

# An exceptionally hot and cloudy July

With a warmer than normal sea surface temperature over the northern part of the South China Sea, July 2019 was much hotter than usual in Hong Kong. The monthly mean minimum temperature of 27.7 degrees and the monthly mean temperature of 29.5 degrees were 0.9 degree and 0.7 degree above the corresponding normal and respectively the highest and joint sixth highest on record for July. The month was also cloudier than usual. The monthly mean amount of cloud was 79 per cent, about 10 per cent above the normal figure of 69 per cent and the joint fifth highest on record for July. The duration of bright sunshine in the month was only 150.5 hours, about 29 per cent below the normal figure of 212.0 hours, making it the seventh lowest on record for July. The monthly rainfall was 328.5 millimetres, about 13 per cent below the normal figure of 376.5 millimetres. The accumulated rainfall recorded in the first seven months of the year was 1437.9 millimetres, slightly lower than the normal figure of 1473.3 millimetres for the same period.

Under the influence of an area of low pressure over the northern part of the South China Sea, there were sunny periods and showers as well as isolated thunderstorms on the first day of the month. Meanwhile, an area of low pressure developed into a tropical depression on July 2 and was named Mun. It moved generally westward across Hainan Island and entered Beibu Wan on July 3. Mun made landfall over the northern part of Vietnam and weakened into an area of low pressure inland on July 4. Under the influence of the rainbands associated with Mun, it was cloudy with occasional heavy showers and thunderstorms from July 2 to 4. More than 100 millimetres of rainfall were recorded over most parts of the territory in these three days.

With the prevalence of a southwesterly airstream, the weather of Hong Kong was a mixture of sunshine and showers from July 5 to 9. Under the influence of a trough of low pressure, local weather became showery with a few thunderstorms on July 10 and 11. More than 60 millimetres of rainfall were recorded over Lantau Island and parts of the New Territories in these two days.

Under the dominance of an anticyclone aloft southeastern China, local weather turned fine and progressively became very hot with a few showers from July 12 to 18. With plenty of sunshine and light winds, the maximum temperature at the Hong Kong Observatory soared to 35.0 degrees on July 18, the highest of the month. The oppressive heat also triggered thundery showers that evening. While the weather remained very hot with sunny intervals on the morning of July 19, high temperature again triggered heavy showers and squally thunderstorms that afternoon. More than 30 millimetres of rainfall were recorded over many places, with rainfall exceeding 50 millimetres over the western part of the New Territories. A trough of low pressure continued to bring showery weather with localised heavy rain to Hong Kong on July 20 and 21. During these two days, more than 40 millimetres of rainfall were recorded over North District, Sai Kung and Southern District, and rainfall even exceeded 100 millimetres over Sha Tau Kok.

Affected by an upper-air disturbance, the weather of Hong Kong was a mixture of sunshine and showers from July 22 to 24. With the strengthening of the anticyclone aloft southeastern China, local weather became generally fine and very hot apart from isolated showers over the next three days. As the anticyclone aloft weakened, it was mainly cloudy with a few showers and thunderstorms on July 28 and 29. An area of low pressure developed into a tropical cyclone over the northern part of the South China Sea on July 30 and was named Wipha. With Wipha moving towards Hainan Island, local weather deteriorated gradually and became windy with outbreaks of squally heavy showers and thunderstorms on the last two days of the month. The outer rainbands associated with Wipha brought more than 100 millimetres of rainfall to most parts of the territory on July 31. The rainfall over Tseung Kwan O, Wong Tai Sin and Tai Wai even exceeded 200 millimetres. In the midst of the downpour, the temperature at the Hong Kong Observatory dropped to a minimum of 24.5 degrees on July 31, the lowest of the month.

Four tropical cyclones occurred over the South China Sea and the western North Pacific in July 2019.

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