

Radcliffe Meteorological Station

Oxford University Centre for the Environment

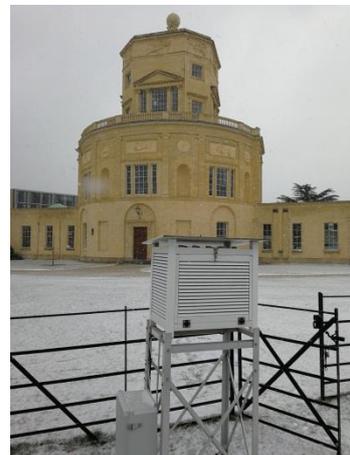
The Weather at Oxford in 2018

2018 was the 3rd warmest year in our 204 year record here at RMS, beaten only by 2006 and 2014. It was a year of extreme weather, with an unusually late winter storm causing March snow, followed by a hot, dry summer breaking records in June and July.

January featured warmer than average temperatures across all the statistics we aggregate. It was unusually sunny, while the monthly total rainfall was standard for this time of year. The maximum temperature recorded was 14.6°C, the 4th highest on record.

This **February** was the 2nd sunniest February on our 144 year record, with 117.6 hours of bright sunshine recorded. It was also colder than average, though well within the expected temperature range for this time of year. Only the monthly mean grass and concrete minimums (-3.5°C and -1.6°C) were below the 1 standard deviation range. Rainfall, at 24.1 mm, was lower than average but still typical for this season.

We were hit by the “Beast from the East” in early **March**, sending the absolute minimum temperature down to a chilly -6.1°C and bringing 4 days of snow. Combined with another snowy cold snap in the middle of the month, this brought the total number of snow days in March up to 7, the 3rd highest on our record.



April was unseasonably warm, with the highest mean overnight minimum air temperature on record (7.5°C) and the 3rd highest absolute maximum temperature (26.9°C) for this time of year. Grass and concrete mean minimums were also at the top end of the spectrum, as the 1st and 2nd highest in our records, respectively. Rainfall was slightly above average.

In **May**, temperatures were again higher than average, and we experienced the 2nd highest May temperature on our record at 27.2°C. A thunderstorm on the 31st of May produced 36.4 mm of rain – the most rain in a single day since October 2012, and the 62nd wettest day in our records.

June marked the beginning of the summer heatwave and dry spell. There was only one wet day in the entire month, and the monthly rainfall, (2.5 mm) was the 2nd lowest in our record. The mean maximum air temperature was 22.8°C, the 3rd highest June mean maximum in our records, and 7 days were recorded with maximum temperatures above 25°C.

The high temperatures continued into **July**, when Oxford experienced 26 days where the temperature rose above 25°C. Although the maximum temperature recorded was only the 9th highest on record (32.4°C), the length of the heatwave ensured that the mean maximum temperature of 27.3°C was the highest on record. The grass at Green Templeton College was rather parched by the end of July!



August was closer to ‘normal’ than the preceding two months, although both the mean air temperature (18°C) and the mean maximum air temperature (23.4°C) were more than one standard deviation above the average for this time of year. Rainfall and sunshine hours were close to the long-term August average. **September** continued this pattern, with most metrics falling close to the long-term monthly mean. Towards the end of the month there was a cold snap, with three nights of below-zero grass minimum temperatures.

October too was also close to average, though the absolute maximum temperature of 23.9 on the 13th was well above average for this time of year, ranking as the 8th highest on our 200+ year record.

In **November** average temperatures were generally more than one standard deviation above average, with the monthly mean temperature of 8.4°C almost 2 degrees warmer than is usual for November. Interestingly, the absolute maximum and minimum temperatures were very close to the long-term mean for this time of year. Similarly, **December** was much warmer than average in multiple temperature metrics, with the mean air temperature 2.7°C higher than the average.



RMS news

Publications

A book about RMS is currently in by Oxford University Press! 'Oxford Weather and Climate since 1767' is written by Tim Burt, a previous RMS Director, and Stephen Burt, a meteorologist at the University of Reading, the book is due to be published in May or June and features lots of new and exciting analysis. More information can be found at this link: <https://global.oup.com/academic/product/oxford-weather-and-climate-since-1767-9780198834632?q=oxford%20weather&cc=gb&lang=en>

Social media

Please do follow us on Instagram (rms_oxford) and Twitter (@RMS_Oxford) for all your Oxford weather needs.

Errata: Wind Records

In compiling the annual report, we noticed an error in our long term wind statistics, starting from 2015. The correct monthly mean wind speeds are included in the table below. Bold represents values 1 standard deviation from the long term monthly mean, while underlined represents two standard deviations.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2014	9.8	14.4	8.8	8.5	8.4	6.9	6.4	9.1	5.3	10.2	6.1	11	8.7
2015	8.4	8.3	11.7	8.4	11.6	9.2	11.1	8.7	7.5	7.9	10.6	15	9.9
2016	10.6	12.1	10.5	8.8	8.5	6	8.6	8.7	7	6.5	9.5	6.3	8.6
2017	6.4	9.1	10.6	6.4	6.8	8.7	8.3	7.7	6.9	9.6	7.4	9.9	8.2
2018	10.7	9.7	9.3	9.6	6.1	7.4	6	8.3	8.7	6.3	10	9.5	8.5

Difference from Monthly Mean

2014	-0.3	<u>4.6</u>	-0.9	-0.8	-0.1	-1.1	-1.5	1.3	-2.5	1.8	-2.9	1.2	-0.1
2015	-1.7	-1.5	2	-0.9	<u>3.1</u>	1.2	<u>3.2</u>	0.9	-0.3	-0.5	1.6	<u>5.2</u>	1
2016	0.5	2.3	0.8	-0.5	0	-2	0.7	0.9	-0.8	-1.9	0.5	-3.5	-0.2
2017	<u>-3.7</u>	-0.7	0.9	<u>-2.9</u>	-1.7	0.7	0.4	-0.1	-0.9	1.2	-1.6	0.1	-0.7
2018	0.6	-0.1	-0.4	0.3	-2.4	-0.6	-1.9	0.5	0.9	-2.1	1	-0.3	-0.4

The annual report was written by RMS observers; Amy Creese and Emma Howard. We would like to thank Roger Brugge for quality checking our recordings each month, our cover observers Callum, Josie, Boi, Thomas, Jae-Young, James and Scott, and Phil Johnson from the Met Office for all his help with instrumentation.