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# THE DAILY WEATHER REPORT

BRITISH SECTION

1st October to 31st December

1943



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

# INTRODUCTION

The Daily Weather Report has been issued in three sections since April 1st, 1919, the British and International Sections consisting of four pages and the Upper Air Section of two pages. On 1st January, 1942, all three sections were modified. The International Section was reduced to two pages of charts supplemented at eight-day intervals by a four page tabular statement of foreign observations. The Upper Air Section was increased to four pages giving two pages of charts and diagrams and two pages of observations in tabular form. The British Section of which this forms the Introduction was modified by increasing the scale of the chart on page 2 so that it occupies the whole page, and in consequence the weather forecasts have been transferred to the front page and the table of auxiliary reports to the back page. The various codes which were formerly given on pages 1 and 4 are now incorporated in this Introduction. The increased scale of the chart on page 2 makes it possible to show the observations from a selection of stations in full, the data being set out in accordance with the "station model" adopted by the International Meteorological Conference at Warsaw in September, 1935.

On pp. 1 and 4 two tables of observations taken generally at 13h. and 18h. G.M.T. of "yesterday," and at 1h. and 7h. G.M.T. of "to-day" from about 45 stations in the British Isles, which regularly report to the Meteorological Office, and of the weather in the intervening intervals. These observations are telegraphed in a figure and letter code. The stations are arranged according to Forecast Districts as described at the foot of p. 1 of the report, and also on p. 4 of this Introduction. Whenever it is possible to do so without occupying too much space, the decoded values are set out in full in the table; in other cases, code figures are entered; these are interpreted by reference first to the number printed at the head of the column, and then to the Explanation printed below, where the column numbers are shown in connexion with each of the separate classes of observation. Observations in abridged form for a further selection of stations are printed on the lower part of page 4, and can be interpreted by reference at the head of the columns and to the explanation below.

**Barometric Tendency**—(Columns 2 and 17)  
The Barometric tendency is expressed in tenths of a millibar.

**Code for wind direction (DD)**  
Abridged observations (page 4).

Code Number	Direction	Code Number	Direction
00	Calm	16	S
01	N by E	17	S by W
02	NNE	18	SSW
03	NE by N	19	SW by S
04	NE	20	SW
05	NE by E	21	SW by W
06	ENE	22	WSW
07	E by N	23	W by S
08	E	24	W
09	E by S	25	W by N
10	ESE	26	WNW
11	SE by E	27	NW by W
12	SE	28	NW
13	SE by S	29	NW by N
14	SSE	30	NNW
15	S by E	31	N by W
		32	N

Note 33 is added to DD to denote unusual gustiness, and 67 is added if a definite squall or line squall has occurred during the preceding hour.

**Code for Height above ground of base of cloud (h)** Abridged reports (page 4).

0	...	0—150 feet
1	...	150—300 "
2	...	300—600 "
3	...	600—1,000 "
4	...	1,000—2,000 "
5	...	2,000—3,000 "
6	...	3,000—5,000 "
7	...	5,000—6,500 "
8	...	6,500—8,000 "
9	...	above 8,000 feet or no low cloud

**Code for cloud amount (N<sub>h</sub> and N).**  
Abridged reports (page 4).

0	...	0	7	...	More than 9 but with openings.
1	...	Trace.	8	...	10 tenths.
2	...	1 tenth.	9	...	Sky obscured by fog, dust storm or other phenomenon.
3	...	2, 3 tenths.			
4	...	4, 5, 6 tenths.			
5	...	7, 8 tenths.			
6	...	9 tenths.			

**Code for state of ground (E)**—Column 31.

0	...	Ground dry.	7	...	Ground covered with snow, less than 6 ins. deep but ground not frozen.
1	...	" wet.	8	...	" covered with snow, less than 6 ins. deep but ground frozen.
2	...	" flooded.	9	...	" covered with snow greater than 6 ins. deep.
3	...	" frozen hard and dry.			Fresh snow has fallen on the mountains.
4	...	" partly covered with snow or hail.			
5	...	" covered with ice or glazed frost.			
6	...	" covered with thawing snow.			

**Form of Low Cloud (CL)**—Columns 10, 25, and abridged reports (page 4).

- 0 No low cloud.
- 1 Fair weather Cu.
- 2 Large Cu without anvil.
- 3 Cb.
- 4 Sc formed by the spreading out of Cu.
- 5 Layer of St or Sc.
- 6 Ragged low clouds of bad weather (or fractonimbus).
- 7 Fair weather Cu and Sc.
- 8 Large Cu (or Cb) and Sc.
- 9 Large Cu (or Cb) and ragged low clouds of bad weather.

**Form of High Cloud (CH)**—Columns 11, 27

- 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 Cs increasing: still below 45° altitude: often in polar bands.
- 6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
- 7 Veil of Cs covering whole sky.
- 8 Cs not increasing and not covering whole sky.
- 9 Cc predominating, and a little ci. (Cc may occur with any of the types 1 to 8).

**Code for Horizontal Visibility (V)**—Columns 9, 24, and abridged reports (page 4).

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.

**Code for State of Sea (S)**—Column 32

0	Calm—glassy.	5	Rough.
1	Calm—rippled.	6	Very rough.
2	Smooth.	7	High.
3	Slight.	8	Very high.
4	Moderate.	9	Phenomenal.

**Rainfall**—Columns 36, 37

Tr: = rain has fallen, but amount less than 0.1 m.m.

**Form of Medium Cloud (CM)**—Columns 11, 26, and abridged reports (page 4).

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

**Cloud Form Abbreviations**

Cirrus,—Ci:	Stratocumulus,—Sc:
Cirrocumulus,—Cc:	Stratus,—St:
Cirrostratus,—Cs:	Nimbostratus,—Ns:
Altostratus,—As:	Cumulus,—Cu:
Altostratus,—As:	Cumulonimbus,—Cb:

**Cloud Amount**—Columns 13, 14, 28, 29

Columns 13, 28. The figures in these columns indicate the amount of cloud at the height given in Columns 15, 30. Columns 14, 29. The figures in these columns indicate the total amount of all forms of cloud. An entry "4-6" means that the cloud amount may be 4, 5 or 6 tenths; similarly for other grouped entries. "tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky. "9+" signifies sky covered but with a few small openings.

**Beaufort Notation and Symbols for Weather**—Columns 5, 20, 39, 40, 41, 42.

b, blue sky (not more than a quarter covered with cloud).	q, squalls.	r, rain.	s, snow.
bc, sky partly cloudy (one half covered).	rs, sleet.	t, thunder.	
c, generally cloudy.	u, ugly, threatening sky.		
d, drizzle.	v, unusual visibility.	w, dew.	
e, wet air.	x, hoar frost.	y, dry air.	
f, fog, visibility 220-1100 yds.	z, dust haze: the turbid atmosphere of dry weather.		
F, thick fog, less than 220 yds.	h(r), "hail" or "rain and hail."		
fs, low fog over sea (coast station).	Capital letters indicate intense; suffix, indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r <sub>s</sub> , slight rain.		
fg, low fog over land (inland station).	rr, continuous rain.		
m, mist, visibility 1100-2200 yds.	<, less than (for cloud height).		
h, hail. i, intermittent.	gale.		
jj, fog at a distance, but not at station.	⊙, Solar halo. ⊙, lunar halo. ⊙, Aurora.		
jp, precipitation within sight of station.	With present weather is combined, whenever possible, the general character of the weather.		
ks, storm of drifting snow.	A "solidus" divides actual existing weather from preceding conditions thus: —bc/r, fair weather after rain; —, has decreased; +, has increased.		
k/s, slight storm of drifting snow (generally low).			
k/S, heavy storm of drifting snow (generally low).			
s <sub>o</sub> /k, slight storm of drifting snow (generally high).			
S/k, heavy storm of drifting snow (generally high).			
KQ, line squall. l, lightning.			
o, overcast sky. p, passing showers			

Explanations of the symbols used for cloud forms in the chart on p. 2, will be found in Form 2459, "Instructions for the Preparation of Weather Maps." H.M. Stationery Office. Price 2/6 net.

## THE BEAUFORT SCALE OF WIND FORCE [F] Columns 4, 19

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 30 to 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

## GALE WARNINGS\*

The Meteorological Office issues warnings to ports and fishing stations of gales on or near the coasts of the British Isles. When one of these notices has been received at a station a black canvas cone is hoisted. The signals remain hoisted after the receipt of a warning telegram until danger of a gale is passed.

The **North Cone** (point upwards) is hoisted for gales commencing from a Northerly point.

For gales commencing from East or West the North Cone will be hoisted if the gale is expected to change to a Northerly direction.

The **South Cone** (point downwards) is hoisted for gales commencing from a Southerly point. Such gales often veer, sometimes as far as Northwest.

For gales commencing from East or West the South Cone will be hoisted if the gale is expected to change to a Southerly direction.

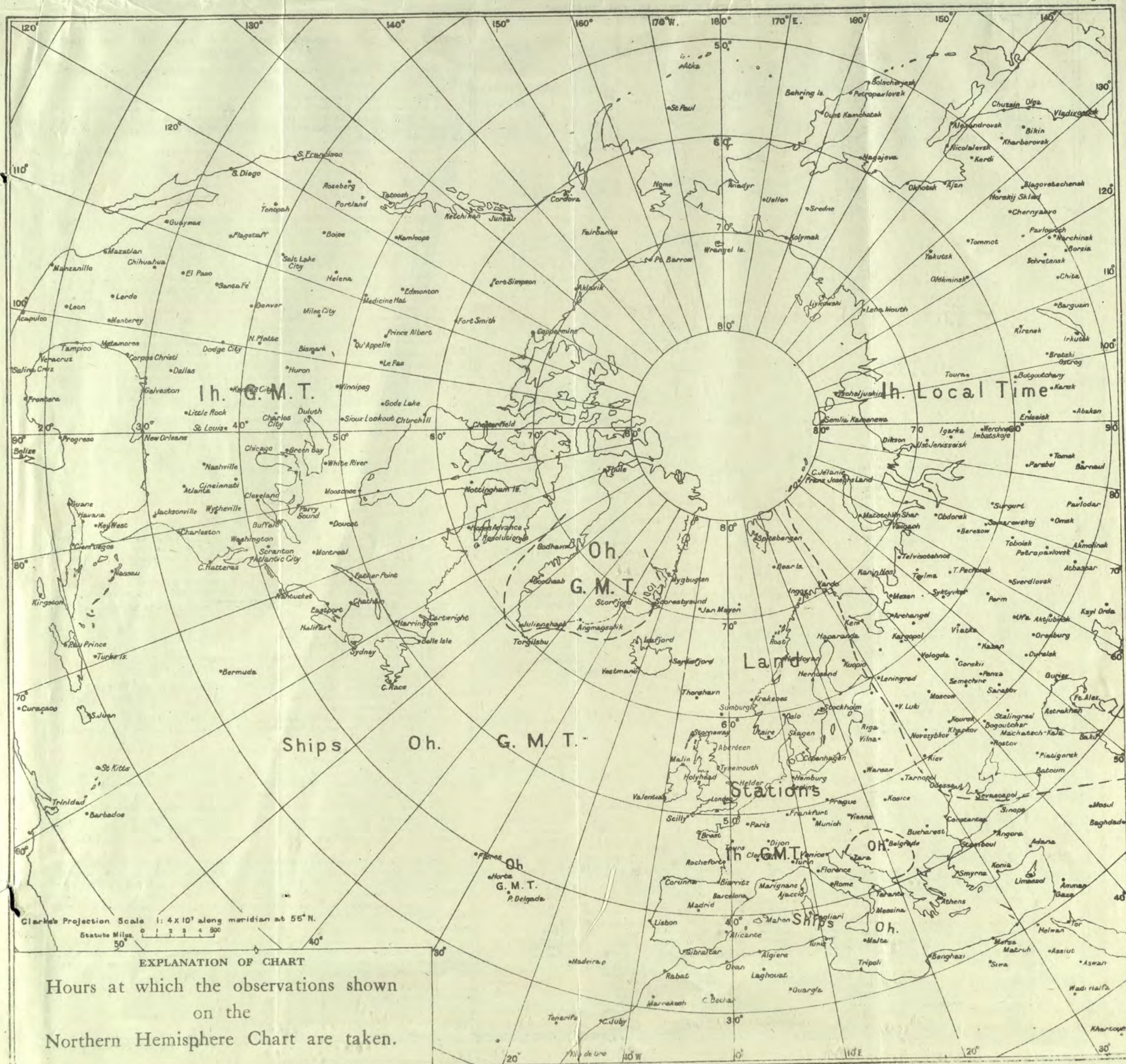
The districts to which warnings are sent are shown in the Report by the following symbols written on page 1 against the forecast districts to which they apply:—

▲ North Cone hoisted:

▼ South Cone hoisted:

The time or times of issue of the gale warning telegrams is shown below the "further outlook" on page 1 of the Report.

\*Note—The public issue of Gale Warnings is suspended for the duration of war.



## FORECAST DISTRICTS AND STATIONS IN GREAT BRITAIN AND IRELAND



## FORECAST DISTRICTS and the Counties comprised within them

- |   |  |  |   |   |  |
|---|--|--|---|---|--|
| 1. England, S.E.<br>Kent.<br>Sussex.<br>Surrey.<br>Hampshire.<br>Berkshire.<br>Wiltshire.                                     | 4. Midlands, W.<br>Gloucester.<br>Hereford.<br>Worcester.<br>Shropshire.<br>Stafford.        | 8. England, N.W.<br>Cheshire.<br>Lancashire.<br>Westmorland.<br>Cumberland.                      | 11. Scotland, S.E. (cont.)<br>Linlithgow.<br>Clackmannan.<br>Kinross.<br>Fife.<br>Forfar.   | 13b. Scotland, N.W. 16. Orkneys and Shetlands.<br>Hebrides.<br>Western parts of Inverness, Ross and Cromarty, Sutherland.<br>(Boundary line runs from Rannoch Station through Port Augustus, Beaulieu and Lairg to Melville.) | 19. Ireland, S.E.<br>Waterford.<br>Wexford.<br>Kilkenny.<br>Carlow.<br>Wicklow.<br>Offaly.<br>Leix.<br>Kildare.<br>Dublin. |
| England, E.<br>Essex.<br>Middlesex.<br>Hertford.<br>Bedford.<br>Huntingdon.<br>Cambridge.<br>Suffolk.<br>Norfolk.<br>Lincoln. | 5. England, S.W.<br>Dorset.<br>Somerset.<br>Monmouth.<br>Devon.<br>Cornwall.                 | 9. Midlands, N.<br>Derby.<br>Yorkshire, W.   | 12. Scotland, S.W., and Isle of Man.<br>Dumfries.<br>Kirkcudbright.<br>Wigtown.<br>Ayr.<br>Lanark.<br>Renfrew.<br>Dumbarton.<br>Stirling.   | 14. Mid Scotland.<br>Perth.   | 17. Ireland, N.W.<br>Galway.<br>Roscommon.<br>Mayo.<br>Sligo.<br>Leitrim.  |
| 3. Midlands, E.<br>Buckingham.<br>Oxford.<br>Northampton.<br>Warwick.<br>Leicester.<br>Rutland.<br>Nottingham.                | 6. Wales, S.<br>Glamorgan.<br>Brecknock.<br>Carmarthen.<br>Pembroke.<br>Cardigan.<br>Radnor. | 10. England, N.E.<br>Yorkshire, N. & E.<br>Durham.<br>Northumberland.                            | 15. Scotland, N.E.<br>Kincardine.<br>Aberdeen.<br>Banff.<br>Elgin.<br>Nairn.<br>Caithness.<br>Eastern parts of Inverness, Ross, Sutherland. | 18. Ireland, N.E.<br>Meath.<br>West Meath.<br>Longford.<br>Cavan.<br>Fermanagh.<br>Monaghan.<br>Louth.<br>Armagh.<br>Down.<br>Antrim.<br>Londonderry.<br>Tyrone.<br>Donegal.  | 20. Ireland, S.W.<br>Cork.<br>Kerry.<br>Limerick.<br>Tipperary.<br>Clare.  |
|   | 7. Wales, N.<br>Montgomery.<br>Merioneth.<br>Flint.<br>Denbigh.<br>Carnarvon.<br>Anglesey.   | 11. Scotland, S.E.<br>Roxburgh.<br>Selkirk.<br>Peebles.<br>Berwick.<br>Haddington.<br>Edinburgh. | 13a. Scotland, W.<br>Argyll.<br>Bute.   |   |  |

## NOTES ON THE INFORMATION CONTAINED IN THE DAILY WEATHER REPORT

**Standard of Time.**—Greenwich Mean Time is exclusively used throughout the Report.

**Stations.**—*Kew.*—Temperature readings at Kew are taken in a large louvred screen placed against the north wall of the observatory. The thermometer bulbs are at a height of 10 feet above the ground immediately surrounding the building. This ground is raised a few feet above the general level of the Old Deer Park in which the observatory stands.

**London Observations.**—As from 1st January, 1934, the rainfall measurements at all the London stations where rain gauges are maintained, refer to two periods, day and night. The day period at Kew and Croydon is 7h. to 18h. G.M.T.; at all other stations it is 9h. to 18h. G.M.T.

**Point of Ayre.**—The first observations are made at 0030 G.M.T. instead of at 0100 G.M.T.

**Heights of Stations.**—The heights of British Stations above M.S.L. refer to the plot of ground on which the rain gauge is situated.

**Pressure.**—The distribution of barometric pressure at Mean Sea Level is shown by means of isobars which are drawn for intervals of 2 millibars on page 2 of the Report and for intervals of 4 millibars on Page 3.

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 for the chart on Page 2 the speed of the upper wind is about 24 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 48 m.p.h.

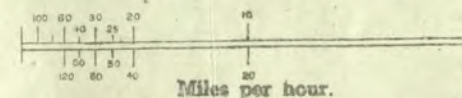
The scales below can be used to determine the theoretical wind as deduced from the pressure distribution on either chart. On the assumption that the path of the air is straight this theoretical wind is called the Geostrophic Wind.

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 SCALES

Upper Scale—8 mb isobars on 1:4 × 10<sup>7</sup> Charts.

Lower Scale—2 mb „ „ 1:5 × 10<sup>6</sup> „



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 positions of the stations.

**Relative Humidity.**—Relative Humidity at British stations is calculated from the following hygrometric formulae:—

$$\text{Relative humidity} = \frac{100x}{F}$$

$$x = f - .444(t - t')$$

$$x = f - .400(t - t')$$

where  $x$  is the vapour pressure in mb.

$F$  the saturation vapour pressure at the temperature of the dry bulb;

For air temperatures below 32° F. the value of  $F$  used is that appropriate to an ice surface.

$f$  the saturation vapour pressure at the temperature of the wet bulb;

For wet bulb temperatures below 32° F. the value of  $f$  used is that appropriate to an ice surface.

$t$  the dry bulb temperature; and

$t'$  the wet bulb temperature.

The entries in columns 7 and 22 are limited to 10, 25, 35, etc., to 85, 92 and 97. Entry 10 indicates that relative humidity is from 0 to 19; 25, between 20 and 29; and so on; 92, from 90 to 94; 97 between 95 and 100.

The values of Dew Point given in columns (8) and (23) are derived from the original readings of dry—and wet—bulb temperature and are correct to one degree Fahr. Values below 32° F. give the "Hoar Frost Point," that is to say the temperature for which the actual vapour pressure is equal to the saturation pressure over ice.

**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. Each feather denotes two steps on the Beaufort Scale; thus force 5 is indicated by two whole feathers and one half feather.

**Adjusted Readings.**—Where an instrumental reading is found to be in error and some adjustment is necessary, such adjusted reading is published in brackets thus (59).

**N.B.**—Readers of the Report who are unacquainted with the method of construction and the use of weather charts are recommended to read "The Weather Map: An Introduction to Modern Meteorology," (3rd Edition, 1939), to be purchased from H.M. Stationery Office, York House, Kingsway, W.C.2, price 3s. 2d. post free.

Corrections and additions can be obtained, if required, on application to the Meteorological Office.

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Page 1.



# THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON

MONTHLY SUPPLEMENT,  
NOVEMBER 1943 No. 323

## UNSETTLED - FAIR INTERVAL DURING THIRD WEEK.

Conditions during the first day or two were generally unsettled; the complex low over the southwestern districts moving slowly east, and filling up. Pressure became rather uniform over the whole country and there was considerable fog during the night 3rd-4th particularly in the east and south-east.

Rain associated with the passage of a trough from the Icelandic depression affected the western seaboard on 6th and moved slowly southeast. The unstable cold air in the rear of the trough gave rise to showers, mostly of a wintry type in the north, and were accompanied by thunder in eastern districts. Temperatures in general were considerably lower than of late; screen frosts being experienced for the first time in the month.

Another trough crossed the country during the 8th-9th, but precipitation was mainly slight. The rapid movement of a disturbance across N.W. Scotland gave gales and rain in the west and north on the 10th and 11th, but fair conditions continued in the south with local fog.

There were gales in the North, and widespread precipitation, although amounts were small, in the South on the 12th, during the passage south-east of a disturbance from Iceland. In the very cold northerly current in the rear of this depression, there were gales and widespread wintry precipitation, and local thunderstorms.

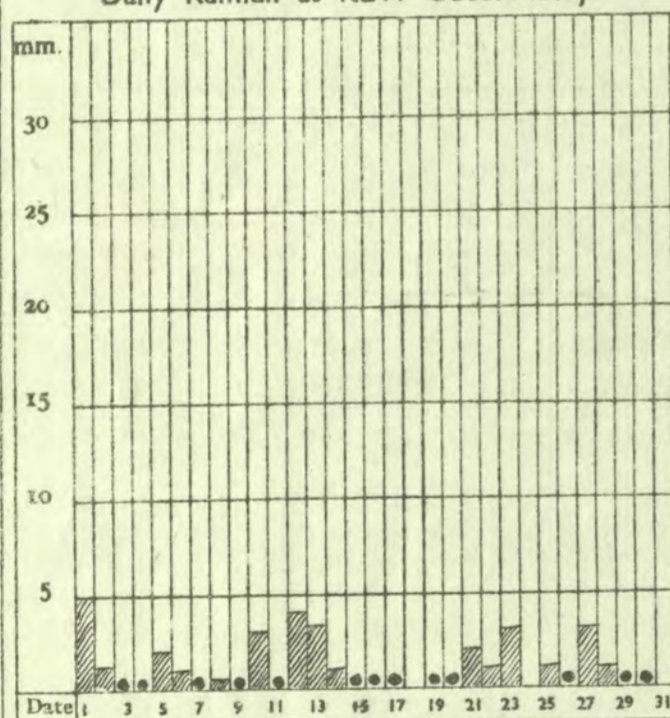
On the 16th an anticyclone became well-established on the Atlantic, and most of the country came under this influence by the 17th, although weak troughs of low pressure moved eastwards across the northern half of the country during the 17th, 18th, and 19th, giving scattered wintry showers, with thunder in places. Widespread fog developed during the 19th and persisted during the 20th; being dense in some areas in the south.

Troughs of low pressure associated with a disturbance North-east of Iceland, moved east then southeast across the country on 22nd, and local rain and drizzle were general, with fog in many areas.

Very disturbed conditions prevailed during the 23rd and 24th when a deep depression crossed Scotland: There were gales in many places in the North, and west and considerable rainfall; falls being heavy in Southern Scotland. A fair interval ensued during the 25th and 26th although some scattered showers were reported, of a wintry type in the North. Rainfall was again general during the 28th and 29th, followed by wintry precipitation of a showery type on the 30th.

Despite the general character of the month, rainfall with very few exceptions was below average. Departures from normal of sunshine were irregular; Renfrew with 67 hours attaining a new high record and Valentia with 32 hours created a new low record for the month.

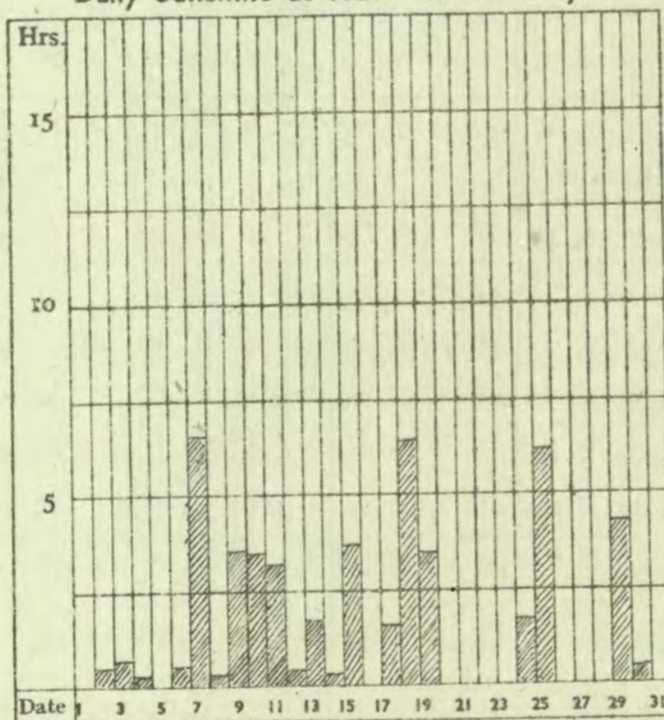
Daily Rainfall at KEW Observatory.



● = less than 0.5 mm.

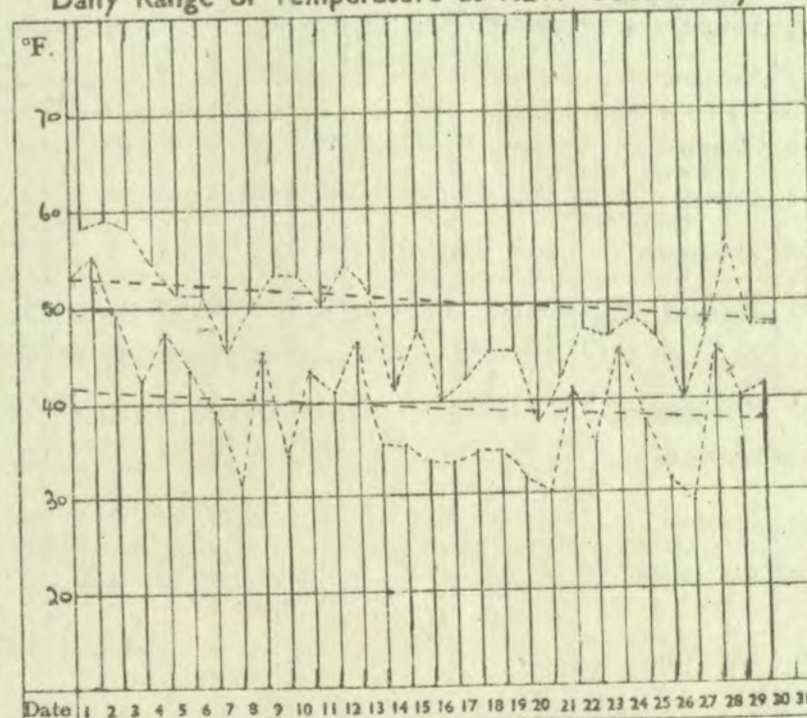
RAINFALL. Total for Month. 33 mm.

Daily Sunshine at KEW Observatory.



SUNSHINE. Total for Month. 48 hrs.

Daily Range of Temperature at KEW Observatory.



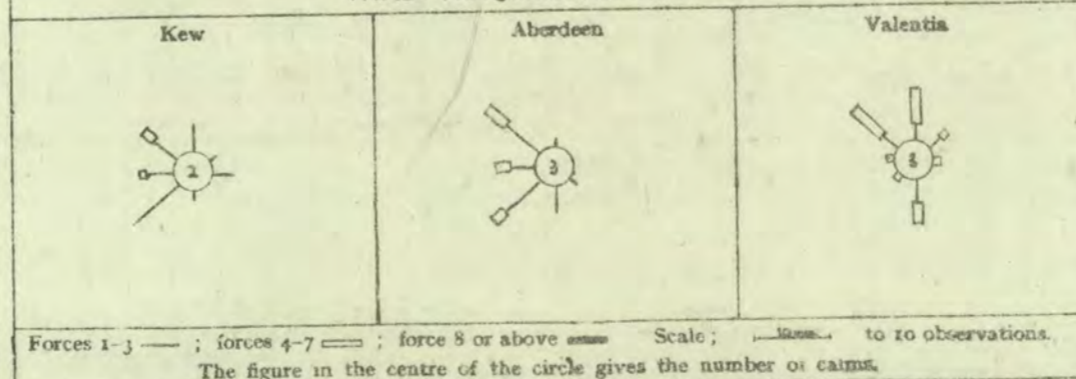
TEMPERATURE. The pecked curves indicate the maximum temperature recorded each day, and the minimum temperature each night throughout the month. The chain lines show normal values.

### MEAN VALUES FOR THE MONTH.\*

STATIONS.	PRESSURE		TEMPERATURE	
	Mean	Difference from average	Mean	Difference from average
Kew	mb 1015.7	+ 1.1	°F. 43.7	- 0.6
Aberdeen	1010.9	+ 1.1	42.3	0.0
Valentia	1020.1	+ 7.1	48.5	+ 1.0

\* Pressure—The mean is for the 24 hours. It is derived from values at 7 h. and 19 h. duly corrected.  
Temperature—mean of Max. and Min.

### WIND FREQUENCIES at 7 hr.



"RUN" of WIND, or total displacement of air relative to the anemograph.

	miles.
Kew	5,894
Aberdeen	6,911
Lerwick	13,755
Valentia	

## SUMMARY OF RECORDS OF TEMPERATURE, LOW CLOUD, VISIBILITY,

DISTRICT.	STATIONS.	↑ TEMPERATURE.												LOW CLOUD.						FOG, MIST and GOOD VISIBILITY.																				
		Number of daily readings within fixed limits.						Extremes—Warmest and Coldest.						Number of observations within fixed limits.						Number of observations within fixed limits.																				
								Days.				Nights.																												
		Maximum.		Average Maximum.	Minimum.				Average Minimum.	Highest Max.		Lowest Max.		Highest Min.		Lowest Min.		Number of Ground Frosts.	Below 1,000 ft.		1,000-5,000 ft.		5,000-8,000 ft.		Below 1,000 ft.		1,000-5,000 ft.		5,000-8,000 ft.		Dense fog.		Thick fog.		Fog.		Mist.		Good Visibility.	
33°-41°	42°-50°	51°-59°	60°-68°		23° or below	24°-32°	33°-41°	42°-50°		51°-59°	Highest Max.	Date.	Lowest Max.	Date.	Highest Min.	Date.	Lowest Min.		Date.	Below 1,000 ft.	1,000-5,000 ft.	5,000-8,000 ft.	Below 1,000 ft.	1,000-5,000 ft.	5,000-8,000 ft.	Below 1,000 ft.	1,000-5,000 ft.	5,000-8,000 ft.	Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.	Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.		
1	London (Kew Obsy) ...	4	15	11	0	48.6	0	5	14	9	2	40.0	59	2	37	20	55	2	29	27	13	3	27	0	1	27	1	4	19	0	1	2	6	4	1	0	0	2	1	6
	Croydon ...	5	13	12	0	49.1	0	7	13	8	2	39.4	59	23	34	20	55	2	28	20	8	7	16	0	4	23	1	4	20	0	2	1	4	5	3	1	0	2	5	3
	Thorney Island	0	15	12	3	50.2	0	7	9	10	4	41.5	63	2	42	16	54	12	38	20.21	13	5	20	0	2	20	0	1	18	0	0	0	1	2	11	0	0	1	0	17
	Lympne ...	4	16	10	0	47.9	0	6	13	8	3	39.4	58	3	40	14.16 17.18	54	2	30	27	13	7	18	0	4	21	0	4	15	1	0	1	0	4	5	0	0	0	4	6
2	Shoeburyness...	3	16	10	1	49.2	0	6	13	7	3	39.0	64	3	40	16	54	2	30	20	10	0	20	0	0	23	0	0	19	0	0	0	5	5	0	0	1	1	5	
	Gorleston ...	1	19	9	1	48.6	0	2	15	10	3	40.8	64	2	40	26	54	2	31	26	3	4	25	0	5	22	0	7	15	0	0	0	1	2	15	0	0	0	1	20
	Cranwell ...	3	18	9	0	47.1	0	8	16	5	1	37.1	58	3	40	24.27	55	2	30	26	9	7	19	0	5	21	0	3	17	0	0	3	3	5	4	0	0	4	3	12
3	Birmingham ... (Edgbaston)	5	17	8	0	46.9	0	3	15	12	0	39.0	57	3	38	16	50	12	28	17	13	9	14	0	6	19	0	5	18	0	0	1	7	5	3	0	0	5	3	8
	Ross-on-Wye...	2	17	11	0	48.4	0	4	13	11	2	39.0	58	3	41	16.17	56	2	29	17	12	5	22	0	3	27	0	5	24	0	0	1	2	0	16	0	0	1	1	19
	The Lizard ...	0	11	16	3	*	0	0	10	14	6	*	61	2	45	17	56	6	34	17.18	*	1	29	0	1	29	0	1	29	0	0	0	1	0	19	0	0	0	1	24
7	Holyhead (Valley) ...	0	16	12	2	49.7	0	1	11	14	4	44.4	62	2	44	16	53	2	29	19	4	2	28	0	4	25	0	4	24	0	0	0	2	24	0	0	0	2	24	
	Chester (Sealand) ...	0	19	10	1	48.3	0	2	12	13	3	38.2	60	2	42	16.17	52	4	29	19	9	2	26	0	2	27	0	2	24	0	0	3	3	12	0	0	1	0	15	
	Tynemouth ...	2	20	8	0	47.5	0	2	18	8	2	40.4	57	10	39	26	52	2	32	26.27	2	0	26	0	0	28	0	0	22	0	0	1	4	15	0	1	0	6	13	
11	Leuchars ...	5	15	10	0	46.7	0	5	17	4	4	36.3	59	3	37	27	51	1.3, 5.10	29	27	13	5	20	1	2	27	1	3	24	0	0	3	1	17	0	0	2	0	19	
	Renfrew ...	2	20	8	0	46.1	0	7	11	8	4	36.1	59	3	39	27	53	5	26	17	17	6	19	0	5	21	0	6	22	0	0	4	4	16	0	0	1	0	21	
	Eskdalemuir ...	13	11	6	0	43.9	1	13	9	7	0	34.3	56	3	35	27	49	1	23	27	14	14	13	0	9	21	0	9	19	0	1	0	2	3	16	1	2	0	0	20
13B	Stornoway ...	4	18	8	0	47.2	0	2	18	7	3	39.6	57	3	40	14.15	53	10	29	27	6	3	27	0	7	21	1	2	28	0	0	0	1	0	20	0	0	0	0	21
	Aberdeen ...	9	13	8	0	46.2	0	2	20	7	1	38.3	56	10.20	38	14.16	51	3	27	27	11	8	18	1	7	18	3	5	22	0	0	1	2	4	16	0	0	0	5	21
18	Aldergrove ...	3	18	9	0	47.9	0	3	15	9	3	39.1	57	3	38	18.26	52	1.3	27	17.26	9	8	20	1	8	22	0	8	21	0	0	0	1	1	21	0	0	1	0	21
	Birr Castle ...	0	17	13	0	48.6	0	4	10	12	4	38.2	58	1	42	26	52	2.3, 10	26	26	6	6	19	0	2	28	0	5	21	0	0	0	1	0	29	0	0	1	1	28
	Valentia (Cahiriveen) ...	0	14	16	0	51.2	0	0	8	15	7	43.7	57	5.10	46	15	53	2.3, 5.10	34	15	3	5	23	1	6	23	1	8	22	0	0	0	0	0	23	0	0	0	0	26

[illegible]

† The readings and averages used, are the maximum for the period 7 h.-18 h. and the minimum for the period 18 h.-7 h. Averages are for periods of at least 10 years (See M.O. 304).

