7h.	9h.	7h.	7h.	10h.	7h.	8h.	9h.	7h.	8h.	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	30 12	10 4	20 11	35 10	90 14	30 10	35 14	5 2	5 4	45 4	85 21	45 2	60 6	70 10	35 3	75 3	50 15	100 10	110 13	Surf.
1000	60 26	50 24	45 24	40 29	50 29	45 25	55 33	50 22	50 23	40 38	115 30	85 11	75 21	85 21	360 14	75 21	65 25	110 23	130 14	1000
2000	40 29	60 34	60 21	65 14	65 35	60 38	70 42	85 30	60 35	80 44	120 24	95 20	95 35	90 27	90 16	90 29	80 35		145 21	2000
3000		80 32	75 31		70 38	75 43	75 40	85 30	80 38		120 24	100 31	105 25				75 35			3000
4000		80 35	80 30		75 41		75 38	75 24	85 35			(2900)	105 31				75 34			4000
5000		80 42					75 42	80 23	85 37								80 33			5000
6000		85 39					80 42										80 34			6000
8000																				8000
10000																				10000
12000																				12000
Neph																				Neph
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Worthing	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder Grove	Mildenhall	Place
Time	12h	12h	12h	12h	12h	11h	12h	14h	12h	12h	12h	12h	12h	13h	12h	12h	11h	12h	11h	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	
Surf.	80 20	50 16	40 12	40 17	45 23	40 21	35 25	35 18	60 14	55 10	85 19	70 12	80 18	105 8	95 5	55 17	110 1	100 12	60 15	Surf.
1000	55 23	50 22	50 19	50 29	45 27	65 33	50 31	40 27	50 11	65 14	110 13	80 13	95 15	60 13	90 8	75 20	135 7	135 18	70 29	1000
2000	45 22	60 20	55 23	55 27	55 43	70 37	75 32	45 29	65 21	85 21	130 15	95 19	95 23	85 13	75 8	95 21		140 27	80 25	2000
3000	45 26		75 38		65 40	65 38	65 32	50 29	75 23	85 24	120 13	105 22	105 19	100 22		125 24		150 13	80 25	3000
4000	45 33		85 38			65 25	70 21		75 33	85 21	115 21	95 27		110 17		150 20		140 27	80 25	4000
5000						75 37	70 36		80 31	70 17	115 32	100 20		65 18				145 37	75 24	5000
6000						75 38	75 38		85 29	75 16	115 27	105 14		95 26				150 33	75 32	6000
8000						80 37			85 31	75 26		110 23		105 21					85 26	8000
10000									85 29	70 28		95 22		105 23					80 24	10000
12000												100 22		115 18					80 32	12000
Neph																				Neph
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Worthing	Felixstowe	Bicester	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder Grove	Valentia	Place
Time	17h	17h	17h	17h	17h	10h	17h	15h	17h	17h	17h	17h	17h	17h	16h	17h		17h	18h	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	
Surf.	60 16	25 12	30 15	10 12	35 25	35 14	15 22	60 13	35 14	20 10	30 14	80 7	95 16	45 10	95 10	75 15		80 10	135 13	Surf.
1000	45 24	35 22	35 23	35 30	55 39	65 29	45 38	45 26	40 17	55 13	30 30	85 14	100 16	50 17	30 14	80 21		100 27	140 14	1000
2000	40 23	45 25	45 22	45 31	65 33	75 45	65 27	40 27	55 21	40 19	110 18	100 15	115 19	75 13	120 11	100 20		140 25	140 19	2000
3000	65 38	55 33	60 22			75 50	70 31	60 25	75 26	15 26	95 17	100 12	135 13	75 12		125 18				3000
4000	70 44		70 35				70 23	80 31	80 29	5 29	115 10	105 17		85 21		125 21				4000
5000	75 41							75 35	85 25	15 27	105 17	90 14		80 35		125 21				5000
6000								85 27	75 23	15 25		85 18		105 22		120 17				6000
8000								80 26	80 23	20 7		95 18		100 27		140 23				8000
10000								85 21	75 18	20 15		105 15		95 23		140 30				10000
12000								75 23	11000	45 17		110 15		100 25						12000
Neph																				Neph

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,824.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

WEDNESDAY, 13TH MARCH, 1935.

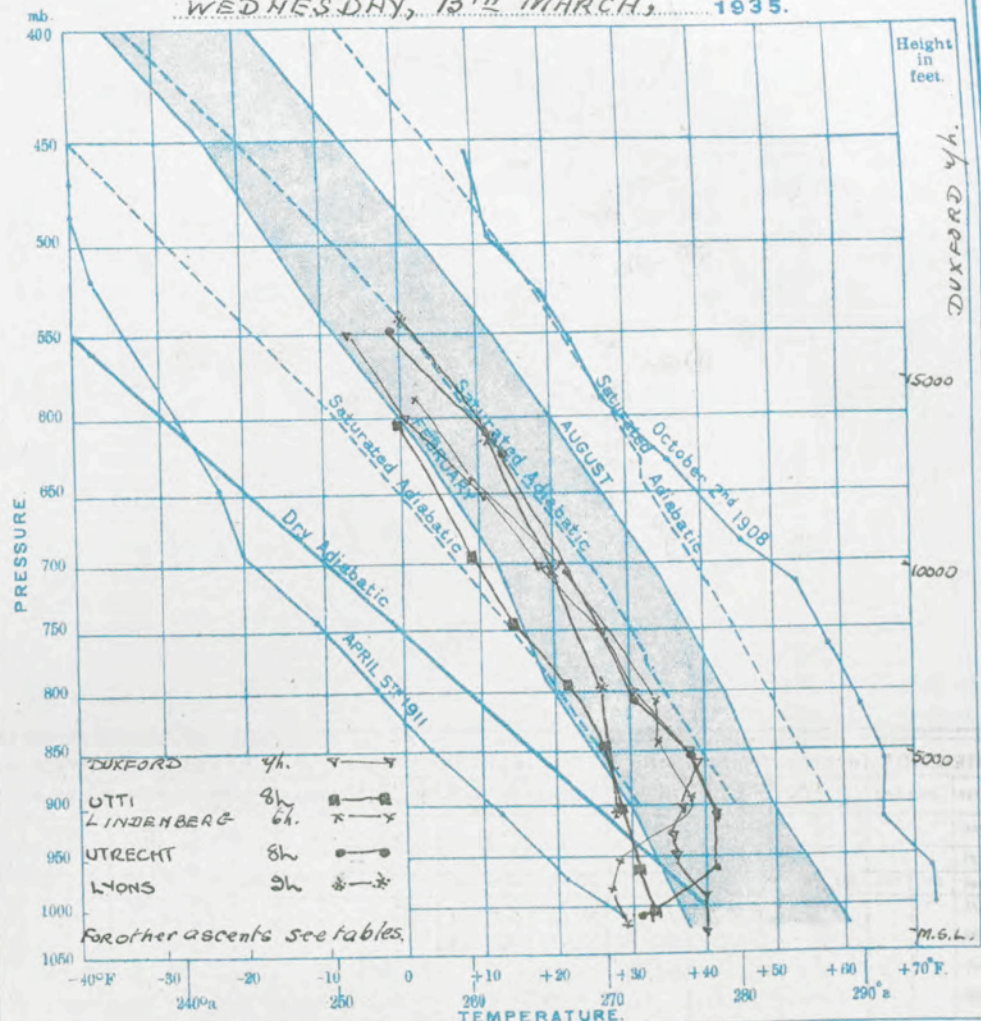
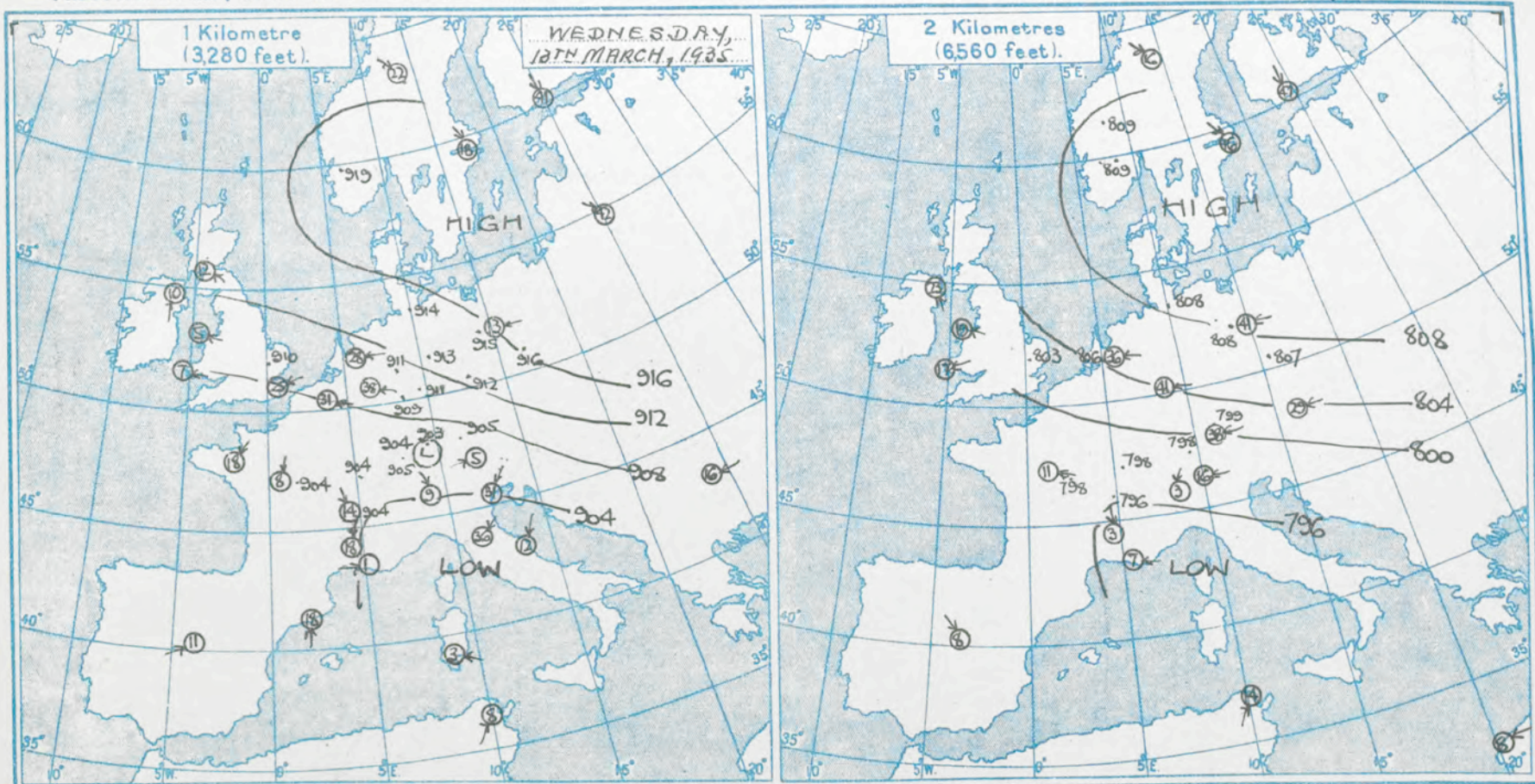


TABLE OF UPPER AIR TEMPERATURES RECORDED ON WEDNESDAY, 13TH MARCH, 1935.

Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Pressure	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD 4h				HAMBURG 4h				MUNICH 4h				UTTRECHT 8h				CHATEAUX 11h				COLOGNE 16h				LYONS 9h				UTTI 8h			
1030.5	M.S.L.	—	—	1035	M.S.L.	—	—	1006	M.S.L.	—	—	904	M.S.L.	—	—	906	M.S.L.	—	—	1018	M.S.L.	—	—	903	M.S.L.	—	—	1003	M.S.L.	—	—
1027	100	31	100	978	1640	29	97	928	2620	30	64	798	6560	30	65	798	6560	30	65	873	4270	34	40	965	2001	32	65	965	2001	32	65
990	1050	31	100	937	2620	34	54	912	3280	43	35	704	3280	22	22	704	3280	22	22	861	4600	38	37	849	4920	28	35	849	4920	28	35
950	2150	37	42	911	3280	41	57	883	3940	36	48	687	4920	39	25	687	4920	39	25	822	5300	30	36	815	5170	30	36	815	5170	30	36
900	3600	38	46	860	4420	37	48	834	5570	34	38	806	6560	32	25	806	6560	32	25	811	6230	31	33	809	6320	31	33	809	6320	31	33
850	5100	39	82	810	5100	39	82	787	5700	30	34	757	8100	25	25	757	8100	25	25	806	6230	31	33	795	6560	23	35	795	6560	23	35
800	6600	32	94	770	7880	24	34	741	8400	30	33	710	9840	23	25	710	9840	23	25	806	6230	31	33	783	7560	30	26	783	7560	30	26
750	8350	27.1	94	745	8850	30	31	730	9100	23	30	684	10400	18	15	684	10400	18	15	806	6560	32	37	773	8100	23	35	773	8100	23	35
700	10150	19.5	—	680	11140	21	26	684	10500	18	29	624	13120	14	15	624	13120	14	15	806	6560	32	37	743	8200	16	35	743	8200	16	35
650	12030	12	—	627	13120	14	24	645	10830	18	28	547	16400	0	15	547	16400	0	15	806	6560	32	37	704	9840	22	35	704	9840	22	35
600	14050	2	—	576	15430	7	23	602	13800	5	25	Inversion Press. at base 30.5 mb 30°F				Revised 9h				806	6560	32	37	697	9840	10	35	697	9840	10	35
550	16210	-5.6	—	536	17060	-2	23	525	17060	-18	24	Amount of mires 13°F 656 ft.				806				806	6560	32	37	609	13120	1	35	609	13120	1	35
ISOTHERMAL LAYER—Screen to 1400 ft. Temp. 31°F.				DARMSTADT 4h				FRIEDRICHSHAFEN 6h				LYONS 9h				UTTI 8h				HAMBURG 16h				MUNICH 16h				UTTI 8h			
INVERSION—930 mb. 36.5°F. 860 mb. 40°F.				1014	M.S.L.	—	—	976	M.S.L.	—	—	904	M.S.L.	—	—	906	M.S.L.	—	—	1018	M.S.L.	—	—	903	M.S.L.	—	—	1003	M.S.L.	—	—
Thick fog 190 reaching to 1400 feet. Fog clearing later leaving local ground mist and layer St. Cu. 190 1000 ft. to 1400 feet. Thick haze above cloud to haze top 930 mb.				988	980	36	52	931	2620	25	80	796	6560	27.5	—	798	6560	30	65	873	4270	34	40	965	2001	32	65	965	2001	32	65
LINDENBERG 6h				963	1640	36	52	891	3610	34	35	704	3280	21	—	704	3280	21	—	841	4600	38	37	815	6230	31	33	815	6230	31	33
1022	348	30	92	930	2620	34	52	845	3440	36	34	616	13120	12	—	616	13120	12	—	822	5300	30	36	806	6560	32	37	806	6560	32	37
980	1310	28	95	893	3610	40	57	800	6560	30	33	540	16400	1	—	540	16400	1	—	806	6560	32	37	795	6560	23	35	795	6560	23	35
952	2300	29	48	867	4600	40	48	740	8400	26	33	DIXON 11h				Inversion Press. at base Amount				806	6560	32	37	783	7560	30	26	783	7560	30	26
925	3740	35	33	774	7230	31	43	688	10500	18	33	904	3280	34	—	904	3280	34	—	806	6560	32	37	743	8200	16	35	743	8200	16	35
840	5240	34	33	671	11140	14	40	609	13120	1	35	796	6560	27.5	—	796	6560	27.5	—	806	6560	32	37	704	9840	22	35	704	9840	22	35
806	6560	34	33	575	15100	1	40	521	17840	-11	34	616	13120	9	—	616	13120	9	—	806	6560	32	37	609	13120	1	35	609	13120	1	35
700	10170	22	33	507	18050	-12	40	COLOGNE 4h				541	16400	-8	—	541	16400	-8	—	806	6560	32	37	599	13120	1	35	599	13120	1	35
640	12460	10	33	1024 157 28 90				545 16730 -6 26				Inversion Press. at base Amount				919 mb. 40°F				806	6560	32	37	574	15430	5	23	574	15430	5	23
585	14760	3	33									803 mb. 40°F				623 mb. 29°F				806	6560	32	37	516	18050	-6	23	516	18050	-6	23
																				806	6560	32	37	471	20340	-15	22	471	20340	-15	22

Meteorological Office, Air Ministry, Kingsway, London, W.C.2

S. C. SIMPSON, O.B. D.Sc., F.R.S., Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 13TH MARCH, 1935.																				
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Marston	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	Alder-grove	Valentia	Place
Time				7h.	6h.	7h.	10h.		10h.	7h.	9h.	7h.	7h.	7h.	7h.	8h.	8h.	8h.	8h.	Time
Type																				Type
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet
Surf.				10 5	40 8	60 10	75 13		110 4	35 5	90 23	130 2	90 14	65 1	120 8	Cal	60 15	60 5	115 22	Surf.
1000				50 21	45 21	45 23	45 16		100 22	80 11	115 10	125 13	90 18	40 6	130 15	90 14	85 19	120 23	140 18	1000
2000				60 26	40 26		85 21		110 21	85 11	100 6		95 15		130 14	90 15		135 18	160 14	2000
3000					80 25		90 36		95 4		100 5		(1800)			110 12		200 10		3000
4000					95 24		95 34		55 16		120 10					145 15		160 18		4000
5000					105 31				45 18		105 14							150 20		5000
6000									85 14		120 19							150 23		6000
8000									110 19		125 25									8000
10000									110 15											10000
12000																				12000
Neph.																				Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	Alder-grove	Valentia	Place
Time	12h	12h	12h	12h	12h	12h	12h	13h	12h	12h	12h	12h	12h	12h	12h	13h		12h	13h	Time
Type	b	b			b	b	b			b	b	b	b		b	b				Type
Surf.	60 17	40 11	40 10	40 9	65 15	45 10	60 19	45 10	45 11	100 10	200 4	130 3	80 10	90 5	115 8	65 14		110 16	140 10	Surf.
1000	55 20	50 14	50 23	35 12	75 13	65 11	55 22	80 11	40 15	75 12	220 5	115 10	95 14	80 11	110 17	75 20		120 18	155 10	1000
2000	85 18	85 15	55 20		95 27	95 19			60 17	90 14	225 3	110 15	105 13	85 10	110 17	115 19			155 29	2000
3000	100 27	(177)	95 20		100 35	110 33				90 12	85 5					140 19				3000
4000						120 33				80 12	105 13					140 20				4000
5000						105 40				125 5	120 17					145 21				5000
6000						100 29				140 6	115 23					150 27				6000
8000						95 21				275 3	120 25					160 29				8000
10000						115 23				180 3	125 25					165 29				10000
12000						120 33				120 12	135 27					170 29				12000
Neph.						125 34 (1200)				25 8 (1500)										Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	Alder-grove	Valentia	Place
Time	17h	17h	17h		17h	17h	17h	17h	17h	17h	17h	17h	17h	17h	16h	17h	17h	17h	18h	Time
Type		b			b	b	b	b				b	b		b	b				Type
Surf.	90 12	60 7	30 7		60 15	60 10	45 19	45 12	40 7	225 4	300 10	120 10	65 13	50 6	115 8	60 20		115 9	165 13	Surf.
1000	70 19	70 13	40 12		70 23	80 19	65 22	55 15	60 15	120 5	60 4	115 13	100 14	55 10	105 13	80 24		125 13	160 21	1000
2000	65 25	60 17	75 12		85 18	90 25	75 25		60 18	55 13	145 10	100 18	135 19	65 6		105 23		135 19	140 16	2000
3000		75 21	80 15			105 25	20 27		100 19	50 15	130 18	120 19				145 29	250 20	155 17	150 20	3000
4000		20 19				100 23				85 15	130 22	130 27				150 23		145 25	175 17	4000
6000		100 24 (4510)				100 25				110 11	140 17	125 31				155 30	240 25 (0000)		165 14	5000
8000						120 26				100 3	130 17	125 30				160 33			160 11	6000
10000										135 5	135 26	125 29 (0000)							145 20	8000
12000										40 4									150 20 (0000)	10000
Neph.																				Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5628

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

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where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Thursday, 14th March

1935.

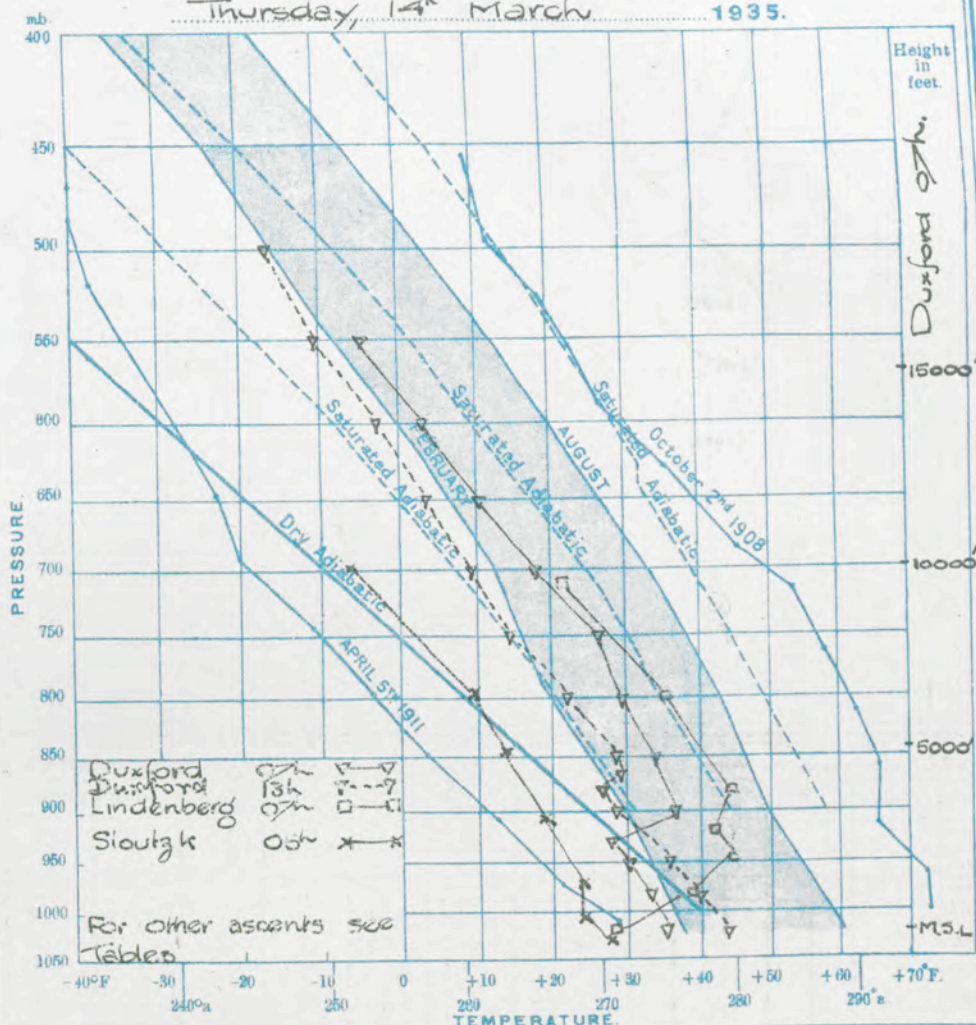
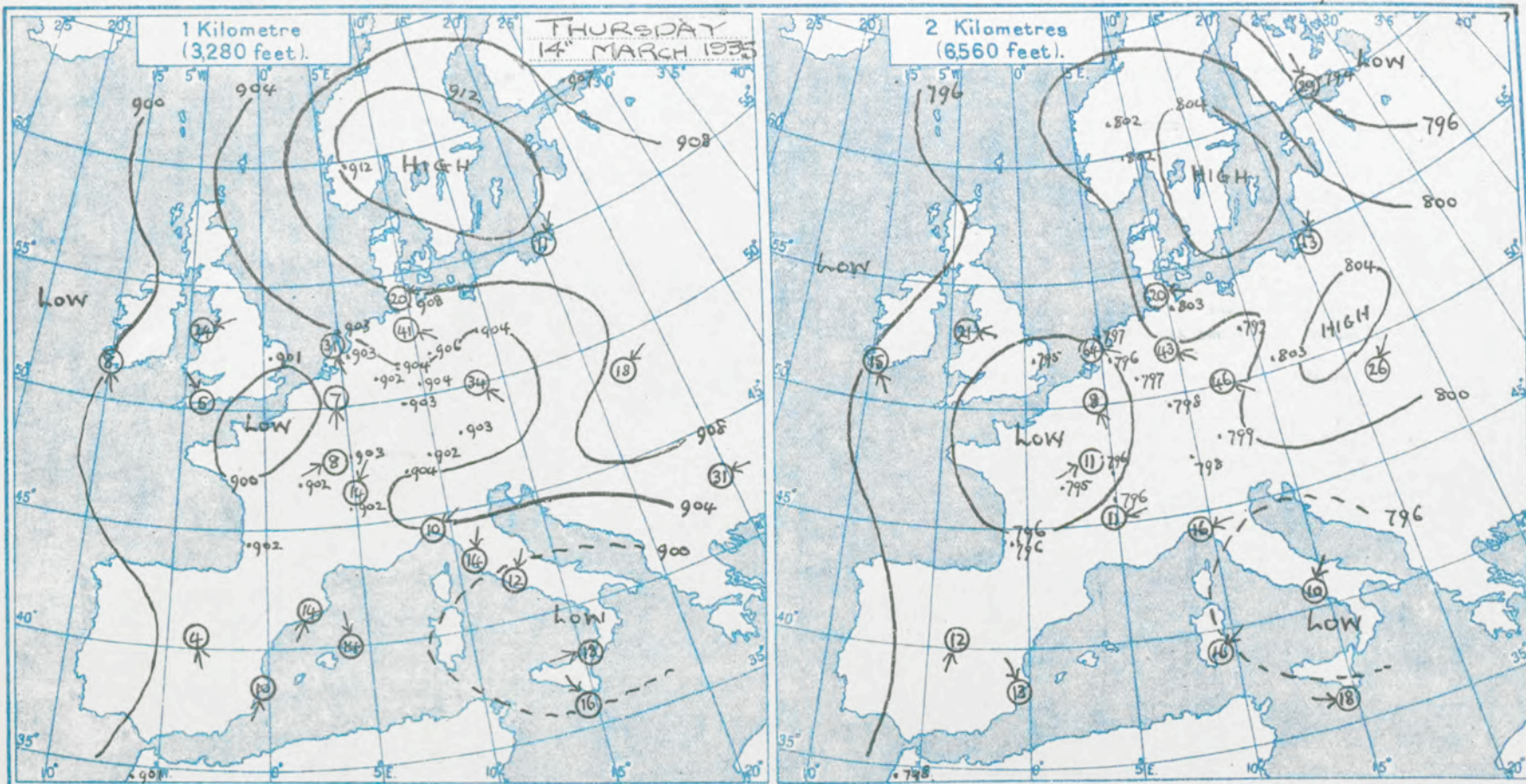


TABLE OF UPPER AIR TEMPERATURES RECORDED ON THURSDAY, 14 MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.				
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%				
Duxford				Duxford 13h.				Lindenberg				Hamburg				Darmstadt				Munich				Friedrichshafen				Lyons							
102.5	M.S.L.	—	—	101.0	M.S.L.	—	—	102.0	M.S.L.	—	—	102.8	M.S.L.	—	—	102.0	M.S.L.	—	—	102.0	M.S.L.	—	—	102.0	M.S.L.	—	—	102.0	M.S.L.	—	—				
101.7	100	34.6	93	101.5	100	43.9	75	101.4	34.8	23	98	102.7	61	35	74	100.9	43.2	36	77	98.3	1662	28	92	97.3	1312	32	75	90.2	3280	32	—				
98.1	1050	32.0	100	97.9	1090	40.0	76	97.2	1640	33	58	95.8	1376	43	50	94.5	1376	33	59	93.1	2250	30	73	93.8	2300	28	80	79.6	6560	25	—				
95.0	1300	30.0	100	95.0	1890	36.0	82	94.2	2500	44	32	92.0	3280	41	44	90.5	3380	36	60	87.9	3340	36	50	82.5	2620	32	61	70.1	9840	19	—				
90.0	3310	30.0	90	90.0	3300	29.0	100	91.1	3280	42	32	89.1	3340	41	41	88.3	3610	37	60	82.7	4920	35	38	88.3	3340	32	53	61.6	13,120	9	—				
85.0	420	32.6	64	85.0	4810	29.0	90	88.5	3940	43	32	84.7	6240	41	31	84.9	4170	36	68	80.7	6230	36	37	86.3	4470	32	47	53.9	16,400	0	—				
80.0	6480	29.3	74	80.0	6390	22.0	100	78.6	7230	36	27	78.6	7230	36	27	84.9	4920	37	57	76.7	7560	34	37	84.9	4920	36	47	—	—	—	—				
75.0	8080	26.4	91	75.0	8020	14.0	—	70.8	9840	21	32	71.1	9840	25	26	83.2	5570	36	54	71.0	9530	27	40	80.6	6230	28	43	—	—	—	—				
70.0	9870	18.5	—	70.0	9790	9.5	—	—	—	—	—	64.7	12130	17	25	81.0	6230	36	52	65.3	11600	18	53	73.1	6560	28	40	90.2	3280	31	—				
65.0	11770	10.0	—	65.0	11600	3.0	—	—	—	—	—	63.5	14460	8	25	76.2	7230	32	50	61.9	13120	11	66	77.0	7560	28	43	79.5	6560	29	—				
60.0	13730	2.0	—	60.0	13630	3.0	—	—	—	—	—	54.9	16400	1	26	77.1	7560	32	49	58.3	14760	7	38	70.3	9840	20	57	70.0	9840	19	—				
55.0	15310	0.5	—	55.0	15770	10.2	—	—	—	—	—	51.0	16080	3	26	72.2	9200	27	47	54.5	16000	0	58	65.3	10170	21	56	61.5	13,120	8	—				
Haze top 860 mb. Cloud. Str 10% Thick haze below 300 ft. to 330 mb. Slight ground fog lifting and clearing. A.C. 310 not reached. Inversion. 950 mb. 26.6°F. 500 " 36.0°F.				Thick haze below 300 ft. to 330 mb. Cloud. Str. 10/10 920 - 850 mb. Inversion. 880 mb. 27.5°F. 860 mb. 29.5°F.				Cologne				Slough				Gossoncourt				Utrecht				Helder				Kiev							
102.0 M.S.L. — —				101.6 157 33 85				102.3 134 26 —				102.0 M.S.L. — —				102.0 M.S.L. — —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
101.7 100 34.6 93				101.6 157 33 85				101.6 157 33 85				101.3 213 32 —				100.2 500 33 —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100			
95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100			
90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90			
85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64			
80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74			
75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91			
70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —			
65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —			
60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —			
55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —			
Haze top 860 mb. Cloud. Str 10% Thick haze below 300 ft. to 330 mb. Slight ground fog lifting and clearing. A.C. 310 not reached. Inversion. 950 mb. 26.6°F. 500 " 36.0°F.				Thick haze below 300 ft. to 330 mb. Cloud. Str. 10/10 920 - 850 mb. Inversion. 880 mb. 27.5°F. 860 mb. 29.5°F.				Cologne				Slough				Gossoncourt				Utrecht				Helder				Kiev							
102.0 M.S.L. — —				101.6 157 33 85				102.3 134 26 —				102.0 M.S.L. — —				102.0 M.S.L. — —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
101.7 100 34.6 93				101.6 157 33 85				101.6 157 33 85				101.3 213 32 —				100.2 500 33 —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100							
95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100							
90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90							
85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64							
80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74							
75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91							
70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —							
65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —							
60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —							
55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —							
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102.0 M.S.L. — —				101.6 157 33 85				102.3 134 26 —				102.0 M.S.L. — —				102.0 M.S.L. — —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
101.7 100 34.6 93				101.6 157 33 85				101.6 157 33 85				101.3 213 32 —				100.2 500 33 —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100							
95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100				95.0 1300 30.0 100							
90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90				90.0 3310 30.0 90							
85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64				85.0 420 32.6 64							
80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74				80.0 6480 29.3 74							
75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91				75.0 8080 26.4 91							
70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —				70.0 9870 18.5 —							
65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —				65.0 11770 10.0 —							
60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —				60.0 13730 2.0 —							
55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —				55.0 15310 0.5 —							
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102.0 M.S.L. — —				101.6 157 33 85				102.3 134 26 —				102.0 M.S.L. — —				102.0 M.S.L. — —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
101.7 100 34.6 93				101.6 157 33 85				101.6 157 33 85				101.3 213 32 —				100.2 500 33 —				99.7 670 36 65				99.8 679 34 85				100.5 660 30 —							
98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100				98.1 1050 32.0 100							
95.0																																			

Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

G. C. SIMPSON, C.M., D.Sc., F.R.S., Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 14 th March 1935.																				
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansel	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	RAF	RAF	RAF	RAF
Time					10 ^h	09 ^h	07 ^h		10 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h
Type					b	b	b		b	b	b	b	b	b	b	b	b	b	b	b
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	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.					70 8	70 15	55 13		80 6	60 10	100 18	100 1	60 9	15 5	280 7	75 9	110 14	105 4	280 17	Surf.
1000					85 4	80 13	65 23		100 8	15 5	100 17	125 7	75 17	40 12	95 12	75 27	140 17	115 14	280 17	1000
2000										325 5	95 16	95 16					145 16			2000
3000										360 8	95 24						155 10		300 16	3000
4000										5 11	100 15						160 8			4000
5000											105 23						145 14		280 18	5000
6000											105 21						130 15			6000
8000																	115 18			8000
10000																	135 17		Valentia	10000
12000																	100 12		Cio	12000
Neph.																	14000		280 10	Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Birchington	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	RAF	RAF	RAF
Time					12 ^h	12 ^h	12 ^h	13 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h	13 ^h	12 ^h	13 ^h	Time
Type					b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Surf.			30 5	100 2			65 10	45 10	65 9	90 8	125 9	60 10	75 13	50 13	105 7	70 16	40 5	85 8	150 16	Surf.
1000			25 8	5 7			75 19	65 17	70 12	75 5	135 5	45 50	75 9	45 22	95 12	65 19	70 3	90 19	130 7	1000
2000							115 22	70 19		275 5	145 4	70 17	35 11	65 17	110 11	90 17	75 17	95 30	110 9	2000
3000							150 25			330 6	110 14				(at 2000)	130 23	105 11		140 13	3000
4000										25 4	90 16					130 21	110 16		130 15	4000
5000										335 3	95 17					135 20	160 11		130 15	5000
6000										270 3	95 16					140 34			130 17	6000
8000										360 6	90 22					135 33			155 16	8000
10000										85 7						140 39			145 10	10000
12000										70 5						135 22			125 7	12000
Neph.										(10,000)						(15,000)			280 25	Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansel	RAF	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	RAF	RAF	RAF	RAF	RAF
Time	17 ^h		17 ^h		17 ^h	17 ^h	17 ^h	16 ^h	17 ^h	17 ^h	17 ^h	17 ^h	17 ^h	17 ^h	16 ^h	17 ^h		17 ^h	18 ^h	Time
Type								b	b	b	b	b	b	b	b	b				Type
Surf.	245 4		Carlton		220 9		185 3	50 7	160 3	105 7	305 5	70 6	65 19	40 7	65 5	70 17		110 3	105 18	Surf.
1000	215 7		350 3		230 10		195 17	65 13	180 3	165 3	35 6	80 15	85 14	55 18	75 19	75 26		110 10	120 22	1000
2000	200 11		355 5		200 15		150 20		110 7	235 2	80 9	95 11	95 15	75 15	90 23	90 23		95 23	135 20	2000
3000	(at 2000)				195 15	330 21					95 22	75 5			(at 2000)	100 32			135 13	3000
4000					190 20						95 24								125 23	4000
5000					190 17														(at 2000)	5000
6000						330 31														6000
8000						(7000)														8000
10000						330 32														10000
12000																				12000
Neph.																		180 G	180 C	Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 582

No. 5829

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Friday 15 March 1935

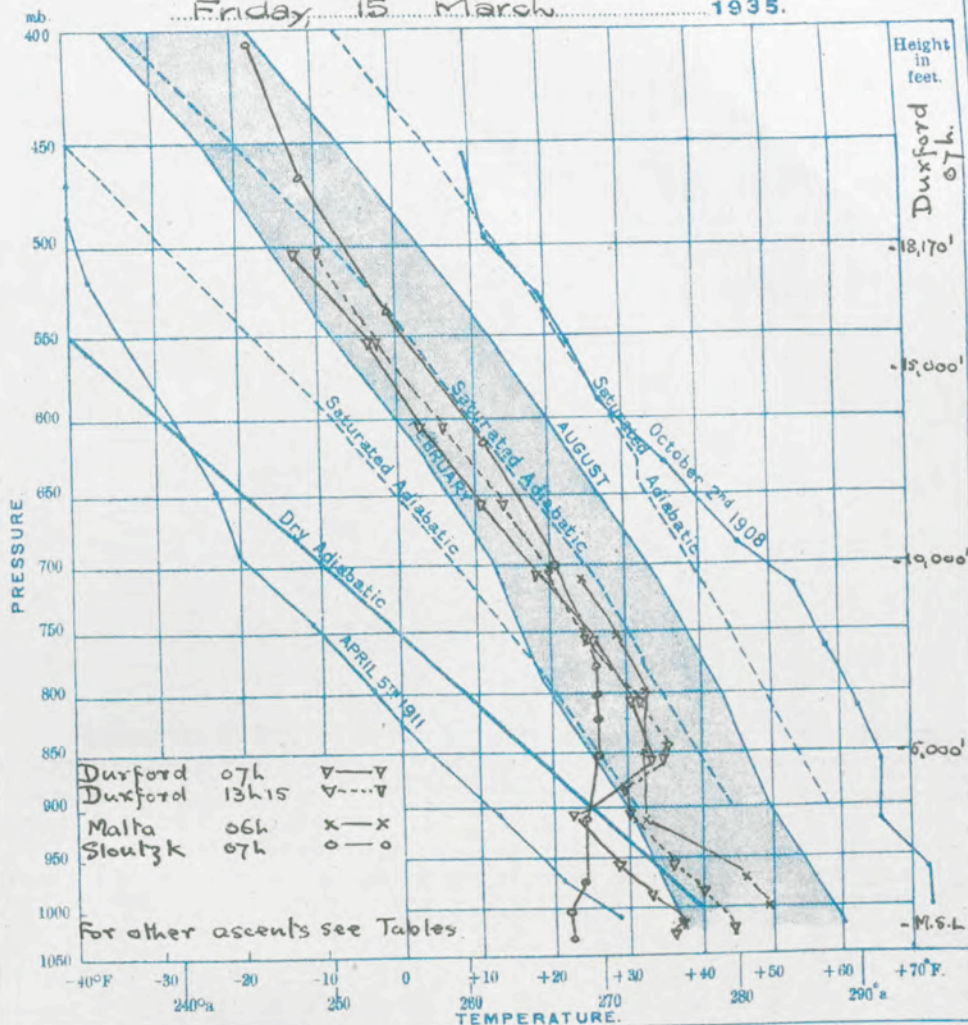
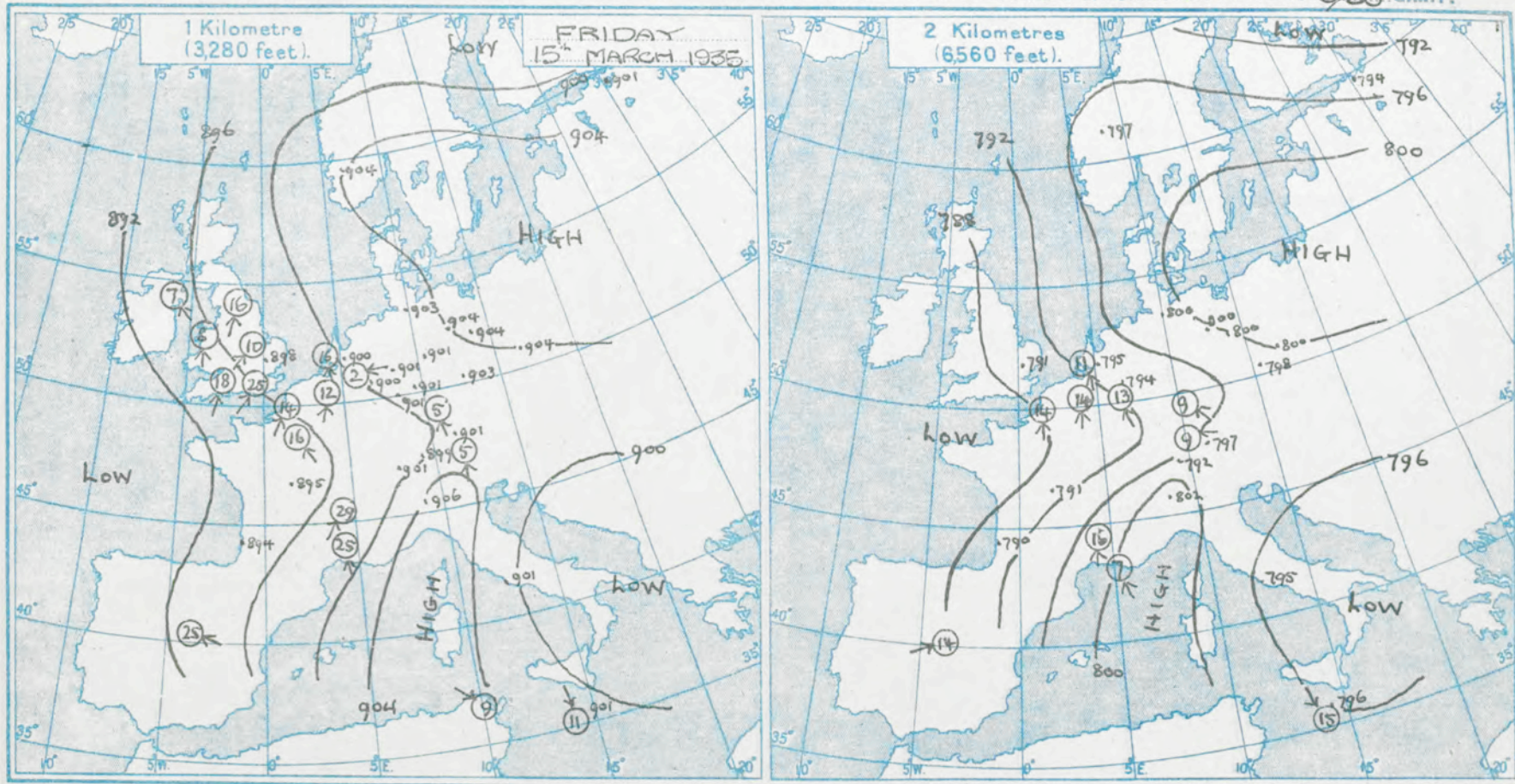


TABLE OF UPPER AIR TEMPERATURES RECORDED ON FRIDAY, 15th MARCH 1935.

[illegible]



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 15 th March 1935.																					
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place	
Time	06 ^h	07 ^h	07 ^h	10 ^h	05 ^h	05 ^h	07 ^h	07 ^h	07 ^h	07 ^h	05 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	06 ^h	Time	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	170	3	135	3	100	3	90	8	80	6	160	3	115	1	155	4	130	7	95	7	Surf.
1000	220	7	230	4	135	11	120	22	180	11	190	17	205	4	225	12	130	12	145	21	1000
2000	215	11	220	16	135	12			133	11			225	11	225	10	130	14	153	26	2000
3000			255	16	135	18			135	13			225	10	135	23			180	8	3000
4000			(2800')																		4000
5000																					5000
6000																					6000
8000																					8000
10000																					10000
12000																					12000
Neph.																					Neph.
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Manston	Leuchars	Renfrew	Milden-hall	Alder-grove	Worthy Down	Place	
Time.	12h.	12h.	12h.	11h.	12h.	10h.	12h.	13h.	12h.	12h.	12h.	12h.	12h.	14h.	12h.	13h.	12h.	12h.	14h.	Time	
Type	b.	b.				b.		b.		b.	b.	b.	b.		b.	b.	b.		b.	Type	
Surf.	140	7	150	7	120	11	110	17	115	8	140	3	120	1	185	6	155	6	125	18	Surf.
1000	145	9	135	10	140	11	130	18	135	7	170	8	120	3	195	13	150	8	140	22	1000
2000	160	8	160	10	150	17	145	17	135	13	190	7	185	14	200	11	175	7	145	26	2000
3000	190	13	185	11			190	13	195	7	190	15			205	15	145	28	190	14	3000
4000	220	15					185	16	220	11	195	17					150	27			4000
5000	215	10					175	17	(at 3840')		185	14					165	25			5000
6000																					6000
8000																					8000
10000																					10000
12000																					12000
Neph.																					Neph.
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Malta	Place	
Time.	15h.	17h.	17h.	17h.	17h.	17h.	17h.	16h.	17h.	17h.	17h.	17h.	17h.	17h.	16h.	17h.	17h.	17h.	17h.	Time	
Type	b.	b.				b.		b.		b.	b.	b.	b.	b.	b.	b.	b.		b.	Type	
Surf.	160	8	115	8	130	14	120	14	75	7	120	10	70	7	170	6	75	4	100	24	Surf.
1000	165	8	120	12	135	17	130	20	85	11	180	19	155	9	190	11	110	9	115	27	1000
2000	140	8	130	15	125	19	115	21	140	19	125	17	175	3	195	10	135	17	135	28	2000
3000	145	15	140	15	120	21	120	22	140	21	130	14	170	18	200	11	140	20	155	29	3000
4000	160	11	140	21	145	29	(at 3000')		155	25	155	17	175	21	190	17	165	30			4000
5000	165	15	165	22	160	26			165	17			175	18	190	15	175	27			5000
6000	185	14	180	20	180	22			170	14			180	25			180	25			6000
8000	220	14	185	12	170	24			185	17			170	24			170	24			8000
10000	190	11	190	15	165	26			195	13	S. Farn-boro										10000
12000	210	9	210	17	18h	Ci	18h	Ci	200	14	18h	Ci									12000
Neph.		(11,000')	230	40	270	65			220	25			210	30							Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 583

No. 5830

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t-t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e' is the saturation vapour pressure at temperature t'

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Saturday, 16th MARCH 1935.

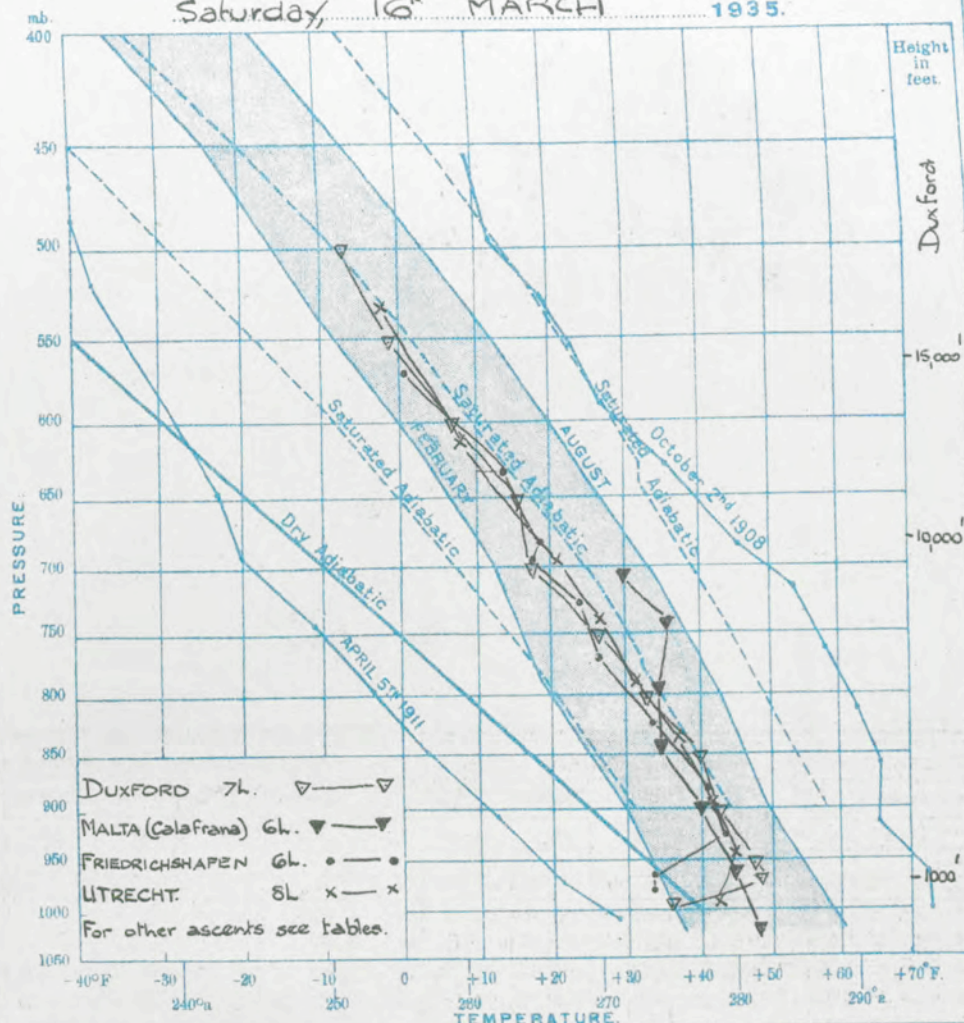


TABLE OF UPPER AIR TEMPERATURES RECORDED ON 16th MARCH 1935

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Duxford 07	M.S.L.	-	-
1000	100	93	93
986	1100	86	53
960	1450	46	53
900	2300	46	41
850	4440	40	24
800	6030	37	63
750	7740	27	90
700	9540	18	5
660	11490	16	-
600	13460	7	3
550	15670	0	5
500	18030	7	3
Poor visibility low			
ground thick haze			
to 600 mb.			
Clear:			
A. On 7/10 708-			
670 mb. Thin AS			
1910 with sun.			
Visible approx			
500 mb.			
Inversion:			
Screen at 899			
1000 ft 48-69°			

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Lindenberg 06	M.S.L.	-	-
999	348	36	74
978	780	33	64
918	2620	32	64
878	3610	37	33
842	4920	34	35
806	5900	34	35
730	8540	27	35
685	11460	15	35
648	11600	19	35
614	13120	14	35

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Berlin 07	M.S.L.	-	-
1006	164	37	71
994	330	37	70
974	780	37	70
958	1310	37	70
940	1970	36	74
913	2620	36	74
859	4270	41	47
800	6230	34	37
743	8200	27	38
667	10700	23	32
676	10500	23	32
603	13450	12	30
597	13600	14	30
535	16400	1	29
484	19030	-11	29

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Hamburg 07	M.S.L.	-	-
1008	61	32	84
979	780	32	80
929	2300	44	58
900	2750	43	50
811	5300	34	43
791	6550	34	38
720	8850	23	39
634	12130	12	41
575	14960	4	43
549	15710	1	51
528	16730	-4	51
503	17720	-8	51

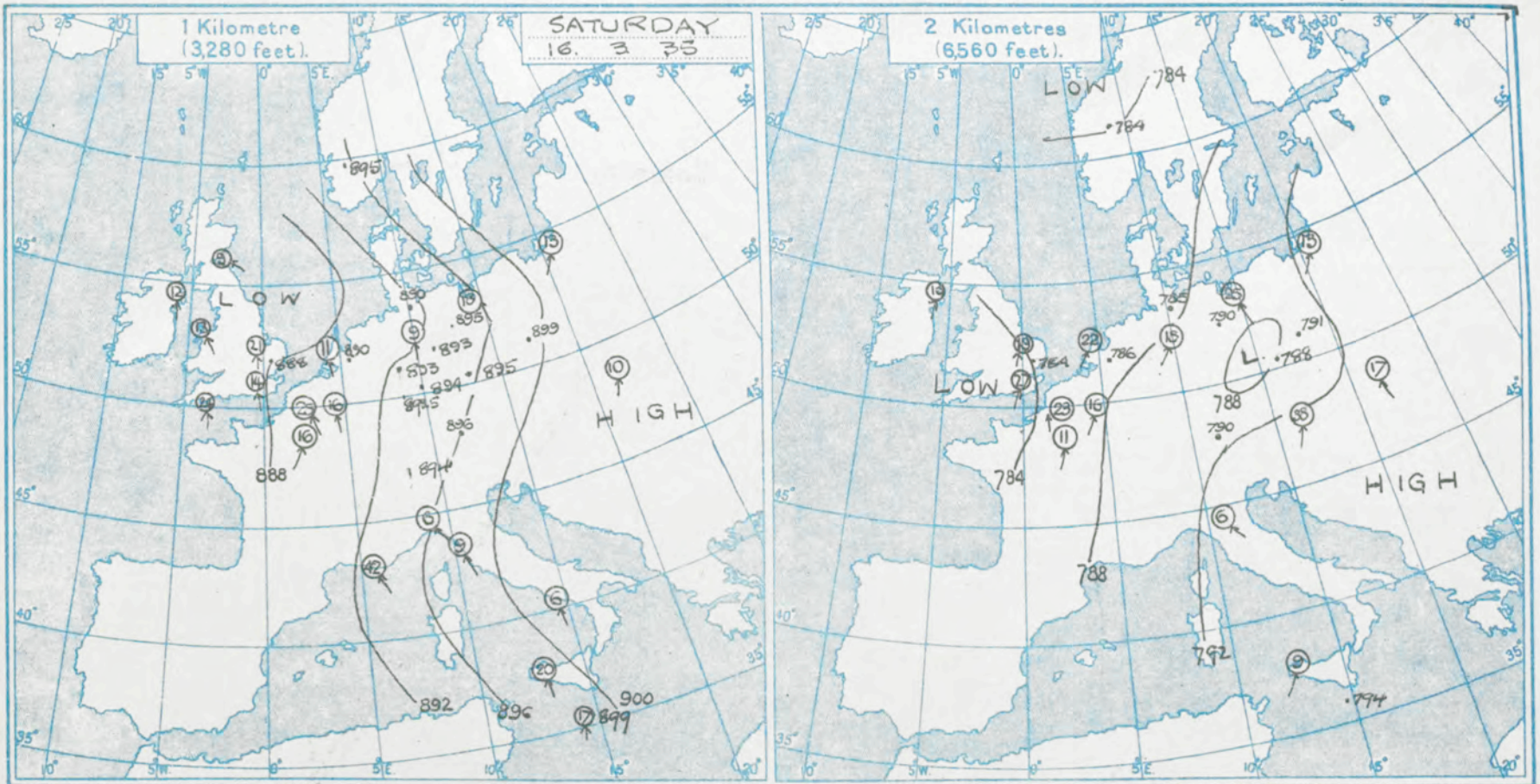
Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Sloughs 02	M.S.L.	-	-
1013	134	28	-
920	660	25	-
953	1640	27	-
719	3660	27	-
895	3250	27	-
841	4920	25	-
789	6560	25	-
634	9640	18	-
603	13120	7	-
533	16400	2	-
466	19600	-13	-
403	23000	-26	-
352	26300	-36	-
303	29500	-47	-
262	32600	-58	-
224	36140	-69	-
184	39320	-80	-
166	42600	-80	-

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Munich 7L	M.S.L.	-	-
950	1662	29	87
913	2620	43	47
903	2950	43	38
849	4600	39	38
788	6560	31	38
737	8540	23	40
685	9840	19	38
675	10500	19	33
602	13450	11	25
580	14460	7	24
570	14760	6	22
515	17390	-4	19

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
Malta Calafiana 06	M.S.L.	-	-
881	660	49	85
955	1640	45	73
899	3260	40	85
845	4920	35	75
784	6360	34	63
646	8300	36	55
601	9240	30	75
Inversion:			
1016 mb. 2°F			
800 " 3°F			

Meteorological Office, Air Ministry.
Kingsway, London, W.C.2.

G. C. SIMPSON, O.B., D.Sc., F.R.S.,
Director



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 16 MARCH 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Marston	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place
Time	06 ^h	07 ^h	07 ^h	07 ^h	06 ^h	07 ^h	07 ^h	00 ^h	07 ^h	07 ^h	09 ^h	07 ^h	07 ^h	10 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Feet	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Surf.	Feet
1000	140 21	125 21	135 22	155 13	160 17	145 23	140 14	145 23	120 21	130 21	140 24	140 20	125 24	130 20	130 5	80 15	130 20	95 21	140 7	1000
2000	145 15	160 14	165 21	175 11	155 15	145 24	180 13	160 23	135 26	140 13	155 15	135 27	150 27	145 19	125 8	95 11	135 21	95 16	160 13	2000
3000	150 14	155 17	140 23	140 20	160 13	150 21	160 14	170 20	140 23	165 24	135 13	160 21	145 26	145 21	105 9	100 8	140 23	160 12	170 17	3000
4000	175 13	155 20	155 25		155 15	155 21	130 17	160 17	160 19	170 30	(2,300)			160 20	135 7	105 8		160 18		4000
5000	180 23	175 25	130 37			160 32	165 18		175 25	160 37				180 21				175 13		5000
6000	185 27					175 18	173 17		170 27					185 19				185 10		6000
8000	185 24					195 18	195 18		165 25					185 20				155 19		8000
10000	2000					160 19	180 22		165 25					185 25						10000
12000	190 32	Ac 10h			Ac 10h	140 27	160 19		165 25			Ac 10h				Ac 10h	Ci 05			12000
Neph.	180 42	220 36			180 35	150 50						180 33				200 27	160 50			Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Marston	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Croydon	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place
Time	10 ^h	12 ^h	12 ^h	12 ^h	10 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h	12 ^h	12 ^h	12 ^h	12 ^h		Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b		Type
Surf.	150 9	180 10	140 13	100 16	170 14	160 13	145 7	100 5	115 5	170 7	95 13	145 8	100 15	325 3	110 5	60 9	65 10	90 12		Surf.
1000	155 11	155 15	150 17	155 13	170 21	170 17	170 15	115 10	130 10	165 10	135 16	130 16	125 17	55 10	125 9	90 12	80 11	95 21		1000
2000	120 20	150 14	135 16	130 16	250 22	165 15	150 19	135 19	155 22	165 19	145 20	145 27	110 21	90 13	165 15	140 9	130 8			2000
3000	155 23	145 18	145 28	155 24	150 19	185 13	160 23	175 17	155 21	165 23	155 29		90 21		195 18	180 15	175 13			3000
4000	165 23	170 32	155 29	155 27	165 21	185 15	170 19	180 15	160 23	170 25	180 25		100 19			180 16	180 17			4000
5000	175 21	175 32		155 35	175 17	185 13		200 19	165 29	170 30	170 19		100 25			185 17	185 16			5000
6000		165 35			190 11	155 9		195 21		170 30	175 19					205 17	180 17			6000
8000		170 40			165 13	185 17				170 28	180 32					175 18	185 8			8000
10000					160 25	160 25										175 25	160 17			10000
12000	Ac 10h	Ac 13h			Ac 13h	Ac 16h				Ac 13h		Ac 13h				(9,000)	160 18			12000
Neph.	180 42	190 69			170 30	150 30	180 33			170 40		180 30								Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Marston	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place
Time	17 ^h	17 ^h			17 ^h	17 ^h	17 ^h	17 ^h		17 ^h		17 ^h	17 ^h	17 ^h	16 ^h	17 ^h			17 ^h	Time
Type	b	b			b	b	b	b		b		b	b	b	b	b			b	Type
Surf.	165 12	160 10			190 8	135 8	150 7	90 3		95 10		135 7	120 9	360 1	85 5	80 10				Surf.
1000	170 16	160 20			200 16	185 15	175 17	145 13		115 13		150 18	145 11	40 7	105 9	75 15			130 21	1000
2000	185 26	170 26			200 20	210 20	200 24	155 12					155 15	165 9		100 7				2000
3000		175 24			200 20	205 23	220 23	175 15					170 17			155 12			140 22	3000
4000					195 22	175 24	190 23	175 19								180 14				4000
5000					185 23	170 32	170 15	180 22								175 13				5000
6000					170 18	165 21	165 14	170 24								165 7				6000
8000					165 18											150 6				8000
10000					(7,000)															10000
12000																				12000
Neph.							180 33													Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 5,8

No. 5,831

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t-t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fuhrt.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

SUNDAY, 17th MARCH 1935

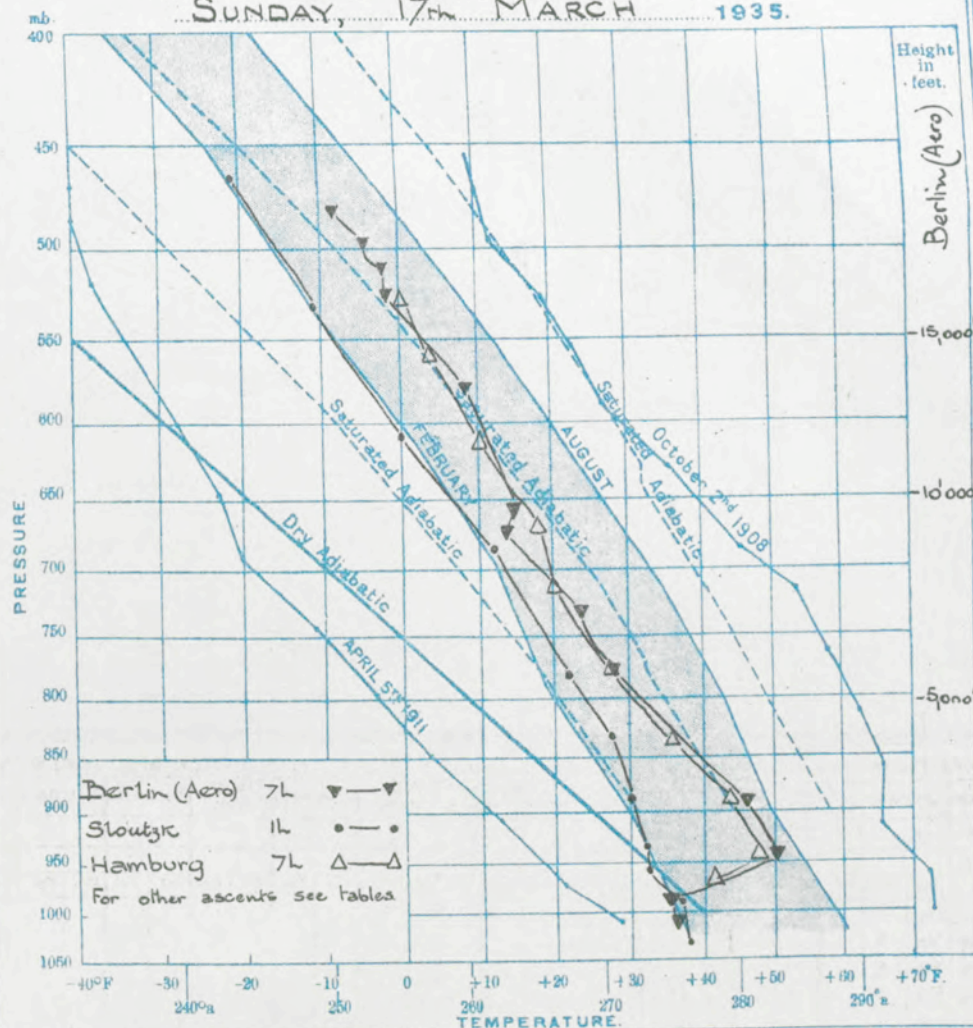
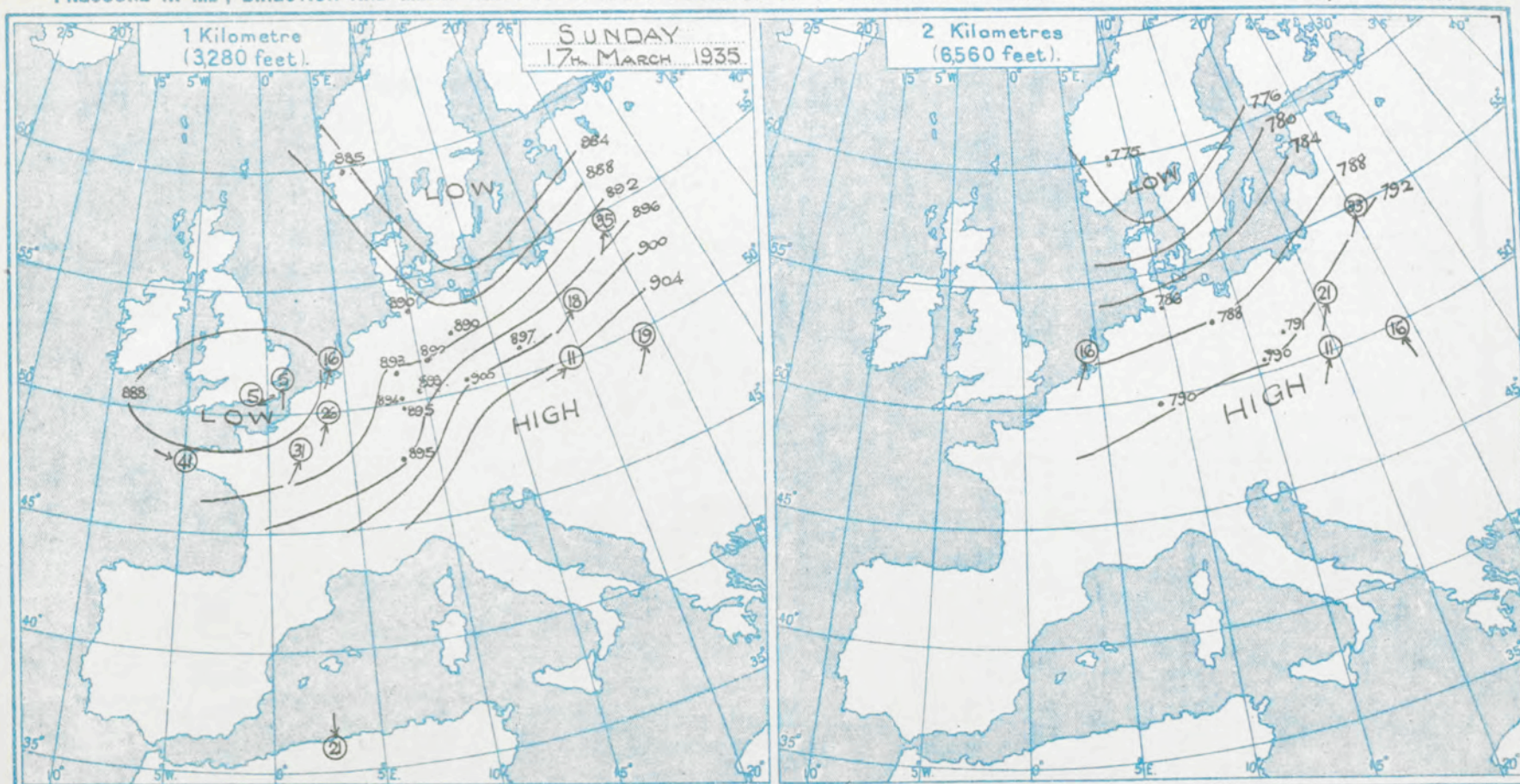


TABLE OF UPPER AIR TEMPERATURES RECORDED ON SUNDAY, 17th MARCH 1935.

