

An unseasonably warm December

With the northeast monsoon over southern China weaker than normal for most of the month, December 2018 was much warmer than usual in Hong Kong. The monthly mean temperature was 19.2 degrees, 1.3 degrees above the normal figure of 17.9 degrees and the sixth highest on record for December. The mean minimum temperature was 17.6 degrees, 1.7 degrees above the normal figure of 15.9 degrees and the fourth highest on record for December. The month was also drier than usual with total rainfall of 11.9 millimetres, about 44 per cent of the normal figure of 26.8 millimetres. The annual total rainfall of 2162.9 millimetres in 2018 was about 10 per cent below the annual normal figure of 2398.5 millimetres.

Under the influence of the northeast monsoon, the weather in Hong Kong was generally fine for the first two days of the month. Affected by a relatively warm and humid maritime airstream, local weather became exceptionally warm over the next two days. The maximum temperature at the Hong Kong Observatory soared to 27.1 degrees on December 4, the highest of the month, and the daily mean temperature on that day was 24.8 degrees, the highest on record for December.

With a fresh to strong easterly airstream setting in, it was mainly cloudy with a few rain patches in Hong Kong on December 5 and 6. A cold front moved across the coastal areas of Guangdong in the morning of December 7 and the northeast monsoon behind the cold front brought cooler weather together with a few rain patches to the territory over the next three days. It was rather cool from December 11 to 14 under the influence of a replenishment of the northeast monsoon. With the northeast monsoon moderating, the weather improved gradually on December 15 with plenty of sunshine in the afternoon.

Another replenishment of the northeast monsoon reached the south China coastal areas on December 16, bringing mainly cloudy weather with a few light rain patches to Hong Kong. Under the influence of a dry northeast monsoon, it was generally fine and dry with cool mornings in Hong Kong over the next two days. As the northeast monsoon affecting the south China coastal areas was gradually replaced by a relatively warm and humid maritime airstream, local temperatures rose gradually on December 19 and 20. With abundant sunshine during the day, it was rather warm over the next two days and the daily mean temperature on December 22 reached 22.2 degrees, making it the warmest Winter Solstice on record.

With the northeast monsoon reaching the coastal areas of Guangdong, it was rainy and cooler on December 23. While the rain eased off gradually, the weather remained cloudy and cool over the next two days. As the clouds covering southern China gradually thinned out, local weather turned generally fine and mild on December 26 and 27. Meanwhile, the winter monsoon affecting southern China strengthened and spread south gradually. Under the influence of the intense winter monsoon, local weather became windy with temperatures falling progressively towards the end of the month. With chilly northerlies

prevailing and cloudy skies, it was cold on the last two days of the month with the temperature at the Hong Kong Observatory dropping to a minimum of 10.3 degrees on December 30, the lowest of the month.

Two tropical cyclones occurred over the South China Sea and the western North Pacific in December 2018.

Details of issuance and cancellation of various warnings/signals in December are summarised in Table 1. Monthly meteorological figures and departures from normal for December are tabulated in Table 2.