

THE DAILY WEATHER REPORT

INTERNATIONAL AND UPPER AIR SECTIONS.

1st July to 30th September

1932.



AIR MINISTRY. METEOROLOGICAL OFFICE, LONDON. W.C.2.

METEOROLOGICAL STATIONS.

Stations on the continent used for the Upper Air Supplement are underlined on this map. For the positions of the corresponding stations in Great Britain and Ireland see map opposite.

Scale 1:2 x 10⁷
Nautical Miles 0 1 2 3 4 5 6 7 8 9 10
Statute Miles 0 1 2 3 4 5 6 7 8 9 10



STATIONS USED FOR UPPER AIR SUPPLEMENT.



Other stations on the Continent used in the Upper Air Section will be found underlined on the map opposite.

NOTES REGARDING THE INTERNATIONAL AND UPPER AIR SECTIONS.

These sections are both of Royal 4to size, and are published daily by 3.30 p.m. except that the issues for Saturday and Sunday are both made on Monday morning.

INTERNATIONAL SECTION.

On pp. 1 and 4 are contained:—

(1) Observations taken at about 80 stations on the Continent of Europe, generally at 18h. yesterday and 7h. to-day. The positions of most of the stations is shown in the accompanying map. Barometer at Mean Sea Level is entered in millibars; one millibar is 1000 dynes per square centimeter, and the relation between millibars and the indications of properly corrected barometer readings in so-called "inches" is shown diagrammatically between pp. 2 and 3 of each issue. Barometric change is given for the three hours preceding the observation. Wind force is given by the Beaufort Scale. As defined in this country the scale is set out on p. 4 of this Introduction; definitions in other countries are not always quite equivalent to the British definitions, but they are similar. Weather is expressed in Beaufort Letters which are defined in an inset on this page. Visibility is expressed on a scale 0-9; the meanings of the different figures are set out in a table on p. 4. The forms of low cloud are also expressed on a scale 0-9; (See p. 4). The amount of low cloud and the total amount of cloud are expressed in tenths of the sky covered; thus "1" means one-tenth of the sky covered; "Tr" means a trace of cloud but less than one-tenth; "9+" means more than 9, but with slight openings; "0" means completely cloudless and "10" completely covered with cloud. Entries like "4-6" mean that the amount may be either 4 or 5 or 6, the information received by code being insufficient to determine which of these is the actual amount. The code for the State of Sea is given on p. 4 of this Introduction. Maximum day temperature and minimum night temperature refer respectively except when otherwise stated, to the periods 7h. to 18 G.M.T. and 18h. to 7h. G.M.T.

(2) A table of wireless reports from ships. The remarks given above in respect of land stations apply also to this table wherever appropriate. It should be noted that the figures given in the table for speed of ship, difference between sea and air temperature, and state of swell are code figures, the codes being set out alongside the table. The codes for forms of medium and high cloud are printed on p. 4 of this Introduction.

On pp. 2 and 3 are shown weather charts for 13h. and 18h. "yesterday" and for 1h. and 7h. to-day, all on the scale of 1:20,000,000. These charts are useful to anyone who wishes to trace the passage of various weather systems, since the four charts for each 24 hours enable the reader to follow the course of events in detail.

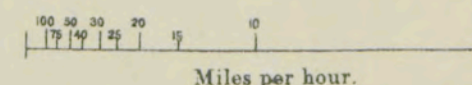
Pressure.—The distribution of barometric pressure at Mean Sea Level is shown by means of isobars which are drawn for intervals of 4 millibars in the International Section.

The wind at a height of 1,500-2,000 feet above ground usually blows along the isobars and, for the same temperature, pressure and latitude, the speed of the wind is inversely proportional to the distance between the isobars, e.g., for isobars 1 inch apart in the Daily Weather Report the speed of the upper wind is about 12 m.p.h. in latitude 55°, with a temperature of 50°F. and a pressure of 1,015 mb.; if, however, the isobars are ½ inch apart the corresponding speed is 24 m.p.h.

The scale below can be used with the International Section. If the distance between consecutive isobars is measured along the scale from the left-hand extremity the geostrophic wind is shown by the scale in miles per hour

GEOSTROPHIC WIND SCALE FOR

4 mb. isobars on 1:2 x 10⁷ Charts.



This scale applies under the following conditions:—

Pressure, 1,015 mb. Temperature, 50°F. Latitude, 55°.

Corrections.—For an increase of 10 mb. pressure, subtract 1% from velocity; for an increase of 10°F. add 2%. From Latitude 55° to Latitude 65° subtract 1% for each degree above 55°. From Latitude 55° to Latitude 45° add 1½% for each degree below 55°.

Temperature.—Temperature is specified in degrees Fahrenheit, and is shown on the charts by means of figures written alongside the circles which indicate the positions of the stations.

Wind.—All wind directions specified in the reports are "true" as distinguished from "magnetic." The arrows indicating wind direction are drawn to fly with the wind.

UPPER AIR SECTION.

The following remarks are additional to those printed on each 2 page issue:—

Upper Air Temperature.—The British observations are made normally, one at 1,000 feet above the level of the aerodrome, and the remainder at pressures of 950, 900, 850, 800, etc., millibars. Heights are then computed and apart from instrumental error, are correct heights: they do not

BEAUFORT NOTATION OF WEATHER.

b blue sky (not more than a quarter covered).
bc sky partly cloudy (one half general character of the weather covered).
c generally cloudy.
d drizzle.
e wet air. h hail. KQ line squall.
l lightning.
m mist, visibility 1000-10000 m.
f fog, 200-1000 m.
F thick fog, less than 200 m.
g gloomy.
jp precipitation within sight of station.
p passing showers.
q squally.
rain. s snow. rs sleet. t thunder.
u ugly, threatening.
v unusual visibility.
w dew. x hoar frost.
y dry air. z dust haze: the turbid atmosphere of dry weather.

A "solidus" divides actual existing weather from preceding conditions, thus:—bc/r = fair weather after rain; i = intermittent; - = "decreasing"; + = "increasing"; h(r) = "hail" or "rain and hail"; Capital letters indicate intensity, suffix o indicates slight; and repetition of letters continuity, thus:—
R = heavy rain.
rr = continuous moderate rain.
FoFo = continuous light rain.

require modification for differences of temperature from normal as these are allowed for in the computation. The values are shown graphically and in tabular form in the Upper Air Supplement. On the diagram, temperatures are given in degrees Fahrenheit and Absolute. The oblique line marked "Dry Adiabatic" shows the lapse rate of temperature for dry air ascending or descending under adiabatic conditions, i.e., without communication of heat from external sources. The lapse rate under these circumstances is very approximately 5.5° F. per 1,000 feet, or 10° a per kilometre. A lapse rate greater than this value indicates instability in a dry atmosphere.

The broken lines marked Saturated Adiabatic show lapse rates for saturated air. These are for air masses which contain just sufficient moisture at 1,015 mb. pressure to become saturated after rising 1 km. in an environment having the dry adiabatic lapse rate. The condensed moisture is assumed to be retained thereafter in the air as it rises.

Humidity.—Relative humidity in the upper air is obtained at British Stations, except at Aldergrove where a Jaumotte meteorograph is used, from readings of dry and wet bulb thermometers mounted on aeroplanes. These values are not usually to be relied upon when the wet bulb thermometer is below 32°F. and are therefore not then published. The tables used for calculating humidities from the readings of dry and wet bulb thermometers on aeroplanes are based on a formula of the type of Regnault's (see M.O. publication 265), due allowance being made for the variation of barometric pressure with height and for the strong ventilation of the thermometers.

Upper Winds.—The direction and velocity of the wind are given in the charts of the Upper Air supplement for heights of 2,000 feet and 6,000 feet.

The data are also given in tabular form for various heights. The reports are usually based on Pilot Balloon ascents.

Wind reports deduced from British Pilot Balloon Ascents refer to the 1,000 feet layers centering at the heights given in the table up to 16,000 feet. When winds are reported at greater heights, they refer to the 5,000 feet layers centering at 20,000 feet, 25,000 feet, 30,000 feet and 35,000 feet.

In the tabular statement direction is specified in degrees from true north measured through East 90°, South 180°, West 270° to North 360°. (See diagram below.)



CODES.

FORM OF LOW CLOUD.

- 0 No low clouds.
- 1 Fair weather Cu.
- 2 Large Cu without anvil.
- 3 Cu-Nb.
- 4 St-Cu formed by the spreading out of Cu.
- 5 Layer of St or St-Cu.
- 6 Nimbus.
- 7 Fair weather Cu and St-Cu.
- 8 Large Cu (or Cu-Nb) and St-Cu.
- 9 Large Cu (or Cu-Nb) and Nb.

Note.—Nimbus—ragged low clouds of bad weather.

FORM OF MEDIUM CLOUD.

- 0 No medium clouds.
- 1 Typical A-St (thin).
- 2 Typical A-St (thick). (Sun or moon invisible).
- 3 Single layer of A-Cu or high St-Cu.
- 4 A-Cu in isolated bands. Individually decreasing (often lenticular).
- 5 A-Cu in bands (increasing).
- 6 A-Cu formed from the spreading out of Cu.
- 7 A-Cu associated with A-St or A-St with parts resembling A-Cu.
- 8 A-Cu Castellatus (or A-Cu in ragged fragments).
- 9 A-Cu in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

FORM OF CIRRUS CLOUD.

- 0 No cirriform cloud.
- 1 Fine Ci not increasing: sparse.
- 2 Fine Ci not increasing: abundant but not a continuous layer.
- 3 Anvil Ci (usually dense).
- 4 Fine Ci increasing: usually in tufts.
- 5 Ci or Ci-St increasing: still below 45° altitude: often in polar bands.
- 6 Ci or Ci-St increasing and reaching above 45° altitude: often in polar bands.
- 7 Veil of Ci-St covering whole sky.
- 8 Ci-St not increasing and not covering whole sky.
- 9 Ci-Cu predominating, and a little cirrus. (Ci-Cu may occur with any of the types 1 to 8).

SURFACE VISIBILITY

Objects not visible at

- | | |
|-------------------|-------------|
| 0 Dense fog | 55 yards. |
| 1 Thick fog | 220 " |
| 2 Fog | 550 " |
| 3 Moderate fog | 1,100 " |
| 4 Mist or haze | 1½ miles. |
| 5 Poor visibility | 2½ " |
| 6 Moderate " | 6½ " |
| 7 Good " | 12½ " |
| 8 Very good " | 31 " |
| 9 Excellent " | beyond 31m. |

STATE OF SEA.

- | | |
|-------------|----------------|
| 0 Calm. | 5 Very rough. |
| 1 Smooth. | 6 High. |
| 2 Slight. | 7 Very high. |
| 3 Moderate. | 8 Precipitous. |
| 4 Rough. | 9 Confused. |

THE BEAUFORT SCALE OF WIND FORCE.

Beaufort Number.	Admiral Beaufort's General Description of Wind.	Specification for use on Land, based on observations made at British Land Stations.	Limits of Mean Velocities Statute Miles per Hour as recorded by well exposed anemometers about 40 feet above ground.
0	Calm ...	Calm; smoke rising vertically ...	Less than 1
1	Light air ...	Direction of wind shown by smoke drift ...	1-3
2	Slight breeze ...	Wind felt on face; leaves rustle ...	4-7
3	Gentle breeze ...	Leaves and small twigs in constant motion; wind extends light flag ...	8-12
4	Moderate breeze ...	Raises dust and loose paper; small branches are moved ...	13-18
5	Fresh breeze ...	Small trees in leaf begin to sway; crested wavelets on inland waters ...	19-24
6	Strong breeze ...	Large branches in motion; whistling heard in telegraph wires ...	25-31
7	Moderate gale ...	Whole trees in motion; inconvenience felt when walking against wind ...	32-38
8	Fresh gale ...	Breaks twigs off trees; generally impedes progress ...	39-46
9	Strong gale ...	Slight structural damage occurs (chimney pots and slates removed) ...	47-54
10	Whole gale ...	Seldom experienced inland; trees uprooted ...	55-63
11	Storm ...	Very rarely experienced; accompanied by widespread damage ...	64-75
12	Hurricane	Above 75



AIR MINISTRY. DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, FRIDAY, 1st July

1932.

No. 5. 25789

U.A.S. 9841

DIAGRAM OF UPPER AIR TEMPERATURE

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 25th, 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 Table Page.

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

UPPER WINDS.

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

b = balloons with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.

Movements are indicated thus:

— No speed given.

— 5-15 m.p.h.

— 15-25 " "

— 25-35 m.p.h.

— 35-45 " "

— 45-55 " "

— 55-65 " "

— 65-75 " "

— 75-85 " "

— 85-95 " "

— 95-105 " "

— 105-115 " "

— 115-125 " "

— 125-135 " "

— 135-145 " "

— 145-155 " "

— 155-165 " "

— 165-175 " "

— 175-185 " "

— 185-195 " "

— 195-205 " "

— 205-215 " "

— 215-225 " "

— 225-235 " "

— 235-245 " "

— 245-255 " "

— 255-265 " "

— 265-275 " "

— 275-285 " "

— 285-295 " "

— 295-305 " "

— 305-315 " "

— 315-325 " "

— 325-335 " "

— 335-345 " "

— 345-355 " "

— 355-365 " "

— 365-375 " "

— 375-385 " "

— 385-395 " "

— 395-405 " "

— 405-415 " "

— 415-425 " "

— 425-435 " "

— 435-445 " "

— 445-455 " "

— 455-465 " "

— 465-475 " "

— 475-485 " "

— 485-495 " "

— 495-505 " "

— 505-515 " "

— 515-525 " "

— 525-535 " "

— 535-545 " "

— 545-555 " "

— 555-565 " "

— 565-575 " "

— 575-585 " "

— 585-595 " "

— 595-605 " "

— 605-615 " "

— 615-625 " "

— 625-635 " "

— 635-645 " "

— 645-655 " "

— 655-665 " "

— 665-675 " "

— 675-685 " "

— 685-695 " "

— 695-705 " "

— 705-715 " "

— 715-725 " "

— 725-735 " "

— 735-745 " "

— 745-755 " "

— 755-765 " "

— 765-775 " "

— 775-785 " "

— 785-795 " "

— 795-805 " "

— 805-815 " "

— 815-825 " "

— 825-835 " "

— 835-845 " "

— 845-855 " "

— 855-865 " "

— 865-875 " "

— 875-885 " "

— 885-895 " "

— 895-905 " "

— 905-915 " "

— 915-925 " "

— 925-935 " "

— 935-945 " "

— 945-955 " "

— 955-965 " "

— 965-975 " "

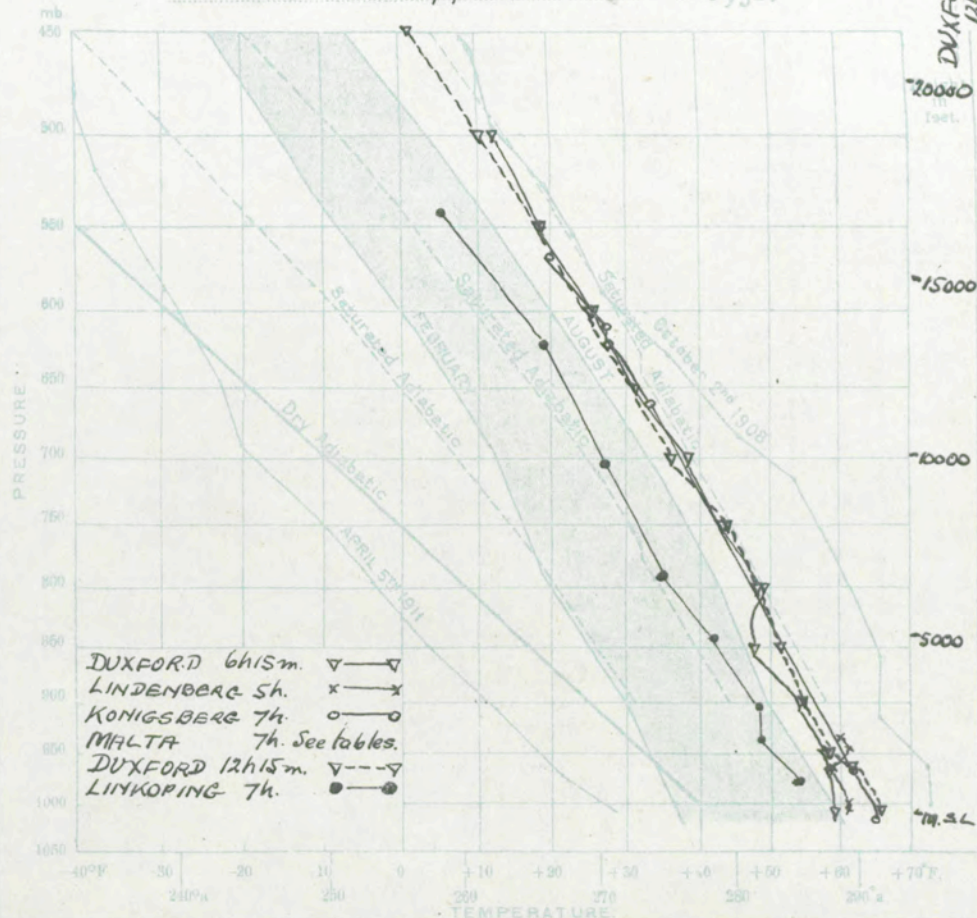
— 975-985 " "

— 985-995 " "

— 995-1000 " "

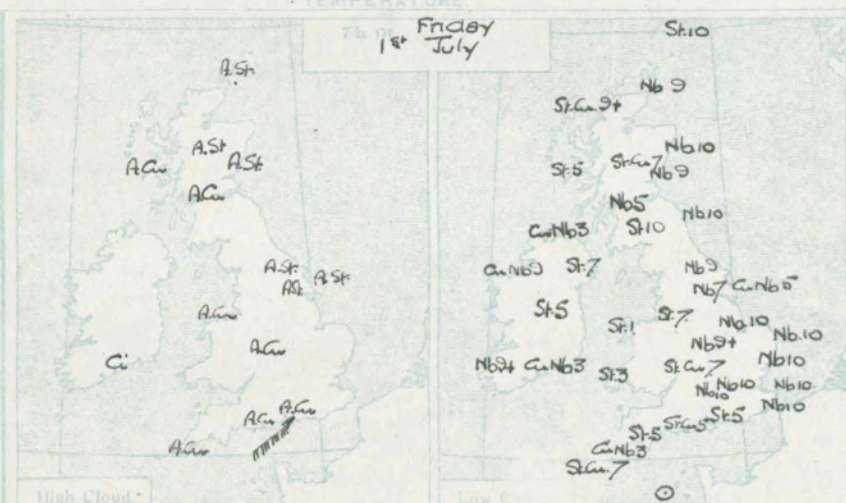
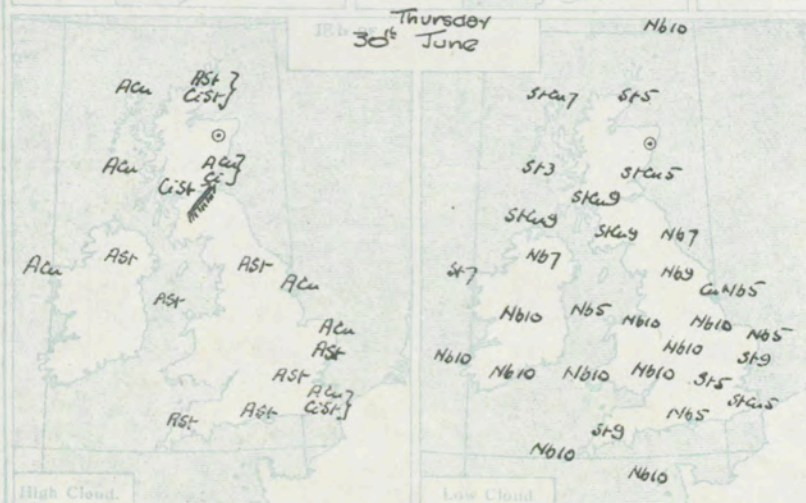
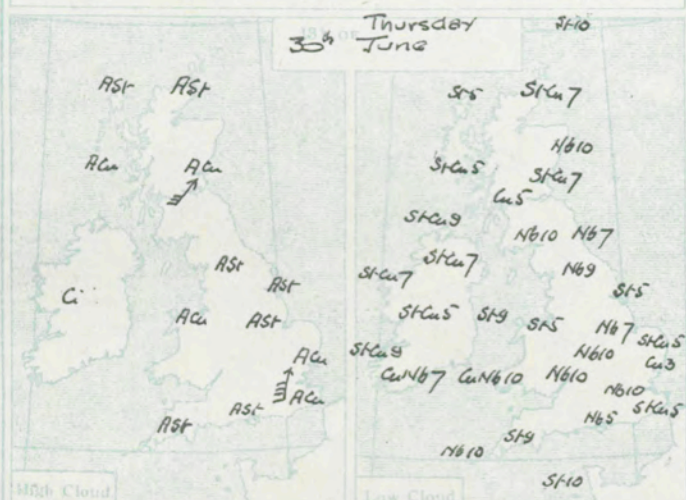
UPPER AIR TEMPERATURES.

Thursday, 30th June 1932.



DUXFORD 12hism

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.	
Time.						12h30 ⁴			13h30 ²			12h30 ⁴	12h30 ⁴	13h30 ⁴	13h30 ⁴	12h30 ⁴		11h30 ⁴		Time.	
Type						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.	Vel.	Feet
Surf.																					Surf.
1000						205 13			180 17			180 14	150 20	160 11	160 10	175 22		190 14			1000
2000						205 19			175 18			195 25	160 28	165 20	175 24	180 21		190 23			2000
3000						200 24						195 28		200 24	180 29	200 16		200 19			3000
4000						200 33									195 35			200 27			4000
5000						210 27									200 36						5000
6000						210 37															6000
8000						210 36															8000
10000																					10000
12000									13h 46						13h 46						12000
Neph.									180 39						220 30						Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.	
Time.	17h30 ¹					17h30 ²		17h30 ⁴	17h30 ⁴						17h30 ⁴			17h30 ⁴		Time.	
Type						6														Type	
Feet																				Feet	
Surf.	160 16					140 10		185 13	170 14						205 1		140 12			Surf.	
1000	170 19					175 17		195 26	170 28						195 17		180 26			1000	
2000						185 26		205 27							195 23					2000	
3000						190 31		205 31							195 30					3000	
4000						190 34		190 35							195 31					4000	
5000						200 40									195 38					5000	
6000						205 43														6000	
8000															18h 6					8000	
10000															220 50					10000	
12000								16h 46						15h 46	16h 46		16h 6			12000	
Neph.						200 42								210 51	220 45		180 100			Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.	
Time.	10 ⁿ 1 st			10 ⁿ 1 st	00 ⁿ 1 st				00												

Station.	TEMPERATURES AND HUMIDITIES.					Station.	TEMPERATURES AND HUMIDITIES.					Station.	TEMPERATURES AND HUMIDITIES.						
	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.		
			Dry.	Wet.					Dry.	Wet.					Dry.	Wet.			
DUXFORD 6411 N. 20.6.32	mb.	Feet.	°F.	°F.	%.	DUXFORD 1215 W. 30.6.32	mb.	Feet.	°F.	°F.	%.	DUXFORD 74 30.6.32	mb.	Feet.	°F.	°F.	%.		
1005 M.S.L.	—	—	—	—	—	1005 M.S.L.	—	—	—	—	—	1005 M.S.L.	—	—	—	—	—		
1007 100	59	57	89	—	—	969 120	45	62	78	—	—	964 882	54	—	—	—	—		
970 1110	58	52.5	86	—	—	969 120	45	62	78	—	—	947 1662	48	—	—	—	—		
950 1720	57.5	54	81	—	—	950 1400	61.5	59	86	—	—	904 3280	48	—	—	—	—		
900 3210	53.5	52	81	—	—	900 3160	54	56.5	92	—	—	848 4920	41	—	—	—	—		
850 4300	47.5	44	78	—	—	850 4700	51	50	94	—	—	797 6560	34	—	—	—	—		
800 6430	43	37.5	35	—	—	800 6400	44.5	46.5	87	—	—	703 9840	27	—	—	—	—		
750 8170	42.5	40.5	86	—	—	750 8140	43.5	41.5	87	—	—	661 13120	19	—	—	—	—		
700 10000	35	36.5	89	—	—	700 9940	36.5	35.5	93	—	—	548 16400	5	—	—	—	—		
650 11950	31	30	92	—	—	650 11350	31	31	100	—	—	INVERSION. Base 908 mb Temp. 50°F Rise 20°F Depth 2620 ft.							
600 14080	26	25	91	—	—	600 14050	25	25	—	—	—								
550 16320	19	18.5	—	—	—	550 16300	18.5	18	—	—	—								
500 18790	12	11	—	—	—	500 18750	10	10	—	—	—								
Huge tops 1000 ft. 4860 mb	—	—	—	—	—	450 21420	0.5	1.5	—	—	—								
INVERSION 5500 ft. 6.47.50	—	—	—	—	—	Haze top not defined.					—								
4500 ft. 1000 mb	—	—	—	—	—	540 9/10 950-990 mb.	—	—	—	—	—								
5100 10, 700-750 ft.	—	—	—	—	—	540 9/10 850-870 mb.	—	—	—	—	—								
5500 10, 700-750 ft.	—	—	—	—	—	450 5/10 650-640 mb.	—	—	—	—	—								
5500 10, 700-750 ft.	—	—	—	—	—	450 5/10 500-480 mb.	—	—	—	—	—								
5500 10, 700-750 ft.	—	—	—	—	—	450 3/10 not reached.	—	—	—	—	—								
LINDENBERG 6411 N. 30.6.32	M.S.L.	—	—	—	—	KONIGSBERG 74 30.6.32	M.S.L.	—	—	—	—	LINDOPINE 74 30.6.32	M.S.L.	—	—	—	—		
1003 348	61	—	91	—	—	1013 92	66	—	80	—	—	964 88							

UPPER WINDS ABROAD.												
Place.	Rome		Poitiers		Lisbon		Metz		Friedrichshafen		Malta	
Time.	10h 30 ^m	14h 30 ^m	10h 30 ^m	14h 30 ^m	10h 30 ^m	14h 30 ^m	10h 30 ^m	14h 30 ^m	10h 30 ^m	14h 30 ^m	10h 30 ^m	14h 30 ^m
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,640	180	4	190	16	220	5	190	7	-	-	360	11
3,280	160	15	190	18	240	6	90	10	22	5	200	0
4,920			230	18	270	14	220	4	56	3	340	12
6,560			260	20			230	3	-	-	300	0
9,840			330	14			260	13	68	5	280	17
13,120			240	27			210	13	248	3		
16,400							-	-	131	2		
19,680							250	17				

Place.	Linköping	Munich	Essen	Oster-sund	Helsing-borg	Malta
Time.	06 ^h 1 st	05 ^h 1 st	06 ^h 1 st	06 ^h 1 st	07 ^h 1 st	06 ^h 1 st
1,640	-	-	-	-	180	27
3,280	130	3	180	3	191	27
4,920	-	-	-	-	200	22
6,560	220	11	203	9	200	27
9,840	220	13	203	9	220	16
13,120	240	13	203	22	230	27
16,400	270	16	203	26	260	22
19,680			248	11		

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

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



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, SATURDAY, 2nd JULY 1932.

No. B 25,790

U.A.S. 4,842

DIAGRAM OF UPPER AIR TEMPERATURE.

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 1931 and October 2nd, 1906, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On charts.

Movements are indicated thus

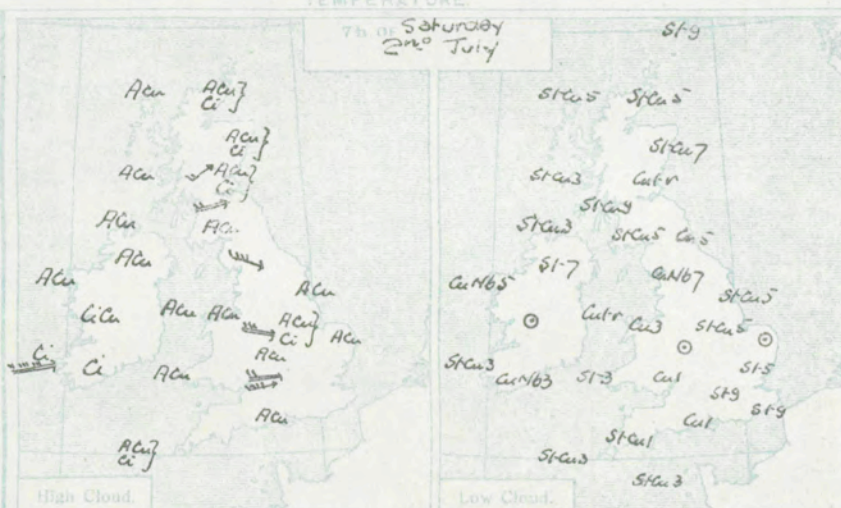
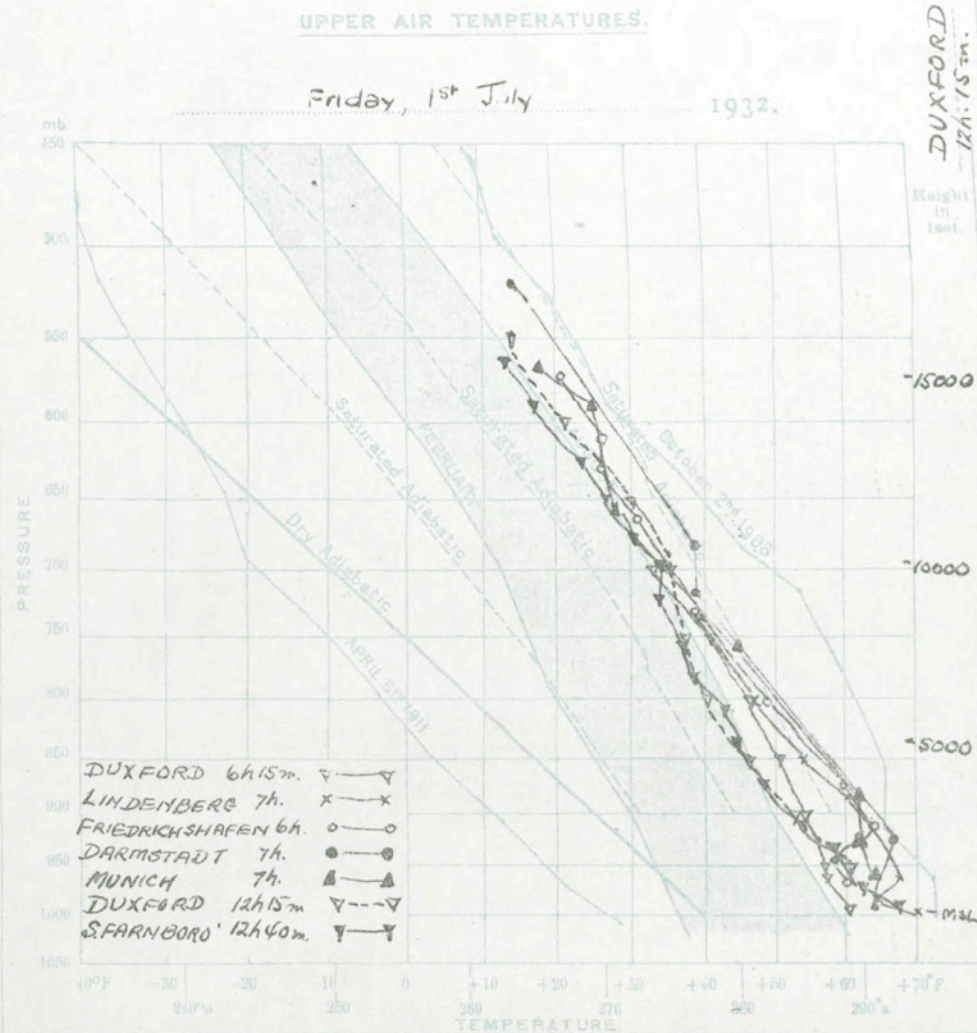
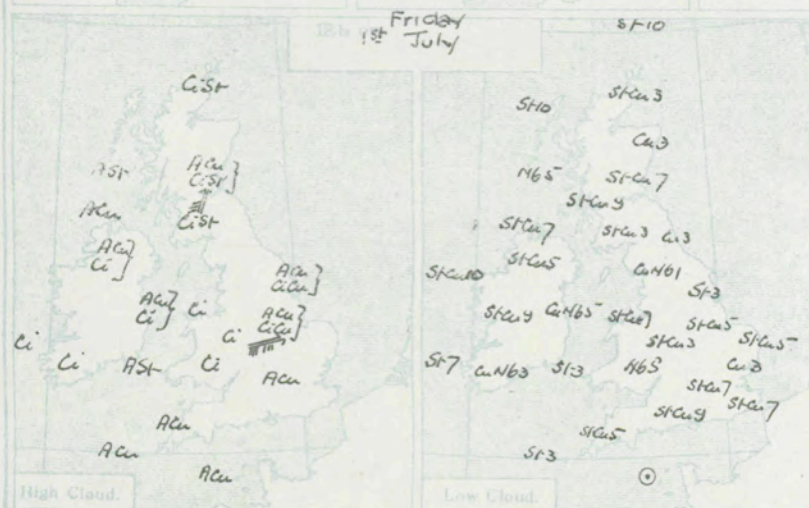
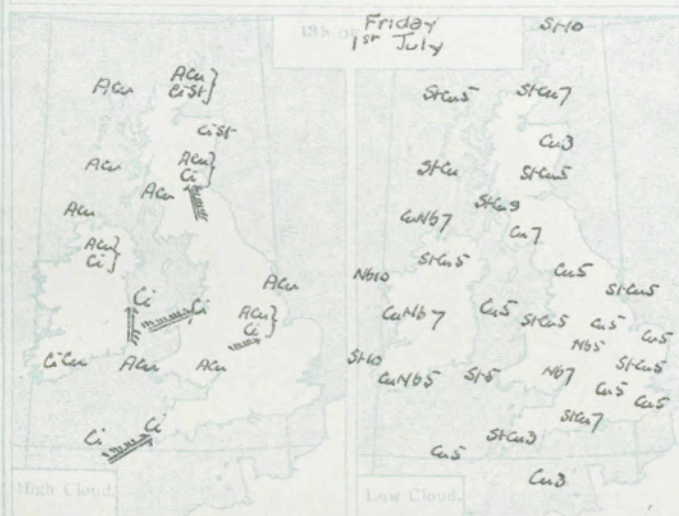
— No speed given. — 25-35 m.p.h.
 — 0-5 m.p.h. — 35-45 "
 — 5-10 " — 45-55 "
 — 10-20 " — 55-65 "
 — 20-30 " and so on.

In Tables.

Directions are given in degrees, velocity in m.p.h.

Speeds of high cloud are computed for an average height of 5 miles for cirrus type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																							
Place	Croydon		South Farnboro		Worthy Down		Boscombe Down		Calshot		Lymington		Shoeburyness		Felixstowe		Cranwell		Upper Heyford		Plymouth		Holyhead		Sealand		Catterick		Leuchars		Renfrew		Aberdeen		Aldergrove		Valentia		Place
Time.	12h 15t				12h 15t		12h 15t				12h 15t				11h 15t		11h 15t		12h 15t				12h 15t		12h 15t		13h 15t		13h 15t						11h 15t				Time.
Type	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.	230	20			220	20	220	18			230	22			240	17	240	20	240	14			215	20	230	16	245	19	220	15			220	12			Surf.		
1000	235	28			215	33	210	24			235	27			250	16	245	29	225	19			215	24	220	20	245	25	225	25			210	21			1000		
2000					225	41	220	25			260	28			240	27	255	27	235	25			220	32	220	24	240	28	230	23			215	31			2000		
3000							210	24									255	30	235	35			225	29	215	28	235	27	230	46			215	33			3000		
4000																			235	23			230	26	215	25	235	50	225	58							4000		
5000																							235	29	215	24	225	27	220	31							5000		
6000																							230	44	225	32												6000	
8000																							235	39	16h Ci													8000	
10000																							13h Ci	13h Ci	13h Ci													10000	
12000																							13h Ci	13h Ci	13h Ci													12000	
Neph.																			140	75			230	75	130	35	240	30			160	30						Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Cranwell	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aldergrove	Valentia	Place.																				
Time.	17h 15t	17h 15t	17h 15t	17h 15t	20h 15t	17h 15t	24h 15t	17h 15t	17h 15t	17h 15t		17h 15t	17h 15t		17h 15t	17h 15t			Time.																				
Type.						b													Type.																				
Feet	235	15	255	21	230	17	210	20	240	18	230	25	230	11	230	18	225	19	215	9			235	15	225	20			245	15	240	21	Feet						
1000	235	17	235	20	235	25	225	22	255	31	240	30	245	35	225	34	230	33	225	21			240	24	220	29			225	19	235	31	1000						
2000	240	29	205	23	235	32	245	20	260	27	220	28	260	35	230	33	235	41					255	23	220	39			225	21	240	28	2000						
3000	245	39			225	30	255	28	270	27			275	23	230	42	235	36					270	24					250	26			3000						
4000	250	35					260	30	270	27					275	19	240	30	240	37			275	22										4000					
5000																	255	28																	5000				
6000																																					6000		
8000																																					8000		
10000																																					10000		
12000																																						12000	
Neph.																			250	65																	Neph.		
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Croydon	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Leuchars	Aldergrove	Valentia	Place.																			
Time.	6h 2nd	5h 2nd	7h 2nd	6h 2nd	6h 2nd	10h 2nd		6h 2nd	6h 2nd	6h 2nd						6h 2nd	6h 2nd		7h 2nd	Time.																			
Type.			b																	Type.																			
Feet	260	12	270	8	270	12	270	5	275	13	260	10								Feet																			
1000	265	25	280	21	275	18	250	22	300	25	280	17								1000																			
2000	280	24	295	23	305	19	300	27	305	24	285	12								2000																			
3000			300	22			300	28			290	18								3000																			
4000			295	25			300	26			285	20								4000																			
5000			295	25			300	27												5000																			
6000			280	18			300	14												6000																			
8000																				8000																			
10000			5h Aca																	10000																			
12000			280	33																12000																			
Neph.			5h Ci				5h Aca													Neph.																			
			300	30			270	45																															

DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Holyhead	Place.												
Time.	12 ^h 2 nd	13 ^h 2 nd	12 ^h 2 nd	12 ^h 2 nd	12 ^h 2 nd	12 ^h 2 nd		11 ^h 2 nd	11 ^h 2 nd	12 ^h 2 nd		9 ^h 2 nd	12 ^h 2 nd	12 ^h 2 nd	13 ^h 2 nd	12 ^h 2 nd		12 ^h 2 nd	12 ^h 2 nd	Time.												
Type	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.	Feet					
Surf.	270	12	280	7	260	14	280	15	280	13	255	10		235	15	230	12	240	18	225	18	220	20		225	15	230	13	Surf.			
1000	275	9	285	15	270	20	275	23	270	3	265	13		265	9	275	21	275	14						225	15	235	17	1000			
2000	275	20	280	13	275	19	280	24			260	17				230	19	280	17						225	29	240	26	2000			
3000	273	23	275	20	270	17	270	28			260	19				270	20	270	13						230	29	235	23	3000			
4000			260	19	275	21	265	20			265	23				270	18	240	21						230	29	235	23	4000			
5000			265	24	273	21	275	19			265	25				265	17	255	15						245	31			5000			
6000			270	26	260	21					265	17				260	26								260	26			6000			
8000			260	16	7000'						265	15				250	30								235	34	250	24	8000			
10000	Biggin Hill		270	25							2000'																			10000		
12000	10h AC	10h AC	Ci 13h				ACi 13h	275	13			10h CC			270	51	270	36	250	42						10h CC	270	25	10h CC	12000		
Neph.	280	21	280	30	230	65			270	42			210	100		280	60	(13000)	320	60	270	80	210	45			270	80	250	85	Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aldergrove	Valentia	Place.													
Time.		16 ^h 2 nd		17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd			17 ^h 2 nd	17 ^h 2 nd	17 ^h 2 nd					Time.												
Type.						b	b													Type.												
Feet																				Feet												
Surf.		265	11		270	14	255	12	245	15	270	8	275	10	260	17	270	15							225	12	245	12	205	15	Surf.	
1000		270	19		275	17	265	25	260	22	260	9	270	18	260	27	255	16								240	13	250	24	215	37	1000
2000		270	16		260	15	275	27	275	19	280	9	265	18	260	36	255	11								235	17	245	32	220	39	2000
3000		275	17		265	17	280	24	285	14	265	12			255	42	250	18								235	21	245	27	215	29	3000
4000		275	18				260	20	275	17	270	18			255	38										240	12	240	33	220	40	4000
5000							300	20							255	28															5000	
6000							300	17																								6000
8000																																8000
10000																																10000
12000	ACi 18h					ACi 18h	ACi 18h																				Ci 18h	ACi 18h	ACi 18h			12000
Neph.	250	45				270	36	220	50				250	75	270	70				300	80	250	42	220	54							Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.												
Time.	6 ^h 3 rd	7 ^h 3 rd			0 ^h 3 rd	6 ^h 3 rd															Time.											
Type.																				Type.												
Feet																				Feet												
Surf.	200	10	220	7			240	9	215	7																					Surf.	
1000	250	17	225	11			265	17	245	11																					1000	
2000	245	21	235	19	10h ACi		260	14	230	11																					2000	
3000	235	21			280	33	255	13	225	12																					3000	
4000	245	22			7h Ci		250	15	220	12																						4000
5000	240	25			230	50	245	17	205	13																					5000	
6000	240	24					255	17	225	15																					6000	
8000																																8000
10000	Biggin Hill	10h ACi	Kew	Biggin Hill	275	16	245	12	Croydon	10h Ci																						10000
12000	6h Ci	7h ACi	7h Ci	10h ACi			305	26	10h ACi	7h Ci	240	33	7h Ci														10h Ci					12000
Neph.	330	110	270	39	330	70	260	48			290	46	290	48	330	60											310	60				Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.															UPPER WINDS ABROAD.											
Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Place.	Stockholm	Frankfurt	Helsing-fors	Magde-burg	Berlin	Malta		
	mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%	Time.	9 ^h 2 nd	10 ^h 2 nd	07 ^h 2 nd	11 ^h 2 nd	18 ^h 2 nd	17 ^h 2 nd		
Duxford. 6h. 15h. 2.7.32.	1007.5	M.S.L.	57	14	38	1008.5	M.S.L.	61	16	—	—	1006	92	23	—	—	—	Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.		
	1004	100	57	14	38	1000.5	230	61	16	—	—	940	92	23	—	—	—	1,840	—	—	214 5	210 5	273 5	315 18		
	967	1110	55	13	38	940	1560	53	11	—	—	863	1310	55	13	—	—	3,280	160 5	304 11	150 20	304 11	360 14	300 3		
	950	1600	53	11	31	904	3000	48	9	—	—	831	5240	55	13	—	—	4,920	—	—	—	—	—	7000'		
	900	3090	48	9	33	871	4000	45	7	—	—	704	9840	37	3	—	—							320 14		
	880	4630	43	6	33	841	4950	41	4	—	—	680	10820	36	2	—	—							10000'		
	800	6250	37	3	35	810	4950	38	3	—	—	615	13120	28	—	—	—	6,560	160 3	242 16	110 3			320 14		
	750	7960	32	31	31	781	5950	34	—	—	—	614	13800	28	—	—	—	9,840	110 2	203 20	140 7			10000'		
	700	9790	25	25	100	753	7840	29	—	—	—	570	16300	14	—	—	—	13,120	90 6	—	—	—		330 17		
	650	11700	19	18	—	725	9880	29	—	—	—	533	17060	15	—	—	—	16,400	70 3	—	300 11			16000'		
	600	13760	16	13	—	699	10740	25	—	—	—							19,880	110 4	—	320 11			320 27		
	550	15790	9	6	—	674	11680	23	—	—	—															
	500	18400	—	—	—	650	12650	20	—	—	—															
	450	21000	—	—	—	626	13650	20	—	—	—															
			—	—	—	581	14500	16	—	—	—															
			—	—	—	554	15410	12	—	—	—															
			—	—	—	527	16300	8	—	—	—															
			—	—	—	500	17200	4	—	—	—															
			—	—	—	477	18100	1	—	—	—															
			—	—	—	450	19000	—	—	—	—															
			—	—	—	423	19900	—	—	—	—															
			—	—	—	396	20800	—	—	—	—															
			—	—	—	369	21700	—	—	—	—															
			—	—	—	342	22600	—	—	—	—															
			—	—	—	315	23500	—	—	—	—															
			—	—	—	288	24400	—	—	—	—															
			—	—	—	261	25300	—	—	—	—															
			—	—	—	234	26200	—	—	—	—															
			—	—	—	207	27100	—	—	—	—															
			—	—	—	180	28000	—	—	—	—															
			—	—	—	153	28900	—	—	—	—															
			—	—	—	126	29800	—	—	—	—															
			—	—	—	99	30700	—	—	—	—															
			—	—	—	72	31600	—	—	—	—															
			—	—	—	45	32500	—	—	—	—															
			—	—	—	18	33400	—	—	—	—															
			—	—	—	—	34300	—	—	—	—															
			—	—	—	—	35200	—	—	—	—															
			—	—	—	—	36100	—	—	—	—															
			—	—	—	—	37000	—	—	—	—															
			—	—	—	—	37900	—	—	—	—															
			—	—	—	—	38800	—	—	—	—															
			—	—	—	—	39700	—	—	—	—															
			—	—	—	—	40600	—	—	—	—															
			—	—	—	—	41500	—	—	—	—															
			—	—	—	—	42400	—	—	—	—															
			—	—	—	—	43300	—	—	—	—															
			—	—	—	—	44200	—	—	—	—															
			—	—	—	—	45100	—	—	—	—															
			—	—	—	—	46000	—	—	—	—															
			—	—	—	—	46900	—	—	—	—															
			—	—	—	—	47800	—	—	—	—															
			—	—	—	—	48700	—	—	—	—															
			—	—	—	—	49600	—	—	—	—															
			—	—	—	—	50500	—	—	—	—															
			—	—	—	—	51400	—	—	—	—															
			—	—	—	—	52300	—	—	—	—															
			—	—	—	—	53200	—	—	—	—															
			—	—	—	—	54100	—	—	—	—															
			—	—	—	—	55000	—	—	—	—															
			—	—	—	—	55900	—	—	—	—															
			—	—	—	—	56800	—	—	—	—															
			—	—	—	—	57700	—	—	—	—															
			—	—	—	—	58600	—	—	—	—															
			—	—	—	—	59500	—	—	—	—															
			—	—	—	—	60400	—	—	—	—															
			—	—	—	—	61300	—	—	—	—															
			—	—	—	—	62200	—	—	—	—															
			—	—	—	—	63100	—	—	—	—															
			—	—	—	—	64000	—	—	—	—															
			—	—	—	—	64900	—	—	—	—															
			—	—	—	—	65800	—	—	—	—															
			—	—	—	—	66700	—	—	—	—															
			—	—	—	—	67600	—	—	—	—															
			—	—	—	—	68500	—	—	—	—															
			—	—	—	—	69400	—	—	—	—															
			—	—	—	—	70300	—	—	—	—															
			—	—	—	—	71200	—	—	—	—															
			—	—	—	—	72100	—	—	—	—															
			—	—	—	—	73000	—	—	—	—															
			—	—	—	—	73900	—	—	—	—															
			—	—	—	—	74800	—	—	—	—															
			—	—	—	—	75700	—	—	—	—															
			—	—	—	—	76600	—	—	—	—															
			—	—	—	—	77500	—	—	—	—															
			—	—	—	—	78400	—	—	—	—															
			—	—	—	—	79300	—	—	—	—															
			—	—	—	—	80200	—	—	—	—															
			—	—	—	—	81100	—	—	—	—															



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, MONDAY 4th JULY 1932.

