

# A cloudy August with localised heavy rain

August 2021 was cloudier than usual with localised heavy rain over some parts of the New Territories. The mean amount of cloud in the month was 77 per cent, seven per cent above the normal figure of 70 per cent. As for the monthly rainfall, while over 600 millimetres of rainfall were recorded in some parts of North District in the New Territories, the monthly rainfall recorded at the Hong Kong Observatory was 350.5 mm, about 23 per cent below the normal figure of 453.2 mm (or about 19 per cent below the 1981-2010 normal of 432.2 mm). The accumulated rainfall recorded in the first eight months of the year was 1 521.1 mm, about 21 per cent below the normal figure of 1 921.5 mm (or about 20 per cent below the 1981-2010 normal of 1 905.5 mm) for the same period. The monthly mean temperature of 28.8 degrees was close to the normal figure of 28.7 degrees (or 0.2 degrees above the 1981-2010 normal). Mainly attributing to the exceptionally hot weather in July 2021, the summer from June to August this year was much hotter than usual, with the mean temperature of which reaching 29.1 degrees, the sixth highest on record for the same period.

Under the influence of a southwesterly airstream, the weather of Hong Kong was a mixture of sunny periods, showers and thunderstorms on the first two days of the month. The showers were particularly heavy in some areas on August 1 with more than 70 mm of rainfall recorded over Lamma Island. Meanwhile, an area of low pressure over the northern part of the South China Sea intensified into a tropical depression on the night of August 2. It moved generally eastwards slowly across the northern part of the South China Sea in the next two days. The tropical depression developed into a tropical storm and was named Lupit on the morning of August 4. Lupit then moved northeastwards and skirted past the coastal areas of Fujian from August 5 to 6. It continued to track northeastwards towards Japan in the next two days and evolved into an extratropical cyclone over the seas north of Honshu of Japan on August 9.

Affected by the rainbands associated with Lupit, there were occasional heavy showers and squally thunderstorms in Hong Kong from August 3 to 5. On these three days, more than 100 mm of rainfall were recorded over most parts of the territory, and the rainfall even exceeded 140 mm over the central part of Hong Kong Island, the northern part of the New Territories and Lantau Island. With the departure of Lupit, a southwesterly airstream continued to bring unstable weather to the coastal areas of Guangdong from August 6 to 10. Locally, it was mainly cloudy with occasional showers and thunderstorms on these few days. The showers were particularly heavy in some areas of the New Territories on August 6, 7 and 9, with the daily rainfall exceeding 100 mm. The weather became less showery with sunny periods from August 11 to 13.

Under the influence of an upper-air disturbance, there were some showers and thunderstorms in Hong Kong from August 14 to 15. The showers were heavy

in North District in the New Territories on August 14 with more than 70 mm of rainfall recorded. Affected by a southwesterly airstream, local weather was a mixture of sunshine and showers on August 16. Dominated by an anticyclone aloft, apart from isolated morning showers, the weather became generally fine and was very hot on the afternoon of August 17.

Against the background of a southerly flow over the South China coast, it was hot with sunny periods in Hong Kong from August 18 to 19. Under light wind conditions, the day heating triggered localised heavy showers and thunderstorms on these two days. More than 90 mm of rainfall were recorded over San Tin and Ngau Tam Mei on August 19. Dominated by an anticyclone aloft, apart from a few showers, it was mainly fine and very hot most of the time in the following week. With plenty of sunshine, the temperature recorded at the Hong Kong Observatory soared to 34.4 degrees on August 25, the highest of the month. Under the influence of an upper-air disturbance, there were occasional showers and thunderstorms from August 27 to 29. During the thunderstorms on the morning of August 27, the temperature recorded at the Hong Kong Observatory dropped to a minimum of 23.4 degrees, the lowest of the month. While there were sunny periods on August 30, the upper-air disturbance brought some showers and a few thunderstorms to Hong Kong again on the last day of the month.

Four tropical cyclones occurred over the South China Sea and the western North Pacific in August 2021.

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