M.O. Form 2373

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DUPLICATE

THE DAILY WEATHER REPORT

BRITISH SECTION

1st October to 31st December

1941

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

INTRODUCTION

The Daily Weather Report has been issued in three sections since April 1, 1919. The section of which this forms the Introduction is known as the " British Section."

NOTES REGARDING THE BRITISH SECTION.*

Description of each issue :—The British section is issued daily by 5 p.m. (except that Sunday's issue is printed on Monday) and contains—

(*a*) 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. 2 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 at the foot of pp. 1 and 4, where the column numbers are shown in connexion with each of the separate classes of observation.

(*b*) Observations made at certain London Stations during the 24 hours ending 7h. or 9h.

(*c*) Table of atmospheric pollution for " yesterday " for South Kensington and Kew Observatory.

(*d*) Observations for " yesterday evening " and " this morning " from five capital cities on the Continent of Europe.

(*e*) On p. 2, a table of weather reports from Auxiliary Stations the positions of which are shown in the Map on p. III.

(*f*) A weather chart (scale 1 : 10,000,000) for the British Isles and the neighbouring parts of the Continent and of the Atlantic. An explanation of the chart is printed below it.

(*g*) A " general inference " drawn up by the forecaster from all the weather charts available. This inference sets out the meteorological changes in progress and the deductions to be drawn from them.

(*h*) Weather forecasts for the 24 hours commencing 12 noon of the day of issue for 20 districts into which the British Isles are divided.

(*i*) A " further outlook," i.e., an indication of the changes to be expected after the expiry of the term of the forecasts, if the meteorological conditions are such as to warrant the issue of such an extension.

(*j*) On p. 3, a weather chart for the greater part of the Northern Hemisphere, including the whole of Europe, part of N. Africa, the Northern part of the N. Atlantic, N. America and usually a part of Russia in Asia.

The observations presented on this chart are not synchronous, but as from 1st January, 1938, a change was made which gives approximately synchronous observations over a larger area than formerly.

Till the end of December, 1937, the chart could be divided into the following three sectors as regards hour of observation.

Sector.	Hour of Observation.
U.S.S.R. (approx. 170° E. to 30° E.)	7h. local time.
30° E. to 40° W.	6h. or 7h. G.M.T. (Azores 8h.).
40° W. to 170° W.	0h. or 1h G.M.T.

From January 1st, 1938, these have been reduced to the two sectors :—

Sector.	Hour of Observation.
U.S.S.R. (approx. 170° E. to 30° E.).	1h. local time.
30° E. to 170° W.	0h. or 1h. G.M.T.

The improvement in the charts effected by this change is most marked over mid-Atlantic. Previously a difference of six hours had existed between observations from ships on opposite sides of the lines of longitude 40° W.

The gain in one respect has meant a sacrifice in another. The network of land stations in Europe and Africa making observations at 1h. is not so close as that of stations observing at 7h. This is particularly notable in Scandinavia, the Balkans and North Africa.

In the case of Iceland entries of weather, temperature and wind do not now appear on the chart, but pressure values at 1h. G.M.T. are available and are used in drawing the isobars.

Wind :—The force of the wind is indicated in each issue of the Report by figures on the Beaufort Scale. The equivalents between numbers of the Beaufort Scale and the indications of an anemometer when exposed at a height of 30 to 40 feet above the ground are set out at the foot of p. 2 of each issue. Stations where such anemometers are installed determine their Beaufort numbers from their anemometers. At stations where anemometers are not in use, the force of the wind is estimated by means of the specification set out below. All wind directions are " true " or geographical, as distinguished from " magnetic."

Gale Warnings :—A note regarding the meaning of gale warnings and the method of indicating in the Report to what districts warnings may have been issued is also shown below.

THE INTERNATIONAL AND UPPER AIR SECTIONS.*

The other two sections of the Daily Weather Report are Royal quarto in size
The International Section contains 4 pp. per day and is issued daily by 5 p.m., but the issues for Saturday and Sunday are made on Monday. The " International Section contains information received from the Continent of Europe, the Mediterranean Basin, Iceland and the Azores, and from ships on the Atlantic, arranged as follows :—

(*a*) Two weather maps (Scale 1 : 20,000,000) for Europe, the Mediterranean and Eastern Atlantic for 18h. yesterday and 7h. to-day.

(*b*) Two inset maps (Scale 1 : 20,000,000) for Northwest Europe for 13h. yesterday and 1h. to-day.

(*c*) Table of meteorological observations taken at about 80 stations, mostly on the Continent of Europe (not for the British Isles).

(*d*) Table of meteorological observations received by Wireless Telegraphy from Ships on the Northern Atlantic.

This section is very useful to one who wishes to trace the passage of various weather systems, since the 4 charts for each 24 hours enable the reader to follow the course of events in detail. From 1st March, 1933, the positions of well-defined warm, cold and occluded fronts have been indicated on the weather maps.

Upper Air Section :—The third section, called the " Upper Air Section " consists of 2 pp. Royal quarto per day and the issue for " yesterday " is published immediately prior to the issue of the British Section for " to-day." It contains maps, diagrams and tables showing upper air currents, pressures and temperatures over the British Isles and the Continent of Europe.

* Data available for publication under war conditions are necessarily incomplete.

THE BEAUFORT SCALE OF WIND FORCE

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

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.

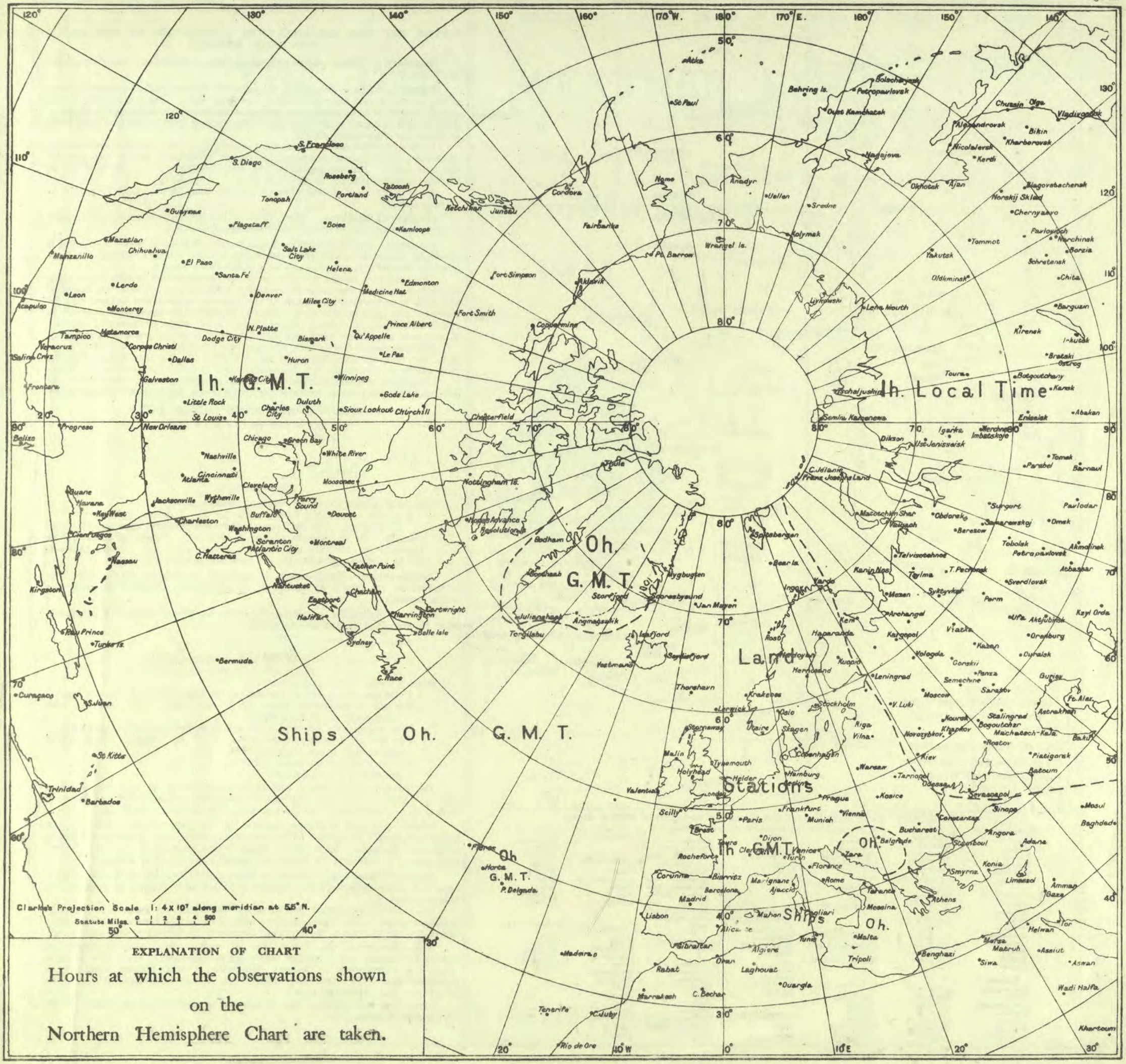
For gales commencing from East or West the South Cone will be hoisted if the gale is expected to change to a Southerly direction.

The districts to which warnings are sent are shown in the Report by the following symbols written on page 2 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 2 of the Report.

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



EXPLANATION OF CHART

Hours at which the observations shown on the Northern Hemisphere Chart are taken.

FORECAST DISTRICTS AND STATIONS IN GREAT BRITAIN AND IRELAND

Stations printed on pp. 1 and 4 are shown in capitals—LERWICK.
Stations whose observations are given on page 2 are shown thus :— 115 Cape Wrath.

FORECAST DISTRICTS and the Counties comprised within them

1. *England, S.E.*
Kent.
Sussex.
Surrey.
Hampshire.
Berkshire.
Wiltshire.

2. *England, E.*
Essex.
Middlesex.
Hertford.
Bedford.
Huntingdon.
Cambridge.
Suffolk.
Norfolk.
Lincoln.

3. *Midlands, E.*
Buckingham.
Oxford.
Northampton.
Warwick.
Leicester.
Rutland.
Nottingham.

4. *Midlands, W.*
Gloucester.
Hereford.
Worcester.
Shropshire.
Stafford.

5. *England, S.W.*
Dorset.
Somerset.
Monmouth.
Devon.
Cornwall.

6. *Wales, S.*
Glamorgan.
Brecknock.
Carmarthen.
Pembroke.
Cardigan.
Radnor.

7. *Wales, N.*
Montgomery.
Merioneth.
Flint.
Denbigh.
Carnarvon.
Anglesey.

8. *England, N.W.*
Cheshire.
Lancashire.
Westmorland.
Cumberland.

9. *Midlands, N.*
Derby.
Yorkshire, W.

10. *England, N.E.*
Yorkshire, N. & E.
Durham.
Northumberland.

11. *Scotland, S.E.*
Roxburgh.
Selkirk.
Peebles.
Berwick.
Haddington.
Edinburgh.

11. *Scotland, S.E. (cont.)*
Linlithgow.
Clackmannan
Kinross.
Fife.
Forfar.

12. *Scotland, S.W., and Isle of Man.*
Isle of Man.
Dumfries.
Kirkcudbright.
Wigtown.
Ayr.
Lanark.
Renfrew.
Dumbarton.
Stirling.

13A. *Scotland, W.*
Argyll.
Bute.

13B. *Scotland, N.W.*
Hebrides.
Western parts of Inverness, Ross and Cromarty, Sutherland.
(Boundary line runs from Rannoch Station through Fort Augustus, Beauly and Lairg to Melvich.)

14. *Mid Scotland.*
Perth.

15. *Scotland, N.E.*
Kincardine.
Aberdeen.
Banff.
Elgin.
Nairn.
Caithness.
Eastern parts of Inverness, Ross, Sutherland.

16. *Orkneys and Shetlands.*

17. *Ireland, N.W.*
Galway.
Roscommon.
Mayo.
Sligo.
Leitrim.

18. *Ireland, N.E.*
Meath.
West Meath.
Longford.
Cavan.
Fermanagh.
Monaghan.
Louth.
Armagh.
Down.
Antrim.
Londonderry.
Tyrone.
Donegal.

19. *Ireland, S.E.*
Waterford.
Wexford.
Kilkenny.
Carlow.
Wicklow.
Offaly.
Leix.
Kildare
Dublin.

20. *Ireland, S.W.*
Cork.
Kerry
Limerick
Tipperary.
Clare.

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.

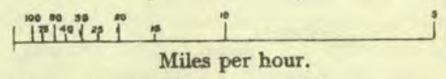
The wind at a height of 1,500–2,000 feet above ground usually blows *along* the isobars and, for the same temperature, pressure and latitude, the speed of the wind is inversely proportional to the distance between the isobars, *e.g.*, for isobars 1 inch apart for the chart on Page 2 the speed of the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

The scale below can be used 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 SCALE FOR

8 mb isobars on $1 : 4 \times 10^7$ Charts.
or 2 mb ,, ,, $1 : 10^7$,,



Miles per hour.

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 formulæ :—

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

$x = f - \cdot 444\,(t - t')$ for wet bulb readings above 32° F.
$x = f - \cdot 400\,(t - t')$ for wet bulb readings below 32° F.

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 21 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.

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).

The entries in the British Section of the Report for the stations in the main tables on pages 1 and 4 are compared with those in the returns received from the stations at the end of the month and errors in the Report so found are noted.

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," (2nd Edition, 1930), to be purchased from H.M. Stationery Office, York House, Kingsway, W.C.2, price 3s. 2d. post free. (Reprinted 1938.)

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

H.M.S.O. Press, M.O., Dunstable. Ps. 227/4714 Wt. 8133A. D.8928 Gp. 948. 310. 12/4

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

MONTHLY SUPPLEMENT,

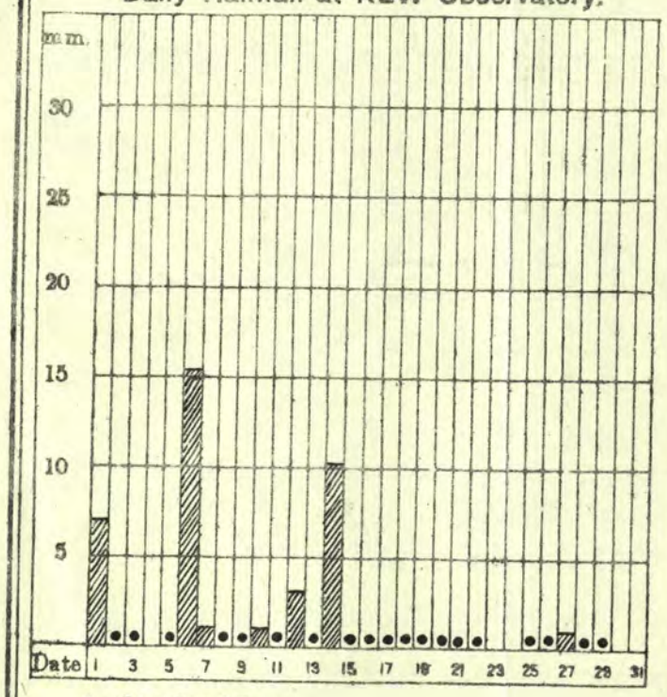
December 1941 No. 300

Dry, quiet and mild.

The month opened cold and dull with pressure high to east and low to northwest of the country. Fog was widespread and persisted throughout the day in the Southeast. Cyclonic activity near Iceland became more marked, and milder air from the Southwest spread over Scotland and Ireland on the 3rd and covered England by the 5th. The fog was finally dispersed on this day by strong winds developing everywhere as a very deep depression moved northeast to the northward of Scotland. In it's rear strong northwest winds brought a fall in temperature on the 7th with broken skies and some good sunshine records. By the 9th, however, a mild westerly air current had become established, with pressure high to the south and low to the north of the country, and unsettled mild conditions were general for the next few days, with some gales in the North. On the 14th, a very deep depression crossed Iceland (lowest pressure 940mbs) and for the next few days fair weather ensued over most of England and Wales, with several good sunshine records. Subsequently, an anticyclone moved in from southwest over the country and fog developed in many areas on the 18th and persisted all day on the 19th and 20th in the Southeast; conditions remained rather mild in Scotland but became cold in foggy areas and dull weather was experienced generally for the next few days, though there were a few bright periods, and temperature rose somewhat in the Southeast. On the 26th, polar air from the North spread over most of the country except the Southwest, and there were some snow showers in Scotland and Northeast England. Small depressions moved down from Iceland and caused rain and snow in Ireland and the West of England. An anticyclone developed over the country and persisted till the end of the month giving fair and quiet, cold conditions with fog and frost at night, and there were some good sunshine records.

Rainfall was generally below average, and in some Eastern districts it was the driest December on record; Tynemouth had only 7mm rain during the month. Temperature was mainly above average but the last week was cold. Maxima above 50°F were general during the first three weeks, 58°F being reached at Mildenhall, Bristol and Pembroke on the 14th and at Manston on the 10th. The freezing point was not exceeded during the day in places during the last week, the max on the 30th at Aldergrove being only 31°F. Screen minima about 20°F occurred on the 28th & 29th. Sunshine was about average except in the Northwest, where Aldergrove had a low record of 19hrs. 7hrs or more sunshine were enjoyed on several days towards the end of the month. Gales were much less frequent than usual in December and mostly occurred in the first half of the month. Gusts of over 100mph were reported from Sumburgh (Shetlands) on evening of 6th, when a gust of 83mph was also reported from Orkney.

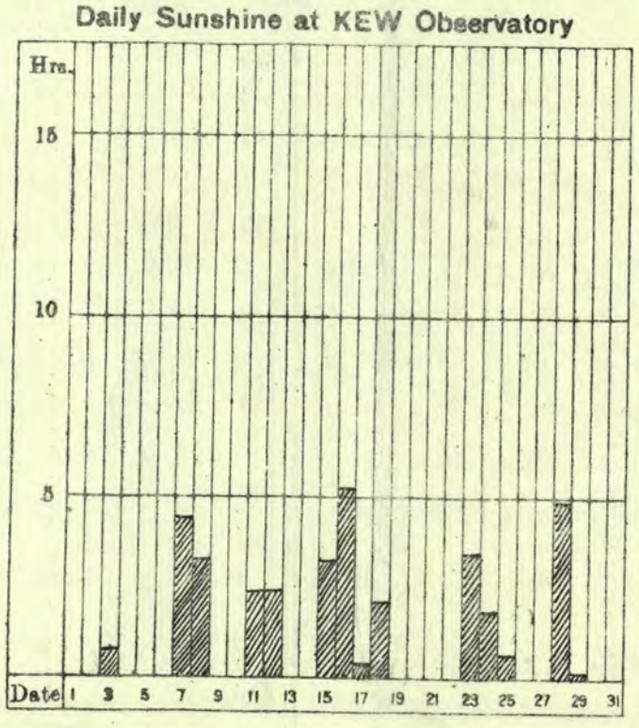
Daily Rainfall at KEW Observatory.



● = Less than 0·5 mm.

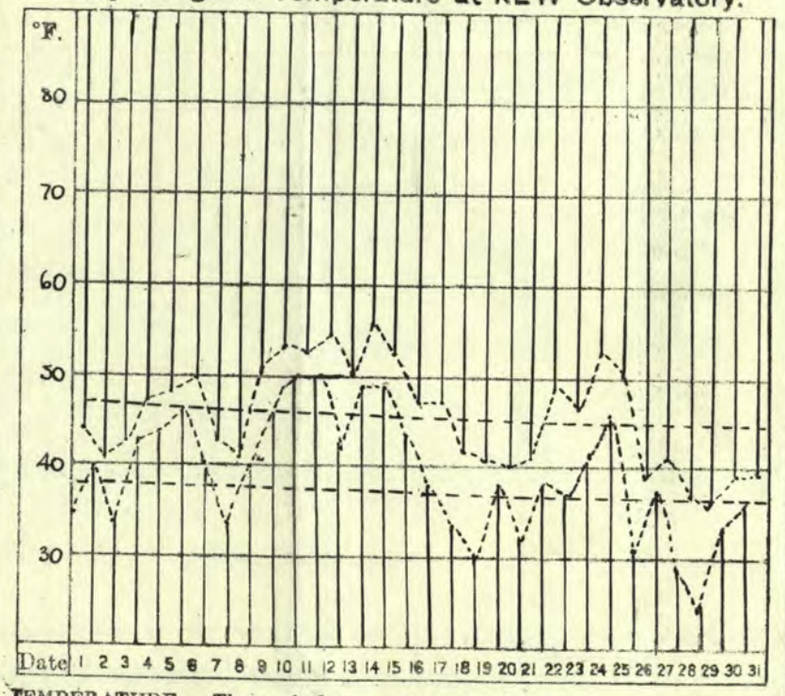
RAINFALL. Total for Month. 40 mm.

Daily Sunshine at KEW Observatory



SUNSHINE. Total for Month. 36 hrs.

Daily Range of Temperature at KEW Observatory.



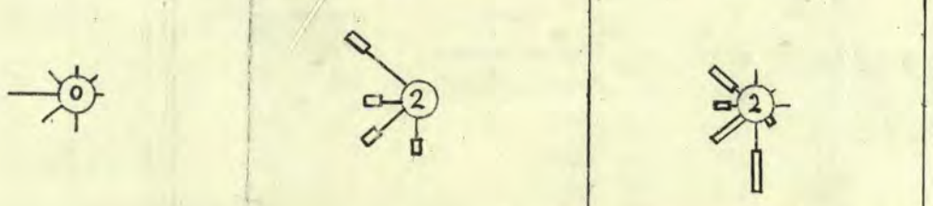
TEMPERATURE. The pecked curves indicate the maximum temperature recorded each day, and the minimum temperature each night throughout the month. The chain lines show normal values.

MEAN VALUES FOR THE MONTH.*

Stations.	Pressure Mean	Pressure Difference from average	Temperature Mean	Temperature Difference from average
	mb.	mb.	°F.	°F.
Kew	1024·4	+10·7	42·5	+1·1
Aberdeen	1014·9	+8·0	41·6	+1·5
Valentia	1023·9	+13·2	48·1	+2·0

*Pressure—The mean is for the 24 hours. It is derived from values at 7 h. and 18 h. only corrected.
Temperature—mean of Max. and Min.

WIND FREQUENCIES AT 7 hr.



Forces 1–3 ——; forces 4–7 ⟹; force 8 or above ▬. Scale; ⟵10mm.⟶ to 10 observations.
The figure in the centre of the circle gives the number of calms.

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

	miles.
Kew	5880
Aberdeen ...	6100
Lerwick ...	17,684
Valentia ...	

SUMMARY OF RECORDS OF TEMPERATURE, LOW CLOUD, VISIBILITY,

District.	Stations.	† TEMPERATURE. Number of daily readings within fixed limits. Maximum. 32° or below	33° - 41°	42° - 50°	51° - 59°	Average Maximum.	Minimum. 23° or below	24° - 32°	33° - 41°	42° - 50°	51° - 59°	Average Minimum.	Extremes—Warmest and Coldest. Days. Highest Max.	Date.	Lowest Max.	Date.	Nights. Highest Min.	Date.	Lowest Min.	Date.	Number of Ground Frosts.	LOW CLOUD. Number of observations within fixed limits. 7 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	13 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	18 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	FOG, MIST and GOOD VISIBILITY. Number of observations within fixed limits. 7 h. Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.	13 h. Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.
1	London ...	0	11	12	8	44°	0	5	14	12	0	38.0	58°	14	36°	29	50°	{11 12}	25°	29	14	3	27	0	5	23	0	2	22	0	0	3	5	3	0	0	2	8	1	7
	(Kew Obsy). Croydon ...	0	10	15	6	44·4	1	7	13	10	0	37·5	56	14	34	29	50	10	21	29	11	6	13	1	7	20	1	5	17	2	0	3	5	5	5	0	3	2	6	9
	Calshot** ...	0	3	18	10	46·6	0	7	14	10	0	39·6	56	4	39	26	50	{11 15}	25	29	11	4	23	0	5	22	1	7	19	0	0	1	1	4	10	0	1	3	4	7
	(Southampton) Lympne ...	0	8	17	6	43·4	0	7	16	8	0	36·3	54	{10 12 14}	35	{28 29}	49	15	24	29	10	7	17	2	8	20	0	6	14	1	0	3	5	5	5	1	1	2	6	10
2	Shoeburyness ...	0	8	16	7	44·7	1	6	12	12	0	36·1	56	12	37	28	50	{10 11}	23	29	12	5	19	1	6	8	1	6	12	2	0	1	8	1	1	0	3	7	1	8
	Gorleston ...	0	9	16	6	44·1	0	6	14	11	0	37·6	57	10	36	31	50	11	25	29	8	6	20	0	6	21	0	9	17	0	0	2	3	1	4	0	2	3	2	8
	Cranwell ...	0	8	18	5	42·7	0	8	12	10	1	35·2	57	14	35	28	51	25	24	29	9	2	23	0	2	20	2	3	17	1	0	1	7	2	1	0	1	5	4	5
3	Birmingham ... (Edgbaston)	0	8	19	4	42·6	0	4	16	11	0	36·3	55	{10 14}	35	28	48	{10 12}	25	29	11	8	16	0	4	21	0	4	23	0	1	1	8	5	8	0	1	5	2	8
4	Ross-on-Wye ...	0	6	15	10	44·7	0	4	13	14	0	37·3	57	14	33	31	50	10	25	{29 31}	9	3	26	0	5	25	0	5	24	0	0	3	4	2	16	0	1	3	2	18
5	The Lizard ...	0	0	15	16	*	0	0	4	26	1	*	55	2	45	29	51	12	36	30	*	1	30	0	2	29	0	1	30	0	0	0	1	0	29	0	0	0	2	28
7	Holyhead (Valley)	0	1	18	12	46·9	0	1	9	21	0	42·5	53	{6 11}	41	29	50	{10 11}	32	30	2	0	31	0	4	23	0	3	28	0	0	0	0	1	20	0	0	0	1	22
8	Chester ... (Sealand)	0	6	11	14	45·2	0	4	10	14	3	37·1	57	10	37	30	51	{10 12 24}	27	29	9	3	21	1	1	26	2	3	22	1	2	0	4	6	6	0	0	6	0	12
10	Tynemouth ...	1	6	14	10	44·4	0	3	14	14	0	38·4	55	10	32	28	50	{10 11 12}	31	{28 29}	4	0	29	0	1	27	0	0	27	0	0	0	2	1	13	0	0	1	0	9
11	Leuchars ...	0	10	16	5	43·5	1	3	20	7	0	35·6	55	24	34	28	48	24	22	28	13	0	27	0	0	25	0	2	23	1	0	1	0	2	21	0	0	0	1	20
12	Renfrew ...	0	7	16	8	43·6	0	6	14	11	0	35·8	53	{12 24}	34	30	50	24	26	20	13	1	28	1	2	27	0	3	25	0	0	1	2	4	15	1	1	3	1	15
	Eskdalemuir ...	0	10	21	0	40·7	3	7	15	6	0	33·5	49	24	33	{27 28 30 31}	46	{16 24}	20	29	12	14	15	0	11	18	0	18	9	0	0	2	2	2	18	0	1	1	0	18
13E	Stornoway	0	3	22	6	44·9	0	0	17	14	0	38·5	53	2	38	{7 27}	50	8	34	7	*	0	30	0	3	28	0	3	28	0	0	0	0	0	29	0	0	0	0	30
15	Aberdeen ..	0	7	18	6	43·4	1	2	21	7	0	36·9	56	24	34	27	49	24	20	28	10	1	28	0	1	22	0	2	20	0	0	0	1	3	17	0	0	0	0	11
18	Aldergrove ...	2	2	23	4	43·9	1	3	16	11	0	36·7	51	{11 13 19}	31	30	47	24	21	30	5	9	19	0	10	20	0	3	27	0	1	2	0	1	19	0	2	1	0	19
19	Birr Castle ...	0	1	20	10	45·8	0	2	15	14	0	37·8	55	{2 10}	40	30	47	{10 25}	24	30	4	0	28	0	0	29	0	0	27	0	0	0	0	0	31	0	0	0	0	31
20	Valentia ... (Cahirciveen)	0	0	12	19	49·1	0	0	4	27	0	43·0	55	{2 11}	47	{7 29}	50	{10 11}	39	18	0	4	27	0	5	25	1	6	25	0	0	0	0	0	25	0	0	0	0	24

UPPER AIR TEMPERATURE.

Pressure. mb.	Normal Height. Feet.	Bircham Newton °Normal °F.	Mean. °F.	No. of Reports.	Aldergrove. Mean. °F.	No. of Reports. *	Penzance Mean. °F.	No. of Reports.
950	1730	38·1	38·7	61	38·7	62	41·9	29
850	4640	31·7	31·3	61	34·2	62	35·6	29
750	7870	23·6	24·9	61	27·0	62	29·3	29
650	11490	12·4	13·4	61	15·8	61	17·7	29
550	15620	-1·7	-0·8	61	0·3	60	4·3	29

UPPER WINDS.

No. of records of Velocity (km./hr.) within fixed limits.

Station	Lympne. Height. Metres.	*No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100 (kilometres per hour.)	Plymouth (Mt. Batten). *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100 (kilometres per hour.)	Holyhead. *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100 (kilometres per hour.)	Renfrew. *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100 (kilometres per hour.)	Station. Height. Metres.
	500 above ground.	85	14	34	34	2	0	23	6	13	4	0	0	19	5	13	1	0	0	16	6	6	2	2	0	500 above ground.
	1000 above M.S.L.	65	19	28	17	1	0	15	4	7	4	0	0	11	3	6	2	0	0	10	3	3	2	2	0	1000 above M.S.L.
	2000 " "	25	7	10	7	0	0	5	1	1	0	0	0	3	0	2	1	0	0	4	0	3	1	0	0	2000 " "
	3000 " "	9	1	1	1	0	0	3	2	1	0	0	0	0	0	0	0	0	0	3	1	2	0	0	0	3000 " "
	4000 " "	5	1	3	1	0	0	3	2	1	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	4000 " "

† The readings and averages used, are, except in the case of Phœnix Park, the maximum for the period 7 h.–18 h., and the minimum for the period 18 h.–7 h. The readings and averages for Phœnix Park are for daily periods ending 21 h. Averages are for periods of at least 10 years (See M.O. 364).

* Winds of 0—5 km./hr. are included in the number of observations.

METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON, W.C.2.
N. K. JOHNSON, D.Sc., A.R.C.S., Director.

SUNSHINE, RAINFALL, AND HUMIDITY December 1941.

District	Stations.	SUNSHINE. Number of Days with Duration. Nil.	0·1—3h.	3·1—6h.	6·1—9h.	Above 9h.	Maximum Duration. Hours.	Date.	Total for past 12 months. Hours.	Difference from average. Hours.	Total for Month. Hours.	Difference from average. Hours.	Highest and Lowest Totals on record for Month. First year of record.	Highest. Hrs.	Year.	Lowest. Hrs.	Year.
1	London ...	18	7	6	0	0	5·3	16	1341	-128	36	-1	1880	72	1886	0	1890
	(Kew Obsy). Croydon ...	16	8	7	0	0	5·9	28	1435	-90	41	+3	1922	58	1929 1936	13	1930 1934
	Thorney Island...	Not Recorded											1881	84	1925	36	1912
	Lympne ...	13	10	7	1	0	6·9	28	1655	-110	54	0	1921	85	1926	19	1934
2	Shoeburyness...	13	13	4	1	0	6·3	28	1464	-252	44	-5	1919	77	1936	20	1934
	Gorleston ...	Not Recorded											1908	67	1936	20	1934
	Cranwell ...	12	11	7	1	0	6·2	29	1357	-181	53	+6	1921	62	1929	30	1934
3	Birmingham ... (Edgbaston)	13	15	3	0	0	5·9	16	1144	-160	34	-1	1887	90	1891	5	1890
4	Ross-on-Wye ...	9	13	7	2	0	6·2	29	1362	-123	50	+2	1915	73	1929	30	1915 1927
5	Falmouth ... (Observatory)	10	14	7	0	0	5·4	3	1675	-35	48	-5	1881	82	1886	19	1890
7	Holyhead (Valley)	Not Recorded											1914	71	1916	15	1931
8	Chester ... (Sealand)	16	11	4	0	0	5·9	17	1323	-53	32	-9	1928	76	1929	23	1927
10	Tynemouth ...	Not Recorded							*	*		*	1935	*	*	*	*
11	Leuchars ...	9	17	5	0	0	4·9	19	1183	-287	43	-1	1922	66	1929	16	1934
12	Renfrew ...	19	8	4	0	0	5·1	17	1083	-110	26	-1	1921	46	1938	9	1939
	Eskdalemuir ...	12	12	7	0	0	5·2	17	1129	-72	36	+4	1910	60	1935	3	1912
13B	Stornoway ...	22	7	2	0	0	5·0	27	1212	-3	15	-7	1881	54	1935	6	1884
15	Aberdeen ...	9	13	9	0	0	5·0	10	1148	-181	51	+14	1881	68	1891	7	1903
18	Aldergrove ...	18	11	2	0	0	4·2	15	1139	-158	19	-18	1927	70	1935	21	1931
19	Birr Castle ...	Not Available											1881	68	1881	22	1884 1939
20	Valentia ... (Cahirciveen)	Not Available											1880	76	1938	14	1931

District	Stations.	RAINFALL. ‡Number of days with amount. 0, trace or 0·1 mm.	0·2—1 mm.	1·1—5 mm.	5·1—15 mm.	15·1—25 mm.	Above 25 mm.	Maximum fall in 24 hrs. mm.	Date.	Total for past 12 months. mm.	Difference from Average. mm.	Total for Month.‡ mm.	Difference from Average. mm.	Highest and Lowest Totals on record for Month. First year of record.	Highest. mm.	Year.	Lowest. mm.	Year.	Days with Thunder.	Days with Snow or Sleet.
1	London ...	19	6	3	2	1	0	16	6	717	+111	40	-18	1856	162	1914	6	1926	0	1
	(Kew Obsy). Croydon ...	15	9	4	2	1	0	20	6	676	-3	52	-17	1921	174	1929	8	1926	0	0
	Thorney Island...	20	5	4	2	0	0	12	14	613	-80	36	-40	1871	224	1934	10	1926	0	1
	Lympne ...	22	1	6	2	0	0	13	6	682	-42	35	-47	1920	181	1929	14	1932	0	0
2	Shoeburyness...	22	6	2	0	1	0	25	6	481	-22	33	-14	1920	94	1937	5	1932	0	0
	Gorleston ...	22	3	3	2	1	0	15	6	576	-46	32	-30	1871	151	1914	12	1932	0	2
	Cranwell ...	21	6	4	0	0	0	3	7	698	+108	14	-42	1917	105	1938	9	1933	0	2
3	Birmingham ... (Edgbaston)	13	8	8	2	0	0	13	6	827	+153	49	-19	1893	155	1914	11	1926	0	2
4	Ross-on-Wye ...	18	6	4	2	1	0	19	6	708	-9	45	-31	1859	196	1929	11	1926	0	1
5	Falmouth ... (Observatory)	14	4	8	3	2	0	21	6	975	-132	89	-70	1871	280	1915	21	1926	0	0
7	Holyhead (Valley)	14	7	8	2	0	0	8	6	725	-162	39	-67	1871	241	1934	21	1926	0	0
8	Chester ... (Sealand)	17	3	9	2	0	0	9	7	625	-13	34	-29	1922	114	1929	13	1933	0	1
10	Tynemouth ...	23	6	2	0	0	0	1	14	668	+47	7	-48	1915	136	1937	15	1932	0	0
11	Leuchars ...	19	6	5	1	0	0	9	14	676	+23	29	-34	1922	95	1929	8	1926	0	2
12	Renfrew ...	15	5	7	3	1	0	19	14	779	-160	64	-49	1921	230	1929	15	1933	0	1
	Eskdalemuir ...	13	5	8	3	2	0	18	13	1230	-199	86	-92	1910	339	1932	37	1933	0	0
13B	Stornoway ...	5	6	11	9	0	0	10	14	883	-383	106	-53	1870	378	1898	30	1927	0	1
15	Aberdeen ...	20	7	2	2	0	0	7	26	818	+70	21	-61	1871	227	1876	20	1905	0	4
18	Aldergrove ...	12	10	7	2	0	0	7	27	810	-28	34	-53	1926	145	1929	28	1926	0	1
19	Birr Castle ...	12	10	6	3	0	0	13	4	741	-86	58	-26	1862	165	1929	24	1885	*	*
20	Valentia ... (Cahirciveen)	8	7	11	3	2	0	13	4	*	*	95	-74	1866	345	1934	37	1926	*	0

MINIMUM SURFACE HUMIDITY.

No. of Days (Mdt. to Mdt.) with Minima between Fixed Limits.

Stations.	95 to 100 %	90 to 94 %	80 to 89 %	70 to 79 %	60 to 69 %	50 to 59 %	40 to 49 %	30 to 39 %	20 to 29 %	0 to 19 %
London (Kew)	1	2	8	8	8	4	0	0	0	0
Ross-on-Wye ...	1	3	4	14	8	1	0	0	0	0
Falmouth (Obsy.)	4	4	12	9	2	0	0	0	0	0
Renfrew ...	0	1	9	12	7	2	0	0	0	0
Eskdalemuir ...	0	4	8	13	5	1	0	0	0	0
Aberdeen ...	0	0	2	10	13	5	1	0	0	0
Valentia ...	0	4	8	13	6	0	0	0	0	0

STATE OF GROUND AT 18 h.

No. of Days each type was recorded.

Stations.	0	1	2	3	4	5	6	7	8	9
London (Kew)	0	30	0	1	0	0	0	0	0	0
Ross-on-Wye	0	31	0	0	0	0	0	0	0	0
Renfrew ...	0	30	1	0	0	0	0	0	0	0
Eskdalemuir	0	24	0	7	0	0	0	0	0	0
Aberdeen ...	0	26	0	2	0	0	1	0	0	0
Valentia ...	0	31	0	0	0	0	0	0	0	0

CODE for State of Ground.

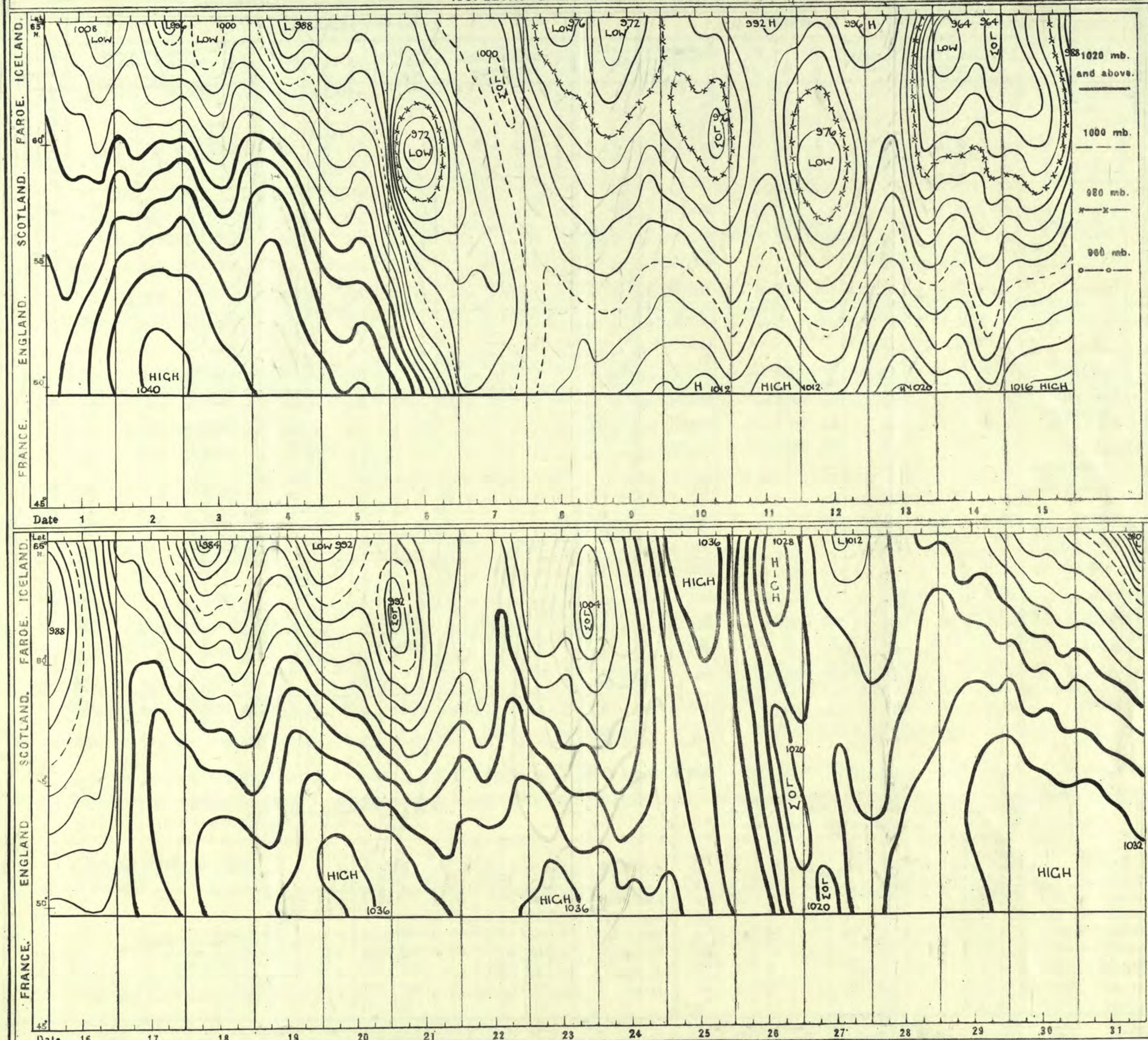
0 Dry.
1 Wet.
2 Flooded.
3 Frozen hard and dry.
4 Partly covered with snow or hail.
5 Covered with ice or glazed frost.
6 Covered with thawing snow.
7 Covered with snow, less than 6 ins., but ground not frozen.
8 Covered with snow, less than 6 ins., and ground frozen.
9 Covered with snow, greater than 6 ins. deep.

** The extremes of rainfall and sunshine from Calshot are supplemented by those from Southampton.

‡ Based in part on reports made by telegraph in which the day and night measurements are rounded off to the nearest whole millimetre. Small discrepancies may arise between these totals and those given in the Monthly Weather Report which are based on readings taken to 0·1 mm.

PRESSURE: ICELAND TO GULF OF LIONS December 1941.

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 shew 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. 44½° N., Long. 4° E., in the south.

H.M.S.O. Press, Meteorological Office, Dunstable.

G.593/4168. Pt.3/121. D.6026. Gp. 848.325. 1/42

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

~~BRITISH SECTION~~

Monday 1st December, 1941.

No 20,229.

OBSERVATIONS at 13h. G.M.T. 30th November.

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1024·0	-10	NNE	2	zo	39	75	5	5	-	-	10	10	2500
	Croydon ...	1024·4	-6	NE	2	m	39	75	4	5	-	-	10	10	2000
	S. Farnborough	1024·1	-10	NE	3	zo	39	85	5	5	-	-	9	9	3000
	Boscombe Down	1024·6	-6	NE	2	zo	38	75	6	5	-	-	10	10	2000
	Thorney Island	1023·6	-8	E'N	3	zo	42	75	6	1	7	-	1	9+	2500
	Lympne ...	1024·2	-6	N'W	1	c	39	65	7	5	-	-	10	10	4000
	Manston ...	1024·2	-6	—	0	zo	41	65	6	5	3	-	7-8	9+	2900
2	Shoeburyness ...	1024·2	-6	ESE	1	c	42	65	8	5	4	-	7-8	9+	3500
	Felixstowe ...	1024·1	-14	NNE	2	c	40	85	7	5	-	-	10	10	2000
	Gorleston ...	1025·0	-14	E'S	3	c	41	75	6	5	-	-	10	10	1200
	Mildenhall ...	1025·1	-14	NE	2	zo	38	75	6	5	-	-	10	10	2000
	Cranwell ...	1025·5	-14	E	4	zo	38	85	6	5	-	-	9+	9+	2200
3	Birmingham	1024·4	-14	NE	3	m	40	75	4	5	-	-	10	10	1800
	Upper Heyford	1025·0	-10	ENE	4	zo	36	75	6	5	-	-	10	10	2500
4	Ross-on-Wye ...	1024·6	-6	NE'E	3	zo	38	75	6	5	-	-	10	10	2500
5	Hartland Point	1023·2	-4	ENE	3	c	44	85	6	5	2	-	7-8	9+	1600
	Bristol	1024·8	-6	ENE	3	zo	37	75	6	5	-	-	10	10	1800
	Portland Bill ...	1022·8	-6	ENE	4	c	43	92	7	4	-	-	10	10	4000
	Plymouth ...	1022·4	-6	ESE	3	zo	46	92	6	5	-	-	9+	9+	1500
	The Lizard ...	1022·3	+2	E	4	c	49	85	8	8	2	-	7-8	10	1000
	Scilly (St. Mary's)	1021·9	-4	ESE	3	c	52	92	6	8	9	-	4-6	9+	1000
	Guernsey ...														
6	Pembroke ...	1024·1	-4	E	4	zo	45	85	5	5	1	-	7-8	9	2500
7	Holyhead (Valley)	1024·5	-10	ENE	4	zo	43	75	6	5	-	-	10	10	2500
	Chester (Sealand)	1025·6	-14	SSE	1	zo	41	75	5	5	-	-	9+	9+	3000
8	Manchester ...	1025·7	-16	NE	1	zo	41	85	5	5	-	-	10	10	2500
10	Spurn Head ...	1026·3	-12	SE'E	4	c	42	75	7	7	-	-	7-8	7-8	1500
	Catterick ...	1027·6	-18	ENE	2	zo	43	85	6	8	3	-	2-3	9+	2500
	Tynemouth ...	1028·7	-10	ESE	4	c	44	75	7	8	-	-	9+	9+	2400
11	St. Abbs Head	1028·6	-8	ESE	3	c	43	75	7	5	2	-	7-8	10	2000
	Leuchars ...	1029·0	-10	SE	3	zo	45	85	6	5	-	-	9+	9+	1800
12	Renfrew (Abbots I.)	1027·7	-10	NE	2	m	44	75	4	5	-	-	10	10	3500
	Eskdalemuir ...	1027·7	-6	ENE	3	c	41	85	6	5	-	-	9+	9+	1800
	Point of Ayre ...	1026·4	-6	SSE	4	c	45	85	8	5	1	-	9+	10	2500
13A	Tiree	1027·5	-4	ESE	3	c	45	85	7	5	-	-	9	9	2500
13B	Stornoway ...	1027·2	-24	SSE	4	c	46	75	8	5	7	-	7-8	10	1500
15	Dalwhinnie ...	1029·4	-4	SSE	3	o	40	75	6	5	-	-	10	10	2500
	Aberdeen ...	1030·3	-6	SE'S	3	c	45	75	6	6	2	-	9	10	1100
	Wick	1030·0	-10	SE	3	o	45	75	7	5	-	-	10	10	2500
16	Sumburgh ...	1033·3	-12	SE	3	zo	44	85	6	5	1	-	9+	10	2000
17	Blacksod Point...	1022·1	-12	SE	4	c	47	92	8	-	7	-	0	10	-
18	Malin Head ...	1024·6	-10	SSE	3	c	47	85	6	6	-	-	7-8	7-8	1500
	Aldergrove ...	1025·9	-10	SE'E	3	c	45	85	5	5	-	-	10	10	3000
19	Birr Castle ...	1023·1	-10	SE	1	c	48	85	8	5	-	-	7-8	7-8	4000
20	Valentia Obsy. †	1020·9	-14	ESE	3	c/pr	52	85	8	8	-	-	7-8	7-8	1500
	Roches Point ...	1022·3	-6	ESE	4	c	51	85	7	8	-	-	7-8	7-8	1500

OBSERVATIONS at 18h. G.M.T. 30th November. — **PAST 24 HOURS.**

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.—13h. 30th (37)	Weather 13h.—18h. 30th (38)	Weather 18h. 30th—1h. 1st (39)	Weather 1h.—7h. 1st (40)
1	London (Kew)...	1024·8	+6	NE	1	m	40	75	4	5	-	-	10	10	2500	1	*	czzo	czocm	cmffx	cmxcm
	Croydon ...	1024·7	+2	—	0	f+	37	85	3	5	-	-	1	1	2000	1	*	cm	czcm	bFxcfm	bmxbcf
	S. Farnborough	1024·9	+10	E	1	of+	38	85	3	5	-	-	10	10	2700	1	*	czmo	cmowmf	wfcm	cbccm
	Boscombe Down	1024·5	+2	—	0	zo	37	85	5	5	-	-	10	10	2300	1	*	cmo	cmo	cmocm	cmom
	Thorney Island	1024·3	+6	E	2	zo	40	75	5	5	-	-	9+	9+	3300	0	*	cmobcmo	cocmo	cbbcmo	cmo
	Lympne ...	1025·2	+6	—	0	zo	37	75	6	5	-	-	9+	9+	4000	1	§2	czo	ccmo	cbbcmo	bccmo
	Manston ...	1025·1	+10	—	0	m	38	85	4	5	-	-	9	9	3500	1	*	czo	bbczocmo	cbcbmmx	cbccm
2	Shoeburyness ...	1025·2	+10	—	0	bc	37	85	7	-	3	-	0	4-6	-	1	*	cmoc	ccmobc	bcbxb	bcf
	Felixstowe ...	1024·6	+6	SSE	3	zo	41	65	6	5	-	-	9+	9+	1500	1	2	cmoc	cmo	cmo,bmo	bmobcmo
	Gorleston ...	1025·3	+4	SE'S	4	zo	41	65	6	5	-	-	10	10	1500	0	4	czo	cczo	bcczo	cbbczo
	Mildenhall ...	1024·7	+2	—	0	zo	37	97	6	5	-	-	9	9	4400	0	*	cmozo	cmo	bmbfx	bcmox
	Cranwell ...	1024·6	-6	NNE	2	o/r	38	85	5	5	-	-	10	10	2900	1	*	cmo	cmoic	cmbmx	bmcmx
3	Birmingham	1024·5	0	SSE	2	m	35	75	4	5	-	-	9+	9+	1500	1	*	cm	cm	cmb,c	cfcm
	Upper Heyford	1024·9	+4	ENE	1	zo	36	85	5	5	-	-	10	10	2500	1	*	cmo	cmo	cmocm	cmfcm
4	Ross-on-Wye ...	1024·0	-4	SE'E	2	zo	37	75	6	5	-	-	10	10	1500	1	*	cmo	czo		czo
5	Hartland Point	1022·8	-4	ENE	3	c	40	75	6	5	2	-	7-8	10	2500	1	3	bcc	c	c	croc
	Bristol	1024·9	+4	E'N	1	zo	36	75	5	5	-	-	9+	9+	2000	1	*	cmc	czo	cmo	cbmb
	Portland Bill ...	1023·4	+6	ENE	4	o	41	92	7	5	-	-	10	10	2500	1	4	c	o	o	bc
	Plymouth ...	1023·5	+8	ESE	2	zo	43	85	5	5	-	-	10	10	1500	0	3	bcmocmo	cmo	cmo	cmobcmo
	The Lizard ...	1022·3	+4	E'S	4	c	48	85	7	8	2	-	7-8	10	1500	1	3	c	c	czorr	c
	Scilly (St. Mary's)	1021·9	+4	SE'S	2	c	49	92	6	8	3	-	7-8	10	1200	1	3	c	c	c	c
	Guernsey ...																				
6	Pembroke ...	1023·9	0	E'N	4	zo	40	85	6	5	-	-	9	9	2500	1	2	cmo	cmo	cmo	cdoido
7	Holyhead (Valley)	1023·9	0	ENE	2	zo	39	85	5	5	-	-	9	9	3100	1	2	cmo	cmo	cmo	cmo
	Chester (Sealand)	1024·7	-4	E	2	m	41	75	4	5	-	-	10	10	2000	1	*	cmo	cmom	cm,bmo	bmox,cm
8	Manchester ...	1024·9	-2	—	0	zo	38	85	6	5	-	-	10	10	2500	1	*	cmo	cmo	cbmo	bc
10	Spurn Head ...	1024·5	-6	ESE	3	c	43	85	6	4	-	-	9+	9+	1500	1	2	c	cmo	b	omo
	Catterick ...	1026·0	-6	ENE	1	zo	37	92	5	8	3	-	7-8	9+	2800	1	*	cmcmo	cmocmo	rocmbm	bmcm
	Tynemouth ...	1026·8	-4	E	3	c	44	75	7	8	-	-	7-8	7-8	2400	1	3	c	c	cpoc	cbc
11	St. Abbs Head	1027·4	-6	ESE	3	c	44	85	7	5	4	-	7-8	9	1500	0	2	c	c	ciro	irocbc
	Leuchars ...	1027·7	-12	ENE	2	zo	40	92	5	5	-	-	7-8	7-8	2200	1	*	cmo	cbcmo	bccidomo	RRcbmo
12	Renfrew (Abbots I.)	1026·8	-4	ENE	2	m	41	75	4	5	3	-	4-6	9+	3500	1	*	cmozzoz	zzoiz	cbccmo	fifocm
	Eskdalemuir ...	1026·4	-8	N'E	2	bc	37	85	6	5	-	-	4-6	4-6	1500	1	*	cmo	cbc	bccir	ofofo
	Point of Ayre ...	1024·8	-6	SE'S	4	c	44	75	7	5	-	-	2-3	9+	3000	0	4	c	c	czo	cbcbzo
13A	Tiree	1024·2	-4	SE	4	c	46	85	7	5	-	-	9	9	1800	-	5	co	oc	cbc	bcc
13B	Stornoway ...	1025·2	-6	NNE	4	c	46	75	7	5	7	-	7-8	10	1500	1	2	c	c	bc	c
15	Dalwhinnie ...	1028·4	-6	S	3	c	38	75	6	5	1	-	7-8	10	1500	0	*	o	o		oprc
	Aberdeen ...	1028·5	-16	ESE	2	c	45	85	6	6	7	-	4-6	9+	100	1	2	ozoc	czo	czo	cbcpro
	Wick	1028·4	-6	SE	5	c	45	75	7	5	1	-	2-3	10	1800	1	*	ocmooo	oc	czo	doomrr
16	Sumburgh ...	1032·0	-6	SE	3	zo	43	75	6	5	-	-	10	10	1500	1	4	cmo	cmo	cmo	cmoc
17	Blacksod Point...	1020·0	-6	SE	4	c	47	92	7	-	7	-	0	10	-	0		c	c	r	r
18	Malin Head ...	1023·3	-2	SE	3	c	44	85	7	6	-	-	9	9	1500	0	3	cbc	c	bc	bc
	Aldergrove ...	1025·2	0	SE	1	zo	40	85	6	5	7	-	7-8	9+	1000	1	*	mocmo	cidomo	cmo	cmo
19	Birr Castle ...	1021·9	-4	SE	[illegible]	b	41	92	8	-	-	-	0	0	-	1	*	c	cb	*	r
20	Valentia Obsy. †	1020·0	-4	S'E	3	iR	49	97	6	5	-	-	10	10	800	1	3	pr	pr	r	r
	Roches Point ...	1021·3	+2	ESE	5	c	50	85	7	8	1	-	7-8	9+	800	1		c	c	r	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. ⦶ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

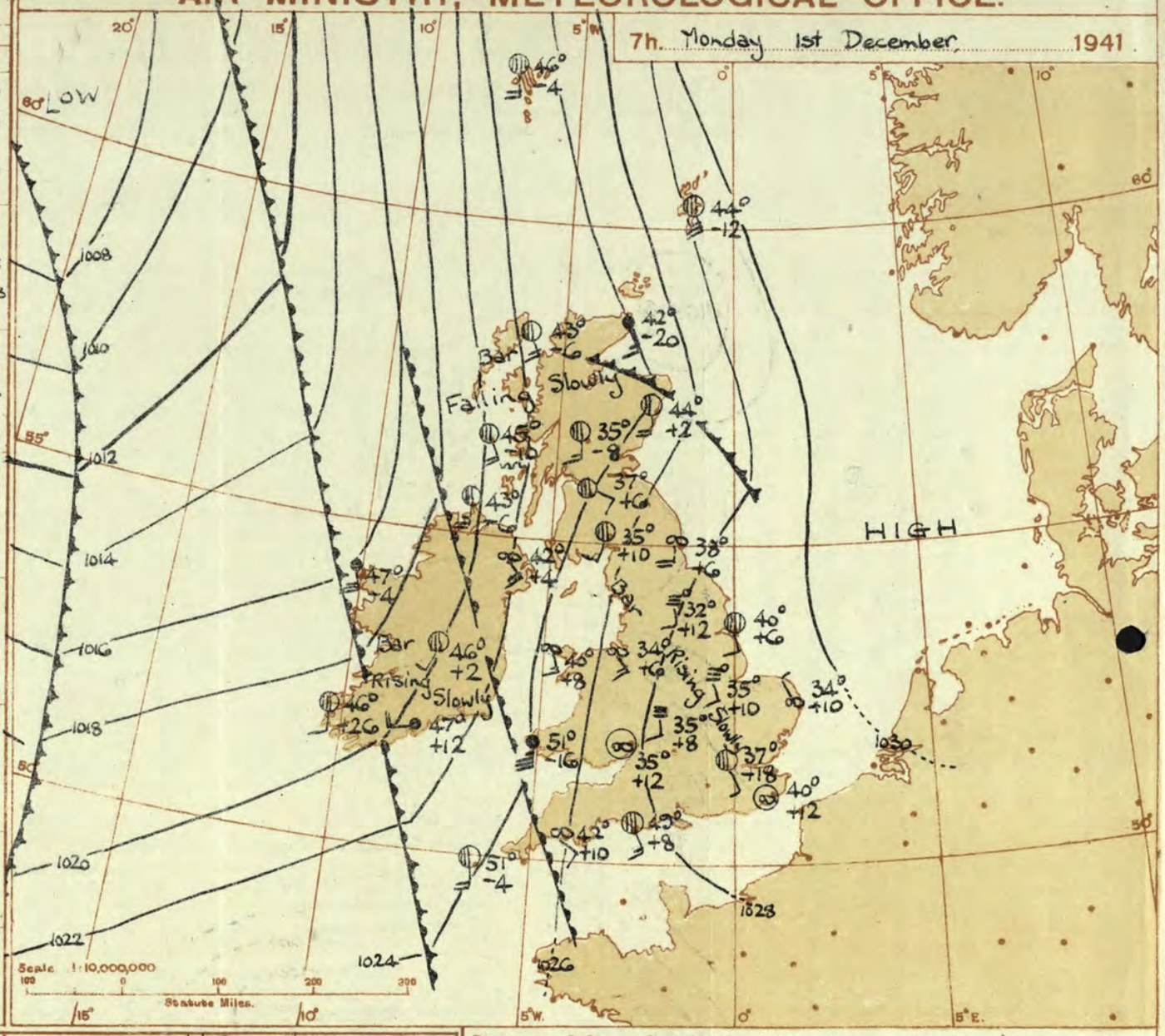
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Monday 1st December 1941

Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. 30th Nov.				18h. G.M.T.			01h. G.M.T. 1st Dec.			07h. G.M.T.		
IIIC$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN
109 5-	05648	12428	51	05543	13428	5-	02656	16426	5-	51618	16526
115 51	02734	12226	51	02734	14327	54	01844	12325	57	02844	12426
203 5-	02845	12316				50	02854	12425			
206 5-	02758	10328	50	02651	00026	05	05690	10105	5-	61658	00065
210 51	05656	08327	51	05653	10428	03	05650	00213	5-	61644	11268
220 52	02754	15318							52	03436	16428
230 53	05756	06227	53	05663	00027	53	02773	00017	5-	05668	00018
245 5-	05657	11327	57	05656	10227	52	61646	00468	5-	05555	16365
260 5-	41445	04147	5-	08476	00026	5-	22458	00068	50	05643	00003
278 5-	02758	09358	57	05664	10327	5-	05668	12328	5-	02757	12327
279 5-	05564	05326	04	05570	04221	5-	61467	00067	04	05570	17102
285									5-	05538	05328
288			53	08453	00015	5-	05667	16147	5-	08448	13228
575 53	05654	102-7	5-	05658	01228	5-	05658	08128	5-	61648	12368
301 53	05656	10327	5-	08456	08126	5-	41468	14248	5-	41558	12348
321 5-	05657	08327	5-	21658	07158	53	08454	23327	5-	05658	14328
299 50	05645	08315	5-	22747	08467	50	01753	22313	50	08644	20314
292 57	05655	06325	57	61657	01168	53	08463	16165	5-	08458	12248
310									--	01635	20315
614 5-	05658	08228	5-	05558	02128	5-	08468	16158	5-	08456	16126
333 5-	02758	06328	5-	02754	04328	5-	05658	10328	5-	05658	08228
334									--	02541	00016
340 5-	05648	02128	03	05590	10311	5-	08448	14218	5-	05561	15221
136 5-	05658	08128	5-	05668	12158	00	04490	14112	03	41490	08244
336											
350 57	05655	04228	03	08490	00027	5-	08458	13218	5-	05558	15128
368 5-	02658	07358									
379 5-	05657	08227									
390 5-	05557	06227	53	47365	04127	03	47090	12115	5-	47367	00047
382 5-	05658	06227	5-	05658	00028	5-	05567	08127	5-	05558	14228
438									5-	03558	05428
430 5-	05668	04818	5-	05568	06228	50	05665	04225	5-	05677	06227
409 03	05590	08227	--	61646	12328	5-	05656	10526	03	05680	47527

IIi = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$, C$_M$ = Form of low and medium cloud—See page 4.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 1st December, 1941.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light S.E. or variable wind; fair with variable cloud; cold frost and fog in places at night.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Moderate S. wind, fresh on coasts; cloudy, rain at times; average temperature.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	As 1-4.
12 S.W. Scotland & Isle of Man. 13A. W. Scotland 13B. N.W Scotland	As 5-8.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Moderate S. wind variable cloud, rather cold, fog locally inland at night.
17 N. W. Ireland	Moderate S. wind veering W. Cloudy with rain at first, bright intervals and showers later. Average temperature.
18 N. E. Ireland 19 S. E. Ireland	As 5-8.
20 S. W. Ireland	As 17.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE.~~Rough.≈≈High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone to eastwards of the British Isles is spreading westwards. A complex trough of low pressure over Ireland is moving slowly east but will soon become stationary. Weather will continue dry and cold in the east with fog and frost in places at night. In the west it will be mainly cloudy with rain at times and temperature about the seasonal average.

FURTHER OUTLOOK.

Quiet dry and cold weather in South and East, with fog in places. Occasional rain in the Northwest.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Monday 1st. December,

1941.

Clarke's Projection Scale 1: 4X10⁷ 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. (K) Thunderstorm. K Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 1st December 1941.

No. 29,229

OBSERVATIONS at 1 hr. G.M.T. 1st December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	36	*	*	*	*	*	*	*	*
	Croydon ...	217	1027·1	+14	S	1	m	29	97	4	-	-	1	-	fr	-
	S. Farnborough	226	1026·3	+14	E'S	2	m	37	85	4	5	-	-	9+	9+	3000
	Boscombe Down	417	1026·5	+30	E'S	3	m	37	92	4	5	-	-	10	10	1900
	Thorney Island	10	1026·1	+14	E'N	2	z_o	38	85	5	-	3	-	0	4·6	-
	Lympne ...	346	1027·5	+14	-	0	z_o	33	92	6	-	5	-	0	4·6	-
	Manston ...	154	1027·4	+10	-	0	z_o	34	85	5	-	3	-	0	7·8	-
2	Shoeburyness ...	11	1027·1	+14	-	0	b	40	75	7	-	-	-	0	0	-
	Felixstowe ...	15	1027·8	+14	-	0	z_o	36	85	5	-	-	-	0	0	-
	Gorleston ...	5	1027·9	+12	W	1	z_o	36	75	6	4	7	-	4·6	7·8	2500
	Mildenhall ...	19	1027·6	+14	SE	2	bf	29	97	3	-	4	-	0	fr	-
	Cranwell ...	240	1027·0	+14	S	1	m	31	97	4	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1026·5	+8	SE'S	1	m	36	85	4	5	-	-	10	10	2500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1023·8	+4	S'E	3	c	39	85	6	5	2	-	7·8	10	1500
	Bristol ...	209	1026·1	+6	-	0	z_o	36	85	5	5	-	-	10	10	2500
	Portland Bill ...	32	1025·1	+8	ENE	3	0	42	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1024·8	+8	ESE	3	z_o	42	85	5	5	-	-	10	10	3000
	The Lizard ...	240	1023·3	+8	ESE	3	rr	48	92	7	8	2	-	9	10	1900
	Scilly (St. Mary's)	163	1022·7	+4	S'W	4	c	49	92	7	5	-	-	10	10	1600
	Guernsey ...	175														
6	Pembroke ...	142	1024·1	+2	SE	5	z_o	45	75	6	8	6	-	7·8	9+	2500
7	Holyhead(Valley)	26	1024·0	+2	ESE	2	z_o	40	85	6	5	-	-	10	10	3200
	Chester(Sealand)	16	1025·1	+2	SE	1	z_o	32	92	5	-	-	-	0	0	-
8	Manchester ...	235	1026·0	+10	SE'S	2	z_o	38	85	6	-	-	-	0	0	-
10	Spurn Head ...	29	1026·7	+22	S'W	3	b	38	97	7	-	-	-	10	0	-
	Catterick ...	175	1025·3	+6	SSW	1	m	38	92	4	5	-	-	2·3	2·3	2500
	Tynemouth ...	108	1025·0	-2	SE	4	c	42	85	7	5	-	-	9+	9+	1500
11	St. Abbs Head	280	1024·0	-14	ESE	4	cr	43	92	7	5	2	-	7·8	10	1500
	Leuchars ...	36	1024·7	-20	ESE	4	cb	44	85	6	5	-	-	10	10	1800
12	Renfrew (Abbotsl.)	19	1024·3	-10	-	0	m	37	92	4	5	-	-	9+	9+	3500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1023·8	-2	SSW	3	z_o	42	75	6	5	-	-	9	9	2500
13A	Tiree	22	1022·6	-10	SE	4	bc	43	86	8	5	4	-	4·6	4·6	2500
13B	Stornoway ...	80	1023·6	-8	SE	3	c	45	75	7	5	7	-	7·8	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Wick ...	119	1027·3	-2	SE'S	3	z_o	44	75	6	5	-	-	9+	9+	1600
16	Sumburgh ...	30	1030·7	-6	SE	4	z_o	44	85	6	5	3	-	9	9+	1500
17	Blacksod Point	18	1017·3	-8	SE'S	4	cr	45	92	7	6	-	-	10	10	1500
18	Malin Head ...	84	1021·4	-4	SE	3	b	41	75	6	-	-	2	0	1	-
	Aldergrove ...	268	1022·8	-14	SE'E	1	z_o	41	75	6	5	-	-	9+	9+	3800
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1017·4	-18	S'E	4	c	46	85	9	5	7	-	4·6	9+	4000
	Roches Point	22	1019·4	-10	ESE	5	c	49	92	7	8	-	-	9	9	1500

OBSERVATIONS at 7 hr. G.M.T. 1st December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. (29)	Sea. 0–9 (30)
1029·5	+12	NE'E	1	m	38	92	4	5	-	-	9+	9+	2500	1	*
1029·0	+18	SE'S	1	cf+	37	92	3	-	7	-	0	9+	-	1	*
1029·2	+14	SE	2	m	35	85	4	5	3	-	4·6	9+	3000	1	*
1028·8	+14	-	0	z_o	38	97	5	5	-	-	10	10	2100	1	*
1028·4	+14	ENE	1	z_o	42	85	5	5	-	-	9+	9+	4000	0	*
1029·1	+12	-	0	z_o	40	97	5	5	-	-	10	10	5000	1	§ 3
1029·6	+14	-	0	m	39	92	4	5	-	-	10	10	1200	1	*
1029·7	+14	NNE	1	of	35	97	3	5	-	-	10	10	3600	1	*
1030·0	+12	NE'N	2	z_o	35	85	5	-	3	-	0	2·3	-	1	1
1029·7	+10	NW	1	z_o	34	85	6	-	4	-	0	2·3	-	0	2
1029·4	+10	SE	3	z_o	32	92	5	5	7	-	2·3	4·6	2000	0	*
1028·5	+10	SSE	2	m	35	85	4	5	-	-	10	10	2000	1	*
1027·4	+8	S	2	cf	35	92	3	5	-	-	9+	9+	800	1	*
1028·3	+6	SSE	2	m	37	85	4	5	-	-	10	10	1700	1	*
1027·5	+12	-	0	z_o	35	85	5	5	-	-	9+	9+	2000	1	*
1024·5	+4	SSE	4	c	46	85	6	5	2	-	4·6	9	2500	1	3
1028·0	+12	-	0	m	33	92	4	-	-	-	0	0	-	1	*
1027·4	+8	SE	3	c	49	92	7	5	2	-	7·8	10	2600	1	4
1026·8	+10	SE'E	2	z_o	42	85	5	5	-	-	4·6	4·6	2600	0	2
1025·3	+6	SSE	5	c	49	85	7	8	2	-	7·8	9+	1500	1	4
1023·5	-4	S	4	c	51	92	7	5	-	-	9+	10	1200	1	3
1023·1	-16	S	7	cdo	51	85	7	8	-	-	9	9	2500	1	3
1024·6	+8	SE	3	z_o	40	75	6	5	-	-	10	10	2800	0	2
1026·6	+6	SE	3	z_o	34	75	5	-	-	-	0	0	-	1	*
1027·5	+10	SE'S	1	z_o	35	85	5	5	3	-	2·3	4·6	2500	1	*
1028·8	+6	SSE	2	0	40	75	6	5	-	-	10	10	1500	0	2
1028·0	+12	S'E	2	m	32	92	4	5	-	-	10	10	1800	1	*
1026·7	+6	S	4	z_o	38	85	6	2	-	-	2·3	2·3	2500	1	3
1025·0	+12	SSW	3	bc	37	97	7	4	4	-	2·3	4·6	1500	1	3
1024·9	+18	W	1	z_o	39	97	6	5	-	-	Tr	Tr	3100	1	*
1024·5	+6	W	5	cjp	37	92	4	5	7	-	7·8	10	3500	1	*
1025·7	+10	S'W	2	m	35	97	4	5	-	-	10	10	220	1	*
1024·6	+4	S	5	z_o	41	75	6	4	-	-	1	1	3000	0	4
1020·8	-10	SE	4	c	45	92	7	5	-	-	9+	9+	1800	0	5
1022·1	-6	SE	3	c	43	75	7	5	7	-	4·6	9	2000	1	2
1024·1	-8	S	3	c	36	92	6	8	-	-	7·8	7·8	2500	1	*
1024·2	+2	S	4	bc/pr	44	75	6	8	-	-	4·6	4·6	1500	1	2
1023·6	-20	SE'S	3	rr	42	92	6	5	-	-	10	10	1000	1	*
1028·6	-12	SE	5	c	44	75	7	5	-	-	9+	9+	1500	1	4
1015·7	-4	S'E	5	rr	47	85	7	6	-	-	10	10	1500	2	
1019·3	-6	S	5	c/pr	43	75	6	4	6	-	9	9	1500	0	3
1022·6	+4	SE'S	3	z_o	42	85	6	5	-	-	10	10	3500	1	*
1019·0	+2	SSW	1	c	46	92	8	5	1	-	7·8	10	2500	1	*
1019·3	+26	S	2	c/r	46	92	8	5	-	-	9	9	2500	1	3
1020·3	+12	WSW	4	rr	47	92	7	6	2	-	7·8	10	800	1	

PAST 24 HOURS.

Temperature. Max. Day 7h–18h °F.	Min. Night 18h–7h °F	Min. on Grass °F.	Rainfall. Day 7h–18h mm.	Rainfall. Night 18h–7h mm.	Sunshine Hrs. (36)
41	35	22	-	-	0·0
40	29	24	-	Tr	0·0
39	33	23	-	-	0·0
41	35	33	-	-	0·0
43	37	32	-	-	*
39	33	25	-	-	0·0
43	32	19	-	0·1	2·4
42	31	21	-	-	0·0
41	32	26	-	-	0·0
42	32	26	-	-	*
39	26	21	-	Tr	0·1
45	29	21	Tr	-	0·3
40	33	16	-	-	0·0
37	35	35	-	-	*
41	33	25	-	-	0·0
45	38	36	-	0·2	0·0
42	33	28	-	-	0·0
42	39	*	-	-	*
48	40	34	-	-	*
52	47	*	1	4	0·0
53	48	*	-	-	1·2
45	40	*	-	Tr	0·0
45	35	31	-	-	*
44	32	23	Tr	-	0·0
43	33	27	-	-	*
43	36	26	-	-	*
44	31	28	-	1	0·2
46	37	33	-	0·1	*
44	36	*	-	0·1	*
47	39	*	-	-	0·0
40	33	31	-	0·3	0·0
45	42	39	-	0·3	0·0
45	41	39	-	0·3	*
44	42	40	-	-	0·0
47	44	*	Tr	1	
47	40	*	-	Tr	3·0
46	39	33	Tr	-	0·0
48	40	36	-	0·2	5·0
52	43	37	3	11	
57		*	-	4	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew	18	c2 2 0	c2 cm	cm ff x	41	35	22	-	-	0·0	*	*	2
Croydon	217	cm	c2 cm	bf x cfm	40	29	24	-	Tr	0·0	*	*	3
Greenwich (Royal Observatory)...	149	cmo	cmo	bx cmf	39	29	13	+	0·3	0·0	77	90	3
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	42	35	33		—		83	90	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*	39	33	25	-	-		73	91	*
Camden Square	110	0	0	*	40	33	32	-	-	*	*	91	*
Kensington	80	0	0	*	42	37	23	-	-		81	85	*
Hampstead Observatory	450	0	0x	0	38	32	30	-	-		*	85	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 1st

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·7	20-22h 30th	0·4	7-9h 30th

FOREIGN OBSERVATIONS.

Stations.	Evening of 30th November. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 1st December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1010·4	SE	8	cr o	46	1008·4	ESE	3	DD	40
Lisbon (18h and 07h)	1025·8	NNW	2	bc	52	1014·5	NNE	5	bc	46
¶Madrid (18h and 07h)										
Cairo (Heliopolis) (18h and 06h)	1020·7	NNE	1	bc	58	1021·2	SSE	1	b	54
Toronto (13h and 01h)						1029·1	NW	3	b	27
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
55	46	0·2	—
	48		—
	*		*

¶Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. † Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

Objects not visible at

0	Dense fog	55	yards.
1	Thick fog	220	,,
2	Fog	550	,,
3	Moderate fog	1,100	,,
4	Mist or haze	1¼	miles.
5	Poor visibility	2½	,,
6	Moderate ,,	6¼	,,
7	Good ,,	12½	,,
8	Very good ,,	31	,,
9	Excellent ,,	beyond 31m.	

COLUMN 30 — Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~SECRET~~ ADMIRALTY SECTION

Tuesday 2nd December 1941.

No. 29230

OBSERVATIONS at 13h. G.M.T. 1st December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1031·8	+10	-	0	f	43	75	2	-	-	-	10	10	4150
	Croydon	1030·6	+2	SE	2	c/f	44	92	5	8	3	-	9	10	800
	S. Farnborough	1031·5	+2	ESE	1	ir.	42	86	5	5	-	-	10	10	3500
	Boscombe Down	1030·6	+8	SE'E	3	z.	45	92	5	5	-	-	9+	9+	2000
	Thorney Island	1030·9	+8	E	2	dd	45	92	5	-	2	-	10	10	800
	Lympne	1030·8	+4	NE	1	z.	47	85	5	5	-	6	2-3	9	1200
	Manston	1031·2	+2	-	0	z.	47	85	5	5	3	2	7-8	9+	1400
2	Shoeburyness	1031·4	+4	-	0	c	46	86	6	5	-	-	10	10	1800
	Felixstowe	1031·9	+12	-	0	z.	45	85	5	-	3	-	0	10	-
	Gorleston	1032·5	+16	NW	1	z.	43	88	5	5	-	-	10	10	800
	Mildenhall	1031·6	+2	SE'E	2	z.	41	85	6	5	-	-	10	10	2000
	Cranwell	1031·1	+10	S'W	3	z.	42	85	6	5	-	-	9+	9+	6000
3	Birmingham	1030·4	+10	S	2	c	44	85	6	5	3	-	2-3	9	5700
	Upper Heyford	1030·7	+6	SE'S	3	z.	44	65	5	-	3	9	0	1	-
4	Ross-on-Wye	1029·2	+4	SSE	2	z.	45	85	6	5	-	1	9	9+	2500
5	Hartland Point	1027·0	+10	SW	3	ir.	48	85	8	6	2	-	4-6	9+	1800
	Bristol	1029·8	+10	SSE	2	z.	46	92	5	5	3	-	7-8	9+	2000
	Portland Bill	1029·0	+6	S	2	c	51	92	7	5	-	-	10	10	2500
	Plymouth	1029·3	+10	S'W	3	c/tlr	47	97	5	5	-	-	10	10	800
	The Lizard	1028·5	+14	W'S	4	bc	49	85	8	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1028·7	+22	NW	5	bc	53	75	8	8	-	-	2-3	2-3	1200
	Guernsey														
6	Pembroke	1025·4	0	SW	5	c/pr	50	85	8	8	3	-	4-6	9	2000
7	Holyhead (Valley)	1026·5	+14	S	5	ir.	47	92	6	5	2	-	9	10	1500
	Chester (Sealand)	1028·9	+8	SE'S	3	z.	41	85	5	5	2	-	4-6	9+	6000
8	Manchester	1030·1	+10	SSE	2	m	42	85	4	-	3	-	9+	9+	8000
10	Spurn Head	1031·2	+4	SSW	3	c	42	85	6	5	-	-	9+	9+	1500
	Catterick	1030·5	+6	S'W	2	cf	37	92	3	5	3	-	2-3	9	1900
	Tynemouth	1029·6	+6	SW	3	z.	37	75	5	5	-	-	7-8	7-8	800
11	St. Abbs Head	1028·6	+6	SSW	2	z.	35	92	5	5	1	5	2-3	4-6	2000
	Leuchars	1028·6	+10	SSE	1	z.	42	85	5	-	3	-	0	Tr	-
12	Renfrew (Abbotsl.)	1027·5	+8	ENE	3	rf	40	85	3	5	-	-	10	10	2500
	Eskdalemuir	1028·8	+10	S'W	1	c	33	85	6	5	7	-	7-8	9+	1500
	Point of Ayre	1027·2	+6	SSE	5	z.	43	85	6	5	4	-	7-8	9+	2000
13A	Tiree	1022·8	+10	S'E	5	o	45	92	6	5	-	-	10	10	1200
13B	Stornoway	1021·9	-2	S	6	c	45	75	7	5	7	-	7-8	10	1500
15	Dalwhinnie	1028·0	+8	S	3	c	37	85	6	8	-	-	9+	9+	1500
	Aberdeen	1028·1	+8	SSW	2	c	40	85	5	5	-	-	7-8	7-8	1700
	Wick	1025·9	+16	S'W	3	b	44	65	8	1	-	-	1	1	2000
16	Sumburgh	1026·9	+2	S	5	pr	46	85	8	8	-	-	9+	9+	1500
17	Blacksod Point	1024·3	+16	W	4	bc	52	75	8	2	-	-	4-6	4-6	2500
18	Malin Head	1021·9	+8	SSE	4	pr	46	85	6	6	-	4	7-8	9	1500
	Aldergrove	1024·6	+4	SE'S	2	c/r	45	92	6	5	7	2	7-8	9	2500
19	Birr Castle	1025·6	+34	NNW	1	bc	50	85	8	5	-	4	2-3	2-3	4000
20	Valentia Obsy. †	1028·9	+22	W'N	4	c	51	75	8	5	4	-	9	9	5700
	Roches Point	1027·3	+38	WNW	3	bc	51	75	8	2	-	-	2-3	2-3	2500

OBSERVATIONS at 18h. G.M.T. 1st December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°Temp. (20)	°Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1033·0	+14	ENE	2	rf	44	92	2	5	-	*	10	10	1500	1	*
1032·2	+6	-	0	rr	43	97	1	5	-	*	10	10	700	1	*
1032·7	+10	E	1	rf	42	97	3	-	-	-	10	10	4150	1	*
1032·8	+10	E'S	3	rf	44	97	3	5	-	-	10	10	300	1	*
1031·8	+6	E	2	rf	45	97	3	-	2	-	10	10	700	1	*
1032·2	+4	NE	1	cf	42	97	3	-	5	-	0	9+	-	1	§2
1032·9	+8	-	0	c f+	41	92	3	5	3	6	1	9+	2000	1	*
1032·9	+6	-	0	d d.	43	92	4	5	-	-	10	10	800	1	*
1033·3	+8	NE'N	2	z.	43	92	5	7	-	-	9+	9+	3500	1	1
1033·4	+2	NNW	1	z.	44	85	6	5	3	-	4-6	9	800	0	2
1033·4	+10	S	2	rf	41	97	2	-	2	-	10	10	1500	1	*
1033·2	+14	S	2	cf+	35	97	2	5	4	1	7-8	9	4000	1	*
1032·8	+14	SSE	2	c	41	85	4	-	7	-	0	7-8	-	1	*
1032·4	+14	SE'E	2	m	42	92	4	5	-	-	9+	9+	3200	1	*
1031·1	+12	W	1	m	44	92	4	5	-	-	9+	9+	3500	1	*
1030·3	+16	NW	4	c/pr	50	85	8	8	6	-	4-6	7-8	1300	1	4
1031·3	+8	SSE	1	df	45	92	3	5	-	-	10	10	2000	1	*
1030·1	+6	W	3	rr	48	92	7	5	-	-	10	10	2500	1	4
1031·3	+18	W	2	r o.	48	92	4	8	6	-	9	9+	2000	1	2
1032·5	+18	NW	5	bc	50	75	8	8	4	-	4-6	4-6	2500	1	4
1033·6	+30	NW'N	4	c	50	85	8	8	3	-	4-6	9	1500	1	4
1031·6	+50	NNW	4	r o.	49	85	7	8	6	-	7-8	9	2500	1	3
1030·1	+32	S	5	ir.	49	85	6	5	2	-	9	10	1600	1	4
1031·6	+18	SE	2	cf+	41	85	3	-	7	-	0	7-8	-	1	*
1032·6	+18	-	0	m	42	92	4	5	-	8	2-3	9	5700	1	*
1032·5	+4	SSW	3	z.	41	92	6	5	3	6	4-6	4-6	2500	0	4
1032·8	+16	SSW	1	bf r	35	97	2	-	-	-	0	0	-	0	*
1031·5	+8	SW	3	m	38	85	4	5	-	-	7-8	7-8	1500	1	3
1030·5	+16	SW	4	z.	35	85	5	4	4	-	2-3	4-6	2500	0	3
1029·9	+12	-	0	z.	39	86	5	5	-	-	10	10	2400	1	*
1029·6	+8	NE	2	df	40	85	3	5	-	-	10	10	1200	1	*
1031·3	+10	-	0	o	36	85	5	5	-	-	10	10	800	1	*
1030·0	+24	SSW	2	c/r	47	97	7	8	-	-	9+	9+	2000	1	3
1026·0	+20	SW'W	2	b	46	92	8	5	-	-	1	1	2800	1	4
1023·7	+16	S	6	c/pr	46	92	7	8	7	-	7-8	9+	1500	1	4
1030·5	+16	S	2	pr	36	85	6	5	2	-	9	10	1500	1	*
1029·6	+6	ESE	2	bc	40	85	5	5	7	-	2-3	4-6	1900	1	2
1026·6	0	SSE	1	c	43	88	6	5	-	-	9+	9+	4000	1	*
1027·4	+6	SSW	3	c	45	75	7	8	-	*	9+	9+	2500	1	4
1027·7	+16	SSW	4	c/r	51	85	8	5	-	-	9+	9+	1500	1	4
1027·6	+42	W	3	b	48	75	8	-	-	-	0	0	-	0	
1029·7	+34	SW'S	3	b	44	92	8	4	-	-	Tr	Tr	3500	1	*
1030·6	+14	NNW	1	c	44	85	8	5	1	-	7-8	10	2500	1	*
1032·4	+16	SW'W	4	c/r	53	85	7	5	7	-	9	10	1500	1	4
1033·0	+32	W'S	3	c	49	85	8	5	7	-	4-6	9	1500	1	5

PAST 24 HOURS.

Weather. 7h.–13h. 1st. (37)	Weather. 13h.–18h. 1st. (38)	Weather. 18h. 1st to 1h. 2nd (39)	Weather. 1h.–7h. 2nd. (40)
cm f o f.	o r o r f	c r o f o f g	c m o
c f. m	r o r f r r	r o f f d d d o	c f c f
c m m o i r o	m o f i r o r o f o	r o d o f o	o f c f
b e m o c m o	o m r o f	r f	o f f
c m o r o d d	r r o m r f	r f f d o f o m	o m b f o m o
c m o	c m o	c f m f f	c b b c m w
c m m o	c m o m f	c f m m o	c b c m o w
c o m o	c m o d o d o	d o d o c b m o	b m o b f
b e m o c m o	c m o	c m o c m	c m b c m o
o f f o m	c m m o	c z f c m w	o f f e
c m o	o m r o f	o r o r o f c f	o f x
c m o	b, c m f	b f b m x	b m f f x
c f b e c	c	c m b o f	b c f f e
c m b z o	b e z o c m	c f b o f	o f b f
b z o c b c	c z	c m b o f	f f f
c r o	c i r o r p r	c b c	c
b b e c m o	c m o m d f	c f d o d o f	c f f f
c	o r r	c	b c
i r o t l r	r r p o, m o	c p r b c	b
r r e b c	c	b c	c
c i r p b c	b b e c	c	c i d o c
c i r o p r	e q i r	b c	c
c i d o m o	c r o r	b j f	c w
b e c m o	c b c m o m	b c c f w	b w, c f x
c m	c m ⊕	c m c f x	b c c f w
c m o	c	b	b m o
p f c f	c f b f	b f o f x	o f f x
b c o c m o	c m o m	c b f f	b b c f f
c b c m o	c b e m o	c m o b c	e m o b c
b m o	b b c c m o	i d o c m o b c	b c m b f f
m o f r o	o f r o f d.	i d o b o f	c f i d o f
o r o f c m o	e o m o	o m	o m f e
b e e c z	r o r o c	c b c b w ∞	b b c c w
o r r d	c b e b.	b c c i d	c i d o
c	c p r	c b e j c	c
c p r b c b	b, c m o l	c r o b c m o	c m o
c i d o r o c	c p e c	r	b c p r s
b e	r c	d	b c
c	b	b c	b c
i r o r r m o	c m o b c b	b c p r o c	c c m o f e
c i r c b c	b c	*	r
p r	r c	r	b c
p r	b e	r	b c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m, mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus
R, heavy rain. r$_o$, slight rain.
rr, continuous rain.
<, less than (for cloud height). ⁄ gale.
⊕ Solar halo. ☾ lunar halo. ⌓ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

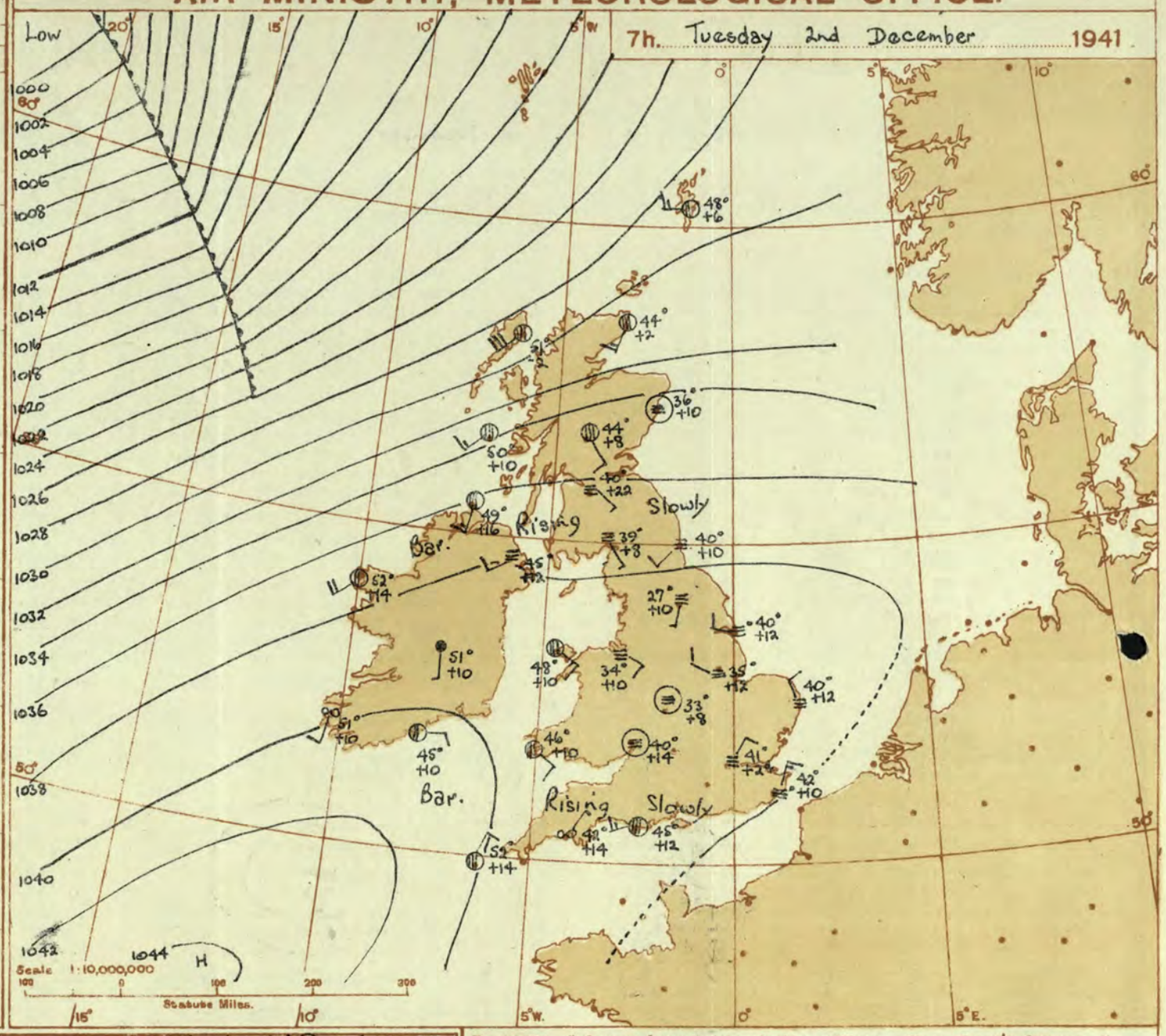
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. 1st December			18h. G.M.T.			01h. G.M.T. 2nd December			07h. G.M.T.		
IIIC$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN
109 20	00682	16462	57	05653	15404	57	01652	18314	5-	01754	18314
115 54	02744	16386	52	81744	16387	53	02844	24487	52	81834	18487
203			5-	02838	16568				5-	02838	20528
206 04	01790	00014	5-	05658	18328	03	05690	00023	5-	01654	00024
210 60	00761	10201	07	05690	14223	00	01790	17203	57	02864	16227
220 80	25637	19587	83	01744	19385				52	03435	20428
230 52	05654	08268	52	61647	08258	53	02762	00067	27	02753	18227
245 5-	05667	20327	5-	08457	17128	00	08490	23240	53	08463	25116
260 53	47364	04116	5-	43567	06147	5-	05538	24128	5-	05645	20115
278 278 5-	61648	11468	53	02844	19366	53	02766	14317	8-	05557	16227
279 5-	05568	08118	5-	05558	04228	50	08464	18314	5-	43346	28146
285 5-	05647	04327	53	05643	02214				50	01853	32303
288 5-	08457	18217	00	47390	21140	--	48109	20149	--	46109	20249
575 576 80	05854	18264	40	01853	20283	5-	05655	15265	5-	05758	12128
301 5-	21468	13358	07	47390	13443	50	45264	00044	04	45290	00042
321 5-	05590	16320	07	08490	14214	00	47390	00040	--	48109	00049
299 50	05647	20327	50	05545	18325	00	05620	24300	00	08490	24200
292 5-	08467	12127	00	45290	13144	00	45090	00040	--	44009	00049
310 --	08434	20214	--	46209	20249				--	46109	26349
614 614 5-	08475	14128	07	47390	10114	00	47190	25140	--	48009	00049
333 52	62646	12468	52	02654	16168	00	00790	00010	5-	05656	00016
334 --	05546	32117	--	02654	32215				--	94309	00028
340			--	46209	12349	03	45890	12241	--	46009	16149
136 58	05665	12216	51	22473	10167	00	47290	30140	00	47190	00040
336 52	05643	12428							--	46109	08349
350 5-	08464	14215	5-	47158	00048	--	48009	00049	--	44009	23149
368 52	61555	08367	57	47344	04165	00	47190	24140	--	46109	03249
379 03	05690	12304	5-	05657	08227	5-	41451	00041	00	47190	17040
390 5-	43368	12248	5-	67128	00068	5-	45208	02268	--	46109	26249
382 57	05665	11316	5-	08448	09128	--	46109	00049	6-	43348	00048
438 5-	02757	10317							5-	02747	04317
430 5-	08448	07358	5-	62448	04268				51	41436	32148
400 27	81864	19465	5-	64747	28387	54	00851	30313	04	00790	30113

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Tuesday 2nd December 1941
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable winds; extensive fog persisting in many places; rather cold.
5 S.W. England 6 South Wales ... 7 North Wales ...	Light variable winds; mainly fair but some local inland fog; average temperature or rather mild.
8 N.W. England 9 N. Midlands ... 10 N.E. England	Light westerly wind, mainly fair but fog in places; average temperature.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13A. W. Scotland	Moderate southwest wind; fair, rather mild.
13B .N.W Scotland	As 15-16.
14 Mid Scotland	As 11-13A.
15 N. E. Scotland 16 Orkneys and Shetlands	Strong southwest wind, gale on coasts later; cloudy, some rain or drizzle; mild.
17 N. W. Ireland 18 N. E. Ireland	As 11-13A.
19 S. E. Ireland 20 S. W. Ireland	As 5-7.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A ridge of high pressure lying across the Southern half of Britain is intensifying. A deep depression is approaching Iceland from southwest. Quiet foggy weather will persist over most of England but winds will freshen from southwest in the North and will reach gale force on the coast of North and West Scotland. Mild rainy weather will occur in the North.

FURTHER OUTLOOK.

Similar.

Warning of southwest gale issued at 0815h. 2·12·41 in districts 13B and 16.

Forecasts issued at 10·30h.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of Tuesday 2nd December, 1941.

HIGH

LOW

HIGH

Clarke's Projection Scale 1: 4X10⁷ 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. Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4. AIR MINISTRY.

THE DAILY WEATHER REPORT
OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Tuesday 2nd December 1941.
No 29230.

OBSERVATIONS at 1 hr. G.M.T. 2nd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	42	*	*	*	*	*	*	*	*
	Croydon ...	217	1035·7	+20	NNW	1	F+	43	97	1	-	-	-	10	10	<150
	S. Farnborough	226	1036·7	+18	N'W	1	F	43	97	1	-	-	-	10	10	<150
	Boscombe Down	417	1036·3	+24	N	1	f-	43	97	3	5	-	-	9+	9+	600
	Thorney Island	10	1035·6	+20	N	2	m pr	44	97	4	5	-	-	10	10	2500
	Lympne ...	346	1034·5	+6	N	1	c f+	44	97	3	5	2	-	4-6	10	1500
	Manston ...	154	1035·3	+10	N'E	2	z0	46	85	6	5	-	-	10	10	900
2	Shoeburyness ...	11	1035·9	+12	-	0	bc	40	92	5	1	-	1	Tr	2-3	2500
	Felixstowe ...	15	1036·3	+16	N	3	m	41	92	4	5	-	-	10	10	2500
	Gorleston ...	5	1035·9	+8	NW	2	m	39	92	4	5	-	-	9+	9+	1500
	Mildenhall ...	19	1037·2	+14	-	0	cF	35	97	1	-	1	-	0	9	-
	Cranwell ...	240	1037·0	+14	WSW	1	m	32	97	4	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1036·7	+18	E	1	f	39	97	2	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1036·7	+18	NNW	3	bc	49	86	8	1	-	-	2-3	2-3	2500
	Bristol ...	209	1037·3	+22	N	3	f-	44	97	3	-	-	-	10	10	<150
	Portland Bill ...	32	1035·3	+30	W	3	c	47	92	7	2	-	-	9	9	4000
	Plymouth ...	82	1037·1	+22	N'W	1	b	48	92	7	5	-	-	1	1	4000
	The Lizard ...	240	1037·4	+16	NNW	3	bc	48	92	7	4	-	-	4-6	4-6	2500
	Scilly (St. Mary's)	163	1037·8	+14	NNW	3	c	50	92	8	5	-	-	10	10	1000
	Guernsey ...	175														
6	Pembroke ...	142	1037·5	+14	NNW	3	bc	47	85	8	7	-	-	4-6	4-6	4000
7	Holyhead (Valley)	26	1036·3	+18	ESE	1	fs	37	97	8	5	4	1	Tr	1	4000
	Chester (Sealand)	16	1036·4	+18	SE	1	cf	39	92	2	5	-	-	7-8	7-8	2500
8	Manchester ...	235	1037·3	+16	·	0	cf+	37	97	3	5	3	-	4-6	9	6000
10	Spurn Head ...	29	1036·9	+16	SW	2	b	40	85	6	-	-	-	0	0	-
	Catterick ...	175	1036·8	+14	S	2	F-	32	97	1	-	-	-	10	10	<150
	Tynemouth ...	108	1034·7	+2	SW	3	bf	38	92	3	-	-	-	0	0	-
11	St. Abbs Head	280	1032·8	+10	SW	3	z0	41	97	6	5	-	-	4-6	4-6	2500
	Leuchars ...	36	1033·4	+10	WSW	1	m	38	92	4	5	-	2	1	7-8	2100
12	Renfrew (Abbots I.)	19	1034·6	+22	W	1	of+	35	97	2	5	-	-	10	10	2000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1035·4	+20	SW'W	2	bc	40	97	8	-	-	6	0	2-3	-
13A	Tiree ...	22	1031·3	+16	SW'W	2	c/d	49	92	8	5	*	*	9	9	2500
13B	Stornoway ...	80	1028·9	+18	SSW	4	c	46	86	8	7	-	-	9+	9+	3500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	119	1030·3	+18	SW	3	c	41	85	6	5	3	-	2-3	9+	1600
16	Sumburgh ...	30	1028·0	+6	SSW	4	bc/r	47	92	8	5	3	-	4-6	4-6	2000
17	Blacksod Point	18	1033·0	+22	WNW	1	c	55	97	7	-	1	-	0	7-8	-
18	Malin Head ...	84	1032·3	+10	S	3	b	45	85	8	-	-	1	0	1	-
	Aldergrove ..	268	1035·9	+10	S'E	1	c	43	92	7	7	-	-	9+	9+	4500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1037·4	+18	WSW	3	z0	54	85	6	5	7	-	4-6	10	1500
	Roches Point	22	1037·3	+14	W	2	c	47	97	8	5	-	-	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 2nd December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 1st Hrs. (36)
London (Kew)	1040·0	+18	NNW	2	z0	41	97	6	5	-	-	10	10	2500	1	*	44	40	37	4	3	0·0
Croydon	1038·4	+24	NE	2	°F+	41	97	3	5	-	-	10	10	900	1	*	44	41	39	3	3	0·0
S. Farnborough	1039·5	+18	NW'N	3	°f-	41	97	2	5	-	-	10	10	300	1	*	43	40	39	2	1	0·0
Boscombe Down	1039·5	+14	N	2	F+	40	97	1	-	-	-	10	10	<150	0	*	45	40	35	0·1	1	0·3
Thorney Island	1038·9	+16	N	1	z0	44	97	5	5	-	-	10	10	<150	1	*	46	41	34	3	2	*
Lympne	1037·3	+10	NNE	3	m	42	97	4	5	-	-	4-6	4-6	800	1	§3	48	40	34	-	-	1·4
Manston	1037·9	+10	N'E	2	z0	44	92	5	5	-	-	9	9	1200	1	*	48	41	33	Tr	-	0·0
Shoeburyness	1038·5	+12	N	1	bcf	37	97	3	5	-	-	4-6	4-6	700	1	*	47	37	28	0·5	0·2	0·0
Felixstowe	1038·5	+12	N'E	2	m	38	97	4	5	-	-	2-3	2-3	2500	1	1	45	38	33	-	-	0·0
Gorleston	1038·3	+12	NW'N	2	F+	40	85	1	-	-	-	10	10	<150	0	2	45	39	33	-	-	*
Mildenhall	1039·7	+18	WSW	1	F+	31	97	1	-	-	-	10	10	<150	1	*	42	30	30	-	0·6	0·0
Cranwell	1039·4	+12	WNW	2	bf+	35	92	2	-	4	-	0	Tr	-	3	*	45	29	25	-	Tr	1·4
Birmingham	1039·8	+8	-	0	F	33	97	0	-	-	-	10	10	<150	1	*	44	33	23	-	Tr	1·9
Upper Heyford	1039·6	+10	NE'N	1	F	36	97	0	-	-	-	10	10	<150	1	*	45	34	31	-	-	*
Ross-on-Wye	1039·7	+14	-	0	oF	40	97	1	5	-	-	10	10	<150	1	*	48	39	30	-	Tr	1·6
Hartland Point	1038·9	+10	N	2	bc	48	85	8	4	-	1	2-3	2-3	2500	1	3	51	46	40	4	-	0·2
Bristol	1040·4	+14	-	0	f	41	97	2	-	-	-	10	10	<150	1	*	47	40	41	Tr	Tr	1·3
Portland Bill	1038·5	+12	WSW	3	c	45	92	7	5	-	-	7-8	7-8	2500	1	4	51	43	*	1	1	*
Plymouth	1040·1	+14	NE	1	z0	42	97	6	5	-	1	Tr	1	3000	1	2	51	39	33	10	3	0·[illegible]
The Lizard	1039·7	+10	N	3	c	50	85	8	8	6	-	7-8	7-8	1500	0	3	52	44	*	6	-	3·1
Scilly (St. Mary's)	1040·0	+14	NNE	2	o	52	97	7	5	-	-	10	10	1200	1	3	53	48	*	5	0·1	1·7
Guernsey																						
Pembroke	1039·8	+10	SE	2	c	46	97	8	8	2	-	7-8	9	4000	1		52	42	*	6	Tr	0·2
Holyhead (Valley)	1038·3	+10	SE	3	o	48	92	7	5	-	-	10	10	1700	0	2	49	36	29	1	Tr	-
Chester (Sealand)	1038·9	+10	SE	2	cf	34	97	2	-	-	8	0	7-8	-	1	*	41	33	26	-	-	1·0
Manchester	1039·9	+12	-	0	of	37	97	3	5	-	-	10	10	2500	1	*	44	34	27	-	-	-
Spurn Head	1038·5	+12	W'N	2	z0	40	92	5	-	-	-	0	0	-	0	3	(42)	38	*	-	-	0·0
Catterick	1038·9	+10	S'W	1	F	27	97	0	-	-	-	0	0	-	1	*	37	27	27	-	-	0·0
Tynemouth	1036·7	+10	SW	2	bcf	40	92	3	5	-	-	4-6	4-6	1500	1	3	39	36	33	-	-	*
St. Abbs Head	1035·3	+16	W	3	bc	41	92	7	4	4	-	2-3	4-6	2500	0	2	36	35	*	-	-	*
Leuchars	1035·6	+10	-	0	bcf-	35	97	1	5	-	-	2-3	2-3	2500	1	*	41	34	30	-	Tr	2·8
Renfrew (Abbots I.)	1036·9	+22	SE	1	of-	40	97	3	5	-	-	10	10	1300	1	*	40	34	27	0·2	Tr	0·0
Eskdalemuir	1037·7	+8	SSE	1	F	39	97	1	-	-	-	10	10	<150	1		36	35	35	-	1	1·1
Point of Ayre	1037·8	+14	SW'W	2	c	43	97	8	5	-	6	4-6	9	2500	1	2	47	38	*	0·4	-	0·0
Tiree	1033·3	+12	SW'S	3	o	51	92	7	5	-	-	10	10	1800	1	4	46	46	*	2	Tr	
Stornoway	1028·8	-2	SW	6	c	51	85	7	8	7	-	7-8	10	2000	1	3	47	45	*	0·4	1	0·0
Dalwhinnie	1035·4	+8	SSE	2	c	44	85	7	5	-	-	7-8	7-8	2500	1	*	38	34	28	0·3	-	0·6
Aberdeen	1034·4	+10	-	0	bcf	36	92	3	5	-	-	2-3	2-3	2700	3	2	44	34	25	-	-	1·0
Wick	1031·3	+2	SSW	3	c	44	92	6	5	7	-	2-3	10	1600	1	*	44	41	37	1	Tr	*
Sumburgh	1029·6	+6	W	3	bc	48	92	8	8	-	-	2-3	2-3	2100	1	*	47	44	42	0·4	Tr	-
Blacksod Point	1036·4	+14	SW'W	4	bc	52	97	8	-	3	-	0	2-3	-		4	52		*	Tr		*
Malin Head	1035·2	+16	S'W	3	c	49	86	7	8	-	-	9	9	4000		3	50		*	Tr		0·9
Aldergrove	1038·0	+12	SW'S	2	F	45	97	1	-	-	-	10	10	<150	1	*	47	40	*	2	Tr	*
Birr Castle	1038·1	+10	S	1	iro	51	97	7	5	-	-	10	10	2500		*	52			0·5		1·7
Valentia Obsy.	1039·7	+10	S'W	2	z0	51	97	6	5	-	-	4-6	4-6	1500		3	53			2		
Roches Point	1039·8	+10	E	2	bc	45	97	8	5	-	-	2-3	2-3	2500					*	3		*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h other stations except for rainfall which is 9h—18h

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h. (To-day)
Kew	18	Cmfof	orof	Crofofgc	44	40	37	4	3	0·0	•	•	3
Croydon	217	cf,m	rorofrr	rorofdodo	44	41	39	3	3	0·0	•	•	3
Greenwich (Royal Observatory)	149	cf	crorrf	rrof	44	39	37	3	3	0·0	95	96	2
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park)	27	•	•	•	45	40	40	·7		·	97	97	•
Regents Pk. (Botanic Gardens)‡	168	•	•	•	43	33	31	0·3	7	-	91	95	•
Camden Square	110	or	or	•	43	38	39	5	3	*	•	98	•
Kensington	80	Omr	or	•	45	39	39	3	6	-	95	98	•
Hampstead Observatory	450	orf	orf	of	42	36	31	2	5		•	99	•

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 2nd

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
1·4	21h 1st	0·1	0·7h 2nd

FOREIGN OBSERVATIONS.

Stations	Evening of 1st December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 2nd December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	1001·9	ESE	2	o	41	1003·1	ESE	6	roro	41				
Lisbon (18h and 07h)	1032·2	N	3	b	54	1033·7	NE	3	b	45	57	43	-	-
¶Madrid (18h and 07h)	912·8	N	3	bc	46						54		-	
Cairo (Heliopolis) (18h and 06h)	1020·7	NNE	1	bc	58						67		-	
Toronto (13h and 01h)														
Washington (13h and 01h)	1026·1	ENE	4	o	43						*		*	

¶Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Wednesday 3rd. December, 1941.

No. 22,231.

OBSERVATIONS at 13h. G.M.T. 2nd. December.

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1041·2	+2	WNW	1	f	40	92	2	–	–	–	10	10	<150
	Croydon	1040·6	-2	–	0	F+	41	97	1	–	–	–	10	10	2150
	S. Farnborough	1041·3	-6	–	0	cf-	40	97	2	5	–	–	10	10	300
	Boscombe Down	1041·2	-2	NNW	2	f-	41	97	3	–	–	–	10	10	<150
	Thorney Island	1040·8	-4	NNE	2	N_o	43	85	6	1	–	–	Tr	Tr	1500
	Lympne	1037·7	0	N	2	N_o	46	85	6	1	–	–	4-6	4-6	1800
	Manston	1040·2	-2	N	3	N_o	48	85	6	5	–	–	4-6	4-6	1000
2	Shoeburyness	1040·7	+2	N'W	1	b	43	92	5	–	–	–	0	0	–
	Felixstowe	1040·5	-4	N'W	2	N_o	47	85	5	–	–	–	0	0	–
	Gorleston	1040·3	+2	NW	2	m	48	85	4	–	–	–	0	0	–
	Mildenhall	1041·1	-2	WSW	2	F+	35	97	1	–	–	–	10	10	2150
	Cranwell	1040·8	-2	W	2	bF+	34	97	1	–	–	–	0	0	–
3	Birmingham	1041·3	-2	W	1	bF-	38	97	1	–	–	–	0	0	–
	Upper Heyford	1041·0	-2	WNW	1	F	38	97	1	–	–	–	10	10	<150
4	Ross-on-Wye	1041·3	-6	NW	1	OF	38	97	1	–	–	–	10	10	2150
5	Hartland Point	1041·0	-2	NE	2	c	50	85	8	5	1	–	4-6	7-8	2000
	Bristol	1041·5	-6	SSE	1	F-	41	97	1	–	–	–	10	10	<150
	Portland Bill	1040·8	+4	N	3	c	43	92	7	5	2	–	7-8	10	2500
	Plymouth	1041·5	-2	N	2	N_o	50	85	6	–	–	1	0	If	–
	The Lizard	1040·9	-4	NE	3	c	52	82	8	8	6	–	7-8	7-8	1500
	Scilly (St. Mary's)	1041·5	+2	N'E	2	c	45	92	6	5	3	–	4-6	7-8	1200
	Guernsey														
6	Pembroke	1041·6	+4	SSE	2	N_o	50	92	7	2	–	–	9+	9+	3000
7	Holyhead (Valley)	1040·2	-4	SW	3	c	51	92	6	5	–	–	9+	9+	2000
	Chester (Sealand)	1040·7	-6	SE'S	1	bf	45	85	3	–	–	–	0	Tr	–
8	Manchester	1040·7	-10	–	0	N_o	44	97	5	5	–	2	1	4-6	3500
10	Spurn Head	1040·0	0	WNW	3	P	37	97	1	–	–	–	10	10	2150
	Catterick	1039·6	-6	S	2	bcf-	35	97	3	–	–	5	0	4-6	–
	Tynemouth	1038·4	-2	W	3	bc/f	50	75	5	5	4	–	2-3	2-3	1500
11	St. Abbs Head	1037·2	+16	S	3	bc	49	85	7	4	4	–	2-3	4-6	2500
	Leuchars	1035·2	-12	WSW	4	N_o	48	92	6	5	–	–	9+	9+	3200
12	Renfrew (Abbotsl.)	1037·2	+2	SW'S	3	dodo	49	97	5	5	–	–	7-8	10	900
	Eskdalemuir	1038·3	-2	S'E	3	c	44	92	6	5	4	–	4-6	7-8	220
	Point of Ayre	1039·3	0	W'S	3	bc	51	92	8	5	–	4	2-3	4-6	2500
13A	Tiree	1035·7	+10	SW'S	4	o	51	97	6	5	–	–	10	10	1200
13B	Stornoway	1030·6	+2	WSW	5	$r_o r_o$	53	85	7	5	7	–	7-8	10	1500
15	Dalwhinnie	1035·5	+2	WSW	3	c	50	85	8	5	3	–	7-8	10	1500
	Aberdeen	1034·0	-4	SW	2	c	47	75	6	5	3	–	4-6	7-8	3600
	Wick	1031·8	+2	SW	3	c	51	85	8	5	3	–	7-8	9+	3000
16	Sumburgh	1028·9	-14	W	4	rr	48	97	6	–	2	–	10	10	300
17	Blacksod Point	1038·1	+2	WSW	4	c	53	92	7	–	7	–	0	9+	–
18	Malin Head	1037·3	+2	SSW	3	c	52	85	8	9	–	–	7-8	7-8	2500
	Aldergrove	1039·9	+2	SW	1	N_o	48	97	5	5	–	–	10	10	200
19	Birr Castle	1040·3	0	S	1	c	52	92	7	5	–	–	10	10	2500
20	Valentia Obsy. †	1041·0	-2	S'W	3	bc	55	92	7	2	–	1	4-6	4-6	1500
	Roches Point	1041·2	-6	–	0	N_o	54	92	6	5	–	5	1	2-3	2500

OBSERVATIONS at 18h. G.M.T. 2nd. December.

Barom. at M.S.L. ·mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°Temp. (20)	°Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1041·4	0	–	0	F	40	97	1	–	–	–	10	10	<150	1	*
1040·9	+2	NNW	1	F-	38	97	1	–	–	–	10	10	<150	1	*
1041·5	0	N	1	F	41	97	1	–	–	–	10	10	<150	1	*
1041·7	+2	N	2	F+	40	97	0	–	–	–	10	10	<150	1	*
1041·1	+2	N'E	2	bcf+	40	97	2	5	–	–	4-6	4-6	800	0	2
1040·1	+4	N	1	bF+	37	97	1	–	–	–	0	0	–	1	*
1040·9	+4	NW	2	F+	41	97	1	–	–	–	10	10	<150	1	*
1041·1	+2	N'W	1	F+	36	97	0	–	–	–	10	10	<150	1	*
1041·1	+4	NW	3	bcF+	37	97	0	5	–	–	4-6	4-6	<150	1	*
1040·1	-2	W	3	f	40	85	4	–	–	–	0	0	–	0	2
1041·0	0	SW	2	F	35	97	0	–	–	–	10	10	2150	1	*
1040·6	+2	WSW	3	F	36	97	0	–	–	–	10	10	<150	1	*
1041·3	0	NW	1	bF	36	97	0	–	–	–	0	0	–	1	*
1041·1	+2	–	0	F	37	97	0	–	–	–	10	10	<150	1	*
1041·4	0	W'N	1	dF	37	97	1	5	–	–	10	10	<150	1	*
1040·8	-2	NE	1	bc	49	92	7	5	–	–	4-6	4-6	2000	1	3
1041·7	0	ESE	1	F+	40	97	1	–	–	–	10	10	<150	1	*
1041·0	+6	NNE	3	c	43	85	7	5	2	–	7-8	10	2500	1	3
1041·2	+2	SE	1	bf+	43	97	3	–	–	–	0	0	–	1	2
1040·7	+2	NE	2	bc	48	92	8	8	–	–	4-6	4-6	2500	0	3
1041·0	+2	–	0	c	50	97	6	5	–	–	7-8	7-8	1000	1	3
1041·9	+4	SE'S	3	N_o	50	92	5	8	2	–	7-8	9	2500	1	3
1040·4	+6	S	3	o/r	49	92	5	5	–	–	10	10	800	1	2
1040·7	+6	SE'E	1	c f+	42	92	2	–	3	–	0	9	–	1	*
1041·1	+4	SSW	1	m	43	92	4	5	–	–	9+	9+	3500	1	*
1039·7	+4	WNW	3	b	42	92	4	–	–	–	0	0	–	1	2
1040·2	+4	S	3	bcf	40	97	3	–	–	5	0	2-3	–	1	*
1037·8	+6	W	3	N_o	47	85	6	–	3	–	0	4-6	–	1	3
1035·8	0	W	4	c	51	85	8	5	7	–	4-6	7-8	2500	0	3
1035·7	+4	SW	4	N_o	47	97	5	–	7	–	0	2-3	–	1	*
1037·6	+2	WSW	3	N_o	51	85	5	5	–	–	9+	9+	2500	1	*
1038·7	0	SW	3	f	44	97	3	–	–	–	10	10	2150	1	*
1039·5	0	SW'W	2	c	50	97	7	5	1	–	9	10	2500	1	2
1035·5	0	SW	3	b	51	92	7	5	–	–	1	1	2500	0	4
1032·4	0	SW	4	c	52	85	7	8	7	–	7-8	10	1500	1	2
1036·5	+4	WSW	3	c	47	85	7	8	1	–	4-6	10	2500	0	*
1034·5	0	SW	2	c	47	92	6	5	7	–	2-3	7-8	2900	1	2
1032·4	+10	SW	3	c	49	85	6	5	7	8	2-3	9	5000	1	*
1029·3	+14	W	5	N_o	50	97	6	6	2	–	9+	10	700	1	4
1037·5	-4	SW	4	c	53	85	7	5	–	–	9+	9+	1500	0	4
1037·2	-2	S	3	c	50	85	8	9	–	–	9	9	2500	0	3
1039·8	0	SSW	1	m	49	97	4	5	–	–	9+	9+	2000	1	*
1040·0	+2	WSW	1	c	46	92	8	5	–	–	7-8	7-8	2500	1	*
1040·3	-2	SSW	1	N_o	51	97	6	5	–	–	4-6	4-6	800	1	3
1041·0	+2	S	1	m	50	97	4	5	–	5	2-3	4-6	1500	1	5

PAST 24 HOURS.

Weather. 7h.—18h. 2nd. (37)	13h.—18h. 2nd. (38)	18h.—2nd 1h. 3rd. (39)	1h.—7h. 3rd. (40)
cm fof	oFeFe	oFeFe	oFeFe
of	oF	oFdodo	oFdo
cf	ofoF	oFe	oFe
oFF	ofF	oF	oFcFe
ocbcmo	bmobcf	bcfbFof	offFe
bcebm	bcmobm	offFF	oFeFex
cmobmo	bcmofe	oFe	oFe
bcfbmo	bmoofc	oFeFe	FeFe
bmcb	bmobcmo	FcbF	bFF
ofbmo	bifbm	oFfx	offe
oFe	oFe	oFc	oFe
bF	boF	bF	Fe
FF	biF	Ff	fo
oF	oF	oFeF	bc Fm
FF	FF	dFoF	Fof
bcc	c	bcif	bccbcw
oF	oFe	df	oFFe
bco	o	off	off
bcmomo	bmof	oFfdow	oFw
bcc	cbc	cbc	cbc
cbcc	c	c	c
cmo	cmo	cFob	cFobmo
cffxb	bbcff	cffw	cffw
ofbm	cm	zdfcf	cdfw
ff	bm	cf	Ff
fx bcf	bcf	bcfe	xcf
bcfi	bcmo	bccmc	cm
bc	bcc	bcc	c
bfbccmo	cmobcmo	bcmocmo	cmo
cmododo	dodomocm	cmo	cmoc
ofebc	omfe	of	ofcmo
cbc	bcc	c	c
oido	cbcb	bbcc	c
cpro	c	c	c
co	o		obc
bcffbc	bccco	czo	bcbm
cmoc	cmo	cmoc	cbcb
rormo	cmodomo	cmo	romoc
c	c	c	c
c	c	c	c
ofecmo	cmo	cmo	cmoc
c	bc	*	bc
bc	bc	c	c
bcmo	bc	f	f

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus, As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

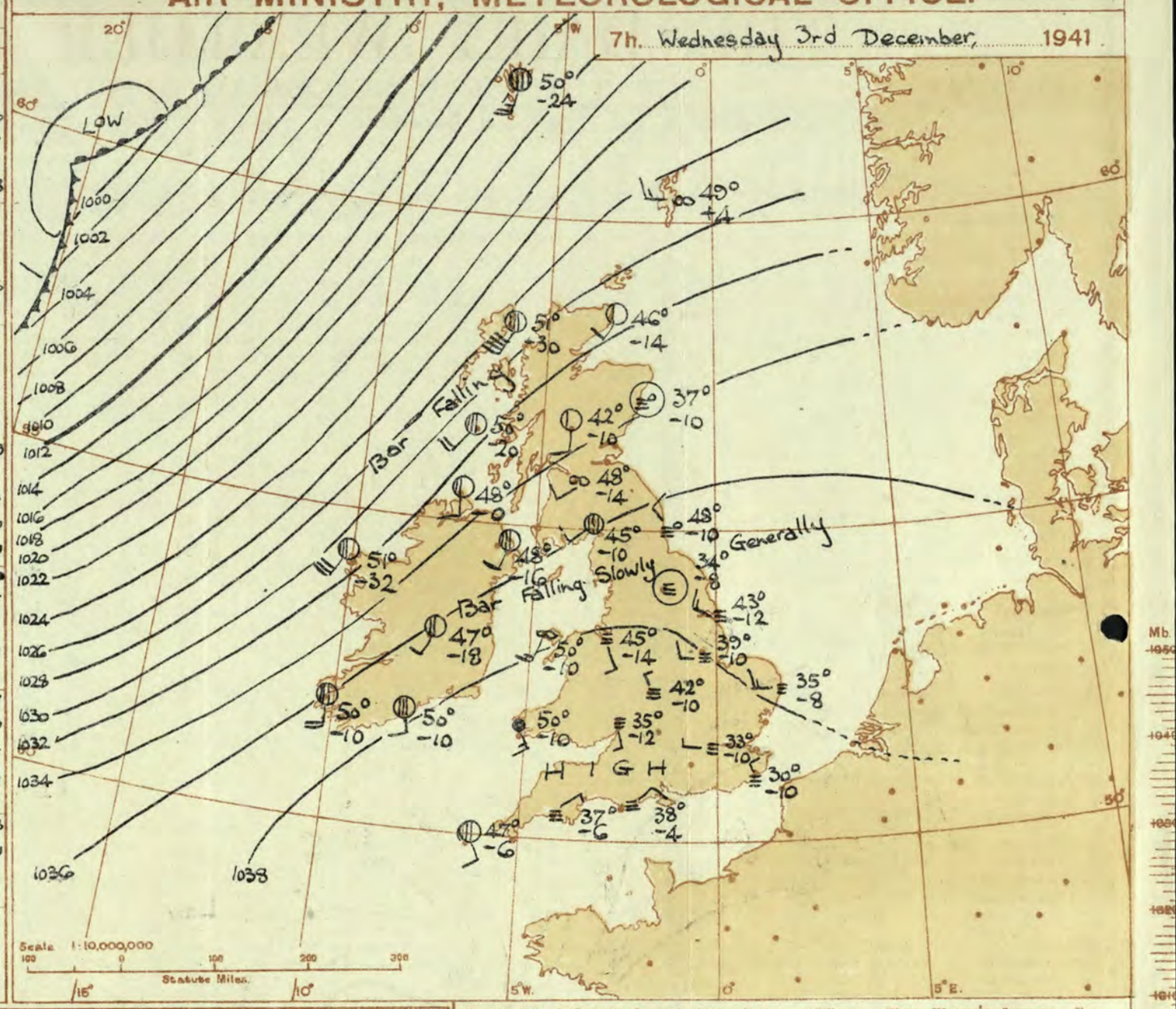
Abridged observations of additional stations in the
AVIATION WEATHER CODE

III	13h. G.M.T. 2nd Dec. C_L C_M	wwVhN$_h$	DDFWN	18h. G.M.T. C_L C_M	wwVhN$_h$	DDFWN	01h. G.M.T. 3rd Dec. C_L C_M	wwVhN$_h$	DDFWN	07h. G.M.T. C_L C_M	wwVhN$_h$	DDFWN
109	02	51548	23658	5-	05665	22625	5-	03678	22528	5-	02756	20326
115	52	62634	20487	52	81734	20467	51	02734	22487	52	02844	22426
203				5-	03738	20628	5-	03838	20528	5-	02837	20627
206	57	02855	20327	57	02854	20327	53	02855	22226	53	00961	20123
210	57	02864	21326	57	02853	20327	53	02863	17225	04	00890	18203
220				53	02695	20427				52	13426	21528
230	5-	52638	20358	5-	05648	20458	5-	05657	20427	5-	02757	20127
245	04	05690	22215	50	08453	16123	50	08461	24111	50	43261	29141
260	53	02767	20317	53	05554	22356	50	01764	20214	5-	08666	20226
278	5-	05638	16128	5-	05647	24227	5-	05658	20128	5-	02758	20128
279	5-	05547	24247	03	05590	24415	5-	05557	19327	5-	03668	20228
285	23	05634	28415	23	05634	28515						
288	00	45390	21143	00	47290	18143	5-	45257	22247	5-	45158	22148
575				51	05652	32124	5-	02757	20227	5-	02855	16225
301	5-	47265	16145	5-	47157	12147	5-	41558	28248	5-	05558	21228
321	--	44109	20149	00	45290	18140	00	47090	00040	--	48009	00049
299	50	05553	24243	00	47290	24240						
292	--	46009	00049	--	46009	00049				--	46009	00049
310				--	01636	24226				--	46109	24249
614	--	44109	24149	--	46009	24249	00	43190	22140	--	44009	24149
333	5-	05646	10126	5-	08438	00028	5-	05648	00028	--	57109	00049
334	--	04354	00015	--	04375	00016				--	04309	00028
340	50	43374	17144	5-	43358	00048	03	45390	00047	5-	45358	14148
136	00	08490	26140	00	47190	26240	--	46109	22249	--	46109	22149
336	--	46309	08349	--	48109	08349				--	07509	12320
350				--	46009	22149	--	46009	22249	5-	08447	22247
368	--	48109	00049	--	46109	04149	--	46109	04149	--	46109	02149
379	00	47190	00046	--	46109	00049	03	41490	20143	5-	05558	00028
390	--	46009	26149	--	46009	00049	--	44009	28149	--	44009	00049
382				--	46109	00049	--	46009	00049	5-	41557	00047
438	00	05590	04410							5-	04415	32243
430	50	08423	04212	5-	43335	04245	--	48109	00049	--	46109	00049
409	5-	02776	04126	5-	05662	02112	5-	08667	12117	50	09412	13203

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L, C_M = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday 3rd December, 1941



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 3rd December, 1941.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ...	Light variable wind; fog persisting in most areas but extensive clearances in the west; rather cold in the east, mild in the west.
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.	Light west to southwest wind; cloudy, fog locally at first; mainly mild.
13A. W. Scotland 13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands 17 N. W. Ireland	Moderate or fresh S.W. wind, reaching gale force on the coasts in North and West; cloudy and mild; occasional rain in Northwest.
18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 7-12.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A large anticyclone dominates the British Isles and rather rigorous disturbances are moving quickly northeast in the Icelandic area. Strong S.W. winds will occur along the N.W. seaboard and reach gale force in places. There will be persistent fog in the S.E. half of England and in the Midlands with rather low temperature. It will be fair and mild in Scotland and Ireland apart from occasional rain in the extreme N.W.

FURTHER OUTLOOK.

Mild S.W. winds and cloudy weather spreading slowly to Southern districts of British Isles.

▼ Gale warning issued at 0805h on 3.12.41. in districts, 13, 16 and 17.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Wednesday 3rd December

1941.

Low

HIGH

Low

HIGH

Low

Clarke Projection Scale 1: 4 X 10⁷ 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. (K) Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T., U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Wednesday 3rd. December, 1941.
No. 29,231.

OBSERVATIONS at 1 hr. G.M.T. 3rd. December.

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	36	*	*	*	*	*	*	*	*
	Croydon ...	217	1040·0	-10	NW	2	dF	37	97	1	-	-	-	10	10	2150
	S. Farnborough	226	1041·4	-6	-	0	F	36	97	1	-	-	-	10	10	2150
	Boscombe Down	417	1041·2	-4	NNW	2	oF	34	97	1	5	-	-	10	10	2150
	Thorney Island	10	1040·8	-6	-	0	F	38	97	1	-	-	-	10	10	2150
	Lympne ...	346	1039·9	-8	NNW	2	F+	35	97	0	-	-	-	10	10	2150
	Manston ...	154	1040·7	-4	NW'N	2	F	35	97	1	-	-	-	10	10	2150
2	Shoeburyness ...	11	1040·7	-4	-	0	F	35	97	1	-	-	-	10	10	2150
	Felixstowe ...	15	1040·1	-6	W	3	bF	35	97	1	-	-	-	0	0	-
	Gorleston ...	5	1039·5	-6	W	3	bF-	32	92	0	-	2	-	10	10	2150
	Mildenhall ...	19	1040·5	-10	SW	3	F-	33	97	1	-	-	-	10	10	2150
	Cranwell ...	240	1039·9	-6	W	3	bF+	34	97	0	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1041·2	-6	W'S	1	bF	33	97	1	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1040·6	-4	ESE	2	bcjf	44	97	6	5	3	-	2-3	4-6	2500
	Bristol ...	209	1041·5	-6	-	0	dF	37	97	1	5	-	-	10	10	2150
	Portland Bill ...	32	1040·6	-6	NE	2	f	40	92	3	5	-	-	10	10	2150
	Plymouth ...	82	1041·8	-2	E	1	f	37	97	0	-	-	-	10	10	2150
	The Lizard ...	240	1040·7	-6	ESE	1	bc	46	92	7	8	-	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	1040·6	-4	ESE	2	c	50	92	7	5	-	-	10	10	1500
	Guernsey ...	175														
6	Pembroke ...	142	1040·9	0	SSE	2	c	51	92	7	8	-	-	7-8	7-8	2500
7	Holyhead (Valley)	26	1039·5	-4	S	3	Zo	50	97	6	5	-	-	10	10	1800
	Chester (Sealand)	16	1040·0	-4	SE	1	of	44	92	3	-	-	-	10	10	3000
8	Manchester ...	235	1040·3	-6	-	0	if	44	92	2	5	-	-	10	10	4000
10	Spurn Head ...	29	1039·2	-4	WNW	2	bcf	40	97	2	7	-	-	4-6	4-6	1500
	Catterick ...	175	1039·6	-4	SE	2	cf	32	97	2	5	3	-	2-3	7-8	5500
	Tynemouth ...	108	1038·0	+2	WNW	2	c	48	92	6	8	-	-	9+	9+	2500
11	St. Abbs Head	280	1036·1	-4	W	3	c	49	75	7	5	4	-	7-8	9	2500
	Leuchars ...	36	1035·9	-4	WSW	2	Zo	45	85	6	-	7	-	0	9	-
12	Renfrew (Abbotsl.)	19	1037·0	-2	WSW	3	Zo	50	85	6	5	-	-	9+	9+	3000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1038·7	-4	WSW	2	c	49	97	7	5	-	-	9+	9+	2500
13A	Tiree	22	1038·3	-4	SWS	3	c*	51	92	7	8	*	*	9*	9+	2500
13B	Stornoway ...	80	1032·3	-6	SSW	1	c	51	85	7	5	7	-	7-8	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Wick ...	119	1033·3	+2	NW	2	c	51	85	8	5	-	-	9+	9+	4500
16	Sumburgh ...	30	1031·0	+10	W'N	4	Zo	50	97	6	5	7	-	9+	10	800
17	Blacksod Point	18	1035·5	-8	SSW	5	c	52	85	7	5	-	-	9+	9+	2500
18	Malin Head ...	84	1036·2	-6	S	3	c	49	85	7	5	-	-	9	9	3500
	Aldergrove ...	268	1039·0	-2	S	1	Zo	46	92	6	5	-	-	9	9	3500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1038·5	-10	SE	3	c	51	97	7	5	-	-	9+	9+	2500
	Roches Point	22	1040·0	-6	S	2	cf	48	97	2	5	-	-	9	9	4150

OBSERVATIONS at 7 hr. G.M.T. 3rd. December.

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1039·0	-12	SW'W	2	F	36	97	1	-	-	-	10	10	2150	1	*
	Croydon ...	1038·6	-10	W	1	F-	33	97	1	-	-	-	10	10	2150	1	*
	S. Farnborough	1038·4	-8	NW'W	1	F-	32	97	1	-	-	-	10	10	2150	1	*
	Boscombe Down	1039·9	-4	-	0	F	31	97	1	-	-	-	10	10	2150	1	*
	Thorney Island	1038·5	-6	N	2	F-	32	97	1	-	-	-	10	10	2150	1	*
	Lympne ...	1038·2	-10	NNW	1	F	30	97	1	-	-	-	10	10	2150	1	§2
	Manston ...	1038·6	-10	WNW	2	F	36	97	0	-	-	-	10	10	2150	1	*
2	Shoeburyness ...	1038·5	-12	-	0	F+	37	97	1	-	-	-	10	10	2150	1	*
	Felixstowe ...	1038·3	-10	WNW	3	f-	33	97	2	-	-	-	10	10	2150	1	2
	Gorleston ...	1037·4	-8	W	3	f-	35	92	2	-	-	-	10	10	2150	0	2
	Mildenhall ...	1038·7	-12	SW'W	1	F+	34	97	0	-	-	-	10	10	2150	1	*
	Cranwell ...	1037·9	-10	W	2	F-	30	97	1	-	-	-	10	10	2150	1	*
3	Birmingham ...	1039·1	-10	NW	1	of	42	97	3	5	-	-	10	10	800	1	*
	Upper Heyford	1038·9	-10	SW	1	Osf	35	97	4	5	-	-	10	10	2000	1	*
4	Ross-on-Wye	1038·1	-12	S'E	1	of	35	97	3	5	-	-	10	10	500	1	*
5	Hartland Point	1038·7	-8	ESE	2	bc	42	97	7	4	-	-	4-6	4-6	2500	1	3
	Bristol ...	1038·7	-8	-	0	F-	36	97	1	-	-	-	10	10	2150	1	*
	Portland Bill ...	1039·1	-4	NE	2	f	38	92	2	5	-	-	10	10	2150	1	3
	Plymouth ...	1040·0	-6	NE'E	1	F	37	97	0	-	-	-	10	10	2150	1	1
	The Lizard ...	1038·9	-8	-	0	bc	43	92	8	8	-	-	4-6	4-6	1500	0	3
	Scilly (St. Mary's)	1039·0	-6	SSE	2	c	47	92	7	5	3	-	4-6	7-8	1200	1	3
	Guernsey ...																
6	Pembroke ...	1038·4	-10	SSE	3	rofo	50	97	6	8	2	-	7-8	10	1500	1	3
7	Holyhead (Valley)	1037·2	-10	SSW	3	Zo	50	97	6	5	-	-	10	10	2600	0	*
	Chester (Sealand)	1038·2	-14	SE'S	1	of	45	92	3	5	-	-	10	10	2000	1	*
8	Manchester ...	1038·5	-18	S'W	2	of	44	97	3	5	-	-	10	10	400	1	*
10	Spurn Head ...	1037·0	-12	WNW	3	F+	43	97	1	-	-	-	10	10	2150	1	2
	Catterick ...	1037·8	-8	-	0	of	34	97	2	5	-	-	10	10	2300	1	*
	Tynemouth ...	1036·5	-10	NW	2	m	48	85	4	8	-	-	9+	9+	2500	1	3
11	St. Abbs Head	1035·2	-6	W	3	c	47	85	7	5	2	-	7-8	10	2500	0	2
	Leuchars ...	1034·3	-10	WSW	2	Zo	46	97	6	5	-	-	9	9	4500	1	*
12	Renfrew (Abbotsl.)	1034·9	+14	SW'W	2	Zo	48	92	5	5	-	-	10	10	2500	1	*
	Eskdalemuir ...	1036·0	-10	SW	2	c	45	85	6	5	-	-	10	10	1500	1	*
	Point of Ayre ...	1036·6	-12	SW'S	2	c	48	97	7	8	2	-	7-8	10	1800	1	2
13A	Tiree	1032·0	-20	SW'S	4	c	50	92	7	5	-	-	9	9	2500	0	4
13B	Stornoway ...	1028·6	-30	SSW	8	c	51	85	8	7	9	-	7-8	7-8	2000	1	5
15	Dalwhinnie ...	1034·4	-10	S	2	b	42	75	8	1	-	-	1	1	2500	1	*
	Aberdeen ...	1033·3	-10	-	0	m	37	97	4	5	-	-	1	1	3900	1	
	Wick ...	1031·2	-14	SSW	2	b	46	92	6	5	7	1	Tr	1	3500	1	
16	Sumburgh ...	1031·0	+4	W	3	Zo	49	97	6	5	-	-	10	10	1000	1	4
17	Blacksod Point	1030·8	-32	SSW	6	cq	51	85	7	4	-	-	9	9	1500		5
18	Malin Head ...	1033·2	0	S	2	bc	48	75	8	4	-	-	4-6	4-6	4000		3
	Aldergrove ...	1035·0	-16	SSW	2	c	48	85	7	5	-	-	10	10	2000	1	*
19	Birr Castle ...	1035·5	-18	SSW	1	bc	47	85	8	5	-	-	4-6	4-6	4000		*
20	Valentia Obsy.	1036·2	-10	S	4	c	50	75	8	5	-	-	9+	9+	2500		4
	Roches Point	1037·4	-10	S	2	c	50	92	7	5	-	-	9+	9+	1500	1	

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 2nd. Hrs. (36)
1	London (Kew)	41	34	34	Tr	0·2	0·0
	Croydon ...	41	32	32	-	0·1	0·0
	S. Farnborough	42	31	31	-	0·1	0·0
	Boscombe Down	42	30	29	0·1	0·1	0·0
	Thorney Island	43	31	34	-		*
	Lympne ...	47	29	28	-	-	3·0
	Manston ...	48	34	34	-	Tr	3·1
2	Shoeburyness ...	45	34	32	-	-	4·7
	Felixstowe ...	49	32	31	-	-	4·8
	Gorleston ...	48	31	30	-	-	*
	Mildenhall ...	36	32	34	0·2	0·2	0·0
	Cranwell ...	37	33	32	-	0·3	2·3
3	Birmingham ...	43	33	26	-	-	1·2
	Upper Heyford	39	33	35	-	0·2	*
4	Ross-on-Wye	40	33	33	0·1	0·2	0·0
5	Hartland Point	50	40	37	-	Tr	1·4
	Bristol ...	44	34	35	-	0·1	0·0
	Portland Bill ...	48	37	*	-	-	*
	Plymouth ...	55	36	33	-	Tr	6·4
	The Lizard ...	55	42	*	-	-	4·8
	Scilly (St. Mary's)	52	46	*	-	-	1·1
	Guernsey ...						
6	Pembroke ...	50	42	*	-	Tr	0·3
7	Holyhead (Valley)	51	40	48	0·1	-	*
	Chester (Sealand)	45	42	33	-	-	3·5
8	Manchester ...	46	43	41	-	Tr	*
10	Spurn Head ...	43	37	*	-	Tr	0·5
	Catterick ...	44	31	29	-	-	2·2
	Tynemouth ...	51	40	40	-	-	*
11	St. Abbs Head	53	45	*	-	-	*
	Leuchars ...	49	43	39	-	-	1·0
12	Renfrew (Abbotsl.)	51	48	43	0·1	Tr	0·0
	Eskdalemuir ...	45	43	41	Tr	-	0·8
	Point of Ayre ...	52	48	*	-	-	0·8
13A	Tiree	52	50	*	Tr	-	0·0
13B	Stornoway ...	53	50	*	Tr	-	0·0
15	Dalwhinnie ...	51	40	31	-	-	0·0
	Aberdeen ...	49	36	29	-	-	1·2
	Wick ...	53	46	42	-	Tr	*
16	Sumburgh ...	55	48	47	4	Tr	*
17	Blacksod Point	54		*	-		*
18	Malin Head ...	52		*	Tr		0·0
	Aldergrove ...	50	44	40	Tr	-	0·0
19	Birr Castle ...	53			0·1		0·1
20	Valentia Obsy.	55			-		
	Roches Point	51		*	0·1	0·1	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
KEW	18	cmfof	oFeFe	oFeFeof	41	34	34	Tr	0·2	0·0	•	•	2·
CROYDON	217	of	oF	oFdodFd	41	32	32	-	0·1	0·0	•	•	3
GREENWICH (Royal Observatory)...	149	cff	fF	fFe	41	34	35	-	Tr	0·0	98	95	2
CITY (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
WESTMINSTER (St. James' Park) ...	27	•	•	•	42	35	33	—			96	95	•
REGENTS PK. (Botanic Gardens)‡...	168	•	•	•	40	34	34	-	-		97	100	•
CAMDEN SQUARE	110	of	of	•	40	34	32	-	-	*	•	91	•
KENSINGTON	80	f	bf	•	41	34	34	-	0·1		100	97	•
HAMPSTEAD OBSERVATORY	450	of	ofx	• of	39	31	24	-	-		•	99	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 3rd.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·5	12h 2nd.	0·1	0-4h 3rd.

