

An exceptionally warm and dry March

With relatively fewer cold air outbreaks from the north in March 2021, exceptionally warm weather persisted in Hong Kong. The monthly mean maximum temperature of 24.8 degrees, the monthly mean temperature of 22.0 degrees and the monthly mean minimum temperature of 20.2 degrees were 2.9 degrees, 2.5 degrees and 2.6 degrees above their corresponding normal figures respectively (or 3.4 degrees, 2.9 degrees and 3.0 degrees above their corresponding 1981-2010 normal figures respectively), making them the highest monthly mean values on record for March. The month was also much drier than usual with a total rainfall of only 3.5 millimetres, about 5 per cent of the norm of 75.3 mm (or about 4 per cent of the 1981-2010 norm of 82.2 mm), the fourth lowest on record for March. The accumulated rainfall recorded in the first three months of the year was 65.6 mm, a decrease of about 55 per cent compared to the norm of 147.4 mm (or about 59 per cent below the 1981-2010 norm of 161.3 mm) for the same period.

Under the influence of an easterly airstream, the weather of Hong Kong was mainly cloudy with sunny periods on the first day of March. As a cold front moved across the coast of Guangdong on the morning of March 2, the weather on that day was dry with sunny periods during the day and a few light rain patches in the morning and at night. The associated northeast monsoon and a band of clouds brought a few rain patches and slightly cooler weather to Hong Kong from March 3 to 4.

With the moderation of the northeast monsoon and the setting in of a humid maritime airstream, the weather of Hong Kong remained cloudy with a few rain patches and coastal fog from March 5 to 6. The visibility at Waglan Island once fell below 200 metres on March 6. Meanwhile, a trough of low pressure over southern China moved southwards gradually, resulting in a few showers and isolated thunderstorms on March 6. A few millimetres of rainfall were recorded generally over the territory on that afternoon, and the rainfall even exceeded 20 mm over the northern part of the New Territories.

A replenishment of the northeast monsoon reached the coast of Guangdong and brought cooler weather to the region on March 7. Local weather was cloudy with a few rain patches and the visibility was relatively low in some areas. The weather was a mixture of sunny intervals and a few rain patches the next day. With the cloud bands thinning out gradually, the weather of Hong Kong turned generally fine on the afternoon of March 9. Affected by a fresh to strong easterly airstream, the weather became cloudier with a few light rain patches on March 10. With the moderation of the easterly airstream and the thinning out of the clouds, the weather turned generally fine on the afternoon of March 11 and remained so the next day.

Local winds strengthened from the east once again and the weather became cloudier from March 13 to 14. With the setting in of a relatively dry easterly airstream, the weather turned sunny and warm in Hong Kong in the next few days. Affected by a relatively humid easterly airstream, the weather

became mainly cloudy with a few rain patches on March 18. With the clouds thinning out, the weather of Hong Kong became fine from March 19 to 20. With plenty of sunshine and under light wind conditions, the temperature recorded at the Hong Kong Observatory soared to a maximum of 29.7 degrees on the afternoon of March 20, the highest of the month. It was also the hottest Vernal Equinox on record.

A cold front moved across the coast of Guangdong on the morning of March 21 and brought cooler weather to the region. Under the influence of its associated northeast monsoon, local weather turned mainly cloudy that day and in the next few days. It was dry and appreciably cooler on March 22 with temperature recorded at the Hong Kong Observatory falling to a minimum of 15.8 degrees in the morning, the lowest of the month. With the clouds dissipating and the setting in of a ridge of high pressure, local weather became generally fine from March 25 to 26. Affected by a warm southerly airstream and an anticyclone aloft over the northern part of the South China Sea, the weather of Hong Kong was generally fine with hot afternoons for the rest of the month. The daily mean temperature on March 30 was 26.6 degrees, the highest on record for March. The daily minimum temperature on March 30 and 31 was 25.3 degrees, both the highest on record for March.

There were no tropical cyclones over the South China Sea and the western North Pacific in March 2021.

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