

METEOROLOGICAL OFFICE,  
**LONDON.**

---

DAILY WEATHER REPORTS.

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1<sup>ST</sup> JULY — 31<sup>ST</sup> DECEMBER,  
1889.

*See Reg. Lond.*



# DAILY WEATHER REPORT.

July to December 1889.





# DAILY WEATHER REPORT.

for Sunday 1<sup>st</sup> DEC<sup>r</sup> 1889  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.						8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 3 p.m. and Sea Level.	Temp. in Shade.	WIND.		Weather.	Barometer.	SHADE TEMP.			WIND.		Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.				
			Dir.	Force. (0 to 12.)			Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Max.	Min.					
SCANDINAVIA.	Haparanda ...	30.40	26	NW	4	o	30.02	- .19	31	30	+ .22	SW	2	b	*	?	?	—	
	Hernösand ...	30.32	10	Z	0	b	30.48	+ .03	12	11	- .6	Z	0	b	*	21	9	—	
	Stockholm ...	30.32	25	NW	2	o	30.40	+ .22	20	19	- .3	W	2	b	*	28	19	—	
	Wisby ...	30.24	31	NE	4	s	30.31	+ .23	31	21	- .2	ESE	2	s	*	34	28	0.35	
	Bodö ...	29.88	42	SW	6	o	29.90	- .03	41	40	+ .11	SW	6	o	3	42	30	0.24	
	Christiansund	30.12	37	ESE	3	o	30.14	+ .06	40	36	+ .9	SW	2	o	4	?	31	—	
	Skudesnaes ...	30.34	35	SE	6	b	30.36	+ .10	39	36	+ .5	SSE	6	o	4	?	34	—	
	Christiania Fjord (Færder)	30.34	26	NNE	2	b	30.36	+ .08	26	25	+ .1	Z	0	c	1	27	23	—	
	Skagen (The Scaw)	30.33	28	ENE	1	b	30.45	+ .21	26	25	- .3	W	1	b	0	30	21	—	
	Fanö ...	30.30	23	NE	4	b	30.39	+ .23	21	21	- .4	NW	1	b	*	32	19	—	
BRITISH ISLANDS.	Sumburgh Head	29.95	45	SSE	5	o	30.03	+ .13	47	46	+ .1	SW	2	r	5	47	41	0.21	
	Stornoway ...	29.84	48	SW	6	r	30.00	+ .21	48	47	+ .2	SW	4	o	4	48	44	0.10	
	Wick ...	29.93	46	S	3	c	30.12	+ .22	47	46	+ .3	S	3	r	2	48	42	0.20	
	Nairn ...	29.94	44	Z	0	c	30.06	+ .18	45	43	+ .7	SSW	1	o	1	47	34	0.02	
	Aberdeen ...	30.06	44	S	3	o	30.21	+ .20	44	39	+ .2	S	2	om	3	45	39	—	
	Leith ...	30.08	40	SW	1	b	30.21	+ .22	36	35	- .6	NE	1	af	*	45	33	—	
	Shields ...	30.16	39	S	3	bm	30.29	+ .20	37	34	- .4	S	3	c	2	43	36	—	
	Spurn Head ...	30.24	42	SE	3	c	30.36	+ .25	36	33	- .6	S	3	b	3	43	35	—	
	York ...	30.17	39	SSE	1	o	30.36	+ .25	35	35	- .4	S	1	o	*	43	35	—	
	Loughborough	30.18	39	SSE	2	o	30.37	+ .25	32	31	- .3	SE	1	cm	*	42	32	—	
GERMANY.	Ardrossan ...	30.04	46	SE	4	c	30.18	+ .22	48	46	+ .5	SSE	4	om	3	48	43	—	
	Malin Head ...	29.89	48	S	5	or	30.04	+ .24	48	47	+ .4	S	4	og	2	49	44	0.35	
	Mullaghmore ...	29.88	30	SSE	6	om	30.02	+ .24	51	48	+ .1	SSE	7	og	5	52	49	0.02	
	Belmullet ...	29.87	47	S	2	om	30.02	+ .30	49	49	+ .1	S	2	o	*	49	46	0.25	
	Donaghadee ...	30.03	48	SSW	3	c	30.19	+ .24	49	48	+ .6	SSW	2	c	0	50	42	—	
	Barrow-in-Furness	30.08	42	E	4	o	30.26	+ .24	40	37	- .1	ESE	5	c	*	48	39	—	
	Liverpool (Bldston)	30.14	42	SE	3	o	30.28	+ .22	38	36	- .1	SE	4	o	4	43	38	—	
	Holyhead ...	30.06	47	S	3	o	30.23	+ .23	46	44	- .1	S	5	cm	4	49	46	—	
	Parsonstown ...	29.93	48	Z	0	r	30.40	+ .25	48	46	- .1	Z	0	c	*	50	47	0.02	
	Valencia ...	29.24	52	SSE	5	o	30.02	+ .27	52	51	- .1	SSE	6	om	6	52	49	0.63	
FRANCE AND NETHERLANDS.	Roche's Point...	29.92	49	S	6	r	30.12	+ .24	51	50	+ .1	S	5	o	4	51	48	0.25	
	Pembroke (St. Ann's Hd.)	30.06	50	S	4	c	30.24	+ .22	46	45	- .4	SE	6	ogm	5	50	45	—	
	Scilly ...	29.99	51	S	5	o	30.18	+ .17	51	48	+ .2	SSE	5	o	5	52	48	—	
	Prawle Point ...	30.11	49	SSE	2	o	30.29	+ .19	43	42	- .2	E	4	og	3	49	43	0.01	
	Jersey (St. Aubin's)	30.14	47	ESE	2	o	30.32	+ .21	36	35	- .9	E	4	om	3	48	35	0.03	
	Hurst Castle ...	30.17	44	E	2	c	30.36	+ .24	38	36	- .3	ESE	4	b	2	45	36	—	
	Dungeness ...	30.18	48	ESE	4	c	30.34	+ .26	36	35	- .4	SE	5	b	4	43	32	—	
	London ...	30.20	36	SE	1	b	30.40	+ .28	29	27	- .7	SE	1	b	*	43	27	—	
	Oxford ...	30.22	38	SSE	2	o	30.38	+ .25	31	30	- .3	SE	1	bf	*	42	31	—	
	Cambridge ...	30.21	35	E	1	b	30.40	+ .26	27	27	- .10	Z	0	b	*	42	26	—	
PENIN- SULA.	Yarmouth ...	30.21	40	E	2	b	30.37	+ .25	36	34	- .4	Z	0	b	3	41	34	—	
	Cuxhaven ...	30.21	31	NE	4	c	30.35	+ .28	31	30	- .1	NE	3	c	*	33	29	—	
	Berlin ...	30.15	28	ENE	2	o	30.34	+ .35	27	26	- .2	ENE	2	o	*	30	27	—	
	Wiesbaden ...	*	*	*	*	*	30.30	+ .37	31	28	- .1	Z	0	o	*	36	28	—	
	Munich ...	30.01	26	W	3	o	30.19	+ .36	24	23	- .6	W	4	s	*	32	24	0.04	
	The Helder ...	30.26	35	NE	1	b	30.40	+ .27	30	29	- .5	S	1	b	1	36	30	—	
	Brussels (8 a.m.)	*	*	*	*	*	30.40	?	28	28	- .2	E	1	b	*	35	27	—	
	Cape Gris Nez	?	30	SE	2	b	?	?	29	28	- .9	SE	2	b	2	37	27	—	
	Paris ...	?	32	NNE	2	o	30.35	+ .29	23	23	- .16	N	1	b	*	40	21	—	
	Brest ...	?	51	SSW	5	o	?	?	48	46	- .3	SE	3	o	3	57	36	—	
PENIN- SULA.	Lorient ...	30.12	47	SE	2	o	30.23	+ .09	43	42	- .2	ESE	4	o	5	50	43	—	
	Rochefort ...	30.17	42	NE	2	b	30.28	+ .07	36	35	- .10	E	5	b	2	48	30	—	
	Belfort ...	29.99	26	NW	1	s	30.21	+ .03	25	21	- .5	SE	1	c	*	36	23	—	
	Lyons ...	30.28	32	N	3	c	30.25	+ .46	28	26	- .5	NNW	3	o	*	37	27	0.04	
	Nice ...	29.73	40	ENE	4	b	29.93	+ .02	37	37	- .0	ENE	4	b	2	48	32	—	
	Perpignan ...	30.08	46	NW	3	o	30.14	- .01	39	36	- .1	ENE	4	b	*	47	37	—	
	Biarritz ...	30.13	43	SE	3	b	30.14	- .01	34	?	- .1	E	3	b	1	50	32	—	
	Corunna ...	*	*	*	*	*	30.04	- .09	45	41	- .1	ESE	2	b	6	55	42	—	
	Lisbon ...	30.03	52	SE	4	o	29.97	- .24	44	39	+ .9	E	5	b	4	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

Sunday, 1<sup>st</sup> December,

1889.

## 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:

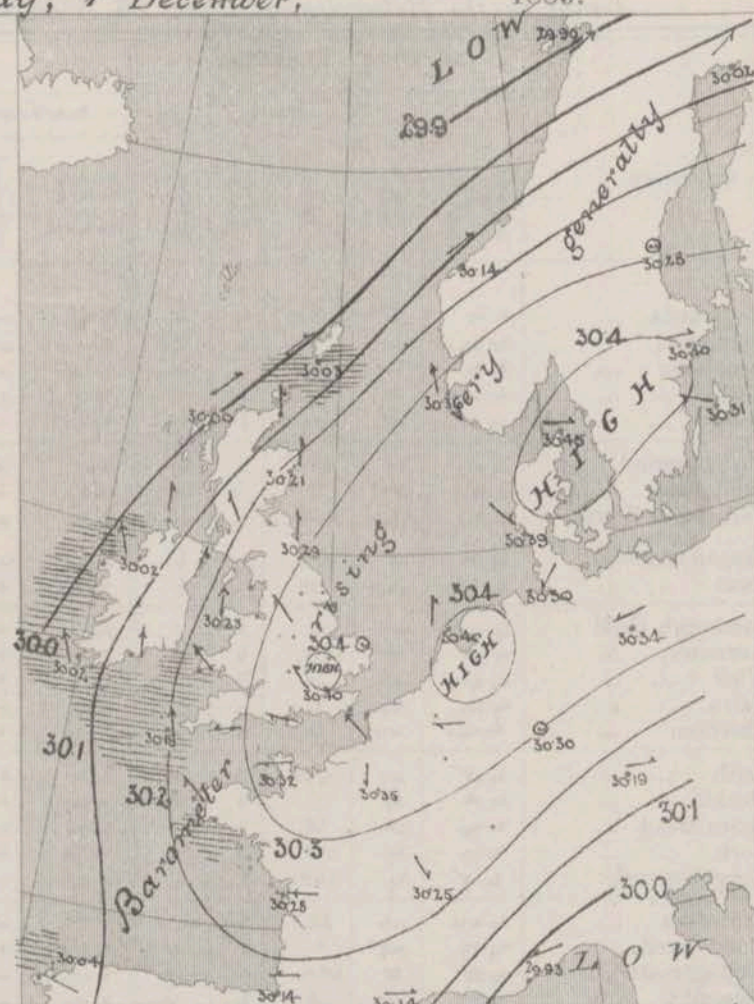
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Scilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

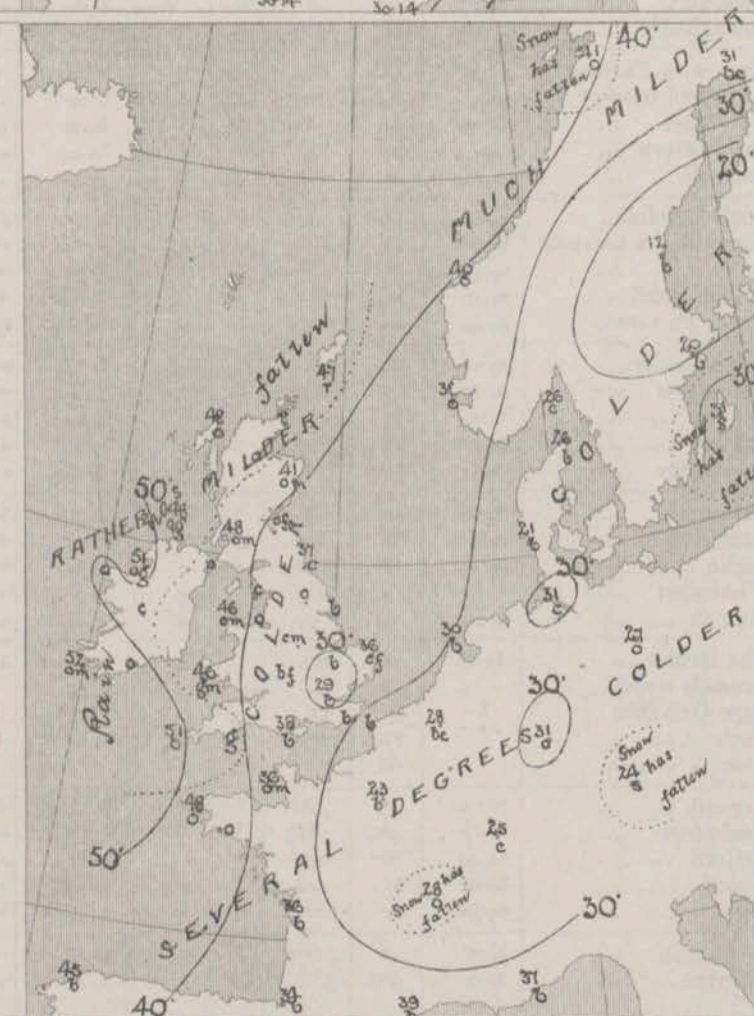
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5-in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inchs.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick .....	42.1	32.6	38.0	36.6	3.18
Nairn .....	41.7	32.8	37.0	35.5	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith .....	44.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York .....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.9	35.9	2.36
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead .....	46.7	39.3	43.0	41.4	3.84
Liverpool .....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia .....	50.0	40.0	44.6	42.3	5.82
Roche's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover .....	44.7	36.8	40.3	39.1	3.20
LONDON .....	44.7	34.6	38.5	37.4	2.14
Oxford .....	43.6	34.3	37.7	36.6	2.13
Cambridge .....	43.5	32.3	36.9	36.1	1.99
Yarmouth .....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.30 in. to 30.45 in. in a large anticyclone extending southwards from the Baltic and the east of Sweden to the east and southeast of England and the north of France.  
 Lowest, 29.90 in. and less, off the northwest of Norway; 30.0 in. and less over Portugal.  
 Gradient moderate over the western and northern parts of our Islands and Scandinavia, but slight elsewhere.  
 Barometer rising steadily at all stations excepting Lisbon.

## TEMPERATURE

Highest, 52° at Valencia, 51° at Mullaghmore, Rock Point, and Sully, 49° at Donaghadee and Kilmillet, and 48° at Hornsey, Anderson, Malin, and Harroway.  
 Lowest, 12° at Hrusund, 20° at Stockholm, 21° at Tams, 23° at Paris, 24° at Munich, and 25° at Belfast.  
 Sharp frost occurred last night at some of the inland English stations; in London the thermometer on the grass fell to 18°.

## WIND

Moderate from the E. over the Channel, and the west and south of France.  
 Fresh or strong from the S.E. or S. on our western coast, light from the S. in the north and east of Great Britain.  
 S.W. in the north of Scandinavia; variable over Denmark, the Netherlands, Germany, and the east of France.

## WEATHER

Dull in Germany, the west and north of our Islands, the west of Norway, and the north of France, with rain in Caithness and the Shetlands, and snow at Munich.  
 Fine in most other localities, but foggy at some of the English stations.  
 Rain fell yesterday in Ireland and the west and north of Scotland, the largest amount being 0.6 in. at Valencia.

## SEA

Rough or rather so on our extreme southwestern, western, and northern coasts, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

# FORECASTS

For the 24 hours ending at NOON on 2<sup>nd</sup> DEC<sup>r</sup> 1889.

## DISTRICTS.

- 0 { SCOTLAND NORTH
- 1 { SCOTLAND EAST
- 2 { ENGLAND N.E.
- 3 { ENGLAND EAST
- 4 { MIDLAND COUNTIES
- 5 { ENGLAND SOUTH

## FORECASTS.

NONE ISSUED.

## DISTRICTS.

- 6 { SCOTLAND WEST
- 7 { ENGLAND N.W.
- 8 { ENGLAND S.W.
- 9 { IRELAND NORTH
- 0 { IRELAND SOUTH

## WARNINGS

## FORECASTS

NONE ISSUED.

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:		Wind		Wea:	Sea	Bar:		Ther:		Wind		Wea:	Sea:
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.31	36	37	SSE	2	0	3	Holyhead ...	30.03	48	46	S	3	c	3
Sumburgh Head ...	29.95	45	44	SSE	5	0	6	Valencia ...	29.80	52	52	S	5	and	5
Stornoway ...	29.84	47	47	SW	6	r	5	Scilly ...	29.99	51	48	S	5	c	5
Aberdeen ...	30.03	44	42	SSE	4	ogg	4	Jersey ...	30.12	48	46	E	2	o	2
Shields ...	30.10	42	40	S	3	c	2	Dungeness ...	30.12	40	40	ESE	4	e	3
Ardrossan ...	29.98	48	46	SE	4	o	3	London ...	30.16	43	41	ESE	1	of	4
Malin Head ...	29.87	48	47	S	5	o	3	Yarmouth ...	30.16	41	38	E	3	bc	4
Mullaghmore ...	29.82	51	49	SSE	6	om	4	Rochefort ...	30.19	46	44	N	2	o	2
Belmullet ...	29.80	49	48	WNW	2	0									

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

The reports for yesterday morning showed that pressure then varied from between 30.1 and 30.4 in: in a complete high pressure area, which stretched from Spain across France, England and the North Sea to Scandinavia, to 29.3 in: and less in three shallow depressions, the central part of which lay over Italy, South Germany, and Ireland, and to 29.8 in: and less, over the west of Ireland and the adjacent parts of the Atlantic. The wind was consequently S<sup>4</sup> over the western and northern parts of the British Isles and blew strongly at Valencia, while it was light to moderate from N. and NE. over the Baltic, Sweden, and the eastern part of the North Sea, and light from NW. over France. Elsewhere it varied greatly in direction, but was generally light in force. The weather was rainy in the far west, fair (but foggy) over England, unsettled over France and South Germany, with snow in several places, and rather unsettled over Russia, with snow locally. Over Algeria it was fair at the time of observation but large quantities of rain had again fallen at the coast stations since the previous morning. Temperature was low over the Central, Southern, Western and Northern countries but not in the far east and southeast. The highest morning values were (1) 64° at Constantinople, 57° at Brindisi, 50° at Odessa and Nikolai, 48° at Larnaca and 43° at Kharkov; (2) 52° at Valencia, 51° at Brest, 50° at Pembroke and Mullaghmore, 49° at Scilly, and 46° at Stornoway and Sumburgh Hd. The lowest were 9° at Haparanda, 17° at Brest, 18° at Cracow, Herisand and Uleaborg, 21° at Kenna and Madrid, 28° at Warsaw, 29° at Berlin, 30° at Brussels, 34° at Alford, 36° in London, and 39° at Paris.

During the day the barometer rose in most places, and a further fall of temperature took place in most parts of the British Isles and 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 *Monday, 2<sup>nd</sup> December, 1889.*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

Issued by the Meteorological Office, 55, PARADE STREET, LONDON, W. 11. 80071, Secretary.																		
YESTERDAY EVENING.																		
8 A.M. TO DAY.																		
PAST 24 HOURS.																		
STATIONS.	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 4).	SHADE TEMP.			
			Dir.	Force. (0 to 12.)	Weather.	Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)	Weather.		Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	30.09	33	W	2	0	30.25	+1.3	27	25	-4	20	0	bc	*	34	23	-
	Hernösand ...	30.38	21	2	0	bc	30.41	+1.3	20	18	+8	20	0	b	*	21	9	-
	Stockholm ...	30.49	19	2	0	b	30.51	+1.1	23	22	+3	20	0	c	*	27	18	-
	Wisby ...	30.41	27	ESE	2	b	30.44	+1.3	22	21	-9	20	0	b	*	34	27	0.08
	Bodö ...	30.04	42	SW	7	0	30.22	+1.32	44	45	+3	20	0	b	*	37	37	0.03
	Christiansund	30.16	42	SW	2	0	30.32	+1.15	42	41	+2	SW	1	0	4	43	39	0.08
	Skudesnaes ...	30.43	43	C	4	0	30.46	+1.10	42	40	+3	SSE	4	0	4	43	39	-
	Christiania Fjord (Færdar)	30.39	26	N	3	b	30.45	+1.09	24	23	-2	NW	2	b	1	27	23	-
	Skagen (The Seaw)	30.43	30	WNW	1	r	30.44	-0.01	37	35	+11	NW	3	bc	2	37	23	-
	Fanö ...	30.54	24	S	2	b	30.57	+1.15	25	23	+4	E	2	b	*	28	27	-
BRITISH ISLANDS.	Sumburgh Head	30.11	49	S	1	b	30.16	+1.3	46	45	-1	S	1	0	3	48	40	0.12
	Stornoway ...	30.03	48	SW	6	r	30.04	+1.04	48	48	0	SW	6	0	5	49	46	0.06
	Wick ...	30.15	47	S	3	r	30.18	+1.06	46	44	-1	S	3	bc	3	47	44	0.40
	Nairn ...	30.14	43	SW	2	0	30.17	+1.1	44	42	-1	W	1	c	1	49	43	0.01
	Aberdeen ...	30.23	43	S	2	0	30.30	+1.09	41	38	0	S	2	cm	3	43	41	-
	Leith ...	30.28	39	W	1	c	30.30	+1.09	43	40	+7	N	1	c	*	46	34	-
	Shields ...	30.34	36	S	2	b	30.37	+1.08	32	31	-5	SEW	4	om	2	40	30	-
	Sparn Head ...	30.43	36	S	3	b	30.49	+1.13	32	31	-4	E	3	bc	3	40	30	-
	York ...	30.42	37	S	2	0	30.46	+1.10	29	29	-7	SSE	2	b	*	39	28	-
	Loughborough	30.45	31	ESE	1	b	30.48	+1.11	27	26	-5	SE	2	cm	*	43	28	-
GERMANY.	Ardrossan ...	30.25	47	SSE	5	opm	30.27	+1.09	43	42	-5	SE	5	0	4	48	42	-
	Malin Head ...	30.11	48	S	5	ogm	30.09	+1.05	45	43	-3	SSE	6	om	3	49	45	-
	Mullaghmore ...	30.11	51	SSE	7	og	30.07	+1.05	49	46	-2	SSE	8	0	6	53	48	-
	Belmullet ...	30.08	50	S	7	0	30.03	+1.01	50	48	+1	SSW	6	0	*	50	48	0.12
	Donaghadee ...	30.26	48	S	4	c	30.29	+1.10	45	44	-4	SSW	3	c	2	50	45	-
	Barrow-in-Furness	30.35	39	SE	4	0	30.36	+1.10	34	32	-6	SE	5	c	*	40	34	-
	Liverpool (Bldston)	30.36	37	SE	4	0	30.39	+1.11	31	29	-7	SE	4	c	4	40	31	-
	Holyhead ...	30.32	45	S	4	ogm	30.34	+1.11	40	38	-6	SSE	4	cm	4	46	40	-
	Parsonstown ...	30.18	49	SE	1	b	30.19	+1.09	46	44	-2	SE	2	0	*	51	45	-
	Valencia ...	30.12	51	SE	6	c	30.10	+1.08	52	50	0	SSE	6	om	6	53	50	0.01
FRANCE AND NETHERLANDS.	Roche's Point...	30.24	51	SSE	5	c	30.22	+1.10	50	48	-1	S	7	0	5	52	49	-
	Pembroke (St. Ann's Hd.)	30.32	45	SE	5	c	30.33	+1.09	43	41	-3	SSE	4	c	4	46	41	-
	Scilly ...	30.23	50	SE	6	0	30.29	+1.11	43	40	-8	SSE	4	bc	4	51	42	-
	Prawle Point...	30.38	39	E	4	bc	30.40	+1.11	39	37	-4	E	4	bc	3	43	37	-
	Jersey (St. Aubin's)	30.37	37	ESE	3	b	30.42	+1.10	34	32	-2	SE	4	om	3	42	33	-
	Hurst Castle ...	30.43	38	E	4	b	30.45	+1.09	38	35	0	ESE	3	bc	2	40	37	-
	Dungeness ...	30.44	36	SE	3	bc	30.49	+1.15	33	33	-3	SSE	4	0	3	40	30	-
	London ...	30.40	32	E	1	b	30.51	+1.11	27	26	-2	E	1	b	*	39	27	-
	Oxford ...	30.49	31	SSE	1	b	30.50	+1.12	24	23	-7	SSE	1	b	*	40	24	-
	Cambridge ...	30.48	30	ESE	1	bc	30.53	+1.13	25	24	-2	SE	0	b	*	41	23	-
PENINSULA.	Yarmouth ...	30.44	37	2	0	b	30.50	+1.13	37	35	+1	SSE	3	bc	3	38	33	0.01
	Cuxhaven ...	30.48	32	ENE	2	bc	30.58	+1.23	30	29	-1	SW	2	b	*	32	20	-
	Berlin ...	30.50	26	NE	2	0	30.53	+1.19	24	23	-3	NW	4	0	*	28	21	-
	Wiesbaden ...	30.50	26	NE	2	0	30.55	+1.25	27	26	-4	N	1	0	*	32	19	-
	Munich ...	30.38	24	NW	1	0	30.48	+1.29	18	17	-6	NE	3	0	*	28	0	0.04
	The Helder ...	30.52	32	S	1	c	30.59	+1.19	26	25	-4	S	1	b	1	36	27	-
	Brussels (9 a.m.)	?	?	?	?	?	30.58	+1.18	26	26	-2	E	1	m	*	30	25	-
	Cape Gris Nez	?	29	ESE	2	b	?	?	23	23	-6	S	1	m	1	?	23	-
	Paris ...	30.51	28	E	1	0	30.50	+1.15	21	21	-2	NE	1	b	*	33	21	-
	Brest ...	?	41	SSE	4	0	?	?	36	35	-12	SE	5	b	4	54	34	-
FRANCE AND NETHERLANDS.	Lorient ...	30.33	36	E	4	b	30.36	+1.13	28	?	-15	E	5	0	5	46	28	-
	Rochefort ...	30.35	34	E	5	b	30.29	+1.01	27	27	-9	E	5	b	3	39	25	-
	Belfort ...	?	22	E	1	c	?	?	22	18	-3	E	2	c	*	28	18	-
	Lyons ...	30.40	23	N	4	bc	30.45	+1.20	21	20	-7	N	1	0	*	33	21	-
	Nice ...	30.12	39	NW	2	b	30.21	+1.28	35	?	-2	ENE	5	b	1	43	32	-
	Perpignan ...	30.25	38	NW	3	b	30.28	+1.14	26	25	-13	NW	2	b	*	52	25	-
	Biarritz ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	-
	Corunna ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	-
	Lisbon ...	29.89	53	ENE	3	bc	30.06	+1.11	40	40	-4	NE	5	bc	5	59	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 *Monday, 2<sup>nd</sup> December.*

1889.

## 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:

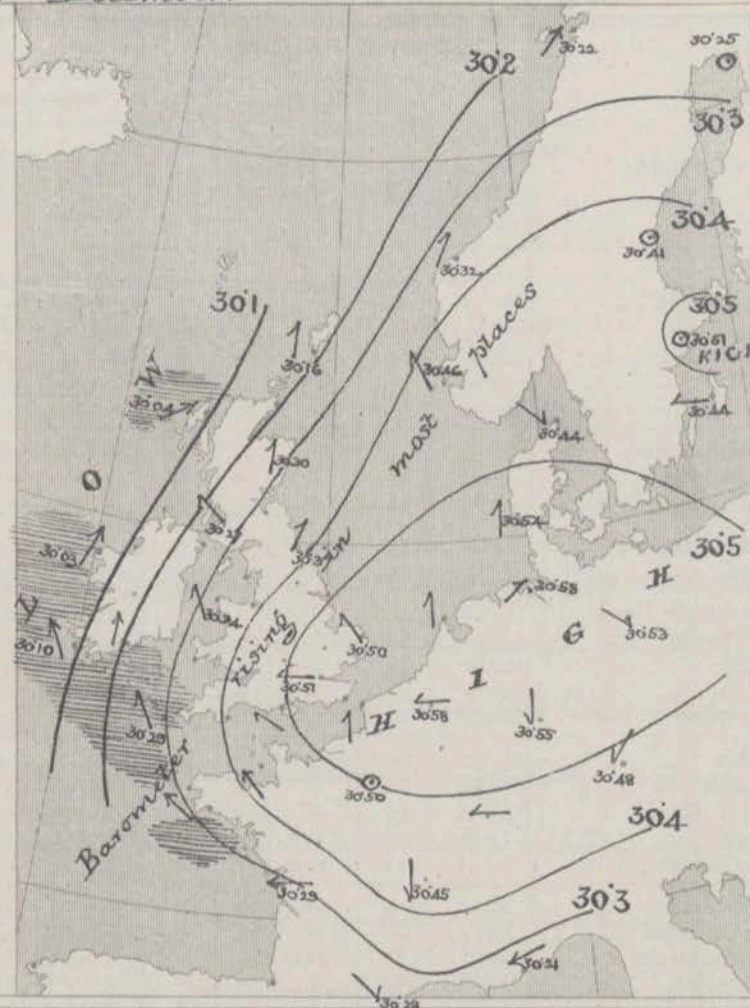
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.767
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Dunaghadde	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.961
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

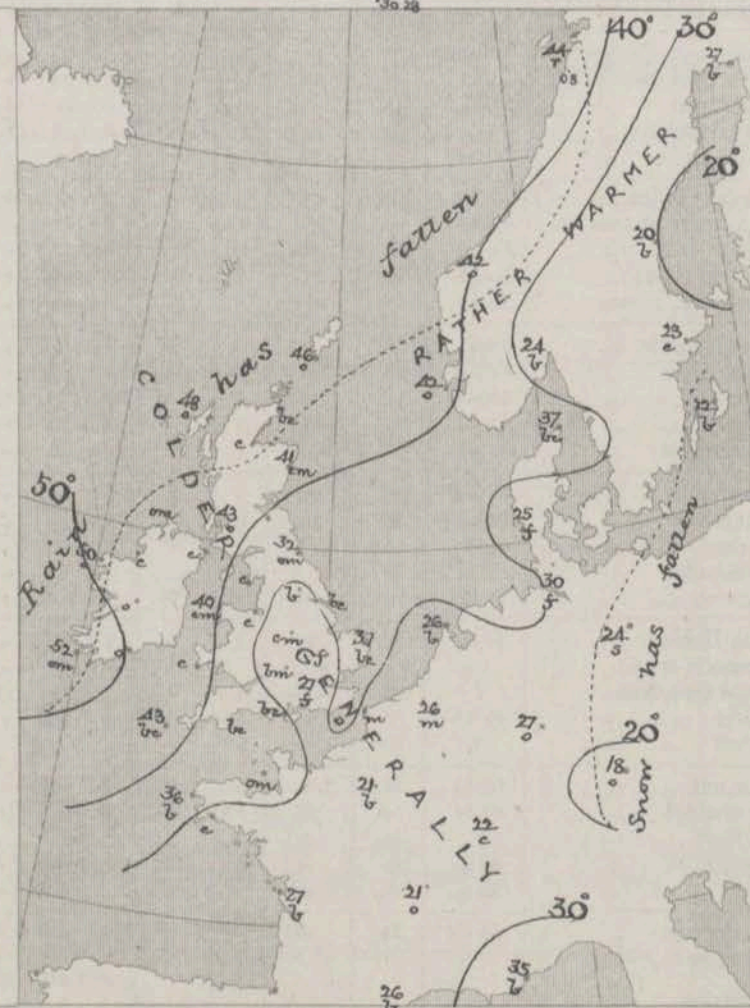
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.9	35.9	2.36
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Dunaghadde.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.5 ins. and upwards, in a large anticyclone lying over Denmark, Germany, the Netherlands, and the southeast of England. Lowest, 30.1 ins. and less, on the west coasts of Ireland and Scotland. Gradient moderate in the extreme west and north, but slight elsewhere. Barometer falling slightly in the east and south of Ireland and the southeast of France, but rising elsewhere.
TEMPERATURE	Highest, 52° at Kalmecis, 50° at Bilmullet and Rock Point, 49° at Mullaghmore, and 48° at Stromness. Lowest, 18° at Munich, 20° at Helsingfors, 21° at Riga and Lyons, 22° at Vicksburg and Belfast, 23° at Stockholm, and 24° at Oxford and Berlin. Sharp frost occurred over England last night, the lowest readings in the forenoon being 23° at Cambridge and 24° at Oxford. In London the thermometer on the grass fell to 19°.
WIND	Light or moderate from the E. over the Channel, France, and South Germany; strong from SE. or S. in Ireland. Light from the S. over the North Sea and adjacent coast; moderate to strong from the SW. in the north of Scotland and the west of Norway. Calm in Sweden; variable over North Germany.
WEATHER	Dull in Ireland, the west and north of Scotland and the west of Norway, as well as in Germany, with rain at Riga, and snow at Helsingfors. Fine in most other localities, but foggy in the southeast of England and the south of Denmark. 11 a.m. A solar halo is now visible in London.
SEA	Rough off the west of Ireland, and rather rough at Stromness and Lorient, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

No important change in the weather is indicated at present. Depressions are apparently still moving northwards outside our extreme western and northwestern coasts, and strong winds are likely to continue over Ireland and the west of Scotland.

## FORECASTS

For the 24 hours ending at NOON on 3<sup>rd</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

0	SCOTLAND NORTH	S <sup>w</sup> and SW <sup>w</sup> winds, strong; dull, some rain.
1	SCOTLAND EAST	S <sup>w</sup> winds, light or moderate; fair generally but some fog or mist.
2	ENGLAND N.E.	
3	ENGLAND EAST	
4	MIDLAND COUNTIES	SE <sup>w</sup> winds, light; fair generally, but local fogs - sharp frost at night.
5	ENGLAND SOUTH	

### DISTRICTS.

### FORECASTS

6	SCOTLAND WEST	SE <sup>w</sup> winds, fresh; cloudy generally.
7	ENGLAND N.W.	
8	ENGLAND S.W.	SE <sup>w</sup> winds, moderate to strong; fair to dull and unsettled.
9	IRELAND NORTH	
0	IRELAND SOUTH	SE <sup>w</sup> and S <sup>w</sup> winds, strong; dull, some rain.

### 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.		Wind		Wea.	Sea		Bar.	Ther.		Wind		Wea.	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.40	42	38	E	6	0	4		Holyhead ...	30.29	45	42	S	4	ogm
Sumburgh Head ...									Valencia ...						
Stornoway ...	30.03	49	49	SW	6	7	4		Scilly ...						
Aberdeen ...									Jersey ...	30.36	38	34	SEA	4	3
Shields ...									Dungeness ...	30.39	36	35	SE	4	0
Ardrossan ...									London ...						
Malin Head ...	30.06	48	46	S	5	0	3		Yarmouth ...						
Mollaghmore ...									Rochefort ...	30.32	39	35	C	4	2
Belmullet ...	30.05	50	50	S	4	0	4								

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

The reports for yesterday morning showed a decided increase of pressure except over the southwestern and southeastern parts of Europe, where a decrease had taken place, and readings varied from between 30.20 in. to 30.45 in. in a large high pressure area - which spread from Spain, England and France, across the North Sea, north Germany and the Baltic, to Finland and Central Russia - to 29.8 in. and less, in depressions lying over Central Italy and Transylvania, to 29.9 in. and less, over Lapland and to about 30.0 in. over the southwest of Spain, as well as off the extreme west of Ireland, and in the Hebrides. The wind was consequently E<sup>ly</sup> over the Peninsula, S<sup>E</sup><sup>ly</sup> and S<sup>W</sup><sup>ly</sup> over the British Islands (strong on the western coasts) SW<sup>ly</sup> over Scandinavia, and N<sup>ly</sup> over northern Russia. Elsewhere it varied a good deal. A cyclonic circulation of moderate breezes was experienced round the two depressions in the southeast. Weather was fine in most places, but unsettled in the vicinity of the low-pressure systems - rain being prevalent in some places, snow in several others. In England haze and fog were somewhat prevalent. Temperature was lowest over Sweden, Finland and northern Russia, highest at the extreme western and southern stations. The highest morning values were 58° at Constantinople, 56° at Malta, 54° at Brindisi, 52° at Valencia, 51° at Mullaghmore and Scilly, 48° at Stornoway and 46° at Rods; the lowest were 12° at Hernösand, 15° at Archangel and Peking, 17° at Helsingfors, 20° at Stockholm, 21° at Paris, 22° at Prague, 23° at Madrid and Rome, 25° at Breslau, 26° at Vienna and Færevik, 27° at Berlin and Münster, 28° at Brussels, and 29° in London.

Later on the barometer rose very generally, and the high pressure area increased both in size and intensity.

### SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 24<sup>TH</sup> TO THE 30<sup>TH</sup> NOVEMBER 1889

The weather of the past week has been cold inclement and unsettled, with showers of hail, sleet or snow in nearly all parts of the Kingdom. Aurora and lightning have been seen at many of our northern, and at some of our western stations.

At the beginning of the week the centre of a large and deep depression was lying at a considerable distance to the northward of our Islands, and SW<sup>ly</sup> breezes were reported at all but our extreme southern stations, where, owing to the presence of a shallow disturbance over the Channel, the wind was chiefly E<sup>ly</sup>. On the night of the 24<sup>th</sup> a well defined secondary depression moved eastwards across Ireland and England, and occasioned strong gales from the SW over some parts of the Bristol & English Channels.

In the meantime the large disturbance in the far N. was moving slowly eastwards, and on the 25<sup>th</sup> when its centre had reached the northwest of Norway, the wind over our Islands veered to the NW<sup>ly</sup> and blew strongly with a decided fall of temperature. Shallow secondary depressions now moved southeastwards across the Kingdom, & snow showers were experienced between the 25<sup>th</sup> and 27<sup>th</sup> in nearly all districts.

As the large depression in the north passed away across Scandinavia, the barometer over our Islands rose briskly, and on the 27<sup>th</sup> a definite anticyclone appeared over Ireland. The wind therefore fell light and the weather improved, but temperature remained low, the maximum readings being below 40° in most parts of Great Britain with sharp frosts at night.

On the 29<sup>th</sup> the anticyclone moved southeastwards to the Bay of Biscay and Spain, but a new high-pressure system appeared over Scandinavia. Depressions now began to approach our extreme west coasts, and freshening S<sup>W</sup> winds set in at all but our eastern stations with rain in the west. At the close of the week the new anticyclone was extending southwestward towards our Islands and on the night of the 30<sup>th</sup> sharp frost was experienced over the inland parts 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 *Tuesday, 3<sup>rd</sup> December,* 1889.  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 9.)	SHADE TEMP.				
			Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.																		
Haparanda ...	30.48	21	N	2	bc	30.68	+ .43	29	28	+ 2	Z	0	0	*	37	19	.	
Hernösand ...	30.56	21	Z	0	b	30.65	+ .24	18	17	- 2	Z	0	0	*	25	16	.	
Stockholm ...	30.60	19	Z	0	b	30.43	- .08	18	18	- 5	Z	0	0	*	32	18	.	
Wisby ...	30.47	31	NNE	4	0	30.46	+ .02	34	33	+ 12	ENE	4	0	*	?	18	.	
Bodö ...	30.40	41	S	2	f	30.49	+ .27	43	41	- 1	SE	1	0	1	45	39	0.24	
Christiansund	30.43	42	SE	1	c	30.52	+ .20	41	40	- 1	Z	0	0	3	43	36	.	
Skudesnaes ...	30.51	43	SSE	4	0	30.57	+ .11	42	40	0	SSE	4	0	4	45	41	.	
Christiania Fjord (Fierder)	30.55	27	NNE	3	0	30.62	+ .17	27	27	+ 3	NNE	3	0	1	27	?	.	
Skagen (The Scaw)	30.52	33	ENE	3	0	30.57	+ .13	35	34	- 2	ESE	1	0	1	37	32	.	
Fanö ...	30.56	30	Z	0	c	30.51	- .03	32	32	+ 7	N	1	0	*	32	25	.	
Sumburgh Head	30.22	46	SSE	3	c	30.31	+ .15	45	43	- 1	SSE	3	0	4	47	41	.	
Stornoway ...	30.08	48	SW	7	0	30.20	+ .16	46	45	- 2	SW	5	0	5	48	45	0.04	
Wick ...	30.22	46	S	3	b	30.31	+ .13	44	42	- 2	SSW	3	0	2	47	41	.	
Nairn ...	30.20	42	SSW	2	b	30.31	+ .14	38	37	- 6	Z	0	bc	1	48	36	.	
Aberdeen ...	30.32	39	S	2	bcm	30.38	+ .08	38	36	- 3	S	2	cm	2	44	36	.	
Leith ...	30.32	39	W	1	b	30.39	+ .09	35	34	- 8	NW	1	bm	*	45	30	.	
Shields ...	30.40	35	S	3	c	30.47	+ .10	30	29	- 2	SSW	2	cm	2	35	28	.	
Spurn Head ...	30.47	36	S	3	0	30.49	+ .00	36	34	+ 4	SSE	3	bc	3	37	31	.	
York ...	30.47	33	SE	1	om	30.50	+ .04	27	27	- 2	SE	1	0	*	35	26	.	
Loughborough	30.48	32	SE	1	c	30.50	+ .02	25	25	- 2	E	1	cm	*	35	25	.	
Ardrossan ...	30.29	42	SSE	3	b	30.36	+ .09	39	37	- 4	ESE	4	bm	3	44	39	.	
Malin Head ...	30.12	46	SSE	5	om	30.20	+ .11	42	39	- 3	SSE	4	0	1	47	40	.	
Mullaghmore ...	30.12	49	S	8	om	30.21	+ .14	45	41	- 4	SSE	5	0	4	51	43	.	
Belmullet ...	30.07	50	S	5	0	30.13	+ .10	45	43	- 5	SSE	4	0	*	51	44	.	
Donaghadee ...	30.28	46	SW	3	c	30.34	+ .05	44	42	- 1	S	3	c	2	47	42	0.01	
Barrow-in-Furness	30.37	36	SE	4	c	30.40	+ .04	34	32	0	SE	5	0	*	37	33	.	
Liverpool (Bidston)	30.40	33	SE	3	bc	30.45	+ .06	28	27	- 3	SE	2	0	3	36	28	.	
Holyhead ...	30.35	41	S	3	c	30.37	+ .03	35	33	- 5	ESE	1	ogm	1	43	33	.	
Parsonstown ...	30.20	44	SE	1	c	30.24	+ .05	43	40	- 3	SE	2	0	*	49	33	.	
Valencia ...	30.14	51	SSE	6	om	30.16	+ .06	48	45	- 4	ESE	4	cm	4	52	47	.	
Roche's Point...	30.22	50	S	7	0	30.26	+ .04	47	44	- 3	SSE	5	c	4	51	45	.	
Pembroke (St. Ann's Hd.)	30.32	45	SE	4	bc	30.32	- .01	40	38	- 3	ESE	5	bc	4	45	40	.	
Scilly ...	30.28	43	SSE	5	b	30.23	- .06	43	41	0	ESE	5	b	5	47	42	.	
Prawle Point...	30.37	40	E	4	b	30.33	- .07	41	39	+ 2	E	5	bc	4	41	38	.	
Jersey (St. Aubin's)	30.38	38	SSE	4	bc	30.34	- .08	30	29	- 4	E	4	bm	3	39	30	.	
Hurst Castle ...	30.43	38	ESE	4	bc	30.40	- .05	37	35	- 1	E	5	m	4	40	35	.	
Dungeness ...	30.47	33	SE	2	0	30.44	- .05	29	29	- 4	SE	4	c	3	34	28	.	
London ...	30.50	31	E	1	b	30.47	- .04	27	26	0	SE	2	0	*	37	26	.	
Oxford ...	30.48	31	S	1	0	30.47	- .03	23	22	- 1	Z	0	cf	*	36	22	.	
Cambridge ...	30.50	31	S	1	0	30.50	- .03	25	24	0	Z	0	bc	*	35	22	.	
Yarmouth ...	30.50	36	SE	3	bc	30.51	+ .01	34	33	- 3	SE	4	bc	4	38	33	.	
Cuxhaven ...	30.58	30	SW	2	f	30.54	- .04	34	33	+ 4	SW	2	0	*	34	30	.	
Berlin ...	30.49	31	NW	5	0	30.43	- .10	35	31	+ 11	NW	5	0	*	?	?	.	
Wiesbaden ...	*	*	*	*	*	30.52	- .03	16	15	- 11	NE	1	0	*	28	16	.	
Munich ...	30.46	18	NW	3	S	30.43	- .05	18	17	0	SW	3	m	*	23	16	0.04	
FRANCE AND NETHERLANDS.																		
The Helder ...	30.60	27	SE	1	0	30.58	- .01	24	24	- 2	SSE	1	0	1	30	?	.	
Brussels (8 a.m.)	*	*	*	*	*	30.54	- .04	22	22	- 4	ENE	2	0	*	29	21	.	
Cape Gris Nez	?	23	SSE	1	m	?	?	21	21	- 2	E	2	0	1	28	21	.	
Paris ...	30.48	27	E	2	0	30.48	- .05	19	19	- 2	NE	2	0	*	31	19	.	
Brest ...	?	40	SE	4	b	?	?	31	28	- 5	SE	4	0	3	54	28	.	
Lorient ...																		
Rochefort ...	30.30	33	E	6	b	30.25	- .04	26	24	- 1	E	5	b	2	41	21	.	
Belfort ...	30.36	19	E	2	c	?	?	16	16	- 6	N	2	c	*	?	16	.	
Lyons ...	30.45	23	NNE	1	c	30.40	- .05	20	20	- 1	W	1	m	*	28	20	.	
Nice ...	30.21	39	E	2	b	30.23	+ .02	36	36	+ 1	ENE	5	0	1	48	30	.	
Perpignan ...	30.27	33	Z	0	b	30.27	- .01	24	24	- 2	SW	1	0	*	48	25	.	
Biarritz ...	30.17	41	E	4	b	30.10		35	32		ESE	4	0	2	50	30	.	
PENIN- SULA.																		
Corunna ...	*	*	*	*	*													
Lisbon ...	29.99	53	NE	5	e	29.97	- .11	46	38	0	NE	6	bc	2	59	45	.	



# WEATHER CHARTS

for 8 a.m. on

Tuesday, 3<sup>rd</sup> December.

1889.

## 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:

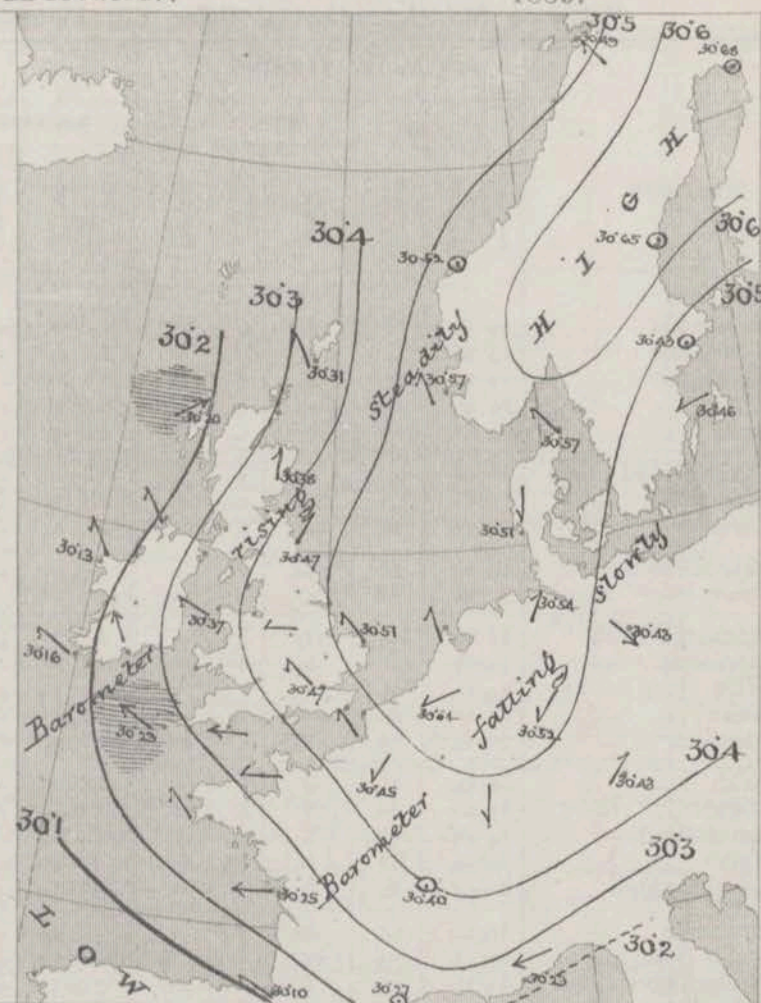
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

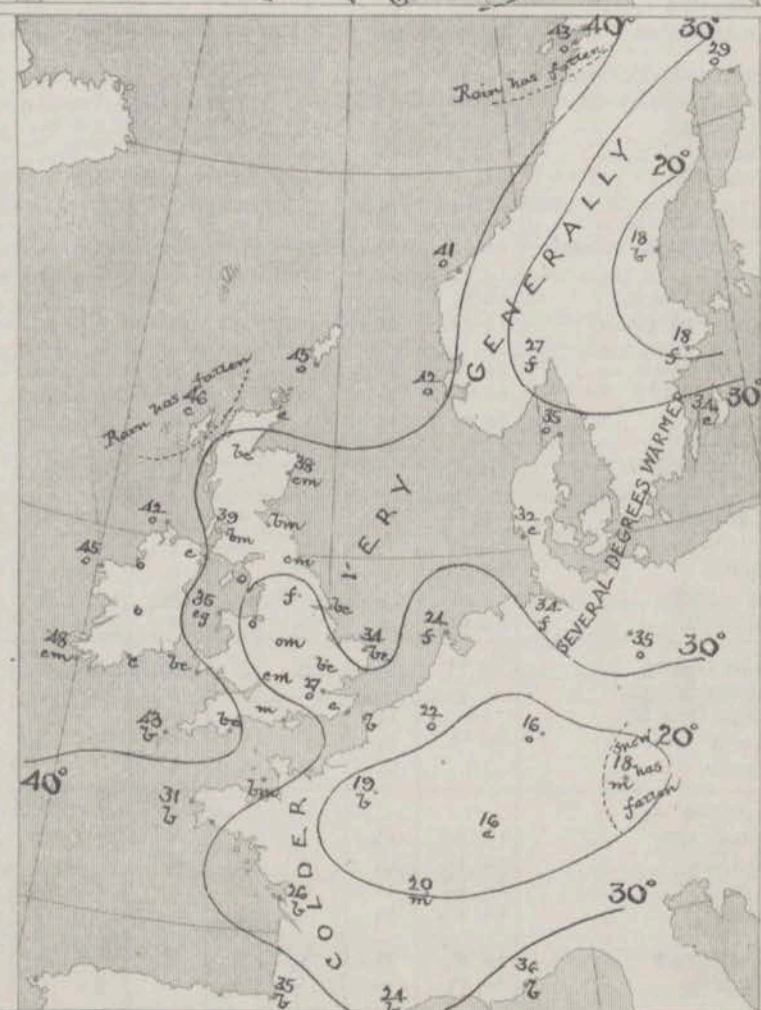
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway.....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.6	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrossan.....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	6.82
Roche's Point.....	48.0	39.0	42.9	41.6	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle.....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.6	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.4 in. to 30.6 in.: in an anticyclone covering Germany, France, England, the North Sea, Baltic, and Scandinavia.  
 Lowest, 30.2 in.: and less, over the Mediterranean and off our extreme western coasts, 30.0 in.: and less, in the extreme southwest of Spain.  
 Gradient moderate over the British Isles, France, and the Bay of Biscay, slight over Central and Northern Europe. Barometer rising in the north and northwest, falling a little in the south and east.

## TEMPERATURE

Highest, 48° at Valencia, 47° at Rocher Point, 46° at Lisbon and St. Petersburg, 45° at Kilmullish, Mullaghmore, and Limerick, 44° at Paris, and 42° at Malin, 41° at Belfast and Wiesbaden, 18° at Helsingfors, Stockholm and Munich, 19° at Riga, 20° at Lyons, 21° at Brussels, 23° at Oxford, 25° at Funchal, and Cambridge.  
 It has been as low as 22° at Oxford and Cambridge during the night.

## WIND

Very light and variable at most of the Continental inland stations, but, NW, fresh, at Berlin.  
 Moderate E and SE over the Bay of Biscay and Channel — Moderate SE in Ireland.  
 Light SE over England — light to moderate S in Scotland.  
 The S gales experienced in the far west yesterday have died down.

## WEATHER

Fine and bright over Spain, France, and in the Channel. Cloudy, but dry, over the British Isles — fine with local fog over Sweden and the North Sea. Drizzle in Norway and Sweden.  
 [The newspapers report very large quantities of snow to have fallen in Austria.]

## SEA

Rather rough at Stormy and Sill, moderate on our western coasts generally, off the west of Norway and at Yarmouth — slight or smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

As pressure is giving way over Southern and Central Europe and increasing in the north and northwest, the anticyclone is likely to spread more over the British Isles, and the cold to become stronger and more general at our inland stations. In the Channel and southeast of England, however, the E wind is likely to freshen, with a rough sea.

## FORECASTS

For the 24 hours ending at NOON on 4<sup>th</sup> DEC<sup>r</sup>. 1889.

### DISTRICTS.

### FORECASTS.

- |   |                  |   |
|---|------------------|---|
| 0 | SCOTLAND NORTH   | SW <sup>ly</sup> winds, moderate; fair, cold.                         |
| 1 | SCOTLAND EAST    |   |
| 2 | ENGLAND N.E.     | SE <sup>ly</sup> airs; fair, very cold.                               |
| 3 | ENGLAND EAST     |   |
| 4 | MIDLAND COUNTIES | SE <sup>ly</sup> and E <sup>ly</sup> breezes, moderate; fine, frosty. |
| 5 | ENGLAND SOUTH    |   |

### DISTRICTS.

### FORECASTS

- |          |               |  |
|----------|---------------|--|
| 6        | SCOTLAND WEST | SE <sup>ly</sup> breezes, moderate; fine, colder.        |
| 7        | ENGLAND N.W.  |  |
| 8        | ENGLAND S.W.  | Same as No 3 to 5.                                       |
| 9        | IRELAND NORTH | SE <sup>ly</sup> winds, moderate or light; colder, fair. |
| 0        | IRELAND SOUTH |  |
| WARNINGS |               | NONE ISSUED.   |

No. 0.—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:		Wind		Wea:	Sea			Bar:	Ther:		Wind		Wea:	Sea:	
		D	W	D	F						D	W	D	F			
Skudesnaes ...	30.50	44	39	SSe	4	0	3			Holyhead ...	30.33	43	40	S	3	c	3
Sumburgh Head ...	30.19	46	45	SSe	3	6c	4			Valencia ...	30.12	51	50	SSe	6	om	6
Stornoway ...	30.07	48	47	SW	6	0	6			Scilly ...	30.27	46	43	SSe	5	b	5
Aberdeen ...	30.30	43	39	S	2	6cm	3			Jersey ...	30.40	38	35	SSe	3	b	3
Shields ...	30.35	35	32	S	4	om	2			Dungeness ...	30.48	34	33	Se	2	0	1
Ardrossan ...	30.27	44	43	SSe	4	0	4			London ...	30.48	36	34	SSe	1	bef	2
Malin Head ...	30.08	47	43	SSe	6	0	3			Yarmouth ...	30.48	38	36	Se	3	bef	3
Mullaghmore ...	30.09	50	47	Se	7	c	6			Rocheport ...	30.32	39	32	E	4	b	2
Behnullet ...	30.04	51	49	SSW	5	0	5										

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

The reports for yesterday morning showed that pressure was highest, 30.5 in: and upwards, in a large anticyclone lying over the Netherlands the greater part of Denmark and Germany, and the southeast of England, and lowest, 29.9 in: and less, in two depressions, one of which lay near Constantinople, while the other extended from Galicia to the northern shores of the Black Sea. Relatively low readings, 30.1 in: and less, were reported on the west coasts of Ireland and Scotland. The wind was light from the NE<sup>nd</sup> or E<sup>nd</sup> over France, Spain, and Italy, moderate from the SE<sup>nd</sup> over the greater part of England, and strong from the S<sup>nd</sup> in the west and south of Ireland, with a gale at Mullaghmore. In the north and east of Great Britain, however, light S<sup>nd</sup> breezes were reported, while in the west of Norway and north of Russia the wind was SW<sup>nd</sup>. Over Eastern Europe a cyclonic circulation of moderate to strong breezes was shown round the depressions lying over Turkey and the south of Russia. The weather was fine in most parts of Great Britain as well as in Sweden, Denmark, the Netherlands, France, Italy, Spain, and Algeria. Elsewhere, however, the sky was overcast, with fog over the southeast of England and the south of Denmark, and heavy snow over Poland and Austria, as well as at Berlin. Rain was reported at Moscow and Hamarstadt. Temperature had risen a few degrees over Scandinavia, Northern Russia and the Baltic, as well as in Spain and Algeria, but fallen elsewhere; readings ranged from 50° or a little above in the west and south of Ireland, the extreme south of Italy and some parts of Algeria to many degrees below the freezing point over Sweden, Northern Russia, and the greater part of Central Europe. The highest individual readings were 55° at Constantinople, 53° at Algiers, 51° at Valencia and Benidix, 50° at Behnullet, Rocher Point and Langunians, 49° at Mullaghmore, and 48° at Stornoway; the lowest were 18° at Munich, 15° at Riga, 20° at Helsingfors, 21° at Paris and Lyons, 22° at Mainz and Rhefort, 23° at Stockholm and Alnabru, and 24° at Archangel, Tver, Berlin, and Vienna.

In the course of the day very little change occurred over Western Europe. Sharp frost was again experienced over England, at night, the lowest shade readings being 22° at Oxford, and Cambridge, and 26° at Loughborough and in London.

### 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 4<sup>TH</sup> DECEMBER, 1889.

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

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STATIONS.	YESTERDAY EVENING.						8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			Weather.	BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 9.)	SHADE TEMP.			
			Direc.	Force. (0 to 12.)			Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Direc.	Force. (0 to 12.)	Weather.		Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	30.85	28	S	2	0	30.84	+16	30	30	+1	SSW	2	0	*	30	16	0.00	
	Hernösand ...	30.80	26	S	0	0	30.87	+22	27	27	+9	S	0	0	*	27	16	0.00	
	Stockholm ...	30.68	30	N	2	0	30.76	+23	32	32	+15	ENE	2	0	*	32	16	0.00	
	Wisby ...	30.47	31	E	4	0	30.58	+12	31	31	-3	ENE	4	0	*	36	27	0.12	
	Bodö ...	30.61	38	S	0	0	30.67	+18	35	33	-8	SE	2	0	1	43	32	—	
	Christiansund	30.63	39	ENE	2	0	30.67	+15	35	34	-6	ENE	1	0	0	41	34	—	
	Skudesnaes ...	30.66	38	SE	2	0	30.68	+11	33	32	-9	N	1	0	0	39	30	—	
	Christiana Fjord (Færd)	30.65	32	NNE	5	0	30.73	+11	32	31	+5	N	5	0	2	32	27	—	
	Skagen (The Scaw)	30.62	30	E	1	0	30.65	+08	34	34	-1	E	3	0	3	36	28	—	
	Fanö ...	30.57	31	N	2	0	30.58	+07	29	29	-3	NE	2	0	*	32	?	—	
BRITISH ISLANDS.	Sumburgh Head	30.40	44	ENE	3	0	30.50	+19	43	40	-2	ENE	3	0	4	46	40	—	
	Stornoway ...	30.29	45	SW	6	0	30.40	+20	38	37	-8	W	2	0	3	46	35	—	
	Wick ...	30.40	43	S	2	0	30.50	+19	41	38	-3	S	5	0	3	45	38	—	
	Nairn ...	30.35	35	SW	1	0	30.45	+14	30	29	-8	S	0	0	1	41	29	—	
	Aberdeen ...	30.46	36	SSW	1	0	30.56	+18	39	36	+1	S	2	0	3	40	36	—	
	Leith ...	30.43	34	E	1	0	30.54	+15	31	30	-4	E	1	0	*	40	27	—	
	Shields ...	30.51	34	SSW	2	0	30.53	+06	36	35	+6	S	0	0	2	36	29	—	
	Spurn Head ...	30.51	36	ENE	2	0	30.48	-01	41	40	+5	ENE	3	0	3	42	35	0.02	
	York ...	30.52	31	SE	1	0	30.54	+04	32	32	+5	NW	1	0	*	33	26	0.01	
	Loughborough	30.50	28	NE	1	0	30.52	+02	28	27	+3	WNW	1	0	*	35	23	—	
GERMANY.	Ardrossan ...	30.41	36	E	3	0	30.49	+13	32	31	-7	NE	3	0	2	44	29	—	
	Malin Head ...	30.28	42	ENE	4	0	30.37	+17	34	33	-8	SE	4	0	1	43	34	—	
	Mullaghmore ...	30.26	43	SE	6	0	30.33	+12	38	35	-7	ENE	3	0	4	46	38	—	
	Belmullet ...	30.18	42	ENE	3	0	30.28	+10	38	37	-7	E	2	0	*	46	37	—	
	Donaghadee ...	30.37	43	SW	0	0	30.44	+10	40	39	-4	ENE	4	0	2	45	38	—	
	Barrow-in-Furness	30.42	33	ENE	4	0	30.49	+09	33	32	-1	ENE	3	0	*	36	32	—	
	Liverpool (Bidston)	30.45	31	ENE	3	0	30.50	+05	29	28	+1	ENE	3	0	3	33	28	—	
	Holyhead ...	30.37	36	S	0	0	30.44	+07	31	29	-4	SE	1	0	1	41	31	—	
	Parsonstown ...	30.26	39	SE	1	0	30.32	+08	37	35	-6	ENE	1	0	*	45	35	—	
	Valencia ...	30.17	46	ENE	5	0	30.23	+07	46	44	-2	ENE	5	0	5	48	45	—	
FRANCE AND NETHERLANDS.	Roche's Point...	30.26	46	ENE	6	0	30.30	+04	47	44	0	ENE	6	0	5	48	45	—	
	Pembroke (St. Ann's Hd.)	30.33	40	ENE	6	0	30.38	+06	36	35	-4	ENE	5	0	3	41	35	—	
	Scilly ...	30.20	46	ENE	6	0	30.27	+04	45	44	+2	ENE	5	0	5	49	42	—	
	Prawle Point ...	30.31	41	E	6	0	30.35	+02	43	39	+2	E	6	0	4	43	39	—	
	Jersey (St. Aubin's)	30.32	35	E	4	0	30.34	0.0	34	32	+4	ENE	4	0	3	36	30	—	
	Hurst Castle ...	30.41	37	ENE	6	0	30.44	+04	33	32	-4	ENE	5	0	4	40	31	—	
	Dungeness ...	30.42	34	SE	5	0	30.43	+01	32	32	+3	ENE	5	0	3	36	28	—	
	London ...	30.47	31	E	2	0	30.48	+01	30	30	+3	E	1	0	*	35	23	—	
	Oxford ...	30.48	25	E	1	0	30.51	+04	22	22	-1	SE	2	0	*	30	21	—	
	Cambridge ...	30.50	28	SE	1	0	30.52	+02	31	30	+6	S	0	0	*	37	23	—	
PENINSULA.	Yarmouth ...	30.49	37	ENE	5	0	30.48	-03	36	35	+2	SW	2	0	3	37	23	—	
	Cuxhaven ...	30.52	34	WNW	1	0	30.54	0.0	35	34	+1	E	1	0	*	36	34	—	
	Berlin ...	30.41	34	NW	3	0	30.48	+05	34	32	-1	N	3	0	*	36	34	—	
	Wiesbaden ...	30.36	23	N	2	0	30.45	-07	33	31	+17	NE	2	0	*	30	20	—	
	Munich ...	30.36	23	N	2	0	30.36	-07	24	24	+6	NE	4	0	*	27	18	—	
	The Helder ...	30.52	32	SW	1	0	30.53	-05	32	31	+8	ENE	1	0	1	34	?	—	
	Brussels (0 a.m.)	?	?	E	2	0	?	-04	23	23	+1	E	1	0	*	23	19	—	
	Cape Gris Nez	?	23	E	2	0	?	?	?	?	?	ENE	2	0	1	27	19	—	
	Paris ...	30.38	28	NE	2	0	30.39	-06	20	20	+1	NE	1	0	*	33	19	—	
	Brest ...	?	39	ENE	5	0	?	?	35	32	+4	ENE	5	0	3	50	30	—	
FRANCE AND NETHERLANDS.	Lorient ...	30.20	35	ENE	4	0	30.26	?	29	29	?	E	4	0	4	37	27	—	
	Rochefort ...	30.22	33	E	5	0	30.25	0.0	25	24	-1	E	5	0	3	37	19	0.04	
	Belfort ...	30.29	29	N	2	0	?	?	30	28	+14	N	2	0	*	32	14	—	
	Lyons ...	30.36	19	E	1	0	30.37	-03	19	19	-1	S	1	0	*	27	18	—	
	Nice ...	30.22	42	E	1	0	30.23	0.0	39	35	+3	ENE	4	0	*	50	36	—	
	Perpignan ...	30.21	42	S	0	0	30.19	-08	39	36	+15	SW	1	0	*	45	?	—	
PENINSULA.	Biarritz ...	30.08	42	ENE	3	0	30.11	+01	41	37	+6	S	2	0	1	50	32	—	
	Corunna ...	29.96	54	NE	5	0	30.05	+08	47	42	+1	NNE	5	0	2	59	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

Wednesday, 4<sup>th</sup> December

1889.

## 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:

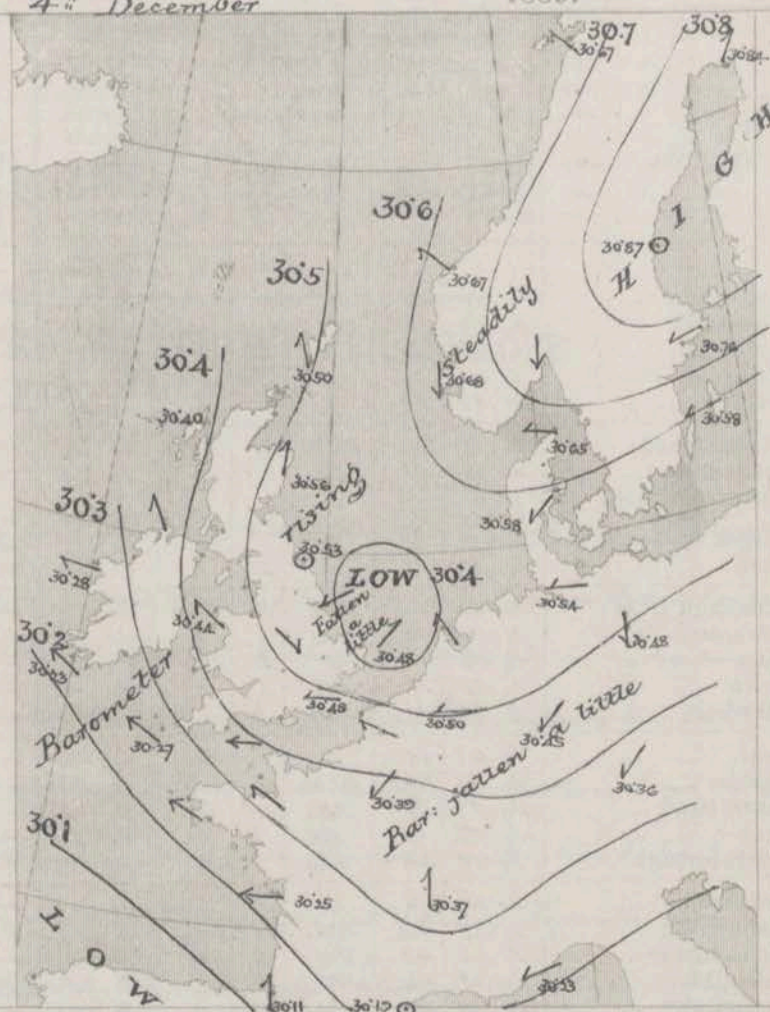
▨ = Rough, ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.067
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.767
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roehe's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

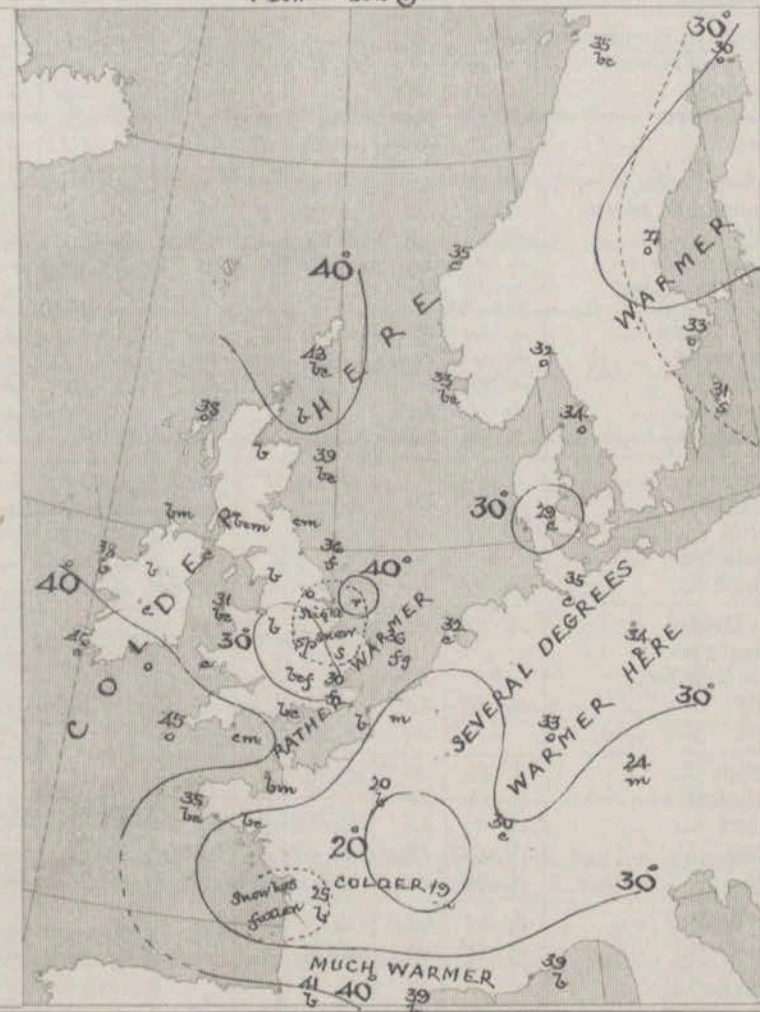
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	Dry. at 8 a.m.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	41.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	41.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roehe's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	35.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.05

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.6 in: to 30.8 in: in a large anticyclone the central portion of which covers Northern Europe, the Baltic, and Scandinavia.  
Lowest, 30.1 in: and less, over the Spanish Peninsula, 30.3 in: and less, over the southeast of France, and the west of Ireland.  
Gradients moderate in the west and southwest, slight elsewhere.