No. B.25,792

U.A.S. 4,644

DIAGRAM OF UPPER AIR TEMPERATURE.

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, 1905, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

No speed given.

0-15 m.p.h.

16-25 "

26-35 "

36-45 "

46-55 "

56-65 "

66-75 "

76-85 "

86-95 "

96-105 "

106-115 "

116-125 "

126-135 "

136-145 "

146-155 "

156-165 "

166-175 "

176-185 "

186-195 "

196-205 "

206-215 "

216-225 "

226-235 "

236-245 "

246-255 "

256-265 "

266-275 "

276-285 "

286-295 "

296-305 "

306-315 "

316-325 "

326-335 "

336-345 "

346-355 "

356-365 "

366-375 "

376-385 "

386-395 "

396-405 "

406-415 "

416-425 "

426-435 "

436-445 "

446-455 "

456-465 "

466-475 "

476-485 "

486-495 "

496-505 "

506-515 "

516-525 "

526-535 "

536-545 "

546-555 "

556-565 "

566-575 "

576-585 "

586-595 "

596-605 "

606-615 "

616-625 "

626-635 "

636-645 "

646-655 "

656-665 "

666-675 "

676-685 "

686-695 "

696-705 "

706-715 "

716-725 "

726-735 "

736-745 "

746-755 "

756-765 "

766-775 "

776-785 "

786-795 "

796-805 "

806-815 "

816-825 "

826-835 "

836-845 "

846-855 "

856-865 "

866-875 "

876-885 "

886-895 "

896-905 "

906-915 "

916-925 "

926-935 "

936-945 "

946-955 "

956-965 "

966-975 "

976-985 "

986-995 "

996-1005 "

1006-1015 "

1016-1025 "

1026-1035 "

1036-1045 "

1046-1055 "

1056-1065 "

1066-1075 "

1076-1085 "

1086-1095 "

1096-1105 "

1106-1115 "

1116-1125 "

1126-1135 "

1136-1145 "

1146-1155 "

1156-1165 "

1166-1175 "

1176-1185 "

1186-1195 "

1196-1205 "

1206-1215 "

1216-1225 "

1226-1235 "

1236-1245 "

1246-1255 "

1256-1265 "

1266-1275 "

1276-1285 "

1286-1295 "

1296-1305 "

1306-1315 "

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1926-1935 "

1936-1945 "

1946-1955 "

1956-1965 "

1966-1975 "

1976-1985 "

1986-1995 "

1996-2005 "

2006-2015 "

2016-2025 "

2026-2035 "

2036-2045 "

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2096-2105 "

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2126-2135 "

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2146-2155 "

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2166-2175 "

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2186-2195 "

2196-2205 "

2206-2215 "

2216-2225 "

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2236-2245 "

2246-2255 "

2256-2265 "

2266-2275 "

2276-2285 "

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2326-2335 "

2336-2345 "

2346-2355 "

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2436-2445 "

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2486-2495 "

2496-2505 "

250

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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.
Time.		12h 3rd		12h 3rd	12h 3rd	12h 3rd		11h 3rd		12h 3rd				12h 3rd						Time.
Type		2				5														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.		210 16		180 18	205 15	225 19		185 16		200 14				195 14						Surf.
1000		210 21		185 26	215 19	220 19		200 16		200 25				195 19						1000
2000		205 20		200 21	205 19	240 19		245 12		200 36				195 22						2000
3000		210 24				240 15		225 18		205 37										3000
4000		215 18				245 15		210 22												4000
5000		225 20				240 19														5000
6000		230 23				235 14														6000
8000						235 18														8000
10000						255 18														10000
12000						245 18		C.C. Hill												12000
Neph.								320 65												Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Calshot	Upper Heyford	Cranwell	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentia	Place.	
Time.		17h 3rd			17h 3rd				24h 3rd		24h 3rd						18h 3rd			Time.
Type																				Type
Feet																				Feet
Surf.		140 15			200 12				150 18		165 13						150 15			Surf.
1000		200 23			200 16				165 21		195 23						165 25			1000
2000		215 21			215 19				195 19		220 39									2000
3000		225 27			230 23				200 7		220 36									3000
4000		235 25			225 25				195 33		205 22									4000
5000		230 31			225 27				195 31											5000
6000		240 7			235 29															6000
8000	16h C.C.	16h A.C.	16h A.C.	16h A.C.	16h A.C.	16h A.C.		Digger Hill		5h A.C.							16h C.C.			8000
10000	250 40	270 27	250 30	240 27	270 36	260 30	Kew		Cranwell	250 27							210 100			10000
12000	18h A.C.	18h A.C.	18h A.C.	18h A.C.	18h A.C.	18h C.	18h C.C.	18h A.C.	18h C.C.	5h C.							18h C.C.			12000
Neph.	240 15	220 36	230 30	240 24	260 30	210 30	240 35	250 48	240 30								210 90			Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.
Time.		6h 4th	6h 4th		6h 4th	6h 4th	6h 4th	6h 4th	6h 4th	6h 4th			6h 4th	6h 4th	6h 4th			6h 4th		Time.
Type			6			6	6													Type.
Feet																				Feet
Surf.		165 9	150 8		150 7	155 13	180 14	170 15	160 16	170 9			135 10	155 14	130 10			160 15		Surf.
1000		185 20	195 25		170 20	190 16	190 36	190 30	185 33	180 27			170 31	170 38	180 32			180 30		1000
2000		190 28	185 27		190 19	200 29	190 36	190 29	195 34	190 41			195 38		200 33					2000
3000	10h C.	205 29	195 30		200 27	185 31	195 26	185 27	205 41	200 44			205 49		210 44					3000
4000	230 60	200 27	200 33		200 37	205 27	210 12	190 26	210 34	200 44			205 33							4000
5000	7h A.C.	200 30	195 33		195 35	210 28	215 20	200 27	210 28	200 39			205 25							5000
6000	200 36		195 34		195 31	205 31		185 21	195 35	205 36										6000
8000	5h A.C.		205 35		205 35	195 26		185 27	205 37											8000
10000	220 27		205 27		205 37	(7000')	Lympne	10h C.	(7000')											10000
12000	7h C.	5h C.	7h C.	7h C.	7h A.C.	6h A.C.		7h C.	10h A.C.	10h C.C.							6h C.	7h C.		12000
Neph.	230 35	250 36	250 30	240 60		220 27	200 30	220 55	200 18	220 36	210 56							190 75	220 45	Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.

[illegible]

UPPER WINDS ABROAD.

Place.	Rennes	Turin	Vendas Novas	Angers	Laghorn	Milam
Time.	13h 3rd	13h 3rd	13h 3rd	13h 3rd	18h 3rd	18h 3rd
Feet.	Dir Vel.	Dir Vel.	Dir Vel.	Dir Vel.	Dir Vel.	Dir Vel.
1,840	130 9		190 5	180 3	50 14	260 3
3,280	160 9	160 3	170 5	160 5	70 22	- -
4,920	200 9		160 10	200 4	- -	50 7
6,560		10 7	200 7		90 16	50 8
9,840		360 7				
13,120						
16,400						
19,680						
Place.	Maddalena	Venice	Dresden	Hanover	Cologne	Moltke
Time.	18h 3rd	14h 3rd	7h 4th	6h 4th	7h 4th	6h 4th
1,840	310 12	- -	68 7	158 13	158 16	2000' 360 S
3,280	210 8	- -	22 7	158 18	169 16	3000'
4,920	300 14	30 18	45 7	- -	- -	40 11
6,560		70 18	- -	169 11	158 11	5000'
9,840		120 24	180 7	203 5	169 7	350-12
13,120			- -	- -	- -	
16,400			203 7	305 11	Cologne	
19,680						



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, TUESDAY, 5TH JULY, 1932.No. B. 25,793.
U.A.S. 4,845.

DIAGRAM OF UPPER AIR TEMPERATURE.

Pressure and temperature are plotted on logarithmic scales so that all changes of temperature occurring in the dry adiabatic law are represented by parallel straight lines.

The curves for April 5th, 1911, and October 2nd, 1906, 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.

UPPER WINDS.

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

b - balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

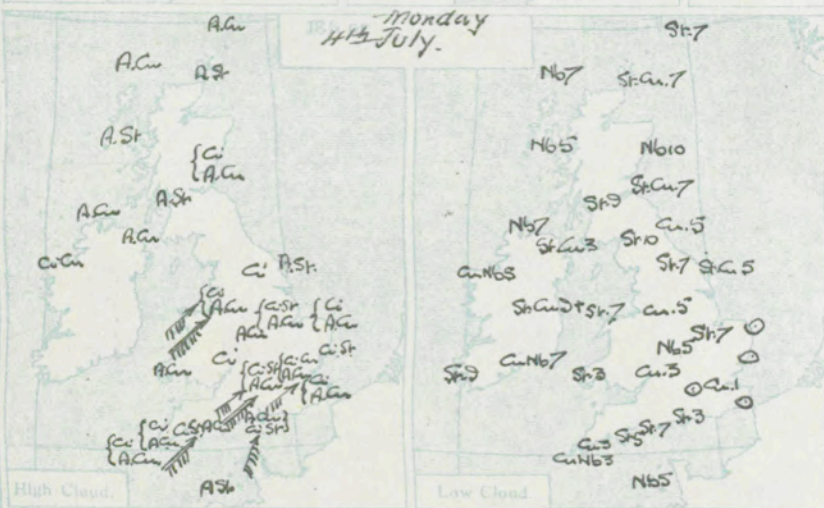
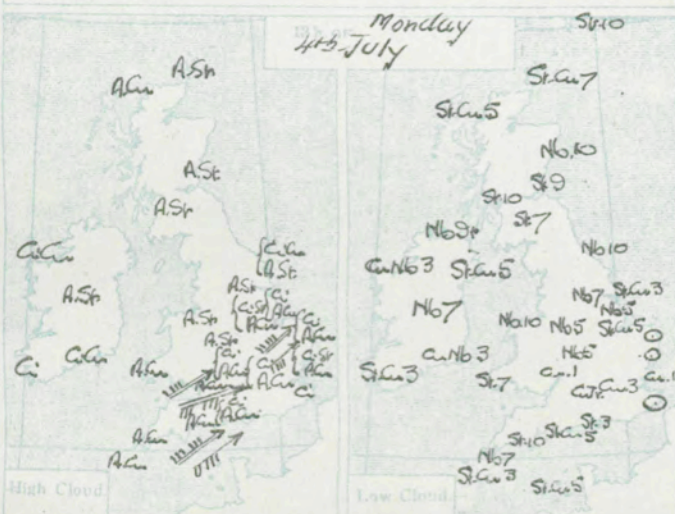
On charts, Movements are indicated thus:

No speed given. 5-15 m.p.h. 15-30 m.p.h. 30-45 m.p.h. 45-60 m.p.h. 60-75 m.p.h. and so on.

In Tables, Directions are given in degrees, velocities in m.p.h.

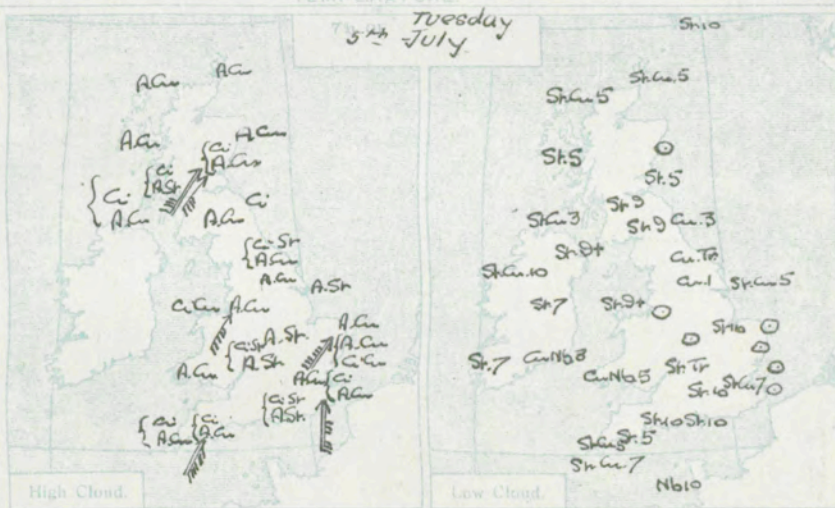
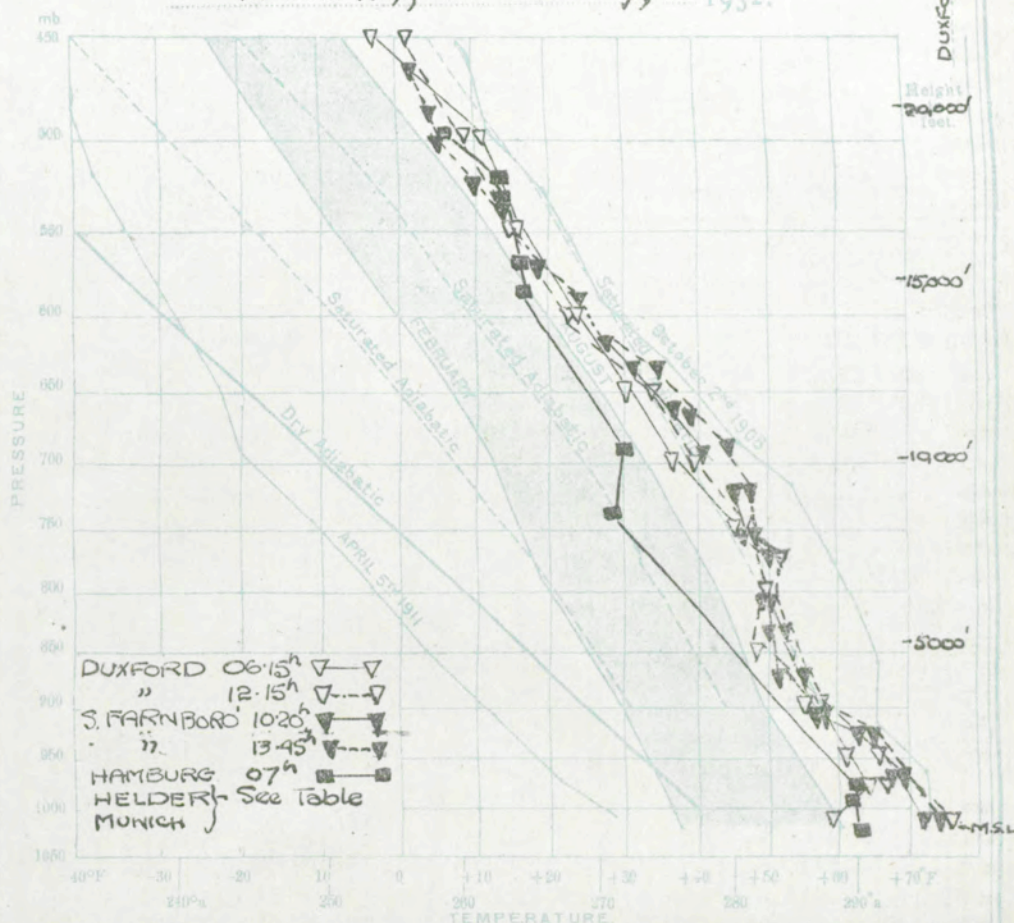
Speeds of high cloud are computed for an average height of 5 miles for alto type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.

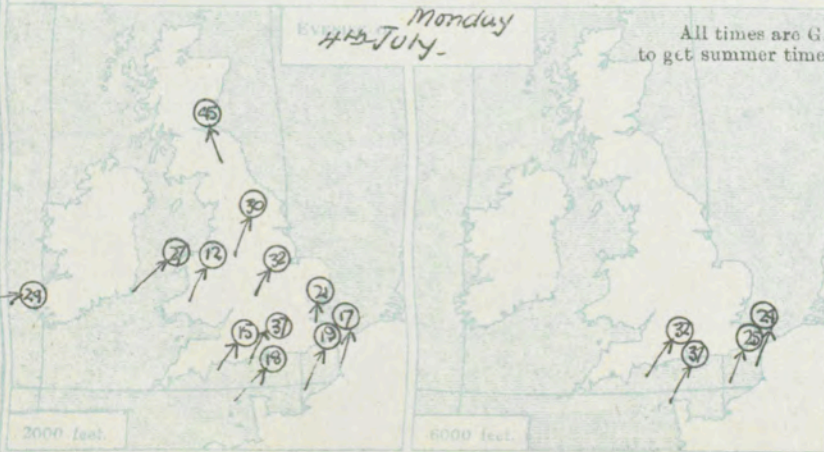


UPPER AIR TEMPERATURES.

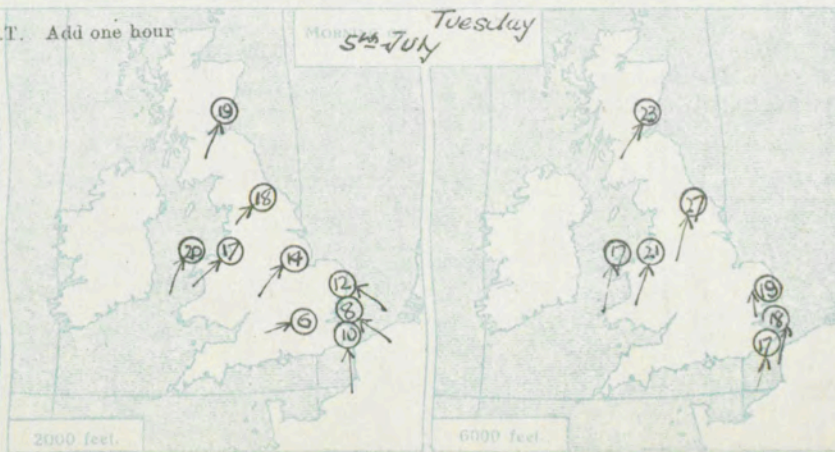
700mb
500mb
MONDAY, 4TH JULY, 1932.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



All times are G.M.T. Add one hour to get summer time.



[illegible]



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, WEDNESDAY, 6th JULY 1932.

No. B. 25,794

U.A.S. 4,846

DIAGRAM OF UPPER AIR TEMPERATURE

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 15, 1911, and October 2nd, 1906, 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 Table Page.

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

UPPER WINDS.

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.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.

Movements are indicated thus:

— No speed given.

— 0-5 m.p.h.

— 5-15 " "

— 15-25 " "

— 20-25 m.p.h.

— 25-35 " "

— 35-45 " "

— 45-55 " "

— 55-65 " "

— 65-75 " "

— 75-85 " "

— 85-95 " "

— 95-105 " "

— 105-115 " "

— 115-125 " "

— 125-135 " "

— 135-145 " "

— 145-155 " "

— 155-165 " "

— 165-175 " "

— 175-185 " "

— 185-195 " "

— 195-205 " "

— 205-215 " "

— 215-225 " "

— 225-235 " "

— 235-245 " "

— 245-255 " "

— 255-265 " "

— 265-275 " "

— 275-285 " "

— 285-295 " "

— 295-305 " "

— 305-315 " "

— 315-325 " "

— 325-335 " "

— 335-345 " "

— 345-355 " "

— 355-365 " "

— 365-375 " "

— 375-385 " "

— 385-395 " "

— 395-405 " "

— 405-415 " "

— 415-425 " "

— 425-435 " "

— 435-445 " "

— 445-455 " "

— 455-465 " "

— 465-475 " "

— 475-485 " "

— 485-495 " "

— 495-505 " "

— 505-515 " "

— 515-525 " "

— 525-535 " "

— 535-545 " "

— 545-555 " "

— 555-565 " "

— 565-575 " "

— 575-585 " "

— 585-595 " "

— 595-605 " "

— 605-615 " "

— 615-625 " "

— 625-635 " "

— 635-645 " "

— 645-655 " "

— 655-665 " "

— 665-675 " "

— 675-685 " "

— 685-695 " "

— 695-705 " "

— 705-715 " "

— 715-725 " "

— 725-735 " "

— 735-745 " "

— 745-755 " "

— 755-765 " "

— 765-775 " "

— 775-785 " "

— 785-795 " "

— 795-805 " "

— 805-815 " "

— 815-825 " "

— 825-835 " "

— 835-845 " "

— 845-855 " "

— 855-865 " "

— 865-875 " "

— 875-885 " "

— 885-895 " "

— 895-905 " "

— 905-915 " "

— 915-925 " "

— 925-935 " "

— 935-945 " "

— 945-955 " "

— 955-965 " "

— 965-975 " "

— 975-985 " "

— 985-995 " "

— 995-1005 " "

— 1005-1015 " "

— 1015-1025 " "

— 1025-1035 " "

— 1035-1045 " "

— 1045-1055 " "

— 1055-1065 " "

— 1065-1075 " "

— 1075-1085 " "

— 1085-1095 " "

— 1095-1105 " "

— 1105-1115 " "

— 1115-1125 " "

— 1125-1135 " "

— 1135-1145 " "

— 1145-1155 " "

— 1155-1165 " "

— 1165-1175 " "

— 1175-1185 " "

— 1185-1195 " "

— 1195-1205 " "

— 1205-1215 " "

— 1215-1225 " "

— 1225-1235 " "

— 1235-1245 " "

— 1245-1255 " "

— 1255-1265 " "

— 1265-1275 " "

— 1275-1285 " "

— 1285-1295 " "

— 1295-1305 " "

— 1305-1315 " "

— 1315-1325 " "

— 1325-1335 " "

— 1335-1345 " "

— 1345-1355 " "

— 1355-1365 " "

— 1365-1375 " "

— 1375-1385 " "

— 1385-1395 " "

— 1395-1405 " "

— 1405-1415 " "

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— 1485-1495 " "

— 1495-1505 " "

— 1505-1515 " "

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— 1565-1575 " "

— 1575-1585 " "

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— 1595-1605 " "

— 1605-1615 " "

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— 1645-1655 " "

— 1655-1665 " "

— 1665-1675 " "

— 1675-1685 " "

— 1685-1695 " "

— 1695-1705 " "

— 1705-1715 " "

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— 1725-1735 " "

— 1735-1745 " "

— 1745-1755 " "

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— 1765-1775 " "

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— 1805-1815 " "

— 1815-1825 " "

— 1825-1835 " "

— 1835-1845 " "

— 1845-1855 " "

— 1855-1865 " "

— 1865-1875 " "

— 1875-1885 " "

— 1885-1895 " "

— 1895-1905 " "

— 1905-1915 " "

— 1915-1925 " "

— 1925-1935 " "

— 1935-1945 " "

— 1945-1955 " "

— 1955-1965 " "

— 1965-1975 " "

— 1975-1985 " "

— 1985-1995 " "

— 1995-2005 " "

— 2005-2015 " "

— 2015-2025 " "

— 2025-2035 " "

— 2035-2045 " "

— 2045-2055 " "

— 2055-2065 " "

— 2065-2075 " "

— 2075-2085 " "

— 2085-2095 " "

— 2095-2105 " "

— 2105-2115 " "

— 2115-2125 " "

— 2125-2135 " "

— 2135-2145 " "

— 2145-2155 " "

— 2155-2165 " "

— 2165-2175 " "

— 2175-2185 " "

— 2185-2195 " "

— 2195-2205 " "

— 2205-2215 " "

— 2215-2225 " "

— 2225-2235 " "

— 2235-2245 " "

— 2245-2255 " "

— 2255-2265 " "

— 2265-2275 " "

— 2275-2285 " "

— 2285-2295 " "

— 2295-2305 " "

— 2305-2315 " "

— 2315-2325 " "

— 2325-2335 " "

— 2335-2345 " "

— 2345-2355 " "

— 2355-2365 " "

— 2365-2375 " "

— 2375-2385 " "

— 2385-2395 " "

— 2395-2405 " "

— 2405-2415 " "

— 2415-2425 " "

— 2425-2435 " "

— 2435-2445 " "

— 2445-2455 " "

— 2455-2465 " "

— 2465-2475 " "

— 2475-2485 " "

— 2485-2495 " "

— 2495-2505 " "

— 2505-2515 " "

— 2515-2525 " "

— 2525-2535 " "

— 2535-2545 " "

— 2545-2555 " "

— 2555-2565 " "

— 2565-2575 " "

— 2575-2585 " "

— 2585-2595 " "

— 2595-2605 " "

— 2605-2615 " "

— 2615-2625 " "

— 2625-2635 " "

— 2635-2645 " "

— 2645-2655 " "

— 2655-2665 " "

— 2665-2675 " "

— 2675-2685 " "

— 2685-2695 " "

— 2695-2705 " "

— 2705-2715 " "

— 2715-2725 " "</

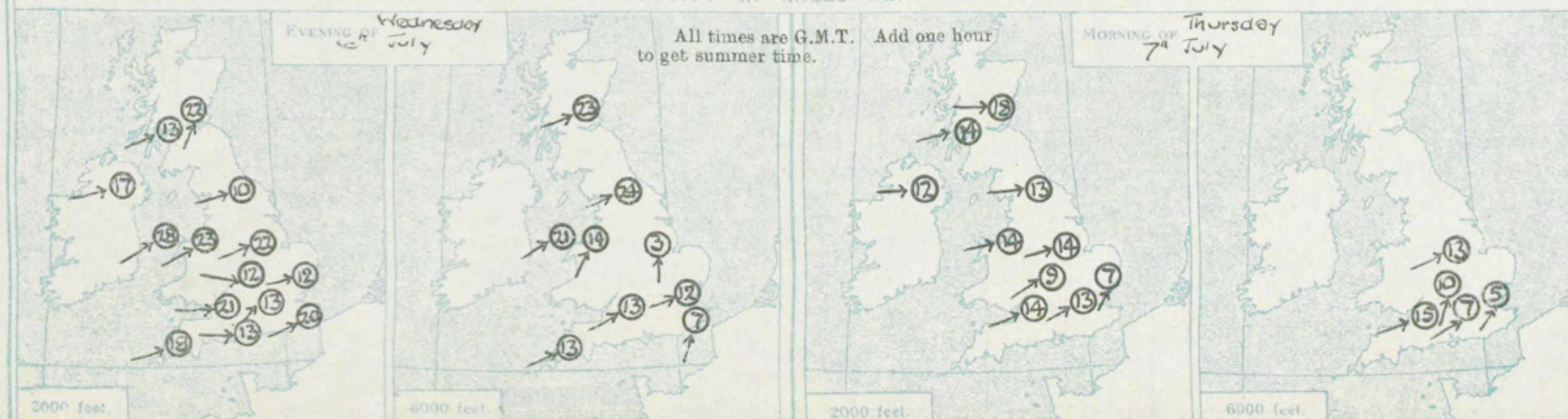
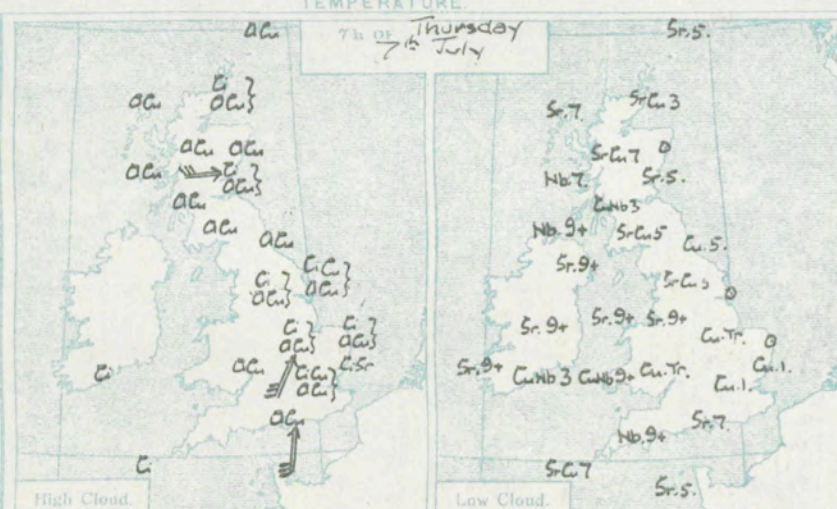
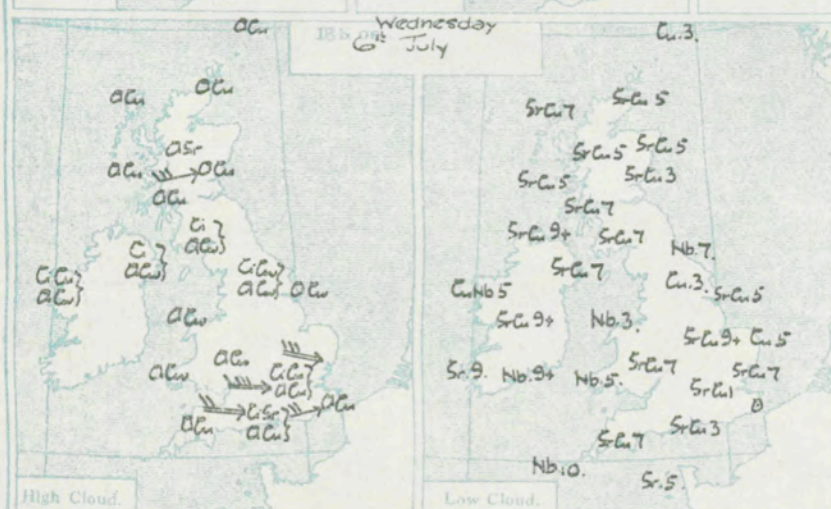
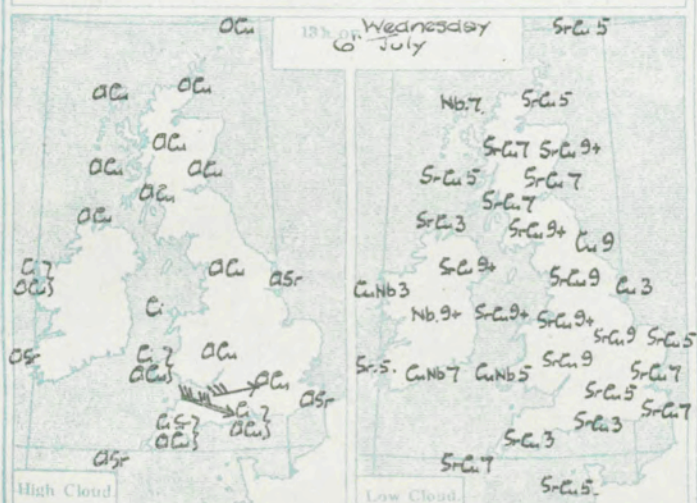
DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																									
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	RAF Cranwell	Aberdeen	Alder Grove	Valentin	Calshot	Place				
Time	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	12h 5m	Time				
Type	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.																					Surf.				
1000																					1000				
2000																					2000				
3000																					3000				
4000																					4000				
5000																					5000				
6000																					6000				
8000																					8000				
10000																					10000				
12000																					12000				
Neph.																					Neph.				
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	RAF Cranwell	Aberdeen	Alder Grove	Valentin	Calshot	Place				
Time	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	17h 5m	Time				
Type	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.																					Surf.				
1000																					1000				
2000																					2000				
3000																					3000				
4000																					4000				
5000																					5000				
6000																					6000				
8000																					8000				
10000																					10000				
12000																					12000				
Neph.																					Neph.				
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	RAF Cranwell	Aberdeen	Alder Grove	Valentin	Calshot	Place				
Time	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	06h 6m	Time				
Type	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.																					Surf.				
1000																					1000				
2000																					2000				
3000																					3000				
4000																					4000				
5000																					5000				
6000																					6000				
8000																					8000				
10000																					10000				
12000																					12000				
Neph.																					Neph.				

UPPER AIR TEMPERATURES AND HUMIDITIES.													UPPER WINDS ABROAD.																	
Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Place.	Mont-dimar	Ovord.	Stratkin	Klagenfurt.	Mourmelon	Malta						
	mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%	Time.	12h	5 th	12h	5 th	12h	5 th	13 ^h 5 th	17h	5 th			
Duxford. 5-7-32.	1012	M.S.L.	61	16	86	Duxford. 5-7-32.	1012	M.S.L.	61	16	86	Duxford. 5-7-32.	1012	M.S.L.	61	16	86	1,640	200	18	250	13	135	11	-	160	10	3000'		
6h 30m	1008	100	58	14	86	6h 30m	1008	100	58	14	86	6h 30m	1008	100	58	14	86	3,280	170	25	240	11	135	9	68	5	180	11	50	9
7h	972	1120	58	14	92	7h	972	1120	58	14	92	7h	972	1120	58	14	92	4,920	150	36	190	17	-	-	-	-	170	12	7000'	
8h	950	1760	59	15	81	8h	950	1720	55	13	95	8h	950	1640	64	-	-	6,580	170	31	170	21	158	11	203	13	-	60	13	
9h	930	3250	57	14	81	9h	930	3230	51	11	91	9h	930	3200	66	-	-	9,840	-	-	-	-	-	-	-	-	-	-	-	
10h	910	4830	51	11	82	10h	910	4790	48	11	72	10h	910	4800	46	-	-	13,120	-	-	-	-	-	-	-	-	-	-	-	
11h	890	6480	45	11	90	11h	890	6410	43	10	80	11h	890	6400	36	-	-	16,400	-	-	-	-	-	-	-	-	-	-	-	
12h	870	8210	41	5	91	12h	870	8140	37	3	85	12h	870	8100	34	-	-	19,880	-	-	-	-	-	-	-	-	-	-	-	
13h	850	10060	36	3	89	13h	850	10000	33	35	100	13h	850	10000	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14h	830	12010	31	-2	77	14h	830	11940	28	-	-	14h	830	11800	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15h	810	14110	24	-4	82	15h	810	14100	23	-	-	15h	810	14000	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16h	790	16360	14	-10	81	16h	790	16250	15	15	-	16h	790	16200	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17h	770	18780	4	-22	81	17h	770	18700	6	6	-	17h	770	18600	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18h	750	21430	-2	-33	81	18h	750	21300	6	6	-	18h	750	21200	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19h	730	24300	-7	-41	81	19h	730	24200	6	6	-	19h	730	24100	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20h	710	27400	-12	-50	81	20h	710	27300	6	6	-	20h	710	27200	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21h	690	30700	-17	-59	81	21h	690	30600	6	6	-	21h	690	30500	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22h	670	34200	-22	-68	81	22h	670	34100	6	6	-	22h	670	34000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23h	650	37900	-27	-77	81	23h	650	37800	6	6	-	23h	650	37700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24h	630	41800	-32	-86	81	24h	630	41700	6	6	-	24h	630	41600	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25h	610	45900	-37	-95	81	25h	610	45800	6	6	-	25h	610	45700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26h	590	50200	-42	-104	81	26h	590	50100	6	6	-	26h	590	50000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27h	570	54300	-47	-113	81	27h	570	54200	6	6	-	27h	570	54100	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28h	550	58600	-52	-122	81	28h	550	58500	6	6	-	28h	550	58400	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29h	530	62900	-57	-131	81	29h	530	62800	6	6	-	29h	530	62700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30h	510	67200	-62	-140	81	30h	510	67100	6	6	-	30h	510	67000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31h	490	71500	-67	-149	81	31h	490	71400	6	6	-	31h	490	71300	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32h	470	75800	-72	-158	81	32h	470	75700	6	6	-	32h	470	75600	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33h	450	80100	-77	-167	81	33h	450	80000	6	6	-	33h	450	79900	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34h	430	84400	-82	-176	81	34h	430	84300	6	6	-	34h	430	84200	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35h	410	88700	-87	-185	81	35h	410	88600	6	6	-	35h	410	88500	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36h	390	93000	-92	-194	81	36h	390	92900	6	6	-	36h	390	92800	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37h	370	97300	-97	-203	81	37h	370	97200	6	6	-	37h	370	97100	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38h	350	101600	-102	-212	81	38h	350	101500	6	6	-	38h	350	101400	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39h	330	105900	-107	-221	81	39h	330	105800	6	6	-	39h	330	105700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40h	310	110200	-112	-230	81	40h	310	110100	6	6	-	40h	310	110000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41h	290	114500	-117	-239	81	41h	290	114400	6	6	-	41h	290	114300	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42h	270	118800	-122	-248	81	42h	270	118700	6	6	-	42h	270	118600	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43h	250	123100	-127	-257	81	43h	250	123000	6	6	-	43h	250	122900	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44h	230	127400	-132	-266	81	44h	230	127300	6	6	-	44h	230	127200	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45h	210	131700	-137	-275	81	45h	210	131600	6	6	-	45h	210	131500	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46h	190	136000	-142	-284	81	46h	190	135900	6	6	-	46h	190	135800	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47h	170	140300	-147	-293	81	47h	170	140200	6	6	-	47h	170	140100	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48h	150	144600	-152	-302	81	48h	150	144500	6	6	-	48h	150	144400	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
49h	130	148900	-157	-311	81	49h	130	148800	6	6	-	49h	130	148700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50h	110	153200	-162	-320	81	50h	110	153100	6	6	-	50h	110	153000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
51h	90	157500	-167	-329	81	51h	90	157400	6	6	-	51h	90	157300	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
52h	70	161800	-172	-338	81	52h	70	161700	6	6	-	52h	70	161600	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
53h	50	166100	-177	-347	81	53h	50	166000	6	6	-	53h	50	165900	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
54h	30	170400	-182	-356	81	54h	30	170300	6	6	-	54h	30	170200	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
55h	10	174700	-187	-365	81	55h	10	174600	6	6	-	55h	10	174500	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
56h	-10	179000	-192	-374	81	56h	-10	178900	6	6	-	56h	-10	178800	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
57h	-30	183300	-197	-383	81	57h	-30	183200	6	6	-	57h	-30	183100	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
58h	-50	187600	-202	-392	81	58h	-50	187500	6	6	-	58h	-50	187400	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
59h	-70	191900	-207	-401	81	59h	-70	191800	6	6	-	59h	-70	191700	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
60h	-90	196200	-212	-410	81	60h	-90	196100	6	6	-	60h	-90	196000	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61h	-110	200500	-217	-419	81	61h	-110	200400	6	6	-	61h	-110	200300	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
62h	-130	204800	-222	-428	81	62h	-130	204700	6	6	-	62h	-130	204600	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
63h	-150	209100	-227	-437	81	63h	-150	209000	6	6	-	63h	-150	208900	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
64h	-170	213400	-232	-446																										

No. B. 25 795

U.A.S. 4,847

in Tables



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																						
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Croydon	Renfrew	Aberdeen	Alder-grove	Lymington	Place																		
Time	10h 6 ^m	12h 6 ^m	12h 6 ^m	12h 6 ^m	12h 6 ^m	10h 6 ^m	12h 6 ^m	11h 6 ^m	11h 6 ^m	12h 6 ^m	12h 6 ^m	09h 6 ^m	12h 6 ^m	12h 6 ^m	13h 6 ^m	13h 6 ^m	11h 6 ^m	12h 6 ^m	12h 6 ^m	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.	Feet					
Surf.	255	13	270	10	250	10	260	11	225	20	270	9	230	8	310	5	240	8	215	7	225	12	210	14	245	10	235	9	245	14	215	15	180	6	215	13	280	13
1000	260	12	245	16	210	17	255	17	235	17	275	9	245	15	270	11	245	15	230	9	250	12	225	21	250	13	240	18	220	26	210	19	215	27	280	9		
2000	275	12	255	15	240	13	250	13	240	17	255	9	255	10	265	9	255	14			260	13	245	15	250	12	250	19	235	10	225	21	225	27	215	16	255	13
3000	265	9	250	17	240	13	245	14	235	15	260	7	275	9	260	15	245	12			260	15	250	18	250	17	250	23	250	12			225	28	225	18	250	11
4000	275	14	250	13	260	9	245	10	250	11	260	11	255	12	255	13	245	9			270	15	240	23	250	18	245	18			235	30	245	22	240	13		
5000	265	17	255	17	250	11	240	6	280	9	255	13	255	11	245	11	250	9			275	16	240	27	255	15	250	23							260	9		
6000	255	13																			275	16	240	27	255	15	250	23							280	12		
8000	16h	00	16h	00					13h	00	225	16									275	16	240	27	255	15	250	23										
10000	240	30	280	27					300	42											280	15	240	27	255	15	250	23										
12000	13h	00	13h	00					13h	00	16h	00									265	16																
Neph	250	36	230	18					300	60	260	12									(11000)																	
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Leuchars	Shoeburyness	Place																		
Time	17h 6 ^m	18h 6 ^m	17h 6 ^m	16h 6 ^m	17h 6 ^m	17h 6 ^m	11h 6 ^m	17h 6 ^m	17h 6 ^m	17h 6 ^m	17h 6 ^m	12h 6 ^m	17h 6 ^m	17h 6 ^m	13h 6 ^m	17h 6 ^m	17h 6 ^m	17h 6 ^m	17h 6 ^m	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.	Feet					
Surf.	250	15	250	6	250	7	235	12	235	16	240	15	Shell	230	10	240	10	285	9	230	12	205	17	230	17	240	10	335	15	225	8	230	6	230	12	235	15	
1000	240	13	260	17	255	21	240	17	255	19	245	21	burst	265	9	245	19	300	12	240	15	210	22	235	20	265	15	230	25	235	18	265	13	240	25	240	19	
2000	225	13	255	22	265	21	240	22	275	13	240	20	1 mirror	255	12	245	22	290	12	245	18	220	23	235	23	250	10	225	22	240	13	260	17	245	23	240	19	
3000	235	15	245	19	250	19	245	15	275	11	245	23	10000	245	11	245	23	275	17	245	20	230	23	240	19	245	21	220	17			265	22	240	29	250	19	
4000	255	13	245	15	245	17	240	15	240	6	250	18	225	16			230	22	255	22	255	19	240	22	240	13	240	17	225	15			255	28	240	?	255	17
5000					235	17	235	14			230	12	15000								250	17	235	26	225	13	245	23	235	25			240	27	250	13		
6000					245	13			18h	00	210	7	225	29			180	3			235	13	255	35	215	14	245	24					245	23	255	12		
8000					New				260	24	2300						220	12			250	13	245	32	18h	C					18h	00	Biggin Hill		255	13		
10000					18h	00			18h	00	25	15000					18h	00			250	13	245	32	18h	C					250	36			255	15		
12000	18h	C	18h	00	280	18			16h	C	240	25	18h	00			18h	00			18h	00	18h	00	18h	C	18h	00	18h	C	18h	00			18h	00	240	32
Neph	270	45	250	36					260	50	250	18					280	21			210	18					280	21	270	25	250	30	260	24			250	36
Place	Croydon	South Farnboro	Cranwell	Boscombe Down	Calshot	Calshot	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Shoeburyness	Alder-grove	Holyhead	Place																		
Time	6h 7 ^m	6h 7 ^m	6h 7 ^m	6h 7 ^m	23h 6 ^m	6h 7 ^m	6h 7 ^m	6h 7 ^m	24h 6 ^m	6h 7 ^m	5h 7 ^m	17h 6 ^m	6h 7 ^m	6h 7 ^m	6h 7 ^m	7h 7 ^m	9h 7 ^m	6h 7 ^m	9h 7 ^m	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.	Feet					
Surf.	230	6	230	3	235	4	195	8	240	9	210	9	270	7	280	5	245	5	225	3	90	2	220	15	160	4	200	6	225	10	270	1	Shell	40	2	210	8	
1000	260	12	250	12	260	14	220	11	255	15	225	11	270	10	275	9	260	9	225	8	195	6	230	31	210	7	245	12	265	16	250	9	burst	245	7	225	10	
2000	235	13	245	11	245	14	240	14	260	13			280	7	225	7	265	18	225	9			230	28	260	14	265	13	275	18	260	14	1 mirror	275	12	230	9	
3000	230	14	240	11	225	15	245	20	260	13			250	7	185	5	265	14	225	12			225	22	280	10	260	18	270	17	255	15	15000	275	15			
4000	225	8	215	9	220	13	235	12	255	14			240	9	215	4	255	12	225	12			225	19			270	16	255	20	270	15	200	16	5	18		
5000	235	7	230	7	235	14	240	12	245	14			225	10	225	3	245	12	210	11	10h	C	225	21			275	8	250	28	260	19	2000					
6000	240	7	230	7	240	13	245	15																														



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Friday 8th July 1932.

1932.

No. B. 25796.

U.A.S. 4848.

DIAGRAM OF UPPER AIR TEMPERATURE.

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 21st, 1911, and October 2nd, 1905, 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 Table Page.

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

UPPER WINDS.

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.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

— No speed given.

— 5-15 m.p.h.

— 16-25 m.p.h.

— 26-35 m.p.h.

— 36-45 m.p.h.

— 46-55 m.p.h.

— 56-65 m.p.h.

— 66-75 m.p.h.

— 76-85 m.p.h.

— 86-95 m.p.h.

— 96-105 m.p.h.

— 106-115 m.p.h.

— 116-125 m.p.h.

— 126-135 m.p.h.

— 136-145 m.p.h.

— 146-155 m.p.h.

— 156-165 m.p.h.

— 166-175 m.p.h.

— 176-185 m.p.h.

— 186-195 m.p.h.