\* Winds of 0-5 km./hr. are included in the number of observations.  
METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON, W.C.2  
NELSON K. JOHNSON, K.C.B., D.Sc. Director



## PRESSURE: ICELAND TO GULF OF LIONS

NOVEMBER

1943.

ISOPLETHS BASED ON SIX-HOURLY OBSERVATIONS.



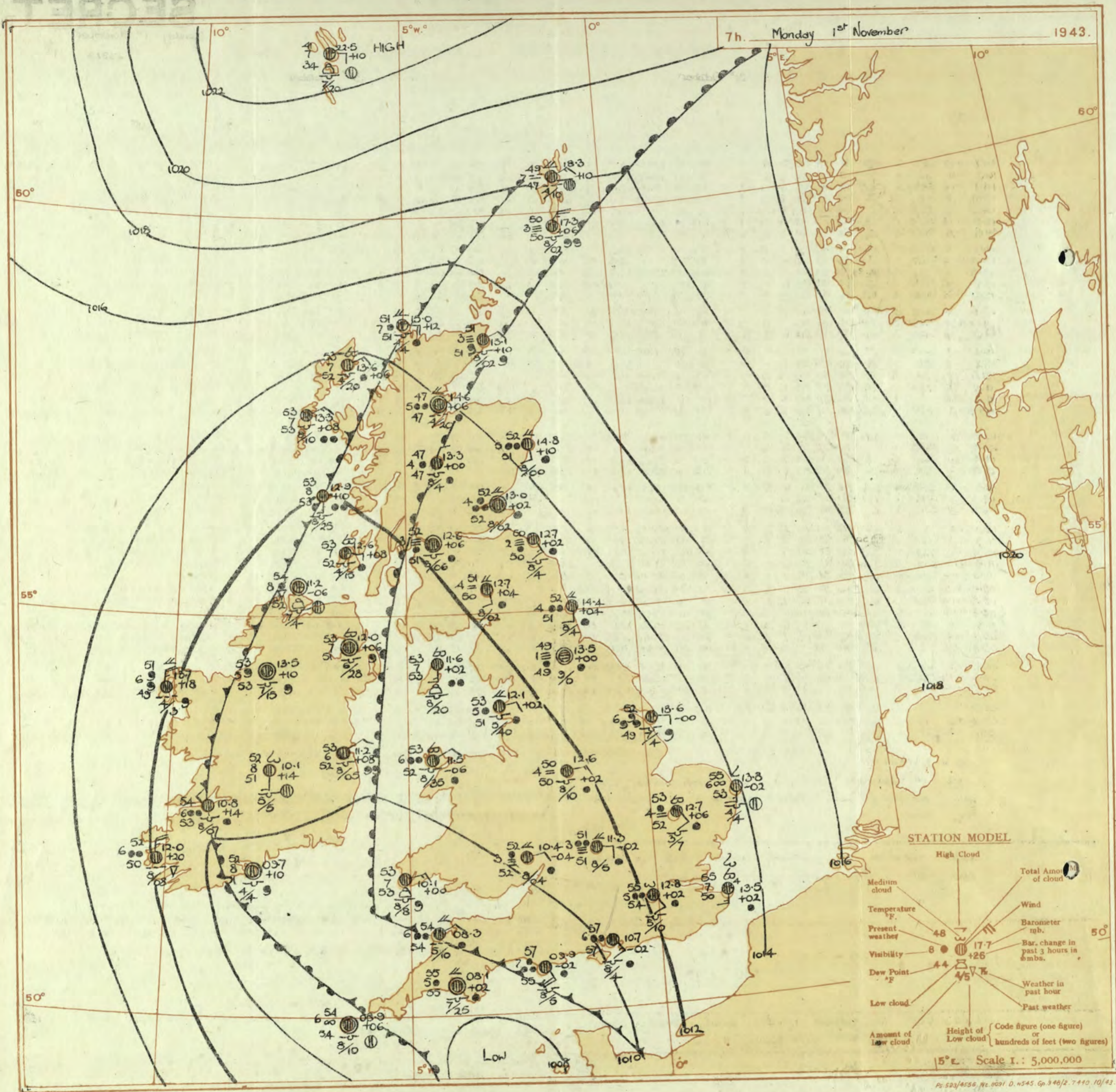
\* The diagram is obtained by drawing a line from Akureyri in Iceland to the south of France near Marseilles. The points at which the isobars drawn for 4 mb. pressure intervals intersect this line at 1h., 7h., 13h. and 18h. are plotted consecutively and joined to show the variation of pressure from day to day at any point in the line. The line terminates at Lat. 66° N., Long. 18° W., in the north; at Lat. 44° N., Long. 4° E., in the south.

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

**SECRET**  
Monday 12 November 1943

No. 29929.....

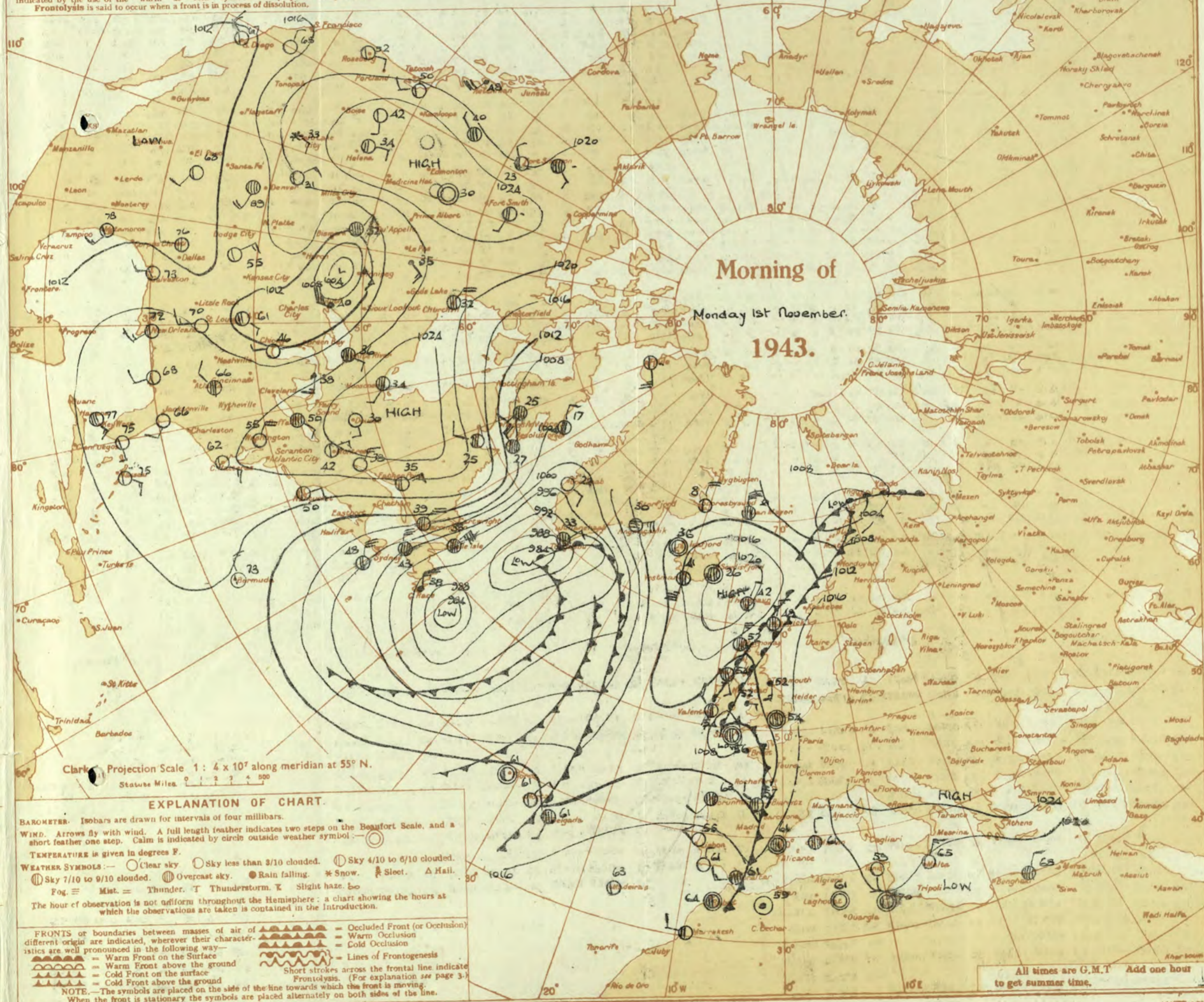
[illegible]



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

## Explanation of Frontal Lines shown on Charts

(The symbols used to indicate fronts are shown below.)  
**Warm Front.** The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.  
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**Frontolysis** is said to occur when a front is in process of dissolution.



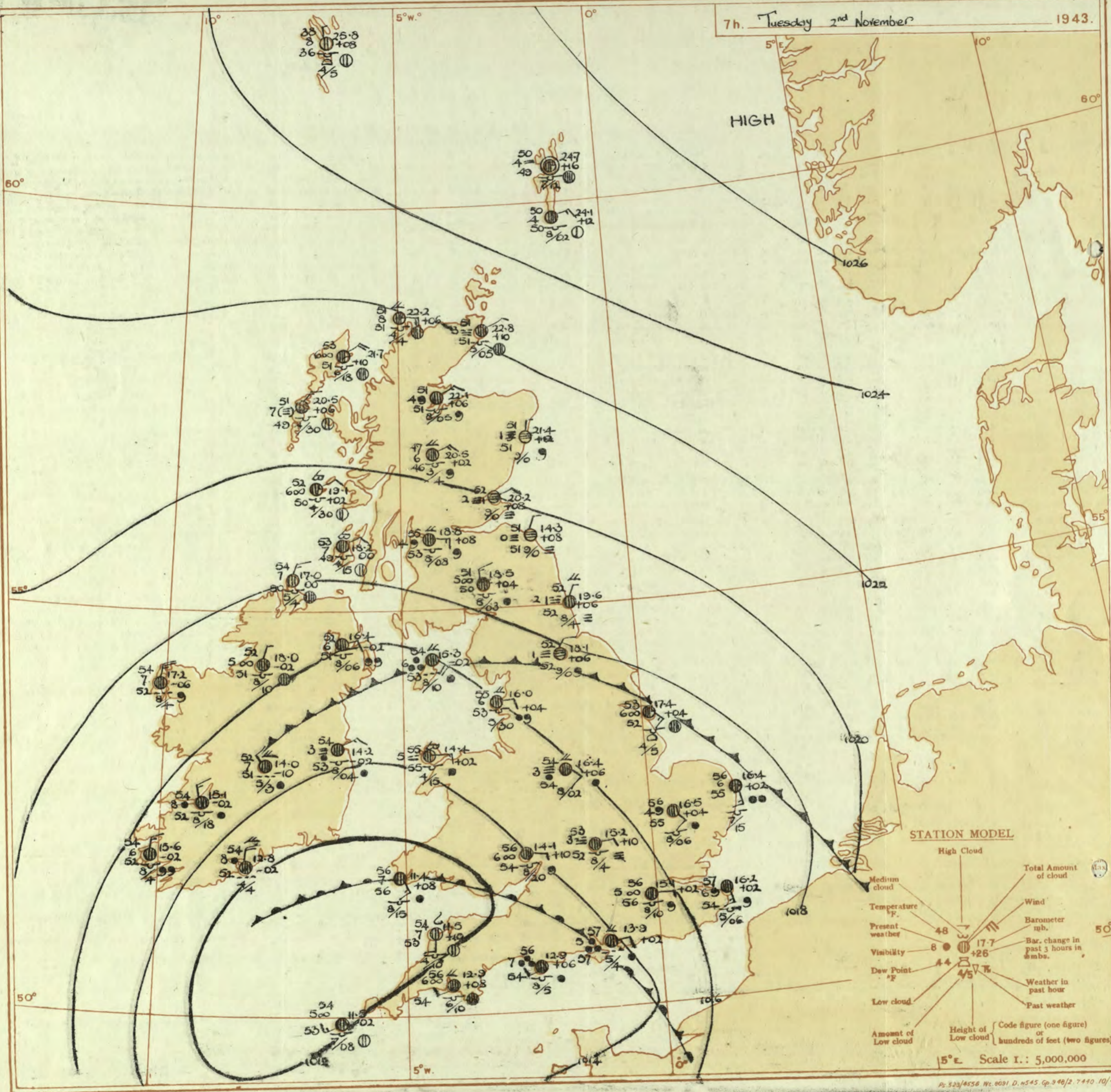




7h. Tuesday 2nd November

1943.

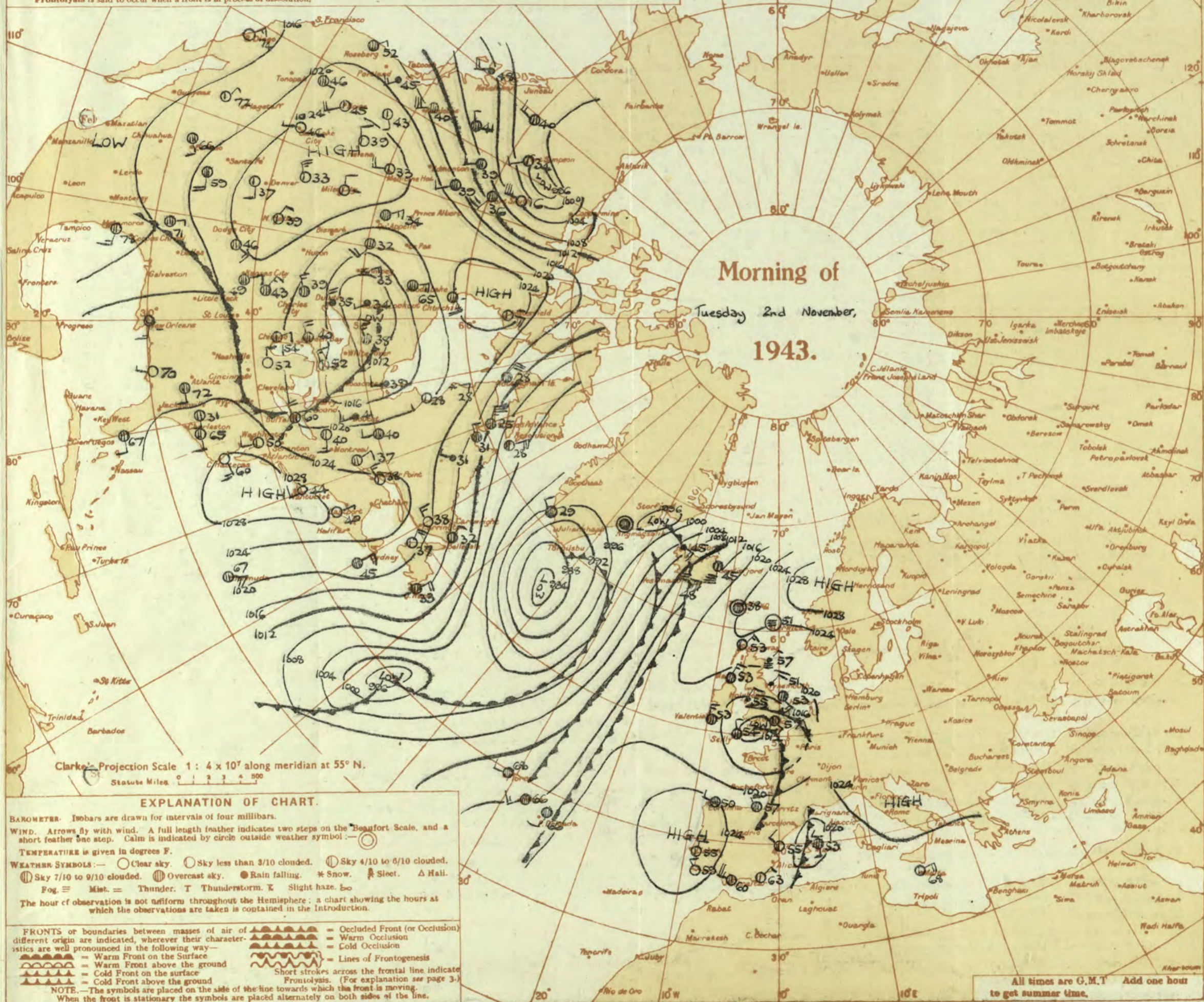
HIGH



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

## EXPLANATION OF CHART.

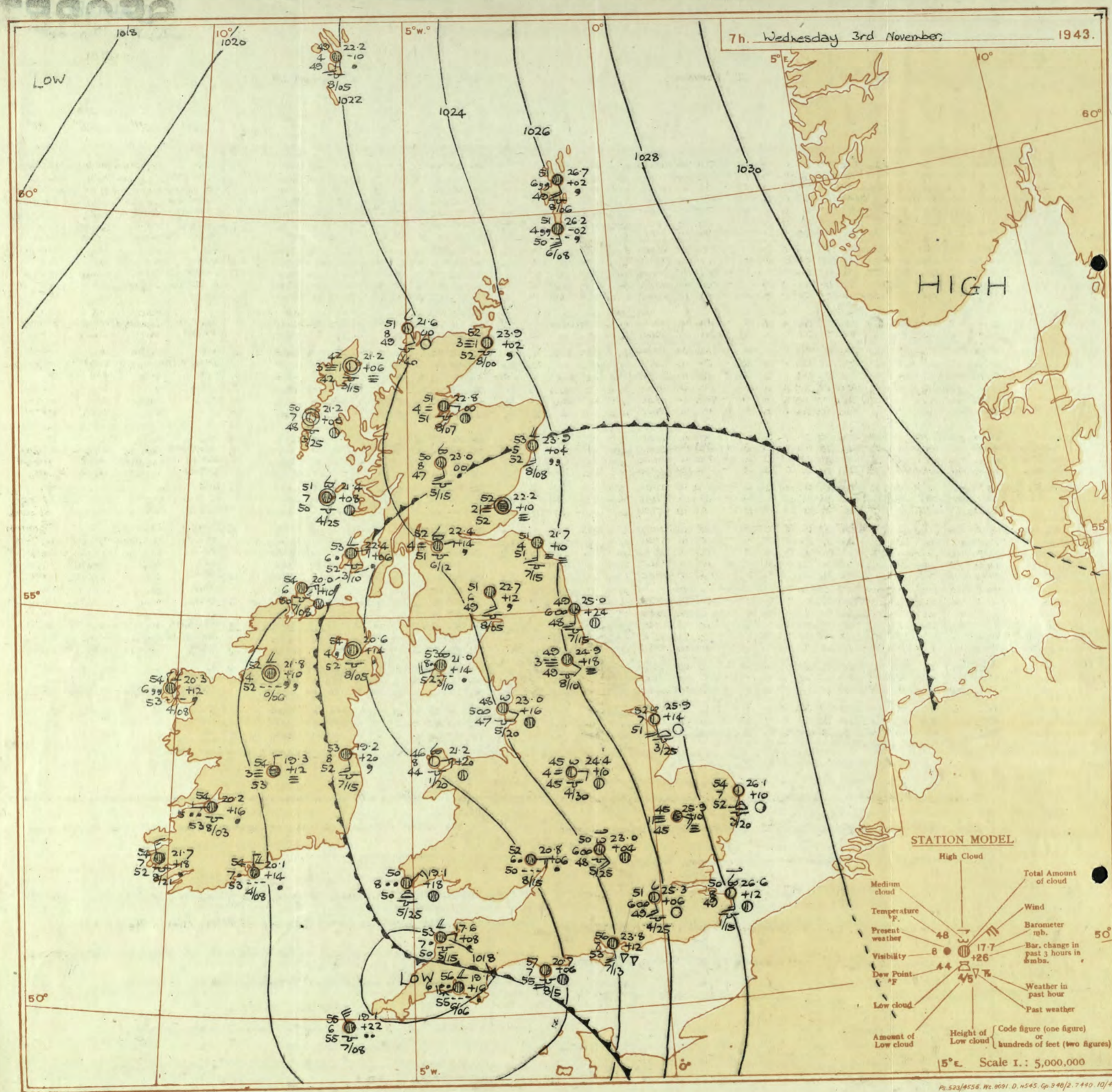
**BAROMETER.** Isobars are drawn for intervals of four millibars.  
**WIND.** Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol.  
**TEMPERATURE** is given in degrees F.  
**WEATHER SYMBOLS:** — ○ Clear sky. ○ Sky less than 3/10 clouded. ○ Sky 4/10 to 6/10 clouded. ○ Sky 7/10 to 9/10 clouded. ○ Overcast sky. ● Rain falling. \* Snow. △ Sleet. △ Hail. Fog. = Mist. = Thunder. T Thunderstorm. K Slight haze. E  
 The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

**FRONTS** or boundaries between masses of air of different origin are indicated, wherever their characteristics are well pronounced in the following way—  
 — Warm Front on the Surface  
 — Warm Front above the ground  
 — Cold Front on the surface  
 — Cold Front above the ground  
 — Occluded Front (or Occlusion)  
 — Warm Occlusion  
 — Cold Occlusion  
 — Lines of Frontogenesis  
 Short strokes across the frontal line indicate Frontolysis. (For explanation see page 3.)  
**NOTE.**—The symbols are placed on the side of the line towards which the front is moving.  
 When the front is stationary the symbols are placed alternately on both sides of the line.

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

[illegible]

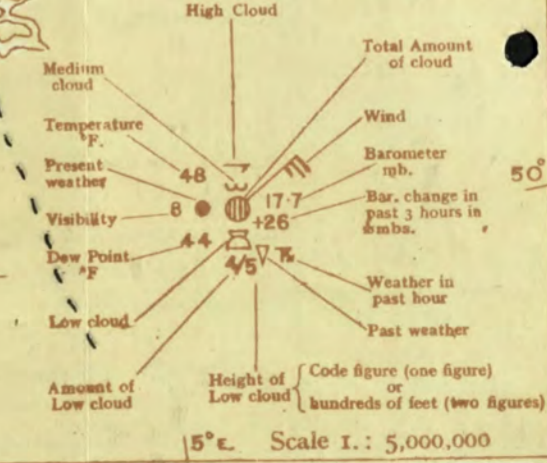




7h. Wednesday 3rd November, 1943.



**STATION MODEL**



Scale 1.: 5,000,000

# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

## Explanation of Frontal Lines shown on Charts

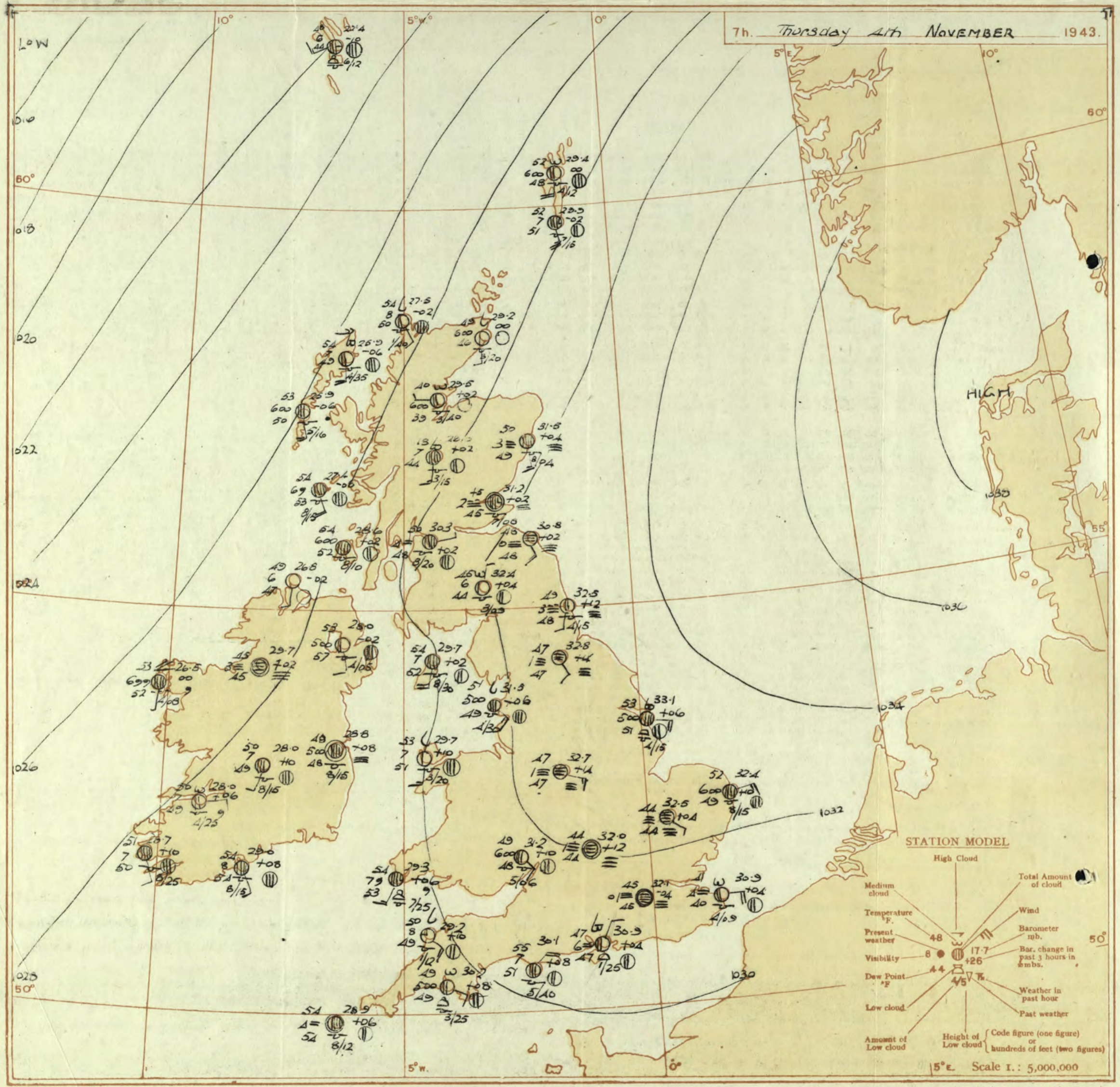
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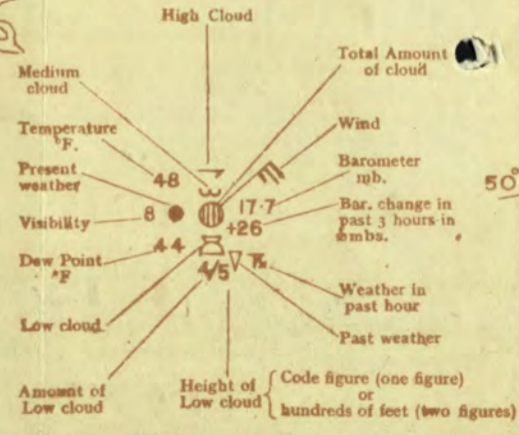




7h. Thursday 4th November 1943.



STATION MODEL

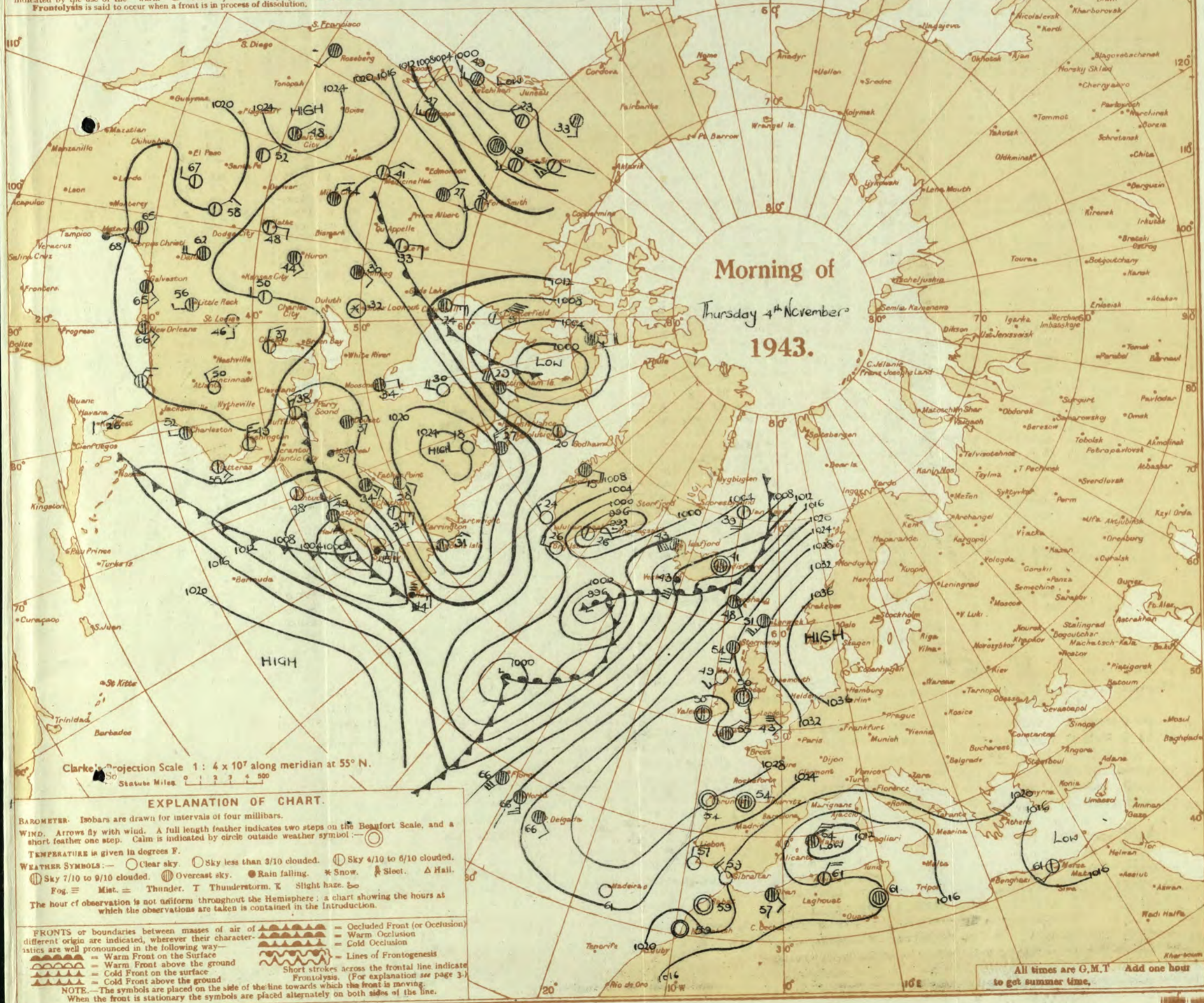


Scale 1: 5,000,000

# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

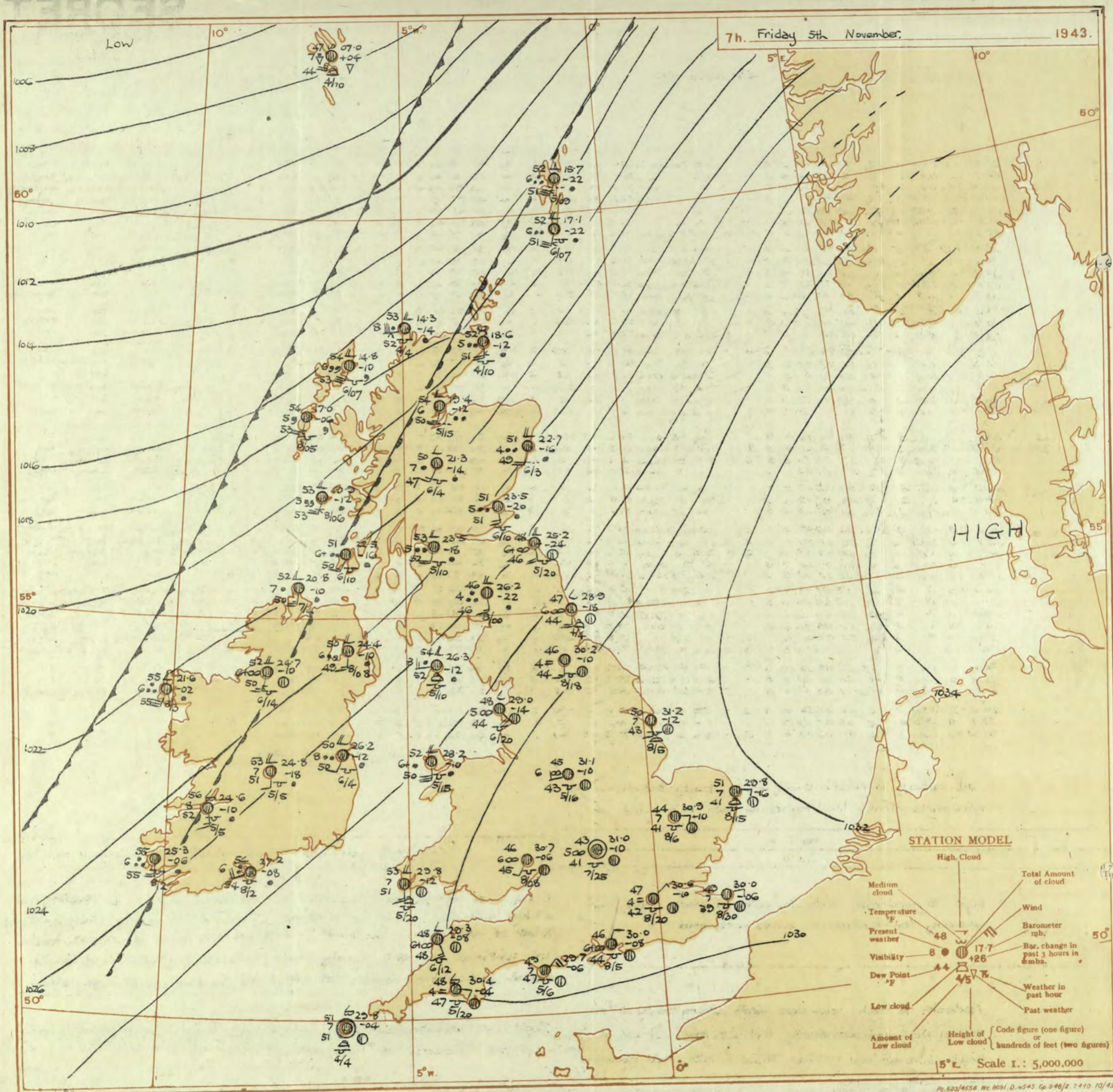
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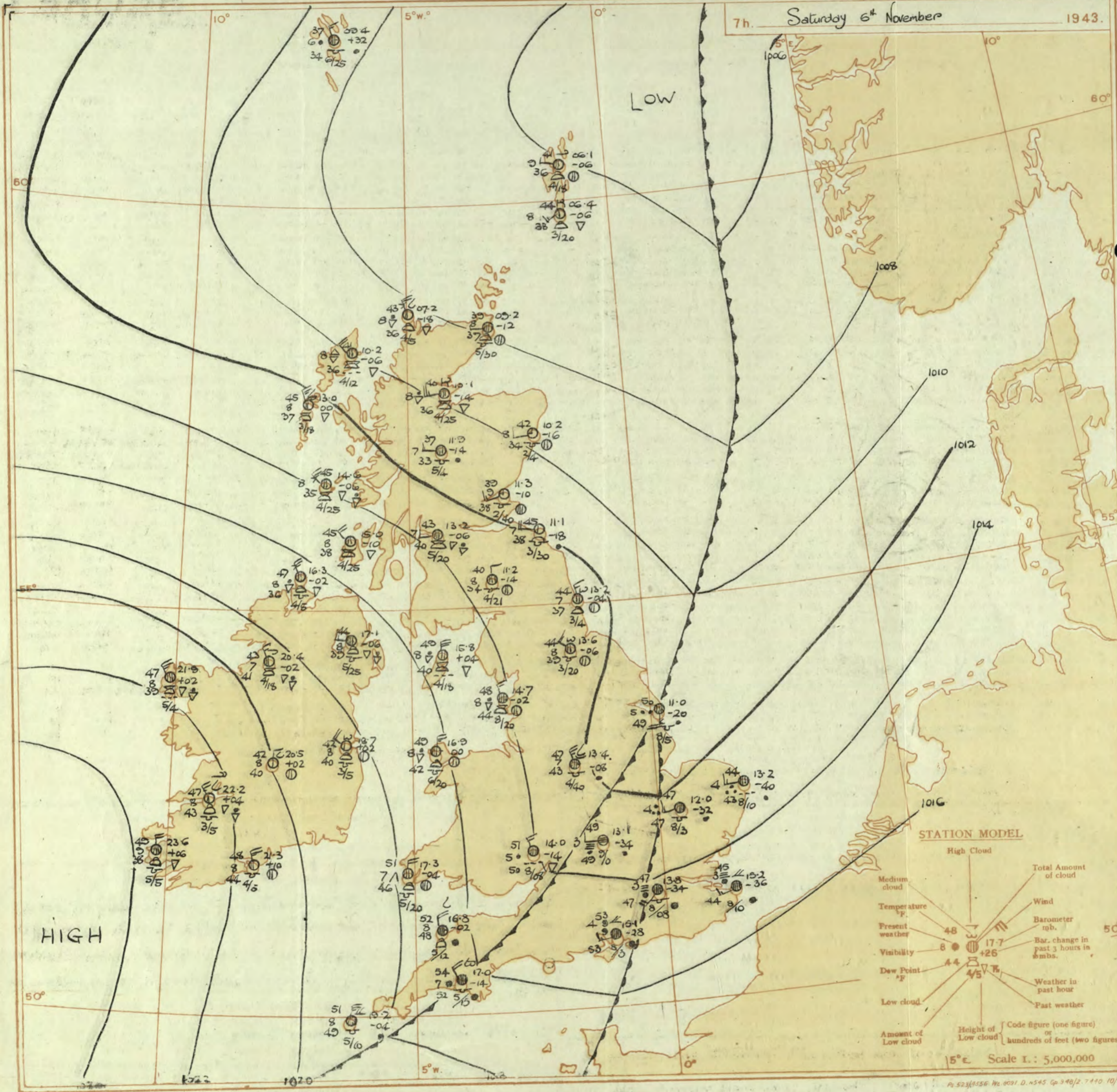






7h. Saturday 6<sup>th</sup> November

1943.