[illegible]

Meteorological Office, Air Ministry
Kingsway, London, W.C.2.

G. C. SIMPSON, C.B., D.Sc., F.R.S.,
Director



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 17 th MARCH. 1935.																																						
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansel	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place																		
Time.	11h				7h		7h													Time																		
Type																				Type																		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																	
Surf.	290	3					145	3													Surf.																	
1000	85	5					190	8													1000																	
2000	60	5					190	8													2000																	
3000	90	4					170	9													3000																	
4000	85	5					160	12													4000																	
5000																					5000																	
6000																					6000																	
8000																					8000																	
10000																					10000																	
12000																					12000																	
Neph.																					Neph.																	
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Mansel	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mansel	Alder-grove	Middlehall	Place																		
Time.	11h.	12h.	12h.	12h.	15h.			12h.	12h.	13h.	12h.	12h.	12h.	12h.	11h.	13h.	12h.	12h.	12h.	Time																		
Type								b.		b.			b.		b.	b.				Type																		
Surf.	290	3	-	0	330	6	300	5	340	5			250	2	10	3	315	20	280	5	305	9	290	5	15	5	335	3	40	5	165	5	250	2	310	4		
1000	85	5	360	5	345	10	325	7	315	3			280	9	325	4	315	20	295	10	295	13	285	9	5	12	40	7	65	5	200	4	270	4	225	5		
2000	60	5	15	5	10	8	350	10	275	4			310	11			315	19	275	8	300	13					360	9							245	3		
3000	90	4	(1500)						235	5			295	16			310	10																	245	8		
4000	85	5							205	6.																										250	9	
5000																																					245	6
6000																																						
8000																																						
10000																																						
12000																																						
Neph.																																						
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Mansel	Place																		
Time.	24h.																15h.	17h	17h.	Time																		
Type																				Type																		
Surf.	265	8																		Surf.																		
1000	325	10															280	8	215	3	-	0	1000															
2000	325	13															245	9	245	13	-	0	2000															
3000	325	15															230	10	265	13	260	4	3000															
4000	325	16															235	12	290	13	260	8	4000															
5000	320	16															245	16			280	9	5000															
6000	310	14																			315	6	6000															
8000	315	22																			350	11	8000															
10000																					310	13	10000															
12000																							12000															
Neph.																							Neph.															

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION.

No. 5,832

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for those months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrs.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

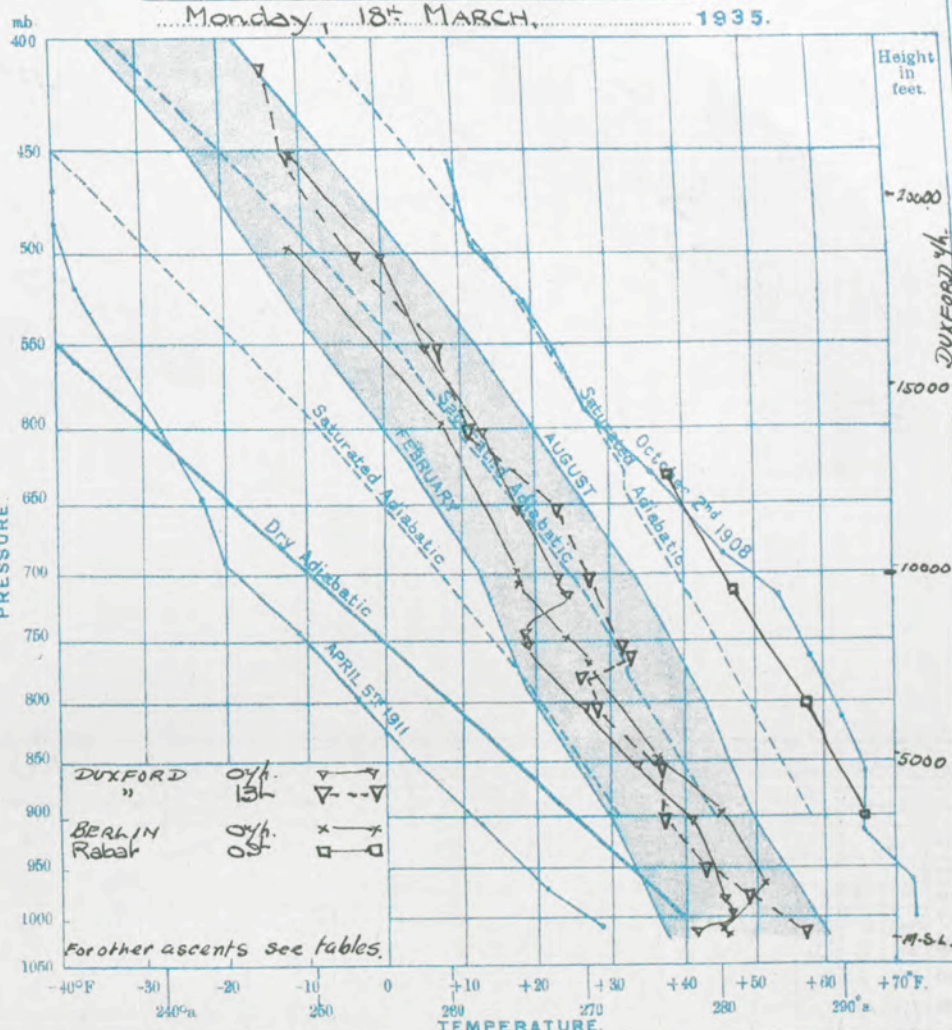
d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

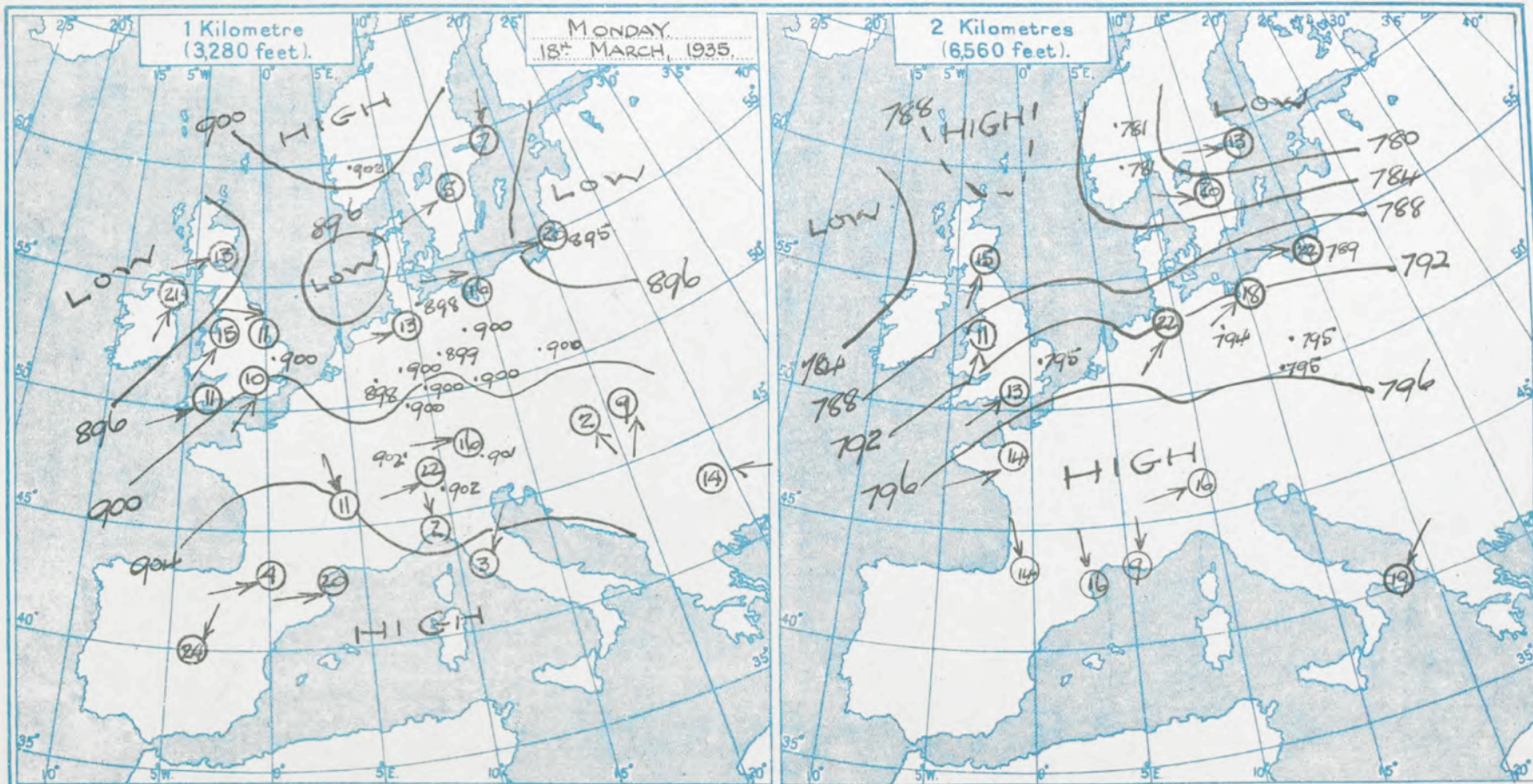
CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Monday, 18th MARCH, 1935.TABLE OF UPPER AIR TEMPERATURES RECORDED ON Monday, 18th MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD Yh.				Duxford 13				COLOGNE Yh.				BRESLAU Yh.				BERLIN Yh.				KONIGSBERG Yh.				Cherbourg 07				Dijon 10h			
1018	M.S.L.	—	—	1012.5	M.S.L.	—	—	1011	M.S.L.	—	—	1002	M.S.L.	—	—	1008	M.S.L.	—	—	1009	M.S.L.	—	—	904	M.S.L.	—	—	905	M.S.L.	—	—
1014.8	100	41.6	96	1016.0	100	56.0	74	989	157	46	92	960	420	37	80	1002	184	46	81	970	92	37	91	904	3280	37	—	905	3280	41	—
777	1100	46.8	75	930	100	43.0	67	889	660	46	84	960	1640	48	58	965	330	45	81	970	1310	45	52	798	6560	23	—	798	6560	28	—
900	3280	40.8	68	950	—	—	—	836	5240	30	98	905	3280	43	68	965	1310	51	84	925	2300	40	50	704	9840	28	—	704	9840	27	—
850	4410	33.5	87	900	3380	42.4	67	828	5570	30	98	764	3280	45	58	898	3280	45	58	843	1420	30	63	620	13120	15	—	614	13120	7	—
800	6390	26.8	100	850	4900	36.2	68	744	8200	21	98	764	8200	21	98	841	5240	36	73	826	5240	28	52	546	16400	9	—	—	—	—	—
750	8050	14.5	—	800	6430	28.0	100	734	8540	21	84	684	10170	15	82	764	7800	27	74	820	5570	29	44	—	—	—	—	—	—	—	—
700	9840	7.2	69	750	8180	32.0	55	655	11490	9	80	661	11480	13	44	745	8200	24	74	745	6730	27	39	—	—	—	—	—	—	—	—
650	11750	14.8	—	700	10000	27.2	83	649	11800	10	72	605	—	—	84	704	4530	18	29	710	9200	13	45	—	—	—	—	—	—	—	—
600	13790	1.8	—	650	11300	22.6	34	559	15430	-3	60	546	16800	6	84	694	10170	18	77	645	7840	13	46	—	—	—	—	—	—	—	—
550	15980	5.2	—	600	13550	15.2	—	553	15760	-3	51	530	16730	-4	80	542	14130	7	71	621	12790	4	80	—	—	—	—	—	—	—	—
500	18360	0.0	—	550	16170	6.8	—	532	16730	-6	44	—	—	—	—	445	18370	-12	75	568	14760	-2	62	—	—	—	—	—	—	—	—
450	20960	-11	—	500	18520	-3.0	—	—	—	—	—	—	—	—	—	—	—	—	—	532	16400	-7	44	—	—	—	—	—	—	—	—
Haze top 870 mb.				450 21160 -11.5				HAMBURG Yh.				DARMSTADT Yh.				FRIEDRICHSHAFEN Yh.				MUNICH Yh.				Trappes 10h				Utrecht 11h			
Haze thickening.				420 22760 -15.8				1012 M.S.L. — — 96				1006 M.S.L. 445 — 74				972 M.S.L. 39 — 95				958 M.S.L. 43 — 66				904 M.S.L. 33 — —				935 M.S.L. 670 — 85			
St. Cir. 700-790 mb.				Thick patches of haze to 730 mb.				971 1310 41 98				983 980 46 74				954 1470 42 84				911 2450 41 73				799 6560 28 —				958 1650 39 85			
Clearing.				Cloud: Skew 9/10				923 2620 41 98				855 14600 33 95				900 3280 36 85				856 14600 38 72				614 13120 12 —				847 4920 32 45			
St. Cir. 10-190 Yh. mb.				Formed from Cu at 900 mb spreading at 730 mb with tops to 750 mb				923 2620 41 98				855 14600 33 95				900 3280 36 85				856 14600 38 72				614 13120 12 —				847 4920 32 45			
Inversions: (1) Screen 41.6° F. 400 ft. 44° F. (2) 465 mb. 19.3° F. (3) 415 mb. 24.0° F. Rime formed in cloud 790 to 745 mb.				Inversion: 751 mb 26.5° 756 " 32.2°				923 2620 41 98				855 14600 33 95				900 3280 36 85				856 14600 38 72				614 13120 12 —				847 4920 32 45			
LINDENBERG Yh.				Rabat 05-				1012 M.S.L. — — 96				1006 M.S.L. 445 — 74				972 M.S.L. 39 — 95				958 M.S.L. 43 — 66				904 M.S.L. 33 — —				935 M.S.L. 670 — 85			
1000	308	43	80	800	3280	66	—	971	1310	41	98	983	980	46	74	954	1470	42	84	911	2450	41	73	799	6560	28	—	958	1650	39	85
968	1310	41	68	799	6560	58	—	923	2620	41	98	855	14600	33	95	900	3280	36	85	856	14600	38	72	614	13120	12	—	847	4920	32	45
738	8500	21	88	703	9840	47	—	861	15270	35	98	823	5240	33	83	835	5240	30	98	761	7800	25	90	540	16400	4	—	796	6560	25	85
670	10830	10	64	623	13120	37	—	442	6560	30	94	839	5240	33	83	835	5240	30	98	761	7800	25	90	540	16400	4	—	747	8200	23	65
648	11800	10	62	—	—	—	—	430	8850	22	91	766	8200	22	81	746	8200	21	94	729	8630	18	68	—	—	—	—	700	9840	18	55
626	12460	7	82	—	—	—	—	400	9840	14	91	660	—	—	98	682	10500	13	88	702	9840	18	60	—	—	—	—	615	13120	9	45
—	—	—	—	—	—	—	—	659	11440	14	80	654	11480	4	73	672	10530	12	82	651	11800	9	68	—	—	—	—	539	16400	0	35
—	—	—	—	—	—	—	—	613	13120	10	84	642	12120	4	62	622	12790	4	80	647	12130	10	78	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	590	15100	5	85	602	12450	3	62	—	—	—	—	591	14430	3	85	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	521	17390	0	84	542	14430	2	62	—	—	—	—	562	15430	-1	95	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	538	16400	-8	60	—	—	—	—	510	17720	-9	90	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	529	16780	-8	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	504	17720	-14	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meteorological Office, Air Ministry. Kingsway, London, W.C.2. G. C. SIMPSON, C.B., D.Sc., F.R.S., Director.																															



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.																					18th MARCH, 1935.	
Place	Croydon	South Farnboro	South Farnboro	Croydon	Monstan	Bircham Newton	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Pembroke Dock	Alder-grove	Valentia	Place		
Time	6h.	7h.	10h.	11h.	6h.	9h.	7h.	7h.	7h.	7h.	9h.	7h.	7h.	7h.	7h.	8h.	10h.	8h.		Time		
Type																				Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.		
Surf.	260	3	Calm	170	3	Calm	185	5	265	3	305	9	245	4	155	2	110	4	145	14		
1000	45	2	230	6	230	8	200	10	205	11	185	10	185	16	185	10	210	5	215	11		
2000	170	8	215	8	240	12	225	8	210	15	190	10	185	16	185	12	235	9	225	15		
3000	265	12	225	10			235	10	300	15	190	15			245	11	240	4	260	11		
4000	280	11	245	11			220	10	195	14	190	20			300	12	245	11	240	15		
5000	180	13	265	10			225	9	300	15					245	14	245	13		13		
6000	280	14	260	13			225	10							255	13	250	14		(4000)		
8000															10h. 280 45							
10000															7h. Agn							
12000															310 50							
Neph.																						
Place	Croydon	Seabury	Boscombe Down	Calshot	Monstan	Boscombe Down	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Aberdeen	Place		
Time	12h	15h	12h	11h	12h	14h	12h	13h	15h	13h	12h	12h	12h	12h	12h	12h	11h	12h	11h	Time		
Type	b	b					b	b			b	b		b	b	b				Type		
Surf.	215	7	155	10	200	4	200	12	210	4	210	10	215	7	245	6	210	10	165	15		
1000	233	7	175	14	195	6	230	15	245	5	220	16	255	6	220	12	215	13	135	15		
2000	255	11	200	12			235	11	230	6	215	10	265	11	220	14	220	14	205	15		
3000	245	10	245	17			240	9	245	9	235	13	235	13	230	14	220	15				
4000	215	12	270	14			200	13	260	9	220	12	260	16	230	15	240	14				
5000	215	13	270	13			200	13	265	13	260	14	270	17	235	9						
6000	215	12					270	7	265	13	265	9	270	15								
8000							330	16			7000'											
10000							Ci 16				7000'											
12000							270 45				Agn 16											
Neph.							Ci 13				Agn 15											
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Monstan	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Malta	Place		
Time	18h	17h	17h	17h	17h		17h	16h	17h			17h	17h	17h	16h	17h	17h	17h	17h	Time		
Type	b	b											b	b	b	b				Type		
Surf.	195	8	205	8	200	15	50	13	185	13			120	1	250	9	135	10				
1000	210	11	205	12	210	17	230	19	225	13			130	12	225	15	205	13				
2000	235	8	225	9	220	13	230	11	245	9			230	12	220	17	210	15				
3000	225	10	250	6	250	11	230	5	215	13			235	15	215	15	225	14				
4000	205	14	230	6	270	8	230	17	210	13			230	14	203	13	265	9				
5000	255	5	300	12	270	10	295	11	215	14			230	13	260	12	260	13				
6000	215	7	280	6	240	7							230	10	265	14	275	9				
8000																						
10000																						
12000																						
Neph.																						

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,833.

UPPER AIR TEMPERATURES.

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The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

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$$e'' = e' - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

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UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

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On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

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DIAGRAM OF UPPER AIR TEMPERATURES.

TUESDAY, 19TH MARCH, 1935

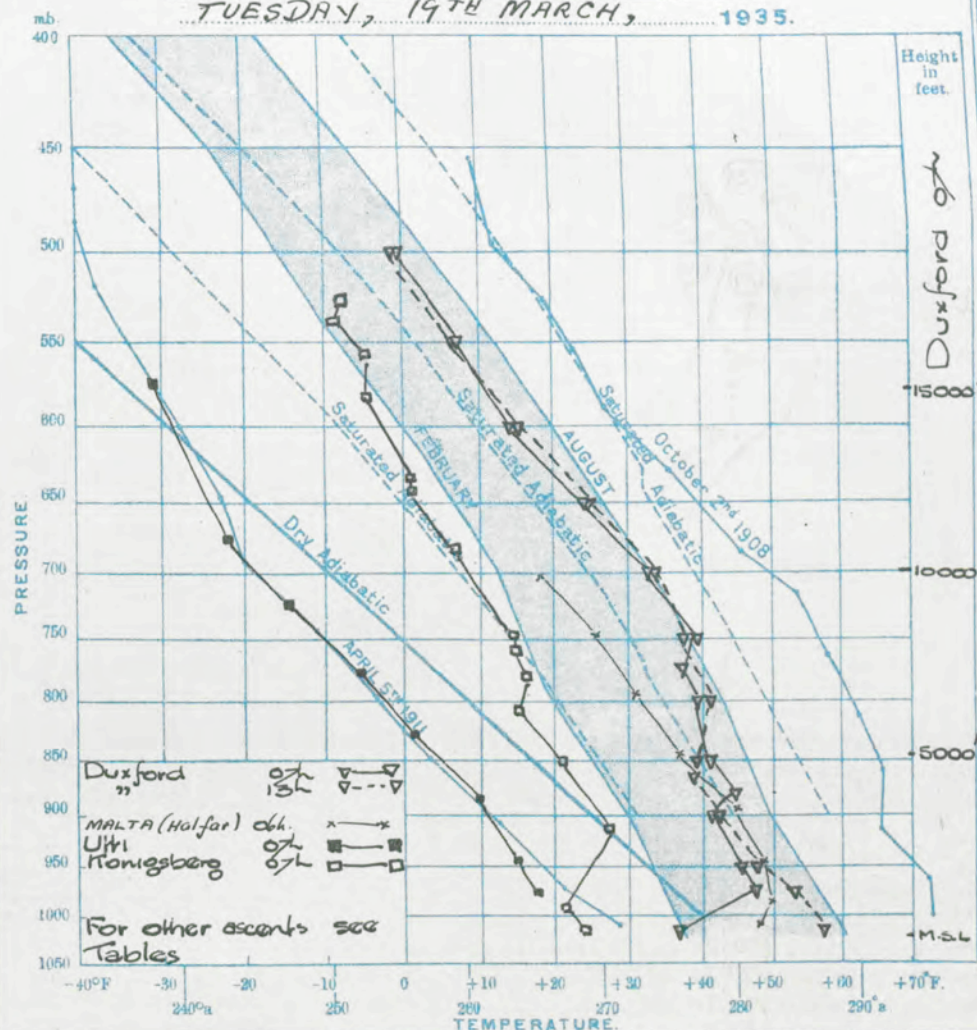
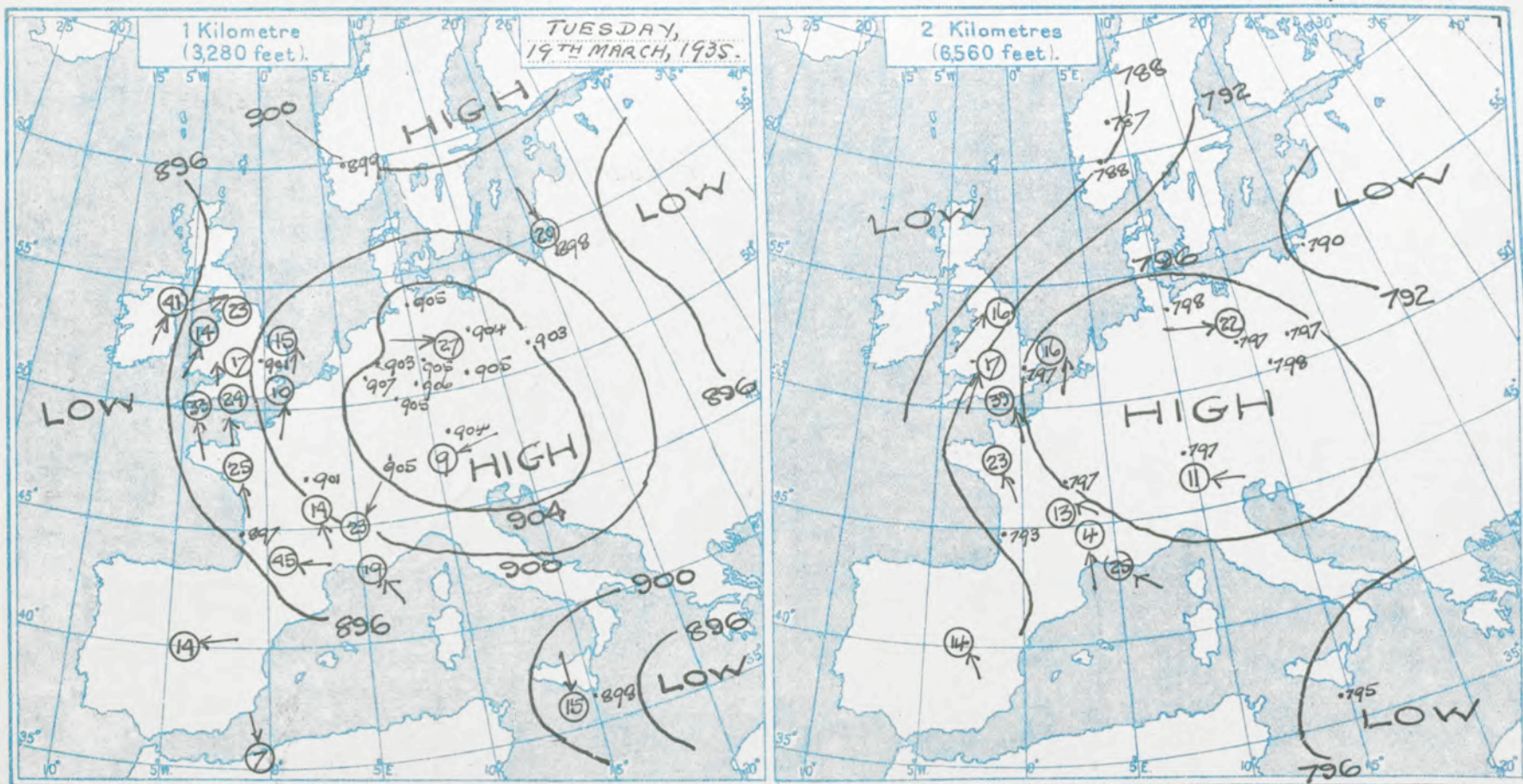


TABLE OF UPPER AIR TEMPERATURES RECORDED ON TUESDAY, 19TH MARCH, 1935.