— 196-205 m.p.h.

— 206-215 m.p.h.

— 216-225 m.p.h.

— 226-235 m.p.h.

— 236-245 m.p.h.

— 246-255 m.p.h.

— 256-265 m.p.h.

— 266-275 m.p.h.

— 276-285 m.p.h.

— 286-295 m.p.h.

— 296-305 m.p.h.

— 306-315 m.p.h.

— 316-325 m.p.h.

— 326-335 m.p.h.

— 336-345 m.p.h.

— 346-355 m.p.h.

— 356-365 m.p.h.

— 366-375 m.p.h.

— 376-385 m.p.h.

— 386-395 m.p.h.

— 396-405 m.p.h.

— 406-415 m.p.h.

— 416-425 m.p.h.

— 426-435 m.p.h.

— 436-445 m.p.h.

— 446-455 m.p.h.

— 456-465 m.p.h.

— 466-475 m.p.h.

— 476-485 m.p.h.

— 486-495 m.p.h.

— 496-505 m.p.h.

— 506-515 m.p.h.

— 516-525 m.p.h.

— 526-535 m.p.h.

— 536-545 m.p.h.

— 546-555 m.p.h.

— 556-565 m.p.h.

— 566-575 m.p.h.

— 576-585 m.p.h.

— 586-595 m.p.h.

— 596-605 m.p.h.

— 606-615 m.p.h.

— 616-625 m.p.h.

— 626-635 m.p.h.

— 636-645 m.p.h.

— 646-655 m.p.h.

— 656-665 m.p.h.

— 666-675 m.p.h.

— 676-685 m.p.h.

— 686-695 m.p.h.

— 696-705 m.p.h.

— 706-715 m.p.h.

— 716-725 m.p.h.

— 726-735 m.p.h.

— 736-745 m.p.h.

— 746-755 m.p.h.

— 756-765 m.p.h.

— 766-775 m.p.h.

— 776-785 m.p.h.

— 786-795 m.p.h.

— 796-805 m.p.h.

— 806-815 m.p.h.

— 816-825 m.p.h.

— 826-835 m.p.h.

— 836-845 m.p.h.

— 846-855 m.p.h.

— 856-865 m.p.h.

— 866-875 m.p.h.

— 876-885 m.p.h.

— 886-895 m.p.h.

— 896-905 m.p.h.

— 906-915 m.p.h.

— 916-925 m.p.h.

— 926-935 m.p.h.

— 936-945 m.p.h.

— 946-955 m.p.h.

— 956-965 m.p.h.

— 966-975 m.p.h.

— 976-985 m.p.h.

— 986-995 m.p.h.

— 996-1005 m.p.h.

— 1006-1015 m.p.h.

— 1016-1025 m.p.h.

— 1026-1035 m.p.h.

— 1036-1045 m.p.h.

— 1046-1055 m.p.h.

— 1056-1065 m.p.h.

— 1066-1075 m.p.h.

— 1076-1085 m.p.h.

— 1086-1095 m.p.h.

— 1096-1105 m.p.h.

— 1106-1115 m.p.h.

— 1116-1125 m.p.h.

— 1126-1135 m.p.h.

— 1136-1145 m.p.h.

— 1146-1155 m.p.h.

— 1156-1165 m.p.h.

— 1166-1175 m.p.h.

— 1176-1185 m.p.h.

— 1186-1195 m.p.h.

— 1196-1205 m.p.h.

— 1206-1215 m.p.h.

— 1216-1225 m.p.h.

— 1226-1235 m.p.h.

— 1236-1245 m.p.h.

— 1246-1255 m.p.h.

— 1256-1265 m.p.h.

— 1266-1275 m.p.h.

— 1276-1285 m.p.h.

— 1286-1295 m.p.h.

— 1296-1305 m.p.h.

— 1306-1315 m.p.h.

— 1316-1325 m.p.h.

— 1326-1335 m.p.h.

— 1336-1345 m.p.h.

— 1346-1355 m.p.h.

— 1356-1365 m.p.h.

— 1366-1375 m.p.h.

— 1376-1385 m.p.h.

— 1386-1395 m.p.h.

— 1396-1405 m.p.h.

— 1406-1415 m.p.h.

— 1416-1425 m.p.h.

— 1426-1435 m.p.h.

— 1436-1445 m.p.h.

— 1446-1455 m.p.h.

— 1456-1465 m.p.h.

— 1466-1475 m.p.h.

— 1476-1485 m.p.h.

— 1486-1495 m.p.h.

— 1496-1505 m.p.h.

— 1506-1515 m.p.h.

— 1516-1525 m.p.h.

— 1526-1535 m.p.h.

— 1536-1545 m.p.h.

— 1546-1555 m.p.h.

— 1556-1565 m.p.h.

— 1566-1575 m.p.h.

— 1576-1585 m.p.h.

— 1586-1595 m.p.h.

— 1596-1605 m.p.h.

— 1606-1615 m.p.h.

— 1616-1625 m.p.h.

— 1626-1635 m.p.h.

— 1636-1645 m.p.h.

— 1646-1655 m.p.h.

— 1656-1665 m.p.h.

— 1666-1675 m.p.h.

— 1676-1685 m.p.h.

— 1686-1695 m.p.h.

— 1696-1705 m.p.h.

— 1706-1715 m.p.h.

— 1716-1725 m.p.h.

— 1726-1735 m.p.h.

— 1736-1745 m.p.h.

— 1746-1755 m.p.h.

— 1756-1765 m.p.h.

— 1766-1775 m.p.h.

— 1776-1785 m.p.h.

— 1786-1795 m.p.h.

— 1796-1805 m.p.h.

— 1806-1815 m.p.h.

— 1816-1825 m.p.h.

— 1826-1835 m.p.h.

— 1836-1845 m.p.h.

— 1846-1855 m.p.h.

— 1856-1865 m.p.h.

— 1866-1875 m.p.h.

— 1876-1885 m.p.h.

— 1886-1895 m.p.h.

— 1896-1905 m.p.h.

— 1906-1915 m.p.h.

— 1916-1925 m.p.h.

— 1926-1935 m.p.h.

— 1936-1945 m.p.h.

— 1946-1955 m.p.h.

— 1956-1965 m.p.h.

— 1966-1975 m.p.h.

— 1976-1985 m.p.h.

— 1986-1995 m.p.h.

— 1996-2005 m.p.h.

— 2006-2015 m.p.h.

— 2016-2025 m.p.h.

— 2026-2035 m.p.h.

— 2036-2045 m.p.h.

— 2046-2055 m.p.h.

— 2056-2065 m.p.h.

— 2066-2075 m.p.h.

— 2076-2085 m.p.h.

— 2086-2095 m.p.h.

— 2096-2105 m.p.h.

— 2106-2115 m.p.h.

— 2116-2125 m.p.h.

— 2126-2135 m.p.h.

— 2136-2145 m.p.h.

— 2146-2155 m.p.h.

— 2156-2165 m.p.h.

— 2166-2175 m.p.h.

— 2176-2185 m.p.h.

— 2186-2195 m.p.h.

— 2196-2205 m.p.h.

— 2206-2215 m.p.h.

— 2216-2225 m.p.h.

— 2226-2235 m.p.h.

— 2236-2245 m.p.h.

— 2246-2255 m.p.h.

— 2256-2265 m.p.h.

— 2266-2275 m.p.h.

— 2276-2285 m.p.h.

— 2286-2295 m.p.h.

— 2296-2305 m.p.h.

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

Place	Boscombe Down	South Farnboro	Boscombe Down	Worthy Down	Calshot	Lymington	Sealand	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Felixstowe	Aberdeen	Alder-grove	Cranwell	Place
Time	6h 8 ^h	12h 7 ^h	12h 7 ^h	16h 7 ^h	12h 7 ^h	12h 7 ^h	9h 8 ^h	11h 7 ^h	11h 7 ^h	12h 7 ^h	12h 7 ^h	12h 7 ^h	12h 7 ^h	12h 7 ^h	12h 7 ^h	9h 8 ^h	10h 7 ^h	12h 7 ^h	10h 8 ^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.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.	280 3	280 4	285 4	220 6	210 12	205 12	280 4	165 11	230 6	255 5	205 10	190 7	315 8	230 6	240 12	145 5	135 4	235 5	270 7	Surf.
1000	310 13	235 9	255 7	225 9	250 9	205 15	260 9	135 6	225 9	255 7	215 11	205 7	355 2	245 7	245 17	270 4	145 8	235 9	265 12	1000
2000	310 20	250 10	260 11	270 11	275 11	205 15	260 13	250 7	235 11	250 10	230 6	200 7	35 1	245 14	245 18	275 10	175 5	235 17	230 11	2000
3000	295 16	245 9	270 7	275 11	255 14	235 9	255 13	260 8	235 10	250 9	205 3	220 7	280 3	240 13	245 15	275 12	245 6	245 19	280 12	3000
4000	275 13	235 6		265 15	245 13	235 7	10h 8 ^h	360 2	220 9	255 7		235 8	260 8	245 11	245 17	290 10	245 12	240 17	260 14	4000
5000	280 12	235 6		270 11		320 5	310 66	155 4	230 10	265 9		235 11		225 9	240 16	280 7	230 11		265 13	5000
6000	295 14	235 7		270 15		305 6			230 15	14h 13 ^h		245 15		220 11	230 11	280 8			240 12	6000
8000	325 15	230 7		245 10		230 12			230 11	220 15	16 16 ^h	235 14		230 15		330 6			220 20	8000
10000	335 20	240 9		255 9		280 13	LYMPNE C 16 ^h		230 11	230 11	360 30	275 17				340 15				10000
12000	340 30	11700				280 15	280 11	260 20	230 12	200 10	120 310	270 13								12000
Neph.	280 3	275 8				260 15	260 20		230 12	200 10	120 310	270 13							340 36	Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.												UPPER WINDS ABROAD.																	
Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Place.	Naples.	Rangoon.	Compiegne.	Beauvais.	Malta.	Malta.					
	mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%	Time.	13h 7 ^h .	13h 7 ^h .	12h 7 ^h .	13h 7 ^h .	17h 7 ^h .	12h 7 ^h .					
DUXFORD 0630	1015	M.S.L.	-	-	-	DUXFORD 1230	1013	100	65	62.5	67	DUXFORD 0730	1010	100	65	62.5	67	Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.					
	975	1100	55.5	13.1	74		976	1120	61	53.5	61		976	1120	61	53.5	61	1,840	-	-	-	-	40	7					
	980	1300	53.0	11.7	73		980	1300	57	50	62		980	1300	57	50	62	3,280	250	4	340	3	10	4					
	850	4450	41.0	5.0	88		850	4450	41.0	5.0	88		850	4450	41.0	5.0	88	4,920	-	-	-	-	80	4					
	800	6460	36.0	2.2	88		800	6460	36.0	2.2	88		800	6460	36.0	2.2	88	6,560	260	9	CALM	130	11	CALM					
	750	8170	30.5	-2.5	81		750	8170	30.5	-2.5	81		750	8170	30.5	-2.5	81	9,840	300	7	240	3	180	7					
	700	9950	24.5	-5.5	-		700	10000	26	-	-		700	10000	26	-	-	13,120	-	-	-	-	-	-					
	650	11900	19.5	-8.5	-		650	12000	20	20	-		650	12000	20	20	-	16,400	-	-	-	-	-	-					
	600	13950	13.5	-10.5	-		600	14070	15	14.5	-		600	14070	15	14.5	-	19,680	-	-	-	-	-	-					
	550	16170	9.0	-12.8	-		550	16230	11.5	-	-		550	16230	11.5	-	-		Place.	Angoul.	Bordeaux.	Tours.	Hanover.	Buda.	Malta.				
	500	18560	5.0	-15.0	-		500	18700	4.5	-5.5	-		500	18700	4.5	-5.5	-	Time.	18h 7 ^h .	16h 7 ^h .	6h 8 ^h .	6h 8 ^h .	6h 8 ^h .	6h 8 ^h .					
	Haze top 600 ft. (930 mb.)						Haze top not defined						Haze top not defined																
	Cloud. Fr. Cu. 10 875-850 mb.						Clouds Fr. Cu. 910 880-880 mb.						Clouds Fr. Cu. 910 880-880 mb.																
	3 Cu. 910 670-655 mb.						3 Cu. 910 670-655 mb.						3 Cu. 910 670-655 mb.																
	Alto Cu. not reached						Alto Cu. not reached						Alto Cu. not reached																
	Cu. 910 not reached						Cu. 910 not reached						Cu. 910 not reached																
	Cu. tops in West to 7500 mb.						Cu. tops in West to 7500 mb.						Cu. tops in West to 7500 mb.																
LINDENBERG 06h 7.7.32	1001	3448	61	-	96	MALTA 12h 7.7.32	1016	15	66	-	-	MALTA 07h 7.7.32	1016	15	66	-	-	1,840	310	9	310	8	40	16	56	9			
	964	1310	57	-	98		964	5050	45	-	-		964	5050	45	-	-	3,280	260	11	260	4	260	7	68	13			
	936	2300	53	-	80		936	6010	36	-	-		936	6010	36	-	-	4,920	350	11	310	10	350	14	-	-			
	924	2620	52	-	81		924	7910	32	-	-		924	7910	32	-	-	6,560	350	11	310	11	360	14	315	2			
	910	2950	50	-	86		910	9850	28	-	-		910	9850	28	-	-	9,840	350	11	310	11	360	14	315	2			
	897	3280	50	-	90		897	11800	27	-	-		897	11800	27	-	-	13,120	-	-	-	-	-	-	-	-			
	886	3610	51	-	96		886	13800	27	-	-		886	13800	27	-	-	16,400	-	-	-	-	-	-	-	-			
	875	3940	51	-	98		875	15800	27	-	-		875	15800	27	-	-	19,680	-	-	-	-	-	-	-	-			
	774	7560	45	-	92		774	17800	27	-	-		774	17800	27	-	-		Place.	Angoul.	Bordeaux.	Tours.	Hanover.	Buda.	Malta.				



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Saturday, 9th July 1932.

1932.

No. 25,797.
U.A.S. 4849.

DIAGRAM OF UPPER AIR TEMPERATURE.

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, 1905, 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 Table Page.

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

UPPER WINDS.

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.

h = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

— No speed given

— 0-5 m.p.h.

— 5-10 "

— 10-20 "

— 20-25 m.p.h.

— 25-30 "

— 30-35 "

— 35-40 "

— 40-45 "

— 45-50 "

— 50-55 "

— 55-60 "

— 60-65 "

— 65-70 "

— 70-75 "

— 75-80 "

— 80-85 "

— 85-90 "

— 90-95 "

— 95-100 "

— 100-105 "

— 105-110 "

— 110-115 "

— 115-120 "

— 120-125 "

— 125-130 "

— 130-135 "

— 135-140 "

— 140-145 "

— 145-150 "

— 150-155 "

— 155-160 "

— 160-165 "

— 165-170 "

— 170-175 "

— 175-180 "

— 180-185 "

— 185-190 "

— 190-195 "

— 195-200 "

— 200-205 "

— 205-210 "

— 210-215 "

— 215-220 "

— 220-225 "

— 225-230 "

— 230-235 "

— 235-240 "

— 240-245 "

— 245-250 "

— 250-255 "

— 255-260 "

— 260-265 "

— 265-270 "

— 270-275 "

— 275-280 "

— 280-285 "

— 285-290 "

— 290-295 "

— 295-300 "

— 300-305 "

— 305-310 "

— 310-315 "

— 315-320 "

— 320-325 "

— 325-330 "

— 330-335 "

— 335-340 "

— 340-345 "

— 345-350 "

— 350-355 "

— 355-360 "

— 360-365 "

— 365-370 "

— 370-375 "

— 375-380 "

— 380-385 "

— 385-390 "

— 390-395 "

— 395-400 "

— 400-405 "

— 405-410 "

— 410-415 "

— 415-420 "

— 420-425 "

— 425-430 "

— 430-435 "

— 435-440 "

— 440-445 "

— 445-450 "

— 450-455 "

— 455-460 "

— 460-465 "

— 465-470 "

— 470-475 "

— 475-480 "

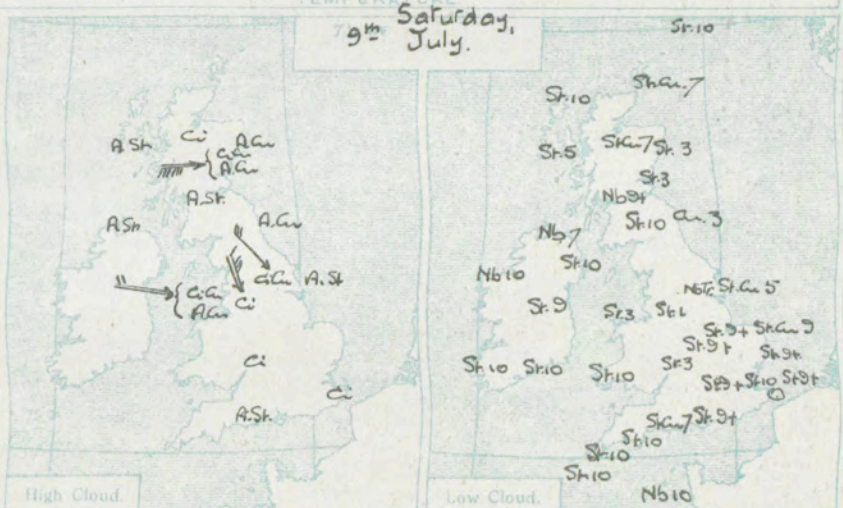
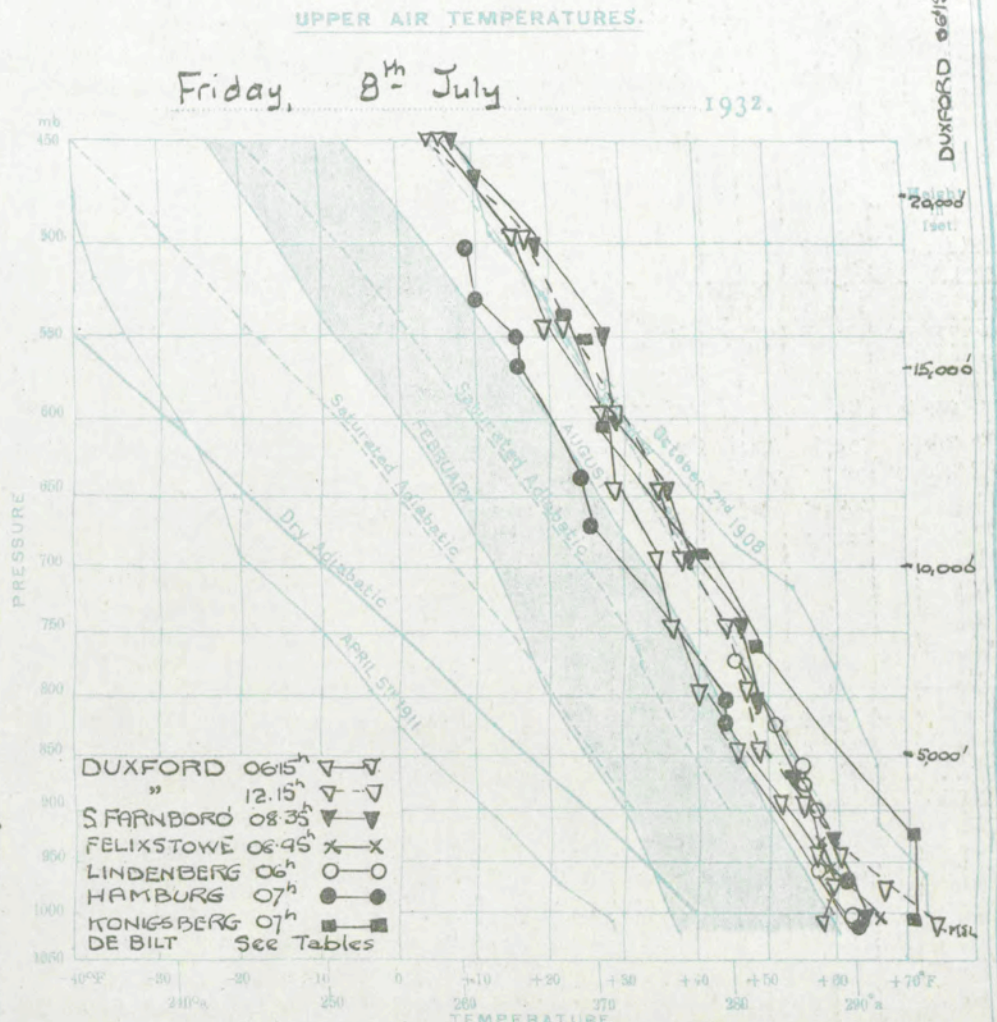
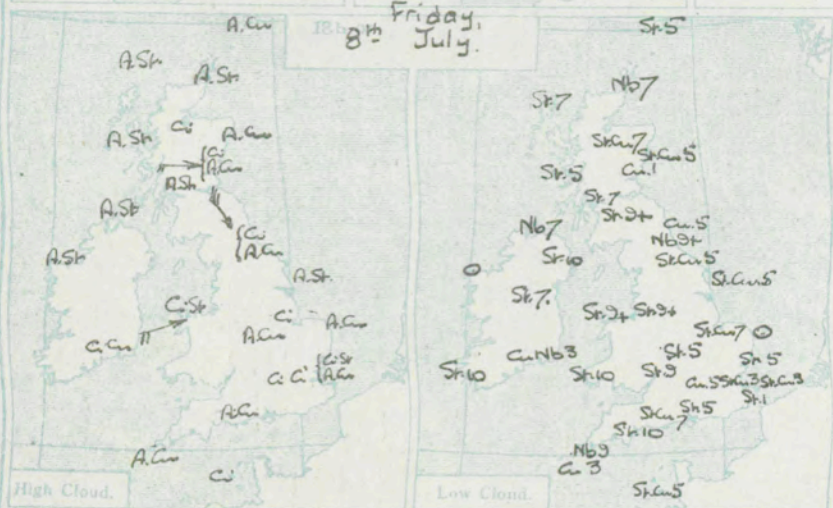
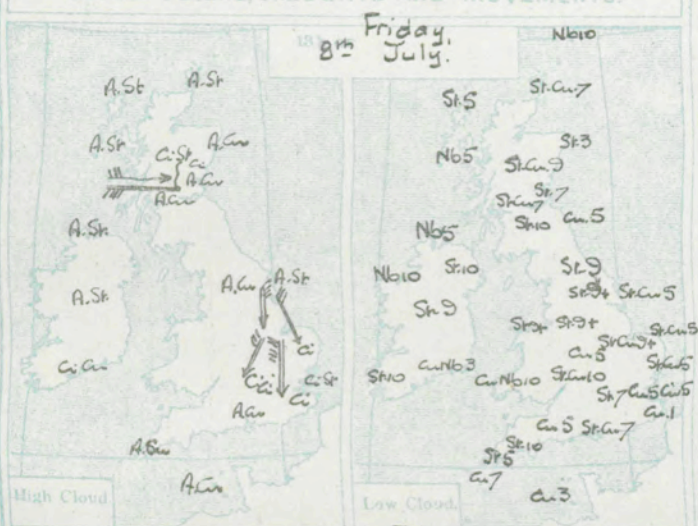
— 480-485 "

— 485-490 "

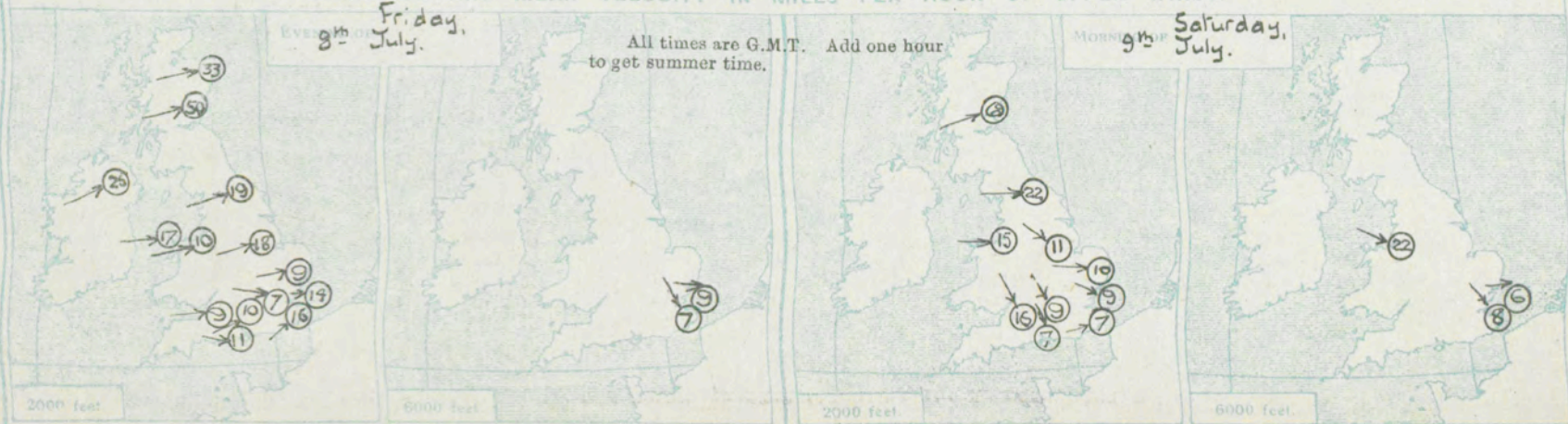
— 490-495 "

— 495-500 "

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Holyhead	Sealand	Catterick	Leuchars	Aldergrove	Croydon	Lympne	Plymouth	Place.	
Time.	10 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	10 ^h 8 ^m	12 ^h 8 ^m	10 ^h 8 ^m	11 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	9 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	12 ^h 8 ^m	Time.	
Type	b						Shell box single engine				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.	Feet	
Surf.	250 5	250 3	260 9	300 10	235 10	235 1	10000	185 10	250 11	250 10	200 17	210 15	230 5	240 13	245 20	245 15	240 7	200 15	210 8	Surf.
1000	245 3	230 9	270 5	235 10	235 11	240 5	330 12	135 9	245 16	250 16	210 22	210 16	245 7	250 13	240 47	240 17	235 10	215 13	230 8	1000
2000	230 7	230 9	260 7	300 11	270 9	235 7	15000	240 8	260 19	250 13	260 15	255 11	260 9				225 9	265 11	315 11	2000
3000	230 9	240 4	235 7	305 10	255 10	230 9	10 30	270 9	260 17	260 11	230 14						235 11	265 11		3000
4000	265 9			300 11	305 12		20000	265 11	265 13	265 11							260 8	315 7		4000
5000	285 7			335 14			360 44	285 9									260 6	300 5		5000
6000	305 10							280 8									320 7	255 3		6000
8000	345 10							7000										340 15		8000
10000	Kew							300 5												10000
12000	C 13 ^h	Acu 16 ^h															C 13 ^h	C 13 ^h		12000
Neph.	30 35	340 27													270 40		40 15	360 50		Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aldergrove	Aberdeen	Boscombe Down	Place.
Time.	17 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	16 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	16 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	17 ^h 8 ^m	18 ^h 8 ^m	16 ^h 8 ^m		17 ^h 8 ^m	11 ^h 8 ^m	12 ^h 8 ^m	Time.
Type			b			b	b							b					b	Type
Feet																				Feet
Surf.	235 9	235 6	275 5	275 8	225 15	215 15	210 8	160 12	230 7	245 11	250 7	210 12	330 3	230 9	240 20		210 11	190 16	285 10	Surf.
1000	270 6	260 9	285 11	280 8	253 17	230 15	230 9	220 10	255 16	245 13	235 8	265 13	265 8	265 21	255 34		240 21	235 29	285 11	1000
2000	280 7	255 10	275 9	280 20	235 11	255 16	275 14	260 9	265 18	250 13		265 17	260 10	235 19	265 50		255 25	260 33	265 10	2000
3000		270 10	260 6		315 11	230 15	275 13	285 11	270 14	265 9		265 17			260 60			270 42	275 13	3000
4000		290 7				235 12	270 12	280 11	260 14									275 33		4000
5000						265 11	270 11	270 10										280 44		5000
6000						325 7	275 9													6000
8000						30 12														8000
10000												Acu 17 ^h								10000
12000												230 27		320 33	270 27					12000
Neph.																				Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Calshot	Place.
Time.		07 ^h 9 ^m		08 ^h 9 ^m	06 ^h 9 ^m	06 ^h 9 ^m	06 ^h 9 ^m	06 ^h 9 ^m	06 ^h 9 ^m	06 ^h 9 ^m			06 ^h 9 ^m	06 ^h 9 ^m	07 ^h 9 ^m				10 ^h 9 ^m	Time.
Type																				Type.
Feet																				Feet
Surf.		CA-M		290 4	300 8	320 8	315 6	325 5	230 1	285 2			250 7	255 23	245 20				190 7	Surf.
1000		340 5		315 6	340 10	315 10	330 9	325 16	275 15	300 13			285 13	260 21	240 43				200 7	1000
2000		340 9		335 16	345 7	265 7	255 9	265 10	300 11	300 15			270 15	270 22	250 69				345 7	2000
3000				310 8		260 5	260 10	245 9	235 10	260 17			245 14	285 30	255 66					3000
4000						235 3	255 6	260 7		215 19			285 16		260 68					4000
5000						240 5	260 6	260 7					265 21		270 65					5000
6000						335 8	260 6						235 22		270 43					6000
8000						325 11							235 29		Acu 07 ^h					8000
10000						335 15							230 24		270 45					10000
12000	Acu 10 ^h		C 10 ^h			350 19				C 07 ^h			C 07 ^h	C 07 ^h	Acu 07 ^h	C 07 ^h				12000
Neph	330 24		360 20							360 35			280 25	320 45	300 33	270 60				Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES

[illegible]

UPPER WINDS ABROAD.

UPPER WINDS ABROAD.													
Place.	Algiers		Magen- furt		Bannor- anlin		Avond		Bordeaux		Malta		
Time.	10 ^h	8 ^h	09 ^h	8 ^h	12 ^h	8 ^h	12 ^h	8 ^h	17 ^h	8 ^h	17 ^h	8 ^h	
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
1,640	20	14	-	-	350	10	360	22	310	16	300	0	
3,280	20	4	112	5	360	14	10	6	310	17	150	7	
4,920	50	9	-	-	360	10	10	22	10	14	700	0	
6,560	10	14	203	11	360	13	360	14	340	13	220	7	
9,840	310	31	160	18			20	..			1000	0	
13,120											280	11	
16,400											1200	0	
19,680											230	15	

Place.	Toulouse		Le Havre		Nîmes		Hanover		Stettin		Malta	
Time.	17 ^h	8 ^h	18 ^h	8 ^h	18 ^h	8 ^h	05 ^h	9 ^h	07 ^h	9 ^h	06 ^h	9 ^h
1,640	330	22	330	11	350	52	335	2	11	16	300	0
3,280	320	20	300	14	360	52	360	2	11	14	240	13
4,920	320	20	300	7	360	31	-	-	-	-	700	0
6,560	330	27	350	4	20	34	345	11	360	11	180	23
9,840					340	20	79	5	315	9	1000	0
13,120					20	16	233	11	233	11	230	22
16,400							261	16	270	18		
19,680												

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

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



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON

UPPER AIR SECTION, SUNDAY, 10th July

1932.

 No. B. 25,798
 U.A.S. 4,850

DIAGRAM OF UPPER AIR TEMPERATURE

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 Little Page.

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

UPPER WINDS.

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.

h = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

→ No speed given.

→ 0-5 m.p.h.

→ 5-16

→ 16-26

→ 25-35 m.p.h.

→ 35-45

→ 45-55

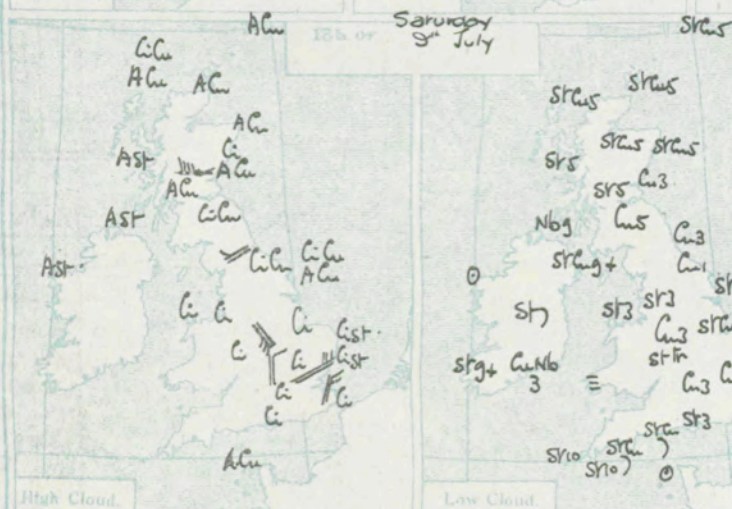
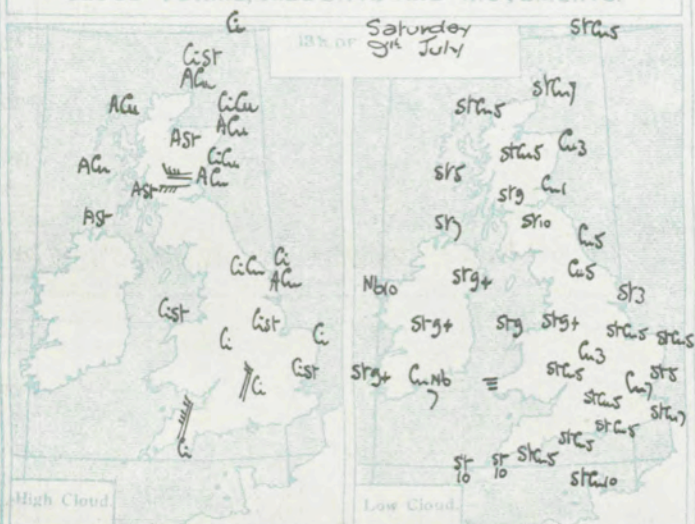
→ 55-65

→ and so on.

In Tables.

Directions are given in degrees, indicated in m.p.h. Speeds of high clouds are computed for an average height of 5 miles for alto type clouds (double lines) and 3 miles for alba type clouds (single line).

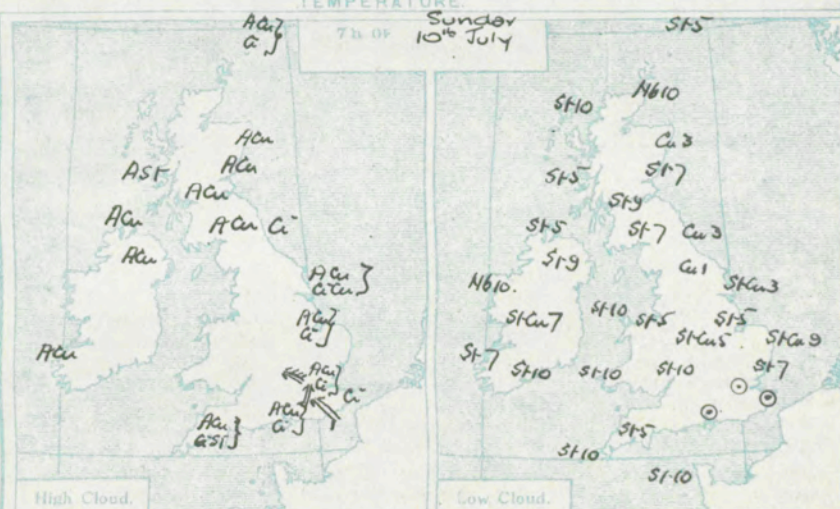
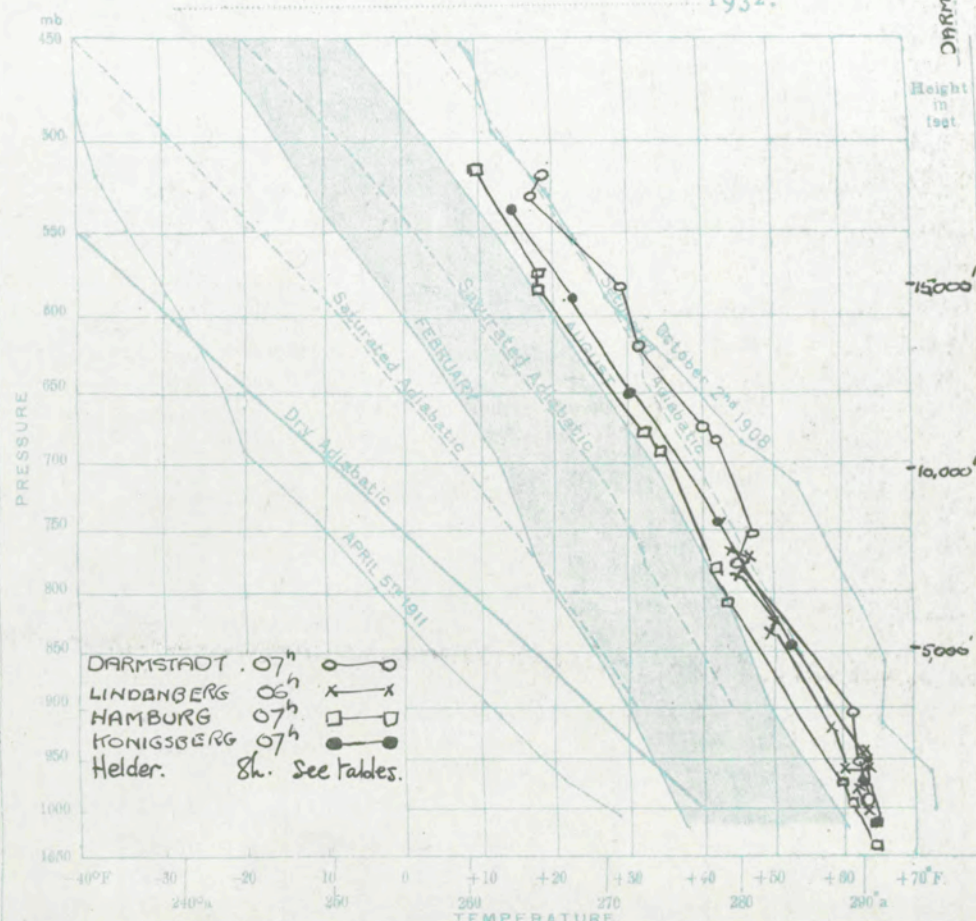
CLOUD FORMS, AMOUNTS AND MOVEMENTS.



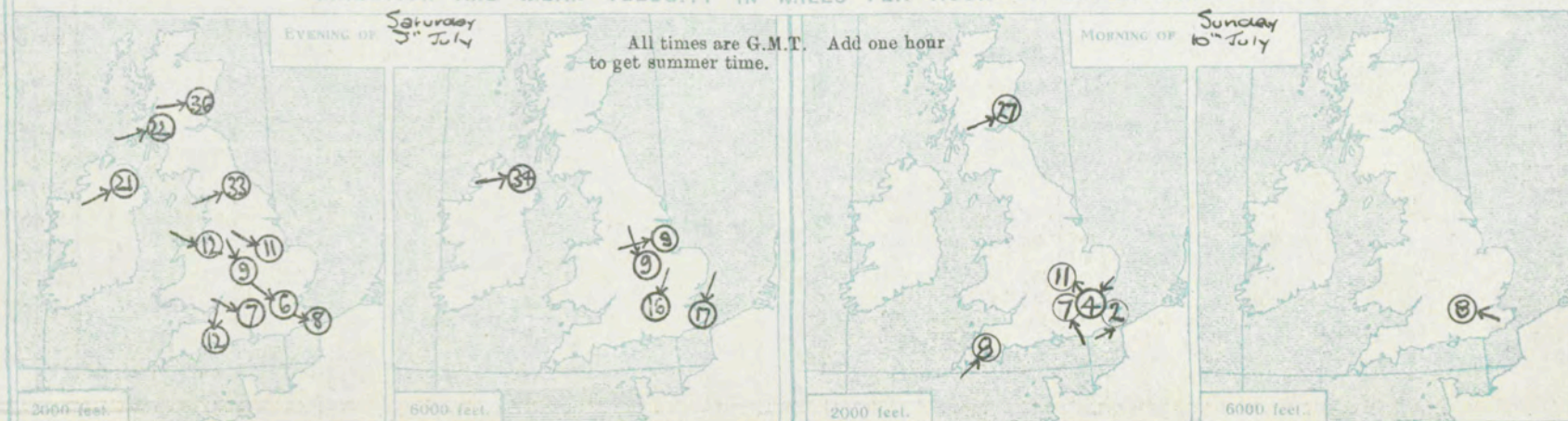
UPPER AIR TEMPERATURES.

Saturday, 9th

1932.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



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

Place	Croydon	South Farnboro	South Farnboro	Boscombe Down	Calshot	Lymington	Croydon	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Boscombe Down	Aberdeen	Alder Grove	Holyhead	Place																					
Time	10h 3m	10h 3m	13h 9m	09h 5m	13h 9m	12h 9m	12h 9m	11h 9m	11h 9m	12h 9m	12h 9m	09h 3m	12h 9m	12h 9m	12h 9m	11h 9m	11h 9m	12h 9m	12h 9m	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.	335	3	335	2	275	1	315	4	210	9	180	10	265	6	160	5	240	10	270	3	330	13	205	15	Caln	260	20	240	4	310	4	240	22	245	15	210	15	Surf.			
1000	285	2	340	6	300	3	325	5	260	5	210	12	265	3	235	5	265	15	250	5	335	9	220	15	Caln	260	23	285	31	305	5	280	23	235	23	220	15	1000			
2000	335	5	310	8	290	3	275	8	330	9	240	5	255	7	265	9	260	12	265	5	355	9	255	12	255	7	270	34	285	31	305	4	260	15	245	25	265	16	2000		
3000	325	5			265	7	340	15	280	3	285	6	270	11	285	12											280	34	260	31					270	35			290	18	3000
4000	340	5							320	5			270	13													280	29	265	11					270	40			280	15	4000
5000	Lymington								320	6																	270	25							270	33					5000
6000	10h 6								345	9																	270	18	13h C						255	21					6000
8000	200	6																								270	21								265	45					8000
10000	200	6																								270	22								260	36					10000
12000	200	6																								270	23								255	36					12000
Neph.	200	6																								270	23								255	36					Neph.
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder Grove	Valentia	Place																					
Time	17h 9m	18h 9m		17h 9m		17h 9m			17h 9m	17h 9m	17h 9m		17h 9m	17h 9m	16h 9m	17h 9m	17h 9m			Time																					
Type																				Type																					
Feet	280	6	265	4			215	10			215	5	335	6	340	12			300	3	205	5	255	20	250	10	225	15										Feet			
Surf.	325	4	280	11			210	11			290	13	325	9	350	11			275	11	225	11	260	29	260	17	225	21									1000				
1000	310	6	290	7			280	8			295	11	310	9	5	12			280	12	245	33	260	36	260	22	230	21									2000				
2000	305	6	355	6			315	7			295	14	310	10	10	8			290	15	275	50	270	38			260	24								3000					
3000	320	6					345	10			290	12	290	11	10	7			285	17			270	56			265	26									4000				
4000			20	5			5	14			295	16	335	7	15	3			275	15			18h AC				260	33								5000					
5000	18h C		15	16	18h C		30	17			260	9	315	9					18h C				230	26			260	34									6000				
6000	60	30	335	14	360	15	40	11						18h C					280	10	16h C						260	33								8000					
8000	60	30	360	9	Lymington		15	13						120	30				16h C				280	30			260	23									10000				
10000	16h C		16h C		18h C		15	15						16h C					16h C				AC														12000				
12000	90	35	350	10	10	25								120	27				240	15	270	30														Neph.					
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Upper Heyford	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder Grove	Valentia	Place																					
Time	6h 10m	7h 10m	10m			6h 10m			6h 8m	8h 10m	7h 10m				10h 10m					Time																					
Type																				Type																					
Feet	Caln	Caln				195	3				155	1	170	7	Caln				235	15																Feet					
Surf.	90	4	130	9			180	5			140	9	170	9	205	2			245	26															1000						
1000	35	4	140	7			245	2			135	11	165	11	220	8			240	27															2000						
2000	25	7	150	9			Caln						170	10	265	8			240	40															3000						
3000	50	9	120	11			Caln						155	11					240	37															4000						
4000	75	14	90	8	10h C		Caln						160	15					240	43															5000						
5000			110	8	160	20																														6000					
6000			140	7																																	8000				
8000																																					10000				
10000	Kew	90	2	South Farnboro	South Farnboro																																12000				
12000	7h C	325	4	7h C	10h C	10h C	10h C	10h C	10h C	10h C	10h C	10h C	10h C	10h C	10h C				10h AC																	Neph.					
Neph	200	15	325	140	15	180	30	150	25	130	35	180	30						280	15																	Neph.				

UPPER AIR TEMPERATURES AND HUMIDITIES.

[illegible]

UPPER WINDS ABROAD.

