

# An exceptionally hot August

Mainly owing to the warmer than normal sea surface temperature over the northern part of the South China Sea and a stronger than usual southwesterly flow in the lower atmosphere over the coast of southern China, August 2024 was exceptionally hot in Hong Kong. The monthly mean temperature of 29.6 degrees, monthly mean minimum temperature of 27.7 degrees and monthly mean maximum temperature of 32.3 degrees were respectively 0.9 degrees, 1.0 degree and 1.0 degree above their normals and respectively the second highest, one of the second highest and the fourth highest on record for August. Together with the well above normal temperatures in June and July, this year's summer from June to August was much hotter than usual. The mean minimum temperature of 27.5 degrees, mean temperature of 29.4 degrees and mean maximum temperature of 31.9 degrees were respectively the third highest, one of the third highest and the seventh highest on record for the same period. There were 18 hot nights in August 2024, the highest on record for August. The month was also drier than usual with a total rainfall of 261.5 millimetres, only about 58 per cent of the normal figure of 453.2 millimetres. The accumulated rainfall up to August this year was 1 583.4 millimetres, a deficit of about 18 per cent compared with the normal of 1 921.5 millimetres for the same period.

There were sunny periods and a few showers in Hong Kong on the first two days of the month. Dominated by an anticyclone aloft, it was generally fine and persistently very hot from August 3 to 9 and the temperatures at the Observatory soared to a maximum of 35.4 degrees on the afternoon of August 5, the highest of the month. High temperatures also triggered thundery showers over the territory on the afternoons of August 5 to 7. The showers were particularly heavy over Tsuen Wan and Kwai Tsing Districts on August 6 and more than 70 millimetres of rainfall were recorded.

Under the influence of a southwesterly airstream, Hong Kong's weather was a mixture of sunny periods, showers and thunderstorms from August 10 to 13. The showers were particularly heavy on August 12 under the influence of upper-air disturbances. More than 30 millimetres of rainfall were recorded over many places.

Under the influence of a broad trough of low pressure lingering over the coast of southern China and the northern part of the South China Sea, the weather in Hong Kong was unsettled with occasional showers and squally thunderstorms from August 14 to 21. The showers were particularly heavy on August 15, and from August 17 to 19. More than 100 millimetres of rainfall were generally recorded over the territory and rainfall even exceeded 200 millimetres over parts of the urban areas, Tai Po and Sha Tin Districts on these four days. With the rain, the temperatures at the Observatory dropped to a minimum of 25.2 degrees on August 17, the lowest of the month.

With the strengthening of the anticyclone aloft, the showers eased off gradually with sunny intervals during the day on August 22 to 23. Under light

wind conditions, apart from isolated showers, it was mainly fine and very hot from August 24 to 27. While the weather remained generally fine and very hot during the day on August 28, showers and squally thunderstorms associated with an upper-air disturbance affected Hong Kong later in the afternoon. With the departure of the upper-air disturbance, the showers eased off with sunny periods and very hot weather during the day on August 29 to 30. Affected by a broad trough of low pressure, it was mainly cloudy with a few showers and isolated squally thunderstorms on the last day of the month.

Six tropical cyclones occurred over the South China Sea and the western North Pacific in August 2024.

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