Barometer rising except over our eastern and northeastern coasts — most over Scandinavia.

The anticyclone is still spreading and increasing in intensity. A small depression has been formed near the West.

## TEMPERATURE

Highest, 46° at Valencia, 45° at Seville, 43° at Bordeaux and Sumburgh Hd., 41° at Hamitz.

Lowest, 19° at Lyons, 20° at Paris, 22° at Oxford, 24° at Munich, 25° at Rochefort, 26° at Loughborough, 30° in London.

It fell to 15° on the grass and 13° in the snow in London early this morning.

## WIND

Light NE and N over Germany and the east of France.

Weak E over the Channel and Bay of Biscay — SE on our western coasts.

Light to moderate S in Scotland — light SE in Norway.

## WEATHER

Fair, as a whole, though dull in some regions and clear in others.

Unsettled over our northeastern and eastern coasts, with snow and rain in places.

Fog is reported at Oxford and in London.

## SEA

Rather rough on our southwestern coasts, moderate in the Channel and at Sumburgh Hd., slight or smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

Cold weather is still probable in the west and north, but the small depression in the east seems likely to interrupt the front over England (temporarily at all events), and to cause some snow in many places. It is impossible to say at present whether the change will be permanent.

## FORECASTS

For the 24 hours ending at NOON on 5<sup>TH</sup> DEC<sup>R</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

S winds, moderate or light; cold, fair.

Light variable breezes, rather unsettled, snow at times, temperature very variable.

E breezes, light inland, fresh on coast; milder than of late, weather doubtful, perhaps some snow.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

SE breezes, moderate; fair, cold.

### WARNINGS

NONE ISSUED.

*Notes.*—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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.63	42	39	SE	4	C	4		Holyhead ...	30.37	40	SE	1	C	1
Sumburgh Head ...	30.35	45	42	SE	3	O	4		Valencia ...	30.17	48	SE	5	CM	5
Stornoway ...	30.24	46	44	SE	6	O	6		Seilly ...	30.20	47	SE	6	CM	5
Aberdeen ...	30.42	38	36	SE	1	CM	2		Jersey ...	30.33	35	SE	4	CM	3
Shields ...	30.49	32	30	SE	2	CM	2		Dungeness ...	30.44	35	SE	5	CM	3
Ardrossan ...	30.38	44	42	SE	4	CM	3		London ...	30.47	35	SE	2	CM	4
Malin Head ...	30.26	43	40	SE	4	C	1		Yarmouth ...	30.49	37	SE	4	CM	4
Mullaghmore ...	30.25	45	41	SE	5	C	3		Rochefort ...	30.25	37	SE	5	C	3
Belmullet ...	30.19	46	44	SE	3	C	4								

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

The reports for yesterday morning showed that pressure was highest, 30.6 in: and upwards, in a large anticyclone the central portion of which lay over Sweden, Finland and Central Russia, and lowest, 30.0 in: and less, in a large depression lying over Eastern Austria and the south of Russia. Readings were, however, somewhat low, 30.0 in: and upwards, in a large area lying to the westward and south-westward of the Iberian Peninsula. The wind was E or NE in France and Spain, SE over England and Ireland, and S or SW in Scotland. Over Scandinavia and Denmark, however, as well as in Italy and Algeria the wind was light and variable, while over Eastern Europe a cyclonic circulation was shown round the depression noted above. The wind was, as a rule, light or moderate in force, but in the southwest of our Islands the SE breeze was fresh, while in Austria the NW wind blew with considerable strength. The weather was fine over Great Britain, France, and Southern Europe, as well as in Central Russia, but cloudy or overcast elsewhere, with rain at Neufahrwasser and Cracow, and snow at Ulenborg, Kuopio, and Vienna. Temperature has risen a little over Norway, Denmark, the Baltic, and the eastern part of Germany, and Austria, but fallen elsewhere; readings ranged from a little above 50° on the southern shores of the Mediterranean and a little above 45° in the Hebrides and south of Ireland to rather below 20° over Central France and Western Germany and to about 10° F. over Central Russia. The highest individual readings were 55° at Malta, 54° at Nemours and Algiers, 50° at Brindisi and Otranto, 48° at Valencia, 47° at Rocherpoint and La Galle, 46° at Stornoway, Lisbon, and Annale; the lowest were 9° at Moscow, 16° at Neubaden and Belfort, 18° at Helsingfors, Stockholm and Malmö, 19° at Paris, 20° at Lyons, 21° at Archangel, 22° at Rurek, and 23° at Helsingfors, Münster and Oxford.

In the course of the day very little change occurred in the distribution of pressure over Western Europe, but the E<sup>ly</sup> wind freshened somewhat on our southern coast. Sharp frost again occurred over England at night, the thermometer on the grass falling to 15° in London and 13° at Oxford.

### 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, 5<sup>th</sup> December, 1889.*  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

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STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	SHADE TEMP.			WIND.			Sea. (0 to 3.)	SHADE TEMP.		Amount of Rainfall.	
			Direc.	Force. (0 to 12.)	Weather.			Dry.	Wet.	Difference from 8 a.m. yesterday.	Direc.	Force. (0 to 12.)	Weather.		Max.	Min.		
SCANDINAVIA.	Haparanda ...	30.77	33	SW	4	0	30.70	-1.4	30	30	0	SW	2	0	*	34	27	-
	Hernösand ...	30.91	28	SW	0	0	30.89	+0.02	26	25	-1	SW	2	0	*	28	25	-
	Stockholm ...	30.88	33	NE	2	0	30.89	+1.3	30	29	-3	SW	0	0	*	36	27	-
	Wisby ...	30.67	27	NNE	2	0	30.81	+2.3	22	21	-9	ESE	2	0	*	34	27	-
	Bodö ...	30.70	33	E	2	0	30.68	+0.1	37	34	+2	E	2	0	*	34	30	-
	Christiansund	30.72	34	ESE	1	0	30.78	+1.1	35	33	0	ESE	2	0	2	37	30	-
	Skudesnaes ...	30.76	39	E	6	0	30.82	+1.4	37	34	+4	SE	4	0	4	39	31	-
	Christiana Fjord (Færder)	30.84	34	ENE	4	0	30.88	+1.5	33	32	+1	NE	5	0	1	34	32	-
	Skagen (The Scaw)	30.76	35	ESE	3	0	30.81	+1.6	34	33	0	E	2	0	2	36	32	-
	Fanö ...	30.66	31	ENE	1	0	30.68	+1.0	33	32	+4	ENE	2	0	*	34	31	-
BRITISH ISLANDS.	Sumburgh Head	30.58	43	ESE	3	0	30.61	+1.1	42	38	-1	ESE	2	0	4	45	38	-
	Stornoway ...	30.45	29	S	3	0	30.50	+1.0	43	43	+5	SW	4	0	4	43	36	-
	Wick ...	30.59	43	S	6	0	30.63	+1.3	35	33	-6	SW	1	0	1	42	39	-
	Nairn ...	30.53	30	Z	0	0	30.59	+1.4	25	25	-5	SW	0	0	0	41	24	-
	Aberdeen ...	30.60	40	SE	2	0	30.65	+0.9	37	36	-2	W	1	0	3	41	37	0.06
	Leith ...	30.56	38	E	1	0	30.64	+1.0	37	36	+6	SW	0	0	*	41	30	-
	Shields ...	30.54	42	E	2	0	30.66	+1.3	38	37	+2	SW	0	0	2	42	34	0.07
	Spurn Head ...	30.50	41	NE	2	0	30.63	+1.5	41	37	0	ESE	3	0	3	43	35	0.01
	York ...	30.47	37	NNE	1	0	30.67	+1.3	34	33	+2	ENE	1	0	*	39	31	0.01
	Loughborough	30.51	33	SE	1	0	30.64	+1.2	32	32	+4	W	1	0	*	34	28	0.01
GERMANY.	Ardrossan ...	30.54	35	ENE	2	0	30.63	+1.4	37	37	+5	NE	2	0	2	45	32	-
	Malin Head ...	30.44	35	ESE	4	0	30.57	+1.2	36	35	+2	S	3	0	1	39	33	-
	Mullaghmore ...	30.41	41	ESE	5	0	30.57	+1.4	38	35	0	SE	2	0	2	44	37	-
	Belmullet ...	30.34	40	ESE	2	0	30.55	+1.7	40	39	+2	ESE	3	0	*	44	36	-
	Donaghadee ...	30.51	44	SSW	3	0	30.63	+1.9	43	40	+3	ESE	3	0	2	44	37	-
	Barrow-in-Furness	30.50	39	NE	2	0	30.64	+1.5	39	35	+6	NE	2	0	*	39	32	-
	Liverpool (Bidston)	30.52	36	SE	1	0	30.65	+1.5	36	34	+7	ESE	1	0	2	38	29	-
	Holyhead ...	30.49	36	ESE	1	0	30.63	+1.9	37	34	+5	ESE	1	0	1	41	31	-
	Parsonstown ...	30.41	37	ESE	1	0	30.60	+1.8	28	27	-9	SW	0	0	*	42	26	-
	Valencia ...	30.35	47	ESE	4	0	30.55	+1.2	45	43	-1	ESE	2	0	3	48	43	0.09
FRANCE AND NETHERLANDS.	Roche's Point...	30.36	48	SE	6	0	30.58	+1.2	37	34	-10	ESE	3	0	4	49	35	-
	Pembroke (St. Ann's Hd.)	30.44	37	E	4	0	30.59	+1.2	38	32	-3	ENE	3	0	2	40	33	-
	Scilly ...	30.31	46	ESE	5	0	30.50	+1.3	44	42	-1	ENE	5	0	4	47	42	-
	Prawle Point ...	30.40	40	ENE	5	0	30.52	+1.7	41	39	-2	ENE	5	0	4	44	37	-
	Jersey (St. Aubin's)	30.38	36	ENE	3	0	30.50	+1.6	36	33	+2	E	4	0	3	38	31	-
	Hurst Castle ...	30.45	36	ENE	6	0	30.57	+1.3	35	34	+2	NE	5	0	4	37	32	-
	Dungeness ...	30.43	35	E	5	0	30.55	+1.2	38	35	+6	ESE	5	0	4	38	28	-
	London ...	30.49	35	E	2	0	30.56	+0.8	37	34	+7	ENE	2	0	*	37	30	-
	Oxford ...	30.52	30	NE	2	0	30.61	+1.0	32	31	+10	NNE	1	0	*	34	22	-
	Cambridge ...	30.57	32	SW	0	0	30.62	+1.0	34	33	+3	SE	1	0	*	35	28	0.01
PENINSULA.	Yarmouth ...	30.49	39	SE	3	0	30.58	+1.0	40	39	+4	E	6	0	4	40	33	0.02
	Cuxhaven ...	30.59	36	ENE	1	0	30.62	+0.8	36	35	+1	NNE	4	0	*	37	35	-
	Berlin ...	30.20	34	ENE	3	0	30.64	+1.6	33	32	-1	ESE	3	0	*	36	30	-
	Wiesbaden ...	*	*	*	*	*	30.50	+0.5	34	31	+1	NE	2	0	*	36	32	-
	Munich ...	30.38	20	NE	3	0	30.38	+0.2	24	24	0	NE	5	0	*	28	19	-
	The Helder ...	30.59	36	ENE	1	0	30.62	+0.9	36	36	+4	E	1	0	1	37	32	-
	Brussels (9 a.m.)	*	*	*	*	*	30.54	+0.4	32	31	+9	ENE	2	0	*	34	27	-
	Cape Gris Nez	?	30	ESE	3	0	?	?	32	31	?	E	3	0	3	34	19	-
	Paris ...	30.41	30	NE	2	0	30.45	+0.6	32	31	+12	NNE	2	0	*	35	27	-
	Brest ...	?	36	ESE	3	0	?	?	27	26	-8	E	3	0	2	46	?	-
PENINSULA.	Lorient ...	30.30	35	E	4	0	30.42	+1.6	31	30	+2	E	4	0	4	37	27	-
	Rocheport ...	30.32	34	NE	4	0	30.37	+1.2	27	27	+2	ENE	4	0	2	39	23	-
	Belfort ...	30.28	25	N	2	0	30.29	?	22	21	-8	E	1	0	*	27	21	-
	Lyons ...	30.38	19	NNE	1	0	30.39	+0.2	20	20	+1	WSW	1	0	*	27	19	-
	Nice ...	30.21	45	NE	4	0	30.18	-0.5	45	40	+6	ENE	4	0	4	52	39	-
	Perpignan ...	30.21	47	N	2	0	30.25	+0.6	38	38	-1	SW	2	0	*	55	37	0.08
	Biarritz ...	30.17	45	NE	3	0	30.29	+1.8	43	40	+2	SE	2	0	2	52	39	-
	Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-
	Lisbon ...	30.15	51	N	4	0	30.23	+1.8	44	41	-3	N	3	0	5	59	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

Thursday, 5<sup>th</sup> December

1889.

## 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;

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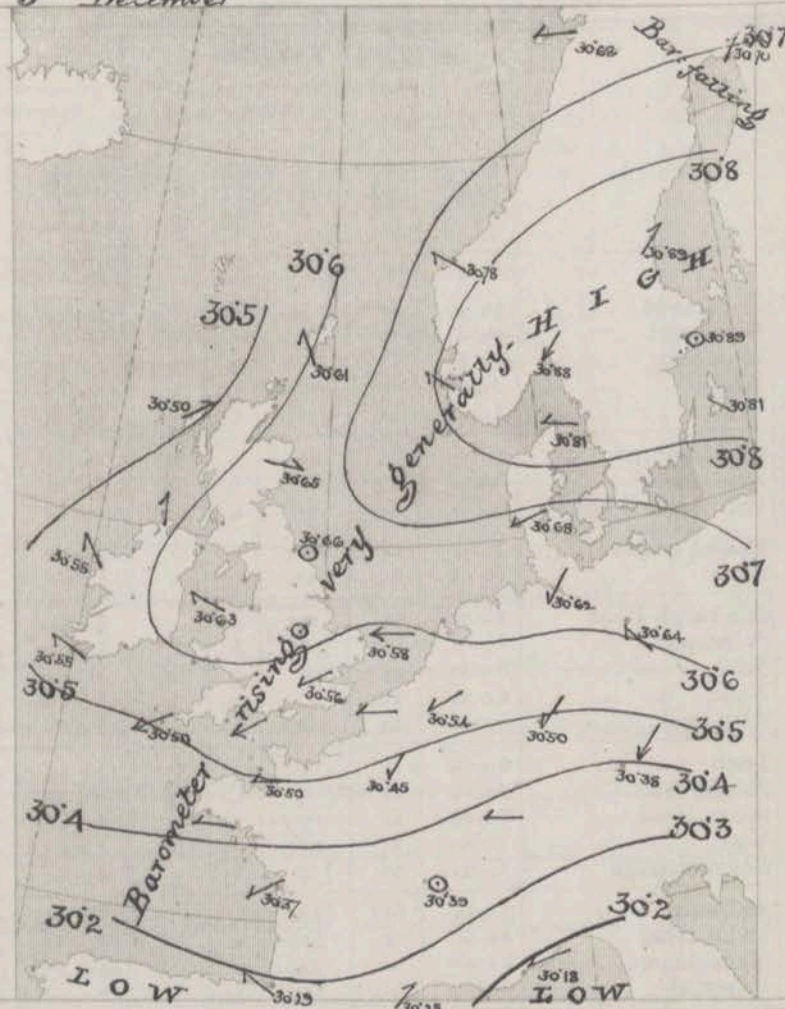
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### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

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Sumburgh Head	29.667
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Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.950
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.911



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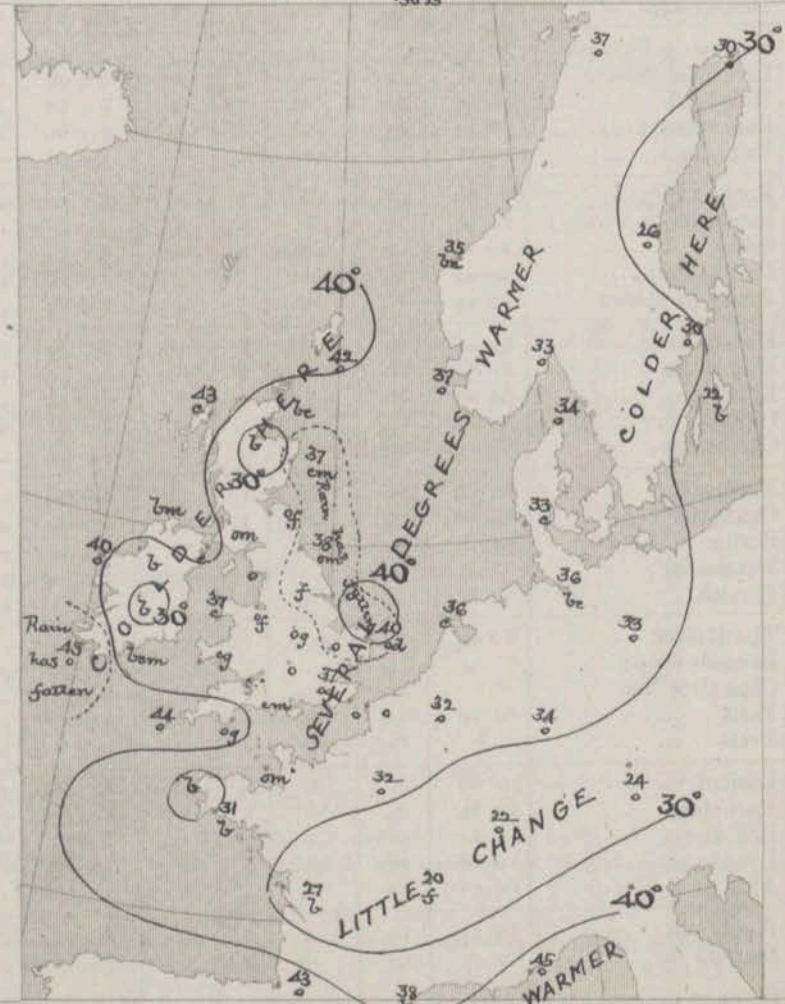
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(For the month of December.)

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	Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	
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Leith	44.2	33.7	38.5	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	30.2	40.2	39.2	2.84
Holyhead	46.7	30.3	43.0	41.4	3.84
Liverpool	43.8	35.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.05
Scilly	49.8	43.8	47.1	45.4	1.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

*Highest*, 30.9 in: to 30.6 in: in a large anticyclone covering Scandinavia, the North Sea, and north of England.  
*Lowest*, 30.2 in: and less, over the Gulf of Genoa — 30.5 in: at Stromway.  
*Gradients* slight. *Barometer* rising slowly, except over north of Scandinavia.

## TEMPERATURE

*Highest*, 45° at Aix and Valencia, 44° at Sicily and Lisbon, 43° at Biarritz, Donaghadee and Stromway, and 42° at Lumburg Ht.  
*Lowest*, 20° at Lyons, 22° at Belfast and Wex, 24° at Munich, 25° at Paris, 26° at Harrogate and 28° at Harrogate.  
 It has risen steadily over England and the north of France, and is now 37° in London.

## WIND

Moderate E<sup>ly</sup> over the Bay of Biscay, fresh to strong in English Channel.  
 Moderate to light SE<sup>ly</sup> at the Irish stations — moderate SW<sup>ly</sup> at Stromway.  
 Calms and variable airs prevail in Scotland and the north and northeast of England.

## WEATHER

Fine and bright over Ireland, dull and gloomy in most other places, with damp fog and mists over England.  
 Slight rain has fallen on our northeast coasts.

## SEA

Moderate in the east, south, southwest, and north, slight or smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

*Very uncertain.*

# FORECASTS

For the 24 hours ending at NOON on 6<sup>th</sup> DEC<sup>r</sup> 1889.

## DISTRICTS.

## FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

SW<sup>ly</sup> and Variable airs; fine, cold.  
 E<sup>ly</sup> airs and Calms, foggy, cold.  
 Same as No 5  
 Same as No 2.  
 E<sup>ly</sup> winds, light inland, fresh on coast; dull, wet mist at times.

## DISTRICTS.

## FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

SE<sup>ly</sup> breezes, light and variable; fine.  
 E<sup>ly</sup> breezes, fresh; dull, misty.  
 SE<sup>ly</sup> breezes, moderate or light; fair frosty 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.76	39	34	ESC	2	bc	3		Holyhead ...	30.46	40	35	SE	1	6
Sumburgh Head ...	30.55	43	40	SE	3	c	4		Valencia ...	30.27	48	45	SE	6	bc
Stornoway ...	30.44	41	40	SW	3	b	3		Scilly ...	30.29	46	44	SE	5	c
Aberdeen ...	30.58	39	36	SW	1	cm	3		Jersey ...	30.35	37	34	ENE	4	bc
Shields ...	30.53	42	40	2	2	op	2		Dungeness ...	30.43	35	32	ENE	4	bc
Ardrossan ...	30.51	44	42	E	2	b	2		London ...	30.49	36	34	ENE	1	o
Malin Head ...	30.39	39	36	SE	4	b	1		Yarmouth ...	30.49	37	36	W	0	bc
Mullaghmore ...	30.35	44	40	ENE	5	bc	3		Rochefort ...	30.26	38	36	ENE	3	bc
Belmullet ...	30.00	44	42	S	2	b	2								

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

The reports for yesterday morning showed that pressure was highest 30.9 in. and upwards, over Northern Russia, but high 30.6 in. and upwards, in a large anticyclone covering the whole of Northern Europe. The lowest readings, 30.0 in. and less, were found in a depression lying over Morocco, but a large and complex area of low readings, 30.2 in. and less, was still lying over Southeastern Europe. Varying E<sup>6</sup> (SE to NE) breezes of light or moderate strength were reported over the greater part of the Continent, but in the extreme south and southwest of our Islands the wind blew freely or strongly. Over Eastern Germany, the wind was chiefly N<sup>3</sup> or NW<sup>4</sup>, but over Southeastern Europe it was light and variable. The weather was fine in nearly all parts of Western Europe, as well as in the northern and central parts of Russia, but fog was reported at some of the English stations, and slight snow was falling at Loughborough and Cambridge. Elsewhere the sky was mostly overcast with fog over Finland, snow in Austria and at Constantinople and rain in Algeria. Temperature had fallen a few degrees over Russia, the west of Norway, and the west and north of our Islands, but risen in most other localities, readings ranged from a little above 50° in the extreme south and east of Spain and on the Algerian coast to only a few degrees above zero over northern and central Russia. The highest individual readings were 56° at Nemours, 53° at San Fernando, and also, 51° at Barcelona, Sangüinai and Ovan, 50° at Algiers, and 48° at Boudiri and Tunis; the lowest were 5° at Archangel and Moscow, 19° at Lyons, 20° at St Petersburg and Paris, 21° at Riga and Limoges, 22° at Liliaborg, 23° at Kiapic, Kharkov, and Bouscul.

In the course of the day no important change was observed in pressure winds or weather over Western Europe, but temperature was inclined to rise somewhat.

### 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, 6<sup>th</sup> December, 1889.*  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
STATIONS.		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 3.)	SHADE TEMP.				
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	30.71	9	X	0	b	30.63	-0.07	30	30	0	SW	2	0	*	?	9	—	
	Hernösand ...	30.84	22	X	0	o	30.75	-0.14	18	18	-8	X	0	0	*	30	—	—	
	Stockholm ...	30.93	32	2	0	o	30.84	-0.09	27	27	-2	NE	2	0	*	36	27	—	
	Wisby ...	30.82	21	E	4	b	30.82	+0.01	26	25	+4	SE	4	0	*	28	18	—	
	Bodö ...	30.66	37	E	2	c	30.46	-0.22	35	32	-2	E	2	bc	1	39	34	—	
	Christiansund	30.74	33	E	1	b	30.46	-0.32	32	31	-3	ENE	1	b	3	36	30	—	
	Skudesnaes ...	30.84	36	SE	6	o	30.70	-0.12	36	34	-1	SE	6	0	5	?	36	—	
	Christiania Fjord (Fjorder)	30.88	33	NNE	4	o	30.79	-0.09	32	31	-1	ENE	2	0	1	34	30	—	
	Skagen (The Scaw)	30.83	34	E	1	o	30.77	-0.04	31	30	-3	ENE	1	0	1	34	30	—	
	Fanö ...	30.75	32	E	1	c	30.71	+0.03	32	32	-1	E	2	c	*	34	32	—	
BRITISH ISLANDS.	Sumburgh Head	30.60	41	SE	3	c	30.26	-0.35	43	40	+1	SE	6	0	6	44	40	0.08	
	Stornoway ...	30.46	45	SW	6	o	30.17	-0.33	44	44	+1	SW	7	0	6	45	42	0.02	
	Wick ...	30.60	36	S	2	b	30.26	-0.37	42	41	+7	S	5	0	3	42	33	0.05	
	Nairn ...	30.62	33	SW	1	b	30.36	-0.23	42	40	+17	SW	3	0	2	42	24	—	
	Aberdeen ...	30.69	39	SW	1	o	30.47	-0.18	37	34	0	S	4	bc	3	40	35	0.03	
	Leith ...	30.71	38	SE	1	c	30.56	-0.08	38	35	+1	S	2	c	*	44	35	—	
	Shields ...	30.71	39	2	0	f	30.61	-0.05	37	34	-1	W	1	f	2	40	35	—	
	Spurn Head ...	30.69	41	N	2	o	30.62	-0.01	40	38	-1	NW	2	0	3	43	39	0.03	
	York ...	30.71	36	N	1	o	30.66	-0.01	34	34	0	N	1	o	*	38	33	—	
	Loughborough	30.70	36	ENE	1	o	30.66	+0.02	34	33	+2	WSW	1	om	*	37	32	0.01	
GERMANY.	Ardrossan ...	30.69	40	NE	2	om	30.54	-0.09	43	40	+6	S	5	0	4	43	35	—	
	Malin Head ...	30.61	38	S	5	om	30.40	-0.17	39	37	+3	S	5	om	3	40	35	—	
	Mullaghmore ...	30.66	38	SE	1	b	30.48	-0.09	43	41	+5	SW	5	om	3	43	36	—	
	Belmullet ...	30.61	42	SE	4	o	30.44	-0.11	43	44	+9	SW	5	0	*	49	39	0.01	
	Donaghadee ...	30.71	40	S	2	c	30.58	-0.05	33	33	-10	SW	2	bc	0	44	31	—	
	Barrow-in-Furness	30.69	37	NE	1	o	30.62	-0.02	33	32	-6	ENE	2	om	*	39	32	—	
	Liverpool (Bidston)	30.71	37	NE	1	o	30.66	+0.01	36	33	0	SE	1	0	2	38	36	—	
	Holyhead ...	30.71	37	E	1	c	30.63	0.00	40	37	+3	SE	1	om	1	40	33	—	
	Parsonstown ...	30.68	30	2	0	b	30.58	-0.02	32	30	+4	2	0	0	*	40	27	—	
	Valencia ...	30.67	44	ENE	1	om	30.60	+0.05	44	42	-1	SE	3	om	3	47	39	—	
FRANCE AND NETHERLANDS.	Roche's Point...	30.69	39	ENE	3	bc	30.61	+0.03	38	37	+1	NW	1	om	3	42	34	—	
	Pembroke (St. Ann's Hd.)	30.67	37	ENE	3	c	30.66	+0.07	39	38	+6	ENE	2	om	1	39	32	—	
	Scilly ...	30.50	45	NE	4	om	30.61	+0.11	44	41	0	NE	4	om	4	46	39	—	
	Prawle Point ...	30.61	39	ENE	5	o	30.62	+0.10	38	36	-3	NNE	3	om	2	41	36	—	
	Jersey (St. Aubin's)	30.56	37	E	2	om	30.57	+0.07	38	36	+2	E	3	om	3	40	34	0.01	
	Hurst Castle ...	30.62	38	NE	4	m	30.60	+0.03	38	37	+3	NNE	4	om	3	38	35	—	
	Dungeness ...	30.58	40	E	5	o	30.53	-0.02	38	36	0	ENE	5	0	3	40	36	0.02	
	London ...	30.65	39	ENE	1	of	30.60	+0.04	37	36	0	NE	1	om	*	40	35	0.05	
	Oxford ...	30.69	36	SE	2	o	30.64	+0.03	34	33	+2	N	1	om	*	36	32	0.01	
	Cambridge ...	30.65	34	2	0	o	30.63	+0.01	35	35	+1	2	0	0	*	37	33	—	
PENIN. SULA.	Yarmouth ...	30.63	42	ENE	4	c	30.61	+0.03	37	36	-3	E	4	om	4	43	35	0.05	
	Cuxhaven ...	30.71	32	E	3	c	30.68	+0.06	33	32	-3	ENE	3	0	*	36	32	—	
	Berlin ...	30.70	32	ENE	2	o	30.65	+0.01	28	26	-5	ENE	4	0	*	34	27	—	
	Wiesbaden ...	*	*	*	*	*	30.50	0.00	25	27	-5	NE	2	bc	*	34	27	—	
	Munich ...	30.40	23	NE	4	o	30.36	-0.02	22	21	-2	NE	4	0	*	27	19	—	
	The Helder ...	30.65	36	ENE	3	c	30.62	+0.01	34	31	-2	E	2	c	3	37	34	—	
	Brussels (9 a.m.)	?	34	*	*	*	30.56	+0.02	31	31	-1	ENE	1	0	*	35	31	—	
	Cape Gris Nez	?	34	E	4	c	?	?	31	30	-1	E	4	0	3	36	30	—	
	Paris ...	30.51	33	NE	2	o	30.48	+0.03	30	28	-2	NNE	2	0	*	35	29	—	
	Brest ...	?	26	E	2	o	?	?	39	38	+12	E	2	0	2	46	?	—	
FRANCE AND NETHERLANDS.	Lorient ...	30.48	34	ENE	5	o	30.54	+0.12	34	31	+3	NNE	4	c	4	36	28	—	
	Rocheport ...	30.40	33	ENE	5	bc	30.47	+0.10	33	32	+6	NE	5	0	2	37	23	—	
	Belfort ...	30.30	29	SW	1	o	?	?	28	25	+6	SE	2	0	*	30	22	—	
	Lyons ...	30.38	27	NNE	1	o	30.36	-0.03	27	26	+7	N	2	0	*	28	?	—	
	Nice ...	30.20	48	NE	5	c	30.10	-0.08	43	35	-2	NE	4	bc	2	50	43	—	
	Perpignan ...	30.24	45	NNW	4	b	30.22	-0.03	40	36	+2	NW	3	c	*	32	?	—	
	Biarritz ...	30.30	50	NNW	4	o	30.38	+0.09	34	32	-9	S	3	0	2	32	32	—	
	Corunna ...	30.18	50	NNW	4	b	30.15	-0.03	42	38	-2	NNE	4	b	2	37	41	—	
	Lisbon ...	30.18	50	NNW	4	b	30.15	-0.03	42	38	-2	NNE	4	b	2	37	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

Friday, 6<sup>th</sup> December,

1889.

## 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:

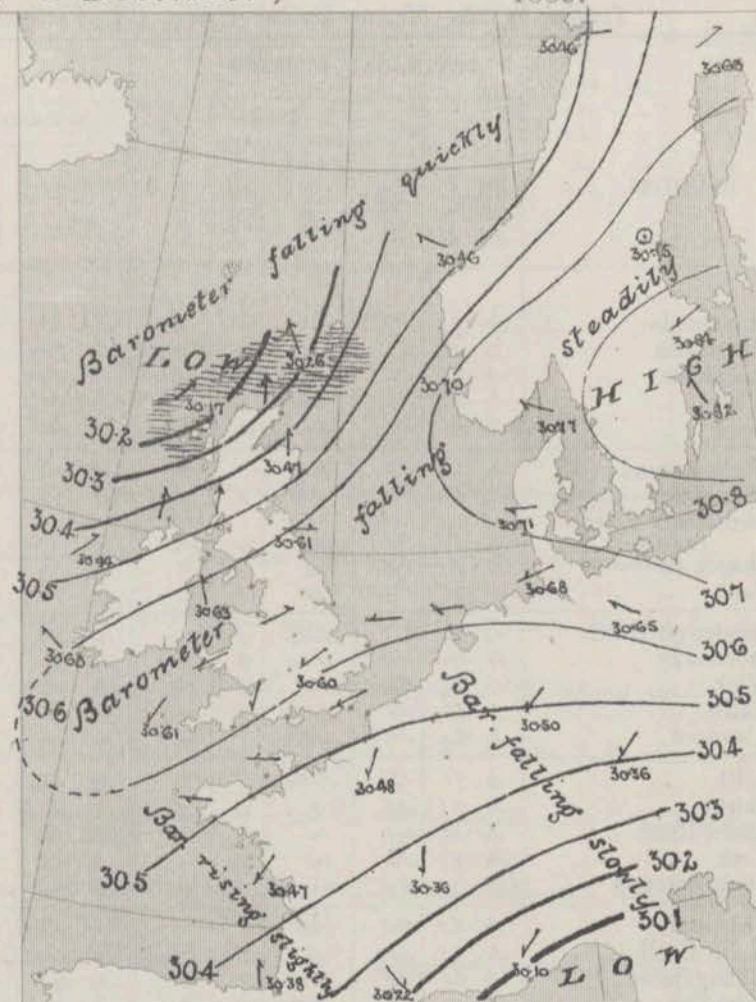
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.810
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Seilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

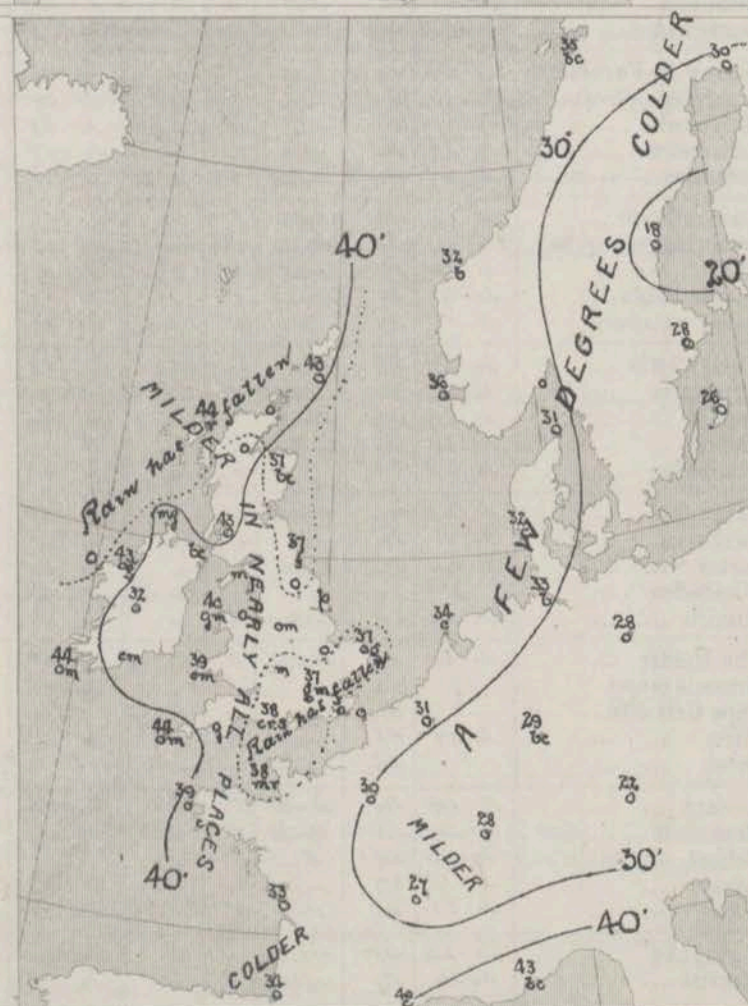
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway.....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.6	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrossan.....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.8	5.82
Roche's Point.....	48.0	39.0	42.9	41.6	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Seilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle.....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.8 in. and more in the south of Sweden; 30.6 in. and more in a ridge stretching across England and the southeast of Ireland.  
 Lowest, 30.2 in. and less, in a depression off the northwest of Scotland — 30.1 in. and less, over the Gulf of Genoa.  
 Gradients rather steep in the north and northwest, moderate over France, slight over England, the North Sea and south of Scandinavia.  
 Barometer falling fast in north, rising slightly in south; the fall is spreading southwards and eastwards.

## TEMPERATURE

Highest, 45° at Belmullet, 44° at Stromsøy, Valencien, and Sully, 43° at Lumburg H., Andersons, and Maldegårds, 42° in London.  
 Lowest, 18° at Helsingfors, 22° at Helsing, 27° at Lyons, 28° at Berlin, Stockholm and Riga, 30° at Paris, and 32° at the Azores.  
 From all stations in Great Britain the frost has disappeared.

## WIND

S. and S.W. on our north and northwest coasts, moderate to strong in force, and a slight gale at Stromsøy.  
 E. and N.E. light to moderate, over the Channel and Bay of Biscay.  
 Very light and variable over the northeastern and midland counties of England.  
 The S.W. current seems to be spreading southwards; the E. one is dying out.

## WEATHER

Clear and bright in Norway, dull and gloomy elsewhere.  
 Rain at times in the north and northwest of our Islands, slight cold showers at some eastern and southern stations.

## SEA

Rough in the far north, and rising; slight in the south, and going down.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The fall of the barometer in the far north seems to be spreading southwards and eastward, accompanied by the S.W. wind and mild weather. It will probably reach our southern and eastern coasts by tomorrow. The wind is likely to increase in strength on our western and northern coasts during the coming twenty-four hours.

# FORECASTS

For the 24 hours ending at NOON on 7<sup>th</sup> DEC<sup>r</sup>.

1889.

## DISTRICTS.

## FORECASTS.

- |   |                  |   |
|---|------------------|---|
| 0 | SCOTLAND NORTH   | S. and S.W. winds, strong, perhaps a gale; squally, rainy.                |
| 1 | SCOTLAND EAST    |   |
| 2 | ENGLAND N.E.     | S. and S.W. winds, freshening; showery, milder.                           |
| 3 | ENGLAND EAST     |   |
| 4 | MIDLAND COUNTIES | Wind shifting to the S.W.; dull and cold to fair and milder, not settled. |
| 5 | ENGLAND SOUTH    |   |

## DISTRICTS.

## FORECASTS

- |   |               |   |
|---|---------------|---|
| 6 | SCOTLAND WEST | Same as Nos 1 and 2   |
| 7 | ENGLAND N.W.  |   |
| 8 | ENGLAND S.W.  | Same as No 5.   |
| 9 | IRELAND NORTH |   |
| 0 | IRELAND SOUTH | S. and S.W. winds, strong in west, moderate in east; milder, showery. |
|   |               |   |

## 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.		Wind		Wea.	Sea		Bar.	Ther.		Wind		Wea.	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.84	35	32	SE	4	c	4		Holyhead ...	30.69	39	36	Z	0	0
Sumburgh Head ...	30.60	41	40	SE	2	op	4		Valencia ...	30.61	47	45	SE	2	cm
Stornoway ...	30.52	44	43	SW	5	0	5		Scilly ...	30.53	45	43	ENE	4	0
Aberdeen ...	30.68	40	37	SEW	1	2 pm	3		Jersey ...	30.54	39	35	E	3	0
Shields ...	30.69	40	38	SE	0	f	2		Dungeness ...	30.52	38	37	E	5	0
Ardrossan ...	30.67	42	39	NE	2	b	2		London ...	30.61	40	38	ENE	2	0
Malin Head ...	30.60	39	37	S	4	b	1		Yarmouth ...	30.59	43	40	E	4	ev
Mullaghmore ...	30.60	43	38	SE	5	bc	5		Rochefort ...	30.41	36	31	ENE	5	b
Behmullet ...	30.58	46	43	SSE	1	bc	*								

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

The reports for yesterday morning showed that pressure was highest, 31.0 in. and upwards in Central Russia, and high 30.5 in. and upwards, over all the more northern, central, and eastern parts of Europe. The lowest readings, 30.0 in. and less, were found in a large shallow depression lying over Sardinia, Tunis, and the adjacent parts of the Mediterranean. The wind was light or moderate from the E. or NE. over by far the larger portion of the Continent, but SW. over the northern parts of Scotland, Sweden and Russia. In Algeria light breezes from the southward were prevalent. The weather was fine in Ireland and Scotland, as well as over the Baltic and the western parts of France and Spain. Elsewhere, however, the sky was overcast, with fog or mist in many places, with rain at Lyons, and with snow at Moscow. Temperatures had fallen a few degrees in the east and north of our Islands as well as over the Baltic, Eastern Germany, Austria, the south of Russia, and the greater part of Spain, but risen elsewhere; readings ranged from 50° and upwards, over the central and southern parts of the Mediterranean to 20° or less over the Baltic provinces and central and northern Russia. The highest individual readings were 58° at Oron, 55° at Sangreman, 54° at Cagliari, Nemours, Algiers, and Ispah, 52° at Barcelona and La Coruña, and 50° at Palermo; the lowest were 12° at Kiga, 14° at Moscow and Humana, 16° at Mennel, 19° at Archangel, and St. Petersburg, 20° at Lyon and Kiro, 21° at Charkov, and 22° at Minsk and Belfort.

In the course of the day very little change was observed over Northern Europe but towards night a rather decided fall of the barometer commenced in the extreme north of our Islands, with freshening winds from the SW.

## 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 7<sup>TH</sup> DECEMBER 1887.

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

Issued by the Meteorological Office, 55, Abchurch Lane, London, E.C. 4, at 5 P.M.																		
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# WEATHER CHARTS

for 8 a.m. on

Saturday, 7<sup>th</sup> December,

1889.

## 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:

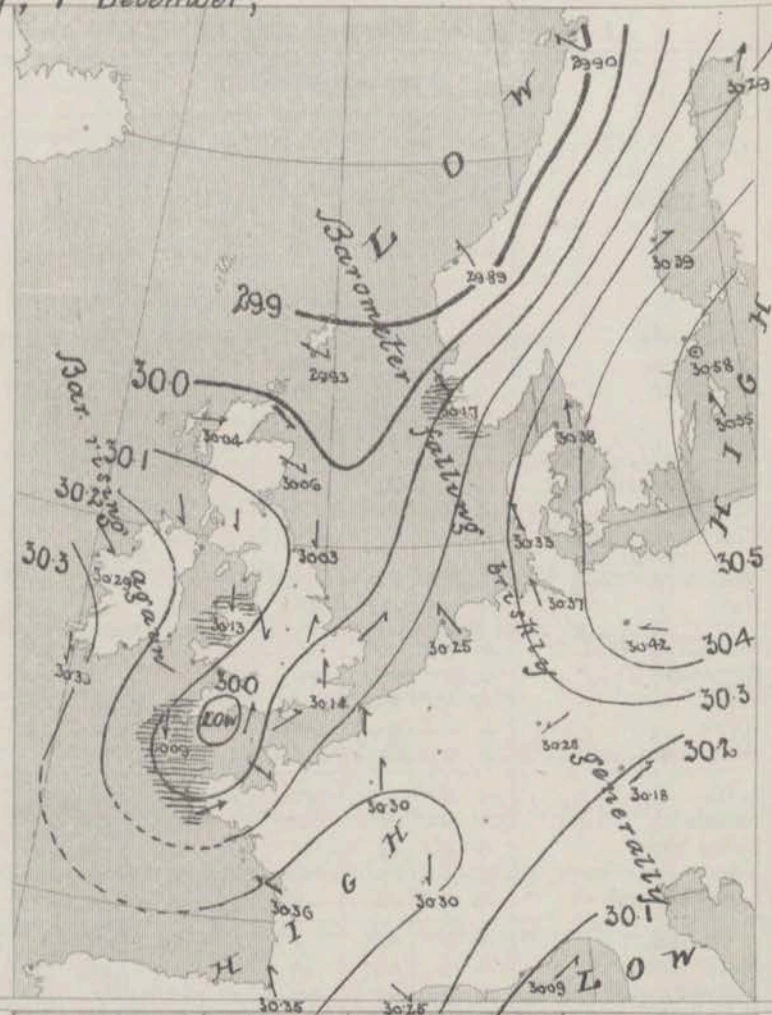
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Scilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

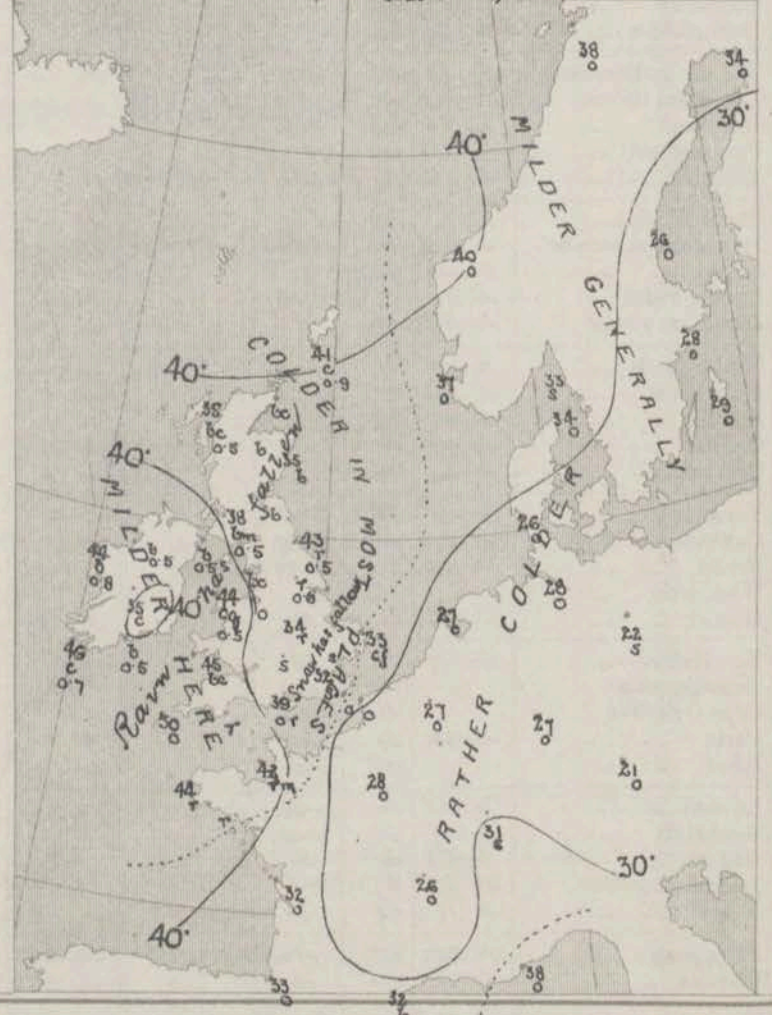
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick .....	42.1	32.6	38.0	36.6	3.18
Nairn .....	41.7	32.8	37.0	35.5	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith .....	44.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York .....	42.7	32.1	36.8	35.7	2.45
Loughborough .....	43.1	32.0	36.9	35.9	2.36
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Donaghadee .....	46.1	36.2	40.2	39.2	2.84
Holyhead .....	46.7	39.3	43.0	41.4	3.84
Liverpool .....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia .....	50.0	40.0	44.6	42.3	6.82
Roche's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover .....	44.7	36.8	40.3	39.1	3.20
LONDON .....	44.7	34.6	38.5	37.4	2.14
Oxford .....	43.6	34.3	37.7	36.6	2.13
Cambridge .....	43.5	32.3	36.9	36.1	1.99
Yarmouth .....	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1865-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.30 in. to 30.55 in. over the eastern shores of the North Sea and the Baltic. 30.3 in. and more over the southwest of France and in a ridge going over the west of Ireland. Lowest, 29.9 in. and less, in a depression off the northwest coast of Norway, 30.0 in. and less, in a secondary disturbance over Devonshire.
TEMPERATURE	Gradients steep over Scandinavia, moderate to slight elsewhere. Barometer rising in the west and northwest, falling elsewhere, most in east. Highest, 50° at Bally, 46° at Valencia, 45° at Pembroke, 44° at Malin H. Lowest, 21° at Munich, 22° at Berlin, 26° at Lyons and Harisand, 27° at the Helder, 28° at Stockholm and Paris, 32° at Oxford, Cambridge and London. The S. wind over England is therefore 10° to 15° colder than the N. wind on our western coasts.
WIND	Fresh SE. on eastern shores of the North Sea (a gale at Rødnevær). Light S. over the eastern half of England — fresh N. on our western coasts (moderate gale at Bally). Light W. over Brittany and Scotland — E. in the southwest of France.
WEATHER	Clear and bright in Scotland and Ireland at present. Very gloomy and unsettled over England, with rain or wet snow at most stations — fog at Yarmouth. Rainfall has been heavy in the northwest and north.
SEA	Moderate or slight in most places, but rough at Holyhead, Bally, and West.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

It is probable that the wind will shift to the N. over England during today, and possibly blow strongly, but an early return of wind to SW. and S. on our western coasts is possible. It is probable also that as the "ridge" now over Ireland advances over England the temperature in this country will fall decidedly, as night comes on.

It is not deemed advisable to lower the storm warning signal at present.

## FORECASTS

For the 24 hours ending at NOON on 8<sup>TH</sup> DEC<sup>R</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

Wind backing to SW.  $\frac{N}{2}$ ; becoming milder, showery again.

Wind shifting to the N.  $\frac{N}{2}$ , force doubtful; cold tonight.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

Wind backing to SW. or S. again, force doubtful; changeable, unsettled.

### WARNINGS

The SOUTH CONE was hoisted yesterday on all coasts.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.54	38	36	SE	8	0	5	Holyhead ...	30.50	43	39	SW	2	omg	1
Sumburgh Head ...	30.07	44	43	S	6	0	6	Valencia ...	30.49	49	46	SW	4	0	4
Stornoway ...	29.90	48	48	SW	8	7	6	Scilly ...	30.54	43	40	NW	1	0	4
Aberdeen ...	30.28	36	36	S	4	0	4	Jersey ...	30.49	39	38	SE	3	om	3
Shields ...	30.48	39	35	S	8	0	2	Dungeness ...	30.44	35	33	SE	3	0	2
Ardrossan ...	30.37	43	42	S	4	0	4	London ...	30.53	39	36	NE	1	omg	*
Malin Head ...	30.22	42	41	S	6	0	4	Yarmouth ...	30.53	37	36	E	3	0	4
Mullaghmore ...	30.30	45	39	SW	6	0	4	Rocheport ...	30.47	33	32	NE	4	0	2
Belmullet ...	30.23	50	49	SW	6	0	*								

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

The reports for yesterday morning showed that pressure was highest, 30.9 in. and upwards, over Central Russia, but high, 30.5 in. and upwards, over nearly the whole of western, northern, central and eastern Europe. The lowest readings, 29.9 in. and less, were found in a depression lying over Sicily, but another disturbance, with readings below 30.0 in. was situated over Morocco, while a third, with readings below 30.1 in. was approaching the north of Scotland. The wind remained E or NE over by far the large part of the Continent, but was fresh or strong from the S or SW in the north and northwest of our Islands, and light to fresh from the SE in the west of Norway. In Sardinia, Sicily, and Tunis, light NW breezes were reported. The weather was cloudy or overcast generally, with mist or fog in many parts of England and Ireland, rain at Stornoway, and also at Naples, and snow at some of the Russian, Austrian, and German stations. Over Central Russia, however, and in Sardinia and Tunis the weather was fine. Temperatures had risen several degrees in the north and northwest of our Islands, and to a less extent over England, the west of France, north Russia, and Italy, but fallen elsewhere; readings ranged from 50° and upwards on the southern shore of the Mediterranean to very little above zero over Central Russia. The highest individual readings were, 57° at Oron and La Calle, 54° at Algiers, 53° at Palermo, 52° at Langhans, 50° at Brindisi, and 49° at Belmullet and Lomna; the lowest were 2° at Moscow, 12° at Charkov, 15° at Riga, 17° at Mamel and Ruda Beeth, 18° at Hamö and, New Saharsvare and Kier, and 20° at Helsingfors, Warsaw, and Gumburg.

In the course of the day the barometer fell quickly in all the more western and northern parts of the United Kingdom, and the wind increased to a gale from SW in the Hebrides. Heavy rain fell at some of the Irish and Scotch 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 Sunday 8<sup>th</sup> Dec<sup>r</sup> 1883  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.		
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.		Min.	
SCANDINAVIA.	Haparanda ...	30.29	33	S	6	0	30.18	- .11	32	32	- 2	SW	4	S	*	34	25	0.08	
	Hernösand ...	30.38	28	SSW	8	0	30.21	- .18	28	27	+ 2	SSW	8	0	*	28	16	—	
	Stockholm ...	30.47	31	SSE	2	0	30.33	- .25	31	29	+ 3	SE	2	0	*	34	28	—	
	Wisby ...	30.46	30	SSE	4	0	30.33	- .22	30	29	+ 1	SSE	4	0	*	30	23	—	
	Bodö ...	29.84	30	E	2	S	29.69	- .21	34	31	- 4	E	4	0	1	38	30	—	
	Christiansund	29.87	40	SW	6	b	29.77	- .12	40	36	0	WSW	6	C	5	41	36	—	
	Skudesnaes ...	30.20	35	SSE	8	0	30.01	- .16	38	37	+ 1	SSE	8	r	5	?	21	—	
	Christiania Fjord (Færder)	30.33	31	SSE	4	0	30.19	- .20	32	31	- 1	WSW	3	S	2	34	30	—	
	Skagen (The Scaw)	30.30	30	SW	2	0	30.25	- .13	27	27	- 7	WSW	2	0	2	34	27	0.04	
	Fanö ...	30.33	24	SSE	2	0	30.28	- .05	32	21	- 4	SSE	2	b	*	27	?	—	
BRITISH ISLANDS.	Sumburgh Head	29.87	41	W	3	r	29.94	+ .01	40	37	- 1	WNW	2	0	4	45	24	0.24	
	Stornoway ...	30.03	40	W	4	b	29.94	- .10	42	41	+ 4	SW	3	0	3	43	37	0.30	
	Wick ...	30.00	38	SW	2	bc	30.00	- .03	39	37	+ 4	W	2	C	2	41	33	0.05	
	Nairn ...	30.07	40	WSW	1	bc	30.02	- .06	40	38	+ 3	WSW	1	bc	1	42	35	—	
	Aberdeen ...	30.12	34	SW	2	b	30.07	+ .01	36	34	+ 1	WSW	2	bc	2	40	33	—	
	Leith ...	30.19	37	W	1	b	30.12	+ .01	43	41	+ 3	W	1	cm	*	43	36	—	
	Shields ...	30.17	38	NW	2	b	30.16	+ .13	37	36	- 6	WSW	2	C	3	43	31	—	
	Spurn Head ...	30.13	39	NNE	2	C	30.22	+ .19	36	33	+ 3	WSW	3	bc	3	39	32	0.06	
	York ...	30.16	36	N	3	b	30.23	+ .19	32	32	- 3	S	1	C	*	39	26	0.01	
	Loughborough	30.14	39	NE	3	0	30.29	+ .21	25	25	- 9	E	1	C	*	39	24	0.05	
GERMANY.	Ardrossan ...	30.19	38	NW	2	b	30.10	- .05	45	44	+ 7	SW	2	r	2	45	35	0.01	
	Malin Head ...	30.22	45	NW	4	Cp	30.05	- .13	42	42	- 2	S	4	ogr	3	45	42	0.05	
	Mullaghmore ...	30.28	45	WNW	5	C	30.06	- .19	45	44	+ 2	SW	5	or	4	47	41	0.08	
	Belmullet ...	30.32	45	WNW	2	0	30.04	- .25	51	51	+ 7	W	4	or	*	51	44	0.36	
	Donaghadee ...	30.26	37	NNE	2	C	30.07	0.00	39	39	- 5	S	2	r	1	46	36	0.02	
	Barrow-in-Furness	30.40	36	N	1	b	30.19	+ .05	33	32	- 5	NE	2	bc	*	42	31	—	
	Liverpool (Bidston)	30.22	38	N	2	b	30.25	+ .17	39	37	- 1	WSW	3	0	3	43	37	—	
	Holyhead ...	30.25	46	NNE	4	Cq	30.25	+ .12	44	42	0	W	2	Cq	2	46	43	—	
	Parsonstown ...	30.33	37	Z	0	b	30.21	- .05	41	40	+ 6	SW	1	r	*	43	33	0.05	
	Valencia ...	30.40	46	NW	2	bcw	30.24	- .09	49	48	+ 3	SW	3	rm	4	49	43	0.18	
FRANCE AND NETHERLANDS.	Roche's Point...	30.36	43	NNW	3	b	30.30	+ .05	44	44	+ 2	W	1	r	3	46	40	0.15	
	Pembroke (St. Ann's Hd.)	30.25	44	N	4	C	30.32	+ .20	46	44	+ 1	W	2	bc	3	47	41	—	
	Scilly ...	30.21	47	N	6	bc	30.35	+ .26	48	44	- 2	NNW	4	0	4	50	45	—	
	Prawle Point ...	30.18	40	N	4	bc	30.36	+ .36	35	33	- 10	N	2	b	1	48	32	0.05	
	Jersey (St. Aubin's)	30.02	44	NNW	3	orm	30.32	+ .13	43	39	+ 1	NNW	4	bcw	3	44	39	0.03	
	Hurst Castle ...	30.12	40	NNE	2	m	30.33	+ .19	31	30	- 8	NNE	2	m	1	44	30	0.12	
	Dungeness ...	30.07	39	SSW	4	r	30.26	+ .09	34	34	- 2	N	2	f	1	39	33	0.39	
	London ...	30.12	36	NW	3	od	30.28	+ .14	33	33	+ 1	WNW	1	f	*	36	32	0.22	
	Oxford ...	30.18	36	NW	2	0	30.32	+ .20	28	27	- 4	W	1	bm	*	37	28	0.12	
	Cambridge ...	30.14	33	Z	0	0	30.31	+ .19	28	27	- 4	Z	0	C	*	34	28	0.11	
PENIN. SULA.	Yarmouth ...	30.11	35	Z	0	org	30.23	+ .08	33	33	0	W	2	f	2	35	31	0.09	
	Cuxhaven ...	30.03	25	SE	3	bc	30.32	- .05	25	24	- 3	SE	1	0	*	28	24	—	
	Berlin ...	*	*	*	*	*	30.28	0.00	25	24	- 2	Z	0	0	*	30	23	—	
	Wiesbaden ...	*	*	*	*	*	30.21	+ .03	19	19	- 2	Z	0	m	*	27	18	0.04	
	Munich ...	30.30	19	SW	1	0	30.21	+ .03	19	19	- 2	Z	0	m	*	27	18	0.04	
	The Helder ...	30.24	28	SSE	1	C	30.29	+ .04	28	26	+ 1	ESE	1	C	1	28	27	—	
	Brussels (v.a.m.)	*	*	*	*	*	30.30	+ .03	25	25	- 1	N	1	b	*	30	25	—	
	Cape Gris Nez	?	30	S	4	S	?	?	32	29	+ 3	?NW	2	0	2	?	28	—	
	Paris ...	30.18	29	SSW	1	S	30.30	0.00	26	26	- 2	Z	0	0	*	32	?	0.04	
	Brest ...	?	46	N	7	bc	?	?	39	39	- 5	N	2	b	2	48	37	0.20	
PENIN. SULA.	Lorient ...	30.09	43	NNE	3	0	30.31	+ .08	44	40	0	N	4	C	4	46	39	0.43	
	Rochefort ...	30.19	35	SSE	5	r	30.27	- .09	34	33	+ 2	NE	3	0	2	36	27	0.12	
	Belfort ...	?	30	ESE	3	0	?	?	31	29	0	ESE	4	C	*	33	26	—	
	Lyons ...	30.23	26	NW	1	0	30.27	- .03	25	22	- 1	NNW	2	0	*	29	25	—	
	Nice ...	30.04	38	ESE	3	0	30.06	- .03	36	33	- 2	ESE	4	C	3	41	34	—	
	Perpignan ...	30.14	36	NW	3	b	30.13	- .12	36	34	+ 4	NE	2	0	*	39	31	—	
	Biarritz ...	30.18	41	SSE	3	0	30.12	- .23	40	37	+ 7	ESE	3	bc	3	41	33	—	
	Corunna ...	30.23	*	*	*	*	30.36	- .02	50	47	+ 8	NNE	5	bc	5	52	41	0.12	
	Lisbon ...	30.23	49	N	4	0	30.17	- .10	46	45	+ 6	N	4	b	3	52	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

Sunday, 8<sup>th</sup> December,

1889.

## 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:

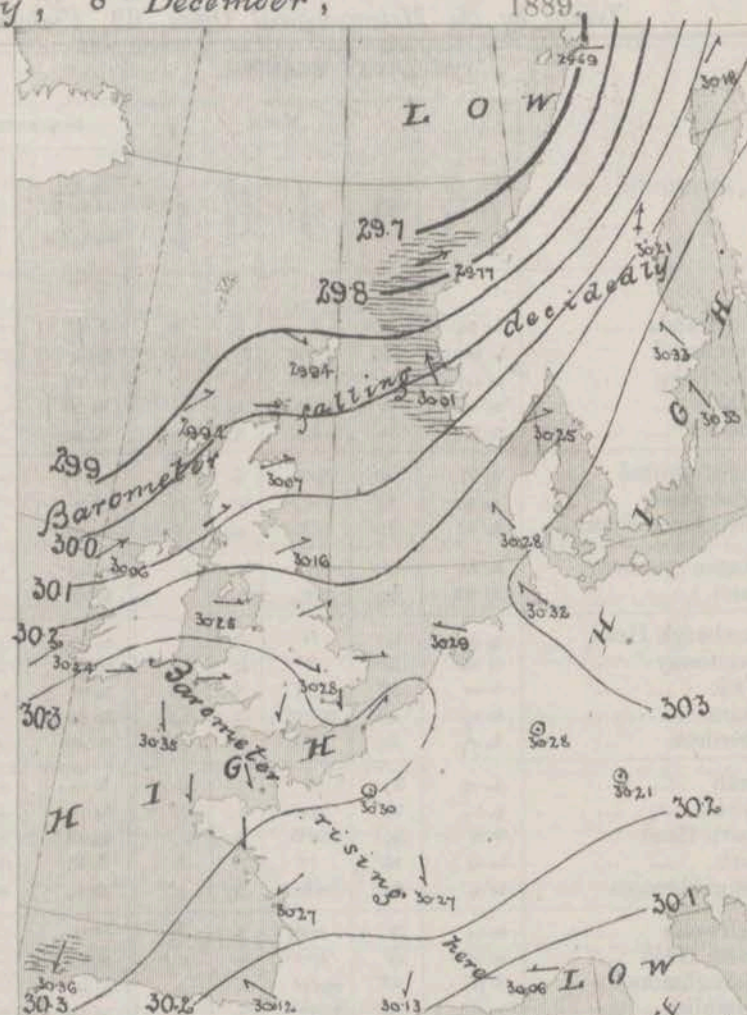
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.887
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.961
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

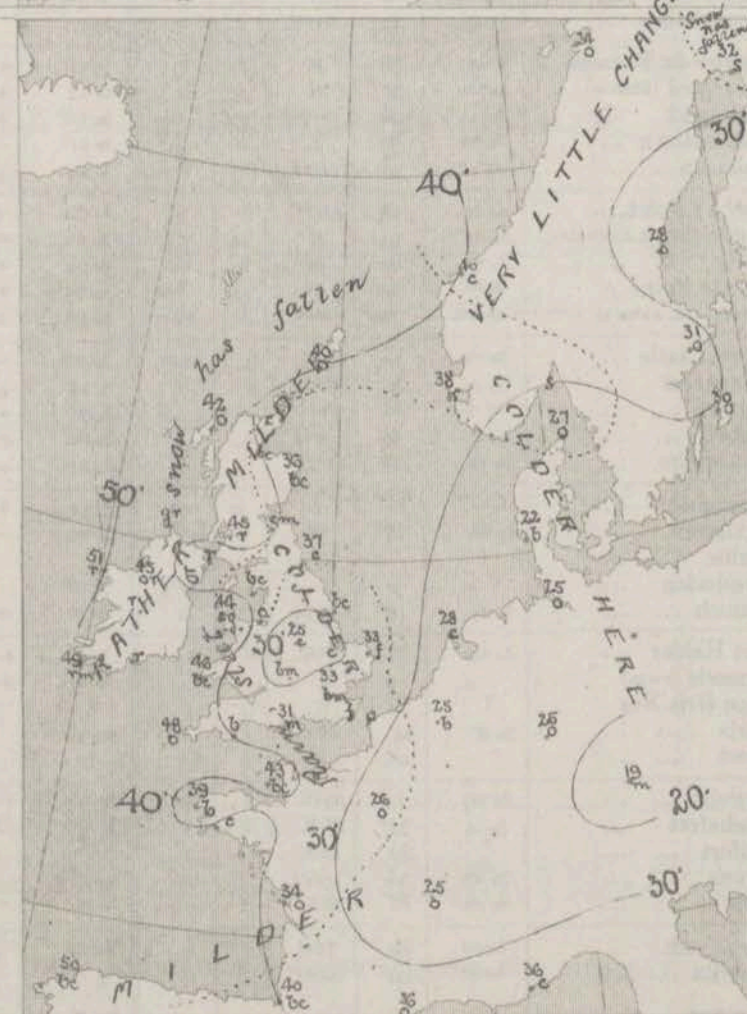
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.0	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.6	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.1	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1868-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.3 in. and upwards, in an anticyclone lying over the Channel, the Bay of Biscay, the south of our Islands and the north of France.  
 Lowest, 29.7 in. and less, in a depression lying off the northwest of Norway.  
 Gradients rather steep over the north of Scandinavia and the extreme west of our Islands, but slight elsewhere.  
 Barometer rising over the Netherlands, Germany, France, and the south of England, but falling elsewhere.

## TEMPERATURE

Highest, 51° at Bournemouth, 50° at Fossema, 48° at Valencia, 48° at Sicily, and 46° at Benicarlo and Lisbon.  
 Lowest, 18° at Breckow, 13° at Munich, 22° at Paris, and 25° at Loughborough, Loughswilly, Brussels and Lyons.  
 Frost occurred over England last night the shallowest thermometer falling to 24° at Loughborough, to 26° at York and to 28° at Oxford and Cambridge.

## WIND

Light or moderate from the SW. on all the more northern parts of the Kingdom and also over the greater part of Scandinavia, but strong to a gale from SE. at Rotterdam, and from SE. at Helsingfors.  
 Light from SE. in Denmark, from the NW. in the south of England, and from the NE. or E. over the greater part of France.

## WEATHER

Fine in most parts of Great Britain, but cloudy or overcast elsewhere.  
 Rain is falling in Ireland and the west of Scotland, and snow at Haparanda and Fardus.  
 Snow and rain fell yesterday in many parts of England and France.

## SEA

Rather rough off the west of Norway and also at Fossema, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

# FORECASTS

For the 24 hours ending at NOON on 9<sup>th</sup> DEC<sup>r</sup> 1889.

## DISTRICTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

## FORECASTS.

NONE ISSUED.

## DISTRICTS.

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

## FORECASTS

NONE ISSUED.