TABLE OF SURFACE AIR TEMPERATURES RECORDED ON 17th MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity								
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%								
DUXFORD 4h.				Duxford 13h.				MAKTA (H/1/1c) 6h.				BERLIN 4h.				MUNICH 4h.				FRIEDRICHSHAFEN 6h.				S. Farn. 10.30				Bircham Norton 11.30											
1019 M.S.L.	—	—	—	1043 M.S.L.	—	—	—	1022 M.S.L.	—	—	—	1024 M.S.L.	—	—	—	1024 M.S.L.	—	—	—	1018.6 M.S.L.	—	—	—	1018.6 M.S.L.	—	—	—	1018.6 M.S.L.	—	—	—								
1015.5 100 37.4 96	100 37.4 96	71	983 880 50 45	1015 184 44 84	184 44 84	—	—	962 1662 39 58	1662 39 58	974 1312 35 98	1312 35 98	1010.2 230 50 —	230 50 —	—	—	1010.2 230 50 —	230 50 —	—	—	1010.2 230 50 —	230 50 —	—	—	1010.2 230 50 —	230 50 —	—	—	1010.2 230 50 —	230 50 —	—	—								
979 1090 47 55	1090 47 55	62	948 1860 44 45	1860 44 45	—	—	—	939 2300 40 88	2300 40 88	968 1640 35 98	1640 35 98	974 1180 45 —	1180 45 —	—	—	974 1180 45 —	1180 45 —	—	—	974 1180 45 —	1180 45 —	—	—	974 1180 45 —	1180 45 —	—	—	974 1180 45 —	1180 45 —	—	—								
950 1870 45.2 44	1870 45.2 44	67	975 1310 41 90	1310 41 90	—	—	—	894 3610 36 98	3610 36 98	940 2300 40 78	2300 40 78	929 2180 41 —	2180 41 —	—	—	929 2180 41 —	2180 41 —	—	—	929 2180 41 —	2180 41 —	—	—	929 2180 41 —	2180 41 —	—	—	929 2180 41 —	2180 41 —	—	—								
909 3330 40.8 47	3330 40.8 47	81	946 4420 37 75	4420 37 75	—	—	—	898 4270 36 44	4270 36 44	856 4600 33 79	4600 33 79	904 3180 35 —	3180 35 —	—	—	904 3180 35 —	3180 35 —	—	—	904 3180 35 —	3180 35 —	—	—	904 3180 35 —	3180 35 —	—	—	904 3180 35 —	3180 35 —	—	—								
850 4860 40.8 71	4860 40.8 71	81	995 6560 31 —	6560 31 —	—	—	—	813 6230 30 41	6230 30 41	824 5570 31 57	5570 31 57	841 5060 38 —	5060 38 —	—	—	841 5060 38 —	5060 38 —	—	—	841 5060 38 —	5060 38 —	—	—	841 5060 38 —	5060 38 —	—	—	841 5060 38 —	5060 38 —	—	—								
800 6450 38.5 62	6450 38.5 62	41	948 8200 26 —	8200 26 —	—	—	—	793 5570 31 57	5570 31 57	810 6230 31 47	6230 31 47	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—								
750 8180 34.2 67	8180 34.2 67	53	902 5570 27 90	5570 27 90	—	—	—	743 6230 27 88	6230 27 88	810 6230 31 47	6230 31 47	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—	810 6090 40 —	6090 40 —	—	—								
700 10000 32.2 74	10000 32.2 74	64	824 6230 27 88	6230 27 88	—	—	—	719 7200 18 69	7200 18 69	764 7560 25 47	7560 25 47	764 7560 25 47	7560 25 47	—	—	764 7560 25 47	7560 25 47	—	—	764 7560 25 47	7560 25 47	—	—	764 7560 25 47	7560 25 47	—	—	764 7560 25 47	7560 25 47	—	—								
650 11950 23 78	11950 23 78	88	749 7230 26 65	7230 26 65	—	—	—	703 9840 16 67	9840 16 67	715 9200 23 39	9200 23 39	715 9200 23 39	9200 23 39	—	—	715 9200 23 39	9200 23 39	—	—	715 9200 23 39	9200 23 39	—	—	715 9200 23 39	9200 23 39	—	—	715 9200 23 39	9200 23 39	—	—								
600 14000 13.2 —	14000 13.2 —	—	725 8850 24 52	8850 24 52	—	—	—	688 10500 18 49	10500 18 49	641 12130 16 34	12130 16 34	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—								
550 16210 7.2 —	16210 7.2 —	—	716 9200 24 59	9200 24 59	—	—	—	641 12130 16 34	12130 16 34	641 12130 16 34	12130 16 34	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—	641 12130 16 34	12130 16 34	—	—								
500 18410 0.2 —	18410 0.2 —	—	645 10830 23 59	10830 23 59	—	—	—	554 16240 3 27	16240 3 27	661 11480 18 30	11480 18 30	661 11480 18 30	11480 18 30	—	—	661 11480 18 30	11480 18 30	—	—	661 11480 18 30	11480 18 30	—	—	661 11480 18 30	11480 18 30	—	—	661 11480 18 30	11480 18 30	—	—								
INVERSIONS—				INVERSION—				INVERSION—				INVERSION—				INVERSION—				INVERSION—				INVERSION—				INVERSION—				INVERSION—				INVERSION—			
(1) Screen 37.4°F. 100 ft. 47.6°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.			
(2) 900 mb. 40.8°F. 850 mb. 42°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.			
(3) 780 mb. 37.2°F. 755 mb. 39.5°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.				Base 1009 mb. Rise 2°F.			
Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.				Haze to 800 feet thick in S. with woolly top in westerly running E. to W. Thin St. in N. at 900 and 890 mb. Thin H. St. 5 ft. not reached.							
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DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 19 th MARCH, 1935.																																									
Place	Croydon	Bicester	Boscombe Down	Calshot	Manston	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Bircham Newton	Alder Grove	Malta	Place																					
Time	6h.	10h.	9h.	7h.	6h.	4h.	7h.	7h.	6h.	7h.	9h.	7h.	11h.	7h.	7h.	8h.	9h.	7h.	6h.	Time																					
Type																				Type																					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet				
Surf.	170	12	180	12	170	12	80	5	155	9	155	5	170	3	180	8	155	8	125	18	165	15	135	11	210	8	180	3	250	8	165	6	180	5	155	15	Surf.				
1000	195	14	190	15	170	20	180	21	185	21	200	16	195	16	220	14	185	19	155	28	170	32	180	12	235	25	210	12	245	26	200	14	205	21	175	34	310	15	1000		
2000	195	13	190	21	170	28	195	21	185	18	195	14	185	21	225	22	195	19	165	31	185	34	210	14	250	27	240	20	255	28	205	26	210	21	195	42	350	15	2000		
3000	200	10	195	21	170	24	170	23	165	12	195	13	185	20			180	14	165	33	190	32	195	14	240	25	240	23					210	15	195	41	350	15	3000		
4000			190	23	160	29	165	26	190	12	170	9	190	19			170	14	160	32	185	32	190	25	220	14	225	18					190	12	195	36	360	14	4000		
5000			170	22	165	35	155	23	190	10	175	11					165	15					175	23	200	11	220	15					190	15					5000		
6000			165	20	160	39	10h. C.		185	8	190	13					195	14					195	15	205	15	225	16					200	16					6000		
8000			175	20	160	39	10h. C.		195	4	225	13					195	15					195	15	205	15	225	16					205	14					8000		
10000			175	20	160	39	10h. C.		195	4	225	13					195	15					195	15	205	15	225	16					210	14					10000		
12000	10h. C.		175	20	160	39	10h. C.		195	4	225	13					195	15					195	15	205	15	225	16					225	15					12000		
Neph.	170	20	180	30	170	45	180	15			210	15	180	20	215	13	180	35														280	30	215	13					Neph.	
Place	Croydon	South Farnborough	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Bircham Newton	Alder Grove	Malta	Place																					
Time	12h	12h	12h	12h	12h	11h	12h	13h	12h	11h	12h	12h	12h	12h	12h	13h	12h	12h	11h	Time																					
Type																				Type																					
Surf.	150	18	160	10	160	18	100	12	165	12	185	12	155	13	200	12	130	14	125	22	175	20	155	15	165	13	160	7	230	10	170	6	215	12	155	14	210	8	Surf.		
1000	170	15	165	12	175	24	165	20	180	15	190	15	190	17	205	15	180	17	150	32	175	20	155	15	160	14	160	15	225	16	180	16	190	16	165	21	235	25	1000		
2000	185	14	175	17	165	15	160	21	185	18	190	15	190	14	190	17	180	23	135	32	190	36	165	31	180	19	205	18	235	17			190	15	180	27	250	27	2000		
3000	160	19	190	11	170	14	160	21	185	24	190	21	190	18	190	15			160	34	185	36	175	26	175	23	205	26	230	37			195	19	185	48	240	25	3000		
4000			185	20	170	31			185	23	180	19	185	23	180	27			165	33	180	47	175	31	180	21	200	23	235	31			190	21	180	46	280	17	4000		
5000			(3800ft)	170	32				185	23	180	24							170	35	190	30	185	27	185	15	185	22	225	44			180	21	175	42	200	11	5000		
6000				165	30				170	15	175	12							175	37			175	24	160	25	175	19					175	21	180	42	205	15	6000		
8000			C. 16		C. 16				160	15	165	16							175	37			175	24	160	25	175	19					170	13					8000		
10000			120	30	180	45			150	18	150	15							175	37			175	24	160	25	175	19					165	19					10000		
12000			C. 13		C. 13				150	15	150	15							175	37			175	24	160	25	175	19					170	17					12000		
Neph.			180	40	180	30	180	20			190	20	190	35					175	37			175	24	160	25	175	19					170	17					Neph.		
Place	Croydon	South Farnborough	Boscombe Down	Calshot	Manston	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Bircham Newton	Alder Grove	Malta	Place																					
Time	17h	17h	17h	17h	17h	17h	17h	16h	17h	17h	17h	17h	17h	16h	16h	17h	17h	17h	17h	Time																					
Type																				Type																					
Surf.	140	13	150	8	150	13	110	15	130	10	120	7	140	6	190	13	160	10	95	15	180	13	145	13	140	12	140	3	205	8	165	4	175	10	145	10			Surf.		
1000	140	19	130	17	140	20	125	23	145	14	130	15	155	13	130	15	165	15	130	24	160	34	160	22	175	18	165	15	200	17	180	17	180	25	165	15	320	12	1000		
2000	150	15	140	18	150	26	135	25	175	20	150	12	175	17	185	16	160	22	155	27	175	36	175	25	170	20	180	17	200	27	195	31	190	29	175	15			2000		
3000	175	24	165	19	165	26	155	28	175	24	175	23	175	3	180	18	170	23	165	23			180	34			185	18			200	25	195	40	195	23	200	13	330	7	3000
4000	173	25			160	29			175	22	130	26	175	23	210	18	185	23	165	25									200	31					200	27	320	13	4000		
5000	175	21							200	25	195	31	165	30																									5000		
6000	185	23							190	26	190	25	225	24																									6000		
8000	180	22							185	17	180	16	185	30																									8000		
10000	C. 16								185	27	175	23	185	30																									10000		
12000	210	20							C. 15				180	22																									12000		
Neph.	C. 18								180	25	170	30	190	23																									Neph.		

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION.

No. 5834

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Wednesday 20 March 1935.

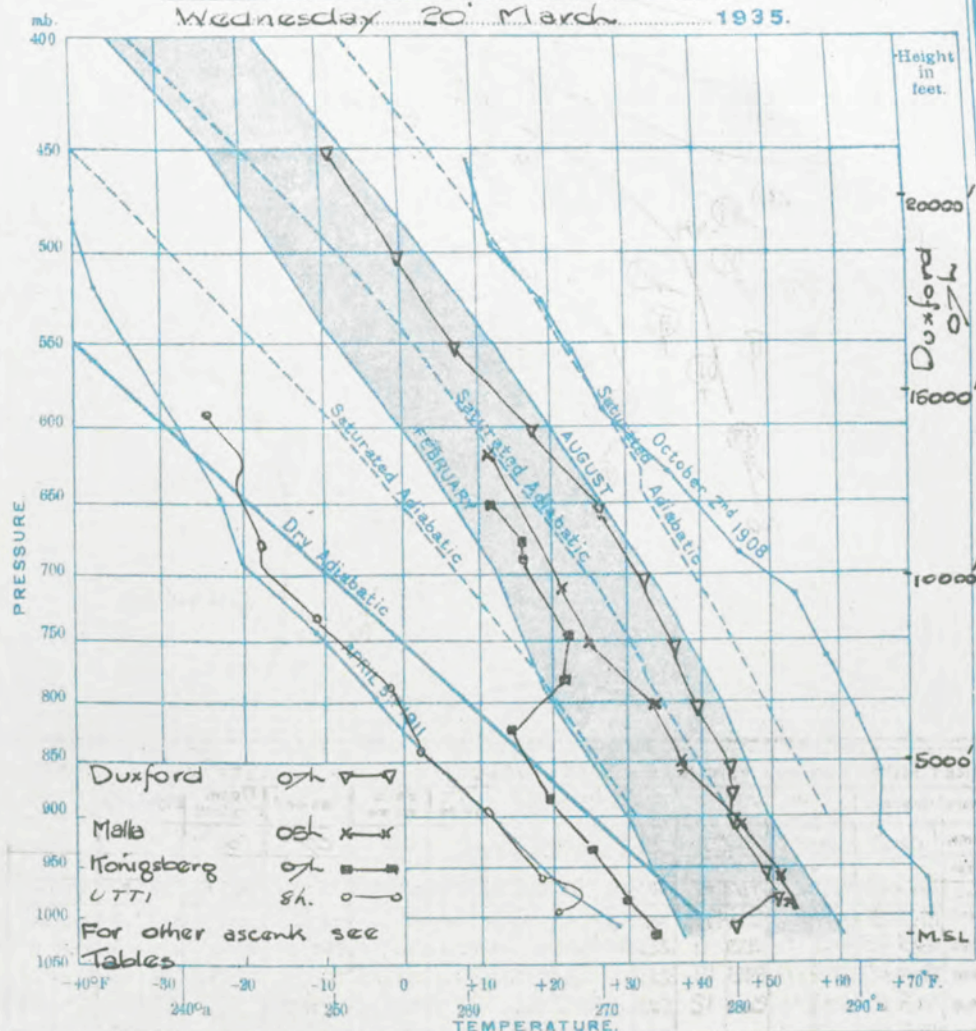
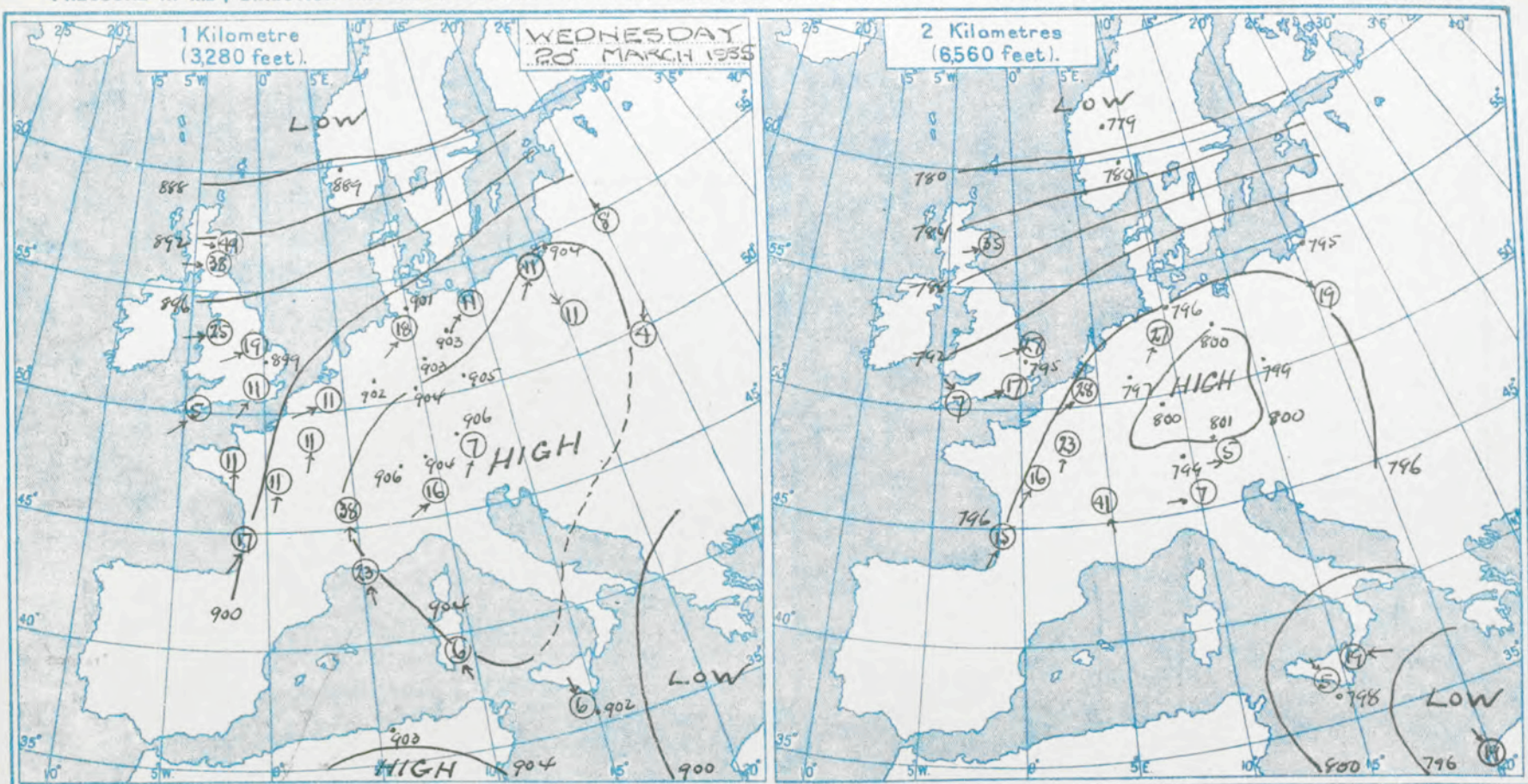


TABLE OF UPPER AIR TEMPERATURES RECORDED ON Wednesday 20 March 1935.

Pressure.				Height above M.S.L.				Temp.				Relative Humidity.				Pressure.				Height above M.S.L.				Temp.				Relative Humidity.				Pressure.				Height above M.S.L.				Temp.				Relative Humidity.				Pressure.				Height above M.S.L.				Temp.				Relative Humidity.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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1040 M.S.L.				1015 M.S.L.				1013 M.S.L.				1312 M.S.L.				1008 M.S.L.				1015 M.S.L.				1017 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 M.S.L.				1015 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DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 20 March 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	Cranwell	Felixstowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Boscombe Down	Catterick	Leuchars	RAF Newby	Aberdeen	Alder Grove	Malta	Place
Time	00	07	09	06	07	06	06	07	06	07	07	07	09	07	08	09	07	07	06	Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	155 2	160 6	Cal 1m	95 2	210 11	145 15	Cal 1m	250 6	225 5	85 5	145 4	230 8	Cal 1m	255 2	245 12	220 8	240 12	215 13		Surf.
1000	135 25	240 13	255 11	225 10	265 4	230 12	245 11	260 21	230 16	170 3	265 11	260 12	260 7	255 25	255 38	255 21	250 33	240 23		1000
2000	200 25	235 12	245 12	225 11	220 9	270 10	210 13	260 22	245 22	230 3	280 21	260 21	255 10		265 42	255 21	260 35	260 21		2000
3000	215 21	225 11	260 12	220 12	215 16		210 19	260 13		235 5	275 25	260 24	260 18		270 38	255 26	260 49		340 6	3000
4000	195 19	240 14		225 13	220 17		235 21	260 23		335 5		280 24	240 14			235 25	265 45			4000
5000	170 14	255 15		235 15	240 17		250 24	260 10		345 6		(4150)	255 20				265 34			5000
6000	185 13	265 17			240 17		250 24	260 45		325 7	S. Farn		230 20				260 35			6000
8000	210 17	265 21		Ac 10	240 15		240 21	Boscombe Down	Ac 10	335 2	Ac 10		235 17							8000
10000	210 19	Biggin		130 48	235 19	Ac 10	235 14	230 50	240 18		240 18	Ac 10	230 25							10000
12000	210 19	Biggin		130 48	235 19	Ac 10	235 14	230 50	240 18		240 18	Ac 10	230 25							12000
Neph.	210 19	Biggin		130 48	235 19	Ac 10	235 14	230 50	240 18		240 18	Ac 10	230 25							Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	Cranwell	Felixstowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Man-chester	Catterick	Leuchars	RAF Newby	Aberdeen	Alder Grove	Valentia	Place
Time	12h	12h	12h	12h	12h	10h	12h	13h	12h	12h	12h	12h	12h	12h	12h	13h	12h	13h	10	Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Surf.	140 8	230 10	220 3	135 1	260 5	260 15	180 2	275 9	245 6	205 2	205 15	260 4	280 14	250 12	275 18	255 25	245 10	245 11	165 14	Surf.
1000	145 9	240 10	225 6	205 5	250 7	265 21	245 11	255 14	250 9	190 3	230 18	280 9	260 15	280 22	265 25	260 31	260 11	255 13	185 13	1000
2000	150 11	250 10	225 6	205 9	255 13	275 18	245 16	270 13	230 9	125 2	230 15	240 9	280 13	255 22	260 25	260 31	270 13	255 14	205 15	2000
3000	145 18	255 16	245 13	145 14	255 18	265 18	250 14	270 20	260 12	205 5	240 18	280 10	285 16	210 25	265 33	265 34	270 17			3000
4000	165 14	265 16	270 10	230 13	245 14	260 22	265 23		275 16	200 2	260 14			275 21			260 16			4000
5000	155 15	255 19	205 6	240 13	250 14	260 25	255 23		280 16	350 2				270 23			275 21			5000
6000	155 15	260 14	305 8	240 12	245 15	255 19	250 15		265 14	330 4				270 25			265 20			6000
8000	155 14	240 12	230 9	14h Ci	225 19	250 25	245 20		265 14	265 10				265 5	16h Ci	16h Ci	265 23			8000
10000	155 14	240 12	230 9	14h Ci	225 19	250 25	245 20		265 14	265 10				265 5	16h Ci	16h Ci	265 23			10000
12000	155 14	240 12	230 9	14h Ci	225 19	250 25	245 20		265 14	265 10				265 5	16h Ci	16h Ci	265 23			12000
Neph.	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	14h Ci	Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	RAF Newby	Felixstowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Man-chester	Catterick	Leuchars	RAF Newby	Aberdeen	Alder Grove	Valentia	Place
Time	14h	14h	14h	14h	14h	14h	14h	16h	14h	14h	14h	14h	14h	14h	16h	18h	24h	14h	16h	Time
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type
Surf.	195 13	240 4	210 6	200 5	200 8	275 10	215 6	250 6	330 4	200 7		335 5	305 15	230 10	265 18	240 10	225 5	225 10	190 2	Surf.
1000	210 13	260 9	210 9	185 11	235 14	280 15	240 14	265 15	325 8	205 6		240 7	240 14	260 17	275 25	260 25	275 13	235 14	(3000)	1000
2000	255 11	260 8	230 7	240 4	255 13	270 12	255 13	270 14	315 11	215 1		250 8	270 13	275 24	270 22	265 27	240 9	260 18	340 4	2000
3000	280 12	255 12	255 7	280 4	275 11	260 14	270 15	275 14	255 13	285 1		245 9	280 17	280 28	270 23	275 33	280 9	260 15	(7000)	3000
4000	300 11	255 4	275 9	270 4	265 9	275 17	240 17	255 14	280 3			270 14	265 20	285 31	270 23	275 39	280 9	260 20	360 6	4000
5000	295 9	300 10	280 8	250 4	250 11	280 17	240 11	265 22	260 12	275 5		275 17	270 25	280 20	275 29	270 37	285 9	270 18	(10000)	5000
6000	300 4	305 9	285 4	275 9	270 11	270 17		260 27	255 13	215 6		270 21	265 26	265 37		275 30	280 8	305 14	360 11	6000
8000	310 4	290 6	305 4	320 8	265 13	275 19			250 15	255 10			265 32	290 38		290 39	285 4		(20000)	8000
10000	220 9	235 14		235 14	260 19	250 23			260 14	250 5			18h Ci	270 20	295 34		290 39	285 4		10000
12000	215 16	255 15		18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	12000
Neph.	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	18h Ci	Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,835.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

THURSDAY, 21ST MARCH, 1935.

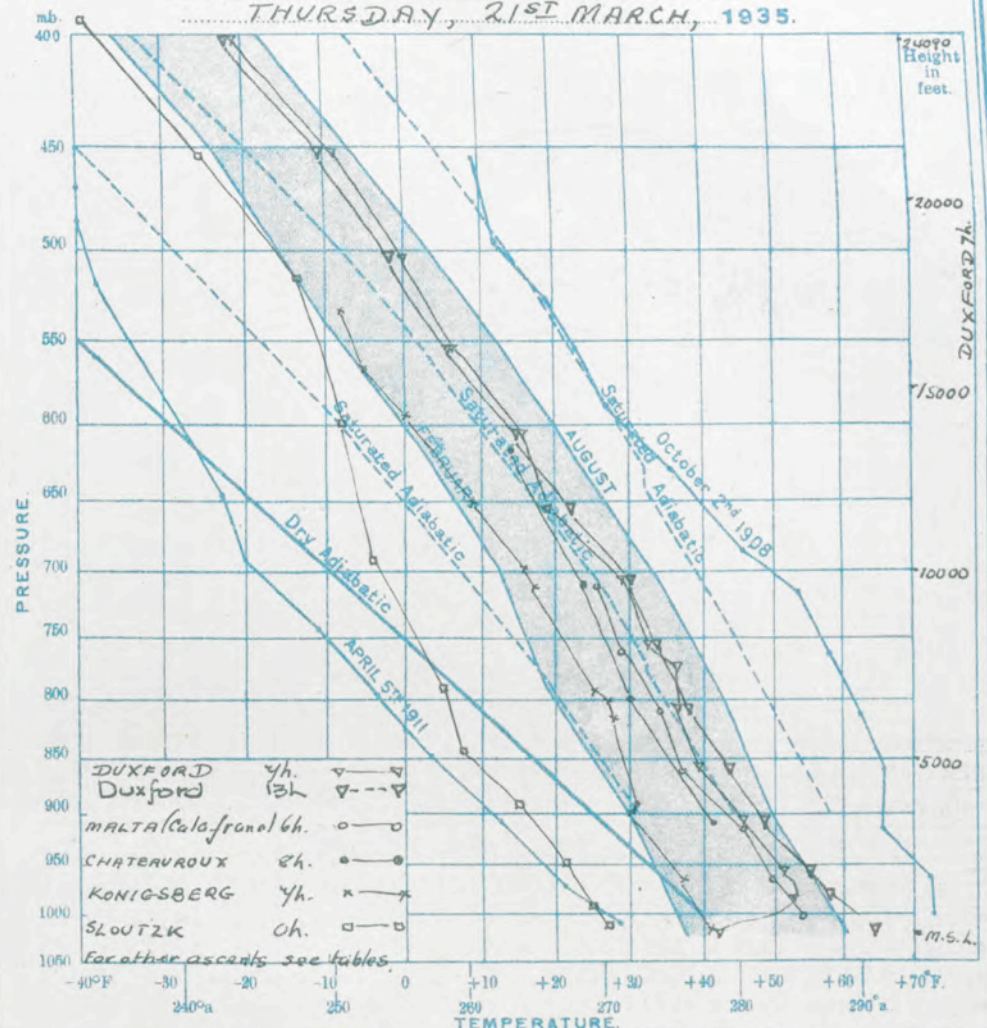
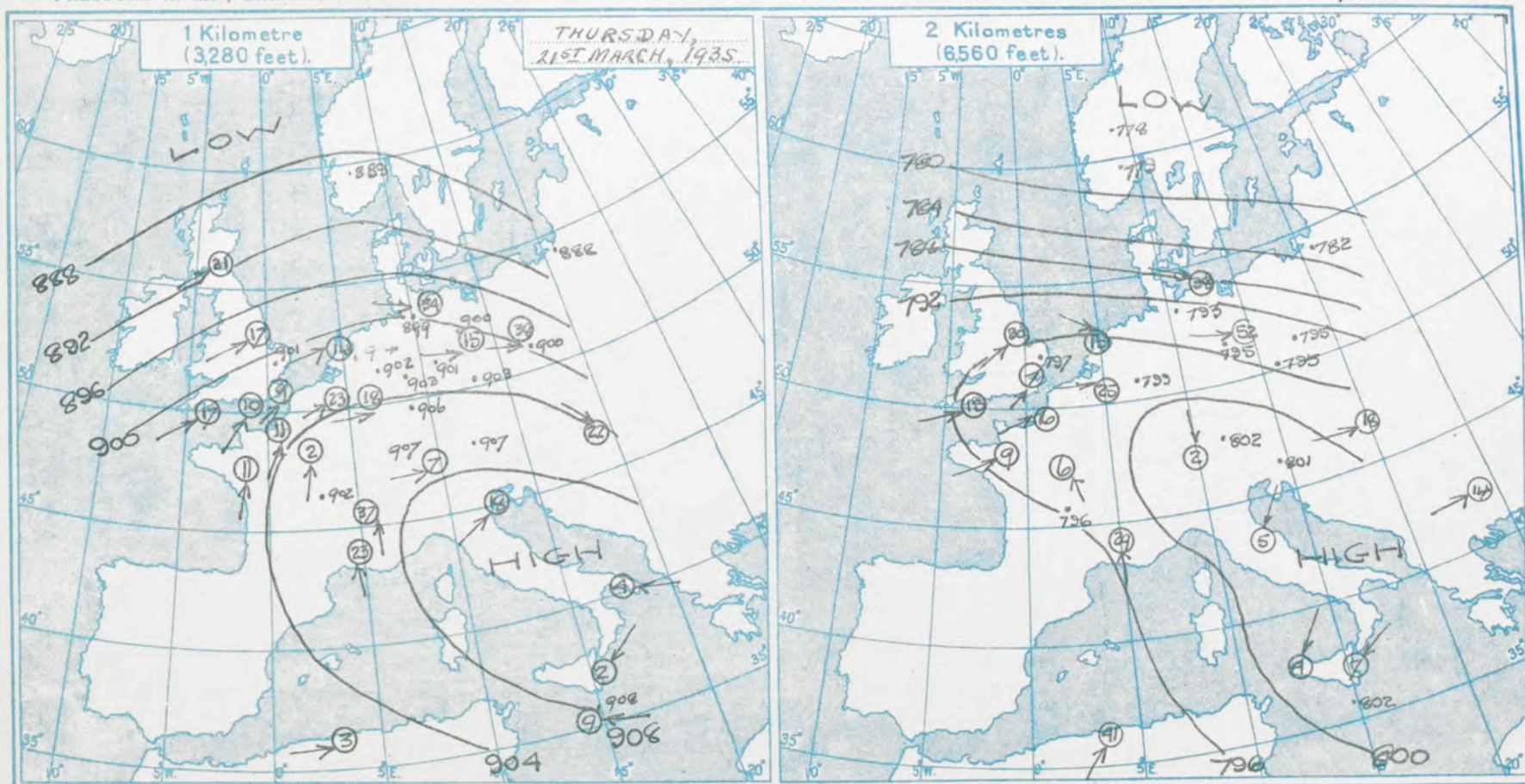


TABLE OF UPPER AIR TEMPERATURES RECORDED ON THURSDAY, 21ST MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD 4h.				Duxford 13h.				MALTA (Calafron) 6h.				CHATEAUX 8h.				KONIGSBERG 4h.				SLOUTZK 0h.				S. Farm 1130.							
1017	M.S.L.	—	—	1016	M.S.L.	—	—	1000	660	54	95	1014	157	39	82	1008	M.S.L.	—	—	1011	184	45	85	1005	M.S.L.	—	—	1068	M.S.L.	—	—
1018.5	100	41.5	95	1012.5	100	64.0	57	964	1640	50	85	965	1640	54	51	980	1310	50	59	1002	330	44	76	946	1640	22	—	1008.5	230	64	—
977	1100	53	68	975	1120	58.4	45	908	3280	46	75	811	6230	34	56	964	1640	50	59	970	1310	43	76	946	1640	22	—	977	1110	59	—
950	1840	51.2	68	950	1850	54.5	58	853	4420	37	65	793	6560	36	38	937	2300	54	52	957	1640	45	65	887	3280	15	—	908	3100	48	—
900	3310	46	73	900	3320	47.6	68	802	6560	34	65	747	8200	33	34	852	4420	44	50	876	3940	38	49	832	4420	8	—	876	4970	45	—
850	4830	37.8	83	850	4860	43.2	42	758	8200	29	85	738	8540	34	33	777	7560	31	57	847	4420	39	36	781	6560	5	—	843	5030	41	—
800	6430	36.5	66	800	6490	37.8	36	707	9840	26	65	725	9200	33	33	766	7880	31	50	835	5240	37	34	684	9840	4	—	813	6030	36	—
750	8170	32.2	67	750	8220	32.2	66	630	12740	21	32	630	12740	21	32	754	8200	34	42	815	5900	37	30	597	13120	8	—	782	7660	36	—
700	9960	29.5	57	700	10020	29.5	55	549	16400	7	32	549	16400	7	32	693	10500	31	31	722	9200	35	24	619	16400	13	—	753	8050	34	—
650	11900	24.8	—	650	11960	22.8	63	Rabat 08h				Birmingham 15h				640	12440	23	27	687	10500	30	28	641	13000	39	—	725	9100	30	—
600	13960	15.4	—	600	14020	14.5	—	903	3280	46	—	1014	M.S.L.	—	—	631	12440	23	26	678	10830	30	29	638	26300	51	—	637	10110	28	—
550	16190	6.5	—	550	16210	6.0	—	793	6560	40	—	906	2230	48	—	671	15400	12	22	678	10830	30	29	638	26300	51	—	671	11090	25	—
500	18540	0.0	—	500	18630	2.0	—	697	9840	34	—	906	2230	48	—	571	15400	12	22	618	13120	22	32	558	29580	67	—	645	12110	21	—
450	21200	—9	—	450	21300	11.4	—	622	13120	23	—	906	2230	48	—	516	18050	1	21	547	16400	10	32	544	32860	83	—	620	14240	16	—
400	24090	—10.5	—	400	24160	—22.0	—	547	16400	14	—	906	2230	48	—					473	20030	—7	36	523	34830	87	—	536	14110	13	—
INVERSION: Screen 41.5°F. 900 ft. 53.5°F.				HAGG to well defined top 855 mbs with Cu clouds in top in NE, further here to top at approx 4000 ft.				HAMBURG 7h.				BRESLAU 4h.				MUNICH 4h.				KONIGSBERG 4h.				Ulrich 00h.							
ISOTHERM LAYER: 800 mb. 36.5°F. 470 mb. 36.5°F. Patches of ground mist at first clearing later. Haze to 920 mb. with further haze tops at 960, 830, 580 and 470 mb. and further slight haze to approx. 38 mb. not reached. Thin St. Cu. in west at 870 mb.				Lindenboord 07h				M.S.L.				M.S.L.				M.S.L.				M.S.L.				M.S.L.							
				1002	348	48	85	836	5240	37	43	830	6570	38	36	742	7560	31	54	815	5570	38	57	799	6560	37	45	377	25260	31	—
				966	1310	42	80	778	6560	36	33	798	6560	36	36	704	9640	30	32	785	6560	26	57	706	9840	30	46	344	27320	40	—
				950	1370	43	76	741	8540	36	27	751	8200	34	32	639	12460	24	26	694	9840	16	36	622	13120	19	45	323	26320	44	—
				875	3940	37	43	706	9840	30	36	694	10500	30	37	648	12130	24	27	639	12460	24	26	694	9840	16	36	313	29370	49	—
				852	4600	40	38	684	10500	30	37	654	10500	27	33	648	12130	24	27	639	12460	24	26	694	9840	16	36	301	26280	36	—
				805	6230	36	40	614	13450	18	48	662	14980	25	30	615	13120	14	32	572	15430	14	24	540	13800	8	58	344	27320	40	—
				630	10170	30	48	577	14760	14	40	536	16730	6	36	539	16400	4	36	510	18050	1	22	568	14760	—5	61	301	26280	36	—
SIGHT C.S. IN E.																															
CHATEAUX 8h.																															
902																															
746																															
702																															
616																															

Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

G. C. SIMPSON, O.B., D.Sc., F.R.S., Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 21 st MARCH, 1935.																						
Place	Croydon	South Farnboro	Boscombe Down	Croydon	Manston	Mildenhall	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Manston	Sealand	Catterick	Catterick	Leuchars	Renfrew	Bircham Newton	Bicester	Malta	Place		
Time	6h.	6h.	6h.	10h	6h.	7h.	7h.	7h.	6h.	8h.	10h	10h.	10h	7h.	7h.	7h.	8h.	10h.	6h.	Time		
Type	6	6		6				6					6	6	6	6	6			Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet		
Surf.	180	11	Cal'm	Cal'm	185	8	215	6	125	4	Cal'm	Cal'm	170	6	65	1	175	3	170	3	Surf.	
1000	220	7	215	7	205	6	240	11	195	9	190	12	165	4	175	3	195	7	255	11	1000	
2000	220	7	205	8	195	10	225	13	225	4	225	10	215	8	205	11	210	13	265	11	2000	
3000	215	6	210	10	210	11	220	13	235	9	245	13	240	9	250	14	210	13	260	14	3000	
4000	210	4	215	10	230	4	210	10	245	11	240	15	225	14	245	14	215	10	260	16	4000	
5000	215	7	220	8	255	8	210	13	260	9	245	12	250	9	240	19	230	10	265	15	5000	
6000	200	5	230	4	235	6	195	9	230	5	245	10	255	4	235	20			265	15	6000	
8000	240	5	245	9	245	13	215	12	235	13	260	14	245	8	225	18			265	15	8000	
10000			225	13	230	14			230	14	(2400')		245	10	(2000')				265	15	10000	
12000			215	13	240	11			200	13	Manston								265	15	12000	
Neph.																				Neph.		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lymington	Manston	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Mildenhall	Sealand	Manchester	Catterick	Leuchars	Renfrew	Shoebury-ness	Alder-grove	Abbeville	Place		
Time	12h	12h	12h	11h	12h	12h	12h	12h	11h	12h	12h	12h	12h	12h	12h	13h	11h	12h	12h	Time		
Type	6	6		6				6					6	6	6	6	6			Type		
Surf.	230	15	195	8	210	8	100	4		180	10	170	10	215	15	200	8	200	8	240	12	Surf.
1000	215	14	225	11	200	9	205	11		210	7	215	15	220	15	205	12	245	9	215	11	1000
2000	205	15	225	13	220	13	220	15		220	11	215	15	230	15	260	14	195	10	235	11	2000
3000	210	13	235	11	240	15	220	13		220	11	215	13	210	20	220	17	260	17	205	12	3000
4000	235	17	235	12	250	17	240	13		210	13	210	11	210	23	225	15	255	17	210	12	4000
5000	230	12	240	9	255	19	255	9		215	13	185	12			230	13	265	17	205	18	5000
6000	235	11	245	12	260	15	260	12		205	15	195	14			220	15	260	17	205	17	6000
8000	190	11	225	13	240	17	225	8		200	15	210	17			220	19	230	21	215	17	8000
10000	210	7	220	15	225	19	210	11		220	19	210	15			205	17	210	11	220	13	10000
12000	225	19	210	17	220	15	210	17		225	19	210	15			220	12	225	17	225	17	12000
Neph.																				Neph.		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Shoebury-ness	Felix-stowe	Oranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Alder-grove	Malta	Place		
Time	17h	17h	17h	17h	17h	15h	17h	16h	16h	17h	17h	17h	17h	16h	16h	17h	15h	17h	17h	Time		
Type	6	6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	Type		
Surf.	205	16	215	8	220	6	200	10	200	10	210	14	165	14	225	15	230	10	230	4	Surf.	
1000	210	21	235	14	220	15	245	15	225	17	210	19	205	19	230	22	225	11	240	10	1000	
2000	240	13	210	15	235	16	245	16	235	16	220	20	215	21	230	19	235	18	230	13	2000	
3000	255	15	265	12	235	14	245	15	240	13	220	19	225	19	230	23	240	21	230	14	3000	
4000	260	15	275	13	260	18	245	14	245	17	220	21	235	19			230	23	235	19	4000	
5000	275	13	265	17	265	21	260	17	240	19	230	15	250	16			255	23	240	21	5000	
6000	260	19	260	18	265	19	270	11	235	23	230	15	240	15			260	23			6000	
8000	230	17	240	17	200	21	225	18	230	23	240	21					240	27			8000	
10000	240	12	245	18	270	20	245	19	265	12	225	24	225	17			3000				10000	
12000			245	14	260	15			245	23			245	23			245	23			12000	
Neph.																				Neph.		

