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METEOROLOGICAL OFFICE.

DAILY WEATHER REPORTS.

1ST JANUARY—30TH JUNE,

1891.

Soc. Reg. Lond.

26.4.92

DAILY WEATHER REPORT.

January to June 1891.

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DAILY WEATHER REPORT.

for THURSDAY 1st JANUARY. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...														*			
	Hernösand ...	30.03	43	NW	8	b	30.10	−.06	42	41	?	NW	6	bc	*	45	27	—
	Stockholm ...	30.23	27	W	4	0	30.24	−.24	26	24	+5	W	2	b	*	28	12	—
	Wisby	30.34	32	W	6	0	30.25	−.33	36	34	+6	N	6	b	*	36	27	—
	Bodö	30.00	41	WSW	6	0	29.96	+.05	41	?	−1	SW	8	r	5	43	39	0.08
	Christiansund	30.49	39	WSW	6	r	30.38	−.18	39	37	0	SW	1	c	5	39	39	0.08
	Skudesnaes ...	30.51	24	S	0	b	30.38	−.29	38	32	+9	SE	4	0	2	?	21	—
	Christiania Fjord (Færder)	30.45	22	N	2	b	30.41	−.21	22	21	+1	NNW	1	b	1	23	21	—
	Skagen (The Scaw)	30.52	26	SW	1	b	30.39	−.27	23	22	+1	S	0	b	0	27	21	—
	Fanö	30.52	17	E	2	b	30.44	−.17	15	15	−3	E	1	f	*	23	14	—
BRITISH ISLANDS.	Sumburgh Head	30.53	38	SE	2	c	30.33	−.30	39	38	+1	SE	2	0	3	41	37	—
	Stornoway ...	30.31	38	SE	6	bc	30.15	−.32	41	39	+2	SE	4	c	4	41	35	—
	Wick	30.46	39	SE	5	bc	30.28	−.30	41	39	+2	SE	4	0	6	42	37	—
	Nairn	30.39	39	E	3	0	30.21	−.29	38	37	+2	S	0	c	1	39	34	—
	Aberdeen ...	30.44	39	SE	5	0g	30.27	−.27	40	37	+2	SE	3	0g	5	40	38	—
	Leith	30.34	38	E	4	0	30.20	−.22	38	36	0	E	3	0	*	39	36	—
	Shields	30.31	39	E	4	0	30.23	−.13	38	37	+1	S	1	0	4	39	35	—
	Spurn Head ...	30.20	34	E	5	c	30.22	−.07	36	36	+5	E	1	0f	4	36	30	0.02
	York	30.26	33	E	2	0	30.23	−.10	35	34	+5	NE	1	0	*	35	30	0.01
	Loughborough	30.18	30	ENE	2	0	?30.21	−.07	33	32	+10	NE	1	0gm	*	33	23	—
	Ardrossan ...	30.26	35	ENE	4	b	30.14	−.20	38	36	+1	ENE	3	c	2	38	33	—
	Malin Head ...	30.13	36	SSE	6	b	30.03	−.22	38	37	−1	SSE	3	0	2	39	33	—
	Mullaghmore ...	30.08	35	ENE	6	cm	29.98	−.19	41	39	+6	SSE	5	0	3	41	37	—
	Belmullet ...	30.06	33	E	5	b	29.90	−.24	38	38	+3	SSE	5	0u	*	38	31	0.03
	Donaghadee ...	30.20	38	E	6	bc	30.10	−.15	42	41	+4	ESE	6	0	5	42	35	—
	Liverpool (Bidston)	30.16	31	E	5	0	30.17	−.05	33	32	+8	ESE	3	0	2	34	25	—
	Holyhead ...	30.11	31	E	6	0mg	30.06	−.13	39	38	+13	E	1	cg	2	39	26	0.01
	Parsonstown ...	30.01	31	S	0	0	29.98	−.15	40	39	+13	SE	2	0	*	41	26	0.11
	Valencia	29.87	36	ENE	5	0m	29.90	−.09	45	43	+11	NW	3	0	0	49	34	0.12
	Roche's Point ...	29.91	37	ESE	6	8	29.92	−.11	46	44	+17	SSE	6	c	5	46	29	0.30
	Pembroke (St. Ann's Hd.)	29.97	32	E	4	c	30.03	−.04	39	38	+15	ESE	5	m	4	39	22	—
	Scilly	29.78	43	E	7	0	29.92	+.10	47	47	+8	ESE	4	0r	5	47	37	0.04
	Prawle Point ...	29.94	40	E	6	r	30.04	+.07	44	44	+17	ENE	4	cm	3	44	27	0.02
	Jersey (St. Aubin's)	29.94	34	E	3	cr	30.06	+.12	40	38	+9	ESE	3	bm	3	42	30	0.02
	Hurst Castle ...	30.02	32	E	7	mothf	30.10	+.01	37	36	+13	ENE	5	mc	4	37	24	—
	Dungeness ...	30.08	32	ENE	4	0	30.16	+.05	38	37	+10	SSE	3	c	2	38	27	0.07
	London	30.12	32	E	4	0	30.17	0.0	33	32	+8	E	1	fg	*	34	25	0.02
	Oxford	30.12	32	NE	3	0	30.18	−.03	34	33	+12	NE	1	0	*	34	22	0.03
	Cambridge ...	30.20	31	E	2	0	30.22	−.04	34	34	+8	E	1	0	*	35	25	0.01
	Yarmouth ...	30.19	32	ESE	6	c	?30.21	−.05	37	36	+8	SE	4	c	4	37	28	0.03
GERMANY & HOLLAND.	Cuxhaven ...	30.50	17	E	3	0	30.45	−.12	15	13	+2	SE	2	m	*	20	13	—
	Berlin	30.56	9	E	3	b	30.48	−.15	9	7	+6	E	2	b	*	12	?	—
	Wiesbaden ...	*	*	*	*	*	30.38	+.02	19	18	−1	NE	2	b	*	29	18	—
	Munich	30.32	12	S	0	b	30.30	0.0	4	3	−1	E	2	b	*	19	1	—
	The Helder ... †	30.32	17	E	2	b	30.30	−.10	16	16	+4	E	1	b	1	18	12	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.22	−.01	32	29	+20	ESE	4	b	*	36	12	—
	Cape Gris Nez	30.06	28	ESE	3	m	30.14	+.02	34	32	+19	SE	2	0	0	?	19	—
	Paris	30.07	38	ESE	2	r	30.17	+.13	29	28	+5	E	1	bc	*	39	?	—
	Brest	29.76	37	E	5	0	29.96	+.13	42	41	+13	E	4	bc	4	?	?	0.08
	Lorient	29.67	26	ENE	4	bc	29.56	+.23	40	38	+13	E	4	bc	2	?	26	—
	Rochefort ...	29.86	44	SE	3	0	29.94	+.21	39	38	+8	E	4	b	?	45	32	0.12
	Belfort														*			
	Lyons	30.16	31	N	1	0	30.24	+.11	35	35	0	N	1	b	*	42	24	—
	Nice	30.23	47	E	5	0	30.17	−.06	50	44	+8	E	5	c	4	50	42	—
	Perpignan ...	30.06	52	S	2	r	30.04	+.07	51	51	+4	SE	2	r	*	59	?	0.24
	Biarritz	29.80	56	SE	3	b	29.88	+.13	46	42	−8	SSE	3	b	2	61	43	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	29.59	53	SSE	4	b	29.61	−.01	50	50	+1	ENE	4	0	?	54	48	0.03

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on 1st January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

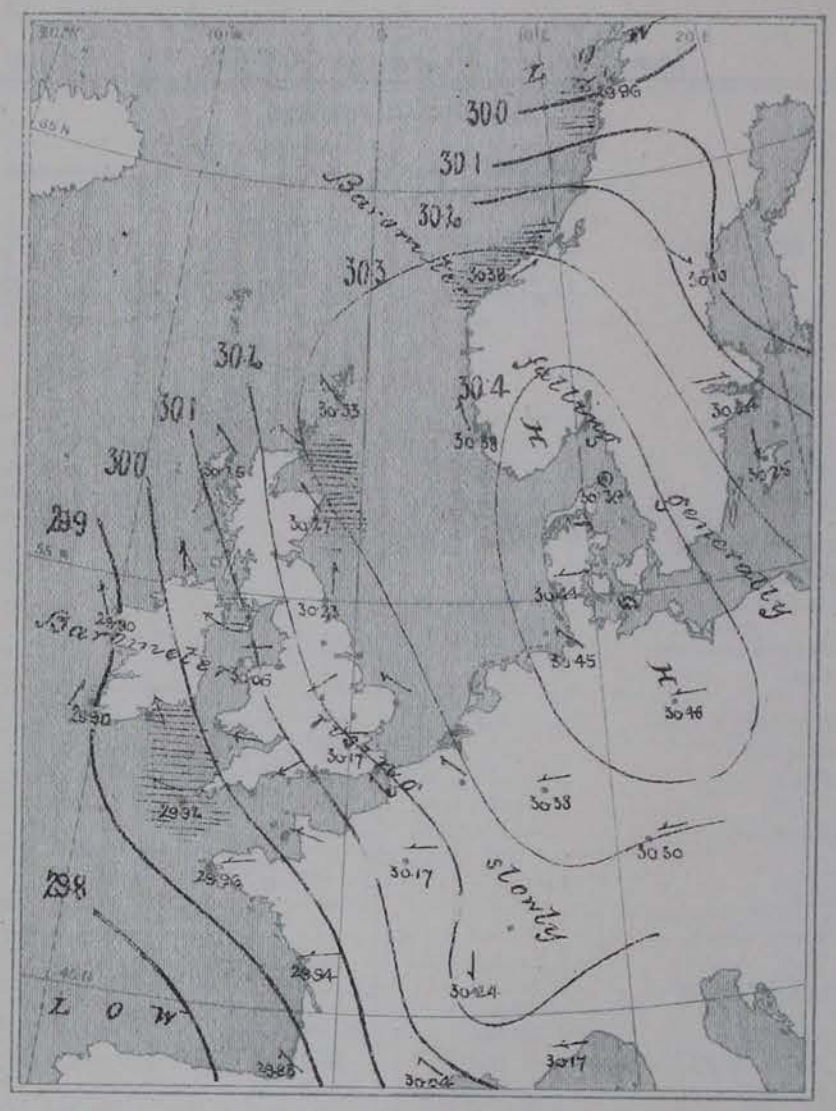
BAROMETER—*Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.*

WIND—*Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—*

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
C = dead calm.

SEA DISTURBANCE—*Where considerable, is shewn thus:*

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

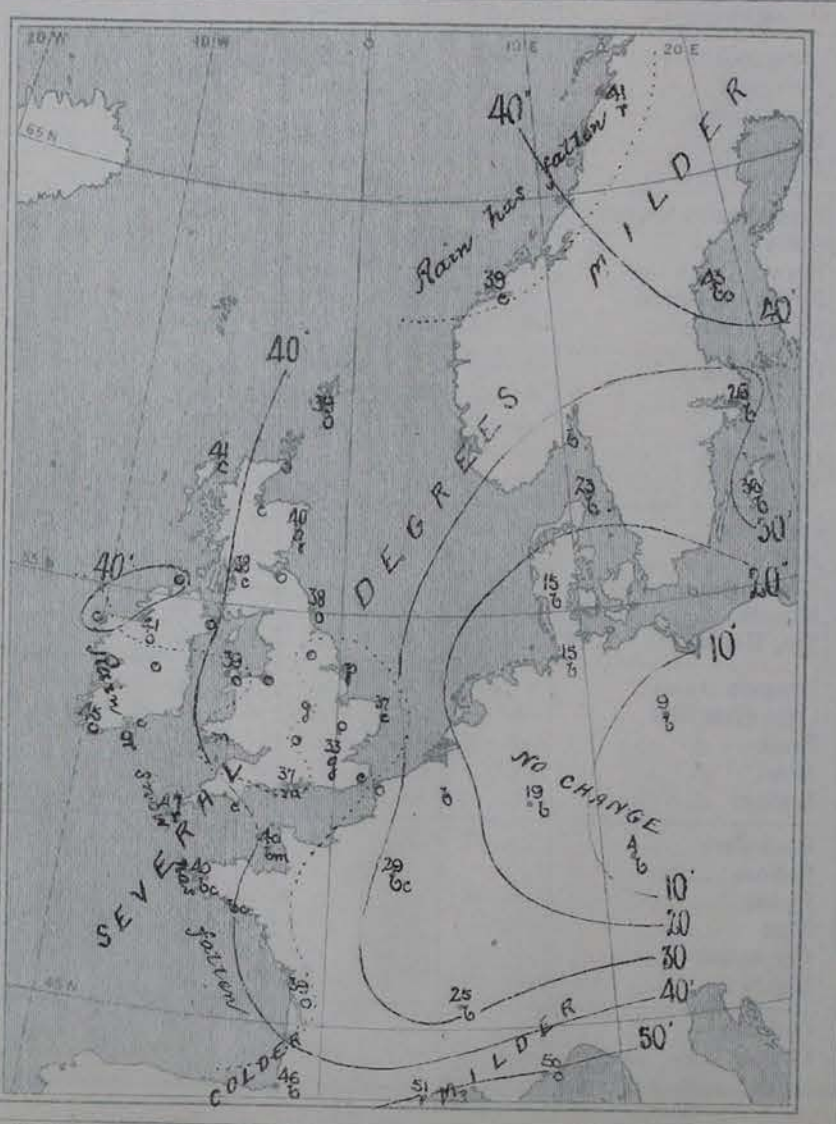
STATIONS.	MEAN READINGS.
	ins.
Sumbargh Head	29 · 673
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—*Isotherms are drawn for each 10°. Changes since previous morning are stated in words.*

WEATHER *is shewn by Letters of the Beaufort Scale.*

RAINFALL—*A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.*



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 36
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	35 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 23
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	46 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	46 · 4	44 · 9	5 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 5	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	45 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 1	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins. to 30·2 ins. in an anticyclone lying over the North Sea, Scandinavia, Denmark, Germany, and the east of France.
Lowest, (1) 30·0 ins. and less, over Lapland; (2) 29·3 ins. and less, off the west of Ireland; (3) 29·7 ins. and less, over the southwestern part of the Spanish Peninsula.
Gradients slight over the eastern parts of our area, moderate in the west and south.
Barometer falling in the northwest and north and also over Germany and the Baltic; rising in the southwest and south of our area.

TEMPERATURE

Highest, 50° (51° at Ryeigrass) at Lisbon, 47° at Scilly, 46° at Biarritz, 45° at Valencia Island, 41° at Stornoway, Thurso and Bodo.
Lowest, 4° at Munich, 9° at Berlin, 15° at Cartaxo and Fano, 19° at Wiesbaden, 25° at Lyons, 26° at Stockholm, 29° at Paris, 33° in London.
It has risen in most parts of France, Belgium, and the south of our Islands, but especially at Brussels, where the rise amounts to 20° and the reading is now 32°.

WIND

Moderate E. in the west of France and over the English Channel, light E. over Germany and the Netherlands, fresh to strong from SSE. in Ireland, moderate SE. over Scotland and the North Sea.
At Bodo there is a SW. gale and at Hernösand a strong NW. wind.

WEATHER

Fine and bright on the Continent; very dull over our Islands, misty in places, with showers at Scilly and Spurn Hd. Rain or wet snow has fallen very generally in the southwest south, and southeast of our Islands but the fall has been slight.

SEA

Going down, but was still rather rough on some exposed parts of our coasts, moderate to slight elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The milder weather appears to be spreading eastwards slowly.

NOTE

Attention is drawn to the fact that the Means of Pressure, Temperature and Rainfall, printed in blue on p. 2 of each Daily Weather Report, are now given for longer periods than those employed until the end of 1890 (see Table referred to.) Values are also given for 3 additional stations.

FORECASTS

For the 24 hours ending at NOON on 2nd January 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SE. by E. and S. by E. winds, increasing; rain at times.
1 SCOTLAND EAST	
2 ENGLAND N.E.	SE. by E. winds, moderate or light; dull, damp, slight rain or sleet.
3 ENGLAND EAST	
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	E. by E. winds, moderate or light; dull, misty, milder.
6 SCOTLAND WEST	Same as Nos. 0 and 1.
7 ENGLAND N.W.	
8 ENGLAND S.W.	Same as No. 5
9 IRELAND NORTH	S. by E. to W. by S. winds, possibly NW. by W. later. changeable, unsettled, rainy.
10 IRELAND SOUTH	
WARNINGS	The SOUTH CONE is still up in districts 0 and 1; NORTH CONE has been lowered in the east and south.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...							
Sumburgh Head	30.56	39	37	SE	2	bc	4
Stornoway	30.38	37	37	E	5	b	5
Aberdeen	30.47	39	35	ESE	6	cq	7
Shields	30.34	31	35	E	5	o	7
Ardrossan	30.27	37	35	ENE	4	bem	2
Malin Head ...	30.15	39	35	SSE	6	o	3
Mullaghmore ...	30.13	34	31	E	5	omg	4
Belmullet	30.12	32	32	E	3	o	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30.14	29	28	E	6	bc	6
Valencia	29.94	34	32	ENE	5	ojp	5
Scilly	29.78	39	39	E	8	m	6
Jersey	29.91	32	31	E	3	osp	3
Dungeness	30.08	30	30	ENE	4	c	3
London	30.12	33	32	E	2	omgt	*
Yarmouth	30.22	31	31	E	5	c	5
Rochefort	29.81	42	42	ESE	4	o	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

General Remarks on the Weather over Europe during the 24 hours ended 8 am Decr 31st

Weather fine in the northwest of our Islands, as well as in Sweden, Finland, and the greater part of central Europe, dull in most other localities, with fog at some of the French stations and rain in Spain and the south of France, but fine over the central and southern parts of the Mediterranean. A little snow falling later in many parts of Ireland and England, and slight rain in the east of Scotland.

Temperature highest 56° at Malta, 54° at Algiers, 51° at Lisbon, and 50° at Brindisi, above 50° at most of the Mediterranean stations, but below 40° in the Riviera. Lowest −1° F. at Cracow, 0 zero at Neufahrwasser and Breslau, 1° at Memel and 2° at Warsaw; below 10° in most parts of Central Europe and also in the south of Russia, below 20° in France, and below 32° over the central and southeastern parts of England. Daily maxima below 20° over Germany and the Netherlands, and below the freezing point in many parts of England.

Wind E^ly or NE^ly over the greater part of the British Islands and the Continent; strong to a gale on the more exposed parts of the English and Irish coasts. Light or moderate from the W^ward over the northern parts of Russia and Scandinavia; N^ly in the south of Russia; S^ly in Algeria. No important change taking place over Western Europe during day.

Barometer highest 30·6 ins. to 30·8 ins. or rather more in a large anticyclone lying over Western Russia, the Baltic, Scandinavia, the northern parts of the North Sea and the north and east of Scotland. Lowest 29·7 ins. and less, in a depression lying off the southwest of Spain; 29·3 ins. and less, in another lying over the north of Russia. Depression off Spanish coast subsequently moving slowly northwards and gradients for E^ly winds becoming somewhat steep over England and Ireland.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Friday 2nd January 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. **R. H. SCOTT,** *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.59	28	SW	2	b	29.73		19	19		N	4	b	*	34	?	0.04
	Hernösand ...	29.99	40	NW	4	o	29.59	−.11	26	21	−6	NNE	6	o	*	45	?	—
	Stockholm ...	30.17	27	E	o	b	30.06	−.18	22	21	−4	W	2	c	*	32	?	—
	Wisby	30.25	35	W	4	b	30.12	−.13	29	28	−7	WNW	6	c	*	39	29	0.39
	Bodö	29.97	35	WNW	7	o	30.04	+.08	30	28	−11	N	4	8	2	43	23	—
	Christiansund	30.25	39	SSW	4	r	30.25	−.13	37	36	−2	SSW	6	r	5	41	36	0.08
	Skudesnaes ...	30.33	34	E	o	c	30.25	−.13	28	27	−5	N	1	o	2	37	25	—
	Christiania Fjord (Færder)	30.28	28	SSW	2	b	30.21	−.20	20	20	−1	N	2	b	2	28	18	?
	Skagen (The Scaw)	30.30	26	SW	1	b	30.20	−.19	24	24	+1	WSW	2	f	2	27	18	—
	Fanö	30.35	16	E	o	b	30.25	−.19	14	14	−1	ENE	1	b	*	21	10	—
BRITISH ISLANDS.	Sumburgh Head	30.22	41	SE	2	o	30.16	−.17	43	43	+4	E	0	o	2	43	39	—
	Stornoway ...	30.10	43	E	o	o	30.09	−.06	44	44	+3	S	3	o	3	45	37	—
	Wick	30.18	41	SE	3	bc	30.12	−.16	42	41	+1	S	2	o	3	43	40	0.01
	Nairn	30.16	31	E	o	bc	30.13	−.08	34	33	−4	E	0	o	1	42	26	—
	Aberdeen ...	30.23	41	S	2	og	30.19	−.08	42	41	+2	S	2	om	3	42	40	—
	Leith	30.21	38	E	2	*	30.19	−.01	36	35	−2	E	0	m	*	41	31	0.01
	Shields	30.23	37	SE	1	om	30.18	−.05	32	31	−6	SW	1	cm	2	40	29	—
	Spurn Head ...	30.22	37	E	1	o	30.20	−.02	35	34	−1	E	0	o	2	37	31	0.01
	York	30.23	36	E	1	o	30.23	0.0	31	31	−4	E	0	f	*	37	30	—
	Loughborough	30.22	35	ENE	1	o	30.23	+.02	31	31	−2	E	0	afg	*	36	31	—
	Ardrossan ...	30.16	39	NE	2	om	30.17	+.03	38	38	0	NE	1	af	1	40	34	0.16
	Malin Head ...	30.01	41	S	6	cm	30.13	+.10	40	39	+2	S	1	c	0	42	36	0.03
	Mullaghmore ...	30.04	44	E	5	r	30.14	+.16	36	34	−5	E	0	bc	1	44	35	0.01
	Belmullet ...	30.07	39	SSE	2	c	30.12	+.22	38	36	0	SSE	2	b	*	41	35	—
	Donaghadee ...	30.15	44	SSW	4	f	30.18	+.08	43	43	+1	SSW	3	r	1	45	40	0.09
	Liverpool (Bidston)	30.18	35	ESE	3	b	30.19	+.02	35	34	+2	ESE	3	o	3	39	33	—
	Holyhead ...	30.13	41	E	o	c	30.17	+.11	39	39	0	E	0	cmq	0	44	37	—
	Parsonstown ...	30.06	44	E	o	o	30.16	+.18	40	39	0	E	0	o	*	45	38	0.02
	Valencia	30.06	39	E	o	b	30.16	+.26	30	30	−15	E	0	b	1	49	28	—
	Roche's Point ...	30.04	47	E	4	o	30.14	+.22	43	43	−3	NNW	3	rf	4	48	42	0.01
	Pembroke (St. Ann's Hd.)	30.09	39	ESE	4	m	30.16	+.13	39	37	0	ESE	3	mf	3	41	37	—
	Scilly	29.97	49	ESE	4	o	30.09	+.17	48	48	+1	E	3	o	3	49	46	—
	Prawle Point ...	30.12	45	ENE	4	o	30.16	+.12	39	39	−5	NE	3	m	2	49	38	—
	Jersey (St. Aubin's)	30.09	41	E	3	bm	30.12	+.06	36	34	−4	E	1	bcm	1	49	34	—
	Hurst Castle ...	30.15	36	E	4	m	30.19	+.09	30	30	−7	NE	3	m	2	39	?	—
	Dungeness ...	30.16	39	E	1	b	30.17	+.01	38	37	0	ESE	2	m	1	42	29	—
	London	30.20	35	SE	2	om	30.20	+.03	28	27	−5	E	0	f	*	39	27	—
	Oxford	30.22	30	ENE	1	b	30.24	+.06	24	24	−10	NNE	1	of	*	37	24	—
	Cambridge ...	30.20	32	E	1	b	30.25	+.03	24	24	−10	E	1	f	*	37	22	—
	Yarmouth ...	? 30.21	36	SE	3	bc	30.21	0.0	24	24	−13	E	0	f	3	37	23	—
GERMANY & HOLLAND.	Cuxhaven ...	30.36	21	SE	1	m	30.27	−.18	21	20	+6	ESE	1	m	*	23	?	—
	Berlin	30.42	18	E	o	b	30.30	−.18	15	14	+6	ESE	2	b	*	21	?	—
	Wiesbaden ...	*	*	*	*	*	30.22	−.16	15	15	−4	E	0	b	*	32	15	—
	Munich	30.22	10	E	o	b	30.23	−.07	5	5	+1	SW	2	b	*	18	3	—
	The Helder ...	30.29	20	E	1	b	30.23	−.07	19	18	+3	E	1	b	1	21	16	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.22	0.0	24	23	−8	W	1	c	*	40	22	—
	Cape Gris Nez	30.18	33	SE	2	o	30.16	+.02	31	28	−3	SE	1	bc	0	39	28	—
	Paris	30.17	32	NE	2	b	30.20	+.03	22	21	−7	NE	1	bc	*	42	21	—
	Brest	30.01	45	SE	3	bc	30.11	+.15	40	39	−2	E	2	b	2	48	36	—
	Lorient	30.02	42	ESE	2	b	30.09	+.13	40	38	0	E	2	o	2	46	39	—
	Rochefort ...	29.99	43	E	3	b	30.08	+.14	39	39	0	ESE	3	bc	?	52	32	—
	Belfort														*			
	Lyons	30.22	27	NE	1	b	30.27	+.03	22	?	−3	S	1	bc	*	33	22	—
	Nice	30.14	51	E	6	o	30.21	+.04	48	43	−2	E	3	r	o	52	45	—
	Perpignan ...	30.07	52	SE	2	o	30.13	+.09	51	51	0	SE	2	r	*	55	50	0.08
	Biarritz	29.92	51	SE	3	o	30.03	+.15	54	47	+8	S	3	o	1	59	46	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	29.91	51	WNW	4	b	30.05	+.44	52	50	+2	NW	3	bc	?	55	50	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Friday 2nd January 1891.

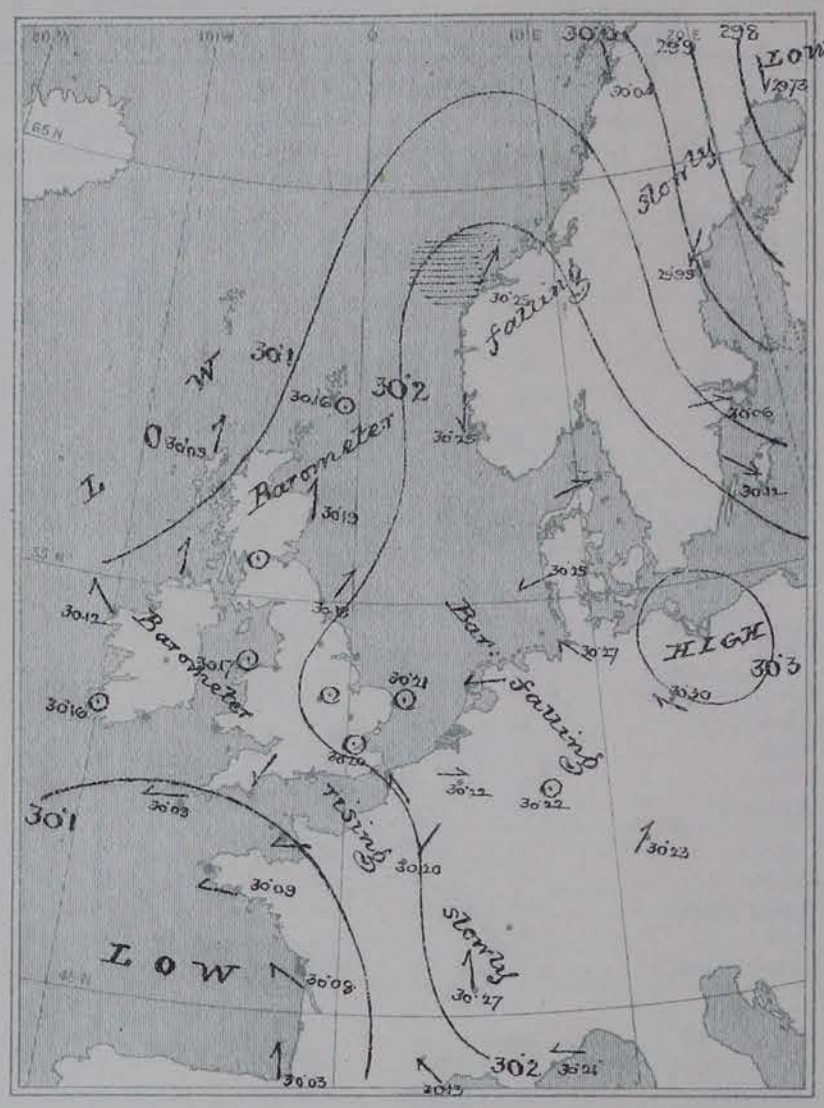
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER.—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND.—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus:—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE.—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

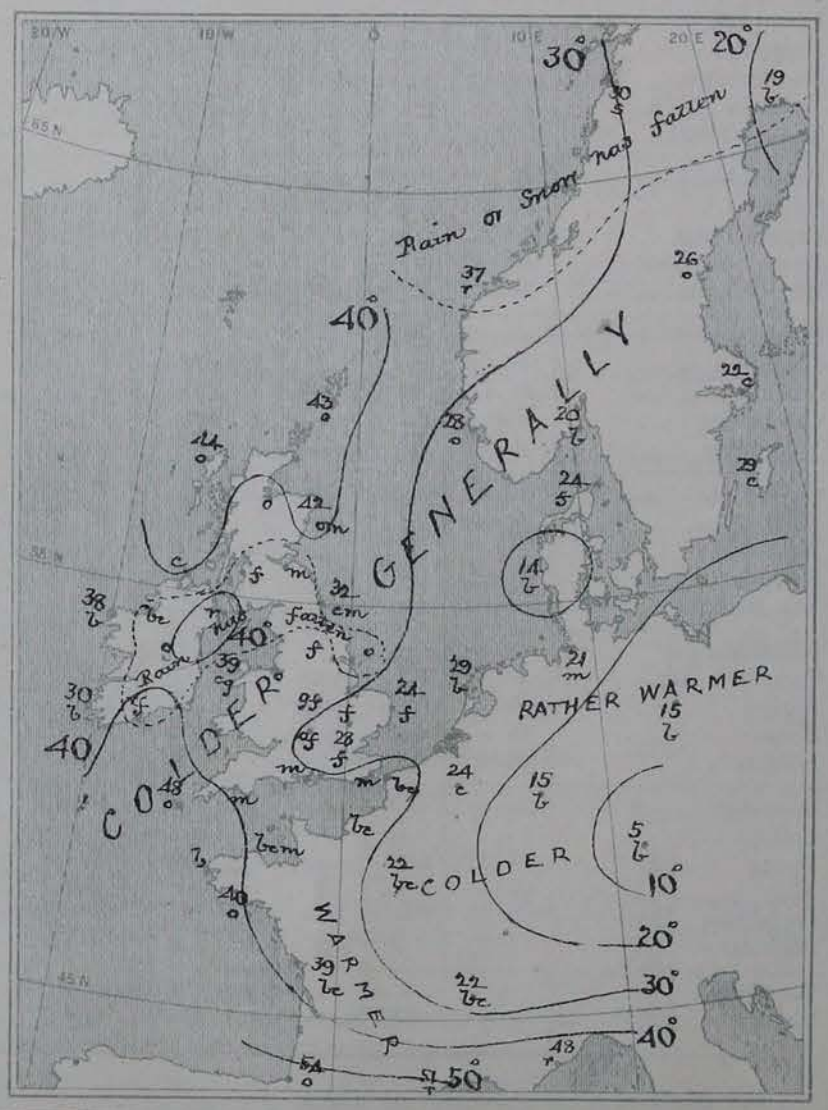
STATIONS.	MEAN READINGS. ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE.—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL.—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·0	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	39·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins: to 30·2 ins: in a high-pressure system lying over Central Europe, France, Scandinavia, the North Sea, and the eastern parts of England.
Lowest, about 30·0 ins: or less, over the northwest of Spain; 30·1 ins: and less, off our extreme northwest coasts; 29·8 ins: and less, over Ireland.
Gradients moderate (for N^ly winds) over Sweden, slight and very variable elsewhere.
Barometer is still rising slowly except in the north, and over countries lying to the eastward of the North Sea.

TEMPERATURE

Highest, 54° at Biarritz, 52° at Lisbon, 51° at Perpignan, 44° at Stornoway, 43° at Lumbungh Hd, and 42° at Aberdeen.
Lowest, (1) 5° at Munich, 14° at Yarö, 15° at Berlin and Wiesbaden, 19° at the Helder, 22° at Paris, 24° at Oxford, Cambridge, and Yarmouth, 28° in London; (2) 19° at Hapsanda, 22° at Stockholm.
It rose to between 35° and 40° over England yesterday, but fell fast again as night came on.

WIND

Moderate to fresh from N. and NW. over Scandinavia.
Light S^ly on our north and northwest coasts, E^ly over the Channel, Bay of Biscay and France.
Calms or variable airs prevail over the central parts of England and Ireland.

WEATHER

Fine and bright over France and Germany, hazy over the Channel, very foggy over the inland parts of England, cloudy or overcast in other places.
Rain is falling at Christiansund, snow at Bodö.

SEA

Very little disturbed on any part of our coasts.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The high pressure system now prevalent over the Continent, England, and Ireland shows no signs of giving way so that fogs and cold weather seem likely to continue over England.

FORECASTS

For the 24 hours ending at NOON on 3rd Jany 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	S^ly and SW^ly airs; fair generally.
1 SCOTLAND EAST	
2 ENGLAND N.E.	
3 ENGLAND EAST	Varying airs, mainly E^ly, and calms inland, E^ly breezes, light in Channel; cold, foggy, gloomy.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	Same as Nos 0 to 2.
7 ENGLAND N.W.	
8 ENGLAND S.W.	E^ly breezes light; fair, hazy or foggy, cold.
9 IRELAND NORTH	Varying airs and Calms; local fogs, dry, cold.
10 IRELAND SOUTH	
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30.27	37	35	SSE	4	o	3
Sumburgh Head	30.26	40	39	SE	2	o	3
Stornoway	30.11	43	41	2	o	c	3
Aberdeen							
Shields	30.22	40	38	SSE	1	c	4
Ardrossan	30.14	39	38	NE	3	o	2
Malin Head ...	30.04	41	41	SSE	5	om	2
Mullaghmore ...	30.00	43	42	E	5	mq	4
Belmullet	29.97	40	40	SSE	2	o	*

	BAR:	THER: D	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30.10	44	42	2	o	c	o
Valencia	29.99	47	43	SSW	1	bc	2
Scilly	29.96	49	48	ESE	3	c	4
Jersey	30.05	48	44	ESE	4	bm	3
Dungeness	30.15	42	40	SSE	2	b	1
London	30.19	39	37	E	2	om	*
Yarmouth	30.20	37	36	ESE	3	bc	4
Rochefort	29.97	49	46	ESE	4	c	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Continental Information not received.

General Remarks on the Weather over Europe for 24 hours ending 8 am January 1st 1891

Weather in morning fine and bright over central and southeastern Europe and on the eastern shores of the North Sea; dull generally elsewhere, rainy at Bodö, snow at Dunkerque and Lorient. Sleet or cold rain over the southwestern, southern, and eastern parts of our Islands later, as well as in the west of France, but not in large quantities.

Temperature rises over Spain and France as well as over the Baltic and Lapland, changed irregularly elsewhere, fallen in most parts of our Islands, but beginning to rise again over England. Lowest morning values (1) −5° F. at Kiev and Cracow, −4° at Breslau, −1° at Warsaw and Neufahrwasser, and below 20° over the whole of Central Europe; (2) 11° at Archangel, and 21° at Stockholm; much below the freezing point over the greater part of England (22° at Oxford). Rising steadily but slowly over the British Islands later, and frost giving way a little.

Wind strong from SE. and E. over the British Islands and English Channel, moderate to fresh from the same quarters over Germany, the north and west of France, Spain, and the Bay of Biscay; strong to a gale from SW. in the north of Norway, and from NW. to W. over Finland and Sweden, very light and variable elsewhere. Moderating over the United Kingdom later, very little change elsewhere.

Barometer highest 30·7 ins: to 30·3 ins: in a large anticyclone covering central Europe, Denmark, the southern half of Scandinavia, the North Sea, and Scotland; lowest 29·8 ins: to 29·5 ins: over the Bay of Biscay and off the Coast of Portugal, 29·8 ins: and less over Northern Europe also. Beginning to rise over France later, but continuing to fall somewhat over the British Islands and Northern Europe.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Saturday, 3rd January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·17	6	NE	0	0	30·10	+·37	-3	-4	-22	N	2	c	*	32	?	-
	Hernösand ...	30·32	21	NE	0	b	30·20	+·21	13	12	-23	NE	0	b	*	43	?	-
	Stockholm ...	30·34	22	NW	2	b	30·31	+·25	21	20	-1	NE	0	c	*	28	19	-
	Wisby	30·26	34	W	2	b	30·28	+·16	32	31	+3	SE	4	0	*	36	28	-
	Bodö	30·23	27	NNW	2	s	30·04	·00	26	23	-4	E	2	0	1	32	25	-
	Christiansund	30·24	37	ESE	1	c	30·15	-·10	39	34	+2	SW	1	0	4	39	36	-
	Skudesnaes ...	30·26	38	SSE	1	0	30·19	-·06	36	[illegible]	+8	SSE	4	0	3	?	?	-
	Christiania Fjord (Færder)	30·30	25	N	3	b	30·23	+·02	28	27	+8	SE	2	0	1	28	?	-
	Skagen (The Scaw)	30·27	25	SE	1	0	30·21	+·01	28	27	+4	S	1	0	1	28	21	-
	Fanö	30·24	20	ENE	1	m	30·23	+·02	19	19	+5	ENE	1	[illegible]	*	23	14	-
BRITISH ISLANDS.	Sumburgh Head	30·13	44	SSE	1	0	30·08	-·08	39	39	-4	NE	0	c	1	45	39	0·39
	Stornoway ...	30·09	41	S	3	c	30·03	-·06	44	44	0	SW	5	0	5	45	39	0·02
	Wick	30·12	40	NE	0	0	30·09	-·03	36	35	-6	S	1	0	2	42	32	0·01
	Nairn	30·14	35	NE	0	b	30·09	-·04	34	33	0	NE	0	0	1	39	29	0·06
	Aberdeen ...	30·16	40	SW	1	cm	30·12	-·07	33	32	-9	NNW	1	cm	2	42	31	0·01
	Leith	30·19	39	NE	0	m	30·14	-·05	39	39	+3	SW	1	0	*	39	34	-
	Shields	30·19	36	SW	1	[illegible]	30·15	-·03	36	36	+4	SW	1	rf	2	39	28	0·02
	Spurn Head ...	30·22	31	SSW	1		30·20	·00	32	31	-3	S	2	bcm	2	35	28	-
	York	30·22	30	S	1		30·25	+·02	30	30	-1	SSE	1	0	*	35	28	-
	Loughborough	30·24	28	NE	1		30·25	+·02	28	28	-3	NE	0	ogf	*	32	24	-
	Ardrossan ...	30·18	40	NE	2	0	30·14	-·03	44	43	+6	S	2	cm	2	44	39	-
	Malin Head ...	30·13	39	S	2	b	30·13	·00	40	39	0	S	2	c	1	42	35	-
	Mullaghmore ...	30·17	36	N	2	c	30·16	+·02	41	40	+5	NSW	2	c	2	41	33	0·05
	Belmullet ...	30·15	38	SE	3	c	30·15	+·03	40	40	+2	NNW	2	r	*	43	36	0·05
	Donaghadee ...	30·19	43	NSW	2	f	30·18	-·00	39	39	-4	NSW	2	f	0	45	39	0·01
	Liverpool (Birkdale)	30·19	35	ESE	3	0	30·22	+·03	35	34	0	SE	1	r	2	38	32	0·04
	Holyhead ...	30·18	43	NE	0	mg	30·21	+·04	44	44	+5	NE	0	gmr	0	45	38	0·05
	Parsonstown ...	30·17	41	NE	0	0	30·22	+·06	33	32	-7	NE	0	bc	*	41	32	0·18
	Valencia	30·21	35	NE	0	b	30·24	+·08	43	42	+13	E	1	0	2	47	29	0·01
	Roche's Point ...	30·17	44	NNW	3	rf	30·26	+·10	34	33	-9	NNE	1	b	3	45	34	0·01
	Pembroke (St. Ann's Hd.)	30·20	38	E	3	f	30·25	+·09	38	38	-1	E	2	f	2	39	35	-
	Scilly	30·13	47	E	2	0	30·22	+·13	48	48	0	W	3	c	3	49	46	-
	Prawle Point ...	30·19	41	NE	3	m	30·26	+·10	42	42	+3	N	2	c	1	42	39	-
	Jersey (St. Aubin's)	30·19	42	ENE	1	cm	30·28	+·16	43	42	+7	SSW	2	omd	2	43	34	0·01
	Hurst Castle ...	30·21	36	ENE	2	m	30·24	+·05	34	34	+4	ENE	2	f	1	39	30	-
	Dungeness ...	30·21	38	NE	0	m	30·22	+·05	36	36	-2	SE	2	mw	0	44	29	-
	London	30·24	30	NE	0	fg	30·26	+·06	29	26	-1	NE	0	f	*	33	29	-
	Oxford	30·27	25	NE	0	c	30·27	+·03	28	28	+4	NE	0	of	*	28	22	-
	Cambridge ...	30·27	28	E	1	0	30·26	+·01	24	24	0	NE	0	c	*	28	22	-
	Yarmouth ..	30·21	29	NE	0	f	30·25	+·04	29	29	+3	NE	0	f	3	32	21	-
GERMANY & HOLLAND.	Cuxhaven ...	30·21	22	E	2	m	30·26	-·01	19	14	-4	W	1	f	*	24	15	-
	Berlin	30·21	23	SE	3	b	30·26	-·04	12	12	-3	W	2	b	*	27	10	-
	Wiesbaden ...	*	*	*	*	*	30·34	+·12	12	11	-3	NE	1	m	*	25	10	-
	Munich	30·28	20	SW	2	b	30·32	+·09	19	19	+12	SE	3	b	*	23	5	-
	The Helder ...	30·24	22	NE	1	b	30·25	+·05	17	17	-2	SE	1	f	1	28	?	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·31	+·09	23	22	-1	ESE	1	bc	*	32	20	-
	Cape Gris Nez	30·19	35	SE	1	m	30·24	+·08	31	31	0	E	1	m	0	?	28	-
	Paris	30·25	28	NE	0	b	30·32	+·12	22	22	0	SE	1	bc	*	36	22	-
	Brest	30·15	45	SE	1	0	30·23	+·12	45	44	+5	E	0	0	2	52	39	-
	Lorient	30·16	41	ESE	1	0	30·29	+·20	40	40	0	NE	0	m	2	45	39	-
	Rochefort ...	? 30·15	42	SE	1	b	? 30·25	+·17	38	37	-1	ESE	2	b	*	52	32	-
	Belfort	?	21	W	1	c	?	?	25	14		W	1	b	*	33	19	-
	Lyons	30·29	34	ENE	1	b	30·36	+·09	27	26	+5	NNW	1	b	*	41	?	-
	Nice	30·25	47	SW	2	b	30·29	+·06	41	39	-7	E	4	0	2	52	39	-
	Perpignan ...	30·19	52	E	3	0	30·29	+·14	48	47	-3	NE	2	0	*	56	47	0·34
	Biarritz	30·12	53	NE	0	c	30·21	+·18	51	48	-3	SW	2	bc	1	57	48	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·19	54	NNW	4	b	30·26	+·21	51	48	-1	N	4	b	?	59	50	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Saturday, 3rd Jan.y, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

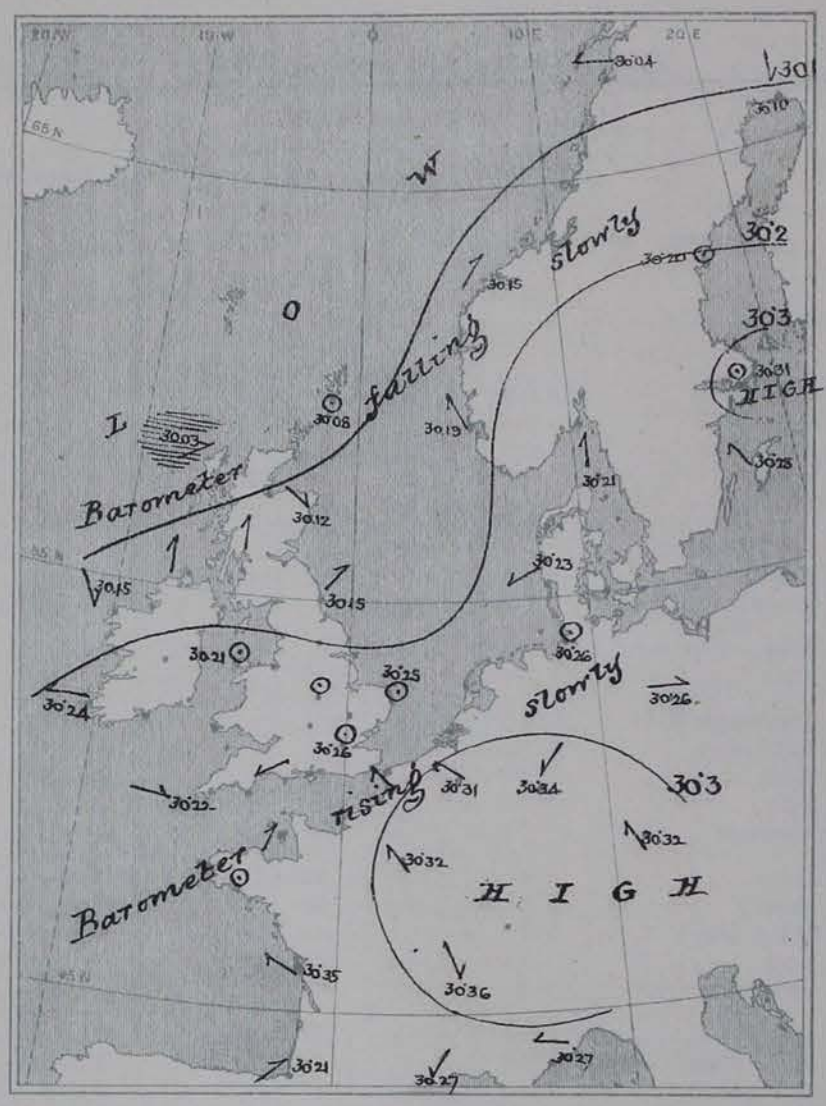
BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

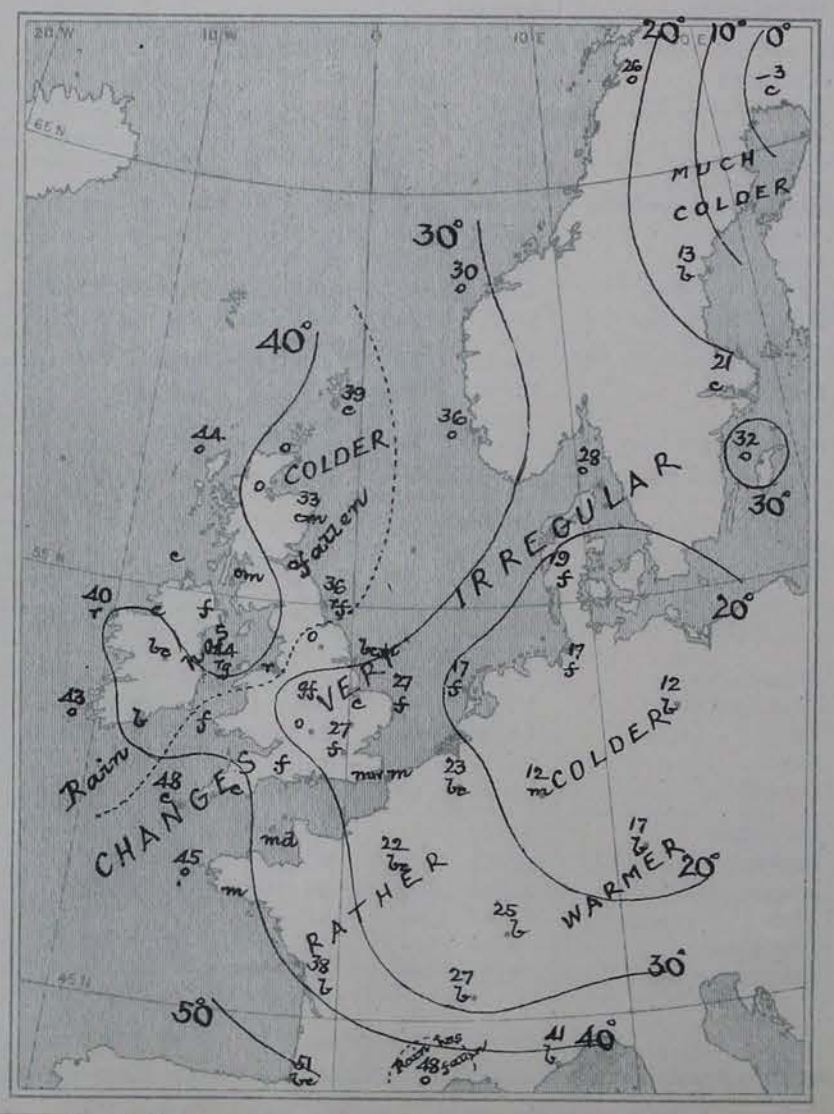
STATIONS.	MEAN READINGS.
	Ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Sourn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 8	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins: and more to 30·2 ins: except over the northern parts of Ireland, Scotland, and the North Sea with the west and north of Scandinavia.

Lowest, 30·03 ins: at Stornoway, 30·04 ins: at Bodö.

Gradients are very slight and somewhat irregular

Barometer is falling slightly in the north and northwest, rising slightly, elsewhere.

TEMPERATURE

Highest, 51° at Lisbon and Biarritz, 48° at Perpignan, 44° at Stornoway, 43° at Valencia Island.

Lowest, (1) −3° F. at Haparanda, +13° at Hernösand, and 26° at Bodö; (2) 12° at Berlin and Wiesbaden, 17° at Cuxhaven, Munich, and Helder, 22° at Paris, 27° in London and at Yarmouth.

It has changed very frequently and greatly at Valencia Island during past 24 hours – rising from 28° early on Friday to 47° during the afternoon and then falling to 35° by 6 pm and to 27° early this morning

WIND

Light from the SW^ly over the northern parts of our Islands, from S. in the west of Norway, and from E. at Bodö.

Over England, France, and Germany it was very light and variable – calm in many places.

WEATHER

Fine over Germany, France, and the greater part of Ireland, but rainy at Jersey, Belmullet, Holyhead, Liverpool and Shields. Fogs are very prevalent over England.

Rain has fallen at all our western and northern stations during some part of past day, and at Lerwick the fall was considerable.

SEA

Rather rough in the Minch, slight to very smooth on other parts of our coasts.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

No indication of decided change is shown at present.

FORECASTS

For the 24 hours ending at NOON on 4th JANY 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SW^ly breezes, light to moderate; some slight showers, milder.
1 SCOTLAND EAST	SW^ly and varying airs; weather damp but changeable.
2 ENGLAND N.E.	
3 ENGLAND EAST	Varying airs; cold, foggy.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	Wind becoming S^ly or SW^ly, light or moderate; weather milder and probably damp.
7 ENGLAND N.W.	
8 ENGLAND S.W.	
9 IRELAND NORTH	
10 IRELAND SOUTH	
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·23	34	31	NNE	1	c	2
Sumburgh Head	30·13	44	44	SSE	1	o	2
Stornoway	30·19	45	44	⊼	0	c	2
Aberdeen	30·16	42	41	SSW	1	o m d	3
Shields	30·17	37	36	SW	1	m	2
Ardrossan	30·16	40	39	NE	2	o	1
Malin Head ...	30·13	40	39	S	3	b	1
Mullaghmore ...	30·14	38	38	ENE	3	bcf	2
Belmullet	30·13	41	40	SSE	2	b	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·17	44	43	⊼	0	cm	0
Valencia	30·16	46	43	⊼	0	bm	0
Scilly	30·12	49	47	ESE	2	c	3
Jersey	30·15	43	41	E	2	c	2
Dungeness	30·18	41	39	⊼	0	m	0
London	30·21	33	33	⊼	0	f	*
Yarmouth	30·18	32	31	ESE	1	cf	3
Rochefort	30·11	50	48	SE	3	b	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Continental Information not received

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Sunday 4th January 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30.00	-11	?	0	b	30.03	-.07	-12	-13	-9	N	4	b	*	7	-13	—
	Heruösand ...	29.93	14	?	0	c	29.85	-.35	17	17	+4	NNE	6	o	*	23	10	0.04
	Stockholm ...	30.05	27	?	0	o	29.77	-.54	26	25	+5	W	2	d	*	30	16	—
	Wisby	30.08	35	SW	4	o	29.80	-.48	32	?	+4	SSW	4	o	*	29	28	0.39
	Bodö	29.96	22	ENE	2	b	30.02	-.02	19	16	-7	ENE	2	b	1	29	18	—
	Christiansund	29.96	36	NW	3	d	29.99	-.16	30	28	-9	NE	6	d	4	?	30	0.12
	Skudesnaes ...	30.00	37	SSE	4	o	29.77	-.42	35	31	-1	N	6	bc	4	37	34	—
	Christiania Fjord (Færder)	30.04	28	S	2	o	29.80	-.43	26	26	-2	N	5	d	1	28	25	—
	Skagen (The Scaw)	30.02	28	S	1	o	29.70	-.51	29	29	+1	S	2	d	2	30	26	0.08
	Fanö	30.07	31	SW	2	d	29.73	-.50	33	?	+14	SW	4	f	*	34	?	0.16
BRITISH ISLANDS	Sumburgh Head	30.00	41	N	1	o	30.12	+.04	31	31	-8	N	4	b	3	43	30	0.07
	Stornoway ...	29.98	42	?	0	b	30.23	+.20	37	35	-7	N	6	o	6	44	33	0.15
	Wick	30.03	32	?	0	b	30.17	+.08	36	34	0	NE	3	bc	2	42	32	—
	Nairn	29.99	35	SW	1	c	30.16	+.07	37	36	+3	E	5	o p	4	39	33	0.16
	Aberdeen ...	30.00	35	WNW	1	mo g	30.10	-.02	36	35	+3	NNE	4	o g f r s	5	39	33	0.12
	Leith	30.03	40	?	0	b	30.07	-.07	40	38	+1	N	1	c	*	43	36	0.15
	Shields	30.07	40	WSW	1	f	29.97	-.18	39	38	+3	NW	2	c	3	41	35	0.08
	Spurn Head ...	30.09	37	WSW	3	r f	29.95	-.25	36	35	+4	W	3	c m	3	37	31	0.07
	York	30.11	38	SSE	1	o	?30.00	-.25	37	36	+7	NW	1	c	*	40	30	0.06
	Loughborough	30.17	34	ENE	1	f	30.03	-.22	36	35	+8	WNW	1	c	*	37	27	0.01
	Ardrossan ...	30.03	44	SW	2	o p	30.11	-.03	38	37	-6	N	1	bc	1	44	34	0.15
	Malin Head ...	30.02	42	SW	4	o p	30.10	-.03	43	42	+3	NNE	3	c	2	44	39	0.18
	Mullaghmore ...	30.08	42	SW	4	bc p	30.13	-.03	42	41	+1	NNE	4	c	2	45	39	0.15
	Belmullet ...	30.12	45	WNW	3	o	30.16	+.01	38	37	-2	ENE	1	bc	*	46	36	0.06
	Donaghadee ...	30.09	39	W	2	b	30.08	-.10	43	42	+4	NNE	3	bc	1	43	39	0.01
	Liverpool (Bidston)	30.14	40	SW	2	o	30.05	-.17	38	37	+3	NNW	1	c	2	42	34	0.09
	Holyhead ...	30.15	42	SW	2	c	30.06	-.15	43	43	-1	N	2	c g	2	46	41	0.03
	Parsonstown ...	30.17	41	?	0	o	30.12	-.10	35	35	+2	?	0	c	*	43	32	—
	Valencia	30.20	44	?	0	o v	30.13	-.11	37	36	-6	?	0	c	1	50	34	0.03
	Roche's Point ...	30.19	46	W	1	bc	30.14	-.12	37	35	+3	NW	1	b	3	47	31	—
	Pembroke (St. Ann's Hd.)	30.21	43	WSW	2	b	30.09	-.16	44	42	+6	NW	3	c p	2	46	38	0.07
	Scilly	30.24	47	W	3	bc	?30.15	-.07	47	47	-1	NW	3	c	3	49	44	0.01
	Prawle Point ...	30.26	43	NW	1	bc	30.11	-.15	43	43	+1	WNW	1	c	1	46	41	0.15
	Jersey (St. Aubin's)	30.27	45	SW	1	o f	30.15	-.13	47	46	+4	WSW	3	c g m p	3	47	41	0.01
	Hurst Castle ...	30.23	37	?	0	f d	30.06	-.18	39	39	+5	W	3	bc	1	40	34	0.03
	Dungeness ...	30.15	39	SE	1	f	30.03	-.19	39	39	+3	NW	2	p	1	40	32	0.13
	London	30.21	34	SE	1	o f d	30.04	-.22	36	35	+9	W	1	o f g	*	38	27	0.12
	Oxford	30.20	32	SW	1	o	30.06	-.21	33	33	+5	W	1	o f	*	37	28	0.10
	Cambridge ...	30.12	35	SW	1	o	?30.01	-.25	36	35	+12	W	1	c	*	36	23	0.05
	Yarmouth ...	30.15	33	S	1	d f	29.97	-.28	34	34	+7	W	2	f	2	34	25	0.03
GERMANY & HOLLAND.	Cuxhaven ...	?30.14	26	SW	1	f	29.89	-.37	29	29	+12	SW	3	d	*	29	?	—
	Berlin	30.25	15	?	2	b	30.04	-.22	17	17	+5	SE	2	o	*	21	12	—
	Wiesbaden ...	*	*	*	*	*	30.09	-.25	23	23	+11	NE	1	o	*	23	?	0.04
	Munich	30.27	19	?	0	f	30.16	-.16	24	23	+7	SW	4	b	*	30	17	—
	The Helder ...	30.15	26	SSE	1	d	29.88	-.37	34	33	+17	W	1	f	?	34	17	0.08
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.05	-.26	35	35	+12	SW	2	f	*	37	?	0.08
	Cape Gris Nez	30.20	38	SW	3	c	30.02	-.22	39	38	+8	W	4	p	4	41	30	0.08
	Paris	30.27	33	SE	1	bc	30.19	-.13	35	35	+13	SSW	2	d	*	37	?	—
	Brest	30.31	46	?	0	c	30.22	-.01	47	46	+2	W	2	[illegible]	[illegible]	50	37	—
	Lorient	30.30	44	?	0	o	30.22	-.07	45	44	+5	?	0	bc	2	46	39	—
	Rochefort ...	30.24	39	N	3	f	30.26	+.01	39	39	+1	SSE	3	o	2	46	28	—
	Belfort	?	36	W	1	c	?		36	30	+11	W	1	c	*	39	?	—
	Lyons	30.25	31	N	1	b	30.29	-.07	24	24	-3	WNW	1	c	*	?	24	—
	Nice	30.25	47	SW	3	c	30.20	-.07	42	39	+1	NE	4	b	1	54	39	—
	Perpignan ...	30.28	50	NW	1	o	30.23	-.04	47	45	+1	NW	1	b	*	56	48	—
	Biarritz	30.27	53	NW	3	b	30.28	+.07	46	46	-5	ESE	3	bc	1	55	45	—
PENINSULA.	Corunna	*	*	*	*	*	30.24	-.10	42	41	-5	NE	1	b	4	55	37	—
	Lisbon	30.29	51	NNW	4	b	30.28	+.02	44	43	-7	N	2	b	?	57	44	—

For Explanation of Columns, see bottom of p. 4.

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for 8 a.m. on 4th January, 1891.

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EXPLANATION OF MAP.

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= dead calm.

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= Rough. = High.

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at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

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	ins.
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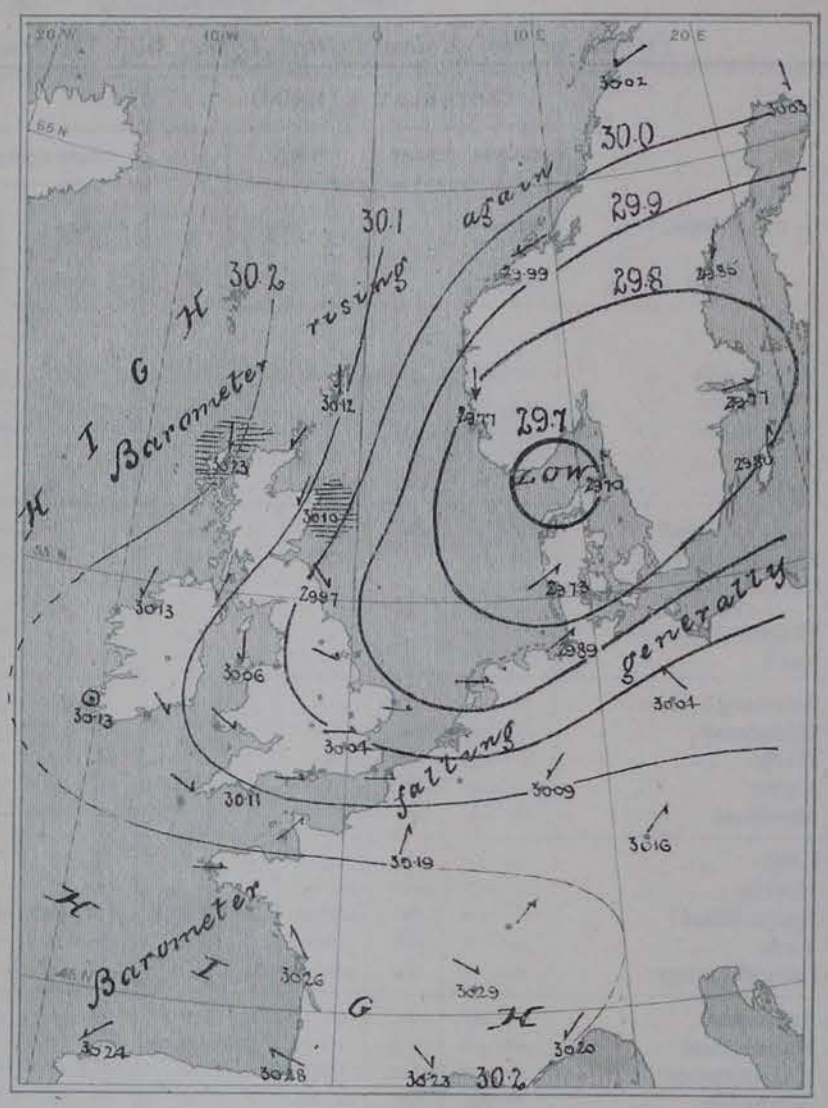
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



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(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
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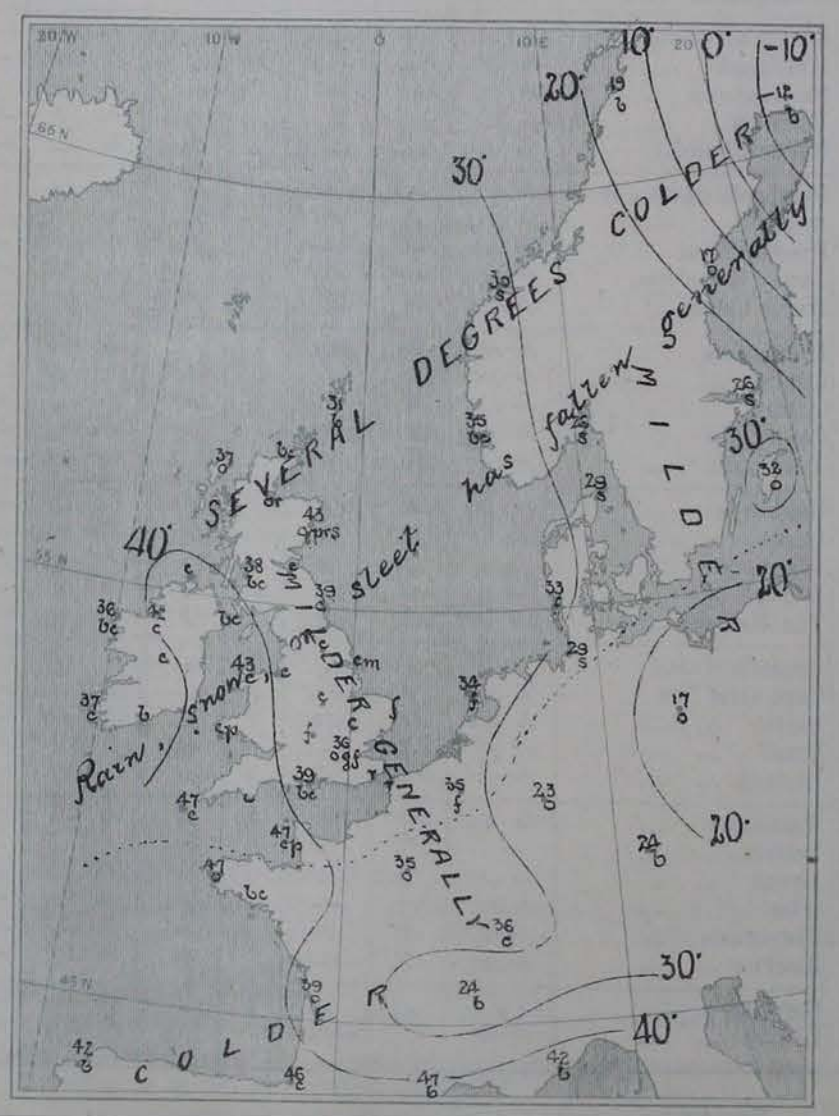
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest (1) 30·3 ins. and more to 30·2 ins. over the Peninsula, Bay of Biscay, and southern half of France; (2) 30·2 ins. and more off our extreme northwest coasts.

Lowest, about 29·7 ins. in a depression lying over the Skager Rack and north of Denmark.

Gradients moderate to slight, and becoming favourable for NE^{ly} winds over the northern parts of our Islands.

Barometer falling in the south and east, rising in the northwest and north.

TEMPERATURE

Highest, 47° at Lagos and also at the mouth of the English Channel, 46° at Biarritz, 45° at Lorient, 42° to 44° in the west of Spain.

Lowest, (1) −7° to −12° at the northern extremity of the Gulf of Bothnia, +17° at Haparanda, 19° at Bodö; (2) 17° at Berlin, 23° at Munich (Westerton).

It was rain decidedly over England, France, and Western Germany, and snow at 33° to 37° over England, and rather higher in Scotland and Ireland.

WIND

N^{ly}, strong to gale over Scandinavia, N^{ly} (NE. to NW) moderate to light over our Islands.
W^{ly}, moderate over Germany — SW^{ly} light over the north of France.
Over Spain it is very variable.

WEATHER

Fine and bright on our northeastern and western coasts — dull elsewhere, with rain and sleet showers in the east of Scotland.
Fog and gloom are prevalent in the southeast of England, rain at Cape Gris Nez, snow over the Skager Rack.
Cold showers have fallen in all parts of our Islands since Saturday morning.

SEA

Rough in the north and northeast, slight to very smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

FORECASTS

For the 24 hours ending at NOON on 5 JAN^{y} 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	NONE ISSUED	6 SCOTLAND WEST	NONE ISSUED.
1 SCOTLAND EAST		7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST		9 IRELAND NORTH	
4 MIDLAND COUNTIES		10 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·11	34	33	SE	4	o	3
Sumburgh Head	30·03	42	42	S	0	c	1
Stornoway	29·99	44	43	SW	3	o	4
Aberdeen	30·05	37	36	WNW	1	cm	2
Shields	30·09	41	40	WSW	2	f	2
Ardrossan	30·08	43	43	SW	3	ofp	3
Malin Head ...	30·06	43	42	SW	3	o	1
Mullaghmore ...	30·13	45	43	SSW	4	cfp	2
Belmullet	30·14	46	45	W	2	b	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·18	45	43	SW	2	bc	2
Valencia	30·22	49	47	WSW	1	ov	1
Scilly	30·25	48	45	W	3	c	3
Jersey	30·27	44	43	SSW	2	om	2
Dungeness	30·21	38	38	SE	1	f	0
London	30·23	38	37	E	0	f	*
Yarmouth	30·20	32	31	SSW	1	bcf	2
Rochefort	30·28	45	45	NW	1	o	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather foggy at many of the English stations, as well as in Holland and some parts of Germany, dull in the west and north of our Islands, and also over the west of Norway, central Russia, and Algeria, with rain in the north of England. Fine over Sweden, the Baltic, northern Russia and the greater part of Central and southern Europe. Rain or sleet falling later over nearly the whole of the United Kingdom and snow at some of the Norwegian, Danish and Russian stations; a few flakes of snow at Laghouat (central Algeria) in evening.

Temperature highest 56° at Malta, 54° at Cagliari, 53° at Lampedusa and 52° at Tunis; above 45° at most of the Mediterranean stations, as well as on the coasts of the Iberian Peninsula and at the mouth of the English Channel. Lowest (1) −3° at Haparanda, −1° at Uleaborg, and +6° at Königsberg; 0 zero at Buda Pesth, 3° at Hermanstadt, and 5° at Cracow, below 20° in most parts of central Europe, and below the freezing point over the eastern and central parts of England. Brisk rise taking place over England later; where daily maxima varied between 35° and 40°.

Wind light or moderate from the S.rly or SW.rly over the northern parts of our Islands and the west of Norway. Light from the E.rly over the Channel and France and from the NE.rly over the greater part of Spain and Italy. Light N.rly in Russia, variable over Central Europe; calm over the inland parts of England and Ireland. Light SW.rly or W.rly breezes setting in later over the greater part of the United Kingdom.

Barometer highest 30·4 ins. and upwards in an elongated area extending from Austria to Asia Minor; 30·2 ins. and upwards in an irregularly shaped anticyclone lying over nearly the whole of Europe. Lowest 29·7 ins. and less, in a depression lying over Northern Russia; 30·0 ins. and less, in a shallow disturbance lying to the northward of Tunis. New depression appearing later to the northward of Scotland, and barometer falling in all parts of the United Kingdom.

General Remarks on the Weather for the 24 hours ended at 8 a.m. on Jan. 3rd 1890.

Weather in morning fine and bright over the greater part of southeastern Europe as well as in the west of Ireland, cloudy or overcast elsewhere, with thick fog in many parts of England and the west of Austria, haze in the Channel, snow at Bodö, rain at Christiansund, at Pembroke, Rochefort, Perpignan, and Oran. Some rain at all the western and northern stations later, and a considerable quantity at Lerwick Head. Thick fog over England, and in many parts of neighbouring countries.

Temperature fallen again over Great Britain and France, frost prevailing all over eastern and central Europe, France and central parts of England. Lowest readings 5° to 13° F over Austria and Germany; 13° to 30° over greater part of Russia, 19° at the Helder, 22° at Paris, 24° at Orford, 28° in London, and 30° at Valencia Island; highest 50° and more in Algeria, the southwest of Spain, and at Brindisi and Malta; 42° to 44° in the north of Scotland. Very changeable at Valencia Island during day, remaining cold and frosty at most inland stations.

Wind moderate to fresh from between N. and W. over Sweden, the Gulf of Bothnia, Finland, and the Baltic; light S.rly on our own northern coasts, E.rly over the Channel and the Bay of Biscay; strong E. in the south of France, calm over England and Ireland, very variable and light elsewhere. No important modification later beyond calms becoming more prevalent.