Place.	Madrid	Poitiers	Lemberg	Rangoon	Sarcelong	Malta					
Time.	12h.gm	12h.gm	12h.gm	12h.gm	12h.gm	12h.gm					
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.					
1,640	-	-	350	11	20	18	360	18	300	9	(1000')
3,280	30	9	10	13	20	18	360	20	340	17	340 5
4,920	-	-	30	13	30	18	10	2)	360	7	(2000')
6,560	30	18	30	17	30	43			230	2	210 4
9,840	20	16			30	(4)			20	9	(3000')
13,120	20	34									130 5
16,400	360	34									
19,680											
Place.											Malta
Time.											6h 10 1/4
1,040											1000'
3,280											320 15
4,920											3000'
6,560											250 11
9,840											5000'
13,120											250 18
16,400											7000'
19,680											230 18

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

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.—**BRITISH.**

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.																					
Time.	11h 10 ^m	11h 10 ^m		12h 10 ^m		11h 10 ^m					12h 10 ^m		12h 10 ^m	12h 10 ^m		13h 10 ^m		12h 10 ^m		Time.																					
Type	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.	190	5	150	12			210	5			185	5			175	10	170	8			245	12	Surf.																		
1000	190	8	155	13			190	8			180	8			185	14	185	12			230	15	1000																		
2000	165	7	160	11			180	7			170	7			200	17	225	19			215	19	2000																		
3000	160	12	180	14			165	10			135	5			210	16	220	22			215	25	3000																		
4000	130	7	180	15			155	13			95	13			220	20							4000																		
5000			165	10							105	17			205	16							5000																		
6000			145	13							115	16			200	22							6000																		
8000			135	15							100	15			210	30							8000																		
10000			(7,000')								100	16			220	29							10000																		
12000	16h C						13h C				13h C				13h C						15h C		12000																		
Neph.	150	35					180	15			200	27	210	20		220	35		250	54	210	54		200	54	Neph															
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.																					
Time.		18h 10 ^m	17h 10 ^m						01h 11 ^m												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.			170	9	180	10			180	8											Surf.																				
1000			175	14	150	13			235	8											1000																				
2000			175	14	150	11			270	6											2000																				
3000			140	13	145	10			200	12											3000																				
4000			135	15	155	10			175	15											4000																				
5000			140	11	145	7															5000																				
6000			120	11	145	10															6000																				
8000					165	10							18h C		18h C	18h AC					8000																				
10000					150	10							180	35	250	45	210	54			10000																				
12000					155	3			18h C				16h C	18h C	18h AC	16h C					12000																				
Neph.					150	40					190	25	180	40	230	35	250	48	210	50		Neph.																			
Place.	Croydon	South Farnboro	Exeter - Moor	Worthy Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.																					
Time.	6h 11 ^m	6h 11 ^m	7h 11 ^m	9h 11 ^m		6h 11 ^m	6h 11 ^m	6h 11 ^m	6h 11 ^m	6h 11 ^m	6h 11 ^m		6h 11 ^m	6h 11 ^m		7h 11 ^m		6h 11 ^m	7h 11 ^m	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.	Feet																				
Surf.	Cal	m	80	2	-	-	20	1			80	4	45	3	Cal	Cal	110	2	285	3		320	7	335	4		280	3		345	5	5	9	Surf.							
1000	85	8	100	2	45	5	30	5			115	8	135	8	140	16	200	11	130	8	155	7		340	7	45	10		350	5		350	17	360	15	1000					
2000	110	11	170	9	55	6	90	5			175	6	150	8	145	11	180	12	170	13	155	9		10	2	90	5		25	6			355	18	2000						
3000	115	11	175	13			155	11			135	7	130	7	140	9	170	13	170	14	180	9		10h	C	210	6		15	7			345	20	3000						
4000	115	17	195	13			165	13			115	7	125	8	125	7	165	15	170	15	180	14		190	35	215	12		30	5			350	17	4000						
5000	120	15	200	13			160	13			100	11	125	8	125	11	155	17			10h	AC			10h	AC				135	1			340	18	5000					
6000	190	7	180	13			150	16													170	36			160	21				210	7			330	17	6000					
8000			145	18																	10h	AC			7h	AC				200	12			310	9	8000					
10000	(7,000')		140	15																	170	50			170	30				7h	C			270	5	10000					
12000			10h	AC																	5h	C			7h	C				190	60			7h	AC		7h	C	240	7	12000
Neph.			150	48																	170	45			180	45				190	36			180	60	190	35	Neph.			

UPPER AIR TEMPERATURES AND HUMIDITIES.

STATION AIR TEMPERATURES AND HUMIDITIES.																				
Station.	Pressure.	Height above M.S.L.	Temp.				Station.	Pressure.	Height above M.S.L.	Temp.				Station.	Pressure.	Height above M.S.L.	Temp.			
	mb.	Feet. M.S.L.	Dry. °F.	Wet. °F.	Relative Humidity %			mb.	Feet. M.S.L.	Dry. °F.	Wet. °F.	Relative Humidity %			mb.	Feet. M.S.L.	Dry. °F.	Wet. °F.	Relative Humidity %	
		M.S.L.	—	—	—				M.S.L.	—	—	—				M.S.L.	—	—	—	
							</													

UPPER WINDS ABROAD.

Place.	Rennes	Rome	Taranto	Algiers	Chateauroux	Malta
Time.	13h 10 th	13h 10 th	12h 10 th	10h 10 th	12h 10 th	17h 10 th
Feet.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	200 7	- -	160 11	70 14	20 14	1000'
5,280	240 14	190 10	- -	- -	20 14	300 15'
4,920		180 10	190 10	- -	20 14	3000'
6,560			110 16	230 9	10 14	260 16'
9,840				260 26		5000'
13,120				270 31		280 14'
18,400				280 40		
19,680						

Place.	Tours	Chartres	Tunis	Jenirouping	Strerrin	Dacher
Time.	17h 10 th	6h 11 th	4h 11 th	6h 11 th	7h 11 th	7h 11 th
1,840	360 9	30 4	270 16	310 9	22 7	112 16
3,280	360 14	40 9	270 16	30 7	11 11	112 13
4,920	20 7	30 7	240 7	- -	- -	- -
6,560	30 7	30 7	270 18	- -	56 11	90 20
9,840	140 4		250 27	330 9	68 11	101 15
13,120				290 11	- -	- -
16,400					- -	- -
19,680					101 7	112 2'

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

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



AIR MINISTRY. DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Tuesday, 12th July 1932.

 No. B. 25800
U.A.S. 4852

DIAGRAM OF UPPER AIR TEMPERATURE

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 25th, 1871, and October 2nd, 1906, 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.

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.

Movements are indicated thus:

— No speed given.
— 0-5 m.p.h.
— 5-15
— 15-25

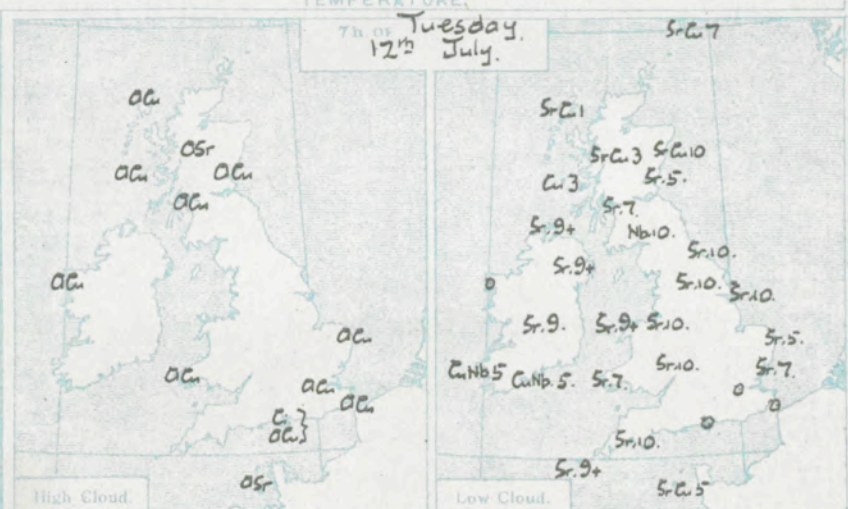
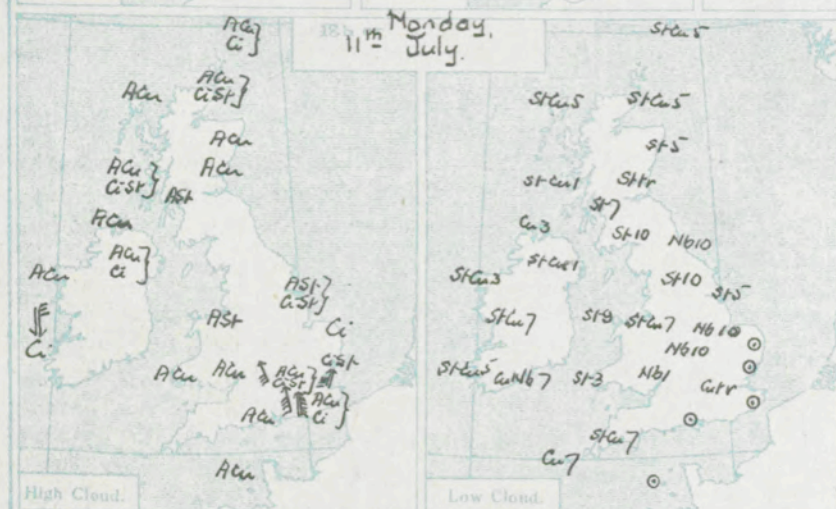
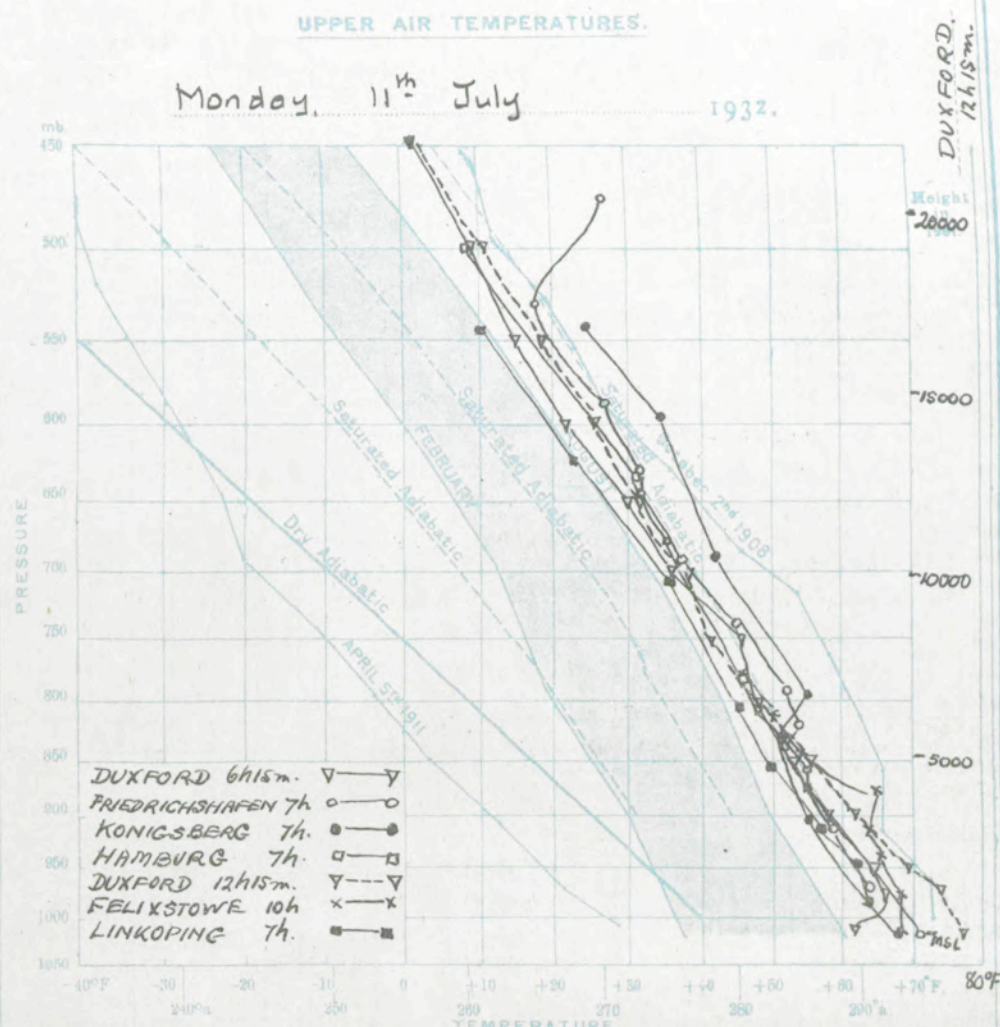
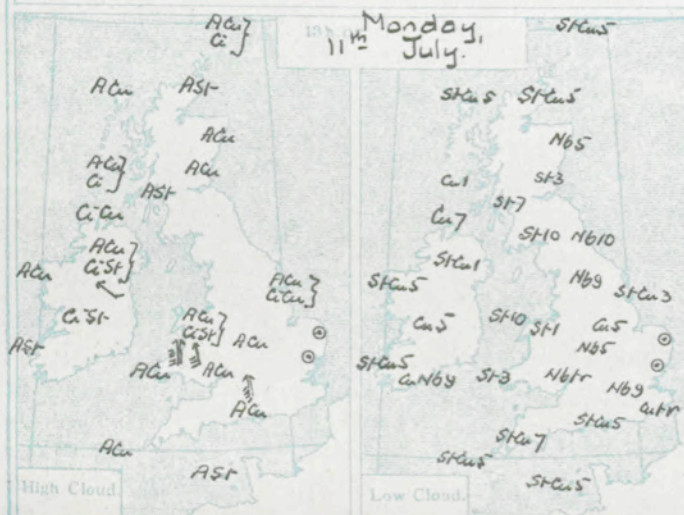
— 25-35 m.p.h.
— 35-45
— 45-55
— 55-65
— and so on.

In Tables.

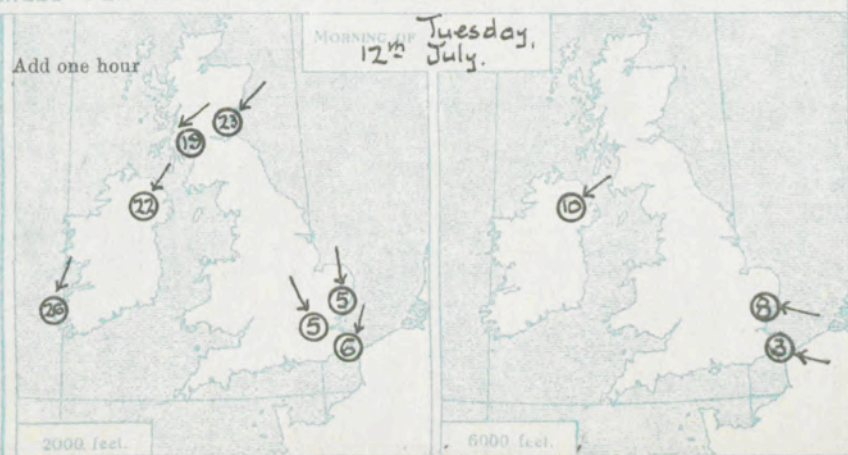
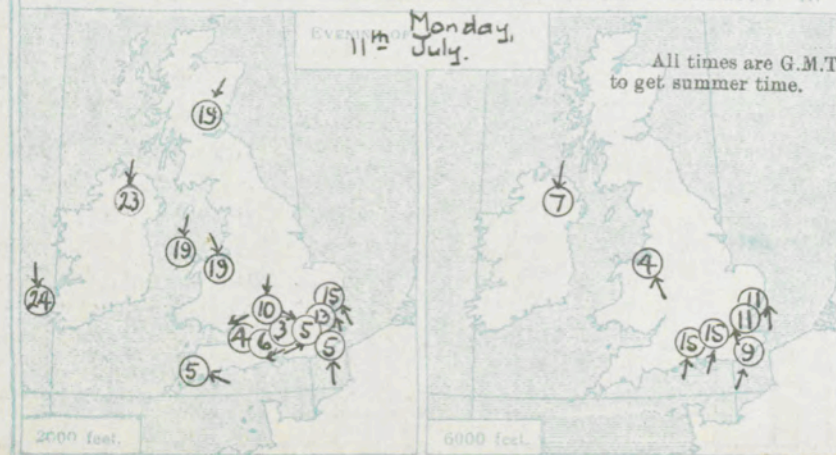
Directions are given in degrees, velocities in m.p.h.

Speeds of high clouds are computed for an average height of 5 miles for alto type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



[illegible]

UPPER AIR TEMPERATURES AND HUMIDITIES.																						
Station.	Pressure.		Height above M.S.L.		Temp.			Relative Humidity			Station.	Pressure.		Height above M.S.L.		Temp.			Relative Humidity			
	mb.	Feet.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.		mb.	Feet.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	
DUXFORD 6 1/2 m. 11-7-32	1015	M.S.L.	—	—	—	—	—	—	—	—	DUXFORD 12 1/2 m. 11-7-32.	1015	M.S.L.	—	—	—	—	—	—	—	—	
	1015	100	62	60	58	—	—	—	—	—		1015	100	77	69	67	—	—	—	—	—	
	974	1130	66	65	61	—	—	—	—	—		971	1160	70	64	61	—	—	—	—	—	
	950	1830	64	61	53	—	—	—	—	—		950	1800	69	62	67	—	—	—	—	—	
	900	3310	58	55	52	—	—	—	—	—		900	3310	61	58	53	—	—	—	—	—	
	850	4310	53	51	51	—	—	—	—	—		850	4320	55	51	78	—	—	—	—	—	
	800	6360	48	42	64	—	—	—	—	—		800	6600	48	45	54	—	—	—	—	—	
	750	8210	45	37	51	—	—	—	—	—		750	8320	40	39	89	—	—	—	—	—	
	700	10180	36	32	71	—	—	—	—	—		700	10200	37	32	66	—	—	—	—	—	
	650	12130	30	29	—	—	—	—	—	—		650	12160	31	28	76	—	—	—	—	—	
	600	14210	22	19	5	—	—	—	—	—		600	14270	25	22	74	—	—	—	—	—	
	550	16490	15	14	—	—	—	—	—	—		550	16520	19	15	—	—	—	—	—	—	
	500	18910	9	8	—	—	—	—	—	—		500	19000	10	9	—	—	—	—	—	—	
	450	21580	2	1	—	—	—	—	—	—		450	21700	2	1	—	—	—	—	—	—	
	INVERSION - Screen 62°f 1000 ft. 66°f											Have top 810 mb										
FRIEDRICHSHAFEN Th. 11-7-32	966	M.S.L.	—	—	—	—	—	—	—	—	KONIGSBERG Th. 11-7-32	1014	92	66	—	—	—	—	—	—	—	
	910	2250	59	—	98	—	—	—	—	—		903	3250	56	—	70	—	—	—	—	—	
	839	5450	52	—	98	—	—	—	—	—		820	5570	51	—	60	—	—	—	—	—	
	822	5570	54	—	75	—	—	—	—	—		798										

UPPER WINDS ABOARD.													
Place.		Brayvass		Belfort		Dresden		Metz		Malta		Malta	
Time.		12h 11 th		12h 11 th		12h 11 th		12h 11 th		6h 11 th		7h 11 th	
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
1,640	30	9	60	4	79	11	90	9	1000'		3000'		
3,280	100	7	80	7	79	18	70	11	3300'		220	13	
4,920	90	8	40	14	-	-	80	11	310	12	270	28	
6,560			340	11	90	15			5000'		10000'		
9,840			320	17					230	12	270	34	
13,120													
16,400													
19,680													
Place.		Trieste		Angouleme		Serif		Helsingfors		Posen		Malta	
Time.		7h 12 th		6h 12 th		7h 12 th		7h 12 th		5h 12 th		6h 12 th	
1,640	-	-	310	14	-	-	260	16	150	12	2000'		
3,280	50	5	220	4	Calm		270	22	130	11	330	7	
4,920	-	-	260	7	220	20	280	20	90	4	5000'		
6,560	210	5	250	9	230	29	280	16	120	2	310	18	
9,840			-	-	240	33	280	16	120	11	7000'		
13,120			-	-			-	-			280	27	
16,400							-	-					
19,680			190	18			310	31					

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

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

No. B. 25,801.
U.A.S. 4853.

mb

450

500

550

600

650

700

750

800

850

900

950

1000

1050

1100

1150

1200

1250

1300

1350

1400

1450

1500

1550

1600

1650

1700

1750

1800

1850

1900

1950

2000

2050

2100

2150

2200

2250

2300

2350

2400

2450

2500

2550

2600

2650

2700

2750

2800

2850

2900

2950

3000

3050

3100

3150

3200

3250

3300

3350

3400

3450

3500

3550

3600

3650

3700

3750

3800

3850

3900

3950

4000

4050

4100

4150

4200

4250

4300

4350

4400

4450

4500

4550

4600

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4700

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15900

15950

16000

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16600

16650

16700

16750

16800

16850

16900

16950

17000

17050

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17150

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17250

17300

17350

17400

17450

17500

17550

17600

17650

17700

17750

17800

17850

17900

17950

18000

18050

18100

18150

18200

18250

18300

18350

18400

18450

18500

18550

18600

18650

18700

18750

18800

18850

18900

18950

19000

19050

19100

19150

Tuesday,
12th July

[illegible]

12th Tuesday.
July.

Hand-drawn map of the Pacific Northwest coast of the United States, showing cloud observations for Tuesday, July 12th. The map includes latitude and longitude markings, and various cloud codes such as ACu, Ci, AS, ST, and STcu. A legend at the bottom indicates "High Cloud" and "Low Cloud".

Map Details:

- Date/Time:** Tuesday, July 12th
- Cloud Codes:** ACu, Ci, AS, ST, STcu, ST10, ST17, ST19, ST15, ST16, ST18, ST19, ST20, ST21, ST22, ST23, ST24, ST25, ST26, ST27, ST28, ST29, ST30, ST31, ST32, ST33, ST34, ST35, ST36, ST37, ST38, ST39, ST40, ST41, ST42, ST43, ST44, ST45, ST46, ST47, ST48, ST49, ST50, ST51, ST52, ST53, ST54, ST55, ST56, ST57, ST58, ST59, ST60, ST61, ST62, ST63, ST64, ST65, ST66, ST67, ST68, ST69, ST70, ST71, ST72, ST73, ST74, ST75, ST76, ST77, ST78, ST79, ST80, ST81, ST82, ST83, ST84, ST85, ST86, ST87, ST88, ST89, ST90, ST91, ST92, ST93, ST94, ST95, ST96, ST97, ST98, ST99, ST100.
- Legend:** High Cloud, Low Cloud.

OC. 7th of Wednesday,
13^m July.

[illegible]

12th Tuesday,
July.

All times are G.M.T.
to get summer time.

Add one hour

MORNING 13th Wednesday
July.

12th Tuesday, July.

Evening

All times are G.M.T to get summer time.

2000 feet

6000 feet

Two maps of the British Isles are shown side-by-side. The left map is labeled '2000 feet.' and the right map is labeled '6000 feet.' Handwritten notes include 'Add one hour' and '13th July. Wednesday, MORNING'. On the left map, station 13 is marked with a circled number and an arrow pointing to a location in central England, and station 5 is marked with a circled number and an arrow pointing to a location in southern England. On the right map, station 13 is marked with a circled number and an arrow pointing to a location in central England, and station 5 is marked with a circled number and an arrow pointing to a location in southern England.



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Thursday, 14th July 1932.No. 25802.
U.A.S. 4854.

DIAGRAM OF UPPER AIR TEMPERATURE

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 24, 1921, and October 2nd, 1900, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.

Movements are indicated thus:

No speed given

5-10 m.p.h.

10-15 m.p.h.

15-20 m.p.h.

20-25 m.p.h.

25-30 m.p.h.

30-35 m.p.h.

35-40 m.p.h.

40-45 m.p.h.

45-50 m.p.h.

50-55 m.p.h.

55-60 m.p.h.

60-65 m.p.h.

65-70 m.p.h.

70-75 m.p.h.

75-80 m.p.h.

80-85 m.p.h.

85-90 m.p.h.

90-95 m.p.h.

95-100 m.p.h.

100-105 m.p.h.

105-110 m.p.h.

110-115 m.p.h.

115-120 m.p.h.

120-125 m.p.h.

125-130 m.p.h.

130-135 m.p.h.

135-140 m.p.h.

140-145 m.p.h.

145-150 m.p.h.

150-155 m.p.h.

155-160 m.p.h.

160-165 m.p.h.

165-170 m.p.h.

170-175 m.p.h.

175-180 m.p.h.

180-185 m.p.h.

185-190 m.p.h.

190-195 m.p.h.

195-200 m.p.h.

200-205 m.p.h.

205-210 m.p.h.

210-215 m.p.h.

215-220 m.p.h.

220-225 m.p.h.

225-230 m.p.h.

230-235 m.p.h.

235-240 m.p.h.

240-245 m.p.h.

245-250 m.p.h.

250-255 m.p.h.

255-260 m.p.h.

260-265 m.p.h.

265-270 m.p.h.

270-275 m.p.h.

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280-285 m.p.h.

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305-310 m.p.h.

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365-370 m.p.h.

370-375 m.p.h.

375-380 m.p.h.

380-385 m.p.h.

385-390 m.p.h.

390-395 m.p.h.

395-400 m.p.h.

400-405 m.p.h.

405-410 m.p.h.

410-415 m.p.h.

415-420 m.p.h.

420-425 m.p.h.

425-430 m.p.h.

430-435 m.p.h.

435-440 m.p.h.

440-445 m.p.h.

445-450 m.p.h.

450-455 m.p.h.

455-460 m.p.h.

460-465 m.p.h.

465-470 m.p.h.

470-475 m.p.h.

475-480 m.p.h.

480-485 m.p.h.

485-490 m.p.h.

490-495 m.p.h.

495-500 m.p.h.

500-505 m.p.h.

505-510 m.p.h.

510-515 m.p.h.

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560-565 m.p.h.

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660-665 m.p.h.

665-670 m.p.h.

670-675 m.p.h.

675-680 m.p.h.

680-685 m.p.h.

685-690 m.p.h.

690-695 m.p.h.

695-700 m.p.h.

700-705 m.p.h.

705-710 m.p.h.

710-715 m.p.h.

715-720 m.p.h.

720-725 m.p.h.

725-730 m.p.h.

730-735 m.p.h.

735-740 m.p.h.

740-745 m.p.h.

745-750 m.p.h.

750-755 m.p.h.

755-760 m.p.h.

760-765 m.p.h.

765-770 m.p.h.

770-775 m.p.h.

775-780 m.p.h.

780-785 m.p.h.

785-790 m.p.h.

790-795 m.p.h.

795-800 m.p.h.

800-805 m.p.h.

805-810 m.p.h.

810-815 m.p.h.

815-820 m.p.h.

820-825 m.p.h.

825-830 m.p.h.

830-835 m.p.h.

835-840 m.p.h.

840-845 m.p.h.

845-850 m.p.h.

850-855 m.p.h.

855-860 m.p.h.

860-865 m.p.h.

865-870 m.p.h.

870-875 m.p.h.

875-880 m.p.h.

880-885 m.p.h.

885-890 m.p.h.

890-895 m.p.h.

895-900 m.p.h.

900-905 m.p.h.

905-910 m.p.h.

910-915 m.p.h.

915-920 m.p.h.

920-925 m.p.h.

925-930 m.p.h.

930-935 m.p.h.

935-940 m.p.h.

940-945 m.p.h.

945-950 m.p.h.

950-955 m.p.h.

955-960 m.p.h.

960-965 m.p.h.

965-970 m.p.h.

970-975 m.p.h.

975-980 m.p.h.

980-985 m.p.h.

985-990 m.p.h.

990-995 m.p.h.

995-1000 m.p.h.

1000-1005 m.p.h.

1005-1010 m.p.h.

1010-1015 m.p.h.

1015-1020 m.p.h.

1020-1025 m.p.h.

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1070-1075 m.p.h.

1075-1080 m.p.h.

1080-1085 m.p.h.

1085-1090 m.p.h.

1090-1095 m.p.h.

1095-1100 m.p.h.

1100-1105 m.p.h.

1105-1110 m.p.h.

1110-1115 m.p.h.

1115-1120 m.p.h.

1120-1125 m.p.h.

1125-1130 m.p.h.

1130-1135 m.p.h.

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1185-1190 m.p.h.

1190-1195 m.p.h.

1195-1200 m.p.h.

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1290-1295 m.p.h.

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1385-1390 m.p.h.

1390-1395 m.p.h.

1395-1400 m.p.h.

1400-1405 m.p.h.

1405-1410 m.p.h.

1410-1415 m.p.h.

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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Holyhead	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.		
Time.					12h13 ⁴ / ₂	12h13 ⁴ / ₂					9h13 ⁴ / ₂	12h13 ⁴ / ₂	12h13 ⁴ / ₂		13h13 ⁴ / ₂		11h13 ⁴ / ₂		13h13 ⁴ / ₂	Time.		
Type						6						6	6							Type		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet	
Surf.																					Surf.	
1000																					1000	
2000																					2000	
3000																					3000	
4000																					4000	
5000																					5000	
6000																					6000	
8000																					8000	
10000																					10000	
12000																					12000	
Neph.																					Neph.	
Place.	South Farnboro	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentia		Place.		
Time.	16h13 ⁴ / ₂	16h13 ⁴ / ₂	17h13 ⁴ / ₂		23h13 ⁴ / ₂	17h13 ⁴ / ₂					17h13 ⁴ / ₂		17h13 ⁴ / ₂		17h13 ⁴ / ₂	17h13 ⁴ / ₂				Time.		
Type			6																	Type		
Feet																				Feet		
Surf.	240	7	230	8	200	8							70	10		55	10	70	10	Surf.		
1000	235	15	240	20	225	17							50	26		60	32	75	23	1000		
2000	255	17			245	15							80	25		65	22	75	32	2000		
3000	230	15														55	35	80	40	3000		
4000	210	22																		4000		
5000	190	19																		5000		
6000																				6000		
8000																				8000		
10000																				10000		
12000	16h30	16h	16h	16h	16h	16h					16h									12000		
Neph.	130	21	120	24	180	30	140	24			170	21								Neph.		
Place.	Croydon	South Farnboro	Worthy Down	South Farnboro	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.		
Time.	6h14 ⁴ / ₂	5h14 ⁴ / ₂	7h14 ⁴ / ₂	6h14 ⁴ / ₂	6h14 ⁴ / ₂			6h14 ⁴ / ₂		6h14 ⁴ / ₂	5h14 ⁴ / ₂		6h14 ⁴ / ₂		6h14 ⁴ / ₂	7h14 ⁴ / ₂		7h14 ⁴ / ₂		Time.		
Type			6																	Type		
Feet																				Feet		
Surf.	230	5	105	3	150	2	140	4					55	10		55	10	70	15	45	10	Surf.
1000	265	9	190	3	175	8	175	6					75	21		35	16	50	30	50	27	1000
2000	270	15	225	11	210	9	220	7					(800')			30	25	75	27	80	15	2000
3000					205	15	215	15										70	28	55	9	3000
4000					210	20	205	15										90	20	50	15	4000
5000							190	15										10h	16h			5000
6000							180	16										70	15	80	7	6000
8000							185	15										7h	16h	80	12	8000
10000							(7000')											70	24	70	16	10000
12000	10h	10h	10h	10h	10h	10h	10h	10h			10h	10h	10h	10h	10h	10h	10h	10h	10h	10h	10h	12000
Neph.	150	30	140	50							150	17				70	18	7h	12h			Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.

[illegible]

UPPER WINDS ABROAD.

Place.	Milan	Lisbon	Gleitwitz	Stettin	Angou- leme	Malta					
Time.	12h13 ⁴	13h13 ⁴	13h13 ⁴	13h13 ⁴	18h13 ⁴	17h18 ⁴					
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
1,840	180	11	10	17	236	11	169	9	280	25	1000' 23
3,280	180	9	350	13	191	13	158	13	290	16	2000'
4,920	190	12	360	29	-	-	-	-	270	16	150 17
6,560			260	18	191	16	169	16	280	3	
9,840			260	26	203	22	180	13			
13,120			350	29							
16,400			240	28							
19,680											
Place.	Antwerp	Brindisi	Rome	Prague	Helsing- fors	Malta					
Time.	15h13 ⁴	16h13 ⁴	7h14 ⁴	7h	7h14 ⁴	6h14 ⁴					
1,840	270	25	-	-	250	13	70	5	30	7	1000' 4
3,280	280	20	240	19	-	-	80	6	30	7	200
4,920	280	14	300	19	-	-	130	3	20	7	
6,560	260	16	310	32	190	20	250	5	300	9	
9,840	230	19			200	39	250	10	-	-	
13,120									290	29	
16,400									300	43	
19,680									290	49	
Meteorological Office, Air Ministry, Kingsway, London, W.C.1.							G. C. SIMPSON, C.B., D.Sc., F.R.S., Director.				



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, FRIDAY, 15TH JULY, 1932.

No. B. 75,803.

U.A.S. 4,855.

DIAGRAM OF UPPER AIR TEMPERATURE

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 24th, 1911 and October 2nd, 1906, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

— No speed given.

— 0-5 m.p.h.

— 5-15

— 15-25

— 25-35 m.p.h.

— 35-45

— 45-55

— 55-65

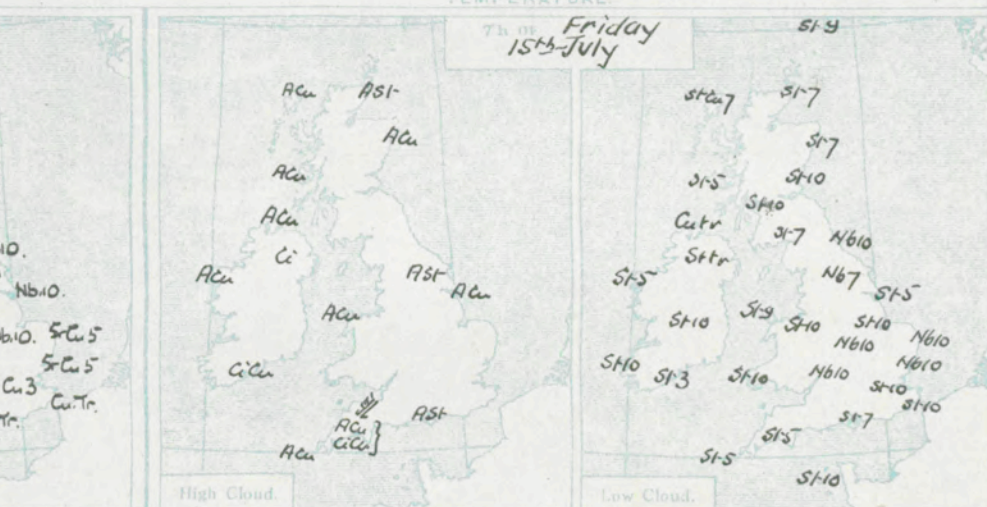
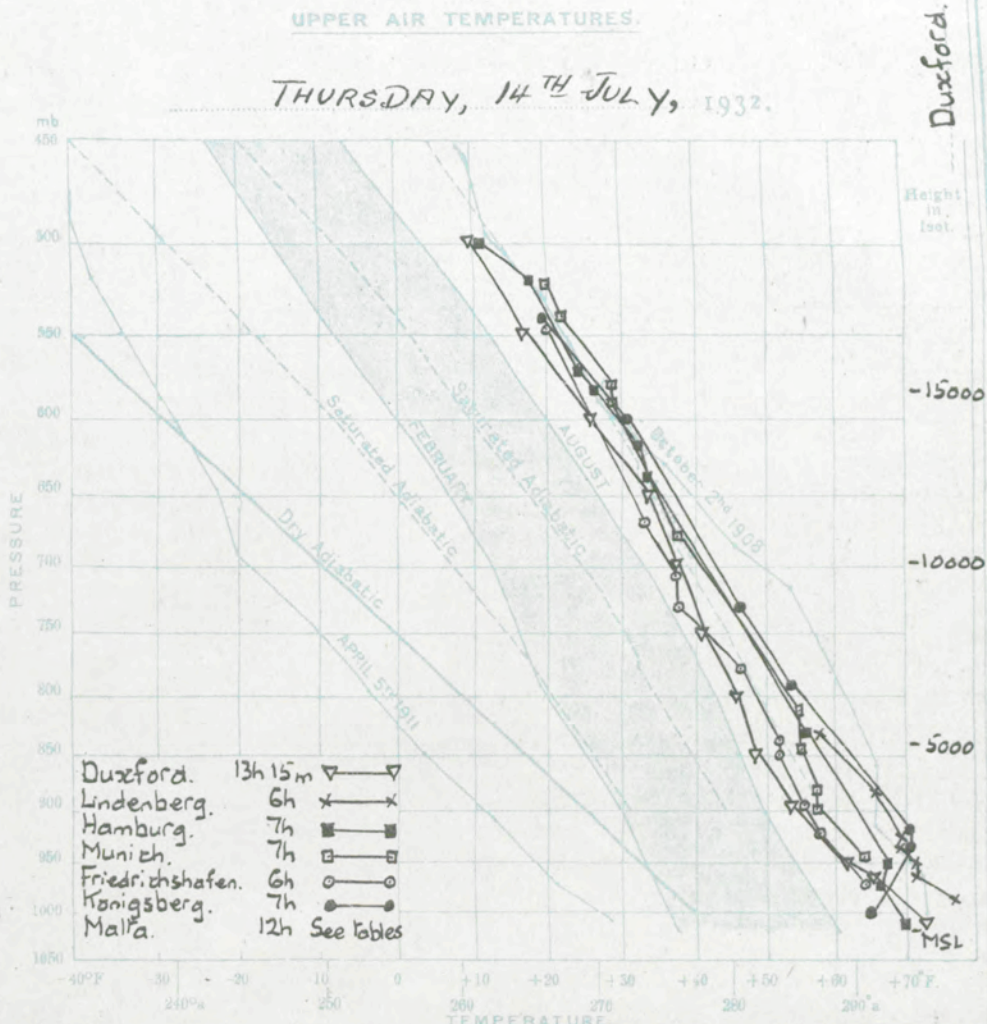
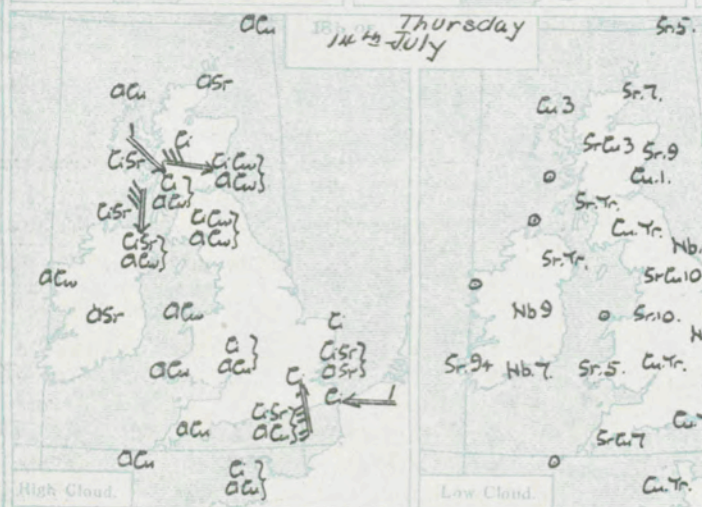
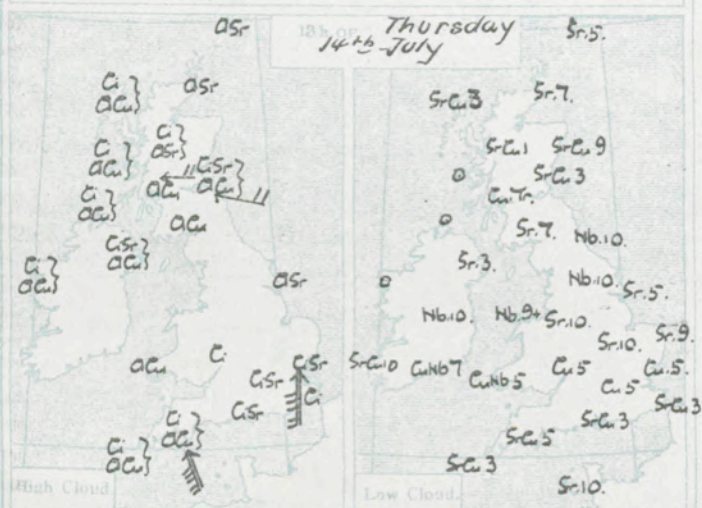
and so on.

In Tables.

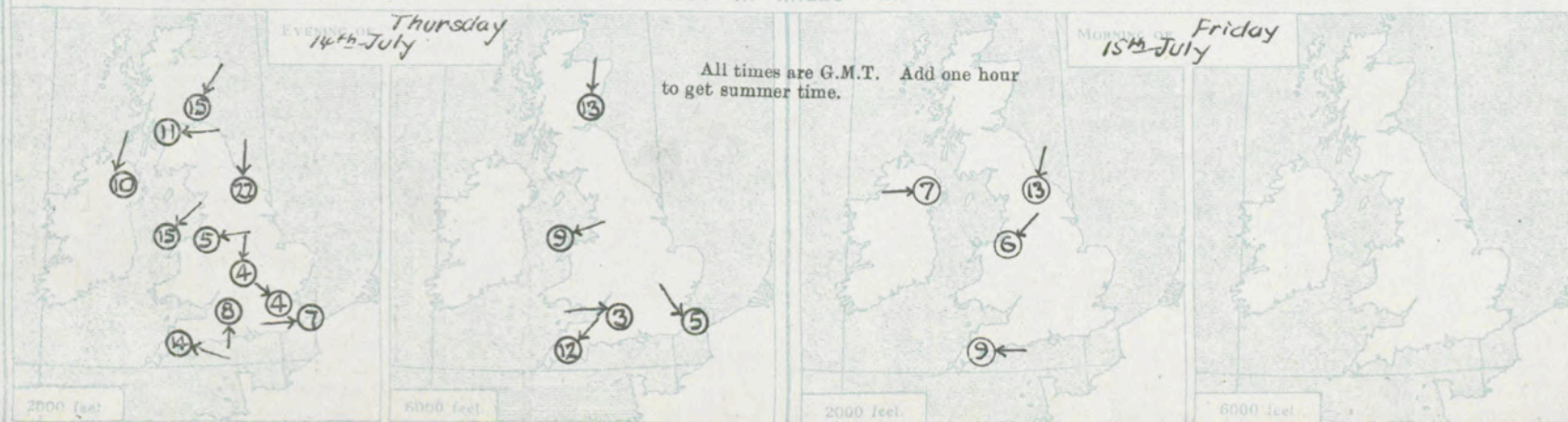
Directions are given in degrees, velocities in m.p.h.

Speeds of high cloud are computed for an average height of 5 miles for cirro type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																		
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympe	Shoebury-ness	Felix-stowe	Croydon	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.														
Time.	10h 14 ^m	12h 14 ^m	13h 14 ^m	12h 14 ^m	12h 14 ^m	12h 14 ^m	12h 14 ^m	11h 14 ^m	12h 14 ^m	12h 14 ^m	12h 14 ^m	12h 14 ^m		12h 14 ^m	13h 14 ^m	12h 14 ^m		12h 14 ^m		Time.														
Type	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.	250	5	245	4	200	8	170	7	200	7	205	10	260	7	280	9	215	9	235	4	200	8	75	20			360	13	90	12	90	8	Surf.	
1000	230	3	225	7	185	7	185	9	220	7	205	10	240	12	265	15	220	13	245	7	135	7	85	15			5	25	55	18	85	9	1000	
2000	235	7	195	5	185	9	170	8	180	6	245	8	250	14	240	9	210	11	265	5	105	9							20	17	70	18	2000	
3000	235	9	190	5	165	5	180	9	160	5	240	9	250	12	265	19	215	6	225	6	90	14							20	17	65	15	3000	
4000	195	9	215	5	110	3	200	3			220	9	240	11	260	9					85	8							45	20	65	13	4000	
5000			230	1			180	2			200	10	240	5	255	11					60	3							45	23	65	19	5000	
6000			(4500')				200	3			190	11	185	10	225	5					50	7							50	17	40	13	6000	
8000			15h OC				180	9			205	7	165	4							16h	C							16h	C	30	13	8000	
10000			330 24				(7000')				220	9	160	7							140	50							270	15	55	17	10000	
12000			15h C				13h C				190	13	13h C								16h	C							13h	OC	70	19	12000	
Neph.			160 50				110 50				130 30		160 55																110 18		13h	OC		Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympe	Shoebury-ness.	Felix-stowe	Calshot	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.														
Time.	17h 14 ^m	17h 14 ^m	16h 14 ^m	17h 14 ^m		17h 14 ^m			24h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m	17h 14 ^m		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.	Feet													
Surf.	275	5	225	4	200	8	165	8			230	1	Cal	130	5	65	17	40	10	355	8	65	10	60	7	30	5					Feet		
1000	260	6	245	5	195	10	180	11			235	13		20	3	145	9	70	19	70	13	10	15	75	23	75	12	55	11			1000		
2000	305	4	270	7	170	5	180	8			275	7		15	4	110	14	45	15	85	5	10	22	35	15	85	11	25	10			2000		
3000	5	4	295	9	90	3	90	6			255	4		15	4	100	19	60	9			20	23	30	20	25	10	35	11			3000		
4000	315	3	5	9	50	9	15	5			285	3				80	15	65	8			30	17	10	13	45	12					4000		
5000			35	1	65	5	345	5			315	4				60	13	70	9			55	17	35	13	55	14					5000		
6000					180	9	270	3			335	5				90	5																6000	
8000	Biggin Hill.	18h OC	210	8	180	3			Worthy Down	250	9					90	5																8000	
10000		110 30	160	4	245	3				135	9					270	3																10000	
12000	18h C	16h C	130 7	18h C	18h C					335	2																						12000	
Neph.	120 40	170 50	115 5	110 60	130 20	90 15								130 30																			Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Croydon	Calshot	Lympe	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.														
Time.	6h 15 ^m	5h 15 ^m	7h 15 ^m	10h 15 ^m	6h 15 ^m									6h 15 ^m		6h 15 ^m	6h 15 ^m			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.	Feet													
Surf.	345	8	10	4	360	5	325	8	25	4				Cal																		Feet		
1000	345	11	15	17	15	8	325	8	50	10				80	12					55	7	5	15									1000		
2000			10	16										85	9					40	6	20	13									2000		
3000			(1500')											90	8																		3000	
4000														10h C																			4000	
5000														40	30					7h AC													5000	
6000														7h	Cal																		6000	
8000														7h C																				8000
10000														40	40																			10000
12000														5h AC																				12000
Neph														40	15																		Neph.	