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 58

No. 5836

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

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$$e'' = e' - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Friday 22nd March 1935.

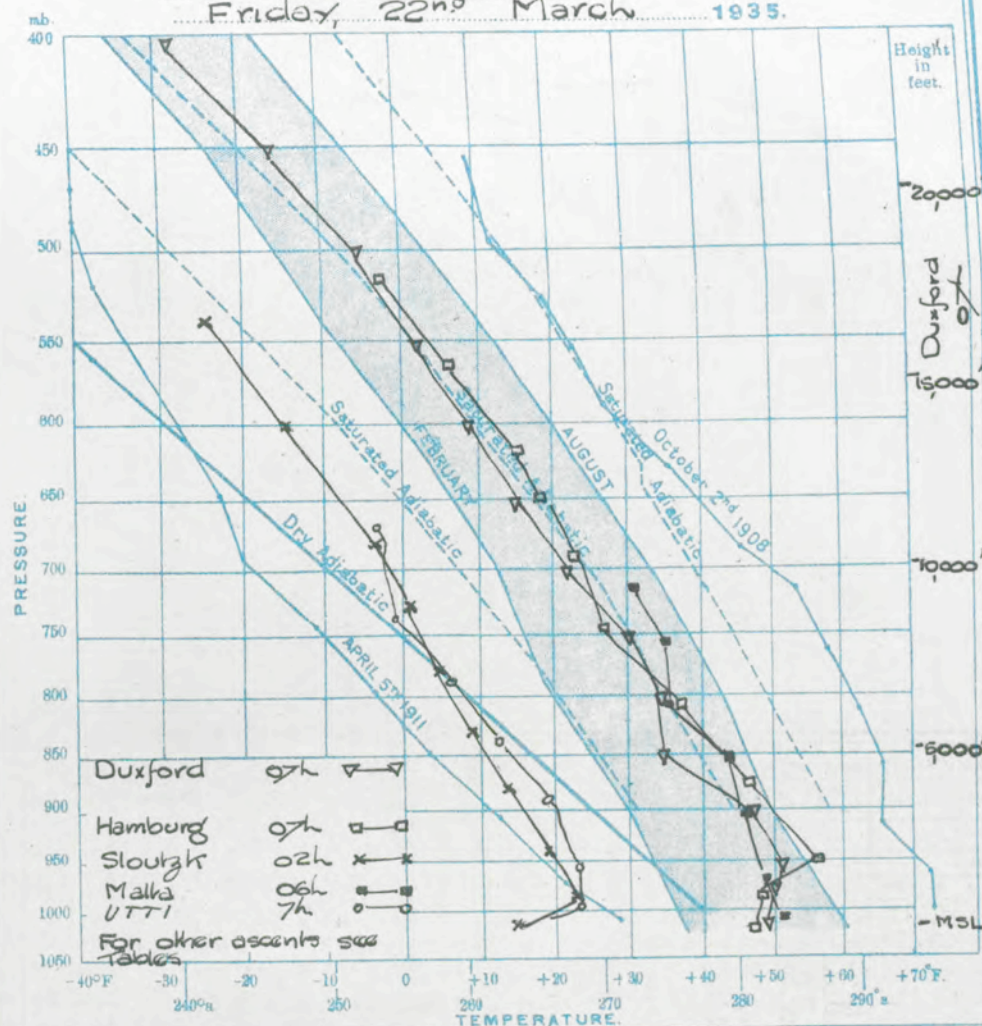
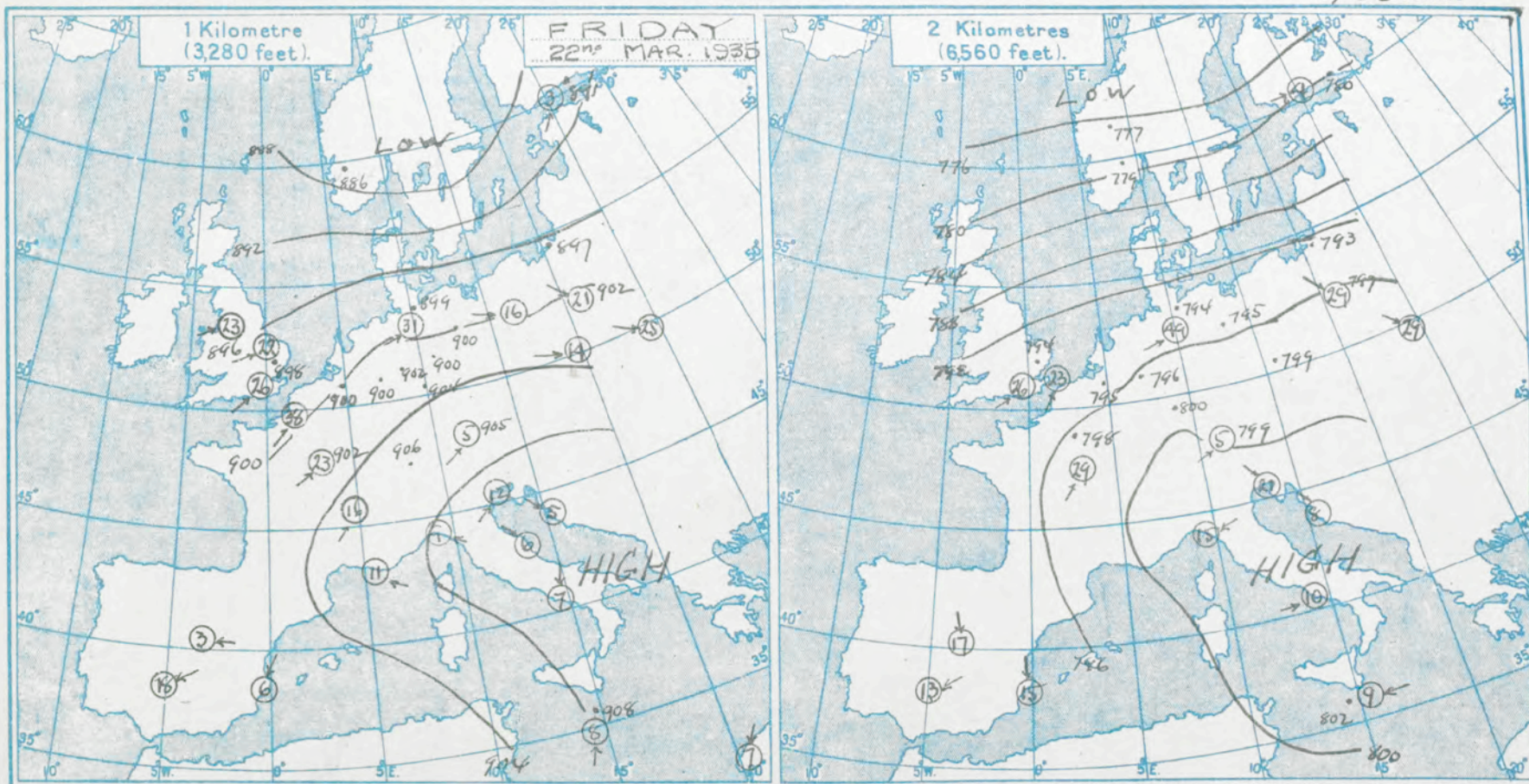


TABLE OF UPPER AIR TEMPERATURES RECORDED ON FRIDAY 22nd MARCH 1935

[illegible]

Meteorological Office, Air Ministry
Kingsway, London, W.C.2.

G. C. SIMPSON, C.B., D.Sc., F.R.S.,
Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.																					0700	1935.																
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Birchm Newby	Alder-grove	Malta	Place																			
Time.	06	07	08	06	06	07	07	07	06	11	07	07	07	05	07	05	07		Time																			
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b		Type																			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																			
Surf.	195	13	215	3	130	7	215	5	175	5	205	9	Cal m	250	9	195	7	255	8	120	3	125	7	185	12	205	12	220	5	210	13	185	9	185	10		Surf.	
1000	235	23	225	20	210	16	240	25	235	24	245	25	245	17	260	21	210	15	255	15	215	13	200	14	220	23	235	24	235	26	225	29	240	20	210	25		1000
2000	240	23	240	27	240	19		235	26	230	27	235	23	255	28	235	22			235	27	230	21	245	23	240	33	240	29	230	35	245	23	230	27		2000	
3000	230	29	230	26	245	23		240	21	235	29	230	23	240	22	245	27			255	29	235	32	235	23							245	28		160	8		3000
4000	225	27	215	29	245	33		245	18	235	34	225	27	230	27					265	19			250	23							245	32				4000	
5000	225	30	225	32				230	24	230	33	225	18	235	35																						5000	
6000	220	29	230	26				220	23	230	23	220	18	230	23																						6000	
8000	220	29	230	26				220	23	230	23	220	18	230	23																						8000	
10000	220	29	230	26				220	23	230	23	220	18	230	23																						10000	
12000	220	29	230	26				220	23	230	23	220	18	230	23																						12000	
Neph	220	29	230	26				220	23	230	23	220	18	230	23																						Neph	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Craydon	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Alder-grove	Valentia	Place																		
Time.	12h			9h	12h	10h	12h	13h	12h	11h		12h	12h	12h	12h	12h	12h	13h	13h	Time																		
Type	b			b	b	b	b	b	b	b		b	b	b	b	b	b	b	b	Type																		
Surf.	135	14		205	14	240	12	215	19	210	18	200	16	225	14	245	15	220	20		Surf.																	
1000	230	21		210	25	230	15	225	26	220	23	225	22	220	19	230	25	235	24		1000																	
2000				230	22	245	25	245	25	245	22	235	25	230	19	240	34				2000																	
3000				245	25	230	23	255	23	245	24	235	22	230	30	245	24				3000																	
4000				240	31	235	23	245	23	240	24					240	26				4000																	
5000																					5000																	
6000																					6000																	
8000																					8000																	
10000																					10000																	
12000		16h ACu					13h ACu					13h ACu	14h ACu			13h ACu		14h ACu		12000																		
Neph		220	54				210	48				220	40	210	54		220	48		250	40	Neph																
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Shoebury ness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Malta	Place																		
Time.	14h	14h	14h	14h	14h		14h	16h	14h	14h	14h	14h	14h	14h	14h	14h	18h	14h	16h	Time																		
Type	b	b	b	b	b		b	b	b	b	b	b	b	b	b	b	b	b	b	Type																		
Surf.	220	24	260	13	225	8	225	19	210	18		205	20	240	16	215	14	250	24	220	18	250	18	200	20	235	13	205	10	215	10	260	26	215	22	70	8	Surf.
1000	235	28	265	23	240	21	240	45	235	38		215	33	235	28	225	22	260	28	225	41	235	28	220	25	225	24	210	23	220	29	270	33	230	38	(3000)	1000	
2000			250	30	255	38	250	51				240	37	230	29	245	31	265	34	230	44	235	29	235	29	225	32	210	31	225	27	275	43	245	39	330	5	2000
3000			250	36	260	36						240	37	230	33	245	44	265	31	240	46	245	36	235	43	225	35	230	41			275	45	265	36	(7000)	3000	
4000			(2600)	265	42							270	40					265	44									225	47	220	41			260	36	300	9	4000
5000				260	48							265	44															225	52	225	44			255	36	(10000)	5000	
6000																													215	41			250	38			(20000)	6000
8000																							16h ACu													(20000)	8000	
10000																							220	54											250	31	10000	
12000										18h Ci													18h Ci	16h ACu	18h ACu											(30000)	12000	
Neph										260	80												230	105	240	54											Neph	

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION. No. 5837

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

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where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.)

and e' is the saturation vapour pressure at temperature t' .

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b = balloon with tail.

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On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

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DIAGRAM OF UPPER AIR TEMPERATURES.

SATURDAY, 23rd MARCH 1935.

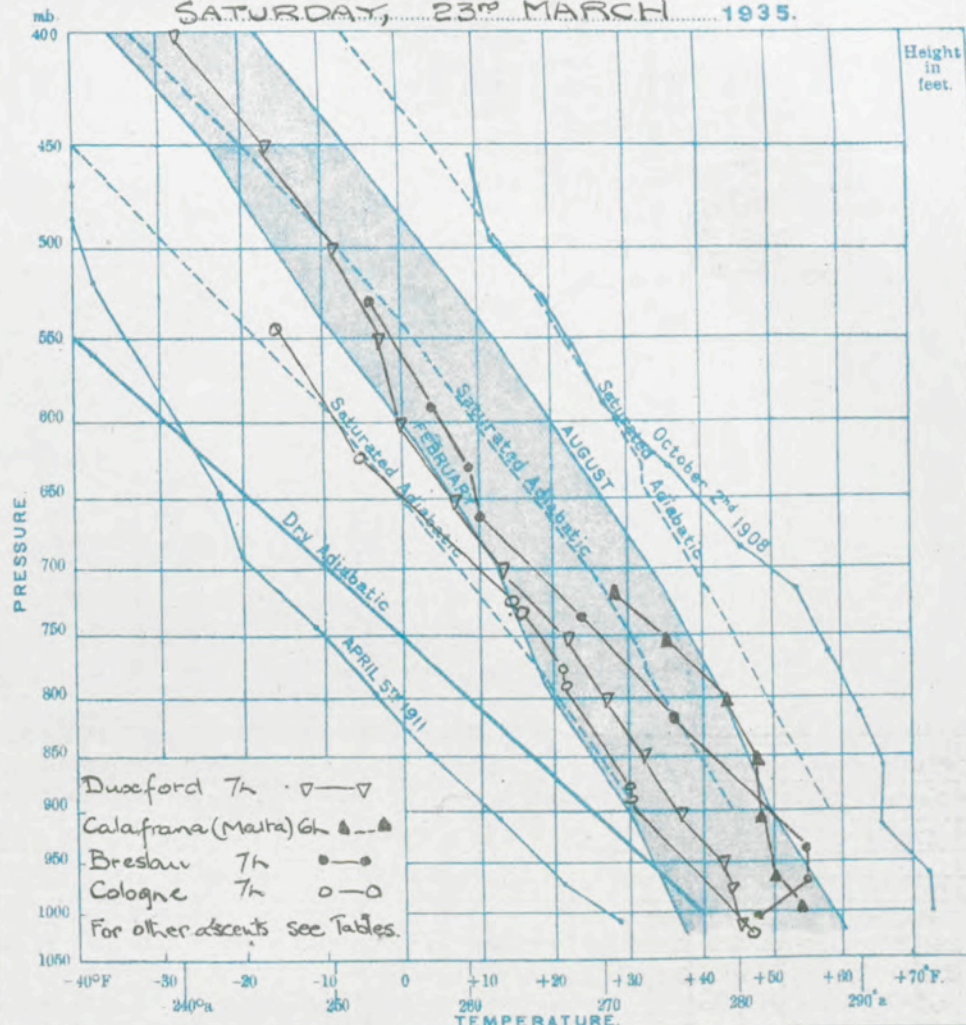
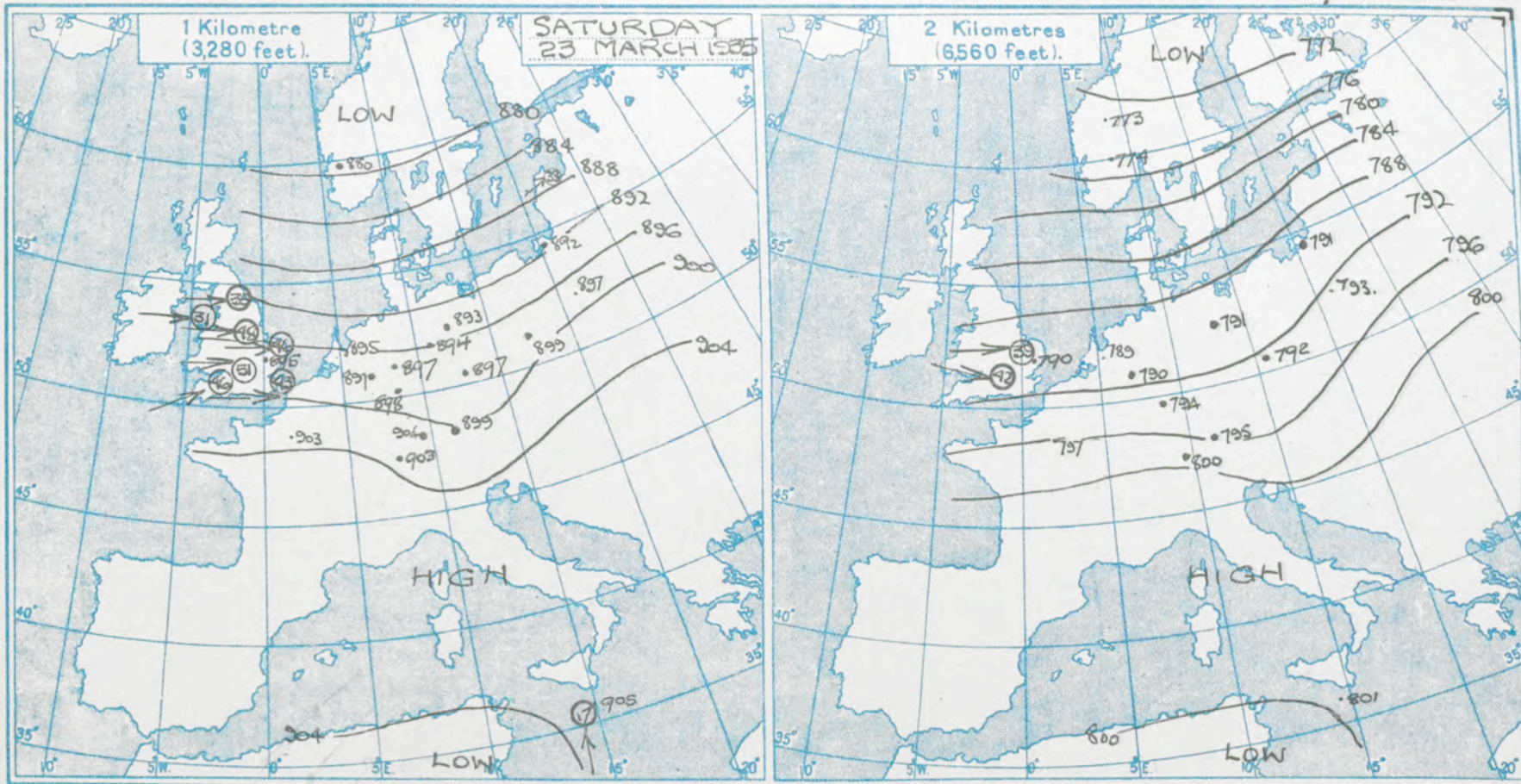
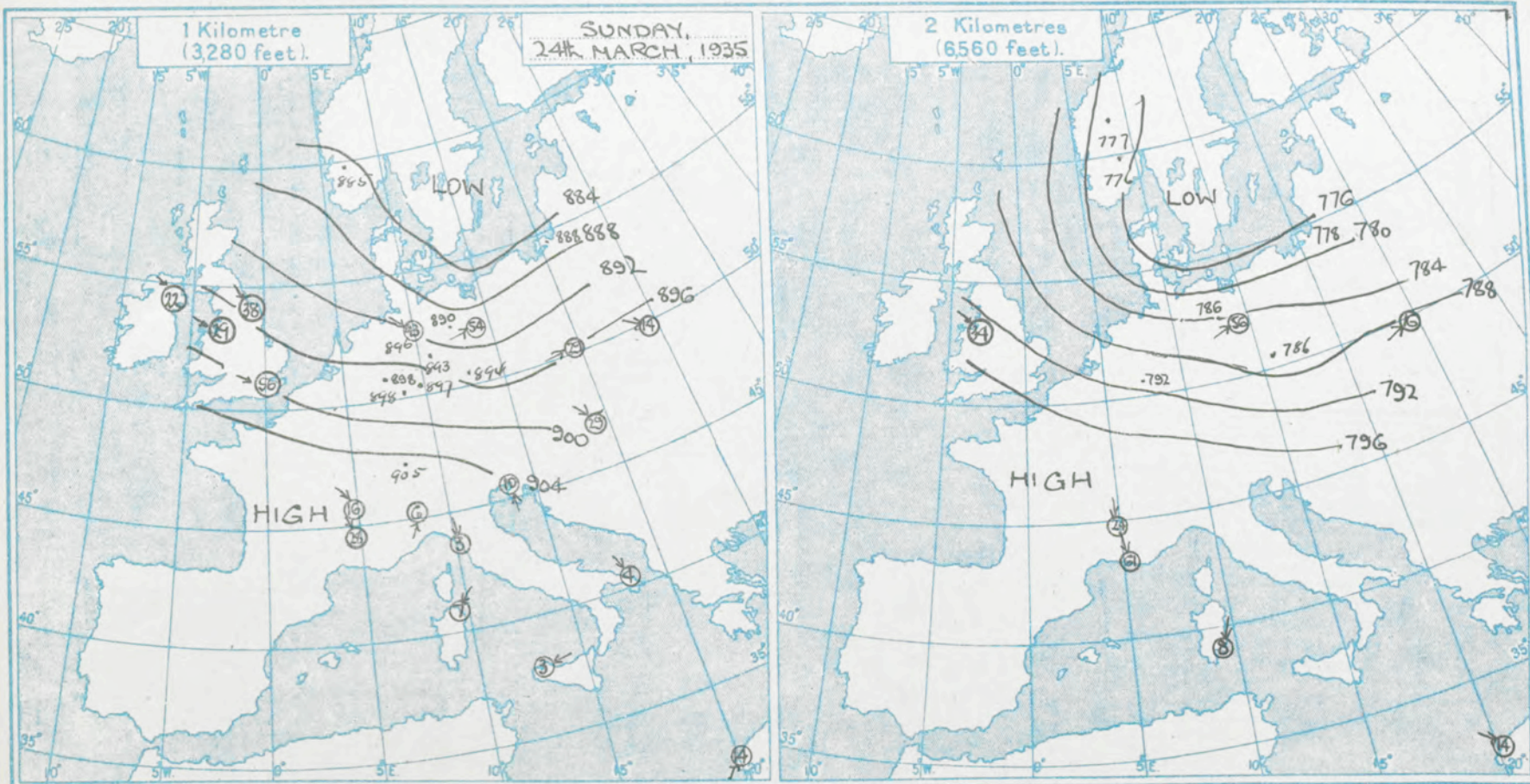


TABLE OF UPPER AIR TEMPERATURES RECORDED ON SATURDAY, 23 MARCH 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
Duxford 7h	1011 M.S.L.	—	—	5 Farnborough 11h	1014 M.S.L.	—	—	Breslau 7h	998 M.S.L.	—	—	Munich 7h	956 M.S.L.	—	—	Barlin (Aero) 7h	1003 M.S.L.	—	—	Cologne 7h	1010 M.S.L.	—	—	Darmstadt 7h	1003 M.S.L.	—	—	Calafra (Marta) 6h	997 M.S.L.	—	—
1007 100 45.0 78	971 1000 43.2 78	960 1700 41.6 76	900 320 36.6 70	860 4640 31.5 73	800 6210 27.0 71	760 7300 21.5 67	650 11550 7.6	600 13550 0.8	550 15720 -2.4	500 18020 -9.5	450 20620 -17.6	400 23420 -28.0	350 26220 -38.0	300 29020 -48.0	250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63		
780 7300 21.5 67	700 9670 13.2	650 11550 7.6	600 13550 0.8	550 15720 -2.4	500 18020 -9.5	450 20620 -17.6	400 23420 -28.0	350 26220 -38.0	300 29020 -48.0	250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48		
650 11550 7.6	600 13550 0.8	550 15720 -2.4	500 18020 -9.5	450 20620 -17.6	400 23420 -28.0	350 26220 -38.0	300 29020 -48.0	250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42		
450 20620 -17.6	400 23420 -28.0	350 26220 -38.0	300 29020 -48.0	250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30		
350 26220 -38.0	300 29020 -48.0	250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24		
250 31820 -58.0	200 34620 -68.0	150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18		
150 37420 -78.0	100 40220 -88.0	50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12		
50 43020 -98.0	0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6		
0 45820 -108.0	1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3		
1010 157 46 83	982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0		
982 3610 30 96	954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3		
954 6660 42 81	926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9		
926 10310 54 78	898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18		
898 13420 66 75	870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18	86 103610 416 -27		
870 16530 78 72	842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18	86 103610 416 -27	58 106720 428 -36		
842 19640 90 69	814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18	86 103610 416 -27	58 106720 428 -36	30 109830 440 -45		
814 22750 102 66	786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18	86 103610 416 -27	58 106720 428 -36	30 109830 440 -45	-8 112940 452 -54		
786 25860 114 63	758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170 94280 378 -3	142 97390 392 -9	114 100500 404 -18	86 103610 416 -27	58 106720 428 -36	30 109830 440 -45	-18 116050 460 -63			
758 28970 126 60	730 32080 138 57	702 35190 150 54	674 38300 162 51	646 41410 174 48	618 44520 186 45	590 47630 198 42	562 50740 210 39	534 53850 222 36	506 56960 234 33	478 60070 246 30	450 63180 258 27	422 66290 270 24	394 69400 282 21	366 72510 294 18	338 75620 306 15	310 78730 318 12	282 81840 330 9	254 84950 342 6	226 88060 354 3	198 91170 366 0	170										



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 23 rd MARCH 1935.																							
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Croydon	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Manston	Sealand	Renfrew	Catterick	Leuchars	Renfrew	Mildenhall	Birchington	Malta	Place			
Time	00	07	07	07	07	06	07	07	08	07	10	07	8h	06	07	07	07	09	06	Time			
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type			
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet			
Surf.	250 23	250 15	250 18	235 16	230 9	235 23	240 19	233 22	215 15	265 16	240 20	240 14	265 20	245 17	240 12	265 18	235 15	230 28	130 19	Surf.			
1000	255 33	260 35	260 29	270 35	260 40	255 37	255 40	230 48	235 23	270 27	250 32	250 34	265 38	260 29	255 35	265 22	280 33	245 35	130 19	1000			
2000	265 44	270 40	275 40	285 47	280 43	270 48	265 41	270 60	235 34		255 39	260 34	270 21	265 41	265 45	275 36	275 44	260 55	140 22	2000			
3000	265 43	280 52	240 46		280 42	275 51	273 46	275 48	275 47		275 36	280 31		275 35		280 40	280 47	275 50	150 17	3000			
4000	275 45	285 53					275 44				275 43			275 34			275 53	280 55		4000			
5000		285 44					275 36										275 48	280 40		5000			
6000		285 42															270 39			6000			
8000																				8000			
10000																				10000			
12000																				12000			
Neph.																				Neph.			
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place			
Time	10h	11h	12h			12h	12h			12h				12h	12h	13h				Time			
Type	b	b	b			b				b				b	b	b				Type			
Surf.	250 28	245 17	220 18			255 20	225 18			240 30				240 17	260 20	250 16				Surf.			
1000	255 27	250 24	230 27			245 36	230 28			255 33				245 28	260 43	250 22				1000			
2000	260 36	250 36	245 42			245 39	240 33			265 38				255 39	270 40	255 26				2000			
3000	270 38	250 25				255 42									270 38	260 27				3000			
4000	285 41					255 51									285 49	270 28				4000			
5000															285 66	275 27				5000			
6000																270 35				6000			
8000																270 38				8000			
10000																(7000)				10000			
12000																				12000			
Neph.																				Neph.			
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place			
Time		15h									17h	17h	17h		17h	17h				Time			
Type		b									b	b	b		b	b				Type			
Surf.		245 25									260 34	260 28	265 38		265 15	255 15				Surf.			
1000		240 38									265 50	275 47	265 41		275 25	260 21				1000			
2000		255 38										275 45			290 21	285 23				2000			
3000		(4000')													295 19	295 22				3000			
4000															300 17	295 21				4000			
5000															300 31	290 22				5000			
6000															300 37					6000			
8000																				8000			
10000																				10000			
12000																				12000			
Neph.																				Neph.			



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 24th MARCH 1935.																							
Place	Croydon	South Farnboro	Boscombe Down	Croydon	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Malta	Place			
Time	0h.		8h	6h						7h		10h		4h		9h		7h	6h.	Time			
Type																				Type			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet
Surf.	250	19			240	12	255	14				285	20	300	11		240	14					Surf.
1000	265	23			240	21	275	29				240	26	305	33		265	19					1000
2000					225	29	300	41				300	29	300	34		285	26					2000
3000					315	28	300	56				300	29	320	38			310	22				3000
4000					305	60						305	32	320	38			300	29				4000
5000												310	34	330	27								5000
6000												310	34										6000
8000												310	51										8000
10000												300	80										10000
12000												300	80										12000
Neph.												310	100										Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Manston	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Biggin Hill	Aldergrove	Valentia	Place			
Time	12h	12h	12h	12h	12h	12h	13h	12h	12h	12h	12h		12h		11h	13h		13h		Time			
Type																				Type			
Surf.	315	20	275	10	300	12	275	17	290	20	325	16	305	18	285	18	275	10	225	12			Surf.
1000	315	19	290	17	290	16	305	13	315	25	310	40	315	36	290	25	285	13	250	13			1000
2000	305	17	300	16	290	26	300	12	310	25	310	43	310	23	295	35	300	17	275	18			2000
3000			305	20			300	21	300	27	310	30	305	27	295	31	300	24	265	27			3000
4000			310	15			300	30	310	24	305	27			290	17			290	14			4000
5000															300	14			305	30			5000
6000																							6000
8000																							8000
10000																							10000
12000	Ci	16h	Ci	13h	Ci	1045																	12000
Neph.	320	45	320	95	290	50			300	20			330	75	330	120			310	40			Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Manston	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Malta	Place			
Time					15h	17h						17h				17h				Time			
Type																				Type			
Surf.					330	14	310	8								215	10						Surf.
1000					310	17	305	13								215	24						1000
2000					310	21	300	17								220	23						2000
3000					300	21	295	22								235	23						3000
4000					300	25	295	29								245	26						4000
5000					300	27	290	22								245	29						5000
6000																270	29						6000
8000																265	33						8000
10000																(7000)							10000
12000																							12000
Neph.																							Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION.