Barometer highest 30·5 ins. to 30·3 ins. in a large anticyclone lying over southeastern and central Europe, with the North Sea and south of Norway (central area over Austria); lowest 29·1 ins. and less, over northeast of Russia, 30·1 ins. and less, over the west of the Spanish Peninsula and over our extreme northwest coasts, small shallow depression near Münster. Rising slightly in our Islands later, and eastern edge of a new anticyclone appearing near Valencia.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Monday, 5th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·15	-13	Z	0	b	30·19	+·16	-13	?	-1	N	2	b	*	7	-15	-
	Hernösand ...	30·09	15	NE	6	b	30·26	+·41	6	5	-11	Z	0	b	*	27	?	0·04
	Stockholm ...	29·70	24	NNE	4	0	29·92	+·15	20	18	-6	NNE	8	0	*	30	19	0·04
	Wisby	29·60	30	E	4	s	29·69	-·11	?	27	?	NE	6	s	*	34	27	0·12
	Bodö	30·20	12	ENE	2	b	30·08	+·06	19	18	0	? ENE	4	s	2	19	10	-
	Christiansund	30·07	26	NE	3	b	30·33	+·34	20	19	-10	SE	2	b	3	30	19	0·28
	Skudesnaes ...	29·93	29	NNE	2	b	30·21	?	23	19	-12	ENE	5	b	3	?	23	-
	Christiania Fjord (Færder)	29·84	23	N	7	b	30·10	+·30	21	19	-5	N	7	b	2	28	19	-
	Skagen (The Scaw)	29·69	26	NE	7	0	†29·92	+·22	23	21	-6	NE	8	0	5	?	21	0·04
	Fanö	29·65	27	E	4	S	29·89	+·16	23	22	-10	NW	6	c	*	34	21	0·12
BRITISH ISLANDS.	Sumburgh Head	30·17	30	N	4	s	30·33	+·21	33	33	+2	Z	0	c	2	35	28	0·02
	Stornoway ...	30·32	31	N	6	S	30·45	+·22	33	33	-4	N	6	c	6	37	30	0·02
	Wick	30·23	32	NE	3	0	30·37	+·20	32	31	-4	NE	2	c	3	38	30	0·08
	Nairn	30·27	34	NE	4	bc	30·38	+·22	35	33	-2	N	3	0	3	37	32	0·01
	Aberdeen ...	30·20	31	NNW	4	bcsp	30·33	+·23	33	32	-3	NNW	4	cqsp	6	37	31	0·06
	Leith	30·23	33	N	2	b	30·32	+·25	35	32	-5	N	1	b	*	40	31	-
	Shields	30·11	36	N	4	c	30·21	+·24	33	32	-6	NW	3	c	5	45	30	0·10
	Spurn Head ...	30·05	36	N	3	c	30·14	+·19	33	32	-3	NNE	2	bcqhp	4	39	31	0·11
	York	30·11	36	N	2	0	30·23	+·23	30	30	-7	N	1	b	*	40	30	0·02
	Loughborough	30·12	37	NW	2	r	30·23	+·20	30	29	-6	NNW	2	bm	*	38	28	0·01
	Ardrossan ...	30·25	33	N	1	b	30·37	+·26	32	30	-6	Z	0	b	0	41	31	-
	Malin Head ...	30·25	39	NE	5	bc	30·39	+·29	37	32	-6	NE	4	c	3	44	35	-
	Mullaghmore ...	30·23	42	NE	5	bc	30·42	+·29	33	31	-9	ENE	1	b	1	43	31	-
	Belmullet ...	30·22	41	E	2	b	30·44	+·28	32	30	-6	E	2	b	*	?45	30	0·02
	Donaghadee ...	30·23	41	NE	5	c	30·34	+·29	38	36	-5	NE	5	bc	3	44	34	-
	Liverpool (Bidston)	30·14	35	NNE	2	c	30·31	+·26	30	29	-8	N	3	b	2	40	30	-
	Holyhead ...	30·15	42	NE	4	cq	30·32	+·26	36	34	-7	ENE	5	b	4	45	35	-
	Parsonstown ...	30·19	39	Z	0	c	30·36	+·24	26	24	-9	Z	0	b	*	40	25	-
	Valencia	30·14	40	E	1	b	30·28	+·15	36	33	-1	NE	3	b	3	48	35	-
	Roche's Point ...	30·14	38	NNE	1	b	30·27	+·13	33	31	-4	ENE	3	b	3	44	32	-
	Pembroke (St. Ann's Hd.)	30·12	41	N	3	b	30·28	+·19	31	28	-13	ENE	2	b	1	45	31	-
	Scilly	30·06	47	ENE	1	bc	30·14	+·04	42	40	-5	ENE	4	c	3	48	39	-
	Prawle Point ...	30·12	40	N	1	bc	30·23	+·12	32	32	-11	NNE	3	bm	2	48	32	-
	Jersey (St. Aubin's)	30·10	42	NW	2	bp	30·17	+·02	40	37	-7	NE	3	bc	3	48	36	0·02
	Hurst Castle ...	30·10	33	W	2	f	30·20	+·14	29	29	-10	NNE	3	b	1	39	29	-
	Dungeness ...	30·03	36	NW	3	m	30·07	+·04	30	30	-9	NNW	4	c	2	39	29	-
	London	30·05	37	NW	1	op	30·17	+·13	30	28	-6	N	2	b	*	38	30	0·01
	Oxford	30·13	35	Z	0	0	30·23	+·17	27	26	-6	NNW	2	b	*	38	27	-
	Cambridge ...	30·10	35	W	1	b	30·19	+·18	28	28	-8	NW	1	b	*	40	26	0·01
	Yarmouth ...	29·99	36	NNE	1	bc	30·09	+·12	33	31	-1	NNE	4	bc	4	37	30	0·03
GERMANY & HOLLAND.	Cuxhaven ...	29·70	34	W	3	s	29·76	-·13	26	25	-3	N	7	s	*	34	24	-
	Berlin	29·74	31	Z	0	b	29·69	-·35	31	30	+14	W	3	c	*	34	12	0·12
	Wiesbaden ...	*	*	*	*	*	29·89	-·20	34	32	+11	WNW	1	0	*	36	?	0·04
	Munich	29·98	34	SW	3	0	29·87	-·29	32	32	+8	W	3	0	*	37	23	0·08
	The Helder ...	29·91	33	NW	2	b	29·99	+·11	28	27	-6	NNE	1	b	2	36	28	0·08
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	29·99	-·06	31	31	-4	WNW	5	r	*	36	30	0·08
	Cape Gris Nez	30·02	38	WNW	4	f	30·12	+10	32	31	-7	N	5	c	5	41	30	-
	Paris	30·07	37	SSW	1	r	30·08	-·11	34	34	-1	N	2	0	*	40	33	0·08
	Brest	30·10	48	W	2	0	30·07	-·05	42	41	-5	E	3	0	3	50	37	-
	Lorient	30·12	45	Z	0	0	30·08	-·14	39	38	-6	E	2	0	2	46	39	0·04
	Rochefort ...	?30·13	44	SSW	4	0	?30·04	-·22	40	39	+1	ENE	3	m	*	46	34	-
	Belfort	?	28	W	2	r	?	?	28	?	-8	W	1	bc	*	39	23	0·08
	Lyons	30·18	35	SW	1	0	30·02	-·27	33	33	+9	N	1	0?	*	37	?	-
	Nice	30·07	44	SE	3	b	29·89	-·31	38	37	-4	E	4	bc	1	52	37	-
	Perpignan ...	30·15	48	N	2	b	30·01	-·22	43	40	-4	WSW	1	c	*	55	39	-
	Biarritz	30·17	50	Z	0	b	30·03	-·25	43	41	-3	SSE	2	0	2	55	39	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·19	50	SW	5	b	30·01	-·27	52	51	+8	S	4	0	?	55	?	0·12

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Monday, 5th Jan.y, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

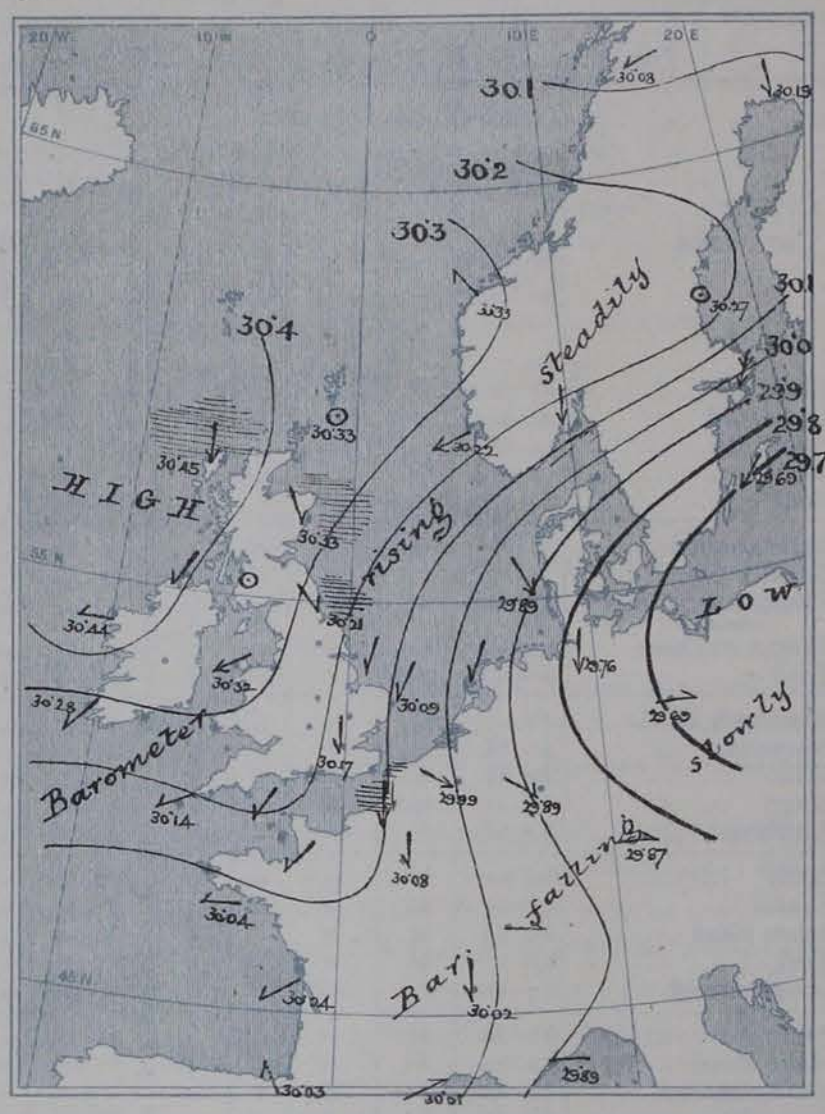
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS. ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins. and more, to 30·2 ins. over the British Islands and greater part of Norway.
Lowest, 29·7 ins. and less, over the Baltic and North Germany, and about 30·0 ins. over the northwest of Spain.
Gradient moderate in the east, and slight in the northwest, and also over the Bay of Biscay and France.
Barometer rising over our Islands and the North Sea, but appears to be falling again over Lapland.

TEMPERATURE

Highest, 52° at Lisbon, 43° at Biarritz and Perpignan, and 42° at Scilly.
Lowest, −13°F. at Haparanda, +6° at Hernösand, 19° at Bodö, 20° at Stockholm and Christiansund, and 26° at Parsonstown.
Over Germany and France temperature has risen – elsewhere it has fallen; the reading at Oxford was 27°, in London 30°, at Berlin 31°, and at Paris 34.

WIND

N. over the various shores of the North Sea – strong on the eastern shores, moderate to light on the western and over England; NE., moderate to light, on our eastern coasts; E., light over the Bay of Biscay.

WEATHER

Fine and bright over Ireland and England, dull in the north and northeast of Scotland, with snow showers in places. Very dull on the Continent, with snow at Cuxhaven and Nissly.
Cold showers (snow, graupel and cold rain) fell at nearly all our northern and eastern stations yesterday, at other times the sky was more or less clear.

SEA

Rough in the north, rather so in the east, slight in the west and southwest.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The new high pressure system seems likely to cause hard frost over the inland parts of England and Ireland tonight.

FORECASTS

For the 24 hours ending at NOON on 6th JAN.y 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	N. and NW. winds; cold showers at times.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES 5 ENGLAND SOUTH	N. and NE. winds, light; very cold, slight snow in some localities.
6 SCOTLAND WEST	Same as No. 0 and 1.
7 ENGLAND N.W. 8 ENGLAND S.W. 9 IRELAND NORTH 10 IRELAND SOUTH	NE. winds, moderate; fair, very cold.
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29·78	42	32	N	4	o	3
Sumburgh Head							
Stornoway	30·20	34	34	N	6	s	5
Aberdeen							
Shields							
Ardrossan							
Malin Head ...	30·18	42	39	NE	4	o	3
Mullaghmore ...							
Belmullet	30·19	45	44	E	1	r	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·11	43	41	NE	3	c	2
Valencia							
Scilly							
Jersey	30·08	42	47	W	4	o	3
Dungeness	30·00	38	38	NW	3	o	1
London							*
Yarmouth							
Rochefort	? 30·18	43	?	S	4	o	2

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine in the western and extreme northern parts of the United Kingdom as well as over Northern Russia, Spain, Italy and the south of France. Cloudy or overcast elsewhere with thick fog in the southeast of England and some parts of Germany, rain or sleet in Scotland, and snow at some of the Norwegian, Danish and German stations. Snow falling later over the northern parts of the United Kingdom and rain in the east and southeast.

Temperature highest 55° at Malta, 53° at Algiers, 52° at Longuniaire and La Calle and 51° at Oran; above 45 at most of the Mediterranean stations as well as over the Bay of Biscay and the extreme southwest of England. Lowest −12° Fahr. at Kafaranda, −7° at Ulearborg, −1° at Moscow, +2° at Archangel and 3° at Warsaw, Prague and Hermanstadt, below the freezing point over nearly the whole of northern, eastern and Central Europe, but a few degrees above it over England. Thermometer rising later to between 37° and 40° over Central and eastern England, and to above 50° in the south of France.

Wind moderate to strong from the North or NorthEast over Scandinavia and the northern parts of the United Kingdom, light from the NorthWest or West over the south of our Islands and from the southwest over the Netherlands, Denmark and the Baltic. Light from the NorthEast over the greater part of Southern Europe, but variable in South Germany & Austria. Subsequently falling light and variable over the southern parts of the United Kingdom.

SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 28TH DEC 1890 TO THE 3RD JANUARY 1891.

During this week hard frost prevailed continuously over Eastern, Central and Western Europe, almost continuously over England, and occasionally extended to the inland parts of Ireland and Scotland also. These conditions were caused by an anticyclone, which first lay over the Baltic and eastern shores of the North Sea, whence it moved somewhat to the westward, while lowpressure systems appeared both over the Bay of Biscay and Northern Russia. The wind was mainly Easterly, but towards the end of the week it began to draw into South, although the frost gave way very slightly even at our western and northern inland stations. Rain fell frequently in the West and Northwest, and some snow at times in other parts of the Kingdom. The weather has again been very dark, gloomy and foggy in London — especially on Friday, January 2nd.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for TUESDAY 6TH JANUARY. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30.17	-16	S	0	b	30.13	-.06	-20	-28	-7	S	0	b	*	-18	-22	—
	Hernösand ...	30.35	4	S	0	c	30.31	+.25	19	18	+13	S	0	b	*	21	-2	—
	Stockholm ...	30.28	16	NE	6	b	30.40	+.48	4	4	-16	N	2	b	*	25	?	—
	Wisby	30.03	25	ENE	8	8	30.24	+.35	19	17		E	4	0	*	28	?	0.16
	Bodö	30.13	26	E	2	c	29.96	-.12	30	28	+11	E	1	8	1	?	18	—
	Christiansund	30.34	30	SW	4	0	30.23	-.10	35	33	+15	SW	7	0	4	35	?	—
	Skudesnaes ...	30.47	27	NNE	2	b	30.47	+.26	25	23	+2	ENE	2	0	2	?	16	—
	Christiania Fjord (Færder)	30.38	19	N	6	b	30.43	+.38	18	16	-3	N	2	c	1	21	16	—
	Skagen (The Scaw)	30.23	21	NE	6	bc	30.26	+.44	22	20	-1	NE	4	bc	4	23	16	—
	Fanö	30.18	15	NW	6	b	30.28	+.39	15	14	-8	NE	6	b	*	23	15	—
GERMANY & HOLLAND.	Sumburgh Head	30.44	30	S	0	b	30.39	+.06	37	36	+4	W	2	0	2	37	29	0.01
	Stornoway ...	30.52	32	N	3	c	30.50	+.05	33	32	0	NW	3	0	3	35	28	0.03
	Wick	30.49	32	NW	1	c	30.48	+.11	32	31	0	NW	2	0	1	37	26	0.04
	Nairn	30.50	35	NNW	1	c	30.52	+.14	32	30	-3	W	1	0	1	36	24	—
	Aberdeen ...	30.47	33	N	2	b	30.52	+.19	32	31	-1	W	1	0	4	37	31	0.06
	Leith	30.44	33	NW	1	b	30.52	+.20	32	30	-3	N	1	c	*	39	30	—
	Shields	30.36	37	NNW	4	c	30.50	+.29	34	34	+1	NNE	2	c	5	39	29	0.04
	Spurn Head ...	30.26	32	NE	7	bc	30.41	+.27	32	30	-1	NNE	6	c	4	36	29	0.03
	York	30.32	31	N	1	bc	30.48	+.25	22	22	-8	NNE	1	b	*	35	21	0.03
	Loughborough	30.30	33	NNW	4	0	30.45	+.22	27	25	-3	N	2	c	*	37	26	—
BRITISH ISLANDS.	Ardrossan ...	30.48	35	NE	1	b	30.55	+.18	27	26	-5	S	0	b	0	39	26	—
	Malin Head ...	30.49	38	NE	3	c	30.55	+.16	35	33	-2	S	1	0	0	38	34	—
	Mullaghmore ...	30.49	38	NE	1	bc	30.56	+.14	33	32	0	ENE	3	b	2	38	28	—
	Belmullet ...	30.51	32	E	2	b	30.57	+.13	28	28	-4	E	1	b	*	39	27	—
	Donaghadee ...	30.46	40	NE	5	b	30.54	+.17	36	32	-2	NE	4	b	2	40	35	—
	Liverpool (Bidston)	30.36	33	N	3	b	30.50	+.19	27	26	-3	NNE	2	b	2	35	27	—
	Holyhead ...	30.39	38	NE	4	b	30.57	+.19	35	32	-1	ENE	4	bc	4	39	34	—
	Parsonstown ...	30.45	30	S	0	b	30.53	+.17	33	29	+4	S	0	b	*	35	19	—
	Valencia	30.40	36	ENE	4	b	30.52	+.24	33	31	-3	NE	2	b	2	41	31	—
	Roche's Point ...	30.39	33	ENE	3	b	30.49	+.22	32	30	-1	NE	3	b	3	40	31	—
	Pembroke (St. Ann's Hd.)	30.29	34	NE	2	b	30.47	+.19	29	27	-2	ENE	2	b	1	37	29	—
	Scilly	30.24	39	ENE	4	bc	30.36	+.22	34	31	-8	ENE	5	bc	4	42	31	—
	Prawle Point ...	30.28	31	NNE	3	b	30.38	+.15	30	29	-2	NE	7	c	5	38	27	—
	Jersey (St. Aubin's)	30.24	36	NE	3	m	30.28	+.11	33	31	-7	NNE	4	bc	3	40	32	—
	Hurst Castle ...	30.24	30	NNE	3	m	30.35	+.15	26	26	-1	NNE	4	b	1	35	25	—
	Dungeness ...	30.13	34	NNW	4	c	30.28	+.21	26	26	-4	NE	6	0	4	36	25	0.09
	London	30.21	34	NE	4	0	30.36	+.19	26	25	-4	NNE	3	b	*	35	26	—
	Oxford	30.32	30	N	1	b	30.41	+.18	24	22	-3	N	1	b	*	35	24	—
	Cambridge ...	30.26	33	N	1	b	30.42	+.23	29	26	-1	NE	1	c	*	36	22	—
	Yarmouth ...	30.18	31	NE	6	c	30.32	+.23	30	29	-3	E	7	c	6	33	26	0.21
	Cuxhaven ...	29.94	24	NNE	6	8	30.09	+.33	24	24	-2	NNE	6	bc	*	26	23	—
	Berlin		27	WNW	3	0	29.85	+.16	29	29	-7	NW	3	8	*	34	19	0.16
	Wiesbaden ...	*	*	*	*	*	30.02	+.13	22	21	-12	N		b	*	36	21	0.04
	Munich	29.86	26	NE	4	8	29.93	+.06	16	13	-16		5		*	34	16	0.16
	The Helder ...	30.17	27	NE	3	0	30.26	+.27	25	24	-8	NNE	3	0	3	30	25	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.22	+.23	21	20	-10	NE	5	8	*	35	21	0.04
	Cape Gris Nez	30.20	33	NE	6	0	30.23	+.11	23	23	-9	NE	5	8	6	36	21	—
	Paris	30.15	36	N	2	0	30.17	+.09	22	21	-12	N	2	bc	*	37	21	—
	Brest	30.19	35	E	2	bc	30.28	+.21	35	34	-7	ENE	3	0	3	?	30	—
	Lorient	30.17	37	ENE	3	bc	30.22	+.14	33	31	-6	NE	4	c	8	45	30	—
	Rochefort ...	30.07	37	ENE	4	0	30.07	+.03	29	29	-11	NE	5	b	?	43	23	—
	Belfort	29.90	24	W	1	0	29.91		?	24	-4	NW	1	0	*	48	14	—
	Lyons	30.03	32	N	4	0	29.95	-.03	19	18	-14	NW	5	b	*	48	19	0.04
	Nice	29.71	40	NE	4	b	29.58	-.31	38	34	0	E	3	c	2	50	34	—
	Perpignan ...	29.91	47	S	0	0	29.91	-.10	37	34	-6	NE	2	0	*	52	36	—
	Biarritz	29.94	48	ENE	2	0	29.95	-.08	32	28	-11	E	4	b	2	50	28	—
PENINSULA.	Corunna	*	*	*	*	*	29.54	-.47	50	50	-2	NE	4	f	8	55	48	1.22
	Lisbon	29.78	54	SSW	4	†												

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Tuesday, 6th Jan.y, 1891.

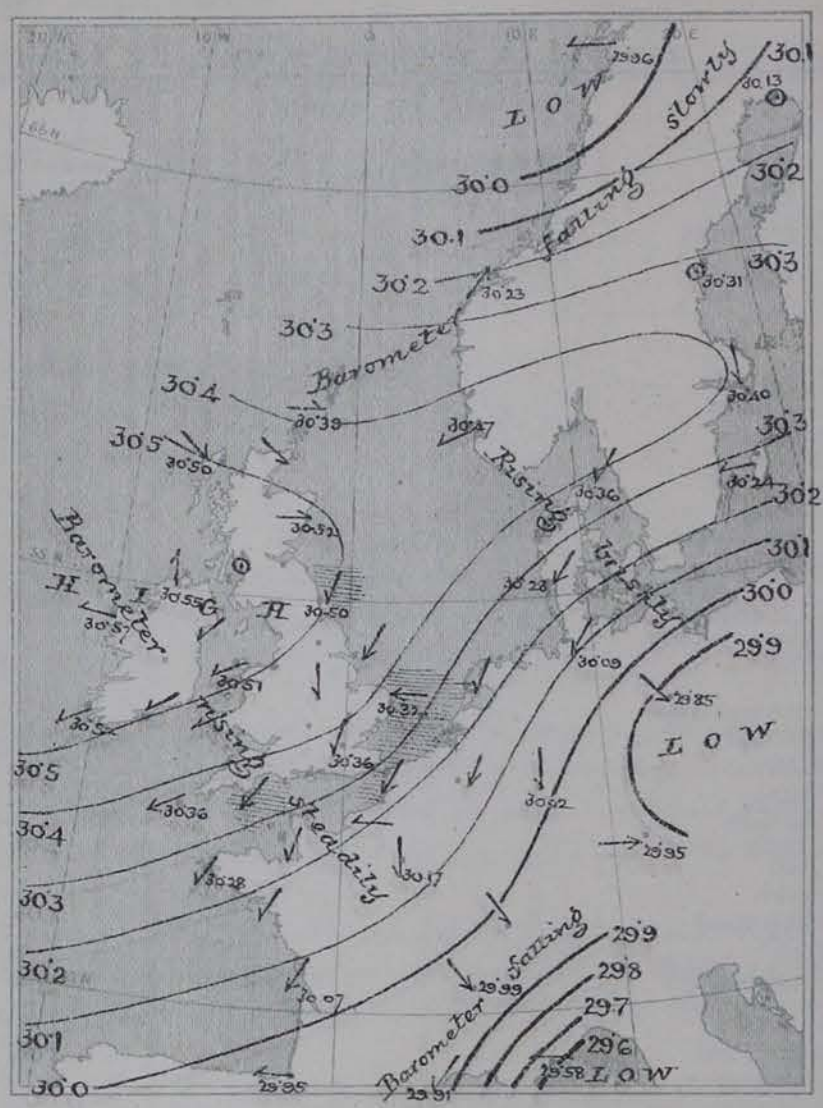
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows show the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10,
= forces 5 to 7; = forces 1 to 4.
o = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

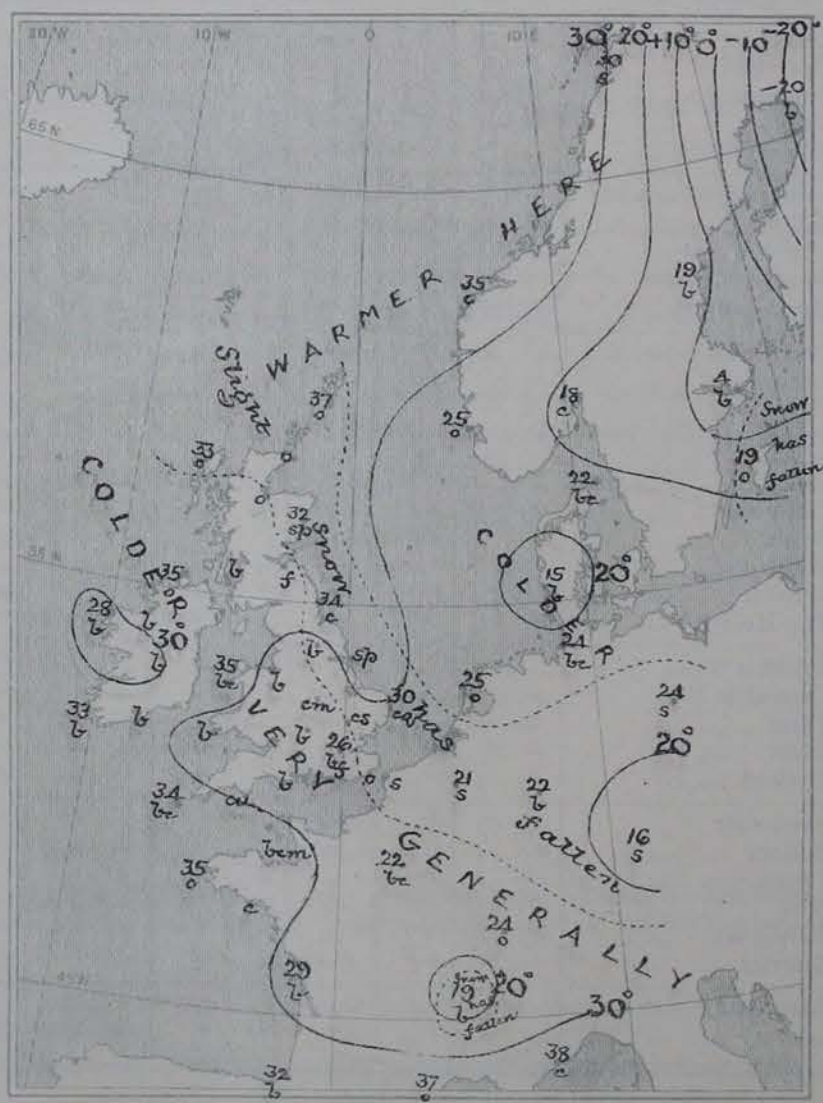
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·3	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	38·3	40·3	39·5	2·96
Dover	40·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	35·6	37·1	36·1	2·25
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	36·8	37·6	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·5 ins: and upwards, in an anticyclone lying over Ireland, Scotland, and the north of England.
Lowest, 29·6 ins: and less, over the Gulf of Genoa and also over the southern parts of the Iberian Peninsula; 30·0 ins: and less, in the northwest of Norway.
Gradient rather steep over the south of France, but slight elsewhere.
Barometer falling over the northern parts of Scandinavia and Scotland, as well as in Spain and the south of France, but rising elsewhere.

TEMPERATURE

Highest, 50° at Lisbon, 38° at Nice, 37° at Lizard Head and Pripignan, 36° at Donaghadee, and 35° at Christiansund, Malin Hd, and Holyhead.
Lowest, −20° F. at Haparanda, +4° at Stockholm, 15° at Vaná, 16° at Munich, 18° at Haparanda, and 19° at Hernösand and Wisby.
Sharp frost was experienced over England last night; in London the thermometer fell to 26° in the screen, and 19° on the grass.

WIND

Chiefly NE by E; light or moderate in force generally, but strong on the south and east coasts of England, as well as in Denmark.
Light from the W. in the north and east of Scotland; strong from SW. at Christiansund.

WEATHER

Fine over the greater part of our area, but dull in the north of Scotland and the west of Norway, with snow at Bodö and Aberdeen.
Snow was also falling in Belgium, Germany, and the northeast of France.
Showers of snow were experienced yesterday in the north and east of Great Britain.

SEA

Rather rough on the more exposed parts of our south and east coasts, but moderate to smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The anticyclone appears to be moving slowly southwards. Hard frost is probable over England to-night, with fog at many of the inland stations.

FORECASTS

For the 24 hours ending at NOON on 7th JANUARY 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	W. winds, freshening; dull, some rain or sleet.
1 SCOTLAND EAST	W. winds, light or moderate, dull, some snow showers.
2 ENGLAND N.E.	N. to NW. winds, moderate; fair generally, but some showers.
3 ENGLAND EAST	NE. and N. winds, light or moderate; fair in daytime, foggy tonight with hard frost.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	Light variable airs; fair generally but local fogs.
7 ENGLAND N.W.	NE. winds, light or moderate; fair generally.
8 ENGLAND S.W.	
9 IRELAND NORTH	Same as No 6
10 IRELAND SOUTH	Same as No 7 and 8
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30.36	33	19	N	2	b	3
Sumburgh Head	30.40	38	32	N	1	bc	2
Stornoway	30.50	35	34	N	4	o	5
Aberdeen	30.40	36	32	NNE	4	bq	6
Shields	30.26	37	33	NNW	5	c	6
Ardrossan	30.42	39	35	NW	1	b	1
Malin Head ...	30.45	38	33	NE	2	b	2
Mullaghmore ...	30.46	37	34	NE	1	b	1
Belmullet	30.47	39	36	ENE	2	b	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30.36	38	36	NE	4	b	4
Valencia	30.36	40	36	ENE	4	bm	4
Scilly	30.22	40	37	ENE	4	bc	3
Jersey	30.20	40	36	ENE	4	bcm	3
Dungeness	30.15	35	34	NNW	4	b	2
London	30.25	35	33	NNW	3	bm	*
Yarmouth	30.10	33	32	NW	3	c	4
Rochefort	30.04	41	39	ENE	4	o	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE
DURING THE PAST 24 HOURS.

Weather in morning fine and bright over Ireland, England, and the Channel, over Finland and the Gulf of Bothnia, and at some of the French stations; dull, gloomy, and unsettled elsewhere, with snow showers in the east of Scotland, at Memel, and in Poland, rain in the north of Italy, the south of France and at Brussels, fog at Prague. Snow at times in the north and east of our Islands during day and also over Germany; heavy rain 1½ ins at Luton.

Temperature falling again over our Islands and all over Northern Europe, rising fast in the southern, southeastern, and central countries. Readings 50° or more over some extreme southern regions and in Portugal, and above 40° on Spanish coasts; below 40° all over our Islands and France, and still lower over northern and central Europe — Morning values (1) −15° F at Hofparanda, −9° at Kuopio, +10° to 12° over Gulf of Finland and Central Russia; (2) 1° at Buda Kesth, 3° at Hermanstadt, 12° at Vienna, (3) 26° at Paramaribo, 27° at Oxford, 28° at Cambridge, 30° at York, Loughborough and in London. Cold all day and hard frost recurring over England at night, and spreading southeastwards to Continent.

Wind strong to a gale from NE or N. over Finland, Sweden, Norway, and Denmark, moderate N. over eastern half of Great Britain, and NE. in Ireland; W. to S. over Germany and Austria, E. to N. in the south of France, very variable elsewhere. Becoming NE. over England later, and freshening greatly on Norfolk and Suffolk coast.

Barometer highest 30.4 ins and more to 30.2 ins over the British Islands and the south and west of Scandinavia, 30.2 ins to 30.1 ins over Algeria and Spain, and also over Southern Russia and the Balkan Peninsula; lowest 29.6 ins and less, in an elongated depression lying over the Baltic, the northeast of Prussia, and the Baltic Provinces of Russia, 29.9 ins and less, in a shallow depression over the Gulf of Genoa and Corsica moving over our Island, France and the North Sea all day.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Wednesday 7th January. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30.04	-4	S	2	b	30.17	+.04	-8	-8	+12	N	0	b	*	-2	?	—
	Hernösand ...	30.30	8	N	0	b	30.33	+.02	0	0	-19	N	0	b	*	16	0	—
	Stockholm ...	30.45	6	N	0	b	30.45	+.05	10	9	+6	N	0	b	*	16	3	—
	Wisby	30.34	20	NE	4	c	30.34	+.10	18	17	-1	E	4	b	*	23	16	—
	Bodö	30.05	37	WSW	4	o	30.10	+.14	36	33	+6	S	2	o	1	37	32	—
	Christiansund	30.22	37	SW	4	p	30.19	-.04	36	34	+1	SE	1	bc	4	37	36	—
	Skudesnaes ...	30.35	31	SE	4	d	30.23	-.24	33	31	+8	SSE	8	o	4	?	18	—
	Christiania Fjord (Færder)	30.36	21	N	0	b	30.38	-.05	23	22	+5	SE	2	o	2	?	19	—
	Skagen (The Scaw)	30.39	22	E	2	c	30.33	-.03	20	19	-2	E	3	b	3	28	19	—
	Fanö	30.34	12	NNE	4	b	30.23	-.05	13	12	-2	N	4	c	*	19	7	—
BRITISH ISLANDS.	Sumburgh Head	30.31	39	W	3	p	30.16	-.23	38	37	+1	W	1	b	2	40	35	0.13
	Stornoway ...	30.43	30	N	0	b	30.16	-.34	39	37	+6	W	4	o	4	39	26	—
	Wick	30.42	27	NW	2	bc	30.21	-.27	28	27	-4	NW	1	b	1	35	20	—
	Nairn	30.45	34	W	1	bc	30.25	-.27	30	28	-2	WSW	1	b	1	35	26	—
	Aberdeen ...	30.47	27	W	1	b	30.28	-.24	21	20	-11	WSW	1	b	3	32	21	0.01
	Leith	30.48	30	W	1	b	30.30	-.22	31	30	-1	W	1	bcm	*	34	27	—
	Shields	30.49	33	NW	2	o	30.31	-.19	25	25	-9	WNW	3	bc	3	35	22	—
	Spurn Head ...	30.40	32	NNE	4	bc	30.27	-.14	28	28	-4	WNW	4	d	3	33	28	0.02
	York	30.48	22	N	1	b	30.31	-.17	21	21	-1	N	1	b	*	31	18	—
	Loughborough	30.45	27	NNE	3	b	30.34	-.11	26	25	-1	NW	2	chop	*	35	21	—
	Ardrossan ...	30.50	34	N	0	om	30.32	-.23	37	34	+10	N	0	o	0	37	27	—
	Malin Head ...	30.49	36	SW	2	o	30.29	-.26	32	32	-3	S	5	b	2	36	31	—
	Mullaghmore ...	30.53	38	N	0	cm	30.38	-.23	31	28	-2	SSW	4	b	2	35	26	—
	Belmullet ...	30.55	35	S	2	o	30.27	-.30	29	29	+1	S	2	c	*	35	26	—
	Donaghadee ...	30.52	35	W	2	c	30.38	-.16	26	25	-10	W	2	bc	0	39	25	—
	Liverpool (Bidston)	30.50	29	N	1	b	30.36	-.14	28	26	+1	W	2	b	2	32	26	—
	Holyhead ...	30.51	33	ENE	3	b	30.38	-.13	30	27	-5	WSW	1	bcm	2	36	27	—
	Parsonstown ...	30.53	27	N	0	b	30.39	-.14	19	18	-11	N	0	b	*	32	17	—
	Valencia	30.49	33	E	1	b	30.35	-.17	35	29	+2	SE	2	c	2	41	29	—
	Roche's Point ...	30.49	32	NE	3	b	30.41	-.08	29	28	-3	NNE	1	b	3	37	27	—
	Pembroke (St. Ann's Hd.)	30.48	31	ENE	2	b	30.39	-.08	26	24	-3	ENE	1	b	1	33	26	—
	Scilly	30.38	33	ENE	5	b	30.33	-.03	33	30	-1	ENE	4	b	4	35	30	—
	Prawle Point ...	30.38	30	NE	7	bc	30.36	-.02	23	23	-7	NNE	3	b	2	32	23	—
	Jersey (St. Aubin's)	30.29	30	E	3	bm	30.26	-.02	30	29	-3	E	3	cmq	3	35	28	0.08
	Hurst Castle ...	30.36	27	NNE	3	b	30.31	-.04	26	26	0	NNE	4	b	1	30	23	—
	Dungeness ...	30.25	28	NE	7	dq	30.22	-.06	28	28	+2	NE	4	c	4	31	25	0.07
	London	30.36	27	NE	3	bc	30.29	-.07	26	24	0	N	1	bf	*	31	25	—
	Oxford	30.42	23	NE	2	bc	30.34	-.07	19	19	-5	NNW	1	bm	*	29	19	0.03
	Cambridge ...	30.40	26	NE	1	dp	30.30	-.12	16	15	-11	N	1	b	*	32	15	0.16
	Yarmouth ...	30.32	31	ENE	7	cq	30.24	-.08	25	25	-5	NNW	3	bcf	5	31	24	0.04
GERMANY & HOLLAND.	Cuxhaven ...	30.24	24	NE	5	o	30.13	+.04	24	?	0	NNE	5	o	*	24	?	—
	Berlin	29.54	19	N	3	c	30.00	+.15	16	16	-8	ENE	3	d	*	28	16	0.08
	Wiesbaden ...	*	*	*	*	*	29.57	-.05	21	20	-1	N	2	d	*	27	19	—
	Munich	29.53	14	SW	3	c	29.89	-.04	9	7	-7	S	2	o	*	19	7	0.04
	The Helder ...	30.30	26	NE	2	b	30.19	-.07	24	23	-1	NNE	2	b	2	28	23	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	29.84	27	NE	6	d	30.20	-.03	17	17	-6	E	3	c	3	28	17	—
	Paris	30.17	24	N	3	c	30.13	-.04	21	20	-1	NNW	3	bc	*	26	20	—
	Brest	30.24	31	ENE	4	f	30.24	-.04	30	28	-5	ENE	2	c	3	36	27	—
	Lorient	30.25	30	NE	4	b	30.23	+.01	25	23	-8	NNE	4	bc	2	36	25	—
	Rochefort ...	30.13	25	NE	6	b	30.10	+.03	26	26	-3	NE	5	o	?	37	?	—
	Belfort	?	20	W	1	o	? ?		23	?	-1	W	1	o	*	31	14	—
	Lyons	29.99	19	N	5	b	29.96	-.03	16	15	-3	N	5	o	*	23	16	—
	Nice	29.59	40	E	3	c	29.54	-.04	38	30	0	NE	5	c	4	48	36	—
	Perpignan ...	29.84	34	NW	4	b	29.82	-.09	25	22	-12	NW	3	b	*	39	24	—
	Biarritz	29.98	33	NE	5	b	30.04	+.09	19	19	-13	E	4	c	4	39	18	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	29.67	47	N	5	b	29.90	+.36	35	30	-15	N	5	b	?	54	34	0.04

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Wednesday 7th Jany 1891.

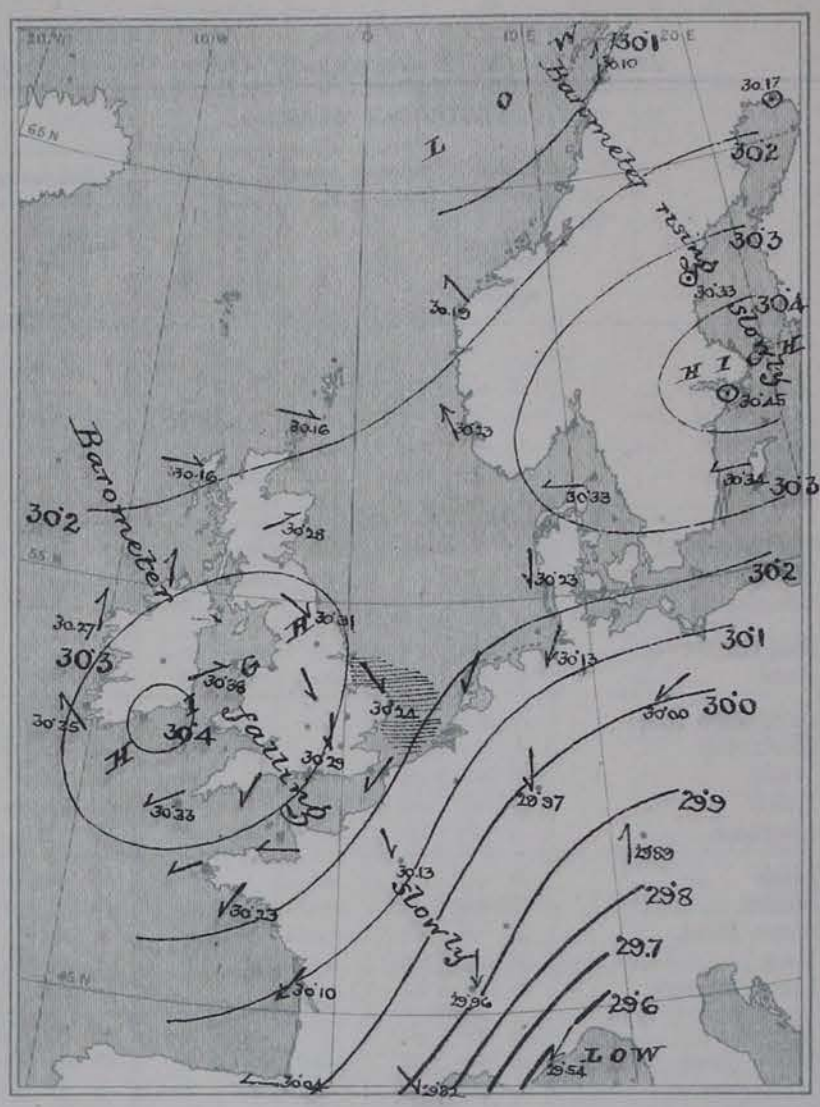
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
⟶ = forces above 10; ⟶ = forces 8 to 10;
⟶ = forces 5 to 7; ⟶ = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

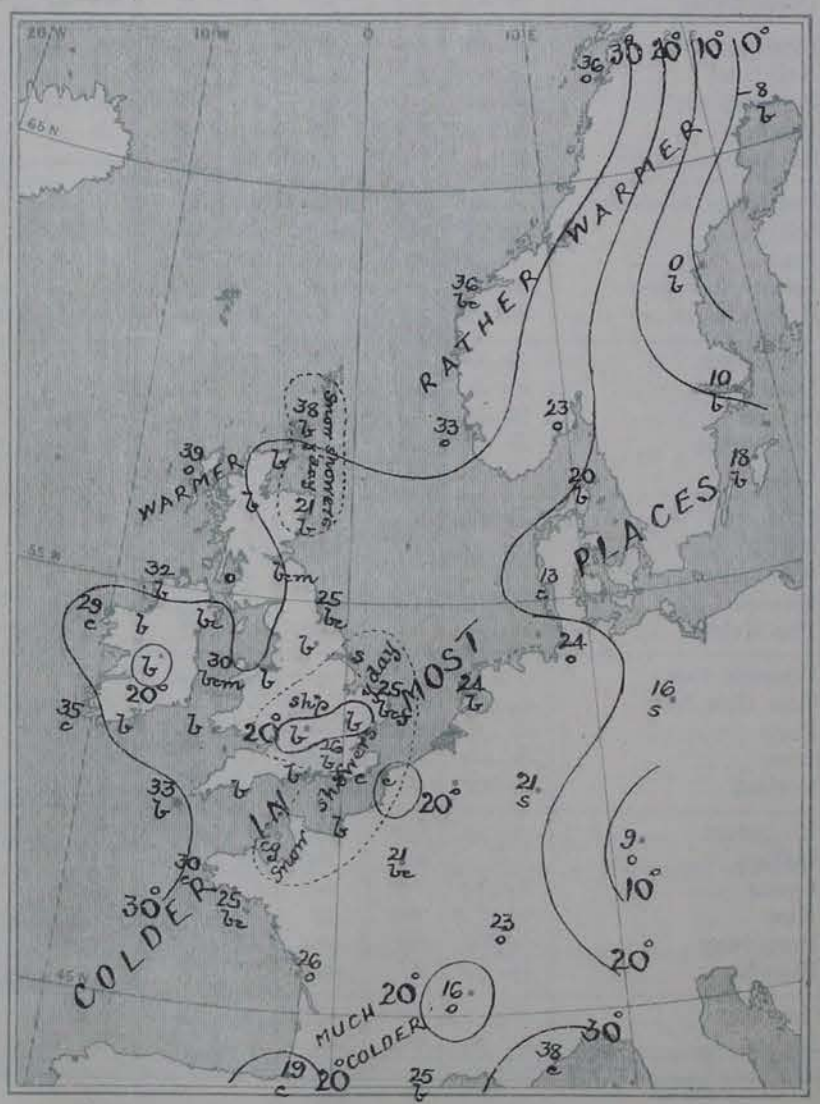
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·8	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins and upwards, in an anticyclone lying over the south of Sweden; 30·3 ins to 30·4 ins in another system lying over Ireland and the greater part of England.

Lowest, 28·6 ins and less, in the south of France.

Gradients slight. Barometer falling at all but the Swedish stations — most in the north and northwest of our Islands.

TEMPERATURE

Highest, 39° at Bergen, 38° at Dumbuoy Head and Nice, 37° at Aalesund, 36° at Bodo and Christiansund, and 35° at Valencia Island.

Lowest, −8° F. at Haparanda, 0 Zero at Thorsand, 9° at Munich, 10° at Stockholm, 13° at Paris, and 16° at Cambridge, Berlin, and Lyons.

During the past night the sheltered thermometer has fallen to 15° at Cambridge, 17° at Parsonstown, 18° at York, and 19° at Oxford.

WIND

Light or moderate from the W.ward in Scotland, from the S.ward in the north of Ireland, and from the SE.ward in the west of Norway.

NW. over the eastern and central parts of England; NE. over the south of our Islands and the greater part of the Continent; but calm in Sweden.

WEATHER

Fine in most parts of the United Kingdom and France and also in Sweden, but snow reported at Spurn Hd. and soft hail at Loughborough.

Dull in Norway, Denmark and Germany, with snow at Berlin and Wiesbaden.

Snow fell yesterday at many of our eastern and southern stations.

SEA

Moderate to smooth generally, but rather rough at Yarmouth.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The anticyclone over our Islands appears to be breaking up, but the fall in the barometer is not yet of sufficient rapidity to lead to any immediate alteration in the weather. Fog is likely to set in at many of the English stations.

FORECASTS

For the 24 hours ending at NOON on 8TH JANY 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SW. and W. winds, freshening; fair to dull and some snow.
1 SCOTLAND EAST	W. and SW. winds, light; fair generally.
2 ENGLAND N.E.	NW. winds, light; fair generally, but local fogs
3 ENGLAND EAST	N. winds, light; fine at first, but afterwards becoming foggy, hard frost at night.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	Light Variable airs; fair generally, but local fogs
7 ENGLAND N.W.	
8 ENGLAND S.W.	NE. winds, light; fair generally, but local fogs.
9 IRELAND NORTH	SE. and S. winds, light or moderate; fair generally.
10 IRELAND SOUTH	
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA	SEA
Skudesnaes ...	30.43	30	27	ESE	2	o	2
Sumburgh Head	30.35	35	39	W	3	c	3
Stornoway	30.46	34	33	W	2	c	2
Aberdeen	30.50	31	29	W	1	bc	4
Shields	30.51	34	34	NW	2	c	4
Ardrossan	30.52	35	33	NE	1	bc	1
Malin Head ...	30.52	36	32	S	2	o	1
Mullaghmore ...	30.56	34	31	S	0	cm	1
Belmullet	30.55	35	32	S	2	o	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA	SEA
Holyhead	30.51	35	32	ENE	4	bc	4
Valencia	30.49	40	36	ENE	4	bm	4
Scilly	30.36	35	32	ENE	6	bc	4
Jersey	30.30	31	29	ESE	3	ofg	3
Dungeness	30.25	31	29	NE	6	dq	5
London	30.37	31	31	NNE	2	c	*
Yarmouth	30.32	31	30	ENE	7	cq	6
Rochefort							

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather in morning fine and bright over the greater part of our Islands and France, as well as over Sweden, Finland, and the Baltic Provinces, but slight dry snow in a few localities; dull and changeable elsewhere, with snow in many parts of Central Europe, rain at some Mediterranean stations; Snow over Germany and at several of the eastern and southern stations in England later, but not in large quantities; cold fine weather continuing elsewhere.

Temperature very low generally — rises over Norway, falls elsewhere; strong frost at the majority of the inland stations, but especially severe over northern and central Russia. Morning readings exceeding 50° at Lerina, Palermo, Malta, Cagliari, and some Algerian stations only, and exceeding 40° on most of the Mediterranean coasts and in Portugal; below 30° in most other places, 22° to 26° over Central England, France and Germany, 12° at Hermanstadt, 10° at Memel, 3° at Riga and Moscow, −5° F. at St Petersburg and Uleaborg, and −18° at Kuopio. No change of importance reported later; very cold over the British Islands at night.

Wind W^ly to SW^ly in the north of Scotland and northwest of Norway — strong at Christiansund; nearly calm over Ireland and the west and south of Scotland, NE^ly in almost all other parts of Europe, but variable over the southeastern countries and the Mediterranean. Fresh to a gale on the German coasts, strong over the southern parts of the North Sea as a whole, fresh to strong in the Channel. Moderate to strong cyclonic circulation reported over the Mediterranean. No important change later.

Barometer highest 30.5 ins: and more in an anticyclone lying over all the western and northern parts of our Islands, and exceeding 30.4 ins: in a long ridge stretching thence across the North Sea to the southern parts of Norway, Sweden and Finland. Lowest 29.7 ins: to 29.5 ins: in a depression off the southwest coasts of Spain, and in another over the northeastern part of the Mediterranean; 29.8 ins: and less, in a secondary system over Hungary, and apparently about 29.9 ins: in others over the White Sea and the northwest of Norway. Falling a little at the northern and northwestern stations later.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

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for *Thursday, 8th January,* 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·28	1	N	0	f	30·34	+·14	16	15	+24	SW	4	0	*	?	−13	-
	Hernösand ...	30·41	12	SW	2	b	30·32	−·01	8	8	+8	N	0	c	*	18	0	-
	Stockholm ...	30·31	12	N	0	b	30·10	−·35	28	24	+18	ESE	2	S	*	?	3	0·08
	Wisby	30·15	24	E	4	S	30·03	−·31	26	25	+8	SE	4	0	*	?	14	0·20
	Bodö	30·08	35	S	2	0	30·00	−·10	32	25	−4	E	2	bc	1	36	27	-
	Christiansund	30·12	31	SE	1	b	29·95	−·24	31	29	−5	SE	2	b	3	?	30	-
	Skudesnaes ...	30·22	27	SE	8	bc	30·04	−·19	22	19	−11	SSE	4	b	3	34	21	-
	Christiania Fjord (Færder)	30·32	14	NE	5	b	30·05	−·33	16	16	−7	NNW	6	S	2	23	?	-
	Skagen (The Scaw)	30·14	23	NE	0	0	29·99	−·34	21	20	+1	NE	3	0	3	25	19	-
	Fanö	30·09	20	NE	4	0	29·95	−·28	21	21	+8	NE	4	0	*	21	12	-
BRITISH ISLANDS.	Sumburgh Head	30·01	34	WSW	1	r	29·70	−·46	38	36	0	S	8	0	3	41	34	0·06
	Stornoway ...	29·90	38	SW	6	b	29·55	−·61	39	39	0	SW	7	0	6	39	32	0·05
	Wick	30·03	36	SW	1	c	29·69	−·54	36	35	+8	S	3	0	2	38	25	-
	Nairn	30·05	29	N	0	b	29·69	−·58	33	32	+3	N	0	c	1	38	25	-
	Aberdeen ...	30·10	30	WSW	1	cm	29·79	−·49	28	27	+7	S	2	cm	3	31	21	-
	Leith	30·15	31	W	1	b	29·81	−·49	32	31	+1	SE	1	bc	*	39	21	-
	Shields	30·15	30	WNW	3	c	29·90	−·41	26	26	+1	SW	2	c	3	34	22	-
	Spurn Head ...	30·06	31	WNW	4	Sm	29·96	−·31	29	29	−1	SSW	2	cm	3	33	28	0·02
	York	30·14	30	NNW	1	b	29·96	−·35	25	25	+4	S	1	b	*	31	20	-
	Loughborough	30·17	32	WNW	2	0	30·01	−·33	24	24	−2	E	1	b	*	35	24	-
	Ardrossan ...	30·12	38	SW	3	b	29·74	−·58	39	39	+2	SSE	4	cp	3	40	27	0·03
	Malin Head ...	30·01	33	S	5	c	29·59	−·70	35	34	+3	SSW	4	0	2	35	30	-
	Mullaghmore ...	30·05	35	S	6	ou	29·63	−·70	37	36	+6	SSW	6	cp	4	38	30	0·18
	Belmullet ...	29·98	40	SSW	7	ou	29·64	−·63	40	38	+11	WNW	1	b	*	41	28	0·22
	Donaghadee ...	30·16	30	SW	2	b	29·76	−·62	36	36	+10	S	3	r	1	37	26	0·02
	Liverpool (Bidston)	30·19	35	WNW	2	0	29·94	−·42	28	27	0	SSE	3	c	3	35	26	-
	Holyhead ...	30·21	33	WSW	2	b	29·84	−·54	38	37	+8	S	5	og	4	40	30	0·05
	Parsonstown ...	30·15	29	N	0	b	29·66	−·73	35	35	+16	N	0	0	*	38	?19	0·17
	Valencia	30·14	41	SSE	6	ou	29·74	−·61	42	41	+7	WNW	2	bc	3	45	35	0·48
	Roche's Point ...	30·22	38	SW	4	b	29·74	−·67	43	41	+14	WSW	4	bc	5	43	29	0·40
	Pembroke (St. Ann's Hd.)	30·26	34	E	1	b	29·88	−·51	38	37	+12	SSW	4	ogp	4	41	25	0·02
	Scilly	30·26	33	NE	1	b	29·93	−·40	42	41	+9	SSW	6	0	4	42	31	-
	Prawle Point ...	30·25	28	N	2	b	30·04	−·32	32	30	+9	SSW	4	c	3	37	23	-
	Jersey (St. Aubin's)	30·21	35	NNW	3	cqm	30·09	−·17	34	33	+7	W	1	cq	1	37	30	-
	Hurst Castle ...	30·19	36	N	3	m	30·06	−·25	24	24	−2	WNW	1	b	1	31	24	-
	Dungeness ...	30·08	29	N	3	m	30·01	−·21	29	29	+1	N	3	0	2	30	25	0·04
	London	30·15	30	NW	1	bc	30·02	−·27	25	24	−1	WNW	1	bf	*	32	25	0·04
	Oxford	30·17	30	NW	2	0	30·04	−·30	22	21	+3	W	1	bm	*	32	18	-
	Cambridge ...	30·15	27	NW	1	s	30·02	−·28	27	27	+11	N	1	0	*	30	15	0·21
	Yarmouth ...	30·13	31	N	1	os	30·00	−·24	29	29	+4	ESE	1	bcv	4	34	24	0·06
GERMANY & HOLLAND.	Cuxhaven ...	30·07	24	NE	5	0	29·99	−·16	20	19	−4	S	1	0	*	24	17	-
	Berlin	29·99	16	ESE	2	0	30·00	·00	17	17	+1	NE	2	0	*	19	14	-
	Wiesbaden ...	*	*	*	*	*	29·98	+·01	19	18	−2	N	1	S	*	25	16	0·04
	Munich	29·83	10	N	0	S	29·88	−·01	12	12	+3	W	4	S	*	14	9	0·04
	The Helder ...	30·05	27	NNE	1	0	29·99	−·20	28	27	+4	WNW	1	0	1	28	23	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·03		23	22		ENE	2	?	*	25	22	-
	Cape Gris Nez	30·06	29	N	5	S	30·00	−·20	24	24	+7	NE	4	0	4	32	?	-
	Paris	30·07	22	N	3	c	30·07	−·06	18	18	−3	N	0	0	*	26	17	-
	Brest	30·28	30	ENE	1	s	30·16	−·08	37	36	+7	WSW	3	b	3	37	28	-
	Lorient	30·21	30	N	2	bc	30·15	−·08	31	28	+6	E	1	b	2	32	?	-
	Rochefort ...	?30·11	27	NNE	5	b	?30·12	+·02	34	33	+8	N	4	0	*	?	19	-
	Belfort	?	21	W	1	c	?	?	25	?	+2	W	2	0	*	31	16	-
	Lyons	29·92	19	N	1	0	30·01	+·05	17	15	+1	N	4	0	*	?26	?16	-
	Nice	29·50	38	NE	4	0	29·54	·00	36	32	−2	SE	2	c	3	44	36	-
	Perpignan ...	29·82	28	NW	6	b	29·89	+·07	25	22	0	NW	7	b	*	31	25	-
	Biarritz	30·03	29	E	3	0	30·15	+·11	25	22	+6	ESE	2	c	2	39	?19	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·15	38	NNE	3	b	30·32	+·42	35	30	0	N	3	b	?	41	34	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Thursday 8th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

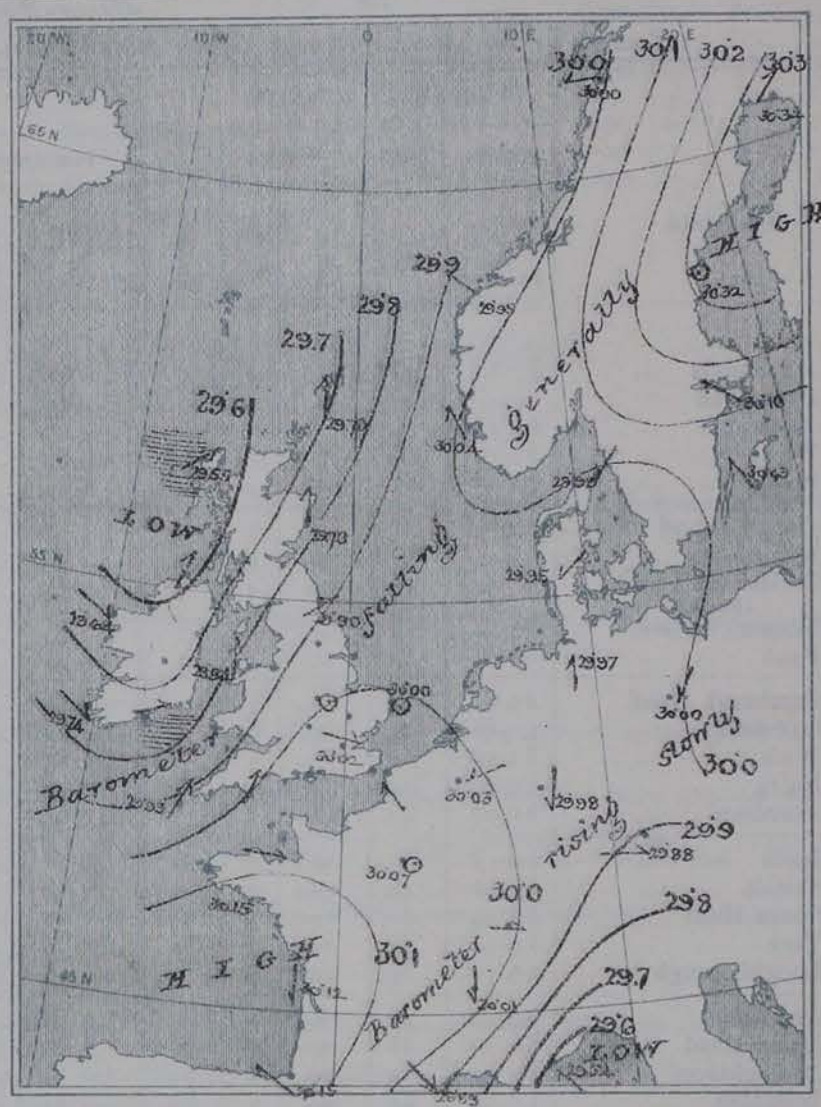
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus:—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

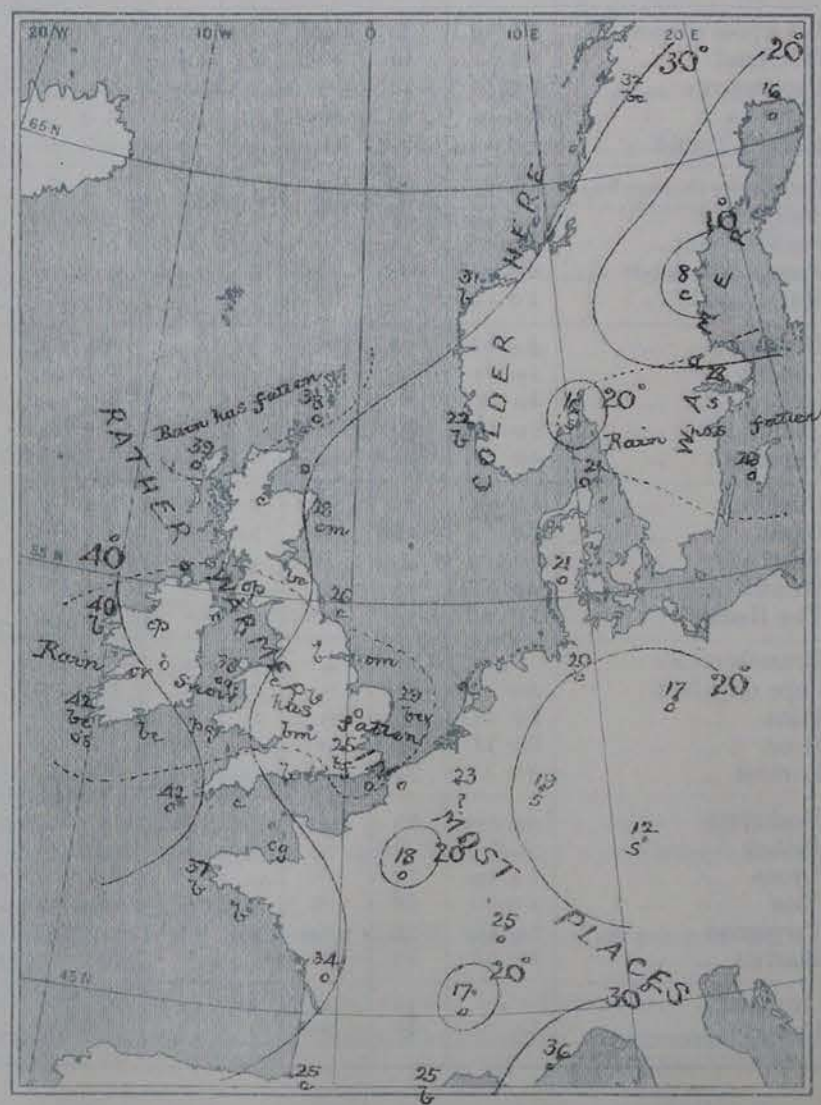
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (*Inches.*)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins. and upwards, over the Gulf of Bothnia and also in the south of Portugal.
Lowest, 29·6 ins. and less, in a depression lying off the west of Scotland, and also in another disturbance lying over the Gulf of Finland.
Gradients moderate over the west and north of our Islands, but slight elsewhere.
Barometer falling at all but the French and German stations.

TEMPERATURE

Highest, 43° at Roche's Point, 41° at Valencia Island and Scilly, 40° at Belmullet, 39° at Stornoway, and 38° at Lerwick, Holyhead, and Aberdeen.
Lowest, 8° at Haparanda, 12° at Munich, 16° at Haparanda, 17° at Berlin and Lyons, and 19° at Wiesbaden.
Sharp frost was again experienced over England last night.

WIND

Moderate to strong from the S.ward at most of our western and northern stations, but light from the W. or NW.ward in the south of Ireland.
Variable in the southeast of England and also over Germany, the Netherlands, and the greater part of France.
Light or moderate from the NE.ward in Denmark, and from the SE.ward in the west of Norway.

WEATHER

Fine in all the more eastern part of Great Britain, as well as in Norway, the south of Ireland, and the west and south of France.
Dull elsewhere, with showers at some of our western stations, and snow in many parts of Scandinavia and Germany.
Snow has fallen at several of the English stations, and heavy rain in the south of Ireland (0·8 in. at Valencia Island).

SEA

Moderate to smooth generally, but rough at Stornoway, and rather rough at Roche's Point.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The large "V shaped" depression in the west will probably spread further to the eastward, and occasion some increase of temperature over England, with snow in places. It is, however, at present very doubtful whether the change to milder weather will prove to be permanent.

FORECASTS

For the 24 hours ending at NOON on 9th JANY. 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
↓ 0 SCOTLAND NORTH 1 SCOTLAND EAST	S. winds, freshening considerably; dull, some snow.	↓ 6 SCOTLAND WEST 7 ENGLAND N.W.	S. winds, strong to moderate; dull, some snow or cold rain.
2 ENGLAND N.E.	S. winds, light or moderate, fair to dull and some snow, temperature rising.	8 ENGLAND S.W. ↓ 9 IRELAND NORTH	S. to W. winds, unsettled, some rain or sleet.
3 ENGLAND EAST 4 MIDLAND COUNTIES 5 ENGLAND SOUTH	Wind backing to the SW.ward or S.ward and temperature rising; fine at first, unsettled later, with some snow.	10 IRELAND SOUTH	W. and NW. winds, light or moderate; fair generally.
		WARNINGS	The SOUTH CONE was hoisted last evening in districts 0 6 9 and 10, but has been lowered this morning in district 10

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·24	31	28	SSE	8	s	4
Sumburgh Head	30·07	39	37	NNW	1	b	2
Stornoway	30·04	39	36	SW	4	b	4
Aberdeen	30·16	30	29	SW	1	cm	3
Shields	30·19	32	32	WNW	3	c	3
Ardrossan	30·21	39	36	NNW	3	b	2
Malin Head ...	30·11	33	31	S	6	b	3
Mullaghmore ...	30·15	34	32	ENE	6	c	4
Belmullet	30·12	39	37	SSW	5	o	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·29	35	33	WNW	2	csp	2
Valencia	30·25	40	36	S	5	om	5
Scilly	30·30	36	32	NE	3	b	4
Jersey	30·23	34	32	NE	3	c	3
Dungeness	30·15	29	29	NE	2	bc	3
London	30·19	32	32	NNW	2	om	*
Yarmouth	30·14	34	33	N	2	os	4
Rochefort	30·10	28	28	NNE	5	c	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine over the greater part of the United Kingdom as well as in Sweden, central Russia, and the north of France, but snow falling at some of the English stations. Dull elsewhere, with snow in several parts of France, Germany, Austria, and northern Italy, and rain at Leghorn, Rome, and Sanguinaire. Considerable amounts of snow falling later in the east and southeast of England; rain setting in over Ireland at night.

Temperature highest 57° at Malta, 56° at Palermo, 55° at Cagliari and Algiers, and 54° at Nemours; above 50° over the central and southern parts of the Mediterranean generally, but below 40° on its northern shores. Lowest −22° F. at Moscow, −11° at Helsingfors, −8° at Haparanda, −4 at St Petersburg, 0 zero at Hernosand and +1° at Riga; below the freezing point in most parts of Europe, but several degrees above it in the Shetlands, Hebrides, and west of Norway. Daily maxima below 32° in several parts of England and France, and below 20° at some of the German stations.

Wind light or moderate from between N. and E. over the Baltic, Denmark, Western Germany, the Netherlands, France, Spain, and the extreme south of England. SW^ly to W^ly breezes reported over the northern and northwestern parts of the United Kingdom, and SE^ly winds in Norway, with a gale at Skudesnaes. Calm in Sweden; light and variable over Austria and Russia, moderate to fresh from the S^ly in Algeria and the south of Italy. Strong S^ly winds setting in later in the extreme west and northwest of our Islands, with a gale in the south of Ireland at night.