FOREIGN OBSERVATIONS.

Evening of 2nd. December. Morning of 3rd. December.

Stations	Evening. Barom. mb.	Evening. Wind. Direc.	Evening. Wind. Force.	Evening. Weather.	Evening. Temp. °F.	Morning. Barom. mb.	Morning. Wind. Direc.	Morning. Wind. Force.	Morning. Weather.	Morning. Temp. °F.
Reykjavik (18h and 07h)	995·5	S	9	c/r	47	1000·4	SW	4	c/pr	38
Lisbon (18h and 07h)	1030·4	NE	3	Zo	54	1027·4	NE	3	bc	45
Madrid (18h and 07h)						911·4	N	3	b	37
Cairo (Heliopolis) (18h and 06h)	1020·7	NW	1	b	57					
Toronto (13h and 01h)	1016·0	SSE	8	c/tlr	*					
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
57	43	-	-
	37		—
*		*	
*		*	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION.

Thursday 4th December 1941.

No 29,232

OBSERVATIONS at 13h. G.M.T. 3rd December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1037.3	-18	WSW	1	cf-	42	92	3	-	7	-	0	9+	-
	Croydon ...	1037.2	-16	WNW	1	F-	41	97	1	-	-	-	10	10	<150
	S. Farnborough	1037.6	-20	W	1	cf+	43	92	4	5	-	-	9+	9+	2500
	Boscombe Down	1038.0	-18	WNW	2	z	47	85	5	5		-	7-8	7-8	4000
	Thorney Island	1037.8	-16	W'S	2	z	40	97	6	5	-	-	4-6	4-6	2500
	Lympne ...	1036.6	-18	WNW	1	F+	38	97	1	-	-	-	10	10	<150
	Manston ...	1037.1	-18	WNW	2	F	40	97	1	-	-	-	10	10	<150
2	Shoeburyness ...	1037.0	-12	W	1	F	40	97	1	-	-	-	10	10	<150
	Felixstowe ...	1036.6	-18	WNW	3	m	42	92	4	5	-	-	10	10	3000
	Gorleston ...	1035.7	-14	WNW	3	f	39	97	3	-	-	-	10	10	<150
	Mildenhall ...	1037.2	-14	WS	2	f-	41	97	3	-	-	-	10	10	<150
	Cranwell ...	1036.7	-12	W	3	of	43	97	2	5	-	-	10	10	2500
3	Birmingham	1037.9	-4	WSW	2	of	46	85	3	5	-	-	10	10	2500
	Upper Heyford	1037.3	-14	WN	1	m	41	97	4	5	-	-	10	10	2600
4	Ross-on-Wye ...	1037.8	-8	W'S	1	m/f	41	97	4	5	-	-	10	10	800
5	Hartland Point	1038.2	-4	S	1	c	45	97	6	5	—	-	9	9	2000
	Bristol ...	1038.7	-8	W	1	m/f	42	97	4	5	-	-	10	10	2500
	Portland Bill ...	1037.4	-12	WNW	2	c	44	85	7	2	4	-	4-6	7-8	2500
	Plymouth ...	1039.2	-6	NNW	1	F-	40	97	1	-	-	-	10	10	<150
	The Lizard ...	1038.1	-8	-	0	c	51	75	8	8	6	-	7-8	7-8	2500
	Scilly (St. Mary's)	1038.4	-8	SW'S	1	c	51	75	7	5	-	-	9+	9+	1200
	Guernsey ...														
6	Pembroke ...	1037.6	-8	S	3	z	51	92	7	5	2	-	7-8	9	1500
7	Holyhead (Valley)	1035.6	-14	SWS	3	c	52	92	7	5	-	-	9+	9+	2500
	Chester (Sealand)	1036.3	-14	SSW	2	z	52	85	5	5	-	-	10	10	2900
8	Manchester ...	1036.6	-12	S	3	of	47	92	3	5	-	-	10	10	3000
10	Spurn Head ...	1036.0	-14	WNW	2	m	46	97	4	5	2	-	7-8	10	2500
	Catterick ...	1035.7	-12	SE	3	cf-	42	92	3	5	-	-	7-8	7-8	2700
	Tynemouth ...	1034.3	-12	SSW	3	c/f	50	75	6	5	-	-	7-8	7-8	2200
11	St. Abbs Head	1032.4	-18	S	2	bc	49	75	8	4	4	2	2-3	4-6	3000
	Leuchars ...	1031.5	-14	WSW	4	z	48	75	6	5	-	-	4-6	4-6	2800
12	Renfrew (Abbots I.)	1033.0	-14	SW'W	3	c	49	75	7	5	-	-	9+	9+	2500
	Eskdalemuir ...	1033.4	-18	SW'W	4	c	47	85	8	5	-	-	10	10	1500
	Point of Ayre ...	1034.8	-10	WSW	3	c	51	85	8	8	-	1	9+	9+	2000
13A	Tiree ...	1029.8	-8	S	4	o	50	85	7	5	-	-	10	10	2100
13B	Stornoway ...	1024.9	-24	SSW	8	c	50	85	7	5	7	-	7-8	10	2000
15	Dalwhinnie ...	1031.6	-12	SSW	3	b	44	75	8	2	-	-	1	1	2500
	Aberdeen ...	1029.0	-28	WSW	2	b	48	75	6	-	-	8	0	1	-
	Wick ...	1027.7	-18	SSW	3	b	48	85	8	-	-	1	0	Tr	-
16	Sumburgh ...	1027.5	-14	SW	3	bc	50	92	8	5	-	-	2-3	4-6	3500
17	Blacksod Point...	1030.0	-6	S'W	5	dr	51	97	7	6	-	-	10	10	1500
18	Malin Head ...	1030.8	-6	SSE	4	c	50	75	8	5	-	-	7-8	7-8	4000
	Aldergrove ...	1034.4	-6	SW'W	4	c	48	85	8	5	-	-	10	10	2000
19	Birr Castle ...	1034.9	-2	SSW	2	bc	51	75	8	5	-	-	4-6	4-6	4000
20	Valentia Obsy. †	1035.1	-10	S'W	4	c	52	85	8	5	7	-	7-8	10	2500
	Roches Point ...	1036.4	-8	W'S	3	c	52	92	8	5	-	-	9	9	2500

OBSERVATIONS at 18h. G.M.T. 3rd December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.—13h. 3rd. (37)	Weather 13h.—18h. 3rd. (38)	Weather 18h. 3rd to 1h. 4th (39)	Weather 1h.—7h. 4th (40)
London (Kew)	1036.4	-4	WSW	1	oF	43	97	3	5	-	-	10	10	2500	1	*	Fe bfc	cff	cff	cfem
Croydon	1036.0	-6	-	0	of+	43	97	2	5	-	-	10	10	4200	1	*	Fe	ofcmcf	efecf	cfm
S. Farnborough	1036.7	-4	-	0	m	44	92	4	5	-	-	9+	9+	2600	1	*	oFfcm	cmcmw	cmfm	cm
Boscombe Down	1037.0	-2	-	0	cf+	44	92	3	5	-	-	7-8	7-8	1000	1	*	cfcm	bcmcm	of	cm
Thorney Island	1036.9	-2	WNW	2	F-	40	97	1	-	-	-	10	10	<150	1	*	cfmbcm	bcmof	oFfmm	omom
Lympne	1036.0	-2	NW	1	F	37	97	0	-	-	-	10	10	<150	1	§2	biFoFF	oFF	oFF.	oFFcf
Manston	1036.5	+2	WNW	1	F	41	97	0	-	-	-	10	10	<150	1	*	oFe	oFe	ofe	oF
Shoeburyness	1036.1	-4	-	0	F+	42	97	0	-	-	-	10	10	<150	1	*	FeFe	oFefe	oFeFe	Fefo
Felixstowe	1035.9	+2	WNW	2	of	44	97	3	5	-	-	10	10	2900	1	2	ofcm	offf	ofcf	cm
Gorleston	1035.3	0	WNW	2	f	43	92	3	-	-	-	10	10	<150	0	2	off	off	off	off
Mildenhall	1035.8	-6	SW	2	f	43	97	2	-	-	-	10	10	<150	1	*	oFef	of	ofcf	cfmw
Cranwell	1035.2	-4	W	2	of	45	92	2	5	-	-	10	10	2500	1	*	oFcf	cf	cf	cf, mf
Birmingham	1036.5	-2	WSW	2	of	46	85	3	5	-	-	10	10	1500	1	*	cf	rf	cfm	cbf
Upper Heyford	1036.4	-6	-	0	of	42	97	3	5	-	-	10	10	1800	1	*	cifcm	cmf	cfcmm	cmmm
Ross-on-Wye	1036.7	-4	W	1	of+	43	92	3	5	-	-	10	10	800	1	*	ofF	cm	ofcm	cmbcm
Hartland Point	1036.9	-4	WSW	2	c	45	92	6	5	-	-	9+	9+	2500	1	3	bcc	c	c	cidc
Bristol	1037.5	+4	W	1	f+	43	97	2	-	-	-	10	10	<150	1	*	cmfm	cmf	cffm	cmm
Portland Bill	1036.3	-6	W	2	bc	45	92	7	5	-	-	4-6	4-6	4000	1	3	cc	cbc	c	c
Plymouth	1038.8	-2	-	0	f+	40	97	2	-	-	-	10	10	<150	1	1	oF	oF	oFcfw	cfw
The Lizard	1037.1	0	-	0	c	46	85	8	8	2	-	9	10	1000	0	3	bcc	c	c	bcw
Scilly (St. Mary's)	1037.6	0	E	1	bc	45	85	7	5	3	-	2-3	4-6	1500	1	3	c	cbc	cbcc	c
Guernsey																				
Pembroke	1036.8	0	WSW	3	c/c	52	85	7	8	2	-	4-6	9	1500	1	3	cm	c	cbc	c
Holyhead (Valley)	1034.8	-2	SW	3		51	85	7	5	-	-	9+	9+	2700	1	2	cicm	cir	cid	cdd
Chester (Sealand)	1035.5	0	W'S	2	[illegible]	52	75	6	5	-	-	10	10	2500	1	*	cffm	cm	cm	cm, id
Manchester	1035.3	-6	SSW	2		46	97	4	5	-	-	10	10	3000	1	*	off	ofm	cm	cddf
Spurn Head	1034.9	+10	SW	2	m	46	92	4	5	2	-	7-8	10	1500	1	2	Fcm	cm	bcm	cm
Catterick	1033.5	-2	WNW	3	c	49	75	7	5	3	-	7-8	9	2500	1	*	cfbcf	bcmbc	cmBc	idc
Tynemouth	1032.6	-4	NE	2	m	48	85	4	2	3	-	2-3	4-6	2400	1	3	cff	cbcm	bcc	c
St. Abbs Head	1031.5	+2	W	2	bc	46	85	8	4	4	-	2-3	4-6	2500	0	2	cbc	bc	cbc	cbc
Leuchars	1030.1	-6	WSW	4	z	45	85	6	5	3	-	2-3	4-6	2200	1	*	cbcm	cmbcm	bcmcm	cmcbc
Renfrew (Abbots I.)	1031.3	-10	SW'S	3	c	49	85	6	5	-	-	9+	9+	2700	1	*	cmc	c, cm	d	pbrbcc
Eskdalemuir	1032.9	-4	SW	2	c	44	85	8	5	-	-	9	9	1500	1	*	cm	c	cid	ex
Point of Ayre	1033.8	-4	WN	4	c	49	85	8	5	2	-	10	10	2000	0	3	c	c	ddc	cbc
Tiree	1029.3	+8	SW'W	2	id	49	92	7	5	-	-	9+	9+	1500	1	5	c	orrid	bc	cidbc
Stornoway	1025.5	+12	SW	5	c/r	48	92	7	5	7	-	7-8	10	2000	1	4	c	cprrr	cbc	bcc
Dalwhinnie	1029.8	-8	S	3	c	44	85	7	5	-	-	9	9	1500	0	*	bc	bcc		cprbc
Aberdeen	1028.0	+6	NW	1	[illegible]	43	85	4	-	-	-	0	Tr	-	1	2	bFz	bzbz	bcgc	bcbz
Wick	1026.2	-6	SSW	3	c	45	85	7	5	-	-	9+	9+	4000	1	*	bcb	bbcfg	cdcbc	prbcb
Sumburgh	1025.4	-10	SW	3	c	47	97	7	5	7	-	9+	10	2000	1	4	cbc	bcb, c	cdPRbc	bcb
Blacksod Point	1033.0	+14	W	3	bc	49	85	7	4	-	-	4-6	4-6	1500	1	4	c	bc	bc	bc
Malin Head	1031.3	+20	W	4	id	48	92	6	6	-	-	9+	9+	800	0	4	b	d	c	b
Aldergrove	1033.6	+2	S'W	2	c	48	85	7	5	-	-	9+	9+	1500	1	*	c	c	c	ifFe
Birr Castle	1033.9	-2	S	2	c	48	85	8	5	1	-	7-8	10	2500		*	bc	bc	*	c
Valentia Obsy. †	1035.1	+6	NW'W	1	dd	50	97	5	5	-	-	10	10	450	1	5	c	r	d	c
Roches Point	1035.6	-6	W'S	2	c	51	85	8	5	-	-	9	9	1500			bc	bc	r	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑ gale.
⊕ Solar halo. ⊕ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,-Ci: Cirrocumulus,-Cc: Cirrostratus,-Cs: Altocumulus,-Ac: Altostratus,-As: Stratocumulus,-Sc: Stratus,-St: Nimbostratus,-Ns: Cumulus,-Cu: Cumulonimbus,-Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

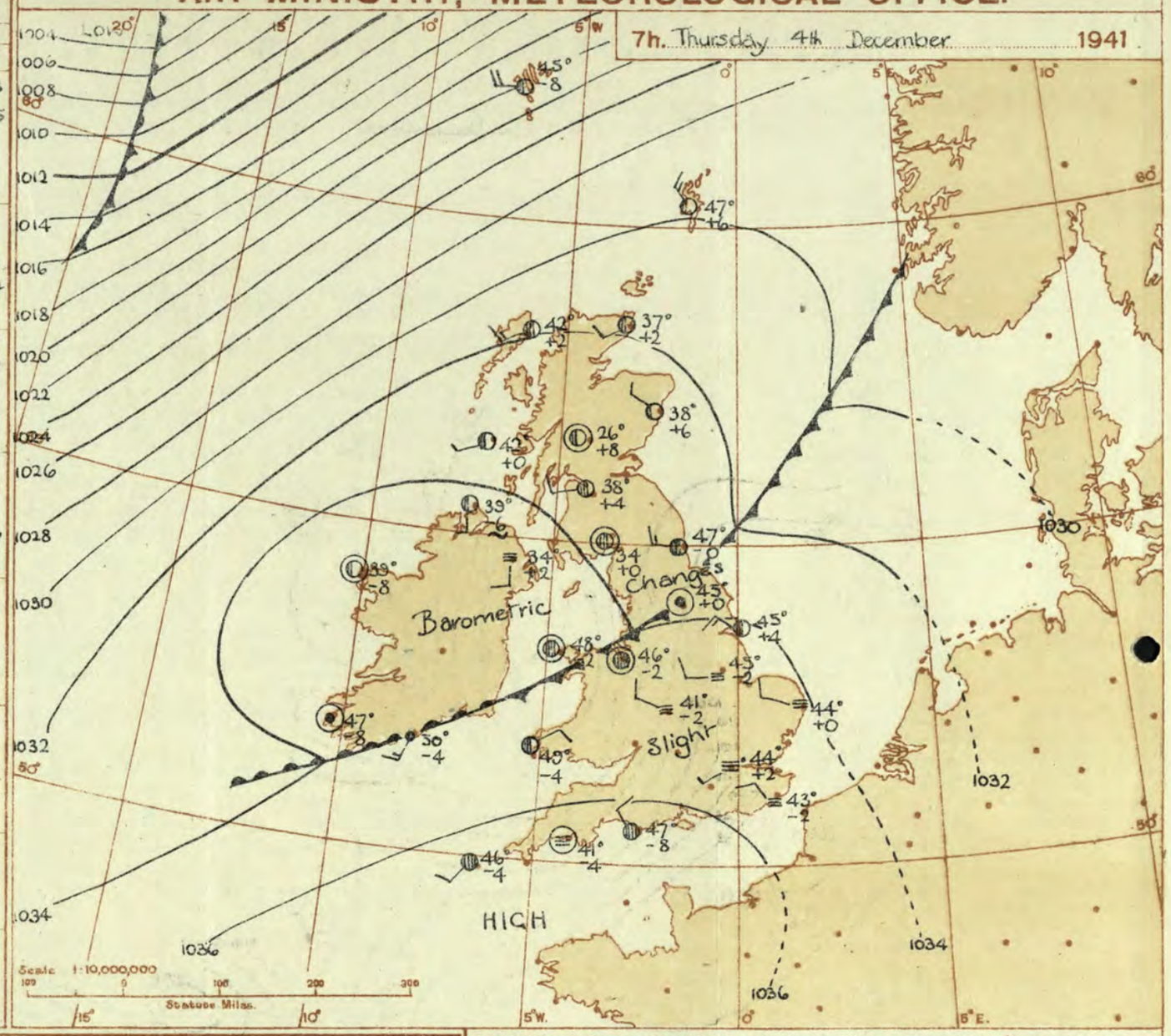
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Thursday 4th December 1941

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 3rd December: $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T.: $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 4th December: $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T.: $C_L C_M$	wwVhN$_h$	DDFWN
109	20	05690	00052	5-	02067	14107	80	00852	26412	2-	00863	20303
115	54-	14844	55623	62	62634	55667	87	01344	28465	87	02344	26485
203	8-	02838	16628	6-	62738	16768						
206	03	00030	22302	5-	02857	22227	53	01961	00024	53	01961	16114
210	04	00830	17301	53	02863	18316	54	00862	24363	00	01990	19104
220	57	25746	21588	83	01754	23415						
230	5-	02857	21428	62	54546	18258	80	00841	28401			
245	50	00752	22443	5-	05676	24216	57	05664	28128	57	01863	23124
260	5-	02857	22317	54	05662	20413	57	05664	24156	04	04590	00014
278												
278	5-	02857	20327				50	02863	25365	24	01851	14115
279	5-	02767	19327	5-	05658	20325	5-	51648	22358	50	47261	22124
285	20	01744	24514	50	01744	26514				23	01744	30315
288	50	02765	21145	5-	02765	20215	50	00761	20101	5-	05657	21157
575												
575	5-	02857	14127	5-	58638	25368	00	01790	26264	00	43390	00044
301	5-	08458	18228	5-	05657	19228	52	51653	24228	5-	21548	26158
321	5-	45258	18148	5-	47358	20348	00	49390	22142	57	47255	20148
299	50	05546	24126	50	43352	24242	5-	08447	24247	5-	05544	24114
292	5-	43367	00047	5-	08455	21245	5-	03665	27215	5-	08468	20118
310	--	46109	20249	--	02428	20228				--	57109	20249
314	--	46109	22149	5-	43348	22148	00	08490	24120	05	45290	24145
333	5-	52528	16158	5-	05648	18228	57	02865	00028	5-	51428	22258
334	--	51437	02128	--	03647	28228				--	02555	28116
340	5-	47344	16248	5-	08458	20128	03	04690	00023	5-	08458	12148
136	--	48109	24140	5-	45158	20248	5-	45257	22147	5-	45258	25248
336	52	02754	12328	52	05643	16328				57	02763	16327
350	5-	47338	22228	5-	45258	18248	5-	08458	20248	5-	08468	21128
368	5-	43348	08148	5-	47358	00028	5-	45357	00048	50	47252	26142
379	5-	05658	25128	5-	05658	00028	5-	05558	20228	5-	05568	00028
390	5-	43158	25248	--	46109	24149	--	48109	25249	5-	43228	26148
382	5-	05558	28128	5-	47358	00028	5-	45357	22148	5-	05558	00028
438										5-	02558	31228
430	50	41454	22244				5-	08458	02148	5-	08458	28128
409	03	09290	15246	04	09690	16112	5-	02757	14227	5-	09648	16128

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Thursday 4th November
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable or westerly wind. Dull and misty generally with thickening fog to-night. Average temperature.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Light variable winds, mainly between north and west. Cloudy with slight local drizzle; bright intervals later: local fog forming to-night. Average temperature.
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 16 Orkneys and Shetlands	Moderate westerly winds, becoming fresh to strong in extreme North later. Fair apart from a few scattered showers.. Average temperature.
17 N. W. Ireland 18 N. E. Ireland	Light variable winds; fair but with local morning fog. Average temperature.
19 S. E. Ireland 20 S. W. Ireland	Light variable winds; cloud with occasional rain or drizzle. Rather mild.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone extends from the Azores to the British Isles, but a feeble trough of relatively low pressure is moving very slowly southeast over England. In the Midlands, East and Southeast England it will be dull with extensive mist or fog. There will be some rain or drizzle in a belt from Southern Ireland to Northeast England, but further north it will be mainly fair.

FURTHER OUTLOOK.

Quiet and foggy in the South; mainly fair in the North.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON, D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of Thursday 4th December 1941.

Clarke's Projection Scale 1: 4 x 10⁷ 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. ho

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), th, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 4th December 1941.

No. 29,232

OBSERVATIONS at 1 hr. G.M.T. 4th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Croydon ...	217	1035·8	-4	SW	1	*	44	92	3	5	-	-	10	10	3200
	S. Farnborough	226	1036·2	-10	-	0	-	44	87	4	5	-	-	10	10	2800
	Boscombe Down	417	1033·7	-6	-	0	-	43	85	4	5	-	5	9+	9+	2500
	Thorney Island	10	1036·7	-2	-	0	-	45	92	5	5	-	-	10	10	2800
	Lympne ...	346	1035·5	-4	NNE	2	-	41	87	-	-	-	-	10	10	<150
	Manston ...	154	1035·6	-4	WNW	2	-	44	97	-	-	-	-	10	10	<150
2	Shoeburyness ...	11	1035·0	-4	-	0	-	45	87	1	-	-	-	10	10	<150
	Felixstowe ...	15	1034·8	-5	WNW	3	-	45	97	3	5	-	-	10	10	4000
	Gorleston ...	5	1034·2	-6	WNW	2	-	43	97	3	-	-	-	10	10	<150
	Mildenhall ...	19	1035·2	-4	WS	2	-	44	97	3	5	-	-	9+	9+	2800
	Cranwell ...	240	1034·0	-2	WS	3	-	45	92	3	5	-	-	10	10	2000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1036·1	-6	WSW	2	-	43	97	5	5	-	-	10	10	2800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1036·1	-2	SSE	2	-	49	85	6	5	2	-	9+	9+	2500
	Bristol ...	209	1036·7	-2	-	0	-	44	92	5	5	-	-	9+	9+	3500
	Portland Bill ...	32	1036·2	-2	NNE	2	-	47	85	7	4	3	-	4-6	10	2500
	Plymouth ...	82	1037·7	-8	-	0	-	*	97	3	5	-	-	9+	9+	3000
	The Lizard ...	240	1037·0	-6	-	0	-	46	92	8	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1037·2	-4	SWS	1	-	46	85	8	5	3	-	4-6	9+	1500
	Guernsey ...	175														
6	Pembroke ...	142	1036·4	-4	WNW	2	-	50	85	8	7	-	-	2-3	2-3	4000
7	Holyhead (Valley)	26	1034·7	0	W	3	-	50	92	7	5	-	-	10	10	1400
	Chester (Sealand)	16	1035·4	+2	-	0	-	45	92	6	5	-	-	10	10	3000
8	Manchester ...	235	1035·2	-2	-	0	-	46	87	4	5	-	-	10	10	4000
10	Spurn Head ...	29	1034·2	-2	W	2	-	44	92	5	1	-	-	2-3	2-3	2500
	Catterick ...	175	1034·1	0	-	0	-	41	92	7	5	7	-	2-3	4-6	3500
	Tynemouth ...	108	1032·7	-2	NW	2	-	47	92	6	8	-	-	7-8	7-8	2500
11	St. Abbs Head	280	1031·7	+4	W	3	-	45	92	8	4	4	2	2-3	4-6	2500
	Leuchars ...	36	1031·4	+6	-	0	-	45	92	6	5	7	-	9	9+	3200
12	Renfrew (Abbotsl.)	19														
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1033·9	0	NNW	4	-	40	92	7	8	2	-	2-3	10	1500
13A	Tiree	22	1038·0	+12	NNW	2*	-	48	88	8*	8*	-*	-*	2-3	2-3	2800
13B	Stornoway ...	80	1031·1	+16	WSW	3	-	40	85	8	5	4	-	1	2-3	2500
15	Dalwhinnie ...	1176	1032·7	+10	NW	1*	-	44*	92*	8*	5*	-*	7	1	10	2500
	Aberdeen ...	79	*	*	*	*	-	44	*	*	*	*	*	*	*	*
	Wick ...	119	1030·4	+36	NNW	3	-	40	92	8	2	4	2	1	2-3	2000
16	Sumburgh ...	30	1027·6	+28	NNW	4	-	47	75	8	8	-	-	4-6	4-6	2100
17	Blacksod Point	18	1035·0	+2	-	0	-	42	85	8	2	-	-	4-6	4-6	4000
18	Malin Head ...	84	1034·5	+10	NNW	2	-	48	65	8	2	-	1	2-3	4-6	5700
	Aldergrove ...	268	1034·9	+6	W	1	-	43	87	8	2	4	8	2-3	7-8	2500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1035·6	-4	NE	1	-	46	92	8	5	-	-	9+	9+	4000
	Roches Point	22	1036·0	0	W	3	-	49	87	6	5	-	-	10	10	450

OBSERVATIONS at 7 hr. G.M.T. 4th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1035·5	-4	SW	1	-	44	97	4	5	-	-	10	10	2500	1	*
	Croydon ...	1035·2	+2	SSE	1	-	44	92	4	5	-	-	10	10	4000	1	*
	S. Farnborough	1035·6	-2	-	0	-	44	92	6	5	-	-	10	10	2900	1	*
	Boscombe Down	1036·1	-2	-	0	-	42	92	6	5	-	-	9	9	2800	1	*
	Thorney Island	1036·0	-2	WNW	2	-	45	92	4	5	-	-	10	10	3500	1	*
	Lympne ...	1034·7	-2	NW	2	-	48	87	3	5	-	-	10	10	1500	1	2
	Manston ...	1035·0	0	WSW	1	-	45	97	2	-	-	-	10	10	<150	1	*
2	Shoeburyness ...	1034·8	0	W	3	-	45	92	2	5	-	-	10	10	3500	1	*
	Felixstowe ...	1034·6	0	WNW	2	-	45	82	4	5	-	-	10	10	3000	1	2
	Gorleston ...	1033·7	0	NW	2	-	44	85	3	-	-	-	10	10	<150	0	2
	Mildenhall ...	1034·6	-2	WSW	2	-	44	97	4	5	-	-	10	10	2700	1	*
	Cranwell ...	1034·4	-2	W	2	-	45	92	3	5	-	-	10	10	2000	1	*
3	Birmingham ...	1035·4	-2	WNW	2	-	41	92	3	5	7	-	1	2-3	2500	1	*
	Upper Heyford	1035·2	-4	NNE	1	-	44	97	5	5	-	-	9+	9+	2800	1	*
4	Ross-on-Wye	1035·3	-6	SSW	1	-	37	97	2	5	-	-	4-6	4-6	2500	1	*
5	Hartland Point	1035·3	-4	WSW	3	-	50	85	7	2	2	-	4-6	9+	2500	0	4
	Bristol ...	1036·0	-2	SSE	1	-	41	92	4	5	3	-	4-6	9	4000	1	*
	Portland Bill ...	1035·2	-8	NNE	2	-	47	85	7	5	-	-	10	10	2500	1	3
	Plymouth ...	1036·8	-4	-	0	-	41	97	2	5	-	-	10	10	2500	1	1
	The Lizard ...	1036·1	-4	NNE	3	-	43	85	8	8	6	-	4-6	4-6	1500	1	3
	Scilly (St. Mary's)	1036·4	-4	SW'S	2	-	46	85	8	5	-	-	10	10	1800	1	3
	Guernsey ...																
6	Pembroke ...	1035·2	-4	NE'E	2	-	49	97	8	8	6	-	4-6	7-8	2500	1	2
7	Holyhead (Valley)	1034·5	-2	-	0	d	48	92	6	5	-	-	10	10	1800	1	2
	Chester (Sealand)	1034·0	-2	-	0	d	46	92	5	5	-	-	10	10	2200	1	*
8	Manchester ...	1034·8	-2	SE	3	d	45	97	3	5	-	-	10	10	1400	1	*
10	Spurn Head ...	1034·7	+4	WNW	3	-	45	92	5	5	2	-	7-8	10	1500	0	2
	Catterick ...	1038·7	0	-	0	-	45	97	7	5	2	-	7-8	10	1100	1	*
	Tynemouth ...	1032·6	0	W	3	-	47	85	6	5	-	-	7-8	7-8	1500	1	2
11	St. Abbs Head	1032·6	+8	NW	3	-	45	85	8	4	4	-	4-6	4-6	2500	0	2
	Leuchars ...	1033·2	+10	-	0	-	38	92	8	5	-	8	1	2-3	4000	1	*
12	Renfrew (Abbotsl.)	1033·6	+4	W'S	2	-	38	92	7	5	-	8	1	7-8	3500	1	*
	Eskdalemuir ...	1033·8	+4	-	0	-	34	92	7	5	1	6	1	9	1500	1	*
	Point of Ayre ...	1034·0	0	NW	2	-	47	85	8	2	4	6	Tr	4-6	2000	1	2
13A	Tiree	1032·9	0	WSW	1	-	42	85	8	8	3	-	4-6	4-6	2800	0	3
13B	Stornoway ...	1031·4	+2	SW	3	-	42	85	8	5	4	-	4-6	7-8	2500	1	2
15	Dalwhinnie ...	1035·7	+8	-	0	-	26	85	8	1	-	9	Tr	2-3	4000	3	*
	Aberdeen ...	1032·5	+6	NNW	1	-	38	92	6	-	3	-	1	-	-	1	2
	Wick ...	1031·7	+2	SW	2	-	37	92	8	-	4	8	0	2-3	-	1	*
16	Sumburgh ...	1029·7	+6	NW	3	-	47	75	8	2	1	-	1	2-3	2000	1	5
17	Blacksod Point	1035·6	-8	-	0	-	39	92	8	2	5	9	2-3	4-6	4000	0	2
18	Malin Head ...	1034·0	-6	S	1	-	38	85	8	4	-	4	2-3	4-6	4000	0	3
	Aldergrove ...	1035·7	+2	S	2	-	34	97	1	-	-	5	0	2-3	-	1	*
19	Birr Castle ...	1034·6	-8	S	1	-	44	97	7	5	-	-	10	10	2500	1	*
20	Valentia Obsy.	1034·2	-8	-	0	-	47	92	8	5	-	-	9+	9+	2500	1	1
	Roches Point	1034·5	-4	S'W	3	-	50	87	6	5	-	-	10	10	450	*	*

PAST 24 HOURS.

District	Stations	Temperatures. Max. Day 7h–18h °F. (31)	Temperatures. Min. Night 18h–7h °F (32)	Temperatures. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine ...3rd Hrs. (36)
1	London (Kew)	43	43	42	-	-	0·8
	Croydon ...	43	43	41	-	-	0·0
	S. Farnborough	44	43	42	-	-	0·8
	Boscombe Down	49	42	41	-	-	5·6
	Thorney Island	43	38	36	-	-	*
	Lympne ...	39	37	37	-	-	0·0
	Manston ...	41	40	38	-	-	0·0
2	Shoeburyness ...	43	43	42	-	-	0·0
	Felixstowe ...	44	43	42	-	-	0·0
	Gorleston ...	43	42	41	-	-	*
	Mildenhall ...	44	43	42	-	-	0·0
	Cranwell ...	45	42	40	-	-	0·0
3	Birmingham ...	47	41	28	-	-	0·0
	Upper Heyford	43	42	41	-	-	*
4	Ross-on-Wye	43	36	29	-	-	0·0
5	Hartland Point	49	44	44	-	Tr	1·8
	Bristol ...	43	39	40	-	-	*
	Portland Bill ...	45	43	*	-	-	*
	Plymouth ...	44	41	*	-	-	2·0
	The Lizard ...	51	42	*	-	-	2·3
	Scilly (St. Mary's)	53	43	*	-	-	1·4
	Guernsey ...						
6	Pembroke ...	52	45	*	-	-	0·0
7	Holyhead (Valley)	52	47	43	0·1	0·3	*
	Chester (Sealand)	52	44	32	-	-	0·0
8	Manchester ...	47	46	43	-	Tr	*
10	Spurn Head ...	47	43	*	-	-	0·0
	Catterick ...	50	39	31	-	-	1·2
	Tynemouth ...	51	45	43	-	-	*
11	St. Abbs Head	49	47	*	-	-	*
	Leuchars ...	49	38	30	-	-	1·3
12	Renfrew (Abbotsl.)	49	38	27	-	-	0·0
	Eskdalemuir ...	48	33	27	-	Tr	0·2
	Point of Ayre ...	51	46	2000	-	0·3	0·0
13A	Tiree	51	38	*	-	0·2	0·0
13B	Stornoway ...	51	38	*	-	-	0·0
15	Dalwhinnie ...	45	26	17	-	Tr	4·6
	Aberdeen ...	49	37	30	-	0·1	3·8
	Wick ...	48	38	33	-	Tr	*
16	Sumburgh ...	50	45	40	-	-	0·2
17	Blacksod Point	52	37	*	2	-	*
18	Malin Head ...	51	37	*	0·5	0·6	2·2
	Aldergrove ...	49	33	30	-	Tr	0·0
19	Birr Castle ...	*	42	40	*	0·3	*
20	Valentia Obsy.	53	45	42	0·5	0·4	*
	Roches Point	*	*	*	*	*	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h

	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon. (24 hrs. ended 9h.)	Weather Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	Fe bfc	cfff	fffm	43	43	42	Tr	-	0·8	*	*	3
Croydon	217	Fe	bFcmf	cfccf	43	43	41	-	-	0·0	*	*	5
Greenwich (Royal Observatory)...	149	FebFcf	bFf	bff	44	44	41	Tr	-	0·0	93	88	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	46	37	37				96	91	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*	45	43	36	-	-		96	92	*
Camden Square	110			*	44	43	39	-	-	*	*	92	*
Kensington	80	b	bc	*	43	43	42	-	-		94	91	*
Hampstead Observatory	450	bf	bf	b	43	40	38	-	-		*	95	*

FOREIGN OBSERVATIONS.

Evening of 3rd December... Morning of 4th December...

Stations	Evening Barom. mb.	Evening Wind. Direc.	Evening Wind. Force.	Evening Weather.	Evening Temp. °F.	Morning Barom. mb.	Morning Wind. Direc.	Morning Wind. Force.	Morning Weather.	Morning Temp. °F.
Reykjavik (18h and 07h)	1012·9	SSW	5	c/ps	34	989·0	SSW	7	pr	41
Lisbon (18h and 07h)	1026·2	ENE	6	bc	48	1026·2	NE	4	b	44
Madrid (18h and 07h)	910·5	NNE	3	*	45					
Cairo (Heliopolis) (18h and 06h)	1016·3	ESE	3	f	*	1023·6	S	1	b	45
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Stations	Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Reykjavik (18h and 07h)	*	41	*	-
Lisbon (18h and 07h)	48		-	
Madrid (18h and 07h)				
Cairo (Heliopolis) (18h and 06h)	*	42	*	-
Toronto (13h and 01h)				
Washington (13h and 01h)				

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 4th.

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
0·9	17h. 3rd	0·1	2-5h. 4th.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

‡ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1. AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION. Friday 5th December 1941. No 29233

OBSERVATIONS at 13h. G.M.T. 4th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1035·4	+6	WSW	1	cf	46	92	3	5	–	–	9+	9+	2500
	Croydon ...	1034·8	-6	WSW	1	m	46	92	4	5	–	–	10	10	2500
	S. Farnborough	1035·3	-10	—	0	zo	46	92	6	5	7	–	9	10	2800
	Boscombe Down	1035·8	-6	—	0	zof	47	92	5	5	–	–	10	10	3500
	Thorney Island	1035·5	-6	WNW	1	of	47	85	3	5	–	–	10	10	3400
	Lympne ...	1034·3	-8	NW	2	m	45	97	4	5	–	–	10	10	2500
	Manston ...	1034·8	-4	NW'W	2	m/f	47	92	4	5	–	–	9+	9+	3500
2	Shoeburyness ...	1034·8	-4	WNW	1	f–	48	92	3	5	–	–	9	9	3500
	Felixstowe ...	1034·5	-6	WNW	1	m	47	92	4	5	–	–	10	10	2800
	Gorleston ...	1033·6	-6	W	3	of+	46	85	3	5	–	–	10	10	1600
	Mildenhall ...	1034·7	-6	SW	2	m/f	47	97	4	5	–	–	10	10	2400
	Cranwell ...	1033·8	-10	W	3	m/f	47	92	4	5	–	–	9+	9+	2000
3	Birmingham	1034·4	-24	SSW	2	zo	48	85	6	5	–	–	9+	9+	2500
	Upper Heyford	1034·8	-12	SW'S	1	m	46	92	4	5	–	–	7-8	10	1400
4	Ross-on-Wye ...	1034·4	-10	SW	1	m	46	92	4	5	–	–	10	10	3000
5	Hartland Point	1034·7	-8	NW	3	c	51	85	8	8	2	–	7-8	9+	1500
	Bristol ...	1035·4	-10	W	2	zo	47	92	5	5	–	–	10	10	3000
	Portland Bill ...	1035·1	-10	WNW	2	oo	50	85	7	5	–	–	10	10	2500
	Plymouth ...	1036·0	-10	—	0	of	46	92	3	5	–	–	10	10	4000
	The Lizard ...	1035·3	-8	NW	2	c	51	75	8	8	6	–	7-8	9	1500
	Scilly (St. Mary's)	1035·8	-6	SW'S	1	c	50	75	8	5	–	–	9+	9+	1800
	Guernsey ...														
6	Pembroke ...	1034·7	-8	SW'W	4	c	51	85	8	8	6	–	7-8	9	2000
7	Holyhead (Valley)	1033·1	-16	S'E	3	dodo	49	97	5	6	–	–	10	10	200
	Chester (Sealand)	1033·9	-12	—	0	ido	49	92	6	5	–	–	10	10	1700
8	Manchester ...	1033·9	-14	SSW	1	of	47	97	3	5	–	–	10	10	400
10	Spurn Head ...	1033·1	-4	W	3	of	46	92	3	5	–	–	10	10	1500
	Catterick ...	1032·7	-16	—	0	zo	52	75	6	8	–	1	4-6	9	3500
	Tynemouth ...	1032·9	-4	W	2	zo	46	85	6	8	–	–	7-8	7-8	2600
11	St. Abbs Head	1031·9	-12	NW	1	c	44	85	8	4	4	–	4-6	7-8	3000
	Leuchars ...	1031·0	-16	SW	1	c	41	85	8	5	–	8	4-6	7-8	3500
12	Renfrew (Abbots L.)	1032·3	-16	NE	1	cf+	39	85	3	5	–	7	4-6	9+	1200
	Eskdalemuir ...	1032·4	-16	—	0	bc	40	85	8	5	–	2	Tr	4-6	2500
	Point of Ayre ...	1032·9	-12	—	0	c	50	85	8	2	4	6	Tr	9	2000
13A	Tiree ...	1030·2	-20	S	3	c	47	85	8	5	–	–	9	9	2100
13B	Stornoway ...	1026·9	-38	SSW	5	c	46	75	8	2	4	7	2-3	10	2500
15	Dalwhinnie ...	1033·4	-18	SW	2	c	38	85	8	5	1	–	2-3	10	1500
	Aberdeen ...	1031·4	-16	—	0	bc	41	85	5	–	7	6	0	4-6	–
	Wick ...	1029·5	-22	SW	3	c	42	85	9	–	7	–	0	7-8	–
16	Sumburgh ...	1028·3	-20	SW'W	3	c/pr	45	85	8	8	7	–	7-8	9+	2500
	Blacksod Point...	1031·2	-22	—	0	c	46	85	8	–	–	7	0	10	–
18	Malin Head ...	1031·4	-22	S	1	c	44	75	8	5	–	–	9	9	5700
	Aldergrove ...	1033·0	-22	—	0	cF+	38	97	1	5	–	–	9+	9+	4500
19	Birr Castle ...	1031·6	-18	SW	1	dd	48	97	7	5	–	–	10	10	2500
20	Valentia Obsy. †	1031·6	-18	—	0	dr	49	97	6	5	–	–	10	10	1500
	Roches Point ...	1033·0	-12	SSW	3	c	52	92	8	5	–	–	7-8	7-8	1500

OBSERVATIONS at 18h. G.M.T. 4th December — PAST 24 HOURS.

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 4th (37)	Weather 13h.–18h. 4th (38)	Weather 18h. 4th – 1h. 5th (39)	Weather 1h.–7h. 5th (40)
1	London (Kew)...	1034·7	-2	—	0	of+	46	92	2	–	–	–	10	10	<150	1	•	cf	cffof	cff	cfcm
	Croydon ...	1034·2	-2	SSW	1	of+	45	92	2	5	–	–	10	10	5600	1	•	cmcmo	cmcfe	cfcm	cmcm
	S. Farnborough	1034·2	-8	—	0	m	45	92	3	5	–	–	10	10	3500	1	•	ocmo	cmocmw	cmwfF	cfmcm
	Boscombe Down	1034·8	-4	—	0	of+	45	97	2	5	–	–	10	10	2700	1	•	cmo	cmcf	cf	
	Thorney Island	1034·7	-2	W	1	of	46	92	2	5	–	–	10	10	3600	1	*	omof	of	ofm	omfom
	Lympne ...	1034·1	-2	–	0	F	43	97	1	–	–	–	10	10	<150	1	§	cfm	cmfF	f	cfzm
	Manston ...	1034·3	-4	–	0	of+	45	92	2	5	–	–	10	10	3000	1	•	ofcmf	cfF	f	
2	Shoeburyness ...	1034·3	-2	—	0	of+	46	92	2	5	–	–	10	10	2500	1	•	ofcf	cfmf	f	cffe
	Felixstowe ...	1034·1	-4	WNW	1	f–	46	97	3	5	–	–	10	10	3300	0	1	cm	cmidocm	cf	cff
	Gorleston ...	1033·3	-2	WSW	2	m	46	92	4	5	–	2	10	10	800	0	2	ofm	czocm	cm	cmo
	Mildenhall ...	1033·6	-8	SW'S	2	f–	46	92	3	5	–	–	10	10	3600	1	•	cfidm	cmf	cf	cf
	Cranwell ...	1032·8	-2	WSW	2	of	46	92	2	5	–	–	10	10	2500	1	•	cfido	cmocf	cm	cmcm
3	Birmingham	1033·6	-4	SW	2	zo	46	85	6	5	–	–	10	10	1500	1	•	bfc	cz	cz	cm
	Upper Heyford	1034·0	-2	—	0	m	45	97	4	5	–	–	10	10	2800	1	•	cmofm	cm	cmfof	cfcm
4	Ross-on-Wye ...	1033·5	-6	WSW	1	m	46	92	4	5	–	–	10	10	2000	1	•	Fcfm	cm	cm	c
5	Hartland Point	1033·5	-4	WSW	4	c	49	85	7	5	2	–	9+	10	2500	1	4	c	cidoc	c	c
	Bristol ...	1034·4	-4	—	0	m/f	46	97	4	5	7	–	9+	9+	2500	1	•	ofcmo	cmomfm	cmm	cm
	Portland Bill ...	1033·9	-6	WNW	2	co	50	92	7	5	4	–	4-6	10	2500	1	3	o	co	c	c
	Plymouth ...	1035·1	-4	—	0	of	46	92	2	5	–	–	10	10	2000	1	1	cfw	cf	cfcm	ccm
	The Lizard ...	1033·2	-6	S'W	2	c	49	65	8	8	2	–	7-8	9+	1500	1	3	c	c	c	c
	Scilly (St. Mary's)	1034·3	-6	SW'W	2	c	49	75	8	5	–	–	10	10	1500	1	3	c	o	c	c
	Guernsey ...																				
6	Pembroke ...	1033·3	-6	SW'W	5	c	51	75	8	8	6	–	7-8	9+	2500	1	3	c	c	cpr	c
7	Holyhead (Valley)	1031·2	-2	SSW	4	c/d	51	92	8	5	7	–	4-6	10	2500	1	3	crodof	cdodm	cidor	crod
	Chester (Sealand)	1032·2	-8	SSW	1	m/f	48	85	4	5	3	–	2-3	2-3	4500	1	•	cmido	cmidofo	bcmcmo	cm
8	Manchester ...	1032·5	-8	S	2	m	47	97	4	5	–	–	10	10	1500	1	•	dodof	ofcm	cm	cm
10	Spurn Head ...	1032·3	-2	WSW	2	cf+	46	92	2	5	–	–	9	9	1500	1	2	om	ofcf	cf	om
	Catterick ...	1031·8	-6	SW	1	zo	43	85	5	5	7	–	2-3	9	2500	1	*	cmo	cmoccmo	cmc	prodod
	Tynemouth ...	1031·1	-6	W	2	zo	43	92	5	2	–	–	2-3	2-3	2600	1	2	c	bcmo	ofefe	ofefeoc
11	St. Abbs Head	1029·7	-12	SW	3	bc	41	92	7	4	4	–	2-3	2-3	2500	0	2	cbcc	bc	mrc	cbc
	Leuchars ...	1029·4	-14	—	0	m	37	97	4	–	7	–	0	7-8	–	1	•	bbc	bccmcm	cmiccm	cmbmb
12	Renfrew (Abbots L.)	1029·7	+10	NE	1	cF	35	97	1	5	–	–	9+	9+	3000	1	•	cm, m, f	cfF	fidcf	cfxm
	Eskdalemuir ...	1030·7	-10	—	0	f	37	97	3	–	–	–	10	10	<150	1	•	cbc	bccof	ocfm	ofcbc
	Point of Ayre ...	1029·5	-18	S'W	3	roro	47	97	6	6	2	–	9	10	1000	1	2	bcc	crorc	rorc	crorc
13A	Tiree ...	1026·0	-20	SW	3	c/pr	45	92	7	8	–	–	9	9	1500	1-	4	c	cpr	cprbc	cprbc
13B	Stornoway ...	1022·7	-20	SSW	5	c	46	85	7	8	4	7	4-6	10	2000	1	3	c	cpro	cpr	cPR
15	Dalwhinnie ...	1029·2	-14	SW	2	o	36	85	8	5	1	–	4-6	10	2500	0	•	bco	o		cpro
	Aberdeen ...	1028·7	-22	SW'S	2	c	41	85	5	5	7	8	1	7-8	3500	1	2	bbxbc	bczo	bcz	bczx
	Wick ...	1025·8	-26	SW'S	3	c	42	85	7	5	1	–	1	10	4000	1	*	b,c	c	c	bcic
16	Sumburgh ...	1024·6	-18	SW	4	c	45	75	8	5	1	–	1	9	2100	1	5	cprc	cprc	iorc	ircir
	Blacksod Point...	1028·9	-12	SW	2	c	46	75	7	–	–	7	0	9+	–	0	3	bc	c	bc	bc
18	Malin Head ...	1028·3	-14	S	1	c	42	85	8	5	–	–	9	9	4000	0	4	bc	c	c	bc
	Aldergrove ...	1029·9	-14	—	0	dF	41	97	1	–	–	–	10	10	<150	1	•	Fecfe	Fcmidof	docfm	oFFcm
19	Birr Castle ...	1030·5	0	SSW	1	ir	46	97	7	5	–	–	10	10	2500	1	•	d	r	*	r
20	Valentia Obsy. †	1029·9	-6	SW'S	4	rr	51	97	6	6	–	–	10	10	800	1	3	pr	r	r	d
	Roches Point ...	1031·4	-8	S'W	4	c	52	92	8	5	–	–	7-8	7-8	1500	1	*	d	bc	r	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
⊕ Solar halo. ⊕ lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain: —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations — Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

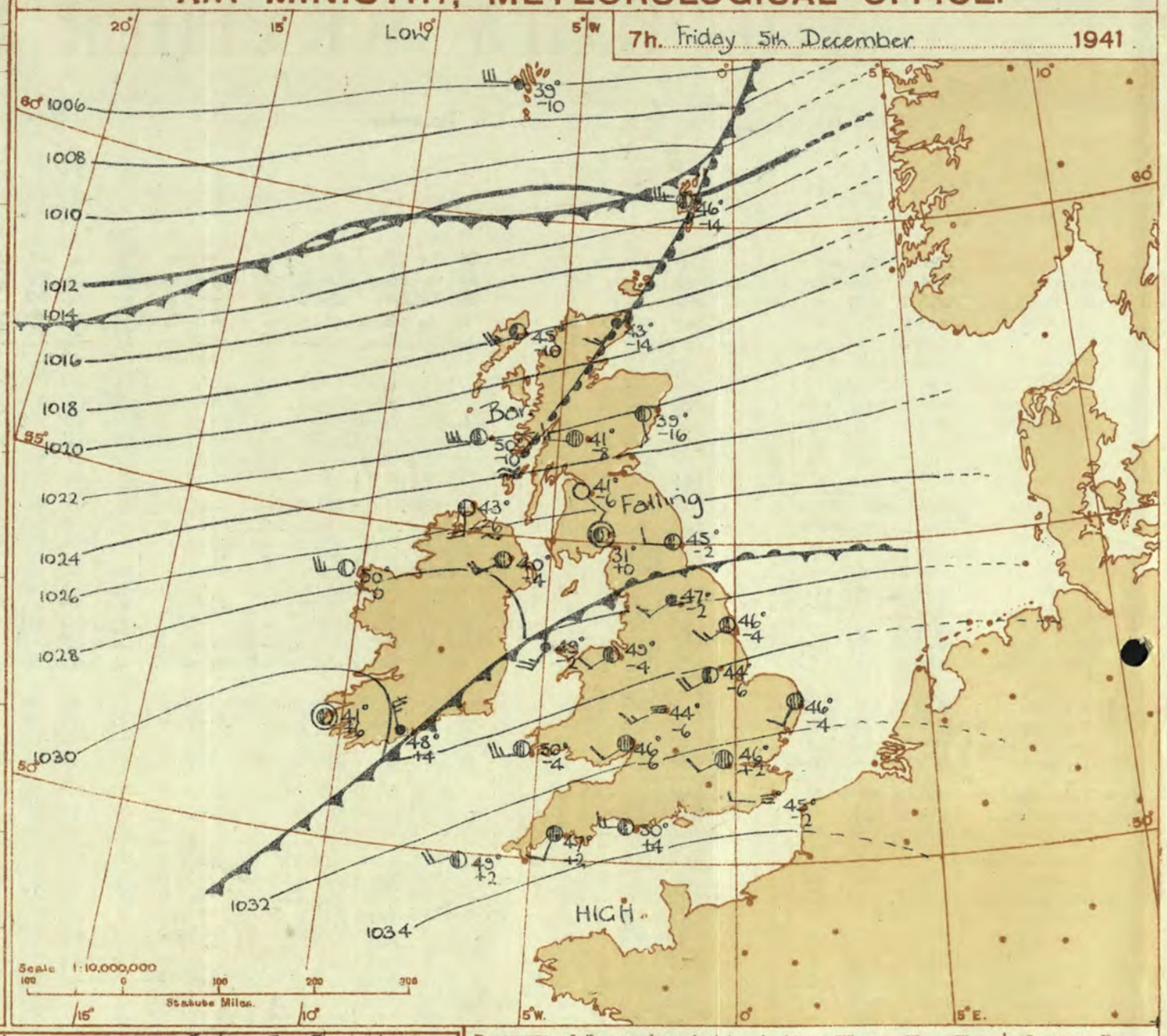
Abridged observations of additional stations in the
AVIATION WEATHER CODE

13h. G.M.T. 4th Dec.:				18h. G.M.T.			01h. G.M.T. 5th Dec.:			07h. G.M.T.		
IIIC$_L$ C$_M$	wwVhN$_h$	DDFWN	C$_L$ C$_M$	wwVhN$_h$	DDFWN	C$_L$ C$_M$	wwVhN$_h$	DDFWN	C$_L$ C$_M$	wwVhN$_h$	DDFWN
109 82	02854	19326	5-	02865	18525	57	02853	18425	57	61645	18568
115 52	81834	20487	52	81834	20487	85	14834	55584	57	14844	53587
203			8-	81838	16688						
206 57	02961	24127	5-	02858	24128	53	22964	20365	50	22964	22464
210 07	02930	16228	07	02890	16328	57	02963	19227	57	02963	16426
220 83	25855	21486	30	02646	20486				80	25746	25586
230 87	02854	00027	51	02853	16128	8-	25757	20287	8-	81647	53587
245 50	02862	22228	5-	05544	26114	51	08466	22228	57	08465	00026
260 53	05563	00026	50	05663	26115	57	08864	00068	04	00890	22313
278 23	05651	14346	52	52746	12368	57	02853	20258	50	00851	22311
279 14	05643	00045	5-	52458	00048	52	42666	21368	50	05664	21224
285 13	01853	26414							5-	02747	28467
288 14	05653	20155	54	08453	16116	57	05643	18328	57	63644	21266
5765-	03565	12147	5-	05654	12126	53	05754	00025	53	00003	28137
301 83	05653	22124	5-	47338	16258	5-	02758	22428	62	51645	22558
325-	41457	20147	5-	43355	21145	53	08462	19147	57	17564	22327
299 5-	05647	24227							5-	05645	22215
292 57	45266	00057	07	08490	00047	5-	05535	20248	5-	05658	16128
310--	57109	20243	--	57109	20349				--	02648	20348
344 5-	41566	22246	02	45278	22148	5-	45367	21247	5-	05558	22328
335 57	21645	10247	5-	02748	20258	52	21745	18558			
334--	51437	30158	--	03547	26228				--	03557	20428
340 5-	02767	17257	5-	05668	20228	5-	05668	20228	53	04763	16225
136 5-	08458	22268	5-	47258	20268	5-	08468	21348	5-	05568	19228
336 52	02754	16328	52	02754	20328				57	02763	20327
350			5-	47358	20248	5-	43358	17148	5-	41468	24248
368 5-	08458	00048	5-	08448	00028	5-	05667	20427	5-	02768	20428
379 5-	05668	20128	5-	47358	22148	5-	47358	24248	5-	08458	24348
390			--	46309	24149	5-	45168	00048	5-	03268	20248
382 5-	05568	00028	5-	47368	00028	5-	08458	00028	5-	05657	23227
438 5-	03558	28328							5-	03558	22328
430 5-	08468	22228	5-	43368	00048	5-	08468	02148			
409 5-	02758	16128	5-	05667	15127	5-	02758	16328	5-	02768	18328

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$ C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Friday 5th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Friday 5th December,
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light southwesterly wind; dull and rather misty. Rather mild.
4 W. Midlands ...	Light or moderate southwest wind; dull with occasional rain. Rather mild.
5 S.W. England	Light or moderate southwesterly wind; cloudy: rather mild.
6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	As 4
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 16 Orkneys and Shetlands 17 N. W. Ireland 18 N. E. Ireland	Moderate southwest wind, fresh to strong in the North and Northwest. Fair apart from some scattered showers. Rather mild.
19 S. E. Ireland 20 S. W. Ireland	Variable winds; cloudy with rain at times, but some bright intervals. Rather mild.

GENERAL INFERENCE.

Pressure is high to the South and low to the North of the British Isles. It will remain dull but dry in the South. Elsewhere it will be rather unsettled with occasional rain or local showers.

FURTHER OUTLOOK.

No important changes

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Friday 5th December
1941.

HIGH
LOW
LOW
LOW
HIGH

Clarke's Projection Scale 1: 4 x 10⁷ 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. T Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T., U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 5th December, 1941.

No. 29233.

OBSERVATIONS at 1 hr. G.M.T. 5th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Croydon	217	1032.9	-10	SSW	1	m	44	85	4	5	1	-	10	10	3500
	S. Farnborough	226	1033.4	-6	-	0	of-	44	97	2	5	-	-	10	10	3000
	Boscombe Down	417	1033.3	-4	-	0	cf	43	97	3	5	-	-	9+	9+	3500
	Thorney Island	10	1033.8	-6	W	1	m	44	97	4	5	-	-	10	10	3800
	Lympne	346	1033.5	-6	W'N	1	of-	44	92	3	5	-	-	10	10	3300
	Manston	154	1033.6	-6	WSW	1	of	44	92	2	5	-	-	10	10	3500
2	Shoeburyness	11	1033.4	-8	-	0	of	45	92	2	5	-	-	10	10	1500
	Felixstowe	15	1033.1	-8	WSW	2	of+	46	97	2	5	-	-	10	10	400
	Gorleston	5	1031.7	-16	SW	2	z	46	92	5	5	-	-	10	10	1500
	Mildenhall	19	1032.6	-8	SW	2	of	46	92	3	5	-	-	10	10	3000
	Cranwell	240	1031.3	-10	SSW	2	m	46	85	4	5	-	-	10	10	2500
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1032.9	-10	SW	1	of-	44	97	2	5	-	-	10	10	2500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1032.7	-2	WSW	3	c	48	55	8	5	-	-	9+	9+	2500
	Bristol	209	1033.4	-6	SW	2	z	47	85	5	5	3	-	2-3	10	4000
	Portland Bill	32	1033.5	-6	W	2	c	50	92	7	5	-	-	10	10	2500
	Plymouth	82	1034.5	-4	-	0	m	45	92	4	5	-	-	10	10	2000
	The Lizard	240	1033.8	-2	SW'W	3	c	48	75	8	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	163	1033.7	-6	SW'S	3	c	47	75	8	5	-	-	10	10	1500
	Guernsey	175														
6	Pembroke	142	1032.5	-12	SW'W	5	c	50	75	8	8	-	-	9	9	2500
7	Holyhead (Valley)	26	1029.4	-10	SSW	6	ir	51	85	6	5	2	-	9+	10	1900
	Chester (Sealand)	16	1030.7	-6	SSW	1	z	47	85	6	5	-	-	9+	9+	3000
8	Manchester	235	1031.0	-6	SSW	3	z	46	92	6	5	-	-	10	10	3500
10	Spurn Head	29	1031.1	-4	SSW	3	cf	46	92	3	-	3	-	0	7-8	-
	Catterick	175	1027.7	-20	SW	3	c	49	85	7	5	7	-	1	7-8	2800
	Tynemouth	108	1027.9	-10	NW	1	of	42	97	3	5	-	-	10	10	1500
11	St. Abbs Head	280	1026.2	-6	W	3	p	41	85	7	5	7	-	4-6	9	2500
	Leuchars	36	1025.3	-20	W	1	m/r	37	85	4	5	7	-	2-3	9	4500
12	Renfrew (Abbots I.)	19	1026.5	-12	-	0	cf+	35	97	2	5	-	-	7-8	7-8	3500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1028.1	-2	W'N	3	c	47	85	7	6	2	-	2-3	10	1000
13A	Tiree	22	1023.5	-12*	SW*	4*	bc/pr	46	92*	8	8*	*	*	4-6	4-6	1500
13B	Stornoway	80	1018.8	-14	SSW	6	c	47	85	8	8	7	-	4-6	9	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	41	*	*	*	*	*	*	*	*
	Wick	119	1021.1	-20	SSW	4	c	42	85	8	5	7	5	2-3	7-8	4000
16	Sumburgh	30	1018.9	-22	SW'S	5	c/p	46	85	7	5	7	-	9+	10	1800
17	Blacksod Point	18	1027.5	-8	WSW	3	bc	47	85	8	2	-	-	4-6	4-6	4000
18	Malin Head	84	1025.7	-14	SSW	4	bc	40	85	8	4	-	1	2-3	4-6	4000
	Aldergrove	268	1028.7	-10	SW	1	z	40	97	5	5	7	-	9	10	600
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1029.8	+6	N	2	jd	47	97	6	5	-	-	9	10	1500
	Roches Point	22	1030.3	-6	WSW	5	c/r	51	85	8	5	7	-	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 5th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1032.8	-2	SW	2	z	45	92	5	5	-	-	10	10	2500	1	*
Croydon	1032.6	+2	SW'W	2	z	46	85	5	5	-	-	10	10	3000	1	*
S. Farnborough	1033.1	0	WSW	2	z	44	92	5	5	-	-	9+	9+	3600	1	*
Boscombe Down																*
Thorney Island	1033.5	0	W	1	m	44	97	4	5	-	-	10	10	4000	1	*
Lympne	1032.8	-2	W	1	m	45	85	4	5	-	-	10	10	3300	1	§2
Manston																*
Shoeburyness	1032.6	0	SW	3	of	46	85	3	5	-	-	10	10	4500	1	*
Felixstowe	1032.3	0	WSW	1	of-	44	92	3	5	-	-	10	10	4000	1	1
Gorleston	1031.3	-4	SW'S	2	z	46	85	5	5	-	-	10	10	1500	0	2
Mildenhall	1031.8	-2	SW'S	3	of	45	97	3	5	-	-	10	10	3000	1	*
Cranwell	1030.2	-6	SW	4	z	44	75	5	5	3	-	4-6	7-8	4000	0	
Birmingham	1031.0	-6	SW	3	m	44	85	4	5	-	-	9+	9+	2500	1	*
Upper Heyford	1032.2	-2	WSW	2	z	43	97	5	5	-	-	9+	9+	3500	1	*
Ross-on-Wye	1031.5	-6	SW	2	c	46	75	7	5	-	-	10	10	3000	1	*
Hartland Point	1031.5	-4	W	4	c	49	75	8	5	2	-	7-8	10	2500	1	4
Bristol	1032.6	-4	SSW	3	c	46	75	7	5	7	-	2-3	9+	3000	1	*
Portland Bill	1032.5	+4	W	3	c	50	85	7	4	-	-	10	10	4000	1	3
Plymouth	1034.0	+2	SSW	2	z	47	75	6	5	-	-	10	10	2000	0	2
The Lizard	1033.9	+4	SSW	3	c	48	65	8	5	-	-	10	10	1500	0	3
Scilly (St. Mary's)	1033.2	+2	WSW	4	c	49	75	8	5	2	-	7-8	10	1500	1	3
Guernsey																
Pembroke	1031.2	-4	SW'W	5	c	50	85	8	8	-	-	9	9	2500	1	3
Holyhead (Valley)	1028.5	-2	SW'S	5	rs	49	97	5	5	-	-	10	10	1400	1	4
Chester (Sealand)	1029.5	-4	SW	2	z	49	75	6	5	4	-	9	9+	2500	1	*
Manchester	1029.8	-2	S'E	3	z	45	85	6	5	-	-	9+	9+	3500	1	
Spurn Head	1029.2	-4	SW	3	z	46	92	6	5	7	-	7-8	10	2500	1	2
Catterick	1027.5	-2	SW	2	d	47	92	6	8	-	-	9+	9+	1200	1	*
Tynemouth	1026.9	-2	W	2	c	45	97	6	5	-	-	9	9	1500	1	2
St. Abbs Head	1025.0	-4	SW	3	bc	39	85	7	4	4	-	1	2-3	2500	1	2
Leuchars	1023.5	-8	W	3	z	38	97	5	-	-	8	0	4-6	-	1	*
Renfrew (Abbots I.)	1025.1	-6	SE	1	z	41	92	5	5	-	-	9	9	3000	1	*
Eskdalemuir	1027.1	0	-	0	bc	31	92	6	5	-	1	2-3	4-6	<150	1	
Point of Ayre	1027.3	-2	NW'W	3	c	46	92	7	6	2	-	7-8	9	1000	1	3
Tiree	1020.8	-10	WSW	6	c/pr	50	85	7	8	-	-	7-8	7-8	1500	1	6
Stornoway	1016.9	-10	SW	5	c/pr	45	92	7	8	1	-	4-6	10	1500	1	3
Dalwhinnie	1023.5	-8	W	3	o	41	85	7	5	-	-	10	10	1500	1	*
Aberdeen	1021.3	-16	S'E	1	c	39	85	5	5	5	-	2-3	7-8	2000	1	2
Wick	1017.7	-14	SSW	3	ir	43	85	8	5	4	7	4-6	10	3000	1	*
Sumburgh	1014.7	-14	W	5	c/r	46	92	8	5	3	-	4-6	9+	2000	1	5
Blacksod Point	1027.2	0	WSW	5	bc	50	85	8	2	6	-	2-3	4-6	4000	0	4
Malin Head	1024.1	-6	S	4	bc	43	85	8	5	-	4	2-3	4-6	4000	/	5
Aldergrove	1027.9	-4	SW'W	4	z	40	97	6	5	-	-	9+	9+	200	1	*
Birr Castle	1029.0	+2	SSW	1	bc	41	97	8	-	4	-	0	2-3	-	1	*
Valentia Obsy.	1030.6	+6	-	0	bc	41	97	8	2	-	-	4-6	4-6	2500	1	1
Roches Point	1029.8	+4	NNW	5	rr	48	97	6	6	2	-	7-8	10	800	1	

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 4th Hrs. (36)
London (Kew)	47	44	41	-	-	0.0
Croydon	46	44	40	-	-	0.0
S. Farnborough	46	43	41	Tr	Tr	[illegible]
Boscombe Down	47			Tr		
Thorney Island	47	43	42	-	-	*
Lympne	46	42	40	-	-	0.0
Manston	47			-		
Shoeburyness	48	45	41	-	-	0.0
Felixstowe	47	43	42	Tr	-	0.0
Gorleston	48	(46)	43	-	-	*
Mildenhall	47	45	41	Tr	-	0.0
Cranwell	47	44	41	Tr	-	0.0
Birmingham	48	43	39	-	-	0.0
Upper Heyford	47	43	41	-	-	*
Ross-on-Wye	47	45	43	-	-	0.0
Hartland Point	51	47	45	Tr	-	0.0
Bristol	47	42	37	-	-	0.0
Portland Bill	51	47	*	-	-	*
Plymouth	47	45	42	-	-	0.0
The Lizard	51	46	*	-	-	0.2
Scilly (St. Mary's)	50	47	*	-	-	0.5
Guernsey						
Pembroke	52	42	*	-	-	0.0
Holyhead (Valley)	51	48	47	0.4	2	*
Chester (Sealand)	49	(47)	34	Tr	-	0.0
Manchester	47	(45)	42	0.2	-	*
Spurn Head	47	44	*	-	-	0.0
Catterick	52	41	39	Tr	Tr	3.4
Tynemouth	47	42	41	-	0.1	*
St. Abbs Head	46	37	*	Tr	Tr	*
Leuchars	41	34	25	-	Tr	0.1
Renfrew (Abbots I.)	40	(35)	25	-	0.1	0.0
Eskdalemuir	42	31	24	-	2	3.5
Point of Ayre	53	45	*	0.5	5	3.4
Tiree	47	45	*	2	1	0.0
Stornoway	46	42	*	Tr	7	0.0
Dalwhinnie	45	35	30	-	0.3	0.1
Aberdeen	42	38	28	-	-	0.2
Wick	42	40	37	-	Tr	*
Sumburgh	48	44	41	0.1	1	[illegible]
Blacksod Point	47	45	*	-	-	[illegible]
Malin Head	44	37	*	-	-	0.0
Aldergrove	41	38	38	1	Tr	0.5
Birr Castle	48	40	37	6	7	0.0
Valentia Obsy.	51	41	36	13	6	0.0
Roches Point	53		*	1	2	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs.	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	cf	cffof	cffcm	47	44	41	-	-	0.0	*	*	5
Croydon	217	cmcm	cmcf	cfcm	46	44	40	-	-	0.0	*	*	
Greenwich (Royal Observatory)	149	of	off	ofcm	47	43	41	-	-	0.0	87	83	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	48	44	43	-			91	95	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	48	44	42	-	-		85	88	*
Camden Square	110	o	o	*	47	45	43	-	-	*	*	87	*
Kensington	80	of	f	*	48	44	41	-	-		93	91	*
Hampstead Observatory	450	o	of	o	46	43	41	-	*		*	99	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 5th

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
1.0	19h. 4+h.	0.1	3-6h 5+h.

FOREIGN OBSERVATIONS.

Stations	Evening of 4th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 5th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)														
Lisbon (18h and 07h)	1027.0	NE	3	bc	55						*		*	
*Madrid (18h and 07h)						909.0	N	2	b	36		36		-
Cairo (Heliopolis) (18h and 06h)	1021.8	E	2	b	54						*		*	
Toronto (13h and 01h)						1014.9	WNW	3	m	43		*		*
Washington (13h and 01h)														

*Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 "
2 Fog	550 "
3 Moderate fog	1,100 "
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ "
6 Moderate "	6¼ "
7 Good "	12½ "
8 Very good "	31 "
9 Excellent "	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Saturday 6th December 1941.

No 29234

OBSERVATIONS at 13h. G.M.T. 5th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1032·5	-10	wsw	2	zo	48	65	6	5	-	-	10	10	1500
	Croydon	1032·1	-10	wsw	2	c	49	65	6	5	-	·	10	10	3000
	S. Farnborough	1032·8	-10	sw'w	3	c	48	65	8	5	·	·	10	10	3000
	Boscombe Down	1033·1	-10	sw	3	c	48	75	7	5	-	-	10	10	3500
	Thorney Island	1033·5	-6	wsw	2	zo	49	75	6	5	-	-	10	10	4100
	Lympne	1032·6	-10	w	2	zo	48	85	6	5	·	-	9+	9+	3500
	Manston	1032·6	-10	w	2	zo	49	65	6	5	·	-	9+	9+	4000
2	Shoeburyness	1032·6	-6	sw	2	m	49	75	4	5	·	-	9+	9+	3500
	Felixstowe	1031·9	-6	w's	3	zo	48	75	5	5	-	-	9+	9+	4000
	Gorleston	1030·4	-16	sw	3	zo	48	85	6	5	-	-	9+	9+	1500
	Mildenhall	1031·3	-10	sw'w	3	zo	49	75	6	5	-	·	9+	9+	4100
	Cranwell	1029·3	-10	sw	4	zo	47	75	5	5	7	6	1	9+	4000
3	Birmingham	1030·3	-8	sw	3	c	47	75	8	-	7	-	0	9+	-
	Upper Heyford	1031·4	-10	sw	3	zo	47	75	6	5	-	-	9+	9+	4500
4	Ross-on-Wye	1030·8	-10	sw	4	c	50	75	7	5	1	-	7-8	9+	3000
5	Hartland Point	1031·8	-4	wsw	4	c	50	85	8	5	2	-	9	10	2000
	Bristol	1032·3	-10	wsw	5	c	49	75	8	5	7	-	4-6	9+	3000
	Portland Bill	1032·8	-14	sw	4	c	51	86	8	5	-	-	10	10	4000
	Plymouth	1033·9	-6	wsw	4	c	50	65	7	5	-	-	10	10	4000
	The Lizard	1033·9	-4	sw	4	c	50	75	8	5	-	-	10	10	1800
	Scilly (St. Mary's)	1034·0	-2	wsw	2	c	51	75	8	5	-	-	10	10	1500
	Guernsey														
6	Pembroke	1031·0	-6	sw'w	6	cq	51	97	8	8	2	-	7-8	10	2000
7	Holyhead (Valley)	1028·9	-6	wnw	4	c	49	75	8	7	4	-	4-6	7-8	2000
	Chester (Sealand)	1029·1	-6	nw'w	1	dd	48	97	5	5	-	-	10	10	100
8	Manchester	1029·2	-10	ssw	4	dr	46	97	6	6	2	-	4-6	10	2000
10	Spurn Head	1027·6	-16	wsw	5	bc	48	75	6	7	4	-	4-6	4-6	4000
	Catterick	1026·6	-18	w's	4	bc	49	65	8	1	-	9	2-3	4-6	1800
	Tynemouth	1026·2	-12	w	2	bc	48	75	7	2	3	1	4-6	4-6	2500
11	St. Abbs Head	1023·6	+2	sw	3	c	44	75	8	5	7	-	4-6	9	2500
	Leuchars	1021·5	-16	sw	4	zo	44	92	6	5	7	8	4-6	9	2000
12	Renfrew (Abbots I.)	1023·5	-14	sw's	3	c/pr	47	85	7	8	-	-	9+	9+	1400
	Eskdalemuir	1025·3	-12	s'w	4	c	40	92	6	5	-	-	10	10	800
	Point of Ayre	1027·6	0	w	3	c	49	85	8	5	4	2	4-6	9+	2500
13A	Tiree	1021·0	0	w	4	c	47	85	7	8	1	-	4-6	9+	1800
13B	Stornoway	1017·8	+6	sw	5	c	45	85	8	2	7	5	7-8	9+	2000
15	Dalwhinnie	1021·1	-2	wsw	3	pr	42	85	7	5	-	-	10	10	1500
	Aberdeen	1020·1	-2	sw	3	c	44	85	6	5	7	8	4-6	9	2400
	Wick	1017·2	-4	wsw	4	c/pr	44	85	8	8	4	9	2-3	7-8	3000
16	Sumburgh	1013·5	-6	wnw	6	e	47	85	8	8	1	-	7-8	9	2000
17	Blacksod Point	1026·9	-4	w's	4	c	52	85	7	5	-	-	10	10	2500
18	Malin Head	1023·8	-6	sw	3	pr	49	85	7	9	-	-	7-8	7-8	1500
	Aldergrove	1027·4	-10	sw'w	3	c	46	85	7	5	3	2	7-8	9+	3000
19	Birr Castle	1029·9	-2	wsw	2	bc	49	85	8	5	-	5	2-3	4-6	2500
20	Valentia Obsy. †	1031·6	-2	w's	3	c	49	85	9	5	-	-	9+	9+	4000
	Roches Point	1031·4	0	nw	2	bc	49	85	8	1	3	5	1	4-6	4000

OBSERVATIONS at 18h. G.M.T. 5th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 5th (37)	Weather 13h.–18h. 5th (38)	Weather 18h. 5th to 1h. 6th (39)	Weather 1h.–7h. 6th (40)
London (Kew)	1031·8	0	sw	2	zo	47	85	6	5	-	-	10	10	2500	1	*	cmoczo	czomo	cirocm	circm
Croydon	1031·3	-4	ssw	2	zo	47	75	6	5	-	-	10	10	3000	1	*	cmoczo	czo	cidirom	crome
S. Farnborough	1032·0	0	wsw	3	zo	47	75	6	5	-	·	9+	9+	3500	1	*	cmowc	czo	czoiro	ccm
Boscombe Down	1032·4	-2	sw'w	3	PR	45	85	7	5	·	·	9+	9+	2500	0	*	cmoc	c	cm	cbc
Thorney Island	1032·7	+2	w	2	zo	49	85	5	5	-	-	10	10	3500	0	*	ofcmmo	cmo	cm	cmcroc
Lympne	1032·0	-2	wsw	2	zo	45	75	6	5	·	·	9+	9+	3200	1	§2	czo	ccmo	czom	cm
Manston	1031·6	-4	wsw	3	zo	45	75	6	5	-	6	4-6	7-8	3500	1	*	cmozo	czo	iddmd	cmirc
Shoeburyness	1031·4	-4	ssw	3	c	47	75	5	5	·	·	10	10	4000	1	*	cfm	cmmo	cm	irom
Felixstowe	1030·8	-2	sw'w	2	m	46	85	4	5	-	·	10	10	3000	1		cfmmo	cmocm	cmrdm	cm
Gorleston	1029·2	-4	sw	2	c	47	75	6	5	·	-	9+	9+	1500	0	2	cmo	czo	cprcm	c
Mildenhall	1029·7	-6	sw	3	zo	47	85	5	5	-	-	10	10	4100	0	*	ofmo	czo	cmircm	cmo
Cranwell	1028·5	-2	wsw	4	zo	47	92	5	5	-	-	9+	9+	1800	1	*	cmo	cmo	cmm	cmo
Birmingham	1029·5	-2	sw	3	iro	47	92	6	6	-	3	10	10	1500	1	*	c	coiro	roD	oiro
Upper Heyford	1030·6	-2	sw	3	iro	46	92	6	5	-	-	10	10	4000	1	*	cmcmo	czoroCmo	iromcm	dodoc
Ross-on-Wye	1030·3	0	sw	4	c	49	85	7	5	1	-	9+	10	2500	1	*	cmczo	poc		cprc
Hartland Point	1031·0	0	wsw	4	c	50	85	8	5	2	·	7-8	10	1500	1	4	c	cidoc	idroc	c
Bristol	1031·7	0	sw	4	zo	48	75	6	5	-	·	10	10	2500	1	*	c	ccmo	cirom	cmoc
Portland Bill	1032·3	-6	sw	4	c	50	85	7	5	-	-	10	10	2500	1	4	c	c	c	c
Plymouth	1033·4	0	sw	4	c	51	75	6	5	-	-	10	10	2500	0	2	cmoc	c	ccir	ciroc
The Lizard	1033·6	+8	wsw	4	c	50	75	8	8	2	-	9	10	1500	0	4	c	c	c	c
Scilly (St. Mary's)	1033·5	+2	w'n	4	bc	50	75	8	5	·	·	9+	9+	1500	1	3	c	c	c	c
Guernsey																				
Pembroke	1031·0	+6	w	3	iro	49	85	7	5	-	-	4-6	7-8	2500	1	3	roroiroq	ciromo	cidm	cirq
Holyhead (Valley)	1028·4	-4	sw	4	bc	48	85	9	5	-	5	2-3	2-3	2000	1	4	rorodoc	cbc	c	ciro
Chester (Sealand)	1028·7	0	wsw	1	zo	43	85	5	5	-	-	1	1	2500	1	*	cmoddm	cdodomob	bfbc	cw
Manchester	1028·7	-6	ssw	2	bc/f	43	97	5	5	3	-	4-6	4-6	2000	1	*	iroid	DDido	bccm	bccmo
Spurn Head	1027·5	0	wsw	3	zo	46	85	6	4	-	-	4-6	4-6	2500	0	2	bcmo	cmo	cm	c
Catterick	1026·6	-2	wsw	2	c	45	85	7	5	3	-	2-3	9	2500	1	*	crombc	bcc	c	c
Tynemouth	1024·9	-4	wsw	4	zo	47	75	6	5	-	-	10	10	1500	1	3	cmbc	bco	oc	c
St. Abbs Head	1021·7	-4	sw	4	c	44	85	8	5	4	-	7-8	9+	2500	0	2	bc	c	c	cq
Leuchars	1020·5	-4	wsw	2	zo	42	92	6	5	-	-	2-3	2-3	2800	1	*	bcmocmo	cirocbcmo	bcmirobcc	ccmoc
Renfrew (Abbots I.)	1021·8	-6	wsw	3	roro	47	92	6	5	2	-	9	9+	1000	1	*	cmocpro	cproroiro	roocm	ciror
Eskdalemuir	1023·7	-8	s'w'w	4	iro	43	87	6	5	-	-	10	10	800	1	*	bcc	ciro	ciroc	cproc
Point of Ayre	1025·9	-4	w's	4	c	48	92	8	8	-	-	9	9	2500	0	3	bbc	cbcc	roroc⊕	cq
Tiree	1019·4	-10	wsw	4	roro	49	97	7	-	2	-	10	10	1500	1	5	cpr	oprc	cir	odrR
Stornoway	1016·3	-14	ssw	4	bc	46	85	7	8	-	-	4-6	4-6	2900	1	2	cRpr	bc	bcddr	cprR
Dalwhinnie	1020·1	-6	sw	2	c	40	85	7	5	-	-	4-6	4-6	2500	1	*	opr	pr		crro
Aberdeen	1019·2	-2	sw	1	zo	43	85	6	5	7	-	2-3	4-6	2600	1	2	czo	irocbcc	bcz	ciro
Wick	1015·8	-10	wsw	3	c/pr	41	85	8	4	4	8	2-3	9	2500	1	*	ciroprc	cproc	ccroro	r
Sumburgh	1012·3	-2	wsw	4	bc/pr	46	92	8	8	-	·	2-3	2-3	2500	1	5	cRpro	prcR	cproro	crori
Blacksod Point	1025·2	-12	wsw	4	c	50	92	7	-	1	-	0	10	-	0		c	c	cq	pr
Malin Head	1022·5	-8	w	4	c/pr	49	85	6	5	·	·	9+	9+	800	1	5	pr	pr	cpr	r
Aldergrove	1025·8	-4	sw	3	c	47	92	7	5	·	·	10	10	1700	1	*	cmobcc	c	c	cror
Birr Castle	1028·6	-6	ssw	2	c	46	92	8	5	-	-	7-8	7-8	2500	1	*	bc	bc	*	r
Valentia Obsy. †	1030·0	-10	s'E	3	c	47	85	9	5	1	·	4-6	9	2500	1		bc	bc	c	r
Roches Point	1030·8	-2	w	2	bc	46	85	8	5	7	-	2-3	4-6	2500	1	*	r	b	cir	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus, As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29 —STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

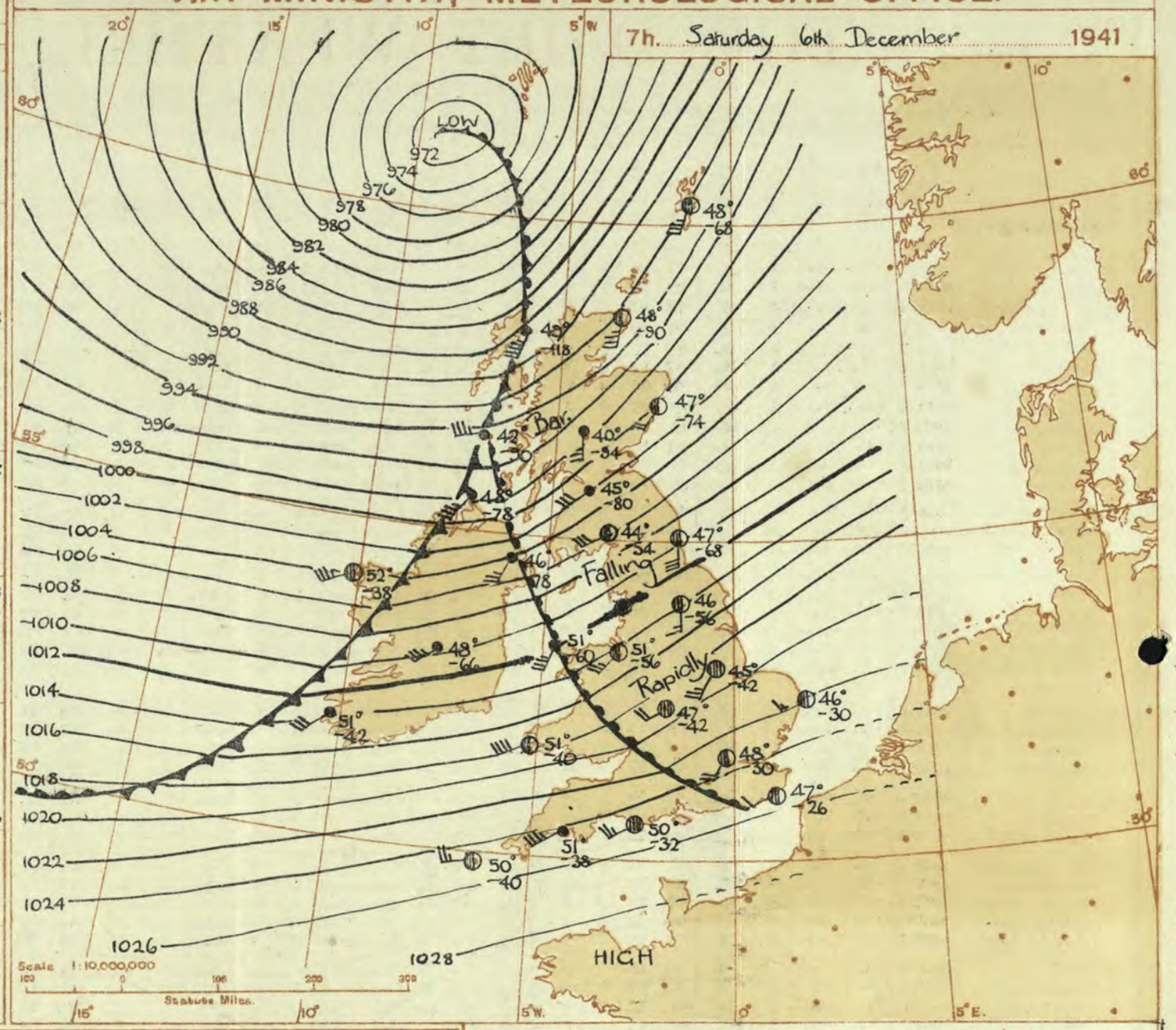
Abridged observations of additional stations in the AVIATION WEATHER CODE

	13h. G.M.T. 5th Dec.				18h. G.M.T.			01h. G.M.T. 6th Dec.				07h. G.M.T.		
III	C_L C_M	wwVhN_h	DDFWN	C_L C_M	wwVhN_h	DDFWN		C_L C_M	wwVhN_h	DDFWN		C_L C_M	wwVhN_h	DDFWN
109	37	25854	22585					52	22745	22568		52	03745	50768
115				51	02844	24586		52	62834	20567		52	62584	86747
203	8-	02838	20628	6-	02838	20588						6-	64738	19768
206	53	02864	24227	50	02854	22124		57	62854	56467		02	63858	55768
210	57	02964	20367	54	01853	52584		5-	22855	18466		57	02834	50726
220	80	02855	24485	80	81547	21468								
230	87	25854	56587	52	02854	19488		62	61644	51568		52	64636	51668
245	57	05644	22327	50	05663	18263		57	05643	18125		5-	02757	18627
260	74	10864	21515	57	22754	55585		53	22743	53564		57	02853	51827
278	54	01753	26414	67	02743	23568		51	02744	20368		52	63755	53568
279	83	02755	21316	5-	52657	20457		8-	21648	21451		5-	02848	20628
285	10	01744	29414	23	02745	28517								
288	20	05653	20263	07	02890	20226		62	02753	54328		51	02765	51527
575	54	02854	23425	61	51644	24366		51	61747	21528		52	64647	53768
301	50	02754	24255	40	00761	24311		53	02754	22426		52	05656	17428
321	57	05663	23314	57	05552	20124		07	05690	21326		57	05654	54528
299	53	05543	24214	50	05546	24216								
292	51	17565	20125	07	02890	21226		51	05643	21328				
310				--	01626	20246						--	46109	20549
614	04	05590	22424	5-	51556	24256		57	08463	22228		52	51546	20428
333	52	21724	22257	10	00951	20111		51	02843	22428		52	22646	22768
334	--	53437	24358	--	02645	28216						--	64547	20568
340	57	02846	22367	57	21555	00066		07	02790	18328		5-	05648	23528
136	5-	05568	21328	5-	22658	21368		5-	22538	20368		5-	05638	20428
336	52	02753	20328	62	62526	20368								
350	5-	05677	21327	5-	61657	19367						52	05645	53426
368	5-	02755	20428	5-	51635	22458		5-	62638	22368				
279	57	05664	20327	57	63657	20467		5-	21538	20568				
390	5-	08467	22347	5-	47367	22227		5-	46348	23458		5-	43348	22458
382	5-	02777	22327	57	61666	23328						57	02765	20427
438												5-	02657	20427
430	5-	05568	20248	5-	05568	26328		5-	05668	22228		5-	02768	67528
409	5-	02768	18328	5-	51648	19358		5-	51658	18358				

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Saturday 6th December 1941



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Saturday 6th December
1 S.E. England ▼ 2 E. England ... ▼ 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England ▼ 6 South Wales ... ▼	Strong southwest winds, gale at times on the coast and probably locally inland, to-morrow. Cloudy or dull; some slight occasional rain or drizzle: mild.
7 North Wales ... ▼ 8 N.W. England ▼ 9 N. Midlands ... 10 N.E. England ▼	Strong to gale, southwest winds; rain at times but fairer periods especially to-day. Mainly mild but becoming colder later.
11 S.E. Scotland ▼ 12 S.W. Scotland & Isle of Man. ▼ 13A W. Scotland ▼	Strong to gale southwest wind, moderating, becoming variable. Cloudy; rain at times; mainly mild.
13B N.W Scotland ▼ 14 Mid Scotland 15 N. E. Scotland ▼ 16 Orkneys and Shetlands ▼	South to southwest gale, severe at times, moderating to-morrow. Mainly cloudy; occasional rain, hail and sleet: snow on hills later. Becoming colder.
17 N. W. Ireland ▼ 18 N. E. Ireland ▼ 19 S. E. Ireland ▼ 20 S. W. Ireland ▼	Strong to gale, southwest winds, veering west to-morrow, becoming squally. Rain at times; fairer periods at first. Mild to-day, becoming colder.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A deep depression centred just northwest of Scotland is moving east-northeast and will be followed by another depression from the Atlantic which will cross the British Isles. Stormy, unsettled weather with gales will prevail generally, but rainfall will be small in amount in East and Southeast England.

FURTHER OUTLOOK.

Continuing unsettled and stormy; colder in most districts with snow showers in Scotland.

Gale warning issued 2245h. 5.12. in districts 13B, 16., issued also at 0215h 6.12 in districts 7, 8, 11, 12, 13A, 15, 17, 18, 19, 20 (part of); issued 0500h 6.12 in districts 6, 10, 20 (part of); issued 0910h 6.12. in districts 1, 2, 5.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Saturday 6th December

1941.

LOW

HIGH

HIGH

LOW

Clarke's Projection Scale 1: 4 X 10⁷ 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. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 6th December 1941.

No 29234

OBSERVATIONS at 1 hr. G.M.T. 6th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Croydon	217	1029.0	-18	SW	3	z z	46	85	6	5	-	-	10	10	3000
	S. Farnborough	226	1029.5	-20	SW'W	4	[illegible]	47	85	7	5	-	-	10	10	2000
	Boscombe Down	417	1029.7	-20	SW'S	3	[illegible]	46	92	6	5	-	-	10	10	2000
	Thorney Island	10	1030.4	-20	SW	3	z	45	75	6	5	-	-	10	10	7200
	Lympne	346	1030.2	-14	W	2	z	45	85	6	5	-	-	10	10	3500
	Manston	154	1029.3	-14	W'S	4	z	46	85	6	5	-	-	10	10	2000
2	Shoeburyness	11	1029.4	-14	SW	2	c	47	85	5	5	-	-	10	10	4000
	Felixstowe	15	1028.4	-14	WSW	4	o/d	46	92	6	5	-	-	10	10	2000
	Gorleston	5	1027.4	-12	SW	3	z	46	92	6	5	-	-	10	10	1500
	Mildenhall	19	1027.5	-2	SW	4	z	47	85	6	5	-	-	10	10	1600
	Cranwell	240	1025.8	-18	W'S	4	z	43	92	5	-	7	-	0	10	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1028.1	-22	SW	4	id	45	92	6	5	-	-	10	10	700
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1027.6	-16	WSW	5	c/d	50	85	7	5	2	-	7-8	10	1500
	Bristol	209	1028.6	-22	WSW	4	c/r	46	85	6	5	-	-	7-8	9+	1800
	Portland Bill	32	1030.4	-14	W	4	c	50	92	7	5	-	-	10	10	2500
	Plymouth	82	1031.0	-20	WSW	5	c/r	50	85	7	5	2	-	7-8	10	1500
	The Lizard	240	1030.8	-16	SW'W	5	c	50	75	8	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	163	1031.1	-14	WSW	4	c	50	75	8	5	-	-	10	10	1500
	Guernsey	175														
6	Pembroke	142	1027.6	-22	SW'W	5	c	48	97	7	8	-	-	9+	9+	2500
7	Holyhead (Valley)	26	1023.9	-30	SW	5	c	49	85	8	5	1	-	7-8	10	1500
	Chester (Sealand)	16	1025.1	-22	SE	2	c	42	85	7	5	-	7	2-3	9	4500
8	Manchester	235	1025.9	-22	S	3	z	39	97	6	-	7	6	0	4-6	-
10	Spurn Head	29	1025.2	-16	SW	3	z	44	85	6	5	-	-	9+	9+	1500
	Catterick	175	1022.6	-20	SW	4	c	48	85	7	5	7	-	9	10	1200
	Tynemouth	108	1021.2	-16	WSW	3	c	48	85	6	8	-	-	9	9	4500
11	St. Abbs Head	280	1016.8	-36	W	4	c	46	92	8	4	4	-	7-8	9	2500
	Leuchars	36	1015.3	-34	SW	4	c	48	92	7	5	-	-	10	10	1800
12	Renfrew (Abbots I.)	19	1016.6	-30	SW	4	z	48	85	6	5	1	-	4-6	10	2200
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1021.7	-24	W'S	4	c	48	92	8	8	-	7	4-6	10	1500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	1004.5	-66	SSW	7	pr	50	75	7	5	1	-	4-6	7-8	2000
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	45	*	*	*	*	*	*	*	*
	Wick	119	1008.2	-46	SSW	4	r.r.	45	92	8	5	2	-	7-8	10	3000
16	Sumburgh	30	1005.7	-42	WSW	6	r.r.	46	97	6	6	2	-	9	10	1000
17	Blacksod Point	18	1016.0	-54	WSW	6	pq	50	75	7	5	-	-	10	10	1500
18	Malin Head	84	1014.3	-52	SSW	6	c	48	75	7	6	7	-	4-6	7-8	2500
	Aldergrove	268	1020.6	-30	SSW	4	c	46	85	7	5	-	-	9+	9+	1000
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1024.3	-38	SSW	4	c	49	75	9	5	-	-	10	10	4000
	Roches Point	22	1026.1	-30	W'S	3	ir	46	85	7	6	2	-	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 6th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1023.5	-34	SW	4	z	47	85	6	5	-	-	10	10	4000	1	*
Croydon	1024.2	-30	SW'S	4	c	48	85	7	5	-	-	4-6	10	2000	1	*
S. Farnborough	1024.0	-36	SW	4	z	47	85	6	5	7	-	2-3	9+	1200	1	*
Boscombe Down	1024.7	-32	SW	4	c	47	85	7	5	-	-	10	10	2000	0	*
Thorney Island	1025.2	-34	SW	4	c	50	75	7	5	-	-	10	10	3200	1	*
Lympne	1025.6	-26	SW	2	z	47	85	6	5	3	-	4-6	10	2800	1	§5
Manston	1024.6	-30	SWW	3	c	45	85	7	5	7	6	1	10	3000	1	*
Shoeburyness	1024.2	-30	SW	3	ir	47	92	6	5	7	-	9	10	2500	1	*
Felixstowe	1023.1	-32	SW	4	z	46	92	6	5	-	-	9+	9+	1500	1	4
Gorleston	1022.4	-30	SWW	3	z	46	92	6	5	-	-	7-8	7-8	1500	0	
Mildenhall	1021.8	-38	SW	4	z	47	85	6	5	-	-	10	10	1600	1	*
Cranwell	1018.7	-42	SW'S	5	z	45	92	6	5	-	-	10	10	1500	1	*
Birmingham	1018.7	-42	SW	4	o	47	92	5	5	-	-	10	10	800	1	*
Upper Heyford	1021.8	-40	SW'S	4	c	46	92	7	5	-	-	10	10	1700	1	*
Ross-on-Wye	1020.9	-40	SW	4	cq	47	85	7	5	1	-	9+	10	2500	1	*
Hartland Point	1021.4	-42	WSW	7	c	50	75	8	5	2	-	7-8	10	2500	1	4
Bristol	1022.9	-36	SW	5	c	47	85	7	5	7	-	7-8	9+	2500		*
Portland Bill	1025.5	-32	SW	5	c	50	85	7	5	-	-	10	10	2500	1	4
Plymouth	1025.2	-38	SW	7	ir	51	75	7	5	2	-	7-8	10	1500	1	4
The Lizard	~~1026.1~~	-30	WSW	6	c	50	75	8	8	2	-	9	10	1500	0	
Scilly (St. Mary's)	1024.4	-40	W'S	5	c	50	75	7	5	3	-	4-6	10	1500	1	
Guernsey																
Pembroke	1018.7	-40	SW'W	8	cq	51	85	7	8	2	-	7-8	10	2700	1	5
Holyhead (Valley)	1013.3	-60	SW'S	7	ir	51	97	6	5	-	-	10	10	1300	1	5
Chester (Sealand)	1015.4	-56	SW'S	5	c	51	85	7	5	1	-	4-6	10	1000	1	*
Manchester	1016.2	-58	S'E	4	z	44	92	6	5	7	-	7-8	10	4000	1	*
Spurn Head	1018.3	-28	SW'S	5	c	44	85	7	6	6	4	4-6	7-8	2500	0	2
Catterick	1013.1	-56	S	3	c	46	75	7	5	1	-	4-6	9	1800	1	*
Tynemouth	1010.6	-68	S	6	c	47	75	7	8	-	-	7-8	7-8	2500	1	4
St. Abbs Head	1006.7	-62	SW	6	cq	45	85	7	5	2	-	7-8	10	2500	0	3
Leuchars	1001.9	-84	WSW	7	c	46	75	7	5	7	-	4-6	7-8	1800	1	*
Renfrew (Abbots I.)	1002.7	-80	SW'S	6	RR	45	85	6	5	2	-	7-8	10	1800	1	*
Eskdalemuir	1007.8	-54	SW	6	c	44	75	8	5	1	-	7-8	10	1500	1	*
Point of Ayre	1009.3	-52	SW'W	6	c	48	85	8	8	1	-	7-8	10	1500	1	4
Tiree	995.8	-90	W'S	7	RR	42	85	6	-	2	-	10	10	1200	1	6
Stornoway	985.0	-118	SSW	9	rr	42	92	6	6	-	-	7-8	10	1000	1	5
Dalwhinnie	998.1	-54	S	5	rr	40	85	5	5	-	-	10	10	1500	1	*
Aberdeen	1000.4	-74	SSW	4	c/r	47	85	7	6	2	-	7-8	10	1300	1	
Wick	992.7	-90	S'W	7	c	48	75	8	5	2	-	7-8	10	3000	1	*
Sumburgh	993.5	-68	SSW	7	c/r	48	85	7	5	7	-	9	10	1500	1	6
Blacksod Point	1004.1	-38	SWW	7	c/pr	52	97	7	9	-	-	9+	9+	1500	1	6
Malin Head	998.3	-78	SSW	7	ir	48	85	6	3	-	-	9	9	800	0	6
Aldergrove	1005.4	-78	SSW	5	r.r.	46	85	7	5	-	-	10	10	1800	1	*
Birr Castle	1009.8	-66	SW	7	ir	48	85	7	5	-	-	10	10	2500	1	*
Valentia Obsy.	1014.6	-42	SW'S	6	rr	51	92	6	6	2	-	4-6	10	1500	1	5
Roches Point	1017.0	-36	W'S	6	ir	51	92	7	6	2	-	7-8	9+	1500	1	*

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 5th Hrs. (36)
London (Kew)	48	46	44	-	0.2	0.0
Croydon	50	46	42	-	0.6	0.3
S. Farnborough	48	46	43	-	0.2	*.2
Boscombe Down	48	44	41	-	Tr	0.0
Thorney Island	50	48	46	-	0.1	*
Lympne	48	44	41	-	-	0.0
Manston	49	44	40	-	Tr	0.0
Shoeburyness	49	47	42	-	Tr	0.0
Felixstowe	49	45	43	-	1	0.0
Gorleston	48	45	42	-	Tr	*
Mildenhall	49	46	42	-	1	0.0
Cranwell	48	42	40	-	Tr	0.0
Birmingham	48	42	37	0.1	0.5	0.0
Upper Heyford	47	45	43	Tr	Tr	*
Ross-on-Wye	50	46	43	Tr	1	0.2
Hartland Point	51	49	47	Tr	0.6	0.0
Bristol	49			-		
Portland Bill	51	47	*	-	-	*
Plymouth	51	48	29	-	Tr	0.[illegible]
The Lizard	50	47	*	-	-	0.[illegible]
Scilly (St. Mary's)	51	50	*	1	-	0.0
Guernsey						
Pembroke	51	46	*	0.1	3	0.0
Holyhead (Valley)	50	47	39	0.6	Tr	
Chester (Sealand)	52	40	34	1	-	0.2
Manchester	47	39	33	1	-	*
Spurn Head	48	42	*	-	-	
Catterick	49	44	40	0.2	-	3.2
Tynemouth	48	46	41	-	-	*
St. Abbs Head	45	47	*	-	Tr	*
Leuchars	47	42	36	0.4	0.2	0.5
Renfrew (Abbots I.)	48	43	39	1	4	0.3
Eskdalemuir	43	42	40	0.2	1	0.5
Point of Ayre	49	45	*	0.1	1	4.3
Tiree	50	42	*	0.1	8	0.1
Stornoway	46	42	*	1	8	0.0
Dalwhinnie	44	38	35	3	10	0.0
Aberdeen	45	41	36	1	Tr	0.0
Wick	47	39	37	1	7	*
Sumburgh	48	45	42	2	2	0.0
Blacksod Point	52	48	*	0.1	3	[illegible]
Malin Head	50	42	*	3	2	*.5
Aldergrove	47	42	41	-	0.5	0.0
Birr Castle	49	42	39	-	0.5	3.1
Valentia Obsy.	51	47	44	-	5	
Roches Point	52		*	*	2	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	cm cz	cz m	cir m	48	46	44	-	0.2	0.0	*	*	6
Croydon	217	cm cz	cz	cid ir m	50	46	42	-	0.6	0.3	*	*	7
Greenwich (Royal Observatory)	149	cmm	cm	cid c	48	45	42	-	0.5	0.0	63	77	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	49	45	44	0.6			79	85	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	49	46	44	-	Tr		77	75	*
Camden Square	110	c	c	*	49	46	44	-	1	*	*	79	*
Kensington	80	cm	o	*	49	46	43	*	0.6		78	77	*
Hampstead Observatory	450		*								*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 6th

	Max.	Time.	Min.	Time.
South Kensington				
Kew Observatory	0.2	15-18h 5th	<0.1	0-7h 6th

FOREIGN OBSERVATIONS.

Stations	Evening of 5th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 6th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	990.3	SW	3	ps	33	991.8	NE	5	c	31		*		*
Lisbon (18h and 07h)	1017.3	NE	2	z	50	1030.8	NE	4	b	43	55	41	-	-
*Madrid (18h and 07h)	1010.3	NE'N	1	b	43						45		-	
Cairo (Heliopolis) (18h and 06h)						1019.6	SW	3	bc	57		55		-
Toronto (13h and 01h)						1002.3	SW	5	•/d	54		*		*
Washington (13h and 01h)														

¶Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET ... SECTION

Sunday 7th December 1941.

No. 29,235

OBSERVATIONS at 13h. G.M.T. 6th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1015·1	-60	SW'S	4	iro	48	86	7	5	2	-	9	10	1500
	Croydon	1016·3	-56	SW	5	c	48	85	7	5	2	-	9+	10	1900
	S. Farnborough	1016·0	-50	SW	6	dodo	47	86	6	5	2	-	9	10	1200
	Boscombe Down	1015·8	-58	SW'S	6	iro	50	85	7	6	1	8	4-6	9+	1400
	Thorney Island	1017·9	-50	SW	5	jr	48	92	6	5	2	-	9+	10	800
	Lympne	1019·4	-42	SW	6	dodo	45	92	6	3	-	-	10	10	400
	Manston	1017·3	-50	SW'W	6	dodo	46	85	6	5	2	-	9+	10	800
2	Shoeburyness	1016·4	-50	SSW	5	c	49	75	7	5	2	-	7-8	10	1200
	Felixstowe	1015·3	-48	SW	6	c	48	75	7	5	-	-	10	10	2500
	Gorleston	1013·3	-46	SW'S	6	zo	48	75	6	5	-	-	10	10	2000
	Mildenhall	1012·6	-58	SW'S	6	c	48	85	7	5	2	-	7-8	10	1200
	Cranwell	1007·6	-56	SW	6	iro	48	75	7	5	-	-	9+	9+	1000
3	Birmingham	1009·6	-54	SSW	5	roro	46	92	6	6	-	-	10	10	800
	Upper Heyford	1012·4	-46	SW	5	c	48	75	7	5	7	-	7-8	10	1500
4	Ross-on-Wye	1010·5	-60	SW	6	dodo	49	85	6	6	1	-	9+	10	800
5	Hartland Point	1012·9	-36	WSW	7	rr	49	97	6	6	2	-	7-8	10	800
	Bristol	1013·7	-40	SW	5	c	50	75	7	5		-	10	10	1800
	Portland Bill	1016·8	-52	SW	6	c	52	92	7	5	7	-	7-8	10	2500
	Plymouth	1017·8	-42	SW	7	zo	52	85	6	5	2	-	7-8	10	1500
	The Lizard	1017·8	-50	WSW	7	roro	52	85	7	5	-	-	10	10	1500
	Scilly (St. Mary's)	1017·3	-42	W'S	6	rr	51	97	6	5	-	-	10	10	1000
	Guernsey														
6	Pembroke	1010·0	-46	SW'W	9	roro	52	97	6	8	-	-	10	10	1500
7	Holyhead (Valley)	1003·1	-46	WSW	8	roro	52	92	6	6	2	-	9	10	500
	Chester (Sealand)	1003·9	+66	SW'W	6	roro	52	85	6	5	2	-	4-6	10	600
8	Manchester	1004·3	-58	SW	6	rr	48	97	6	6	2	-	9	10	400
10	Spurn Head	1005·2	-66	SW	6	eq	48	85	7	6	2	-	7-8	10	1500
	Catterick	999·0	-78	SW'W	5	rr	50	75	6	6	2	-	2-3	10	800
	Tynemouth	997·4	-60	SW	6	iro	52	85	6	-	2	-	10	10	1500
11	St. Abbs Head	993·2	-32	SW	7	c/r	40	75	8	5	4	-	4-6	9	1000
	Leuchars	991·6	-24	WSW	7	PR	43	92	7	8	-	-	9+	9+	1200
12	Renfrew (Abbots I.)	995·2	-8	W	5	c/pr	46	75	7	9	-	-	4-6	7-8	1000
	Eskdalemuir	997·1	-30	W	5	c/phr	43	85	8	6	7	-	4-6	9	450
	Point of Ayre	1000·2	-24	NW'W	7	c/r	49	85	8	8	1	-	7-8	9	3000
13A	Tiree	993·6	0	WNW	7	bc/pr	46	65	7	8	-	-	4-6	4-6	1500
13B	Stornoway	983·0	-52	WSW	8	c/r	42	85	7	5	7	-	7-8	9+	1500
15	Dalwhinnie	990·0	-10	SSW	5	ir	38	85	7	5	9	-	7-8	9+	2500
	Aberdeen	987·7	-18	WSW	5	bc	49	55	9	1	7	-	1	2-3	1500
	Wick	980·8	-38	SW	8	rr	42	92	7	5	-	-	10	10	700
16	Sumburgh	974·2	-102	WSW	9	c/pr	45	85	8	9	-	-	7-8	7-8	1200
17	Blacksod Point	1004·6	-6	W	6	eq	49	75	8	2	6	-	4-6	7-8	1500
18	Malin Head	998·2	+2	W	8	PHR	42	75	6	3	-	-	9+	9+	800
	Aldergrove	1001·2	+2	W	4	b/pr	43	85	9	3	-	-	1	1	2000
19	Birr Castle	1006·2	0	W	4	pr	49	85	8	9	2	-	7-8	9	1500
20	Valentia Obsy. †	1009·9	-14	W'S	3	roro	49	97	6	5	2	-	4-6	10	1500
	Roches Point	1008·7	-38	W'S	6	rr	53	92	7	6	2	-	7-8	10	800

OBSERVATIONS at 18h. G.M.T. 6th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 6th (37)	Weather 13h.–18h. 6th (38)	Weather 18h. 6th to 1h. 7th (39)	Weather 1h.–7h. 7th (40)
London (Kew)	1006·7	-46	SW	6	iro	50	92	6	5	2	-	9	10	1500	1	•	cmociro	criro	crororr	rorocbc
Croydon	1007·8	-46	SW	5	roro	50	92	6	6	2	-	7-8	10	2100	1	•	c,idoc	cdoro	roroiR	iRrobc
S. Farnborough	1007·9	-50	SW	5	roro	50	92	6	6	-	-	10	10	1500	1	•	cdodomo	doromoc	rorRrmc	crrcbc
Boscombe Down	1008·1	-42	SW	6	iro	50	85	6	6	2	-	9	10	1300	1	•	ciro	crriro	crrmo	c
Thorney Island	1010·5	-38	SW	5	roro	51	92	6	6	2	-	9	10	600	1	•	iroororo	rrroroomo	rorrroro	rorooc
Lympne	1011·9	-44	SW	6	ldo	47	92	6	5	-	-	10	10	400	1	§ 5	cmorodo	cmodo	crorrmo	morrRR
Manston	1009·4	-34	SW	6	dodo	47	85	5	5	-	-	10	10	1200	1	•	morodo	cmododo	cmododoro	
Shoeburyness	1008·8	-44	SW	5	roro	48	92	5	6	2	-	9	10	1100	1	•	cmoiroc	crorome	crrmo	crrmo
Felixstowe	1006·3	-52	SW	6	roro	47	92	6	5	-	-	10	10	1400	1	4	cmoc	cmo ororo	roroiR	orriRc
Gorleston	1004·6	-44	SSW	6	roro	49	85	5	6	-	-	10	10	1500	1	5	czo	copro prq	rororrmo	czo
Mildenhall	1003·5	-44	SW'S	6	iro	50	85	7	5	2	-	9+	10	2300	1	•	c	ciro	ciroromo	cmorobc
Cranwell	1001·8	-2	W'N	4	roro	46	92	6	6	2	-	4-6	10	1000	1	•	cmociro	croro	cmoro	cmoc
Birmingham	1003·7	-26	WNW	3	iR	47	92	6	6	-	-	10	10	800	1	•	oiro	orrR	Rrc	cbc
Upper Heyford	1004·9	-44	SW	5	rr	48	92	6	5	2	-	7-8	10	1000	1	•	c	crooir	crrroro	rocbc
Ross-on-Wye	1003·2	-48	SW	6	roro	51	92	6	6	-	-	10	10	800	1	•	cqdo	dqroq		bc
Hartland Point	1004·3	-34	WSW	7	rr	51	97	6	6	2	-	7-8	10	800	1	5	cirrrc	rrc	rrirc	cprc
Bristol	1005·9	-44	SW	6	rr	50	92	5	6	2	-	9	10	600	1	•	c	crrmoq	crr,cmo	c
Portland Bill	1009·4	-34	SW	6	rr	52	92	7	5	-	-	10	10	2500	1	6	oc	orr	oRb	c
Plymouth	1009·8	-44	SW	8	roro	51	97	6	6	2	-	9	10	1000	1	(2)	ciroc	cromo	crrmoc	c
The Lizard	1010·1	-48	WSW	7	rr	51	92	7	5	-	-	10	10	1000	1	5	ororo	orr	c	cprbc
Scilly (St. Mary's)	1009·0	-64	WSW	6	roro	52	97	6	5	2	-	7-8	10	1000	1	5	crr	croro	crrc	cbcc
Guernsey																				
Pembroke	1004·4	-6	[illegible]	5	RR	48	87	5	8	-	-	9+	9+	1500	1	4	crororqmo	crrmo	cbcq	cq
Holyhead (Valley)	1001·8	-14	WNW	6	c	46	65	7	5	4	6	2-3	9	2000	1	5	croro	rorormoc	c	cbc PH
Chester (Sealand)	1001·9	-8	W	3	zo	47	75	6	5	3	-	4-6	7-8	2000	1	•	cmororo	cmorr	cmoc	cprph
Manchester	1001·9	-4	SW'S	3	zo	45	85	6	4	6	-	2-3	4-6	3500	1	•	crr	rrPRq	pro	cpr
Spurn Head	1000·1	-4	SSW	3	c	47	85	7	6	2	-	7-8	10	1500	1	4	cq	crr	c	c
Catterick	997·8	-8	W	5	b	44	65	7	5	3	-	Tr	1	2500	1	•	crrmo	prob	ciro	b
Tynemouth	996·0	-6	W	6	bcq	45	75	7	2	-	-	2-3	2-3	2500	1	4	cp	oirobcpq	bcq	bcq
St. Abbs Head	991·0	-16	W	7	bcq	41	85	8	4	-	-	2-3	2-3	2500	1	4	rc	cprbcq	cq bcq	cbc
Leuchars	989·3	-12	WSW	6	c/pr	40	85	9	3	-	-	Tr	Tr	1500	1	•	crroPR	cprbcb	bz	bbcx
Renfrew (Abbots I.)	993·6	-14	WNW	5	b	42	75	8	2	-	-	1	1	1800	1	•	RRproc	cPRb	cprbc	cprobc
Eskdalemuir	995·4	-12	WSW	4	pr	39	65	6	-	2	-	10	10	450	1	•	crphrc	cpr	cprc	cbcb
Point of Ayre	998·3	-10	NW'W	7	bc	46	75	8	4	4	-	2-3	2-3	3000	1	5	crrir	cbc	bcc	rrphr
Tiree	992·9	0	WNW	7	bc/phr	43	65	7	8	-	-	7-8	7-8	1500	1	6	cprbc	phqbc	phrbc	bcphr
Stornoway	983·4	-6	WSW	8	c/phr	40	85	7	8	7	-	7-8	9+	1500	2	5	crrRR	cprphr	cphr	cpr
Dalwhinnie	990·4	+20	SW	5	c/ps	35	85	6	5	-	-	9	9	1500	4	•	oirc	cirps		cps
Aberdeen	986·5	-6	W'S	4	b	40	75	8	5	-	3	Tr	Tr	2900	1		cpr.bcby		b	prpsc
Wick	979·9	-22	WSW	6	c/pr	38	85	7	3	6	-	7-8	7-8	1000	1		cprrr	rrcpr	phrPHR	phrPHR
Sumburgh	969·3	-26	WNW	10	pr	45	85	8	8	-	-	7-8	7-8	1500	1	•	rrPR	cPRcpr	PRrrmo	pr
Blacksod Point	1003·7	-4	WNW	6	cq	46	75	7	5	-	-	9+	9+	1500	0	5	bcq	c	bc	pr
Malin Head	996·7	-6	W	8	pr	46	65	6	9	-	-	9+	9+	800	1	6	r	pr	pr	pr
Aldergrove	999·7	-10	W'S	4	c	42	75	8	8	-	7	4-6	10	3000	1	•	roroprqb	b,cproc	cproPR	pr
Birr Castle	1003·9	-10	WSW	2	b	44	75	8	-	-	-	0	0	-	1	•	pr	bc	*	pr
Valentia Obsy. †	1006·8	-8	NNW	4	iro	48	75	8	5	2	-	7-8	10	2500	1	4	r	r	pr	pr
Roches Point	1004·3	-22	NW	5	rr	47	97	7	6	2	-	7-8	10	800	1		rr	rr	r	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. ro, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations — Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

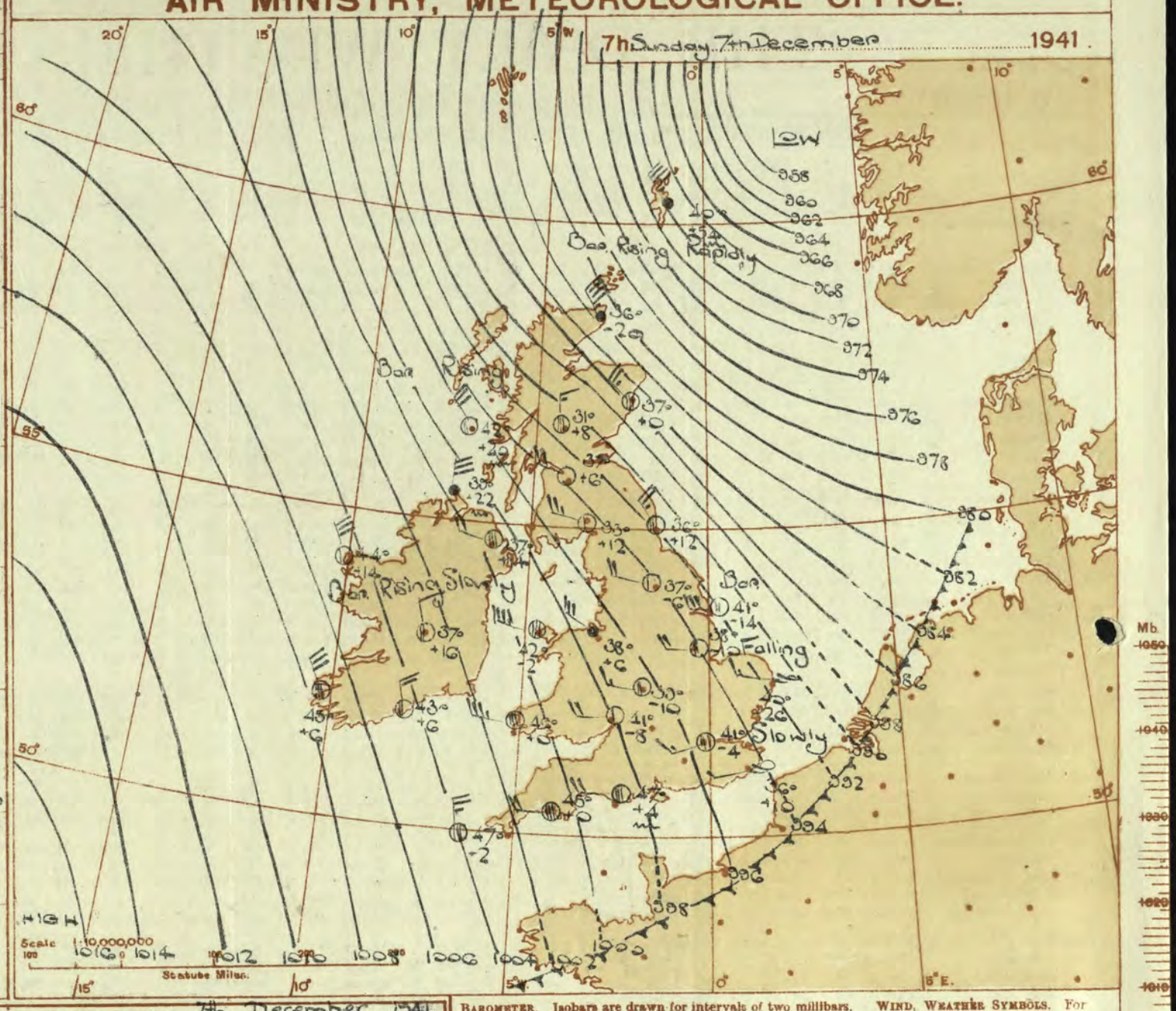
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h Sunday 7th December 1941.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 6th Dec. C$_L$ C$_M$	wwVhN$_h$	DDFWN	18h. G.M.T. C$_L$ C$_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 7th Dec. C$_L$ C$_M$	wwVhN$_h$	DDFWN	07h. G.M.T. C$_L$ C$_M$	wwVhN$_h$	DDFWN
109	91	66548	55888	90	82645	57885	9-	89548	59988	9-	85547	60888
115				52	82734	57387	52	83734	59287			
203	6-		24788	6-	85738	24788	9-	82836	28786			
206	83	25855	55587	8-	01854	55484	9-	27857	57787	9-	88847	61787
210	87	10855	53787	8-	25844	53684	9-	65838	58888	8-	27748	59888
220	80	27746	24886							80	03648	27728
230	3-	27845	90485	8-	18647	52687	20	25645	52687	8-	27645	61685
245	54	01953	23663	30	81844	56514	50	00852	23582	5-	02857	26427
260	97	02855	55665	80	05653	22513	54	01761	19313	57	02764	24317
278	83	02844	58665	8-	02846	57616	8-	25845	62485	8-	81846	29686
279	87	22855	56566	40	01864	55614	20	01841	22483	50	00852	25482
285				27	25744	24684						
288	62	63635	51468	50	00762	22362	53	02854	21427	53	01751	22214
575	90	82844	59684	97	25746	59588	8-	81748	52486	30	01844	26384
301	62	63625	55968	20	01743	57684	20	01753	58583	20	25744	61486
321	62	58623	54668	87	25654	24284	54	05652	24427	45	02765	58487
299	8-	52647	22557	50	01643	22313	51	05654	22315			
292	62	62647	52568	51	01954	23465	53	02863	21325	50	01853	27283
310	--	64628	20668									
614	61	61635	20558	62	64634	57568	03	05630	24227	8-	25654	26284
333	62	62746	18868	5-	02757	24368	21	02856	26518	2-	81848	61628
334	--	66457	26668	--	03646	26417						
340	62	62835	54668	07	22778	22368	07	02830	26328	5-	88748	28488
136	5-	02736	19667	5-	61748	20768	5-	02778	23468	17	01751	24424
336	62	65626	24668	62	64526	20568						
350	62	02735	52658	62	62646	52568	02	62643	24168	07	01730	20314
368	52	61645	53768	62	64636	54768	50	05651	25268	86	25752	26383
379	5-	02747	20527	6-	64638	55668	57	21764	30368	03	02830	28224
390	52	22536	53568	5-	62538	53668	62	64536	26368	07	03630	25467
382	57	02855	55628	52	62745	20568	52	62756	27268	57	02862	22323
438	6-	02648	55888							62	03653	30428
430	5-	62538	53668	62	62647	57668	62	66537	56768	07	02730	27467
409	62	64627	20668	52	61636	20868	21	02753	25468	2-	02855	61585

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$ C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 7th December, 1941
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 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.	Moderate or fresh N.W. winds, strong on coast and at exposed places, gale on coasts at first in the North; Variable cloud today, clearing at night in many areas; Occasional showers of rain in South, wintry showers in North especially on high ground and on coasts with northerly aspect; cold, frost at night.
13A. W. Scotland 13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind N.W. fresh or strong inland, gale at exposed places and severe gale at first on northern coasts; frequent wintry showers; cold, frost at night.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 1-12.

GENERAL INFERENCE.

A very deep depression to eastward of Shetland is moving slowly east and a ridge of high pressure in long. 20 degrees west is also moving slowly east. A feeble trough follows the ridge. Cold N.W. winds occur generally and there will be severe gales in the North of Scotland with frequent wintry showers. Elsewhere there will be fair periods and occasional showers. Frost will occur in many places.

FURTHER OUTLOOK. Fair but cold in N.W. spreading Southeast across Scotland.

Warning of N.W. gale in operation in districts 2, time of issue 0910h on 6.12.41. in districts 6, 10, 11, time of issue 0500h on 6.12.41. in districts 7, 8, 12, 13A, 15, 18 at 0215h on 6.12.41. in districts 13B & 16. at 2245h on 5.12.41.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

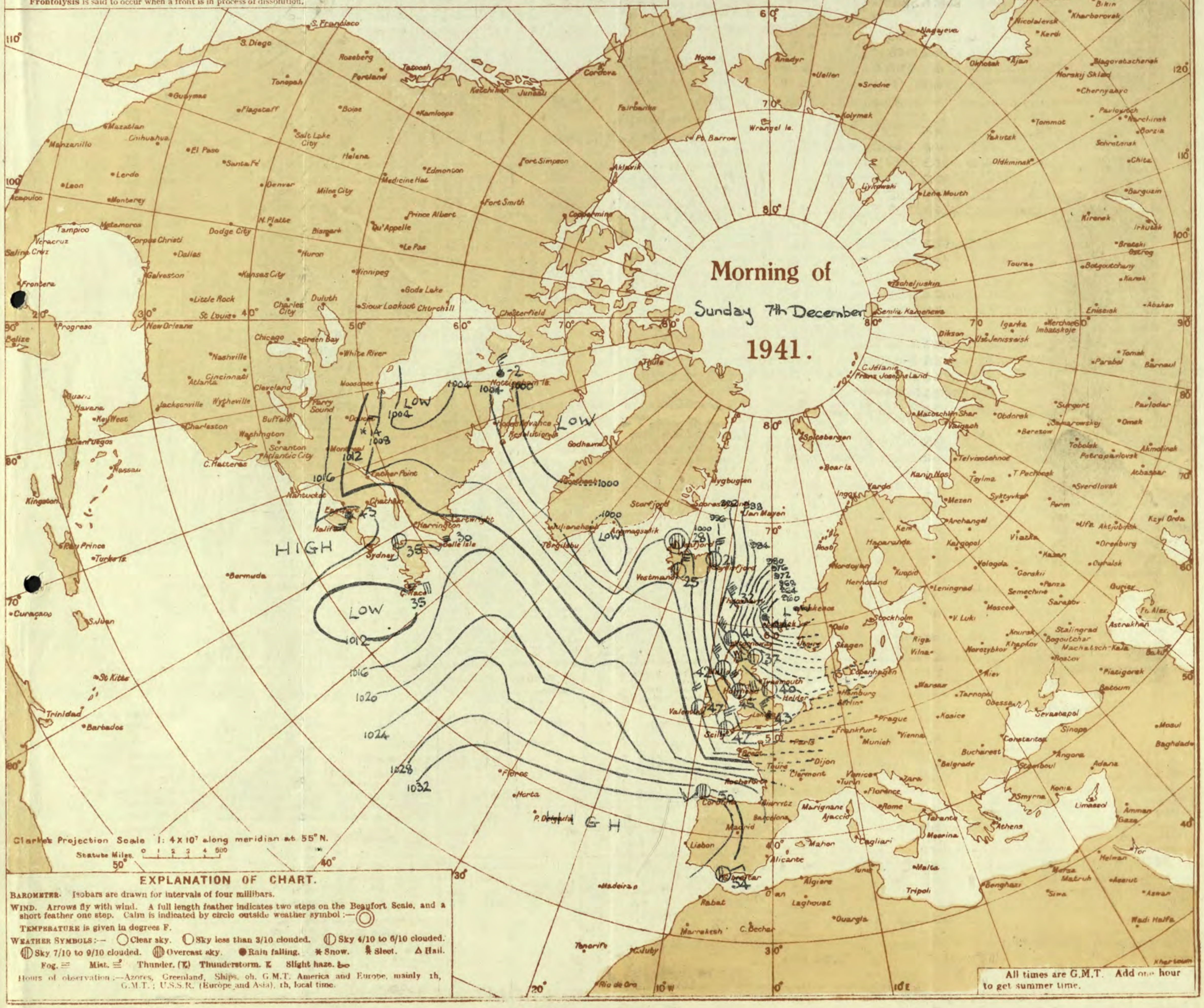
Warm Front. The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.

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.



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. Thunderstorm. Slight haze.

Hours of observation:—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 7th December 1941.

No. 23235

OBSERVATIONS at 1 hr. G.M.T. 7th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	43	*	*	*	*	*	*	*	*
	Croydon	217	996.1	-50	NW	5	ıR	43	97	6	6	2	-	7-8	10	1000
	S. Farnborough	226	996.2	-46	NNW	3	rr	42	92	6	5	-	-	10	10	2600
	Boscombe Down	417	997.9	-34	NNW	3	c/r	41	97	8	5	7	-	7-8	10	3000
	Thorney Island	10	994.8	-78	SW	5	[illegible]	51	97	6	5	-	-	10	10	1500
	Lympne	346	997.6	-70	SW	7	[illegible]	49	97	6	6	2	-	10	10	400
	Manston	154	996.1	-66	SW	7	[illegible]	49	92	6	5	2	-	9	10	1000
2	Shoeburyness	11	996.5	-38	SW	3	rr	47	97	5	6	2	-	7-8	10	1300
	Felixstowe	15	996.0	-40	NNW	3	rr	43	97	6	6	2	-	7-8	10	1000
	Gorleston	5	998.4	-24	WS	3	rr	41	85	6	6	-	-	10	10	1500
	Mildenhall	19	996.8	-38	SWW	2	[illegible]	41	92	6	5	-	-	10	10	1900
	Cranwell	240	995.9	-28	W	3	[illegible]	42	85	6	-	7	-	0	10	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	996.8	-38	NW	2	[illegible]	40	92	7	5	7	-	7-8	10	3500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1000.8	-6	NW	5	c	47	65	7	2	1	-	4-6	10	1500
	Bristol	209	998.9	-8	NW	2	c	41	97	7	5	7	-	4-6	10	2000
	Portland Bill	32	997.9	-36	SW	5	o	46	92	7	5	-	-	10	10	2500
	Plymouth	82	1000.8	+6	NWW	3	c	46	85	7	5	1	-	9	10	2000
	The Lizard	240	1002.8	+12	NNW	5	c	47	85	7	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	163	1004.7	+22	NW	5	c	47	75	7	5	2	-	7-8	10	1500
	Guernsey	175														
6	Pembroke	142	1001.4	-14	NW	6	bcq	47	85	7	8	6	-	2-3	4-6	4000
7	Holyhead (Valley)	26	997.9	-18	NWW	6	c	45	75	8	5	1	-	9	9+	2500
	Chester (Sealand)	16	996.7	-22	W	4	c	45	75	7	5	7	-	7-8	9+	2500
8	Manchester	235	996.5	-18	WS	4	c	42	85	8	4	6	6	4-6	9	3000
10	Spurn Head	29	994.9	-34	WS	2	c	40	85	7	4	7	-	4-6	10	1500
	Catterick	175	993.8	-22	SW	1	pr	41	75	7	5	7	-	9	10	2300
	Tynemouth	108	991.8	-20	W	6	beq	40	85	7	2	3	1	4-6	4-6	2500
11	St. Abbs Head	280	987.9	-14	W	6	bc	39	75	7	5	4	-	2-3	2-3	2500
	Leuchars	36	988.1	-6	WNW	3	b	35	92	9	5	-	-	1	1	3500
12	Renfrew (Abbots I.)	19	991.6	-10	W	4	bc	37	85	7	3	1	-	4-6	4-6	2200
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	994.6	-12	NWW	6	c	45	85	8	8	1	-	7-8	7-8	2000
13A	Tiree	22	993.5	+6	NW	7	bc	42	65	8	8	-	-	4-6	4-6	1800
13B	Stornoway	80	987.9	+26	WNW	8	c/pr	41	65	7	8	7	-	7-8	9+	1500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	39	*	*	*	*	*	*	*	*
	Wick	119	977.9	-6	NW	8	PHR	38	85	6	9	-	-	9+	9+	1200
16	Sumburgh	30	963.5	+26	NW	8	c/pr	45	85	7	8	-	-	7-8	7-8	1200
17	Blacksod Point	18	1002.8	0	WNW	6	beq	46	75	7	2	-	-	4-6	4-6	1500
18	Malin Head	84	995.2	-2	NWN	6	c	52	65	7	2	-	1	4-6	7-8	2500
	Aldergrove	268	996.8	-12	NWW	4	bc/pr	38	92	8	9	6	8	4-6	4-6	1300
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1008.6	0	NWN	4	bc/pr	47	75	8	3	-	-	4-6	4-6	2300
	Roches Point	22	1004.5	0	NW	4	c	45	85	8	5	-	-	4-6	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 7th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 6th Hrs. (36)
London (Kew)	995.2	-4	SW	3	z	41	85	6	5	-	9	4-6	7-8	2500	1	*	50	40	36	0.4	15	0.0
Croydon	995.6	-2	WNW	3	c	39	92	7	5	7	-	1	9+	3000	1	*	50	39	35	0.6	19	0.0
S. Farnborough	996.5	+6	W'N	4	c	41	85	7	-	7	6	0	7-8	-	1	*	51	40	37	0.7	18	0.0
Boscombe Down	998.1	+4	WNW	4	bc	40	85	8	5	-	8	2-3	4-6	2500	1	*	50	40	36	1	10	0.0
Thorney Island	997.4	+6	NW'W	3	c	42	85	8	5	-	8	1	9	2500	1	*	52	41	39	1	11	*
Lympne	995.9	+10	WSW	1	z	36	97	6	-	7	-	0	10	-	1	§	48	36	34	0.1	13	0.0
Manston	994.3	-2	W	3	z	38	97	6	5	-	-	10	10	2600	1	*	48	37	35	0.2	14	0.0
Shoeburyness	995.6	+8	WSW	3	z	40	92	5	6	2	6	4-6	10	1500	1	*	49	38	36	Tr	25	0.0
Felixstowe	992.8	-8	W'S	4	c	39	92	7	-	1	-	0	10	-	1	2	48	37	36	0.1	19	0.0
Gorleston	992.1	-26	W'N	3	z	40	85	6	5	-	-	7-8	7-8	1500	1	3	49	39	35	0.3	15	*
Mildenhall	993.2	-6	WS	4	c	40	85	7	5	7	-	4-6	9+	2500	1	*	51	39	36	Tr	9	0.0
Cranwell	992.7	-10	W	4	bc	38	85	7	5	4	-	4-6	4-6	4000	1	*	49	37	35	3	0.3	0.0
Birmingham	995.9	-10	WNW	3	bc	39	75	8	8	-	1	4-6	4-6	1500	1	*	48	38	33	8	5	0.0
Upper Heyford	995.6	-8	W'S	3	bc	38	92	8	-	5	5	0	2-3	-	1	*	49	38	35	2	13	*
Ross-on-Wye	997.1	-8	W	4	b	41	75	8	5	-	-	1	1	3000	1	*	51	40	35	4	14	0.0
Hartland Point	1000.8	-2	NW	5	c/pr	46	65	8	8	-	-	7-8	7-8	1500	1	5	51	42	41	5	6	0.0
Bristol	998.4	+10	WNW	3	c	40	85	7	5	4	-	9	9	2000	1	*	52	39	34	5	20	0.0
Portland Bill	999.2	+4	W	4	c	47	92	7	5	7	-	7-8	9	2500	1	5	53	40	*	2	7	*
Plymouth	1001.5	0	WNW	4	c	45	75	7	8	3	-	4-6	9	2000	1	2	53	44	43	5	8	0
The Lizard	1003.4	-4	NW	6	bc	46	85	8	8	6	-	4-6	4-6	1500	1	5	52	43	*	4	8	0
Scilly (St. Mary's)	1004.4	-2	NNW	5	c/p	47	75	8	8	-	-	9	9	1200	1	5	52	46	*	3	5	0.0
Guernsey																						
Pembroke	1001.1	0	WNW	7	cq	46	85	7	8	-	-	9	9	2500	1	4	52	42	*	6	11	0.0
Holyhead (Valley)	996.7	-2	WNW	7	c/p	42	65	8	3	-	-	7-8	7-8	1500	1	6	45	41	32	5	0.4	x
Chester (Sealand)	995.7	+6	NWW	6	pr	38	85	6	5	-	-	10	10	800	1	*	53	37	32	4	3	0.0
Manchester	994.4	0	W	4	c/pr	35	97	8	2	6	-	4-6	7-8	3000	1	*	50	35	34	12	0.3	*
Spurn Head	990.9	-14	W	6	bc	41	75	7	3	-	-	4-6	4-6	1500	0	4	49	40	*	1	Tr	0.0
Catterick	992.4	+6	WNW	4	b	37	75	7	5	4	-	Tr	1	2500	1	*	51	32	32	3	Tr	0.0
Tynemouth	994.4	+12	NW	5	bc	36	85	7	2	-	-	2-3	2-3	2500	1	3	52	35	32	1	-	*
St. Abbs Head	988.7	+16	WSW	6	c	37	92	7	4	4	-	4-6	9	2500	0	4	49	36	*	4	-	*
Leuchars	988.9	+12	W	4	c	36	85	9	5	-	-	7-8	7-8	3200	1	*	48	35	30	4	Tr	1.7
Renfrew (Abbots I.)	992.6	+6	WNW	4	bc	37	65	8	4	-	8	2-3	4-6	3000	1	*	48	34	30	8	2	1.4
Eskdalemuir	991.5	+12	WNW	5	b	33	75	8	5	-	-	Tr	Tr	1500	3		47	33	30	16	1	0.4
Point of Ayre	995.1	+12	NNW	6	bc	41	85	8	9	-	-	4-6	4-6	2000	1	5	51	38	*	3	3	0.8
Tiree	994.7	+20	NW'N	6	bc	42	65	8	8	-	-	4-6	4-6	1800	0	6	48	40	*+	2	4	1.2
Stornoway	992.1	+14	WNW	8	c/pr	36	85	7	8	7	-	7-8	9+	1500	1	4	49	34	*	6	2	0.0
Dalwhinnie	991.3	+8	N	3	c	31	85	7	8	-	-	7-8	7-8	2500	4	*	43	31	30	16	1	0.1
Aberdeen	984.4	0	NW'W	5	c	37	65	8	2	-	-	9+	9+	1500	1	4	49	35	32	0.1	0.3	3.5
Wick	981.6	+20	NW	10	PHR	36	75	6	9	-	-	10	10	1000	1	*	48	41	33	3	3	*
Sumburgh	969.3	+54	NW'N	9	[illegible]	40	92	6	6	-	-	10	10	800	1	7	48	39	37	5	6	0.0
Blacksod Point	1005.0	+14	NNW	6	bc/pr	44	55	5	2	6	-	4-6	4-6	2500	1	5	54	41	*	0.3	1	[illegible]
Malin Head	999.1	+22	N	6	PHR	39	85	6	3	-	-	9	9	800	1	6	51	49	37	3	1	1.7
Aldergrove	998.5	+14	WNW	4	c/pr	37	85	7	3	1	3	2-3	7-8	1200	1	*	48	34	32	2	3	2.4
Birr Castle	1003.2	+6	SNW	2	bc	37	85	8	5	-	-	4-6	4-6	4000	1	*	52	36	34	3	0.4	0.0
Valentia Obsy.	1007.6	+6	NNW	5	c/pr	45	75	8	3	-	-	9	9	2500	1	4	54	41	30	8	3	
Roches Point	1005.2	+6	NNW	4	bc	43	85	8	5	-	-	2-3	2-3	2500	1		54	48	*	10	1	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	cmgcir	cgir	cgbr	50	40	36	0.4	15	0.0	*	*	6
Croydon	217	c,idc	cdg	bgir	50	39	35	0.6	19	0.0	*	*	5
Greenwich (Royal Observatory)	149	c	c	gdrrr	51	39	32	Tr	22		83	82	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	52	40	38		18		73	93	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110	c	c	*	51	40	35	1	21	*	*	86	*
Kensington	80	o	ocp	*	51	40	34	0.1	21		91	86	*
Hampstead Observatory	450	or	or *	bc	49	37	35	Tr	20		*	89	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 7th.

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
0.1	9-18h. 6th	<0.1	0-6h. 7th

FOREIGN OBSERVATIONS.

