

An exceptionally warm April with unsettled weather

The exceptionally warm weather in the first quarter of 2019 continued in April, mainly attributed to the warmer than normal sea surface temperature and stronger than usual southerly flow in the lower atmosphere over the northern part of the South China Sea. The mean minimum temperature and the mean temperature of the month were 22.9 and 24.7 degrees respectively, both 2.1 degrees above their corresponding normal figures, marking the joint highest and second highest records for April. The mean maximum temperature of the month was 27.2 degrees, 2.2 degrees above the normal figure and the fifth highest on record for April. The monthly rainfall for April was 185.8 millimetres, about 6 per cent above the normal figure of 174.7 millimetres. The accumulated rainfall recorded in the first four months this year was 445.7 millimetres, about 33 per cent above the normal figure of 336.1 millimetres for the same period.

Under the influence of a fresh to strong northeast monsoon, the weather was windy for the first four days of April with a mixture of sunny periods and a few rain patches. The northeast monsoon also brought the temperature at the Hong Kong Observatory down to 18.9 degrees on April 2, the lowest of the month. As the northeast monsoon moderated, local weather became fine and warm on April 5 despite some haze under light wind conditions. Affected by a southerly airstream and an anticyclone aloft, the weather was generally hot and fine from April 6 to 10.

With a trough of low pressure over Guangdong approaching and later moving across the coastal areas on the night of April 11, local weather became cloudy that afternoon, followed by heavy showers and squally thunderstorms that night. More than 30 millimetres of rainfall were recorded over the northern part of the New Territories, and the rainfall in some areas even exceeded 70 millimetres. Together with the setting-in of a strong easterly airstream, it was cloudy and windy with a few showers and thunderstorms on April 12. The weather remained showery with a few squally thunderstorms for the next four days as a result of the trough of low pressure lingering over the coastal areas of Guangdong and the northern part of the South China Sea. As the unstable weather moved to the south of Hong Kong there were sunny periods on April 17.

With the onset of an active southerly airstream over the coast of Guangdong, the weather in Hong Kong turned bad with heavy showers and squally thunderstorms on the night of April 18. The weather became even more unsettled over the next two days. Heavy showers occurred on April 19, with 75.8 millimetres of rainfall recorded at the Hong Kong Observatory, making it the wettest Good Friday on record. The rainfall recorded in some areas of the New Territories on that day even exceeded 100 millimetres. A band of intense thunderstorms packed with frequent lightning, heavy rain and severe squalls swept across Hong Kong on April 20 afternoon and the first Red Rainstorm

Warning of the year was issued as a result. More than 40 millimetres of rainfall were recorded over the territory on that day, with the rainfall in some areas of the New Territories even exceeding 70 millimetres. The severe squalls also induced gusts exceeding 100 kilometres per hour in some parts of Victoria Harbour. The maximum gust recorded at King's Park was 117 kilometers per hour, the highest record in the absence of tropical cyclones since the operation of the automatic weather station in King's Park in 1992. A total of 9,094 cloud-to-ground lightning strikes were also detected that day, the highest on record for April since the launch of the lightning location system in 2005.

Affected by a strengthening anticyclone aloft, sunny skies emerged gradually from April 21 to 22 with occasional showers. The weather improved further and became hot and fine from April 23 to 26. The daily mean temperature for April 25 was 28.5 degrees, the joint highest on record for April. The maximum temperature at the Hong Kong Observatory soared to 31.5 degrees on April 26, the highest of the month. Under the influence of a strong easterly airstream and an upper-air disturbance, there were heavy showers and squally thunderstorms in Hong Kong on the afternoon of April 27. As the easterlies abated gradually, the weather on April 28 was mostly cloudy, with showers easing off in the day time. As the easterly airstream was gradually replaced by a southerly airstream, there were sunny periods on April 29. Local weather became cloudy with occasional showers and squally thunderstorms on April 30 due to the influence of a trough of low pressure.

There was no tropical cyclone over the South China Sea and the western North Pacific in April 2019.

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