## WARNINGS

The signals which were hoisted on Friday were lowered again yesterday.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.18	35	32	SE	8	o	5		Holyhead ...	30.20	45	40	NNE	5	6
Sumburgh Head ...	29.91	42	40	WNW	3	c	4		Valencia ...	30.29	48	43	N	3	6
Stornoway ...	30.03	42	42	W	5	c	5		Scilly ...	30.17	47	45	N	7	6
Aberdeen ...	30.11	39	36	W	1	b	2		Jersey ...	30.06	41	40	WN	8	3
Shielda ...	30.09	42	39	NNW	3	c	4		Dungeness ...	30.07	38	37	SW	5	4
Ardrossan ...	30.19	44	41	NW	3	c	2		London ...	30.08	36	35	SSW	1	4
Malin Head ...	30.22	45	43	NW	4	c	3		Yarmouth ...	30.08	34	33	SW	2	3
Mullaghmore ...	30.28	47	41	NW	4	c	3		Rocheport ...	30.28	35	31	SSE	3	2
Belmullet ...	30.32	45	43	WNW	2	bc	4								

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

The reports for yesterday morning showed that pressure was still very high (30.6 ins. to 30.9 ins.) in a large depression over Russia, and that it was as high as 30.3 ins. to 30.4 ins. in a smaller system lying over the west of France and the Spanish Peninsula, whence a "ridge" stretched northwards to the extreme west of France. From these readings the values decreased - to 29.6 ins. and less in a large depression lying off the west of Norway, to 30.0 ins. and less, in a small depression lying at the southern extremity of a "V" shaped depression, secondary to the larger system in the north, whence it extended in a southerly direction across the North Sea and England to the channel coast of Devonshire. The wind was E<sup>s</sup> and E<sup>s</sup> over Eastern and Central Europe, SE<sup>s</sup> over Denmark and Scandinavia, S<sup>s</sup> (very light) over England, but N<sup>s</sup> and NW<sup>s</sup> on our western coasts. Weather was dull generally, with a considerable fall of cold<sup>ness</sup> and wet snow over England. Temperature was lowest in the far east, highest in the extreme south and west. The highest morning<sup>values</sup> reported were 57° at Malta, 55° at Algiers, 52° at Tunis, 50° at Palma and at Scilly, 46° at Valencia, 44° in the extreme north of Ireland, 41° at Sumburgh (H<sup>d</sup>), and 40° at Christiania; the lowest were 3°F. at Moscow, 8° at Riga, 10° at Nicolaiiff, 11° at Kharkov, 12° at Kiev and Caeow, 15° at St Petersburg, 17° at Warsaw, 21° at Vienna, 22° at Berlin, 28° at Paris and Madrid, and 32° at Cambridge, Oxford, and in London. It is remarkable that the S<sup>s</sup> current over England was from 10° to 18° colder than the N<sup>s</sup> current on our western 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).

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# DAILY WEATHER REPORT.

for *Monday, 9<sup>th</sup> December, 1889.*

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

Issued by the Meteorological Office, 55, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 3 p.m. and Sea Level.	Temp. in Shade.	WIND.			BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 3.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)	Weather.	Reading at 8 a.m. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)	Weather.		Max.	Min.		
SCANDINAVIA.																		
Haparanda ...	29.86	28	E	6	S	29.54	- 64	28	27	- 4	SW	4	0	*	34	28	0.39	
Hernösand ...	29.90	?	SSW	6	0	29.69	- 52	30	28	+ 2	SSW	2	0	*	32	25	-	
Stockholm ...	30.13	27	SSW	2	0	29.99	- 34	27	25	- 4	SW	2	0	*	34	25	-	
Wisby ...	30.19	31	E	4	0	30.10	- 23	30	30	0	SW	6	0	*	34	28	-	
Bodö ...	29.46	33	S	6	C	29.28	- 41	33	31	- 1	SSW	2	C	+	36	20	-	
Christiansund	29.72	35	SSW	6	S	29.19	- 58	38	35	- 2	SE	6	0	6	?	32	0.20	
Skudesnaes ...	29.90	43	SSW	6	0	29.43	- 58	42	41	+ 4	SSW	9	T	8	43	?	0.63	
Christiania Fjord (Færder)	29.95	36	SSW	7	T	29.75	- 44	38	36	+ 6	S	9	0	6	?	?	-	
Skagen (The Scaw)	30.08	31	SSW	6	0	29.87	- 38	31	30	+ 4	SSW	7	bc	5	32	25	-	
Fanö ...	30.17	29	SSW	4	C	29.89	- 39	30	30	+ 8	SSW	6	S	*	32	?	-	
Sumburgh Head	29.78	41	W	0	T	29.09	- 55	49	49	+ 9	WSW	4	T	5	50	40	0.25	
Stornoway ...	29.59	50	SW	3	T	29.33	- 61	48	47	+ 6	SW	4	0	4	51	40	0.52	
Wick ...	29.63	44	S	3	T	29.26	- 74	48	45	+ 9	NW	4	C	2	52	36	0.12	
Nairn ...	29.66	49	W	0	T	29.32	- 70	53	50	+ 13	WSW	4	C	2	53	39	0.15	
Aberdeen ...	29.79	40	SSW	4	0	29.39	- 68	49	47	+ 13	SSW	4	C	3	50	36	0.13	
Leith ...	29.83	48	SW	4	T	29.49	- 63	52	50	+ 9	WSW	6	C	*	52	43	0.06	
Shields ...	30.01	38	SSW	3	0	29.60	- 56	51	49	+ 14	WSW	5	C	2	51	35	0.31	
Spurn Head ...	30.12	37	SSW	4	0	29.71	- 51	45	44	+ 9	SW	5	T	4	45	35	0.32	
York ...	30.10	37	S	1	m	29.71	- 52	50	48	+ 18	W	4	0	*	50	31	0.03	
Loughborough	30.17	38	SSW	1	T	29.84	- 45	46	45	+ 21	SW	3	0	*	47	25	0.17	
Ardrossan ...	29.86	46	SSW	5	T	29.55	- 55	52	51	+ 7	W	5	0	4	52	44	0.35	
Malin Head ...	29.89	49	W	5	0	29.61	- 44	50	49	+ 8	WSW	5	0	3	51	42	0.22	
Mullaghmore ...	30.02	50	WSW	5	0	29.76	- 30	50	50	+ 5	SW	5	0	5	51	44	0.28	
Belmullet ...	30.06	51	W	3	0	29.77	- 27	52	52	+ 1	W	5	0	*	52	50	0.10	
Donaghadee ...	29.95	43	WSW	3	T	29.71	- 46	50	50	+ 11	WSW	5	C	3	51	39	0.31	
Barrow-in-Furness	30.02	40	SSW	4	T	29.72	- 47	48	47	+ 15	W	4	C	*	48	32	0.47	
Liverpool (Bidston)	30.07	40	S	3	T	29.80	- 45	47	46	+ 8	WSW	5	T	4	49	39	0.28	
Holyhead ...	30.06	47	SSW	5	0	29.84	- 41	51	50	+ 7	WSW	4	0	4	51	44	0.40	
Parsonstown ...	30.07	51	SW	1	0	29.89	- 32	50	49	+ 9	SW	2	0	*	52	40	0.34	
Valencia ...	30.23	52	WSW	4	0	30.04	- 20	52	52	+ 3	WSW	4	0	4	53	48	0.17	
Roche's Point...	30.14	42	WSW	4	0	30.01	- 14	49	47	+ 5	W	2	bc	3	50	41	0.46	
Pembroke (St. Ann's Hd.)	30.12	46	S	5	T	29.96	- 36	51	50	+ 5	W	5	C	5	51	45	0.28	
Scilly ...	30.24	47	S	5	T	30.09	- 26	51	50	+ 3	WSW	6	0	5	51	44	0.28	
Prawle Point ...	30.27	44	SSW	4	T	30.04	- 31	49	49	+ 14	W	6	0	4	50	34	0.15	
Jersey (St. Aubin's)	30.33	40	WSW	3	C	30.11	- 21	46	45	+ 3	SW	5	0	4	46	37	0.13	
Hurst Castle ...	30.28	42	WSW	2	0	29.99	- 34	47	46	+ 16	W	6	C	4	48	30	0.10	
Dungeness ...	30.26	32	W	2	0	29.96	- 30	44	43	+ 10	WSW	7	T	6	44	29	0.15	
London ...	30.24	38	W	1	0	29.92	- 36	46	45	+ 13	SW	2	0	*	46	35	0.16	
Oxford ...	30.21	36	SSW	3	0	29.92	- 40	45	45	+ 17	SW	3	0	*	45	28	0.13	
Cambridge ...	30.21	32	W	0	0	29.87	- 44	43	43	+ 15	SW	2	0	*	43	28	0.13	
Yarmouth ...	30.22	34	WSW	1	C	29.84	- 39	42	41	+ 9	WSW	4	0	3	42	30	0.26	
Cuxhaven ...	30.29	26	S	2	0	30.05	- 27	44	23	- 1	S	3	0	*	26	23	-	
Berlin ...	30.38	24	SSW	1	0	30.27	- 24	24	23	-	S	3	0	*	25	19	-	
Wiesbaden ...	*	*	*	*	*	30.30	+ 02	21	19	- 4	W	0	0	*	24	16	-	
Munich ...	30.28	19	NE	1	0	30.27	+ 06	17	17	- 2	SE	1	m	*	25	16	-	
THE HELDER	30.25	29	S	1	C	29.90	- 39	34	33	+ 6	SSW	3	T	3	?	22	0.20	
Brussels (9 a.m.)	*	*	*	*	*	30.12	- 18	31	31	+ 6	SW	3	S	*	33	?	-	
Cape Gris Nez	?	37	W	1	0	?	?	40	40	+ 8	SW	6	0	5	?	32	-	
Paris ...	30.36	30	E	1	0	30.26	- 04	29	28	+ 3	S	1	0	*	32	?	-	
Brest ...	?	47	WSW	1	T	?	?	51	49	+ 12	?	3	T	4	50	?	0.16	
Lorient ...	30.35	44	N	3	0	30.17	- 14	47	47	+ 3	SW	4	T	4	47	39	0.04	
Rochefort ...	30.41	33	NE	3	0	30.38	+ 11	31	30	- 3	SSW	3	bc	2	36	25	0.04	
Belfort ...	?	26	WSW	1	S	?	?	16	16	- 15	E	1	S	*	?	12	-	
Lyons ...	30.37	24	N	2	0	30.36	+ 09	17	16	- 8	WSW	1	0	*	29	17	-	
Nice ...	30.11	37	NE	4	C	30.16	+ 10	33	31	- 3	E	4	0	1	46	78	-	
Perpignan ...	30.19	42	WSW	3	0	30.23	+ 10	36	33	0	W	1	0	*	49	34	-	
Biarritz ...	30.30	39	E	3	0	30.30	+ 18	32	29	- 8	E	3	C	5	43	30	-	
Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-	
Lisbon ...	30.16	50	NE	5	0	30.25	+ 08	46	39	0	NE	4	0	0	55	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 *Monday, 9<sup>th</sup> December.*

1889.

## 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:

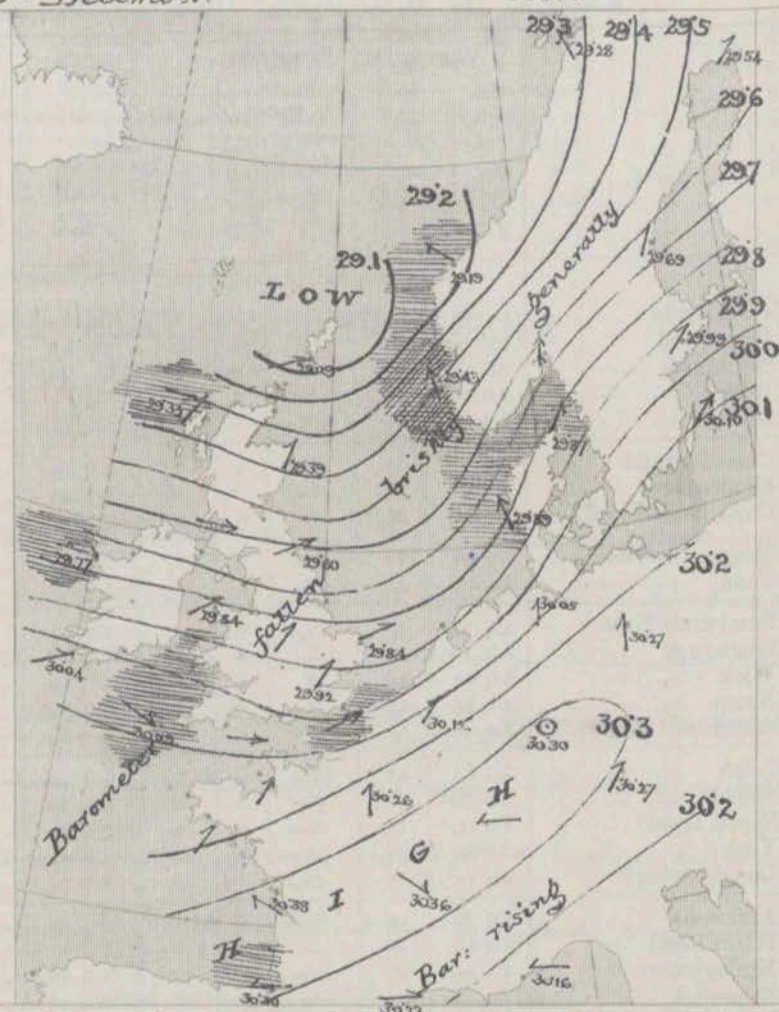
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.902
Jersey	29.985
Hurst Castle	29.959
Dover	29.937
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

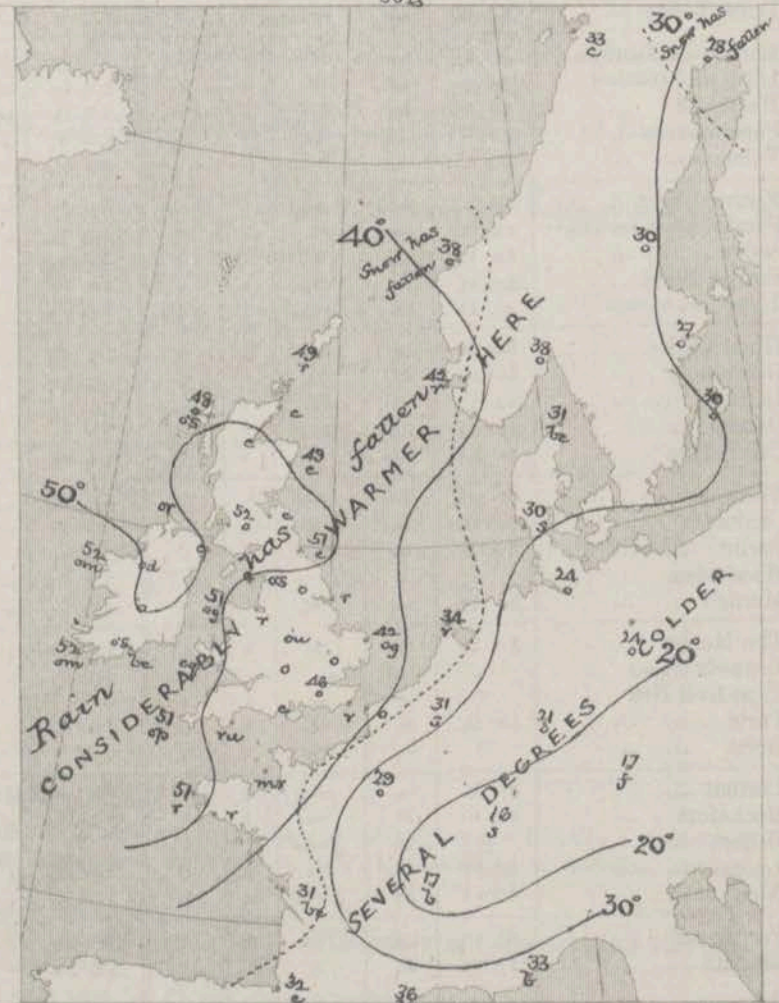
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.46
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	35.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.0	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.6	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.6	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.3 in: and upwards in an anticyclone lying over France and South Germany.  
Lowest, 29.1 in: and less, in a large depression, the centre of which lies to the northward of the Shetlands.  
Gradients rather steep over the whole of Northwestern Europe. Barometer falling briskly at all but the extreme southern stations.

## TEMPERATURE

Highest, 53° at Avon, 52° at Liff, Ardrossan, Bournemouth and Valencia, and 51° at Shields, Holyhead, Wombourne, and Seilly.  
Lowest, 16° at Belfast, 17° at Munich and Lyons, 21° at Wiesbaden, 24° at Innsbruck and Berlin, and 27° at Stockholm.  
A considerable rise has taken place over Great Britain, and a less decided rise in all other parts of Northwestern Europe.

## WIND

Moderate to strong from the W. or S.W. over our Islands and the north of France.  
S. or S.E. on the eastern shores of the North Sea, with strong gales in the south of Norway.  
Light or moderate from the E. in the southeast and south of France.

## WEATHER

Cloudy, or overcast at all but the Southern French stations, where the sky is clear.  
Rain is falling in many parts of our Islands, as well as at Skutumpah and the Helder and snow is reported at Fano and Bismarck.  
Solar and lunar halos were seen yesterday in the south of England.

## SEA

Very high at Skutumpah, and rough or rather so on our extreme northern and southern coasts generally.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression off the north of Scotland will probably travel away in an easterly direction, but other disturbances are likely to approach our Islands shortly from the Atlantic. Mild unsettled weather will probably continue for a time in most districts.

## FORECASTS

For the 24 hours ending at NOON on 10<sup>th</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

0	SCOTLAND NORTH	W <sup>ly</sup> winds, freshening; squally, some rain
1	SCOTLAND EAST	{ SW <sup>ly</sup> and W <sup>ly</sup> winds, fresh; changeable, some showers.
2	ENGLAND N.E.	
3	ENGLAND EAST	{ SW <sup>ly</sup> and W <sup>ly</sup> winds, fresh or strong; showery at first, but improving temporarily later.
4	MIDLAND COUNTIES	
5	ENGLAND SOUTH	

### DISTRICTS.

### FORECASTS

6	SCOTLAND WEST	{ W <sup>ly</sup> winds, fresh or strong; squally, some showers.
7	ENGLAND N.W.	
8	ENGLAND S.W.	
9	IRELAND NORTH	{ W <sup>ly</sup> to SW <sup>ly</sup> winds, fresh or strong; unsettled, some rain.
0	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.		Wind		Wea.	Sea		Bar.	Ther.		Wind		Wea.	Sea.
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.77	39	38	2	0	0	5		Holyhead ...	30.13	45	43	32W	5	rgm 4
Snabargh Head ...									Valencia ...						
Stornoway ...	29.78	45	45	SW	5	1	5		Scilly ...						
Aberdeen ...									Jersey ...	30.32	45	41	11	3	c 3
Shields ...									Dungeness ...	30.26	33	32	11	2	f 1
Ardrossan ...									London ...						
Malin Head ...	29.89	50	50	W	14	0	14		Yarmouth ...						
Mullaghmore ...									Rochefort ...	30.37	35	33	11	3	0 2
Beinmullet ...	30.07	52	52	WNW	3	0	2								

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

The reports for yesterday morning showed that pressure ranged from 30.4 ins. to 30.8 ins. and more over Russia, and from 30.3 ins. and more, over the Bay of Biscay and west of France to 29.7 ins. and less, over the northwest of Norway, to 29.9 ins. and less, in a new depression which was approaching our extreme northwest coasts and to 30.0 ins. and less, in a shallow disturbance lying over the Mediterranean. The wind over the northwestern parts of our area was consequently SW<sup>ly</sup>, that in the far south, E<sup>ly</sup> and NE<sup>ly</sup>, that in the west of France and over the Bay of Biscay was N<sup>ly</sup> to NE<sup>ly</sup>, while that over Russia, Germany and the eastern shores of the North Sea was SE<sup>ly</sup> to S<sup>ly</sup>. The weather was fine and bright at the Russian stations, fair but hazy and foggy over England, dull elsewhere, with rain in Ireland and the west of Scotland, snow at Haparanda, Le Mans and Vienna. A good deal of wet snow and cold rain had fallen over England on the previous day, smaller quantities at some other places, but a very heavy fall was reported at Trieste. Temperature varied greatly in various parts of Europe, and was changing irregularly in our Islands. Hard frost prevailed over Russia. The lowest individual values were 0-3° F at Moscow, +1° at St. Petersburg, 10° at Kharkov, 13° at Nicolaiev and Helsingfors, 16° at Archangel, 18° at Lemberg, 19° at Warsaw, 19° at Breslau and Munich, 25° at Brussels and Loughborough, 26° at Paris, 28° at Oxford and Cambridge, 31° at Madrid, and 33° in London; the highest were 55° at Malta, 52° at Brindisi, 51° at Genoa and also at Beinnmullet, 50° at Algiers and Corunna, 49° at Valencia, and 48° at Scilly. Later on temperature increased still further in Ireland, and the rise spread eastward towards Great Britain, accompanied by light SW<sup>ly</sup> winds and rain.

## SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLAND AND THEIR NEIGHBOURHOOD FROM THE 1<sup>ST</sup> TO THE 7<sup>TH</sup> DEC. 1889.

The large anticyclone which lay over Europe and the British Islands at the commencement of the week continued in force, with some modifications until Thursday. Its intensity increased steadily during this interval, while the central portion of the system moved bodily to the northward, from the Netherlands and central Europe to the north of Russia. On Thursday readings varied from between 30.7 ins. and 31.0 ins. over Scandinavia and northern Europe to rather less than 30.2 ins. over the Gulf of Genoa, and to about 30.5 ins. off our extreme northwestern coasts. Depressions then appeared off our extreme northwestern coasts, and over the Mediterranean, and as the former were the stronger of the two the high-pressure system receded in a southeasterly direction, and S<sup>ly</sup> to SW<sup>ly</sup> gradients spread over us. On Friday a large depression moved northeastwards from the Atlantic, past the Hebrides towards Norway, and this was followed quickly by a secondary system, which travelled from the Atlantic, past Cape Clear to the south and east of England, making the distribution of pressure at 8 a.m. on Saturday very complex. The frosty weather broke up over England early in the week, but Ireland and Scotland felt it a day or so later, the calms and variable air gave way to strong SW<sup>ly</sup> and S<sup>ly</sup> winds at our northern and western stations on Friday, and the E<sup>ly</sup> winds in the west died down during the succeeding 24 hours.

At the close of the week unsettled, rainy and snowy weather prevailed over England, but in Ireland and Scotland the sky (after being rough and rainy) had cleared again. Temperature had changed fitfully and very irregularly, and the general conditions was very unstable.

## 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.

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STATIONS.	YESTERDAY EVENING.						8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.		BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)			Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.																			
Haparanda ...																			
Hernösand ...																			
Stockholm ...																			
Wisby ...																			
Bodö ...	28.71	32	E	6	r	28.58	- .70	39	35	+ 6	ESE	4	c	3	?	30	0.04		
Christiansund	28.70	44	SW	6	c	28.66	- .53	38	37	0	SW	5	r	5	45	36	0.28		
Skudesnaes ...	29.11	46	SSW	6	c	28.91	- .52	43	41	+ 1	SSW	6	o	7	46	41	0.35		
Christiania Fjord (Fierder)	29.25	37	S	9	r	28.98	- .77	42	41	+ 4	SSW	5	o	4	?	37			
Skagen (The Scaw)	29.23	36	SW	9	r	29.06	- .81	39	39	+ 8	SW	4	o	4	39	30	0.24		
Fanö ...	29.36	39	SW	4	o	29.23	- .66	41	40	+ 11	SW	4	c		43	30	0.08		
Sumburgh Head	28.90	43	W	6	c	28.62	- .47	39	38	- 10	W	5	o	6	49	37	0.34		
Stornoway ...	29.11	43	W	6	cp	28.90	- .43	38	37	- 10	W	4	o	4	48	36	0.42		
Wick ...	29.07	40	W	6	bc	28.80	- .46	38	37	- 10	W	3	c	2	48	35	0.13		
Nairn ...	29.21	43	W	4	bc	28.87	- .45	38	37	- 15	W	5	r	1	53	37	0.09		
Aberdeen ...	29.24	46	W	3	b	28.91	- .48	37	36	- 12	SW	4	bcu	3	53	37			
Leith ...	29.34	41	W	5	bc	29.06	- .43	40	38	- 12	W	5	b p		53	36	0.07		
Shields ...	29.44	49	W	4	bc	29.15	- .45	42	40	- 9	W	3	c	2	53	41			
Spurn Head ...	29.53	48	SW	4	o	29.27	- .44	44	42	- 1	SW	5	o	4	48	42	0.01		
York ...	29.52	51	W	3	r	29.24	- .47	41	40	- 9	W	1	bc		53	40	0.07		
Loughborough	29.62	51	SW	4	c	29.36	- .48	44	42	- 2	SW	4	o		52	43			
Ardrossan ...	29.44	48	W	5	o	29.08	- .47	43	41	- 9	W	5	o p p	4	52	41	0.11		
Malin Head ...	29.45	45	W	6	cp	29.10	- .51	39	39	- 11	W	6	o r	5	50	38	0.23		
Mullaghmore ...	29.59	48	W	6	cp	29.23	- .53	43	40	- 7	W	7	cp	6	51	41	0.11		
Belmullet ...	29.64	48	W	6	b	29.29	- .48	44	42	- 8	W	4	b p		53	42	0.28		
Donaghadee ...	29.56	48	W	3	c	29.18	- .53	39	39	- 11	SW	5	b	3	53	37	0.01		
Barrow-in-Furness	29.53	47	W	3	o	29.20	- .52	44	42	- 4	SW	3	o p		50	41	0.10		
Liverpool (Bidston)	29.59	48	W	6	o	29.25	- .52	43	42	- 4	SW	6	o	5	51	43	0.07		
Holyhead ...	29.67	49	W	4	o p p	29.32	- .52	44	43	- 7	SW	4	cp	4	53	43	0.07		
Parsonstown ...	29.71	48	SW	2	o	29.36	- .53	41	39	- 9	SW	2	b		53	40	0.10		
Valencia ...	29.85	50	W	3	o	29.50	- .54	46	42	- 6	W	5	c	4	54	44	0.13		
Roche's Point...	29.79	52	W	5	bc	29.48	- .53	46	43	- 3	W	4	bc	4	55	45	0.01		
Pembroke (St. Ann's Hd.)	29.76	51	W	5	o	29.42	- .54	49	48	- 2	W	8	o p p	6	51	49	0.03		
Scilly ...	29.92	52	W	6	o	29.56	- .53	51	50	0	W	6	o p	7	52	?	0.04		
Prawle Point ...	29.86	50	W	5	r	29.54	- .50	49	48	0	W	6	o p	5	50	47	0.21		
Jersey (St. Aubin's)	29.96	57	W	5	o	29.65	- .46	52	50	+ 6	W	5	o m d	4	52	40	0.31		
Hurst Castle ...	29.80	48	W	5	o	29.51	- .48	48	47	+ 1	W	5	c	4	49	46			
Dungeness ...	29.75	49	W	6	o	29.49	- .47	47	46	+ 3	W	4	o	3	49	43	0.04		
London ...	29.72	49	SW	2	o d	29.46	- .46	46	46	0	SW	2	o		51	45	0.01		
Oxford ...	29.69	49	W	4	o	29.43	- .49	44	42	- 1	SW	3	cm		50	44	0.03		
Cambridge ...	29.64	48	W	3	bc	29.39	- .48	44	42	+ 1	SW	3	o		50	41	0.01		
Yarmouth ...	29.63	46	W	4	o g m	29.39	- .45	44	42	+ 2	W	3	bef	2	47	41	0.02		
Cuxhaven ...	29.71	46	SSW	7	s	29.38	- .67	35	35	+ 11	SW	4	f		35	?	0.22		
Berlin ...	29.95	25	SSW	4	c	29.59	- .68	26	26	+ 2	SSW	4	o		27	23	0.08		
Wiesbaden ...	*	*	*	*	*	29.71	- .59	32	31	+ 11	SW	1	o		32	?	0.09		
Munich ...	30.09	14	SW	2	f	29.79	- .48	26	26	+ 9	SW	2	s		27	9	0.08		
The Helder ...	29.86	44	SW	3	o	29.38	- .52	44	43	+ 10	SW	2	c	3	46	34	0.35		
Brussels (9 a.m.)	*	*	*	*	*	29.57	- .55	38	38	+ 7	SSW	3	r		38	?	0.32		
Cape Gris Nez	?	48	SSW	6	r	?	?	46	45	+ 6	W	5	o	5	50	39	0.55		
Paris ...	30.05	30	SSW	4	o	29.74	- .52	35	35	+ 6	SSW	2	o		?	?	0.28		
Brest ...	?	52	W	5	o	?	?	53	53	+ 2	W	7	r	7	?	37	0.12		
Lorient ...	30.07	51	W	4	o	29.76	- .41	52	52	+ 5	W	4	r	5	52	41	0.04		
Rochefort ...	30.19	37	S	5	r	29.96	- .42	49	49	+ 18	W	3	o	2	?	30	0.12		
Belfort ...	30.11	31	N	1	S	29.82	?	32	29	+ 16	W	1	r		35	?	0.16		
Lyons ...	30.26	22	SE	1	b	?	?	27	27	+ 10	SE	1	o		27	22			
Nice ...	30.10	39	W	2	b	29.96	- .20	38	33	+ 5	W	4	o	3	46	?			
Perpignan ...	30.18	41	W	3	b	30.04	- .19	41	35	+ 5	SW	2	o		47	35			
Biarritz ...	30.25	44	SSW	3	o	30.08	- .22	51	49	+ 19	SSW	5	o	3	?	?	0.08		
Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Lisbon ...	30.23	47	W	5	b	30.18	- .07	40	39	- 6	W	0	b	2	44	39			



for 8 a.m. on Tuesday, 10<sup>th</sup> December

1889.

EXPLANATION OF MAP

Changes since previous morning are stated in words.

→ = forces above 10; → = forces 8 to 10;

→ = forces 5 to 7; → = forces 1 to 4.  
⊙ = dead calm.

 = Rough,  = High.

at 8.0 a.m. for the month of December.

*During the 15 Years: 1871—1885.*

*During the 15 Years: 1871—1885.*

December

L O W

Bar rising

very quickly

Barometer

H I G H

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.

(For the month of December.)

Handwritten map of Europe and North Africa with temperature notes and isotherms.

**Handwritten Notes:**

- SEVERAL DEGREES COLDER
- Lightning bright last eve
- very WARMER
- WARMER
- Snow has fallen
- No rain here

**Isotherms and Temperatures:**

- 40°
- 30°
- 20°
- 10°
- 0°
- 10°
- 20°
- 30°
- 40°
- 50°
- 60°
- 70°
- 80°
- 90°
- 100°
- 110°
- 120°
- 130°
- 140°
- 150°
- 160°
- 170°
- 180°

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.



# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.1 ins. and upwards, in Portugal.

Lowest, 28.6 ins. and less, in a large depression lying off the northwest of Norway, 28.7 ins. and less, in a secondary disturbance lying near the Shetlands.

Gradients rather steep generally. Barometer falling in most places, but rising again in the Hebrides.

## TEMPERATURE

Highest, 53° at Brest, 52° at Jersey and Boulogne, 51° at Bally and Bismarck, and 45° at Lumberville, Havre-la-Paix, and Rochefort.

Lowest, 26° at Brest and Bismarck, 27° at Lyons, 32° at Marseilles and Belfort, 35° at Barcelona and Paris.

The maxima registered yesterday were a little above 50° in most parts of the Kingdom.

## WIND

Moderate or fresh from the N.W. in the north of Scotland; strong from the N.W. in the north and west of Ireland.

Fresh or strong, from the S.W. or W. in most other parts of Western Europe, with a gale at Lumberville.

## WEATHER

Changeable and showery in most parts of the United Kingdom; dull at the Continental stations, with rain at Brest and Belfort and snow at Munich.

Rain fell yesterday in nearly all parts of Western Europe, and lightning was seen at Aberdeen early this morning.

## SEA

High at Brest and Brest, and rough on nearly all the more exposed parts of our coast.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The barometer is now beginning to rise again on our extreme northwest coast, and it is probable that the depression in the neighbourhood of the Shetlands moves eastwards the wind will increase considerably from the N.W. in Scotland. Cooler weather seems likely to spread over England.

## FORECASTS

For the 24 hours ending at NOON on 11<sup>th</sup> DEC. 1889.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS
0 SCOTLAND NORTH	N <sup>W</sup> and NW <sup>W</sup> winds, increasing in force; squally, some cold showers.	6 SCOTLAND WEST	W <sup>W</sup> to NW <sup>W</sup> winds, increasing in force; squally, showery.
1 SCOTLAND EAST		7 ENGLAND N.W.	
2 ENGLAND N.E.	SW <sup>W</sup> to W <sup>W</sup> winds, increasing in force; squally, showery.	8 ENGLAND S.W.	W <sup>W</sup> to NW <sup>W</sup> winds, strong; squally, showery.
3 ENGLAND EAST	SW <sup>W</sup> winds, fresh or strong; squally, showery, colder.	9 IRELAND NORTH	NW <sup>W</sup> winds, strong; squally, showery.
4 MIDLAND COUNTIES		0 IRELAND SOUTH	Same as No 8
5 ENGLAND SOUTH			
		WARNINGS	The NORTH CONE was hoisted last evening in districts 0 to 2, 6, 7, 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.93	44.4	44.4	SSW	8	rs	7		Holyhead ...	29.71	52	SW	4	o.g	4
Sumburgh Head ...	29.00	44.5	44.2	W	6	c	5		Valencia ...	29.90	54	W	5	o.d.m	5
Stornoway ...	29.21	44.5	44.4	W	6	bc	5		Scilly ...	29.92	47	W	6	o	5
Aberdeen ...	29.29	51	45	W	2	bc	3		Jersey ...	30.04	52	W	4	o	4
Shields ...	29.47	53	49	W	4	o	2		Dungeness ...	29.82	49	W	5	r	4
Ardrossan ...	29.50	49	47	W	5	o	4		London ...	29.50	51	W	3	o	2
Malin Head ...	29.49	47	47	W	6	o	4		Yarmouth ...	29.69	47	W	4	o.g.f	3
Mullaghmore ...	29.65	50	47	W	5	o	5		Rochefort ...						
Belmullet ...	29.70	51	48	W	6	c	2								

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

Yesterday morning's reports showed that pressure (though giving way slightly) was still as high as 30.4 in. to 30.8 in. and more over Russia, and that a well defined band in which readings exceeded 30.3 in. extended thence in a westerly direction across Austria, Germany, France and Spain. To the northward of this band readings decreased to 29.1 in. and less, in a depression lying near the Shetlands, while to the S.W. it decreased to only 30.1 in. near Palermo. Irish W. winds prevailed over the British Isles, S. strong to a gale on the eastern shores of the North Sea, and S.W. to S. (also fresh to a gale) over the Baltic and Finland. Over Central and Southern Europe the wind was light and very variable. Weather was very fine over Southern Europe, cloudy or overcast elsewhere, with showers in many places — of snow in Finland and at isolated stations in France and Belgium, but of rain in the British Isles, Holland, and Norway. Temperature had fallen in many parts of Southern and Southwestern Europe, again elsewhere — especially in the south and east of the British Islands. It continued very low on the Continent, but was decidedly high for the time of year over the United Kingdom. The highest morning values were 53° at Nairn, 52° at Anderson and Belmullet and Valencia, and also at Algiers and Khendisi, 51° at Holyhead, Pembroke, Scilly, and Brest, 49° at Haule Point and Sumburgh Hd. The lowest were (1.) 0° (Zero F.) at Moscow, 8° at Charkov, 11° at Kiev, 13° at St. Petersburg, 14° at Archangel, 20° at Breslau and Cracow; (2.) 16° at Belfast, 17° at Lyons and Munich, 21° at Turin and Wiesbaden, 22° at Limoges.

Later on the barometer continued to fall over Northwestern Europe, with an increasing W. wind and temperature over the British Isles gave way, a little more over the southern and southeastern countries.

### 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 11<sup>th</sup> DECEMBER 1889.

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

Issued by the Meteorological Office, 55, Victoria Street, London. W. H. SCOTT, Secretary.																			
STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.		
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.		Min.	
SCANDINAVIA.	Haparanda ...	29.13	31	0	4	0	29.12	-0.01	32	32	-3	SW	4	0	0	36	28	0.51	
	Hernösand ...	29.02	33	SW	4	C	29.02	-0.04	35	34	+3	SW	4	0	0	36	25	0.08	
	Stockholm ...	29.17	35	0	4	T	29.17	-0.11	37	36	+4	0	4	T	0	30	0.12		
	Wisby ...	29.18	33	0	6	0	29.26	-0.15	36	36	+5	SW	6	0	0	36	28	0.43	
	Bodö ...	28.65	41	ENE	4	0	28.70	+0.12	40	38	+1	ENE	4	0	2	41	36	—	
	Christiansund	28.70	37	2	0	0	28.89	+0.23	39	35	+1	WNW	5	C	5	41	36	—	
	Skudesnaes ...	28.83	40	WNW	2	C	29.02	+0.11	39	37	-4	2	0	0	5	43	37	0.20	
	Christiania Fjord (Fæder)	28.91	41	SW	6	0	28.99	+0.01	40	38	-2	SW	3	0	4	39	39	0.12	
	Skagen (The Scaw)	28.98	37	W	4	0	29.04	-0.02	38	37	-1	SW	4	bc	4	39	36	0.04	
	Fanö ...	30.09	38	SW	2	C	29.14	-0.09	38	37	-3	W	4	C	0	41	37	0.24	
BRITISH ISLANDS.	Sumburgh Head	28.81	38	NNW	3	C	29.24	+0.62	35	33	-4	N	3	bc sp	4	40	32	0.14	
	Stornoway ...	29.05	34	N	3	bc sp	29.44	+0.54	34	34	-4	N	4	bc	4	38	32	0.21	
	Wick ...	28.95	33	N	2	C	29.40	+0.60	33	31	-5	NW	3	C	2	35	31	0.25	
	Nairn ...	29.01	34	W	2	C	29.39	+0.32	35	34	-3	W	5	bc	2	39	33	0.10	
	Aberdeen ...	29.01	35	W	3	bc	29.33	+0.42	35	33	-2	NW	4	bc gu	4	41	33	0.15	
	Leith ...	29.04	37	W	3	C	29.28	+0.32	36	34	-4	NW	1	0	0	41	33	—	
	Shields ...	29.07	37	W	3	C	29.34	+0.19	34	32	-8	W	3	C	2	46	31	—	
	Spurn Head ...	29.15	41	W	4	0	29.33	+0.06	37	35	-7	W	5	0	4	44	35	—	
	York ...	29.16	40	WNW	3	0	29.37	+0.13	33	31	-8	NW	1	bc	0	45	30	—	
	Loughborough	29.24	40	W	3	0	29.38	+0.02	34	33	-10	WNW	2	bc	0	46	33	—	
GERMANY.	Ardrossan ...	29.07	41	W	4	bc	29.43	+0.35	37	35	-6	NW	2	0	1	43	35	0.23	
	Malin Head ...	29.13	39	NW	6	0 sp	29.50	+0.40	41	37	+2	N	5	0	3	43	38	0.19	
	Mullaghmore ...	29.24	42	WNW	7	T cgh	29.56	+0.32	39	37	-4	NNE	4	0	3	45	36	0.06	
	Belmullet ...	29.31	42	N	5	C	29.64	+0.35	39	38	-5	NNE	1	bc	0	44	36	0.28	
	Donaghadee ...	29.16	39	W	4	C	29.49	+0.31	42	40	+3	NNE	6	0	4	42	35	0.01	
	Barrow-in-Furness	29.13	43	W	5	bc	29.38	+0.18	36	34	-8	NW	3	bc	0	45	35	0.02	
	Liverpool (Bidston)	29.20	40	WNW	4	0	29.43	+0.15	37	35	-6	WNW	1	0	3	45	37	0.09	
	Holyhead ...	29.24	42	WNW	5	bc	29.46	+0.14	40	38	-1	NNE	5	bc	5	46	40	0.04	
	Parsonstown ...	29.32	35	2	0	0	29.58	+0.22	30	29	-11	2.	0	bc	0	42	30	0.03	
	Valencia ...	29.42	44	NNW	4	0	29.61	+0.11	43	41	-3	NNW	4	bc	4	46	39	0.23	
FRANCE AND NETHERLANDS.	Roche's Point...	29.38	41	NW	4	bc	29.58	+0.10	39	37	-7	NW	3	0	3	42	37	0.04	
	Pembroke (St. Ann's Hd.)	29.30	40	W	5	bc	29.50	+0.20	42	42	-7	WNW	4	C	4	45	39	0.06	
	Scilly ...	29.40	48	WNW	6	C	29.54	-0.02	46	42	-5	NW	5	0	6	51	42	0.08	
	Prawle Point ...	29.38	42	W	3	0	29.51	-0.03	36	35	-13	WNW	3	0	2	49	34	0.17	
	Jersey (St. Aubin's)	29.41	49	WNW	4	0	29.53	-0.12	42	39	-10	NW	3	bc m	3	52	40	0.45	
	Hurst Castle ...	29.34	44	W	4	bc	29.46	-0.05	37	36	-11	WNW	3	0	3	49	35	0.08	
	Dungeness ...	29.28	47	WNW	5	T	29.37	-0.12	33	32	-14	W	3	C	2	49	32	0.02	
	London ...	29.29	43	W	3	0	29.41	-0.05	31	30	-15	SW	2	0	0	49	30	0.05	
	Oxford ...	29.30	37	SW	3	0	29.42	-0.01	31	30	-13	WNW	2	C	0	48	30	—	
	Cambridge ...	29.25	40	NW	1	0	29.38	-0.01	33	32	-11	W	1	bc	0	49	30	—	
PENINSULA.	Yarmouth ...	29.24	45	W	2	bc	29.31	-0.08	32	31	-12	W	2	0	2	46	30	—	
	Cuxhaven ...	29.30	35	SW	4	0	29.23	-0.15	36	36	+1	SW	2	0	0	39	35	0.12	
	Berlin ...	29.46	34	SW	3	0	29.34	-0.25	38	37	+12	SW	3	0	0	39	37	0.12	
	Wiesbaden ...	29.46	34	SW	3	0	29.33	-0.38	36	35	+4	2	0	0	36	37	0.47		
	Munich ...	29.66	34	SW	1	0	29.49	-0.30	32	31	+6	SE	2	C	0	37	32	0.08	
	The Helder ...	29.19	44	SW	2	C	29.26	-0.12	42	40	-2	WNW	2	C	3	45	37	—	
	Brussels (9 a.m.)	29.36	37	W	3	0	29.36	-0.21	37	37	-1	WNW	1	0	0	42	37	0.28	
	Cape Gris Nez	29.47	43	WNW	2	0	29.43	-0.31	39	38	+4	SW	2	0	0	50	37	0.20	
	Paris ...	29.47	43	WNW	2	0	29.43	-0.31	39	38	+4	SW	2	0	0	50	37	0.63	
	Brest ...	29.47	51	NW	4	0	29.43	-0.31	47	40	-6	NW	7	0	5	54	40	0.39	
FRANCE AND NETHERLANDS.	Lorient ...	29.48	48	W	4	T	29.59	-0.17	44	40	-8	NW	5	bc	5	54	43	0.63	
	Rochefort ...	29.70	51	SW	5	C	29.67	-0.29	46	43	-3	WNW	5	C	3	54	39	0.63	
	Belfort ...	29.67	37	NW	1	T	29.49	-0.33	37	34	+5	SW	3	0	0	42	30	0.16	
	Lyons ...	29.41	35	0	2	0	29.61	-0.18	42	39	+16	0	4	T	0	44	30	—	
	Nice ...	29.88	50	E	3	0	29.78	-0.18	46	40	+8	SW	4	T	2	50	36	—	
	Perpignan ...	29.87	43	W	1	0	29.70	-0.34	36	34	-5	SW	1	0	0	59	31	—	
	Biarritz ...	29.84	53	WNW	5	0	29.73	-0.38	51	47	0	W	6	T	5	54	45	0.12	
	Corunna ...	29.06	30	NW	3	0	29.59	-0.19	50	49	+10	N	4	bc	4	55	37	—	
	Lisbon ...	29.06	30	NW	3	0	29.59	-0.19	50	49	+10	N	4	bc	4	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 Wednesday, 11<sup>th</sup> December

1889.

## 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 fathurs 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:

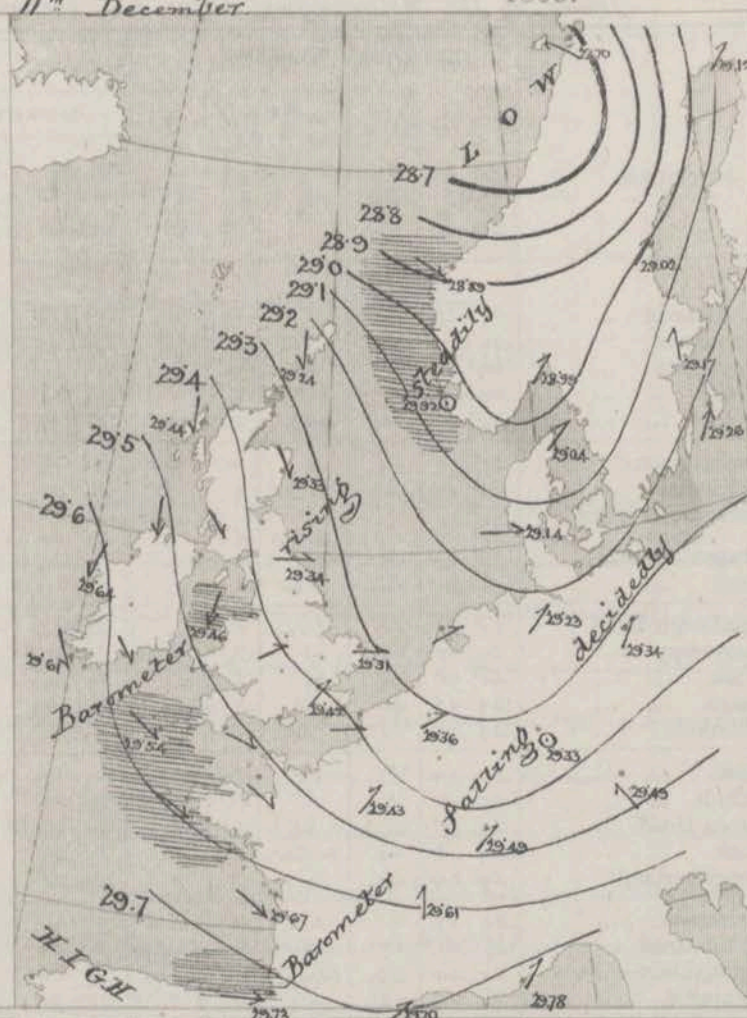
— = Rough, — = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.767
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roehe's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 29.9 in. and upwards, in Portugal.  
 Lowest, 28.7 in. and less, in a depression lying off the northwest of Norway.  
 Gradients slight generally. Barometer rising steadily at all but the French and German stations.

## TEMPERATURE

Highest, 51° at Biarritz, 50° at Lisbon, 47° at Bristol, 46° at Kelly and Rochefort, and 44° at Orient.  
 Lowest, 30° at Parsonstown, 31° at Oxford and in London, 32° at Haparanda, Yarmouth and Munich, and 33° at West York, Cambridge and (Dun)gers.  
 Frost occurred last night in many parts of the United Kingdom; in London the thermometer on the grass fell to 21°.

## WIND

Moderate or fresh from the NW<sup>2</sup> or NW<sup>4</sup> in the west and north of our Islands and the west of France.  
 Light from the W<sup>2</sup> in the east and south of England; SW<sup>2</sup> in Sweden, Denmark, and Germany.

## WEATHER

Sun over the greater part of our Islands, but snow showers reported at Sumburgh Hd.  
 Cloudy at most of the Continental stations, with rain at Stockholm, Wiesbaden, and Lyons, and snow at Haparanda.  
 Rain fell yesterday in many parts of Western Europe. Lunar halo seen at night at Hunt Castle and in London, and lightning at Liverpool and Bristol.

## SEA

Rough at the mouth of the Channel and rather rough at Holyhead, as well as off the coast of Norway.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depressions noticed yesterday off the Scotch and Norwegian coasts have travelled away in a northeasterly direction.

There are at present no indications of the advance of any new disturbances and fair cold weather is therefore likely to continue over our Islands for a time.

## FORECASTS

For the 24 hours ending at NOON on 12<sup>th</sup> DEC<sup>r</sup>. 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

N<sup>2</sup> and NW<sup>2</sup> winds, moderate; fair generally but some snow showers.  
 W<sup>2</sup> to NW<sup>2</sup> winds, moderate; fair generally, but perhaps some snow showers.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

NW<sup>2</sup> and W<sup>2</sup> winds, moderate; fair generally, but local showers.

N<sup>2</sup> winds, moderate or fresh; fair generally.

### 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:		Wind		Wea:	Sea		Bar:		Ther:		Wind		Wea:	Sea
	D	W	D	F	D	F				D	W	D	F	D	F		
Skudesnaes ...	29.84	42	40	SW	6	CH	q	7		Holyhead ...	29.24	44	41	WNW	5	bcg	5
Sumburgh Head ...	29.77	38	36	WNW	3	C		6		Valencia ...	29.41	43	41	W	4	cq	4
Stornoway ...	29.00	36	36	WNW	3	C		3		Scilly ...	29.44	49	47	WNW	5	cq	5
Aberdeen ...	29.96	40	36	W	4	C		3		Jersey ...	29.50	50	49	SW	4	7m	4
Shields ...	29.04	42	40	W	3	O		2		Dungeness ...	29.36	49	47	W	5	O	3
Ardrossan ...	29.05	41	39	W	2	Cp		1		London ...	29.32	49	47	SW	4	O	4
Malin Head ...	29.08	43	41	WNW	6	O		5		Yarmouth ...	29.28	46	44	WSW	4	Cm	2
Mullaghmore ...	29.23	44	40	W	7	O	q	6		Rochefort ...	29.83	51	50	SW	4	f	2
Belmullet ...	29.23	42	40	WNW	3	C		*									

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

The reports for yesterday morning showed that pressure was still highest, 30.5 in: and upwards, in a large anticyclone lying over Central Russia, but high 30.2 in: and upwards, in another system lying over Spain. The lowest readings, 28.6 in: and less, <sup>was found</sup> in a large depression lying off the west and northwest of Norway, but a shallow disturbance with readings below 30.0 in:, was reported over the Gulf of Genoa. The wind was moderate to fresh from the N<sup>W</sup> or NW<sup>W</sup> in the extreme north and west of our Islands, from the W<sup>W</sup> in France, and from the SW<sup>W</sup> over the eastern parts of Great Britain, the North Sea, Denmark, and the south of Norway. Over Sweden and Finland, however, there was a gale from the S<sup>W</sup>, while over the Baltic a moderate to strong breeze from the same quarter was reported. The weather was fine in Spain, Italy, and Algeria, but showery in many parts of the United Kingdom, and cloudy or overcast in most other localities. Rain was falling in the northwest of France, as well as at Belfort and Burel, and snow at several of the Swedish and German stations. Temperature had risen several degrees in Northern Russia, Scandinavia, Denmark, the Baltic, North Germany and France, but fallen elsewhere, — quietly in the north of our Islands; readings ranged from a little above 50° in the extreme southwest of England and the northwest of France, as well as at some of the Mediterranean stations to a little below zero over Central Russia. The highest individual readings were 54° at Malta, 53° at Beirut and Algiers, 52° at Jersey and Givet, 51° at Bells and Bains, 50° at Cosmes and Breslavia, and 49° at Limerick, Havre Point, Rochefort, and Oran; the lowest were -2° at Fort at Moscow, +11° at Orenburg, 12° at Vienna, 13° at St. Petersburg and Kharkov, 19° at Prague, 20° at Kiev, 21° at Warsaw and Lemberg, 23° at Archangel, Breslau and Madrid, and 24° at Yver.

In the course of the day the depression off the west of Norway travelled away in a northeasterly direction, and the barometer rose in nearly all parts of the United Kingdom. Temperature fell decidedly over England, and sharp frost was experienced in many places at night.

### 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, 12<sup>th</sup> December, 1889*  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 4.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	29.13	34	SW	4	0	† 29.36	+ 24	27	26	- 5	Z	0	b	•	36	?	0.32
	Hernösand ...	29.23	34	Z	0	c	† 29.43	+ 41	28	28	- 7	Z	0	c	•	39	32	-
	Stockholm ...	29.34	34	Z	0	0	† 29.47	+ 30	34	33	- 3	WSW	2	0	•	37	32	0.04
	Wisby ...	29.34	37	SW	0	0	† 29.56	+ 30	36	35	0	SW	?	0	•	37	32	-
	Bodö ...	28.94	35	WSW	8	m	† 29.29	+ 59	83	82	- 7	WSW	6	c	•	?	28	-
	Christiansund	29.18	35	WSW	3	0	† 29.34	+ 65	33	30	- 6	WSW	3	s	5	?	30	-
	Skudesnaes ...	29.34	35	WSW	2	c	29.65	+ 63	34	32	- 5	WSW	6	s	4	39	32	-
	Christiania Fjord (Færder)	29.22	33	WSW	2	m	29.48	+ 39	34	33	- 6	WSW	3	c	2	?	28	-
	Skagen (The Scaw)	29.32	35	W	1	b	29.50	+ 46	34	33	- 4	W	1	b	0	39	34	-
	Fanö ...	29.36	36	WSW	2	b	29.67	+ 53	35	34	- 3	W	2	b	•	41	32	0.04
BRITISH ISLANDS.	Sumburgh Head	29.66	33	N	3	c	29.73	+ 49	31	31	- 4	Z	0	0	2	36	26	0.12
	Stornoway ...	29.66	34	N	3	0	29.66	+ 22	38	38	+ 4	SW	5	0	4	88	26	0.02
	Wick ...	29.56	33	WSW	3	b	29.76	+ 36	27	26	- 6	W	2	b	2	35	25	0.10
	Nairn ...	29.64	35	W	3	c	29.77	+ 38	25	24	- 10	Z	0	b	1	37	24	-
	Aberdeen ...	29.59	32	WSW	4	b	29.82	+ 49	25	24	- 10	W	1	b m	3	35	25	0.04
	Leith ...	29.67	37	W	1	bc	29.84	+ 46	29	28	- 7	Z	0	1	•	44	27	-
	Shields ...	29.65	35	WSW	3	bc	29.90	+ 56	32	30	- 2	W	1	1	3	39	30	-
	Spurn Head ...	29.62	37	WSW	5	b	29.92	+ 59	35	32	- 2	SW	3	c	5	39	32	0.01
	York ...	29.65	34	N	2	b	29.89	+ 52	31	30	- 2	S	1	1	•	40	28	-
	Loughborough	29.70	33	WSW	2	b	29.99	+ 61	24	24	- 10	WSW	1	b m	•	39	23	-
GERMANY.	Ardrossan ...	29.69	38	WSW	2	c	29.77	+ 34	32	31	- 5	WSW	1	bc	1	41	31	-
	Malin Head ...	29.71	38	W	4	OSP	29.74	+ 24	36	35	- 5	S	4	b	2	42	34	0.26
	Mullaghmore ...	29.78	38	WSW	4	bc p	29.78	+ 22	40	38	+ 1	SSW	5	0	5	45	36	0.04
	Belmullet ...	29.81	39	N	2	0	29.69	+ 03	45	44	+ 6	SW	5	0	•	45	37	0.03
	Donaghadee ...	29.75	36	WSW	3	b	29.87	+ 38	32	32	- 10	SW	2	b	0	42	30	-
	Barrow-in-Furness	29.69	36	WSW	2	b	29.88	+ 50	31	30	- 5	NE	2	bc	•	40	30	-
	Liverpool (Bidston)	29.73	37	N	2	b	29.94	+ 51	35	34	- 2	SW	3	b	3	42	35	-
	Holyhead ...	29.75	43	N	4	bc	29.92	+ 46	41	39	- 2	WSW	3	bc	3	45	38	0.02
	Parsonstown ...	29.83	34	Z	0	bc	29.87	+ 29	31	30	+ 1	Z	0	c	•	40	29	-
	Valencia ...	29.90	42	WSW	1	cp	29.83	+ 22	47	45	+ 4	S	5	0 u	5	47	34	0.07
FRANCE AND NETHERLANDS.	Roche's Point...	29.85	40	WSW	1	b	29.92	+ 34	45	43	+ 6	SW	5	cp	4	45	30	0.02
	Pembroke (St. Ann's Hd.)	29.79	40	WSW	4	b	29.98	+ 48	43	40	+ 1	WSW	2	bc p	2	45	38	0.05
	Scilly ...	29.75	46	N	5	bc	30.01	+ 47	46	45	+ 0	SSW	4	c	5	47	42	0.01
	Prawle Point ...	29.80	37	WSW	3	b	30.04	+ 53	39	37	+ 3	Z	0	b	0	46	32	0.02
	Jersey (St. Aubin's)	29.73	42	WSW	3	b	30.08	+ 55	34	32	- 8	WSW	3	b m	3	46	32	0.04
	Hurst Castle ...	29.74	39	WSW	2	b	30.05	+ 59	29	28	- 8	WSW	1	m	1	43	28	-
	Dungeness ...	29.63	33	WSW	3	b	30.03	+ 66	25	25	- 8	WSW	3	m	1	44	24	-
	London ...	29.70	34	W	1	b	30.05	+ 64	26	24	- 5	SW	1	b	•	41	25	-
	Oxford ...	29.79	34	WSW	3	b	30.04	+ 62	27	26	- 4	W	1	b m	•	41	27	-
	Cambridge ...	29.70	32	WSW	1	b	30.03	+ 65	25	24	- 8	SW	1	b	•	41	23	-
PENIN- SULA.	Yarmouth ...	29.58	36	WSW	4	bc	29.96	+ 65	28	27	- 4	WSW	3	b	3	38	27	-
	Cuxhaven ...	29.38	36	SW	3	c	29.75	+ 52	36	36	0	WSW	3	s	•	37	25	0.10
	Berlin ...	29.54	37	SW	2	r	29.84	+ 50	32	31	- 6	S	2	b	•	39	32	0.08
	Wiesbaden ...	•	•	•	•	•	29.96	+ 63	30	30	- 6	Z	0	0	•	37	27	0.12
	Munich ...	29.73	36	W	1	r	29.96	+ 47	33	33	+ 1	W	2	s	•	45	32	0.12
	The Helder ...	29.52	41	WSW	3	r	29.88	+ 62	44	37	- 1	WSW	3	c	3	43	39	0.04
	Brussels (8 a.m.)	?	•	•	•	•	?	?	36	34	- 3	WSW	4	b	4	45	36	-
	Cape Gris Nez	?	39	WSW	4	b	?	?	?	?	- 11	WSW	1	b	•	42	25	-
	Paris ...	29.73	34	S	1	b	30.05	+ 62	28	?	- 11	WSW	1	b	•	42	25	-
	Brest ...	?	45	N	5	0	?	?	42	41	- 5	E	1	b	5	54	37	0.08
PENIN- SULA.	Lorient ...	29.78	44	WSW	3	b	30.10	+ 51	40	38	- 4	N	2	b	5	48	39	-
	Rochefort ...	29.86	45	WSW	4	b	30.14	+ 47	35	35	- 11	WSW	1	b	2	48	28	-
	Belfort ...	29.71	37	WSW	1	0	29.96	+ 47	37	32	0	WSW	1	c	•	41	33	0.20
	Lyons ...	29.82	38	N	1	bc	30.01	+ 40	34	34	- 9	N	2	b	•	45	34	0.08
	Nice ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	-
	Perpignan ...	29.82	48	WSW	2	0	29.81	+ 11	43	39	+ 7	N	2	0	•	56	?	-
	Biarritz ...	29.86	47	W	6	r	30.10	+ 37	42	40	- 9	WSW	3	r	6	52	37	2.13
	Corunna ...	?	•	•	•	•	?	?	?	?	?	?	?	?	?	?	?	-
	Lisbon ...	30.13	47	N	4	b	30.26	+ 27	46	44	- 4	WSW	2	b	5	54	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

Thursday, 12<sup>th</sup> December.

1889.

## 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:

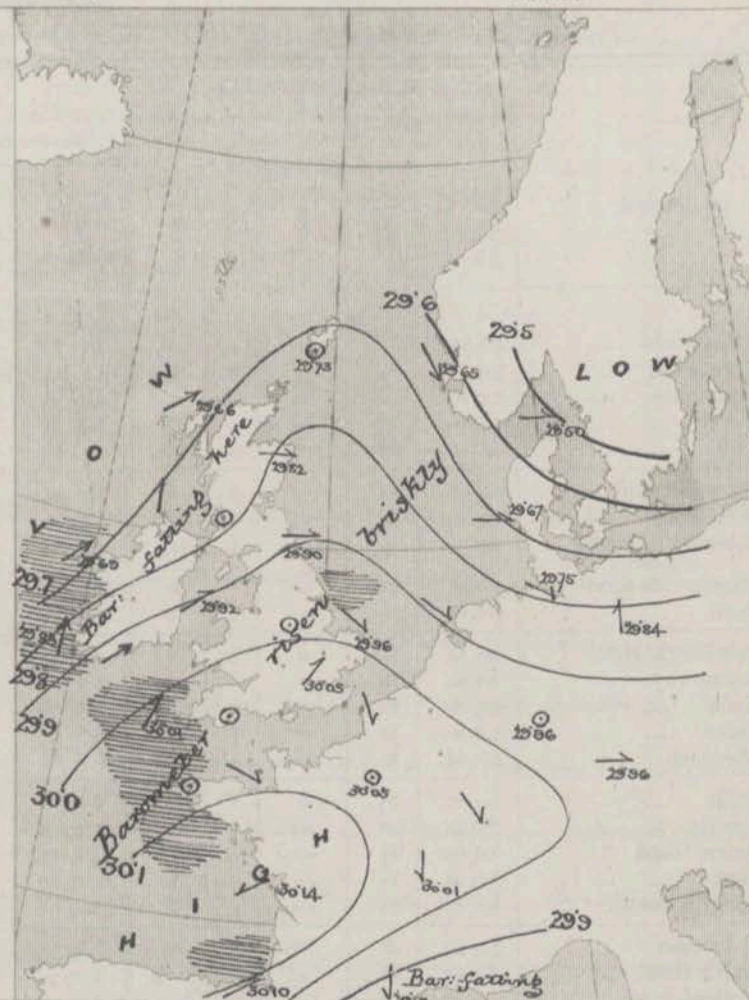
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
	in.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Scilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.969
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

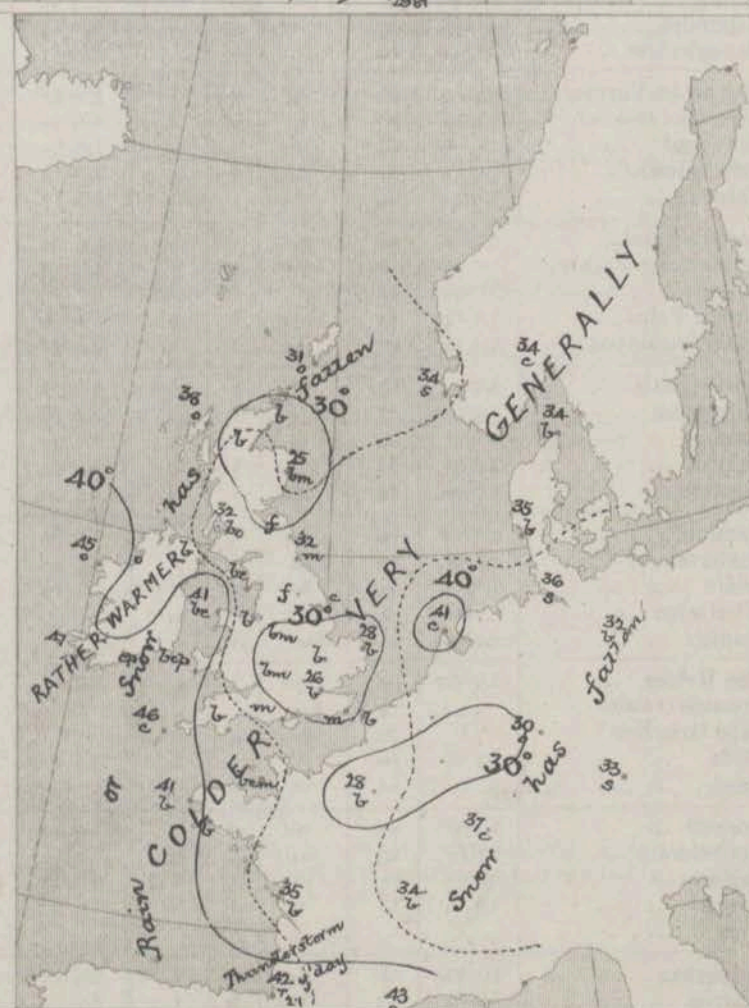
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head .....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick .....	42.1	32.6	38.0	36.6	3.18
Nairn .....	41.7	32.8	37.0	35.6	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith .....	41.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York .....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.9	35.9	2.36
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Donaghadee .....	46.1	36.2	40.2	39.2	2.84
Holyhead .....	46.7	39.3	43.0	41.4	3.84
Liverpool .....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia .....	50.0	40.0	44.6	42.3	5.82
Roche's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke .....	47.1	40.6	43.9	42.5	4.06
Scilly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover .....	44.7	36.8	40.3	39.1	3.20
LONDON .....	44.7	34.6	38.5	37.4	2.14
Oxford .....	43.6	34.3	37.7	36.6	2.13
Cambridge .....	43.5	32.3	36.9	35.1	1.99
Yarmouth .....	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.26 in. at Lisbon, 30.1 in. and upwards over Spain, the Bay of Biscay and the greater part of France.  
 Lowest, 29.5 in. and less, over the Skagerrack, 29.7 in. and less, in the Heligoland. Reports from Sweden and the west of Norway have not arrived.  
 Gradients slight generally, but increasing in the extreme west. Barometer falling in Ireland and the west of Scotland, but rising elsewhere.

## TEMPERATURE

Highest, 47° at Valencia, 46° at Seville, and Lisbon, 45° at Birmmole and Rocher Point, and 43° at Pembroke and Trepignan.  
 Lowest, 24° at Loughboro', 25° at Kinn, Aberdeen, Cambridge and Rungles, 26° in London and 27° at Wick and Oxford.  
 The lowest temperature recorded over Great Britain last night were:— in the screen 23° at Loughboro' and Cambridge, and 24° at Kinn and Darglass; on the grass 15° in London.

## WIND

Weak from the S.W. or S.W. on our extreme west and northwest coast; light from S.W. or W. in other parts of our Islands.  
 Light to fresh from the N.W. on the eastern shore of the North Sea, variable in France and Germany.

## WEATHER

Fine over the greater part of our Islands and France as well as in Denmark, but dull on our extreme west and northwest coast and rising at Birmmole.  
 Snow is reported at Skudsmo, Lushoven, and Mennich.  
 Snow showers fell yesterday at some of our northern stations, and lightning was seen at Barmouth at night.

## SEA

Rather rough on our southern coast and also in the Bay of Biscay, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The depression which is approaching our northwest coast, will probably occasion a considerable increase of wind in all the more western and northern parts of the Kingdom, and unsettled weather is likely to extend to our eastern and southern districts.

The actual depth and extent of the depression are at present unknown.

## FORECASTS

For the 24 hours ending at NOON on 13<sup>TH</sup> DEC<sup>R</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

Wind backing to the S.W. and freshening; fine to unsettled, with some rain or snow.

S. and S.W. winds, freshening; fine to unsettled and some rain.

W. and S.W. winds, freshening, fine and cold at first, milder and unsettled later with some rain or snow showers.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

Same as No 2.

S.W. winds, freshening considerably; squally, some showers.

S.W. to W. winds, increasing in force; dull, some rain.

### WARNINGS

NONE ISSUED.

No. 0.—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:		Wind		Wea:	Sea			Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F						D	W	D	F		
Skudesnaes ...	29.19	40	38	W	2	c	5	Holyhead ...	...	29.63	44	38	N	5	b	5
Sumburgh Head ...	29.37	34	34	N	3	o sp	4	Valencia ...	...	29.81	44	42	NE	2	c p	3
Stornoway ...	29.56	37	35	N	3	bc	3	Scilly ...	...	29.66	46	43	N	5	bc	6
Aberdeen ...	29.51	33	32	W	5	q p	4	Jersey ...	...	29.63	43	41	W	3	bc	3
Shields ...	29.51	38	34	W	3	b	3	Dungeness ...	...	29.51	41	39	W	3	bc	2
Ardrossan ...	29.61	41	37	W	3	b	2	London ...	...	29.51	41	38	W	2	bc	2
Malin Head ...	29.64	41	38	W	4	o	3	Yarmouth ...	...	29.44	38	37	W	3	c	2
Mullaghmore ...	29.51	41	38	W	4	ep	4	Rochefort ...	...	29.79	45	43	W	5	r	2
Belmullet ...	29.74	43	40	W	2	bc	2									

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

Yesterday morning's observations showed that pressure was increasing over the British Isles and Scandinavia, decreasing elsewhere, but that readings were still as high as 29.9 in. to 30.3 in. and more over Russia, and exceeded 29.9 in. over the Iberian Peninsula. The lowest values were 28.7 in. and less, in a depression off the northwest of Norway, and between 28.9 in. and 29.3 in. in a large "hollow", which stretched thence in a S<sup>W</sup> direction across the North Sea to Holland. S<sup>W</sup> wind, was consequently prevalent over the eastern half of Europe, and though light in most places blew strongly over the Baltic Provinces and a gale in Finland. Over the British Isles, the Bay of Biscay, and Spain, however, the wind was N<sup>W</sup> and NW<sup>W</sup>, light to fresh in force, while over central and Eastern France it was SW<sup>W</sup>, while in Italy it was E<sup>W</sup>. Weather was fine over the United Kingdom and France, cloudy or overcast in most other places, with snow in Lapland, rain at some of the Baltic stations, and fog in Belgium and at Hammar. Rain was still falling in the southeast of France and over the northern half of Italy. Temperature was going way decidedly in the west and northwest, rising over Central, Southern, and Eastern Europe. It was still very low over Russia and Austria; the lowest morning values were 11° at St. Petersburg, 12° at Moscow, 18° at Lemberg, 21° at Cracow, 23° at Kharkov, 24° at Vienna and Nicolaieff, and 26° at Hermannstadt. At Oxford it had fallen to 31°. The highest values were 55° at Malta, 52° at Sfax and Algiers, 51° at Biscaritz, 50° at Boudir, Lisbon, and Comuna, and 46° at Rochefort and Bally.