Stations	Evening of 6th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 7th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)						1004.9	E	1	c	30		*		*
Lisbon (18h and 07h)	1030.8	NNE	2	b	52	1026.8	W	2	c	50	54	48	-	-
*Madrid (18h and 07h)														
Cairo (Heliopolis) (18h and 06h)														
Toronto (13h and 01h)	1010.5	W	6	p/ps	35									
Washington (13h and 01h)														

*Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

§ Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		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	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Monday 8th December 1941.

No. 29236

OBSERVATIONS at 13h. G.M.T. 7th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	997.4	+14	NW'W	4	zo	42	65	6	5	-	-	9	9	1500
	Croydon	1006.9	+6	NW	4	c	40	75	6	8	-	-	4-6	9	2000
	S. Farnborough	998.0	+10	NW	4	c	42	65	8	2	-	-	7-8	7-8	2500
	Boscombe Down	999.5	+8	NNW	5	c	42	75	8	2	-	-	7-8	7-8	2500
	Thorney Island	998.3	+2	WNW	5	c	43	75	9	2	-	-	7-8	7-8	2500
	Lympne	996.7	+2	NW	4	zo	41	75	6	2	-	-	4-6	4-6	2500
	Manston	995.3	+6	NW'W	5	c	42	65	7	2	-	-	7-8	7-8	2000
2	Shoeburyness	996.1	+4	W'N	4	bc	42	75	7	1	-	-	2-3	2-3	2500
	Felixstowe	994.3	+10	NW'W	6	bc	42	75	8	1	-	-	2-3	2-3	1500
	Gorleston	992.9	+4	NW'W	4	bc	40	75	7	2	-	-	2-3	2-3	3000
	Mildenhall	994.2	+2	W	4	zo	41	75	6	1	-	9	Tr	2-3	2500
	Cranwell	994.3	+4	WNW	5	zo	41	65	6	1	4	1	Tr	4-6	2000
3	Birmingham	998.5	+10	WNW	4	bc/ps	37	85	6	8	-	-	4-6	4-6	1500
	Upper Heyford	997.3	+10	NW'W	4	b	40	75	8	2	4	-	1	1	2000
4	Ross-on-Wye	999.6	+6	WNW	4	bc	43	55	8	8	-	-	2-3	2-3	3500
5	Hartland Point	1003.6	+12	NW	5	c	44	65	8	5	-	-	7-8	7-8	1500
	Bristol	1000.3	+14	NW	4	bcq	42	65	7	2	4	-	2-3	2-3	2000
	Portland Bill	1000.2	-8	WNW	4	bc	45	85	8	2	-	-	4-6	4-6	4000
	Plymouth	1006.7	+16	NNW	4	c/pr	44	65	7	9	-	-	9	9	1800
	The Lizard	1005.2	+12	NW	6	bc/pr	44	75	8	2	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1007.0	+10	N'W	5	bc	47	45	8	8	6	-	4-6	4-6	1500
	Guernsey														
6	Pembroke	1003.7	+8	NW'N	6	bcq	44	75	8	2	-	-	4-6	4-6	2500
7	Holyhead (Valley)	999.5	+4	NW	6	bc	43	65	8	2	-	-	4-6	4-6	2000
	Chester (Sealand)	997.2	+2	WNW	5	c/pr	39	85	8	3	6	-	7-8	7-8	1000
8	Manchester	996.5	+4	WNW	6	bc	41	65	7	4	6	3	2-3	4-6	3000
10	Spurn Head	991.5	-2	NW'W	6	bc	41	65	7	-	4	3	0	4-6	-
	Catterick	993.3	+2	NW'W	4	b	40	55	8	2	3	-	Tr	1	2500
	Tynemouth	991.1	-4	W	5	bc	38	65	7	.	4	-	0	2-3	-
11	St. Abbs Head	989.1	+2	NW	6	psh	39	65	8	8	4	-	4-6	7-8	2500
	Leuchars	990.8	+8	WNW	6	bc/ps	35	92	8	8	6	-	4-6	4-6	2200
12	Renfrew (Abbots I.)	994.5	+4	NNW	5	bc	40	55	9	3	-	-	2-3	2-3	1800
	Eskdalemuir	992.9	+2	NW	6	b	36	65	8	7	-	-	1	1	2500
	Point of Ayre	996.6	-4	N'W	7	cjp	43	75	8	9	-	-	9+	9+	2000
13A	Tiree	997.6	+4	N'W	6	bc	43	65	8	8	-	-	4-6	4-6	2500
13B	Stornoway	994.1	+6	NW	7	c/phr	37	85	7	3	6	-	4-6	7-8	2000
15	Dalwhinnie	992.0	+6	NW	3	ps	31	85	7	8	-	-	9+	9+	2500
	Aberdeen	985.9	+6	NW'W	6	ps	37	55	6	3	-	-	10	10	1500
	Wick	984.8	+10	NW	9	c/phr	36	85	6	9	7	-	7-8	9+	800
16	Sumburgh	976.6	+42	NNW	8	roro	42	92	6	6	-	-	10	10	1000
17	Blacksod Point	1006.8	+4	WNW	4	c/pr	44	85	8	9	6	-	2-3	9	2500
18	Malin Head	999.4	-4	N'W	8	pr	44	65	7	9	-	-	9	9	1500
	Aldergrove	999.5	-2	WNW	4	c/pr	39	85	8	9	6	3	4-6	7-8	2000
19	Birr Castle	1005.6	0	NNW	2	bc	44	65	8	5	-	4	2-3	4-6	2500
20	Valentia Obsy. †	1009.9	+4	NW'N	5	c/pr	46	65	8	2	7	6	1	9+	2500
	Roches Point	1007.5	-2	NW'N	4	c	45	75	8	8	4	-	7-8	7-8	2500

OBSERVATIONS at 18h. G.M.T. 7th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 7th (37)	Weather 13h.–18h. 7th (38)	Weather 18h. 7th to 1h. 8th (39)	Weather 1h.–7h. 8th (40)
London (Kew)	998.5	+10	WSW	3	zo	40	65	6	5	-	-	7-8	7-8	2500	1	*	mobczo	cbeczo	qrbcb	bmox
Croydon	998.2	+6	W	3	zo	37	75	6	-	3	-	0	7-8	-	1	*	cmozo	czobzo	Wophox	bxbmox
S. Farnborough	999.3	+6	W	4	b	37	95	8	4	-	-	Tr	Tr	2500	1	*	cbc	cbcb	b, cprq, bx	bx
Boscombe Down	1000.8	+6	W'N	3	bc	37	75	7	5	-	-	1	2-3	2000	1	*	prc	cprob	bceprbc	bcbx
Thorney Island	1000.1	+6	NW'W	4	b	39	75	7	5	-	-	Tr	Tr	2500	1	*	cprqc	beprob	b, cirob	bw
Lympne	998.6	+14	WNW	4	zo	35	75	5	-	-	-	0	0	-	1	§4	bcbczo	bczobzo	probmox	
Manston	996.6	+10	W'N	4	zo	38	75	6	1	-	-	Tr	Tr	2000	1	*	cmocbc	bc, bzo	bcbmozo	
Shoeburyness	997.4	+6	WNW	4	b	37	85	6	-	-	-	0	0	-	1	*	cmobc	bcbmo	bmox	
Felixstowe	995.5	+10	WNW	6	b	39	75	6	-	-	-	0	0	-	1	4	bc	bcbmo	bmob	bbccbbc
Gorleston	993.8	+6	W	3	zo	40	65	6	-	-	-	0	0	-	1	3	bc	bczol	bccx	cx
Mildenhall	995.1	+6	W'S	4	bc	37	85	7	5	-	-	4-6	4-6	4000	0	*	cb	bbc	bbcmo	bccbcmox
Cranwell	994.9	+4	NW'W	3	zo	36	75	6	-	-	-	0	0	-	1	*	bmobc	b, c, bmo	bmo	bzo
Birmingham	998.9	+2	WNW	3	bc/s	33	97	6	9	-	-	4-6	4-6	1500	6	*	bcps	cps S	bcpso	bc
Upper Heyford	998.4	+10	NW	4	ps	38	65	6	8	-	-	9	9	1000	1	*	bcorobc	bcprso	bcpsob	bx
Ross-on-Wye	1000.0	0	W	4	bc	39	75	8	1	-	-	4-6	4-6	3000	1	*	cbtc	bc	cpobc	bcc
Hartland Point	1004.0	+2	NW	4	c	45	55	7	8	-	-	7-8	7-8	1500	1	5	cprc	cy	cprc	cbcc
Bristol	1001.3	+2	WNW	4	c	39	75	7	4	-	-	7-8	7-8	2000	1	*	cbo	cpprb	crr, c	bbcc
Portland Bill	1002.4	+8	NW	5	c	44	85	8	5	-	-	7-8	7-8	4000	1	5	bc	c	c	bcc
Plymouth	1005.1	+10	NW	5	bc	43	65	8	4	-	-	2-3	2-3	3000	1	4	cpr	cb	bcb, cjp	cbcc
The Lizard	1006.1	+4	NW	5	c	44	65	8	8	6	-	7-8	7-8	1500	0	3	cprbc	bcc	cproc	bcprc
Scilly (St. Mary's)	1007.9	+6	NNW	5	cjp	45	65	8	8	-	-	7-8	9+	1500	1	4	cprobc	bcc	cpoqc	cpo
Guernsey																				
Pembroke	1003.5	-2	NW'W	7	cq	46	75	8	8	-	-	7-8	7-8	2500	1	4	cbcq	bccq	cq	bcq
Holyhead (Valley)	999.9	+6	WNW	6	bc/phr	42	75	8	3	-	-	4-6	4-6	1500	1	5	cphrbc	cphr	bc	bcproc
Chester (Sealand)	997.8	+13	WNW	6	bc/pr	39	75	6	9	-	-	4-6	4-6	800	1	*	cphrq	cPHRq	cbc	cbc
Manchester	996.8	+4	W'N	3	b	35	97	7	3	-	-	1	1	2500	1	*	probc	prsph	b	bx
Spurn Head	992.3	+4	WNW	6	b	40	65	7	-	-	-	0	0	-	0	4	bcb	bcb	o	cq
Catterick	994.4	+8	WNW	4	bc	37	55	7	5	-	-	2-3	2-3	4000	1	*	bbcb	bcbbc	bcb	cbc
Tynemouth	992.3	+8	NW	5	bc	37	65	7	2	-	-	4-6	4-6	2500	1	5	bc	bcc	bcc	c
St. Abbs Head	989.5	+4	NW	7	bcq	38	85	8	4	4	-	4-6	4-6	2500	0	4	cpsh	pshc	cbccq	cbcq
Leuchars	991.6	+10	WNW	6	bc	37	65	9	4	-	-	4-6	4-6	2200	1	*	bccpspso	psbcrphobc	bcbbc	bc
Renfrew (Abbots I.)	996.2	+14	NW	4	b	37	65	8	5	-	-	1	1	1800	1	*	bcpsobc	bcyb	bbc	bcbba
Eskdalemuir	994.4	+10	NW'W	5	b	32	75	8	7	7	-	Tr	1	2500	3	*	bcxb	byb	b	bbx
Point of Ayre	997.7	+8	N	7	b	42	75	8	9	4	-	Tr	1	1500		6	prc	bphb	phrbc	cbc
Tiree	999.8	+20	N	6	bc/phr	43	65	8	8	-	5	4-6	4-6	1800	0	6	prbc	bcpho	bcc	bc
Stornoway	997.0	+14	NW	6	c/phr	37	85	7	3	6	-	4-6	7-8	1500	4		cpsPH	cpsph.	cph	c
Dalwhinnie	995.2	+18	NNW	3	c/s	31	85	7	8	-	-	9	9	2500	8	*	cps	cis		cis
Aberdeen	988.3	+26	NW	6	pr	36	92	7	3	-	-	4-6	4-6	1500	1	4	bccpsy	cps, bcpro	cpsoc	cpro
Wick	989.8	+34	NW'N	7	prs	37	85	7	3	6	3	7-8	9+	1000	1		PHRps	prsPH prs.	pr.sphc	c
Sumburgh	983.7	+46	N'W	8	c/pr	40	92	7	8	-	-	9	9	1200	1	7	crorom	roroc	cbccpr.	cpro
Blacksod Point	1007.2	+8	NNW	5	c/pr	45	75	8	9	-	-	9	9	2500	1	5	prc	prc	bc	d
Malin Head	1001.7	+14	NNW	5	phr	40	85	6	3	-	-	9+	9+	800	1	6	pr	pr	c	bc
Aldergrove	1000.8	+4	NW	3	bc/pr	37	85	8	5	-	-	4-6	4-6	1800	1	*	bcpr.s	cprbcpr	prspr.	pr.cbcc
Birr Castle	1005.3	+6	N	2	c	40	85	8	5	1	.	7-8	9	2500	1	*	bc	bc	*	bc
Valentia Obsy. †	1010.1	+2	NW'N	4	pr	46	75	8	9	-	2	7-8	9+	2500	1	4	prc	pr	cprc	prc
Roches Point	1007.4	-2	NW'W	4	bc	44	85	8	3	-	5	2-3	4-6	2500	1		prc	prbo	cprc	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,-Ci: Cirrocumulus,-Cc: Cirrostratus,-Cs: Altocumulus,-Ac: Altostratus,-As: Stratocumulus,-Sc: Stratus,-St: Nimbostratus,-Ns: Cumulus,-Cu: Cumulonimbus,-Cb.

COLUMN 29 —STATE OF GROUND.

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

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

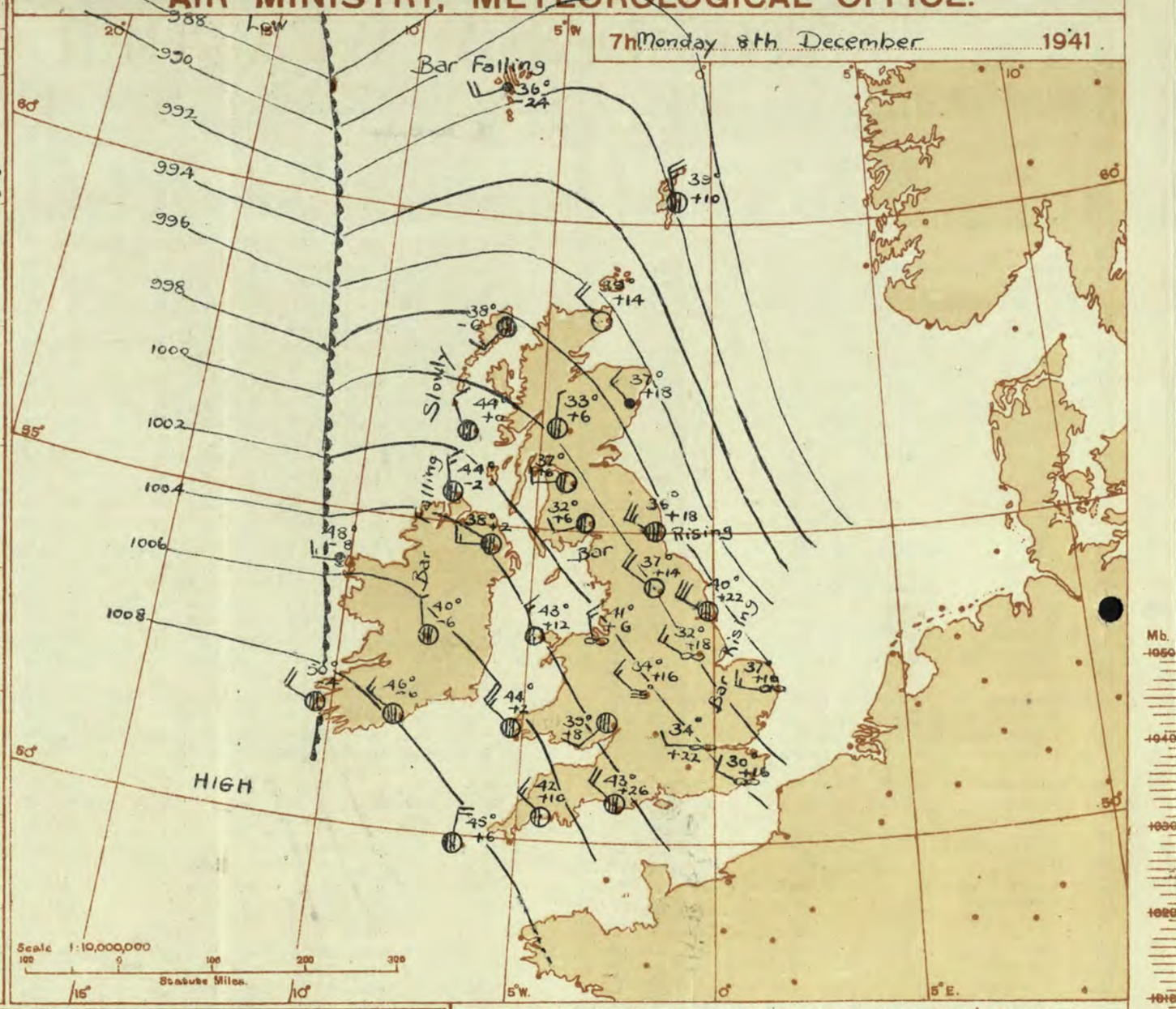
Abridged observations of additional stations in the AVIATION WEATHER CODE

III	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN
	13h. G.M.T. 7th Dec:			18h. G.M.T.			01h. G.M.T. 8th Dec:			07h. G.M.T.		
109	9-	86537	62987	9-	25548	63888	5-	03758	30728	5-	02767	28427
115	57	88834	63987	52	88834	65887	57	02834	32586	57	02844	28427
203	9-	85838	28788	9-	81838	28788	5-	03838	28728			
206	87	26745	61487	9-	83748	28488	8-	02856	282265	-	02856	262866
210	9-	83637	60887	8-	02747	61787	8-	02758	58688	83	02855	57426
220	80	01854	28714	80	02446	28616						
230	9-	26846	61586	8-	02746	30586	84	01754	30484	5-	02867	30417
245	86	14855	61686	9-	01854	61614	80	01963	65413	5-	02966	60517
260	70	01965	26315	57	02755	22325	5-	02867	24317	50	01761	26314
273 278	36	27845	62786	3-	27843	62683	8-	02847	62627	54	01865	26425
279	70	00852	26513	04	00890	26502	06	00890	26403	46	01861	26204
285												
288	10	00851	59401	47	01775	58416	5-	02777	60427	03	02790	27327
575	3-	25845	62485	86	25844	62485	37	25854	30485	57	01853	28215
301	30	00742	62682	20	00741	61781	20	00753	61613	4-	02755	62515
321	-	01790	24414	50	05651	26401	03	05690	60414	04	05630	26413
299	54	01752	26303				5-	02847	26627			
292	14	01962	60413	40	00963	58403	53	01962	26413	53	01963	26415
310										--	01633	32413
614	10	01652	26314	00	05690	24410	04	05690	30101	50	05651	26104
333	2-	91857	60527	9-	27845	60685	2-	01852	30582	8-	81857	30417
334										--	25547	04188
340	9-	81637	61487	3-	24674	59474	07	01890	30213	07	05690	26212
136	00	05690	26812	50	00752	26502	5-	02887	25617	5-	02877	27627
336										14	01762	28414
350	13	05651	5483									
368	80	25853	26413	80	00753	81583	80	81745	28285	54	02755	24286
379	20	01852	28912	50	01854	26484	00	00830	28470	03	00790	28411
390	8-	05665	26585	4-	25655	26415	00	05690	26500	04	05630	24201
382	16	01853	60513	54	01863	24413	54	00761	25301	54	00861	26302
438										51	01753	22714
430	5-	01945	28425	00	00890	27410	40	00761	25381	84	00751	24302
409	80	01845	63585	50	01844	63584	8-	02855	63525	86	02854	64585

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 4.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h Monday 8th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 8th December 1941
1 S.E. England	Moderate North West winds backing Westerly tomorrow and freshening. Fine
2 E. England ...	today; cloudy with some rain or drizzle tomorrow; cold today,
3 E. Midlands ...	becoming milder.
4 W. Midlands ...	Wind northwest moderate backing west. Fair most of today then rain;
5 S.W. England	becoming slowly milder
6 South Wales ...	
7 North Wales ...	Wind westerly backing southwest, increasing fresh perhaps strong on
8 N.W. England	coasts later, fair at first, cloud increasing; occasional rain or drizzle by
9 N. Midlands ...	tonight; becoming milder
10 N.E. England	Wind backing Southwest becoming fresh to strong, gale probable on
11 S.E. Scotland	coasts; becoming cloudy with occasional snow or sleet, probably
12 S.W. Scotland & Isle of Man.	turning to rain; becoming milder.
13A. W. Scotland	
13B. N.W Scotland	
14 Mid Scotland	Wind backing south west increasing strong to gale; wintry showers of
15 N. E. Scotland	occasional snow sleet and rain later.
16 Orkneys and Shetlands	
17 N. W. Ireland	Winds westerly, moderate or fresh, becoming strong perhaps gale
18 N. E. Ireland	on northern coasts; cloudy or dull; occasional rain or drizzle;
19 S. E. Ireland	milder.
20 S. W. Ireland	

GENERAL INFERENCE.

A ridge of relatively high pressure over the British Isles is moving eastsoutheast and will decline with the advance eastsoutheast of a deepening depression north of Iceland. Weather will be fine in East and South England today but unsettled conditions with some rain will spread across the country. There will be snow, locally in Scotland at first but conditions will become milder generally

FURTHER OUTLOOK.

Continuing unsettled; probably rather disturbed generally
Gale warning in operation in district 16
Time of issue 2245 on 5-12-41

Forecasts issued at 1080 GMT

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Monday 8th December,

1941.

HIGH

LOW

LOW

LOW

Clarke's Projection Scale 1: 4 X 10⁷ 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. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 8th December 1941.

No. 29236

OBSERVATIONS at 1 hr. G.M.T. 8th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	35*	*	*	*	*	*	*	*	*
	Croydon ...	217	999·0	+4	WSW	4	b	34	92	7	-	-	-	0	0	-
	S. Farnborough	226	1000·0	+2	W'N	3	b	35	85	8	-	-	-	0	0	-
	Boscombe Down	417	1001·9	+4	WNW	4	bc	35	85	8	5	-	-	2-3	2-3	5700
	Thorney Island	10	1000·7	+2	NW	4	b	37	92	8	1	4	8	Tr	1	4000
	Lympne ...	346	999·4	+4	WNW	2	z.	32	92	6	-	4	-	0	Tr	-
	Manston ...	154	1007·6	+6	NW'W	4	z.	36	75	6	-	-	-	0	0	-
2	Shoeburyness ...	11	998·6	+4	NW'W	3	b	34	85	6	-	-	-	0	0	-
	Felixstowe ...	15	997·6	+10	WNW	5	b	36	85	7	-	-	-	0	0	-
	Gorleston ...	5	998·0	+8	W'N	4	z.	34	86	6	5	3	-	4-6	7-8	2500
	Mildenhall ...	19	996·5	+4	W	4	z.	33	85	6	-	4	-	0	2-3	-
	Cranwell ...	240	997·4	+14	WNW	4	z.	33	75	6	-	3	-	0	4-6	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	999·4	+6	WNW	5	b	34	88	8	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1004·6	+4	N	5	c/pr	45	65	8	3	-	-	7-8	7-8	2500
	Bristol ...	209	1002·5	+6	W	2	bc	37	85	8	5	3	-	2-3	2-3	3000
	Portland Bill ...	32	1002·8	+6	N	5	c	44	85	8	2	-	-	7-8	7-8	4000
	Plymouth ...	82	1005·1	+4	NW	4	c/p	42	75	8	8	-	3	7-8	7-8	5000
	The Lizard ...	240	1006·4	+2	N'E	5	c/pr	42	85	8	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1007·8	0	NNW	5	c	46	85	8	8	7	-	4-6	7-8	1500
	Guernsey ...	175														
6	Pembroke ...	142	1004·9	+10	NW	6	cq	44	85	8	8	6	-	7-8	9	2500
7	Holyhead (Valley	26	1001·9	+12	NNW	6	c	43	65	8	8	6	-	2-3	7-8	1500
	Chester (Sealand)	16	1000·0	+10	NWN	4	bc	41	75	7	2	-	-	4-6	4-6	2000
8	Manchester ...	235	999·0	+6	WNW	4	b	35	85	7	2	-	-	1	1	3000
10	Spurn Head ...	29	994·6	+18	NW'W	7	o	39	65	7	5	-	-	10	10	2500
	Catterick ...	175	997·1	+14	WNW	4	b	37	65	7	-	3	-	0	1	-
	Tynemouth ...	108	994·8	+12	NW	5	c	36	65	7	8	-	-	9	9	2500
11	St. Abbs Head	280	994·3	+30	NW	7	cq	39	75	8	8	4	-	4-6	7-8	1500
	Leuchars ...	36	996·0	+20	WNW	3	bc	39	65	9	5	-	-	4-6	4-6	2500
12	Renfrew (Abbotsl.)	19	999·2	+16	W	4	bc	38	65	8	5	3	-	2-3	4-6	3500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1000·6	+10	N'W	7	c	43	75	8	9	4	-	2-3	7-8	2000
13A	Tiree	22	1002·2	+8	N	5	c	43	65	8	8	-	-	7-8	7-8	2500
13B	Stornoway ...	80	1000·0	+8	NW	4	c	39	75	7	8	7	-	7-8	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	119	994·2	+18	NW'N	6	c	39	75	7	8	-	-	10	10	3500
16	Sumburgh ...	30	989·7	+32	NNW	6	pr	40	85	7	8	-	-	9+	9+	1000
17	Blacksod Point	18	1007·0	-6	NNW	3	bc	45	85	8	2	-	-	4-6	4-6	2500
18	Malin Head ...	84	1002·9	+6	N'W	5	c	45	85	8	9	-	-	9	9	2500
	Aldergrove ...	268	1003·2	+10	W'S	3	pr	39	85	7	8	6	-	4-6	10	1500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1009·7	-4	NNW	4	c/pr	49	75	8	2	7	3	1	10	2500
	Roches Point	22	1008·6	+6	WNW	3	c	43	85	8	5	-	-	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 8th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1002·3	+16	W	2	z.	34	85	6	5	-	-	Tr	Tr	2500	1	*
	Croydon ...	1002·2	+22	W	2	z.	34	85	6	-	4	-	0	Tr	-	4	*
	S. Farnborough	1002·7	+18	W'N	2	b	34	85	7	-	3	-	0	Tr	-	1	*
	Boscombe Down	1004·5	+18	WNW	3	c	35	85	8	5	-	-	7-8	7-8	4000	1	*
	Thorney Island	1003·5	+18	W'N	2	b	35	92	8	2	4	-	Tr	Tr		1	*
	Lympne ...	1001·8	+16	WNW	2	z.	30	92	6	-	4	-	0	Tr	-	1	§ 3
	Manston ...	1000·0	+14	NW	4	z.	36	75	6	-	3	-	0	1	-	1	*
2	Shoeburyness ...	1001·2	+10	W'N	1	b	34	85	5	-	2	-	0	1	-	1	*
	Felixstowe ...	999·4	+18	NW'W	5	bc	35	75	7	5	-	-	4-6	4-6	7200	1	
	Gorleston ...	997·0	+10	W'N	3	z.	37	75	6	5	3	-	4-6	9	2500	0	3
	Mildenhall ...	999·5	+18	WNW	4	z.	32	85	6	-	3	-	0	2-3	-	0	*
	Cranwell ...	1000·5	+18	NW	3	z.	32	75	6	5	-	-	Tr	Tr	4000	3	*
3	Birmingham ...	1002·8	+16	NW	3	m	34	85	4	5	2	-	2-3	4-6	2500	7	*
	Upper Heyford	1001·9	+16	WNW	3	b	33	85	8	-	-	5	0	Tr	-	4	*
4	Ross-on-Wye	1003·7	+8	SW'W	2	c	39	75	8	5	-	-	9+	9+	3000	1	*
5	Hartland Point	1006·0	+6	NW	4	c	45	65	8	8	-	-	7-8	7-8	2500	1	5
	Bristol ...	1004·4	+10	WNW	3	c	38	92	7	5	-	-	9+	9+	3000	1	*
	Portland Bill ...	1004·7	+26	NW	4	c	43	85	8	2	4	-	4-6	7-8	4000	1	5
	Plymouth ...	1006·5	+10	NW	3	bc	42	75	7	5	-	-	4-6	4-6	4000	1	3
	The Lizard ...	1007·7	+8	NW	4	c/pr	42	85	8	8	6	-	7-8	7-8	1500	1	4
	Scilly (St. Mary's)	1008·5	+6	N'E	4	c/pr	45	85	8	8	7	-	4-6	9+	1500	1	5
	Guernsey ...																
6	Pembroke ...	1006·0	+2	NW	5	bcq	44	85	8	2	-	-	4-6	4-6	4000	1	3
7	Holyhead (Valley	1003·7	+12	NNW	3	c	43	65	8	8	-	-	7-8	7-8	2500	1	5
	Chester (Sealand)	1002·2	+6	NNW	3	z.	41	65	6	2	-	-	2-3	4-6	2500	1	*
8	Manchester ...	1002·4	+14	NW'W	2	b	32	85	6	4	-	-	1	1	4000	3	*
10	Spurn Head ...	998·5	+22	WNW	6	cq	40	65	7	5	-	-	9+	9+	2500	0	4
	Catterick ...	1000·4	+14	NW	4	bc	37	65	6	5	1	-	Tr	2-3	5500	1	*
	Tynemouth ...	998·7	+18	WNW	5	c	36	75	7	5	-	-	9+	9+	1500	1	4
11	St. Abbs Head	997·9	+20	W	5	bc	38	75	8	4	4	-	2-3	4-6	2500	0	4
	Leuchars ...	998·5	+14	W	3	bc	37	75	9	5	4	8	2-3	2-3	2500	3	*
12	Renfrew (Abbotsl.)	1000·9	+6	W'S	2	bc	37	65	8	5	-	-	4-6	4-6	3000	1	*
	Eskdalemuir ...	1000·7	+6	WSW	2	bc	32	65	8	5	-	2	Tr	4-6	2500	3	
	Point of Ayre ...	1002·0	+6	N	5	bc	44	65	8	8	4	-	4-6	4-6	2000	0	4
13A	Tiree	1002·1	0	NW'N	2	c	44	65	8	5	-	-	9	9	2500	0	1
13B	Stornoway ...	999·0	-6	SW	3	c	38	85	8	5	7	-	9	10	2000	1	2
15	Dalwhinnie ...	1000·3	+6	N'	1	c	33	85	8	8	-	-	7-8	7-8	2500	8	*
	Aberdeen ...	997·1	+18	NW	3	pr	37	85	8	8	-	-	9	9	1700	1	3
	Wick ...	996·5	+14	NW	4	c	39	75	8	5	-	-	10	10	2500	1	*
16	Sumburgh ...	992·7	+10	NNW	5	c	39	75	8	8	-	-	9+	9+	1500	1	6
17	Blacksod Point	1005·8	-8	W	3	id.	48	97	7	6	-	-	10	10	1500	1	3
18	Malin Head ...	1002·7	-2	NNW	3	c/pr	44	85	8	6	-	-	7-8	7-8	2500	1	5
	Aldergrove ...	1004·0	+2	W	3	c	38	85	8	5	6	8	7-8	9+	2500	1	*
19	Birr Castle ...	1006·3	-6	NNW	1	c	40	92	8	5	1	-	7-8	9	2500	1	*
20	Valentia Obsy.	1008·7	-4	NW'W	4	c/pr	50	85	8	8	-	-	9+	9+	2500	1	4
	Roches Point	1007·6	-6	NW	3	c	46	85	8	5	-	-	7-8	7-8	2500	1	4

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F. (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine ....7h. Hrs. (36)
1	London (Kew)	43	34	27	-	1	4·4
	Croydon ...	42	33	26	-	1	3·0
	S. Farnborough	43	33	28	-	0·5	5·0
	Boscombe Down	43	34	30	0·5	1	4·4
	Thorney Island	45	34	28	0·3	Tr	*
	Lympne ...	43	30	26	-	-	4·8
	Manston ...	44	34	30	-	-	3·6
2	Shoeburyness ...	43			-		
	Felixstowe ...	42	35	31	-	-	4·0
	Gorleston ...	42	33	28	-	-	*
	Mildenhall ...	42	31	25	-	Tr	2·6
	Cranwell ...	42	32	28	-	-	0·0
3	Birmingham ...	38	33	28	9	0·1	2·8
	Upper Heyford	40	32	32	Tr	3	*
4	Ross-on-Wye	43	37	31	-	Tr	5·0
5	Hartland Point	46	41	39	1	Tr	3·2
	Bristol ...	43	35	30	0·4	4	5·0
	Portland Bill ...	52	41	*	-	-	*
	Plymouth ...	47	41	34	0·5	1	5·3
	The Lizard ...	47	40	*	0·5	3	5·3
	Scilly (St. Mary's)	48	43	*	Tr	1	5·2
	Guernsey ...						
6	Pembroke ...	46	40	*	-	0·3	4·2
7	Holyhead (Valley	44	41	38	0·4	Tr	*
	Chester (Sealand)	42	38	30	9	Tr	1·3
8	Manchester ...	42	32	27	0·1	-	*
10	Spurn Head ...	41	37	*	-	-	5·9
	Catterick ...	40	35	29	-	-	5·8
	Tynemouth ...	40	35	31	-	-	*
11	St. Abbs Head	38	35	*	Tr	-	*
	Leuchars ...	37	36	36	0·1	-	1·8
12	Renfrew (Abbotsl.)	40	34	26	Tr	-	5·0
	Eskdalemuir ...	37	29	24	-	-	5·1
	Point of Ayre ...	44	40	*	3	Tr	1·2
13A	Tiree	44	42	*	0·3	-	1·2
13B	Stornoway ...	38	36	*	3	1	0·4
15	Dalwhinnie ...	32	31	28	3	1	0·0
	Aberdeen ...	38	34	32	1	1	1·6
	Wick ...	41	35	34	1	0·4	*
16	Sumburgh ...	43	38	36	7	0·2	0·0
17	Blacksod Point	45	41	*	0·5		
18	Malin Head ...	45	46	37	2	0·5	0·0
	Aldergrove ...	42	36	32	3	0·3	1·3
19	Birr Castle ...	44	33	30	-	-	4·3
20	Valentia Obsy.	47	45	42	1	0·4	4·2
	Roches Point	46	*	*	0·1	0·1	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h

	Height above M.S.L. in feet	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs.	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
KEW	18	mbez.	cbccz.	grbebmx	43	34	27	-	1	4·4	*	*	5
CROYDON	217	cmz.	czbz.	rphexbm	42	33	26	-	1	3·0	*	*	4
GREENWICH (Royal Observatory)...	149	cmc	cbc	rrcbxf	41	32	25	-	1	1·7	68	82	3
CITY (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
WESTMINSTER (St. James' Park) ...	27	*	*	*	43	32	30	2			67	81	*
REGENTS PK. (Botanic Gardens)‡...	168	*	*	*	43	34	28	-	2		75	85	*
CAMDEN SQUARE	110	bc	bc	*	42	33	29	-	3	*	*	85	*
KENSINGTON	80	bc	bcb	*	43	33	24	-	2		71	84	*
HAMPSTEAD OBSERVATORY	450	bc	bcosex	bc	41	30	24	-	2		*	90	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 8th

SOUTH KENSINGTON. Max.	Time.	Min.	Time.

KEW OBSERVATORY. Max.	Time.	Min.	Time.
0·2	6h 8th	<0·1	0-3h 8th

FOREIGN OBSERVATIONS.

Evening of 7th December ... Morning of 8th December

Stations	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	995·9	E	4	c/d	34	984·3	WSW	3	id.	41
Lisbon (18h and 07h)	1018·6	SW	5	ir.	54	1014·6	NNE	4	c	54
Madrid (18h and 07h)										
Cairo (Heliopolis) (18h and 06h)										
Toronto (13h and 01h)						1020·8	ENE	2	c	22
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
55	50	0·1	15

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

Objects not visible at

0	Dense fog	55	yards.
1	Thick fog	220	,,
2	Fog	550	,,
3	Moderate fog	1,100	,,
4	Mist or haze	1¼	miles.
5	Poor visibility	2½	,,
6	Moderate ,,	6½	,,
7	Good ,,	12½	,,
8	Very good ,,	31	,,
9	Excellent ,,	beyond 31m.	

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. † Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Tuesday 9th December 1941.

No 29237

OBSERVATIONS at 13h. G.M.T. 8th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1006·0	+8	WNW	1	zo	41	65	6	5	-	-	9+	9+	2500
	Croydon	1005·9	+10	WNW	3	zo	40	75	5	5	3	-	4-6	9+	4000
	S. Farnborough	1006·6	+10	WNW	3	c	42	75	7	5	-	-	9+	9+	4200
	Boscombe Down	1007·3	+6	WNW	3	zo	44	75	6	2	-	-	1	7-8	2500
	Thorney Island	1006·7	+10	WNW	3	c	43	75	7	5	-	-	9+	9+	4000
	Lympne ...	1005·7	+6	WNW	3	m	37	85	4	-	-	-	0	0	-
	Manston ...	1004·2	-10	NW	4	zo	41	65	6	-	3	1	0	2-3	-
2	Shoeburyness ...	1005·6	+16	WNW	3	bc	42	65	6	-	-	5	0	2-3	-
	Felixstowe ...	1003·5	+20	NW'W	4	zo	40	65	6	5	-	-	9+	9+	5700
	Gorleston ...	1002·3	+18	WNW	4	zo	40	65	6	5	-	-	10	10	1500
	Mildenhall ...	1004·3	+18	W'N	3	zo	41	65	6	5	7	4	1	4-6	4000
	Cranwell ...	1003·8	+4	W'N	3	zo	40	65	5	-	3	3	0	7-8	-
3	Birmingham	1005·8	+8	W	2	iro	38	85	4	5	-	-	10	10	1500
	Upper Heyford	1005·[illegible]	+4	WSW	2	c	38	85	8	5	-	-	9+	9+	3000
4	Ross-on-Wye ...	1006·2	0	W	2	c	44	65	8	5	3	-	1	9+	3000
5	Hartland Point	1008·2	0	NW	3	bc	46	65	9	5	4	5	4-6	4-6	2500
	Bristol	1007·0	+4	WNW	3	c	44	75	7	5	3	9	2-3	9	3000
	Portland Bill ...	1007·4	+6	NW	4	c	46	85	8	2	4	-	7-8	9	4000
	Plymouth ...	1009·0	+2	W'N	2	bc	48	75	8	5	-	1	4-6	4-6	4500
	The Lizard ...	1009·5	+4	NW	9	bc	48	75	8	8	4	-	4-6	4-6	2500
	Scilly (St. Mary's)	1010·2	+2	W	2	c	49	85	8	8	7	-	4-6	9+	1500
	Guernsey ...														
6	Pembroke ...	1007·7	+2	W'N	3	c	48	85	8	8	4	-	4-6	7-8	4000
7	Holyhead (Valley)	1004·6	-2	WNW	4	c	48	75	9	2	3	5	2-3	7-8	2000
	Chester (Sealand)	1004·5	+4	W'N	3	zo	45	75	6	5	7	-	4-6	9+	2000
8	Manchester ...	1004·7	+2	-	0	pr	39	75	4	4	3	-	4-6	9+	3000
10	Spurn Head ...	1001·9	+10	WNW	5	bc	40	65	7	1	3	-	4-6	4-6	2500
	Catterick ...	1002·7	-2	W	2	c	39	65	8	-	5	-	0	9	-
	Tynemouth ...	1001·9	+10	W	4	c	38	35	6	5	4	-	4-6	7-8	3000
11	St. Abbs Head	999·7	0	WNW	5	c	39	65	8	5	5	-	7-8	9	2500
	Leuchars ...	999·0	-14	WSW	4	c	38	75	8	-	7	-	0	10	-
12	Renfrew (Abbots L)	1001·1	-10	N'S	2	zo	42	75	6	5	7	-	9+	10	5000
	Eskdalemuir ...	1000·9	-2	SW'W	3	c	37	75	8	5	7	-	2-3	10	1500
	Point of Ayre ...	1003·0	-4	WNW	4	c	40	85	8	2	3	-	1	9	2000
13A	Tiree	1000·1	-16	W'N	3	c/r	49	85	8	5	-	-	7-8	7-8	2100
13B	Stornoway ...	995·9	-18	SSW	5	c/pr	45	97	7	9	7	-	7-8	9+	2000
15	Dalwhinnie ...	998·8	-10	SW	3	c	38	85	8	8	-	-	9+	9+	2500
	Aberdeen ...	997·2	-14	W'S	2	c	40	75	6	-	7	-	0	9+	-
	Wick	994·6	-18	SW	3	c/d	39	85	8	5	2	7	1	10	4000
16	Sumburgh ...	991·6	-14	W	4	iro	43	85	7	5	2	-	4-6	10	2000
17	Blacksod Point..	1004·8	-8	W'N	3	bc/pr	50	92	7	2	6	9	4-6	4-6	1500
18	Malin Head ...	1000·6	-16	W	3	c	49	85	8	2	9	-	4-6	7-8	2500
	Aldergrove ...	1003·6	-10	ESE	2	c	42	92	7	5	-	-	9	10	500
19	Birr Castle ...	1006·0	-6	SSW	2	c	48	92	8	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1008·8	-6	W	3	bc/pr	51	85	8	2	-	-	4-6	4-6	1500
	Roches Point ...	1007·5	-12	WNW	3	bc	51	85	8	3	3	-	2-3	4-6	1500

OBSERVATIONS at 18h. G.M.T. 8th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 8th (37)	Weather 13h.–18h. 8th (38)	Weather 18h 8th to 1h. 9th (39)	Weather 1h.–7h. 9th (40)
London (Kew)	1007·4	+12	SW'W	2	zo	41	85	5	5	-	-	7-8	7-8	2500	1	*	b,cxczo	czocmo	cbcemo	cidocmo
Croydon	1007·2	+10	SW	2	m	40	85	4	5	-	-	7-8	7-8	3000	1	*	bmoxbm	cmocm	cmcmoido	cbcc, ido
S. Farnborough	1007·8	+12	WSW	3	bc	39	85	6	5	3	-	2-3	4-6	4000	1	*	bcc	ccbcmow	bcmocw	cwc
Boscombe Down	1008·2	+12	W'S	3	bc	40	85	7	5	4	-	2-3	4-6	5000	1	*	bcc	bc	ciromo,cm	bcido
Thorney Island	1008·3	+14	WNW	3	zo	41	85	5	5	-	-	7-8	7-8	4000	1	*	bmoc	cbc	cmorc	idoirobc
Lympne	1008·0	+16	W'N	3	m	37	85	4	-	7	-	0	4-6	-	1	§3	bmoxbm	bbccm	cmmoiro	cmorodo
Manston	1006·7	+20	W'N	3	zo	36	85	5	-	3	-	0	9	-	1	*	bcbbczo	bcczo	cmo	bcc
Shoeburyness	1007·0	+12	W	2	m	39	85	4	-	3	-	0	10	-	1	*	bmobcbmo	bmomc	cmpro cm	cmpro
Felixstowe	1005·9	+10	W	4	m	37	75	4	5	-	-	9+	9+	4700	1	4	ccmo	cmocm	cm	cmbcmo
Gorleston	1005·2	+18	W	2	zo	39	65	5	5	-	-	4-6	4-6	1500	0	2	czo	bczo	czobc	bbcmo
Mildenhall	1005·2	+14	SW'W	4	m	38	85	4	5	-	-	7-8	7-8	4300	0	*	cbczo	cm	cmiromo	cmoiro
Cranwell	1004·3	+6	SW'W	3	m	38	92	4	5	-	-	10	10	2500	1	*	bczo	bczocm	cmiro	cmoido
Birmingham	1005·8	+6	WSW	3	m	40	75	4	5	-	-	10	10	2500	4	*	oro	cm	c	ciro
Upper Heyford	1006·4	+12	WSW	2	zo	39	85	6	5	-	-	9	9	4500	1	*	bxbcc	ciromo	bccmo	iromocmo
Ross-on-Wye	1006·6	+4	SW	3	c	43	75	8	5	7	-	7-8	7-8	3000	1	*	pocc	cbcc	cbcc	c
Hartland Point	1007·9	-2	WSW	4	c	47	92	7	5	2	-	7-8	9+	2500	1	3	cbc	bc d.	cirpr	cprc
Bristol	1007·7	+4	W	4	bc	42	85	7	5	3	-	2-3	4-6	3500	1	*	cmobcc	c	cbc	cdd.d.
Portland Bill	1008·4	+10	WNW	4	c	47	85	8	5	7	-	7-8	9	2500	1	4	c	c	c	c
Plymouth	1009·5	+8	NW	2	c/zo	48	75	6	5	-	-	9+	9+	3000	0	2	cmobc	cbcczo	cmow	c
The Lizard	1010·0	+4	W	4	c/pr	49	92	8	8	2	-	7-8	10	1500	1	3	bccbc	cproc	cprbc	cprc
Scilly (St. Mary's)	1009·6	+6	WNW	4	c	49	97	8	1	4	-	4-6	7-8	1200	1		cpoc	c	cbcpo	cpo
Guernsey																				
Pembroke	1006·5	-12	W	5	c/r	50	97	7	8	-	-	9	9	1500	1	3	bcqc	cror	c	rocqpr.
Holyhead (Valley)	1004·0	-2	WSW	5	o	48	92	7	5	-	-	10	10	1500	0	4	cbc	bcc	cido	cidoc
Chester (Sealand)	1004·0	0	SW	1	zo	45	85	6	5	-	-	9+	9+	2300	1	*	cprmo	cmo	mododoc	cmomdmd
Manchester	1004·3	+2	SW	3	zo	42	92	5	5	-	-	10	10	1300	1	*	cm	cprom	idodod	cdodomo
Spurn Head	1002·2	+4	SW'W	3	zo	39	75	6	5	-	-	10	10	2500	0	4	obc	cmo	cmo	c
Catterick	1001·1	-10	W'S	3	c	43	85	7	5	7	-	7-8	9+	6000	0	*	bcvc	c	cmocbc	bcc
Tynemouth	1000·7	-12	W	3	zo	43	85	5	5	-	-	9+	9+	2400	1	4	bcqc	cmo	cmobc	bcc
St. Abbs Head	997·5	-6	W	3	o	41	85	7	5	-	-	10	10	2500	0	3	c	co	bcc	c
Leuchars	995·6	-20	WSW	4	zo	41	97	6	3	7	-	2-3	7-8	3500	1	*	c	ccmo	cmoc	cbc
Renfrew (Abbots L)	997·8	-22	SW'W	4	zo	47	85	6	5	2	-	9+	10	1800	1	*	bccmo	cmiromo	ciroc	cciro
Eskdalemuir	999·9	-4	SSW	3	roro	39	97	5	-	2	-	10	10	220	1	*	bxbcc	ciro	r	r
Point of Ayre	1001·6	-10	WNW	5	c	48	92	7	6	2	-	9	10	1500	1	5	bcprc	cror c	c	c
Tiree	998·0	-4	WNW	4	c/r	49	85	7	5	-	-	9+	9+	1500	1	4	odro	cir	cido	cido
Stornoway	992·9	-24	WSW	3	c/d	47	97	7	5	7	-	7-8	10	1000	1	2	cpro	cido	cido	cido
Dalwhinnie	996·5	-10	-	0	o	39	92	7	5	-	-	10	10	2500	6	*	c	co		cido
Aberdeen	994·5	-14	SW	1	c	40	75	6	-	7	-	0	9+	-	1	2	czo	czo	czo	crrbc
Wick	991·3	-14	SW	3	ido	44	92	8	5	2	-	9	10	2500	1	*	irocidoc	cirodo	dodoc	c -
Sumburgh	986·7	-28	WSW	5	rr	45	97	5	6	-	-	10	10	800	1	5	oro	crorrmo	rrorom.	iromo
Blacksod Point	1004·2	0	WSW	4	o/d	50	85	7	5	-	-	10	10	1500	1	3	bcpr	d	c	dr
Malin Head	1000·1	0	W	4	ido	49	92	6	9	-	-	9+	9+	800	0	5	c	d	c	c
Aldergrove	1001·9	-4	SW	3	c/d	45	97	6	5	-	-	7-8	9+	800	1	*	c	idoomc	cidocmo	cidoc
Birr Castle	1005·5	+4	SW	2	ido	47	97	7	5	-	-	10	10	2500	1	*	bc	d	*	bc
Valentia Obsy. †	1008·5	0	W	4	ido	50	85	8	5	-	-	10	10	1500	1	3	bcpr	pr	cidoc	drr
Roches Point	1007·4	+2	W	2	c	50	85	8	5	-	-	9+	9+	1500	1		d	bc	bcc	bcc

cmbc.

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,-Ci: Cirrocumulus,-Cc: Cirrostratus,-Cs: Altocumulus,-Ac: Altostratus,-As: Stratocumulus,-Sc: Stratus,-St: Nimbostratus,-Ns: Cumulus,-Cu: Cumulonimbus,-Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

Abridged observations of additional stations in the

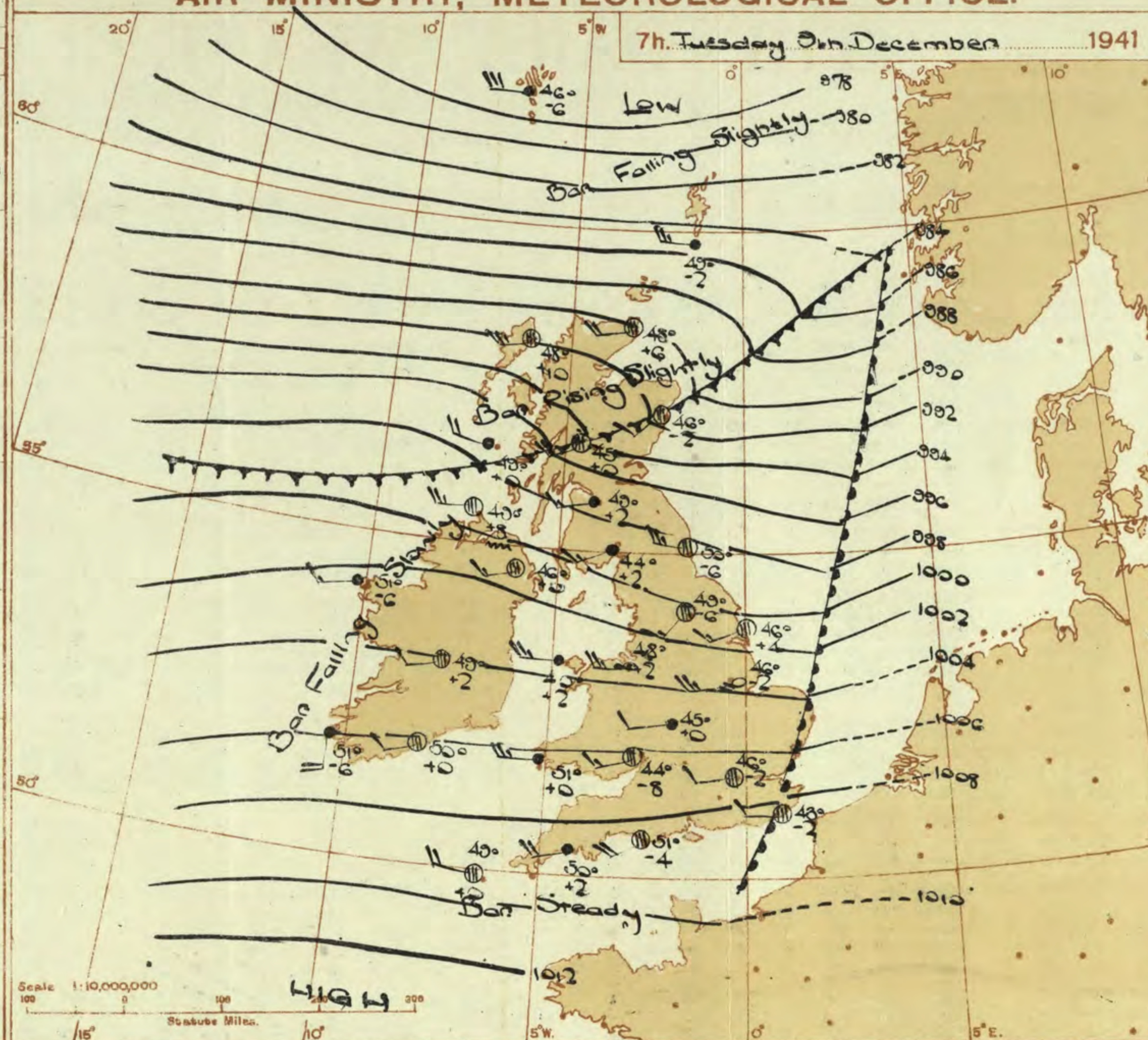
AVIATION WEATHER CODE

13h. G.M.T. 8th Dec:			18h. G.M.T.			01h. G.M.T. 9th Dec:			07h. G.M.T.		
II C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN
10 52	61744	23468	52	52536	24468	52	02635	57658	52	62538	57658
11 52	62635	20588	52	81834	24587	52	62734	30587	--	67309	22569
203						5-	03738	20688			
20 57	02961	26285	57	02964	24325	52	61855	55468	54	02854	56556
21 57	02985	20328	57	02855	18328	57	02865	54528	51	02864	22426
22 52	05736	23258							52	03635	24328
23 5-	51638	21258	62	51637	19358	57	51646	19358	57	51745	20358
24 07	02990	22318	50	02753	20223	07	02990	22227	53	02981	22367
26 57	02772	21328	51	05644	22358	52	02757	55558	5-	02754	21427
27 57	02867	22368	51	02744	23457	5-	02858	22328	57	22745	20368
279 57	02863	22223	5-	21648	21458	5-	02758	23458	57	02756	21428
28 53	02855	28417	50	02634	28454				23	02744	28526
28 53	02785	22216	57	22785	19268	5-	02857	20217	51	02765	22227
575			6-	21648	24358	5-	02748	24328	5-	02748	24328
301 23	02752	27487	52	61735	26468	5-	21658	23468	5-	02758	24458
32 03	05590	28314	51	08455	22327	5-	05648	24368	5-	05658	23428
299 53	01744	26414	50	01746	24316	50	05544	26214	5-	05644	24125
292 02	02890	24215	5-	05566	20126	6-	02847	20267	57	02854	22327
310 --	71436	20416							--	46209	20349
614 54	05675	22126	53	08455	26226	53	05664	22327	5-	21658	24258
33 5-	02957	24317	82	02854	20258	52	61755	22358	52	02846	24368
33 --	02655	04216	--	02646	04217				--	02647	20528
340 27	81846	26287	5-	02766	22326	5-	22858	22268	5-	02857	08127
136 54	05676	25527	53	17474	24316	04	05690	22464	5-	05668	21428
336 52	01753	28327	54	01753	24315				52	02753	24428
350						5-	05628	20328	5-	61634	22428
368 83	02864	26487				54	02747	22358	5-	05634	24358
379 5-	02757	26327	53	01763	20214				5-	05648	22449
390 04	05690	26315	5-	08478	26418	03	08490	22364	5-	62558	22358
38[illegible] 57	22666	24227	53	05663	23327	6-	05634	22327	52	21636	20358
43[illegible] 8-	01773	26313							8-	10757	22587
430 57	02852	24317	03	05590	24123	57	51646	26168	57	05653	24327
400 80	01854	30384	5-	02748	22358	53	25735	23387	5-	51638	24458

II = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page .
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Tuesday 9th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE.—Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Tuesday 9th December
1 S.E. England 2 E. England 3 E. Midlands	Moderate westerly wind; cloudy; occasional slight rain or drizzle; mild.
4 W. Midlands 5 S.W. England 6 South Wales 7 North Wales 8 N.W. England	Moderate westerly wind, fresh on coasts, backing southwest later; cloudy, occasional slight rain or drizzle at first, more general rain later; mild
9 N. Midlands 10 N.E. England 11 S.E. Scotland	As 1-3
12 S.W. Scotland & Isle of Man.	As 4-8
13A. W. Scotland 13B. N.W. Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands 17 N. W. Ireland	Fresh westerly wind strong in exposed places, backing southwest and perhaps increasing to gale on coasts; cloudy, rain at times; mild
18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 4-8

GENERAL INFERENCE.

Pressure is low to north and high to south of the British Isles. A depression to Southeast of Greenland will move quickly eastwards. Weather will be generally cloudy and mild and occasional rain or drizzle will occur in most districts today. More general rain will reach the West and Northwest later and spread eastwards across the country

FURTHER OUTLOOK.

Cloudy and mild with occasional rain in the South, changeable in the North.

Forecasts issued at 10.30h.

N. K. JOHNSON, D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

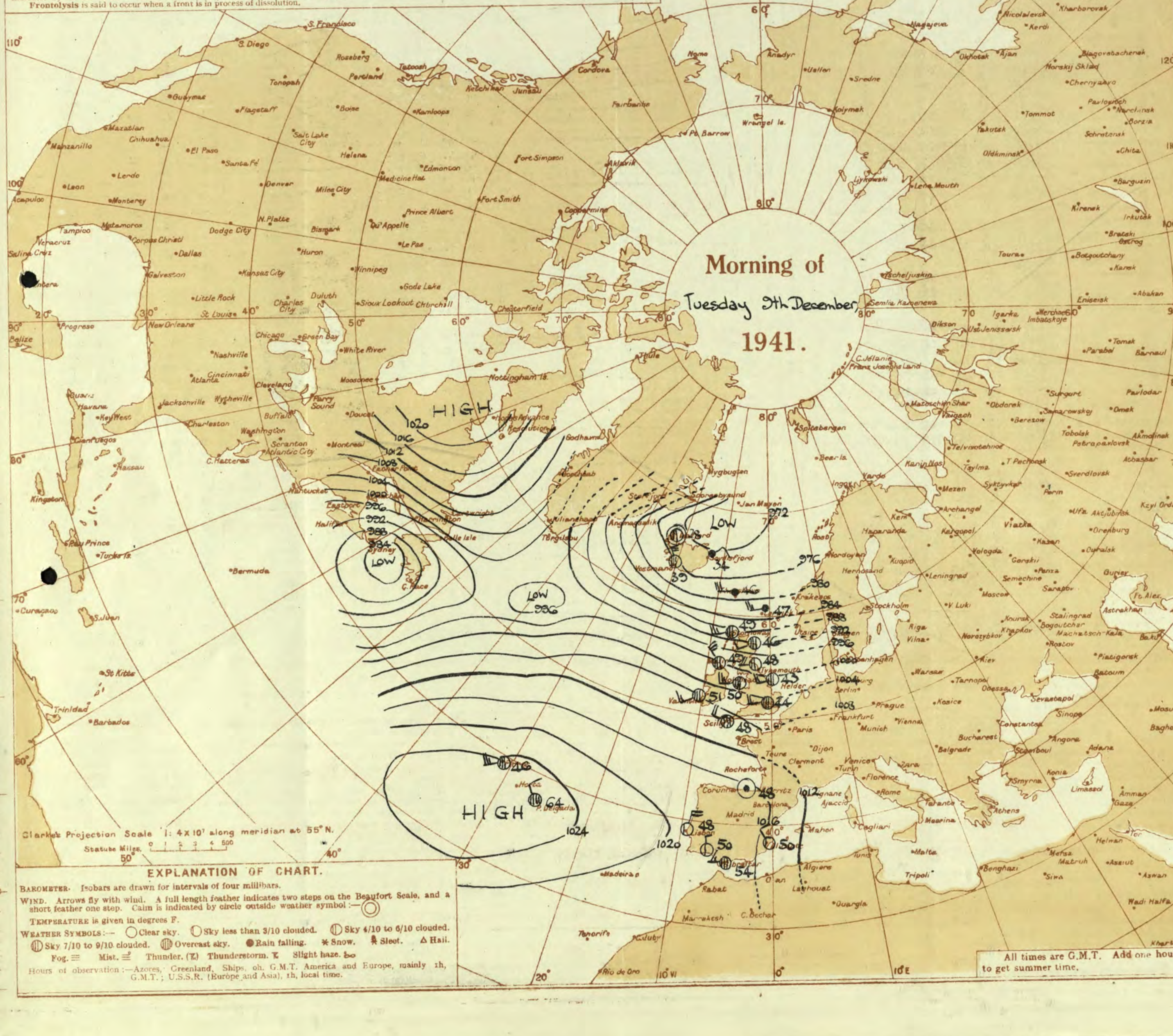
Warm Front. The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.

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.



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. T Slight haze. ∞

Hours of observation:—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4. AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 9th December 1941.

No. 29237

OBSERVATIONS at 1 hr. G.M.T. 9th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	42	*	*	*	*	*	*	*	*
	Croydon	217	1007.1	-6	WSW	3	c	44	85	7	5	-	-	10	10	1800
	S. Farnborough	226	1007.2	-8	SW'W	3	c	44	85	7	5	7	-	9	10	1200
	Boscombe Down	417	1007.9	-6	SW'W	3	c	44	92	8	5	7	-	7-8	9+	3200
	Thorney Island	10	1008.3	-2	SW	2	c	44	92	6	5	7	-	9+	10	1700
	Lympne	346	1008.4	-2	W	2	ir.	39	92	6	5	2	-	2-3	9+	4000
	Manston	154	1007.0	-2	SW'W	3	z.	39	85	6	5	-	-	9+	9+	5000
2	Shoeburyness	11	1007.0	-6	W'N	2	m	42	85	4	-	3	-	0	10	-
	Felixstowe	15	1005.8	-2	WSW	4	m	41	85	4	5	7	-	2-3	10	4000
	Gorleston	5	1005.2	0	SW'W	3	z.	42	75	6	5	3	-	4-6	4-6	2500
	Mildenhall	19	1004.8	-2	SW'S	4	z.	41	85	6	5	7	-	2-3	9	4000
	Cranwell	240	1003.1	-8	WSW	4	z.	41	92	5	-	3	1	0	7-8	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1006.1	-4	SW	4	z.	42	97	5	5	-	-	10	10	200
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1007.3	-2	W	4	c/pr	49	92	8	2	1	-	4-6	7-8	2500
	Bristol	209	1006.7	-8	SSW	5	bc	47	92	8	8	7	9	2-3	4-6	1500
	Portland Bill	32	1008.4	-4	SW	4	c	50	92	8	2	-	-	10	10	2500
	Plymouth	82	1009.1	-2	W'N	2	c	48	97	7	5	-	-	7-8	7-8	2000
	The Lizard	240	1009.4	-4	W	5	bc/pr	48	92	8	8	6	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	1009.5	0	WNW	4	c/pr	48	97	8	8	6	-	2-3	7-8	1200
	Guernsey	175														
6	Pembroke	142	1006.4	-4	W	5	c	50	92	7	3	7	-	7-8	10	1500
7	Holyhead (Valley)	26	1003.5	-2	W'S	5	c/d	50	85	7	5	-	-	10	10	2000
	Chester (Sealand)	16	1003.4	-8	W	2	d.d.	48	85	6	5	2	-	9	10	2600
8	Manchester	235	1003.4	-6	W'S	4	d.d.	46	92	6	5	-	-	4-6	10	1200
10	Spurn Head	29	1001.1	-2	SW	3	c	43	92	6	6	-	-	9+	9+	1500
	Catterick	175	999.8	-6	W'S	3	bc	48	75	7	5	-	-	2-3	2-3	2000
	Tynemouth	108	997.9	-8	W	4	bc	48	75	7	2	3	-	2-3	4-6	2500
11	St. Abbs Head	280	995.3	-6	W	5	c	49	75	7	4	1	-	7-8	9+	2500
	Leuchars	36	994.1	-2	W	5	c	48	75	8	5	2	-	7-8	10	3200
12	Renfrew (Abbots I.)	19	998.0	-2	W'N	4	c	49	85	7	5	1	-	7-8	9+	3500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1001.0	0	WNW	5	c	49	85	8	5	2	-	7-8	10	2000
13A	Tiree	22	998.9	+4	W	3	c	49	92	8	5	-	-	9+	9+	1800
13B	Stornoway	80	992.2	-10	WSW	5	c/d	49	85	7	5	2	-	7-8	10	1000
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Wick	119	990.2	-2	WSW	2	c	47	85	8	5	7	-	9	10	2500
16	Sumburgh	30	985.2	-6	W	5	c/r	48	92	7	5	2	-	4-6	10	1000
17	Blacksod Point	18	1003.0	-4	W	4	c	50	92	7	5	-	-	10	10	1500
18	Malin Head	84	999.1	-2	W'N	5	c	49	92	6	8	-	-	9	9	800
	Aldergrove	268	1001.5	0	SW'W	3	id.	46	92	6	5	-	-	10	10	2500
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1006.7	-6	SW'S	3	c	51	85	8	5	-	-	10	10	2500
	Roches Point	22	1006.5	-4	W	3	c	49	92	8	5	-	-	9+	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 9th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 8th Hrs. (36)
London (Kew)	1006.4	-4	SW	3	c/d	45	92	6	5	2	-	9	10	2500	1	*	41	40	35	-	Tr	3.3
Croydon	1007.1	-2	WSW	2	c/d	46	92	6	5	-	-	7-8	9+	1600	1	*	41	40	32	0.3	Tr	3.8
S. Farnborough	1007.1	-2	WSW	3	c	46	85	7	5	3	-	9	9+	1200	1	*	42	38	32	Tr	Tr	3.2
Boscombe Down	1008.0	0	SW'W	4	c	47	92	7	5	7	-	9	10	800	1	*	44	38	32	-	0.1	1.7
Thorney Island	1007.9	-4	WSW	3	bc	48	92	7	8	3	1	2-3	4-6	2500	1	*	45	38	31	Tr	0.1	**
Lympne	1008.1	-2	W	2	c	43	97	7	5	-	-	9	9+	2200	1	§	37	35	34	1	Tr	2.5
Manston	1007.0	+2	WSW	3	z.	43	92	6	5	7	-	2-3	9	2000	1	*	41	36	32	-	-	5.6
Shoeburyness	1007.0	-2	SW	3	ir.	45	92	5	5	-	-	4-6	10	1700	1	*	42	40	36	-	0.1	5.1
Felixstowe	1005.5	-4	WSW	3	z.	44	92	5	5	-	-	10	10	2700	1	3	43	36	35	-	-	1.4
Gorleston	1005.1	+2	SW	2	z.	43	85	6	5	-	-	9+	9+	2500	0	2	41	36	31	-	-	*
Mildenhall	1004.6	+2	SW'W	4	id.	46	92	6	5	-	-	10	10	2300	1	*	41	38	35	Tr	Tr	1.9
Cranwell	1002.7	-2	W'S	5	z.	46	92	6	5	-	-	10	10	2000	1	*	41	35	36	-	Tr	4.5
Birmingham	1005.0	+2	WSW	2	ir.	45	97	6	6	7	-	7-8	10	1500	1	*	40	40	38	0.2	0.1	0.0
Upper Heyford	1005.3	+4	SW	3	z.	45	97	5	5	-	-	10	10	2800	1	*	40	38	34	Tr	Tr	*
Ross-on-Wye	1000.4	-8	WSW	3	c	44	75	8	5	-	7	7-8	10	3000	1	*	45	43	38	Tr	-	0.9
Hartland Point	1007.2	+2	W	4	c	49	92	8	8	-	-	7-8	7-8	1500	1	4	50	47	46	Tr	1	1.9
Bristol	1006.8	+2	W	4	d.d.	47	97	6	5	1	-	4-6	10	800	1	*	45	41	39	-	1	[illegible]
Portland Bill	1008.2	-4	SW	4	c	51	92	8	5	-	-	10	10	2500	1	4	47	42	*	-	-	[illegible]
Plymouth	1009.2	+2	W'S	4	id.	50	92	6	6	-	-	10	10	1500	1	3	51	47	43	-	-	2.1
The Lizard	1009.4	+2	W'N	5	c/pr	49	97	8	8	6	-	7-8	9+	1500	1	4	50	48	*	Tr	1	3.4
Scilly (St. Mary's)	1009.1	0	WNW	4	c	49	92	8	8	3	-	4-6	9+	1200	1	4	50	44	*	0.1	0.5	0.0
Guernsey																						
Pembroke	1006.1	0	W	5	pr	51	92	7	8	-	-	9+	9+	1500	1	3	50	42	*	Tr	0.5	1.8
Holyhead (Valley)	1003.5	+2	W	5	id.	40	92	7	5	-	-	10	10	2000	1	4	49	49	47	-	Tr	*
Chester (Sealand)	1003.5	+2	W	2	z.	48	85	6	5	-	-	10	10	2600	1	*	45	45	41	1	Tr	0.5
Manchester	1003.8	+4	SW	3	c/d	46	92	5	5	-	-	7-8	10	1500	1	*	42	41	39	Tr	0.2	*
Spurn Head	1001.6	+4	SW'W	3	c	46	92	6	7	-	-	9+	9+	2500	0	3	41	39	*	-	-	0.9
Catterick	999.2	-6	SW'S	3	c	49	75	7	5	2	-	7-8	9+	2000	1	*	43	42	40	-	-	1.9
Tynemouth	998.2	-6	WNW	5	c	50	75	6	8	-	-	9	9	2500	1	3	43	42	40	-	-	*+
St. Abbs Head	999.5	-6	W	5	c	50	75	7	5	7	-	7-8	9	2500	0	4	42	40	*	-	-	*
Leuchars	994.5	-4	W	4	c	46	92	8	5	3	-	4-6	7-8	2800	1	*	41	41	*	-	-	0.0
Renfrew (Abbots I.)	997.8	+2	WSW	3	ir.	49	85	7	5	7	-	7-8	9+	2900	1	*	47	47	44	0.5	Tr	0.0
Eskdalemuir	998.5	+2	SW	3	ir.	44	92	5	5	-	-	9+	9+	800	1		39	39	36	0.3	1	0.5
Point of Ayre	1001.0	-2	W	4	ir.	49	85	8	8	7	-	7-8	10	1800	0	4	48	48	*	Tr	-	0.2
Tiree	998.2	0	WNW	4	id	49	92	7	5	-	-	9+	9+	2100	1	4	49	48	*+	2	0.2	0.0
Stornoway	992.8	+10	WSW	5	c/d	48	92	8	5	7	-	7-8	9+	1500	1	3	47	47	*	0.3	0.5	0.0
Dalwhinnie	995.6	0	SW	4	o	45	75	8	8	-	-	10	10	2500	1	*	40	38	33	-	Tr	1.0
Aberdeen	990.6	-2	SW'W	2	c	46	92	6	5	3	-	4-6	7-8	3100	1	2	40	40	36	Tr	2	0.0
Wick	989.8	+6	W'S	4	c	48	85	7	5	-	-	9+	9+	3000	1		44	44	43	0.1	Tr	*
Sumburgh	984.5	-2	W'N	5	r.r.	49	92	6	6	2	-	9+	10	700	1	*	45	44	44	2	1	*
Blacksod Point	1002.0	-6	W'S	3	dr	51	97	7	6	-	-	10	10	1500	0	4	51	51	*	0.4	0.4	*
Malin Head	998.8	+8	W	5	c	49	97	6	6	-	-	9+	9+	450	1	5	50	47	*	Tr	0.3	0.1
Aldergrove	1001.3	0	WSW	3	c	46	92	7	5	7	-	9	10	2000	1	*	46	44	44	0.1	Tr	0.0
Birr Castle	1003.8	+2	WSW	2	c	49	85	8	5	1	-	7-8	10	2500	1	*	49	46	45	0.2	0.3	*
Valentia Obsy.	1005.9	-6	S	4	dr	51	97	6	5	-	-	10	10	800	1	3	51	49	47	0.1	0.5	1.9
Roches Point	1005.9	0	W'S	2	c	50	85	8	5	-	-	9+	9+	1500	1		52	51	*	Tr	-	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 16h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	b,excz.	cz.cm.	cbcid.m.	41	40	35	-	Tr	3.3	*	*	6
Croydon	217	bm.xbm.	cm.cm	cm.bcid.	41	40	32	0.3	Tr	3.8	*	*	7
Greenwich (Royal Observatory)	149	bmcm.	cm.	cbcd.m.	41	38	30	-	Tr	1.3	74	93	5
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	49	34	34	0.1			85	95	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	48	37	36	-	Tr		82	89	*
Camden Square	110	bc	c	*	40	40	30	-	Tr	*	*	91	*
Kensington	80	bcc	cz	*	42	40	35	0.1	-		83	91	*
Hampstead Observatory	450	bcx	od	od	39	38	34	-	0.1		*	97	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre. 24 hrs. ended 7h. G.M.T. 9th.

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
0.3	18h 8th	0.1	0-5h 9th

FOREIGN OBSERVATIONS.

Stations	Evening of 8th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 9th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	978.9	SW	2	z.	41						*		*	
Lisbon (18h and 07h)	1015.1	NNE	6	bc	50	1018.6	NE	3	b	46	55	43	-	-
¶Madrid (18h and 07h)	896.9	NNE	3	bc	46	900.5	-	0	b	32	50	32	-	-
Cairo (Heliopolis) (18h and 06h)														
Toronto (13h and 01h)														
Washington (13h and 01h)														

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

Objects not visible at

- 0 Dense fog 55 yards.
- 1 Thick fog 220 „
- 2 Fog 550 „
- 3 Moderate fog 1,100 „
- 4 Mist or haze 1¼ miles.
- 5 Poor visibility 2½ „
- 6 Moderate „ 6¼ „
- 7 Good „ 12½ „
- 8 Very good „ 31 „
- 9 Excellent „ beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~SECRET~~ ROUTINE SECTION

Wednesday 10th December 1941.

No 29238

OBSERVATIONS at 13h. G.M.T. 9th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	°Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)...	1007·3	−4	WSW	4	c/d	49	85	6	5	2	–	9	10	1500
	Croydon	1007·7	−2	WSW	3	c	50	85	7	5	4	–	9	9+	2200
	S. Farnborough	1008·1	+2	WSW	4	c	49	85	8	5	–	–	10	10	1000
	Boscombe Down	1008·4	0	WSW	5	0	49	97	8	5	–	–	10	10	1600
	Thorney Island	1008·9	−2	SW'W	4	c	51	85	7	5	3	–	7-8	9+	2500
	Lympne ...	1009·1	−1	WSW	4	c	49	85	8	5	3	–	9	10	1100
	Manston ...	1007·3	−6	WSW	4	c	49	85	8	5	–	–	10	10	1500
2	Shoeburyness ...	1007·5	−6	WSW	3	0	50	85	6	5	–	–	10	10	1500
	Felixstowe ...	1005·9	−2	WSW	3	z_o	49	85	6	5	–	–	10	10	1600
	Gorleston ...	1005·6	+2	W'S	2	z_o	49	92	6	5	3	–	4-6	7-8	1500
	Mildenhall ...	1005·7	+2	WSW	4	c	49	85	7	5	7	–	7-8	10	2500
	Cranwell ...	1004·2	+6	WSW	4	z_o	48	85	6	5	3	–	9	9	2500
3	Birmingham	1006·2	+10	W	3	c	50	75	7	5	7	–	2-3	9	2500
	Upper Heyford	1006·3	+2	WSW	3	c	49	85	7	5	–	–	9+	9+	5000
4	Ross-on-Wye ...	1006·6	−4	SW'W	3	c	52	75	7	5	5	–	4-6	7-8	3500
5	Hartland Point	1008·3	−6	W	4	c/d	51	85	8	5	2	–	4-6	9	1500
	Bristol	1008·4	+2	WSW	4	d..d..	50	92	7	5	7	–	7-8	9+	1000
	Portland Bill ...	1010·1	+6	W	4	c	51	92	8	5	–	–	10	10	4000
	Plymouth ...	1010·7	0	W	4	c	51	92	7	5	–	–	9+	9+	2000
	The Lizard ...	1011·1	+4	W	5	c	51	92	8	6	2	–	9	9	1500
	Scilly (St. Mary's)	1011·0	+4	W	3	c	52	92	8	5	–	–	7-8	10	1200
	Guernsey ...														
6	Pembroke ...	1007·8	0	SSW	6	c	52	85	7	8	4	–	7-8	9	3000
7	Holyhead (Valley)	1004·8	+4	WSW	5	c	51	85	8	5	7	–	4-6	10	3000
	Chester (Sealand)	1004·9	+6	W	3	c	52	75	7	5	7	–	7-8	9+	2300
8	Manchester ...	1005·0	+8	SW'W	4	c	49	85	7	5	3	–	4-6	7-8	2500
10	Spurn Head ...	1002·6	+8	W'S	4	c	48	85	6	5	7	–	7-8	9+	1500
	Catterick ...	1001·5	+16	W'S	4	c	51	75	8	5	7	–	9	10	1500
	Tynemouth ...	999·7	−2	W	4	c	51	75	6	8	–	–	7-8	7-8	1800
11	St. Abbs Head	997·2	+14	W	4	c	50	85	8	5	7	2	4-6	9	2500
	Leuchars ...	996·1	+14	W	5	c	50	75	8	5	–	6	Tr	7-8	3000
12	Renfrew (Abbotsl.)	999·8	+10	SW	3	c/r	50	85	8	5	–	–	9+	10	2300
	Eskdalemuir ...	999·7	+6	WSW	4	id.	47	85	6	5	–	–	9+	9+	800
	Point of Ayre ...	1002·5	+10	W	5	c	52	85	8	5	–	–	9	9	2500
13A	Tiree	999·6	+10	W	3	id.	50	92	7	5	–	–	9+	9+	1800
13B	Stornoway ...	999·9	+4	WSW	7	id.	49	92	7	8	7	–	4-6	9	1500
15	Dalwhinnie ...	997·3	+2	SW	4	c	46	85	8	8	7	–	2-3	9+	2500
	Aberdeen ...	993·7	+4	WSW	1	c	52	65	6	–	7	–	0	7-8	–
	Wick	991·5	+10	W'S	4	c	50	75	8	5	7	6	4-6	9	1800
16	Sumburgh ...	985·0	+2	W	7	c/d	48	92	7	8	4	–	7-8	9	900
17	Blacksod Point..	993·2	0	WSW	2	dd	52	97	8	6	–	–	10	10	220
18	Malin Head ...	1000·7	+6	W	4	id.	51	92	6	3	–	–	9+	9+	800
	Aldergrove ...	1003·0	+6	SW'S	3	id.	48	92	6	5	–	–	9+	10	700
19	Birr Castle ...	1004·6	+6	WSW	1	0	51	92	8	5	–	–	10	10	2500
20	Valentia Obsy. †	1006·8	+6	SSW	3	d..d..	54	97	5	5	–	–	10	10	220
	Roches Point ...	1006·8	−2	W'S	3	c/d	54	97	8	5	–	–	9+	9+	800

OBSERVATIONS at 18h. G.M.T. 9th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	°Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)...	1009·9	+12	SW'W	4	z_o	49	85	6	5	2	–	9	10	1500	1	*
	Croydon	1009·8	+6	WSW	3	z_o	50	85	5	5	–	–	10	10	2200	1	*
	S. Farnborough	1010·0	+12	WSW	3	c	49	85	7	5	3	–	9	9+	1500	1	*
	Boscombe Down	1011·2	+14	SW'W	3	$0z_o$	49	85	7	5	–	–	10	10	1700	1	*
	Thorney Island	1011·2	+14	NW	3	$0z_o$	51	85	5	5	–	–	10	10	2100	1	*
	Lympne ...	1010·9	+8	WSW	3	$0z_o$	48	92	6	5	–	–	10	10	2200	1	§
	Manston ...	1009·5	+14	WSW	3	c/r	49	85	6	5	2	–	7-8	10	1900	1	*
2	Shoeburyness ...	1009·4	+10	SW	2	0	50	85	6	5	–	–	10	10	1500	1	*
	Felixstowe ...	1008·0	+10	WSW	3	$0z_o$	48	85	5	5	–	–	10	10	8100	1	3
	Gorleston ...	1008·0	+10	WSW	2	c/pr	49	85	6	5	–	–	7-8	7-8	1500	0	2
	Mildenhall ...	1007·4	+14	SW	4	c	49	86	7	5	–	–	9+	9+	6000	0	*
	Cranwell ...	1005·5	+6	W'S	5	c	48	85	6	–	4	2	0	9	–	1	*
3	Birmingham	1007·9	+10	WSW	2	c	49	85	7	5	–	–	7-8	7-8	1500	1	*
	Upper Heyford	1008·5	+18	SW'S	3	z_o	47	92	6	–	4	–	0	1	–	1	*
4	Ross-on-Wye ...	1008·8	+10	SW	3	b	50	85	8	5	–	–	1	1	3000	1	*
5	Hartland Point	1009·9	+10	WSW	4	Hf	50	97	3	–	–	–	10	10	<150	1	4
	Bristol	1010·3	+2	W	4	d..d..	50	92	6	6	–	–	10	10	900	1	*
	Portland Bill ...	1011·3	+8	W	5	0	52	92	8	5	–	–	10	10	2500	1	3
	Plymouth ...	1012·4	+14	WSW	4	id.	51	92	6	5	–	–	10	10	1200	0	3
	The Lizard ...	1012·1	+8	WSW	5	df	51	97	3	5	–	–	10	10	600	1	4
	Scilly (St. Mary's)	1011·3	+6	WSW	4	f	52	97	2	–	–	–	10	10	<150	1	4
	Guernsey ...																
6	Pembroke ...	1008·9	+6	WSW	5	dd	52	97	4	5	–	–	10	10	800	1	4
7	Holyhead (Valley)	1005·8	+10	SSW	4	e	51	97	7	5	–	–	9+	9+	2500	0	1
	Chester (Sealand)	1006·3	+10	SW	3	c	52	85	7	5	4	–	4-6	9+	2500	1	*
8	Manchester ...	1006·3	+6	WSW	3	z_o	49	85	6	5	–	–	7-8	7-8	2000	1	*
10	Spurn Head ...	1005·0	+14	SSW	3	0	49	85	5	5	–	–	10	10	800	0	3
	Catterick ...	1004·0	+20	WNW	2	e	51	75	7	5	7	–	9	10	1500	0	*
	Tynemouth ...	1001·6	+12	W	4	bc	51	85	7	5	–	–	4-6	4-6	2500	1	3
11	St. Abbs Head	999·2	+10	W	4	c	51	75	8	5	2	–	7-8	10	2500	0	3
	Leuchars ...	998·3	+6	WSW	3	bc	48	85	8	5	9	8	Tr	4-6	3000	1	*
12	Renfrew (Abbotsl.)	1001·3	+14	W'S	4	z_o	50	92	6	5	2	–	9+	10	900	1	*
	Eskdalemuir ...	1001·7	+12	WSW	4	cr_o	47	92	6	5	–	–	10	10	450	1	*
	Point of Ayre ...	1004·0	+6	W	3	c	51	92	7	8	2	–	9	10	1500	0	4
13A	Tiree	1000·6	+8	W	3	id.	49	92	6	5	–	–	9+	9+	1200	1	4
13B	Stornoway ...	996·2	+16	W'N	5	c/pr	48	92	7	5	7	–	7-8	9+	2000	1	2
15	Dalwhinnie ...	1000·1	+4	SW	4	E	46	85	7	5	–	–	9	9	2500	1	*
	Aberdeen ...	995·9	+18	–	0	bc	49	75	7	–	5	–	0	4-6	–	1	2
	Wick	993·6	+14	W'S	4	id.	48	85	7	5	7	–	7-8	10	2000	1	
16	Sumburgh ...	988·6	+26	WNW	7	b	49	65	7	8	–	–	Tr	Tr	1800	1	6
17	Blacksod Point..	1004·7	+14	W'S	2	dm	50	97	4	6	–	–	9+	9+	–	1	2
18	Malin Head ...	1002·3	+14	SW	4	id.	50	92	5	8	–	–	9	9	800	1	2
	Aldergrove ...	1003·9	+8	SW'S	2	id.	50	97	6	3	–	–	7-8	10	600	1	*
19	Birr Castle ...	1005·7	+10	WSW	2	0	53	97	7	5	–	–	10	10	2500	1	*
20	Valentia Obsy. †	1005·2	+14	SW'W	2	df	51	97	2	5	–	–	10	10	<150	1	1
	Roches Point ...	1007·8	+10	WSW	2	z_o	50	97	6	5	–	–	9+	9+	800	1	

PAST 24 HOURS.

District	Stations	Weather. 7h.—13h. 9th (37)	Weather. 13h.—18h. 9th (38)	Weather. 18h. 9th to 1h. 10th (39)	Weather. 1h.—7h. 10th (40)
1	London (Kew)...	cid.m.	c m.	c m.	c m. e d. m.
	Croydon	c m. c	c c m.	c m.	c, id, m. id.
	S. Farnborough	ed. c	c	c q. m. c	cid. m.
	Boscombe Down	cid. c	c	c	c
	Thorney Island	c c m. c	0 0 z_o	$0z_o$ id. o	od. d.
	Lympne ...	c	c c m.	c m. i r. c	om. d. f. d
	Manston ...	c m. id.	c c i r.	ci r. m.	cid. c m.
2	Shoeburyness ...	ir_o d. d.	m. c	c m. i r.	c m. id.
	Felixstowe ...	oid. m. c m.	c m.	id. m. c m.	c m. id. m.
	Gorleston ...	c m.	c z_o pr	c m.	c m.
	Mildenhall ...	c m. id.	c	c c m.	cid. m.
	Cranwell ...	c m.	c m.	c m.	c, b, c m.
3	Birmingham	c b c c	b c c	c b c e	r
	Upper Heyford	c m. c	c b c m.	b c c m. id.	cid. c m.
4	Ross-on-Wye ...	c	c	b c c p. c	c b c
5	Hartland Point	c id	c i d d f	d f d f	d f d f
	Bristol	c m. d. d. c	c i d. m.	c d. d.	c i d.
	Portland Bill ...	c c m. c	c	c	o r f. o
	Plymouth ...	c i d. c m.	c	c d d m.	c d d f
	The Lizard ...	c p r p	d f	o f f d d	d d f d
	Scilly (St. Mary's)	c p o c	i d. o d f f e	o f f e	o f f e
	Guernsey ...				
6	Pembroke ...	c m.	o i d. o d d m	c i d. m.	c d. d. m.
7	Holyhead (Valley)	c i d. c	c	i d. c m.	o m. c
	Chester (Sealand)	c m. c	b c c	b c c	c m. o b c
8	Manchester ...	c m.	c b c m.	i d. c m.	c i d m.
10	Spurn Head ...	c i r. c	o m	b c	c
	Catterick ...	c i r. i d.	c i d. o i r.	c b b c	c b. c. b
	Tynemouth ...	c	c b c	b c c	c b c
11	St. Abbs Head	c	c	c	c
	Leuchars ...	b c c	c b c	c b c	b c c
12	Renfrew (Abbotsl.)	c i r. c	c	c v i d.	c i d. c
	Eskdalemuir ...	c i r. i d.	c i d. o i r.	c i r. c	e
	Point of Ayre ...	c	c	c d. d. c	e
13A	Tiree	c i d.	c i d.	c i d r	c d r
13B	Stornoway ...	c i d.	c i d. p r	c p r	c p r.
15	Dalwhinnie ...	o c	c i d.		c b c
	Aberdeen ...	c b c	b c	b c	b c c
	Wick	c	c d. d. o i d.	d. d. c	c
16	Sumburgh ...	c m. o i d.	o r m. o b c	b b e c p r.	c r. r. r. m.
17	Blacksod Point..	d d	d d	d c	b c c
18	Malin Head ...	c i d	d. d. o	c	b c
	Aldergrove ...	i d. c d. d. i d.	i d. o	o i d. m. o c	c o i d. m.
19	Birr Castle ...	b c c	c	*	b e c
20	Valentia Obsy. †	c d	d d. o	d	d r r
	Roches Point ...	c d	c	c	d

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

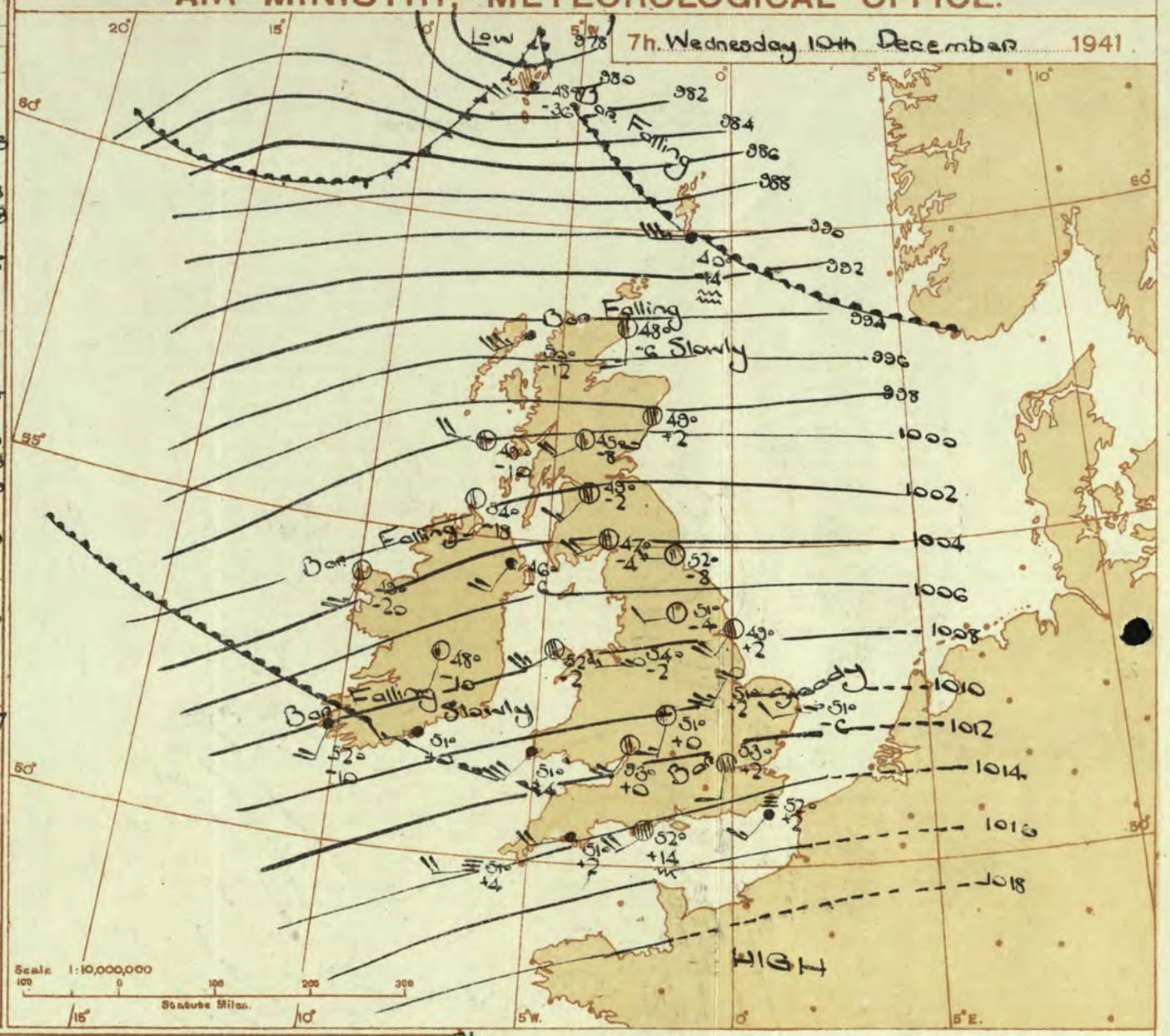
AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 9th December: $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 10th December: $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN
109	5-	51538	56758	5-	02745	24655	5-	51748	23658	5-	02747	20527
115	52	81835	57688				52	81834	24687			
203	6-	61838	20688	6-	51838	20688	6-	03838	20658	5-	03838	16628
206	53	02854	55428	5-	01854	25564	57	02865	55626	57	02864	22328
210	57	01963	20528	53	01853	20424	54	01961	22414	07	02890	53428
220	80	25746	24486	80	81545	26485				52	03635	23528
230	5-	51848	20458	5-	02846	19556	57	21847	19158	51	51747	19358
245	54	02962	22517	04	02990	23518	07	02990	22328	53	02972	20425
260	57	02563	22526	5-	05648	22328	5-	02855	22426			
278	52	52736	22458	5-	02748	22258	5-	02858	23258	5-	02758	20228
279	57	02745	20328	5-	05658	20528	6-	05538	22428			
285	27	53635	24657									
288	51	02866	22327	5-	02757	19328				20	01744	28684
575	02	53638	22358	57	21646	22358	5-	02748	24458	5-	02847	18327
301	57	05644	24457	5-	05648	22258	--	57309	23353	5-	21558	22358
321	57	17555	24327	57	17655	22425	50	05653	22213	5-	05648	22328
299	50	02647	24317	5-	02647	24227	5-	05648	20228	50	05653	24313
292	57	02855	22467	5-	02748	21328	5-	05638	14128	5-	02748	19328
310	--	01645	20315	--	02538	20318				--	46109	20345
614	07	05690	24455	51	05654	22227	5-	05547	22127	5-	05545	22328
333	5-	02868	20328	5-	52618	20358	51	52515	20358			
334	--	02746	23417	--	51537	26288				--	52557	20258
340	57	02855	22216	50	02853	22313	5-	02767	18217	5-	02847	20317
136	07	05690	22457	07	05690	20464	03	05696	20317	5-	05628	20428
336	54	02753	20416	62	62526	24368				52	21753	20458
350	57	01744	22456				5-	05628	53428	5-	53637	20557
368	53	21634	24457	5-	21438	21558	5-	62637	22367	5-	21637	22457
379	57	01747	22428	03	05690	22322	5-	05628	22358	5-	51418	20448
390	53	08445	22327	5-	08458	22328	5-	0538*	55428	5-	05528	55458
382	57	02846	56428	53	05643	22424	5-	02737	55427	5-	02747	20327
438	8-	02754	26527							-2	57109	24563
430				5-	05658	23328	5-	21628	21558	5-	52528	21558
409	5-	51834	22358	5-	57108	20458	5-	57208	20358	5	02618	20458

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

7h. Wednesday 10th December 1941



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Wednesday 10th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ...	Moderate to fresh southwest winds, strong locally on the West coast; dull; occasional drizzle or light rain especially in the West and Southwest; much hill and local coast fog in the Southwest; mild and close.
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	Wind Southwest, moderate to fresh, increasing to strong at times on the coast, some fair periods at first, becoming generally dull with occasional rain or drizzle, with some hill fog; mild.
13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind Southwest, strong to gale at times on coast; dull; occasional rain; mild
17 N.W. Ireland 18 N. E. Ireland	As 7-13A
19 S. E. Ireland 20 S. W. Ireland	As 1-6

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

Pressure is high from Spain to southward of the Azores, and depressions are moving east-northeast on the North Atlantic. Very mild southwesterly winds will spread to all districts with occasional drizzle or light rain in many areas and with hill and local coast fog in the West and South.

FURTHER OUTLOOK.

Continuing mild and mainly dull with some occasional rain or drizzle.

Warning of a Southerly gale in districts 13B and 16 at 0555 on 10.12.41.

Forecasts issued at 10.30 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Wednesday 10th December
1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. T Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 10th December 1941.

No. 29238

OBSERVATIONS at 1 hr. G.M.T. 10th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	49	*	*	*	*	*	*	*	*
	Croydon ...	217	1012·3	+2	SW	3	c	50	92	7	5	-	-	10	10	1700
	S. Farnborough	226	1012·8	+2	SW'W	3	Zo	51	97	6	5	-	-	10	10	600
	Boscombe Down	417	1013·1	+4	SW'S	3	c	51	97	7	5	-	-	10	10	400
	Thorney Island	10	1013·6	+4	WSW	4	c/d	52	97	6	5	-	-	9+	10	800
	Lympne ...	346	1013·2	+6	W	3	c	49	92	7	5	-	-	10	10	3500
	Manston ...	154	1012·1	+8	WSW	3	roro	49	92	5	5	-	-	10	10	1000
2	Shoeburyness ...	11	1012·2	+10	SW'W	2	ir,	50	85	6	6	-	-	10	10	1500
	Felixstowe ...	15	1011·2	+4	WSW	2	Zo	48	92	6	5	-	-	10	10	1200
	Gorleston ...	5	1010·4	+12	SW	3	Zo	49	85	6	5	-	-	10	10	1500
	Mildenhall ...	19	1010·1	+6	SW'W	4	Zo	50	92	6	5	-	-	10	10	1000
	Cranwell ...	240	1008·5	+6	SW'W	5	Zo	49	92	6	5	-	-	9+	9+	3000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1010·8	+6	SW	4	c/d	49	97	5	5	-	-	10	10	200
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1011·0	+2	WSW	4	dF	52	97	1	.	.	-	10	10	4150
	Bristol ...	209	1011·9	-8	SW	5	bc	52	92	7	5	7	-	2-3	4-6	1500
	Portland Bill ...	32	1012·8	+4	W	4	c	52	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1013·5	-2	WSW	4	dd	53	97	3	5	-	-	10	10	100
	The Lizard ...	240	1013·7	+2	WSW	5	df	52	97	2	5	-	-	10	10	500
	Scilly (St.Mary's)	163	1013·2	+2	W'S	4	f	52	97	2	-	-	-	10	10	4150
	Guernsey ...	175														
6	Pembroke ...	142	1010·5	+2	SW'W	4	d.d.	52	97	4	5	-	-	10	10	2500
7	Holyhead(Valley)	26	1007·3	+6	SW	5	Zo	51	97	5	5	-	-	10	10	200
	Chester(Sealand)	16	1008·1	+8	W'S	2	c	54	85	7	5	-	-	10	10	2200
8	Manchester ...	235	1008·1	+8	SW'S	2	c/d	51	92	6	5	-	-	4-6	10	1500
10	Spurn Head ...	29	1006·9	0	SW	4	bc	48	92	7	-	4	1	0	2-3	-
	Catterick ...	175	1005·8	0	WSW	1	bc	50	92	7	5	-	-	2-3	2-3	2000
	Tynemouth ...	108	1004·6	+8	W	3	c	53	85	7	8	-	-	9	9	2500
11	St. Abbs Head	280	1000·2	+2	SW'W	4	bc	50	75	8	4	4	-	4-6	4-6	2500
	Leuchars ...	36	999·9	-6	W	6	bc	48	92	8	5	3	-	1	4-6	4000
12	Renfrew (Abbots I.)	19	1003·7	0	WSW	3	id.	51	85	7	5	-	-	9+	9+	1400
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1005·6	+6	W'N	3	c	51	97	7	6	2	-	9	10	1500
13A	Tiree	22	1001·8	0*	W	4*	c/d	49	92	7*	5	-*	-*	9+	9+	1500
13B	Stornoway ...	80	996·6	-10	SW	6	c/pr	49	92	7	5	7	-	4-6	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	50	*	*	*	*	*	*	*	*
	Wick ...	119	996·3	+2	W'S	4	c	47	85	8	5	-	-	9	9	1800
16	Sumburgh ...	30	991·9	+6	WNW	6	pr	49	85	7	8	-	-	10	10	1000
17	Blacksod Point	18	1006·0	0	W	3	c/f	49	97	6	5	-	-	10	10	800
18	Malin Head ...	84	1003·6	+2	SW'W	3	c	49	92	8	8	-	-	7-8	7-8	2500
	Aldergrove ..	268	1005·9	+2	SW'W	1	c	49	92	7	5	-	-	10	10	1300
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1009·9	-2	S	3	id.	51	97	7	5	-	-	9+	9+	450
	Roches Point	22	1009·9	+6	WSW	3	o	52	97	7	5	-	-	10	10	800

OBSERVATIONS at 7 hr. G.M.T. 10th December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1012·9	+2	SW	3	id.	51	97	6	5	-	-	10	10	1500	1	*
1012·9	+2	SSW	2	c/d	53	97	6	5	-	-	10	10	900	1	*
1012·8	+2	SW	4	c/d	53	92	6	5	-	-	10	10	800	1	*
1013·7	+2	SW'S	3	id.	52	97	7	5	-	-	10	10	400	1	*
1014·0	+2	SW	3	d.d.	53	97	5	5	-	-	10	10	200	1	*
1014·1	+2	SW	3	dF	52	97	1	-	-	-	10	10	4150	1	S 4
1012·9	+4	WSW	4	Zo	52	92	6	5	-	-	10	10	800	1	*
1012·7	0	SW'W	3	c	52	92	7	6	-	-	10	10	1100	1	*
1011·7	+2	WSW	4	Zo	51	97	5	5	-	-	10	10	900	1	3
1010·5	-6	WSW	2	Zo	51	92	6	5	-	-	7-8	10	1500	0	2
1010·4	+2	SW'W	4	c	53	92	7	5	-	-	10	10	900	0	*
1008·5	+2	SW	5	Zo	51	92	6	5	-	-	9	9	2500	1	*
1009·9	0	SSW	3	c	51	92	7	5	1	-	9+	9+	800	1	*
1011·1	-2	SSW	3	c/d	51	97	5	5	-	-	10	10	800	1	*
1010·3	0	SW	4	bc	53	85	8	5	-	-	2-3	2-3	2700	1	*
1011·7	+2	WSW	4	df	51	97	2	.	-	-	10	10	4150	1	5
1012·e	+2	SW	4	id.	52	92	6	5	3	-	2-3	4-6	1200	1	*
1014·0	+14	SW	4	o	52	92	7	5	-	-	10	10	2500	1	5
1014·7	+6	WSW	4	d.d.	52	97	4	5	-	-	10	10	300	1	3
1014·4	+6	WSW	4	df	51	97	2	5	-	-	10	10	800	1	4
1013·8	+4	WSW	4	f-	51	97	3	-	-	-	10	10	4150	1	4
1010·6	+4	SW'W	6	d.d.	51	97	5	8	-	-	10	10	1500	1	3
1007·1	-2	SW	5	c	52	92	7	5	-	-	10	10	2000	0	4
1007·9	-2	W'S	3	Zo	54	85	6	5	-	-	4-6	4-6	1700	1	*
1008·0	-2	SSW	4	c	51	92	6	5	-	-	7-8	10	1500	1	*
1007·6	+2	SW	4	c	49	92	6	7	-	-	9+	9+	2500	0	3
1005·3	-4	W'S	2	b	51	85	7	5	-	-	1	1	1800	1	*
1004·4	-8	W	3	bc	52	85	6	-	4	1	0	2-3	-	0	3
1001·5	-2	W	3	bc	48	85	8	4	4	-	4-6	4-6	2500	0	3
1000·3	-2	WSW	2	c	48	92	7	5	-	-	9	9	2200	1	*
1003·0	-2	SW	3	c	49	85	7	5	-	-	9+	9+	2000	1	*
1003·7	-4	SW'W	4	c	47	92	6	5	-	-	10	10	800	1	*
1005·6	0	W	5	c	50	92	7	6	2	-	9	10	1500	1	4
1000·1	-10	W'N	4	c	49	92	7	5	-	-	9+	9+	1500	1	4
994·5	-12	SW	7	pr	50	92	7	5	7	-	7-8	9+	2000	1	4
999·5	-8	SW	4	bc	45	85	8	8	-	-	2-3	2-3	2500	0	*
998·0	+2	SW'S	3	c	49	85	7	5	-	-	7-8	7-8	3200	1	2
993·9	-6	S	3	c	48	85	8	5	7	-	7-8	9+	3500	1	*
990·0	-14	W	7	rr	47	92	6	5	-	-	10	10	700	1	6
1002·7	-20	SSW	5	c	50	97	7	2	5	-	4-6	9	1500	1	4
1001·0	-18	S	4	bc	48	92	8	2	-	-	2-3	2-3	4000	1	4
1005·2	-6	SW'S	4	id.	46	97	7	5	-	-	9+	9+	800	1	*
1006·8	-10	SSW	1	bc	48	92	8	5	-	-	2-3	2-3	4000	1	*
1007·9	-10	SW	4	dr	52	97	6	5	-	-	10	10	450	1	4
1009·4	0	WSW	3	id.	51	97	6	5	-	-	10	10	450	0	*

PAST 24 HOURS.

State of Ground. 0–9 (29)	Sea. 0–9 (30)	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 9th Hrs. (36)
1	*	51	49	49	Tr	Tr	0·0
1	*	50	50	45	=	0·1	0·0
1	*	50	49	47	Tr	0·1	0·0
1	*	50	48	46	0·1	-	0·0
1	*	52	49	38	Tr	0·2	*
1	S 4	50	48	46	-	Tr	0·0
1	*	50	48	44	Tr	0·2	0·0
1	*	50	50	47	Tr	0·4	0·0
1	3	50	47	45	Tr	Tr	0·0
0	2	49	46	41	Tr	Tr	*
0	*	50	49	45	Tr	Tr	-
1	*	49	46	46	Tr	-	0·0
1	*	50	48	46	-	-	0·9
1	*	49	46	42	-	Tr	*
1	*	52	50	45	-	Tr	0·1
1	5	51	49	48	0·4	4	0·1
1	*	51	46	47	0·3	0·3	0·0
1	5	52	50	*	-	1	*
1	3	52	50	47	Tr	2	0·0
1	4	51	50	*	0·5	1	1·0
1	4	52	50	*	0·1	-	0·0
1	3	57	48	*	0·2	2·1	0·0
0	4	51	50	50	Tr	Tr	*
1	*	53	51	40	-	-	1·3
1	*	50	47	46	Tr	Tr	
0	3	49	45	*	0·1	-	0·0
1	*	51	47	39	-	-	0·0
1	3	51	50	44	-	-	*
1	*	51	51	*	-	-	*
1	4	52	49	*	0·4	0·4	*
1	4	51	50	46	0·6	0·2	0·0
1	*	50	46	45	0·1	0·1	0·0
1	*	53	47	45	-	Tr	0·0
1	4	54	50	47	1	0·5	0·0
1	*	54	50	*	0·3	0·2	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	cid.mo	cmo	cmo.cd.m	51	49	49	Tr	Tr	0·0	*	*	6
Croydon	217	cmoc	ccm.	c,id.m.id.	50	50	48	-	0·1	0·0	*	*	6
Greenwich (Royal Observatory)...	149	cd.cmo	cm.	ed.	51	51	47	Tr	Tr	0·0	80	91	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	55	48	46	Tr			91	93	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*	54	47	45	-	-		79	90	*
Camden Square	110	c	c	*	50	50	45	-	Tr	*	*	96	*
Kensington	80	co	o	*	51	50	48	-	Tr		84	93	*
Hampstead Observatory	450	od	o	or	51	47	44	Tr	0·1		*	99	*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 10th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·1	7-20h 9th	Lo.1	0-5h 10th

FOREIGN OBSERVATIONS.

Evening of 9th December ... Morning of 10th December ...

Stations.	Evening. Barom. mb.	Evening. Wind. Direc.	Evening. Wind. Force.	Evening. Weather.	Evening. Temp. °F.	Morning. Barom. mb.	Morning. Wind. Direc.	Morning. Wind. Force.	Morning. Weather.	Morning. Temp. °F.
Reykjavik (18h and 07h)	978·7	W	3	c	32	979·8	E	3	o	31
Lisbon (18h and 07h)	1021·1	NE	1	b	54	1024·5	NE	1	o	45
*Madrid (18h and 07h)	904·8	WSW	2	b	45	908·2	-	o	b	32
Cairo (Heliopolis) (18h and 06h)	1021·6	S	2	Zo	65					
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
57	43	-	-
48	32	-	-
*		*	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
F Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. † Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

Thursday 11th December 1941.

No 29239

OBSERVATIONS at 13h. G.M.T. 10th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1013·0	+2	SW'W	4	o/d	54	92	7	5	-	-	10	10	800
	Croydon	1013·6	-2	SW	4	o	55	85	7	5	-	-	10	10	900
	S. Farnborough	1013·8	0	SW'W	5	ido	54	92	7	5	2	-	7-8	10	800
	Boscombe Down	1014·3	0	SW	4	o	53	92	8	5	-	-	10	10	800
	Thorney Island	1015·1	+4	SW	4	ido	55	92	6	6	2	-	7-8	10	450
	Lympne	1015·4	-2	WSW	4	dodo	53	97	7	5	-	-	10	10	300
	Manston	1012·6	0	W'S	5	o	54	92	7	5	-	-	10	10	800
2	Shoeburyness	1013·4	0	WSW	3	o	56	85	6	5	-	-	10	10	1100
	Felixstowe	1012·3	+2	SW'W	4	zo	53	92	6	5	-	-	10	10	1200
	Gorleston	1010·9	-10	SW'W	3	zo	55	85	6	5	-	-	10	10	900
	Mildenhall	1010·6	-2	SW'W	5	c	55	85	8	5	-	-	7-8	9+	1000
	Cranwell	1008·4	-6	SW	5	zo	54	85	6	5	-	-	9+	9+	1800
3	Birmingham	1010·1	-2	SSW	4	c	54	85	8	5	-	-	7-8	7-8	1500
	Upper Heyford	1011·6	0	SSW	4	c/d	53	92	7	5	-	-	9+	9+	500
4	Ross-on-Wye	1011·2	0	SW'W	3	c	53	85	8	8	3	-	7-8	9	3000
5	Hartland Point	1011·6	-8	WSW	4	o/f	52	97	5	5	-	-	10	10	300
	Bristol	1012·7	-2	WSW	4	o	55	85	8	5	-	-	10	10	1400
	Portland Bill	1014·9	-2	WSW	4	dfo	53	92	3	5	-	-	10	10	1500
	Plymouth	1014·7	-8	SW	4	df	53	97	3	-	2	-	10	10	200
	The Lizard	1014·5	-4	WSW	5	m	53	97	4	5	-	-	10	10	600
	Scilly (St. Mary's)	1013·0	-12	SW'W	5	c/f	53	97	6	5	-	-	9+	9+	800
	Guernsey														
6	Pembroke	1010·4	-10	SW	5	dodo	52	97	5	5	-	-	10	10	800
7	Holyhead (Valley)	1006·5	-8	SSW	6	ido	51	97	4	5	-	-	10	10	<150
	Chester (Sealand)	1008·0	-4	SW	3	c	55	75	7	7	4	-	7-8	7-8	2000
8	Manchester	1008·0	-6	SSW	5	c	53	85	8	5	-	-	7-8	7-8	2000
10	Spurn Head	1006·5	-10	SW'W	4	zo	54	85	6	5	-	-	2-3	2-3	2500
	Catterick	1005·4	-8	SW	2	c	54	75	9	5	4	-	4-6	7-8	2300
	Tynemouth	1003·5	-20	WSW	4	bc	54	75	6	-	4	-	0	2-3	-
11	St. Abbs Head	999·6	-12	W	5	bc	48	85	8	4	4	-	2-3	4-6	2500
	Leuchars	999·3	-6	W	5	o	49	85	7	5	-	-	10	10	1500
12	Renfrew (Abbots I.)	1001·5	-14	SW	3	c	50	85	7	5	7	-	9	9+	1200
	Eskdalemuir	1001·6		SW	6	roro	45	97	5	-	2	-	10	10	220
	Point of Ayre	1004·1	-10	WS	4	c	55	75	8	8	4	-	7-8	7-8	1500
13A	Tiree	996·8	-26	SW	5	c	51	85	7	5	-	-	9+	9+	1500
13B	Stornoway	991·4	-24	SSW	6	dodo	50	97	6	8	2	-	9	10	1500
15	Dalwhinnie	997·9	-8	SW	4	bc	47	85	8	8	-	-	4-6	4-6	2500
	Aberdeen	996·7	-6	SW'S	3	b	52	75	7	5	-	-	Tr	Tr	3200
	Wick	992·7	-10	SW	3	c	54	75	9	5	7	4	1	7-8	2000
16	Sumburgh	989·4	-2	WSW	7	roro	50	92	6	6	2	-	9+	10	800
17	Blacksod Point	999·1	-26	S'W	6	DR	52	92	6	6	-	-	10	10	800
18	Malin Head	998·0	-22	S	4	c	52	75	8	8	-	-	7-8	7-8	2500
	Aldergrove	1002·2	-4	SW'S	4	ido	50	85	7	5	-	-	9+	10	800
19	Birr Castle	1003·8	-22	SSW	2	c	54	85	8	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1004·2	-28	SSW	6	id	53	97	6	5	-	-	10	10	800
	Roches Point	1007·0	-22	SSW	5	dd	52	97	5	5	-	-	10	10	220

OBSERVATIONS at 18h. G.M.T. 10th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 10th (37)	Weather 13h.–18h. 10th (38)	Weather 18h. 10th to 1h. 11th (39)	Weather 1h.–7h. 11th (40)
London (Kew)	1012·0	-8	SW	4	zo	53	92	6	5	-	-	10	10	1500	1	*	cido	cido cmo	cid. cmo.	cro cmo
Croydon	1013·1	-2	SW	4	ido	54	92	6	5	-	-	10	10	1600	1	*	idomoc	ccido	cmomoro	croro bc
S. Farnborough	1012·9	-4	SW	5	ido	53	92	6	6	-	-	10	10	600	1	*	cidomo	c	domoc	dro bcb
Boscombe Down	1013·2	-2	SSW	5	ido	53	97	6	6	-	-	10	10	400	1	*	cido c	cidomo	dod	cdo prmoz
Thorney Island	1013·9	-6	SW'W	4	dodo	54	97	5	5	-	-	10	10	500	1	*	dodoido	ododod	ocid	ido idr
Lympne	1015·4	-4	WSW	5	dodo	52	97	4	-	2	-	10	10	100	1	§4	Fmdodom	domFmd	mdodfD	
Manston	1013·6	0	SW'W	5	ido	54	92	6	5	-	-	10	10	800	1	*	ro ido mo	cmoido	dodoidomo	dorrrob
Shoeburyness	1013·3	+2	SW'W	3	c	53	92	7	5	-	-	10	10	1500	1	*	moc	moc	ciro	cirobc
Felixstowe	1011·6	-4	SW	3	zo	51	92	6	5	-	-	7-8	10	1200	1	3	como cmo	cmo	cmoidomo	doirpro
Gorleston	1010·5	-2	SW'S	4	zo	55	85	6	5	-	-	10	10	800	0	3	c	cczo	cpreq	cprbc
Mildenhall	1009·9	-4	SW'S	5	c	55	85	7	5	-	-	10	10	1400	0	*	c	c	cidomo	roropRkq
Cranwell	1007·6	-6	WSW	4	zo	53	85	6	5	-	-	9+	9+	1400	1	*	cmo ido	cmo	cbccmo	ciro cmo
Birmingham	1007·5	-14	SSW	4	c	52	92	8	5	-	-	9	9	800	1	*	c	c	oro	oirbc
Upper Heyford	1010·1	-8	SW'S	4	zo	53	92	6	5	-	-	10	10	1200	1	*	cmo ido	c	crdmo	bcproc
Ross-on-Wye	1008·8	-10	SW'S	3	dd	53	97	6	6	-	-	10	10	800	1	*	bcc	cod	ddqrq	rqpc
Hartland Point	1008·3	-16	WSW	6	ido	53	97	6	5	-	-	10	10	450	1	5	dfdfo	oc ido o	cr	c
Bristol	1010·3	-10	WSW	5	c/d	55	85	7	6	-	-	9	9+	1400	1	*	c	cdoc	cirdr	bcq
Portland Bill	1013·6	-8	SW	5	rr	53	92	6	5	-	-	10	10	2500	1	5	odf	orr	orr	c
Plymouth	1013·0	-10	SW	6	o/d	53	97	6	5	-	-	10	10	300	1	4	ododof	odod	oidor	bcprb
The Lizard	1012·4	-16	SW'W	6	df	53	97	6	5	-	-	10	10	1000	1	5	dfo	ofd id	rrcbc	bc
Scilly (St. Mary's)	1010·7	-6	SW'W	5	c	53	97	5	5	-	-	10	10	800	1		offe	offec	cirobc	bccbc
Guernsey																				
Pembroke	1006·9	-12	SW	7	oq	53	97	5	5	-	-	10	10	1500	1	4	dodomo	oif ido	cprq	bcq
Holyhead (Valley)	1002·9	-22	SW'S	6	id	52	97	6	5	-	-	10	10	200	1		cd idomo	cm	cidromc	bcproc
Chester (Sealand)	1004·9	-22	S'W	1	zo	54	85	6	4	3	-	4-6	4-6	2900	1	*	bc	cbcmo	cmororopro	cmoPR
Manchester	1005·9	-8	SSW	4	c	53	97	7	5	-	-	7-8	9	2100	1	*	bcmoc	cbcc	cbc	cpro
Spurn Head	1005·8	-2	SW'S	4	zo	51	85	6	-	-	-	0	0	-	0	3	cmo	b	cir	priR
Catterick	1002·1	-18	WSW	5	zo	53	85	6	5	-	-	Tr	Tr	1500	0	*	bc	cdob	errroc	rrcbc
Tynemouth	1001·5	-12	SW	3	bc	52	75	6	2	3	-	2-3	4-6	2500	1	3	cbcmo	bc	bcpo	cbc
St. Abbs Head	996·8	-18	W	6	bc	49	85	8	4	4	-	4-6	4-6	1500	0	3	bc	bccbc	bcqorc	b
Leuchars	995·7	-24	WSW	5	zo	50	85	6	5	-	-	10	10	1200	1	*	cmocbc	ccmo	crororrmo	bcb
Renfrew (Abbots I.)	996·9	-34	WSW	4	c/r	52	85	6	5	2	-	9+	10	1200	1	*	cmoc	moiro cmo	mororoc	cbcc
Eskdalemuir	998·7	-22	SSW	4	roro	47	97	4	-	2	-	10	10	220	1	*	cido	Ororo	r	orriro
Point of Ayre	999·9	-22	SW	4	c	53	85	8	6	2	-	7-8	10	1500	0	4	cbc	c	rrcrr	rrbcb
Tiree	991·2	-30	SW'S	5	rr	50	97	7	-	2	-	10	10	1500	1-	5	cid	corr	bcpr	bccpro
Stornoway	986·6	-22	S	7	rr	50	97	6	5	-	-	10	10	500	1	4	cprodod	cddrr	crrbc	bccpro
Dalwhinnie	993·9	-20	SW	4	id	45	92	7	5	2	-	4-6	10	1500	1	*	bc	bcid		ciro
Aberdeen	993·7	-20	SW	3	b	49	85	7	-	4	-	0	1	-	1	2	cbcb	bcb	bcebc	bcb
Wick	989·8	-22	SW	4	c	48	85	8	5	7	-	4-6	7-8	2500	1	*	c	cbcc	bcc	bcorod
Sumburgh	987·4	-12	WSW	7	c	50	85	7	5	-	-	10	10	1500	1	6	mrrcroro	crorodoc	rrrororomo	crorobc
Blacksod Point	995·2	-12	WSW	7	rr	52	97	6	6	-	-	10	10	800	2		d	r	bcq	bcc
Malin Head	993·1	-30	S	6	rr	52	85	5	3	-	-	9+	9+	450	0	5	bc	cr	rc	bcc
Aldergrove	998·0	-14	S'W	4	c	53	85	8	5	-	-	9	9	1500	1	*	cidovcido	cidoc	roromopro	probcc
Birr Castle	999·0	-18	SSW	2	ir	52	92	7	6	2	-	7-8	10	1500	1	*	bc	cir	*	bcc
Valentia Obsy. †	1001·6	0	SW'W	5	c	53	92	7	5	-	-	9+	9+	1500	1	*	r		bcb	prc
Roches Point	1002·8	-24	SSW	5	dr	53	97	6	5	-	-	10	10	450	1	6	d	dr	prb	bbc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

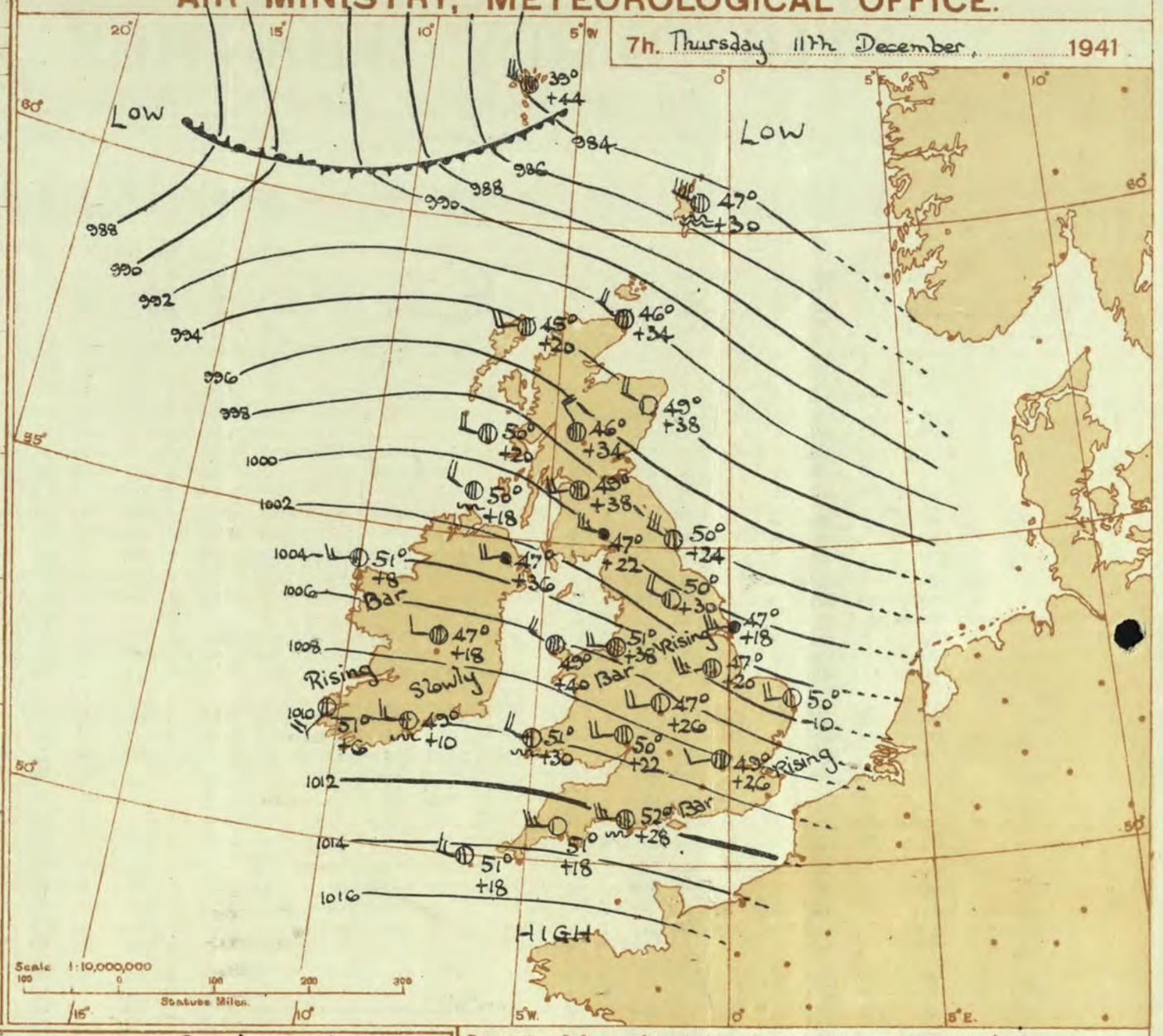
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Thursday 11th December 1941

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 10th December.			18h. G.M.T.			01h. G.M.T. 11th December.			07h. G.M.T.		
	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
109	57	02844	21725	5-	02748	20428	53	02743	22625	8-	02756	26686
115							5-	67109	20669	57	02844	26567
203							+-	02835	20725	5-	03838	20768
206	54	01964	20414	5-	02856	55626	52	02855	53665	53	02855	57626
210	57	01991	52613	57	02863	51626	57	02963	19315	53	02965	21467
220	52	58636	23528	52	59226	23658				53	01722	26214
230	50	81838	20458				87	02846	19367	87	81846	23387
245	50	01853	23413	5-	02858	20528	52	61644	24266	54	00961	22362
260	54	02855	22416	5-	51645	52528	5-	22646	53468	5-	05663	53413
278	5-	02847	19327	5-	02838	18458	8-	82638	23488	8-	61848	24388
279	5-	02857	19457	5-	05638	18658	5-	02747	54667	8-	81747	24467
285	26	05635	26556	5-	52638	24568				2-	81636	26686
288	50	02854	21425	5-	05647	51427	52	52645	53457	5-	01763	21263
575	5-	21747	19357	5-	64748	18468	9-	25745	57585			
361	56	01723	22454	5-	01734	18314	5-	22664	54664	50	01744	57564
321	86	01754	21525	5-	02756	20426	5-	62658	52468	5-	05658	58468
299	50	05545	24315				50	05543	24413	50	25744	24384
292	53	05645	21327	5-	05554	17214	53	02754	20465	50	01853	25463
310				--	51428	20528				--	02638	20428
614	53	05636	22326	5-	05648	22428	5-	64547	53657	50	61545	57458
333	5-	54618	18558	5-	54638	53658	5-	22754	57664	54	01864	23514
334	--	51847	26228	--	53547	26288				--	02546	24217
340	5-	02846	22416	57	02755	22425	50	21753	23553	5-	02866	24316
136	5-	05638	20428	5-	02748	21528	5-	02767	21657			
336	52	02753	20327	52	02754	20428				62	63653	28667
350	5-	51838	53428	5-	02745	52425	5-	61648	53768	06	05690	54483
368	52	51637	22458	5-	21637	20558	5-	22643	55763	80	05653	57513
379	5-	52627	22457	5-	51628	20558	5-	63638	53658	53	01853	20484
390	5-	51637	20558	5-	45356	20456	5-	58548	53668	5-	02756	26566
382	5-	02837	55427	6-	02748	53428	5-	61638	52528	55	02854	24526
438	02	57109	32555									
430	5-	51528	20458	5-	52428	57458	5-	53528	53768	50	00851	24561
409	5-	21728	18558	5-	21628	19558	52	21647	20758	50	01744	24614

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Thursday 11th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate westerly winds, fresh locally, backing southwest, freshening generally; fair to fine today; some rain later; rather mild.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Fresh westerly winds backing S.W. to S. increasing strong to gale on coasts; veering tomorrow; fair early apart from a few local showers; a period of rain spreading from the west this evening and tonight. Rather mild.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	As 1-4.
12 S.W. Scotland & Isle of Man. 13A W. Scotland 13B N.W Scotland	As 5-8.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Strong squally N.W. winds, moderating, backing S.W. to S. increasing later; cloudy; some showers; general rain by end of period; Average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Winds backing S.W. to S. increasing strong to gale veering W. squally by tomorrow. Cloud increasing with rain spreading from the west; bright periods and showers tomorrow; rather mild.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

Pressure continues high south of the British Isles. A ridge of relatively high pressure crossing the country will give a short interval of mainly fair weather but another depression will move in quickly from the Atlantic to cause further rain and some strong winds.

FURTHER OUTLOOK.

Very unsettled westerly type continuing.

Gale warning in operation in district 16. time of issue 0555h on 10.12.41.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Thursday 11th ~~November~~ December

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. T Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 11th December 1941.

No. 29239

OBSERVATIONS at 1 hr. G.M.T. 11th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	54	*	*				*	*	*
	Croydon ...	217	1008·5	-22	SSW	4	r.r.	53	97	6	5	-	-	10	10	1500
	S. Farnborough	226	1008.1	-26	SW	5	d.d.	53	92	6	5	-	-	10	10	1000
	Boscombe Down	417	1008·3	-34	SW	6	d.d.	53	92	6	5	-	-	10	10	1000
	Thorney Island	10	1010·3	-22	SW	5	id.	53	97	6	5	-	-	7-8	10	800
	Lympne ...	346	1012·2	-18	SW	6	c/d	52	97	5	5	-	-	10	10	200
	Manston ...	154	1010·2	-13	SW	6	id.	52	92	6	5	-	-	10	10	700
2	Shoeburyness ...	11	1009·6	-20	SW'W	5	ir.	53	92	7	6	-	-	10	10	1300
	Felixstowe ...	15	1007·9	-22	SW'S	5	id.	51	92	6	5	-	-	10	10	1700
	Gorleston ...	5	1007·0	-10	SW'W	5	z.	55	85	6	5	-	-	10	10	800
	Mildenhall ...	19	1006·0	-18	SW'S	5	ir.	55	85	6	5	-	-	10	10	1700
	Cranwell ...	240	1001·9	-24	SW	6	z.	54	85	6	5	7	-	7-8	10	1500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1004·7	-26	SW	5	ir	53	92	5	5	2	-	7-8	10	1100
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1006·6	+10	W	6	c	51	92	7	6	2	-	4-6	7-8	1500
	Bristol ...	209	1005·6	-26	SSW	6	dr	53	92	6	6	1	-	7-8	10	1100
	Portland Bill ...	32	1008·8	-30	SW	5	rr	53	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1009·9	-14	WSW	7	bc/r	53	97	6	5	3	1	2-3	4-6	1200
	The Lizard ...	240	1011·4	0	W'S	7	bc	53	97	7	8	-	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	1011·2	+16	WNW	5	bc	52	92	7	5	3	-	2-3	4-6	1500
	Guernsey ...	175														
6	Pembroke ...	142	1005·3	+4	W'S	8	cq	52	92	7	8	6	-	4-6	7-8	2500
7	Holyhead (Valley)	26	1000·4	+10	W'N	7	bc	50	75	7	5	-	-	2-3	2-3	2500
	Chester (Sealand)	16	1000·3	-16	W'S	4	pr	53	85	6	8	-	-	2-3	9	2200
8	Manchester ...	235	1001·0	-14	SW	5	c	51	97	7	5	-	-	7-8	7-8	2500
10	Spurn Head ...	29	1000·6	-28	SW	5	ir.	53	85	6	6	-	-	9+	9+	2500
	Catterick ...	175	997·1	-20	WSW	4	bc/r	53	85	6	5	-	-	4-6	4-6	1800
	Tynemouth ...	108	995·9	-26	W	6	c/pr	53	85	7	2	-	-	7-8	7-8	1500
11	St. Abbs Head	280	992·6	-12	SW	3	c/r	50	92	7	5	4	-	4-6	7-8	1500
	Leuchars ...	36	991·4	-10	WSW	3	c	51	97	7	5	-	-	7-8	7-8	2200
12	Renfrew (Abbotsl.)	19	993·4	0	W	3	c	50	92	7	5	-	-	7-8	7-8	1200
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	995·9	+2	W	6	rr	50	92	7	6	2	-	9	10	1500
13A	Tiree	22	994·4	+32	NW'N	4*	bc/pr	49	92	8	8	*	*	4-6	4-6	2500
13B	Stornoway ...	80	989·6	+30	WSW	5	bc	49	97	8	5	7	-	4-6	4-6	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	53	*	*	*	*	*	*	*	*
	Wick ...	119	987·1	-2	WSW	4	c	51	85	8	5	-	-	9	9	2500
16	Sumburgh ...	30	983·8	-8	SW'W	5	c/r	50	97	6	6	-	-	10	10	800
17	Blacksod Point	18	1001·3	+38	W	5	bcq	50	86	7	2	-	-	2-3	2-3	2500
18	Malin Head ...	84	995·8	+30	NW	3	c	51	85	7	9	-	-	7-8	7-8	1500
	Aldergrove ...	268	997·4	+26	W'S	4	pr	48	92	8	8	3	-	9	10	2800
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1008·5	+34	W	5	b	52	75	8	4	-	-	1	1	2500
	Roches Point	22	1006·7	+30	W	4	b	50	85	8	5	-	-	1	1	2500

OBSERVATIONS at 7 hr. G.M.T. 11th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1009·2	+26	WSW	4	z.	51	75	6	5	-	-	7-8	7-8	2500	1	*
	Croydon ...	1008·9	+26	WSW	2	c	49	85	6	5	-	-	9	9	1500	1	*
	S. Farnborough	1010·4	+34	W	5	b	49	85	7	5	-	-	1	1	2000	1	*
	Boscombe Down	1011·0	+18	W	4	b	48	85	7	5	7	-	Tr	1	3000	1	*
	Thorney Island	1011·1	+26	W'S	4	bc	51	85	6	1	-	-	2-3	2-3	1500	1	*
	Lympne ...																§
	Manston ...	1007·8	+12	W	6	bc	49	75	8	3	6	-	2-3	2-3	1500	1	*
2	Shoeburyness ...	1008·2	+22	W'S	5	c	50	85	5	5	3	-	4-6	9	1400	1	*
	Felixstowe ...	1005·8	+10	W'S	5	bc	50	75	8	5	-	-	2-3	2-3	1500	1	4
	Gorleston ...	1003·1	-10	WSW	4	bc/pr	50	85	7	8	3	-	2-3	4-6	1500	1	4
	Mildenhall ...	1005·3	+26	WSW	5	c	47	85	8	5	7	-	2-3	7-8	4000	1	*
	Cranwell ...	1003·3	+20	W'S	5	z.	47	85	6	5	-	-	9+	9+	1500	1	*
3	Birmingham ...	1007·1	+26	WSW	4	bc	47	85	8	5	-	-	2-3	2-3	2500	1	*
	Upper Heyford	1007·7	+32	W	4	z.	48	75	6	5	-	-	9+	9+	3000	1	*
4	Ross-on-Wye	1009·4	+22	WSW	4	c	50	75	8	8	-	-	7-8	7-8	3000	1	*
5	Hartland Point	1012·0	+24	WNW	5	c	51	85	8	5	-	-	7-8	7-8	1500	1	5
	Bristol ...	1011·0	+32	W	5	c	49	85	7	5	3	-	4-6	7-8	2500	1	*
	Portland Bill ...	1012·1	+28	W	5	c	52	92	7	5	2	-	7-8	10	2500	1	5
	Plymouth ...	1013·7	+18	W	5	bc	51	92	7	2	-	-	2-3	2-3	3000	1	4
	The Lizard ...	1014·8	+16	W	5	bc	52	92	8	4	-	-	4-6	4-6	2500	1	5
	Scilly (St. Mary's)	1014·9	+18	W'N	3	bc	51	97	7	5	3	-	1	2-3	1500	1	4
	Guernsey ...																
6	Pembroke ...	1011·0	+30	WNW	4	bcq	51	75	7	2	6	-	2-3	4-6	4000	1	5
7	Holyhead (Valley)	1007·2	+40	WNW	4	c	49	92	8	5	6	-	2-3	7-8	2500	1	4
	Chester (Sealand)	1006·3	+38	W	4	c	51	75	7	5	-	-	9	9	2500	1	*
8	Manchester ...	1005·1	+34	WNW	5	c	48	92	7	4	-	-	9	9	1800	1	*
10	Spurn Head ...	1000·4	+18	W'S	5	iR	47	92	7	9	-	-	10	10	2500	2	*
	Catterick ...	1000·4	+30	WNW	4	bc	50	75	7	5	-	-	2-3	2-3	2200	0	*
	Tynemouth ...	998·1	+24	WNW	6	bc	50	85	7	8	-	-	2-3	2-3	1500	1	3
11	St. Abbs Head	995·2	+24	WNW	5	b	50	75	7	4	-	-	1	1	2500	1	3
	Leuchars ...	995·7	+30	W	4	b	48	85	7	5	-	-	Tr	Tr	3000	1	*
12	Renfrew (Abbotsl.)	1000·0	+38	WSW	4	c	49	85	7	5	-	-	9	9	3000	1	*
	Eskdalemuir ...	999·3	+22	W'N	5	ir.	47	85	6	5	-	-	9+	9+	800	1	*
	Point of Ayre ...	1003·0	+36	WNW	6	c	49	85	8	8	4	-	7-8	7-8	2000	1	5
13A	Tiree	999·4	+20	W'N	4	c/pr	50	92	8	8	-	-	7-8	7-8	1800	0	4
13B	Stornoway ...	995·5	+20	WSW	4	c/pr	45	92	7	8	7	-	7-8	10	1500	1	2
15	Dalwhinnie ...	997·7	+34	NW'N	4	o	46	85	7	5	-	-	10	10	2500	1	*
	Aberdeen ...	994·2	+38	WNW	4	b	49	75	8	5	-	-	1	1	3300	1	2
	Wick ...	992·6	+34	WNW	4	c/r	46	85	7	5	-	-	9+	9+	1400	1	*
16	Sumburgh ...	987·3	+30	WNW	8	c/pr	47	75	7	8	-	-	9	9	1500	1	7
17	Blacksod Point	1004·8	+8	WSW	3	c	51	85	8	-	4	-	0	9+	-	1	4
18	Malin Head ...	1001·1	+18	WNW	4	c	50	85	7	8	9	-	4-6	7-8	1500	1	5
	Aldergrove ...	1004·5	+36	W'S	4	pr	47	92	7	8	-	-	9+	9+	3200	1	*
19	Birr Castle ...	1007·7	+18	W	2	c	47	85	8	8	1	-	7-8	10	1500	1	*
20	Valentia Obsy.	1010·2	+6	SW'S	4	bc/pr	51	85	8	5	3	-	2-3	4-6	2500	1	4
	Roches Point	1010·7	+10	W	3	bc	49	92	8	5	-	-	4-6	4-6	2500	1	5

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 10th Hrs. (36)
1	London (Kew)	54	50	46	Tr	1	0·0
	Croydon ...	55	48	42	0·1	3	0·1
	S. Farnborough	54	49	45	Tr	2	0·0
	Boscombe Down	54	54	43	Tr	3	0·0
	Thorney Island	55	50	*	0·3	2	*
	Lympne ...	54			0·2		
	Manston ...	58	49	44	Tr	2	0·0
2	Shoeburyness ...	56	50	44	-	1	0·8
	Felixstowe ...	54	50	46	-	1	0·0
	Gorleston ...	57	50	45	-	3	*
	Mildenhall ...	55	47	42	Tr	2	0·0
	Cranwell ...	55	47	46	Tr	3	0·3
3	Birmingham ...	55	46	43	-	4	0·2
	Upper Heyford	54	47	48	Tr	2	*
4	Ross-on-Wye	54	48	43	0·5	4	0·1
5	Hartland Point	54	51	49	2	2	0·0
	Bristol ...	55	48	44	Tr	2	0·1
	Portland Bill ...	54	50	*	1	2	*
	Plymouth ...	54	51	45	1	2	0·0
	The Lizard ...	54	50	*	0·3	1	0·0
	Scilly (St. Mary's)	53	51	*	0·2	1	0·0
	Guernsey ...						
6	Pembroke ...	53	48	*	1	4	0·0
7	Holyhead (Valley)	52	48	45	0·5	2	*
	Chester (Sealand)	57	50	41	-	2	3·0
8	Manchester ...	55	47	46	-	2	*
10	Spurn Head ...	54	47	*	-	3	3·2
	Catterick ...	55	49	45	Tr	0·2	2·2
	Tynemouth ...	55	50	45	-	1	*
11	St. Abbs Head	50	48	*	-	0·1	*
	Leuchars ...	51	41	41	Tr	2	0·0
12	Renfrew (Abbotsl.)	52	49	44	Tr	3	0·0
	Eskdalemuir ...	48	46	43	0·4	12	0·0
	Point of Ayre ...	55	48	*	-	5	2·1
13A	Tiree	52	49	*	2	5	0·0
13B	Stornoway ...	51	48	*	0·6	5	0·0
15	Dalwhinnie ...	47	44	40	0·2	7	0·6
	Aberdeen ...	53	48	39	-	-	3·0
	Wick ...	54	45	44	-	0·3	*
16	Sumburgh ...	50	46	44	0·4	1	0·0
17	Blacksod Point	54	47	*	3	2	*
18	Malin Head ...	53	52	47	0·2	2	1·0
	Aldergrove ...	53	46	42	Tr	2	0·0
19	Birr Castle ...	55	45	43	1	3	0·1
20	Valentia Obsy.	54	50	46	5	0·1	
	Roches Point	53	*	*	4	2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning.	Weather. Afternoon.	Weather. Night.	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs.	Humidity. 15h. G.M.T. %	Humidity. 9h. G.M.T. %	Visibility 9h.
		24 hrs. ended 9h.						Yesterday.				To-day.	
Kew	18	cid.	cid.cmo	cid.rc.cmo	54	50	46	Tr	1	0·0	*	*	6
Croydon	217	id.m.c	ecid.	cm.r.r.bc	55	48	42	0·1	3	0·1	*	*	6
Greenwich (Royal Observatory) ...	149	cd.c	cd.	cdr.cp	55	49	43	Tr	3	0·0	87	77	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	56	45	45	2			92	89	*
Regents Pk. (Botanic Gardens)‡ ...	168	*	*	*	55	50	45	-	2		75	76	*
Camden Square	110	o	c	*	55	50	44	-	3	*	*	79	*
Kensington	80	o	o	*	55	49	45	Tr	3		93	77	*
Hampstead Observatory	450	ad	od	orbc	53	45	43	0·1	1		*	80	*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 11th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·1	7-19h 10th	<0·1	0-5h 11th

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMN 30 — Code for State of Sea.

