

**FEBRUARY STATISTICS RECORDED
AT LERWICK OBSERVATORY**

	February 2009	Averages 1971-2000
Mean maximum temperature	4.8°C	5.4°C
Mean minimum temperature	1.9°C	1.4°C
Daily mean temperature	3.3°C	3.1°C
Mean sea-level pressure	1010.8 hPa (mb)	1010.2 hPa (mb)
Total rainfall	135.5 mm	107.8 mm
Wet days => 1 mm	20 days	17.8 days
Sunshine (electronic sensor)	47.8 hours	52.3hours
Air frosts	10 days	7.7 days
Ground frosts	14 days	14.9 days
Snow/sleet	12 days	12.2 days
Days with gale	1 day	6.1 days
Maximum daily mean temp.	7.7°C on 24th	
Minimum daily mean temp.	-2.0°C on 9th	
Highest maximum	8.7°C on 24th	
Lowest day maximum	0.2°C on 9th	
Highest night minimum	7.2°C on 21st	
Lowest minimum	-4.6°C on 10th	
Lowest grass minimum	-11.1°C on 10th	
Wettest day	30.8 mm on 27th	
Sunniest day	7.4 hours on 9th	
Highest mean hourly wind	35 knots on 25th	
Highest gust	51 knots on 25th	

A RATHER MORE TYPICAL FEBRUARY THAN EXPERIENCED IN RECENT YEARS

In Shetland - in common with the rest of the UK - the first half of the month was cold, with snow and severe frosts. Initial SE'ly winds backed NE to N'ly as high pressure to the east moved away, to be replaced by low pressure over Scandinavia. From mid-month high pressure to the south of the British Isles became the dominant synoptic feature. As a result the second half was much milder - particularly so for Shetland on the northern extremity of the high - and under the influence of an unsettled SW to W'ly Atlantic-type airflow. Across much of Scotland the mean temperature for the month was slightly above normal. Sunshine duration was below normal and it was the dullest February since 1998. Rainfall was also below normal, particularly over western Scotland, where it was the driest February since 1986.

Shetland experienced the coolest February since 2001, with mean temperatures quite close to average. However, here we were not as dull as the rest of Scotland, with the sunshine total for the month only slightly reduced. We also differed markedly from the rest of Scotland in having above-normal rainfall for the month. Not surprisingly, with the predominantly anticyclonic conditions, there were fewer gales than normal, with Lerwick reporting just the 25th having a ten-minute average in excess of 33kt. Fair Isle also reported fewer gales than normal, with just two gale-days. Statistically February is the quietest, most anticyclonic month of winter.

With high pressure across northwest Russia and Scandinavia, the month opened with Siberian E'ly winds over much of the British Isles. Across Shetland, where it was grey and cloudy though mostly dry, winds were fresh to strong SE'ly in direction on the 1st. Having a longer track across the North Sea, winds here were somewhat less cold, but still raw and penetrating. Through the 2nd and 3rd winds tended more E'ly, with a few wintry showers affecting Shetland as high pressure pulled away eastwards and low pressure developed across southern England.

By the 4th a complex area of low pressure had formed over the UK. A cold front moving south brought a period of snow, with winds increasing strong to gale-force NE'ly across the south of Shetland and gusts of over 50 mph reported from Fair Isle. By evening most places had a covering of several centimetres of snow, with temperatures falling to freezing or just below.

Winds eased and became cyclonic variable on the 5th, as low pressure extended north to encompass the Northern Isles. A small low, developing on the edge of the southward flow of cold Arctic air to the west of Shetland, brought a mixture of wintry showers or longer periods of sleet or snow for a time.

Between the 6th and the 8th, as low pressure drifted away east, cold N to NE'ly winds edged in from the west, bringing Arctic air down over Shetland. Fresh or strong N'ly winds eased and snow showers all-but died out by the 8th. During the next couple of days, relatively clear skies and light winds resulted in low temperatures and hard frosts. Even by the shore, cooling air sinking down off the surrounding hills and 'ponding' in the locality, saw the temperature at Baltasound falling to -9.4° Celsius early on the 9th.. However, on the hill (the cold air rolled down into Lerwick) the minimum was only -4.3° Celsius at the Observatory. On mainland Scotland an overnight minimum of -18.4°C was recorded at Aviemore. This was the coldest February night here for 23 years. As a ridge crossed from the west a fine, cold day followed, with daytime temperatures hardly rising above freezing. However, with just light NE to N'ly winds and 7.4 hours of bright sunshine in Lerwick - the sunniest place in the UK - it was a reasonably pleasant winter's day. Another severe overnight frost followed, with temperatures down to -8° Celsius at Baltasound, -5° Celsius in Lerwick and -3° Celsius at Sumburgh and on Fair Isle. Snow-surface temperatures fell to -11° in Lerwick and -8° Celsius on Fair Isle. The 10th, while an intense depression moved east over southern Britain, pressure remained relatively high in the north, giving Shetland another fine, cold day with light N or NW'ly winds.

On the 11th, as the depression in the south moved away eastwards and the Greenland High ridged south, Arctic winds brought snow showers to the Northern Isles, the lying snow drifting in the strengthening N to NW'ly winds. Lerwick reported a maximum daytime temperature of 0.9° Celsius, the lowest in the UK. Winds eased as a weak ridge built across the area, but further wintry showers or longer periods of snow continued, as the ridge was replaced by a shallow trough. Further heavy snow across parts of Shetland brought significant accumulations early on the 12th, with Lerwick reporting 20cm of lying snow at 9am. It was a cold bright day with scattered showers, light winds and temperatures barely rising above freezing. As another narrow ridge made a brief appearance, the 13th was mostly dry and also cold, bright with little or no wind.

The ridge declined early on the 14th, with milder SW'ly winds bringing rain or drizzle accompanied by misty conditions, as fronts moved off the Atlantic to affect Shetland. With high pressure persisting to the south of the UK, mild and fresh to strong SW to W'ly winds followed between the 15th and 21st. While there were a few brighter moments, generally weak fronts - brushing around the northern edge of the high - brought outbreaks of rain or drizzle and some misty conditions to Shetland from time to time

The 22nd was cooler with strong W to NW'ly winds bringing showers, as a depression tracked east to the north of Shetland into Scandinavia. However the potential for a return to the cooler conditions of the first half of the month were quickly curtailed as a ridge swung east on the 23rd, and a fine day ended with cloud and patchy drizzle. Milder, misty conditions with patchy rain or drizzle accompanied by fresh SW'ly winds returned on the 24th. Brighter on the 25th with showers, these merging into rain later in the day as a deep depression - developing south of Iceland - drove fronts east, and SW to W'ly winds increased gale or severe gale-force, with Fair Isle reporting gusts to 65 mph. These cleared overnight as the depression continued into Scandinavia and strong W'ly winds brought showers across Shetland on the 26th. These died out early on the 27th, as another transient ridge swung east across the area. As this declined and high pressure - which had been persistent close to southern Britain during the second half of February - slipped further south, SE'ly winds freshened and heavy rain spread from the Atlantic later in the day. A wet night followed, with the 28th continuing cloudy with rain at times and mild S to SW'ly winds, as further fronts moved east over Shetland..

Dave Wheeler

Initial Statistical details for Scotland as a whole (1961-1990 average) for February:

Mean Temperature – 2.9°C (0.3°C above average).

Rainfall – 74.0 mm (60% of average).

Sunshine – 49.9 hours (82% of average).

Data from the UK Met Office