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

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**BAROMETER.** Isobars are drawn for intervals of four millibars.

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**TEMPERATURE** is given in degrees F.

**WEATHER SYMBOLS:** ☉ Clear sky. ☁ Sky less than 3/10 clouded. ☁☁ Sky 4/10 to 6/10 clouded.

☁☁☁ Sky 7/10 to 9/10 clouded. ☁☁☁☁ Overcast sky. ☔ Rain falling. ❄ Snow. ⚡ Sleet. ⚡ Hail.

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— Warm Front above the ground — Lines of Frontogenesis

— Cold Front on the surface — Short strokes across the frontal line indicate Frontolysis. (For explanation see page 3.)

— Cold Front above the ground

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



Sunday 7th November, 1943

Page 1

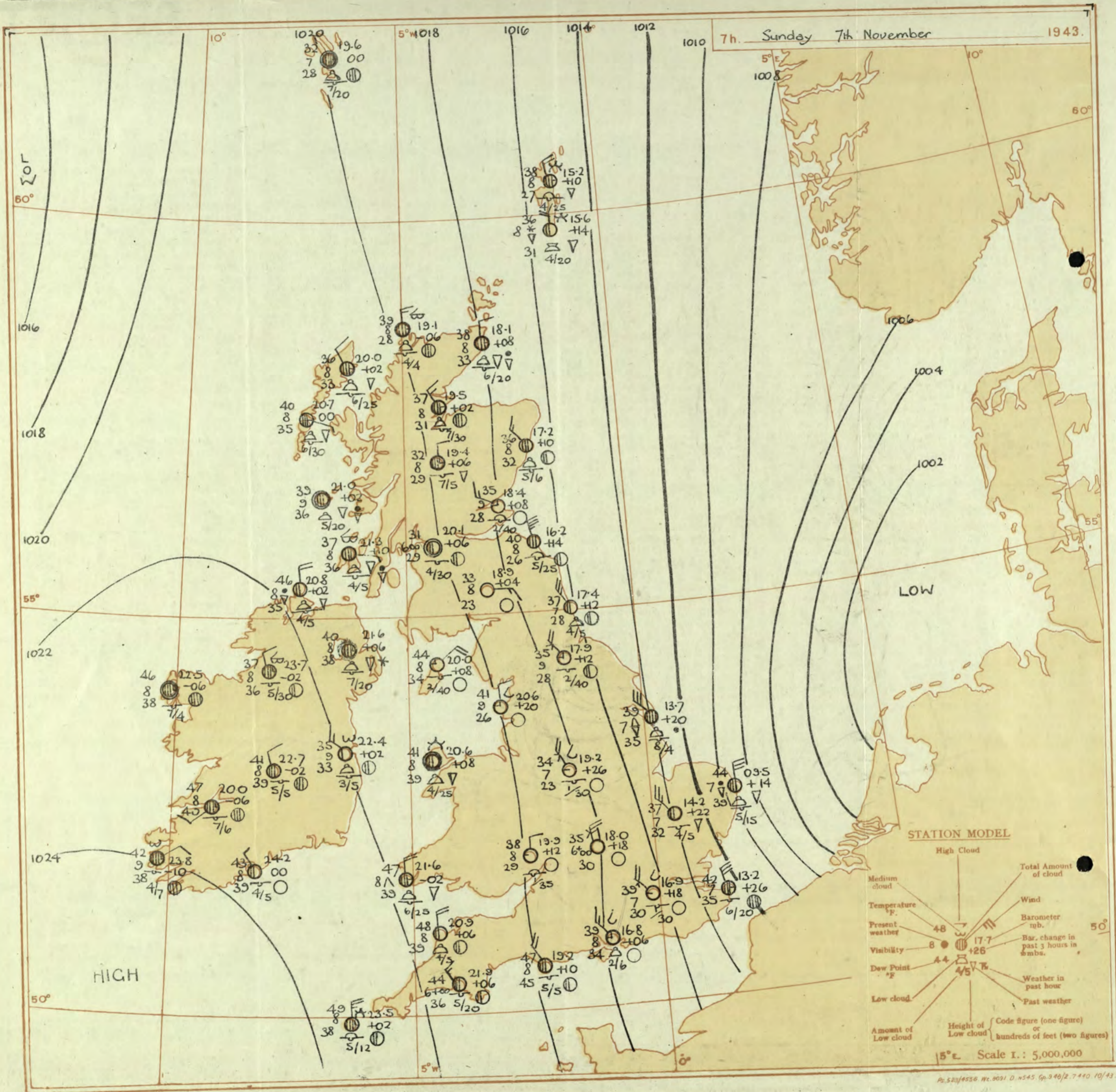
BRITISH  
SECTION

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

No. 29935.

PAST 24 HOURS.

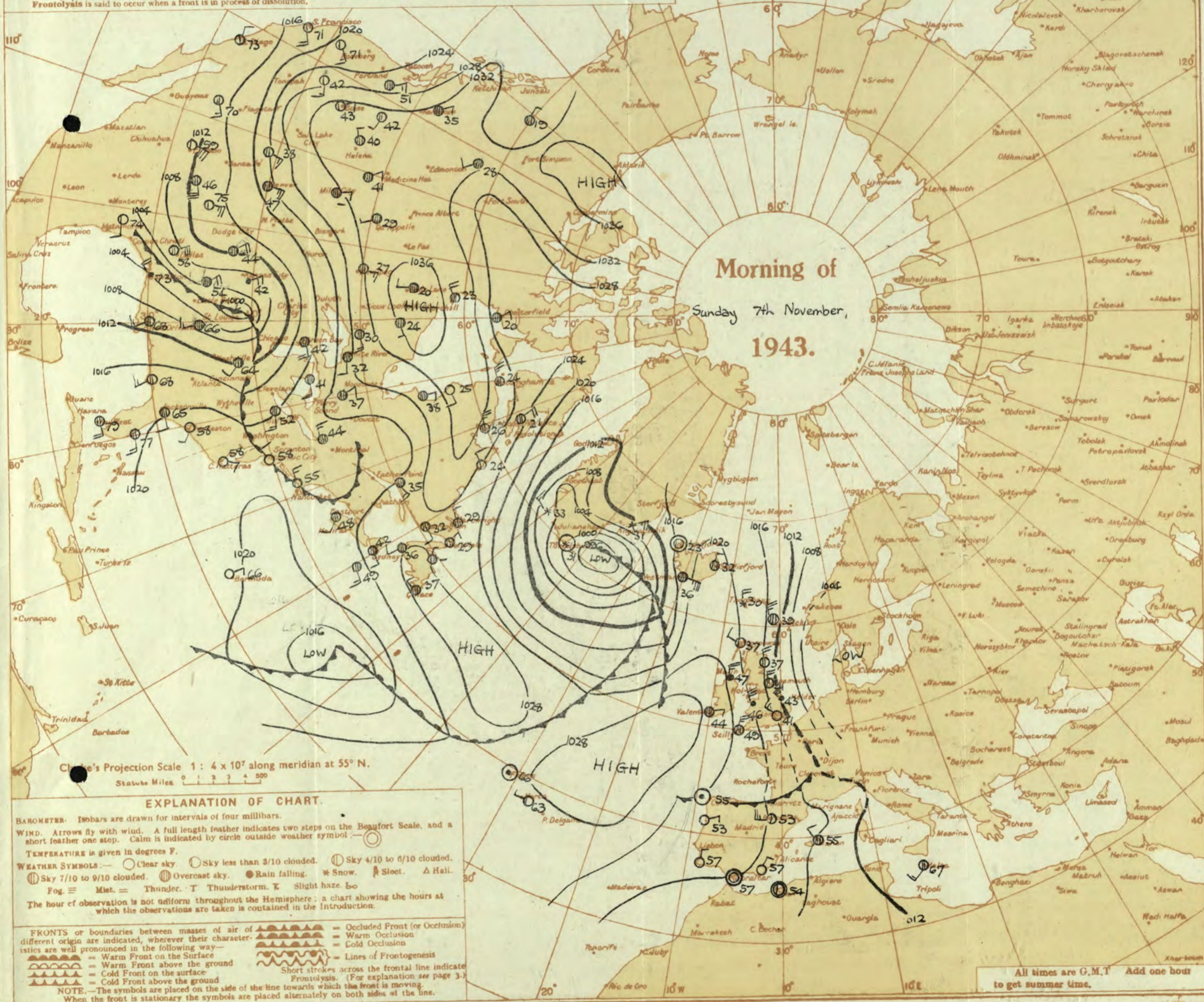
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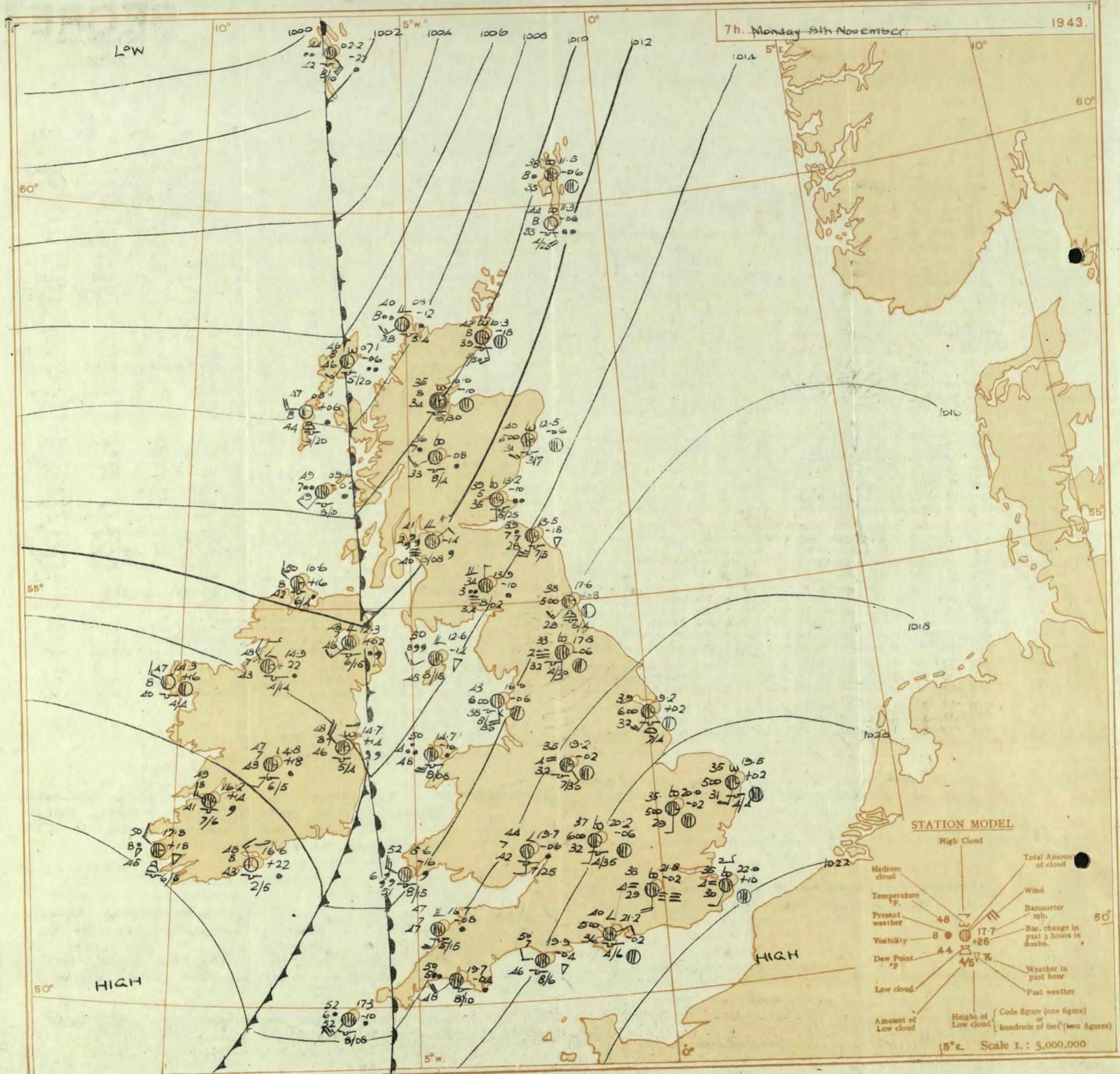




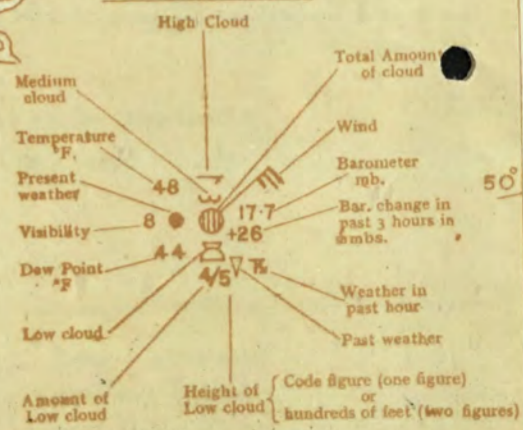


7h. Monday 8th November.

1943.



STATION MODEL

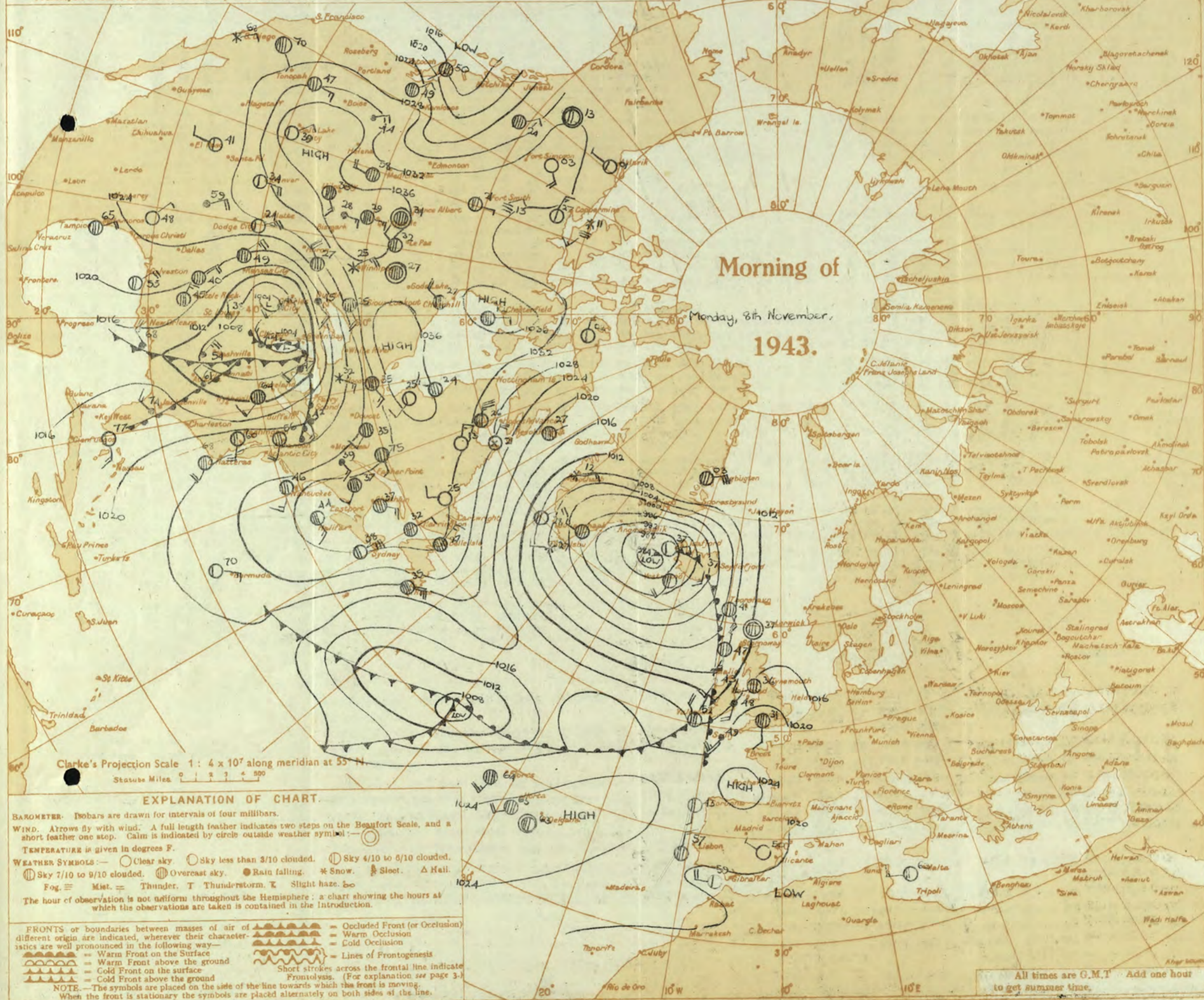


# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

71

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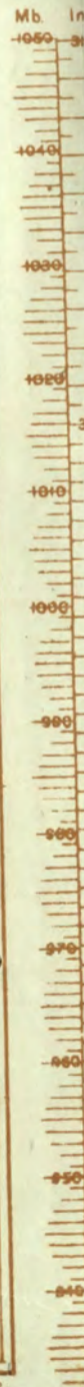
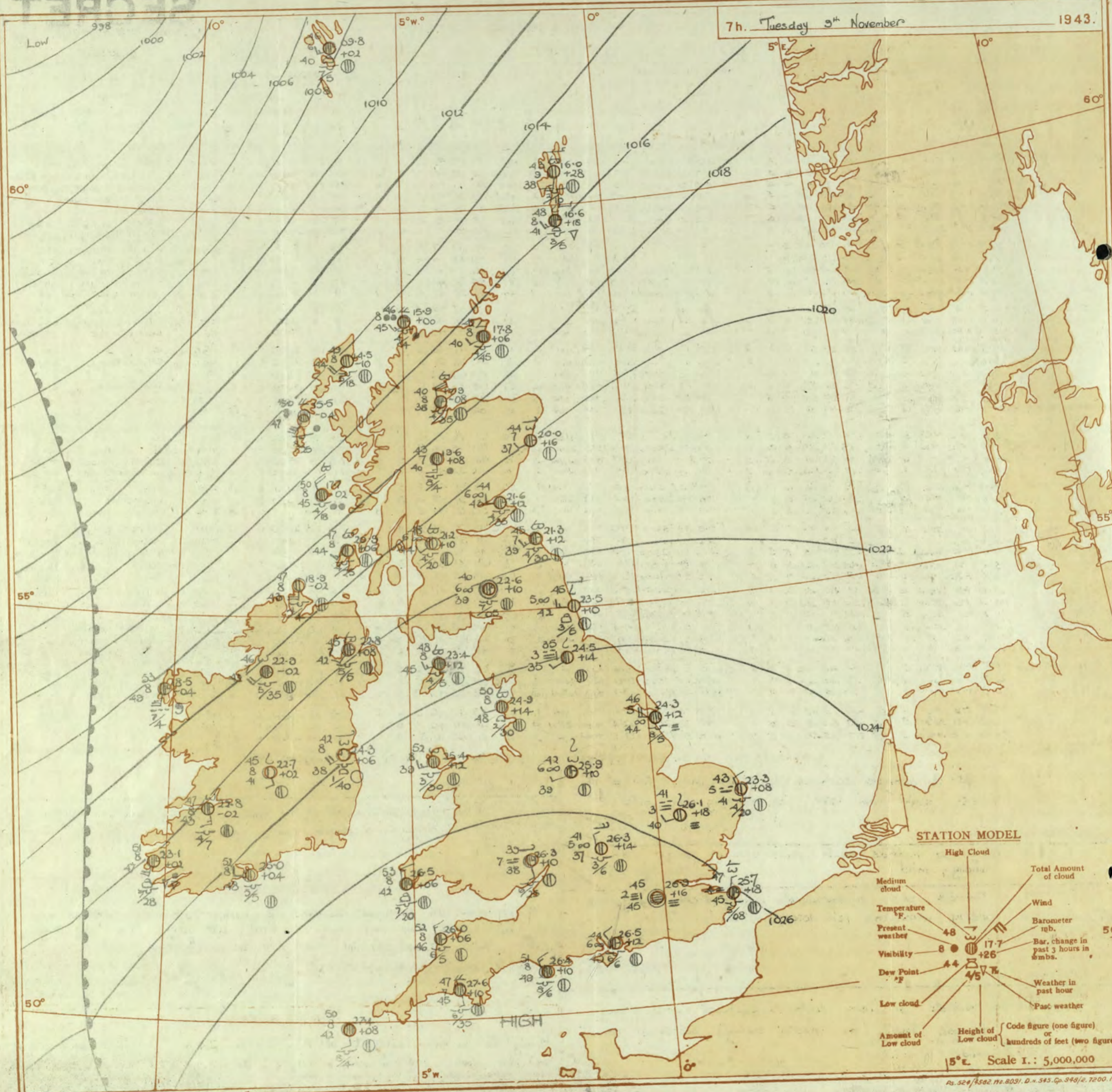




SECRET

7h. Tuesday 3<sup>rd</sup> November

1943.



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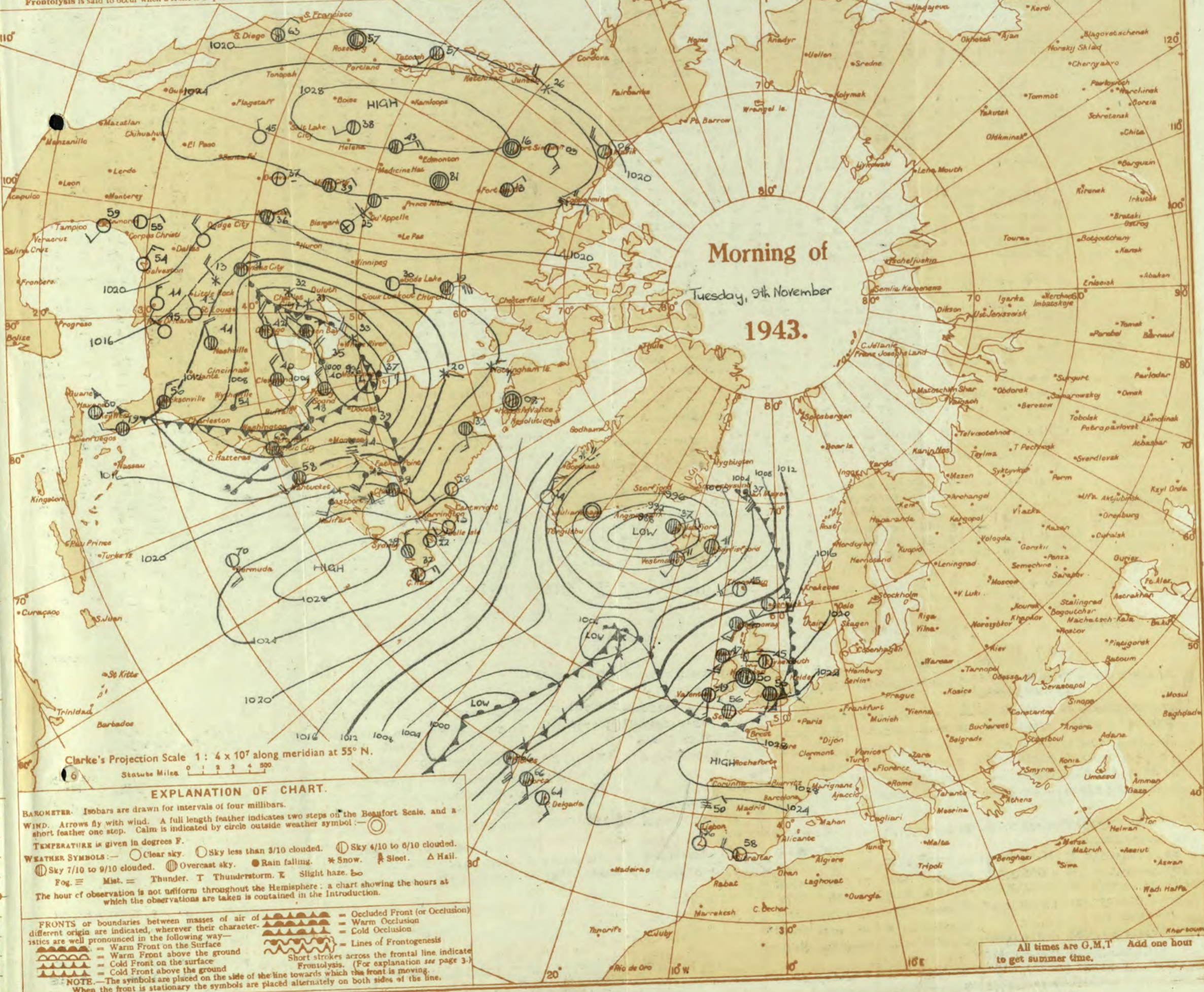
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**Occlusion.** The air between the warm and the cold fronts of a depression is of tropical or sub-tropical origin, and is known as the warm sector. The air in front of the warm front and in the rear of the cold front is of polar or maritime polar origin. During the life-history of the depression the warm sector is lifted from the earth's surface, until the cold front has overtaken the warm front. The depression is then said to be occluded, and at the surface the warm and cold fronts coalesce, becoming a single front known as the occluded front or occlusion. Occlusions the structure of which is tending to resemble warm or cold fronts are known as "warm" or "cold" occlusions.

**Frontogenesis.** A line along which a warm or cold front is in process of formation is known as a line of Frontogenesis. The nature of the development is indicated by the use of the "warm" or "cold" symbols widely spaced along the line.

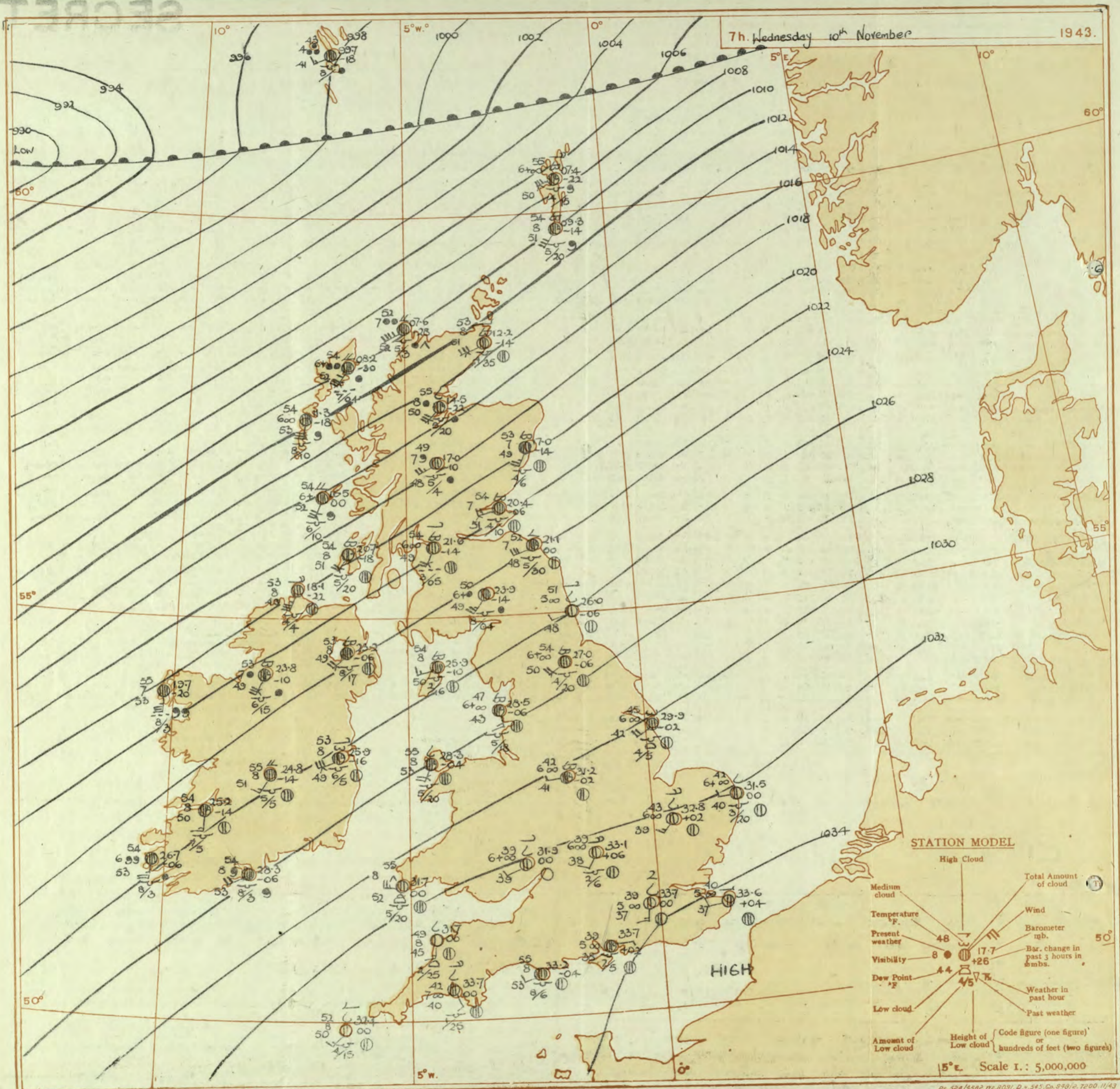
**Frontolysis** is said to occur when a front is in process of dissolution.



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







# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

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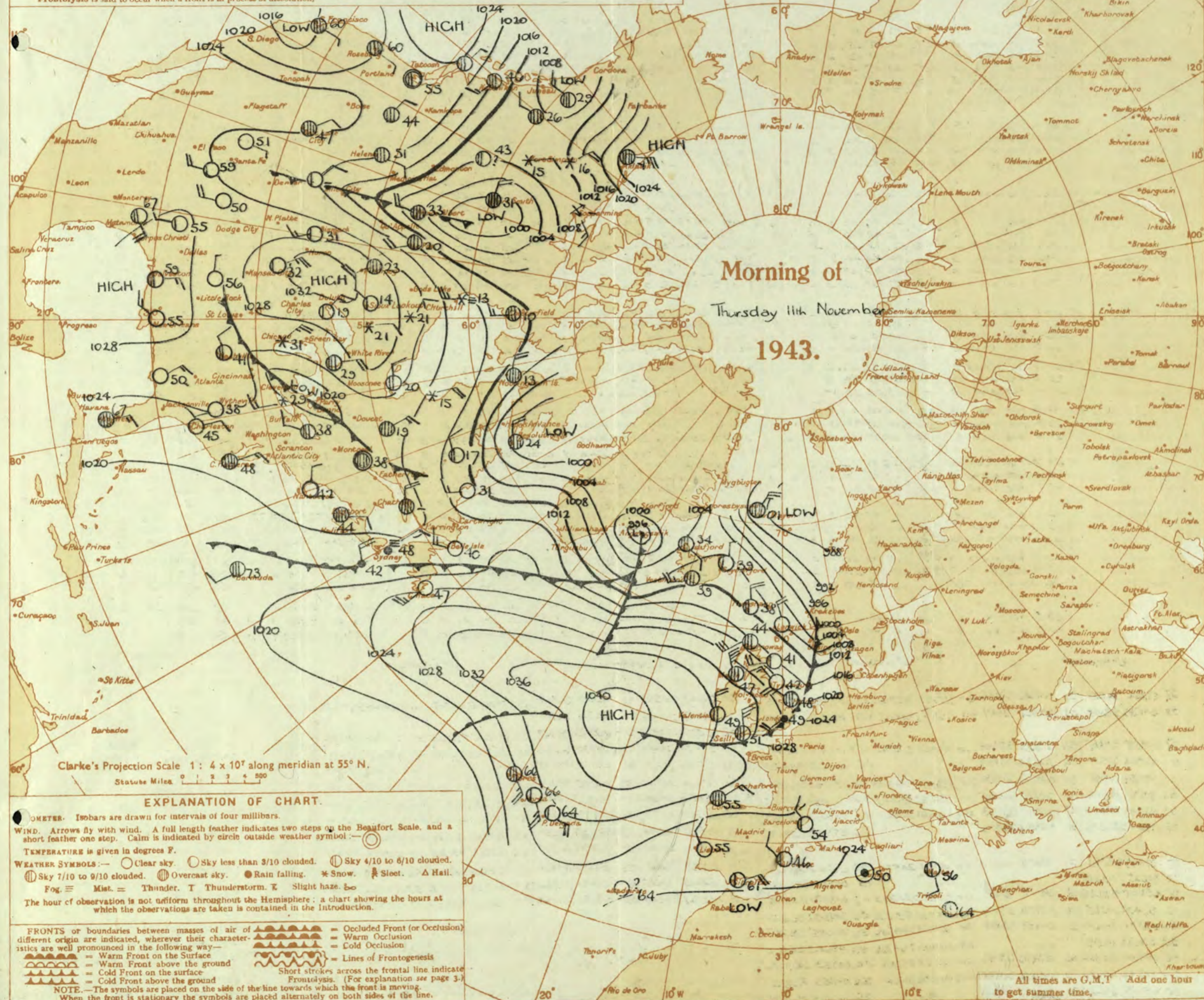




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THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

OBSERVATIONS at 13h. G.M.T. 11<sup>th</sup> November.