UPPER AIR TEMPERATURES AND HUMIDITIES.												UPPER WINDS ABROAD.												
Station.	Pressure.	Height above M.S.L.	Temp.	Temp.	Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.	Temp.	Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.	Temp.	Relative Humidity	Place.	Munich	Berlin	Dresden	Serrin	Breslau	Malta
	mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%	Time.	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m
Duxford.	1009.5	M.S.L.	-	-	-	Lindenb.	990	M.S.L.	68	-	-	Munich.	948	M.S.L.	-	-	-	Time.	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m
13h 15m	1006	100	72	62	57	14-7-32.	990	348	68	-	-	14-7-32.	948	1662	64	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	996.8	1120	65	57.5	64	14-7-32.	990	130	71	-	-	14-7-32.	948	3280	57	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	990	1660	61	55.5	72	14-7-32.	990	1640	71	-	-	14-7-32.	948	3280	57	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	850	3170	53	51	85	14-7-32.	990	1970	69	-	-	14-7-32.	948	3280	57	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	800	4720	48	44.5	78	14-7-32.	990	2300	69	-	-	14-7-32.	948	4920	67	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	750	6400	45	37	50	14-7-32.	990	2610	65	-	-	14-7-32.	948	4920	67	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	700	8040	40	33	53	14-7-32.	990	2940	65	-	-	14-7-32.	948	6560	63	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	650	9960	36.5	26	28	14-7-32.	990	3240	58	-	-	14-7-32.	948	8200	60	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	600	11920	32	25.5	51	14-7-32.	990	3540	58	-	-	14-7-32.	948	8200	60	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	550	14020	25.5	22	71	14-7-32.	990	3840	57	-	-	14-7-32.	948	9840	57	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	500	16290	16.5	15	71	14-7-32.	990	4140	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
	450	18720	9.5	9.5	71	14-7-32.	990	4440	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
Haze rep			850 mb			14-7-32.	990	4740	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
Clouds.			850 mb			14-7-32.	990	5040	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
-840 mb			850 mb			14-7-32.	990	5340	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
reached			850 mb			14-7-32.	990	5640	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
M.S.L.						14-7-32.	990	5940	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	6240	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	6540	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	6840	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	7140	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	7440	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	7740	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	8040	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	8340	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	8640	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	8940	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	9240	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	9540	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	9840	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	10140	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	10440	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	10740	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	11040	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	11340	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	11640	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	11940	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	12240	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	12540	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	12840	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	13140	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	13440	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	13740	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	14040	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	14340	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	14640	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	14940	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	15240	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	15540	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	15840	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	16140	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	16440	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m	13h 14 ^m	13h 14 ^m	17h 14 ^m	17h 14 ^m	
						14-7-32.	990	16740	57	-	-	14-7-32.	948	13120	49	-	-	10h 14 ^m	10h 14 ^m					



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, SATURDAY, 16TH JULY, 1932.

No. B. 25,804.

U.A.S. 4,856.

DIAGRAM OF UPPER AIR TEMPERATURE.

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, 1931, and October 2nd, 1931, 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 Table Page.

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

UPPER WINDS.

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.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

No speed given

0-5 m.p.h.

5-10

10-25

25-35 m.p.h.

35-45

45-65

65-85

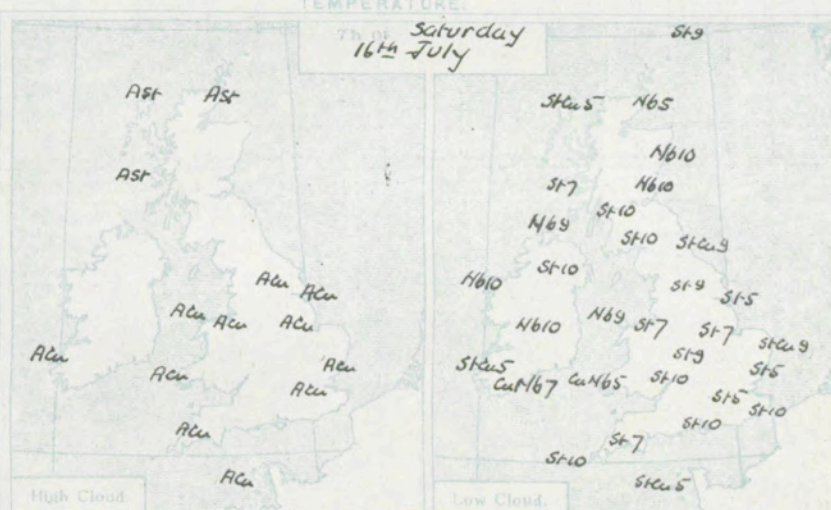
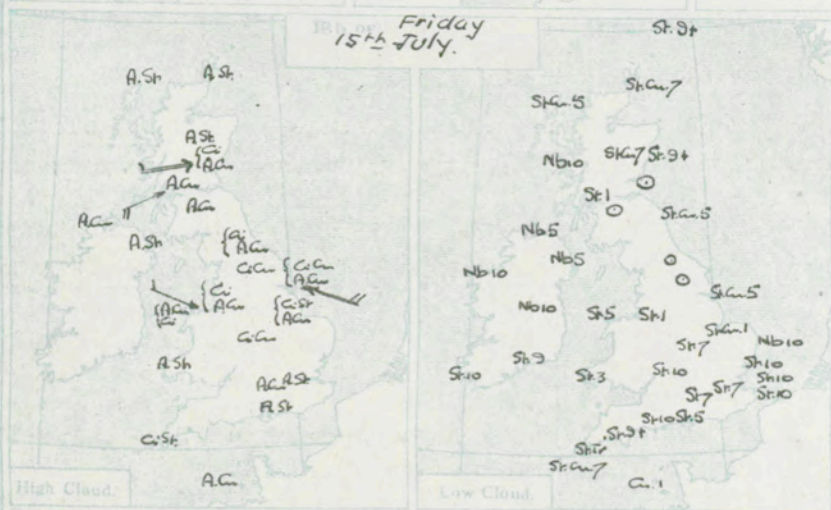
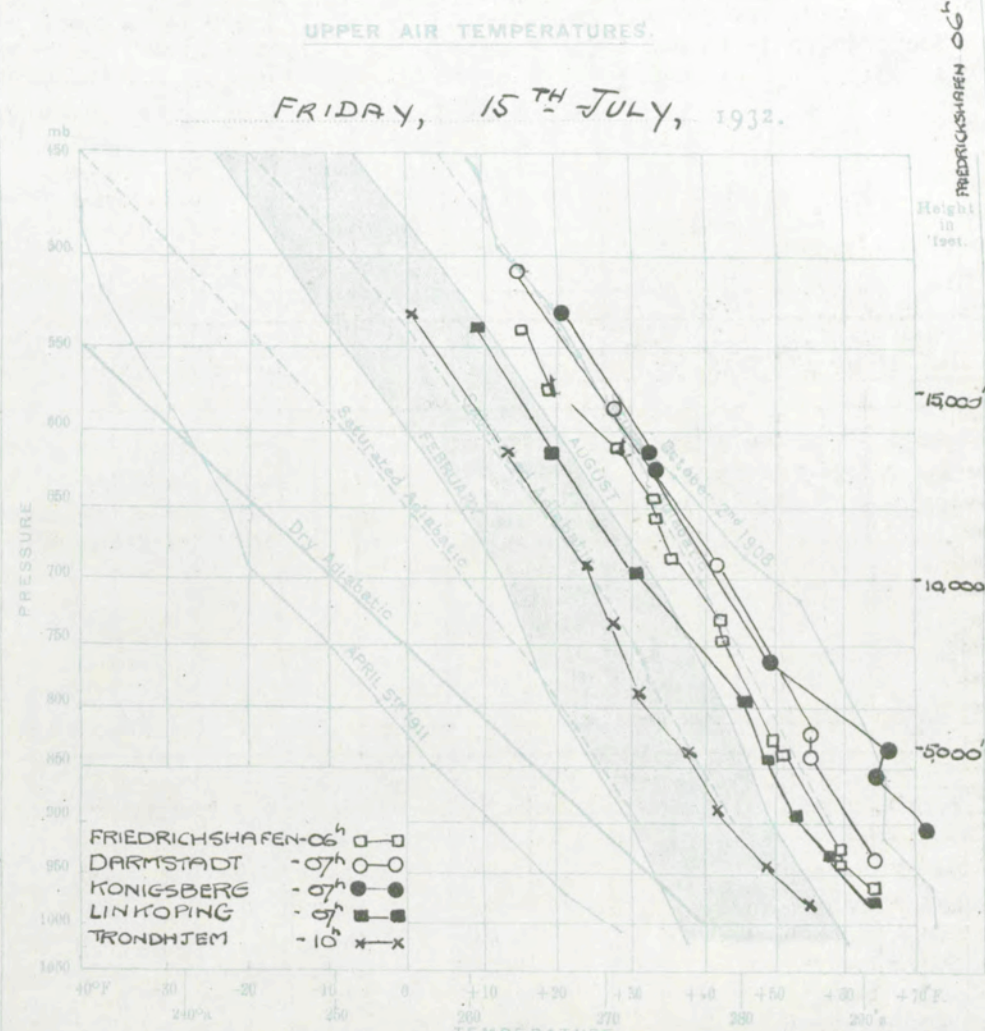
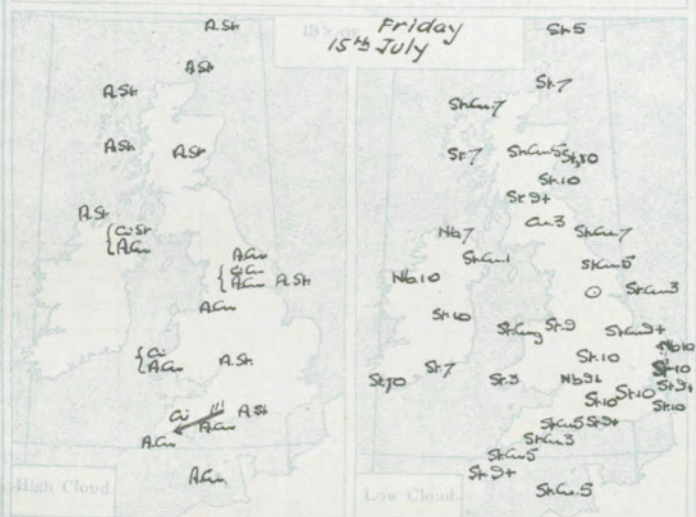
and no sign

In Tables.

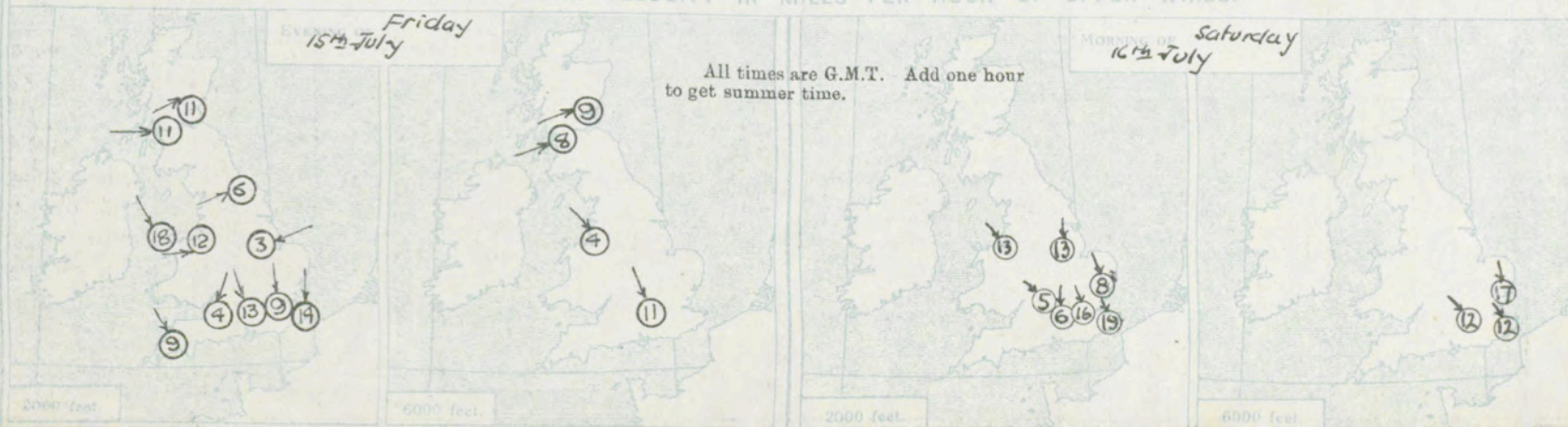
Directions are given in degrees, velocities in m.p.h.

Speeds of high cloud are computed for an average height of 5 miles for cirro type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.		
Time.	12 ⁿ 15 ^m	13 ⁿ 15 ^m	13 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m			11 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	12 ⁿ 15 ^m	10 ⁿ 15 ^m	12 ⁿ 15 ^m		Time.		
Type	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. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet		
Surf.	305 5	170 2	355 2	330 7	345 9	335 6			315 5	20 2	225 10	330 5	CALM	15 2	130 2	215 2	145 6	225 5		Surf.		
1000	335 7	360 3	360 3	340 6	330 7	325 11			350 12	35 4	240 7	345 8	285 3	65 5	200 10	210 3	165 3	230 10		1000		
2000				345 5		320 7			360 13		330 5	205 3	200 3	205 3	225 7	215 2		225 5		2000		
3000											100 7	330 6						235 6		3000		
4000											25 10	10 4								4000		
5000											10 11	CALM								5000		
6000											335 7	330 4								6000		
8000												7200'								8000		
10000												315 2								10000		
12000											Ci 13 ⁿ		ACu 16 ⁿ	ACu 16 ⁿ	Ci 16 ⁿ	ACu 16 ⁿ		Ci 13 ⁿ		12000		
Neph.											50 30		200 3	210 15	270 15	280 18		CALM		Neph.		
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	South Farnboro	Place.	
Time.	17 ⁿ 15 ^m	16 ⁿ 15 ^m	17 ⁿ 15 ^m	17 ⁿ 15 ^m	24 ⁿ 15 ^m	17 ⁿ 15 ^m			17 ⁿ 15 ^m	24 ⁿ 15 ^m	17 ⁿ 15 ^m	16 ⁿ 15 ^m	17 ⁿ 15 ^m	17 ⁿ 15 ^m	17 ⁿ 15 ^m	17 ⁿ 15 ^m	17 ⁿ 15 ^m				18 ⁿ 15 ^m	Time.
Type						6															Type	
Feet																					Feet	
Surf.	310 5	175 4	40 3	330 3	245 2	340 10			80 2	120 1	345 14	CALM	315 13	30 3	130 10	230 4				175 1	Surf.	
1000	300 5	5 8	25 3	350 7	300 7	345 13			65 3	180 4	345 15	320 7	300 14	65 5	180 5	230 12				340 3	1000	
2000	355 3		20 4	335 3	315 7	360 14			65 3	205 8	340 9	310 18	270 12	260 6	245 11	275 11				340 13	2000	
3000				335 14	310 10				320 7	315 11	335 15	305 13	260 10		255 3	250 6				350 13	3000	
4000												295 11	275 5		260 3	245 10				345 15	4000	
5000												285 8	350 5		260 3	255 3				340 14	5000	
6000													340 4		255 3	250 8				345 11	6000	
8000													7200'		225 13	235 11					8000	
10000													335 3			210 13					10000	
12000									Ci 18 ⁿ				ACu 18 ⁿ		Ci 18 ⁿ	ACu 18 ⁿ					12000	
Neph.									110 20				280 12		260 10	250 21					Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Aldergrove	Valentia	Place.		
Time.	6 ⁿ 16 ^m	6 ⁿ 16 ^m				6 ⁿ 16 ^m			6 ⁿ 16 ^m	6 ⁿ 16 ^m	5 ⁿ 16 ^m		6 ⁿ 16 ^m						6 ⁿ 16 ^m		Time.	
Type						6															Type	
Feet																					Feet	
Surf.	360 2	Calm				340 10			330 6	Calm	315 3	290 6	Calm						Calm		Surf.	
1000	330 7	360 6				335 13			330 13	Calm	335 10	305 10	295 8						360 6		1000	
2000	350 16	5 6				340 19			340 8	360 13	320 5		320 13								2000	
3000	365 10	5 7				345 19			360 11	20 10	345 5		330 11								3000	
4000	355 11	335 5				345 18			360 16	30 7			340 7								4000	
5000	350 13	315 13				330 13			360 14	15 8			340 8								5000	
6000		325 12				330 12			355 17												6000	
8000																					8000	
10000																					10000	
12000													5 ⁿ ACu								12000	
Neph.													170 15								Neph.	

UPPER AIR TEMPERATURES AND HUMIDITIES.

[illegible]

UPPER WINDS ABROAD.

UPPER WINDS AEROD.

Place.	Thessie		Palermo		Taranto		Frankfurt		Chateau-roux		Malta	
Time.	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	13 ^h 15 ^h	17 ^h 15 ^h	
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,840	110	13	-	-	270	7	360	9	330	7	3000	
3,280	-	-	210	12	-	-	360	5	330	14	280	11
4,820	-	-	-	-	-	-	-	-	340	11	7000'	
6,560	260	26	300	29	340	15	360	5			310	25
8,840	300	10	230	43	280	42	326	9			10000'	
12,120							180	9			310	49
16,400							-	-				
19,680							510	16				

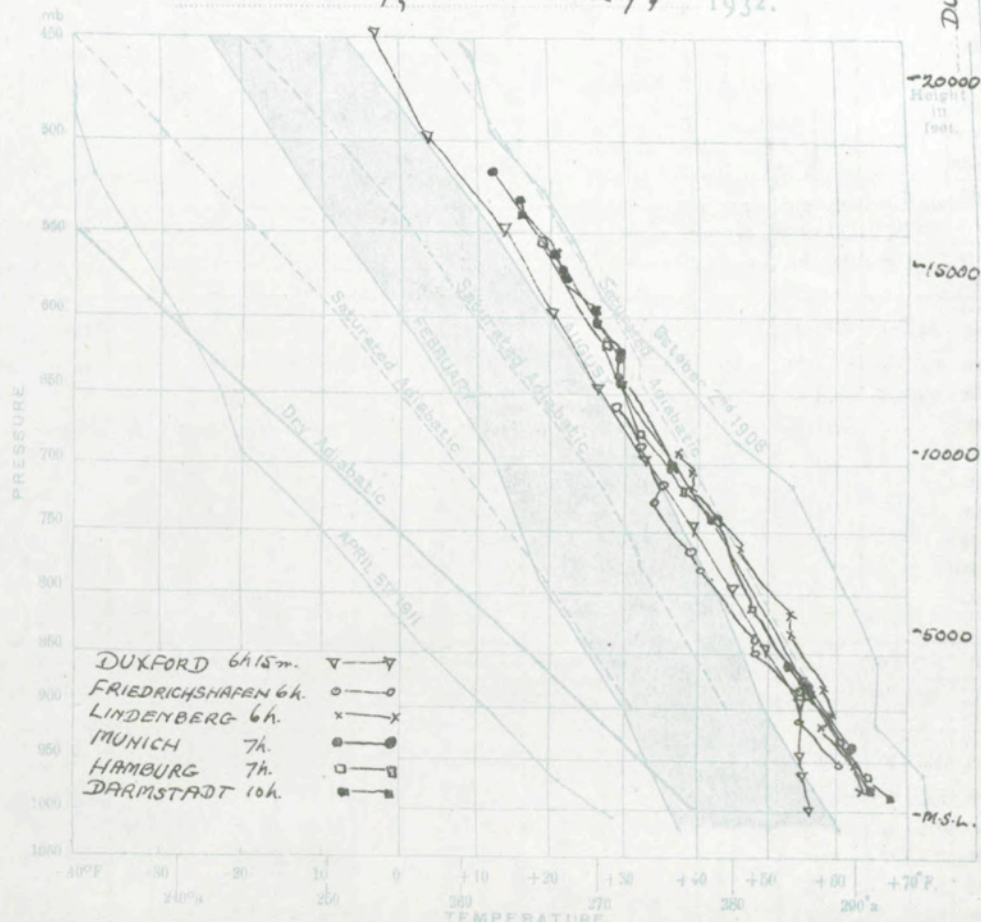
Place.	Pohiers		Naples		Mangona		Istres		Heising-fors		Malta	
Time.	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	18 ^h 15 ^h	
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,840	10	11	-	-	190	14	320	9	330	5	3000'	
3,280	350	9	150	11	310	20	310	10	230	11	120	8
4,820	350	7	-	-	230	27	350	11	-	-	7000'	
6,560	350	9	200	13			330	16	240	11	230	28
8,840							320	15			10000'	
12,120											240	24
16,400												
19,680												

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

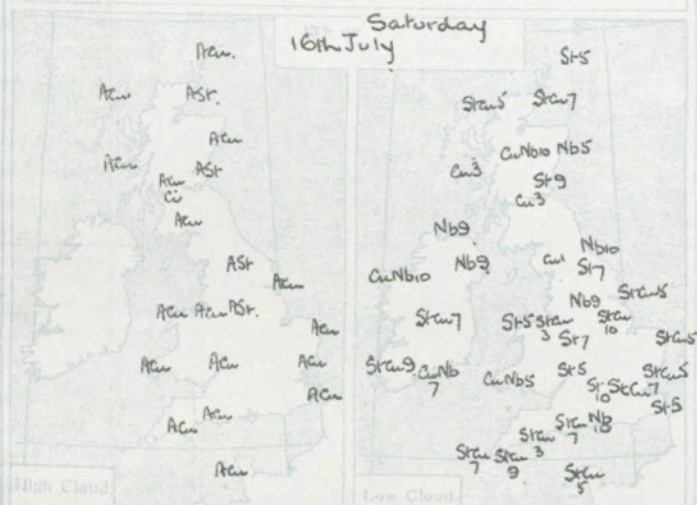
G. C. SIMPSON, C.R., D.Sc., F.R.S.,
 Director,

U.S.S. A, 857

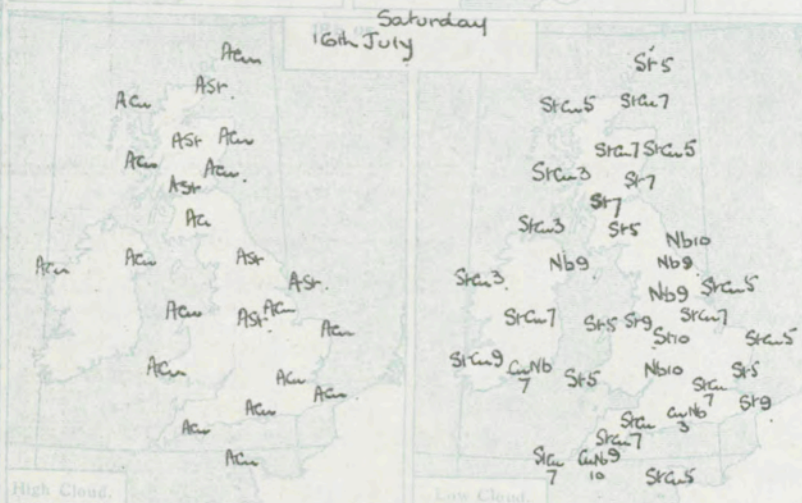
SATURDAY, 16TH JULY, 1932.



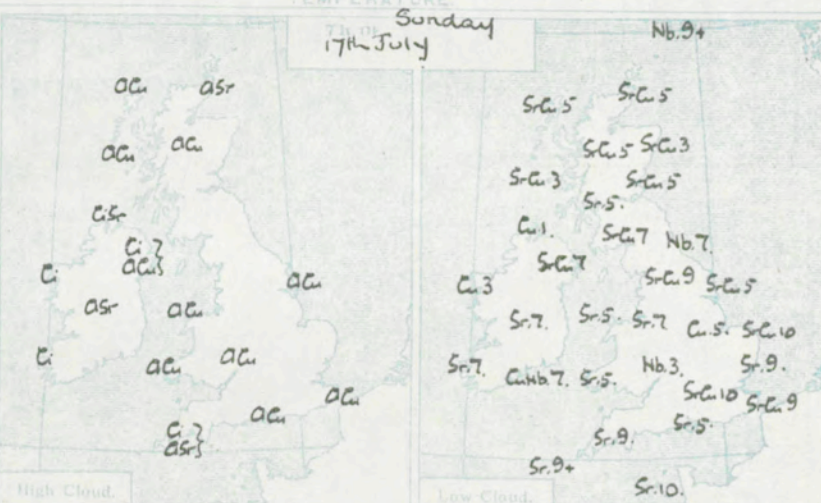
Saturday
16th July



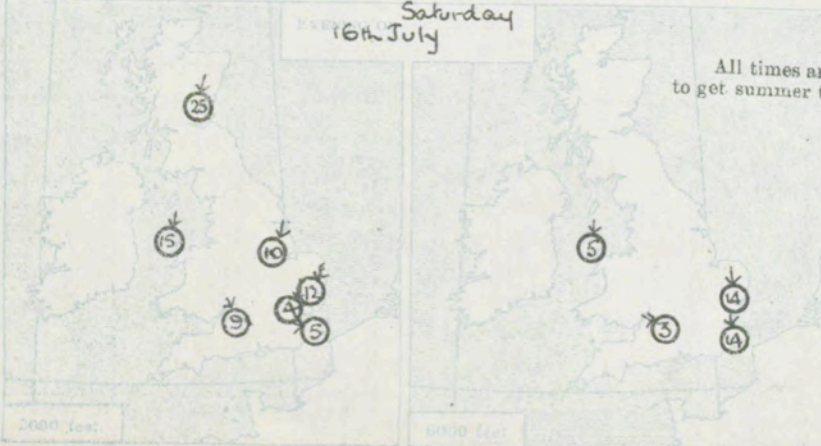
Saturday
16th July



Sunday
17th July



All times are G.M.T. Add one hour to get summer time.



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

[illegible][illegible][illegible]

UPPER AIR TEMPERATURES AND HUMIDITIES

[illegible]

UPPER WINDS ABROAD

Place	Braunau	Frankfur	Benghazi	Palermo	Poitiers	Malta
Time.	13h 16m	10h 16h	13h 16h	13h 16h	18h 16h	17h 16h
Feet.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	- -	180 2	20 23	- -	270 9	<u>1000</u> 12
3,280	320 11	33 7	10 11	210 11	290 10	<u>320</u> 12
4,920	320 16	- -		190 7	290 14	<u>280</u> 12
6,560	330 16	147 7			280 14	<u>3000</u> 13
9,840	340 14	236 7			280 9	<u>230</u> 13
13,120	340 8	214 11			280 11	
16,400		203 16				
19,680		203 16				
Place	Strasbourg	Lyon				Malta
Time.	16h 16h	17h 16h				6h 17h
1,840	290 9	320 9				<u>1000</u> 12
3,280	300 14	340 16				<u>340</u> 6
4,920	270 11	340 18				<u>3000</u> 13
6,560	260 17	320 20				<u>240</u> 6
9,840						
13,120						
16,400						
19,680						

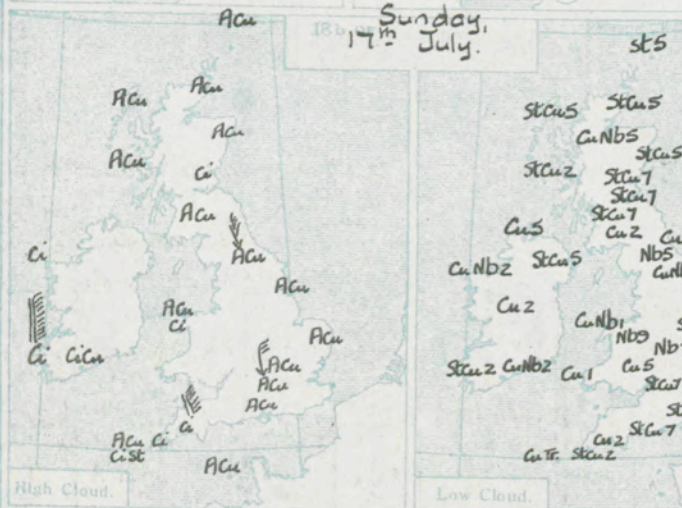
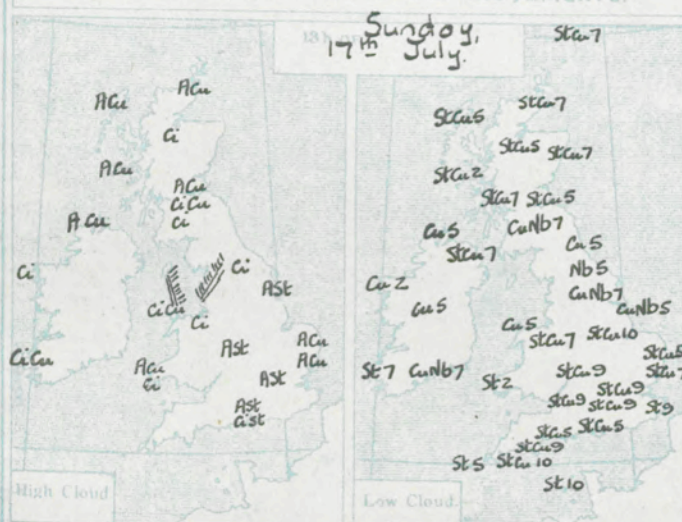
UPPER AIR SECTION

Monday, 18th July

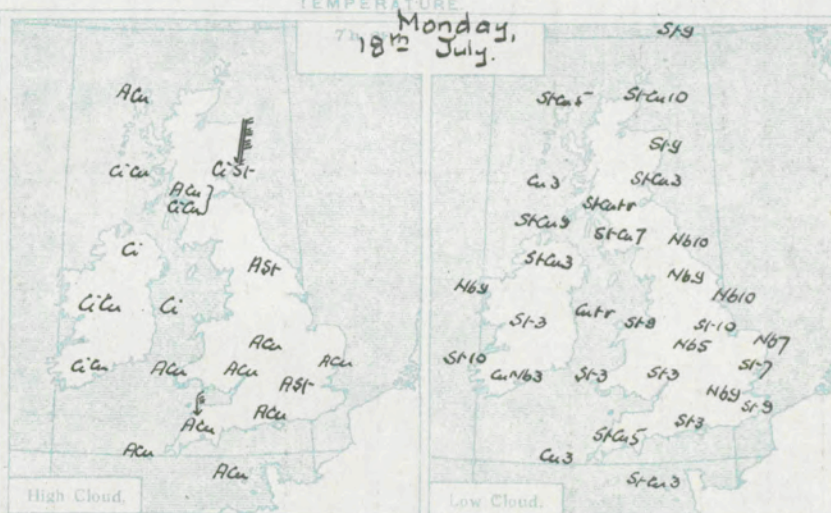
25806.

U.A.S. 4858.

In Tables

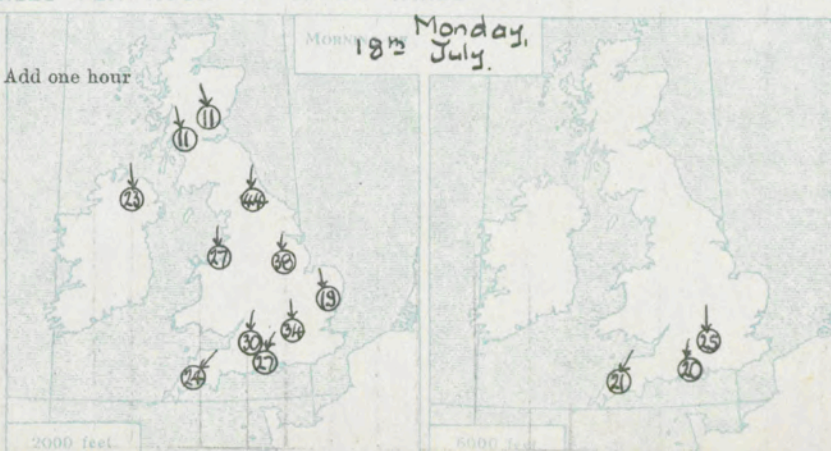


Sunday, 17th July



All times are G.M.T.
to get summer time.

Add one hour



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																						
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.		
Time.		12h 17th		12h 17th		12h 17th				11h 17th		12h 17th	12h 17th	12h 17th	12h 17th	12h 17th		12h 17th		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.	Feet	
Surf.																					Surf.	
1000		345 10		30 14		355 17				340 13		5 19	360 15	350 17	355 10	20 8		345 16			1000	
2000		345 7		25 22		360 21				350 12		10 26	360 21	350 15	340 13	340 7		345 31			2000	
3000		355 13		15 18		360 23						10 28	345 11	355 23	335 17	320 11		340 26			3000	
4000		5 19		10 25		360 26						5 24	360 20	355 25		340 10		340 25			4000	
5000		5 26		20 22								5 23	10 24	360 27		20 13					5000	
6000		5 25										5 28		360 30							6000	
8000												5 40									8000	
10000																					10000	
12000													Ci 12h	Ci 12h							12000	
Neph.													330 75	20 95							Neph.	
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Calshot	Sealand	Plymouth		Place.		
Time.		18h 17th	17h 17th								16h 17th					9h 18th	9h 18th	10h 18th		Time.		
Type																				Type		
Feet																				Feet		
Surf.		25 10	350 10								360 18		340 9			10 23	10 14	45 8		Surf.		
1000		20 15	15 17								15 21		350 17			360 17	10 18	15 15		1000		
2000		360 20	10 17								15 18		355 15			15 25	5 19	15 23		2000		
3000		355 24	5 20								15 13		355 19			20 24	5 23	25 26		3000		
4000		355 33	10 27								5 13						5 18			4000		
5000		360 26	5 25								360 17									5000		
6000			355 27																	6000		
8000											16h Ci		16h ACu							8000		
10000											360 60		330 48						Valentia	10000		
12000		ACu 18h									Ci 18h		ACu 18h	16h ACu				Ci 18h		12000		
Neph.		360 33									340 60		350 36		10 36			360 100		Neph.		
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Calshot	Felix-stowe	Felix-stowe	Cranwell	Plymouth	Plymouth	Holyhead	Sealand	Sealand	Cranwell	Leuchars	Catterick	Alder-grove	Renfrew	Place.		
Time.	6h 18th	6h 18th	7h 18th	6h 18th	5h 18th	6h 18th	6h 18th	5h 18th	4h 18th	6h 18th	4h 18th	5h 18th	5h 18th	6h 18th	6h 18th	7h 18th	6h 18th	6h 18th	7h 18th	Time.		
Type.			b																	Type.		
Feet																				Feet		
Surf.	310 10	305 2	250 14	330 10	335 17	245 18	305 15	310 14	320 17	360 14	5 10	360 13	350 10	350 10	315 15	340 6	335 16	Calm	270 2	Surf.		
1000	340 17	350 25	350 23	350 20	5 30	360 21	330 21	335 25	335 36	35 24	25 23	360 21	350 29	350 22	330 12	340 12	350 26	345 15	320 13	1000		
2000		360 34		5 30	10 31	15 27		345 19	360 38	35 24	30 25	5 17	353 33	358 27		335 11	5 44	355 23	340 11	2000		
3000		5 31		30 33	5 27	10 24		355 17		30 22	25 23	10 15	360 33	10 25		350 14				3000		
4000		360 28			350 25	5 27				35 19	25 25	10 18	360 27	20 24						4000		
5000		355 29			350 23	10 22				25 19	25 27	5 28		15 27						5000		
6000		355 25				5 20				30 21	25 21	360 33								6000		
8000		10 24								35 24	20 14	15 41				10h Ci				8000		
10000		15 32								(7000')	(7000')	25 43				10 70				10000		
12000		75 15		5h ACu						7h ACu	10h Ci				5h Ci	7h Ci				12000		
Neph.		5h ACu 360 87		30 36						360 45	40 75				10 75	10 80				Neph.		



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, TUESDAY, 19TH JULY, 1932.

No. B. 25,807.

U.A.S. H,859

DIAGRAM OF UPPER AIR TEMPERATURE.

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, 1905, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.

Movements are indicated thus:

— No speed given

— 0-5 m.p.h.

— 5-10

— 10-20

— 20-35 m.p.h.

— 35-45

— 45-55

— 55-65

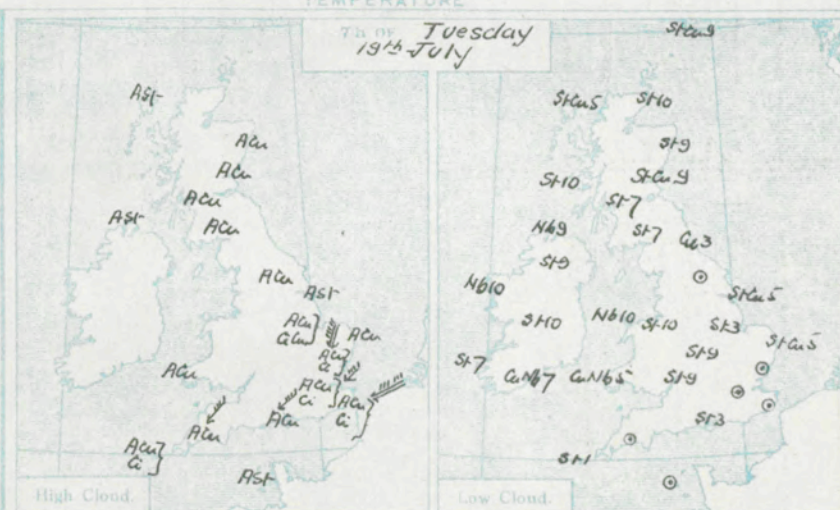
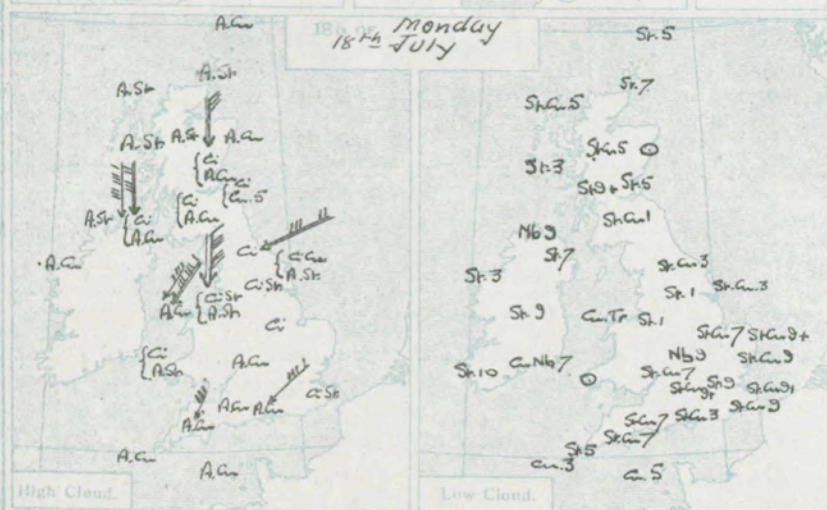
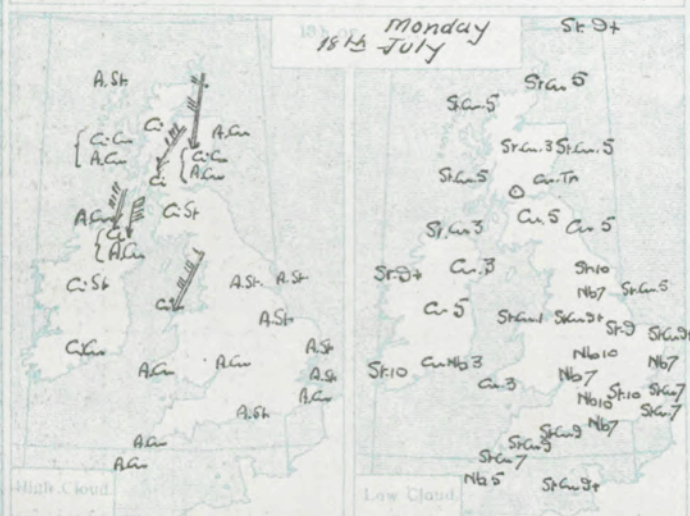
and so on

In Tables.

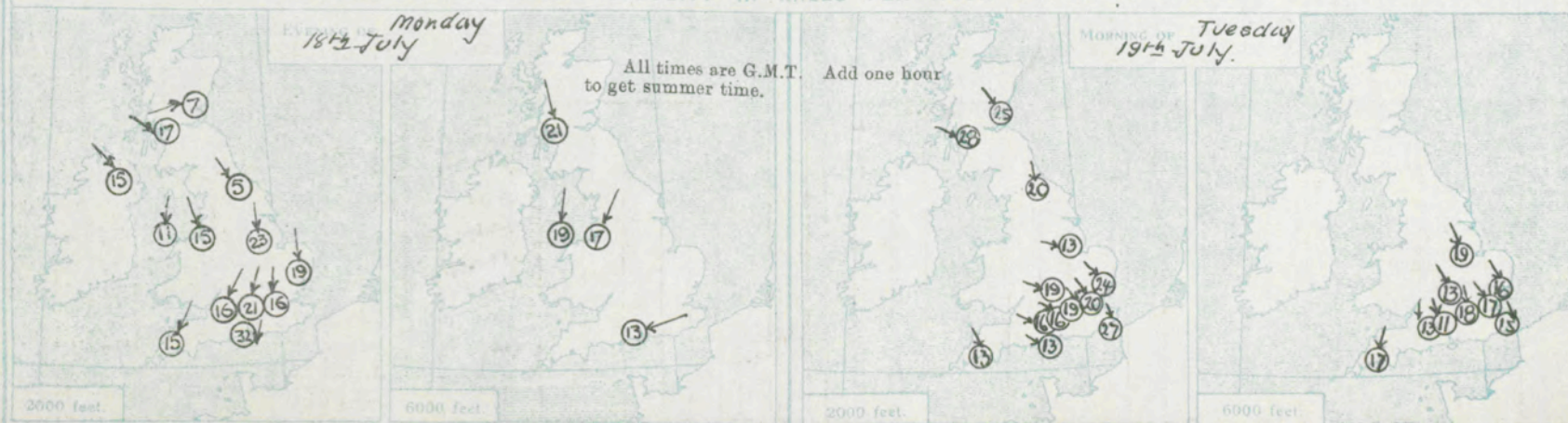
Directions are given in degrees, clockwise in m.p.h.

Speeds of high clouds are computed for an average height of 5 miles for cirrus type clouds (double line) and 3 miles for alto type clouds (single line)

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



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

Place	Croydon	Salshot	Worthy Down	Boscombe Down	Calshot	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Worthy Down	Alder-grove	Plymouth	Place		
Time	12 ^h 18 ^m	15 ^h 18 ^m	12 ^h 16 ^m	11 ^h 18 ^m	12 ^h 18 ^m	16 ^h 18 ^m	15 ^h 18 ^m	11 ^h 18 ^m	12 ^h 18 ^m	12 ^h 18 ^m	12 ^h 18 ^m	12 ^h 18 ^m	12 ^h 18 ^m	12 ^h 18 ^m	16 ^h 18 ^m	11 ^h 18 ^m	15 ^h 18 ^m	Time		
Type	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.	Feet		
Surf.	5 11	360 16	5 18	5 20	355 18	355 13	340 17	335 14	340 17	355 11	10 8	345 15	360 10	5 10	70 10	230 10	10 14	335 14	35 12	
1000	10 25	15 27	10 23	360 20	5 27	350 22	340 22	10 12	355 22	360 17	20 11	355 15	355 15	10 14	80 7	285 7	10 18	335 15	15 17	
2000		20 31		360 20	15 30	340 15	335 23	15 15	5 27	5 13	10 14	5 15	360 18	5 23	320 7	305 7	15 21	345 15	30 22	
3000		20 28				330 14					30 18	5 14	10 15	15 26	40 3	325 16		350 30	40 21	
4000											45 26	5 13			340 13	25 16		5 25	60 14	
5000											50 29	20 15			360 13	15 17		5 25	75 15	
6000												15 32			5 22	5 23		5 20	85 15	
8000												25 31			5 22	5 23				
10000												30 41			5 22	5 23				
12000												30 41			5 22	5 23				
Neph.												40 70			5 22	5 23				
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Calshot	Boscombe Down	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Sealand	Upper Heyford	Place
Time	17 ^h 18 ^m	16 ^h 18 ^m	17 ^h 18 ^m	15 ^h 18 ^m	17 ^h 18 ^m	23 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	15 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	15 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	17 ^h 18 ^m	Time
Type			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.	5 9	25 9	15 15	355 14	10 20	340 3	15 18	355 16	340 13	10 7	5 15	315 7	310 13	80 5	135 10	230 17	340 10	310 14	5 9	
1000	360 10	15 17	20 18	10 13	20 27	35 17	15 23	345 18	380 22	5 15	20 8	335 9	315 16	75 7	160 8	235 27	325 14	325 14	10 13	
2000	5 16	15 21	35 16	15 17	15 32	30 19	20 25	350 13	350 23	355 3	30 15	10 11	320 11	315 5	255 7	300 17	320 15	340 15	15 17	
3000		20 21			25 25	15 14	20 25	355 20	345 19		45 13	355 26	345 6	325 18	295 17	295 5	320 20	345 10		
4000		25 23			45 23	345 11	25 16		345 24		55 17	360 23			310 13	345 5	315 16	305 5		
5000					50 17	320 9		335 27				10 20				335 13		40 8		
6000					65 13	355 9						10 13				350 21		35 17	ACW 18 ^h	
8000						350 12						15 23				355 25	ACW 15 ^h	7000'	360 64	
10000						(7000')						20 23					350 63	10 21		
12000					ACW 18 ^h							30 36					350 63		Holyhead	
Neph.					50 33							30 36					350 63		40 75	Neph.
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Neph.	Alder-grove	Neph.	Place
Time	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	7 ^h 19 ^m	6 ^h 19 ^m	5 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	6 ^h 19 ^m	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.		285 1	Calan	250 4	285 4	320 10	30 12	305 9	250 7	275 6	320 1	280 6	280 10	270 5	270 10	265 7	Upper Heyford	240 5	South Farnboro	
1000		310 15	300 15	310 12	320 12	330 27	320 25	335 26	305 18	295 13	355 18	315 11	295 20	315 13	295 30	285 21	5 ^h 19 ^m	325 11	10 ^h ACW	
2000		315 19	305 16	295 16	305 13	340 27	320 20	315 24	285 13	295 19	340 13			360 20	320 25	305 28	360 55		10 33	
3000		285 12	315 15	310 19	325 13	350 29	310 18	345 19	290 12	295 17	300 11			360 17	325 29		Plymouth		Lymington	
4000		265 5	264 10	305 10	290 9	335 20	10 14	75 17	335 5	280 13	325 13		10 ^h 19 ^m	335 15	335 31		5 ^h 19 ^m		10 ^h ACW	
5000		305 11	320 14	15 10	330 8	335 6	355 17	340 13	305 15	315 11	30 11		surface	310 12	335 38		Cranwell		350 15	
6000		355 18	355 11	5 13		320 15	325 17	345 16	340 14	335 13	25 17		315 16				South Farnboro		9 ^h 15	
8000	10 ^h ACW	360 14	360 11	355 11		360 22	350 21		330 12	345 17	40 17		1000				South Farnboro		10 35	
10000		10 17	10 14	(7000')		325 7	350 20		74 11	360 25	5 17		305 27	6 ^h 19 ^m			Lymington		Felixstowe	
12000	7 ^h ACW	10 24	Kew	7 ^h ACW	7 ^h ACW	340 19	(7000')	7 ^h ACW	7 ^h ACW	360 25			10 ^h 19 ^m	10 ^h 26			Croydon		10 40	
Neph.	350 33	10 22	7 ^h 19 ^m	60 30	30 24	15 17	(7000')	7 ^h ACW	20 50	350 36			10 ^h 19 ^m	80 50			5 ^h 19 ^m			

UPPER AIR TEMPERATURES AND HUMIDITIES

Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity.	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity.	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity.
			Dry.	Wet.					Dry.	Wet.					Dry.	Wet.	
DARKESTADT 07h. 18.7.32	mb.	Feet. M.S.L.	°F.	°F.	%	LINDENBURG. 06h. 18.7.32	mb.	Feet. M.S.L.	°F.	°F.	%	LINDENBURG. 07h. 18.7.32	mb.	Feet. M.S.L.	°F.	°F.	%
931	931	448	58	58	79	932	932	348	63	63	85	933	933	348	63	63	85
935	935	4320	46	46	82	938	938	1310	52	52	98	939	939	1310	52	52	98
827	827	5570	44	44	80	924	924	2300	52	52	98	917	917	2300	52	52	98
784	784	6300	39	39	80	915	915	2620	52	52	96	831	831	5240	49	49	95
772	772	7230	40	40	77	905	905	2950	52	52	90	817	817	5570	46	46	94
684	684	10500	23	23	85	890	890	3380	52	52	73	756	756	7880	43	43	62
647	647	12130	28	28	82	843	843	4920	48	48	82	673	673	10830	31	31	48
608	608	13450	20	20	74	826	826	5570	48	48	86	686	686	14830	30	30	54
583	583	14760	17	17	70	795	795	6360	43	43	98	541	541	16400	10	10	55
578	578	14760	17	17	68	773	773	7230	39	39	98	524	524	17390	9	9	50
539	539	16730	10	10	66	786	786	7880	39	39	96						
534	534	16730	10	10	66	723	723	8850	32	32	90						
523	523	17020	10	10	67	706	706	9530	34	34	75						
						680	680	10500	31	31							

UPPER WINDS ABROAD.