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

FOREIGN OBSERVATIONS.

Stations	Evening of 10th December: Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 11th December: Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	982·7	E	2	bc	30	988·8	E	3	bc	25
Lisbon (18h and 07h)	1024·7	-	0	z.	54	1025·8	NE	2	c/pr	48
¶Madrid (18h and 07h)						908·8	-	0	o	39
Cairo (Heliopolis) (18h and 06h)						1019·3	W	1	c	57
Toronto (13h and 01h)	1019·9	WNW	4	bc	23					
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
55	46	-	0·4
	*		-
	54		Tr

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

† Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~BRITISH SECTION~~ SECRET

Friday 12th December 1941.

No 29,240.

OBSERVATIONS at 13h. G.M.T. 11th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1014.2	+14	WSW	3	c	53	65	7	5	-	8	2-3	9	2500
	Croydon	1014.3	+16	W'N	3	c	53	75	7	5	4	6	Tr	9	2500
	S. Farnborough	1014.4	+6	W	4	c	52	75	7	7	7	6	4-6	9	1700
	Boscombe Down	1015.0	+6	WSW	2	c	51	85	7	5	7	-	4-6	9+	2500
	Thorney Island	1015.3	+18	WSW	4	c	54	75	7	7	4	8	2-3	7-8	2500
	Lympne	1015.3	+18	WSW	4	c	52	75	8	1	-	6	1	9	1500
	Manston	1014.0	+24	W'N	4	c	52	75	7	1	-	4	1	9	3000
2	Shoeburyness	1013.7	+20	W	3	c	52	75	6	5	-	6	2-3	9	3500
	Felixstowe	1012.7	+30	W	4	c	52	75	8	5	-	-	9	9	2500
	Gorleston	1011.1	+40	W	4	bc	51	75	7	4	3	-	2-3	4-6	2500
	Mildenhall	1011.6	+18	WSW	4	c	51	85	8	5	6	2	7-8	9	2500
	Cranwell	1009.9	+22	W	5	c	51	75	7	5	3	6	2-3	9	2500
3	Birmingham	1011.9	+10	WSW	3	c	49	75	8	5	7	-	2-3	9+	2500
	Upper Heyford	1012.4	+12	WSW	5	c	50	75	8	5	7	-	4-6	9+	2500
4	Ross-on-Wye	1012.7	0	SW	3	c	51	75	8	5	-	-	9+	10	3000
5	Hartland Point	1013.7	-2	W	5	c/r	51	85	7	5	2	-	7-8	9+	1000
	Bristol	1014.1	+2	WS	4	c	52	85	7	5	-	-	10	10	1000
	Portland Bill	1016.0	+12	WSW	5	c	52	92	8	5	-	-	10	10	2500
	Plymouth	1016.4	+2	WSW	54	c	54	85	7	5	-	-	9+	9+	1800
	The Lizard	1016.3	+4	W	4	c/pr	52	92	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1015.9	+2	WSW	4	c	53	85	8	5	2	-	7-8	10	1500
	Guernsey														
6	Pembroke	1012.8	-2	SW	6	c	53	85	7	8	6	-	7-8	9+	4000
7	Holyhead (Valley)	1009.3	-2	SW	5	c	52	85	8	5	-	-	9+	9+	2500
	Chester (Sealand)	1010.2	-6	WSW	3	c	52	75	7	5	7	6	4-6	9	2000
8	Manchester	1009.7	+6	SW'W	4	c	50	75	7	4	4	5	4-6	9	3000
10	Spurn Head	1008.9	+34	W	4	c	50	75	7	7	-	-	9+	9+	2500
	Catterick	1006.5	+18	W	4	c	50	85	9	5	4	2	7-8	9+	2100
	Tynemouth	1004.4	+10	SW	5	zo	51	75	6	2	-	-	7-8	7-8	2800
11	St. Abbs Head	1001.4	+14	WNW	3	c	51	75	8	5	7	-	7-8	9	2500
	Leuchars	1000.3	+12	W	5	c	50	85	8	5	7	-	Tr	9+	3500
12	Renfrew (Abbots I.)	1003.6	+14	WSW	4	c	50	85	8	5	-	-	9+	9+	1500
	Eskdalemuir	1004.6	+12	SW	4	c	47	85	8	5	-	-	10	10	800
	Point of Ayre	1006.6	+4	W	5	c	51	85	8	2	-	9	1	7-8	1800
13A	Tiree	1000.8	-6	SW	4	bc	49	85	8	8	3	-	4-6	4-6	2100
13B	Stornoway	998.7	+14	SSW	4	c	47	92	8	8	7	-	7-8	9+	1500
15	Dalwhinnie	1001.3	+14	WSW	3	c	47	75	8	8	3	-	4-6	9	2500
	Aberdeen	999.2	+14	SW'S	1	c	51	75	6	5	7	-	1	9+	2600
	Wick	998.1	+26	WSW	3	c	45	85	9	5	7	-	9	9+	3500
16	Sumburgh	993.5	+34	W'N	7	c	47	75	8	5	7	9	4-6	7-8	1500
17	Blacksod Point	1001.7	-22	S'W	5	iro	52	92	7	6	-	-	10	10	1500
18	Malin Head	1000.7	-20	W	4	c	49	85	8	5	8	-	4-6	7-8	2500
	Aldergrove	1005.0	-14	S'W	3	ido	47	92	7	5	-	-	9	10	700
19	Birr Castle	1006.9	-10	SSW	2	c	52	85	8	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1007.3	-24	SSW	6	iro	53	85	6	5	2	-	9+	10	1500
	Roches Point	1010.0	-10	SW	4	c	53	85	8	5	-	-	9+	9+	1500

OBSERVATIONS at 18h. G.M.T. 11th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1014.6	-4	SW	4	ido	51	85	6	5	2	-	7-8	10	1500	1	*
Croydon	1015.1	0	SSW	3	c	51	85	6	5	-	-	10	10	1800	1	*
S. Farnborough	1014.9	-4	SW	3	c	51	85	7	5	-	-	10	10	3000	1	*
Boscombe Down	1015.0	-2	SW'S	4	c	50	92	7	5	-	-	10	10	1800	1	*
Thorney Island	1015.9	0	SW'W	3	c/d	51	92	5	5	-	8	7-8	9	2900	1	*
Lympne	1016.7	0	WSW	3	ido	49	92	7	5	-	-	10	10	2700	1	§
Manston	1015.2	+8	SW'S	3	zo	49	75	6	5	7	6	7-8	9+	3600	1	*
Shoeburyness	1014.8	+4	SW'W	3	c	50	92	5	5	-	6	4-6	9	2500	1	*
Felixstowe	1013.7	0	SW'S	3	bc	47	85	6	5	-	-	4-6	4-6	2500	1	3
Gorleston	1012.6	+6	SW'S	3	z	48	75	6	5	-	-	4-6	4-6	1500	1	3
Mildenhall	1012.6	-2	SW'S	4	zo	50	85	6	5	-	-	9+	9+	3600	0	*
Cranwell	1010.2	-6	SW'S	4	zo	49	85	5	5	-	-	10	10	3600	1	*
Birmingham	1010.8	-8	SW	3	o	50	75	8	5	-	-	10	10	800	0	*
Upper Heyford	1012.7	-4	SW'W	4	c/r	49	92	7	5	-	-	4-6	10	1200	1	*
Ross-on-Wye	1012.0	-6	SW	4	c	51	85	8	5	1	-	9+	10	2500	1	*
Hartland Point	1011.7	-10	WSW	5	c	52	85	8	5	2	-	7-8	10	1500	1	5
Bristol	1013.4	-6	WSW	4	c	51	85	7	5	-	-	10	10	2900	1	*
Portland Bill	1016.2	+2	SW	4	c	51	92	7	5	-	-	10	10	2500	1	5
Plymouth	1015.8	-6	SW	4	iro	51	97	6	5	2	-	10	10	1500	1	4
The Lizard	1015.4	-6	SW	5	o/pr	53	92	7	5	-	-	10	10	1000	1	4
Scilly (St. Mary's)	1013.8	-14	WSW	5	c	53	92	7	5	-	-	10	10	1200	1	
Guernsey																
Pembroke	1010.1	-20	SW	6	cq	53	85	7	5	1	-	7-8	9	1500	1	4
Holyhead (Valley)	1006.2	-22	S'W	6	c	52	85	6	5	-	-	10	10	1500	1	4
Chester (Sealand)	1008.3	-12	SW'S	3	c	53	75	7	5	-	6	4-6	10	2200	1	*
Manchester	1008.9	-8	SW'S	4	o	50	85	7	5	-	-	10	10	3700	1	*
Spurn Head	1009.6	0	SSW	3	o	46	85	7	5	-	-	10	10	1500	0	
Catterick	1006.4	-6	SW'W	4	ido	51	75	6	5	-	-	10	10	1500	1	*
Tynemouth	1005.1	-8	W	4	zo	51	75	6	8	-	-	9+	9+	2500	1	3
St. Abbs Head	1001.7	-16	-	0	c	50	75	8	4	4	-	4-6	9	2500	0	
Leuchars	1000.1	-2	WSW	3	z	48	85	6	5	-	-	9	9	2500	1	*
Renfrew (Abbots I.)	1000.9	-22	SSW	3	z	51	75	6	5	-	-	10	10	1800	1	*
Eskdalemuir	1002.8	-16	SSW	5	coco	46	92	4	-	2	-	10	10	220	1	*
Point of Ayre	1004.0	-14	SW	5	co	52	85	8	8	2	-	9	10	2000	0	4
Tiree	993.9	-36	S'W	5	dd	49	97	6	.	2	-	10	10	1200	1	5
Stornoway	991.8	-34	S	7	ido	50	97	7	8	7	-	7-8	9	1000	1	5
Dalwhinnie	998.4	-14	SW	4	ido	44	92	7	5	-	-	4-6	4-6	1500	1	*
Aberdeen	998.5	-12	SW	3	c	48	92	6	5	4	-	4-6	7-8	2200	1	2
Wick	996.9	-12	S	1	c	46	85	8	5	7	-	4-6	9+	3500	1	
Sumburgh	996.5	+14	W	1	c	44	75	8	5	-	-	10	10	2500	1	4
Blacksod Point	995.6	-28	S	8	o/r	54	92	7	5	-	-	10	10	800	2	6
Malin Head	994.7	-44	S	5	bc	51	85	6	9	-	-	4-6	4-6	1500	0	5
Aldergrove	1000.5	-34	S	4	c	51	85	8	5	7	-	9	10	2300	1	*
Birr Castle	1002.0	-14	SW	4	iro	53	85	7	6	2	-	7-8	10	1500	1	*
Valentia Obsy. †	1003.2	-10	SSW	6	dr	55	97	6	6	-	-	10	10	450	1	5
Roches Point	1006.0	-26	S'W	6	dd	53	92	6	5	-	-	10	10	450	1	6

PAST 24 HOURS. — WEATHER.

Stations	7h.—13h. 11th (37)	13h.—18h. 11th (38)	18h. 11th to 1h. 12th (39)	1h.—7h. 12th (40)
London (Kew)	cb,c,zoc	cm,ido	cmoc	cido
Croydon	bc,cmo	c	cmoiromo	cmododo
S. Farnborough	cbcc	ccw	cmo	cmodo
Boscombe Down	c	c	cidomoc	cdodomo
Thorney Island	bcmoc	ido	idocmo	cido
Lympne	bbc	c	cmodocro	crοofd
Manston	bbcc	ccmo	bbccmo	cidomo
Shoeburyness	cmobmoc	cmo	cmo	ciromo
Felixstowe	bcc	cbc	cmo	cmoc
Gorleston	c irobcq	cbc	bcczo	cq
Mildenhall	bc	ccmo	cmoc	ciro
Cranwell	cmoc	ccmo	cmo	cmo
Birmingham	bcc	co		
Upper Heyford	cbcc	cciroc	ccmo	rorore
Ross-on-Wye	c	ccmo	cqpo	cbcq
Hartland Point	ciroc	ciroc	ciro	rorocbc
Bristol	bcc	cidomoc	bcdc	cidopr
Portland Bill	c	cpro	c	orr
Plymouth	b,cmoc	cprocmo	ciromo	cirororo
The Lizard	cbcr	cproc	cdodo	dfcbc
Scilly (St. Mary's)	bcc	c	cdo	cdoc
Guernsey				
Pembroke	cqpr		oqmororo	
Holyhead (Valley)	bcc	idocmo	rodoc	bcb
Chester (Sealand)	cbcc	c	cmododo	c
Manchester	c	co	irodo	iroc
Spurn Head	c	bc	c	c
Catterick	bbcc	ccidozo	cidomo	cbcb
Tynemouth	bcc	c	cq	bc
St. Abbs Head	bbcc	c	cbc	cmbc
Leuchars	bc	cbcmocmo	cirododomo	cpromocb
Renfrew (Abbots I.)	c	ccmo	mororobc	cprobc
Eskdalemuir	ciroc	cororo	roroiro	prirc
Point of Ayre	c	c	probc	bcc
Tiree	bccir	ord	oircq	cpRq
Stornoway	c	cproido	cirododomo	bccir
Dalwhinnie	oc	cidbc		ciR
Aberdeen	bccz	cPPczo	czobc	bcb
Wick	cproc	c	irproc	crobcb
Sumburgh	cproirov	c	cirrmo	cmorcbc
Blacksod Point	r	r	bc	pr
Malin Head	c	c	pr	bc
Aldergrove	prcidoc	cidoc	iroiRb	b,o
Birr Castle	bc	r	*	bc
Valentia Obsy. †	pr	r	pr	pr
Roches Point	d	d	pr	pr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds,
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

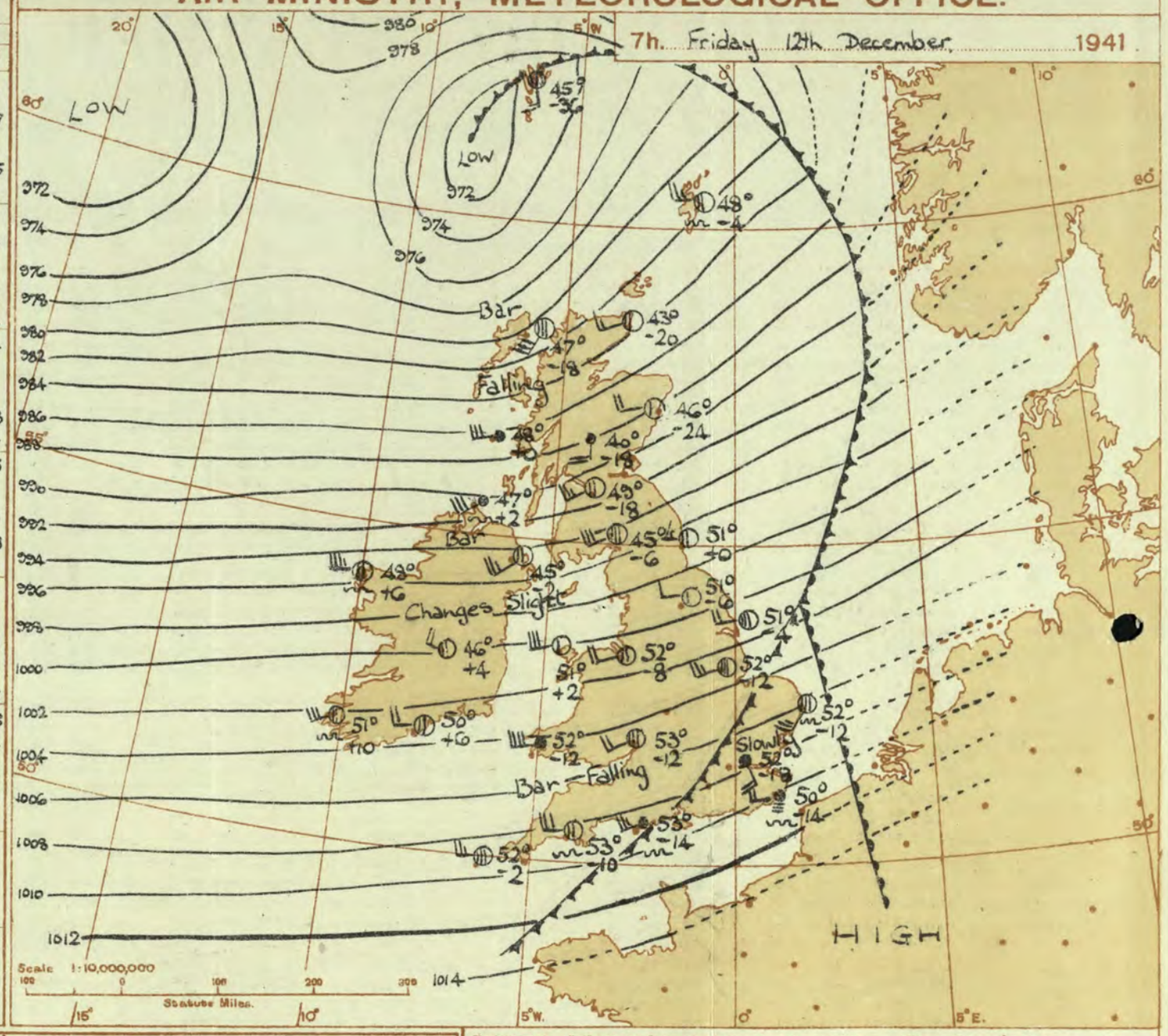
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. 11th December				18h. G.M.T.			01h. G.M.T. 12th December			07h. G.M.T.			
III	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
109	5-	61847	23427	5-	03748	21228	5-	64748	49568	8-	01864	18414
115	52	81844	26487	52	81834	20387	52	62834	20587	52	88844	53587
203				85	02945	18528	5-	02944	53664	5-	61648	20728
206	53	02965	22326	57	02864	22225	52	64755	53667	8-	81855	53585
210	57	02964	20327	57	02955	12228	50	01963	51613	50	00962	51682
220	83	25844	25486	62	59316	22558				53	01744	24515
230				5-	21748	16258	8-	25745	53685	80	27853	53596
245	57	02851	22316	57	02766	18327	51	21943	53554	50	00951	53481
260	57	02745	22517	57	51755	19428	07	02887	53627	50	00861	20581
27857		02875	20267	57	02745	18368	20	00842	55482	50	00852	54412
279	50	02744	21457	5-	21668	51558	62	21635	51758	50	00762	53582
285	27	02744	24687	27	81745	26687						
288	52	02853	22415	52	02866	19427	5-	05657	17517	50	05641	54513
5755		02847	14357	6-	51738	50468	00	00753	55513	83	01752	55683
301	5-	05646	22527	52	21644	20658	5-	21646	53666	53	01751	55624
321	57	05654	56466	57	05665	17328	52	05644	51528	51	05644	55428
299	50	01744	24204				5-	05647	12427	51	05644	22315
292	57	01953	21814	5-	05568	20328	57	02745	51467	5-	02666	20426
310	--	10636	24516	--	52428	20458				--	02638	20428
64456		05654	55365	5-	05658	55328	51	056·5	53528	51	05663	20458
333	5-	02847	20817	5-	05667	18657	51	05644	51655	5-	01754	20464
334	--	02648	26417	--	03646	26428				--	64547	20368
340	50	02845	22427	5-	21748	14458	5-	21748	49458	5-	22867	55469
136	50	02763	23585	5-	05658	20428	07	02·90	18528	57	02845	19627
336	52	02763	28327	52	02754	20428				62	64626	24568
350	57	02853	56428				57	05646	55528	5-	51628	55458
368	5-	22747	21587	5-	05638	20558	5-	51648	20458	50	05643	53564
379	52	02753	24428	5-	02758	20558	5-	51638	53558	26	02746	53568
390	50	02743	25527				50	05653	55528	5-	22638	53568
382	57	02754	24418	5-	61768	21468	52	51666	53428	57	02744	21428
438										-2	67109	22549
430				5-	63645	24528	5-	52625	53568	52	54526	54658
409	5-	52627	22557	5-	22658	18568	5-	52428	18658	62	02637	22658

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Friday 12th December, 1941.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Mainly fresh S.W. winds; considerable bright periods; some showers occasionally, with possibility of hail locally. Average temperature.
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 ✦ 16 Orkneys and Shetlands ✦ 17 N. W. Ireland ✦ 18 N. E. Ireland ✦ 19 S. E. Ireland ✦ 20 S. W. Ireland ✦	Winds between S.W. and W. rather squally, strong perhaps gale at times locally on the coast; changeable; fair periods; some occasional rain or showers with hail locally; Average temperature.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A very deep low pressure system covers the North Atlantic with centres near Faeroes and south of Iceland. Secondary disturbances are likely to move in from the Atlantic in the general current of westerly winds. Weather will be rather changeable with considerable bright periods in the east and south but with some occasional rain or showers with hail locally. Winds are likely to be strong at times.

FURTHER OUTLOOK.

Continuing generally unsettled and changeable.

✦ Gale warning in operation in districts 5, 6, 7, 8, 11, 12, 13 (A and B) 15, 16, 17, 18, 19 and 20.
Time of issue 1145h on 11:12:41 and 2045h on 11:12:41.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Friday 12th December

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 12th December 1941.

No. 29,240

OBSERVATIONS at 1 hr. G.M.T. 12th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb.	Change in 3 hours.	Wind. Direc.	Wind. Force 0–12	Weather.	Temp. °F.	% Humid.	Visibility 0–9	Cloud. Form. Low.	Cloud. Form. Med.	Cloud. Form. High	Cloud. Amount. Low 0–10	Cloud. Amount. Total 0–10	Cloud. Height of Base. (feet)
		(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	London (Kew)	18	*	*	*	*	*	52	*	*	*	*	*	*	*	*
	Croydon ...	217	1011·7	−24	SSW	4	c	51	85	6	5	–	*	9	9	4000
	S. Farnborough	226	1011·3	−22	SW'W	4	Zo	52	85	6	5	–	–	10	10	1200
	Boscombe Down	417	1011·7	−20	SSW	6	Zo	52	85	6	5	2	–	4-6	10	2000
	Thorney Island	10	1012·9	−18	WSW	4	id.	51	97	6	5	–	–	9	10	1000
	Lympne ...	346	1014·7	−16	SW	5	c/r	51	92	7	7	5	–	9+	10	1500
	Manston ...	154	1012·8	−18	SW'W	4	Zo	51	85	6	5	–	–	10	10	2800
2	Shoeburyness ...	11	1012·1	−22	SW	4	c	51	85	5	5	–	6	4-6	9	2500
	Felixstowe ...	15	1010·8	−18	SW	4	Zo	50	85	6	5	–	–	9+	9+	2700
	Gorleston ...	5	1009·6	−24	SW'S	5	c	51	75	7	5	–	–	7-8	7-8	1500
	Mildenhall ...	19	1009·3	−22	SSW	5	c	50	85	7	5	7	–	4-6	7-8	2500
	Cranwell ...	240	1006·3	−14	SW	6	Zo	50	85	6	5	–	7	7-8	10	2000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1009·3	−18	SSW	4	Zo	50	85	6	5	1	–	9	10	1100
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1007·3	−16	WSW	6	ir.	52	97	6	5	2	–	4-6	10	1500
	Bristol ...	209	1009·2	−22	SW	5	c/d	52	85	7	5	2	–	7-8	10	1900
	Portland Bill ...	32	1012·5	−6	SW	5	c	52	92	7	5	2	–	7-8	10	2500
	Plymouth ...	82	1011·7	−20	SW	7	r.r.	52	97	5	5	–	–	10	10	800
	The Lizard ...	240	1011·4	−18	SW	7	d.d.	53	97	6	5	–	–	10	10	1000
	Scilly (St. Mary's)	163	1010·2	−8	WSW	5	d.d.	54	97	5	5	–	–	10	10	1000
	Guernsey ...	175														
6	Pembroke ...	142	1006·0	−14	SW'W	8	r.r.	53	97	6	8	2	–	7-8	10	1500
7	Holyhead (Valley)	26	1001·3	−14	SW	6	Zo	52	97	6	5	–	–	2-3	2-3	2500
	Chester (Sealand)	16	1003·5	−20	SSW	3	d.d.	55	85	6	5	–	–	10	10	2400
8	Manchester ...	235	1004·2	−20	S'W	6	id.	54	85	7	5	–	–	10	10	2500
10	Spurn Head ...	29	1004·3	−26	SW	5	c	49	85	7	5	–	–	9+	9+	1500
	Catterick ...	175	1000·3	−24	SSW	2	c	53	85	7	5	7	–	7-8	10	1400
	Tynemouth ...	108	998·8	−20	SW	6	cq	54	92	7	2	–	–	7-8	7-8	2500
11	St. Abbs Head	280	993·6	−34	W	5	bc	52	85	8	4	4	–	2-3	4-6	2500
	Leuchars ...	36	991·7	−36	SW	7	Zo	53	85	6	5	–	–	9+	9+	1800
12	Renfrew (Abbotsl.)	19	994·1	−10	WSW	6	bc	52	65	8	5	–	1	2-3	2-3	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	997·9	−18	WSW	6	c	54	85	8	5	1	–	4-6	7-8	3000
13A	Tiree	22	989·7	0	SW	5	bc	48	85	8	5	*	*	4-6	4-6	2500
13B	Stornoway ...	80	984·2	+2	SSW	7	bc/r	47	85	7	8	7	–	2-3	4-6	1000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	50	*	*	*	*	*	*	*	*
	Wick ...	119	986·2	−42	SW'S	5	c	49	85	8	5	1	–	4-6	7-8	2500
16	Sumburgh ...	30	987·7	−60	SE'S	4	o/r	45	92	6	5	–	–	10	10	1500
17	Blacksod Point	18	995·4	−4	SW	6	bcq	50	75	7	2	–	–	2-3	2-3	1500
18	Malin Head ...	84	992·9	+2	SSW	5	pr	48	75	6	9	–	–	7-8	7-8	1500
	Aldergrove ...	268	997·0	+14	SW	4	b	48	85	8	5	–	–	Tr	Tr	2500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1003·0	0	SW'W	6	b	51	75	8	5	–	–	1	1	2500
	Roches Point	22	1004·2	0	W'S	4	bc/pr	52	92	8	3	–	–	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 12th December

District	Stations	Barom. at M.S.L. mb.	Change in 3 hours.	Wind. Direc.	Wind. Force 0–12	Weather.	Temp. °F.	% Humid.	Visibility 0–9	Cloud. Form. Low.	Cloud. Form. Med.	Cloud. Form. High	Cloud. Amount. Low 0–10	Cloud. Amount. Total 0–10	Cloud. Height of Base (feet)	State of Ground. 0–9	Sea. 0–9
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1	London (Kew)	1006·9	−20	SW	4	id.	53	92	6	5	–	–	10	10	1500	1	*
	Croydon ...	1008·1	−18	SW	4	r.r.	52	97	6	5	–	–	4-6	10	1000	1	*
	S. Farnborough	1007·3	−22	SW	5	id.	53	92	6	5	–	–	10	10	700	1	*
	Boscombe Down	1008·5	−14	SW	6	d.d.	53	97	6	5	2	–	10	10	600	1	*
	Thorney Island	1008·9	−18	SW'S	4	id.	53	97	5	5	–	–	7-8	10	800	1	*
	Lympne ...	1011·5	−14	WSW	4	df	50	97	3	–	–	–	10	10	1150	1	§5
	Manston ...	1009·4	−14	SW'W	5	o/d	51	97	6	5	–	–	10	10	1000	1	*
2	Shoeburyness ...	1008·5	−18	SW'S	4	c	51	92	6	5	–	–	10	10	2900	1	*
	Felixstowe ...	1007·2	−14	SW	5	c	50	92	8	5	5	–	10	10	1000	1	3
	Gorleston ...	1006·6	−12	SW'S	5	Zo	52	85	6	8	2	–	4-6	10	2500	0	5
	Mildenhall ...	1005·5	−14	SW'S	5	c/r	53	92	7	5	7	–	4-6	9	1500	0	*
	Cranwell ...	1002·6	−12	SW	5	Zo	52	85	6	5	7	–	7-8	9+	3500	1	*
3	Birmingham ...																*
	Upper Heyford	1004·7	−26	SW'S	4	c/r	51	92	8	8	7	–	7-8	9	3000	1	*
4	Ross-on-Wye	1006·0	−12	SW	4	c	53	85	7	7	7	6	2-3	7-8	2500	1	*
5	Hartland Point	1005·9	−8	W'N	5	bc	52	92	7	5	–	–	4-6	4-6	1500	1	5
	Bristol ...	1005·7	−14	SSW	4	c/pr	54	85	7	5	4	–	2-3	7-8	1000	1	*
	Portland Bill ...	1008·8	−14	SW	5	rr	53	92	7	5	–	–	10	10	2500	1	5
	Plymouth ...	1009·0	−10	W	6	c	53	97	7	1	3	–	2-3	2-3	2000	1	5
	The Lizard ...	1009·8	−4	W	6	bc	52	97	8	4	–	–	4-6	4-6	2500	1	5
	Scilly (St. Mary's)	1008·9	−2	W	5	c	52	97	7	5	–	–	7-8	9+	1500	1	4
	Guernsey ...																
6	Pembroke ...	1004·0	−12	W'S	8	r.r.	52	65	7	8	–	–	7-8	10	1500	1	
7	Holyhead (Valley)	1000·7	+2	WSW	6	b	51	75	7	5	–	–	1	1	3000	1	*
	Chester (Sealand)	1001·3	−8	SW'W	4	bc	52	65	7	5	3	–	2-3	4-6	3500	1	*
8	Manchester ...	1001·1	−10	SW'W	4	c	51	75	7	5	1	–	9	10	2500	1	*
10	Spurn Head ...	1001·9	−4	WSW	4	c	51	92	7	5	1	–	4-6	7-8	1500	0	4
	Catterick ...	998·4	−6	W'S	2	b	51	75	7	1	4	–	Tr	1	2200	0	*
	Tynemouth ...	996·3	0	W	3	bc	51	75	7	1	4	1	2-3	2-3	4000	1	3
11	St. Abbs Head	993·1	+2	SW	5	bc	46	85	8	4	4	–	2-3	2-3	2500	0	3
	Leuchars ...	990·6	−18	SW	5	Zo	46	85	6	5	–	–	2-3	2-3	2500	1	*
12	Renfrew (Abbotsl.)	992·0	−18	SW	5	bc/pr	49	75	7	8	–	–	4-6	4-6	2000	1	*
	Eskdalemuir ...	994·5	−6	SW	6	c	45	85	7	5	3	–	4-6	9+	1500	1	*
	Point of Ayre ...	996·9	−8	W'S	6	bc	50	75	8	9	–	–	4-6	4-6	1800	0	5
13A	Tiree	986·9	0	WSW	6	pr	48	75	7	8	–	–	7-8	7-8	1500	1	
13B	Stornoway ...	980·4	−18	SSW	6	c/r	47	85	7	5	7	–	7-8	10	1000	1	3
15	Dalwhinnie ...	988·3	−18	S	4	iR	40	85	7	5	–	–	9+	9+	1500	1	*
	Aberdeen ...	987·7	−24	WSW	4	b	46	75	8	5	–	–	Tr	Tr	2600	1	2
	Wick ...	984·2	−20	SW	3	bc	43	85	8	5	–	–	1	2-3	4000	1	*
16	Sumburgh ...	982·9	−4	W	5	bc	48	85	8	2	3	–	2-3	4-6	2000	1	5
17	Blacksod Point	995·7	+6	W'S	7	bc/pr	48	85	7	9	–	–	4-6	4-6	1500	1	6
18	Malin Head ...	990·5	+2	SW	6	pr	47	75	6	6	–	2	4-6	7-8	1500	1	5
	Aldergrove ...	995·4	−2	SW'S	5	bc	45	85	8	1	–	–	2-3	2-3	2500	1	*
19	Birr Castle ...	1000·2	+4	W	4	bc	46	75	8	–	3	–	0	4-6	–	1	*
20	Valentia Obsy.	1003·5	+10	WSW	6	bc	51	65	8	2	–	4	4-6	4-6	2500	1	6
	Roches Point	1003·9	+6	W	4	bc	50	85	8	5	–	–	2-3	2-3	2500	1	

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F.	Temperature. Min. Night 18h–7h °F.	Temperature. Min. on Grass °F.	Rainfall. Day mm.	Rainfall. Night mm.	Sunshine. 18th. Hrs.
		(31)	(32)	(33)	(34)	(35)	(36)
1	London (Kew)	53	50	49	Tr	Tr	2·5
	Croydon ...	53	49	45	–	0·2	3·9
	S. Farnborough	53	50	48	Tr	0·1	1·8
	Boscombe Down	54	49	45	–	0·4	1·3
	Thorney Island	54	49	48	0·1	0·4	*
	Lympne ...	53	48	43	Tr	0·1	5·1
	Manston ...	54	48	43	–	Tr	4·6
2	Shoeburyness ...	53	50	45	–	–	2·8
	Felixstowe ...	53	47	43	–	–	0·9
	Gorleston ...	53	47	44	–	–	*
	Mildenhall ...	52	50	44	–	Tr	0·4
	Cranwell ...	55	49	47	–	–	1·8
3	Birmingham ...	51					
	Upper Heyford	51	49	45	Tr	1	*
4	Ross-on-Wye	53	49	48	–	0·1	1·1
5	Hartland Point	52	51	50	0·3	3	0·0
	Bristol ...	53	49	42	Tr	1	0·8
	Portland Bill ...	53	50	*	0·2	1	*
	Plymouth ...	54	51	51	–	3	0·1
	The Lizard ...	53	51	*	–	1	0·6
	Scilly (St. Mary's)	54	52	*	–	0·3	0·0
	Guernsey ...						
6	Pembroke ...	53	49	*	Tr	3	0·0
7	Holyhead (Valley)	53	50	47	Tr	1	*
	Chester (Sealand)	53	51	43	–	Tr	0·2
8	Manchester ...	51	49	43	–	0·5	*
10	Spurn Head ...	50	45	*	–	Tr	2·8
	Catterick ...	52	50		Tr	Tr	
	Tynemouth ...	53	50		–	–	*
11	St. Abbs Head	47	46	*	–	0·1	*
	Leuchars ...	50	46	42	–	0·4	1·4
12	Renfrew (Abbotsl.)	51	48	43	Tr	2	0·0
	Eskdalemuir ...	48	44	42	0·6	6	0·0
	Point of Ayre ...	52	48	*	*	Tr	1·8
13A	Tiree	50	41	*	1	5	0·0
13B	Stornoway ...	50	45	*	Tr	7	0·0
15	Dalwhinnie ...	49	39	35	0·1	8	1·2
	Aberdeen ...	52	44	40	–	–	0·1
	Wick ...	47	40	37	1	2	*
16	Sumburgh ...	47	40	31	–	6	0·0
17	Blacksod Point	55	47	*	8	2	
18	Malin Head ...	52	44	*	–	4	0·0
	Aldergrove ...	51	44	41	0·1	1	0·0
19	Birr Castle ...	53	44	42	Tr	1	0·0
20	Valentia Obsy.	55	49	46	2	0·2	*
	Roches Point	54	*	*	0·5	5	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning.	Weather. Afternoon.	Weather. Night.	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs.	Humidity. 15h. G.M.T. %	Humidity. 9h. G.M.T. %	Visibility 9h.
		24 hrs. ended 9h.								Yesterday.		To-day.	
Kew	18	dbczoc	cm.id.	cm.cid	53	50	49	Tr	Tr	2·5	•	•	6
Croydon	217	bccm.	c	cm.d.d.	53	49	45	–	0·2	3·9	•	•	6
Greenwich (Royal Observatory)...	149	c	c	cr.d.	53	50	45	–	0·5	1·9	70	91	6
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	56	50	48	0·1	•		83	89	•
Regents Pk. (Botanic Gardens)†...	168	•	•	•	54	50	47	–	Tr		83	93	•
Camden Square	110	bc	c	•	51	51	45	–	6	•	•	93	•
Kensington	80	bcc	c	•	54	52	47	–	0·4		79	96	•
Hampstead Observatory	450	bc	bcod	or	51	49	45	–	2		•	99	•

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 12th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·1	7–19h 11th	<0·1	Rest of Period

FOREIGN OBSERVATIONS.

Stations.	Evening of 11th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 12th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	998·6	E	8	rs	33	980·0	E	6	c	39
Lisbon (18h and 07h)	1026·0	NE	1	f_s	52	1025·8	NE	2	f+	48
¶Madrid (18h and 07h)						903·0	–	0	bc	*
Cairo (Heliopolis) (18h and 06h)										
Toronto (13h and 01h)										
Washington (13h and 01h)	1020·9	NW	1	c	58					

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
54	46	Tr	Tr
	45		–
*		*	

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

† Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

Objects not visible at

0	Dense fog	55	yards.
1	Thick fog	220	,,
2	Fog	550	,,
3	Moderate fog	1,100	,,
4	Mist or haze	1¼	miles.
5	Poor visibility	2½	,,
6	Moderate ,,	6½	,,
7	Good ,,	12½	,,
8	Very good ,,	31	,,
9	Excellent ,,	beyond 31m.	

COLUMN 30 — Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET
SECTION

Saturday 13th December 1941.

No. 29,241

OBSERVATIONS at 13h. G.M.T. 12th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1006.5	-4	WSW	3	bc	52	75	7	8	-	3	4-6	4-6	2500
	Croydon ...	1007.0	-2	W	4	c	53	75	7	9	6	-	4-6	7-8	2200
	S. Farnborough	1007.3	+2	W'N	6	pr	51	65	9	2	-	-	9	9	2700
	Boscombe Down	1007.8	+2	WSW	4	c	51	75	7	9	-	-	9	9	2000
	Thorney Island	1008.5	0	WSW	4	bc	54	85	7	7	3	-	2-3	4-6	1500
	Lympne ...	1008.2	-14	W	3	c	54	85	8	5	3	-	4-6	7-8	300
	Manston ...	1006.2	-18	WSW	4	bc	54	85	7	8	-	-	2-3	2-3	1500
2	Shoeburyness ...	1006.4	-12	W	3	PR	52	85	8	9	-	-	9	9	1500
	Felixstowe ...	1004.6	-14	SW	4	z	53	85	6	5	-	-	9+	9+	3500
	Gorleston ...	1003.8	-14	NWW	3	c/pr	51	75	6	6	7	-	4-6	9+	1600
	Mildenhall ...	1003.8	-10	W	4	c	52	85	8	8	-	-	4-6	9	2000
	Cranwell ...	1001.9	-10	WSW	5	z	50	75	6	5	-	-	1	1	5000
3	Birmingham	1004.6	+2	WSW	4	c/p	46	92	7	8	-	-	7-8	7-8	1500
	Upper Heyford	1005.0	0	SW'W	4	bc	52	75	7	2	4	.	4-6	4-6	2100
4	Ross-on-Wye ...	1005.8	+6	W	4	pr	49	85	8	8	-	-	7-8	7-8	3000
5	Hartland Point	1007.9	+8	WNW	5	c	51	75	7	3	4	-	4-6	7-8	2000
	Bristol	1007.8	+12	W	5	pr	48	85	6	8	-	-	9+	9+	1400
	Portland Bill ...	1008.3	+6	WSW	5	c	53	85	8	2	4	-	4-6	7-8	4000
	Plymouth ...	1010.4	+6	W	5	bc	50	75	7	8	-	-	4-6	4-6	1500
	The Lizard ...	1011.0	+4	WNW	6	bc/pr	51	85	8	8	-	-	4-6	4-6	2000
	Scilly (St. Mary's)	1012.0	+14	WNW	4	bc	51	75	8	8	4	-	2-3	2-3	1500
	Guernsey ...														
6	Pembroke ...	1005.9	+8	WS	8	cq	51	85	7	8	6	-	4-6	7-8	1500
7	Holyhead (Valley)	1001.6	+8	W	6	bc	50	75	8	3	6	3	2-3	2-3	1600
	Chester (Sealand)	1002.2	+6	WSW	4	bc	53	85	7	1	6	1	2-3	4-6	1500
8	Manchester ...	1001.7	0	WSW	4	bc	51	65	8	2	6	-	4-6	4-6	3000
10	Spurn Head ...	1000.1	0	WS	5	bc	50	75	7	1	6	1	2-3	4-6	2500
	Catterick ...	998.3	0	W	5	bc	50	65	8	3	-	-	2-3	2-3	2500
	Tynemouth ...	995.6	-12	WSW	6	bc	50	65	7	3	-	.	2-3	2-3	2400
11	St. Abbs Head	991.2	-12	SW	5	bc	48	75	8	4	4	-	2-3	2-3	3500
	Leuchars ...	990.4	-8	WSW	6	pr	45	92	7	8	7	3	4-6	7-8	2500
12	Renfrew (Abbots I.)	993.2	+6	SW	4	c/pr	46	75	7	8	-	-	9+	9+	1500
	Eskdalemuir ...	995.0	+2	SW'W	6	pr	43	85	8	5	-	-	9	9	1500
	Point of Ayre ...	998.0	+2	W	7	bc	49	75	8	1	4	.	2-3	2-3	2000
13A	Tiree	989.0	+12	WSW	6	c/pr	48	85	7	8	-	.	9	9	1500
13B	Stornoway ...	981.3	0	SSW	6	pr	47	85	7	5	7	-	7-8	9+	2000
15	Dalwhinnie ...	989.5	+2	SSW	4	ir	41	85	6	5	-	-	10	10	1500
	Aberdeen ...	987.1	+2	SWW	5	bc	48	65	7	1	9	-	Tr	4-6	2500
	Wick	983.5	-2	SW	3	bc/pr	44	85	9	3	7	2	2-3	4-6	2000
16	Sumburgh ...	981.1	-10	SWW	5	pr	47	85	8	8	-	-	9	9	1500
	Blacksod Point..	1000.0	+26	W	7	c/pr	50	85	7	9	-	.	7-8	7-8	1500
18	Malin Head ...	993.7	+18	W	6	pr	45	85	7	3	-	-	9	9	1500
	Aldergrove ...	998.1	+14	WSW	5	c/p	45	75	8	3	6	3	4-6	9	2000
19	Birr Castle ...	1008.5	+14	WSW	4	bc	48	75	8	-	.	8	0	2-3	-
20	Valentia Obsy. †	1009.1	+30	W	5	pr	48	75	8	8	.	-	9+	9+	2500
	Roches Point ...	1007.8	+22	WNW	4	bc	48	75	8	3	-	3	2-3	4-6	1500

OBSERVATIONS at 18h. G.M.T. 12th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 12th (37)	Weather 13h.–18h. 12th (38)	Weather 18h. 12th to 1h. 13th (39)	Weather 1h.–7h. 13th (40)
London (Kew)	1009.1	+20	SW'W	3	z	47	85	6	-	-	-	0	0	-	1	•	cqPRbc	pzbm	bmobw	b,cmow
Croydon	1009.0	+16	WSW	4	b	45	85	6	4	-	-	Tr	Tr	3000	1	•	cdcjp	bcprbm	bmo	c
S. Farnborough	1010.2	+28	W'S	4	b	45	85	8	2	6	-	1	1	2000	1	•	ccpz	cpcbPRq	b	bbcw
Boscombe Down	1010.7	+22	W	4	b/pr	44	85	7	5	-	-	1	1	1500	1	•	cddbc	bbcpzb	bmo	bmoc
Thorney Island	1011.0	+28	NW'W	4	b	48	85	6	5	-	-	Tr	Tr	2500	1	•	oddcbc	bcprob	bmob	bc
Lympne	1010.0	+18	W'S	2	c/pr	46	85	6	2	-	-	7-8	7-8	1500	1	§4	omddc	cprpr	cbmobw	bwc
Manston	1008.2	+10	WS	4	c/pr	47	75	6	5	-	-	7-8	7-8	3000	1	•	ddocbc	bbcpzm	cbzo	bzocmo
Shoeburyness	1008.3	+18	WSW	3	b	47	85	6	-	-	-	0	0	-	1	•	mzicPR	cbmz	bmo	b,cmo
Felixstowe	1006.8	+16	W'S	4	z	48	75	6	5	-	-	Tr	Tr	2500	1		dizc	cbcpzb	bmob	bcb,c
Gorleston	1005.4	+16	W'S	3	z	47	85	6	-	4	-	0	0	-	1	3	coidrz	pzbcm	bzoq	bbc
Mildenhall	1006.0	+18	SW'W	5	b	45	85	8	-	4	-	0	Tr	-	1	•	cddpz	bcb	b	bc
Cranwell	1004.4	+18	SW	4	z	44	75	6	-	-	-	0	0	-	1	•	cmzPR	b	bmo	b,cmo
Birmingham	1007.2	+18	WSW	4	b	44	75	8	5	-	-	1	1	2500	1	•	pr	cb	bcpro	bcc
Upper Heyford	1008.1	+18	SW'W	3	bc	43	85	8	4	-	-	2-3	2-3	2500	1	•	bc	bcprb	b	bbcc
Ross-on-Wye	1008.8	+26	W	3	b	46	65	8	1	-	-	1	1	3000	1	•	cbc	cbcpz	b	bcc
Hartland Point	1011.8	+28	NW	4	bc	49	65	7	3	-	-	4-6	4-6	2500	1	5	bccir	cpr	bcpr	bcc
Bristol	1010.3	+26	W	5	b	45	85	7	4	-	-	Tr	Tr	1500	1	•	bcpz	cprmzb	bbcb	bcdodoc
Portland Bill	1012.0	+26	WSW	5	c	51	92	7	5	-	-	7-8	7-8	2500	1	5	c	c	cbc	c
Plymouth	1014.4	+32	W	5	b	48	75	7	2	-	-	1	1		1	4	bcmzpz	cprob	bprb	bprbc
The Lizard	1015.6	+24	WNW	7	bc/pr	49	75	8	8	-	-	4-6	4-6	1500	1	5	prbcq	bcprq	bc	bcc
Scilly (St. Mary's)	1015.7	+30	NW'W	6	bc	49	75	8	8	6	-	2-3	4-6	1500	1	5	cirpqbc	cpoqbc	bcc	bcc
Guernsey																				
Pembroke	1011.1	+26	W'N	7	cq	50	75	7	8	-	-	7-8	7-8	1500	1	5	cqmz	cbcq+	bcq	bcqmo
Holyhead (Valley)	1006.5	+42	W	7	cq	47	75	8	2	-	-	4-6	4-6	2000	1	5	bccbc	bcprq	bcb	bbcc
Chester (Sealand)	1005.8	+34	W'S	5	bc/pr	46	65	7	4	-	-	2-3	2-3	5000	1	•	bcb	bccprq	bcb	bc,cmo
Manchester	1005.0	+22	WSW	5	bc	44	75	8	2	6	-	1	2-3	3000	1	•	bc	bcb	bc	cbcc
Spurn Head	1002.0	+12	W'S	6	b	47	75	7	-	-	-	0	0	-	0	4	bc	b	b	cq
Catterick	1000.4	+26	WNW	3	b/pr	44	75	7	4	-	-	Tr	Tr	2100	1	•	bbc	bcprob	bprob	probcc
Tynemouth	997.2	+10	WSW	8	b,p	46	65	7	-	-	-	0	0	-	1	3	bc	bcqb	bq	bbccq
St. Abbs Head	992.5	-4	SW	6	b	43	92	7	4	-	-	Tr	Tr	2500	0	3	bc	bcb	bq	bcqcq
Leuchars	990.4	+6	WSW	7	b	43	85	8	4	-	-	Tr	Tr	3500	1	•	bcpz	bcpzb	bbcprob	b,cid.
Renfrew (Abbots I.)	996.2	+26	W	5	pr	45	75	7	9	-	-	4-6	4-6	1500	1	•	irprc	cbcpro	bcproc	bciroc
Eskdalemuir	997.3	+18	WSW	6	c/pr	41	85	7	5	-	-	9+	9+	1500	1	•	dizpz	cpro PR	cprmo	c
Point of Ayre	1001.8	+30	WNW	7	bc	46	75	8	2	-	-	2-3	2-3	2000	0	5	bccbc	lbc	bcb	bbcc
Tiree	993.7	+40	W'N	7	PR	47	92	7	3	-	-	9	9	1500	1	6	cpr	cPR		bcc
Stornoway	985.5	+72	W	6	c/pr	47	92	7	5	7	-	7-8	9+	1500	1	4	cirpr	CPR	cpr	cprdd
Dalwhinnie	990.7	+8	SSW	4	ir	40	85	6	5	2	-	7-8	10	1500	1	•	ciro	oir		oiRc
Aberdeen	987.4	-6	SW	4	bc	44	75	7	3	4	-	2-3	2-3	2100	1	2	bbc	bcb	bcb	bcb
Wick	981.7	-12	SSW	3	pr	43	92	7	2	-	-	9+	9+	1600	1		cpzbc	bcpz	procpr	prbcc
Sumburgh	981.5	+10	W	3	bc	46	85	8	8	-	-	2-3	2-3	2000	1	4	bccpz	cprcbc	bcb, PR	cpr,b
Blacksod Point	1006.6	+38	W'N	7	bc/pr	47	65	7	9	-	-	2-3	2-3	2500	1	6	pr	pr	c	c
Malin Head	998.4	+36	W	8	bc/pr	46	65	6	6	-	-	4-6	4-6	800	1	6	c	pr	pr	bc
Aldergrove	1002.8	+26	WSW	5	bc/pr	43	75	7	3	-	-	2-3	2-3	2500	1	•	bbccpz		bc	bbcc
Birr Castle	1008.2	+12	NNW	3	bc	44	75	8	-	4	-	0	2-3	-	1	•	bc	bc	*	bc
Valentia Obsy. †	1014.1	+34	WNW	5	c/pr	49	75	8	8	-	3	7-8	9+	2500	1	5	pr	pr	pr	r
Roches Point	1012.9	+38	WNW	4	bc	46	85	8	3	-	5	2-3	4-6	1500	1		pr	pr	bc	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸝gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

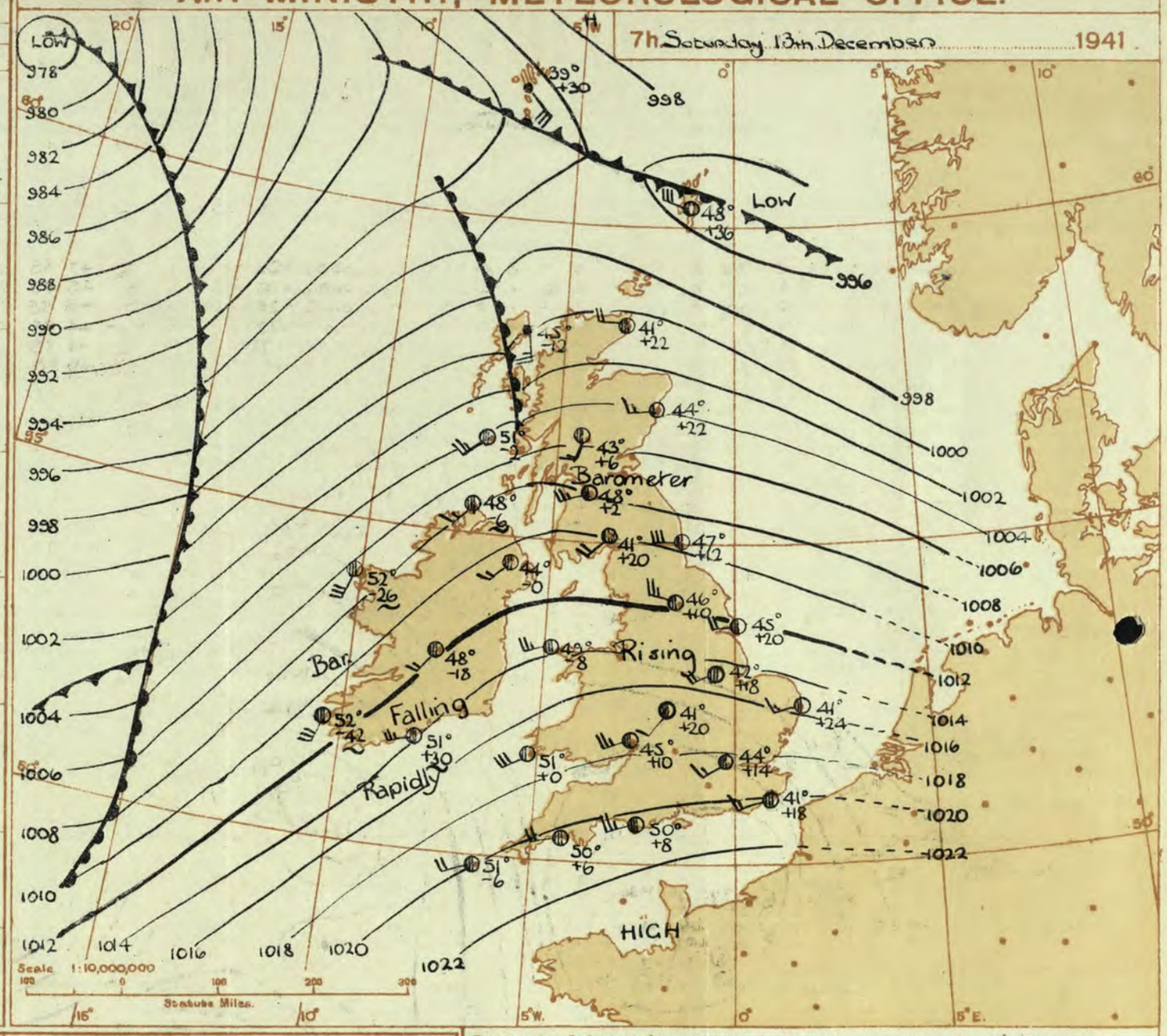
Abridged observations of additional stations in the AVIATION WEATHER CODE

III	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN
	13h. G.M.T. 12th December			18h. G.M.T.			01h. G.M.T. 13th December			07h. G.M.T.		
109	37	81844	20526	37	81744	18485	30	25745	53685	8-	00753	57683
115	87	81844	53586	52	81834	24587	87	14844	57786	52	62735	26588
203	8-	02837	20787				5-	03838	20688	5-	03838	20628
206	80	25954	22386	3-	82748	55688	8-	25754	55484	83	81855	22485
210	96	01852	51523				8-	25857	53687	53	02954	22387
220	80	08747	26687							50	03448	24528
230	3-	81857	54487	3-	81648	87788	8-	25747	56687	8-	25788	53488
245	36	00741	56683	30	00741	55612	50	00851	23501	5-	08858	24318
260	30	10743	20483	50	00753	53683	00	00730	23500	5-	02748	22588
27886		02847	56617	50	00853	57683	20	00841	58581	87	02854	21428
279	3-	10856	55617	40	01753	55623	50	01853	57613	87	02855	55627
285	20	25854	24584	20	81755	28685				5-	03748	26628
288	36	00853	55583	50	00851	53401	50	01875	53405	52	02786	20318
3758-		81647	57587	30	25743	53583	5-	25758	24388	62	02744	20427
301	43	01751	22514	30	00753	58883	00	00730	57780	50	01751	55614
321	13	05653	20584	5-	81654	23384	5-	05675	53505	5-	02758	25328
299	50	05643	22403				00	00730	24300	53	02754	24316
292	36	25843	55583	40	01853	54483	5-	02767	-----	57	02755	23316
310	--	01633	24413	--	01633	24513				--	02628	20428
314	33	05654	22324	50	05630	55330	00	05630	56500	53	05654	20225
333	23	01853	57613	2-	01853	24513	50	00851	24416	51	02863	24817
334				--	04646	28685				--	00730	20201
340	3-	01754	24384	2-	25857	55587	50	00763	56413	07	02730	20317
136	43	01763	20584	00	00730	21510	50	01873	22503	03	02790	20517
336	52	02764	24527	24	02754	24515				14	01753	24415
350	86	00842	53582				57	01762	54404	57	02754	21426
368	3-	82647	55587	30	82645	57685	00	00730	57500	5-	05664	21327
379	23	02755	22485	20	25754	22484	00	00730	22400	00	05630	22428
390	83	05652	24565	00	05630	22400	50	00761	23401	07	02790	23418
382	83	02855	55425	40	00763	57403	00	00730	24700	01	02730	20388
438	5-	02755	24645							5-	02765	24515
430	83	01744	54425	80	00741	24381	00	00830	24400			
409	54	25755	56685	30	25742	57682	20	01753	58583	50	02752	23417

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Saturday 13th December 1941.



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M. Saturday 13th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate W. wind backing S.W.; cloudy; rain later; becoming milder.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Freshening S.W. wind, strong to gale on coasts, decreasing and veering W. later; cloudy; rain at times; mild.
9 N. Midlands ... 10 N.E. England	As 1-4.
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	Fresh westerly wind backing S.W., becoming strong to gale on western coasts; cloudy; rain at times; becoming rather mild.
16 Orkneys and Shetlands	Wind moderate or fresh, variable; cloudy; rain at times; average or rather low temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Strong S. to S.W. wind, gale on coast, decreasing and veering W. later; cloudy with rain today, fair periods but some showers later; rather mild at first average temperature later.

GENERAL INFERENCE.

A deep depression to S.W. of Iceland is moving slowly N.E. and an associated trough is approaching the British Isles from the west. A small secondary to S.W. of Ireland will move N.E. Weather will be generally cloudy and rain will commence in S.W. districts today and spread N.E. across the country. Southwesterly gales will occur on the western coasts.

FURTHER OUTLOOK

Mainly cloudy and rather mild weather; risk of fog locally in England. * Gale warning in operation in districts 5, 8, 12, 13(a and b), 17, 18, 19, and 20. Times of issue:— 1145 on 11/12/41 and 0830 on 13/12/41

Forecasts issued at 10·30 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Saturday 13th December

1941.

Clarke's Projection Scale 1: 4 x 10⁷ 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. T Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 13th December 1941.

No. 29,241

OBSERVATIONS at 1 hr. G.M.T. 13th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Croydon ...	217	1015·8	+3·2	WSW	4	zo	43	75	6	8	–	–	2-3	2-3	4000
	S. Farnborough	226	1016·2	+2·6	W'S	3	b	42	85	7	–	–	–	0	0	–
	Boscombe Down	417	1017·2	+2·4	W	3	zo	41	85	6	–	–	–	0	0	–
	Thorney Island	10	1017·5	+2·6	W8	4	b	45	85	7	5	–	–	Tr	Tr	2500
	Lympne ...	346	1016·1	+2·6	W	4	bc	41	85	7	–	–	5	0	2-3	–
	Manston ...	154	1014·6	+3·0	W'S	3	zo	42	75	6	–	3	–	0	1	–
2	Shoeburyness ...	11	1014·4	+2·2	SW'W	4	b	44	75	6	–	–	–	0	0	–
	Felixstowe ...	15	1013·0	+3·0	W'S	4	b	43	75	7	5	–	–	Tr	Tr	2500
	Gorleston ...	5	1010·4	+2·6	WSW	4	zo	44	65	6	–	–	–	0	0	–
	Mildenhall ...	19	1011·9	+2·6	SW'W	5	bc	42	85	7	5	–	–	2-3	2-3	4000
	Cranwell ...	240	1010·7	+3·0	WSW	4	zo	42	75	6	5	–	–	4-6	4-6	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1015·0	+3·4	W	4	b	40	85	8	–	–	–	0	0	–
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1018·2	+1·8	NW	4	bc	49	75	8	1	–	–	2-3	2-3	2500
	Bristol ...	209	1016·4	+2·4	NW'W	6	b	44	85	7	–	–	–	0	0	–
	Portland Bill ...	32	1018·2	+2·6	WSW	5	bc	51	92	7	5	–	–	4-6	4-6	2500
	Plymouth ...	82	1019·4	+·6	WNW	6	b	48	75	8	1	–	–	Tr	Tr	3000
	The Lizard ...	240	1020·7	+2·0	WNW	5	bc	50	75	7	8	–	–	4-6	4-6	1500
	Scilly (St. Mary's)	163	1021·2	+1·4	WNW	5	c	49	85	7	8	7	3	2-3	8	1500
	Guernsey ...	175														
6	Pembroke ...	142	1017·1	+2·4	WN	6	bcq	50	85	7	2	–	–	2-3	2-3	4000
7	Holyhead (Valley)	26	1013·2	+2·6	W	6	b	47	75	8	5	–	–	Tr	Tr	3000
	Chester (Sealand)	16	1012·7	+3·0	W	4	b	47	65	7	5	–	–	1	1	4000
8	Manchester ...	235	1011·8	+3·6	WSW	4	c	45	85	7	5	–	–	8	8	2700
10	Spurn Head ...	29	1008·0	+3·0	W	6	b	45	85	7	–	–	–	0	0	–
	Catterick ...	175	1007·1	+4·6	WSW	2	b	44	65	8	5	–	–	1	1	2500
	Tynemouth ...	108	1003·7	+4·0	WNW	6	bq	44	75	7	–	–	–	0	0	–
11	St. Abbs Head	280	999·0	+5·4	W	8	bq	45	92	7	4	–	–	1	1	2500
	Leuchars ...	36	1000·5	+5·0	W	6	b	44	85	7	5	–	–	1	1	4000
12	Renfrew (Abbotsl.)	19	1004·7	+4·6	W	5	c/pr	43	85	6	9	–	–	7-8	7-8	4000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1008·7	+2·0	WNW	6	b	45	85	8	–	4	–	0	Tr	–
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	996·9	+3·4	WSW	6	c/pr	45	85	7	5	7	–	4-6	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	45	*	*	*	*	*	*	*	*
	Wick ...	119	994·4	+4·4	W'N	5	pr	44	85	7	8	–	–	9+	9+	1500
16	Sumburgh ...	30	989·1	+3·6	WNW	4	pr	48	75	6	8	–	–	9+	9+	1000
17	Blacksod Point	18	1009·7	–2	WSW	6	cq	50	75	7	–	1	–	0	10	–
18	Malin Head ...	84	1006·6	+2·6	W	8	pr	48	75	6	6	–	–	9	9	1500
	Aldergrove ...	268	1009·9	+2·8	WSW	3	b	41	92	8	5	–	–	1	1	2500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1015·5	–6	SW	4	0	50	75	8	8	–	–	10	10	2500
	Roches Point	22	1016·8	+4	W	3	c	46	85	8	8	–	–	7-8	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 13th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1019·4	+1·8	WSW	2	zc	44	85	6	5	–	–	9+	9+	4000	1	*
	Croydon ...	1019·4	+1·4	SW	3	c	44	85	6	–	5	–	0	10	–	1	*
	S. Farnborough	1019·8	+1·2	WSW	4	c	42	85	7	2	7	6	2-3	7-8	3000	1	*
	Boscombe Down	1020·3	+1·0	SW'S	2	zo	40	92	6	–	7	–	0	9	–	1	*
	Thorney Island	1020·8	+1·0	WSW	3	c	47	85	7	–	7	–	0	9+	–	1	*
	Lympne ...	1020·6	+1·8	WSW	3	c	41	97	8	5	–	–	9+	9+	3200	1	§+
	Manston ...	1019·5	+2·6	WSW	3	zo	40	85	6	–	7	–	0	9+	–	1	*
2	Shoeburyness ...	1019·9	+1·8	WSW	3	zo	45	85	5	5	7	–	4-6	10	2300	1	*
	Felixstowe ...	1017·9	+2·2	WSW	4	c	43	75	7	–	4	6	0	9	–	1	3
	Gorleston ...	1015·7	+2·4	WSW	3	bc	41	75	7	–	4	–	0	2-3	–	1	3
	Mildenhall ...	1016·3	+1·8	SW'W	5	c	42	85	8	–	7	–	0	9+	–	1	*
	Cranwell ...	1015·0	+1·8	WSW	4	zo	42	75	6	–	7	–	0	10	–	1	*
3	Birmingham ...	1017·5	+2·0	SSW	2	c	41	85	6	–	1	–	0	9+	–	1	*
	Upper Heyford	1018·4	+1·6	S'W	3	c	40	85	8	–	7	7	0	10	–	1	*
4	Ross-on-Wye	1017·7	+1·0	WSW	2	c	45	85	7	5	1	–	Tr	9	3000	1	*
5	Hartland Point	1018·1	–2	WNW	4	c	50	75	8	5	1	–	2-3	7-8	2500	1	5
	Bristol ...	1019·6	+1·4	WSW	5	c	46	85	7	5	1	–	4-6	10	2500	1	*
	Portland Bill ...	1020·1	+·8	W&W	5	c	50	92	7	5	7	–	7-8	10	2500	1	5
	Plymouth ...	1021·1	+1·6	W'S	4	c	50	75	8	–	7	7	0	9+	–	0	4
	The Lizard ...	1021·1	+2	WSW	4	c	50	75	7	8	2	–	9	10	1500	0	4
	Scilly (St. Mary's)	1020·2	–1·6	WSW	4	c	51	75	7	5	–	–	10	10	1500	1	4
	Guernsey ...																
6	Pembroke ...	1017·4	0	SW'W	6	bcq	51	85	7	8	1	–	2-3	4-6	2500	1	4
7	Holyhead (Valley)	1014·1	–·8	WSW	5	c	49	75	7	5	1	–	1	10	2500	0	
	Chester (Sealand)	1014·8	+1·0	WSW	3	zo	47	75	6	–	3	7	0	10	–	1	*
8	Manchester ...	1015·1	+·8	SSW	3	c	41	92	7	–	7	6	0	9	–	1	*
10	Spurn Head ...	1013·2	+2·0	W	4	c	45	85	7	5	–	–	9+	9+	2500	0	4
	Catterick ...	1010·8	+1·0	W'N	5	c	46	75	7	5	2	–	+6	10	2500	0	*
	Tynemouth ...	1008·3	+1·2	W	6	cq	47	75	7	2	–	–	7-8	7-8	2500	1	4
11	St. Abbs Head	1006·3	+1·8	SW	6	cq	46	85	7	5	7	–	4-6	9	2500	0	4
	Leuchars ...	1005·5	+1·6	WNW	3	id.	43	97	7	5	–	–	9+	9+	2200	1	*
12	Renfrew (Abbotsl.)	1007·0	+2	WSW	5	c	48	75	7	5	1	–	9	10	3000	1	*
	Eskdalemuir ...	1009·8	+2·0	SW'S	4	c	41	85	7	5	–	–	10	10	1500	1	*
	Point of Ayre ...	1011·7	+4	W	5	c	48	85	7	–	2	–	0	10	–	0	4
13A	Tiree	1004·0	–2	SW'W	5	c	51	97	7	5	–	–	7-8	7-8	1800	0	
13B	Stornoway ...	999·5	–1·2	S	5	dd	45	97	7	5	2	–	9	10	1500	1	3
15	Dalwhinnie ...	1004·5	+·6	SSW	3	c	43	85	7	8	–	–	9+	9+	2500	1	*
	Aberdeen ...	1003·6	+2·2	W	3	b	44	75	8	–	7	–	0	1	–	1	2
	Wick ...	999·9	+2·2	W	4	c	41	85	8	5	3	–	7-8	7-8	2500	1	*
16	Sumburgh ...	996·2	+3·6	W'N	6	c	48	85	7	8	–	–	9	9	1200	1	5
17	Blacksod Point	1005·8	–2·6	SSW	6	cq	52	85	7	5	–	–	10	10	2500	0	6
18	Malin Head ...	1006·1	–·6	SW'S	3	c	48	86	7	9	–	–	7-8	7-8	2500	1	5
	Aldergrove ...	1010·5	0	SSW	3	c	44	85	7	5	–	–	10	10	3000	1	*
19	Birr Castle ...	1011·2	–1·8	SSW	3	c	48	75	8	5	1	–	7-8	10	2500	1	*
20	Valentia Obsy.	1010·1	–4·2	SSW	6	c	52	75	8	5	–	–	10	10	2500	1	5
	Roches Point	1013·5	–3·0	WSW	5	c	51	85	8	5	–	–	9+	9+	1500	1	5

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 12th. Hrs. (36)
1	London (Kew)	55	42	35	3	–	2·5
	Croydon ...	55	41	34	3	Tr	1·5
	S. Farnborough	54	40	36	1	Tr	2·1
	Boscombe Down	53	37	32	3	1	3·2
	Thorney Island	55	40	39	2	–	*
	Lympne ...	54	39	35	4	Tr	1·8
	Manston ...	56	38	33	0·5	–	2·3
2	Shoeburyness ...	56	43	36	1	–	1·4
	Felixstowe ...	54	42	36	Tr	–	0·6
	Gorleston ...	54	41	38	1	–	*
	Mildenhall ...	55	40	35	2	–	0·7
	Cranwell ...	52	39	35	0·2	–	2·5
3	Birmingham ...	51	40	37	5	0·1	2·3
	Upper Heyford	52	38	33	2	–	*
4	Ross-on-Wye	53	44	37	0·5	–	3·1
5	Hartland Point	52	48	44	1	0·1	2·3
	Bristol ...	55	41	35	3	0·3	1·6
	Portland Bill ...	54	47	*	0·5	–	*
	Plymouth ...	54	46	*	0·5	Tr	3
	The Lizard ...	52	48	*	1	Tr	2·3
	Scilly (St. Mary's)	53		*	1		0·0
	Guernsey ...						
6	Pembroke ...	50	45	*	Tr	–	2·3
7	Holyhead (Valley)	52	49	40	0·4	–	*
	Chester (Sealand)	55	46	36	Tr	–	5·0
8	Manchester ...	52	40	35	–	–	*
10	Spurn Head ...	52	43	*	–	–	1·7
	Catterick ...	52	43	38	Tr	–	3·0
	Tynemouth ...	51	43	35	–	–	*
11	St. Abbs Head	48	42	*	–	–	*
	Leuchars ...	47	40	36	5	Tr	0·3
12	Renfrew (Abbotsl.)	53	42	43	3	1	0·2
	Eskdalemuir ...	46	39	37	2	2	0·1
	Point of Ayre ...	50	44	*	–	–	3·4
13A	Tiree	51	47	*	4	1	0·0
13B	Stornoway ...	47	43	*	3	3	0·0
15	Dalwhinnie ...	42	37	32	13	18	0·0
	Aberdeen ...	49	41	34	–	–	4·6
	Wick ...	46	39	37	0·2	3	*
16	Sumburgh ...	48	43	41	3	4	0·0
17	Blacksod Point	50	44	*	2	–	
18	Malin Head ...	48	41	*	2	0·6	0·3
	Aldergrove ...	47	40	37	0·4	Tr	2·1
19	Birr Castle ...	49	41	35	0·1	–	
20	Valentia Obsy.	51	48	44	2	0·3	
	Roches Point	50	*	*	0·5	–	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility sh. (To-day.)
Kew	18	rq PR bc	pr o bm o	bm o W	55	42	35	3	–	2·5	•	•	6
Croydon	217	cd c jp	bc pr bm	bm o c	55	41	34	3	Tr	1·5	•	•	6
Greenwich (Royal Observatory)...	149	cr bc p	bc pc b	bc bw cm o	55	41	33	2	–	1·5	71	80	5
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	56	40	37	3			83	91	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•									•
Camden Square	110	0	c	•	54	41	34	3	–	•	•	85	•
Kensington	80	bc pc b	bc	•	56	40	29	3	Tr		75	85	•
Hampstead Observatory	450	or bc	0	0	53	39	35	5	–		•	89	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 13th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·1	8-22h 12th	0·1	00-5h 13th

FOREIGN OBSERVATIONS.

Stations.	Evening of 12th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 13th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Reykjavik (18h and 07h)	990·3	E'N	5	p	36	987·9	E	5	c	36	*	*	*	*
Lisbon (18h and 07h)	1025·8	NE	1	p_s	52	1026·8	NE	2	f	48	52	45	*	–
Madrid (18h and 07h)	908·2	–	0	b	46	909·0	NNE	1	b	36	*	36	–	–
Cairo (Heliopolis) (18h and 06h)														
Toronto (13h and 01h)														
Washington (13h and 01h)														

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

SECTION

Sunday 14th December 1941.
No 29242.

OBSERVATIONS at 13h. G.M.T. 13th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1018·2	-22	SW	3	zo	49	85	6	5	1	7	Tr	10	4000
	Croydon	1019·4	-14	SW'S	3	c	50	75	6	5	7	6	Tr	9+	1800
	S. Farnborough	1018·8	-24	SW'W	4	c	50	85	8	5	7	-	Tr	10	2500
	Boscombe Down	1019·4	-14	S	3	zo	48	85	7	5	7	-	4-6	10	2000
	Thorney Island	1020·0	-18	SW	3	o	52	75	7	5	2	-	9	10	2500
	Lympne ...	1020·8	-14	WSW	2	c	48	92	7	5	2	-	9+	10	1500
	Manston ...	1020·0	-6	WSW	3	zo	48	85	6	5	7	-	1	10	5000
2	Shoeburyness ...	1019·3	-14	SW'S	2	o	48	85	6	-	2	-	0	10	-
	Felixstowe ...	1018·7	-10	SW	3	zo	46	85	5	-	1	-	0	10	-
	Gorleston ...	1017·6	-2	SSW	3	zo	48	75	6	5	-	-	10	10	2500
	Mildenhall ...	1017·6	-10	SW'S	3	zo	46	85	6	-	7	-	0	10	-
	Cranwell ...	1015·2	-10	SSW	4	zo	46	85	6	5	-	-	10	10	5000
3	Birmingham	1015·2	-16	SSW	3	c	46	85	6	5	7	-	9	10	2500
	Upper Heyford	1017·6	-22	SW'S	3	c	46	85	7	5	7	-	2-3	10	6000
4	Ross-on-Wye ...	1016·0	-20	SSW	2	c	49	75	7	5	2	-	9	10	2500
5	Hartland Point	1014·8	-28	SW	4	c	51	75	7	5	2	-	7-8	9+	1500
	Bristol	1017·5	-28	SW	4	c	50	75	7	5	2	-	9	10	3000
	Portland Bill ...	1020·5	-8	SW	5	c	52	92	7	5	-	-	10	10	2500
	Plymouth ...	1019·1	-20	SW	5	c	52	85	7	5	-	-	10	10	1800
	The Lizard ...	1017·6	-20	SW'W	6	c	52	85	7	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	1015·5	-30	SW	6	c/pr	52	85	7	5	7	-	7-8	10	1200
	Guernsey ...														
6	Pembroke ...	1013·7	-30	SW'S	7	c/r	51	92	7	6	2	-	4-6	10	2000
7	Holyhead (Valley)	1009·7	-34	S'W	6	c/r	50	92	7	6	2	-	7-8	10	1500
	Chester (Sealand)	1011·7	-30	SW	4	c	52	65	7	5	7	-	7-8	10	1200
8	Manchester ...	1013·5	-18	S	4	zo	47	97	6	5	7	-	9	10	3000
10	Spurn Head ...	1014·1	-4	SSW	3	zo	46	85	6	5	-	-	10	10	1500
	Catterick ...	1011·7	-6	SW'S	3	zo	47	75	6	5	7	-	2-3	9+	2000
	Tynemouth ...	1009·9	0	W	6	cq	50	75	5	5	-	-	9+	9+	1800
11	St. Abbs Head	1006·1	-4	SW	5	cq	47	85	8	5	2	-	7-8	10	2500
	Leuchars ...	1005·2	-6	WSW	4	c	48	85	7	5	2	-	7-8	10	1200
12	Renfrew (Abbots I.)	1005·1	-22	SSW	4	zo	49	75	6	5	2	-	9	10	1500
	Eskdalemuir ...	1007·1	-24	S'W	5	o/r	45	85	8	5	-	-	10	10	1500
	Point of Ayre ...	1008·2	-26	SW'W	5	c	51	75	8	8	2	-	9	10	2000
13A	Tiree	999·4	-40	SSW	5	dr	49	97	7	5	-	-	10	10	1500
13B	Stornoway ...	996·4	-30	SSW	7	c/pr	50	92	7	6	4	5	4-6	9+	500
15	Dalwhinnie ...	1003·8	-8	SW	4	c	44	92	7	8	3	-	7-8	9+	1500
	Aberdeen ...	1003·2	+6	SW	2	c	49	75	6	5	7	-	1	9+	2100
	Wick	1000·0	-10	SW'S	3	c	48	85	9	5	7	-	4-6	10	4000
16	Sumburgh ...	999·3	+10	W	3	c	48	75	7	-	7	-	0	9+	-
	Blacksod Point...	996·2	-48	S	7	RR	51	97	6	6	-	-	10	10	800
18	Malin Head ...	998·3	-50	S	4	c	49	85	7	9	-	-	9	9	1500
	Aldergrove ...	1004·6	-34	S	4	iro	48	85	7	5	2	-	9	10	2000
19	Birr Castle ...	1003·8	-48	SSW	5	c	52	75	8	6	2	-	7-8	10	1500
20	Valentia Obsy. †	1001·7	-50	S'W	7	ir	53	97	5	6	2	-	9	10	800
	Roches Point ...	1007·5	-32	S	7	rr	52	92	6	6	2	-	7-8	10	800

OBSERVATIONS at 18h. G.M.T. 13th December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 13th (37)	Weather 13h.–18h. 13th (38)	Weather 18h. 13th – 1h. 14th (39)	Weather 1h.–7h. 14th (40)
London (Kew)	1015·9	-12	SW'S	4	iro	50	85	6	5	2	-	9+	10	1500	1	*	cmo	cmiromo	cmociro	iroirocmo
Croydon	1016·4	-14	S'W	5	zo	49	85	6	5	2	-	9+	10	2400	0	*	cmoczo	czomo	cdodomo	cddroro
S. Farnborough	1016·6	-8	SW'S	5	roro	50	85	7	5	-	-	10	10	1700	1	*	c	c	brorododomo	cdoroino
Boscombe Down	1016·1	-10	SSW	5	ddo	49	97	6	6	-	-	10	10	900	1	*	bccmoc	c,cdodomo	cdodo	bmoc
Thorney Island	1017·4	-14	SW'S	4	o	51	85	6	5	2	-	7-8	10	3200	1	*	comoo	o	dodororomo	roroororo
Lympne	1015·6	-4	SSW	3	zo	49	85	6	5	-	-	10	10	1900	1	§5	ccmoc	ccmo	cmodcdo	ododofro
Manston	1018·1	+2	SW	4	zo	49	85	6	5	7	-	9	10	3600	1	*	ccmo	cmo	ciromo	cdodomo
Shoeburyness	1017·5	-6	SW	4	c	49	85	6	5	2	-	4-6	10	2500	1	*	mocmoo	momoc	mocbcido	cidomo
Felixstowe	1016·8	-16	SW'S	4	zo	48	85	6	5	-	-	10	10	3500	1	4	c,mo	cmo	cmoiroc	cidoiro
Gorleston	1015·9	-12	S'W	4	zo	46	85	6	5	-	-	9+	9+	1500	0	4	c	c	cbromo	cproc
Mildenhall	1014·3	-14	SSW	4	iro	49	85	6	5	2	-	7-8	10	3000	1	*	ccmo	cmoiro	ciromo	cdodomoc
Cranwell	1011·0	-22	SW	5	zo	48	85	6	5	7	-	2-3	10	5700	1	*	cmo	cmo	cmoiro	cmoido
Birmingham	1011·2	-16	SSW	4	c/r	47	85	6	6	2	-	9	10	800	1	*	c	co		oiro
Upper Heyford	1014·2	-20	SSW	4	dodo	48	92	6	5	-	-	10	10	700	1	*	ccmo	idododomo	ddroro	cidomoc
Ross-on-Wye	1012·2	-2	S	4	iro	49	85	7	6	-	-	10	10	1500	1	*	c	c	rocpq	co
Hartland Point	1009·5	-20	SW	6	roro	52	85	6	5	2	-	7-8	10	1500	1	5	c	cirroroc	croroo	
Bristol	1013·4	-18	WSW	4	roro	50	85	6	5	-	-	10	10	1500	1	*	c	cidororo	crorodomo	rorodo
Portland Bill	1016·2	-16	SW	5	rr	52	92	7	5	-	-	10	10	2500	1	5	c	orr	orr	orr
Plymouth	1014·3	-24	SW	6	rr	52	97	5	5	-	-	10	10	1000	1	4	c	crorom	ororomo	ciromo
The Lizard	1012·5	-20	SW'S	7	roro	52	97	6	5	-	-	10	10	1000	1	5	cproc	croro	roroc	rocrr
Scilly (St. Mary's)	1011·2	-16	SW'W	6	iro	53	97	5	5	2	-	7-8	10	800	1	5	cpow	ciro	ciroc	ciro
Guernsey																				
Pembroke	1007·8	-24	SSW	7	rr	52	97	5	8	2	-	7-8	10	1500	1	4	cirq	crrqmo	cqmo	c
Holyhead (Valley)	1003·8	-36	S	7	rr	50	97	5	5	-	-	10	10	400	1	6	crorc	cdoromo	crodo	cmo
Chester (Sealand)	1007·9	-24	S	4	iro	52	85	6	5	2	-	7-8	10	3800	1	*	cmoc	cidoiro	cdoromo	czo
Manchester	1008·5	-30	SSW	5	iro	48	85	6	5	-	-	10	10	3000	1	*	cmo	ciromo	ciro	c
Spurn Head	1010·9	-16	S'E	4	zo	45	92	6	3	6	-	4-6	7-8	4000	0	4	czo	cmoir	c	oso
Catterick	1006·9	-28	SSW	4	iro	47	85	4	5	7	-	9	10	3200	1	*	cczo	zomrm	cirob	bbcc
Tynemouth	1005·5	-30	SSW	6	cq	49	85	6	5	-	-	9+	9+	1500	1	4	cq	cmoq	cq	cq
St. Abbs Head	1000·4	-36	SW	5	roro	46	97	7	5	2	-	9	10	1500	1	3	cq	cdoro	qroc	cbcb
Leuchars	998·9	-42	S	3	dodo	47	97	5	5	-	-	10	10	900	1	*	idocmoc	cmododo	rrporb	bbc
Renfrew (Abbots I.)	997·4	-50	SSW	5	rr	51	85	5	5	-	-	10	10	1900	1	*	cmo	cmo,rororr	rmoprb	bcprc
Eskdalemuir	1001·0	-30	SSW	7	rr	46	97	4	-	2	-	10	10	<150	1	*	ciro	cirorr	orrc	ciRoc
Point of Ayre	1000·9	-28	SW'W	6	rr	52	85	7	6	2	-	4-6	10	800	1	4	c	idorrc	rrcbc	bcc
Tiree	989·8	-30	SSW	6	rr	49	97	7	-	2	-	10	10	1500	1	6	ord	odrdr	cprbc	prbc
Stornoway	986·3	-50	S	8	o/r	50	97	6	5	-	-	10	10	1000	1	5	cddpr	crory	crrPr	bccPrb
Dalwhinnie	997·1	-52	SSW	3	iro	43	92	6	5	2	-	9	10	1500	1	*	cir	ciro		cirbc
Aberdeen	998·7	-12	SSW	4	c	48	85	6	5	7	-	7-8	9+	1900	1	2	bcczo	czo	czob	bcb
Wick	994·4	-48	S	3	iro	48	85	7	5	2	-	7-8	10	1500	1	*	crororoc	ciro	rrcbc	bcprq
Sumburgh	996·6	-22	SW'S	3	o/r	47	97	6	5	-	-	10	10	1000	1	5	cproc	roroddr	rorrc	bccpor
Blacksod Point	994·2	+6	SW	7	cq	53	75	7	2	6	-	4-6	7-8	1500	2	6	r	c	pr	r
Malin Head	992·1	-30	SSW	6	c/d	51	85	6	9	7	-	4-6	9	1500	1	6	c	c	pr	c
Aldergrove	996·8	-38	SSW	5	c/r	51	92	6	6	-	-	9	10	1100	1	*	cciro	irororomoc	cbcprobc	bbcc
Birr Castle	999·8	-2	WSW	5	ir	52	92	7	6	2	-	4-6	10	1500	1	*	bc	r	*	c
Valentia Obsy. †	1002·0	+18	SW	6	c	53	75	7	1	3	-	2-3	7-8	2500	1	5	r	r	c	r
Roches Point	1003·4	-6	W'S	5	c/d	53	92	8	5	-	-	9+	9+	800	1		r	r	bc	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. ro, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗ gale.
⊕ Solar halo. ◑ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

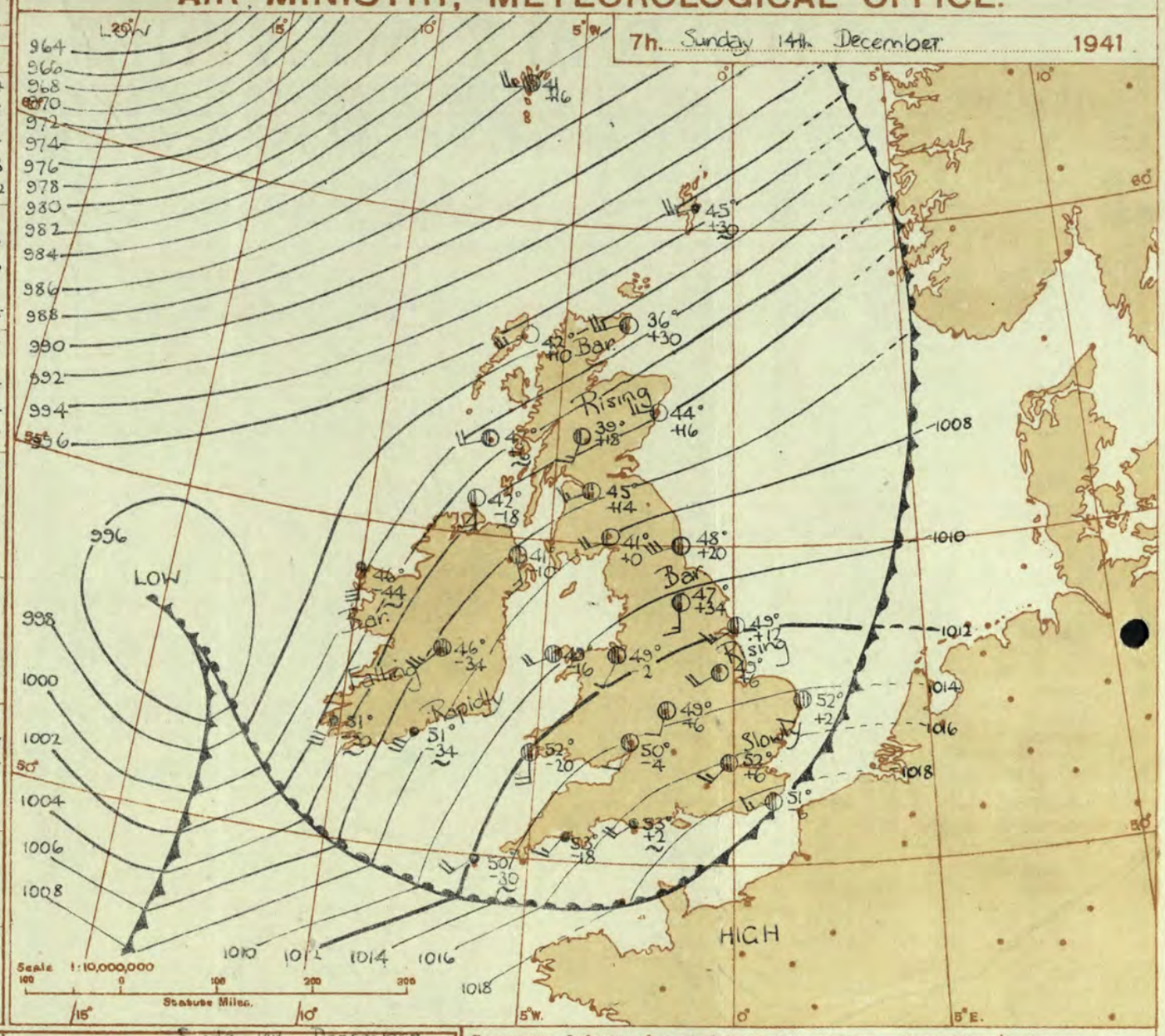
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 13th Dec.: $C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 14th Dec.: $C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
109	52	02745	20368	5-	03658	15528	5-	02744	20428	5-	25844	22484
115				9-	1076-	22646	52	81844	18487	54	88844	24585
203	6-	81837	20687				5-	81934	18684	10	00942	20592
206	57	02865	22327	52	02863	10368	5-	01863	55783	5-	25863	22283
210	57	02974	18125	5-	02858	14428	50	00863	19463	50	00962	53502
220	82	81745	24628									
230	82	02846	19386	02	58528	18368	8-	81747	53587	03	00890	56501
245	57	05643	22558	02	62668	61568	50	00861	54761	03	00890	55503
260	5-	21868	18428	52	61756	61558	50	00752	53662	53	01864	18385
278	52	02855	16428	52	58737	49468	8-	25744	55584	51	02842	20328
279	50	51646	52528	62	64637	51668	5-	22777	52527	57	02863	20326
285												
288	52	02754	20328	52	06654	51428	50	00762	51522	01	05690	53428
575	67	21845	45458	62	21744	53558	5-	01754	56514	07	01790	47414
301	5-	05555	16498	02	62558	15568	53	02754	55668	07	02790	22428
321	5-	05578	18328				62	61638	22468	01	05690	24368
299							5-	05645	23485	50	01734	23314
292	57	05554	13127	5-	61688	51768	51	05644	18368	01	02790	55228
310	--	03528	24328									
614	57	05664	18328	5-	61558	20351	57	22645	20468	02	05690	22228
333	52	62746	18668	5-	54638	16758	51	05644	53556	5-	02758	16228
334	--	54547	26428	--	56537	24468						
340	5-	02658	18428	5-	21848	16468	5-	21655	53465	07	05690	18318
136	52	05661	19428	02	61688	19428	52	61645	1*368	07	05690	20428
336	52	02753	20428	6-	62526	20468						
350	52	05664	20528	52	61667	51468	5-	52528	52658	52	05653	20428
368	5-	05643	20428				51	02642	53668	52	51646	22358
379	52	02754	18528				6-	52628	51668	5-	05638	20468
390	07	47390	22248	5-	08458	18428	52	61646	53568	57	05535	18368
382	57	02764	19428	52	61746	18428	52	51636	19458			
438	8-	02748	24528							-2	57109	22569
430	52	02765	29458							5-	62628	22368
409	57	02756	16628	62	58627	17768	02	05628	53568	52	05644	18328

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Sunday 14th December
1 S.E. England	Moderate or fresh southwest wind; cloudy; rain at times: mild.
2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate or fresh southwest wind, veering west later. Cloudy with rain at first; fair periods later: mild.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Freshening southwest wind, increasing to gale on coast, veering west later. Cloudy with rain at first, fair periods later: mild.
9 N. Midlands ... 10 N.E. England	Freshening southwest wind veering west later. Cloudy; rain later to-day. Fair periods later: rather mild.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13A. W. Scotland 13B. N.W Scotland 14 Mid Scotland	Wind southwest increasing to strong; gale at exposed places. Cloudy with rain today; fair periods but occasional showers later. Rather mild at first; temperature falling somewhat, later.
15 N. E. Scotland 16 Orkneys and Shetlands	Wind southwest strong to gale, veering west later. Showers at first, a period of steady rain later. Cold at first becoming temporarily milder.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Strong south to southwest wind, veering west later; gale on coasts. Cloudy with rain at first; fair periods but occasional showers later: mild.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A very deep depression is centred near Iceland and a secondary to west of Ireland is moving northeast. Rain will spread northeast across the country today and be followed by fair periods in the South and showers in the North. Gales will occur on the coasts in the West and North. It will be mild in the South but temperature will be changeable in the North.

FURTHER OUTLOOK.

Stormy; further rain spreading from the Southwest.

Gale warnings issued 1145, 11.12.41. in districts, 7, 8, 12, 13A, 13B, 17, 18.
.. .. .. 0830, 13.12.41 .. .. 5(part of) 6, 19, 20.
.. .. .. 1430, 13.12.41 .. .. 5(part of) 10, 11, 15, 16.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Sunday 14th December

1941.

Clarke's Projection Scale 1: 4×10^7 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. (Th) Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 14th December, 1941.

No. 29242.

OBSERVATIONS at 1 hr. G.M.T. 14th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	51*	*	*	*	*	*	*	*	*
	Croydon ...	217	1012·6	·16	SSW	5	id	51	97	6	5	2	-	7-8	10	1100
	S. Farnborough	226	1011·9	-16	SW	4	ido	52	97	6	5	-	-	9	9	1000
	Boscombe Down	417	1012·3	-14	SW	5	do do	53	85	5	6	-	-	10	10	700
	Thorney Island	10	1013·5	-16	SW	5	dr	52	97	6	5	-	-	10	10	400
	Lympne ...	346	1016·6	-10	SW	6	do do	49	97	6	5	-	-	10	10	300
	Manston ...	154	1014·4	-10	SW	6	ido	50	92	6	5	-	-	10	10	600
2	Shoeburyness ...	11	1013·8	·12	SW	5	ido	50	92	6	6	1	-	4-6	7-8	1500
	Felixstowe ...	15	1012·3	-16	SW's	5	o	48	92	7	5	-	-	10	10	1000
	Gorleston ...	5	1011·7	-12	S'W	5	o/pr	50	85	6	5	-	-	10	10	1500
	Mildenhall ...	19	1010·3	-12	WSW	5	zo	53	92	6	5	-	-	10	10	1400
	Cranwell ...	240	1007·2	-6	SW	5	o/r	52	92	6	5	-	-	10	10	1100
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1009·9	-10	SW'W	6	c/q	52	97	6	-	2	-	10	10	800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1010·0	+16	SW	6	o	52	92	7	5	-	-	10	10	1500
	Bristol ...	209	1011·0	+6	SSW	5	ro/o	54	92	6	6	2	-	7-8	10	1000
	Portland Bill ...	32	1013·3	0	SW	5	rr	52	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1013·1	+6	SW'W	6	c/r	53	97	6	5	-	-	7-8	7-8	1500
	The Lizard ...	240	1013·3	+12	WSW	6	c	53	97	7	8	-	-	7-8	7-8	1500
	Scilly (St. Mary's)	163	1012·2	+10	W'S	5	c	53	97	7	5	-	-	9+	9+	1500
	Guernsey ...	175														
6	Pembroke ...	142	1009·1	+20	SSW	6	c/q	53	85	7	8	-	-	10	10	1500
7	Holyhead (Valley)	26	1005·3	+26	SW	6	zo	52	92	6	5	-	-	10	10	1500
	Chester (Sealand)	16	1005·8	+12	SW	3	zo	54	75	6	5	7	8	7-8	10	2200
8	Manchester ...	235	1006·0	+2	SW'W	5	o	52	85	7	5	-	-	10	10	2500
10	Spurn Head ...	29	1005·6	-4	SW's	5	c	51	92	6	2	7	-	4-6	7-8	4000
	Catterick ...	175	1002·0	-6	W'S	4	zo	53	85	6	5	-	-	1	1	1500
	Tynemouth ...	108	1000·4	+6	WSW	4	c	53	85	6	2	-	-	7-8	7-8	2500
11	St. Abbs Head	280	995·8	+8	W	5	bc	51	75	7	5	4	-	4-6	4-6	2500
	Leuchars ...	36	995·5	+8	WSW	6	b/pr	46	85	8	8	-	-	Tr	Tr	2000
12	Renfrew (Abbotsl.)	19	997·0	+12	W'S	6	bc	49	65	7	3	-	-	2-3	2-3	3500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1001·7	+24	W'N	6	bc	50	75	7	5	-	-	4-6	4-6	2000
13A	Tiree	22	993·4	+26	SW'W	6	c/pr	48	88	8	8	-	-	4-6	4-6	1800
13B	Stornoway ...	80	988·1	+18	SE'S	5	bc	47	85	7	3	6	-	2-3	4-6	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	51*	*	*	*	*	*	*	*	*
	Wick ...	119	989·6	+6	SW	4	bc	47	75	8	5	-	-	2-3	2-3	2500
16	Sumburgh ...	30	988·0	-30	SW's	4	rr	48	97	7	5	-	-	9	10	1500
17	Blacksod Point	18	1000·8	+38	S	8	bc/pr	47	85	7	9	-	-	4-6	4-6	1500
18	Malin Head ...	84	998·8	+30	SW	4	bc	47	85	7	9	3	-	2-3	4-6	1500
	Aldergrove ...	268	1000·5	+30	SWW	4	bc	45	75	7	2	-	-	2-3	2-3	2500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1007·1	+14	SW'W	4	c	50	65	8	5	7	-	2-3	7-8	4000
	Roches Point	22	1007·9	+22	W'S	4	bc	51	85	8	5	-	-	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 14th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Ses. 0–9 (30)
1	London (Kew)	1012·8	+8	SW's	3	zo	51	92	6	5	2	-	4-6	10	2500	1	*
	Croydon ...	1013·0	+6	SSW	3	c/r	52	92	7	-	7	-	0	10	-	1	*
	S. Farnborough	1012·9	+6	SW's	3	c/r	52	97	6	5	7	-	2-3	9+	2000	1	*
	Boscombe Down	1013·1	+2	SSW	2	zo	50	97	6	5	-	-	10	10	2000	1	*
	Thorney Island	1013·7	+2	WSW	2	ro/o	52	97	6	-	2	-	10	10	5700	1	*
	Lympne ...	1015·2	-6	WSW	3	c/f	51	97	6	5	-	-	9+	9+	400	1	§4
	Manston ...	1013·3	-2	WSW	4	c/d	52	97	6	5	3	-	2-3	9+	800	1	*
2	Shoeburyness ...	1013·3	+6	SW	4	c	53	92	6	5	2	-	9	10	1900	1	*
	Felixstowe ...	1012·3	+6	SW'W	3	c/r	51	92	7	5	7	-	2-3	10	4000	1	2
	Gorleston ...	1010·9	+2	SW'S	2	zo	52	92	6	5	-	-	10	10	800	1	3
	Mildenhall ...	1011·0	+10	SW'W	4	c	52	85	7	5	-	-	9+	9+	5700	1	*
	Cranwell ...	1009·0	+6	SW	4	zo	49	75	6	5	7	-	2-3	10	2500	1	*
3	Birmingham ...	1005·8	+6	SSW	2	o	49	75	7	5	-	-	10	10	2500	1	*
	Upper Heyford	1011·3	+10	SW'S	3	c	50	92	7	5	7	-	9	10	6000	1	*
4	Ross-on-Wye	1010·2	-4	SSW	2	c	50	85	7	-	2	-	0	10	-	1	*
5	Hartland Point	1009·1	-16	S	3	c	51	92	7	5	2	-	7-8	10	1500	1	4
	Bristol ...	1011·4	-2	SSW	3	ido	51	85	6	5	2	-	2-3	10	1500	1	*
	Portland Bill ...	1013·4	+2	SW	4	rr	53	92	7	5	-	-	10	10	2500	1	5
	Plymouth ...	1011·3	-18	SW'S	3	ro	53	97	6	5	2	-	9+	10	1400	1	3
	The Lizard ...	1010·8	-18	SW	5	rr	51	97	5	5	-	-	10	10	1000	1	
	Scilly (St. Mary's)	1008·8	-30	SW'S	4	ro	50	97	6	5	-	-	10	10	1500	1	5
6	Pembroke ...	1008·1	-20	S	4	c	52	92	7	8	-	-	10	10	1500	1	4
7	Holyhead (Valley)	1005·7	-16	SW	4	zo	49	85	6	5	-	-	10	10	1500	1	4
	Chester (Sealand)	1007·7	-2	SSW	1	zo	49	75	6	5	7		4-6	10	6500	1	*
8	Manchester ...	1008·3	+6	SW'W	3	o	46	85	7	5	-	-	10	10	3500	1	*
10	Spurn Head ...	1007·8	+12	SW	3	c	49	88	6	5	2	-	7-8	10	2500	0	3
	Catterick ...	1006·3	+34	S	3	c	47	75	8	5	1	-	1	9+	2500	1	*
	Tynemouth ...	1003·2	+20	WSW	6	c/q	48	65	6	8	-	-	9	9	2500	0	3
11	St. Abbs Head	1000·8	+26	W	5	c	43	92	7	4	4	6	2-3	7-8	2500	0	3
	Leuchars ...	1000·5	+25	SW	3	bc	42	92	8	-	7	-	0	4-6	-	1	*
12	Renfrew (Abbotsl.)	1001·7	+14	SW	3	c	45	75	7	5	7	6	2-3	7-8	2500	1	*
	Eskdalemuir ...	998·8	+18	SSW	3	bc	39	75	8	2	-	-	2-3	2-3	2500	1	*
	Point of Ayre ...	997·7	+10	W'S	3	b	44	65	8	5	-	-	Tr	Tr	2900	1	2
13A	Tiree	996·2	+6	SW'W	4	bc	47	75	8	5	3	-	2-3	2-3	2500	0	5
13B	Stornoway ...	992·9	+10	SW	5	b	42	75	8	-	-	-	0	0	-	1	3
15	Dalwhinnie ...	998·8	+18	SSW	3	bc	39	75	8	2	-	-	2-3	2-3	2500	1	*
	Aberdeen ...	997·7	+10	W'S	3	b	44	65	8	5	-	-	Tr	Tr	2900	1	2
	Wick ...	994·4	+30	WSW	5	b/pr	36	85	8	3	-	-	Tr	Tr	2500	1	*
16	Sumburgh ...	990·7	+30	WSW	5	pr	45	85	8	8	-	-	10	10	1500	1	5*
17	Blacksod Point	995·6	-44	S	6	rr	46	97	6	6	-	-	10	10	800	1	5
18	Malin Head ...	997·4	-18	S	4	bc	42	85	8	-	9	-	0	4-6	-	1	5
	Aldergrove ...	1002·4	-10	S'E	3	c	41	85	8	5	7	7	2-3	10	4000	1	*
19	Birr Castle ...	1001·1	-34	SSW	5	o	46	75	8	5	-	-	10	10	2500	1	
20	Valentia Obsy.	1009·7	-50	S'W	6	ro/o	51	92	7	6	2	-	4-6	10	1500	1	5
	Roches Point	1002·3	-34	S'W	6	ir	51	92	7	6	2	-	7-8	9+	800	1	6

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F. (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 13th Hrs. (36)
1	London (Kew)	50	49	48	Tr	0·2	0·0
	Croydon ...	50	48	45	-	0·6	0·0
	S. Farnborough	50	48	49	-	2	0·0
	Boscombe Down	49	48	44	0·3	2	0·0
	Thorney Island	52	49	45	-	2	*
	Lympne ...	50	48	46	-	2	0·0
	Manston ...	50	48	45	-	Tr	0·0
2	Shoeburyness ...	50	49	48	-	Tr	0·0
	Felixstowe ...	48	48	44	-	Tr	0·0
	Gorleston ...	48	45	42	-	Tr	*
	Mildenhall ...	50	49	45	Tr	0·3	0·0
	Cranwell ...	48	48	46	-	0·2	0·0
3	Birmingham ...	47	47	45	Tr	0·4	0·0
	Upper Heyford	50	48	46	Tr	2	*
4	Ross-on-Wye	49	49	47	Tr	0·6	0·0
5	Hartland Point	52	51	(39)	0·2	1	0·0
	Bristol ...	51	49	41	1	1	0·0
	Portland Bill ...	52	50	*	0·1	5	*
	Plymouth ...	53	52	51	2	3	0·0
	The Lizard ...	53	50	*	2	2	0·0
	Scilly (St. Mary's)	53	50	*	0·3	1	0·0
6	Pembroke ...	53	48	*	2	1	0·0
7	Holyhead (Valley)	52	48	45	1	1	*
	Chester (Sealand)	52	49	40	Tr	Tr	0·0
8	Manchester ...	48	46	42	Tr	0·1	*
10	Spurn Head ...	47	45	*	-	-	0·0
	Catterick ...	49	47	40	Tr	Tr	0·0
	Tynemouth ...	50	48	42	-	-	*
11	St. Abbs Head	49	47	*	0·2	-	*
	Leuchars ...	48	42	38	0·3	4	0·0
12	Renfrew (Abbotsl.)	51	43	37	3	7	0·0
	Eskdalemuir ...	46	37	31	3	5	0·3
	Point of Ayre ...	50	43	38	-	-	0·0
13A	Tiree	49	45	40	0·3	2	*
13B	Stornoway ...	50	48	44	4	5	0·2
15	Dalwhinnie ...	46	37	31	3	5	0·3
	Aberdeen ...	50	43	38	-	-	0·0
	Wick ...	49	38	33	0·3	2	*
16	Sumburgh ...	48	44	40	4	5	0·2
17	Blacksod Point	54	48	*	15	2	*
18	Malin Head ...	52	40	*	0·3	2	0·0
	Aldergrove ...	51	40	36	0·3	Tr	0·0
19	Birr Castle ...	54	43	41	0·6	0·2	0·0
20	Valentia Obsy.	54	47	43	10	3	
	Roches Point	53		*	5		*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs.	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	c mo	c mo	c ir ro mo	50	49	48	ir	0·2	0·0	*	*	5
Croydon	217	c mo	c 2o mo	d do dd ro	50	48	45	-	0·6	0·0	*	*	
Greenwich (Royal Observatory) ...	149	c mo	c mo	c ir ro mo	51	49	48	-	0·5	0·0	75	93	5
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	54	44	44	*	0·4	*	47	97	*
Regents Pk. (Botanic Gardens)† ...	168	*	*	*									*
Camden Square	110	d c		*	53	44	41	*	0·5	*	*	91	*
Kensington	80	c o	o	*	54	50	46	*	0·5		75	94	*
Hampstead Observatory	450										*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 14th

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
0·2	9-10hr 13th	<0·1	0-7hrs 14th

FOREIGN OBSERVATIONS.

Stations.	Evening of 13th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 14th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	964·3	E	8	ir	42	950·6	E	7	ir ro	37
Lisbon (18h and 07h)	1026·6	NNE	1	fg	52	1027·6	NE	3	K/S	43
Madrid (18h and 07h)	1010·0	-	0	b	45	1010·7	-	0	b	34
Cairo (Heliopolis) (18h and 06h)	1019·6	-	0	b	58	1021·3	SW	1	c zo	59
Toronto (13h and 01h)	1020·1	ENE	4	o	23	1008·1	E	2	rs	33
Washington (13h and 01h)	1019·0	NE	3	ro	34					

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
57	41	-	-
52	34	-	-
68	54	-	0·1

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

§ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. † Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Monday 15th December 1941.

No 29248

OBSERVATIONS at 13h. G.M.T. 14th December

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	1006·8	-·52	S'W	3	[illegible]	52	97	5	6	2	-	9+	10	800
	Croydon	1008·2	-·38	S	5	[illegible]	53	97	5	6	2	-	7-8	10	800
	S. Farnborough	1007·1	-·50	SW/S	5	[illegible]	55	92	6	5	-	-	10	10	700
	Boscombe Down	1006·1	-·54	SW/S	7	[illegible]	55	97	5	-	2	-	10	10	200
	Thorney Island	1008·9	-·38	SSW	5	[illegible]	54	97	5	-	2	-	10	10	220
	Lympne	1011·9	-·42	S	5	[illegible]	52	97	2	-	-	-	10	10	4350
	Manston	1010·9	-·34	SW/S	4	[illegible]	52	97	5	5	-	-	10	10	100
2	Shoeburyness	1008·8	-·30	S	4	[illegible]	52	97	6	6	2	-	9+	10	700
	Felixstowe	1008·5	-·34	SSW	4	[illegible]	49	97	5	5	-	-	10	10	200
	Gorleston	1010·2	-·18	S	3	[illegible]	51	92	6	6	-	-	10	10	1400
	Mildenhall	1007·8	-·30	S'E	3	[illegible]	51	97	6	5	-	-	10	10	1500
	Cranwell	1008·0	-·40	SE	3	[illegible]	50	92	6	5	-	-	9	10	700
3	Birmingham	1002·7	-·44	SSE	3	[illegible]	50	92	5	6	-	-	10	10	800
	Upper Heyford	1004·8	-·54	SE	3	[illegible]	51	97	6	5	2	-	9	10	200
4	Ross-on-Wye	1002·0	-·66	SW	3	[illegible]	53	97	6	6	2	-	9+	10	800
5	Hartland Point	1000·2	-·68	WSW	7	[illegible]	55	92	6	8	2	-	7-8	10	800
	Bristol	1003·9	-·56	SSW	5	[illegible]	56	92	7	-	2	-	10	10	600
	Portland Bill	1008·2	-·34	SW	6	[illegible]	53	92	7	5	-	-	10	10	2500
	Plymouth	1007·2	-·14	SW	7	[illegible]	55	97	5	5	-	-	10	10	400
	The Lizard	1005·5	-·12	SW	8	[illegible]	50	97	4	5	-	-	10	10	600
	Scilly (St. Mary's)	1003·3	-·10	SW/W	6	[illegible]	55	97	6	5	2	-	7-8	10	800
	Guernsey														
6	Pembroke	999·5	-·40	SW	7	[illegible]	52	97	5	5	-	-	10	10	1500
7	Holyhead (Valley)	997·0	-·64	S	6	[illegible]	49	97	6	6	2	-	7-8	10	800
	Chester (Sealand)	1000·4	-·56	S	3	[illegible]	51	75	6	5	2	-	10	10	1800
8	Manchester	1001·6	-·54	SW	5	[illegible]	50	85	6	6	2	-	7-8	10	1500
10	Spurn Head	1005·3	-·30	SSE	4	[illegible]	48	97	6	5	-	-	10	10	2500
	Catterick	1002·4	-·40	S/E	3	[illegible]	46	85	4	5	2	-	2-3	10	2000
	Tynemouth	1001·2	-·34	S	4	[illegible]	46	75	6	5	-	-	9	9	2000
11	St. Abbs Head	997·8	-·32	SE	5	[illegible]	46	85	8	5	7	6	4-6	7-8	2500
	Leuchars	997·0	-·40	S	3	[illegible]	44	75	8	-	7	-	0	10	-
12	Renfrew (Abbotsl.)	994·8	-·62	S	5	[illegible]	46	85	5	-	2	-	10	10	1200
	Eskdalemuir	998·2	-·50	S	4	[illegible]	42	75	7	5	-	-	10	10	1500
	Point of Ayre	997·0	-·52	SW/S	6	[illegible]	50	92	6	6	2	-	7-8	10	800
13A	Tiree	999·4	-·40	SW	6	[illegible]	45	92	7	-	2	-	9+	9+	1500
13B	Stornoway	998·7	-·54	SSE	8	[illegible]	44	92	7	6	2	-	4-6	10	1000
15	Dalwhinnie	992·5	-·56	SSE	6	[illegible]	39	85	6	5	-	1	10	10	2500
	Aberdeen	996·0	-·32	S	3	[illegible]	45	75	6	-	3	-	0	4-6	-
	Wick	992·6	-·42	SSW	5	[illegible]	44	75	8	5	-	-	9+	9+	3500
16	Sumburgh	994·5	+·14	SW/W	4	[illegible]	46	85	8	5	7	-	1	9+	2000
17	Blacksod Point	999·9	+·4	W/S	6	[illegible]	48	85	7	3	5	-	4-6	7-8	1500
18	Malin Head	999·3	-·14	SW	5	[illegible]	44	85	5	3	-	-	9+	9+	800
	Aldergrove	994·2	-·38	S'W	5	[illegible]	47	92	6	2	2	-	4-6	10	1500
19	Birr Castle	996·9	-·2	SSW	2	[illegible]	45	92	7	6	2	-	7-8	10	1500
20	Valentia Obsy. †	999·4	+·6	WSW	5	[illegible]	48	75	8	2	3	3	4-6	7-8	2500
	Roches Point	999·2	-·4	W/N	4	[illegible]	49	85	8	6	2	-	7-8	9+	1500

OBSERVATIONS at 18h. G.M.T. 14th December

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base. (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1007·0	+·16	SW	5	[illegible]	56	92	5	5	-	-	10	10	1500	1	*
	Croydon	1007·2	+·10	SW	5	[illegible]	56	97	5	6	2	-	9	10	1200	1	*
	S. Farnborough	1007·8	+·20	SW/W	6	[illegible]	56	92	6	5	2	-	9	10	1200	1	*
	Boscombe Down	1007·5	+·24	SW	6	[illegible]	55	92	6	6	-	-	10	10	1500	1	*
	Thorney Island	1009·1	+·2	SSW	6	[illegible]	56	97	5	6	2	-	7-8	10	2200	1	*
	Lympne	1011·2	+·10	SW	7	[illegible]	53	97	4	6	-	-	10	10	2000	1	§5
	Manston	1009·0	+·6	SW	7	[illegible]	55	97	5	5	-	-	10	10	4000	1	*
2	Shoeburyness	1007·5	-·2	SSW	6	[illegible]	56	97	6	6	-	-	9	9	7000	1	*
	Felixstowe	1005·5	-·6	SW	6	[illegible]	53	97	6	5	-	-	10	10	1100	1	*
	Gorleston	1004·0	-·24	SSW	6	[illegible]	55	97	5	6	-	-	10	10	800	1	*
	Mildenhall	1002·8	-·8	SW/S	6	[illegible]	58	85	7	5	7	-	9	10	1900	1	*
	Cranwell	999·0	-·4	SW	6	[illegible]	57	85	6	5	2	-	9	10	1500	1	*
3	Birmingham	1001·7	+·16	SW	4	[illegible]	54	85	7	6	2	-	4-6	9+	800	1	*
	Upper Heyford	1003·7	+·24	SSW	6	[illegible]	56	85	6	5	-	-	10	10	3000	1	*
4	Ross-on-Wye	1004·1	+·34	WSW	6	[illegible]	54	76	8	5	2	-	7-8	10	2500	1	*
5	Hartland Point	1007·1	+·64	W	5	[illegible]	51	76	7	5	2	-	7-8	10	1500	1	
	Bristol	1006·6	+·44	WSW	5	[illegible]	53	92	6	6	2	-	9+	10	800	1	*
	Portland Bill	1008·3	+·12	WSW	6	[illegible]	52	92	7	5	-	-	10	10	2500	1	6
	Plymouth	1008·8	+·36	W	5	[illegible]	52	92	5	5	2	-	7-8	10	800	1	5
	The Lizard	1010·2	+·42	W/S	6	[illegible]	51	92	7	8	2	-	9	10	1000	1	5
	Scilly (St. Mary's)	1009·6	+·44	W	6	[illegible]	51	85	8	6	7	-	4-6	9+	1200	1	5
	Guernsey																
6	Pembroke	1005·4	+·28	W	7	[illegible]	51	85	7	8	-	-	10	10	1500	1	5
7	Holyhead (Valley)	1001·8	+·56	W	6	[illegible]	49	75	8	5	-	-	9+	9+	2300	1	5
	Chester (Sealand)	1001·1	+·42	W	5	[illegible]	49	85	4	6	2	-	10	10	6000	1	*
8	Manchester	1000·8	+·40	WNW	8	[illegible]	48	85	6	9	-	-	10	10	1500	1	*
10	Spurn Head	997·4	-·14	SSW	5	[illegible]	53	97	6	5	-	-	10	10	2500	1	4
	Catterick	996·1	-·12	W	5	[illegible]	49	85	4	5	1	-	2-3	9+	1500	1	*
	Tynemouth	994·1	-·24	S	5	[illegible]	49	92	5	-	2	-	10	10	1500	1	3
11	St. Abbs Head	992·1	0	W	6	[illegible]	43	92	7	5	2	*	7-8	10	1500	1	3
	Leuchars	991·4	-·8	WSW	4	[illegible]	42	85	6	6	2	-	4-6	9	1200	2	*
12	Renfrew (Abbotsl.)	994·6	+·40	SW	4	PHR	45	75	5	8	-	*	10	10	1200	2	*
	Eskdalemuir	994·4	+·14	W	4	[illegible]	41	85	6	6	2	-	4-6	10	450	1	*
	Point of Ayre	997·7	+·34	WNW	6	[illegible]	46	85	8	4	-	-	1	1	3000	1	5
13A	Tiree	991·0	+·16	WSW	5	[illegible]	46	75	7	5	-	-	4-6	4-6	1800	0	6
13B	Stornoway	986·2	0	SW	5	[illegible]	42	85	7	8	-	-	4-6	4-6	500	2	3
15	Dalwhinnie	991·2	-·8	SW	3	[illegible]	37	85	7	5	-	-	4-6	4-6	2500	1	*
	Aberdeen	989·4	-·34	SSW	4	[illegible]	46	97	6	6	2	-	9	10	900	1	2
	Wick	988·6	-·4	SSW	6	[illegible]	42	92	6	5	2	-	4-6	10	1600	1	
16	Sumburgh	988·9	-·34	S	6	[illegible]	42	85	6	5	-	-	10	10	1500	1	5
17	Blacksod Point	996·3	+·24	W/SW	7	[illegible]	46	75	7	2	-	-	2-3	2-3	2500	1	5
18	Malin Head	994·0	+·30	NNE	7	[illegible]	45	75	8	8	-	-	2-3	2-3	2500	1	6
	Aldergrove	997·8	+·30	SW/W	4	[illegible]	41	92	8	3	-	-	tr	tr	1500	1	*
19	Birr Castle	992·9	+·34	W/SW	3	[illegible]	43	85	8	3	-	-	2-3	2-3	1500	1	*
20	Valentia Obsy. †	994·6	+·36	WSW	5	[illegible]	47	85	8	2	7	2	tr	7-8	2500	1	5
	Roches Point	995·9	+·38	W	4	[illegible]	47	75	8	5	7	-	7-8	9	1500	1	

PAST 24 HOURS.

District.	Stations. (For heights see p. 4.)	Weather. 7h.–13h. 14th (37)	Weather. 13h.–18h. 14th (38)	Weather. 18h. 14th – 1h. 15th (39)	Weather. 1h.–7h. 15th (40)
1	London (Kew)	[illegible]	[illegible]	[illegible]	[illegible]
	Croydon	[illegible]	[illegible]	[illegible]	[illegible]
	S. Farnborough	[illegible]	[illegible]	[illegible]	[illegible]
	Boscombe Down	[illegible]	[illegible]	[illegible]	[illegible]
	Thorney Island	[illegible]	[illegible]	[illegible]	[illegible]
	Lympne	[illegible]	[illegible]	[illegible]	[illegible]
	Manston	[illegible]	[illegible]	[illegible]	[illegible]
2	Shoeburyness	[illegible]	[illegible]	[illegible]	[illegible]
	Felixstowe	[illegible]	[illegible]	[illegible]	[illegible]
	Gorleston	[illegible]	[illegible]	[illegible]	[illegible]
	Mildenhall	[illegible]	[illegible]	[illegible]	[illegible]
	Cranwell	[illegible]	[illegible]	[illegible]	[illegible]
3	Birmingham	[illegible]	[illegible]	[illegible]	[illegible]
	Upper Heyford	[illegible]	[illegible]	[illegible]	[illegible]
4	Ross-on-Wye	[illegible]	[illegible]	[illegible]	[illegible]
5	Hartland Point	[illegible]	[illegible]	[illegible]	[illegible]
	Bristol	[illegible]	[illegible]	[illegible]	[illegible]
	Portland Bill	[illegible]	[illegible]	[illegible]	[illegible]
	Plymouth	[illegible]	[illegible]	[illegible]	[illegible]
	The Lizard	[illegible]	[illegible]	[illegible]	[illegible]
	Scilly (St. Mary's)	[illegible]	[illegible]	[illegible]	[illegible]
	Guernsey				
6	Pembroke	[illegible]	[illegible]	[illegible]	[illegible]
7	Holyhead (Valley)	[illegible]	[illegible]	[illegible]	[illegible]
	Chester (Sealand)	[illegible]	[illegible]	[illegible]	[illegible]
8	Manchester	[illegible]	[illegible]	[illegible]	[illegible]
10	Spurn Head	[illegible]	[illegible]	[illegible]	[illegible]
	Catterick	[illegible]	[illegible]	[illegible]	[illegible]
	Tynemouth	[illegible]	[illegible]	[illegible]	[illegible]
11	St. Abbs Head	[illegible]	[illegible]	[illegible]	[illegible]
	Leuchars	[illegible]	[illegible]	[illegible]	[illegible]
12	Renfrew (Abbotsl.)	[illegible]	[illegible]	[illegible]	[illegible]
	Eskdalemuir	[illegible]	[illegible]	[illegible]	[illegible]
	Point of Ayre	[illegible]	[illegible]	[illegible]	[illegible]
13A	Tiree	[illegible]	[illegible]	[illegible]	[illegible]
13B	Stornoway	[illegible]	[illegible]	[illegible]	[illegible]
15	Dalwhinnie	[illegible]	[illegible]	[illegible]	[illegible]
	Aberdeen	[illegible]	[illegible]	[illegible]	[illegible]
	Wick	[illegible]	[illegible]	[illegible]	[illegible]
16	Sumburgh	[illegible]	[illegible]	[illegible]	[illegible]
17	Blacksod Point	[illegible]	[illegible]	[illegible]	[illegible]
18	Malin Head	[illegible]	[illegible]	[illegible]	[illegible]
	Aldergrove	[illegible]	[illegible]	[illegible]	[illegible]
19	Birr Castle	[illegible]	[illegible]	[illegible]	[illegible]
20	Valentia Obsy. †	[illegible]	[illegible]	[illegible]	[illegible]
	Roches Point	[illegible]	[illegible]	[illegible]	[illegible]

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus. (Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

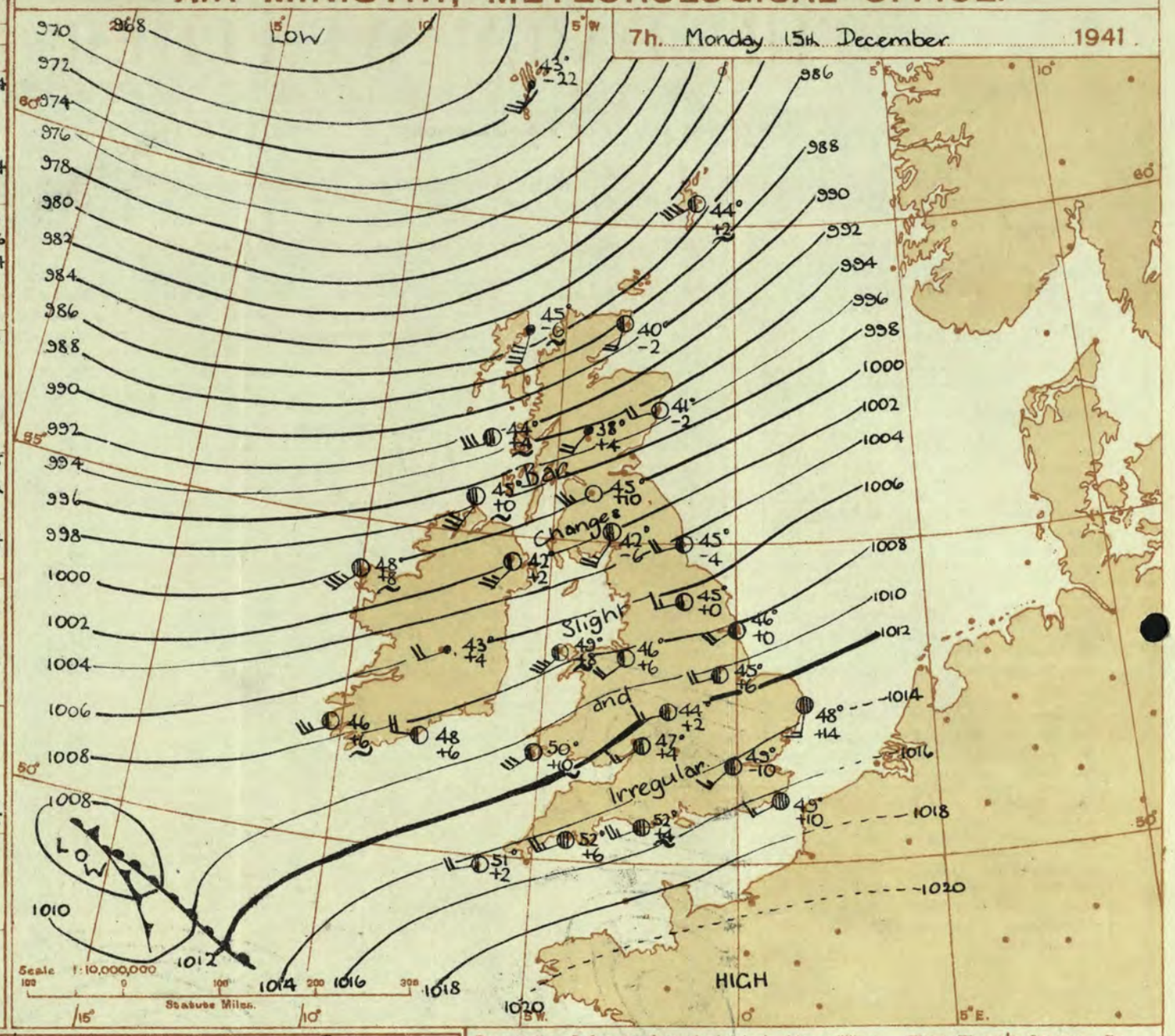
NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

IIIC$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN
13h. G.M.T. 14th December			19h. G.M.T.			01h. G.M.T. 15th December			07h. G.M.T.		
109 52	03876	16428	62	22548	52568	8-	81644	52663	8-	02854	51684
115 52	02844	16488	52	88844	24486						
203 6-	64808	16528									
206 51	02863	20427	8-	25854	22264	9-	25854	57684	30	81854	55784
210 57	02861	12328	8-	22858	20368	8-	81848	53588	30	00853	51783
220			80	27554	24584				80	88446	25716
230 62	64640	17668	20	00743	20483	30	25745	20695	3-	27746	52696
245 67	02774	18418	5-	61767	24267	50	25743	20583	30	81744	53684
260 57	02866	49517	5-	25644	20364	20	07751	51781	80	81764	51714
2785-	64638	15468	50	00841	23861	00	07890	21500	50	00861	21501
279 12	61664	18468				50	02868	52615	5-	01864	52714
285											
288 62	61643	15328	64	53548	19468	00	05690	20360	40	25662	17382
575 62	62636	20468	30	00752	22382	30	00851	53401	40	00851	18481
301 02	62548	14468	02	62558	56568	53	01753	56764	5-	00761	53711
321 57	22653	14468	5-	21655	22468	5-	05656	23316	57	05652	24225
299 5-	61548	20228	5-	21548	22468	50	01752	22462	50	01752	24402
292 52	61590	12368	52	21546	54668	50	00763	19464	57	61653	51418
310									--	01634	20414
64462	22654	16268	62	21535	51558	57	05654	20326	57	05653	20314
333 52	62587	15568	5-	02748	53558	51	02853	53916	8-	81845	53685
334									--	25644	24387
340 5-	22648	16468	8-	81845	55568	03	02790	20317	03	00790	20413
136 62	62626	17468	62	51645	16668	01	02790	20468	07	02790	20425
336											
350 52	53637	18468	52	05654	55668	52	05662	55527			
368 52	62637	51468	52	61637	54668	57	05643	22425	54	05642	53483
379 52	64607	48368	52	05637	55668	5-	05608	20528	07	05690	55513
390 62	07326	18268	62	53668	06056	5-	05578	23468	57	05566	23328
382 62	63637	15468	52	22754	54568	02	02690	22328	07	02790	22325
436									02	62628	20568
430 52	51626	56468	62	62527	53768						
409 52	52626	52868	5-	05648	55668	52	05664	20428	57	05653	18412

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$ C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Monday 15th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate west to southwest wind. Mainly fair to fine, but local showers; average temperature but ground frost at night.
5 S.W. England 6 South Wales ...	Moderate west to southwest wind backing south later. Mainly fair, but occasional showers; cloud increasing with rain to-morrow: average temperature.
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 ▼ 16 Orkneys and Shetlands ▼ 17 N. W. Ireland ▼ 18 N. E. Ireland ▼	Fresh west to southwest wind, gale at exposed places in North. Frequent squally showers, hail and thunder locally, especially in the Northwest. Average to rather low temperature, ground frost inland at night.
19 S. E. Ireland 20 S. W. Ireland	As 5-6.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A deep depression between Iceland and the Faeroes is moving northeast and cool westerly winds will prevail over the British Isles. A depression near the Azores will deepen and move northeast, causing rain later in our southwest districts. Otherwise, there will be showers in the North and long fair periods in the South.

FURTHER OUTLOOK.

Rain spreading from Southwest.
Gale warnings issued at 1145, 11.12.41 in districts 13A, 13B, 17, 18, and at 1430 13.12.41 in districts 15 & 16, still in operation.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON, D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Monday 15th December
1941.

Clarke's Projection Scale 1: 4X 10⁷ 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. T Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 15th December 1941.

No. 29243

OBSERVATIONS at 1 hr. G.M.T. 15th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	50	*	*	*	*	*	*	*	*
	Croydon ...	217	1013·2	+24	SW	3	c	50	85	6	-	2	-	0	10	-
	S. Farnborough	226	1013·3	+16	SW'W	3		50	85	6	5	7	-	7-8	10	7200
	Boscombe Down	417	1013·7	+18	SW	3	c	48	85	7	5	-	-	10	10	4000
	Thorney Island	10	1014·3	+20	W'S	3	c	51	92	7	-	2	-	0	10	-
	Lympne ...	346	1014·5	+18	SSW	3		52	87	6	5	-	-	10	10	900
	Manston ...	154	1013·3	+24	W	2		51	92	6	5	2	-	2-3	3	1200
2	Shoeburyness ...	11	1013·6	+28	WSW	1	c	51	85	6	5	-	-	10	10	2500
	Felixstowe ...	15	1012·3	+30	WSW	3	c	51	85	7	-	7	-	0	10	-
	Gorleston ...	5	1010·9	+34	W	2		50	75	5	5	-	-	10	10	1500
	Mildenhall ...	19	1011·4	+30	S'W	4	c	50	85	7	-	7	-	3+	3+	7100
	Cranwell ...	240	1009·7	+28	W	3		46	85	6	5	-	-	3+	3+	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1011·7	+24	SW	4		47	92	6	-	7	-	0	10	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1011·7	+8	WSW	4		49	85	7	6	2	-	7-8	3+	1500
	Bristol ...	209	1010·8	+26	SSW	5	c	48	85	7	5	2	-	7-8	10	2000
	Portland Bill ...	32	1013·8	+12	WSW	5		52	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1014·6	+10	WSW	4	c	51	85	7	5	2	-	7-8	10	2000
	The Lizard ...	240	1014·7	+12	SW'W	5	c	51	85	7	5	2	-	3	10	1000
	Scilly (St. Mary's)	163	1013·6	+8	W'S	4	c	51	85	7	5	-	-	10	10	1500
	Guernsey ...	175														
6	Pembroke ...	142	1010·6	+14	SW'W	6	cq	51	75	7	8	-	-	3+	3+	1500
7	Holyhead (Valley)	26	1006·7	+6	SW	6	c	49	75	7	-	2	7	0	10	-
	Chester (Sealand)	16	1008·0	+10	SW	4	bc	47	65	7	5	7	-	2-3	4-6	3000
8	Manchester ...	235	1008·3	+16	SSW	4	b	42	85	7	-	-	-	0	0	-
10	Spurn Head ...	29	1008·2	+40	SW	3		46	85	6	5	-	-	3	3	2500
	Catterick ...	175	1005·7	+22	W'S	4	b	45	75	7	-	-	-	0	0	-
	Tynemouth ...	108	1003·3	+16	NW	5	bc	44	65	7	2	-	-	4-6	4-6	1500
11	St. Abbs Head	280	999·6	+22	SW	5	bl	41	85	7	4	-	-	1	1	2500
	Leuchars ...	36	997·1	+14	SW	4	b	42	75	7	5	-	-	Tr	Tr	2500
12	Renfrew (Abbotsl.)	19	998·7	+12	SW	4	bcl	44	75	8	8	-	-	2-3	2-3	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1002·5	+10	W'S	6	bcl	46	75	8	4	-	6	Tr	4-6	4000
13A	Tiree	22	992·1	+4	W'S	7	bc/pn	44	92	7	8	*	*	4-6	4-6	1800
13B	Stornoway ...	80	995·2	+2	SW	6	bc	44	85	8	8	-	-	4-6	4-6	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	42	*	*	*	*	*	*	*	*	*
	Wick ...	119	998·7	-2	SSW	5	bcl	40	85	8	2	4	-	2-3	2-3	3000
16	Sumburgh ...	30	997·2	+2	SSW	6	bc	45	75	8	8	-	-	4-6	4-6	1500
17	Blacksod Point	18	998·5	+6	W'S	8	bcq	48	75	7	2	-	-	2-3	2-3	2500
18	Malin Head ...	84	995·6	+6	SSW	7	bcl	46	85	8	9	-	-	4-6	4-6	2500
	Aldergrove ...	268	1001·5	+8	SW'S	4	bl	42	85	7	3	-	-	1	1	1500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1006·3	+4	SW	5	bc	49	75	8	3	-	-	2-3	2-3	2500
	Roches Point	22	1008·6	+6	WSW	3	bc/pn	47	85	8	3	-	-	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 15th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1015·2	+12	SW	3		49	85	6	5	2	-	0	10	2500	1	*
	Croydon ...	1015·4	-10	SW'S	3	c	49	85	6	-	7	-	0	10	-	1	*
	S. Farnborough	1015·5	+8	SW'W	4		49	75	7	5	2	-	4-6	10	5700	1	*
	Boscombe Down	1015·2	+2	SW'S	4	c	48	85	7	5	2	-	7-8	10	2500	1	*
	Thorney Island	1016·1	+10	WSW	4		51	85	8	6	-	-	10	10	4000	1	*
	Lympne ...	1016·6	+10	SW	3		49	92	7	5	-	-	10	10	1000	1	§ 4
	Manston ...	1015·7	+10	WSW	3		50	92	6	5	-	-	10	10	6800	1	*
2	Shoeburyness ...	1015·7	+12	SSW	3	c	49	92	6	5	-	-	10	10	7200	1	*
	Felixstowe ...	1014·9	+10	WSW	4		48	85	6	-	7	-	10	10	7500	1	2
	Gorleston ...	1013·8	+14	S'W	3		48	75	6	5	-	-	10	10	1500	1	3
	Mildenhall ...	1013·4	+10	SW'S	4		48	85	6	5	7	-	2-3	3	3000	1	*
	Cranwell ...	1011·1	+6	WSW	4		45	85	6	-	7	-	0	3	-	1	*
3	Birmingham ...	1011·6	+2	WSW	3	c	44	85	6	5	7	-	4-6	7-8	1500	1	*
	Upper Heyford	1013·4	+10	SW	4	c	46	85	6	5	1	-	7-8	9	6000	1	*
4	Ross-on-Wye	1012·8	+4	SW	3	c	47	75	7	5	1	2	1	7-8	2500	1	*
5	Hartland Point	1012·2	+4	WSW	5	bc	51	75	7	5	-	-	4-6	4-6	2500	1	5
	Bristol ...	1014·1	+6	SW	3	bc	47	85	7	5	7	-	Tr	4-6	2500	1	*
	Portland Bill ...	1013·1	+4	WSW	5	c	52	92	7	5	2	-	7-8	10	2500	1	5
	Plymouth ...	1015·6	+6	WSW	5	c	52	75	7	5	3	-	2-3	7-8	3000	1	4
	The Lizard ...	1015·2	+4	SW	6	bc	51	75	7	8	6	-	4-6	4-6	1500	1	5
	Scilly (St. Mary's)	1014·6	+2	WSW	4	bc	51	92	7	5	-	-	2-3	2-3	1200	1	4
	Guernsey ...																
6	Pembroke ...	1011·1	+10	SW'W	6	bcq	50	85	7	2	-	-	2-3	2-3	2500	1	5
7	Holyhead (Valley)	1007·5	+8	SW'S	7	bc	49	85	8	8	-	2	2-3	4-6	2500	1	5
	Chester (Sealand)	1009·3	+6	SW	4	bc/pc	46	85	7	9	6	3	4-6	4-6	2000	1	*
8	Manchester ...	1009·6	+6	SW	5	bc	48	85	7	8	-	-	4-6	4-6	4000	1	*
10	Spurn Head ...	1008·2	0	SW	4	bc	46	85	6	1	7	-	2-3	4-6	2500	1	3
	Catterick ...	1016·4	0	WSW	3	bc/pc	45	75	7	8	-	-	2-3	2-3	2500	1	*
	Tynemouth ...	1004·1	-4	WSW	4	bc	45	75	7	5	-	-	2-3	2-3	1500	1	3
11	St. Abbs Head	999·5	-4	SW	5	bc	48	92	7	4	4	-	1	2-3	2500	1	3
	Leuchars ...	997·3	-2	SW	4	pc	44	75	7	8	-	-	4-6	4-6	2200	2	*
12	Renfrew (Abbotsl.)	998·0	+4	SW	5	c	45	75	7	8	-	-	7-8	7-8	3000	1	*
	Eskdalemuir ...	1001·6	-6	SSW	5	c/p	42	85	7	5	-	-	3+	3+	800	1	*
	Point of Ayre ...	1003·4	+2	W'S	6	bl	46	75	8	4	-	-	1	1	2500	0	5
13A	Tiree	992·3	+2	WSW	7	bc/pc	47	85	7	8	-	-	4-6	4-6	1800	0	6
13B	Stornoway ...	983·6	-6	SSW	8	pc	45	92	7	5	1	-	7-8	3+	1000	2	5
15	Dalwhinnie ...	994·5	+4	SSW	4	ic	38	85	6	5	-	-	7-8	7-8	1500	1	*
	Aberdeen ...	994·7	-2	SW'W	4	b	41	85	7	3	-	-	1	1	1800	1	2
	Wick ...	989·0	-2	SSW	4	bc	40	85	8	4	4	8	4-6	4-6	2500	1	x
16	Sumburgh ...	986·8	+2	SW	8	bc	44	85	8	5	-	-	4-6	4-6	1800	1	6
17	Blacksod Point	999·9	+8	WSW	7	c/pc	48	75	7	9	-	-	7-8	7-8	2500	1	6
18	Malin Head ...	996·5	0	SSW	6	c/tc	45	92	7	3	-	-	3	3	1500	1	6
	Aldergrove ...	1001·6	+2	SW'S	5	bcl	42	85	8	3	6	5	1	4-6	2500	1	*
19	Birr Castle ...	1004·9	+4	SW	4	pc	43	85	8	8	-	-	7-8	7-8	1500	1	*
20	Valentia Obsy.	1007·3	+6	SW	5	bc	46	85	8	3	-	3	2-3	2-3	2500	1	5
	Roches Point	1008·7	+6	W	4	bc	48	85	8	3	-	-	2-3	2-3	1500	1	*

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 14–14h. Hrs. (36)
1	London (Kew)	56	49	47	10	0·2	0·0
	Croydon ...	56	47	44	13	1	0·0
	S. Farnborough	57	48	48	10	0·1	0·0
	Boscombe Down	56	47	45	15	0·1	0·0
	Thorney Island	56	50	49	11	1	*
	Lympne ...	54	49	47	5	3	0·0
	Manston ...	55	48	45	3	1	0·0
2	Shoeburyness ...	56	49	51	3	0·1	0·0
	Felixstowe ...	54	48	46	6	0·2	0·0
	Gorleston ...	55	47	44	6	1	*
	Mildenhall ...	58	48	43	7	0·2	0·0
	Cranwell ...	57	45	41	2	1	0·0
3	Birmingham ...	55	44	40	3	0·1	0·0
	Upper Heyford	56	45	42	3	-	*
4	Ross-on-Wye	57	46	41	7	0·2	0·0
5	Hartland Point	55	47	45	6	2	0·0
	Bristol ...	53	45	42	3	3	0·0
	Portland Bill ...	54	50	*	9	-	*
	Plymouth ...	55	48	47	19	1	0·0
	The Lizard ...	54	48	*	14	3	0·0
	Scilly (St. Mary's)	55	49	*	8	-	0·0
	Guernsey ...						
6	Pembroke ...	58	45	*	15	0·3	0·0
7	Holyhead (Valley)	51	47	44	3	-	*
	Chester (Sealand)	55	46	35	0·1	1	0·0
8	Manchester ...	53	42	40	1	-	*
10	Spurn Head ...	53	45	*	2	1	0·0
	Catterick ...	55	44	40	3	Tr	0·0
	Tynemouth ...	49	44	39	0·5	1	*
11	St. Abbs Head	49	38	*	3	0·2	*
	Leuchars ...	45	38	33	7	2	0·0
12	Renfrew (Abbotsl.)	48	40	36	18	0·3	0·0
	Eskdalemuir ...	46	35	32	12	0·4	0·0
	Point of Ayre ...	50	44	*	2	-	0·0
13A	Tiree	48	48	*	5	2	0·0
13B	Stornoway ...	48	41	*	8	2	0·0
15	Dalwhinnie ...	46	36	31	11	14	0·0
	Aberdeen ...	47	38	34	5	0·5	1·6
	Wick ...	46	37	35	2	0·3	*
16	Sumburgh ...	47	41	39	3	2	0·4
17	Blacksod Point	51	44	*	13	0·3	*
18	Malin Head ...	46	47	42	2	2	0·0
	Aldergrove ...	48	40	36	3	-	0·1
19	Birr Castle ...	49	41	39	6	2	*
20	Valentia Obsy.	52	43	39	11	6	*
	Roches Point	53	*	*	10	2	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew	18	fair	fair	fair	56	49	47	10	0·2	0·0	*	*	6
Croydon	217	cloudy	mist	rain	56	47	44	13	1	0·0	*	*	7
Greenwich (Royal Observatory)...	149	cloudy	rain	cloudy	57	48	44	9	Tr	0·0	94	75	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	58	48	46		9		75	84	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110	o	o	*	57	49	44	12	-	*	*	86	*
Kensington	80	cloud	r	*	57	48	44	11	1		95	87	*
Hampstead Observatory	450	or	or	bc	57	45	43	10	1		*	88	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 15th

South Kensington. Max.	Time.	Min.	Time.
*			

Kew Observatory. Max.	Time.	Min.	Time.
0·1	8-14h. 14th	0·1	rest of period

FOREIGN OBSERVATIONS.