OBSERVATIONS at 18h. G.M.T. 11<sup>th</sup> November

PAST 24 HOURS.

Observations at ... G.M.T. ...

District.	Stations.  (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 8 hours. (2)	Wind.		Weather.	Temp. °F. (6)	% Humid. (7)	Dew Point. °F. (8)	Q-Visiblity. (9)	Cloud.					Barom. at M.S.L. mb. (16)	Change in 8 hours. (17)	Wind.		Weather. (20)	Temp. °F. (21)	% Humid. (22)	Dew Point. °F. (23)	Q-Visiblity. (24)	Cloud.			State of Ground. (31)	Sea. (32)	Weather.			
				Direc. (3)	Force. (4)						Form.	Amount. (12)	Height of Base (feet) (15)	Direc. (18)	Force (19)			Form.	Amount (28)						Height of Base (feet) (30)	7h.—13h. ..h.. (39)	13h.—18h. ..h.. (40)			18h.—to 12h.. (41)	1h.—7h. ..h.. (42)		

FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. *Friday 12th November.*

DISTRICTS.		FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T.																															
1 S.E. England	Moderate northwest wind fresh or strong locally; mainly fair; rather cold.	16 Orkneys and Shetlands	Moderate or fresh northwest wind decreasing temporarily; cloudy, occasional rain, sleet or snow; cold.																														
2 E. England ...		17 N. W. Ireland	Moderate or fresh west to northwest wind strong locally; mainly cloudy; showers; rather cold.																														
3 E. Midlands ...		18 N. E. Ireland																															
4 W. Midlands		19 S. E. Ireland																															
5 S.W. England	Moderate or fresh west to northwest wind; cloud; local rain; rather cold.	20 S. W. Ireland																															
6 South Wales																																	
7 North Wales	Moderate to fresh northwest wind, strong to gale locally on coasts; variable cloud; showers; hail locally; cold.	GENERAL INFERENCE																															
8 N.W. England		A deep depression near South Norway is moving southeast and further depressions are expected to move southeast from Iceland. Weather will be mainly fair in the East and Southeast but weather will be showery in the North.																															
9 N. Midlands ...		FURTHER OUTLOOK																															
10 N.E. England		Unsettled and probably cold. Cale warning in operation in districts: 11th November 1948																															
11 S.E. Scotland		<table><tr><td>13B</td><td>15-16</td><td>1100 A.M.T.</td><td>11th</td><td>November</td><td>1948</td></tr><tr><td>13A</td><td>17</td><td>1405</td><td>..</td><td>..</td><td>..</td></tr><tr><td>12</td><td>11. 12. 14</td><td>1755</td><td>..</td><td>..</td><td>..</td></tr><tr><td>2</td><td>2240</td><td>..</td><td>12th</td><td>..</td><td>..</td></tr><tr><td>4. 7. 8. 9. 18</td><td>0240</td><td>..</td><td>..</td><td>..</td><td>..</td></tr></table>		13B	15-16	1100 A.M.T.	11th	November	1948	13A	17	1405	..	..	..	12	11. 12. 14	1755	..	..	..	2	2240	..	12th	..	..	4. 7. 8. 9. 18	0240	..	..	..	..
13B		15-16	1100 A.M.T.	11th	November	1948																											
13A		17	1405	..	..	..																											
12		11. 12. 14	1755	..	..	..																											
2	2240	..	12th	..	..																												
4. 7. 8. 9. 18	0240	..	..	..	..																												
12 S.W. Scotland & Isle of Man																																	
13A W. Scotland ...																																	
13B N.W. Scotland																																	
14 Mid Scotland																																	
15 N.E. Scotland																																	
		Forecasts issued at 1030																															
		NELSON K. JOHNSON, K.C.B., D.Sc., Director. Meteorological Office, Air Ministry, Kingsway, London, W.C.2																															

## GENERAL INFERENCE

A deep depression near South Norway is moving southeast and further depressions are expected to move southeast from Iceland. Weather will be mainly fair in the East and Southeast but weather will be showery in the North.

Unsettled and probably cold.  
Cold warning in operation in districts: ↑

13B 15-16	1550-64	1100 A.M.T.	11th November 1948
13A 17	..	1405 "	.. "
15 11. 12. 14	..	1735 "	.. "
2	..	2240 "	.. "
2. 7. 8. 9. 18	..	0240 "	12th "

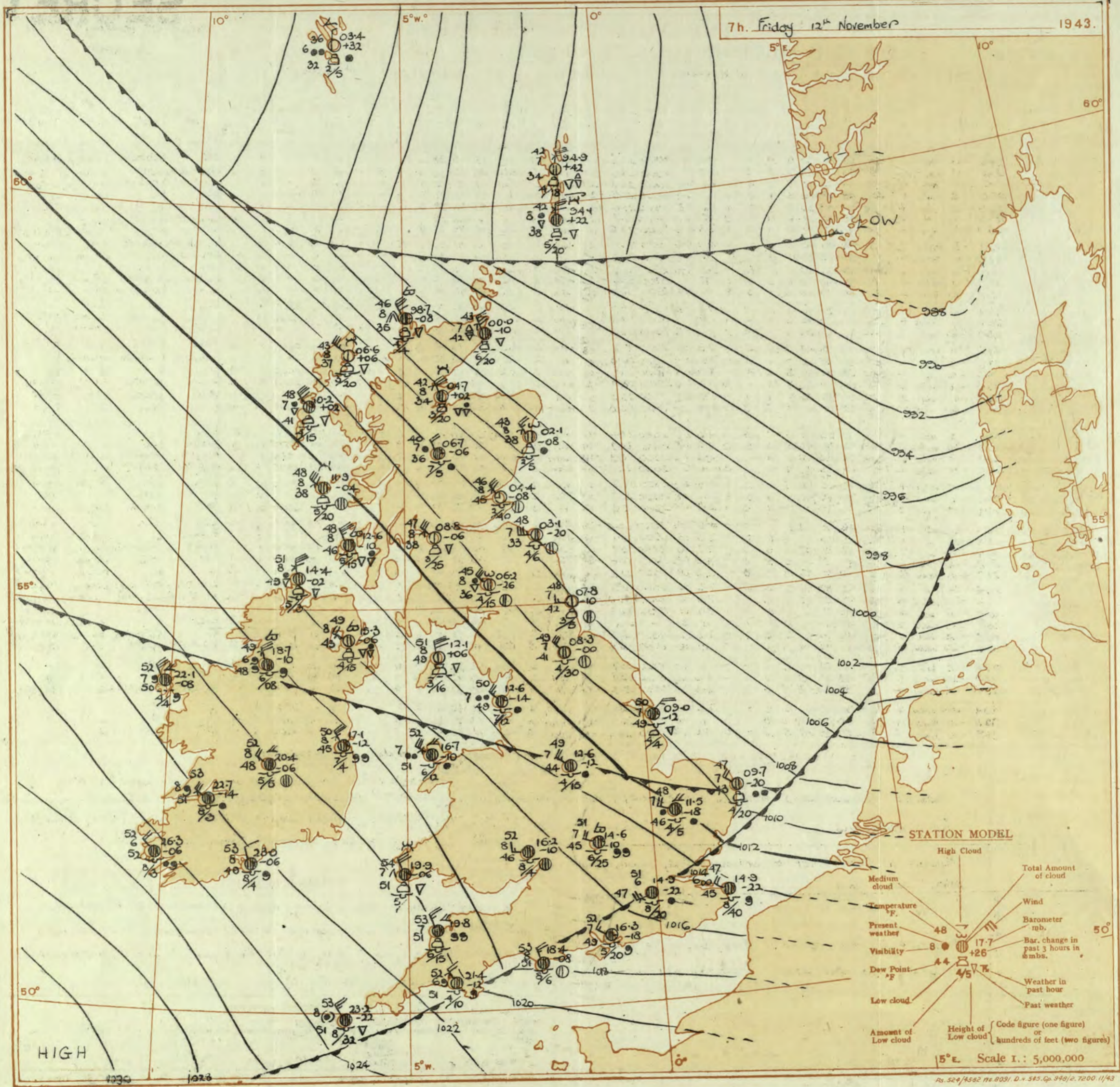
## FURTHER OUTLOOK

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

SECRET

7h. Friday 12<sup>th</sup> November

1943.



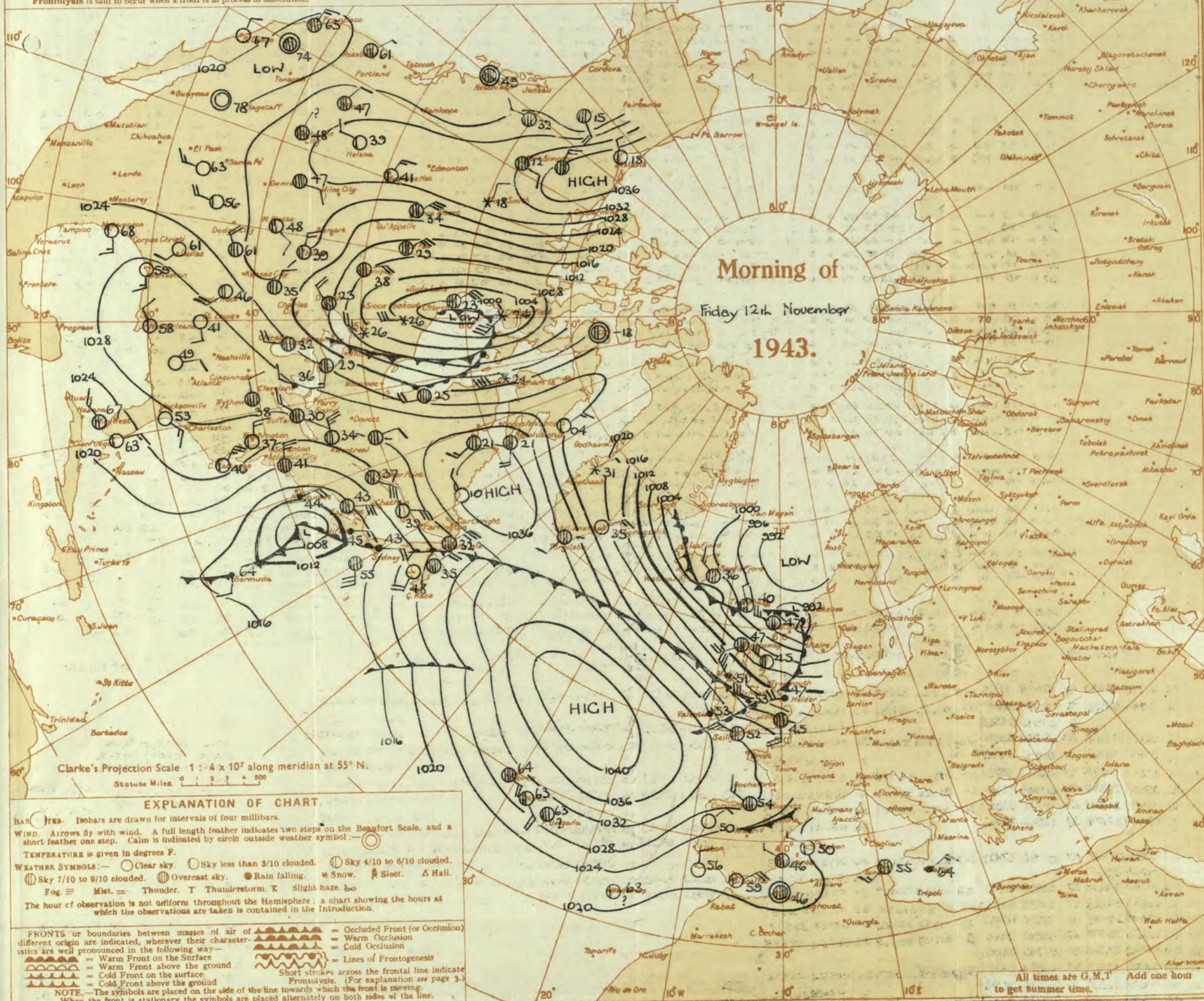
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[illegible]

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

**SECRET**  
Saturday 13<sup>th</sup> November 1943  
No. 29841

OBSERVATIONS at 13h. G.M.T. 12<sup>th</sup> November

OBSERVATIONS at 18h. G.M.T. 12<sup>th</sup> November

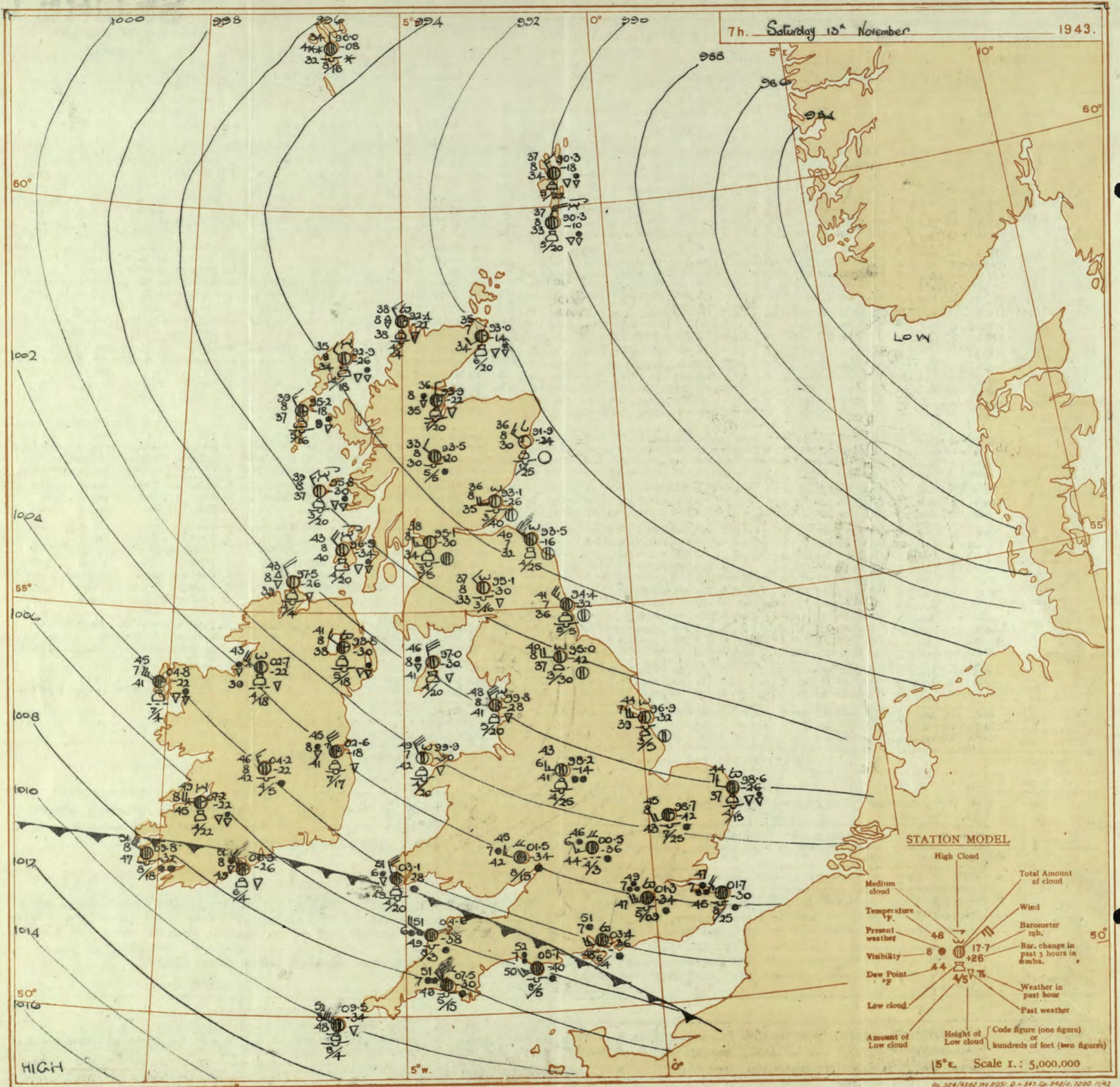
PAST 24 HOURS.

District.	STATIONS. (For heights see p. 4.)	Barom. M.S.L. mb. (1)	Change in 3 hours. (2)	Wind.		Weather. (5)	Temp. °F. (6)	Humid. % (7)	Dew Point. °F. (8)	Visibility. 0-9 (9)	Cloud.					Barom. M.S.L. mb. (16)	Change in 3 hours. (17)	Wind.		Weather. (20)	Temp. °F. (21)	Humid. % (22)	Dew Point. °F. (23)	Visibility. 0-9 (24)	Cloud.					State of Ground. 0-9 (31)	Sea. 0-9 (32)	WEATHER.								
				Dirac. (3)	Force. (4)						Form.	Amount.						Dirac. (18)	Force. (19)						Form.	Amount.						Height of Base (feet) (30)	7h.—13h. 12 <sup>h</sup> (39)	13h.—18h. 12 <sup>h</sup> (40)	18h. 12 <sup>h</sup> to 13 <sup>h</sup> (41)	1h.—7h. 13 <sup>h</sup> (42)				
												Low.	Med.	High.	Total 0-10 6-10											Low.	Med.	High.	Total 0-10 6-10											
																																					Low.	Med.	High.	Total 0-10 6-10
1	London (Kew) Croydon S. Farnborough Boscombe Down Thorney Island Lympne Manston	12.2 12.3 12.7 14.9 13.9 11.9 10.8	-4 -12 -10 -10 -16 -14 -12	NW NW WNW WNW W WNW NW	4 4 4 5 6 4 5	c c c c c c c	54 54 54 51 56 52 53	65 65 75 92 75 75 75	42 44 47 43 40 45 45	8 6 7 7 5 6 5	8 - - - 7 - -	- - - - - - -	9+ 9+ 9+ 4-6 10 9 4-6	9+ 1500 1400 1000 2500 3700 2500	11.8 12.1 12.4 14.1 13.8 11.5 10.4	+2 -2 0 -2 +2 +2 +2	NNW NNW NNW NNW WNW WNW NNW	3 3 3 4 4 3 4	z m c-bc c ir z c-bc	50 50 50 48 54 47 50	65 75 85 85 85 75 65	37 41 44 46 46 39 39	5 4 8 7 7 5 5	- 3 - 2 + - 8	- 2-3 4-6 7-8 9 4-6 2-3	7-8 2000 4400 2500 2500 2500 2500	1 1 0 1 1 1 1	3 3 3 3 3 3 3	cmo c c c c c c	irac emo irac ccac c cmo cmo	ccac ccac ccac ccac ccac ccac ccac	ccac ccac ccac ccac ccac ccac ccac	ccac ccac ccac ccac ccac ccac ccac							
2	Shoeburyness Felixstowe Gorleston Mildenhall Cranwell	12.0 09.5 07.7 09.9 09.1	-8 -10 -6 -6 -10	NNW WNW NNW NW NW	3 6 5 5 5	c c c c c	54 53 52 52 51	75 92 65 75 65	45 52 42 48 40	7 7 7 8 7	5 7 8 8 -	7 7 - - -	7-8 7-8 7-8 4-6 7-8	9 1500 1500 2500 2500	11.8 09.2 07.2 09.1 09.1	+4 +2 0 -2 0	NNW NNW NNW N N/N	3 4 4 4 4	z z b bc z	47 48 48 47 46	85 75 75 75 75	41 41 37 40 39	6 - 7 8 5	- - - - -	0 0 0 4-6 4-6	0 - - 2500 2000	- 1 0 1 0	3 3 3 3 3	cmo ccac ccac ccac cmo	ccac ccac ccac ccac ccac	ccac ccac ccac ccac ccac	ccac ccac ccac ccac ccac								
3	Birmingham Upper Heyford Ross-on-Wye	12.2 12.2 13.7	-12 -6 -10	NW NW W	5 5 4	c c c	54 51 53	75 92 75	45 48 43	7 8 8	8 8 7	7 8 8	7-8 2-3 7-8	9 1500 4000	11.4 12.0 13.6	-6 -6 -4	NNW NNW N	4 4 4	c-bc c-bc c	47 47 49	85 75 85	42 40 44	8 7 8	- - -	9 7-8 9	9+ 7-8 9	1500 3300 2500	1 1 1	5 3 3	idc cprc cprc	idc ccac ccac	ccac ccac ccac	ccac ccac ccac							
4	Hartland Point Bristol Portland Bill Plymouth The Lizard Seilly (St. Mary's) Guernsey	18.3 15.1 16.2 19.1 20.8 22.8	-8 -10 -16 -12 -16 -10	W WNW W WNW NW NNW	8 4 5 5 6 5	ido c c ido c c	54 54 56 56 55 55	92 75 92 54 32 85	52 46 50 50 31 52	6 7 5 8 7 5	8 5 7 7 5 -	- 1 8 - - -	9 4-6 7-8 7-8 9 10	800 2500 4000 1800 1500 1000	16.7 14.0 15.2 17.6 19.6 21.1	-6 -6 -2 -8 0 -6	NNW NNW SW WNW NW NNW	5 4 5 4 6 6	c c c c-bc c c	54 50 53 54 54 53	92 85 52 85 85 92	52 41 53 49 49 50	8 6 5 7 5 8	- - - - - 2	9+ 4-6 10 7-8 9+ 4-6	9+ 2500 4000 2000 1500 1000	1 1 1 1 1 1	5 4 3 4 5	ido ccac ccac cmo c c	ido ccac ccac ccac idc c	ccac ccac ccac ccac ccac ccac	ccac ccac ccac ccac ccac ccac								
6	Pembroke	27.6	-8	NW	5	cq	54	92	51	8	8	-	9+ 9+	1800	17.7	-8	NW	5	cq	54	85	50	7	8	4	-	4-6 9	2000	0	4	cq	cq	cq	cq						
7	Holyhead (Valley)	14.9	-12	NNW	6	c	51	85	48	8	8	6	-	3 9+	2000	13.6	-6	NNW	5	c	50	75	43	8	7	-	7-8 9	2000	1	4	cq	ccac	cq	cq						
8	Chester (Sealand)	12.5	-2	NW	7	bc	52	65	42	8	8	-	6 4-6 4-6	2000	11.5	-6	NW	6	bc	49	65	38	6	8	8	-	7-8 9	2000	0	4	cq	ccac	cq	cq						
10	Spurn Head Catterick (Sc.) Tynemouth	06.6 08.0 07.3	-20 -6 -6	NNW WNW NW	7 7 6	b-bc b-bc b-bc	51 50 50	65 55 55	38 35 35	8 8 7	1 1 2	-	2-3 2-3 2-3	2500 4500 2100	06.7 07.9 06.7	0 -6 -2	NNW NNW NNW	7 5 5	b-bc bc bc	48 43 44	75 75 65	39 37 34	7 8 7	4 3 4	-	2-3 4-6 0-4-6	4000 3300 -	0 0 0	5 4 4	bcq bc bcq	bcq beb bc	bc bcc bc	bc bc bcc							
11	St. Abbs Head Leuchars	05.2 06.4	-0 -2	NNW WNW	6 6	b-bc c	47 45	55 83	32 41	8 9	1 7	-	2-3 4-6	3500 3500	04.2 04.3	-2 -6	NNW NNW	6 4	b-bc b-bc	45 43	65 75	32 46	7 8	4 3	-	2-3 2-3	2700 3000	0 1	5 3	bc bcq	bc beb	bccbc bccbc	bccbc bccbc							
12	Renfrew (Abbots I.) Eskdalemuir Point of Ayre	08.1 06.4 11.0	-6 -2 -2	NNW WNW NW	6 7 7	bc bc bc	47 46 50	75 55 85	38 34 48	8 7 8	9 7 -	-	2-3 4-6 7-8	1800 1800 1000	07.0 06.2 09.3	-6 -8 -8	WNW WNW NNW	4 5 5	bc b-bc b-bc	43 41 48	75 75 75	36 35 40	8 8 8	3 3 3	-	2-3 2-3	2000 2100 2000	1 1 1	5 5 5	bcq bcq bcq	bcq beb bc	bccbc bccbc bccbc	bccbc bccbc bccbc							
13A	Tiree	11.4	-6	NW	6	c	47	75	37	8	2	-	7-8 9	2000	08.7	-16	NW	5	c	44	75	37	8	2	6	-	2-3 4-6	2000	1	3	cq	cq	cq	cq						
13B	Stornoway	06.5	-6	NNW	6	c	45	65	34	8	6	9	7-8 9	1800	04.3	-14	NNW	6	c	41	85	37	8	3	6	8	4-6 4-6	1600	1	3	cq	cq	cq	cq						
15	Dalwhinnie Aberdeen Wick Sumburgh	06.5 03.4 03.0 97.8	-2 +14 0 +4	NNW WNW NW NNW	4 3 5 7	c c c c	38 40 39 41	85 85 97 75	34 36 37 35	8 8 8 8	5 6 9 3	-	3+ 2-3 7-8 7-8	2500 2500 1000 1400	05.5 02.1 01.6 06.7	-6 -10 -10 -8	NNW NNW NW NW	3 3 2 3	c b b-bc b-bc	37 39 37 39	75 75 85 75	30 32 33 32	7 3 8 8	5 3 3 6	-	9+ 3 2-3 4-6	2500 2500 1500 1400	1 1 1 1	3 3 4 4	c c c c	c c c c	c c c c	c c c c							
17	Blackad Point	19.5	-22	NNW	6	c	53	85	49	7	6	-	9+ 9+	1500	16.8	-14	NW	6	c	51	92	49	7	6	-	10 10	1500	1	5	d	r	r	r							
18	Malin Head Aldergrove	13.8 14.1	-8 -10	NNW WNW	7 4	c c	47 49	75 65	40 38	8 8	8 7	-	9+ 9+	2500 1500	10.8 12.1	-18 -10	NNW N	7 4	c c	48 45	65 85	37 40	8 8	3 7	-	4-6 9	2500 1500	2 1	5 5	ig	pr	pr	pr							
19	Birr Castle	18.4	-18	NNW	3	c	53	85	49	8	7	-	7-8 9	1500	16.4	-10	SW	3	id	51	92	49	7	6	2	-	7-8 9	800	1	3	c	d	r	r						
20	Valencia Obsy. Rothes Point	24.7 21.3	-14 -12	NNW NNW	5 5	c c	52 54	85 85	50 50	7 8	5 -	-	10 9	1000 1500	22.6 20.3	-10 -2	NNW NNW	4 4	c c	52 52	75 85	44 48	8 8	5 4	-	9+ 7-8	2500 1500	1 1	4 3	r	pr	pr	pr							

DISTRICTS.		FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Saturday 13 <sup>th</sup> November	
1 S.E. England	Moderate or fresh westerly winds, veering, north late in period; rain at first; scattered showers and bright intervals later; rather cold, becoming cold.	16 Orkneys and Shetlands	As 13 <sup>A</sup> - 15.
2 E. England ...		17 N.W. Ireland	Fresh or strong west to northwest winds; thundery showers of rain and hail, with local thunder; sleet showers in north later; cold, becoming very cold.
3 E. Midlands ...		18 N.E. Ireland	
4 W. Midlands		19 S.E. Ireland	
5 S.W. England	Moderate westerly winds, veering north later; scattered showers and bright intervals; sleet showers in east tomorrow; with local thunder; rather cold to cold.	20 S.W. Ireland	
6 South Wales	Fresh or strong northwesterly winds, gale locally; rest as 1.	<b>GENERAL INFERENCE</b> Pressure is high to the west and low to the east of the British Isles, and a trough of low pressure over North Scotland will move south across the British Isles; there will be rain at first in the south; otherwise there will be thundery showers of rain and hail in most districts, with sleet and snow showers soon spreading from the north; cold to very cold.	
7 North Wales	Fresh or strong northwest to north winds; scattered thundery showers of rain and hail, with local thunderstorms; sleet and snow showers later, especially on high ground; cold to very cold.		
8 N.W. England			
9 N. Midlands ...			
10 N.E. England	Moderate west winds, veering north and freshening; a few showers at first, sleet and snow showers later, with local thunder; cold to very cold.	<b>FURTHER OUTLOOK</b> Cold northerly type, with wintry showers in most districts Gale warning in operation in districts 5, 6, 7, 12, 17, 20 times of issue 1405 G.M.T Nov, 11 <sup>th</sup> 0240 G.M.T Nov 12 <sup>th</sup> 0820 G.M.T Nov 13 <sup>th</sup> .	
11 S.E. Scotland			
12 S.W. Scotland & Isle of Man	As 6-9		
13A W. Scotland ...	Light northwest winds, becoming north to northeast, fresh or strong, showers of rain and hail at first; showers of sleet and snow later; scattered thunderstorms; very cold.		
13B N.W. Scotland			
14 Mid Scotland			
15 N.E. Scotland			

Forecasts issued at 10.30

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



7h. Saturday 13<sup>th</sup> November 1943.

**STATION MODEL**

High Cloud

Medium cloud

Temperature °F.

Present weather

Visibility

Dew Point °F.

Low cloud

Amount of Low cloud

Total Amount of cloud

Wind

Barometer rmb.

Bar. change in past 3 hours in mb.

Weather in past hour

Past weather

Height of Low cloud { Code figure (one figure) or hundreds of feet (two figures) }

15°E. Scale 1: 5,000,000



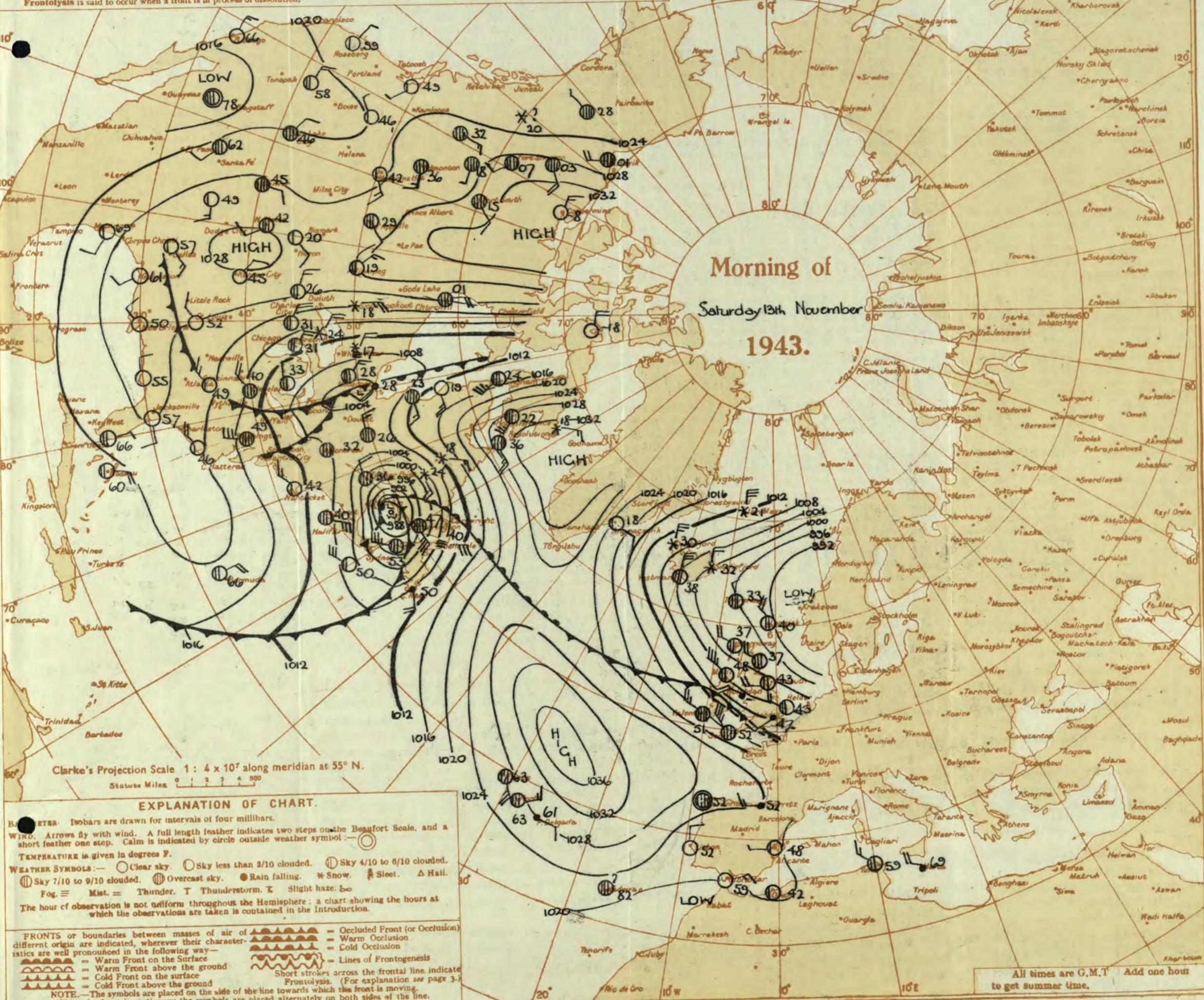
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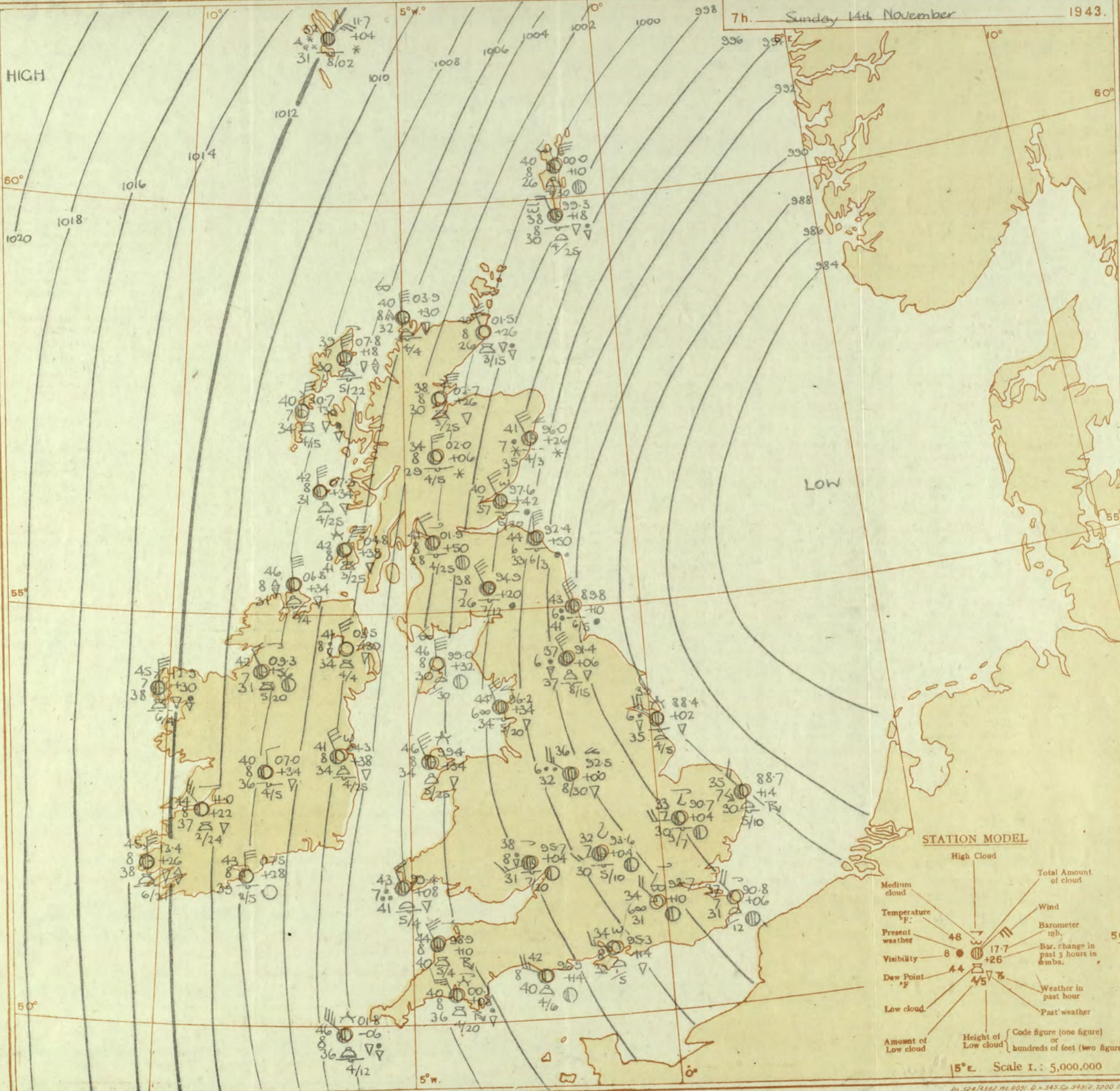




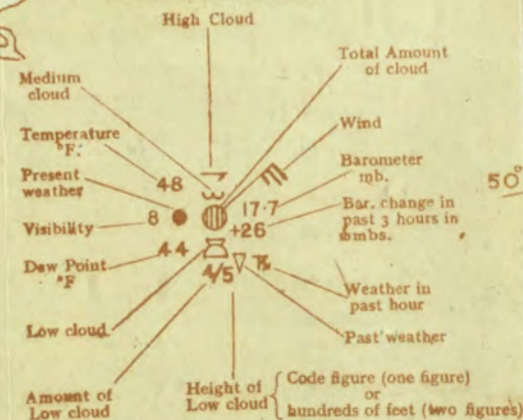


7h. Sunday 14th November

1943.



