



## New Radarat Tate s Cairn

SO Chilkuen

The Hong Kong Observatory inaugurated its new dual-polarisation Doppler weather radar at Tate's Cairn on 8 October. Mr Gregory SO, Secretary for Commerce and Economic Development, and Mr SHUN Chi-ming, Director of the Hong Kong Observatory, officiated at the opening ceremony. (Figure 1)

The new radar at Tate's Cairn is the first dual-polarisation S-band Doppler weather radar in Hong Kong. In addition to all the functionality of conventional weather radar, the new radar can identify hail areas and raindrop sizes in the atmosphere, providing useful information for monitoring hails and rainfall rates.



Dual-Pol Radar



Figure 1: Mr Gregory SO (left) and Mr Shun Chi-ming officiate at the opening ceremony of the new weather radar at Tate's Caim.

Figure 2 shows a radar image obtained at Tate's Cairn on 20 April 2015, which showed graupels (yellow) and hails (red) in the rain area. Convective weather prevailed over the coastal areas of Guangdong that day with a trough of low pressure lingering over the region. Apart from squalls, thunderstorms and heavy rain, there were also reports of hail at Shantou and nearby places, in apparent agreement with radar imageries.

Mr LO Wai-hung, a Radar Specialist Mechanic of the Observatory, who had taken part in installation of the new radar, remarked that the experience of radar installation was rewarding and memorable. Among other challenges, the team had to overcome the rugged landscape and unfavourable weather at the site. Another Radar Specialist Mechanic, Mr LAU Chi-ho, echoed. He recalled that installation work was often subject to the weather conditions, and heavy rain and thunderstorms at the site were dangerous. Like many citizens, he would check weather information, particularly radar images using the mobile app of the Hong Kong Observatory. As both a provider and a user of radar information, he deeply appreciated the importance of his work on radar maintenance.



Figure 2: At about 5:41 p.m. Hong Kong time on 20 April 2015, a radar imageny obtained by the Tate's Caim radar showed hails over the Shantou area (key - green: rain; pale blue: wet snow; blue: ice crystals (snow); yellow: graupels; red; hails).

## Service Enhancement

In order to provide the public with most updated information on rain development in Hong Kong and enable them to take appropriate action on rainy days, the Observatory has enhanced its radar webpage by updating radar imagery within the range of 64 km at 6-minute intervals instead of 12-minute intervals. Update frequency of the Location-based Rain Forecast on the MyObservatory mobile application has increased accordingly.



New Radar Webpage

## Record Broken

## High Temperatures in 2015

LI Kin-wai

Hong Kong recorded its hottest summer in 2015. The average temperature from June to August was 29.4 degrees, surpassing the old record of 29.3 degrees set in 2014. Under the subsidence effect of Typhoon Soudelor, the temperature at the Hong Kong Observatory on 8 August rose to 36.3 degrees, an all-time high. The previous record was 36.1 degrees registered on 19 August 1900 and 18 August 1990.