Barometer highest 30·6 ins: and upwards, over Central Russia; 30·3 ins: to 30·4 ins: over the greater part of Ireland and England, the two systems being connected by a broad col extending across the North Sea, Scandinavia, and the Baltic. Lowest 29·5 ins: and less, in a well marked depression lying over Corsica and Sardinia as well as in a smaller system lying near Algiers. Rapid fall of barometer taking place later in the west and north of our Islands and high pressure system over Ireland and England dispersing.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for *Friday, 9th January,* 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. **R. H. SCOTT,** *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·20	3	S	2	bc	30·00	-·34	15	15	-1	S	4	S	*	21	-4	0·16
	Hernösand ...	29·99	24	NNE	4	S	29·99	-·33	19	18	+11	Z	0	b	*	28	1	0·39
	Stockholm ...	29·97	28	SE	2	S	30·02	-·08	25	24	-3	Z	0	f	*	30	10	0·16
	Wisby	29·95	24	ESE	6	S	29·99	-·04	32	31	+6	NNW	4	b	*	?	21	0·20
	Bodö	29·88	21	E	2	b	29·81	-·19	24	22	-8	E	4	c	2	?	19	-
	Christiansund	29·86	34	NNE	2	b	29·93	-·02	28	26	-3	ESE	4	b	3	?	24	-
	Skudesnaes ...	29·97	26	SSE	4	0	30·06	+·02	31	30	+9	SSE	4	0	3	?	22	-
	Christiania Fjord (Færder)	29·98	18	NNW	5	0	30·08	+·03	15	15	-1	NNW	2	b	1	18	14	-
	Skagen (The Scaw)	29·97	24	N	2	0	30·09	+·10	22	21	+1	N	1	b	1	27	19	-
	Fanö	30·04	20	SE	1	0	30·12	+·17	22	22	+1	SSE	1	0	*	23	12	0·04
BRITISH ISLANDS.	Sumburgh Head	29·65	38	S	3	r	29·85	+·15	40	39	+2	Z	0	0	3	41	38	0·02
	Stornoway ...	29·59	38	Z	0	bc	29·93	+·38	37	35	-2	NW	2	c	3	40	34	0·15
	Wick	29·64	38	SW	2	bc	29·92	+·25	37	36	+1	NW	2	0	2	38	32	-
	Nairn	29·65	34	Z	0	bc	29·92	+·25	36	34	+3	SW	1	c	1	38	26	-
	Aberdeen ...	29·73	35	S	3	or	29·98	+·19	28	24	0	N	1	bm	3	35	28	0·03
	Leith	29·70	35	S	1	0	29·94	+·16	31	31	-1	Z	0	bc	*	36	30	-
	Shields	29·79	23	S	3	0	29·93	+·08	31	31	+5	SW	2	c	2	33	24	-
	Spurn Head ...	29·88	28	S	4	om	30·05	+·09	29	29	0	S	4	bm	3	33	27	-
	York	29·84	32	S	2	s	30·01	+·05	31	30	+6	S	1	0	*	33	24	0·03
	Loughborough	29·89	31	SSE	2	s	30·04	+·03	32	30	+8	ESE	2	0	*	36	23	0·01
	Ardrossan ...	29·67	38	SE	3	0	30·00	+·26	35	35	-4	Z	0	cm	0	40	33	0·13
	Malin Head ...	29·61	36	S	1	c	29·96	+·37	36	35	+1	S	1	c	2	40	34	0·03
	Mullaghmore ...	29·63	37	WSW	3	b	29·99	+·36	38	35	+1	W	1	c	3	41	32	0·18
	Belmullet ...	29·63	38	NW	2	0	30·04	+·40	39	38	-1	N	1	c	*	43	36	0·22
	Donaghadee ...	29·64	36	WNW	2	b	29·90	+·22	40	39	+4	NNE	3	c	1	41	35	0·03
	Liverpool (Bidston)	29·74	32	SE	4	0	29·97	+·03	32	31	+4	ESE	3	c	3	35	27	0·03
	Holyhead ...	29·67	39	S	6	rmq	29·95	+·11	37	37	-1	ESE	1	c	2	40	35	0·28
	Parsonstown ...	29·68	34	Z	0	b	30·03	+·37	30	29	-5	Z	0	b	*	41	28	-
	Valencia	29·77	42	N	2	bc	30·03	+·29	42	41	0	N	2	bc	3	47	40	0·20
	Roche's Point ...	29·74	41	WNW	3	b	30·00	+·26	37	35	-6	N	3	b	4	45	34	-
	Pembroke (St. Ann's Hd.)	29·69	38	S	6	r	29·90	+·02	36	35	-2	ENE	2	c	3	42	34	0·67
	Scilly	29·70	44	WNW	3	c	29·83	-·10	40	40	-2	NNW	1	op	6	44	39	0·47
	Prawle Point ...	29·84	39	S	6	r	29·90	-·14	39	39	+7	SSE	6	ru	5	41	32	0·10
	Jersey (St. Aubin's)	29·96	38	SSW	3	bc	29·99	-·10	35	32	-2	SE	6	cg	4	42	34	-
	Hurst Castle ...	29·91	39	NW	4	0	30·00	-·06	38	36	+14	SSW	5	c	3	39	24	0·02
	Dungeness ...	29·99	33	SSW	4	0	30·08	+·07	29	29	-2	SSW	3	f	3	35	24	-
	London	29·95	31	SSE	1	0	30·07	+·05	28	27	+3	SSE	1	fb	*	37	25	-
	Oxford	29·91	33	SE	3	0	30·04	·00	31	31	+9	SE	1	cs	*	34	22	-
	Cambridge ...	29·96	26	NW	1	0	? 30·07	+·05	25	24	-2	SE	1	0	*	32	21	-
	Yarmouth ...	29·95	28	S	1	bc	30·09	+·09	30	30	+1	NNW	3	bc	4	31	25	-
GERMANY & HOLLAND.	Cuxhaven ...	30·04	22	S	1	0	30·16	+·19	17	16	-3	S	1	f	*	23	15	-
	Berlin	30·05	15	W	2	0	30·14	+·14	11	11	-6	NW	4	0	*	18	10	-
	Wiesbaden ...	*	*	*	*	*	30·14	+·16	13	12	-6	Z	0	s	*	23	9	-
	Munich	29·98	12	W	2	0	30·01	+·13	11	11	-1	NW	3	s	*	16	10	0·08
	The Helder ...	30·02	28	WNW	1	b	30·16	+·17	24	23	-4	S	1	f	1	30	?	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	29·98	22	S	4	bc	30·10	+·10	17	17	-7	SE	4	bc	3	27	14	-
	Paris	30·06	20	SSW	1	bc	30·12	+·05	12	12	-6	NE	1	bc	*	32	11	-
	Brest	29·88	41	SSW	5	r	29·76	-·40	35	35	-2	N	4	0	4	43	30	0·91
	Lorient	29·97	40	SSW	5	0	29·89	-·28	39	38	+8	SSE	5	r	5	41	30	0·24
	Rochefort ...	?30·06	33	N	2	0	? 29·98	-·14	26	25	-8	E	4	b	*	39	16	-
	Belfort	?	17	W	1	0	?	?	12	?	-13	W	1	f	*	25	3	-
	Lyons	30·04	19	N	5	b	30·04	+·03	12	11	-5	N	2	bc	*	21	12	-
	Nice	29·70	33	SE	4	c	29·69	+·15	30	28	-6	ENE	4	bc	3	41	28	0·08
	Perpignan ...	29·88	31	NW	7	0	29·94	-·02	30	29	+5	NW	3	b	*	31	?	-
	Biarritz	30·08	33	S	3	0	29·91	-·24	26	24	+1	NE	3	b	2	34	23	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·22	46	SW	5	b	30·12	-·20	47	45	+12	NW	4	b	?	48	?	0·16

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Friday, 9th January 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

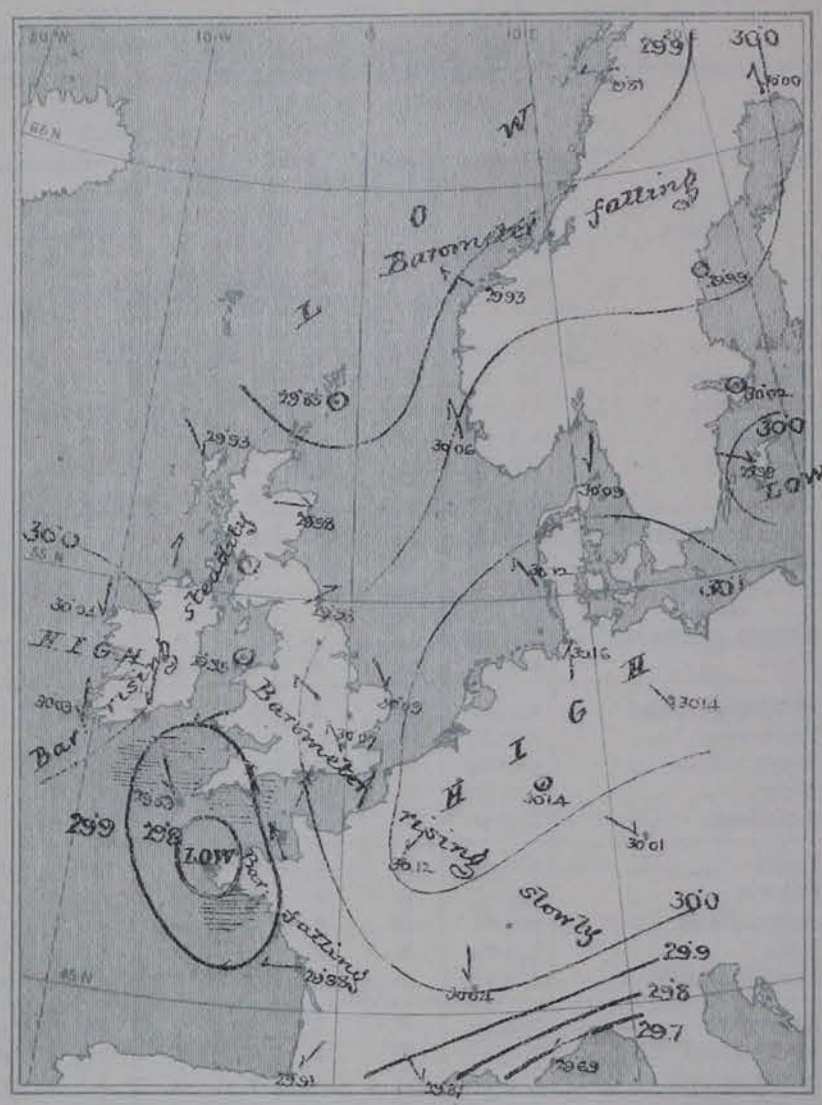
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7, = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough, = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

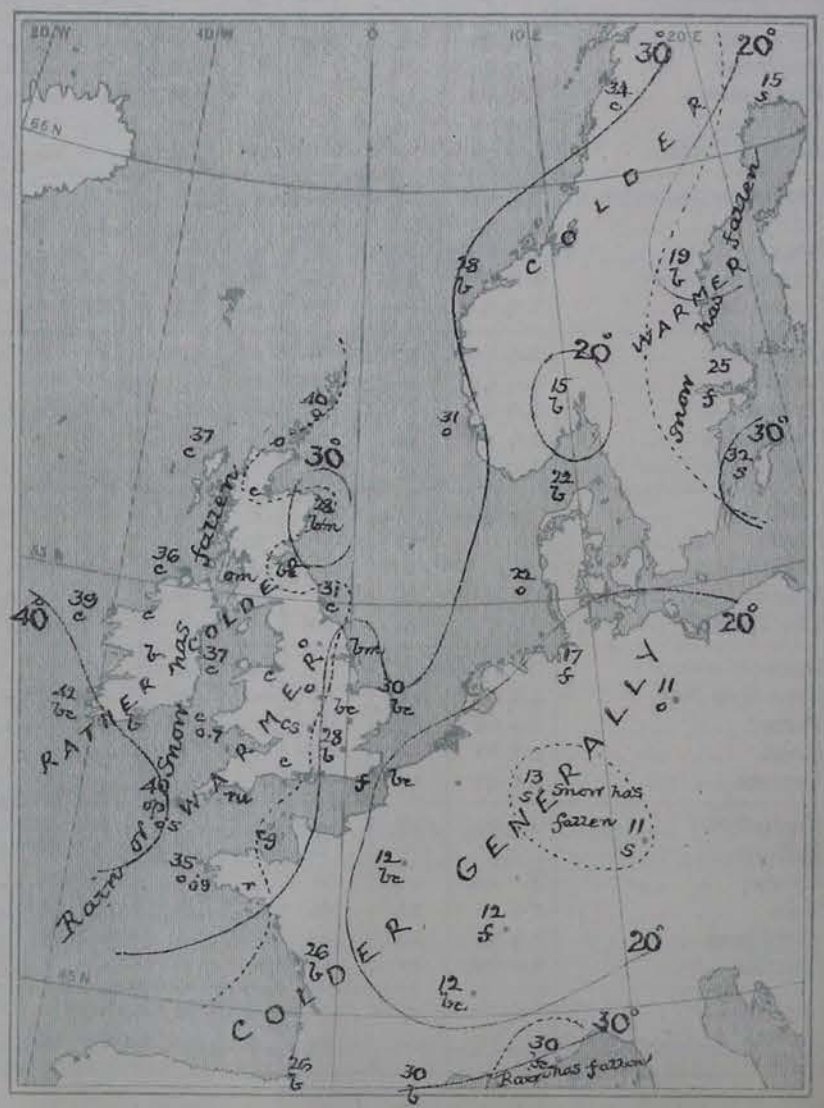
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	45·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	46·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·1	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·1 ins. and upwards, in an anticyclone lying over Denmark, Germany, the Netherlands, and the northeast of France; 30·0 ins. and upwards, in another system which is advancing over Ireland.

Lowest, 29·7 ins. and less, over the Gulf of Genoa; 29·9 ins. and less, in a large area lying to the northward of our Islands, and also in an elongated depression extending from the Bristol Channel to the northwest of France.

Gradients slight and irregular.

Barometer falling in the west of France and the north of Scandinavia, but rising elsewhere.

TEMPERATURE

Highest, 42° at Valencia Island, 40° at Lumbourg Ho., Donaghadee, and Scilly, and 39° at Belmullet, Pravle Point, and Lorient.

Lowest, 11° at Berlin and Munich, 12° at Paris, Belfort, and Lyons, 13° at Wiesbaden, and 15° at Haparanda and Pauder.

Sharp frost again occurred over England last night; at Cambridge the thermometer fell to 21°.

WIND

S. or SE. over the greater part of England and the north of France; fresh or strong in force at some of the Channel stations.

Light from the N. in Ireland, and from the NW. or W. in Scotland.

NE. in the south of France; NW. in Germany; variable in Sweden and Denmark; SE. in the west of Norway.

WEATHER

Fine over the greater part of Western Europe, but dull and rainy over the northwest of France and the western parts of the Channel.

Fog is reported over the Netherlands, and snow at some of the Swedish and German stations.

Rain or snow fell yesterday in all but the eastern and southeastern parts of our Islands.

SEA

Moderate to smooth generally, but rather rough at the mouth of the Channel.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression near the mouth of the Channel is apparently moving southeastwards towards France. The existence, however, of two high pressure systems; — one to the eastward and the other to the westward of our Islands is favourable for the production of fog over England, and snow is likely to fall in some localities.

FORECASTS

For the 24 hours ending at NOON on 10TH JANUARY 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	NW. to N. winds, light; fair generally.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	Same as No 5
5 ENGLAND SOUTH	SE. to Variable breezes; cloudy, local fogs, some snow
6 SCOTLAND WEST 7 ENGLAND N.W.	Variable breezes; fair generally, colder
8 ENGLAND S.W.	Variable breezes, finally NE.; showery to fair, colder
9 IRELAND NORTH 10 IRELAND SOUTH	N. winds, light; fair, frosty.
WARNINGS	None Issued.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.97	24	21	SE	4	b	3
Sumburgh Head	29.65	39	37	S	4	o	4
Stornoway	29.56	40	40	SW	3	c	4
Aberdeen	29.72	35	32	S	2	c g m s	3
Shields	29.81	35	33	SSW	3	o	2
Ardrossan	29.65	39	38	SE	4	r	3
Malin Head ...	29.57	38	37	SSW	2	b	2
Mullaghmore ...	29.60	39	38	SW	4	c p	3
Belmullet	29.63	43	39	NNW	2	b p	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.68	39	38	S	6	r m q	5
Valencia	29.73	44	42	NNW	3	c h r p	3
Scilly	29.73	43	43	S	7	o r u	6
Jersey	30.02	40	34	SW	2	b	2
Dungeness	29.99	32	31	N	1	m	1
London	29.97	37	33	S	1	b c m	*
Yarmouth	29.96	31	31	SE	2	b c v	3
Rochefort	30.07	36	35	NNW	5	b c	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine in the more eastern parts of Great Britain, as well as in Ireland, Norway, the south of Ireland, and the greater part of France and Spain. Dull elsewhere, with showers at some of our western stations, rain on the Algerian coasts, and snow in many parts of Scandinavia, Germany, Austria and Northern Italy, as well as in Central Russia. Rain or snow falling later in all the more western parts of the United Kingdom – heavily in the extreme west of Ireland.

Temperature highest, 58° at Malta; 56° at Lesina, 54° at Rome, 53° at Brindisi, and 52° at Palermo; above 45° over the central and southern parts of the Mediterranean, and above 40° in the southwest of our Islands. Lowest –21°F at Moscow, –13° at Kuopio, –12° at St Petersburg, and +5° at Ulleaborg; below 20° in most parts of northern and central Europe, – as low as 21° even at Toulon; considerably below the freezing point over England, thermometer reaching 36° at Loughborough and 37° in London.

Wind moderate to strong from the S.ward in nearly all the more western and northern parts of the United Kingdom, but light from the W.ward or NW.ward in the south of Ireland, variable in the southeast of England, and calm over the greater part of Central Europe. Light or moderate from the SE.ward over the Baltic and west of Norway; NE. in Denmark and also in Spain. Strong cyclonic circulation reported over Italy the south of France and the adjacent parts of the Mediterranean. S. breezes setting in later over the east of England, but wind shifting to the NW.ward in the southwest.

Barometer, highest 30.5 ins. to 30.8 ins. and more in an anticyclone lying over Central Russia; 30.3 ins. and upwards, in another system off the Portuguese coasts. Lowest 29.5 ins. to 29.8 ins. in a V shaped depression lying over the west and north of our Islands; 29.0 ins. and less, in a well marked disturbance lying over Corsica, northern Italy, and the south of France. Former depression subsequently advancing slowly eastwards over the United Kingdom, and becoming less clearly defined.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Saturday, 10th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·01	19	N	0	0	30·06	+·06	21	21	+6	N	0	0	*	21	?	0·04
	Hernösand ...	30·09	17	N	0	b	30·21	+·22	-4	-5	-23	N	0	b	*	27	?	-
	Stockholm ...	30·14	20	NNW	2	0	30·26	+·24	4	3	-21	W	2	b	*	30	?	-
	Wisby	30·07	32	WNW	6	0	30·25	+·26	26	24	-6	NNW	4	b	*	32	25	0·08
	Bodö	29·88	31	E	4	0	29·88	+·07	33	32	+9	E	2	o	1	33	?	-
	Christiansund	29·98	37	SW	6	0	30·11	+·18	39	36	+11	SW	3	b	4	39	?	-
	Skudesnaes ...	30·07	36	SSE	8	0	30·30	+·24	39	37	+8	SSE	2	0	4	?	30	-
	Christiania Fjord (Færder)	30·19	18	WNW	2	b	30·32	+·24	18	18	+3	N	2	f	1	18	15	-
	Skagen (The Scaw)																	
	Fanö														*			
BRITISH ISLANDS.	Sumburgh Head	30·02	40	N	0	b	30·15	+·30	42	41	+2	W	3	c	2	46	38	0·03
	Stornoway ...	30·09	39	W	3	0	30·11	+·18	44	43	+7	SW	6	0	5	44	34	-
	Wick	30·09	33	SW	2	c	30·22	+·30	37	36	0	S	2	b	2	40	31	0·12
	Nairn	30·15	36	N	0	b	30·25	+·33	37	34	+1	SW	1	b	1	41	31	-
	Aberdeen ...	30·17	30	SW	1	bm	30·33	+·35	23	22	-5	WSW	1	bm	2	32	23	-
	Leith	30·18	32	W	1	0	30·34	+·37	28	28	-3	N	0	cf	*	36	25	-
	Shields	30·20	31	SSW	1	m	30·42	+·49	28	27	-3	SW	1	m	2	36	24	-
	Spurn Head ...	30·23	31	SW	4	cm	30·45	+·40	31	29	+2	SSW	3	om	3	33	27	-
	York	30·24	31	S	1	bc	30·48	+·47	30	30	-1	S	1	f	*	33	28	-
	Loughborough	30·28	32	SE	1	0	30·51	+·47	24	24	-8	SSE	1	om	*	34	21	-
	Ardrossan ...	30·22	36	N	0	bm	30·36	+·36	41	39	+6	S	4	cm	3	41	34	-
	Malin Head ...	30·19	38	SSW	1	b	30·29	+·33	35	34	-1	SSW	3	o	2	41	33	-
	Mullaghmore ...	30·22	38	WSW	1	b	30·32	+·33	39	34	-1	SSW	4	c	3	40	33	-
	Belmullet ...	30·22	36	S	1	b	30·29	+·25	38	36	-1	SSE	3	b	*	44	34	0·01
	Donaghadee ...	30·22	40	SE	2	bc	30·40	+·42	31	31	-9	WSW	2	c	0	46	29	-
	Liverpool (Bidston)	30·23	33	SE	2	bc	30·45	+·48	33	32	+1	SSE	1	of	2	36	32	-
	Holyhead ...	30·22	39	SSW	1	bc	30·43	+·48	39	39	+2	S	2	ogm	2	41	37	? 0·22
	Parsonstown ...	30·24	31	N	0	0	30·39	+·36	26	25	-4	N	0	b	*	32	22	-
	Valencia	30·25	40	N	0	bv	30·41	+·38	42	39	0	ESE	1	bc	2	46	33	-
	Roche's Point ...	30·24	37	NNE	3	b	? 30·45	+·45	32	31	-5	N	1	o	3	45	29	-
	Pembroke (St. Ann's Hd.)	30·19	41	SE	3	0	30·45	+·55	40	39	+4	SE	3	c	3	41	35	0·01
	Scilly	30·11	43	E	4	cp	30·42	+·59	42	40	+2	ESE	4	bc	5	45	40	0·14
	Prawle Point ...	30·21	38	SE	3	b	30·5.	+·60	36	34	-3	ENE	1	og	4	39	24	0·01
	Jersey (St. Aubin's)	30·20	33	E	3	b	30·50	+·51	26	24	-9	E	1	bm	1	35	25	-
	Hurst Castle ...	30·25	32	SE	4	c	30·52	+·52	24	23	-14	NE	3	m	3	39	23	-
	Dungeness ...	30·17	27	ESE	2	c	30·48	+·40	15	15	-12	N	2	m	1	28	12	-
	London	30·29	25	ESE	1	bcm	30·53	+·46	15	14	-13	N	0	f	*	34	15	-
	Oxford	30·34	23	E	1	b	30·54	+·50	22	22	-9	SE	1	o	*	35	21	-
	Cambridge ...	30·31	18	N	0	b	30·53	+·46	19	19	-6	S	1	o	*	32	15	-
	Yarmouth ...	30·28	27	SSW	1	bc	30·47	+·38	23	23	-7	W	2	bm	3	31	20	-
GERMANY & HOLLAND.	Cuxhaven ...	30·35	16	N	0	f	30·46	+·30	13	12	-4	S	1	f	*	17	7	-
	Berlin	30·26	16	NW	3	b	30·38	+·24	22	22	+11	NW	3	o	*	22	?11	-
	Wiesbaden ...	*	*	*	*	*	30·35	+·21	19	18	+6	N	2	o	*	28	13	-
	Munich	30·02	12	N	0	s	30·12	+·11	11	11	0	N	1	o	*	16	10	0·08
	The Helder ...	30·32	28	WSW	1	b	30·46	+·30	30	29	+6	WNW	1	c	1	30	23	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·47		21	20		NE	2	o	*	26	16	-
	Cape Gris Nez	30·26	19	SE	2	c	30·47	+·37	29	27	+10	N	3	m	3	29	14	-
	Paris	30·19	20	N	2	b	30·38	+·26	18	17	+6	N	3	b	*	25	12	-
	Brest	30·08	35	SE	4	o	30·37	+·61	26	26	-9	E	1	b	3	41	23	-
	Lorient	30·16	30	E	4	bc	30·47	+·60	23	21	-16	ENE	3	b	4	41	21	0·35
	Rochefort ...	? 30·09	28	E	4	b	? 30·31	+·33	21	20	-5	ENE	5	b	4	34	16	-
	Belfort	?	14	E	1	bc	?	?	17	?	+5	E	1	bc	*	18	7	-
	Lyons														*			
	Nice	29·63	35	NE	4	0	29·76	+·07	33	32	+3	ENE	4	c	3	37	?	0·00
	Perpignan ...	29·80	36	NW	5	0	29·96	+·09	31	27	+1	NW	4	o	*	39	29	-
	Biarritz	30·00	34	E	3	b	30·19	+·28	17	14	-9	E	3	bc	4	39	14	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·13	49	NNW	4	b	30·13	+·01	44	41	-3	N	5	b	?	54	43	0·04

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Saturday, 10th January 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to forces thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

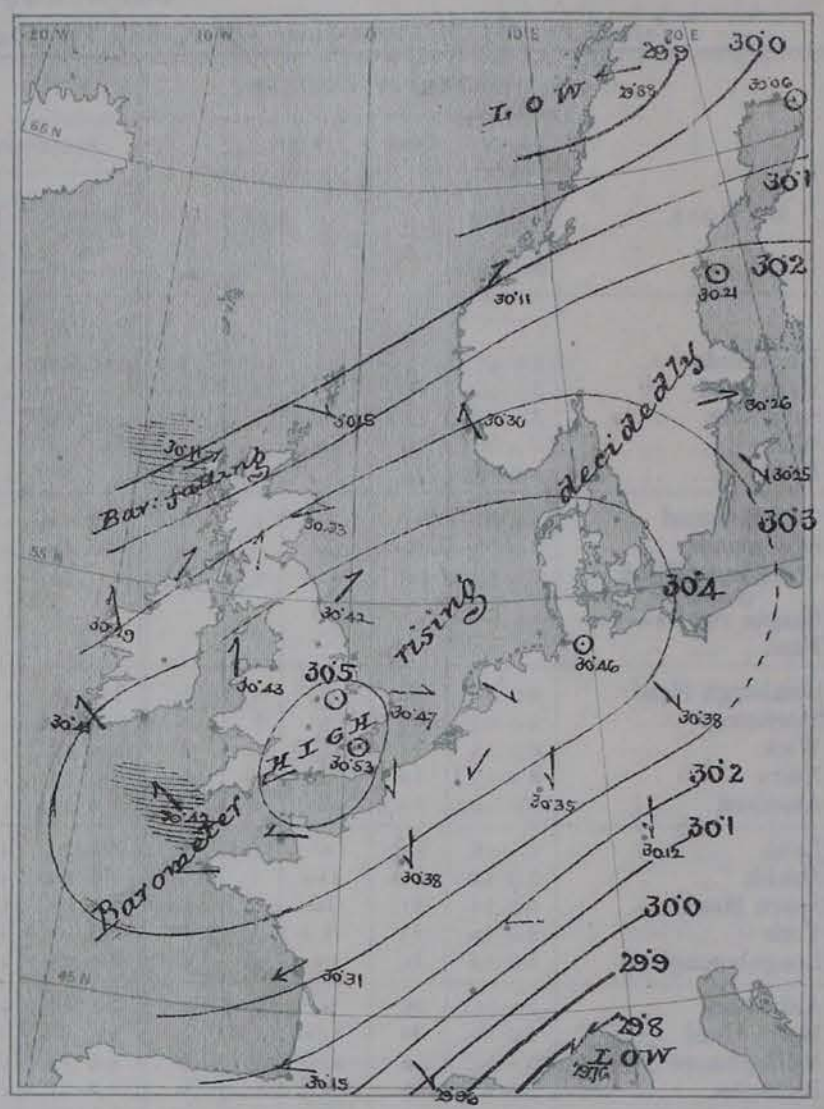
SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS. ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·959
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

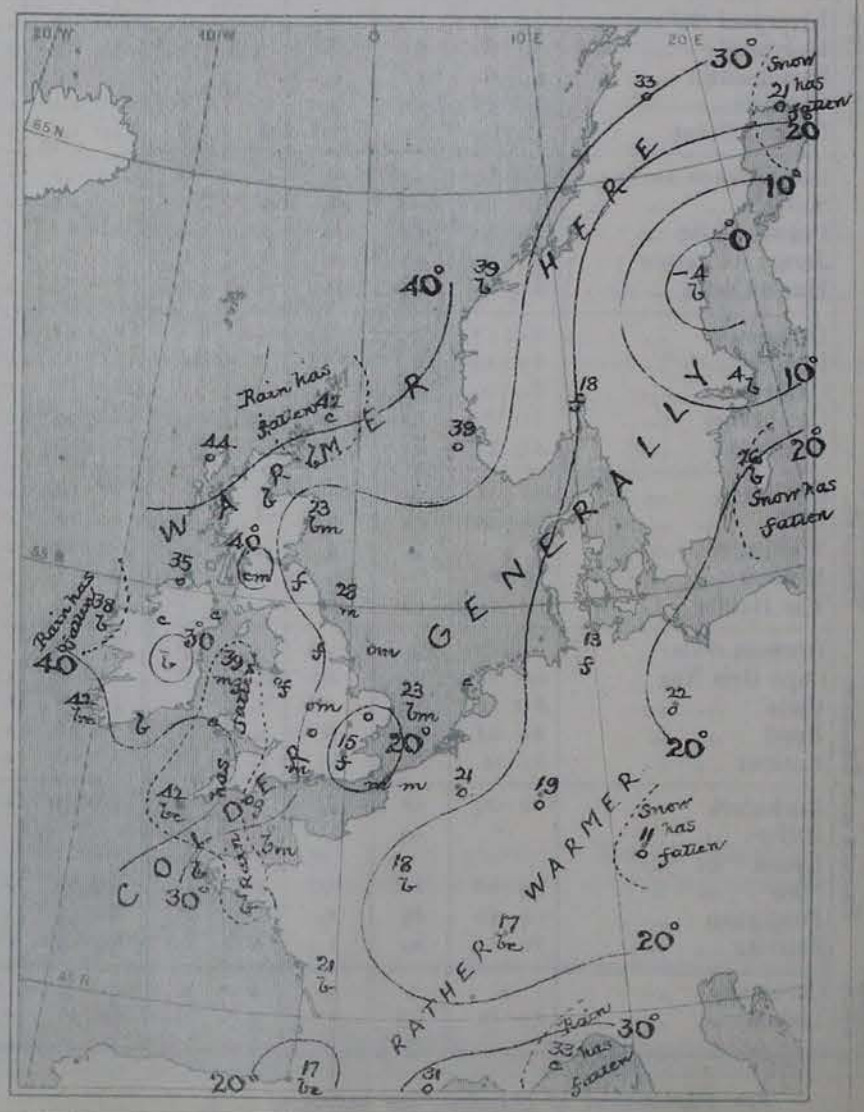
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·89
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·3	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·2	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·0	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·5 ins and upwards, over the central, southern, and southeastern parts of England, 30·3 ins and upwards over nearly the whole of our Islands with the North Sea, Denmark, the Netherlands, and northern parts of France and Germany.

Lowest, 29·8 ins and less, over the Gulf of Genoa; 29·9 ins and less, in the northwest of Norway.

Gradients rather steep in the south of France, but slight elsewhere.

Barometer rising generally, but inclined to fall at Stornoway.

TEMPERATURE

Highest, 44° at Stornoway and Lisbon, 42° at Lundy Hd and Scilly, 40° at Pembroke, and 39° at Christiansund, Shudenaes and Holyhead.

Lowest, −4° F at Haparanda, +4° at Stockholm, 11° at Munich, 13° at Cuxhaven, and 15° in London and at Dungeness.

In the course of the night the sheltered thermometer has fallen to 9° at Hallington, 12° at Dungeness, 15° in London and at Cambridge.

On the grass the minima were as low as 6° at Hallington and 8° in London.

WIND

SW^{ly} over the northern parts of the United Kingdom; light in force generally, but strong in the Hebrides.

SE^{ly} on our southwest coast; NE^{ly} over the Channel, France, and the Netherlands, N^{ly} in Germany, variable in Scandinavia.

WEATHER

Fair over the greater part of Western Europe, but foggy at many of the English stations, and dull in Germany.

Slight rain fell yesterday at some of the southwestern and extreme northern stations, and snow in parts of France and Germany.

SEA

Slight or smooth generally, but rather rough at Stornoway and Scilly.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There are at present no signs of any change in the weather. A depression is probably about to skirt our extreme northern coasts, but this is not likely to influence the weather over England.

FORECASTS

For the 24 hours ending at NOON on 11TH JANY 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SW^{ly} winds, fresh or strong; fair to dull and some rain.
1 SCOTLAND EAST	SW^{ly} winds, light or moderate; fair generally, but local fogs.
2 ENGLAND N.E.	
3 ENGLAND EAST	Variable breezes, finally SW^{ly}; fair generally, but local fogs. Hard frost tonight.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	S^{ly} and SW^{ly} winds, light or moderate; fair generally, but local fogs.
7 ENGLAND N.W.	
8 ENGLAND S.W.	SE^{ly} winds, light or moderate; fair generally, but local fogs.
9 IRELAND NORTH	SE^{ly} and S^{ly} winds, light to fresh; fair generally.
10 IRELAND SOUTH	
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·11	34	32	SSE	6	o	4
Sumburgh Head	29·94	41	40	S	0	f	2
Stornoway	30·03	42	41	W	2	b	3
Aberdeen	30·04	32	30		1	b m	2
Shields	30·09	35	35	SSW	2	m	2
Ardrossan	30·10	38	34	S	0	o	o
Malin Head ...	30·10	41	40	SSW	1	b	2
Mullaghmore ...	30·12	43	41	S	0	c	3
Belmullet	30·13	44	42	S	2	b	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·09	40	39	SSW	1	b	2
Valencia	30·15	46	42	NE	3	b	3
Scilly	29·99	45	43	NE	4	cp	6
Jersey	30·10	35	32	SE	5	bc	4
Dungeness	30·17	29	29	SSE	3	c	2
London	30·19	33	30	E	1	bf	*
Yarmouth	30·19	31	31	SSW	3	bc	4
Rochefort	30·03	31	31	E	4	b	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine and bright over Scandinavia, the east of England, and west of Ireland, as well as on most parts of the Spanish coast; dull elsewhere, with fog over the Netherlands and neighbouring parts of Germany, snow at many of the German, Austrian, and southern French stations, rain over the northern parts of the Mediterranean, and also over and about the mouth of the English Channel. Rain ceasing in latter district later; snow falling in some widely separated districts.

Temperature still very low; morning readings exceeding 50° on the shores of the Adriatic, and exceeding 40° on the southern shores of the Mediterranean and on the Atlantic coasts of Spain and Portugal only. Sharp frost over our inland districts and hard frost still holding over the Continent. Lowest values (1) −17° F at Moscow, −2° at Archangel, +10° at St Petersburg, 15° at Uleaborg, and 19° at Hernosand; (2) 11° at Munich and Berlin, 12° at Leviner unde, Paris, and Lyons, 19° at Limoges. Very cold all day, and frost becoming severe again over England at night.

Wind mainly SE to S over Russia, Finland, and England – moderate to strong on the Eastern shores of the Baltic and at our own stations; mainly N in Ireland and NW in Portugal. Cyclonic circulation of moderate to strong breezes over the Mediterranean and Adriatic; very light and variable winds elsewhere. Becoming very light and anticyclonic over the British Islands towards night.

Barometer highest 30·9 ins. to 30·1 ins., in a large anticyclone over Russia, and 30·1 ins. to 30·0 ins. in a secondary system over north Germany and the Netherlands. Lowest 29·9 ins. and less, over the Shetlands and off the northwest of Norway, 29·8 ins. and less, in a small depression at the mouth of the English Channel, 29·6 ins. to 29·5 ins. and less, in a complex depression over the Adriatic and eastern parts of the Mediterranean. Depression near Brest dispersing later and new anticyclone forming immediately over our Islands.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Sunday 11th January 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·12	21	SW	2	b	29·81	− ·25	27	27	+ 6	SSW	6	o	*	?	12	—
	Hernösand ...	30·27	1	Z	o	b	29·89	− ·32	27	27	+ 31	S	8	c	*	?	−11	—
	Stockholm ...	30·43	9	Z	o	b	30·26	·00	16	16	+ 12	Z	o	f	*	23	3	—
	Wisby	30·37	26	NNW	4	c	30·34	+ ·09	27	26	+ 1	SW	4	o	*	28	21	—
	Bodö	29·73	43	SW	7	o	29·20	− ·68	42	41	+ 9	SW	8	r	4	43	32	0·05
	Christiansund	29·96	42	SW	3	c	29·60	− ·51	44	42	+ 5	SW	8	r	4	46	39	0·04
	Skudesnaes ...	30·38	40	SSE	6	o	30·12	− ·18	42	41	+ 3	SSW	6	r	5	?	39	0·28
	Christiania Fjord (Færder)	30·40	26	S	2	f	30·11	− ·21	34	33	+ 16	SW	5	o	3	?	18	—
	Skagen (The Scaw)	30·43	31	WNW	1	f	30·26	− ·06	34	34	− 1	NW	3	o	3	36	27	—
	Fanö	30·56	32	W	2	m	30·49	+ ·16	31	31	+ 8	WSW	3	b	*	32	23	—
BRITISH ISLANDS.	Sumburgh Head	30·02	43	SW	4	o	29·84	− ·31	47	47	+ 5	W	7	r	6	47	42	0·23
	Stornoway ...	30·02	43	SW	9	o	29·99	− ·12	50	50	+ 6	SW	8	r	6	50	40	0·10
	Wick	30·10	40	S	2	o	30·03	− ·19	45	43	+ 8	SW	4	o	3	45	35	0·03
	Nairn	30·15	41	WSW	4	c	30·09	− ·16	46	43	+ 9	WSW	5	o	4	46	36	—
	Aberdeen ...	30·26	36	S	4	cg	30·17	− ·16	44	41	+ 21	SW	3	rg	3	45	23	0·13
	Leith	30·37	37	W	3	bc	30·33	− ·01	43	40	+ 5	W	5	c	*	43	27	—
	Shields	30·47	34	SW	1	f	30·43	+ ·01	37	35	+ 9	SSW	2	c	2	38	26	—
	Spurn Head ...	30·54	31	S	1	bm	30·58	+ ·13	30	29	− 1	SSW	3	bm	3	36	28	—
	York	30·55	30	S	1	b	30·58	+ ·10	26	26	− 4	S	1	bc	*	32	22	—
	Loughborough	30·59	26	ENE	1	b	30·67	+ ·16	19	19	− 5	NNW	1	bm	*	36	19	—
	Ardrossan ...	30·38	43	SE	3	o	30·40	+ ·04	44	43	+ 3	SW	4	o	4	44	39	—
	Malin Head ...	30·27	37	SSW	5	c	30·27	− ·02	36	35	+ 1	SSW	6	og	3	38	31	—
	Mullaghmore ...	30·34	41	SSW	5	ogm	30·34	+ ·02	45	42	+ 8	SSW	6	og	4	45	36	—
	Belmullet ...	30·29	44	SSW	6	o	30·35	+ ·06	46	45	+ 8	SW	5	o	*	47	36	—
	Donaghadee ...	30·43	38	SW	2	c	30·45	+ ·05	40	39	+ 9	W	2	c	0	46	31	0·01
	Liverpool (Bidston)	30·54	35	S	1	b	30·60	+ ·15	29	28	− 4	SSE	2	bc	2	38	28	—
	Holyhead ...	30·57	39	S	3	c	30·55	+ ·12	42	41	+ 3	SSW	5	omg	4	42	38	—
	Parsonstown ...	30·43	35	Z	o	bc	30·49	+ ·10	40	39	+ 14	Z	o	c	*	42	25	—
	Valencia	30·43	46	SSE	4	om	30·51	+ ·10	48	45	+ 6	SSE	5	bc	4	48	39	—
	Roche's Point ...	30·49	46	SSW	5	c	30·54	+ ·09	45	43	+ 13	SW	5	bc	4	46	32	0·01
	Pembroke (St. Ann's Hd.)	30·44	40	SSW	3	bc	30·63	+ ·18	41	38	+ 1	S	3	bc	4	42	37	—
	Scilly	30·50	40	SSE	4	c	30·59	+ ·17	40	38	− 2	E	3	b	4	43	36	—
	Prawle Point ...	30·60	35	NNW	1	c	30·65	+ ·15	31	31	− 5	N	3	b	2	38	29	—
	Jersey (St. Aubin's)	30·58	36	NNE	3	cgm	30·62	+ ·12	35	32	+ 9	ENE	4	b	3	36	26	—
	Hurst Castle ...	30·61	31	ENE	1	m	30·68	+ ·16	26	26	+ 2	ENE	3	m	1	38	22	—
	Dungeness ...	30·54	26	N	2	m	30·64	+ ·16	29	29	+ 14	E	4	b	3	34	14	—
	London	30·61	22	Z	o	om	30·71	+ ·18	22	21	+ 7	Z	o	f	*	31	14	
	Oxford	30·65	19	SW	1	f	30·71	+ ·17	13	13	− 9	Z	o	f	*	33	12	—
	Cambridge ...	30·63	21	Z	o	b	30·70	+ ·17	21	21	+ 2	SW	1	o	*	34	7	—
	Yarmouth ...	30·57	27	WNW	1	bf	30·65	+ ·18	24	24	+ 1	WNW	2	bf	2	29	19	—
GERMANY & HOLLAND.	Cuxhaven ...	30·52	21	SW	1	f	30·68	+ ·22	20	19	+ 7	SW	1	f	*	24	13	—
	Berlin	30·54	22	NW	3	o	30·65	+ ·27	23	23	+ 1	NW	2	f	*	23	19	—
	Wiesbaden ...	*	*	*	*	*	30·64	+ ·29	13	12	− 6	Z	o	o	*	27	12	—
	Munich	30·32	18	Z	o	s	30·48	+ ·36	19	19	+ 8	E	2	o	*	19	10	0·12
	The Helder ...	30·63	23	S	1	f	30·69	+ ·23	15	15	− 12	S	1	f	1	32	15	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·67	+ ·20	12	12	− 9	E	4	b	*	26	12	—
	Cape Gris Nez	30·53	31	NE	4	m	30·71	+ ·24	19	19	− 8	NNE	3	b	3	36	16	—
	Paris	30·45	27	NNE	3	bc	30·57	+ ·19	15	15	− 3	N	1	b	*	32	14	—
	Brest	30·62	31	E	2	b	30·58	+ ·21	34	31	+ 8	ENE	3	b	2	37	27	—
	Lorient	30·54	31	NE	3	s	30·51	+ ·04	33	32	+ 10	ENE	4	b	2	33	23	—
	Rochefort ...	30·36	28	NNE	6	b	30·42	+ ·11	24	23	+ 3	NE	5	o	?	32	18	—
	Belfort	30·13	16	E	2	bc	?	?	23	?	+ 6	E	2	bc	*	25	12	—
	Lyons	30·30	18	NNW	3	b	30·47	?	14	13	?	Z	o	b	*	21	?	—
	Nice	29·94	38	NE	3	b	30·13	+ ·37	43	34	+ 10	NE	5	c	4	43	33	—
	Perpignan ...	30·13	27	NW	6	o	30·26	+ ·30	27	24	− 4	W	3	bc	*	31	25	—
	Biarritz	30·25	31	NE	5	o	30·33	+ ·14	28	24	+ 11	E	3	o	3	36	17	—
PENINSULA.	Corunna	*	*	*	*	*	30·39	+ ·08	?	42	?	NE	7	o	6	48	37	—
	Lisbon	30·24	42	NE	5	b	30·21	+ ·08	36	31	− 8	NNE	5	b	?	48	36	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on 11th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

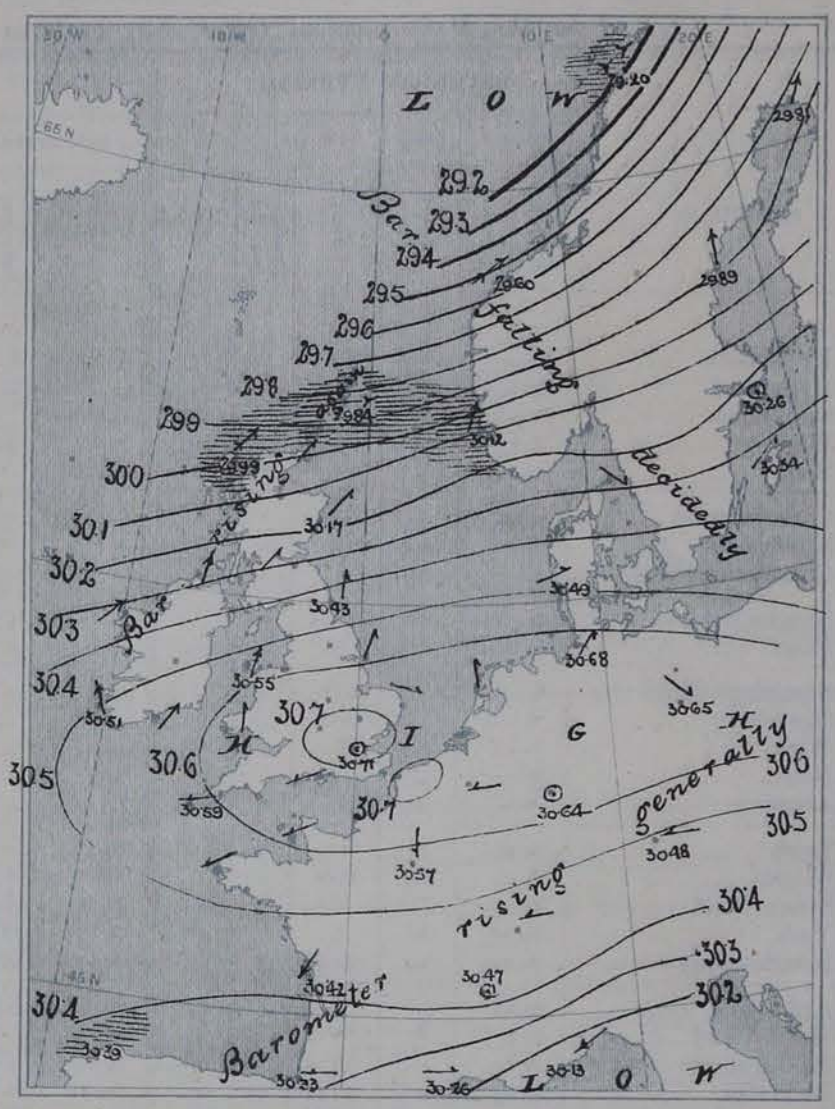
SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

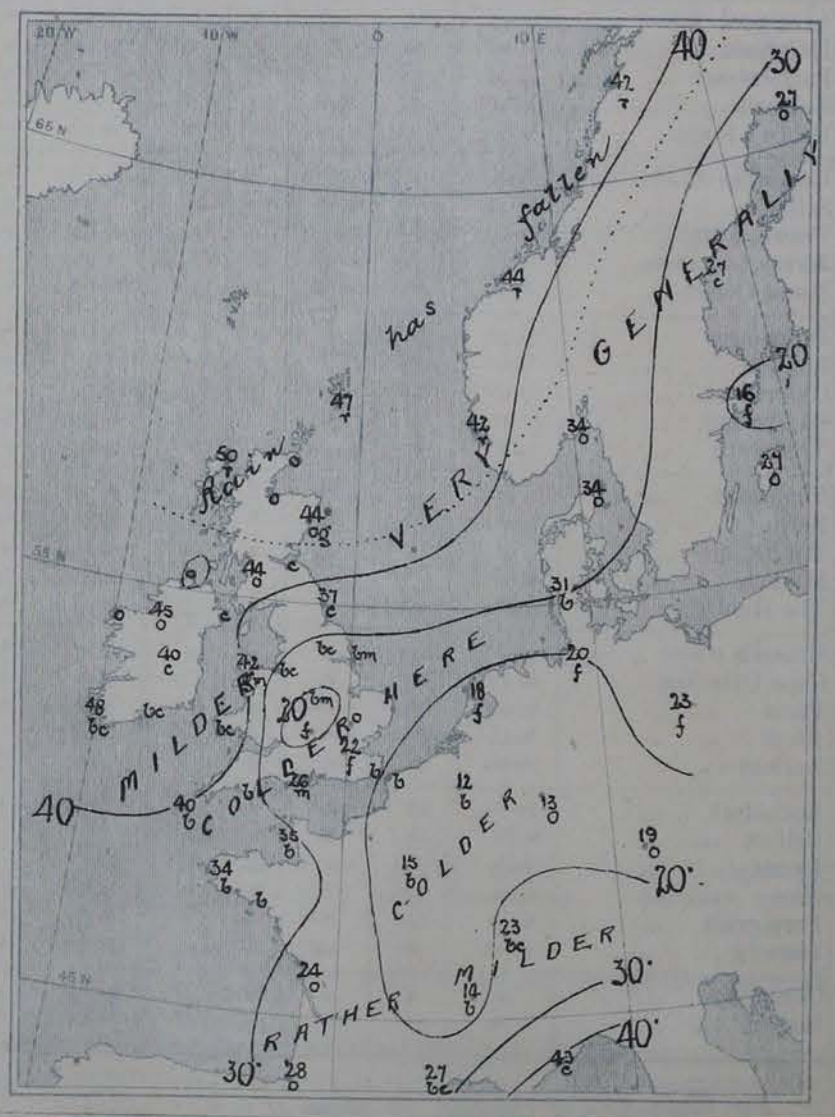
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	38·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·0	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins: to 30·7 ins: in an anticyclone lying over the greater part of England, Ireland, France, Germany, and the south of Denmark.

Lowest, 29·2 ins: and less, in a depression lying off the northwest of Norway

Gradients rather steep over Scandinavia, Scotland and northern parts of North Sea, but slight elsewhere. Barometer falling quickly in Scandinavia

TEMPERATURE

Highest, 50° at Stornoway, 48° at Valencia Island, 47° at Lumbrugh Hd., 46° at Nairn and Aberdeen, and 45° at Mark, Mullaghmore and Rockabill.

Lowest, 12° at Brussels, 13° at Oxford and Wiesbaden, 14° at Hyeres, 15° at Paris, 16° at Stockholm and 18° at the Helder.

The daily maxima registered yesterday were below 32° in many parts of England.

WIND

SW over Scandinavia, the northern parts of the North Sea and all the more northern parts of the United Kingdom, strong to a gale in the north of Scotland and the west of Norway

Light or moderate from the NE.ly or E.ly over France, the Netherlands, and the south of England.

WEATHER

Rainy in the Shetlands, Hebrides, and the west of Norway, dull over Scotland and Scandinavia generally, as well as in the southeast of France.

Fine in most other localities, but foggy over the Netherland, North Germany, and the southeast of England

Since yesterday morning rain has fallen at some of our extreme western and northern stations.

SEA

Rough off the north of Scotland, and rather rough off the west of Norway, but moderate to smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

FORECASTS

For the 24 hours ending at NOON on 12th Jan: 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
↓ 0 SCOTLAND NORTH	NONE ISSUED	↓ 6 SCOTLAND WEST	NONE ISSUED
↓ 1 SCOTLAND EAST		7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST		↓ 9 IRELAND NORTH	
4 MIDLAND COUNTIES		10 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	The SOUTH CONE has been hoisted this morning in districts 0.1.6. and part of 9.

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·39	39	38	ESE	2	o	3
Sumburgh Head	30·09	43	42	S	3	c	3
Stornoway	30·08	44	42	SW	8	e	6
Aberdeen	30·31	35	33	S	3	cm	2
Shields	30·46	38	32	SW	1	f	2
Ardrossan	30·39	43	42	SE	3	om	3
Malin Head ...	30·30	38	35	S	5	o	2
Mullaghmore ...	30·34	38	36	SW	5	c	3
Belmullet	30·28	43	41	SSE	5	o	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·48	41	41	S	3	bc	2
Valencia	30·42	46	42	SSE	4	ov	4
Scilly	30·50	42	41	SSE	4	e	4
Jersey	30·56	35	32	ENE	2	b	2
Dungeness	30·52	29	28	N	2	b	1
London	30·57	31	30	L	0	f	*
Yarmouth	30·53	29	27	WNW	2	bm	3
Rochefort	30·32	29	28	NE	5	b	2

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine and bright over the Spanish Peninsula and the western and central parts of France, as well as over Ireland, many parts of Scotland, and in some parts of Norway; dull elsewhere, foggy in London and at Cuxhaven. Snow falling over the Baltic Provinces and in Western Austria, rain at Naples, Malta, and Algiers. Much rain over Algeria and Central Italy later, smaller quantities in the north of our Islands; fog prevalent in London and many other localities.

Temperature changing very irregularly; fallen fast over England, and also in many parts of Italy. Morning readings as low as (1) −1° F. at Moscow, and +14° to 25° at the other Russian stations; (2) 7° at Münster, 11° at Munich, and 17° to 21° over the greater part of France; (3) 15° at Dungeness and in London, 19° at Cambridge, 22° at Oxford, 24° at Loughborough, and 26° at Parsonstown. Highest 42° to 44° in the Shetlands, Hebrides, and Portugal, 42° at Valencia Island and Scilly, 50° at Malta, and 52° at Brindisi only. Rising decidedly in Ireland, Scotland and Norway later, remaining very cold over England and the Continent.

Wind SE³ to S³, moderate, on our western coasts, variable from the S^ern in the west of Norway; light N¹ over the Baltic and Germany, as well as over the Spanish Peninsula. A cyclonic circulation of light to moderate breezes prevalent over the Mediterranean. S¹ wind increasing over Ireland and the west of Scotland later, and strong SW² winds setting in over Norway.

Barometer highest, 30·7 ins. to 30·3 ins. in an anticyclone over Central Russia; 30·5 ins. and more to 30·3 ins. in another over Ireland, England, France, the North Sea, Denmark, and North Germany. Lowest 29·8 ins. to 29·6 ins. over the Mediterranean, 30·1 ins. to 29·9 ins. over the northern half of Norway. Falling decidedly on our extreme northwestern coasts, and in the north of Norway later, rising over England and the Continent.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Monday, 12th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom. Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.58	47	W	2	0	29.98	+.17	13	13	-.14	S	0	bc	*	30	?	0.35
	Hernösand ...	29.93	25	W	0	b	30.24	+.35	22	21	-.5	SSW	2	bc	*	30	-2	0.08
	Stockholm ...	29.97	34	W	0	f	30.26	.00	25	24	+.9	N	2	b	*	34	?	0.04
	Wisby	30.05	33	SW	6	s	30.19	-.15	36	35	+.9	NNE	4	c	*	36	23	0.28
	Bodö	29.79	28	W	8	c	30.04	+.24	27	25	-.15	W	4	s	5	42	25	-
	Christiansund	30.10	37	NW	4	c	30.25	+.65	36	34	-.8	ESE	3	bc	4	?	36	0.16
	Skudesnaes ...	30.08	43	WNW	1	r	30.24	+.12	41	41	-.1	SSW	1	r	4	43	39	0.98
	Christiania Fjord (Færder)	29.96	40	WSW	3	b	30.27	+.16	35	34	+.1	NNE	4	b	2	39	?	-
	Skagen (The Scaw)	30.01	42	W	5	m	30.23	-.03	36	36	+.2	ESE	3	o	3	41	34	0.04
	Fanö	30.30	35	WSW	6	o	30.26	-.23	36	36	+.5	NW	4	f	*	36	30	0.04
BRITISH ISLANDS.	Sumburgh Head	30.00	47	W	2	r	30.16	+.32	47	47	0	W	4	r	5	48	45	0.53
	Stornoway ...	30.10	50	W	6	r	30.33	+.34	52	51	+.2	W	6	o	6	52	48	0.04
	Wick	30.10	52	W	5	o	30.32	+.29	52	51	+.7	NW	3	bc	2	52	44	0.03
	Nairn	30.17	48	SSW	4	o	30.37	+.28	51	49	+.5	SW	3	c	3	51	44	-
	Aberdeen ...	30.21	49	SW	4	ogg	30.40	+.23	48	46	+.4	WSW	1	bc	3	52	42	-
	Leith	30.33	44	W	5	o	30.52	+.19	46	45	+.3	W	3	c	*	47	42	-
	Shields	30.44	44	SW	1	o	30.52	+.09	43	42	+.6	WSW	3	c	2	45	35	0.01
	Spurn Head ...	30.55	34	SW	4	bm	30.53	-.05	37	36	+.7	WSW	4	cm	3	37	29	-
	York	30.55	34	SSW	2	bc	30.59	+.01	40	39	+.14	N	1	b	*	40	25	-
	Loughborough	30.64	31	SE	2	o	30.64	-.03	36	35	+.17	W	2	o	*	39	19	-
	Ardrossan ...	30.42	45	SSW	4	o	30.56	+.16	47	47	+.3	SW	3	o	2	47	43	0.05
	Malin Head ...	30.37	46	SSW	5	o	30.54	+.27	47	45	+.11	SW	4	o	2	47	41	-
	Mullaghmore ...	30.46	46	SSW	5	om	30.61	+.27	46	43	+.1	SSW	2	om	2	47	43	-
	Belmullet ...	30.45	48	SW	6	o	30.62	+.27	44	44	-.2	SSW	2	o	*	48	44	-
	Donaghadee ...	30.50	44	WSW	3	c	30.59	+.14	44	42	+.4	W	3	c	1	45	40	-
	Liverpool (Bidston)	30.60	37	SSW	2	bc	30.66	+.06	38	37	+.9	SW	2	bc	2	40	29	-
	Holyhead ...	30.59	44	SW	3	o	30.66	+.11	42	42	0	SW	2	bc	2	45	41	-
	Parsonstown ...	30.55	40	S	0	c	30.69	+.15	31	31	-.9	S	0	b	*	40	31	-
	Valencia	30.57	48	S	5	om	30.70	+.19	42	41	-.6	ESE	1	c	2	50	41	-
	Roche's Point ...	30.62	45	SW	5	bc	30.70	+.16	35	34	-.10	N	1	b	4	48	34	-
	Pembroke (St. Ann's Hd.)	30.66	40	S	2	c	30.72	+.09	34	33	-.7	NE	2	cm	2	43	34	-
	Scilly	30.62	40	E	3	bo	30.67	+.08	40	40	0	E	3	bc	3	45	38	-
	Prawle Point ...	30.68	36	ENE	3	b	30.70	+.05	33	30	+.2	N	2	bc	1	41	30	-
	Jersey (St. Aubin's)	30.64	35	ENE	3	bm	30.69	+.07	31	29	-.4	NNE	1	bom	1	37	29	-
	Hurst Castle ...	30.64	26	NNE	1	m	30.69	+.01	25	25	-.1	NNE	1	m	1	33	21	-
	Dungeness ...	30.65	31	NE	2	bc	30.64	.00	27	27	-.2	N	2	bc	1	32	21	-
	London	30.68	21	NW	1	f	30.66	-.05	24	23	+.2	NW	1	bf	*	25	18	-
	Oxford	30.70	21	SE	1	o	30.69	-.02	25	24	+.12	WSW	2	b	*	25	13	-
	Cambridge ...	30.70	21	SW	1	o	30.64	-.02	33	32	+.12	SW	1	o	*	33	17	-
	Yarmouth ...	30.63	28	W	2	bom	30.55	-.10	35	34	+.11	WNW	3	cf	2	35	24	-
GERMANY & HOLLAND.	Cuxhaven ...	30.56	24	SW	3	f	30.36	-.32	36	36	+.16	W	4	f	*	36	?	0.04
	Berlin	30.58	24	W	2	o	30.25	-.40	31	31	+.8	W	5	o	*	31	23	0.12
	Wiesbaden ...	*	*	*	*	*	30.59	-.05	25	24	+.12	W	0	o	*	30	21	-
	Munich	30.59	13	W	0	m	30.52	+.04	17	17	-.2	NW	4	o	*	25	12	-
	The Helder ...	30.60	32	SW	2	o	30.49	-.20	34	33	+.16	WSW	2	f	3	34	16	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.62	-.05	24	23	+.12	SW	3	o	*	25	?	-
	Cape Gris Nez	?	22	NE	3	m	30.62	-.09	34	32	+.15	W	2	m	2	?	18	-
	Paris	30.62	23	NNE	2	o	30.65	+.08	18	18	+.3	NE	1	bc	*	29	15	-
	Brest	30.62	34	E	4	b	30.66	+.08	31	30	-.3	E	3	bc	4	43	25	-
	Lorient	30.56	33	ENE	4	o	30.62	+.11	27	25	-.6	ENE	3	b	3	36	25	-
	Rochefort ...	30.49	27	ENE	4	b	30.55	+.13	23	23	-.1	ENE	4	b	4	32	19	-
	Belfort	?	20	E	1	o	?	?	24	?	+.1	E	1	f	*	25	16	-
	Lyons														*			
	Nice	30.29	45	NE	2	b	30.41	+.22	38	33	-.5	E	4	b	2	52	36	-
	Perpignan ...	30.37	37	W	2	o	30.48	+.22	27	25	0	W	2	b	*	32	25	-
	Biarritz	30.43	28	E	3	b	30.49	+.16	26	27	0	SSE	2	b	1	34	25	-
PENINSULA.	Coruana	*	*	*	*	*												
	Lisbon	30.16	41	NE	4	o	30.23	+.02	37	33	+.1	NE	3	b	2	38	?	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Monday, 12th January 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

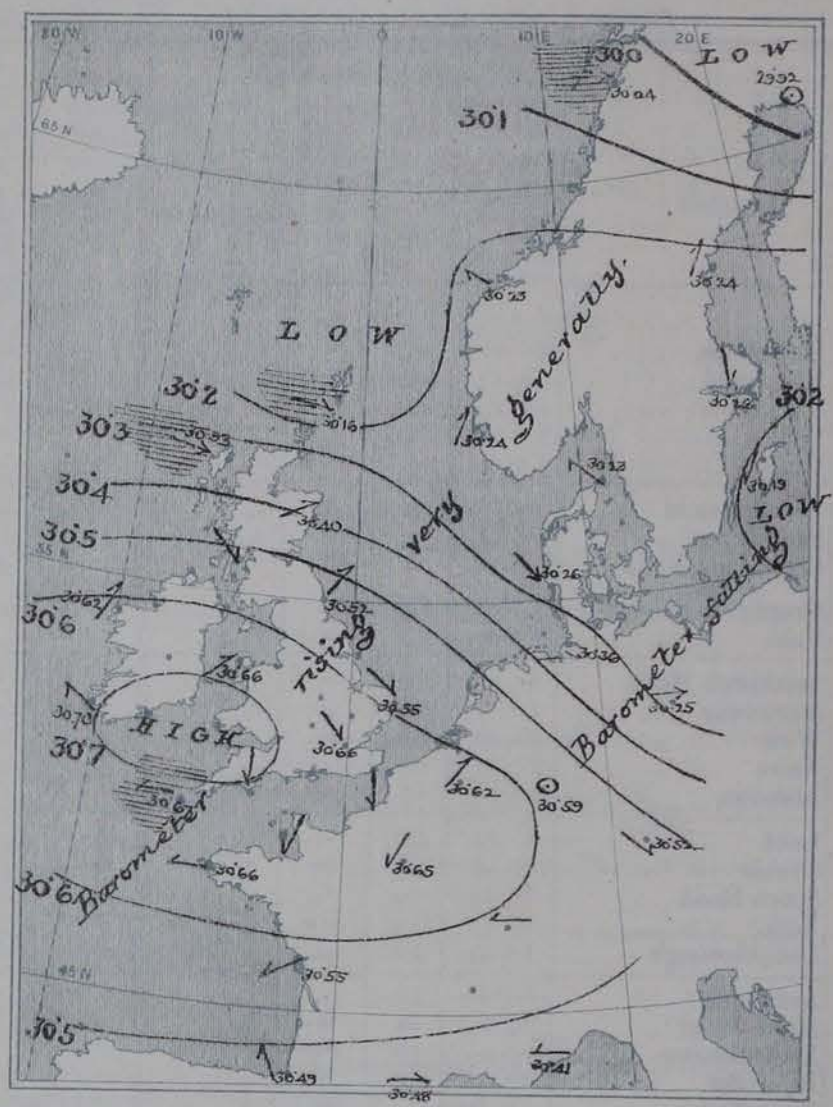
SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

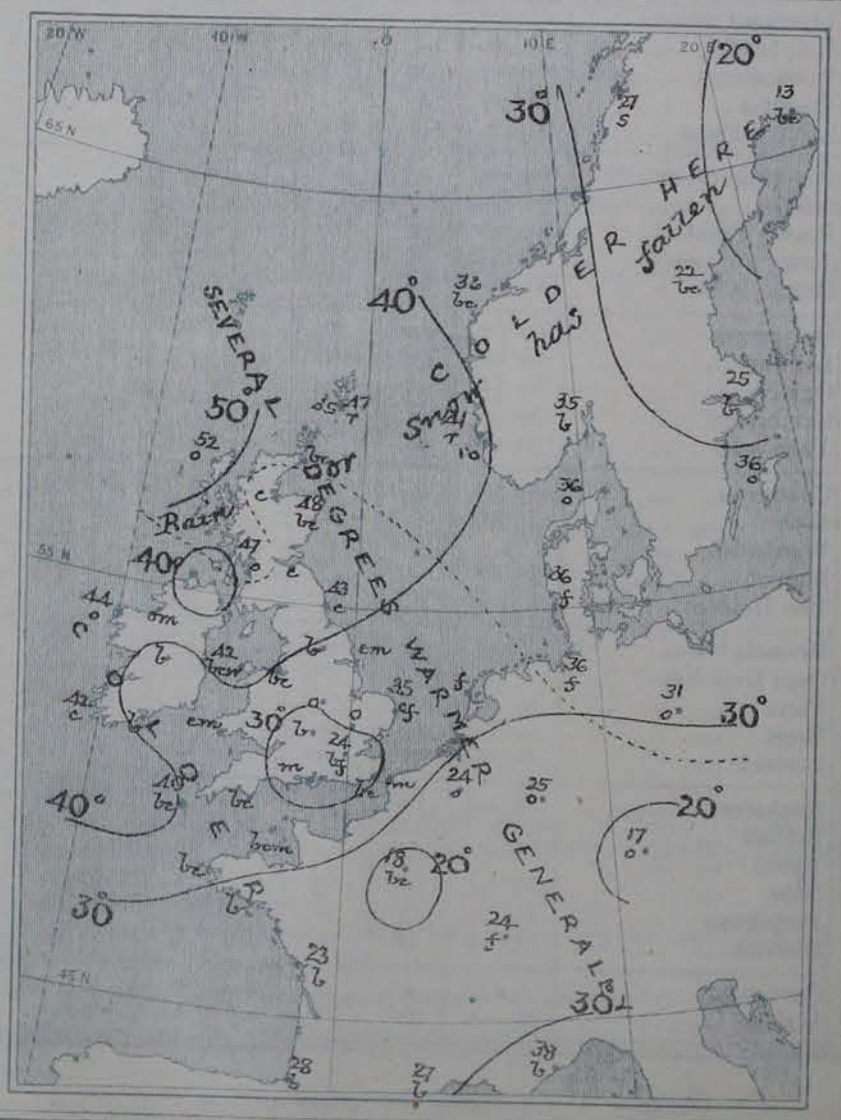
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	46 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·7 ins: and upwards, over the south of Ireland and the southwest of England; 30·4 ins: and upwards, over nearly the whole of our Islands, the Netherlands, Germany and France.

Lowest, 30·0 ins: and less, in Lapland.

Gradients slight. Barometer rising generally, but falling in Denmark and Germany.

TEMPERATURE

Highest, 52° at Stornoway and Wick 51° at Nairn, 48° at Aberdeen, and 47° at Dumbrgh Hd, Ardrossan, and Malin Hd.

Lowest, 13° at Haparanda, 17° at Munich, 18° at Paris, 22° at Hernösand, and 24° in London, and at Brussels and Belfort.

A considerable rise has taken place over England, Loughborough being 17° and Oxford and Cambridge 12° warmer than they were yesterday.

WIND

Light or moderate from the SW'ly or W'ly in all the more northern and eastern parts of the United Kingdom, and also in the Netherlands and North Germany.

Light from the NE'ly or E'ly over the Channel and France. Variable in Scandinavia and the north of Denmark.

WEATHER

Fine over the greater part of Western Europe, but dull in Germany, foggy over the Netherlands and the southeast of England, and rainy at Shudeness and Dumbrgh Head. Snow is falling at Bodö.

Heavy rain fell yesterday in the Hebrides, and also at some of the Scandinavian stations.

SEA

Rough off the north of Scotland and the southwest of Norway, but slight or smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The anticyclone over our Islands appears to be again increasing both in size and intensity. Some further increase of temperature is probable over England today, but sharp frost is likely to set in again at night.

FORECASTS

For the 24 hours ending at NOON on 13th Jany 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	W'ly winds, moderate; fair generally.
2 ENGLAND N.E. 3 ENGLAND EAST	W'ly and NW'ly winds, light; fair generally but local fogs.
4 MIDLAND COUNTIES 5 ENGLAND SOUTH	Light breezes, chiefly NW'ly; fair at first with a rising temperature, but frosty tonight with local fogs.
6 SCOTLAND WEST 7 ENGLAND N.W.	Same as Nos 2 and 3
8 ENGLAND S.W.	Light variable breezes; fair generally but local fogs.
9 IRELAND NORTH	SW'ly to W'ly winds, moderate; fair generally.
10 IRELAND SOUTH	Same as No 8.
WARNINGS	The SOUTH CONE has been lowered this morning in districts 0. 1. 6. and part of 9.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·[illegible]	[illegible]	[illegible]	[illegible]	6	[illegible]	5
Sumburgh Head							
Stornoway	30·06	51	51	W	6	7	6
Aberdeen							
Shields							
Ardrossan							
Malin Head ...	30·30	[illegible]	[illegible]	SW	6	0	4
Mullaghmore ...							
Belmullet	30·[illegible]	[illegible]	[illegible]	SSW	5	0	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·58	[illegible]	[illegible]	SW	4	0	4
Valencia							
Scilly							
Jersey	30·63	46	33	ENE	3	6	3
Dungeness	30·6[illegible]	32	32	ENE	2	6	0
London							*
Yarmouth							
Rochefort	30·46	29	29	ENE	5	6	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather in morning fine and bright in many parts of Ireland England, France and Russia as well as most of the Mediterranean stations, cloudy overcast or foggy elsewhere - very foggy over the southeast of England. Rain falling on the Norwegian coasts, as well as in the Shetlands and Hebrides, snow at the Austrian stations, rain in the south of Italy and at Malta. Rainfall considerable over Scandinavia, slight elsewhere.

Temperature rising quickly in the extreme N.W., and also at some of the south German, southern French and central Spanish stations, falling over Russia, north Germany, the northeast of France and southeastern Europe; morning readings touching 50° at Brindisi and Malta as well as at Stornoway, and exceeding 40° over the western and northern parts of the British Islands generally, and in Norway; lowest -12° at Moscow + 3° at Khartoff, 13° at Kiew, 19° at Ulecaborg; also 2° at Münster, 12° at Brussels, 13° at Wiesbaden and Oxford, 15° at Paris, 22° in London, and 23° at Berlin. Rising to 50° or more at several of our eastern, northern and western stations later, no decided alteration over England.

Wind mainly NE. over southern Europe, the Bay of Biscay and the English Channel, N. to W. over eastern Germany and Austria; S. in Ireland, SW. over Scotland and Scandinavia, and blowing a gale at exposed stations such as Boulogne, Christiansund and Stornoway. Veering to the W. in Scotland later, and moderating, but remaining strong from the S. in the W. of Ireland all day.

Barometer highest 30·9 ins. to 30·5 ins. in a large anticyclone over central Russia, 30·7 ins. to 30·5 ins. in another stretching from Ireland across England, the north of France and the Netherlands to N. Germany, lowest 30·1 ins. and less over nearly the whole of the Mediterranean 30 ins. to 29·2 ins. over the N. of Scotland, Norway and the adjacent parts of the Atlantic; gradients steep in the extreme N.W. Rising over Scotland later, falling over Ireland and the Baltic.

SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD

FROM THE 4TH TO 10TH JANY. 1891

The weather of the past week has remained very similar to that reported for a long time past. Over England frost has prevailed almost continuously, but in the western and northern parts of the Kingdom there has again been a temporary change to milder weather, with considerable falls of rain in some places.

At the beginning of the week a general thaw was in progress due to the W. winds of a depression which had skirted our extreme northern coasts. As this disturbance travelled away to Denmark and the Baltic a large anticyclone spread over our Islands from the NW., so that the wind shifted first of all to the N. and NE and afterwards to variable directions. On the 7th however, the anticyclone moved away to the S. and in the course of the following day a large V shaped depression spread eastward over all our more western and northern coasts, its advance being marked by S. gales in the extreme southwest and northwest, heavy rain in the south of Ireland and milder weather in the west and north generally. On the night of the 8th the further progress of the depression was checked, and the system became detached, one portion moving away to the northwards, while the other travelled away southwards to the Bay of Biscay and Spain. The barometer now rose quickly and a new anticyclone became formed over our Islands. Hard frost set in in the English stations, the sheltered thermometer on the morning of the 10th falling to a minimum of 9° at Millington, 12° at Dungeness, & 15° in London & Cambridge.

