

An exceptionally warm February

February 2019 was unseasonably warm in Hong Kong because the northeast monsoon over the south China coast was weaker than normal for most of the time in the month. The monthly mean temperature of 20.1 degrees, the monthly mean minimum temperature of 18.4 degrees and the monthly mean maximum temperature of 22.6 degrees, all the second highest on record in February, were 3.3 degrees, 3.4 degrees and 3.7 degrees above their corresponding normal figures respectively. Together with the well above normal temperatures in December 2018 and January 2019, Hong Kong also experienced the warmest winter on record from December 2018 to February 2019, with only three cold days, the fewest on record, and the winter mean temperature reaching 19.1 degrees, 2.1 degrees above the normal figure. February 2019 was also wetter than usual. The monthly rainfall was 68.7 millimetres, about 26 per cent above the normal figure of 54.4 millimetres in February. The accumulated rainfall recorded in the first two months of the year was 73.4 millimetres, a 7 per cent decrease compared to the normal figure of 78.9 millimetres for the same period.

The northeast monsoon brought mostly cloudy weather to Hong Kong on the first day of February 2019. As the northeast monsoon moderated, local weather improved gradually with sunny periods on the next three days, bringing warm weather to Hong Kong on February 3 and 4. The light wind conditions on February 4 led to coastal fog in the morning, but local winds picked up at night when a fresh easterly airstream reached the coast of Guangdong.

With the easterly winds over the coast of Guangdong gradually replaced by a warm maritime airstream, the weather in Hong Kong became warm again with sunny periods and coastal mist from February 5 to 8. February 6, 7 and 8 this year were the warmest second, third and fourth days of the Lunar New Year on record, with the maximum temperatures recorded at the Hong Kong Observatory on these three days rising to 24.9 degrees, 25.8 degrees and 25.1 degrees respectively. The mean temperature of the first three days of the Lunar New Year also set a new record high of 21.8 degrees. With a strong northeast monsoon reaching the coast of Guangdong at around noon on February 8, local weather turned cloudy and cooler with a few rain patches that afternoon. Similar weather followed on the next three days.

The northeast monsoon moderated on February 12, leading to generally fine weather that afternoon and the next day. Due to a ridge of high pressure over the coast of southeastern China, local winds strengthened from the east in the night of February 13. A relatively humid easterly airstream affected the south China coast from February 14 to 16, bringing a few light rain patches in the morning and sunny periods in the afternoon.

As the easterly winds picked up again on February 17, the weather became cooler with a few light rain patches. A trough of low pressure over the coastal areas of Guangdong brought thundery showers to Hong Kong on February 18 and 19. The showers were heavy in the morning of February 19, leading to

the issuance of the first Amber Rainstorm Warning in the year. This was also the second earliest Amber Rainstorm Warning since the rainstorm warning system commenced its operation in 1992. More than 30 millimetres of rainfall were recorded in various areas of Hong Kong Island, Kowloon and the Islands.

A warm and humid maritime airstream brought foggy weather and sunny intervals to Hong Kong on February 20 and 21. The visibility in Victoria Harbour fell below 1,000 metres in the morning of February 21. A cold front moved across the coastal areas of Guangdong in the small hours of February 22. Its associated strong northeast monsoon brought cool and rainy weather to Hong Kong on February 23 and 24. The weather was rather cool in the morning of February 24 with the temperature at the Hong Kong Observatory dropping to a minimum of 14.1 degrees, the lowest of the month. Local weather became brighter with temperatures rising progressively towards the end of the month as the northeast monsoon abated. The weather was rather warm on February 28 with the maximum temperature at the Hong Kong Observatory soaring to 26.7 degrees that afternoon, the highest of the month.

One tropical cyclone occurred over the South China Sea and the western North Pacific in February 2019.

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