

An unseasonably warm March

With the northeast monsoon over southern China generally weaker than normal for most of the time in the month, March 2022 was much warmer than usual in Hong Kong. The monthly mean maximum temperature of 25.0 degrees was 3.1 degrees above normal and the highest on record for March. Moreover, the monthly mean temperature of 21.5 degrees and monthly mean minimum temperature of 19.2 degrees were respectively the second and the sixth highest on record for March. The total rainfall in the month was 92.7 millimetres, about 23 per cent above the normal figure of 75.3mm. The accumulated rainfall of 265.3mm in the first three months of the year was about 80 per cent above the normal figure of 147.4mm for the same period.

The weather was mainly fine on the first day of the month. Affected by a relatively humid easterly airstream, the weather gradually turned cloudier with mist in some areas from March 2 to 3. With the clouds thinning out, apart from mist patches in the morning and at night, it was generally fine during the day on March 4. Under light wind conditions, the weather remained fine but became foggy on March 5. The visibility in some areas once fell to about 100 metres. With winds strengthening from the east, local weather turned mainly cloudy that night. It became dry with sunny intervals during the day on March 6.

A cold front moved across the coast of Guangdong in the morning of March 7 and brought cooler weather and some rain patches to Hong Kong. Under the influence of the dry northerly airstream, local weather became generally fine and dry in the afternoon. The weather remained fine and dry in the next five days. It was rather cool in the morning of March 8 with the temperature recorded at the Hong Kong Observatory (HKO) dropping to a minimum of 15.0 degrees, the lowest of the month. It was very dry in the afternoons of March 8 to 9 with the relative humidity over parts of the territory falling below 40 per cent.

A mild maritime airstream replaced the northeast monsoon on March 13 and prevailed over the coast of Guangdong till March 22. Locally, it was generally fine and rather warm from March 13 to 15. It was foggy in the morning of March 15. Affected by cloud bands over southern China, the weather became mainly cloudy with some mist patches on March 16. Apart from coastal fog and a few showers in the morning, there were sunny periods during the day on March 17. It was foggy in Hong Kong from March 18 to 22. The visibility in the harbour and at Waglan Island once fell to 100m or below during the night on March 18 and in the next morning. There were also a few showers from March 20 to 22 and isolated thunderstorms in the New Territories on March 20.

A cold front moved across the coast of Guangdong in the morning of March 23 and brought cooler weather and showers to Hong Kong. Showers were more frequent in the morning. More than 50mm of rainfall were recorded over many places of the territory on that day. Affected by a fresh to strong easterly airstream, the weather remained cloudy with cool mornings and a few rain patches from March 24 to 25. With the easterly airstream gradually replaced

by a southerly airstream later on March 25, there were a few showers and coastal fog on March 26. The visibility at Waglan Island once fell below 500m on that day.

Another cold front moved across the coast of Guangdong in the small hours of March 27. Locally, under the influence of the associated northeast monsoon, it was cloudy and cooler with a few showers on that day. It was foggy in the morning with visibility in the harbour once falling to around 1 000m. Affected by a band of thundery showers, it was cloudy with showers and a few squally thunderstorms at first on March 28. More than 30mm of rainfall were recorded over many places and rainfall even exceeded 50mm over the northeastern part of the New Territories. The weather remained cloudy with a few showers on March 29. With the moderation of the northeast monsoon, local weather improved gradually with more sunshine and temperatures rising on the last two days of the month. The temperature recorded at the HKO rose to a maximum of 29.3 degrees in the afternoon of March 31, the highest of the month.

There were no tropical cyclones over the South China Sea and the western North Pacific in March 2022.

Details of the 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.