Later on temperature fell still further over the British Isles, and at night a very sharp frost occurred over Central 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 *Friday, 13<sup>th</sup> December, 1889*  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.								PAST 24 HOURS.			
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.	
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Max.	Min.		
SCANDINAVIA.	Haparanda ...	29.55	10	Z	0	bc	29.78	+ .42	24	23	- 3	SW	2	c	#	36	3	-
	Hernösand ...	29.79	24	NE	2	c	29.99	+ .56	18	17	- 10	Z	0	b	#	34	?	-
	Stockholm ...	29.76	34	SSW	2	0	29.98	+ .51	31	30	- 3	WNW	4	0	#	39	?	-
	Wisby ...	29.88	36	W	4	bc	30.02	+ .46	36	33	0	WNW	6	0	#	39	34	-
	Bodö ...	29.57	37	N	8	0	29.88	+ .59	37	34	+ 4	WSW	6	0	#	39	32	0.12
	Christiansund	29.63	31	ESE	3	bc	29.89	+ .35	27	25	- 6	ESE	4	b	#	?	25	0.83
	Skudesnaes ...	29.88	34	Z	0	0	29.86	+ .21	39	36	+ 5	SE	8	0	6	?	34	-
	Christiania Fjord (Færder)	29.82	33	WNW	3	b	30.07	+ .59	30	27	- 4	WNW	2	b	1	36	28	-
	Skagen (The Scaw)	29.89	32	WN	1	b	30.06	+ .56	36	35	+ 2	W	1	0	1	36	30	-
	Fanö ...	30.00	34	Z	0	b	30.04	+ .37	36	36	+ 1	SW	2	c	#	37	32	0.16
BRITISH ISLANDS.	Sumburgh Head	29.65	38	SSW	3	0	29.35	- .38	45	44	+ 4	SSW	6	0	6	45	31	0.02
	Stornoway ...	29.38	44	S	9	0	29.32	- .34	38	37	0	W	3	c	4	44	36	0.20
	Wick ...	29.56	39	S	6	0	29.37	- .39	40	38	+ 13	SW	4	c	3	43	25	0.08
	Nairn ...	29.55	39	SSW	4	c	29.37	- .40	40	38	+ 15	SSW	3	c	2	44	24	-
	Aberdeen ...	29.71	36	S	2	c	29.43	- .39	39	37	+ 14	SSW	4	bc	4	42	24	0.27
	Leith ...	29.70	36	W	1	c	29.50	- .34	44	38	+ 12	SW	2	bm	#	44	28	-
	Shields ...	29.55	36	SSW	3	m	29.59	- .31	40	39	+ 2	SW	3	0	2	40	30	0.04
	Spurn Head ...	29.95	36	S	4	c	29.72	- .20	41	40	+ 6	SSW	6	c	5	41	34	0.01
	York ...	29.92	35	S	1	bc	29.67	- .22	40	40	+ 9	S	1	b	#	41	29	0.10
	Loughborough	29.98	35	SSW	3	0	29.73	- .26	42	41	+ 18	SSW	2	b	#	43	24	0.03
BRITISH ISLANDS.	Ardrossan ...	29.61	45	SSW	5	c	29.50	- .27	44	42	+ 12	SW	4	c	4	49	31	0.42
	Malin Head ...	29.33	42	SSW	4	or	29.48	- .26	40	39	+ 4	WSW	4	op	2	45	32	0.33
	Mullaghmore ...	29.29	48	SSW	10	op	29.51	- .24	40	39	0	SSW	2	cp	3	48	39	0.23
	Belmullet ...	29.32	47	S	8	r	29.58	- .11	43	42	- 2	WSW	2	0	#	49	41	0.36
	Donaghadee ...	29.62	46	SW	4	0	29.59	- .28	36	36	+ 4	SW	3	bc	2	46	31	0.25
	Barrow-in-Furness	29.78	89	SE	5	0	29.58	- .30	43	41	+ 12	SW	3	cp	#	43	30	0.14
	Liverpool (Bidston)	29.55	37	SE	4	c	29.67	- .27	40	39	+ 5	SW	2	bc	3	43	35	0.26
	Holyhead ...	29.74	46	S	6	omgp	29.64	- .28	43	41	+ 2	WSW	4	b	4	47	41	0.26
	Parsonstown ...	29.50	46	SE	2	r	29.62	- .25	37	35	+ 6	Z	0	bc	#	47	30	0.29
	Valencia ...	29.51	49	SW	7	0	29.67	- .16	43	41	- 4	WNW	4	cgph	4	51	39	0.64
GERMANY.	Roche's Point...	29.58	49	SSW	8	p	29.68	- .24	41	39	- 4	W	4	bc p	5	50	39	0.65
	Pembroke (St. Ann's Hd.)	29.77	48	S	7	c	29.69	- .29	46	44	+ 3	WSW	5	bc p	6	50	43	0.20
	Scilly ...	29.87	50	SSW	7	c	29.80	- .21	50	48	+ 4	WSW	6	cg p	6	51	46	0.22
	Prawle Point ...	30.00	47	SSW	6	b	29.82	- .22	45	44	+ 6	W	5	b	3	48	39	0.13
	Jersey (St. Aubin's)	30.12	45	SSW	8	bm	29.90	- .18	45	45	+ 11	SE	6	orm	5	50	33	0.13
	Hurst Castle ...	30.07	45	WSW	5	p	29.83	- .22	48	48	+ 19	SW	6	r	4	48	29	0.27
	Dungeness ...	30.09	41	W	3	bc	29.93	- .10	42	41	+ 17	SSW	7	r	6	44	21	0.04
	London ...	30.07	38	SW	1	bf	29.82	- .23	44	43	+ 18	S	4	0	#	45	25	0.01
	Oxford ...	30.00	38	ESE	3	0	29.78	- .26	43	42	+ 16	S	2	0	#	43	26	0.11
	Cambridge ...	30.04	32	SW	1	c	29.80	- .23	42	41	+ 18	S	2	0	#	43	23	0.03
GERMANY.	Yarmouth ...	30.04	33	WSW	3	b	29.86	- .10	39	38	+ 11	SSW	6	og p	5	39	27	0.06
	Cuxhaven ...	30.01	33	W	2	f	30.16	+ .41	29	28	- 7	WSW	4	f	#	?	28	0.34
	Berlin ...	30.13	37	SW	2	0	30.24	+ .43	35	34	+ 3	W	2	0	#	37	19	-
	Wiesbaden ...	*	*	*	*	*	30.27	+ .31	19	?	- 11	Z	0	0	#	37	19	-
	Munich ...	30.18	30	Z	0	S	30.21	+ .28	27	27	- 6	NE	2	m	#	36	25	0.04
	The Helder ...	30.10	33	S	1	b	30.05	+ .17	31	30	- 10	S	4	c	3	41	30	-
	Brussels (9 a.m.)	*	*	*	*	*	30.16	.	30	29	.	SSW	3	c	#	39	30	-
	Cape Gris Nez	?	37	SW	1	b	?	?	34	32	- 2	S	5	r	5	41	32	-
	Paris ...	30.22	24	N	1	0	30.21	+ .16	28	28	0	S	5	0	#	32	23	-
	Brest ...	?	49	WSW	5	0	?	?	50	48	+ 8	W	6	r	7	52	44	0.16
FRANCE AND NETHERLANDS.	Lorient ...	30.15	46	S	3	0	29.95	- .15	32	31	+ 12	WSW	5	r	5	?	39	0.28
	Rochefort ...	30.26	39	E	3	b	30.21	+ .07	35	34	0	SSW	5	m	3	46	34	-
	Belfort ...	?	32	WNW	1	0	?	?	28	25	- 9	SE	1	0	#	39	23	0.04
	Lyons ...	30.18	34	N	3	c	30.26	+ .25	31	29	- 3	WNW	3	0	#	42	30	-
	Nice ...	29.83	44	E	4	bc	29.93	+ .17	46	39	+ 4	ENE	3	c	2	50	37	-
	Perpignan ...	30.12	44	WN	3	b	30.16	+ .35	41	36	- 2	WN	4	b	#	50	38	0.39
	Biarritz ...	30.21	45	WSW	4	c	30.24	+ .14	43	41	+ 1	S	4	r	5	48	39	0.16
	Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Lisbon ...	30.89	49	N	4	b	30.37	+ .11	41	39	- 5	Z	0	b	5	55	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

Friday, 13<sup>th</sup> December.

1889.

## 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:

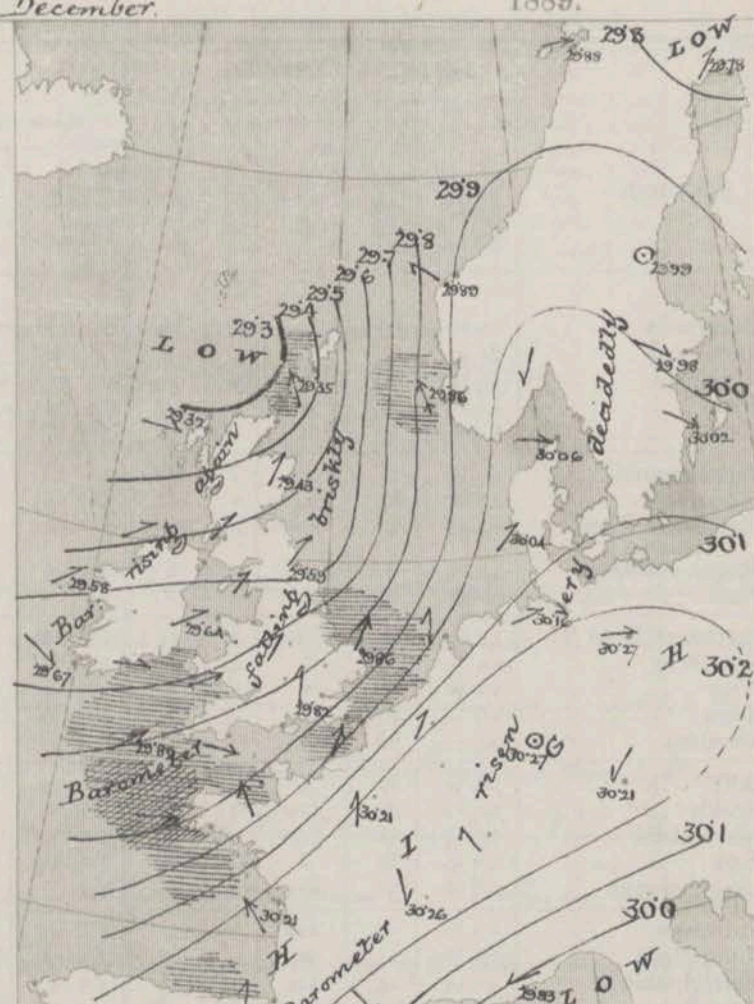
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

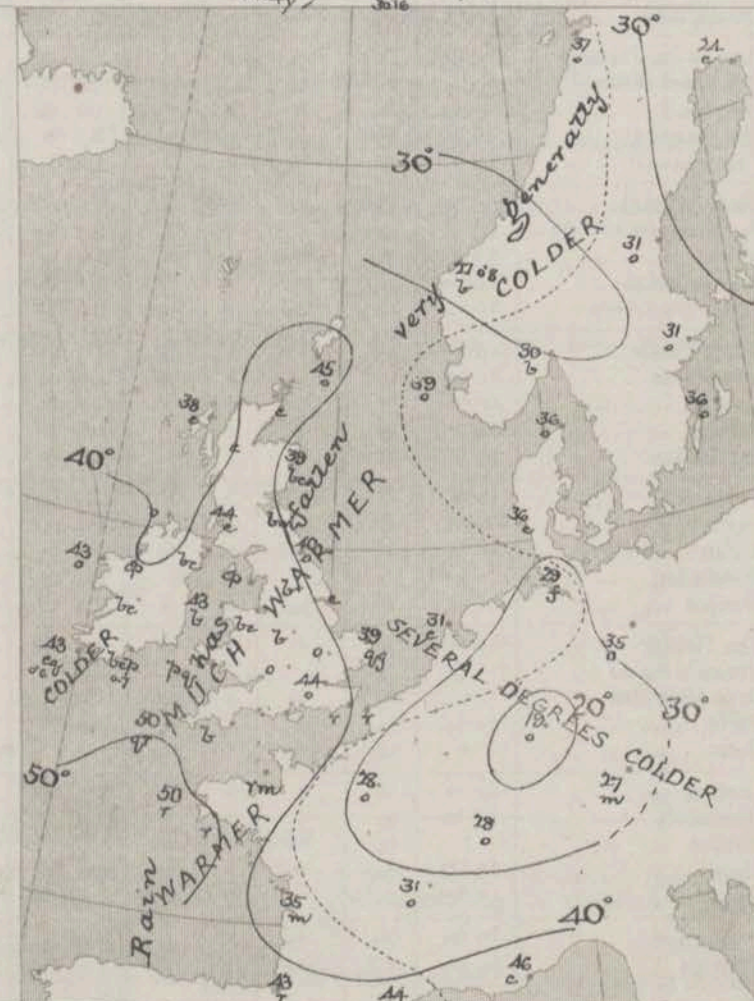
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.3 in: and upwards over Portugal, 30.2 in: and upwards over nearly the whole of France and Germany.  
 Lowest, 29.3 in: and less, in a depression lying to the northward of Scotland.  
 Gradients rather steep over the North Sea, the Channel, and the north of France, but slight elsewhere.  
 Barometer falling in the east and south of England and the north of France, but rising elsewhere.

## TEMPERATURE

Highest, 52° at Lorient, 50° at Bally, and 48° at Hunt Castle, 46° at Kilmorke, and 45° at Bosc Point and Jersey.  
 Lowest, 18° at Huisaard, 19° at Wierbuden, 24° at Haparanda, 27° at Christiansund and Munich, and 28° at Paris and Belfort.  
 A rapid rise has taken place over Great Britain, but in the west of Ireland the thermometer is falling again.

## WIND

S<sup>4</sup> or SW<sup>4</sup> over the greater part of our Islands and France; strong in force on our eastern and southern coasts.  
 SE<sup>1</sup> in the west of Norway, W<sup>1</sup> in North Germany and the north of Sweden.  
 Since yesterday a fresh to strong gale from the S<sup>4</sup> has been experienced in the west and north of our Islands.

## WEATHER

Rainy in the south of England and the west and north of France, showing on our southwest coast.  
 Fine in Scotland and Scandinavia; dull in Germany.  
 Rain has fallen in most parts of Western Europe; the largest amounts being 0.8 in: at Christiansund and 0.7 in: at Bosc Point.

## SEA

Rough on our south and east coasts, as well as off the north of Scotland, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There are at present no indications of the advance of any new disturbances, but the wind on our western and northern coasts will probably back to the S<sup>4</sup> in the course of the ensuing twenty-four hours. Shallow secondary depressions are advancing across England from the S<sup>4</sup> and SW<sup>4</sup>.

## FORECASTS

For the 24 hours ending at NOON on 14<sup>th</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

SW<sup>4</sup> to S<sup>4</sup> winds, moderate or fresh;  
 fair to showery.  
 SW<sup>4</sup> and S<sup>4</sup> winds, fresh; changeable,  
 some showers.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

Same as N<sup>o</sup> 0 and 1.

W<sup>4</sup> and SW<sup>4</sup> to S<sup>4</sup> winds, moderate or  
 fresh, changeable, some rain.

### WARNINGS

The SOUTH CONE was hoisted yesterday in  
 districts 0, 1, 6 to 10 and part of 2, but has  
 been lowered again this morning.

No<sup>e</sup>.—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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea:
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.80	38	32	NW	2	s	4	Holyhead ...	29.88	45	42	SW	4	c p	3
Sumburgh Head ...	29.72	35	35	2	0	o	2	Valencia ...	29.60	30	49	s	8	rm	5
Stornoway ...	29.81	43	43	SW	7	o	6	Scilly ...	29.97	48	45	SW	5	oq	5
Aberdeen ...	29.78	43	41	s	2	c	3	Jersey ...	30.12	49	43	s	5	bc	3
Shields ...	29.87	38	36	s	3	cm	3	Dungeness ...	30.07	42	37	W	3	bc	2
Ardrossan ...	29.73	42	41	s	4	o	3	London ...	30.07	43	39	SSW	2	rm	2
Malin Head ...	29.53	39	37	s	6	o	3	Yarmouth ...	30.00	36	35	W	2	bc	3
Mullaghmore ...	29.81	45	41	SSW	7	oq	6	Rocheport ...	30.22	46	43	e	1	bc	2
Belmullet ...	29.43	46	46	s	8	ST	3								

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

The report for yesterday morning showed an increase of pressure over almost the whole of Europe, but a decrease over Italy and the eastern part of the Mediterranean. The morning reading varied from between 30.2 in: and 30.4 in: over Russia, and from between 30.1 in: and 30.25 in: over the Spanish Peninsula, the southern part of the Bay of Biscay and the west of France, to 29.3 in: and less, in a depression lying over the west of Ireland, to 29.5 in: and less, in a hollow over the southern half of Sweden, to 29.8 in: and less, in a rather large elongated depression lying over the Mediterranean, and to 29.7 in: and less, off the northwest of the British Isles. In most places the mercury was still rising, but in the west of Ireland it had begun to fall again. The wind varied greatly, there being two or three circulations in progress at the same time (1) In Norway it was mainly N<sup>W</sup>, in Denmark W<sup>W</sup>, in North Germany SW<sup>W</sup>, and over Russia S<sup>W</sup> (a gale over Finland) (2) In the east of our Islands it was W<sup>W</sup> or NW<sup>W</sup>, but in the west it had backed to the S<sup>W</sup>, and was increasing in force. (3) Over the Mediterranean there was some tendency to a cyclonic circulation of moderate winds, but the system was not very well marked. Weather was fine over Western Europe, as a whole, but rainy at Biarritz; cloudy or overcast over Northern, Eastern and Central Europe, with snow in many places. Temperature had fallen fast in the west, risen in the east; it was still lowest over Russia, but sharp frost was reported over the central part of the United Kingdom and France. The lowest individual values were (1) 18° F. at Moscow, 15° at Archangel, 19° at Kharkov, 21° at Lemberg, 24° at St. Petersburg, 27° at Haparanda, and 28° at Helsingfors. (2) 24° at Loughborough, 25° at Aberdeen, 26° at Dundee, 26° in London, 27° at Oxford and Wick, and 31° at Larsovetsov.

Later a large depression advanced towards our western coasts, and strong S<sup>W</sup> winds or gales spread over the Kingdom, with higher temperatures and rain.

### 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, 14<sup>th</sup> December, 1889.*

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

Issued by the Meteorological Office, 55, Abchurch Lane, London, E.C. 4. H. H. SCOTT, Secretary.																		
STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.	
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 5.)	SHADE TEMP.		Amount of Rainfall.
				Direc.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Direc.	Force. (0 to 12.)			Max.	Min.	
SCANDINAVIA.	Haparanda ...	30.10	10	N	4	bc	30.32	+ .54	14	13	- 10	N	4	0	*	24	10	-
	Hernösand ...	30.12	12	N	0	b	30.36	+ .37	15	14	- 3	N	0	0	*	24	9	-
	Stockholm ...	30.30	23	N	0	b	30.44	+ .46	25	24	- 6	N	0	0	*	36	21	-
	Wisby ...	30.31	33	NW	4	b	30.45	+ .43	33	32	- 3	SSW	4	0	*	36	32	-
	Bodö ...	30.12	31	E	2	b	30.16	+ .28	32	30	- 5	ENE	4	0	2	34	24	-
	Christiansund	29.87	35	ESE	4	c	30.07	+ .18	39	37	+ 12	ESE	1	0	4	39	?	-
	Skudesnaes ...	29.93	41	SSE	8	r	30.20	+ .34	40	39	+ 1	SSE	8	1	6	41	39	0.67
	Christiania Fjord (Færdor)	30.14	38	SSE	3	o	30.33	+ .26	38	36	+ 8	SW	5	0	4	?	?	-
	Skagen (The Scaw)	30.23	37	SW	5	b	30.35	+ .29	36	35	0	S	4	0	3	37	36	-
	Fanö ...	30.19	30	E	4	bc	30.30	+ .26	28	27	- 8	SSE	4	0	*	37	28	-
BRITISH ISLANDS.	Sumburgh Head	29.63	44	W	1	bc	29.97	+ .62	43	43	- 2	N	0	0	3	45	39	0.04
	Stornoway ...	29.67	40	SW	3	c	29.95	+ .63	43	43	+ 5	SW	4	0	4	44	36	0.06
	Wick ...	29.70	38	NW	1	b	30.05	+ .68	38	37	- 2	SSW	3	0	2	42	36	-
	Nairn ...	29.74	39	SW	2	b	30.06	+ .69	34	33	- 6	N	0	0	4	43	30	-
	Aberdeen ...	29.79	35	WSW	1	b	30.11	+ .68	31	30	- 8	WSW	1	0	4	43	31	-
	Leith ...	29.82	41	W	1	bc	30.13	+ .63	33	33	- 9	W	1	0	*	44	28	-
	Shields ...	29.85	39	SW	2	m	30.19	+ .60	33	33	- 7	WSW	3	0	2	44	30	-
	Spurn Head ...	29.86	40	SSW	1	f	30.17	+ .45	37	36	- 4	NNW	2	0	3	42	34	0.01
	York ...	29.87	37	S	1	f	30.20	+ .53	28	28	- 12	N	1	0	*	45	25	-
	Loughborough	29.89	34	W	1	b	30.21	+ .48	29	29	- 13	NW	2	0	*	49	24	-
GERMANY.	Ardrossan ...	29.84	45	SW	2	b	30.13	+ .63	38	37	- 6	ENE	2	0	2	47	35	-
	Malin Head ...	29.83	42	SW	4	bp	30.05	+ .57	39	38	- 1	S	4	0	3	43	38	0.03
	Mullaghmore ...	29.88	42	WNW	2	bp	30.08	+ .54	40	41	+ 3	WSW	2	0	4	45	38	0.12
	Belmullet ...	29.90	43	W	2	b	30.05	+ .47	44	43	+ 1	S	2	0	*	47	39	0.02
	Donaghadee ...	29.90	43	WSW	3	b	30.16	+ .57	34	34	- 2	SW	2	0	0	42	33	-
	Barrow-in-Furness	29.87	39	SW	1	b	30.15	+ .57	32	32	- 11	ENE	1	0	*	43	32	0.14
	Liverpool (Bidston)	29.89	41	WSW	1	c	30.21	+ .54	32	31	- 8	SSE	1	0	2	44	30	-
	Holyhead ...	29.89	42	NW	3	b	30.19	+ .55	38	38	- 5	SSW	1	0	1	47	34	-
	Parsonstown ...	29.93	37	N	0	b	30.17	+ .53	33	32	- 4	N	0	0	*	43	30	-
	Valencia ...	30.01	46	WNW	2	bc	30.17	+ .56	45	44	+ 2	SSE	3	0	4	49	37	0.07
FRANCE AND NETHERLANDS.	Roche's Point...	29.95	41	NW	2	b	30.21	+ .53	37	35	- 4	N	1	0	3	48	34	-
	Pembroke (St. Ann's Hd.)	29.91	44	NNW	3	bc	30.23	+ .54	39	39	- 7	NE	1	0	2	47	39	0.03
	Scilly ...	29.94	47	NW	6	bp	30.22	+ .42	47	44	- 3	NNW	3	0	0	50	44	0.03
	Prawle Point ...	29.90	39	NW	3	b	30.21	+ .39	35	35	- 10	N	2	0	2	49	35	0.02
	Jersey (St. Aubin's)	29.90	47	WNW	3	ogp	30.16	+ .26	44	42	- 1	NNW	4	0	4	53	40	0.36
	Hurst Castle ...	29.88	42	WNW	2	bc	30.19	+ .36	35	34	- 13	NNE	2	0	2	48	33	0.02
	Dungeness ...	29.88	43	SSW	6	o	30.12	+ .19	40	39	- 2	NNE	2	0	2	43	38	0.20
	London ...	29.87	38	SW	1	bf	30.18	+ .36	34	34	- 10	NW	1	0	*	49	31	0.15
	Oxford ...	29.94	34	N	0	b	30.21	+ .43	32	32	- 11	N	2	0	*	48	30	-
	Cambridge ...	29.89	37	N	0	f	30.21	+ .41	34	33	- 9	N	1	0	*	45	31	0.02
PENINSULA.	Yarmouth ...	29.86	40	SSW	4	o	30.13	+ .27	40	39	+ 1	SSE	2	0	3	40	34	0.04
	Cuxhaven ...	30.18	30	SSE	3	o	30.28	+ .12	28	27	- 1	E	4	0	*	32	27	-
	Berlin ...	30.32	35	E	3	o	30.29	+ .02	34	32	- 1	E	4	0	*	37	34	-
	Wiesbaden ...	*	*	*	*	*	30.12	- .15	35	32	+ 16	W	1	0	*	36	?	-
	Munich ...	30.10	31	E	3	o	30.06	- .15	30	29	+ 3	SW	4	0	*	32	24	-
	The Helder ...	30.04	33	SSE	1	o	30.21	+ .16	29	28	- 2	SSE	1	0	1	?	28	-
	Brussels (9 a.m.)	*	*	*	*	*	30.17	+ .01	27	27	- 3	SSE	1	0	*	34	26	?
	Cape Gris Nez	?	34	S	5	o	?	?	34	33	0	SE	1	0	2	37	34	0.12
	Paris ...	30.04	33	SE	3	o	30.08	- .13	32	32	+ 4	NE	1	0	*	?	?	0.12
	Brest ...	?	48	NW	7	c	?	?	44	42	- 6	NE	2	0	5	54	37	0.20
FRANCE AND NETHERLANDS.	Lorient ...	29.95	48	WNW	6	c	30.17	+ .22	42	40	- 10	N	3	0	5	52	39	0.16
	Rochefort ...	30.05	44	SSW	4	o	30.10	- .11	42	41	+ 7	N	5	0	2	46	?	0.89
	Belfort ...	?	30	E	1	c	?	?	28	24	0	E	1	0	*	37	26	-
	Lyons ...	30.19	28	E	1	b	30.08	- .18	26	26	- 5	ENE	1	0	*	36	26	-
	Nice ...	30.00	26	NW	3	b	29.97	+ .04	42	39	- 4	ENE	5	0	1	54	37	-
PENINSULA.	Perpignan ...	30.11	45	W	1	bc	29.97	- .19	39	38	- 2	SW	1	0	*	53	36	0.16
	Biarritz ...	30.12	48	SW	4	r	30.06	- .18	47	44	+ 4	ENE	6	0	4	52	?	0.67
	Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-
Lisbon ...	30.34	51	NW	3	b	30.30	- .07	52	50	+ 11	N	3	0	4	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

Saturday, 14<sup>th</sup> December.

1889.

## 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:

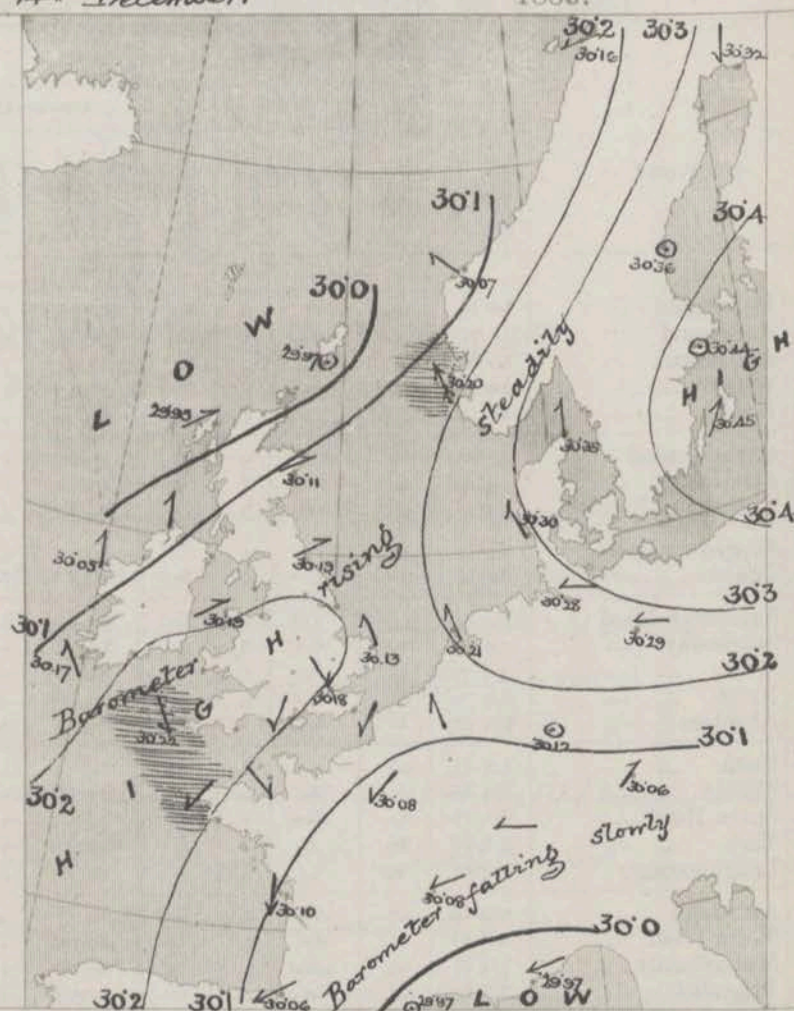
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Doungshadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.961
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

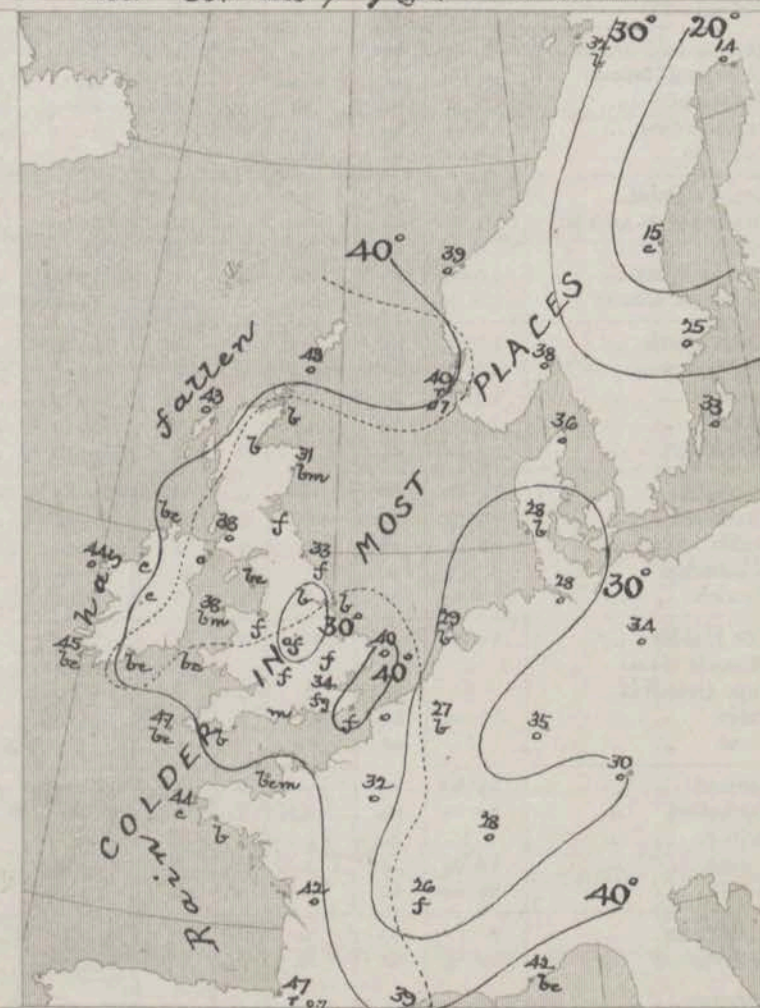
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.5	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrossan.....	44.6	36.0	40.1	38.7	4.04
Doungshadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point.....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle.....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.4 in. and upwards, over the Baltic and the south of Sweden; 30.30 in. at Lisbon. Lowest, 30.0 in. and less, in the extreme north and northwest of Scotland, and also in the south of France. Gradients slight. Barometer rising at all but the southern French stations.
TEMPERATURE	Highest, 52° at Lisbon, 47° at Seville and Biarritz, 45° at Valencia, and 44° at Belmullet, Jersey, and Brest. Lowest, 14° at Haparanda, 15° at Helsingfors, 25° at Stockholm, 26° at Lyons, 28° at York and Belfort. Frost occurred last night in many parts of the United Kingdom, the lowest readings being 24° at Loughborough, and 25° at York.
WIND	Light or moderate from the S. in the extreme west and north of our Islands; moderate to strong from the S.E. on the eastern shores of the North Sea. Light from the N. over England and France; moderate from the E. over North Germany; calm over Central Sweden.
WEATHER	Fine in the west and north of our Islands and also in the northwest of France. Cloudy or overcast elsewhere, with fog over England, and rain at Skudenes and Biscaya. Rain fell yesterday at many of the English, Irish, and French stations, and Aurora was seen at Nick at night.
SEA	Wrough at the mouth of the Channel and also at Skudenes, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The anticyclone over the Baltic seems to be spreading gradually westwards. In the extreme west of our Islands, however, the barometric rise is slackening, and, as the cold there has returned to the S. it is not improbable that another depression will shortly travel along our western coasts.

## FORECASTS

For the 24 hours ending at NOON on 15<sup>th</sup> DEC<sup>r</sup> 1889.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS
0 { SCOTLAND NORTH	S. and SW. winds, moderate or fresh; fair to dull and some rain.	6 { SCOTLAND WEST	Same as Nos 1 and 2.
1 { SCOTLAND EAST	Light breezes, chiefly SW.; fair generally but some fog or mist.	7 { ENGLAND N.W.	
2 { ENGLAND N.E.		8 { ENGLAND S.W.	Variable breezes, finally S.E.; fair generally.
3 { ENGLAND EAST	N. to Variable airs; dull and foggy at first, but clearing later.	9 { IRELAND NORTH	S. and S.E. winds, freshening; fine to cloudy and some rain.
4 { MIDLAND COUNTIES		0 { 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...									Holyhead ...	29.75				bc	2
Sumburgh Head ...	29.44	43	43	w	4	r	6		Valencia ...	29.88		wsw	2	bc	4
Stornoway ...	29.54	44	42	w	3	6	3		Scilly ...	29.84		wsw	5	cq	5
Aberdeen ...	29.64	42	40	sw	1	bc	4		Jersey ...	29.88	52	w	4	e	4
Shields ...	29.72	43	40	sw	3	c	2		Dungeness ...	29.86	42	sw	7	r	6
Ardrossan ...	29.69	43	43	sw	3	bc	2		London ...	29.82	49	sw	3	om	4
Malin Head ...	29.69	43	41	sw	4	6	3		Yarmouth ...	29.82	40	sw	5	oggyd	5
Mullaghmore ...	29.75	44	43	sw	4	p	3		Rochefort ...	80.10	40	sw	5	m	3
Behmullet ...	29.76	47	44	w	3	bc	2								

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

The reports for yesterday morning showed a considerable decrease of pressure over the British Islands and their immediate neighbourhood, and an increase elsewhere — especially over the Baltic, Scandinavia, and Central Europe. The morning readings were as high as 30.3 in. to 30.5 in. over Russia, between 30.30 in. and 30.45 in. over Spain, and ~~that they~~ exceeded 30.2 in. in a broad band which stretched from Spain across France, Germany, and Poland to Russia. To the northward of this band they decreased to less than 29.3 in. in a depression lying off the extreme north of Scotland, to 29.8 in. or less in a shallower disturbance over Lapland, and to 29.8 in. in another irregularly formed system lying over the Mediterranean. The wind over NW and N Europe was consequently W to S in direction, and blew strongly on the south coast of the British Isles; — a gale had been felt at several of our western and northern stations during the night. Over Spain and Central Europe the wind was light and variable, on the northern and eastern shores of the Mediterranean it was mainly NE, and in Algeria W. Weather was very changeable over the United Kingdom and France, rain falling in many places, while in others the sky was (temporarily) cloudless. Over the greater part of the Continent the sky was overcast, and snow was falling at a few stations. On the western shores of the Mediterranean the weather was fine and bright, but on the eastern shore it was dull and unsettled, with rain in some places, thunder and lightning at La Côle. Temperature had increased rapidly in the northwest, and less quickly over Northern Russia, but fallen over Germany, Austria, and Poland. The lowest morning values were (1) 6° at Kharkov, 9° at Hermannstadt, 14° at Moscow, 21° at Lemberg — over North Germany and Austria the readings were above 32°; (2) 19° at Wiesbaden, 25° at Limoges, 27° at Prague and Munich, 28° at Belfast and Paris, 30° at Brussels. The highest were 57° at Malta, 52° at Larnaca, Rhodes, Corfu, and Bonifati, 50° at Scilly, 48° at Hunt Castle, 44° in London.

Later on the depression over Scotland moved northwards, and a V-shaped depression passed across the British Isles from the westward. Dense wet fog occurred in London at night.

## 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 Sunday 15<sup>th</sup> DEC<sup>r</sup> 1889.  
Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 3 <sup>30</sup> P. and Sea Level.	Temp. in Shade.	WIND.			BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.	
			Dirac.	Force. (0 to 12.)	Weather.	Reading at 3 <sup>30</sup> P. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirac.	Force. (0 to 12.)	Weather.		Max.	Min.		
SCANDINAVIA.	Haparanda ...	30.54	14	N	2	0	30.55	+ .23	21	21	+ 7	S	2	0	•	?	9	—
	Hernösand ...	30.38	26	NE	2	S	30.37	+ .01	26	26	+ 11	Z	0	S	•	27	7	0.12
	Stockholm ...	30.52	28	Z	0	0	30.49	+ .05	28	27	+ 3	W	5	0	•	26	21	—
	Wisby ...	30.50	33	SSW	4	0	30.45	+ .00	32	32	— 1	SSE	4	S	•	34	25	0.04
	Bodö ...	30.23	31	ENE	2	b	30.17	+ .01	31	27	— 1	ENE	4	b	•	32	27	—
	Christiansund	30.18	37	ESE	2	0	30.08	+ .01	37	34	— 2	ESE	3	C	•	39	34	—
	Skudesnes ...	30.30	40	SSE	8	0	30.21	+ .01	39	37	— 1	SSE	8	r	5	41	37	0.08
	Christiania Fjord (Færder)	30.41	37	SSW	3	0	30.36	+ .03	35	38	— 3	SSE	2	0	3	38	34	—
	Skagen (The Scaw)	30.41	36	S	3	0	30.39	+ .04	34	38	— 2	Z	0	0	1	36	32	—
	Fanö ...	30.38	28	E	2	b	30.26	+ .06	30	29	+ 2	E	2	C	•	36	26	—
BRITISH ISLANDS.	Sumburgh Head	29.97	45	SSE	2	0	30.02	+ .05	46	45	+ 3	W	3	e	4	48	48	0.14
	Stornoway ...	29.87	46	SW	7	r	30.12	+ .17	41	41	— 2	SW	4	b	4	47	39	0.12
	Wick ...	29.96	44	S	4	C	30.17	+ .12	38	37	0	W	3	b	2	44	35	0.13
	Nairn ...	29.99	43	Z	0	0	30.15	+ .09	43	40	+ 9	W	1	b	1	46	31	0.05
	Aberdeen ...	30.11	38	S	2	og	30.20	+ .09	35	34	+ 4	WSW	2	b	4	41	31	0.10
	Leith ...	30.12	37	W	1	C	30.24	+ .11	43	42	+ 10	W	1	b	•	47	29	0.04
	Shields ...	30.22	36	W	2	m	30.31	+ .12	41	40	+ 8	WSW	2	m	2	41	32	0.03
	Spurn Head ...	30.25	37	W	1	f	30.33	+ .16	37	36	0	WSW	2	om	2	38	37	—
	York ...	30.27	38	N	1	f	30.36	+ .16	34	34	+ 6	SSE	1	f	•	36	27	0.02
	Loughborough	30.31	26	SE	1	f	30.39	+ .15	34	34	+ 5	ENE	1	om	•	35	25	—
BRITISH ISLANDS.	Ardrossan ...	30.13	46	S	4	0	30.29	+ .16	43	42	+ 5	ENE	1	b	2	49	37	0.12
	Malin Head ...	29.95	43	S	7	or	30.26	+ .21	43	42	+ 4	SSW	3	b	2	48	39	0.01
	Mullaghmore ...	30.04	47	SSW	6	om	30.30	+ .22	43	41	0	SSW	1	0	3	49	44	0.05
	Belmullet ...	30.05	50	SW	4	b	30.29	+ .24	45	45	+ 1	S	2	b	•	50	44	0.06
	Donaghadee ...	30.16	43	WSW	3	b	30.23	+ .17	38	38	+ 4	W	2	b	1	43	34	0.05
	Barrow-in-Furness	30.25	36	ESE	2	f	30.26	+ .20	39	39	+ 7	NE	1	f	•	41	30	0.08
	Liverpool (Bidston)	30.27	36	SSE	2	0	30.37	+ .16	43	42	+ 11	WSW	1	0	2	45	31	0.03
	Holyhead ...	30.23	45	SSW	3	om	30.37	+ .18	45	45	+ 7	SSW	1	b	2	49	37	0.08
	Parsonstown ...	30.15	45	Z	0	r	30.37	+ .20	38	38	0	Z	0	v	•	47	32	0.05
	Valencia ...	30.18	32	SW	3	om	30.40	+ .23	44	43	— 1	ESE	1	C	2	32	38	0.17
GERMANY.	Roche's Point...	30.22	49	SW	4	r	30.42	+ .21	42	42	+ 5	NW	3	f	4	50	27	0.05
	Pembroke (St. Ann's Hd.)	30.31	46	SSW	3	C	30.41	+ .18	48	48	+ 9	WSW	3	f	3	49	39	0.07
	Scilly ...	30.28	46	WSW	1	C	30.42	+ .20	50	50	+ 3	S	5	of	5	50	45	0.03
	Prawle Point...	30.34	41	WNW	2	b	30.46	+ .25	44	43	+ 9	SSW	1	b	1	52	35	—
	Jersey (St. Aubin's)	30.31	44	NNE	2	om	30.50	+ .34	42	41	— 2	NNW	2	om	2	50	37	—
	Hurst Castle ...	30.33	35	NE	1	f	30.47	+ .28	35	34	0	NNE	1	m	1	37	32	—
	Dungeness ...	30.27	40	ESE	1	0	30.42	+ .30	35	35	— 5	N	1	f	1	41	35	—
	London ...	30.26	40	W	1	og	30.43	+ .25	34	34	0	WSW	1	C	•	40	34	—
	Oxford ...	30.26	30	W	1	f	30.44	+ .23	33	32	+ 1	WSW	1	of	•	33	30	0.01
	Cambridge ...	30.22	38	Z	0	0	30.42	+ .21	35	34	+ 1	S	1	0	•	40	32	—
FRANCE AND NETHERLANDS.	Yarmouth ...	30.27	40	SSE	1	of	30.37	+ .24	36	36	— 4	WSW	1	f	3	40	34	—
	Cuxhaven ...	30.33	32	E	3	0	30.38	+ .10	38	32	+ 5	NNE	1	0	•	34	28	—
	Berlin ...	30.36	33	ESE	3	0	30.37	+ .08	32	31	— 2	SE	2	0	•	34	32	—
	Wiesbaden ...	"	"	"	"	"	30.35	+ .23	36	34	+ 1	Z	0	0	•	37	34	—
	Munich ...	30.17	29	W	3	C	30.30	+ .24	28	27	— 2	SW	4	0	•	32	28	—
	The Helder ...	30.32	32	ENE	1	b	30.43	+ .22	33	32	+ 4	NE	1	f	1	34	28	—
	Brussels (9 a.m.)	"	"	"	"	"	30.44	+ .27	30	30	+ 3	Z	0	C	•	33	27	—
	Cape Gris Nez	"	34	SE	2	0	"	"	36	36	+ 2	S	1	m	0	37	34	—
	Paris ...	30.30	28	NE	2	0	30.44	+ .36	27	26	— 5	NW	1	b	•	31	27	—
	Brest ...	"	43	NE	1	C	"	"	46	45	+ 2	Z	0	0	5	?	41	—
PENIN. ISLA.	Lorient ...	30.34	45	N	3	b	30.50	+ .33	43	41	+ 1	Z	0	C	4	48	39	—
	Rocheport ...	30.34	41	NNE	4	b	30.51	+ .41	36	35	— 6	NE	3	b	2	46	30	—
	Belfort ...	30.12	30	E	1	b	30.25	"	29	25	+ 1	E	1	0	•	37	27	—
	Lyons ...	30.23	31	N	3	b	30.33	+ .25	27	26	+ 1	N	3	os	•	34	26	—
	Nice ...	30.00	46	NW	4	C	30.06	+ .09	38	36	— 4	E	4	b	2	42	37	—
	Perpignan ...	30.09	46	NW	4	0	30.19	+ .22	42	35	+ 3	NW	6	b	•	48	39	—
	Biarritz ...	30.24	44	NNE	4	C	30.39	+ .33	41	"	— 6	ESE	3	N	5	48	37	0.16
	Corunna ...	"	"	"	"	"	30.55	+ .25	42	42	— 10	E	4	C	5	55	39	—
	Lisbon ...	30.34	53	W	1	b	30.40	+ .10	45	41	— 7	N	4	b	6	52	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

Sunday, 15<sup>th</sup> December,

1889.

## 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:

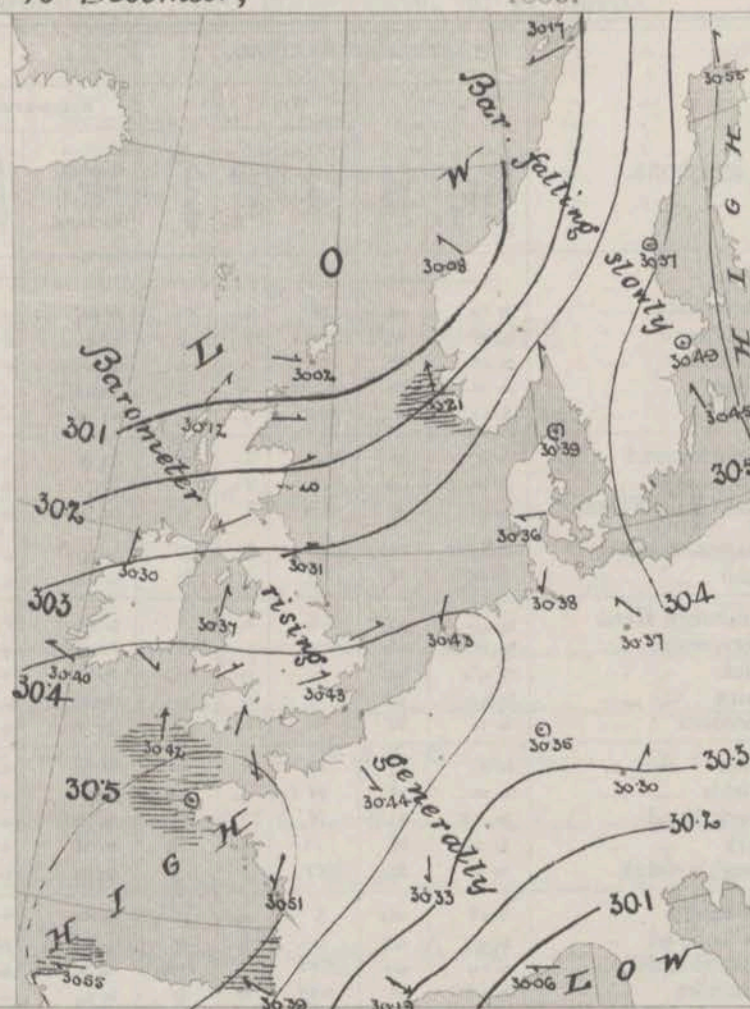
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.767
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Scilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.5 ins: and upwards, in a large anticyclone lying over the Bay of Biscay and the west of France, and also in another system lying over Ireland.  
Lowest, 30.1 ins: and less, in a large area lying to the northward of our Islands, and also in a smaller area lying over the Gulf of Genoa.  
Gradients slight. Barometer rising at all but the Scandinavian and Danish stations.

## TEMPERATURE

Highest, 50° at Scilly, 48° at Pembroke, 46° at Brest, 45° at Belmullet, Holyhead and Larn, and 44° at Valencia and Puntale Point.  
Lowest, 21° at Kaparanda, 20° at Helsingfors, 17° at Paris and Lyons, and 28° at Stockholm and Munich.  
The thermometer has risen a few degrees in most parts of the United Kingdom.

## WIND

Light or moderate from the S.W. or W. in all the more northern parts of our Islands; variable in the extreme south.  
S.E. in the coast of Norway, with a gale at Skudesnæs; calm or S. in Sweden.  
Light or moderate from between N. and E. over France and the Iberian Peninsula.

## WEATHER

Fine and light in the northern parts of the United Kingdom and also in the extreme south of France.  
Cloudy elsewhere, with fog at many of our southern stations, rain at Biarritz, and snow at Helsingfors, Ulsby and Lyons.  
Rain fell yesterday in nearly all the more western and northern parts of our Islands.

## SEA

Rather rough at the mouth of the Channel, and also at Skudesnæs and Biarritz, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

# FORECASTS

For the 24 hours ending at NOON on 16<sup>th</sup> DEC<sup>r</sup> 1889.

## DISTRICTS.

## FORECASTS.

## DISTRICTS.

## FORECASTS

- 0 { SCOTLAND NORTH
- 1 { SCOTLAND EAST
- 2 { ENGLAND N.E.
- 3 { ENGLAND EAST
- 4 { MIDLAND COUNTIES
- 5 { ENGLAND SOUTH

NONE ISSUED

- 6 { SCOTLAND WEST
- 7 { ENGLAND N.W.
- 8 { ENGLAND S.W.
- 9 { IRELAND NORTH
- 0 { IRELAND SOUTH

## WARNINGS

NONE ISSUED.

NONE ISSUED.

*Notes.*—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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea:
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.29	41	39	SSE	8	o	6	Holyhead ...	30.22	45	43	SSW	3	cong	2
Sumburgh Head ...	30.02	44	42	S	2	c	4	Valencia ...	30.16	50	50	S	5	fm	5
Stornoway ...	29.89	47	46	SW	7	o	6	Scilly ...	30.26	49	45	Z	0	c	6
Aberdeen ...	30.11	39	37	SSW	3	c	4	Jersey ...	30.25	46	43	NE	3	c	3
Shields ...	30.20	37	36	W	2	bun	2	Dungeness ...	30.19	40	39	ESE	3	c	1
Ardrossan ...	30.44	45	46	S	4	o	3	London ...	30.26	40	39	Z	0	ofg	2
Malin Head ...	30.00	43	41	S	5	o	3	Yarmouth ...	30.20	40	39	SSE	2	o	2
Mullaghmore ...	30.03	45	44	S	5	cm	4	Rochefort ...	30.25	42	41	N	4	o	2
Belmullet ...	30.01	48	47	WSE	6	o	4								

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

The reports for yesterday morning showed that pressure was highest, 30.5 ins: and upwards, in an anticyclone lying over Central Russia, but high, 30.3 ins: and upwards, in another system lying off the west of Portugal. The lowest readings 29.9 ins: and less, were found in a large area lying over the south of Italy and the eastern parts of the eastern part of the Mediterranean, but another large area, with readings below 30.0 ins: was lying to the northward and north-westward of the British Isles. The wind was light from the S<sup>W</sup> or S<sup>W</sup><sup>nd</sup> in the west and north of the United Kingdom, and SE<sup>ly</sup> on the eastern shores of the North Sea, with a gale at Skudesnaes. Over England, France, Spain and Italy, however, light or moderate breezes from the N<sup>W</sup> or NE<sup>ly</sup> were reported and over Central Europe light E<sup>ly</sup> breezes, while in the north of Russia and also in Algeria the wind was W<sup>ly</sup>. The weather was fine over the greater part of the United Kingdom, but a good deal of fog was reported over England and the south of Scotland. On the Continent the sky was mostly cloudy or overcast, with fog at several of the Austrian stations and snow at Moscow and Nicolaieff. Temperature had risen a few degrees in Norway and also in France, but fallen elsewhere; readings ranged from 56° and upwards in Portugal and at some of the Mediterranean stations to 20° or less over Central Russia. The highest individual readings were 54° at Boudini, 53° at Bouenna, 51° at Lybon and Khelma, 51° at Oporto, 50° at Sanguisais, Algiers and Constantinople, and 48° at La Gelle, the lowest were 14° at Haparanda, 15° at Haparanda at Kharlo, 17° at Humanaet, 18° at Moscow, 19° at Kharlo, 21° at Kharkov and Kharlo, and 22° at Kharlo and Kharlo.

In the course of the day a depression moved along our extreme western coasts, and the wind rose to a moderate gale from the S<sup>W</sup> in the north of Ireland and the west of Scotland. Rain fell at many of our western and northern 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 *Monday, 16<sup>th</sup> December, 1889*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

Issued by the Meteorological Office, 55, Victoria Street, London. R. H. SCOTT, Secretary.																		
STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 12.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)	Weather.	Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)	Weather.		Max.	Min.		
SCANDINAVIA.																		
Haparanda ...																		
Hernösand ...																		
Stockholm ...																		
Wisby ...																		
Bodö ...	30.07	30	ENE	2	O	29.91	- .16	33	30	+ 2	ENE	6	b	2	?	27	-	
Christiansund	30.10	41	SW	2	b	29.83	- .28	34	36	+ 1	ENE	3	c	3	41	36	0.014	
Skudesnaes ...	30.28	39	SSE	6	O	30.13	- .08	43	42	+ 4	SSE	8	O	5	?	30	0.014	
Christiania Fjord (Færder)	30.38	36	WSW	1	c	30.34	- .02	37	35	+ 2	SW	5	O	2	37	?	-	
Skagen (The Scaw)	30.39	32	Z	O	b	30.38	- .01	35	33	+ 1	SSW	3	b	2	36	30	-	
Fanö ...	30.41	31	S	2	O	30.40	+ .04	34	?	+ 4	SSE	4	O		34	80	-	
Sumburgh Head	30.10	44	S	1	c	29.84	- .18	44	43	- 2	W	4	c	6	47	42	0.09	
Stornoway ...	29.93	48	SW	6	O	29.98	- .14	45	44	+ 4	W	6	O	5	49	41	0.02	
Wick ...	30.11	45	S	4	b	30.01	- .16	42	39	+ 4	SW	3	b	2	46	35	0.03	
Nairn ...	30.09	40	Z	O	c	30.03	- .12	45	43	+ 2	W	4	c	2	51	39	-	
Aberdeen ...	30.21	39	S	2	b	30.11	- .09	43	42	+ 8	W	2	b	3	46	35	-	
Leith ...	30.26	45	W	1	b	30.14	- .10	48	46	+ 5	W	3	b	4	50	38	-	
Shields ...	30.34	45	Z	O	b	30.22	- .09	47	45	+ 6	WSW	3	m	2	47	34	-	
Spurn Head ...	30.38	37	W	2	f	30.33	- .05	40	39	+ 3	SSW	2	om	2	40	37	0.01	
York ...	30.39	32	S	1	f	30.32	- .04	41	41	+ 7	S	1	m		41	30	0.02	
Loughborough	30.43	34	E	1	f	30.37	- .02	40	39	+ 6	E	2	cm		44	32	0.01	
Ardrossan ...	30.24	41	ENE	3	b	30.20	- .09	48	47	+ 5	W	4	b	3	48	41	0.06	
Malin Head ...	30.10	42	SSE	6	b	30.20	- .06	46	44	+ 3	SW	2	b	3	48	40	0.03	
Mullaghmore ...	30.16	48	S	5	cm	30.25	- .05	45	43	+ 2	SW	2	om	3	51	42	0.12	
Belmullet ...	30.14	49	S	7	O	30.28	- .01	46	45	+ 1	SW	1	b		51	44	0.03	
Donaghadee ...	30.29	41	S	2	b	30.26	- .07	45	45	+ 7	WSW	2	c	1	47	36	0.01	
BRITISH ISLANDS.																		
Barrow-in-Furness	30.35	41	NE	1	f	30.26	- .09	47	47	+ 8	SSW	3	f	4	47	37	0.04	
Liverpool (Bidston)	30.38	42	SSE	2	b	30.32	- .05	49	47	+ 6	SSW	1	f	2	50	36	0.01	
Holyhead ...	30.36	47	S	2	c	30.31	- .06	50	49	+ 5	SW	3	ogm	2	50	44	0.01	
Parsonstown ...	30.28	40	Z	O	c	30.30	- .07	48	48	+ 15	Z	O		51	31	0.05		
Valencia ...	30.32	51	SSW	4	om	30.38	- .02	51	50	+ 7	WSW	1	f	1	54	42	0.04	
Roche's Point...	30.34	45	SSW	3	m	30.35	- .07	52	51	+ 10	WSW	4	f	4	52	40	0.02	
Pembroke (St. Ann's Hd.)	30.39	48	SSW	2	f	30.40	- .01	50	50	+ 2	SW	4	f	4	50	47	0.04	
Scilly ...	30.42	50	WSW	4	f	30.46	+ .04	51	51	+ 1	WSW	4	f	6	52	48	0.03	
Prawle Point...	30.48	49	SSW	2	m	30.48	+ .02	49	49	+ 5	WSW	2	m	2	51	43	0.14	
Jersey (St. Aubin's)	30.52	48	SSE	2	b	30.50	- .02	51	51	+ 9	WSW	4	odm	3	51	41	0.05	
Hurst Castle ...	30.49	45	SSE	1	O	30.46	- .01	48	48	+ 13	WSW	2	O	1	49	34	0.03	
Dungeness ...	30.45	44	WSW	3	m	30.41	- .01	48	47	+ 13	W	4	O	2	48	35	0.01	
London ...	30.45	42	W	1	O	30.43	- .02	45	45	+ 11	W	1	O		46	34	0.02	
Oxford ...	30.46	42	SW	1	b	30.44	- .02	45	44	+ 12	WSW	1	ogf		45	33	-	
Cambridge ...	30.43	40	Z	O	O	30.42	- .02	42	42	+ 7	Z	O		43	33	0.01		
GERMANY.																		
Yarmouth ...	30.39	39	W	1	b	30.40	+ .03	39	39	+ 3	SW	1	f	3	39	33	0.01	
Cuxhaven ...	30.42	31	Z	O	O	30.45	+ .20	33	32	- 1	SSW	3	O		34	31	-	
Berlin ...	30.46	32	Z	O	r	30.54	+ .17	32	31	- 1	WSW	2	O		34	30	-	
Wiesbaden ...	*	*	*	*	*	30.56	+ .21	32	30	- 4	Z	O		36	32	-		
Munich ...	30.42	29	W	3	O	30.52	+ .22	29	28	+ 1	SW	2	O		30	28	-	
FRANCE AND NETHERLANDS.																		
The Helder ...	30.44	35	S	1	f	30.47	+ .04	38	33	- 5	S	1	f	1	36	32	-	
Brussels (9 a.m.)	*	*	*	*	*	30.53	+ .09	35	34	+ 5	S	1	f	*	36	30	-	
Cape Gris Nez	?	42	SW	1	m	?	?	46	46	+ 10	WSW	4	f	3	45	?	0.04	
Paris ...	30.55	30	N	1	O	30.56	+ .12	29	29	+ 2	SW	1	f	*	37	23	-	
Brest ...	?	31	SW	2	O	?	?	52	51	+ 6	WSW	1	m	7	55	37	0.04	
Lorient ...	30.54	44	WSW	1	b	30.53	+ .03	51	51	+ 8	W	4	r	4	52	41	-	
Rochefort ...	30.59	38	NE	3	b	30.64	+ .13	33	33	- 3	SE	3	f	2	41	25	-	
Belfort ...	30.39	27	SW	1	O	30.49	+ .26	34	29	+ 5	WSW	1	O	*	36	28	-	
Lyons ...	30.42	31	N	2	O	30.57	+ .26	31	30	+ 4	N	2	O	*	34	?	-	
Nice ...	30.13	42	WSW	4	b	30.21	+ .15	38	34	- 4	E	4	b	2	48	36	-	
Perpignan ...	30.34	39	WSW	7	b	30.38	+ .19	40	35	- 2	WSW	1	b	*	45	37	-	
Biarritz ...	30.55	39	NE	3	b	30.66	+ .27	35	32	- 6	E	3	b	3	46	?	-	
PENIN- SULA.																		
Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lisbon ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

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, 16<sup>th</sup> December, 1889.

## 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:

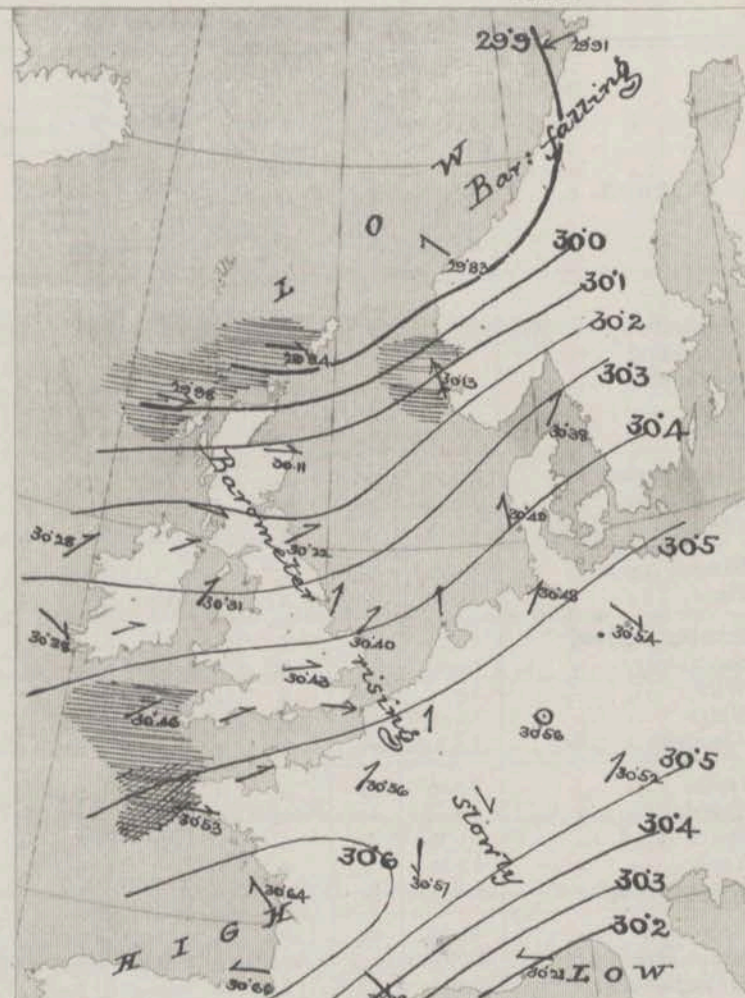
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

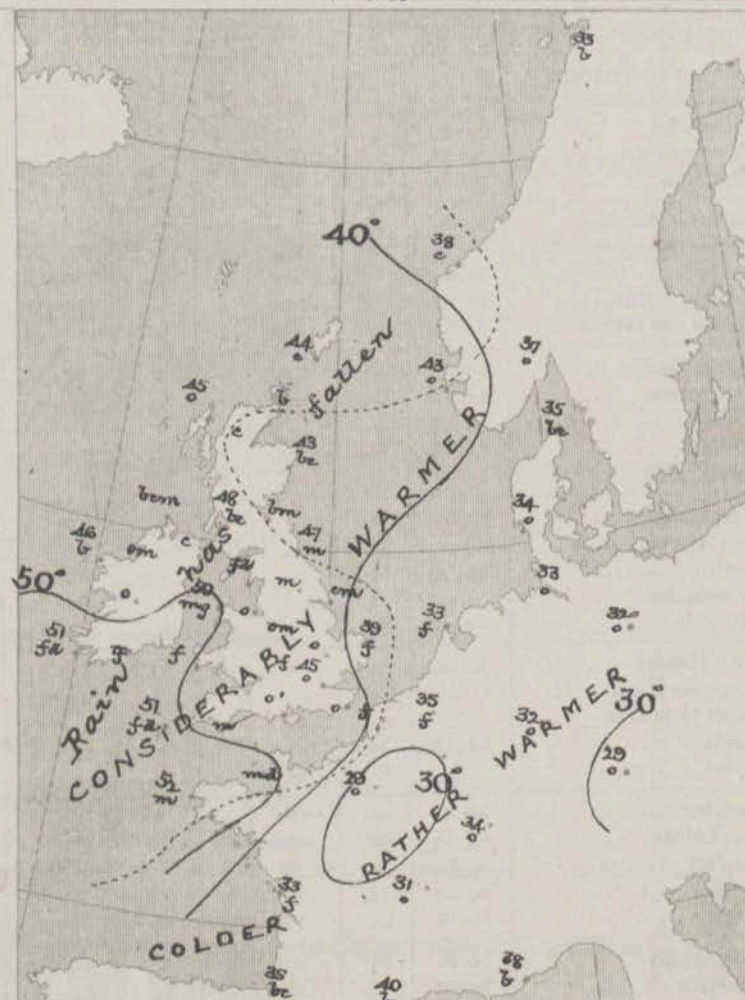
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	at 8 a.m. Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.0	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.0	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.5 in. to 30.6 in.: over Germany, France, the Bay of Biscay, and north of Spain.  
 Lowest, 29.9 in.: and less, over the Shetland Islands and off the north-west of Norway; 30.2 in.: and less, over the Gulf of Genoa.  
 Gradients steep over Norway, moderate over the British Isles and North Sea, slight over France.  
 Barometer now rising in our Islands, falling in Norway.

## TEMPERATURE

Highest, 52° at Rocherpoint and Brest, 51° at Valencia, Scilly, Jersey and Lorient, 50° at Holyhead, 48° at Dungeness and Falmouth, 45° in London.  
 Lowest, 29° at Paris and Greenwich, 32° at Berlin and Wiesbaden, 31° at Lyons, 33° at Rochefort and Bordeaux. [Swedish reports not as yet.]  
 It has risen very decidedly over the British Isles and slightly over France since yesterday.

## WIND

S<sup>4</sup> on the eastern shores of the North Sea (gale at Skudesnæs).  
 SW and W in our Islands and the Channel, light to fresh.  
 Variable and light over central France, E, moderate at Nice and in the southeast of France.

## WEATHER

Clear and bright in the east of Scotland, very dull elsewhere.  
 Foggy and damp on our southern coasts, misty in other places, rainy at several western stations.  
 Slight rain fell occasionally yesterday in all parts of our Islands.

## SEA

Rough at our most northern stations and at the mouth of the English Channel, moderate off the south of Ireland, slight or smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

It appears likely, that before long the wind will again back to the southward at the Irish stations, and increase in force with rain. Elsewhere, no great change is indicated. Mild weather is still probable.

## FORECASTS

For the 24 hours ending at NOON on 17<sup>th</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

W<sup>2</sup> and SW<sup>2</sup> winds, moderate or light; rain at times.

SW<sup>2</sup> breezes, light; fair, mild.

W<sup>2</sup> and SW<sup>2</sup> airs; mild, misty, damp.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 10 IRELAND SOUTH

W<sup>2</sup> and SW<sup>2</sup> breezes, light; changeable some rain, mild

Wind backing to S<sup>2</sup> again and increasing; mild, fine to rainy, unsettled.

### WARNINGS

The signals hoisted yesterday in districts 0, 6, and part of 1, have been lowered this morning. They are still up in districts 9 and 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea:
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.15	39	37	SSW	8	r	5	Holyhead ...	30.38	47	46	SW	3	e	2
Sumburgh Head ...								Valencia ...							
Stornoway ...	30.06	49	45	SW	5	c	4	Scilly ...							
Aberdeen ...								Jersey ...	30.50	50	47	SSW	2	b	2
Shields ...								Dungeness ...	30.44	41	40	r	1	m	1
Ardrossan ...								London ...							
Malin Head ...	30.22	45	43	S	4	b	2	Yarmouth ...							
Mullaghmore ...								Rochefort ...	30.54	41	38	NNE	3	o	2
Belmullet ...	30.19	49	47	SW	5	c	*								

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

The reports for yesterday morning showed that pressure was highest, 30.7 ins. and upwards in an anticyclone lying over central Russia but high, 30.5 ins. and upwards in another system lying over the Bay of Biscay and the west of France. The lowest readings, 30.0 ins. and less, were found in a large area which covered the greater part of the Mediterranean, but another large area with readings below 30.1 ins. was lying to the northward of our Islands. The wind was light from the SW or W in all the more northern parts of our Islands, but variable in the south, and N. or NE. over France, Spain and Italy. Over Scandinavia and the Baltic the wind was chiefly S. or SE. with a gale at Skudesnaes, but in Russia light variable airs were reported. The weather was fine in all the more northern parts of our Islands as well as over the greater part of France and Spain. Elsewhere, however, the sky was cloudy or overcast, with fog or mist at many of the English stations, and with snow at Harnösand, Wisby and Lyons. Temperature had risen several degrees in all the more western and northern parts of our Islands, as well as in Sweden and central Russia, but fallen elsewhere; readings ranged from 45° and upwards in the extreme southwest of our Islands, and over the central and southern parts of the Mediterranean to 20° and less over Austria and the south of Russia. The highest individual readings were 54° at Brindisi, 53° at Genoa, 51° at Sanguinaria, 50° at Scilly and Algiers, 48° at Pembroke, Lesina & La Galles, and 47° at Baghiani; the lowest were 8° at Kharkov, 15° at Buda Pesth, 18° at Hermannstadt, 19° at Lemberg, 20° at Nicolsiuff, 21° at Haparanda, Uleaborg, Kiev and Odessa and 22° at Vienna.

In the course of the day the anticyclone over the Bay of Biscay moved eastwards, and a depression travelled northwards along our extreme north and northwest coasts. The wind increased to a moderate or fresh gale from the E. or SW on the west coasts of Ireland and Scotland, and temperature rose somewhat over the southeast of England.

### SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 8<sup>TH</sup> TO THE 14<sup>TH</sup> DECEMBER 1889

During the past week the weather over our Islands and their neighbourhood has exhibited great fluctuations. The changes in temperature have also been considerable, sharp frosts alternating with brief spells in which the thermometer has been decidedly high for the time of year. Aurora was seen at Wick on the night of the 13<sup>th</sup>.

