Speech by Mr CM Shun, Director of the Hong Kong Observatory
18 March 2013

I am very pleased to meet you all at this juncture of the 130th anniversary of the Hong Kong Observatory this year. Before reporting on the latest developments in the Hong Kong Observatory, let me first introduce my Assistant Directors. They are:

1. Dr CM Cheng, responsible for public weather services
2. Mr Edwin Lai, responsible for radiation monitoring and instruments
3. Mr HY Mok, acting Assistant Director, responsible for climate and geophysical services
4. Dr WT Wong, acting Assistant Director, responsible for aviation weather services

2012 was drier than usual with only about 80 % of the normal rainfall but we had a fair share of tropical cyclone passages, with five tropical cyclones necessitating the issue of warnings and the highest signal No.10 for Vicente in July, the first No. 10 Signal in Hong Kong since Typhoon York in September 1999. Overall, we continued to deliver new services, with rather good results. In the latest survey conducted by an independent market survey company, members of the public are generally satisfied with our tropical cyclone warning performance and assessed that nearly 80% of our weather forecasts were considered accurate, maintaining the high score since 2006.

On service delivery, we continued to enhance the weather information over the increasingly popular channels of the internet, mobile platforms and social network platforms. Both the HKO website and the mobile apps "MyObservatory" attained record-breaking new heights in visitor statistics, reaching 30 billion and 9.2 billion page views respectively in 2012. They both amounted to almost five times of the corresponding figures in 2011.

Last year, we introduced "two weather icons" to better present significant weather change in local forecasts and the "special weather tips" to alert the public of impending inclement weather. Another notable new service in 2012 was the launch of location-specific rainfall forecast for the coming two hours on "MyObservatory" mobile app. To better meet the needs of the elderly for weather information, we revamped our thematic webpage for them, with significant growth in popularity. The new services were well-received by the public.

On weather observation, I am happy to report that the Observatory continued to collaborate with the Government Flying Service (GFS) to fly into 4 tropical cyclones in

2012, including Vicente to collect weather data. The data was found to be useful for anaylzing the intensity and wind distribution of tropical cyclones. It also helps fill the void of meteorological data over the vast South China Sea and thereby improving numerical weather prediction of tropical cyclone.

Last year, we also expanded the Guangdong-Hong Kong-Macao lightning location network to include Yangjiang as its 7th station. The spatial coverage has been more than doubled, enhancing the effective range and reliability of lightning detection. We also upgraded our radiation monitoring capability over the territory by installing two new land-based monitoring stations at Cape D'Aguilar and Chek Lap Kok and commissioning the replacement helicopter-based aerial radiation monitoring system. We have also broken new ground in installing the first automatic weather station on board one of the Hong Kong Voluntary Observing Ships for trial operation to provide more frequent weather observations at sea.

On international cooperation, HKO hosted the 45th Session of the ESCAP/WMO Typhoon Committee in early 2013 and I am pleased to have been elected the Chairperson, leading the effort in reducing the threats and damage of tropical cyclones in the region. Hong Kong's effort in weather data collection of tropical cyclones was commended with the Typhoon Committee Kintanar Award 2012.

To enhance partnership with our counterparts in the region, last year the Observatory signed a memorandum of understanding with the Korea Meteorological Administration to further the collaboration in the development of weather services. Another cooperation agreement was also signed with the Guangdong Meteorological Bureau, resulting in a key laboratory on numerical weather predication established in Guangdong.

On public education, the Observatory continued to cooperate with the Hong Kong Polytechnic University to further expand and enhance the Community Weather Information Network (Co-WIN) in raising public awareness of weather and climate. Co-WIN now registers a total of 125 institutes, including two latest new stations set up in Guam and the Philippines, coordinated under the Typhoon Committee. This signifies that our public education efforts have reached a regional level and are recognized internationally. Our work to promote weather observation by Co-WIN members through its Community Weather Observing Scheme will soon reach a new milestone, with the launch of a mobile app in the pipeline.

To further promote weather observation with the general public, especially the younger

generation, we have recently published a new educational book set entitled "The Changeable Clouds". It will be launched on 23 March during the Open Day at the Observatory headquarters.

For the coming year, with the increasing need of providing more personalized and specific weather information tailored for the users, we have a number of new services and products in the pipeline to be launched on our website and mobile devices, including a new "Hong Kong Observatory Personalized Website" with user customizable contents for the HKO website; and a new Hong Kong Regional Weather Webpage with Geographic Information System (GIS) functions, integrating different weather information on the same map, such as regional temperatures, weather photos, weather radar image and lightning information, and to zoom into different regions.

The mobile app "MyWorldWeather", launched last year on iPhone by the Observatory on behalf of the World Meteorological Organization (WMO) to provide official weather forecasts from over 1600 cities worldwide, has been very popular. It has been further developed and will make its debut in seven languages (Chinese, English, German, Korean, Polish, Portuguese and Spanish) and with a new Android version, on the World Meteorological Day on 23 March. We will have the honour of the President of WMO and other distinguished guests launching MyWorldWeather Apps in seven languagues on the occasion.