Evening of 14th December ... Morning of 15th December ...

Stations.	Evening. Barom. mb.	Evening. Wind. Direc.	Evening. Wind. Force.	Evening. Weather.	Evening. Temp. °F.	Morning. Barom. mb.	Morning. Wind. Direc.	Morning. Wind. Force.	Morning. Weather.	Morning. Temp. °F.
Reykjavik (18h and 07h)	955·8	ENE	5	c	40	963·1	SSW	1	bc	37
Lisbon (18h and 07h)						1028·5	E	3	fg	41
Madrid (18h and 07h)						1012·9	NE	2	b	37
Cairo (Heliopolis) (18h and 06h)	1021·4	-	0	c	61					
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
	39		-
	*		8

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

TERMS OF SUBSCRIPTION. { Single Copies, 1d. each: by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Tuesday 16th December 1941.

No. 29244

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

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1016·3	-4	SW'W	4	c	52	75	7	2	-	4	4-6	7-8	1500
	Croydon	1016·4	-2	SW	3	bc	53	75	7	2	4	1	2-3	4-6	1500
	S. Farnborough	1016·6	-6	SW'W	4	c	53	75	8	8	6	9	4-6	7-8	2000
	Boscombe Down	1016·3	-6	SW	4	bc	50	85	7	2	-	9	2-3	4-6	3000
	Thorney Island	1017·4	-2	WSW	4	c/pr	54	85	7	8	3	-	4-6	7-8	1500
	Lympne	1018·3	-2	SW	4	c	51	92	8	2	7	4	7-8	9	1200
	Manston	1017·1	0	WSW	4	c	52	75	8	1	3	1	7-8	7-8	2000
2	Shoeburyness	1016·7	-2	SW	3	c	53	75	7	1	7	-	2-3	7-8	2500
	Felixstowe	1015·6	-4	SW'W	4	z_0	51	75	6	1	4	2	Tr	2-3	1500
	Gorleston	1014·7	-2	SW'S	4	bc	51	75	7	-	-	8	0	2-3	-
	Mildenhall	1014·3	0	SW	4	bc	52	75	8	7	7	1	Tr	2-3	2000
	Cranwell	1011·1	-6	WSW	5	z_0	50	75	6	-	3	-	0	Tr	-
3	Birmingham	1012·6	+2	SSW	4	bc	48	75	8	5	-	-	4-6	4-6	1500
	Upper Heyford	1014·1	-2	SW	5	c	50	75	7	8	6	-	7-8	7-8	2000
4	Ross-on-Wye	1013·9	-4	WSW	3	ir	47	85	8	9	-	-	9	9	2600
5	Hartland Point	1013·0	-4	WSW	5	c/r	51	75	8	6	4	4	2-3	7-8	1500
	Bristol	1014·6	-8	W'S	4	bc	52	65	8	8	-	2	4-6	4-6	1800
	Portland Bill	1017·1	+6	SW	5	c	52	92	8	2	4	-	4-6	7-8	4000
	Plymouth	1017·2	+6	SW	5	c	53	85	7	8	-	6	4-6	8	3000
	The Lizard	1017·2	+2	WSW	6	bc	52	97	8	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1016·2	+2	W'S	5	c	53	85	8	8	6	3	4-6	9	1500
	Guernsey														
6	Pembroke	1011·9	-10	SSW	8	cq	52	85	7	8	6	-	4-6	7-8	2500
7	Holyhead (Valley)	1007·7	+4	SW'W	7	bc	51	85	8	2	3	-	2-3	4-6	2000
	Chester (Sealand)	1009·5	+2	SW'W	4	bc/pr	50	75	6	3	-	3	2-3	4-6	1500
8	Manchester	1009·5	-2	WSW	5	pr	48	75	7	9	-	-	9+	9+	3000
10	Spurn Head	1009·8	-2	SW	4	z_0	48	75	6	5	-	4	2-3	2-3	4000
	Catterick	1006·5	0	W'S	4	pr	46	85	6	5	7	-	7-8	10	1800
	Tynemouth	1004·3	-4	WSW	5	bc/pr	47	75	6	2	-	-	4-6	4-6	2800
11	St. Abbs Head	999·3	-6	SW	5	bc	46	85	8	4	4	-	2-3	2-3	2500
	Leuchars	997·4	+2	SW	7	bc	46	75	8	8	-	-	4-6	4-6	2500
12	Renfrew (Abbots L.)	999·9	-2	SW'W	4	c	47	65	8	8	6	1	4-6	7-8	2000
	Eskdalemuir	1002·3	-4	SW	6	c	43	75	8	5	-	-	7-8	7-8	2500
	Point of Ayre	1005·3	+4	W	6	bc	47	75	8	4	-	9	1	2-3	2500
13A	Tiree	994·8	+14	WSW	7	PR	48	85	7	3	-	-	7-8	7-8	1500
13B	Stornoway	985·5	+8	SW	8	c	48	75	8	8	7	-	7-8	9+	2000
15	Dalwhinnie	995·2	0	SW	4	prs	39	85	6	5	-	-	9	9	1500
	Aberdeen	994·5	0	SW	5	bc	45	75	7	5	9	-	1	4-6	1800
	Wick	987·9	-2	SSW	5	c/pr	44	85	8	3	3	-	4-6	7-8	2500
16	Sumburgh	984·5	-14	SW'W	5	i_0	46	85	7	5	7	-	9	9+	1500
	Blacksod Point	1003·4	+14	W'S	6	bcq	49	65	8	2	6	-	2-3	4-6	2500
18	Malin Head	999·6	+4	SSW	6	bc	47	65	7	2	-	-	4-6	4-6	2500
	Aldergrove	1004·0	+6	SW'S	5	bc	44	85	8	8	6	3	2-3	4-6	1500
19	Birr Castle	1007·3	+10	WSW	3	c	48	75	8	8	-	-	7-8	7-8	2500
20	Valentia Obsy. †	1010·2	+12	WSW	5	pr	47	75	8	3	-	-	9+	9+	2500
	Roches Point	1011·3	+14	W	6	c/phr	47	85	8	3	-	3	4-6	7-8	1500

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

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base. (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1016·6	+6	SW'S	4	z_0	49	85	6	-	-	2	0	4-6	-	1	*
	Croydon	1016·5	+2	SW'S	4	z_0	49	85	6	-	-	2	0	1	-	1	*
	S. Farnborough	1016·8	+2	SW'W	5	bc	49	85	7	5	-	-	2-3	2-3	2000	1	*
	Boscombe Down	1016·8	+6	SW'W	4	pr	48	85	7	8	-	8	4-6	4-6	2500	1	*
	Thorney Island	1018·0	+6	SW	4	b	51	85	7	5	-	-	Tr	1	1500	1	*
	Lympne	1018·7	+4	WSW	4	bc	49	92	7	4	-	-	2-3	2-3	1200	1	4
	Manston	1017·5	+2	SW'W	3	z_0	48	92	6	5	-	1	Tr	2-3	3000	1	*
2	Shoeburyness	1016·7	+2	SW	3	bc	49	85	7	-	7	-	0	2-3	-	1	*
	Felixstowe	1015·9	+4	SW'W	4	z_0	48	85	6	5	-	-	2-3	2-3	4000	1	3
	Gorleston	1014·7	0	SW	4	z_0	49	75	6	-	7	-	0	2-3	-	0	3
	Mildenhall	1014·1	+2	SW	4	c/pr	49	85	7	8	-	-	9	9	3300	1	*
	Cranwell	1011·6	+4	SW	5	b/pr	46	85	6	3	-	-	1	1	3000	1	*
3	Birmingham	1014·3	+4	SW	3	bc	45	85	8	7	-	-	2-3	2-3	1500	1	*
	Upper Heyford	1014·6	+10	SW	4	z_0	46	85	6	4	-	-	2-3	2-3	4000	1	*
4	Ross-on-Wye	1014·1	+8	W'S	3	bc	47	75	8	8	-	3	1	2-3	3000	1	*
5	Hartland Point	1014·8	+6	WSW	5	c	48	85	7	8	6	-	4-6	9	1500	1	5
	Bristol	1015·8	+6	SW	5	bc	47	75	7	8	1	-	2-3	4-6	2000	1	*
	Portland Bill	1017·1	+4	SW	5	c	50	92	7	5	-	-	10	10	2500	1	5
	Plymouth	1018·0	+10	SW'W	5	c	51	85	6	8	-	7	4-6	9	2000	1	4
	The Lizard	1018·4	+8	WSW	6	c/pr	50	75	7	8	6	-	7-8	7-8	1500	1	5
	Scilly (St. Mary's)	1017·5	+10	WNW	6	c	50	75	8	8	7	3	4-6	9+	1500	1	4
	Guernsey																
6	Pembroke	1013·5	+14	W	7	PR	47	97	7	8	6	-	4-6	7-8	2500	1	5
7	Holyhead (Valley)	1009·2	+14	W	6	b	47	85	8	2	-	-	1	1	2000	0	5
	Chester (Sealand)	1010·4	+14	SW'W	3	b/pr	45	85	6	2	6	-	Tr	1	2500	1	*
8	Manchester	1010·2	+6	SW	5	pr	45	85	7	9	-	-	9	9	2500	1	*
10	Spurn Head	1010·1	0	SW	5	bc	46	85	7	3	-	-	2-3	2-3	1500	0	4
	Catterick	1007·6	+16	WSW	3	pr	45	85	7	8	-	-	10	10	2500	1	*
	Tynemouth	1005·1	+2	SW	4	z_0	45	75	5	2	-	-	2-3	2-3	2500	1	3
11	St. Abbs Head	1000·8	+6	SW	5	bc	43	85	8	4	4	-	2-3	4-6	2500	0	3
	Leuchars	999·9	+20	WSW	7	pr	44	85	7	8	-	-	4-6	4-6	1400	1	*
12	Renfrew (Abbots L.)	1001·7	+18	SW	4	c/pr	45	85	6	8	7	-	7-8	9+	1800	1	*
	Eskdalemuir	1004·1	+14	SW'S	4	c	40	85	8	5	-	-	7-8	7-8	2500	1	*
	Point of Ayre	1005·9	+4	W	6	b	45	85	8	4	4	-	Tr	1	1500	0	4
13A	Tiree	998·0	+12	WNW	4	c/pr	46	85	7	8	-	-	7-8	7-8	1800	1	6
13B	Stornoway	999·7	+18	SW	8	c/phr	45	92	7	8	7	-	7-8	9+	1500	2	5
15	Dalwhinnie	997·5	+10	WSW	4	prS	39	85	6	5	-	-	9+	9+	1500	1	*
	Aberdeen	996·6	+18	SW	3	bc	43	75	7	5	9	-	Tr	4-6	1800	1	2
	Wick	990·5	+18	SW	5	bc	43	85	8	2	-	-	2-3	2-3	2500	1	*
16	Sumburgh	984·6	+2	SW'W	7	c/pr	48	85	7	8	-	-	7-8	7-8	1500	1	6
	Blacksod Point	1006·6	+24	W'S	5	bc/pr	47	75	7	3	-	-	4-6	4-6	2500	1	5
18	Malin Head	1002·0	+18	SSW	6	bc	46	75	6	9	-	-	4-6	4-6	1500	1	6
	Aldergrove	1005·6	+10	SW	4	c	42	85	8	3	6	3	2-3	7-8	2000	1	*
19	Birr Castle	1009·9	+14	WSW	4	bc/pr	42	85	8	3	-	-	4-6	4-6	1500	1	*
20	Valentia Obsy. †	1013·8	+26	WSW	4	pr	48	75	8	3	-	-	4-6	4-6	2500	1	5
	Roches Point	1013·7	+22	W	4	bc	46	85	8	3	-	-	2-3	2-3	1500	1	

PAST 24 HOURS.

District.	Stations. (For heights see p. 4.)	Weather. 7h.–13h. 15th (37)	Weather. 13h.–18h. 15th (38)	Weather. 18h. 15th – 1h. 16th (39)	Weather. 1h.–7h. 16th (40)
1	London (Kew)	cm_0 bc	pr_0 bc	c c m_0	cm_0
	Croydon	cm_0 bc	bc pr_0	bm_3 i_0 c	c
	S. Farnborough	c b c c	cpr_0 q b c b	b b c	w b c
	Boscombe Down	c b b c	b c	b c pr_0 b c	b c m_3 b w
	Thorney Island	i_0 b c p r c	c b	b, c p_3 c	c
	Lympne	cr_0 p r	c p r b	b c c m_3	c b c c m_3
	Manston	cm_3 r_0 c	r_0 b c m_0	b c c m	cm_3
2	Shoeburyness	cm_0 bc	b c b	b b m_3	bm_3 b c
	Felixstowe	oir_0 b c	b c m_0	b c m_3 b c	bm_3 c
	Gorleston	cz_0 b c	b c	b c	b c
	Mildenhall	b c b b c	c c pr_0	c b	b b c w
	Cranwell	bz_0	b, c pr_0	c p_3 b m_0	bm_3
3	Birmingham	c pr_0 b c	b c p r b		b
	Upper Heyford	cm_0 b c c	b c m_0	b c m_3 c	b c b
4	Ross-on-Wye	pr_0 c b c	b c p b c	b c c p_0	b c b
5	Hartland Point	p r	c p h p r	c b c p r	p r c b c
	Bristol	b c	c b c	b c pr_3 c	b c p r c
	Portland Bill	b c c	c p r	*	o b c
	Plymouth	c b c c	c p r c	c	c
	The Lizard	b c	b c p r c	c	c p r b c
	Scilly (St. Mary's)	b c p e	c p q c	c p q c	c p_3 q b c
	Guernsey				
6	Pembroke	c q m_0 ||| c q PR ||| b c p r q	b c p r q
7	Holyhead (Valley)	b c b b c	c b c j p	b	b
	Chester (Sealand)	p r q	c p r q	b	b w m_3 x
8	Manchester	b c c p r	PR b c	p_3 b c b	b b c
10	Spurn Head	b b c	b c q	b c	b c
	Catterick	b c c p r_0	p r b c p r	c p r_3 z	p_3 m_3 b
	Tynemouth	b c p_0	b c m_0	b c m_3	c b c
11	St. Abbs Head	b c	b c	c b c	b c p_3
	Leuchars	b c p_0 b c	c p r b c p r p_0	b c p r c b	b P R b
12	Renfrew (Abbots L.)	c b c p r_0	c p r $c m_3$	m_3 f p r c	m_0 p_3 b c
	Eskdalemuir	c	c b c	b c c	c
	Point of Ayre	b c	c b c b	b	b b c
13A	Tiree	c p R	c p r	b c p_3	b c p r
13B	Stornoway	c r r p r ||| c p h r ||| c p r	c p h r
15	Dalwhinnie	c p r	c p r S		c i r b c
	Aberdeen	b c	b c i r_0	b c	b c b
	Wick	b c c p r_0 c	b c p r $_0$ b	p_3 b c b	b b c p_3 b
16	Sumburgh	r r i r_0	c i r $_0$ p r	p_3 b P H	c p h, b c
	Blacksod Point	b c	p r	b c	b c
18	Malin Head	p r	p r	c	c
	Aldergrove	b j t b c b	b c b, c	p_3 b c b	b c p $_3$ b
19	Birr Castle	b c	p r	*	p r
20	Valentia Obsy. †	p r	p r	p r	p r
	Roches Point	p r	p r	b	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m, mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_0, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_0/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus
R, heavy rain. r_0, slight rain.
rr, continuous rain.
<, less than (for cloud height). ⁄ gale.
⊕ Solar halo. ☽ lunar halo. ⌓ Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

‖ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

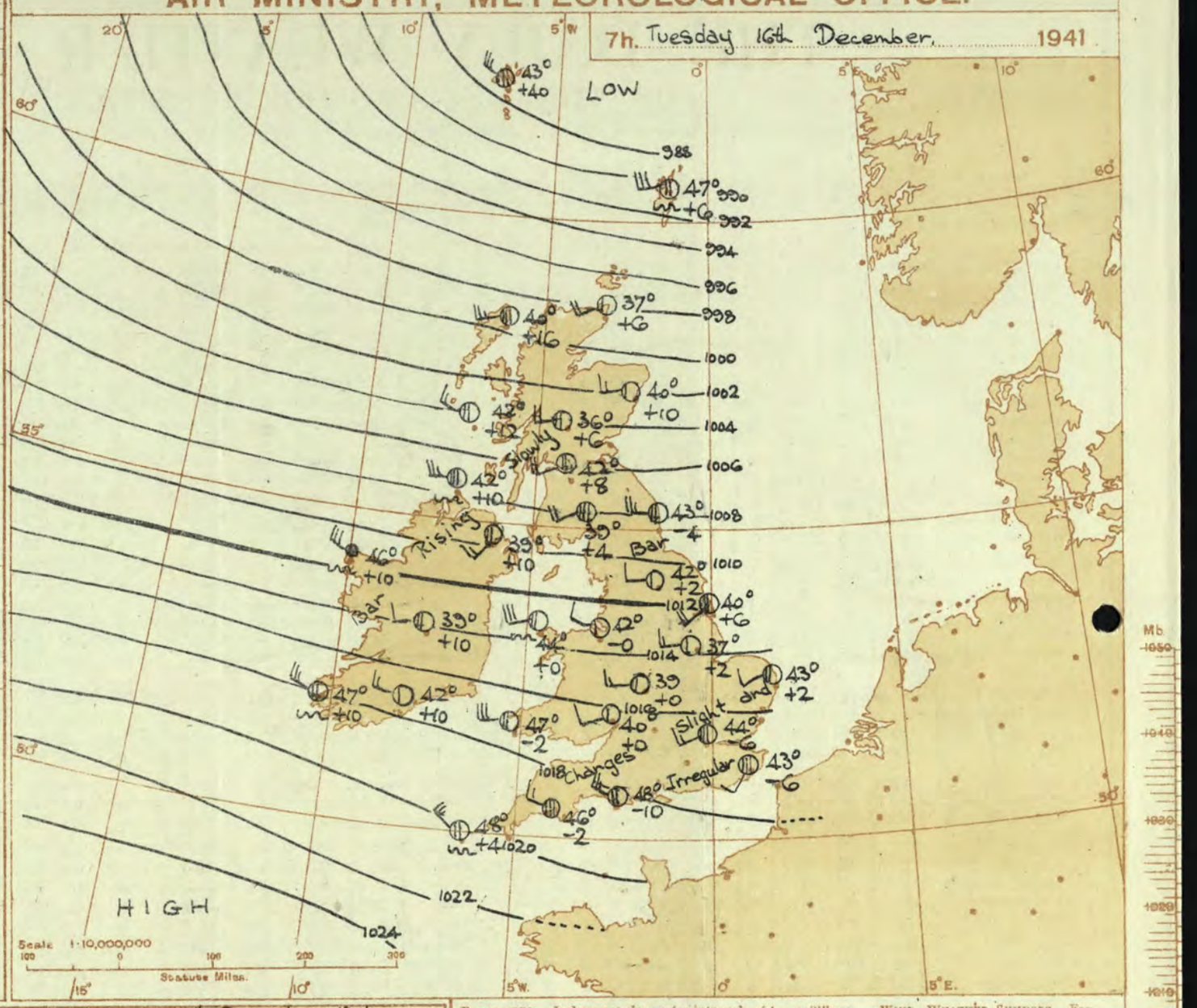
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. 15th Dec:				18h. G.M.T.			01h. G.M.T. 16th Dec:				07h. G.M.T.		
IIII	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
10907	25844	52685	30	02745	56885					3-	27844	22684
115												
2038-	82835	20885				8-	81937	20787	50	01944	22584	
2063-	25858	55588	8-	25855	22385	3-	81846	55686	50	00861	22481	
21063	64746	52687	90	25833	52583	50	01553	52523	50	00853	20323	
22080	27855	24685	80	01655	25685							
2309-	25744	51786	87	81747	19688				20	01844	20384	
24530	10854	22685	37	25853	53688	37	02741	55527	54	00751	22221	
26026	01853	52684	50	01752	20615	50	00762	54582	8-	81766	57486	
27844	00851	21402				50	00842	22402	54	00852	22502	
27980	02854	56625	20	00853	53513	00	00830	55510	50	00853	55413	
28523	25854	24584							20	25745	26585	
28896	25654	53484	40	01754	19314	40	05663	20313	50	05652	20302	
575			97	81844	55585	50	00753	55403	30	25753	22483	
30123	01753	21584				2-	25655	55515	20	25753	55583	
32883	01753	20514	50	05653	20383	04	05690	12140	50	04581	20301	
29950	05652	24412	50	05653	24313	50	05652	24312	50	01753	24303	
29820	05653	20414	80	25652	18382	8-	01755	21385	3-	81745	19285	
310--	02638	20528							--	01633	20313	
614			3-	81554	20284	5-	05563	22303	50	05552	24102	
33382-	25846	20587				50	00851	23501	50	00852	22512	
334--	65646	24387							--	25644	24385	
34010	00864	22414	30	25854	22584	04	00890	21301				
13653	01741	21414	8-	25767	20487	40	00761	20511	54	01763	22413	
336			54	01753	24414				34	25753	24484	
350			40	00753	22413	50	05661	22401	07	05650	20213	
36824	01743	21484	94	81645	56687	80	10644	22414	80	88744	22484	
37923	25853	53584	20	01753	22424	01	01790	20403	07	00790	20303	
39080	05645	55426	50	08452	21415	00	05590	22328	07	05590	22316	
38280	01854	20414	46	02854	22428	01	05690	22327	03	01790	22313	
4388-	02745	22516							5-	03758	24428	
43093	25756	20387	20	01752	21425	83	05674	22427	53	05663	24226	
40020	01753	20615	27	25743	53684	57	02754	22628	34	25744	22384	

IIII = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 16th December, 1941.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Moderate westerly winds; mainly fine but chance of more cloud with rain near south coast late in period. Average temperature with some slight frost at night.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ...	Fresh to moderate westerly winds, backing S.W. tomorrow and beginning to freshen; considerable bright periods; local rain or hail showers; mainly average temperature with slight frost locally at night.
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 ♠ 16 Orkneys and Shetlands ♠	Strong squally W. to N.W. winds moderating, backing later. Showers of rain or hail with snow at times on high ground. Bright intervals; rather cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Moderate or fresh west wind, backing south later. Bright intervals and showers at first. Rain tomorrow morning in the west. Mild.

GENERAL INFERENCE.

A deep depression near Faeroes is moving E.N.E. and becoming less deep whilst a ridge of high pressure is spreading in over the British Isles from the Atlantic. In Scotland and most western districts there will be bright periods but some showers of rain or hail with snow at times on hills in the North. Weather will be mainly fine in E. and S. England.

FURTHER OUTLOOK

Southwesterly winds with rain spreading to the west and north and probably also to the southeast.

♠ Gale warning in operation in districts 15 (part of) and 16. time of issue 10.30h on 16.12.41.

Forecasts issued at 10.30. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Tuesday 16th December

1941.

Clarke's Projection Scale 1: 4 x 10⁷ 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. Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION.

Tuesday 16th December 1941.

No. 29244

OBSERVATIONS at 1 hr. G.M.T. 16th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Croydon	217	1017.5	0	SW	4	c	47	75	7	-	4	7	0	10	-
	S. Farnborough	226	1018.1	+6	SW'W	3	bc	45	85	7	-	3	6	0	4-6	-
	Boscombe Down	417	1018.1	+6	SW'W	3	bc	44	85	7	5	-	-	4-6	4-6	5700
	Thorney Island	10	1018.7	+2	SW	3	c	49	85	8	-	1	8	0	9	-
	Lympne	346	1019.1	+4	SW	3	z	46	85	6	5	-	-	10	10	3500
	Manston	154	1017.5	+2	WSW	3	z	46	85	6	-	7	-	0	9+	-
2	Shoeburyness	11	1017.6	+4	SSW	2	b	47	85	6	-	-	-	0	0	-
	Felixstowe	15	1016.1	+4	SW'W	4	z	46	85	6	-	-	-	0	0	-
	Gorleston	5	1015.0	+4	WSW	3	bc	46	85	6	-	4	-	0	2-3	-
	Mildenhall	19	1014.9	+2	SW	4	bc	44	85	7	-	4	-	0	2-3	-
	Cranwell	240	1013.1	+4	WSW	5	z0	42	85	6	5	-	-	1	1	3000
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1016.3	+14	SW'W	4	c	42	92	7	-	4	6	0	7-8	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1017.0	+6	WNW	4	bc/pr	48	75	7	3	-	-	4-6	4-6	2500
	Bristol	209	1017.5	+6	SW	6	bc	45	75	7	5	-	-	2-3	2-3	2500
	Portland Bill	32	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Plymouth	82	1018.4	0	SW	5	c	49	75	7	8	2	-	4-6	10	2500
	The Lizard	240	1018.9	-4	W	6	c	49	75	7	8	-	-	7-8	7-8	1500
	Scilly (St. Mary's)	163	1019.2	-2	NW'W	5	c	49	75	8	8	-	-	7-8	7-8	1500
	Guernsey	175														
6	Pembroke	142	1016.4	+10	WSW	6	bc/pr	46	92	7	8	-	-	2-3	2-3	2500
7	Holyhead (Valley)	26	1013.0	+10	WSW	6	b	45	85	8	5	-	-	Tr	Tr	4000
	Chester (Sealand)	16	1013.0	+6	WSW	2	b	44	75	7	-	-	-	0	0	-
8	Manchester	235	1012.9	+6	SW	3	b	39	92	7	-	-	3	0	1	-
10	Spurn Head	29	1011.6	+8	WSW	5	bc	43	85	7	-	4	-	2-3	2-3	2500
	Catterick	175	1009.7	+10	WSW	3	bc/pr	45	75	6	5	-	-	4-6	4-6	2500
	Tynemouth	108	1007.5	+10	W	6	z0	45	75	6	2	-	-	4-6	4-6	2500
11	St. Abbs Head	280	1003.0	+12	SW	5	bc	43	92	7	4	4	-	2-3	4-6	2500
	Leuchars	36	1002.8	+16	WSW	4	bc	42	92	8	4	-	-	2-3	2-3	3000
12	Renfrew (Abbots I.)	19	1004.9	+12	SW	3	c	45	85	7	8	-	-	9	9	2600
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1008.9	+6	W'N	6	b	44	85	8	4	-	-	Tr	Tr	3000
13A	Tiree	22	1001.6	+6	W'N	4	bc	44	92	7	8	-	*	2-3	2-3	1800
13B	Stornoway	80	997.1	+20	WSW	5	pr	43	85	7	8	7	-	7-8	9+	2000
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Wick	119	996.2	+22	SW	4	b	40	85	8	4	-	-	1	1	3000
16	Sumburgh	30	990.5	+30	W	8	phr	46	85	6	9	-	-	9+	9+	800
17	Blacksod Point	18	1009.2	+12	W'S	5	bcq	46	85	7	9	-	-	4-6	4-6	2500
18	Malin Head	84	1004.6	+8	SW	6	c	45	85	7	8	-	-	7-8	7-8	1500
	Aldergrove	268	1008.9	+6	SW	3	b	39	92	8	2	-	-	1	1	2000
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1015.6	+6	WSW	4	bc	48	75	8	3	-	-	4-6	4-6	2500
	Roches Point	22	1016.2	+6	W	4	b	43	85	8	5	-	-	1	1	2500

OBSERVATIONS at 7 hr. G.M.T. 16th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 15th Hrs. (36)
London (Kew)	1016.6	-6	SSW	2	z0	45	85	6	5	-	6	4-3	9+	2500	1	*	53	44	36	Tr	-	3.3
Croydon	1016.7	-6	SW	3	c	44	85	7	-	7	7	0	10	-	1	*	54	44	37	Tr	-	3.5
S. Farnborough	1016.7	-2	WSW	2	bc	41	92	7	-	4	3	0	4-6	-	1	*	53	41	36	0.4	Tr	3.5
Boscombe Down	1017.2	-6	W	3	b	40	85	7	5	-	-	Tr	Tr	3000	1	*	50	39	33	-	Tr	3.0
Thorney Island	1017.2	-10	W	1	c	43	92	7	-	6	3	0	9	-	1	*	54	43	36	Tr	0.3	*
Lympne	1018.3	-6	SSW	2	c	43	92	7	-	7	-	0	10	-	1	§ 3	52	42	33	0.2	-	0.8
Manston	1017.1	-2	WSW	2	z0	43	92	6	5	1	-	Tr	10	3000	1	*	54	42	38	Tr	Tr	2.2
Shoeburyness	1016.7	-4	SW'W	3	c	44	85	6	5	-	-	7-8	7-8	4000	1	*	54	44	37	-	-	3.0
Felixstowe	1015.8	-2	WSW	3	z	42	85	6	-	-	8	0	9	-	1	2	52	42	38	Tr	-	3.2
Gorleston	1015.4	+2	SW	2	z	43	85	6	-	7	-	0	2-3	-	0	3	51	42	41	6	-	*
Mildenhall	1014.9	0	SW'S	3	bc	41	92	7	-	-	6	0	4-6	-	1	*	53	40	33	Tr	Tr	4.1
Cranwell	1013.3	+2	WSW	3	z	37	92	5	5	-	-	1	1	3000	1	*	50	36	32	Tr	1	5.2
Birmingham	1014.5	0	WSW	3	c	39	85	7	5	-	-	Tr	Tr	2500	1	*	49	39	31	1	-	4.5
Upper Heyford	1015.8	-2	SW'W	3	bc	38	92	7	5	4	-	1	2-3	3500	1	*	51	46	33	-	-	*
Ross-on-Wye	1015.6	0	SW	2	b	40	85	8	5	-	1	1	1	3500	1	*	49	40	34	5	Tr	1.4
Hartland Point	1016.3	0	WNW	4	bc/pr	47	75	8	3	-	-	2-3	2-3	2500	1	5	52	45	41	5	2	0.5
Bristol	1016.6	-2	WSW	3	pr	42	85	7	8	-	-	9+	9+	1000	1	*	53	40	36	1	2	4.6
Portland Bill	1017.3	-10	WNW	5	bc	48	92	7	5	-	-	4-6	4-6	4000	1	4	52	47	*	0.1	-	*
Plymouth	1018.8	-2	WNW	3	c/pr	46	85	7	2	-	-	4-6	4-6	2500	1	3	54	45	38	2	0.2	1
The Lizard	1018.7	-4	WNW	5	bc/pr	48	75	7	8	-	-	4-6	4-6	1500	1	5	53	44	*	3	1	3.2
Scilly (St. Mary's)	1019.3	+4	NW'W	5	bc/p	48	75	8	8	6	-	4-6	4-6	1500	1	5	53	47	*	1	1	(1.8)
Guernsey																						
Pembroke	1015.4	-2	W	6	bc	47	92	7	8	-	-	4-6	4-6	2500	1	4	52	42	*	Tr	0.3	2.7
Holyhead (Valley)	1012.5	0	WSW	6	bc	44	85	8	2	-	-	4-6	4-6	2500	0	5	52	44	41	Tr	-	*
Chester (Sealand)	1012.6	0	W'N	2	b	42	75	7	-	-	-	0	0	-	1	*	52	42	30	3	-	2.8
Manchester	1012.7	-4	S'W	3	b	37	85	7	-	6	-	0	1	-	1	*	49	35	31	1	1	
Spurn Head	1012.3	+6	SW	4	bc	40	85	7	5	-	-	2-3	2-3	1500	0	4	50	40	*	Tr	-	5.1
Catterick	1009.8	+2	W'S	2	b	42	85	7	5	-	-	1	1	2500	1	*	49	42	36	7	1	2.7
Tynemouth	1007.8	-4	W	5	bc	43	75	7	5	-	-	2-3	2-3	1500	1	3	48	43	38	0.6	-	*
St. Abbs Head	1000.8	+2	W'S	2	b	42	85	7	5	-	-	1	1	2500	1		46	42	36	-	1	2.7
Leuchars	1003.5	+10	WSW	5	b	39	92	8	4	-	-	Tr	Tr	3000	2	*	46	39	33	2	1	1.9
Renfrew (Abbots I.)	1005.7	+8	SW'W	4	bc	42	75	7	8	-	-	2-3	2-3	2500	1	*	47	41	37	0.3	2	2.7
Eskdalemuir	1007.3	+4	SW'W	4	c	39	85	8	5	-	-	9+	9+	1500	1	*	44	38	37	-	-	0.7
Point of Ayre	1009.2	+2	W'N	5	bc	44	85	8	4	-	-	2-3	2-3	2000	0	4	50	42	*	-	-	2.1
Tiree	1003.8	+12	WNW	3	bc	42	75	7	5	-	-	2-3	2-3	2500	0	4	49	41	*	4	-	0.0
Stornoway	999.7	+16	WSW	5	c/phr	40	92	7	8	7	-	4-6	9+	2000	2	3	48	38	*	5	2	0.0
Dalwhinnie	1002.5	+6	WSW	4	bc	36	85	7	8	-	-	2-3	2-3	2500	1	*	(39)	33	31	11	9	0.0
Aberdeen	1001.8	+10	WSW	3	b	40	85	7	5	-	-	Tr	Tr	3500	1	2	45	39	33	Tr	-	2.4
Wick	997.9	+6	SW	4	b	37	85	9	3	-	-	1	1	2000	1	*	45	36	34	0.1	Tr	*
Sumburgh	991.9	+6	W'S	6	bc	47	65	8	8	-	-	2-3	2-3	1500	1	6	48	43	40	1	1	0.0
Blacksod Point	1011.3	+10	W'N	6	pr	46	85	7	9	-	-	4-6	4-6	1500	1	5	50	42	*	2	1	
Malin Head	1006.4	+10	W	5	c/pr	42	85	7	9	-	-	9	9	1500	1	6	48	40	*	2	1	1.7
Aldergrove	1010.2	+10	SW'S	3	bc	39	92	8	5	-	-	4-6	4-6	1100	1	*	47	37	36	-	Tr	4.2
Birr Castle	1013.5	+10	WSW	2	bc/pr	39	92	8	3	-	-	2-3	2-3	1500	1	*	47	37	34	2	3	2.6
Valentia Obsy.	1017.7	+10	WNW	5	bc/pr	47	65	8	3	-	-	2-3	2-3	2500	1	5	49	44	*	2	1	*
Roches Point	1017.3	+10	W'N	3	b	42	85	8	5	-	-	1	1	2500	1	*	50	*	*	2	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon. 9h—18h, Kensington. 9h—21h, other stations except for rainfall which is 9h—18h

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	cm0 cbc	pg cbc	ccm0	53	44	36	Tr	-	3.3	*	*	6
Croydon	217	cm0 bc	bcpr0	bm0 wc	54	44	37	Tr	-	3.5	*	*	6
Greenwich (Royal Observatory)	149	cbc	bc⊕cpb	bcwbm	55	41	33	Tr	-	3.1	71	84	5
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	55	42	38	-	-		83	93	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	54	42	39	-	-		77	83	*
Camden Square	110	bc	bc	*	54	42	37	-	-	*	*	86	*
Kensington	80	bc	bc	*	55	43	35	Tr	-		81	84	*
Hampstead Observatory	450	bc	bc	bc	52	37	36	-	-		*	89	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre. 24 hrs. ended 7h. G.M.T. 16th

South Kensington Max.	Time.	Min.	Time.
		*	

Kew Observatory Max.	Time.	Min.	Time.
0.1	15-19h 15th	<0.1	0-5h 16th

FOREIGN OBSERVATIONS.

Stations	Evening of 15th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 16th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	1020.6	-	0	z	36	1000.2	N	2	bc	38				
Lisbon (18h and 07h)	1027.4	NE	1	bc	55	1028.1	NE	3	b	46	57	45	-	-
*Madrid (18h and 07h)														
Cairo (Heliopolis) (18h and 06h)	1014.1	SSW	4	9/pr	55									
Toronto (13h and 01h)														
Washington (13h and 01h)														

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		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	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

SECRET

THE DAILY WEATHER REPORT

AIR MINISTRY. OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Wednesday 17th December 1941.
No. 29245

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

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1015·7	+8	W'S	3	bc	47	75	7	1	4	-	1	2-3	2500
	Croydon	1016·3	-8	W'S	3	b	40	65	7	1	4	-	1	1	2000
	S. Farnborough	1016·6	-6	W	4	bc	47	65	8	1	3	9	2-3	2-3	3000
	Boscombe Down	1017·4	-4	W'N	3	bc	46	75	8	3	3	-	2-3	2-3	2500
	Thorney Island	1017·0	-2	W'N	3	bc	48	75	8	1	-	-	2-3	2-3	2500
	Lympne	1016·8	-14	W'N	4	b	47	75	8	2	-	8	Tr	Tr	3200
	Manston	1015·5	-14	W'N	3	z$_o$	48	75	6	1	4	-	Tr	Tr	3000
2	Shoeburyness	1015·8	-8	W	3	bc	48	75	6	-	4	1	0	2-3	-
	Felixstowe	1014·9	-10	W'S	4	z$_o$	47	75	6	-	-	1	0	Tr	-
	Gorleston	1014·3	-8	W'N	4	b	47	65	7	-	-	9	0	1	-
	Mildenhall	1014·2	-10	WSW	4	b	47	75	8	1	-	-	Tr	Tr	2500
	Cranwell	1012·9	-6	W	4	z$_o$	44	75	6	-	7	-	0	1	-
3	Birmingham	1014·4	0	W	3	bc	44	75	7	7	-	-	4-6	4-6	1500
	Upper Heyford	1015·2	-6	WSW	4	bc	45	75	7	1	-	-	2-3	2-3	2500
4	Ross-on-Wye	1015·6	-4	W'S	3	bc	47	65	8	8	-	-	2-3	2-3	3500
5	Hartland Point	1017·2	+2	NW	3	bc	47	75	8	3	-	-	4-6	4-6	2000
	Bristol	1016·7	-2	W'N	4	bc	46	75	7	2	-	-	2-3	2-3	2500
	Portland Bill	1017·7	+4	WNW	5	c	49	85	8	2	-	-	7-8	7-8	4000
	Plymouth	1019·5	+2	W	3	pr	47	75	7	3	-	-	9	9	2000
	The Lizard	1020·2	+4	WNW	6	c/pr	48	75	8	8	6	-	7-8	7-8	1500
	Scilly (St. Mary's)	1021·4	+6	NW'N	5	bcjp	48	75	8	8	6	-	4-6	4-6	1500
	Guernsey														
6	Pembroke	1017·7	+4	W'N	6	bcq	48	85	8	2	3	-	4-6	4-6	3000
7	Holyhead (Valley)	1013·3	+2	W'N	6	c	46	75	8	8	3	1	4-6	7-8	1600
	Chester (Sealand)	1013·3	+2	W'S	2	bc	46	65	7	2	-	-	2-3	2-3	1200
8	Manchester	1013·0	0	W	4	pr	44	75	6	3	-	-	7-8	7-8	3000
10	Spurn Head	1011·0	-4	WSW	4	z$_o$	44	75	6	1	-	-	2-3	2-3	2500
	Catterick	1009·8	-4	W	3	c	46	75	8	8	4	-	4-6	7-8	2500
	Tynemouth	1008·7	+4	W	4	bc	45	75	7	2	3	-	2-3	2-3	2500
11	St. Abbs Head	1006·6	+8	SSE	5	bc	42	75	8	4	4	-	2-3	2-3	2500
	Leuchars	1005·3	+6	W	3	b	43	85	8	8	6	-	Tr	1	4000
12	Renfrew (Abbotsl.)	1008·0	+10	WSW	3	bc	44	75	8	9	-	-	4-6	4-6	1200
	Eskdalemuir	1008·5	+6	WSW	4	bc/pr	38	85	7	5	4	1	4-6	4-6	1500
	Point of Ayre	1010·7	+4	WNW	6	c	45	75	8	8	4	-	4-6	7-8	2500
13A	Tiree	1008·0	+18	NW	4	bc	48	75	8	8	3	-	4-6	4-6	2500
13B	Stornoway	1002·5	+8	WSW	4	c/pr	45	92	8	8	6	3	4-6	7-8	1500
15	Dalwhinnie	1005·8	+12	WSW	3	bc	37	85	8	8	4	-	4-6	4-6	2500
	Aberdeen	1003·9	+10	WSW	2	bc	45	65	7	-	7	-	0	4-6	-
	Wick	1000·3	+10	WSW	4	pr	42	85	7	9	3	-	7-8	9	1600
16	Sumburgh	995·5	+26	WNW	5	c	47	75	8	8	-	2	7-8	7-8	2000
17	Blacksod Point	1016·1	+24	WNW	5	c/pr	48	75	8	9	-	-	7-8	7-8	2500
18	Malin Head	1009·9	+18	W	5	c	46	75	8	9	-	-	9	9	1500
	Aldergrove	1012·4	+14	SW'W	3	pr	41	85	8	9	6	-	9	9+	2000
19	Birr Castle	1016·1	+14	SW	2	bc	44	75	8	5	-	-	4-6	4-6	2500
20	Valentia Obsy. †	1020·9	+14	WNW	5	c	49	65	8	8	-	-	9	9	2500
	Roches Point	1019·4	+10	W'N	3	bc	46	75	8	3	-	3	2-3	4-6	2500

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

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base. (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1016·6	+4	SW'W	2	z$_o$	43	85	6	5	-	-	Tr	Tr	2500	1	*
1016·5	+4	SW'W	2	z$_o$	42	85	6	5	-	-	Tr	Tr	1500	1	*
1017·0	+2	W'S	3	b	41	85	7	-	4	-	0	Tr	-	1	*
1017·5	-2	W'S	3	bc	38	92	7	3	-	-	2-3	2-3	2000	1	*
1017·5	+4	WNW	4	b	43	85	7	2	6	-	Tr	Tr	2500	1	*
1017·4	+6	W'N	3	z$_o$	40	85	6	-	4	-	0	Tr	-	1	* 3
1015·9	+8	W'S	3	z$_o$	39	85	6	-	-	-	0	0	-	1	*
1018·9	+4	W	3	m	42	85	4	-	-	-	0	0	-	1	*
1015·1	+6	W'S	3	z$_o$	42	85	6	-	-	-	0	0	-	1	3
1015·0	+8	W	2	bc	42	75	6	5	-	-	2-3	2-3	2500	0	2
1014·3	+2	SW'W	3	z$_o$	40	85	6	5	-	-	Tr	Tr	2500	0	*
1013·1	+6	WSW	3	z$_o$	40	85	5	5	-	-	2-3	2-3	3000	1	*
1015·3	+4	W	3	c/pr	41	85	6	8	-	-	7-8	7-8	1500	1	*
1016·9	+12	SW	3	bc	40	85	7	4	-	-	4-6	4-6	3500	1	*
1016·3	+6	SW	2	bc/pr	41	85	8	8	-	-	4-6	4-6	3000	1	*
1018·6	+4	NW	4	c	46	75	7	8	-	-	7-8	7-8	2500	1	5
1017·2	+4	WNW	3	bc	43	85	7	8	-	-	2-3	2-3	2500	1	*
1017·8	+4	W	4	bc	47	92	8	2	-	-	4-6	4-6	4000	1	5
1020·2	+6	W'N	3	z$_o$	45	85	6	3	-	3	2-3	4-6	1800	1	3
1021·8	+4	WNW	6	bc/pr	47	85	8	8	-	-	4-6	4-6	1500	1	5
1022·6	+10	NNW	6	bc/pr	48	75	8	8	-	-	4-6	4-6	1500	1	5
1018·9	+12	NW	6	bcq	47	85	8	2	-	-	2-3	2-3	4000	1	4
1015·4	+26	NW'W	5	bc	45	92	8	4	-	-	4-6	4-6	2500	0	5
1014·1	+6	W'N	4	bc/pr	43	85	7	3	-	-	2-3	2-3	2000	1	*
1014·0	+10	WNW	3	c/pr	42	92	6	9	-	-	9+	9+	3000	1	*
1011·6	+4	WSW	4	bc	42	85	6	1	-	-	4-6	4-6	2500	0	3
1011·7	+8	W'N	2	m	39	85	4	5	-	-	Tr	Tr	2500	1	*
1010·0	+8	W	3	bc	45	75	6	2	3	-	2-3	4-6	2500	1	3
1007·5	+8	W	5	b	41	75	7	4	-	-	1	1	2500	0	3
1006·9	+6	WSW	4	bc	40	85	8	5	-	-	4-6	4-6	4000	1	*
1009·9	+10	WSW	4	pr	43	85	7	8	-	-	9+	9+	2500	1	*
1010·5	+6	S'W	2	bc	34	92	8	5	4	-	2-3	2-3	1500	1	*
1012·6	+10	NW'W	6	b	44	92	8	4	-	-	1	1	2000	0	5
1010·2	+20	NNW	5	bc	47	75	8	8	-	-	4-6	4-6	1800	0	5
1004·9	+14	W	6	pr	44	92	7	8	6	-	7-8	9	1500	1	2
1008·6	+8	WSW	3	prs	38	85	7	8	-	-	2-3	2-3	2500	1	*
1005·3	+6	W	3	b	42	65	7	-	4	*	0	1	-	1	2
1002·5	+8	W'S	4	bc	41	85	8	8	-	-	2-3	2-3	2500	1	*
999·5	+26	NW	4	b	46	85	8	8	-	-	1	1	1500	1	6
1020·0	+22	WNW	5	pr	47	75	8	9	-	*	9	9	1500	1	5
1013·3	+22	NW'N	6	bc	47	65	7	6	-	-	4-6	4-6	1500	1	6
1014·9	+18	WNW	2	c/pr	42	92	7	8	-	*	9+	9+	2000	1	*
1019·1	+14	SW	1	bc	40	85	8	-	4	-	0	2-3	-	1	*
1024·2	+20	NW	4	pr	48	75	8	8	-	*	7-8	7-8	2500	1	5
1022·2	+20	W'N	4	bc/pr	45	85	8	3	-	5	2-3	4-6	2500	1	

PAST 24 HOURS.

Weather. 7h.—13h. 16th (37)	13h.—18h. 16th (38)	18h. 16th to 1h. 17th (39)	1h.—7h. 17 (40)
bmobcb	bbcbmo	b,cm$_o$w	cm$_o$w
cbmob	bbcmo	bm$_o$w	bm$_o$cr$_o$
bcbbc	bcbw	b,cw	wm$_o$c
bc	bcb	bbcb	bbm$_o$
bcbmob	b,cpr$_o$b	bblbc	cpr$_o$bw
cbcb	bbcbmo	b,cbcm$_o$w	bbcm$_o$w
cbc	bz$_o$mo	bcbm$_o$w	bccm$_o$w
cbcz$_o$	bz$_o$m	bmbcbm$_o$	bbccm$_o$
bmo	bmo	bm$_o$	bm$_o$wcm$_o$
b	bc	bm$_o$cm$_o$	bbcz$_o$w
bcbmob	bbmow	bm$_o$w	b,cm$_o$w
bz$_o$	bbcz$_o$	bbcm$_o$	cm$_o$c$_o$w
bbc	bcpr$_o$	cbbcpr	bcc
bbmob	bbc	bm$_o$cm$_o$	bpr$_o$cm$_o$
bcbb	bccp	bbcc	bc
beprph	bcerc	cbcc	cbcpr
cbcpr,b	bc	c,c	bbcm$_o$
c	cbc	bcbc	bcba
cpr$_o$	cpr$_o$bcb	bprb	cpr$_o$b
bcprc	bccpr	bcprc	cprbc
bcphrq	bcpq	bcpbc	bc
bcq	cbcq	bcq	bbcq
bcc	bcc	bcprb	bc
bbcm$_o$	bcpr$_o$	b,cpr$_o$	bbcpr
bcmoc	cpr	pr$_o$pr	prpr$_o$b
bc	bcm	b	cir
bbc	bcbcm	bm$_o$bb	
bc	bc	bcb	bbc
bc	bcb	bc	bc
b	b,cbc		bbc
pr$_o$prbc	bccpr$_o$	pr$_o$,bc,b	bcbm$_o$b
cbcpr	bccbc	bc	bcb
cbcb	rrprc	prbc	prbcb
prbc	cprbc	prbc	bc
cbbcpr	cphrpr	cbbcpr	bcc
bcps	bcpr$_o$		cprbc
bbc	cbcb	bcpr$_o$	bcpr$_o$
b,cpr	pr$_o$cbc		bccpr$_o$bc
b,cphc	cpr$_o$bc		bcprbc
pr	pr	bc	bc
pr	pr	pr	pr
bcpr$_o$	pr$_o$PRm$_o$	prbcpr$_o$	prpRbc
be	bc	*	bc
pr	pr	pr	pr
b	pr	pr	pr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

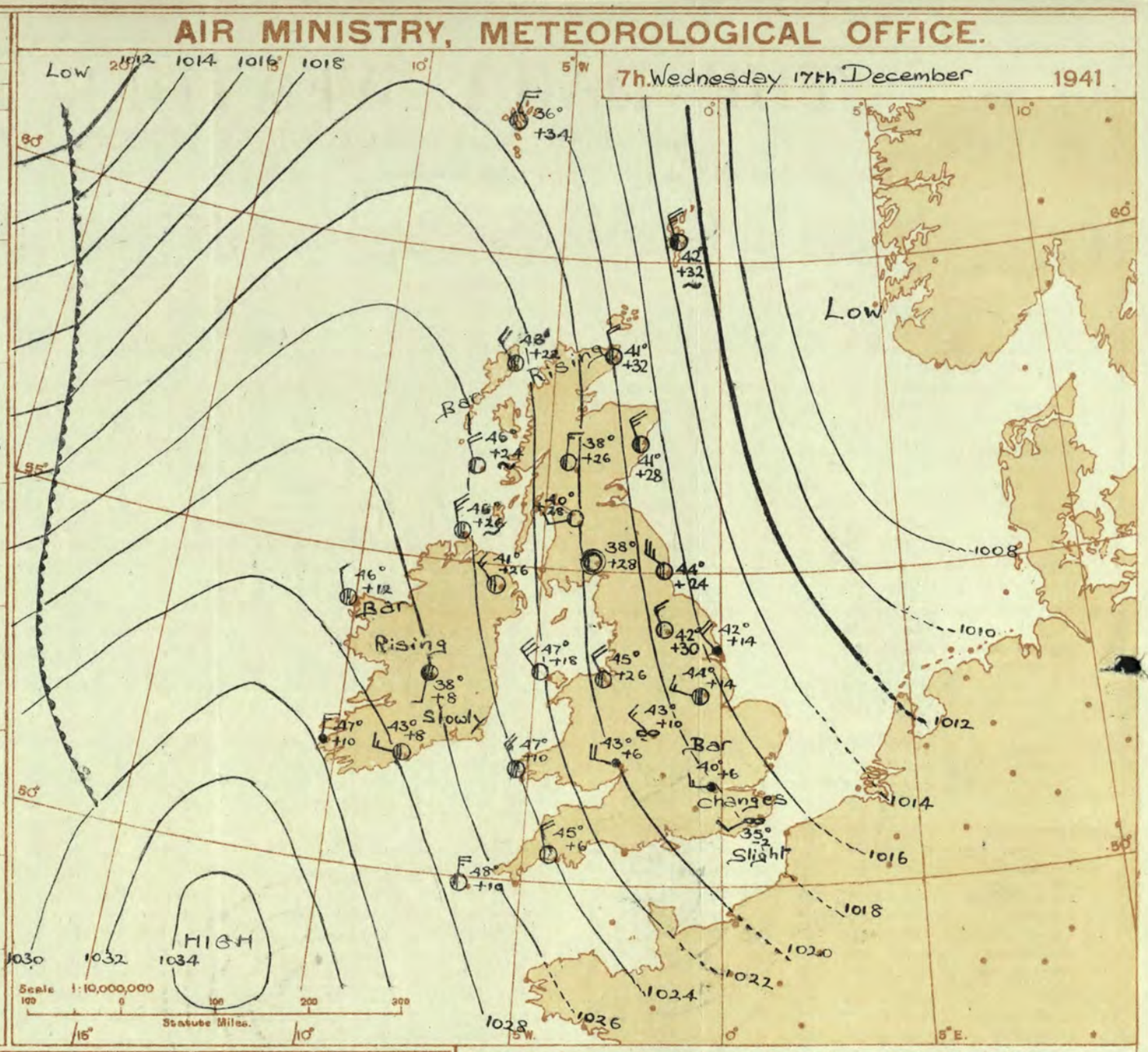
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

	13h. G.M.T. 16th Dec:				18h. G.M.T.				01h. G.M.T. 17th Dec:				07h. G.M.T.		
III	C_L C_M	wwVhN_h	DDFWN	C_L C_M	wwVhN_h	DDFWN	C_L C_M	wwVhN_h	DDFWN	C_L C_M	wwVhN_h	DDFWN
109	9-	25845	24585	9-	81746	26486				30	25755	29685
115												
203							50	01844	28414			
206	83	02964	18426	8-	01864	20284				3-	81854	61484
210	86	02954	20435	8-	25854	20384				4-	02856	26426
220	83	01844	27415	80	81544	27584						
230	90	01844	22484	9-	81757	22487	20	00743	28383	20	01843	31413
245	60	00961	23303	5-	01774	23484				54	00851	63511
260	26	00751	22282	00	05690	22313	50	05663	22313	50	00863	10203
~~278~~ 279	96	01844	25515	96	81846	25488	80	00843	26583	50	00841	26501
279	86	10754	22415	40	00862	22312	00	00890	24300	50	00852	18202
285				20	01744	28614				50	01853	32503
288	26	00852	22303	40	05661	21111	00	05690	20210	50	05665	25215
~~575~~ 575	30	01853	26383	30	25883	26583	30	81743	28383	30	00752	28242
301	36	01754	24484	20	00753	27483	2-	25655	28485	20	00651	30421
321	54	05652	22402	56	05553	23384	54	05662	23402	55	05681	26423
299	50	05652	20302	00	00790	20200				50	81744	30584
292	30	01853	56413	40	00752	20182	00	05690	23310	50	00763	61413
310	--	01635	24415	--	02628	24478				--	02628	24428
~~614~~ 614	10	05662	24202	2-	81655	59385	8-	08454	24284	5-	05565	26287
333	24	01854	20515	8-	02855	26486	80	00852	28612	8-	02855	61615
334	--	27644	28385	--	27645	28386				--	02645	18216
340	20	01854	24404	3-	01865	25325	2-	25856	22286	8-	02845	30486
136	14	05641	22401	4-	05665	22315	50	05663	24300	53	05664	26416
336	54	01753	24315							14	01753	28414
350	10	05690	22302	40	00762	20312	8-	25556	21286	8-	25545	25388
368	20	25853	24483	80	00855	25483	60	00752	24402	54	01653	25303
379	04	00890	20203	03	00790	22313	50	25753	26383	5-	02756	26416
390	24	06653	22313	40	08462	24312	00	05590	24200	40	05564	26314
382	17	00751	23301	40	01763	22313	5-	05665	23325	5-	01764	24414
438										60	01782	24202
430				20	05652	24112				44	00761	26312
409				30	02845	25585	50	01754	28484	20	01844	31614

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 4.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Wednesday 17th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 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.	Moderate northwest winds, fresh locally on coasts, decreasing and backing slowly: Fair apart from rather frequent showers of rain or hail near East coast at first; Local morning fog; rather cold; frost at night.
13A W. Scotland 13B N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands 17 N. W. Ireland	Light variable winds becoming south, moderate. Fair at first; occasional rain later. Becoming milder.
18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light variable winds becoming south. Fair; local morning fog. Rather cold; night frost.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone centred to southwest of the British Isles is moving slowly northeast and a depression west of Iceland is also moving northeast. A trough of low pressure will approach northwest districts. Weather will be fair at first apart from showers near the East coast but rain is likely later in the Northwest and North.

FURTHER OUTLOOK.

Mainly fair in the South and Midlands with fog developing Rather unsettled in the Northwest.

Forecasts issued at 10-30 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Wednesday 17th December

1941.

Low

HIGH

Low

HIGH

Low

HIGH

Low

Clarke's Projection Scale 1: 4 X 10⁷ 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. (T) Thunder. (T) Thunderstorm. K Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 17th December 1941.

No. 29245

OBSERVATIONS at 1 hr. G.M.T. 17th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	% Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18						38								
	Croydon ...	217	1017·5	0	WSW	3	z_o	37	92	6	–	4	–	0	2-3	–
	S. Farnborough	226	1018·0	+2	W'N	3	z_o	37	92	6	5	–	–	9+	9+	4000
	Boscombe Down	417	1019·0	+2	WNW	4	bc	41	85	7	5	–	–	2-3	2-3	3500
	Thorney Island	10	1018·6	+2	W'N	3	bc	40	92	8	4	–	–	2-3	2-3	4600
	Lympne ...	346	1018·2	+6	W	2	z_o	33	97	6	5	–	–	Tr	Tr	5000
	Manston ...	154	1016·6	+6	W'N	3	z_o	37	92	5	5	–	–	2-3	2-3	4000
2	Shoeburyness ...	11	1017·0	+4	WSW	2	b	38	85	6	–	–	–	0	0	–
	Felixstowe ...	15	1015·4	0	W	3	z_o	39	85	6	–	–	–	0	0	–
	Gorleston ...	5	1014·8	0	W	2	z_o	40	75	5	–	–	–	0	0	–
	Mildenhall ...	19	1015·2	+2	WSW	3	z_o	36	92	6	–	–	–	0	0	–
	Cranwell ...	240	1014·6	+2	W'S	3	z_o	37	92	5	5	–	–	4-6	4-6	2500
3	Birmingham ...	535														
	Upper Heyford	408	1016·7	0	SW	2	z_o	35	92	6	5	–	–	9+	9+	2300
4	Ross-on-Wye	223														
5	Hartland Point	299	1021·6	+4	N	4	c	48	65	8	8	–	–	7-8	7-8	2500
	Bristol ...	209	1019·7	+6	WNW	4	z_o	43	85	6	5	–	–	7-8	7-8	4000
	Portland Bill ...	32	1019·0	+4	W	4	bc	47	92	8	5	–	–	4-6	4-6	4000
	Plymouth ...	82	1022·5	+2	NW	4	bc	44	85	7	2	–	–	2-3	2-3	2500
	The Lizard ...	240	1023·9	+4	N'W	5	c/pr	45	85	7	8	–	–	7-8	7-8	1500
	Scilly (St. Mary's)	163	1025·1	+6	N'W	5	bc	47	75	8	8	–	–	4-6	4-6	1500
	Guernsey ...	175														
6	Pembroke ...	142	1021·6	+2	NW'W	7	bc	47	85	8	8	–	–	4-6	4-6	4000
7	Holyhead (Valley)	26	1018·5	+12	NW	5	bc	45	85	7	5	–	–	2-3	2-3	3000
	Chester (Sealand)	16	1016·7	+10	WNW	4	c/pr	45	85	7	8	–	–	7-8	7-8	3300
8	Manchester ...	235	1016·5	+12	NW	4	pr	41	92	6	9	–	–	10	10	1800
10	Spurn Head ...	29	1012·7	0	W	5	z_o	41	85	6	1	–	–	2-3	2-3	4000
	Catterick ...	175	1013·1	+10	W	3	b	43	75	7	–	–	–	0	0	–
	Tynemouth ...	108	1011·8	+4	NW	4	b	42	85	7	–	–	–	0	0	–
11	St. Abbs Head	280	1010·4	+18	W	5	bc	45	65	7	4	4	–	2-3	4-6	2500
	Leuchars ...	36	1011·5	+22	W	3	b	42	75	8	5	–	–	1	1	4000
12	Renfrew (Abbotsl.)	19	1014·3	+30	WNW	3	b	44	75	7	4	–	–	Tr	Tr	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1015·5	+10	NW'N	6	bc	47	85	8	8	–	–	2-3	2-3	2000
13A	Tiree	22	1017·3	+40	NNW	4	bc	47	85	8	8	–	–	2-3	2-3	2500
13B	Stornoway ...	80	1016·2	+60	NW	4	c/pr	44	92	7	2	–	–	2-3	2-3	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	43	*	*	*	*	*	*	*	*
	Wick ...	119	1011·1		NNW	3	c/pr	42		8	3	–		4-6	4-6	1800
16	Sumburgh ...	30														
17	Blacksod Point	18	1024·7	+20	NNW	1	b	46	75	8	2	–	–	1	1	2500
18	Malin Head ...	84	1018·8	+28	NW'N	6	pr	47	85	7	2	6	–	4-6	7-8	1500
	Aldergrove ...	268	1019·2	+22	W	4	c/pr	42	85	7	3	–	3	1	4-6	1500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1027·5	+14	NW'N	4	c/pr	47	85	8	8	–	–	4-6	4-6	2500
	Roches Point	22	1026·2	+18	W	3	c/pr	45	85	8	3	–	–	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 17th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	% Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1018·8	+10	W'N	2	z_o	41	85	6	5	–	–	9+	9+	2500	1	*
	Croydon ...	1018·5	+6	W	3	z_o	40	85	6	5	7	–	2-3	9+	4000	1	*
	S. Farnborough	1019·4	+6	WNW	3	c	39	85	7	5	3	–	7-8	9+	3900	1	*
	Boscombe Down	1020·4	+10	WNW	4	z_o	37	92	6	5	–	–	2-3	2-3	4000	1	*
	Thorney Island	1020·0	+6	WNW	3	b	38	92	7	5	–	–	Tr	Tr	4000	1	*
	Lympne ...	1018·2	-2	WSW	2	z_o	35	97	6	5	–	–	Tr	Tr	3000	1	§3
	Manston ...	1016·9	+2	WNW	4	z_o	42	85	6	5	7	–	7-8	9	1600	1	*
2	Shoeburyness ...	1017·3	+6	WNW	2	bc	39	92	6	–	3	9	0	4-6	–	1	*
	Felixstowe ...	1016·5	+6	WNW	4	z_o	41	75	6	5	–	–	7-8	7-8	4700	1	3
	Gorleston ...	1015·4	+6	NW	2	bc	40	85	6	5	–	–	4-6	4-6	1500	0	2
	Mildenhall ...	1016·3	+6	W	4	z_o	40	97	6	5	–	–	9+	9+	3500	1	*
	Cranwell ...	1016·8	+14	WNW	3	c/d	44	75	5	5	–	–	9	9	2500	1	*
3	Birmingham ...	1018·9	+10	NW	3	z_o	43	85	5	5	–	–	9+	9+	1500	1	*
	Upper Heyford	1018·1	+8	WNW	4	bc/pr	41	85	6	4	–	–	4-6	4-6	2000	1	*
4	Ross-on-Wye	1019·8	+6	W'N	4	pr	43	75	8	5	–	1	2-3	2-3	3000	1	*
5	Hartland Point	1023·8	+10	NW	5	bc	47	75	8	2	–	–	4-6	4-6	2500	1	5
	Bristol ...	1021·4	+6	W	1	z_o	39	85	6	5	7	–	Tr	2-3	5000	1	*
	Portland Bill ...	1021·2	+10	W	4	bc	46	85	8	5	–	–	2-3	2-3	4000	1	4
	Plymouth ...	1024·0	+6	NNW	4	b	45	85	7	4	–	–	Tr	Tr	2500	1	3
	The Lizard ...	1025·9	+14	NNW	4	bc/pr	44	85	7	8	–	–	4-6	4-6	1500	0	4
	Scilly (St. Mary's)	1026·5	+10	N	5	bc	48	75	8	8	–	–	4-6	4-6	1500	1	4
	Guernsey ...																
6	Pembroke ...	1024·3	+10	NW'N	5	bcq	47	85	8	2	–	–	2-3	2-3	4000	1	4
7	Holyhead (Valley)	1021·5	+18	NW'N	6	bc	47	85	8	5	–	–	2-3	2-3	3000	0	4
	Chester (Sealand)	1020·6	+26	NW'N	4	bc	45	85	7	8	–	–	2-3	2-3	3000	1	*
8	Manchester ...	1019·7	+26	WNW	2	z_o	41	92	5	–	6	–	0	2-3	–	1	*
10	Spurn Head ...	1015·2	+14	NW	4	ir	42	85	6	5	–	–	9	9	2500	0	3
	Catterick ...	1018·1	+30	NNW	3	b	42	75	7	5	–	–	Tr	Tr	3200	1	*
	Tynemouth ...	1017·2	+24	WNW	5	bc	44	75	7	2	–	–	4-6	4-6	2500	1	3
11	St. Abbs Head	1016·9	+28	WNW	5	id$_o$	43	75	7	4	4	–	2-3	4-6	2500	0	3
	Leuchars ...	1018·4	+30	WNW	3	bc	42	75	8	5	–	–	4-6	4-6	3200	1	*
12	Renfrew (Abbotsl.)	1020·3	+28	WSW	2	b	40	85	8	4	–	–	Tr	Tr	3500	1	*
	Eskdalemuir ...	1019·2	+28	–	0	b	38	75	7	–	–	–	0	0	–	1	*
	Point of Ayre ...	1020·9	+22	N'W	5	b	47	85	8	4	–	–	Tr	Tr	2500	1	5
13A	Tiree	1023·3	+24	NNW	4	bc	46	85	8	2	–	–	4-6	4-6	2500	0	5
13B	Stornoway ...	1022·4	+22	NW	4	c	43	85	7	8	7	–	7-8	9	2000	1	2
15	Dalwhinnie ...	1021·3	+26	N	3	bc	38	75	8	5	–	–	4-6	4-6	2500	1	*
	Aberdeen ...	1017·4	+28	NW'N	5	bc/pr	41	85	8	8	–	–	4-6	4-6	2400	1	3
	Wick ...	1018·2	+32	NNW	4	bc/pr	41	75	8	8	–	–	4-6	4-6	1600	1	*
16	Sumburgh ...	1014·1	+32	NNW	5	bc	42	85	8	8	–	–	2-3	2-3	2500	1	8
17	Blacksod Point	1027·3	+12	NNW	1	c	46	85	8	5	–	–	9+	9+	4000	0	2
18	Malin Head ...	1023·9	+26	NNW	5	c	46	85	7	8	–	–	9	9	1500	1	5
	Aldergrove ...	1023·2	+26	NW	3	bc	41	92	7	8	6	3	1	2-3	1800	1	*
19	Birr Castle ...	1026·2	+8	SSW	1	c	38	92	8	5	–	–	7-8	7-8	2500	1	*
20	Valentia Obsy.	1029·7	+10	N	3	pr	47	85	8	8	–	–	9	9	2500	1	4
	Roches Point	1028·0	+8	W'N	3	bc	43	92	8	3	–	–	4-6	4-6	1500	1	4

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine. 16th Hrs. (36)
1	London (Kew)	47	38	30	–	Tr	5·3
	Croydon ...	49	36	29	–	0·4	5·6
	S. Farnborough	48	36	31	–	Tr	6·0
	Boscombe Down	48	37	33	–	–	4·9
	Thorney Island	49	37	32	Tr	Tr	*
	Lympne ...	47	32	27	–	–	4·4
	Manston ...	49	36	31	–	Tr	4·7
2	Shoeburyness ...	48	38	31	–	–	4·4
	Felixstowe ...	48	37	33	–	–	5·5
	Gorleston ...	47	36	33	–	–	*
	Mildenhall ...	47	35	31	Tr	Tr	4·7
	Cranwell ...	44	36	33	–	Tr	5·1
3	Birmingham ...	46	38	33	Tr	2	5·9
	Upper Heyford	46	35	35	–	Tr	*
4	Ross-on-Wye	48	40	34	0·3	Tr	6·1
5	Hartland Point	48	40	38	3	Tr	2·9
	Bristol ...	48	38	31	2	–	5·1
	Portland Bill ...	51	43	*	0·2	–	*
	Plymouth ...	49	43	36	Tr	1	3·3
	The Lizard ...	49	43	*	1	1	4·2
	Scilly (St. Mary's)	50	45	*	1	1	2·0
	Guernsey ...						
6	Pembroke ...	48	43	*	–	–	3·1
7	Holyhead (Valley)	48	43	*	–	Tr	*
	Chester (Sealand)	47	42	36	0·2	3	4·0
8	Manchester ...	46	39	34	1	1	*
10	Spurn Head ...	44	39	*	–	–	4·4
	Catterick ...	46	39	33	–	–	2·9
	Tynemouth ...	45	39	34	–	–	*
11	St. Abbs Head	43	40	*	–	–	*
	Leuchars ...	44	38	30	–	–	5·0
12	Renfrew (Abbotsl.)	45	39	30	1	0·2	2·4
	Eskdalemuir ...	39	33	31	0·6	–	1·4
	Point of Ayre ...	46	43	*	–	3	2·8
13A	Tiree	48	46	*	0·3	0·3	2·4
13B	Stornoway ...	47	41	*	1	2	0·7
15	Dalwhinnie ...	39	36	31	4	4	1·2
	Aberdeen ...	42	40	35	–	0·6	3·8
	Wick ...	43	40	37	1	3	*
16	Sumburgh ...	47	41	37	1	1	1·2
17	Blacksod Point	49	43	*	0·5	–	
18	Malin Head ...	48	41	*	3	2	1·6
	Aldergrove ...	43	39	33	3	1	1·2
19	Birr Castle ...	45	36	31	2	–	2·5
20	Valentia Obsy.	49	46	41	2	0·3	
	Roches Point	47		*	Tr	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	bm,bc0	bb cbm$_o$	b,cm,we	47	38	30	–	Tr	5·3	•	•	6
Croydon	217	cbm$_o$b	bbcm$_o$	bm$_o$cr$_o$	49	36	29	–	0·4	5·6	•	•	5
Greenwich (Royal Observatory)...	149	bm$_o$	bm$_o$	bcbkcm	47	36	28	–	Tr	5·2	69	81	4
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	49	36	33	0·3			84	94	•
Regents Pk. (Botanic Gardens)†...	168	•	•	•	47	38	33	–	Tr		77	87	•
Camden Square	110	bc	bc	•	47	38	33	–	0·5	•	•	84	•
Kensington	80	bc	bcbz	•	49	37	29	–	0·2		75	83	•
Hampstead Observatory	450	bc	bc	orbc	45	35	31	–	0·3		•	91	•

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 17th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·2	16h 16th	<0·1	0-2h 17th

FOREIGN OBSERVATIONS.

Evening of 16th December ... Morning of 17th December ...

Stations.	Evening. Barom. mb.	Evening. Wind. Direc.	Evening. Wind. Force.	Evening. Weather.	Evening. Temp. °F.	Morning. Barom. mb.	Morning. Wind. Direc.	Morning. Wind. Force.	Morning. Weather.	Morning. Temp. °F.
Reykjavik (18h and 07h)	1011·4	ESE	2	bc	33	1007·5	SE'E	4	r$_o$r$_o$	41
Lisbon (18h and 07h)	1027·6	NE	2	bc	54	1026·6	NNE	2	b	48
*Madrid (18h and 07h)						1008·2	N	4	b	37
Cairo (Heliopolis) (18h and 06h)	1019·7	N	1	b	57	1023·0	–	0	bz	48
Toronto (13h and 01h)						1010·7	SW	3	–	35
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
57	46	–	–
	34		
GS		–	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level.
‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.
† Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Thursday 18th December 1941.

No 29,246

OBSERVATIONS at 13h. G.M.T. 17th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1021·8	+10	NW	3	bc	47	65	6	5	-	-	0	0	2500
	Croydon	1021·0	+10	NNW	5	bc	45	75	5	5	-	-	4-6	8	2000
	S. Farnborough	1022·5	+6	NNW	4	bc	47	65	8	1	-	-	2-3	2-3	2500
	Boscombe Down	1023·2	+10	NNW	4	bc	46	76	7	8	-	-	4-6	4-6	2500
	Thorney Island	1021·5	+6	NNW	3	bc	48	75	7	7	-	-	2-3	2-3	4000
	Lympne	1020·6	+2	NNW	5	p	44	85	6	2	6	-	4-6	8	2000
	Manston	1019·1	+4	NNW	4	c	44	85	7	8	-	-	10	10	1800
2	Shoeburyness	1020·3	+12	NW	3	bc	45	75	6	5	7	-	2-3	4-6	3100
	Felixstowe	1019·1	+8	NNW	4	p	45	75	7	2	-	-	9+	9+	2000
	Gorleston	1018·5	+16	N	4	bc/p	44	75	6	8	-	-	4-6	4-6	1500
	Mildenhall	1020·6	+14	NW	4		44	85	6	8	7	-	4-6	4-6	3000
	Cranwell	1021·4	+10	NNW	4	c	46	75	7	4	-	-	7-8	7-8	3000
3	Birmingham	1023·6	+8	N	3	b	44	75	6	7	-	-	1	1	2500
	Upper Heyford	1022·4	+12	N	3		45	75	6	5	-	-	1	1	4000
4	Ross-on-Wye	1023·7	+8	NW	3	bc	48	65	8	7	-	-	2-3	2-3	3500
5	Hartland Point	1026·1	+6	NNW	4	bc	47	75	8	5	4	-	4-6	4-6	1800
	Bristol	1024·2	+10	NNW	4	bc	48	66	7	8	-	-	2-3	2-3	3000
	Portland Bill	1023·4	+6	N	4	bc	48	92	8	2	-	-	4-6	4-6	4000
	Plymouth	1026·0	+8	NNW	3	c	49	75	8	5	-	-	9+	9+	3000
	The Lizard	1025·7	+10	NNW	4	bc	50	65	8	2	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1028·1	0	N	4	bc	49	75	8	8	4	4	4-6	4-6	1500
	Guernsey	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Pembroke	1027·1	+10	NNW	4	cq	48	92	8	8	6	-	4-6	7-8	3000
7	Holyhead (Valley)	1024·9	+10	NW	5	bc	49	85	8	8	6	-	4-6	4-6	2000
	Chester (Sealand)	1024·0	+10	NNW	3	bc	47	75	7	2	-	8	2-3	4-6	1500
8	Manchester	1023·4	+6	NNW	4		44	75	6	4	-	-	7-8	7-8	4000
10	Spurn Head	1020·4	+22	NNW	5	bc	43	85	7	3	5	1	4-6	4-6	1500
	Catterick	1023·2	+12	NNW	3	bc	44	75	8	5	6	-	2-3	4-6	3200
	Tynemouth	1022·5	+16	NNW	4	c	45	65	6	8	-	-	0	0	2200
11	St. Abbs Head	1021·7	+18	NW	4	bc	43	75	8	5	4	-	4-6	4-6	2500
	Leuchars	1023·8	+26	WNW	2	bc	43	65	9	7	-	9	Tr	2-3	4500
12	Renfrew (Abbotsl.)	1025·2	+22	NW	3	b	45	65	8	-	4	-	0	Tr	-
	Eskdalemuir	1023·8	+16	NNW	1	bc	42	85	8	7	4	-	1	2-3	2500
	Point of Ayre	1024·8	+14	NNE	3	b	47	75	8	2	-	2	Tr	4	3000
13A	Tiree	1025·6	+6	NW	2	bc	47	65	8	2	3	-	2-3	2-3	3500
13B	Stornoway	1025·4	+10	WNW	3	c	45	85	7	5	6	1	2-3	7-8	3000
15	Dalwhinnie	1025·9	+18	N	2	c	39	75	8	8	-	-	7-8	7-8	2500
	Aberdeen	1022·3	+24	NW	5	pr	42	75	8	8	-	-	4-6	7-8	2100
	Wick	1022·6	+14	NW	4	c/p	42	65	8	8	-	-	9+	9+	2400
16	Sumburgh	1018·9	+26	NNW	4	c/p	43	75	8	8	-	-	9+	9+	2500
17	Blacksod Point	1023·3	+8	WNW	1	c	48	85	8	4	5	-	4-6	7-8	2500
18	Malin Head	1026·7	+2	NW	1	c/p	47	85	8	9	-	4	2-3	7-8	4000
	Aldergrove	1026·9	+14	S	1	c	45	88	8	5	4	0	4-6	7-8	1500
19	Birr Castle	1028·7	+12	N	1	c	45	85	8	5	-	-	9	9	4000
20	Valentia Obsy. †	1030·5	-2	NW	2	c/p	47	85	8	8	3	-	4-6	6	4000
	Roches Point	1023·6	+2	NNW	3	c	48	85	8	8	3	5	2-3	7-8	2500

OBSERVATIONS at 18h. G.M.T. 17th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1024·7	+16	NW	2		42	75	6	-	-	-	0	0	-	1	*
	Croydon	1024·3	+22	NNW	3		42	85	6	-	-	-	0	0	-	1	*
	S. Farnborough	1025·3	+20	NNW	3		41	75	6	-	-	-	0	0	-	1	*
	Boscombe Down	1025·8	+16	NNW	2		40	85	6	8	-	-	4-6	4-6	3000	1	*
	Thorney Island	1024·6	+16	NNW	3		43	75	7	5	-	-	1	1	4000	1	*
	Lympne	1022·8	+24	NNW	5		42	86	6	8	-	-	9+	9+	1500	1	*
	Manston	1021·8	+16	NNW	4	c/p	43	85	6	8	-	-	7-8	7-8	2500	1	*
2	Shoeburyness	1022·7	+14	NW	2	bc	42	85	6	-	4	-	0	2-3	-	1	*
	Felixstowe	1021·9	+16	NW	4	c	42	85	7	5	-	-	7-8	7-8	1800	1	3
	Gorleston	1021·1	+16	NW	4		44	85	6	8	-	-	4-6	4-6	1500	1	3
	Mildenhall	1023·0	+14	NNW	4	c/p	42	85	6	8	-	-	9+	9+	2700	0	*
	Cranwell	1024·6	+16	NNW	3		41	75	6	4	-	-	1	1	3000	1	*
3	Birmingham	1025·8	+16	N	3		41	75	4	5	-	-	7-8	7-8	2500	1	*
	Upper Heyford	1025·5	+18	NW	2		36	88	5	5	-	-	1	1	3500	1	*
4	Ross-on-Wye	1026·1	+20	N	2		44	75	8	5	-	-	9+	9+	3000	1	*
5	Hartland Point	1027·2	+8	N	3	bc	47	75	8	2	-	-	2-3	2-3	2500	1	4
	Bristol	1026·3	+18	NNW	1	bc	46	76	5	5	-	-	2-3	2-3	3000	1	*
	Portland Bill	1025·2	+8	NNW	3	c	47	85	8	5	-	-	7-8	7-8	4000	1	4
	Plymouth	1026·8	+4	NW	3		45	88	6	1	-	60	0	1	-	1	3
	The Lizard	1027·5	+14	NNW	4	bc	43	82	8	8	6	-	4-6	4-6	2500	0	3
	Scilly (St. Mary's)	1028·4	+2	NW	4	c	47	75	8	6	4	3	4-6	7-8	1400	1	4
6	Pembroke	1028·1	+6	NW'N	3	bc	46	82	8	2	4	-	4-6	4-6	4000	1	3
7	Holyhead (Valley)	1027·0	+16	N	3	bc	45	85	7	5	7	-	4-6	4-6	4000	0	4
	Chester (Sealand)	1026·3	+12	NW'N	2		40	92	5	-	-	-	0	0	-	1	*
8	Manchester	1025·1	+10	-	0		37	85	6	5	-	-	1	1	4000	1	*
10	Spurn Head	1023·2	+12	NW	5		43	85	7	6	-	-	2-3	2-3	2500	1	4
	Catterick	1023·2	+18	NNW	2	c	41	85	7	5	-	-	9+	9+	2500	1	*
	Tynemouth	1025·0	+20	NNW	4		42	85	6	8	-	3	7-8	7-8	2500	1	3
11	St. Abbs Head	1024·8	+16	N	4	c	43	85	8	5	4	-	4-6	7-8	2500	0	3
	Leuchars	1025·5	+16	WNW	2	b	40	75	8	-	-	1	0	Tr	-	1	*
12	Renfrew (Abbotsl.)	1026·1	+14	SW	1		35	85	6	-	4	1	0	2-3	-	1	*
	Eskdalemuir	1026·7	+16	-	0	b	29	85	7	-	-	-	0	0	-	3	*
	Point of Ayre	1026·5	+10	N	3	b	45	75	8	4	4	-	0	Tr	3000	0	3
13A	Tiree	1026·2	0	-	0	c	41	82	8	5	-	-	8	8	2500	0	3
13B	Stornoway	1026·3	0	WSW	2	bc	41	82	7	8	7	-	2-3	2-3	2500	1	1
15	Dalwhinnie	1026·2	+12	SW	1		32	85	8	8	-	-	4-6	4-6	1500	1	*
	Aberdeen	1024·7	+18	NW	4	c	41	75	7	8	-	-	7-8	7-8	3200	1	2
	Wick	1024·7	+10	NW'W	3	c	41	75	7	5	-	-	9+	9+	2500	1	*
16	Sumburgh	1022·5	+14	NNW	2	bc	40	82	8	8	-	-	2-3	2-3	2500	1	4
17	Blacksod Point	1028·0	0	WNW	1	c	45	82	8	-	7	-	0	0	-	0	2
18	Malin Head	1027·1	0	NW'N	3	bc	47	85	8	5	-	-	4-6	4-6	5700	1	4
	Aldergrove	1028·0	+10	-	0		42	92	6	5	4	6	7-8	7-8	2700	1	*
19	Birr Castle	1028·1	+2	WNW	1	c	42	82	8	5	-	-	7-8	7-8	4000	1	*
20	Valentia Obsy. †	1030·5	0	S	1	c	46	82	8	7	-	-	9+	9+	4000	1	3
	Roches Point	1028·7	+2	WNW	2	c/p	47	85	8	8	-	-	7-8	7-8	1500	1	*

PAST 24 HOURS.

District	Stations. (For heights see p. 4.)	Weather. 7h.—13h. 17th (37)	Weather. 13h.—18h. 17th (38)	Weather. 18h. 17th to 1h. 18th (39)	Weather. 1h.—7h. 18th (40)
1	London (Kew)				
	Croydon				
	S. Farnborough				
	Boscombe Down				
	Thorney Island				
	Lympne				
	Manston				
2	Shoeburyness				
	Felixstowe				
	Gorleston				
	Mildenhall				
	Cranwell				
3	Birmingham				
	Upper Heyford				
4	Ross-on-Wye				
5	Hartland Point				
	Bristol				
	Portland Bill				
	Plymouth				
	The Lizard				
	Scilly (St. Mary's)				
	Guernsey				
6	Pembroke				
7	Holyhead (Valley)				
	Chester (Sealand)				
8	Manchester				
10	Spurn Head				
	Catterick				
	Tynemouth				
11	St. Abbs Head				
	Leuchars				
12	Renfrew (Abbotsl.)				
	Eskdalemuir				
	Point of Ayre				
13A	Tiree				
13B	Stornoway				
15	Dalwhinnie				
	Aberdeen				
	Wick				
16	Sumburgh				
17	Blacksod Point				
18	Malin Head				
	Aldergrove				
19	Birr Castle				
20	Valentia Obsy. †				
	Roches Point				

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

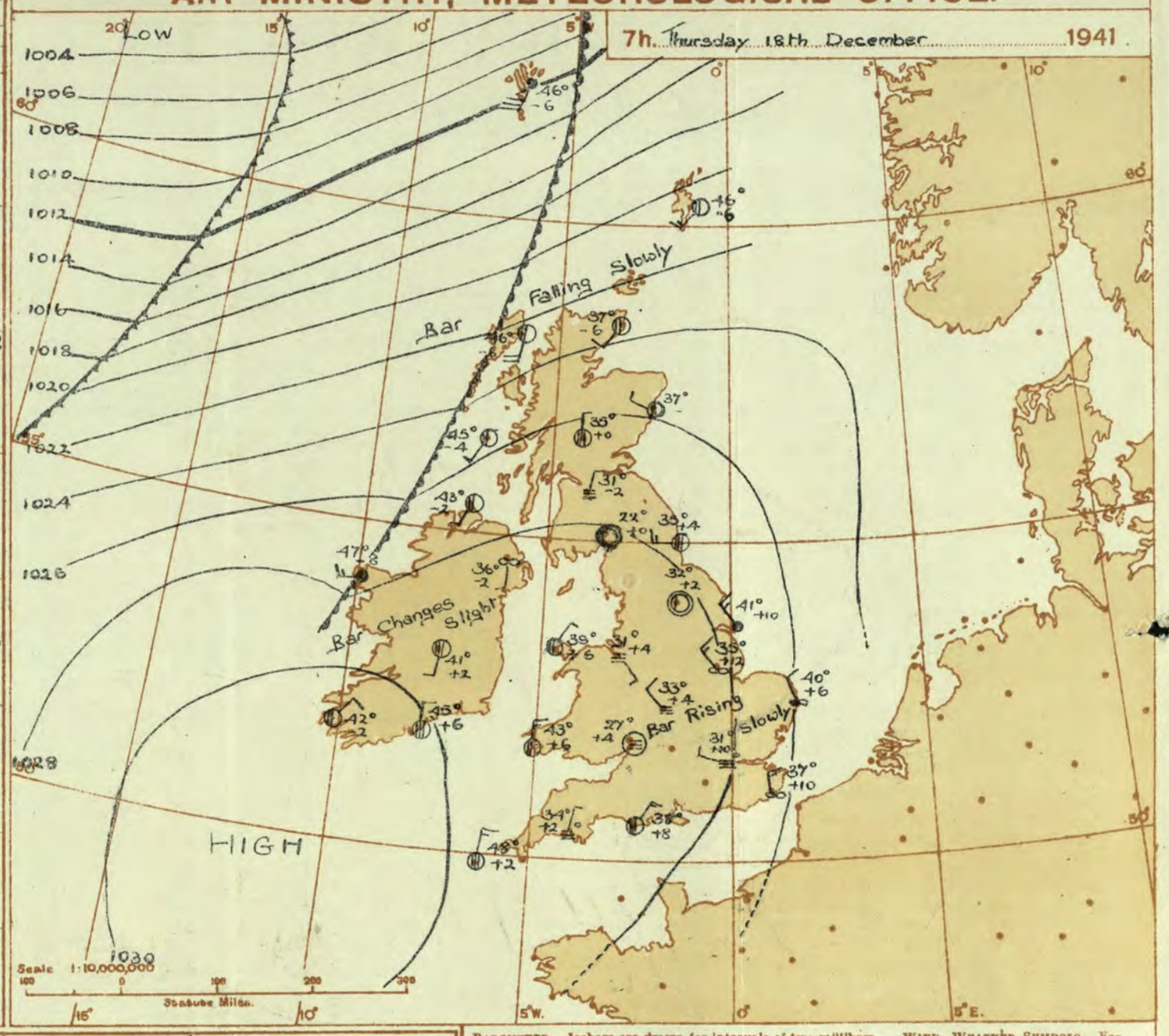
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

IIIC$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN
13h. G.M.T. 17th December			18h. G.M.T.			01h. G.M.T. 18th December			07h. G.M.T.		
109 8-	28855	20585	5-	02857	28427	5-	01853	16223	5-	02854	20324
115 52	02844	28387	52	02844	28327	57	02844	20327	52	81844	20487
203			5-	01945	00025	5-	02887	16427	5-	03848	16418
206 82	01864	28114	8-	02855	26125	53	01864	26224	53	01863	22218
210 48	02854	26425	40	00883	24213	5-	01864	21214	50	01863	18123
220									50	02445	16215
230 74	01864	29214	83	01890	28213	50	00763	00003	50	05663	00013
245 80	01864	30315	40	00951	29312	50	01762	23224	57	00862	24323
260 57	01763	28114	00	47890	00006	00	08490	00040	50	05663	00003
278 16	01841	28613	47	00841	28314	50	01861	14114	57	05654	00016
279 53	05651	28 ---	00	05590	30100	00	08490	00010	04	08490	00002
285 13	02853	32514	50	00852	32212				50	01746	32314
288 5-	17-37	27387	5-	08458	27228	50	05661	28111	44	05562	23102
57687	02854	26315	57	02753	26225	5-	21758	20158	50	00753	00053
301 05	05690	30303	00	47390	00100	--	46809	00140	00	45890	00140
321 44	08664	28404	53	05664	28324	5-	05667	27327	50	08481	26221
299 80	14744	32614	80	51445	31655	50	01743	30553	50	01743	24213
292 5-	02855	60415	5-	02767	26327	5-	02766	26116	50	05663	00014
310 --	05434	24414	--	01624	26314				--	01643	26313
314 13	05667	32302	8-	05654	32214	50	05651	28101	53	05652	26103
333 14	01855	28525	4-	00752	30412	5-	01755	26215	5-	01753	00013
334 --	02853	02215	--	02764	04215				--	02664	04215
340 10	05661	29201	20	05653	30213	00	45190	02140	00	+8193	16140
136 86	05643	28484	86	25654	29485	50	01764	27454	54	25766	29387
336 52	02754	28827	14	01762	28313				54	05642	32318
350 53	05661	28311	00	08490	28200	00	08490	28200			
368 10	00852	28483	40	00751	28201	50	05554	30114	04	08490	03111
379 10	05651	30401				00	05590	30114	50	08462	30202
390 5-	05657	28487	5-	05667	29417	5-	05668	29388	5-	05566	30326
382 17	05662	31403	53	05664	30214	00	05690	25100	01	47390	29241
438									54	01753	32413
430 20	00762	30402	50	05663	30313	00	05490	32400	04	05690	30301
409 54	01854	29514	50	01853	31314	20	00852	32102	5-	02756	06116

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Thursday 18th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Light variable winds. Fair or Fine. Fog becoming extensive during the night and persisting tomorrow. Rather cold. Keen Frost at night
11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13A. W. Scotland	Light or moderate Southwest wind veering west. Bright intervals. Rain locally later. Average temperature
13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Moderate Southwest wind veering west; fresh locally. Mainly cloudy. Local rain. Average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light Southwest wind. Bright intervals. Local showers. Local fog. Rather cold.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone centred South of Ireland extends across England to Scandinavia. Feeble troughs of low pressure will affect northern districts. Over most of England and Wales. Weather will be fair with extensive Fog developing tonight. In Scotland there will be bright intervals but rain locally later.

FURTHER OUTLOOK.

Quiet weather with mist or fog in many places in the South and Midlands. Cloudy in the North with slight rain locally.

Forecasts issued at 10·30 G.M.T

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Tuesday 16th December

1941.

HIGH

LOW

Clarke's Projection Scale 1: 4 x 10⁷ 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. ℥ Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 18th December 1941.

No. 2924G.

OBSERVATIONS at 1 hr. G.M.T. 18th December

District	Stations.	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	35	*	*	*	*	*	*	*	*
	Croydon ...	217	1027·0	+8	WNW	1	m	34	92	4	5	–	–	1	1	3000
	S. Farnborough	226	1027·2	+2	NW'N	1	z_o	31	85	5	–	–	–	0	0	–
	Boscombe Down	417	1028·3	+6	NW	2	m	33	97	4	–	–	–	0	0	–
	Thorney Island	10	1026·8	+4	N'W	2	z_o	36	85	6	–	–	–	0	0	–
	Lympne ...	346	1024·8	+4	NNW	3	z_o	38	92	6	4	–	–	4–6	4–6	2500
	Manston ...	154	1024·7	+8	NNW	4	z_o	41	85	6	5	–	–	4–6	4–6	2500
2	Shoeburyness ...	11	1025·5	+8	NNW	2	bc	40	85	6	6	–	–	4–6	4–6	1500
	Felixstowe ...	15	1024·7	+10	NW'N	3	z_o	40	92	6	5	–	–	7–8	10	2600
	Gorleston ...	5	1024·2	+8	NNW	3	c/pr	41	85	6	8	–	–	7–8	7–8	1500
	Mildenhall ...	19	1025·8	+8	NW	3	z_o	38	85	6	5	–	–	10	10	3800
	Cranwell ...	240	1026·8	+6	NW'N	2	z_o	40	75	6	5	–	–	9+	9+	3000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1027·3	+4	N'W	2	r	31	97	4	–	–	–	0	0	–
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1028·0	-2	NE	2	bc	45	85	8	2	–	–	2–3	2–3	2500
	Bristol ...	209	1028·6	+4	–	0	m	36	92	4	5	–	–	Tr	Tr	4000
	Portland Bill ...	32	1027·3	+10	N	3	bc	42	85	8	4	–	–	4–6	4–6	4000
	Plymouth ...	82	1028·9	+6	NE	1	z_o	37	97	5	5	–	–	1	1	4000
	The Lizard ...	240	1028·5	0	N	2	c	45	85	8	8	–	–	7–8	7–8	1500
	Scilly (St. Mary's)	163	1029·0	+2	NNE	3	c	48	85	8	8	4	–	7–8	9+	1500
	Guernsey ...	175														
6	Pembroke ...	142	1028·7	0	N	3	c	45	92	8	2	–	–	7–8	7–8	4000
7	Holyhead(Valley)	26	1027·7	+2	–	0	c	40	92	7	5	–	–	7–8	7–8	3500
	Chester(Sealand)	16	1028·1	+6	–	0	c	32	97	2	–	–	–	10	10	150
8	Manchester ...	235	1028·0	+2	–	0	bf+	30	97	2	–	–	–	0	0	–
10	Spurn Head ...	29	1025·5	+8	W'N	4	c	41	85	6	4	–	–	7–8	7–8	1500
	Catterick ...	175	1027·2	-6	NNW	2	b	34	85	7	5	–	–	Tr	Tr	3100
	Tynemouth ...	108	1026·5	+4	NW	4	z_o	37	75	6	2	–	–	2–3	2–3	2500
11	St. Abbs Head	280	1025·7	-8	NW	2	bc	40	65	6	4	4	–	2–3	2–3	2500
	Leuchars ...	36	1026·4	-2	WNW	1	b	34	85	7	–	–	–	0	0	–
12	Renfrew (Abbotsl.)	19	1027·4	+4	–	0	bf+	31	97	3	–	–	–	0	0	–
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1027·5	0	N'W	2	b	43	85	8	–	4	–	0	1	–
13A	Tiree	22	1028·2	0*	SSW	1*	bc	43	92	8	5	–	–	2–3	2–3	3500
13B	Stornoway ...	80	1025·5	-6	SSW	3	bc	45	97	8	5	–	–	2–3	2–3	3000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	39	*	*	*	*	*	*	*	*
	Wick ...	119	1025·1	-2	–	0	bc	35	92	7	5	–	–	4–6	4–6	3000
16	Sumburgh ...	30	1023·6	-2	WNW	3	c	42	85	8	5	–	–	9+	9+	2500
17	Blacksod Point	18	1029·0	0	–	0	bc	44	85	8	–	4	–	0	2–3	–
18	Malin Head ...	84	1027·7	+2	SW	1	ir	44	92	6	6	–	–	9+	9+	800
	Aldergrove ...	268	1029·0	+2	S	1	z_o	35	97	5	5	–	8	1	4–6	200
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1030·7	-2	–	0	bc	43	92	8	5	–	–	2–3	2–3	2500
	Roches Point	22	1030·6	+2	NW'W	2	bc	44	87	8	5	–	–	4–6	4–6	2500

OBSERVATIONS at 7 hr. G.M.T. 18th December

District	Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. (29)	Sea. 0–9 (30)
1	London (Kew)	1028·3	+8	NNW	3	z_o	36	78	6	5	–	–	9+	9+	2500	1	*
	Croydon ...	1028·1	+10	WNW	1	m	31	92	4	–	3	–	0	0	–	1	*
	S. Farnborough	1028·8	+6	NNW	2	m	31	85	4	–	3	–	0	Tr	–	3	*
	Boscombe Down	1029·6	+10	NW	1	m/f	28	97	4	–	–	–	0	0	–		*
	Thorney Island	1028·8	+14	N'W	3	bc	33	85	5	5	–	–	Tr	Tr	4000	1	*
	Lympne ...	1026·3	+10	NNW	3	z_o	37	85	6	4	–	2	4–6	4–6	4000	1	8
	Manston ...	1026·3	+8	NNW	4	z_o	40	85	6	5	4	–	9	9+	2800	1	*
2	Shoeburyness ...	1026·8	+8	NW'N	3	c	36	85	6	5	–	2	4–6	7–8	3500	1	*
	Felixstowe ...	1026·5	+14	NW	3	z_o	37	85	6	5	7	–	2–3	7–8	4000	1	3
	Gorleston ...	1025·4	+6	NW'N	2	z_o	40	92	6	5	–	–	4–6	4–6	1500	1	2
	Mildenhall ...	1027·4	+14	NW'W	3	z_o	36	85	6	5	–	–	4–6	4–6	3500	0	*
	Cranwell ...	1028·1	+12	NW	3	z_o	35	75	5	5	–	–	1	1	3000	1	*
3	Birmingham ...	1028·9	+4	NW	2	bc	33	92	2	–	–	–	0	0	–	1	*
	Upper Heyford	1028·8	+6	–	0	bf+	29	97	2	5	7	–	1	1	2500	3	*
4	Ross-on-Wye	1029·0	+4	–	0	bf	27	97	1	–	–	–	0	0	–	3	*
5	Hartland Point	1029·0	+8	NE	2	bc	46	85	7	2	–	–	2–3	2–3	2500	1	3
	Bristol ...	1029·5	+6	–	0	m	31	92	4	–	–	1	0	Tr	–	1	*
	Portland Bill ...	1028·5	+8	NE	3	bc	38	85	7	5	–	–	4–6	4–6	2500	1	
	Plymouth ...	1029·6	+2	N'E	1	m	34	97	4	4	–	–	1	1	4000	0	1
	Scilly (St. Mary's)	1029·3	+8	NE	2	bc	44	85	8	8	6	–	4–6	4–6	1500	0	3
	Guernsey ...	1029·3	+2	N'E	3	c	48	75	7	8	–	–	9+	9+	1500	1	3
6	Pembroke ...	1029·5	+6	N	3	bc	43	97	8	2	–	–	2–3	2–3	4000	1	2
7	Holyhead(Valley)	1028·2	+6	NE	1	c	39	97	7	5	–	–	9	9	2800	1	2
	Chester(Sealand)	1029·0	+4	SSE	1	bf+	31	92	1	–	–	–	0	0	–	1	*
8	Manchester ...	1029·4	+8	WSW	1	m/f	30	97	4	5	–	–	10	10	800	3	*
10	Spurn Head ...	1027·0	+10	NW'N	3	ir	41	75	6	8	–	–	9	9	1500	1	4
	Catterick ...	1028·3	+2	–	0	b	32	65	7	–	4	–	0	1	–	1	*
	Tynemouth ...	1027·8	+4	W	3	c	35	85	6	–	4	–	0	9	–	0	5
11	St. Abbs Head	1026·9	+2	WNW	2	bc	39	75	7	4	4	–	2–3	4–6	2500	0	2
	Leuchars ...	1026·6	0	WNW	2	bc	33	85	7	5	–	–	4–6	4–6	4000	3	*
12	Renfrew (Abbotsl.)	1027·5	-2	NNE	1	f–	31	97	2	–	–	–	0	0	–	3	*
	Eskdalemuir ...	1029·0	0	–	0	bc	22	92	7	5	4	–	1	4–6	2500	3	*
	Point of Ayre ...	1028·0	+2	–	0	b	44	92	8	4	4	–	Tr	1	3000	0	2
13A	Tiree	1025·6	-4	SW	1	bc	45	92	8	2	–	–	4–6	4–6	2500	0	3
13B	Stornoway ...	1023·4	-6	SSW	4	bc	46	92	7	5	–	–	2–3	2–3	3000	1	3
15	Dalwhinnie ...	1024·8	0	N	1	c	35	85	8	5	–	–	7–8	7–8	4000	0	*
	Aberdeen ...	1025·9	0	WNW	1	bc	37	85	6	5	–	–	4–6	4–6	2100	T	2
	Wick ...	1024·3	-6	SW	2	bc	37	85	7	–	3	1	0	2–3	–	1	*
16	Sumburgh ...	1022·4	-6	SW	3	bc	46	85	8	5	–	–	4–6	4–6	3000	1	4
17	Blacksod Point	1027·2	-8	W	3	r	47	97	7	6	–	–	10	10	1500	1	2
18	Malin Head ...	1026·8	-2	SW	1	bc	43	85	8	2	–	–	2–3	2–3	4000	1	4
	Aldergrove ...	1028·9	-2	S	1	z_o	36	97	6	–	4	8	0	4–6	–	1	*
19	Birr Castle ...	1029·3	+2	SSW	1	c	41	92	8	5	1	–	7–8	10	2500	1	4
20	Valentia Obsy.	1030·2	-2	NE'E	2	bc	42	92	8	5	–	–	2–3	2–3	2500	1	3
	Roches Point	1030·5	+6	N	2	c	45	85	8	5	–	–	9+	9+	2500	1	4

PAST 24 HOURS.

District	Stations.	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 17th Hrs. (36)
1	London (Kew)	47	34	19	Tr	Tr	0·4
	Croydon ...	45	31	23	0·3	Tr	0·0
	S. Farnborough	48	29	20	Tr	–	3·2
	Boscombe Down	46	27	25	–	Tr	4·9
	Lympne ...	48	33	26	–	–	*
	Manston ...	44	36	31	Tr	Tr	1·1
2	Shoeburyness ...	45	30	34	Tr	Tr	0·0
	Felixstowe ...	46	36	31	Tr	Tr	0·7
	Gorleston ...	46	36	32	Tr	0·6	1·4
	Mildenhall ...	46	40	35	2	0·4	*
	Cranwell ...	45	33	22	0·1	0·1	0·7
3	Birmingham ...	46	35	32	Tr	–	4·3
	Upper Heyford	45	32	18	–	0·1	4·2
4	Ross-on-Wye	45	28	27	0·1	–	*
5	Hartland Point	48	27	21	Tr	–	4·5
	Bristol ...	48	44	40	Tr	–	2·3
	Portland Bill ...	48	28	20	–	–	5·6
	Plymouth ...	48	37	*	–	–	*
	The Lizard ...	49	34	28	–	–	4·3
	Scilly (St. Mary's)	50	42	*	0·5	–	4·0
	Guernsey ...	50	45	*	–	–	1·3
6	Pembroke ...	49	39	*	–	–	2·5
7	Holyhead(Valley)	50	36	31	–	Tr	*
	Chester(Sealand)	47	30	22	–	–	5·9
8	Manchester ...	45	25	21	–	–	*
10	Spurn Head ...	44	39	*	1	1	0·4
	Catterick ...	44	31	24	–	–	1·2
	Tynemouth ...	45	35	21	–	–	*
11	St. Abbs Head	44	43	*	–	–	*
	Leuchars ...	44	32	25	–	–	4·3
12	Renfrew (Abbotsl.)	46	27	22	–	–	5·1
	Eskdalemuir ...	42	21	16	–	–	5·2
	Point of Ayre ...	43	38	*	–	–	4·6
13A	Tiree	47	38	*	–	–	3·7
13B	Stornoway ...	45	41	*	0·1	–	1·0
15	Dalwhinnie ...	41	28	24	–	–	1·5
	Aberdeen ...	42	34	29	Tr	–	2·3
	Wick ...	42	33	31	0·2	–	*
16	Sumburgh ...	43	40	35	0·1	–	0·
17	Blacksod Point	49	37	*	–	1	*
18	Malin Head ...	48	41	*	0·1	1	1·0
	Aldergrove ...	46	34	30	Tr	Tr	1·2
19	Birr Castle ...	47	36	34	–	0·3	
20	Valentia Obsy.	48	39	35	0·1	Tr	0·0
	Roches Point	49		*	Tr	Tr	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
KEW	18	$r_o wez_o$	$cbcbz_o$	$bz_o xm_o$	47	34	19	Tr	Tr	0·4	•	•	4
CROYDON	217	$cm_o pr_o$	$cz_o cz$	$bf_o bmxcm$	45	31	23	0·3	Tr	0·0	•	•	4
GREENWICH (Royal Observatory) ...	149	cm_o	cb	cbxcb	46	32	22	–	–	–	69	74	4
CITY (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
WESTMINSTER (St. James' Park) ...	27	•	•	•	47	33	30	–			81	83	•
REGENTS PK. (Botanic Gardens)‡ ...	168	•	•	•	46	33	25	–	–		71	80	•
CAMDEN SQUARE	110	bc	bc	•	46	35	29	–	–	*	•	80	•
KENSINGTON	80	bc	bc	•	47	33	22	–	–		74	83	•
HAMPSTEAD OBSERVATORY	450	bc	bc	bcx	44	32	20	–	–		•	80	•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 18th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·3	17h	0·1	7–12h
	17th		17th

FOREIGN OBSERVATIONS.

Evening of 17th December ... Morning of 18th December

Stations.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1000·4	S	3	$r_o r_o$	45	990·4	SSW	8	c	43
Lisbon (18h and 07h)						1021·8	NNE	3	b	43
Madrid (18h and 07h)	906·0	NNE	4	b	45					
Cairo (Heliopolis) (18h and 06h)	1022·3	NNE	2	b	58	1022·6	–	0	bz	47
Toronto (13h and 01h)	1017·1	WNW	4	0	35					
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
	41		–
50	43	–	–

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMN 30 — Code for State of Sea.

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

* Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT OF THE METEOROLOGICAL OFFICE, LONDON.

[redacted] SECTION

Friday 19th December 1941.

No 29247

OBSERVATIONS at 13h. G.M.T. 18th December

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1029·4	+4	NW	2	z$_o$	42	65	5	–	5	8	0	9+	–
	Croydon	1029·2	+2	W	2	m	37	85	4	–	3	2	0	9	–
	S. Farnborough	1029·8	+2	W'N	1	z$_o$	39	75	5	–	–	8	0	7-8	–
	Boscombe Down	1030·2	–2	–	0	m	35	92	4	–	–	1	0	2-3	–
	Thorney Island	1029·4	–4	NW	2	z$_o$	43	65	6	–	4	6	0	4-6	–
	Lympne	1027·8	0	NNW	2	z$_o$	43	85	6	8	–	3	9	9+	4000
	Manston	1027·9	+2	N'W	3	z$_o$	43	85	6	5	–	9	4-6	9	4000
2	Shoeburyness	1028·1	+2	NNW	2	c	43	75	6	5	7	8	4-6	9+	5700
	Felixstowe	1027·7	–2	NW	3	z$_o$	44	75	6	–	1	7	0	9+	–
	Gorleston	1026·8	+2	N	3	c	45	75	7	8	7	–	4-6	7-8	1500
	Mildenhall	1028·6	+2	NW'W	2	z$_o$	40	85	6	–	7	6	0	9	–
	Cranwell	1028·8	–2	WNW	2	m	41	75	4	–	4	8	0	4-6	–
3	Birmingham	1030·5	0	W	2	z$_o$	41	75	5	–	–	1	0	2-3	–
	Upper Heyford	1029·7	+2	NW'N	2	m	38	85	4	–	5	6	0	4-6	–
	Ross-on-Wye	1029·4	0	E'S	1	bcf	36	92	3	5	–	2	Tr	2-3	4000
5	Hartland Point	1029·7	–2	NE	2	bc	46	75	8	2	4	1	2-3	4-6	2500
	Bristol	1030·5	–2	–	0	bcf–	31	97	1	–	–	2	0	4-6	–
	Portland Bill	1029·4	+2	NE	3	bc	40	85	8	2	–	–	4-6	4-6	4000
	Plymouth	1030·2	+2	WNW	1	m	44	85	4	2	–	1	1	2-3	2000
	The Lizard	1030·0	0	–	0	c	49	75	8	8	6	–	7-8	7-8	2500
	Scilly (St. Mary's)	1030·0	–2	NNE	2	c	51	75	8	8	4	4	4-6	7-8	1500
	Guernsey														
6	Pembroke	1029·4	–16	SE'S	1	c	47	97	8	5	6	–	4-6	7-8	2500
7	Holyhead (Valley)	1028·6	–4	SW	1	c	49	92	8	8	3	–	7-8	9	2500
	Chester (Sealand)	1029·1	–2	–	0	cf–	36	92	2	5	–	–	9	9	3000
8	Manchester	1029·3	+2	SW	2	m/f	38	85	4	–	–	9	0	4-6	–
10	Spurn Head	1028·3	+6	WNW	3	z$_o$	41	75	6	4	3	7	2-3	4-6	4000
	Catterick	1028·7	–6	S	1	z$_o$	39	75	6	–	4	5	0	4-6	–
	Tynemouth	1028·0	–2	W	4	bc	39	85	6	–	4	2	0	4-6	–
11	St. Abbs Head	1027·9	0	SW	2	bc	39	85	8	4	4	2	2-3	4-6	2500
	Leuchars	1026·2	–6	W	2	z$_o$	38	85	6	–	4	1	0	Tr	–
12	Renfrew (Abbotsl.)	1027·2	–6	W	1	F+	35	97	1	–	–	–	10	10	150
	Eskdalemuir	1028·6	–2	–	0	c	30	97	7	5	–	–	9	9	1500
	Point of Ayre	1028·2	+2	W'S	2	c	46	92	8	5	–	–	10	10	5000
13A	Tiree	1024·8	–6	SW'W	4	bc	47	92	8	8	3	–	4-6	4-6	1800
13B	Stornoway	1021·8	–16	S	5	c/pr	48	92	8	8	7	–	7-8	9+	2000
15	Dalwhinnie	1026·4	–6	SW	2	c	39	85	8	8	–	–	7-8	7-8	2500
	Aberdeen	1025·2	–14	SW	2	b	44	65	6	5	–	1	1	1	3500
	Wick	1023·4	–6	SSW	2	bc	43	75	9	5	–	–	2-3	2-3	4000
16	Sumburgh	1021·3	–6	SW'W	3	c	47	85	8	5	3	–	7-8	9	2500
17	Blacksod Point	1026·2	–6	SSW	2	c	49	85	7	5	–	–	9+	9+	2500
18	Malin Head	1026·1	–6	S	1	c	45	92	8	9	–	–	7-8	7-8	2500
	Aldergrove	1028·6	–6	SSW	1	z$_o$	43	85	6	5	4	5	Tr	1	3500
19	Birr Castle	1029·0	–6	SW	2	c	48	75	8	5	–	–	7-8	7-8	4000
20	Valentia Obsy. †	1029·4	–8	S'E	3	c/pr	48	92	8	8	–	–	7-8	7-8	1500
	Roches Point	1030·1	–6	S	1	bc	49	75	8	5	–	–	4-6	4-6	2500

OBSERVATIONS at 18h. G.M.T. 18th December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°Temp. (20)	°Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1030·1	+8	NNW	2	m	39	85	4	2	2	8	0	9	–	1	*
1029·5	+2	W'S	2	cf+	35	85	2	–	–	–	0	0	–	1	*
1030·4	+6	–	0	z$_o$	32	85	5	–	–	1	0	Tr	–	3	*
1030·7	+8	N'W	1	bf+	34	92	2	–	–	–	0	0	–	1	*
1029·7	+4	N'W	2	z$_o$	36	85	5	–	–	8	0	Tr	–	1	*
1028·7	+8	NW	1	z$_o$	34	92	5	–	–	–	0	0	–	1	§2
1028·6	+6	N'W	3	m	40	85	4	5	3	–	9	9+	3200	1	*
1028·9	+6	NW	2	b	35	85	5	–	4	–	0	1	–	1	*
1028·7	+6	NW	3	m	37	85	4	–	7	–	0	Tr	–	1	2
1028·2	+10	NW	2	z$_o$	42	85	6	5	–	–	4-6	4-6	1500	1	2
1029·4	+6	W'S	1	cf+	36	92	3	5	7	–	2-3	10	2400	0	*
1029·4	+6	W	2	bf	36	85	3	–	–	–	0	0	–	1	*
1030·1	+6	W	2	bf	37	92	3	–	–	–	0	0	–	1	*
1030·2	+6	–	0	m	33	97	4	–	–	–	0	0	–	3	*
1029·7	0	–	0	cf	35	92	2	5	–	–	7-8	7-8	3000	1	*
1030·1	+4	SE	1	c	45	75	7	5	–	–	9+	9+	2500	1	3
1030·6	+6	–	0	bcf	31	97	3	5	3	–	1	4-6	3000	1	*
1029·6	+6	NE	3	bc	39	92	7	5	–	–	4-6	4-6	2500	1	4
1030·5	+6	ESE	1	f	39	97	3	4	–	–	9+	9+	2500	1	1
1030·5	+4	–	0	c	45	85	8	8	–	–	7-8	7-8	2000	0	3
1030·3	+6	NE'N	2	c	47	75	8	8	3	3	4-6	9	1500	1	3
1030·5	+6	NNW	3	c	46	75	7	8	–	–	9	9	4000	1	1
1029·4	+10	WNW	1	c	46	75	8	5	–	–	10	10	4000	0	2
1029·4	+6	–	0	rf	40	92	3	5	–	–	10	10	3000	1	*
1029·5	+4	–	0	m	34	97	4	5	–	–	7-8	7-8	4500	3	*
1028·5	+4	WNW	1	b/m/f	41	85	6	–	–	–	0	0	–	0	3
1029·1	+4	–	0	m/f	33	92	4	5	–	–	4-6	4-6	2500	0	*
1028·3	+4	W	3	z$_o$	39	85	5	2	–	–	2-3	2-3	2500	1	3
1026·1	–6	SW	4	c	41	85	8	4	4	–	4-6	7-8	2500	0	2
1025·9	0	WSW	3	z$_o$	48	97	5	5	–	–	4-6	4-6	3500	1	*
1026·6	–2	–	0	oF	39	97	1	5	–	–	10	10	1800	1	*
1028·4	–2	–	0	f	33	97	2	–	–	–	10	10	150	1	*
1028·2	0	SW'W	2	c	43	75	8	5	1	–	7-8	7-8	4000	0	2
1024·0	–6	SW	4	c/r	47	97	6	–	2	–	10	10	1200	1	4
1018·8	–22	SSW	6	c/pr	49	97	7	5	7	–	7-8	9+	1500	1	3
1025·8	–4	WSW	2	c	41	92	7	5	2	–	7-8	10	2500	1	*
1024·6	–6	SW'W	2	m	38	75	4	5	–	–	1	1	1400	3	2
1021·9	–6	S'W	3	c	43	92	8	5	7	–	4-6	9	3000	1	*
1020·0	–10	SW	4	o	47	92	7	5	–	–	10	10	1500	1	4
1025·8	–2	SW	4	ir$_o$	50	92	7	6	–	–	10	10	1500	1	3
1024·5	–6	S	4	c	46	85	7	5	–	–	9	9	1500	1	4
1028·1	–10	S	2	z$_o$	43	92	6	5	–	–	10	10	1000	1	*
1028·8	0	SSW	1	c	43	85	8	5	–	–	7-8	7-8	4000	1	*
1029·5	+2	S'W	2	c	46	92	8	7	–	–	9	9	2500	1	4
1030·3	+6	W	2	c/pr	47	85	8	8	–	–	7-8	7-8	1500	1	8

PAST 24 HOURS.

Weather. 7h.—13h. 18th (37)	13h.—18h. 18th (38)	18h. 18th to 1h. 19th (39)	1h.—7h. 19th (40)
mxfrz$_o$	cz$_o$zmw	bcbfx	bbccfx
bcf	cmcf	bfx	bmxmf
bmxcbcz$_o$	bcz$_o$bmx	bmcbcfx	bcFxc
bmbcmx	bmf	bfxc	cfj
bmbcmx	bccbmx	bcmfg	fgcm$_o$
bcm$_o$	cmbmx	bcmx	bfx
bccm$_o$	cbcbmx	ccmbm$_o$	bmfx
m$_o$c	cz$_o$bmw	bbcm$_o$	bcm$_o$fx
pr$_o$bcm$_o$	cm$_o$bm	bmcm	cmbmx
bcc	bccm$_o$	bcz$_o$	bcm
bccm$_o$	bcmcf	cbcbfx	bfoFx
bcm	bmbf	bf	b$_o$F
FFbc	bczf	bfbc	fbcpr$_o$c
cfbcm	bcfcmbm	bmfbcf	cid$_o$m
Fbcf	bcmcf		cfcm
bc	bcc	cr$_o$c	c
bmFbc	bfbcf	bccf	cfir$_o$c
cbc$_o$	bc	bcbc	co
cmf	bmbcbm	bfxcd$_o$d$_o$m	cd$_o$d$_o$m
cbcc	cbcc	c	cpr$_o$c
cbcc	cbcc	c	c
bcc	c	pr$_o$c	prc
c	c	c	c
cFFx	cffr$_o$	cfr$_o$z	bcz$_o$cm$_o$
cfbc	bcm	cmfmf	fid$_o$c
bcm$_o$	bm	bcm$_o$	cm$_o$
emobc	bcmofbm	cml	cmf
bcm$_o$	bcm$_o$	bccm$_o$	cprm$_o$
bbc	bcc	c	c
bxbz$_o$	bmzbccm$_o$	bcmcm	cbcmcid$_o$
bfofd$_o$	fir$_o$cf	fcmir$_o$	idir$_o$m$_o$
bccx	oir$_o$f	cfir$_o$	ofeid$_o$
bbccc	c	cid$_o$c	cr$_o$r$_o$c
bc	cidr	odr	bcb
cpr	cpr	cpr	cpr
cid$_o$	co		cir$_o$
bcbz$_o$	bzbzx	bcx	bcpr
be	bcc	r$_o$eir	rrr$_o$rob
cbcc	c	r$_o$r$_o$m$_o$c	Rrrpr
c	r	d	cr
bc	c	c	cr
fgxbm$_o$	bm$_o$ccm$_o$	cm$_o$ir$_o$cm$_o$	id$_o$d$_o$d$_o$m$_o$
bc	bc	*	bcc
pr	pr	d	cr
bc	pr	bc	bcc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m, mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). #gale.
⊕ Solar halo. ☽ lunar halo. ⌓Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus: –bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† See disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

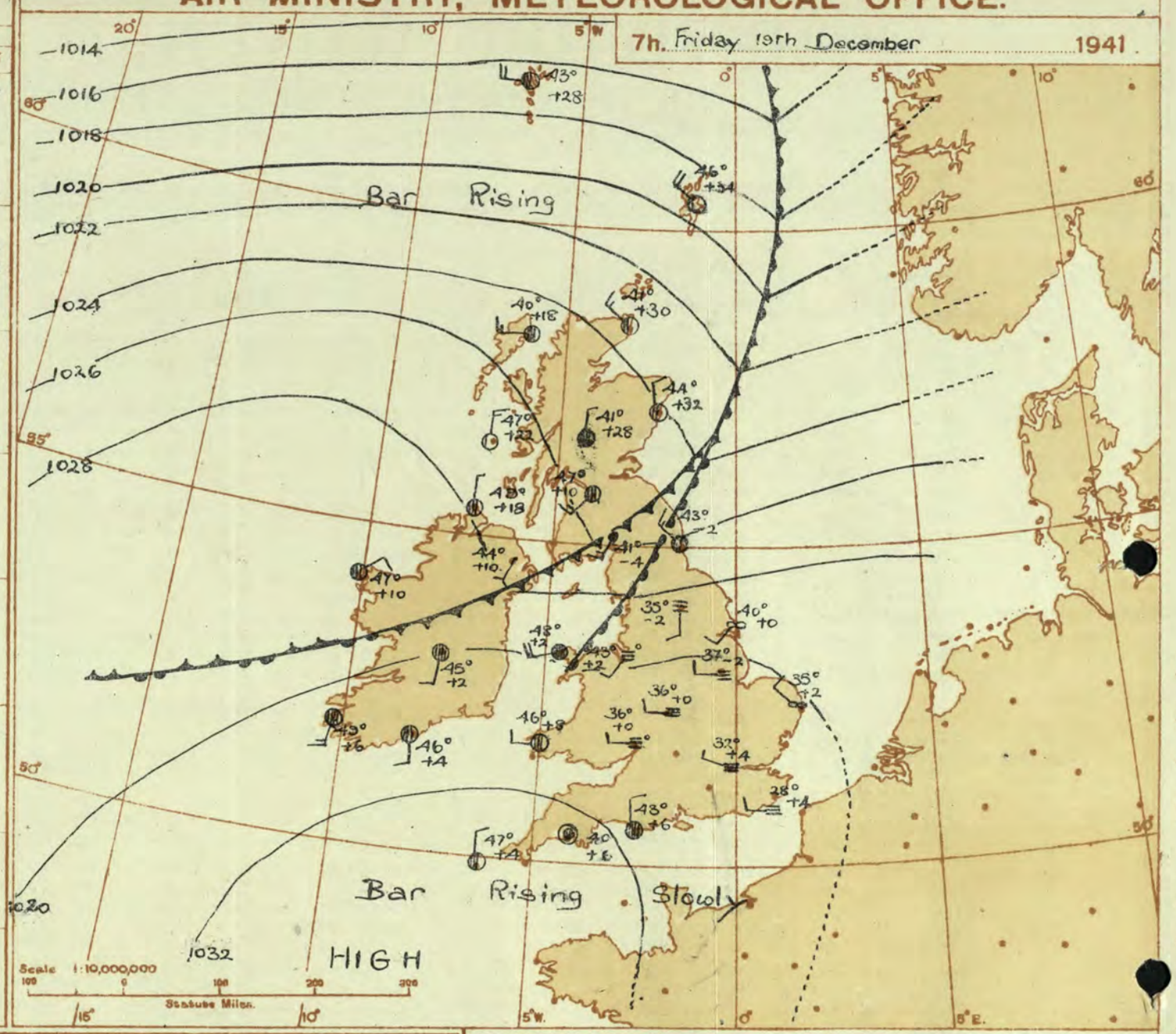
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Friday 19th December 1941

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 18th December. $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 19th December. $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN
109	5-	01753	18313	5-	02757	18427	5-	61638	17468	30	25844	26384
115				52	81734	20587	52	64735	20588	54	01844	28465
203	8-	02837	16527	7-	62838	16628	6-	64838	28368	05	00390	24313
206	54	02865	24116	5-	02864	00024	57	02856	20227	30	01863	28183
210	53	01963	17114	5-	02955	17225	51	01864	18225	50	00363	24263
220	80	25845	20487	52	58326	20358				58	01654	27114
230	5-	21647	20257	62	53634	18228	62	58635	18368	50	00852	28362
245	00	00890	23213	51	05662	24113	5-	41446	20477	5-	21755	22265
260	50	05666	00016	5-	05667	22217	50	01744	20224	5-	02748	20318
278	5-	05667	20127	8-	81746	22356	52	02745	21388	5-	22748	22368
279	5-	08457	00067	5-	43368	04148	5-	05556	19357	5-	51548	21468
285	23	01854	26415	23	01634	04314				50	05635	28415
288	00	05690	17113	50	05663	19114	5-	05568	22228	5-	05567	18167
575	53	02843	18124	5-	02747	18227	5-	21848	18158	5-	54648	26258
301	50	45264	10144	00	48105	08149	52	05555	24128	5-	05648	24368
321	00	43390	24144	00	45290	00040	5-	45366	14146	5-	08468	24148
299	54	05644	25214	50	05644	25214	50	01754	24214	50	47354	24244
292	04	01690	00014	00	05690	00010	5-	47266	12146	50	45163	10143
310	--	04435	26215							--	01636	20216
614	00	47390	24146				5-	47358	00048	5-	47268	24248
333	5-	05665	08215	5-	05658	00018	5-	01765	26125	57	02765	00027
334	--	02763	12204	--	05554	04215				--	03667	20128
340				50	47364	17144	5-	43368	08158	5-	08468	14168
136	53	05663	28326	03	05580	30124	00	47290	24140			
336	52	02753	32326	57	05543	32328				52	05643	04328
350				00	08490	20200	--	48209	20149	5-	45268	20148
368	00	01690	00015	50	05565	00015	5-	08448	00018	5-	05548	00028
379	03	05690	30114	03	05590	22113	5-	05566	26226	53	05564	24127
390	54	05674	30227	03	47390	26144	00	45390	26140	--	49109	00049
382	03	05580	20114	00	41490	00042	5-	43304	00044	57	08465	00028
438	5-	03458	02328									
430	03	05580	30326	00	05690	32313	00	05590	00012	5-	05567	26217
409	53	01763	00014	5-	05667	00017	5-	52668	02158	50	21755	02155

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Friday 19th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable or westerly wind; cloudy and misty with fog persisting in many places. Occasional slight rain later in North of area; cold, with frost in places at night.
5 S.W. England 6 South Wales ...	Light N.W. wind. Mainly cloudy. Average temperature.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Light westerly wind, veering N.W; cloudy, occasional rain; local fog; Average or rather low temperature.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light W. to N.W. wind. Cloudy with occasional rain at first. Bright intervals and local showers later. Rather cold, frost locally at night.
13A W. Scotland 13B N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light W. to N.W. wind; bright intervals, local showers. Rather cold, frost locally at night.
17 N. W. Ireland 18 N. E. Ireland	As 11 - 12.
19 S. E. Ireland 20 S. W. Ireland	Light S.W. to variable wind. Fair. Average temperature.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

A shallow trough of low pressure extending across southern Scotland and North Ireland will move slowly S.E. and gradually fade out. An anticyclone centred off S.W. England will spread northwards. There will be some local rain associated with the trough and some scattered showers in the north. Otherwise weather will be fair but with much mist or fog in Midland and S.E. districts.

FURTHER OUTLOOK.

Quiet anticyclonic conditions, with fog in many places.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

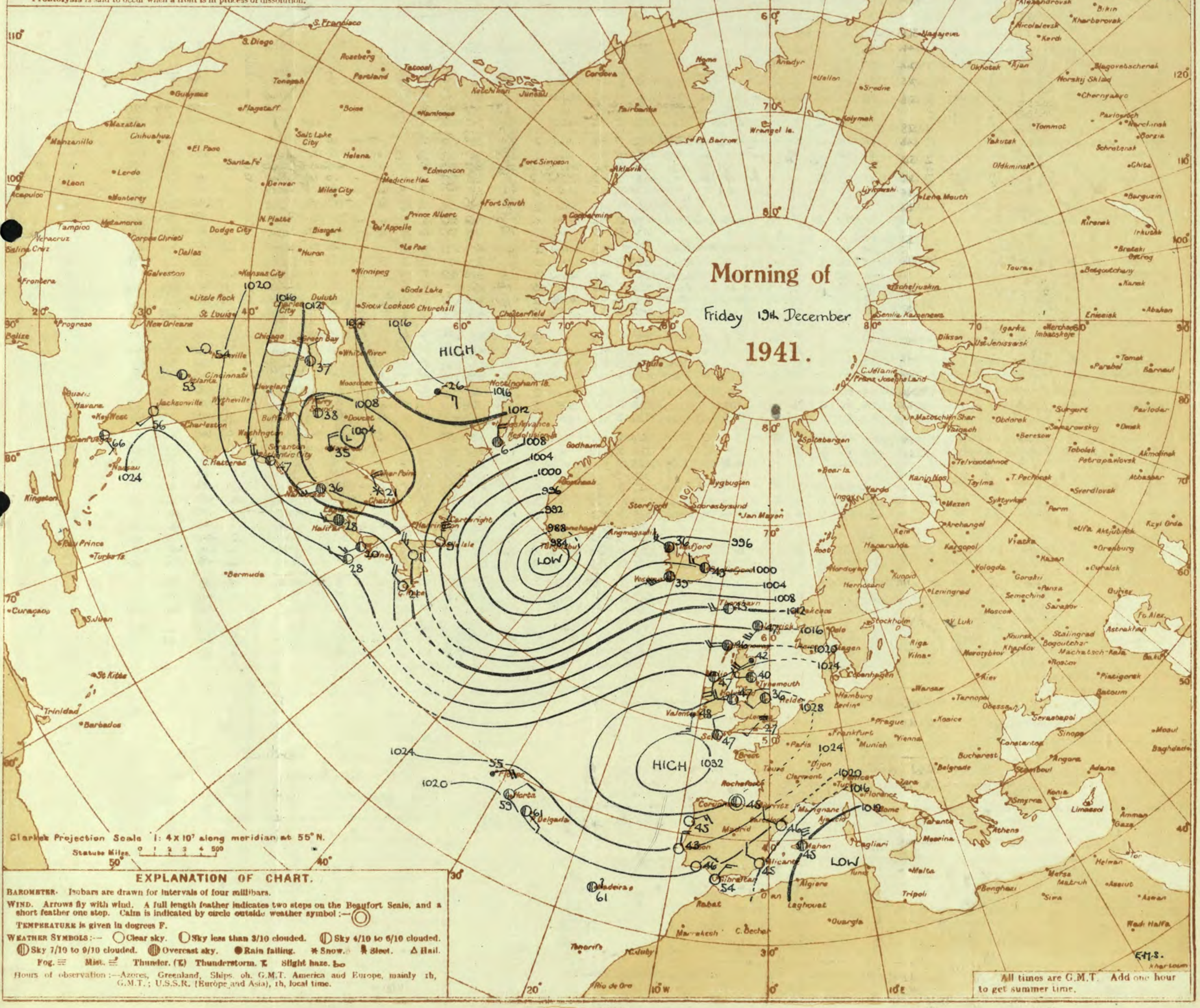
Warm Front. The air mass which moves towards this boundary is normally of tropical or sub-tropical origin, while that which moves away from it is normally of polar, sub-polar or maritime polar origin.

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.



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. T Slight haze.

Hours of observation :—Azores, Greenland, Ships. 0h. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 19th December 1941.

No. 29247

OBSERVATIONS at 1 hr. G.M.T. 19th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	31	*	*	*	*	*	*	*	*
	Croydon	217	1030·8	+2	SSW	1	f-	27	85	2	–	–	–	0	0	–
	S. Farnborough	226	1031·2	-4	–	0	bcf	29	97	2	–	3	–	0	4-6	–
	Boscombe Down	417	1031·4	-2	–	0	f-	33	92	3	5	–	–	9+	9+	3000
	Thorney Island	10	1031·2	-2	NW'N	3	fg	32	92	6	5	–	–	7-8	7-8	2800
	Lympne	346	1029·8	0	NW	2	m	37	85	4	5	–	–	4-6	4-6	3500
	Manston	154	1029·9	-2	NNW	2	z0	39	85	5	5	–	–	2-3	2-3	3500
2	Shoeburyness	11	1030·2	+2	–	0	bc	36	85	6	5	–	–	4-6	4-6	4000
	Felixstowe	15	1029·8	+2	NW	2	m	40	85	4	5	–	–	10	10	3500
	Gorleston	5	1029·6	0	NW'W	2	z0	40	85	5	5	–	–	10	10	1500
	Mildenhall	19	1030·5	+2	SW	2	bf	31	97	3	–	–	–	0	0	–
	Cranwell	240	1030·1	-2	W	1	bF	31	97	1	–	–	–	0	0	–
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1030·4	-2	W	1	bcf	31	97	3	5	–	–	4-6	4-6	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1030·5	-2	S	2	c	45	85	7	5	2	–	4-6	7-8	1500
	Bristol	209	1031·2	+2	–	0	f-	34	85	2	5	–	–	10	10	4100
	Portland Bill	32	1030·7	+4	NNE	2	bc	48	85	7	5	–	–	4-6	4-6	4000
	Plymouth	82	1031·7	+2	–	0	d0d0	37	92	4	5	–	–	10	10	2500
	The Lizard	240	1031·1	0	NE'N	2	c	45	85	8	5	2	–	7-8	10	1500
	Scilly (St. Mary's)	163	1031·4	+2	N'W	2	c	47	75	8	5	–	–	10	10	1500
	Guernsey	175														
6	Pembroke	142	1030·8	-4	WNW	3	c	48	75	7	8	6	–	7-8	10	4000
7	Holyhead (Valley)	26	1029·1	-2	W	3	c	47	75	7	5	–	–	10	10	3800
	Chester (Sealand)	16	1029·6	-4	SW'S	1	m	42	75	4	5	–	–	10	10	3800
8	Manchester	235	1030·0	-2	WSW	2	of	37	97	3	5	–	–	10	10	2500
10	Spurn Head	29	1029·1	+6	SW	1	b	36	97	6	4	–	–	Tr	Tr	5700
	Catterick	175	1028·5	-10	SSW	1	m	35	92	4	5	1	–	9+	10	3600
	Tynemouth	108	1027·5	-10	W	2	z0	40	85	5	2	–	–	7-8	7-8	1500
11	St. Abbs Head	280	1023·6	-16	SW	4	c	41	85	7	5	2	–	9	10	2500
	Leuchars	36	1024·7	-6	WSW	3	m	42	92	4	5	–	–	10	10	3200
12	Renfrew (Abbots I.)	19	1024·9	-12	SW'S	3	ir0	46	92	5	5	–	–	7-8	10	1500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1027·5	-6	W'S	3	c	46	85	8	5	7	–	4-6	7-8	3000
13A	Tiree	22	1022·2	0	NW	4	dd	47	97	7	–	2	–	10	10	1500
13B	Stornoway	80	1020·4	+22	W	4	c/pr	46	92	7	5	7	–	7-8	9+	1500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	43	*	*	*	*	*	*	*	*
	Wick	119	1018·8	-14	SSW	4	ir	45	85	8	5	7	–	4-6	10	4000
16	Sumburgh	30	1016·6	-20	WSW	4	z0	47	97	6	5	–	–	10	10	1200
17	Blacksod Point	18	1025·9	+2	S	4	dr	50	97	7	6	–	–	10	10	800
18	Malin Head	84	1024·2	-2	SSW	4	c/pr	47	92	7	9	–	–	9	9	1500
	Aldergrove	268	1027·3	-6	S'W	3	id0	44	97	6	5	–	–	10	10	500
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1030·1	-2	S'W	3	id0	48	97	6	5	–	–	10	10	800
	Roches Point	22	1030·8	-4	W'S	2	c	43	97	8	5	–	–	7-8	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 19th December — PAST 24 HOURS

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temp. Max. Day 7h–18h °F. (31)	Temp. Min. Night 18h–7h °F. (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 18th Hrs. (36)
1	London (Kew)	1031·5	+10	W	1	cf	30	85	2	5	–	–	9+	9+	2500	1	*	42	30	17	–	Tr	4·1
	Croydon	1031·3	+4	WNW	1	f-	32	97	2	–	3	–	0	9+	–	3	*	39	27	23	Tr	Tr	0·0
	S. Farnborough	1031·6	+2	W	1	f-	32	85	2	5	7	–	7-8	7-8	2500	3	*	40	25	17	0·1	Tr	0·2
	Boscombe Down	1032·3	+8	WNW	1	bf+	34	97	3	5	–	–	10	10	3500	1	*	39	31	21	–	Tr	*
	Thorney Island	1031·7	+6	NW'N	2	z0	33	97	5	5	–	–	9+	9+	2500	1	*	43	30	22	–	–	*
	Lympne	1030·6	+4	W	2	f-	29	92	3	–	–	–	0	0	–	3	§2	43	27	21	–	–	1·4
	Manston	1030·7	+6	NW	2	f-	34	92	2	–	–	–	0	0	–	1	*	44	33	28	–	–	1·8
2	Shoeburyness	1030·7	+8	NW	2	f+	33	97	2	–	–	–	10	10	<150	1	*	43	32	21	–	–	1·5
	Felixstowe	1030·8	+10	NW	2	bf+	34	92	3	5	–	–	Tr	Tr	3500	1	1	45	33	30	Tr	–	1·4
	Gorleston	1029·8	+2	NW'W	2	z0	35	85	5	5	–	–	4-6	4-6	1500	0	2	46	35	32	–	–	*
	Mildenhall	1030·8	+2	SW'W	2	F	30	97	1	–	–	–	10	10	<150	0	*	42	29	22	–	Tr	0·7
	Cranwell	1030·0	-2	W	2	f-	37	92	3	5	–	–	10	10	4000	1	*	42	30	26	–	Tr	2·5
3	Birmingham	1030·5	0	W	2	cf	36	85	2	5	–	–	9+	9+	2500	1	*	42	34	22	–	0·2	2·7
	Upper Heyford	1030·9	+2	–	0	c/d	36	92	4	5	–	–	9	9	5000	1	*	38	29	26	–	Tr	*
4	Ross-on-Wye	1031·2	0	W	1	m	36	97	4	5	–	–	10	10	3000	1	*	41	34	26	–	–	4·6
5	Hartland Point	1031·5	+6	WNW	2	c	47	65	8	5	1	–	7-8	9	1500	1	3	47	44	41	–	0·5	3·1
	Bristol	1032·2	+6	–	0	f-	37	97	3	5	–	–	10	10	2500	1	*	35	27	23	–	Tr	0·0
	Portland Bill	1031·2	+6	NNW	2	o	43	92	7	5	–	–	10	10	2500	1	4	42	37	*	–	–	*
	Plymouth	1032·1	+6	–	0	id0	40	97	4	5	–	–	10	10	3000	1	3	47	35	30	–	Tr	(*)
	The Lizard	1032·6	+12	NNE	2	c/pr	44	85	7	8	6	–	7-8	7-8	1500	1	3	51	43	*	0·3	Tr	1·7
	Scilly (St. Mary's)	1032·0	+4	N'W	2	c	47	75	8	8	7	–	7-8	10	1200	1	3	51	47	*	–	–	2·1
	Guernsey																						
6	Pembroke	1031·8	+8	W	2	c	46	97	7	8	–	–	7-8	7-8	4000	1	2	43	42	*	–	1	1·2
7	Holyhead (Valley)	1029·1	+2	WSW	4	c	48	75	7	5	–	–	10	10	3100	0	3	43	45	44	–	–	*
	Chester (Sealand)	1028·6	+2	SW'S	1	m	43	85	4	5	–	–	10	10	3000	1	*	40	38	30	Tr	0·2	0·0
8	Manchester	1029·8	0	SSW	3	z0	39	85	6	5	–	–	10	10	3000	1	*	39	33	31	–	0·1	*
10	Spurn Head	1029·1	0	SW	2	z0	40	92	5	2	–	–	10	10	2500	0	3	42	35	*	Tr	–	1·5
	Catterick	1028·1	-2	S'E	2	cf+	35	97	2	5	1	–	7-8	7-8	3000	0	*	41	34	33	–	–	3·8
	Tynemouth	1026·5	-2	NW	3	c/pr	43	85	5	8	–	–	9+	9+	1500	1	3	40	38	34	–	Tr	*
11	St. Abbs Head	1024·4	+4	SW	4	c	45	85	7	5	4	–	7-8	9+	2500	0	3	44	38	*	–	–	*
	Leuchars	1024·7	+12	W	3	id0	46	92	4	5	–	–	7-8	7-8	1500	1	*	41	38	34	–	0·2	3·2
12	Renfrew (Abbots I.)	1025·5	+10	SW'W	3	c/r	47	92	6	5	–	–	7-8	7-8	2500	1	*	39	38	38	0·3	0·6	0·0
	Eskdalemuir	1025·9	-4	SW'S	3	id0	41	97	4	–	2	–	10	10	2500	1	*	33	33	33	Tr	0·4	0·0
	Point of Ayre	1027·5	0	W	4	o/r	47	97	7	6	2	–	7-8	10	1500	1	3	46	42	*	–	1	0·0
13A	Tiree	1027·0	+22	N	3	b	47	65	8	1	–	–	1	1	3500	0	4	48	46	*	1	2	1·2
13B	Stornoway	1025·3	+18	W	3	c	40	92	7	5	7	–	7-8	9+	2000	1	1	49	40	*	0·3	2	0·0
15	Dalwhinnie	1025·6	+28	N	1	c	41	85	8	5	–	–	9	9	1500	1	*	41	40	35	Tr	1	0·1
	Aberdeen	1024·6	+32	NNW	2	bc	44	82	7	8	–	–	2-3	2-3	2600	1	2	44	36	29	–	0·6	3·3
	Wick	1023·9	+30	NW'W	3	bc	41	75	8	2	–	–	1	2-3	3500	1	*	44	40	37	–	2	*
16	Sumburgh	1021·0	+34	NW'W	4	b	46	75	8	8	–	–	Tr	Tr	1500	1	*	48	44	40	0·5	8	0·5
17	Blacksod Point	1027·9	+10	ENE	2	c/r	47	97	7	5	–	–	9	9+	800	1	*	50	45	*	0·2	*	*
18	Malin Head	1027·8	+18	N	1	c	49	75	7	9	–	–	9	9	1500	1	4	47	45	*	0·1	0·1	0·0
	Aldergrove	1028·0	+10	SW'S	1	d0d0	44	97	5	5	–	–	10	10	200	1	*	44	42	40	Tr	0·1	3·6
19	Birr Castle	1029·3	+2	SSW	2	o	45	92	8	5	–	–	10	10	2500	1		49	40	39	–	–	3·1
20	Valentia Obsy.	1030·7	+6	S'W	3	o/r	49	97	6	5	–	–	10	10	800	1	3	49	46	44	0·3	0·5	*
	Roches Point	1031·2	+4	S	2	c	46	97	8	5	–	–	9	9	1500	1	4	50	*	*	Tr	0·1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	mxfcz0	cz0zmw	bcfxf	42	30	17	–	Tr	4·1	*	*	2
Croydon	217	bcf	cmcf	bfkmf	39	27	23	Tr	Tr	0·0	*	*	1
Greenwich (Royal Observatory)	149	bcm	cmbf	bxff	42	28	18	–	Tr	0·1	68	92	3
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	44	30	28	–	–		77	99	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	43	31	22	–	–		75	86	*
Camden Square	110	bc	bc	*	43	31	27	–	–	*	*	98	*
Kensington	80	bcz	bcz	*	44	31	23	–	–		66	95	*
Hampstead Observatory	450	bc	bc	ofx	41	30	25	–	–		*	98	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 19th

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
1·1	20h 18th	0·3	8h 18th

FOREIGN OBSERVATIONS.