No. 5839

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.) and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Monday, 25th MARCH, 1935.

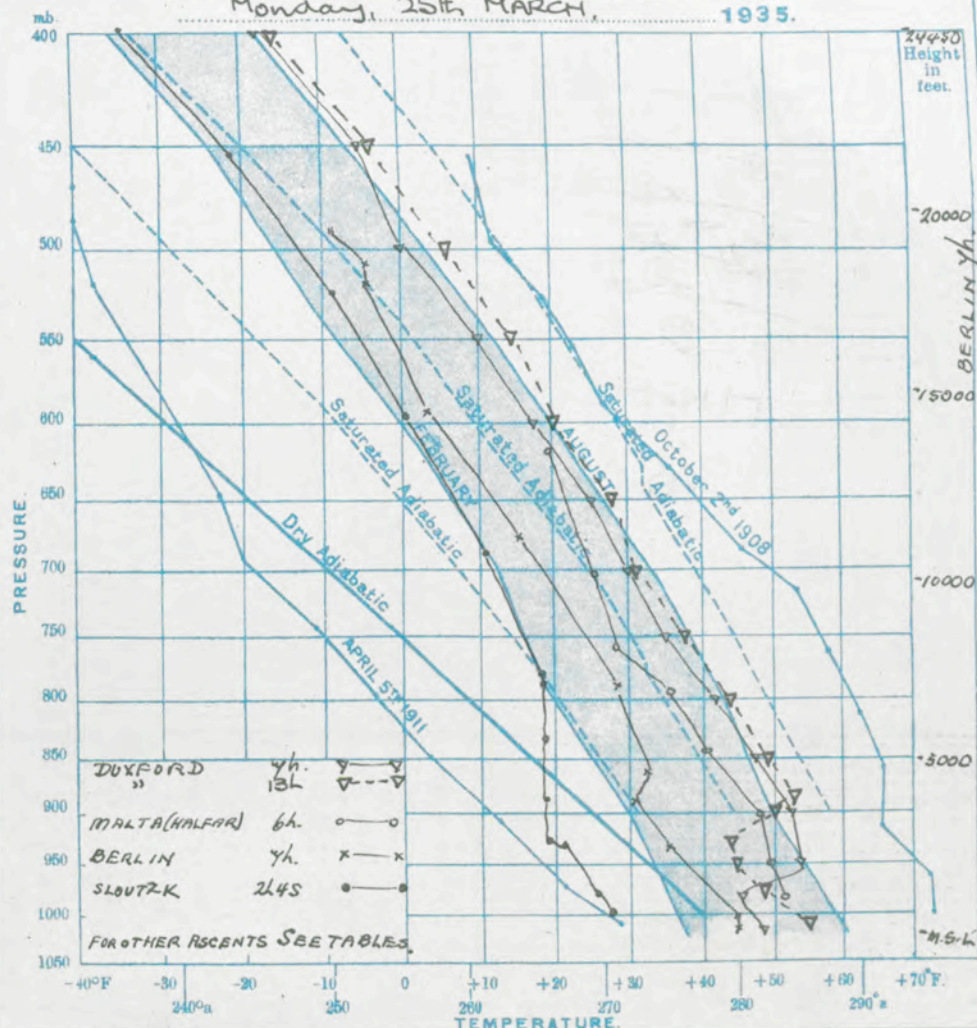
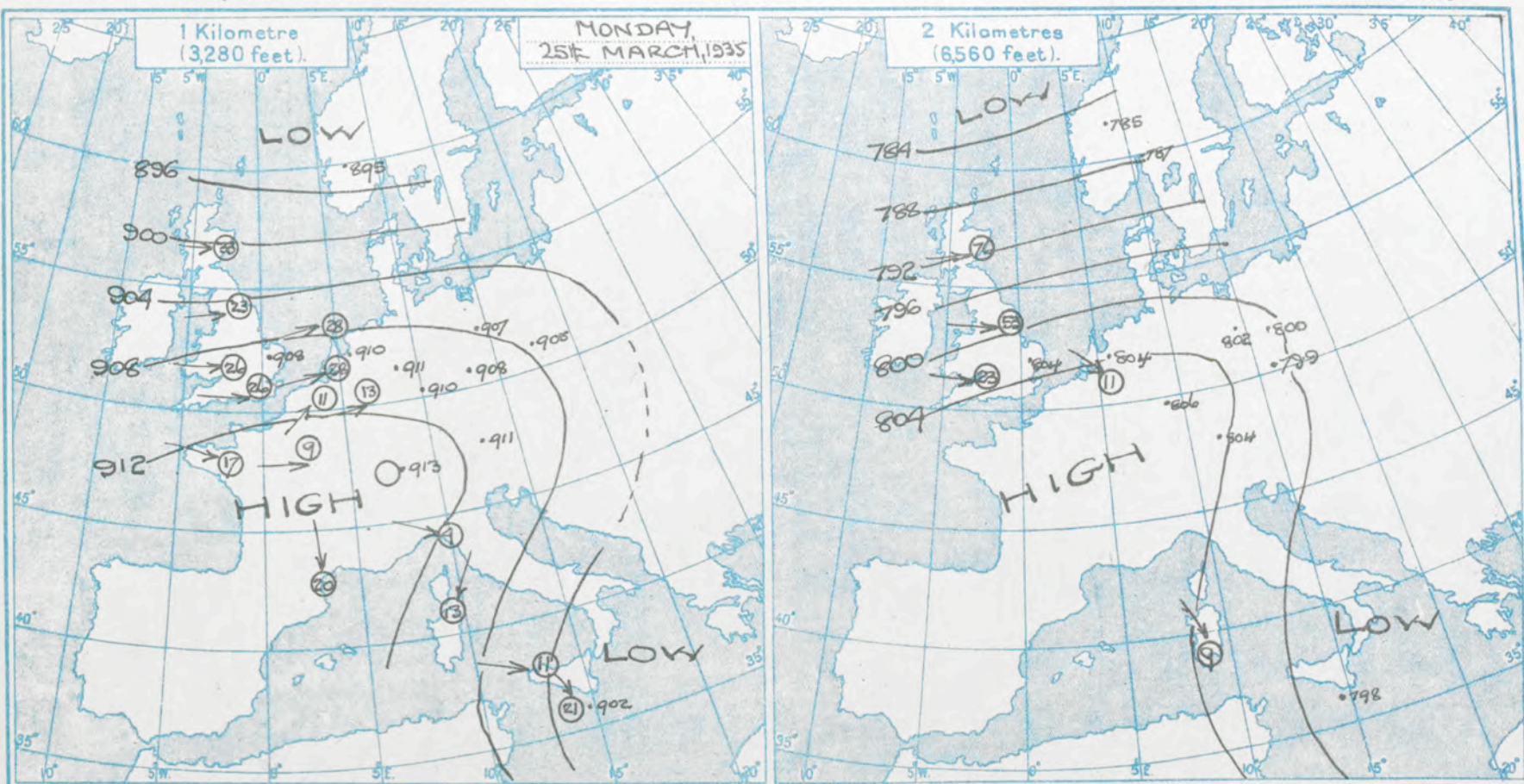


TABLE OF UPPER AIR TEMPERATURES RECORDED ON MONDAY, 25th MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity	Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
DUXFORD y.h.				Duxford 1300				MALTA (Halfar) 6h.				KINDENBERG 7h.				BERLIN 7h.				DARMSTADT 7h.				MUNICH 7h.							
1025.5	M.S.L.	—	—	1025.5	M.S.L.	—	—	985	850	51	85	1012	348	41	81	1011	420	44	80	1021	184	44	79	1015	445	38	93	969	1662	39	91
1022.0	100	44.8	91	1022	100	53.6	80	985	1860	49	95	998	660	39	62	938	2300	36	92	1003	660	44	73	1001	660	40	81	920	2950	36	96
985	1095	44.5	90	985	1100	47.4	70	950	1860	49	95	998	660	39	62	938	2300	36	92	1003	660	44	73	1001	660	40	81	920	2950	36	96
950	2090	52.5	20	950	2100	43.5	89	902	3260	47	55	968	1640	34	92	870	4270	30	77	939	2300	35	81	970	1640	41	78	882	4270	34	77
900	3550	51.8	23	900	3560	43.7	67	848	4920	40	65	868	4270	27	86	780	7230	18	90	889	3610	30	98	918	3280	36	88	859	4920	30	72
850	5100	46.5	21	850	5100	46.0	12	798	6560	35	65	844	5240	25	55	765	7880	22	43	867	4600	32	73	837	5570	34	34	813	6230	25	89
800	6710	40.8	20	800	6700	42.2	10	754	8200	28	95	802	6560	27	50	723	9840	14	38	782	7230	28	37	750	8540	28	24	744	8540	18	75
750	8450	34.8	25	750	8440	36.6	43	703	9840	25	55	646	12440	6	48	613	13120	1	37	676	10830	18	30	683	10830	19	19	738	9850	18	65
700	10280	29.7	59	700	10260	28.3	71	619	13120	15	—	555	15760	10	48	550	16730	17	37	590	14460	3	27	634	12790	12	17	651	11800	8	39
650	12210	25	63	650	12210	27.0	83	PARMA 10				HAMBURG 14				HAMBURG 14 (Contd.)				522	17390	5	27	585	14760	9	17	568	15430	5	16
600	14260	19.5	—	600	14300	13.6	—	550	16510	13.4	—	506	17390	19	90	522	17390	19	90	486	18050	5	27	568	15430	5	16	520	17390	13	27
550	16490	9.8	—	550	16510	13.4	—	506	17390	19	90	506	17390	19	90	522	17390	19	90	486	18050	5	27	568	15430	5	16	520	17390	13	27
500	18910	0.5	—	500	18960	5.0	—	450	21600	5.0	—	450	21600	5.0	—	450	21600	5.0	—	450	21600	5.0	—	450	21600	5.0	—	450	21600	5.0	—
450	21550	6.2	—	450	21600	5.0	—	400	24500	10.0	—	400	24500	10.0	—	400	24500	10.0	—	400	24500	10.0	—	400	24500	10.0	—	400	24500	10.0	—
400	24450	18.2	—	400	24450	18.2	—	350	27500	15.0	—	350	27500	15.0	—	350	27500	15.0	—	350	27500	15.0	—	350	27500	15.0	—	350	27500	15.0	—
Haze top not well defined at approx 950 mb. with small woolly cloud patches in top 50 clearing. C. 670 - 515 mb. and 535 - 555 mb. C. St. approx 24000 ft. not reached.				Haze 10 530 mb. not well defined with ragged cloud rising to 500 mb. later. C. St. 10 27000 ft. Inversion: 930 mb. 42.5° 885 " 51.2°				SLOUTSK. 0245				UTRECHT 8h				Cagaux 10				Cherbourg 14h				South Form 1025							
102.1	57	58	77	969	1662	31	43	1000	134	27	79	1003	660	44	80	914	3280	52	—	914	3280	52	—	1020	1025	—	—	1020	1025	—	—
885	3940	37	80	913	3120	43	54	978	660	25	—	967	1650	46	65	810	6500	43	—	810	6500	43	—	903	340	46.5	—	903	340	46.5	—
849	5140	37	97	870	4270	27	86	902	3260	47	55	910	3280	44	65	716	9840	32	—	716	9840	32	—	923	1930	48.0	—	923	1930	48.0	—
813	5900	36	97	820	6130	28	72	856	4920	40	65	804	6560	32	75	632	13120	19	—	632	13120	19	—	885	4920	40	65	885	4920	40	65
794	6300	32	93	769	5880	21	74	830	5240	25	55	782	7230	18	90	522	17390	5	27	585	14760	9	17	825	5560	43.0	—	825	5560	43.0	—
774	7560	32	73	714	7560	32	73	709	8440	25	55	646	12440	6	48	613	13120	1	37	676	10830	18	30	795	6260	40.0	—	795	6260	40.0	—
751	8880	30	81	652	11800	11	34	524	16400	9	—	524	16400	9	—	524	16400	9	—	524	16400	9	—	764	7960	36.5	—	764	7960	36.5	—
729	9100	18	98	640	12130	11	33	457	19680	22	—	457	19680	22	—	457	19680	22	—	457	19680	22	—	825	5560	43.0	—	825	5560	43.0	—
660	11800	11	95	534	14460	10	32	348	24970	35	—	348	24970	35	—	348	24970	35	—	348	24970	35	—	825	5560	43.0	—	825	5560	43.0	—
				576	15100	9	35	294	29580	44	—	294	29580	44	—	294	29580	44	—	294	29580	44	—	825	5560	43.0	—	825	5560	43.0	—
				511	17120	0	—	252	37860	49	—	252	37860	49	—	252	37860	49	—	252	37860	49	—	825	5560	43.0	—	825	5560	43.0	—
								INVERSIONS—																							
								Base press. 1021 837 mb																							
								Temp. 42.0 32°F																							
								Rise 5° 41.0°F																							
								Depth 1378 319 ft.																							

Met. Office, Air Ministry.
Kingsway, London, W.C.1.G. C. SIMPSON, O.B., D.Sc., F.R.S.,
Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.																								25th MARCH 1935.															
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Cranwell	Mildenhall	Birchington	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	MALTA	Place																			
Time	10h.	11h.	12h.	13h.	14h.	15h.	16h.	17h.	18h.	19h.	20h.	21h.	22h.	23h.	24h.	25h.	26h.	27h.	28h.	Time																			
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type																			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet																			
Surf.	250	13	265	12	285	14	260	11	245	18	240	16	225	20	260	15	225	6	270	10	Surf.																		
1000	260	9	265	24	275	19	275	19	250	35	250	26	250	30	255	14	245	19	285	11	1000																		
2000	260	13	265	26					280	30				275	28		235	23	255	14	2000																		
3000			290	20					270	23				275	26		230	15	(2150)		3000																		
4000									265	30				275	24						4000																		
5000									270	24				270	24						5000																		
6000									275	23				275	23						6000																		
8000									280	24											8000																		
10000	Biggin Hill																				10000																		
12000	10h. ACu																				12000																		
Neph.	280	18	330	42	(2000)																Neph.																		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Worthing	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Alder-grove	Valentia	Place																			
Time	12h.	13h.	12h.	11h.	12h.	15h.	12h.	13h.	13h.	12h.	12h.	12h.	12h.	12h.	12h.	13h.	12h.	12h.	12h.	Time																			
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type																			
Surf.	270	15	285	10	280	13	210	15	230	15	255	14	240	13	250	20	250	13	235	12	210	23	265	10	270	15	245	25	235	20	200	17	280	20	225	26	Surf.		
1000	265	17	265	18	265	9	265	14	235	14	265	17	250	22	250	30	255	13	270	11	225	35	255	16	250	14	255	41	250	57	230	33	255	28	245	39	1000		
2000	265	24	255	17				280	24	260	16	275	24	260	18	260	23	265	23			240	25	260	21	250	19	260	54	265	58			265	24			2000	
3000	280	22	290	35				285	33	260	22	280	28	255	40																				275	33			3000
4000	270	27	295	37				295	29	265	22	295	40	255	33																							4000	
5000	265	28	(3400)					290	21	265	23	295	43	260	27																							5000	
6000	265	35						295	21	270	27	290	39	260	29																							6000	
8000																																							8000
10000																																							10000
12000	Ci 16	ACu 16																																					12000
Neph.	260	50	270	24																																		Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Croydon	Sealand	Manchester	Catterick	Leuchars	Renfrew	Shipb. Pilot	Alder-grove	Malta	Place																			
Time	17h.	17h.	17h.	17h.	17h.	17h.	18h.	16h.	17h.	17h.	14h.	17h.	17h.	17h.	18h.	17h.	18h.	18h.	17h.	Time																			
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type																			
Surf.	280	14	260	17	260	17	210	14	275	8	270	15	260	9	270	18	245	13	240	15	245	8	245	15	195	14	200	6	245	18	235	16			260	19	Surf.		
1000	275	22	275	17	270	24	270	17	270	23	265	27	260	25	260	16	275	13	275	13	250	33	225	15	230	18	265	31	270	36	60	12	265	38	260	13	1000		
2000	275	26	270	26	270	20	290	23	275	20	265	31	260	29	270	21	260	24	290	17	300	24	275	32	250	19			270	48	265	43	65	16	265	34	2000		
3000	(2050)		285	48	285	32	290	49	300	24	275	35			295	30	275	27	290	35	300	24	290	35					275	62	265	46	70	13			230	11	3000
4000			295	54	290	42	295	39	295	18	295	43			285	28	265	36	295	28	300	24	295	31													4000		
5000			300	42			295	32	295	21	300	29			275	37	290	31	285	13	300	24	295	29													5000		
6000			310	35																																		6000	
8000																																							8000
10000																																							10000
12000																																							12000
Neph.	270	30																																					Neph.

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5,840.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

TUESDAY, 26TH MARCH, 1935.

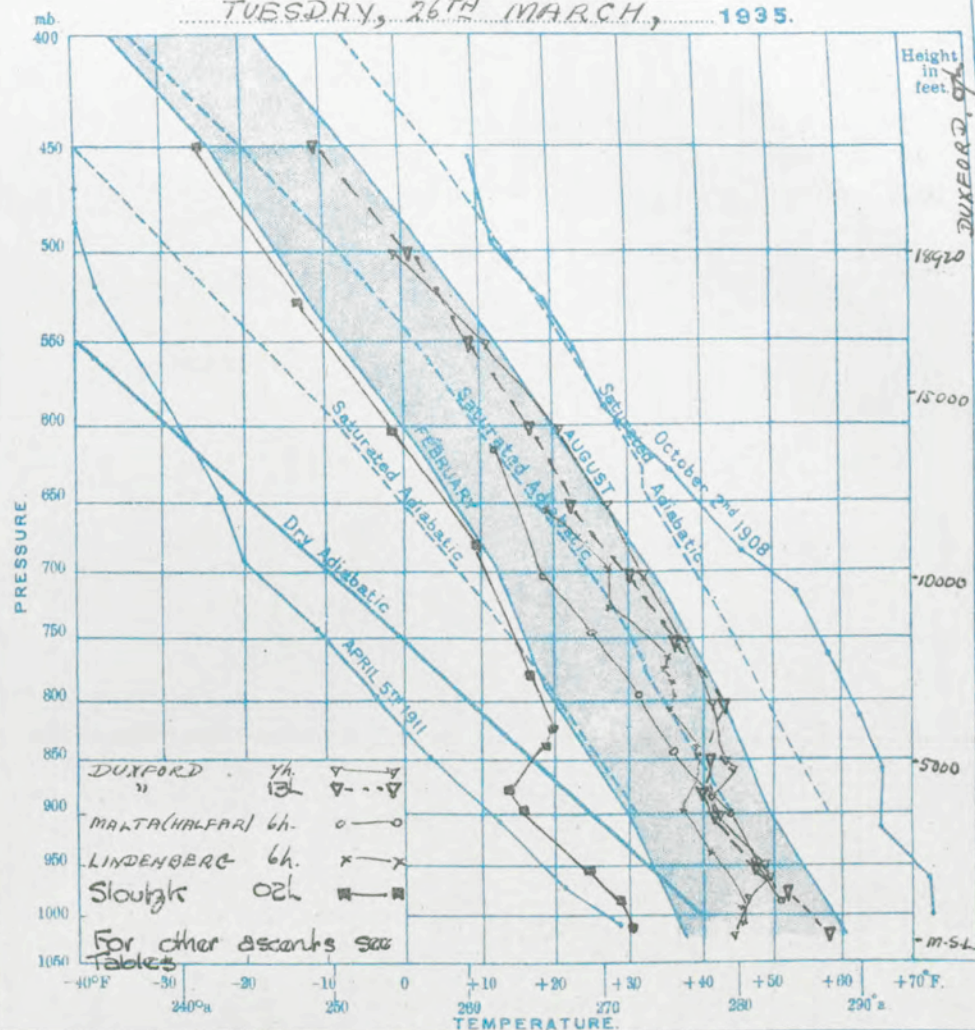
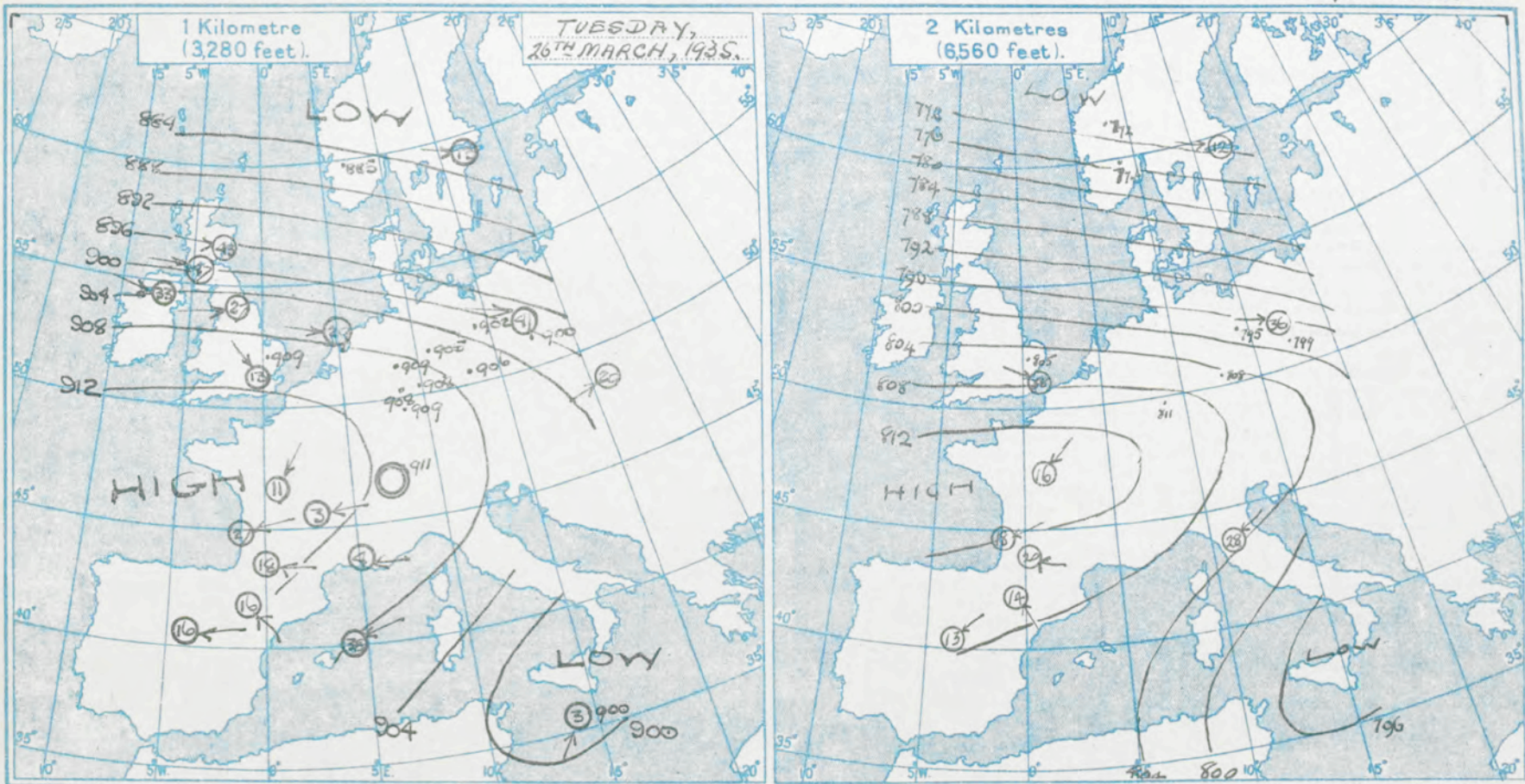


TABLE OF UPPER AIR TEMPERATURES RECORDED ON TUESDAY, 26TH MARCH, 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity
mb.	Feet.	°F.	%
DUXFORD 4h.			
1021.0	M.S.L.	-	-
1023.5	100	44.5	88
986	1095	46.2	92
950	2120	44.2	80
900	3590	44.7	85
850	5110	43	66
800	6720	40.4	26
750	8460	37.2	35
700	10290	32	60
650	12230	27	70
600	14300	20.2	-
550	16450	10.2	-
500	18940	0.8	-
Inversions -			
(1)	600 feet 44.2°F.		
	960 mb. 48.8°F.		
(2)	850 mb. 43.8°F.		
	855 mb. 43.2°F.		
Haze to well-defined top 700 feet at first; later haze to st. 190-1000-1400 feet spreading from remaining patches of st. at approx. 870 mb.			
COLOGNE 4h.			
1025	M.S.L.	-	-
1021	157	43	92
960	1970	37	68
892	2300	34	98
842	2940	34	98
816	3240	41	42
808	6560	41	33
758	8200	35	34
730	9200	35	32
615	13450	12	37
583	16090	5	30
Duxford 13h			
10250	M.S.L.	-	-
1021.5	100	55.5	73
983	1120	51.6	76
950	2080	47.7	73
900	3540	41.0	52
850	5100	40.8	69
800	6600	42.2	17
750	8420	36.2	32
700	10250	30.2	67
650	12170	22.5	86
600	14260	17.0	-
550	16470	8.8	-
500	18670	2.2	-
450	21500	10.2	-
Inversions -			
	880 mb. 39.0°F.		
	890 mb. 40.8°F.		
Haze to clouds 5 mi., clear in N and E. Haze visible above 550 mb with traces of C-St. not reached.			
Temperature rise at 850 mb while flying N over Cambridge from 40°F to 43°F, break in clouds running NE and SW below			
Charlebourg 08			
912	3280	52	-
808	6500	44	-
714	9840	37	-
630	13120	26	-
554	16400	13	-
486	19660	0	-
MALTA (HALFA) 6h.			
983	M.S.L.	-	-
944	1860	51	95
900	3280	44	85
846	4920	36	95
745	6560	31	-
646	8200	25	-
540	9840	14	-
616	13120	12	-
Cagaxx 08			
910	3260	47	-
804	6560	37	-
710	9840	27	-
625	13120	14	-
DARMSTADT 4h.			
1021.5	M.S.L.	-	-
984	445	48	78
900	3610	34	98
851	4270	44	63
854	4920	45	63
811	6560	43	61
762	7880	37	61
671	11490	30	61
621	13450	20	61
570	15760	10	61
555	16400	10	61
511	18370	3	61
Grosson COURT 7h.			
1025	M.S.L.	-	-
911	1290	41	-
955	1890	41	-
920	2600	45	-
872	4270	37	-
Lyons 03			
912	3280	45	-
807	6560	42	-
713	9840	31	-
628	13120	22	-
551	16400	10	-
Slough 02			
1007	M.S.L.	-	-
966	184	28	34
966	660	28	-
965	1310	28	-
949	1640	27	-
890	3260	24	-
834	4920	19	-
792	6560	14	-
687	9840	5	-
602	13120	4	-
527	16400	12	-
452	17720	13	-
464	19360	15	-
457	19660	16	-
446	20360	17	-
Hamburg 14			
1017	M.S.L.	-	-
959	61	54	64
930	1640	48	62
875	2610	43	70
829	4170	34	71
808	48	41	48
752	6130	34	29
684	8200	30	26
674	10500	23	26
630	10830	13	31
591	14460	14	37
S. Fam. 1545			
10262	M.S.L.	-	-
1017	230	57.3	83
979	1280	53.0	64
946	2230	46.0	83
910	3260	45.5	76
877	4340	48.5	28
845	5270	47.0	15
814	6240	45.0	12
783	7320	43.5	10
754	8320	40.0	25
726	9360	36.5	33
698	10360	32.5	53
672	11360	29.0	68
646	12400	25.0	67
LINDENBERG 6h.			
1020	M.S.L.	-	-
1005	348	40	75
990	900	40	75
934	2300	41	98
895	3610	39	98
845	3940	39	98
838	4920	39	88
796	6130	35	88
748	6560	36	60
782	7230	36	65
773	7560	34	65
765	7560	35	65
725	9200	27	91
698	10170	27	55
652	11900	19	50
	16400	5	-
BRESLAV 7h.			
1027	M.S.L.	-	-
1007	420	45	75
965	1640	46	68
900	3280	39	86
857	3940	40	81
861	4270	37	87
803	7230	37	-
782	-	39	-
706	9840	25	36
625	12790	12	53
605	13800	11	50
582	14760	9	68
574	15100	9	68
586	-	-	-
442	-	-	83
Utrecht 08			
-	M.S.L.	-	-
1001	670	43	95
965	1650	43	96
908	3260	41	95
834	4920	30	95
802	6560	32	35
783	8200	30	75
708	9840	30	45
624	13120	21	35
548	16400	9	35
Inversions -			
	337 mb		
	Temp 43.9°F.		
	Amb. Inv 0°F.		
	Thickness 530 ft		
	Agass base 808 mb		
	Temp 32.9°F.		
	Amb. Inv 0°F.		
	Thickness 235 ft		
Dijon 10			
-	M.S.L.	-	-
912	3280	47	-
807	6560	42	-
712	9840	33	-
628	13120	23	-
Trappes 03			
911	3280	53	-
806	6560	43	-
713	9840	37	-
630	13120	25	-
554	16400	12	-
Cologne 16			
1020	M.S.L.	-	-
965	157	52	82
947	1640	45	96
947	2300	46	87
930	2620	45	86
842	5240	32	89
812	5500	37	89
775	7230	32	59
760	7880	36	32
711	9840	32	32
Munich 16			
-	M.S.L.	-	-
964	1662	59	35
910	3280	52	34
830	5900	41	36
791	6900	39	38
735	7850	34	33
704	10170	32	30
638	12790	23	32
580	15100	14	34
521	17120	5	28
Meteorological Office, Air Ministry, Kingsway, London, W.C.2.			
G. C. Simpson, G.S. D.Sc. F.R.A.			



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 26 TH MARCH, 1935.																					
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansham	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Malta	Place	
Time					6h.	7h.	7h.	6h.		9h.	9h.	7h.	7h.	7h.	7h.	7h.	7h.	7h.	6h.	Time	
Type																				Type	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
Surf.					270 10	285 10	275 10	250 15		325 6	255 12	300 6	275 18	260 12	255 23	235 15	255 8	225 14		Surf.	
1000					320 25	285 26	300 30	270 15		325 6	265 26	285 18	280 24	260 22	260 46	240 23	245 21	255 26	60 4	1000	
2000					320 15	305 29	305 23				265 22	280 29		270 24	265 50	255 42	245 24	275 27	130 1	2000	
3000					300 13	295 24	300 21				270 28			280 24		265 44	245 43	285 33	200 2	3000	
4000					275 14	280 31					270 36			285 28		290 58	245 49			4000	
5000					290 31	285 32					(3700)					270 65				5000	
6000					295 38	285 33														6000	
8000					295 49															8000	
10000																				10000	
12000						7h ACu						10h ACu			10h ACu	10h ACu	7h ACu			12000	
Neph.						270 60						270 99			290 60	270 90	270 84			Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Aldergrove	Valentia	Place	
Time		12h	12h				12h	13h	13h	12h	12h	12h	12h	13h	12h	12h	12h			Time	
Type							6	6			6	6	6	6	6	6	6	6		Type	
Surf.		250 3	300 4				255 8	280 18	240 10	210 3	240 16	310 20	280 24	250 13	260 25	290 15	235 11	265 13		Surf.	
1000		275 6	285 10				270 14	270 23	235 9	200 1	250 22	230 22	275 23	255 22	275 24	265 18	230 15	260 33		1000	
2000			275 8				280 18	270 26			260 24	230 21	270 19	260 34	275 56	270 24	270 19	270 23		2000	
3000							275 24	270 22			265 23	260 22		260 51		260 32		275 23		3000	
4000												260 29		270 46		260 29		275 38		4000	
5000												270 43		290 58						5000	
6000												275 42								6000	
8000		Ci 16																		8000	
10000		260 65																		10000	
12000		ACu 13								Ci 16		ACu 13			12h ACu					12000	
Neph.		230 99								260 45		270 90				290 60				Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansham	Croydon	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Mildenhall	Aldergrove	Malta	Place	
Time	17h	17h	17h	17h	17h	24h	17h	16h	17h	17h	17h	17h	17h	17h	16h	17h	17h	17h	17h	Time	
Type	6	6			6		6	6			6	6	6	6	6	6				Type	
Surf.	275 13	230 10	230 9	230 15	235 10	250 8	240 12	230 15	245 7	200 6	245 12	300 9	275 22	270 8	265 25	250 21	245 13	285 14		Surf.	
1000	285 13	285 12	300 16	285 9	265 14	295 15	255 19	260 25	230 18	320 5	260 17	235 15	285 23	275 21	270 40	265 34	255 21	230 19		1000	
2000	285 15	285 12	300 12	230 13	300 19	305 13	275 23	275 31	270 16	270 23	270 23	275 19	275 27	260 23	270 58	275 36	270 21	285 15		2000	
3000	295 21	285 12		230 27	305 16	310 19	285 23	275 31	285 23		270 29	270 22	275 23	275 23	275 53	260 44	245 21		60 12	3000	
4000	300 31	295 26		295 26		305 28	295 30	275 27			270 33	260 35				260 54	300 23			4000	
5000	300 33	230 33		230 33		305 35						230 24				260 62				5000	
6000		280 35		230 38		295 39						285 37								6000	
8000		7000		7000		7000						7300								8000	
10000	NEW	230 42		305 36		295 43						285 45								10000	
12000	Ci 18	Ci 15		Ci 15			ACu 18				Ci 18	ACu 18				Ci 18				12000	
Neph.	260 50	260 55		230 70			270 31				270 135	270 60				300 130				Neph.	

