

METEOROLOGICAL REPORT FOR SHANKLIN, ISLE OF WIGHT FOR THE YEAR 2021

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Abstract

Shanklin Weather Station was established in January 1947 for the recording of rainfall and January 1948 for the recording of temperature and sunshine. The Station is owned by the Isle of Wight Council and is maintained by the Met Office. The station is situated at The Mead, a park area near Shanklin 'Old Village' towards the outskirts of the town and is 50 feet above sea level. The station is a simple one consisting of a 5" standard rain gauge and a Stevenson's Screen equipped with three thermometers. Readings and observations are taken once daily at 09.00GMT. The Campbell Stokes sunshine recorder is located on the roof of Shanklin Theatre, at a height of 180 feet above sea level. However, due to Covid restrictions, sunshine was not recorded during 2021. All averages refer to the Shanklin climate data set 1981-2010.

JANUARY

2021 started cold and dry; the mean temperature for January being 5.3°C, which was 0.5°C below average. The warmest day was the 28th and the 29th when 11.3°C was recorded. The coldest days were the 7th and the 9th when the temperature reached 2.4°C. The coldest night was the 24th with an overnight temperature of -3.0°C, one of the seven air frosts recorded in January.

The rainfall total was 132.3mm and was 146% of its average. Rain was recorded on 20 days; the average is 18. The highest amount in a 24-hour period was 24.0mm, recorded on the 29th.

Gales were recorded on the 29th.

Sleet was recorded on the 24th, and snow was observed lying on the downs at 0900 hrs on the 25th.

FEBRUARY

February started mild, but a cold spell commenced on the 7th. Mild weather returned on the 14th which persisted till the end of the month. The mean temperature was 6.3°C, which was 0.9°C above the average. The warmest day was the 20th with 14.3°C. The coldest day was the 8th with 0.6°C. The minimum temperature was recorded on the morning of the 8th when -1.5°C was logged, one of five frosts recorded during the month.

The rainfall total was 73.7mm and was 113% of the average. The wettest day was the 2nd with 11.6mm of rain. Rain was recorded on 15 days; the average is 14.

Snow was recorded on the 7th, 8th, 9th, 10th, and 11th; all falls were slight.

MARCH

March started cold but with seasonal warming ended warmer than normal. The mean temperature of 7.5°C was 0.3°C above the long-term average. The warmest day was the 16th with 16.4°C and the coldest day was the 7th with 6.9°C. The coldest overnight temperature recorded on the 8th was -2.9°C, one of three air frosts recorded.

The rainfall for March amounted to 37.1mm; this was 56% of the average. The wettest day was the 10th with 13.9mm. Rain was recorded on 10 days; the average is 14.

Gales were recorded on the 10th, 11th, and the 13th.

APRIL

April was a very dry month and was characterised by

very cold nights. The mean temperature was 7.1°C which was 1.8°C below the long-term average. The warmest day was the 1st with 15.4°C. The coldest days were the 7th and the 10th, both with 7.8°C. The coldest night was recorded on the morning of the 7th when -1.1°C was recorded, one of five air frosts recorded during the month.

The rainfall amounted to just 1.3mm, just 2% of the average. The wettest day was the 11th with 1mm of rain.

MAY

May was a cold, wet month. The mean temperature was 10.9°C and 1.1°C below the average. The warmest day in May at 19.1°C was recorded on the 31st. The coldest day was the 13th with a recorded maximum of 10.8°C. The coldest overnight temperature was 0.6°C, recorded on the morning of the 6th.

The rainfall amounted to 72.5mm, which was 139% of the average. The wettest day was the 7th, with 21.0mm recorded. Rain was recorded on 21 days; the average is 11.

JUNE

June was a warm and wet month. The mean temperature was 15.7°C, 1.0°C above average. The warmest day was the 14th with 26.0°C recorded, one of six occurrences when the temperature exceeded 21.1°C. The coldest day was the 21st with 12.9°C recorded. The coldest overnight temperature was recorded on the 26th when 8.4°C was recorded.

Rainfall totalled 145.0mm and was 313% of average. The wettest days were the 28th with 47.1mm and the 17th with 25.6mm. Rain was recorded on 13 days; the average is 10.

