

## A sunny and exceptionally hot June

Due to the stronger than usual subtropical ridge over southern China, June 2020 was much hotter than usual in Hong Kong. The monthly mean minimum temperature was 27.8 degrees, 1.6 degrees above the normal figure and the highest on record for June. The monthly mean temperature and the monthly mean maximum temperature were 29.6 degrees and 32.3 degrees respectively, both being the second highest on record for June. With a total of 18 hot nights, June 2020 was on par with July 1993 as the highest on record in terms of the number of hot nights in a month. The 12 consecutive hot nights that started from June 19 also set a new record in terms of the number of consecutive hot nights for June. The first half of this year was exceptionally warm, with both the mean maximum temperature of 25.7 degrees and the mean temperature of 23.0 degrees being the highest on record for the same period. The mean minimum temperature of 21.1 degrees in the first half of this year was also the third highest on record for the same period. June 2020 was marked by sunny weather with the monthly total sunshine duration amounting to 192.5 hours, about 32 per cent above the normal figure of 146.1 hours. Despite the episode of heavy rain from June 6 to 8, the monthly total rainfall was only 397.2 millimetres, about 13 per cent below the normal figure of 456.1 millimetres. The accumulated rainfall for the first half of the year was 963.4 millimetres, about 12 per cent below the normal figure of 1 096.9 millimetres.

Under the influence of an anticyclone aloft, the weather of Hong Kong was hot with a mixture of sunshine and showers on the first five days of the month. There were also isolated thunderstorms on June 2, 4 and 5. Affected by a trough of low pressure lingering over the coastal areas of Guangdong, local weather deteriorated with outbreaks of heavy showers and squally thunderstorms from June 6 to 8. More than 250 millimetres of rainfall were recorded over most parts of the territory on these three days and the rainfall over Tsuen Wan, Sha Tin, Tai Po and Sai Kung even exceeded 450 millimetres. There were reports of serious flooding in the New Territories and some parts of Kowloon. The rain was particularly heavy in the morning of June 6 and the incessant downpour necessitated the issuance of the Black Rainstorm Warning, the first instance of issuing this signal since May 2017. More than 14 350 cloud-to-ground lightning strokes were detected in Hong Kong on that day, the second highest on record since the launch of the lightning location system in 2005. Moreover, a waterspout was reported near Hong Kong International Airport in the morning of June 8.

With the trough of low pressure moving away and the strengthening of an anticyclone aloft, showery activity weakened with sunny intervals during the day on June 9. Apart from some isolated showers, local weather gradually became fine and very hot from June 10 to 12. With plenty of sunshine, the maximum temperature at the Hong Kong Observatory soared to 35.0 degrees on June 12, the highest of the month.

Meanwhile, an area of low pressure developed into a tropical depression

over the Philippines in the morning of June 12 and was later named as Nuri. It moved generally northwestward across the South China Sea during the day of June 12 and further intensified into a tropical storm that night. The weather of Hong Kong was very hot on June 13, with sunny periods, a few squally showers and isolated thunderstorms. Affected by Nuri, local winds started to strengthen gradually in the afternoon and became fresh to strong southeasterlies with occasionally gales on high ground that night. As Nuri made landfall over Yangjiang in Guangdong in the late morning on June 14 and weakened gradually into an area of low pressure inland, winds over Hong Kong moderated with sunny intervals in the afternoon. A person tragically drowned in the rough seas while surfing in Lower Cheung Sha Beach of Lantau Island on June 14.

Under the influence of a southerly airstream, local weather was hot with a mixture of sunny periods and showers from June 15 to 17. Dominated by the subtropical ridge, apart from isolated showers, it was generally fine and hot in the next week. Under the influence of a southwest monsoon, the weather turned slightly cloudier with isolated showers and thunderstorms from June 25 to 27. With the strengthening of the anticyclone aloft, the weather turned generally fine and very hot apart from some isolated showers towards the end of the month.

One tropical cyclone occurred over the South China Sea and the western North Pacific in June 2020.

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