

A sunny and exceptionally hot October

With the stronger than normal upper-air anticyclone over southern China, October 2019 was exceptionally hot and sunny in Hong Kong. The monthly mean maximum temperature was 29.5 degrees, 1.7 degrees above the normal figure of 27.8 degrees and was the highest on record for October. The monthly mean temperature was 26.6 degrees, 1.1 degrees above the normal figure of 25.5 degrees and was the second highest on record for October. The month was marked by sunny weather with the monthly total sunshine duration amounting to 230.7 hours, about 19 per cent above the normal figure of 193.9 hours. With two heavy rain episodes from October 6 to 7 and from October 13 to 14 respectively, the rainfall recorded for the month was higher than normal. The monthly rainfall of October is 149.5 millimetres, about 48 per cent above the normal figure of 100.9 millimetres. The accumulated rainfall this year up to October was 2 382.7 millimetres, about 2 per cent higher than the normal figure of 2 334.0 millimetres for the same period.

Under the influence of an anticyclone aloft southern China, it was generally fine and hot from October 1 to 5 in Hong Kong. With plenty of sunshine, the maximum temperature at the Hong Kong Observatory soared to 33.2 degrees, the highest of the month, on October 1. Moreover, the daily mean temperature of 30.3 degrees on that day was the highest on record for October.

Under the influence of a strong easterly airstream and an upper-air disturbance, local weather became mainly cloudy with occasional heavy showers and squally thunderstorms on October 6 and 7. More than 30 millimetres of rainfall were recorded over many places on October 6, with rainfall even exceeding 50 millimetres over Sai Kung and the southern part of Hong Kong Island. With the anticyclone aloft strengthening again over southern China, apart from isolated showers, local weather was generally fine from October 8 to 11. As the anticyclone aloft weakened, there were isolated thunderstorms on the afternoon of October 12. About 20 millimetres of rainfall were recorded over Kowloon and the western part of Hong Kong Island on that day.

A cold front moved across the coast of Guangdong on the morning of October 13 and the associated northeast monsoon brought slightly cooler weather to the region. Locally, the weather became unsettled with occasional heavy showers and squally thunderstorms from October 13 to 14. More than 30 millimetres of rainfall were recorded over many places on these two days, with rainfall even exceeding 70 millimetres over parts of the New Territories East and Hong Kong Island.

With the northeast monsoon strengthening gradually, apart from a few showers in the morning, the weather became generally fine and windy on October 15. Under the dominance of the dry northeast monsoon, the weather of Hong Kong was generally fine and dry during the day from October 16 to 27. A replenishment of the northeast monsoon reached the coastal areas of Guangdong later on October 28. Locally, it was mainly cloudy with a few rain patches and the visibility was relatively low in some places. The strengthening of

the northerlies also brought cooler weather to the territory that night. With the dry northeast monsoon prevailing over southern China, it was cooler in Hong Kong for the rest of the month with dry weather and sunny periods. The temperature recorded at the Hong Kong Observatory on the morning of October 29 was 20.3 degrees, the lowest of the month.

Five tropical cyclones occurred over the South China Sea and the western North Pacific in October 2019.

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