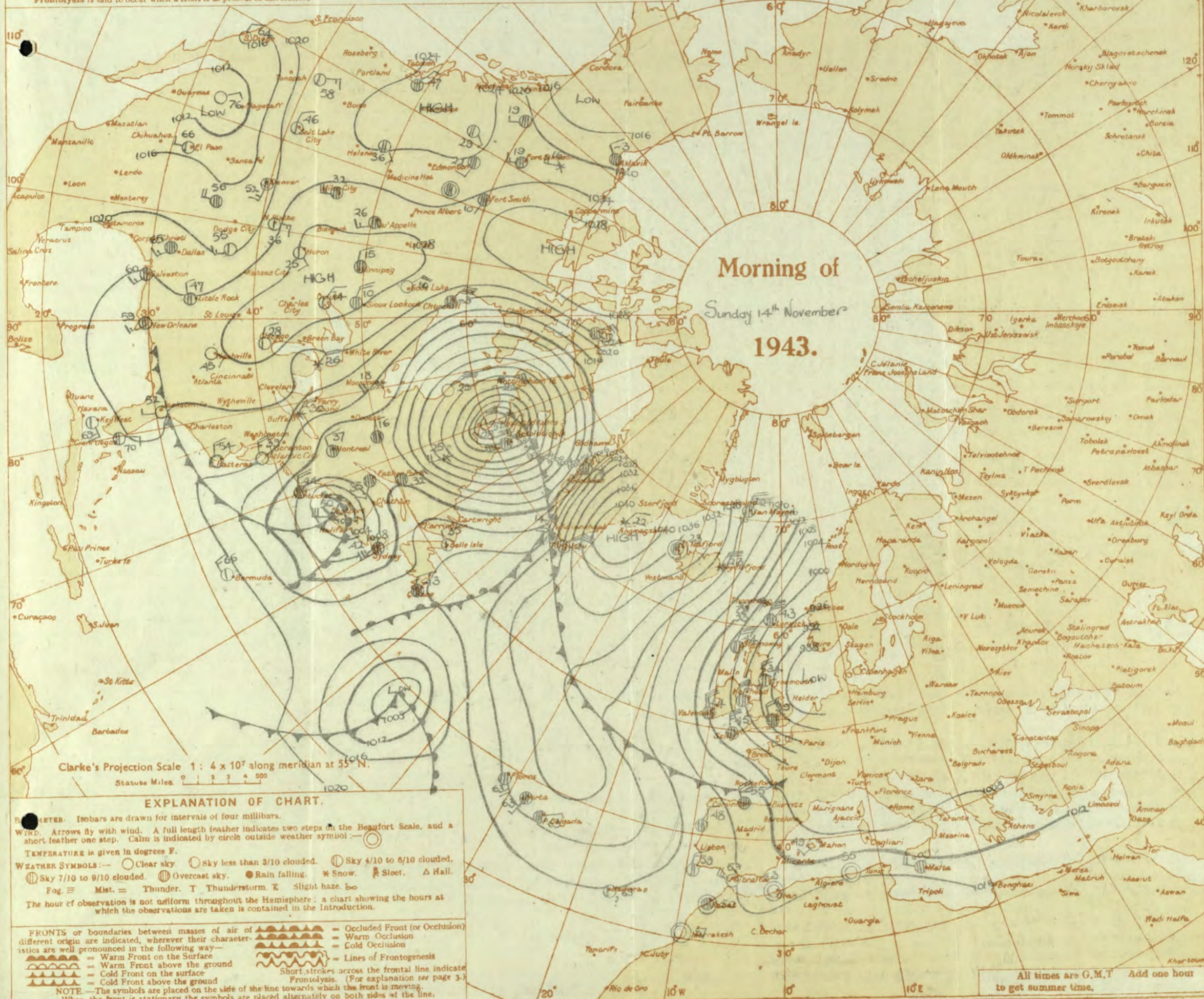
STATION MODEL



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

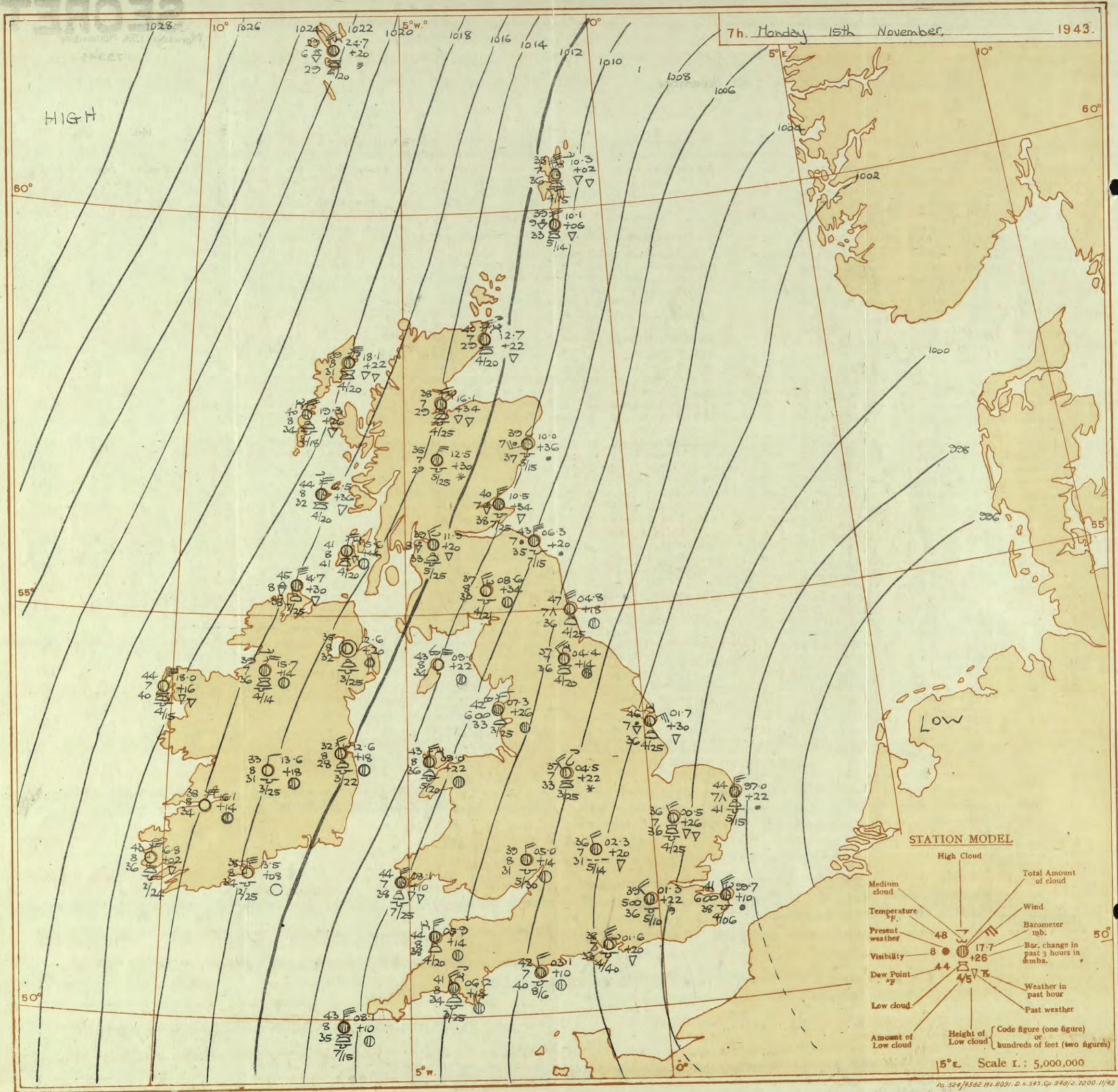
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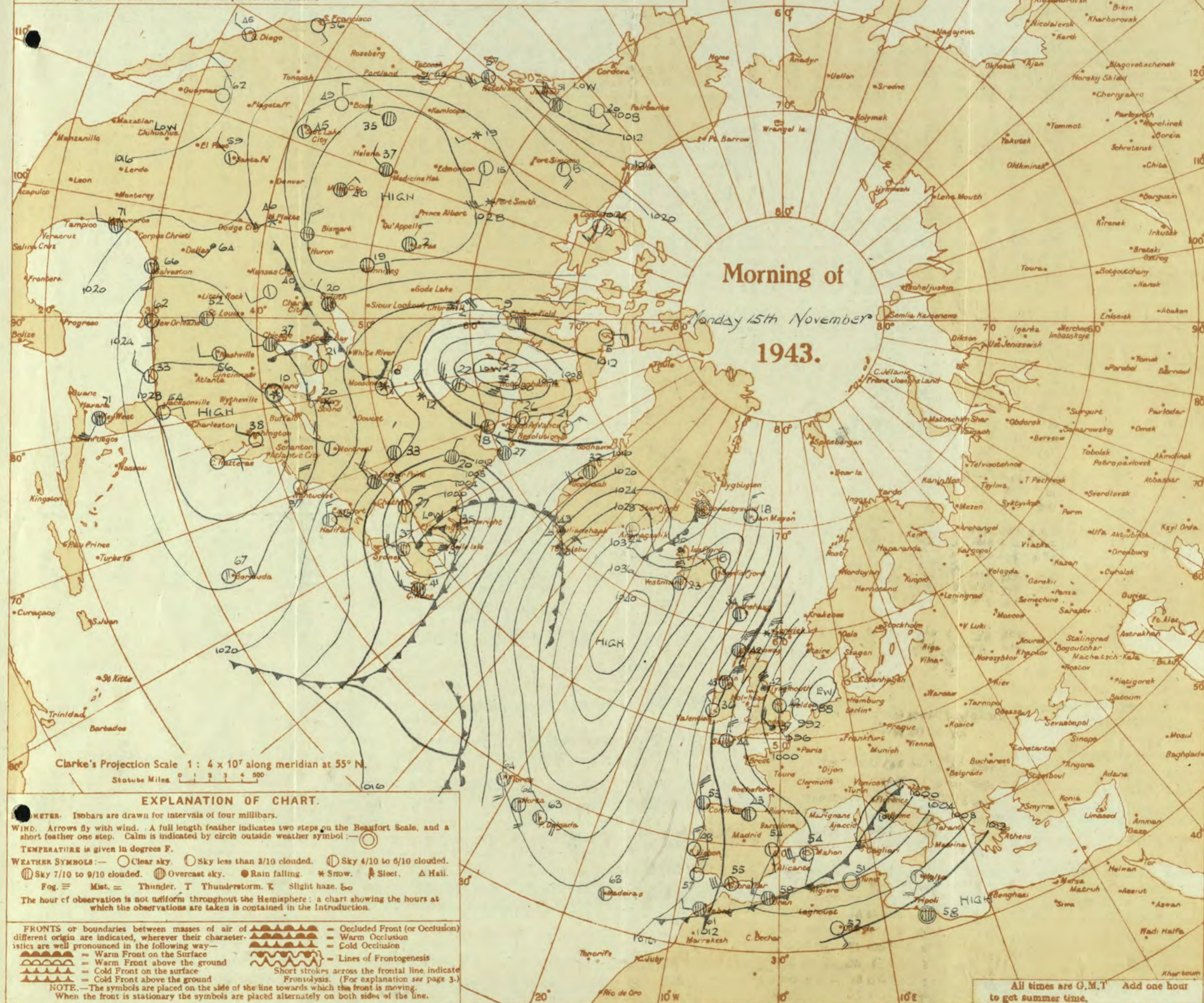




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THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

**SECRET**

No. 29344

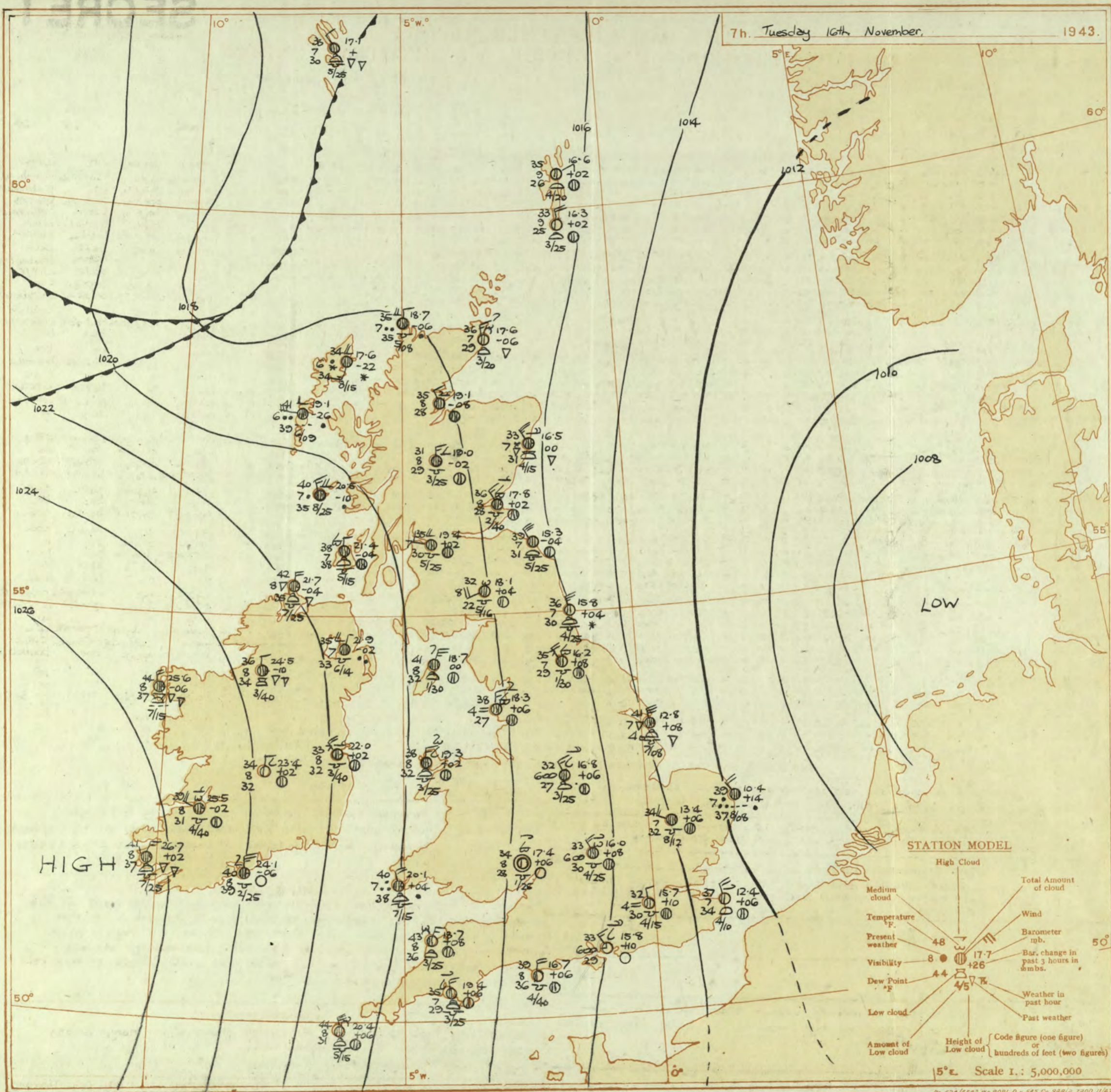
SECTION OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

OBSERVATIONS at 13h. G.M.T. 15th November

OBSERVATIONS at 18h. G.M.T. 15th November

PAST 24 HOURS.

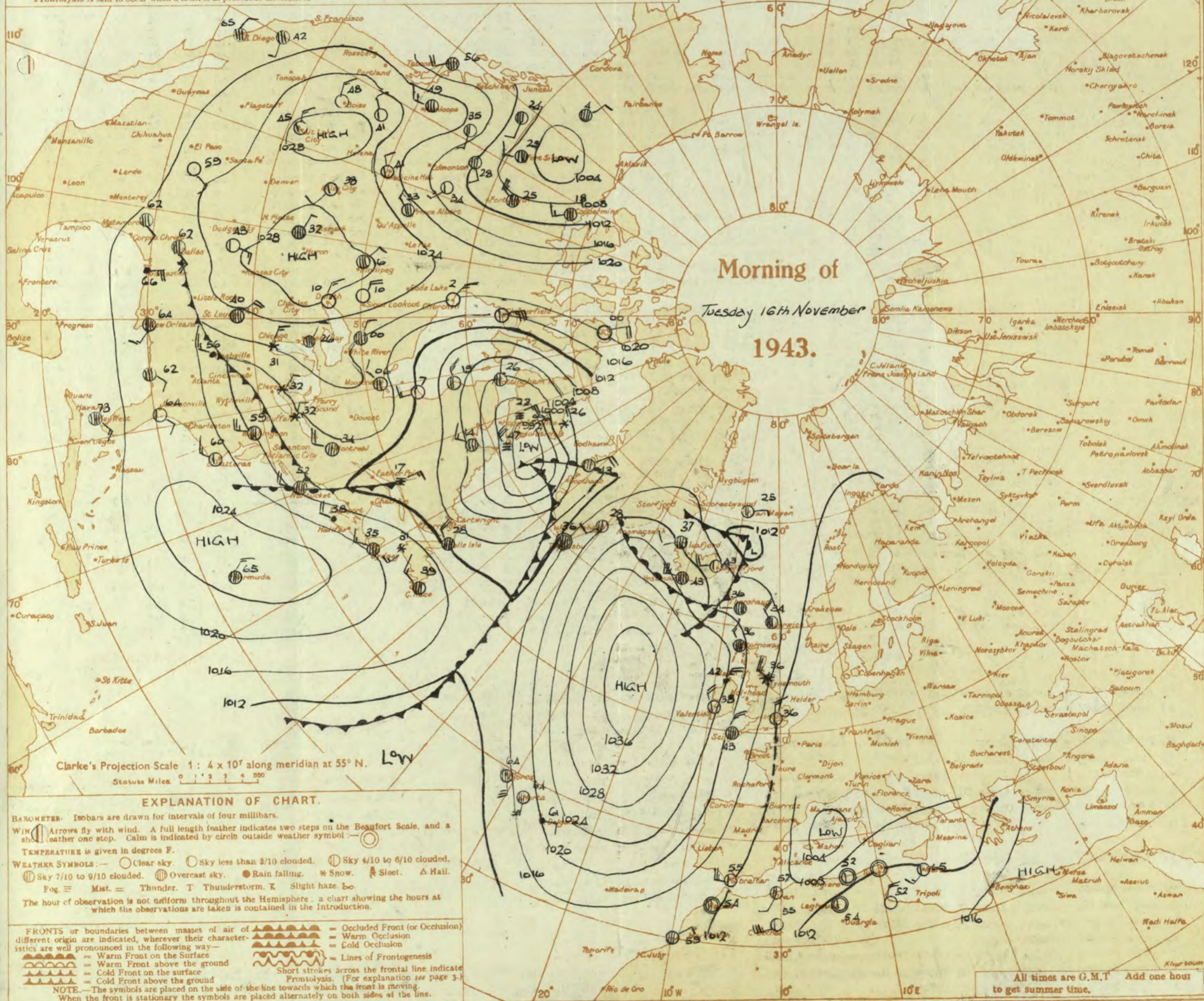
DIRECTION.	STATIONS.	Barom. at M.S.L. (1)	Change in 3 hours. (2)	Wind. (3) (4)		Weather. (5)	Temp. (6)	Humid. (7)	Dew Point. (8)	0-9 Visibility. (9)	Cloud. (10) (11) (12) (13) (14) (15)					Barom. at M.S.L. (16)	Change in 3 hours. (17)	Wind. (18) (19)		Weather. (20)	Temp. (21)	Humid. (22)	Dew Point. (23)	0-9 Visibility. (24)	Cloud. (25) (26) (27) (28) (29) (30)					State of ground. (31)	Sea. (32)	WEATHER. (39) (40) (41) (42)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
				Form. (10)	Med. (11)						High (12)	Low (13)	Total (14)	Height of Base (feet) (15)				Direc. (18)	Force (19)							Form. (25)	Med. (26)	High (27)	Low (28)			Total (29)	Height of Base (feet) (30)			7h.-13h. 15th. (39)	13h.-18h. 15th. (40)	18h.-15th 16th. (41)	15h.-7h. 16th. (42)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							



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

**SECRET**  
Wednesday 17th November 1943  
No. 20045.

No. 29945.

OBSERVATIONS at 13h. G.M.T. 16th November

OBSERVATIONS at 18h. G.M.T. 16th November

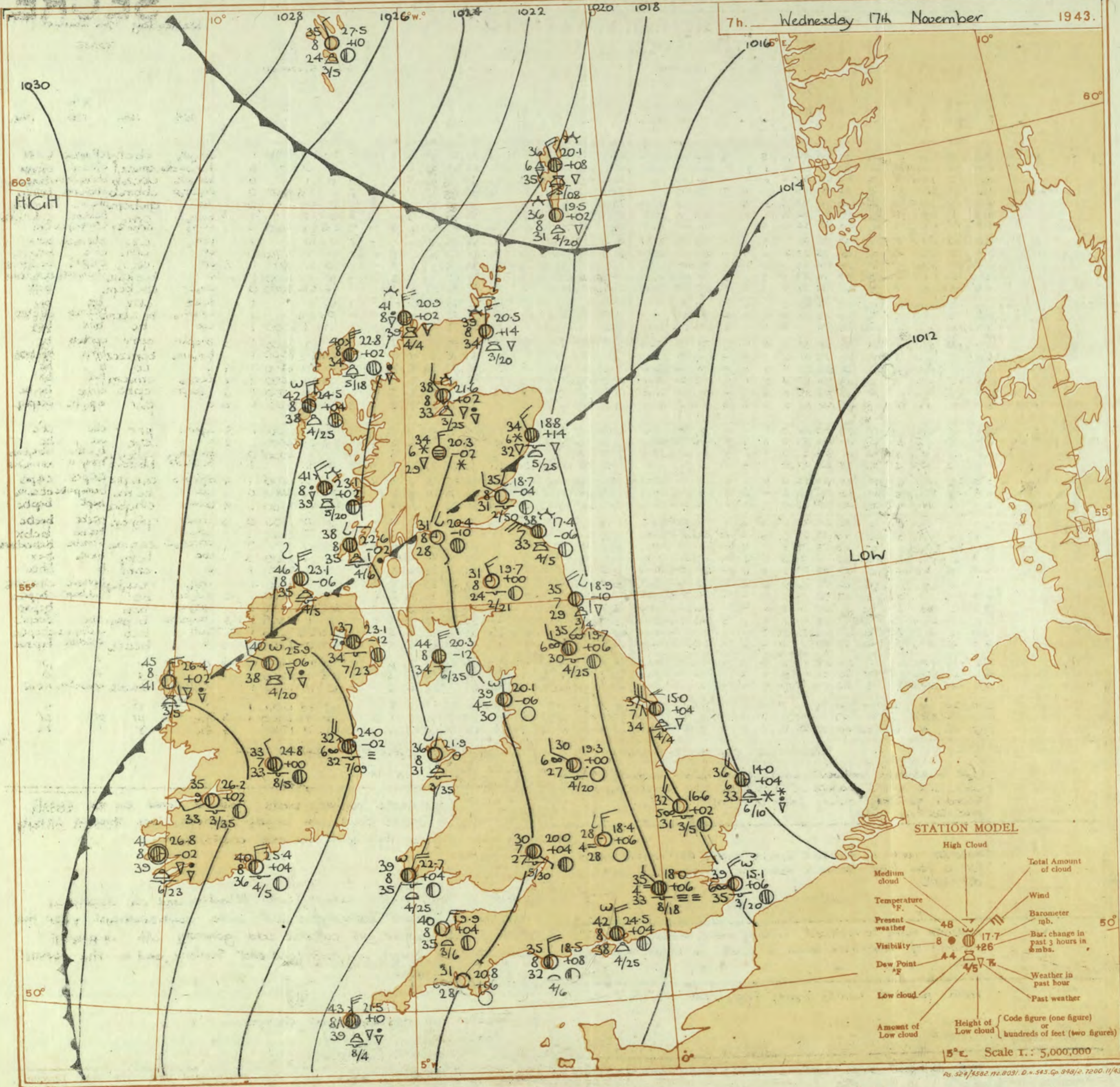
PAST 24 HOURS.

[illegible]

Roches Point 23.7 -16 N 4 SE 43 S 41 S		FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Wednesday 17th November 1943	
DISTRICTS.			
1 S.E. England	Light to moderate northwest wind veering toward northeast; cloudy with local wintry showers at first, but with brighter period inland; generally cloudy later with intermittent wintry precipitation; cold.	16 Orkneys and Shetlands	AS 14-15
2 E. England ...		17 N. W. Ireland	Moderate northerly winds, fresh at times on the coast; variable cloud with brighter periods; local showers chiefly near the north and east coasts; cold.
3 E. Midlands ...		18 N. E. Ireland	
4 W. Midlands	19 S. E. Ireland		
5 S.W. England	Moderate north to northeast winds; mainly fair or fine except for a few local showers near the coast; cold with frost at night.	20 S. W. Ireland	<b>GENERAL INFERENCE</b>  Pressure is high on the eastern North Atlantic and an associated ridge in the Faeroes Iceland area will move south-southeast over the British Isles. Weather will continue cold generally with occasional wintry showers chiefly in north and east Scotland, and in the eastern counties of England.
6 South Wales			
7 North Wales			
8 N.W. England	Moderate north to northeast winds; mainly cloudy; occasional showers of sleet with snow at times on higher ground; cold.	<b>FURTHER OUTLOOK</b>  No indication of any important changes.	
9 N. Midlands ...			
10 N.E. England			
11 S.E. Scotland	Fresh northeast winds; mainly fine; cold with frost at night.	<b>FORECASTS ISSUED AT 10.30</b>  NELSON K. JOHNSON, K.C.B., D.Sc., Director. Meteorological Office, Air Ministry, Kingsway, London, W.C.2	
12 S.W. Scotland & Isle of Man			
13A W. Scotland ...			
13B N.W. Scotland	Fresh northeast winds; variable cloud; snow showers; cold.		
14 Mid Scotland			
15 N.E. Scotland			

SECRET

7h. Wednesday 17th November 1943.



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

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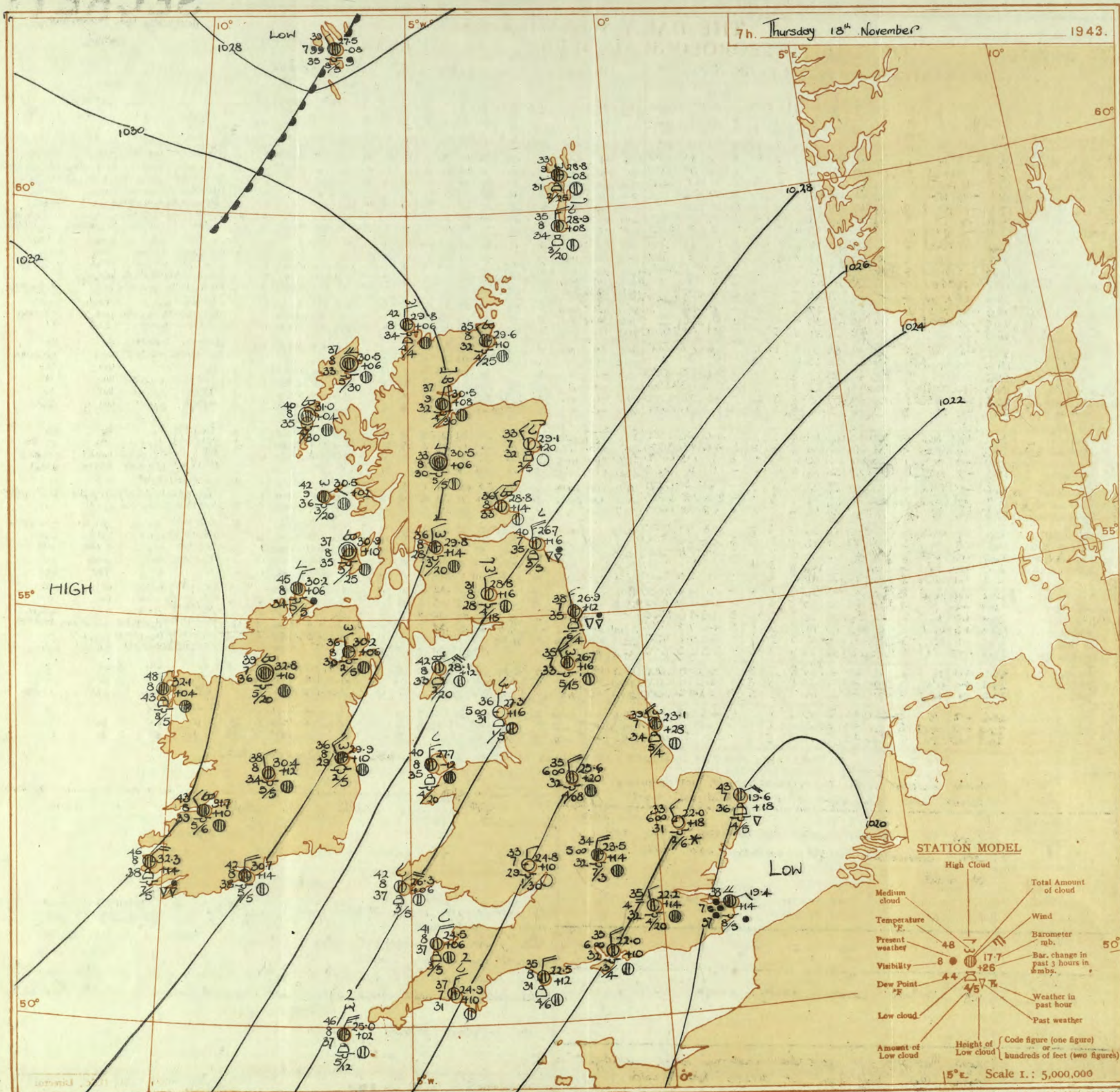
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[illegible]



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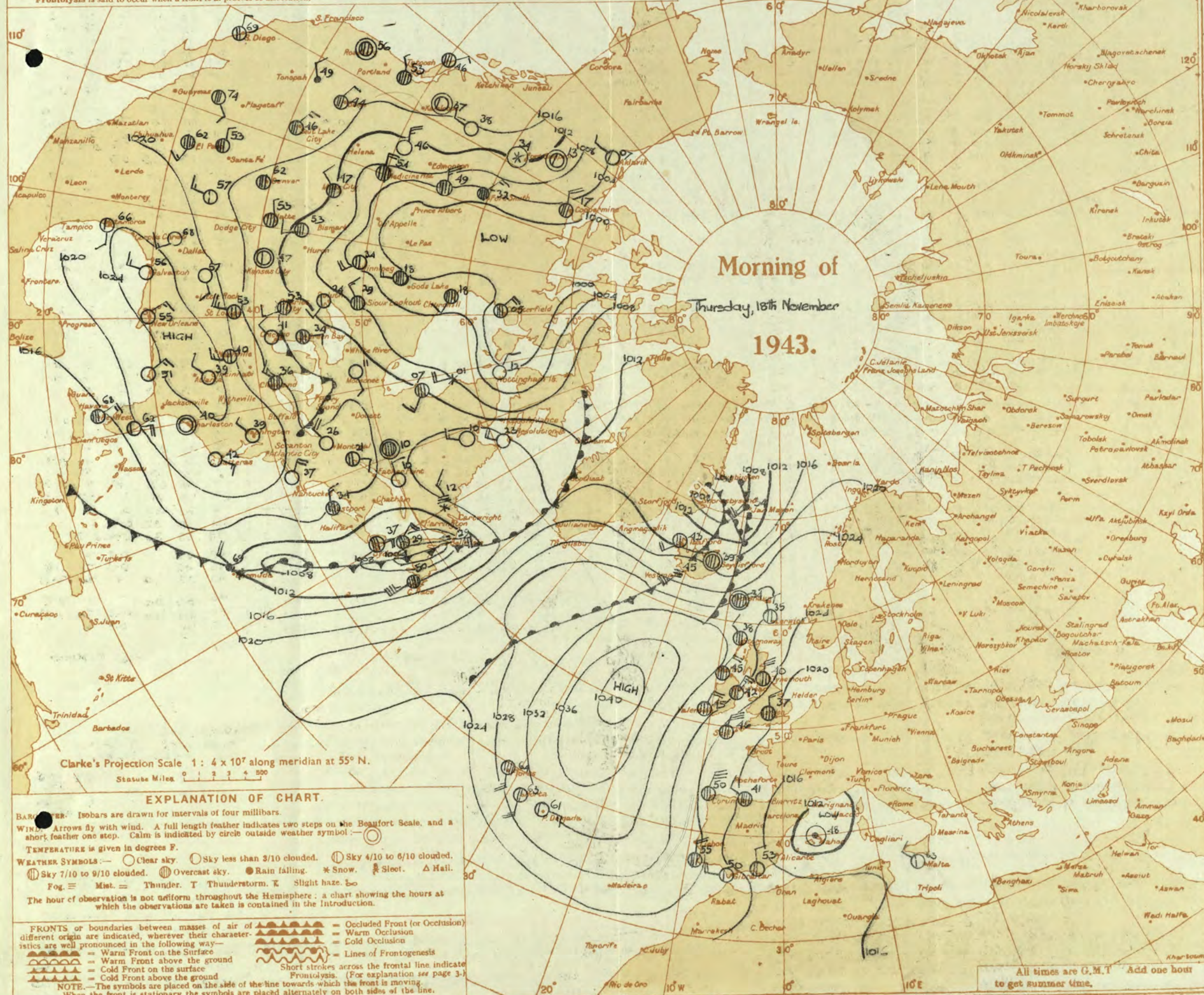
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BRITISH  
SECTION