Stations	Evening of 18th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 19th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	996·8	SW'S	5	c/phr	39	1006·6	S	3	prs	38	*	*	*	*
Lisbon (18h and 07h)	1020·5	NE	3	b	50	1024·1	NNE	4	b	39	54	*	–	*
*Madrid (18h and 07h)	904·1	N	4	bc	41						46		–	
Cairo (Heliopolis) (18h and 06h)	1021·6	S	2	bc	57	1022·8	–	0	b	50		47		–
Toronto (13h and 01h)														
Washington (13h and 01h)														

*Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

§ Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

Objects not visible at

Code		Distance
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

SECRET

THE DAILY WEATHER REPORT

AIR MINISTRY. OF THE METEOROLOGICAL OFFICE, LONDON. BRITISH SECTION

Saturday 20th December 1941. No. 29248

OBSERVATIONS at 13h. G.M.T. 19th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1032·6	+2	SW'W	1	f-	39	92	2	5	-	-	9+	9+	4000
	Croydon	1032·4	-2	SSE	1	cf-	39	92	3	5	-	-	9+	9+	4500
	S. Farnborough	1032·8	-2	W'S	2	z_o	40	85	5	5	-	-	9+	9+	4200
	Boscombe Down	1032·9	-2	-	0	m	41	92	4	5	-	-	9+	9+	4000
	Thorney Island	1032·6	-2	NW	1	m	42	85	4	5	-	-	10	10	4000
	Lympne	1031·7	-4	NNW	1	f	33	92	0	-	-	-	10	10	4150
	Manston	1032·0	-2	WNW	2	F	35	97	1	-	-	-	10	10	4150
2	Shoeburyness	1031·9	-4	W	1	f	39	92	3	5	-	-	10	10	3500
	Felixstowe	1031·6	-6	NW'W	3	m	37	92	4	5	-	-	9+	9+	4000
	Gorleston	1030·9	0	W	2	c/f	35	92	5	5	3	-	4-6	9+	1200
	Mildenhall	1031·5	-2	SW'S	2	m	38	97	4	5	-	-	9+	9+	3600
	Cranwell	1030·9	+2	W	3	m	43	85	4	5	-	-	10	10	4000
3	Birmingham	1031·8	+2	W	2	c	45	75	6	-	7	-	0	9	-
	Upper Heyford	1031·7	-2	W	1	z_o	44	75	6	5	-	-	4-6	4-6	4500
4	Ross-on-Wye	1031·8	0	SW	2	c	45	85	8	5	-	-	10	10	3500
5	Hartland Point	1033·1	+2	WNW	2	c/d	47	85	9	8	6	-	4-6	9	2500
	Bristol	1032·7	-2	NW	2	z_o	46	85	6	5	3	-	9	9+	3600
	Portland Bill	1032·5	+2	N	2	c	48	92	7	5	-	-	10	10	2500
	Plymouth	1033·8	+2	NW	1	z_o	48	75	5	5	-	-	9	9	5000
	The Lizard	1033·5	+4	-	0	bc	51	65	8	8	4	-	4-6	4-6	2500
	Scilly (St. Mary's)	1033·1	+6	-	0	c	50	75	9	5	4	4	2-3	7-8	1500
	Guernsey														
6	Pembroke	1033·0	+6	W'N	3	c	50	97	8	8	-	-	9+	9+	2500
7	Holyhead (Valley)	1030·9	0	SW'S	2	dd	48	97	5	5	-	-	10	10	400
	Chester (Sealand)	1031·2	+6	-	0	id.	49	85	6	5	-	-	10	10	1500
8	Manchester	1031·5	+2	SSW	2	id.	42	92	4	5	-	-	10	10	1500
10	Spurn Head	1030·1	+2	W	1	df	43	85	3	-	2	-	7-8	7-8	1100
	Catterick	1030·5	+14	ENE	1	c	47	85	7	5	-	-	7-8	9+	3500
	Tynemouth	1029·8	+16	NW	4	c/r	47	85	7	5	-	-	7-8	7-8	2600
11	St. Abbs Head	1029·9	+10	NW	3	bc	45	85	8	4	4	-	2-3	4-6	2500
	Leuchars	1030·5	+20	WNW	1	b	47	75	8	-	3	-	0	Tr	-
12	Renfrew (Abbotsl.)	1030·3	+14	-	0	z_o	47	75	6	5	3	6	4-6	7-8	3000
	Eskdalemuir	1030·1	+14	-	0	c	43	97	6	5	-	-	7-8	7-8	1500
	Point of Ayre	1030·8	+10	N'E	3	b	49	85	8	2	4	-	Tr	1	1000
13A	Tiree	1030·1	+8	-	0	bc	46	85	8	1	3	6	2-3	2-3	3500
13B	Stornoway	1029·1	+6	SW	2	c	44	92	8	1	4	6	Tr	9+	3500
15	Dalwhinnie	1032·2	+20	-	0	b	42	75	8	-	4	-	0	Tr	-
	Aberdeen	1030·0	+20	WNW	3	b	43	75	6	-	-	-	0	0	-
	Wick	1029·2	+22	W'S	3	b	41	85	9	2	-	-	1	1	2500
16	Sumburgh	1026·0	+26	NW	4	bc	46	75	8	8	-	-	4-6	4-6	2500
17	Blacksod Point	1029·2	0	E	1	dr	48	97	6	6	-	-	10	10	800
18	Malin Head	1030·6	+10	NE	1	bc	49	75	8	-	-	1	0	2-3	-
	Aldergrove	1031·6	+10	-	0	c/f	48	92	7	7	-	-	9	9	3000
19	Birr Castle	1030·9	+6	SSW	1	c	48	92	8	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1032·3	+2	SSW	4	c	50	92	8	5	-	-	10	10	1500
	Roches Point	1032·8	0	SSW	2	c	49	92	8	5	•	5	7-8	9	1500

OBSERVATIONS at 18h. G.M.T. 19th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base. (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1033·9	+10	SW'S	2	cf	41	92	2	5	-	-	10	10	4000	1	*
	Croydon	1033·1	+10	SW	1	f	40	92	3	5	-	-	10	10	4800	1	*
	S. Farnborough	1034·1	+6	-	0	z_o	39	97	3	5	-	-	9+	9+	4000	1	*
	Boscombe Down	1034·2	+14	-	0	of	43	85	3	5	-	-	10	10	2400	1	*
	Thorney Island	1033·8	+10	NNW	1	m	41	92	4	5	-	-	9+	9+	4000	1	*
	Lympne	1033·2	+10	-	0	F+	35	97	1	5	-	-	10	10	3500	*	§2
	Manston	1033·0	+6	W'N	1	F+	39	92	1	-	-	-	10	10	4150	1	*
2	Shoeburyness	1033·0	+6	W	1	F.	41	85	1	-	-	-	10	10	4150	1	*
	Felixstowe	1032·8	+8	W'N	2	ir.	41	85	4	5	-	-	10	10	1800	1	
	Gorleston	1031·4	+8	NW	2	F	40	85	1	-	-	-	10	10	4150	0	2
	Mildenhall	1032·5	+6	W	2	df	41	97	3	-	-	-	10	10	4150	1	*
	Cranwell	1033·1	+18	W	1	F	42	97	1	-	-	-	10	10	4150	1	*
3	Birmingham	1033·5	+12	W	1	rf	44	92	2	-	-	-	10	10	4150	1	*
	Upper Heyford	1033·5	+14	WNW	2	df	43	92	3	5	-	-	10	10	2000	1	*
4	Ross-on-Wye	1032·2	+8	WSW	1	c	45	92	8	5	-	-	10	10	2500	1	*
5	Hartland Point	1034·1	+6	WNW	2	c/d	47	92	8	5	6	-	4-6	9	1500	1	3
	Bristol	1035·1	+18	WNW	1	m	44	92	4	5	1	-	4-6	7-8	4000	1	*
	Portland Bill	1033·7	+12	NNW	2	c	47	92	7	5	-	-	10	10	2500	1	4
	Plymouth	1034·8	+10	-	0	id.	46	92	4	5	-	-	10	10	3000	1	2
	The Lizard	1034·3	+4	NNE	2	c	46	75	8	8	6	-	7-8	7-8	1500	0	3
	Scilly (St. Mary's)	1034·3	+2	-	0	c	45	75	8	8	6	4	4-6	7-8	1500	1	2
	Guernsey																
6	Pembroke	1034·0	+10	WNW	3	c	49	97	7	8	6	-	7-8	10	2500	1	2
7	Holyhead (Valley)	1032·7	+2	-	0	c	47	97	7	5	-	-	10	10	500	1	2
	Chester (Sealand)	1033·1	+14	-	0	df	47	92	2	-	-	-	10	10	4150	1	*
8	Manchester	1033·6	+18	-	0	dF	43	97	1	-	-	-	10	10	4150	2	*
10	Spurn Head	1032·3	+16	NNW	3	z_o	45	97	5	8	-	-	9+	9+	1500	1	2
	Catterick	1034·2	+22	NW'N	1	bf+	43	85	3	5	-	-	1	1	3500	1	*
	Tynemouth	1032·9	+14	N	3	bc	44	85	7	-	4	-	0	2-3	-	1	3
11	St. Abbs Head	1032·1	+2	NW	1	bc	44	65	8	4	4	-	1	2-3	2500	0	2
	Leuchars	1033·4	+22	-	0	z_o	35	92	6	-	-	-	0	0	-	1	*
12	Renfrew (Abbotsl.)	1033·5	+18	-	0	f	33	97	2	-	-	-	10	10	4150	1	*
	Eskdalemuir	1033·9	+16	-	0	b	35	92	8	5	-	-	Tr	Tr	1500	3	*
	Point of Ayre	1032·7	+18	-	0	bc	40	97	8	5	-	-	4-6	4-6	2000	1	1
13A	Tiree	1030·4	+4	-	0	b	37	92	8	-	-	-	0	0	-	0	2
13B	Stornoway	1029·9	+2	S	3	b	43	88	8	2	-	-	1	1	3500	1	1
15	Dalwhinnie	1033·2	+12	NW	1	b	37	85	8	2	-	-	Tr	Tr	4000	3	*
	Aberdeen	1032·8	+18	NW	1	m	36	85	4	-	4	-	0	Tr	-	3	
	Wick	1031·2	+14	SW	1	bc	37	85	9	-	4	2	0	4-6	-	1	*
16	Sumburgh	1029·2	+18	WNW	2	pr	47	75	7	8	-	-	9	9	2500	1	4
17	Blacksod Point	1029·8	+12	SW	4	d	51	97	6	6	-	-	10	10	800	1	3
18	Malin Head	1031·1	+6	SSE	3	bc	42	92	8	4	-	-	4-6	4-6	4000	1	3
	Aldergrove	1032·9	+10	SE'E	1	z_o	42	97	5	5	5	1	7-8	9+	1800		*
19	Birr Castle	1032·1	+6	SSW	1	c	47	92	8	5	1	-	7-8	10	2500	1	*
20	Valentia Obsy. †	1032·7	+4	S'E	3	c/r	49	97	8	5	-	-	9	9	1500	1	3
	Roches Point	1033·9	+10	SW'S	2	c	47	92	8	5	7	-	7-8	9+	1500	1	

PAST 24 HOURS.

District	Stations. (For heights see p. 4.)	Weather. 7h.–18h. 19th (37)	Weather. 13h.–18h. 19th (38)	Weather. 18h. 19th to 1h. 20th (39)	Weather. 1h.–7h. 20th (40)
1	London (Kew)	Fxcff	cff	ofefe	ofeFe
	Croydon	cFcf	cm	cfoF do	ofe bx
	S. Farnborough	cfxmmo	cmo	cmowf do	ofd obcmo
	Boscombe Down	cmocm	cf	cfdf	oFF
	Thorney Island	cmocm	cmmocm	cm	cm
	Lympne	bfoF	pfff	oFFFd	FeFdf
	Manston	bFoF	cfoF	oF df	cfbmw
2	Shoeburyness	fefc	cfoF	oFF	oF bmx
	Felixstowe	fFcm	cmigm	omoid of	ofcf bmo
	Gorleston	f	cfoFdd	oFFc	bcmow
	Mildenhall	ofcm	cmofdd	oFcf	cfFoFe
	Cranwell	cm	dodoF	oFido	oFe
3	Birmingham	fc	cofr	irff	ff
	Upper Heyford	mebcmo	emocm	idmfF	oFofe
4	Ross-on-Wye		c	comfdo	ofFe
5	Hartland Point	cid.	cdo	cidc	cirid
	Bristol		cmo	ofdodo	ofdodc
	Portland Bill	c	e	c	o
	Plymouth	id.bcmcf	cmo	cidom	ddodmo
	The Lizard	cbc	e	bcc	bcc
	Scilly (St. Mary's)	cbc	c	cbcc	cbc
	Guernsey				
6	Pembroke	proe	id.e	cbc	bcc
7	Holyhead (Valley)	cdodm	bmoc	cidcmo	cid
	Chester (Sealand)	iroemc	crodmof	offdodo	offdof
8	Manchester	cmoid.	dorF	dodof	fcm
10	Spurn Head	cm	ofcm	cmif	bmff
	Catterick	cfirbc	ehfbf	bfmbfx	bfffx
	Tynemouth	cifir.	cbcb	bmo	bofff
11	St. Abbs Head	cbc	bc	bc	bcc
	Leuchars	id.m.c,b	bbmo	bmobmx	bmxbcmo
12	Renfrew (Abbotsl.)	bcmo	cmofx	ofxbF	Fcdodm
	Eskdalemuir	bdofcbc	bcfbcbx	bx	bxofd
	Point of Ayre	rorobcb	b	bcbc	cidoc
13A	Tiree	bbc	bcb	bccodo	bccodo
13B	Stornoway	cbcc	cb	b,c	cpro
15	Dalwhinnie	cbc	bc		bFidoo
	Aberdeen	bbzo	bzobzx	bzxb	bczo
	Eskdalemuir	bcprob	b,cbc	c,bbc	bcc
16	Sumburgh	bbc	bccpr.	prbc	bcc
17	Blacksod Point	r	d	d	d
18	Malin Head	bbc	bo	c	bc
	Aldergrove	dofFcjf		dodmocmocmoc.	
19	Birr Castle	r	rc	*	bc
20	Valentia Obsy. †	d	rc	pr	pr
	Roches Point	d	bcc	r	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

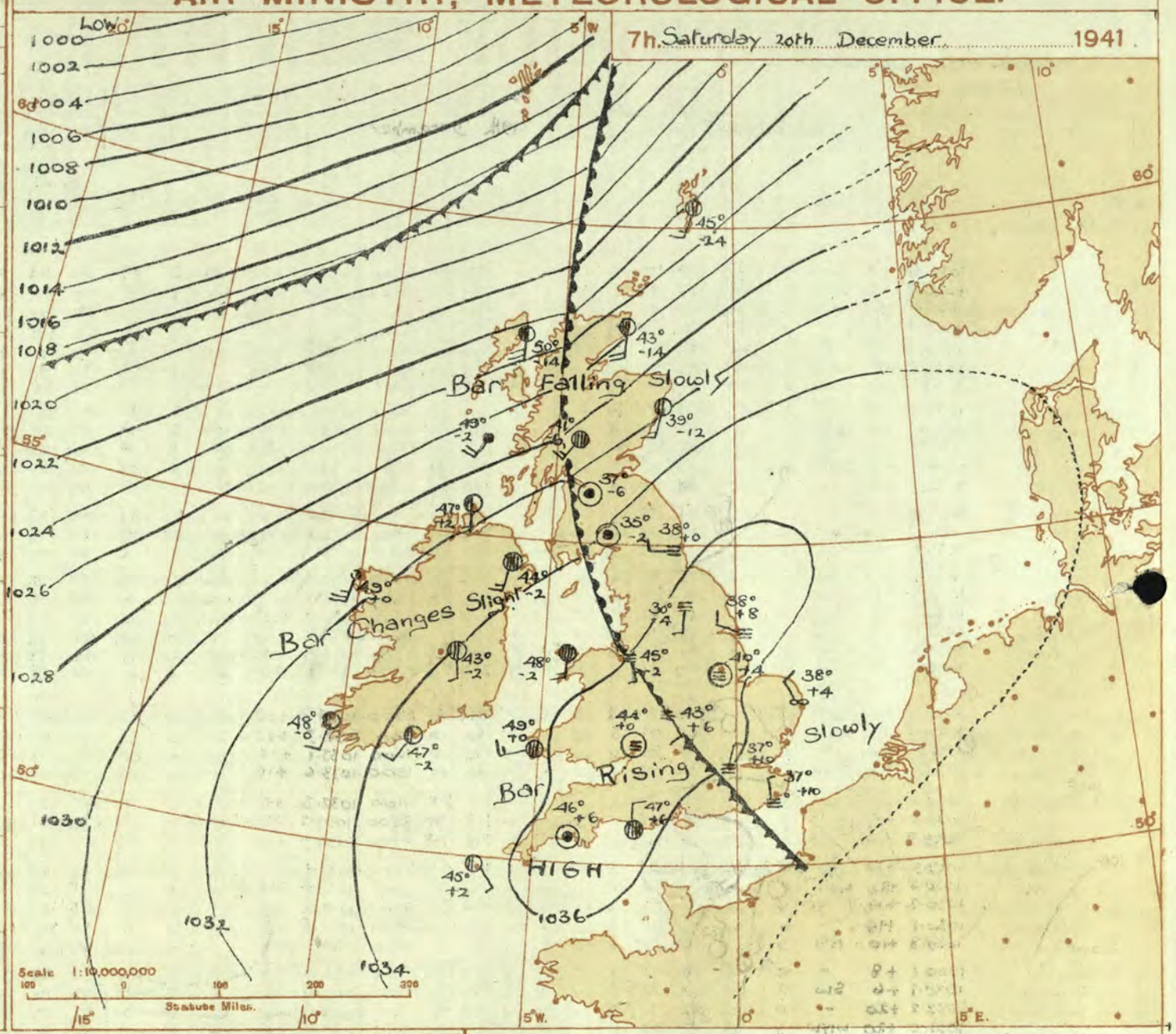
7h. Saturday 20th December 1941

Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. 19th Dec. ..... 18h. G.M.T. | 01h. G.M.T. 20th Dec. ..... 07h. G.M.T.

III	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN
109	40	01853	26313	50	02855	21325	00	05790	17406	5-	02757	51527
115				54	02944	20325	52	02844	20326	52	81844	20587
203				50	01944	16424	5-	02848	16408			
206	50	00961	26113	5-	01763	00013	00	00790	00000	5-	02855	00025
210	50	00861	20301	00	00890	16212	00	00890	12303	57	01863	16215
220	50	01954	12104	50	01654	13104						
230	00	00890	10103	00	00890	00001	51	52647	16258	51	52647	19458
245	50	00941	28201	50	00761	23111	00	05590	23100	5-	08448	25118
260	5-	05673	00023	00	47290	00040	00	43290	00040	5-	21548	00058
278	20	00951	30301	00	08490	12103	5-	51638	14258	5-	02748	18258
279	50	05654	00024	00	41490	06340	5-	08428	00028			
285	5-	05638	32428	50	00852	02212				5-	05637	30327
288	52	57344	24168	5-	45364	30144	00	08490	16100	00	47190	20140
575	5-	02748	10158				5-	02747	24257	57	02744	20328
301	02	52508	24258	--	46209	00058	--	44309	12259	--	57109	10159
321	5-	05568	24228	5-	43248	26158				5-	47348	14148
299	5-	47238	22258	50	00751	32301				5-	01753	24113
292	02	51668	23248	5-	05546	28156	00	45190	00040	5-	47348	13148
310	--	57109	20249	--	57209	20249				--	46109	20249
614	5-	22477	24267	57	21144	00056	5-	45338	00048	5-	47348	02128
333	5-	54518	00058	5-	41628	00048	5-	57148	00058	5-	47248	00058
334	--	03646	28228	--	03546	28228						
340	5-	02758	16128	5-	05648	00028	--	57109	09159	--	57109	14359
136	5-	08467	22147	--	57109	24359	5-	05641	32251	00	45290	00040
336	52	02753	04327	52	05544	24328				--	57109	28349
350	5-	08468	21248	52	21448	24158	--	46009	00059	5-	43248	00048
368	5-	05668	24168	5-	51748	25158				5-	45238	00058
379	5-	02765	24125	5-	05547	24117	5-	21428	28158	--	46109	00049
390	5-	43268	00048	5-	45258	25148	--	44109	28159	04	43290	26142
382				5-	08458	00028	5-	08428	28128	5-	41438	00048
438	5-	04768	30218							5-	01635	06415
430	5-	08467	30127	5-	05568	00028	5-	05538	32248	5-	05545	02426
400	5-	02966	18127	5-	02844	30166	5-	01753	00023	5-	02758	04118

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Saturday 20th December.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 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 16 Orkneys and Shetlands 17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light variable wind, fog persisting in many areas, but some clearances on East coast, rather cold. Light variable wind; dull locally with slight drizzle, but mainly fair; fog locally inland rather low to average temperature Light variable wind becoming light westerly; dull with light drizzle locally. Some bright intervals; fog in many places especially at night. Moderate southwest wind, fresh or strong in North; cloudy. Slight rain or drizzle; rather mild. As 7- 11 Moderate southwest wind mainly cloudy, but bright intervals rather mild As 12- 13 Light or moderate southwest winds. Fair. Rather mild.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone covers most of England and Ireland. Pressures is low near Iceland and a trough is moving northeast across Scotland. It will continue foggy over much of England. In North and West Scotland weather will be cloudy and mild, with occasional rain, but it will be fair in East Scotland and in Ireland.

FURTHER OUTLOOK.

No great change.

Forecasts issued at 10·30 G·M·T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Saturday 20th December

1941.

Clarke's Projection Scale 1: 4 x 10⁷ 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. (Ł) Thunderstorm. Ł Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), th, local time.

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

Page 4. AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Saturday 20th December 1941.
No. 29248.

OBSERVATIONS at 1 hr. G.M.T. 20th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	43	*	*	*	*	*	*	*	*
	Croydon ...	217	1034·6	+2	W	1	F+	41	97	1	–	–	–	10	10	<150
	S. Farnborough	226	1035·6	+6	–	0	df	41	97	2	5	–	–	10	10	300
	Boscombe Down	417	1035·7	+4	–	0	df	43	97	2	5	–	–	10	10	<150
	Thorney Island	10	1035·3	+6	NW	1	m	43	92	4	5	–	–	10	10	1100
	Lympne ...	346	1034·0	0	NW	2	F+	40	97	0	–	–	–	10	10	<150
	Manston ...	154	1034·3	+2	NNW	2	f	43	97	2	–	–	–	10	10	<150
2	Shoeburyness ...	11	1034·5	+6	–	0	F	43	92	1	–	–	–	10	10	<150
	Felixstowe ...	15	1034·5	+6	NW'N	2	f–	43	97	3	5	–	–	10	10	1700
	Gorleston ...	5	1034·2	+16	N'E	2	z_0	44	85	6	8	–	–	7-8	7-8	1500
	Mildenhall ...	19	1035·3	+14	N'W	1	f–	41	97	3	5	–	–	10	10	1800
	Cranwell ...	240	1036·0	+10	NW	2	F+	37	97	1	–	–	–	10	10	<150
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1035·5	+6	W	1	F	42	97	1	–	–	–	10	10	<150
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1035·9	+8	NW	2	c	47	92	8	5	1	–	2-3	7-8	2500
	Bristol ...	209	1036·1	+6	–	0	of+	44	97	2	5	–	–	10	10	1200
	Portland Bill ...	32	1035·1	+6	NNW	2	c	46	92	7	5	–	–	9	9	4000
	Plymouth ...	82	1036·2	+6	–	0	id_0	45	97	4	5	–	–	9	9	2000
	The Lizard ...	240	1036·2	+4	NNE	2	c	45	85	8	8	6	–	7-8	7-8	1500
	Scilly (St. Mary's)	163	1035·9	0	–	0	c	45	85	8	5	4	–	4-6	7-8	1500
	Guernsey ...	175														
6	Pembroke ...	142	1036·0	+6	W'S	3	bc	48	97	7	5	–	–	4-6	4-6	2500
7	Holyhead (Valley)	26	1034·5	+6	SSW	1	z_0	47	97	6	5	–	–	10	10	1200
	Chester (Sealand)	16	1035·7	+10	–	0	of	46	97	1	–	–	–	10	10	<150
8	Manchester ...	235	1035·9	+10	–	0	f	42	97	2	–	–	–	10	10	<150
10	Spurn Head ...	29	1035·3	+14	NW'N	1	bF+	40	97	0	–	–	–	0	0	–
	Catterick ...	175	1036·6	+6	–	0	bf	31	97	3	–	–	–	0	0	–
	Tynemouth ...	108	1035·1	+10	W	2	z_0	35	97	5	–	–	–	0	0	–
11	St. Abbs Head	280	1034·0	+8	SW	4	bc	39	85	8	4	–	–	2-3	2-3	2500
	Leuchars ...	36	1033·9	-2	–	0	m	32	97	4	–	–	–	0	0	–
12	Renfrew (Abbots I.)	19	1034·1	-4	–	0	F–	29	97	1	–	–	–	10	10	<150
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1034·3	+10	W'S	3	bc	45	92	8	4	4	–	4-6	4-6	2000
13A	Tiree ...	22	1029·6	-6	S'E	3	d_0d_0	48	97	6	5	–	–	10	10	1200
13B	Stornoway ...	80	1027·8	-20	S	5	c	45	92	7	5	7	–	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	30	*	*	*	*	*	*	*	*
	Wick ...	119	1030·4	-16	S'E	2	bc	41	85	9	–	–	5	0	4-6	–
16	Sumburgh ...	30	1029·4	-8	WSW	3	bc	45	85	8	–	–	6	0	4-6	–
17	Blacksod Point	18	1031·3	+10	SSW	4	id_0	49	97	6	6	–	–	10	10	800
18	Malin Head ...	84	1030·8	-2	S	3	c	49	92	7	9	–	–	7-8	7-8	2500
	Aldergrove ...	268	1033·8	0	S	3	z_0	47	97	5	5	–	–	10	10	600
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1033·7	+6	S'W	2	c/pr	49	97	8	2	–	–	7-8	7-8	1500
	Roches Point	22	1034·9	-2	W'S	1	bc	48	92	8	5	–	–	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 20th December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 19th Hrs. (36)
London (Kew)	1036·7	+10	N'W	2	F	38	97	1	–	–	–	10	10	<150	1	*	41	38	26	–	Tr	0·0
Croydon	1036·1	+10	NNE	1	oF+	37	97	1	–	–	–	10	10	<150	1	*	41	37	29	1	0·1	0·0
S. Farnborough	1036·8	+12	–	0	m/f	41	92	4	5	3	–	4-6	4-6	1200	1	*	42	39	34	–	0·1	0·0
Boscombe Down	1036·0	+2	–	0	F	43	97	1	–	–	–	10	10	<150	1	*	43	40	38	–	0·1	0·0
Thorney Island	1035·7	+6	NNW	1	m	44	97	4	5	–	–	9+	9+	900	1	*	43	40	23	–	–	*
Lympne	1035·1	+10	NNW	1	m	37	97	4	1	3	–	Tr	Tr	1500	1	§2	37	35	30	–	0·1	0·0
Manston	1035·4	+6	NNE	2	z_0	40	92	6	5	–	–	1	1	1500	1	*	39	38	33	–	0·1	0·0
Shoeburyness	1035·7	+8	NNE	2	m	37	92	5	5	–	–	Tr	Tr	2500	1	*	41	37	27	–	–	0·0
Felixstowe	1035·6	+2	N'W	2	z_0	37	85	5	–	–	–	0	0	–	1	4	41	36	31	Tr	0·1	0·2
Gorleston	1035·3	+4	NW'N	2	z_0	38	97	5	5	–	–	2-3	2-3	1500	1	2	41	36	35	–	–	*
Mildenhall	1036·2	+2	W'N	1	f	33	97	1	–	–	–	10	10	<150	1	*	42	32	32	Tr	0·3	0·0
Cranwell	1036·3	+4	–	0	f–	40	97	2	–	–	–	10	10	<150	1	*	48	35	32	0·2	0·3	0·0
Birmingham	1036·1	+6	SE	2	F_0	43	97	1	–	–	–	10	10	<150	1	*	46	43	40	1	1	0·5
Upper Heyford	1036·6	+10	E	1	of	41	97	3	5	–	–	10	10	600	1	*	45	41	41	Tr	Tr	*
Ross-on-Wye	1035·9	0	–	0	oF	44	97	1	5	–	–	10	10	<150	1	*	46	43	41	–	0·2	0·4
Hartland Point	1035·8	+4	SSE	1	id	46	92	8	5	1	–	4-6	7-8	2500	1	3	48	46	45	Tr	0·4	0·[illegible]
Bristol	1036·1	+4	–	0	f–	44	97	2	5	–	–	9+	9+	3100	1	*	47	42	39	–	0·5	0·8
Portland Bill	1035·4	+6	N	2	o	47	92	7	5	–	–	10	10	2500	1	4	48	44	*	–	–	*
Plymouth	1036·7	+6	–	0	id_0	46	97	5	5	–	–	10	10	1000	1	2	49	44	36	Tr	0·1	1·1
The Lizard	1036·6	+8	NE	2	c	45	85	8	8	2	–	9	10	1500	0	3	51	42	*	–	–	1·6
Scilly (St. Mary's)	1035·7	+2	SE	1	bc	45	85	8	5	–	–	4-6	4-6	1500	1	3	51	41	*	–	–	0·0
Guernsey																						
Pembroke	1035·9	0	W'S	3	c	49	85	8	5	–	–	7-8	7-8	2500	1	2	50	42	*	Tr	–	0·3
Holyhead (Valley)	1034·4	-2	S	3	c	48	92	7	5	–	–	10	10	1100	1	2	49	46	45	1	0·2	*
Chester (Sealand)	1035·6	-2	SSE	1	f	45	97	2	–	–	–	10	10	<150	1	*	49	45	40	Tr	0·6	0·0
Manchester	1035·7	0	–	0	m	43	97	4	5	–	–	10	10	1500	1	*	43	40	39	0·4	0·2	*
Spurn Head	1036·2	+8	WNW	2	oF+	38	97	1	–	–	–	10	10	<150	1	4	45	35	*	0·4	Tr	0·0
Catterick	1036·3	-4	S	1	f	30	97	3	–	–	–	10	10	<150	1	*	47	27	21	Tr	–	0·0
Tynemouth	1034·7	0	W	2	of	38	97	3	5	–	–	10	10	1500	1	2	48	34	31	0·6	–	*
St. Abbs Head	1032·8	0	SSW	4	c	39	85	7	5	4	–	4-6	7-8	2500	0	2	48	36	*	–	–	*
Leuchars	1032·7	-6	–	0	z_0	34	97	5	5	–	–	7-8	7-8	1300	1	*	49	31	26	–	–	4·9
Renfrew (Abbots I.)	1032·6	-6	–	0	d_0d_0	37	97	4	5	–	–	10	10	1000	1	*	47	26	22	0·1	0·3	0·0
Eskdalemuir	1034·5	-2	–	0	df	35	92	2	–	–	–	10	10	<150	1	*	43	36	19	0·4	0·5	1·3
Point of Ayre	1034·0	-2	S'W	1	id_0	47	97	7	5	7	–	4-6	10	3000	1	2	49	35	*	0·6	Tr	3·7
Tiree	1028·2	-2	SW'S	4	d_0d_0	49	97	6	5	–	–	10	10	1200	1	4	50	36	*	–	0·2	4·0
Stornoway	1023·7	-14	S	6	c	50	97	6	5	2	–	9	10	1500	1	4	48	43	*	–	Tr	3·7
Dalwhinnie	1032·3	-6	SW	3	o	41	92	7	5	–	–	10	10	2500	1	*	42	27	21	–	0·1	4·6
Aberdeen	1030·9	-12	SSW	3	bc	39	65	6	5	–	–	4-6	4-6	2200	1	2	45	31	24	–	–	4·6
Wick	1026·8	-14	S	4	c	43	75	8	5	7	–	2-3	7-8	4000	1	*	43	34	30	0·2	–	*
Sumburgh	1025·5	-24	SSW	3	c	45	85	8	5	7	–	9	10	2500	1	4	47	44	27	Tr	Tr	1·6
Blacksod Point	1030·6	0	SSW	5	id_0	49	92	7	6	–	–	4-6	4-6	1500	1	4	52	48	*	2	*	*
Malin Head	1030·3	+2	S	3	bc	47	92	8	4	–	–	2-3	2-3	2500	1	3	50	40	*	–	0·1	5·0
Aldergrove	1033·3	-2	SSW	3	c	44	97	7	5	–	–	10	10	700	1	*	*	41	41	*	Tr	1·4
Birr Castle	1033·5	-2	SSE	1	bc	43	97	8	5	–	–	2-3	2-3	2500	1	*	49	41	39	2	0·2	0·0
Valentia Obsy.	1033·1	0	SSW	2	bc/pr	48	97	7	8	–	–	4-6	4-6	1500	1	3	51	47	45	0·3	1	1·3
Roches Point	1034·5	-2	SW	2	bc	47	97	8	5	–	–	2-3	2-3	2500	1		50		*	0·1	0·1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew...	18	Fxcff	cff	ofefeFe	41	38	26	–	Tr	0·0	*	*	1
Croydon ...	217	cFcf	cm	cfoFdbx	41	37	29	1	0·1	0·0	*	*	1
Greenwich (Royal Observatory)...	149	cff	cff	ffebxfe	42	36	27	–	Tr	0·0	82	89	0
City (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	45	34	32	–			94	97	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*	43	33	28	–	0·2		83	95	*
Camden Square ...	110	of	of	*	41	36	31	–	–	*	*	98	*
Kensington ...	80	of	of	*	44	36	30	–	–		91	97	*
Hampstead Observatory ...	450	of	of	bc	42	34	30	–	–		*	97	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 20th

	Max.	Time.	Min.	Time.
South Kensington.				
Kew Observatory.	1·7	18h 19th	0·1	5h 20th

FOREIGN OBSERVATIONS.

Evening of 19th December — Morning of 20th December

Stations	Evening Barom. mb.	Evening Wind Direc.	Evening Wind Force	Evening Weather	Evening Temp. °F.	Morning Barom. mb.	Morning Wind Direc.	Morning Wind Force	Morning Weather	Morning Temp. °F.	Past 24 Hours Max. Day °F.	Past 24 Hours Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h) ...	994·6	SSW	3	bc/pr	39	993·0	SW	7	PR	41	*	*	*	*
Lisbon (18h and 07h) ...	1024·1	NE	4	b	46	1025·1	NE	4	b	39	50	37	–	–
¶Madrid (18h and 07h) ...	906·6	–	0	b	39						43		–	
Cairo (Heliopolis) (18h and 06h) ...	1019·6	ESE	1	b	57						72		–	
Toronto (13h and 01h) ...														
Washington (13h and 01h) ...														

¶Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH ISLES SECTION

Sunday 21st December 1941.

No 29249

OBSERVATIONS at 13h. G.M.T. 20th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1036·6	−6	N	1	F	39	97	1	–	–	–	10	10	<150
	Croydon	1036·4	−2	–	0	F	38	97	1	–	–	–	10	10	<150
	S. Farnborough	1037·0	−6	N'W	1	m	39	97	4	S	–	–	10	10	500
	Boscombe Down	1036·5	−8	N'W	1	z₀	45	85	5	S	3	1	Tr	2-3	1500
	Thorney Island	1036·0	−2	N'E	2	z₀	44	85	6	S	4	1	Tr	Tr	4000
	Lympne	1034·7	−14	N	2	z₀	44	85	6	–	–	–	4-6	4-6	1200
	Manston	1036·5	−2	N	3	cf+	41	97	3	5	–	–	9+	9+	<150
2	Shoeburyness	1036·1	−4	NNW	3	F	38	97	1	–	–	–	10	10	<150
	Felixstowe	1036·1	−2	NW'N	3	cF	37	97	1	S	–	–	9+	9+	100
	Gorleston	1035·7	−4	NNW	3	F+	38	92	1	–	–	–	10	10	<150
	Mildenhall	1037·2	−6	–	0	F	35	97	1	–	–	–	10	10	<150
	Cranwell	1036·9	−2	WSW	1	z₀	39	97	5	S	–	–	10	10	500
3	Birmingham	1036·5	−6	–	0	of	43	97	2	S	–	–	10	10	450
	Upper Heyford	1036·5	−6	SW	1	F	38	97	1	–	–	–	10	10	<150
4	Ross-on-Wye	1036·0	−6	WSW	1	o/f	47	92	5	S	–	–	10	10	1500
5	Hartland Point	1036·5	−4	NNW	2	c	48	97	9	8	6	8	4-6	7-8	1200
	Bristol	1036·3	−10	–	0	m	46	97	4	–	–	–	10	10	800
	Portland Bill	1035·7	−6	ENE	2	0	47	92	5	S	–	–	10	10	2500
	Plymouth	1036·6	−6	NNE	3	z₀	48	97	6	S	–	–	9+	9+	3500
	The Lizard	1036·7	−10	NNE	2	c	48	85	8	8	2	–	7-8	9+	2000
	Scilly (St. Mary's)	1035·8	+8	S	1	c	51	85	8	8	4	–	7-8	9+	1500
	[illegible]rnsey														
6	Pembroke	1036·4	−2	SW'W	2	c	51	85	8	2	6	–	4-6	7-8	4000
7	Holyhead (Valley)	1034·7	−10	S'W	3	c/d	49	85	8	S	–	–	9	9	800
	Chester (Sealand)	1035·6	−10	SES	2	of	46	97	3	S	–	–	10	10	3500
8	Manchester	1036·0	−10	SWS	2	m/f	44	97	4	S	–	–	9+	9+	2500
10	Spurn Head	1036·8	+8	W	2	f+	39	92	2	–	–	–	10	10	<150
	Catterick	1035·7	−14	S'W	2	cf-	37	97	2	S	–	–	9+	10	1200
	Tynemouth	1034·1	−8	WSW	3	cf	42	92	3	S	3	–	4-6	7-8	2000
11	St. Abbs Head	1030·3	−16	SW	5	c	45	97	7	S	4	–	7-8	9+	2500
	Leuchars	1030·9	−18	–	0	m	44	97	4	S	7	–	7-8	10	1800
12	Renfrew (Abbotsl.)	1034·9	−6	SWS	3	z₀	48	85	6	S	–	–	9+	9+	1200
	Eskdalemuir	1033·2	−6	SSW	3	F	43	97	1	–	–	–	10	10	<150
	Point of Ayre	1034·1	−2	W	3	c	51	85	8	5	3	5	2-3	7-8	3000
13A	Tiree	1028·0	0	SWS	4	o	49	85	7	S	–	–	10	10	1500
13B	Stornoway	1025·4	+8	SW	6	c	51	92	7	S	2	–	7-8	9+	1000
15	Dalwhinnie	1030·4	−2	SSW	3	ido	43	92	6	S	–	–	10	10	1500
	Aberdeen	1028·6	−12	SW	1	bc	42	92	6	S	2	9	Tr	4-6	2800
	Wick	1025·0	−10	SW	5	iro	47	85	8	S	9	7	4-6	10	2000
16	Sumburgh	1022·4	−18	SSW	5	dr	48	92	6	6	–	–	10	10	700
17	Blacksod Point	1029·3	−8	S'W	5	c	51	92	8	9	–	–	9	9	1500
18	Malin Head	1029·3	−12	S	5	c	47	85	8	S	–	4	4-6	7-8	1500
	Aldergrove	1033·3	−6	S'W	3	z₀	43	97	6	S	–	–	10	10	200
19	Birr Castle	1033·4	−6	S	2	c	48	85	8	S	1	–	7-8	10	2500
20	Valentia Obsy. †	1032·6	−4	S'W	4	c	50	85	8	8	–	–	9	9	2500
	Roches Point	1034·2	−10	S	4	c	49	85	8	S	–	–	7-8	7-8	2500

OBSERVATIONS at 18h. G.M.T. 20th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1036·5	+4	N	1	m	38	97	4	S	–	–	9+	9+	2500	1	*
	Croydon	1035·5	−2	NNE	1	of-	37	97	2	S	–	–	10	10	900	1	*
	S. Farnborough	1036·2	−2	N'E	1	m	36	97	4	S	–	–	10	10	300	1	*
	Boscombe Down	1036·4	+8	E	2	F+	36	97	1	–	–	–	10	10	<150	1	*
	Thorney Island	1035·8	−2	NNE	2	z₀	35	92	5	–	–	–	0	0	–	1	*
	Lympne	1034·9	0	N	2	m	38	97	4	S	–	–	7-8	7-8	100	1	§§
	Manston	1035·4	+2	N	2	m	41	92	4	S	–	–	9+	9+	800	*	*
2	Shoeburyness	1036·0	+2	NE'N	2	F+	36	97	1	–	–	–	10	10	<150	1	*
	Felixstowe	1036·0	+2	N'W	3	f	36	97	2	–	–	–	10	10	<150	1	2
	Gorleston	1035·3	0	NW'N	2	f+	38	97	2	–	–	–	10	10	<150	1	2
	Mildenhall	1036·2	−2	–	0	dF	34	97	1	–	–	–	10	10	<150	1	*
	Cranwell	1034·9	−10	S	2	of	40	97	2	S	–	–	10	10	1800	1	*
3	Birmingham	1035·5	−4	S	1	F	44	97	1	–	–	–	10	10	<150	1	*
	Upper Heyford	1035·7	−2	–	0	F+	38	97	1	–	–	–	10	10	<150	1	*
4	Ross-on-Wye	1035·0	0	SSE	1	m	45	97	4	S	7	–	7-8	9+	2000	1	*
5	Hartland Point	1035·7	+4	SE	1	bc	45	85	8	S	–	5	2-3	4-6	2500	1	4
	Bristol	1035·9	−2	–	0	of+	43	97	3	S	–	–	10	10	1000	1	*
	Portland Bill	1035·0	+2	NE	2	c	44	92	7	S	–	–	7-8	7-8	2500	1	2
	Plymouth	1036·1	+6	E	1	z₀	43	97	5	S	–	–	2-3	2-3	4000	1	2
	The Lizard	1035·7	−2	NE	3	bc	45	75	8	8	–	–	4-6	4-6	2500	1	2
	Scilly (St. Mary's)	1035·0	+2	SSE	2	bc	48	85	8	8	3	–	2-3	2-3	1500	1	2
6	Pembroke	1035·7	0	SW	3	bc	49	92	8	2	6	–	1	2-3	3000	1	2
7	Holyhead (Valley)	1034·3	+2	SW	2	c	49	85	8	1	–	–	9+	9+	2100	0	2
	Chester (Sealand)	1034·9	+2	S'E	1	F	43	97	0	–	–	–	10	10	<150	1	*
8	Manchester	1035·4	+2	S'W	3	F+	43	97	1	–	–	–	10	10	<150	1	*
10	Spurn Head	1035·3	−4	S	3	F+	38	97	1	–	–	–	10	10	<150	1	2
	Catterick	1034·0	−4	SSE	2	F	36	97	0	–	–	–	10	10	<150	1	*
	Tynemouth	1032·7	+2	SW	3	bcf	41	92	3	2	4	–	2-3	4-6	2000	1	3
11	St. Abbs Head	1029·9	−4	SW	5	bc	46	85	7	4	4	–	1	2-3	2500	0	3
	Leuchars	1029·5	−6	WSW	3	z₀	45	92	5	S	–	–	10	10	1200	1	*
12	Renfrew (Abbotsl.)	1030·8	−6	SW	2	z₀	46	85	6	S	–	–	10	10	1000	1	*
	Eskdalemuir	1032·2	−2	SW	3	dodo	43	97	5	–	2	–	10	10	220	1	*
	Point of Ayre	1033·4	0	W	3	c	47	92	8	8	1	–	9	10	2000	1	2
13A	Tiree	1026·1	−8	SSW	5	dd	47	97	7	–	2	–	10	10	1500	1	5
13B	Stornoway	1022·4	−18	SSW	7	c/d	49	97	7	S	2	–	9	10	900	1	4
15	Dalwhinnie	1029·2	−14	SW	4	c	42	92	7	S	2	–	9	10	1500	1	*
	Aberdeen	1026·6	−18	W	1	bc	45	85	5	S	–	–	4-6	4-6	2300	1	2
	Wick	1023·5	−8	SSW	2	c	46	85	8	–	7	–	0	9+	–	1	*
16	Sumburgh	1020·9	−10	WSW	5	c	49	92	8	S	–	–	9	9	3500	1	4
17	Blacksod Point	1028·2	−6	S	5	pr	51	85	7	9	–	–	9+	9+	1500	1	4
18	Malin Head	1028·2	−10	S	4	c	48	85	8	5	–	–	7-8	7-8	2500	1	4
	Aldergrove	1032·4	−4	S	3	c	43	97	7	S	7	–	4-6	9	3500	1	*
19	Birr Castle	1032·4	+2	S	2	c	47	85	8	S	1	–	7-8	10	2500	1	*
20	Valentia Obsy. †	1032·4	+2	S'W	4	iro	49	85	8	S	–	–	9+	9+	2500	1	4
	Roches Point	1034·4	+6	SSW	4	c	49	86	8	8	1	–	4-6	9	1500	1	

PAST 24 HOURS.

District	Stations. (For heights see p. 4.)	Weather. 7h.—13h. 20th (37)	Weather. 13h.—18h. 20th (38)	Weather. 18h. 20th to 1h. 21st (39)	Weather. 1h.—7h. 21st (40)
1	London (Kew)	ofeFe	bccm	cmff	ofF
	Croydon	oFe	oFe	om	ofoFe
	S. Farnborough	bcmofm	om	cmfo	ofwFe
	Boscombe Down	bcmo	bcF	FF	cFf
	Thorney Island	bcbmo	bmocbmobmobmx	mfbcfx	
	Lympne	bmbcmo	bcmofmbcof F	ofcmmo	
	Manston	bbcmocf	cfcmomcmoomf	ofcmmo	
2	Shoeburyness	bmoFF	FfF	FeFe	off
	Felixstowe	OFcF	Fof, fe	ofofecm	bFfFx
	Gorleston	bcmFf	FFe	oFoF	bffcbx
	Mildenhall	oFFe	oFedodo	ofex	bfxbcmx
	Cranwell	ofecm	cmof	oFido	ozFf
3	Birmingham	Fof	o	odofm	oc
	Upper Heyford	cfmoF	oF	cfoF	oF
4	Ross-on-Wye	Fof	czcm		cmom
5	Hartland Point	cid	cbc	bccv	c
	Bristol	oFefm	cmf		offFe
	Portland Bill	oZo	oc	c	c
	Plymouth	cidofmo	cbcmoW	bcmocmo	bcmocmo
	The Lizard	eidoc	bc	coc	c
	Scilly (St. Mary's)	bcc	cbc	bcc	c
6	Pembroke	c	bc	bcc	c
7	Holyhead (Valley)	cmdmd		c,b	cbcc
	Chester (Sealand)	ofido	oFF	cFbcf	cf
8	Manchester	cidof	cmfoF	Fdo	ofcmo
10	Spurn Head	ff	oFF	om	o
	Catterick	FFc	cFoF	ofcmo	cmo
	Tynemouth	ocff	cbcff	bcffc	cbc
11	St. Abbs Head	c	cpc	bc	c
	Leuchars	cmocidom	cmcmo	idomoc	c
12	Renfrew (Abbotsl.)	dodofcmo	cmo	cmo	cmoidro
	Eskdalemuir	ofcloF	ofdo		oidoc
	Point of Ayre	idoc	c	cbcc	c
13A	Tiree	0	odro	eido	oido
13B	Stornoway	croro	cido	d	cpridoo
15	Dalwhinnie	oido	oido		ciro
	Aberdeen	cbczo	bczo	bczo	bcxc
	Wick	cjro	cjroc	c	cqoa
16	Sumburgh	cdoromo	doroc	coiroc	cirododo
17	Blacksod Point	c	pr	bc	r
18	Malin Head	bc	c	c	c
	Aldergrove	comoc	dodomoc	c	cmobcc
19	Birr Castle	bc	bc		c
20	Valentia Obsy. †	pr	pr	ff	c
	Roches Point	bc	bc	r	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

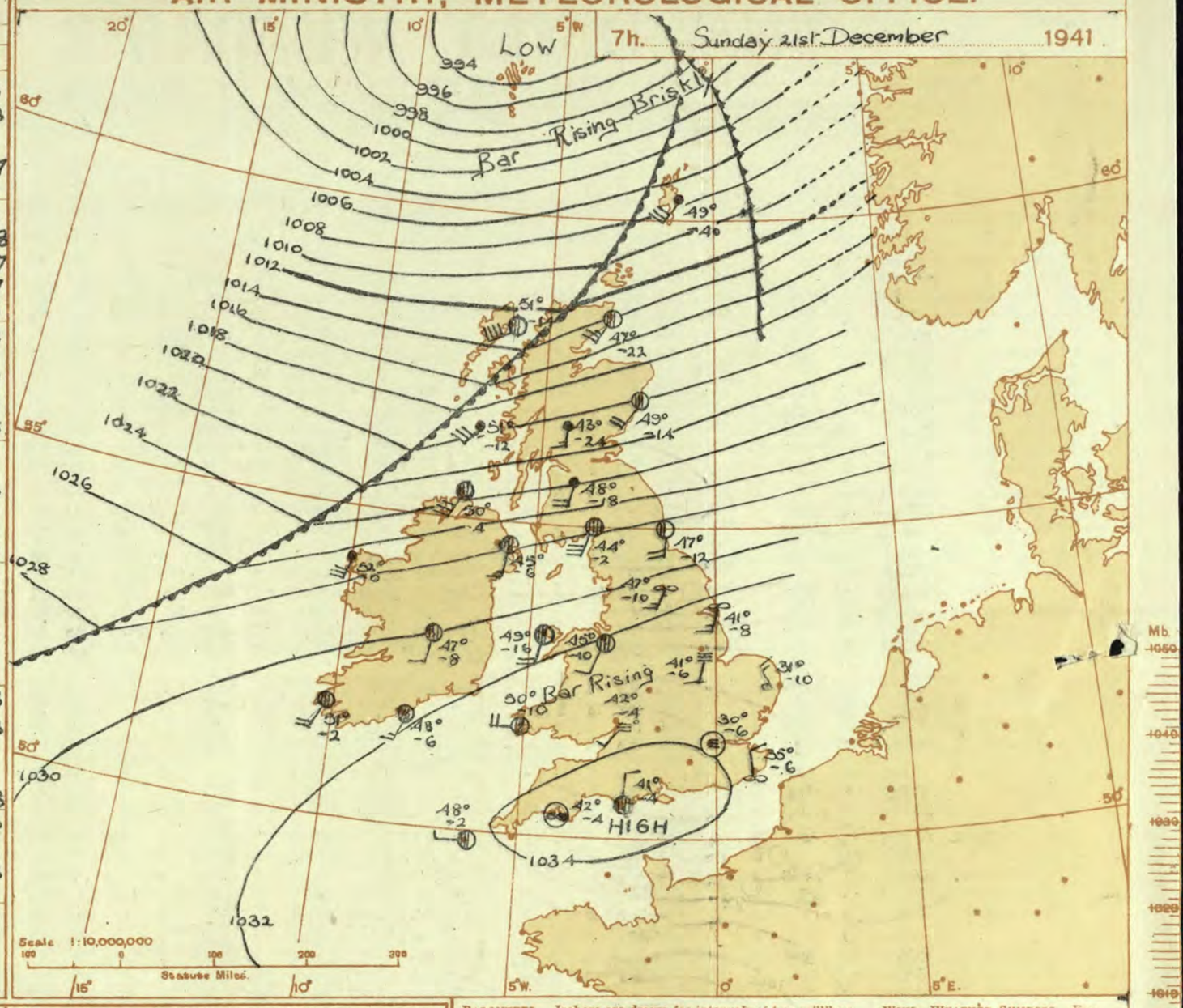
Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 20th December: $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T.: $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 21st December: $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T.: $C_L C_M$	wwVhN$_h$	DDFWN
109	52	21645	19458	57	02754	20625	52	03744	19428	5-	61748	53628
115	52	81735	20588	52	81735	20688	52	14835	87788	52	81635	87888
203	6-	22828	16668	6-	62828	16668	5-	02838	49268			
206	52	22855	20367	53	02955	53667	5-	02856	53626	5-	22857	55667
210	57	02963	53428	57	02953	12467	57	02866	53528	50	01863	18513
220				52	58636	23558				51	02434	24418
230	52	02847	18228	57	21754	18258	5-	02748	21828	5-	52648	53468
245	57	05556	26258	57	05654	20316	52	05654	53518	57	02863	55427
260	70	02752	18228	5-	02747	21317	5-	02768	22358	5-	12757	22227
277	5-	02848	14328	5-	61738	21268	5-	02858	18268	5-	02754	18326
279	53	05644	18425	5-	52548	20458	5-	05658	22528	5-	02768	19528
285	23	05634	30426									
288	53	41454	18245	00	45230	18240	5-	05557	20227	5-	02757	18327
575	5-	51638	14158	5-	21848	18258	5-	51638	18358	5-	02748	18228
301	--	21209	16257	5-	45258	15248	52	21555	18257	5-	05665	19365
321	5-	08435	12148	5-	47248	16248	5-	43348	16148	5-	08458	18148
299	5-	08448	23228				--	46109	20249			
292	03	47390	00043	--	43209	13249	5-	05548	18248	5-	05547	17227
310												
614	53	45345	24147	5-	47258	20148	--	43009	00049	--	44109	18149
333	5-	02735	16*57	5-	02847	00017	5-	01865	20315	51	02874	20258
334	--	53437	02258	--	01762	02203						
340	--	57209	14159	--	48109	00049	5-	41648	00058	5-	05658	18128
136	--	46109	00049	--	57109	00059	5-	43348	16158			
336	52	41544	28348	54	01753	24315						
350	--	46009	18149	--	46109	00059	5-	47268	14248	5-	47168	16248
368	5-	05557	02157	5-	46348	23198	50	43353	30143	5-	43238	00048
379	5-	08428	18128	--	46109	00049	--	46109	00049	--	46109	16149
390	--	46109	30249	--	48109	32149	--	46109	20149	--	48009	00049
382	5-	05538	22128	--	48109	00049	5-	43318	00048	5-	05528	00028
438	50	00691	32301							50	01663	04313
430	50	05621	23212	00	05590	32111	00	45330	02140	00	43230	00040
409	5-	02966	02127	50	00861	04111	5-	02768	09118	5-	02768	13228

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday 21st December 1941



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Sunday 21st December,
1 S.E. England	Light variable winds becoming S.W. Fair apart from fog. Fairly general fog probably pesisting. Rather cold in foggy areas.
2 E. England ...	Light variable winds becoming S.W. light or moderate. Mainly cloudy but clear intervals locally. Fairly general fog at first clearing slowly. Rather cold, becoming slowly milder.
3 E. Midlands ...	
4 W. Midlands ...	
5 S.W. England	
6 South Wales ...	
7 North Wales ...	Moderate S.W. winds, fresh or strong locally on coasts, veering W. and decreasing. Mainly cloudy. Occasional rain. Rather mild.
8 N.W. England	
9 N. Midlands ...	
10 N.E. England	
11 S.E. Scotland	Fresh S.W. winds, strong to gale locally on coasts, veering W. to N.W. and decreasing later. Occasional rain at first. Bright intervals and showers later with local hail and thunder in the North. Rather mild, becoming colder in the North.
12 S.W. Scotland & Isle of Man	
13A W. Scotland	
13B N.W Scotland	
14 Mid Scotland	
15 N. E. Scotland	
16 Orkneys and Shetlands	
17 N. W. Ireland	As 7-10.
18 N. E. Ireland	
19 S. E. Ireland	Moderate S.W. wind, veering W. Mainly cloudy. Local rain. Rather mild.
20 S. W. Ireland	

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An elongated anticyclone extending from S.W. of the British Isles to Eastern Europe is moving slowly south and a deep depression to north of Scotland is moving quickly eastwards. In Scotland there will be rain at first followed by squally showers and bright intervals. In North England and North Midlands weather will be mainly cloudy with occasional rain later. In the south of England and south Midlands there will be fairly general fog which will clear slowly in the south Midlands but probably persist in South England. It will be rather cold in foggy areas but rather mild elsewhere. Strong gale locally will occur S.W. winds reaching in Scotland.

FURTHER OUTLOOK.

Mainly quiet weather in the South with local fog. Rather unsettled in the North.

Gale warning in operation in districts 11, 13, 15, 16, 17 & 18. Times of issue. 1830h. on 20:12:41. and 0600h on 21:12:41. and 0645h on 21:12:41.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Sunday 21st December,
1941.

LOW
HIGH
LOW
HIGH
LOW

Clarke's Projection Scale 1: 4 X 10⁷ 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. (Tk) Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 21st December 1941.

No. 29249

OBSERVATIONS at 1 hr. G.M.T. 21st December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	36	*	*	*	*	*	*	*	*
	Croydon ...	217	1035·3	+8	NW	2	of+	34	97	3	5	-	-	10	10	400
	S. Farnborough	226	1035·7	-8	-	0	of	34	92	3	5	-	-	10	10	100
	Boscombe Down	417	1035·5	-4	E	1	F	33	97	0	-	-	-	10	10	<150
	Thorney Island	10	1035·3	-6	NNE	1	m	32	97	4	-	-	-	0	0	-
	Lympne ...	346	1034·8	+2	N	4	f-	35	97	3	-	-	-	10	10	<150
	Manston ...	154	1035·2	+2	NW'N	2	f	37	97	2	-	-	-	10	10	<150
2	Shoeburyness ...	11	1035·5	-4	NNE	2	F+	34	97	2	-	-	-	10	10	<150
	Felixstowe ...	15	1034·9	-8	NW	3	S/F	36	97	4	5	-	-	9+	9+	2700
	Gorleston ...	5	1034·9	-6	NW'W	2	z₀	36	92	5	5	-	-	2·3	2·3	1500
	Mildenhall ...	19	1036·1	-2	SW	1	f-	32	97	1	-	-	-	10	10	<150
	Cranwell ...	240	1034·4	-8	S	1	F+	39	97	1	-	-	-	10	10	<150
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1034·9	-4	SSW	1	F	37	97	1	-	-	-	10	10	<150
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1034·3	-10	SSE	2	c	47	85	8	5	2	-	7-8	10	2500
	Bristol ...	209	1034·7	-8	S	1	of-	42	97	3	5	-	-	10	10	1500
	Portland Bill ...	32	1034·8	+4	N	2	c	42	85	7	5	-	-	7-8	7-8	2500
	Plymouth ...	82	1035·2	-4	-	0	z₀	44	92	6	5	-	-	7-8	7-8	4000
	The Lizard ...	240	1034·9	-8	ENE	2	c	47	92	8	8	-	-	7-8	9+	1500
	Scilly (St.Mary's)	163	1034·7	-4	SE'S	2	c	47	85	7	5	-	-	10	10	1500
	Guernsey ...	175														
6	Pembroke ...	142	1034·6	-6	SW	3	c	50	92	8	1	-	-	7-8	7-8	4000
7	Holyhead(Valley)	26	1033·0	-6	SW	4	c	49	75	8	5	-	-	9+	9+	2800
	Chester(Sealand)	16	1034·0	-6	SSE	1	of	42	92	3	5	-	-	10	10	2400
8	Manchester ...	235	1034·7	-2	SSW	2	f	42	97	2	-	-	-	10	10	<150
10	Spurn Head ...	29	1034·0	-12	SW'S	2	m	40	92	4	5	-	-	10	10	800
	Catterick ...	175	1032·1	-10	SSW	3	z₀	47	75	5	5	-	-	10	10	1500
	Tynemouth ...	108	1030·7	-6	S	2	z₀	44	92	6	5	-	-	9+	9+	1500
11	St. Abbs Head	280	1028·4	-8	W	2	bc	46	85	7	4	4	-	2-3	4-6	2500
	Leuchars ...	36	1025·9	-18	W	6	0	46	85	7	5	-	-	10	10	1800
12	Renfrew (Abbotsl.)	19	1028·1	-14	SW	3	z₀	47	85	6	5	-	-	10	10	1600
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1031·4	-10	WSW	4	c	47	85	8	5	1	-	9	9+	3000
13A	Tiree	22	1022·2	-20	S'W	5	c	49	97	7	5	*	*	9+	9+	1900
13B	Stornoway ...	80	1016·3	-38	SSW	8	pr	50	97	7	6	2	-	7-8	10	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Wick ...	119	1018·5	-26	SSW	3	c	48	65	8	5	7	-	2-3	9+	3000
16	Sumburgh ...	30	1016·5	-26	SW	6	0	49	85	7	5	-	-	10	10	2000
17	Blacksod Point	18	1026·8	-6	SSW	6	bcq	52	85	7	4	-	-	4-6	4-6	2500
18	Malin Head ...	84	1024·9	-18	S'W	5	bc	49	85	8	5	-	-	4-6	4-6	2500
	Aldergrove ...	268	1029·7	-10	S'W	2	c	45	92	7	5	-	-	7-8	10	1700
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1031·5	-10	S'W	4	c	49	85	8	5	-	-	9+	9+	2500
	Roches Point	22	1033·4	-2	SW	4	ir₀	49	85	8	6	2	-	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 21st December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1034·7	-4	WNW	1	F	32	97	1	-	-	-	10	10	<150	1	*
	Croydon ...	1034·0	-6	-	0	f-	30	97	1	-	-	-	10	10	<150	1	*
	S. Farnborough	1034·0	-2	-	0	F+	30	97	1	-	-	-	10	10	<150	1	*
	Boscombe Down	1034·8	-2	N	1	of	35	97	2	5	-	-	10	10	1000	1	*
	Thorney Island	1034·2	-6	NNE	1	bcf-	28	97	3	-	4	6	0	4·6	-	3	*
	Lympne ...	1033·7	-6	NNW	2	z₀	35	97	6	5	-	-	9	9	3700	1	§2
	Manston ...	1034·0	-6	NW	1	z₀	37	92	5	5	-	-	9+	9+	3000	1	*
2	Shoeburyness ...	1034·2	-10	-	0	f	31	97	2	-	-	-	10	10	<150	1	*
	Felixstowe ...	1033·8	-6	NW	2	bF	30	92	1	-	-	-	0	0	-	1	2
	Gorleston ...	1033·4	-10	NW	3	z₀	31	85	6	-	4	-	0	2·3	-	3	2
	Mildenhall ...	1034·2	-6	S'W	1	S/f	31	97	4	-	7	-	0	7-8	-	1	*
	Cranwell ...	1032·7	-6	S'W	2	of-	41	97	2	5	-	-	10	10	3000	1	*
3	Birmingham ...	1033·1	-4	SW	2	0	42	92	6	5	-	-	10	10	2500	1	*
	Upper Heyford	1034·2	-	-	0	F	37	97	1	-	-	-	10	10	<150	1	*
4	Ross-on-Wye	1033·3	-4	SW	1	m	42	97	4	5	-	-	10	10	1500	1	*
5	Hartland Point	1033·3	-6	SSW	1	c	47	75	7	5	2	-	4-6	9+	1500	1	3
	Bristol ...	1034·2	-2	-	0	f-	42	97	1	-	-	-	10	10	<150	1	*
	Portland Bill ...	1033·3	-4	N	2	c	41	92	7	4	-	-	10	10	2500	1	2
	Plymouth ...	1034·2	-4	-	0	z₀	42	92	5	5	-	-	9+	9+	2000		2
	The Lizard ...	1034·3	-2	ENE	2	0	47	92	7	5	-	-	10	10	1500	0	3
	Scilly (St.Mary's)	1033·8	-2	W	1	c	48	92	8	5	2	-	7-8	10	1500	1	2
	Guernsey ...																
6	Pembroke ...	1033·6	-10	W	4	c	50	75	7	5	2	-	7-8	10	2500	1	2
7	Holyhead(Valley)	1031·1	-16	SSW	4	c	49	75	9	5	-	-	9+	9+	3200	1	3
	Chester(Sealand)	1031·9	-10	SW'S	2	c/f	45	85	4	5	-	-	9+	9+	2500	1	*
8	Manchester ...	1032·2	-8	SW	2	ido	43	97	6	5	-	-	10	10	2000	1	*
10	Spurn Head ...	1032·4	-8	SSW	3	z₀	41	97	5	5	-	-	10	10	800	1	2
	Catterick ...	1029·8	-10	SSW	3	z₀	47	75	6	5	1	-	7-8	10	1800	1	*
	Tynemouth ...	1027·8	-12	S	4	bc	47	75	6	2	-	-	4-6	4-6	2500	1	3
11	St. Abbs Head	1023·3	-36	SW	3	c	47	75	8	5	4	-	4-6	7-8	2500	0	3
	Leuchars ...	1021·9	-22	W	7	c	47	85	8	3	7	-	9	10	1600	1	*
12	Renfrew (Abbotsl.)	1023·9	-18	SWS	4	ido	48	85	6	5	-	-	10	10	2500	1	*
	Eskdalemuir ...	1026·0	-2	SW'S	6	o	44	92	7	5	-	-	10	10	800	1	*
	Point of Ayre...	1028·6	-14	WSW	4	c	48	85	8	5	2	-	7-8	10	3000	0	3
13A	Tiree	1019·8	-12	SW'W	6	dodo	51	97	6	5	-	-	10	10	1200	1	
13B	Stornoway ...	1012·5	-14	WSW	8	bc	51	92	7	6	7	-	4-6	4-6	1000	1	5
15	Dalwhinnie ...	10203	-24	S	3	ir	43	92	7	5	-	-	10	10	1500	1	*
	Aberdeen ...	1018·7	-14	SW'W	4	c	49	75	7	5	-	-	7-8	7-8	1900	1	2
	Wick ...	1013·6	-22	SW	5	bc	47	85	7	5	7	-	2-3	4-6	1600	1	
16	Sumburgh ...	1009·3	-40	SW	6	ido	49	85	6	5	-	-	10	10	900	1	6
17	Blacksod Point	1026·0	-	SSW	6	ir₀	52	92	7	6	-	-	10	10	1500	1	
18	Malin Head ...	1023·0	-4	SW	6	c	50	92	6	5	-	-	9+	9+	800	1	4
	Aldergrove ...	1027·5	-6	S'W	3	c	45	92	7	5	-	-	7-8	9+	1300	1	*
19	Birr Castle ...	1029·7	-8	SSW	2	c	47	85	8	5	-	-	9	9	2500	1	*
20	Valentia Obsy.	1030·9	-2	SW'S	4	c	51	85	7	5	-	-	9+	9+	2500	1	4
	Roches Point	1032·1	-6	SW	3	c/r	48	92	8	6	2	-	7-8	9+	4000	1	*

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 20th Hrs. (36)
1	London (Kew)	40	32	30	-	Tr	0·0
	Croydon ...	38	30	*	Tr	Tr	0·0
	S. Farnborough	41	29	29	-	Tr	0·0
	Boscombe Down	45	32	31	Tr	1	3·5
	Thorney Island	44	27	21	-	-	*
	Lympne ...	45	35	32	-	-	4·2
	Manston ...	45	36	33	Tr	-	2·8
2	Shoeburyness ...	41	30	30	-	Tr	2·1
	Felixstowe ...	39	29	29	-	-	0·0
	Gorleston ...	40	29	25	-	-	*
	Mildenhall ...	37	30	30	0·1	1	0·0
	Cranwell ...	41	39	38	0·1	Tr	0·0
3	Birmingham ...	44	41	37	0·1	0·1	0·0
	Upper Heyford	41	36	37	Tr	-	*
4	Ross-on-Wye	47	42	40	Tr	-	0·0
5	Hartland Point	49	45	37	0·2	-	1·5
	Bristol ...	47	39	35	-	-	0·0
	Portland Bill ...	48	39	*	-	-	*
	Plymouth ...	48	39	31	Tr	-	0·0
	The Lizard ...	48	43	*	Tr	-	0·0
	Scilly (St.Mary's)	51	45	*	-	-	0·0
	Guernsey ...						
6	Pembroke ...	52	43	*	-	0·1	2·4
7	Holyhead(Valley)	50	46	42	Tr	-	0·0
	Chester(Sealand)	47	39	33	Tr	-	0·0
8	Manchester ...	45	42	39	Tr	Tr	*
10	Spurn Head ...	41	37	*	Tr	Tr	0·0
	Catterick ...	38	35	33	-	-	0·0
	Tynemouth ...	44	40	35	-	-	*
11	St. Abbs Head	47	44	*	-	-	*
	Leuchars ...	46	45	43	0·1	Tr	0·0
12	Renfrew (Abbotsl.)	48	45	44	0·1	Tr	0·0
	Eskdalemuir ...	44	41	43	0·6	0·2	0·0
	Point of Ayre...	52	46	*	0·2	0·0	2·7
13A	Tiree	50	47	*	1	0·4	0·0
13B	Stornoway ...	51	47	*	0·4	1	0·0
15	Dalwhinnie ...	44	42	38	0·5	2	0·0
	Aberdeen ...	46	41	35	-	-	0·0
	Wick ...	48	44	43	Tr	-	*
16	Sumburgh ...	50	47	45	1	1	0·0
17	Blacksod Point	52	50	*	2	0·2	*
18	Malin Head ...	48	45	*	-	Tr	0·0
	Aldergrove ...	45	42	41	Tr	-	0·0
19	Birr Castle ...	48	45	43	-	-	0·0
20	Valentia Obsy.	50	48	*	0·6	0·2	1·4
	Roches Point	51	-	-	Tr	0·3	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	Ofefe	bccm	cmfoff	40	32	30	-	Tr	0·0	*	*	1
Croydon	217	ofe	ofe	omofofe	38	30	*	Tr	Tr	0·0	*	*	1
Greenwich (Royal Observatory)...	149	Fefe	fef	fffefe	40	32	29	-	Tr	0·0	97	98	1
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	41	33	30	-			98	99	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110	o	o	*	40	32	33	-	-	*	*	98	*
Kensington	80	of	of	*	40	32	29	-	-		96	95	*
Hampstead Observatory	450	of	of	ofx	39	29	28	-	-		*	94	*

FOREIGN OBSERVATIONS.

Evening of 20th December ... Morning of 21st December

Stations.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	999·4	ESE	1	c	*	1003·9	-	0	c	36
Lisbon (18h and 07h)	1022·5	NNE	3	b	55	1021·0	NE	3	z₀	37
*Madrid (18h and 07h)	903·9	N	2	bc	41	902·7	SE	5	b	32
Cairo (Heliopolis) (18h and 06h)						1016·6	SW	4	bc	56
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
*	*	-	-
*	*	-	-
*	*	*	-

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. ... Dec.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
1·0	20th	0·3	21st
11hr		7h	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

Monday 22nd December 1941.

No. 29250

OBSERVATIONS at 13h. G.M.T. 21st December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1033·1	−18	SSW	2	cf-	39	92	3	5	–	–	9+	9+	4000
	Croydon	1032·7	−20	SSW	1	zo	46	65	5	5	–	2	2-3	4-6	5500
	S. Farnborough	1034·0	−14	–	0	c/f	41	85	6	5	–	–	9+	9+	3700
	Boscombe Down	1033·6	−10	WS	1	zo	42	85	5	5	–	–	9+	9+	3500
	Thorney Island	1033·6	−10	–	0	zo	43	75	6	5	4	2	1	2-3	4000
	Lympne	1032·9	−10	NWW	1	c	43	85	6	1	3	–	1	7-8	3500
	Manston	1033·5	−10	–	0	cf-	36	97	3	5	–	–	9	9	2800
2	Shoeburyness	1033·1	−8	NW	1	F	37	97	1	–	–	–	10	10	<150
	Felixstowe	1032·7	−14	SWW	3	zo	43	75	5	5	–	2	Tr	4-6	4000
	Gorleston	1032·5	−8	WS	2	zo	43	75	6	–	4	2	0	4-6	–
	Mildenhall	1032·5	−14	SW	2	zo	42	92	6	5	–	–	9+	9+	2500
	Cranwell	1031·0	−14	SW	3	m	46	92	4	5	–	–	10	10	3000
3	Birmingham	1031·8	−12	WSW	3	c	46	85	6	5	7	–	1	9	800
	Upper Heyford	1032·6	−14	SW	2	m	43	97	4	5	–	–	9+	9+	2500
4	Ross-on-Wye	1032·2	−10	SW	3	zo	47	85	5	5	–	–	10	10	2500
5	Hartland Point	1033·0	−6	W	2	c	48	85	8	5	4	–	4-6	9	1200
	Bristol	1033·1	−2	W	1	zo	45	92	6	5	–	–	9+	9+	4000
	Portland Bill	1032·6	−18	S	2	c	47	85	8	2	–	–	10	10	4000
	Plymouth	1034·1	−6	SE	1	m/F	47	85	4	5	–	–	10	10	3500
	The Lizard	1034·1	−4	NNW	2	c	48	85	8	8	2	–	7-8	9+	1500
	Scilly (St. Mary's)	1032·8	−4	WN	1	c	50	92	8	8	–	–	10	10	1500
	Guernsey														
6	Pembroke	1032·9	−8	WSW	4	c	50	85	8	8	6	–	7-8	9	2500
7	Holyhead (Valley)	1029·7	−16	SWW	5	o	50	85	9	5	–	–	10	10	3000
	Chester (Sealand)	1029·9	−14	SWW	2	zo	50	75	6	5	–	2	9	9+	2500
8	Manchester	1030·2	−14	SSW	4	c	47	85	7	5	–	–	7-8	10	3000
10	Spurn Head	1030·0	−18	SW	3	zo	44	92	5	5	7	2	4-6	7-8	1500
	Catterick	1026·7	−22	WSW	4	c	50	75	8	2	9	1	2-3	7-8	2000
	Tynemouth	1025·9	−10	SW	4	zo	50	85	6	8	–	–	9+	9+	2500
11	St. Abbs Head	1021·8	+10	W	5	c	50	85	8	5	7	–	4-6	7-8	2500
	Leuchars	1020·7	−8	WSW	6	c	49	92	7	5	7	8	7-8	9+	1200
12	Renfrew (Abbots I.)	1023·4	−2	SWW	4	zo	50	92	6	5	–	–	9+	9+	1200
	Eskdalemuir	1024·8	−10	SWW	5	dodo	45	97	5	–	2	–	10	10	220
	Point of Ayre	1026·9	−8	W	6	roro	49	92	7	6	2	–	10	10	2500
13A	Tiree	1024·4	+8	WNW	4	cip	50	85	7	8	–	–	7-8	7-8	1500
13B	Stornoway	1017·3	+14	WSW	6	c/pr	49	92	8	5	7	–	7-8	9+	2000
15	Dalwhinnie	1021·3	+6	WSW	4	ido	46	85	8	8	–	–	9	9	1500
	Aberdeen	1018·0	+4	WS	3	c	49	85	8	8	7	9	1	7-8	2200
	Wick	1014·9	−14	W	5	c	51	65	9	5	–	8	7-8	7-8	2500
16	Sumburgh	1006·3	−6	W	8	dodo	49	92	6	5	–	–	10	10	1000
17	Blacksod Point	1027·0	+2	WSW	4	DR	52	97	6	6	–	–	10	10	800
18	Malin Head	1025·2	+8	W	3	c	50	97	7	6	–	–	9	9	1500
	Aldergrove	1026·8	−10	SWS	3	ido	48	92	7	5	2	–	9	10	1000
19	Birr Castle	1029·6	−2	SSW	2	c	51	85	8	5	3	–	4-6	7-8	2500
20	Valentia Obsy. †	1031·4	−2	SW	4	c	53	85	8	8	–	–	9+	9+	4000
	Roches Point	1031·9	−6	SWS	3	c	50	92	8	5	–	–	9+	9+	1500

OBSERVATIONS at 18h. G.M.T. 21st December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.—13h. 21st (37)	Weather 13h.—18h. 21st (38)	Weather 18h. 21st to 1h. 22nd (39)	Weather 1h.—7h. 22nd (40)
London (Kew)	1031·9	−2	SW	1	bcf-	39	92	3	5	–	–	4-6	4-6	2500	1	*	Fbccf	cbcff	cffcm	cmirom
Croydon	1032·0	−2	S	2	m	39	85	4	5	–	–	2-3	2-3	3000	1	*	Fbcm	bczocmo	cf	cmoido
S. Farnborough	1032·5	−2	SW	1	zo	41	92	6	5	3	–	4-6	7-8	4000	1	*	ofwecmo	cmo	bcmowfc	cfmmo
Boscombe Down	1032·9	−2	–	0	m	42	97	4	5	–	–	10	10	5000	1	*	cmo	cmo	cbcmfw	cbcmo
Thorney Island	1033·1	+2	–	0	zo	42	85	5	5	–	–	10	10	3800	1	*	bcmmo	cmo	cmocm	cmcmo
Lympne	1032·8	0	SW	1	m/f	36	92	4	5	3	7	2-3	10	5000	1	§2	cmoc	bcczof	ofcmmo	cbcfdo
Manston	1032·5	−2	SW	2	m	38	85	4	5	–	–	10	10	3800	1	*	cmoOFF	cfbcmo	cmom	cmfido
Shoeburyness	1032·1	−2	SW	1	m	41	85	4	5	–	–	10	10	2500	1	*	FeFe	OF emc	obof	ofcmido
Felixstowe	1031·6	−6	SWW	3	cf-	39	85	3	5	–	–	9	9	3000	1	2	bmbcmo	cmobcmw	bfcff	idof
Gorleston	1030·6	−18	SWW	2	zo	41	85	6	–	4	–	0	2-3	–	0	2	bcz	bccbczo	cmo	cpromw
Mildenhall	1031·0	−4	SW	3	m	40	97	4	–	–	1	0	2-3	–	0	*	bcmocmo	cmof	cmwcm	cid,mcm
Cranwell	1030·0	0	SW	4	m	44	85	4	–	4	–	0	1	–	1	*	cffcm	cmocm	cmoirom	iro[illegible]
Birmingham	1031·0	−2	WSW	2	c	45	85	6	5	–	–	9+	9+	2500	1	*	c	c		
Upper Heyford	1031·6	−4	SSW	2	bf-	41	97	3	–	3	–	0	Tr	–		*	Ofcfm	cmomof	bfcfm	cmidomo
Ross-on-Wye	1031·9	0	WSW	2	zo	46	85	5	5	–	–	10	10	2500	1	*	cmdoOz	cz		[illegible]
Hartland Point	1032·9	+2	SSW	2	c	47	92	8	5	–	–	9+	9+	2500	1	3	cro	cfrc	cpcrob	cbcc
Bristol	1033·0	+2	WS	2	zo	45	92	6	5	–	–	10	10	3000	1	*	cmmo	cmo	cmo	
Portland Bill	1033·0	+8	W	2	c	48	92	7	5	–	–	10	10	2500	1	2	c	c	o	o
Plymouth	1034·0	+2	–	0	of	47	85	2	5	–	–	10	10	3000	1	1	cmf	cmcf	efidocm	cmdodom
The Lizard	1034·0	+4	–	0	c	46	92	8	8	2	–	7-8	9+	1500	0	3	c	c	oc	co
Scilly (St. Mary's)	1033·4	0	NW	2	c	48	85	8	8	–	–	9+	9+	1200	1	2	c	cpoc	c	c
Guernsey																				
Pembroke	1032·1	0	WS	5	c	50	97	8	8	–	–	9+	9+	2500	1	3	c	c	cbc	cddm
Holyhead (Valley)	1029·4	+2	WSW	3	dodo	49	97	6	5	2	–	9	10	1800	1	3	c	iro dodo	cdodromo	crdofm
Chester (Sealand)	1029·4	−2	WS	2	zo	50	75	6	5	–	–	9+	9+	3400	1	*	cmczo	cczo	ccmo	[illegible]
Manchester	1029·6	−2	SW	2	c	46	92	6	5	–	–	10	10	3500	1	*	c	cmoc	roro	rodo
Spurn Head	1028·4	−6	SWW	4	zo	45	85	5	5	–	–	2-3	2-3	1500	1	3	cm	bcmo	croc	c
Catterick	1027·1	0	WS	4	c	49	85	8	5	7	–	2-3	7-8	2500	1	*	cmocbc	bcc	cbcb	cmobmo
Tynemouth	1025·6	0	W	4	zo	50	85	6	5	–	–	7-8	7-8	2500	1	3	cmo	c	cbcc	cbc
St. Abbs Head	1022·0	−4	W	4	bc	49	85	8	4	4	–	2-3	4-6	2500	0	3	c	cbc	bcc	cbcb
Leuchars	1022·5	+10	W	3	bc	46	85	8	5	3	–	Tr	2-3	2000	1	*	c	cbbc	bbcw	bcwb
Renfrew (Abbots I.)	1025·1	+10	SWW	4	c	49	75	8	5	–	–	9+	9+	2700	1	*	croro, mo	cbcc	bc,ciro	bcmoc
Eskdalemuir	1025·2	+4	WSW	3	c	47	85	7	5	–	–	7-8	7-8	800	1	*	odod o	ododoc	cbc	bcc
Point of Ayre	1027·3	+4	WN	5	iro	50	97	7	6	2	–	9	10	1500	1	3	croro	roroiro	irobc	bcb
Tiree	1025·6	+6	WNW	3	bc	48	85	7	5	–	–	4-6	4-6	2500	0	4	cido	bc	bc	bcc
Stornoway	1020·9	+16	WSW	5	c	46	92	7	5	7	–	4-6	9+	2500	1	2	cido pr	cpr	cbccpr	cpr
Dalwhinnie	1024·2	+8	WSW	4	bc	43	85	8	8	–	–	4-6	4-6	2500	1	*	oiroc	cido		bcidoc
Aberdeen	1020·9	+16	W	3	bc	49	75	6	5	7	–	Tr	4-6	2400	1	2	cbc	bc	bcb	bzo
Wick	1017·9	+18	NN	6	bc/pr	46	85	8	3	–	–	2-3	2-3	3000	1	*	bcir	bcprobc	bc	bcbb
Sumburgh	1012·8	+56	WNW	7	roro	47	85	6	5	–	–	10	10	800	1	6	dodo	cdoidoro	roromobc	pro,o,pr
Blacksod Point	1028·8	+12	WN	2	c	49	97	7	5	–	–	9+	9+	1500	1	2	r	c	pr	bc
Malin Head	1026·9	+14	W	1	bc	48	92	8	2	–	–	2-3	2-3	4000	1	5	c	c	d	c
Aldergrove	1028·0	+10	WS	1	zo	48	97	6	5	–	–	9	9	2100	1	*	ciroc	cido idm	bc	w,cbcmo
Birr Castle	1029·2	+2	SSW	1	iro	49	97	7	5	–	–	10	10	2500	1	*	bc	r	*	r
Valentia Obsy. †	1031·7	+6	SW	4	c	53	85	7	5	–	–	9	10	4000	1	4	bc	c	r	d
Roches Point	1032·3	+6	SW	3	c	50	92	8	5	–	–	9+	9+	1500	1	*	bc	bc	r	r

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus :—bc/r, fair weather after rain ; —, has decreased ; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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 : similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing : sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing : usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations :—
Cirrus,–Ci : Cirrocumulus,–Cc : Cirrostratus,–Cs : Altocumulus,–Ac : Altostratus,–As : Stratocumulus,–Sc : Stratus,–St : Nimbostratus,–Ns : Cumulus,–Cu : Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

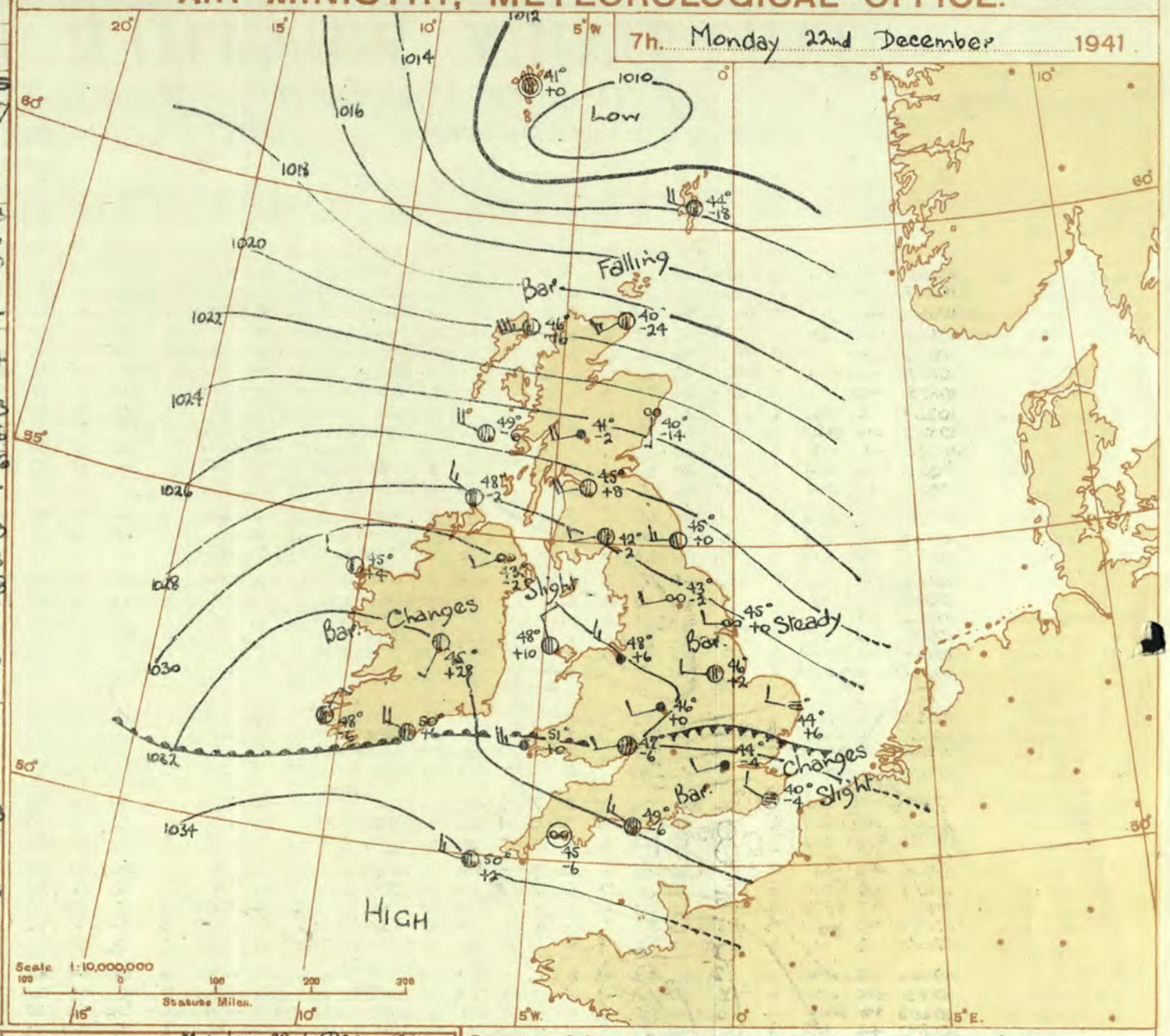
Abridged observations of additional stations in the AVIATION WEATHER CODE

	13h. G.M.T. 21st December			18h. G.M.T.			01h. G.M.T. 22nd December			07h. G.M.T.		
III	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN	$C_L C_M$	wwVhN_h	DDFWN
109	5-	61647	36867	8-	25665	59785	80	01744	24524	3-	38645	25685
115	52	81735	91888	52	81844	91786	54	81844	91685	52	81844	89687
203												
206	86	10858	55564	80	01854	22284	50	01964	20414	50	00361	55411
210				46	01853	54424	50	00862	21412	50	00871	20401
220	50	81085	23315							52	03545	24528
230	5	25745	20485	83	01855	20285	57	02856	24217	5-	07858	54416
245	5	01943	53424	57	02842	23317	54	00852	18203	50	01863	23103
260	5-	51748	53658	50	05651	22451	51	05634	20318	50	05661	21311
278	52	61834	22468	5-	21747	24257	50	01854	24315	50	21854	25354
279	5-	52648	53458	5-	05644	20358	50	05652	22302	5-	01764	21314
285										50	01744	28414
288	53	02854	20325	57	02854	20327	50	05663	18213	5-	02867	17117
575	62	52636	20458	5-	02748	26258	50	02753	24215	50	01753	27353
301	52	02755	21428	5-	62648	20468	02	51428	24358	5-	05658	24258
321	57	05673	18325	51	05555	19327	5-	05548	21368	5-	05656	23226
299				50	08456	23316	5-	05644	00024	50	01754	22214
292	17	08461	17215	5-	02886	22426	5-	01754	20114	50	00751	20111
310										--	56103	20349
614	5			57	05554	20225	5-	52448	22258	5-	43348	26168
333	5-	01867	20417	57	61874	22428	51	54645	22468	52	05645	22358
334										--	02645	20316
340	5-	02868	20328	5-	02763	22328	5-	61758	22268	5-	51648	20158
136	5-	08458	22228	50	43364	20244	02	57343	24348	--	48309	24259
336												
350	5-	51447	20247	03	47907	18354	5-	45268	20348	5-	05247	20268
368	5-	21756	20157	5-	05658	00028	5-	05655	26228	5-	51647	23358
379	5-	43328	18258	50	08443	20243	5-	41568	20348	5-	21688	22258
390	--	41003	22149	50	43164	20244	5-	43268	00048			
382	5-	51537	22217	53	45364	22244	5-	08567	22227	5-	53558	24228
438	50	01764	32314							8-	02755	24325
430				53	47365	00048	5-	08468	24148	5-	21667	24358
409	5-	02867	16168	5-	05668	22127	5-	05668	18228	52	05636	23358

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Monday 22nd December 1941



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Monday 22nd Dec. 1941.
1 S.E. England	Light westerly wind mainly dull, some light rain or drizzle; average temperature.
2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light or moderate westerly wind mainly dull with occasional slight rain some fair intervals tonight but with local fog; rather low temperature.
5 S.W. England 6 South Wales ...	As 1.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Moderate west or west-northwest wind; mainly fair with variable cloud, local fog near large towns at night; rather low to average temperature.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Freshening west-northwest wind, variable cloud, occasional showers; rather low temperature.
13A. W. Scotland + 13B N.W Scotland 14 Mid Scotland 15 N. E. Scotland + 16 Orkneys and Shetlands +	Wind west veering northwest, fresh, strong or gale at exposed places at first; rain showers at first, local snow showers later becoming cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light or moderate west wind backing southwest later, fair at first, low cloud and rain spreading from southwest later; average temperature becming rather mild.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

Pressure is high to south and southwest of the British Isles. A small depression northwest of Shetland is moving east-southeast and a feeble trough of low pressure over Southern England is moving slowly south. Weather will be mainly dull with occasional rain or drizzle in the South. Elsewhere there will be fair periods but with some showers especially in the North.

FURTHER OUTLOOK.

Mainly cloudy and mild; much fog in the South, occasional rain in the North. Warning of southwest gale issued for districts 13; 15, 16 at 0740 22/12/41.

Forecasts issued at 10.30h.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Monday 22nd December,

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. (↯) Thunderstorm. ↯ Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 22nd December 1941.

No. 29230

OBSERVATIONS at 1 hr. G.M.T. 22nd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	41	*	*	*	*	*	*	*	*
	Croydon	217	1031·5	−2	WSW	2	m/f	42	97	4	S	–	–	10	10	6500
	S. Farnborough	226	1032·0	−4	–	0	of	41	97	3	S	–	–	10	10	4500
	Boscombe Down	417	1032·7	−2	WSW	1	m/f	40	97	4	S	–	–	10	10	3500
	Thorney Island	10	1032·6	−2	WNW	2	m	43	92	4	S	–	–	10	10	4600
	Lympne	346	1031·8	−6	WNW	1	zo	39	92	5	S	–	–	10	10	3500
	Manston	154	1031·5	−2	SWW	2	m	41	85	4	S	–	–	10	10	4200
2	Shoeburyness	11	1031·1	−6	SSW	2	f	42	92	2	–	–	–	10	10	<150
	Felixstowe	15	1030·7	−4	W	3	of	40	92	2	S	–	–	10	10	3200
	Gorleston	5	1029·5	−4	WN	3	zo	41	92	6	S	–	–	10	10	1500
	Mildenhall	19	1030·3	−4	SW	3	m	43	97	4	S	–	–	10	10	2500
	Cranwell	240	1029·0	−2	W	3	iro	45	92	4	S	–	–	10	10	1500
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1031·1	−6	SW	1	m/f	40	97	4	S	–	–	10	10	3100
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1032·4	−2	WNW	3	c	50	85	8	S	2	–	7-8	10	2500
	Bristol	209	1032·0	−4	NNW	2	zo	47	92	6	S	–	–	4-6	10	2000
	Portland Bill	32	1032·3	−4	WNW	3	o	48	92	7	S	–	–	10	10	2500
	Plymouth	82	1033·9	−2	–	0	m	44	97	4	S	–	–	10	10	2500
	The Lizard	240	1034·3	0	–	0	c	47	85	7	S	2	–	7-8	7-8	1500
	Scilly (St. Mary's)	163	1034·1	+2	NWW	3	c	50	85	7	S	–	–	10	10	1500
	Guernsey	175														
6	Pembroke	142	1031·9	−2	WN	4	bc	51	97	7	2	1	–	2-3	4-6	4000
7	Holyhead (Valley)	26	1029·4	−4	WSW	4	roro	49	97	6	S	–	–	10	10	600
	Chester (Sealand)	16	1029·0	−6	NW	1	o	49	92	7	S	–	–	10	10	1600
8	Manchester	235	1029·3	−2	WS	3	roro	46	97	6	S	2	–	9+	10	1000
10	Spurn Head	29	1028·3	−2	W	3	zo	46	92	5	S	2	–	7-8	10	1500
	Catterick	175	1028·0	0	SSW	1	b	45	85	7	S	4	–	Tr	1	3500
	Tynemouth	108	1026·9	+4	W	4	c	47	85	7	2	–	–	7-8	7-8	2500
11	St. Abbs Head	280	1024·5	0	W	3	bc	47	75	8	4	4	–	4-6	4-6	2500
	Leuchars	36	1025·0	+6	SW	2	bc	40	92	8	–	4	6	0	4-6	–
12	Renfrew (Abbots I.)	19	1026·8	+6	W	3	zo	45	85	6	S	–	–	4-6	4-6	3500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1028·5	0	WN	2	bc	46	97	8	–	7	–	0	4-6	–
13A	Tiree	22	1026·1	0	NW	3	bc	46	85	8	8	–	–	2-3	2-3	2800
13B	Stornoway	80	1023·7	0	SW	3	c/pr	44	92	7	S	7	–	4-6	9+	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Wick	119	1021·8	+14	WSW	3	c	39	85	7	S	–	–	7-8	7-8	3500
16	Sumburgh	30	1016·5	+6	NW	4	pr	46	85	7	8	–	–	9+	9+	1200
17	Blacksod Point	18	1030·6	+4	SW	1	pr	48	92	7	9	–	–	7-8	7-8	1500
18	Malin Head	84	1028·1	+2	W	1	c/d	48	92	6	9	–	–	7-8	7-8	800
	Aldergrove	268	1029·7	+2	SSW	1	bc	45	92	7	S	4	6	2-3	4-6	2000
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1031·8	−4	SWW	4	dodo	52	97	6	S	–	–	10	10	800
	Roches Point	22	1032·0	−2	WSW	3	iro	51	97	8	6	2	–	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 22nd December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 21st Hrs. (36)
London (Kew)	1030·8	−2	SW	2	o/r	43	97	4	S	–	–	10	10	2500	1	*	41	38	26	Tr	Tr	0·0
Croydon	1030·4	−4	SW	2	ido	44	97	5	S	–	–	10	10	2000	1	*	47	36	33	–	Tr	2·4
S. Farnborough	1031·3	−2	WSW	2	zo	43	97	5	S	–	–	10	10	3000	1	*	44	39	29	–	Tr	0·0
Boscombe Down	1031·9	−6	WN	1	bc	43	97	5	S	–	–	4-6	4-6	3100	1	*	43	34	30	Tr	Tr	0·0
Thorney Island	1031·9	−4	–	0	zo	43	97	5	S	–	–	10	10	3600	1	*	45	40	37	–	–	*
Lympne	1030·8	−4	NW	2	cf	40	97	3	S	–	–	9	9	3800	1	§2	44	35	32	–	0·3	3·2
Manston	1030·3	−6	W	2	df	42	97	2	S	–	–	10	10	300	1	*	40	37	34	–	0·2	0·8
Shoeburyness	1030·3	−6	WSW	3	ido	44	92	4	S	–	–	10	10	1100	1	*	41	40	31	–	Tr	0·0
Felixstowe	1029·7	−2	WN	3	f	43	97	3	S	–	–	10	10	1500	1	2	43	37	32	–	0·1	4·5
Gorleston	1029·6	+6	NNW	2	m	44	97	4	S	–	–	10	10	1500	1	2	43	38	32	–	Tr	*
Mildenhall	1029·6	−4	WSW	3	m/d	45	97	4	S	–	–	10	10	1900	1	*	44	35	32	Tr	0·1	1·1
Cranwell	1029·1	+2	W	2	m/d	46	97	4	S	–	–	10	10	1800	1	*	46	43	40	–	0·1	0·1
Birmingham	1030·3	0	WSW	2	dodo	46	97	4	S	–	–	10	10	450	1	*	46	43	*	–	0·5	*
Upper Heyford	1030·3	−2	SSW	1	ido	43	97	4	S	–	–	10	10	1700	1	*	45	37	33	–	0·4	*
Ross-on-Wye	1030·3	−6	WSW	2	c	47	85	6	S	–	–	9+	9+	2500	1	*	47	44	36	Tr	0·1	0·2
Hartland Point	1031·6	−4	W	4	c	50	97	8	S	2	–	7-8	10	2500	1	4	48	46	45	1	Tr	0·1
Bristol	1031·2	−4	WSW	1	c/d	48	92	6	S	–	–	9	9	2000	1	*	46	41	38	–	Tr	0·0
Portland Bill	1031·5	−6	NW	3	o	49	92	7	S	–	–	10	10	2500	1	3	48	46	*	–	–	*
Plymouth	1033·3	−6	–	0	zo	45	97	5	S	–	–	10	10	2000	1	1	48	43	40	–	1	0·0
The Lizard	1033·7	−4	WNW	3	o	49	75	7	S	–	–	10	10	1500	0	3	49	43	*	–	–	0·0
Scilly (St. Mary's)	1033·8	+2	NWW	3	c	50	92	7	S	–	–	10	10	1500	1	*	50	47	*	0·1	–	0·0
Guernsey																						
Pembroke	1031·1	0	W	5	dd	51	97	5	8	–	–	10	10	1500	1	3	51	47	*	Tr	0·4	0·7
Holyhead (Valley)	1030·5	+10	NNW	2	c/d	48	97	7	8	1	–	9	9+	1200	1	2	50	48	47	0·1	3	*
Chester (Sealand)	1029·6	+6	NW	3	roro	48	97	5	S	–	–	10	10	1500	1	*	51	48	45	–	2	0·0
Manchester	1029·6	+2	NW	1	ido	47	97	6	–	2	–	4-6	10	600	1	*	47	46	45	0·1	1	*
Spurn Head	1028·4	0	W	2	zo	45	92	6	S	–	–	4-6	4-6	1500	1	2	45	42	*	–	–	0·0
Catterick	1028·0	−2	WS	2	zo	43	92	6	S	–	–	Tr	Tr	2500	0	*	51	42	31	–	–	2·6
Tynemouth	1027·3	0	W	2	bc	45	92	7	2	–	–	2-3	2-3	2500*	1	3	51	44	38	–	–	*
St. Abbs Head	1024·2	−4	W	4	b	45	75	8	4	–	–	Tr	Tr	2500	0	3	51	43	*	–	–	*
Leuchars	1024·3	−8	WSW	3	b	37	92	9	–	–	–	0	0	–	1	*	51	36	28	–	–	0·3
Renfrew (Abbots I.)	1026·3	+8	WSW	4	c	45	92	7	S	–	–	7-8	7-8	3500	1	*	50	44	35	2	Tr	2·6
Eskdalemuir	1026·7	−2	WS	2	c	42	85	8	S	–	–	9	9	1500	1		47	41	40	2	–	0·0
Point of Ayre	1029·2	+4	NW	4	b	47	92	8	4	–	–	1	1	2500	1	3	50	44	*	1	0·4	0·0
Tiree	1025·6	−6	WNW	4	c	49	85	7	S	–	–	7-8	7-8	2100	0	4	51	46	*	0·1	–	1·3
Stornoway	1020·2	−16	WSW	7	c/pr	46	97	7	S	7	–	7-8	10	2000	1	3	51	44	*	0·2	1	0·5
Dalwhinnie	1024·8	−2	WSW	4	ido	41	75	8	8	–	–	4-6	4-6	2500	1	*	48	38	32	0·6	0·1	0·0
Aberdeen	1022·3	+14	S	1	zo	40	75	5	S	–	–	Tr	Tr	3200	1	2	52	38	30	–	–	0·4
Wick	1018·6	−24	SWW	3	bcl	40	85	7	S	–	–	2-3	2-3	3500	1	*	51	39	35	Tr	Tr	*
Sumburgh	1014·8	−18	WNW	4	bc/pr	44	97	7	8	–	–	4-6	4-6	1200	1	*	50	44	40	1	2	0·0
Blacksod Point	1031·7	+4	NWW	2	bc	45	92	8	4	–	–	2-3	2-3	2500	1	3	52	43	*	3	0·1	*
Malin Head	1028·3	−2	NW	3	c	48	75	7	8	–	–	7-8	7-8	4000	1	4	51	45	*	0·1	3	0·1
Aldergrove	1030·2	−2	SWW	2	zo	43	97	6	S	–	–	4-6	4-6	2000	1	*	49	42	38	0·3	–	0·0
Birr Castle	1032·2	+28	SSW	1	bc	45	97	8	S	–	–	4-6	4-6	2500	0	*	52	45	44	0·5	3	1·6
Valentia Obsy.	1033·5	+6	NE	2	c	48	97	8	S	–	–	7-8	7-8	1500	1	3	54	47	42	–	1	2·4
Roches Point	1032·3	+6	WNW	4	c	50	92	8	S	–	–	7-8	7-8	1500	1	*	51	49	*	–	0·2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	Fbccf	cbcif	cmirom	41	38	26	Tr	Tr	0·0	*	*	4
Croydon	217	Fbcm	bczoc	cmoldo	47	36	33	–	Tr	0·4	*	*	4
Greenwich (Royal Observatory)	149	Rebf	bcbff	bcidomo	42	39	30	–	Tr	1·1	72	91	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	45	33	32	0·1			91	95	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110	o	c	*	39	39	31	–	Tr	*	*	95	*
Kensington	80	ofbc	bcf	*	41	38	30	–	0·2		91	96	*
Hampstead Observatory	450	of	of	ofg	39	38	33	–	0·1		*	99	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre. 24 hrs. ended 7h. G.M.T. 22nd

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
0·9	18h 21st	0·1	1-6h 22nd

FOREIGN OBSERVATIONS.

Stations	Evening of 21st December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 22nd December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	1009·2	–	0	bc	35	1013·2	SE	1	prs	34	*	*	*	*
Lisbon (18h and 07h)	1021·2	NNE	5	b	45									
¶Madrid (18h and 07h)	904·3	NE	5	u	39									
Cairo (Heliopolis) (18h and 06h)						1020·1	S	3	b	52		51		–
Toronto (13h and 01h)														
Washington (13h and 01h)														

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

[redacted] SECTION

Tuesday 23rd December 1941.

No 29251

OBSERVATIONS at 13h. G.M.T. 22nd December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	%Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	1029·8	-14	WSW	2	z_o	47	92	5	5	-	-	9+	9+	2500
	Croydon	1029·9	-10	W'S	2	m	48	97	4	5	-	-	10	10	400
	S. Farnborough	1030·3	-14	WSW	3	z_o	48	97	5	5	-	-	10	10	600
	Boscombe Down	1031·4	-10	W'S	3	do do	47	97	5	-	2	-	10	10	400
	Thorney Island	1031·0	-14	W	2	ir_o	48	97	4	5	-	-	10	10	250
	Lympne	1030·0	-10	W	1	o/f	46	97	4	5	-	-	10	10	500
	Manston	1029·1	- 8	W	2	o/f	47	97	4	5	-	-	10	10	300
2	Shoeburyness	1029·5	-12	W'S	2	f	47	97	3	5	-	-	10	10	400
	Felixstowe	1028·7	-10	W	4	m	47	92	4	5	-	-	10	10	3000
	Gorleston	1027·8	-18	W'N	2	m	47	92	4	5	-	-	10	10	500
	Mildenhall	1028·8	-4	W'S	3	m	47	97	4	5	-	-	9	9	1500
	Cranwell	1028·8	- 6	WNW	3	z_o	47	85	5	5	-	-	9+	9+	3000
3	Birmingham	1029·8	-2	NW	3	m	48	97	4	5	-	1	9+	9+	1500
	Upper Heyford	1029·6	-10	WSW	2	z_o	50	92	6	9	5	-	9	9+	1600
4	Ross-on-Wye	1031·2	+10	W	3	c	48	75	8	5	-	-	9+	9+	3500
5	Hartland Point	1031·8	0	NW	3	c/f	50	97	5	5	-	-	9+	9+	100
	Bristol	1031·1	+6	WNW	2	z_o	49	97	6	5	1	-	7-8	9+	2500
	Portland Bill	1031·1	-12	WSW	3	pr	50	92	7	5	-	-	10	10	2500
	Plymouth	1033·3	- 6	W'N	4	do	51	97	5	5	-	-	10	10	1000
	The Lizard	1034·2	0	W'N	4	c	51	92	8	9	6	-	7-8	7-8	1500
	Scilly (St. Mary's)	1034·1	-2	NW'W	3	c	53	92	8	8	4	2	4-6	7-8	800
	Guernsey														
6	Pembroke	1032·4	+2	N'W	4	c	51	92	8	8	3	-	7-8	9+	2500
7	Holyhead (Valley)	1031·1	+6	NW	3	c	48	85	9	8	-	-	9+	9+	2500
	Chester (Sealand)	1030·6	+6	W'N	3	z_o	48	85	6	5	-	-	4-6	9+	800
8	Manchester	1030·0	-2	NW'N	3	pr	47	92	6	8	-	-	9+	9+	1800
10	Spurn Head	1027·6	- 8	W'N	4	bc	46	85	5	5	-	4	4-6	4-6	2500
	Catterick	1027·5	- 6	W'N	3	c	48	75	8	8	3	1	9	9+	1500
	Tynemouth	1025·9	- 6	W	3	c	48	75	6	8	-	-	7-8	7-8	2200
11	St. Abbs Head	1022·0	-14	W	5	c	48	75	8	5	7	-	4-6	9+	2000
	Leuchars	1021·1	-20	W	5	c	49	75	9	5	7	-	4-6	9	4500
12	Renfrew (Abbotsl.)	1025·0	-12	NW'W	6	c/r	49	65	8	5	3	5	2-3	9	1800
	Eskdalemuir	1025·1	-10	W'S	5	c/pr	45	85	8	5	3	-	7-8	9	1500
	Point of Ayre	1029·1	- 4	NW'W	5	c	48	85	8	5	7	9	4-6	9	3000
13A	Tiree	1028·2	+6	NW	4	bc	50	75	8	8	3	-	4-6	4-6	2500
13B	Stornoway	1023·0	+34	WNW	6	pr	46	92	8	3	9	5	7-8	9+	1500
15	Dalwhinnie	1024·4	+8	W	3	ir_o	43	75	8	5	-	-	10	10	2500
	Aberdeen	1019·5	- 8	NW	6	bc jp	47	75	8	8	-	3	2-3	2-3	2100
	Wick	1017·5	+4	NW'W	4	pr	43	85	8	3	-	-	9	9	1800
16	Sumburgh	1011·9	0	WNW	4	pr	45	85	7	9	-	-	9	9	1200
	Blacksod Point	1033·8	+6	WNW	2	c	50	85	8	-	7	-	0	10	-
18	Malin Head	1029·4	+6	W'N	6	dr	49	92	6	9	-	-	7-8	7-8	1500
	Aldergrove	1030·7	- 6	W'S	4	c	47	85	8	5	-	8	7-8	9+	2500
19	Birr Castle	1033·8	+2	SSE	2	c	47	85	8	5	1	-	7-8	10	4000
20	Valentia Obsy. †	1035·3	+2	N	3	c	49	75	9	5	-	-	9+	9+	2500
	Roches Point	1033·8	- 2	N	4	c	48	92	8	8	4	-	7-8	9	1500

OBSERVATIONS at 18h. G.M.T. Monday 22nd December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. ·mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	%Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base. (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1030·7	+8	NNW	3	bc/f	48	85	4	5	1	-	Tr	4-6	1500	1	*
	Croydon	1029·6	-2	SW	1	m	48	97	4	6	-	-	4-6	9+	2500	1	*
	S. Farnborough	1030·8	+6	NW	2	c	48	97	5	5	-	-	9	9	4500	1	*
	Boscombe Down	1031·3	+8	NW'N	2	z_o	47	85	6	5	-	-	9+	9+	3000	1	*
	Thorney Island	1031·1	+2	WNW	1	m	49	97	4	5	2	-	9+	10	600	1	*
	Lympne	1030·2	+2	WNW	1	OF+	46	97	2	5	-	-	10	10	1500	1	§
	Manston	1029·5	+2	WNW	2	cF+	47	97	1	5	-	-	9+	9+	5000	1	*
2	Shoeburyness	1029·6	0	WNW	3	bf	46	92	3	-	-	-	0	0	-	1	*
	Felixstowe	1029·0	0	WNW	4	m	47	85	4	-	-	6	0	1	-	1	
	Gorleston	1028·1	0	NW'W	3	bcF+	46	85	3	5	-	-	4-6	4-6	250	1	2
	Mildenhall	1029·1	+4	W'S	3	z_o	42	97	5	5	-	-	1	1	2500	1	*
	Cranwell	1028·9	0	W	3	z_o	45	75	5	-	7	-	0	4-6	-	1	*
3	Birmingham	1030·3	0	WNW	3	z_o	45	75	5	5	-	-	10	10	2500	1	*
	Upper Heyford	1031·0	+6	NW'W	2	m	42	92	4	5	-	-	1	1	3500	1	*
4	Ross-on-Wye	1031·6	+10	W'S	1	bc	45	85	8	5	-	5	1	4-6	3500	1	*
5	Hartland Point	1032·9	+10	N	3	c	48	85	7	5	1	-	4-6	7-8	1500	1	3
	Bristol	1032·2	+12	N	2	z_o	46	75	6	5	1	-	2-3	2-3	3000	1	*
	Portland Bill	1031·1	+4	W	3	pr	50	92	7	5	-	-	10	10	2500	1	4
	Plymouth	1032·9	+4	NNW	1	z_o	50	92	5	5	-	-	10	10	3000	0	2
	The Lizard	1033·4	+2	WNW	4	c/pr	50	92	8	8	2	-	7-8	10	1500	1	3
	Scilly (St. Mary's)	1033·9	+2	N'E	4	ido	49	97	5	5	-	-	10	10	500	1	3
	Guernsey																
6	Pembroke	1033·9	+8	NNW	3	c	48	85	8	8	-	-	9+	9+	2500	1	3
7	Holyhead (Valley)	1031·7	+2	WNW	4	bc	47	85	8	4	-	-	4-6	4-6	3000	1	3
	Chester (Sealand)	1030·9	+2	W'N	4	z_o	47	75	6	5	7	2	4-6	9	3000	1	*
8	Manchester	1030·4	+4	W'N	3	z_o	45	85	5	5	3	-	7-8	10	2500	1	*
10	Spurn Head	1027·3	+2	W	4	bc	46	85	6	5	-	-	2-3	2-3	2500	0	2
	Catterick	1027·8	+6	W'N	4	bc	47	75	8	-	2	-	0	4-6	-	1	*
	Tynemouth	1026·0	+16	W	5	bc	46	85	6	2	3	-	2-3	4-6	2500	1	3
11	St. Abbs Head	1024·5	+22	WNW	5	bc	46	85	8	4	4	-	2-3	2-3	2500	0	
	Leuchars	1026·3	+30	WNW	3	b			9	5	-	-	Tr	Tr	4500	1	*
12	Renfrew (Abbotsl.)	1028·0	+22	NW'W	5	b	45	75	8	5	3	1	Tr	1	2000	1	*
	Eskdalemuir	1028·8	+22	W'N	3	c	44	85	7	5	-	-	7-8	7-8	1500	1	*
	Point of Ayre	1029·8	+10	NW'N	5	b	49	85	8	5	-	-	Tr	Tr	2000	1	4
13A	Tiree	1029·0	+16	NNW	3	bc	48	85	8	8	3	-	2-3	2-3	2800	0	4
13B	Stornoway	1026·9	+12	W	3	bc	41	97	8	3	9	-	2-3	4-6	2000	1	
15	Dalwhinnie	1028·6	+24	NW	3	bc	39	75	8	1	-	-	2-3	2-3	4000	1	*
	Aberdeen	1024·6	+36	NW	4	b	43	85	8	3	-	-	1	1	2200	1	3
	Wick	1023·3	+34	WNW	4	bc jp	41	85	8	3	-	-	4-6	4-6	2500	1	
16	Sumburgh	1020·8	+48	N'W	3	c	40	75	8	8	-	-	9	9	1500	1	4
	Blacksod Point	1034·3	+10	WNW	2	bc	49	92	8	4	-	-	2-3	2-3	4000	*	2
18	Malin Head	1031·1	+14	NW	3	c	48	85	7	8	-	-	7-8	7-8	2500	1	
	Aldergrove	1032·0	+12	W'S	2	bc	45	92	7	5	-	5	1	4-6	2500	1	*
19	Birr Castle	1034·2	+4	WSW	1	c	46	85	8	5	1	-	7-8	10	2500	1	*
20	Valentia Obsy. †	1036·0	+6	N'E	2	c	49	85	9	4	-	-	9+	9+	2500	1	3
	Roches Point	1035·0	+6	N	3	c	48	85	8	8	-	-	9	9	1500	1	

PAST 24 HOURS.

District	Stations. (For heights see p. 4.)	Weather. 7h.—13h. 22nd. (37)	Weather. 13h.—18h. 22nd. (38)	Weather. 18h. 22nd to 1h. 23d. (39)	Weather. 1h.—7h. 23d. (40)
1	London (Kew)	ifodfc	fmbcm	bcbmx	cfx
	Croydon	d	cm	bzbm	bmwcm
	S. Farnborough	d	cmoidoidcmocmobmw	bmwmcd	
	Boscombe Down	ododo	oidomocmo	cbcbmo	bmocf
	Thorney Island	cifom	cmidom	cmbmob	bmobcmo
	Lympne	offddo	omdoff	ofbmo	bmo
	Manston	dfmodo,df	cidomfF	cFbmw	bmw
2	Shoeburyness	dodoffo	cffbff	bfbm	bmbmox
	Felixstowe	ffdocm	embm	bcmbm	bmbcmo
	Gorleston	cmoffcm	cmbcffe	bcfbmo	bcmo
	Mildenhall	bccmo	cmbmow	bmow	bmxbmx
	Cranwell	mofbm	cmo	bcmbmo	bmo,cmo
3	Birmingham	do,bcm	cmz	cb	b
	Upper Heyford	cmo	cmobm	mbcbmo	bcmo
4	Ross-on-Wye	cbc	cbcc	bccb	bbc
5	Hartland Point	idodf	c	cbcc	cbcc
	Bristol	cmo	cbmo	b	bbcmo
	Portland Bill	opr	opr	bc	bcc
	Plymouth	cidomo	cidomo	bmbmow	bmowx
	The Lizard	bcprc	cproc	c	bc
	Scilly (St. Mary's)	c	cpo ido	cdoc	cbccbc
	Guernsey				
6	Pembroke	c	c	cbc	bc
7	Holyhead (Valley)	cv	cbc	bccb	bbciromo
	Chester (Sealand)	cmododo	cdomo	c,bmow	b,cmow
8	Manchester	idopro	cproc	bcmob	bcmo
10	Spurn Head	bcmo	bc	bmo	bcmo
	Catterick	bmobcc	c	bc	cbmoxc
	Tynemouth	c	cbc	bc	bc
11	St. Abbs Head	c	cbc	bbc	c
	Leuchars	bccmoc	cbcb	bbcc	cbcxbc
12	Renfrew (Abbotsl.)	cicoc	cbcb	bcb,cmo	cmocirc
	Eskdalemuir	ccpro	c	cpbcb	bccirc
	Point of Ayre	c	cbcb	b	b idoc
13A	Tiree	cbc	bc	bcc	odo
13B	Stornoway	cpr	cprPHRbc	bccrorc	crorcpr
15	Dalwhinnie	cirso	c	bcprbc	
	Aberdeen	bczbc	bcprbb	bbc	bcirc
	Wick	PPcpor	proprbc	cprPRpr	crorcmcd
16	Sumburgh	cPRpr	prdbc	c,bbc	rorr
	Blacksod Point	c	bc	c	d
18	Malin Head	c	c	bc	c
	Aldergrove	bcmoc	c	c,b,c,w	idoc
19	Birr Castle	f-	bc	*	r
20	Valentia Obsy. †	pr	c	c	c
	Roches Point	c	pr	bc	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

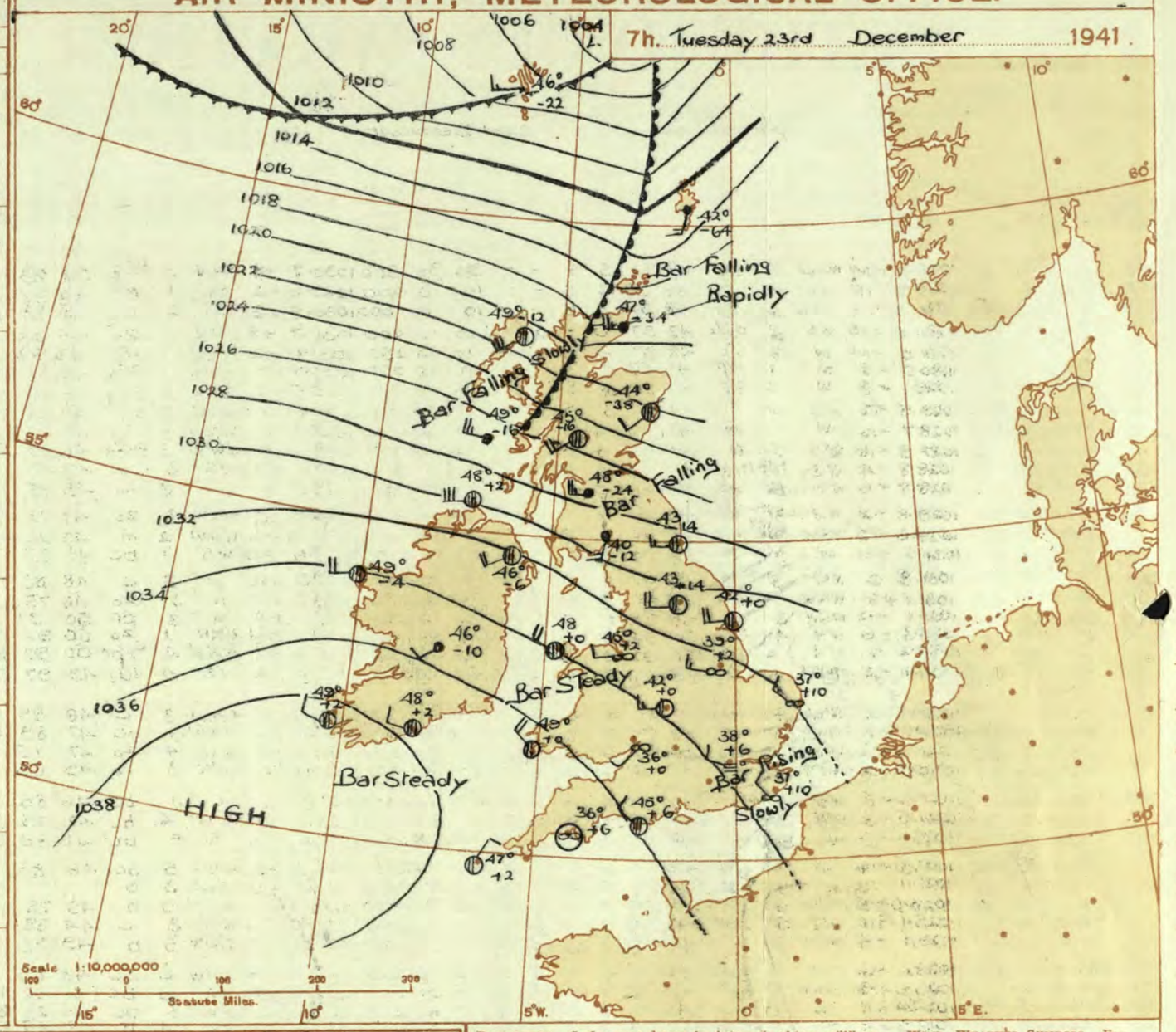
Abridged observations of additional stations in the AVIATION WEATHER CODE

13h. G.M.T. Monday 22nd 18h. G.M.T.							01h. G.M.T. Tuesday 23rd ... 07h. G.M.T.						
III	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
109	3-	25645	62785	3-	81745	63585	51	03761	20288	6-	64638	58668
115	87	81834	93687	54	81844	93685				--	67309	20663
203												
206	8-	81854	24484	8-	81854	24384	51	61863	26464	5-	61855	55668
210	86	25954	57585	83	02854	25325	07	01990	20484	5-	02866	55566
220	83	10954	26415	83	01845	26215	83	01754	27114	5-	58328	24458
230	5-	02744	57557	86	01852	29383	5-	01864	23314	5-	51648	53658
245	54	01948	24414	00	00990	61401	50	01863	26104	5-	22647	00067
260	53	02753	23527	04	00790	26322	50	05663	24304	52	61647	55558
275	53	02846	25527	50	01861	27523	50	00853	24303	57	21846	57458
279	83	81845	85427	50	00752	24383	40	01763	23213	57	02785	22328
285	23	02744	26627	20	01743	30413				20	01744	28514
288	5-	02857	22217				00	05690	24110	50	01874	22114
295	57	02854	26228	57	21755	28356	57	02854	28317	5-	52648	26358
301	6-	02757	26327				00	00790	24300	5-	05655	26318
321	63	05663	25426				00	05690	24220			
299	50	01753	24303				00	00790	28200			
292	47	02964	24416	50	01861	23424	00	00890	26100	54	01764	20204
310	--	03628	24328	--	02648	24318				--	46109	24349
614	5-	05657	24247	57	22127	30146	5-	05661	26201	5-	08456	20117
333	5-	50857	22227	8-	02856	26216	5-	01852	28312			
334	--	02654	24215							--	02646	22217
340	5-	02747	28317	-3	00790	26212				00	05663	26113
136	5-	43338	23348	03	08490	23345	00	05690	28300			
336	67	02754	28418	57	02753	32316				57	02753	32316
350	8-	05656	22258	53	05653	26225				5-	05535	20216
368	86	02854	29326	54	02656	26117	50	00651	26201	50	01663	26203
379	57	02755	28227	57	05644	26225	00	05690	28310	50	05642	28314
390	5-	46347	23257	--	41490	27243	00	05590	26200	07	08490	26228
382	5-	05647	22227	01	05690	29325						
438	5-	02647	26327							50	01663	80313
430							00	04690	00040			
400	5-	51408	26358	52	02637	32368	50	00753	02213	5-	02768	30318

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Tuesday 23rd December 1941.



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Tuesday 23rd December 1941.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light or moderate northwest wind; fair at first, cloud increasing with slight rain later; rather mild.
4 W. Midlands ... 5 S.W. England 6 South Wales ...	Light northwest wind; fair, rather mild.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Moderate northwest wind, fresh at exposed places; cloudy, rain at times; rather mild.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Fresh northwest wind, strong at exposed places; cloudy, rain at times, rather mild.
13A. W. Scotland 13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind northwest fresh or strong, veering north, gale on coasts; cloudy, occasional rain at first, wintry showers later especially in the North; rather mild at first, becoming cold.
17 N. W. Ireland 18 N. E. Ireland	As 7-10.
19 S. E. Ireland 20 S. W. Ireland	As 4-6.

GENERAL INFERENCE.

A large anticyclone is almost stationary to southwest of the British Isles. A deepening depression just northeast of the Faeroes will move southeast. Weather will be fair in the Southwest. Rain will spread southeast from Scotland to North and East England though rainfall will be only slight in the Southeast. Some snow is probable later in the North of Scotland.

FURTHER OUTLOOK.

Rather cold with wintry showers in the North and Northeast. Cloudy and rather mild elsewhere. Warning of southwest to west gale issued at 0245 G.M.T. on 23/12/41 for districts 11.13B 15&16.

Forecasts issued at 10-30h.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Tuesday 23rd December

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. (₹) Thunderstorm. ₹ Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 23rd December 1941.

No. 23251

OBSERVATIONS at 1 hr. G.M.T. 23rd December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	37	*	*	*	*	*	*	*	*
	Croydon ...	217	1031·7	+6	W	3	m	40	92	4	-	-	-	0	0	-
	S. Farnborough	226	1033·5	+10	W	2	m	38	92	4	-	-	-	0	0	-
	Boscombe Down	417	1033·9	+10	WNW	2	b	38	85	6	-	-	-	0	0	-
	Thorney Island	10	1033·1	+8	NW	3	b	40	92	7	-	-	-	0	0	-
	Lympne ...	346	1031·5	+8	NW	3	2o	39	92	5	-	-	-	0	0	-
	Manston ...	154	1031·4	+8	NW	3	m	40	92	4	-	-	-	0	0	-
2	Shoeburyness ...	11	1031·5	+8	W'S	2	m	40	85	4	-	-	-	0	0	-
	Felixstowe ...	15	1031·0	+4	NW'W	4	m	42	92	4	-	-	-	0	0	-
	Gorleston ...	5	1030·4	+18	NW	2	2o	41	97	6	-	-	-	0	0	-
	Mildenhall ...	19	1031·2	+10	W'N	3	2o	37	97	5	-	-	-	0	0	-
	Cranwell ...	240	1031·3	+4	WNW	2	2o	40	92	5	5	-	-	Tr	Tr	3000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1032·4	+4	W	2	2o	38	92	5	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1034·8	+4	N	3	c	48	85	8	5	-	-	7-8	7-8	2500
	Bristol ...	209	1034·4	+6	WNW	2	b	40	85	7	5	-	-	Tr	Tr	3000
	Portland Bill ...	32	1034·1	+12	N	2	bc	46	92	7	5	-	-	4-6	4-6	2500
	Plymouth ...	82	1035·4	+8	NE	1	2o	42	85	5	-	-	-	0	0	-
	The Lizard ...	240	1035·9	+6	NNE	2	c	46	85	7	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1036·0	+6	N'E	3	c	48	85	8	5	-	-	9+	9+	1500
	Guernsey ...	175														
6	Pembroke ...	142	1035·3	+4	NW'N	3	bc	48	92	8	2	-	-	2-3	2-3	2500
7	Holyhead (Valley)	26	1033·5	+6	NW	4	b	45	97	7	-	-	-	0	0	-
	Chester (Sealand)	16	1033·1	+2	W'N	2	2o	45	92	6	5	-	-	Tr	Tr	3000
8	Manchester ...	235	1032·5	+6	WNW	3	b	42	97	7	-	-	-	0	0	-
10	Spurn Head ...	29	1029·9	+16	NW'W	4	2o	42	92	6	-	-	-	0	0	-
	Catterick ...	175	1031·4	+14	W'N	3	b	41	85	7	5	-	-	Tr	Tr	3500
	Tynemouth ...	108	1029·9	+10	WNW	3	bc	42	85	6	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1029·3	+12	WNW	4	c	43	85	7	5	4	-	4-6	7-8	2500
	Leuchars ...	36	1028·7	+6	W	1	c	40	75	8	5	7	-	4-6	9+	4000
12	Renfrew (Abbotsl.)	19	1030·7	+6	—	0	2o	39	92	6	5	-	-	10	10	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1032·5	+6	NW'W	4	b	47	85	8	4	-	-	Tr	Tr	2000
13A	Tiree	22	1029·2	-4	W'N	3	c	48	92	7	5	-	-	5	5	2500
13B	Stornoway ...	80	1023·9	-28	SSW	4	2o	46	97	7	5	2	-	9	10	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	44	*	*	*	*	*	*	*	*
	Wick ...	119	1024·7	-8	WNW	3	pr	39	85	7	8	7	-	7-8	7-8	3200
16	Sumburgh ...	30	1023·0	-10	—	0	bc	35	85	8	-	-	6	0	4-6	-
17	Blacksod Point	18	1035·2	+8	WNW	1	0	48	92	8	5	-	-	10	10	2500
18	Malin Head ...	84	1031·4	-6	W	2	c	48	92	7	5	-	-	7-8	7-8	1500
	Aldergrove ...	268	1033·3	0	SW	1	2o	42	97	6	5	-	-	9+	9+	2000
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1038·2	+10	-	0	c	47	85	8	5	-	-	10	10	4000
	Roches Point	22	1037·5	+8	WNW	1	c	47	85	8	5	-	-	9+	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 23rd December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1034·1	+8	W	2	cf	38	97	8	5	-	-	9+	9+	2500	1	*
	Croydon ...	1033·4	+6	WNW	2	m	38	97	4	5	2	-	2-3	9+	4000	1	*
	S. Farnborough	1035·4	+10	W'N	2	c	36	92	5	-	2	-	0	9+	-	3	*
	Boscombe Down	1035·2	-2	-	0	f	37	97	3	5	1	-	4-6	7-8	3000	1	*
	Thorney Island	1034·5	+6	WNW	3	2o	37	92	6	5	4	-	2-3	2-3	4000	1	*
	Lympne ...	1033·3	+10	NW	2	2o	37	97	5	-	-	8	0	4-6	-	1	§*
	Manston ...	1033·0	+8	NW'N	2	m	40	92	4	-	-	1	0	1	-	1	*
2	Shoeburyness ...	1033·1	+10	W	2	b	38	92	5	-	-	-	0	0	-	1	*
	Felixstowe ...	1032·9	+10	WNW	3	2o	38	92	5	-	-	6	0	4-6	-	1	*
	Gorleston ...	1031·7	+10	NWW	3	2o	37	92	6	5	-	-	4-6	4-6	2500	1	2
	Mildenhall ...	1032·9	+6	WSW	3	m	35	97	4	-	7	-	0	1	-	1	*
	Cranwell ...	1032·1	+2	W'N	3	2o	39	92	5	5	-	-	9	9	3000	1	*
3	Birmingham ...	10336	0	W	3	bc	42	85	6	-	7	-	0	2-3	-	1	*
	Upper Heyford	1034·1	+2	WSW	2	2o	39	92	6	5	-	-	10	10	2000	1	*
4	Ross-on-Wye	1034·5	0	SW'W	1	2o	36	92	6	5	1	6	Tr	9+	3000	1	*
5	Hartland Point	1035·7	0	NW	2	bc	48	85	8	5	-	-	4-6	4-6	2500	1	3
	Bristol ...	1035·7	+6	NW	2	2o	40	97	5	5	1	-	1	4-6	3000	1	*
	Portland Bill ...	1034·9	+6	NW	2	c	45	92	7	4	-	-	10	10	2500	1	4
	Plymouth ...	1036·6	+6	-	0	2o	42	97	5	5	-	-	7-8	7-8	3000	1	2
	The Lizard ...	1036·8	+4	N	2	bc	44	75	8	4	-	-	2-3	2-3	2500	0	3
	Scilly (St. Mary's)	1036·9	-2	NE'N	2	bc	47	85	8	5	-	-	4-6	4-6	1500	1	3
	Guernsey ...																
6	Pembroke ...	1036·1	0	NW	4	bc	49	85	8	2	-	-	4-6	4-6	4000	1	3
7	Holyhead (Valley)	1033·8	0	WNW	4	o/r	48	92	7	5	-	-	10	10	2200	1	3
	Chester (Sealand)	1033·3	+2	W	2	2o	45	85	6	5	7	6	2-3	10	3000	1	*
8	Manchester ...	1032·9	-2	-	0	c	42	97	6	5	-	-	10	10	3000	1	*
10	Spurn Head ...	1030·7	0	W	4	bc	42	92	6	1	4	-	2-3	4-6	4000	0	2
	Catterick ...	1029·9	-14	W	4	bc	43	85	7	5	4	1	2-3	4-6	4000	1	*
	Tynemouth ...	1028·0	-14	W	3	bc	43	85	6	8	-	-	2-3	2-3	2500	1	3
11	St. Abbs Head	1024·8	-32	WNW	4	c	46	85	7	5	4	-	7-8	9+	2500	*	3
	Leuchars ...	1022·9	-42	WSW	3	bc	44	85	7	5	7	-	4-6	4-6	1000	1	*
12	Renfrew (Abbotsl.)	1026·3	-24	W	5	ir.	48	85	7	5	-	-	7-8	7-8	3500	1	*
	Eskdalemuir ...	1028·5	-12	S'W	3	ir.	40	97	5	-	2	-	10	10	220	1	*
	Point of Ayre ...	1031·3	-8	WNW	5	id.	48	92	8	6	7	-	4-6	10	1500	1	4
13A	Tiree	1027·0	-16	W'N	5	d.d.	49	92	7	5	-	-	10	10	1800	1	4
13B	Stornoway ...	1020·7	-12	WSW	6	c/pr	49	97	7	8	6	-	7-8	9+	1500	1	3
15	Dalwhinnie ...	1024·1	-16	WSW	4	c	45	85	7	8	-	-	9	9	2500	1	*
	Aberdeen ...	1021·0	-38	SW'W	2	c/r	44	85	6	6	-	-	7-8	7-8	1600	1	2
	Wick ...	1017·6	-34	W	5	id.	47	85	6	5	-	-	10	10	1500	1	*
16	Sumburgh ...	1013·2	-64	SSW	3	rr	42	97	7	5	2	-	9	10	1800	1	3
17	Blacksod Point	1034·5	-4	W	4	c/d	49	92	7	5	-	-	9+	9+	1500	1	+
18	Malin Head ...	1030·1	-6	W	6	c	49	85	5	9	-	-	9+	9+	800	1	5
	Aldergrove ...	1032·5	-6	WSW	4	c/d	46	92	7	5	-	-	7-8	10	1000	1	*
19	Birr Castle ...	1035·8	+10	WSW	1	ir.	46	92	7	5	-	-	10	10	2500	1	*
20	Valentia Obsy.	1038·3	+2	WNW	2	c	49	75	8	5	-	-	9+	9+	4000	1	3
	Roches Point	1037·5	+2	W'N	2	c	48	75	8	5	-	-	9+	9+	1500	1	*

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F.	Min. Night 18h–7h °F	Min. on Grass °F.	Rainfall. Day 7h–18h mm.	Rainfall. Night 18h–7h mm.	Sunshine 22nd Hrs. (36)
1	London (Kew)	49	37	24	0·4	Tr	0·0
	Croydon ...	49	38	32	1	Tr	0·0
	S. Farnborough	49	34	26	0·1	Tr	0·3
	Boscombe Down	48	37	31	0·6	Tr	0·0
	Thorney Island	49	36	31	0·1	-	*
	Lympne ...	47	45	32	2	-	0·0
	Manston ...	47	39	34	2	0·1	0·0
2	Shoeburyness ...	47	38	29	1	-	0·0
	Felixstowe ...	47	38	34	0·3	-	0·3
	Gorleston ...	49	36	31	-	-	*
	Mildenhall ...	49	33	27	0·3	Tr	0·0
	Cranwell ...	48	38	34	Tr	-	0·3
3	Birmingham ...	48	41	35	0·1	-	0·4
	Upper Heyford	51	36	33	Tr	Tr	*
4	Ross-on-Wye	61	34	29	-	-	0·7
5	Hartland Point	51	46	44	1	-	0·0
	Bristol ...	50	36	27	Tr	Tr	0·0
	Portland Bill ...	51	44	*	0·2	0·3	*
	Plymouth ...	52	32	30	Tr	Tr	0·0
	The Lizard ...	51	42	*	0·2	Tr	0·4
	Scilly (St. Mary's)	53	45	*	0·1	Tr	0·2
	Guernsey ...						
6	Pembroke ...	51	43	*	1	-	0·3
7	Holyhead (Valley)	49	42	33	-	Tr	*
	Chester (Sealand)	48	44	34	Tr	-	0·1
8	Manchester ...	48	39	34	0·2	-	*
10	Spurn Head ...	47	40	*	Tr	-	4·1
	Catterick ...	50	38	30	-	-	2·0
	Tynemouth ...	49	38	35	-	-	0·0
11	St. Abbs Head	49	*	*	-	*	*
	Leuchars ...	50	37	33	-	-	0·3
12	Renfrew (Abbotsl.)	49	38	32	Tr	0·1	*
	Eskdalemuir ...	48	44	34	Tr	-	0·1
	Point of Ayre ...	49	45	*	-	Tr	0·8
13A	Tiree	50	46	*	0·5	Tr	0·2
13B	Stornoway ...	48	40	*	3	2	0·7
15	Dalwhinnie ...	44	32	24	2	0·4	0·0
	Aberdeen ...	48	38	32	Tr	Tr	1·5
	Wick ...	45	37	35	4	3	*
16	Sumburgh ...	46	34	27	3	5	*
17	Blacksod Point	47	*	*	Tr	0·1	*
18	Malin Head ...	50	44	*	0·1	t	0·0
	Aldergrove ...	47	40	35	-	Tr	0·1
19	Birr Castle ...	48	44	42	-	Tr	0·0
20	Valentia Obsy.	49	46	45	Tr	-	*
	Roches Point	50	48	*	Tr	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
KEW	18	ir.dfc	fmbcm	cfx	49	37	24	0·4	Tr	0·0	*	*	3
CROYDON	217	d	cm	zbmwc	49	38	32	1	Tr	0·0	"	*	4
GREENWICH (Royal Observatory)...	149	dr.cmf	cmf	bcbxcf	50	37	27	0·3	Tr	0·0	91	94	2
CITY (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
WESTMINSTER (St. James' Park) ...	27	*	*	*	50	36	32	0·6			92	92	*
REGENTS PK. (Botanic Gardens)‡...	168	*	*	*	50	38	34	0·3	-		82	91	*
CAMDEN SQUARE	110	o	c	*	49	38	31	0·5	-	*	*	96	*
KENSINGTON	80	oc	cf	*	50	37	32	1	Tr		95	96	*
HAMPSTEAD OBSERVATORY	450	ofd	of	bc	48	36	31	0·3	-		*	98	*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 23rd.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·4	16-18h 22nd	0·1	4-5h 23rd

FOREIGN OBSERVATIONS.