During the earlier half of the period a large and rather deep depression advanced over Scandinavia from the westward, and occasional strong SW. to W. winds in many parts of the United Kingdom. Numerous secondary disturbances passed eastward across our Islands, and showery weather was therefore experienced in nearly all districts. In the rear of the system the barometer rose quickly in the west and north, and on the 11<sup>th</sup> the wind veered to the NW or N generally, with a decided fall of temperature, and snow showers in some of our northern districts.

On the night of the 12<sup>th</sup>, however, a new fall of the mercury set in in the west, and in the course of the ensuing 24 hours a depression travelled northwards along our Atlantic coasts, occasioning fresh to strong gales from the S. and in the west and north generally, and freshening SW winds in other parts of the country. Rain fell in nearly all places, the amounts being large at some of our western stations.

At the close of the week another disturbance was beginning to appear in the west, and the wind in Ireland and Scotland was again freshening from the S.W.

Frost occurred in many parts of the Kingdom on the nights of the 10<sup>th</sup>, 11<sup>th</sup> and 13<sup>th</sup>. On the night of the 11<sup>th</sup> the sheltered thermometer fell below 25° in several places, while an instrument exposed on the grass in London registered a minimum of 15°.

### 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, 17<sup>th</sup> December, 1889.*  
 Issued by the Meteorological Office, 63, Victoria Street, London. *R. H. SCOTT, Secretary.*

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 2.)	SHADE TEMP.			
			Dir.	Force (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	30.10	27	SW	6	0	29.91	-1.6	28	27	-2	S	2	0	*	30	25	0.20
	Hernösand ...	29.97	33	S	6	S	29.98	-3.4	26	25	0	SW	0	6	*	34	12	0.08
	Stockholm ...	30.24	31	SSE	2	S	30.15	-3.0	34	33	+6	W	2	0	*	?	27	0.04
	Wisby ...	30.37	35	SW	6	0	30.22	-2.4	38	36	+4	N	6	0	*	?	30	0.08
	Bodö ...	29.71	36	E	4	0	29.62	-2.9	34	31	+1	E	4	6	2	36	28	
	Christiansund	29.86	40	SW	6	r	29.88	-2.5	42	39	+4	SSE	4	0	4	43	37	0.16
	Skudesnaes ...	30.23	44	WNW	2	0	29.97	-1.6	44	43	+1	SSE	3	r	5	45	43	0.32
	Christiania Fjord (Færd)	30.13	41	WSW	5	m	30.11	-2.3	40	39	+3	WSW	3	0	3	41	?	
	Skagen (The Scaw)	30.23	38	SW	4	f	30.21	-1.7	37	37	+2	SW	2	f	3	39	34	
	Fanö ...	30.39	39	WSW	4	f	30.33	-0.7	40	40	+6	WSW	4	f	*	41	34	0.04
BRITISH ISLANDS.	Sumburgh Head	30.01	46	W	5	c	29.84	-3.0	51	50	+7	W	6	0	6	51	41	0.24
	Stornoway ...	30.03	47	SW	4	b	29.71	-2.7	50	49	+5	W	7	c	6	53	45	0.04
	Wick ...	30.13	45	S	3	b	29.74	-2.7	50	47	+8	W	4	b	3	55	42	0.03
	Nairn ...	30.13	47	W	3	c	29.74	-2.7	55	54	+10	WSW	5	b	1	55	39	
	Aberdeen ...	30.26	41	SW	2	b	29.85	-2.6	52	49	+9	SSW	7	equ	4	52	39	0.02
	Leith ...	30.30	48	SW	2	b	30.02	-1.2	54	52	+6	SW	5	c	*	55	45	
	Shields ...	30.36	48	WSW	1	f	30.15	-0.7	52	49	+5	WSW	3	0	2	52	41	
	Spurn Head ...	30.38	44	WSW	3	0	30.28	-0.5	48	47	+8	SSW	3	am	3	48	40	
	York ...	30.39	42	S	1	f	30.27	-0.5	48	47	+7	S	1	0	*	48	39	
	Loughborough	30.43	48	SE	1	0	30.37	0.0	51	50	+11	SW	3	0	*	51	40	
GERMANY.	Ardrossan ...	30.29	47	SSE	3	b	30.06	-1.4	50	50	+2	WSW	6	rm	5	50	46	0.08
	Malin Head ...	30.21	45	S	4	0	30.02	-1.8	50	49	+4	WSW	5	cpm	5	52	43	0.03
	Mullaghmore ...	30.25	49	SSW	5	om	30.12	-1.3	52	52	+7	SW	5	od	5	53	45	0.08
	Belmullet ...	30.26	48	SW	3	0	30.14	-1.4	51	50	+5	WSW	4	0	*	52	44	0.09
	Donaghadee ...	30.33	44	W	3	0	30.16	-1.0	53	52	+8	W	5	c	3	53	43	0.01
	Barrow-in-Furness	30.37	46	SW	1	b	30.24	-0.2	48	45	+1	SW	3	0	*	48	43	0.02
	Liverpool (Bidston)	30.40	49	SW	1	0	30.29	-0.3	51	49	+2	SW	5	c	4	53	46	0.09
	Holyhead ...	30.40	49	Z	0	cmw	30.30	-0.1	50	50	0	SW	5	ogm	4	51	48	0.01
	Parsonstown ...	30.35	45	Z	0	b	30.25	-0.5	51	51	+3	Z	0	0	*	53	42	0.01
	Valencia ...	30.38	50	SE	3	om	30.31	-0.7	54	53	+8	SSW	6	ogm	5	54	47	0.04
FRANCE AND NETHERLANDS.	Roche's Point...	30.43	50	WSW	3	cm	30.36	+0.1	52	51	0	WSW	3	0	4	52	48	0.03
	Pembroke (St. Ann's Hd.)	30.46	50	SSW	2	f	30.42	+0.2	50	50	0	SW	4	0	4	52	49	0.04
	Scilly ...	30.47	51	WSW	4	f	30.48	+0.2	51	51	0	WSW	4	0	6	53	49	0.01
	Prawle Point ...	30.51	50	W	3	bc	30.52	+0.4	51	51	+2	WSW	3	0	3	51	48	0.15
	Jersey (St. Aubin's)	30.53	50	NW	3	odm	30.58	+0.8	49	49	-2	SW	3	0	3	53	48	0.15
	Hurst Castle ...	30.50	48	WSW	3	0	30.51	+0.5	50	50	+2	SW	3	f	1	50	46	0.01
	Dungeness ...	30.48	47	WNW	1	m	30.50	+0.9	49	49	+1	WSW	5	rm	4	49	45	0.10
	London ...	30.49	51	WSW	1	odm	30.46	+0.3	50	49	+5	SW	1	og	*	51	44	0.01
	Oxford ...	30.47	49	SW	2	0	30.46	+0.2	49	48	+4	SSW	2	ogm	*	50	45	
	Cambridge ...	30.45	47	Z	0	0	30.42	0.0	50	50	+8	S	1	0	*	50	41	0.01
GERMANY.	Yarmouth ...	30.35	45	SW	1	f	30.40	0.0	49	48	+10	WSW	3	cf	2	49	38	0.01
	Cuxhaven ...	30.50	32	SSW	3	f	30.50	+0.2	34	34	+1	SW	3	0	*	34	32	
	Berlin ...	30.63	31	SW	2	0	30.58	+0.4	27	25	-5	SW	3	0	*	32	27	
	Wiesbaden ...	*	*	*	*	*	30.67	+1.1	21	20	-11	N	1	0	*	36	19	
	Munich ...	30.60	28	NE	2	0	30.64	+1.2	23	23	-6	NE	4	0	*	30	21	
	The Helder ...	30.48	36	S	1	f	30.45	-0.2	39	39	+6	SSW	3	f	3	41	?	0.04
	Brussels (9 a.m.)	*	*	*	*	*	30.60	+0.7	35	35	0	S	2	0	*	40	35	
	Cape Gris Nez	?	45	SSW	3	f	?	?	41	?	-5	SSW	4	0	*	52	41	0.08
	Paris ...	30.60	35	S	1	0	30.66	+1.0	32	32	+3	S	2	0	*	39	?	
	Brest ...	?	53	Z	0	m	?	?	51	49	-1	S	1	0	*	54	39	0.04
FRANCE AND NETHERLANDS.	Lorient ...	30.56	51	WNW	2	0	30.58	+0.5	50	50	-1	SW	1	f	5	52	46	0.04
	Rochefort ...	30.63	40	SSE	4	f	30.69	+0.5	40	39	+7	SE	3	0	2	43	?	0.08
	Belfort ...	30.50	30	WNW	1	0	30.56	+0.4	30	26	-4	WNW	1	0	*	34	24	
	Lyons ...	30.23	29	W	3	bc	30.65	+0.8	28	27	-3	N	3	0	*	37	28	
	Nice ...	30.27	42	E	4	b	30.41	+2.0	38	35	0	E	4	b	2	50	36	
	Perpignan ...	30.46	44	NW	5	b	30.50	+1.2	39	36	-1	W	2	b	*	50	37	
	Biarritz ...	30.59	44	E	2	0	30.49	-1.7	42	39	+7	E	3	r	6	46	?	0.04
	Corunna ...	*	*	*	*	*												
	Lisbon ...	*	*	*	*	*												



# WEATHER CHARTS

for 8 a.m. on *Tuesday, 17<sup>th</sup> December.*

1889.

## 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.

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→ = forces above 10; → = forces 8 to 10;

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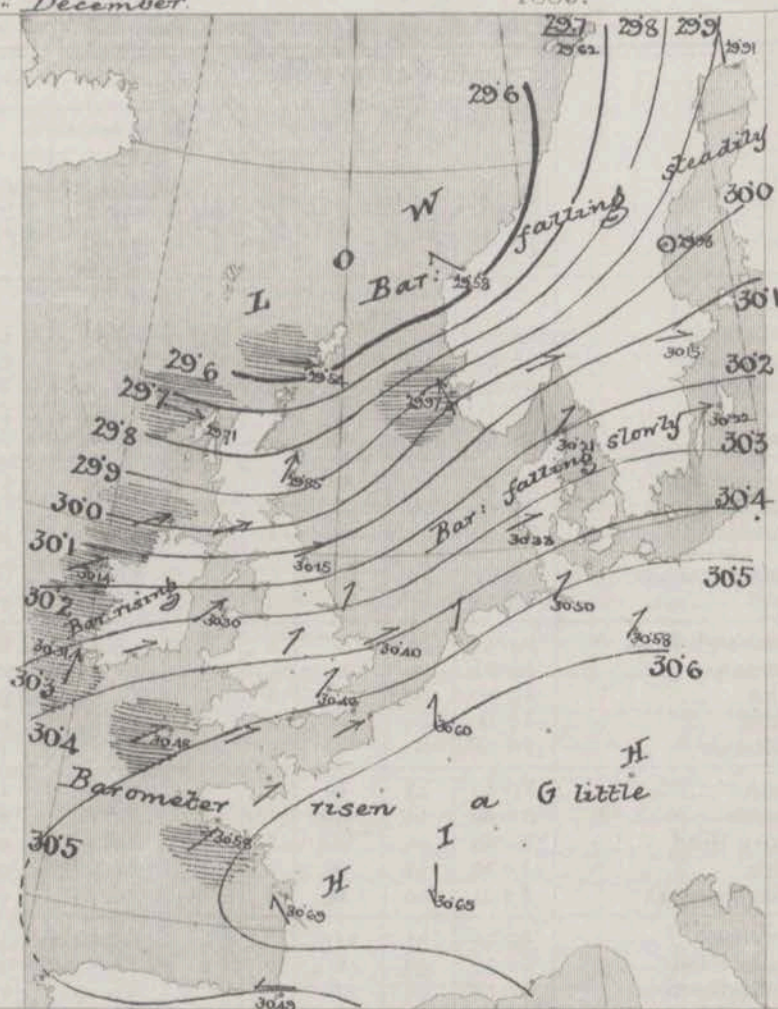
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER.

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

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Sumburgh Head	29.667
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Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

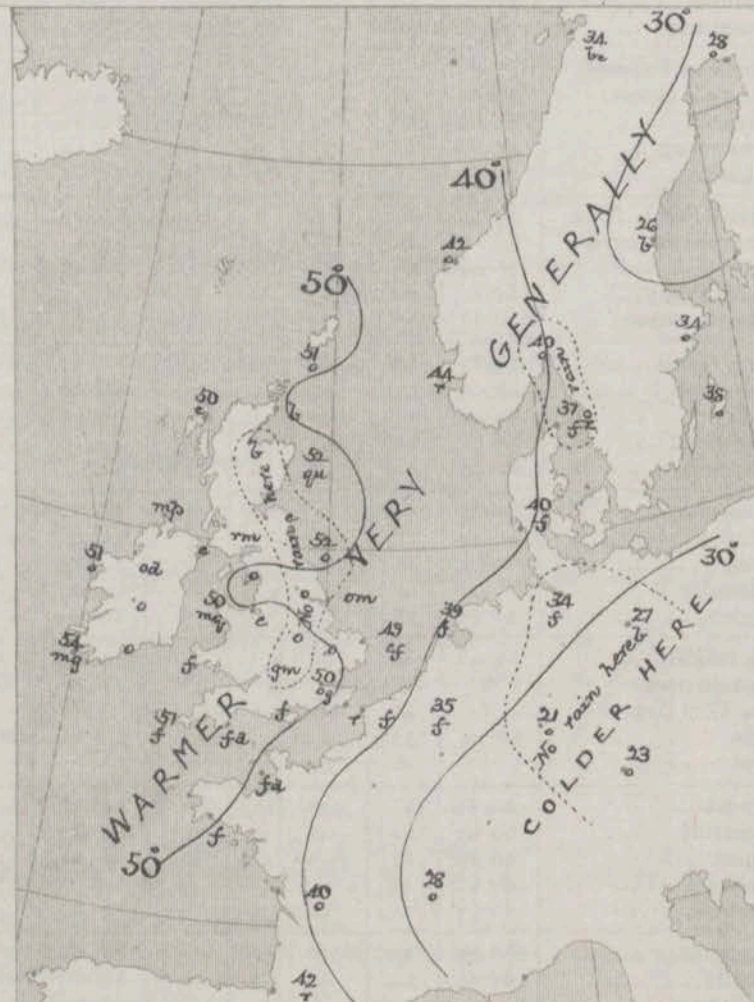
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	At 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.1	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	35.9	35.3	3.34
Leith	41.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.0	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.6	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.5 in: to 30.6 in: and more, over the Channel, Bay of Biscay, France, and Central Europe.  
 Lowest, 29.6 in: and less, in a large depression lying off the north of Scotland and the west of Norway.  
 Gradients rather steep over the northern part of Great Britain and the North Sea, moderate over England.  
 Barometer apparently rising slightly throughout our Islands and France, falling in Norway.

## TEMPERATURE

Highest, 55° at Akin, 54° at Perth and Valencia, and 50° or more at nearly all our coast stations.  
 Lowest, 21° at Kirsebær, 23° at Munich, 25° at Helsingfors, 27° at Berlin, 28° at Lyons and Havre.  
 It has again risen over our Islands since yesterday, and is very high for the time of year.

## WIND

SW<sup>1</sup> to W<sup>1</sup> throughout our Islands — light over England, moderate in Ireland, strong at several of the Scotch stations.  
 In Norway it is SE<sup>1</sup> to E<sup>1</sup>, in Denmark and North Germany SW<sup>1</sup>, and over France variable.

## WEATHER

Mild, damp, and in many places misty or foggy (especially on our southern coast and in the Netherlands).  
 Rain has fallen except on our northern coast and over Germany, but the amounts measured are small.

## SEA

Rough on our northern and western coast and also over the Bay of Biscay, moderate in the English Channel, slight on our eastern coast.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There is no indication of any decided change.

# FORECASTS

For the 24 hours ending at NOON on 18<sup>TH</sup> DEC<sup>R</sup> 1889.

## DISTRICTS.

## FORECASTS.

## DISTRICTS.

## FORECASTS

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

W<sup>1</sup> winds moderating and backing;  
 changeable, much rain at times.

SW<sup>1</sup> breezes, moderate; damp,  
 misty, but fair at times.

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

SW<sup>1</sup> and S<sup>1</sup> winds, changeable  
 unsettled, rain at times.

## WARNINGS

Signals have been lowered on the Irish coast.

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:		Wind		Wea:	Sea		Bar.	Ther:		Wind		Wea:	Sea.
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.12	45	44	WSW	4	c.	5	Holyhead ...	30.38	51	50	WSW	3	0	2
Sumburgh Head ...	29.95	46	45	W	5	b	6	Valencia ...	30.40	53	52	SSW	2	cm	2
Stornoway ...	30.07	47	46	SW	4	c	4	Scilly ...	30.47	53	52	WSW	4	f	6
Aberdeen ...	30.12	45	41	SW	2	bc	3	Jersey ...	30.53	53	52	WSW	3	0	3
Shields ...	30.33	49	47	WSW	2	bc	2	Dungeness ...	30.44	47	46	WSW	3	0	2
Ardrossan ...	30.30	47	46	W	3	c	2	London ...	30.45	50	47	WSW	1	ogm	2
Malin Head ...	30.23	46	44	SSW	3	0	5	Yarmouth ...	30.40	45	44	SW	1	cf	2
Mullaghmore ...	30.30	48	46	SSW	2	0	6	Rochefort ...	30.66	42	41	SE	3	0	2
Belmullet ...	30.29	50	49	SW	2	0	2								

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

The reports for yesterday morning showed that pressure was highest, 30.7 in: and upwards, in an anticyclone lying over Central Russia, and high, 30.6 in: and upwards, in another lying over the Bay of Biscay, the west of France, and the north of Spain, the two systems being connected by a broad "col" which extended across the whole of Central Europe. The lowest readings, 29.9 in: and less, were found in a large area lying to the northward of our Islands and to the southward of Norway, and also apparently in a shallow depression which lay to the northward of Ireland. The winds were light or moderate from the W<sup>nd</sup> or SW<sup>nd</sup> over our Islands, the Netherlands, and the north of France, strong from the SE<sup>nd</sup> or E<sup>nd</sup> in the west of Norway, and light from the SE<sup>nd</sup> or S<sup>nd</sup> over Finland and the Baltic. Over Southern Europe the wind was chiefly NE<sup>ly</sup>, while in Algeria it drew into N. or NW. but over Central Europe light variable airs were reported. The weather was fine over the northern parts of the United Kingdom, as well as in Spain, Central Italy, and the southern parts of France and Russia. Elsewhere the sky was mostly cloudy or overcast with fog and drizzling rain over the Netherlands, and southern parts of the United Kingdom, as well as at some of the French and German stations. Temperature had risen a little over the whole of Northern Europe, but fallen in most other localities; readings ranged from a little above 50° over the south of Ireland and at some of the Mediterranean stations to 10° or less over the south of Russia and the south-east of Austria. The highest individual readings were 56° at La Felle, 54° at Boudine, 53° at Algiers, 52° at Rocherhaut and Brest, 51° at Valence, Scilly, Jersey and Corsica, and 50° at Holyhead, Pembroke, and Tangier; the lowest were 5° at Kharok and Nicolaiiff, 3° at Odessa, 10° at Kier and Hamarstadt, 18° at Lemberg, 19° at Archangel, 20° at Uleaborg and Cracow, 21° at Kuda-Kud and 22° at Moscow.

In the course of the day very little change in the distribution of pressure was observed over Western Europe, but a heavy ground swell was reported off the north-east of Ireland, and at night the wind rose to a gale from the SE<sup>nd</sup> in the extreme north of Scotland.

### 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 18<sup>TH</sup> DECEMBER 1889.

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

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.								PAST 24 HOURS.			
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.
				Dirac.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirac.	Force. (0 to 12.)			Max.	Min.	
SCANDINAVIA.	Haparanda ...	29.36	31	SW	6	S	29.18	-1.3	32	32	+5	SW	4	b	.	?	25	0.07
	Hernösand ...	29.49	35	2	0	0	29.65	-1.3	35	33	+9	SW	2	b	.	16	21	-
	Stockholm ...	29.70	39	SW	4	T	29.91	-2.4	39	37	+5	WSW	2	o	.	39	30	-
	Wisby ...	30.01	40	W	4	0	30.01	-2.1	41	40	+3	WSW	6	o	.	41	32	0.04
	Bodö ...	29.93	42	SW	7	0	29.03	-1.5	37	36	+3	WSW	9	c	6	43	30	0.12
	Christiansund	29.41	44	WSW	9	bc	29.52	-1.06	43	40	+1	WSW	9	c	7	45	39	0.47
	Skudesnaes ...	30.00	45	W	6	0	29.86	-1.1	44	44	0	S	6	o	5	48	43	0.16
	Christiania Fjord (Fierder)	29.81	43	SW	5	b	29.90	-2.1	42	40	+2	SW	6	c	4	43	40	-
	Skagen (The Scaw)	29.57	40	N	5	0	30.02	-1.9	41	40	+4	WSW	3	o	4	2	37	0.08
	Fanö ...	30.21	43	WSW	4	0	30.16	-1.7	42	42	+2	WSW	4	f	.	43	?	-
BRITISH ISLANDS.	Sumburgh Head	29.75	42	W	8	T	29.50	-1.04	45	45	-6	SW	1	T	5	51	42	0.17
	Stornoway ...	29.90	46	W	5	0	29.47	-2.4	40	40	-10	NW	6	T	6	50	39	0.30
	Wick ...	29.91	44	W	5	0	29.44	-1.0	46	45	-4	SW	3	b	1	50	43	0.01
	Nairn ...	29.96	48	W	3	C	29.53	-2.1	52	50	-3	WSW	5	c	2	53	42	-
	Aberdeen ...	30.06	46	SW	3	bc	29.65	-1.20	49	48	-3	S	5	ogm	4	53	44	-
	Leith ...	30.12	49	W	4	C	29.77	-2.5	53	49	-1	WSW	3	cm	.	53	46	-
	Shields ...	30.18	54	SW	2	0	29.91	-2.4	52	48	0	SW	6	c	2	53	50	-
	Spurn Head ...	30.27	49	SW	4	C	30.09	-1.9	48	46	0	SW	5	c	4	51	45	-
	York ...	30.27	52	SW	3	0	30.05	-2.2	50	47	+2	SW	3	bc	.	54	47	-
	Loughborough	30.36	50	WSW	2	C	30.18	-1.9	49	48	-2	SW	4	ogm	.	54	48	-
GERMANY.	Ardrossan ...	30.14	49	W	4	b	29.76	-1.30	50	49	0	S	7	T	5	52	47	0.06
	Malin Head ...	30.14	46	SW	4	om	29.63	-1.35	48	47	-2	SW	5	ogm	4	51	42	0.12
	Mullaghmore ...	30.16	48	SW	1	om	29.69	-1.43	49	48	-3	SW	6	ogm	5	54	47	0.11
	Belmullet ...	30.14	49	SW	4	0	29.71	-1.43	45	44	-6	NW	7	o	.	53	43	0.44
	Donaghadee ...	30.22	49	W	3	bc	29.84	-1.32	49	48	-4	WSW	6	c	4	53	47	0.04
	Barrow-in-Furness	30.24	48	SW	3	0	29.98	-1.26	47	46	-1	WSW	5	OT	.	48	46	0.23
	Liverpool (Bidston)	30.30	52	WSW	3	0	30.03	-2.6	50	47	-1	SW	6	c	4	54	50	-
	Holyhead ...	30.29	50	SW	5	mg	30.01	-2.9	50	48	0	SW	7	omg	6	51	48	0.10
	Parsonstown ...	30.23	53	SW	1	0	29.86	-1.39	49	48	-2	SW	3	o	.	53	48	0.02
	Valencia ...	30.25	53	S	6	mg	30.00	-1.31	48	45	-6	NW	7	cg	6	54	46	0.35
FRANCE AND NETHERLANDS.	Roche's Point...	30.33	52	WSW	4	T	29.97	-1.39	50	50	-2	SW	8	T	5	53	49	0.10
	Pembroke (St. Ann's Hd.)	30.40	50	SW	4	f	30.12	-1.30	50	49	0	SW	7	ogm	6	51	49	0.05
	Scilly ...	30.25	51	SW	4	C	30.23	-2.5	51	51	0	SW	7	ogm	6	52	49	0.03
	Prawle Point ...	30.51	49	SW	3	f	30.31	-2.1	49	49	-2	SW	6	om	4	51	48	0.09
	Jersey (St. Aubin's)	30.53	51	SW	2	f	30.43	-1.5	46	45	-3	SW	5	ogm	4	51	45	0.18
	Hurst Castle ...	30.50	49	SW	3	f	30.34	-1.7	49	49	-1	WSW	6	m	2	50	47	0.02
	Dungeness ...	30.44	49	WSW	5	m	30.35	-1.5	49	48	0	WSW	5	m	4	50	48	0.08
	London ...	30.45	52	SW	3	0	30.31	-1.5	51	49	+1	S	2	o	.	53	48	0.02
	Oxford ...	30.43	51	SW	3	0	30.26	-2.0	50	48	+1	SW	5	o	.	54	47	-
	Cambridge ...	30.39	49	SW	2	bc	30.26	-1.6	50	49	0	SW	2	o	.	53	46	-
PENIN-SULA.	Yarmouth ...	30.36	51	W	2	cf	30.26	-1.4	49	48	0	WSW	4	c	2	52	46	-
	Cuxhaven ...	30.36	37	SW	6	f	30.31	-1.9	38	38	+4	SW	5	f	.	38	?	0.04
	Berlin ...	30.47	34	SW	3	0	30.41	-1.7	36	36	+9	SW	2	f	.	36	?	0.04
	Wiesbaden ...	*	*	*	*	*	30.60	-0.7	25	24	+4	N	1	f	.	?	?	-
	Munich ...	30.64	19	SW	2	0	30.58	-0.6	12	10	-11	E	3	m	.	27	12	-
	The Helder ...	30.39	43	SW	3	f	30.30	-1.5	42	42	+3	SW	4	f	3	45	39	0.04
	Brussels (0 a.m.)	*	44	SW	4	f	30.44	-1.6	33	33	-2	S	1	o	*	37	33	-
	Cape Gris Nez	*	44	SW	4	f	?	?	43	42	+2	SW	4	f	4	45	41	0.16
	Paris ...	30.26	32	SW	1	f	30.57	-1.09	?	?	?	SW	?	bc	.	34	28	-
	Brest ...	?	52	2	0	m	?	?	51	50	0	SW	7	T	7	54	39	0.04
PENIN-SULA.	Lorient ...	30.57	50	2	0	m	30.44	-1.4	46	45	-4	SW	3	o	5	52	43	0.08
	Rocheport ...	30.65	41	E	3	bc	30.57	-1.2	31	31	-9	ENE	3	m	2	45	25	-
	Belfort ...	30.53	25	ENE	1	C	30.48	-1.08	23	?	-7	ENE	1	bc	.	32	19	-
	Lyons ...	30.67	28	N	2	0	30.60	-0.5	24	24	-4	SW	1	b	.	30	23	-
	Nice ...	30.48	45	WNW	2	b	30.47	+0.6	39	35	+1	E	4	b	2	50	37	-
PENIN-SULA.	Perpignan ...	30.53	41	NW	2	b	30.53	+0.5	27	26	-12	SW	2	b	.	52	26	-
	Biarritz ...	30.56	41	ENE	4	b	30.49	0.0	37	34	-5	ENE	3	b	5	48	34	-
PENIN-SULA.	Corunna ...	30.45	30	NNE	3	f	30.46	-0.1	39	37	-2	NNE	4	b	6	57	39	-
	Lisbon ...																	



# WEATHER CHARTS

for 8 a.m. on

WEDNESDAY, 18<sup>th</sup> December.

1889.

## 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:

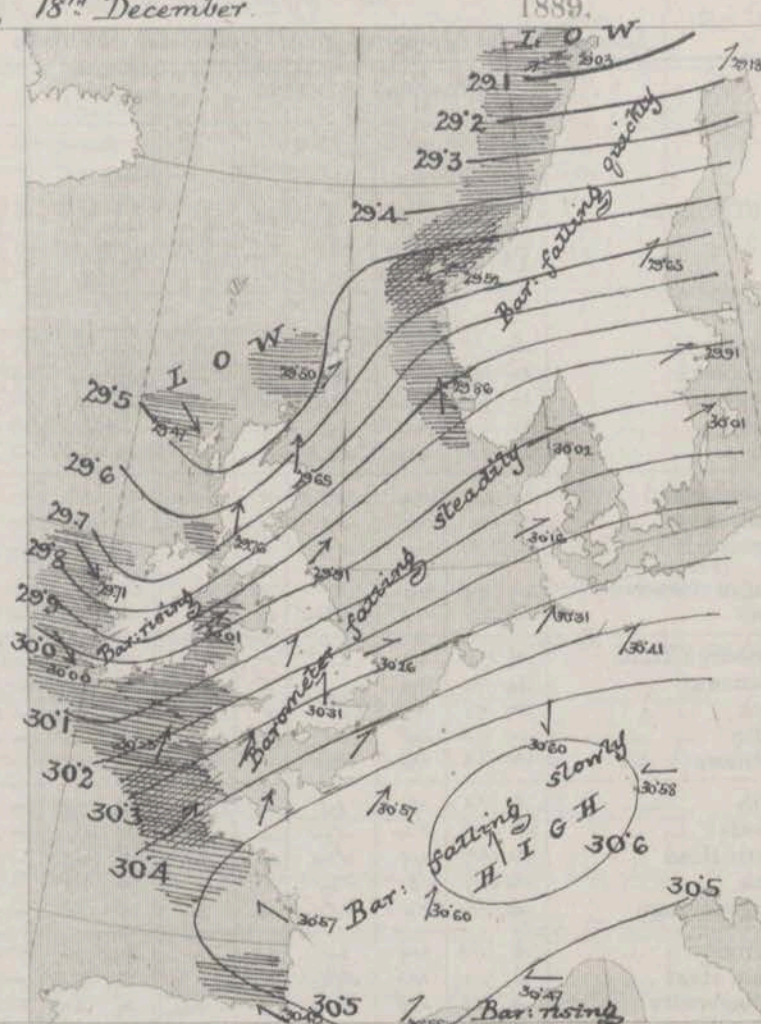
— Rough. — High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Dounglass	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

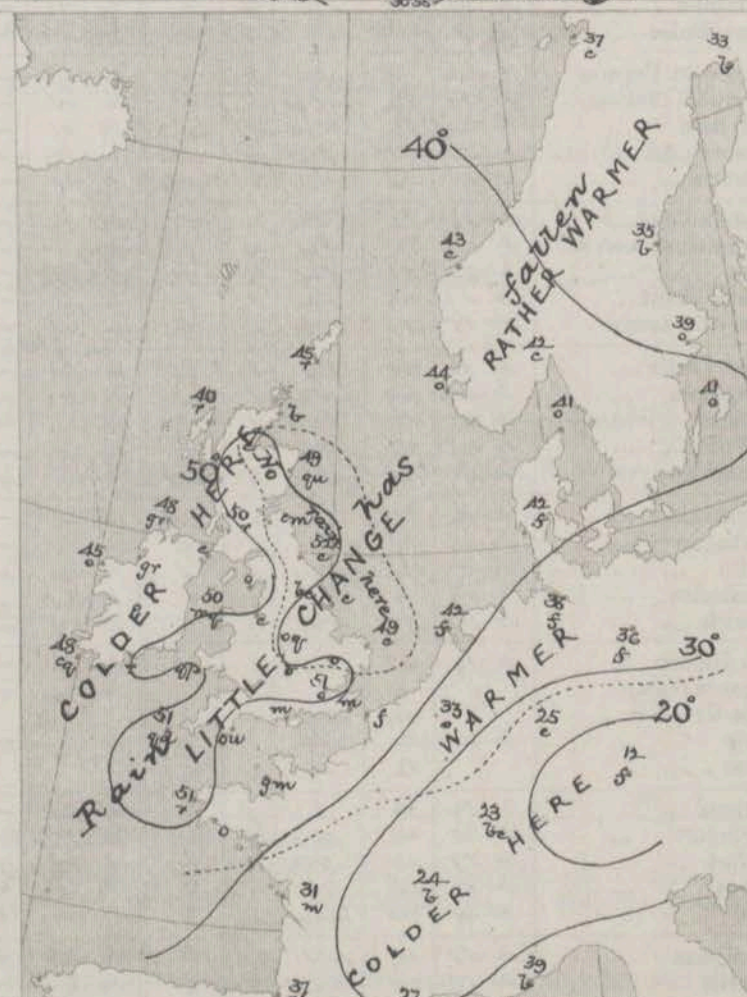
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	MEAN Dry.	MEAN Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
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Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Dounglass	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.8	37.6	2.70
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Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.4 in: to 30.6 in: over the Bay of Biscay, France, and Germany.  
 Lowest, about 29.0 in: over Lapland — 29.5 in: and less, in a secondary depression over the north of Scotland.  
 Gradients were rather steep over the British Isles, North Sea, and Scandinavia.  
 Barometer was falling in most places, but beginning to rise in the west of Ireland.

## TEMPERATURE

Highest, 53° at Leith, 52° at Kew and Shields, 51° at Bally, Brest and in London.  
 Lowest, 12° at Munich, 23° at Belfast, 24° at Lyons, 25° at Nisabaden, 27° at Perpignan, 33° at Haparanda, 36° at Berlin.  
 It is rising over North Germany, Denmark and Scandinavia, continues high over Great Britain generally, but is falling in the west of Ireland.

## WIND

Blows a strong gale from WSW. over the northern half of Norway — moderate SW in Denmark and Holland — It is moderate to fresh from SSW. over the greater part of England — fresh to strong from SW. in the Channel. Strong to gale from the SW. on the greater part of our western coast. In the extreme west of Ireland it has shifted to NW. and blows a moderate gale.

## WEATHER

Unsettled generally except in Spain and France. Sky is cloudy or overcast in most places, foggy in the Netherlands, raining and squally on our western coast, with a cloudy appearance in several parts of England. Rain has fallen generally except in the northwest, but amounts have been small.

## SEA

Moderate at our eastern and southern stations, rough elsewhere, high at Christiansund and Brest.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

To the "V" shaped disturbance <sup>advanced</sup> showery, gusty weather is likely to prevail very generally on our coast, and to be followed by a shift of wind to the NW. with a fall of temperature.

## FORECASTS

For the 24 hours ending at NOON on 19<sup>th</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

W<sup>1</sup> to NW<sup>1</sup> winds, squally, changeable, showery.  
 SW<sup>1</sup> to NW<sup>1</sup> winds, fresh or strong to light, squally, showery, becoming colder temporarily.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 10 IRELAND SOUTH

Wind shifting to NW<sup>1</sup>, strong; squally, showery to fair — colder.  
 NW<sup>1</sup> to SW<sup>1</sup> winds, moderating; colder, showery to fair.

### WARNINGS

The SOUTH CONE was hoisted last evening in districts 6, 7, 9, and 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:		Wind		Wea:	Sea			Bar:	Ther:		Wind		Wea:	Sea.
		D	W	D	F						D	W	D	F		
Skudesnaes ...	29.87	48	46	WSW	6	rf	6	Holyhead ...	...	30.30	51	52	SW	5	ogm	4
Sumburgh Head ...	29.86	45	43	W	8	bc	7	Valencia ...	...	30.31	54	54	SW	5	rm	5
Stornoway ...	29.88	47	46	W	5	C	5	Scilly ...	...	30.48	51	51	SW	4	f	6
Aberdeen ...	29.99	51	44	WSW	3	bc	3	Jersey ...	...	30.53	51	51	SW	1	f	3
Shields ...	30.14	53	52	SW	4	C	2	Dungeness ...	...	30.47	49	49	WSW	5	f	4
Ardrossan ...	30.14	52	49	W	4	bc	4	London ...	...	30.45	53	53	SW	1	omg	*
Malin Head ...	30.12	49	47	WSW	5	Cm	4	Yarmouth ...	...	30.35	52	51	WSW	3	cf	2
Mullaghmore ...	30.21	50	48	SW	3	C	5	Rocheport ...	...	30.67	43	42	SE	2	o	2
Belmullet ...	30.21	51	50	WSW	2	O	*									

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

The reports for yesterday morning showed that pressure was highest, 30.6 in: and upwards, in a long anticyclonic band extending from Austria to the Bay of Biscay and the Atlantic, and lowest, 29.6 in: and less, in a large depression lying to the northward of our Islands and the westward of Norway. Relatively low pressures, 30.2 in: and less, were also reported over the extreme south of Italy and the adjacent parts of the Mediterranean. The wind was moderate to strong from the West or S.W. over our Islands, the Netherlands, Denmark, the Baltic, and North Germany, but S. or S.E. over Norway and Northern Russia, with a gale at Skudsmoer. Over Spain, Italy, and the extreme south of France light or moderate breezes from the E. or N.E. were reported, while in Algeria the wind was chiefly N. The weather was fine over the greater part of Southern Europe, as well as in the north and east of Scotland, but cloudy or overcast elsewhere, with fog over Denmark, the Netherlands, France, and the southwest of England, rain in Tunis, and snow at many of the Russian stations. Temperature had fallen a little over the greater part of Russia, Germany and Austria, but risen elsewhere; readings ranged from 50° and upwards in many parts of the United Kingdom and at some of the Mediterranean stations to 10° or less over the south and extreme north of Russia. The highest individual readings were 53° at Nain, 54° at Ruth, Valencia, Brindisi, and Algiers, 53° at Donaghadee, and 52° at Aberdeen, Shields, Mullaghmore, and Rockpoint, the lowest were 3° at Nicobariff, 5° at Hankow, 9° at Odessa, 10° at Archangel and Kiew, 15° at Rudausk, 16° at Moscow, 17° at Lemberg, and 21° at Khabarovsk and Khabarovsk.

In the course of the day the large area to the northward of our Islands travelled eastwards, and the barometer rose quickly at all our more northern stations. In the west of Ireland, however, the mercury began to fall again, with backing winds, and a heavy ground sea.

### 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 *Thursday, 19<sup>th</sup> December, 1889.*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.	
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	29.24	33	SW	2	0	29.09	- .09	31	31	- 2	SW	2	0	*	34	?	-	
	Hernösand ...	29.27	35	S	6	0	29.49	- .16	35	32	0	WNW	6	6	*	37	30	0.08	
	Stockholm ...	29.57	41	SSW	4	0	29.46	- .15	38	35	- 1	W	6	6	*	43	36	0.04	
	Wisby ...	29.86	41	WSW	6	0	29.88	- .13	41	39	0	W	8	6	*	45	37	0.04	
	Boö ...	29.04	39	WSW	8	0	29.25	+ .22	33	33	- 4	W	8	5	*	39	?	-	
	Christiansund	29.34	37	W	6	5	29.63	+ .11	40	36	- 3	SW	6	6	*	?	34	0.98	
	Skudesnaes ...	29.70	43	WNW	8	7	29.97	+ .11	44	41	0	S	8	5	*	46	41	0.43	
	Christiania Fjord (Færder)	29.47	44	SW	9	0	29.92	+ .02	41	39	- 1	SW	3	5	*	45	41	-	
	Skagen (The Scaw)	29.63	46	W	9	0	30.08	+ .01	39	38	- 2	WNW	2	4	*	46	39	0.04	
	Fanö ...	29.97	43	SW	4	7	30.22	+ .06	37	36	- 3	W	2	4	*	45	37	0.04	
BRITISH ISLANDS.	Sumburgh Head	29.69	42	WNW	4	6	29.39	- .11	45	43	0	WSW	6	6	*	49	40	0.43	
	Stornöway ...	29.88	36	NW	3	6	29.54	+ .07	41	40	+ 1	WNW	6	5	*	45	35	0.48	
	Wick ...	29.84	36	NW	2	6	29.64	+ .20	41	40	- 5	W	2	2	*	48	35	0.10	
	Nairn ...	29.94	37	W	3	6	29.66	+ .13	43	42	- 9	WSW	5	3	*	52	34	0.09	
	Aberdeen ...	29.96	38	WSW	3	6	29.79	+ .14	43	40	- 6	SSW	5	4	*	51	36	0.09	
	Leith ...	30.06	46	WSW	4	6	29.89	+ .12	45	43	- 8	SW	6	6	*	53	43	0.02	
	Shields ...	30.08	42	W	4	6	30.08	+ .17	43	40	- 9	SW	4	2	*	53	36	-	
	Spurn Head ...	30.08	45	W	5	6	30.25	+ .16	37	36	- 11	SW	3	4	*	52	36	-	
	York ...	30.12	45	N	2	6	30.19	+ .14	36	35	- 14	S	1	4	*	54	33	-	
	Loughborough	30.19	46	WSW	3	0	30.32	+ .14	35	35	- 14	SW	3	4	*	54	30	0.02	
GERMANY.	Ardrossan ...	30.09	44	NW	4	6	29.90	+ .14	47	45	- 3	SSW	7	6	*	50	43	0.15	
	Malin Head ...	30.10	44	W	3	6	29.79	+ .16	45	45	- 3	SW	5	4	*	48	39	0.25	
	Mullaghmore ...	30.19	45	W	5	6	29.89	+ .20	48	46	- 1	SSW	5	4	*	50	40	0.17	
	Belmullet ...	30.19	45	WNW	4	6	29.86	+ .15	47	47	+ 2	WSW	6	4	*	49	40	0.26	
	Donaghadee ...	30.18	44	NW	2	6	30.00	+ .16	44	43	- 3	SW	4	3	*	49	35	0.02	
	Barrow-in-Furness	30.14	43	SW	4	6	30.14	+ .16	45	42	- 2	S	5	4	*	49	41	0.10	
	Liverpool (Bidston)	30.20	44	WNW	4	6	30.23	+ .20	39	37	- 11	S	2	3	*	52	36	0.02	
	Holyhead ...	30.22	46	NW	5	6	30.17	+ .16	46	44	- 4	SW	6	5	*	51	41	0.10	
	Parsonstown ...	30.27	38	WS	0	6	30.06	+ .20	45	42	- 4	SW	1	4	*	50	35	0.03	
	Valencia ...	30.36	44	WNW	2	6	30.11	+ .11	50	48	+ 2	SSW	7	6	*	50	42	0.06	
FRANCE AND NETHERLANDS.	Roche's Point...	30.35	45	WNW	3	6	30.21	+ .24	48	46	- 2	WSW	4	4	*	52	40	0.06	
	Pembroke (St. Ann's Hd.)	30.28	46	NW	5	6	30.27	+ .15	48	44	- 2	SW	5	5	*	51	44	0.05	
	Scilly ...	30.31	39	WNW	6	6	30.35	+ .12	48	44	- 3	SSW	3	4	*	52	42	0.01	
	Prawle Point...	30.23	46	WNW	3	6	30.38	+ .07	41	39	- 8	WSW	2	2	*	52	37	0.01	
	Jersey (St. Aubin's)	30.36	46	SSW	4	6	30.40	- .03	47	43	+ 1	NW	3	3	*	49	43	0.02	
	Hurst Castle ...	30.25	50	WSW	7	6	30.35	+ .01	36	36	- 13	W	1	3	*	50	35	0.10	
	Dungeness ...	30.25	46	WSW	3	6	30.34	- .01	40	40	- 9	N	2	2	*	49	40	0.12	
	London ...	30.24	48	W	4	6	30.35	+ .04	35	35	- 16	WS	0	4	*	51	34	0.04	
	Oxford ...	30.27	45	NW	1	6	30.36	+ .10	35	34	- 15	SW	1	4	*	52	34	0.05	
	Cambridge ...	30.20	50	SSW	1	6	30.35	+ .09	33	33	- 17	S	1	4	*	52	30	0.02	
PENINSULA.	Yarmouth ...	30.16	49	WSW	5	6	30.31	+ .05	35	34	- 14	NW	2	3	*	50	34	0.02	
	Cuxhaven ...	30.22	37	SW	6	6	30.33	+ .02	37	37	- 1	W	3	4	*	38	37	-	
	Berlin ...	30.33	37	SW	3	6	30.34	- .07	38	37	+ 2	SW	2	4	*	?	34	-	
	Wiesbaden ...	*	*	*	*	*	30.48	- .12	25	24	0	N	2	4	*	28	23	-	
	Munich ...	30.47	17	SE	2	6	30.42	- .16	16	16	+ 4	SE	2	4	*	25	12	-	
	The Helder ...	30.19	41	SW	4	6	30.31	+ .01	38	38	- 4	S	1	4	*	43	37	-	
	Brussels (9 a.m.)	*	*	*	*	*	30.41	- .03	32	32	- 1	SSW	1	4	*	34	29	-	
	Cape Gris Nez	?	42	SSW	5	6	?	?	41	41	- 2	SSW	2	3	*	45	37	0.08	
	Paris ...	30.47	27	S	2	6	30.46	- .11	30	30	+ 2	S	2	4	*	32	3	-	
	Brest ...	?	51	SW	5	6	?	?	48	44	- 3	WS	0	6	*	52	36	0.04	
FRANCE AND NETHERLANDS.	Lorient ...	30.41	50	SSW	2	6	30.40	- .04	46	46	0	NE	1	5	*	50	45	0.04	
	Rochefort ...	30.59	31	ESE	2	6	30.47	- .10	31	31	0	SE	2	2	*	37	25	-	
	Belfort ...	30.40	30	ESE	1	6	30.40	- .08	25	23	+ 2	N	1	4	*	38	22	-	
	Lyons ...	30.52	28	E	1	6	30.51	- .09	23	23	- 1	N	1	4	*	35	21	-	
	Nice ...	30.39	46	E	2	6	30.30	- .17	47	36	+ 8	E	3	1	*	55	?	-	
	Perpignan ...	30.46	35	SW	1	6	30.49	- .06	45	36	+ 18	NW	2	4	*	53	27	-	
	Biarritz ...	30.38	46	E	3	6	30.41	- .08	37	35	0	E	3	6	*	48	36	-	
	Corunna ...	30.40	49	NNE	3	6	30.42	- .04	40	36	+ 1	NNE	1	6	*	54	39	-	
	Lisbon ...	30.40	49	NNE	3	6	30.42	- .04	40	36	+ 1	NNE	1	6	*	54	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*, 19<sup>th</sup> December

1889.

## 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:

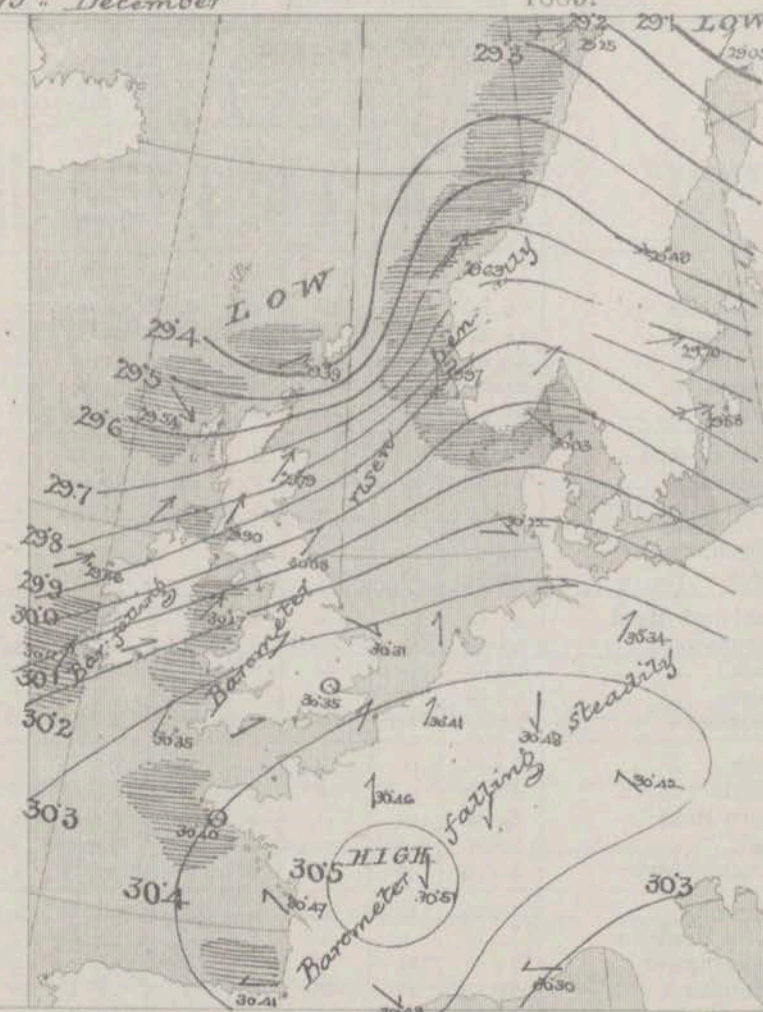
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Silly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914





# GENERAL SITUATION AT 8 A.M.

PRESSURE	<p>Highest, 30.3 in. to 30.5 in. in an anticyclone covering the Bay of Biscay, France, and Germany.</p> <p>Lowest, 29.1 in. and less, over the coast of Lapland, 29.4 in. and less over the Shetland Isles.</p> <p>Gradient steep over the northern parts of our Islands, moderate in the south, slight over the Continent.</p> <p>Barometer falling decidedly again in the west and northwest, still rising in east.</p>
TEMPERATURE	<p>Highest, 50° at Valencia, 48° at Valent, Scilly, Rocher Point, and Malin Head, and 45° at Malin Head and Loughbeg Head.</p> <p>Lowest, 16° at Munich, 23° at Lyons, 24° at Rochefort, 25° at Belfort and Wiesbaden, 31° at Haparanda, 33° at Frankfurt, 35° at London, Bedford and Loughborough.</p> <p>It has fallen very decidedly over the British Isles (except in the extreme east) during the night.</p>
WIND	<p>Strong to gale from W. in Sweden and Lapland, and from the S. in Norway.</p> <p>SSW, fresh to a moderate gale in Scotland and Ireland.</p> <p>Very light and variable over the southeast of England, France and Germany.</p> <p>The changes of wind have been very fitful since yesterday.</p> <p>Clear and bright over Scandinavia — fine over England, with local fog.</p> <p>Foggy in the Netherlands, dull over France, and the west and north of our Islands.</p> <p>Rain is falling again in the northwest of Ireland.</p> <p>Rainfall yesterday was slight except in the north and west of Scotland.</p>
WEATHER	
SEA	<p>Rough on parts of our northwestern and southern coasts, slight or smooth in the south and east.</p>

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

*Changeable unsettled weather is probable, with rain at times and southerly winds.*

## FORECASTS

For the 24 hours ending at NOON on 20<sup>th</sup> DEC 1889.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS
0 SCOTLAND NORTH	SW <sup>2</sup> to NW <sup>2</sup> winds, changeable; unsettled, rain at times	† 6 SCOTLAND WEST	Same as Nos 0 to 2.
1 SCOTLAND EAST		† 7 ENGLAND N.W.	
2 ENGLAND N.E.		8 ENGLAND S.W.	SW <sup>2</sup> and W <sup>2</sup> winds, strong, unsettled squally, rainy.
3 ENGLAND EAST	Calms, followed by increasing SW <sup>2</sup> to W <sup>2</sup> winds, very changeable, some rain.	† 9 IRELAND NORTH	
4 MIDLAND COUNTIES		† 10 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	The SOUTH CONE is still flying in districts 6, 7, 9, and 10.

No. 0.—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:		Wind		Wea:	Sea		Bar:		Ther:		Wind		Wea:	Sea.
	D	W	D	F	D	F				D	W	D	F	D	F		
Skudesnaes ...	29.56	46	46	SSW	8	r f	6		Holyhead ...	30.04	47	45	SW	6	b q	6	
Sumburgh Head ...	29.56	40	40	WNW	5	r	6		Valencia ...	30.29	49	44	SW	3	b m	3	
Stornoway ...	29.78	42	41	SW	3	b	4		Scilly ...	30.22	50	48	SW	6	c	6	
Aberdeen ...	29.70	41	39	WNW	7	b c ph	4		Jersey ...	30.38	46	45	SW	5	c	4	
Shields ...	29.79	52	49	SW	7	c	2		Dungeneas ...	30.27	46	46	WSW	6	m	4	
Ardrossan ...	29.87	46	44	SW	6	b	5		London ...	30.23	51	49	SSW	3	c m	3	
Malin Head ...	29.93	43	42	SW	6	b c	4		Yarmouth ...	30.17	50	49	WSW	4	c	3	
Mullaghmore ...	30.11	42	41	SW	6	b c q	5		Rochefort ...	30.54	33	31	SE	3	m	2	
Belmullet ...	30.14	46	43	WNW	4	b	3										

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

The reports for yesterday showed that pressure was highest, 30.6 in: and upwards, in an anticyclone lying over the southern part of Germany and Austria and the east of France and also in a separate area lying over Central Spain. The lowest reading, 29.1 in: and less, was found in a large depression lying over the north of Scandinavia, but another disturbance with reading below 29.5 in: was lying off the north of Scotland, while a trough of "V" shaped secondary systems was reported over our extreme western coasts. The wind was NW in the Hebrides and west of Ireland, but SW over Great Britain, Scandinavia, the North Sea, Denmark and North Germany, and W over Finland and the Baltic; in the west of our Islands it blew with the force of a moderate or fresh gale. The weather was fine over the greater part of Southern Europe and also in the north of Sweden, but cloudy or overcast elsewhere, with fog over the Netherlands and Germany, rain at our western and several of the German and Austrian stations, and snow over Russia, as well as at Lemberg and Constantinople. Temperature had fallen a little in many parts of Western Europe, but risen elsewhere; readings ranged from a little above 50° at some of the English, Scotch, and Mediterranean stations to a little below 20° in many parts of Russia and Austria. The highest individual readings were 56° at Malta, 54° at Brindisi, 53° at Leith, 52° at Kilm, Shields, and Sangunaire, 51° at Scilly, London, and Algiers, and 50° at York, Ardrossan, Holyhead, Liverpool, Rochford, Oxford, Lambrooke and Falmouth; the lowest were 12° at Munich, 15° at Nicolaieff, 16° at Odessa, 17° at Archangel, 18° at Hermanstadt, 19° at Moscow, Kiev, and Budapesth, 22° at Krasnod, and 23° at Rostoff.

In the course of the day the depression to the northward of our Islands travelled away in a northeasterly direction, and the barometer rose quickly on all our western and northern coasts. Towards night, however, the wind began to back again in the extreme west. A rapid fall of temperature took place over England, and sharp frost occurred on the ground at night.

### 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 *Friday, 20<sup>th</sup> December, 1889.*  
 Issued by the Meteorological Office, 63, Victoria Street, London. *R. H. SCOTT, Secretary.*

Issued by the Meteorological Office, 55, Abchurch Lane, London, E.C. 4, on 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 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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, 20<sup>th</sup> December.

1889.

## 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:

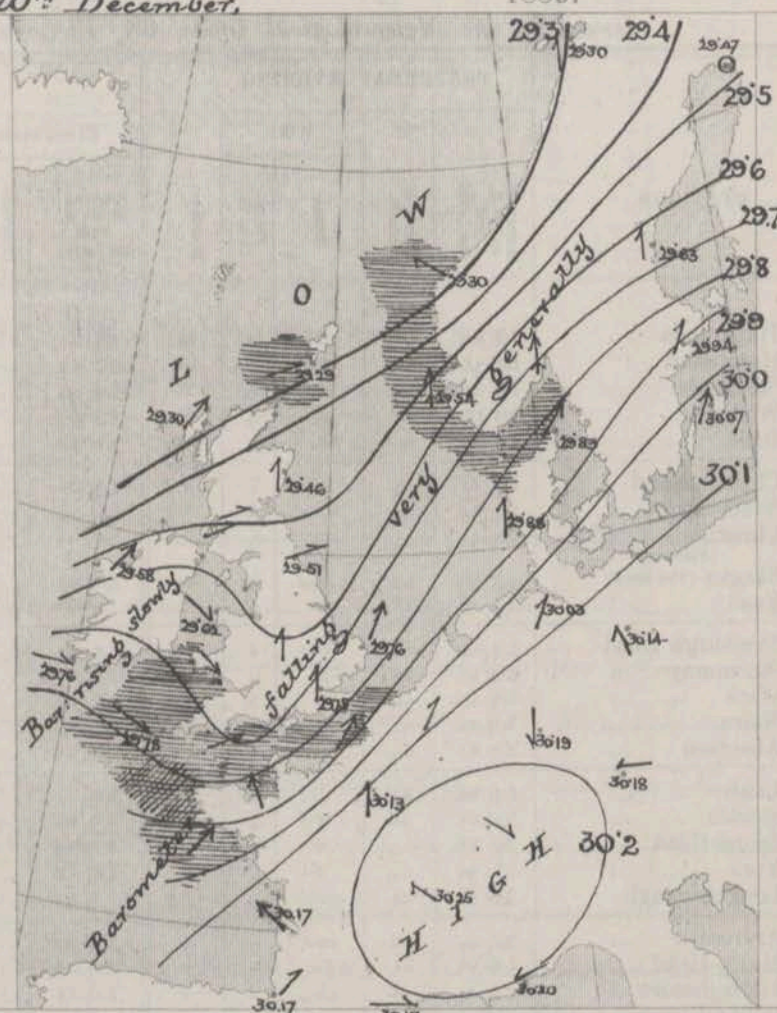
— Rough. — High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.916
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

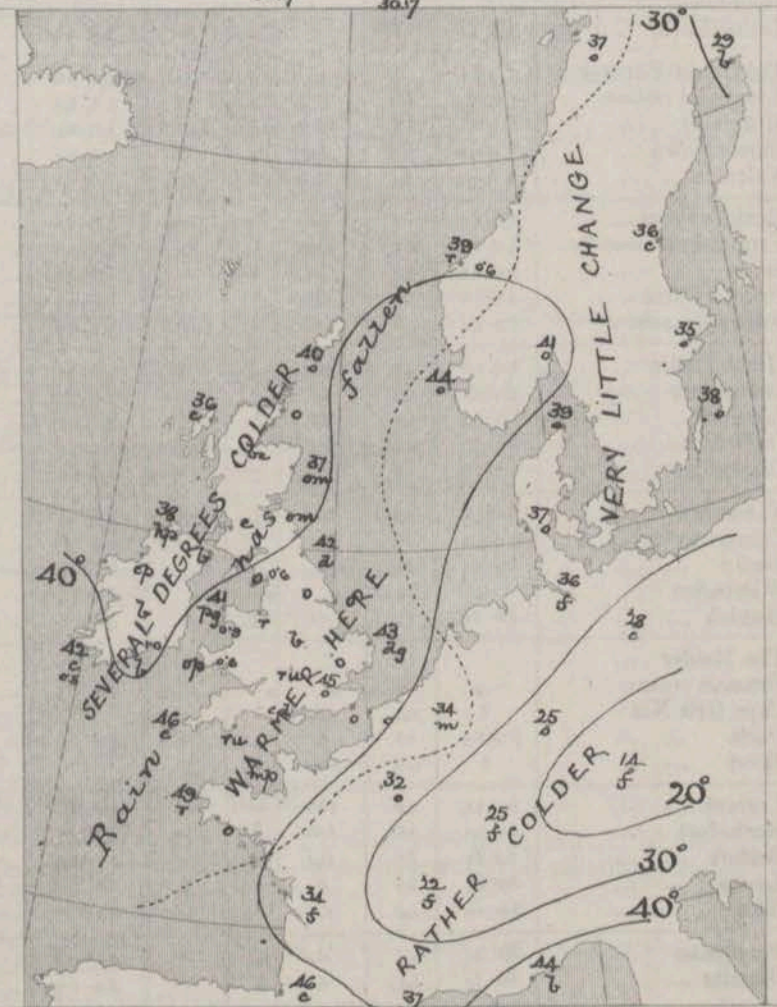
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.6	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.90
Yarmouth	42.4	34.2	38.3	37.5	2.95

**NOTE**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.0 ins: to 30.2 ins: and more, over Spain, France, and Germany.  
 Lowest, 29.3 ins: and less, off the north of Scotland and northward of Norway; and 29.7 ins: and less, in a V-shaped disturbance advancing eastward across England.  
 Gradient steep over the Channel, Belgium and north of France.  
 Barometer falling fast in east and southeast, apparently rising in Wales and west of England, motion uncertain at Irish stations.

## TEMPERATURE

Highest, 50° at Biskra and Lorient, 49° at Brest, 47° at Hurst Castle, 45° in London, and 42° at Shields.  
 Lowest, 14° at Munich, 22° at Lyons, 25° at Belfast and Nisabaden, 28° at Berlin, 29° at Haparanda, 32° at Paris, and 33° at Rangoon.  
 It is changing very suddenly from time to time over the British Isles.

## WIND

Strong S<sup>4</sup> gale in south of Norway — S<sup>4</sup>, strong to a gale in the east and south of England and the eastern half of the Channel.  
 NW<sup>4</sup> fresh to strong in Wales and the Scilly Islands.  
 W<sup>1</sup> to SW<sup>1</sup> again in Ireland and the north of Scotland.

## WEATHER

Fair (temporarily) in several parts of Ireland and at Scilly.  
 B. and squally over England and the Channel, with rain in several places.  
 Foggy in France and the Netherlands — B. and rainy in Norway.  
 Rainfall has been considerable in the western parts of our Islands.

## SEA

Very rough in the English Channel and over the Bay of Biscay, moderate or slight in most other places.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

As the "V" shaped depression moves eastward the wind is likely to shift to NW. over England and to decrease in force, with a decided fall of temperature. This change, however, is not likely to continue for long, a return of the wind to the SW<sup>4</sup> being likely to ensue a few hours later.

## FORECASTS

For the 24 hours ending at NOON on 21<sup>st</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

W<sup>4</sup> and SW<sup>4</sup> winds, moderate or light;  
 very changeable, some showers.  
 S<sup>4</sup> winds, strong, a gale in places, squally,  
 then NW<sup>4</sup>, moderate, colder, very changeable.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 10 IRELAND SOUTH

SW<sup>4</sup> breezes, increasing, showery, unsettled.

Wind backing to SW. and S. again; very unsettled, showery.

SW<sup>4</sup> and S<sup>4</sup> winds, increasing in force; squally, rain at times.

### WARNINGS

The SOUTH CONE was hoisted yesterday in districts 3 and 5 to 10 and is still flying.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudeanaes ...	29.88	44	42	S	8	r f	6	Holyhead ...	30.02	47	46	Sw	6	ompg	6
Sumburgh Head ...	29.50	43	42	WSW	5	bc	6	Valencia ...	29.90	48	47	WSW	6	rm	6
Stornoway ...	29.53	39	38	W	5	c	4	Scilly ...	30.21	49	48	WSW	5	o	5
Aberdeen ...	29.74	42	40	WSW	3	sf	4	Jersey ...	30.32	49	43	WSW	3	e	3
Shields ...	29.91	48	44	Sw	5	c	2	Dungeness ...	30.28	45	45	N	1	m	2
Ardrossan ...	29.72	47	46	SSW	5	r	4	London ...	30.25	47	44	S	3	bc	4
Malin Head ...	29.65	45	44	SSW	6	o	5	Yarmouth ...	30.22	42	41	SSW	3	b	2
Mullaghmore ...	29.71	46	45	S	6	rg	5	Rockefort ...	30.45	37	34	SE	3	m	2
Belmullet ...															

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

The reports for yesterday morning showed that pressure was highest, 30.4 ins. to 30.6 ins., in a long band which extended from Spain to the south of Russia, the highest reading of all being 30.62 ins. at Humantadt. The lowest readings 29.1 ins. and less, were found in a depression lying over Eastern Lapland, but another depression, with readings below 29.4 ins. was apparently lying to the northward of the Shetlands. The wind was SW<sup>ly</sup> or W<sup>ly</sup> over the greater part of northern and northwestern Europe, and strong to a gale in force in the west and north of our Islands as well as over the Baltic and Gulf of Finland. In the more southern countries, however, light breezes from the E<sup>nd</sup> or NE<sup>nd</sup> were reported, while in Algeria the wind was light and variable. The weather was fine in the east and south of England, as well as in Scandinavia, Denmark, and most part of Southern Europe. Elsewhere, however, the sky was cloudy or overcast, with fog at some of the English, French, and German stations, rain in the extreme northwest and north of our Islands, as well as over the Baltic and Gulf of Finland, and snow at Uleaborg and Kuopio. Temperature had risen several degrees in the south of France, and to a less extent over Central and Northern Russia, but fallen elsewhere; readings ranged from 48° and upwards in the western part of our Islands and at the Mediterranean stations to 40° or less over the southern part of Germany, Austria and Russia. The highest individual readings were 56° at Malta, 52° at Brindisi, 51° at Algiers, 50° at Valencia and Sanquianaire and 48° at Mullaghmore, Rock Point, Pembroke, Scilly, Brest, Genoa and La Cote; the lowest were 9° at Kharkov and Nicolaiiff, 15° at Odessa, 16° at Munich, 17° at Humantadt, 19° at Prague, 21° at Vienna, Ruda Ruth and Kiev, and 23° at Lyons.

In the course of the day the barometer fell rapidly in the west of our Islands, and the wind there increased from the SW<sup>nd</sup>. Temperature rose fast over England, maxima exceeding 45° being reported in most places.

### 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, 21<sup>st</sup> December, 1889.*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

STATIONS.		YESTERDAY EVENING.						8 A.M. TO DAY.								PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 8.)	SHADE TEMP.			
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	29.27	35	SW	2	0	29.18	-29	35	34	+6	X	0	T	*	36	23	—
	Hernösand ...	29.448	36	SW	6	0	29.15	-46	35	34	-1	SW	8	0	*	41	28	—
	Stockholm ...	29.70	38	SW	4	0	29.45	-45	37	34	+2	SW	6	0	*	45	34	—
	Wisby ...	29.81	39	SW	4	0	29.68	-39	39	37	+1	SW	6	0	*	41	34	—
	Bodö ...	29.11	35	SE	2	0	29.05	-25	34	33	-3	E	2	6	1	37	25	0.28
	Christiansund ...	29.24	40	SE	2	0	29.03	-27	36	35	-3	SW	3	8	5	41	?	0.08
	Skudesnaes ...	29.23	38	WNW	3	T	29.27	-27	36	36	-8	SW	4	T	5	45	34	—
	Christiania Fjord (Færder) ...	29.49	40	S	8	0	29.30	-43	40	38	-1	SW	9	6	6	41	39	—
	Skagen (The Scaw) ...	29.46	38	SW	7	m	29.45	-38	37	37	-2	SW	6	6	5	39	36	0.04
	Fanö ...	29.54	37	SE	6	0	29.63	-25	40	39	+3	SW	4	C	*	41	37	0.04
BRITISH ISLANDS.	Sumburgh Head ...	29.21	39	WSW	2	bc	29.20	-09	35	31	-5	X	0	0	3	42	33	0.15
	Stornoway ...	29.24	34	W	3	bc	29.28	-02	39	38	+3	N	4	exp	4	39	32	0.42
	Wick ...	29.26	35	SW	1	C	29.27	-10	35	34	-2	SW	3	exp	2	39	32	0.03
	Nairn ...	29.28	36	WSW	1	bc	29.31	-08	35	34	0	WSW	2	bc	2	39	32	—
	Aberdeen ...	29.34	35	SW	2	bc	29.37	-09	33	31	-4	S	1	bc	3	38	30	—
	Leith ...	29.41	37	W	5	C	29.46	-04	38	36	-2	WSW	3	bc	*	43	34	0.04
	Shields ...	29.49	39	SW	3	bc	29.47	-07	39	36	-3	SW	4	0	2	42	35	0.02
	Spurn Head ...	29.60	38	SW	4	bc	29.62	+02	37	36	-6	S	4	0	4	45	36	0.19
	York ...	29.59	37	WNW	1	bc	29.58	+03	38	37	-3	SW	2	0	*	45	35	0.09
	Loughborough ...	29.69	37	W	4	bc	29.68	+07	38	37	-5	SW	4	T	*	46	35	0.36
BRITISH ISLANDS.	Ardrossan ...	29.44	41	WSW	4	of	29.47	-04	41	40	-1	WSW	4	C	3	46	37	0.34
	Malin Head ...	29.43	38	WNW	6	exp	29.50	+02	42	39	+4	NW	5	bc	4	42	36	0.13
	Mullaghmore ...	29.56	42	WSW	6	exp	29.60	+02	42	41	+3	NW	4	exp	4	44	35	0.45
	Belmullet ...	29.61	42	W	6	bc	29.61	+02	44	43	+6	NW	1	bc	*	46	37	0.32
	Donaghadee ...	29.55	38	SW	2	C	29.58	-01	37	37	+4	W	3	bc	1	40	33	—
	Barrow-in-Furness ...	29.54	42	WSW	5	0	29.53	-03	40	39	0	SW	3	T	*	42	35	0.14
	Liverpool (Bidston) ...	29.64	38	SW	3	bc	29.58	-02	42	41	+3	WSW	5	0	4	43	37	0.25
	Holyhead ...	29.64	42	WSW	3	09	29.63	+01	45	44	+4	W	5	exp	5	46	41	0.13
	Parsonstown ...	29.69	36	2	0	bc	29.67	0.0	44	42	+11	SW	2	0	*	45	32	0.11
	Valencia ...	29.83	45	WNW	5	exp	29.76	0.0	49	48	+7	WSW	3	Tm	3	49	39	0.18
GERMANY.	Roche's Point ...	29.82	41	WNW	5	p	29.80	+05	46	45	+7	W	4	of	4	46	38	0.20
	Pembroke (St. Ann's Hd.) ...	29.75	44	W	6	bc	29.76	+08	49	47	+6	W	6	exp	6	49	40	0.43
	Scilly ...	29.87	45	WNW	6	bc	29.93	+15	50	48	+4	WSW	6	C	6	50	40	0.15
	Prawle Point ...	29.89	40	WNW	6	C	29.91	+24	47	45	+3	W	6	bc	4	47	39	0.23
	Jersey (St. Aubin's) ...	29.95	46	WNW	4	bc	30.00	+14	48	46	+4	WSW	4	exp	3	49	42	0.31
	Hurst Castle ...	29.86	44	WNW	4	bc	29.88	+15	47	45	0	W	6	bc	4	47	42	0.17
	Dungeness ...	29.81	41	WNW	5	C	29.86	+03	44	42	-1	W	4	C	3	47	33	—
	London ...	29.81	37	WNW	3	bc	29.83	+08	39	37	-6	SW	2	C	*	46	36	0.08
	Oxford ...	29.81	37	W	4	bc	29.79	+14	40	38	-6	SW	5	0	*	46	35	0.06
	Cambridge ...	29.74	35	SW	1	bc	29.79	+11	37	35	-8	SW	2	0	*	46	31	0.03
GERMANY.	Yarmouth ...	29.69	37	W	5	bc	29.75	-01	35	34	-8	WSW	3	bc	3	44	32	0.01
	Cuxhaven ...	29.80	35	S	6	f	29.83	-20	36	36	0	SW	5	0	*	37	35	—
	Berlin ...	29.93	31	SE	4	bc	29.99	-15	35	32	+7	SW	3	C	*	36	?	—
	Wiesbaden ...	*	*	*	*	*	30.08	-11	30	30	+5	NW	1	0	*	30	?	—
	Munich ...	30.07	16	NE	2	bc	30.07	-11	15	14	+1	SE	3	bc	*	23	12	—
	The Helder ...	29.71	41	W	4	C	29.78	-04	40	39	+3	SW	4	C	4	41	36	0.04
	Brussels (9 a.m.) ...	?	*	*	*	*	29.97	?	37	36	+3	SW	5	0	*	37	?	—
	Cape Gris Nez ...	?	42	W	6	bc	?	?	44	41	+3	W	5	bc	5	46	39	0.04
	Paris ...	30.00	35	SW	3	0	30.09	-04	34	33	+2	SW	1	bc	*	?	?	0.04
	Brest ...	?	49	W	5	0	?	?	51	48	+2	SW	6	T	7	52	34	0.24
FRANCE AND NETHERLANDS.	Lorient ...	30.15	45	NW	3	bc	30.28	+11	45	44	+11	W	3	C	2	46	?	0.16
	Rochefort ...	30.08	33	NW	1	C	30.12	+01	35	30	+10	W	1	0	*	35	24	0.04
	Belfort ...	30.15	31	SE	1	bc	30.24	-01	36	36	+14	WNW	3	T	*	36	?	0.04
	Nice ...	30.11	48	SE	4	C	30.08	-12	41	37	-3	WNW	5	bc	1	54	39	—
	Perpignan ...	30.15	47	NW	3	0	30.23	+06	45	40	+8	NW	3	0	*	52	?	—
	Biarritz ...	30.13	49	WSW	4	T	30.28	+11	51	45	+5	WNW	3	0	7	52	45	0.12
	Corunna ...	30.20	51	NNW	4	bc	30.35	+07	46	42	-3	N	4	bc	?	57	45	—
	Lisbon ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	—
	GENOVA ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	—

For Explanation of Columns, see bottom of p 4.