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

SECTION OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

OBSERVATIONS at 13h. G.M.T. 15th November															OBSERVATIONS at 18h. G.M.T. 15th November													PAST 24 HOURS.																
DISTRICT.	STATIONS.	Barom. at M.S.L. Change in 3 hours.	Wind.		Weather.	Temp. °F.	Humid. %	Dew Point °F.	Visibility. 0-9	Cloud.					Barom. at M.S.L. Change in 3 hours.	Wind.	Temp. °F.	Humid. %	Dew Point °F.	Visibility. 0-9	Cloud.					State of ground. 0-9	Sea. 0-9	WEATHER.																
			Dir.	Force.						Form.	Amount.	Height of Base (feet).										Form.	Amount.	Height of Base (feet).					7h.-13h. 13h.	13h.-18h. 18h.	18h. to 1h. 19h.	1h.-7h. 19h.												
												Low.	Med.	High.							Low.			Med.	High.																			
(For heights see p. 4.)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(39)	(40)	(41)	(42)								
1	London (Kew) ... Croydon ... S. Farnborough ... Boscombe Down ... Thorney Island ... Lymington ... Manston ...	24.6 24.7 25.0 26.1 24.1 23.3 23.0	+10 +6 +2 +6 +6 +14 +14	N E N N N N N E N N E	3 3 2 4 4 4 3	z m b-bc z pr pr	44 43 45 40 40 40 41	55 65 65 75 65 32 32	30 33 33 33 38 38 39	6 4 7 6 6 9 9	2 5 1 - - - -	- - - - - - -	Tr 2-3 1 0 0 4-6 3+	Tr 2-3 0 0 0 10 9+	2500 1500 3000 - 800 1800	17.4 27.4 27.6 28.4 26.9 25.9 25.3	+20 +22 +10 +22 +22 +18 +18	N N W N N N E N W N N E E N E	3 3 2 3 3 2 2	z b f z z z pr pr	40 40 35 39 37 37 41	75 85 75 85 85 75 75	34 35 32 34 34 34 34	5 3 5 6 5 9 9	- - - - - - -	- - - - - - -	Tr Tr 0 0 Tr 10 9	2000 2000 - - 2500 1600 3800	1 0 0 0 1 1 1	• • • • • • •	br-mbz bcxmbob bcmcmabz b c c c	bcybm. bcybz bzobm b b b b	bbcm. bczfm bzobm b b b b	obcmw bcxmbob bcmcmabz b b b b										
2	Shoeburyness ... Felixstowe ... Gorleston ... Mildenhall ... Cranwell ...	24.3 23.7 23.1 24.6 24.6	+14 +10 +8 +6 +6	N N N E N E N E	4 4 4 4 4	c c bc bc bc	43 43 43 44 44	75 75 75 85 85	36 36 35 38 38	6 7 8 7 7	2 6 6 6 6	- - - - -	7-8 4-6 7-8 4-6 4-6	9 9 7 7 7	2500 2500 1000 2500 2500	26.5 26.6 26.2 27.6 29.0	+18 +18 +22 +22 +14	N E N W N N W N	4 3 2 3 3	b-bc b z c-bc iro	37 39 41 36 36	92 75 85 82 97	35 32 35 34 35	5 7 6 8 6	- - - - -	- - - - -	Tr 1 4-6 7-8 4-6	2-3 1 1500 3000 2000	1 1 1 0 0	• • • • •	bcc prbcl cpbgtcc br-mbz bcmcmo	c clclo clbz cpm b b	bc bc bz bz bz	obcmw bcxmbob bcmcmabz b b										
3	Birmingham ... Upper Heyford ... Ross-on-Wye ...	27.6 26.1 27.1	+6 +6 +2	NNW NW N	3 4 3	z z z	40 40 41	75 85 75	33 34 32	5 5 6	- - -	- - -	0 1 Tr	1 1 1	1500 3000 3000	28.8 28.8 29.3	+22 +20 +	N W N W N E	3 3 2	z m z	34 36 32	32 32 30	4 6 6	- - -	- - -	0 0 Tr	- - -	1 1 1	• • •	bcc bcmcmo bc	bz brn bz	brn brn brn	brn brn brn											
4	Hartland Point ... Bristol ... Portland Bill ... Plymouth ... The Lizard ... Silly (St. Mary's) ... Guernsey ...	27.4 27.8 25.6 27.5 26.6 27.6 27.6	+4 +8 +4 +10 +6 +8 +8	NE N N NE N NE NE	3 4 4 3 3 5 5	bc z z c-bc bc bc pr	42 41 41 43 43 46 46	85 75 75 75 75 65 65	37 36 34 34 34 35 36	8 6 8 8 8 8 8	2 4 1 - - - -	- - - - - - -	4-6 4-6 7-8 7-8 2-3 3 3	4-6 4-6 4-6 4-6 4-6 9 9	2500 4000 4000 2500 2500 1500	29.1 30.0 27.6 29.2 29.1 29.1 29.1	+12 +22 +10 +18 +20 +18 +18	NE N N NNE NNE NNE NNE	3 0 4 3 3 5 5	bc bf c-bc b bc c c	43 34 40 39 39 45 45	85 92 92 85 85 75 75	37 32 32 33 33 36 36	8 2 7 5 8 8 8	- - - - - - -	- - - - - - -	4-6 0 0 0 0 7-8 7-8	4-6 0 0 0 0 4 4	2500 - - - - 2000 2000	1 0 0 0 0 1 1	3 • • • • • • •	bc cmxbrm cmxbrm bc bc cphrgh	bc bc bc bc bc bc bc	bc bc bc bc bc bc bc	bc bc bc bc bc bc bc									
5	Pembroke ... Holyhead (Valley) ... Chester (Sealand) ... Manchester ...	29.0 30.2 29.3 28.4	-6 +4 +10 +2	NE NNE N N	4 3 2 2	c c z z	45 45 42 38	75 75 65 85	37 37 33 33	8 8 5 4	2 6 6 5	- - - -	4-6 7-8 4-6 4-6	9 9 9 9	2500 2500 3500 3000	30.5 31.3 30.6 30.9	+10 +10 +14 +10	ENE NNE NNW N	3 1 2 3	c-bc c bc bf	41 40 37 34	85 85 85 85	39 35 32 31	8 8 3 3	- - - -	- - - -	7-8 2 0 0	7-8 4-6 4-6 4-6	2000 4000 - 1500	0 1 0 1	2 • • •	bcc bcmcmo bcmcmo bcmcmo	c c c c	bcw bcw bcw bcw	bcw bcw bcw bcw									
6	Spurn Head ... Catterick (Sc.) ... Tynemouth ...	25.5 29.2 29.2	+2 +8 +14	N NNW NNW	5 4 4	bc c bc	45 39 40	65 85 85	42 36 35	8 7 7	3 3 2	- - -	4-6 7-8 4-6	4-6 4-6 4-6	1600 2000 2200	27.5 31.4 31.0	0 +18 +12	NE NNW NW	4 3 3	p bc bc	42 35 39	75 92 85	34 34 36	7 5 6	- - -	- - -	4-6 4-6 4-6	2500 2500 2200	1 1 1	4 • • •	bc bcmcmo bcmcmo	bc bc bc	bc bc bc	bc bc bc										
7	St. Abbs Head ... Leuchars ... Renfrew (Abbots I.) ... Eskdalemuir ... Point of Ayre ...	29.8 30.6 31.5 30.2 30.5	+12 0 +2 +4 +8	N N N NNE E N	3 2 1 3 3	bc c c bc c	41 41 42 38 44	75 85 65 65 65	33 36 32 28 34	8 8 7 8 8	2 7 7 7 7	- - - - -	4-6 4-6 4-6 4-6 4-6	4-6 4-6 4-6 4-6 4-6	3000 3000 2100 2500 3500	31.2 32.7 33.0 31.6 32.7	+10 +14 +14 +10 +8	N N N NNE E	3 0 1 1 2	c z m c c	42 37 38 35 43	85 85 85 85 75	37 35 33 31 34	7 5 4 6 8	- - - - -	- - - - -	7-8 4-6 4-6 4-6 7-8	2500 4000 2500 2100 3000	1 0 3 0 0	1 • • • •	bcc bcmcmo bcmcmo bcmcmo bcmcmo	c c c c c	bcw bcw bcw bcw bcw	bcw bcw bcw bcw bcw										
8	Tiree ... Stornoway ... Dalwhinnie ... Aberdeen ... Wick ... Sumburgh ...	31.7 31.5 31.5 30.9 30.9 29.7	+2 +4 +2 +8 +4 -2	NNE NSW NNE NW S N S	1 1 1 3 2 1	c c c c c c	46 42 36 33 33 40	65 85 75 85 85 85	36 37 27 34 36 35	9 8 5 8 9 9	5 7 7 7 8 7	- - - - - -	4-6 4-6 4-6 4-6 4-6 4-6	4-6 4-6 4-6 4-6 4-6 4-6	2500 2500 2500 2000 2500 2500	32.7 31.3 32.8 28.7 31.7 29.9	+8 +10 +8 +8 +8 +2	- - W NW W SW	0 1 3 1 1 4	c bc o o o o	42 40 33 35 35 43	85 85 85 85 75 75	37 36 30 32 32 35	7 5 7 5 6 5	- - - - - -	- - - - - -	7-8 4-6 4-6 4-6 4-6 7-8	2500 4000 4000 2500 2500 2500	1 0 1 1 1 1	1 • • • • • •	bcc bcmcmo bcmcmo bcmcmo bcmcmo bcmcmo	c c c c c c	bcw bcw bcw bcw bcw bcw	bcw bcw bcw bcw bcw bcw										
9	Blackod Point ... Malin Head ... Aldergrove ...	32.7 31.4 31.8	-6 +2 +2	NW NE -	4 3 -	c c c	49 46 43	32 65 65	47 34 32	7 8 7	- - -	- - -	9 9 2-3	9 9 9	1500 2500 2500	33.6 32.6 33.1	+10 +12 +10	N NNE -	3 0 0	c c z	47 46 39	97 65 75	46 34 33	7 8 6	- - -	- - -	9 9 9	1500 2500 2500	1 1 1	2 • •	c c c	c c c	c c c	c c c										
10	Birr Castle ... Valentia Obay ... Roches Point ...	32.0 32.7 32.2	-2 -6 0	NNW N N N	1 1 3	c c c	43 43 45	85 85 85	39 44 41	5 8 8	2 5 7	- - -	7-8 10 4-6	10 10 9	2500 2500 2500	32.9 33.1 32.5	+10 +6 +8	NNW NE N	1 2 3	c-bc o c	40 47 44	92 92 85	38 48 40	7 8 8	- - -	- - -	7-8 10 4-6	1500 1500 1500	1 1 1	2 3 2	c c c	c c c	c c c	c c c										

FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Friday 15th November 1943.

DISTRICTS.	16 Orkneys and Shetlands	As 10-15.
1 S.E. England	17 N.W. Ireland	Light variable winds; cloudy with light local rain or drizzle; rather cold becoming milder.
2 E. England ...	18 N.E. Ireland	
3 E. Midlands ...	19 S.E. Ireland	
4 W. Midlands	20 S.W. Ireland	
5 S.W. England		
6 South Wales		
7 North Wales		
8 N.W. England		
9 N. Midlands ...		
10 N.E. England		
11 S.E. Scotland		
12 S.W. Scotland & Isle of Man		
13A W. Scotland ...		
13B N.W. Scotland		
14 Mid Scotland		
15 N.E. Scotland		

Light north or northeast to variable wind; mainly fine at first, but a few showers near coasts in East and Southeast; fairly general fog developing tonight and largely persisting tomorrow; rather cold with local frost at night.

AS 1-7

AS 1-7

Light to moderate westerly winds, fresh locally in north; cloudy with light local rain or drizzle; rather cold becoming milder.

GENERAL INFERENCE

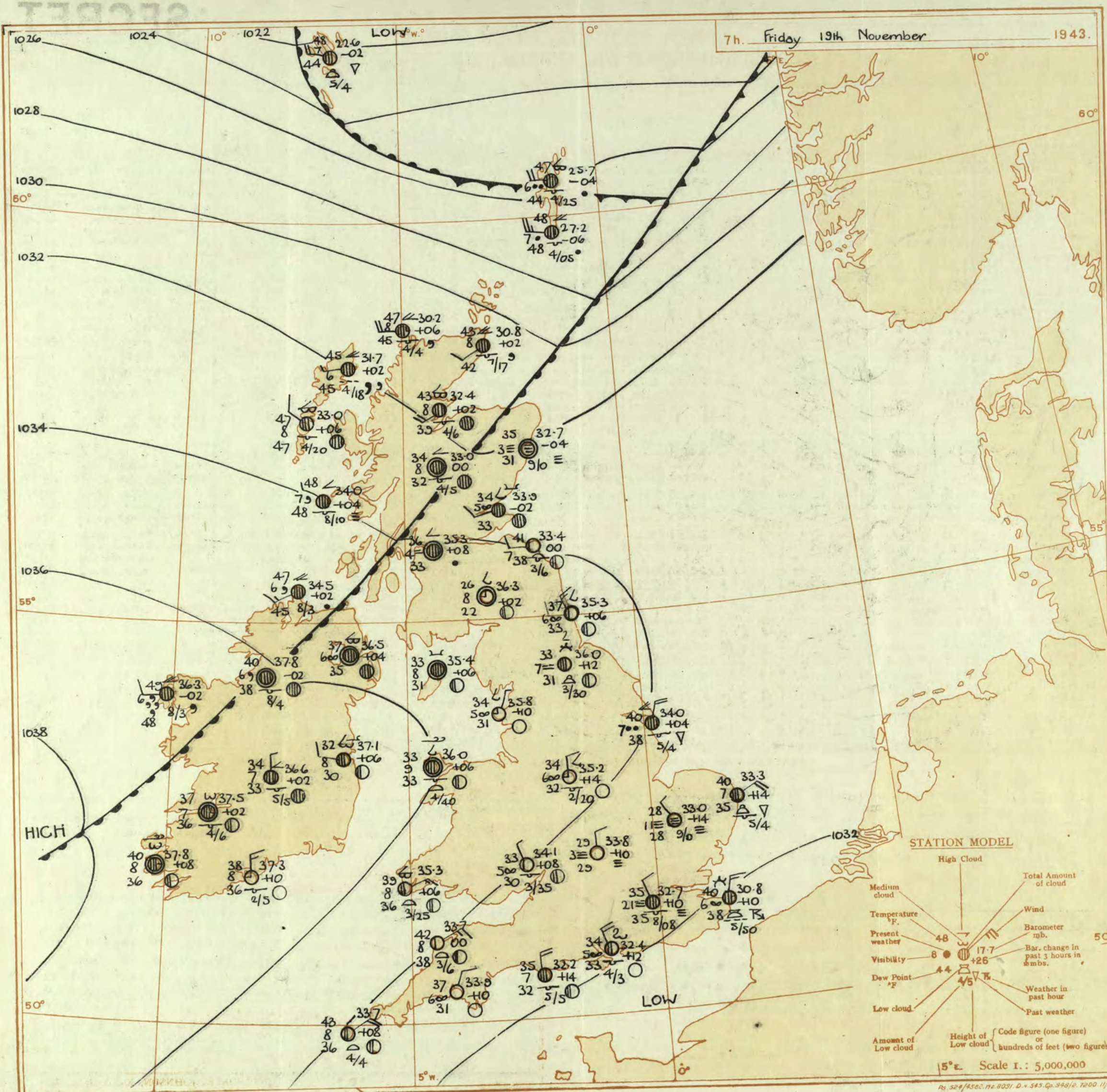
A large anticyclone is centred west-southwest of Ireland and an associated ridge over England is moving slowly southwards. A weak trough over Scotland and northern Ireland is moving slowly southeast. Weather will be fine over much of England at first, but widespread fog will develop tonight and will largely persist tomorrow. In the North it will be cloudy with light local rain or drizzle. It will be mainly rather cold at first, but will become milder in the North.

FURTHER OUTLOOK

Quiet cold and foggy in South. Cloudy and milder in North with local rain or drizzle.

Forecasts issued at 10.30

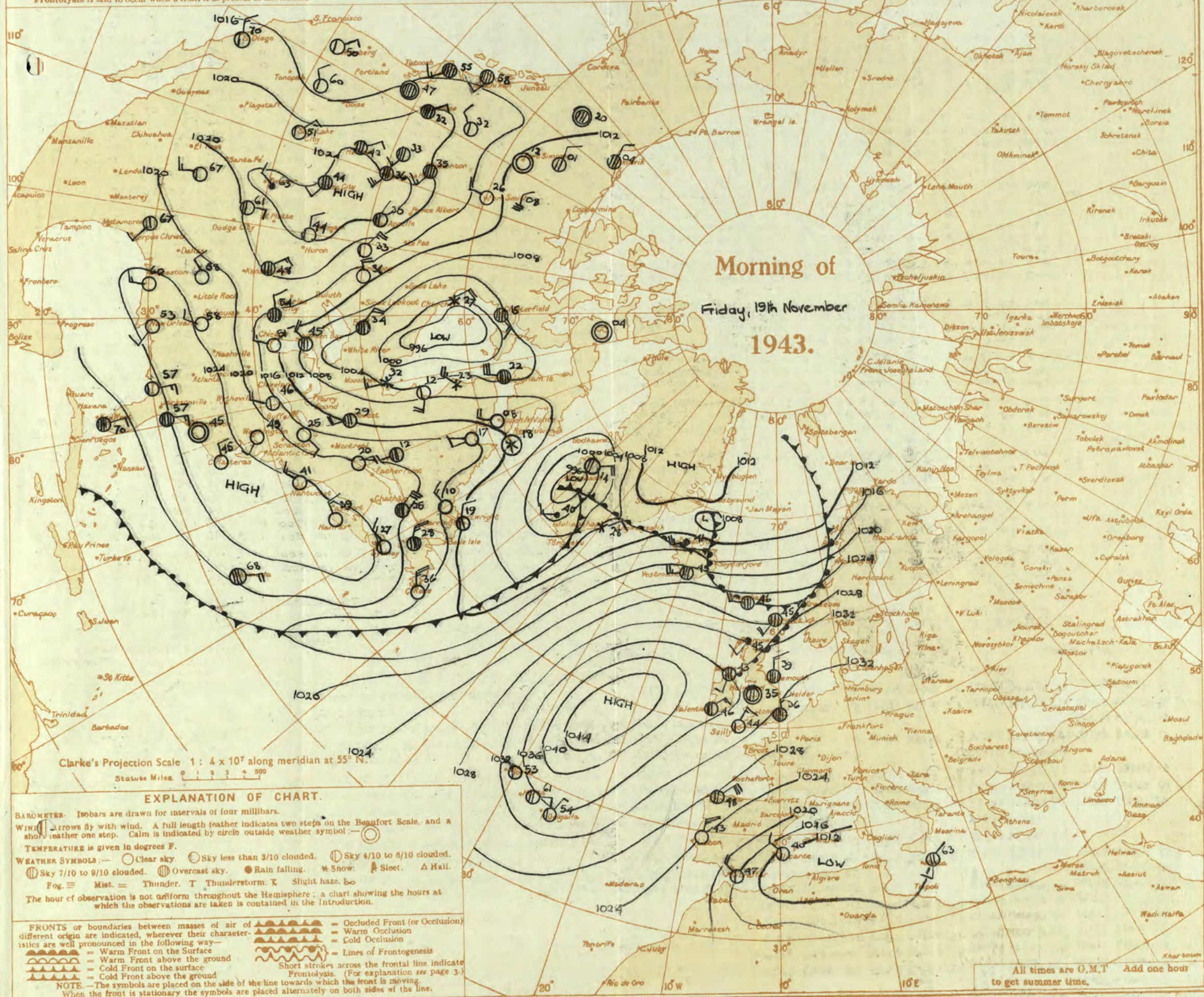
NELSON K. JOHNSON, K.C.B., D.Sc., Director.  
Meteorological Office, Air Ministry, Kingsway, London, W.C.2



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

## Explanation of Frontal Lines shown on Charts

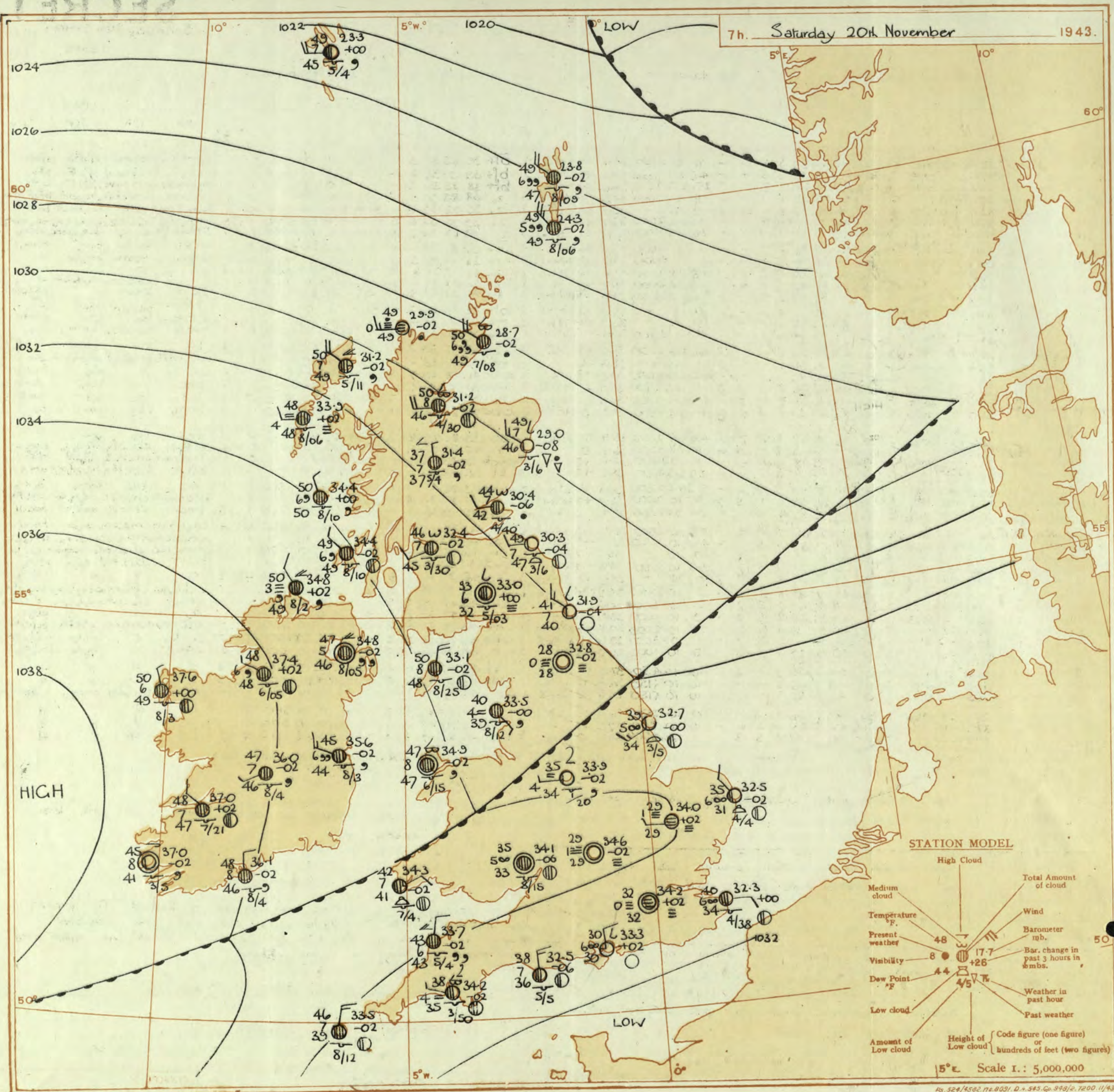
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**Frontolysis** is said to occur when a front is in process of dissolution.







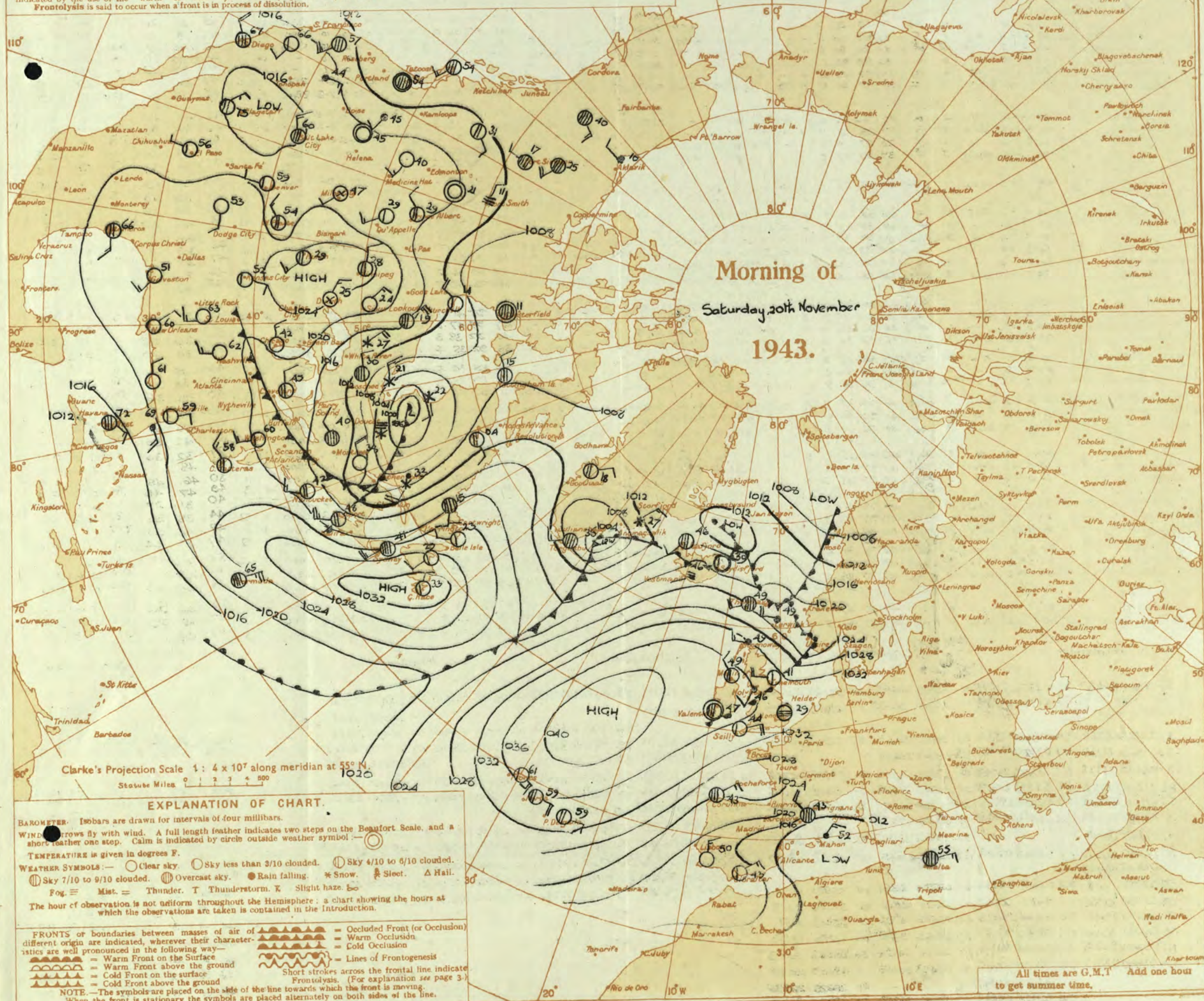
SECRET



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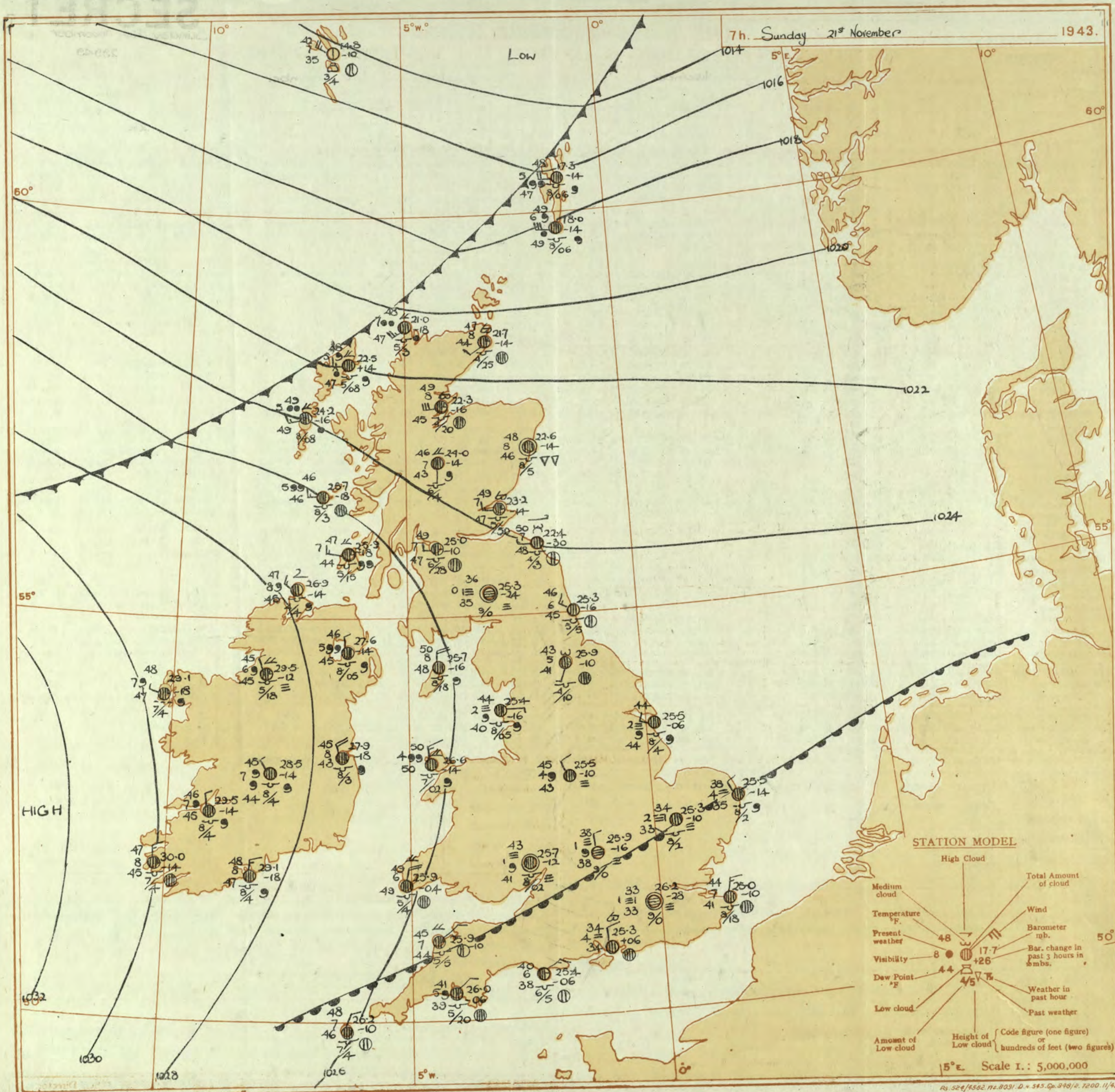
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THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON

Monday 22<sup>nd</sup> November 1942

No. 29950

SECTION OF THE METEOROLOGICAL SERVICE

OBSERVATIONS at 13h. G.M.T. 21<sup>st</sup> November

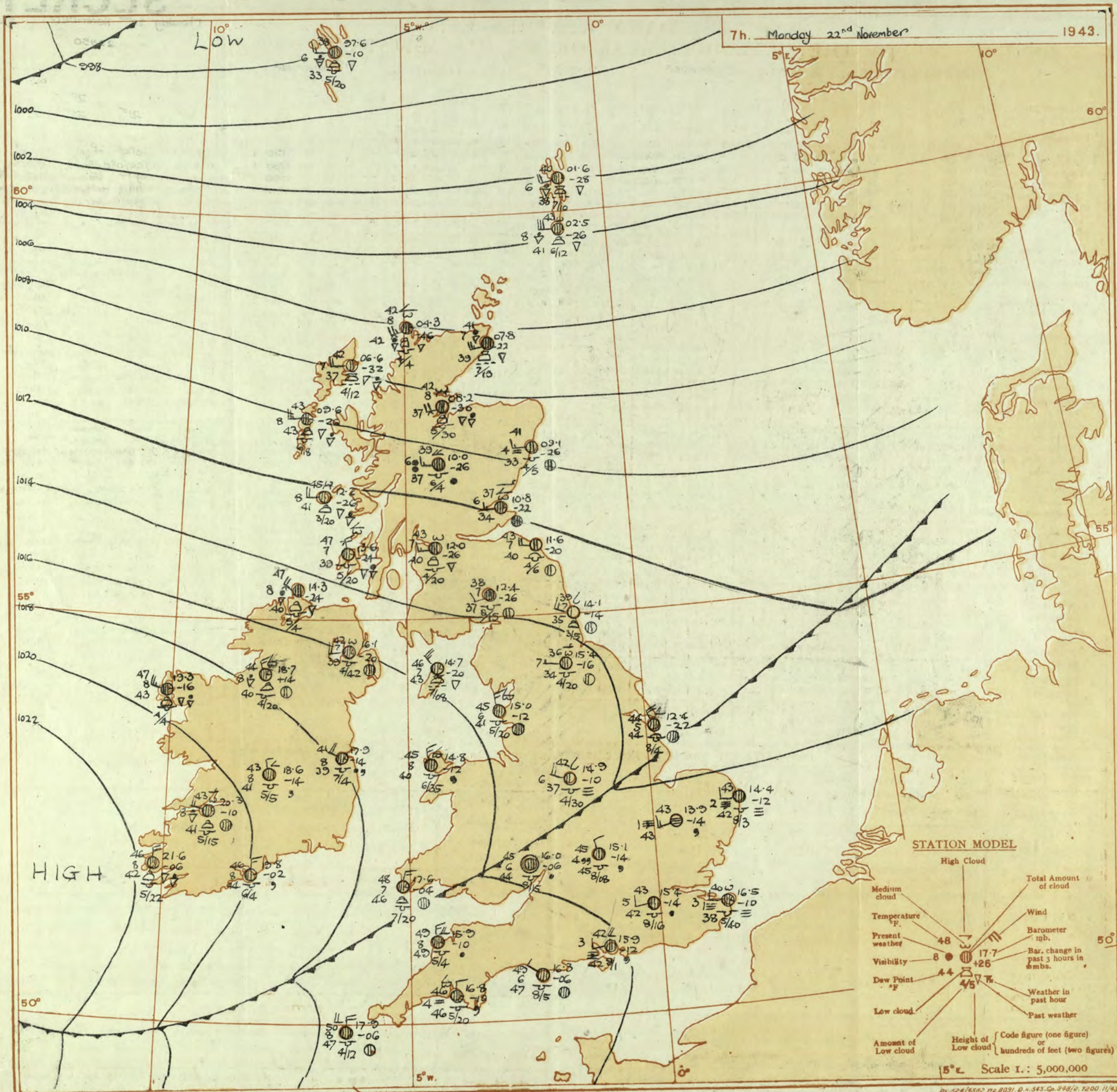
OBSERVATIONS at 18h. G.M.T. 21<sup>st</sup> November

PAST 24 HOURS.

