

The hottest month in Hong Kong

Due to the stronger than usual subtropical ridge persisting over southern China for most of the time in the month, July 2020 became the hottest month in Hong Kong since records began in 1884. The monthly mean maximum temperature of 33.3 degrees, monthly mean temperature of 30.2 degrees and monthly mean minimum temperature of 28.3 degrees were 1.9 degrees, 1.4 degrees and 1.5 degrees above their corresponding normal figures respectively, all of them being the highest of the corresponding monthly mean values on record. With a total of 21 hot nights, July 2020 was the month with the highest number of hot nights on record. The 11 consecutive hot nights that started from July 5 also set a new record in terms of the number of consecutive hot nights for July. Moreover, there were 20 very hot days in the month, which is the highest number of very hot days in a month on record. With a long spell of sunny weather, the month was also much drier than usual. The total monthly rainfall was only 125.4 millimetres, about 33 per cent of the normal figure of 376.5mm. The accumulated rainfall for the first seven months of the year was 1088.8mm, about 26 per cent below the normal figure of 1473.3mm for the same period.

Affected by a broad trough of low pressure and the subsequent southerly airstream, the weather of Hong Kong was a mixture of sunshine and showers with occasional thunderstorms on the first three days of the month. The heavy showers on July 3 brought more than 10mm of rainfall to most parts of the territory. Dominated by an anticyclone aloft, apart from a few showers, local weather was generally fine and very hot during the day on July 4 to 8. Under the influence of a strong southwesterly airstream, local weather became cloudier with isolated showers in the next two days.

With the subtropical ridge extending westwards from the Pacific to cover southeastern China, apart from a few showers, a spell of generally fine and very hot weather set in on July 11 and continued till July 30 in Hong Kong. The intense heat also triggered isolated thunderstorms on July 17, 21, 22 and 27 to 29. With plenty of sunshine and under light wind conditions, the maximum temperature at the Hong Kong Observatory soared to 35.3 degrees on July 23, the highest of the month. The unrelenting heat also necessitated the Very Hot Weather Warning to remain in force for 467 hours from July 11 to 30, setting the longest record since the introduction of the warning in 2000. Meanwhile, the monsoon depression over the South China Sea gradually developed into a tropical depression on the last day of the month and its outer rain bands brought squally showers and thunderstorms to the territory. More than 20mm of rainfall were recorded over most parts of the territory on the day, and rainfall over Hong Kong Island even exceeded 40mm. The oppressive heat and parched conditions that persisted for over half a month in Hong Kong were eventually relieved under the windy and showery weather.

Two tropical cyclones occurred over the South China Sea and the western North Pacific in July 2020.

Details of 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.