

A hot, sunny and dry September

With the dominance of an upper-air anticyclone over southern China for most of the time in the month, Hong Kong experienced a hot, sunny and dry September in 2019. The monthly mean temperature was 28.7 degrees, 1.0 degree above the normal figure of 27.7 degrees and the seventh highest on record for September. There were seven consecutive hot nights from September 8 to 14, the longest period on record for September. Up to this month, the number of hot nights in 2019 has already reached 45, which is 27.2 days above the annual normal figure and the highest on record since 1884. September 2019 was marked by sunny weather with the monthly total sunshine duration amounting to 216.3 hours, about 26 per cent above the normal figure of 172.3 hours. The month was also drier than usual with total rainfall of 198.9 millimetres, about 61 per cent of the normal figure of 327.6 millimetres. The accumulated rainfall up to September this year was 2,233.2 millimetres, on par with the normal figure of 2,233.1 millimetres for the same period.

An area of low pressure intensified into a tropical depression over the northern part of the South China Sea on the first day of September and was later named as Kajiki. It moved generally westward across the northern part of the South China Sea and made landfall over the southeastern coast of Hainan Island in the morning of September 2. Kajiki entered the seas south of Hainan Island in the afternoon and moved slowly towards central Vietnam. Kajiki then lingered over the vicinity of the coast of central Vietnam on September 3 and weakened into an area of low pressure over there in the morning of September 4.

Under the combined effect of Kajiki and the continental anticyclone, local weather became windy with occasional squally showers and thunderstorms in the afternoon of September 1 and remained so on the next two days. The showers were particularly heavy on September 2, with more than 50 millimetres of rainfall recorded over most parts of the territory. The rainfall recorded in Sai Kung, Sha Tin and Tai Po even exceeded 100 millimetres on that day. Under the influence of a broad trough of low pressure over the northern part of the South China Sea, the weather in Hong Kong remained unstable with occasional heavy showers and thunderstorms on September 4 and 5. In these two days, over 40 millimetres of rainfall were recorded in various places and the rainfall recorded at the Hong Kong Observatory even exceeded 90 millimetres.

Under the influence of a continental airstream, local weather became generally fine and hot from September 6 to 9. The high temperature triggered thundery showers in the afternoons of September 7 to 9. With the anticyclone aloft over southeastern China strengthening gradually, the generally fine and hot weather continued from September 10 to 13. With plenty of sunshine, the maximum temperature at the Hong Kong Observatory soared to 33.5 degrees on September 12, the highest of the month. Moreover, the maximum temperature at the Hong Kong Observatory reached 33.0 degrees on September 13, making it the hottest Mid-Autumn Festival on record.

With the weakening of the anticyclone aloft and under light wind conditions, it was hot with a mixture of sunshine and thundery showers in Hong Kong from September 14 to 17. The showers were rather heavy and localised on September 17. More than 50 millimetres of rainfall were recorded over Tuen Mun and Yuen Long and the rainfall recorded over the western part of Lantau Island even exceeded 100 millimetres. With the anticyclone aloft strengthening again, the weather improved gradually on September 18, apart from a few showers and thunderstorms in the morning and at night. While there were still a few showers in the morning, the weather turned fine and dry in the afternoon of September 19. With the morning showers on September 19, the temperature at the Hong Kong Observatory dropped to 24.9 degrees, the lowest of the month. As a result of the prevalence of the dry northeast monsoon over southern China, the weather remained generally fine and dry for the rest of the month. The weather was very dry during the day from September 20 to 22 with the relative humidity over some parts of the territory falling below 40 per cent. It was hazy on the last three days of the month with the visibility in the harbour falling below 4,000 metres.

Six tropical cyclones occurred over the South China Sea and the western North Pacific in September 2019.

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