We plan to further enhance the "Digital Weather Forecast" service by extending the digital concept to develop a new "Digital Regional Weather Forecast" webpage. The forecast period will be lengthened from 3 days to 7 days, with finer details for each day. We will also introduce probabilistic rainfall forecast in the "Digital Weather Forecast" on a trial basis, and will gauge the public feedback on such provision of weather forecast with uncertainty information. At the same time, we will also do more in enhancing the public's understanding of weather information, such as the nature of having varying degrees of forecast uncertainties for different weather scenarios.

For the possibility of extending the 7 day forecasts for the public, HKO has commenced an internal trial of providing weather forecasts out to 9 days since second half of last year. Its performance has been satisfactory so far. We will consider its launch upon completion of the one-year trial, especially after evaluating its performance during the coming summer.

Taking into account of the outcomes from the Daya Bay Contingency Plan review and inter-departmental exercise last year, the Observatory will continue to upgrade its radiation monitoring facilities including the addition of one mobile survey vehicle and the acquisition of new instruments for enhancing monitoring capability.

Later this year, we will also be enhancing our TV weather services, including the upgrading of our studio equipment and preparation for a facelift of our TV presentation.

Now the weather outlook for this year, noting that the sea surface temperature over the central and eastern equatorial Pacific is within the normal range, we expect that **the coming typhoon season will be about normal, with 4 to 7 tropical cyclones to come within 500 km to affect Hong Kong, against the long-term average of about 6**. In respect of tropical cyclone warning, we will make a small adjustment to replace the Wetland Park reference anemometer station by the Lau Fau Shan station commencing this typhoon season, as wind measurements at Wetland Park has persistently shown a decreasing trend, probably as a result of the urban development in its surroundings. **For the annual rainfall outlook in 2013**, we expect it to be **normal to below-normal**, ranging between 1900 and 2500 mm. As the rain and typhoon season approaches, I would also like to remind the public to remain vigilant against the threat of inclement weather, especially under the probable trend around the world of increasing frequency of extreme weather brought by global warming. As for climate projection as a result of climate change, the scientific results of the new round of assessments by the Intergovernmental Panel on Climate Change (IPCC), known as AR5, are expected to be released later this year. We will apply the new IPCC results to update the climate projections for Hong Kong.

Lastly, but certainly not the least, 2013 marks the 130th anniversary of the Observatory. We have planned a series of activities to celebrate and to engage the public to promote awareness on weather and climate. A kick-off event will be held on the World Meteorological Day on 23 March, followed by the annual Open Day in the afternoon and on 24 March. We are privileged to have the President of the World Meteorological Organization Mr David Grimes, Deputy Administrator of the China Meteorological Administration Mr Shen Xiaonong, Permanent Secretary for Commerce, Industry and Tourism, Mr Andrew Wong, partners, friends and ex-colleagues of the Observatory to join us in this event. An essay collection entitled "Under the Same Sky", contributed by our partners and colleagues, will also be launched. Other activities will be organized throughout the year, including a joint exhibition with the Hong Kong Museum of History in the summer and a series of public lectures. I would like to request your help in publicizing the upcoming Open Day and these activities.

At this juncture of the history of the Observatory, it is an opportune time for us to take a moment to reflect on our past and look forward into our future. On the basis of ideas collected in-house on the future development of the HKO and with staff engagement, we have refreshed the vision, mission and values (VMV) of the Observatory to set out the

direction, objectives and development strategies in the coming decade and beyond. Here is our new VMV statement, which has been built on our new set of core values linked by the seven characters of the word "SCIENCE", a fundamental principle of the Observatory in serving the public. Our seven core values are: **Serve, Care, Innovate, Enthuse, Nurture, Collaborate and Excel**. And we have also summarized them in a slogan for the 130th anniversary and beyond: "**Innovate with Science, Serve with Heart**".

Finally, we have a newly born Observatory mascot in celebration of the 130th anniversary, which is a design inspired by the winning works of primary school children from a Weather Mascot Competition organized by the Hong Kong Meteorological Society with the Hong Kong Society for Education in Art and the Hong Kong Observatory. The mascot is now the leader of the Family of Weather Icons and serves as an ambassador to promote the Observatory's public education activities. . It has features that reflect all the elements of our values. Armed with weather instruments like a thermometer or weather warnings, it assures us that the Observatory will **Serve** and **Care** for the well-being and safety of the society. In the hat design, the Sun emits energy and warmth and the rainbow brings hope, encouraging us to **Nurture** and **Enthuse** the future generations through knowledge transfer and public education. The hairstyle simulates flow of winds, clouds and waves in the ocean, symbolizing the cooperative spirit as we **Collaborate** with partners. With the lightning-shaped shoulder straps, we have flashes of inspiration that enable us to **Innovate** in the development of products and services. Lastly, the purple cape in a super-hero outfit, aspires us to **Excel** and scale new heights.

Let me stop here. If you have questions, my Assistant Directors and I will try our best to answer them. Thank you!