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION. No. 5841.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahr.).

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Wednesday 27th MARCH 1935.

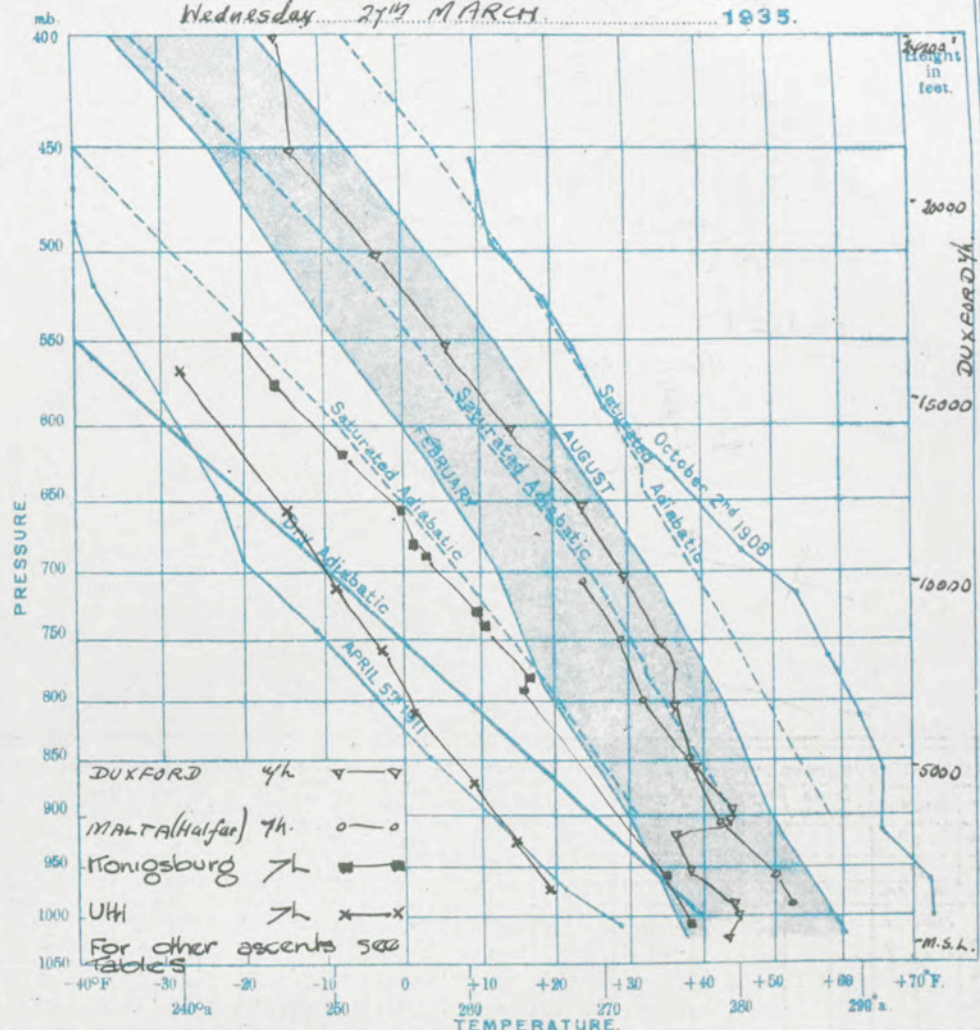
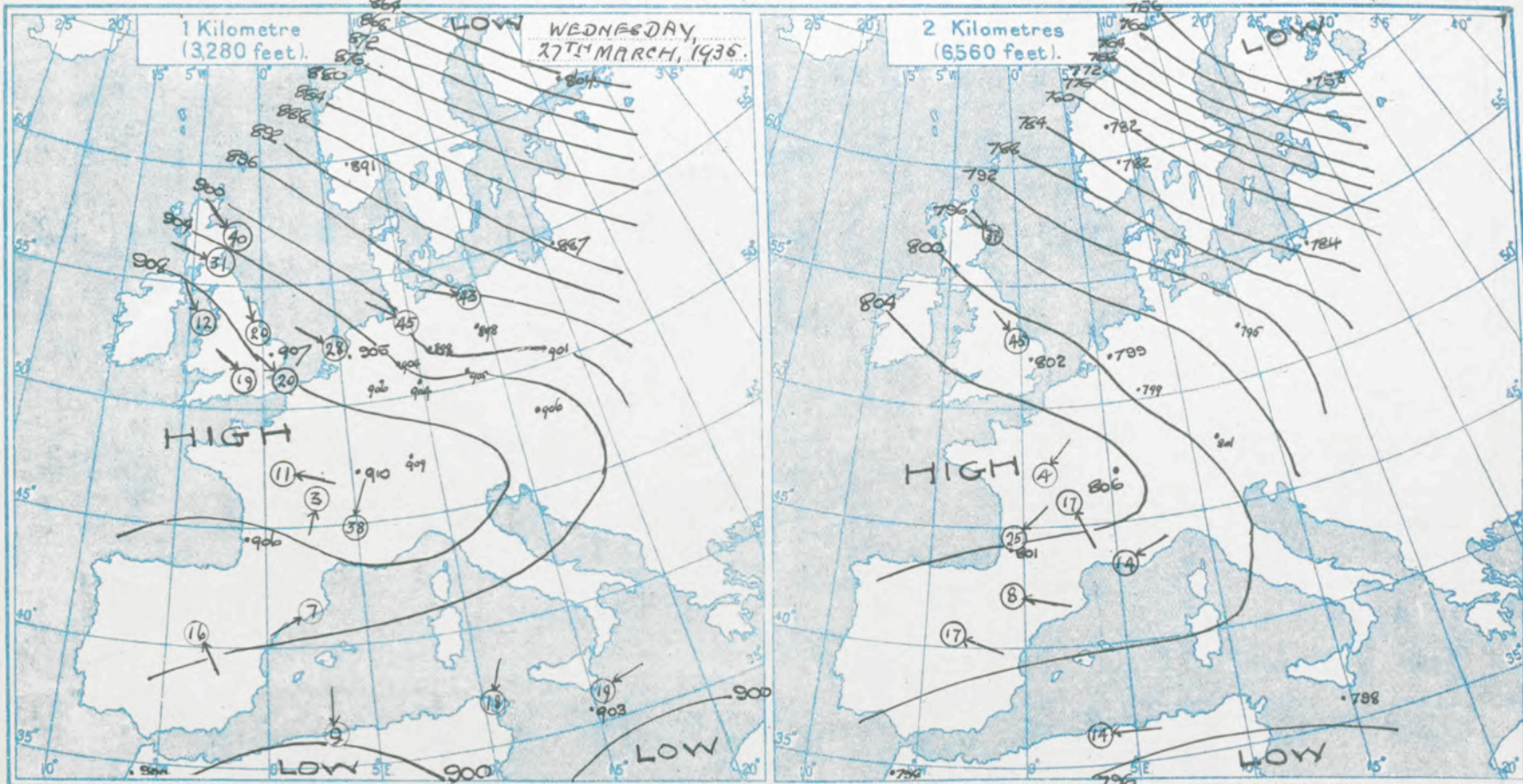


TABLE OF UPPER AIR TEMPERATURES RECORDED ON Wednesday 27th MARCH 1935.

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
Duxford 7h.				S. Farn 14.40				Malta (Halifax) 7h.				Darmstadt 07h				Lindenberg				Munich 07h				UHI 07h				Warsaw 06h							
1013.5	M.S.L.	—	—	1028.6	M.S.L.	—	—	984	880	33	85	1011	492	45	84	1000	348	43	89	963	1662	39	69	967	1021	13	73	997	367	43	77				
984	100	43.0	71	1020.1	230	60	—	951	1800	50	85	951	1970	46	88	951	1640	41	90	930	2620	43	62	938	2001	14	85	939	1370	32	73				
950	2660	38.8	68	979	1310	52.5	57	903	3280	43	85	910	3260	41	84	940	1970	41	70	880	4270	41	72	864	3380	3	35	860	3640	32	72				
900	3500	34.4	6	910	3280	42.0	73	849	4920	38	85	819	4670	40	73	795	6560	21	65	844	5240	33	60	805	4920	1	85	813	5570	26	77				
850	5040	32.1	9	878	4230	41.0	42	799	6560	32	85	824	5300	32	96	788	6900	21	38	793	6900	36	42	753	6900	-2	75	753	7860	16	74				
800	6650	30.2	39	845	5280	42.0	13	749	9840	29	85	799	6560	35	39	700	9840	11	34	700	9840	36	37	704	8200	-3	75	713	5200	8	78				
750	8350	29.5	54	815	6230	41.0	31	703	13120	24	75	763	7860	34	36	700	9840	11	34	713	8330	27	37	656	9840	-15	63	683	9840	5	82				
700	10170	29.5	83	784	7800	39.0	31					700	9840	36	36					631	12790	15	24	563	13120	-27	43	677	10500	3	73				
650	12100	23.5	90	755	8590	36.5	37					646	14130	14	19					570	15430	10	25												
600	14150	14.8	—	726	9300	34.0	48					522	17720	-1	23					524	17330	1	27												
550	16370	6.0	—	698	10300	30.0	51					500	3280	62	—					509	3260	46	—												
500	18760	-3.5	—	672	11310	27.0	47					498	3260	50	—					804	6560	45	—												
450	21360	-14.0	—	646	12320	22.0	30					462	13120	22	—					710	9840	33	—												
400	24200	-15.4	—									547	16400	11	—					626	12130	21	—												
Haze 1071 880 mb. Small woolly clouds in top. A.S. patches with Cu. tops 49016. 430 mb. Traces of C.S. not reached. Inversions: (1) Surface 43°F. 600ft 44.5°F. (2) 915 mb 35.5°F. 955 mb 43.6°F. Isothermal layer 800 to 770 mb Temp. 36.2°F.				Level 845 mb 44°F. 755 " 35°F.																															
				Chakzauroux 11				UTRECHT 8h				Breslau 9h				Berlin (Aero) 9h				Dijon 10				Königsburg 9h				Friedrichshafen 9h							
				910	3280	53	—	999	670	43	85	1001	420	43	74	1008	189	46	76	910	M.S.L.	—	—	1001	32	38	95	977	1312	37	91				
				806	6560	45	—	963	1650	41	85	967	660	46	70	926	1970	37	80	806	6560	43	—	953	1310	34	98	930	2620	46	47				
				713	9840	36	—	905	3280	36	85	897	3280	36	62	881	3610	32	72	712	9840	31	—	784	6560	16	98	915	2350	44	48				
				629	13120	27	—	861	4420	25	85	827	5570	27	61	788	7360	16	80	628	13120	17	—	774	6900	17	80	860	4600	43	23				
				554	16400	13	—	799	6560	28	65	725	8860	10	77	736	8540	14	79	551	16400	6	—	737	7860	10	87	820	5570	40	22				
								750	8200	27	45	711	9200	3	75	700	9530	12	80					725	8940	3	71	813	6230	40	20				
								704	9840	25	85	669	10170	12	85	669	10170	3	73					663	9840	2	82	751	8200	33	20				
								620	13120	16	35	618	12750	3	83	673	10800	11	37					673	10170	1	60	683	10500	27	20				
								544	16400	3	35	603	13450	1	83	566	14760	-4	42					620	12130	-8	59								
								Inversion: Press. base 828 mb. Temp. " 25°F. Am. Inv. 49°F. Thickness 1148 ft.				528	16730	-3	38	503	17720	-9	30					567	14460	-17	72								
								516	17660	-9	37									543	15430	-21	73												

Meteorological Office, Air Ministry.
Kingsway, London, W.C.2.

G. C. SIMMONS, C.B., D.Sc., F.R.S.,
Director.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 27th MARCH 1935.																							
Place	Croydon	South Farnboro	Boscombe Down	Hamble Lock	Manslow	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Birmingham	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place			
Time	10 ^h			9 ^h	07 ^h	07 ^h	07 ^h	07 ^h	04 ^h	09 ^h	09 ^h	04 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	07 ^h	06 ^h				
Type	b							b		b	b	b	b	b	b	b	b	b	b				
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet			
Surf.	295 16			Cal 10	310 7	245 12	300 6	285 13	150 4	280 18	325 7	295 8	300 14	300 13	255 7	250 10	295 18	270 2		Surf.			
1000	310 14			40 7	330 27	310 26	310 32	305 25	300 11	310 30	345 9	310 18	315 19	300 34	280 13	290 17	300 35	300 13	30 20	1000			
2000					320 27	320 29	310 31	315 30	320 17	320 27	355 9	315 20	310 21	310 16	295 21	310 22	310 46	310 17	40 21	2000			
3000					310 29	320 23	315 35	325 22	325 19	340 31	345 12	325 22		345 18	300 31	310 33	320 40		50 19	3000			
4000							300 33	330 22						335 23		305 38	325 35			4000			
5000							295 35	326 31						320 40		305 33	325 35			5000			
6000								320 40						320 46			330 34			6000			
8000																				8000			
10000																				10000			
12000	ACu 10 ^h				ACu 10 ^h				ACu 10 ^h					ACu 07 ^h	ACu 10 ^h	ACu 10 ^h				12000			
Neph	300 45				290 45		300 65		270 33	270 65				180 75	300 50	300 45				Neph			
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Worthy Down	Alder-grove	Valentia	Place			
Time	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h	12 ^h		12 ^h	12 ^h	12 ^h	13 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h				
Type	b	b			b		b	b			b	b	b	b	b	b	b	b	b				
Surf.	320 13	340 8	315 6	45 2	330 11	350 12	345 12	340 8	340 12		320 4	315 14	305 18	325 10	290 10	300 17	305 8	220 5	330 5	Surf.			
1000	330 13	330 11	310 5	335 9	340 16	350 13	330 12	330 14	335 11		350 9	310 16	295 8	285 17	290 18	305 20	315 11	220 9	210 1	1000			
2000	310 13	335 12	335 11	325 10	325 19	345 12	325 8	335 12	335 11		350 8	320 17	325 14	320 15	295 9	295 20	345 13	310 9	140 11	2000			
3000	325 23	335 16	345 15	325 16	330 16		335 20	320 14	335 13		335 8	330 21	335 25	315 21	295 17	220 16	340 17		160 13	3000			
4000		325 20	350 18		305 23			315 11	330 23		(2300 ft)		325 23	310 32	310 33	225 20	320 23		165 16	4000			
5000		(3700 ft)			310 33			315 15					315 19	300 19	325 15	325 15	315 20		195 17	5000			
6000					315 35								320 35	320 8		320 35	315 23			6000			
8000					30 35									335 34		310 46	320 59			8000			
10000	Kew											ACu 16				310 46	320 59			10000			
12000	Ci 13	Ci 13	Ci 13									Ci 16				Ci 13	Ci 13	ACu 10 ^h		12000			
Neph	260 45	310 55	275 50									290 30				310 60	300 45	290 33		210 15	Neph		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manslow	Mildenhall	Felixstowe	Cranwell	Upper Heyford	Croydon	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Malta	Place			
Time	16 ^h	17 ^h	17 ^h	17 ^h	17 ^h	17 ^h	17 ^h		17 ^h	24 ^h	17 ^h	17 ^h	17 ^h	17 ^h	16 ^h	17 ^h	18 ^h	17 ^h	17 ^h				
Type	b	b									b	b	b	b	b	b							
Surf.	10 2	30 3	10 5	230 9	85 15	50 4	90 18		345 10	110 3	340 4	320 12	295 12	310 8	290 10	310 12	310 3	330 2		Surf.			
1000	355 5	40 9	15 10	305 5	90 18	65 7	70 14		340 10	195 17	25 9	315 15	310 11	310 13	295 12	295 13	170 7	315 7	60 13	1000			
2000	345 5	35 6	15 12		335 3	75 5	65 9		335 8	205 5	55 12	345 10	320 9	300 17	300 13	310 17	160 10	320 7	50 20	2000			
3000	330 5	30 6	10 6		350 9	50 3	360 8		360 6	260 2	50 13	330 11	330 11	295 15	300 15	295 12	160 14	305 5	50 25	3000			
4000	320 10	330 8	5 11		330 15	315 5	355 13		350 6	330 2	55 15	315 11	330 17	295 12	305 13	330 12	210 17	295 11		4000			
5000	315 13				345 23		335 13		345 16			325 19	315 22	310 15	305 15	330 23	215 15	290 23		5000			
6000	310 21				335 36							320 27		310 15			215 9	310 30		6000			
8000	7000				320 31							315 27					210 10			8000			
10000	305 17				310 39							320 28					225 16			10000			
12000																	240 16			12000			
Neph											270 50			270 55	260 45	320 45	260 35	265 20	290 35	Neph			

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.
UPPER AIR SECTION. No. 5842

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb, at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

DIAGRAM OF UPPER AIR TEMPERATURES.

Thursday 28th MARCH. 1935.

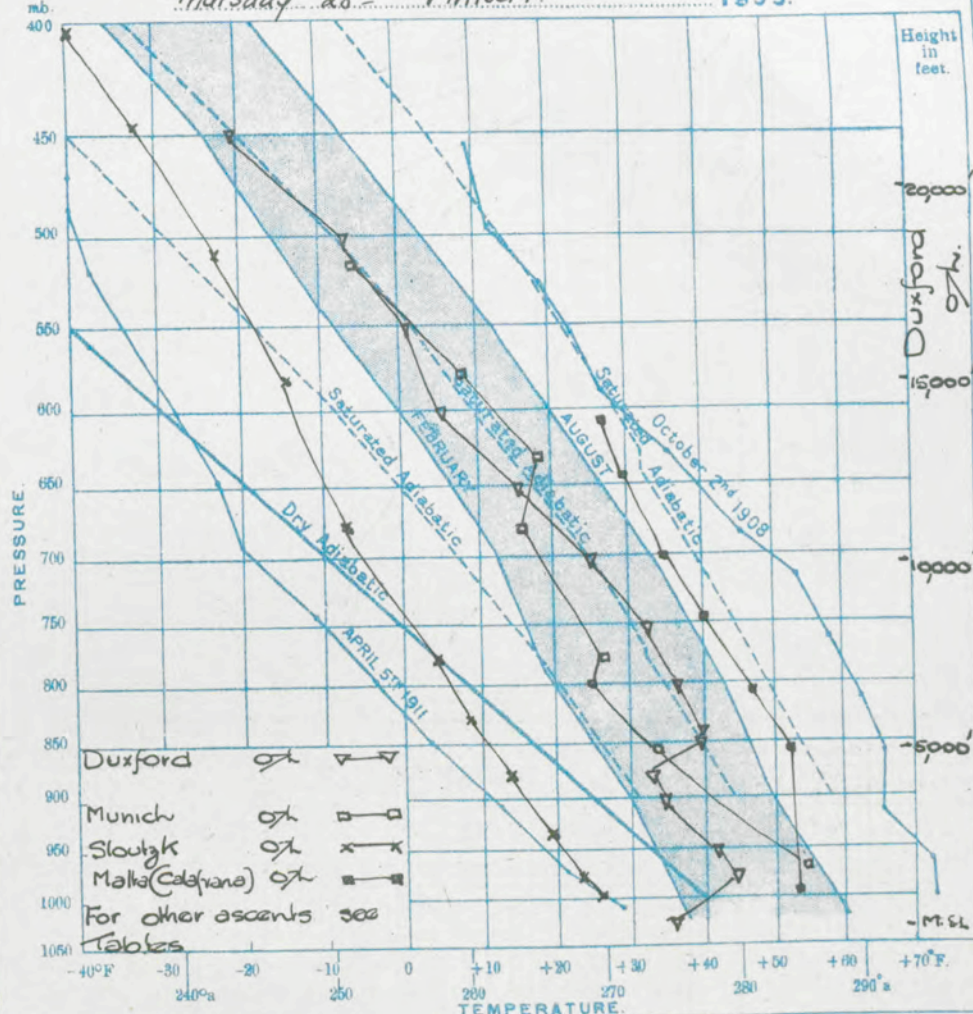
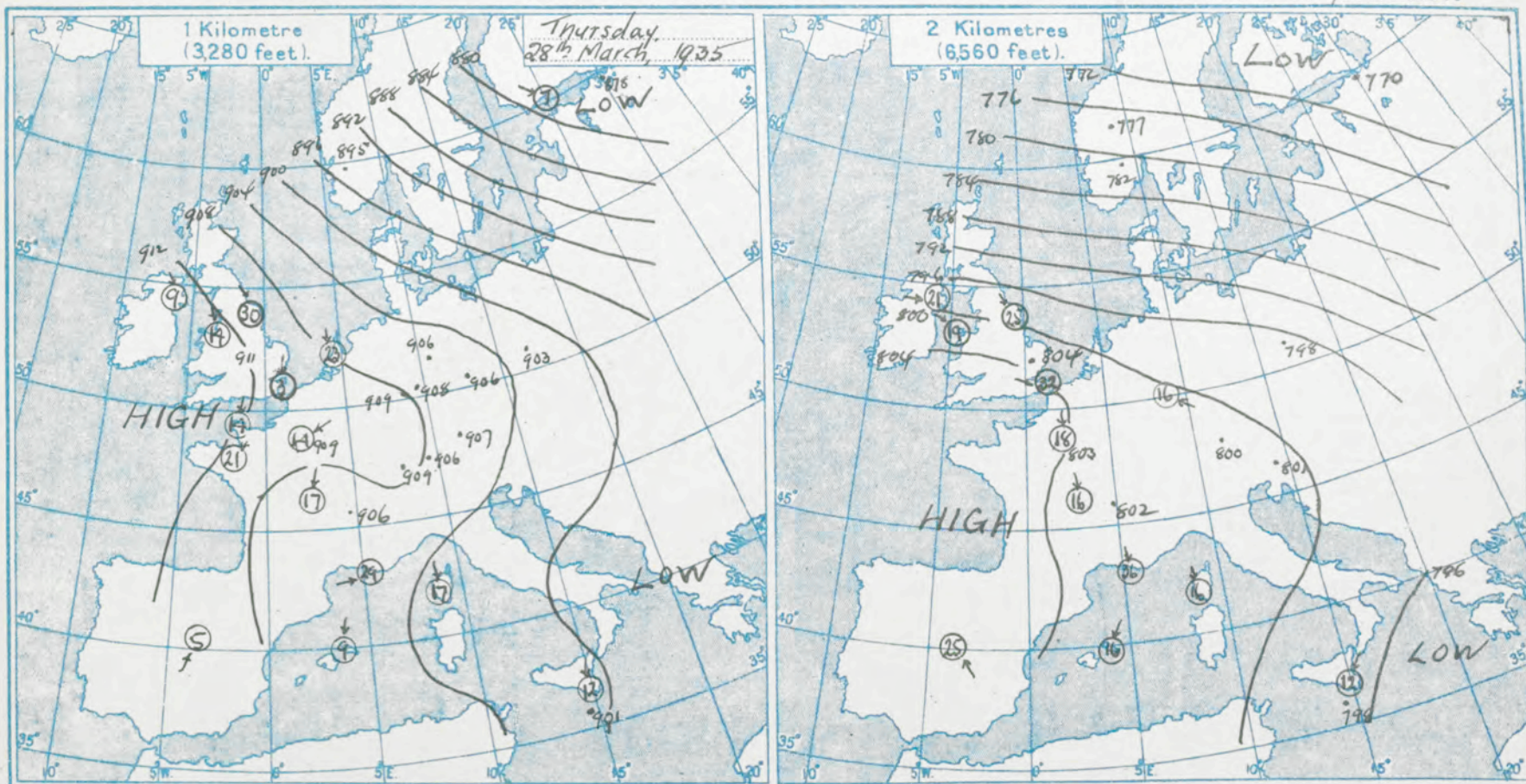
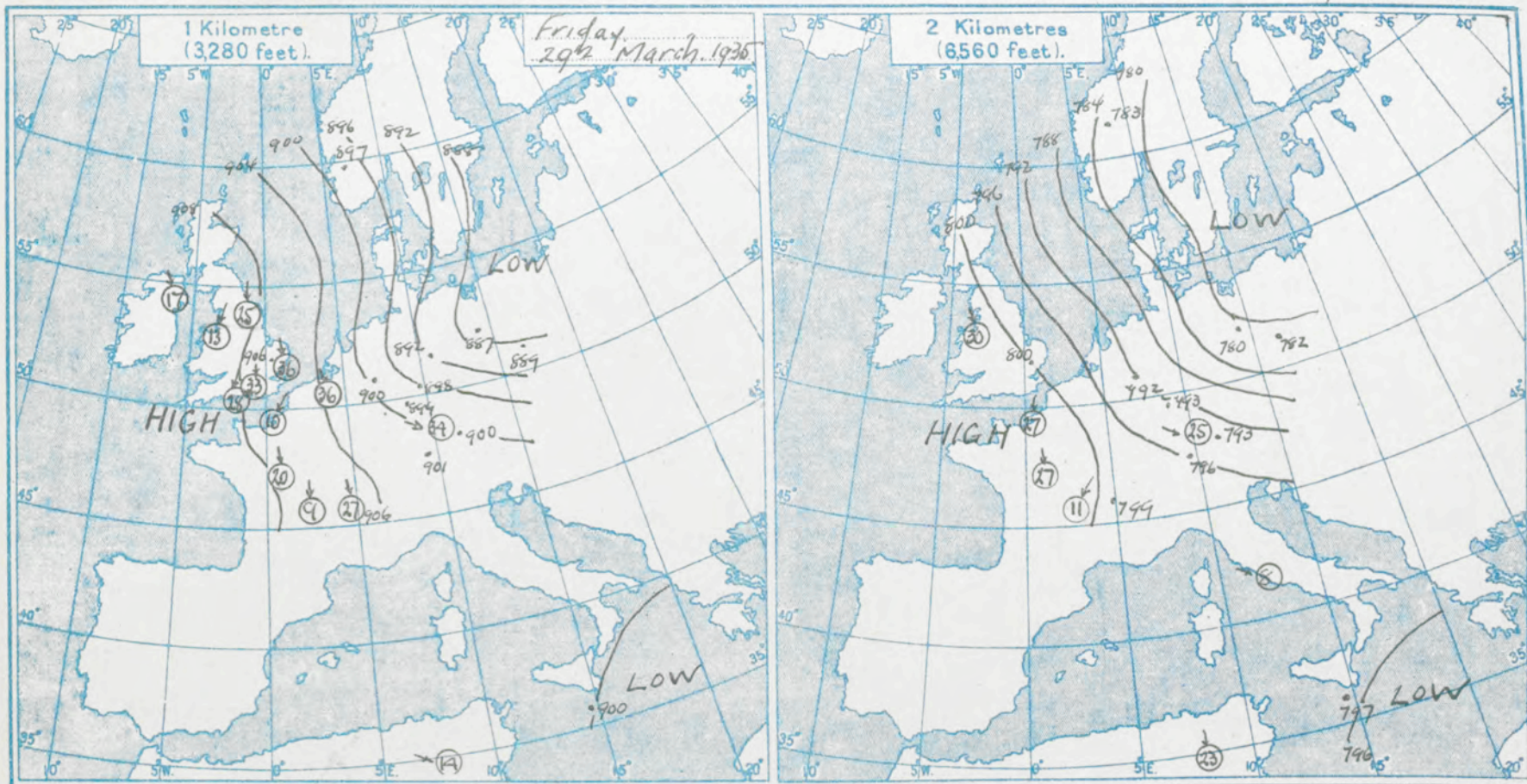


TABLE OF UPPER AIR TEMPERATURES RECORDED ON THURSDAY, 28th MARCH.....1935.