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



## 1889.

### EXPLANATION OF MAP

→ = forces above 10; → = forces 8 to 10;  
 → = forces 6 to 7; → = forces 1 to 4.  
 ⊙ = dead calm.

 = Rough,  = High.

*During the 15 Years: 1871—1885.*

A hand-drawn weather map of the North Atlantic Ocean, showing isobars, isotherms, and weather systems. The map includes the following features:

- Isobars:** Labeled with values such as 29.03, 29.27, 29.30, 29.37, 29.47, 29.63, 29.78, 29.83, 29.93, 30.03, 30.08, 30.1, 30.24, and 30.28.
- Isotherms:** Labeled with values such as 29.1, 29.18, 29.2, 29.3, 29.4, 29.5, 29.6, 29.7, 29.8, 29.9, 30.0, 30.1, 30.2, 30.3, 30.4, 30.5, 30.6, 30.7, 30.8, 30.9, 31.0, 31.1, 31.2, 31.3, 31.4, 31.5, 31.6, 31.7, 31.8, 31.9, 32.0, 32.1, 32.2, 32.3, 32.4, 32.5, 32.6, 32.7, 32.8, 32.9, 33.0, 33.1, 33.2, 33.3, 33.4, 33.5, 33.6, 33.7, 33.8, 33.9, 34.0, 34.1, 34.2, 34.3, 34.4, 34.5, 34.6, 34.7, 34.8, 34.9, 35.0, 35.1, 35.2, 35.3, 35.4, 35.5, 35.6, 35.7, 35.8, 35.9, 36.0, 36.1, 36.2, 36.3, 36.4, 36.5, 36.6, 36.7, 36.8, 36.9, 37.0, 37.1, 37.2, 37.3, 37.4, 37.5, 37.6, 37.7, 37.8, 37.9, 38.0, 38.1, 38.2, 38.3, 38.4, 38.5, 38.6, 38.7, 38.8, 38.9, 39.0, 39.1, 39.2, 39.3, 39.4, 39.5, 39.6, 39.7, 39.8, 39.9, 40.0, 40.1, 40.2, 40.3, 40.4, 40.5, 40.6, 40.7, 40.8, 40.9, 41.0, 41.1, 41.2, 41.3, 41.4, 41.5, 41.6, 41.7, 41.8, 41.9, 42.0, 42.1, 42.2, 42.3, 42.4, 42.5, 42.6, 42.7, 42.8, 42.9, 43.0, 43.1, 43.2, 43.3, 43.4, 43.5, 43.6, 43.7, 43.8, 43.9, 44.0, 44.1, 44.2, 44.3, 44.4, 44.5, 44.6, 44.7, 44.8, 44.9, 45.0, 45.1, 45.2, 45.3, 45.4, 45.5, 45.6, 45.7, 45.8, 45.9, 46.0, 46.1, 46.2, 46.3, 46.4, 46.5, 46.6, 46.7, 46.8, 46.9, 47.0, 47.1, 47.2, 47.3, 47.4, 47.5, 47.6, 47.7, 47.8, 47.9, 48.0, 48.1, 48.2, 48.3, 48.4, 48.5, 48.6, 48.7, 48.8, 48.9, 49.0, 49.1, 49.2, 49.3, 49.4, 49.5, 49.6, 49.7, 49.8, 49.9, 50.0, 50.1, 50.2, 50.3, 50.4, 50.5, 50.6, 50.7, 50.8, 50.9, 51.0, 51.1, 51.2, 51.3, 51.4, 51.5, 51.6, 51.7, 51.8, 51.9, 52.0, 52.1, 52.2, 52.3, 52.4, 52.5, 52.6, 52.7, 52.8, 52.9, 53.0, 53.1, 53.2, 53.3, 53.4, 53.5, 53.6, 53.7, 53.8, 53.9, 54.0, 54.1, 54.2, 54.3, 54.4, 54.5, 54.6, 54.7, 54.8, 54.9, 55.0, 55.1, 55.2, 55.3, 55.4, 55.5, 55.6, 55.7, 55.8, 55.9, 56.0, 56.1, 56.2, 56.3, 56.4, 56.5, 56.6, 56.7, 56.8, 56.9, 57.0, 57.1, 57.2, 57.3, 57.4, 57.5, 57.6, 57.7, 57.8, 57.9, 58.0, 58.1, 58.2, 58.3, 58.4, 58.5, 58.6, 58.7, 58.8, 58.9, 59.0, 59.1, 59.2, 59.3, 59.4, 59.5, 59.6, 59.7, 59.8, 59.9, 60.0, 60.1, 60.2, 60.3, 60.4, 60.5, 60.6, 60.7, 60.8, 60.9, 61.0, 61.1, 61.2, 61.3, 61.4, 61.5, 61.6, 61.7, 61.8, 61.9, 62.0, 62.1, 62.2, 62.3, 62.4, 62.5, 62.6, 62.7, 62.8, 62.9, 63.0, 63.1, 63.2, 63.3, 63.4, 63.5, 63.6, 63.7, 63.8, 63.9, 64.0, 64.1, 64.2, 64.3, 64.4, 64.5, 64.6, 64.7, 64.8, 64.9, 65.0, 65.1, 65.2, 65.3, 65.4, 65.5, 65.6, 65.7, 65.8, 65.9, 66.0, 66.1, 66.2, 66.3, 66.4, 66.5, 66.6, 66.7, 66.8, 66.9, 67.0, 67.1, 67.2, 67.3, 67.4, 67.5, 67.6, 67.7, 67.8, 67.9, 68.0, 68.1, 68.2, 68.3, 68.4, 68.5, 68.6, 68.7, 68.8, 68.9, 69.0, 69.1, 69.2, 69.3, 69.4, 69.5, 69.6, 69.7, 69.8, 69.9, 70.0, 70.1, 70.2, 70.3, 70.4, 70.5, 70.6, 70.7, 70.8, 70.9, 71.0, 71.1, 71.2, 71.3, 71.4, 71.5, 71.6, 71.7, 71.8, 71.9, 72.0, 72.1, 72.2, 72.3, 72.4, 72.5, 72.6, 72.7, 72.8, 72.9, 73.0, 73.1, 73.2, 73.3, 73.4, 73.5, 73.6, 73.7, 73.8, 73.9, 74.0, 74.1, 74.2, 74.3, 74.4, 74.5, 74.6, 74.7, 74.8, 74.9, 75.0, 75.1, 75.2, 75.3, 75.4, 75.5, 75.6, 75.7, 75.8, 75.9, 76.0, 76.1, 76.2, 76.3, 76.4, 76.5, 76.6, 76.7, 76.8, 76.9, 77.0, 77.1, 77.2, 77.3, 77.4, 77.5, 77.6, 77.7, 77.8, 77.9, 78.0, 78.1, 78.2, 78.3, 78.4, 78.5, 78.6, 78.7, 78.8, 78.9, 79.0, 79.1, 79.2, 79.3, 79.4, 79.5, 79.6, 79.7, 79.8, 79.9, 80.0, 80.1, 80.2, 80.3, 80.4, 80.5, 80.6, 80.7, 80.8, 80.9, 81.0, 81.1, 81.2, 81.3, 81.4, 81.5, 81.6, 81.7, 81.8, 81.9, 82.0, 82.1, 82.2, 82.3, 82.4, 82.5, 82.6, 82.7, 82.8, 82.9, 83.0, 83.1, 83.2, 83.3, 83.4, 83.5, 83.6, 83.7, 83.8, 83.9, 84.0, 84.1, 84.2, 84.3, 84.4, 84.5, 84.6, 84.7, 84.8, 84.9, 85.0, 85.1, 85.2, 85.3, 85.4, 85.5, 85.6, 85.7, 85.8, 85.9, 86.0, 86.1, 86.2, 86.3, 86.4, 86.5, 86.6, 86.7, 86.8, 86.9, 87.0, 87.1, 87.2, 87.3, 87.4, 87.5, 87.6, 87.7, 87.8, 87.9, 88.0, 88.1, 88.2, 88.3, 88.4, 88.5, 88.6, 88.7, 88.8, 88.9, 89.0, 89.1, 89.2, 89.3, 89.4, 89.5, 89.6, 89.7, 89.8, 89.9, 90.0, 90.1, 90.2, 90.3, 90.4, 90.5, 90.6, 90.7, 90.8, 90.9, 91.0, 91.1, 91.2, 91.3, 91.4, 91.5, 91.6, 91.7, 91.8, 91.9, 92.0, 92.1, 92.2, 92.3, 92.4, 92.5, 92.6, 92.7, 92.8, 92.9, 93.0, 93.1, 93.2, 93.3, 93.4, 93.5, 93.6, 93.7, 93.8, 9

(For the month of December.)

A hand-drawn weather map of the United States, showing isotherms and weather notes. The map includes latitude and longitude lines. Isotherms are drawn and labeled with temperatures: 40°, 30°, 20°, 10°, and 0°. Weather notes include "SEVERAL DEGREES WARMER" near the 40° isotherm, "RAIN" near the 50° latitude line, "WARMER IN" near the 10° isotherm, "COLDER" near the 0° isotherm, and "Snow has fallen" near the 30° isotherm. Other labels include "fallen" and "MOST PLACES".

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1860-85.



# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.1 in. to nearly 30.3 in. over the southwestern half of France and the north of Spain.  
Lowest, 29.1 in. and less, over the northwest of Norway and adjacent parts of Atlantic.  
Gradient moderate but somewhat variable.  
Barometer rising slightly in east and south, falling again Valencia.

## TEMPERATURE

Highest, 51° at Biarritz and Besat, 50° at Sicily, 45° at Ambroise and Valencia, 44° at Bismarck and (Dungeness).  
Lowest, 15° at Iberia, 30° at Wiesbaden, 33° at Aberdeen, 34° at Paris and also at Rode, 35° at Berlin, 40° at Hamburg, 41° at London.  
Frost occurred on the ground over Central England during the night.

## WIND

SW at stations lying to the eastward of the North Sea - moderate in Denmark and Norway, a gale in Sweden.  
SW to W over Great Britain - strong on the Channel coasts, moderate elsewhere.  
W to NW in Ireland, but backing again at Valencia.

## WEATHER

Very changeable; fair at present at several northern and eastern stations.  
Cloudy or overcast in most other places - showery in the southwest, rain at Skutumpah, snow at Christchurch.  
Rain has fallen all over our Islands; appearance of sky is unsettled in London and over Devonshire.

## SEA

Rough in the far north, and also on our southeast coasts and at Holyhead.  
Moderate generally in most other places, smooth in the northeast.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

With the present distribution of pressure, the renewed fall of the barometer, the backing wind, and appearance of the sky over England point to the approach of new disturbances from the Atlantic.

[Telegrams received later on have led to the issue of warnings to the Irish Coast.]

## FORECASTS

For the 24 hours ending at NOON on 22<sup>nd</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

Wind becoming S<sup>w</sup>, force doubtful, but increasing; very unsettled, rainy.  
SW<sup>w</sup> and S<sup>w</sup> winds, increasing; rain at times, becoming very unsettled again.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 10 IRELAND SOUTH

Same as Nos 0 to 2

SW<sup>w</sup> and S<sup>w</sup> winds, increasing considerably; rainy, very unsettled.

### WARNINGS

The SOUTH CONE has been hoisted in districts 9 and 10 at 11.30 am.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea.
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.41	44.7	44.7	W	5	f	6		Holyhead ...	29.64	42	W	3	bc	3
Sumburgh Head ...	29.25	40	37	W	3	bc	3		Valencia ...	29.76	46	W	5	cyp	6
Stornoway ...	29.25	37	37	W	5	r	5		Scilly ...	29.87	43	W	6	ogrh	6
Aberdeen ...	29.38	37	35	W	1	bc	4		Jersey ...	29.86	46	W	4	cyp	4
Shields ...	30.49	40	38	W	2	o d	2		Dungeness ...	29.65	46	W	9	og	6
Ardrossan ...	29.46	42	37	W	4	bc	3		London ...	29.71	43	W	4	orc	2
Malin Head ...	29.42	38	37	W	6	ogrh	5		Yarmouth ...	29.59	43	W	6	ogrh	5
Mullaghmore ...	29.33	40	38	W	6	ep	5		Rochefort ...	30.11	43	W	5	o	3
Belmullet ...	29.57	42	40	W	6	bc	4								

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

The reports for yesterday morning showed that pressure was highest, 30.5 ins: and upwards, in an anticyclone lying over the southern parts of Russia and Austria, but high, 30.3 ins: and upwards, in another system lying off the south of Portugal. The lowest readings, 29.3 ins: and less, were found in a large area lying to the northward of our Islands and the westward of Norway, whence a trough of V-shaped secondary depressions extended S<sup>W</sup> across Great Britain. The wind was NW<sup>1</sup> over Wales and the coast of England, but SW<sup>1</sup> or S<sup>1</sup> in nearly all other parts of western and northwestern Europe; in force it was moderate or fresh generally, but in the eastern part of the Channel it blew a moderate to fresh gale, while in the south of Norway there was a fresh to strong gale. Over Austria light SE breezes were reported, but in Spain, Italy, Algeria, and the south of France the wind was light and variable. The weather was fine in Ireland and also in Italy and the south of France, but cloudy or overcast elsewhere, with fog in many parts of Central Europe, rain over England and snow at Vienna. Temperature had risen several degrees over the southeastern parts of England, and to a less extent in France and Russia, but fallen elsewhere; readings ranged from 45° and upwards in the south of England and at many of the Spanish and Mediterranean stations, to 20° or less at some of the stations in Germany, Austria, and Russia. The highest individual readings were 52° at Brindisi, 50° at Lorient, and Sanguinaria, and Algiers, 49° at Rome, Cassino and Lisbon, 47° at Hurst Castle, and 46° at Oxford, Seilly, Biscaritz, Toulon, and Barcelona; the lowest were 13° at Hermannstadt and Odessa, 14° at Munich and Nikolaioff, 20° at Prague, 21° at Cassow and Andakent, and 22° at Lyons and Vienna.

In the course of the day the V-shaped depressions over Great Britain moved eastwards, and the wind veered to the NW<sup>2</sup> or NW<sup>3</sup> on all but our northeast coasts. The sky cleared over England and sharp frost was experienced in some places at night.

## 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 22<sup>nd</sup> DEC<sup>r</sup> 1883.  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

Issued by the Meteorological Office, 5, Brompton Road, London, W. H. SCOTT, Secretary.																			
STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.			
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.			
			Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.		Min.		
SCANDINAVIA.	Haparanda ...	28.92	32	SW	2	S	29.25	+ .07	22	22	- 13	Z	0	bc	*	36	?	0.24	
	Hernösand ...	29.21	36	SW	4	b	29.41	+ .26	25	24	- 10	Z	0	b	*	41	?	—	
	Stockholm ...	29.24	36	SSW	4	0	29.49	+ .24	35	33	- 2	S	2	r	*	41	34	—	
	Wisby ...	29.32	37	SW	6	0	29.47	- .21	34	33	- 5	SSE	4	s	*	41	?	0.08	
	Bodö ...	29.08	29	E	2	b	29.24	+ .19	30	26	- 4	E	4	s	2	34	?	—	
	Christiansund	29.21	38	SW	4	S	29.43	+ .40	37	34	+ 1	SW	6	s	5	?	34	0.35	
	Skudesnaes ...	29.39	39	SSE	4	C	?	?	35	35	- 1	Z	0	bc	4	40	?	—	
	Christiania Fjord (Fierder)	29.39	40	SW	5	b	29.47	+ .17	33	31	- 4	NNW	2	b	4	?	32	—	
	Skagen (The Scaw)	29.46	37	SW	6	b	29.50	+ .05	32	31	- 5	SW	1	b	8	39	32	0.04	
	Fanö ...	29.48	33	W	2	0	29.58	- .05	37	36	- 3	W	2	b	*	41	32	0.08	
BRITISH ISLANDS.	Sumburgh Head	29.42	34	N	3	b	29.48	+ .28	36	34	+ 1	SE	2	c	3	34	29	0.25	
	Stornoway ...	29.51	31	N	2	b	29.21	- .07	39	39	0	S	5	r	5	40	29	0.12	
	Wick ...	29.46	29	Z	0	b	29.36	+ .09	40	38	+ 5	S	8	ow	4	40	25	0.01	
	Nairn ...	29.51	34	SW	1	b	29.36	+ .05	35	34	0	Z	0	r	1	40	27	0.03	
	Aberdeen ...	29.53	35	W	3	b	29.44	+ .07	40	36	+ 7	SSE	4	opq	4	41	27	?	
	Leith ...	29.57	34	W	2	C	29.39	- .07	37	37	- 1	E	1	or	*	41	31	0.18	
	Shields ...	29.60	38	WSW	2	b	29.42	- .05	42	42	+ 3	ENE	4	r	3	42	34	0.11	
	Spurn Head ...	29.64	30	WSW	3	b	29.41	- .21	43	42	+ 6	SSE	3	rmv	4	43	37	0.11	
	York ...	29.62	37	W	1	bc	29.41	- .17	41	40	+ 3	ESE	1	f	*	42	33	0.11	
	Loughborough	29.69	40	SW	1	0	29.45	- .23	51	50	+ 13	SW	3	o	*	51	37	0.57	
GERMANY.	Ardrossan ...	29.55	39	NNW	1	b	29.34	- .13	36	36	- 5	NE	3	om	1	46	34	0.08	
	Malin Head ...	29.48	37	SSE	4	bc	29.27	- .23	46	46	+ 4	SW	3	or	2	47	37	0.13	
	Mullaghmore ...	29.45	44	ESE	5	or	29.24	- .26	47	46	+ 5	SW	4	om	3	51	42	0.19	
	Belmullet ...	29.37	46	SE	4	0	29.34	- .27	49	48	+ 5	WSW	3	o	*	50	41	0.26	
	Donaghadee ...	29.58	36	SW	3	b	29.34	- .24	47	47	+ 10	WSW	3	o	1	47	35	0.17	
	Barrow-in-Furness	29.61	41	NNW	2	bc	29.37	- .16	43	43	+ 2	ENE	1	fd	*	44	37	0.37	
	Liverpool (Bidston)	29.64	42	SSW	1	0	29.44	- .14	48	47	+ 6	WSW	4	o	4	49	40	0.35	
	Holyhead ...	29.61	45	Z	0	rmg	29.43	- .20	49	48	+ 4	W	2	gdm	2	56	43	0.35	
	Parsonstown ...	29.45	47	Z	0	r	29.43	- .24	46	45	+ 2	Z	0	o	*	52	43	0.28	
	Valencia ...	29.49	53	SW	6	rmg	29.48	- .28	50	49	+ 1	WSW	3	rm	4	53	47	0.68	
FRANCE AND NETHERLANDS.	Roche's Point...	29.56	52	SSW	6	rmv	29.49	- .31	49	47	+ 3	WSW	3	o	4	53	46	0.45	
	Pembroke (St. Ann's Hd.)	29.56	48	SSW	6	r	29.53	- .23	50	49	+ 1	WSW	5	c	6	51	46	0.38	
	Scilly ...	29.73	51	SW	7	rf	29.63	- .30	51	51	+ 1	SSW	4	fd	6	53	48	0.45	
	Prawle Point ...	29.79	49	SSW	7	n	29.65	- .26	49	49	+ 2	WSW	4	fd	4	51	46	0.79	
	Jersey (St. Aubin's)	29.93	50	WSW	5	vgm	29.75	- .25	53	52	+ 5	WSW	5	omr	4	53	47	0.34	
	Hurst Castle ...	29.79	48	W	7	op	29.60	- .28	51	50	+ 4	WSW	7	cd	7	51	45	0.27	
	Dungeness ...	29.77	48	W	5	o	29.58	- .28	53	49	+ 6	WSW	6	r	4	50	43	0.22	
	London ...	29.77	48	SW	2	o	29.57	- .26	51	50	+ 12	WSW	3	od	*	51	39	0.25	
	Oxford ...	29.70	46	SW	2	r	29.53	- .26	50	49	+ 10	WSW	4	om	*	52	40	0.23	
	Cambridge ...	29.72	40	SW	1	r	29.51	- .28	52	51	+ 15	SW	2	r	*	52	35	0.40	
PENIN- SULA.	Yarmouth ...	29.69	41	WNW	2	C	29.51	- .24	47	46	+ 12	SSW	3	ofg	3	47	34	0.25	
	Cuxhaven ...	29.73	34	SW	7	S	29.69	- .14	33	32	- 3	SSW	2	f	*	38	32	0.04	
	Berlin ...	29.95	34	SW	4	C	29.82	- .17	37	35	+ 2	SSW	2	o	*	37	34	—	
	Wiesbaden ...	*	*	*	*	*	29.96	- .12	39	37	+ 9	SW	2	r	*	39	26	0.04	
	Munich ...	30.17	28	Z	0	b	30.13	+ .06	27	25	+ 12	SW	4	C	*	36	14	—	
	The Helder ...	29.67	42	W	2	b	29.59	- .19	42	42	+ 2	S	2	r	3	43	39	0.24	
	Brussels (9 a.m.)	*	*	*	*	*	29.72	- .25	45	44	+ 8	SSW	4	r	*	45	41	0.32	
	Cape Gris Nez	?	46	W	6	r	?	?	48	?	+ 4	WSW	7	r	7	50	37	0.43	
	Paris ...	30.04	41	SSW	4	0	29.90	- .19	45	?	+ 11	SSW	1	b	*	?	?	—	
	Brest ...	?	50	W	7	r	?	?	53	51	+ 2	WSW	8	r	8	54	39	0.16	
FRANCE AND NETHERLANDS.	Lorient ...	30.02	51	WSW	5	0	29.88	- .20	52	51	+ 5	WSW	6	o	7	53	48	0.21	
	Rochefort ...	30.22	48	W	3	C	30.15	- .13	52	50	+ 7	WSW	5	o	7	?	43	0.16	
	Belfort ...	30.11	35	S	1	0	30.08	- .04	36	32	+ 1	S	1	o	*	40	30	—	
	Lyons ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—
	Nice ...	30.06	45	ENE	5	b	30.17	+ .09	40	36	- 1	E	4	b	1	54	37	—	
	Perpignan ...	30.26	47	NNW	2	b	30.27	+ .04	35	32	- 10	SW	1	C	*	52	34	—	
	Biarritz ...	30.30	51	W	5	a	30.23	- .05	48	43	- 3	W	3	b	4	52	45	—	
	Corunna ...	30.21	48	*	*	*	30.21	- .15	53	51	+ 10	S	5	a	4	55	41	—	
	Lisbon ...	30.39	48	N	4	b	30.43	+ .08	40	38	- 6	NNE	2	b	6	54	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

Sunday, 22<sup>nd</sup> December,

1889.

## 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:

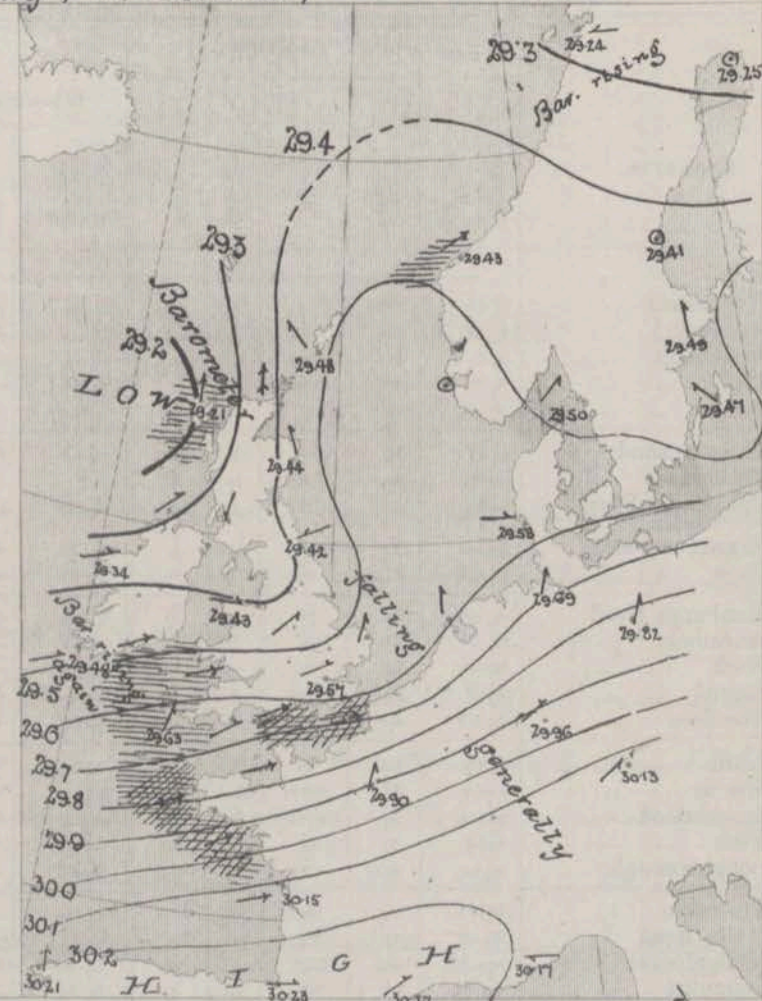
▨ = Rough. ▨ = High.

### MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Sornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Douaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roches Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

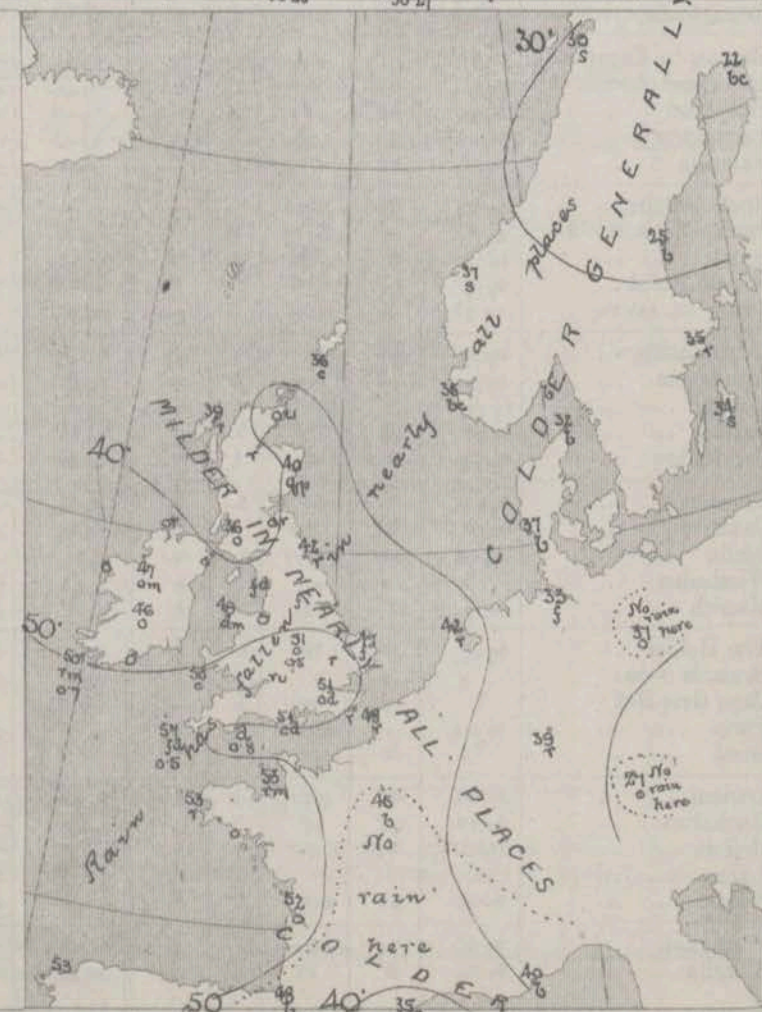
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	Dry, at 8 a.m.	Wet, at 8 a.m.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Sornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
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Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	30.0	40.1	38.7	4.04
Douaghadee	46.1	30.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roches Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	49.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.4 ins: and upwards, over Portugal. Lowest, 29.2 ins: and less, in a depression lying off the north of Scotland; 29.3 ins: and less, over the north of Scandinavia. Gradient moderate or slight generally. Barometer falling at all but the Scandinavian stations.
TEMPERATURE	Highest, 53° at Jersey, Brest, Lorient and Bournemouth, 52° at Cambridge and Rochefort, and 51° at Loughborough, Scilly, Hurst Castle and London. Lowest, 22° at Haparanda, 25° at Hueso and 27° at Munich, 28° at Porto, 32° at Riga, and 33° at Tarsus and Tophoven.
WIND	SW over France, Germany, and the west and south of our Islands; strong in force in the Channel and Bay of Biscay. S or SE on our north and northeast coasts, with a gale at Kiel; variable in Scandinavia.
WEATHER	Fine in Denmark, the south of Norway, the north of Sweden and the south of France. Cloudy or overcast elsewhere, with rain in many parts of the United Kingdom, and snow in the east of Norway. Rain fell generally yesterday; heavily at some of our eastern stations.
SEA	High at Hurst Castle and on the French side of the Channel, rough on our southern coast, and rather rough at Honsday.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

## FORECASTS

For the 24 hours ending at NOON on 23<sup>rd</sup> DEC 1889.

### DISTRICTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

### FORECASTS.

NONE ISSUED

### DISTRICTS.

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 10 IRELAND SOUTH

### FORECASTS

NONE ISSUED

### WARNINGS

The SOUTH CONE was hoisted yesterday in districts 8 to 10 and part of 7.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea:
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.35	40	38	W	1	o	5	Holyhead ...	29.66	46	43	W	3	cp	4
Sumburgh Head ...	29.31	32	32	N	3	s	3	Valencia ...	29.55	53	52	SW	7	rm	6
Stornoway ...	29.50	39	37	N	3	bc	3	Scilly ...	29.84	50	50	WSW	7	rm	6
Aberdeen ...	29.41	38	36	WNW	4	bcpq	3	Jersey ...	29.97	50	48	WSW	5	c	4
Shields ...	29.53	41	38	WSW	3	b	2	Dungeness ...	29.78	48	46	W	5	c	4
Ardrossan ...	29.54	44	42	W	3	c	2	London ...	29.75	49	46	WSW	4	o	*
Malin Head ...	29.57	42	38	NNW	1	c	3	Yarmouth ...	29.63	43	42	WSW	5	rq	4
Mullaghmore ...	29.56	44	42	SE	2	om	4	Rocheport ...	30.35	50	48	SW	3	c	2
Belmullet ...	29.51	46	46	SE	2	om	*								

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

The reports for yesterday morning showed that pressure ranged from between 30.3 in. to 30.5 in. over the southern parts of Russia, and from between 30.2 in. and 30.4 in. over Spain and the southwest of France, to 29.1 in. and less, in a large depression lying over Norway and the adjacent parts of the Atlantic and to 29.9 in. and less in another depression lying between Malta and the Tunisian coast. Moderate to fresh NW to SW winds prevailed throughout the British Islands, fresh to strong SW winds on the eastern shores of the North Sea, and SW winds, strong to a gale in force over the northern parts of the Baltic, Finland, and the Gulf of Bothnia. Over France and Germany the wind was light, but mainly W to SW, while on the northern shores of the Mediterranean it was E and on the southern shores W to SW. Weather was fine over Spain, Italy, and the Adriatic, very changeable and unsettled (with rain in many places) over Northwestern and Northern Europe, and raining also at Malta. It had been very wet over Algeria during the previous day. Temperature was very irregularly distributed, and was changing suddenly and considerably over the United Kingdom and their neighbourhood. The highest morning values were 55° at Malta, 54° at Oran, 51° at Brest, 50° at Bilk, 49° at Valencia, 45° at Holyhead, 44° at Belmullet; the lowest were 4° at Humantadt, 10° at Cracow, 15° at Munich, 18° at Khar'kov, 19° at Vienna, 23° at Prague and Moscow, 34° to 36° at many of the Scandinavian stations and 35° to 40° over the northern and eastern parts of Great Britain.

Later in the day temperature again rose over the British Isles and increasing SW winds set in on our southern coasts, while rain fell in most places. Large quantities of rain fell at Malta.

### 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, 23<sup>rd</sup> December, 1889.*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 3 <sup>rd</sup> P. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 10.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)		Reading at 3 <sup>rd</sup> P. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	29.47	7	Zs	0	0	29.64	+39	7	6	-15	Zs	0	6c	*	?	3	
	Hernösand ...	29.61	15	Zs	0	6	29.88	+47	19	18	-6	Zs	0	6	*	?	14	
	Stockholm ...	29.63	33	W	4	0	29.93	+44	24	22	-11	Zs	0	c	*	?	?	
	Wisby ...	29.68	37	W	6	0	29.91	+44	33	32	-1	NW	4	6	*	37	32	0.12
	Bodö ...	29.52	28	W	4	6c	29.72	+48	35	32	+3	NW	2	c	*	?	25	
	Christiansund	29.64	35	SE	1	6	29.78	+38	32	30	-5	ESE	1	6c	*	?	30	
	Skudesnaes ...	29.65	28	E	2	6c	29.86	?	35	32	0	Zs	0	0	*	37	?	
	Christiania Fjord (Færder)	29.73	27	NNE	2	?	29.93	+46	28	26	-5	NE	3	c	*	?	25	
	Skagen (The Scaw)	29.72	38	SW	1	0	29.89	+39	35	34	+3	S	2	0	*	37	30	0.04
	Fanö ...	29.62	33	E	4	0	29.67	+09	37	37	0	ESE	4	T	*	37	30	0.08
BRITISH ISLANDS.	Sumburgh Head	29.43	40	SE	4	T	29.65	+17	45	44	+9	SW	1	0	*	45	36	0.18
	Stornoway ...	29.46	44	W	3	0	29.64	+13	39	39	0	SW	3	0	*	45	35	0.10
	Wick ...	29.41	41	S	4	T	29.70	+34	39	38	-1	SW	2	6	*	41	35	0.15
	Nairn ...	29.40	40	WSW	1	6c	29.71	+35	39	37	+4	SW	1	c	*	42	35	0.05
	Aberdeen ...	29.43	42	SE	2	0	29.77	+33	35	35	-5	W	1	6cm	*	43	35	0.40
	Leith ...	29.46	37	E	1	T	29.78	+39	39	38	+2	NW	1	6cm	*	40	31	0.15
	Shields ...	29.43	41	W	2	0	29.83	+41	40	39	-2	W	2	c	*	45	39	0.08
	Spurn Head ...	29.48	45	WSW	2	0	29.84	+43	43	41	0	W	3	6m	*	48	41	0.01
	York ...	29.46	47	NW	1	T	29.86	+45	39	38	-2	NW	1	6	*	47	38	0.06
	Loughborough	29.52	48	WSW	2	0	29.92	+47	45	44	-6	NW	3	c	*	52	44	
GERMANY.	Ardrossan ...	29.46	39	NE	1	T	29.80	+46	46	46	+10	SW	2	0	*	46	35	0.05
	Malin Head ...	29.47	47	WSW	4	0	29.74	+47	44	43	-2	SSW	4	c	*	48	44	0.06
	Mullaghmore ...	29.54	47	WSW	4	6	29.78	+44	46	44	-1	SW	4	0	*	48	44	0.03
	Belmullet ...	29.59	47	NW	2	6	29.71	+37	47	46	-2	SSW	5	6c	*	49	45	0.06
	Donaghadee ...	29.50	47	WSW	2	0	29.85	+51	44	43	-3	WSW	2	c	*	48	42	0.02
	Barrow-in-Furness	29.47	46	E	2	T	29.86	+49	44	43	+1	NW	2	c	*	47	42	0.13
	Liverpool (Bidston)	29.53	46	WSW	2	0	29.91	+47	44	43	-4	W	3	c	*	49	43	0.06
	Holyhead ...	29.51	47	Zs	0	0	29.91	+48	48	47	-1	WSW	3	c	*	49	45	0.14
	Parsonstown ...	29.59	46	Zs	0	0	29.86	+43	45	44	-1	Zs	0	T	*	48	40	0.10
	Valencia ...	29.71	50	NW	2	c	29.86	+38	51	48	+1	S	4	om	*	51	44	0.18
FRANCE AND NETHERLANDS.	Roche's Point...	29.65	43	NW	4	6c	29.91	+42	48	47	-1	W	3	T	*	50	42	0.20
	Pembroke (St. Ann's Hd.)	29.58	49	WSW	3	T	29.96	+43	50	49	0	WSW	4	op	*	50	48	0.04
	Scilly ...	29.64	51	W	7	c	30.03	+40	50	48	-1	WSW	4	opd	*	53	44	0.18
	Prawle Point ...	29.64	49	WSW	6	T	30.05	+40	49	48	0	SW	3	cm	*	51	46	0.22
	Jersey (St. Aubin's)	29.71	52	SW	5	m	30.09	+34	49	47	-4	W	3	6m	*	53	48	0.17
	Hurst Castle ...	29.58	51	SW	6	0	30.01	+41	46	45	-5	W	3	6c	*	51	44	0.28
	Dungeness ...	29.57	50	WSW	6	T	29.94	+36	47	46	-3	NW	3	c	*	51	45	0.10
	London ...	29.56	51	SW	2	0	29.96	+39	43	42	-5	W	2	6	*	52	43	0.25
	Oxford ...	29.60	47	SW	2	0	29.97	+44	40	40	-10	SW	3	6	*	51	40	0.06
	Cambridge ...	29.58	48	SW	1	T	29.93	+42	43	42	-9	SW	1	6c	*	53	41	0.05
PENIN. IULIA.	Yarmouth ...	29.52	49	WSW	2	T	29.85	+34	44	43	-3	NW	3	cf	*	52	42	0.01
	Cuxhaven ...	29.61	49	ESE	3	f	29.68	-01	42	42	+9	Zs	0	T	*	43	?	0.40
	Berlin ...	29.76	40	SW	3	T	29.82	-00	41	40	+4	S	2	0	*	41	?	0.35
	Wiesbaden ...	*	*	*	*	*	29.88	-08	41	40	+2	SW	2	0	*	41	34	0.43
	Munich ...	30.04	35	SW	3	0	30.02	-11	39	38	+12	SW	5	T	*	39	27	0.12
	The Helder ...	29.56	45	SW	2	0	29.76	+17	44	44	+2	WSW	2	0	*	45	?	0.20
	Brussels (9 a.m.)	*	48	SW	6	T	29.91	+19	47	46	+2	WSW	2	0	*	51	?	0.51
	Cape Gris Nez	*	*	*	*	*	*	*	47	45	-1	W	5	0	*	?	?	0.35
	Paris ...	29.85	51	SW	3	0	30.04	+14	46	44	+1	SW	2	0	*	52	45	0.12
	Brest ...	?	53	W	7	6	?	?	51	50	-2	NW	1	0	*	54	39	0.16
PENIN. IULIA.	Lorient ...	29.86	52	W	6	T	30.15	+27	50	49	-3	NW	3	6	*	54	48	0.12
	Rochefort ...	29.97	51	SW	6	T	30.23	+08	48	48	-4	W	4	c	*	54	43	0.47
	Belfort ...	30.06	44	NW	1	T	30.04	-04	34	29	-2	W	1	0	*	41	30	0.12
	Lyons ...	30.20	39	ESE	4	0	30.23	*	37	37	*	NW	1	c	*	42	36	0.24
	Nice ...	30.16	41	E	4	6	30.10	-07	42	37	+2	E	4	c	*	52	36	
PENIN. IULIA.	Perpignan ...	30.20	43	Zs	0	0	30.19	-08	54	48	+19	W	3	0	*	57	?	
	Biarritz ...	30.17	53	SSW	3	0	30.29	+06	52	50	+4	WSW	1	T	*	57	46	0.04



# WEATHER CHARTS

for 8 a.m. on

Monday, 23<sup>rd</sup> December,

1889.

## 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—

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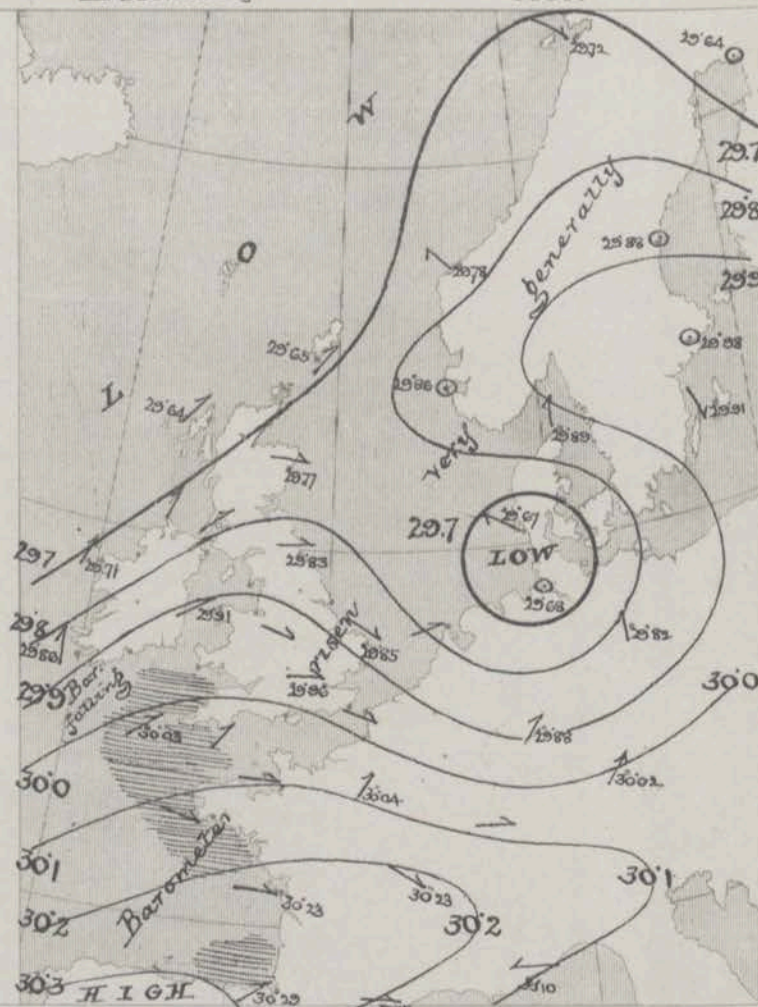
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— Rough. — High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December,  
During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.704
Wick	29.711
Nairn	29.739
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York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Seilly	29.962
Jersey	29.985
Harst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

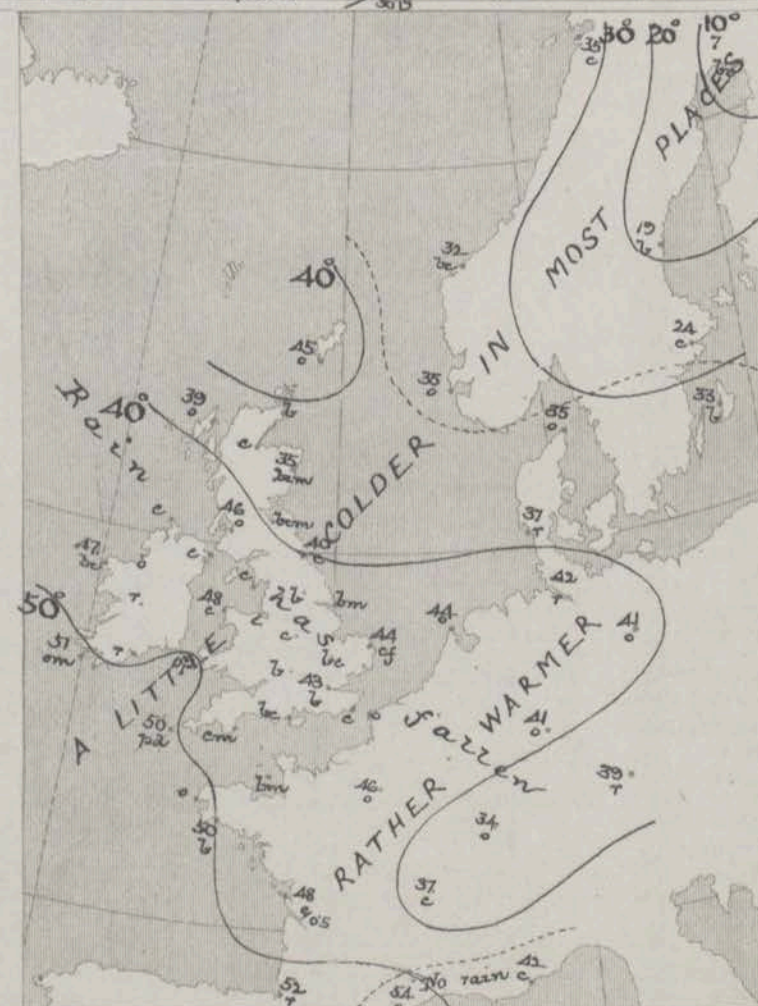
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STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway.....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrossan.....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point.....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
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Hurst Castle.....	45.1	36.9	40.9	40.2	2.84
Dover.....	41.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.4 ins. and upwards in Portugal.

Lowest, 29.7 ins. and less in a large area lying to the northward of our Islands, and also in a secondary depression lying over the south of Denmark.

Gradient slight. Barometer rising generally, but beginning to fall again at Valencia.

## TEMPERATURE

Highest, 54° at Perpignan, 53° at Marseilles, 51° at Valencia and Orest, and 50° at Pembroke, Scilly, Rosant and Lister.

Lowest, 7° at Haparanda, 13° at Helsingfors, 24° at Stockholm, 28° at Frederik, 32° at Christiansund, and 33° at Nisby.

During yesterday, the thermometer rose slightly above 50° in many parts of England.

## WIND

Light from the W. over France and the eastern parts of Great Britain.

Moderate from S.W. at most of our western stations, but from S. at Valencia.

Calm or light and variable over Scandinavia; light from the S.E. in Denmark.

## WEATHER

Fine in Scandinavia, the eastern parts of Great Britain and the north of France.

Cloudy or overcast elsewhere with rain on our southwest coasts as well as in the south of Denmark.

Rain fell yesterday in all parts of Western Europe, but the amounts were in most cases small.

## SEA

Rough at the mouth of the Channel, and rather rough in the Bay of Biscay, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The renewed fall of the barometer and backing wind at Valencia seem to point to the approach of another depression from the westward.

The size and depth of the disturbance are at present uncertain, but unsettled rainy weather will spread eastwards over most parts of the Kingdom.

## FORECASTS

For the 24 hours ending at NOON on 24<sup>TH</sup> DEC<sup>R</sup> 1889.

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

SW<sup>2</sup> to S<sup>2</sup> winds, light or moderate; fair to showery.

Same as N° 5.

W<sup>2</sup> to SW<sup>2</sup> winds, freshening; fine to unsettled and some rain.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

Same as N° 0 and 1.

SW<sup>2</sup> to S<sup>2</sup> winds, freshening; unsettled, some rain.

S<sup>2</sup> winds, increasing in force; unsettled, some rain.

### 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:		Wind		Wea.	Sea		Bar:	Ther:		Wind		Wea.	Sea.
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.60	37	36	E	1	0	4	Holyhead ...	29.47	49	48	W	2	rgm	2
Stornoway ...	29.23	45	45	W	3	7	4	Valencia ...							
Aberdeen ...								Scilly ...							
Shields ...								Jersey ...	29.73	53	52	SSW	4	0	4
Ardrossan ...								Dungeness ...	29.61	50	49	WSW	5	7	4
Malin Head ...	29.35	47	46	WSW	3	0	2	London ...							
Mullaghmore ...								Yarmouth ...							
Belmullet ...	29.42	48	48	W	2	0	2	Rochefort ...	30.13	51	51	WSW	5	7	2

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

The reports for yesterday morning showed that pressure was recovering over Scandinavia and the northern parts of the German Ocean, as well as over the Spanish Peninsula and Mediterranean, but was giving way elsewhere, and that readings varied from between 30.2 ins. and 30.4 ins. over Austria and southern Russia and between 30.2 ins. and 30.5 ins. over Spain and the southwest of France to about 29.2 ins. over Lapland and also off the west coast of Scotland and to rather below 30.0 ins. over the southeastern parts of the Mediterranean. The wind was consequently W<sup>ly</sup> to SW<sup>ly</sup> over Ireland, England and the western and northern parts of France, SW<sup>ly</sup> to S<sup>ly</sup> over North Germany and the Baltic, S<sup>ly</sup> in Scotland, very variable in all other regions, but chiefly NE<sup>ly</sup> to N<sup>ly</sup> over Italy, Sicily and Malta. The W<sup>ly</sup> wind was strong to a gale in the Channel and over Brittany, and a S<sup>ly</sup> gale was reported at Ulick, but in most other places the breezes were moderate or light in force. The weather was very unsettled except over the Mediterranean, southwestern and southeastern Europe, where it was fine and bright; rain was falling in many parts of the British Isles and north of France, snow or rain in several parts of Scandinavia and northern Germany, and although the sky was clear in some parts of Sweden and Denmark the change was apparently temporary. Even at Malta very heavy falls of rain had occurred during the previous 24 hours. Temperatures had risen greatly over France and England, and was high in those regions for the time of year. The highest morning values reported were 55° at Courmayeur & Brest, and 52° at Rochefort, 51° at Scilly and in London, 50° at Valencia and Pembroke, 49° at Belmullet and Holyhead; the lowest were 4° at Hermannstadt, 10° at Kharkov and Bracov, 11° at Nicolaieff, 22° at Haparanda, 26° at Moscow, 27° at Prague and Vienna, 28° at Bodo, 32° at Suvaivundu, 33° to 40° at the Scotch stations.

Later on a new high-pressure area began to spread over our Islands from the westward, and the wind veered at our western stations.

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

FROM THE 15<sup>TH</sup> TO 21<sup>ST</sup> DECEMBER 1889.

During nearly the whole of this week the weather over the United Kingdom has been mild and misty, rain has prevailed, in small or moderate quantities almost every day, and the air has been 'muggy' and close. The wind has been chiefly SW<sup>ly</sup> to W<sup>ly</sup> and has occasionally been strong to a gale in force on our western and southern coasts, but no serious storm has been reported.

Between Wednesday and Friday there were temporary interruptions in the conditions referred to above, as, with the advance of some 'V'-shaped disturbances from the westward, the wind at times veered to the NW and temperature fell, the inland stations during the night. By Friday night, however, the SW<sup>ly</sup> to W<sup>ly</sup> current was completely restored, and at the close of the week showed no sign of giving way permanently.

The large high-pressure system which had prevailed for so long over the western and central parts of the Continent moved S and during the week, decreasing considerably in intensity and breaking into two portions, one of which lay over southern Russia on Saturday while the other lay over the Iberian Peninsula. Some of the low-pressure areas which have appeared in the extreme northwest and north have been large and deep, but their gradients have been comparatively uniform and their gales moderate.

## 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, 24<sup>th</sup> December,* 1889.  
 Issued by the Meteorological Office, 63, Victoria Street, London. *R. H. SCOTT, Secretary.*

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 3 <sup>rd</sup> P. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.	
				Direc.	Force. (0 to 12.)		Reading at 3 <sup>rd</sup> P. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Direc.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	30.04	0	Z	0	b	30.22	+58	-4	-3	-11	N	2	bc	*	10	?	-	
	Hernösand ...	30.09	11	Z	0	b	30.15	+27	15	44	-4	Z	0	f	*	23	10	-	
	Stockholm ...	30.17	23	Z	0	b	30.06	+13	26	25	+2	Z	0	f	*	34	21	-	
	Wisby ...	30.19	29	Z	4	o	30.16	+25	35	32	+2	SSE	2	o	*	36	27	-	
	Bodö ...	29.89	31	E	1	b	29.88	+16	31	28	-4	E	2	b	*	35	27	-	
	Christiansund	29.86	33	ESE	1	b	29.72	-06	34	32	+2	ESE	3	b	3	34	30	-	
	Skudesnaes ...	29.95	40	SE	2	o	29.83	-03	41	39	+6	SSE	6	o	5	41	?	-	
	Christiania Fjord (Færder)	30.10	28	NNE	2	o	30.06	+13	32	31	+4	E	3	o	2	?	27	-	
	Skagen (The Scaw)	30.00	37	SE	3	o	30.00	+11	37	37	+2	S	3	r	2	37	34	-	
	Fanö ...	29.90	38	SSE	2	f	29.91	+24	37	37	0	SSE	2	f	*	?	37	0.04	
BRITISH ISLANDS.	Sumburgh Head	29.64	45	SSE	4	o	29.34	-31	46	45	+1	SSE	7	r	7	47	45	0.06	
	Stornoway ...	29.44	48	SW	7	ov	29.39	-25	41	41	+2	SW	2	o	4	50	38	0.12	
	Wick ...	29.60	45	S	4	b	29.40	-30	43	42	+4	NW	2	r	2	48	35	0.10	
	Nairn ...	29.60	40	SSW	2	bc	29.38	-33	42	42	+3	W	3	r	2	50	35	0.09	
	Aberdeen ...	29.72	44	SSE	4	o	29.40	-37	46	45	+11	SSE	4	ogqr	5	46	34	0.05	
	Leith ...	29.76	42	W	2	c	29.36	-42	50	48	+11	SW	4	opm	*	51	38	0.01	
	Shields ...	29.85	45	SSW	3	o	29.48	-35	48	47	+8	S	6	r	2	48	38	0.12	
	Spurn Head ...	29.94	42	S	3	o	29.64	-20	45	44	+2	SSE	5	om	4	45	41	-	
	York ...	29.92	46	SW	1	o	29.58	-28	48	48	+9	S	3	r	*	48	38	0.04	
	Loughborough	29.98	46	SSW	2	o	29.64	-28	49	49	+4	SSE	3	op	*	49	45	0.01	
GERMANY.	Ardrossan ...	29.72	47	S	3	c	29.50	-30	44	42	-2	W	3	r	3	47	43	0.29	
	Malin Head ...	29.50	48	SSE	6	og	29.52	-22	44	40	0	WNW	5	og	3	51	43	0.45	
	Mullaghmore ...	29.52	52	S	7	ogm	29.61	-17	43	41	-1	NW	6	cqpp	5	54	44	0.48	
	Belmullet ...	29.49	50	SSW	5	ou	29.69	-02	42	40	-5	WNW	5	c	*	50	41	0.54	
	Donaghadee ...	29.74	48	SW	2	c	29.56	-29	43	43	-1	WNW	5	c	3	48	43	0.25	
	Barrow-in-Furness	29.86	45	SE	2	o	29.44	-42	47	47	+3	SSE	5	r	*	48	43	0.22	
	Liverpool (Bidston)	29.91	45	SSE	1	bc	29.53	-38	44	43	0	SSE	4	r	4	50	44	0.11	
	Holyhead ...	29.84	48	S	4	cq	29.60	-31	44	43	-4	WNW	8	rqrn	6	50	43	0.49	
	Parsonstown ...	29.67	50	S	2	o	29.70	-16	41	39	-4	SW	2	bc	*	53	41	0.21	
	Valencia ...	29.63	54	S	8	ogm	29.85	-01	45	40	-6	W	5	bcqu	6	54	41	0.76	
FRANCE AND NETHERLANDS.	Roche's Point...	29.75	47	SSW	6	r	29.82	-09	45	42	-3	WNW	5	bc	4	51	42	0.50	
	Pembroke (St. Ann's Hd.)	29.90	50	S	5	r	29.73	-23	46	45	-4	WNW	6	rqrn	6	51	45	0.21	
	Scilly ...	29.93	52	S	6	odp	29.88	-13	50	47	0	WNW	7	bcq	6	53	47	0.16	
	Prawle Point ...	30.04	50	SW	4	c	29.75	-30	46	46	-3	WNW	6	o	4	51	46	0.13	
	Jersey (St. Aubin's)	30.13	50	WSW	3	cqmp	29.83	-26	53	52	+4	SSE	5	omr	4	54	47	0.05	
	Hurst Castle ...	30.04	48	SW	3	bc	29.74	-27	53	53	+7	SSW	7	oqpp	4	53	44	0.04	
	Dungeness ...	30.05	48	W	3	e	29.81	-13	49	48	+2	SSW	5	rqr	4	54	46	0.04	
	London ...	30.00	48	S	2	c	29.75	-21	50	49	+7	S	4	r	*	50	42	0.02	
	Oxford ...	30.00	46	SW	2	o	29.68	-29	50	49	+10	S	4	ogru	*	50	40	0.07	
	Cambridge ...	30.01	44	WNW	1	o	29.71	-22	50	49	+7	S	2	r	*	52	41	0.01	
PENIN- SULA.	Yarmouth ...	29.99	43	WNW	1	cq	29.78	-07	45	44	+1	SSW	4	ogdm	3	47	40	0.02	
	Cuxhaven ...	29.84	40	W	1	f	29.96	+18	41	40	-1	W	2	f	*	44	40	0.08	
	Berlin ...	29.98	45	W	3	r	30.09	+27	41	40	0	SW	2	o	*	45	39	0.16	
	Wiesbaden ...	*	*	*	*	*	30.14	+26	40	39	-1	Z	0	o	*	45	37	0.08	
	Munich ...	30.21	39	W	4	r	30.24	+22	33	33	-6	SSE	3	bc	*	43	32	0.12	
	The Helder ...	29.98	44	WSW	2	bc	29.93	+17	43	43	-1	SSW	2	e	2	45	43	-	
	Brussels (9 a.m.)	*	*	*	*	*	30.00	+09	45	43	-2	S	1	o	*	49	44	-	
	Cape Gris Nez	?	46	SW	3	bc	?	?	48	46	+1	SSW	5	o	5	50	45	0.04	
	Paris ...	30.19	45	SSW	2	o	30.07	+03	46	44	0	SSW	2	o	*	?	44	-	
	Brest ...	?	51	W	5	m	?	?	51	50	0	NW	8	o	7	55	39	0.12	
PENIN- SULA.	Lorient ...	30.15	51	SSW	3	o	29.94	-21	53	53	+3	WSW	6	r	7	54	48	0.20	
	Rochefort ...	30.30	49	WSW	2	b	30.18	-05	52	54	+4	WSW	5	r	3	54	41	0.16	
	Belfort ...	30.18	41	W	1	o	30.17	+13	39	35	+5	W	1	o	*	46	30	-	
	Lyons ...	30.32	?	ESE	?	?	30.28	+05	37	37	0	S	1	e	*	50	37	-	
	Nice ...	30.12	45	SE	4	bc	30.23	+13	41	39	-1	ESE	5	b	1	52	39	-	
PENIN- SULA.	Perpignan ...	30.28	54	NE	2	b	30.26	+07	42	40	-12	SW	1	b	*	61	41	-	
	Biarritz ...	30.31	54	WSW	4	o	30.23	-06	52	50	0	WSW	1	o	4	55	50	0.04	
PENIN- SULA.	Corunna ...	30.41	53	WNW	2	c	30.42	+01	49	46	-1	NNE	1	o	4	55	48	-	
	Lisbon ...																		

For Explanation of Columns, see bottom of p 4.

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

Note, - The Report for tomorrow, Christmas Day, will be issued on Friday, December 27<sup>th</sup>.



# WEATHER CHARTS

for 8 a.m. on

Tuesday, 24<sup>th</sup> December.

1889.

## 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:

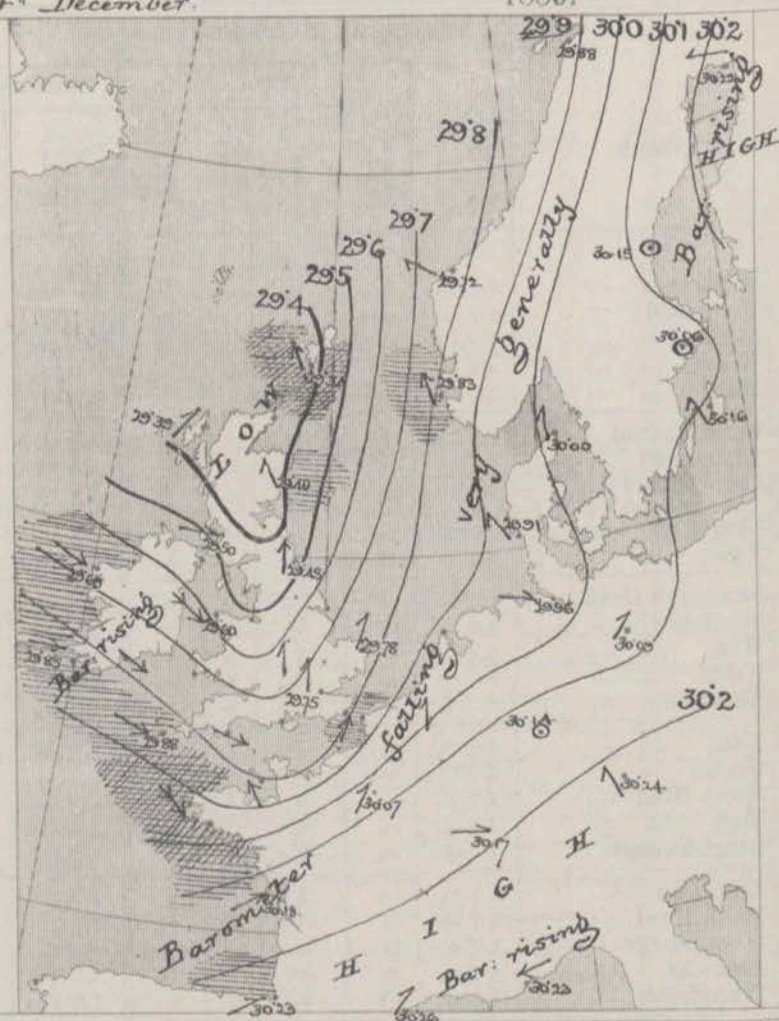
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Silly .....	29.902
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

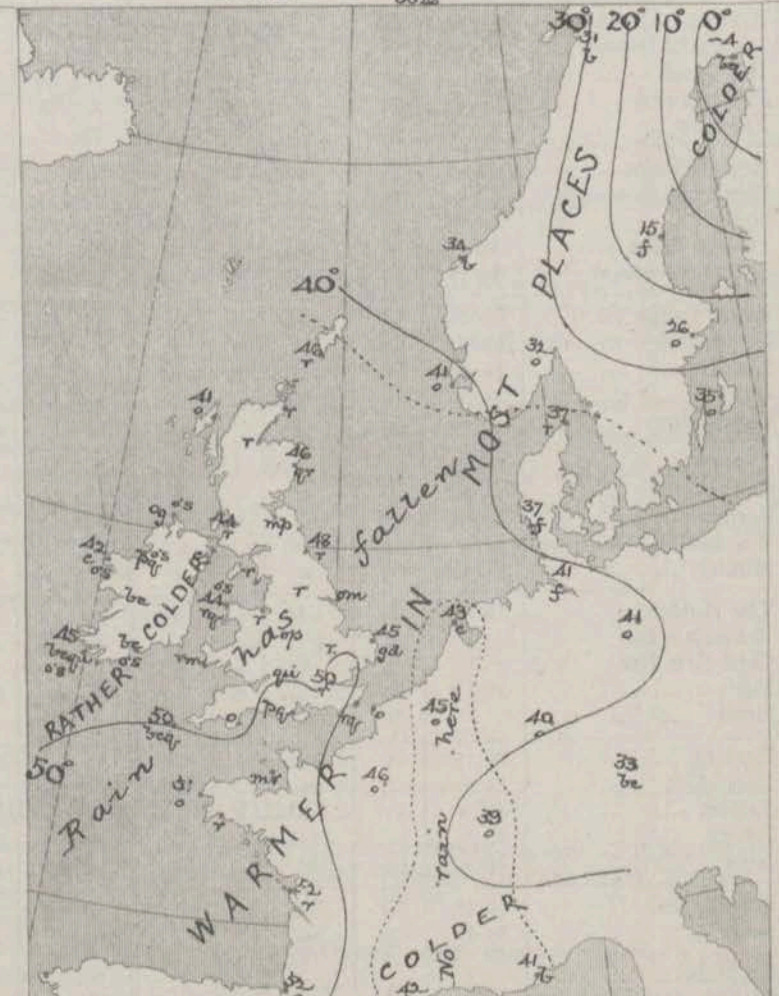
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head .....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick .....	42.1	32.6	38.9	36.6	3.18
Nairn .....	41.7	32.8	37.0	35.5	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith .....	44.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York .....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.9	35.9	2.36
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Donaghadee .....	46.1	36.2	40.2	39.2	2.84
Holyhead .....	46.7	39.3	43.0	41.4	3.84
Liverpool .....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia .....	50.0	40.0	44.6	42.3	5.82
Roche's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke .....	47.1	40.6	43.9	42.5	4.06
Silly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover .....	44.7	36.8	40.3	39.1	3.20
LONDON .....	44.7	34.6	38.5	37.4	2.14
Oxford .....	43.6	34.3	37.7	36.6	2.13
Cambridge .....	43.5	32.3	36.9	36.1	1.99
Yarmouth .....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.4 ins. and upwards, in the south of Portugal; 30.2 ins. and upwards, over the Gulf of Bothnia. Lowest, 29.4 ins. and less, in a V-shaped depression the central portion of which lies over and to the northward of Scotland. Gradients rather steep over Great Britain, the North Sea and the north of France, but moderate or slight elsewhere. Barometer falling quickly in the eastern parts of Great Britain and slightly over France, and the eastern shores of the North Sea, but rising elsewhere.
TEMPERATURE	Highest, 53° at Hunt Castle, Jersey and Lorient, 52° at Rochefort and Brest, 51° at Brest, and 50° at Oxford, Cambridge, and in London. Lowest, -4° F. at Haparanda, +15° at Helsingfors, 16° at Stockholm, 31° at Rode, 32° at Pander, and 33° at Munich. The thermometer yesterday rose a little above 50° in many parts of the United Kingdom.
WIND	Strong from the W <sup>nd</sup> or NW <sup>nd</sup> on our western coast, with a fresh gale at Holyhead. Moderate to strong from the S <sup>nd</sup> on the east and southeast coast of Great Britain, and from the SE <sup>nd</sup> on the eastern shores of the North Sea. SW <sup>ly</sup> in Germany and France; calm or light and variable in Sweden.
WEATHER	Fine in Ireland, the north of Scandinavia, and the extreme south of France. Dull elsewhere, with fog in the south of Denmark and rain over Great Britain and the west and north of France. The largest amount of rain measured this morning came 0.8 in. at Valencia, and 0.5 in. at Malin Head.
SEA	High off the northwest of France and also at Sumburg Head, rough or rather so on all the more exposed parts of our coasts.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

As the V-shaped depression passes northwards the weather over Great Britain will probably undergo some improvement. As pressure is, however, now high both over Spain and Northern Europe the conditions are not likely to become permanently settled, and on our western coast the wind will probably back to the SW<sup>nd</sup> or S<sup>nd</sup> again.

NOTE. The Report for tomorrow, Christmas Day, will be issued on Friday Dec<sup>r</sup> 27<sup>th</sup>.