Place.	Leros	Messina	Barcelona	Algiers	Essen	Malta
Time.	13 ^h 18 th	13 ^h 16 th	13 ^h 18 th	10 ^h 18 th	11 ^h 18 th	1700
Feet.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	230 31	- -	300 2	240 3	270 9	1000'
3,280	230 31	- -	250 13	240 23	258 13	130 17
4,920	230 14	- -	170 3	250 27	- -	3000'
6,560	230 30	190 23	250 7	260 18	270 18	150 38
9,840		230 33			236 7	5000'
13,120					225 7	170 26
16,400						
19,680						
Place.	Vienne	Frankfurt	Prague	Linden- burg	Klagen- furt	Malta
Time.	11 ^h 18 th	13 ^h 15 th	6 ^h 19 th	7 ^h 19 th	6 ^h 19 th	6 ^h 19 th
1,840						3000'
3,280	338 7	270 11	320 14	- -	- -	190 46
4,920	253 5	281 9	320 14	281 29	270 9	5000'
6,560	- -	- -	- -	- -	- -	210 22
9,840	270 11	304 7	300 24	281 36	259 16	
13,120				281 27	293 9	
16,400				281 27	270 13	
19,680					236 7	

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

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



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, WEDNESDAY, JULY 20th 1932.No. B. 25,808
U.A.S. 4,860

DIAGRAM OF UPPER AIR TEMPERATURE

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 25th, 1911, and October 2nd, 1905, 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 special conditions, see Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus—

— No speed given.

— 0-5 m.p.h.

— 5-15 "

— 15-25 "

— 25-35 m.p.h.

— 35-45 "

— 45-55 "

— 55-65 "

— 65-75 "

— 75-85 "

— 85-95 "

— 95-105 "

— 105-115 "

— 115-125 "

— 125-135 "

— 135-145 "

— 145-155 "

— 155-165 "

— 165-175 "

— 175-185 "

— 185-195 "

— 195-205 "

— 205-215 "

— 215-225 "

— 225-235 "

— 235-245 "

— 245-255 "

— 255-265 "

— 265-275 "

— 275-285 "

— 285-295 "

— 295-305 "

— 305-315 "

— 315-325 "

— 325-335 "

— 335-345 "

— 345-355 "

— 355-365 "

— 365-375 "

— 375-385 "

— 385-395 "

— 395-405 "

— 405-415 "

— 415-425 "

— 425-435 "

— 435-445 "

— 445-455 "

— 455-465 "

— 465-475 "

— 475-485 "

— 485-495 "

— 495-505 "

— 505-515 "

— 515-525 "

— 525-535 "

— 535-545 "

— 545-555 "

— 555-565 "

— 565-575 "

— 575-585 "

— 585-595 "

— 595-605 "

— 605-615 "

— 615-625 "

— 625-635 "

— 635-645 "

— 645-655 "

— 655-665 "

— 665-675 "

— 675-685 "

— 685-695 "

— 695-705 "

— 705-715 "

— 715-725 "

— 725-735 "

— 735-745 "

— 745-755 "

— 755-765 "

— 765-775 "

— 775-785 "

— 785-795 "

— 795-805 "

— 805-815 "

— 815-825 "

— 825-835 "

— 835-845 "

— 845-855 "

— 855-865 "

— 865-875 "

— 875-885 "

— 885-895 "

— 895-905 "

— 905-915 "

— 915-925 "

— 925-935 "

— 935-945 "

— 945-955 "

— 955-965 "

— 965-975 "

— 975-985 "

— 985-995 "

— 995-1005 "

— 1005-1015 "

— 1015-1025 "

— 1025-1035 "

— 1035-1045 "

— 1045-1055 "

— 1055-1065 "

— 1065-1075 "

— 1075-1085 "

— 1085-1095 "

— 1095-1105 "

— 1105-1115 "

— 1115-1125 "

— 1125-1135 "

— 1135-1145 "

— 1145-1155 "

— 1155-1165 "

— 1165-1175 "

— 1175-1185 "

— 1185-1195 "

— 1195-1205 "

— 1205-1215 "

— 1215-1225 "

— 1225-1235 "

— 1235-1245 "

— 1245-1255 "

— 1255-1265 "

— 1265-1275 "

— 1275-1285 "

— 1285-1295 "

— 1295-1305 "

— 1305-1315 "

— 1315-1325 "

— 1325-1335 "

— 1335-1345 "

— 1345-1355 "

— 1355-1365 "

— 1365-1375 "

— 1375-1385 "

— 1385-1395 "

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— 1405-1415 "

— 1415-1425 "

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— 1505-1515 "

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— 1555-1565 "

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— 1625-1635 "

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— 1645-1655 "

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— 1805-1815 "

— 1815-1825 "

— 1825-1835 "

— 1835-1845 "

— 1845-1855 "

— 1855-1865 "

— 1865-1875 "

— 1875-1885 "

— 1885-1895 "

— 1895-1905 "

— 1905-1915 "

— 1915-1925 "

— 1925-1935 "

— 1935-1945 "

— 1945-1955 "

— 1955-1965 "

— 1965-1975 "

— 1975-1985 "

— 1985-1995 "

— 1995-2005 "

— 2005-2015 "

— 2015-2025 "

— 2025-2035 "

— 2035-2045 "

— 2045-2055 "

— 2055-2065 "

— 2065-2075 "

— 2075-2085 "

— 2085-2095 "

— 2095-2105 "

— 2105-2115 "

— 2115-2125 "

— 2125-2135 "

— 2135-2145 "

— 2145-2155 "

— 2155-2165 "

— 2165-2175 "

— 2175-2185 "

— 2185-2195 "

— 2195-2205 "

— 2205-2215 "

— 2215-2225 "

— 2225-2235 "

— 2235-2245 "

— 2245-2255 "

— 2255-2265 "

— 2265-2275 "

— 2275-2285 "

— 2285-2295 "

— 2295-2305 "

— 2305-2315 "

— 2315-2325 "

— 2325-2335 "

— 2335-2345 "

— 2345-2355 "

— 2355-2365 "

— 2365-2375 "

— 2375-2385 "

— 2385-2395 "

— 2395-2405 "

— 2405-2415 "

— 2415-2425 "

— 2425-2435 "

— 2435-2445 "

— 2445-2455 "

— 2455-2465 "

— 2465-2475 "

— 2475-2485 "

— 2485-2495 "

— 2495-2505 "

— 2505-2515 "

— 2515-2525 "

— 2525-2535 "

— 2535-2545 "

— 2545-2555 "

— 2555-2565 "

— 2565-2575 "

— 2575-2585 "

— 2585-2595 "

— 2595-2605 "

— 2605-2615 "

— 2615-2625 "

— 2625-2635 "

— 2635-2645 "

— 2645-2655 "

— 2655-2665 "

— 2665-2675 "

— 2675-2685 "

— 2685-2695 "

— 2695-2705 "

— 2705-2715 "

— 2715-2725 "

— 2725-2735 "

— 2735-2745 "

— 2745-2755 "

— 2755-2765 "

— 2765-2775 "

— 2775-2785 "

— 2785-2795 "

— 2795-2805 "

DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																									
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	LYMPNE	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Mount Batten	Alder-grove	Croydon	Place					
Time	12 ^h 15 ^m	13 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	10 ^h 15 ^m	11 ^h 15 ^m	11 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	13 ^h 15 ^m	12 ^h 15 ^m	12 ^h 15 ^m	09 ^h 15 ^m	11 ^h 15 ^m	10 ^h 15 ^m	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.	275 19	360 5	280 20	335 5	305 10	265 5	295 5	265 6	270 8	310 13	185 8	290 10	310 15	320 7	200 10	285 10	330 8	280 7	290 10	Surf.					
1000	275 11	335 9	295 15	335 13	285 7	270 11	320 4	275 11	270 12	300 11	325 8	285 9	305 10	300 11	300 24	280 14	360 9	310 15	285 9	1000					
2000	300 21	310 13	305 13	325 15	285 12	270 13	320 6	280 14	275 11		330 13			315 11	295 27	230 14	355 14	310 19	280 11	2000					
3000		310 10	310 9		285 12	260 10	330 5	305 10	305 19		350 15			335 12	295 28		355 19	305 22	285 12	3000					
4000		325 11	315 11			280 8	295 7	290 8			350 16			330 15	310 25		30 11	290 22	295 13	4000					
5000		335 13	330 12			280 8	325 13	320 11						335 19	AC 16 ^h		15 14	305 18	320 11	5000					
6000		335 7	345 12			5 11	5 15	295 19						355 27	310 24		10 21	315 10	330 15	6000					
8000	Cal 16 ^h					335 13	360 9	360 14							310 16 ^h		25 16	335 5	350 13	8000					
10000	AC 20					5 11	10 14	360 15							310 30		35 21	335 5	350 13	10000					
12000	AC 13 ^h	AC 13 ^h	AC 10 ^h	AC 10 ^h		30 15	360 10	360 14						AC 13 ^h	AC 16 ^h		35 21	335 5	350 13	12000					
Neph.	330 15	10 15	360 14	60 21		30 15	360 10	360 14						AC 13 ^h	AC 16 ^h			335 5	350 13	Neph.					
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Calshot	Felix-stowe	Place					
Time	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	16 ^h 15 ^m	16 ^h 15 ^m	17 ^h 15 ^m	16 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	17 ^h 15 ^m	16 ^h 15 ^m	10 ^h 15 ^m	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.	270 12	290 4	315 2	305 10	310 11	213 12	315 10	195 5	290 8	320 10	330 10	225 7	315 17	260 8	260 10	270 8	245 10	315 12	310 7	Surf.					
1000	295 11	300 8	300 8	305 10	315 10	235 17	300 10	225 6	300 17	320 14	330 13	285 15	310 22	305 12	285 20	265 21	270 13	315 12	295 11	1000					
2000	295 11	335 13	325 10	315 11	320 9	220 13	290 9	305 9	30 17	310 17	350 7	285 10	320 24	325 14	340 16	275 24	260 16	330 10	305 15	2000					
3000	295 12	345 13	320 15	330 15		300 11	300 9	295 10	315 15	325 11	360 10	265 13	350 23	330 15	285 21			335 9	320 13	3000					
4000						300 15	310 9	295 10				300 13	350 19		295 28			330 7	315 9	4000					
5000						320 15	315 12	340 12				310 13	345 17		300 35			335 15	315 10	5000					
6000						315 13	315 7	325 11				325 11	340 17		305 17			355 9	325 12	6000					
8000						320 18	360 15	320 9				325 14	345 17						360 16	8000					
10000						330 18	360 15	320 9											5 17	10000					
12000	Cal 18 ^h	Cal 16 ^h			Cal 16 ^h	Cal 16 ^h	355 13													12000					
Neph.	320 10	340 24			30 34	20 15	355 16								310 50					Neph.					
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Worthy Down	Sealand	Catterick	Leuchars	Renfrew	Calshot	Alder-grove	Upper Heyford	Place					
Time	6 ^h 20 ^m	6 ^h 20 ^m	7 ^h 20 ^m	6 ^h 20 ^m	4 ^h 15 ^m	6 ^h 20 ^m	6 ^h 20 ^m	6 ^h 20 ^m	1 ^h 20 ^m	7 ^h 20 ^m	6 ^h 20 ^m	4 ^h 15 ^m	6 ^h 20 ^m	6 ^h 20 ^m	6 ^h 20 ^m	6 ^h 20 ^m	6 ^h 20 ^m	6 ^h 20 ^m	1 ^h 20 ^m	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 5	Cal 11	275 1	250 4	260 7	325 5	285 10	280 4	250 7	Cal 11	330 8	290 2	Cal 11	180 5	295 10	260 7	240 5	245 4	270 4	Surf.					
1000	310 9	335 11	345 11	335 7	330 13	285 9	285 15	280 9	315 22	310 7	335 13	325 13	285 13	245 13	280 19	290 17	315 6	280 9	310 13	1000					
2000		345 10	340 10	305 6	330 9	255 13	255 10	225 13	300 15	325 10			340 14	260 13	285 25	295 22	355 11	315 17	15 13	2000					
3000		305 1	320 6	330 10	330 9	255 8	275 4	275 9	355 10	300 5			330 9		335 19	290 26	320 15	295 21		3000					
4000		340 2	320 3	315 4	350 12	275 5	285 6	280 9	350 12	285 7			325 6			275 9	350 9	290 24		4000					
5000		5 2	350 5	270 5		345 2	320 7	295 9	340 14	260 6			45 8							5000					
6000		330 9	20 10	245 5		80 7	295 7	290 6		280 9			35 8							6000					
8000		30 11		260 7		60 12														8000					
10000	South Farnboro	350 8				350 7			10 ^h AC 175 7											10000					
12000	5 ^h AC	330 9				360 12			250 24	295 9										12000					
Neph.	20 27	340 21			60 36	355 13			230 36											Neph.					

UPPER AIR TEMPERATURES AND HUMIDITIES.										UPPER WINDS ABROAD.																						
Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity	Place.	Innsbruck	Salzburg	Graz	Bremen	Fürth	Malta														
			Dry.	Wet.					Dry.	Wet.		Time.	11 ^h 15'	12 ^h 15'	03 ^h 15'	12 ^h 15'	12 ^h 15'	16 ^h 15'														
	mb.	Feet.	°F.	°F.	%		mb.	Feet.	°F.	°F.	%		Dir.	Vel.	Dir.	Vel.	Dir.	Vel.														
DUXFORD 0615	1022	M.S.L.	—	—	—	FRIEDRICHSHAFEN 0615	1022	M.S.L.	—	—	—	DUXFORD 1215	1021	M.S.L.	—	—	—	—														
	1018	100	43	48	93		970	1312	59	—	—		—	DUXFORD 0615	1017	100	66	57	53													
	980	1100	32	47	66		951	1370	56	—	—		—		DUXFORD 1215	981	1130	50	53	68												
	950	1370	51	44	53		941	2300	56	—	—		—			DUXFORD 0615	950	2030	55	50	73											
	900	3420	45	41	73		918	2350	53	—	—		—				DUXFORD 1215	900	3500	45	45	77										
	850	4330	44	—	—		881	3610	51	—	—		—					DUXFORD 0615	850	5060	47	43	75									
	800	6600	41	—	—		875	3740	52	—	—		—						DUXFORD 1215	800	6700	44	41	83								
	750	8320	33	31	45		830	5570	45	—	—		—							DUXFORD 0615	750	8430	30	37	86							
	700	10160	35	32	81		793	8200	36	—	—		—								DUXFORD 1215	700	10280	35	30	63						
	650	12100	28	28	100		735	8800	36	—	—		—									DUXFORD 0615	650	12220	30	20	63					
	600	14130	24	24	100		706	9440	32	—	—		—										DUXFORD 1215	600	14320	25	21	62				
	550	16420	16	16	—		667	11440	23	—	—		—											DUXFORD 0615	550	16570	18	17	—			
	500	18860	9	9	—		607	13600	20	—	—		—												DUXFORD 1215	500	19010	10	10	—		
	450	21520	1	1	—					—	—		—													DUXFORD 0615						
	Haze tops 700' and 3000' Clouds. Low cloud 1/2 in North-West. A.C. 3.0, 5.40-5.30 mb. A.S. 3.10, 4.60 mb. to top not reached. C. 3.0 not reached. Inversion Screen 4300' 1000' 52.5°												Haze tops 800 mb. Cloud. Sky to 3000 mb. Layers 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000																			
																											Place. Essen Berlin Furth Karls- ronne Linden- berg Malta					
																											Time. 15 ^h 15' 15 ^h 15' 6 ^h 20 ^h 6 ^h 20 ^h 6 ^h 20 ^h 6 ^h 20 ^h					
															1,840 270 5 293 23 293 7 - - - 3000'																	
															3,280 28 13 281 23 293 7 310 11 300 13 7000'																	
															4,920 - - - - 310 13 310 16 230 29																	
															6,580 - - - - 304 25 293 16 310 18 310 20 10000'																	
															9,840 293 25 293 25 310 7 310 22 260 25'																	
															13,120 - - - - 293 20 330 31																	
															16,400 270 22 293 16 320 43 13000'																	
															19,880 293 16 310 43 270 34																	
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AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, THURSDAY, 21ST JULY, 1932.

No. B. 25,809.

U.A.S. 4,861.

DIAGRAM OF UPPER AIR TEMPERATURE.

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 24th, 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 Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

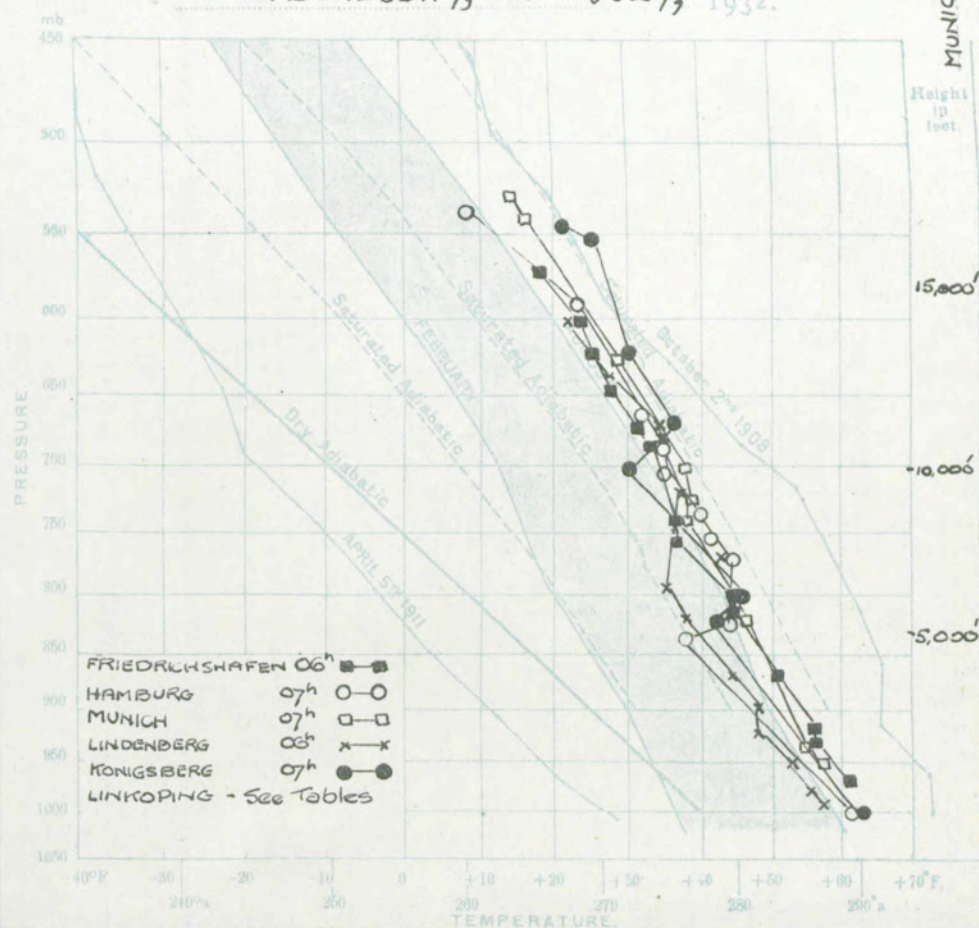
— No speed given. — 20-35 m.p.h. — 36-45 — 46-55 — 56-65 — and so on.

In Tables.

Directions are given in degrees, velocities in m.p.h.

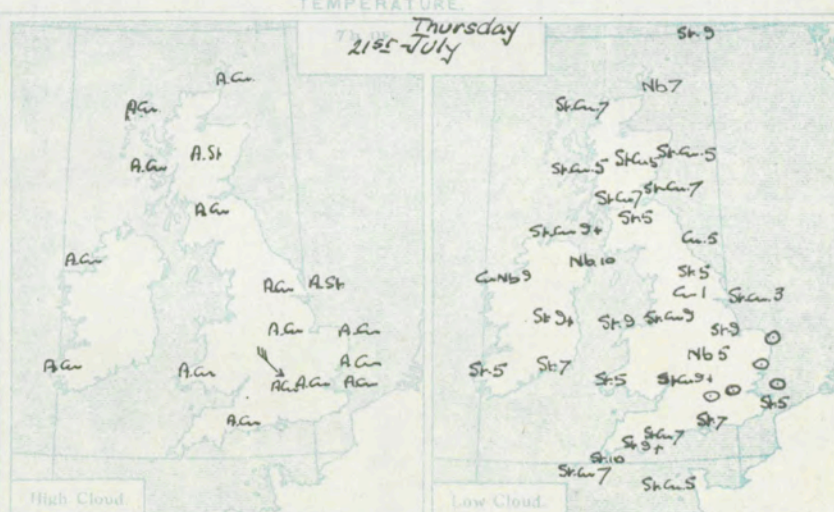
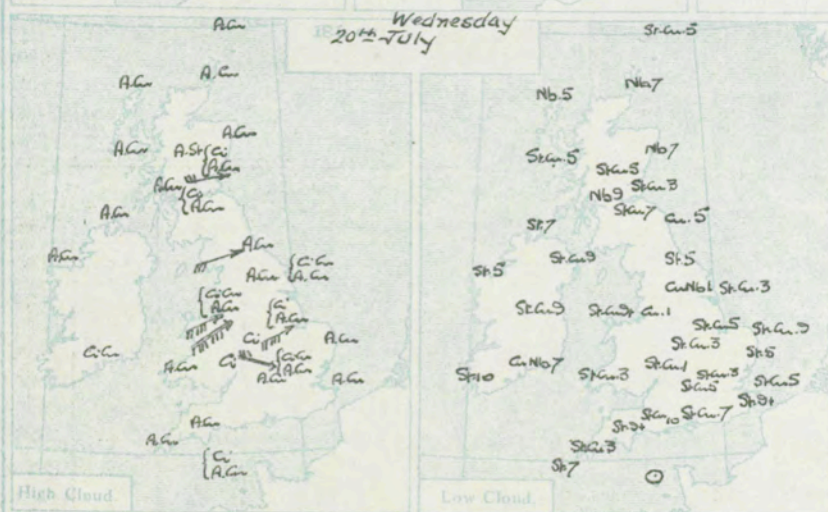
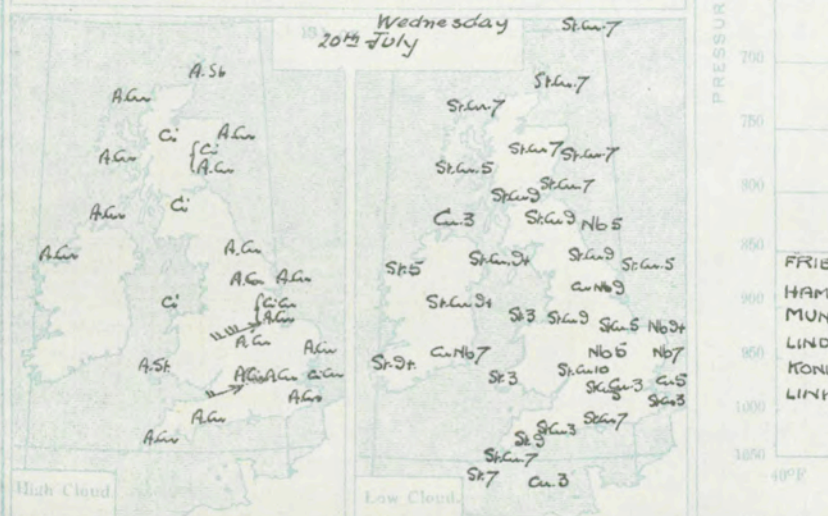
Speeds of high clouds are computed for an average height of 4 miles for alto type clouds (double line) and 3 miles for alto type clouds (single line).

UPPER AIR TEMPERATURES.

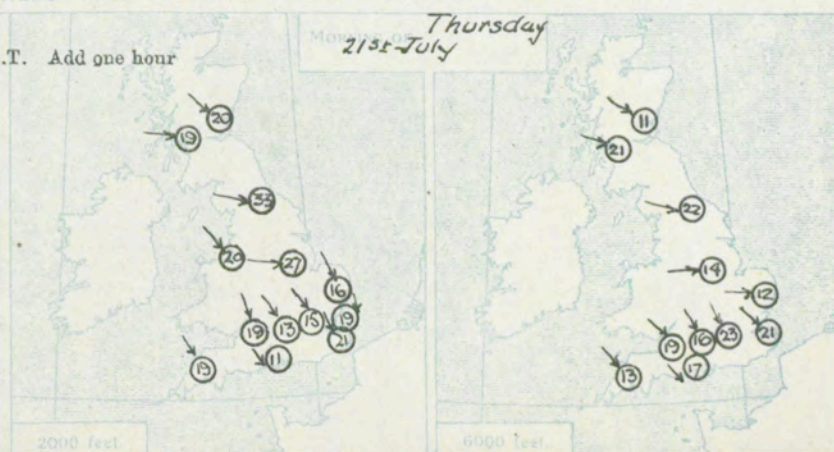
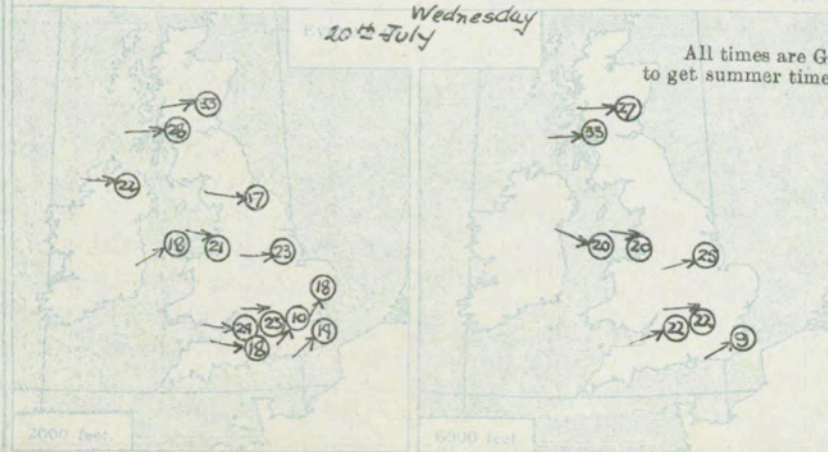
WEDNESDAY, 20TH JULY, 1932.

MUNICH 07h

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



All times are G.M.T. Add one hour to get summer time.

Place	Croydon	South Fambridge	Worthy Down	Boscombe Down	Calshot	Lymington	Shoebury- ness	Felix- stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Selkirk	Catterick	Leuchars	Renfrew	Aberdeen	Alder- grove	Valentin	Placc.
Time.	12 ⁿ 20 ["]	13 ⁿ 25 ["]	13 ⁿ 25 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	13 ⁿ 20 ["]	11 ⁿ 20 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	13 ⁿ 25 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	12 ⁿ 20 ["]	11 ⁿ 20 ["]	12 ⁿ 20 ["]	13 ⁿ 20 ["]	Time.
Type	b	b	b	b	b	d	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.	255 9	270 8	275 8	270 5	255 10	130 10	200 10	160 12	260 13	230 7	250 6	230 11	320 15	250 1	115 10	260 12	165 12	305 7	315 12	Surf.
1000	255 14	265 6	270 15	270 13	265 9	205 13	205 12	210 5	245 13	235 10	230 9	305 15	310 17	255 5	235 6	260 13	155 13	285 11	205 15	1000
2000	265 10	275 13	265 15	260 14		235 8	220 8	245 9	235 14	215 11	235 14	305 14	315 25	260 4	235 10	230 23	240 11	275 17	310 21	2000
3000	275 12	270 11	275 14	260 12		260 7	230 7	270 4	260 25	220 10	235 16	320 15	300 21		230 13		265 9		305 25	3000
4000	270 10	260 7	265 11				260 8	245 9	235 23	245 17		305 13								4000
5000	230 4	260 10					275 6	240 10		245 17		285 17								5000
6000	245 8	265 3						245 6				255 21								6000
8000												260 28		ACU 13 ⁿ	CI 16 ⁿ					8000
10000												260 24		260 36	270 30					10000
12000	ALM 13 ⁿ	ALM 13 ⁿ							ALM 13 ⁿ	CLM 13 ⁿ		270 36		ALM 16 ⁿ	ALM 16 ⁿ					12000
Neph.	CALH	230 18							240 54	300 45		135 23		260 36	360 45					Neph.

Place.	Croydon	South Rimond	Worthy Down	Boscombe Down	Calshot	Lympe	Cranwell	Felix- stowe	Cranwell	Upper Heyford	Boscombe Down	Holyhead	Sealand	Felixstowe	Leithers	Renfrew	Alde- grove	Holyhead	Sealand	Neph
Time.	17 ^h 20 ^s	18 ^h 20 ^s	17 ^h 20 ^s	17 ^h 20 ^s	15 ^h 20 ^s	17 ^h 20 ^s	15 ^h 20 ^s	17 ^h 20 ^s	17 ^h 20 ^s	17 ^h 20 ^s	15 ^h 20 ^s	16 ^h 20 ^s	17 ^h 20 ^s	16 ^h 20 ^s	17 ^h 20 ^s	17 ^h 20 ^s	17 ^h 20 ^s	18 ^h 20 ^s	15 ^h 20 ^s	Time.
Type.			b			b	b													Type.
Feet																				Feet
Surf.	265 15	220 11	280 13	275 14	230 15	215 12	260 11	190 10	285 12	265 7	235 12	250 10	310 17	160 7	265 15	285 10	290 10	245 11	315 15	Surf.
1000	245 7	285 17	280 13	280 13	265 18	235 13	270 20	265 16	300 17	270 11	230 13	270 15	300 21	180 9	260 23	270 22	230 20	280 16	310 15	1000
2000	240 10	275 23	280 24	285 23	260 17	245 14	255 23	215 18	280 23	285 19	285 13	275 19	295 21	210 11	265 33	285 28	230 22	245 18	310 19	2000
3000		280 27	275 24		265 12	245 11	250 23		275 30	285 20	266 22	285 19	300 18	230 15	275 23	280 23	285 19	295 21	230 19	3000
4000		260 23	275 18		275 11	245 12	240 30				245 21	295 20	310 18	245 13	280 25	275 24		305 23	265 21	4000
5000		240 21	255 19		285 10	235 10	240 26					295 17	310 16		280 24	275 31		310 22	265 24	5000
6000		265 22	245 22			245 9	255 25					290 25	210 20		275 27	275 33		305 20	265 21	6000
8000		230 18				270 4	260 47					290 23	210 23			280 14			265 21	8000
10000	Kew	260 18										295 23	210 23	Sealand		270 26			270 20	10000
12000	11000	260 20							18 ^h 18 ^s	18 ^s		290 34	210 23	18 ^h 18 ^s	18 ^s	270 26			270 20	12000
Neph	280 35	280 24							240 48	260 45		280 75	280 48	280 48	280 47				230 40	Neph

[illegible][illegible]

UPPER WINDS ABOVE 4000 FT.												
Place.	Nabes		Rome		Raphael St		Madrid		Brindisi		Malta	
Time.	13 ^h 20 ¹⁴	13 ^h 20 ¹⁴	12 ^h 20 ¹⁴	13 ^h 20 ¹⁴	10 ^h 20 ¹⁴	18 ^h 20 ¹⁴						
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,640	-	-	230	6	120	16	-	-	390	5	1000	
3,280	100	3	-	-	60	11	40	18	-	-	170	10
4,920	-	-	160	?	60	4	360	22	30	1	3000	
6,560	70	15	260	8	80	9	360	19			280	32
9,840	110	22			180	9	10	27			5000	
13,120					230	25					220	32
16,400												
19,680												

Place	Borm	Zara	Stetin	Riga	Lindenberg	Voshen						
Time.	13 ^h 20 ¹⁴	13 ^h 20 ¹⁴	18 ^h 20 ¹⁴	06 ^h 21 ¹⁴	06 ^h 21 ¹⁴	05 ^h 21 ¹⁴						
1,640	100	9	10	6	233	9	220	9	233	2	-	-
3,280	100	12	-	-	233	20	240	9	253	7	180	16
4,920	70	7	340	9	-	-	280	21	-	-	260	9
6,560			280	9	326	16	230	23	304	5	210	7
9,840					304	16	320	23	45	11	260	22
13,120					-	-	310	16	56	11	270	27
16,400					233	13	280	16	90	9	250	27
19,680												

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

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



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, FRIDAY, 22nd JULY

1932.

No. 25810

U.A.S. 4862

DIAGRAM OF UPPER AIR TEMPERATURE.

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 21st, 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.

UPPER WINDS.

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.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts:

Movements are indicated thus:

No speed given.

0-5 m.p.h.

5-15 "

15-25 "

20-35 m.p.h.

35-45 "

45-55 "

55-65 "

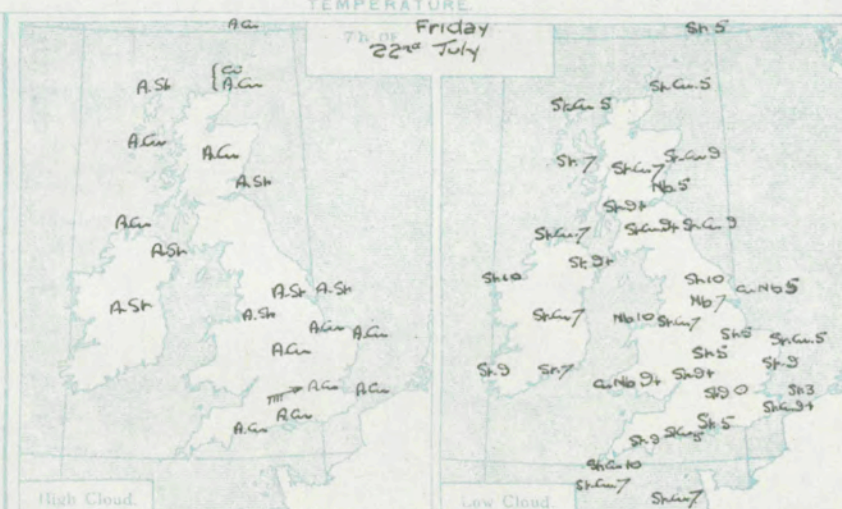
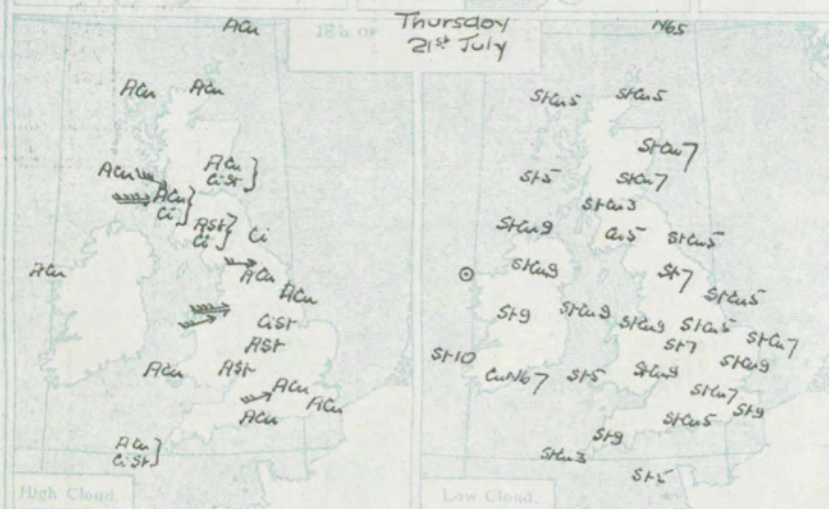
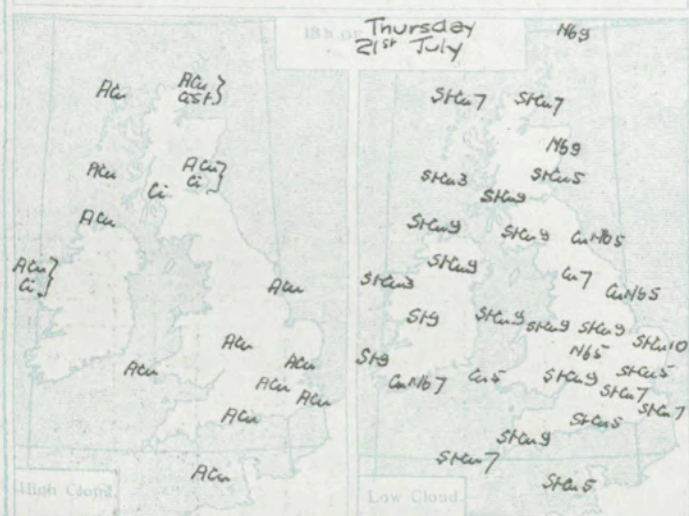
65-80 "

In Tables:

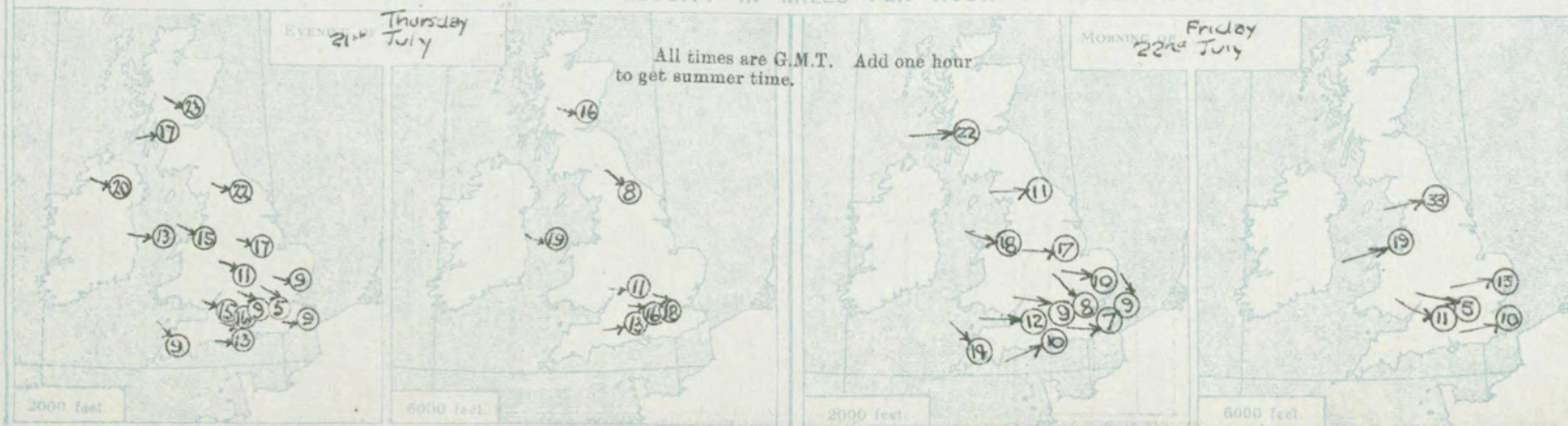
Directions are given in degrees, velocities in m.p.h.

Speeds of high clouds are converted for an average height of 5 miles for alto type clouds (double lines) and 3 miles for cirrus type clouds (single lines).

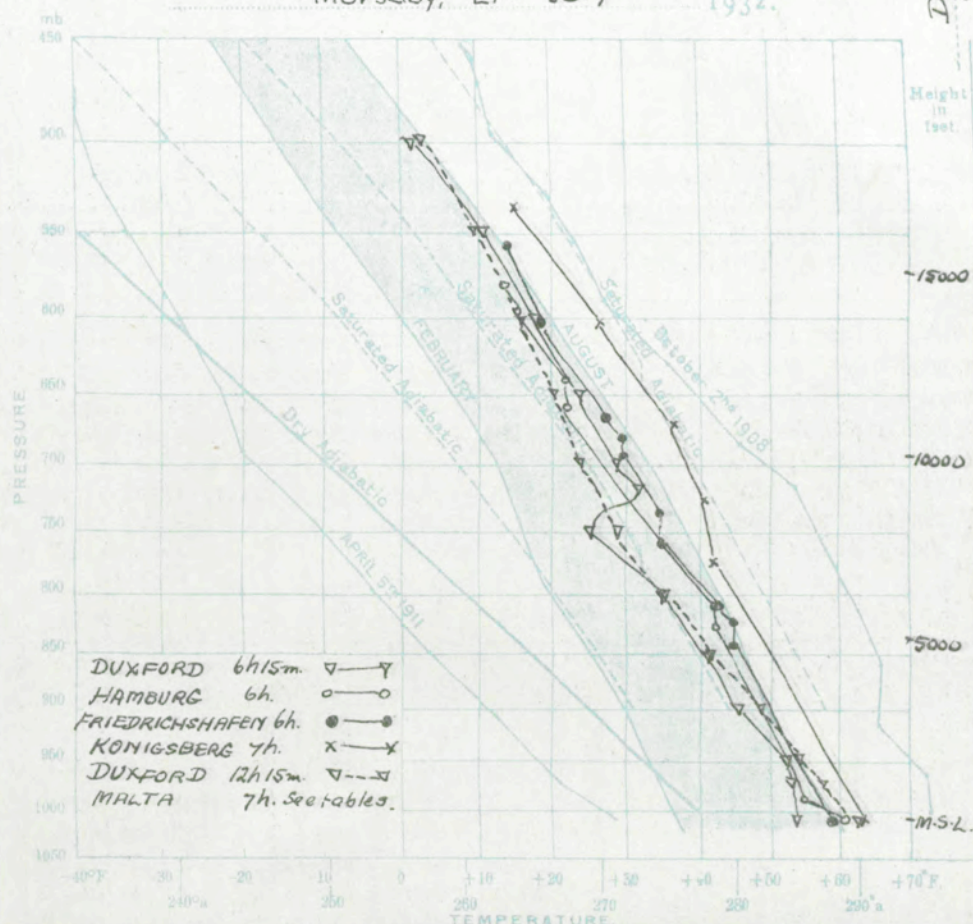
CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



UPPER AIR TEMPERATURES.

Thursday, 21st July 1932.

DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																							
Place	Croydon	South Farnboro	Worthing Down	Boscombe Down	Calshot	Lymington	Cranwell	Felixstowe	Cranwell	Plymouth	Plymouth	Holyhead	Sealand	Sealand	Leuchars	Holyhead	Catterick	Upper Heyford	Valentia	Place																			
Time	12h 21st	13h 21st	12h 21st	12h 21st	12h 21st	12h 21st	12h 21st	11h 21st	10h 21st	12h 21st	03h 21st	02h 21st	10h 21st	12h 21st	12h 21st	12h 21st	12h 21st	12h 21st	13h 21st	Time																			
Type	6	6	6	6	6	6	6	6	6	6	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.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet										
Surf.	300	11	280	7	290	9	285	8	210	10	290	6	285	11	310	5	255	8	300	15	325	12	290	14	305	14	315	15	220	10	280	13	275	7	290	8	275	13	
1000	300	13	280	13	305	11	300	11	265	11	295	6	275	15	285	8	240	13	315	15	330	10	300	16	300	17	305	17	280	11	290	13	290	12	285	13	290	13	
2000	290	11	280	15	300	9	295	11	270	9	295	13	295	14	295	11	300	14	320	15	320	13	305	12	300	15	290	21	260	15	285	11	290	20	290	14	305	13	
3000	285	14	280	12	295	11	305	14	300	9	295	11	315	16	315	12	305	14	325	18	320	17	310	17	310	18	290	25	270	18	290	17	290	22	285	13			
4000			295	15	285	14	300	14	320	10	300	11	295	15	300	12	295	18	325	19	310	14	300	13	305	17	290	17	275	15	290	16	290	18	290	13			
5000			290	15	285	14	280	16																			290	17	285	19	315	15	295	26	290	11			
6000			295	16	270	20																					285	21	285	19	315	15	295	27					
8000			295	11																							290	22	280	21	280	18	295	27					
10000			295	11																																			
12000			295	11																																			
Neph.			295	11																																			
Place	Croydon	South Farnboro	Worthing Down	Boscombe Down	Calshot	Lymington	Lymington	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Calshot	Renfrew	Place																			
Time	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	18h 21st	10h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	17h 21st	Time																			
Type	6	6	6	6	6	6	6	6	6	6	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.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet										
Surf.	305	3	300	3	285	8	310	14	245	2	235	5	290	10	305	8	290	5	300	12	245	11	315	9	290	11	265	10	280	14	295	8	225	8	260	12			
1000	280	7	310	7	285	14	310	11	285	7	270	8	300	13	315	9	295	16	295	11	325	11	250	15	300	15	295	19	285	25	260	23	240	16	285	5	260	12	
2000	300	5	295	9	285	16	295	15	280	13	275	9	305	11	285	9	290	17	305	11	320	9	275	13	285	15	295	22	295	23	255	17	295	20	315	9	265	18	
3000	295	10	285	13	295	13	290	16	285	15	285	14	325	11	285	12	270	14	305	15	310	17	280	15	285	20	285	23	300	23	255	13	290	18	325	13			
4000	290	17	285	15	275	15	285	14	275	15	285	13	325	10	295	17	280	14	290	17			275	18			285	16	315	20			290	21	320	17			
5000	290	20	325	15	270	13	260	15			320	15	295	20	285	17	285	15					290	16			300	12	295	15			285	21	300	17			
6000	280	18	275	16	260	13					315	21					275	11					295	19			320	8	295	16					290	17			
8000	260	14	245	13	305	11					310	17																								290	11		
10000																																							
12000																																							
Neph.																																							
Place	Croydon	South Farnboro	Worthing Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Cranwell	Shoeburyness	Calshot	Place																			
Time	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	05h 22nd		06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	06h 22nd	Time																			
Type	6	6	6	6	6	6	6	6	6	6	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.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Feet										
Surf.	260	2	260	2	275	1	265	4	260	5	345	7	325	7	235	3	240	10	250	5	265	2			270	5	345	6	220	6	250	7	250	3	300	3			
1000	320	7	305	7	250	11	270	11	280	8	5	11	305	6	305	9	280	15	265	9	310	13			260	16	270	13	335	12	260	15	275	15	315	7	320	13	
2000	300	8	295	9	260	8	285	12	255	10	295	7	310	9	285	10	285	17	270	9	310	14			280	18	275	11			270	22	305	19	315	10	305	17	
3000	300	9	275	14	245	9	270	8	255	13	260	7	290	11	280	12	275	13	270	10	305	15			275	21	285	18			285	23	310	16	315	8	290	7	
4000	300	11	265	11	260	9	305	9	265	15	275	9	275	12	260	14	260	13	275	14	295	19			265														



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, SATURDAY 23rd JULY 1932.

No. B. 25,811

U.A.S. 4863

DIAGRAM OF UPPER AIR TEMPERATURE.

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 Table Page.

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

UPPER WINDS.

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.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

— No speed given.

— 0-5 m.p.h.

— 5-15 "

— 15-25 "

— 20-35 m.p.h.

— 35-45 "

— 45-55 "

— 55-65 "

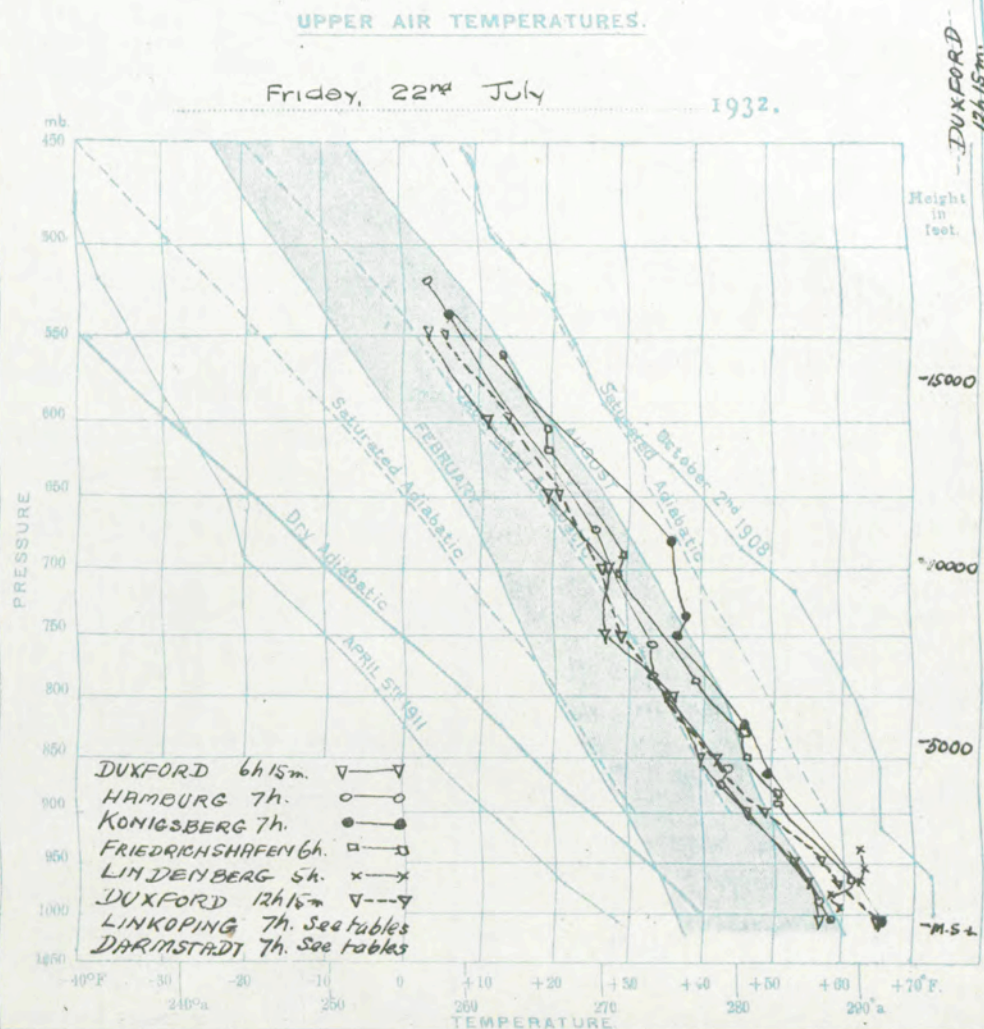
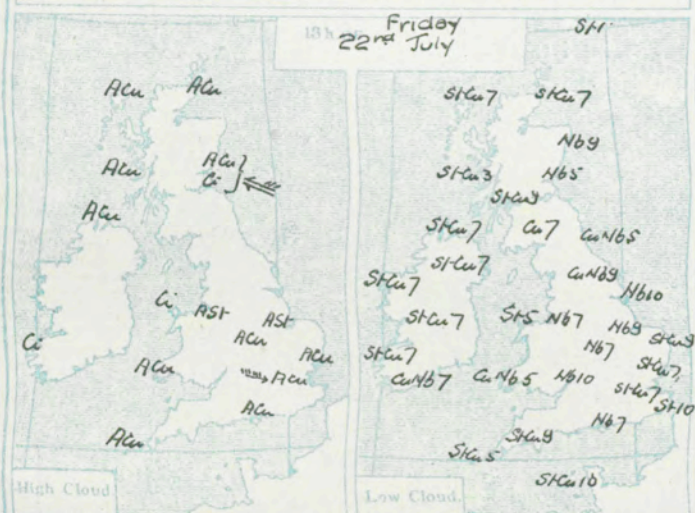
and so on.

In Tables.

Directions are given in degrees, clockwise to m.p.h.

Speeds of high cloud are computed for an average height of 5 miles for cirro type clouds (double lines) and 3 miles for alto type clouds (single line).

CLOUD FORMS, AMOUNTS AND MOVEMENTS.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																						
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Croydon	Lymington	Lymington	Felix-stowe	Cranwell	Cranwell	Plymouth	Upper Heyford	Holyhead	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Holyhead	Place																		
Time	10 ^h 23 rd	13 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	10 ^h 23 rd	12 ^h 23 rd	11 ^h 23 rd	08 ^h 23 rd	11 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	08 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	11 ^h 23 rd	12 ^h 23 rd	12 ^h 23 rd	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.	320	10	340	6	350	15	325	15	305	4	350	16	330	13	360	8	350	10	315	9	300	12	345	7	330	7	20	4	170	5	225	8	100	3	250	10	305	6
1000	355	14	340	11	355	15	325	20	320	5	345	18	330	13	360	15	360	20	345	14	330	4	350	9	20	7	20	6	175	5	220	9	50	3	225	10	240	5
2000	360	15	335	12	340	11	310	15	350	15	360	13	335	15	5	17	360	16			330	6	355	13	25	7	350	7	190	7	215	9	285	3	225	10	220	5
3000	5	15	345	15	345	16	310	13	5	13	360	17	350	16							350	7	355	15	335	7	335	8	250	10	205	7	250	3	235	11	200	5
4000			350	18																																		
5000			355	15																																		
6000			360	15																																		
8000																																						
10000																																						
12000																																						
Neph.																																						
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentin	Sealand	Place																		
Time	17 ^h 23 rd	17 ^h 23 rd		17 ^h 23 rd		17 ^h 23 rd		16 ^h 23 rd	16 ^h 23 rd		17 ^h 23 rd	17 ^h 23 rd	12 ^h 23 rd	17 ^h 23 rd	17 ^h 23 rd	17 ^h 23 rd	17 ^h 23 rd		17 ^h 23 rd	Time																		
Type	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.	320	5	5	2			325	8																														

UPPER AIR TEMPERATURES AND HUMIDITIES.																							
Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity						
			Dry.	Wet.	%				Dry.	Wet.	%				Dry.	Wet.	%						
S. Farnborough. D.S.L. 23-7-32	mb. 1012.2 976 942 907 879 842 812 781 753	Feet. 10000 1570 3060 3970 4910 5930 6950 7920	°F. 53 50 48 41 37 35 32 31	°F. -	% -	HAMBURG. 07 ⁿ 23.7.32	mb. 1008 936 808 743 690 613 603 540	Feet. 1008 1570 6230 8200 12130 13120 13600 16400	°F. 56 54 38 28 18 14 13 8	°F. -	% -	FRIEDRICHSHAFEN 06 ⁿ 23.7.32	mb. 923 910 836 721 738 678 663 604 534 572	Feet. 2300 2550 3260 3200 8340 10630 11140 13600 14130 15100	°F. 52 50 48 41 31 30 28 25 15 12	°F. -	% -	MUNICH 07 ⁿ 23.7.32	mb. 990 886 748 740 628 595 538 522	Feet. 1602 4600 8200 9200 12730 14460 16730 17350	°F. 55 45 34 34 23 13 10 10	°F. -	% -
	M.S.L.	-	-	-	-	DARMSTADT 07 ⁿ 23.7.32	989 962 753 782 743 725 688 521 500 551 537 522	M.S.L. 445 4270 6360 6300 8000 9850 13600 14130 15760 16000 16730 17300	43 40 35 34 32 32 24 22 16 14 13	-	KNIGSEBEN 07 ⁿ 23.7.32	1007 973 833 663 602 551 547 541	M.S.L. 32 360 5240 10170 12500 12800 16000 16400 16730	76 67 47 30 34 24 14 16 15	-		M.S.L.	-	-	-			

UPPER WINDS ABROAD.												
Place.	Madrid		Cracon		Frankfurt		Palermo		Essen		Malta	
Time.	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd	13h 23rd
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,040	-	-	300	2	68	5	-	-				
3,280	240	3	100	8	101	9	260	13	22	5	1000	1
4,920	290	9	320	3			160	17	-	0	100	5
6,560	290	14	230	3			250	24	79	2	2000	1
9,840	290	11	250	10							180	4
13,120	290	11									3000	1
16,400	310	27									270	11
19,680												

Place.	Linden-berg		Berlin		Hamburg		Berlin		Casa-blanca		Dort-mund	
Time.	14h 23rd	14h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd	18h 23rd
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.
1,040	45	2	-	0	325	9	45	18			280	11
3,280	110	5	-	0	225	7	45	16	33	16	295	11
4,920	-	-	-	0			55	16				
6,560	170	7	80	9	250	5					295	5
9,840	215	9			260	2					270	5
13,120	130	13										
16,400												
19,680					190	7						

Meteorological Office, Air Ministry. Kingway, London, W.C.2				G. C. SIMPSON, C.B., D.Sc., F.R.S., Director.			
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AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, MONDAY 25th JULY 1932.No. B. 25,813
U.A.S. 4,865

DIAGRAM OF UPPER AIR TEMPERATURE.

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, 1905, 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 given conditions, see Table Page.

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

UPPER WINDS.

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated, thus:

No speed given.

5-15 m.p.h.

15-25 "

20-35 m.p.h.

35-45 "

45-55 "

55-65 "

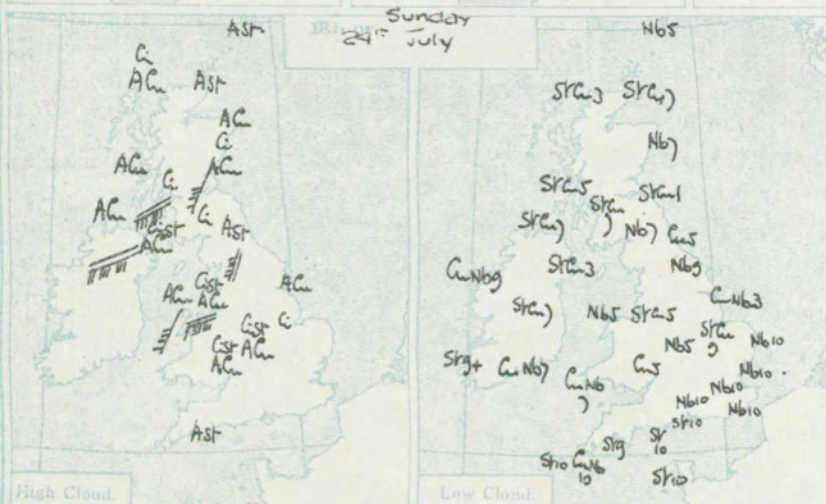
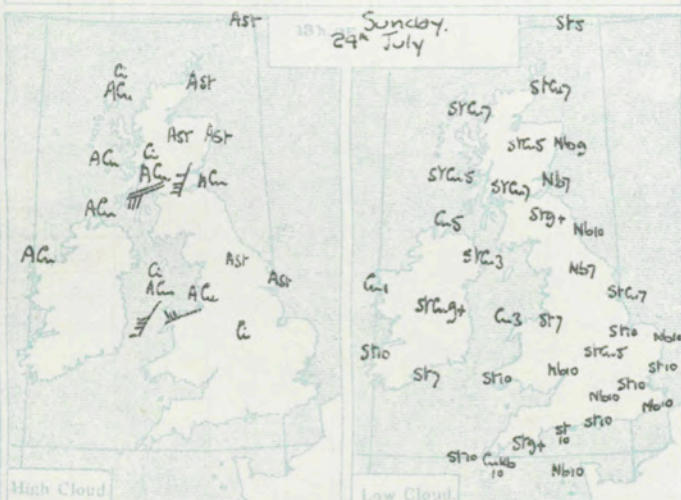
and so on.

In Tables.

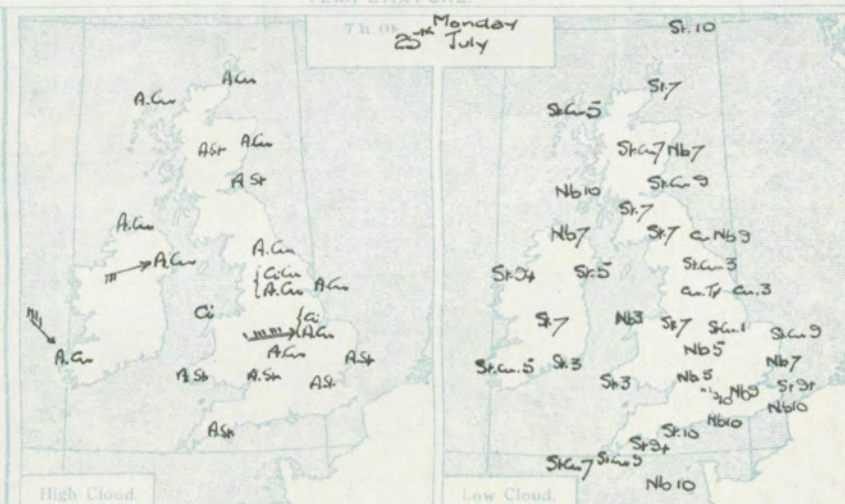
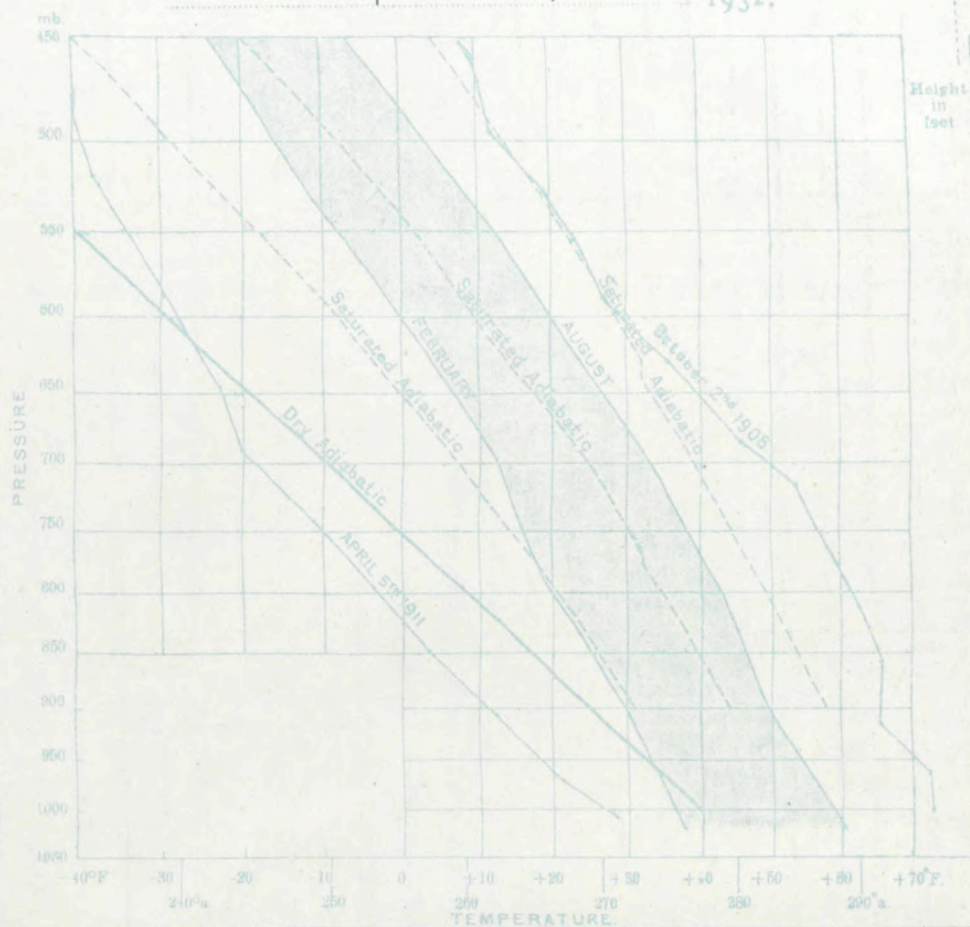
Directions are given in degrees, velocities in m.p.h.

Speeds of high clouds are computed for an average height of 5 miles for cirrus type clouds (double lines) and 3 miles for alto type clouds (single line).

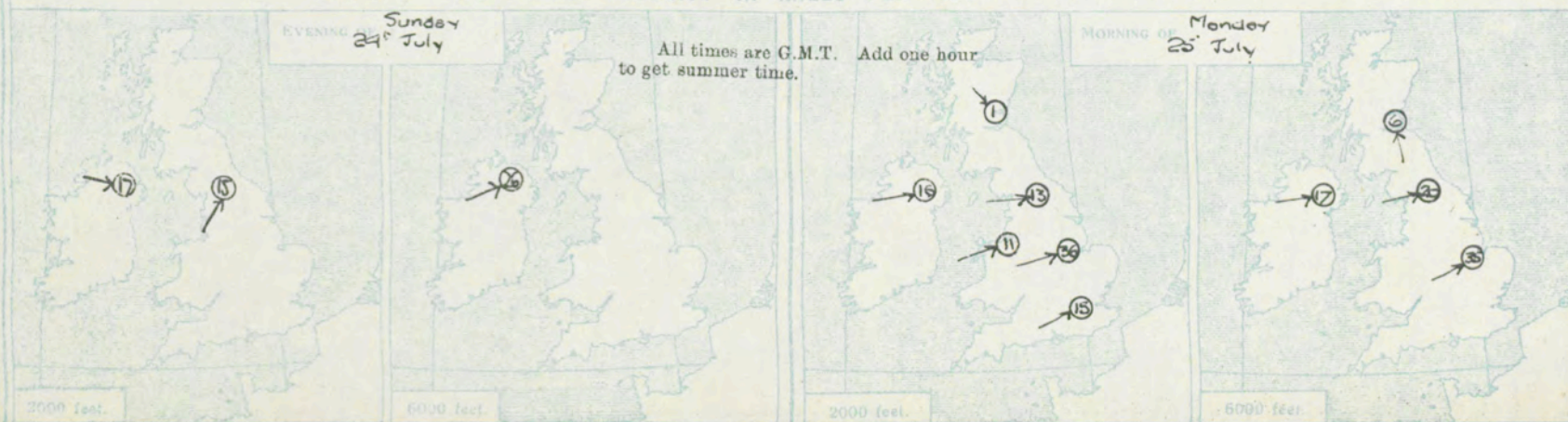
CLOUD FORMS, AMOUNTS AND MOVEMENTS.



UPPER AIR TEMPERATURES.

Sunday, 24th July 1932.

DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.



DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																									
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.					
Time.		13h. 24 ^h											12h. 24 ^h		12h. 24 ^h	12h. 24 ^h		12h. 24 ^h		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.																					Surf.				
1000			215	11												200	10	220	15		240	7	1000		
2000			210	13												215	20	215	25		245	9	2000		
3000																220	21	235	17		255	15	3000		
4000																230	26	245	12		265	23	4000		
5000																225	27				255	28	5000		
6000																					240	23	6000		
8000																							8000		
10000																							10000		
12000													13L AC	13L AC		13L AC	13L C						12000		
Neph.													200 41	250 27		200 36	230 35						Neph.		
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentia		Place.					
Time.														17h. 24 ^h			17h. 24 ^h			Time.					
Type.																				Type.					
Feet																				Feet					
Surf.																				Surf.					
1000															220	7				235	11	1000			
2000															250	14				235	17	2000			
3000															230	15				280	17	3000			
4000															205	13				255	21	4000			
5000															220	23				240	19	5000			
6000																				235	22	6000			
8000																				235	26	8000			
10000													18h C				18h C			235	22	10000			
12000													18h Asr	260 70	18h AC	18h C	18h AC	16h C	16h AC	230 65	230 26	17h C	12000		
Neph.													200 39	240 36	220 55	200 36	230 75	230 20	250 85			Neph.			
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.</					

Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity
	mb.	Feet.	Dry.	Wet.	%		mb.	Feet.	Dry.	Wet.	%		mb.	Feet.	Dry.	Wet.	%
		M.S.L.	—	—	—			M.S.L.	—	—	—			M.S.L.	—	—	—

UPPER WINDS ABROAD.															
Place.	Angers			Remorant			Barcelona			St. Raphael			Rennes		Malta
Time.	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h	13h 24 ^h
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.
1,640	230	9	220	9	210	12	170	2	210	16			1000'		
3,280	240	11	230	11			180	11					310	11	
4,920	250	14	240	14			200	11					300'		
6,560	250	14					calm						320	15	
9,840							320	12					5000'		
13,120													250	23	
16,400													7000'		
19,680													250	33	

Place.	Kige			Avond			Linköping			Hamburg			Berlin		Malta
Time.	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	06 ^h 25 ^m	
1,640	70	3	130	13	-	-	203	16	315	5			2000'		
3,280	70	9	210	16	40	5	160	20	315	5			80	6	
4,920	90	9	250	16	-	-	-	-	-	-			3000'		
6,560	80	9	220	25	230	5	131	27	225	5			340	11	
9,840	340	3	240	27	160	5	203	25	203	7			5000'		
13,120	120	10	250	26	160	9	203	22	236	9			320	19	
16,400	110	14	250	31	200	14	214	20	131	7			7000'		
19,680					200	16	225	22					320	41	

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

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



AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, TUESDAY, 26th JULY 1932.No. B. 25814
U.A.S. 4866

DIAGRAM OF UPPER AIR TEMPERATURE

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, 1921, 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 Little Page.

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

UPPER WINDS

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

b = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings)

On Charts.
Movements are indicated thus:
— No speed given.
— 0-5 m.p.h.
— 5-15 " " " " " "
— 15-35 " " " " " "
— 35-55 " " " " " "
— 55-75 " " " " " "
— 75-95 " " " " " "
— 95-115 " " " " " "
— 115-135 " " " " " "
— 135-155 " " " " " "
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— 1115-1135 " " " " " "
— 1135-1155 " " " " " "
— 1155-1175 " " " " " "
— 1175-1195 " " " " " "
— 1195-1215 " " " " " "
— 1215-1235 " " " " " "
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— 1255-1275 " " " " " "
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— 1915-1935 " " " " " "
— 1935-1955 " " " " " "
— 1955-1975 " " " " " "
— 1975-1995 " " " " " "
— 1995-2015 " " " " " "
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— 10215-10235 " " " " " "
— 10235-10255 " " " " " "
— 10255-10275 " " " " " "
— 10275-10295 " " " " " "
— 10295-10315 " " " " " "
— 10315-10335 " " " " " "
— 10335-10355 " " " " " "
— 10355-10375 " " " " " "
— 10375-10395 " " " " " "
— 10395-10415 " " " " " "
— 10415-10435 " " " " " "
— 10435-10455 " " " " " "
— 10455-10475 " " " " " "
— 10475-10495 " " " " " "
— 10495-10515 " " " " " "
— 10515-10535 " " " " " "
— 10535-10555 " " " " " "
— 10555-10575 " " " " " "
— 10575-10595 " " " " " "
— 10595-10615 " " " " " "
— 10615-10635 " " " " " "
— 10635-10655 " " " " " "
— 10655-10675 " " " " " "
— 10675-10695 " " " " " "
— 10695-10715 " " " " " "
— 10715-10735 " " " " " "
— 10735-10755 " " " " " "
— 10755-10775 " " " " " "
— 10775-10795 " " " " " "
— 10795-10815 " " " " " "
— 10815-10835 " " " " " "
— 10835-10855 " " " " " "
— 10855-10875 " " " " " "
— 10875-10895 " " " " " "
— 10895-10915 " " " " " "
— 10915-10935 " " " " " "
— 10935-10955 " " " " " "
— 10955-10975 " " " " " "
— 10975-10995 " " " " " "
— 10995-11015 " " " " " "
— 11015-11035 " " " " " "
— 11035-11055 " " " " " "
— 11055-11075 " " " " " "
— 11075-11095 " " " " " "
— 11095-11115 " " " " " "
— 11115-11135 " " " " " "
— 11135-11155 " " " " " "
— 11155-11175 " " " " " "
— 11175-11195 " " " " " "
— 11195-11215 " " " " " "
— 11215-11235 " " " " " "
— 11235-11255 " " " " " "
— 11255-11275 " " " " " "
— 11275-11295 " " " " " "
— 11295-11315 " " " " " "
— 11315-11335 " " " " " "
— 11335-11355 " " " " " "
— 11355-11375 " " " " " "
— 11375-11395 " " " " " "
— 11395-11415 " " " " " "
— 11415-11435 " " " " " "
— 11435-11455 " " " " " "
— 11455-11475 " " " " " "
— 11475-11495 " " " " " "
— 11495-11515 " " " " " "
— 11515-11535 " " " " " "
— 11535-11555 " " " " " "
— 11555-11575 " " " " " "
— 11575-11595 " " " " " "
— 11595-11615 " " " " " "
— 11615-11635 " " " " " "
— 11635-11655 " " " " " "
— 11655-11675 " " " " " "
— 11675-11695 " " " " " "
— 11695-11715 " " " " " "
— 11715-11735 " " " " " "
— 11735-11755 " " " " " "
— 11755-11775 " " " " " "
— 11775-11795 " " " " " "
— 11795-11815 " " " " " "
— 11815-11835 " " " " " "
— 11835-11855 " " " " " "
— 11855-11875 " " " " " "
— 11875-11895 " " " " " "
— 11895-11915 " " " " " "
— 11915-11935 " " " " " "
— 11935-11955 " " " " " "
— 11955-11975 " " " " " "
— 11975-11995 " " " " " "
— 11995-12015 " " " " " "
— 12015-12035 " " " " " "
— 12035-12055 " " " "

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

MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																					
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Holyhead	Catterick	Leuchars	Renfrew	Sealand	Alder-grove	Valentia	Place	
Time				12h 25 th					11h 25 th	12h 25 th	12h 25 th	12h 25 th	09h 25 th	12h 25 th	12h 25 th	12h 25 th	12h 25 th	12h 25 th			
Type																					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
Surf.																					
1000				Calm					225	2	240	4	5	8	195	14	240	13	255	13	
2000				360	2				235	11	220	6	325	15	225	13	255	13	255	18	
3000									230	10	205	11	330	23	235	14	250	12	260	12	
4000											215	12	320	20	250	13	245	14	235	18	
5000															265	16	235	18	235	17	
6000															260	21	250	18	225	12	
8000															250	19	270	12	220	15	
10000															13h. Felixstowe	270	17				
12000															13h. Felixstowe	270	17				
Neph.															18h C	16h C	13h C				
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Shoeburyness	Cranwell	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentia		Place	
Time			17h 25 th	17h 25 th	17h 25 th			24h 25 th	17h 25 th	17h 25 th	17h 25 th	16h 25 th	17h 25 th	17h 25 th	17h 25 th	17h 25 th	18h 25 th				
Type			b																		
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
Surf.																					
1000				280	11	285	15	290	10			260	8	225	2	305	5	305	5	215	18
2000				275	17	285	21	295	16			275	23	265	10	300	9	305	23	210	37
3000				265	17	280	20	285	23			280	21	290	10	285	10	310	19	210	25
4000				265	19	270	20	270	25			285	13			285	14	310	23	225	21
5000				260	22	270	24	265	17			285	9			275	16	305	28	225	17
6000				260	20			260	19							310	24	225	15	220	9
8000				250	21			235	15												
10000				220	17																
12000																					
Neph.																					
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lymington	Croydon	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Leuchars	Alder-grove	Valentia	Place	
Time	6h 26 th	6h 26 th	26h 4	26h 4	7h 26 th	6h 26 th	10h 26 th		6h 26 th		6h 26 th	6h 26 th	6h 26 th	6h 26 th	6h 26 th	7h 26 th	7h 26 th				
Type																					
Feet	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
Surf.	220	8	225	8																	
1000	235	20	245	21																	
2000	255	25	250	23																	
3000	250	24	245	24																	
4000	250	25	250	30																	
5000	255	24	250	29																	
6000	250	23	255	21																	
8000			255	23																	
10000			255	23																	
12000	7h	4h	5h	4h	7h	4h	9h	4h	10h	4h											
Neph.	280	48	240	63	230	54	270	42	260	51											

UPPER AIR TEMPERATURES AND HUMIDITIES.

Station	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Station	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Station	Pressure	Height above M.S.L.	Temp.	Relative Humidity	Station	Pressure	Height above M.S.L.	Temp.	Relative Humidity
	mb.	Feet.	°F.	%		mb.	Feet.	°F.	%		mb.	Feet.	°F.	%		mb.	Feet.	°F.	%
Duxford. 25-7-32.	1005	100	58	86	Friedrichshafen. 6h 25-7-32.	971	1312	56	82	Königsberg. 7h 25-7-32.	1000	92	69	75	Hamburg. 25-7-32.	1012	61	63	78
	965	1110	53	86		960	1640	55	80		948	1970	62	74		945	1862	61	85
	950	1560	55	89		920	2950	52	80		938	2300	63	70		901	3280	54	85
	900	3050	51	81		905	3280	54	80		831	5570	51	72		848	4920	45	85
	850	4600	47	84		882	3940	54	45		733	8850	39	78		797	6560	37	85
	800	6240	42	79		817	5900	45	55		721	9200	39	70		700	9840	23	85
	750	7990	38	79		806	6560	45	37		645	12130	28	76		617	13120	14	85
	700	9800	33	85		782	7230	43	37		595	14460	24	65		543	16400	5	85
	650	11760	28			770	7560	43	30		535	17060	16	46					
	600	13840	25	20		737	8850	40	30										
	550	16090	13	13		718	9530	38	38										
	500	18500	7	7		660	11800	32	37										
	450	21200	2	3		651	12130	32	34										
	400	24150	13	13		588	14760	23	37										
	Haze top 920 mb.					511	18700	13	41										
	Cloud 500 and F.C. 610					502	19030	12	41										
	800ft-890 mb. Thin layers O.C. 510, 690-400 mb. C. and C.S. 710 not reached					479	20030	9	42										

UPPER WINDS ABROAD.

Place	Epinal	Lisbon	Rapahel	Leghorn	Ancona	Malta
Time	12h 25 th	13h 25 th	12h 25 th	13h 25 th	18h 25 th	17h 25 th
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	Calm	340 16	100 14	-	240 5	3000'
3,280	180 9	360 28	120 7	160 9	-	340 13
4,920	200 14	280 19	210 7	190 9	-	7000'
6,560	220 25	300 15	260 14	-	-	340 21
9,840	220 37	310 16	210 20	270 21	320 18	10000'
13,120	220 37	280 18	250 34		320 28	220 27
16,400	220 37	310 14				
19,680		300 17				
Place	Lewis	Santa-vila	Mostar	Litkoping	Västana	Malta
Time	18h 25 th	7h 26 th	7h 26 th	4h 26 th	6h 26 th	6h 26 th
Feet	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	-	350 11	50 3	-	-	3000'
3,280	320 14	320 7	-	150 13	120 7	5000'
4,920	300 27		250 3	140 9	140 5	120 5
6,560	320 32		240 5	150 2	110 2	7000'
8,840			320 10	170 13	180 7	250 13
13,120				170 16	170 13	
16,400				180 27	180 13	
19,680				170 13	180 9	

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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	South Farnboro	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place
Time	12h 26 th	12h 26 th	12h 26 th	12h 26 th	12h 26 th			11h 26 th	11h 26 th	12h 26 th	11h 26 th	12h 26 th	12h 26 th	12h 26 th	12h 26 th	12h 26 th		12h 26 th		Time
Type	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.	230 20	235 17	250 18	255 15	230 24			200 14	210 14	240 17	300 15	270 21	275 15	235 8	110 10	270 2		325 13		Surf.
1000	235 23	245 31	260 23	260 20	245 30			210 15	220 19	245 18	300 30	285 27	270 28	220 10	85 7	315 5		330 17		1000
2000	250 30	245 25	260 29	265 31	260 33			230 12	230 15	255 19	295 27	285 31	270 35	220 15	85 7	25 7		330 27		2000
3000	260 37	265 31	265 23	270 31						260 22	300 30	285 35	270 41	235 20	95 10	40 6		16h 00		3000
4000	260 41	265 29	260 29	265 42		16h C				265 27	300 21	295 32	265 37		90 7	50 5		270 00		4000
5000		265 39	265 33			280 -				270 42	295 21	290 37	16h C		20 22	60 5		16h 05		5000
6000		270 33	265 32			15h C					295 29	285 30	240 30		8000 2	30 5		320 50		6000
8000		270 37				240 50					295 31			Leuchars	110 2	180 1	Leuchars	320 00		8000
10000		(7000)													140 8	155 3	16h C	13h 00		10000
12000	12h C	13h 00		13h 00				16h C	13h C						12000 17	(9000)	16h C	13h 00		12000
Neph	240 15	290 33		240 36				240 55	200 35				140 35	200 30	150 40		130 55	270 42		Neph
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Calshot	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place
Time	17h 26 th	17h 26 th		19h 26 th	17h 26 th	14h 26 th	17h 26 th	17h 26 th	17h 26 th	17h 26 th	17h 26 th	16h 26 th	17h 26 th	14h 26 th	17h 26 th	18h 26 th				Time
Type						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.	210 26	250 13		250 14	175 20	240 12	225 20	210 26	270 12	250 17	275 15	255 12	300 7	230 13	65 10	140 6				Surf.
1000	210 26	255 16		265 18	245 28	250 28	235 26	215 30	260 27	255 20	290 19	270 17	275 19	245 31	100 32	255 10				1000
2000	205 29	265 28		265 29	255 35	260 30	250 32	225 36	250 28	250 29	295 25	285 17	270 21	255 28	120 7	270 12				2000
3000	185 39	270 31		255 28	265 33	260 29	255 24	235 40	245 39	255 41		285 19	270 31	255 22	125 5					3000
4000	180 35	265 33			270 33	255 31	260 28	235 32		265 43		285 21	275 27	250 22						4000
5000		265 36				255 24	260 44	250 27		260 40		285 27	275 40	250 21						5000
6000		265 44					260 48					280 27	280 37							6000
8000												16h C			18h C					8000
10000						Lympne							140 30		130 30					10000
12000		18h C				18h 00		18h 00	18h C			18h 00	18h C		18h 00	16h 10				12000
Neph		260 65				220 40		? 55	270 50			280 -	230 35		100 12	120 12				Neph
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoeburyness	Felixstowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place
Time	6h 27 th	6h 27 th	6h 27 th	6h 27 th	6h 27 th			6h 27 th	7h 27 th	6h 27 th	6h 27 th		6h 27 th	7h 27 th	7h 27 th					Time
Type	b	b											6h 27 th	7h 27 th	7h 27 th					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.	220 13	235 11	225 10	220 14	240 14			220 13	215 14	220 15	255 15		185 14	205 6	230 6					Surf.
1000	235 20	240 27	245 37	240 20	250 25			240 23	220 25	225 21	275 23		225 14	235 15	245 5					1000
2000	255 27	260 30	255 25	260 28	265 29			250 31	245 34					245 27	245 7					2000
3000		255 32		270 30	265 25			255 25	255 39					250 19	245 11					3000
4000		260 27		270 39	260 25			255 23	260 35					245 35	240 13					4000
5000		255 31		270 45										245 34						5000
6000		250 27		265 39																6000
8000	10h 00	7h 00		7h 00																8000
10000	210 42	280 55	Kew	250 48											10h 00	210 30			10h 00	10000
12000	5h 00	6h 00	7h 00	5h 00				7h 00					5h 00		5h 00				5h 00	12000
Neph	270 60	260 54	280 45	280 50				280 27					260 45		310 10				320 72	Neph

UPPER AIR TEMPERATURES AND HUMIDITIES.

Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity
			Dry.	Wet.	
Duxford. Ch 15 m	mb.	Feet.	°F.	°F.	%
26-7-32.	M.S.L.	-	-	-	-
	9975	100	54	53	94
	961	1100	53	50	83
	950	1420	52	49	81
	900	2900	48	44	74
	850	4460	42	39	75
	800	6070	35	32	79
	750	7770	28	-	-
	700	9600	25	23	85
	650	11500	18	16	-
	600	13550	11	10	-
	550	15750	3	3	-
	500	18150	-	-	-
	Haze top	960 mb.	-	-	-
	Fr Cu	510, 600-1000 ft.	-	-	-
	Fr Cu	610, 800-700 mb.	-	-	-
	CNb	in South To 500 mb.	-	-	-
	CC	310 not reached.	-	-	-
Duxford. 12h 30 m	mb.	Feet.	°F.	°F.	%
26-7-32.	M.S.L.	-	-	-	-
	9975	100	59	55	81
	961	1110	58	52	73
	950	1450	55	50	73
	900	2940	49	45	72
	850	4500	43	39	72
	800	6120	36	34	84
	750	7830	30	29	91
	700	9650	26	25	95
	650	11560	19	16	-
	600	13620	11	10	-
	550	15830	5	4	-
	500	18220	-	-	-
	450	20800	-	-	-
	Haze top	not defined.	-	-	-
	Fr Cu	510 890-750 mb	-	-	-
	CNb	410 820 - ? mb	-	-	-
	Fr Cu	610 760-740 mb.	-	-	-
	Large Cu.	anvils in West and South To ? mb	-	-	-
Lindenberg. Th	P.essure	Height above M.S.L.	Temp.		Relative Humidity
26-7-32.	mb.	Feet.	Dry.	Wet.	
	995	348	-	-	-
	960	1310	69	-	-
	935	5240	50	-	-
	787	7230	45	-	-
	773	7560	45	-	-
	720	9200	39	-	-
	707	9840	37	-	-
	574	15100	17	-	-
Lomburg. Th	P.essure	Height above M.S.L.	Temp.		Relative Humidity
26-7-32.	mb.	Feet.	Dry.	Wet.	
	1013	61	72	-	-
	989	660	68	-	-
	965	1310	-	-	-
	821	5900	51	-	-
	804	6230	52	-	-
	741	8540	46	-	-
	632	13120	31	-	-
	600	14760	29	-	-
	551	17060	19	-	-
	545	17390	19	-	-
	533	17720	18	-	-
Linkoping. Th	P.essure	Height above M.S.L.	Temp.		Relative Humidity
26-7-32.	mb.	Feet.	Dry.	Wet.	
	943	882	68	-	-
	900	3280	55	-	-
	848	4920	46	-	-
	790	6560	37	-	-
	703	9840	23	-	-
	617	13120	14	-	-
	541	16400	5	-	-
Munith. Th	P.essure	Height above M.S.L.	Temp.		Relative Humidity
26-7-32.	mb.	Feet.	Dry.	Wet.	
	951	1662	64	-	-
	896	3280	64	-	-
	718	9530	43	-	-
	654	11800	37	-	-
	600	14130	23	-	-
	542	16730	23	-	-
	525	17720	19	-	-

UPPER WINDS ABROAD

Place.	Rome	Linden- berg.	Breslau	Königs- berg.	Le Havre	Malta
Time.	13h 26 th	13h 26 th	13h 26 th	10h 26 th	18h 26 th	17h 26 th
Feet.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.
1,840	- -	180 11	169 9	Calm	250 29	3000'
3,280	200 10	180 13	180 5	158 7	250 39	190 5
4,920	- -	- -	- -	- -	260 34	7000'
6,560	270 20	214 20		147 16	260 22	300 22
9,840	300 31	203 22		- -		10000'
13,120		203 22		158 13		280 28
16,400						
19,680						

Place.	Thion- ville	Portiers	Berlin	Bucharest	Riga	Malta
Time.	18h 26 th	18h 26 th	6h 27 th	7h 27 th	6h 27 th	6h 27 th
1,840	230 22	260 16	248 13	80 9	170 4	3000'
3,280	240 26	250 27	225 20	40 7	170 6	210 8
4,920	260 25	250 29	- -	220 9	170 4	7000'
6,560	250 26	250 20	214 22	280 4	130 6	250 12
9,840	240 27			300 14	150 11	10000'
13,120	240 36					290 29
16,400						
19,680						

Meteorological Office, Air Ministry, Kingsway, London, W.C.2.	G. C. SIMPSON, C.B., D.Sc., F.R.S., Director.
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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.—BRITISH.

Place	Croydon	South Farnboro	Croydon	Boscombe Down	Calshot	Lympe	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Pias.
Time.	10h 27 ^m	13h 27 ^m	12h 27 ^m	12h 27 ^m	12h 27 ^m	12h 27 ^m		11h 27 ^m	11h 27 ^m	12h 27 ^m		12h 27 ^m	13h 27 ^m		12h 27 ^m	12h 27 ^m		12h 27 ^m		Time.
Type	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.	245 13	220 21	230 22	240 14	220 30	210 29		240 17	225 20	230 17		285 23	290 24		205 10	285 15		300 15		Surf.
1000	235 20	230 21	220 21	240 16	235 41	225 27		225 13	235 28	230 21		295 27	290 32		210 11	285 21		305 27		1000
2000	230 24		240 32	250 17	240 44			225 18	230 35	250 35		300 28	285 35		225 13	290 21		300 28		2000
3000	240 27		245 36					235 18	230 36	255 41		305 31	285 24		255 12	290 23		300 34		3000
4000	245 35								240 36			305 31			260 12	285 26		295 34		4000
5000	245 28	16h AC										310 36			275 13	275 25		295 26		5000
6000		290 72										305 29			270 14	270 28		295 25		6000
8000		16h C	Biggin Hill.									305 35			245 15	272 37				8000
10000		310 G												Leuchars	250 16	Leuchars				10000
12000	13h AC	13h AC	16h AC					16h C				13h AC	16h C	15h C	240 13	13h AC				12000
Neph.	240 60	270 42	250 60					270 90				290	300 60	220 25	(11000)	220 27				Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Calshot	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valentin	Cranwell	Place.
Time.		17h 27 ^m	17h 27 ^m	17h 27 ^m	17h 27 ^m	24h 27 ^m		17h 27 ^m	17h 27 ^m	17h 27 ^m	17h 27 ^m	18h 27 ^m	17h 27 ^m	17h 27 ^m	17h 27 ^m	18h 27 ^m	17h 27 ^m	19h 27 ^m	24h 27 ^m	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.	Feet
Surf.		265 21	260 8	260 20	225 18	245 13		215 17	250 13	265 12	295 25	265 17	285 20	280 10	245 15	230 15	260 15	255 15	230 10	Surf.
1000		260 45	260 25	270 23	245 27	265 33		220 27	270 15	265 25	290 47	275 29	290 31	285 27	250 23	240 30	265 22	260 17	250 31	1000
2000		260 25	270 31	245 25	265 31	275 33		225 40	275 17	270 32	290 45	275 29	290 32	300 16	260 32	255 30	270 34	275 19	260 29	2000
3000		265 45	280 27		275 29	275 29				260 31		275 30	290 29	290 30	260 32	255 35		270 23	265 28	3000
4000		265 40				275 25				290 31		275 33	290 29	285 35	255 25	240 62		265 19	265 30	4000
5000		270 28				270 25				300 27		275 33	285 32	280 31	250 19	245 76				5000
6000										290 31		270 30			250 24					6000
8000										285 41					240 18					8000
10000	Kew.									(7000)					(2000)					10000
12000	18h AC	18h AC						18h C		18h C		17h C	18h C				18h C			12000
Neph.	280 48	300 60						270 75		270 60		280	310 45				330 35			Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympe	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.
Time.	6h 28 ^m	6h 28 ^m		6h 28 ^m	6h 28 ^m	6h 28 ^m		6h 28 ^m	6h 28 ^m	6h 28 ^m		7h 28 ^m	6h 28 ^m	6h 28 ^m	7h 28 ^m				6h 28 ^m	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.	Feet
Surf.	205 10	235 9		225 8	225 14	240 7		230 16	230 15	215 10		240 15	220 8	230 10	240 15				250 17	Surf.
1000	235 20	245 28		240 21	240 27	245 23		250 26	250 31	225 21		250 26	240 20	245 25	235 40				260 29	1000
2000	265 23	255 35		255 31	255 28	260 29		265 29	255 33			260 25	260 30	245 36	250 47					2000
3000		255 38		260 34	260 28	260 31		265 32	260 30			270 27	265 32		265 32					3000
4000		250 33		260 38	265 29	260 27		260 28				265 33	265 31		270 24					4000
5000		260 20			265 30	260 32						10h AC	265 29		265 27					5000
6000		255 36										270 63			260 27					6000
8000		265 31										7h C			7h AC					8000
10000		270 43							7h C	80		7h AC			230 27	Leuchars				10000
12000	5h AC	270 49							5h AC			5h AC	5h AC		5h AC	10h AC				12000
Neph.	280 150	280 84							260 54			270 60	270 39		230 21	240 21				Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.

