## December 2013



## Past and Present

## 40th Anniversary of Information Technology at the Observatory

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The year 2013 marked the 40th anniversary of information technology at the Observatory. Back in 1973, the Observatory established a Computer Division and installed its first computer system (Figure1(a)). Running at 10 FLOPS with a memory of 64 kilobytes, the first computer was mainly used to decode meteorological telegrams and to assist in weather research. Computing capacity has been upgraded over the years and by late-2013, the processing power of the new computer system (Figure1(b)) at the Observatory has reached 12 Tera- FLOPS, in other words 1,200,000,000 times faster than the first computer 40 years ago.

Advancement in information technology has enabled the enhancement of weather prediction capabilities at the Observatory. In respect of public weather services, the Observatory first launched its 3-day weather forecast



Figure 2: The Observatory's website and "MyObservatory" visitors' statistics

## **Automatic Regional Weather Forecast**

WONG Wai-kin

The Observatory launched the "Automatic Regional Weather Forecast" webpage which provides location-specific weather forecast of 15 selected locations in Hong Kong on a trial basis (http://maps.weather. gov.hk/ocf/index\_e.html). The automatic forecasts are updated after midday and before midnight everyday. Forecast data are based on outputs from several global numerical weather prediction models and the Observatory's mesoscale model. The forecasts include hourly prediction of temperature, relative humidity, wind direction and wind speed, as well as daily probability of precipitation over Hong Kong for the next seven days so as to assist the public in planning their activities. The webpage integrates the geographical information system to display the weather condition over Hong Kong. When user clicks on a station forecast, a pop-up panel will show the time series charts of the aforementioned forecast elements.



in 1983, since extended to 5 days in 2000, and then 7 days in 2003. Forecasts with finer resolution were also provided to the public in recent years (see the following article). The Observatory was one of the first government departments delivering services through the Internet and mobile platforms, with its website established as early as 1996 and the Observatory's mobile app, 'MyObservatory' launched in 2010. In particular, 'MyObservatory' has since grown in popularity and in the first three quarters of 2013, the total numbers of page views of the Observatory's website and 'MyObservatory' have reached 23.3



billions and 23.7 billions respectively, much higher than the annual figures in 2012 (Figure 2).

Riding on the wave of information technology, the Observatory will endeavour to continue enhancing its weather services in the years to come.



Webpage of the Automatic Regional Weather Forecast and the panel showing forecast time series at the Hong Kong Observatory.