## FORECASTS

For the 24 hours ending at NOON on 25<sup>th</sup> DEC<sup>r</sup> 1889.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS
0 SCOTLAND NORTH	Varying W <sup>ly</sup> winds; rainy at first, some improvement later.	6 SCOTLAND WEST	Same as No 0 and 1.
1 SCOTLAND EAST		7 ENGLAND N.W.	W <sup>ly</sup> and NW <sup>ly</sup> winds, strong; squally and showery to fair.
2 ENGLAND N.E.	S <sup>ly</sup> winds, strong, to W <sup>ly</sup> , light; rainy to fair.	8 ENGLAND S.W.	
3 ENGLAND EAST	S <sup>ly</sup> and SW <sup>ly</sup> winds, strong to moderate; squally and showery to fair.	9 IRELAND NORTH	W <sup>ly</sup> and NW <sup>ly</sup> winds, backing later; fair to showery.
4 MIDLAND COUNTIES		0 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	The SOUTH CONE was hoisted yesterday in districts 0 to 2, 6 to 10, and part of 5, but has been lowered again this morning in districts 0, 1, 6, 9 and 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	29.94	37	34	SW	1	0	3		Holyhead ...	29.89	49	SW	3	cg	2
Sumburgh Head ...	29.69	45	45	S	3	0	4		Valencia ...	29.71	53	S	7	odm	6
Stornoway ...	29.85	47	46	SW	5	0	4		Soilly ...	29.99	52	SSW	5	cm	5
Aberdeen ...	29.78	41	40	SSW	2	cm	4		Jersey ...	30.13	52	SW	3	c	3
Shields ...	29.87	47	45	SW	3	0	2		Dungeness ...	30.02	50	W	3	bc	2
Ardrossan ...	29.68	47	46	S	3	0	3		London ...	30.04	50	WSW	3	0	2
Malin Head ...	29.63	45	44	S	5	bc	3		Yarmouth ...	29.93	47	WNW	3	bc	2
Mullaghmore ...	29.63	49	46	S	6	og	5		Rochefort ...	30.30	52	W	3	0	3
Belmullet ...	29.57	49	49	SE	6	0	2								

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

Yesterday morning's report showed a slight decrease of pressure over Southern and South-eastern Europe, but a considerable increase over the British Isles and Northern Europe, and that readings varied from between 30.10 ins. and 30.24 ins. over Southern Russia and from between 30.2 ins. and 30.4 ins. over the southwest of France and the Spanish Peninsula to less than 29.6 ins. off the extreme northwest of the British Isles, and also on the shores of the White Sea, and to rather less than 29.7 ins. in a shallow secondary system lying near the mouth of the Elbe. Gradients were slight to moderate. The wind was moderate from between S. and NW. over the British Isles, and was on the whole SW<sup>ly</sup> over Central Europe; elsewhere it was very variable in direction, and light in force. The weather was in a very changeable condition generally, even as far south as Algeria, the sky being clear in some regions, rainy in several others, with snow at Moscow, Warsaw, and a thunderstorm at Kiev. Temperature continued low over Russia and the northern extremity of the Gulf of Bothnia; the lowest morning values were 7° at Haparanda, 12° at Arkhangel and Nicolaiiff, 15° at Semberg, 18° at Kiew, 19° at Helsingfors, 20° at Riga, 24° at Gdansk and Stockholm, 28° at Odessa, 29° at Florence; the lowest were 56° at Messina, 54° at Perpignan, 52° at Biarritz, 51° at Valencia and Dret, 50° at Seville and Benicarlo, 49° at Jersey, 48° at Holyhead and Rochefort, and 47° at Belmullet, Dungeness and Bournemouth. Later on S<sup>ly</sup> winds, strong to a gale in force spread over the United Kingdom, with still milder and more rainy weather and the barometer fell fast.

### 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 25<sup>TH</sup> DECEMBER 1889.

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

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.	
				Dirce.	Force (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirce.	Force. (0 to 12.)	Weather.		Max.	Min.		
SCANDINAVIA.	Haparanda ...	30.32	3	X	0	0	30.36	+14	24	24	+28	S	4	0	*	3	-6	-	
	Hernösand ...	30.20	24	X	0	0	30.34	+19	33	32	+18	SE	4	0	*	34	7	-	
	Stockholm ...	30.18	34	ESE	2	0	30.32	+26	33	32	+7	SE	2	0	*	34	23	-	
	Wisby ...	30.17	34	SE	4	5	30.23	+07	33	32	-2	ESE	4	0	*	37	30	0.00	
	Bodö ...	29.76	31	E	6	C	29.92	+04	35	32	+4	ENE	6	0	3	36	27	-	
	Christiansund ...	29.59	39	SE	3	6	30.02	+30	41	38	+7	WSW	3	C	3	41	3	-	
	Skudesnaes ...	29.73	43	SSE	8	0	30.17	+34	41	40	0	SSE	4	0	4	43	41	0.43	
	Christiania Fjord (Fjærd)	29.93	37	ENE	3	0	30.19	+13	34	34	+2	NNW	3	0	2	37	3	-	
	Skagen (The Scaw)	29.92	39	S	3	0	30.12	+12	40	40	+3	SW	2	0	2	41	36	0.04	
	Fanö ...	29.82	39	SSE	4	0	30.06	+15	38	38	+1	E	4	0	*	3	37	-	
BRITISH ISLANDS.	Sumburgh Head	29.55	40	X	0	7	30.05	+71	44	41	-2	SW	3	0	5	48	39	0.75	
	Stornoway ...	29.67	38	W	1	6	29.92	+53	48	47	+7	SW	6	0	6	48	35	0.05	
	Wick ...	29.67	36	NW	1	6	30.10	+70	42	40	-1	S	4	0	2	43	33	0.05	
	Nairn ...	29.73	37	W	1	6	30.13	+75	40	37	-2	X	0	0	1	43	35	0.09	
	Aberdeen ...	29.74	38	W	2	6	30.24	+84	35	34	-11	SW	1	bcn	3	46	35	0.53	
	Leith ...	29.82	41	W	3	6	30.29	+93	36	35	-14	NW	1	bcn	*	50	36	0.04	
	Shields ...	29.87	41	W	3	C	30.35	+87	38	37	-10	W	2	bc	2	49	35	0.05	
	Spurn Head ...	29.86	42	WNW	6	6	30.38	+74	39	38	-6	W	4	0	4	47	38	0.06	
	York ...	29.87	40	NW	1	6	30.41	+83	35	34	-13	WNW	1	0	*	50	32	0.08	
	Loughborough	29.98	41	WNW	5	6	30.43	+79	37	36	-12	WNW	2	bc	*	52	36	0.16	
GERMANY.	Ardrossan ...	29.87	43	W	5	C	30.28	+78	46	44	+2	S	5	C	5	47	41	0.04	
	Malin Head ...	29.90	40	W	5	6	30.14	+62	44	43	0	S	6	cm	5	45	38	0.04	
	Mullaghmore ...	30.01	45	W	5	C	30.19	+58	48	46	+3	SW	6	C	5	48	39	0.10	
	Belmullet ...	30.04	46	WNW	5	bc	30.16	+47	50	48	+8	SW	6	0	*	50	41	0.07	
	Donaghadee ...	29.97	40	WSW	4	6	30.31	+75	38	38	-5	WSW	2	bc	1	44	37	-	
	Barrow-in-Furness	29.93	43	NW	5	6	30.37	+93	41	40	-6	SE	1	0	*	47	39	0.13	
	Liverpool (Bidston)	29.98	43	W	6	C	30.42	+89	41	38	-3	SW	2	0	3	45	40	0.23	
	Holyhead ...	30.04	44	WNW	7	bc	30.40	+86	44	43	0	SW	2	0	2	46	43	0.12	
	Parsonstown ...	30.11	38	SW	1	6	30.32	+62	41	40	0	2	0	C	*	45	36	-	
	Valencia ...	30.21	48	W	3	bc	30.33	+48	51	48	+6	S	6	cm	5	52	43	0.01	
FRANCE AND NETHERLANDS.	Roche's Point...	30.22	45	W	3	6	30.37	+55	50	47	+5	SW	5	bc	4	50	42	0.02	
	Pembroke (St. Ann's Hd.)	30.06	46	WNW	6	6	30.47	+74	49	49	+3	SW	4	bc	5	50	45	0.03	
	Soilly ...	30.22	49	NW	7	bc	30.49	+61	48	47	-2	SW	4	C	6	50	47	-	
	Prawle Point...	30.23	42	WNW	5	6	30.53	+78	44	42	-2	W	2	0	2	49	40	0.01	
	Jersey (St. Aubin's)	30.21	48	WNW	4	bc	30.56	+73	45	42	-8	NW	3	cm	3	54	43	0.07	
	Hurst Castle ...	30.04	44	WNW	6	bc	30.50	+76	40	39	-13	WNW	4	0	3	53	36	0.10	
	Dungeness ...	29.97	43	WNW	5	C	30.39	+58	37	36	-12	WNW	4	0	1	50	33	0.12	
	London ...	30.04	43	W	3	bc	30.46	+71	33	32	-17	WSW	2	0	*	53	32	0.09	
	Oxford ...	30.15	37	WNW	2	6	30.47	+79	37	35	-13	W	2	0	*	52	30	0.06	
	Cambridge ...	30.00	41	WNW	4	6	30.46	+75	35	35	-15	W	1	0	*	52	32	0.07	
PENIN- SULA.	Yarmouth ...	29.82	43	NW	5	C	30.35	+57	36	35	-9	NW	4	0	4	48	34	0.12	
	Cuxhaven ...	29.91	40	SSE	3	6	29.96	0.0	38	38	-3	E	3	0	*	43	38	0.04	
	Berlin ...	30.01	42	S	2	0	30.07	-02	36	36	-5	SE	2	0	*	45	34	-	
	Wiesbaden ...	*	*	*	*	*	30.20	+06	42	39	+2	W	3	0	*	45	39	0.81	
	Munich ...	30.07	32	SW	1	0	30.21	-03	36	35	+3	W	6	0	*	39	32	0.39	
	The Helder ...	29.80	43	NW	6	7	30.21	+28	44	41	+1	NW	4	C	4	45	41	0.39	
	Brussels (9 a.m.)	?	*	*	*	*	30.35	+35	40	38	-5	W	2	bc	*	50	39	0.08	
	Cape Gris Nez	?	46	WNW	7	0	?	?	42	39	-6	NW	4	0	4	52	41	0.04	
	Paris ...	30.09	47	WNW	4	6	30.44	+37	36	34	-10	WNW	1	0	*	?	33	0.24	
	Brest ...	?	49	NW	6	bc	?	?	50	48	-1	2	0	6	54	39	-		
PENIN- SULA.	Lorient ...	30.32	47	NW	5	6	30.56	+62	47	45	-6	NNW	2	C	5	54	45	0.04	
	Rochefort ...	30.36	49	NW	5	6	30.55	+37	44	43	-8	NW	3	0	2	54	39	0.47	
	Belfort ...	30.25	41	W	1	7	30.57	+40	39	35	0	W	1	0	*	48	33	0.20	
	Lyons ...	30.19	42	S	2	0	30.43	+15	39	36	+2	NNW	4	0	*	49	37	0.32	
	Nice ...	30.20	46	E	3	bc	30.00	-23	45	41	+4	E	2	bc	1	54	39	-	
	Perpignan ...	30.27	51	X	0	0	30.41	+15	48	44	+6	NW	4	0	*	59	?	-	
PENIN- SULA.	Biarritz ...	30.40	53	WNW	5	0	30.55	+32	45	44	-7	NNW	3	C	3	59	45	0.08	
	Corunna ...	30.45	52	*	3	6	30.50	+17	43	43	-12	NE	1	0	5	57	41	0.12	



# WEATHER CHARTS

for 8 a.m. on

Wednesday, 25<sup>th</sup> December,

1889.

## 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

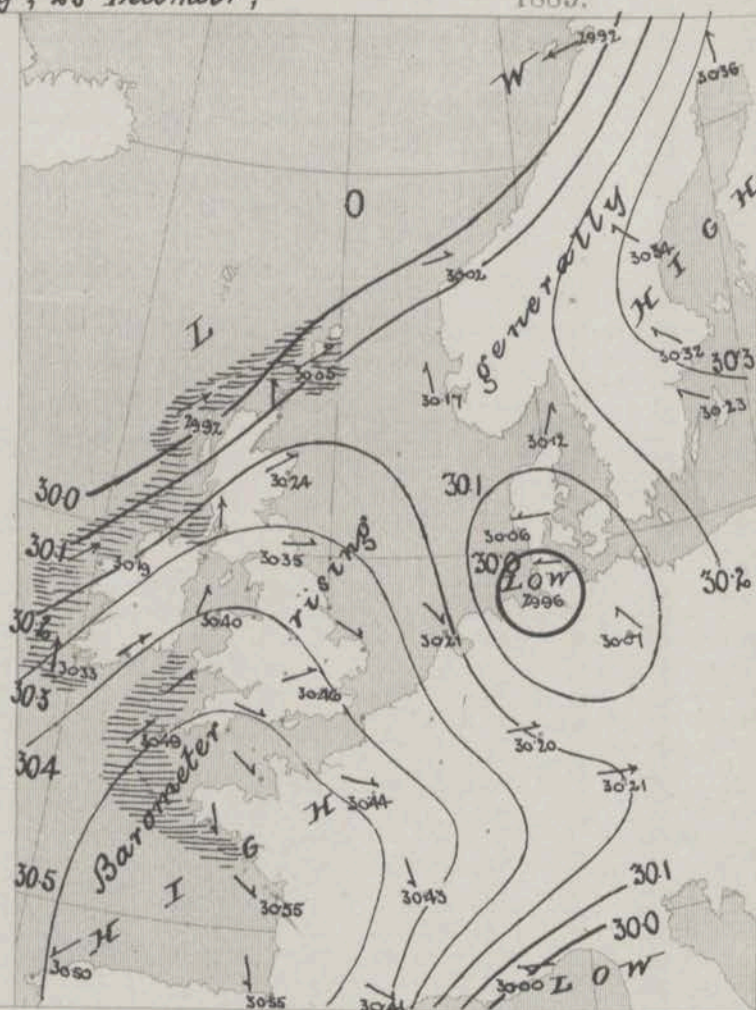
at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

#### STATIONS.

#### MEAN READINGS.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

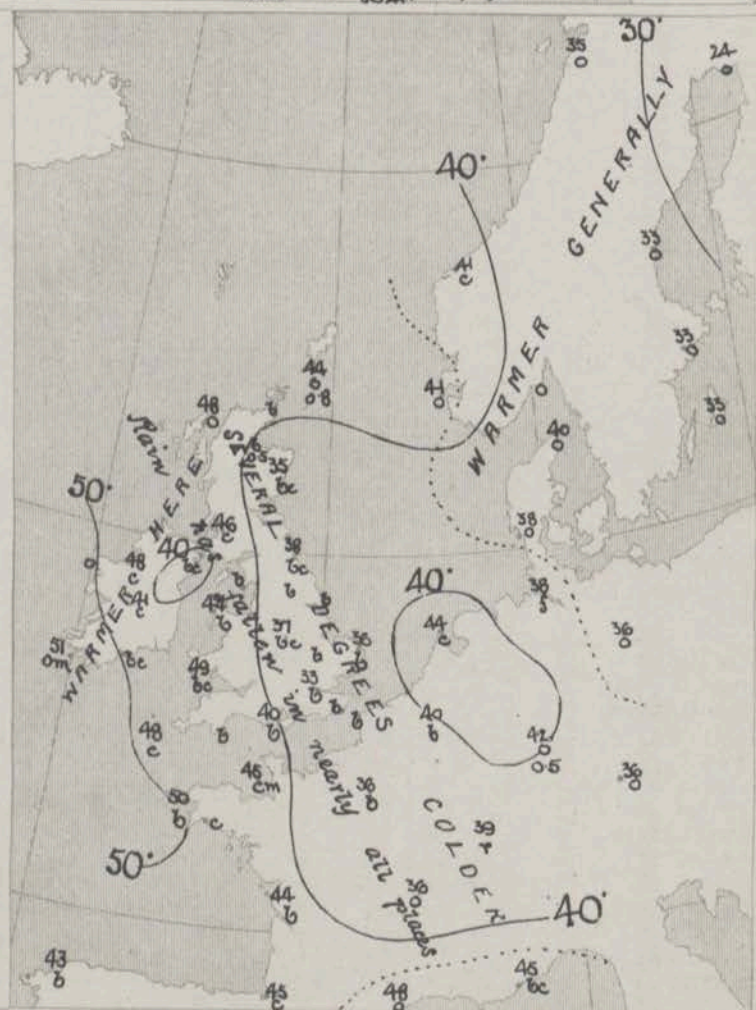
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	41.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.0	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	41.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.7	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	<p>Highest 30.40 ins. to 30.55 ins. in an anticyclone covering France, the northern half of Spain and southern half of England - 30.3 ins. and more over the Gulf of Bothnia.</p> <p>Lowest 30.0 ins. and less over the Hebrides and western Lapland and the adjacent parts of the Atlantic.</p> <p>Gradients slight over France and England, rather steep over the northern parts of Ireland &amp; Scotland &amp; over the Riviera.</p> <p>Barometer rising in most places; falling at Nice. The rise over our Islands since yesterday has been rapid.</p>
TEMPERATURE	<p>Highest 50° at Belmullet, Valencia, Roches Point and Brest, 48° at Stormoway &amp; Scilly, 44° at Lumburgh H. &amp; Rochefort.</p> <p>Lowest 24° at Haparanda, 33° at the other Swedish stations, &amp; in London, 36° at Lyons, Paris, Berlin and Harmouth.</p> <p>The fall over England and France during the night has been very decided. In Ireland the thermometer is rising fast.</p>
WIND	<p>S<sup>W</sup> and S<sup>W</sup><sup>2</sup>, strong, in Ireland and Scotland - S<sup>W</sup><sup>2</sup> to W<sup>2</sup> moderate over England.</p> <p>Variable between SE and SW over Scandinavia - NW<sup>2</sup> in the Netherlands, and over the Bay of Biscay - NE<sup>2</sup> in Spain - calm at Ushant.</p>
WEATHER	<p>Fine and bright over England, the east of Scotland and the northern parts of France - cirrus moving from northward over London.</p> <p>Cloudy or overcast in Ireland, the Hebrides and Shetlands as well as on the E<sup>m</sup> shores of the North Sea.</p> <p>Rain has fallen generally, but heavily at Lumburgh Head only.</p>
SEA	<p>Rough on our extreme northern, northwestern, and southwestern coasts, moderate or slight elsewhere.</p>

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

## FORECASTS

For the 24 hours ending at NOON on 26<sup>TH</sup> DEC 1889.

### DISTRICTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

### FORECASTS.

NONE ISSUED

### DISTRICTS.

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

### WARNINGS

### FORECASTS

NONE ISSUED

The S. cone hoisted in the extreme west of Ireland and Scotland.

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:		Wind		Wea:	Sea			Bar:	Ther:		Wind		Wea:	Sea:
		D	W	D	F						D	W	D	F		
Skudesnaes ...	29.75	42	39	SE	6	0	4	Holyhead ...	...	29.85	45	41	WNW	5	bcg	6
Sumburgh Head ...	29.45	40	39	WNW	5	7	7	Valencia ...	...	30.10	49	45	W	5	bcgm	5
Stornoway ...	29.52	42	40	SW	4	6	4	Scilly ...	...	30.10	49	45	WNW	7	bcg	6
Aberdeen ...	29.55	38	37	WNW	5	OTg	5	Jersey ...	...	30.02	52	48	WNW	4	bc	4
Shields ...	29.63	42	40	W	4	0	2	Dungeness ...	...	29.74	48	46	WNW	6	c	5
Ardrossan ...	29.71	44	41	W	5	bc	4	London ...	...	29.83	47	45	W	5	og	*
Malin Head ...	29.72	43	40	W	6	6	5	Yarmouth ...	...	29.63	40	47	SW	4	bc	3
Mullaghmore ...	29.86	42	41	W	5	cp	3	Rochefort ...	...	30.16	52	51	WNW	5	7	3
Behmullet ...	29.90	42	41	WNW	3	bc	*									

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

The reports for yesterday morning showed that a considerable recovery of pressure had taken place over the southeast of France, Germany, the Baltic and Finland, while over the British Islands there had been a decided fall. Readings were as high as 30.3 ins. to 30.5 ins. over Spain, and 30.3 ins. and more over Hungary, while it exceeded 30.2 ins. in a long ridge which stretched northward from central Europe across the Baltic Provinces to Finland. It was as low, however, as 29.4 ins. and less in a depression lying over Scotland and the Shetlands, whence a "V" shaped secondary spread southwards over England and the Channel. Wind was NW<sup>2</sup>, strong to a gale on our western coast, W<sup>2</sup> over the Bay of Biscay, S<sup>2</sup> over the North Sea and eastern half of England, and very variable in other places. The weather was squally, rainy and very unsettled over the British Islands and North Sea, dull and misty in most other places, fine on the shores of the Mediterranean. Temperature was still high, but changing fitfully over the United Kingdom and the northern half of France, but was low over Russia and Austria.

The lowest individual values were (1) -4°F at Haparanda, +1° at Ulenborg, 15° at Hernösand, and 26° at Stockholm; (2) 11° at Murnanstadt, 17° at Kharkov, 20° at Kiev, 21° at Odessa, 25° at Kuopio and Moscow, 28° at St Petersburg and Warsaw. The highest were 55° at Corunna, 53° at Lorient and Jersey, 52° at Biarritz and Rochefort, 50° at Scilly, Oxford and in London.

Later on the wind shifted to W. or NW. over the British Islands generally, and with improving weather the barometer rose fast and temperature fell.

### 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 26<sup>TH</sup> DECEMBER

1889.

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

STATIONS.	YESTERDAY EVENING.						8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			Weather.	BAROMETER.		SHADE TEMP.			WIND.			Sea (0 to 9).	Shade Temp.	Max.	Min.	Amount of Rainfall.
			Dir.	Force (0 to 12).			Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force (0 to 12).						
SCANDINAVIA.	Haparanda ...	30.449	32	SW	4	0	30.38	+0.2	34	33	+10	SW	6	0	*	?	1	—	—
	Hernösand ...	30.524	33	S	8	0	30.56	+0.22	33	31	0	S	8	0	*	36	5	—	—
	Stockholm ...	30.62	33	2	0	0	30.76	+0.44	31	31	-2	2	0	0	*	34	30	—	—
	Wisby ...	30.50	31	E	4	0	30.76	+0.53	30	28	-2	SE	4	0	*	34	28	—	—
	Bodö ...	30.05	35	E	3	6	29.93	+0.1	44	40	+4	SW	4	7	2	?	32	0.04	—
	Christiansund	30.10	41	SE	4	0	30.10	+0.8	45	44	+4	S	1	C	4	45	41	—	—
	Skudesnaes ...	30.41	42	SE	4	0	30.50	+0.33	42	41	+1	SE	6	0	5	45	41	—	—
	Christiania Fjord (Færder)	30.445	37	N	3	0	30.59	+0.40	40	40	+6	S	3	7	2	?	?	—	—
	Skagen (The Scaw)	30.43	40	2	0	0	30.62	+0.50	39	39	-1	S	2	0	1	?	?	—	—
	Fanö ...	30.47	38	E	2	0	30.59	+0.53	37	37	-1	SE	2	0	*	39	37	—	—
BRITISH ISLANDS.	Sumburgh Head	30.00	46	S	6	0	30.03	-0.2	48	46	+4	SW	4	0	5	48	44	0.06	—
	Stornoway ...	29.90	48	SW	8	7	29.99	+0.7	48	48	0	SW	8	7	6	48	46	0.50	—
	Wick ...	30.04	47	S	3	0	30.15	+0.5	47	45	+5	SW	2	6C	2	47	40	0.03	—
	Nairn ...	30.06	50	W	5	C	30.10	-0.3	50	47	+10	W	5	C	3	51	39	—	—
	Aberdeen ...	30.19	44	SW	2	0	30.24	0.0	45	42	+10	S	3	C	3	46	34	—	—
	Leith ...	30.26	43	W	3	6C	30.31	+0.2	49	47	+13	WSW	4	C	*	49	36	—	—
	Shields ...	30.38	43	S	1	6	30.43	+0.8	46	43	+8	S	3	0	2	46	37	—	—
	Spurn Head ...	30.40	38	SW	2	6	30.52	+0.14	41	40	+2	SW	2	0m	3	42	37	—	—
	York ...	30.46	38	SE	1	0	30.46	+0.5	43	41	+8	SE	1	0	*	43	34	—	—
	Loughborough	30.51	37	NW	1	6	30.56	+0.13	40	39	+3	2	0	0	*	49	34	—	—
GERMANY.	Ardrossan ...	30.27	48	SW	4	0	30.31	+0.2	48	46	+2	SW	6	0	6	48	45	—	—
	Malin Head ...	30.14	48	SW	5	6m	30.18	+0.4	47	45	+3	SW	6	0	4	48	42	—	—
	Mullaghmore ...	30.18	49	SW	6	C	30.23	+0.4	49	47	+1	SW	6	0	5	50	46	—	—
	Belmullet ...	30.17	50	SW	7	0	30.25	+0.9	49	49	-1	SW	7	0	*	51	48	0.17	—
	Donaghadee ...	30.32	47	WSW	4	C	30.36	+0.5	47	46	+9	SW	3	6C	1	47	38	—	—
	Barrow-in-Furness	30.37	45	S	3	6	30.44	+0.7	44	42	+3	SE	3	0	*	47	40	—	—
	Liverpool (Bidston)	30.46	46	SW	1	0	30.50	+0.8	45	42	+4	SW	1	0	2	46	41	—	—
	Holyhead ...	30.42	47	SW	3	0	30.45	+0.5	45	45	+5	SW	4	0	4	52	44	—	—
	Parsonstown ...	30.32	48	2	0	0	30.36	+0.4	48	45	+7	SW	1	0	*	49	40	—	—
	Valencia ...	30.32	52	S	6	0	30.35	+0.2	51	50	0	S	6	0m	6	52	49	—	—
FRANCE AND NETHERLANDS.	Roches Point...	30.40	51	SW	5	C	30.42	+0.5	50	48	0	SW	4	C	4	52	47	—	—
	Pembroke (St. Ann's Hd.)	30.45	49	SW	4	6C	30.52	+0.5	49	47	0	SW	4	0	4	51	48	—	—
	Scilly ...	30.44	49	SW	4	0	30.52	+0.3	49	46	+1	SW	4	0	6	54	46	—	—
	Prawle Point...	30.57	45	WNW	2	6	30.58	+0.5	46	44	+2	W	2	C	2	51	42	—	—
	Jersey (St. Aubin's)	30.58	45	WNW	2	6	30.58	+0.2	39	38	-6	WNW	3	6m	3	52	37	—	—
	Hurst Castle ...	30.58	41	SW	1	6m	30.61	+0.11	36	35	-4	NE	2	f	2	53	33	0.01	—
	Dungeness ...	30.52	36	N	3	m	30.54	+0.15	33	33	-4	N	2	m	1	45	30	—	—
	London ...	30.54	36	SW	1	6f	30.59	+0.13	33	33	0	SW	1	0	*	44	30	—	—
	Oxford ...	30.56	37	2	0	6	30.60	+0.13	35	34	-2	2	0	0f	*	48	33	—	—
	Cambridge ...	30.51	38	2	0	6	30.59	+0.13	34	33	-1	2	0	0	*	45	28	—	—
PENIN- SULA.	Yarmouth ...	30.47	38	NW	2	6	30.54	+0.19	37	36	+1	NW	1	6m	2	42	32	0.01	—
	Cuxhaven ...	30.32	38	E	3	f	30.54	+0.58	36	36	-2	E	2	f	*	39	36	—	—
	Berlin ...	30.41	34	SE	2	f	30.57	+0.50	35	32	-3	E	3	0	*	41	32	—	—
	Wiesbaden ...	*	*	*	*	*	30.47	+0.27	40	39	-2	W	1	0	*	43	37	—	—
	Munich ...	30.41	34	W	3	7	30.44	+0.23	33	33	-3	W	1	f	*	37	32	0.04	—
	The Helder ...	30.45	42	NNW	2	6	30.53	+0.34	41	40	-3	NE	1	C	1	45	41	—	—
	Brussels (9 a.m.)	*	*	*	*	*	30.55	+0.20	39	38	-1	WNW	1	0	*	44	37	—	—
	Cape Gris Nez	?	41	SW	1	C	?	?	41	40	-1	E	1	m	2	46	39	—	—
	Paris ...	30.54	35	ESE	1	6	30.56	+0.12	32	32	-4	N	2	0	*	45	27	—	—
	Brest ...	?	46	2	0	6	?	?	44	42	-6	E	2	6	4	54	39	0.04	—
GERMANY.	Lorient ...	30.57	48	2	0	6	30.56	0.0	40	40	-7	ESE	2	f	5	52	39	—	—
	Rocheport ...	30.60	46	NNW	3	6	30.58	+0.03	37	36	-7	NNE	4	6	2	?	32	—	—
	Belfort ...	30.43	34	N	3	6	30.40	-0.03	33	32	-4	NNW	3	6	*	?	33	—	—
	Lyons ...	30.01	45	W	3	0	30.08	+0.08	49	39	+4	NE	7	C	8	52	43	—	—
	Nice ...	30.36	45	NW	3	6	30.28	-0.13	41	36	-7	NW	5	6	*	57	39	0.04	—
	Perpignan ...	30.53	46	NE	3	0	30.50	-0.05	33	33	-12	E	3	m	4	50	32	—	—
	Biarritz ...	30.53	46	NE	3	0	30.50	-0.05	33	33	-12	E	3	m	4	50	32	—	—
	Corunna ...	30.38	35	N	3	6	30.30	-0.15	45	43	-2	NNW	3	6	5	59	45	—	—
	Lisbon ...	30.38	35	N	3	6	30.30	-0.15	45	43	-2	NNW	3	6	5	59	45	—	—
	Lisbon ...	30.38	35	N	3	6	30.30	-0.15	45	43	-2	NNW	3	6	5	59	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

Thursday, 26<sup>th</sup> December,

1889.

## 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 bars 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:

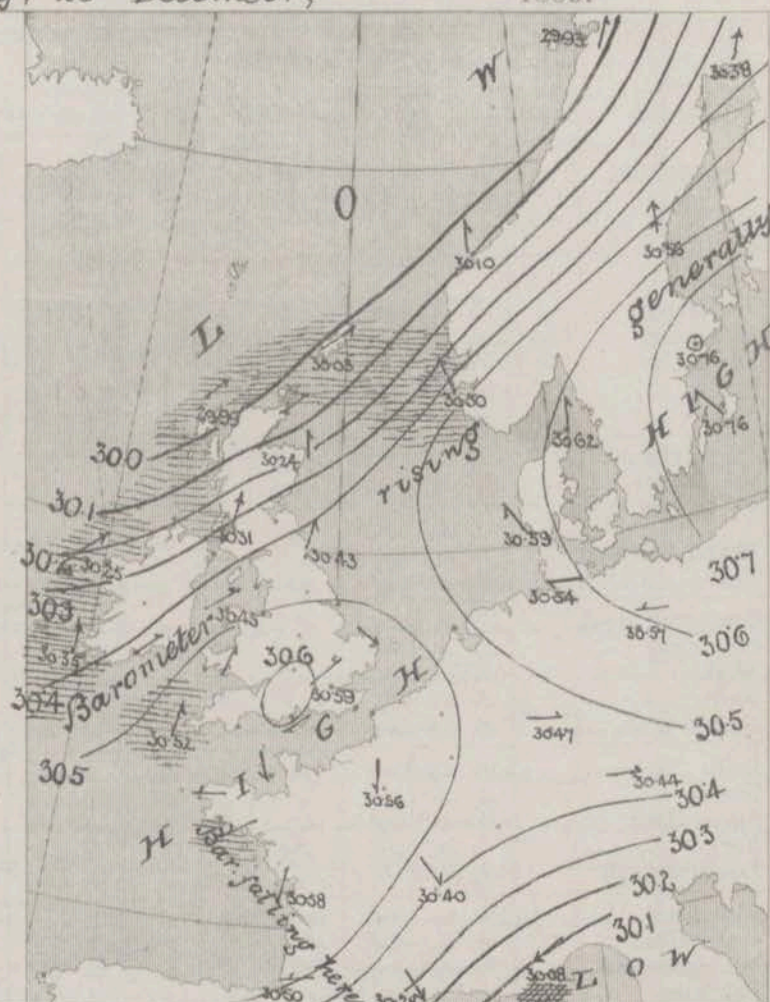
☼ = Rough. ☼ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

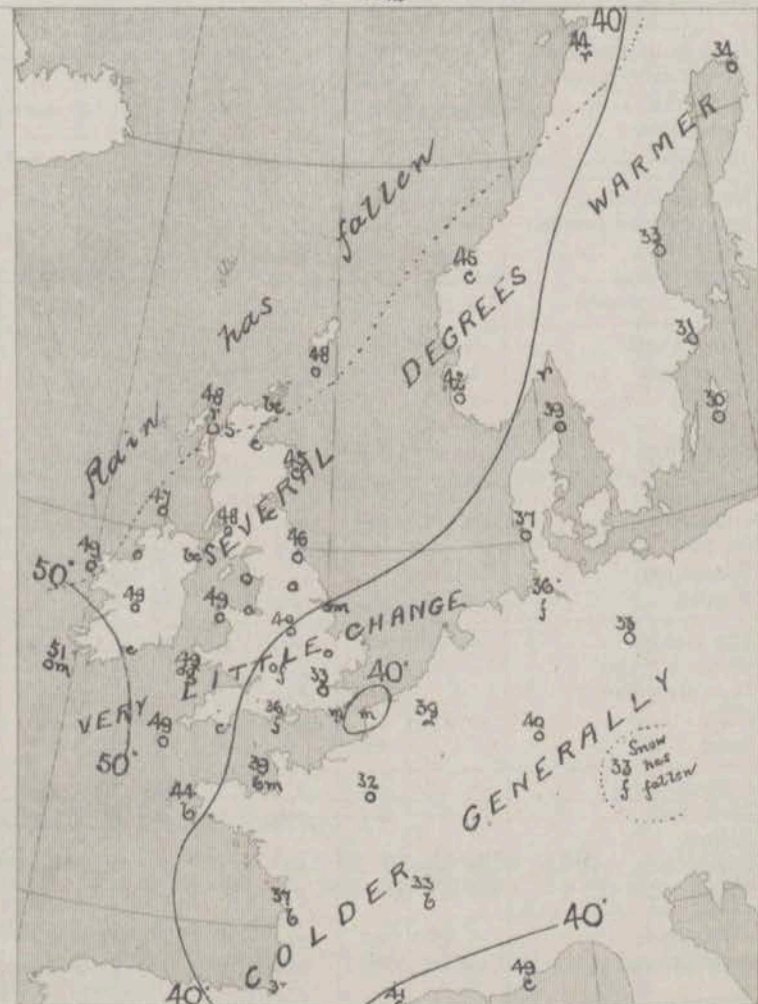
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway.....	44.4	33.9	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrrossan.....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	40.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point.....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle.....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.99
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1860-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, { 30.7 in. and upwards, in an anticyclone lying over the Baltic.  
 30.5 in. and upwards, in another system lying over the greater part of England, France, and the Bay of Biscay.  
 Lowest, 30.0 in. and less, in a large area lying to the northward of our Islands and the westward of Norway; 30.1 in. and less, over the Gulf of Genoa.  
 Gradients rather steep over Norway, and the northern parts of the North Sea, but moderate or slight elsewhere.  
 Barometer rising at all but the French stations.

## TEMPERATURE

Highest, 51° at Valencia, 50° at Navin and Rochepoint, and 49° at Leith, Mullaghmore, Helmsdale, Holyhead, Pembroke and Sully.  
 Lowest, 30° at Killybegs, 31° at Stockholm, 32° at Paris, and 33° at Helsingfors, Copenhagen, London, Berlin, Munich and Lyons.  
 Frost occurred last night over the southern part of England; at Cambridge the thermometer fell to 28° in the shade, and in London to 24° on the grass.

## WIND

Strong from the S.W. or S.W.W. on our extreme west and north-west coast and also in Scandinavia, with a gale in the Hebrides and at Helsingfors.  
 Light and variable in the southern part of England; moderate from the N.W. in France.  
 Light from the E. in North Germany, and from the W. in the south of that country.

## WEATHER

Cloudy or overcast generally, with fog in the south-east of England, and rain at Bodo and Stromsø. Fair in France and fair in the east of Scotland.  
 Since yesterday morning 0.5 in. of rain has fallen in the Hebrides.

## SEA

Very high at Killybegs and rough on our extreme southern, western and northern coasts.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There are at present no indications of any very decided change in the weather. The anticyclone over England and France will probably spread northwards, and become united with the system lying over the Baltic.

## FORECASTS

For the 24 hours ending at NOON on 27<sup>th</sup> DEC<sup>r</sup> 1889.

DISTRICTS.	FORECASTS.	DISTRICTS.	FORECASTS
† 0 SCOTLAND NORTH	SW <sup>ly</sup> winds, fresh or strong; cloudy, rain locally.	† 6 SCOTLAND WEST	S <sup>ly</sup> and SW <sup>ly</sup> winds, strong; cloudy, some rain.
1 SCOTLAND EAST	{ S <sup>ly</sup> and SW <sup>ly</sup> winds, moderate, fair generally.	7 ENGLAND N.W.	{ S <sup>ly</sup> and SW <sup>ly</sup> winds, freshening; cloudy, some rain.
2 ENGLAND N.E.		8 ENGLAND S.W.	
3 ENGLAND EAST	{ Variable breezes, finally SW <sup>ly</sup> ; cloudy, local fogs.	9 IRELAND NORTH	{ S <sup>ly</sup> and SW <sup>ly</sup> winds, strong; cloudy, some rain.
4 MIDLAND COUNTIES		† 0 IRELAND SOUTH	
5 ENGLAND SOUTH		WARNINGS	The SOUTH CONE is still flying in the most western parts of Ireland and Scotland.

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:		Wind		Wea:	Sea			Bar:	Ther:		Wind.		Wea:	Sea.
		D	W	D	F						D	F				
Skudesnaes ...	30.33	41	40	SE	2	bc	4		Holyhead ...	30.41	50	47	SW	3	bc	2
Sumburgh Head ...	30.02	46	43	SEW	4	C	5		Valencia ...							
Stornoway ...	29.87	48	48	SW	8	C	6		Scilly ...							
Aberdeen ...									Jersey ...							
Shields ...									Dungeness ...	30.47	45	41	N	3	bc	2
Ardrossan ...	30.26	48	45	SWW	5	C	4		London ...							
Malin Head ...	30.12	47	45	SWW	6	om	5		Yarmouth ...							
Mullaghmore ...	30.18	50	46	SWW	6	om	5		Rocheport ...	30.59	48	46	NNW	3	bc	2
Belmullet ...																

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

Continental Information not received.

### EXPLANATION OF COLUMNS GIVEN ON PAGE 1.

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\* 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 FRIDAY 27<sup>TH</sup> DECEMBER 1889.

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

		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
STATIONS.		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.			BAROMETER.		SHADE TEMP.			WIND.			Sea. (0 to 2.)	SHADE TEMP.			
				Dirce.	Force. (0 to 12.)	Weather.	Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirce.	Force. (0 to 12.)	Weather.		Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	30.20	34	SW	6	0	30.22	-16	35	34	+1	WSW	2	bc	*	36	30	0.08	
	Hernösand ...	30.46	35	SW	6	0	30.60	+0.4	36	34	+3	W	4	bc	*	39	30	—	
	Stockholm ...	30.86	30	SW	2	0	30.90	+1.4	28	26	-3	WSW	2	0	*	39	?	—	
	Wisby ...	30.50	30	SE	4	0	30.94	+1.8	31	30	+1	SW	4	0	*	34	28	—	
	Bodö ...	29.80	46	SW	9	T	30.17	+2.4	44	41	0	SW	8	0	5	46	39	0.12	
	Christiansund ...	30.23	51	SW	8	0	30.42	+3.2	45	42	0	SW	3	0	5	?	45	—	
	Skudesnaes ...	30.65	43	SE	6	0	30.77	+2.7	39	37	-3	SE	6	T	5	43	37	—	
	Christiania Fjord (Færder) ...	30.75	38	S	5	0	30.84	+2.5	35	33	-5	SW	4	0	3	?	34	—	
	Skagen (The Seaw) ...	30.81	35	S	3	0	30.88	+2.6	33	31	-6	SW	2	0	1	39	?	—	
	Fanö ...	30.76	30	SE	6	0	30.82	+2.3	28	28	-9	SE	6	C	*	39	28	—	
BRITISH ISLANDS.	Sumburgh Head ...	30.29	48	SW	1	0	30.37	+3.4	47	46	-1	S	4	0	5	50	43	0.01	
	Stornoway ...	30.22	49	SW	6	C	30.25	+2.6	47	46	-1	SW	6	0	5	50	42	0.12	
	Wick ...	30.32	47	SW	1	C	30.36	+2.1	46	45	-1	SW	4	0	3	48	43	0.03	
	Nairn ...	30.32	49	2	0	bc	30.35	+2.5	47	45	-3	WSW	3	C	2	51	41	—	
	Aberdeen ...	30.38	44	SW	2	C	30.48	+2.4	44	43	-1	SE	4	cd-f	4	48	42	—	
	Leith ...	30.42	47	WSW	3	C	30.48	+1.7	44	42	-5	SE	2	Cm	*	49	44	—	
	Shields ...	30.49	46	SW	2	0	30.56	+1.3	42	39	-4	S	2	0	2	47	39	—	
	Spurn Head ...	30.54	42	SE	1	0	30.57	+0.5	41	39	0	SE	4	0	4	43	40	—	
	York ...	30.53	43	S	1	0	30.59	+1.3	41	39	-2	SE	1	0	*	45	39	—	
	Loughborough ...	30.57	42	SE	1	0	30.57	+0.1	36	35	-4	SE	2	ow	*	44	35	—	
BRITISH ISLANDS.	Ardrossan ...	30.42	47	S	1	d	30.45	+1.4	45	41	-3	SE	3	p	3	48	44	0.02	
	Malin Head ...	30.30	47	S	5	Cm	30.31	+1.3	44	42	-3	SE	4	0	2	48	44	—	
	Mullaghmore ...	30.34	50	SE	5	0	30.29	+0.6	48	44	-1	SE	5	C	4	51	47	—	
	Belmullet ...	30.30	50	SW	6	C	30.21	-0.4	48	45	-1	SW	6	0	*	50	46	—	
	Donaghadee ...	30.43	47	SW	2	C	30.44	+0.8	47	45	0	SW	4	C	2	50	45	—	
	Barrow-in-Furness ...	30.47	46	SE	3	0	30.49	+0.5	42	41	-2	SE	3	om	*	46	42	—	
	Liverpool (Bidston) ...	30.53	46	SW	2	0	30.53	+0.3	41	38	-4	SE	2	0	2	48	40	—	
	Holyhead ...	30.49	48	SW	3	0	30.49	+0.4	45	42	-4	SE	2	omg	2	50	44	—	
	Parsonstown ...	30.38	46	2	0	C	30.35	-0.1	46	43	-2	SW	1	C	*	51	44	—	
	Valencia ...	30.35	52	SE	5	Cm	30.26	-0.9	50	48	-1	SE	7	om	6	52	48	—	
GERMANY.	Roche's Point ...	30.43	49	SW	5	C	30.37	-0.5	49	46	-1	SE	6	C	5	51	47	—	
	Pembroke (St. Ann's Hd.) ...	30.51	49	SW	3	C	30.47	-0.5	44	42	-5	SE	4	og	4	49	44	—	
	Scilly ...	30.49	49	S	4	0	30.40	-1.2	47	44	-2	SE	5	0	5	50	46	—	
	Prawle Point ...	30.57	46	E	2	0	30.46	-1.2	43	41	-3	ENE	4	og	3	47	41	—	
	Jersey (St. Aubin's) ...	30.56	47	NE	1	Cm	30.44	-1.4	42	40	+3	E	5	Cm	3	49	37	—	
	Hurst Castle ...	30.58	43	NNE	2	0	30.49	-1.2	42	41	+6	ENE	4	bc	3	44	35	—	
	Dungeness ...	30.54	40	N	2	m	30.47	-0.7	40	39	+7	E	4	C	3	43	31	—	
	London ...	30.57	42	2	0	0	30.52	-0.7	39	37	+6	SE	3	0	*	43	33	—	
	Oxford ...	30.60	40	SW	1	0	30.54	-0.6	35	34	0	ENE	1	Cm	*	43	34	—	
	Cambridge ...	30.60	38	2	0	0	30.59	0.0	38	38	+4	E	1	0	*	39	31	—	
FRANCE AND NETHERLANDS.	Yarmouth ...	30.54	41	2	0	C	30.55	+0.1	37	36	0	E	5	Cg	4	41	35	—	
	Cuxhaven ...	30.65	34	E	5	f	30.78	+2.4	28	26	-8	ENE	5	bc	*	?	27	—	
	Berlin ...	30.75	29	E	4	0	30.84	+2.7	26	23	-7	E	4	0	*	36	23	—	
	Wiesbaden ...	?	*	*	*	*	30.59	+1.2	31	30	-9	NE	3	C	*	43	30	—	
	Munich ...	30.43	32	E	4	0	30.42	-0.2	20	19	-13	E	7	0	*	36	19	0.04	
	The Helder ...	30.63	37	ENE	1	f	30.65	+1.0	30	29	-11	ENE	3	C	3	41	28	—	
	Brussels (9 a.m.) ...	?	41	E	2	bc	30.52	-0.3	32	31	-7	ENE	4	C	*	41	32	—	
	Cape Gris Nez ...	?	?	?	?	?	?	?	36	35	-5	E	4	0	4	46	36	—	
	Paris ...	30.50	36	N	2	0	30.39	-1.7	36	35	+4	NE	2	C	*	?	?	—	
	Brest ...	?	43	E	1	C	?	?	43	40	-1	2	0	0	3	54	36	—	
FRANCE AND NETHERLANDS.	Lorient ...	30.52	44	NE	2	C	30.36	-2.0	43	41	+3	NE	3	0	5	46	39	—	
	Rocheport ...	30.51	39	NE	4	C	30.34	-2.4	36	35	-1	NE	5	0	2	46	28	—	
	Belfort ...	30.22	36	SW	1	0	30.19	-0.3	34	26	-8	SW	1	0	*	43	27	—	
	Lyons ...	30.38	36	N	3	0	30.23	-1.7	33	33	0	N	1	m	*	40	33	—	
	Nice ...	30.56	50	NNE	5	bc	30.15	-4.7	45	37	-4	ENE	5	C	5	54	43	—	
	Perpignan ...	30.61	43	N	3	C	30.21	-0.7	34	32	-7	WSW	2	C	*	50	33	—	
	Biarritz ...	30.38	39	E	3	m	30.27	-2.3	37	35	+4	E	3	0	2	45	?	—	
	Corunna ...	?	*	*	*	*	30.26	-0.4	39	35	-6	NNE	3	C	4	54	39	—	
	Lisbon ...	30.25	49	N	4	C	?	?	?	?	?	?	?	?	?	?	?	—	
	Peninsular ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	—	

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.

27<sup>th</sup> DECEMBER.

1889.

## 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

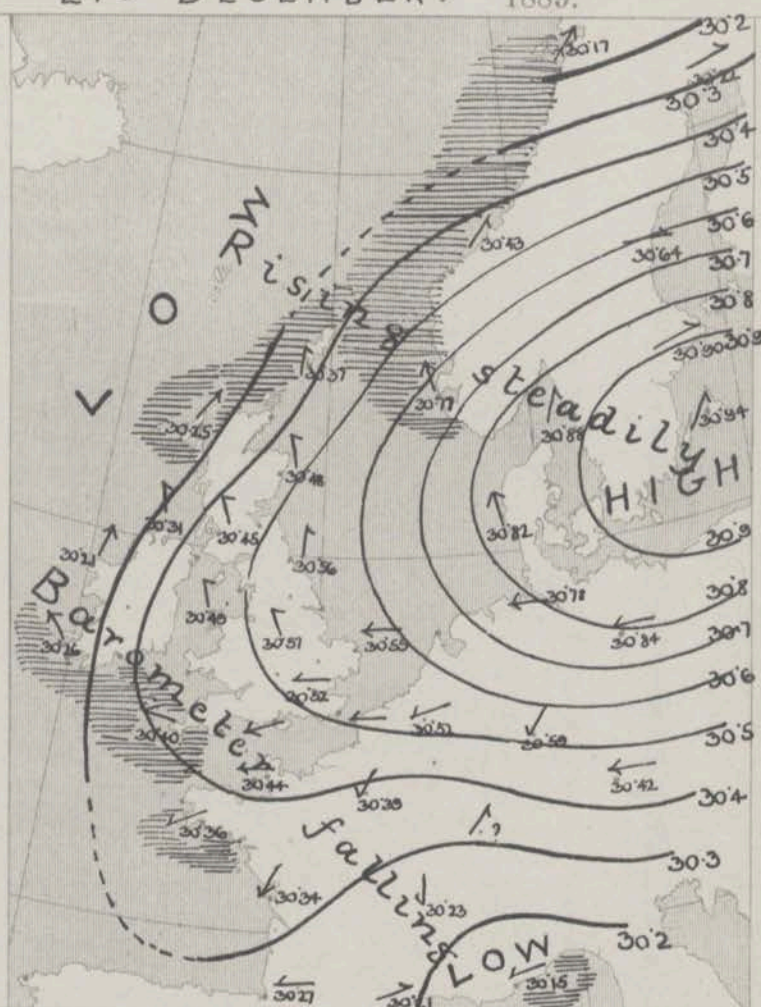
at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

### STATIONS.

### MEAN READINGS.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.607
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roscoe's Point .....	29.915
Pembroke .....	29.918
Seilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

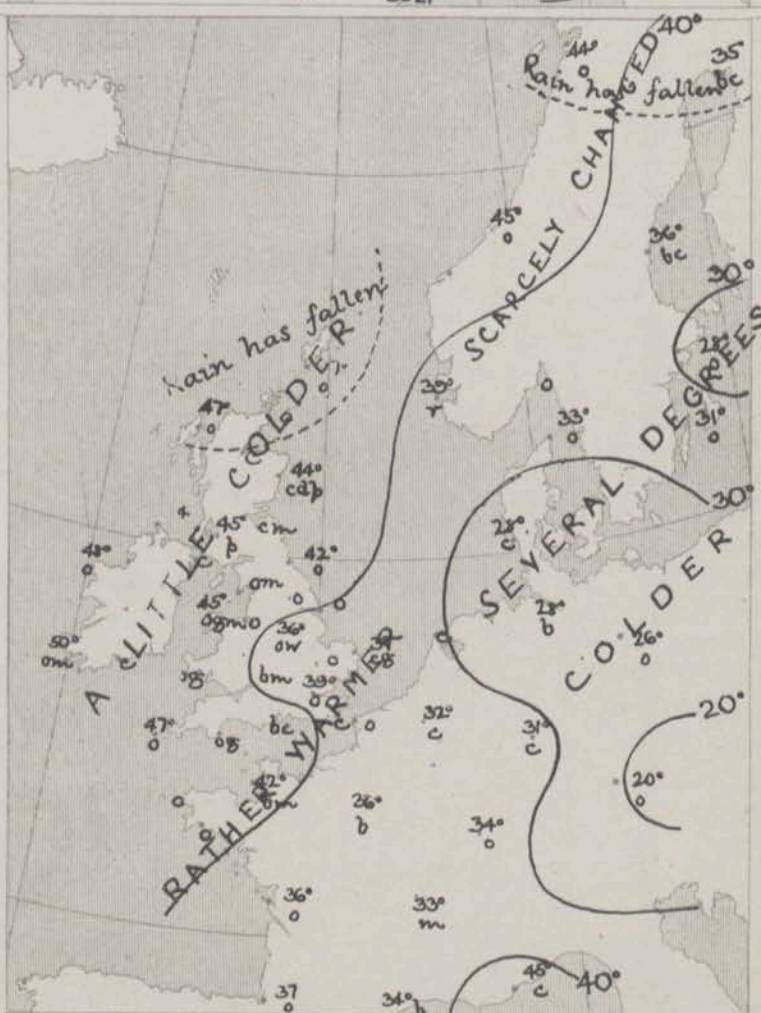
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head .....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.9	39.2	38.2	5.66
Wick .....	42.1	32.6	38.0	36.6	3.18
Nairn .....	41.7	32.8	37.0	35.5	2.08
Aberdeen .....	42.0	32.5	36.9	35.3	3.34
Leith .....	41.2	33.7	38.6	37.0	2.01
Shields .....	43.1	34.3	38.5	37.2	2.74
York .....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.6	35.9	2.56
Ardrossan .....	44.6	36.0	40.1	38.7	4.04
Donaghadee .....	40.1	36.2	40.2	39.2	2.84
Holyhead .....	46.7	39.3	43.0	41.4	3.84
Liverpool .....	43.8	36.0	39.3	37.6	2.70
Parsonstown .....	44.8	33.2	37.9	36.6	3.02
Valencia .....	50.0	40.0	44.6	42.3	5.82
Roscoe's Point .....	48.0	39.0	42.9	41.5	4.74
Pembroke .....	47.1	40.6	43.9	42.5	4.06
Seilly .....	49.8	43.8	47.1	45.4	4.10
Jersey .....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover .....	44.7	36.8	40.3	39.1	3.20
LONDON .....	44.7	34.6	38.6	37.1	2.14
Oxford .....	43.6	34.3	37.7	36.6	2.13
Cambridge .....	43.5	32.3	36.9	36.1	1.99
Yarmouth .....	42.4	34.2	38.3	37.5	2.95

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest 30.6 ins. to 30.9 ins. and more in a large anticyclone lying to the eastward of the North Sea. Lowest 30.2 ins. and less over the west of Lapland, off the west of Ireland, and over the south of France. Gradients moderate in most places, rather steep over Scandinavia. Barometres falling steadily in the south and west, rising elsewhere.
TEMPERATURE	Highest 50° at Valencia, 49° at Roche's Point, 48° at Belmullet, 47° at Scilly and Stornoway, 45° at Christiansund. Lowest 20° at Munich, 26° at Berlin, 28° at Stockholm, Lurshaven and Farris, 32° at Brussels, 35° at Oxford, 36° at Paris and Loughborough. It has fallen rather decidedly over the British Isles and North Germany, risen slightly in France since yesterday.
WIND	Moderate to fresh from NE. and E. over Germany, the Bay of Biscay and English Channel. Fresh to strong from SE. and S. in Ireland - moderate SW <sup>7</sup> and S <sup>7</sup> in Scotland. SW <sup>7</sup> in the northwest of Norway (a gale at Bodø), W <sup>4</sup> in Sweden.
WEATHER	Clear at a few stations, densely cloudy elsewhere, with slight rain in a few northern localities.
SEA	Rather rough in the extreme north and west, moderate to slight elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

It appears probable that the gradients for E<sup>2</sup> winds will increase over the southern parts of our area, and that the E<sup>2</sup> wind over the Channel and south of England will freshen still further in force. Fair weather is probable in most places.

## FORECASTS

For the 24 hours ending at NOON on 28<sup>th</sup> December 1889.

### DISTRICTS.



### FORECASTS.

0	SCOTLAND NORTH	S <sup>4</sup> and SE <sup>4</sup> winds, moderate; some showers.
1	SCOTLAND EAST	
2	ENGLAND N.E.	SE <sup>4</sup> winds, freshening; dull.
3	ENGLAND EAST	Same as N° 5.
4	MIDLAND COUNTIES	Same as N° 2.
5	ENGLAND SOUTH	E <sup>2</sup> winds, fresh or strong; dull to fair.

### DISTRICTS.

### FORECASTS

6	SCOTLAND WEST	SE <sup>4</sup> winds, freshening; fair as a whole.
7	ENGLAND N.W.	
8	ENGLAND S.W.	Same as N° 5.
9	IRELAND NORTH	SE <sup>4</sup> and S <sup>4</sup> winds, strong; cloudy. Some showers.
0	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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.55	43	41	SW	7	o	5	Holyhead ...	30.47	49	45	SW	3	c	3
Sumburgh Head ...	30.16	48	46	SW	1	c	5	Valencia ...	30.35	52	50	SW	6	om	5
Stornoway ...	30.18	50	50	SW	4	o	5	Scilly ...	30.49	50	46	SW	4	o	6
Aberdeen ...	30.33	47	45	SW	3	bc	3	Jersey ...	30.55	47	46	N	1	bc	1
Shields ...	30.45	47	44	SW	2	o	2	Dungeness ...	30.53	40	39	N	2	m	1
Ardrossan ...	30.37	47	46	SW	4	c	3	London ...	30.58	42	40	Z	o	af	4
Malin Head ...	30.26	48	46	S	5	om	3	Yarmouth ...	30.54	41	40	Z	o	cm	2
Mullaghmore ...	30.29	50	48	SE	6	o	5	Rocheport ...	30.53	40	39	NNE	4	bc	2
Belmullet ...	30.28	50	49	SW	4	o	4								

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

The reports for yesterday morning showed that pressure varied from 30.5 ins. and more in a broad band stretching across France, the south of England, the North Sea and Baltic to Russia, and from 30.8 ins. and more over some parts of Finland to less than 30.0 ins. in a large low-pressure area lying off the north of Scotland and northwest of Norway, and to about 30.0 ins. near the centre of a well marked depression lying centrally over the Mediterranean. Thus SW<sup>4</sup> and S<sup>4</sup> winds were prevalent over Scandinavia and the west and north of our Islands, while over Central Europe and France the general tendency was NE<sup>4</sup>, and over the northern parts of the Mediterranean the E<sup>3</sup> wind was of considerable force. The weather was fine and bright over the Spanish Peninsula and the southwest of France, cloudy or overcast elsewhere, with rain in several parts of Algeria and Italy, as well as at Bodø and Stornoway; fog and haze prevailed over the southern and southeastern parts of England. Temperature was low over Russia and Austria-Hungary and rather so in some parts of France and England. The lowest morning values were 2° F. at Archangel, 15° at Moscow, 18° at Nicolaieff, 19° at Nicopolis, 22° at Kiev and Lemberg and below 30° in other parts of Russia and Hungary, as well as in some parts of France 32° at Paris, 33° in London and at Berlin. The highest were 56° at Malta, 52° at Brindisi, 51° at Valencia, 50° at Naxos, 49° at Scilly, Holyhead and Belmullet, 48° at Sumburgh Head, 45° at Christiansund, and 44° at Bodø.

Later on the barometer fell over France and the west of our Islands, but rose in the north and east, and the E<sup>4</sup> wind began to freshen at the southern 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 SATURDAY 28<sup>TH</sup> DECEMBER 1889.

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

STATIONS.	YESTERDAY EVENING.						8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	Barometer.	SHADE TEMP.			WIND.		Weather.	Sea. (0 to 2.)	SHADE TEMP.		Amount of Rainfall.			
			Dirac.	Force. (0 to 12.)			Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirac.	Force. (0 to 12.)			Max.	Min.				
SCANDINAVIA.																			
Haparanda ...	30.23	38	W	4	0	30.17	-0.05	38	36	+3	SW	4	C	*	32	—			
Hernösand ...	30.53	32	2	0	0	30.53	-0.07	27	26	-1	SW	2	C	*	32	—			
Stockholm ...	30.87	25	SW	4	0	30.81	-0.09	23	21	-2	SW	4	C	*	32	—			
Wisby ...	30.74	30	SW	4	0	30.84	-0.10	28	28	-3	SW	4	CC	*	23	—			
Bodö ...	30.16	45	SW	9	7	30.19	+0.02	44	42	0	SW	9	T	6	41	0.75			
Christiansund	30.53	41	SW	2	0	30.48	+0.05	36	34	-2	SW	1	CC	5	36	—			
Skudesnaes ...	?	34	SE	7	0	30.5	-0.20	33	30	-3	SE	8	CC	5	32	—			
Christiania Fjord (Færd)	30.84	33	SW	2	0	30.74	-0.10	31	29	-2	SE	3	0	2	30	—			
Skagen (The Scaw)	30.86	32	S	4	0	30.69	-0.19	31	?	-2	S	4	0	3	34	—			
Fanö ...	30.73	28	E	6	0	30.56	-0.26	25	25	-3	E	6	C	*	23	—			
Sumburgh Head	30.38	48	S	5	0	30.27	-0.10	40	37	-3	SE	5	0	6	39	—			
Stornoway ...	30.23	47	SW	6	C	30.10	-0.15	41	40	-1	SW	6	0	5	40	—			
Wick ...	30.37	44	SW	5	C	30.25	-0.11	39	37	-2	S	4	C	4	36	—			
Nairn ...	30.34	42	WSW	3	CC	30.23	-0.12	31	30	-1	S	0	C	0	29	—			
Aberdeen ...	30.48	42	SE	5	CC	30.31	-0.17	39	34	-5	SE	3	og	5	39	—			
Leith ...	30.48	39	SE	1	C	30.30	-0.18	34	33	-1	SE	1	cm	*	31	—			
Shields ...	30.52	38	SE	3	0	30.30	-0.26	37	33	-4	SE	4	0	0	32	—			
Spurn Head ...	30.47	36	SE	4	0	30.28	-0.29	34	32	-2	E	4	0	4	32	—			
York ...	30.48	36	E	2	0	30.32	-0.27	33	31	-2	E	1	0	*	32	—			
Loughborough	30.48	33	E	3	0	30.30	-0.27	31	28	-3	E	2	0	*	30	—			
ARDROSSAN ...	30.42	44	SE	4	0	30.30	-0.15	28	27	-1	ENE	2	cm	1	27	—			
Malin Head ...	30.26	43	SE	4	0	30.13	-0.13	38	36	-2	S	5	cm	3	38	—			
Mullaghmore ...	30.26	44	SE	5	cm	30.16	-0.13	43	41	-2	SW	4	cm	3	41	—			
Belmullet ...	30.17	46	SE	6	0	30.15	-0.06	44	43	-1	S	1	0	*	43	0.02			
Donaghadee ...	30.39	43	SW	3	0	30.29	-0.15	37	35	-2	SW	3	C	1	34	—			
BRITISH ISLANDS.																			
Barrow-in-Furness	30.44	39	SE	4	0	30.27	-0.22	34	31	-3	SE	3	0	*	29	—			
Liverpool (Bldston)	30.45	37	SE	3	C	30.30	-0.28	32	29	-3	SE	1	0	2	30	—			
Holyhead ...	30.41	39	SE	2	C	30.27	-0.22	33	31	-2	SE	2	og	2	31	—			
Parsonstown ...	30.29	43	SE	1	0	30.21	-0.14	39	38	-1	SE	1	T	*	38	0.06			
Valencia ...	30.21	47	SE	7	T	30.22	-0.04	44	43	-1	2	0	T	1	41	0.45			
Roche's Point...	30.31	47	S	6	0	30.25	-0.12	44	44	0	S	5	T	4	42	0.40			
Pembroke (St. Ann's Hd.)	30.34	42	SE	4	C	30.27	-0.20	32	31	-1	E	3	cm	2	32	—			
Scilly ...	30.27	45	E	4	ofd	30.22	-0.18	40	37	-3	NE	4	C	5	37	0.02			
Prawle Point...	30.34	39	ENE	4	C	30.25	-0.21	32	31	-1	N	3	og	2	32	—			
Jersey (St. Aubin's)	30.20	43	NE	4	og	30.20	-0.24	34	32	-2	ENE	3	cm	3	33	—			
HURST CASTLE ...	30.35	37	ENE	5	S	30.24	-0.25	35	35	0	ENE	4	0	2	33	—			
Dungeness ...	30.34	36	E	5	C	30.23	-0.24	33	31	-2	SE	2	C	1	31	—			
London ...	30.39	33	E	4	0	30.25	-0.27	32	31	-1	SE	2	og	*	31	—			
Oxford ...	30.41	31	ENE	3	0	30.28	-0.26	31	29	-2	NE	2	og	*	31	—			
Cambridge ...	30.44	31	E	1	0	30.30	-0.25	31	30	-1	E	1	0	*	30	—			
GERMANY.																			
Yarmouth ...	30.44	34	E	6	CC	30.28	-0.27	32	30	-2	SE	4	CC	4	30	—			
Cuxhaven ...	30.73	27	SE	6	C	30.49	-0.25	25	24	-1	SE	6	C	*	?	—			
Berlin ...	30.77	24	SE	5	C	30.58	-0.26	20	19	-1	E	5	C	*	18	—			
Wiesbaden ...	*	*	*	*	*	30.25	-0.34	28	27	-1	NE	3	C	*	27	—			
Munich ...	30.27	21	E	5	0	30.17	-0.25	26	25	-1	E	6	0	*	19	—			
FRANCE AND NETHERLANDS.																			
The Helder ...	30.49	27	ENE	5	C	30.36	-0.29	25	24	-1	E	2	C	3	25	—			
Brussels (9 a.m.)	?	29	E	5	C	?	?	25	25	0	E	3	C	2	25	—			
Cape Gris Nez	30.26	31	NE	3	0	30.18	-0.21	25	24	-1	NE	2	C	*	24	—			
Paris ...	30.32	29	E	1	C	30.18	?	27	25	-2	NE	1	0	5	26	0.08			
Brest ...	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?			
Lorient ...	30.25	39	E	3	0	30.18	-0.18	36	32	-4	NE	2	0	5	34	—			
Rochefort ...	30.24	37	NE	5	C	30.21	-0.13	33	32	-1	ENE	3	0	2	27	—			
Belfort ...	30.17	19	N	2	0	30.10	-0.09	23	19	-4	SW	2	C	*	16	—			
Lyons ...	30.15	33	NNW	2	m	30.16	-0.07	30	29	-1	N	1	0	*	30	0.04			
Nice ...	30.04	44	N	6	C	30.05	-0.10	37	36	-1	NE	5	T	4	36	0.04			
PERPIGNAN ...	30.10	41	W	2	0	30.11	-0.10	37	33	+4	W	2	C	*	34	—			
Biarritz ...	30.13	41	SW	3	0	30.15	-0.12	36	34	-2	ENE	3	0	2	34	—			
PENINSULA.																			
Corunna ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
Lisbon ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			



# WEATHER CHARTS

for 8 a.m. on

Saturday, 28<sup>th</sup> December,

1889.

## 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:

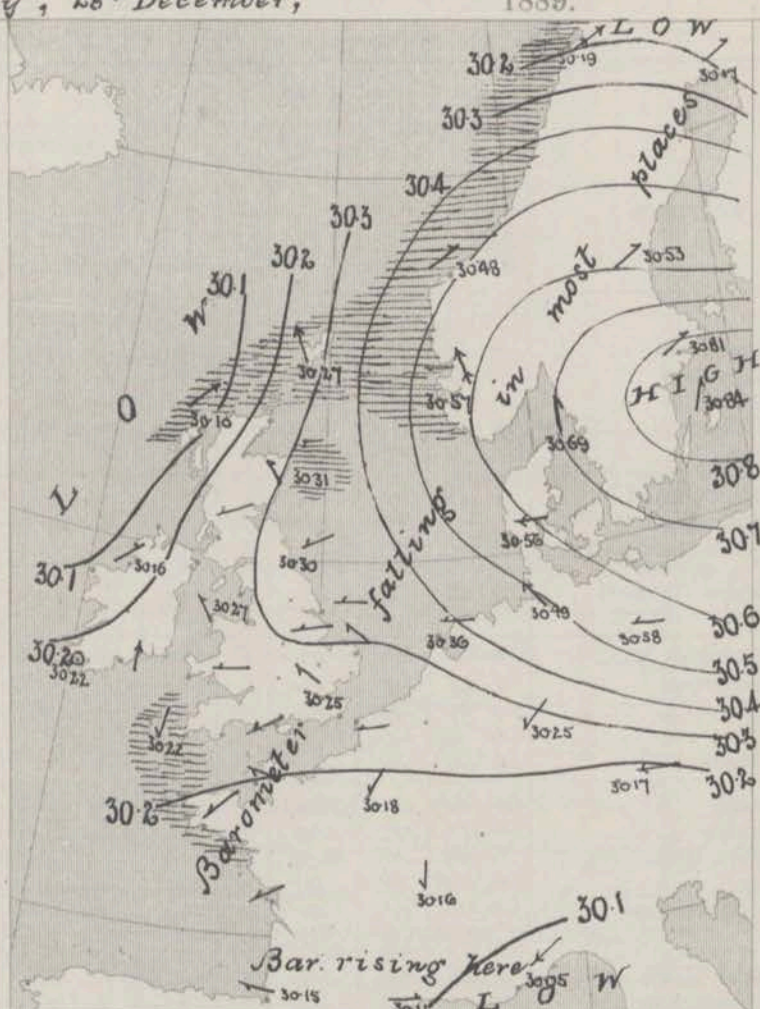
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Sornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.893
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.937
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

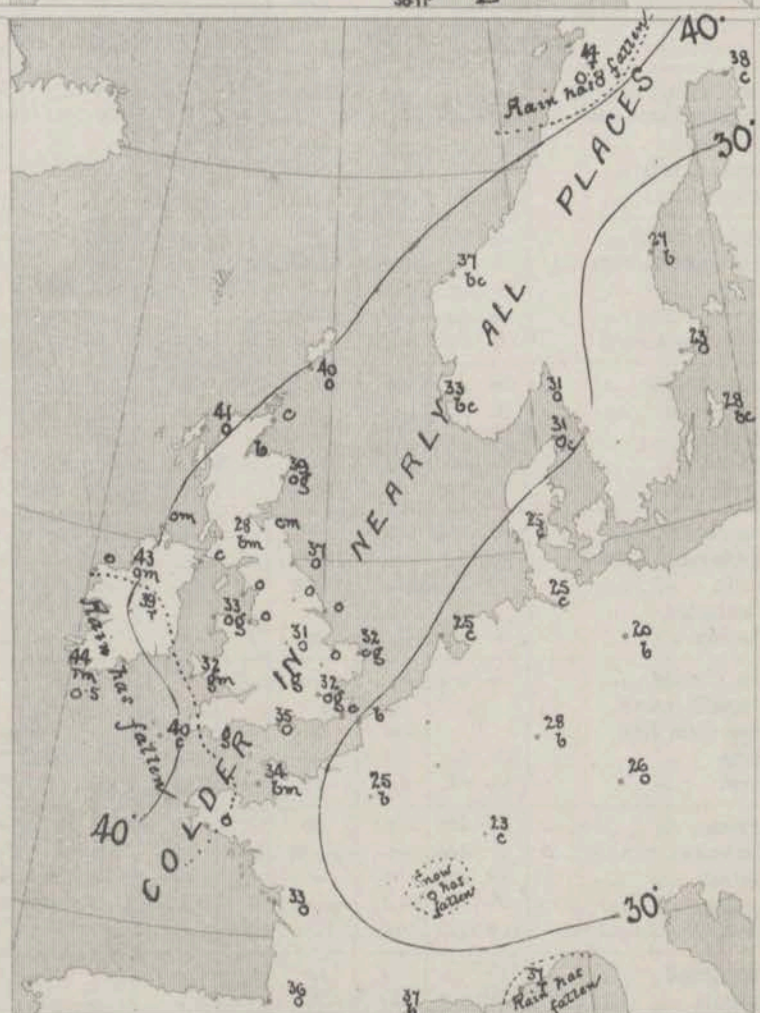
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m. Dry.	Wet.	
Sumburgh Head	42.5	35.0	39.5	37.9	4.33
Sornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	3.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.30
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.9	41.5	4.74
Pembroke	47.1	40.6	43.9	42.5	4.06
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.99
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest 30.8 ins. and upwards, in an anticyclone, the central portion of which lies over the Baltic & south of Sweden.  
Lowest 30.1 ins. and less, in an area lying to the northwest of our islands, and also in another system lying over the S.E. of France.