DISTRICT.	STATIONS.  (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 8 hours. (2)	Wind.		Weather. (5)	Temp. °F. (6)	Humid. % (7)	Dew Point. °F. (8)	Visibility. 0-9 (9)	Cloud.				Barom. at M.S.L. mb. (16)	Change in 8 hours. (17)	Wind.		Weather. (20)	Temp. °F. (21)	Humid. % (22)	Dew Point. °F. (23)	Visibility. 0-9 (24)	Cloud.				Barom. at M.S.L. mb. (31)	Change in 8 hours. (32)	WEATHER.				
				Direc. (3)	Force. 0-12 (4)						Form.		Amount. Low 0-10 Total 0-10 (13) (14)	Height of Base (feet) (15)			Form.							Amount. Low 0-10 Total 0-10 (28) (29)	Height of Base (feet) (30)	State of Ground. 0-9 (33)	Sea. 0-9 (34)			7h.—13h. 21 <sup>st</sup> (39) (40) (41) (42)				
											Low.	Med.	High.				Low.	Med.						High.						Low.	Med.	High.		
1	London (Kew) Croydon ... S. Farnborough Boscombe Down Thorney Island Lymington ... Manston ...	22.5 23.3 22.3 22.3 22.4 22.5 23.4	-24 -24 -20 -26 -26 -26 -18	NSW — — — N NNW NNW	1 0 0 0 2 1 1	cf F F F Z m m	40 35 41 43 44 42 43	92 97 97 97 75 97 92	39 39 41 42 39 41 41	2 — 5 5 5 5 4	— — — — — 2 —	— — — — — — —	9+ 10 9 10 10 3 10	9+ 10 10 100 1500 1100 2500	20.5 21.0 20.9 21.1 20.5 20.4 21.5	-8 -10 -6 -6 -8 -12 -10	NSW — — — — NNE NW	1 — — — — 2 1	F F OF OF Z OF OF	41 39 39 43 43 41 41	97 97 97 97 92 40 97	39 39 39 41 5 3 40	— — — — — — —	— — — — — — —	10 10 10 10 4-6 10 10	1500 1500 1600 1500 2300 1700 200	1 — — — — — —	— — — — — — —	off of of of of cm cid	cf fo fo fo fo cm cid	of of of of of cm cid	of of of of of cm cid	of of of of of cm cid	
2	Shoeburyness ... Felixstowe ... Gorleston ... Mildenhall ... Cranwell ...	22.9 33.6 22.6 22.3 22.3	-20 -18 -22 -26 -20	NNW NN NNW SW —	1 2 2 1 0	of Z m of F	41 43 45 43 45	82 85 85 82 97	38 39 42 42 45	3 4 5 3 2	— — — — —	— — — — —	10 10 9+ 10 10	10 1500 1500 1900 1500	21.0 20.4 19.4 20.2 19.8	-14 -14 -18 -6 -4	NNW NNW NW — ENE	1 2 — 0 1	of m F rF F	42 43 43 43 44	92 92 92 97 97	40 41 42 42 44	3 5 2 1 1	— — — — —	— — — — —	10 10 10 10 10	1500 2500 1500 1500 1500	1 0 0 1 —	— — — — —	cm cm cm cf F	mx Fcm Fcm of of	cf cm of of F	of cm of of F	of cm of of F
3	Birmingham ... Upper Heyford ... Ross-on-Wye ...	22.5 23.2 22.4	-20 -16 -18	NNW SW WSW	1 1 1	of F F	46 41 47	97 97 97	45 41 46	3 1 4	5 — —	— — —	10 10 10	10 1500 500	20.3 20.2 20.2	-8 -14 -10	NW W SWW	1 1 2	of df m	47 43 47	97 97 97	46 43 46	3 1 4	— — —	— — —	10 10 10	1500 1500 400	1 1 1	— — —	of of of	of of of	of of of	of of of	
4	Hartland Point Bristol ... Portland Bill ... Plymouth ... The Lizard ... Scilly (St. Mary's) Guernsey ...	22.7 23.3 23.4 23.2 23.2 24.0 24.0	-18 -18 -14 -26 -18 -18 -18	NNE SW NE NW NW NNE NNE	3 1 2 1 2 2 2	C df C C Z dp dp	43 46 46 49 49 51 51	97 97 92 92 92 97 97	49 46 44 45 45 50 50	7 2 7 5 2 6 5	— — — — — — —	— — — — — — —	9+ 10 10 10 4-6 9+ 10	9+ 400 2500 2500 2500 2500 800	22.0 20.6 20.4 20.7 21.2 21.8 21.8	-2 -6 -12 -12 -4 +8 +8	NNE NNW NNW NW NW N N	3 2 — 0 0 4 4	C C id C C C C	49 47 46 49 49 50 50	92 97 97 92 92 92 92	47 46 44 44 43 43 43	7 5 3 7 5 5 8	— — — — — — —	— — — — — — —	10 10 10 10 10 10 10	800 600 2500 3500 1000 800 800	1 1 3 1 3 1 1	— — — — — — —	cm cm cm cm cm cm cm	mod mod mod mod mod mod mod	cm cm cm cm cm cm cm	cm cm cm cm cm cm cm	cm cm cm cm cm cm cm
5	Pembroke ... Holyhead (Valley) Chester (Sealand) Manchester ...	24.3 23.0 22.8 22.8	-2 -30 -20 -20	N/E NNW NW —	4 3 3 0	C id id F	43 49 49 46	97 97 97 97	49 48 48 46	7 4 6 2	— — — —	— — — —	9+ 10 10 10	1800 200 400 1500	22.0 21.8 20.6 20.2	-2 -8 -10 -6	NNE NNW NNW NNW	3 2 2 2	C C id F	49 47 46 46	92 97 97 97	47 46 45 45	7 5 5 2	— — — —	— — — —	10 10 10 10	800 1600 1200 1500	1 1 1 1	— — — —	cm cm cm cm	mod mod mod mod	cm cm cm cm	cm cm cm cm	cm cm cm cm
6	Spurn Head ... Catterick (Sc)... Tynemouth ...	22.7 22.7 22.3	-18 -26 -24	W — WSW	2 0 3	F F Z	45 47 50	97 97 97	45 47 52	0 4 5	— — —	— — —	10 10 9+ 9																					

FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Monday 22nd November, 1943.

DISTRICTS.		FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Monday 22nd November, 1954.	
1 S.E. England	Light to moderate west wind veering northwest; dull at first with widespread mist and fog and local rain or drizzle; becoming fair with considerable bright periods; mild.	16 Orkneys and Shetlands	AS 13A-15.
2 E. England ...		17 N. W. Ireland	Moderate to fresh north to northwest winds; bright intervals, occasional showers; rather cold.
3 E. Midlands ...		18 N. E. Ireland	
4 W. Midlands		19 S. E. Ireland	
5 S.W. England		20 S. W. Ireland	
6 South Wales	Light to moderate northwest to west winds; dull in extreme south at first with local rain, otherwise bright intervals and some showers, showers very scattered in southeast but more frequent towards northwest; mild.	<b>GENERAL INFERENCE</b>	
7 North Wales		A trough of low pressure over the extreme south of England moving slowly southeast will cause dull conditions there at first with local rain or drizzle and much mist and fog. Otherwise there will be bright intervals and showers, the showers being more frequent in the northwest than in the southeast. Another trough is expected to move southwards across Scotland later, the showers turning to a wintry type behind the trough. It will be mild in the south.	
8 N.W. England		<b>FURTHER OUTLOOK</b>	
9 N. Midlands ...		Cold in north possibly with some snow. Continuing mild in south with some rain spreading from west.	
10 N.E. England		Forecasts issued at 10.30	
11 S.E. Scotland		NELSON K. JOHNSON, K.C.B., D.Sc., Director. Meteorological Office, Air Ministry, Kingsway, London, W.C.2	
12 S.W. Scotland & Isle of Man	Fresh west-north-west wind, veering north later; bright intervals, occasional showers of rain at first, wintry showers later; rather cold becoming very cold.		
13A W. Scotland ...			
13B N.W. Scotland			
14 Mid Scotland			
15 N.E. Scotland			



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Morning of  
Monday 22nd November  
1943.

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

Statute Miles 0 1 2 3 4 500

## EXPLANATION OF CHART.

**BAROMETER.** Isobars are drawn for intervals of four millibars.

**WIND.** Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol:—

**TEMPERATURE** is given in degrees F.

**WEATHER SYMBOLS:**— ☉ Clear sky. ☁ Sky less than 3/10 clouded. ☁☁ Sky 3/10 to 6/10 clouded.

☁☁☁ Sky 7/10 to 9/10 clouded. ☁☁☁☁ Overcast sky. ☔ Rain falling. ❄ Snow. ⚡ Sleet. ⚡ Hail.

☁☁☁☁☁ Mist. ☁☁☁☁☁ Thunder. ☁☁☁☁☁ Thunderstorm. ☁☁☁☁☁ Slight haze. ☁☁☁☁☁

The hour of observation is not uniform throughout the Hemisphere: a chart showing the hours at which the observations are taken is contained in the Introduction.

**FRONTS** or boundaries between masses of air of different origin are indicated, wherever their characteristics are well pronounced in the following way—

— Warm Front on the surface — Warm Front above the ground — Cold Front on the surface — Cold Front above the ground

— Occluded Front (or Occlusion) — Warm Occlusion — Cold Occlusion — Lines of Frontogenesis

Short strokes across the frontal line indicate Frontolysis. (For explanation see page 3.)

**NOTE.**—The symbols are placed on the side of the line towards which the front is moving.

When the front is stationary the symbols are placed alternately on both sides of the line.

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



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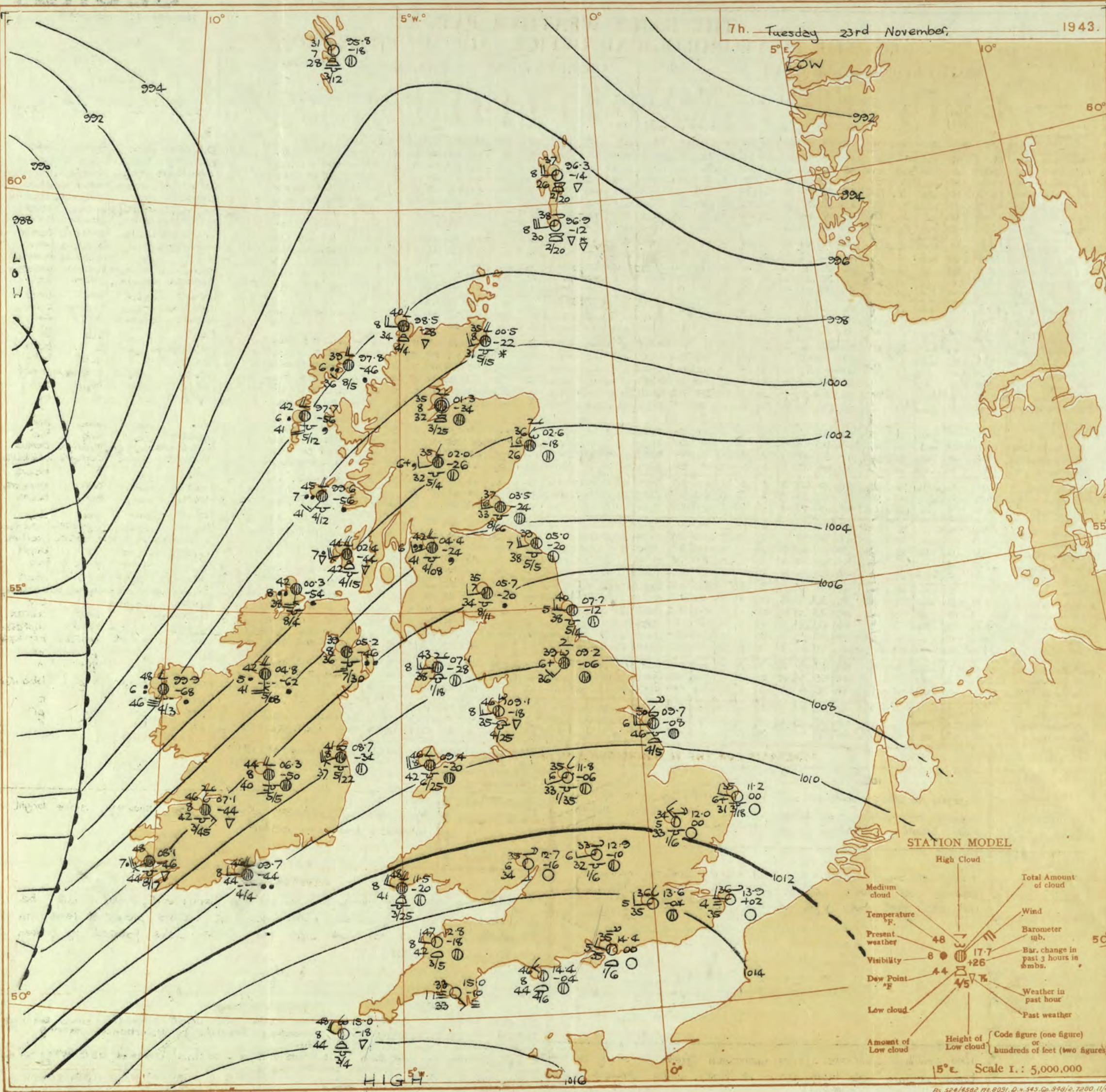
**SECRET**  
Tuesday 23<sup>rd</sup> November 1943

No. ....

PAST 24 HOURS.

[illegible]

7h. Tuesday 23rd November, 1943.



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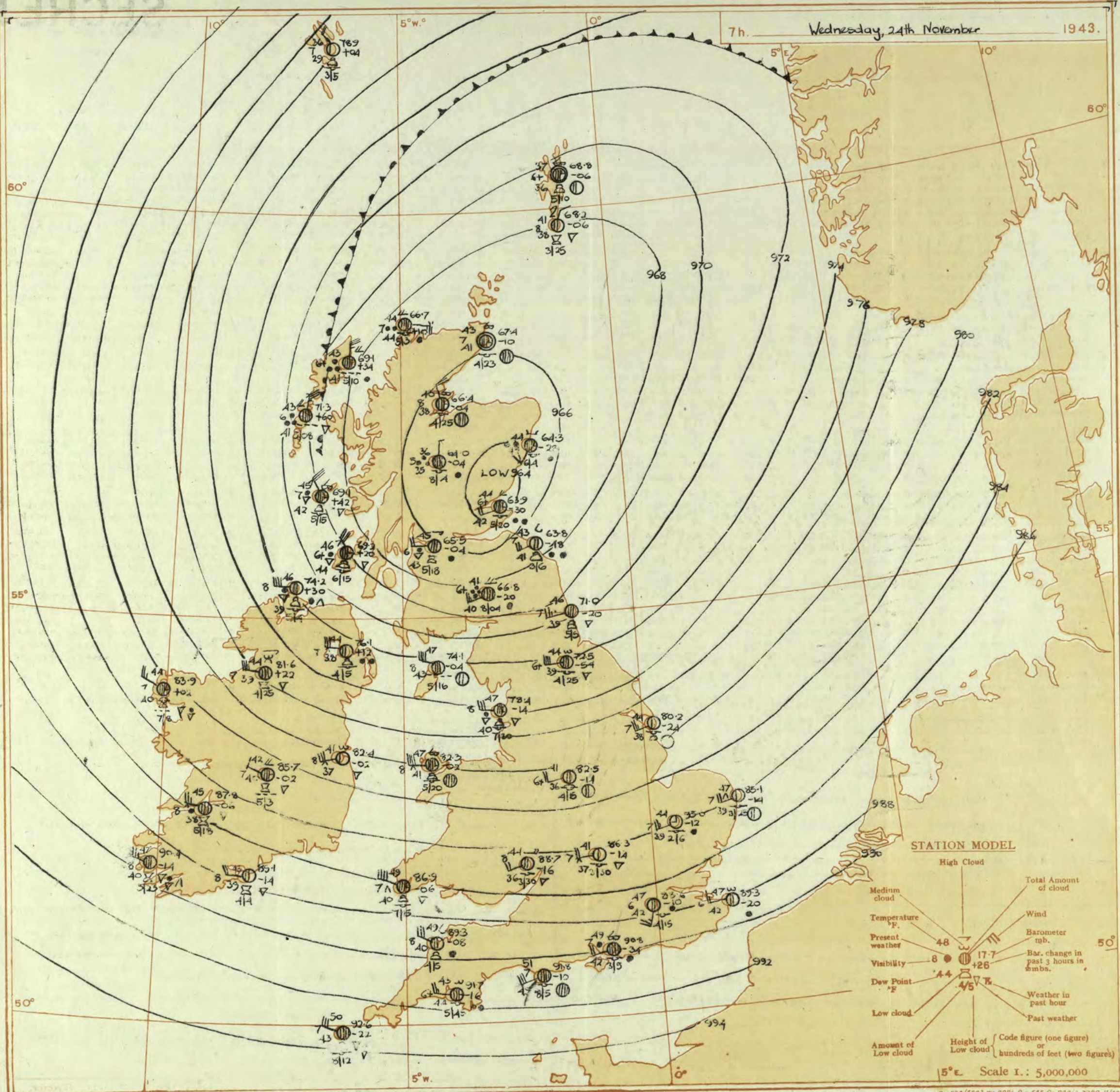
No. 29952

PAST 24 HOURS.

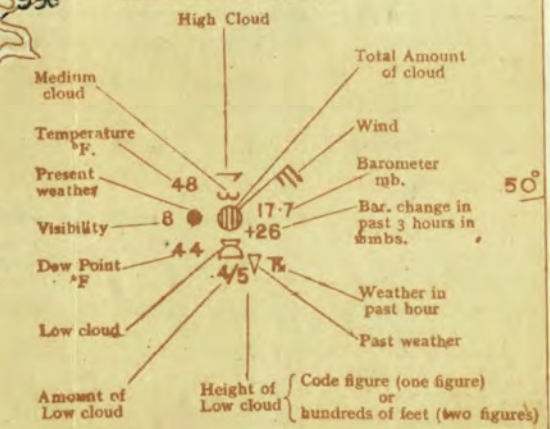
[illegible]

SECRET

7h. Wednesday, 24th November 1943.



STATION MODEL

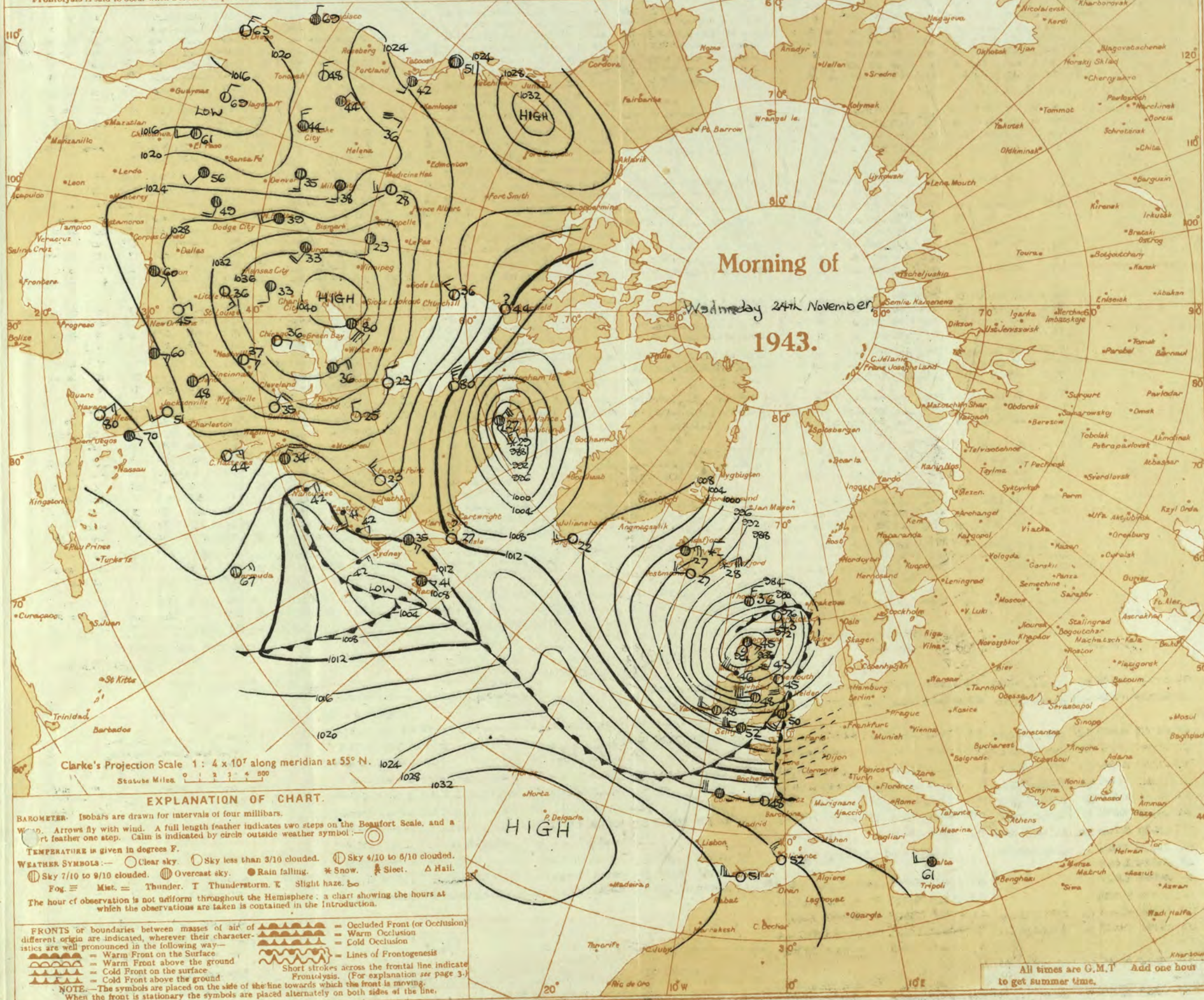


Scale 1.: 5,000,000

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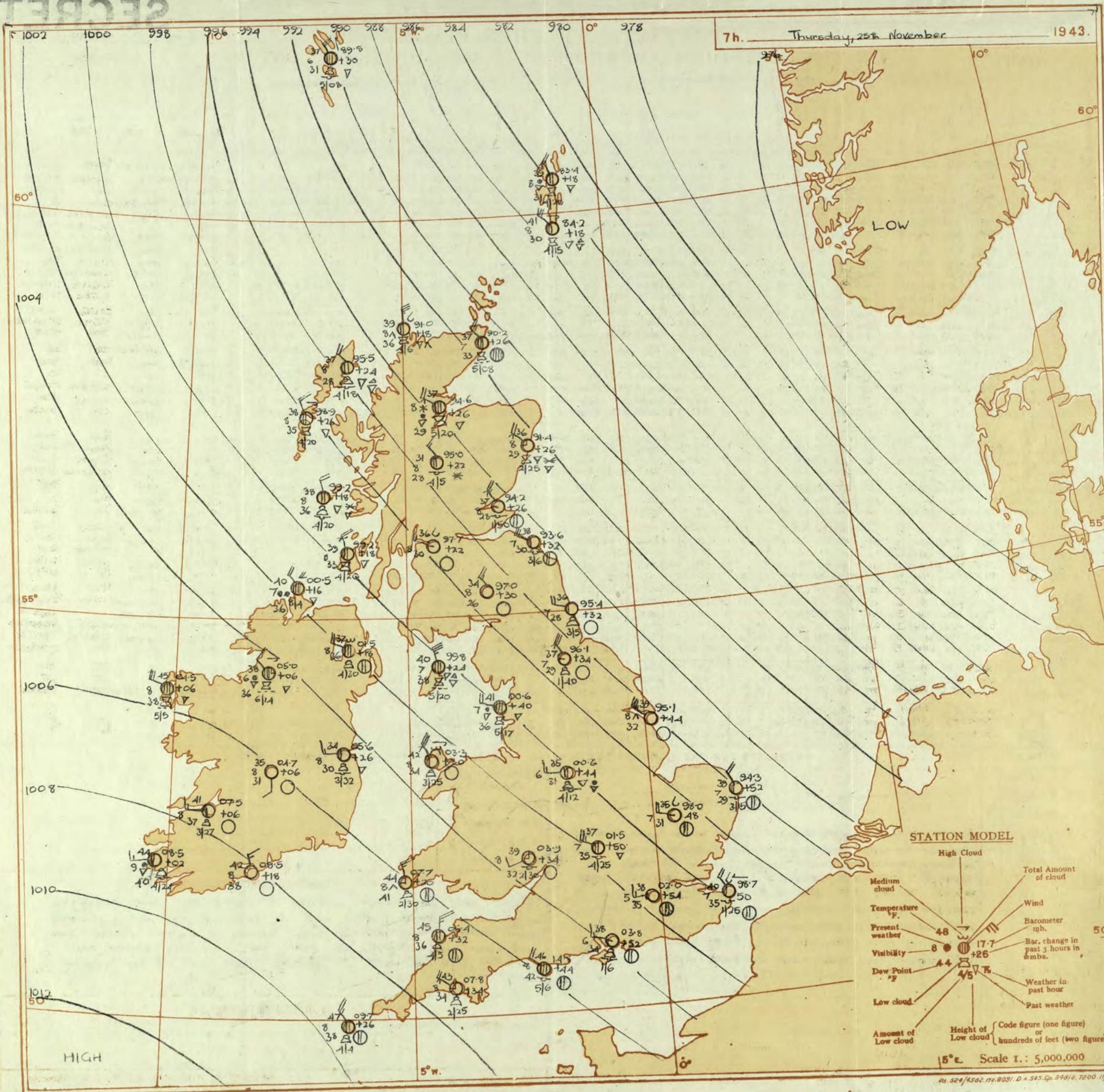
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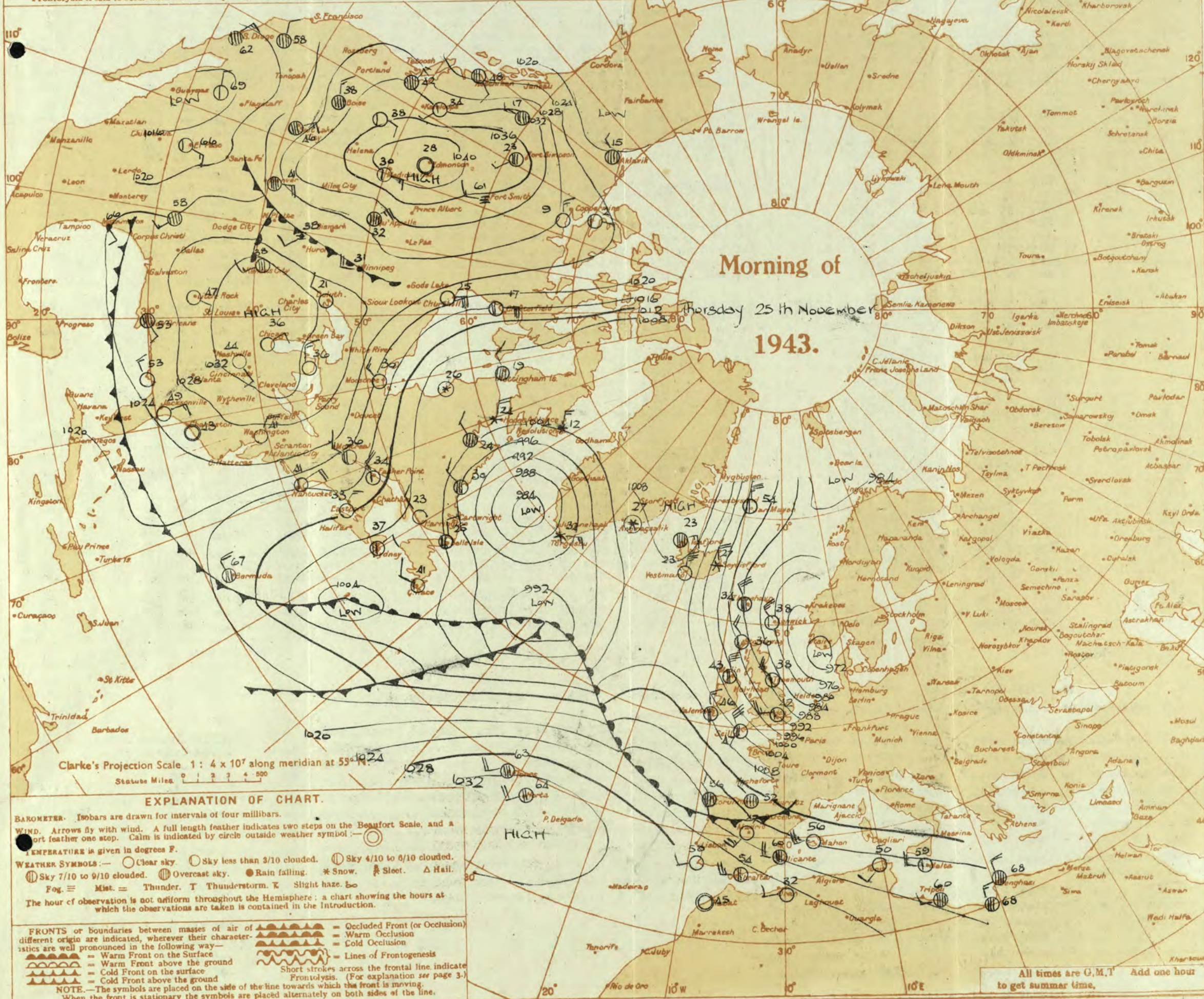
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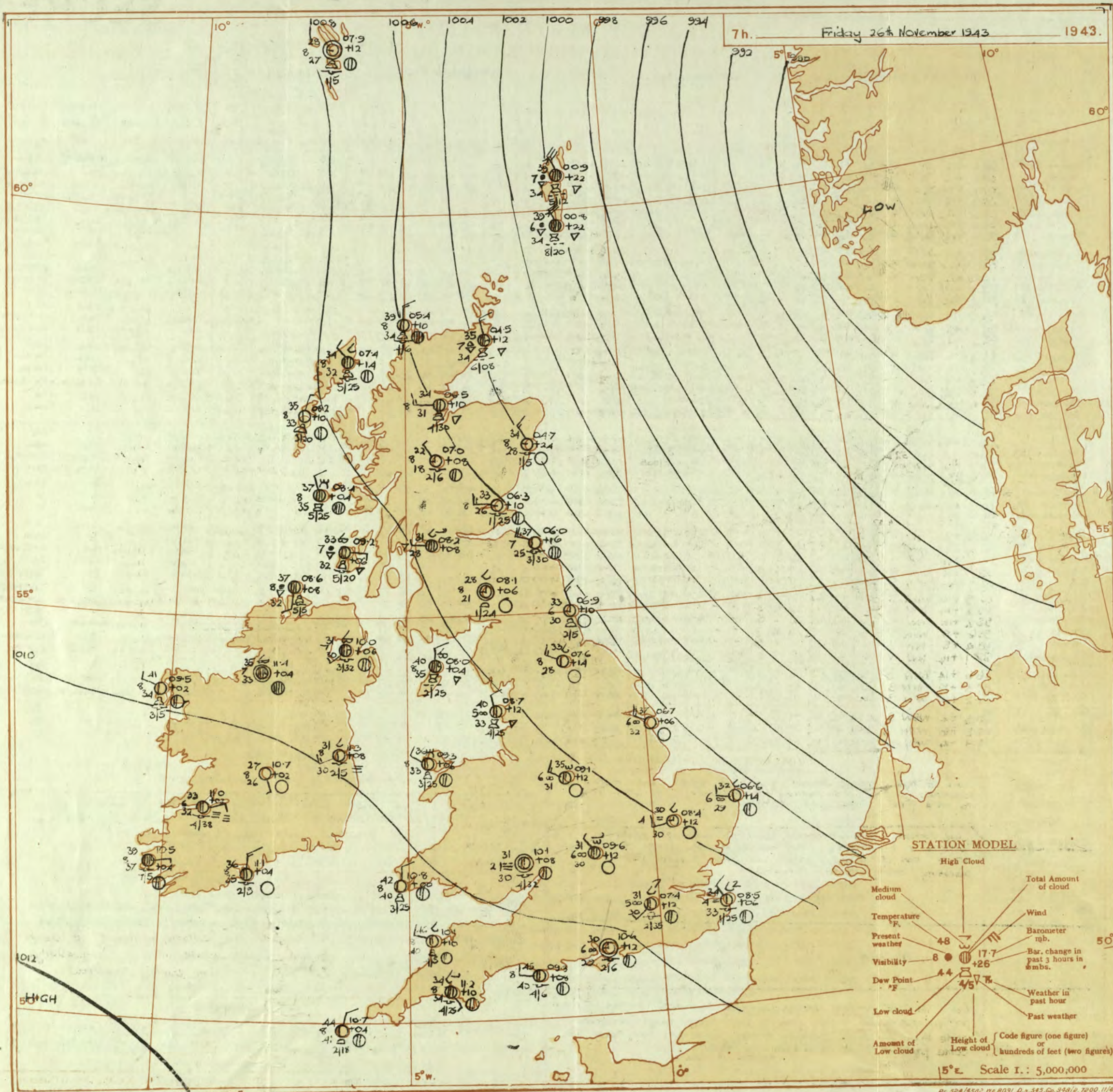
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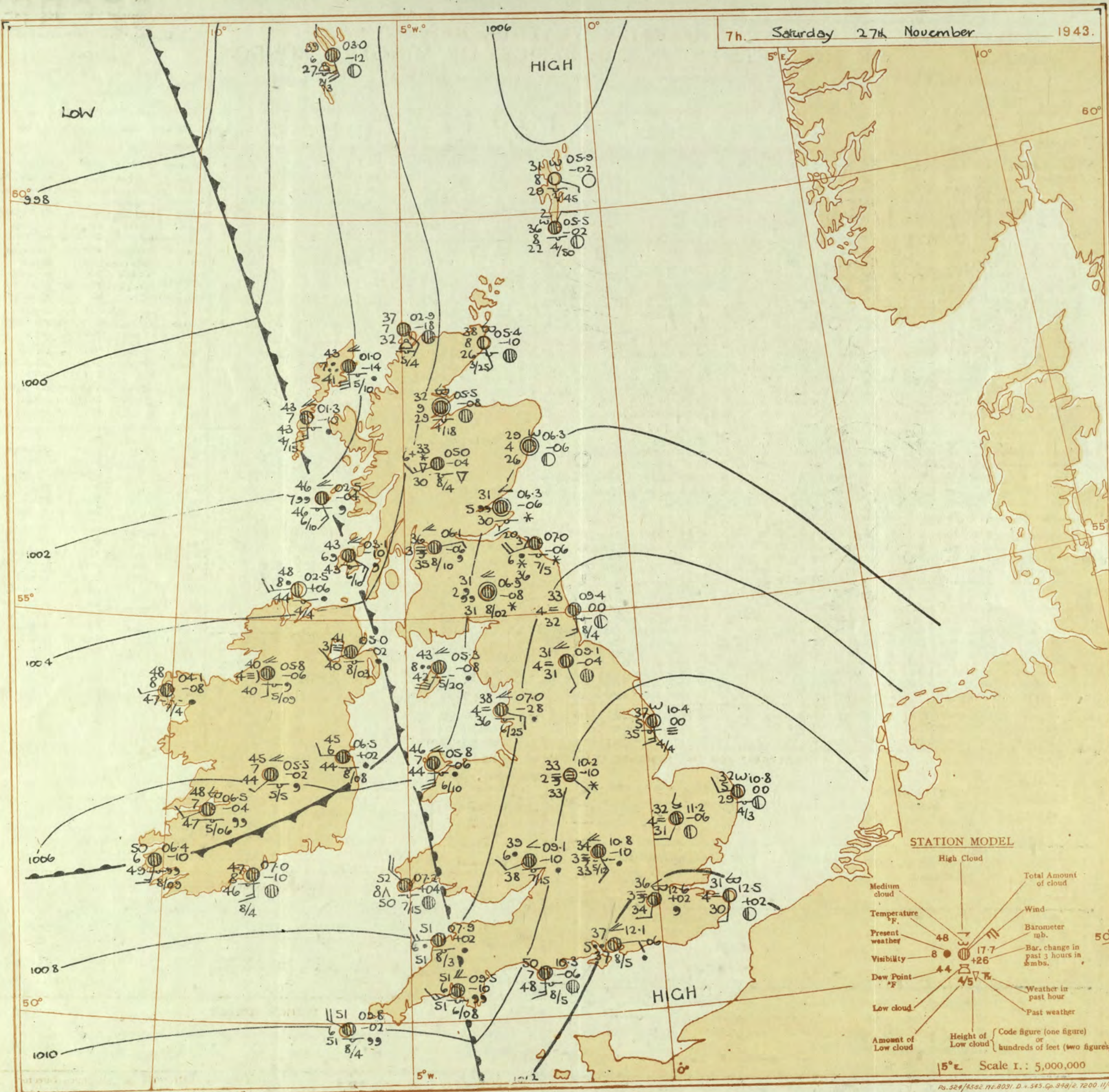
OBSERVATIONS at hr. G.M.T. 26 <sup>th</sup> November															OBSERVATIONS at 7 hr. G.M.T. 26 <sup>th</sup> November															PAST 24 HOURS.								
District.	STATIONS.	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind.		Weather.	Temp. °F. (6)	Humid. % (7)	Wind Point. ° (8)	Visibility. 0-9 (9)	Cloud.				Barom. at M.S.L. mb. (16)	Change in 3 hours. (17)	Wind.		Weather.	Temp. °F. (21)	Humid. % (22)	Wind Point. ° (23)	Visibility. 0-9 (24)	Cloud.				Barom. at M.S.L. mb. (31)	Change in 3 hours. (32)	TEMPERATURE.			RAINFALL.		SUNSHINE 25 <sup>th</sup> Hrs. (38)		
					Dirac. (3)	Force. (4)						Form. (10)	Amount. (11)	Height of Base. (feet) (12)	Form. (25)			Amount. (26)	Height of Base. (feet) (27)						Max. Day 7h-18h °F. (33)	Min. Night 18h-7h °F. (34)	Min. on Grass °F. (35)	Day 7h-18h mm. (36)			Night 18h-7h mm. (37)							
1	London (Kew) ... 18																																					
	Croydon ... 290	08.3	+10	*	2	b	37	97	34	6	5	-	-	1	3000	09.6	+6	SW	2	bft	34	92	33	2	5	-	1	1	4000	1	*	46	31	20	Tr	1	6.1	
	S. Farnborough ... 226	08.6	+2	-	0	b	33	97	33	7	-	-	-	0	0	10.2	+10	-	0	bft	30	97	29	3	5	4	-	Tr	Tr	3500	3	*	47	28	18	Tr	Tr	6.7
	Boscombe Down ... 417	09.4	+4	NW	2	b	35	92	34	7	-	-	-	0	0	10.4	+10	NW	2	b	32	97	32	7	-	7	-	0	Tr	-	0	*	47	30	22	-	-	6.4
	Thorney Island ... 10	08.9	+2	NW	3	z	37	92	34	6	-	-	-	0	0	10.6	+12	-	0	z	30	97	29	6	5	-	1	1	4000	1	*	48	29	24	-	-	6	
	Lympe ... 283	08.6	+4	NW	2	z	33	97	33	6	-	-	-	0	0	09.8	+10	NW	2	z	32	97	32	6	5	-	4.6	4.6	1000	1	3	46	32	-	0.5	-	6	
	Manston ... 154	07.3	+6	NNW	2	z	36	92	34	6	-	-	-	0	0	08.5	+6	NW	2	m	34	97	33	4	5	4	5	Tr	2.3	2500	1	*	45	34	31	-	-	6.6
2	Shoeburyness ... 11																																					
	Felixstowe ... 12	06.6	+10	N	3	b	37	97	35	7	-	-	-	0	0	09.8	+6	N	2	m	34	92	32	4	-	7	-	0	4.6	-	1	*	46	33	26	-	-	6.4
	Gorleston ... 5	05.0	+12	NNW	2	b	33	85	30	7	-	-	-	0	0	08.0	+12	N	3	z	37	75	31	6	5	-	2	1	1	2500	0	2	45	34	31	0.2	3	6.4
	Mildenhall ... 15	06.7	+6	NS	3	b	34	97	32	7	-	-	-	0	0	08.4	+12	NSW	3	z	30	97	30	4	-	4	-	0	1	-	1	*	44	30	23	2	Tr	4.8
	Cranwell ... 203	04.8	+4	NSW	2	z	32	97	31	5	-	-	-	0	0	06.7	*	N	3	z	31	97	29	5	5	-	-	1	1	4000	0	*	35	30	25	0.5	-	3.9
3	Birmingham ... 535																																					