At the close of the week a large depression was skirting our northern coasts, and at Stornoway the wind was blowing a gale from SW. Over England, however, variable breezes and hard frosts still continued.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Tuesday 13th January. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30.24	5	E	0	0	29.90	-.08	20	20	+7	S	2	0	*	27	3	—
	Hernösand ...	30.33	19	S	2	0	30.00	-.24	31	30	+9	SW	2	c	*	?	16	—
	Stockholm ...	30.49	19	E	0	b	30.32	+.06	27	26	+2	WSW	2	f	*	36	16	—
	Wisby	30.40	34	NE	4	0	30.40	+.21	34	33	-2	SW	4	c	*	37	32	—
	Bodö	30.12	26	E	0	0	29.44	-.60	42	41	+15	SW	7	r	4	?	25	—
	Christiansund	30.10	45	WSW	6	r	29.97	-.28	48	46	+12	WSW	9	? r	6	48	37	0.35
	Skudesnaes ...	30.43	41	E	0	r	30.43	+.19	40	40	-1	E	0	f	3	43	39	0.28
	Christiania Fjord (Færder)	30.40	34	S	3	b	30.30	+.03	34	34	-1	SSW	5	f	3	36	32	—
	Skagen (The Scaw)	30.46	34	SSW	2	0	30.39	+.16	35	35	-1	SSW	3	f	2	36	34	—
	Fanö	30.51	32	SSE	1	0	30.53	+.27	31	31	-5	SW	1	m	*	37	31	—
BRITISH ISLANDS.	Sumburgh Head	30.35	47	W	4	r	30.27	+.11	47	46	0	W	5	0	5	48	44	0.01
	Stornoway ...	30.48	50	W	4	0	30.45	+.12	49	49	-3	SW	6	r	6	52	46	0.02
	Wick	30.46	52	E	0	bc	30.45	+.13	45	43	-7	W	1	bc	1	53	42	—
	Nairn	30.52	50	SW	4	c	30.53	+.16	47	46	-4	SW	2	c	2	53	43	—
	Aberdeen ...	30.53	49	W	1	bcm	30.54	+.14	36	35	-12	SW	1	bcm	1	54	36	—
	Leith	30.60	46	W	3	b	30.62	+.10	44	41	-2	WSW	3	b	*	48	42	—
	Shields	30.59	45	WNW	2	bm	30.63	+.11	41	40	-2	WNW	3	b	2	46	39	—
	Spurn Head ...	30.56	37	WNW	3	bm	30.61	+.08	35	35	-2	NW	2	bm	3	38	34	—
	York	30.61	40	W	1	b	30.66	+.07	35	35	-5	W	1	b	*	45	32	—
	Loughborough	30.63	39	W	2	b	30.68	+.04	30	30	-6	E	0	f	*	43	29	—
	Ardrossan ...	30.65	48	NW	1	0	30.67	+.11	47	45	0	WNW	4	c	2	49	45	—
	Malin Head ...	30.65	44	WSW	4	b	30.70	+.16	44	42	-3	SW	3	0	2	49	43	—
	Mullaghmore ...	30.70	42	SSW	2	bc	30.76	+.15	43	41	-3	SW	3	0m	2	48	40	—
	Belmullet ...	30.70	46	SW	3	0	30.78	+.16	44	43	0	SW	1	b	*	48	44	—
	Donaghadee ...	30.69	44	W	3	bc	30.75	+.16	40	38	-4	W	3	c	1	48	38	—
	Liverpool (Bidston)	30.68	40	W	3	0	30.72	+.06	40	39	+2	NW	2	0	2	44	38	—
	Holyhead ...	30.69	43	NW	2	0	30.74	+.08	44	43	+2	N	3	0g	2	47	42	—
	Parsonstown ...	30.72	38	E	0	b	30.81	+.14	28	28	-3	E	0	0	*	44	25	—
	Valencia	30.75	38	E	0	bc	30.82	+.12	40	38	-2	NNE	2	b	2	48	32	—
	Roche's Point ...	30.73	40	N	1	b	30.78	+.08	40	38	+5	N	3	b	3	45	34	—
	Pembroke (St. Ann's Hd.)	30.70	41	WNW	2	b	30.70	-.02	43	43	+9	NNE	3	f	2	44	33	—
	Scilly	30.66	44	NNE	3	bc	30.62	-.05	44	43	+4	NNE	4	0	4	46	39	—
	Prawle Point ...	30.67	36	NNW	1	b	30.62	-.08	43	42	+10	N	4	bc	3	47	32	—
	Jersey (St. Aubin's)	30.63	40	WNW	2	cmq	30.55	-.14	44	43	+13	NNE	4	om	3	44	29	—
	Hurst Castle ...	30.64	37	SSE	1	m	30.63	-.06	40	40	+15	NE	3	om	1	40	24	0.01
	Dungeness ...	30.55	39	N	2	f	30.55	-.09	39	38	+12	NE	4	m	3	39	25	0.01
	London	30.62	40	NW	1	of	30.64	-.02	41	40	+17	NNW	1	pfdg	*	42	24	—
	Oxford	30.67	38	WNW	2	0	30.68	-.01	35	35	+10	NNW	1	0g	*	41	25	—
	Cambridge ...	30.64	37	SW	1	0	30.64	0.0	37	37	+4	N	1	f	*	38	31	—
	Yarmouth ...	30.54	38	NW	2	bcf	30.59	+.04	39	39	+4	N	1	f	2	39	34	0.08
GERMANY & HOLLAND.	Cuxhaven ...	30.46	34	WNW	3	f	30.55	+.21	34	34	-2	SW	1	0	*	36	34	0.01
	Berlin	30.36	35	NNE	2	0	30.97	+.32	33	32	+2	SE	1	0	*	36	31	—
	Wiesbaden ...	*	*	*	*	*									*			
	Munich	30.38	28	SW	3	d	30.45	-.07	25	25	+8	NE	4	0	*	28	17	0.32
	The Helder ...	30.51	35	NNW	1	f	30.57	+.08	32	32	-2	NNE	1	f	1	36	32	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.55	-.07	33	33	+9	ENE	2	r	*	36	?	0.08
	Cape Gris Nez	30.55	37	N	3	m	30.53	-.09	36	36	+2	NE	3	f	3	37	32	0.39
	Paris	30.54	30	E	0	0	30.48	-.17	35	35	+17	NE	2	0	*	?	?	0.04
	Brest	30.56	36	E	2	bc	30.55	-.11	44	44	+13	NE	5	0	4	?	?	—
	Lorient	30.66	36	NE	3	0	30.47	-.15	43	41	+16	NE	4	m	3	?	27	0.08
	Rochefort ...	30.51	31	NE	4	0	30.36	-.19	28	27	+5	NE	3	0	?	34	19	—
	Belfort	30.35	25	S	1	d	30.33	?	28	?	+4	W	1	d	*	29	20	0.04
	Lyons														*			
	Nice	30.20	43	SE	2	c	30.24	-.17	42	39	+4	E	4	0	3	50	38	—
	Perpignan ...	30.32	43	W	3	0	30.28	-.20	35	33	+8	W	2	c	*	54	?	—
	Biarritz	30.51	35	NE	1	b	30.38	-.11	34	33	+6	SE	3	0	2	43	?	0.20
PENINSULA.	Corunna	*	*	*	*	*	30.33	+.10	39	36	+2	NNE	4	bc	?	50	?	—
	Lisbon	30.29	47	ENE	5	b												

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Tuesday, 13th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

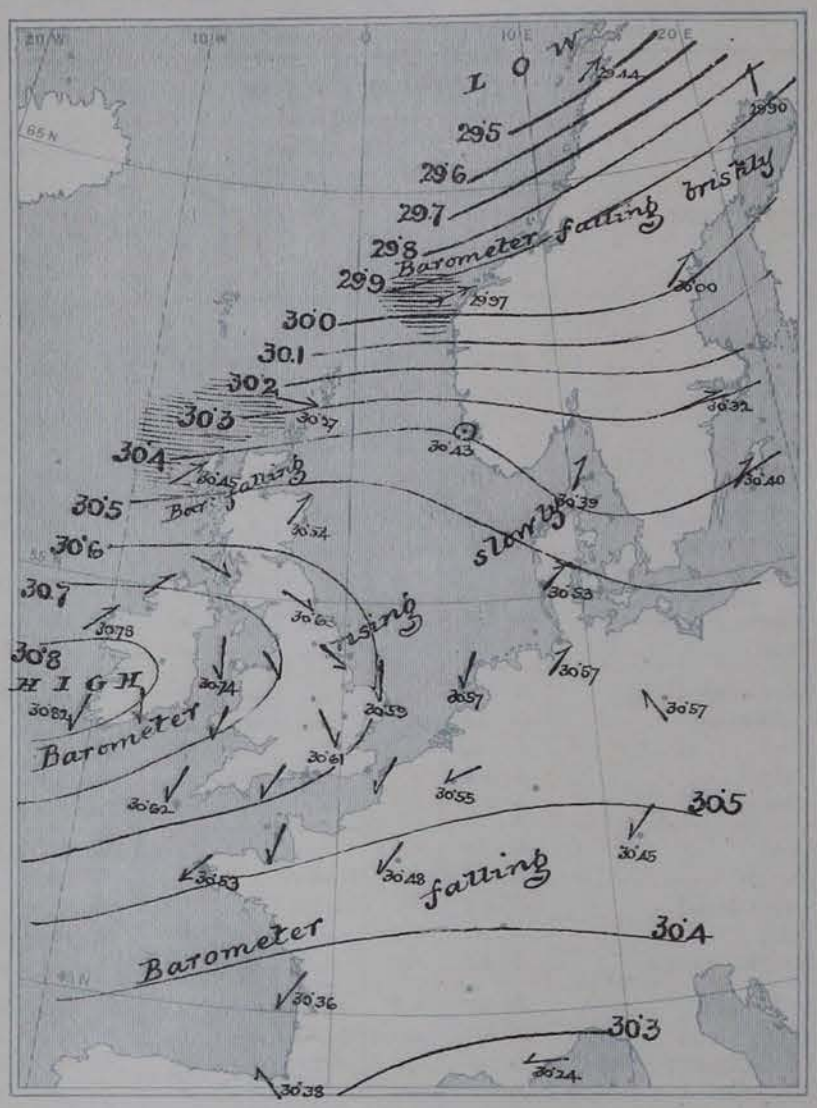
BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows show the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shown thus:

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

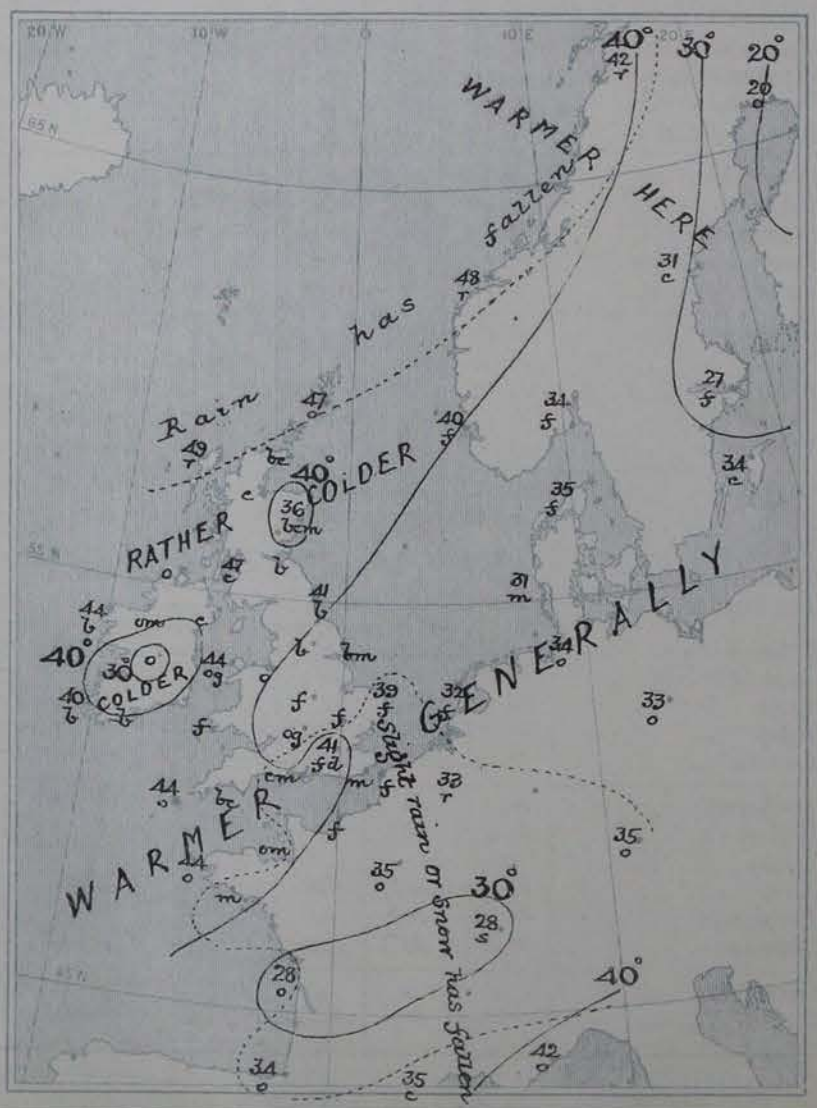
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·858
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·938
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·995
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·2	36·4	35·4	2·04
Ardrossan	41·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·3	43·2	41·9	5·50
Pembroke	45·5	39·0	42·7	41·3	3·75
Scilly	48·8	42·0	45·4	44·9	5·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·0	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·8	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE. The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·8 ins. and more to 30·6 ins. over Ireland and England, and 30·5 ins. and more, over the North Sea and Germany.
Lowest, 29·5 ins. and less, over the west of Lapland; 30·2 ins. and less, over the south of France.
Gradients were rather steep over Scandinavia, slight in our Islands, France, and Germany.
Barometer rising over the greater part of the United Kingdom, falling fast over the north of Norway, slowly over France.

TEMPERATURE

Highest, 49° at Stornoway, 47° at Lerwick Head, Aldrossan and Nairn, 43° to 44° in the northwest of Ireland.
Lowest, (1) 20° to 27° at the Swedish stations, (2) 25° at Munich, 28° at Belfort, 33° at Berlin and Brussels, and 35° at Paris.
It rose to 42° in London during last night, and was still as high as 41° (or nearly 4° above the average) this morning.

WIND

Blowing a gale from SW. again over the northern half of Norway, and is rather strong from W. and SW in the extreme north of our Islands. Over the north and east of England it is NW^{ly} to N^{ly}, and light, while over the Channel and Bay of Biscay it is NE^{ly} and moderate.

WEATHER

Rainy at Stornoway, Bodö, and Brussels, foggy over England, fine and bright in Ireland. A good deal of rain has fallen in Norway, and a smaller quantity of rain or snow at most of the French and several German stations. In London slight drizzle prevails. A solar halo was seen at Jersey yesterday.

SEA

Rough off the northwest coast of Norway, moderate about the mouth of the English Channel, slight or smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression in the north seems likely to cause very strong winds from W. and SW. in the north of Scotland shortly. Fog is still likely to prevail over England, and some decrease of temperature is likely to take place shortly.

FORECASTS

For the 24 hours ending at NOON on 14th January 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SW^{ly} to NW^{ly} winds, strong; squally rain at times.	6 SCOTLAND WEST	Same as No^{s} 0 and 1.
1 SCOTLAND EAST		7 ENGLAND N.W.	NW^{ly} winds, freshening; changeable, some rain.
2 ENGLAND N.E.	NW^{ly} to W^{ly} winds, moderate; fair to showery.	8 ENGLAND S.W.	Same as No 5
3 ENGLAND EAST	Same as No 5	9 IRELAND NORTH	Same as No^{s} 0 and 1.
4 MIDLAND COUNTIES	Same as No 2.	10 IRELAND SOUTH	N^{ly} winds, light or moderate; fair.
5 ENGLAND SOUTH	NE^{ly} winds, moderate to fresh; foggy to fair. Less mild than at present.	WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA	SEA
Skudesnaes ...	30.35	43	43	SW	1	r f	3
Sumburgh Head	30.29	48	48	W	4	r	5
Stornoway	30.44	52	51	W	4	o	4
Aberdeen	30.47	51	48	SSW	1	c	2
Shields	30.54	46	45	WNW	3	c	2
Ardrossan	30.63	49	48	NW	1	o	1
Malin Head ...	30.62	49	46	SW	3	o	2
Mullaghmore ...	30.66	48	44	SSW	3	b	2
Belmullet	30.66	48	45	SSW	2	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30.67	46	44	WNW	1	bc	2
Valencia	30.72	48	45	SE	2	bcm	2
Scilly	30.09	45	42	NE	3	c	4
Jersey	30.66	41	38	E	2	bcm	2
Dungeness	30.64	37	35	SSE	1	m	0
London	30.61	40	39	E	0	of	*
Yarmouth	30.53	38	37	WNW	2	cf	2
Rochefort	30.55	31	31	ENE	4	o	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine over the greater part of Western and Southern Europe, as well as over Sweden, Lapland, and central Russia, but foggy in London. Dull over the central and southeastern countries, with snow in many places; foggy over the Netherlands, north Germany, and the south of Denmark, rainy at Skudesnaes and Sumburgh Head. Drizzling rain falling later in the south and southeast of England, and snow at some of the French stations.

Temperature highest (1) 52° at Stornoway, and Nice, 51° at Nairn, and 48° at Aberdeen; (2) 50° at Brindisi and Malta, 48° at Sanguinaire and Barcelona, and 47° at Algiers; considerable rise in progress over England, the Netherlands and Germany. Lowest (1) −19° at Moscow, +6° at Kiev, and 9° at Kharkov; (2) 17° at Limoges and Munich, 18° at Paris, and 21° at Le Mans; below the freezing point over central Ireland and the south of England. Decided rise taking place over England later, and thermometer exceeding 40° on all but our extreme southeast coasts.

Wind light or moderate from the SW^ly or W^ly in all the more northern and eastern parts of the United Kingdom as well as over the Netherlands and Germany. Light from the NE^ly or E^ly over the Channel, France, and Spain, and from the SE^ly in Algeria. N^ly in Italy and also in Denmark and the south of Sweden, variable in Scandinavia, SW^ly over northern Russia. Subsequently becoming variable in the south and southeast of England.

Barometer highest 30.7 ins. and upwards, in the central portion of an anticyclone lying over Russia, and also in another system lying over the southwest of our Islands. Lowest 29.9 ins. and less, in a depression lying over the White Sea, 30.1 ins. and less, in a small system lying to the southward of Sardinia. Barometer rising during day in nearly all parts of our Islands, but falling slightly over France and the extreme south of England.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

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DAILY WEATHER REPORT.

for *Wednesday, 14th January,* 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. **R. H. SCOTT,** *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.12	35	SW	4	r	29.01	-.89	28	27	+8	N	4	0	*	36	-15	0.12
	Hernösand ...	29.33	33	S	0	bc	29.24	-.76	26	23	-5	NW	6	b	*	43	18	-
	Stockholm ...	29.63	36	WSW	4	o	29.38	-.94	29	28	+2	WNW	4	bc	*	37	14	0.04
	Wisby	29.87	35	WSW	6	o	29.40	-1.00	35	32	+1	N	8	c	*	36	34	0.04
	Bodö	29.10	37	SW	6	o	† 29.44	.00	30	28	-12	N	8	s	5	42	28	-
	Christiansund	29.65	36	WNW	9	r	29.86	-.11	33	32	-15	NW	5	s	7	48	30	0.63
	Skudesnaes ...	29.97	40	W	8	bc	30.06	-.37	35	32	-5	NNW	10	o	6	43	34	0.10
	Christiania Fjord (Færder)	29.72	39	WSW	6	b	29.62	-.68	36	34	+2	WNW	5	o	2	39	?	-
	Skagen (The Scaw)	29.72	40	W	7	r	29.62	-.77	37	35	+2	NNW	7	b	4	41	?	0.04
	Fanö	30.12	35	WSW	6	o	29.97	-.56	34	31	+3	NW	4	b	*	36	31	-
BRITISH ISLANDS.	Sumburgh Head	30.15	40	NNW	6	b	30.49	+.22	33	33	-14	N	7	s	6	48	33	2.13
	Stornoway ...	30.52	40	NW	6	b	30.68	+.23	36	35	-13	NW	6	o	6	49	34	0.06
	Wick	30.40	40	NW	7	c	30.66	+.21	34	32	-11	NW	7	o s p	4	48	31	0.05
	Nairn	30.50	42	W	3	c	30.70	+.17	36	35	-11	NNW	4	o	3	51	35	0.03
	Aberdeen ...	30.43	43	NNW	6	bcp	30.63	+.09	34	32	-2	NNW	6	c g p s	5	51	34	0.07
	Leith	30.51	43	WSW	3	c	30.69	+.07	39	35	-5	WNW	2	b	*	49	37	-
	Shields	30.51	45	W	3	o	30.62	-.01	34	33	-7	NW	4	c t s p	4	46	32	0.02
	Spurn Head ...	30.52	37	WNW	3	bm	30.51	-.10	35	35	0	NNW	6	c p	4	39	34	0.01
	York	30.58	38	W	1	b	30.62	-.04	36	34	+1	NNW	4	bc	*	43	33	-
	Loughborough	30.62	39	W	1	b	30.60	-.08	34	33	+4	NW	2	b	*	41	29	-
	Ardrossan ...	30.54	47	NW	6	b	30.71	+.04	38	37	-9	NW	3	b	2	49	37	-
	Malin Head ...	30.69	45	NW	6	o	30.79	+.09	41	40	-3	NNW	6	o p	4	48	40	-
	Mullaghmore ...	30.77	46	NNW	5	omp	30.88	+.12	43	40	0	NNE	5	c g	4	47	41	0.01
	Belmullet ...	30.82	46	N	2	o	30.94	+.16	44	41	0	N	3	o	*	50	42	0.01
	Donaghadee ...	30.67	48	NW	3	c	30.76	+.01	43	40	+3	NNE	5	b	3	48	39	0.01
	Liverpool (Bidston)	30.64	41	W	5	o	30.69	-.03	37	35	-3	NW	3	b	4	43	36	-
	Holyhead ...	30.69	44	NW	3	qg	30.72	-.02	43	41	-1	N	5	b	4	46	42	0.01
	Parsonstown ...	30.77	42	S	0	c	30.87	+.06	32	31	+4	S	0	bc	*	44	28	-
	Valencia	30.82	45	NNE	1	b	30.93	+.11	43	41	+3	NNE	2	cm	1	49	33	0.01
	Roche's Point ...	30.78	42	N	3	b	30.85	+.07	39	37	-1	N	3	b	3	45	39	-
	Pembroke (St. Ann's Hd.)	30.71	41	NNE	3	b	30.73	+.03	41	40	-2	N	4	bc	3	46	40	-
	Scilly	30.62	45	NNE	5	o	30.66	+.04	45	43	+1	NNE	6	c	4	47	42	-
	Prawle Point ...	30.63	41	N	2	bc	30.66	+.04	36	36	-7	NNW	2	bc	1	47	35	-
	Jersey (St. Aubin's)	30.57	44	NE	3	ogf	30.56	+.01	44	41	0	N	4	cm	3	45	41	0.01
	Hurst Castle ...	30.61	39	NNE	3	m	30.60	-.03	35	35	-5	NNE	3	b	1	41	32	-
	Dungeness ...	30.54	39	NE	2	f	30.49	-.06	36	36	-3	N	4	c	3	41	35	0.01
	London	30.62	42	NNW	2	ogam	30.56	-.08	38	35	-3	NNW	3	b	*	43	34	0.02
	Oxford	30.61	37	NW	2	b	30.62	-.06	34	32	-1	NNW	1	b	*	42	34	-
	Cambridge ...	30.59	36	N	1	o	30.56	-.08	33	32	-4	N	2	b	*	38	32	-
	Yarmouth ...	30.54	39	N	2	f	30.46	-.13	36	35	-3	N	3	bc	3	41	32	0.02
GERMANY & HOLLAND.	Cuxhaven ...	30.49	34	WSW	2	o	30.05	-.52	34	33	0	WNW	5	c	*	36	33	0.08
	Berlin	30.43	33	SW	3	o	29.91	-.66	34	33	+1	WNW	4	o	*	36	33	0.08
	Wiesbaden ...	*	*	*	*	*	30.20		35	32		N	1	o	*	36	32	-
	Munich	30.44	25	E	2	o	30.16	-.29	24	24	-1	SW	5	o	*	28	21	-
	The Helder ...	30.44	34	SW	1	f	30.31	-.26	34	32	+2	NW	3	b	3	36	32	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	30.53	36	NE	3	f	30.44	-.09	37	36	+1	N	4	m	4	39	34	0.08
	Paris	30.52	35	NNE	2	o	30.41	-.07	33	33	-2	NW	1	o	*	?	28	-
	Brest	30.58	46	NE	4	f	30.62	+.07	44	43	0	NE	4	o	3	46	41	-
	Lorient	30.50	43	ENE	4	m	30.54	+.07	42	41	-1	NNE	3	m	3	45	39	0.09
	Rochefort ...	? 30.42	35	ENE	5	m	? 30.45	+.09	33	32	+5	ENE	4	c	*	37	27	-
	Belfort	?	26	E	1	f	?	?	29	?	+1	E	1	o	*	32	?	-
	Lyons	30.43	28	?	1	o	30.41		29	28		NW	1	c	*	29	27	-
	Nice	30.30	40	NE	5	b	30.19	-.05	36	30	-6	E	3	b	2	45	36	-
	Perpignan ...	30.35	38	NE	2	r	30.29	+.01	36	33	+1	W	2	b	*	48	34	0.08
	Biarritz	30.35	34	E	3	o	30.45	+.07	32	31	-2	ESE	3	f	2	36	30	0.08
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.28	48	W	2	b	30.31	-.02	39	36	0	NE	5	b	?	50	39	

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Wednesday, 14th January, 1891.

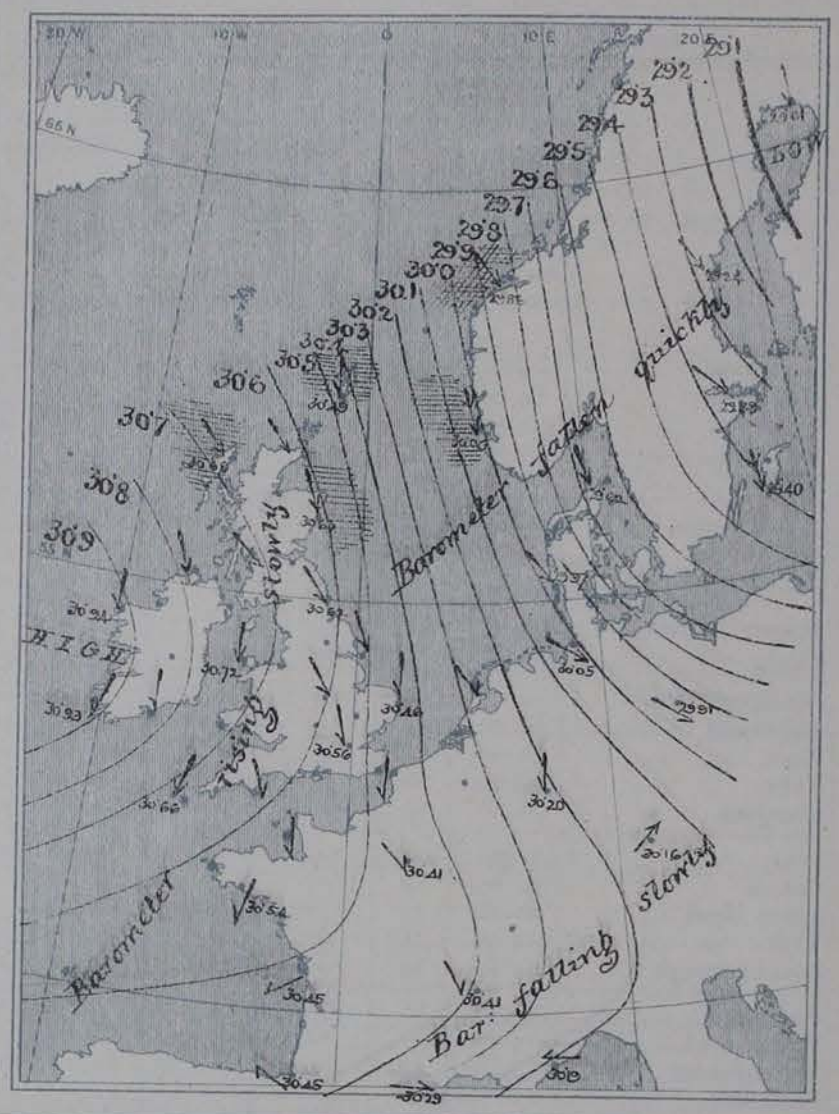
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

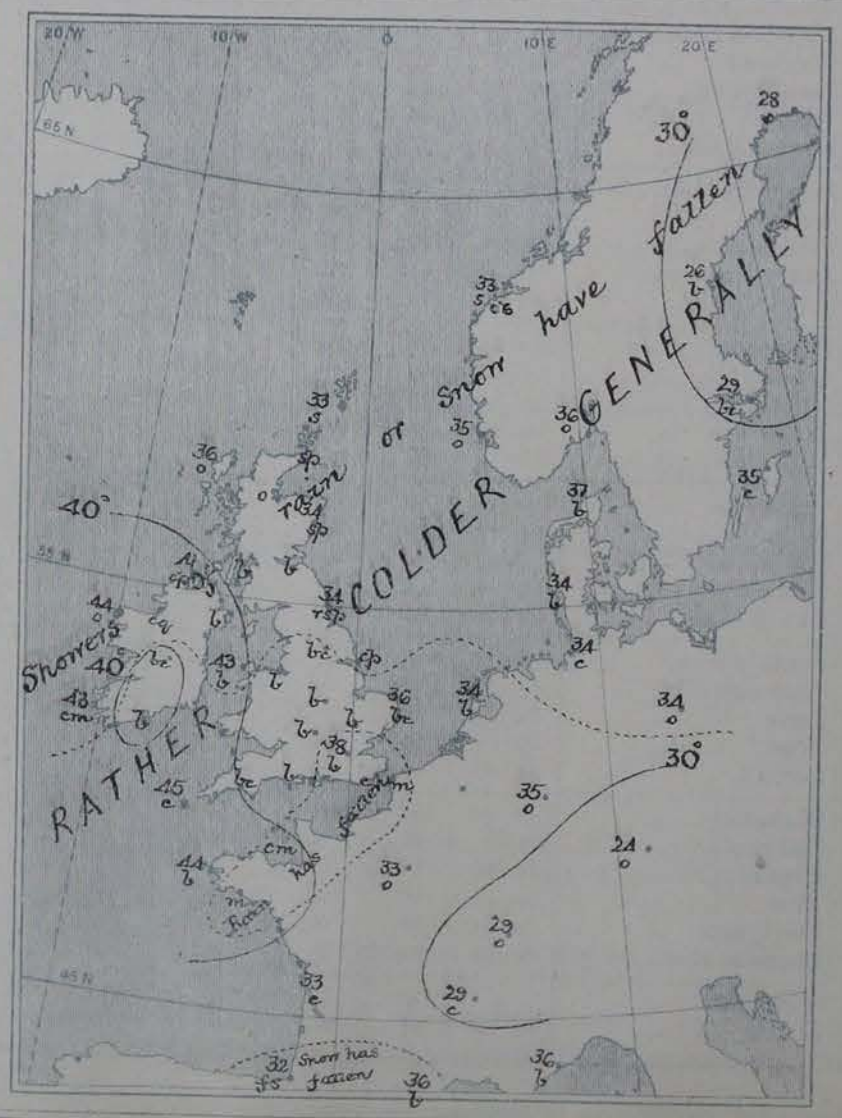
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	46 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	36 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·9 ins: and more, to 30·5 ins: over the British Islands.
Lowest, 29·0 ins: over Ireland, 29·9 ins: and less, over Denmark.
Gradients steep for N^ly winds over Denmark, Norway, and the North Sea, moderate over the North Sea.
Barometer rising on our coasts, falling in the far east.

TEMPERATURE

Highest, 45° at Scilly, 44° in the extreme west of Ireland, 43° at Holyhead.
Lowest, (1) 24° at Munich, 29° at Belfort and Lyons, (2) 26° to 29° on the coast of Sweden.
It is below 40° over Great Britain generally. In London the morning reading is 38°, at Cambridge and Paris 33°, and at Berlin 34°.
Frost occurred on the ground over our Islands early this morning.

WIND

N^ly over the British Islands generally; — strong to a gale on our northern coasts, fresh in the east, moderate in the west and south. Over the North Sea it is NW^ly, fresh to a gale; over the Bay of Biscay NE^ly, moderate.

WEATHER

Fair generally over England and Ireland; squalls of sleet and snow prevail on our north and northeast coasts. Large quantities of cold rain or snow have fallen in Norway, and smaller amounts on the shores of the North Sea generally.

SEA

Very rough at the most northern stations, moderate or slight elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The very decided high-pressure area in the west appears likely to spread more over the Kingdom, bringing with it a renewal of cold dry frosty weather.

FORECASTS

For the 24 hours ending at NOON on 15th January 1891.

DISTRICTS.	FORECASTS.
↑ 0 SCOTLAND NORTH ↑ 1 SCOTLAND EAST	NW^ly and N^ly winds, strong and squally then moderating; cold showers.
2 ENGLAND N.E. 3 ENGLAND EAST	N^ly winds, fresh to moderate; some cold showers, finer later.
4 MIDLAND COUNTIES 5 ENGLAND SOUTH	N^ly winds, moderate; fair, frosty at night.
↑ 6 SCOTLAND WEST 7 ENGLAND N.W. 8 ENGLAND S.W.	N^ly winds, fresh; fair, cold, frosty at night.
9 IRELAND NORTH 10 IRELAND SOUTH	Same as No. 4 and 5
WARNINGS	The NORTH CONE was hoisted last evening in districts 0. 1. and 6.

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·26	42	42	WSW	4	rf	3
Sumburgh Head	30·10	45	43	W	5	r	6
Stornoway	30·45	46	43	W	6	r	6
Aberdeen	30·40	47	43	SW	2	bc	1
Shields	30·58	46	42	W	3	b	2
Ardrossan	30·60	49	48	WNW	4	c	2
Malin Head ...	30·67	47	46	WSW	4	o	3
Mullaghmore ...	30·76	47	46	SW	3	om	2
Belmullet	30·78	50	48	WNW	1	o	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·72	44	42	NNW	3	b	2
Valencia	30·81	49	45	NNE	3	bm	3
Scilly	30·62	46	45	NNE	5	o	4
Jersey	30·86	45	44	N	2	o	2
Dungeness	30·54	41	41	NNE	3	m	2
London	30·62	42	41	N	1	qdf	*
Yarmouth	30·57	41	40	N	2	f	2
Rochefort	30·36	37	37	ENE	5	o	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather dull and foggy over the central parts of the United Kingdom, but fair in all the outlying districts, as well as in the southern parts of Spain and Italy. Dull at most of the Continental stations, with fog in Denmark and the south of Norway, rain in the west of Norway, and snow in some parts of Finland and Austria as well as at Belfort. Slight drizzling rain falling during day in many parts of the United Kingdom.

Temperature highest (1) 51° at Malta, 50° at Brindisi, 48° at Algiers, and 45° at Oran and Sfax; (2) 49° at Stornoway, 48° at Christiansund and 47° at Nairn and Ardrossan. Lowest −13° F. at Moscow, +14° at Kuopio, 17° at Uleaborg, 19° at Helsingfors (many of the Russian reports wanting): below the freezing point over the greater part of northern, eastern, and central Europe, as well as over the central parts of Ireland and England, but considerably above it in the west of Norway. Daily maxima above 40° in most parts of the United Kingdom, and above 50° in the north of Scotland.

Wind SW over Scandinavia, Denmark, and the northern parts of the United Kingdom, with a strong gale in the west of Norway. Light or moderate from the NE. or E. over the Channel, France, and the greater part of central and southern Europe; light from the S. in Algeria; variable or N. in Austria. Subsequently veering to the W. in Norway, and to the NW. in the north of our Islands, with some increase in force.

Barometer highest 30·8 ins. and upwards in the southwest of Ireland, 30·7 ins. and upwards over central Russia; 30·5 ins. and upwards in a broad 'col' stretching across England, the Netherlands, Germany, and Poland. Lowest 29·5 ins. and less, in a large and deep depression having its centre to the northwestward of Norway. Depression subsequently moving southeastwards, and barometer falling rapidly at the Scandinavian stations.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Thursday, 15th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29·62	13	N	6	b	29·82	+·81	2	2	-26	N	2	b	*	36	12	-
	Hernösand ...	29·69	24	NNW	9	b	29·95	+·71	14	13	-12	NW	4	b	*	32	?	-
	Stockholm ...	29·52	25	WNW	6	S	29·79	+·41	19	18	-10	NW	6	bc	*	39	?	0·04
	Wisby	29·52	32	NE	8	S	29·70	+·30	29	24	-8	NE	8	c	*	37	?	-
	Bodö	29·95	24	N	6	c	30·05	+·61	20	18	-10	? WNW	2	c	1	30	18	-
	Christiansund	30·24	26	NNW	8	S	30·22	+·36	28	25	-5	NW	2	c	6	?	23	0·24
	Skudesnaes ...	30·23	28	NNW	9	O	30·28	+·22	23	23	-12	NNW	2	O	4	36	21	-
	Christiania Fjord (Færder)	29·91	30	NNW	8	b	30·12	+·50	26	22	-10	NNW	6	b	2	39	25	-
	Skagen (The Scaw)	29·93	30	NNE	8	b	30·06	+·44	28	27	-9	NE	7	bc	7	37	28	-
	Fanö	29·99	31	NW	6	b	30·06	+·09	25	23	-9	NNW	6	b	*	36	25	-
BRITISH ISLANDS.	Sumburgh Head	30·65	32	N	6	S	30·36	-·13	40	38	+7	NW	4	r	5	40	30	0·02
	Stornoway ...	30·68	34	N	4	O	30·59	-·09	42	41	+6	NW	4	c	4	42	31	0·03
	Wick	30·76	34	NW	4	O	30·50	-·16	35	35	+1	NW	2	d	3	37	30	0·12
	Nairn	30·82	33	NNW	3	O	30·56	-·14	37	36	+1	NW	2	r	2	37	32	0·01
	Aberdeen ...	30·72	34	NNW	6	cqps	30·53	-·10	35	33	+1	WNW	4	oqqrsp	6	36	31	0·04
	Leith	30·77	35	W	2	c	30·61	-·08	36	33	-3	W	2	c	*	40	32	-
	Shields	30·66	35	NNW	4	bc	30·56	-·06	34	32	0	NW	3	c	6	37	30	0·03
	Spurn Head ...	30·52	33	NNW	8	bc	30·44	-·07	34	33	-1	NNE	7	bchq	6	38	31	0·11
	York	30·64	35	N	4	c	30·55	-·07	32	31	-4	N	3	b	*	39	29	0·05
	Loughborough	30·65	35	N	3	b	30·58	-·02	31	28	-3	NNW	3	b	*	?39	30	-
	Ardrossan ...	30·81	36	N	3	b	30·68	-·03	39	38	+1	N	1	O	1	42	32	-
	Malin Head ...	30·89	40	N	6	oq	30·76	-·03	41	40	0	NNW	5	bcp	3	42	38	0·03
	Mullaghmore ...	30·92	42	NNE	5	c	30·84	-·04	41	40	-2	NNW	4	cp	3	44	39	0·03
	Belmullet ...	30·97	44	?	5	O	30·86	-·08	41	40	-3	NNW	2	O	*	46	38	0·04
	Donaghadee ...	30·82	40	NNE	5	c	30·75	-·01	40	39	-3	NNE	4	bc	3	44	38	-
	Liverpool (Bidston)	30·75	35	N	2	bc	30·68	-·01	34	33	-3	NNW	3	c	4	39	33	-
	Holyhead ...	30·77	40	NE	5	oq	30·72	·00	40	38	-3	NNE	5	c	5	44	37	-
	Parsonstown ...	30·88	37	Z	0	b	30·84	-·03	34	32	+2	Z	0	b	*	42	31	-
	Valencia	30·93	44	NNE	3	bc	30·91	-·02	39	38	-4	NNE	1	O	2	48	38	0·01
	Roche's Point ...	30·85	42	N	4	bc	30·83	-·02	40	38	+1	NNE	5	c	4	45	36	-
	Pembroke (St. Ann's Hd.)	30·74	40	N	5	c	30·72	-·01	37	34	-4	NNE	3	bc	2	45	34	-
	Scilly	30·69	44	N	6	c	30·68	+·02	40	39	-5	NNE	5	O	4	46	38	-
	Prawle Point ...	30·68	36	NNW	2	b	30·67	+·01	29	28	-7	NNW	3	b	1	41	28	-
	Jersey (St. Aubin's)	30·62	40	NNE	4	bcm	30·58	+·02	37	33	-7	N	4	bcm	3	44	36	-
	Hurst Castle ...	30·62	34	NNE	4	b	30·58	-·02	30	29	-5	NNE	5	b	2	41	28	-
	Dungeness ...	30·49	35	N	6	c	30·41	-·08	32	32	-4	N	6	c	5	40	31	-
	London	30·60	37	N	4	b	30·50	-·06	31	28	-7	N	3	m	*	40	30	-
	Oxford	30·63	33	N	5	b	30·58	-·04	28	26	-6	NNW	5	bq	*	39	28	-
	Cambridge ...	30·57	34	N	3	O	30·50	-·06	30	30	-3	N	3	O	*	39	28	0·01
	Yarmouth ...	30·45	35	N	5	c	30·39	-·07	32	31	-4	NNE	7	cqhu	6	37	30	0·09
GERMANY & HOLLAND.	Cuxhaven ...	29·97	?	NW	6	O	30·06	+·01	27	25	-7	NNE	6	c	*	34	25	-
	Berlin	29·77	32	NW	4	O	29·82	-·09	25	23	-9	NW	4	O	*	36	25	0·08
	Wiesbaden ...	*	*	*	*	*	30·01	-·19	28	26	-7	NW	4	bc	*	37	27	0·08
	Munich	30·04	26	SW	9	O	29·81	-·35	21	21	-3	W	6	S	*	27	21	-
	The Helder ...	30·26	33	N	7	S	30·26	-·05	27	26	-7	NNE	3	b	4	36	29	0·12
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	30·44	34	NNE	6	bc	30·36	-·08	32	31	-5	NNE	6	S	6	37	30	-
	Paris	30·41	35	NNW	3	b	30·34	-·07	31	30	-2	NW	4	O	*	41	30	0·04
	Brest	30·65	41	NE	2	c	?	?	36	35	-8	NE	3	O	2	?	34	-
	Lorient	30·58	41	NE	4	b	30·56	+·02	37	35	-5	NNE	3	O	2	45	36	-
	Rochefort ...	? 30·44	37	N	4	b	? 30·45	·00	34	33	+1	NNW	4	c	*	39	28	-
	Belfort	?	26	WNW	2	bc	?	?	28	?	-1	WNW	1	?	*	29	21	-
	Lyons	30·23	30	N	4	c	30·17	-·24	28	25	-1	NNW	4	S	*	31	27	-
	Nice	29·69	41	?	5	b	29·74	-·45	35	28	-1	NE	4	b	4	48	30	-
	Perpignan ...	30·13	37	NW	6	O	30·17	-·12	34	30	-2	NW	5	c	*	42	33	-
	Biarritz	30·41	33	SSE	2	f	30·41	-·04	33	33	+1	E	5	O	4	37	30	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·34	46	NNE	4	b	30·22	-·09	42	37	+3	N	4	b	?	52	39	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Thursday 15th January, 1891.

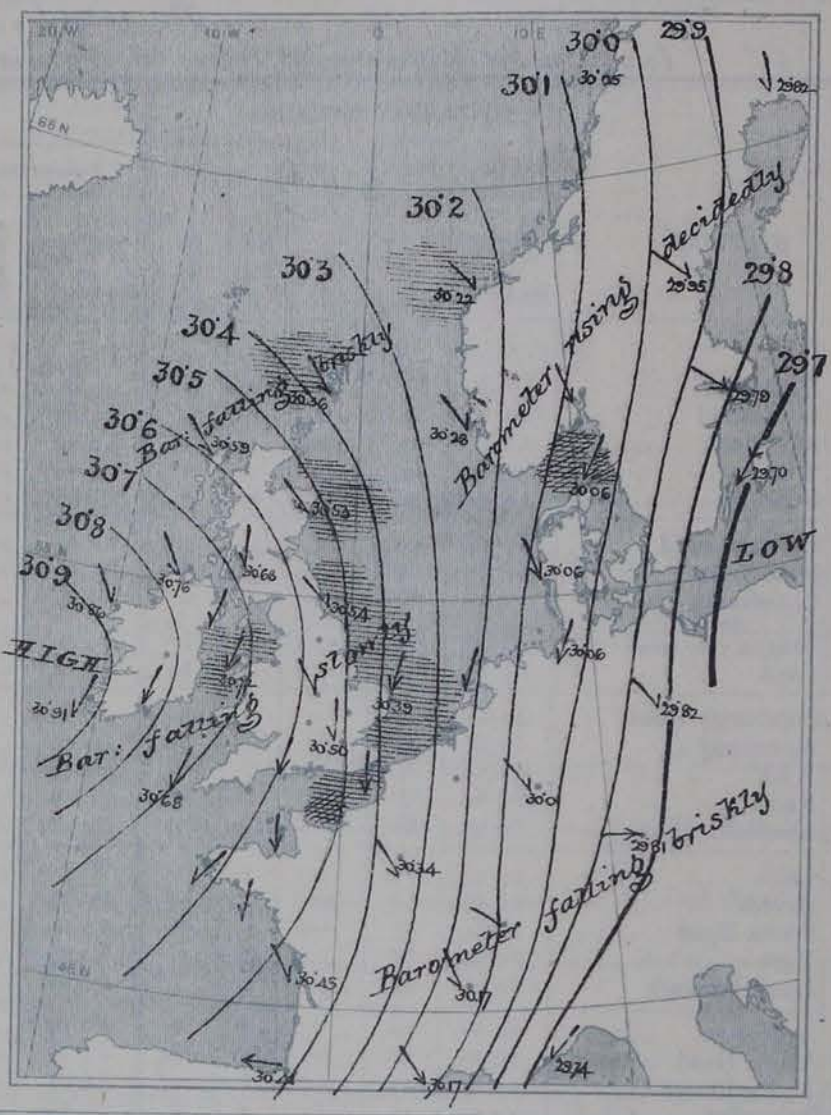
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

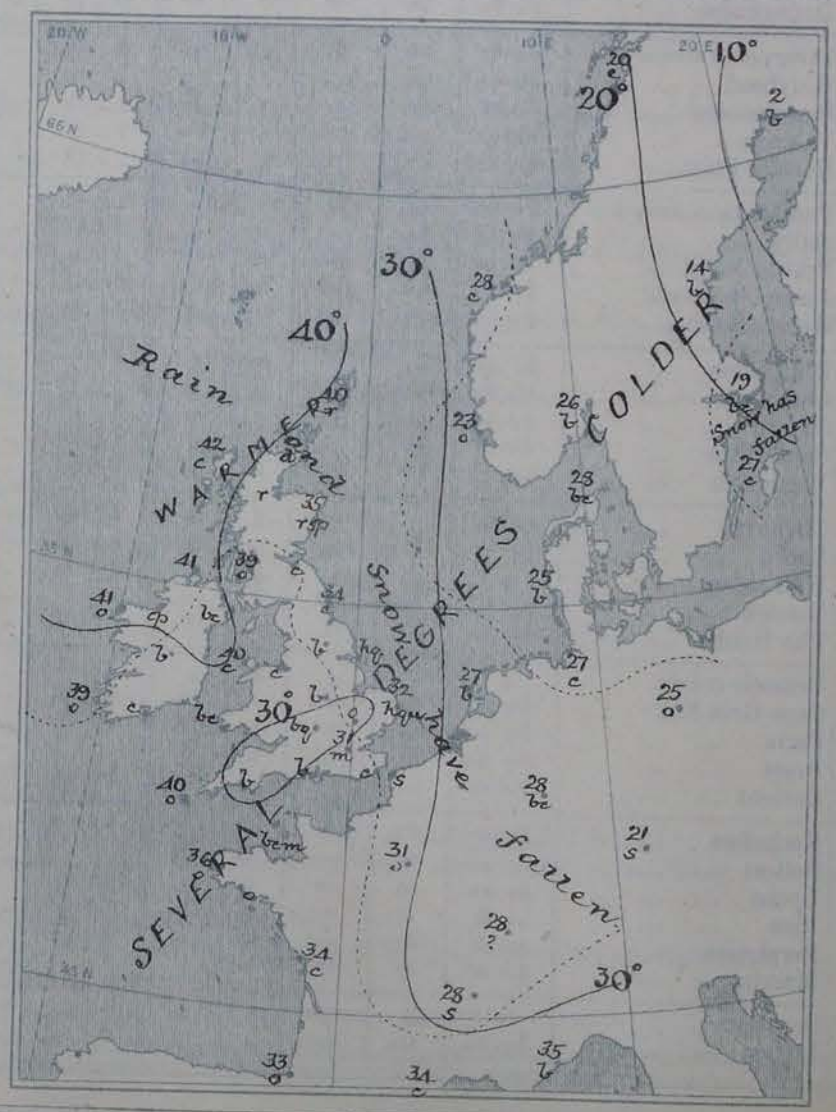
STATIONS.	MEAN READINGS. ins.
Sumbargh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornowsy	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest 30·9 ins: to 30·4 ins: over the British Islands and west of France.
Lowest, 29·7 ins: and less, over Eastern Germany and apparently over the Baltic Provinces; 29·8 ins: and less, over the Gulf of Genoa.
Gradients moderate. Barometer falling fast in the north of Scotland, slightly on our southwestern coasts.

TEMPERATURE

Highest, 42° both at Lerwick and Stornoway, 41° at Wilmullet and Malin Head, 40° at Lizard Head.
Lowest, (1) 2° F at Haparanda, 14° at Hernösand, 19° at Stockholm, (2) 21° at Munich, 28° at Wiesbaden, Belfort, and Lyons.
At Berlin the reading is 25°, at Paris and in London 31°.

WIND

NE^{ly}, moderate over the Bay of Biscay, and fresh on our southwestern coasts.
N^{ly}, over Ireland and England — strong to a moderate gale at the eastern and southeastern stations.
NW^{ly}, moderate in Scotland and over Germany. A NE^{ly} gale is blowing at Westry.

WEATHER

Cloudy and unsettled, with rain and sleet in the north, snow and hail showers in the east; fair generally on our western coasts. Rain and snow are falling in South Germany and the east and southeast of France.
Snow showers have been general in the north and east during the past 24 hours, the fall lying 2 ins: deep at York.

SEA

Very rough in the northeast and east, high at the Scaw, rough in the Irish Channel and on the French side of the English Channel.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

A temporary improvement in the weather is likely to occur over England today, but a new depression appears to be coming on from the northward, which may cause very rough unsettled conditions later.

FORECASTS

For the 24 hours ending at NOON on 16th JAN^{y} 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
⚠ 0 SCOTLAND NORTH ⚠ 1 SCOTLAND EAST	NW^{ly} to N^{ly} winds, increasing, possibly a gale; rain and snow.	⚠ 6 SCOTLAND WEST 7 ENGLAND N.W.	Same as No^{s} 0. and 1.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	N^{ly} winds, moderating and backing, with temporary improvement of weather, very uncertain later, unsettled.	8 ENGLAND S.W.	Same as No 5
5 ENGLAND SOUTH	Wind moderating and backing; changeable, possibly very unsettled later.	9 IRELAND NORTH 10 IRELAND SOUTH	Same as No^{s} 0. and 1.
		WARNINGS	The NORTH CONE is still up in districts 0. 1. and 6.

Note.—The **South Cone**, *point downwards* (⚠), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (⚠), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·18	30	28	NW	9	cqhs	6
Sumburgh Head	30·62	33	32	N	7	csp	6
Stornoway	30·87	34	33	NW	4	s	5
Aberdeen	30·70	35	31	NNW	5	cqsp	5
Shields	30·63	37	34	NNW	4	c	5
Ardrossan	30·78	38	36	NW	2	c	2
Malin Head ...	30·86	41	37	N	6	c	4
Mullaghmore ...	30·90	43	40	N	6	cq	4
Belmullet	30·97	46	42	N	4	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·74	43	40	N	6	bc	5
Valencia	30·94	48	44	N	3	bcm	3
Scilly	30·70	46	42	N	6	bc	4
Jersey	30·59	44	40	NNE	3	b	3
Dungeness	30·49	39	36	N	6	c	4
London	30·57	40	36	NNW	4	bc	*
Yarmouth	30·45	37	36	N	5	cqs	5
Rochefort	?30·42	35	35	NNW	3	s	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine in England and Ireland, as well as over Sweden, Denmark, and the greater part of Southern Europe. Dull elsewhere with rain in Ireland as well as at Tunis and Malta, and snow in Scotland, the west of Norway, and some parts of Russia. Snowshowers falling during day in the east of England.

Temperature highest 51° at Palermo, 50° at Constantinople, 49° at Brindisi, Algiers and Tunis, above 40° on the west coasts of our Islands. Lowest −4° F. at Khasthor, +9° at Cracow, 14° at Moscow, 16° at Buda Pesth, and 17° at Kiev and Hermanstadt; below the freezing point over nearly the whole of northern, eastern, and central Europe, as well as in the north of Italy and Central Spain. Daily maxima above 40° in the western, southern, and extreme northern parts of the United Kingdom, but below it in the eastern and central parts of Great Britain.

Wind fresh to strong from the N^ly or NW^ly over the United Kingdom, Scandinavia, Denmark, the North Sea and the north of France, with a gale in the south of Norway. Moderate to strong from the SW^ly over Germany, W^ly over Russia and the Gulf of Finland. Variable in Austria Italy and the south of Russia, NE^ly in Spain; cyclonic circulation reported over Tunis and the south of Italy. Subsequently increasing to a gale from the N^ly in the west of Norway.

Barometer highest 30·9 ins: and upwards in the west of Ireland; 30·5 ins: and upwards, in a large anticyclone lying over the whole of our Islands, with the Bay of Biscay and the northwest of France. Lowest 29·0 ins: and less, in a depression lying over Lapland; 29·7 ins: and less, in a shallow disturbance lying to the southward of Malta. Gradients steep over the whole of Northern Europe. Barometer rising briskly in Scandinavia during day.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Friday, 16th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·01	-5	W	0	b	30·16	+·34	-16	-16	-18	N	2	b	*	16	?	-
	Hernösand ...	30·07	10	N	2	b	30·17	+·22	3	3	-11	W	0	b	*	25	?	-
	Stockholm ...	29·88	16	NNW	6	s	29·91	+·12	15	14	-4	NNW	6	o	*	27	14	0·04
	Wisby	29·77	26	N	8	s	29·81	+·11	24	23	-3	N	8	s	*	30	21	0·16
	Bodö	30·12	19	W	0	c	30·23	+·18	15	13	-5	E	2	b	1	21	14	-
	Christiansund	30·17	28	NNE	4	s	30·26	+·04	24	23	-4	ESE	3	b	5	28	21	0·08
	Skudesnaes ...	30·17	23	E	2	b	30·23	-·05	23	21	0	ENE	2	b	2	28	18	-
	Christiania Fjord (Færder)	30·05	25	NNW	6	b	30·16	+·04	21	19	-5	N	6	b	2	27	21	-
	Skagen (The Scaw)	30·02	29	NE	4	bc	30·11	+·05	20	19	-8	NE	4	b	4	28	19	-
	Fanö	30·06	20	N	1	b	30·06	·00	17	16	-8	N	4	b	*	28	?	-
BRITISH ISLANDS.	Sumburgh Head	30·19	37	N	6	o	30·26	-·10	34	34	-6	W	0	o	3	41	33	0·13
	Stornoway ...	30·40	41	N	4	b	30·30	-·29	41	40	-1	N	3	o	4	44	37	0·08
	Wick	30·26	39	NW	4	o	30·30	-·20	36	35	+1	?	2	o	2	41	34	0·05
	Nairn	30·35	41	NNW	2	o	30·30	-·26	38	37	+1	W	0	op	1	43	36	0·05
	Aberdeen ...	30·24	39	NW	5	cqp	30·28	-·25	33	32	-2	NNW	2	c	4	40	33	0·07
	Leith	30·30	40	W	4	c	30·29	-·32	37	35	+1	NNE	1	f	*	43	34	-
	Shields	30·25	40	WNW	2	d	30·28	-·33	35	34	+1	NNE	2	s	5	40	32	0·06
	Spurn Head ...	30·22	32	W	3	s	30·12	-·32	35	32	+1	NE	6	cq	5	37	31	0·11
	York	30·26	37	N	1	o	30·20	-·35	33	33	+1	N	1	bc	*	39	30	0·08
	Loughborough	30·31	37	WNW	2	o	30·17	-·41	32	31	+1	NNW	3	bc	*	39	31	0·01
	Ardrossan ...	30·34	44	NW	2	b	30·29	-·39	38	37	-1	W	0	bc	0	46	37	0·04
	Malin Head ...	30·46	45	NNW	5	bep	30·34	-·42	44	43	+3	NNW	4	op	2	45	41	0·06
	Mullaghmore ...	30·56	46	NW	6	cqp	30·39	-·45	45	43	+4	NNE	4	c	3	46	39	0·09
	Belmullet ...	30·66	45	NNW	3	om	30·43	-·43	45	45	+4	N	2	o	*	45	40	0·08
	Donaghadee ...	30·40	46	NNE	5	c	30·31	-·44	43	40	+3	NE	4	c	2	46	38	0·02
	Liverpool (Bidston)	30·33	40	W	4	o	30·24	-·44	34	33	0	NNE	4	c	3	40	34	-
	Holyhead ...	30·42	43	NW	5	op	30·29	-·45	41	40	+1	NNE	5	c	4	45	39	0·02
	Parsonstown ...	30·61	41	NW	1	f	30·37	-·47	41	40	+7	W	0	o	*	43	31	0·09
	Valencia	30·72	44	N	3	op	30·45	-·46	46	45	+7	N	4	om	4	46	38	0·02
	Roche's Point ...	30·65	42	NNW	3	bc	30·37	-·46	45	43	+5	NNE	5	c	4	45	40	-
	Pembroke (St. Ann's Hd.)	30·47	42	NW	5	c	30·23	-·49	40	38	+3	N	4	bc	3	45	36	0·02
	Scilly	30·58	43	NNW	4	c	30·24	-·44	45	41	+5	N	6	c	4	45	39	-
	Prawle Point ...	30·41	35	NW	3	bc	30·16	-·51	39	38	+10	NNW	3	c	2	41	28	0·01
	Jersey (St. Aubin's)	30·49	39	NNW	3	bc	30·06	-·52	44	41	+7	N	4	cq	3	44	35	0·13
	Hurst Castle ...	30·41	35	N	2	o	30·06	-·52	37	36	+7	NNE	4	bc	1	38	29	0·04
	Dungeness ...	30·31	34	N	3	b	29·94	-·47	34	32	+2	NE	6	cq	4	36	30	0·01
	London	30·34	35	NNW	3	os	30·08	-·42	33	31	+2	NNE	2	b	*	38	31	0·07
	Oxford	30·29	34	NW	3	o	30·13	-·45	33	31	+5	NNE	2	b	*	38	28	0·02
	Cambridge ...	30·28	34	N	1	s	30·10	-·40	29	29	+1	N	1	bsp	*	34	28	0·03
	Yarmouth ...	30·23	33	NNW	4	og	30·08	-·31	30	29	-2	E	6	c	5	34	28	0·11
GERMANY & HOLLAND.	Cuxhaven ...	30·09	25	N	3	o	30·06	·00	23	22	-4	NNE	1	c	*	27	21	-
	Berlin	29·97	21	NW	3	bc	29·97	+·15	13	12	-12	NW	3	c	*	30	12	-
	Wiesbaden ...	*	*	*	*	*	29·99	-·02	15	14	-13	N	2	o	*	32	12	-
	Munich	29·97	16	W	5	s	29·91	+·10	10	10	-11	SW	3	c	*	25	9	0·08
	The Helder ...	30·12	30	N	1	s	30·09	-·17	23	22	-4	ENE	1	b	2	30	23	0·35
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	30·26	33	NNE	6	bc	29·91	-·45	32	30	0	ENE	7	c	6	36	28	
	Paris	30·33	26	NNW	1	o	29·83	-·51	34	33	+3	NW	2	o	*	34	25	0·08
	Brest	30·58	34	NE	2	b	30·19	?	42	41	+6	NNW	6	f	4	?	34	0·12
	Lorient	30·50	37	N	4	b	30·10	-·46	42	41	+5	NNW	3	c	3	42	34	0·04
	Rochefort ...	? 30·39	35	NNW	5	b	30·03	-·42	40	40	+6	WNW	6	f	*	?	?	0·20
	Belfort	?	17	WNW	3	c	?	?	11	?	-17	WNW	2	c	*	28	11	-
	Lyons	30·16	22	N	5	b	30·08	-·09	17	16	-11	SSW	1	os	*	28	?	0·04
	Nice	29·75	32	N	6	c	29·78	+·04	27	?	-5	N	5	b	3	39	25	-
	Perpignan ...	30·10	35	NW	5	s	30·08	-·09	30	26	-4	NW	5	c	*	39	28	0·08
	Biarritz	30·39	38	ENE	5	c	30·24	-·17	32	32	-1	SSW	3	o	3	41	29	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·22	46	NNE	5	b	30·28	+·06	39	33	-3	NNE	5	b	2	50	37	

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Friday, 16th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

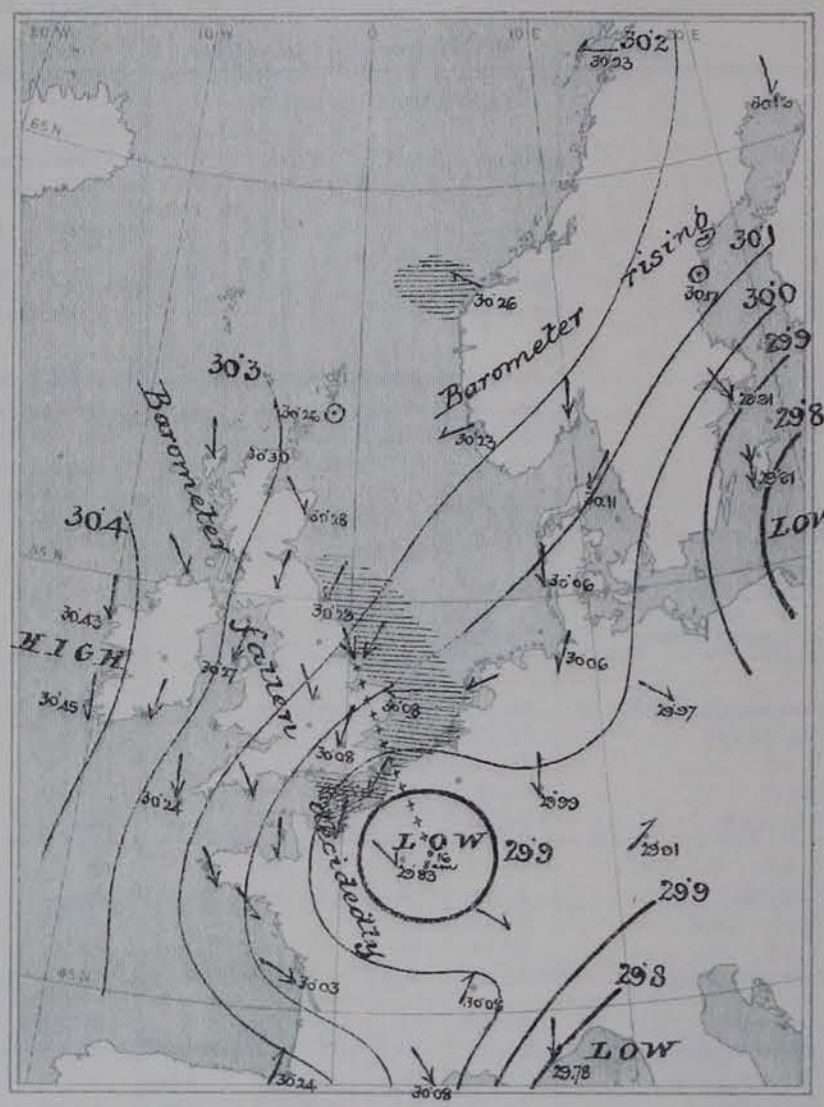
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·715
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·929
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

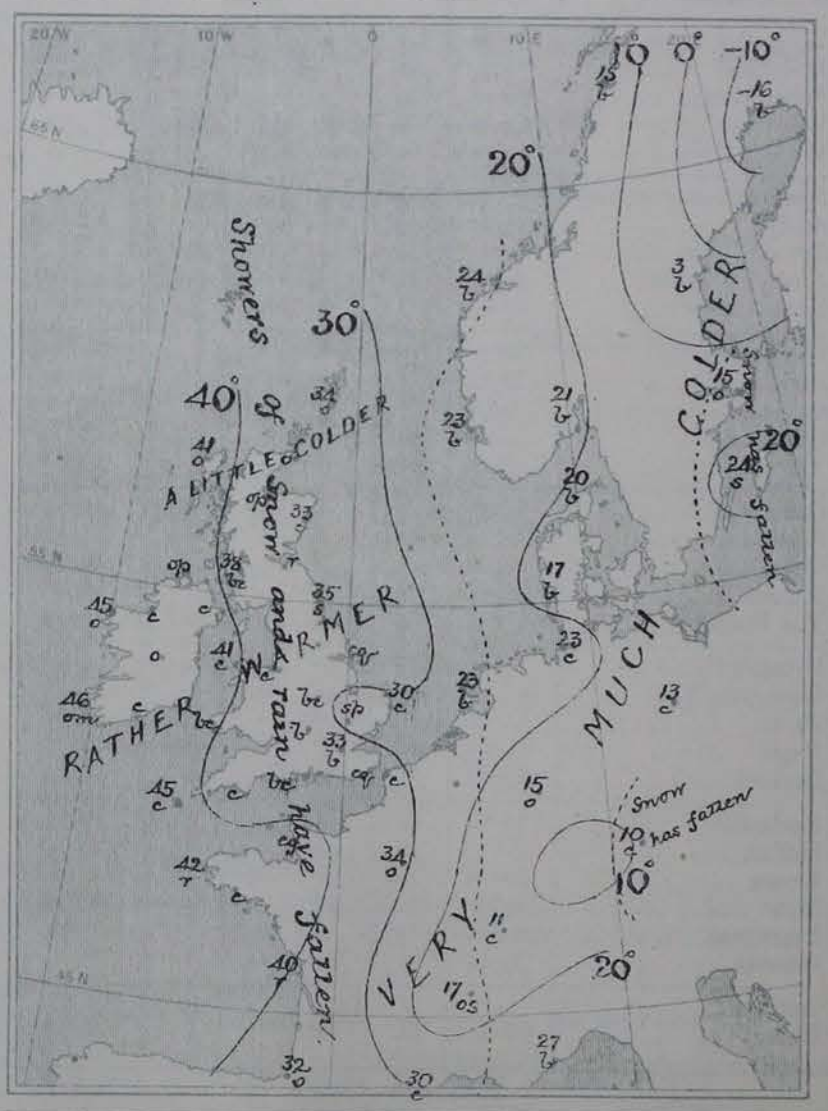
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·9	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	38·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·6	39·2	2·98
Holyhead	46·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins: to 30·7 ins: over the western and northern parts of our Islands, 30·2 ins: and more over Norway.

Lowest, 29·8 ins: and less, in a depression over the Baltic Provinces and Eastern Prussia, and in another (small one) near Paris

Gradients slight in the west and north, moderate elsewhere

Barometer rising in the far north and in London; changing irregularly over the British Islands as a whole.

TEMPERATURE

Highest, 40° to 46° at the Irish stations, 45° at Scilly, 41° at Stornoway.

Lowest, (1) −16° F. at Haparanda, 3° at Hernösand, 15° at Bodö and Stockholm; (2) 16° at Munich, 11° at Belfort, 13° at Berlin, 17° at Lyons.

In London the sheltered thermometer stood at 33°, but sharp frost prevailed on the ground.

WIND

N.N.E. (NNW to NNE) over the British Islands generally; nearly calm in Scotland, moderate to fresh over Ireland and England.

Strong on our east and southeast coasts and over the eastern parts of the Channel.

In the Baltic, &c., it was strong (to a gale) from the N.

WEATHER

Changeable over the United Kingdom — from clear to cloudy, with passing showers of rain or snow in several places.

Showers of snow or rain have fallen very generally.

SEA

Going down on our coasts, but is still rough on the French side of the Channel.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The northerly wind appears likely to become lighter generally during the day, and a very cold night is probable, especially over our inland districts.

FORECASTS

For the 24 hours ending at NOON on 17th JAN.y 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	Very light variable winds; cold, fair to showery.
2 ENGLAND N.E.	Varying N. winds, falling light; becoming much colder, snow showers, bright intervals.
3 ENGLAND EAST	Same as No 5
4 MIDLAND COUNTIES	Same as No 2
5 ENGLAND SOUTH	N. to NW. winds, falling light; snow showers. Very cold tonight.
6 SCOTLAND WEST 7 ENGLAND N.W. 8 ENGLAND S.W. 9 IRELAND NORTH 10 IRELAND SOUTH	Wind mainly N. and moderate; passing snow showers, bright intervals. Sharp frost at night.
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·16	28	26	N	1	o	4
Sumburgh Head	30·16	40	38	NNW	6	o	6
Stornoway	30·45	44	43	N	4	c	4
Aberdeen	30·30	39	38	NW	4	cqqp	5
Shields	30·35	36	34	NNW	3	sp	5
Ardrossan	30·43	46	45	W	3	T	2
Malin Head ...	30·56	44	44	NW	5	o	3
Mullaghmore ...	30·69	44	43	NW	5	op	3
Belmullet	30·74	44	42	NNW	4	cp	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·54	42	41	NW	5	cq	5
Valencia	30·80	43	42	NNW	2	omd	2
Scilly	30·64	42	39	N	4	c	4
Jersey	30·53	39	34	NNW	4	bc	3
Dungeness	30·40	34	34	N	4	c	3
London	30·43	36	34	NNW	4	csp	*
Yarmouth	30·34	34	33	N	3	cs	5
Rochefort	30·43	37	35	N	5	bc	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine in the west and south of our Islands as well as in Scandinavia, Denmark, the Netherlands, Spain, and the south of France. Cloudy, elsewhere with rain in the north of Scotland and also in Algeria, hail showers in the east of England, snow in several parts of Russia and central Europe as well as at Lyphoual, and a thunderstorm at Malta. Snow showers falling later in all more Eastern parts of Great Britain, and rain in the west.

Temperature highest 51° at Oran, 49° at Brindisi, Malta and Constantinople, 48° at Nemours, and 46° at Algiers, below 40° on the northern shores of the Mediterranean. Lowest, 2° at Haparanda and Uleaborg, 6° at Moscow, 14° at Hernösand, Memel, and Hermanstadt, and 17° at Kutaïs and Kharkof; below 20° in most parts of Sweden and Russia, and below the freezing point over northern and central Europe, as well as in the southern parts of the United Kingdom. Daily maxima below 40° at most of the English stations, and below 32° over Germany and Central France.

Wind N or NW over the greater part of our Islands and the Continent, strong in force over Denmark, the south of Sweden and the east of England with a gale at Kirby. Light from the SE over the central and southern parts of Russia and moderate to strong from the S or SW in Algeria. No important change occurring during day.