## TEMPERATURE

Gradients moderate over Scandinavia, Denmark and Germany, but slight elsewhere.  
Barometer falling generally, but rising a little in the extreme southwest of our islands and the S. of France.  
Highest 44° at Bodø, Belmullet, Valencia and Roche's Point, 43° at Mullaghmore, 41° at Stormoway & 40° at Lumbagh.  
Lowest 20° at Berlin, 23° at Stockholm and Belfort, and 25° at Fano, Leuven, the Helder, Cape Gris-Nez & Paris.  
Frost occurred last night in most parts of Great Britain.

## WIND

Light or moderate from the E or NE over the greater part of England and France.  
Fresh from the S.W. in the extreme northwest and north of our islands.

## WEATHER

Strong from SE. on the eastern shores of the North Sea, S.W. in Scandinavia, with a gale at Bodø.  
Fair at most of the Scandinavian, Danish and German stations, as well as in the east of France.  
Cloudy or overcast elsewhere, with mist and gloom in most parts of England, and rain in the S. of Ireland.  
Rain is also falling at Bodø and at Nice.

## SEA

Rough in the extreme north, and rather rough at the mouth of the Channel, but moderate to smooth elsewhere.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There are at present no indications of any material change in the distribution of pressure, and cloudy cold weather seems likely to continue in nearly all districts.

# FORECASTS

For the 24 hours ending at NOON on 29<sup>th</sup> December 1889.

## DISTRICTS.

## FORECASTS.

## DISTRICTS.

## FORECASTS

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

*Locally*  
S<sup>th</sup> winds, fresh or strong; cloudy, rain or sleet.  
S<sup>th</sup> or S.E.<sup>th</sup> winds, moderate, fair generally.  
E<sup>th</sup> winds, moderate or fresh; cloudy, misty, possibly some snow showers.

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

E and S.E.<sup>th</sup> winds, moderate; cloudy generally.  
N.E.<sup>th</sup> winds, moderate; cloudy, slight rain locally.  
S<sup>th</sup> winds, moderate or fresh; dull, some rain.

## 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:		Wind		Wea:	Sea		Bar.	Ther:		Wind		Wea:	Sea.
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.79	36	33	SE	6	o	5		Holyhead ...	30.44	43	SE	2	og	2
Sumburgh Head ...	30.38	46	43	S	5	o	6		Valencia ...	30.20	50	SE	7	om	6
Stornoway ...	30.25	47	45	SW	5	o	5		Scilly ...	30.43	46	SE	4	o	5
Aberdeen ...	30.48	44	40	SE	5	cq	5		Jersey ...	30.36	44	ENE	4	bc	3
Shields ...	30.54	42	39	S	3	o	2		Dungeness ...	30.38	37	E	5	c	4
Ardrossan ...	30.42	44	42	ENE	4	om	3		London ...	30.45	39	ENE	3	om	4
Malin Head ...	30.25	45	42	NE	5	o	3		Yarmouth ...	30.49	34	E	5	cq	5
Mullaghmore ...	30.23	48	43	SE	7	c	5		Rochefort ...	30.26	41	NE	5	c	2
Belmullet ...	30.19	49	46	S	6	o	*								

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

The reports for yesterday morning showed that pressure was very high (31.0 ins. to 30.8 ins.) over central Russia, the Baltic and North Germany, and that it decreased — in a Northerly direction to 30.2 ins. and less, over Lapland and the White Sea, in a Westerly direction to about the same value off the northwest of Ireland, and in a S<sup>W</sup> direction to 30.1 ins. and less, over the Mediterranean. Gradients were somewhat steep over northern Europe, moderate in the west and south. The wind therefore was mainly NE<sup>2</sup> to E<sup>2</sup> over Spain, France and the south of our Islands, and blew freshly in the Channel, while it was S<sup>2</sup> in Ireland, S<sup>2</sup> to SW<sup>2</sup> in Scotland, and SW<sup>2</sup> to W<sup>2</sup> over Scandinavia and Finland — blowing a gale at Bodø and Kuopio. The weather was clear at the Iberian stations, but very cloudy and gloomy in most other places, with slight rain at some of the northern stations. At many of the Mediterranean stations also there had been a little rain during the preceding 24 hours. Temperature had fallen except over northern Europe, and the air over England had become much drier than of late. The lowest morning values were -4° at Moscow, +5° at Kharkov, 13° at Kiev, 16° at Nicolaieff, 18° at St Petersburg, and between 20° and 30° over the remaining parts of Russia, central Europe and central Spain. At Brussels the temperature was 32°, at Paris 36°, and in London 39°. The highest values were 51° at Algiers, 50° at Valencia, 49° at Roches Point, 48° at Belmullet, 47° at Scilly, Donaghadee and Sumburgh Head, 45° at Christiansund, and 44° at Bodø.

There was no change of importance observed later beyond a general decrease of pressure over northwestern, western and central 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 Sunday 29<sup>th</sup> DEC<sup>r</sup> 1889  
 Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.	YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
	Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 4.)	SHADE TEMP.		Amount of Rainfall.	
			Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	30.13	34	SW	4	b	29.89	- .28	31	31	- 7	WSW	2	0	*	38	?	-
	Hernösand ...	30.39	15	L	0	b	30.17	- .36	18	17	- 9	SW	2	0	*	34	14	-
	Stockholm ...	30.65	21	L	0	b	30.32	- .49	28	27	- 5	SW	2	0	*	?	21	-
	Wisby ...	30.65	25	S	4	b	30.34	- .50	28	26	- 0	SSW	4	0	*	30	23	-
	Bodö ...	30.12	41	SW	6	0	29.76	- .48	39	37	- 5	WSW	8	0	5	45	37	0.04
	Christiansund	30.20	36	SE	2	C	30.05	- .43	38	33	- 2	WSW	6	0	4	?	34	-
	Skudesnaes ...	30.39	34	SE	6	0	30.25	- .32	34	30	- 1	ESE	6	0	2	34	?	-
	Christiania Fjord (Færder)	30.54	28	SE	2	0	30.30	- .44	24	23	- 7	NNE	2	0	2	34	23	-
	Skagen (The Scaw)	30.42	30	SSE	4	0	30.24	- .45	30	?	- 1	SSE	1	0	2	32	28	-
	Fanö ...	30.28	26	SSE	1	C	30.19	- .37	26	26	- 1	L	0	0	*	30	24	-
BRITISH ISLANDS.	Sumburgh Head	30.10	39	SSE	5	P	30.08	- .19	40	37	- 0	S	3	0	5	41	38	-
	Stornoway ...	29.99	40	SW	6	0	30.11	- .01	42	42	- 1	SW	2	0	3	42	37	-
	Wick ...	30.07	26	S	3	bc	30.15	- .10	38	36	- 1	L	0	om	2	39	35	-
	Nairn ...	30.06	34	L	0	C	30.13	- .10	38	35	- 7	WSW	1	0	1	38	29	-
	Aberdeen ...	30.18	35	S	3	0	30.19	- .12	30	28	- 9	WSW	1	C	4	39	28	-
	Leith ...	30.19	34	N	1	C	30.19	- .11	34	32	- 0	N	1	cm	*	36	32	-
	Shields ...	30.25	32	WSW	3	C	30.24	- .06	33	31	- 4	SW	1	m	3	37	27	-
	Spurn Head ...	30.25	31	WSW	1	0	30.24	- .04	29	28	- 5	WSW	3	b	3	34	25	0.01
	York ...	30.28	32	SE	1	0	30.27	- .05	30	29	- 3	S	1	f	*	35	26	-
	Loughborough	30.30	29	N	1	0	30.29	- .01	20	20	- 11	ESE	1	bc	*	31	20	-
GERMANY.	Ardrossan ...	30.17	34	ENE	2	0	30.20	- .10	34	34	- 6	NE	1	om	2	36	27	0.13
	Malin Head ...	30.02	37	S	5	Open	30.11	- .02	39	38	- 1	SE	2	0	2	40	35	0.20
	Mullaghmore ...	30.05	42	SSW	4	r	30.05	- .11	41	40	- 2	E	5	C	4	48	40	0.33
	Belmullet ...	30.02	43	SSW	4	0.2	30.07	- .08	46	45	- 2	ENE	3	0	*	48	43	0.58
	Donaghadee ...	30.15	39	SW	3	0	30.15	- .14	42	42	- 5	SW	4	0	2	42	35	0.09
	Barrow-in-Furness	30.21	32	SE	3	0	30.22	- .05	31	30	- 3	E	1	bc	*	34	30	-
	Liverpool (Bidston)	30.26	30	SE	2	C	30.24	- .06	28	27	- 4	ESE	3	C	3	33	27	-
	Holyhead ...	30.22	35	S	3	og	30.19	- .08	36	36	- 3	SE	3	rmg	3	39	32	0.06
	Parsonstown ...	30.12	41	L	0	0	30.01	- .20	42	41	- 3	SE	2	0	*	43	37	0.52
	Valencia ...	30.13	48	SSW	2	og	29.98	- .24	46	45	- 2	N	1	bc	2	50	42	0.74
FRANCE AND NETHERLANDS.	Roche's Point...	30.17	47	WSW	3	p	30.02	- .23	47	47	- 3	S	6	r	5	48	42	0.60
	Pembroke (St. Ann's Hd.)	30.25	36	SE	2	C	30.07	- .10	42	42	- 10	SE	5	pm	4	44	32	0.04
	Scilly ...	30.22	39	L	0	0	30.11	- .11	45	43	- 5	S	6	0	6	46	37	-
	Prawle Point ...	30.28	33	N	3	0	30.23	- .02	42	40	- 10	SSE	4	og	3	42	30	-
	Jersey (St. Aubin's)	30.25	37	E	3	C	30.29	- .09	35	33	- 1	E	4	bc	3	44	33	-
	Hurst Castle ...	30.27	34	NE	3	0	30.26	- .02	40	39	- 5	ESE	3	om	2	41	34	-
	Dungeness ...	30.25	32	NNE	3	C	30.26	- .03	24	23	- 9	NNE	1	m	1	33	23	-
	London ...	30.29	31	L	0	f	30.29	- .04	24	24	- 8	L	0	f	*	34	24	-
	Oxford ...	30.30	28	L	0	b	30.30	- .02	20	20	- 11	L	0	bc	*	31	20	-
	Cambridge ...	30.29	31	E	1	0	30.30	- .00	21	20	- 10	L	0	b	*	32	20	-
PENINSULA.	Yarmouth ...	30.27	32	SE	1	C	30.27	- .01	27	27	- 5	W	2	C	3	33	26	-
	Cuxhaven ...	30.26	26	SE	4	C	30.26	- .23	24	23	- 1	S	1	b	*	26	22	-
	Berlin ...	30.38	24	ESE	4	b	30.24	- .24	23	22	- 3	SE	2	C	*	28	20	-
	Wiesbaden ...	*	*	*	*	*	30.25	- .00	25	24	- 3	NE	1	0	*	30	23	-
	Munich ...	30.12	26	NE	2	C	30.22	- .05	25	?	- 1	SW	2	f	*	36	25	-
	The Helder ...	30.28	28	E	1	bc	30.27	- .09	33	32	- 8	N	1	0	1	34	25	-
	Brussels (9 a.m.)	?	?	E	2	0	?	- .?	33	31	- 8	WNW	1	f	*	29	26	-
	Cape Gris Nez	?	24	E	1	b	?	- .?	33	31	- 8	N	1	b	1	35	25	-
	Paris ...	30.26	29	NNE	1	0	30.30	- .12	26	25	- 1	NNE	1	0	*	32	22	-
	Brest ...	?	39	E	1	0	?	- .?	39	34	- 2	SSE	5	C	4	32	24	-
PENINSULA.	Lorient ...	30.25	36	NE	2	0	30.26	- .08	?	?	- ?	ESE	2	0	5	39	32	-
	Rochefort ...	30.27	33	ESE	1	S	30.30	- .09	29	?	- 4	NNE	4	m	2	37	23	-
	Belfort ...	30.25	31	N	1	S	30.25	- .09	30	30	- 0	N	2	S	*	34	30	-
	Lyons ...	30.23	42	ENE	6	0	30.25	- .20	38	38	- 1	E	6	r	4	42	37	0.51
	Nice ...	30.23	42	ENE	6	0	30.25	- .20	38	38	- 1	E	6	r	4	42	37	0.51
	Perpignan ...	30.18	38	E	2	b	30.28	- .17	28	25	- 9	SW	2	b	*	48	26	-
	Biarritz ...	30.17	45	W	6	0	30.22	- .07	40	37	- 4	NE	3	0	3	46	36	0.24
	Corunna ...	30.23	46	NNE	4	b	30.30	- .16	39	35	- 10	NNE	3	b	2	34	37	-
	Lisbon ...	30.23	46	NNE	4	b	30.30	- .16	39	35	- 10	NNE	3	b	2	34	37	-
	Lisbon ...	30.23	46	NNE	4	b	30.30	- .16	39	35	- 10	NNE	3	b	2	34	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

Sunday, 29<sup>th</sup> December,

1889.

## 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:

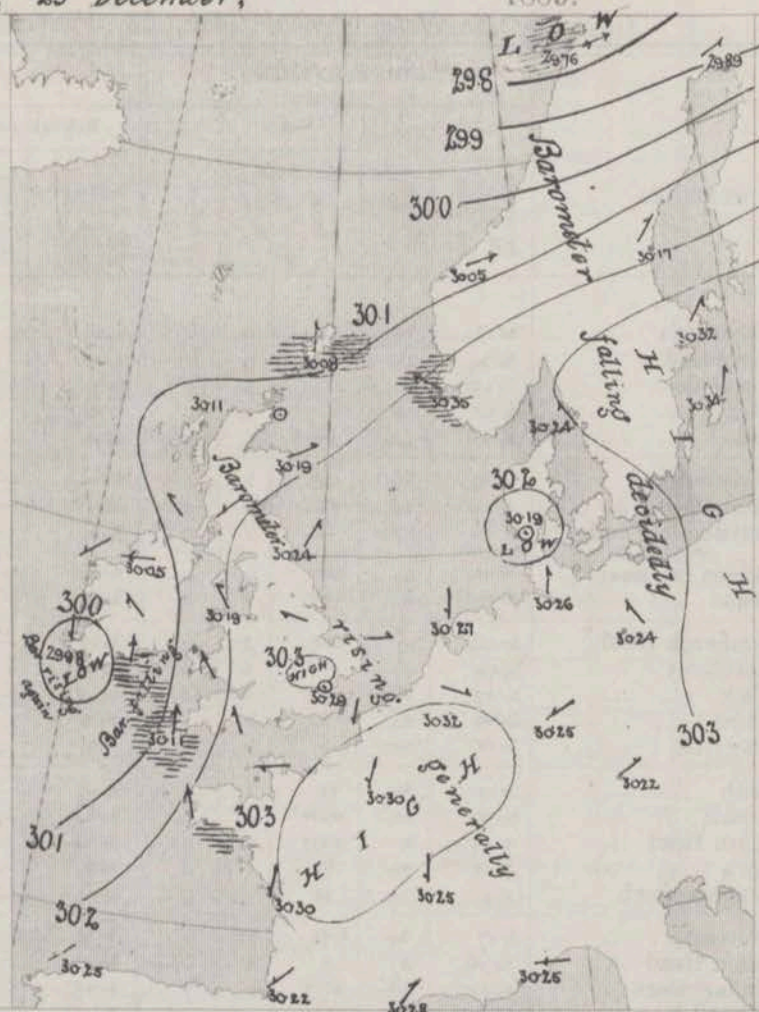
— Rough. — High.

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at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head	29.667
Stornoway	29.701
Wick	29.711
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Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
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Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

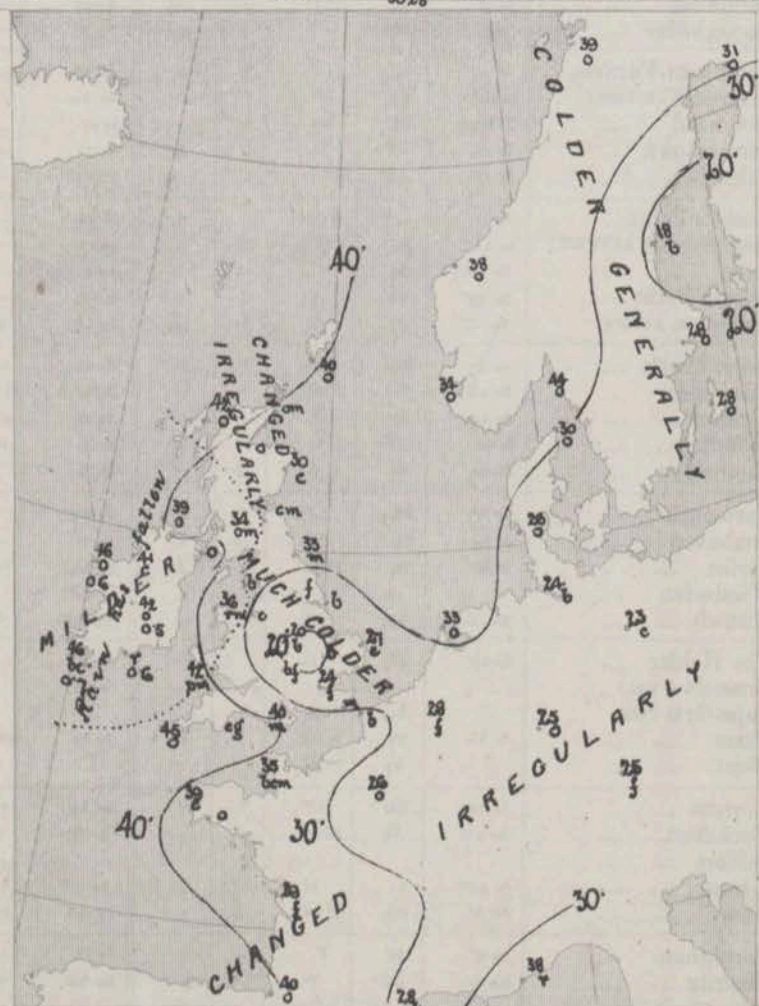
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	Dry, 8 a.m.	Wet, 8 a.m.	
Sumburgh Head	42.6	35.0	39.6	37.9	4.33
Stornoway	44.4	33.9	39.2	38.2	5.66
Wick	42.1	32.6	38.0	36.6	8.18
Nairn	41.7	32.8	37.0	35.5	2.08
Aberdeen	42.0	32.5	36.9	35.3	3.34
Leith	44.2	33.7	38.6	37.0	2.01
Shields	43.1	34.3	38.5	37.2	2.74
York	42.7	32.4	36.8	35.7	2.45
Loughborough	43.1	32.9	36.9	35.9	2.36
Ardrossan	44.6	36.0	40.1	38.7	4.04
Donaghadee	46.1	36.2	40.2	39.2	2.84
Holyhead	46.7	39.3	43.0	41.4	3.84
Liverpool	43.8	36.0	39.3	37.6	2.70
Parsonstown	44.8	33.2	37.9	36.6	3.02
Valencia	50.0	40.0	44.6	42.3	5.82
Roche's Point	48.0	39.0	42.0	41.5	4.74
Pembroke	47.1	40.6	43.0	42.5	4.00
Scilly	49.8	43.8	47.1	45.4	4.10
Jersey	47.7	40.1	43.4	41.8	3.87
Hurst Castle	46.1	36.9	40.9	40.2	2.84
Dover	44.7	36.8	40.3	39.1	3.20
LONDON	44.7	34.6	38.5	37.4	2.14
Oxford	43.6	34.3	37.7	36.6	2.13
Cambridge	43.5	32.3	36.9	36.1	1.90
Yarmouth	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	Highest, 30.20 in.; to 30.30 in.; and more, over Spain, France, England, and the North Sea. Lowest, 30.0 in.; and less, in a small depression over the southeast of Ireland, and 29.8 in.; and less, in a larger disturbance over Lapland. Gradient moderate over Northern Europe, slight elsewhere. Barometer rising over France and the south of England; falling elsewhere, most over Scandinavia and Northern Europe.
TEMPERATURE	Highest, 47° at Agde's Point, 46° in the west of Ireland and at Lorient, 45° at Scilly, 44° at Hornsby. Lowest, 18° at Kinnaird, 20° at Fighbotham and Bedford, 21° at Cambridge, 23° at Berlin, 24° in London and at Reims, 27° at Garmouth. It has gone down very fast over England during the night, risen in Ireland and the west of Scotland.
WIND	Moderate NE <sup>1</sup> to SE <sup>4</sup> over the Bay of Biscay. Fresh S <sup>1</sup> or SE <sup>2</sup> on our western coast. Light WSW <sup>1</sup> in the northeast and east — Strong to a gale from WSW. over the northern half of Scandinavia. Calm over Central England.
WEATHER	Changeable and showery, in Ireland, dull and gloomy elsewhere, with fog in many places. Thick irritating fog prevails in London, with thick hoar frost. A good deal of rain has fallen in the west of Ireland.
SEA	Rough at Scilly, rather rough in the far north, moderate to smooth elsewhere; very smooth at Bournemouth.

PROBABLE CHANGES IN SYSTEM NOW PREVALENT

## FORECASTS

For the 24 hours ending at NOON on 30<sup>th</sup> DEC<sup>r</sup> 1889.

### DISTRICTS.

### FORECASTS.

### DISTRICTS.

### FORECASTS

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

NONE ISSUED

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

NONE ISSUED.

### WARNINGS

The SOUTH CONE which was hoisted last evening in the Hebrides and west and south of Ireland has been lowered this morning.

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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.48	34	30	SE	6	c	5	Holyhead ...	30.23	35	33	S	3	og	2
Sumburgh Head ...	30.15	37	36	SSE	5	o	6	Valencia ...	30.6	46	44	WSH	2	p	2
Stornoway ...	30.03	40	37	SH	6	o	5	Scilly ...	30.22	40	36	ENE	1	c	5
Aberdeen ...	30.21	37	35	SSE	4	agrp	5	Jersey ...	30.22	37	34	E	3	c	3
Shields ...	30.46	35	30	WSH	3	c	4	Dungeness ...	30.25	39	31	NE	3	c	2
Ardrossan ...	30.40	34	34	E	2	b	1	London ...	30.28	34	32	ENE	1	ofg	4
Malin Head ...	30.06	36	35	S	5	o	3	Yarmouth ...	30.26	35	31	ENE	3	cg	4
Mullaghmore ...	30.10	43	41	S	4	om	3	Rochefort ...	30.23	37	35	ESE	3	o	2
Belmullet ...	30.08	47	46	SSH	2	o									

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

*The Continental Information will be issued subsequently.*

### 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 30TH DECEMBER 1889.  
Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 32° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Sea. (0 to 2.)	SHADE TEMP.				
				Dir.	Force. (0 to 12.)		Reading at 32° F. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force. (0 to 12.)		Weather.	Max.	Min.	Amount of Rainfall.	
SCANDINAVIA.	Haparanda ...	29.44	28	SW	4	C	29.33	-.56	21	19	-10	NW	2	C	*	34	?	—	
	Hernösand ...	30.26	22	NW	2	C	29.85	-.32	28	25	+10	W	8	C	*	32	10	—	
	Stockholm ...	30.15	22	W	4	O	30.05	-.27	20	19	-8	W	2	bc	*	32	19	—	
	Wisby ...	30.17	31	SW	4	O	30.07	-.27	26	25	-2	NW	6	O	*	34	23	—	
	Bodö ...	29.49	30	W	8	?	29.64	-.12	31	30	-8	WNW	8	C	4	39	28	—	
	Christiansund ...	30.04	35	SW	9	O	30.12	+0.07	34	32	-4	NW	6	bc	6	41	30	0.24	
	Skudesnaes ...	30.25	35	2	0	O	30.24	-.01	34	31	0	WNW	2	O	3	?	34	—	
	Christiania Fjord (Færder)	30.19	28	W	2	C	30.11	-.19	30	28	+6	N	3	C	1	?	?	—	
	Skagen (The Scaw)	29.77	31	2	0	O	30.11	-.13	30	29	0	SW	1	C	1	32	28	—	
	Fanö ...														*			—	
BRITISH ISLANDS.	Sumburgh Head ...	30.19	38	N	3	O	30.12	+0.04	35	35	-5	SE	1	O	4	44	34	0.03	
	Stornoway ...	30.22	43	2	0	O	30.12	+0.01	45	44	+3	SW	5	O	4	45	34	—	
	Wick ...	30.22	37	NW	2	bc	30.20	+0.05	39	38	+1	SW	2	bc	1	42	25	0.03	
	Nairn ...	30.24	38	W	1	C	30.21	+0.08	34	33	-4	2	O	1	40	27	0.01		
	Aberdeen ...	30.29	36	2	0	O	30.28	+0.09	29	28	-1	SW	1	bcn	3	37	29	—	
	Leith ...	30.31	36	W	1	C	30.30	+0.11	36	36	+2	W	1	f	*	39	31	—	
	Shields ...	30.25	36	W	2	O	30.37	+0.13	33	31	0	WNW	1	m	2	37	31	—	
	Spurn Head ...	30.26	33	W	3	O	30.35	+0.11	35	34	+10	SE	3	om	3	40	27	0.01	
	York ...	30.25	34	SE	1	O	30.39	+0.12	29	29	-1	2	O	f	*	35	28	—	
	Loughborough ...	30.32	32	NW	1	O	30.39	+0.10	29	29	+9	WNW	1	cm	*	34	20	0.04	
GERMANY.	Ardrossan ...	30.28	37	NE	1	om	30.29	+0.09	40	39	+6	ENE	1	f	1	40	34	0.01	
	Malin Head ...	30.24	42	SE	1	od	30.19	+0.08	44	43	+5	S	3	O	1	44	38	0.01	
	Mullaghmore ...	30.22	46	SW	1	O	30.22	+0.17	46	45	+5	S	5	O	3	46	40	—	
	Belmullet ...	30.20	45	E	2	O	30.18	+0.11	47	47	+1	SW	4	O	*	47	41	—	
	Donaghadee ...	30.27	43	SW	2	bc	30.31	+0.16	42	42	0	SW	2	C	0	44	42	0.02	
	Barrow-in-Furness ...	30.29	34	SW	1	O	30.35	+0.13	35	34	+4	ENE	2	dm	*	36	31	0.01	
	Liverpool (Bidston)	30.32	33	SE	1	O	30.38	+0.14	35	34	+7	SE	2	O	3	38	28	0.04	
	Holyhead ...	30.29	41	SW	1	om	30.35	+0.16	44	44	+8	S	1	dgm	1	45	36	0.09	
	Parsonstown ...	30.22	42	2	0	C	30.29	+0.28	44	43	+2	2	O	*	46	40	—		
	Valencia ...	30.20	48	E	1	ov	30.26	+0.28	49	48	+3	SE	5	of	5	51	44	0.01	
FRANCE AND NETHERLANDS.	Roche's Point ...	30.23	48	NE	6	Cf	30.32	+0.30	48	46	+1	S	5	C	4	49	45	0.35	
	Pembroke (St. Ann's Hd.)	30.30	44	S	3	C	30.38	+0.21	44	43	+2	SW	2	C	2	45	43	0.03	
	Scilly ...	30.21	44	ENE	6	C	30.35	+0.24	42	40	-3	SE	2	bc	4	46	40	—	
	Prawle Point ...	30.35	40	ENE	2	O	30.42	+0.19	36	34	-6	WNW	2	bc	2	41	34	—	
	Jersey (St. Aubin's)	30.35	35	ENE	3	om	30.40	+0.11	39	37	+4	WNW	3	om	3	40	34	0.01	
	Hurst Castle ...	30.34	40	W	1	C	30.39	+0.13	38	37	-2	2	O	od	1	42	33	0.01	
	Dungeness ...	30.32	31	NNE	1	m	30.36	+0.10	32	31	+8	N	1	f	1	34	21	—	
	London ...	30.34	28	2	0	f	30.40	+0.11	33	32	+9	2	O	f	*	33	24	0.01	
	Oxford ...	30.37	32	W	1	O	30.40	+0.10	32	32	+12	2	O	of	*	33	19	0.02	
	Cambridge ...	30.33	32	2	0	O	30.39	+0.09	22	22	+1	2	O	f	*	35	20	?	
PENINSULA.	Yarmouth ...	30.28	30	W	2	Cf	30.37	+0.10	32	31	+5	W	2	om	3	32	26	0.02	
	Cuxhaven ...	30.21	28	SW	1	O	30.23	-.03	36	35	+12	N	3	bc	*	?	?	—	
	Berlin ...	30.26	27	2	0	C	30.34	+0.10	29	28	+6	SW	2	O	*	30	?	—	
	Wiesbaden ...	*	*	*	*	*	30.49	+0.24	30	28	+5	N	1	O	*	30	?	—	
	Munich ...	30.28	26	NW	1	m	30.34	+0.12	25	25	0	N	2	f	*	28	25	—	
	The Helder ...	30.29	35	WNW	1	C	30.36	+0.09	36	34	+3	W	1	C	1	37	30	—	
	Brussels (9 a.m.)	?	*	*	*	*	30.41	+0.08	31	30	+3	W	1	C	*	33	?	—	
	Cape Gris Nez	?	32	E	1	C	?	?	28	25	-5	SW	1	O	1	36	25	—	
	Paris ...	30.39	30	NE	1	O	30.38	+0.08	29	29	+3	NNE	1	O	*	31	?	—	
	Brest ...	?	37	S	5	C	?	?	32	32	-7	SE	1	O	3	32	30	0.04	
FRANCE AND NETHERLANDS.	Lorient ...	30.34	32	ENE	2	O	30.37	+0.13	33	31	-10	NNE	2	O	4	37	28	—	
	Rochefort ...	30.34	33	ENE	4	O	30.37	+0.09	31	29	+2	ENE	3	m	2	34	23	—	
	Belfort ...	30.28	23	NW	1	O	30.27	?	23	?	?	SW	1	O	*	28	19	—	
	Lyons ...	30.34	31	N	1	O	30.31	+0.06	28	28	-2	N	1	O	*	36	27	0.16	
	Nice ...	30.29	40	NE	5	bc	30.20	-.05	42	40	+4	ENE	4	T	3	46	37	0.16	
	Perpignan ...	30.28	38	W	2	C	30.28	0.0	34	32	+6	W	2	O	*	47	?	0.12	
PENINSULA.	Biarritz ...	30.23	42	S	3	O	30.32	+0.10	29	27	-11	ENE	3	m	2	43	27	—	
	Corunna ...	30.19	49	SW	1	O	30.10	-.20	41	40	+2	NE	5	O	6	52	39	0.24	
PENINSULA.	Lisbon ...																	—	
																		—	

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, 30<sup>th</sup> December,

1889.

## 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:

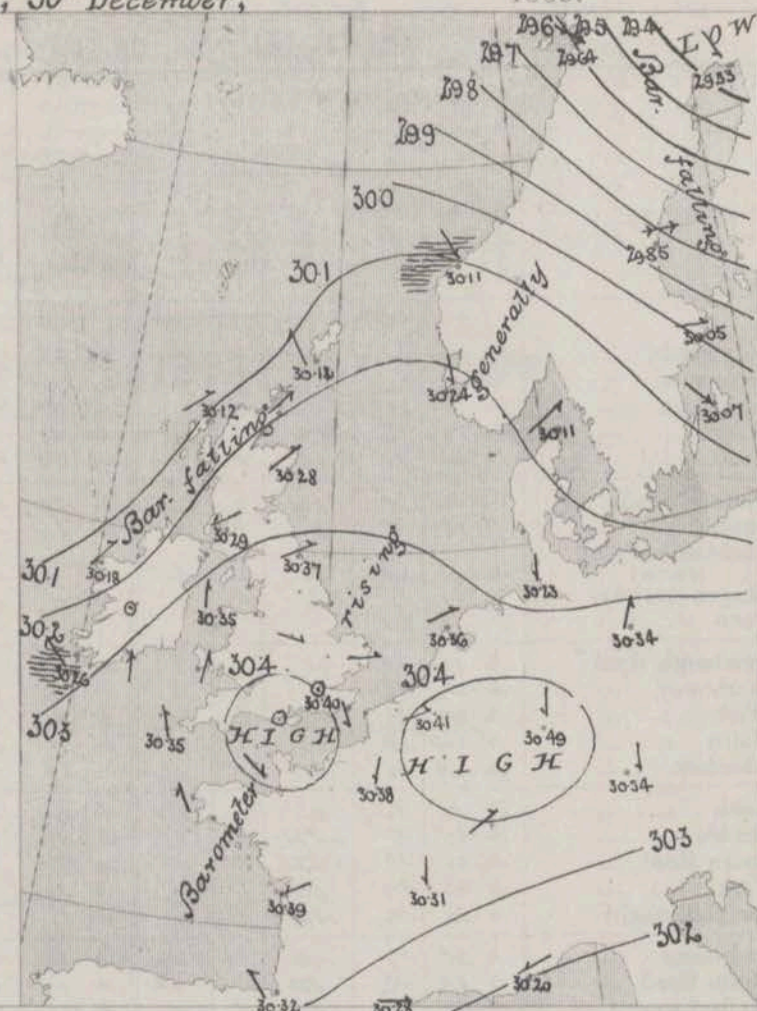
— Rough. — High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
	ins.
Sumburgh Head	29.867
Stornoway	29.701
Wick	29.711
Nairn	29.739
Aberdeen	29.757
Leith	29.803
Shields	29.843
York	29.888
Loughborough	29.923
Ardrossan	29.819
Donaghadee	29.847
Holyhead	29.879
Liverpool	29.895
Parsonstown	29.909
Valencia	29.908
Roche's Point	29.915
Pembroke	29.918
Scilly	29.962
Jersey	29.985
Hurst Castle	29.959
Dover	29.957
LONDON	29.951
Oxford	29.954
Cambridge	29.938
Yarmouth	29.914



## 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.

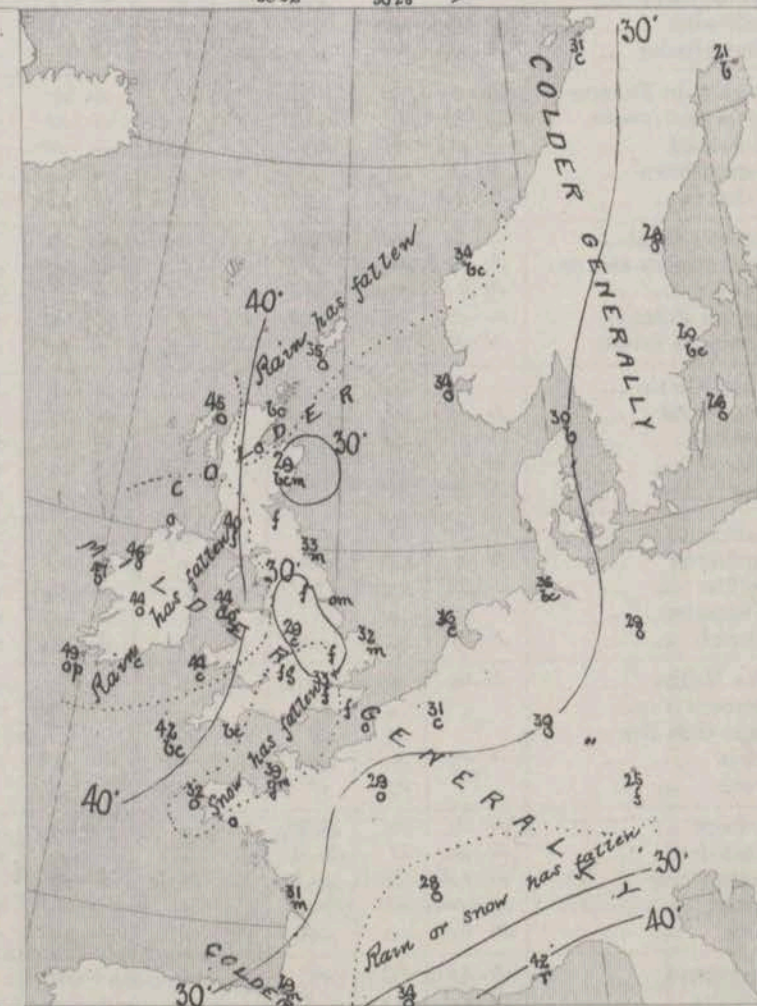
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

### MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway .....	44.4	33.8	39.2	38.2	5.66
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough .....	43.1	32.9	36.9	35.9	2.30
Ardrossan.....	44.6	36.0	40.1	38.7	4.04
Donaghadee.....	46.1	36.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point.....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle .....	46.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.14
Oxford.....	43.6	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.89
Yarmouth.....	42.4	34.2	38.3	37.5	2.95

NOTE.—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

## PRESSURE

Highest, 30.3 in: to 30.4 in: and more over England, France and Central Germany.  
 Lowest, 29.4 in: and less, at the northern extremity of the Gulf of Bothnia, 30.1 in: and less, off our extreme northwest coast, 30.2 in: at Kiev.  
 Gradients moderate in extreme north only, very slight over England.  
 Barometer rising slightly over England, France and Germany, falling decidedly over Finland, Sweden, and the Baltic.

## TEMPERATURE

Highest, 48° at Valencia, 48° at Rochester, 47° at Bismarck, 45° at Stornoway, 44° at Lonsdale, and 42° at Sicily and Kiev.  
 Lowest, 22° at Cambridge, 23° at Belfast, 25° at Munich, 28° at Lyons, 28° at Leningrad, Loughborough, York and Aberdeen.  
 It has recovered considerably over England and France since yesterday, but frost still holds in some places.

## WIND

Very light and variable over Germany, France, and Great Britain, moderate to fresh from SE. and S. in Ireland and from SW. at Stornoway.  
 Strong to gale from NW. over the northern half of Scandinavia and the Baltic.

## WEATHER

Very dull and gloomy except on the eastern shores of the North Sea.  
 Fog prevalent in many parts of England - notably in London - showers in Ireland and at Kiev.  
 Air has become drier over England since yesterday.

## SEA

Rough at Christianund, rather rough at Valencia, moderate at the southwestern stations, smooth in the east and southeast.

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

There is no indication of any important change.

# FORECASTS

For the 24 hours ending at NOON on 31<sup>st</sup> DEC<sup>r</sup>

1889.

## DISTRICTS.

## FORECASTS.

## DISTRICTS.

## FORECASTS

0 SCOTLAND  
NORTH

SW<sup>ly</sup> breezes, moderate or fresh; some rain.

1 SCOTLAND  
EAST

SW<sup>ly</sup> airs; fair as a whole.

2 ENGLAND  
N.E.

3 ENGLAND  
EAST

4 MIDLAND  
COUNTIES

5 ENGLAND  
SOUTH

Variable airs and calms; fog -  
changes of temperature very uncertain.

6 SCOTLAND  
WEST

7 ENGLAND  
N.W.

8 ENGLAND  
S.W.

9 IRELAND  
NORTH

0 IRELAND  
SOUTH

SE<sup>ly</sup> and S<sup>ly</sup> breezes, light; mild, damp,  
fog inland.

SE<sup>ly</sup> and S<sup>ly</sup> winds, freshening; mild, damp,  
rain at times

## 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:		Wind		Wea:	Sea		Bar.	Ther:		Wind		Wea:	Sea.	
		D	W	D	F					D	F	D	F			
Skudesnaes ...	30.24	37	33	SSE	2	0	4		Holyhead ...	30.25	41	40	S	2	0mg	2
Sumburgh Head									Valencia ...							
Stornoway ...	30.19	44	44	SW	2	0	2		Scilly ...							
Aberdeen ...									Jersey ...	30.30	36	34	ENE	3	cgn	3
Shields ...									Dungeness ...	30.28	33	32	NNE	1	m	1
Ardrossan ...									London ...							
Malin Head ...	30.19	42	41	SE	2	0	1		Yarmouth ...							
Mullaghmore ...	30.22	46	44	SW	1	0m	2		Rochefort ...	30.30	31	31	ENE	3	0	2
Belmullet ...	30.14	45	44	E	3	0	4									

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

*Continental Information will appear tomorrow.*

### SUMMARY OF CHANGES IN THE WEATHER OVER THE BRITISH ISLANDS AND THEIR NEIGHBOURHOOD FROM THE 22<sup>nd</sup> TO THE 28<sup>th</sup> DECEMBER 1889.

During the earlier part of this week the barometer was continuously high over the Southwestern, Southern and South-eastern parts of Europe, low in the north and northwest. Well formed depressions passed from southwest to northeast by our northern coasts towards Scandinavia, while secondary "V" shaped disturbances travelled across Ireland and England to the North Sea. The weather was consequently mild, damp, wet & misty, but in the interval between the passage of some of the secondary disturbances the thermometer occasionally fell considerably during the night at the inland stations.

After Wednesday the high pressure area moved northward, the weather over England cleared up considerably, the air became drier and temperature fell somewhat. Strong S.W. winds, however, continued in the west and north, light E.S. breezes in the south.

At the close of the week the thermometer was falling fast over England, frost had set in at some inland stations and dry fog was becoming prevalent.

#### 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, 31<sup>st</sup> December, 1889.*  
*Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.*

STATIONS.		YESTERDAY EVENING.					8 A.M. TO DAY.										PAST 24 HOURS.		
		Barometer at 3 <sup>rd</sup> P. and Sea Level.	Temp. in Shade.	WIND.		Weather.	BAROMETER.		SHADE TEMP.			WIND.		Weather.	Sea. (0 to 5.)	SHADE TEMP.		Amount of Rainfall.	
				Dirac.	Force. (0 to 12.)		Reading at 3 <sup>rd</sup> P. and Sea Level.	Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dirac.	Force. (0 to 12.)			Max.	Min.		
SCANDINAVIA.	Haparanda ...	29.49	27	NW	6	b	29.91	+ .58	26	26	+ 5	NE	2	b	*	30	14	-	
	Hernösand ...	29.97	26	NW	4	b	30.14	+ .29	19	18	- 9	NE	0	b	*	30	19	-	
	Stockholm ...	30.13	21	WNW	2	b	30.24	+ .19	19	18	- 1	W	2	b	*	25	16	-	
	Wisby ...	30.10	31	NW	4	b	30.26	+ .19	30	28	+ 4	N	4	b	*	32	23	-	
	Bodö ...	29.91	28	WNW	6	c	30.03	+ .39	25	22	- 6	E	2	bc	1	32	23	-	
	Christiansund	30.15	33	NSW	6	s	29.94	- .18	34	32	0	SE	3	0	5	34	28	0.08	
	Skudesnaes ...	30.24	32	NW	1	0	30.07	- .17	42	41	+ 8	S	8	T	5	?	32	-	
	Christiania Fjord (Fæder)	30.23	31	HNW	2	b	30.22	+ .11	30	29	0	Z	0	0	1	?	27	-	
	Skagen (The Scaw)	30.12	35	NE	1	b	30.26	+ .15	35	32	+ 3	SSW	2	0	2	37	27	-	
	Fanö ...	30.30	38	W	4	c	30.33		37	37		W	4	c	*	37	30	-	
BRITISH ISLANDS.	Sumburgh Head	30.00	43	SSW	3	0	29.64	- .48	47	46	+ 12	SW	4	T	6	47	35	0.19	
	Stornoway ...	29.87	46	SW	7	T	29.54	- .58	49	49	+ 4	SW	7	T	6	49	44	0.12	
	Wick ...	29.96	44	S	5	T	29.68	- .52	48	47	+ 9	S	5	0	4	48	35	0.12	
	Nairn ...	29.98	44	Z	0	T	29.71	- .50	51	49	+ 17	NSW	4	c	3	51	33	0.03	
	Aberdeen ...	30.12	40	S	2	0	29.85	- .43	46	44	+ 17	S	4	og q	4	46	29	0.05	
	Leith ...	30.16	41	SW	2	c	29.93	- .37	48	45	+ 12	SW	5	c	*	48	36	-	
	Shields ...	30.28	36	SSW	2	cm	30.11	- .26	36	34	+ 3	SSW	3	e	2	40	30	-	
	Spurn Head ...	30.35	31	S	3	f	30.25	- .10	30	29	- 9	S	4	f	3	39	28	-	
	York ...	30.35	33	S	1	b	30.22	- .17	30	30	+ 1	SSW	1	f	*	35	26	-	
	Loughborough	30.40	24	SE	1	f	30.29	- .10	27	27	- 2	ESE	2	cm	*	38	23	-	
GERMANY.	Ardrossan ...	30.15	46	S	4	rm	29.94	- .35	47	46	+ 7	'S	6	0	6	47	39	0.02	
	Malin Head ...	30.04	46	S	5	og	29.72	- .47	48	47	+ 4	S	7	og w	3	48	43	0.04	
	Mullaghmore ...	30.09	49	SSW	6	om	29.82	- .40	50	49	+ 4	SSW	6	og	5	50	46	0.09	
	Belmullet ...	30.08	48	S	6	02	29.80	- .38	49	49	+ 2	SW	7	07	*	49	47	0.12	
	Donaghadee ...	30.21	46	SSW	1	0	29.97	- .34	47	46	+ 5	SW	5	c	3	47	42	-	
	Barrow-in-Furness	30.29	39	SE	3	0	30.12	- .23	38	37	+ 3	SE	5	bc	*	40	35	-	
	Liverpool (Bidston)	30.34	36	SE	1	bc	30.20	- .18	33	32	- 2	SSW	2	b	3	43	31	-	
	Holyhead ...	30.30	45	SSW	4	c	30.11	- .24	46	43	+ 2	SSW	6	og q	5	47	43	0.03	
	Parsonstown ...	30.19	46	SW	2	0	29.97	- .32	49	47	+ 5	SSW	3	0	*	30	43	-	
	Valencia ...	30.21	50	SSW	2	02m	29.96	- .30	52	51	+ 3	S	6	om	5	52	48	0.14	
FRANCE AND NETHERLANDS.	Roche's Point...	30.29	48	SSW	5	c	30.07	- .25	48	48	0	SSW	6	T	5	50	46	0.30	
	Pembroke (St. Ann's Hd.)	30.34	44	S	3	bc	30.19	- .19	46	45	+ 2	SSW	5	bc	4	47	44	-	
	Scilly ...	30.33	45	SSW	4	c	30.23	- .12	45	42	+ 3	S	5	c	5	48	41	-	
	Prawle Point...	30.41	40	NW	1	b	30.31	- .11	42	39	+ 6	SSW	2	cg	1	48	35	-	
	Jersey (St. Aubin's)	30.40	38	N	2	c	30.36	- .04	38	35	- 1	ESE	3	bmw	3	45	32	0.02	
	Hurst Castle ...	30.41	40	E	1	f	30.34	- .05	38	36	0	ENE	2	f	2	41	34	-	
	Dungeness ...	30.37	34	N	2	f	30.44	+ .08	40	37	+ 8	SW	4	0	3	40	29	-	
	London ...	30.41	32	SW	1	f	30.36	- .04	28	27	- 5	E	1	c	*	34	27	-	
	Oxford ...	30.43	24	SSW	1	0	30.34	- .06	30	30	- 2	S	2	f	*	37	23	-	
	Cambridge ...	30.42	30	Z	0	0	30.35	- .04	30	30	+ 8	S	1	0	*	31	20	-	
PENINSULA.	Yarmouth ...	30.39	31	W	1	f	30.34	- .03	32	32	0	NSW	2	f	2	32	27	-	
	Cuxhaven ...	30.34	33	W	3	0	30.40	+ .17	34	33	- 2	SW	2	og	*	36	33	-	
	Berlin ...	30.38	33	WNW	2	0	30.45	+ .11	34	33	+ 5	WNW	2	og	*	34	?	-	
	Wiesbaden ...	*	*	*	*	*	30.47	- .02	23	23	- 7	Z	0	0	*	32	23	-	
	Munich ...	30.26	24	NE	4	m	30.41	+ .07	21	21	- 4	E	3	m	*	27	19	-	
	The Helder ...	30.41	37	NSW	1	c	30.39	+ .03	27	26	- 9	S	1	b	1	37	27	-	
	Brussels (9 a.m.)	?	35	S	2	0	30.42	+ .01	24	24	- 7	SSW	2	b	*	35	23	-	
	Cape Gris Nez	?	31	NE	2	b	30.41	+ .03	30	29	+ 1	SW	2	m	1	37	27	-	
	Paris ...	?	39	S	1	b	?	?	39	38	+ 7	ESE	2	0	*	?	?	-	
	Brest ...	?	39	S	1	b	?	?	39	38	+ 7	SE	1	b	3	54	30	0.04	
PENINSULA.	Lorient ...	30.41	37	ENE	2	b	30.34	- .05	35	34	+ 2	E	2	b	4	37	30	-	
	Rochefort ...	30.40	33	NE	4	0	30.36	- .03	28	28	- 3	ENE	4	S	2	34	23	-	
	Belfort ...	30.25	25	SW	1	0	30.36	+ .09	26	21	+ 3	SW	1	0	*	31	21	-	
	Lyons ...	30.34	28	WNW	2	S	30.41	+ .10	28	28	0	WNW	1	0	*	31	28	0.04	
	Nice ...	30.24	41	ENE	1	0	30.24	+ .04	43	41	+ 1	E	5	bc	3	43	39	1.14	
	Perpignan ...	30.33	35	NW	3	b	30.33	+ .05	25	24	- 9	SW	2	b	*	42	24	-	
	Biarritz ...	30.31	34	E	3	0	30.28	- .04	28	27	- 1	ESE	4	? S.	1	43	25	-	
	Corunna ...	*	*	*	*	*	30.10	- .00	39	36	- 2	N	3	b	?	50	37	-	
	Lisbon ...	30.16	47	N	4	b	30.10	- .00	39	36	- 2	N	3	b	?	50	37	-	

For Explanation of Columns, see bottom of p. 1.

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

1 At Westminster the thermometer at 2 p.m. stood at 37°.



# WEATHER CHARTS

for 8 a.m. on

Tuesday, 31<sup>st</sup> December.

1889.

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 forces 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:

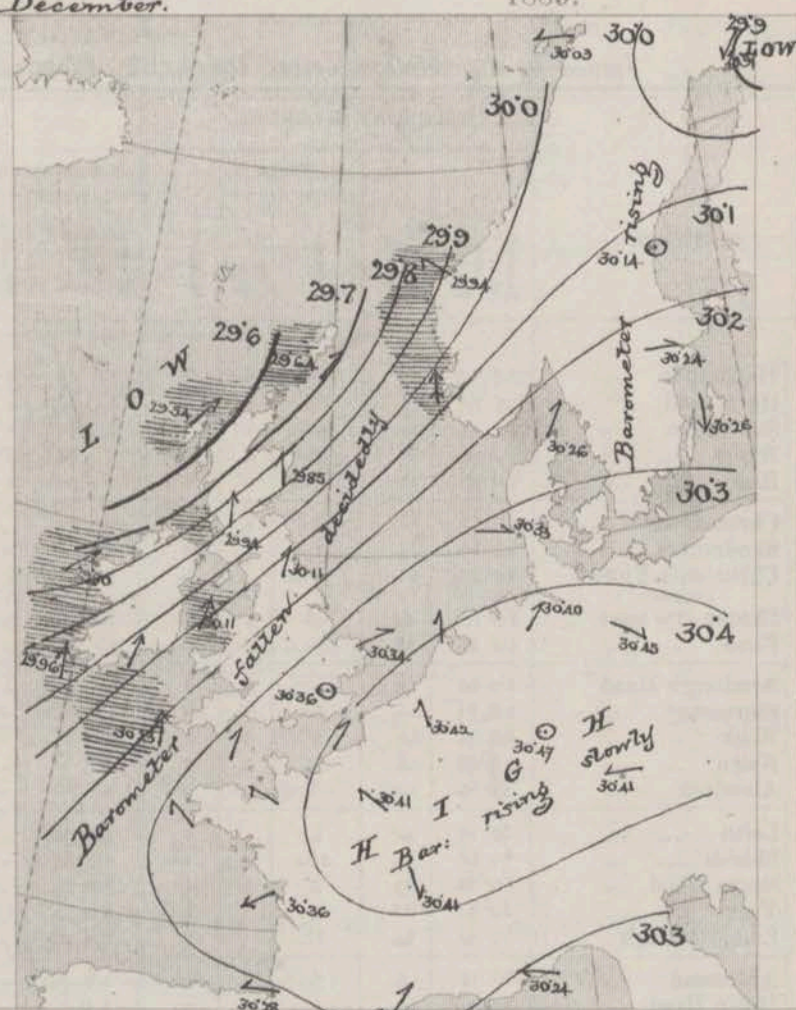
▨ = Rough. ▨ = High.

## MEAN HEIGHT OF THE BAROMETER

at 8.0 a.m. for the month of December.

During the 15 Years: 1871—1885.

STATIONS.	MEAN READINGS.
Sumburgh Head .....	29.667
Stornoway .....	29.701
Wick .....	29.711
Nairn .....	29.739
Aberdeen .....	29.757
Leith .....	29.803
Shields .....	29.843
York .....	29.888
Loughborough .....	29.923
Ardrossan .....	29.819
Donaghadee .....	29.847
Holyhead .....	29.879
Liverpool .....	29.895
Parsonstown .....	29.909
Valencia .....	29.908
Roche's Point .....	29.915
Pembroke .....	29.918
Scilly .....	29.962
Jersey .....	29.985
Hurst Castle .....	29.959
Dover .....	29.957
LONDON .....	29.951
Oxford .....	29.954
Cambridge .....	29.938
Yarmouth .....	29.914



## 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.

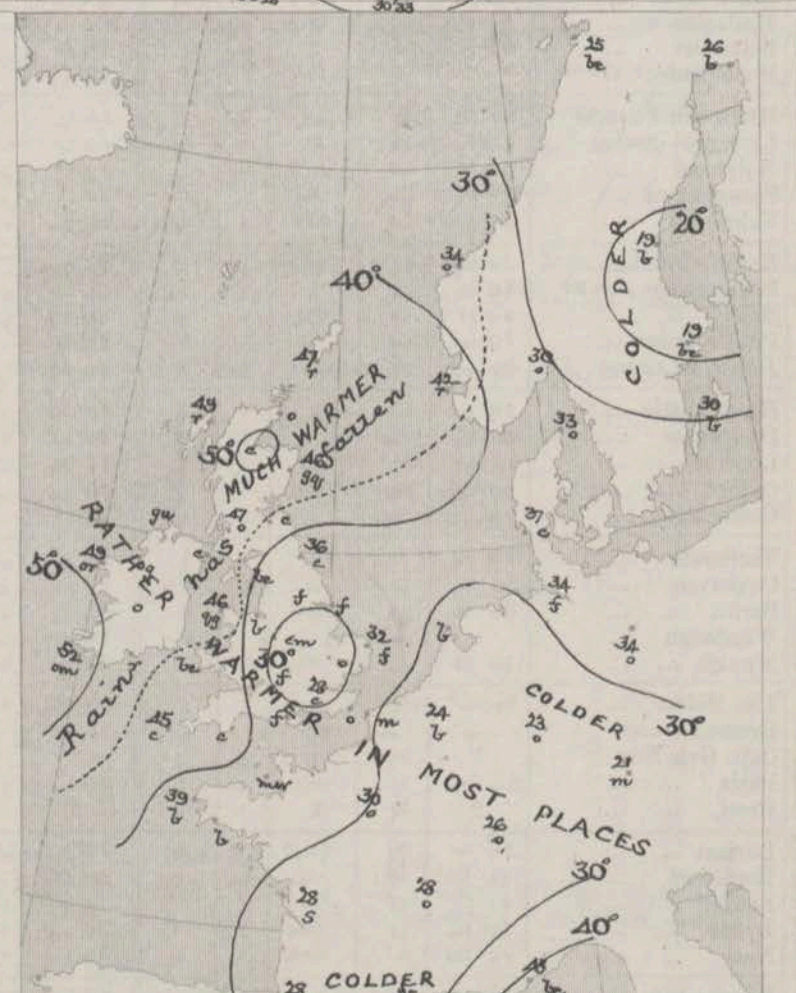
**RAINFALL**—A dotted line separates the districts in which rain has fallen from those where there has been none. Falls of 0.5 in. or more, are quoted in figures.

## MEANS OF TEMPERATURE IN SHADE, AND RAINFALL.

(For the month of December.)

STATIONS.	TEMPERATURE.				RAINFALL. (Inches.)
	Daily Max.	Daily Min.	at 8 a.m.		
			Dry.	Wet.	
Sumburgh Head.....	42.5	35.0	39.5	37.9	4.33
Stornoway.....	44.4	33.5	39.2	38.2	5.06
Wick.....	42.1	32.6	38.0	36.6	3.18
Nairn.....	41.7	32.8	37.0	35.5	2.08
Aberdeen.....	42.0	32.5	36.9	35.3	3.34
Leith.....	44.2	33.7	38.6	37.0	2.01
Shields.....	43.1	34.3	38.5	37.2	2.74
York.....	42.7	32.4	36.8	35.7	2.45
Loughborough.....	43.1	32.9	36.9	35.9	2.36
Ardrossan.....	44.6	30.0	40.1	38.7	4.04
Donaghadee.....	46.1	30.2	40.2	39.2	2.84
Holyhead.....	46.7	39.3	43.0	41.4	3.84
Liverpool.....	43.8	36.0	39.3	37.6	2.70
Parsonstown.....	44.8	33.2	37.9	36.6	3.02
Valencia.....	50.0	40.0	44.6	42.3	5.82
Roche's Point.....	48.0	39.0	42.9	41.5	4.74
Pembroke.....	47.1	40.6	43.9	42.5	4.06
Scilly.....	49.8	43.8	47.1	45.4	4.10
Jersey.....	47.7	40.1	43.4	41.8	3.87
Hurst Castle.....	45.1	36.9	40.9	40.2	2.84
Dover.....	44.7	36.8	40.3	39.1	3.20
LONDON.....	44.7	34.6	38.5	37.4	2.11
Oxford.....	43.0	34.3	37.7	36.6	2.13
Cambridge.....	43.5	32.3	36.9	36.1	1.90
Yarmouth.....	42.4	34.2	38.3	37.5	2.96

**NOTE.**—The Temperature means are for the 15 years 1871-85, the Rainfall means are mainly those for the 20 years 1866-85.





# GENERAL SITUATION AT 8 A.M.

PRESSURE	<p>Highest, 30.3 in: to nearly 30.5 in: in an anticyclone lying over Germany, France and the south of England.</p> <p>Lowest, 29.6 in: and less, in a depression lying off the north-west of Scotland.</p> <p>Gradients rather steep in the west and north, slight in the east and south, almost nil over France and Germany.</p> <p>Barometer rising a little over Germany, and quickly over Sweden and Lapland, falling elsewhere, most in the north-west of Scotland.</p>
TEMPERATURE	<p>Highest, 52° at Valencia, 51° at Kain, 50° at Mullaghmore, 49° at Bournemouth and Stromness.</p> <p>Lowest, 19° at Helsingfors and Stockholm, 21° at Munich, 23° at Nischnodez, 27° at the Hecla and Soughborough, 38° at Sigau and in London.</p> <p>It has risen rapidly in Scotland during the past 24 hours, fallen over the greater part of England.</p>
WIND	<p>Light and mainly E<sup>ly</sup> over France and South Germany.</p> <p>S<sup>ly</sup> and SW<sup>ly</sup> throughout our Islands — light in the east and south, strong and squally in the west and north.</p> <p>SW<sup>ly</sup> light in Denmark, — Calm in Sweden.</p> <p>Fine and bright in Sweden and the south of France — dull elsewhere.</p>
WEATHER	<p>Very foggy in several parts of England and the Channel.</p> <p>Rainy at times in Scotland and Ireland — snow in the south-east of France.</p> <p>Dense high fog prevailed over London all through Monday.</p>
SEA	<p>Rough in the far north, and rather so on our extreme west and south-west coasts, moderate in the northeast, smooth elsewhere.</p>

## PROBABLE CHANGES IN SYSTEM NOW PREVALENT

The mild weather in the west and north may possibly extend to our southeastern districts during the day, but this is by no means certain.

## FORECASTS

For the 24 hours ending at NOON on JANUARY 1<sup>ST</sup> 1890

### DISTRICTS.

### FORECASTS.

- 0 SCOTLAND NORTH
- 1 SCOTLAND EAST
- 2 ENGLAND N.E.
- 3 ENGLAND EAST
- 4 MIDLAND COUNTIES
- 5 ENGLAND SOUTH

SW<sup>ly</sup> breezes, strong; squally, showery.

SW<sup>ly</sup> breezes, moderate or fresh; fair.

S<sup>ly</sup> and SW<sup>ly</sup> breezes, moderate, becoming milder and less foggy.

### DISTRICTS.

### FORECASTS

- 6 SCOTLAND WEST
- 7 ENGLAND N.W.
- 8 ENGLAND S.W.
- 9 IRELAND NORTH
- 0 IRELAND SOUTH

S<sup>ly</sup> winds, strong, squally, showery.

S<sup>ly</sup> and SW<sup>ly</sup> winds, strong; squally, rainy.

### 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:		Wind		Wea:	Sea		Bar:	Ther:		Wind		Wea:	Sea
		D	W	D	F					D	W	D	F		
Skudesnaes ...	30.25	33	30	N	2	c	3	Holyhead ...	30.32	46	44	SSW	3	c	2
Sumburgh Head	30.10	42	41	SSW	3	O	5	Valencia ...	30.21	50	49	SE	5	om	5
Stornoway ...	29.98	46	46	SW	1	r	4	Scilly ...	30.85	46	43	SE	4	bc	4
Aberdeen ...	30.20	39	38	S	2	cm	3	Jersey ...	30.41	45	43	NW	2	c	2
Shields ...	30.31	40	37	SSW	2	cm	2	Dungeness ...	30.37	37	37	NNE	2	b	1
Ardrossan ...	30.21	46	45	S	4	c	3	London ...	30.39	37	36	SW	1	fg	4
Malin Head ...	30.10	45	44	S	4	O	2	Yarmouth ...	30.36	30	30	WSW	2	f	2
Mullaghmore ...	30.14	48	46	S	5	opm	4	Rochefort ...	30.40	31	30	NNE	3	S	2
Belmullet ...	30.12	48	48	SW	5	O	4								

## 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).

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# ADDITIONS AND CORRECTIONS TO THE

## 1. REPORTS RECEIVED TOO LATE FOR INSERTION DAILY.

DATE.	STATIONS.	YESTERDAY EVENING.						8 A.M. TO-DAY.								PAST 24 HOURS.		
		Barometer at 29° F. and Sea Level.	Temp. in Shade.	WIND.		Weather.	Reading at 32° F. and Sea Level.	BAROMETER.		SHADE TEMP.		WIND.		Weather.	Secs. (0 to 9.)	SHADE TEMP.		Amount of Rainfall.
				Dir.	Force (0 to 12.)			Difference from 8 a.m. yesterday.	Dry.	Wet.	Difference from 8 a.m. yesterday.	Dir.	Force (0 to 12.)			Max.	Min.	
2	Corunna.....	*	*	*	*	*	30.13	-0.09	41	39	-4	ENE	1	6	5	57	37	-
3	Lorient.....	30.32	33	NE	1	c	29.88	-0.35	27	-	-16	NE	3	m	1	43	23	-
-	Corunna.....	*	*	*	*	*	30.03	-0.10	38	37	-3	SW	1	6	4	59	36	-
4	Corunna.....	*	*	*	*	*	30.10	+0.07	37	36	-1	EW	1	6	4	59	36	-
5	Corunna.....	*	*	*	*	*	30.32	+0.22	41	40	+4	ENE	1	6c	4	54	36	-
6	Corunna.....	*	*	*	*	*	30.37	+0.05	49	45	+4	NNE	5	0	5	54	37	-
7	Corunna.....	*	*	*	*	*	30.36	+0.01	42	41	-7	NE	2	0	4	52	41	-
-	Lisbon.....	30.18	49	NNE	5	b	30.27	+0.12	40	35	+2	NNE	4	6	?	55	39	-
9	Corunna.....	*	*	*	*	*	30.37	+0.01	44	-	-6	NNE	1	0	4	54	41	0.08
10	Haparanda.....	29.25	34	SE	8	o	29.13	-0.41	35	33	+7	SSW	8	0	+	?	25	0.35
-	Hernösand.....	29.28	30	SSW	9	s	29.06	-0.63	32	31	+2	SSW	9	s	+	34	25	0.08
-	Stockholm.....	29.63	31	SW	6	o	29.28	-0.41	33	32	+6	S	8	0	+	?	25	-
-	Hristy.....	29.79	31	SW	6	o	29.41	-0.60	31	30	0	SSW	6	s	+	32	27	-
-	Corunna.....	*	*	*	*	*	29.71	-0.66	50	50	+6	WNW	1	c	4	54	43	0.04
11	Corunna.....	*	*	*	*	*	29.95	+0.24	50	46	0	NW	4	6c	6	55	41	0.28
12	Brussels.....	*	*	*	*	*	30.01	+0.65	35	-	-2	WSW	1	r	+	44	34	-
-	Nice.....	29.73	43	ENE	3	o	29.76	-0.02	42	-	-4	E	4	0	2	48	39	0.24
-	Corunna.....	*	*	*	*	*	30.21	+0.26	42	41	-8	E	2	6c	5	54	39	0.08
13	Corunna.....	*	*	*	*	*	30.23	+0.02	52	50	+10	S	2	0	4	64	39	-
14	Corunna.....	*	*	*	*	*	30.30	+0.07	53	50	+1	NW	4	0	6	?	48	0.16
16	Haparanda.....	30.48	26	S	4	o	29.37	-0.18	30	28	+9	SW	4	0	+	?	10	0.12
-	Hernösand.....	30.39	21	2	0	c	30.32	-0.03	26	26	0	S	4	c	+	34	19	-
-	Stockholm.....	30.45	32	SE	2	s	30.45	-0.04	28	28	0	N	2	f	+	32	27	0.06
-	Hristy.....	30.46	32	SE	2	o	30.46	+0.01	34	34	+2	W	2	0	+	34	30	0.04
-	Corunna.....	*	*	*	*	*	30.64	+0.09	39	39	-4	NNE	1	6	5	55	37	-
-	Lisbon.....	-	-	-	-	-	30.44	+0.04	47	-	+2	NNE	5	6	2	55	?	-
17	Corunna.....	*	*	*	*	*	30.61	-0.03	41	33	+2	NE	6	m	5	55	37	1.58
-	Lisbon.....	30.48	50	NNE	4	b	30.47	+0.03	41	36	-6	NNE	4	6	2	55	39	2.05
18	Corunna.....	*	*	*	*	*	30.43	-0.18	43	41	+2	E	2	c	5	57	39	-
19	Corunna.....	*	*	*	*	*	30.43	0.00	48	46	+5	ENE	1	0	5	57	41	-
20	The Helader.....	30.20	37	S	1	f	29.90	+0.41	36	-	-2	S	3	c	3	41	36	-
-	Corunna.....	*	*	*	*	*	30.21	-0.22	49	45	+1	WSW	3	0	5	55	45	0.04
21	Lorient.....	30.06	46	WNW	5	6c	30.08	+0.17	48	46	-2	W	4	6c	5	50	45	0.26
-	Corunna.....	*	*	*	*	*	30.36	+0.15	43	42	-6	NE	1	c	5	54	39	0.12
23	Corunna.....	*	*	*	*	*	30.30	+0.09	57	56	+4	SSW	1	r	5	57	50	0.43
24	Corunna.....	*	*	*	*	*	30.33	+0.03	55	55	-2	SW	2	?	4	61	54	0.35
26	Corunna.....	*	*	*	*	*	30.39	-0.11	42	40	-1	ENE	2	6	5	59	37	-
27	Corunna.....	*	*	*	*	*	30.27	-0.12	39	37	-3	ENE	2	6	4	54	36	-
28	Brussels.....	*	*	*	*	*	30.28	-0.24	24	-	-8	ENE	1	6c	+	53	24	-
-	Corunna.....	*	*	*	*	*	30.20	-0.07	54	53	+15	NE	1	r	4	54	37	-
-	Lisbon.....	30.18	49	WNW	2	o	30.14	-0.12	49	47	+10	NNE	2	0	5	54	?	-
29	Corunna.....	*	*	*	*	*	30.25	+0.05	43	41	-11	NE	1	r	4	?	37	0.08
30	Fano.....	30.22	28	NW	1	o	30.24	+0.05	31	-	+5	W	1	0	+	?	?	-
-	Corunna.....	*	*	*	*	*	30.27	+0.02	37	37	-6	ENE	2	6	4	46	36	-



## 2. CORRECTIONS.

[illegible]