Year rising in weather rankings

Climate report 2017 likely to dislodge 2014 as third warmest

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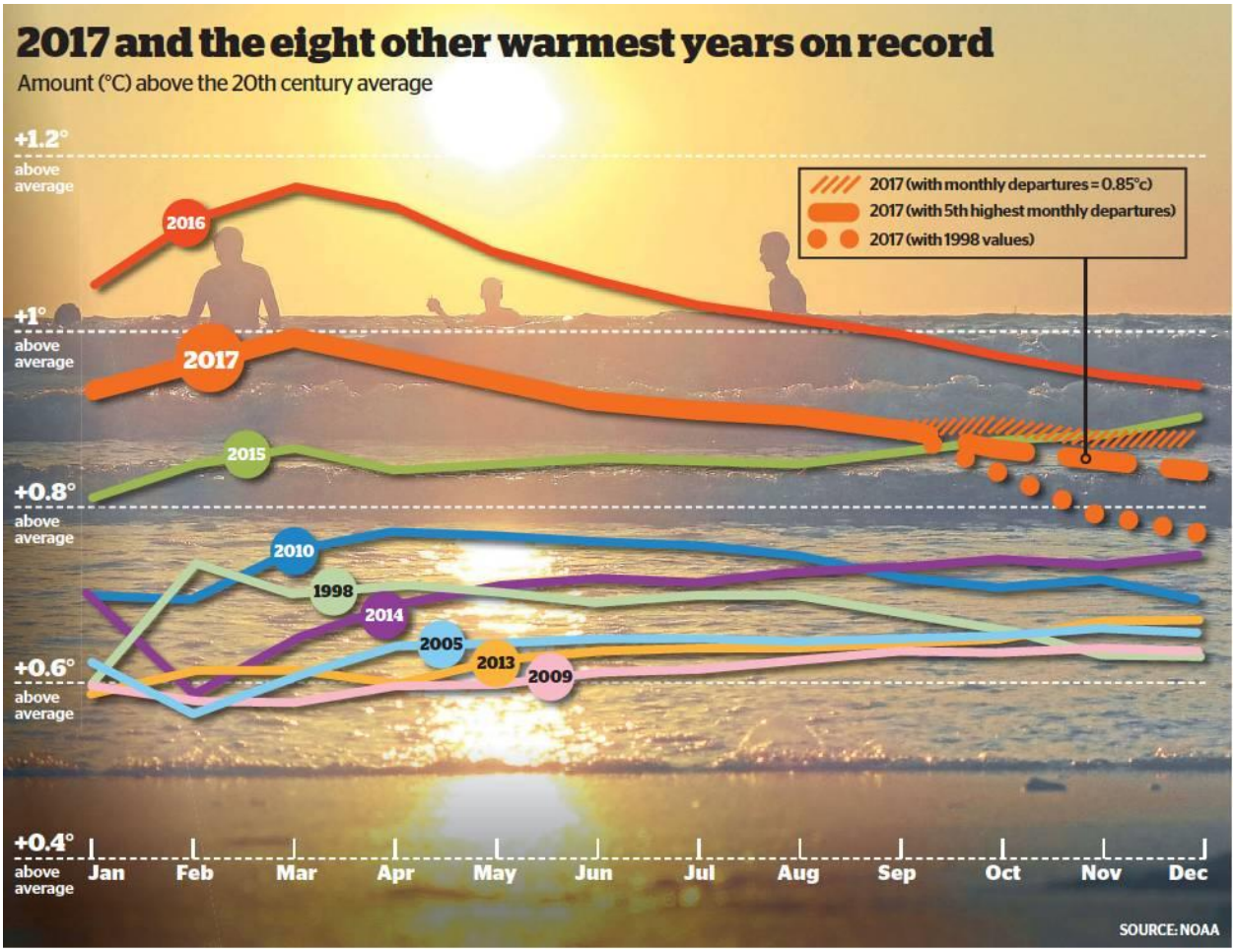

The world is headed for its third warmest year on record, even without the boost from an El Nino, as the signs of climate change continue to mount, the World Meteorological Organization said.

In a release timed to coincide with the opening of the Bonn climate conference in Germany yesterday, the WMO said the five-year average was now running at about 1 degree warmer than the average for 1880-1900 period. The same conference two years ago in Paris agreed to keep warming to below 2 degrees.

Based on the first nine months of the year, 2017 is unlikely to be match 2016 – the hottest year on record – or the previous year. Still, it is likely to dislodge 2014 as the third warmest.

Such a ranking for 2017 will be notable not least because El Nino Southern Oscillation (ENSO) conditions have been neutral this year, unlike the past two years which had a warming boost from an El Nino.

''It's clearly the warmest year [on record] that doesn't have a warming influence,'' said Blair Trewin, senior climatologist at the Bureau of Meteorology and scientific co-ordinator of the WMO report.

Going by the first 10 months of the year, Australia will have its third warmest year on record, the bureau said in a separate report.

Mean temperatures are running 0.96 degrees above the 1961-90 average used by the bureau. Maximum temperatures were running at 1.34 degrees above average.

The WMO's report comes a week after the United Nations agency said greenhouse gases are now at levels not seen for perhaps 5 million years. Carbon dioxide levels rose the most on record last year, increasing 3.3 parts per million to 403.3 ppm.

The report also details many of the dislocations caused by extreme weather in the past year, including some 761,000 internal refugees in Somalia alone because of drought.

By June, more than half the African nation's cropland was affected by dry conditions, while animal herds have dived 40-60 per cent since December 2016. Globally, 23.5 million people were displaced last year by weather-related disasters, WMO said. The intense hurricane season in the Atlantic provided the most unusual cyclonic activity in an otherwise slightly quieter than average year.

Among the three category 4 or 5 hurricanes that hit the US mainland this year, one outstanding weather statistic was the 1539 millimetres of rain recorded at Nederland, Texas – the largest ever recorded for a single rainfall event on the US mainland during Hurricane Harvey. WMO's science team is yet to determine whether a warming planet is making slow-moving, land-falling hurricanes more or less frequent. Still, ''it is likely that anthropogenic climate change made rainfall rates more intense, and that ongoing sea-level rise exacerbated storm surge impacts'', the report said.

During the El Nino itself, sea-level increases peaked at a rate of 10 mm a year. ''That was effectively three years' worth of extra sea-level rise in a year,'' Dr Trewin said.

Data sets varied, for instance, as to whether the annual maximum Arctic sea ice extent marked a new record low in March 2017. But the 10 record low maximum years have all occurred since 2007.

The Greenland ice sheet, meanwhile, added 40 billion tonnes in 2017, bucking a trend in which the ice sheet has lost about 3600 billion tonnes since 2002.

''It's more a moisture signal, rather than a temperature one,'' Dr Trewin said, noting Greenland had received heavier than usual snowfall in the past year. In Australia, NSW and Queensland stand out as being unusually warm so far this year.

"NSW has the highest January-October anomaly on record, but 2014 – which finished very hot – had an annual anomaly which was higher,'' Dr Trewin said. ''So it's harder to say that NSW is 'on track' for its warmest year on record,'' he said.

The key Murray-Darling agricultural basin is having its driest year since 2006, one of the years of the Millennium Drought, Dr Trewin said.