Stations.	Evening of 22nd December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 23rd December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)						1012·3	-	0	0	35
Lisbon (18h and 07h)	1023·3	N	2	2o	45	1021·8	NE	5	0	41
¶Madrid (18h and 07h)	905·2	NE'N	5	3	36					
Cairo (Heliopolis) (18h and 06h)	1018·9	W'S	2	b	58					
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*		*	
48	36	-	-
37		3	
66		Tr	

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

§ Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 "
2 Fog	550 "
3 Moderate fog	1,100 "
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ "
6 Moderate "	6½ "
7 Good "	12½ "
8 Very good "	31 "
9 Excellent "	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~SECRET~~

Wednesday 24th December 1941.
No. 29252.

OBSERVATIONS at 13h. G.M.T. 23rd December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1033·2	-20	W'S	3	Z_o	46	75	6	5	–	4	2-3	9	4000
	Croydon	1033·0	-14	WSW	3	Z_o	47	75	5	–	3	6	0	9+	–
	S. Farnborough	1033·9	-18	W'S	3	Z_o	48	75	6	–	–	6	0	7-8	–
	Boscombe Down	1034·7	-14	W'S	3	N_o	45	92	6	5	–	–	7-8	7-8	1500
	Thorney Island	1034·6	-12	NW'W	2	N_o	45	92	5	–	–	2	0	7-8	–
	Lympne	1032·8	-18	WSW	1	Z_o	45	92	4	5	–	2	Tr	4-6	500
	Manston	1032·3	-18	SW'W	2	N_o	44	85	5	–	–	6	0	4-6	–
2	Shoeburyness	1032·4	-6	W	2	C_o	45	85	3	–	–	2	0	7-8	–
	Felixstowe	1031·5	-18	W	4	N_o	45	85	5	–	7	6	0	9+	–
	Gorleston	1029·7	-22	W'N	3	N_o	43	85	6	5	3	–	4-6	9+	2500
	Mildenhall	1031·3	-14	WSW	4	N_o	45	85	6	–	–	7	0	10	–
	Cranwell	1030·1	-10	W	4	N_o	47	85	6	5	–	–	10	10	3500
3	Birmingham	1032·3	-4	WSW	2	C	47	85	6	5	7	–	7-8	9+	4000
	Upper Heyford	1032·9	-16	SW	2	Z_o	46	85	6	5	4	6	Tr	9+	3500
4	Ross-on-Wye	1033·3	-12	SW	2	bc	50	75	8	–	–	2	1	4-6	3500
5	Hartland Point	1035·9	-6	NW	3	C	49	75	9	–	–	–	9	9	2800
	Bristol	1034·4	-18	W	4	bc	48	85	7	–	–	6	Tr	4-6	2000
	Portland Bill	1035·2	-6	W	3	C	48	92	8	2	4	–	4-6	9	4000
	Plymouth	1037·0	-16	NW	2	F_o	49	75	5	5	–	–	9	9	3000
	The Lizard	1037·7	-4	NW	2	C	50	85	8	8	6	–	7-8	7-8	2500
	Scilly (St. Mary's)	1038·4	+2	–	0	C	50	75	8	6	–	–	9+	9+	1800
	Guernsey														
6	Pembroke	1036·1	-4	WNW	4	C	49	92	8	8	–	–	9+	9+	2000
7	Holyhead (Valley)	1033·2	-6	W'N	5	C	49	85	8	5	–	–	10	10	2000
	Chester (Sealand)	1032·1	-10	WNW	5	C	49	75	8	5	7	–	9+	10	1000
8	Manchester	1031·8	-8	W	2	Z_o	46	92	6	5	–	–	10	10	2200
10	Spurn Head	1029·9	-18	W'S	5	Z_o	46	92	5	5	7	–	4-6	7-8	1500
	Catterick	1026·8	-22	W	4	C	50	75	8	5	2	–	9+	10	1500
	Tynemouth	1025·0	-20	W	6	C	49	85	7	8	1	–	9+	9+	2400
11	St. Abbs Head	1021·8	-8	WNW	6	cq	51	75	8	8	5	–	4-6	9	2500
	Leuchars	1020·9	-10	W	5	C	53	75	9	5	7	6	4-6	9	3500
12	Renfrew (Abbotsl.)	1024·5	-14	W'S	6	ir_o	51	85	7	5	7	–	9	9+	1400
	Eskdalemuir	1025·4	-14	W'S	4	$d_o d_o$	48	85	5	–	2	–	10	10	450
	Point of Ayre	1029·9	-8	WNW	6	C	49	85	8	5	1	–	7-8	9+	1600
13A	Tiree	1026·4	0	WNW	5	c/d	50	97	7	5	–	–	7-8	7-8	1500
13B	Stornoway	1022·3	+16	WSW	6	c/d	50	92	7	5	7	–	7-8	9+	800
15	Dalwhinnie	1023·1	+2	WSW	4	ir_o	47	85	7	5	–	–	10	10	1500
	Aberdeen	1018·6	-8	NW'W	4	bc	53	75	8	7	3	9	2-3	2-3	2200
	Wick	1016·9	-6	W	6	C	49	92	9	5	4	6	7-8	7-8	1500
16	Sumburgh	1010·9	+4	NW'W	6	C	47	75	7	8	3	–	7-8	9+	1200
	Blacksod Point	1024·8	-2	W'S	4	dd	51	97	6	6	–	–	10	10	800
18	Malin Head	1029·6	-2	W	5	id	51	97	6	6	–	–	9+	9+	800
	Aldergrove	1031·6	-6	SW	4	C	47	97	8	5	–	–	7-8	9+	600
19	Birr Castle	1036·0	-2	WSW	1	C	49	85	7	5	1	–	7-8	10	2500
20	Valentia Obsy. †	1038·8	-2	WNW	3	C	49	85	9	5	–	–	10	10	2500
	Roches Point	1037·7	-10	WNW	3	C	48	85	8	5	–	–	9+	9+	2500

OBSERVATIONS at 18h. G.M.T. 23rd December

District	Stations.	Barom. at M.S.L. ·mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1032·2	-6	WSW	2	Z_o	43	92	5	–	–	–	0	0	–	1	*
	Croydon	1031·5	-10	W	2	N_o	43	97	4	–	4	–	0	Tr	–	1	*
	S. Farnborough	1032·9	-2	NW	2	N_o	41	97	6	–	3	2	0	7-8	–	1	*
	Boscombe Down	1033·8	-2	WNW	3	C	45	85	7	5	–	–	10	10	1500	1	*
	Thorney Island	1033·3	-6	W'N	3	N_o	44	92	5	5	–	2	2-3	2-3	1500	1	*
	Lympne	1031·6	-6	W	3	N_o	41	92	4	–	3	–	0	7-8	–	1	S
	Manston	1030·9	-8	W'S	3	N_o	42	85	4	5	3	–	2-3	7-8	1500	1	*
2	Shoeburyness	1030·7	-10	W'S	2	C	45	93	4	5	–	2	2-3	7-8	2500	1	*
	Felixstowe	1029·6	-10	W'N	5	Z_o	45	85	5	–	7	–	0	1	–	1	3
	Gorleston	1027·8	-8	WNW	4	N_o	45	85	6	5	–	–	10	10	2500	1	2
	Mildenhall	1029·1	-16	W'S	4	N_o	45	85	6	5	–	–	10	10	7200	1	*
	Cranwell	1028·0	-6	W	4	Z_o	46	92	5	5	–	–	10	10	2000	1	*
3	Birmingham	1031·3	-4	WSW	3	N_o	46	85	6	5	–	–	10	10	1500	1	*
	Upper Heyford	1032·1	-6	WSW	3	C	45	85	7	5	–	–	10	10	1800	1	*
4	Ross-on-Wye	1032·8	-8	WSW	2	C	45	85	8	5	–	1	7-8	9+	3000	1	*
5	Hartland Point	1035·6	0	S	3	C	47	85	8	5	–	–	10	10	2500	1	3
	Bristol	1033·6	-4	WNW	5	bc	45	85	7	5	–	2	2-3	4-6	2000	1	3
	Portland Bill	1034·1	+2	W	5	C	49	92	7	5	–	–	10	10	2500	1	3
	Plymouth	1036·7	-2	NW	3	C	48	85	7	5	–	–	10	10	2000	0	3
	The Lizard	1037·7	+6	NW	4	C	47	75	8	8	2	–	7-8	9+	2500	0	3
	Scilly (St. Mary's)	1037·8	+12	NW'N	2	C	48	85	8	5	–	–	10	10	1500	1	3
6	Pembroke	1035·2	-4	W'N	4	C	49	85	8	5	6	–	7-8	9+	1500	1	3
7	Holyhead (Valley)	1032·1	0	W	5	C	49	97	8	5	2	–	2-3	10	1500	1	3
	Chester (Sealand)	1030·3	-6	W	4	C	51	75	7	5	7	–	7-8	10	2200	1	*
8	Manchester	1030·0	-10	W	4	Z_o	48	92	6	5	–	–	10	10	1200	1	*
10	Spurn Head	1026·1	-2	W	5	Z_o	47	85	5	5	–	–	10	10	1500	1	3
	Catterick	1025·9	-2	WNW	4	C	53	75	8	5	1	–	7-8	9+	1200	1	*
	Tynemouth	1024·4	0	W	6	C	51	85	7	2	3	–	4-6	7-8	2500	1	3
11	St. Abbs Head	1021·2	+4	WNW	6	cq	52	75	7	4	7	–	4-6	9+	2500	0	3
	Leuchars	1021·3	0	WSW	2	C	50	85	7	5	–	–	9	9	3500	1	*
12	Renfrew (Abbotsl.)	1025·0	+6	W'N	4	ir_o	51	85	8	5	–	–	10	10	2200	1	*
	Eskdalemuir	1025·5	+6	W'N	4	$d_o d_o$	48	85	8	5	–	–	10	10	800	1	*
	Point of Ayre	1028·9	0	W'N	4	C	50	92	8	8	7	–	9	10	1500	0	4
13A	Tiree	1026·1	0	WNW	4	C	51	97	7	5	–	–	9+	9+	2500	1	5
13B	Stornoway	1021·0	-6	WSW	7	c/d	51	97	6	5	2	–	7-8	10	1000	1	4
15	Dalwhinnie	1024·9	0	W	2	C	47	85	7	8	–	–	9	10	2500	1	*
	Aberdeen	1019·3	+2	W'N	3	bc	51	85	7	5	–	–	4-6	4-6	1600	1	2
	Wick	1016·7	-6	WNW	5	C	49	85	8	5	7	–	9	9+	1600	1	*
16	Sumburgh	1011·5	-10	WNW	3	C	47	85	7	5	2	–	7-8	10	2500	1	5
	Blacksod Point	1034·7	+4	W	3	C	50	97	8	–	–	–	0	0	–	1	3
18	Malin Head	1029·4	+2	W'N	4	C	51	92	6	8	–	–	9+	9+	800	1	5
	Aldergrove	1030·8	+4	W	4	C	50	85	8	5	–	–	9+	9+	1600	1	*
19	Birr Castle	1034·3	-2	WNW	2	ir_o	48	92	7	5	–	–	10	10	2500	1	*
20	Valentia Obsy. †	1037·9	-2	W'N	3	c/d	49	97	6	5	–	–	10	10	450	1	3
	Roches Point	1036·6	-2	NW'N	3	C	48	85	8	5	–	–	7-8	7-8	2500	1	3

PAST 24 HOURS.

District	Stations.	Weather. 7h.—13h. 23rd. (37)	Weather. 13h.—18h. 23rd. (38)	Weather. 18h. 23rd to 1h. 24th. (39)	Weather. 1h.—7h. 24th. (40)
1	London (Kew)	fxbcc	cbcbm$_o$	b,c m$_o$	cm$_o$ w
	Croydon	cmbcm$_o$	cm$_o$bcm	cm$_o$d$_o$	cm$_o$
	S. Farnborough	cm$_o$xbc	bccm$_o$w	m$_o$w$_o$c	cw
	Boscombe Down	bcm$_o$	bcc	cm$_o$	cm$_o$
	Thorney Island	bcmm$_o$	cm$_o$bcm$_o$	bccm$_o$	cd$_o$m$_o$
	Lympne	bcxFm	bccmw	bcmcm	cm$_o$
	Manston	bcmfm	bccm$_o$	cmfm$_o$	cm$_o$
2	Shoeburyness	bcm$_o$cf	cfbcm	bcmc	cm$_o$d$_o$
	Felixstowe	cmifm$_o$	cm$_o$bm$_o$	bm$_o$cm$_o$	cm$_o$
	Gorleston	bc	cz$_o$m$_o$q	cm$_o$	c
	Mildenhall	bbcmcm$_o$	cm$_o$	cm$_o$	cbcm$_o$
	Cranwell	cbcm$_o$	cm$_o$	cid$_o$cm$_o$	cm$_o$z$_o$
3	Birmingham	b,c	cbccz	co	oc
	Upper Heyford	cbccm$_o$	cm$_o$	cid$_o$cm$_o$	cm$_o$oc
4	Ross-on-Wye	cbc	bc	c	c
5	Hartland Point	bc	c	c	c
	Bristol	bcm$_o$c	bccbc	bcc	bcc
	Portland Bill	bcmcfcm	cm$_o$c	c id$_o$cw	cwcid$_o$
	Plymouth	c	c	c	cpr$_o$c
	The Lizard	bc	c	c	c
	Scilly (St. Mary's)				
6	Pembroke	c	c	cq	bccq
7	Holyhead (Valley)	c	c	ir$_o$c	no c
	Chester (Sealand)	cz$_o$	c	c	cz$_o$
8	Manchester	cmid$_o$	om$_o$	oid$_o$	cm$_o$
10	Spurn Head	bcm$_o$cm$_o$	om$_o$	cm$_o$	bcm$_o$
	Catterick	c	c	c	c
	Tynemouth	bcc	c	bccq	o
11	St. Abbs Head	cq	cq	cq	cbc
	Leuchars	bcc	c	cbc	bcbcc
12	Renfrew (Abbotsl.)	m$_o$d$_o$d$_o$ir$_o$	cir$_o$id$_o$	d$_o$d$_o$id$_o$m$_o$	c m$_o$id$_o$
	Eskdalemuir	d$_o$d$_o$ir$_o$	cir$_o$	cir$_o$	cir$_o$c
	Point of Ayre	c	c	id$_o$c	bc
13A	Tiree	cid	cid	co	o
13B	Stornoway	cpr$_o$dd	cd$_o$d$_o$m$_o$c	cd$_o$d$_o$d$_o$d	cbcpr$_o$ir$_o$
15	Dalwhinnie	cir$_o$o	oir$_o$	cir$_o$	
	Aberdeen	bcc	bc$_o$	bcc	c
	Wick	cir$_o$id$_o$	cid$_o$c	cir$_o$id$_o$	oir$_o$bcd$_o$d$_o$
16	Sumburgh	cm$_o$r$_o$r	c	cm$_o$r$_o$r	cm$_o$r$_o$r$_o$c
	Blacksod Point	d	bc	c	bc
18	Malin Head	d	d	bc	c
	Aldergrove	cd$_o$c	c	id$_o$c	cbcc
19	Birr Castle	bc	r	*	r
20	Valentia Obsy. †	c	d	d	c
	Roches Point	bc	bc	pr	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon inviaible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

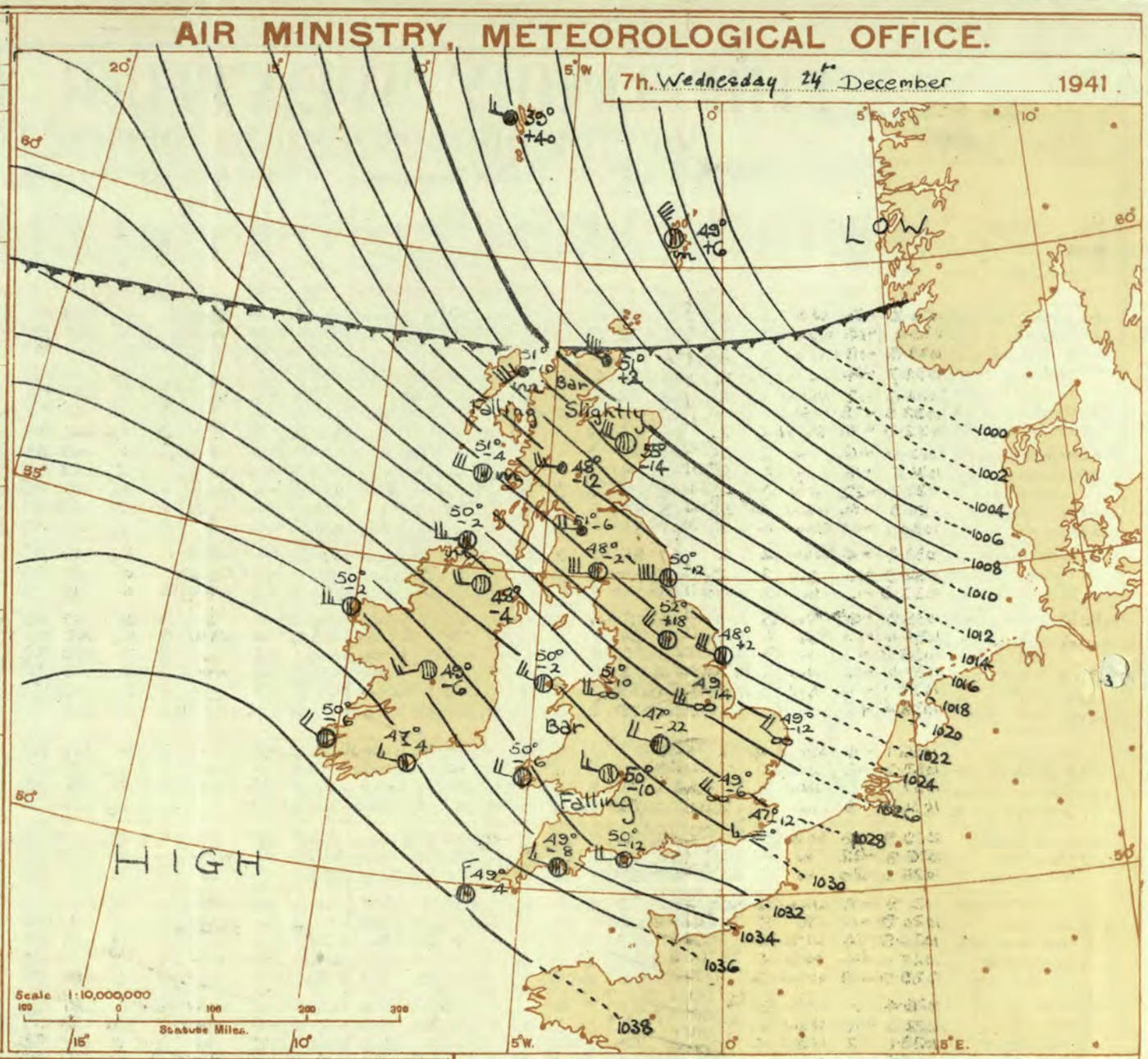
NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 23rd December. 18h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 24th December. 07h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
109	87	21745	60656	5-	51544	58654	62	52535	57858	5-	21644	57854
115				--	67109	20589	52	62736	91768	52	62735	91768
203				6-	62728	28468	6-	02738	22568			
206	84	02955	56467	57	02955	57587	5-	02856	55626	5-	61854	61764
210	57	02955	56558	86	01854	56525	80	00843	57713	8-	02837	57787
220	81	25736	25487	5-	53938	53558				52	43435	28628
230	5-	21748	24358	5-	51737	24558	5-	51648	57658	57	02647	57658
245	54	02953	44416	57	02853	22216	57	01851	57613	5-	02867	24517
260	57	02744	22567	57	05653	24524	54	05655	55528	5-	02767	55727
278	5-	61838	25668	5-	51738	26468	57	02846	25558	57	02854	58625
279	62	52637	22558	62	52665	20458	50	02845	22325	5-	02857	55527
285				6-	59638	24668				27	05635	24728
288	5-	02847	21327	51	02756	22328				52	02755	22328
295	6-	51638	26458	62	21636	61458	5-	61648	59568	57	22744	59564
301	5-	05648	26428	57	05655	25528	52	02756	25568	5-	02758	26628
321	5-	05668	24458	5-	05647	58427	5-	05657	58467	57	05656	59528
299	51	05644	23315	50	05643	23313	50	01743	25303			
292	5-	02847	24427	5-	02858	23428	5-	02747	57427	51	01843	57524
310	--	47209	24449							--	02648	24528
614	5-	51648	24358	52	52535	57458	57	05545	24458	51	05645	57427
333	5-	02858	26318	53	01863	24515	51	02753	57516	5-	61658	26668
334	--	03747	24328							--	03647	24228
340	5-	02848	24228	5-	51748	26358	50	21658	28358			
136	04	05650	22318	6-	05648	23528	5-	05647	24427	5-	05658	57428
336	52	05644	24528	62	62536	28468				62	63646	28568
350	57	05662	21327	5-	05657	23427	5-	05638	58458			
368	74	02852	24427				52	51745	25458	57	01742	25413
379	53	02761	22315									
390							5-	51658	25458	57	05654	59427
382	04	05650	18315	53	05655	25326	5-	05658	23328	5-	02757	24427
438	51	02573	24114							8-	02555	24425
430							5-	05648	24448	5-	05658	26315
409	5-	02867	28327	6-	02868	29328	5-	02848	26228	5-	02845	59458

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Wednesday 24th December
1 S.E. England 2 E. England ... ↓ 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ...	Fresh west northwest wind, strong locally in the North; mainly fair but considerable cloud, slight local rain or drizzle in North; mild
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 ↓	Strong west northwest wind, gale at exposed places mainly northwest; cloudy, some rain or drizzle later mild at first; temperature falling later.
13A. W. Scotland ↓ 13B. N.W Scotland ↓ 14 Mid Scotland 15 N. E. Scotland ↓	Wind west strong to gale veering northwest and moderating later; cloudy rain or drizzle at first, showers later, snow showers on mountains. Rather mild at first becoming colder.
16 Orkneys and Shetlands ↓	Fresh or strong squally northwest wind; wintry showers, rather cold.
17 N. W. Ireland ↓ 18 N. E. Ireland ↓	As 7-12
19 S. E. Ireland 20 S. W. Ireland	As 1-6

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE.~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

The anticyclone persists to the Southwest of the British Isles, while a vigorous depression to the Northeast of Scotland is moving southeast. There will be west to northwest gales in exposed places in the North, but these will moderate later. Weather will be generally cloudy and mild with slight local drizzle, but a belt of more general rain will spread down over Scotland, North England and North Ireland, followed by brighter conditions with local showers, of a wintry nature in the extreme north and with temperature falling below normal

FURTHER OUTLOOK.

Cloudy and mild in the South; cold with some wintry showers in the North; colder conditions spreading also to south later with slight frost.

↓ Gale warning in operation in districts. 2, 8, 10, 11, 12, 13 (a. b) 15, 16 and 18. Issued at 0245 and 1930 on 23-12-41.

Forecasts issued at 10·30 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Wednesday 24th December

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 24th December 1941.

No 29252.

OBSERVATIONS at 1 hr. G.M.T. 24th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	46	*	*	*	*	*	*	*	*
	Croydon ...	217	1030·7	−6	W	3	c/d	45	92	5	5	–	–	9	10	1600
	S. Farnborough	226	1031·6	−10	W	4	c	46	85	7	5	7	–	9	10	2000
	Boscombe Down	417	1033·2	−6	W	3	2o	46	92	6	5	–	–	10	10	1900
	Thorney Island	10	1032·8	−6	WNW	2	2o	46	85	6	5	–	–	10	10	1600
	Lympne ...	346	1029·8	−10	WNW	3	m	43	97	4	5	–	–	9+	9+	6000
	Manston ...	154	1029·5	−8	WNW	4	2o	45	85	5	5	–	–	10	10	3000
2	Shoeburyness ...	11	1029·6	−6	WNW	3	m	46	85	4	5	–	–	10	10	1500
	Felixstowe ...	15	1028·4	−6	WNW	5	2o	46	85	5	5	–	–	10	10	2800
	Gorleston ...	5	1026·3	−8	WSW	4	2o	47	85	6	5	–	–	10	10	1500
	Mildenhall ...	19	1028·5	−6	WSW	4	2o	47	92	6	5	–	–	10	10	2000
	Cranwell ...	240	1027·3	−6	WSW	4	2o	49	85	5	5	–	–	10	10	1500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1030·9	−6	W	3	2o	47	85	6	5	–	–	10	10	2400
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1034·9	−6	WNW	3	c	49	85	8	5	2	–	7-8	9+	2500
	Bristol ...	209	1033·2	−10	W	4	c	47	92	7	5	–	–	10	10	2000
	Portland Bill ...	32	1033·9	−4	WNW	4	c	47	85	7	5	–	–	10	10	2500
	Plymouth ...	82	1036·6	−2	NNW	3	c	48	85	7	5	–	–	10	10	1800
	The Lizard ...	240	1037·3	−4	NW	3	c	47	85	8	8	2	–	7-8	10	1500
	Scilly (St.Mary's)	163	1037·6	−2	NNW	4	o	47	92	7	5	–	–	10	10	1200
	Guernsey ...	175														
6	Pembroke ...	142	1035·1	−6	WNW	5	cq	51	97	8	8	–	–	9+	9+	1500
7	Holyhead(Valley	26	1031·6	−6	NNW	5	c	50	85	7	5	–	–	10	10	2000
	Chester(Sealand)	16	1030·5	−2	WNW	5	c	52	75	6	5	–	–	10	10	2700
8	Manchester ...	235	1029·5	−2	WNW	5	2o	49	92	6	5	–	–	10	10	1500
10	Spurn Head ...	29	1024·1	−12	WNW	5	2o	48	85	6	5	–	–	7-8	7-8	2500
	Catterick ...	175	1025·1	−10	W	3	c	51	75	7	5	2	–	7-8	10	2000
	Tynemouth ...	108	1022·7	−22	W	6	cq	50	85	7	8	–	–	9	9	2500
11	St. Abbs Head	280	1019·5	−12	W	6	cq	51	75	7	5	7	–	4-6	9	2500
	Leuchars ...	36	1019·1	−18	WSW	6	bc	50	85	8	5	–	–	4-6	4-6	3500
12	Renfrew (Abbots I.)	19	1024·2	−6	W	5	2o	50	85	6	5	–	–	10	10	1800
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1028·9	−2	WNW	5	c	50	92	8	6	2	–	7-8	10	1500
13A	Tiree	22	1024·4	−8	NNW	5	0	50	92	7*	5*	−*	−*	10	10	1500
13B	Stornoway ...	80	1018·9	−22	NSW	7	c	50	97	7	5	7	–	4-6	7-8	1200
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	53	*	*	*	*	*	*	*	*
	Wick ...	119	1013·2	−6	WSW	6	o/d	50	85	8	5	–	–	10	10	1600
16	Sumburgh ...	30	1005·0	−16	W	8	roro	49	97	6	5	–	–	10	10	1000
17	Blacksod Point	18	1034·4	−6	W	5	0	50	97	7	5	–	–	10	10	1500
18	Malin Head ...	84	1028·6	−10	W	5	bc	50	92	7	6	–	–	4-6	4-6	2500
	Aldergrove ...	268	1030·8	+2	W	4	c	49	85	8	5	–	–	9	9	2100
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1038·6	−2	W	3	c	50	92	8	5	–	–	9+	9+	2500
	Roches Point	22	1037·4	0	WNW	3	c	47	85	8	8	–	–	7-8	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 24th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
London (Kew)	1028·1	−10	WNW	3	2o	49	75	6	5	–	8	2-3	9+	2500	1	*
Croydon ...	1029·1	−6	NNW	5	2o	49	85	6	5	7	–	9	9+	2000	1	*
S. Farnborough	1030·4	−2	WNW	4	c	49	75	8	5	–	–	9	9	2500	1	*
Boscombe Down	1031·7	−6	W	3	2o	46	92	6	5	2	–	9	10	3000	1	*
Thorney Island	1031·2	−8	WNW	4	2o	45	92	6	5	7	–	4-6	4-6	2500	1	*
Lympne ...	1028·3	−12	W	3	m	47	85	4	5	–	–	10	10	2000	1	§
Manston ...	1027·6	−6	WNW	4	2o	48	85	6	5	2	–	9	10	1800	1	*
Shoeburyness ...	1027·8	−8	W	4	c	49	85	5	5	–	–	10	10	1500	1	*
Felixstowe ...	1026·0	−12	WNW	6	2o	50	75	6	5	–	–	9+	9+	2000	1	3
Gorleston ...	1024·2	−12	NNW	4	2o	49	85	6	5	–	–	9+	9+	1500	3	
Mildenhall ...	1026·5	−10	WSW	4	2o	49	85	6	5	–	–	2-3	2-3	2500	0	*
Cranwell ...	1025·1	−14	WNW	5	2o	49	75	6	5	–	–	9+	9+	2000	1	*
Birmingham ...	1028·0	−22	WNW	4	c	47	75	8	–	7	–	0	2+	–	1	*
Upper Heyford	1029·5	−6	WNW	4	bc	48	85	7	5	7	–	2-3	4-6	2500	1	*
Ross-on-Wye	1030·9	−10	WNW	3	c	50	75	8	5	–	–	9+	9+	2500	1	*
Hartland Point	1034·4	−24	WNW	3	c	49	92	8	5	–	–	7-8	7-8	2500	1	4
Bristol ...	1031·8	−6	W	4	c	47	85	7	5	3	–	4-6	7-8	2200	1	*
Portland Bill ...	1031·8	−12	W	4	c	50	92	7	5	–	–	7-8	7-8	2500	1	4
Plymouth ...	1033·2	−8	WNW	3	c	49	92	7	5	–	–	7-8	7-8	1500	1	2
The Lizard ...	1036·4	−4	NW	3	c	49	85	7	8	2	–	9	10	1500	0	3
Scilly (St.Mary's)	1037·1	−4	NNW	3	o	49	85	8	5	–	–	10	10	1200	1	3
Guernsey ...																
Pembroke ...	1034·2	−6	WNW	4	cq	50	97	8	8	–	–	9+	9+	2500		3
Holyhead(Valley	1031·3	−2	WNW	5	c	50	85	7	5	–	–	9+	9+	2000	1	4
Chester(Sealand)																
Manchester ...	1029·2	−10	W	5	2o	51	75	6	5	7	–	9	10	2500	1	*
Spurn Head ...	1028·2	−8	WNW	6	2o	48	85	8	5	–	–	10	10	2500	1	*
Catterick ...	1023·7	+2	WNW	6	c	48	85	7	4	1	–	4-6	7-8	1500	0	4
Tynemouth ...	1022·2	+18	NNW	5	c	52	65	7	5	2	–	1	10	1500	1	*
	1013·4	−12	W	8	c	50	85	7	5	–	–	9	10	1500	1	+
St. Abbs Head	1016·8	−16	W	8	bcq	51	85	7	4	4	–	2-3	4-6	2500	0	4
Leuchars ...	1016·3	−2	WNW	7	c/d	51	85	8	5	–	–	7-8	7-8	4500	1	*
Renfrew (Abbots I.)	1022·5	−10	W	4		51	75	6	5	–	–	10	10	2500	1	*
Eskdalemuir ...	1022·9	−2	W	6	c	48	97	7	5	–	–	9+	9+	800	1	
Point of Ayre...	1027·7	−2	WNW	6	c	50	85	8	8	4	–	7-8	9+	2000	0	
Tiree	1023·3	−4	WNW	6	0	51	92	7	5	–	–	10	10	1500	0	6
Stornoway ...	1016·2	−10	WSW	8	ir	51	97	7	5	7	–	4-6	7-8	1000	1	5
Dalwhinnie ...	1018·6	−12	W	5	iro	48	85	7	5	2	–	9	10	1500	1	*
Aberdeen ...	1012·9	−14	WNW	6	c	55	75	8	5	–	–	7-8	7-8	1400	1	3
Wick ...	1010·2	+2	WNW	8	dodo	51	85	7	5	2	–	7-8	10	1100	1	*
Sumburgh ...	1003·0	+6	NNW	7	c	49	85	7	8	2	–	9	10	1500	1	5
Blacksod Point	1034·0	−2	W	5	bc	50	92	7	+	–	–	+6	4-6	2500	1	4
Malin Head ...	1027·9	−2	W	5	c	50	92	7	8	–	–	7-8	7-8	+000	1	5
Aldergrove ...	1029·6	−4	W	4	0	48	75	7	5	–	–	10	10	3100	1	*
Birr Castle ...	1034·0	−6	WSW	3	o/r	49	92	7	5	–	–	10	10	2500	1	*
Valentia Obsy.	1037·8	−6	NNW	4	c	50	85	8	5	–	–	9+	9+	2500	1	4
Roches Point	1036·6	−4	WNW	3	bc	47	85	8	5	–	–	+6	+6	2500	1	*

PAST 24 HOURS.

Stations	Temperature. Max. Day 7h–18h °F.	Temperature. Min. Night 18h–7h °F.	Temperature. Min. on Grass °F.	Rainfall. Day 7h–18h mm.	Rainfall. Night 18h–7h mm.	Sunshine 23rd Hrs.
London (Kew)	47	42	36	–	–	3·6
Croydon ...	49	41	34	–	Tr	2·0
S. Farnborough	50	40	34	–	Tr	4·7
Boscombe Down	46	41	37	–	–	3·6
Thorney Island	45	42	38	–	–	*
Lympne ...	46	42	38	0·1	–	1·8
Manston ...	46	42	38	0·1	–	2·9
Shoeburyness ...	47	43	37	–	0·1	0·3
Felixstowe ...	45	43	40	–	–	0·7
Gorleston ...	45	45		–	–	
Mildenhall ...	48	44	32	–	–	1·6
Cranwell ...	49	45	44	–	Tr	2·0
Birmingham ...	49	45	43	–	–	1·7
Upper Heyford	48	44	43	–	Tr	*
Ross-on-Wye	51	45	39	–	–	3·4
Hartland Point	50	47	46	–	–	0·3
Bristol ...	49	43	40	–	–	2·6
Portland Bill ...	50	44	*	–	–	*
Plymouth ...	50	50	43	Tr	–	0·3
The Lizard ...	50	46	*	–	Tr	0·8
Scilly (St.Mary's)	51	47	*	–	–	0·0
Pembroke ...	49					
Holyhead(Valley	49	48	42	–	Tr	*
Chester(Sealand)						
Manchester ...	51	55	44	–	–	0·0
Spurn Head ...	48	47	45	0·1	Tr	*
Catterick ...	48	46	*	Tr	–	1·6
Tynemouth ...	53	49	47	–	–	0·0
	51	48	45	–	–	*
St. Abbs Head	52	49	*	–	–	*
Leuchars ...	53	48	41	–	–	0·0
Renfrew (Abbots I.)	51	50	48	Tr	0·3	0·1
Eskdalemuir ...	49	46	45	1	0·3	0·0
Point of Ayre...	50	49		Tr	Tr	0·0
Tiree	51	50	*	0·3	–	0·0
Stornoway ...	51	49	*	1	1	0·0
Dalwhinnie ...	48	46	43	0·5	0·1	0·3
Aberdeen ...	52	49	43	–	–	0·0
Wick ...	50	47	*	0·2	0·1	*
Sumburgh ...	49	46	45	6	7	0·0
Blacksod Point	51	48	*	0·4	Tr	*
Malin Head ...	51	47	*	2	–	0·0
Aldergrove ...	50	47	44	Tr	–	0·0
Birr Castle ...	50	44	41	Tr	0·2	0·0
Valentia Obsy.	49	+6	+2	Tr	0·2	*
Roches Point	49	*	*	–	0·1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew...	18	fxbcc	cbcbmo	bcmow	47	42	36	–	–	3·6	•	•	6
Croydon	217	cmbcmo	cmobcm	midcmo	49	41	34	–	Tr	2·0	•	•	6
Greenwich (Royal Observatory)...	149	bcfm	bccbm	bcm	47	44	34	–	–	2·0	77	79	4
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	50	38	35	0·2			88	95	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•	50	40	36	–	–		79	75	•
Camden Square	110	c	bc	•	49	40	34	–	–		•	69	•
Kensington	80	bcz	bcb2	•	48	42	37	–	Tr		87	79	•
Hampstead Observatory	450	bc	bc	bc	45	40	36	–	–		•	83	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 24th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·8	8-10h 23rd	<0·1	0-3h 24th

FOREIGN OBSERVATIONS.

Stations.	Evening of 23rd December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 24th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1009·2	NNW	3	c	31	1021·0	NNW	3	c	30
Lisbon (18h and 07h)						1024·8	"	3	0	45
Madrid (18h and 07h)						911·6	N	3	b	34
Cairo (Heliopolis) (18h and 06h)	1021·6	WNW	2	c	57	1022·1	SW	4·	pr	51
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
	43		–
	34		–
*	*	*	*

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 "
2 Fog	550 "
3 Moderate fog	1,100 "
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ "
6 Moderate "	6½ "
7 Good "	12½ "
8 Very good "	31 "
9 Excellent "	beyond 31m.

COLUMN 30—Code for State of Sea.

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

‡ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

§ Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

B… N Thursday 25th December 1941.
No 29,253

OBSERVATIONS at 13h. G.M.T. 24th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)…	1028.8	-6	WNW	4	c	52	65	8	5	7	-	4-6	9+	2500
	Croydon …	1028.6	-6	WSW	5	c	53	65	7	5	3	6	4-6	9+	3300
	S. Farnborough	1029.8	-2	WNW	4	c	51	65	8	5	3	-	7-8	9	2500
	Boscombe Down	1031.0	-10	WNW	4	c	49	85	7	5	-	-	9+	9+	2500
	Thorney Island	1030.4	-12	WNW	4	c	50	85	6	5	2	1	9	9+	4000
	Lympne …	1028.2	-10	WNW	4	z	51	75	6	5	-	2	9	9+	3200
	Manston …	1027.4	-4	W	3	zo	51	75	6	-	-	6	0	9+	-
2	Shoeburyness …	1027.4	-8	WNW	4	c	52	65	7	1	-	2	Tr	9+	2500
	Felixstowe …	1025.9	-6	WNW	6	c	51	65	7	-	7	7	0	9+	-
	Gorleston …	1024.4	-8	WNW	4	c	50	75	6	5	7	-	7-8	7-8	2500
	Mildenhall …	1026.4	-2	W	5	c	50	75	7	5	-	8	2-3	9	2500
	Cranwell …	1024.7	-10	WN	5	zo	50	75	6	5	7	2	1	7-8	2000
3	Birmingham	1028.4	0	WNW	4	c	49	65	8	5	7	-	1	9	1500
	Upper Heyford	1029.2	-2	W	4	c	49	75	8	5	7	6	2-3	9+	2500
4	Ross-on-Wye …	1030.8	0	WNW	3	c	51	75	8	5	-	8	9	9+	2500
5	Hartland Point	1034.1	-6	WNW	3	c	50	75	8	5	-	-	10	10	2400
	Bristol …	1031.2	+2	WNW	3	c	50	75	7	5	-	6	9	9+	2500
	Portland Bill …	1031.8	-6	NW	4	c	51	92	7	4	-	-	10	10	2500
	Plymouth …	1035.1	-6	NW	5	c	51	75	8	5	-	-	9	9	2500
	The Lizard …	1036.1	-6	NW	5	c	51	75	8	8	6	-	7-8	9	2000
	Scilly (St. Mary's)	1037.3	0	NNW	3	c	52	85	8	8	4	-	7-8	7-8	1500
	Guernsey …														
6	Pembroke …	1034.5	-2	NW	5	cq	50	97	8	8	6	-	7-8	9+	2500
7	Holyhead (Valley)	1030.8	-10	WNW	6	bc	51	85	8	5	4	-	4-6	4-6	2500
	Chester (Sealand)	1028.4	-12	W	5	c	51	75	8	5	7	-	4-6	7-8	3000
8	Manchester …	1027.4	-10	WNW	6	c	49	85	6	5	-	-	7-8	9	5000
10	Spurn Head …	1022.1	0	WNW	7	cq	47	75	6	-	-	8	0	7-8	-
	Catterick …	1022.5	+4	W	5	c	52	75	8	5	3	9	4-6	7-8	2800
	Tynemouth …	1019.9	-2	W	9	c	52	75	7	1	3	-	4-6	7-8	3000
11	St. Abbs Head	1016.8	-2	W	8	cq	53	85	7	4	7	9	2-3	9+	2500
	Leuchars …	1017.3	+6	W	6	c	55	75	9	8	6	9	7-8	9+	3500
12	Renfrew (Abbots L.)	1022.3	-4	WNW	5	ido	53	85	7	5	-	-	9+	9+	1400
	Eskdalemuir …	1022.0	-6	W	7	dodo	49	85	6	-	2	-	10	10	450
	Point of Ayre …	1027.4	-2	WN	6	c	51	85	8	5	7	-	4-6	9+	2000
13A	Tiree …	1023.9	+6	WNW	5	o/d	51	97	6	5	-	-	10	10	800
13B	Stornoway …	1020.0	+20	WNW	6	c	47	85	8	5	7	-	7-8	9+	1500
15	Dalwhinnie …	1019.4	+4	WNW	4	c	50	75	7	8	4	-	4-6	9	2500
	Aberdeen …	1015.0	+20	NW	5	pr	54	75	7	6	-	-	9	9	1100
	Wick …	1015.1	+30	NNW	7	pr	46	75	8	3	4	9	4-6	7-8	1200
16	Sumburgh …	1011.5	+42	NNW	5	pr		85	7	8	-	-	9+	9+	1500
17	Blacksod Point…	1034.3	-6	WNW	4	c	51	92	7	5	-	1	9	9	1500
18	Malin Head …	1028.0	+2	W	6	c	51	92	6	6	-	-	9	9	1500
	Aldergrove …	1029.6	+2	WSW	3	c	49	85	9	5	-	5	9	9+	1800
19	Birr Castle …	1034.1	-6	W	3	c	51	75	9	5	1	-	7-8	9	2500
20	Valentia Obsy. †	1038.1	-4	WNW	3	c	51	85	8	5	-	-	9+	9+	2500
	Roches Point …	1026.5	-8	NW	4	c	50	85	8	5	-	-	9	9	2500

OBSERVATIONS at 18h. G.M.T. 24th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.—13h. 24th (37)	Weather 13h.—18h. 24th (38)	Weather 18h. 24th to 1h. 25th (39)	Weather 1h.—7h. 25th (40)
London (Kew)	1028.9	+4	WSW	3	bc	47	75	7	5	-	-	4-6	4-6	2500	1	*	bcmcy	cbc	bcc	cm
Croydon	1028.7	+6	WS	3	zo	48	75	6	-	3	-	0	9+	-	1	*	cmcz	cbcz	czcm	cm, id
S. Farnborough	1029.7	+2	W	4	bc	48	75	8	-	3	1	0	4-6	-	1	*	cwbcc	cbc	bcc	c
Boscombe Down	1031.4	+4	W	2	bc	45	85	7	5	-	1	Tr	2-3	2500	1	*	c	cbc	bcbm	bcm
Thorney Island	1030.3	+2	NWW	3	b	47	85	7	5	-	-	Tr	Tr	4000	1	*	bcm	cmbcb	bcbbc	bcc
Lympne	1027.7	-2	W	4	zo	45	85	6	-	-	-	0	0	-	1	§3	cmbcm	cbcbmw	bmwcm	cbmcm
Manston	1026.7	-12	W	4	zo	47	75	5	-	-	1	0	Tr	-	1	*	cm	cmbm	bcm	cbcm
Shoeburyness	1027.0	0	WSW	4	b	47	75	6	-	-	-	0	0	-	1	*	bcmc	cmbm	bmcmc	bmcm
Felixstowe	1025.1	-4	WN	5	zo	47	75	6	-	-	-	0	0	-	1	4	cmc	cbcbm	cmbcm	bcmcid
Gorleston	1023.5	+10	W	3	zo	48	85	6	5	-	-	9+	9+	1500	0	2	cqbq	cqc	cbc	bbc
Mildenhall	1025.5	-6	WS	4	co	47	85	7	5	-	-	9	9	2300	0	*	bccmr	c	cbcbm	bccm
Cranwell	1024.3	-2	WNW	6	zo	50	85	6	5	-	-	Tr	Tr	2000	1	*	cz	bcbz	bccm	cm
Birmingham	1028.0	+6	WNW	3	c	49	75	7	5	7	-	9	9+	2500	1	*	c	c	cbc	bcc
Upper Heyford	1028.6	-2	W	3	c	47	85	8	5	4	-	9	9+	3300	1	*	c	c	c	ccirc
Ross-on-Wye	1030.1	0	W	4	bc	49	75	8	5	4	1	1	2-3	3000	1	*	c	cobc	bbc	bc
Hartland Point	1033.5	-2	NW	3	c	49	85	8	5	4	-	7-8	9	1500	1	4	c	c	cbc	c
Bristol	1031.5	+4	WNW	2	bc	49	75	7	5	1	-	4-6	4-6	3800	1	*	c	cbc	bcb	bbc
Portland Bill	1031.8	+10	NW	4	c	50	85	7	5	-	-	9	9	2500	1	4	c	c	bcbc	bcbc
Plymouth	1034.6	+2	NWN	3	c	51	75	8	5	1	-	9+	10	3000	0	3	cmc	cido	cbc	c
The Lizard	1035.8	0	NWN	4	c	49	75	8	8	2	-	7-8	10	1500	1	3	cbcc	c	c	co
Scilly (St. Mary's)	1036.7	+2	N	4	c	50	85	8	8	-	-	9+	9+	1500	1	3	cbcc	c	c	c
Guernsey																				
Pembroke	1033.4	+2	WNW	4	bcjp	51	92	8	2	-	-	2-3	2-3	2500	0	3	cq	cbcq	bcq	cqv
Holyhead (Valley)	1030.9	+4	WNW	5	c	50	85	8	5	3	1	4-6	7-8	2500	1	4		bccbc	c	c
Chester (Sealand)	1028.4	-2	WN	7	c	51	75	8	5	-	-	9+	9+	5400	1	*	c	bcc	crmc	cm
Manchester	1027.4	0	NWW	6	iro	49	85	7	5	7	-	4-6	10	1500	1	*		cmir	crc	crc
Spurn Head	1021.4	0	WNW	5	bq	48	85	7	-	-	-	0	0	-	0	4	cm	bq	bcq	bc
Catterick	1023.4	+10	WNW	6	bc	52	85	8	5	-	1	2-3	2-3	2000	1	*	c	cbc	cbcid	dbc
Tynemouth	1020.6	+14	W	6	bc	52	85	7	2	3	-	2-3	4-6	3000	1	4	c	cbc	cbc	bc
St. Abbs Head	1019.4	+8	W	7	cq	52	85	7	4	4	-	4-6	9	2500	1	4	cq	cq	cqbc	bc
Leuchars	1020.1	+20	W	5	bc	53	65	9	8	6	-	2-3	4-6	3200	0	*	cbc	cbc	bc	bc
Renfrew (Abbots L.)	1023.2	+6	WN	4	ido	52	85	6	5	-	-	10	10	2500	1	*	cmid	mddid	cddm	d
Eskdalemuir	1022.8	+2	WN	5	iro	48	85	6	5	-	-	9+	9+	800	1	*	cid	orr	circ	cbc
Point of Ayre	1027.1	0	NWN	6	id	51	85	8	5	7	-	1	10	2000	1	4	bc	cidc	idc	dodc
Tiree	1025.0	+10	NNW	4	dr	49	97	5	-	2	-	10	10	800	1	5	oid	oidr	c	c
Stornoway	1022.5	+10	WNW	5	c	45	85	7	5	7	-	7-8	9+	2000	1	2	circdd	c	c	c
Dalwhinnie	1023.7	+20	NW	3	c	44	75	8	2	4	-	4-6	7-8	4000	1	*	circ	c		c
Aberdeen	1019.3	+22	NNW	5	bc	46	75	7	5	5	-	2-3	4-6	1500	1	3	bccpr	cprbc	bccpr	cpr
Wick	1019.1	+8	NW	4	iro	41	85	8	5	-	-	10	10	2200	1	*	docpr	prcir	bcpr	pshps
Sumburgh	1015.5	+24	NNW	6	c/pr	38	65	8	8	-	-	9+	9+	2500	1	4	prcpr	prbcc	ps PH	b, cph
Blacksod Point	1034.4	+4	WNW	3	bc	50	97	8	4	-	-	2-3	4-6	2500	1	3	c	bc	bcc	bc
Malin Head	1028.5	+2	WNW	4	c	51	92	7	6	-	-	9	9	1500	1	5	c	c	d	d
Aldergrove	1029.5	+6	WNW	5	c	50	85	8	5	1	-	4-6	9+	1300	1	*	cbcc	c	c	cicdf
Birr Castle	1033.9	0	SW	2	bc	49	85	8	5	-	-	4-6	4-6	2500	1	*	bc	bc	*	r
Valentia Obsy. †	1038.0	+2	NWN	2	c	51	75	9	5	-	-	9+	9+	2500	1	2	bc	c	cidoc	d
Roches Point	1036.0	+2	NW	4	bc	50	85	8	5	-	-	4-6	4-6	1500	1	4	bc	pr	bcc	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. ro, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸙gale.
⊕ Solar halo. ⦶ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

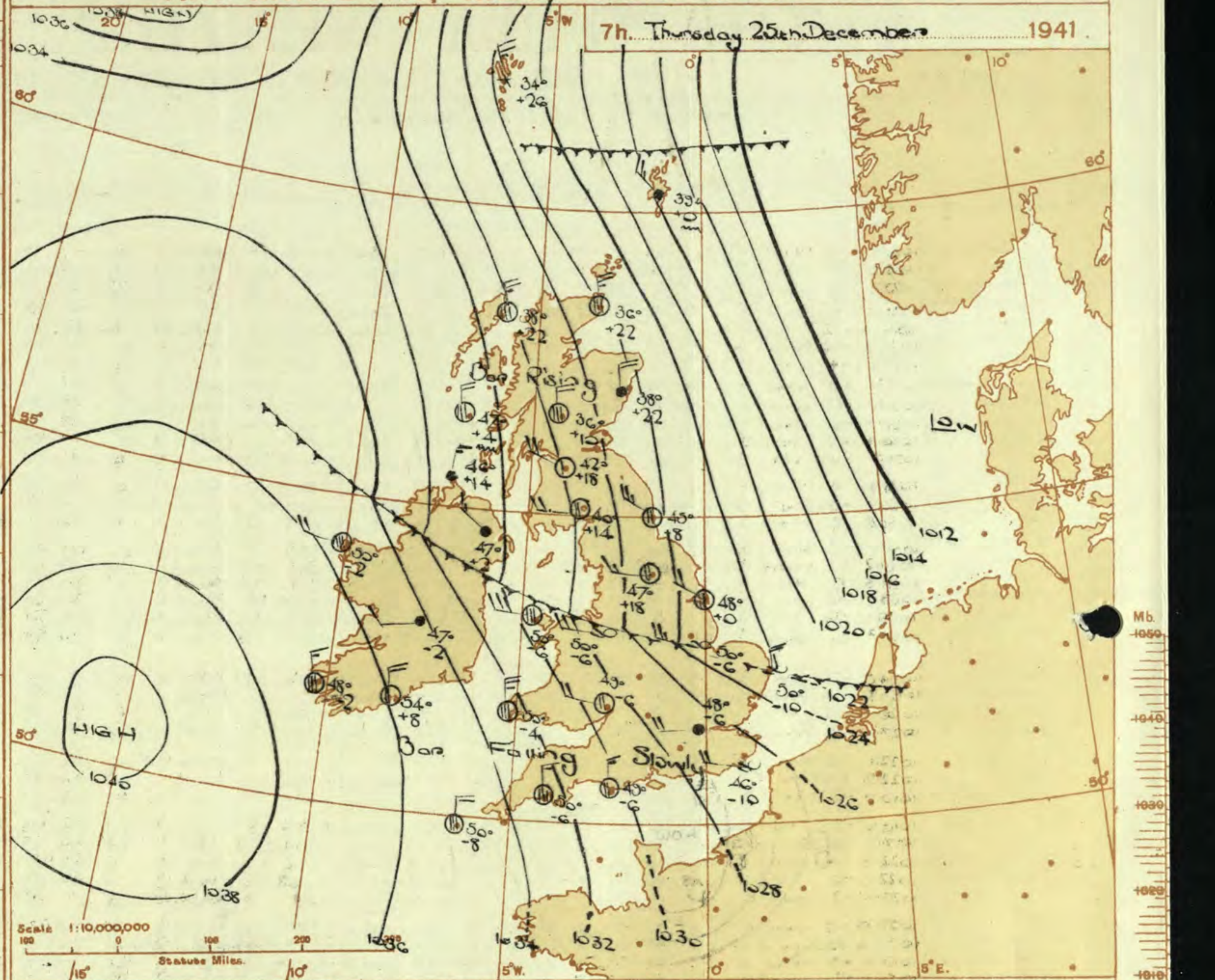
Abridged observations of additional stations in the AVIATION WEATHER CODE

III	$C_L C_M$	$wwVhN_h$	DDFWN	$C_L C_M$	$wwVhN_h$	DDFWN	$C_L C_M$	$wwVhN_h$	DDFWN	$C_L C_M$	$wwVhN_h$	DDFWN
13h. G.M.T. 24th December				18h. G.M.T.			01h. G.M.T. 25th December			07h. G.M.T.		
109	83	25744	28786	5-	02856	28626	8-	25745	28785	8-	02845	60686
115	52	81834	01787	57	81834	28687	55	01834	05687	55	88834	07686
203										5-	02838	28518
206	86	02853	61567	87	02854	28327	63	25854	61584	8-	81855	26285
210	8-	25856	58786	4-	02852	59688	8-	25858	59588	8-	85848	61588
220				51	01644	27318				50	01644	28514
230	5-	51637	24657	5-	61638	25458	5-	02747	28357	8-	01854	32514
245	54	02855	24417	84	01852	26414	50	01854	30314	8-	25865	26385
260	54	02854	55626	83	01864	24415	54	01862	24313	50	00763	25218
278 ~~275~~				6-	52638	26658	5-	2748	60658	5-	02848	61558
279	5-	51748	55558	5-	02747	24457	50	01853	25313			
285	5-	61638	26768	5-	61638	26768				20	01744	20614
288	5-	02846	56627	57	01747	56428	50	01753	28413	50	01753	28313
575	53	01744	60465	5-	02848	28428	5-	51748	28358	5-	51645	28358
301				5-	51648	26628	5-	61748	58658			
321	57	05651	59525									
299				50	01744	24404				50	01744	24314
292	57	02855	56526	50	01854	26214	5-	02858	23228	50	01853	62413
310												
614	51	02762	22427	5-	05645	61525	5-	05657	26427	51	52655	59357
333				54	02855	28615	5-	02858	27628	51	01844	26625
334												
340				03	01990	26423	5-	51648	28428	5-	05648	30428
136	00	05690	24526	5-	05647	24517				5-	05656	25565
336	62	61626	32468	57	02644	28527						
350	57	02753	24427	50	01768	57423	5-	05648	24428	5-	02748	59568
368	5-	02867	24427	80	01853	24424	52	02645	25328	5-	02746	26326
379	5-	02857	26527	5-	02857	24427	5-	05648	57518	5-	05648	59428
390	50	05651	26527	5-	05666	25327	50	05554	26424	5-	22647	26367
382	54	02845	26427									
438	57	02654	26417									
430	53	05557	22328	00	00790	24222	5-	02748	24228	5-	02768	26328
409	5-	02845	28428	5-	02757	30457	5-	02856	59426	5-	02858	27428

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Thursday 25th December 1941.



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Thursday 25th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate west or northwest winds, fresh locally; fair. Mild becoming colder.
5 S.W. England 6 South Wales ...	Moderate or fresh northwest winds; fair, mild.
7 North Wales ... 8 N.W. England	Fresh northwesterly winds. Cloudy with occasional rain at first; showers and bright intervals later. Mild becoming colder.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13A. W. Scotland	Moderate or fresh northwesterly winds. Fair at first. Some local wintry showers later. Average temperature becoming colder.
13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and ↓ Shetlands	Fresh or strong northwest to north winds. Wintry showers and bright intervals. Cold.
17 N. W. Ireland 18 N. E. Ireland	As 7-8.
19 S. E. Ireland 20 S. W. Ireland	As 5-6

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

The anticyclone persists to the southwest of Ireland, while another over Iceland is spreading southwards. Pressure is relatively low to the east of Scotland. In England, Wales, Ireland and Southern Scotland it will be mild at first and mainly fair though with some rain in northwestern districts. Colder conditions will spread south but are not expected to reach the extreme southwest. Local wintry showers will occur later in the North of the area. Over the remainder of Scotland it will be rather cold with occasional wintry showers.

FURTHER OUTLOOK.

Rather cold northerly winds in most areas; long clear periods with night frost in the South, wintry showers in the North.
Galewarning in operation in districts 16 at 0245 on 23/12/41

Forecasts issued at 10·30 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

Mb. 1050 1040 1030 1020 1010 1000 990 980 970 960 950 940 930

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 at the foot of page 2.)

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.

Morning of

Thursday 25th December

1941.

LOW 992 996 1000 1004 1008 1012

HIGH 1016 1020 1024 1028 1032 1036 1040

LOW 1008

HIGH 1032 1036

Clarke's Projection Scale 1: 4 x 10⁷ 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. (ξ) Thunderstorm. ξ Slight haze. ⌓

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T, America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 25th December 1941.

No. 29,253

OBSERVATIONS at 1 hr. G.M.T. 25th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	48	*	*	*	*	*	*	*	*
	Croydon ...	217	1028·3	-2	WSW	2	c	46	85	6	5	-	-	10	10	3200
	S. Farnborough	226	1029·4	-2	W	3	c	45	85	8	5	-	-	10	10	2100
	Boscombe Down	417	1030·8	+2	WNW	4	c	45	85	6	5	-	-	2-3	2-3	4000
	Thorney Island	10	1030·5	+2	WNW	2	0	42	97	7	5	-	1	2-3	4-6	2700
	Lympne ...	346	1027·3	-6	WNW	3	0	46	85	6	5	*	-	9+	9+	1700
	Manston ...	154	1026·4	-4	WNW	4	0	48	85	6	5	-	-	10	10	2500
2	Shoeburyness ...	11	1026·8	-2	WNW	4	c	50	75	6	5	-	-	9+	9+	2500
	Felixstowe ...	15	1025·4	-4	WNW	5	0	48	92	5	5	-	-	7-8	7-8	2400
	Gorleston ...	5	1023·5	-4	NNW	4	0	48	75	6	5	-	-	10	10	800
	Mildenhall ...	19	1025·4	-6	N	4	0	49	85	6	5	-	-	1	1	2500
	Cranwell ...	240	1025·3	0	WNW	5	0	50	85	6	8	-	-	7-8	7-8	2000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1028·8	0	WNW	4	c	48	85	7	5	-	-	10	10	1800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1033·1	-2	NW	3	b	50	75	8	4	-	-	1	1	2500
	Bristol ...	209	1030·9	-2	W	4	b	46	85	7	5	-	-	Tr	Tr	2500
	Portland Bill ...	32	1031·3	+4	NW	4	bc	49	92	8	5	-	-	4-6	4-6	4000
	Plymouth ...	82	1034·0	-6	NW	3	b	48	92	8	5	-	-	Tr	Tr	4000
	The Lizard ...	240	1034·8	-4	NNW	4	c	49	75	8	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	163	1036·0	-4	N	4	c	51	75	8	5	-	-	10	10	1500
	Guernsey ...	175														
6	Pembroke ...	142	1033·3	-4	NW	4	bc	50	92	8	1	-	-	2-3	2-3	4000
7	Holyhead (Valley)	26	1030·6	-2	WNW	6	c	50	85	7	5	-	-	10	10	1900
	Chester (Sealand)	16	1028·7	-2	WNW	6	c	51	85	7	5	-	-	10	10	1700
8	Manchester ...	235	1028·1	+2	NNW	5	c/c	49	92	7	5	-	-	9+	9+	2000
10	Spurn Head ...	29	1022·9	-4	W	6	bcq	48	92	7	1	-	-	2-3	2-3	4000
	Catterick ...	175	1024·1	+2	WNW	5	id°	52	75	7	5	-	-	4-6	4-6	2800
	Tynemouth ...	108	1022·9	+2	WNW	5	bc	50	85	7	5	-	-	4-6	4-6	2500
11	St. Abbs Head	280	1021·9	+6	WNW	4	bc	46	85	7	4	4	-	4-6	4-6	2500
	Leuchars ...	36	1022·8	+10	NW	4	bc	47	65	8	8	-	-	4-6	4-6	3000
12	Renfrew (Abbotsl.)	19	1025·4	+6	NNW	4	dq°	46	85	6	5	7	-	7-8	9+	2200
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1027·7	+4	NW	6	c	50	92	8	6	8	-	1	10	1500
13A	Tiree	22	1027·3	+10	N	4	c	46	85	7	5	*	*	9+	9+	1800
13B	Stornoway ...	80	1026·2	+16	WNW	5	c	41	85	7	5	7	-	7-8	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	42	*	*	*	*	*	*	*	*
	Wick ...	119	1021·0	+10	NW'N	4	pr	38	92	7	8	-	-	9	9	2000
16	Sumburgh ...	30	1017·6	+10	NNW	4	bc/phr	32	85	7	8	-	-	2-3	2-3	1200
17	Blacksod Point	18	1034·0	0	W'N	4	c	50	97	7	4	-	-	7-8	7-8	1500
18	Malin Head ...	84	1029·5	+2	W	5	c	50	92	6	9	-	-	9	9	1500
	Aldergrove ...	268	1030·4	+2	SW'W	3	c	48	92	7	5	-	-	9+	9+	900
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1037·0	0	N'W	3	c/d	49	92	7	5	-	-	9+	9+	800
	Roches Point	22	1036·1	-2	NW'N	4	c	49	85	8	5	-	-	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 25th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
London (Kew)	1026·8	-8	W	3	0	48	85	6	5	-	-	9+	9+	2500	1	*
Croydon ...	1027·4	-6	W	4	0	48	85	6	5	-	-	10	10	3000	1	*
S. Farnborough	1028·4	-6	W'N	3	0	48	85	7	5	-	-	9+	9+	2600	1	*
Boscombe Down	1029·7	-10	WNW	2	0	45	92	6	5	-	-	9	9	1800	1	*
Thorney Island	1029·4	-4	WNW	3	0	45	92	7	5	-	-	9+	9+	2100	1	*
Lympne ...	1026·1	-10	WNW	4	0	46	92	6	5	-	-	9+	9+	2000	1	3
Manston ...	1025·2	-10	WNW	4	0	48	85	6	5	-	-	9+	9+	2800	1	*
Shoeburyness ...	1025·6	-10	W'N	4	0	49	85	6	5	-	-	7-8	7-8	4000	1	*
Felixstowe ...	1023·9	-12	WNW	6	id°	50	75	6	5	-	-	9+	9+	2400	1	*
Gorleston ...	1022·5	-10	NNW	4	0	50	85	6	8	-	-	7-8	7-8	1500	0	3
Mildenhall ...	1024·6	-6	W	4	0	49	85	6	6	-	-	9	9	4000	0	*
Cranwell ...	1024·5	-6	WNW	5	0	50	85	6	5	-	-	9	10	2200	1	*
	1027·5	-4	WNW	5	c	49	85	7	5	-	-	10	10	1500	1	*
Upper Heyford	1027·7	-2	WNW	2	0/c	48	85	7	5	*	-	10	10	1500	1	*
Ross-on-Wye	1028·1	-6	WNW	4	bc	49	85	8	5	-	-	2-3	2-3	2500	1	*
Hartland Point	1032·1	-6	NW	3	c	49	85	8	5	-	-	9	9	1500	1	4
Bristol ...	1030·1	-2	W	4	bc	47	85	7	8	8	-	2-3	4-6	1800	1	*
Portland Bill ...	1029·9	-6	NNW	3	bc	49	85	8	4	-	-	4-6	4-6	4000	1	4
Plymouth ...	1032·7	-6	NNW	3	c	50	85	7	5	-	-	10	10	3000	1	2
The Lizard ...	1034·1	-4	NNW	3	0	49	75	7	5	-	-	10	10	1000	0	3
Scilly (St. Mary's)	1034·4	-8	N	4	c	50	85	8	6	-	-	10	10	1500	1	4
Guernsey ...																
Pembroke ...	1032·4	-4	N'W	3	cq	50	92	8	8	-	-	9+	9+	4000	0	3
Holyhead (Valley)	1029·8	-6	WNW	6	c	50	85	7	5	-	-	10	10	1700	0	5
Chester (Sealand)	1027·9	-6	W'N	6	c	50	85	6	5	-	-	10	10	1800	1	*
Manchester ...	1027·1	-6	WNW	5	c/c	49	97	6	5	-	-	10	10	1200	1	*
Spurn Head ...	1022·7	0	NW	4	bc	48	75	7	1	7	-	2-3	4-6	2500	0	4
Catterick ...	1026·5	+18	WNW	3	bc	47	75	8	5	-	-	2-3	2-3	2500	1	*
Tynemouth ...	1024·2	+8	NW	5	bc	45	75	7	2	-	-	4-6	4-6	2500	1	*
St. Abbs Head	1028·1	+10	NW	6	bcq	43	85	7	4	4	-	1	2-3	2500	0	*
Leuchars ...	1025·5	+16	NNW	6	bc	42	85	8	5	-	-	2-3	2-3	3500	1	*
Renfrew (Abbotsl.)	1027·3	+18	NW	4	b	42	85	8	5	-	-	Tr	Tr	2000	1	*
Eskdalemuir ...	1026·3	+14	W	4	bc	40	75	7	5	-	-	4-6	4-6	1500	1	*
Point of Ayre ...	1028·4	+8	N	5	c/d	47	92	7	6	2	-	7-8	10	1500	1	4
Tiree	1027·3	+4	NNW	4	c	47	85	8	5	-	-	7-8	7-8	1800	0	5
Stornoway ...	1029·8	+22	NNW	5	c	38	92	7	5	7	-	7-8	9+	2000	1	*
Dalwhinnie ...	1028·0	+10	N	4	c	36	65	8	8	-	-	9	9	2500	0	*
Aberdeen ...	1024·0	+22	NNW	4	pr	38	75	7	6	-	-	7-8	7-8	1500	1	*
Wick ...	1024·9	+22	NNW	5	c	36	65	8	8	-	-	7-8	7-8	2500	1	*
Sumburgh ...	1018·6	0	NW'N	5	phr	39	75	6	8	-	-	10	10	1000	4	5
Blacksod Point	1034·7	-2	WNW	4	c	50	97	7	4	-	-	7-8	7-8	2500	1	4
Malin Head ...	1031·3	+14	N	3	id	46	92	6	3	-	-	9+	9+	450	1	*
Aldergrove ...	1030·7	+2	NW'N	3	dq°	47	97	6	5	-	-	10	10	500	1	*
Birr Castle ...	1034·1	-2	WSW	2	ic	47	92	7	5	-	-	10	10	2500	1	*
Valentia Obsy.	1037·4	-2	NNW	3	c	48	92	8	5	-	-	9	9	1500	1	3
Roches Point	1034·9	-10	NNW	4	bc	48	92	8	5	-	-	4-6	4-6	2500	1	

PAST 24 HOURS.

Stations	Temperatures. Max. Day 7h–18h °F. (31)	Temperatures. Min. Night 18h–7h °F. (32)	Temperatures. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 24 hrs. (36)
London (Kew)	53	46	40	-	-	2.0
Croydon ...	53	46	39	-	Tr	3.6
S. Farnborough	52	45	42	-	-	2.5
Boscombe Down	50	41	33	-	-	0.2
Thorney Island	51	40	33	-	-	*
Lympne ...	51	41	37	-	-	2.6
Manston ...	51	45	40	-	-	1.6
Shoeburyness ...	53	47	39	-	-	1.0
Felixstowe ...	51	46	43	-	Tr	0.4
Gorleston ...	50	46	44	-	-	*
Mildenhall ...	51	45	40	-	-	0.0
Cranwell ...	50	51	45	-	-	1.5
Birmingham ...	49	48	43	-	-	0.0
Upper Heyford	51	47	43	*	Tr	*
Ross-on-Wye	51	47	39	-	-	0.0
Hartland Point	51	49	47	-	-	0.0
Bristol ...	51	44	39	-	-	0.2
Portland Bill ...	52	46	*	-	-	*
Plymouth ...	52	51	38	Tr	-	0.0
The Lizard ...	51	46	*	-	-	0.0
Scilly (St. Mary's)	52	50	*	-	-	0.0
Guernsey ...						
Pembroke ...	51	50	*	-	-	0.0
Holyhead (Valley)	52	49	46	-	-	*
Chester (Sealand)	52	50	46	-	Tr	0.0
Manchester ...	49	48	47	Tr	0.4	0.0
Spurn Head ...	50	46	*	-	-	1.3
Catterick ...	54	47	45	-	Tr	1.4
Tynemouth ...	52	45	46	-	-	*
St. Abbs Head	54	53	*	-	-	*
Leuchars ...	55	41	37	-	-	0.6
Renfrew (Abbotsl.)	53	41	37	Tr	0.5	0.0
Eskdalemuir ...	49	39	36	0.2	0.2	0.0
Point of Ayre ...	51	*	*	Tr	1	0.0
Tiree	51	46	*	0.5	0.4	0.0
Stornoway ...	50	36	*	-	-	0.0
Dalwhinnie ...	50	35	30	0.1	-	0.0
Aberdeen ...	55	35	33	0.1	0.5	0.0
Wick ...	51	35	34	0.4	5	*
Sumburgh ...	49	32	28	0.6	1	0.1
Blacksod Point	51	47	*	1	0.5	*
Malin Head ...	52	45	*	Tr	2	0.0
Aldergrove ...	50	46	45	-	0.5	0.0
Birr Castle ...	51	47	45	-	Tr	0.0
Valentia Obsy.	51	48	47	-	Tr	
Roches Point	51	*	*	Tr	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. Yesterday.	Humidity. 15h. G.M.T. % Yesterday.	Humidity. 9h. G.M.T. % To-day.	Visibility 9h. To-day.
Kew	18	bc,cy	cbc	bcc	53	46	40	-	-	2.9	*	*	6
Croydon	217	c,bc,cy	cbc,c	cc,c	53	46	39	-	Tr	3.6	*	*	6
Greenwich (Royal Observatory)...	149	c,c	c,c	cbc	52	46	38	-	-	2.6	65	81	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	53	46	38	-	-		77	87	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110	bc	bc	*	52	46	38	-	-	*	*	85	*
Kensington	80	bc	bc	*	53	47	42	-	-		75	83	*
Hampstead Observatory	450										*		*

FOREIGN OBSERVATIONS.

Stations.	Evening of 24th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 25th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1031·1	NE'N	4	bc	26	1037·2	ENE	3	c	18
Lisbon (18h and 07h)	1026·8	E'N	4	bc	54	1025·0	NE	4	bc	43
Madrid (18h and 07h)						1028·0	-	0	b	28
Cairo (Heliopolis) (18h and 06h)						1033·3	SW	4	c	53
Toronto (13h and 01h)										
Washington (13h and 01h)										

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 25th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·2	16-24h. 24th.	0·1	0-6h. 25th.

Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
	41		3
	28		-
	52		-

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

Objects not visible at

0	Dense fog	55	yards.
1	Thick fog	220	,,
2	Fog	550	,,
3	Moderate fog	1,100	,,
4	Mist or haze	1¼	miles.
5	Poor visibility	2½	,,
6	Moderate ,,	6¼	,,
7	Good ,,	12½	,,
8	Very good ,,	31	,,
9	Excellent ,,	beyond 31m.	

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

† Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~SECRET~~ ~~BRITISH~~ SECTION

Friday 26th December 1941.

No. 29254

OBSERVATIONS at 13h. G.M.T. 25th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1027·3	-2	NW'N	4	2o	50	65	6	5	9	6	2-3	4-6	1500
	Croydon	1026·9	0	WNW	4	c/r	50	75	6	9	4	-	9	9	2500
	S. Farnborough	1027·8	-2	NW	4	pr	51	75	8	8	-	1	9+	9+	2500
	Boscombe Down	1029·1	-8	NW	4	c	51	85	7	5	-	-	9	9	3000
	Thorney Island	1028·4	-10	NW	4	2o	51	92	6	5	3	8	4-6	9+	1500
	Lympne	1026·4	+2	N	3	c	47	85	8	9	-	-	10	10	2500
	Manston	1026·2	+10	N	4	c/r	46	86	6	5	7	-	7-8	9+	3000
2	Shoeburyness	1026·7	+10	N'W	4	c	47	75	8	5	-	-	10	10	2500
	Felixstowe	1026·1	+18	N	6	c	46	65	7	7	-	-	7-8	9+	2500
	Gorleston	1026·8	+26	N	5	c	43	65	7	8	-	-	7-8	7-8	1500
	Mildenhall	1027·5	+22	N'W	4	bc	45	75	8	8	6	-	4-6	4-6	2500
	Cranwell	1028·4	+22	NNW	4	bc	45	65	8	8	6	1	2-3	4-6	3000
3	Birmingham														
	Upper Heyford	1028·3	+8	NNW	4	c/pr	48	85	7	8	-	-	9+	9+	1700
4	Ross-on-Wye	1028·8	0	NW	3	pr	51	85	8	8	-	-	9+	9+	3000
5	Hartland Point	1032·1	-4	NNW	4	c	49	85	8	5	4	-	7-8	9+	3000
	Bristol	1028·7	-6	W'N	3	c	52	75	8	5	3	6	4-6	9	3000
	Portland Bill	1029·5	-6	WNW	3	bc	52	92	8	2	-	-	4-6	4-6	4000
	Plymouth	1033·0	-4	NW	2	c	50	85	7	5	-	-	10	10	2000
	The Lizard	1033·4	-4	N	3	c	51	75	8	8	2	-	9	10	1000
	Scilly (St. Mary's)	1034·5	-4	N	4	c	57	85	8	5	-	-	9+	9+	1500
	Guernsey														
6	Pembroke	1032·9	-2	NNW	4	cq	51	92	8	8	-	-	9	9	3000
7	Holyhead (Valley)	1031·4	+10	NNW	5	pr	48	85	7	8	-	8	9+	10	800
	Chester (Sealand)	1031·0	+18	NNW	5	c	48	65	8	2	-	-	7-8	7-8	2000
8	Manchester	1029·8	0	NW'N	3	c	44	85	6	2	4	-	7-8	7-8	2000
10	Spurn Head	1027·2	+18	NNW	6	c/pr	40	85	7	8	4	1	7-8	7-8	1500
	Catterick	1029·6	+18	NW	3	bc	43	55	8	5	-	1	2-3	2-3	5000
	Tynemouth	1029·1	+14	N	5	c/pr	39	76	7	8	-	-	9	9	2600
11	St. Abbs Head	1028·2	+20	N	6	bcq	39	75	9	4	4	-	4-6	4-6	2500
	Leuchars	1029·5	+16	NW	4	b	40	55	8	8	-	-	Tr	Tr	4500
12	Renfrew (Abbotsl.)	1030·8	+12	NW	3	c	42	65	8	8	-	-	7-8	7-8	2500
	Eskdalemuir	1030·0	+8	NW'W	2	bc	39	65	6	5	-	-	2-3	2-3	4000
	Point of Ayre	1031·6	+10	N'E	5	bc	46	65	8	9	4	1	4-6	4-6	4000
13A	Tiree	1032·0	+14	N'E	4	bc	42	75	8	8	-	-	4-6	4-6	2800
13B	Stornoway	1032·3	+8	NW	4	c/pr	39	92	8	5	7	6	7-8	9+	2000
15	Dalwhinnie	1033·2	+10	N	3	c	33	65	8	8	-	5	7-8	9	2500
	Aberdeen	1027·9	+6	NW	5	b	38	55	8	8	5	-	Tr	Tr	2300
	Wick	1027·1	+10	NW	4	bc/ps	38	85	8	3	6	-	4-6	4-6	1800
16	Sumburgh	1025·1	+42	N	2	bc	38	75	8	3	-	-	2-3	2-3	2100
	Blacksod Point	1035·5	+2	WNW	3	c	51	92	7	2	6	-	4-6	9	1500
18	Malin Head	1032·7	+10	N	4	c	46	75	8	8	-	-	7-8	7-8	2500
	Aldergrove	1033·2	+10	NW'N	2	c	44	92	8	5	-	-	4-6	9+	1800
19	Birr Castle	1034·3	-4	NNW	2	c	49	85	8	8	-	-	9	9	1500
20	Valentia Obsy. †	1037·4	-6	NW'N	3	c/p	50	92	6	5	-	4	9+	9+	800
	Roches Point	1035·6	+4	N'W	4	bc	50	85	8	5	-	-	4-6	4-6	2500

OBSERVATIONS at 18h. G.M.T. 25th December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°F. Temp. (20)	°F. Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1031·3	+20	NNE	3	bc	42	65	7	5	-	-	2-3	2-3	2500	1	*
1030·5	+22	NNE	4	m	42	75	4	5	3	-	1	4-6	3500	1	*
1031·0	+20	NNE	3	c	44	65	7	5	-	-	7-8	7-8	4000	1	*
1031·9	+18	NNW	3	b	40	85	7	-	-	-	0	0	-	1	*
1030·3	+14	N'W	2	2o	42	75	6	5	-	-	7-8	7-8	3800	1	*
1029·7	+18	N	4	c	41	75	7	5	3	-	4-6	9+	2500	1	§3
1029·4	+18	N	4	bc	41	75	7	5	-	-	4-6	4-6	5000	1	*
1029·9	+22	N	4	c	41	75	6	5	-	-	9+	9+	4000	1	*
1029·2	+20	NW'N	3	bc	40	75	7	5	-	-	4-6	4-6	2500	1	4
1028·8	+24	N	4	bc	42	68	7	8	-	-	4-6	4-6	1500	0	4
1030·2	+18	NW	3	bc	39	85	8	5	-	-	4-6	4-6	1500	0	*
1031·3	+20	N	2	2o	38	75	6	-	3	-	0	Tr	*	1	*
1031·9	+16	NNW	2	c	41	75	6	5	-	-	9+	9+	2500	1	*
1031·2	+16	NW'N	3	2o	40	85	6	5	3	-	4-6	7-8	2500	1	*
1032·1	+14	N	3	c	43	75	8	5	-	-	9+	9+	3500	1	*
1032·8	+4	N	3	c	48	85	7	5	-	-	9+	9+	1500	1	4
1032·1	+14	NE'N	3	2o	43	75	6	8	1	-	2-3	2-3	2500	1	*
1030·7	+12	NW	3	c	50	92	7	5	-	-	10	10	2500	1	4
1032·6	+2	WNW	2	2o	49	85	5	5	-	-	10	10	2000	0	2
1033·0	0	N	3	c	49	85	8	8	2	-	9	10	1000	0	3
1033·8	-2	NNE	5	c	50	85	8	8	-	-	9+	9+	1200	1	4
1033·3	+6	N	3	c	48	97	8	8	2	-	7-8	10	2500	1	3
1032·3	+4	N'E	4	c	45	65	8	8	6	-	7-8	9	3800	1	3
1032·3	+12	N	3	c	42	65	7	5	3	-	2-3	9	2000	1	*
1031·8	+10	-	0	2o	36	86	6	5	-	-	2-3	2-3	3700	0	*
1030·2	+14	NW	4	c	40	75	7	5	-	-	9+	9+	1500	1	4
1032·0	+10	W'S	1	m	35	75	4	-	-	-	0	0	-	1	*
1030·7	+4	NW	5	b	36	65	7	-	-	-	0	0	-	1	4
1030·2	+4	WNW	5	bc	39	75	8	4	4	-	2-3	2-3	2500	0	4
1031·6	+10	NW	2	bc	36	72	8	5	-	-	4-6	4-6	4000	1	*
1033·2	+12	NW'N	2	b	36	65	8	5	-	-	Tr	Tr	3000	1	*
1032·6	+8	N	3	b	32	65	8	-	-	1	0	Tr	-	1	*
1032·7	+8	NNE	5	bc	42	65	8	4	3	-	Tr	4-6	2500	0	4
1033·6	+4	N	3	c	41	75	8	5	2	-	9+	9+	2500	0	4
1033·4	+4	NW	4	c	37	97	8	8	6	-	4-6	7-8	2000	1	1
1034·6	+12	N	1	c	32	75	8	8	-	-	7-8	7-8	4000	0	*
1033·1	+14	NW'N	4	bc/pr	37	85	8	8	-	-	4-6	4-6	2900	1	3
1030·0	+12	NW	3	bc	37	75	8	3	3	-	2-3	4-6	2500	1	*
1028·2	+16	N	1	b	36	85	8	8	-	-	1	1	2500	4	*
1035·7	0	WNW	1	c	48	97	7	4	-	-	7-8	7-8	2500	0	3
1034·9	+6	N	2	c	43	75	8	2	6	-	4-6	7-8	4000	1	5
1035·0	+12	N'E	1	bc	36	92	7	5	-	8	1	2-3	3500	1	*
1034·6	+6	NNW	1	c/r	48	97	7	6	2	-	7-8	10	1500	1	*
1037·0	+2	N'E	3	c	49	85	8	5	-	-	9+	9+	2500	1	3
1035·4	+4	N	3	c	49	86	8	8	-	-	9	9	1500	1	

PAST 24 HOURS.

Weather. 7h.—13h. 25th. (37)	13h.—18h. 25th. (38)	18h. 25th to 1h. 26th. (39)	1h.—7h. 26th. (40)
id.cbcmo	bccbc	bcb mox	bcmox
cid.mo	bcz.cz	bczbmx	bmx
c	cpr.bcc	cbcmox	bmox
bcb	cr.r.m.bc	cbc	b
cbccmo	idr.b,c	cmobmox	b.bcmox
cmoidcir	cbcc	cbcbx	bxbcmox
cmor.r.	cmobc	bcb	bbccmox
cmorogc	b,cmo	cmobmox	bmox
dcdomirbc	bccpr.bc	bccb	bbmocmo
cpr.q.bcq	bcpr.	cprbc	cpr.bcx
cpr.mobc	bccbc	bcbx	b,cmox
mopr.b	bcb,c	bmo	b,cmo
	bc	c	cbcx
prc	bzoc	cmobmo	bmocx
cbcbc	rcbcc	cbcc	c
c	c	cbc	bcc
cbc	cdo.d.bc	bcb,cmo	bcmcm
bc	c	cbc	bcc
c,rid.mc	cidomo	cbbcb	bw,c
cpr.c	c	c	c
c	c	cbccp.	cd.d.
bccq	bccido	bc	c
cdo	pr.cbc	bcc	bcc
cmobc	bccbc	c,bmfx	bbcfx
bcmocmo	cbmo	cfx	bfbcfx
cprc	c	bcc	bc
bc	bcz.bz	bzob	bxbcz.
bccp	bcb	b	bbcc
cq	q.bc	bcc	c
bcycby	bybbc	bbcc	c
b,cbo	bccb	bxcmo	cmo
bc	bcyb	b	bbcc
bc	bc	cb	bbcc
bc	c	c	c
cpr.	cpr.	c	cr.r.
c	c		cp3.0
cbcby	cprbc	cpr.c	cir.c
cprsbc	pr3.phr.bc	pr.bcr3.	cr3.3.
cph.bc	bcb	prsc	cphcis.s
bcc	c	bcc	bc
dc	c	cbc	bc
d.d.mo.c	cid.cbc	bcmox	bcbmo
bc	rc	r	r
pr	pr	cprbc	bc
b	bc	bcc	bcc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

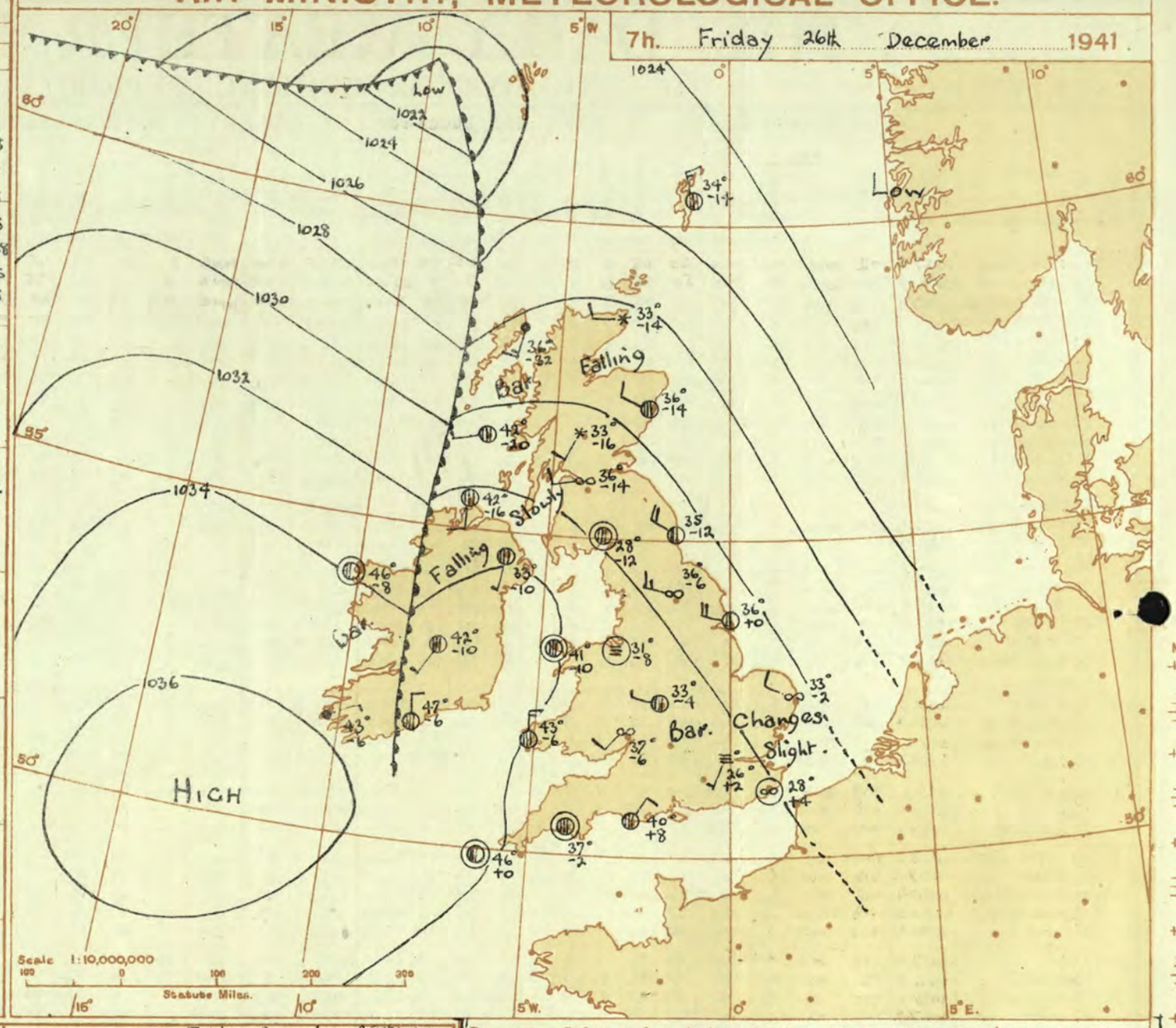
Abridged observations of additional stations in the
AVIATION WEATHER CODE

III	13h. G.M.T. 25th Dec. C_L C_M	wwVhN$_h$	DDFWN	18h. G.M.T. C_L C_M	wwVhN$_h$	DDFWN	01h. G.M.T. Nov. 26th Dec. C_L C_M	wwVhN$_h$	DDFWN	07h. G.M.T. C_L C_M	wwVhN$_h$	DDFWN
109	8-	01854	31684	8-	01745	28515	57	02873	29427	02	72758	20328
115	87	88834	97586	87	88844	82487	52	88844	16287			
203				8-	82836	28426	5-	02335	24425	5-	64838	20358
206	84	02865	26285	53	01964	30114	83	02855	30226	5-	68758	24278
210	53	01864	58584	86	02554	27586	47	01853	23284	5-	52748	24288
220										52	51432	22328
230	5-	02965	29415	5-	02865	30115	5-	01853	00013	57	02854	23228
245	16	00961	63782	57	01851	24214	57	02863	26465	57	02866	28326
260	8-	01854	30214	00	04890	25210	5-	47867	23117	52	05552	20148
278 275	50	01955	29426	40	01363	20583	63	01790	22115	57	02765	24117
279	54	00862	30313	00	00790	-----	00	00790	28200	00	00790	24116
285				10	01743	32513				5-	02857	28327
288	5-	05667	01417	00	05590	00010	00	05690	00000			
275	53	02845	32157	57	01753	32284				5-	05668	12128
301	52	05652	65513	00	47890	32200	00	05590	32100	50	47853	07143
321	87	02854	64585	04	05690	28221	00	41490	27240	57	05564	27228
299				50	02745	32615	00	00790	25200	50	05644	28214
292				00	05690	22110	00	00790	27200	07	02790	00028
310												
614	26	05665	65526	06	05690	32114	00	05690	28110	57	05565	26118
333	52	51635	63468	2-	25866	30386	5-	02867	07327	5-	05668	00028
334												
340	20	01754	63564	50	05662	31302				07	08490	00018
136	8-	25856	64586	4-	02867	32487	00	00790	28210	07	05690	27206
336										54	01643	24815
350	8-	01854	65514	50	05663	02818				07	05690	18206
368	54	02734	24426	54	28324	32147	50	01745	28115	5-	02645	00025
379	5-	22738	63568	50	05652	32412	04	05690	00003	53	05652	00015
390	8-	05645	30457	5-	05665	63325	00	05690	24210	5-	05567	26107
382	57	21745	30557	5-	05635	03215	00	05590	00000	03	08490	00004
438	5-	10737	28427							50	00761	32301
430	54	02746	26327	50	05655	30315	00	05690	32100	00	05690	32204
409	5-	21847	31457	57	22847	31468	54	01853	04263	5-	02857	00127

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Friday 26th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE.—Rough.—High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Friday December 26th 1941
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ...	Light west wind veering N.W. later, fresh or strong locally on coasts; cloudy; occasional light rain, becoming mild temporarily.
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 16 Orkneys and Shetlands	Moderate west wind veering N.W. later, strong to gale locally on coasts; rain at first; bright intervals and wintry showers later; mild temporarily, becoming cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 0-7

GENERAL INFERENCE.

A deepening depression S.W. of the Facroes is moving S.E. Occasional light rain will spread southeast across the British Isles. Later there will be bright intervals and wintry showers in the North.

FURTHER OUTLOOK.

Rather unsettled; cold in the North with wintry showers.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of

Friday 26th December

1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 26th December 1941.

No. 29254

OBSERVATIONS at 1 hr. G.M.T. 26th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	34	*	*	*	*	*	*	*	*
	Croydon ...	217	1033·2	+10	SSW	1	m	29	97	4	-	-	-	0	0	-
	S. Farnborough	226	1033·9	+6	-	0	Zo	30	92	6	-	-	-	0	0	-
	Boscombe Down	417	1034·0	+2	N	1	Zo	35	85	6	5	-	-	2-3	2-3	4000
	Thorney Island	10	1033·4	+6	N'E	1	Zo	32	92	6	-	-	-	0	0	-
	Lympne ...	346	1032·3	+6	NW	1	o	31	92	7	-	-	-	0	0	-
	Manston ...	154	1032·2	+6	NW	2	b	35	92	7	-	-	-	0	0	-
2	Shoeburyness ...	11	1032·5	+2	WNW	3	b	32	92	6	-	-	-	0	0	-
	Felixstowe ...	15	1031·9	+4	NW	3	b	36	85	7	-	-	-	0	0	-
	Gorleston ...	5	1030·9	+2	WNW	3	bc/pr	35	85	6	5	-	-	4-6	4-6	1500
	Mildenhall ...	19	1032·6	+6	ENE	2	b	30	92	7	5	-	-	1	1	2500
	Cranwell ...	240	1032·9	0	NE	2	Zo	33	86	5	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1033·8	+6	NNW	2	Zo	29	99	6	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1033·6	+2	NE	3	bc	45	65	8	5	4	-	2-3	4-6	2500
	Bristol ...	209	1034·3	+6	S	1	Zo	35	92	5	5	3	-	4-6	7-8	3500
	Portland Bill ...	32	1032·9	+6	ENE	3	bc	40	92	8	4	-	-	4-6	4-6	4000
	Plymouth ...	82	1034·3	+6	-	0	b	39	92	8	5	-	-	Tr	Tr	3000
	The Lizard ...	240	1034·2	+4	NE'E	3	c	47	75	7	8	2	-	7-8	10	1500
	Scilly (St.Mary's)	163	1034·7	+6	NNE	2	c	48	92	8	8	-	-	10	10	1200
	Guernsey ...	175														
6	Pembroke ...	142	1034·5	0	NNE	3	bc	43	92	8	8	-	-	2-3	2-3	2500
7	Holyhead(Valley)	26	1033·7	+2	NNE	2	c	42	65	8	5	-	-	10	10	3300
	Chester(Sealand)	16	1034·1	+6	NNW	1	bf+	32	92	3	-	3	-	0	Tr	-
8	Manchester ...	235	1034·2	+6	-	0	bf	29	97	3	-	-	-	0	0	-
10	Spurn Head ...	29	1031·6	+8	W	4	c	37	85	7	4	6	-	7-8	9+	1500
	Catterick ...	175	1033·4	+2	-	0	b	32	75	7	-	-	-	0	0	-
	Tynemouth ...	108	1032·4	+6	NW	4	b	34	75	6	-	-	-	0	0	-
11	St. Abbs Head	280	1032·1	+4	WNW	4	c	37	85	7	5	4	-	4-6	10	2500
	Leuchars ...	36	1032·6	-2	NW	3	c	36	85	8	5	3	-	4-6	9+	4000
12	Renfrew (Abbots I.)	19	1034·0	-2	SW	2	Zo	34	85	6	-	7	6	0	9	-
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1034·2	0	NNW	2	b	40	65	8	-	4	5	0	1	-
13A	Tiree	22	1038·8	0	NNW	3	c	48	75	8	5	-	-	9	9	2800
13B	Stornoway ...	80	1033·3	-4	WSW	2	c	38	92	8	5	7	-	7-8	10	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	37	*	*	*	*	*	*	*	*
	Wick ...	119	1030·8	-4	WNW	2	rs	35	92	7	5	7	-	7-8	10	1600
16	Sumburgh ...	30	1028·6	-2	N	3	c	35	75	7	8	-	-	10	10	1800
17	Blacksod Point	18	1035·7	-4	-	0	c	43	97	7	5	-	-	7-8	7-8	1500
18	Malin Head ...	84	1035·1	-6	W	2	bc	41	75	8	4	-	-	4-6	4-6	5700
	Aldergrove ...	268	1036·0	0	-	0	b	32	92	6	5	4	-	Tr	1	4500
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1037·0	-2	SE'E	1	bc	44	92	8	5	-	-	2-3	2-3	2500
	Roches Point	22	1035·8	-6	N'W	3	c	48	92	8	8	-	-	9	9	1500

OBSERVATIONS at 7 hr. G.M.T. 26th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
London (Kew)	1033·3	-2	SW	2	Zo	33	92	6	5	-	-	9+	9+	4000	1	*
Croydon ...	1033·4	+2	SSW	1	m	26	97	4	-	4	-	0	9+	-	3	*
S. Farnborough	1033·5	-4	-	0	Zo	26	92	5	-	3	-	0	2-3	-	3	*
Boscombe Down	1033·7	-2	NW'N	1	Zo	31	92	5	5	-	-	7-8	7-8	4000	3	*
Thorney Island	1033·4	0	N'W	1	Zo	28	92	5	5	3	-	1	2-3	4000	3	*
Lympne ...	1032·7	+4	-	0	Zo	28	92	6	5	-	2	2-3	4-6	4000	1	§ 3
Manston ...	1032·5	0	W'S	2	Zo	31	92	5	5	3	-	1	9	4000	3	*
Shoeburyness ...	1032·4	0	WNW	2	c	30	92	6	-	7	-	0	7-8	-	1	*
Felixstowe ...	1031·9	-2	WNW	4	Zo	33	85	5	5	-	-	9+	9+	4000	1	3
Gorleston ...	1030·8	-2	NW'W	2	Zo	33	92	6	5	-	1	4-6	4-6	1500	1	2
Mildenhall ...	1032·1	-6	WSW	3	Zo	30	85	6	6	-	-	9+	9+	2500	0	*
Cranwell ...	1032·2	-6	NW'W	1	Zo	32	85	5	-	7	-	0	9	-	1	*
Birmingham ...	1033·0	-4	WNW	1	c	33	85	6	-	7	6	0	7-8	-	1	*
Upper Heyford	1032·8	-6	NW	1	c	31	92	7	-	7	-	0	7-8	-	1	*
Ross-on-Wye	1032·4	-6	SW	2	Zo	37	85	6	5	-	-	9+	9+	3000	1	*
Hartland Point	1033·2	-2	N	3	c	45	65	8	5	-	-	9	9	2500	1	3
Bristol ...	1033·3	-4	-	0	m	36	85	4	5	7	-	4-6	7-8	3800	1	*
Portland Bill ...	1033·6	+8	NE	2	c	40	92	5	5	-	-	7-8	7-8	4000	1	4
Plymouth ...	1034·3	-2	-	0	c	37	97	7	5	-	-	10	10	3000	1	2
The Lizard ...	1033·9	-4	NE	2	c	43	85	8	8	2	-	9	10	1500	0	3
Scilly (St.Mary's)	1034·4	0	-	0	c	46	97	7	5	2	-	7-8	10	1500	1	3
Pembroke ...	1033·9	-6	N	3	c	43	85	8	4	-	-	7-8	7-8	2500	0	2
Holyhead(Valley)	1032·4	-10	-	0	c	41	75	7	5	-	-	9+	9+	2500	0	2
Chester(Sealand)	1032·6	-8	-	0	bcf+	31	92	3	5	3	-	2-3	4-6	3000	1	*
Manchester ...	1032·9	-8	-	0	bcf	30	97	3	5	-	-	4-6	4-6	2500	3	*
Spurn Head ...	1030·9	0	WNW	4	bc	36	75	6	7	-	-	4-6	4-6	2500	0	3
Catterick ...	1031·8	-6	W'N	3	Zo	36	65	6	5	1	-	2-3	7-8	2500	1	*
Tynemouth ...	1030·5	-12	NW	4	c	35	75	6	8	-	-	7-8	7-8	2500	1	3
St. Abbs Head	1029·6	-10	WNW	4	c	37	85	7	5	2	-	7-8	10	2500	0	4
Leuchars ...	1030·0	-16	NW	3	c	36	85	8	5	-	-	10	10	3000	1	*
Renfrew (Abbots I.)	1031·0	-14	W'S	2	Zo	36	85	6	5	7	-	4-6	7-8	3500	1	*
Eskdalemuir ...	1031·5	-12	-	0	c	28	92	6	5	-	-	9	9	1500	3	*
Point of Ayre...	1032·2	-12	NW'N	2	c	42	75	8	5	1	-	4-6	9+	4000	0	2
Tiree	1030·0	-20	WSW	1	c	42	75	7	5	-	-	9+	9+	2500	0	3
Stornoway ...	1028·4	-32	SSW	3	rsp	36	97	7	5	7	-	7-8	10	1000	1	1
Dalwhinnie ...	1030·6	-16	SSW	2	ps	33	85	6	5	-	-	10	10	1500	1	*
Aberdeen ...	1028·4	-14	NW'W	2	c/r	36	85	6	5	-	-	7-8	7-8	1800	3	2
Wick ...	1028·0	-14	W	2	SoS.	33	97	5	-	2	-	10	10	450	7	*
Sumburgh ...	1025·9	-14	NNW	3	c/s	34	85	6	5	2	-	9	10	1800	4	3
Blacksod Point	1033·7	-8	-	0	bc	46	97	8	4	-	-	4-6	4-6	2500	0	2
Malin Head ...	1031·8	-16	S	2	c	42	85	7	5	-	9	7-8	7-8	4000	1	4
Aldergrove ...	1034·0	-10	S'W	1	c	33	97	7	5	2	-	7-8	7-8	3000	1	*
Birr Castle ...	1034·2	-10	SSW	1	c	42	97	8	5	-	-	10	10	2500	1	*
Valentia Obsy.	1035·7	-6	E'N	1	id.	43	97	6	5	-	-	7-8	7-8	800	1	2
Roches Point	1034·8	-6	N	2	c	47	92	8	5	-	-	9+	9+	2500	1	5

PAST 24 HOURS.

Stations	Temperature. Max. Day 7h–18h °F.	Temperature. Min. Night 18h–7h °F	Temperature. Min. on Grass °F.	Rainfall. Day 7h–18h mm.	Rainfall. Night 18h–7h mm.	Sunshine. 25th Hrs. (36)
London (Kew)	51	31	16	Tr	Tr	0·7
Croydon ...	50	26	21	0·4	-	0·6
S. Farnborough	51	25	16	Tr	Tr	0·1
Boscombe Down	51	30	27	0·6	Tr	1·0
Thorney Island	51	27	19	Tr	-	*
Lympne ...	49	27	21	Tr	-	0·0
Manston ...	49	30	24	1	-	0·0
Shoeburyness ...	51	30	*	Tr	-	0·1
Felixstowe ...	50	32	28	1	-	1·4
Gorleston ...	51	33	29	0·2	Tr	*
Mildenhall ...	50	28	17	1	Tr	0·9
Cranwell ...	51	38	27	0·2	-	3·5
Birmingham ...	49	32	20	0·4	-	0·5
Upper Heyford	51	28	26	-	-	*
Ross-on-Wye	53	36	31	2	-	2·1
Hartland Point	50	44	40	-	-	0·1
Bristol ...	53	33	25	0·3	-	1·0
Portland Bill ...	52	38	*	*	-	*
Plymouth ...	51	36	31	Tr	-	0·0
The Lizard ...	50	41	*	Tr	-	0·0
Scilly (St.Mary's)	51	46	*	-	1	0·0
Pembroke ...	52	39	*	Tr	-	0·2
Holyhead(Valley)	50	39	31	0·2	-	*
Chester(Sealand)	51	30	24	1	-	1·7
Manchester ...	49	28	22	1	-	*
Spurn Head ...	48	34	*	Tr	-	0·9
Catterick ...	48	32	23	-	-	3·6
Tynemouth ...	48	32	23	Tr	-	*
St. Abbs Head	43	36	*	-	-	*
Leuchars ...	44	35	30	-	-	3·3
Renfrew (Abbots I.)	43	31	23	-	Tr	3·4
Eskdalemuir ...	40	26	20	-	-	4·6
Point of Ayre...	48	30	*	-	-	2·7
Tiree	46	40	*	-	-	0·6
Stornoway ...	40	35	*	Tr	2	0·2
Dalwhinnie ...	35	29	21	-	Tr	0·2
Aberdeen ...	39	35	31	0·5	Tr	3·2
Wick ...	41	32	32	1	3	*
Sumburgh ...	40	32	24	1	2	3·4
Blacksod Point	52	41	*	-	1	*
Malin Head ...	47	38	*	1	-	0·0
Aldergrove ...	50	30	27	0·2	-	0·0
Birr Castle ...	50	38	*	0·5	0·4	1·2
Valentia Obsy.	51	40	36	0·1	0·1	*
Roches Point	52		*	-	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew	18	id.cbcm.	bcebc	bcbmx	51	31	16	Tr	Tr	0·7	*	*	3
Croydon	217	cid.mo	bczocz	bczbmx	50	26	21	0·4	-	0·6	*	*	4
Greenwich (Royal Observatory)...	149	crocmo	cbmo	bxcf	51	28	17	Tr	*	0·9	74	88	3
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	52	30	29		0·1		81	95	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110	bc	bc	*	51	31	26	0·3	*	*	*	89	*
Kensington	80	czp	cbc	*	51	30	22	Tr	Tr		65	90	*
Hampstead Observatory	450	bcp	dc	bcmx	50	29	24	Tr	-		*	92	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 26th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·3	11h. 25th.	0·1	12-13h. 25th.

FOREIGN OBSERVATIONS.

Stations.	Evening of 25th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 26th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1029·7	ENE	5	SS	23	1027·8	-	0	bc	28
Lisbon (18h and 07h)	1033·5	NE	3	c	50	1023·0	NNW	2	b	48
¶Madrid (18h and 07h)						902·7	N	2	b	28
Cairo (Heliopolis) (18h and 06h)						1022·1	S	3	bc	50
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
52	43	0·1	-
	28		-
	48		-

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Bonnfort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

~~SECRET~~ EXCEPTION SECTION

Saturday 27th December 1941.

No 29255

OBSERVATIONS at 13h. G.M.T. December 26th

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	1029·8	-28	SW'W	2	m	39	75	4	5	3	-	7-8	9+	4000
	Croydon	1030·0	-26	W$W	2	$o	38	75	5	5	3	-	9	9+	4000
	S. Farnborough	1030·7	-24	W	2	c	38	76	7	5	-	-	9+	9+	4000
	Boscombe Down	1031·0	-24	W	2	$o	40	75	6	5	-	-	7-8	7-8	6000
	Thorney Island	1031·0	-26	WNW	1	$o	37	85	5	5	-	-	9+	9+	4000
	Lympne	1030·1	-22	WNW	2	m	35	85	4	-	7	-	0	9+	-
	Manston	1029·9	-22	WSW	2	$o	36	85	5	-	7	-	0	10	-
2	Shoeburyness	1029·7	-20	WSW	2	c	39	75	5	5	-	-	9+	9+	5000
	Felixstowe	1029·1	-18	W'S	4	$o	37	75	5	-	2	-	0	10	-
	Gorleston	1028·1	-8	WNW	3	$o	35	85	6	5	-	-	10	10	2000
	Mildenhall	1028·0	-26	SW	3	$o	35	85	5	-	7	-	0	9+	-
	Cranwell	1028·1	-30	W	3	f	37	85	3	5	-	-	9+	9+	7200
3	Birmingham	1029·4	-2	W	3	$o	38	75	5	5	-	-	10	10	4000
	Upper Heyford	1030·1	-22	WSW	1	$o	40	75	6	1	3	-	tr	7-8	3000
4	Ross-on-Wye	1030·2	-20	W	2	bc	43	65	8	5	9	-	2-3	4-6	3500
5	Hartland Point	1031·7	-16	NW	2	c	45	66	8	2	4	-	7-8	7-8	2500
	Bristol	1030·8	-24	W	3	c	42	65	7	5	3	-	4-6	7-8	4000
	Portland Bill	1030·9	-24	NW	3	c	45	75	8	2	-	-	9	9	4000
	Plymouth	1032·6	-22	NW'W	1	$o	45	85	6	5	-	-	7-8	7-8	3500
	The Lizard	1033·0	-10	WNW	2	c/pr	46	92	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1033·5	-14	ENE	1	c	48	92	8	8	2	-	7-8	10	1200
	Guernsey														
6	Pembroke	1032·1	-22	NW	4	c	45	85	8	5	6	-	7-8	9+	3000
7	Holyhead (Valley)	1029·9	-20	W'N	2	c	44	75	8	7	7	-	7-8	9+	2000
	Chester (Sealand)	1029·5	-22	W	3	c	43	66	8	5	-	-	9+	9+	3500
8	Manchester	1029·3	-24	SSW	2	m	37	85	4	5	-	-	9+	9+	5500
10	Spurn Head	1027·1	-22	W	4	m	38	75	4	5	3	-	4-6	7-8	1500
	Catterick	1027·0	-28	W'N	3	c	41	66	8	5	7	-	2-3	9+	3500
	Tynemouth	1026·2	-32	W	4	c	39	85	6	5	-	-	9	9	2200
11	St. Abbs Head	1024·3	-28	WNW	4	oo	38	97	7	5	2	-	7-8	10	2500
	Leuchars	1022·8	-46	SW	1	ro	38	92	6	-	2	-	10	10	2500
12	Renfrew (Abbotsl.)	1024·3	-46	SW'W	3	$do	43	92	5	5	-	-	10	10	2000
	Eskdalemuir	1026·0	-32	W'S	3	c	38	75	7	5	4	-	7-8	9	2500
	Point of Ayre	1028·0	-30	W'N	5	pr	45	85	8	8	7	-	7-8	9+	3000
13A	Tiree	1024·4	-28	NW'W	4	bc	48	85	8	8	-	-	4-6	4-6	1800
13B	Stornoway	1020·9	-26	WNW	5	rr	47	92	7	5	2	-	9	10	800
15	Dalwhinnie	1022·9	-40	SSW	2	$r	37	92	7	5	2	-	4-6	10	1500
	Aberdeen	1022·8	-38	SW	1	rs	36	92	5	-	2	-	10	10	3000
	Wick	1022·6	-32	W	1	S$So	33	97	5	-	2	-	10	10	900
16	Sumburgh	1022·5	-18	N	1	c/s	33	75	8	5	3	-	7-8	9+	1800
17	Blacksod Point	1031·0	-20	W'W	3	bc	49	85	8	9	-	-	4-6	4-6	2500
18	Malin Head	1026·7	-26	W	4	c	48	92	7	2	-	2	4-6	7-8	1500
	Aldergrove	1028·7	-36	WSw	2	$do	41	97	6	5	-	-	7-8	10	X150
19	Birr Castle	1031·5	-24	WSW	2	ro	46	97	7	6	2	-	7-8	10	1500
20	Valentia Obsy. †	1033·9	-14	NNW	3	c$p	48	92	9	2	-	1	7-8	7-8	1500
	Roches Point	1032·2	-14	NNW	3	c	48	85	8	5	-	-	7-8	7-8	2500

OBSERVATIONS at 18h. G.M.T. 26th December

Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	°Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1025·9	-22	WSW	2	m	39	85	4	5	-	-	9+	9+	4000	1	*
1026·4	-20	WSW	2	m	37	85	4	-	3	-	0	9+	-	1	*
1026·7	-14	W'N	2	c	36	85	6	-	3	-	0	9	-	1	*
1027·8	-20	W	2	$o	35	85	6	-	-	1	0	2-3	-	1	*
1027·2	-20	WNW	1	$o	36	85	5	-	-	2	0	2-3	-	1	*
1026·1	-24	WSW	2	$o	36	75	5	-	7	-	0	9+	-	1	§
1025·5	-14	W'S	2	m	36	85	4	-	7	-	0	9+	-	1	*
1025·3	-22	WSW	2	m	39	75	4	5	-	-	9+	9+	5700	0	*
1023·9	-24	WSW	3	m	37	85	4	5	-	-	9+	9+	6700	1	3
1023·4	-26	W'N	3	$o	35	92	5	5	-	-	9+	9+	1500	0	2
1024·2	-20	WSW	3	$o	37	85	5	-	7	-	0	9+	-	0	*
1022·8	-32	W	3	f	37	85	3	5	3	-	4-6	9+	2000	1	*
1025·1	-24	W	3	$o	39	75	6	5	-	-	9+	9+	4000	1	*
1025·9	-24	W'S	2	c	37	85	7	5	-	-	9+	9+	4000	1	*
1026·2	-20	SW	2	bc	40	75	8	5	3	-	2-3	4-6	3500	1	*
1029·0	-14	WNW	3	c	45	85	8	5	2	-	7-8	10	1800	0	3
1027·3	-24	WNW	3	$o	37	85	6	-	3	-	0	7-8	-	1	*
1027·5	-16	NW	3	c	44	85	8	2	-	-	7-8	7-8	4000	1	4
1030·2	-6	W	2	ido	44	85	5	5	-	-	10	10	1400	1	2
1030·6	-14	-	0	c	45	92	8	8	2	-	7-8	9+	1500	1	3
1031·4	-6	NW'N	2	c	47	92	8	8	7	-	7-8	10	1000	1	3
1028·4	-14	W'N	4	c	48	92	8	8	-	-	9	9	2500	0	3
1025·1	-26	W'N	5	o/f	47	85	7	5	-	-	10	10	1400	1	3
1024·8	-30	WSW	3	$ro	44	85	6	5	-	-	9+	9+	1500	1	*
1023·4	-38	WSW	5	$ro	40	85	6	6	2	-	7-8	10	1500	1	*
1021·5	-24	W'S	4	$o	40	85	5	5	1	-	10	10	1500	1	3
1020·4	-30	W	3	$do	43	78	7	5	-	-	7-8	7-8	2000	1	*
1019·4	-32	W	5	$o	42	92	6	5	-	-	9+	9+	1500	1	3
1015·6	-14	W	5	c	46	85	7	5	2	-	7-8	10	2500	1	3
1017·8	-10	ENE	1	rs	41	97	5	5	2	-	9	10	800	1	*
1019·1	-22	W	3	c	46	85	7	5	4	6	4-6	10	1600	1	*
1019·2	-30	W'N	3	o	43	85	7	5	-	-	10	10	1500	1	*
1022·3	-34	WNW	6	c	47	92	7	9	7	-	7-8	10	2000	1	4
1020·4	-16	NW	4	c	48	92	7	5	-	-	9	9	2100	0	4
1021·9	0	ENE	5	c	40	92	7	5	7	-	7-8	9+	1000	1	3
1020·8	-8	NE	3	rs	33	92	6	5	-	-	10	10	1500	1	*
1019·6	-2	NNW	1	rs	33	92	3	-	2	-	0	10	3000	6	
1021·3	0	NNE	4	c	36	85	7	8	2	-	7-8	10	3000	7	*
1021·1	-4	N	4	bc	32	65	8	8	3	-	2-3	2-3	2500	8	3
1028·6	-10	W	4	c	48	92	8	9	-	-	7-8	7-8	2500	1	4
1023·3	-14	NW	5	pr	47	92	7	8	-	-	9	9	1500	1	4
1024·3	-16	W	4	c	46	92	8	5	-	-	9+	9+	1700		*
1028·4	-8	WSW	2	c	46	92	8	5	1	-	7-8	10	2500	1	*
1032·1	-6	NW'W	4	c$p	48	75	8	5	-	-	9+	9+	2500	1	4
1030·4	-10	NW	3	c	47	85	8	8	-	-	7-8	7-8	1500	1	5

PAST 24 HOURS.

Weather. 7h.—13h. 26th (37)	13h.—18h. 26th (38)	18h. 26th to 1h. 27th (39)	1h.—7h. 27th (40)
cfffxm	cmmom	bcroSoc	ccqfomo
cmczo	c2cm		idoiro
bcmoxc	c2omio	cmocpromo	b
cmo	bcmo	cido	bcc
xmfmmo	cbcbmio	bccirmo	cmoiro
bcxcm	cmzo	c2ommo	cmodopr
cbcmocm	cmom	cmciromo	cfofoffmo
	cmomc	cmcmoc	crrmo
cmo	cmom	cidofomo	rofododofo
bcczo	cmomo	cpzrqz	cproq
cmoxcmo	cmo	bciromo	ciromoc
cmcff	cmf	cmorso	cmorofod
cz	cz	cbcc	corr
cbfczo	c2oc	cido,bc	bccfrmo
ccb	bccbc	bccpoc	bccpoc
c	cbcc	cdc	c
cmom	cbcmo	cido,bc	bcproc
c	cc	c	c
cmwcmo	cmo,cc	cido	ciroc
cproc	dodomc	cproc	cpfoc
c	ciroc	cpoc	cpbcc
c	c	cq	cbcq
c	ciomoc	cidoiro	obcdodo
cfmmo	c	cmodofofo	moDDno
cfxmm	cmoidoifo	iriro	rrc
cm	cmom	oprq	c
bccbzc	cccido	ciromo	crodovmc
c	oifoqmo	oifo	oc
cr	foc	prc	eprbc
croforr	crrdd	cpr	c
ofosir	orrjrs		oirsc
cxfoSo	cssfoSo		crsbc
pSoSoSo	SoSopSoc	poshbc	bcposb
cSomoc	cbc	bbcposb	bxs
bc	c	pr	be
pr	pr	pr	d
dodojfmo	dodoc	cpRbcc	idirddno
r	pr	+	d
pr	pr	pr	pr
c	pr	pr	o

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

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

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29—STATE OF GROUND.

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

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Saturday 27th December, 1941.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN	C_L C_M	wwVhN$_h$	DDFWN
	13h. G.M.T. 26th December			18h. G.M.T.			01h. G.M.T. 27th December			07h. G.M.T.		
109	02	71828	02278	52	03745	01578	8-	01854	01574	8-	02854	04484
115	--	74209	12473	87	85734	04487	52	02834	04487	52	02844	04326
203				5-	02737	04367	5-	02846	04416	5-	01949	08323
206	5-	68748	30278	5-	68648	32178	53	01854	32174	5-	01853	00013
210	02	68838	00078	51	52646	32378	46	01853	31313	50	00862	31302
220	88	25836	26487							50	01653	03203
230	59	51746	24157	5-	61748	57468	5-	02856	08226	5-	02858	00018
245	02	62647	21278	52	68548	02278	57	02854	30377	54	00862	30282
260	52	61664	21368	52	05655	22468	57	02755	08168	60	00762	32122
278	52	62637	24368	5-	22846	22327	5-	22848	59568	57	02855	16168
279	57	02845	22327	67	61733	22366	5-	64658	02368	52	02764	02367
285										27	26745	28387
288	07	02830	20227	52	02756	20368	52	02657	31468	53	47364	32165
375	53	21846	24257	53	51746	22257	50	01843	28223	50	01843	28213
301	57	02754	26444	5-	02747	26567	5-	61748	57568	5-	22658	06168
321	5-	17467	26227	5-	05566	24326	52	62645	63468	5-	05667	32367
299				5-	51638		50	52744	32454	50	02755	32515
292				5-	02717	22327	02	61658	29368	5-	05667	24167
310	--	05438	24218	--	51428	24228				--	61628	26428
614	53	08466	22227	04	05590	24424	57	61648	59377	52	24644	02378
333	5-	02867	30117	5-	52776	26456	5-	61757	61567	5-	02858	28528
334										--	64537	20268
340	5-	02876	24126	5-	02877	22327	5-	02755	61465	6-	52548	28368
136	07	05590	23327	57	08462	24326	5-	61636	24478	5-	02868	01368
336										57	02754	24428
350	03	05690	22227	53	05662	21327	26	85654	24485	5-	24658	32378
368				54	01655	26225	53	02755	57467	57	21646	26468
379				53	05663	26213	53	05652	2431	5-	54656	24356
390	5-	43387	24247	5-	08467	29227	5-	61668	24468	5-	62558	30368
382	57	03674	25325	57	02765	23327	53	01761	24423	5-	62648	32548
438	5-	02756	30216									
430	5-	05667	22227	00	08490	26113	5-	22677	26367	5-	05657	26317
409	50	02858	23325	57	02746	29268	5-	02847	59467	51	22845	28565

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C_L C_M = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Saturday 27th December,
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable winds becoming S.W to W. Bright intervals and local wintry showers at first. Occasional rain later. Local fog at night. Rather cold becoming milder.
5 S.W. England 6 South Wales ... 7 North Wales ...	Variable winds finally S.W. to W. moderate. Cloudy. Local rain. Average temperature.
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 16 Orkneys and Shetlands	Light variable winds, becoming S.W. to W. fresh on coasts. Fair at first. Rain later, with snow locally on higher ground. Rather cold, becoming milder.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light or moderate West wind. Cloudy. Local rain. Rather mild.

Scale 1:10,000,000
100 0 100 200 300
Statute Miles.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone is centred to S.W. of the British Isles and a depression is approaching Iceland. Weather will be fair at first in the North, but rain is likely later. In the East there will be bright intervals and local showers at first and occasional rain later. In the west weather will be cloudy with local rain.

FURTHER OUTLOOK.

Unsettled and rather mild.

Forecasts issued at 10.30h. G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Saturday 27th December
1941.

Clarke's Projection Scale 1: 4 x 10⁷ 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. (℄) Thunderstorm. Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 27th December 1941.

No. 29255

OBSERVATIONS at 1 hr. G.M.T. December 27th

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	42	*	*	*	*	*	*	*	*
	Croydon ...	217	1020·5	-30	SW	4	c	40	92	6	5	3	-	7-8	9	5000
	S. Farnborough	226	1021·0	-30	W	4	pr	41	92	6	8	-	1	7-8	7-8	3500
	Boscombe Down	417	1022·8	-26	W'N	3	ido	40	92	6	5	-	-	9+	9+	3000
	Thorney Island	10	1022·4	-26	W	3	ir	40	92	6	5	3	-	7-8	9	6000
	Lympne ...	346	1020·8	-26	W	2	zo	38	97	5	5	7	-	9	10	4200
	Manston ...	154	1018·4	-20	W'N	5	iro	41	85	6	5	-	-	10	10	3200
2	Shoeburyness ...	11	1019·1	-28	WNW	4	o	40	85	6	5	-	-	10	10	2800
	Felixstowe ...	15	1017·1	-34	W	5	roro	42	85	5	5	-	-	10	10	2700
	Gorleston ...	5	1016·1	-22	NW'W	4	zo	41	92	5	6	-	-	10	10	1500
	Mildenhall ...	19	1017·5	-26	W'S	5	roro	42	85	5	5	2	-	9	10	2800
	Cranwell ...	240	1017·4	-18	W	4	rs	43	92	4	5	-	-	10	10	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1020·4	-24	W'S	3	bc	40	97	7	5	3	-	2-3	4-6	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1025·1	-10	NW	4	c	48	75	8	3	4	-	9	10	1500
	Bristol ...	209	1022·8	-18	WNW	4	bc	44	92	7	5	3	-	2-3	4-6	3500
	Portland Bill ...	32	1023·5	-22	W	4	c	47	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1026·0	-20	WNW	4	c	48	75	8	5	-	-	9+	9+	2000
	The Lizard ...	240	1027·6	-12	NW'W	4	c	48	85	8	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1028·5	-16	NNW	4	c	47	85	8	8	6	3	4-6	9	1500
	Guernsey ...	175														
6	Pembroke ...	142	1025·0	-16	WNW	6	cq	49	92	8	8	7	-	4-6	7-8	1500
7	Holyhead (Valley)	26	1021·9	-10	NW'N	4	c/r	47	92	8	5	-	-	9+	9+	1500
	Chester (Sealand)	16	1020·2	-10	W'N	5	zo	47	85	6	8	7	-	7-8	10	1600
8	Manchester ...	235	1019·2	-14	NW'N	5	iro	45	97	7	5	-	-	10	10	1200
10	Spurn Head ...	29	1016·3	-14	N'W	5	cq	43	85	7	6	-	-	10	10	2500
	Catterick ...	175	1019·4	+18	N'W	2	iro	39	92	6	5	2	-	7-8	10	1200
	Tynemouth ...	108	1019·2	+16	NW	6	iro	42	92	6	6	-	-	10	10	1500
11	St. Abbs Head	280	1018·9	+10	NE'N	4	c/pr	38	85	8	5	4	-	7-8	9+	2500
	Leuchars ...	36	1021·4	+8	NW	1	c	36	85	8	5	3	-	4-6	7-8	3500
12	Renfrew (Abbotsl.)	19	1021·3	+14	E	2	iro	38	92	5	5	2	-	7-8	10	1300
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1019·6	-2	NW'N	6	dodo	48	92	7	6	2	-	10	10	2500
13A	Tiree	22	1020·5	+2	N'E	2	c	43	92	8	5	-	-	9	9	2500
13B	Stornoway ...	80	1024·4	+14	ENE	4	c	37	92	7	5	2	-	7-8	9+	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	119	1022·9	+8	N'W	3	bc/ps	33	85	9	8	-	-	2-3	2-3	2000
16	Sumburgh ...	30	1021·2	-4	NNE	2	b	31	85	8	8	-	-	1	1	2500
17	Blacksod Point	18	1026·3	-12	W'N	4	c/pr	48	97	7	9	-	-	7-8	7-8	2500
18	Malin Head ...	84	1021·7	-4	W	4	c/p	48	92	7	3	-	-	7-8	7-8	1500
	Aldergrove ...	268	1022·3	-6	NW'W	3	c	46	85	8	5	-	-	9+	9+	3000
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1029·4	-14	WNW	8	c/pr	48	92	8	2	3	2	2-3	7-8	1500
	Roches Point	22	1027·8	-14	NW'W	4	bc	46	85	8	5	-	-	4-6	4-6	2500

OBSERVATIONS at 7 hr. G.M.T. December 27th

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1019·5	+6	NNE	4	iro	41	85	6	5	-	-	10	10	4000	1	*
	Croydon ...	1018·7	-6	W	2	iro	43	92	5	5	-	-	10	10	2000	1	*
	S. Farnborough																*
	Boscombe Down	1020·6	-6	WNW	4	o	44	92	7	5	-	-	10	10	2300	1	*
	Thorney Island	1019·9	-10	W	3	iro	43	92	6	5	-	-	9	9	3000	1	*
	Lympne ...	1018·4	-6	W	4	PR	42	97	4	2	-	-	10	10	1200	1	§
	Manston ...	1017·8	+8	N	4	rr	41	92	5	5	-	-	10	10	1100	1	*
2	Shoeburyness ...	1018·5	+8	NNW	3	rr	41	92	5	6	2	-	7-8	10	1600	1	*
	Felixstowe ...	1018·3	+14	N	3	iro	40	85	6	5	-	-	9+	9+	1600	1	3
	Gorleston ...	1018·1	-16	N	3	c/pr	40	75	7	8	-	-	9+	9+	1500	1	
	Mildenhall ...	1018·9	+16	N'W	2	o/r	39	92	6	5	-	-	10	10	2900	1	*
	Cranwell ...	1019·9	+14	NW'W	4	zo	38	82	5	5	7	-	7-8	10	2500	1	*
3	Birmingham ...	1020·4	+2	NE	3	rr	39	97	4	6	-	-	10	10	800	1	*
	Upper Heyford	1019·8	+4	WNW	4	roro	39	97	6	6	2	-	9	10	900	1	*
4	Ross-on-Wye	1020·3	-6	W'S	2	o	46	85	8	5	-	-	10	10	2500	1	*
5	Hartland Point	1023·1	-6	NW	5	c	49	75	8	8	-	-	9+	9+	1500	1	4
	Bristol ...	1020·9	-8	NW	5	c	44	85	7	5	7	-	4-6	9	2500	1	*
	Portland Bill ...	1021·9	-2	W	4	o	46	92	7	5	-	-	10	10	2500	1	4
	Plymouth ...	1024·4	-6	NW	3	c	47	85	6	8	-	-	9	9	1500	1	3
	The Lizard ...	1025·5	-10	NW	5	c	47	85	8	8	6	-	7-8	7-8	1500	1	4
	Scilly (St. Mary's)	1026·5	-4	NNW	4	c	48	85	8	8	4	-	7-8	9+	1200	0	4
	Guernsey ...																
6	Pembroke ...	1023·3	-10	NW'W	6	bcq	48	92	8	8	-	-	4-6	4-6	2500	0	3
7	Holyhead (Valley)	1021·2	+2	NW'N	5	dr	46	97	5	6	2	-	10	10	1000	1	4
	Chester (Sealand)	1021·6	+20	NE	2	DD	40	92	4	5	-	-	10	10	1700	1	*
8	Manchester ...	1021·0	+18	-	0	pr	38	97	7	2	-	-	10	10	1700	1	*
10	Spurn Head ...	1019·4	+16	N	5	c	40	76	7	8	1	-	7-8	9+	1500	1	4
	Catterick ...	1021·7	+10	NNW	2	c	37	75	7	5	-	-	9+	9+	2600	1	*
	Tynemouth ...	1021·2	+14	N	6	c	39	65	7	2	-	-	9	9	1500	1	6
11	St. Abbs Head	1021·4	+6	NNW	4	bc	37	75	8	4	4	-	4-6	4-6	2500	1	3
	Leuchars ...	1023·6	+8	NW	1	bc	32	85	7	5	-	-	2-3	2-3	3500	3	*
12	Renfrew (Abbotsl.)	1023·4	+10	E'S	1	zo	36	75	6	5	-	-	10	10	4500	1	*
	Eskdalemuir ...	1023·7	+14	NNE	1	b	30	85	8	5	-	-	1	1	1500	3	
	Point of Ayre ...	1022·1	+14	E'N	4	c	41	86	7	6	2	-	4-6	10	1500	1	4
13A	Tiree	1022·0	+8	ENE	2	bc	38	85	8	5	4	-	2-3	2-3	2800	0	4
13B	Stornoway ...	1024·7	0	ENE	3	c	37	85	7	5	7	-	2-3	9+	1000	1	1
15	Dalwhinnie ...	1025·7	+6	-	0	c	24	85	8	5	-	-	9	9+	2500	4	*
	Aberdeen ...	1023·1	+4	NNW	2	b	32	85	7	5	-	-	1	1	2500	8	2
	Wick ...	1024·8	+4	N	3	bc	33	85	8	2	-	-	2-3	2-3	2000	7	*
16	Sumburgh ...	1022·3	+10	N'E	3	b	31	85	8	8	-	-	Tr	Tr	2500	4	*
17	Blacksod Point	1024·2	-14	W'N	3	c	48	92	8	5	-	-	9	9	2500	1	3
18	Malin Head ...	1022·0	+6	NE	1	c/d	45	92	7	9	7	-	4-6	7-8	1500	1	4
	Aldergrove ...	1022·3	+4	ENE	3	dodo	40	97	6	5	-	-	10	10	900	1	*
19	Birr Castle ...	1024·2	-12	WNW	2	bc	45	92	8	5	-	-	2-3	2-3	2500	1	*
20	Valentia Obsy.	1027·3	-10	WNW	4	bc	49	85	8	8	-	-	2-3	2-3	2500	4	1
	Roches Point	1025·8	-10	NW	4	c	47	85	8	5	-	-	9+	9+	2500	1	4

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 26th Hrs. (36)
1	London (Kew)	39	37	28	Tr	0·2	0·0
	Croydon ...	40	37		Tr	0·2	0·4
	S. Farnborough	39			-		
	Boscombe Down	41	34	34	-	Tr	0·6
	Thorney Island	39	34	25	-	Tr	*
	Lympne ...	37	34	31	-	1	0·3
	Manston ...	40	36	33	-	1	0·0
2	Shoeburyness ...	40	40	33	-	1	0·0
	Felixstowe ...	38	36	34	-	1	0·0
	Gorleston ...	37	34	33	-	2	*
	Mildenhall ...	37	37	35	Tr	2	0·0
	Cranwell ...	38	37	35	-	2	0·0
3	Birmingham ...	39	37	36	-	5	0·2
	Upper Heyford	40	36	35	-	1	*
4	Ross-on-Wye	43	39	31	-	Tr	3·1
5	Hartland Point	46	44	44	-	Tr	2·9
	Bristol ...	43	37	28	-	0·2	0·9
	Portland Bill ...	47	41	*	-	-	*
	Plymouth ...	49	44	41	Tr	0·1	3·0
	The Lizard ...	47	44	*	0·3	1	0·0
	Scilly (St. Mary's)	48	45	*	0·2	0·3	0·0
	Guernsey ...						
6	Pembroke ...	48	39	*	-	-	1·8
7	Holyhead (Valley)	47	45	44	0·6	0·2	*
	Chester (Sealand)	44	40	38	Tr	1	0·0
8	Manchester ...	45	38		Tr	4	
10	Spurn Head ...		38	*		1	0·0
	Catterick ...	43	37	35	Tr	1	0·3
	Tynemouth ...	42	39	35	0·4	1	*
11	St. Abbs Head	46	36	*	1	1	*
	Leuchars ...	41	32	22	0·2	0·1	0·0
12	Renfrew (Abbotsl.)	46	36	34	0·2	3	0·0
	Eskdalemuir ...	43	29	26	0·4	3	0·0
	Point of Ayre ...	47	40	*	1	6	0·0
13A	Tiree	48	38	*	0·4	2	0·1
13B	Stornoway ...	47	36	*	8	0·5	0·0
15	Dalwhinnie ...	41	20	15	7	1	0·0
	Aberdeen ...	36	28	26	7	0·2	0·0
	Wick ...	36	29	26	7	0·2	*
16	Sumburgh ...	34	29	23	0·2	Tr	0·9
17	Blacksod Point	49	46	*	0·6	2	*
18	Malin Head ...	43	41	*	0·2	2	0·0
	Aldergrove ...		39	39		1	0·0
19	Birr Castle ...	47	44	42	0·1	0·1	0·1
20	Valentia Obsy.	49	45	40	1	1	4
	Roches Point	60	46	*	0·1	0·1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h

	Height above M.S.L. in feet	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. min.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew	18	cyfxm	cmmom	bcfoSocpfo	39	37	28	Tr	0·2	0·0	*	*	5
Croydon	217	cmc2o	c2cm	idoiro	40	37	39	Tr	0·2	0·4	*	*	4
Greenwich (Royal Observatory)	149	ef	cfm	ciro	39	36	30	-	0·5	0·0	67	90	5
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	45	39	33	0·8			77	94	*
Regents Pk. (Botanic Gardens)†	168	*	*	*	45	38	35	-	1·1		73	91	*
Camden Square	110	bc	bc	*	44	33	32	-	0·5	*	*	91	*
Kensington	80	bc	bc2	*	41	36	33	-	1·0		76	90	*
Hampstead Observatory	450	bc	or	or	38	34	31	-	0·5		*	96	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 27th

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
0·7	26th	0·1	27th
9h		1-3h	

FOREIGN OBSERVATIONS.

Stations.	Evening of 26th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 27th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1026·9	-	0	c	2[illegible]	1017·1	E	3	bc	34
Lisbon (18h and 07h)	1023·2	NNW	2	zo	48	1025·8	NE	2	b	37
Madrid (18h and 07h)						907·0	-	0	b	32
Cairo (Heliopolis) (18h and 06h)	1018·9	SSW	3	b	56					
Toronto (13h and 01h)	1011·6	NE	3	rs	25					
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
55	36	-	-
	30		-
65		-	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

Objects not visible at

0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6½ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

† Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

~~BRITISH SECTION~~

Sunday 28th December 1941.