Barometer highest, 30·9 ins. and upwards, in the southwest of Ireland; 30·4 ins. and upwards, in an anticyclone lying over the whole of the British Islands, with the Bay of Biscay and the west of France; 30·1 ins. and upwards in another anticyclone lying over Russia. Lowest, 29·5 ins. and less, in a large depression lying over Turkey and Asia Minor, as well as in smaller disturbances lying respectively over the Gulf of Riga and over Scandinavia. Shallow depression moving southwards across our Islands during day, and barometer falling in all parts of the United Kingdom.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Saturday, 17th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·33	-1	Z	0	b	30·28	+·12	-19	-20	-3	NW	2	b	*	-4	-19	-
	Hernösand ...	30·28	9	N	2	0	30·37	+·20	-4	-4	-7	Z	0	b	*	12	?	-
	Stockholm ...	29·99	18	NNW	4	s	30·26	+·35	23	21	+8	N	2	0	*	23	12	0·04
	Wisby	29·89	27	N	6	c	30·18	+·37	25	24	+1	NE	2	s	*	28	19	0·16
	Bodö	30·26	18	E	2	c	30·02	-·21	26	24	+11	E	2	0	0	?	14	-
	Christiansund	30·30	27	SE	2	c	30·30	+·04	30	28	+6	SW	5	0	4	30	?	-
	Skudesnaes ...	30·31	21	Z	0	b	30·41	+·18	25	21	+2	E	4	b	2	28	19	-
	Christiania Fjord (Færder)	30·19	24	N	6	b	30·39	+·23	21	19	0	N	5	0	2	23	19	-
	Skagen (The Scaw)	30·15	23	ENE	3	b	30·35	+·24	23	22	+3	NE	3	0	3	23	19	-
	Fanö	30·12	18	NNW	4	b	30·24	+·18	18	?	+1	NE	4	b	*	21	16	-
BRITISH ISLANDS.	Sumburgh Head	30·29	32	N	1	be	30·34	+·08	32	32	-2	Z	0	0	2	34	30	0·02
	Stornoway ...	30·30	41	E	4	r	30·34	+·04	40	39	-1	? SE	4	c	4	44	35	0·02
	Wick	30·32	36	NW	2	c	30·37	+·07	33	32	-3	N	1	0	1	36	30	0·01
	Nairn	30·30	36	Z	0	0	30·36	+·06	33	32	-5	Z	0	0	1	38	28	0·01
	Aberdeen ...	30·30	32	NW	2	c	30·40	+·12	29	28	-4	NW	1	c	4	34	28	0·02
	Leith	30·29	36	NE	2	c	30·38	+·09	33	32	-4	N	1	c	*	38	29	-
	Shields	30·27	34	NE	2	cps	30·35	+·12	29	27	-8	NW	1	sp	4	36	24	0·05
	Spurn Head ...	30·20	29	E	4	cqps	30·29	+·17	32	30	-3	NE	3	c	4	36	28	0·02
	York	30·24	29	N	1	b	30·36	+·16	25	25	-8	N	1	b	*	35	25	0·02
	Loughborough	30·22	30	N	3	b	30·34	+·17	25	25	-7	Z	0	cm	*	36	24	0·01
	Ardrossan ...	30·30	38	E	1	cm	30·37	+·08	34	32	-4	NNE	1	cm	0	41	32	-
	Malin Head ...	30·31	44	NNE	4	0	30·33	-·01	40	38	-4	NE	5	0	2	45	40	0·02
	Mullaghmore ...	30·33	45	N	4	0	30·35	-·04	42	40	-3	WNW	1	0	2	46	39	0·01
	Belmullet ...	30·38	44	N	3	0	30·38	-·05	42	41	-3	N	1	0	*	46	38	0·10
	Donaghadee ...	30·32	41	ENE	4	c	30·37	+·06	38	35	-5	E	3	c	1	45	37	0·09
	Liverpool (Bidston)	30·24	33	ENE	1	c	30·36	+·12	29	28	-5	ENE	1	bef	2	38	29	-
	Holyhead ...	30·25	40	NE	4	c	30·35	+·08	34	33	-7	Z	0	cq	0	42	30	-
	Parsonstown ...	30·31	42	Z	0	0	30·37	·00	34	33	-7	Z	0	r	*	44	33	0·03
	Valencia	30·36	46	N	3	opg	30·41	-·04	37	36	-9	Z	0	be	1	49	36	0·02
	Roche's Point ...	30·31	45	N	3	c	30·38	+·01	38	36	-7	NNE	2	0	3	47	34	-
	Pembroke (St. Ann's Hd.)	30·24	39	NNE	2	c	30·36	+·13	31	29	-9	ENE	1	c	0	42	30	-
	Scilly	30·19	43	N	5	c	30·33	+·09	34	30	-11	NE	4	be	4	45	29	0·10
	Prawle Point ...	30·22	34	NNE	3	c	30·34	+·18	26	26	-13	N	3	b	2	41	24	-
	Jersey (St. Aubin's)	30·15	35	NE	4	c	30·25	+·19	32	30	-12	NNE	3	bem	3	44	29	0·03
	Hurst Castle ...	30·18	32	NNE	4	cg	30·32	+·26	23	23	-14	NNE	3	b	1	34	22	-
	Dungeness ...	30·12	27	ENE	4	c	? 30·18	+·24	27	25	-7	ENE	6	sq	5	34	20	0·14
	London	30·18	30	NNE	3	c	30·28	+·20	26	24	-7	N	2	bf	*	33	25	0·01
	Oxford	30·23	27	NNE	2	b	30·33	+·20	25	24	-8	N	1	b	*	35	23	0·01
	Cambridge ...	30·19	25	N	1	c	? 30·28	+·18	23	23	-6	N	1	be	*	32	20	0·03
	Yarmouth ...	30·13	30	ENE	5	cqsp	30·25	+·17	28	28	-2	ENE	5	c	5	31	25	0·04
GERMANY & HOLLAND.	Cuxhaven ...	30·05	21	NE	3	b	30·18	+·12	19	17	-4	ENE	2	b	*	23	18	-
	Berlin	29·96	14	W	3	b	30·16	+·19	0	0	-13	S	2	f	*	19	0	-
	Wiesbaden ...	*	*	*	*	*	30·09	+·08	14	13	-1	N	2	0	*	21	7	-
	Munich	29·78	3	Z	0	0	29·88	-·03	-1	-1	-11	NE	2	b	*	14	-2	0·04
	The Helder ...	30·12	23	NE	1	s	30·23	+·14	20	20	-3	N	1	b	1	24	19	0·12
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·24	+·35	7	7	-16	NE	1	0	*	22	4	-
	Cape Gris Nez	30·08	28	E	1	s	30·20	+·29	18	18	-14	E	4	be	4	32	14	-
	Paris	30·08	20	NNE	4	b	30·17	+·34	17	16	-17	NNW	2	be	*	?	10	0·04
	Brest	30·19	38	NNE	2	c	30·28	+·09	33	30	-9	E	2	c	3	45	28	-
	Lorient	30·13	38	NNE	6	c	30·23	+·13	32	30	-10	N	2	0	2	43	28	0·04
	Rochefort ...	29·99	33	N	6	b	? 30·18	+·15	25	24	-15	NE	5	0	*	41	23	-
	Belfort	?	11	ESE	3	0	?	?	11	?	0	W	2	c	*	19	-2	-
	Lyons	29·71	23	WNW	3	s	30·00	-·08	10	9	-7	NNW	3	c	*	24	9	0·24
	Nice	29·63	28	NE	4	b	29·59	-·19	27	25	0	NE	4	s	4	37	27	-
	Perpignan ...	29·73	37	NW	3	b	29·91	-·17	22	19	-8	NW	5	b	*	41	21	0·04
	Biarritz	29·90	46	N	6	0	30·16	-·08	23	22	-9	E	3	b	3	48	21	0·[illegible]
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·22	43	N	5	b	30·09	-·19	46	45	+7	NNW	4	b	?	46	?	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Saturday, 17th January, 1891.

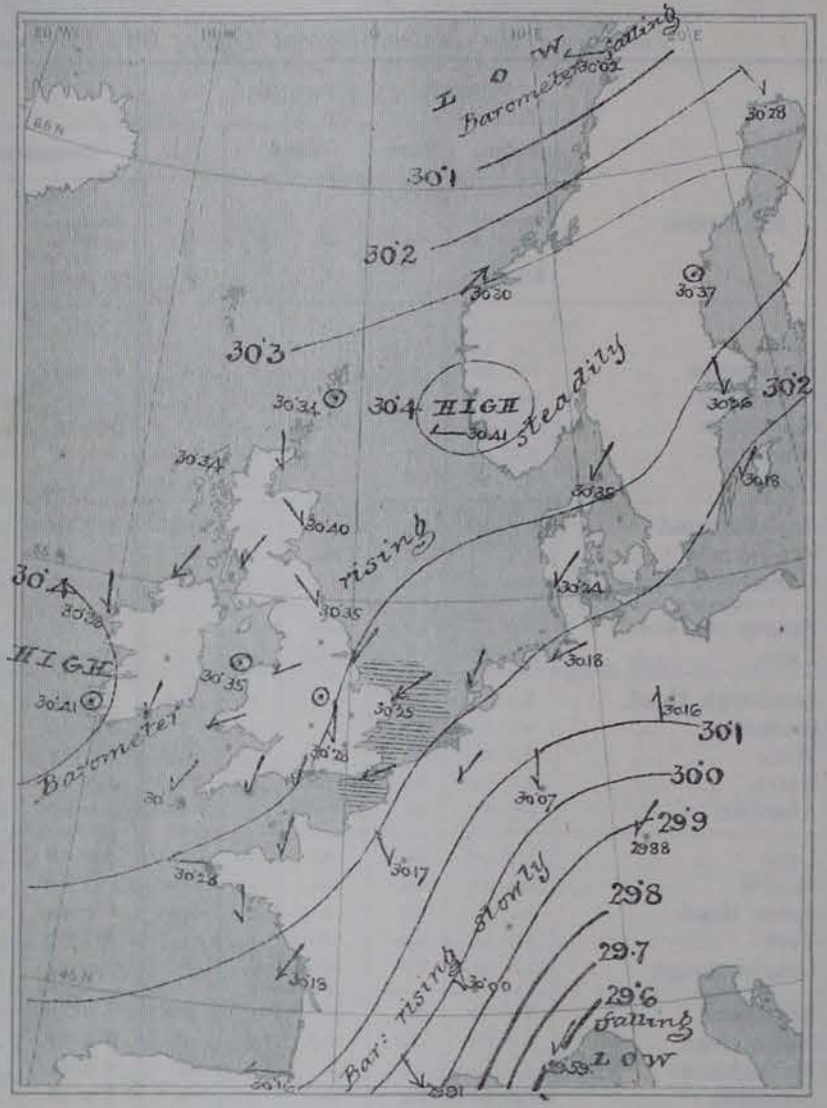
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since precious morning are stated in words.

WIND—Arrows show the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

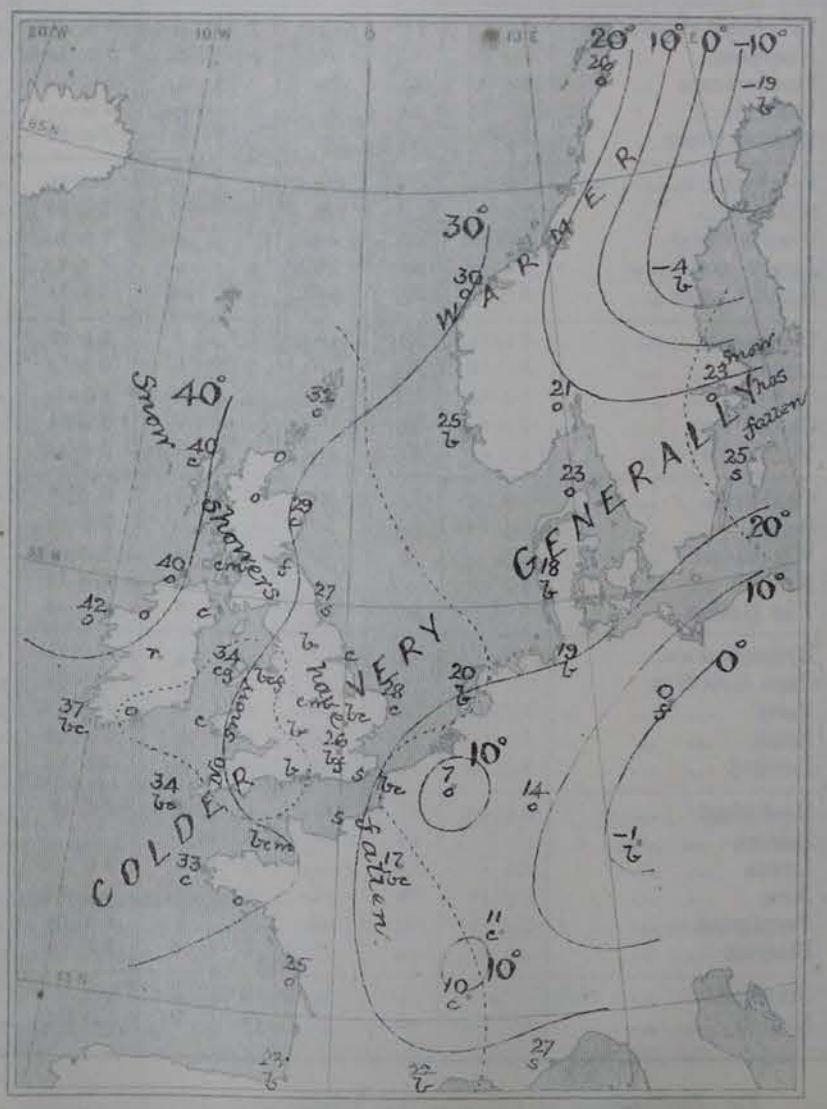
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·746
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·09
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	38·7	35·7	1·87
Loughborough	43·0	32·3	38·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·32
Parsonstown	45·6	34·2	38·9	37·8	5·14
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	46·5	38·6	42·7	41·4	3·75
Scilly	48·8	42·9	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	45·5	36·8	39·2	38·1	2·58
LONDON	44·1	35·8	37·6	36·6	2·42
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·64
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 in. to 30·5 in. over, inland, nearly the whole of Great Britain, and a great deal of Norway and Sweden.
Lowest, about 30·0 in. over Penzance; and below 29·6 in. over the Gulf of Genoa.
Gradients slight except over Switzerland, the north of Italy, and the southeast of France.
Barometer rising over our Islands, the Channel, and North Sea.

TEMPERATURE

Highest, 46° at Lisbon, and 40° to 41° in the Hebrides and northwest of Ireland.
Lowest, (1) −1° F. at Munich, 0° at Berlin, 7° at Brussels, 17° at Paris, and 25° to 32° over England; (2) 13° F. at Haparanda, −4° at Hernosand, 7° at [illegible]
It has fallen everywhere but in Norway during the night.

WIND

Very variable over all the northwestern and northern parts of our area, and in most places of little strength.
On our east and south coasts it is NE, moderate in most places, but fresh at Yarmouth and strong at Dungeness.

WEATHER

Fair as a whole, and in many places clear; dull however, at some western and northern stations, with some cold rain at Parsonstown. Snow showers fell pretty generally during yesterday.

SEA

Rather rough on our southeast coasts, moderate in the northeast and southwest, slight or smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The anticyclonic system appears likely to move slowly to the southward before long. Very cold weather is probable over England, Ireland, and on the Continent.

FORECASTS

For the 24 hours ending at NOON on 18th Jany. 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	Very light winds, with fair cold weather, perhaps SW later and milder.
2 ENGLAND N.E.	Same as No 4
3 ENGLAND EAST	Same as No 5.
4 MIDLAND COUNTIES	Light N winds; very cold, fair to foggy, hard frost at night
5 ENGLAND SOUTH	NE winds, moderating on coast, with fair cold weather, light inland, and hard frost; becoming foggy.
6 SCOTLAND WEST	Same as Nos 0 and 1.
7 ENGLAND N.W.	Calms and Variable airs; very cold, fair.
8 ENGLAND S.W.	NE winds, moderate to light; fine.
9 IRELAND NORTH 10 IRELAND SOUTH	Very light varying airs and calms; very cold, fog in places.
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·27	28	23	E	2	b	2
Sumburgh Head	30·27	34	32	N	1	bc	3
Stornoway	30·30	44	43	N	2	o	3
Aberdeen	30·27	34	33	NNW	2	c	4
Shields	30·23	36	31	NE	2	c	4
Ardrossan	30·26	40	38	W	3	bc	2
Malin Head ...	30·30	45	42	N	4	o	2
Mullaghmore ...	30·33	45	43	N	4	op	3
Belmullet	30·38	46	45	N	3	c	*

	BAR:	THER. D.	THER. W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·25	40	39	NNE	4	c	4
Valencia	30·37	48	46	N	5	op	5
Scilly	30·19	44	40	N	5	o&p	4
Jersey	30·10	36	34	NNE	5	c	4
Dungeness	30·07	30	28	E	6	c	5
London	30·15	32	31	N	3	c	*
Yarmouth	30·10	31	30	NE	2	bc	5
Rochefort	29·93	40	38	NW	4	bc	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE
DURING THE PAST 24 HOURS.

Weather fine over the southern parts of the United Kingdom and also in Scandinavia, Denmark, the Netherlands, Spain and the south of France. Dull elsewhere with showers of rain or snow over the eastern parts of Great Britain, and more decided falls of snow over Italy, Austria, and some parts of central France as well as at Aurach. Snow falling during day over nearly the whole of western Europe.

Temperature highest (1) 47° at Algiers and Malta, 45° at Nemours, and 44° at Oran; (2) 46° at Valencia Island, and 45° at Belmullet Mullaghmore, Rochefort, and Scilly; above 40° in the western parts of the United Kingdom generally. Lowest −16° at Haparanda, −6° at Ulleaborg, +3° at Hernösand, 6° at Moscow, 8° at Warsaw, and 10° at Munich; below 20° in many parts of Russia and central Europe, below the freezing point over central Spain and northern Italy. Daily maxima below 32° over the east of England, and also over the central and southern parts of France, below 20° in Germany.

Wind N³ (NE to NW) over the greater part of our Islands and on the Continent, but S¹ or SE³ in Russia, and W³ over the central parts of the Mediterranean. The NE³ wind blowing strongly in the east and southeast of England as well as over the Adriatic, and the N³ wind strong at Sanguinaire and Rome. Subsequently becoming variable in the northern parts of the United Kingdom.

Barometer highest 30·4 ins: and upwards, in a large anticyclone extending from the Atlantic to the west of Ireland and the northwest of Spain, 30·1 ins: and upwards over Central Russia. Lowest 29·4 ins: and less, in a well defined depression lying over the southern parts of Italy and the Adriatic; 29·7 ins: and less, in an elongated system extending from the Baltic Provinces to the south of Russia; 29·9 ins: and less, in a small disturbance over the northeast of France. French depression subsequently moving away southwards, anticyclone in west spreading northeastwards.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Sunday 18th Jan. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·08	1	SE	2	o	30·14	− ·14	7	6	+ 26	Z	0	b	*	12	−22	0·04
	Hernösand ...	30·29	12	Z	0	c	†30·17	− ·20	24	24	+ 28	Z	0	s	*	24	−4	0·04
	Stockholm ...	30·41	9	NNW	2	b	30·35	+ ·09	5	3	− 18	W	2	b	*	23	5	—
	Wisby	30·30	26	N	4	b	30·30	+ ·12	25	23	0	E	4	o	*	28	21	—
	Bodö	29·97	26	SW	6	r	30·10	+ ·08	40	40	+ 14	SW	4	o	2	?	25	0·28
	Christiansund	30·38	35	SW	5	o	30·34	+ ·04	34	32	+ 4	ESE	3	b	4	36	30	0·04
	Skudesnaes ...	30·55	24	Z	0	b	30·43	+ ·02	25	24	0	ESE	2	o	2	28	21	—
	Christiania Fjord (Færder)	30·49	23	N	2	b	30·38	− ·01	22	21	+ 1	N	2	o	1	23	18	—
	Skagen (The Scaw)	30·50	23	NE	1	b	30·40	+ ·05	27	24	+ 4	Z	0	bc	0	27	20	—
	Fanö	30·45	13	NNE	3	b	30·39	+ ·15	14	14	− 4	N	2	b	*	23	13	—
BRITISH ISLANDS.	Sumburgh Head	30·37	26	SSW	1	c	30·24	− ·10	37	37	+ 5	SSW	2	o	2	39	31	0·02
	Stornoway ...	30·33	41	SW	4	c	30·20	− ·14	40	38	0	SW	6	o	6	42	37	—
	Wick	30·40	36	SW	2	b	30·27	− ·10	35	34	+ 2	S	2	o	2	39	31	—
	Nairn	?30·40	28	Z	0	b	30·29	− ·07	35	32	+ 2	SW	3	o	2	36	26	—
	Aberdeen ...	30·46	34	SSW	1	o	30·36	− ·04	28	27	− 1	SSW	3	bc	3	34	28	—
	Leith	30·47	29	W	1	bc	30·42	+ ·04	24	24	− 9	E	1	bc	*	35	22	—
	Shields	30·46	33	Z	0	c	30·48	+ ·13	19	19	− 8	W	2	f	3	34	16	0·02
	Spurn Head ...	30·40	32	ENE	4	cs	30·46	+ ·17	27	27	− 5	NNW	4	c	4	33	26	0·01
	York	30·44	28	N	1	o	30·52	+ ·16	11	11	− 14	N	1	b	*	32	10	0·01
	Loughborough	30·43	27	NE	1	b	30·52	+ ·18	14	14	− 11	Z	0	bm	*	34	13	—
	Ardrossan ...	30·43	35	ENE	2	c	30·39	+ ·02	36	34	+ 2	S	4	o	4	38	26	—
	Malin Head ...	30·38	37	SSE	3	o	30·27	− ·06	31	30	− 9	S	5	c	3	41	30	—
	Mullaghmore ...	30·38	38	E	3	bc	30·33	− ·02	35	31	− 7	SSE	5	c	3	43	33	—
	Belmullet ...	30·37	42	ESE	2	o	30·29	− ·09	38	36	− 4	S	2	o	*	46	36	—
	Donaghadee ...	30·44	37	SSE	3	bc	30·41	+ ·04	34	32	− 4	S	2	c	0	39	31	—
	Liverpool (Bidston)	30·45	30	E	2	m	30·52	+ ·16	20	19	− 9	SE	1	bc	2	33	20	—
	Holyhead ...	30·43	32	ENE	1	b	30·49	+ ·14	27	25	− 7	S	2	b	1	36	26	—
	Parsonstown ...	30·38	37	Z	0	o	30·39	+ ·02	30	28	− 4	Z	0	o	*	41	28	—
	Valencia	30·36	45	WNW	1	o	30·35	− ·06	41	38	+ 4	SE	5	om	5	48	36	0·01
	Roche's Point ...	30·35	42	NNE	3	c	30·41	+ ·03	39	37	+ 1	SE	4	o	4	44	37	—
	Pembroke (St. Ann's Hd.)	30·39	32	E	2	b	30·47	+ ·11	26	24	− 5	E	2	c	2	35	24	—
	Scilly	30·31	36	NE	2	o	30·40	+ ·07	33	30	− 1	E	2	bc	3	37	29	—
	Prawle Point ...	30·34	27	NE	3	c	30·45	+ ·11	27	26	+ 1	ENE	3	bc	2	35	26	—
	Jersey (St. Aubin's)	30·31	28	E	3	c	30·41	+ ·16	26	23	− 6	ENE	2	b	2	39	22	0·18
	Hurst Castle ...	30·34	27	NNE	3	b	30·44	+ ·12	21	21	− 2	NE	2	b	1	37	20	—
	Dungeness ...	30·29	25	ENE	4	s	30·37	+ ·19	29	29	+ 2	ENE	4	bc	4	29	23	0·62
	London	30·36	26	NE	3	b	30·43	+ ·15	22	20	− 4	ENE	1	b	*	29	22	0·02
	Oxford	30·43	22	N	2	b	30·50	+ ·17	15	15	− 10	NNE	1	b	*	33	15	—
	Cambridge ...	?30·35	20	N	1	b	30·47	+ ·19	18	18	− 5	N	1	bc	*	31	11	0·01
	Yarmouth ...	30·36	27	E	6	c	30·41	+ ·16	30	30	+ 2	NE	5	cs	5	30	26	0·05
GERMANY & HOLLAND.	Cuxhaven ...	30·40	23	NE	3	b	30·36	+ ·18	21	?	+ 2	NNE	3	b	*	23	19	—
	Berlin	30·21	16	NNW	3	o	30·13	− ·03	24	23	+ 24	NNE	5	o	*	?	0	—
	Wiesbaden ...	*	*	*	*	*	30·06	− ·01	25	24	+ 11	NNE	3	s	*	25	14	0·04
	Munich	29·97	5	W	2	s	29·95	+ ·07	3	2	+ 4	SSE	2	o	*	9	−1	0·04
	The Helder ...	30·41	19	NE	1	b	30·39	+ ·16	26	24	+ 6	NE	2	bc	2	27	19	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·31	+ ·07	16	?	+ 9	NNE	3	o	*	18	5	—
	Cape Gris Nez	30·26	19	E	4	bc	30·33	+ ·13	23	23	+ 5	E	3	c	4	27	16	—
	Paris	30·25	14	N	4	b	30·30	+ ·13	15	14	− 2	N	3	o	*	20	9	—
	Brest	30·28	30	NE	6	s	30·39	+ ·11	28	?	− 5	E	5	b	4	34	27	—
	Lorient	30·28	27	NE	4	b	30·38	+ ·15	22	19	− 10	NE	3	b	2	37	21	—
	Rochefort ...	30·25	23	ENE	5	b	30·2[illegible]	+ ·07	17	17	− 8	ENE	6	b	?	32	12	—
	Belfort	?29·90	11	SSE	3	c	?30·13	?	10	?	− 1	N	2	s	*	34	27	—
	Lyons	30·00	10	N	4	b	30·06	+ ·06	6	5	− 4	N	3	b	*	13	6	—
	Nice	29·58	29	N	6	o	29·59	·00	29	23	+ 2	NW	5	bc	6	29	27	—
	Perpignan ...	29·97	20	NW	5	b	29·86	− ·05	18	16	− 4	NW	8	o	*	25	17	—
	Biarritz	30·06	25	N	2	s	30·24	+ ·08	12	12	− 11	SE	4	b	5	30	10	0·16
PENINSULA.	Corunna	*	*	*	*	*	30·30	+ ·11	38	35	− 6	NE	4	o	6	48	34	0·04
	Lisbon	30·07	45	N	5	b	30·13	+ ·04	41	?	− ?	NNE	5	b	2	52	39	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on 18th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

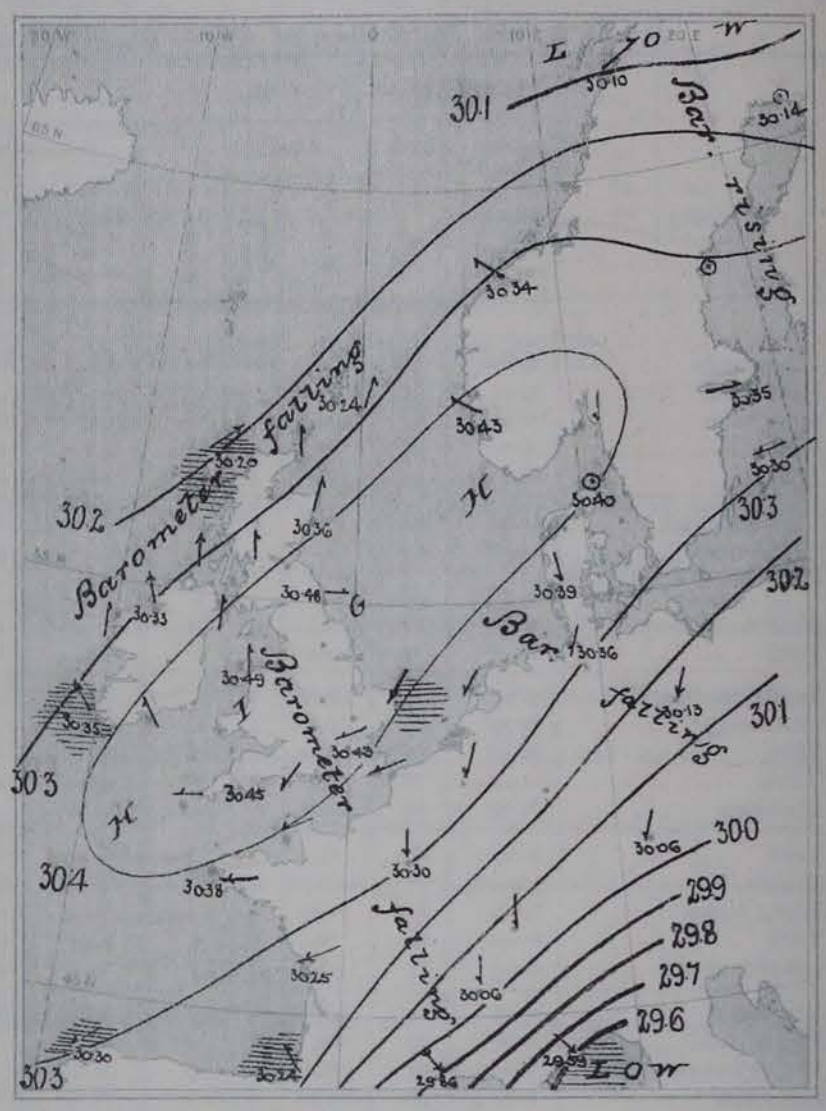
BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to forces thus:

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years 1871—1890.

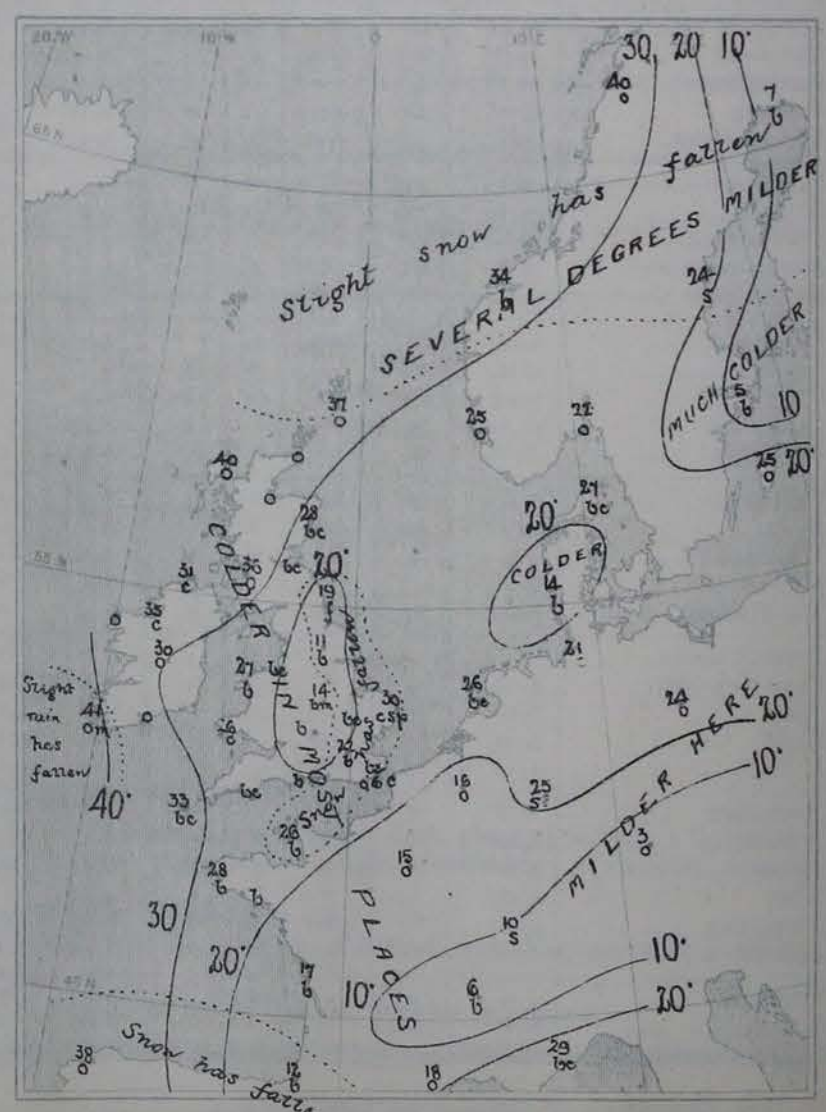
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·746
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·833
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·990
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	3·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·0	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·5	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	43·6	38·7	41·7	40·5	3·33
Liverpool	43·5	35·2	38·8	37·0	2·32
Parsonstown	45·6	34·2	38·9	37·8	2·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·6	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	44·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	46·8	38·3	42·8	40·4	3·21
Hurst Castle	45·0	36·3	40·8	39·2	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	3·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·5 ins: and more to 30·2 ins: in a large anticyclone covering the British Isles and Northwestern Europe.

Lowest, 30·1 ins: and less, over Lapland; 29·6 ins: and less, over the Gulf of Genoa.

Gradients moderate to slight — SW$^{\frac{1}{2}}$ in the northwest, NE$^{\frac{1}{2}}$ in the southeast and south.

Barometer falling in our Islands, rising over Germany and France.

TEMPERATURE

Highest, 41° at Lisbon and Valencia Island, 40° at Stornoway and Bodö.

Lowest (1) 7° at Haparanda, 5° at Stockholm, 14° at Tiree; (2) 5° at Hallington, 11° at York, 14° at Loughborough, 15° at Cambridge, 22° in London; (3) 3° at Munich and Belfort, 6° at Lyons, 15° at Paris, 16° at Brussels.

WIND

SE$^{\frac{1}{2}}$, fresh to strong in Ireland; SW$^{\frac{1}{2}}$ in the north, strong at Stornoway, light over Scotland.

N$^{\frac{1}{2}}$ over Holstein, NE$^{\frac{1}{2}}$ to E$^{\frac{1}{2}}$ in the Channel.

E$^{\frac{1}{2}}$ over the Bay of Biscay. Nearly calm over our inland counties.

WEATHER

Dull in the east and north of our Islands and in the east of France, fine over the greater part of England, snowy in extreme southeast — especially at Shoeburyness, where a very heavy fall has occurred.

Dull over North Germany. Snowshowers have fallen in several parts of Great Britain.

SEA

Rough in the Minch and at Valencia as well as at Nice, moderate to smooth on our coasts generally.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

FORECASTS

For the 24 hours ending at NOON on 19TH JANY 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
⚑ 0 SCOTLAND NORTH		⚑ 6 SCOTLAND WEST	
1 SCOTLAND EAST		7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST		⚑ 9 IRELAND NORTH	
4 MIDLAND COUNTIES		10 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	The SOUTH CONE has been hoisted this morning in the extreme parts of districts 0, 6 & 9

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·51	28	24	SSE	2	c	2
Sumburgh Head	30·36	36	36	Z	0	c	2
Stornoway	30·34*	41	39	SW	4	c	4
Aberdeen	30·43	33	31	NW	1	bcm	3
Shields	30·40	32	32	Z	0	c	3
Ardrossan	30·41	35	36	NE	2	bm	1
Malin Head ...	30·37	40	37	SSE	2	c	1
Mullaghmore ...	30·37	41	40	E	3	om	2
Belmullet	30·37	46	45	WSW	3	b	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·38	35	32	ENE	1	b	1
Valencia	30·37	47	44	SW	2	c	2
Scilly	30·33	37	32	NE	3	c	3
Jersey	30·29	30	29	NNE	3	c	3
Dungeness	30·27	26	25	ENE	4	c	4
London	30·32	28	28	NE	1	bcm	*
Yarmouth	30·29	28	28	ENE	6	cq,sp	5
Rochefort	30·17	31	30	NNE	5	b	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE
DURING THE PAST 24 HOURS.

Weather fine over the greater part of England, France, and Spain, as well as over Sweden, Denmark, and the Adriatic. Dull elsewhere, with snow at some of our eastern and southeastern coast stations, as well as in Finland, Austria, and the south of France. Fog reported in many parts of Germany. Sky clearing later in Ireland and Scotland, but snow falling in the east and south of England and also over eastern Germany.

Temperature highest 48° at Constantinople, 46° at Lisbon and Brindisi, and 45° at Oporto; (2) 42° at Belmullet and Mullaghmore, and 40° at Stornoway. Lowest (1) −19° F at Haparanda, −4° F at Hernösand, 0 zero at Kleaborg, and +11° at Kuopio; (2) −5 F at Neufahrwasser, −1° at Munich, 0° at Berlin and 5° at Swinemunde; below 20° over nearly the whole of northern and central Europe, and several degrees below the freezing point over England. Daily maxima below 32° in many parts of England and France; thermometer at Lyons not exceeding 13°.

Wind light to fresh from the NE^ly or N^ly over Sweden, Denmark, the Netherlands, France, Spain, and the greater part of Ireland and England. Variable in Scotland and Norway, NW^ly in Austria; E^ly in the north of Italy; SW^ly in Algeria. Light or moderate SW^ly breezes setting in later over Scotland and Norway. Wind increasing to a gale from the NE^ly in the north of Italy, and from the SW^ly in Sicily.

Barometer highest 30·3 ins. to 30·4 ins. in a large anticyclone lying over the greater part of our Islands, the North Sea and Scandinavia, as well as in another system lying over Central Russia. Lowest 29·5 ins. and less in a shallow depression lying over Eastern Austria; 29·6 ins. and less in a well defined disturbance lying over Corsica, Sardinia, and the neighbouring parts of the Mediterranean. Large depression appearing later off the northwest of Norway.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Monday, 19th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·28	15	SE	2	0	30·30	+·16	21	21	+ 4	SE	2	0	*	?	1	-
	Hernösand ...	30·25	28	N	0	s	30·26	+·09	25	24	+ 1	N	0	0	*	32	10	0·044
	Stockholm ...	30·26	12	N	0	bc	30·25	-·10	22	21	+ 17	N	0	0	*	23	3	-
	Wisby														*			
	Bodö	30·15	39	SSW	9	b	29·99	-·11	31	29	- 9	ESE	2	b	1	41	28	-
	Christiansund	30·24	29	ESE	2	b	30·02	-·32	28	27	- 6	ESE	1	bc	4	?	27	-
	Skudesnaes ...	30·26	23	N	0	b	30·09	-·34	30	27	- 5	ESE	2	0	3	?	23	-
	Christiania Fjord (Færder)	30·20	27	WNW	2	0	30·10	-·28	28	25	+ 6	N	2	s	1	28	?	-
	Skagen (The Scaw)	30·19	28	WSW	1	c	30·10	-·30	28	27	+ 1	SW	2	s	1	28	23	-
	Fanö	30·26	18	N	0	b	30·15	-·24	28	28	+ 14	WSW	1	c	*	28	14	-
BRITISH ISLANDS.	Sumburgh Head	30·13	38	SSE	1	0	29·89	-·35	39	39	+ 2	N	0	r	2	40	36	0·11
	Stornoway ...	30·08	38	SW	7	r	30·00	-·20	35	34	- 5	W	4	c	4	40	33	0·03
	Wick	30·14	35	N	0	0	29·96	-·31	35	34	0	NW	2	c	1	36	31	0·10
	Nairn	30·13	35	SW	3	0	30·00	-·29	37	36	+ 2	SW	2	bc	2	34	32	0·09
	Aberdeen ...	30·21	29	SW	3	bm	30·02	-·34	33	31	+ 5	WSW	1	ogm	2	33	28	
	Leith	30·29	32	SW	2	0	30·11	-·31	34	33	+ 10	W	1	mps	*	34	23	-
	Shields	30·37	25	W	1	m	30·15	-·33	26	26	+ 7	SW	3	0	2	27	15	-
	Spurn Head ...	30·37	27	NW	3	c	30·24	-·22	24	23	- 3	WSW	3	bc	3	30	22	-
	York	30·41	19	N	1	b	30·24	-·28	18	18	+ 7	S	1	0	*	26	11	-
	Loughborough	30·43	16	ENE	1	b	30·32	-·20	8	8	- 6	ENE	1	cm	*	28	7	-
	Ardrossan ...	30·29	37	SSW	4	om	30·11	-·28	38	38	+ 2	SSW	4	0	4	38	34	0·06
	Malin Head ...	30·19	34	S	4	og	30·12	-·15	42	41	+ 11	NNW	3	bcp	2	42	31	0·05
	Mullaghmore ...	30·23	37	S	5	0	30·19	-·14	38	37	+ 3	SW	2	cp	3	39	33	0·02
	Belmullet ...	30·21	40	SSW	5	0	30·23	-·06	38	38	0	WNW	1	c	*	42	36	0·15
	Donaghadee ...	30·31	33	SW	2	bc	30·15	-·26	33	33	- 1	W	2	s	0	35	32	0·01
	Liverpool (Bidston)	30·40	23	SE	2	b	30·25	-·27	24	23	+ 4	SE	2	0	2	28	20	-
	Holyhead ...	30·38	30	SW	3	bc	30·22	-·27	38	36	+ 11	WSW	3	og	2	39	28	-
	Parsonstown ...	30·31	32	N	0	c	30·24	-·15	33	32	+ 3	N	0	0	*	36	29	-
	Valencia	30·25	40	SE	6	od	30·26	-·09	41	41	0	NNE	1	og	1	42	37	0·27
	Roche's Point ...	30·33	37	S	4	c	30·27	-·14	40	40	+ 1	N	2	od	3	40	35	-
	Pembroke (St. Ann's Hd.)	30·38	30	SSE	2	b	30·28	-·19	36	35	+ 10	S	3	c	3	36	25	-
	Scilly	30·33	37	SSE	2	c	30·28	-·12	37	32	+ 4	SSW	2	0	3	37	31	-
	Prawle Point ...	30·41	25	NNE	1	b	30·35	-·10	26	25	- 1	N	1	b	0	31	24	-
	Jersey (St. Aubin's)	30·36	32	ENE	3	bcsp	30·30	-·11	33	31	+ 7	NNW	3	ogm	3	33	25	0·02
	Hurst Castle ...	30·38	26	NNE	2	b	30·33	-·11	21	21	0	NNE	2	b	0	32	20	-
	Dungeness ...	30·29	29	NNE	4	s	30·23	-·14	25	25	- 4	ENE	5	s	4	29	17	0·59
	London	30·34	26	NNE	3	b	30·31	-·12	25	24	+ 3	NW	1	cgs	*	30	21	-
	Oxford	30·40	20	N	1	b	30·34	-·16	12	12	- 3	N	0	bf	*	31	12	-
	Cambridge ...	30·42	24	N	1	b	30·31	-·16	16	16	- 2	N	1	b	*	29	15	-
	Yarmouth ...	30·32	31	NE	4	cg	30·26	-·15	27	27	- 3	N	3	og	4	32	26	0·06
GERMANY & HOLLAND.	Cuxhaven ...														*			
	Berlin	30·13	24	N	0	0	30·10	-·03	28	27	+ 4	E	0	s	*	28	23	0·04
	Wiesbaden ...	*	*	*	*	*	30·16	+·10	6	6	- 19	NE	1	0	*	27	5	-
	Munich	29·97	1	NE	1	0	30·00	+·05	3	3	0	W	4	0	*	7	1	0·04
	The Helder ...	30·15	27	NE	2	c	30·25	-·14	23	22	- 3	NNW	1	c	1	29	19	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30·23		20	19		NNE	2	0	*	24	19	-
	Cape Gris Nez	30·25	28	NE	5	c	30·25	-·08	25	25	+ 2	E	2	f	2	30	21	-
	Paris	30·19	23	N	4	0	30·20	-·10	21	21	+ 6	NNE	2	s	*	25	15	0·04
	Brest	30·42	31	E	1	0	?	?	31	31	+ 3	E	2	0	2	39	25	-
	Lorient	30·35	31	NE	3	b	30·29	-·09	33	29	+ 11	NNW	3	0	2	34	21	-
	Rochefort ...	30·23	24	N	5	b	30·21	-·04	23	23	+ 6	NNE	5	c	*	25	17	-
	Belfort	?	22	NW	5	c	?	?	10	?	0	WNW	3	0	*	23	2	0·04
	Lyons	30·07	14	NNW	4	0	30·13	+·04	5	5	- 1	N	1	0	*	16	2	-
	Nice	29·71	25	NNW	5	b	29·72	+·13	23	?	- 6	NE	1	b	3	30	21	-
	Perpignan ...	30·01	22	NW	5	c	29·91	+·05	23	18	+ 5	NW	4	bc	*	26	18	-
	Biarritz	30·25	22	SE	2	0	30·22	-·02	24	23	+ 12	SSE	2	0	3	30	12	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·28	38	NNE	4	b	30·27	+·14	31	29	- 10	NNE	3	b	?	43	20	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Monday, 19th January 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER.—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND.—Arrows shew the prevailent winds. They fly with the wind and their barbs and feathers refer to force thus:—

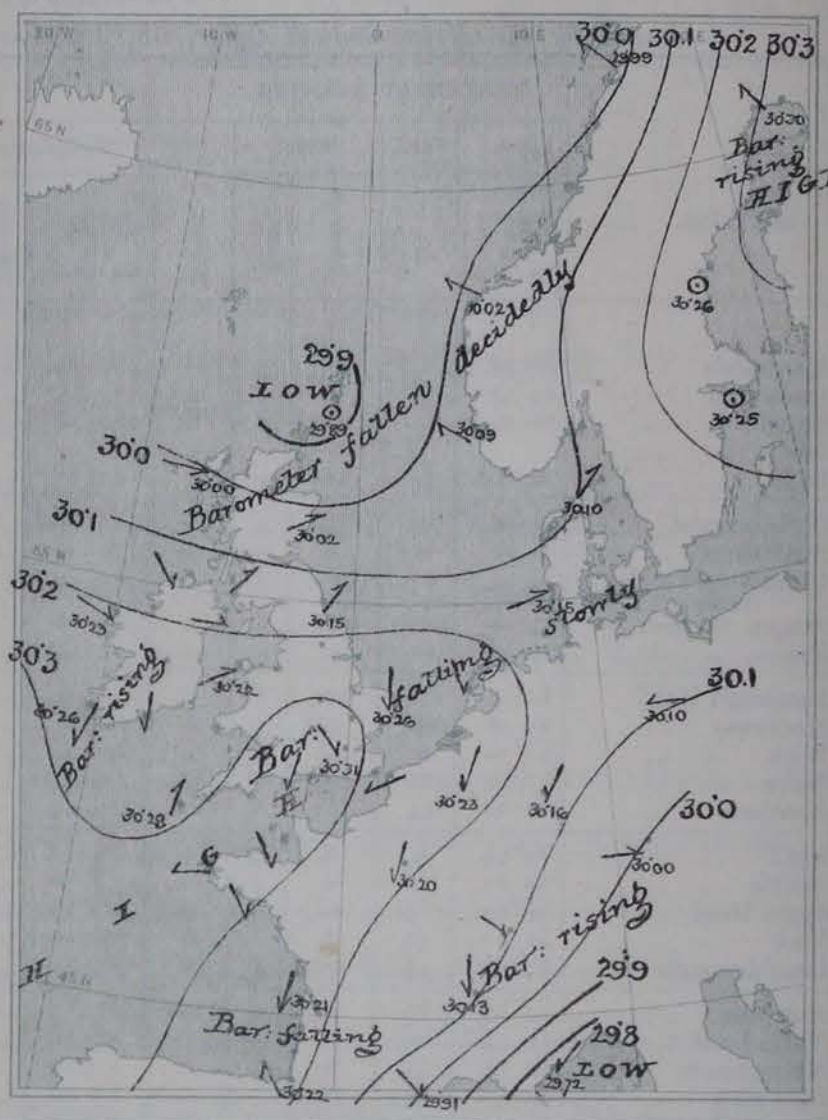
forces above 10; forces 8 to 10; forces 5 to 7; forces 1 to 4. ⊙ = dead calm.

SEA DISTURBANCE.—Where considerable, is shewn thus: = Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·673
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·858
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE.—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

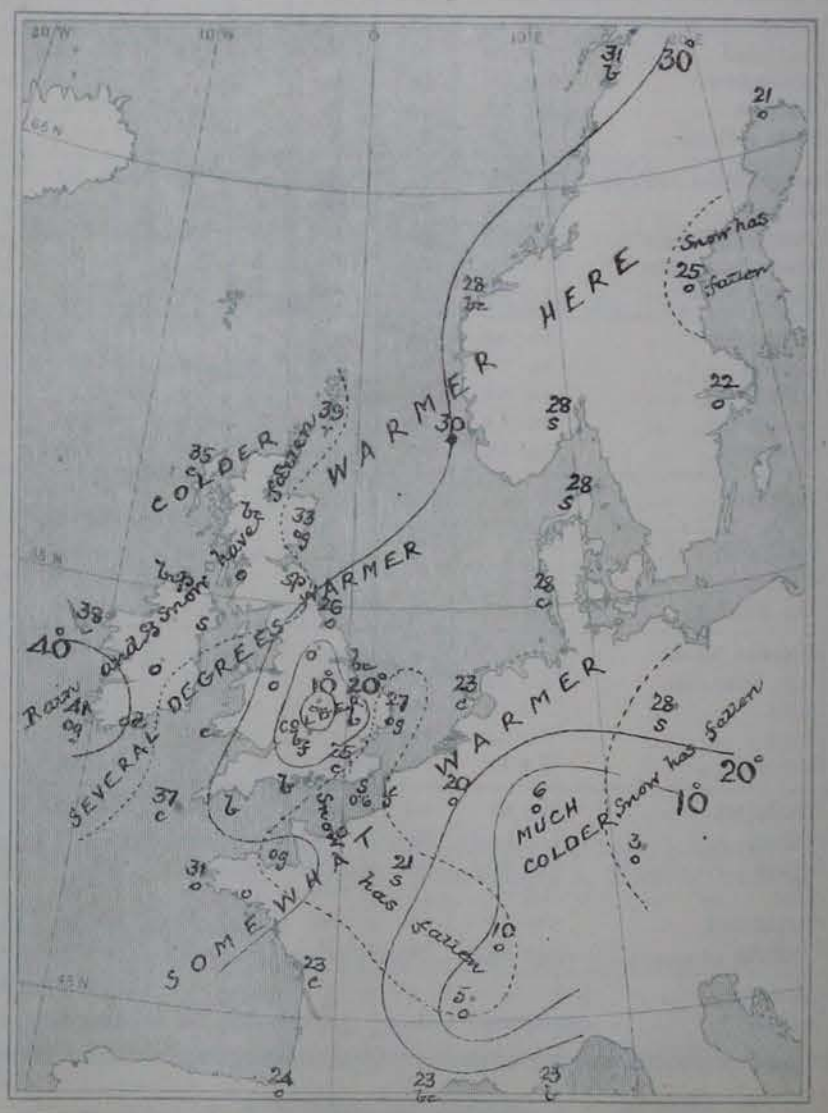
RAINFALL.—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·0	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·0	37·1	36·1	2·26
Cambridge	43·3	31·7	36·9	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins: and more to 30·7 ins: over the Bay of Biscay, the west and north of France, and the greater part of England and Ireland.
Lowest, 29·9 ins: and less, over the Shetland Isles, 29·8 ins: and less over the Gulf of Genoa.
Gradients slight except over the southeast of France.
Barometer rising over the south of Ireland and the southeast of England, falling a little in the northern districts.

TEMPERATURE

Highest, 42° at Malin Head, 41° at Valencia, 40° at Roche Point, 39° at Lerwick 46th.
Lowest, (1) 3° F. at Munich, 5° at Lyons, 6° at Wiesbaden, 20° at Brussels, 21° at Paris, 25° at Berlin; (2) 8° at Loughborough, 12° at Oxford, 16° at Cambridge, 18° at York, 25° in London.
It has been as low as 7° in the shade at Loughborough, and 6° at Hillington early this morning, while on the grass it fell to 2° at Hillington.

WIND

Light to moderate from between SW. and NW. over the northern part of the Kingdom, very light and variable over England and Ireland (N. at Valencia Island and Roche Point).
On our east coast it is N. and in the Straits of Dover NE. moderate.

WEATHER

Fine over the greater part of England, dull as a whole elsewhere, with slight rain at some western stations, snow at several of the Continental stations and Dungeness.
The fall at this latter station has again been very heavy, yielding 0·6 in: of water.

SEA

Moderate to smooth

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

Any rise of temperature which may occur over England today is likely to prove very temporary; at present there is no indication of a break up of the frost.

FORECASTS

For the 24 hours ending at NOON on 20th JAN.y 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	Wind veering to NW. again, light or moderate; colder, some snow.	6 SCOTLAND WEST 7 ENGLAND N.W. 8 ENGLAND S.W. 9 IRELAND NORTH 10 IRELAND SOUTH	Wind N.ly (NW to NE) light, colder local fogs, slight snow occasionally.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES 5 ENGLAND SOUTH	Variable airs, calms, local fogs, and some recovery of temperature, then N.ly breezes again, light, and renewed hard frost.	WARNINGS	NONE ISSUED

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	30·37	29	26	ESE	2	6	2
Sumburgh Head							
Stornoway	30·14	40	39	SW	6	0	6
Aberdeen							
Shields							
Ardrossan							
Mulin Head ...	30·23	33	32	S	4	0	2
Mullaghmore ...							
Belmullet	30·22	40	39	S	4	0	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	30·43	31	30	SSW	3	6	2
Valencia							
Scilly							
Jersey	30·37	32	30	NE	3	6	3
Dungeness	30·31	29	29	NE	6	8	4
London							*
Yarmouth							
Rochefort	30·27	25	25	N	5	6	2

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine over the greater part of England, France and Spain, and also in Denmark and Holland. Dull elsewhere with rain in Tunis and snow at several of the Russian, German and Austrian stations, as well as at Pesaro and Aumale. Snow showers falling during day in the extreme south and southeast of England; rain setting in at night on the west coasts of Ireland and Scotland.

Temperature highest (1) 46° at Brindisi, 42° at Nemours, and 41° at Lisbon, San Fernando, Oran and Palermo; (2) 41° at Valencia Island, 40° at Stornoway, 39° at Roche's Point, and 38° at Belmullet. Lowest (1) – 19° F. at Kuopio, -1° at Hango, +4° at Helsingfors, and 5° at Stockholm; (2) 2° at Buda Pesth, 3° at Munich, 4° at Hermanstadt, and 6° at Lyons; (3) 11° at York, 14° at Loughborough, and 15° at Oxford. Daily maxima below the freezing point in many parts of England, below 20° in some parts of central France, and below 10° in Germany.

Wind moderate to fresh from the SE^ly or S^ly in Ireland, and light from the same quarters in the west of Norway. Moderate from the NE^ly or N^ly over the greater part of France, Spain and Germany, the Netherlands and the south of England. Light and variable over Russia and Austria; well marked cyclonic circulation reported over the Mediterranean; NW^ly winds blowing strongly in the south of France. No important change occurring during day.

Barometer highest 30.5 ins. and upwards over Central England, and also over Central Russia, 30.3 ins. and upwards in a broad "col" lying over the North Sea, Scandinavia and Finland. Lowest 29.5 ins. and less in a well marked depression lying over Corsica and Sardinia; 29.8 ins. and less in a shallow system lying over eastern Austria. General fall of barometer taking place over our Islands later, but no other change of importance observed.

SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 11TH TO 17TH JANUARY 1891

At the commencement of this week an elongated anticyclonic area covered all the southern half of our Islands and the northern half of France, together with the Netherlands, Holstein and North Germany, so that hard frost continued over most of the regions named, accompanied by dry weather, fog in many places, and unusually dense fog in London; mild and showery weather prevailed however over northern Europe and Scotland. The anticyclone soon moved W^wds slowly, and the thermometer then rose over England and the northern parts of France and Germany, so that on Tuesday readings were recorded as high as 45° in London, 45° and more in many other parts of our Islands and 50° to 54° over Scotland, while N^ly to NW^ly winds spread over us and in some places blew strongly. On Thursday, however, (when pressure was unusually high off our western coasts, and lowest over the Baltic and Russia) a small depression was developed over the northeast of England, and passing southwards reached the northeast of France by Friday morning. In its rear cold N^ly to NE^ly winds again set in; the frost was speedily restored over the regions named above, and extended with less intensity to Scotland and Ireland also accompanied by snow in most places. When the week closed anticyclonic conditions again prevailed over all the western and northern parts of our Islands, Scandinavia and the North Sea, a hard frost was again dominant over England, and very severe frost on the Continent

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

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DAILY WEATHER REPORT.

for Tuesday 20th January. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30.23	10	S	4	0	30.11	-.19	5	4	-16	SE	4	0	*	21	5	0.12
	Hernösand ...	30.13	24	SE	2	0	30.15	-.11	23	22	-2	SW	2	0	*	28	23	—
	Stockholm ...	30.15	23	NE	4	0	30.03	-.22	23	23	+1	Z	0	S	*	27	10	—
	Wisby	30.12	25	E	2	S	30.03		26	25		ESE	2	S	*	28	23	0.04
	Bodö	29.76	32	E	2	0	29.45	-.54	31	28	0	E	4	0	2	36	28	—
	Christiansund	29.73	36	SE	4	c	29.24	-.78	39	34	+11	SSE	7	0	4	?	?	—
	Skudesnaes ...	29.95	37	SSE	8	0	29.53	-.56	39	38	+9	SSE	8	7	5	?	30	0.12
	Christiania Fjord (Færder)																	
	Skagen (The Scaw)	30.05	29	SSW	3	0	29.90	-.20	31	30	+3	SSW	2	bc	2	?	27	0.04
	Fanö	30.13	30	WSW	2	c	29.97	-.18	30	30	+2	S	4	c	*	30	28	—
	Sumburgh Head	29.68	40	SW	3	0	28.95	-.94	43	43	+4	SSW	6	7	6	43	39	0.16
	Stornoway ...	29.70	42	SW	6	7	29.01	-.99	38	37	+3	W	8	7	7	46	33	1.00
	Wick	29.78	39	SW	2	0	29.00	-.96	41	39	+6	SW	7	cu	4	41	34	0.01
	Nairn	29.82	40	WSW	3	0	29.13	-.87	42	42	+5	SW	4	7	2	44	34	0.15
	Aberdeen ...	29.92	37	SSW	2	0m	29.27	-.75	41	39	+8	S	5	0qu	4	41	33	—
BRITISH ISLANDS.	Leith	30.00	37	W	1	0	29.40	-.71	45	42	+11	SW	7	0q†	*	45	33	0.01
	Shields	30.07	35	WSW	2	c	29.65	-.50	40	38	+14	SSW	4	c	2	40	24	—
	Spurn Head ...	30.15	31	SW	4	0m	29.86	-.38	33	33	+9	SSW	4	0m	3	33	23	—
	York	30.14	32	S	2	0	29.75	-.49	37	36	+19	S	2	c	*	37	17	—
	Loughborough	30.22	29	SSW	2	0	29.92	-.40	36	35	+28	SSW	4	0	*	36	8	—
	Ardrossan ...	30.03	43	SW	4	0	29.41	-.70	45	44	+7	SW	5	0	5	45	38	0.10
	Malin Head ...	29.99	42	SW	5	0†	?29.36	-.76	45	44	+3	SW	8	07	4	45	28	0.07
	Mullaghmore ...	30.10	42	SW	5	0†	29.53	-.66	46	45	+8	WSW	6	7qo	5	47	37	0.03
	Belmullet ...	30.11	44	WSW	5	0	29.51	-.72	48	47	+10	W	8	0†	*	48	35	0.12
	Donaghadee ...	30.12	37	WSW	3	b	29.55	-.58	44	43	+11	WSW	5	c	3	44	32	0.01
	Liverpool (Bidston)	30.17	38	W	3	0	29.79	-.46	41	39	+17	SW	4	0	4	42	24	0.06
	Holyhead ...	30.18	38	WNW	2	bc	29.79	-.43	45	45	+7	SW	6	0mq	5	45	37	—
	Parsonstown ...	30.32	36	E	0	c	29.75	-.49	45	44	+12	SW	2	0	*	46	32	0.07
	Valencia	30.28	42	W	1	0m	29.91	-.35	50	48	+9	WSW	6	0m	6	50	40	0.02
	Roche's Point ...	30.29	42	WNW	3	cdq	29.93	-.34	47	45	+7	WSW	4	0	4	47	40	—
	Pembroke (St. Ann's Hd.)	30.25	41	NW	2	c	29.94	-.36	45	44	+9	SW	6	0q†	6	45	36	0.07
	Scilly	30.28	41	SW	4	c	30.11	-.17	45	43	+8	SW	4	c	4	45	32	0.01
	Prawle Point ...	30.31	33	NW	3	0	30.10	-.25	43	43	+17	WSW	6	7u	5	43	25	0.01
	Jersey (St. Aubin's)	30.35	30	NNW	3	b	30.25	-.05	40	37	+7	SW	3	cqm	3	40	25	—
	Hurst Castle ...	30.31	32	W	2	0	30.11	-.22	39	39	+18	WSW	5	c	2	39	19	0.02
	Dungeness ...	30.30	22	ENE	3	c	30.10	-.13	36	36	+11	WSW	5	0	3	36	20	0.03
	London	30.28	29	SW	1	0	30.06	-.25	37	35	+12	SW	2	0	*	37	23	0.01
	Oxford	30.26	28	WSW	2	S	30.03	-.31	37	36	+25	SW	3	c	*	37	12	0.01
	Cambridge ...	30.24	29	SSW	2	0	29.98	-.33	30	30	+14	SW	2	0	*	35	16	—
	Yarmouth ...	30.23	25	WNW	2	cm	30.00	-.26	32	32	+5	WSW	3	cq	3	32	23	—
GERMANY & HOLLAND.	Cuxhaven ...	30.16	28	W	1	0	30.14		27	26		SW	2	0	*	28	24	—
	Berlin	30.13	25	NW	4	•	30.15	+.05	17	17	-11	NW	2	b	*	28	16	—
	Wiesbaden ...	*	*	*	*	*	30.25	+.09	14	13	+8	NE	2	0	*	21	?	—
	Munich	30.10	7	W	3	0	30.17	+.17	11	11	+8	W	4	S	*	11	3	0.04
	The Helder ...	30.24	29	W	1	c	30.05	-.20	28	28	+5	SSW	4	0	3	30	23	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.22	-.01	19	18	-1	S	4	0	*	25	11	—
	Cape Gris Nez	30.26	27	NE	1	c	30.12	-.13	34	33	+9	SW	5	0	5	34	23	—
	Paris	30.28	25	N	2	0	30.33	+.13	14	14	-7	S	1	0	*	27	14	0.08
	Brest	30.38	35	N	1	b	30.32	?	43	41	+12	SW	5	0	5	43	35	0.04
	Lorient	30.34	35	NNE	3	b	?30.32	+.03	39	35	+6	SW	3	bc	2	?	30	—
	Rochefort ...	30.30	28	NE	4	b	30.40	+.19	22	21	-1	ESE	3	b	?	32	16	—
	Belfort	?	9	SW	2	c	?	?	10	?	+5	N	2	c	*	22	0	—
	Lyons	30.23	11	NNW	2	bc	30.34	+.21	8	7	+3	ESE	1	S	*	14	?	—
	Nice	29.76	35	NNE	3	0	29.89	+.19	31	29	+8	NE	4	b	2	41	28	—
	Perpignan ...														*			
	Biarritz	30.28	27	SSE	3	0	30.36	+.14	25	24	+1	S	2	0	2	32	23	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.28	41	N	5	b	30.34	+.07	32	28	+1	NNE	4	b	?	43	?	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Tuesday, 20th Jan.y, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

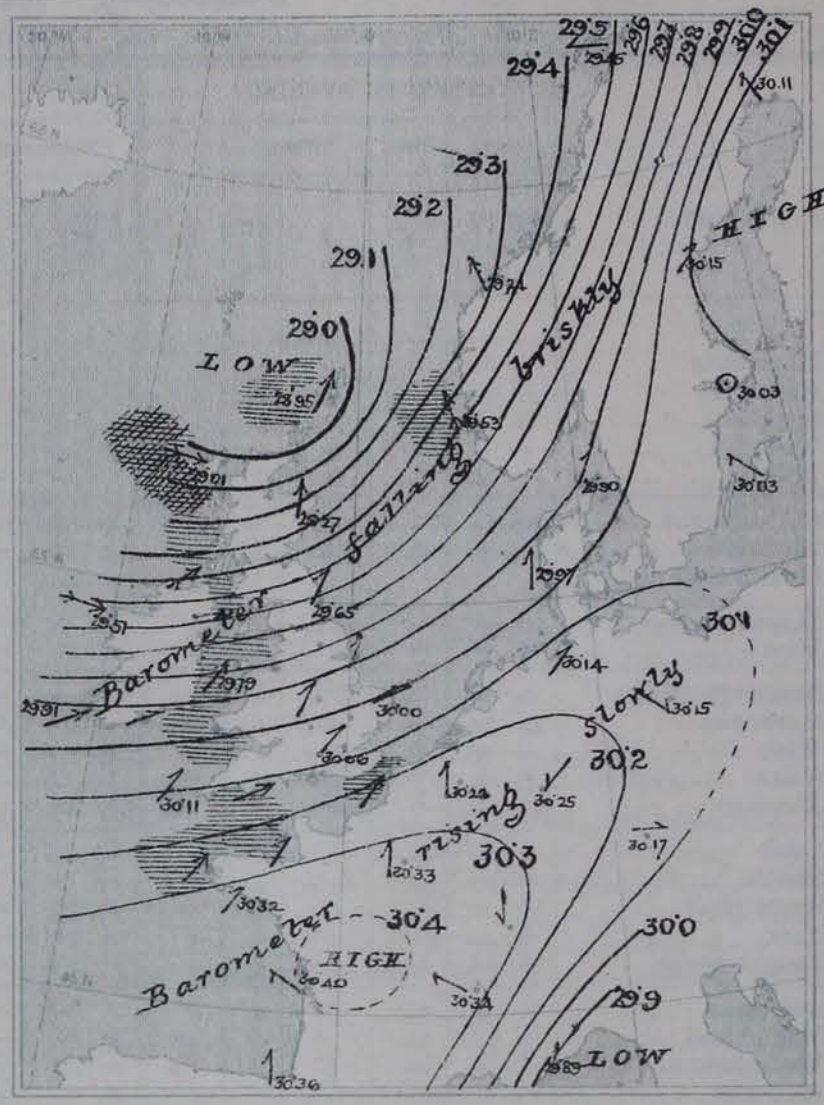
BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows show the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus.

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

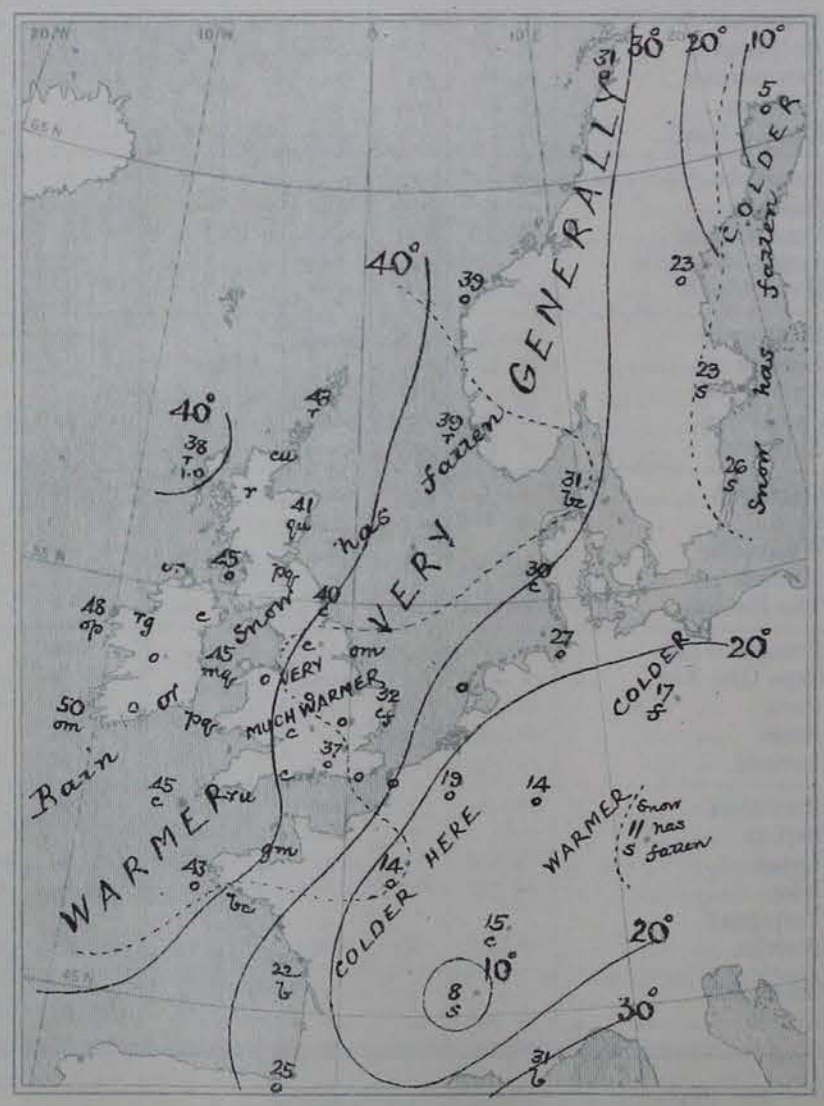
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Muilaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·6	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·9	39·2	2·98
Holyhead	46·6	38·7	41·7	40·3	3·38
Liverpool	43·5	36·2	38·6	37·0	2·22
Parsonstown	45·6	31·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	33·6	42·7	41·3	3·75
Scilly	48·8	42·9	44·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·3	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins: to 30·4 ins: in an anticyclone lying over France and Spain; 30·1 ins: and upwards over the Gulf of Bothnia.

Lowest, 29·0 ins: and less, in a depression lying off the north of Scotland.

Gradients steep over the northern parts of our Islands and the North Sea, but slight elsewhere.

Barometer falling at all but the French and German stations.

TEMPERATURE

Highest, 50° at Valencia Island, 48° at Belmullet, 47° at Roche's Point, 46° at Mullaghmore, and 45° at several other of our western stations.

Lowest, 5° at Haparanda, 8° at Lyons, 11° at Munich, 14° at Wiesbaden and Paris, 15° at Belfast, and 17° at Berlin

At Loughborough the thermometer has 28°, at Oxford 25° and at York 19°.

WIND

SW^ly or W^ly over the whole of the United Kingdom; moderate in the east, but fresh or strong elsewhere, with a gale on our extreme northwest coasts.

S^ly or SE^ly in Scandinavia and Denmark, with a gale at Skudesnaes.

Light or moderate from the E^ly or NE^ly in the south of France.

WEATHER

Cloudy or overcast in most places, with rain in the extreme north and northwest of our Islands, and showers in the southwest.

Snow is falling at Stockholm, Wisby, Munich and Lyons, but at many of the French stations the weather is fine and bright.

Since yesterday morning rain or sleet has fallen in many parts of the United Kingdom, the largest amount being 1·0 inch at Stornoway.

SEA

High at Stornoway and rough or rather so on many parts of our southwest, east, and north coasts.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression off the north of Scotland seems likely to travel away in a northeasterly direction, but the barometer is falling very decidedly at Valencia Island, and it is not improbable that secondary disturbances will advance over our Islands from the westward

FORECASTS

For the 24 hours ending at NOON on 21st Jany 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
↓ 0 SCOTLAND NORTH ↓ 1 SCOTLAND EAST	SW^ly to W^ly strong winds and gales; squally, some rain.	↓ 6 SCOTLAND WEST	Same as No^s 0 and 1.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	Same as No 5	7 ENGLAND N.W. 8 ENGLAND S.W.	SW^ly and W^ly winds, strong; squally, some rain.
5 ENGLAND SOUTH	SW^ly winds, freshening considerably; unsettled, some rain. Temperature rising.	↓ 9 IRELAND NORTH	Same as No^s 0 and 1.
		10 IRELAND SOUTH	Same as No^s 7 and 8.
		WARNINGS	The SOUTH CONE was hoisted last evening in districts 0. 1. 6. and 9.

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F	WEA	SEA
Skudesnaes ...	30.03	36	33	SE	4	o	3
Sumburgh Head	29.80	41	40	WSW	1	bc	2
Stornoway	29.80	42	40	SW	4	c	4
Aberdeen	29.98	40	36	WSW	1	bc	1
Shields	30.10	35	35	WSW	2	o S p	2
Ardrossan	30.08	42	42	SW	3	c	3
Malin Head ...	30.08	43	41	W	4	o	2
Mullaghmore ...	30.17	43	41	SW	4	o m p	3
Belmullet	30.19	44	42	WSW	2	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F	WEA.	SEA
Holyhead	30.18	40	39	WNW	2	og	2
Valencia	30.29	47	45	NW	1	om	1
Scilly	30.28	41	38	SSW	4	o	4
Jersey	30.34	36	33	NNW	3	bcm	3
Dungeness	30.28	26	25	ENE	6	s	3
London	30.30	31	31	NW	1	bm	*
Yarmouth	30.24	27	27	WNW	3	bcm	3
Rochefort	30.24	32	31	NNE	4	bc	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine and bright in the east of Norway, and in several parts of England, dull generally elsewhere, with snow not only in many parts of central and southern Europe, but also at Algiers, rain at Nemours, and in some parts of Ireland and at Sumburgh Hd.; snow at Dungeness very heavy. More than an inch of rain at Stornoway later, but only a few hundredths of fall elsewhere – partly snow and partly rain

Temperature rises decidedly over northern, southeastern, and southern Europe, but still very low generally, especially over the more inland districts. Morning readings as low as 3° to 12° over northern and central Russia, central and southern Germany, some parts of France, and the inland parts of England, higher over Scotland and Ireland, exceeding 40° in the southwest of Ireland, in the extreme south and at Brindisi and Malta only. Rising very decidedly over the United Kingdom later and frost beginning to break up.

Wind mainly W. over the northern parts of our Islands, SE. in Norway, extremely variable over Europe as a whole, but a cyclonic circulation of strong winds prevailing over all the eastern half of the Mediterranean, Italy, and the Adriatic. Fresh W. winds over Algeria and Tunis. SW. winds setting in over our Islands later, and beginning to blow hard in the northwest and north.