UPPER WINDS ABROAD.

Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure	Height above M.S.L.	Temp.		Relative Humidity
			Dry	Wet	%				Dry	Wet	%				Dry	Wet	%				Dry	Wet	%
Duxford. 6h 15m 27-7-32.	mb. 1004	Feet. 100	56	54	88	Lindenberg. 7h 27-7-32.	mb. 999	Feet. 348	63	-	-	Munich. 7h 27-7-32.	mb. 914	Feet. 2950	57	-	-	Lions.	mb. 1008	Feet. 61	60	-	-
	1005	100	56	54	88		926	2620	54	-	-		926	2620	54	-	-	Thon-ville.	mb. 988	660	54	-	-
	1006	110	54	51	83		926	2620	54	-	-		926	2620	54	-	-	Oberbourg.	mb. 988	660	54	-	-
	1007	110	54	51	83		926	2620	54	-	-		926	2620	54	-	-	Widen-berg.	mb. 988	660	54	-	-
	1008	1520	53	49	79		926	2620	54	-	-		926	2620	54	-	-	Stettin.	mb. 988	660	54	-	-
	1009	3000	49	44	69		926	2620	54	-	-		926	2620	54	-	-	Malta	mb. 988	660	54	-	-
	1010	4560	42	39	75		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1011	800	36	32	73		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1012	750	30	28	83		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1013	700	25	24	95		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1014	650	19	19	-		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1015	600	13	12	-		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1016	550	5	5	-		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	1017	500	-3	-4	-		926	2620	54	-	-		926	2620	54	-	-		mb. 988	660	54	-	-
	Waze Top 950 mb. F.C. 610																						
	1000-950 mb. Layers 50-70																						
	680-610 mb. Heavy C in 5 to																						
	450 mb. C.C. 410 not reached.																						
Linlithgow. 7h 27-7-32.	M.S.L.	-	-	-	-	Friedrichshafen. 6h 27-7-32.	M.S.L.	-	-	-	-	Hamburg. 7h 27-7-32.	M.S.L.	-	-	-	-	Coln.	mb. 1040	220	18	240	19
	976	882	70	-	-		968	1312	57	-	-		1008	61	60	-	-		220	18	240	19	
	977	1862	57	-	-		948	1970	55	-	-		988	660	54	-	-		220	18	240	19	
	999	3280	50	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	845	4920	43	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	795	5660	34	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	699	9840	23	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	1515	13120	10	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	539	16400	1	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
Königsberg. 7h 27-7-32.	M.S.L.	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	981	92	72	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	955	980	70	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	917	1640	70	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	787	2620	66	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	660	6900	47	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	600	11480	33	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	590	14760	22	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	539	17660	14	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	500	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	460	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	400	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	360	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	320	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	280	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	240	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	200	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	160	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	120	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	80	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	40	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	0	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-40	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-80	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-120	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-160	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-200	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-240	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-280	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-320	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-360	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-400	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-440	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-480	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-520	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-560	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-600	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-640	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-680	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-720	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-760	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-800	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-840	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-880	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-920	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-960	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1000	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1040	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1080	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1120	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1160	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1200	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1240	-	-	-	-		926	2620	54	-	-		926	2620	54	-	-		220	18	240	19	
	-1280	-	-	-	-		926	2620	54	-													



AIR MINISTRY. DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Friday, 29th July 1932.

No. B. 25817.
U.A.S. 4869.

DIAGRAM OF UPPER AIR TEMPERATURE.

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 24, 1911 and October 2nd 1896 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 Table Page.

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

UPPER WINDS.

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

h = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

— No speed given.

— 0-5 m.p.h.

— 5-15 " "

— 15-25 " "

— 25-35 m.p.h.

— 35-45 " "

— 45-55 " "

— 55-65 " "

— 65-75 " "

— 75-85 " "

— 85-95 " "

— 95-105 " "

— 105-115 " "

— 115-125 " "

— 125-135 " "

— 135-145 " "

— 145-155 " "

— 155-165 " "

— 165-175 " "

— 175-185 " "

— 185-195 " "

— 195-205 " "

— 205-215 " "

— 215-225 " "

— 225-235 " "

— 235-245 " "

— 245-255 " "

— 255-265 " "

— 265-275 " "

— 275-285 " "

— 285-295 " "

— 295-305 " "

— 305-315 " "

— 315-325 " "

— 325-335 " "

— 335-345 " "

— 345-355 " "

— 355-365 " "

— 365-375 " "

— 375-385 " "

— 385-395 " "

— 395-405 " "

— 405-415 " "

— 415-425 " "

— 425-435 " "

— 435-445 " "

— 445-455 " "

— 455-465 " "

— 465-475 " "

— 475-485 " "

— 485-495 " "

— 495-505 " "

— 505-515 " "

— 515-525 " "

— 525-535 " "

— 535-545 " "

— 545-555 " "

— 555-565 " "

— 565-575 " "

— 575-585 " "

— 585-595 " "

— 595-605 " "

— 605-615 " "

— 615-625 " "

— 625-635 " "

— 635-645 " "

— 645-655 " "

— 655-665 " "

— 665-675 " "

— 675-685 " "

— 685-695 " "

— 695-705 " "

— 705-715 " "

— 715-725 " "

— 725-735 " "

— 735-745 " "

— 745-755 " "

— 755-765 " "

— 765-775 " "

— 775-785 " "

— 785-795 " "

— 795-805 " "

— 805-815 " "

— 815-825 " "

— 825-835 " "

— 835-845 " "

— 845-855 " "

— 855-865 " "

— 865-875 " "

— 875-885 " "

— 885-895 " "

— 895-905 " "

— 905-915 " "

— 915-925 " "

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— 935-945 " "

— 945-955 " "

— 955-965 " "

— 965-975 " "

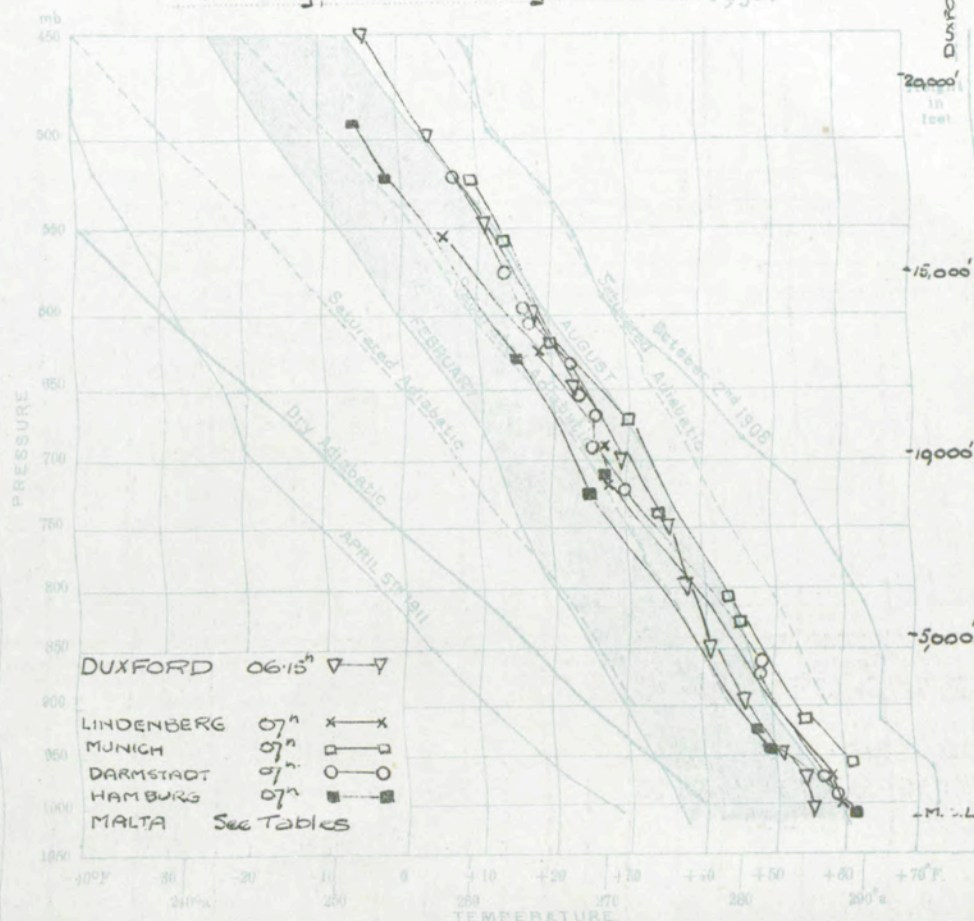
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— 985-995 " "

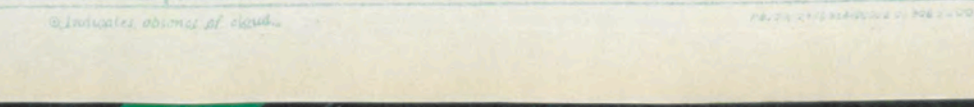
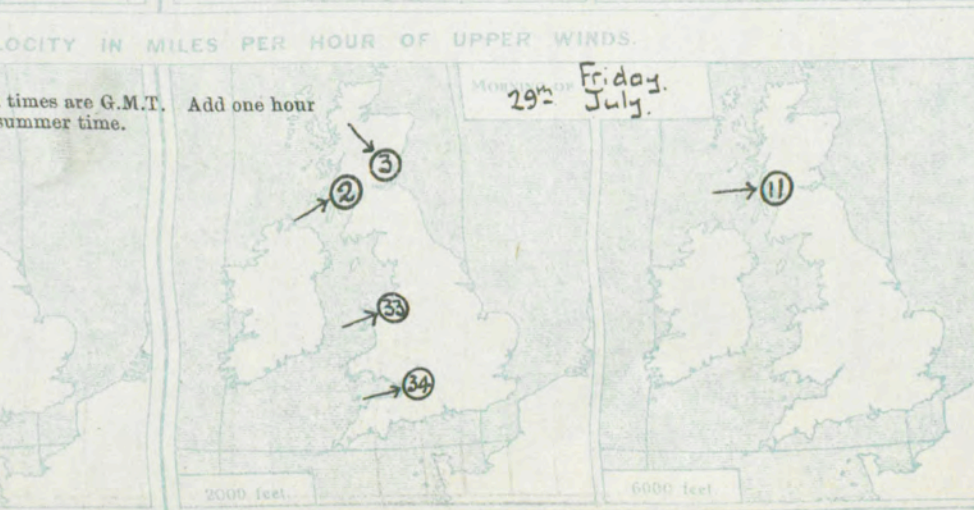
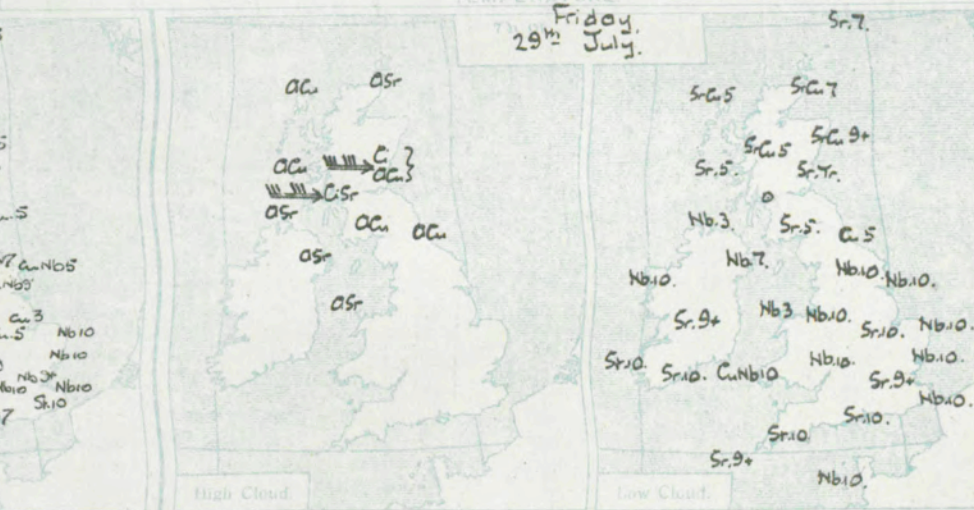
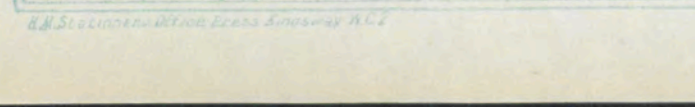
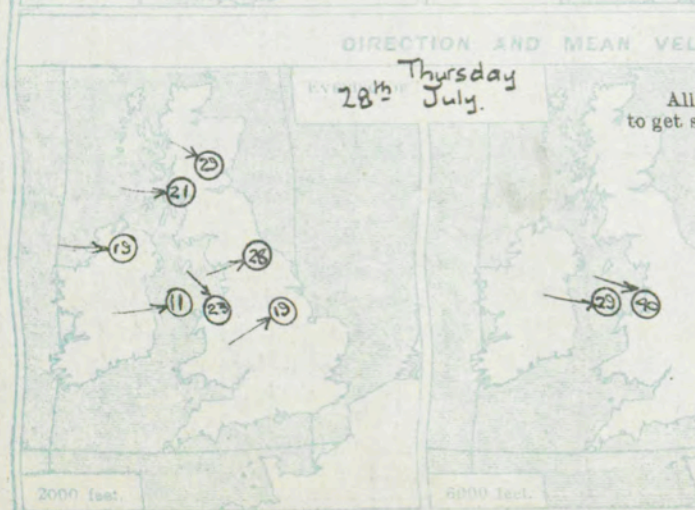
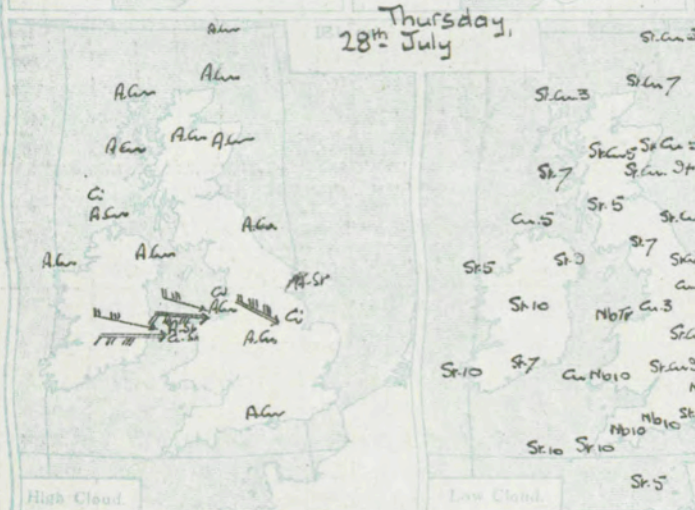
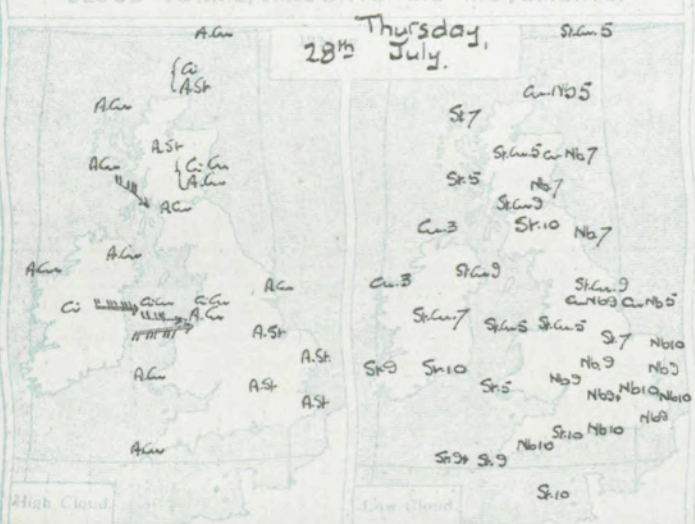
— 995-1000 " "

UPPER AIR TEMPERATURES.

Thursday, 28th July 1932.



CLOUD FORMS, AMOUNTS AND MOVEMENTS.

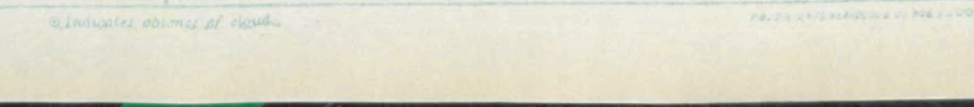
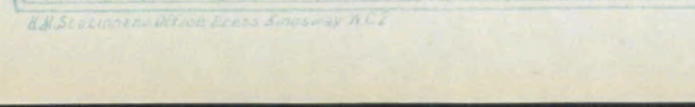
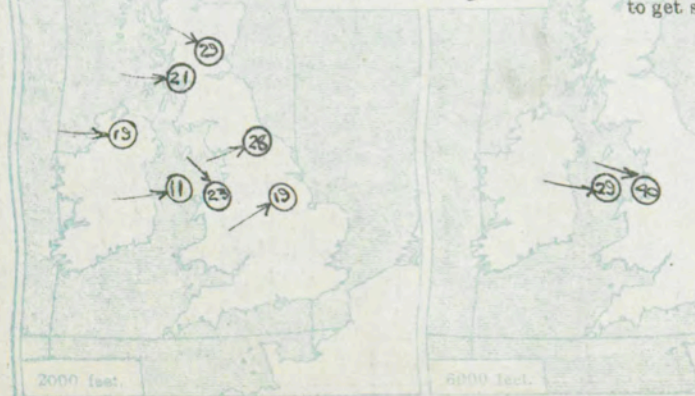


DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.

Thursday, 28th July.

All times are G.M.T. Add one hour to get summer time.

Friday, 29th July.



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

Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Sealand	Place
Time.									11 ⁿ 26 ⁿ			12 ⁿ 26 ⁿ	12 ⁿ 26 ⁿ	13 ⁿ 26 ⁿ	12 ⁿ 26 ⁿ	13 ⁿ 26 ⁿ		12 ⁿ 26 ⁿ		Time.
Type									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. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Feet
Surf.									220 13			235 15	240 11	245 15	275 15	270 15		250 15		Surf.
1000									225 25			270 17	260 16	240 16	230 13	285 18		285 26		1000
2000									235 23			275 17	265 21	250 13	305 23	255 22		260 28		2000
3000									255 29			275 25	265 19		305 36					3000
4000									260 36			265 24	255 20		305 35				ACu 16 ⁿ	4000
5000												265 31	260 27		305 33				270 42	5000
6000												265 34	270 34		300 17				CI 16 ⁿ	6000
8000												7100 ⁿ	7000 ⁿ		7000 ⁿ				230 75	8000
10000												275 36	275 36		250 25				Valencia	10000
12000													270 54						ACu 16 ⁿ	12000
Neph.													260 85	280 70	230 75	250 54			270 30	Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Alder-grove	Valencia	Holyhead	Place.
Time.									24h 28 ⁿ	17 ⁿ 28 ⁿ	17 ⁿ 28 ⁿ	16 ⁿ 26 ⁿ	17 ⁿ 28 ⁿ	17 ⁿ 28 ⁿ	18 ⁿ 28 ⁿ	17 ⁿ 28 ⁿ	18 ⁿ 28 ⁿ			Time.
Type																				Type
Feet									270 4	235 11	225 7	235 10	235 14	240 16	300 10	265 16	265 8			Feet
Surf.									270 12	240 23	245 15	245 12	230 18	250 26	310 27	285 24	285 14			Surf.
1000									260 17	255 19	270 25	265 11	300 23	235 28	300 23	235 21	285 13			1000
2000									255 14	275 22	270 24	260 21	275 34		305 28	235 22	280 18			2000
3000									265 25	275 26	275 29	275 29	260 27		315 13	305 21	270 20			3000
4000												280 29	260 33		230 21	315 21				4000
5000												285 23	285 40						CC 16 ⁿ	5000
6000												275 36	275 27	SEA AND					270 65	6000
8000												280 33	275 45	ACu 18 ⁿ					ACu 17 ⁿ	8000
10000												280 38	275 45	ACu 18 ⁿ					230 51	10000
12000													270 86	280 48					CC 18 ⁿ	12000
Neph.									260 80										270 65	Neph.
Place.	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness.	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand.	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valencia	Place.
Time.	6h 29 th	6h 29 th	7h 29 th	8h 29 th				6h 29 th					6h 29 th		7h 29 th	6h 29 th				Time.
Type.																				Type.
Feet	225 16	225 17	225 15	220 18				225 11					150 6		225 10	Calm				Feet
Surf.	245 26	230 38	235 29	230 26				235 25					225 19		295 9	200 5				Surf.
1000													240 33		310 3	230 2				1000
2000															270 3	245 5				2000
3000															270 2	260 9				3000
4000															295 4	270 8				4000
5000															10h ACu	265 11				5000
6000															270 45	270 13				6000
8000													10h ACu		7h C.	(7000)				8000
10000													270 42		270 60					10000
12000													10h CCu		5h C.	7h C.				12000
Neph.													360 60		280 50	270 60				Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.

Station.	Pressure.	Height above M.S.L.	Temp.			Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.			Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.			Relative Humidity																																																																																																																																																																																															
			Dry.	Wet.	%					Dry.	Wet.	%					Dry.	Wet.	%																																																																																																																																																																																																
DUXFORD 06.15 ^h 28. 7. 32	mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 600 550 500 450	Feet. 0 100 370 250 500 850 800 750 700 650 600 550 500 450	°F. 58 54 51.5 47 40 36 29.5 22 18.5 15.3 12.3 9 -4	°F. 53.5 50.5 48 42 37.5 32.5 24 19 17.5 10.5 4 -4	% 91 79 73 67 82 86 63 63 - - - - -		mb. 1003 1008 370 250 500 850 800 750 700 650 60

UPPER WINDS ABROAD.

Place.	Stettin	Breslau	Barcelona	Danzig	Helsing- fors	Malta
Time.	13 ⁿ 28 ["]	13 ⁿ 28 ["]	13 ⁿ 28 ["]	10 ⁿ 28 ["]	13 ⁿ 28 ["]	12 ⁿ 28 ["]
Feet.	Dir. Vel.	Dir. Vel.	Dir. Vel.	Dir. Vel.	D. Vel.	Dir. Vel.
1,640	236 16	293 7	210 13	- -	140 13	2000'
3,280	248 18	293 11	300 7	Calm	60 11	230 3
4,920	- -	- -	230 14	-	130 9	3000'
6,560	236 22	270 16	270 20	214 18	170 9	Calm
9,840		281 13	260 23	191 20		5000'
13,120		270 11	230 20	191 11		230 6
16,400			250 22	160 31		
19,880			230 26			

Place.	Dijon	Mang- nanie	Isfres	Barcelona	Malta	Malta
Time.	18 ⁿ 28 ["]	17 ⁿ 28 ["]	7h 29 ["]	7h 29 ["]	17 ⁿ 28 ["]	6h 29 ["]
1,640	320 11	- -	360 17	10 4	3000'	3000'
3,280	320 11	320 14	360 17	230 3	300 7	350 12
4,920	240 9	330 22	360 20	240 4	5000'	7000'
6,560	260 22	340 16	320 23	300 7	340 11	340 12
9,840			300 13	290 21	7000'	10000'
13,120			30 16	300 11	310 20	300 30
16,400				310 16		16000'
19,880				290 23		290 35

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

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

No. B. 25,818.
U.A.S. 4,870.

The chart is a thermodynamic plot with Pressure (mb) on the vertical axis (450 to 1000) and Temperature (°F) on the horizontal axis (-40 to +70). It includes data for several locations and dates, along with theoretical adiabats and a shaded region.

Legend:

- DUXFORD 0615^h ▽-▽
- KONIGSBERG 07^h ●-●
- LINDENBERG 06^h x-x
- HAMBURG 06^h ■-■
- FRIEDRICHSHAFEN 06^h □-□

Theoretical Lines:

- Dry Adiabatic (solid line)
- Saturated Adiabatic (dashed line)
- Saturated Adiabatic (dotted line)

Shaded Region: Labeled "FERNWÄRM" (Farther Heat), bounded by dashed lines.

Other Labels:

- October 2nd 1908
- April 5th 1911
- ~ 15,000'
- ~ 10,000'
- ~ 5,000'
- ~ 11.5.1

Friday, 29th July.

High Cloud

Low Cloud

[illegible]

TEMPERATURE

7h 00

Saturday,
30th July.

Sr.9+

Sr.7. Sr.Cu.10

Sr.Cu.5 Sr.10.

Sr.7. Sr.9+

Nb.7.

Nb.7. Sr.10. Nb.10.

Sr.9+

Nb.9+

Cu.Nb.7

Sr.Cu.3

Cu.Nb.5 Nb.10. Sr.5.

Cu.Tr. Sr.Cu.10

Sr.10. Sr.10. Cu.Nb.10 Nb.7.

Sr.7.

Sr.9+

Sr.10.

Sr.7.

Sr.7.

Sr.Cu.3

Sr.7.

Sr.Cu.5

High Cloud.

Low Cloud.

EVENING 29th Friday, July. All times are G.M.T. to get summer time. Add one hour. MORNING 30th Saturday, July.

2000 feet. 6000 feet. 2000 feet. 6000 feet.

DIRECTION (degrees from N.) and MEAN VELOCITY (m.p.h.) of SURFACE and UPPER WINDS at specified heights above M.S.L.—BRITISH.																																
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place												
Time	12 ^h 25 ^m	13 ^h 25 ^m	12 ^h 25 ^m	12 ^h 25 ^m					11 ^h 25 ^m	13 ^h 25 ^m			12 ^h 25 ^m		12 ^h 25 ^m					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.	Feet											
Surf.	240	22	225	21	215	18	225	20			240	18	215	15			210	7			110	10	Surf.									
1000	230	23	235	23	215	30	230	29			245	20	230	15			230	14			130	7	1000									
2000	245	35	245	23			235	40					230	28							170	8	2000									
3000	255	37	230	37			245	37													160	8	3000									
4000							260	39													160	3	4000									
5000																					200	5	5000									
6000																					230	13	6000									
8000													AC 16 ^h								255	21	8000									
10000													270 45								260	20	10000									
12000		AC 13 ^h											C 13 ^h								255	15	12000									
Neph.		250 42											240 55								190 35	270 21	Neph.									
Place	Lympne	South Farnboro	Worthy Down	Boscombe Down	Calshot	Croydon	Shoebury-ness	Felix-stowe	Cranwell	Cranwell	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place												
Time	17 ^h 25 ^m	18 ^h 25 ^m				17 ^h 25 ^m		17 ^h 25 ^m	17 ^h 25 ^m	01 ^h 30 ^m		17 ^h 25 ^m	17 ^h 25 ^m	17 ^h 25 ^m	17 ^h 25 ^m	18 ^h 25 ^m	18 ^h 25 ^m			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.	Feet											
Surf.	240	18	230	17			220	13			225	17	230	17	225	8			215	16	235	17	235	9	150	6	60	2	270	8	Surf.	
1000	235	22	230	25			230	14			230	27	235	42	240	29			245	34	245	31	245	19	155	7	85	7	270	19	1000	
2000	220	38					1500				230	26	240	43	255	39			255	32	260	26	225	23	190	6			275	29	2000	
3000							235	32							255	31			260	25	265	25			315	1			270	30	3000	
4000															255	21									250	7			265	27	4000	
5000																															5000	
6000																															6000	
8000																															8000	
10000																															10000	
12000																															12000	
Neph.																															Neph.	
Place	Croydon	South Farnboro	Worthy Down	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place												
Time	6 ^h 30 ^m	7 ^h 30 ^m	7 ^h 30 ^m						6 ^h 30 ^m		6 ^h 30 ^m		6 ^h 30 ^m		7 ^h 30 ^m	7 ^h 30 ^m				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.	220	8	205	5	230	11			210	14		195	13		160	6			95	5	190	13							175	11	Surf.	
1000	225	18	210	16	225	7			220	21		225	19		215	25			175	18	205	20							210	26	1000	
2000									235	30		235	14		220	31			245	20									220	27	2000	
3000									235	29		245	13		230	33													220	23	3000	
4000									230	20		235	21		240	30													225	26	4000	
5000									235	27																			225	21	5000	
6000									230	34																						6000
8000									235	32																						8000
10000		7h 35m							230	34																						10000
12000	10h C	7h AC							250	60					7h AC	240 42														230	60	12000
Neph.	240	60	240	42			270	54	230	65			260	55	250	110	210	60												190	60	Neph.

UPPER AIR TEMPERATURES AND HUMIDITIES.															UPPER WINDS ABROAD.															
Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Station.	Pressure.	Height above M.S.L.	Temp.		Relative Humidity	Place.	Epinal	Poithers	Angers	Mourmelon	Madrid	Malta						
	mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%		mb.	Feet.	°F.	°C.	%	Time.	12 ^h 25 ^m	13 ^h 25 ^m	13 ^h 25 ^m	12 ^h 25 ^m	13 ^h 25 ^m	17 ^h 25 ^m						
DUXFORD 06/5 ^h 23.7.32	1011	M.S.L.	-	-	-	LINDENBERG 06/5 ^h 23.7.32	1000	M.S.L.	-	-	-		mb.	Feet.	°F. <td>°C.<td>%</td><td rowspan="15"></td><td>Feet.</td><td>Dir.</td><td>Vel.</td><td>Dir.</td><td>Vel.</td><td>Dir.</td><td>Vel.</td></td>	°C. <td>%</td> <td rowspan="15"></td> <td>Feet.</td> <td>Dir.</td> <td>Vel.</td> <td>Dir.</td> <td>Vel.</td> <td>Dir.</td> <td>Vel.</td>	%		Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.					
	1003	100	63.5	17.5	96		1000	342	61	-	-		84	1,840	250	10	Calm		210	14	230	9	-	-	3000'					
	976	1120	55.5	13.1	92		952	1370	55.5	13.1	-		-	3,280	220	17	Calm		270	7	140	3	120	7	20 4					
	950	1730	56.5	13.6	97		877	2040	43	-	-		95	4,920	240	13	270		8	270	16	30	6	130	4	7000'				
	900	3230	54	12.2	94		862	2470	43	-	-		95	6,560						300	16	30	14	210	9	40 14				
	830	4800	51	10.6	88		730	3070	34	-	-		98	8,840								30	14	210	9	10000'				
	800	5450	47.5	14.2	84		710	3530	32	-	-		98	13,120										260	14	260	14	300 15		
	750	8200	43.5	12.5	96		700	4070	32	-	-		88	16,400												260	14	260	14	20,000'
	700	10050	33	3.9	73		1010	61	61	-	-		87	19,680															300 14	
	650	12020	33	3.5	83		919	2620	51	-	-		93																	
	600	14410	26.5	2.6	95		901	3280	51	-	-		80																	
	530	16380	13	18.5	-		824	5570	48	-	-		58																	
	500	18810	11	11	-		772	7560	33	-	-		47																	
								603	13600	13	-		-	25																
								583	14460	13	-		-	30																
						483	19600	1	-	-	27																			
						468	22300	1	-	-	27																			
																						</								

AIR MINISTRY.

DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

UPPER AIR SECTION, Sunday, 31st JULY, 1932.

No. B. 25819

U.A.S. 4871.

DIAGRAM OF UPPER AIR TEMPERATURE

Pressure and temperature are plotted on logarithmic scale so that all changes of temperature corresponding to the dry adiabatic law are represented by parallel straight lines.

The curves for April 2nd, 1911, and October 2nd, 1905, 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 prevailing conditions. See Table 2.

The straight line shows the adiabatic change for dry air.

UPPER WINDS.

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

s = balloon with tail. d = double theodolite ascent.

CLOUD MOVEMENTS (Nephoscope readings).

On Charts.

Movements are indicated thus:

No speed given.

0-5 m.p.h.

5-10 m.p.h.

10-20 m.p.h.

20-30 m.p.h.

30-40 m.p.h.

40-50 m.p.h.

50-60 m.p.h.

60-70 m.p.h.

70-80 m.p.h.

80-90 m.p.h.

90-100 m.p.h.

100-110 m.p.h.

110-120 m.p.h.

120-130 m.p.h.

130-140 m.p.h.

140-150 m.p.h.

150-160 m.p.h.

160-170 m.p.h.

170-180 m.p.h.

180-190 m.p.h.

190-200 m.p.h.

200-210 m.p.h.

210-220 m.p.h.

220-230 m.p.h.

230-240 m.p.h.

240-250 m.p.h.

250-260 m.p.h.

260-270 m.p.h.

270-280 m.p.h.

280-290 m.p.h.

290-300 m.p.h.

300-310 m.p.h.

310-320 m.p.h.

320-330 m.p.h.

330-340 m.p.h.

340-350 m.p.h.

350-360 m.p.h.

360-370 m.p.h.

370-380 m.p.h.

380-390 m.p.h.

390-400 m.p.h.

400-410 m.p.h.

410-420 m.p.h.

420-430 m.p.h.

430-440 m.p.h.

440-450 m.p.h.

450-460 m.p.h.

460-470 m.p.h.

470-480 m.p.h.

480-490 m.p.h.

490-500 m.p.h.

500-510 m.p.h.

510-520 m.p.h.

520-530 m.p.h.

530-540 m.p.h.

540-550 m.p.h.

550-560 m.p.h.

560-570 m.p.h.

570-580 m.p.h.

580-590 m.p.h.

590-600 m.p.h.

600-610 m.p.h.

610-620 m.p.h.

620-630 m.p.h.

630-640 m.p.h.

640-650 m.p.h.

650-660 m.p.h.

660-670 m.p.h.

670-680 m.p.h.

680-690 m.p.h.

690-700 m.p.h.

700-710 m.p.h.

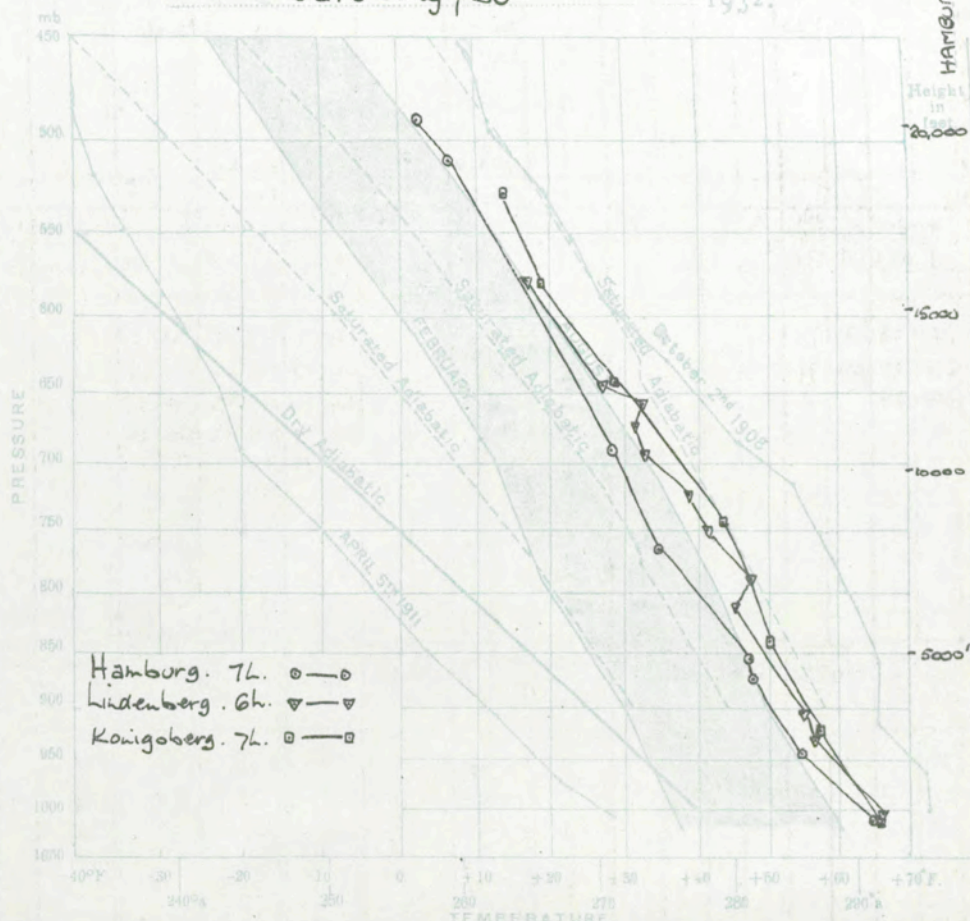
710-720 m.p.h.

720-730 m.p.h.

UPPER AIR TEMPERATURES.

Saturday, 30th

1932.



Hamburg 07

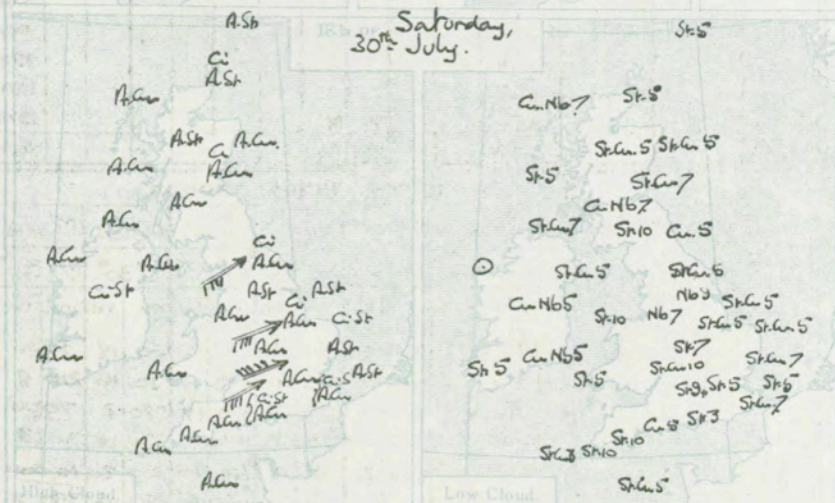
CLOUD FORMS, AMOUNTS AND MOVEMENTS.

Saturday, 30th July.

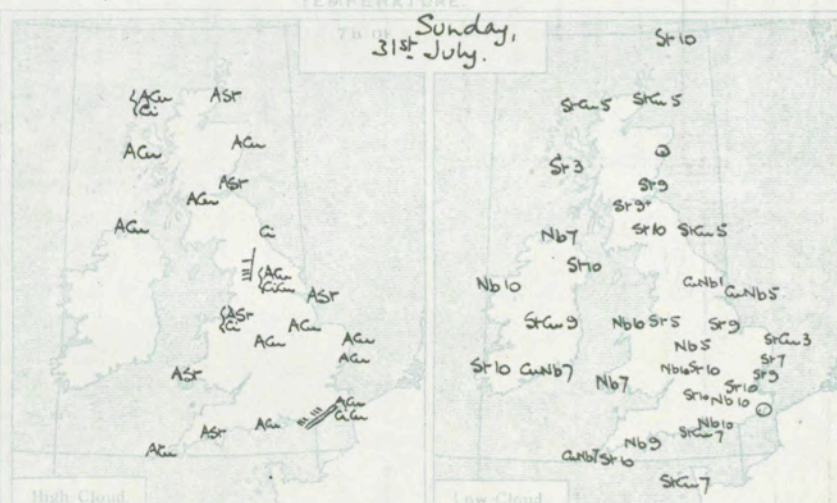
St 9

Saturday, 30th July.

St 5

Sunday, 31st July.

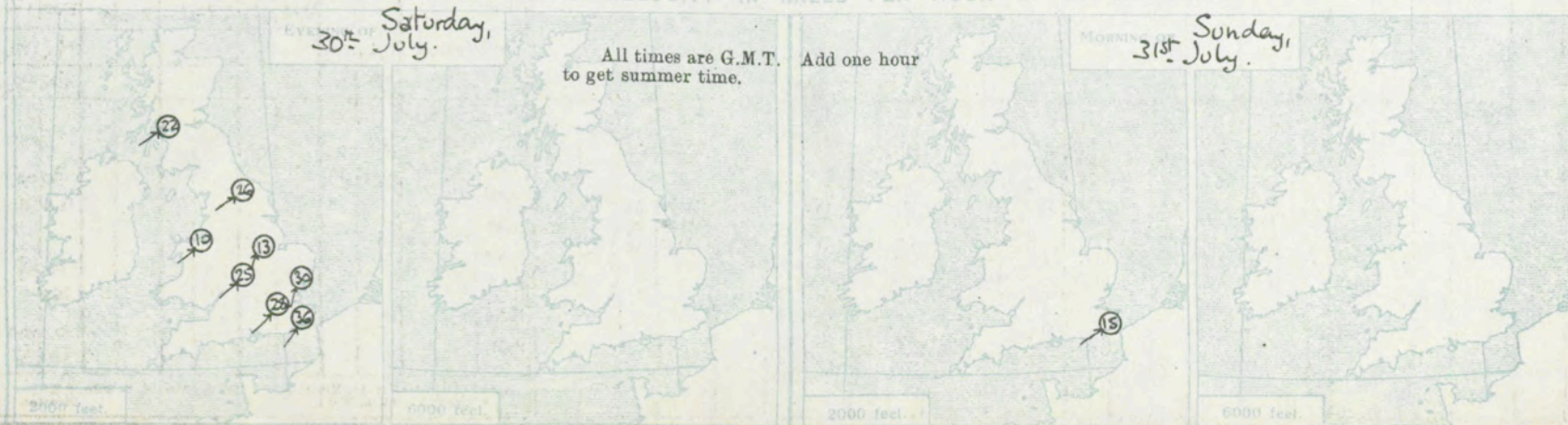
St 10



DIRECTION AND MEAN VELOCITY IN MILES PER HOUR OF UPPER WINDS.

Saturday, 30th July.

All times are G.M.T. Add one hour to get summer time.

Sunday, 31st July.

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

Place	Croydon	South Farnboro	Croydon	Boscombe Down	Calshot	Lympne	Shoebury-ness	Felix-stowe	Cranwell	Upper Heyford	Plymouth	Holyhead	Sealand	Catterick	Leuchars	Renfrew	Aberdeen	Alder-grove	Valentia	Place.	
Time.	10h 30h	13h 30h	12h 30h	15h 30h	10h 30h	12h 30h			11h 30h	12h 30h	12h 30h		12h 30h	13h 30h	13h 30h	13h 30h		12h 30h		Time.	
Type	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.	235	10	220	5	200	10	210	12	110	9	175	10							205	12	Surf.
1000	205	9	180	7	210	10	200	17	185	5	195	15							200	15	1000
2000			200	17			195	17			205	25							210	21	2000
3000			200	27							200	27							220	19	3000
4000			215	33							205	23							220	18	4000
5000											220	27							225	18	5000
6000											220	27							220	17	6000
8000													13h	6i							8000
10000													230	65							10000
12000													10h	6i							12000
													230	60							
													6i	6i							
													15h	AGu	16h	AGu					

UPPER AIR TEMPERATURES AND HUMIDITIES

Station.	Pressure.	Height above M.S.L.	Temp.			Station.	Pressure.	Height above M.S.L.	Temp.		
	mb.	Feet. M.S.L.	Dry.	Wet.	Relative Humidity.				Dry.	Wet.	Relative Humidity.
			°F.	°F.	%				°F.	°F.	%
		M.S.L.	—	—	—						
Hamburg. 7h. 30.7.32.											
			60.2	64.8	76.4				60.2	64.8	76.4
			48.7	52.0	56.0				48.7	52.0	56.0
			17.2	17.2	17.2				17.2	17.2	17.2
			2	2	2				2	2	2
		
			22	25	25				22	25	25
Lindenberg 6h. 30.7.32.											
			60.2	64.8	76.4				60.2	64.8	76.4
			48.7	52.0	56.0				48.7	52.0	56.0
			17.2	17.2	17.2				17.2	17.2	17.2
			2	2	2				2	2	2
		
			22	25	25				22	25	25
Königsberg 7h. 30.7.32.											
			60.2	64.8	76.4				60.2	64.8	76.4
			48.7	52.0	56.0				48.7	52.0	56.0
			17.2	17.2	17.2				17.2	17.2	17.2
			2	2	2				2	2	2
		
			22	25	25				22	25	25

UPPER WINDS ABROAD.

UPPER WINDS ABROAD.													
Place.	Bagnavars.		Cologne		St Raphael		Le Puy		Algiers		Malta		
Time.	13 ^h 30 ^m	13 ^h 30 ^m	12 ^h 30 ^m	12 ^h 30 ^m	13 ^h 30 ^m	10 ^h 30 ^m	17 ^h 30 ^m						
Feet.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	
1,840	150	20	160	13	120	11	-	-	60	18	3000'		
3,280	180	27	180	16	90	9	170	14	90	16	210	8	
4,920	200	17	-	-	90	7	170	14	220	2	7000'		
6,560	210	24	248	13	60	4	160	7	220	14	310	3	
9,840			236	31	50	4	140	10	300	20	10,000'		
13,120					Calm		150	6	280	16	380	7	
16,400					260	18	240	14	280	13	16,000'		
19,680					240	7	220	26	300	4	340	12	
Place.	Essen		Gleming								Malta		
Time.	15 ^h 30 ^m	15 ^h 30 ^m									6h 30m		
1,840	160	9	248	2							3000'		
3,280	214	11	225	7							160 4		
4,920	-	-									7000'		
6,560	236	22									260 1		
9,840											10,000'		
13,120											10 17		
16,400													
19,680													

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

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