No 29,256

OBSERVATIONS at 13h. G.M.T. 27th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1023.5	+18	N'E	2	z	41	75	6	5	-	-	9+	9+	2500
	Croydon	1023.2	+14	N	3	m	40	85	4	0	7	-	7-8	10	1000
	S. Farnborough	1023.6	+16	NNE	2	z	41	85	6	5	7	-	7-8	9+	3000
	Boscombe Down	1023.8	+22	NE'E	2	r₀r₀	39	92	7	5	-	-	10	10	1200
	Thorney Island	1023.1	+24	NNE	2	c/r	41	85	6	5	7	-	7-8	10	4000
	Lympne	1022.5	+10	W'S	3	c	39	85	8	2	6	-	4-6	9+	1400
	Manston	1021.8	+14	N'W	3	bc	41	65	8	8	-	5	2-3	2-3	4000
2	Shoeburyness	1022.5	+8	N'W	2	bc	41	75	8	8	-	-	4-6	4-6	4000
	Felixstowe	1022.5	+20	N	3	c	41	65	8	8	4	-	7-8	7-8	3000
	Gorleston	1022.0	+14	NNE	4	bc	41	55	7	8	4	-	4-6	4-6	3000
	Mildenhall	1023.1	+14	N'W	3	bc	40	75	8	8	-	5	2-3	4-6	2500
	Cranwell	1023.9	+14	N	3	z	40	75	6	5	4	1	Tr	2-3	4000
3	Birmingham	1024.1	+10	NE	2	c	38	65	6	8	-	-	9+	9+	1500
	Upper Heyford	1023.4	+10	N	3	c	40	75	7	5	7	-	7-8	9+	2000
4	Ross-on-Wye	1023.8	+14	ENE	2	c/d	39	92	6	6	2	-	Tr	10	2500
5	Hartland Point	1023.9	0	NW	4	cjp	48	85	8	8	-	8	4-6	9+	1700
	Bristol	1024.1	+20	E	2	r₀r₀	40	97	5	6	2	-	9	10	600
	Portland Bill	1022.4	+2	WNW	4	c	50	92	8	2	4	-	4-6	10	4000
	Plymouth	1024.6	-2	NW'N	4	ir₀	50	85	8	1	7	7	4-6	10	2000
	The Lizard	1025.7	-4	NW	5	c	50	85	8	8	6	-	7-8	7-8	2500
	Scilly (St. Mary's)	1026.4	-2	NW'N	5	c	50	85	8	8	7	-	7-8	9+	1200
	Guernsey														
6	Pembroke	1024.5	+2	NW	4	c	49	92	8	8	-	-	9	9	2500
7	Holyhead (Valley)	1022.9	+4	NE	3	c	43	85	6	5	7	-	7-8	10	2000
	Chester (Sealand)	1024.3	+12	E	2	z₀	41	65	6	5	7	-	7-8	10	4000
8	Manchester	1025.0	+10	-	0	z	39	75	6	5	-	-	10	10	4000
10	Spurn Head	1023.4	+26	N'W	3	c/phn	38	85	7	8	-	-	7-8	7-8	2500
	Catterick	1025.3	+14	NNW	2	z	36	75	6	8	4	5	4-6	9	2500
	Tynemouth	1024.2	+6	NNW	4	bc	37	85	8	2	3	-	4-6	4-6	2800
11	St. Abbs Head	1024.4	+10	N	3	c	36	85	9	8	4	-	4-6	7-8	2500
	Leuchars	1025.4	0	NW	2	z	35	75	6	5	-	5	1	2-3	5000
12	Renfrew (Abbots I.)	1025.7	+2	SE'S	1	z	35	65	5	-	7	6	0	9	-
	Eskdalemuir	1025.4	+10	-	0	bc	32	75	8	-	7	6	0	4-6	-
	Point of Ayre	1024.3	+2	E'S	4	c	40	65	8	2	7	-	Tr	10	3000
13A	Tiree	1021.8	-6	SE	4	rr	38	97	7	-	2	-	10	10	1500
13B	Stornoway	1024.4	-14	ESE	4	c	37	75	8	1	4	-	4-6	7-8	2500
15	Dalwhinnie	1026.5	+4	SSE	1	bc	28	85	8	1	4	-	Tr	2-3	4000
	Aberdeen	1025.7	+14	NW'W	2	bc	31	85	5	8	7	-	1	2-3	2300
	Wick	1025.4	+6	W	1	c/ps	30	85	9	8	6	-	7-8	9	3500
16	Sumburgh	1024.9	+6	N	2	b	34	85	8	8	3	1	Tr	1	2500
17	Blacksod Point	1022.4	-14	W	1	rr	49	97	7	6	-	-	10	10	1500
18	Malin Head	1021.8	-10	SSE	4	c	42	92	8	5	7	-	4-6	7-8	2500
	Aldergrove	1023.9	0	SE	2	z	38	92	6	5	-	-	10	10	3000
19	Birr Castle	1023.8	-8	SW	1	id	47	97	7	5	-	-	10	10	2500
20	Valentia Obsy. †	1025.8	-14	W'S	4	id•	50	92	7	5	7	-	9	10	800
	Roches Point	1025.6	-10	WNW	3	c	49	92	8	5	-	-	9+	9+	1500

OBSERVATIONS at 18h. G.M.T. 27th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1025.8	+12	N	2	m	37	85	4	-	-	-	0	0	-	1	•
Croydon	1025.5	+10	N	1	bcf+	32	92	3	-	7	2	0	4-6	-	5	•
S. Farnborough	1025.9	+10	NNE	1	z	37	85	6	-	-	2	0	4-6	-	1	•
Boscombe Down	1025.6	+8	NE	2	id₀	38	85	6	5	7	-	7-8	10	3000	1	•
Thorney Island	1025.4	+16	NE	2	z	38	85	6	5	3	-	7-8	9+	4000	1	•
Lympne	1025.7	+10	-	0	b	31	85	7	-	-	1	0	1	-	1	§ 3
Manston	1025.2	+12	N	2	bc	36	75	7	8	-	1	2-3	2-3	2000	1	•
Shoeburyness	1025.4	+14	N	3	bc	34	85	7	-	-	5	0	2-3	-	1	•
Felixstowe	1025.1	+14	NNE	3	b	34	85	6	5	-	-	Tr	Tr	2500	1	2
Gorleston	1025.4	+20	NE'N	3	bc	39	75	7	8	-	-	2-3	2-3	2500	1	4
Mildenhall	1025.6	+14	NW'N	2	z	31	97	6	4	-	-	Tr	Tr	4000	1	•
Cranwell	1026.1	+12	N'W	3	m	34	85	4	-	-	8	0	4-6	-	1	•
Birmingham	1026.0	+8	E	2	m	37	75	4	5	-	-	9+	9+	1500	1	•
Upper Heyford	1025.8	+20	NE'N	2	z	34	92	6	5	-	7	4-6	10	4000	1	•
Ross-on-Wye	1025.4	+4	E	2	c	38	75	6	5	2	-	7-8	10	1000	1	•
Hartland Point	1023.9	+4	NW	4	c	47	85	8	2	-	8	4-6	7-8	1800	0	4
Bristol	1025.8	+10	-	0	c/r	39	92	5	5	2	-	2-3	10	1200	1	•
Portland Bill	1024.3	+6	E	4	o	43	92	7	5	-	-	10	10	2500	1	4
Plymouth	1024.8	-2	WNW	1	m	47	92	4	5	1	8	1	10	4000	0	3
The Lizard	1025.6	-2	NW	4	c/pr	47	97	7	8	2	-	9	10	1500	1	4
Scilly (St. Mary's)	1026.0	+2	NW'N	3	c	49	92	8	8	7	-	7-8	10	1500	1	4
Guernsey																
Pembroke	1024.1	-4	NW'W	2	c	48	92	8	8	1	-	4-6	10	2500	0	3
Holyhead (Valley)	1022.6	-2	SE	2	z	42	92	5	5	-	-	10	10	1600	1	2
Chester (Sealand)	1025.3	+4	ESE	1	m	39	75	4	-	7	-	0	10	-	1	•
Manchester	1025.7	+4	-	0	z	36	75	6	5	2	-	4-6	7-8	5700	1	•
Spurn Head	1025.2	+8	NW'N	3	bc	36	85	7	2	-	-	4-6	4-6	2500	1	4
Catterick	1026.7	+8	-	0	m	30	92	4	-	3	-	0	2-3	-	1	•
Tynemouth	1026.1	+4	NW	2	bc	36	75	6	2	-	-	4-6	4-6	2500	1	4
St. Abbs Head	1025.5	+6	SSW	2	c	34	92	8	5	4	2	4-6	7-8	2500	1	3
Leuchars	1025.8	+2	-	0	z	28	97	6	5	-	-	4-6	4-6	4500	3	•
Renfrew (Abbots I.)	1025.1	-2	E	1	cf	31	85	3	-	1	-	0	10	-	1	•
Eskdalemuir	1026.4	+6	-	0	c	25	85	8	-	1	-	0	9+	-	3	•
Point of Ayre	1024.0	-2	SSE	5	c	41	75	8	6	2	-	10	10	3500	1	4
Tiree	1020.6	-6	SSE	4	o	39	85	7	5	-	-	10	10	2100	0	5
Stornoway	1022.6	-8	ESE	3	c	37	75	7	2	4	5	2-3	7-8	2500	1	2
Dalwhinnie	1024.9	-4	SSE	1	–	25	85	8	4	-	6	1	7-8	4000	4	•
Aberdeen	1026.1	+2	NW	2	bf+	27	85	3	-	3	-	0	Tr	-	8	•
Wick	1024.8	-2	S	1	bcjp	34	75	8	8	6	-	4-6	4-6	3000	8	*
Sumburgh	1025.3	+2	-	0	fs	30	85	7	8	-	-	1	1	3100	4	2
Blacksod Point	1018.9	-20	W	2	rr	49	97	7	6	-	-	10	10	1500	2	2
Malin Head	1019.0	-18	S	4	r₀c	40	92	6	9	-	-	9+	9+	800	1	4
Aldergrove	1022.1	-14	SE	3	id₀	38	92	6	5	-	-	10	10	2000	1	•
Birr Castle	1021.6	-10	SW	1	ir	47	97	7	6	2	-	7-8	10	1500	1	•
Valentia Obsy. †	1023.7	-14	SW'W	4	ir₀	51	92	7	5	2	-	7-8	10	1500	1	4
Roches Point	1023.5	-10	W	3	ir	49	92	8	6	2	-	7-8	9+	1500	1	

PAST 24 HOURS.

Stations	Weather 7h.—13h. 27th (37)	Weather 13h.—18h. 27th (38)	Weather 18h. 27th – 1h. 28th (39)	Weather 1h.—7h. 28th (40)
London (Kew)	brmez	czcm	bcbfF	bccmzx
Croydon	cfomz	czcm	cFxcfx	cmzc
S. Farnborough	cd₀r₀r₀m	cbcm ⊕	bcfx	cfrsbcc
Boscombe Down	cmrr	cr₀cdm	cm	cssddm
Thorney Island	cim cim	cm	cbccm	crsm
Lympne	cmrrc	-b₀cbx	bbccmx	cbcx
Manston	r₀r₀cb	bbc	bceps	cpr₀sbm
Shoeburyness	cirmzc	bcb	bxcph	cbx
Felixstowe	cicimbc	bcb	bcm	cicm
Gorleston	bc phss	bcy phbc	bcprs	bccq
Mildenhall	cbc	bcs phbm	bmcmx	cmbcx
Cranwell	bm	bzbcm	bcmcf	c,bf
Birmingham	crsc	cm	cm	cmos
Upper Heyford	cr₀sc	c	cmcm	cmss
Ross-on-Wye	csSd	cdd	ccz	rcrs
Hartland Point	cisp	cp₀	cr₀rrc	crr
Bristol	cssm	cirsm	cidrr	crsrr
Portland Bill	c	o	opr	orr
Plymouth	cisd	cissm	cssfcrr	crrm
The Lizard	c	cprc	cr₀r	rrc
Scilly (St. Mary's)	csc	c	coidc	cr₀r
Guernsey				
Pembroke	c	c	crr	cqrr
Holyhead (Valley)	idmc	cm	cdrrr	crrsss
Chester (Sealand)	DDmcm	cmmc	cmom	cirm
Manchester	cm	cm	cmz	czc
Spurn Head	cpsh	c	bc	bc
Catterick	ccm	cmbmx	sbcxf	bcf bF
Tynemouth	cbcc	bc	bcff	bbc
St. Abbs Head	psc	c	cbc	bc
Leuchars	bbmxbm	bbcmx	cbcbmx	bmx
Renfrew (Abbots I.)	cm	cmfmf	cfbcm	bcmcm
Eskdalemuir	bxbc	bcx	cx	cbcbx
Point of Ayre	c	*	r₀r₀c	r₀r₀c
Tiree	or₀r₀	o	ordc	dc
Stornoway	cpr	c	c.	c.
Dalwhinnie	cbc	bcc		cbc
Aberdeen	bc	bzbff	bsfbcz	bpsm
Wick	bcepss	cbc	bcbbc	bcb
Sumburgh	bcps b	bbfgx	bx,cph	jpcbc
Blacksod Point	r	r	c	bc
Malin Head	c	c	r	c
Aldergrove	pdsm	cidmc	drrrr₀	r₀ddidm
Birr Castle	l	r	*	bc
Valentia Obsy. †	pr	pr	r	pr
Roches Point	d	p	r	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. • r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,-Ci: Cirrocumulus,-Cc: Cirrostratus,-Cs: Altocumulus,-Ac: Altostratus,-As: Stratocumulus,-Sc: Stratus,-St: Nimbostratus,-Ns: Cumulus,-Cu: Cumulonimbus,-Cb.

COLUMN 29.—STATE OF GROUND.

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

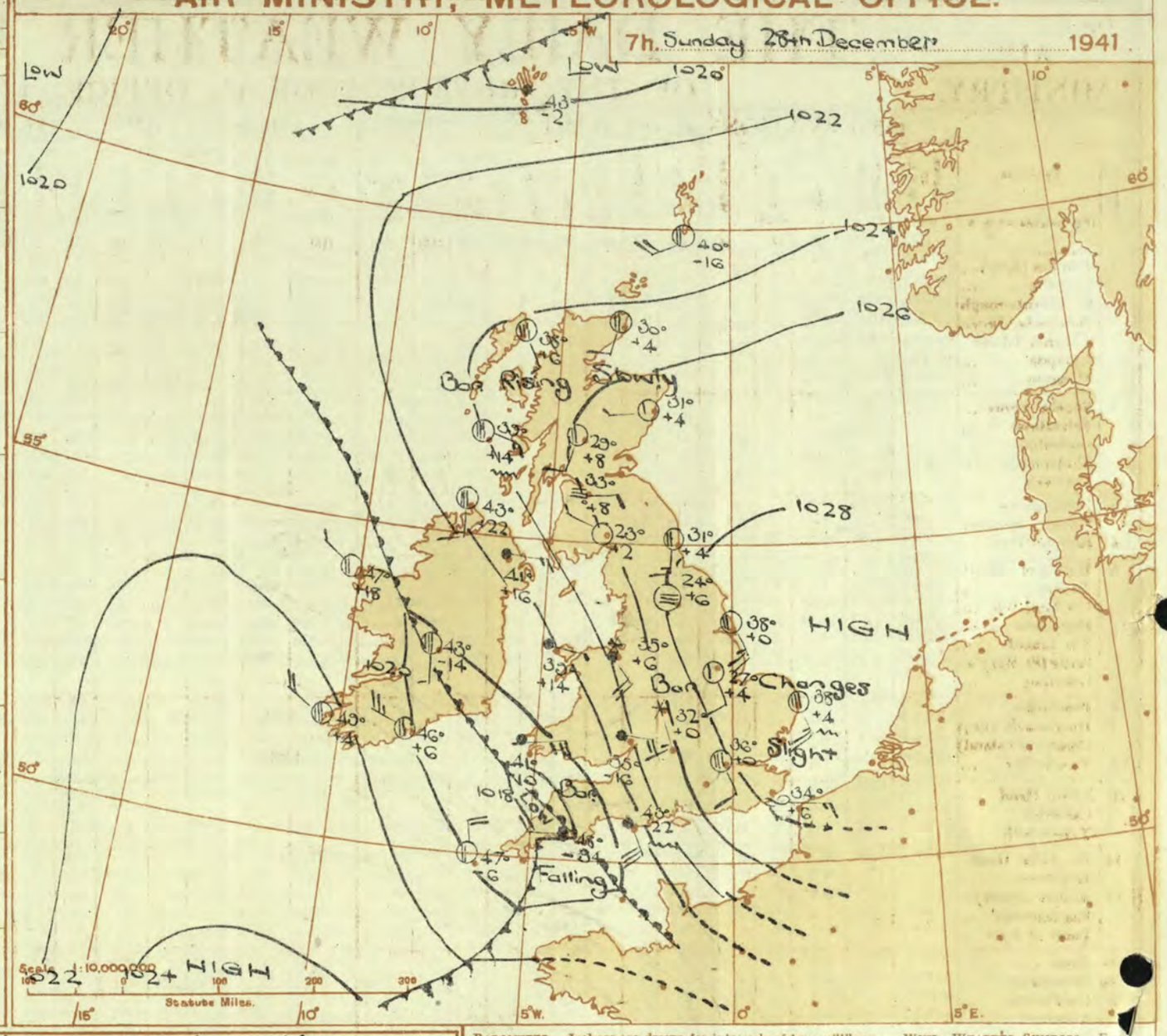
NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

Abridged observations of additional stations in the AVIATION WEATHER CODE

IIIC$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN	C$_L$C$_M$	wwVhN$_h$	DDFWN
	13h. G.M.T. 27th December			18h. G.M.T.			01h. G.M.T. 28th December			07h. G.M.T.	
10986	10964	26114	5-	02768	00015	5-	02865	15525	50	01863	20413
115			54	01944	12325	54	01953	20314	52	02854	20427
203			5-	02947	12417	5-	03938	16328			
206 86	01963	24113	03	00790	00012	00	05690	00000	5-	01764	14114
210 83	28843	19385	05	00890	00001	00	00790	13100	50	00961	14101
220 53	01855	13305	52	03436	14528				52	03435	00038
230 5-	02867	08127	5-	02968	06228	51	02755	00028	51	02766	00018
245 80	01964	24114	54	00861	28102	50	01754	25184	54	00661	22211
260 --	05690	00004	00	47390	00010	07	05590	30124	50	00763	00003
278 57	02964	03267	5-	51868	10428	51	61644	45568	5-	05648	45468
279 50	01965	06215	5-	05662	06228	07	05690	08226	00	00790	07210
285 53	01853	32314	53	01743	32314						
288 26	08454	28184	53	45355	4122	00	05690	13244	00	00890	00000
297 52	02745	22128	62	64537	10268	57	22744	04368	5-	02748	06228
301 5-	05668	10128	5-	05578	08228	02	05590	45548	50	05663	45523
321 87	01753	32314	50	17564	31324	07	47290	00046	00	05590	15340
299 80	10844	32414	80	01843	32313	80	01744	12314	8-	01744	23314
292 57	05664	26214	00	08490	2914	00	08490	00047	00	05590	11200
310 --	01636	32446									
314 23	05651	02127	01	08490	02127	02	45390	06148	03	05590	10324
333 57	02854	32229	62	52623	16158	52	62655	10468	52	22754	10468
334 --	02537	28388	--	03747	28328						
340 5-	02768	10158	5-	05568	14228	5-	47368	14428	5-	71445	14375
136 84	10855	31386	20	00852	32112	46	01771	12115	8-	26755	12375
336 62	61526	32368	62	63528	04368						
350 8-	05666	32356	05	05690	32214	07	05590	08226	03	05690	08226
368 50	02645	28228	52	62426	09468	5-	64538	14468	62	64536	09468
379 52	02745	28377	57	05664	00028	5-	05658	08128	5-	74458	08478
390 8-	05667	30267	00	05590	00012	07	46390	04148	07	08490	10343
382 57	02765	02227	5-	05665	04226	02	05590	00028	5-	71457	10477
438 56	10658	03326							62	02654	12427
430			07	05590	32213	5-	02778	06228	12	02752	12568
409 5+	02845	30468	57	61646	02188	5-	64648	16168	50	22644	28364

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N$_h$ = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
C$_L$C$_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Sunday 28th December 1941
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light or moderate southeast wind; fine; cold; keen frost at night.
4 W. Midlands ...	Moderate southeast wind; cloudy at first with slight snow locally; fine later; cold; keen frost at night.
5 S.W. England	Moderate or fresh variable wind becoming moderate southeast; cloudy with rain at first, fair later; rather cold; night frost inland.
6 South Wales ... 7 North Wales ...	Moderate or light east to southeast wind; cloudy, some rain or sleet early; fair later; cold; keen frost at night.
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	Moderate south to southeast wind; fair; cold with keen frost at night.
13B. N.W Scotland	As 15-16.
14 Mid Scotland	As 8-13A.
15 N. E. Scotland 16 Orkneys and Shetlands	Light or moderate west wind, cloud increasing; occasional snow showers later; cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light east to south east wind; cloudy with slight rain or sleet at first, fair or fine later; cold; frost at night.

BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

GENERAL INFERENCE.

An anticyclone over the North Sea and a small depression over south west England are both moving southeast. There will be rain and local sleet at first in the Southwest but otherwise weather will be fair. Temperature will be rather low with keen frost tonight in eastern and midland areas.

FURTHER OUTLOOK.

Cold and dry in the Southeast with keen night frost; cloudy in the West with a rather low temperature.

Forecasts issued at 10.30A.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of
Sunday 28th December
1941.

HIGH
LOW
HIGH
LOW
HIGH

Clarke Projection Scale 1: 4 x 10⁷ 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. (Σ) Thunderstorm. Σ Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT
OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 28th December 1941.

No. 29,256

OBSERVATIONS at 1 hr. G.M.T. 28th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	30	*	*	*	*	*	*	*	*
	Croydon	217	1027.8	+4	S'W	1	c/f	30	97	5	-	7	7	0	10	-
	S. Farnborough	226	1026.9	-4	E'S	2	cf	33	85	2	5	-	-	7-8	7-8	3000
	Boscombe Down	417	1026.9	0	SE'E	3	rs	35	85	5	5	-	-	10	10	2000
	Thorney Island	10	1028.6	-2	NE	2	z	36	85	5	5	-	-	10	10	5000
	Lympne	346	1027.8	+6	–	0	c	34	75	7	5	-	2	4-6	9+	2200
	Manston	154	1028.2	+10	SSE	1	prs	35	85	7	3	6	6	9+	9+	2500
2	Shoeburyness	11	1027.9	+18	N	1	ph	30	75	7	6	-	2	4-6	7-8	2500
	Felixstowe	15	1027.9	+10	ENE	2	z	32	85	6	–	1	-	0	4-6	-
	Gorleston	5	1028.8	+12	ESE	4	bc	38	75	7	8	-	-	4-6	4-6	2500
	Mildenhall	19	1028.2	+6	E'S	2	m	25	97	4	-	7	8	0	9	-
	Cranwell	240	1027.9	+2	W	1	cf	28	97	3	-	-	8	0	9+	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1027.0	+2	ENE	2	m	32	92	4	5	-	-	10	10	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1021.3	-20	SSE	3	rr	44	92	6	5	2	-	7-8	10	800
	Bristol	209	1025.7	-8	E'S	4	rr	36	92	5	-	2	-	10	10	1800
	Portland Bill	32	1024.1	-2	SE	5	pr	42	92	7	5	-	-	10	10	2500
	Plymouth	82	1023.8	-12	E	1	rr	44	97	4	5	-	-	10	10	1000
	The Lizard	240	1023.4	-12	W	4	rr	49	92	7	5	-	-	10	10	1000
	Scilly (St. Mary's)	163	1022.9	-20	WNW	5	c	50	92	8	8	2	-	7-8	10	1000
	Guernsey	175														
6	Pembroke	142	1020.4	-10	ESE	4	rr	47	97	7	8	2	-	7-8	10	2500
7	Holyhead (Valley)	26	1020.9	-6	ESE	2	rr	40	92	5	5	-	-	10	10	1600
	Chester (Sealand)	16	1024.9	-4	ESE	4	m	37	75	4	5	-	-	10	10	4500
8	Manchester	235	1026.1	-2	ESE	2	z	35	75	6	5	-	-	10	10	5000
10	Spurn Head	29	1027.7	+10	S	4	bc	37	85	7	8	1	-	4-6	4-6	2500
	Catterick	175	1027.6	+6	–	0	cf	26	92	3	-	–	8	0	7-8	-
	Tynemouth	108	1027.1	+2	NW	2	m/f	34	85	4	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1025.0	-2	S	3	bc	31	97	8	4	4	-	2-3	2-3	2500
	Leuchars	36	1026.2	+2	-	0	m	27	97	4	–	–	-	0	0	-
12	Renfrew (Abbots I.)	19	1024.8	0	ESE	2	m/f	33	75	4	-	3	1	0	2-3	-
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1021.8	-8	S'E	7	rr	40	85	6	6	2	-	4-6	10	800
13A	Tiree	22	1020.8	+8	SE	3	o/d	38	92	7	5	-	-	10	10	1800
13B	Stornoway	80	1023.4	+8	SSW	3	c	40	85	7	5	7	-	7-8	9+	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	25	*	*	*	*	*	*	*	*
	Wick	119	1024.6	0	S	4	c	36	75	8	1	-	-	7-8	7-8	2000
16	Sumburgh	30	1025.2	-4	SSW	1	cjp	36	85	8	8	6	-	4-6	9	2500
17	Blacksod Point	18	1018.0	-2	WNW	5	c	49	97	7	5	-	-	10	10	800
18	Malin Head	84	1018.8	+6	SSE	4	ir	41	92	6	6	1	-	4-6	7-8	800
	Aldergrove	268	1019.8	-6	ESE	4	rr	40	97	6	5	-	-	10	10	800
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1021.0	+2	NW'N	4	c	50	75	8	5	3	-	1	9	1500
	Roches Point	22	1019.8	-14	NW	6	ir	46	82	8	6	2	-	7-8	9+	800

OBSERVATIONS at 7 hr. G.M.T. 28th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 27th Hrs. (36)
London (Kew)	1027.5	0	E	2	z	35	75	6	5	7	-	4-6	9+	4000	1	*	41	29	19	1	Tr	0.0
Croydon	1027.6	0	SE	2	c	36	75	7	-	7	5	0	9	-	1	*	43	29	23	1	Tr	0.0
S. Farnborough	1027.0	-2	ESE	2	c/f	34	85	6	-	7	8	0	9+	-	1	*	44	32	23	0.4	0.2	0.1
Boscombe Down	1025.1	-10	E'S	3	dd	34	97	5	6	-	-	10	10	2500	1	*	45	32	31	1	1	0.0
Thorney Island	1026.0	-8	E	4	z	40	65	5	5	-	-	4-6	4-6	2500	1	*	46	35	28	0.1	1	*
Lympne	1028.9	+6	ESE	3	z	34	75	6	5	3	1	2-3	4-6	1500	3	§4	42	26	18	1	–	1.6
Manston	1029.5	+6	SE	4	z	30	75	6	-	3	-	0	1	-	4	*	41	32	20	0.4	0.1	2.7
Shoeburyness	1029.0	+6	SE'E	5	bc	35	75	7	–	3	-	0	2-3	-	1	*	42	30	21	0.4	Tr	2.3
Felixstowe	1029.6	+12	SSE	6	z	36	65	6	5	-	-	10	10	3000	1	4	42	29	24	1	0.3	*
Gorleston	1029.7	+4	SE'S	5	c	38	75	7	5	-	-	9	9	2500	0	5	41	34	33	Tr	Tr	*
Mildenhall	1028.8	+6	SE'E	3	bc	31	97	7	8	-	-	2-3	2-3	2500	0	*	41	24	15	0.5	Tr	2.5
Cranwell	1028.4	+4	SE	2	b/f	27	97	6	-	4	-	0	Tr	-	3	*	41	25	19	-	-	3.3
Birmingham	1025.8	0	SE	3	ss	32	97	4	6	-	-	10	10	800	1	*	39	32	30	2	0.2	0.0
Upper Heyford	1026.6	0	ESE	2	ss	33	97	4	5	2	-	9	10	2200	4	*	40	31	31	1	0.1	*
Ross-on-Wye	1023.7	-12	E'N	3	rs	34	97	6	-	2	-	10	10	1500	1	*	47	33	32	1	3	0.0
Hartland Point	1015.5	-32	WNW	2	s/r	47	92	8	8	-	-	7-8	7-8	1500	1	4	49	43	43	Tr	25	0.1
Bristol	1022.9	-16	ESE	4	rr	35	97	5	6	2	-	7-8	10	1000	1	*	46	32	32	1	4	0.0
Portland Bill	1021.5	-22	SE	6	rr	43	92	7	5	-	-	10	10	2500	1	5	50	40	*	-	7	*
Plymouth	1018.0	-34	W	3	rr	48	92	6	5	2	-	7-8	10	2000	1	2	50	43	39	-	21	0.0
The Lizard	1019.1	-20	NW	4	s/r	47	92	7	8	6	-	7-8	7-8	1500	1	4	50	46	*	0.5	13	1.1
Scilly (St. Mary's)	1019.9	-6	N'W	4	bc/r	47	92	7	5	4	3	4-6	4-6	1200	1	4	51	47	*	0.2	6	0.0
Guernsey																						
Pembroke	1018.5	-10	E'N	6	rr	41	97	6	6	-	-	10	10	1500	1	3	49	38	*	Tr	29	0.0
Holyhead (Valley)	1021.6	+14	ESE	1	ir	39	92	8	5	-	-	9+	9+	2800	1	3	47	38	37	0.4	7	*
Chester (Sealand)	1025.0	+6	SE'E	4	rs	35	85	4	5	-	-	7-8	7-8	1000	1	*	41	35	32	2	Tr	0.0
Manchester	1026.2	+4	S	4	c	36	65	7	5	5	-	7-8	9	5000	1	*	39	31	29	0.2	–	*
Spurn Head	1027.7	0	SE'S	5	bc	38	75	7	2	-	-	4-6	4-6	2500	0	4	41	35	*	Tr	Tr	
Catterick	1028.5	+6	–	0	bF+	24	97	0	–	-	-	0	0	–	5	*	37	24	16	*	–	1.2
Tynemouth	1027.6	+4	S	3	bc	31	85	6	5	-	-	2-3	2-3	1500	3	3	40	31	29	–	–	*
St. Abbs Head	1027.0	+4	SW	3	b	30	85	7	4	-	-	1	1	2500	3	2	37	(30)	*	Tr	–	*
Leuchars	1027.0	0	WNW	1	m	23	97	4	–	-	-	0	0	-	3	*	36	22	15	–	–	4.3
Renfrew (Abbots I.)	1026.4	+8	ENE	2	m	33	85	4	5	-	-	9	9	5700	1	*	36	30	25	Tr	–	0.0
Eskdalemuir	1027.4	+2	NW	1	b	23	85	7	-	-	-	0	0	-	3	*	33	22	17	*	–	3.3
Point of Ayre	1023.3	+12	SSE	6	c	40	85	7	6	2	-	7-8	10	500	1	5	41	39	*	–	Tr	0.0
Tiree	1024.0	+14	ESE	3	c	39	85	7	5	-	-	9+	9+	2500	0	5	43	38	*	0.5	2	0.[illegible]
Stornoway	1024.6	+6	SE	1	c	38	97	7	5	7	-	7-8	9+	2500	1	1	38	35	*	Tr	–	5.[illegible]
Dalwhinnie	1027.5	+8	SSW	2	bc	29	85	8	8	-	-	4-6	4-6	2500	4	*	29	24	20	–	–	3.7
Aberdeen	1027.0	+4	WSW	1	b	31	85	6	8	-	-	Tr	Tr	1900	8		33	20	18	–	0.1	3.[illegible]
Wick	1024.9	+4	SSW	2	bc	30	75	7	1	7	8	Tr	2-3	2500	8	*	34	29	25	Tr	–	[illegible]
Sumburgh	1022.8	-16	SW	4	bc	40	65	8	8	-	-	4-6	4-6	2500	4	4	34	29	15	Tr	1	3.4
Blacksod Point	1020.8	+18	NW	1	bc	47	92	8	4	-	-	4-6	4-6	2500	2	2	50	44	*	11	7	*
Malin Head	1022.6	+22	SSE	3	c	43	92	6	9	-	-	9+	9+	800	1	4	46	39	*	0.5	13	0.0
Aldergrove	1022.6	+16	ESE	3	id	41	92	5	5	-	-	10	10	700	1	*	46	37	37	0.5	7	0.0
Birr Castle	1019.6	+14	S	1	c	43	97	8	5	-	-	10	10	2500	1	*	48	40	28	2	10	0.0
Valentia Obsy.	1022.1	+4	NW'N	4	c	49	85	8	8	-	-	9	9	2500	1	4	51	48	45	0.5	2	
Roches Point	1020.0	+6	NW	5	bc	46	85	8	5	-	-	4-6	4-6	2500	F		51		*	1	8	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	rmcz	czcm	bcbfFx	41	29	19	1	Tr	0.0	*	*	5
Croydon	217	erm	czcm	cFxcfx	43	29	23	1	Tr	0.0	*	*	6
Greenwich (Royal Observatory)	149	em	cbc	bbcxcbm	41	28	19	–	Tr	0.0	81	76	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	42	34	31	–			80	84	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110	c	bc	*	40	30	25	–	–	*	*	81	*
Kensington	80	bcy	bc	*	42	30	23	Tr	–		81	74	*
Hampstead Observatory	450	or	bcx . bc		39	35	30	0.1	–		*	100	*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 28th.

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
0.8	21-24h. 27th	<0.1	7h. 27th

FOREIGN OBSERVATIONS.

Stations	Evening of 27th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 28th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	1015.7	E	1	c	37	1019.7	E	1	ir	39				
Lisbon (18h and 07h)	1026.3	NE	1	o	45	1025.2	NE	2	F+	41	55	39	–	–
¶Madrid (18h and 07h)	907.4	NNE	2	b	39									
Cairo (Heliopolis) (18h and 06h)	1017.0	SW	2	c	58	1020.7	SE	2	c	53		51		Tr
Toronto (13h and 01h)	1013.1	SW	4	ss	35	1024.0	NW	2	c	27				
Washington (13h and 01h)														

¶ Pressure at 1,000 dynamic metres level.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h.

§ Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

Code	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	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT
OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Monday 29th December, 1941.
No 29257

OBSERVATIONS at 13h. G.M.T. 28th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1029·3	+4	ESE	4	z_0	37	65	6	2	3	–	2-3	2-3	2500
	Croydon ...	1029·0	+6	SE	3	bc	38	65	7	1	3	–	4-6	4-6	2000
	S. Farnborough	1028·6	+2	SE'E	3	c	39	65	6	5	3	9	4-6	7-8	2500
	Boscombe Down	1026·2	0	SE	6	c	39	75	8	5	7	–	4-6	9+	1400
	Thorney Island	1027·7	+8	SE	4	c	41	55	9	1	3	–	Tr	9+	2500
	Lympne ...	1029·9	–6	ESE	4	b	34	65	7	1	–	–	1	1	2000
	Manston ...	1030·9	–2	SE	3	b	34	75	7	5	–	–	Tr	Tr	3000
2	Shoeburyness ...	1030·7	+2	SE'E	3	b	36	75	8	7	–	–	1	1	4000
	Felixstowe ...	1031·7	+4	SE	4	c	35	65	9	5	–	–	9+	9+	4000
	Gorleston ...	1032·2	+6	S	4	bc	36	65	7	2	–	–	4-6	4-6	2500
	Mildenhall ...	1030·9	+10	SE'E	5	b	36	75	8	1	–	–	1	1	4000
	Cranwell ...	1030·2	+2	SE	4	b	35	85	7	–	–	–	0	Tr	–
3	Birmingham	1027·6	+8	SSE	3	z_0	35	85	5	–	3	–	0	9	–
	Upper Heyford	1027·8	+4	SE	4	z_0	36	75	5	5	–	–	9	9	6000
4	Ross-on-Wye ...	1026·4	+10	E'S	3	c^0	38	75	6	5	2	–	2-3	10	3000
5	Hartland Point	1020·3	+20	E	4	c	42	85	8	8	–	–	9	9	1500
	Bristol ...	1025·3	+6	ESE	5	c	39	85	7	5	7	–	4-6	9+	1000
	Portland Bill ...	1022·9	+6	SE	6	rr	42	92	7	5	–	–	10	10	2500
	Plymouth ...	1019·6	–2	NNW	4	z_0	47	85	6	5	–	–	7-8	7-8	2500
	The Lizard ...	1020·0	0	NW	3	bc/pr	47	85	8	8	6	–	4-6	4-6	1500
	Scilly (St. Mary's)	1021·5	+6	N'W	4	c/r	49	92	8	8	6	–	4-6	7-8	1500
	Guernsey ...														
6	Pembroke ...	1023·0	+14	E'S	6	c	42	92	8	8	–	–	9	9	2000
7	Holyhead (Valley)	1025·1	+14	ESE	1	c	42	85	7	5	–	–	9+	9+	3000
	Chester (Sealand)	1027·3	+10	SE	3	z_0	39	75	6	–	3	–	0	4-6	–
8	Manchester ...	1028·3	+10	S	4	z_0	37	75	6	–	3	–	0	7-8	–
10	Spurn Head ...	1020·5	+8	S'E	5	bc	38	75	7	–	8	–	0	2-3	–
	Catterick ...	1030·0	–2	S'E	3	m	30	97	4	5	4	1	4-6	7-8	2500
	Tynemouth ...	1029·8	+2	SW	3	bc/fs	32	92	5	8	–	–	4-6	4-6	1500
11	St. Abbs Head	1027·2	+4	SW	4	c	33	75	8	4	4	8	2-3	7-8	2500
	Leuchars ...	1027·9	–4	W	1	z_0	30	92	6	–	–	2	0	7-8	–
12	Renfrew (Abbots I.)	1028·6	+2	–	0	m/fs	34	85	4	5	–	–	10	10	4000
	Eskdalemuir ...	1028·4	–2	–	0	c	32	75	7	–	4	8	0	7-8	–
	Point of Ayre ...	1027·0	+10	SE	4	c	40	85	7	5	2	–	4-6	10	2500
13A	Tiree ...	1027·1	+10	SSE	1	c	42	85	8	5	3	–	4-6	7-8	3500
13B	Stornoway ...	1026·2	+8	SW	4	c	42	92	8	5	7	–	7-8	9+	2500
15	Dalwhinnie ...	1027·4	+4	S	1	o	32	92	8	4	–	–	9+	9+	4000
	Aberdeen ...	1026·8	–6	W'S	2	bc	35	75	6	–	–	2	0	4-6	–
	Wick ...	1025·2	–2	WSW	2	c	36	85	7	8	7	–	7-8	9+	3500
16	Sumburgh ...	1021·5	–6	W	5	c	43	75	9	5	–	–	9+	9+	2500
17	Blacksod Point...	1024·8	+14	ENE	3	bc	47	85	8	2	–	–	2-3	2-3	1500
18	Malin Head ...	1026·2	+14	ESE	3	c	43	92	7	4	6	–	4-6	7-8	1500
	Aldergrove ...	1027·0	+16	E'S	2	z_0	41	85	6	5	–	–	9+	9+	1400
19	Birr Castle ...	1023·9	+12	ENE	2	c	44	92	8	5	1	–	7-8	10	2500
20	Valentia Obsy. †	1023·8	+10	N'E	3	bc	50	75	8	2	–	–	2-3	2-3	1500
	Roches Point ...	1023·3	+18	N	3	c	47	85	8	8	–	–	9	9	1500

OBSERVATIONS at 18h. G.M.T. 28th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 28th (37)	Weather 13h.–18h. 28th (38)	Weather 18h. 28th to 1h. 29th (39)	Weather 1h.–7h. 29th (40)
London (Kew)	1030·7	+8	E	3	m	32	75	4	–	–	–	0	0	–	1	•	bccbc	bcz$_0$by	bbcx	cffx
Croydon	1029·9	+6	ESE	2	m	29	85	4	–	7	1	0	1	–	3	•	c,bbc	bz$_0$m$_0$	bmbcmx	cz$_0$bz$_0$x
S. Farnborough	1029·9	+8	E	3	z_0	32	85	6	–	3	–	0	4-6	–	3	•	cxbcm$_0$	cbcz$_0$	bcm$_0$bcm	bcfbmx
Boscombe Down	1028·5	+14	E	4	z_0	35	75	6	5	7	–	4-6	9+	4000	1	•	cd$_0$d$_0$ir$_0$	ccm$_0$	cm$_0$bcm$_0$	bm$_0$
Thorney Island	1028·5	+6	SE	3	c	39	65	8	–	3	–	0	9	–	1	•	cvcvy	cvyc	cbcb	b
Lympne	1031·2	+6	E	2	bc	30	86	6	1	–	–	2-3	2-3	2000	3	§4	bcxbz$_0$	bbz$_0$x	bcm$_0$x	bcbm$_0$x
Manston	1031·5	+4	SE	2	z_0	31	75	6	5	–	–	Tr	Tr	3000	3	•	bm$_0$bcb	b,bz$_0$	bz$_0$m$_0$x	bbcbm$_0$x
Shoeburyness	1031·3	+4	SSE	4	b	33	75	6	–	–	–	0	0	–	3	•	bbcb	b	bm$_0$x	bm$_0$x
Felixstowe	1031·8	+2	SSE	4	c	34	85	7	7	–	–	7-8	7-8	2600	1		cm$_0$c	cbc	bcm$_0$	cm$_0$bm$_0$
Gorleston	1032·6	+4	SSE	4	c	34	85	7	8	–	–	7-8	7-8	2500	5		cqps$_0$bc	bc	bcz$_0$x	bcbm$_0$z
Mildenhall	1031·6	+4	E'S	3	z_0	28	85	6	–	–	–	0	0	–	0	•	bcxb	bxbm$_0$x	b,cm$_0$x	cbm$_0$x
Cranwell	1031·2	+4	SE	3	z_0	29	92	6	–	–	–	0	0	–	3	•	b	bbcbx	bbcm$_0$	bm$_0$
Birmingham	1029·8	+12	SE	3	z_0	32	85	5	–	3	–	0	9+	–	1	•	s$_0$ocz	cz	cb$_0$	bf
Upper Heyford	1029·9	+12	E	3	m	30	92	4	–	4	–	0	Tr	–	1	•	s$_0$bccz$_0$	cz$_0$bcm$_0$	cmfbm	bcmbfm
Ross-on-Wye	1028·4	+14	E	2	c	37	65	8	5	–	–	10	10	4000	1	•	r$_0$cc	c	cbcbmx	bcbcc
Hartland Point	1024·1	+12	E	3	c	41	85	8	8	–	–	9+	9+	1500	1	4	c	c	cd$_0$	cbc
Bristol	1028·1	+10	SE	4	z_0	37	75	6	5	7	–	1	10	3000	1	•	cr$_0$r$_0$ir$_0$	ccm$_0$	cbc,bm	bmbf
Portland Bill	1025·3	+8	SE	6	c	43	92	7	5	–	–	10	10	2500	1	6	orr	orrc	c	
Plymouth	1024·0	+26	ESE	5	d$_0$d$_0$	43	97	6	5	–	–	10	10	800	1	4	cir$_0$c	r$_0$r$_0$d$_0$d$_0$m$_0$	cir$_0$c	cir$_0$c,m$_0$
The Lizard	1022·2	+10	–	0	c	47	85	8	8	2	–	7-8	10	1500	1	3	bcpr	c	cpr$_0$c	cpr$_0$o
Scilly (St. Mary's)	1022·2	+6	N'E	3	c	47	85	8	8	–	–	10	10	1500	1	3	bccp$_0$	cp$_0$c	c	c
Guernsey																				
Pembroke	1025·5	+10	E'S	6	cq	43	92	8	8	2	–	7-8	10	1500	1	4	ir$_0$cq	cq	c	bc
Holyhead (Valley)	1027·1	+14	–	0	z_0	41	92	6	5	7	–	7-8	10	2700	1	2	cr$_0$c	ccm$_0$	rdm$_0$c	ddbmx
Chester (Sealand)	1029·6	+18	SE	3	m	27	75	4	–	3	–	0	4-6	–	1	•	cm$_0$bcm$_0$	bccm$_0$m	bccm	cbmx
Manchester	1029·9	+12	SSE	3	b	34	75	7	–	–	5	0	1	–	1	•	c	bcb	bbz$_0$bm$_0$	bm$_0$xbmx
Spurn Head	1030·7	0	S	4	b	35	85	7	–	–	–	0	0	–	0	4	bc	bcb$_0$	bc	bcx
Catterick	1030·8	+4	SW'S	1	cf+	31	92	3	–	3	–	0	9+	–	3	•	Ffbcmx	cmcfx	bccfx	csbcmx
Tynemouth	1029·3	+2	SW	3	bcf+	31	92	3	2	–	–	2-3	2-3	1900	1	3	bcmff	bcmff	bcffc	bc
St. Abbs Head	1028·2	+4	WNW	3	c	36	75	7	5	4	–	4-6	7-8	2500	3	2	c	c	c	c
Leuchars	1028·1	+6	W	3	z_0	33	85	6	5	–	–	9+	9+	5700	3	•	bbcm$_0$x	bccm$_0$x	cm$_0$xbcm$_0$	bcm$_0$cm$_0$
Renfrew (Abbots I.)	1029·4	+2	–	0	cf	32	85	3	5	–	–	7-8	7-8	4000	1	•	cmfom	omcf	cfcm	cmm$_0$
Eskdalemuir	1030·1	+8	–	0	bc	25	85	7	5	7	1	2-3	4-6	4000	3	•	bxbcc	cbcx	bccx	cx
Point of Ayre	1028·4	+12	SE	3	z_0	41	85	6	6	2	–	7-8	10	800	0	4	c	z$_0$c	cbcbz$_0$	obbc
Tiree	1028·0	+4	S	1	c	41	92	8	5	–	–	7-8	7-8	3500	0	3	c	c	b	bc
Stornoway	1027·4	+4	SW	4	pr	44	97	7	8	7	–	7-8	10	1500	1	2	c	cr$_0$r$_0$pr	bcc	cbpr$_0$
Dalwhinnie	1028·5	+6	–	0	o	31	85	8	5	–	–	10	10	2500	4	•	bcc	co		oc
Aberdeen	1026·8	–2	WNW	2	c	35	85	5	5	2	–	4-6	10	1700	8	2	bz$_0$	cz$_0$	cz$_0$	omid$_0$
Wick	1025·4	+2	W	4	pr	37	92	7	8	3	–	7-8	9	2500	8	*	b,cm$_0$c	ccpr$_0$	pr$_0$cddc	d$_0$d$_0$fid$_0$m$_0$
Sumburgh	1022·9	+14	N	1	b/pr	40	85	8	5	3	–	Tr	1	2500	1	3	bcc	cr$_0$r$_0$c	b,c	c,bx
Blacksod Point	1027·2	+16	E'N	3	c	45	97	8	–	7	–	0	10	–	0	3	bc	c	c	c
Malin Head	1028·4	+12	S	2	c	39	92	8	4	–	2	2-3	7-8	5700	1	2	c	c	bc	bc
Aldergrove	1029·3	+10	SE'E	1	z_0	40	85	6	5	–	–	9+	9+	1900	1	•	oid$_0$cm$_0$	cm$_0$	bfgmwxbfx	ffxbmx
Birr Castle	1026·7	+14	ENE	1	c	43	85	8	5	–	–	10	10	2500	1	•	bc	bc	*	bc
Valentia Obsy. †	1025·3	+12	E'N	3	c	45	83	8	5	–	–	9+	9+	2500	1	2	pr	bc	c	c
Roches Point	1025·6	+18	NE	3	c	45	85	8	8	1	–	4-6	9+	1500	1	*	bc	bc	pr	pr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_0$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_0$/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. • r$_0$, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. 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: similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

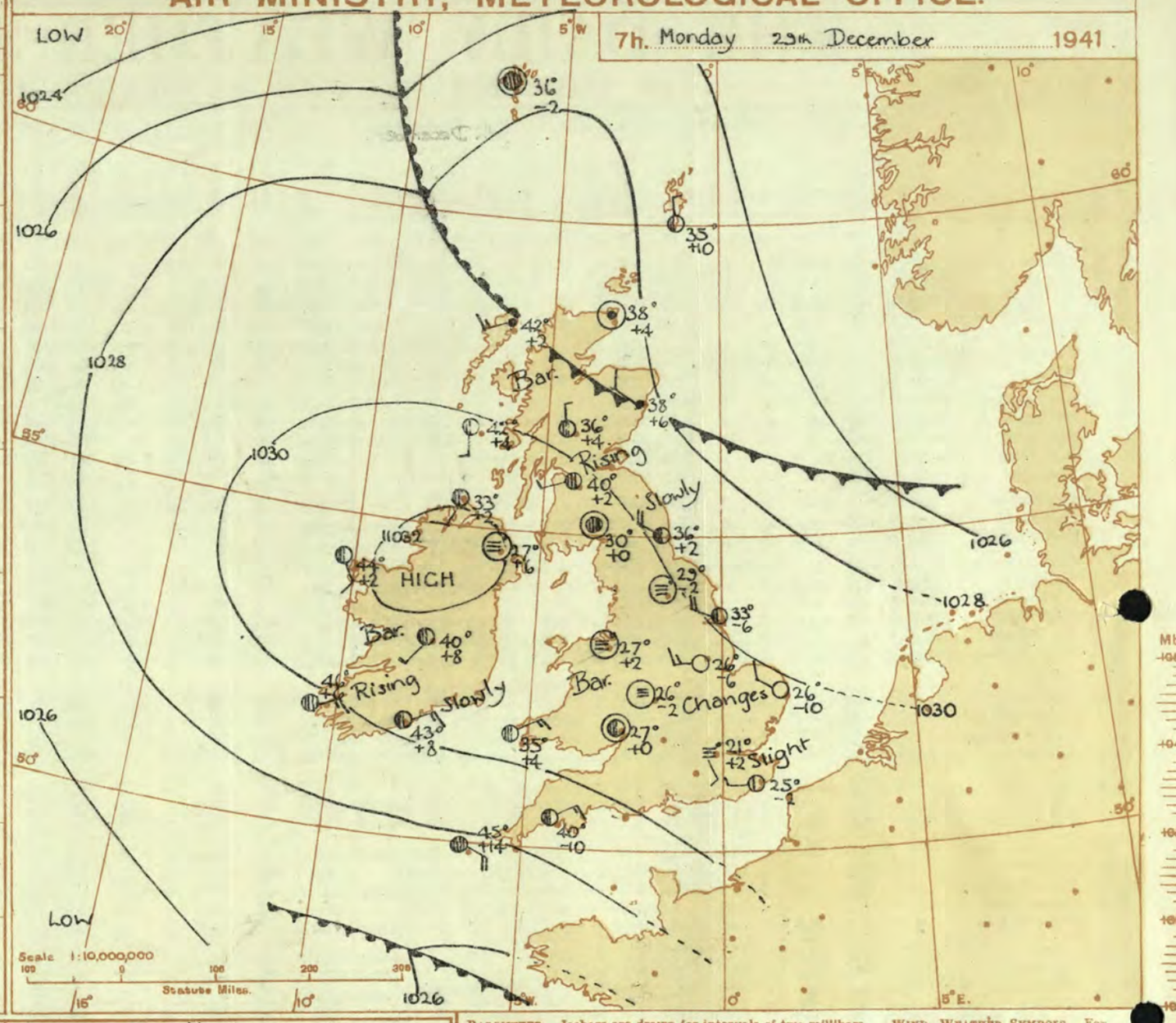
Abridged observations of additional stations in the
AVIATION WEATHER CODE

III	13h. G.M.T. 28th Dec.: $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 29th Dec.: $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN
109	87	02744	23565	8-	61747	27427	5-	02767	28227	5-	01863	28213
115	52	25844	20487	52	02838	22487	57	81844	24386	52	25834	28887
203				5-	03838	16428	50	01844	26824			
206	53	02875	16128	53	02865	24227	53	02856	24227	5-	02858	26128
210	57	02876	00028	57	02865	24357	57	22844	28467	57	51845	28468
220				51	02655	18118				53	01853	00013
230	5-	02867	00027	5-	05667	10127	5-	05668	00028	5-	05658	00028
245	00	05630	23216				03	00790	24212	5-	05667	28257
260	53	05565	00017	1-	2-053	08472	5-	08477	20227	50	05572	22112
278 275	5-	02758	12328	50	00662	09222	03	05590	00014	5-	05664	28114
279	57	05652	06115	03	08490	81131	03	05590	00018	5-	05569	20128
285										5-	05636	30426
288	00	08490	22145	5-	08-65	00015	5-	41475	18145	5-	48358	17188
575	5-	02748	26228	5-	05667	08227	00	04690	00001	50	08490	06101
301	5-	05567	12427	5-	05557	13827	03	08490	10121	04	08480	10101
321	53	01774	14314	07	01790	12815	00	08490	18220	00	08490	21103
299	80	01744	16514	00	00790	22300	50	00751	24301	52	02754	24316
292	50	05663	14203	5-	05667	19227	00	08490	18110	03	47390	00014
310										--	01641	32211
614	03	05590	12324	00	05690	12210	03	05590	22121			
333	5-	02776	10426	54	20764	30127	5-	58658	00068	00	05690	04110
334										--	00690	00002
340	03	05590	13415	03	08490	11426	03	45890	12148	00	43890	00040
136	80	00862	13312	00	00890	18201	04	05690	20216	04	05590	28211
336										--	05590	08320
350	03	05690	12412	08	05590	08813	07	05590	12204	00	05590	20101
368	62	61736	12568	52	02857	09528	04	05690	06311			
379	5-	05658	08478	00	05690	12213	00	05590	12223	00	08490	12210
390	10	01754	07414	06	05590	12200	00	05690	00015	00	08490	00000
282	5-	02777	43427	03	05690	10313	00	05590	00003	03	08490	00002
438	76	02854	10515							50	01763	02213
430	13	02861	10527	03	01490	10313	00	00790	04212	00	05690	02203
409	54	02856	31367	5-	61738	10368	5-	51647	07357	5-	02748	02618

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Monday 29th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Monday 29th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable winds. Fine but with some fog in industrial areas, night and morning. Cold with keen or hard frost at night.
5 S.W. England 6 South Wales ...	Moderate to light easterly winds. Fair; rather cold with some night frost in inland districts.
7 North Wales ... 8 N.W. England 9 N. Midlands ...	As 1-4
10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13A. W. Scotland	Light or moderate westerly to variable winds. Fair; rather cold with local frost at night.
13B N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light or moderate winds from between northwest and southwest. Cloudy, with local rain; sleet or snow on high ground. Rather cold.
17 N. W. Ireland 18 N. E. Ireland	As 1-4
19 S. E. Ireland 20 S. W. Ireland	As 5-6

GENERAL INFERENCE.

An elongated anticyclone covers this country with its axis from Northwest Ireland to Southeast England. Weather will be fine except in the extreme northeast and southwest of the British Isles, but there will be local fog in populous areas. There will be further keen frost in the night and morning.

FURTHER OUTLOOK.

No great change.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of Monday 29th December 1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. (Tz) Thunderstorm. Tz Slight haze.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 29th December, 1941.

No. 29257.

OBSERVATIONS at 1 hr. G.M.T. 29th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	28	*	*	*	*	*	*	*	*
	Croydon	217	1030·8	-2	SSE	1	z_0	25	75	5	–	–	6	0	4-6	–
	S. Farnborough	226	1030·9	0	–	0	m	25	85	4	–	–	9	0	4-6	–
	Boscombe Down	417	1030·2	+4	E'N	3	z_0	28	92	5	–	3	–	0	Tr	–
	Thorney Island	10	1030·1	+6	E'N	2	b	31	85	8	–	3	1	0	1	–
	Lympne	346	1031·7	+2	SSE	1	z_0	31	85	6	5	–	–	9	9	2500
	Manston	154	1031·7	-6	S	2	z_0	29	85	6	–	–	5	0	2-3	–
2	Shoeburyness	11	1031·7	-2	–	0	b	28	85	6	–	–	–	0	0	–
	Felixstowe	15	1031·6	-2	WSW	2	z_0	32	75	6	–	–	6	0	7-8	–
	Gorleston	5	1031·3	-10	E'S	1	z_0	30	85	6	–	–	8	0	4-6	–
	Mildenhall	19	1031·5	-6	S'E	2	z_0	23	97	6	–	–	7	0	10	–
	Cranwell	240	1031·3	-6	SSW	2	z_0	26	92	6	–	4	1	0	2-3	–
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1031·2	+2	E	2	m	25	97	4	–	–	6	0	7-8	–
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1027·9	+10	E	3	c	39	85	8	5	2	–	7-8	9+	1500
	Bristol	209	1030·5	+8	ENE	2	m	28	92	4	–	–	–	0	0	–
	Portland Bill	32	1027·8	+8	SE	4	c	42	92	7	5	–	–	10	10	4000
	Plymouth	82	1027·6	+10	ESE	4	ir_0	41	92	7	5	–	–	10	10	1500
	The Lizard	240	1025·7	+18	E'S	5	c	45	85	7	8	2	–	9	10	1500
	Scilly (St. Mary's)	163	1024·7	+8	ESE	2	c	47	75	8	8	7	–	4-6	10	1500
	Guernsey	175														
6	Pembroke	142	1029·3	+10	E'N	4	c	40	85	7	5	2	–	7-8	10	1500
7	Holyhead (Valley)	26	1029·6	+6	SSW	3	dr	41	97	5	5	–	–	10	10	1400
	Chester (Sealand)	16	1030·3	+2	SE	2	m	34	75	4	5	–	–	10	10	2500
8	Manchester	235	1030·9	+2	–	0	z_0	29	92	6	–	4	–	0	1	–
10	Spurn Head	29	1030·8	-4	SW	4	b	31	75	7	–	–	–	0	0	–
	Catterick	175	1030·3	-8	S	1	f–	27	97	3	–	3	–	0	9	–
	Tynemouth	108	1029·1	0	WNW	3	z_0	35	75	6	5	3	–	4-6	7-8	2500
11	St. Abbs Head	280	1027·6	-4	WNW	4	c	41	75	7	5	2	–	7-8	10	2500
	Leuchars	36	1028·1	+2	WSW	2	z_0	35	92	6	–	3	–	0	7-8	–
12	Renfrew (Abbots I.)	19	1030·3	+2	SW'W	2	m	35	85	4	5	–	–	9	9	5000
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1030·6	+2	ESE	2	z_0	37	85	6	–	5	–	0	Tr	–
13A	Tiree	22	1029·0	+2	S	1	bc	39	97	8	5	8	–	2-3	4-6	2500
13B	Stornoway	80	1029·3	+10	SW	2	c	41	97	8	7	4	–	7-8	9	3500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	40	*	*	*	*	*	*	*	*
	Wick	119	1027·3	+10	W	1	c	38	92	8	5	7	–	9+	10	2000
16	Sumburgh	30	1026·3	+10	N	1	c	37	75	8	5	–	–	7-8	7-8	4000
17	Blacksod Point	18	1030·2	+10	ESE	2	c	44	85	7	–	7	–	0	10	–
18	Malin Head	84	1031·4	+14	S	2	b	35	85	7	–	–	–	0	0	–
	Aldergrove	268	1031·6	+8	–	0	bf+	31	97	2	–	–	–	0	0	–
19	Birr Castle	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1028·4	+10	E	2	o	45	85	8	5	–	–	10	10	4000
	Roches Point	22	1028·2	+10	NE	3	c	44	92	8	8	1	–	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 29th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 28th Hrs. (36)
London (Kew)	1031·3	0	SSW	1	f	26	97	3	–	–	2	0	9	–	3	*	37	25	12	–	Tr	4·9
Croydon	1031·1	+2	S'E	1	mf	21	85	4	–	–	1	0	Tr	–	3	*	38	21	16	–	Tr	5·9
S. Farnborough	1031·9	+8	SE'E	1	mfe	21	97	4	–	–	9	0	Tr	–	3	*	39	20	11	–	–	0·4
Boscombe Down	1031·1	-2	NE	1	z_0	28	75	5	–	–	–	0	0	–	1	*	40	25	18	0·5	–	0·0
Thorney Island	1030·5	+2	SE	2	b	26	85	8	–	4	–	0	Tr	–	3	*	41	25	19	–	–	*
Lympne	1031·1	-2	W	1	z_0	25	85	6	1	–	–	Tr	Tr	2500	3	§	35	24	13	–	–	6·9
Manston	1031·1	-2	–	0	z_0	24	85	6	5	–	–	Tr	Tr	2000	3	*	34	23	9	–	–	7·0
Shoeburyness	1030·9	-4	–	0	b	25	97	5	–	–	–	0	0	–	3	*	37	23	15	–	–	6·3
Felixstowe	1030·9	-2	W'N	3	z_0	29	85	5	–	–	–	0	0	–	0	2	37	28	24	–	–	*
Gorleston	1030·0	-10	W'N	2	z_0	26	97	6	–	–	–	0	0	–	3	2	37	25	23	Tr	–	*
Mildenhall	1030·8	-6	WSW	2	z_0	20	97	5	–	–	–	0	0	–	3	*	37	19	9	Tr	Tr	5·2
Cranwell	1030·2	-6	W	3	z_0	26	97	5	–	–	–	0	0	–	3	*	35	24	18	–	–	5·1
Birmingham	1030·9	-2	–	0	bf	26	92	3	–	–	–	0	0	–	1	*	35	25	11	0·4	–	0·0
Upper Heyford	1031·3	+2	NW	1	m	22	97	4	–	–	–	0	0	–	3	*	36	22	21	Tr	–	*
Ross-on-Wye	1030·7	0	–	0	z_0	27	97	6	5	7	–	4-6	9	3000	1	*	39	25	19	0·1	–	0·1
Hartland Point	1029·5	+4	ENE	3	bc	37	85	8	5	–	–	4-6	4-6	2500	1	4	48	36	34	–	Tr	1·5
Bristol	1031·4	+2	–	0	bf+	24	92	3	–	–	–	0	0	–	3	*	39	22	15	1	–	0·0
Portland Bill																	44		*	11		*
Plymouth	1029·5	-10	ENE	3	z_0	40	85	6	5	7	–	4-6	10	3000	1	3	49	40	38	0·5	Tr	3·0
The Lizard	1028·2	+10	E	5	o	45	75	7	5	–	–	10	10	1500	1	4	49	44	*	0·5	Tr	3·7
Scilly (St. Mary's)	1027·6	+14	E'S	4	c	45	85	8	8	–	–	10	10	1500	1	3	50	(45)	*	1	–	1·5
Guernsey																						
Pembroke	1030·6	+4	NE'E	3	bc	35	97	7	1	–	–	2-3	2-3	4000	1	3	43	32	*	1	–	0·0
Holyhead (Valley)	1030·7	+6	N	1	m	37	97	4	5	8	–	2-3	2-3	2000	1		43	33		Tr	4	
Chester (Sealand)	1031·1	+2	–	0	m	27	85	4	–	–	–	0	0	–	1	*	39	27	22	0·1	–	1·4
Manchester	1031·5	+2	–	0	m	24	97	4	–	–	–	0	0	–	3	*	38	24	19	–	–	*
Spurn Head	1029·3	-6	W'N	4	bc	33	85	7	4	–	–	2-3	2-3	2500	3	3	39	30	*	–	Tr	5·5
Catterick	1030·1	-2	–	0	m	29	92	4	5	7	–	2-3	7-8	4000	3	*	32	22	21	–	–	0·0
Tynemouth	1029·4	+2	WNW	4	c	36	75	6	2	–	–	7-8	7-8	1500	1	3	32	31	30	–	0·3	*
St. Abbs Head	1028·5	+2	S	4	c	42	85	7	5	4	–	4-6	9	2500	0	3	36	35	*	–	–	*
Leuchars	1028·9	+2	W	1	z_0	36	92	6	5	–	6	4-6	7-8	3500	3	*	34	34	30	–	–	0·2
Renfrew (Abbots I.)	1030·7	+2	W'S	1	z_0	40	85	5	5	–	–	9+	9+	5000	1	*	35	30	27	–	–	0·0
Eskdalemuir	1031·0	0	–	0	c	30	97	7	5	–	–	10	10	1500	3	*	33	20	14	–	–	3·6
Point of Ayre	1031·0	+4	N	3	bc	41	85	7	5	–	–	4-6	4-6	2000	0	3	41	34	*	–	–	0·0
Tiree	1029·3	+4	S	1	bc	42	92	8	5	–	–	4-6	4-6	3500	0	2	42	36	*	–	–	0·0
Stornoway	1029·5	+2	WSW	3	pr	42	97	8	8	7	–	4-6	4-6	1500	1	1	44	40	*	1	Tr	0·0
Dalwhinnie	1030·9	+4	N	1	c	36	92	7	5	–	–	9+	9+	1500	4	*	33	29	24	–	–	0·1
Aberdeen	1028·5	+6	NW'W	2	id_0	38	97	4	5	–	–	10	10	200	4	*	35	34	32	–	0·3	1·1
Wick	1028·4	+4	–	0	id_0	38	97	6	5	–	–	10	10	1000	4	*	37	36	35	0·3	1	*
Sumburgh	1027·6	+10	N	1	bc	35	75	8	5	–	–	2-3	2-3	4000	5	2	45	35	27	3	–	0·2
Blacksod Point	1030·8	+2	SSE	2	c	44	85	7	–	7	–	0	10	–	1	2	47	(44)	*	–	–	*
Malin Head	1031·6	+2	SSW	2	bc	33	85	8	5	–	–	2-3	2-3	2500	1	3	44	31	*	–	–	0·0
Aldergrove	1032·7	+6	–	0	m	27	97	4	–	–	–	0	0	–	3	*	41	27	24	Tr	–	0·0
Birr Castle	1030·8	+8	SSW	1	c	40	97	8	5	–	–	7-8	10	2500	1	*	46	39	38	–	–	*
Valentia Obsy.	1029·5	+6	E'N	3	o	46	85	8	5	–	–	10	10	2500	1	2	51	44	43	Tr	–	4·4
Roches Point	1030·3	+8	ENE	3	c	43	85	8	8	–	–	9+	9+	1500	1	*	48	(43)	*	–	0·2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon. 9h—18h, Kensington. 9h—21h other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h. (To-day)
Kew	18	bccbc	bcz_0by	bbcxf	37	25	12	–	Tr	4·9	*	*	1
Croydon	217	c,bbc	bz_0m_0	bmbczx	38	21	16	–	Tr	5·9	*	*	2
Greenwich (Royal Observatory)	149	b	bm	bmxf	37	20	11	–	–	6·1	74	99	2
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	39	27	27	–			70	87	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	38	23	15	–	–		65	100	*
Camden Square	110	bc	bc	*	37	24	20	–	–	*	*	*	*
Kensington	80	bc	bc	*	39	24	18	–	–		83	*	*
Hampstead Observatory	450	bc	bcx		36	32	28	–	–		*	90	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre. 24 hrs. ended 7h. G.M.T. 29th

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
0·7	19h 28th	0·1	12-14h 28th

FOREIGN OBSERVATIONS.

Stations	Evening of 28th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Morning of 29th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Reykjavik (18h and 07h)	1020·6	E	2	dr	42	1018·7	SSE	3	o	44	*	*	*	*
Lisbon (18h and 07h)	1023·3	ENE	1	z_0	45	1023·2	NNE	1	c	45	48	41	–	–
¶Madrid (18h and 07h)	904·5	–	0	F	30	903·3	–	0	f	23	32	23	–	–
Cairo (Heliopolis) (18h and 06h)	1022·0	NE	1	bc	58	1022·1	SW	1	bc	53	*	49	*	–
Toronto (13h and 01h)	1023·9	NNW	2	o	24									
Washington (13h and 01h)														

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

Code		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 ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

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

TERMS OF SUBSCRIPTION. Single Copies, 1d. each; by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

SECRET

BRITISH SECTION

Tuesday 30th December 1941.

No. 29258

OBSERVATIONS at 13h. G.M.T. 29th December

District.	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Med. (10)	High (11)	Amount. Low 0–10 (12)	Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)...	1032.3	-4	SW	2	bF	33	92	1	-	-	-	0	0	-
	Croydon ...	1031.8	-2	W'N	1	m/f	35	75	4	-	-	-	0	0	-
	S. Farnborough	1032.8	-2	W'S	1	b/f	35	75	5	-	-	1	0	Tr	-
	Boscombe Down	1032.2	+2	-	0	m	35	75	4	-	-	-	0	0	-
	Thorney Island	1032.3	-6	NNE	1	b	39	65	7	-	4	-	0	Tr	-
	Lympne ...	1031.4	-6	NW	2	zo	34	75	6	-	-	-	0	0	-
	Manston ...	1029.7	-10	W'N	2	zo	36	65	5	-	-	-	0	0	-
2	Shoeburyness ...	1031.3	-6	WNW	3	f	37	65	3	-	-	-	0	0	-
	Felixstowe ...	1030.2	-12	WNW	4	zo	35	75	5	5	-	-	9+	9+	4500
	Gorleston ...	1029.4	-6	WNW	3	c	33	85	6	5	-	-	9+	9+	1000
	Mildenhall ...	1030.9	-4	WSW	2	zo	32	97	5	5	-	-	9+	9+	5700
	Cranwell ...	1031.0	-2	W	2	bcf+	35	85	3	-	3	-	0	4-6	-
3	Birmingham	1031.9	+4	NW	3	bcf	35	75	3	-	3	-	0	4-6	-
	Upper Heyford	1031.9	+2	WNW	1	zo	34	75	6	-	4	-	0	1	-
4	Ross-on-Wye ...	1032.4	0	W'S	1	zo	34	75	5	-	-	1	0	Tr	-
5	Hartland Point	1032.1	+8	ENE	2	bc	40	75	8	4	-	-	2-3	2-3	2500
	Bristol ...	1033.1	+4	-	0	bcf+	34	75	3	5	-	-	2-3	2-3	200
	Portland Bill ...	1031.7	+6	ENE	4	bc	41	75	8	5	-	-	2-3	2-3	4000
	Plymouth ...	1032.0	+6	E'S	2	b	43	75	8	1	-	-	Tr	Tr	4000
	The Lizard ...	1030.5	+8	E'S	4	c	43	85	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1030.9	+10	ESE	3	c	45	85	8	8	-	-	10	10	1200
	Guernsey ...														
6	Pembroke ...	1033.1	+6	NE	3	zo	41	85	6	7	7	-	2-3	2-3	3000
7	Holyhead (Valley)	1032.7	+4	-	0	zo	40	92	5	-	3	-	0	1	-
	Chester (Sealand)	1032.9	+6	NW	1	cf-	36	75	3	5	3	-	2-3	9+	5000
8	Manchester ...	1032.7	0	-	0	bcf	31	92	2	-	3	-	0	2-3	-
10	Spurn Head ...	1029.8	+2	W'N	4	m	39	85	4	5	2	-	7-8	10	800
	Catterick ...	1031.3	0	NW	2	zo	43	75	6	-	3	-	0	9	-
	Tynemouth ...	1031.3	+4	W	4	zo	41	75	5	2	3	-	4-6	7-8	2400
11	St. Abbs Head	1030.2	+6	NW	4	c/pr	42	92	7	5	7	-	7-8	9+	2500
	Leuchars ...	1030.7	+8	WSW	1	c	42	92	8	5	-	-	9	9	4000
12	Renfrew (Abbots I.)	1032.2	+2	W'S	2	zo	45	75	5	5	3	6	2-3	4-6	4500
	Eskdalemuir ...	1031.2	0	NNW	2	bc	41	85	7	5	4	-	2-3	4-6	2500
	Point of Ayre ...	1032.6	+4	N'W	2	c	44	85	8	5	3	9	2-3	7-8	4000
13A	Tiree ...	1031.8	+10	WSW	1	b	46	92	8	1	-	-	Tr	Tr	3500
13B	Stornoway ...	1030.9	0	WSW	3	bc	45	92	8	1	-	-	2-3	2-3	1500
15	Dalwhinnie ...	1033.4	+4	NW	1	c	37	92	8	8	4	-	4-6	7-8	2500
	Aberdeen ...	1030.8	+10	NW'W	2	c/d	39	97	5	5	-	-	9+	9+	500
	Wick ...	1030.5	+4	SW	1	ido	40	97	8	5	-	-	10	10	2000
16	Sumburgh ...	1029.6	0	N	1	c	37	75	8	5	3	-	1	9+	3500
17	Blacksod Point...	1032.6	+2	SE	2	c	45	85	8	-	7	-	0	10	-
18	Malin Head ...	1032.8	0	SSW	1	b	47	92	8	-	-	-	0	0	-
	Aldergrove ...	1034.6	+8	-	0	F	31	97	1	-	-	-	10	10	<150
19	Birr Castle ...	1033.0	+4	N	1	bc	44	85	8	-	-	8	0	4-6	-
20	Valentia Obsy. †	1032.1	+6	E	3	o	47	65	8	5	-	-	10	10	4000
	Roches Point ...	1032.9	+6	E'N	3	c	43	85	8	8	-	-	9	9	1500

OBSERVATIONS at 18h. G.M.T. 29th December

District.	Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)...	1032.4	+6	WSW	2	cf	35	85	3	5	2	-	9	10	4000	3	*
	Croydon ...	1031.9	+6	W	2	m	34	85	4	5	3	-	7-8	9+	3500	3	*
	S. Farnborough	1032.9	+6	W	2	cf	30	97	3	-	3	-	0	9	-	3	*
	Boscombe Down	1033.5	+8	NW'N	1	m	31	85	4	-	-	-	0	0	-	3	*
	Thorney Island	1032.7	+6	NW	1	m	32	85	4	-	-	-	0	0	-	3	*
	Lympne ...	1031.2	+4	NW	3	cf	33	85	3	5	-	-	9+	9+	2500	3	§ 2
	Manston ...	1031.1	+4	WNW	2	cf	35	85	2	5	-	-	10	10	1700	3	*
2	Shoeburyness ...	1031.3	+4	W'N	3	c	35	85	5	5	-	-	9+	9+	7200	3	*
	Felixstowe ...	1030.6	+4	NW	4	m	37	75	4	5	-	-	10	10	2600	1	2
	Gorleston ...	1030.1	+6	NW'N	2	m	36	85	4	5	3	-	7-8	7-8	1500	3	2
	Mildenhall ...	1031.3	+6	W	2	cf	34	85	3	5	-	-	10	10	2500	0	*
	Cranwell ...	1031.7	+4	W'N	2	f+	37	85	3	-	-	-	10	10	<150	1	*
3	Birmingham	1033.3	+8	NNW	3	cf	35	85	3	5	3	-	4-6	9+	4000	1	*
	Upper Heyford	1032.6	+8	NW	3	cf	33	92	3	5	-	-	9	9	4800	1	*
4	Ross-on-Wye ...	1033.3	+6			m	31	85	4	-	-	-	0	0	-	1	*
5	Hartland Point	1033.2	+6	ENE	2	bc	40	75	8	1	-	-	2-3	2-3	4000	1	3
	Bristol ...	1033.8	+10	-	0	bf+	33	85	3	-	-	-	0	0	-	3	*
	Portland Bill ...	1032.7	+8	ENE	3	b	37	85	8	-	-	-	0	0	-	1	3
	Plymouth ...	1033.8	+18	E	2	bf+	36	85	3	-	-	-	0	0	-	0	2
	The Lizard ...	1032.0	+10	E	4	bc	43	65	8	8	6	-	4-6	4-6	2500	0	4
	Scilly (St. Mary's)	1032.1	+12	ESE	2	bc	42	86	8	8	3	-	4-6	4-6	1500	1	3
	Guernsey ...																
6	Pembroke ...	1033.7	+4	E'S	2	zo	40	97	6	1	-	-	2-3	2-3	4000	1	2
7	Holyhead (Valley)	1033.6	+10	NE'E	1	cf+	35	97	2	5	-	-	9+	9+	1800	1	0
	Chester (Sealand)	1033.6	+6	-	0	cf+	27	92	3	5	7	-	7-8	10	2000	1	*
8	Manchester ...	1033.7	+8	-	0	cf	32	97	2	5	3	-	4-6	9	5000	3	*
10	Spurn Head ...	1030.8	+8	NW'W	3	c	39	92	5	5	2	-	7-8	10	800	1	3
	Catterick ...	1032.5	+10	NW	1	cf	40	85	3	5	7	-	7-8	9+	2200	1	*
	Tynemouth ...	1031.8	+6	WNW	4	zo	41	85	5	5	-	-	10	10	1500	1	3
11	St. Abbs Head	1031.6	+8	W	2	zo	42	92	5	5	7	-	4-6	4-6	2500	1	2
	Leuchars ...	1032.1	+14	W	1	bc	39	85	7	4	6	-	1	4-6	4500	1	*
12	Renfrew (Abbots I.)	1033.0	+6	W	2	zo	38	92	5	-	3	-	0	9	-	1	*
	Eskdalemuir ...	1033.4	+14	-	0	b	34	92	7	-	4	-	0	1	-	1	*
	Point of Ayre ...	1033.3	+4	NNW	3	c	45	85	8	5	3	-	Tr	9	1800	0	2
13A	Tiree ...	1032.2	+2	-	0	b	38	92	8	1	-	-	1	1	3500	0	2
13B	Stornoway ...	1031.9	+10	SW	3	c	45	92	7	5	7	-	7-8	10	1000	1	1
15	Dalwhinnie ...	1035.0	+6	-	0	c	35	92	8	8	-	-	9+	9+	4000	4	*
	Aberdeen ...	1032.0	+10	NW'W	1	ido	40	97	2	5	-	-	10	10	200	1	2
	Wick ...	1030.6	+4	WNW	2	zo	38	92	6	5	3	-	2-3	9	3500	1	*
16	Sumburgh ...	1029.5	0	NW	1	c	42	85	8	5	-	-	9+	9+	3500	5	2
17	Blacksod Point...	1033.3	+6	SE	2	c	44	92	8	-	7	-	0	10	-	0	2
18	Malin Head ...	1034.0	+10	-	0	b	37	85	8	-	-	-	0	0	-	1	1
	Aldergrove ...	1035.1	+6	-	0	bF-	26	97	1	-	-	-	0	0	-	5	*
19	Birr Castle ...	1033.6	+4	ENE	1	b	33	97	8	-	-	-	0	0	-	1	*
20	Valentia Obsy. †	1032.8	+10	E	4	c	45	75	8	5	-	-	9+	9+	4000	1	3
	Roches Point ...	1033.8	+8	E	3	c	43	85	8	8	-	-	9	9	1500	1	

PAST 24 HOURS.

District.	Stations.	Weather. 7h.—13h. 29th (37)	13h.—18h. 29th (38)	18h. 29th to 1h. 30th (39)	1h.—7h. 30th (40)
1	London (Kew)...	oFbFx	bF,cfx	cffmx	cffx
	Croydon ...	bmxbf		cmbcf	cfdcf
	S. Farnborough	bxffzo	bzocfx	cfx	cfxm
	Boscombe Down	bm	cm	cmbcf	bcf
	Thorney Island	bx	bbm	bmcmm	cm
	Lympne ...	bmoxf	bcemof	cffro	crfocF
	Manston ...	bmoxbzo	bzooF	ofidocf	cfcFe
2	Shoeburyness ...	bmoxf	bfcmo	bcmidofo	of
	Felixstowe ...	bmoemo	cmocidom	cmidof	cFoF
	Gorleston ...	bbczxcz	czozo	Febcm	bcffx
	Mildenhall ...	bcmo	cmcf	cfido	bcfoFx
	Cranwell ...	b,cbcf	croof	cirocf	cfmcf
3	Birmingham	fbc	bmcf	cf	cof
	Upper Heyford	bmxmo	bczomf	cf	cf
4	Ross-on-Wye ...	bcmbz	bz	bmfcm	cfbfx
5	Hartland Point	bc	bc	bcb	b
	Bristol ...	bff	bmf	bf,bf	cm
	Portland Bill ...	bc	bcb	c	c
	Plymouth ...	cmobmo	b,zomfowo	bfmbf	bmfmxbm
	The Lizard ...	c	cbc	bc	bc
	Scilly (St. Mary's)	c	cbc	bcbc	bc
	Guernsey ...				
6	Pembroke ...	bcmo	bcmo	bx	bx
7	Holyhead (Valley)	bm	bbcmomf	cfcmw	cmmox
	Chester (Sealand)	bccfx	cfbcm	cbcfx	FFxwe
8	Manchester ...	cpfbv	becfx	bcFx	oFx
10	Spurn Head ...	cm	cmo	bcmo	cmo
	Catterick ...	mxcfmo	cirof	cfirom	cmobm
	Tynemouth ...	cmo	pmo	circ	c
11	St. Abbs Head	cpro	cprozo	cmo	cmblc
	Leuchars ...	cmoc	cprobc	bcmobmoc	cbcbbc
12	Renfrew (Abbots I.)	cmobcmo	bcmocmob	cmobmo	bmof
	Eskdalemuir ...	cxbc	bc	bcmo	bccoF
	Point of Ayre ...	bcc	c	cbcc	zocw
13A	Tiree ...	b	bcb	bc	bcc
13B	Stornoway ...	bccprobc	bcc	pr	c
15	Dalwhinnie ...	cido	c		cidoo
	Aberdeen ...	oidoxmo	cmoffido	offidobc	bcc
	Wick ...	dofodo	cdodomo	dododiroc	ccmo
16	Sumburgh ...	cpro	c,b,c	cciro	ciroc
17	Blacksod Point...	c	c	c	c
18	Malin Head ...	b	b	b	bc
	Aldergrove ...	FbcfoF	oFcbF	oFFbffex	cFbFex
19	Birr Castle ...	bc	bcb	*	bc
20	Valentia Obsy. †	c	c	c	bc
	Roches Point ...	bcc	cprc	bc	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

Note.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

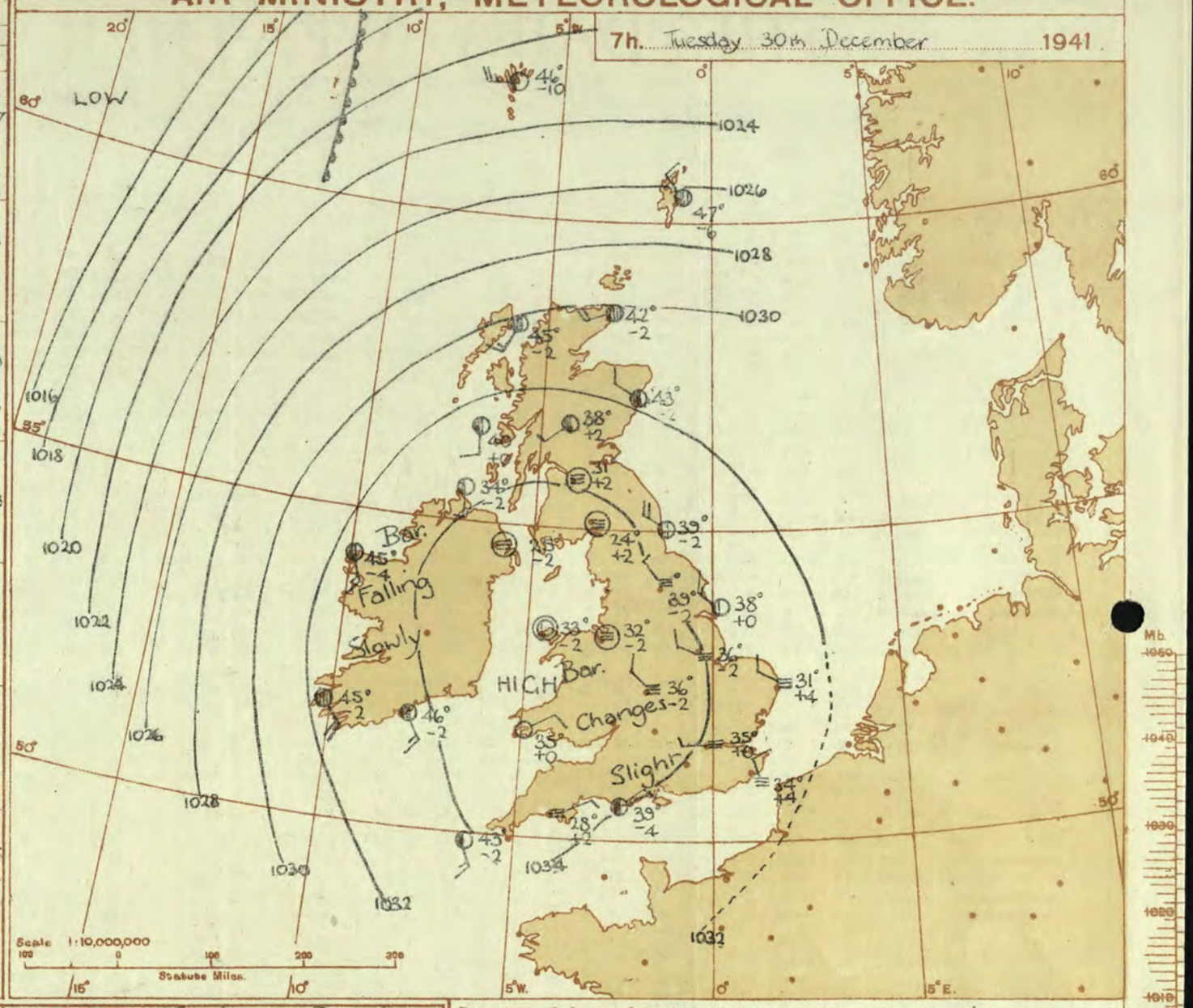
Abridged observations of additional stations in the AVIATION WEATHER CODE

III	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN	$C_L C_M$	wwVhN$_h$	DDFWN
	13h. G.M.T. 29th Dec.			18h. G.M.T.			01h. G.M.T. 30th Dec.			07h. G.M.T.		
109	54	02754	00015	5-	02748	26128	5-	02758	24428	52	52645	23468
115	87	81834	24387				53	02844	24327	52	02844	24427
203				5-	02838	24428	7-	02845	20426			
206	83	81865	26186	57	02766	26187	52	02865	24158	5-	02768	00018
210	52	24855	23258	57	02856	22228	53	02736	20328	53	02864	20325
220	50	01754	23214									
230	87	05856	22127	8-	05755	00026	--	05686	00000	5-	05345	00016
245	5-	61946	24167	53	22656	27167	--	05636	26100	53	01764	23115
260	05	08490	22113	00	47290	00040	5-	43877	22147	50	08464	22144
278	53	00752	29213	5-	05665	26215	--	05636	14100	00	47290	25140
279	50	05566	90126	03	47330	20116	03	45290	00043	--	44100	00049
285	53	02863	32326							5-	00852	32403
288	5-	05567	19127				5-	57258	22248	57	05675	20158
575	03	05590	24101	00	47290	08140	00	45190	11240	00	45180	00040
301	5-	43376	28146	00	45190	11140	00	45080	00043	--	46000	12149
321	03	45390	26244	50	45264	26144	58	45866	27247	50	47271	24141
299				8-	02746	26216				50	01743	24113
292	53	08466	25147	51	08465	28168				57	08453	00063
310	--	01634	33314							--	01646	26316
614	03	43390	24245	07	45290	26148	5-	43864	28144			
333	03	01590	00002	00	05630	26200	00	05630	00000	00	05630	00000
334	--	05554	02215	-0	08654	04215				--	01672	00003
340				07	47330	00047	5-	47218	12148	5-	43328	04148
136	5-	22467	24367	53	22445	24867	5-	47366	28266	--	48109	24249
336	50	01752	12312	50	01743	04318						
350				53	47364	26227	5-	48327	24247	5-	45368	24248
368	00	05590	04110	00	08430	30100	00	45330	00040			
379	50	05661	24301	53	05563	32816	03	45330	30347	5-	08457	30367
390	5-	47366	25206	53	45365	26248	5-	45238	26358	5-	43233	26258
382				53	08474	26116	5-	47358	00048	5-	45258	00048
438										8-	02755	02715
430	90	00790	32101	00	08490	28100	5-	08478	32318	5-	08466	30320
409	10	05861	06211	80	05761	06101	00	05690	00000	00	05630	06100

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Tuesday 30th December 1941



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

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.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Tuesday 30th December
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ...	Light variable winds becoming south, light or moderate. Fair or fine apart from rather general fog persisting all day in industrial areas and near large towns, and becoming fairly general again to-night. Rather cold; keen night frost.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light west wind backing southwest, moderate. Fair or fine; fog locally, particularly in Mersey area, probably clearing tomorrow. Rather cold; keen night frost.
13A. W. Scotland 13B. N.W Scotland 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light or moderate west wind, backing southwest to south and freshening. Fair at first, local rain later. Rather cold, becoming milder.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light south or southeast wind becoming moderate or fresh. Fair; local fog to-day. Rather cold; keen night frost locally.

GENERAL INFERENCE.

An anticyclone centred over the Irish Sea is moving slowly southeast. Weather will be fair or fine apart from fairly general fog in England and Wales at first, persisting all day in industrial areas and near large towns, and becoming general again to-night. It will be rather cold and frost will persist in foggy areas to-day, and become keen to-night, generally.

FURTHER OUTLOOK.

Fair in the Southeast with night frost; unsettled and mild in the Northwest.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S. Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Morning of Tuesday 30th December 1941.

Clarke's Projection Scale 1: 4 X 10⁷ 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. (↯) Thunderstorm. ↯ Slight haze. ∞

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 30th December 1941.

No 29258

OBSERVATIONS at 1 hr. G.M.T. 30th December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	36	*	*	*	*	*	*	*	*
	Croydon ...	217	1033·4	+6	WSW	1	dfg	34	92	3	5	-	-	10	10	2000
	S. Farnborough	226	1034·0	+6	W	1		33	86	3	5	-	-	9+	9+	1800
	Boscombe Down	417	1034·7	+8	NW	1		31	97	3	-	7	-	0	4-6	-
	Thorney Island	10	1033·7	+4	NW	1		36	85	5	1	3	-	0	10	-
	Lympne ...	346	1032·1	+2	NW	3		35	97	2	5	-	-	7-8	7-8	3200
	Manston ...	154	1032·2	+6	NW'N	3		37	92	2	5	-	-	7-8	7-8	2000
2	Shoeburyness ...	11	1032·5	+8	N	2		36	92	3	5	-	-	10	10	2500
	Felixstowe ...	15	1032·4	+8	NNW	3		35	97	1	5	-	-	9	9	2500
	Gorleston ...	5	1031·8	+10	NW'N	2		33	97	6	8	-	-	4-6	4-6	1500
	Mildenhall ...	19	1032·9	+6	WNW	2		35	97	2	5	-	-	10	10	2500
	Cranwell ...	240	1033·6	+6	NW	3		37	92	3	5	-	-	9+	9+	3000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1034·1	+6	NW'N	3		34	97	2	5	-	-	9+	9+	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1034·8	+6	ENE	2		39	75	8	-	-	-	0	0	-
	Bristol ...	209	1035·0	0	W	1		34	92	4	5	-	-	Tr	Tr	4000
	Portland Bill ...	32	1034·1	+2	NNE	2		36	92	7	2	-	-	9	9	4000
	Plymouth ...	82	1035·5	+6	E	1		36	92	4	-	-	-	0	0	-
	The Lizard ...	240	1034·2	+6	NE	2		40	86	8	8	-	-	4-6	4-6	2000
	Scilly (St.Mary's)	163	1034·3	+10	SE	2		43	75	8	5	-	-	4-6	4-6	1500
	Guernsey ...	175														
6	Pembroke ...	142	1035·2	+4	ENE	2		37	97	7	-	-	-	0	0	-
7	Holyhead(Valley)	26	1034·6	0	—	0		41	92	4	5	-	-	9+	9+	2100
	Chester(Sealand)	16	1034·8	+6	—	0		29	92	1	5	-	-	4-6	4-6	5000
8	Manchester ...	235	1035·2	+4	—	0		29	97	1	5	-	-	9	9	5700
10	Spurn Head ...	29	1032·9	+6	NW	3		39	92	5	-	3	-	2-3	2-3	4000
	Catterick ...	175	1034·1	+6	WNW	2		40	85	5	5	-	-	10	10	2700
	Tynemouth ...	108	1033·1	+6	WNW	4		40	85	6	2	-	-	9	9	2500
11	St. Abbs Head	280	1032·7	+4	WNW	2		43	85	6	5	2	-	7-8	10	2500
	Leuchars ...	36	1032·7	-2	W	2		37	92	7	-	3	-	0	9+	-
12	Renfrew (Abbotsl.)	19	1034·0	-2	W'S	1		34	97	5	-	-	-	0	0	-
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1034·6	+4	W'S	1		38	92	6	2	-	-	7-8	7-8	1500
13A	Tiree	22	1032·6	0	—	0		37	92	8	2	-	-	4-6	4-6	3500
13B	Stornoway ...	80	1031·8	+2	SSW	3		44	92	8	5	3	-	2-3	7-8	1000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	41	*	*	*	*	*	*	*	*
	Wick ...	119	1030·8	-6	WNW	1		42	85	8	5	-	-	9+	9+	5700
16	Sumburgh ...	30	1028·3	-4	NW	3		45	97	8	5	1	-	7-8	9+	1500
17	Blacksod Point	18	1033·5	0	SE'S	3		44	85	7	-	7	-	0	10	-
18	Malin Head ...	84	1034·4	-4	S'W	2		36	85	8	-	-	-	0	0	-
	Aldergrove ...	268	1036·0	0	—	0		24	97	2	-	-	-	0	0	-
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1033·5	0	ESE	3		45	75	8	5	-	-	10	10	4000
	Roches Point	22	1034·9	+2	E	3		42	85	8	5	-	-	4-6	4-6	2500

OBSERVATIONS at 7 hr. G.M.T. 30th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1034·1	+2	WSW	2		35	92	3	5	-	-	9+	9+	2500	3	*
	Croydon ...	1033·6	0	W	1		35	92	3	5	-	-	10	10	1300	1	*
	S. Farnborough	1034·7	0	W'N	1		35	92	4	5	-	-	10	10	4000	3	*
	Boscombe Down	1034·9	0	NNW	1		33	97	2	5	-	-	9	9	4500	1	*
	Thorney Island	1033·8	0	N	1		37	85	4	5	-	-	9+	9+	4100	0	*
	Lympne ...	1032·8	+4	NNW	2		34	97	1	-	-	-	10	10	<150	3	§2
	Manston ...	1033·0	+4	NNW	2		35	97	0	5	-	-	10	10	300	1	*
2	Shoeburyness ...	1033·5	+4	NW	3		34	97	2	-	-	-	10	10	<150	1	*
	Felixstowe ...	1033·0	+2	NW	3		34	97	1	-	-	-	10	10	<150	1	2
	Gorleston ...	1032·4	+4	WNW	2		31	97	1	5	-	-	4-6	4-6	200	3	2
	Mildenhall ...	1033·4	0	W'N	1		31	97	1	-	-	-	10	10	<150	3	*
	Cranwell ...	1033·5	-2	WNW	2		36	92	3	5	-	-	4-6	4-6	3000	1	*
3	Birmingham ...	1034·3	-2	NW	2		36	92	2	5	-	-	10	10	800	1	*
	Upper Heyford	1034·2	0	NNW	2		35	97	3	5	-	-	10	10	3100	3	*
4	Ross-on-Wye	1035·0	0	SW'ly	1		28	97	3	5	*	*	4-6	4-6	3000	3	*
5	Hartland Point	1034·5	0	ESE	2		36	75	8	-	-	-	0	0	-	1	3
	Bristol ...	1035·1	-4	NE	1		32	97	4	5	-	-	9+	9+	3500	3	*
	Portland Bill ...	1033·9	-4	NE	2		39	92	7	5	-	-	7-8	7-8	4000	1	3
	Plymouth ...	1035·5	+2	ENE	1		28	97	4	5	-	-	2-3	2-3	5000	0	1
	The Lizard ...	1034·4	-4	ENE	2		37	85	8	4	-	-	2-3	2-3	2500	0	3
	Scilly (St.Mary's)	1034·0	-2	SSE	3		43	75	8	5	-	-	4-6	4-6	1500	1	3
	Guernsey ...																
6	Pembroke ...	1035·9	0	NE'E	2		35	97	7	-	-	-	0	0	-	0	2
7	Holyhead(Valley)	1034·3	-2	—	0		33	97	5	5	-	-	1	1	2500	1	1
	Chester(Sealand)	1034·8	-2	—	0		32	97	0	-	-	-	10	10	<150	1	*
8	Manchester ...	1035·4	+2	—	0		28	97	0	-	-	-	10	10	<150	3	*
10	Spurn Head ...	1032·9	0	WNW	3		38	85	5	1	-	-	4-6	4-6	4000	1	2
	Catterick ...	1033·8	-2	NW	1		39	85	4	5	-	-	Tr	Tr	3000	1	*
	Tynemouth ...	1033·2	-2	WNW	4		39	92	6	2	-	-	9+	9+	2500	1	3
11	St. Abbs Head	1032·1	-2	WNW	3		43	85	7	4	4	-	2-3	2-3	2500	0	2
	Leuchars ...	1032·8	+2	WSW	2		34	97	8	5	-	1	1	4-6	4000	3	*
12	Renfrew (Abbotsl.)	1034·2	+2	—	0		31	97	1	-	-	-	10	10	<150	3	*
	Eskdalemuir ...	1035·1	+2	—	0		24	97	1	-	-	-	10	10	<150	3	*
	Point of Ayre...	1034·3	0	W'S	1		41	92	7	5	-	-	9+	9+	2000	0	1
13A	Tiree	1032·2	0	S	2		40	92	8	5	-	-	7-8	7-8	3500	0	3
13B	Stornoway ...	1030·8	-2	SSW	3		45	85	7	5	7	-	4-6	7-8	1000	1	1
15	Dalwhinnie ...	1033·7	+2	SW	1		38	75	7	5	2	-	7-8	10	1500	1	*
	Aberdeen ...	1031·4	-2	NW'W	2		43	75	7	5	-	-	9+	9+	1900	1	2
	Wick ...	1030·1	-2	WSW	4		42	85	6	5	-	-	10	10	1500	1	*
16	Sumburgh ...	1027·1	-6	NW	3		47	85	8	5	-	-	10	10	3500	1	3
17	Blacksod Point	1032·4	-4	SE	3		45	85	7	-	1	-	0	10	-	0	3
18	Malin Head ...	1033·9	-2	S	1		34	92	8	8	-	-	4-6	4-6	4000	0	1
	Aldergrove ...	1035·6	-2	—	0		25	97	0	-	-	-	10	10	<150	5	*
19	Birr Castle ...	1034·3	0	SE	1		27	97	8	5	1	-	7-8	10	2500	1	*
20	Valentia Obsy.	1032·4	-2	SE'S	4		45	75	8	5	-	-	10	10	4000	1	3
	Roches Point	1033·7	-2	SSE	3		46	75	8	5	-	-	9	9	2500	1	*

PAST 24 HOURS.

District	Stations	Temperatures. Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 29th Hrs. (36)
1	London (Kew)	36	34	25	Tr	Tr	0·0
	Croydon ...	37	33	27	Tr	Tr	2·8
	S. Farnborough	38	30	21	-	Tr	3·7
	Boscombe Down	37	28	24	-	-	6·1
	Thorney Island	40	31	23	•	-	*
	Lympne ...	36	33	30	-	0·1	4·7
	Manston ...	36	35	30	Tr	Tr	3·4
2	Shoeburyness ...	38	32	28	-	Tr	2·9
	Felixstowe ...	37	33	30	0·6	Tr	*
	Gorleston ...	37	31	29	•	Tr	*
	Mildenhall ...	34	30	20	Tr	0·1	1·0
	Cranwell ...	38	35	33	0·1	Tr	1·1
3	Birmingham ...	37	34	31	-	-	2·9
	Upper Heyford	35	33	*	-	-	*
4	Ross-on-Wye	38	27	20	-	-	0·2
5	Hartland Point	40	34	30	-	-	6·9
	Bristol ...	37	26	18	-	-	1·2
	Portland Bill ...	42	32	*	-	-	*
	Plymouth ...	44	28	20	-	-	6·9
	The Lizard ...	45	36	*	-	-	0·2
	Scilly (St.Mary's)	45	41	*	-	-	0·0
	Guernsey ...						
6	Pembroke ...	41	30	*	-	-	5·5
7	Holyhead(Valley)	41	32	28	-	-	*
	Chester(Sealand)	39	29	25	-	Tr	0·0
8	Manchester ...	33	28	23	-	-	*
10	Spurn Head ...	41	37	*	0·2	0·2	0·6
	Catterick ...	43	37	31	0·1	7	0·2
	Tynemouth ...	41	39	36	-	0·4	*
11	St. Abbs Head	43	41	*	Tr	-	*
	Leuchars ...	44	34	29	0·3	-	0·0
12	Renfrew (Abbotsl.)	45	27	21	-	-	2·3
	Eskdalemuir ...	43	24	18	-	-	3·3
	Point of Ayre...	45	37	*	-	-	1·5
13A	Tiree	46	35	*	-	-	5·6
13B	Stornoway ...	46	41	*	1	-	2·8
15	Dalwhinnie ...	39	33	28	0·1	Tr	0·0
	Aberdeen ...	41	37	33	0·5	0·2	0·0
	Wick ...	41	37	35	0·6	0·2	*
16	Sumburgh ...	43	43	39	-	0·6	1·8
17	Blacksod Point	45	43	*	-	-	*
18	Malin Head ...	42	31	*	-	-	0·0
	Aldergrove ...	32	21	19	0·3	-	0·0
19	Birr Castle ...	45	24	22	-	-	4·8
20	Valentia Obsy.	47	43	37	-	-	*
	Roches Point	48		*	Tr	-	*

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew...	18	oF bFx	bF, cfx	cfjmxc	36	34	25	Tr	Tr	0·0	*	*	2
Croydon	217	bmx bf		cmbcfd	37	33	27	Tr	Tr	2·8	*	*	2
Greenwich (Royal Observatory)...	149	bx8	bxcdf8	coff	35	35	27	Tr	-	1·1	77	94	2
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	38	34	30	0·1			93	89	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110			*	38	34	24	-	-	*	*	94	*
Kensington	80	o	c	*	36	33	26	-	-		68	90	*
Hampstead Observatory	450	bcf	bccf	*	36	33	26	-	-		68	90	*
		bcx	bcx	om	34	32	27	-	-		*	97	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 30th

South Kensington.

Max.	Time.	Min.	Time.

Kew Observatory.

Max.	Time.	Min.	Time.
1·5	11h 29th	0·4	0-3h 30th

FOREIGN OBSERVATIONS.

Evening of 29th December ..... Morning of 30th December,

Stations.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1013·1	SE	5	r3r0	46	1006·3	S	5	id0	47
Lisbon (18h and 07h)	1022·9	NNE	2	f	39	1022·6	NE	4	b0	34
Madrid (18h and 07h)										
Cairo (Heliopolis) (18h and 06h)	1018·9	SW	1	bc	58					
Toronto (13h and 01h)	1028·3	NW	2	bc/s	11					
Washington (13h and 01h)										

Past 24 Hours.

Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
*	*	*	*
50	32	-	-
68		-	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16. The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18. The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

COLUMNS 34, 35. Tr. = rain has fallen, but amount less than 0·1 mm.

¶ Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. † Sea disturbance reported from Dungeness.

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

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Wednesday 31st December 1941.
No. 29259

OBSERVATIONS at 13h. G.M.T. 30th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1034·7	+8	W'S	1	cf-	39	92	2	-	3	-	0	9	-
	Croydon	1034·6	-2	WNW	1	cf-	38	92	3	5	-	-	9+	9+	3000
	S. Farnborough	1035·3	-10	NW'N	1	z0	41	85	5	5	-	-	9+	9+	4000
	Boscombe Down	1035·9	-2	-	0	cf	37	92	3	5	-	-	10	10	2000
	Thorney Island	1034·8	-2	SW	1	m	42	85	4	5	4	1	Tr	Tr	5700
	Lympne	1033·5	-8	N	3	f	35	97	2	-	-	-	10	10	<150
	Manston	1033·9	-6	WNW	3	cf	37	97	3	5	-	-	10	10	100
2	Shoeburyness	1033·9	+10	WNW	3	cf.	37	97	3	5	-	-	10	10	500
	Felixstowe	1033·7	-6	WNW	3	f-	35	97	2	-	-	-	10	10	<150
	Gorleston	1032·8	-8	WNW	2	F	35	97	1	-	-	-	10	10	<150
	Mildenhall	1034·2	-2	WSW	2	cf	36	92	2	5	-	-	9	9	4000
	Cranwell	1034·1	-2	WNW	3	cf	39	85	3	5	3	-	7-8	9+	3000
3	Birmingham	1035·8	-2	NNW	3	f	37	97	2	-	-	-	10	10	<150
	Upper Heyford	1034·8	-6	NW	2	m	39	92	4	5	-	-	10	10	3000
4	Ross-on-Wye	1035·4	-4	W'S	1	cf-	34	85	3	5	-	1	9+	9+	3500
5	Hartland Point	1035·2	-2	SE	2	b	45	76	7	-	-	-	0	0	-
	Bristol	1035·7	+6	-	0	bcf+	41	85	3	-	3	2	0	2-3	-
	Portland Bill	1034·6	-4	NNE	2	c	43	85	7	5	7	-	4-6	10	4000
	Plymouth	1036·0	-2	-	0	bjf	41	85	4	-	-	-	0	0	-
	The Lizard	1033·8	-8	ESE	3	c	46	75	8	8	6	-	7-8	7-8	2500
	Scilly (St. Mary's)	1034·7	-2	SE'S	2	c	46	75	8	5	-	-	9	9	1500
	Guernsey														
6	Pembroke	1035·9	-2	ENE	2	z0	40	85	6	-	7	-	0	2-3	-
7	Holyhead (Valley)	1034·8	-6	S'W	2	cjp	45	85	7	8	-	-	4-6	9	1500
	Chester (Sealand)	1025·7	-2	SE	1	cf-	35	97	2	5	-	-	10	10	3300
8	Manchester	1035·7	-6	-	0	cF-	32	97	1	5	-	-	9+	9+	4500
10	Spurn Head	1033·2	-4	WNW	3	o	41	92	5	5	-	-	10	10	2500
	Catterick	1033·8	-10	-	0	m	43	75	4	-	3	2	0	4-6	-
	Tynemouth	1033·1	-2	W	3	bc	41	85	6	5	3	2	2-3	4-6	2200
11	St. Abbs Head	1032·1	-6	WNW	3	bc	41	85	7	4	4	1	2-3	4-6	2500
	Leuchars	1032·5	-6	WSW	1	z0	39	85	6	5	-	1	Tr	1	5000
12	Renfrew (Abbots I.)	1034·0	-6	-	0	F+	34	97	0	-	-	-	10	10	<150
	Eskdalemuir	1034·4	-8	-	0	fg	30	97	3	5	-	-	7-8	7-8	1500
	Point of Ayre	1034·7	0	WNW	3	b	46	75	8	1	-	2	Tr	1	4000
13A	Tiree	1031·7	-6	SW'S	3	c	46	92	8	5	-	-	9+	9+	2400
13B	Stornoway	1029·7	-8	SSW	3	c	46	85	8	8	7	-	7-8	9+	1500
15	Dalwhinnie	*	-4	WNW	2	c	38	85	8	5	3	-	7-8	9+	2500
	Aberdeen	1031·1	-6	WNW	2	c	45	75	6	5	-	8	9	9	2600
	Wick	1029·9	-4	WSW	3	c/r	43	92	8	5	3	-	7-8	9	3500
16	Sumburgh	1027·1	-2	NW	3	c/r	47	75	8	5	-	-	9+	9+	2500
17	Blacksod Point	1032·2	+2	SSE	3	c	44	85	7	-	7	-	0	10	-
18	Malin Head	1033·1	-6	S	1	c	40	75	8	8	-	-	7-8	7-8	2500
	Aldergrove	1035·6	0	-	0	bcf-	30	97	2	-	7	1	0	4-6	-
19	Birr Castle	1034·3	-10	SE	1	c	39	92	8	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1032·4	-6	SSE	4	o	47	75	9	5	-	-	10	10	4000
	Roches Point	1034·2	-2	S	4	c	47	65	8	5	-	-	9+	9+	2500

OBSERVATIONS at 18h. G.M.T. 30th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1034·7	+2	WNW	1	cf	39	85	2	5	-	-	10	10	4000	1	*
Croydon	1034·2	+2	WSW	1	cf+	38	92	2	5	3	-	4-6	9+	4500	1	*
S. Farnborough	1035·2	0	W'N	1	m	37	92	4	-	3	-	0	10	-	1	*
Boscombe Down	1035·3	-2	-	0	m	36	97	4	5	-	-	9+	9+	3000	1	*
Thorney Island	1034·7	+2	N'W	1	bf+	37	92	3	5	4	1	Tr	1	4000	0	*
Lympne	1033·4	-2	NW	2	cF+	35	97	1	5	-	-	9+	9+	4500	1	§ 2
Manston	1034·0	-2	WNW	1	cf+	35	97	2	5	-	-	7-8	9+	600	1	*
Shoeburyness	1033·6	-2	NW	3	cf+	38	85	3	5	-	-	9+	9+	4000	1	*
Felixstowe	1033·7	+2	NW'N	3	cf+	39	85	3	5	-	-	10	10	3700	1	2
Gorleston	1033·0	+2	NW	2	f	38	92	3	-	-	-	10	10	<150	1	2
Mildenhall	1033·9	-2	SW'W	1	cf+	37	92	2	5	-	-	10	10	4000	1	*
Cranwell	1034·0	+2	WNW	1	bf	36	85	2	-	-	-	0	0	-	1	*
Birmingham	1035·0	+2	NW	2	bf	36	92	2	5	-	-	Tr	Tr	2500	1	*
Upper Heyford	1034·8	+2	NW	1	cf+	36	97	2	5	-	-	7-8	7-8	4500	1	*
Ross-on-Wye	1035·0	0	E'S	1	cf	33	97	3	-	-	-	0	0	-	1	*
Hartland Point	1034·9	+2	SE	1	b	40	75	7	-	-	-	0	0	-	1	2
Bristol	1035·5	+4	-	0	cf+	38	92	3	5	-	-	9+	9+	3500	1	*
Portland Bill	1034·0	+2	NNE	2	bc	42	85	7	5	-	-	4-6	4-6	4000	1	3
Plymouth	1035·4	+2	-	0	bf+	36	92	2	-	-	-	0	0	-	1	2
The Lizard	1034·5	0	E'S	2	c	45	85	7	8	2	-	7-8	10	1500	0	2
Scilly (St. Mary's)	1034·3	-2	SE'S	2	bc	43	85	8	8	-	-	4-6	4-6	1500	1	3
Guernsey																
Pembroke	1035·3	0	NE'E	2	z0	39	92	5	-	-	-	0	0	-	0	0
Holyhead (Valley)	1034·3	-2	-	0	z0	38	97	6	1	3	-	2-3	4-6	4000	1	1
Chester (Sealand)	1035·0	+2	-	0	cF	36	92	1	5	-	-	9+	9+	3500	1	*
Manchester	1035·4	0	-	0	F-	34	97	1	-	-	-	10	10	<150	1	*
Spurn Head	1033·3	0	W'N	3	b	38	92	5	-	-	-	0	0	-	1	2
Catterick	1034·1	+2	SE	2	z0	36	85	5	-	-	-	0	0	-	1	*
Tynemouth	1032·1	-2	W	4	bc	37	75	6	2	-	-	2-3	2-3	2500	1	3
St. Abbs Head	1031·3	-2	SW	4	c	41	85	7	5	4	-	4-6	9+	2500	0	3
Leuchars	1031·8	-2	WSW	3	z0	38	85	6	5	-	-	9	9	4500	1	*
Renfrew (Abbots I.)	1033·5	-2	NNW	1	F	34	97	0	-	-	-	10	10	<150	1	*
Eskdalemuir	1034·0	-2	-	0	f	31	97	2	-	-	-	10	10	<150	3	*
Point of Ayre	1034·2	-2	NW'N	4	z0	43	85	6	5	2	-	7-8	10	2000	0	3
Tiree	1030·8	-2	SW'W	3	c	45	92	8	5	-	-	9+	9+	2500	0	3
Stornoway	1029·3	0	SSW	4	c	46	85	7	5	7	-	7-8	9+	2000	1	2
Dalwhinnie	1031·2	0	NE	1	o	38	85	7	5	2	-	7-8	10-	2500	1	*
Aberdeen	1031·6	-4	NW	2	cf+	42	92	2	-	3	-	0	7-8	-	1	2
Wick	1029·2	-6	SW'W	2	c/d	43	92	8	5	7	-	9+	10	2500	1	*
Sumburgh	1027·0	0	W	2	c/r	46	92	7	5	7	-	4-6	10	1500	1	3
Blacksod Point	1031·8	0	S'E	4	c	44	85	7	-	7	-	0	10	-	0	4
Malin Head	1032·7	-2	S	1	bc	38	85	8	3	-	-	2-3	2-3	4000	0	2
Aldergrove	1035·1	0	-	0	cf+	31	97	3	5	-	-	9+	9+	2500	3	*
Birr Castle	1034·1	+2	ESE	1	c	39	85	8	5	1	-	7-8	10	2500	1	*
Valentia Obsy. †	1032·0	+2	SSE	4	c	47	75	9	5	-	-	9+	9+	4000	1	3
Roches Point	1033·5	0	S'E	5	c	47	75	8	5	-	-	9+	9+	2500	1	

PAST 24 HOURS.

Stations	Weather 7h.—18h. 30th (37)	Weather 13h.—18h. 30th (38)	Weather 18h. 30th to 1h. 31st (39)	Weather 1h.—7h. 31st (40)
London (Kew)	fxFcf	cff	cfm	cmffw
Croydon	cfoF	cfbf	cfdr0, f	cf
S. Farnborough	cfxmbcem0	cbmbcem0	mfc	cfmw
Boscombe Down	cf	cm	cf	cfbF
Thorney Island	cmfbm	bm0bm	bfcmnjw	cm0wm0
Lympne	oFFf	cfFF	cFF	cff
Manston	oFf0	obcfF	cf	cfmm0
Shoeburyness	off	ofcmf	cfcf	cfbcfc
Felixstowe	oFof	ofcmcf	cfcf	cfbfof
Gorleston	bcoff	coff	off	ofx
Mildenhall	oFxbcf	cF	cfbfx	bfoFx
Cranwell	bcoff	cbff	bFx	bFxcf
Birmingham	f	ffmb	fb, cpr	fc, cpr0
Upper Heyford	cfcm	cmf	cFfbF0	bFcf
Ross-on-Wye	cf	cfmbf	bfxF	Fbcf
Hartland Point	b	b	b	bbcx
Bristol	cmbf	bcfcf	bf, F	oF
Portland Bill	c	cbc	c0	c0
Plymouth	bmjf	bmjfbfw	bfx	bfox
The Lizard	c	c	*	c0
Scilly (St. Mary's)	bcc	cbc	*	c
Guernsey				
Pembroke	bcm0	bcbm0	bbcm	bcm
Holyhead (Valley)	bmxc	cbm0	bcprm0	cm0
Chester (Sealand)	cff	cffF	cffg	cfm
Manchester	oFx	cFoFe	cFwf	cfm
Spurn Head	om0	bm0	bmx	fbm
Catterick	cm0bcm	bcmcbm0	bcfcfx	cfxbm
Tynemouth	cbc	bcm0	bcc	c
St. Abbs Head	bc	bcc	oc	c
Leuchars	bcbm0	bcm0cm0	cm0ccm0	cmfm0
Renfrew (Abbots I.)	oF	oFe	oFecf	cfcm
Eskdalemuir	oFxcbc	bccofx	ofx	ofx
Point of Ayre	cbcb	bbccz0	c	c
Tiree	c	c	c	c
Stornoway	cproid	cpr	cpr	c
Dalwhinnie	oc	co		cid0o
Aberdeen	cz0	cz0cf	cf	cfcz
Wick	cm0r0c	d0d0id0c	c	c
Sumburgh	iRr0r0c	cr0r0c	c	cbc
Blacksod Point	c	c	c	bc
Malin Head	q	c	bc	c
Aldergrove	cFoFox	oFxm	cm0	cm0c
Birr Castle	bcc	bc	*	bc
Valentia Obsy. †	c	c	c	c
Roches Point	bcc	bcc	bc	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/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.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_0, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸗gale.
⊕ Solar halo. ⦶ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
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.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. 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: similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (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.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or 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 cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations —
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

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

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

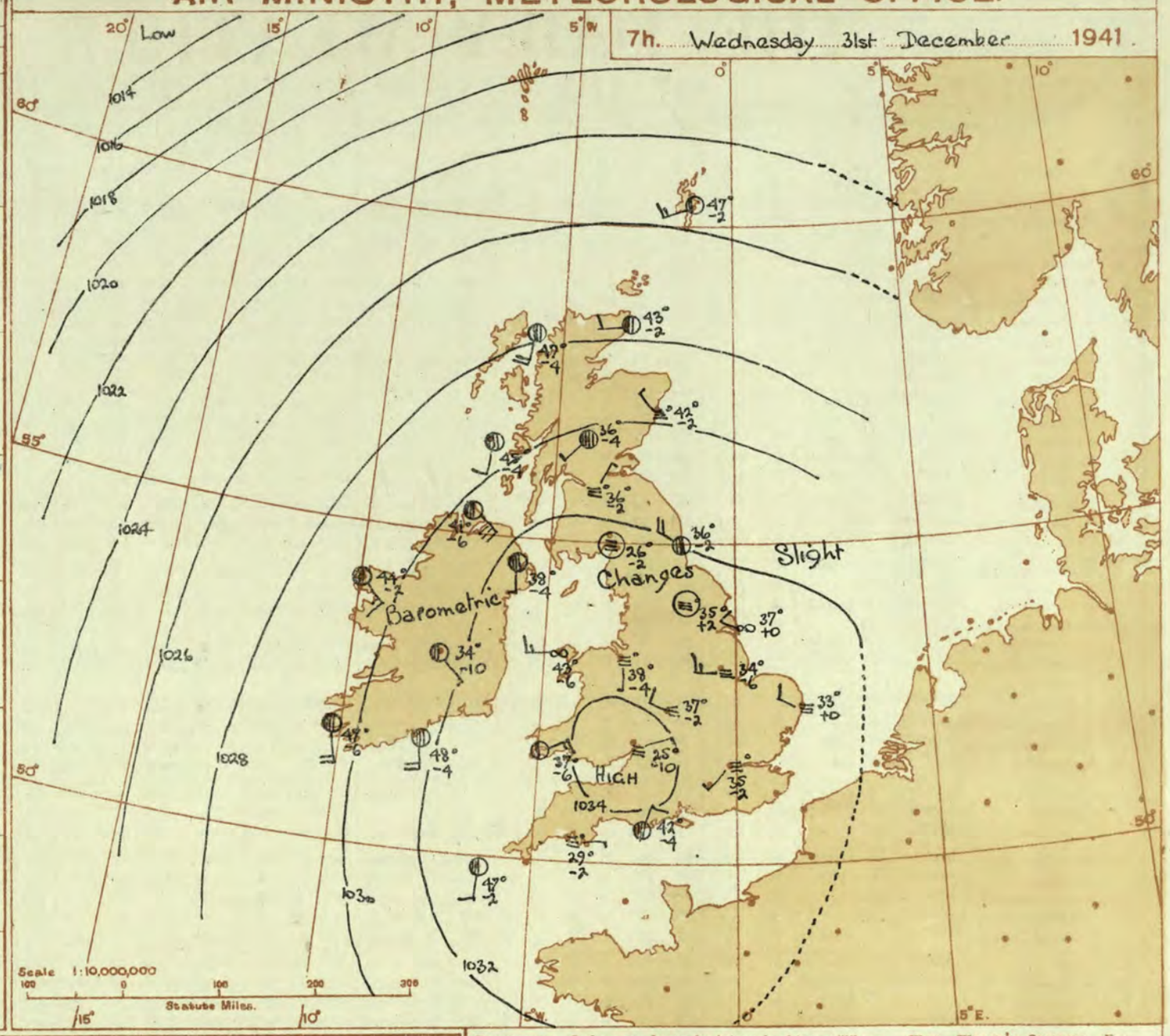
AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday 31st December 1941.

Abridged observations of additional stations in the AVIATION WEATHER CODE

III	13h. G.M.T. 30th Dec.: $C_L C_M$	wwVhN$_h$	DDFWN	18h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN	01h. G.M.T. 31st Dec. $C_L C_M$	wwVhN$_h$	DDFWN	07h. G.M.T. $C_L C_M$	wwVhN$_h$	DDFWN
109	8-	25847	23467	5-	52658	24368	5-	02757	23427	5-	51758	22428
115	52	02844	20427				55	02844	20427	52	02834	20487
203				5-	03838	20528				5-	03838	20528
206	8-	02867	22267	5-	02867	22327	5-	02868	22228	5-	02868	22228
210	5-	02866	20326	57	02864	20327	57	02764	20323	5-	02768	22228
220				52	02645	20428				52	03445	21328
230	57	51855	00028	57	51647	20358	5-	05658	20128	5-	02758	00028
245	50	01764	24215	5-	05678	24328	53	05661	24226	5-	03778	24218
260	00	43290	30161	5-	08468	22128	53	05562	22147	57	05666	24127
278	07	05790	26242	03	00690	22214	5-	05665	20215	5-	05668	22228
279	9-	08456	08146	--	46109	00049	--	48109	00049	--	44309	08149
285	23	05634	30415	23	05635	28816	5-	08458	12228	50	01744	30314
288	00	05690	19114	00	46890	28140	5-	05567	20127	57	08465	19226
296	--	46109	00049	5-	08447	10147				5-	02758	12228
301	5-	45167	00047	5-	45165	12146	5-	45058	12148	53	05653	28147
321	07	41490	25145	00	45290	26143	00	43230	23241	5-	47368	24248
299				50	05651	31201	5-	01754	25214	5-	05658	25228
292	00	26226	33841	00	05690	27114	5-	05563	28328	57	05665	28147
310	--	46209	24229	--	01634	24344				--	48209	26219
614	08	05690	28247	00	47290	26112	5-	43078	24248	5-	45268	24148
333	7-	01554	20114	00	08490	00004	5-	47358	00018	5-	51668	00058
334	--	46109	00014	--	04447	30217				--	02664	00016
340	5-	05548	01148	5-	45358	26148	5-	05558	16148	5-	05568	00028
136	5-	43267	25247	5-	45268	24248	--	48109	24149	5-	47368	22248
336	--	46209	04249	--	46109	08249				--	46209	04349
350	07	08490	20143	5-	47267	26247	--	46009	24249	5-	03268	20248
368	00	05690	00000	00	47390	00000	00	47290	32140	--	46009	00049
379	5-	05657	30127	03	08490	28125	00	05590	32220	5-	05558	32328
390	03	47390	26244	5-	45258	27248	5-	46267	26247	5-	43368	24248
382	5-	41458	26248	5-	45368	00048	00	45090	00040	5-	08458	00048
438	50	04401	32141							5-	02657	32327
430	53	08461	30223	03	08490	32213	5-	05568	30218	5-	05568	00028
409	00	05790	16100	50	05661	06101	00	05790	07200	50	01768	03318

III = Index Number of Station—See M.O. 252 or list issued on 1st of each month.
ww, W = Present and past weather—See M.O. 252.
h, N_h = Height and amount of low cloud—See M.O. 252.
N = Total amount of cloud—See M.O. 252.
$C_L C_M$ = Form of low and medium cloud—See page 1.
V = Visibility. F = Force of wind—See page 4.
DD = Direction of wind (8 = E, 16 = S, 24 = W, 32 = N).



BAROMETER. Isobars are drawn for intervals of two millibars. WIND, WEATHER SYMBOLS. For explanation see opposite page. SEA DISTURBANCE. ~ Rough. ≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. Wed. 31st December 1941
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Calm to light variable breeze; much fog and mist, partially clearing in rural areas but persisting in or near large towns and industrial areas with thick or dense patches. Cold with frost morning and night.
5 S.W. England 6 South Wales ... 7 North Wales ...	Light variable to southerly breeze; fair apart from a little local fog; rather cold; frost at night inland.
8 N.W. England 9 N. Midlands ...	As 1-4.
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	Light to moderate west to southwest winds; fair but mainly cloudy; rather mild in most areas.
15 N. E. Scotland 16 Orkneys and Shetlands	Moderate southwest winds; cloudy; some occasional slight drizzle; mild.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light or moderate south wind; fresh locally; cloudy, rather mild.

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.

GENERAL INFERENCE.

A large anticyclone covers the British Isles. Weather will be foggy in many parts of England and East Wales although the fog will partially clear in rural areas during the day. In Scotland and Ireland weather will be mainly cloudy but dry. Conditions will be mild in Scotland but frost will persist in foggy areas.

FURTHER OUTLOOK.

Cold and rather foggy over most of England. Probably some rain later in West Ireland.

Forecasts issued at 10.30h.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Meteorological Office Dunstable.

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 at the foot of page 2.)

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.

Ffontogenesis. 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.

Morning of

Wednesday 31st December

1941.

Clarke's Projection Scale 1: 4×10^7 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. (T) Thunderstorm. E Slight haze. ⌓ Thunder.

Hours of observation :—Azores, Greenland, Ships, oh. G.M.T. America and Europe, mainly 1h, G.M.T.; U.S.S.R. (Europe and Asia), 1h, local time.

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

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 31st December 1941.

No 29259

OBSERVATIONS at 1 hr. G.M.T. 31st December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	38	*	*	*	*	*	*	*	*
	Croydon ...	217	1034·0	-2	W'S	1		37	97	3	5	–	–	10	10	1800
	S. Farnborough	226	1034·8	-2	WNW	1		37	92					10	10	4500
	Boscombe Down	417	1035·3	-2	NW	1		36	97		5	–	–	9+	9+	3000
	Thorney Island	10	1034·5	-4	NW	1		38	92		5	–	–	10	10	3800
	Lympne ...	346	1033·2	-4	NW	1		36	97	2	5	–	–	10	10	5500
	Manston ...	154	1033·1	-2	NW	3		38	92	2	5	–	–	10	10	3500
2	Shoeburyness ...	11	1033·6	-2	N	1		38	85	2	5	–	–	7-8	10	7200
	Felixstowe ...	15	1033·4	-2	NW	3		37	92		5	–	–	9+	9+	4500
	Gorleston ...	5	1032·6	0	WNW	2		35	92	2	–	–	–	10	10	<150
	Mildenhall ...	19	1033·8	-2	SW	2		31	97	2	–	–	–	0	0	–
	Cranwell ...	240	1033·7	-4	W'S	3		29	97	–	–	–	–	0	0	–
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1034·9	+2	–	0		29	97	0	–	–	–	0	0	–
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1034·2	-6	SE	2		37	85	7	–	–	–	0	0	–
	Bristol ...	209	1035·6	-2	–	0		30	97	1	–	–	–	0	0	–
	Portland Bill ...	32	1033·9	-4	NNE	1		42	85	7	5	–	–	10	10	2500
	Plymouth ...	82	1035·1	-6	–	0		29	97	3	–	–	–	0	0	–
	The Lizard ...	240	1033·9	-6	E	3		45	75	7	8	2	–	7-8	10	1500
	Scilly (St.Mary's)	163	1033·5	-8	SE'E	2		47	75	8	5	–	–	10	10	1500
	Guernsey ...	175														
6	Pembroke ...	142	1034·6	-12	NNE	2		37	97	5	2	–	–	1	1	1500
7	Holyhead(Valley)	26	1036·6	-2	S'W	4		44	92	6	–	–	–	10	10	2800
	Chester(Sealand)	16	1034·1	-4	SE'E	1		38	85	2	5	–	–	10	10	2300
8	Manchester ...	235	1034·3	-4	–	0		36	97	2	5	–	–	10	10	2500
10	Spurn Head ...	29	1032·6	-4	WNW	3		36	97	5	–	–	–	0	0	–
	Catterick ...	175	1032·8	-8	W'N	3		37	85	3	–	3	–	0	9+	–
	Tynemouth ...	108	1032·2	-2	NW	4		38	85	6	8	–	–	9+	9+	2500
11	St. Abbs Head	280	1031·5	0	NW'W	2		43	85	7	5	7	–	4-6	9+	2500
	Leuchars ...	36	1031·0	-6	W	3		38	85	6	5	3	–	2-3	10	3000
12	Renfrew (Abbots I.)	19	1033·1	0	WSW	1		34	97	3	5	–	–	10	10	4500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1033·6	0	NW'W	3		42	75	8	5	–	–	10	10	2500
13A	Tiree	22	1030·8	0*	SW'S	6		48	92	8	5	–	–	9	9	3500
13B	Stornoway ...	80	1028·7	-6	SSW	4		46	92	7	5	7	–	7-8	9+	2000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	43	*	*	*	*	*	*	*	*
	Wick ...	119	1028·8	-2	W	3		43	85	8	–	3	–	0	9	–
16	Sumburgh ...	30	1026·3	-6	W	3		47	97	7	5	7	–	9	9+	1800
17	Blacksod Point	18	1030·5	-2	SE	2		45	85	7	–	7	–	0	10	–
18	Malin Head ...	84	1031·6	-4	S	3		40	75	8	7	–	–	7-8	7-8	5700
	Aldergrove ..	268	1033·9	-6	S	1		36	92	6	5	–	–	9+	9+	3000
19	Birr Castle ...	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	Valentia Obsy.	30	1030·8	-6	SE'S	4		46	75	9	5	–	–	9+	9+	4000
	Roches Point	22	1032·5	-6	SE	4		47	75	8	5	–	–	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 31st December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force. 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1033·7	-2	SW	1		37	97	3	5	–	–	10	10	4000	1	*
	Croydon ...	1033·5	-2	SW	1		35	97	3	5	–	–	10	10	6000	1	*
	S. Farnborough	1034·0	-4	W'S	1		35	97	4	5	–	–	10	10	3800	1	*
	Boscombe Down	1034·7	0	N	1		32	97	1	5	–	–	1	1	500	1	*
	Thorney Island	1033·7	-4	N	1		38	92	5	5	–	–	10	10	4300	1	*
	Lympne ...	1033·0	+2	NW	2		37	92	3	5	–	–	10	10	5500	1	§ 2
	Manston ...	1033·1	0	NW	2		37	92	5	5	–	–	10	10	5300	1	*
2	Shoeburyness ...	1033·3	0	W'N	2		35	92	3	5	–	–	10	10	4000	1	*
	Felixstowe ...	1032·1	-10	NW'W	3		34	97	2	–	–	–	10	10	<150	1	2
	Gorleston ...	1032·6	0	NW'W	2		33	92	2	–	–	–	10	10	<150	5	2
	Mildenhall ...	1032·9	-6	SW'W	2		32	97	2	–	–	–	10	10	<150	3	*
	Cranwell ...	1032·6	-6	W	3		34	97	3	5	–	–	10	10	3000	1	*
3	Birmingham ...	1033·3	-2	WNW	2		37	85	3	5	–	–	9+	9+	2500	1	*
	Upper Heyford	1034·1	-2	–	0		32	97	3	5	–	–	10	10	3300	1	*
4	Ross-on-Wye	1034·1	-10	ENE	1		25	97	3	5	–	–	9	9	2500	5	*
5	Hartland Point	1033·4	-4	ENE	2		39	75	7	–	4	–	0	2-3	–	1	2
	Bristol ...	1034·9	+2	–	0		27	97	1	–	–	–	10	10	<150	1	*
	Portland Bill ...	1.22·7	-4	NNE	2		42	85	7	5	–	–	10	10	2500	1	3
	Plymouth ...	1034·4	-2	E	1		29	97	4	1	–	–	0	0	–	0	2
	The Lizard ...	1033·3	-2	SE	3		46	65	7	5	–	–	10	10	1500	0	3
	Scilly (St.Mary's)	1032·5	-2	S	2		47	75	8	5	–	–	10	10	1500	1	3
	Guernsey ...																
6	Pembroke ...	1033·7	-6	ENE	3		37	97	5	2	–	–	2-3	2-3	4000	1	2
7	Holyhead(Valley)	1033·7	-6	E	3		43	92	6	5	–	–	10	10	1600	1	3
	Chester(Sealand)	1033·3	-4	S	1		38	92	4	5	–	–	10	10	3300	1	*
8	Manchester ...	1033·8	-2	–	0		36	97	4	5	–	–	10	10	3000	1	*
10	Spurn Head ...	1032·0	0	NW'W	3		37	92	5	1	–	–	0	0	–	1	2
	Catterick ...	1032·7	+2	–	0		35	85	4	5	–	–	1	2-3	2500	1	*
	Tynemouth ...	1031·8	-2	NW	4		36	85	6	8	–	–	9+	9+	2500	1	3
11	St. Abbs Head	1030·7	-4	WNW	3		42	97	7	5	7	–	9	10	2500	0	2
	Leuchars ...	1030·6	-2	WSW	2		37	92	6	5	7	–	1	9	3000	1	*
12	Renfrew (Abbots I.)	1032·2	-2	NNE	1		36	97	4	5	–	–	10	10	3000	1	*
	Eskdalemuir ...	1033·6	-2	–	0		26	92	3	1	–	–	10	10	<150	3	*
	Point of Ayre...	1032·9	-4	NW'W	3		43	75	8	5	–	–	10	10	2500	0	3
13A	Tiree	1030·4	-4	SSW	2		45	92	8	5	–	–	9+	9+	3500	0	3
13B	Stornoway ...	1027·8	-4	SSW	4		47	85	7	5	7	–	7-8	9+	2000	1	2
15	Dalwhinnie ...	1030·0	-4	SW	1		36	92	7	5	–	–	10	10	1500	1	*
	Aberdeen ...	1029·9	-2	NW	1		42	85	4	5	–	–	10	10	2300	1	*
	Wick ...	1028·3	-2	W'S	2		43	85	8	5	–	–	9+	9+	7200	1	*
16	Sumburgh ...	1026·2	-2	WSW	3		47	97	7	5	7	–	4-6	4-6	2000	1	4
17	Blacksod Point	1029·1	-2	SE	3		44	92	7	4	–	–	4-6	4-6	2500	0	4
18	Malin Head ...	1030·8	-6	SE'S	6		41	75	8	4	–	–	4-6	4-6	4000	0	2
	Aldergrove ..	1032·9	-4	S	1		38	85	7	5	–	–	10	10	2800	3	*
19	Birr Castle ...	1031·6	-10	SE	1		34	97	8	–	4	–	0	2-3	–	1	*
20	Valentia Obsy.	1029·8	-6	S'E	4		47	65	8	5	–	–	9+	9+	4000	1	3
	Roches Point	1031·7	-4	S	4		48	75	8	5	–	–	9+	9+	2500	1	*

PAST 24 HOURS.

District	Stations	Temperatures. Max. Day 7h–18h °F. (31)	Temperatures. Min. Night 18h–7h °F (32)	Temperatures. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 30th Hrs. (36)
1	London (Kew)	39	36	31	-	–	0·0
	Croydon ...	39	35	33	-	Tr	0·0
	S. Farnborough	42	35	32	-	–	2·1
	Boscombe Down	38	32	23	-	–	0·0
	Thorney Island	45	32	23	-	–	*
	Lympne ...	38	35	31	-	–	0·0
	Manston ...	37	34	30	0·4	–	0·0
2	Shoeburyness ...	40	33	29	-	–	0·3
	Felixstowe ...	40	32	30	-	–	0·0
	Gorleston ...	38	30	29	-	–	*
	Mildenhall ...	38	29	20	Tr	Tr	0·0
	Cranwell ...	46	28	25	-	0·1	0·7
3	Birmingham ...	40	34	23	-	0·1	0·0
	Upper Heyford	40	27	27	-	–	*
4	Ross-on-Wye	36	25	22	-	–	0·1
5	Hartland Point	45	35	30	-	–	6·8
	Bristol ...	42	26	22	-	–	2·0
	Portland Bill ...	44	38	*	-	–	*
	Plymouth ...	46	27	20	-	–	5·6
	The Lizard ...	48	41	*	-	–	1·6
	Scilly (St.Mary's)	48	43	*	-	–	1·2
	Guernsey ...						
6	Pembroke ...	42	33	*	-	–	6·1
7	Holyhead(Valley)	45	38	35	-	0·1	*
	Chester(Sealand)	37	36	33	-	–	0·0
8	Manchester ...	35	33	33	Tr	–	*
10	Spurn Head ...	41	35	*	-	–	0·0
	Catterick ...	44	34	23	-	–	3·2
	Tynemouth ...	44	36	34	-	–	**
11	St. Abbs Head	43	42	*	-	–	*
	Leuchars ...	39	35	32	-	–	2·6
12	Renfrew (Abbots I.)	34	33	29	-	Tr	0·0
	Eskdalemuir ...	33	25	24	-	–	0·3
	Point of Ayre...	47	40	*	-	–	3·7
13A	Tiree	46	43	*	-	–	0·0
13B	Stornoway ...	47	44	*	0·3	0·3	0·0
15	Dalwhinnie ...	38	36	34	-	Tr	0·0
	Aberdeen ...	45	38	34	-	–	0·3
	Wick ...	44	41	40	0·1	–	*
16	Sumburgh ...	47	47	43	2	–	0·0
17	Blacksod Point	46	43	*	-	–	*
18	Malin Head ...	42	34	*	-	–	0·0
	Aldergrove ..	31	30	31	-	–	0·0
19	Birr Castle ...	40	31	27	-	–	*
20	Valentia Obsy.	48	46	43	-	–	*
	Roches Point	48		*	-	–	**

LONDON OBSERVATIONS

Day 7h—18h. Kew & Croydon.
9h—18h. Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
KEW	18				39	36	31	-	-	0·0	*	*	2
CROYDON	217				39	35	33	-	Tr	0·0	*	*	4
GREENWICH (Royal Observatory)...	149				39	36	28	-	-	0·0	88	91	3
CITY (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
WESTMINSTER (St. James' Park) ...	27	*	*	*	41	36	33	-			*	95	*
REGENTS PK. (Botanic Gardens)†...	168	*	*	*	41	34	32	-	-		83	91	*
CAMDEN SQUARE	110				40	37	32	-	-	*	*	91	*
KENSINGTON	80				40	36	32	-	-		88	92	*
HAMPSTEAD OBSERVATORY	450				41	33	32	-	-		*	95	*

FOREIGN OBSERVATIONS.

Stations	Evening of 30th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Morning of 31st December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.
Reykjavik (18h and 07h)	1006·9	S	2	c	44					
Lisbon (18h and 07h)	1021·2	NE	3	z_0	45	1021·5	NNE	4	b	39
Madrid (18h and 07h)	1004·5	S'E	2	*	39	1005·1	NNE	2	b	30
Cairo (Heliopolis) (18h and 06h)	1020·0	NE	1	b	56	1021·6	–	0	bf–	46
Toronto (13h and 01h)										
Washington (13h and 01h)										

Past 24 Hours.	Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
	*		*	
	48	36	–	–
	*	41	*	–
	66	45	–	–

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 31st

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
1·4	9h 30th	0·1	1h 31st

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

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

† Pressure at 1,000 dynamic metres level. ‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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