Abridged observations of additional stations in the AVIATION WEATHER CODE																LONDON OBSERVATIONS													
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				For the 24 hours ending morning of 26 <sup>th</sup> November													
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Stations				Weather			Atmospheric Pollution						
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Morning				Afternoon		Night		Milling rains of soil impurity					
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T. 25 <sup>th</sup> November				18h. G.M.T.				01h. G.M.T. 26 <sup>th</sup> November				07h. G.M.T.				Kew				Croydon		Greenwich		Camden Square		Kensington		Hampstead	
13h. G.M.T.																													



7h. Saturday 27th November 1943.

1943.



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

## Explanation of Frontal Lines shown on Charts

(The symbols used to indicate fronts are shown below).  
**Warm Front.** The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.  
**Cold Front.** The air mass which moves towards this boundary is normally of polar, etc., origin, while that which moves away from it is of tropical, etc., origin. In certain cases the boundary is not recognisable at the surface, but its existence is deduced from upper air observations. Such boundaries are indicated by special symbols.  
**Occlusion.** The air between the warm and the cold fronts of a depression is of tropical or sub-tropical origin, and is known as the warm sector. The air in front of the warm front and in the rear of the cold front is of polar or maritime polar origin. During the life-history of the depression the warm sector is lifted from the earth's surface, until the cold front has overtaken the warm front. The depression is then said to be occluded, and at the surface the warm and cold fronts coalesce, becoming a single front known as the occluded front or occlusion. Occlusions the structure of which is tending to resemble warm or cold fronts are known as "warm" or "cold" occlusions.  
**Frontogenesis.** A line along which a warm or cold front is in process of formation is known as a line of Frontogenesis. The nature of the development is indicated by the use of the "warm" or "cold" symbols widely spaced along the line.  
**Frontolysis** is said to occur when a front is in process of dissolution.





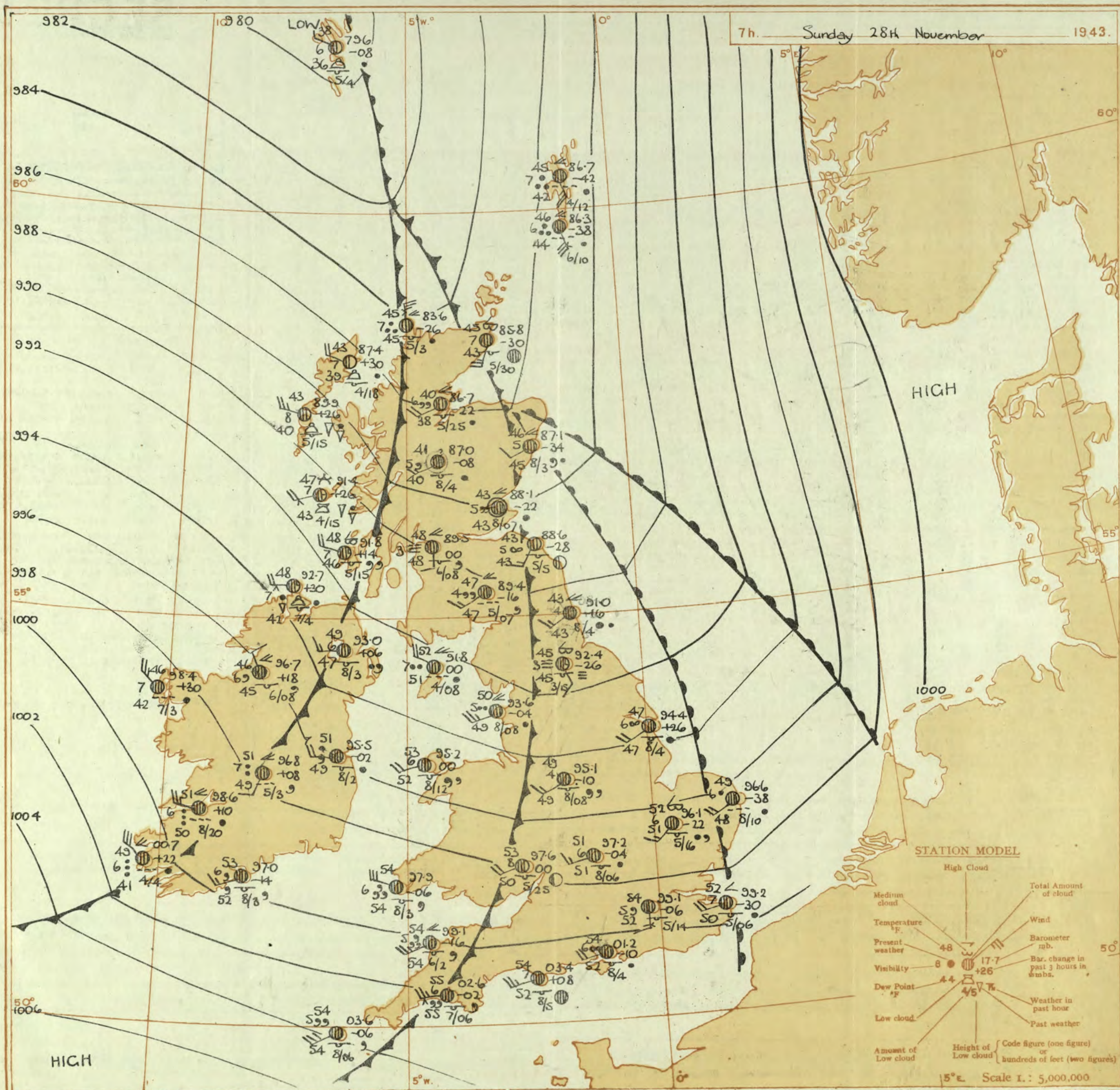
THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

**SECRET**  
Sunday 28 November 1943

No. 29956.

OBSERVATIONS at 13h. G.M.T. 27th November																OBSERVATIONS at 18h. G.M.T. 27th November														PAST 24 HOURS.																
DISTRICT.	STATIONS.	Barom. at M.S.L. mb.	Change in 3 hours.	Wind.		Temp. °F.	Humid. %	Dew Point °F.	Visibility. 0-9	Cloud.					Barom. at M.S.L. -mt.	Change in 3 hours.	Wind.		Temp. °F.	Humid. %	Dew Point °F.	Visibility. 0-9	Cloud.					State of Ground.	Sea. 0-9	WEATHER.																
				Direc.	Force. 0-12					Form.	Amount.	Height of Base (feet)					Direc.	Force. 0-12						Form.	Amount.	Height of Base (feet)					7h.-13h. 27th.	13h.-18h. 27th.	18h. 27th to 1h. 28th.	1h.-7h. 28th.												
1	London (Kew)	08.5	-26	SSW	2	id.	44	32	42	S	S	-	-	10	10	1500	07.4	-2	SSW	2	m	46	37	48	4	S	-	-	10	10	1500	1	•	cr. fr. id.	id. d. d. f.	cm. r. r. f.	6. c. r. r. c.									
	Croydon	08.8	-30	SSE	3	d. o.	45	37	44	S	S	2	-	4-6	10	1000	07.8	-2	S	1	m	49	37	48	4	S	2	-	9	10	1400	1	•	cr. r. d. d. m.	cd. d. d. m.	cm. r. f. r. r. f.	6. c. r. r. c.									
	S. Farnborough	08.5	-26	SSW	3	d. f.	44	37	43	S	S	-	-	10	10	300	07.6	-4	SW'S	1	1	47	37	46	5	S	2	-	0	10	-	1	•	cr. r. m. d. f.	cd. b. r. m.	cm. r. f. r. r. f.	6. c. r. r. c.									
	Boscombe Down	03.0	-10	WS	2	z.	48	37	48	6	S	2	-	7-8	10	300	08.1	-6	S	2	2	47	37	46	6	S	-	-	10	10	1100	1	•	cr. m. d. f.	cd. b. r. m.	cm. r. f. r. r. f.	6. c. r. r. c.									
	Thorney Island	03.3	-18	SW	4	id.	49	32	48	6	-	2	-	10	10	800	08.3	-6	S	3	1	47	37	46	6	S	-	-	10	10	900	1	•	add. m. d.	id. c. m. m. d. d. c.	cm. r. f. r. r. f.	6. c. r. r. c.									
	Lympe	11.2	-18	SSW	4	r. o.	45	32	43	S	S	2	-	5	10	1500	08.9	-14	WSW	1	1	43	37	48	1	S	-	-	10	10	1150	1	5	cm. o. r.	cd. d. f.	od. d. o. f.	od. d. o. f.									
2	Manston	11.4	-10	SW	4	d. d.	45	32	42	S	S	2	-	7-8	10	3000	03.7	-10	SW'S	3	3	48	37	47	5	6	2	-	9	10	400	1	•	bc. m. m. d.	cd. d. r. o.	cm. r. f. r. r. f.	6. c. r. r. c.									
	Shoeburyness	11.3	-20	SSE	4	d. d.	44	35	40	6	S	-	-	10	10	1500	08.9	-6	S	3	m	48	37																							

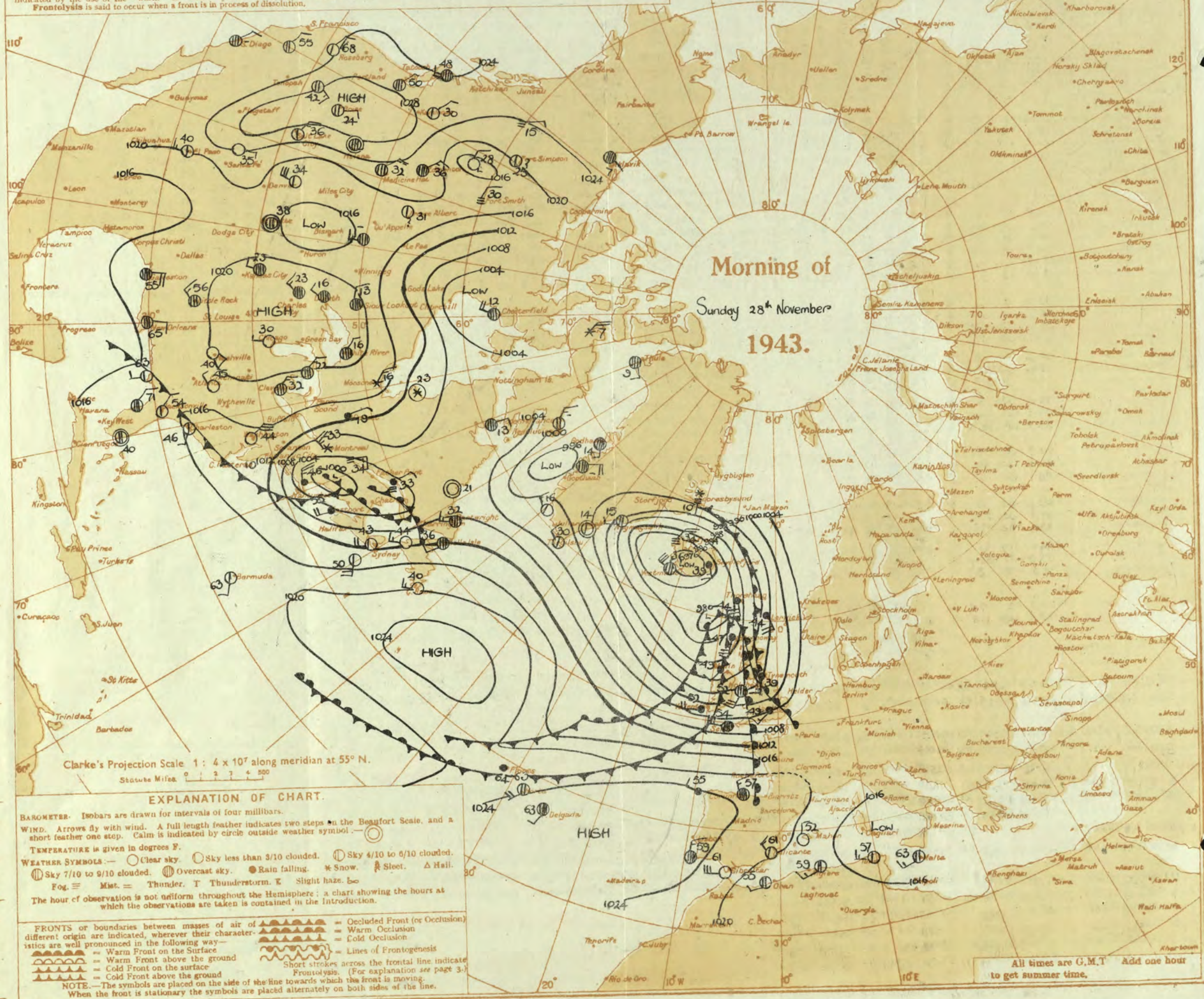
DISTRICTS.		FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Sunday 28 <sup>th</sup> November 1943	
1 S.E. England	Fresh southwest winds strong locally on coast, veering westerly or northwesterly for a time, probably backing and increasing again later; dull with occasional rain; a fairer period tonight; changeable temperature.	16 Orkneys and Shetlands	AS 10-15
2 E. England ...		17 N.W. Ireland ▲	AS 6-9
3 E. Midlands ...		18 N.E. Ireland ▲	
4 W. Midlands	Fresh southwest winds veering west to northwest; dull with some rain; becoming fair this evening and tonight; possibly further rain later; very mild then colder.	19 S.E. Ireland	Fresh northwest wind, becoming rather variable for a time; bright periods; some local showers; mainly rather cold.
5 S.W. England		20 S.W. Ireland	
6 South Wales	Strong west wind veering temporarily, probably backing and increasing later today; rain at times; changeable temperature.	<b>GENERAL INFERENCE</b>	
7 North Wales ▲		A deep depression is centred over Iceland, and an associated trough from the Shetlands across England and Wales is moving southeast, accompanied by some general rainfall; colder northwesterly winds and rather showery conditions over Scotland and Ireland will spread over the whole country; it is probable that a secondary disturbance will move in toward southwest England, moving quickly east, and cause an early return of rain to our southern districts.	
8 N.W. England ▲		<b>FURTHER OUTLOOK</b>	
9 N. Midlands ...	Wind veering northwest strong to squally, gale locally on coast, then moderating; variable sky with bright periods; some showers of rain and hail with a chance of thunder; rather cold.	None issued.	
10 N.E. England		▲ Gale warning in operation in districts 7, 8, 12, 13 (A+B), 17, 18 time of issue 11.50 on 28 <sup>th</sup> November	
11 S.E. Scotland		Forecasts issued at	
12 S.W. Scotland & Isle of Man ▲	Fresh gusty northwest winds, strong to gale locally on northwest coast at first, moderating; showers of rain, and hail with sleet on high ground; bright intervals; rather cold.	NELSON K. JOHNSON, K.C.B., D.Sc., Director. Meteorological Office, Air Ministry, Kingsway, London, W.C.2	
13A W. Scotland ... ▲			
13B N.W. Scotland ▲			
14 Mid Scotland			
15 N.E. Scotland			



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

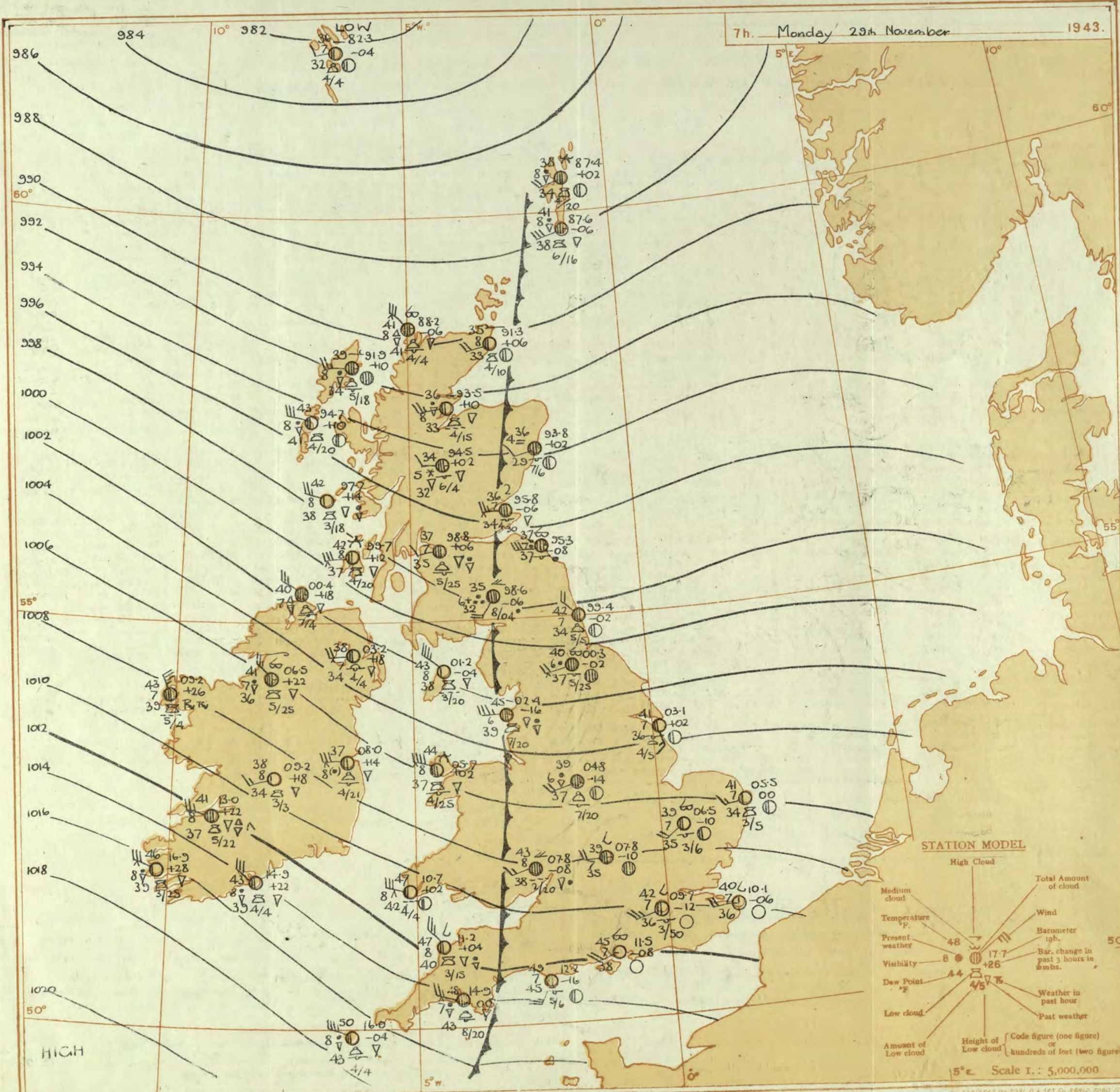
## Explanation of Frontal Lines shown on Charts

(The symbols used to indicate fronts are shown below.)  
**Warm Front.** The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.  
**Cold Front.** The air mass which moves towards this boundary is normally of polar, etc., origin, while that which moves away from it is of tropical, etc., origin.  
**Occlusion.** The air between the warm and the cold fronts of a depression is of polar or maritime polar origin. During the life-history of the depression the warm sector is lifted from the earth's surface, until the cold front has overtaken the warm front. The depression is then said to be occluded, and at the surface the warm and cold fronts coalesce, becoming a single front known as the occluded front or occlusion. Occlusions the structure of which is tending to resemble warm or cold fronts are known as "warm" or "cold" occlusions.  
**Frontogenesis.** A line along which a warm or cold front is in process of formation is known as a line of frontogenesis. The nature of the development is indicated by the use of the "warm" or "cold" symbols widely spaced along the line.  
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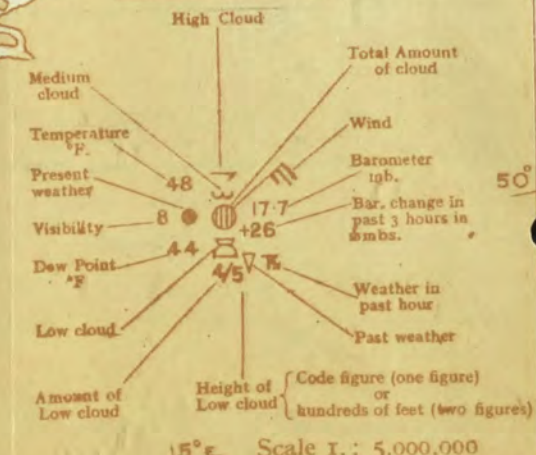






7h. Monday 29th November 1943.

**STATION MODEL**

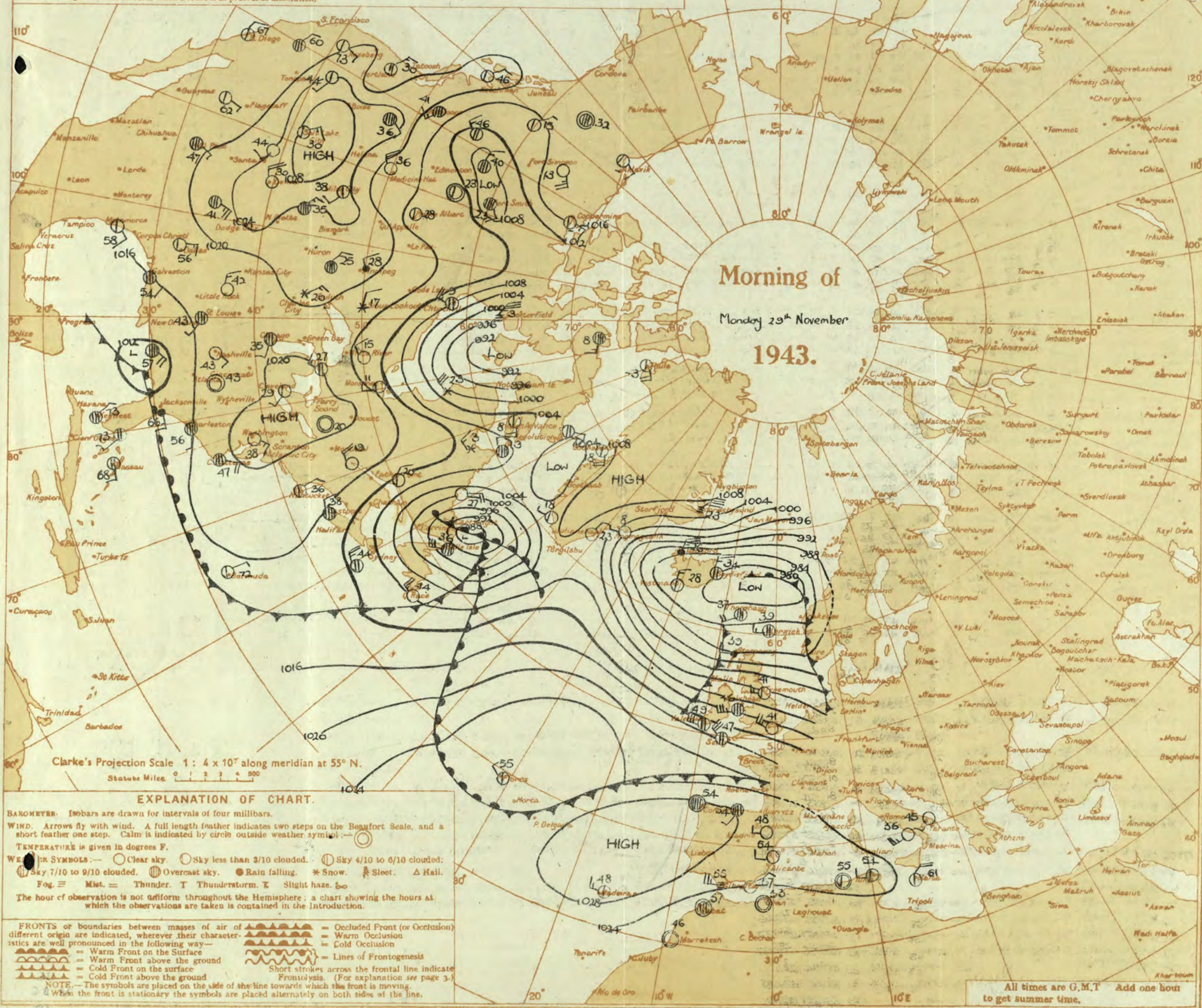


Scale 1: 5,000,000

# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

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

Monday 25th November 1943

No. 23957

[illegible]

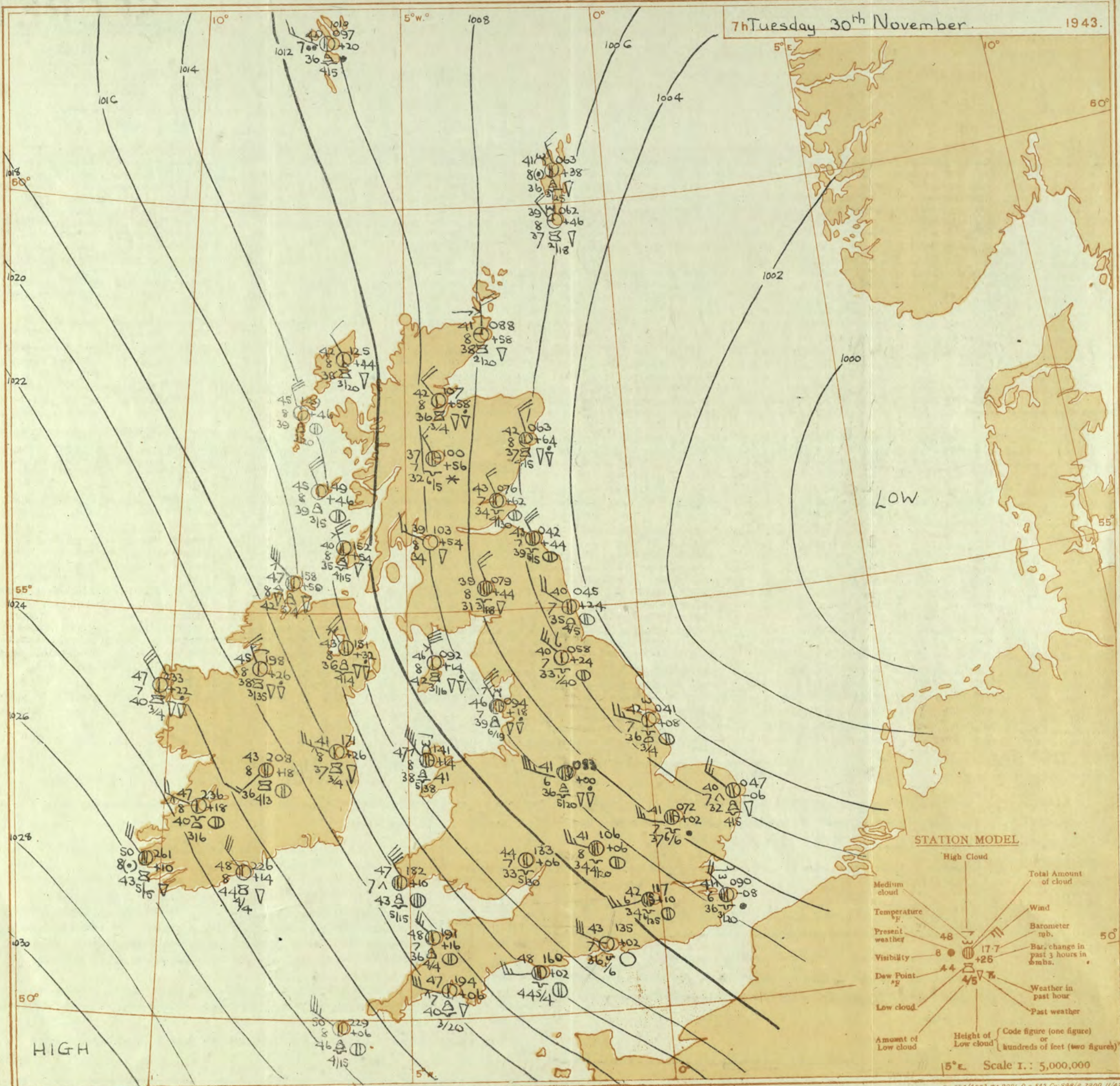
THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

**SECRET**  
Tuesday 50th November 1943

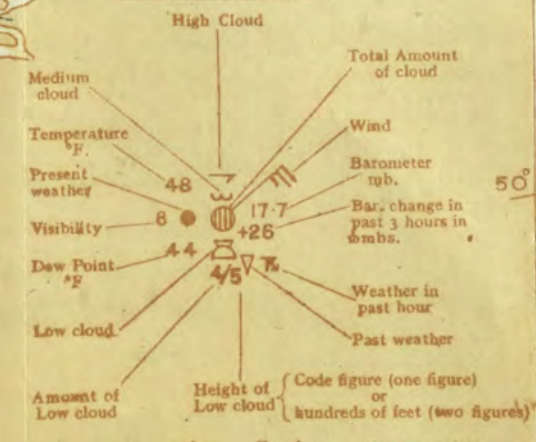
No. 29958

[illegible]

7h Tuesday 30<sup>th</sup> November 1943.



STATION MODEL



# AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

**Explanation of Frontal Lines shown on Charts**  
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THE DAILY WEATHER REPORT  
OF THE METEOROLOGICAL OFFICE, AIR MINISTRY, LONDON.

Tuesday 30th November 1943

No. 29958.

OBSERVATIONS at 1 hr. G.M.T. 30th November															OBSERVATIONS at 7 hr. G.M.T. 30th November															PAST 24 HOURS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
District.	STATIONS.	Height above M.S.L. in feet.	Barom. at M.S.L.	Change in 3 hours.	Wind.		Weather.	Temp. °F.	Humid. %	Dew Point °F.	Visibility.	Cloud.					Barom. at M.S.L.	Change in 3 hours.	Wind.		Weather.	Temp. °F.	Humid. %	Dew Point °F.	Visibility.	Cloud.					Sea.	TEMPERATURE.			RAINFALL.			Sun- shine Hrs.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
					Dir.	Force.						Form.	Amount.	Height of Base (feet).	Dir.	Force.			Form.	Amount.						Height of Base (feet).	Form.	Amount.	Height of Base (feet).	0-9		Max. Day 7h-18h °F.	Min. Night 18h-7h °F.	Min. on Grass °F.	Day 7h-18h mm.	Night 18h-7h mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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