Barometer highest (1) 30·6 ins. to 30·2 ins. in an anticyclone over Russia, (2) 30·3 ins. and more to 30·2 ins. in another over the Bay of Biscay, the west and north of France, with England and Ireland; lowest 29·5 ins. to 29·3 ins. in a well marked depression over the Adriatic and Italy, 29·9 ins. and less in another (small one) over the Shetland Islands. Very shallow local disturbances off the south of Ireland. New large depression approaching our northwest coasts from the westward later, and spreading over our Islands generally.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for *Wednesday, 21st January,* 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 8.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.92	14	SE	4	0	29.80	-.81	20	18	+15	SE	4	0	*	?	1	0.04
	Hernösand ...	29.71	27	SSW	6	0	29.58	-.57	29	27	+6	S	10	0	*	?	19	-
	Stockholm ...	29.80	26	S	2	0	29.58	-.45	30	28	+7	SSE	4	0	*	?	21	-
	Wisby	29.87	28	SE	2	0	29.57	-.46	28	27	+2	SSE	4	0	*	30	23	-
	Bodö	29.66	29	E	8	c	29.62	+.17	33	28	+2	SE	7	0	4	?	23	-
	Christiansund	28.79	40	SSE	6	c	28.91	-.33	35	30	-4	SE	5	bc	4	41	34	0.04
	Skudesnaes ...	29.04	38	SSE	4	0	29.00	-.53	37	35	-2	SSE	6	0	5	39	34	-
	Christiania Fjord (Færder)	29.37	32	SSE	10	S	29.10		33	33		SSE	10	rs	7	34	32	-
	Skagen (The Scaw)	29.33	30	SSW	8	S	29.09	-.81	31	31	0	SSW	7	0	4	?	28	0.08
	Fanö	29.38	28	S	8	S	29.11	-.86	31	31	+1	W	2	0	*	32	28	0.32
BRITISH ISLANDS.	Sumburgh Head	28.83	34	W	4	0	28.86	-.10	28	28	-15	W	1	0	3	43	29	0.17
	Stornoway ...	28.96	32	NW	5	S	29.15	+.14	28	28	-10	N	4	0	4	38	25	0.10
	Wick	28.94	30	NW	4	bc	29.01	+.01	27	25	-14	NW	2	b	2	41	25	0.28
	Nairn	29.04	31	SW	2	c	29.17	+.04	27	26	-15	SW	1	b	1	43	26	0.43
	Aberdeen ...	29.09	33	SW	3	b	29.20	-.07	29	28	-12	W	3	c	3	45	29	0.09
	Leith	29.20	35	SW	3	bc	29.23	-.17	30	29	-15	W	1	m	*	46	26	-
	Shields	29.28	37	SW	2	0	29.23	-.42	32	31	-8	W	3	b	2	45	30	0.10
	Spurn Head ...	29.35	40	SW	6	r	29.32	-.54	33	32	0	WSW	5	bm	4	40	32	0.14
	York	29.35	38	SW	3	r	29.34	-.41	32	31	-5	W	3	b	*	45	31	0.12
	Loughborough	29.43	43	WSW	5	r	29.44	-.48	33	31	-3	WSW	3	b	*	43	33	0.33
	Ardrossan ...	29.22	39	W	5	cqphs	29.27	-.14	35	33	-10	W	3	c	2	45	31	0.13
	Malin Head ...	29.20	37	WNW	7	bcqhp	29.20	-.16	34	33	-11	NW	4	bchp	4	45	31	0.11
	Mullaghmore ...	29.39	38	WNW	8	bchp	29.39	-.14	37	35	-9	WNW	6	bchq	6	47	35	0.29
	Belmullet ...	29.48	38	NW	7	cqp	29.45	-.06	37	35	-11	W	4	c	*	48	34	0.16
	Donaghadee ...	29.34	37	WNW	4	bc	29.36	-.21	30	30	-14	WNW	2	bc	0	47	25	0.10
	Liverpool (Bidston)	29.37	39	W	6	r	29.40	-.39	35	33	-6	WSW	5	chp	4	46	34	0.30
	Holyhead ...	29.42	42	W	6	cqp	29.42	-.37	37	37	-8	WNW	5	bcq	5	46	36	0.20
	Parsonstown ...	29.50	40	SW	2	0	29.50	-.25	31	30	-14	Z	0	bc	*	48	31	0.21
	Valencia	29.65	45	WNW	6	cm	29.57	-.34	43	41	-7	WNW	4	cq	4	51	40	0.38
	Roche's Point ...	29.59	43	WNW	4	c	29.55	-.38	38	35	-9	WNW	3	bc	4	51	37	0.40
	Pembroke (St. Ann's Hd.)	29.49	36	SW	7	r	29.51	-.43	41	38	-4	W	3	bc	6	48	39	0.35
	Scilly	29.76	49	WSW	6	0	29.54	-.54	45	43	0	WNW	5	0	5	49	43	0.11
	Prawle Point ...	29.75	46	WSW	4	r	29.58	-.52	37	36	-6	NW	3	c	2	46	36	0.31
	Jersey (St. Aubin's)	29.97	43	SSW	6	cqmr	29.61	-.64	42	40	+2	W	2	cqm	2	47	38	0.24
	Hurst Castle ...	29.69	43	WSW	7	r	29.54	-.57	36	34	-3	WNW	4	bc	4	43	34	0.24
	Dungeness ...	29.74	39	WSW	7	00	29.46	-.64	33	32	-3	NW	4	b	4	39	30	0.10
	London	29.63	44	SW	4	cq	29.49	-.59	32	31	-5	WSW	2	b	*	44	31	0.18
	Oxford	29.47	44	SSW	5	r	29.49	-.54	31	30	-6	WSW	3	b	*	44	31	0.24
	Cambridge ...	29.51	41	SW	4	0	29.45	-.53	33	32	+3	SW	1	b	*	44	30	0.03
	Yarmouth ...	29.54	39	WSW	5	cqm	29.39	-.63	32	31	0	W	3	bcm	3	39	30	0.22
GERMANY & HOLLAND.	Cuxhaven ...	29.85	26	SSW	6	S	29.26	-.88	32	32	+5	SW	3	S	*	32	26	-
	Berlin	29.96	24	NW	4	b	29.43	-.70	24	23	+7	SSE	3	0	*	27	16	-
	Wiesbaden ...	*	*	*	*	*	29.50	-.75	25	24	+11	S	1	S	*	25	12	0.20
	Munich	30.08	12	W	3	c	29.69	-.48	13	12	+2	S	2	c	*	19	10	-
	The Helder ...	29.52	32	SSW	5	r	29.30	-.75	32	31	+4	W	2	b	3	32	27	0.20
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	29.47	-.75	34	33	+15	W	3	0	*	34	?19	0.20
	Cape Gris Nez	29.74	37	SSW	6	r	29.49	-.63	34	34	0	W	6	b	6	39	32	0.22
	Paris	30.10	26	SSW	3	b	29.59	-.74	36	35	+.22	SSW	1	0	*	36	?14	0.16
	Brest	30.01	46	NW	5	r	?29.70	-.62	45	44	+2	SW	4	r	5	48	41	0.12
	Lorient	30.03	47	WSW	5	0	29.70	-.62	45	43	+6	WNW	3	r	5	46	39	0.16
	Rochefort ...	30.23	31	S	4	0	29.80	-.60	40	40	+18	NW	4	f	6	?	?	0.24
	Belfort	?	16	SW	1	0	?	?	26	?	+11	SW	3	S	*	24	14	0.12
	Lyons	30.33	11	E	1	0	29.89	-.45	20	19	+12	SSE	4	S	*	20	8	-
	Nice	29.97	37	Z	0	b	29.90	+.01	35	30	+4	NE	1	0	2	45	30	-
	Perpignan ...	30.19	31	NW	4	b	30.02		33	28		SW	2	0	*	?	28	-
	Biarritz	30.33	33	Z	0	bc	30.01	-.35	47	44	+22	W	7	r	5	?	25	0.04
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.41	41	N	4	b	30.45	+.11	45	43	+13	NW	3	c	?	46	32	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Wednesday, 21st January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevailing winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

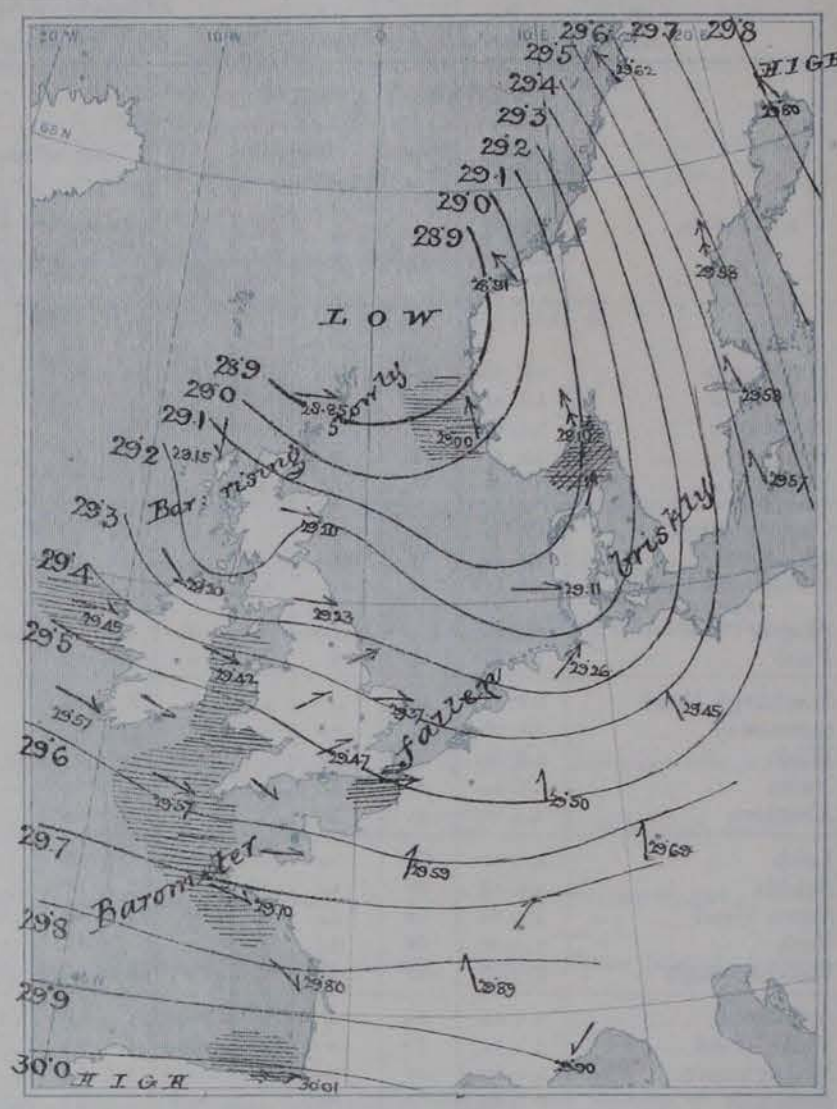
SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·853
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·960
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·959
Cambridge	29·993
Yarmouth	29·979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

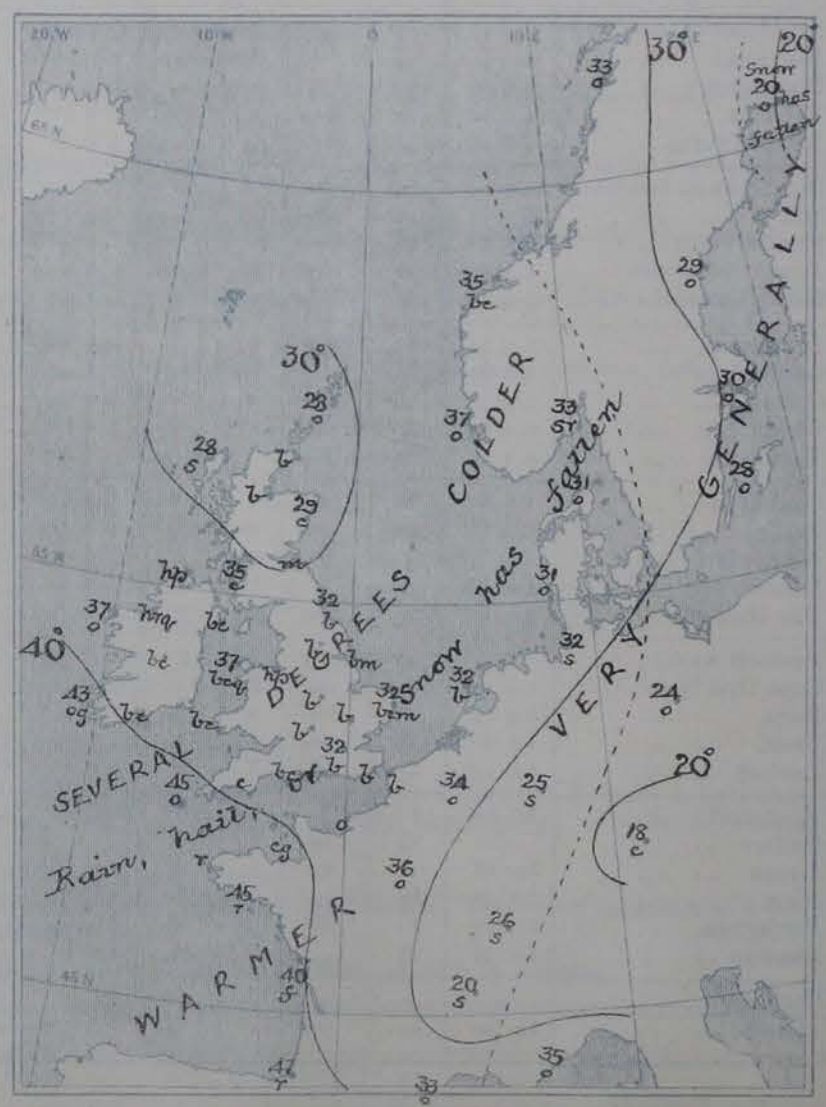
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·06
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	34·7	38·0	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	38·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	38·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	44·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·0 ins: and less, over Spain and the extreme south of France; 29·8 ins: and less, in Lapland.
Lowest, 28·9 ins: and less, in a depression lying off the west of Norway.
Gradient rather steep over Scandinavia, but slight elsewhere.
Barometer rising in the north of our Islands, but falling elsewhere – most in Denmark and Germany.

TEMPERATURE

Highest, 47° at Biarritz, 45° at Scilly and Lorient, 43° at Valencia, 42° at Jersey and 41° at Pembroke.
Lowest, 13° at Munich, 20° at Haparanda and Lyons, 24° at Berlin, 25° at Wiesbaden, and 27° at Kiel and Nairn
Frost occurred last night in most parts of the Kingdom, in London the thermometer on the grass fell to 22°

WIND

W^ly or NW^ly over our Islands and the west of France, light or moderate in force generally, but fresh or strong at several of our western stations.
Strong to a gale from the S^ud or SE^ud in Scandinavia; light from the same quarters in Germany and the east of France.
A fresh gale from the W^ud was experienced last night in the south of our Islands.

WEATHER

Fine over the greater part of the United Kingdom, but hail showers reported at several of our northwestern stations and snow at Stornoway.
Dull at most of the Continental stations, with snow in Germany, Central France, and the south of Norway.
Rain hail or snow fell yesterday in all parts of our Islands, the largest amount being 0·4 in: at Nairn and Rockcliffe.

SEA

Rough or rather so on our eastern and southern coasts and also in the Bay of Biscay.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

A secondary depression is now lying over the west of Scotland, and as this moves eastwards unsettled weather will probably be experienced in most districts, with showers of hail or snow

Erratum. In third line of the remarks on Temperature given on page 3 of yesterday's report for "the thermometer has 28" read "the thermometer has risen 28°".

FORECASTS

For the 24 hours ending at NOON on 22nd January 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	NW^ly winds, light or moderate; unsettled, some snow.
↓ 2 ENGLAND N.E. ↓ 3 ENGLAND EAST 4 MIDLAND COUNTIES	Same as No 5
↓ 5 ENGLAND SOUTH	W^ly to NW^ly winds, freshening considerably; fine to squally and some snow showers.
↓ 6 SCOTLAND WEST ↓ 7 ENGLAND N.W. ↓ 8 ENGLAND S.W. ↓ 9 IRELAND NORTH ↓ 10 IRELAND SOUTH	W^ly and NW^ly winds, strong, a gale in places; squally, some cold showers.
WARNINGS	The SOUTH CONE has been lowered this morning in districts 0 and 1 but is still flying in districts 5 to 10.

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F	WEA	SEA
Skudesnaes ...	29.20	39	36	SSE	9	r	7
Sumburgh Head	28.83	35	35	W	4	c	6
Stornoway	29.00	32	32	NW	6	s	6
Aberdeen	29.12	37	35	SW	3	bc	4
Shields	29.30	44	41	SW	5	r	2
Ardrossan	29.27	40	36	W	6	o	5
Malin Head ...	29.27	41	41	W	6	o	5
Mullaghmore ...	29.42	41	39	NNW	7	o rhq	7
Belmullet	29.47	42	39	NNW	7	o qp	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.51	46	46	SW	7	rhq	6
Valencia	29.64	50	49	WSW	7	rm	6
Scilly	29.93	48	48	WSW	6	o	4
Jersey	30.08	43	39	SW	5	oqm	3
Dungeness	29.88	39	38	WSW	6	o	4
London	29.84	44	42	SW	4	o	*
Yarmouth	29.72	39	36	WSW	4	cf	3
Rochefort	30.36	51	50	SSW	4	o	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather changing very decidedly over northwestern Europe, cloudy or overcast at the British and Irish stations generally, as well as over most parts of the Continent – except over the southwest of France and the Spanish Peninsula, squally with rain in many parts of our Islands, foggy in the extreme east of England and parts of north Germany, snowing over Austria, south Germany, and some of the southern parts of France. Sleet, hail, or rain over the British Islands generally later, but amounts not large.

Temperature rises rapidly over the British Islands – as much as 25° to 28° over the midland counties; rises also over South Germany, Austria, and the Gulf of Finland, falls over Russia. Morning readings exceeding 40° on all the western and northern coasts of the United Kingdom and also at Brindisi, and exceeding 32° over the greater part of England as well as in Norway. Much lower elsewhere; above 20° over Hungary and southern Russia, but below 20° over central France and the greater part of Germany, and as low as −8F. at Moscow, 0 (zero) at Archangel, 5° at Ulleaborg, 10° at Kuopio and also at Kharkov. Rising later to between 40° and 51° over the United Kingdom as a whole, but tending to fall again in the west and northwest at evening.

Wind light to moderate from SE. over Russia, N. to W. (fresh) over Austria and eastern Germany, very variable over France, mainly E. to NE. over the northern parts of the Mediterranean. A strong S. to W. current prevailing over the North Sea and British Isles, and blowing a gale at the extreme northern and northwestern stations. Veering W. very generally later and increasing to a moderate gale on our south coasts and in the Channel.

Barometer highest 30.7 ins. to 30.1 ins. in an anticyclone over Russia; 30.4 ins. and more to 30.2 ins. in another such system over Spain, the Bay of Biscay and France – the two systems united by a "Col" stretching across Germany. Lowest 29.0 ins. and less, in a depression having its centre off the north of Scotland, 29.9 ins. and less, in a larger but much shallower and less well defined system over the eastern and southeastern parts of the Mediterranean. Northern depression moving northeastwards later but spreading southwards all over the British Islands and northwestern Europe as it did so.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Thursday, 22nd January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom.: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.93	17	ESE	4	0	29.97	+.17	18	18	-2	ESE	4	0	*	?	12	-
	Hernösand ...	29.63	28	S	8	S	29.69	+.11	14	13	-5	E	6	S	*	30	24	0.24
	Stockholm ...	29.48	24	SE	6	c	29.48	-.10	27	26	-3	ESE	6	0	*	32	23	0.04
	Wisby	29.41	23	SE	4	s	29.38	-.19	26	25	-2	SE	4	0	*	30	21	0.12
	Bodö	29.45	33	NNE	8	0	29.63	+.01	27	24	-6	ESE	7	b	4	34	26	-
	Christiansund	29.13	35	ESE	3	c	29.28	+.37	34	32	-1	SE	4	0	4	37	34	-
	Skudesnaes ...	29.18	33	WNW	2	c	29.28	+.28	29	27	-8	E	4	bc	3	?	27	-
	Christiania Fjord (Færder)	29.20	29	SSE	8	s	29.32	+.22	27	26	-6	NE	5	s	3	?	27	-
	Skagen (The Scaw)	29.12	30	S	6	s	29.22	+.13	28	27	-3	ESE	2	0	3	32	28	0.12
	Fanö	29.21	22	W	1	b	29.29	+.18	24	22	-7	E	c	b	*	32	21	-
GERMANY & HOLLAND.	Sumburgh Head	29.10	31	W	3	s	29.03	+.18	30	30	+2	E	0	0	2	32	28	0.04
	Stornoway ...	29.05	34	NW	3	0	29.16	+.01	30	28	+2	N	4	s	4	34	25	0.50
	Wick	29.15	28	SW	2	bc	29.11	+.10	29	27	+2	NW	2	c	2	34	25	0.05
	Nairn	29.16	29	E	0	c	29.13	-.04	30	30	+3	W	1	c	1	35	24	0.08
	Aberdeen ...	29.27	30	SSW	2	c	29.13	-.04	31	30	+2	W	2	bc	2	33	29	-
BRITISH ISLANDS.	Leith	29.30	31	W	1	b	29.17	-.06	33	32	+3	W	1	cm	*	36	28	-
	Shields	29.36	32	NW	2	c	29.20	-.08	34	33	+2	W	3	c	2	35	28	-
	Spurn Head ...	29.41	33	W	1	bm	29.31	-.01	36	35	+3	WSW	5	cm	4	36	30	0.04
	York	29.40	32	W	1	b	29.33	-.01	36	34	+4	W	4	b	*	37	30	0.02
	Loughborough	29.47	34	E	0	b	29.43	-.01	37	35	+4	W	3	c	*	41	30	-
	Ardrossan ...	29.28	38	W	4	osp	29.28	+.01	37	35	+2	W	4	crsp	2	40	33	0.43
	Malin Head ...	29.23	35	SW	5	bcsp	29.40	+.20	40	39	+6	NW	6	bqp	4	40	37	0.23
	Mullaghmore ...	29.35	40	W	5	chrq	29.49	+.10	40	37	+3	WNW	6	cqp	5	42	35	0.17
	Belmullet ...	29.40	40	WNW	5	bcqp	29.57	+.12	41	37	+4	WNW	2	c	*	42	34	0.22
	Donaghadee ...	29.37	34	W	3	s	29.41	+.05	34	33	+4	W	3	bc	1	35	29	0.12
	Liverpool (Bidston)	29.44	34	NSW	3	b	29.40	.00	38	36	+3	W	7	bc	5	39	34	0.03
	Holyhead ...	29.44	38	W	1	c	29.47	+.05	40	40	+3	WNW	6	cq	6	41	37	0.01
	Parsonstown ...	29.48	36	E	0	bc	29.59	+.09	37	36	+6	E	0	0	*	40	30	0.03
	Valencia	29.61	44	WNW	3	cqp	29.70	+.13	46	45	+3	WNW	3	cm	4	47	41	0.14
	Roche's Point ...	29.59	40	WNW	3	b	29.66	+.11	43	41	+5	WNW	4	c	4	45	37	0.05
	Pembroke (St. Ann's Hd.)	29.53	42	W	5	bc	29.61	+.10	44	42	+3	NW	6	cqp	6	45	40	-
	Scilly	29.60	46	WNW	5	cp	29.69	+.12	46	46	+1	WNW	6	cq	5	47	42	0.10
	Prawle Point ...	29.59	38	WNW	3	b	29.64	+.06	43	41	+6	WNW	5	bcp	4	43	36	0.02
	Jersey (St. Aubin's)	29.61	43	WNW	2	cph	29.69	+.08	45	43	+3	WNW	2	cm	2	46	41	0.04
	Hurst Castle ...	29.55	34	WNW	3	b	29.56	+.02	37	36	+1	W	4	c	3	41	34	-
	Dungeness ...	29.47	34	NW	2	b	29.50	+.04	36	36	+3	W	5	cp	3	42	31	0.25
	London	29.51	34	NW	2	bm	29.48	+.01	35	34	+3	SW	2	bc	*	41	29	-
	Oxford	29.52	32	W	2	b	29.50	+.01	35	34	+4	SW	3	c	*	41	31	-
	Cambridge ...	29.48	31	W	1	b	29.41	-.04	36	35	+3	SW	3	b	*	42	28	0.01
	Yarmouth ...	29.51	33	NW	3	b	29.39	+.02	33	32	+1	W	3	ocs	3	37	28	0.05
	Cuxhaven ...	29.24	30	N	2	b	29.38	+.12	27	26	-5	NSW	3	f	*	32	26	-
	Berlin	29.62	31	W	4	s	29.39	-.06	31	30	+7	W	4	s	*	34	24	0.02
	Wiesbaden ...	*	*	*	*	*	29.61	+.11	18	17	-7	N	1	0	*	36	18	0.12
	Munich	29.48	26	W	3	0	29.59	-.10	23	23	+10	SW	5	0	*	28	12	0.08
	The Helder ...	29.39	32	WNW	2	b	29.43	+.13	25	25	-7	SSE	1	f	1	32	26	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	29.50	36	NW	3	c	29.49	.00	36	35	+2	W	4	c	2	37	34	0.04
	Paris	29.58	34	WNW	2	bc	29.66	+.07	32	32	-4	SSW	2	0	*	43	29	-
	Brest																	
	Lorient	29.69	44	NW	3	0	29.80	+.10	45	44	0	NNW	3	0	5	48	43	0.32
	Rochefort ...	29.70	38	NW	4	0	29.86	+.06	39	39	-1	NW	4	0	*	43	32	0.63
	Belfort	?	26	WNW	3	c	?		26	?	0	NNW	3	c	*	32	19	0.16
	Lyons	29.62	31	N	1	s	29.80	-.09	32	30	+12	N	1	c	*	?	?	0.32
	Nice	29.49	41	SW	5	0	29.55	-.43	40	31	+7	NW	5	b	3	43	36	-
	Perpignan ...	29.60	53	W	7	f	29.86	-.18	45	42	+12	NW	2	0	*	54	33	0.35
	Biarritz	30.06	54	NNW	8	0	30.02	+.01	52	49	+5	NW	5	0	7	55	45	0.16
SPAIN & PORTUGAL.	Coruña	*	*	*	*	*												
	Lisbon	30.48	51	WNW	4	c	30.43	-.02	51	50	+6	NW	2	bc	6	54	*	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Thursday, 22nd January., 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

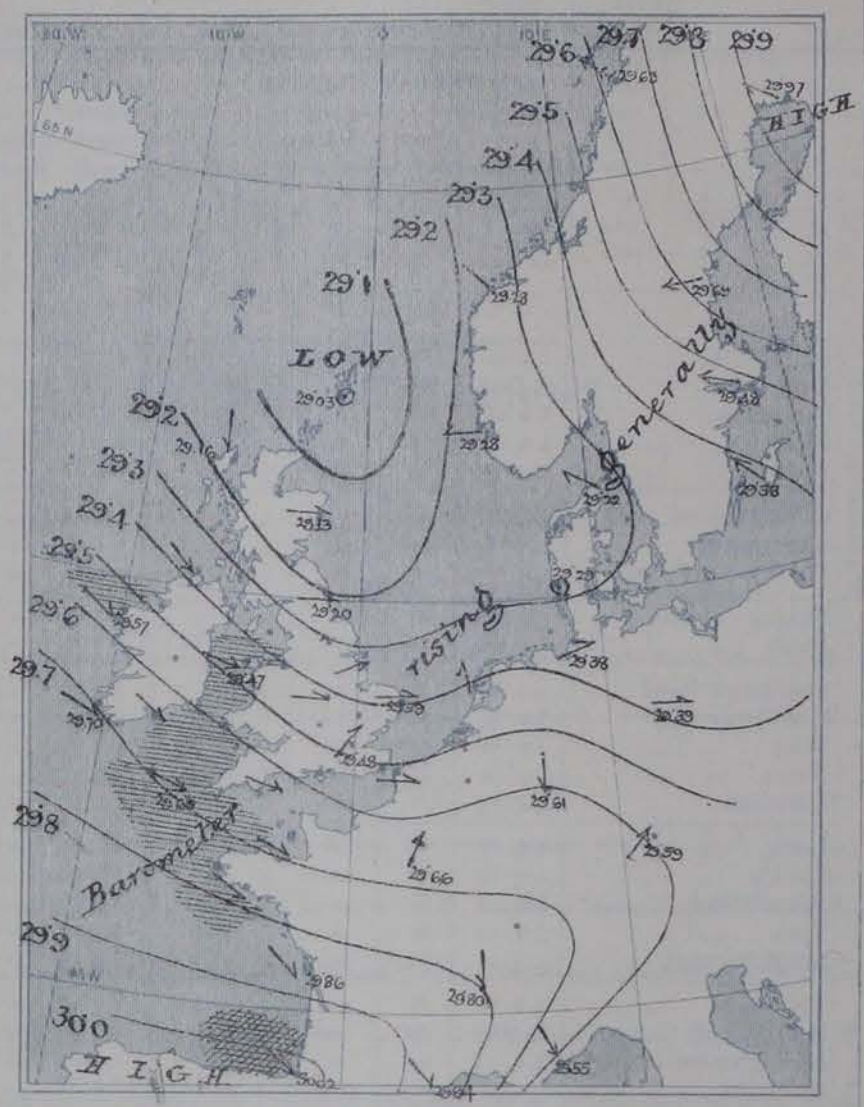
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to forces thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 909
Cambridge	29 · 993
Yarmouth	29 · 979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

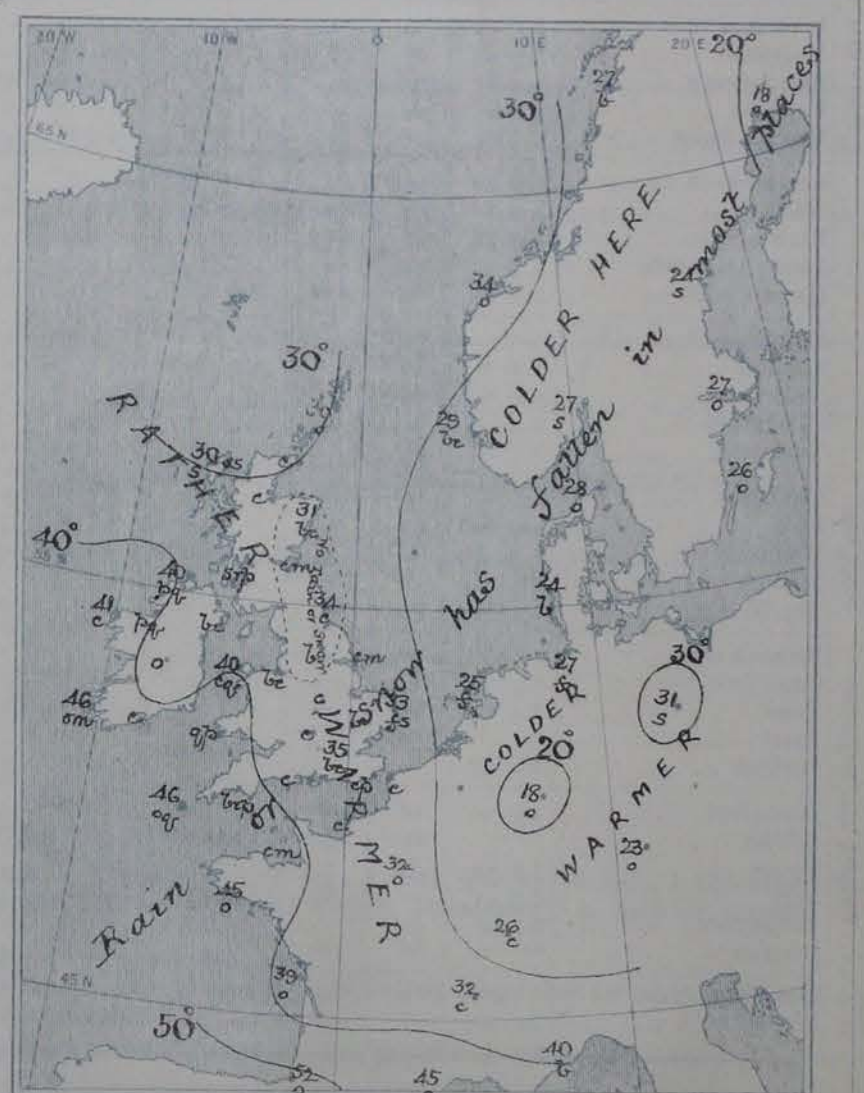
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins. and upwards, over the southern parts of the Spanish Peninsula; 29·9 ins. and upwards in Lapland.

Lowest, 29·1 ins. and less, in a depression lying near the Shetlands.

Gradient moderate or slight generally. Barometer falling slightly on the east coasts of Great Britain, but rising elsewhere.

TEMPERATURE

Highest, 52° at Biarritz, 51° at Lisbon, 46° at Valencia Island and Scilly, and 45° at Jersey, Lorient, and Perpignan.

Lowest, 18° at Haparanda and Mitchelstown, 23° at Munich, 24° at Hernösand and Paris, and 25° at the Helder.

Sharp frost occurred over Great Britain last night; in London the thermometer on the grass fell to 18°.

WIND

W. or NW. over the greater part of our Islands and France, but SW. over Central England; strong in force at several of our western stations.

Moderate from the SW. or W. in Germany; moderate to strong from the SE. or E. in Scandinavia.

WEATHER

Fine over the United Kingdom generally, but showery in a few places. Snow is falling at Stornoway.

Dull at most of the Continental stations, with snow in some parts of Scandinavia and Germany.

Snow, hail, or rain fell yesterday in many parts of Western Europe; at Stornoway the snowfall yielded 0·5 in. of water in the gauge.

SEA

High at Biarritz, and rough or rather so on the west coasts of our Islands and France.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There are at present no signs of any important change in the weather. Sharp night frosts are still probable over Great Britain.

FORECASTS

For the 24 hours ending at NOON on 23rd JAN. 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	NW. and N. winds, moderate; changeable, some snow.
1 SCOTLAND EAST	W. to NW. winds, light or moderate; fair generally, but some snow showers.
2 ENGLAND N.E.	
3 ENGLAND EAST	W. winds, light or moderate; fair generally but perhaps local showers.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	Same as No. 1 and 2
7 ENGLAND N.W.	W. and NW. winds, fresh or strong; fair generally, but local showers.
8 ENGLAND S.W.	
9 IRELAND NORTH	
10 IRELAND SOUTH	
WARNINGS	NONE ISSUED.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR.	THER. D.	THER. W.	WIND D.	WIND F.	WEA	SEA
Skudesnaes ...	29.10	36	32	SSW	4	o	5
Sumburgh Head	29.06	28	28	W	3	s	3
Stornoway	29.13	32	31	nw	3	s	4
Aberdeen	29.27	33	29	W	2	b	2
Shields	29.32	34	32	nw	3	c	2
Ardrossan	29.31	35	35	W	4	o	3
Malin Head ...	29.29	36	34	W	4	c	3
Mullaghmore ...	29.37	39	37	SW	6	chrq	4
Belmullet	29.39	42	40	W	5	bs	*

	BAR.	THER. D.	THER. W.	WIND D.	WIND F.	WEA	SEA
Holyhead	29.45	39	39	WNW	3	bc	3
Valencia	29.55	46	43	WNW	4	sqp	4
Scilly	29.57	47	44	WNW	5	cp	5
Jersey	29.58	43	41	NW	3	c	3
Dungeness	29.45	40	39	nw	3	b	3
London	29.47	41	38	WNW	2	b	*
Yarmouth	29.36	37	35	nw	4	bcm	3
Rochefort	29.66	40	40	nw	4	f	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fair generally over England with the eastern and central parts of Ireland, cloudy or overcast elsewhere, unsettled over northern and central Europe. Snow and hail showers prevalent in the northwestern parts of the United Kingdom and also over eastern Germany and the south of France, rain over the Bay of Biscay and north of Spain, as well as over southern Russia. Rain or snow later over all but the eastern and inland parts of the Kingdom and snow over France and Germany; – the heaviest falls 0·5 in. at Stornoway and 0·6 in. at Rochefort.

Temperature rises rapidly over France, Finland, and northern Russia, and to a smaller extent over Spain and the Mediterranean; fallen decidedly in our Islands, morning readings exceeding 50° at Corunna, and exceeding 40° on the southern shores of the Mediterranean, on the Atlantic coasts of Western Europe, and also in the southwest of the British Isles, much lower elsewhere; below the freezing point in Scotland and some parts of England, below 30° over Germany and Sweden, below 20° over Hungary and Austria, and as low as 2° F. at Warsaw and −9° at Moscow. Rising to between 40° and 47° over England and Ireland later, but falling again towards night, frost "giving" a little at the German stations during the day.

Wind blowing a gale from SE. over Scandinavia, and a moderate to fresh breeze from the same quarter over Finland, the Baltic, and North Germany. Fresh NW. and W. over the British Islands, W. over the Bay of Biscay, SW. over South Germany, variable elsewhere. Backing to the SW. in Ireland later, and increasing in force at Mullaghmore.

Barometer highest 30·6 in. to 29·9 in. over Russia, and 30·4 in. and more to 30·0 in. over the Spanish Peninsula, the western parts of the Mediterranean and Algeria; lowest 28·9 in. and less, in a complex depression, having its centre off the west of Norway, and spreading thence in a southerly direction over the North Sea; 29·7 in. and less, in another shallow disturbance covering Greece, Turkey, and the greater part of Asia Minor. New shallow disturbance approaching the north of Ireland later.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for *Friday, 23rd January,* 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. **R. H. SCOTT,** *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·06	12	ESE	4	S	30·07	+·10	13	12	−5	ENE	4	0	*	23	10	-
	Hernösand ...	29·71	21	ENE	4	S	29·79	+·10	24	23	0	NNE	4	0	*	30	19	0·24
	Stockholm ...	29·50	22	E	2	S	29·67	+·19	28	24	+1	E	2	0	*	28	21	0·12
	Wisby	29·45	27	E	4	S	29·61	+·23	26	25	0	SE	4	bc	*	28	21	0·04
	Bodö	29·77	24	ESE	6	bc	29·79	+·16	21	18	−6	E	6	c	3	27	18	-
	Christiansund	29·50	31	SE	5	b	29·54	+·26	29	27	−5	ESE	1	b	4	7	28	-
	Skudesnaes ...	29·50	28	ESE	2	0	29·58	+·30	30	27	+1	SE	6	0	3	30	28	-
	Christiania Fjord (Færder)	29·48	28	NNE	5	0	29·69	+·37	24	22	−3	NNE	3	b	1	28	23	-
	Skagen (The Scaw)	29·41	29	E	3	0	29·71	+·49	26	25	−2	NE	2	0	3	30	27	0·04
	Fanö	29·49	16	SE	1	b	29·67	+·38	24	24	0	SE	1	b	*	30	10	-
BRITISH ISLANDS.	Sumburgh Head	29·35	34	NNW	3	c	29·20	+·17	38	38	+8	SSE	4	0	5	38	30	0·08
	Stornoway ...	29·44	30	NW	2	bc	28·79	−·37	42	42	+12	W	6	c	6	42	28	0·08
	Wick	29·44	24	NW	1	b	29·02	−·09	34	34	+5	S	9	ou	6	34	29	0·12
	Nairn	29·47	30	W	1	b	29·00	−·13	37	36	+4	SW	1	c	1	37	20	-
	Aberdeen ...	29·49	32	NNW	3	b	29·19	+·06	36	35	+5	SSE	4	ogtsq	6	37	27	0·07
	Leith	29·52	33	W	2	b	29·15	−·02	45	43	+12	SW	5	bc	*	45	27	0·06
	Shields	29·49	35	NNW	2	b	29·37	+·17	36	35	+2	S	4	r	2	38	29	0·04
	Spurn Head ...	29·52	35	NNW	4	b	29·56	+·25	35	34	−1	S	4	rm	4	37	31	0·01
	York	29·53	34	NNW	1	b	29·48	+·15	36	36	0	S	2	0	*	39	29	0·01
	Loughborough	29·60	37	W	2	b	29·60	+·17	38	38	+1	SSW	1	ogm	*	41	32	0·02
	Ardrossan ...	29·54	37	W	0	b	29·16	−·12	45	45	+8	S	5	0	4	46	30	0·32
	Malin Head ...	29·52	38	SW	1	c	29·07	−·33	46	45	+6	SW	5	ogp	3	48	34	0·12
	Mullaghmore ...	29·52	38	WSW	2	ogm	29·19	−·30	49	47	+9	SW	6	op	5	49	34	0·06
	Belmullet ...	29·52	38	ESE	3	o	29·22	−·35	48	47	+7	W	6	o	*	49	37	0·23
	Donaghadee ...	29·59	34	SW	2	b	29·25	−·16	48	47	+14	SW	3	r	1	48	33	0·17
	Liverpool (Bidston)	29·61	36	W	3	b	29·45	+·05	47	45	+9	SW	5	o	4	48	35	0·03
	Holyhead ...	29·63	41	WNW	3	c	29·43	−·04	47	47	+7	SW	6	gmrq	5	48	38	0·06
	Parsonstown ...	29·60	38	Z	0	r	29·37	−·22	50	49	+13	SW	3	o	*	52	37	0·24
	Valencia	29·69	52	W	5	ogm	29·45	−·25	52	52	+6	SW	7	rm	5	52	44	0·20
	Roche's Point ...	29·67	50	W	3	pd	29·51	−·15	50	50	+7	WSW	6	r	5	50	43	0·15
	Pembroke (St. Ann's Hd.)	29·68	43	W	2	r	29·63	+·02	47	47	+3	SW	6	qp	6	48	40	0·04
	Scilly	29·74	50	W	6	c	29·75	+·06	50	49	+4	WSW	5	c	5	50	46	0·06
	Prawle Point ...	29·74	43	W	2	f	29·79	+·15	46	46	+3	SW	4	og	3	47	41	0·10
	Jersey (St. Aubin's)	29·78	47	W	3	ogr	29·90	+·21	48	47	+3	WNW	3	om	3	50	44	0·13
	Hurst Castle ...	29·68	39	WNW	3	c	29·76	+·20	41	41	+4	WSW	3	f	3	45	37	0·02
	Dungeness ...	29·63	36	WNW	4	bc	29·75	+·25	38	38	+2	W	3	r	2	45	31	0·08
	London	29·64	37	WNW	2	c	29·71	+·23	41	40	+6	S	2	o	*	44	31	0·04
	Oxford	29·69	36	WSW	3	o	29·67	+·17	43	42	+8	SSW	3	og	*	43	35	0·01
	Cambridge ...	29·60	36	W	3	b	29·65	+·24	36	36	0	S	2	o	*	43	31	.
	Yarmouth ...	29·50	35	NW	5	bc	29·69	+·30	33	32	0	SW	3	ogsp	3	38	28	0·02
GERMANY & HOLLAND.	Cuxhaven ...	29·46	26	S	2	bc	29·70	+·32	27	26	0	SW	1	f	*	32	26	-
	Berlin	29·56	22	SW	2	b	29·75	+·36	19	19	−12	SW	2	c	*	34	18	-
	Wiesbaden ...	*	*	*	*	*	29·86	+·25	33	31	+15	N	1	o	*	34	18	0·28
	Munich	29·63	24	W	3	0	29·88	+·29	28	27	+5	SW	5	o	*	28	5	-
	The Helder ...	29·47	32	WNW	2	b	29·72	+·29	31	31	+6	WSW	1	bc	2	32	25	0·20
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	29·85		26	25		SSE	1	c	*	36	24	0·04
	Cape Gris Nez	29·62	37	WNW	4	bc	29·77	+·28	36	36	0	SW	5	f	4	39	34	-
	Paris	29·74	40	NNW	2	c	29·91	+·25	35	35	+3	Z	0	o	*	43	?	.
	Brest	29·88	49	NW	5	0	29·98		49	49		W	4	o	4	50	41	0·24
	Lorient	29·90	47	WNW	5	m	30·00	+·20	48	47	+3	W	3	o	5	48	45	0·08
	Rochefort ...	29·95	45	WNW	5	f	30·00	+·20	42	41	+3	WNW	4	f	2	45	39	0·08
	Belfort	?	36	WNW	6	r	?	?	39	?	+13	WNW	3	c	*	39	?	0·08
	Lyons	29·89	35	S	1	r	30·05	+·23	33	31	+1	SSW	1	r	4	41	31	0·28
	Nice	29·72	41	N	4	b	29·78	+·23	36	30	−4	E	3	b	2	50	34	-
	Perpignan ...	29·91	55	NW	4	0	30·03	+·19	63	63	+8	NW	4	b	*	56	?	-
	Biarritz	30·12	52	NW	6	0	30·19	+·17	51	50	−1	NW	5	o	6	54	48	0·16
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·43	52	NNW	3	0	30·36	−·07	48	47	−3	N	4	bc	2	59	48	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Friday, 23rd January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND – Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to forces thus:—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
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Parsonstown	29 · 895
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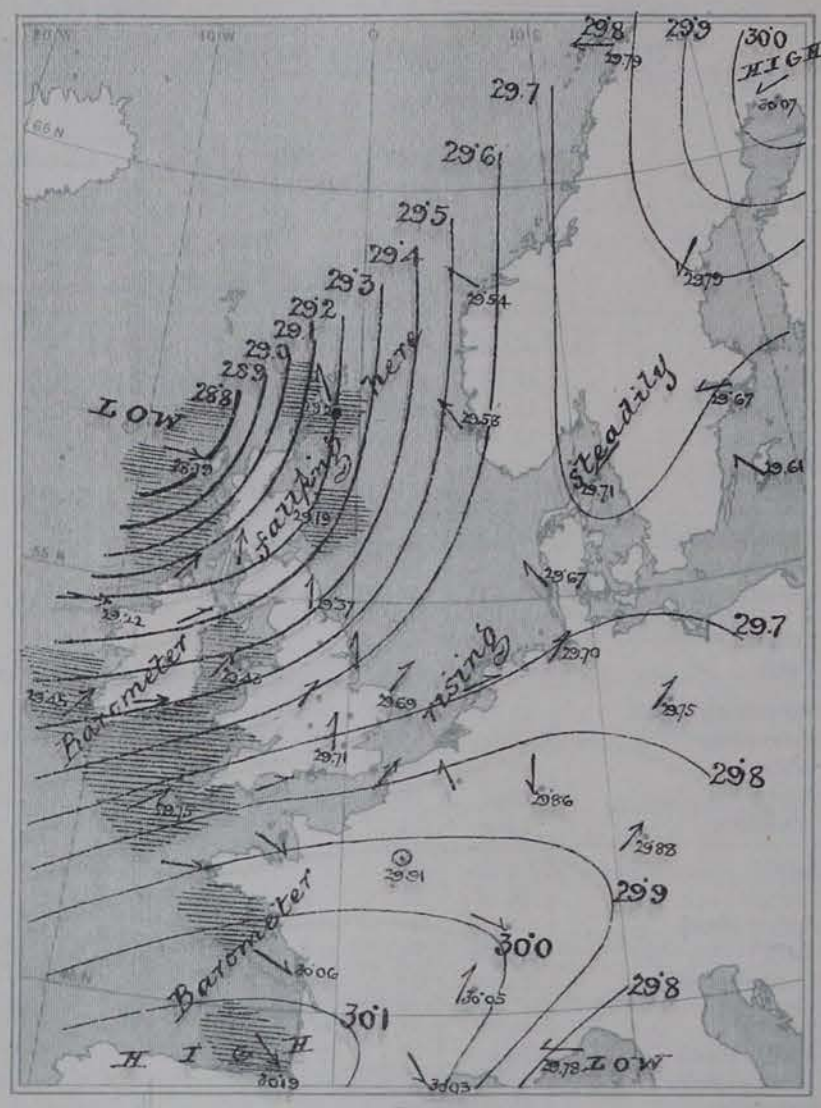
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



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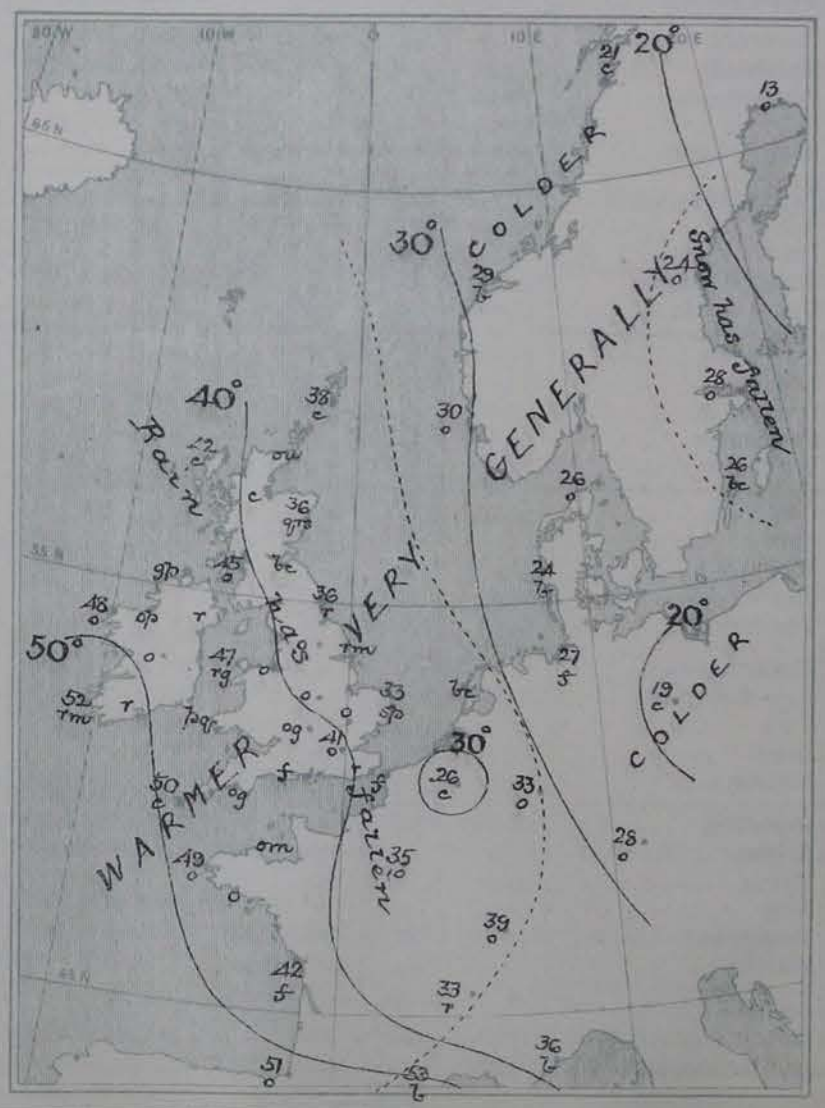
MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	45 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 5	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	44 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	46 · 5	39 · 0	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	46 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	46 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	45 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	35 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 0	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·2 ins: to 30·3 ins: and upwards over the Spanish Peninsula; 30·0 and upwards in Lapland.
Lowest, 28·8 ins: and less, in a depression lying off the northwest of Scotland.
Gradients steep over the northern parts of our Islands, and increasing in the south, but slight elsewhere.
Barometer falling quickly at most of our western and northern stations, but steady in the Hebrides.

TEMPERATURE

Highest, 53° at Perpignan, 52° at Valencia Island, 51° at Biarritz, and 50° at Queenstown, Hoek of Holland, and Scilly.
Lowest, 13° at Haparanda, 19° at Berlin, 21° at Bodö, 24° at Hernösand, Fæder and Jaeré, and 26° at Wick.
Frost was experienced over England last night; in London the thermometer on the grass fell to 22°.

WIND

Strong from the SW'ly on our western coasts, and light or moderate from the same quarter in the south and southeast.
S'ly on the north and east coasts of Great Britain, with a gale at Wick.
SE'ly or E'ly in Scandinavia and Denmark, moderate from the W'ward over France.

WEATHER

Cloudy or overcast generally, with rain in many parts of the United Kingdom, sleet at Aberdeen and snow at Yarmouth.
Fine in the south of France and also at Lisbon.
Rain fell yesterday in many parts of Western Europe, and lunar halos and corona were seen in some places.

SEA

Rough off the north of Scotland and rather rough on our western coasts, but moderate to smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The barometer appears to have ceased falling at Stornoway, and the depression in the north is evidently travelling away in a northeasterly direction. At Valencia Island, however, the mercury is falling very decidedly so that fresh disturbances are in all probability advancing from the westward. The wind is likely to increase in force over our Islands, with mild, rainy weather.

FORECASTS

For the 24 hours ending at NOON on 24th JAN'y 1891.

DISTRICTS.	FORECASTS.
↓ 0 SCOTLAND NORTH ↓ 1 SCOTLAND EAST	S'ly strong winds and gales; squally, rainy.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	Same as No 5
5 ENGLAND SOUTH	S'ly and SW'ly winds, increasing in force; mild, squally, some rain.
↓ 6 SCOTLAND WEST ↓ 7 ENGLAND N.W. ↓ 8 ENGLAND S.W. ↓ 9 IRELAND NORTH ↓ 10 IRELAND SOUTH	SW'ly to W'ly winds, increasing to a gale; squally and rainy at first, some improvement later.
WARNINGS	The SOUTH CONE has been hoisted this morning in districts 0.1. and 6 to 10.

Note.—The **South Cone**, *point downwards* (↓), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (↑), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29·40	31	27	ESE	4	c	3
Sumburgh Head	29·23	35	35	NNW	3	c	3
Stornoway	29·41	31	30	N	2	bc	3
Aberdeen	29·36	35	32	WNW	5	bcq	3
Shields	29·34	38	34	NW	3	bc	2
Ardrossan	29·44	41	38	W	4	c	3
Malin Head ...	29·50	41	37	NW	4	bc	4
Mullaghmore ...	29·56	42	38	W	5	oq	4
Belmullet	29·54	41	39	NW	2	od	*
Holyhead	29·58	41	38	WNW	5	c	5
Valencia	29·67	51	51	W	4	omqp	5
Scilly	29·74	48	48	WNW	8	m	5
Jersey	29·74	50	46	WNW	3	c	3
Dungeness	29·53	42	40	WNW	6	bc	4
London	29·58	44	40	WNW	3	b	*
Yarmouth	29·41	38	36	WNW	5	bcm	3
Rochefort	29·92	42	42	NW	4	f	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather very changeable over western and northwestern Europe — clear at times, dull and showery at other times, very dull over northern and eastern Europe, with snow or rain in places, fog over Hungary and on the shores of the Black Sea. Fine over Italy and the south of France. Snow or rain showers over all parts of our Islands ~~&c.~~ and the greater part of France later, but amounts measured not large.

Temperature changing fitfully from frost to thaw and vice versa over the western and northwestern countries, still very low over eastern and central Europe. Morning readings ranging from −1° F to +15° over the greater part of Russia and Poland, and below 20° over Austria and at Wiesbaden; varying from 20° to 30° and more over North Germany, above 30° over England and France, and as high as 40° to 46° on our extreme east and southwest coasts, and 50° and more on the coasts of Spain, Portugal, and many parts of Algeria. Rising to 50° or more at several of our western stations later, and to between 40° and 45° over England, but becoming frosty over the latter country at night.

Wind moderate to strong from E and SE. over Russia and Northern Europe generally, NW. to W. over the British Isles, SW. over Germany, very variable and light over Central France and Spain, but strong to a gale from NW. and W. over the Mediterranean, Backing to SW. on our northwestern coasts later, and increasing in strength.

Barometer highest 30·3 ins. to 29·8 ins. over northern and central Russia; 30·4 ins. and more to 30·0 ins. over the Iberian Peninsula and Algeria. Lowest 29·1 ins. and less, in a depression over and in the neighbourhood of the Shetlands, and 29·4 ins. and less, in a "hollow" extending thence over the North Sea and Denmark to eastern Germany and the south of Russia; 29·3 ins. to 29·5 ins. in another depression over the Adriatic, Italy, and the neighbouring parts of the Mediterranean. Northern depression filling up later, and new one advancing towards our northwest coasts.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Saturday, 24th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom.: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	30·15	11	SE	4	S	30·12	+ ·05	4	3	- 9	SE	4	o	*	16	?	0·08
	Hernösand ...	29·89	29	NNW	6	o	29·84	+ ·05	30	28	+ 6	SSE	4	o	*	30	19	0·16
	Stockholm ...	29·89	23	SE	2	b	29·86	+ ·19	28	26	0	SE	4	b	*	34	19	0·04
	Wisby	29·92	26	SSE	4	b	29·86	+ ·25	28	24	+ 2	SSE	4	c	*	30	21	-
	Bodö	29·75	20	E	4	b	29·57	- ·22	26	22	+ 5	ESE	6	c	3	?	14	-
	Christiansund	29·39	30	ESE	6	c	29·14	- ·34	35	31	+ 6	ESE	7	o	3	36	?	-
	Skudesnaes ...	29·31	32	SE	8	o	29·29	- ·29	34	35	+ 7	SSE	6	r	5	?	30	-
	Christiania Fjord (Færder)	29·72	23	ENE	5	o	29·50	- ·19	30	29	+ 6	SE	6	o	4	?	23	-
	Skagen (The Scaw)	29·63	29	SE	3	o	29·44	- ·27	32	31	+ 6	S	6	o	4	32	25	0·04
	Fanö	29·49	31	SSE	6	S	29·44	- ·23	34	34	+ 10	NSW	4	c	*	34	23	0·20
BRITISH ISLANDS.	Sumburgh Head	28·79	41	SSE	4	c	28·96	- ·24	41	41	+ 3	NSW	6	o	6	41	38	0·21
	Stornoway ...	28·73	41	W	4	r	29·05	+ ·26	38	36	- 4	NW	4	bc	4	45	36	0·06
	Wick	28·82	38	W	2	b	29·10	+ ·08	38	34	+ 4	S	3	o	4	42	32	0·08
	Nairn	28·85	42	W	4	bc	29·12	+ ·12	34	36	0	Z	0	o	1	45	36	0·02
	Aberdeen ...	28·95	40	SSW	5	bq	29·22	+ ·03	34	36	+ 1	S	2	og	4	43	35	0·02
	Leith	29·12	43	SW	3	b	29·22	+ ·07	41	40	- 4	W	1	cmp	*	49	38	0·05
	Shields	29·22	47	SW	3	c	29·32	- ·05	41	39	+ 5	S	3	c	2	49	33	0·01
	Spurn Head ...	29·36	44	SW	5	om	29·44	- ·12	39	38	+ 4	SSW	3	om	3	44	33	0·05
	York	29·34	46	W	3	o	29·41	- ·07	44	43	+ 8	SW	2	c	*	50	35	0·13
	Loughborough	29·44	48	SW	4	o	29·48	- ·12	43	42	+ 5	NSW	3	o	*	49	38	0·19
	Ardrossan ...	29·17	47	W	5	o	29·26	+ ·10	42	41	- 3	SW	4	c	4	44	40	0·23
	Malin Head ...	29·16	44	W	6	c	29·23	+ ·16	40	39	- 6	W	3	o	2	46	38	0·20
	Mullaghmore ...	29·28	45	SW	5	c	29·31	+ ·12	42	40	- 7	NSW	3	cp	3	49	41	0·07
	Belmullet ...	29·32	46	W	6	o	29·34	+ ·12	41	38	- 7	WNW	4	c	*	49	38	0·08
	Donaghadee ...	29·28	45	WNW	4	bc	29·31	+ ·06	43	42	- 5	W	3	bc	2	49	40	0·01
	Liverpool (Bidston)	29·39	46	WSW	4	o	29·43	- ·02	45	43	- 2	SSW	2	o	3	52	43	0·18
	Holyhead ...	29·40	45	SW	4	o	29·41	- ·02	45	45	- 2	SW	4	ogm	4	48	45	0·03
	Parsonstown ...	29·41	46	Z	0	r	29·38	+ ·01	42	41	- 8	Z	0	o	*	51	41	0·16
	Valencia	29·46	50	S	3	ogm	29·47	+ ·02	43	42	- 9	NNW	4	og	4	52	42	0·23
	Roche's Point ...	29·50	49	WSW	4	o	29·47	- ·04	46	44	- 4	WSW	5	o	4	50	45	0·25
	Pembroke (St. Ann's Hd.)	29·50	48	SW	5	o	29·51	- ·12	45	45	- 2	SSW	4	om	6	48	45	0·48
	Scilly	29·64	51	SW	4	m	29·59	- ·16	50	50	0	SW	4	o	6	52	49	0·05
	Prawle Point ...	29·64	48	WSW	8	o	29·64	- ·15	46	46	0	WSW	5	f	5	47	45	0·09
	Jersey (St. Aubin's)	29·84	48	WSW	3	o	29·79	- ·11	49	46	+ 1	SSW	5	om	4	49	46	0·01
	Hurst Castle ...	29·65	44	WSW	4	fp	29·61	- ·15	44	44	+ 3	SW	8	d	5	45	40	0·31
	Dungeness ...	29·63	42	SW	6	fq	29·62	- ·13	42	42	+ 4	SW	7	r	5	42	37	0·27
	London	29·59	48	SW	5	oq	29·58	- ·13	48	47	+ 7	SW	5	oq	*	50	40	0·19
	Oxford	29·55	48	SW	5	r	29·53	- ·14	47	46	+ 4	SW	4	oqp	*	48	42	0·36
	Cambridge ...	29·52	45	SSW	3	o	29·51	- ·14	46	46	+ 10	SW	2	o	*	49	34	0·20
	Yarmouth ...	29·49	44	SW	4	rm	29·51	- ·18	39	39	+ 6	SW	2	ogf	3	44	32	0·20
GERMANY & HOLLAND.	Cuxhaven ...	29·77	32	S	4	f	29·55	- ·15	36	36	+ 9	WSW	3	f	*	?	?	0·24
	Berlin	29·93	28	SE	3	o	29·67	- ·08	36	35	+ 17	NSW	4	r	*	36	19	0·24
	Wiesbaden ...	*	*	*	*	*	29·91	+ ·05	40	39	+ 7	SW	4	o	*	41	29	0·12
	Munich	30·05	28	Z	0	o	30·06	+ ·18	36	36	+ 8	SW	4	o	*	37	28	0·04
	The Helder ...	29·51	35	SSW	4	r	29·58	- ·14	37	37	+ 6	SW	2	r	3	37	30	0·51
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	29·78	- ·07	42	42	+ 16	SW	6	o	*	43	25	0·08
	Cape Gris Nez	29·70	38	SW	4	f	29·67	- ·10	41	41	+ 5	SW	7	r	7	43	34	0·12
	Paris	29·96	42	S	3	o	29·97	+ ·06	43	42	+ 8	SSW	4	o		45	? 35	0·04
	Brest	29·89	49	WSW	5	o	29·82	- ·16	49	48	0	SW	6	o	7	50	39	-
	Lorient	29·95	50	WSW	5	o	29·91	- ·09	49	47	+ 1	SSW	5	o	5	52	46	-
	Rochefort ...	30·11	45	WSW	4	c	30·10	+ ·04	47	45	+ 5	SW	4	o	*	48	36	0·08
	Belfort	?	35	WNW	3	r	?	?	38	?	- 1	W	2	o	*	42	34	0·12
	Lyons	30·20	35	ENE	1	bc	30·25	+ ·20	28	28	- 5	S	1	b	*	41	28	0·04
	Nice	30·05	43	SE	2	b	30·24	+ ·46	39	36	+ 3	ENE	4	c	3	52	36	-
	Perpignan ...	30·16	52	NW	2	b	30·23	+ ·20	39	37	- 14	SW	2	b	*	59	37	-
	Biarritz	30·22	51	WSW	3	c	30·16	- ·03	45	42	- 6	WSW	2	b	3	54	41	0·04
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30·26	49	NNW	4	b	30·25	- ·11	38	38	- 10	NE	3	f	5	55	37	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Saturday, 24th January, 1891.

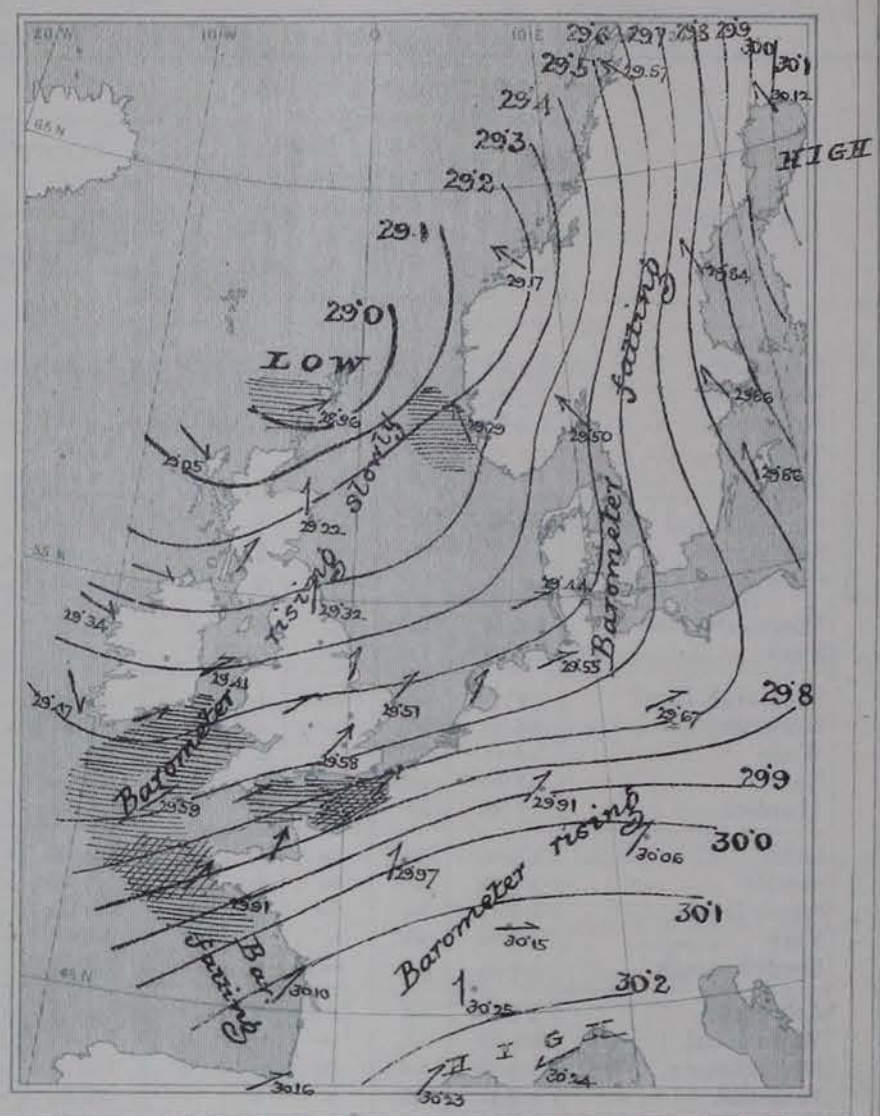
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
= dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

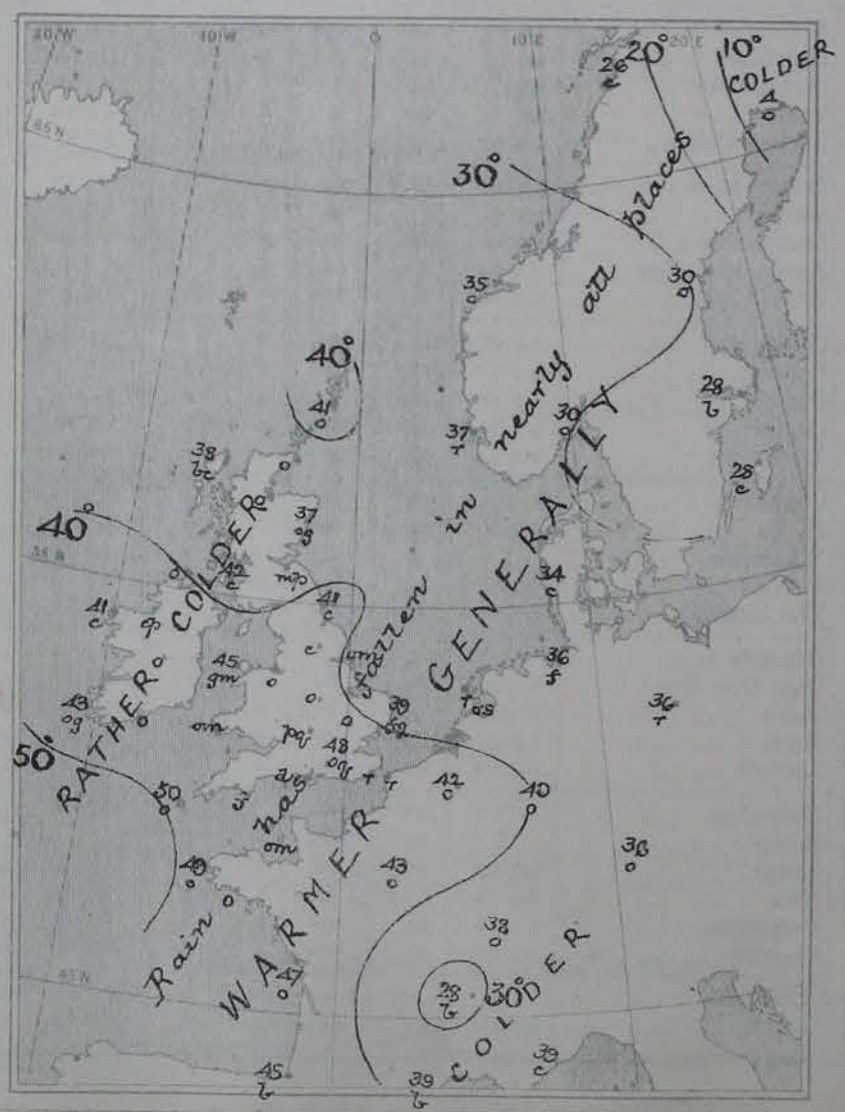
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·8	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·8	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	35·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·1	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·2 in. and upwards, over the south of France; 30·1 in. and upwards, in Lapland.

Lowest, 29·0 in. and less, in a depression lying to the northward of the Shetlands.

Gradients rather steep over the Channel, the Netherlands, and the north of France, as well as in the north of Scandinavia, but slight elsewhere.

Barometer rising in most parts of the United Kingdom, but falling at the Continental stations.

TEMPERATURE

Highest, 50° at Scilly, 49° at Jersey, Brest and Lorient, 48° in London and 47° at Oxford and Rochefort.

Lowest, 4° at Haparanda, 26° at Bodo, 28° at Stockholm, Nancy, and Lyons and 30° at Tavoy.

During yesterday the thermometer rose to 50° in London and at York, and to 49° at Loughborough and Cambridge.

WIND

W. or NW. on our extreme eastern coasts, but SW. in other parts of our Islands, as well as over France, the Netherlands, Denmark, and Germany; strong to a gale in force over the Channel.

Moderate to strong from the SE. in Scandinavia.

WEATHER

Cloudy or overcast generally, with fog and rain at several of our southern and southeastern stations, as well as over the Netherlands and North Germany.

Fine in the south of France and also in the south of Sweden.

Rain fell generally yesterday and lunar halos were seen at Shields and Mullaghmore.

SEA

High on the French side of the Channel, and rough on our south and southwest coasts, as well as at Stornoway.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The wind seems likely to veer to the westward in many parts of England, with some decrease of temperature, but the change will probably be merely temporary.

FORECASTS

For the 24 hours ending at NOON on 25th JAN.y 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST	Varying W. winds, fair generally, colder.
2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	SW. winds, moderate; cloudy and showery at first, fine later and colder.
5 ENGLAND SOUTH	SW. to W. winds, moderating gradually; cloudy and showery at first, fine later and colder.
6 SCOTLAND WEST 7 ENGLAND N.W. 8 ENGLAND S.W.	SW. to NW. winds, moderate; fair generally.
9 IRELAND NORTH 10 IRELAND SOUTH	NW. winds, backing later; fine to dull and some rain.
WARNINGS	The SOUTH CONE has been lowered this morning in districts 0 1 and 6 to 10.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D	WIND F.	WEA.	SEA
Skudesnaes ...	29·49	31	28	SE	8	s	5
Sumburgh Head	28·86	40	40	SSE	7	r	6
Stornoway	28·70	45	43	W	6	c	6
Aberdeen	29·00	40	38	SSW	3	bc	6
Shields	29·21	47	45	SW	4	o	2
Ardrossan	29·13	47	45	W	5	bc	4
Malin Head ...	29·06	46	44	WSW	7	b	3
Mullaghmore ...	29·23	48	45	SW	6	c	5
Belmullet	29·27	49	46	WSW	7	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F	WEA.	SEA
Holyhead	29·35	48	48	SW	5	rqm	6
Valencia	29·47	51	50	WSW	4	om	5
Scilly	29·69	52	51	SW	7	o	6
Jersey	29·89	48	47	WSW	3	ogm	3
Dungeness	29·69	42	42	SW	5	fd	4
London	29·64	50	49	WSW	4	o	*
Yarmouth	29·55	41	40	SW	4	om	3
Rochefort	30·10	46	45	WNW	4	m	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather cloudy or overcast in all but the most southern countries, with fog in the northern parts of Germany and France, rain in several parts of the United Kingdom, and snow at some of the German stations. Fine in Italy, Spain, Algeria, and the south of France. Rain falling during day over nearly the whole of Western Europe, and lunar halo seen in some parts of the United Kingdom.

Temperature highest (1) 56° at Tunis, 55° at Laballe, 54° at Algiers and 53° at Perpignan; (2) 52° at Valencia Island and 50° at Parsonstown, Rochefort and Scilly; above 45° in all the more western parts of the United Kingdom. Lowest (1) 3° at Moscow, 4° at Archangel, 11° at Uleaborg, St Petersburg and Kharkov; (2) 7° at Pudapesth, 8° at Vienna, and 15° at Cracow; considerably below the freezing point in nearly all parts of Russia and Central Europe, and as low as 19° at Florence. Rising during day to 50° at some of the English stations, and exceeding that point in the west and south of France.

