

## A dry and colder January

January 2021 was colder during the first half of the month but relatively milder in the latter part. Overall, the month was colder than usual with a mean temperature of 16.2 degrees, 0.3 degrees below the normal figure of 16.5 degrees (or 0.1 degrees below the 1981-2010 normal). With dry winter monsoon dominating over southern China for most of the time in the month, January 2021 was much sunnier and drier than usual. The monthly total sunshine duration amounted to 217.3 hours, 49 per cent above the normal of 145.8 hours (or 52 per cent above the 1981-2010 normal). Only traces of rainfall was recorded in the month, making it one of the eight Januaries with traces of rainfall since records began in 1884.

The intense cold surge that affected the south China coastal areas in late December 2020 continued its dominance and brought cold and very dry weather to Hong Kong on the first two days of January 2021. Frost was reported in places over the northern part of the New Territories on January 2. With the moderation of the winter monsoon, local temperatures rose gradually with sunny periods in the next four days.

With the strengthening of the winter monsoon, the weather of Hong Kong became appreciably colder on the night of January 7 and the temperature at the Hong Kong Observatory further dropped to 7.7 degrees on the morning of January 8, the lowest of the month. The temperature at Tai Mo Shan even fell to minus 2.5 degrees in that morning. The weather was mainly cloudy and very dry during the daytime on that day. Under the influence of the winter monsoon and its replenishment, cold and very dry weather persisted from January 9 to 14. While it was mainly cloudy from January 9 to 11, the weather became generally fine on January 12 and remained so in the following six days. During the cold episode, icing was reported on the high ground of Tai Mo Shan on January 8 and 9 and on January 12 and 13. With significant radiation cooling effect under the clear sky, the minimum temperature recorded at Ta Kwu Ling was minus 0.9 degrees on January 13, the lowest since records began at that station. In addition, there were frost reports in parts of the New Territories in that morning.

Affected by the cloud bands over the northern part of the South China Sea, the weather became cloudier on the afternoon of January 19 and in the next two days. With the cloud bands thinning out, the weather in Hong Kong turned fine and rather warm during the day on January 22 and 23. With plenty of sunshine, the temperature at the Hong Kong Observatory rose to 24.5 degrees on the afternoon of January 22, the highest of the month. Under light wind conditions, visibility was relatively low in some areas from January 21 to 23.

Following the arrival of a surge of northeast monsoon, local weather became cloudier and cooler on January 24. Under the influence of the dry northeast monsoon, it was generally fine and mild during the day from January 25 to 28. With the strengthening of the monsoon, the weather of Hong Kong

became cooler and remained fine on the last three days of the month.

There was no tropical cyclone over the South China Sea and the western North Pacific in January 2021.

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