JULY

A warm and wet month, in a similar vein to June. The mean temperature for July was 17.9°C and was 1.0°C above the average. The warmest day was the 20th with a recorded maximum of 28.0°C, one of fifteen days when the temperature exceeded 21.1°C. The coldest day was the 6th with a recorded maximum of 17.0°C. The coldest overnight temperature was recorded on the morning of the 11th with 10.7°C.

July was another wet month with 107.9mm of rain which was 229% of its average rainfall. The wettest day was the 25th with 29.1mm of rain. Rain was recorded on 14 days; the average is 9.

Thunder as recorded on the 23rd, 24th, 25th, and the 27th.

AUGUST

A cool month, with above average rainfall. The mean temperature was 16.6°C and was 0.4°C below average. The hottest day was the 22nd with a recorded temperature of 23.3°C. There were 5 days when the temperature reached or exceeded 21.1°C. The coldest day was the 7th with 17.6°C. The lowest overnight temperature was on the 28th when 9.8°C was recorded.

Rainfall during the month occurred mainly during the first eight days which had a total of 58.0mm. The wettest day was the 1st with 25.2mm. The total for the month was 61.0mm, 112% of its average. Rain was recorded on 11 days which is the average for August.

SEPTEMBER

Warm and mainly dry. The mean temperature was 16.6°C which was 1.5°C above the average. The warmest day was the 6th with 24.3°C recorded, one of six days when the maximum temperature reached or exceeded 21.1°C. The coldest day was the 29th when the temperature was 15.9°C. The lowest temperature overnight was recorded on the morning of the 30th when 9.1°C was recorded.

Rainfall was 57.5mm recorded, 82% of its average. The wettest days were the 28th with 20.3mm and the 30th with 18.0mm.

OCTOBER

A mild and wet month. The mean temperature for October was 13.7°C which is 1.4°C above the average. The warmest day was the 19th with 18.6°C; the coldest day was the 21st with 12.4°C and the coldest overnight temperature was recorded on the 22nd when the temperature fell to 6.0°C.

The rainfall for October was well above average at 174.7mm 152% of its average. The days with the highest totals were 19th with 27.9mm of rain, 4th with 27.1mm, 20th with 26.6mm and the 2nd with 24.8mm of

rain. There were 15 days with rain recorded which is the same as the average.

NOVEMBER

A dry month, with near-average temperature. The mean temperature for the month was 8.8°C, slightly above average by 0.1°C. The warmest day was the 10th, when 14.9°C was recorded. The coldest overnight temperature was recorded on the morning of the 29th when -0.6°C was recorded. The coldest days were the 27th and the 28th both recording 5.4°C. The temperature exceeded 10°C on 22 days. Two air frosts were recorded during the month.

There was 11.4mm of rain during the month which equated to 10% of the climate average. The wettest day was the 30th with 4.7mm of rain. There were just 6 days with rain recorded the average is 16.

Gales were recorded on the 27th.

DECEMBER

Another mild and wet month. The mean temperature was 8.7°C and was 2.3°C above the climate average. The highest temperature was recorded on the 31st when 13.8°C was recorded. The lowest overnight temperature was recorded on the 3rd when the temperature fell to 0.9°C.

Rainfall amounted to 130.6mm and was 129% of the climate average. The wettest day was the 25th with 23.0mm; other high daily totals were recorded on the 27th with 14.4mm, the 28th with 11.3mm and the 26th with 10.2mm. There were 18 days with rain recorded; the average is 16.