Wind strong from the SW^ly in the west of our Islands, and moderate from the same quarter over the Netherlands, Germany, and the east and south of England. Strong to a gale from the S^ly in the north and east of Scotland; SE^ly or E^ly over Scandinavia, Russia, Denmark and the Baltic. W^ly in France, NW^ly in Spain, Variable in Italy, S^ly or SW^ly in Algeria. Subsequently veering to the W^ly in the extreme northwest of our Islands; increasing to a gale from the SW^ly over the Channel at night.

Barometer highest, 30·6 ins. and upwards in a large anticyclone lying over Northern Russia, 30·3 ins. and upward, in another system lying over the Spanish Peninsula. Lowest, 28·8 ins. and less, in a deep depression lying off the northwest of Scotland; 29·3 ins. and less, in a large system over Asia Minor; 29·8 ins. and less, in another disturbance lying over Corsica, Sardinia, and the Gulf of Genoa. Depression in north subsequently moving eastwards, but spreading out in a southerly direction.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Sunday 25th January 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.98	12	S	2	o	29.88	— .24	11	10	+ 7	SE	2	o	*	14	1	—
	Hernösand ...	29.78	28	S	8	s	29.62	— .22	28	28	— 2	S	8	o	*	32	27	0.12
	Stockholm ...	29.73	28	SE	4	s	29.48	— .38	30	29	+ 2	SE	6	o	*	32	23	0.04
	Wisby	29.67	30	SSE	4	o	29.37	— .49	33	32	+ 5	S	6	s	*	?	21	0.20
	Bodö	29.45	30	ESE	2	b	29.41	— .16	32	28	+ 6	ESE	4	c	2	?	19	—
	Christiansund	29.23	37	SE	6	c	29.23	+ .06	37	35	+ 2	SE	2	o	3	37	?	—
	Skudesnaes ...	29.23	39	SE	6	o	29.28	— .01	34	33	— 3	ENE	2	o	4	39	32	—
	Christiania Fjord (Færder)	29.50	32	ENE	5	o	29.17	— .33	32	32	+ 2	ENE	6	s	3	32	30	—
	Skagen (The Scaw)	29.37	32	S	4	f	28.99	— .45	33	33	+ 1	S	3	f	4	?	30	—
	Fanö	29.30	34	S	4	r	29.16	— .28	34	34	0	W	8	r	*	36	32	0.12
BRITISH ISLANDS.	Sumburgh Head	29.03	38	WSW	3	c	29.36	+ .40	41	40	0	NNW	3	o	5	43	37	0.06
	Stornoway ...	29.14	36	W	4	c	29.57	+ .52	37	35	— 1	NE	3	bc	3	41	34	0.06
	Wick	29.14	? 32	W	2	b	29.54	+ .44	37	36	— 1	W	1	cp	1	40	33	0.05
	Nairn	29.17	34	E	0	bc	29.56	+ .44	39	37	+ 2	W	3	b	1	41	32	0.07
	Aberdeen ...	29.22	36	SW	2	c	29.60	+ .38	38	34	+ 1	WNW	5	bq	3	42	32	0.02
	Leith	29.26	35	W	1	o	29.68	+ .46	38	35	— 3	W	1	b	*	44	34	—
	Shields	29.27	40	SW	2	o	29.71	+ .39	38	36	— 3	SW	4	b	2	47	34	0.01
	Spurn Head ...	29.31	38	WSW	4	r	29.79	+ .35	37	36	— 2	WSW	5	b	4	41	37	0.10
	York	29.31	40	W	3	c	29.83	+ .42	39	37	— 5	W	3	b	*	48	34	0.15
	Loughborough	29.43	40	WSW	4	r	29.91	+ .43	37	35	— 6	W	4	b	*	46	35	0.20
	Ardrossan ...	29.30	40	W	3	c	29.79	+ .53	43	40	+ 1	W	3	bc	2	43	37	0.05
	Malin Head ...	29.27	37	WNW	4	cpq	29.75	+ .52	40	39	0	SW	3	bp	3	41	35	0.15
	Mullaghmore ...	29.38	39	W	6	chrq	29.83	+ .52	41	39	— 1	SSW	4	c	4	44	38	0.13
	Belmullet ...	29.45	42	WNW	6	cp	29.83	+ .49	45	44	+ 4	WSW	6	cq	*	45	38	0.18
	Donaghadee ...	29.37	38	W	2	c	29.86	+ .55	36	35	— 7	WSW	3	b	1	44	33	0.01
	Liverpool (Bidston)	29.42	39	W	6	o	29.90	+ .47	39	38	— 6	W	6	c	5	47	37	0.18
	Holyhead ...	29.46	41	W	5	bc	29.94	+ .53	42	42	— 3	W	4	c	4	46	39	0.09
	Parsonstown ...	29.52	37	E	0	c	29.96	+ .58	37	36	— 5	E	0	b	*	43	36	0.04
	Valencia	29.71	42	W	5	cqpr	30.04	+ .57	47	40	+ 4	WSW	4	c	4	47	38	0.20
	Roche's Point ...	29.67	42	WNW	5	b	30.06	+ .59	42	40	— 4	WSW	3	c	4	50	38	0.13
	Pembroke (St. Ann's Hd.)	29.60	43	W	6	bc	30.03	+ .52	45	43	0	W	5	b	7	47	41	0.24
	Scilly	29.72	45	WNW	6	bcq	30.13	+ .54	46	44	— 4	WSW	4	c	5	50	41	0.13
	Prawle Point ...	29.70	39	WNW	6	r	30.14	+ .50	44	42	— 2	WNW	4	b	3	47	37	0.52
	Jersey (St. Aubin's)	29.76	48	W	5	o	30.21	+ .42	44	42	— 5	WNW	2	bm	2	49	43	0.26
	Hurst Castle ...	29.63	40	WSW	6	c	30.08	+ .47	39	37	— 7	W	5	b	5	46	37	0.38
	Dungeness ...	29.52	43	SW	8	rq	29.97	+ .35	38	37	— 4	W	6	b	4	44	36	0.24
	London	29.51	43	W	6	o	30.01	+ .43	37	36	— 11	WSW	3	b	*	50	36	0.27
	Oxford	29.60	38	WSW	3	o	29.99	+ .46	36	34	— 11	WSW	3	b	*	48	35	0.23
	Cambridge ...	29.47	43	SW	3	o	29.96	+ .45	37	36	— 9	SW	2	b	*	49	35	0.15
	Yarmouth ...	29.37	44	SW	3	orf	29.82	+ .31	37	36	— 2	WNW	5	bm	2	46	35	0.11
GERMANY & HOLLAND.	Cuxhaven ...	29.57	37	SSW	5	f	29.48	— .07	36	36	0	W	7	bc	*	39	36	0.28
	Berlin	29.75	38	SW	3	r	29.72	+ .05	39	39	+ 3	SW	5	c	*	39	36	0.39
	Wiesbaden ...	*	*	*	*	*	29.94	+ .03	39	34	— 1	SW	4	bc	*	41	34	0.04
	Munich	30.08	36	SW	4	b	30.03	— .03	36	36	0	W	7	r	*	41	28	0.04
	The Helder ...	29.37	38	SW	6	o	29.68	+ .10	34	34	— 3	WSW	3	b	8	38	34	0.24
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	29.94	+ .16	37	35	— 5	WSW	5	c	*	44	35	0.08
	Cape Gris Nez	29.53	42	SW	7	r	29.94	+ .27	39	36	— 2	W	7	bc	7	43	36	0.20
	Paris	29.89	47	SSW	5	bc	30.14	+ .17	37	35	— 6	SW	2	bc	*	49	35	0.12
	Brest	29.92	48	W	4	o	30.25	+ .48	47	44	— 2	NNW	3	b	5	50	39	0.12
	Lorient	29.93	47	W	4	r	30.28	+ .37	45	43	— 4	WNW	2	bc	5	52	45	0.16
	Rochefort ...	30.12	44	WSW	4	o	30.29	+ .19	39	38	— 8	W	2	b	2	47	34	0.08
	Belfort	?	29	W	4	o	?	?	39	32	+ 1	W	4	o	*	41	?	0.08
	Lyons	30.21	35	S	1	b	30.30	+ .05	37	35	+ 9	N	1	o	*	48	?	—
	Nice	30.24	45	E	2	c	30.12	— .12	41	35	+ 2	E	2	b	1	52	36	—
	Perpignan ...	30.21	45	E	0	b	30.33	+ .00	35	34	— 4	NW	2	b	*	53	34	—
	Biarritz	30.21	51	NNW	1	b	30.32	+ .16	48	47	+ 3	WSW	3	f	4	55	43	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.27	48	NW	3	b	30.31	+ .06	41	39	+ 3	NNE	4	b	5	52	?	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on 25th *January*, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

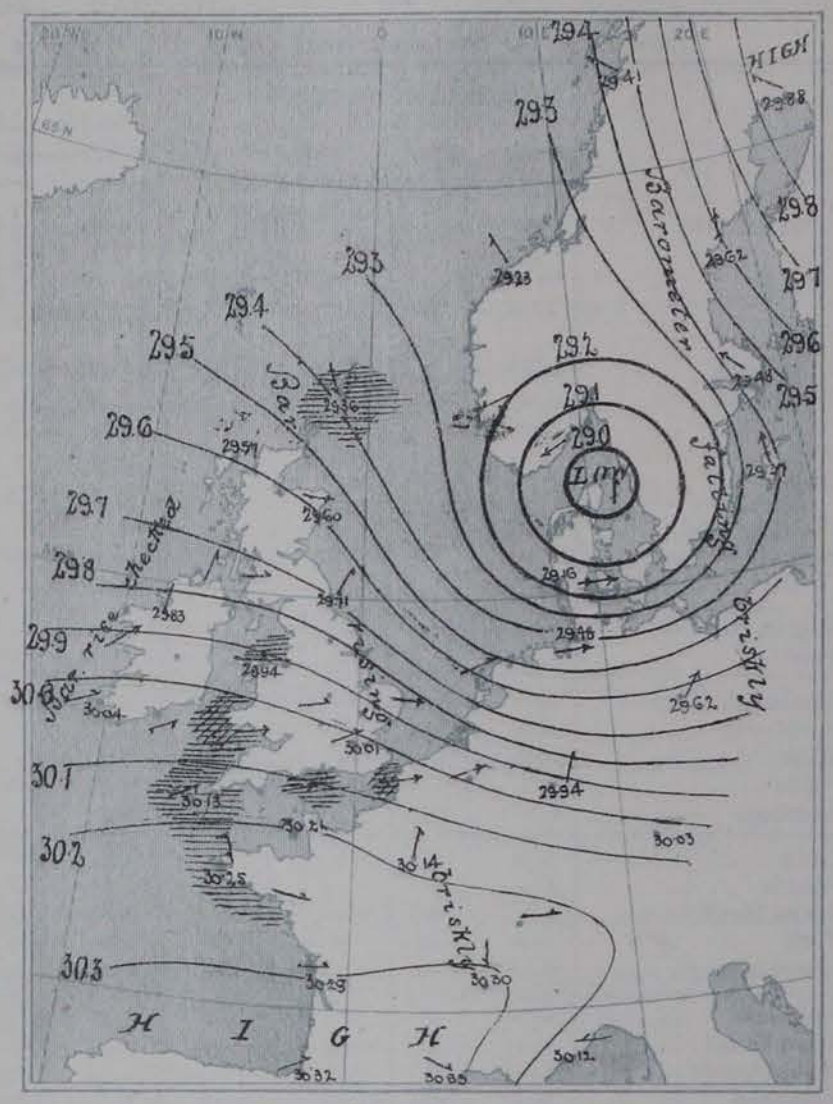
BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows show the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—

= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:

= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

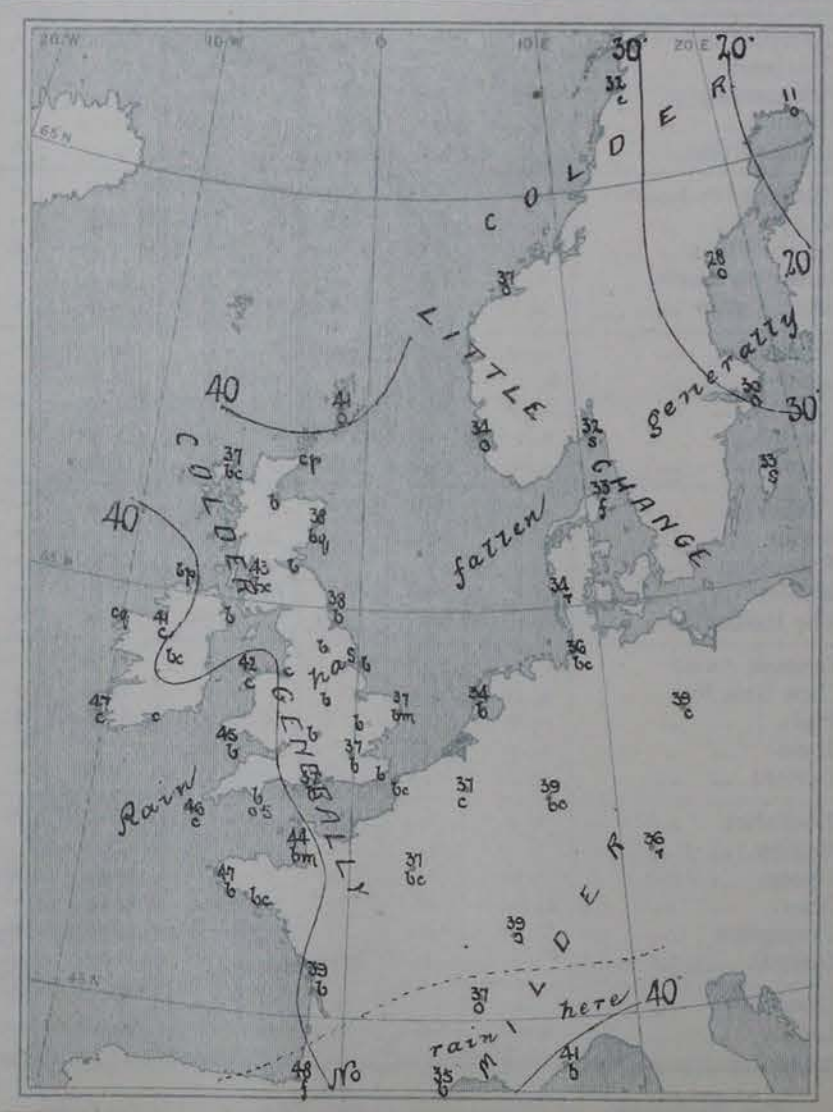
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Sourn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	35·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·06
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·5	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1865-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins. and upwards, in an anticyclone lying over Spain and the southern part of France and the Bay of Biscay; 29·8 ins. and upwards in Lapland.
Lowest, 29·0 ins and less, in a well defined and rather deep depression lying over the north of Denmark.
Gradient steep over Denmark, the Baltic, North Germany and the eastern part of the North Sea, but moderate or slight elsewhere.
Barometer rising at all but the Swedish and German stations.

TEMPERATURE

Highest, 48° at Biarritz, 47° at Valencia Island and Brest, 46° at Scilly, and 45° at Belmullet, Pembroke and Lorient.
Lowest, 11° at Haparanda, 28° at Hernösand, 30° at Stockholm, 32° at Bodo and Vardoe, and 33° at Westby and Skagen.
During yesterday the thermometer rose to 50° in London and to 49° at Cambridge.

WIND

Moderate to strong from the S.W.ly in Ireland and from the W.ly over Great Britain and France.
Strong to a gale from W. in Denmark and North Germany and from S.E. or S. in Sweden
Light or moderate from the E.ly or S.E.ly in the west of Norway.

WEATHER

Fine in nearly all parts of the United Kingdom and France, but dull in Scandinavia and Denmark, as well as at some of the German stations, with rain at Paris and Munich and snow at Wisby.
Rain fell generally yesterday the largest amount being 0·5 in. at Prawle Point

SEA

High at Pembroke and Pic Nez, and rather rough on our south and southwest coast generally, as well as at Stornoway.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

FORECASTS

For the 24 hours ending at NOON on 26th JANY 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH		6 SCOTLAND WEST	
1 SCOTLAND EAST		7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST	None Issued	9 IRELAND NORTH	None Issued.
4 MIDLAND COUNTIES		10 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	None Issued.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.33	39	36	SE	5	o	5
Sumburgh Head	29.03	41	40	SW	3	bc	6
Stornoway	29.10	41	38	W	3	bc	3
Aberdeen	29.20	44	38	W	2	bc	2
Shields	29.27	46	42	SW	3	o	2
Ardrossan	29.27	42	40	W	3	o	2
Malin Head ...	29.26	41	39	SW	4	c	3
Mullaghmore ...	29.35	42	39	WSW	5	cpq	4
Belmullet	29.34	43	41	WNW	6	chp	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.37	42	41	WNW	3	c	3
Valencia	29.38	49	39	W	5	chrq	5
Scilly	29.63	47	45	W	5	c	6
Jersey	29.94	49	47	SSW	5	o	4
Dungeness	29.58	43	43	SW	8	r	6
London	29.49	50	48	S	4	omr	*
Yarmouth	29.47	46	46	SW	4	ofd	3
Rochefort	30.10	46	44	SW	4	o	2

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather in morning fine and bright over central and northern Russia, as well as over Algeria and the Spanish Peninsula, cloudy or overcast in most other places, showery and squally in the British Islands (especially the southern counties) and on the shores of northwestern Europe generally. Rain very general in all these regions during the day, hail on our northwest coasts, snow over Scandinavia, but weather fair as a whole over Russia and Southern Europe.

Temperature rises considerably over Central Europe, falls over Russia, not much changed elsewhere, morning readings exceeding 40° on the southern side of the Mediterranean and over the whole of Ireland and England; below that value over Germany and the North Sea and as low as -16° F. at Archangel, -7° at Moscow, +3° at Khartoff and Ulesborg, 6° at Pudalbeth, 9° at Thorshavn and Kiev, 11° at Hermanstadt. Rising later to between 45° and 50° over Ireland and England and to upwards of 50° over many parts of Southern Europe, but scarcely exceeding 40° in Scotland.

Wind moderate to fresh from W. to NW. in Ireland, SW. over Great Britain, France and Germany (strong to a gale at several of the southern stations), S. over the Baltic, SE. over Finland and Scandinavia. Very variable and light over southern and southeastern Europe. Veering W. over Great Britain and the north of France towards night, not much change elsewhere.

Barometer highest 30.6 ins. and more to 30.0 ins. over Russia; 30.3 ins. and more to 30.2 ins. over the Iberian Peninsula, and exceeding 30.2 ins. over the whole of the Mediterranean. Lowest, 29.0 ins. and less, near the centre of a depression lying off the northwestern coasts of Europe, and about 30.0 ins. on the northern shores of the Black Sea and over European Turkey. Beginning to rise in our Islands later, but depression in northwest stretching southeastwards in a "hollow" over the North Sea to Germany.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

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DAILY WEATHER REPORT.

for Monday, 26th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Wet.	Difference from 8 a.m. yesterday.	Wind. Direc.	Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.16	3	N	0	b	28.85	-.03	-2	-8	-13	N	0	bc	*	14	?	-
	Hernösand ...	29.71	23	N	0	0	29.82	+.22	19	18	-9	N	0	0	*	30	?	-
	Stockholm ...	29.46	27	ENE	4	S	29.77	+.20	28	22	-4	N	2	s	*	32	?	0.20
	Wisby	29.38	35	SSW	4	0	29.69	+.32	36	35	+3	ENE	2	0	*	36	28	0.20
	Bodö	29.50	35	ENE	5	b	29.45	+.04	31	29	-1	ENE	4	c	2	?	25	-
	Christiansund	29.50	38	SW	5	0	29.48	+.25	37	33	0	ESE	6	0	2	39	36	
	Skudesnaes ...	29.66	31	N	0	c	29.64	+.36	40	39	+6	SSE	6	r	4	?	30	0.28
	Christiania Fjord (Færder)	29.58	32	N	3	b	29.79	+.62	33	32	+1	S	3	c	3	?	30	-
	Skagen (The Scaw)	29.65	32	NE	3	0	29.82	+.83	32	31	-1	SSW	1	b	2	34	32	-
	Fanö	29.79	35	WNW	5	bc	29.91	+.75	34	34	0	SW	4	0	*	36	34	0.04
BRITISH ISLANDS.	Sumburgh Head	29.50	40	S	2	0	29.35	-.01	44	43	+3	SSW	4	r	5	44	40	0.17
	Stornoway ...	29.39	47	SW	6	r	29.32	-.25	46	46	+9	SW	7	r	7	47	35	0.95
	Wick	29.51	42	SW	3	0	29.43	-.11	43	42	+6	SW	5	c	3	43	35	0.05
	Nairn	29.53	45	W	3	0	29.46	-.10	45	43	+6	SW	1	bc	1	46	39	-
	Aberdeen ...	29.65	41	SSW	5	0qp	29.59	-.01	43	40	+5	SW	5	0q	4	45	38	-
	Leith	29.71	43	W	2	0	29.66	-.02	46	42	+8	SSW	4	c	*	46	36	-
	Shields	29.85	42	SW	2	cd	29.77	+.06	43	40	+5	SSW	3	bc	2	45	39	-
	Spurn Head ...	30.02	38	SW	3	bc	29.94	+.15	39	36	0	SSW	5	c	4	42	36	-
	York	29.98	42	W	2	bc	29.91	+.08	40	39	+1	S	2	c	*	46	38	-
	Loughborough	30.06	42	WSW	3	b	30.01	+.10	41	39	+4	SSW	2	0	*	48	34	-
	Ardrossan ...	29.77	45	SSW	6	r	29.67	-.12	45	44	+2	SSW	5	0	5	45	42	0.18
	Malin Head ...	29.65	45	SSW	5	or	29.54	-.21	43	42	+3	S	4	0q	3	45	39	0.04
	Mullaghmore ...	29.74	46	SSW	5	rq	29.55	-.28	46	44	+5	SSW	6	0q	4	48	40	0.03
	Belmullet ...	29.72	48	SW	6	0	29.49	-.34	46	46	+1	SW	7	0	*	48	44	0.02
	Donaghadee ...	29.83	46	W	2	c	29.72	-.14	44	43	+8	SSW	5	c	3	46	36	-
	Liverpool (Bidston)	29.98	46	SW	4	c	29.89	-.01	43	41	+4	S	2	0	3	47	39	-
	Holyhead ...	29.97	45	SW	4	b	29.81	-.13	44	43	+2	S	6	0qm	5	46	42	0.01
	Parsonstown ...	29.90	46	N	0	c	29.66	-.30	45	44	+8	SSE	1	c	*	48	26	-
	Valencia	29.91	48	SSW	6	0	29.64	-.40	50	48	+3	SSW	7	0qm	6	50	47	0.17
	Roche's Point ...	29.99	47	SW	5	c	29.75	-.31	49	48	+7	SW	5	bc	4	49	42	0.20
	Pembroke (St. Ann's Hd.)	30.07	45	SSW	4	bc	29.89	-.16	45	45	0	S	6	dq	6	47	43	0.05
	Scilly	30.13	47	WSW	5	0pd	29.95	-.18	49	49	+3	S	5	0	5	51	44	-
	Prawle Point ...	30.20	44	WSW	4	c	30.05	-.09	45	44	+1	SSW	5	bc	4	48	43	-
	Jersey (St. Aubin's)	30.25	45	WSW	3	b	30.17	-.04	42	40	-2	S	3	bw	3	49	40	-
	Hurst Castle ...	30.18	42	WSW	3	bc	30.10	+.02	44	42	+7	SW	6	c	4	45	37	-
	Dungeness ...	30.14	40	W	4	bc	30.12	+.15	40	39	+2	SW	4	cw	3	49	36	0.01
	London	30.14	41	WNW	2	b	30.09	+.08	41	40	+4	SW	1	0	*	46	38	-
	Oxford	30.13	40	WSW	3	c	30.06	+.07	42	40	+6	S	2	0g	*	42	36	0.01
	Cambridge ...	30.08	39	SW	2	b	30.09	+.11	40	40	+3	SSW	2	0	*	48	33	0.01
	Yarmouth ...	30.03	40	WNW	2	b	30.04	+.22	37	36	0	WSW	2	bcm	3	43	35	0.01
GERMANY & HOLLAND.	Cuxhaven ...	29.71	36	W	6	0	30.04	+.56	35	35	-1	SW	2	f	*	34	34	-
	Berlin	29.74	37	W	6	0	30.07	+.35	36	35	-3	W	5	0	*	39	36	0.08
	Wiesbaden ...	*	*	*	*	*	30.28	+.34	39	32	0	N	0	0	*	41	30	0.08
	Munich	30.27	35	SW	7	0	30.34	+.31	26	25	-10	SSW	5	b	*	37	25	0.04
	The Helder ...	30.06	35	SW	2	b	30.09	+.41	35	35	+1	SW	3	f	3	37	34	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.23	+.29	35	34	-2	SSW	2	0	*	42	34	-
	Cape Gris Nez	30.16	39	SW	5	bc	30.14	+.20	37	36	-2	SW	4	b	4	41	36	-
	Paris	30.31	39	S	2	b	30.29	+.15	29	29	-8	S	1	b	*	48	28	-
	Brest	30.25	47	SW	2	b	30.13	-.12	47	46	0	S	4	0	5	52	43	-
	Lorient	30.30	45	SW	1	bc	30.16	-.12	44	43	-1	SSE	3	c	5	50	43	-
	Rochefort ...	30.33	46	NW	1	b	30.22	-.07	34	34	-5	E	3	b	*	52	28	-
	Belfort	?	31	SW	2	bc	?	?	28	?	-13	SW	3	bc	*	43	?	-
	Lyons	30.37	36	N	2	b	30.37	+.07	31	26	-6	E	1	b	*	44	23	-
	Nice	30.12	45	E	2	b	30.25	+.13	42	36	+1	ENE	4	b	3	52	39	-
	Perpignan ...	30.30	48	NW	2	b	30.28	-.05	32	31	-3	SW	1	b	*	59	31	-
	Biarritz	30.32	48	WSW	4	0	30.17	-.15	40	39	-8	SE	3	m	3	50	39	0.04
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.22	53	N	3	b	30.19	-.12	42	39	+1	NNE	4	b	5	54	41	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Monday, 26th January, 1891.

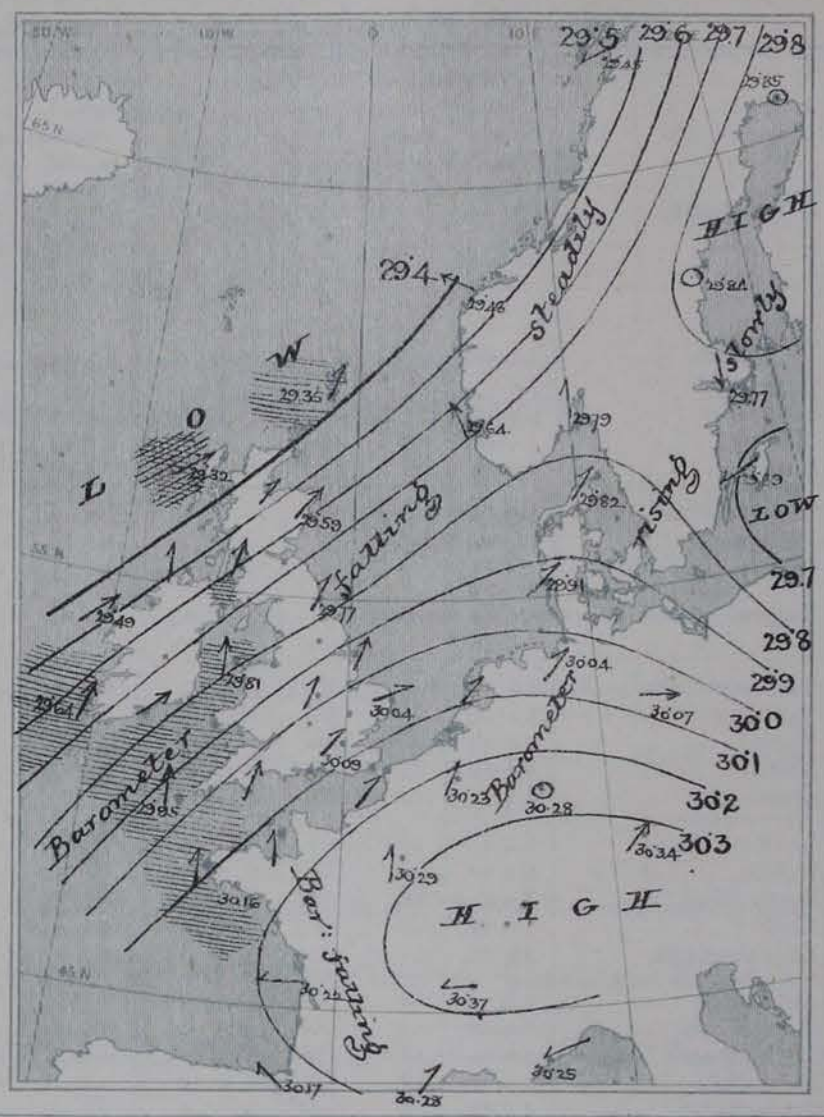
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

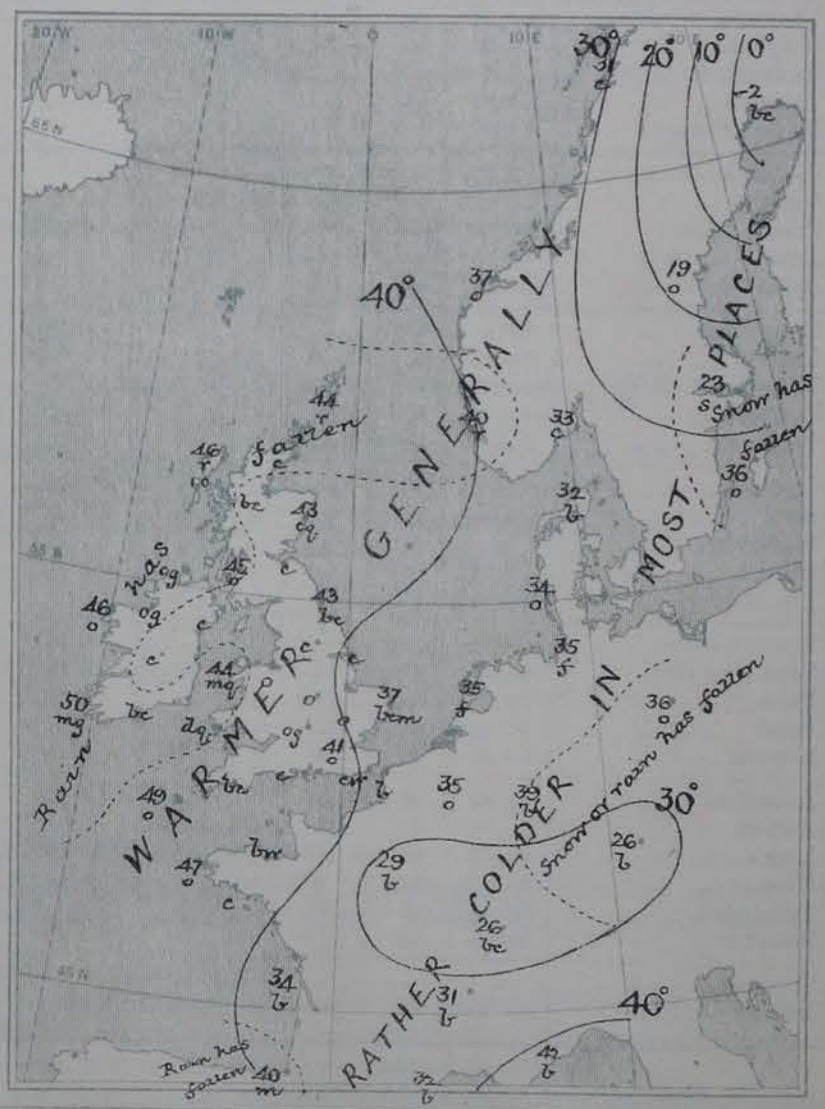
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·959
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·2	45·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	43·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·5	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	35·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone lying over France and South Germany; 29·8 ins. and upwards over the Gulf of Bothnia.
Lowest, 28·4 ins. and less, in the Shetlands and Hebrides.
Gradients rather steep over our Islands and the North Sea, but slight elsewhere.
Barometer falling at all but the Swedish, Danish and German stations, most in the west of our Islands.

TEMPERATURE

Highest, 50° at Valencia Island, 49° at Rochebrunt and Scilly, 47° at Brest and 46° at Stornoway, Belmullet and Mullaghmore.
Lowest, −2° F. at Haparanda, +13° at Hernösand, 23° at Stockholm, 26° at Belfort and Munich, 29° at Paris, and 31° at Bodö and Lyons.
It has risen a few degrees over our Islands since yesterday.

WIND

SW^{ly} or S^{ly} over our Islands, the Netherlands, and Denmark; strong in force on our west and northwest coasts.
Strong from the SE^{ly} in the west of Norway.
Variable in Sweden, light from the E^{ly} in the south of France.

WEATHER

Cloudy or overcast in most parts of the United Kingdom, and also in Scandinavia, with rain at some of our western and northern stations, and snow at Stockholm.
Fine in France and South Germany, but foggy over North Germany and the Netherlands.
Since yesterday morning rain has fallen in the west and extreme north of our Islands, the largest amount being 1·0 in. at Stornoway.

SEA

High at Stornoway and rough or rather so on our western and southeastern coasts.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The low-pressure systems in the west seem likely to spread eastwards, and unsettled rainy weather is therefore probable in all parts of the United Kingdom. In Ireland the wind is likely to veer shortly to the W^{ly} or NW^{ly}.

FORECASTS

For the 24 hours ending at NOON on 27th JAN^{y} 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH 1 SCOTLAND EAST 2 ENGLAND N.E.	S^{ly} and SW^{ly} winds, strong to a gale; mild, squally, some rain.
3 ENGLAND EAST 4 MIDLAND COUNTIES 5 ENGLAND SOUTH	SW^{ly} winds, moderate, mild, squally, some rain.
6 SCOTLAND WEST 7 ENGLAND N.W. 8 ENGLAND S.W.	S^{ly} to SW^{ly} winds, strong, a gale in places; squally, some rain.
9 IRELAND NORTH 10 IRELAND SOUTH	SW^{ly} gales, veering to the W^{ly} and NW^{ly} and moderating; squally and rainy to fair.
WARNINGS	The SOUTH CONE was hoisted last evening in districts 0 to 2, 6, 7, 9, 10, and part of 8.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR.	THER. D.	THER. W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.49	34	34	SE	0	c	3
Sumburgh Head							
Stornoway	29.47	44	43	SW	6	r	6
Aberdeen							
Shields							
Ardrossan							
Malin Head ...	29.67	45	44	SW	6	o	4
Mullaghmore ...							
Belmullet	29.77	48	47	WSW	6	o	*

	BAR.	THER. D.	THER. W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.99	45	42	WSW	4	c	4
Valencia							
Scilly							
Jersey	30.27	?	?	W	?	?	?
Dungeness	30.10	49	45	W	4	b	3
London							*
Yarmouth							
Rochefort	30.28	50	48	SE	1	c	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather in morning fine and bright over the greater part of western Europe, including the British Islands as well as at most stations on the Mediterranean coasts and in the south of Russia; dull and unsettled elsewhere, with snow at several of the Finnish and Scandinavian stations, rain in Poland and north Germany, snow at Florence also. Rain falling later in Ireland and Scotland, heavily at Stornoway, and lightning occurring at Aberdeen, lunar halos seen in various parts of the Kingdom.

Temperature fallen somewhat over our Islands and France, risen in many parts of Russia, eastern Germany, Hungary and the north of France, morning readings exceeding 40° at the Mediterranean stations and on the Atlantic coasts of Spain, France, England and Ireland and exceeding 50° at Leghorn and Sanguinaire; much lower elsewhere. Lowest values (1) −7° at Archangel +4° at St Petersburg, 9° at Uleaborg and Kucpio, 15° at Moscow, (2) −4° at Kiev +6° at Kharkov, 8° at Odessa, 17° at Riga, 18° at Hermanstadt, 21° at Vienna. Rising during day to between 45° and 50° over our Islands as a whole, falling again briskly over England towards night.

Wind strong to a gale from the S and over the Baltic and Gulf of Bothnia, and from W over Holstein; fresh to strong from the W over the greater part of our Islands, SW over Germany, SE to E (light) over Norway. Very variable over southern Europe and the Mediterranean. Veering to the S and in Scotland and Ireland later, and increasing in strength.

Barometer highest 30.6 ins. and more to 30.0 ins. over Russia, 30.4 ins. and more to 30.2 ins. over Spain, the Mediterranean and greater part of France. Lowest 29.0 ins. and less to 29.2 ins. in a depression lying over Denmark, the Sound and the south of Scandinavia, and below 29.8 ins. over North Germany, the Baltic and nearly the whole of Sweden and Norway. Depression over Denmark moving eastwards later, barometer rising rapidly over the North Sea, but beginning to fall somewhat steadily in the west and northwest of our Islands.

SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 18TH TO 24TH JANUARY 1891

In the course of the past week a great change has taken place over the United Kingdom, the severe frost which had prevailed for so long a time over England having entirely broken up and given place to weather of unusual mildness.

At the commencement of the period a large anticyclone stretched from southwest to northeast across our Islands, and very cold weather prevailed in most districts. On the early morning of the 18th the sheltered thermometer registered a minimum of 12° at Jersey, 11° at Cambridge, and 10° at York, while at Hillington it fell to 5°.

A depression was, however, at this time skirting our extreme northwest coasts and this proved to be the precursor of a long series of such systems. On the 19th the anticyclone rapidly broke up, and in the course of a very few hours mild SW winds spread over the United Kingdom, the rise of temperature during the 24 hours ending 8 am on the 20th amounting to no fewer than 28° at Loughborough, 25° at Oxford, and 15° to 19° in many other parts of England.

During the remainder of the week the weather of our Islands was entirely influenced by large and deep depressions, the centres of which moved eastwards along our extreme northern coasts. The two most important systems were those of the 20th and 23rd each of which occasioned SW gales at many of our western and northern stations, with heavy rain in some few places. At the close of the week numerous secondary disturbances were passing across Ireland and England, and strong winds or gales were blowing on our southern coasts. The maximum readings of the thermometer over England on the 23rd and 24th were as high as 50° in many places, or more than 20° higher than those recorded at the commencement of the week.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for TUESDAY 27TH JANUARY. 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom.: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.83	14	S	4	0	29.71	−.14	17	17	+19	SSE	4	0	*	?	−4	0.04
	Hernösand ...	29.79	27	SSE	6	0	29.65	−.19	29	28	+10	SSW	4	0	*	?	18	0.04
	Stockholm ...	29.96	19	Z	0	f	29.91	+.14	32	32	+9	S	2	0	*	?	18	0.04
	Wisby	29.97	30	WSW	4	0	29.99	+.30	34	33	−2	SSW	4	0	*	36	28	—
	Bodö	29.45	30	ENE	4	c	29.28	−.17	35	31	+4	ENE	4	0	2	?	25	—
	Christiansund	29.37	44	SE	2	r	29.28	−.20	42	38	+5	ESE	1	0	4	45	?	0.04
	Skudesnaes ...	29.68	41	SSE	6	0	29.54	−.10	39	39	−1	SSE	8	r	5	41	37	0.16
	Christiania Fjord (Færder)	29.54	38	SSW	5	0	29.73	−.06	39	39	+6	S	5	f	3	?	37	—
	Skagen (The Scaw)	29.87	35	WSW	3	m	29.82	0.0	36	36	+4	SW	3	m	3	36	34	0.04
	Fanö	29.97	34	WSW	4	c	29.93	+.02	32	32	−2	SW	4	c	*	36	32	—
BRITISH ISLANDS.	Sumburgh Head	29.34	44	WSW	4	0	29.23	−.12	44	42	0	SW	3	bc	4	46	40	0.15
	Stornoway ...	29.23	46	SW	7	r	29.31	−.01	41	39	−5	W	4	bc	4	46	36	0.68
	Wick	29.38	40	S	3	0	29.34	−.09	39	38	−4	S	2	bc	2	45	38	0.02
	Nairn	29.35	45	W	1	c	29.35	−.11	40	39	−5	SW	1	b	1	47	39	0.02
	Aberdeen ...	29.51	44	SSE	4	oqr	29.45	−.14	41	39	−2	SSW	4	b	4	46	41	0.01
	Leith	29.53	49	SW	4	bc	29.52	−.14	43	41	−3	WSW	4	b	*	50	42	0.01
	Shields	29.70	46	SSW	3	0	29.61	−.16	44	42	+1	SSW	2	0	2	47	41	0.02
	Spurn Head ...	29.86	42	SSW	5	c	29.75	−.19	42	40	+5	SSW	6	cg	4	45	37	—
	York	29.82	46	S	2	c	29.73	−.18	42	41	+2	W	1	0	*	47	39	0.03
	Loughborough	29.91	45	SSW	4	0	29.79	−.22	45	43	+4	SW	4	oqr	*	48	40	—
	Ardrossan ...	29.49	47	S	4	r	29.57	−.10	43	41	−2	WSW	4	b	4	47	42	0.09
	Malin Head ...	29.37	46	S	5	0	29.51	−.03	41	40	−2	SW	4	cr	2	47	40	0.07
	Mullaghmore ...	29.43	47	SSW	5	0 r	29.60	+.05	41	39	−5	SSW	5	b	4	50	40	0.29
	Belmullet ...	29.43	47	WSW	5	c	29.61	+.12	43	42	−3	WSW	2	b	*	48	42	0.20
	Donaghadee ...	29.54	48	SSW	4	0	29.62	−.10	39	38	−5	SW	4	b	2	49	36	0.06
	Liverpool (Bidston)	29.78	49	SSW	4	0	29.74	−.15	42	40	−1	SW	3	bc	3	52	42	0.09
	Holyhead ...	29.71	46	SSW	7	omq	29.74	−.07	43	43	−1	WSW	4	b	4	47	42	0.41
	Parsonstown ...	29.55	49	SW	1	0	29.72	+.06	37	36	−8	S	0	b	*	52	36	0.08
	Valencia	29.57	48	WSW	3	cm	29.76	+.12	47	44	−3	SW	3	c	4	52	41	0.30
	Roche's Point ...	29.62	48	SSW	6	cm	29.78	+.03	41	40	−8	W	1	bc	4	50	40	0.35
	Pembroke (St. Ann's Hd.)	29.81	47	SSW	5	c	29.88	−.04	45	45	0	SSW	4	bq	6	47	44	0.33
	Scilly	29.85	49	S	5	oq	29.86	−.09	47	46	−2	WSW	3	c	5	53	45	0.11
	Prawle Point ...	29.97	46	SSW	5	0	29.89	−.16	46	46	+1	SSW	6	ocm	5	46	44	0.01
	Jersey (St. Aubin's)	30.08	45	SSE	3	cg	30.04	−.13	44	42	+2	S	5	bc m	4	47	40	—
	Hurst Castle ...	30.01	42	SSW	6	0	29.94	−.16	44	43	0	SSW	7	c	4	46	42	0.01
	Dungeness ...	30.07	40	WSW	4	bc	29.98	−.14	40	40	0	SW	5	c	3	43	38	—
	London	30.04	41	SW	3	bc	29.93	−.16	44	41	+3	WSW	3	c	*	49	40	0.01
	Oxford	29.98	41	SW	4	0	29.88	−.18	44	42	+2	S	3	or	*	47	41	—
	Cambridge ...	29.99	42	SSW	3	bc	29.88	−.19	42	41	+2	SSW	3	0	*	50	39	—
	Yarmouth ...	29.99	40	SW	3	b	29.91	−.13	39	38	+2	SW	3	bc	3	43	35	—
GERMANY & HOLLAND.	Cuxhaven ...	30.09	36	SW	3	bc	30.09	+.05	33	32	−2	SSW	3	c	*	36	32	—
	Berlin	30.17	38	WNW	2	0	30.21	+.14	33	32	−3	SW	2	bc	*	39	32	—
	Wiesbaden ...	*	*	*	*	*	30.25	−.03	27	27	−12	E	0	bc	*	39	27	—
	Munich	30.29	26	SE	2	c	30.30	−.04	17	17	−9	E	0	b	*	36	16	—
	The Helder ...	30.08	34	SSW	3	b	30.00	−.09	33	33	−2	SSW	3	c	3	36	32	—
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*									*			
	Cape Gris Nez	30.10	39	SSW	4	b	30.01	−.13	36	34	−1	SSW	5	c	4	41	34	—
	Paris	30.21	35	SE	1	b	30.18	−.11	30	29	+1	? SSW	2	b	*	43	28	—
	Brest	30.05	48	SSW	4	0	30.02	−.11	48	48	+1	SSW	4	bc	6	48	45	0.12
	Lorient	30.10	46	S	3	0	30.06	−.10	49	47	+5	SW	4	0	5	49	43	—
	Rochefort ...	30.14	40	E	2	b	30.17	−.05	37	36	+3	SE	3	0	?	50	30	—
	Belfort	?	31	W	1	bc	?	?	25	?	−1	W	2	bc	*	43	23	—
	Lyons	30.33	26	SSE	6	f	30.36	−.01	26	25	−5	WSW	1	b	*	34	22	—
	Nice	30.30	44	E	4	b	30.37	+.12	43	38	+1	E	3	b	2	?	39	—
	Perpignan ...	30.26	43	E	2	c	30.28	0.0	35	34	+3	NW	2	b	*	49	32	—
	Biarritz	30.12	50	ESE	1	b	30.19	+.02	46	45	+6	S	3	b	2	55	40	—
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.14	52	N	3	c	30.20	+.01	45	45	+3	NNE	3	f	6	55	!	—

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Tuesday, 27th January, 1891.

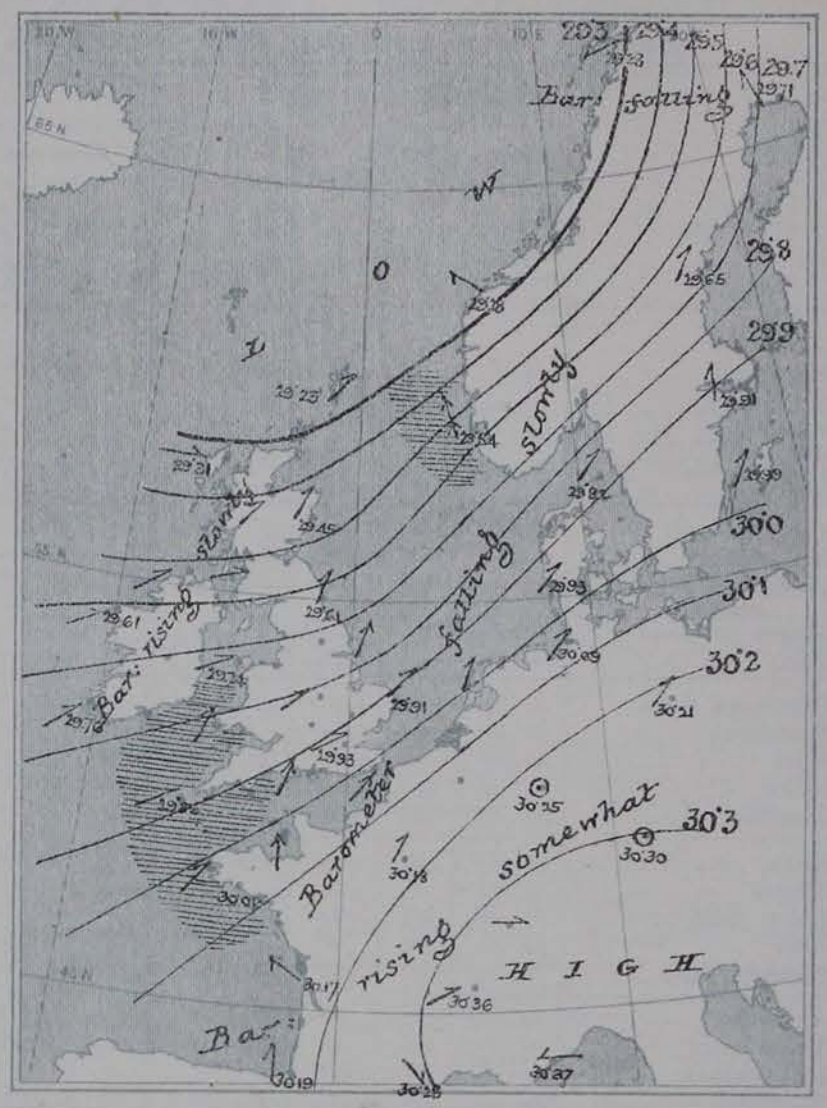
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

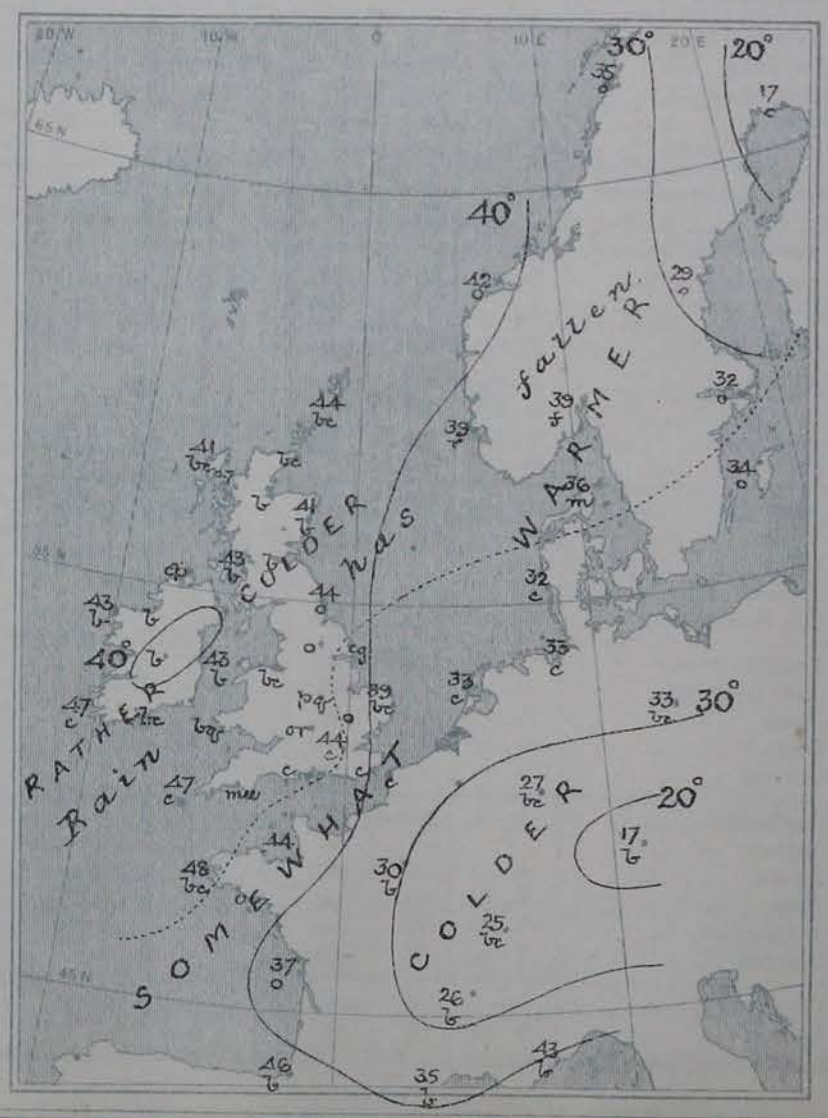
STATIONS.	MEAN READINGS. ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·37
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·6	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·3 ins. and more, to 30·0 ins. over France, Germany, and the southern part of the Baltic.
Lowest, 29·3 ins. and less, off the north of Scotland and the west of Norway.
Gradients moderate in our Islands, slight over France.
Barometer rising in Ireland and the west of France, falling a little elsewhere.

TEMPERATURE

Highest, 49° at Lorient, 47° at Valencia Island and Scilly, 46° at Lizard Point and Biarritz, and 43° at Nice.
Lowest, (1) 17° at Haparanda, 23° at Hernösand, and 31° at Stockholm; (2) 17° at Munich, 25° at Belfort, 26° at Lyons and 27° at Wiesbaden.
At Paris the temperature was 30°, while in London it was 44°.

WIND

SW. over the United Kingdom generally, S. on the eastern shores of the North Sea, E. in the northwest of Norway.
Over France and Germany it is very light to calm, but in the English Channel and south of Norway it is strong and squally.

WEATHER

Very fine and bright over Ireland, Scotland, France and Germany, dull over England, with rain over the south midland counties.
Rain has fallen very generally except in the south and southeast; at Stornoway and Holyhead the falls have been considerable.

SEA

Rough on the southwestern coasts, moderate in most other places, slight in the southeast and east.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

Southwesterly breezes, and mild, but somewhat changeable weather are still likely to prevail over our Islands and northwestern Europe generally.

FORECASTS

For the 24 hours ending at NOON on 28th JAN.y 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	SW. winds, moderate or fresh; some showers.
1 SCOTLAND EAST	SW. breezes, moderate to light; fair, mild.
2 ENGLAND N.E.	
3 ENGLAND EAST	SW. breezes, fresh to light; some rain.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	SW. and S. breezes; changeable; some showers. Mild.
7 ENGLAND N.W.	
8 ENGLAND S.W.	
9 IRELAND NORTH	
10 IRELAND SOUTH	
WARNINGS	None Issued.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.66	41	40	S	4	p	5
Sumburgh Head	29.83	46	44	WSW	4	o	5
Stornoway	29.80	46	46	SW	7	p	6
Aberdeen	29.076	45	43	S	4	cg	4
Shields	29.73	45	43	SSW	2	o	2
Ardrossan	29.57	47	45	SSW	4	o	4
Malin Head ...	29.42	46	45	SSW	6	o	3
Mullaghmore ...	29.45	49	47	SSW	6	ogf	4
Belmullet	29.42	48	47	WSW	5	o p	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.74	47	47	SSW	6	mdg	6
Valencia	29.55	51	50	S	7	p	6
Scilly	29.86	52	50	S	5	c	5
Jersey	30.11	47	43	SSE	3	b	3
Dungeness	30.10	42	41	SW	4	bc	4
London	30.04	48	45	SSW	5	bc	*
Yarmouth	30.01	43	42	SW	4	bc	3
Rochefort	30.17	46	43	SE	3	b	?

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather fine and bright over France and southern Europe, and fair in several of the more eastern parts of Great Britain and Ireland. Dull elsewhere, with fog over Holland and North Germany, rain in the Shetlands and Hebrides, and snow at Stockholm, Helsingfors and Lemberg. Rain falling later in most parts of the United Kingdom and Scandinavia, the largest amount being 0·7 in. at Stornoway.

Temperature highest (1) 52° at Algiers, 50° at Malta, 49° at Oran, and 48° at Lafalle; (2) 50° at Valencia Island, 49° at Rochefort and Scilly and 47° at Brest; above 40° in all parts of our Islands excepting the east of England. Lowest −15° at Moscow, −11° at Kharkoff, −6° at Kiev, −2° at Haparanda, and +4° at Nicolaieff; below the freezing point over the greater part of France and also over central Spain. Rising during day to 50° or a little more in several parts of the United Kingdom, but not exceeding 45° in the east of England.

Wind SW³ or S³ over our Islands, Denmark and the Netherlands; strong in force on many parts of our western and northwestern coast. Strong from the SE^rly in the east of Norway. Moderate to strong from the W^rly over Germany; light from the SE^rly in Russia; light from the N^rly in Italy, from the NE^rly in Spain, and from the S^rly or SW^rly in Algeria. Moderate S³ gales experienced during day in many parts of the United Kingdom.

Barometer highest, 30·5 ins. and upwards, in an anticyclone lying over the south of Russia, 30·3 ins. and upwards in two other systems lying respectively over south Germany and central France and over Central Spain. Lowest 29·4 ins. and less, in a large depression lying to the north and northwest of Scotland; 29·6 ins. and less, in a smaller disturbance lying over the Baltic Provinces. Gradients rather steep over our Islands. No important change occurring during day.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Wednesday, 28th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom. Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.50	31	SW	4	S	29.36	- .35	33	33	+ .16	SSW	4	S	*	33	12	0.24
	Hernösand ...	29.52	34	SW	6	0	29.46	- .19	36	35	+ 7	SW	2	0	*	36	25	0.04
	Stockholm ...	29.80	33	SSW	2	0	29.78	- .16	36	36	+ 4	SW	4	0	*	37	18	0.04
	Wisby	29.97	34	S	6	b	29.91	- .08	35	34	+ 1	SW	6	b	*	36	29	0.04
	Bodö	29.20	38	ENE	2	0	29.32	+ .04	38	37	+ 3	W	6	0	3	38	30	0.04
	Christiansund	29.30	43	WSW	4	0	29.62	+ .34	40	39	- 2	WNW	6	r	4	43	39	0.20
	Skudesnaes ...	29.59	41	WSW	2	r	29.79	+ .25	38	38	- 1	SSE	2	0	5	41	37	0.32
	Christiania Fjord (Færder)	29.58	39	SSW	7	r	29.76	+ .03	40	38	+ 1	SW	6	b	4	40	37	0.08
	Skagen (The Scaw)	29.76	37	WSW	5	m	29.89	+ .07	35	35	- 1	W	4	f	4	37	36	0.12
	Fanö	29.94	34	WSW	4	0	29.99	+ .06	32	32	0	WSW	4	f	*	34	32	0.04
BRITISH ISLANDS.	Sumburgh Head	29.45	42	W	3	bc	29.56	+ .33	42	41	- 2	SSE	1	0	3	44	36	0.03
	Stornoway ...	29.52	38	NW	2	b	29.33	+ .02	46	46	+ 5	SW	7	r	6	46	34	0.08
	Wick	29.59	38	NW	1	b	29.51	+ .17	41	40	+ 2	S	4	0	3	44	35	0.04
	Nairn	29.58	42	W	2	b	29.46	+ .11	45	43	+ 5	SW	3	b	1	45	37	0.02
	Aberdeen ...	29.67	39	SW	2	b	29.60	+ .15	43	41	+ 2	SSE	5	cg	4	46	36	-
	Leith	29.72	43	SW	4	0	29.89	+ .07	48	45	+ 5	SSW	4	0	*	48	40	-
	Shields	29.77	45	SSW	3	c	29.74	+ .13	43	41	- 1	SSW	4	0	2	48	41	-
	Spurn Head ...	29.87	40	SSW	3	b	29.90	+ .15	39	39	- 3	SSW	3	cm	3	46	35	0.01
	York	29.87	43	W	1	0	29.86	+ .13	41	40	- 1	S	2	0	*	48	36	-
	Loughborough	29.93	44	WSW	2	c	29.93	+ .14	41	40	- 4	SSE	3	c	*	50	37	0.09
	Ardrossan ...	29.72	45	WSW	3	c	29.55	- .02	46	46	+ 3	S	5	0	4	46	42	0.07
	Malin Head ...	29.64	43	S	4	0	29.44	- .07	46	45	+ 5	S	4	c	2	46	40	-
	Mullaghmore ...	29.64	46	SSW	5	c	29.48	- .12	49	47	+ 8	SSW	5	cg	5	49	40	0.08
	Belmullet ...	29.61	45	S	4	c	29.49	- .12	48	47	+ 5	WSW	5	b	*	49	42	0.14
	Donaghadee ...	29.75	43	SSW	3	c	29.57	- .05	46	46	+ 7	SSW	5	c	3	47	39	0.01
	Liverpool (Bidston)	29.87	45	SW	2	b	29.80	+ .06	43	41	+ 1	SE	3	0	3	48	39	-
	Holyhead ...	29.84	44	SSW	1	b	29.72	- .02	46	46	+ 3	SSW	6	mdq	5	48	42	0.05
	Parsonstown ...	29.75	43	Z	0	0	29.62	- .10	48	47	+ 11	SW	1	0	*	50	35	0.03
	Valencia	29.68	49	SSE	6	om	29.65	- .11	51	49	+ 4	S	6	bcm	6	51	41	0.29
	Roche's Point...	29.79	48	SW	4	bc	29.70	- .08	49	48	+ 8	SW	4	0	5	50	41	0.20
	Pembroke (St. Ann's Hd.)	29.89	46	S	3	bc	29.80	- .03	47	46	+ 2	S	6	rqm	6	48	44	0.04
	Scilly	29.91	48	SSW	3	bc	29.86	.00	49	48	+ 2	SSW	5	rm	5	53	46	0.01
	Prawle Point ...	29.98	45	SW	4	f	29.97	+ .08	47	47	+ 1	SW	4	ogm	4	48	43	0.08
	Jersey (St. Aubin's)	30.07	47	S	3	bcm	30.10	+ .06	46	44	+ 2	SSE	4	cg	3	49	43	0.05
	Hurst Castle ...	30.00	44	SW	4	m	30.02	+ .08	44	42	0	SW	6	0	4	46	42	0.19
	Dungeness ...	30.00	42	SW	6	d	30.05	+ .07	42	42	+ 2	SW	5	op	4	43	40	0.12
	London	30.01	46	SW	2	og	30.02	+ .09	46	45	+ 2	SSW	3	c	*	48	42	0.02
	Oxford	29.99	42	S	3	0	29.98	+ .10	43	42	- 1	S	3	cf	*	52	41	0.02
	Cambridge ...	29.97	40	Z	0	b	30.00	+ .12	44	43	+ 2	SSW	1	0		48	38	0.01
	Yarmouth ...	29.94	44	SW	2	c	29.98	+ .07	41	40	+ 2	SW	3	bcf	3	45	36	-
GERMANY & HOLLAND.	Cuxhaven ...	30.05	37	SSW	3	f	30.08	- .01	38	38	+ 5	SW	2	f	*	38	?	0.04
	Berlin	30.17	35	WSW	3	b	30.21	.00	37	36	+ 4	SW	2	0	*	41	32	-
	Wiesbaden	*	*	*	*	*	30.32	+ .07	33	32	+ 6	Z	0	c	*	37	27	-
	Munich	30.33	26	SW	2	b	30.38	+ .08	30	29	+ 13	SSW	3	0	*	39	17	-
	The Helder ...	30.03	35	SSW	3	f	30.05	+ .05	35	35	+ 2	SSW	3	r	3	36	?	0.04
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.18		41	?		SW	4	c	*	41	36	?
	Cape Gris Nez	30.06	38	SSW	6	c	30.05	+ .04	41	39	+ 5	S	4	r	4	43	34	0.08
	Paris	30.23	38	SSW	3	m	30.26	+ .08	38	37	+ 8	SE	2	0	*	43	? 30	-
	Brest	30.01	48	SW	5	r	30.01	- .01	49	49	+ 1	S	5	f	6	50	45	0.20
	Lorient	30.10	49	SW	4	0	30.12	+ .06	49	47	0	S	4	f	5	50	46	-
	Rochefort ...	30.08	44	SSW	4	bc	30.24	+ .07	39	39	+ 2	SE	4	c	*	50	32	-
	Belfort	?	31	W	2	bc	?	?	37	?	+ 12	W	3	c	*	43	23	-
	Lyons	30.36	37	ESE	1	c	30.38	+ .02	34	32	+ 8	ENE	1	c	*	41	? 26	-
	Nice	30.35	45	SW	3	b	30.36	- .01	39	34	- 4	E	3	b	1	54	37	-
	Perpignan ...	30.29	42	NE	2	b	30.35	+ .07	31	31	- 4	W	1	b	*	52	31	-
	Biarritz	30.23	52	S	3	b	30.25	+ .06	49	41	+ 3	S	4	b	3	59	41	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.26	53	SW	3	b	30.31	+ .11	48	48	+ 3	NE	2	f	?	54	45	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Wednesday, 28th January, 1891.

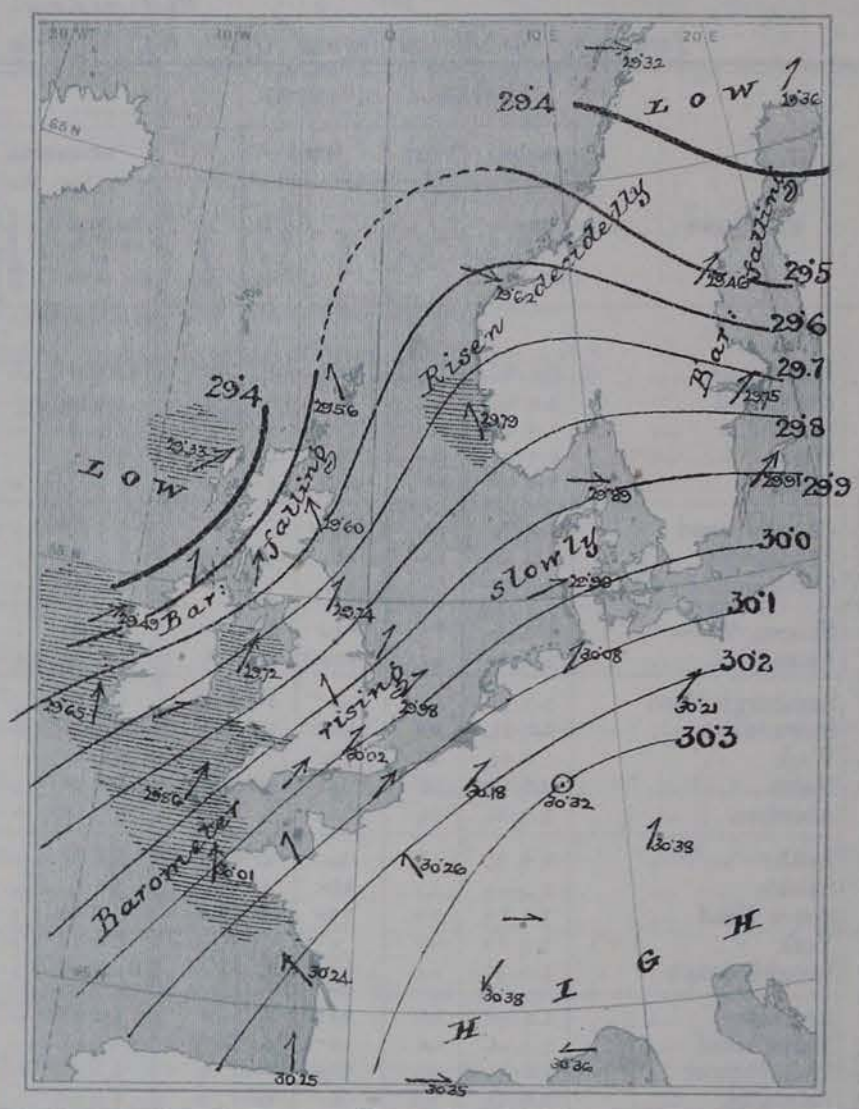
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

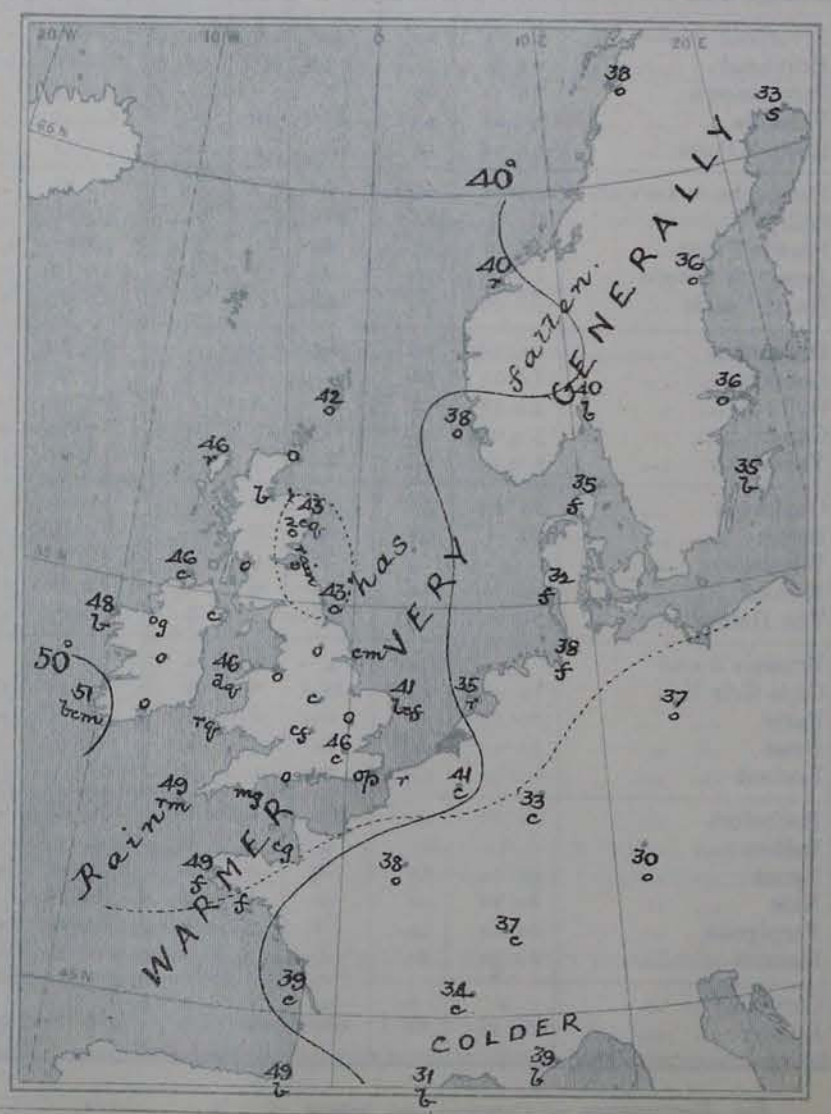
STATIONS.	MEAN READINGS. ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·959
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	0·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·0	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·64
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins. to 30·0 ins. over France and Germany.
Lowest, 29·4 ins. and less, in a depression off our extreme northwest coast.
Gradients moderate over our Islands and the North Sea.
Barometer falling in the northwest, rising slightly in the southwest and south.

TEMPERATURE

Highest, 51° at Valencia Island, 49° at Mullaghmore, Scilly, Brest, and Biarritz, 46° at Stornoway and in London.
Lowest, 30° at Munich, 33° at Wiesbaden, and also at Haparanda.
At Perpignan the reading was 31°, at Nice 39°.

WIND

SW^{ly} to S^{ly} over our Islands, the Channel, and North Sea, moderate in the east, strong and squally in the west.
In Norway it is mainly W^{ly}, in Sweden SW^{ly}.
A fresh gale from the S^{ward} was experienced in the extreme west during the night.

WEATHER

Fair at our eastern stations, clear at Mullaghmore and in the south of France, cloudy or overcast elsewhere, squally and showery at some eastern and northern stations.
Rainfall since yesterday morning has been general except over our northeastern districts, but the amounts measured are small.

SEA

Rough on our southwestern coasts and in the Minch, rather so at Holyhead, moderate to slight elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression in the extreme northwest is passing away to the northeastward, but the strong S^{ly} wind at Valencia seems to show that another system is approaching Ireland from the westward. The warning signal (S. Cone) is therefore left up in the west and south of Ireland.

FORECASTS

For the 24 hours ending at NOON on 29th JAN^{y} 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	S^{ly} and SW^{ly} winds, strong; squally, showery
1 SCOTLAND EAST	S^{ly} winds, fresh or strong; showery.
2 ENGLAND N.E.	
3 ENGLAND EAST	S^{ly} winds, fresh and increasing cloudy, rain at times, unsettled.
4 MIDLAND COUNTIES	
5 ENGLAND SOUTH	
6 SCOTLAND WEST	S^{ly} winds, strong; squally, showery.
7 ENGLAND N.W.	
8 ENGLAND S.W.	
9 IRELAND NORTH	S^{ly} winds, strong, a gale in places; showery.
⚠ 10 IRELAND SOUTH	
WARNINGS	The SOUTH CONE was hoisted last evening in district 10, and is still up.

Note.—The **South Cone**, *point downwards* (⚠), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (⚠), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.50	41	40	S	5	r	5
Sumburgh Head	29.31	43	41	W	8	c	4
Stornoway	29.47	44	42	W	3	bc	3
Aberdeen	29.59	45	40	SW	4	b	4
Shields	29.71	47	42	SW	2	c	2
Ardrossan	29.66	47	45	WSW	3	c	2
Malin Head ...	29.62	45	43	SSW	4	b	3
Mullaghmore ...	29.67	47	44	SSW	5	c	3
Belmullet	29.66	49	46	SSW	3	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.81	46	46	SW	4	bc	4
Valencia	29.75	50	46	S	5	cqp	5
Scilly	29.91	53	50	SW	3	c	5
Jersey	30.04	48	46	SSW	4	c	4
Dungeness	29.99	42	40	SW	5	r	4
London	29.95	48	46	SW	1	om	*
Yarmouth	29.90	45	44	SW	4	cqm	3
Rochefort	30.20	48	46	SSE	4	bc	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE
DURING THE PAST 24 HOURS.