[illegible]



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. Thurs 28th MARCH, 1935.																																							
Place	Croydon	South Farnboro	Boscombe Down	Manston	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Rembroke	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Bircham Newton	Alder-grove	Malta	Place																			
Time	10h	10h.		10h	10h	10h	10h	10h	10h	10h.	10h	10h	10h	10h	10h	10h	10h	10h	10h	Time																			
Type	b	b		b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type																			
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Feet																			
Surf.	285	5	290	3			265	10	Cal'm	245	4	285	1	265	3	320	3	45	3	Cal'm	210	1			285	10	220	4	275	7	235	8	100	3	Surf.				
1000	270	13	265	9			280	15	260	8	290	18	260	23	310	15	300	5	50	4	25	7	295	6			330	17	240	7	285	10	235	7	1000				
2000	280	11	275	11			270	13	285	2	270	20	255	15	320	12	276	7	345	5	5	5	325	9			330	14	210	7	305	11	335	16	250	10	2000		
3000	305	10	295	7			255	11	360	3	265	20	255	10	320	23					20	13	350	14			345	30			320	15	215	9	20	12	3000		
4000			330	13			275	12	360	3			260	9	315	23					310	11	AG	07h			330	20			320	13	235	11			4000		
5000							290	14	325	7					310	15					305	15	ci.	07h			300	21			330	16	275	11			5000		
6000							245	32					325	23							310	19	310	40			320	25			320	20	275	12			6000		
8000							290	30					315	25							310	19	310	40			310	30			305	31	285	19			8000		
10000							245	35					320	32							315	24	Catterick				305	31			300	27	300	17	70	18	10000		
12000													AG	10h							320	27	AG	07h			310	27			310	27	310	17	13000ft	39	12000		
Neph.							330	33													320	27	AG	07h			310	27			310	27	310	17	13000ft	39	Neph.		
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Bircham Newton	Alder-grove	Valentia	Place																			
Time	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.		12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	12h.	Time																			
Type	b	b.		b.	b.	b.	b.	b.	b.		b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																			
Surf.	270	10	270	3	230	5	180	13	285	10	320	8	260	10	300	5	310	4		Cal'm	315	6	310	12	330	3	275	8	295	10			215	5	335	8	Surf.		
1000	260	10	270	5	240	4	235	10	245	12	325	20	270	19	305	9	315	4		195	2	320	4	305	9	330	8	265	11	270	19	220	7	10	6	1000			
2000	275	11	265	9	265	4	240	4	255	14	325	18	285	14	300	10	300	12		160	2	305	4	300	12	295	9	265	13	270	14	240	3	205	3	2000			
3000	300	13	260	8	290	9	305	5	250	18	315	20			305	13	290	12		300	14	305	18	325	12	295	12	260	11	240	13	225	13	3000					
4000					295	13	350	14	260	15			320	19	335	19				305	19	315	18	320	21	310	23			215	16	240	11	4000					
5000					295	16	340	19			320	23	330	14						310	20	325	25	315	26	300	21			275	24	245	15	5000					
6000					295	19	335	22			320	23	325	20						325	23	320	25			300	30			280	29	255	15	6000					
8000					330	22					320	23	325	20						310	21	310	19			300	32			280	22	260	16	8000					
10000					330	24					320	23	325	20						300	21	310	19			305	36			280	27	275	11	10000					
12000											320	23	325	20						295	23	12h. AG				310	48			310	48	245	15	12000					
Neph.											320	23	325	20						305	23	12h. AG				310	48			310	48	245	15	12000					
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Everden	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Valentia	Alder-grove	Malta	Place																			
Time	18h	18h.	18h.	18h.	18h.	17h.	18h.	18h.	18h.	24h	18h.	18h.	18h.	18h.	18h.	18h.	18h.	18h.	18h.	Time																			
Type	b.	b.		b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type																			
Surf.	240	10	260	8	240	4	240	15	310	5	310	4	305	4	340	5	300	8	285	3	245	8	315	4	240	10	285	12	240	10	240	13	260	4	225	15	310	6	Surf.
1000	245	11	275	14	240	4	255	15	310	15	315	10	315	14	320	8	300	14	305	16	230	4	325	14	305	9	245	18	240	16	245	19	180	4	220	20	(3000)	1000	
2000	245	15	315	14	240	12	305	14	300	15	300	12	310	15	315	8	300	12	300	19	230	4	245	16	300	15	300	22	305	19	245	22	220	13	255	14	360	15	2000
3000	315	11	315	14	305	12	340	14	285	20	245	11	305	14	285	14	315	15	310	25	245	12	240	21	305	18	300	24	315	21	245	25	240	16	270	13	(4000)	3000	
4000	330	14	345	15	340	19	350	18			320	22	300	15	285	19	330	16	310	24			240	21	300	15	305	25	345	14			245	18	260	13	360	20	4000
5000	335	19	335	22	340	18	340	20			325	25	320	19			325	18	310	31			300	24	305	31			330	24			255	14	245	30	(10000)	5000	
6000	345	19	340	24			330	14			325	24	320	25			325	24	320	25			300	24	305	31			330	22			270	15	240	24	360	31	6000
8000							325	24	320	25			325	24			325	24	320	25			300	24	305	31			330	22			270	15	240	24	360	31	8000
10000											325	24	320	25			325	24	320	25			300	24	305	31			330	22			270	15	240	24	360	31	10000
12000											325	24	320	25			325	24	320	25			300	24	305	31			330	22			270	15	240	24	360	31	12000
Neph.											325	24	320	25			325	24	320	25			300	24	305	31			330	22			270	15	240	24	360	31	Neph.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. Friday 29 th March 1935.																						
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	Croydon	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Mansford	Renfrew	Mildenhall	Alder-grove	Birchington		Place	
Time	06 ^h	07 ^h	08 ^h	07 ^h	08 ^h	10 ^h	07 ^h	07 ^h	07 ^h	09 ^h	09 ^h	07 ^h	07 ^h	07 ^h	10	07 ^h	07 ^h	07 ^h	07 ^h		Time	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet	
Surf.	300 9	310 3	320 9	290 7	330 10	5 15	320 15	345 8	320 8	355 15	335 4	330 15	320 9	310 1	350 17	255 5	335 8	Ca l m	340 16		Surf.	
1000	330 25	325 23	335 25	345 25	345 34	5 13	355 24	360 19	30 14	355 20	350 17	320 24	350 13	355 14	5 25	300 11	360 25	295 9	5 23		1000	
2000		345 33	355 34	360 28	345 30		360 32	5 19			355 16	325 25	20 13	10 1	5 28		10 26	325 15			2000	
3000		360 33	360 33	5 28			355 36	360 19			15 24	(at 1000 ft)	15 360	25 15	33		360 29	335 17			3000	
4000		5 35					5 34	5 24			25 20		10 16	350 24	10 33		5 27				4000	
5000							355 31	15 25			5 25		350 27				10 33				5000	
6000											360 19		350 30								6000	
8000																					8000	
10000																					10000	
12000																					12000	
Neph.					340 100						320 63	310 72									Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	Mildenhall	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia		Place	
Time	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	12 ^h	13 ^h	12 ^h	12 ^h	13 ^h		Time	
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type	
Surf.	15 13	25 8	10 10	350 15	20 15	5 10	360 14	45 9	30 8	45 12	310 6	315 13	40 9	45 6	100 5	65 10	120 5	215 8	65 3		Surf.	
1000	25 15	20 11	20 19	5 21	15 23	20 16	5 16	45 13	15 9	5 9	350 12	325 11	45 4	25 4	105 9	85 14	115 9	240 10	55 4		1000	
2000	20 18	30 15	25 14	10 23	10 25	10 14	10 19		355 6		35 11	30 6	85 5		100 10		120 11	280 11	105 4		2000	
3000	20 16	30 13		10 22	360 24						35 11	45 6	105 5				140 9	295 13			3000	
4000		(2620)			10 36						10 3	(2930)	35 4				160 14				4000	
5000											335 4						145 13				5000	
6000																	145 9				6000	
8000																	335 14				8000	
10000																	330 20				10000	
12000							16h ACu				13h ACu	13h ACu									12000	
Neph.							330 84				330 39	320 60									Neph.	
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Mansford	Croydon	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Aberdeen	Malta	Alder-grove	Mildenhall		Place	
Time	14 ^h	14 ^h	16 ^h	14 ^h	15 ^h	24 ^h	17 ^h	16 ^h	17 ^h	17 ^h	17 ^h	14 ^h	14 ^h	14 ^h	16 ^h		16 ^h	14 ^h	17 ^h		Time	
Type	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	b.	Type	
Surf.	90 10	55 4	60 6	65 6	45 13	140 3	60 18	45 8	75 7	190 8	310 6	345 6	110 11	60 3	145 4			210 8	25 6		Surf.	
1000	65 9	45 14	65 12	50 10	35 23	200 14	35 18	40 11	70 9	240 3	355 8	5 8	105 10	70 8	150 9		330 15	225 11	40 16		1000	
2000	40 18	30 13	45 10	45 12	15 24	85 12	10 21	40 11	40 12	330 3	355 7	35 10	105 7	130 3	160 9.		240 13		35 13		2000	
3000		25 19	40 10	40 13	30 20	85 8	15 19	10 9	5 10	50 5	335 4		115 4						45 13		3000	
4000		15 14		35 15	40 22	50 6	35 19		360 11		310 5								55 14		4000	
5000					20 22	15 9	30 19												30 15		5000	
6000						350 23	25 22												5 22		6000	
8000						345 29	355 37												350 36		8000	
10000						350 26													350 44		10000	
12000							18 ^h ACu												18 ^h ACu		12000	
Neph.							330 81														Neph.	

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5844.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e'' = e' - 0.37 (t - t') B/1000$$

where e'' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e' is the saturation vapour pressure at temperature t' .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

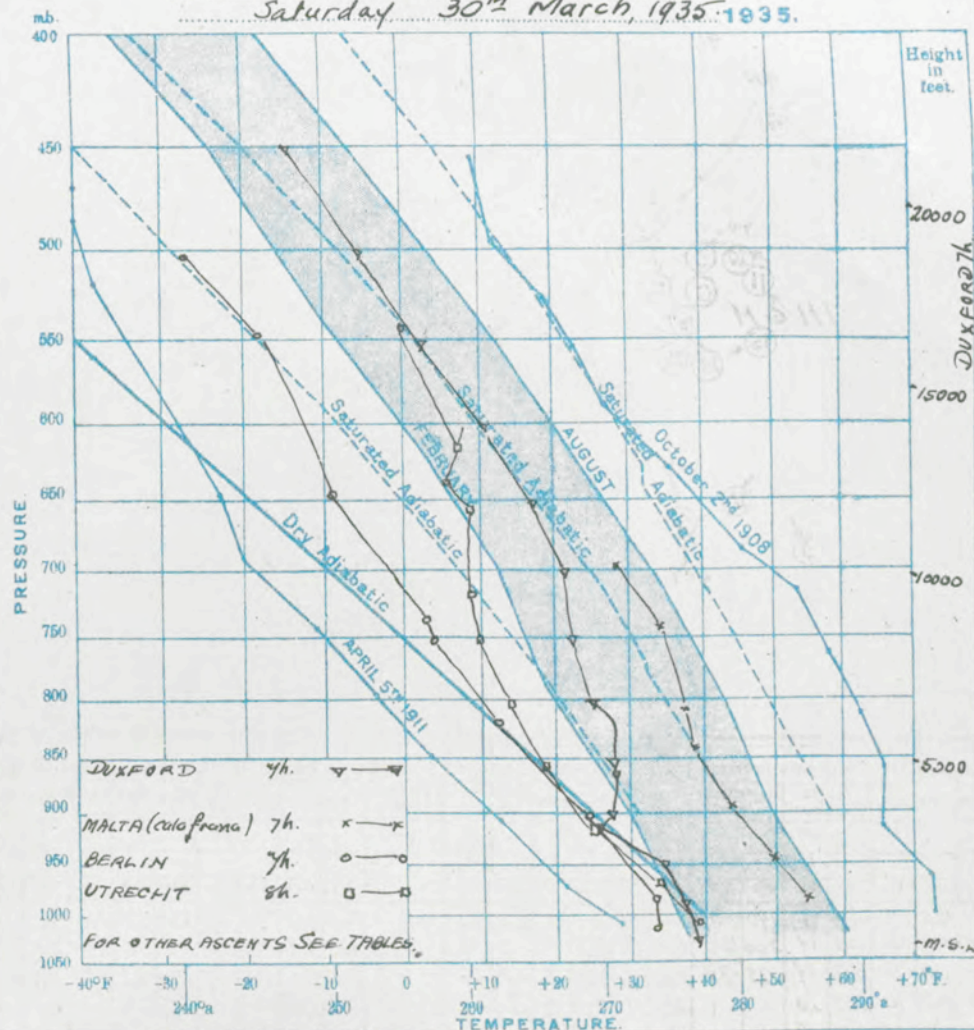
b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

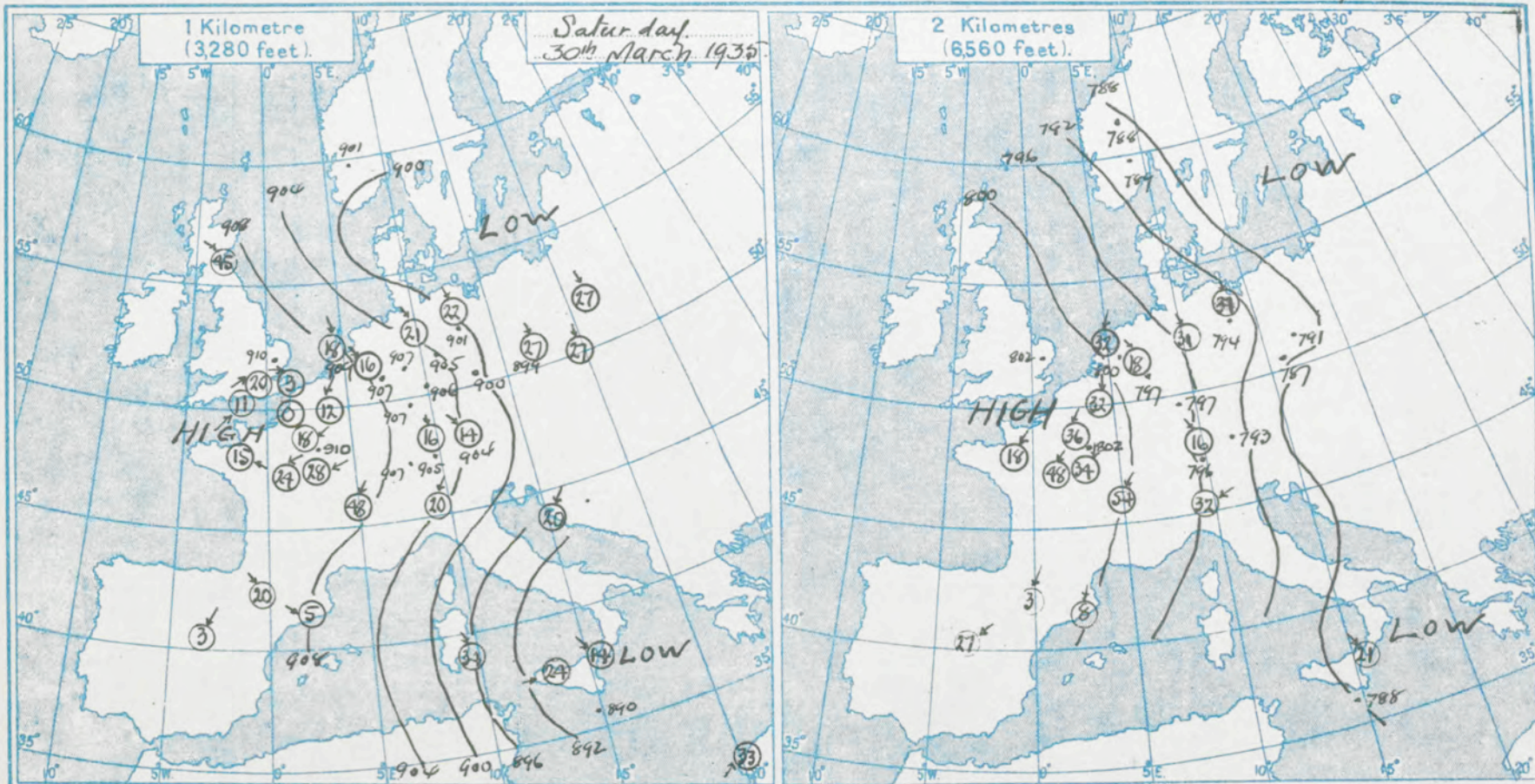
DIAGRAM OF UPPER AIR TEMPERATURES.Saturday 30th March 1935-1935.**TABLE OF UPPER AIR TEMPERATURES RECORDED ON Saturday 30th March 1935.**

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
Duxford 07h				Cologne 16h				Friedrichshafen 21h				Breslau 07h				Berlin 07h				Lindenberg 07h				Trappes 09h				Malta (Calafra) 07h			
1030 S.M.S.L.				1019 167 44 55				978 1312 7 78				1004 420 27 79				1016 184 34 72				1007 348 27 81				910 3280 23 -				981 660 35 75			
1027 100 34.5 84				763 7560 9 53				915 2450 21 70				965 1310 35 82				984 960 34 68				985 660 30 36				802 6560 25 -				946 1640 50 85			
950 2140 34.2 44				752 7880 3 68				900 3610 21 70				952 1970 27 63				920 2250 25 60				910 2620 19 52				706 9840 20 -				890 2780 44 85			
900 3550 47.4 74				737 8640 1 68				795 6560 4 70				842 4420 17 75				821 5570 32 69				750 7560 2 55				621 13120 15 -				837 4420 39 85			
850 5070 28.0 100				725 8850 9 83				721 8850 2 78				769 7230 5 73				750 7880 4 80				735 7560 2 50				545 16400 6 -				808 6810 34 75			
800 6610 25.2 100				686 10170 6 98				690 9540 6 60				697 9530 4 60				734 8540 3 63				692 9530 8 48								788 8200 34 75			
750 8200 22.4 -								541 11800 8 52				591 13450 22 64				648 11450 9 54				669 10170 8 48								696 9840 29 75			
700 10090 21.8 100												567 14460 26 54				546 15430 18 49				660 10500 9 48											
650 12000 17.8 -												532 15100 26 44				502 17340 27 49				590 13450 22 48											
600 14000 10.6 -												542 15430 26 44																			
550 16200 2.5 -												511 17060 21 44																			
500 18570 2.5 -																															
450 21160 2.42 -																															
Haze to clouds composed of snow particles at first 10/10, 900 to 750 mb with further thin cloud to 630 mb. Cu tops up to 5000 ft. Rugged A Cu in East 350 to 450 mb. Cst 710 in N not reached. Ice formed 850 to 750 mb.				MUNICH 18h				DARMSTADT 7h				COLOGNE 7h				MUNICH 7h				UTRECHT 8h				HAMBURG 13h				BERLIN 16h			
				962 1662 35 75	1015 445 30 74	1023 157 30 95	964 1662 25 82	1005 670 39 65	1021 61 46 48	1014 184 41 42																					
				882 3940 24 90	942 1310 32 70	948 660 30 85	888 3610 18 90	968 1650 34 65	973 1310 38 43	919 2620 29 45																					
				828 5570 18 73	915 2450 24 64	984 1310 30 86	827 5240 12 77	904 3280 25 65	903 3280 29 60	816 5900 17 50																					
				732 8540 4 87	808 6230 13 64	973 1440 30 78	767 7560 1 84	853 4420 19 65	855 4600 21 58	703 9530 1 54																					
				664 11140 7 81	788 6400 10 66	852 4420 14 27	730 8540 2 81	800 6560 16 55	790 6300 12 46	662 11140 0 45																					
				600 13450 3 55	748 7230 10 52	829 5570 12 57	718 9200 0 54	750 8200 10 45	758 7880 9 54	573 14460 11 42																					
				565 14760 15 47	760 7880 10 50	818 5900 12 45	648 9840 2 51	702 9840 9 45	694 9840 3 40	566 15100 13 42																					
				553 15100 14 44	641 10830 2 38	707 9430 0 34	669 10170 8 48	616 13120 7 55	638 11800 0 35	521 16730 19 44																					
				523 16730 18 41	594 13800 2 33	568 15700 2 24	625 12460 2 40	539 16400 0 45	610 13120 5 41	506 17330 21 46																					
				510 17330 16 39	564 14760 1 31	541 16090 6 -	560 15100 22 40	544 16090 8 60	580 14460 6 50																						
					554 15430 11 31		512 17060 27 34		544 16090 8 60																						
					522 17060 4 29				502 17720 17 72																						
								INVERSIONS (1) (2) Base press. 920 45mb. " Temp 9° 6°F Rise 1°F, 2°F Depth 920' 623ft																							
Meteorological Office, Air Ministry, Kingsway, London, W.C.1. G. C. Simpson, C.B. D.Sc., F.R.S., Director.																															

Meteorological Office, Air Ministry,
Kingway, London, W.C.2

G. C. SIMMONS, O.B., D.Sc., F.R.S.,
Director.

Issued on Monday, 1st April, 1935.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 30 th March 1935.																																					
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Manston	Pembroke Dock	Felix-stowe	Croydon	Upper Heyford	Manston	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Birchington	Alder-grove	Malta	Place																	
Time.	06 ^h	07 ^h	07 ^h	07 ^h	06 ^h	10 ^h	07 ^h	10 ^h	07 ^h	10 ^h	9 ^h				08 ^h	8 ^h	09 ^h		6 ^h	Time																	
Type	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	Type																	
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet																
Surf.	180	4	165	3	190	10	160	9	240	2	270	10	190	4	190	11	190	10	210	10	280	8	Surf.														
1000	195	13	190	14	200	20	190	15	220	3	280	9	195	10	205	23	195	16	225	18	290	20	1000														
2000	210	11	210	14	225	34	200	15	195	5	245	10	220	9	240	25	225	29	270	21	285	19	2000														
3000	215	14	220	20			225	11	270	3	230	9	230	11	260	25			225	14			3000														
4000	255	14	225	18					320	8			245	13									4000														
5000	285	20	(3600ft)						325	4			255	19									5000														
6000	at 5000ft																					6000															
8000																						8000															
10000																						10000															
12000																						12000															
Neph.																					Neph.																
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Manston	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Valentia	Place.																	
Time.	12h	12h	13h	12h		12h			13h	12h	12h	12h	12h	12h	12h	13h	13h	12h		Time.																	
Type	b.	b.	b.	b.		b.			b.	b.	b.	b.	b.	b.	b.	b.	b.	b.		Type																	
Surf.	205	16	220	10	220	10	210	18			235	14	215	10	230	12	310	14	275	16	280	16	255	10	245	18	210	15	250	10	Surf.						
1000	210	27	220	13	225	15	225	18			240	21	240	11	275	19	305	15	285	17	285	18	275	23	260	21	235	25	260	17	1000						
2000	245	23	250	23	270	23	260	23			265	25	260	13	250	20			265	25	260	13	250	20			315	19	285	26	2000						
3000			275	27	285	21	285	25			290	17	265	15	235	17												335	11			3000					
4000			(2430ft)																													4000					
5000																																5000					
6000																																6000					
8000																																8000					
10000																																10000					
12000																																12000					
Neph.																					Neph.																
Place.	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Manston	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place.																	
Time.	17h	17h	17h	17h		17h		16h		16h	17h	17h	17h	17h		18h		17h	17h	Time.																	
Type	b.	b.	b.	b.		b.		b.		b.	b.	b.	b.	b.		b.		b.	b.	Type.																	
Surf.	225	10	220	8	240	9	235	15			215	15			275	14			230	25	265	8	320	13	230	15	270	16		250	22	260	7	Surf.			
1000	235	13	240	18	255	13	245	25			250	24			275	22			250	18	260	14	305	18	230	21	265	29		255	28	265	19	320	40	1000	
2000	265	20	260	23	285	23	280	26			280	27			290	23			275	15	260	16					275	18				265	20	2000			
3000			(1430ft)																265	20							245	14						330	43	3000	
4000																			320	14							275	16						4000			
5000																											310	18							310	39	5000
6000																											305	24							6000		
8000																											310	34							8000		
10000																											310	46							10000		
12000																											Ag. 18h								12000		
Neph.																											290	45							Neph.		

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION.

No. 5845.

UPPER AIR TEMPERATURES.

Notes on the diagram.—Pressure and temperature are plotted on logarithmic scales so that all changes of temperature according to the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1908, show extremes of temperature in the South of England.

The curves marked February and August show normal values for these months.

The broken lines show adiabatic changes for saturated air rising under specified conditions. See Title Page.

The sloping straight line shows the adiabatic change for dry air.

Notes on the Table.—At British stations pressure is observed directly from an aneroid barometer, or indirectly from an altimeter graduated according to a given specification. Heights in feet are deduced from the pressures and temperatures. Relative humidity, when given, is generally obtained from simultaneous readings of the ventilated dry and wet-bulb thermometers. It is computed from vapour pressure, which is derived from the formula

$$e' = e - 0.37 (t - t') B/1000$$

where e' is the vapour pressure of the air of which the pressure is B , and dry and wet-bulb temperatures are t and t' (Fahrt.)

and e is the saturation vapour pressure at temperature t .

UPPER WINDS (see reverse).

All observations of upper winds from British Stations are obtained by single theodolite pilot balloon ascent, except where otherwise specified in the tables on the reverse side.

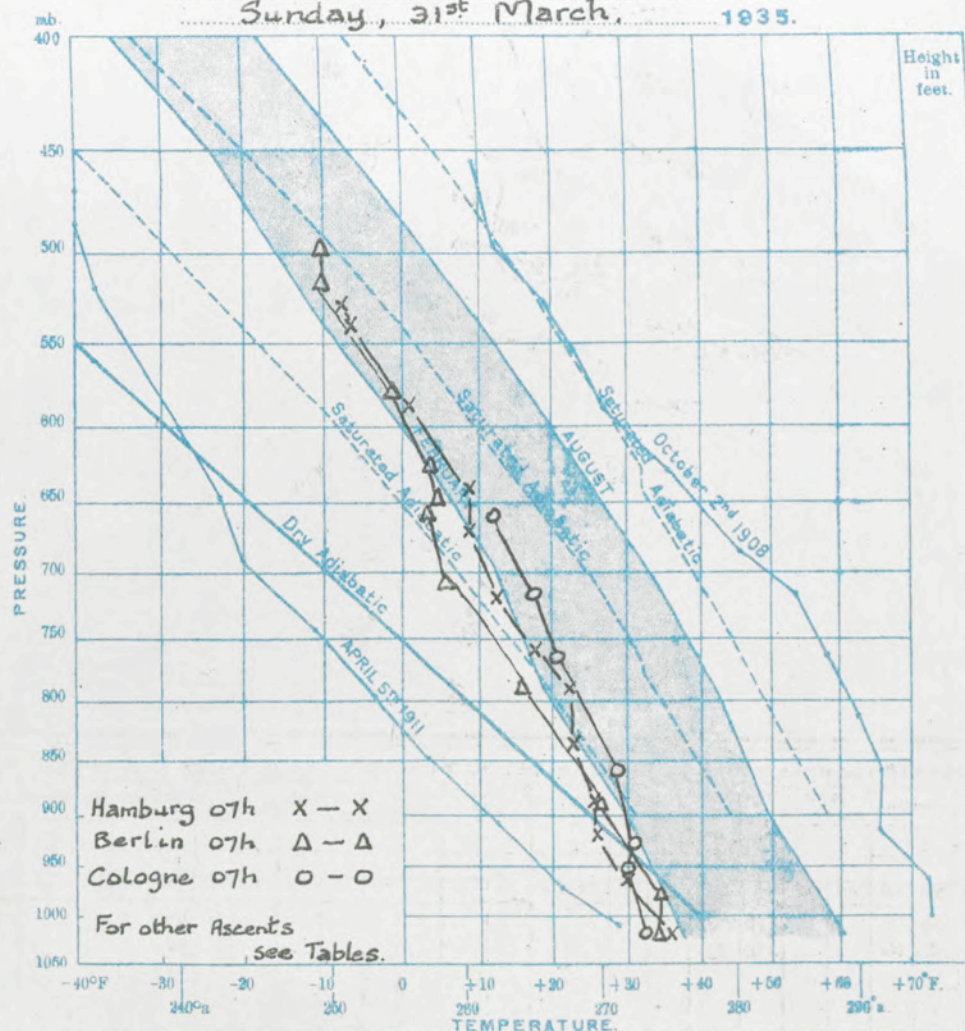
b = balloon with tail.

d = double theodolite ascent.

On the maps the pressures in mb. at heights of 1 and 2 km. (3,280 and 6,560 ft.) are written against the positions of the stations for which the information is available. The figure within the station circle represents wind velocity in miles per hour.

CLOUD MOVEMENTS (see reverse).

These are shown in the tables, together with the form of cloud observed by nephoscope, against the word "Neph." Speeds of high cloud are computed for an average height of 5 miles for cirro type cloud, and 3 miles for alto-type cloud.

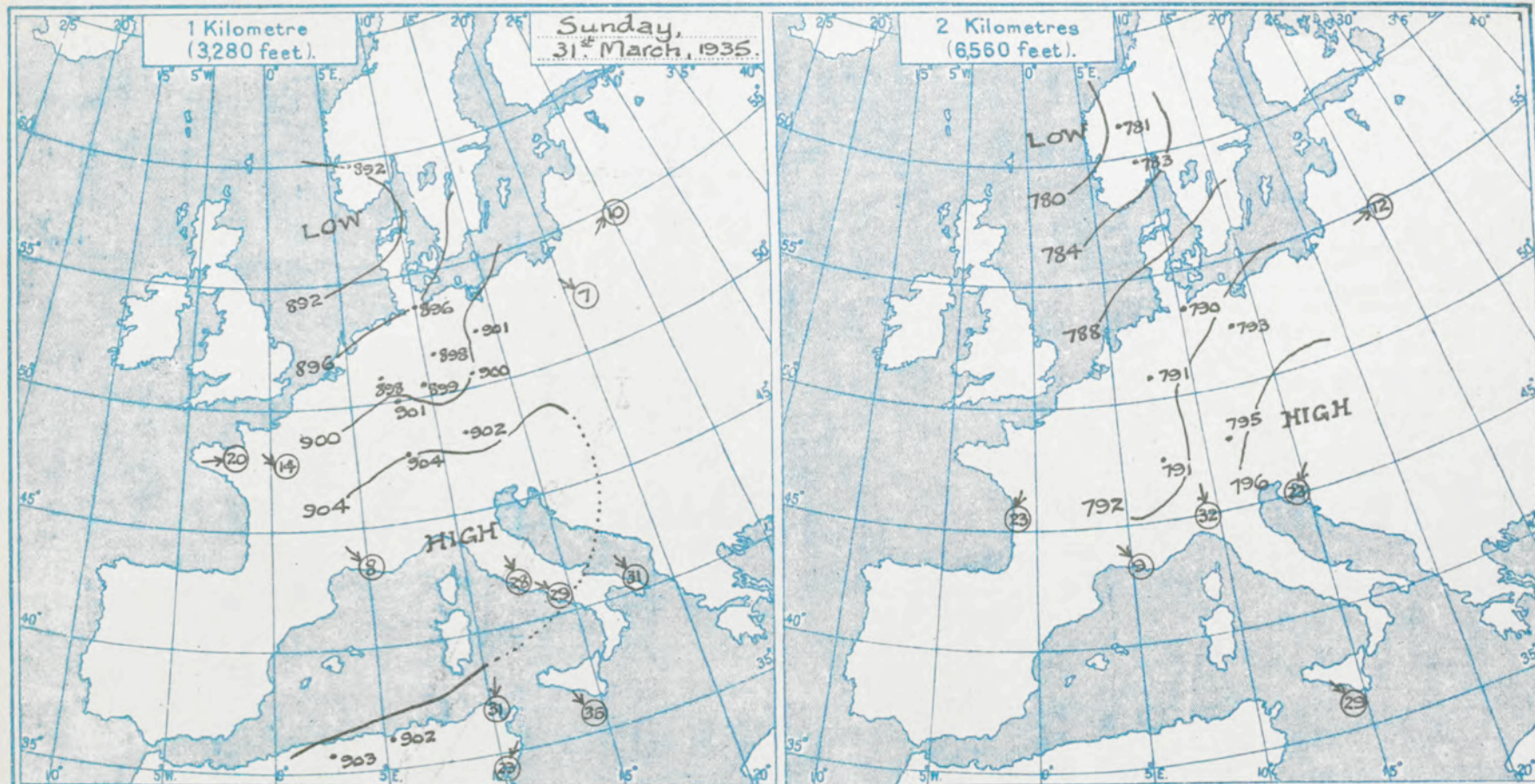
DIAGRAM OF UPPER AIR TEMPERATURES.Sunday, 31st March, 1935.**TABLE OF UPPER AIR TEMPERATURES RECORDED ON Sunday, 31st March, 1935.**

Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.	Pressure.	Height above M.S.L.	Temp.	Relative Humidity.
mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%	mb.	Feet.	°F.	%
HAMBURG 7h.				BERLIN 7h.				COLOGNE 7h.				MUNICH 6h.																			
M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—
1015	61	37	79	1013	184	36	79	1013	157	33	92	960	1662	32	57																
960	1640	30	83	978	1310	36	68	956	1640	30	98	894	3610	23	51																
914	2620	26	95	891	3610	26	61	925	2620	31	98	844	4920	21	55																
880	3940	26	98	793	6560	16	68	855	4620	29	98	803	6230	15	65																
838	4920	23	98	703	9530	7	48	762	7560	21	94	763	7560	10	80																
790	6560	23	98	660	11140	3	62	711	9200	18	92	721	9200	5	86																
755	7880	18	95	649	11480	5	63	686	11480	12	86	685	9840	4	59																
716	9200	12	98	626	12460	4	63					664	11140	1	71																
670	10830	9	57	675	14460	—	57					651	11480	2	73																
641	11800	9	70	515	17060	—	54					621	12790	—	83																
587	14130	1	73	497	18050	—	50					609	13120	—	83																
542	16090	—	78									561	15100	—	75																
535	16400	—	57									527	16730	—	76																
M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—	M.S.L.	—	—	—

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Director.

Issued on Monday, 1st April, 1935.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L. 31st March, 1935.

Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place
Time	11h		04h							7h		07h		07h		07h		07h	06h	Time
Type										b.		b.		b.						Type
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	230 15		280 13							270 15		270 1		280 10		255 30		245 15		Surf.
1000	230 16		280 25							280 18		270 6		275 13		265 33		260 27	330 29	1000
2000										285 24		275 10		295 14					330 35	2000
3000																				3000
4000																				4000
5000																				5000
6000																				6000
8000																				8000
10000																			330 29	10000
12000																			7000 ft	12000
Neph.																				Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Manston	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Milden-hall	Alder-grove	Valencia	Place
Time		12h		12h		12h		12h	13h		12h		12h		11h		12h			Time
Type		b.						b.			b.				b.					Type
Surf.		260 14		275 18		265 9		280 20	230 14		230 14		275 24		230 20		280 17			Surf.
1000		275 23		290 13		275 14		275 26	275 20		265 25		275 17		255 31		280 21			1000
2000		285 18				230 16		290 30	265 17		290 22				265 43					2000
3000		295 19							270 14		(1800ft)									3000
4000		(2550ft)							305 30											4000
5000									300 33											5000
6000																				6000
8000																				8000
10000	Biggin Hill		Cist 16h																	10000
12000	Ci 16h	Ci 16h	Acu 13h									Acu 13h		Ci 16h			Acu 16h			12000
Neph.	230 75	280 50	270 24									230 36		300 30			230 60			Neph.
Place	Croydon	South Farnboro	Boscombe Down	Calshot	Lympne	Manston	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Manchester	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Malta	Place
Time						17h										17h		17h	17h	Time
Type																b.				Type
Surf.						250 12										280 20		295 10		Surf.
1000						275 16										285 31		315 29	330 21	1000
2000						275 24										285 31		320 35	350 26	2000
3000						280 31										285 41			350 39	3000
4000																				4000
5000																				5000
6000																				6000
8000																				8000
10000																				10000
12000																				12000
Neph.	300 48					300 50										290 54				Neph.