

## A wet and exceptionally warm March

As the northeast monsoon over southern China was weaker than normal for most of the month, March 2019 was exceptionally warm, with its mean temperature reaching 21.0 degrees, 1.9 degrees above the normal figure of 19.1 degrees, marking the fourth-highest mean temperature on record for March. The mean minimum temperature of the month was 19.4 degrees, 2.2 degrees above the normal figure of 17.2 degrees and the third-highest on record for March. The mean temperature, the mean maximum temperature and the mean minimum temperature from January to March this year were 19.7 degrees, 22.1 degrees and 18.1 degrees respectively, all the highest on record for the same period. Hong Kong's weather in March was also wetter than usual as a result of the troughs of low pressure over the coastal areas of Guangdong early this month, with the total rainfall recorded in the month reaching 186.5 millimetres, more than double the normal figure of 82.2 millimetres. The accumulated rainfall recorded in the first three months of the year was 259.9 millimetres, nearly 61 per cent above the normal figure of 161.3 millimetres for the same period.

The weather in Hong Kong was cloudy with a few light rain patches on the first day of March due to a fresh to a strong easterly airstream. As the easterly airstream was gradually replaced by a maritime airstream, local weather improved with sunny periods on March 2. There was coastal fog early on March 3 with the visibility at Waglan Island falling below 1 000 metres. Meanwhile, a cold front moved across the coast of Guangdong in the morning, bringing showers to various areas in the territory. Affected by the northeast monsoon behind the cold front and the showery activities along the coastal areas, there were sunny intervals and thundery showers on March 4 and 5.

A trough of low pressure lingering over the coastal areas of Guangdong brought cloudy weather with occasional showers and thunderstorms on March 6 and 7. The showers were particularly heavy on March 6 with 45.5 millimetres of rainfall recorded at the Hong Kong Observatory, making it the wettest Insects Waken on record. Rainfall over Kowloon and Lantau Island exceeded 70 millimetres on that day. As a strong easterly airstream set in, local weather became cooler with a few showers on March 8. With the rainy weather, the temperature at the Hong Kong Observatory dropped to 15.1 degrees, the lowest of the month. Affected by another trough of low pressure over the South China coast, the weather in Hong Kong remained cool and cloudy with a few showers on March 9 and 10.

Under the influence of a dry northeast monsoon, apart from a few rain patches in the morning of March 11, the weather in Hong Kong turned generally fine that afternoon and the next day. With the strengthening of the easterlies, local weather became windier with a few showers from March 13 to 15. A dry northeast monsoon brought sunny periods to Hong Kong from March 16 to 18.

With the northeast monsoon over the coast of Guangdong moderating

gradually and being replaced by a warm maritime airstream, the weather in Hong Kong became warm with rather low visibility from March 19 to 22. Coastal fog on the mornings of March 21 and 22 brought visibility down to below 1 000 metres at Waglan Island. It was very warm on March 22 with a daily minimum temperature of 24.8 degrees recorded at the Hong Kong Observatory, the joint highest on record for March.

A cold front moved across the coast of Guangdong on the night of March 22. Its associated northeast monsoon brought cooler and rainy weather to Hong Kong over the next three days. Affected by a fresh easterly airstream, it was mainly cloudy with sunny intervals on March 26 and 27, except for a few light rain patches on the morning of March 27. With the arrival of a warm maritime airstream, the weather in Hong Kong became very warm with morning coastal mist on March 28. With plenty of sunshine in the afternoon, the maximum temperature at the Hong Kong Observatory soared to 27.8 degrees on that day, the highest of the month. Apart from coastal fog in the morning, the weather remained warm with sunny intervals in the afternoon of March 29. Affected by an area of thundery showers associated with an upper-air disturbance, there were also some showers and a few thunderstorms that evening. With a surge of the northeast monsoon reaching the coast of Guangdong on the morning of March 30, local weather became windier and slightly cooler with a few showers towards the end of the month.

There was no tropical cyclone over the South China Sea and the western North Pacific in March 2019.

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