Weather fine in the west and north of our Islands, as well as over the greater part of France, Germany and southern Europe. Dull elsewhere with rain over Central England, and snow at Uleaborg, St Petersburg and Lemberg. A little rain falling during day in the east and south of England and larger amounts in Ireland at night

Temperature highest (1) 52° at San Fernando and Algiers, 51° at Malta, and 50° at Oran; (2) 49° at Lorient, 48° at Brest and 47° at Valencia Island and Scilly; above 40° in nearly all parts of the United Kingdom. Lowest −18° F. at Moscow, −3° at Kiev, −2° at Kharkov, +5° at Nicolaieff, 10° at Archangel and Odessa, below the freezing point in the west and south of Germany, the north of Italy and the central parts of France and Spain. Subsequently rising to between 45° and 50° in many parts of the United Kingdom, but reaching 52° at Oxford.

Wind moderate to strong from the SW^ly over the greater part of Northwestern Europe, but SE^ly or E^ly in the west of Norway. Light from the SE^ly or S^ly in Russia and from the N^ly in Italy and Austria. Variable in Spain, light to fresh from the S^ly in Algeria. Subsequently backing to the S^ly or SE^ly in the west of Ireland and increasing in force.

Barometer highest 30·7 ins. and upwards, in an anticyclone lying over Central Russia, 30·3 ins. to 30·4 ins. and upwards, in another system lying over Italy, the Mediterranean, the east of Spain and the southern parts of France and Germany. Lowest, 29·3 ins. and less, in a large depression lying to the northward of our Islands and the westward of Norway. Depression subsequently travelling away northeastwards but new disturbance beginning to show itself off the west of Ireland.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Thursday, 29th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom. Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.49	30	W	2	0	29.69	+.33	17	16	-16	SW	2	b	*	?	?	.
	Hernösand ...	29.81	27	Z	0	b	29.82	+.36	17	17	-19	Z	0	bc	*	41	?	.
	Stockholm ...	29.95	36	SW	2	0	30.01	+.26	33	32	-3	SSW	2	0	*	?	30	.
	Wisby	30.04	35	SSW	4	c	30.06	+.15	32	32	-3	SW	4	f	*	37	32	-
	Bodö	29.60	35	W	4	c	29.59	+.27	36	34	-3	ESE	2	0	1	?	32	0.044
	Christiansund	29.69	39	SE	2	bc	29.59	-.03	44	41	+4	WSW	4	0	4	45	37	0.12
	Skudesnaes ...	29.75	39	SSE	3	r	29.78	-.01	39	38	+1	SSE	4	r	5	39	37	0.20
	Christiania Fjord (Færder)	29.89	38	SSW	3	f	29.84	+.08	38	38	-2	SSW	3	0	3	?	36	0.04
	Skagen (The Scaw)	29.93	33	SW	2	0	29.88	-.01	37	37	+2	SSW	3	r	3	37	32	.
	Fanö	30.01	33	SW	4	f	29.97	-.02	34	34	+2	SW	4	r	*	34	32	0.08
BRITISH ISLANDS.	Sumburgh Head	29.44	44	SSE	1	r	29.56	.00	41	40	-1	S	1	c	3	45	38	0.04
	Stornoway ...	29.44	43	SW	3	b	29.34	+.01	46	44	0	SW	6	bc	6	48	41	0.03
	Wick	29.53	42	S	2	bc	29.51	.00	43	41	+2	S	5	0	3	47	35	0.02
	Nairn	29.53	45	SW	1	b	29.48	+.02	45	43	0	SW	5	c	1	53	37	-
	Aberdeen ...	29.60	44	S	2	b	29.64	+.04	41	40	-2	S	3	og	3	47	38	0.01
	Leith	29.64	47	W	1	c	29.61	+.02	45	42	-3	SW	2	bc	*	52	41	-
	Shields	29.74	45	SSW	3	c	29.72	-.02	44	42	+1	SSE	2	cmw	2	49	41	-
	Spurn Head ...	29.84	44	SSW	4	rm	29.82	-.08	42	42	+3	S	4	cm	3	47	39	0.05
	York	29.81	47	S	2	0	29.76	-.10	43	42	+2	SSE	2	0	*	50	39	-
	Loughborough	29.90	47	SW	3	0	29.82	-.11	46	46	+5	SSE	3	od	*	53	40	0.10
	Ardrossan ...	29.68	46	SSW	3	b	29.57	+.02	45	44	-1	SSE	4	0	3	47	43	-
	Malin Head ...	29.57	45	E	5	b	29.33	-.11	45	44	-1	SSE	6	og	3	49	41	-
	Mullaghmore ...	29.63	46	SW	5	b	29.33	-.15	49	47	0	S	8	ogp	6	51	46	-
	Belmullet ...	29.62	48	NSW	3	b	29.37	-.12	45	43	-3	W	6	cu	*	49	42	0.21
	Donaghadee ...	29.69	47	W	3	b	29.55	-.02	46	46	0	SW	5	c	3	52	45	0.01
	Liverpool (Bidston)	29.82	49	SSW	3	c	29.68	-.12	44	43	+1	SE	4	o	3	50	41	0.04
	Holyhead ...	29.79	46	SW	5	ogm	29.61	-.11	47	46	+1	S	6	odqm	5	48	43	0.05
	Parsonstown ...	29.73	44	Z	0	b	29.45	-.17	47	46	-1	SE	2	r	*	53	40	0.03
	Valencia	29.73	51	SSW	6	bc	29.51	-.14	45	44	-6	SSW	3	opm	4	53	43	0.21
	Roche's Point ...	29.81	49	WSW	3	c	29.53	-.17	46	44	-3	NNW	6	c	5	53	45	0.10
	Pembroke (St. Ann's Hd.)	29.87	47	S	5	f	29.65	-.15	46	46	-1	S	4	dm	5	47	45	0.15
	Scilly	29.87	48	SW	3	c	29.68	-.18	50	50	+1	SSW	5	or	5	50	47	0.23
	Prawle Point ...	29.95	47	SSW	6	m	29.81	-.16	47	47	0	SSW	7	tu	6	47	46	0.24
	Jersey (St. Aubin's)	30.09	48	SSW	3	om	30.00	-.10	46	45	0	S	5	otm	4	51	45	0.12
	Hurst Castle ...	30.02	47	SW	7	cd	29.90	-.12	44	44	0	SSW	7	odm	5	48	44	0.15
	Dungeness ...	30.05	43	SW	5	0	29.99	-.06	43	42	+1	SW	6	0	5	44	41	0.08
	London	30.02	48	SW	2	0	29.93	-.09	47	46	+1	S	3	od	*	51	45	0.10
	Oxford	29.96	47	S	3	0	29.85	-.13	47	46	+4	S	4	d	*	52	43	0.04
	Cambridge ...	29.95	49	S	3	0	29.89	-.11	47	47	+3	S	2	0	*	53	42	0.02
	Yarmouth ...	29.97	45	SW	4	c	29.95	-.03	43	42	+2	SW	3	cg	3	46	39	0.05
GERMANY & HOLLAND.	Cuxhaven ...	30.10	39	SW	2	0	30.09	+.01	38	38	0	SW	3	bc	*	40	37	0.04
	Berlin	30.23	37	SW	3	b	30.24	+.03	37	37	0	SW	2	r	*	39	36	0.08
	Wiesbaden ...	*	*	*	*	*	30.33	+.01	32	30	-1	Z	0	0	*	39	28	-
	Munich	30.39	33	Z	0	0	30.38	.00	20	20	-10	SSW	2	b	*	34	19	-
	The Helder ...	30.04	38	SSW	4	c	30.04	-.01	38	38	+3	SSW	4	r	4	38	?	0.04
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.16	-.02	37	35	-4	SSE	4	bc	*	48	37	-
	Cape Gris Nez	30.07	44	S	5	0	30.03	-.02	43	41	+2	S	6	0	6	46	39	0.04
	Paris	30.27	42	S	2	0	30.24	-.02	35	34	-3	S	2	bc	*	?	33	-
	Brest	30.07	49	SSW	5	f	29.93	-.08	48	45	-1	SW	7	r	8	52	45	0.55
	Lorient	30.13	48	SSW	4	0	30.02	-.10	50	48	+1	SSW	4	r	5	50	48	0.04
	Rochefort ...	30.24	44	S	3	b	30.19	-.05	39	39	0	S	4	c	*	52	34	-
	Belfort	?	35	W	2	bc	?	?	?40	?	+3	NE	2	c	*	44	30	-
	Lyons	30.38	39	SSE	1	b	30.42	+.04	29	28	-5	ESE	1	b	*	46	28	-
	Nice	30.37	45	SW	3	bc	30.39	+.03	39	36	0	E	4	b	1	54	39	-
	Perpignan ...	30.37	40	E	2	b	30.38	+.03	38	38	+7	SW	2	0	*	50	31	-
	Biarritz	30.27	52	Z	0	b	30.22	-.03	47	42	-2	Z	0	b	3	54	39	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.24	54	S	2	c	30.34	+.03	?	46	?	NW	2	f	?	54	46	-

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Thursday, 29th January, 1891.

BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

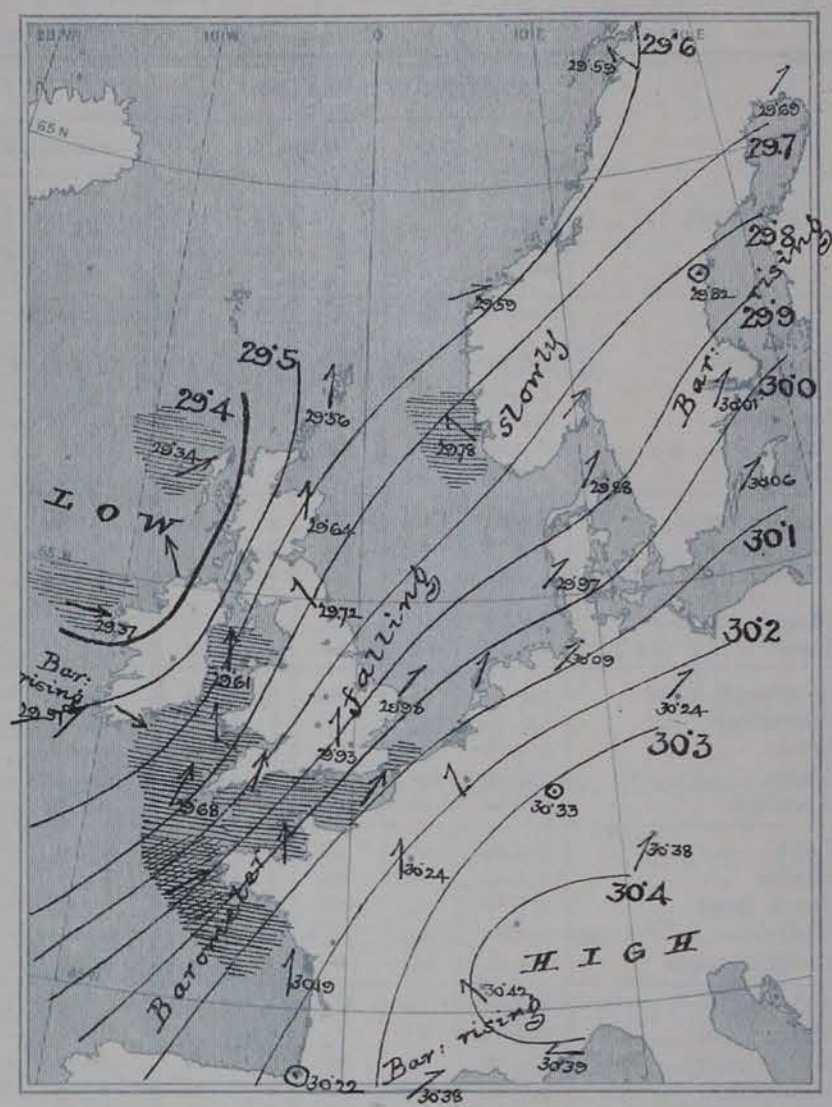
WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.

MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 969
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979



TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

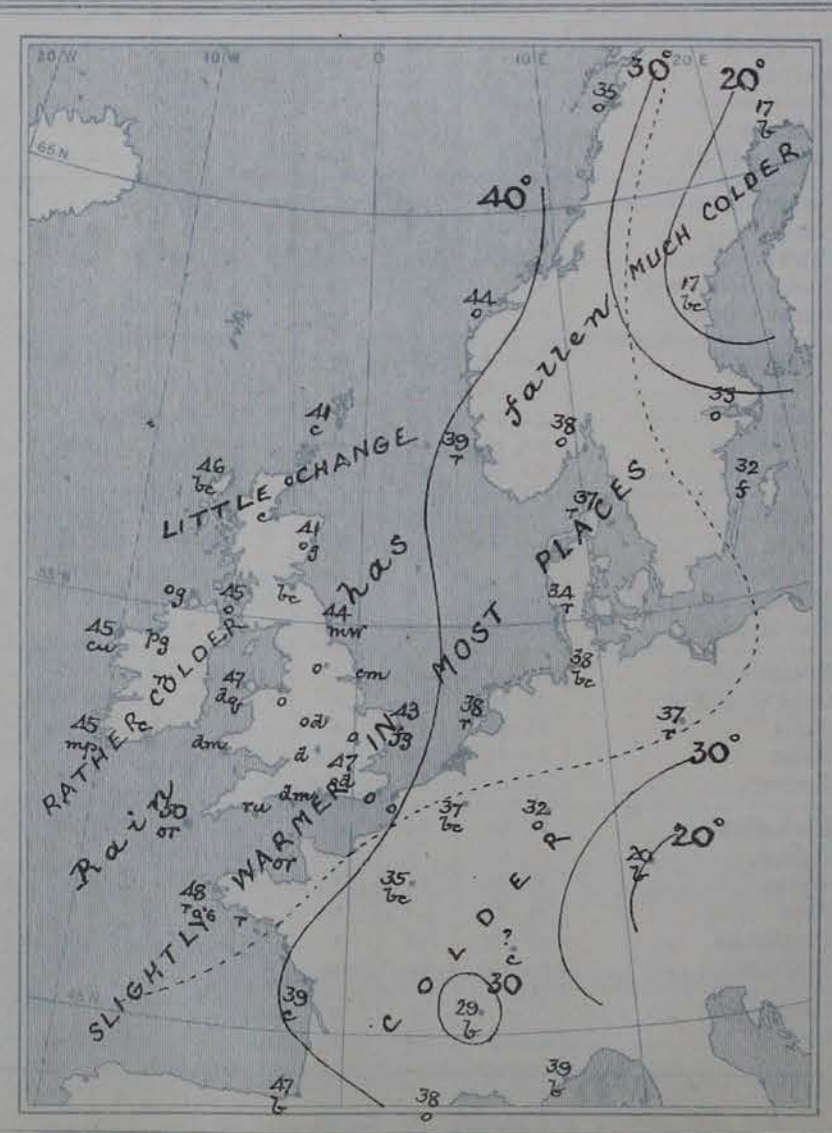
RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.

MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 6	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 9	46 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 6	37 · 1	36 · 1	2 · 26
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 64
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.



GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins: and more, to 30·0 ins: over France and Germany.
Lowest, 29·4 ins: and less, off our extreme northwestern coasts.
Gradient somewhat steep over the southwest of England and the Channel, moderate to slight elsewhere.
Barometer falling in most places, but changing irregularly in the southwest.

TEMPERATURE

Highest, 50° at Scilly, 48° at Brest, 47° at Biarritz, Hawke's Point, London, and Holyhead.
Lowest, (1) 17° in the north of Sweden, 33° at Stockholm; (2) 20° at Munich, 29° at Lyons, 35° at Paris, 37° at Brussels and Berlin.
It is falling somewhat on our eastern coasts, but is high over Great Britain for the time of year.

WIND

S. over France, Great Britain, and the English and Irish Channels and blow strongly in the west, and a moderate gale in the south.
In the west and south of Ireland it has shifted to W. but the change appears to be temporary.
Moderate to light SW. breezes are prevalent on the eastern shores of the North Sea and in Germany.

WEATHER
P

Fine and bright in the south and southeast of France, cloudy or overcast elsewhere with rain at times except in the northeast of our Islands.
The fall since yesterday has not been large except at Brest.

SEA

High at Brest, rough on our west and south coasts generally, slight to smooth in the east.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

Very changeable, wet, unsettled weather seems likely to prevail in most places, with varying temperatures and rough sea.

FORECASTS

For the 24 hours ending at NOON on 30th JAN.y 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	Varying S.ly to W.ly winds, force very changeable; weather unsettled, rain at times.	6 SCOTLAND WEST 7 ENGLAND N.W.	Same as No. 0.
1 SCOTLAND EAST 2 ENGLAND N.E. 3 ENGLAND EAST 4 MIDLAND COUNTIES	SW.ly and S.ly winds, moderate or fresh; rain at times.	8 ENGLAND S.W. 9 IRELAND NORTH 10 IRELAND SOUTH	S.ly to W.ly winds, varying greatly both in force and direction; changeable, showery, unsettled.
5 ENGLAND SOUTH	S.ly and SW.ly winds, strong to moderate; rainy with fair intervals.	WARNINGS	The SOUTH CONE is still flying in district 10.

Note.—The **South Cone**, *point downwards* ( ), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.
The **North Cone**, *point upwards* ( ), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29.80	39	39	SSE	4	o	?
Sumburgh Head	29.45	44	43	SSE	3	o	4
Stornoway	29.38	48	47	SW	4	c	4
Aberdeen	29.56	44	43	SW	2	og	4
Shields	29.70	48	46	SSW	3	o	2
Ardrossan	29.60	49	46	SSW	4	o	3
Malin Head ...	29.52	48	45	SSW	5	c	2
Mullaghmore ...	29.58	50	46	SW	6	b	4
Belmullet	29.58	49	46	WSW	5	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29.75	49	47	SW	5	cqm	5
Valencia	29.72	52	50	SW	5	bcm	5
Scilly	29.87	50	50	SSW	5	m	5
Jersey	30.10	49	46	S	3	c	3
Dungeness	30.05	43	42	SW	5	c	4
London	30.00	51	49	SW	3	c	*
Yarmouth	29.97	46	45	SSW	4	cf	3
Rochefort	30.44	50	45	SSE	3	bc	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather cloudy or overcast over the greater part of our Islands and the Continent, but fine in the west of Ireland and the east of England, as well as at some of the French, Austrian, and Algerian stations. Foggy in Denmark and the northwest of France; rainy in several parts of the United Kingdom, Holland, and Germany; snow falling at Hapavanda and Helsingfors. Sky clearing later in the north of our Islands, but rain falling over England.

Temperature highest, 52° at Cherbourg, Nemours, and Algiers, 51° at Valencia Island, Oporto, and Malta, and 49° at Mullaghmore, Rochefort, Scilly, Brest, and Lorient; above 40° in all parts of the United Kingdom. Lowest −18° at Moscow, +2° at Kiev, 5° at Odessa, 9° at St Petersburg and 12° at Nicolaieff; below the freezing point over Austria and some part of France and Germany. Rising later to between 50° and 53° in many parts of the United Kingdom and also in the west and south of France.

Wind fresh to strong from the S.ward or SW.ward over the greater part of western and northwestern Europe, with a gale over the Gulf of Finland. Light from the N.ward over the south of Russia as well as over the central and southern parts of Spain and some parts of Italy. Variable in the south of France; light from the S.ward in Algeria. Subsequently veering a little in many parts of the United Kingdom, and falling light on our northern coasts.

Barometer highest 30·7 ins. and upwards over central Russia; 30·3 ins. to 30·45 ins. in a large anticyclone covering the Mediterranean, the whole of southern and the greater part of central Europe, and all but the most northern part of Russia. Lowest 29·4 ins. and less, over the north of Scandinavia and also in a depression lying off the northwest of Scotland. Depression subsequently moving north-eastwards, and barometer rising over nearly the whole of the United Kingdom.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Friday, 30th January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 6.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.74	28	S	2	o	29.85	+.16	28	28	+11	NE	2	o	*	32	9	.
	Hernösand ...	29.79	29	Z	o	b	29.88	+.06	19	19	+2	Z	o	f	*	34	18	.
	Stockholm ...	29.95	35	SW	2	o	30.02	+.01	35	35	+2	Z	o	f	*	39	32	0.04
	Wisby	30.02	36	SSW	4	o	30.06	.00	36	36	+4	S	4	o	*	37	32	0.04
	Bodö	29.64	35	E	2	o	29.69	+.10	34	32	-1	ENE	2	b	1	36	30	.
	Christiansund	29.68	40	ESE	2	b	29.59	.00	42	40	-2	SW	2	o	3	?	39	.
	Skudesnaes ...	29.70	41	SSE	6	r	29.63	-.15	39	39	o	E	1	r	3	41	37	0.35
	Christiania Fjerd (Færder)	29.91	38	WSW	2	f	29.74	-.10	39	39	+1	SSW	5	r	4	39	36	.
	Skagen (The Scaw)	29.93	37	SSW	2	o	29.79	-.09	37	37	o	SW	5	r	4	37	36	0.55
	Fanö	29.93	36	SSW	6	r	29.85	-.12	35	35	+1	SSW	6	m	*	37	34	0.08
BRITISH ISLANDS.	Sumburgh Head	29.35	44	SSE	4	r	29.56	.00	42	40	+1	SW	1	b	4	45	39	0.29
	Stornoway ...	29.31	42	SW	4	c	29.50	+.16	39	38	-1	SW	4	bc	4	46	37	0.08
	Wick	29.41	42	S	4	o	29.38	+.09	40	39	-3	S	2	bc	3	43	35	0.15
	Nairn	29.39	41	WSW	1	b	29.59	+.11	37	35	-8	SW	1	b	1	47	32	0.01
	Aberdeen ...	29.46	43	SSW	2	bem	29.70	+.06	37	36	-4	SSW	2	bem	3	44	33	0.11
	Leith	29.51	43	SW	1	c	29.73	+.12	42	41	-3	WSW	1	o	*	49	39	0.02
	Shields	29.54	39	SSW	3	c	29.81	+.09	39	38	-5	SSW	2	cmw	2	49	35	.
	Spurn Head ...	29.64	44	S	5	o	29.90	+.08	38	37	-4	SSW	2	b	3	46	36	0.09
	York	29.61	50	SSE	2	m	29.68	+.12	37	36	-6	S	1	b	*	50	35	0.09
	Loughborough	29.68	47	SW	3	r	29.93	+.11	41	40	-5	WSW	3	c	*	50	37	0.14
	Ardrossan ...	29.53	45	WSW	4	b	29.76	+.19	44	43	-1	SW	4	b	3	45	42	0.17
	Malin Head ...	29.49	42	SW	3	bp	29.68	+.35	40	38	-5	S	3	b	4	48	38	0.08
	Mullaghmore ...	29.54	44	SW	5	o	29.72	+.39	40	38	-9	SSW	4	b	4	49	39	0.14
	Belmullet ...	29.53	44	SW	3	b	29.71	+.34	42	41	-3	SSE	3	b	*	48	40	0.05
	Donaghadee ...	29.59	41	WSW	3	bc	29.78	+.23	39	39	-7	W	3	c	1	48	35	0.08
	Liverpool (Bidston)	29.65	43	W	3	bc	29.86	+.18	41	40	-3	SSE	2	c	3	51	38	0.04
	Holyhead ...	29.64	43	WSW	1	b	29.84	+.23	43	43	-4	WSW	3	bc	2	47	41	0.11
	Parsonstown ...	29.64	43	Z	o	o	29.80	+.35	35	34	-12	Z	o	b	*	49	35	0.14
	Valencia	29.62	47	SSW	5	cp	29.81	+.30	47	45	+2	SSW	5	c	4	51	41	0.17
	Roche's Point ...	29.70	48	W	3	bc	29.87	+.34	43	41	-3	W	1	b	4	50	42	0.05
	Pembroke (St. Ann's Hd.)	29.72	46	WSW	4	b	29.92	+.27	46	45	o	SW	5	bcqp	5	47	44	0.03
	Scilly	29.79	47	WSW	3	c	29.98	+.30	47	46	-3	SW	3	c	6	51	45	0.43
	Prawle Point ...	29.77	46	W	5	o	30.03	+.22	44	44	-3	W	4	b	4	47	43	0.20
	Jersey (St. Aubin's)	29.87	48	S	5	rm	30.11	+.11	45	44	-1	W	3	bm	3	49	44	0.46
	Hurst Castle ...	29.78	46	SSW	9	r	30.01	+.11	43	43	-1	SW	4	bcp	4	47	40	0.51
	Dungeness ...	29.90	45	SW	5	rq	30.03	+.04	42	42	-1	SW	3	f	3	45	41	0.33
	London	29.80	47	SSW	6	rq	30.00	+.07	41	40	-6	S	1	b	*	50	39	0.24
	Oxford	29.74	47	SW	4	r	29.99	+.14	39	38	-8	SSW	1	b	*	49	37	0.21
	Cambridge ...	29.76	47	S	3	r	30.00	+.11	37	37	-10	S	1	b	*	49	35	0.14
	Yarmouth ...	29.83	45	SW	6	c	29.97	+.02	39	38	-4	WSW	3	bcf	3	45	37	0.11
GERMANY & HOLLAND.	Cuxhaven ...	30.12	40	SSW	3	o	30.02	-.07	40	39	+2	SW	4	f	*	42	?	0.08
	Berlin	30.27	39	SW	3	b	30.24	.00	33	32	-4	S	4	b	*	43	30	0.04
	Wiesbaden ...	*	*	*	*	*	30.25	-.08	33	30	+1	Z	o	o	*	37	28	-
	Munich	30.35	32	Z	o	b	30.34	-.04	16	16	-4	SSW	2	b	*	34	16	-
	The Helder ...	29.95	41	S	4	r	29.97	-.07	37	37	-1	SSW	2	f	3	45	37	0.12
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.13	-.03	41	41	+4	SW	4	o	*	45	?	0.16
	Cape Gris Nez	29.92	46	S	6	r	30.04	+.01	41	40	-2	S	4	o	5	50	39	0.20
	Paris	30.14	44	S	4	o	30.17	-.07	42	41	+7	SSW	2	o	*	49	? 35	0.16
	Brest	29.85	48	WSW	5	o	30.09	+.16	47	46	-1	WSW	4	b	7	50	45	0.51
	Lorient	29.95	49	SSW	6	r	30.19	+.17	49	47	-1	WSW	3	b	5	50	46	1.02
	Rochefort ...	30.14	46	S	4	o	30.22	+.03	45	45	+6	SSW	3	f	*	46	37	0.12
	Belfort	?	?	W	1	bc	?	?	28	?	-12	W	2	bc	*	44	27	-
	Lyons	30.34	36	E	1	b	30.37	-.05	38	37	+9	SSE	1	c	*	43	29	-
	Nice	30.36	46	ENE	1	c	30.42	+.03	38	36	-1	E	3	b	1	54	37	-
	Perpignan ...	30.32	48	W	1	o	30.37	-.01	37	37	-1	SW	1	o	*	51	33	-
	Biarritz	30.17	55	S	1	c	30.26	+.04	53	48	+6	SW	2	o	6	61	? 47	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.34	55	SSW	4	o	30.34	.00	55	55	?	SSW	4	r	?	57	54	0.12

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Friday, 30th January, 1891.

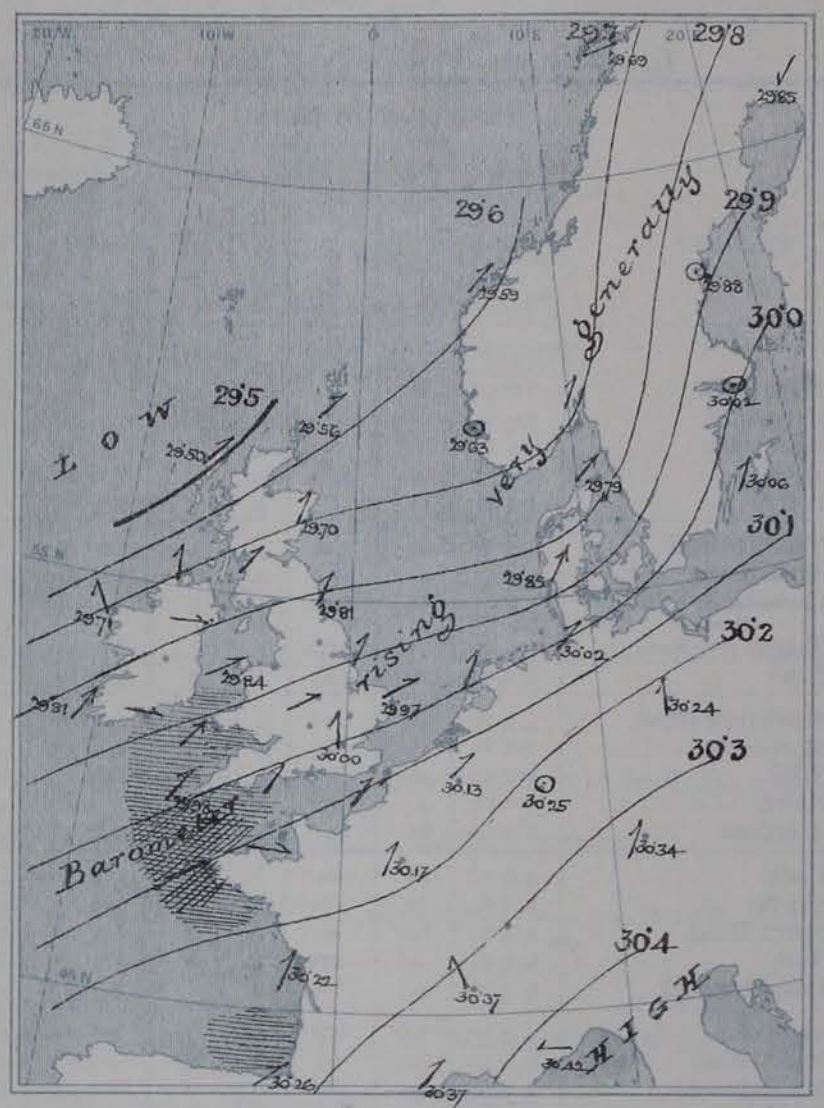
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shewn thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January.
During the 20 Years: 1871—1890.

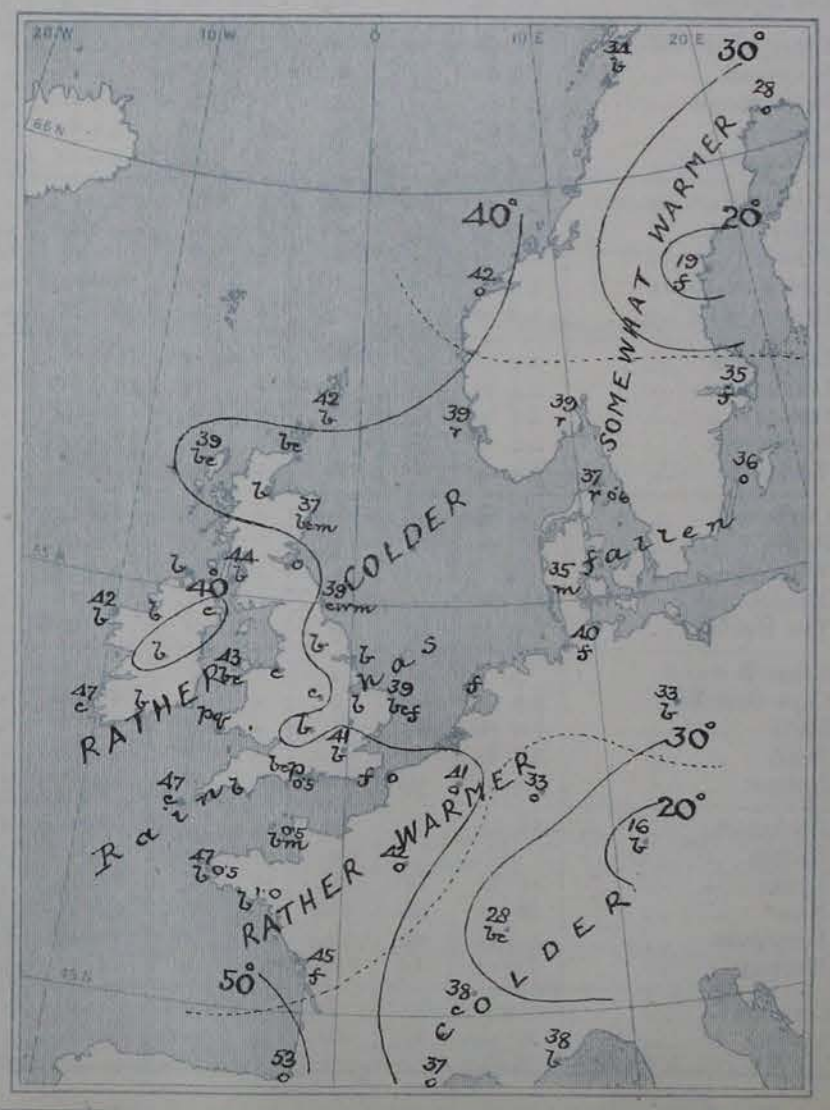
STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29·675
Stornoway	29·682
Wick	29·719
Nairn	29·745
Aberdeen	29·787
Leith	29·825
Shields	29·881
Spurn Head	29·926
York	29·932
Loughborough	29·967
Ardrossan	29·838
Mullaghmore	29·814
Donaghadee	29·856
Holyhead	29·902
Liverpool	29·924
Parsonstown	29·895
Valencia	29·887
Roche's Point	29·908
Pembroke	29·936
Scilly	29·969
Prawle Point	30·006
Jersey	30·022
Hurst Castle	30·002
Dover	30·012
LONDON	30·006
Oxford	29·999
Cambridge	29·993
Yarmouth	29·979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42·9	35·6	39·7	38·4	3·72
Stornoway	43·3	34·5	39·5	38·4	5·30
Wick	42·4	33·3	38·2	36·8	2·05
Nairn	42·2	32·9	37·2	35·6	1·99
Aberdeen	42·4	33·2	37·3	35·6	2·31
Leith	44·4	33·7	38·6	37·2	1·93
Shields	43·0	34·2	38·2	36·9	1·75
Spurn Head	41·7	34·5	37·7	36·7	1·35
York	42·7	32·5	36·7	35·7	1·87
Loughborough	43·0	32·3	36·4	35·4	2·04
Ardrossan	44·2	36·3	40·0	38·8	4·25
Mullaghmore	46·1	38·0	41·6	40·4	3·41
Donaghadee	44·4	36·1	40·0	39·2	2·98
Holyhead	45·6	38·7	41·7	40·3	3·38
Liverpool	43·5	35·2	38·6	37·0	2·22
Parsonstown	45·6	34·2	38·9	37·8	3·12
Valencia	49·5	40·4	44·5	43·3	6·69
Roche's Point	47·7	39·5	43·2	41·9	5·50
Pembroke	45·5	39·6	42·7	41·3	3·75
Scilly	48·8	42·9	46·4	44·9	3·73
Prawle Point	46·2	37·6	42·0	41·0	3·09
Jersey	45·8	38·3	41·8	40·4	3·21
Hurst Castle	45·0	36·3	40·3	39·5	2·96
Dover	43·5	35·8	39·2	38·1	2·58
LONDON	44·1	33·8	37·6	36·6	2·12
Oxford	43·1	33·6	37·1	36·1	2·26
Cambridge	43·3	31·7	36·2	35·4	1·54
Yarmouth	41·5	33·8	37·5	36·7	1·95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·4 ins. to 30·1 ins. over France and Germany.
Lowest, 29·5 ins. and less, off the extreme northwest of Scotland.
Gradients slight over France, moderate over our Islands.
Barometer rising except over Germany, but the rate of change is slight.

TEMPERATURE

Highest, 55° at Lisbon, 53° at Biarritz, 49° at Rochefort, 47° at Scilly and Valencia Island.
Lowest, (1) 19° at Hernösand, 28° at Haparanda, 35° at Stockholm, (2) 16° at Munich, 28° at Belfort, 33° at Berlin.
In London the thermometer has fallen to 41°, while at Paris it has risen to 42°.

WIND

SW½W (S to W) over the British Isles, the Channel, and North Sea; light to moderate in force.
In the west of Norway it is light and very variable, in Sweden calm.
The gales noticed in the south yesterday have died down.

WEATHER
P

Fine and bright in many places, and fair in most others, but showery at Pembroke and Hurst Castle.
Rain fell very generally yesterday except in the south of France. At Lorient and the Channel stations the fall was heavy.

SEA

Still high off Ushant, rough at the mouth of the Channel and on our southwest coast generally, moderate to smooth elsewhere.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The changes in progress this morning are slight, and do not appear to indicate any alteration of importance.

DAILY WEATHER REPORT. 1890.

The Correction sheet for December, the Frontispiece and Title Page having been issued this volume is complete, and may now be bound.

FORECASTS

For the 24 hours ending at NOON on 31st January 1891.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH	S½E and SW½W winds, moderate; some showers.	6 SCOTLAND WEST	SW½W and S½W winds, moderate at first, freshening later; some showers, bright intervals.
1 SCOTLAND EAST	SW½W breezes, light; fair as a whole.	7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST		9 IRELAND NORTH	
4 MIDLAND COUNTIES		10 IRELAND SOUTH	
5 ENGLAND SOUTH	SW½W breezes, light or moderate; slight local showers, but fair as a whole.	WARNINGS.	NONE ISSUED.

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR.	THER. D.	THER. W.	WIND D.	WIND F.	WEA.	SEA.
Skudesnaes ...	29.60	40	39	SSE	6	o	5
Sumburgh Head	29.43	44	43	SSE	4	o	4
Stornoway	29.26	45	43	SW	5	o	5
Aberdeen	29.46	43	42	SSE	4	o q gr	4
Shields	29.55	49	47	S	3	o d	2
Ardrossan	29.55	46	44	WSW	4	r	4
Malin Head ...	29.40	46	43	SSW	4	b	3
Mullaghmore ...	29.46	49	45	SW	5	cp	4
Belmullet	29.47	46	44	WSW	4	c h p	*
Holyhead	29.57	45	45	W	2	p	4
Valencia	29.59	51	50	SW	4	c m	4
Scilly	29.66	50	49	W	3	c	6
Jersey	29.95	49	47	SSE	5	o	4
Dungeness	29.93	44	43	SW	5	c	4
London	29.85	50	48	SW	4	o r	*
Yarmouth	29.85	45	44	SSW	4	o f	4
Rochefort	30.16	48	43	SSE	4	o	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE

DURING THE PAST 24 HOURS.

Weather cloudy over the greater part of the United Kingdom, with rain at many of the English stations and passing showers in Ireland; dull over Norway, Denmark, Russia, and many parts of central Europe, with rain in some places and fog over the Baltic. Fine over the greater part of France and southern Europe. Rain falling during day over nearly the whole of Western Europe; amounts large at some of our southern stations and also in the northwest of France.

Temperature highest (1) 57° at Bilbao, 55° at Bourmna, and 53° at Oporto; (2) 54° at Algiers, 53° at Malta, and 51° at Oran; (3) 50° at Scilly and 49° at Mullaghmore; above 45° in the western and southern parts of the United Kingdom generally. Lowest −2° F. at Moscow, +1° at Kharkov, 9° at Kiev, 15° at Kimbery, and 16° at Nicolaiff; below 20° at most of the Russian and Swedish stations, and below the freezing point over Austria, south Germany and central France. Rising during day to between 45° and 51° in nearly all parts of the United Kingdom.

Wind S^th over our Islands and France; strong in force on our western and southern coasts, with a gale at Mullaghmore. Light from the SW^rd over Scandinavia, Denmark, Finland and the Baltic, but SE^rly or E^rly over the central and southern parts of Russia. Variable over southern Europe and the Mediterranean. Subsequently veering to the SW^rd over our Islands and increasing to a gale at some of the Channel stations.

Barometer highest 30·7 in. and upwards over central Russia; 30·3 in. to 30·4 in. and more in a large anticyclone extending thence over the whole of eastern and southern Europe and the Mediterranean. Lowest 29·4 in. and less, in a depression lying off the northwest of our Islands; gradients moderate over northwestern Europe, slight elsewhere. Depression in northwest subsequently travelling northeastwards but secondary disturbance passing across the south of England.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

DAILY WEATHER REPORT.

for Saturday, 31st January, 1891.

Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, *Secretary.*

	STATIONS.	YESTERDAY EVENING. Barom: Reading at 32° F. and Sea Level.	Temp. Dry.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	8 A.M. TO DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force. (0 to 12.)	Weather.	Sea. (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
SCANDINAVIA.	Haparanda ...	29.95	27	NE	0	0	29.71	-.14	32	32	+4	SSE	2	0	*	?	25	0.32
	Hernösand ...	29.78	34	SW	2	f	29.97	+.09	33	32	+14	W	2	b	*	36	16	0.16
	Stockholm ...	29.95	37	SW	2	0	30.13	+.11	32	31	-3	W	2	0	*	39	32	0.05
	Wisby	30.08	36	SW	4	r	30.13	+.07	36	35	0	SW	2	f	*	39	34	-
	Bodö	29.65	37	ENE	2	0	29.72	+.03	33	32	-1	E	2	0	1	37	30	-
	Christiansund	29.77	42	SW	3	b	29.89	+.30	36	35	-6	NE	0	b	4	43	37	-
	Skudesnaes ...	29.95	40	SE	2	0	30.01	+.38	39	38	0	SSE	6	0f	4	?	37	-
	Christiania Fjord (Færder)	29.89	40	NSW	3	b	30.11	+.37	31	31	-8	NNW	2	f	2	39	31	-
	Skagen (The Scaw)	29.99	37	NSW	3	0	30.16	+.37	32	32	-5	N	1	f	0	39	32	-
	Fanö	30.13	31	NSW	2	m	30.17	+.32	31	31	-4	SSW	4	f	*	36	30	0.04
BRITISH ISLANDS.	Sumburgh Head	29.71	42	SW	2	b	29.64	+.08	42	41	0	SSE	2	0	4	45	40	.
	Stornoway ...	29.63	40	SW	6	r	29.33	-.17	43	42	+4	SE	5	c	5	48	37	0.20
	Wick	29.75	40	S	2	b	29.46	-.12	43	42	+3	S	6	0m	4	45	37	.
	Nairn	29.73	42	SW	2	b	29.38	-.21	41	39	+4	ENE	2	c	1	48	34	0.01
	Aberdeen ...	29.84	40	S	3	b	29.49	-.21	42	41	+5	SE	7	0qm	6	44	37	0.03
	Leith	29.86	40	SW	1	b	29.40	-.33	44	40	+2	S	3	c	*	48	38	0.01
	Shields	29.93	45	SSW	3	bc	29.62	-.19	44	42	+5	S	6	bc	2	50	37	0.02
	Spurn Head ...	30.03	42	SSW	3	b	29.86	-.04	42	41	+4	S	6	b	4	47	38	0.01
	York	30.01	43	SSW	2	b	29.79	-.09	44	42	+7	S	3	bc	*	48	36	-
	Loughborough	30.08	45	SW	2	b	29.89	-.04	43	42	+2	SW	4	b	*	51	39	0.05
	Ardrossan ...	29.85	45	NSW	3	b	29.21	-.55	42	42	-2	S	6	r	6	45	41	0.02
	Malin Head ...	29.72	43	SSE	5	0	29.11	-.54	43	42	+3	NSW	5	0q	3	44	37	-
	Mullaghmore ...	29.72	47	SSE	5	0q	29.39	-.33	42	40	+2	NNW	9	qr	6	48	39	0.09
	Belmullet ...	29.66	43	S	4	0r	29.55	-.16	45	41	+3	NNW	8	b	*	47	34	0.18
	Donaghadee ...	29.85	43	SW	3	bc	29.26	-.52	38	38	-1	W	8	0	6	48	38	0.06
	Liverpool (Bidston)	30.00	45	SSE	2	b	29.73	-.13	44	40	+3	SW	6	b	4	50	41	0.04
	Holyhead ...	29.94	45	SSW	2	bm	29.68	-.16	44	44	+1	NSW	7	bq	6	48	43	0.06
	Parsonstown ...	29.76	46	NE	0	0	29.67	-.13	40	38	-5	SW	2	bc	*	50	34	0.13
	Valencia	29.61	49	SSE	8	om	29.75	-.06	43	41	-4	W	2	c	3	50	40	0.46
	Roche's Point ...	29.78	48	S	5	c	29.80	-.07	43	41	0	W	3	bc	4	50	42	0.30
	Pembroke (St. Ann's Hd.)	29.97	46	S	4	c	29.83	-.09	44	42	-2	SW	6	cqp	6	48	42	0.23
	Scilly	29.95	48	S	5	0	29.91	-.07	48	46	+1	SW	5	c	7	53	45	0.16
	Prawle Point ...	30.12	45	SW	3	b	30.00	-.03	46	45	+2	SW	5	bem	4	50	44	0.17
	Jersey (St. Aubin's)	30.21	46	SSW	3	cqm	30.09	-.02	46	45	+1	NSW	3	bm	3	53	44	0.10
	Hurst Castle ...	30.17	45	NSW	4	b	30.02	+.01	44	44	+1	SW	5	bqp	4	46	42	0.23
	Dungeness ...	30.17	43	NSW	4	bc	30.03	.00	43	42	+1	SSW	6	r	5	46	41	0.19
	London	30.16	44	SSW	1	bm	30.01	+.01	46	45	+5	S	3	0	*	53	41	0.31
	Oxford	30.13	42	SW	2	b	29.97	-.02	43	42	+4	S	3	b	*	51	38	0.20
	Cambridge ...	30.14	39	S	1	b	29.96	-.04	44	44	+7	S	1	bc	*	51	35	0.18
	Yarmouth ...	30.10	44	W	2	b	30.00	+.03	41	40	+2	SSW	5	oqr	4	47	35	0.05
GERMANY & HOLLAND.	Cuxhaven ...	30.08	39	SW	2	f	30.25	+.23	38	38	-2	SW	2	f	*	40	38	-
	Berlin	30.22	38	SW	3	r	30.35	+.11	38	38	+5	W	3	0	*	41	33	0.32
	Wiesbaden ...	*	*	*	*	*	30.39	+.14	36	35	+3	NE	0	0	*	37	33	0.08
	Munich	30.42	36	SW	3	0	30.45	+.11	33	33	+17	SE	4	b	*	?	16	0.04
	The Helder ...	30.19	35	SW	2	f	30.18	+.21	37	37	0	SSE	3	f	3	39	34	-
FRANCE AND BELGIUM.	Brussels (9 a.m.)	*	*	*	*	*	30.21	+.08	39	38	-2	SSW	4	0	*	42	36	0.20
	Cape Gris Nez	30.17	40	SW	4	bc	30.05	+.01	44	42	+3	S	6	r	5	45	39	0.16
	Paris	30.33	43	S	3	b	30.23	+.06	38	36	-4	SSE	2	c	*	51	35	0.24
	Brest	30.17	48	SSW	3	0	30.01	-.08	47	46	0	NSW	4	c	5	50	43	0.28
	Lorient	30.21	46	S	2	bc	30.15	-.04	49	49	0	SW	3	b	5	52	46	0.12
	Rochefort ...	30.28	49	SSE	3	f	30.26	+.04	46	45	+1	NSW	3	0	*	52	37	0.08
	Belfort	?	32	NW	2	bc	?	?	28	?	0	N	3	b	*	?	?	-
	Lyons	30.46	42	NNW	1	0	30.42	+.05	37	36	-1	S	3	bc	*	46	?	-
	Nice	30.40	46	NE	4	c	30.51	+.09	38	36	0	E	4	b	1	52	37	-
	Perpignan ...	30.44	44	SW	2	bc	30.43	+.06	43	42	+6	NW	2	0	*	52	34	-
	Biarritz	30.28	57	ESE	2	b	30.34	+.08	55	51	+2	SSW	1	0	6	63	50	-
PENINSULA.	Corunna	*	*	*	*	*												
	Lisbon	30.40	55	SSW	4	0	30.46	+.12	54	54	-1	NE	0	0	5	57	54	0.32

For Explanation of Columns, see bottom of p. 4.

† *Received too late for insertion in Charts on p. 2.*

WEATHER CHARTS

for 8 a.m. on Saturday, 31st January, 1891.

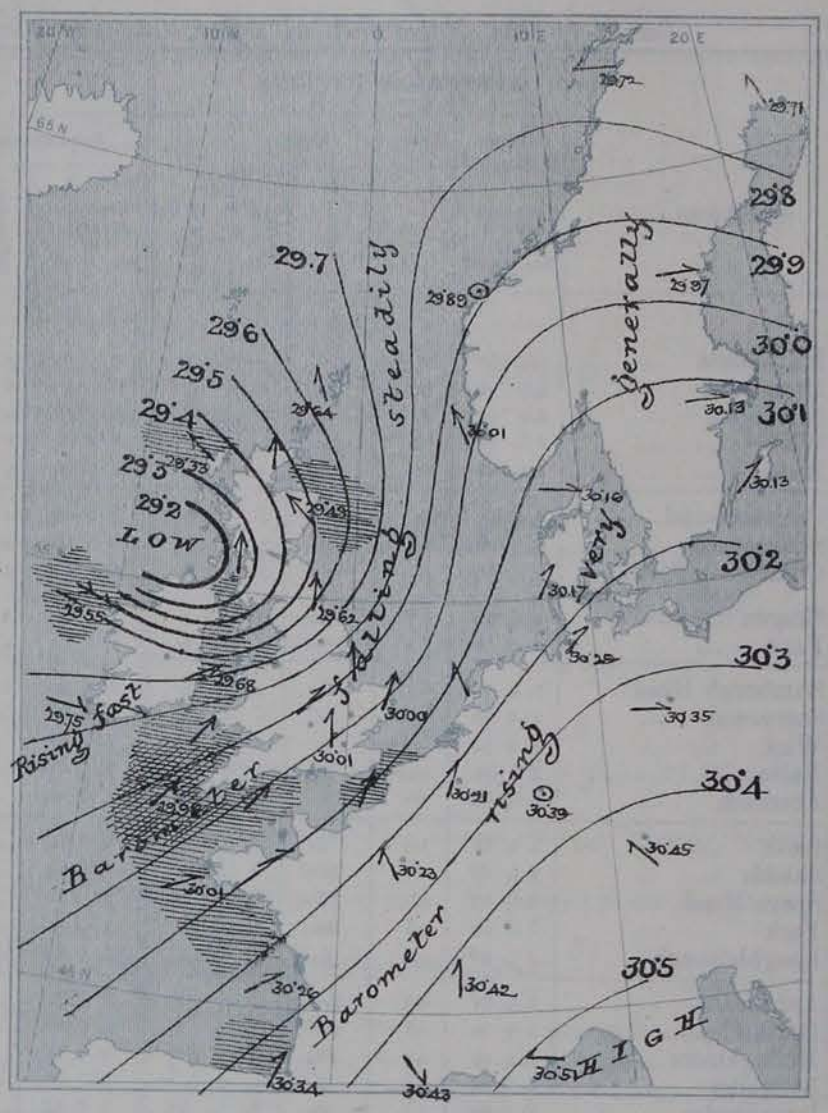
BAROMETER, WIND AND SEA.

EXPLANATION OF MAP.

BAROMETER—Isobars are drawn for each tenth of an inch. Changes since previous morning are stated in words.

WIND—Arrows shew the prevalent winds. They fly with the wind and their barbs and feathers refer to force thus—
= forces above 10; = forces 8 to 10;
= forces 5 to 7; = forces 1 to 4.
⊙ = dead calm.

SEA DISTURBANCE—Where considerable, is shown thus:
= Rough. = High.



MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of January. During the 20 Years: 1871—1890.

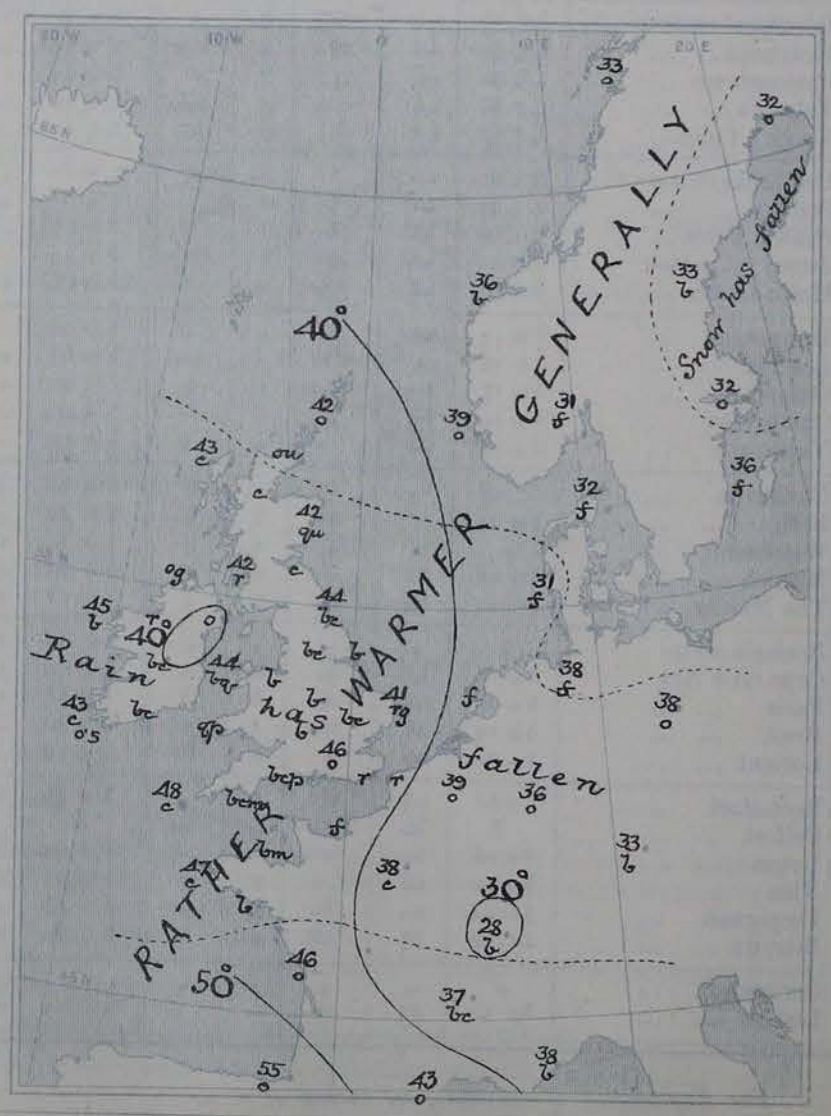
STATIONS.	MEAN READINGS.
	Ins.
Sumburgh Head	29 · 675
Stornoway	29 · 682
Wick	29 · 719
Nairn	29 · 745
Aberdeen	29 · 787
Leith	29 · 825
Shields	29 · 881
Spurn Head	29 · 926
York	29 · 932
Loughborough	29 · 967
Ardrossan	29 · 838
Mullaghmore	29 · 814
Donaghadee	29 · 856
Holyhead	29 · 902
Liverpool	29 · 924
Parsonstown	29 · 895
Valencia	29 · 887
Roche's Point	29 · 908
Pembroke	29 · 936
Scilly	29 · 959
Prawle Point	30 · 006
Jersey	30 · 022
Hurst Castle	30 · 002
Dover	30 · 012
LONDON	30 · 006
Oxford	29 · 999
Cambridge	29 · 993
Yarmouth	29 · 979

TEMPERATURE, & WEATHER AT 8 A.M., WITH RAINFALL IN PAST 24 HOURS.

TEMPERATURE—Isotherms are drawn for each 10°. Changes since previous morning are stated in words.

WEATHER is shown by Letters of the Beaufort Scale.

RAINFALL—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0·5 in. or more are quoted in figures.



MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of January.)

STATIONS.	TEMPERATURE. Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	RAINFALL. (Inches.)
Sumburgh Head	42 · 9	35 · 6	39 · 7	38 · 4	3 · 72
Stornoway	43 · 3	34 · 5	39 · 5	38 · 4	5 · 30
Wick	42 · 4	33 · 3	38 · 2	36 · 8	2 · 05
Nairn	42 · 2	32 · 9	37 · 2	35 · 6	1 · 99
Aberdeen	42 · 4	33 · 2	37 · 3	35 · 6	2 · 31
Leith	44 · 4	33 · 7	38 · 6	37 · 2	1 · 93
Shields	43 · 0	34 · 2	38 · 2	36 · 9	1 · 75
Spurn Head	41 · 7	34 · 5	37 · 7	36 · 7	1 · 35
York	42 · 7	32 · 5	36 · 7	35 · 7	1 · 87
Loughborough	43 · 0	32 · 3	36 · 4	35 · 4	2 · 04
Ardrossan	44 · 2	36 · 3	40 · 0	38 · 8	4 · 25
Mullaghmore	46 · 1	38 · 0	41 · 6	40 · 4	3 · 41
Donaghadee	44 · 4	36 · 1	40 · 0	39 · 2	2 · 98
Holyhead	45 · 6	38 · 7	41 · 7	40 · 3	3 · 38
Liverpool	43 · 5	35 · 2	38 · 6	37 · 0	2 · 22
Parsonstown	45 · 6	34 · 2	38 · 9	37 · 8	3 · 12
Valencia	49 · 5	40 · 4	44 · 5	43 · 3	6 · 69
Roche's Point	47 · 7	39 · 5	43 · 2	41 · 9	5 · 50
Pembroke	45 · 5	39 · 3	42 · 7	41 · 3	3 · 75
Scilly	48 · 8	42 · 8	45 · 4	44 · 9	3 · 73
Prawle Point	46 · 2	37 · 6	42 · 0	41 · 0	3 · 09
Jersey	45 · 8	38 · 3	41 · 8	40 · 4	3 · 21
Hurst Castle	45 · 0	36 · 3	40 · 3	39 · 5	2 · 96
Dover	43 · 5	35 · 8	39 · 2	38 · 1	2 · 58
LONDON	44 · 1	33 · 8	37 · 6	36 · 6	2 · 12
Oxford	43 · 1	33 · 0	37 · 1	36 · 1	2 · 20
Cambridge	43 · 3	31 · 7	36 · 2	35 · 4	1 · 54
Yarmouth	41 · 5	33 · 8	37 · 5	36 · 7	1 · 95

NOTE.—The Temperature means are for the 20 years 1871-90, the Rainfall means are mainly those for the 25 years 1866-90.

GENERAL SITUATION AT 8 A.M.

PRESSURE

Highest, 30·5 ins: to 30·2 ins: over southwestern, southern, and central Europe.
Lowest, 29·1 ins: in a depression, the centre of which lies off the west of Scotland.
Gradients very steep in the northwest and also in the southeast of Scotland
Barometer rising again quickly on our southwestern coasts, falling quickly over Scotland, rising slowly over Germany.

TEMPERATURE

Highest, 55° at Biarritz, 54° at Ferbon, 48° at Scilly, 46° in London and at Travle Point, 45° at Belmullet.
Lowest, 31° to 36° at the Danish and Swedish stations, 33° at Munich, 38° at Nice, Paris, and Berlin.
It rose to between 50° and 53° in the east and south of our Islands during yesterday, but fell to 41° in London at evening.

WIND

S⅞ and SE⅞ strong to gale in Scotland — S⅞ and SW⅞, fresh to strong over England — W⅞, a gale, over the Irish Sea — WNW⅞, a strong gale in the northwest of Ireland. In the south of Ireland the gale has already lulled, and the wind veered to W. Moderate WSW⅞ breezes prevail over the Bay of Biscay.

WEATHER

Rough, squally, and rainy at the western and northern stations generally, and has been so over England during the early morning. In this country, however, and the south of Ireland it is improving although still showery along our southern coasts at the time of observation. Rainfall has been general except in the south of France, but the amounts collected are not large.

SEA

Rough in most exposed places, high at the mouth of the Channel.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

As the disturbance passes off the barometer is likely to rise generally and the weather improve. It is very likely, however, that the improvement will be temporary; as, with the present distribution of pressure the rise of the barometer and the clearing of the sky over the south of Ireland are too sudden to indicate a lasting change.

FORECASTS

For the 24 hours ending at NOON on 1st February 1891.

DISTRICTS.	FORECASTS.
0 SCOTLAND NORTH; 1 SCOTLAND EAST	S⅞ gales, squally, rainy; then W⅞ winds, strong to moderate; showery but improving.
2 ENGLAND N.E.; 3 ENGLAND EAST; 4 MIDLAND COUNTIES; 5 ENGLAND SOUTH	Wind veering to SW. and W. and falling with improving weather. Liable to back and become unsettled again later.
6 SCOTLAND WEST; 7 ENGLAND N.W.; 8 ENGLAND S.W.	W⅞ and SW⅞ winds, strong to moderate, backing towards S. again later; changeable, showery unsettled.
9 IRELAND NORTH; 10 IRELAND SOUTH	Wind backing to S⅞ again and increasing with rain, very unsettled.
WARNINGS	The SOUTH CONE was hoisted yesterday in districts 0. 1. and 6 to 10

Note.—The **South Cone**, *point downwards* (▼), means that gales, or strong winds, are probable, at first from the Southward (from S.E. round by S. to N.W.). Should it appear likely that a gale beginning from between W. and N.W. is likely to veer towards N. or N.E., the *North* Cone is hoisted in preference to the *South* Cone.

The **North Cone**, *point upwards* (▲), means that gales, or strong winds, are probable, at first from the Northward (from N.W. round by N. to S.E.). Should it appear likely that a gale beginning from between E. and S.E. is likely to veer towards S. or S.W., the *South* Cone is hoisted in preference to the *North* Cone.

YESTERDAY'S 2 P.M. REPORTS.

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Skudesnaes ...	29·32	41	39	ESE	2	o	3
Sumburgh Head	29·63	43	41	SW	3	b	4
Stornoway	29·59	47	43	SW	5	c	5
Aberdeen	29·78	44	41	SSW	2	bcm	3
Shields	29·87	47	43	SSW	3	c	2
Ardrossan	29·82	45	44	WSW	3	c	2
Malin Head ...	29·72	43	41	S	5	bc	3
Mullaghmore ...	29·72	46	42	S	6	c	4
Belmullet	29·70	46	44	SSW	3	c	*

	BAR:	THER: D.	THER: W.	WIND D.	WIND F.	WEA.	SEA
Holyhead	29·92	47	45	SW	3	b	2
Valencia	29·78	50	48	SSE	6	o	5
Scilly	30·04	53	50	SSW	4	c	6
Jersey	30·20	50	47	WSW	3	bc	3
Dungeness	30·20	46	45	W	4	c	3
London	30·09	53	49	WSW	3	c	*
Yarmouth	30·01	47	45	WSW	3	b	3
Rochefort	30·31	49	49	S	2	f	*

GENERAL REMARKS ON THE WEATHER OVER EUROPE
DURING THE PAST 24 HOURS.

Weather fair over the greater part of our Islands and the Continent, but dull in Scandinavia, Denmark, and northern Russia as well as in the north of France. Fog reported in Sweden and North Germany, rain in the south of Norway and some parts of France, and snow at St Petersburg. Rain setting in at night over the greater part of the United Kingdom and thunder and lightning occurring at Scilly.

Temperature highest, 56° at Oporto, 55° at Leiton, 54° at Oran and Malta, and 53° at Bilbao; above 45 at most of the Mediterranean stations and also in the extreme southwest of our Islands. Lowest −7° at Kharkov, −6° at Moscow, −4° at Riga, +1° at Nicolaiff and 5° at Moscow and Hermanstadt; below the freezing point at several of the German and Austrian stations, and below 40° over central Algeria. Daily maxima reaching 50° in many parts of the United Kingdom, and as high as 53° at Scilly, Jersey and in London.

Wind light or moderate from the SW^ly over the greater part of western and northern Europe, but E^ly in the west of Norway, S^ly or SE^ly in Germany; light and variable over Algeria, Italy, and the southern parts of France and Russia. Subsequently backing to the S^ly in the western and northern parts of the United Kingdom, and increasing to a gale in Ireland.

Barometer highest 30·7 ins. and upwards, over Central Russia, 30·3 ins. and upwards in a large anticyclone extending thence over Austria, the whole of Southern Europe and the Mediterranean. Lowest 29·5 ins. and less in a depression lying to the northwestward of Scotland. Depression subsequently travelling away in a north-northeasterly direction, but new and much deeper disturbance appearing off our western coast in evening.

EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

WEATHER.—*Beaufort Scale* is b. blue sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gloomy; h. hail; l. lightning; m. misty (hazy); o. overcast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ugly, threatening; v. visibility, unusual transparency; w. dew.

* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Sweden and Denmark the observations are taken at 8 p.m. (Christiania time).

The Subscription for these Reports, forwarded by book post, is £1 per annum, payable in advance.

1. REPORTS RECEIVED TOO LATE FOR INSERTION DAILY.

DATE.	STATIONS.	YESTERDAY EVENING. Barometer at 32° F. and Sea Level.	Temp. in Shade.	Wind. Direc.	Wind. Force (0 to 12.)	Weather.	8 A.M. TO-DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direct.	Wind. Force (0 to 12.)	Weather.	Sea (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
1	Corunna	*	*	*	*	*	29·80	+ ·28	49	47	− 1	SE	2	bc	3	57	46	.
2	Corunna	*	*	*	*	*	30·11	+ ·31	45	44	− 4	SE	1	m	2	59	39	.
3	Corunna	*	*	*	*	*	30·34	+ ·23	47	?	+ 2	NE	1	m	2	57	43	.
5	Corunna	*	*	*	*	*	29·92	− ·32	50	48	+ 8	SE	4	0	4	59	41	.
7	Corunna	*	*	*	*	*	30·12	.	38	36	.	NE	1	0	6	45	34	.
8	Corunna	*	*	*	*	*	30·23	+ ·11	36	.	− 2	E	2	c	4	41	34	.
9	Brussels	*	*	*	*	*	30·18	+ ·15	17	.	− 6	ESE	1	0	*	27	13	.
..	Corunna	*	*	*	*	*	30·02	− ·21	49	46	+ 13	NW	5	c	6	48	34	0·39
10	Skagen	30·20	23	NW	1	b	30·32	+ ·23	35	34	+ 13	NW	1	c	1	?	21	.
..	Fanö	30·30	20	SSE	1	0	30·33	+ ·21	23	?	+ 1	NE	1	m	*	25	18	.
..	Corunna	*	*	*	*	*	30·31	+ ·29	38	38	− 11	NE	1	b	6	50	36	0·04
12	Lyons	30·57	17	W	7	r	30·65	+ ·18	18	.	+ 4	NNW	1	0	*	25	6	.
..	Corunna	*	*	*	*	*	30·45	+ ·06	34	.	?	NE	1	b	4	46	32	.
13	Wiesbaden	*	*	*	*	*	30·51	− ·08	32	.	+ 7	W	0	0	*	34	?	0·08
..	Lyons	30·49	22	N	1	S	30·41	− ·24	26	.	+ 8	N	1	0	*	27	?	.
..	Corunna	*	*	*	*	*	30·41	− ·04	42	41	+ 8	NE	1	0	4	48	34	.
14	Brussels	*	*	*	*	*	30·39	− ·16	35	34	+ 2	NNW	5	b	*	36	31	0·08
15	Brussels	*	*	*	*	*	30·25	− ·14	28	.	− 7	NNW	6	c	*	38	27	0·08
.	Corunna	*	*	*	*	*	30·46	− ·01	46	43	− 2	NE	6	0	5	50	41	0·04
16	Brussels	*	*	*	*	*	29·89	− ·36	23	23	− 5	ENE	7	5	*	32	22	0·28
..	Corunna	*	*	*	*	*	30·44	− ·02	42	39	− 4	NNE	2	c	5	46	39	.
17	Corunna	*	*	*	*	*	30·19	− ·25	44	41	+ 2	NNE	4	c	6	52	39	0·04
19	Visby	30·25	24	E	2	0	30·17	− ·13	27	26	+ 7	E	2	0	*	28	21	.
..	Corunna	*	*	*	*	*	30·31	+ ·01	33	?	− 5	NE	1	b	4	41	?	.
20	Christiania Fjord	30·04	31	ENE	3	0	29·85	− ·25	33	32	+ 5	SSE	3	0	2	?	?	.
.	Perpignan	30·05	26	NW	6	0	30·07	+ ·16	25	.	+ 2	NW	5	b	*	30	23	.
..	Corunna	*	*	*	*	*	30·45	+ ·14	34	33	+ 1	ENE	2	c	4	43	?	.
21	Corunna	*	*	*	*	*	30·26	− ·19	53	52	+ 19	SW	5	r	4	52	32	0·08
22	Brussels	*	*	*	*	*	29·55	+ ·08	25	24	− 9	SSW	2	s	*	36	21	0·04
.	Corunna	*	*	*	*	*	30·30	+ ·04	54	53	+ 1	WSW	4	r	5	54	50	.
23	Corunna	*	*	*	*	*	30·28	− ·02	47	46	− 7	SW	1	b	6	54	45	0·32
24	Corunna	*	*	*	*	*	30·17	+ ·11	49	47	+ 2	S	4	0	4	57	45	0·08
26	Corunna	*	*	*	*	*	30·17	.	40	38	.	S	5	b	4	59	36	.
27	Corunna	*	*	*	*	*	30·13	− ·04	44	42	+ 4	SSE	2	b	4	57	37	.
28	Corunna	*	*	*	*	*	30·18	+ ·05	52	50	+ 8	SSE	4	c	4	57	43	.
29	Corunna	*	*	*	*	*	30·12	− ·06	55	52	+ 3	SSE	6	0	6	57	50	.
30	Corunna	*	*	*	*	*	30·24	+ ·12	53	52	− 2	S	1	0	6	57	48	0·12
31	Corunna	*	*	*	*	*	30·35	+ ·11	52	50	− 1	SSW	5	0	6	61	46	.

PORTS FOR JANUARY 1891.

2. CORRECTIONS.

DATE.	STATIONS.	YESTERDAY EVENING. Barometer at 32° F. and Sea Level.	Temp. in Shade.	Wind. Direc.	Wind. Force (0 to 12.)	Weather.	8 A.M. TO-DAY. Barometer. Reading at 32° F. and Sea Level.	Barometer. Difference from 8 a.m. yesterday.	Shade Temp. Dry.	Shade Temp. Wet.	Shade Temp. Difference from 8 a.m. yesterday.	Wind. Direc.	Wind. Force (0 to 12.)	Weather.	Sea (0 to 9.)	PAST 24 HOURS. Shade Temp. Max.	Shade Temp. Min.	Amount of Rainfall.
1	Cambridge ...	? 30·15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Jersey	-	-	-	-	-	30·15	+ ·09	-	-	-	-	-	-	-	-	-	-
..	Hurst Castle ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-
..	Yarmouth	30·21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Sumburgh Hd. .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·11
4	Cambridge ...	30·17	-	-	-	-	30·02	- ·24	-	-	-	-	-	-	-	-	-	-
5	Mullaghmore ..	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-
6	Mullaghmore ..	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
..	Pembroke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-
7	Cambridge ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·30
..	Mullaghmore 2pm	-	-	-	-	-	-	-	-	-	-	S	-	-	-	-	-	-
8	Parsonstown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·18
9	York	-	-	-	-	-	30·06	+ ·10	-	-	-	-	-	-	-	-	-	-
..	Donaghadee ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·05
10	Roche's Point	-	-	-	-	-	30·40	+ ·40	-	-	-	-	-	-	-	-	-	-
-	Dungeness ...	30·27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Cambridge ...	? 30·65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Nairn	-	-	-	-	-	? 30·65	+ ·12	-	-	-	-	-	-	-	-	-	-
15	Loughborough	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-
16	Prawle Point ...	30·51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
..	Jersey 2pm ...	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-
17	Belmullet 2pm	-	-	-	-	-	-	-	-	-	-	N	-	-	-	-	-	-
18	Jersey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-
19	Holyhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-
20	Holyhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·01
..	Pembroke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-
22	Prawle Point ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-
..	Cambridge ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No rain
..	Berlin	29·22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Jersey 2pm ..	-	-	-	-	-	-	-	49	45	-	-	3	3	3	-	-	-
26	Parsonstown ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-
..	Valencia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-
28	Mullaghmore ..	29·65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	Valencia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0·18