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Table 1: Monthly weather records for Shanklin, 2021

	AVERAGE TEMP °C	MEAN MAX. TEMP °C	MEAN MIN. TEMP °C	RAINFALL mm	SUNSHINE
JANUARY	5.3	7.6	2.9	132.3	NR
FEBRUARY	6.3	8.7	3.9	73.7	NR
MARCH	7.5	10.7	4.2	37.1	NR
APRIL	7.1	11.4	2.7	1.3	NR
MAY	10.9	14.4	7.3	72.5	NR
JUNE	15.7	19.3	12.0	145.0	NR
JULY	17.9	21.2	14.5	107.9	NR
AUGUST	16.6	19.9	13.3	61.0	NR
SEPTEMBER	16.6	19.9	13.2	57.5	NR
OCTOBER	13.7	16.2	11.2	174.7	NR
NOVEMBER	8.8	11.6	6.0	11.4	NR
DECEMBER	8.7	10.5	6.9	130.6	NR
YEARLY FIGURE	11.25	14.3	8.2	1005.0	NR

Table 2: Changes in the 30 year average climate data for Shanklin 1961-1990 to 1991-2020

1961-1990							Difference 1961-1990 compared to 1991-2020						1991-2020					
Month	Maximum Temperature °C	Minimum Temperature °C	Days of air frost (days)	Sunshine (hours)	Rainfall Total (mm)	Days of rainfall ≥1mm (days)	Maximum Temperature °C	Minimum Temperature °C	Days of air frost (days)	Sunshine (hours)	Rainfall Total (mm)	Days of rainfall ≥1mm (days)	Maximum Temperature °C	Minimum Temperature °C	Days of air frost (days)	Sunshine (hours)	Rainfall Total (mm)	Days of rainfall ≥1mm (days)
Jan	7.25	2.77	7.25	63.24	91.27	13.97	1.21	1.1	-2.58	6.55	13.85	-0.64	8.46	3.87	4.67	69.79	105.1	13.33
Feb	7.12	2.5	6.54	81.36	64.47	9.77	1.29	0.92	-2.07	11.44	9.1	1	8.41	3.42	4.47	92.8	73.57	10.77
Mar	9.11	3.38	4.54	138.26	70.48	10.7	1.2	1.11	-2.48	3.76	-10.47	-1	10.31	4.49	2.06	142.02	60.01	9.7
Apr	11.42	4.77	1.45	189.9	55.82	9.13	1.44	1.19	-0.68	17.89	-1.83	-0.13	12.86	5.96	0.77	207.79	53.99	9
May	14.71	7.74	0.13	241.8	55.15	9.57	1.14	1.04	-0.13	6.28	-2.96	-1.63	15.85	8.78	0	248.08	52.19	7.94
Jun	17.73	10.68	0	245.7	52.82	7.7	0.68	0.79	0	10.71	1.33	0.13	18.41	11.47	0	256.41	54.15	7.83
Jul	19.72	12.76	0	249.55	45.99	6.53	0.77	0.85	0	19.35	6.28	0.98	20.49	13.61	0	268.9	52.27	7.51
Aug	19.64	12.94	0	228.47	62.51	8.1	0.89	0.9	0	11.13	4.3	0.39	20.53	13.84	0	239.6	66.81	8.49
Sep	17.66	11.46	0	170.4	76.56	9.43	0.83	0.59	0	8.47	-4.13	-0.45	18.49	12.05	0	178.87	72.43	8.98
Oct	14.62	9.31	0.04	120.9	94.8	11	0.55	0.42	-0.04	2.9	18.59	1.62	15.17	9.73	0	123.8	113.4	12.62
Nov	10.6	5.59	2.1	81	96.4	12.43	1.09	0.98	-0.8	3.05	22.01	1.3	11.69	6.57	1.3	84.05	118.4	13.73
Dec	8.46	3.74	5.48	61.07	92	12.4	0.81	0.77	-1.38	2.86	26.81	1.43	9.27	4.51	4.1	63.93	118.8	13.83
Annual	13.2	7.33	27.53	1873.73	858.27	120.73	0.99	0.89	-10.16	102.31	82.88	3	14.19	8.22	17.37	1976.04	941.2	123.73

Early this year the Met. Office published 30 year average data for Shanklin for 1991-2020 and this can now be compared with the 30 year averages for 1961-1990. The change is not trivial (for example for maximum and minimum temperature, of the order of one degree Celsius) and apart for days of air frost and days of rainfall = 1 mm, all in one direction so unlikely to be due to random variation. The change is thus likely to be significant and reflect climate change. The greater change in the rainfall occurs in the 6 months October to March and this is in line with predicted climate change for the UK, wetter winters.