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HKO Wins Three Civil Service Outstanding Awards

Editorial Board

With three awards under its belt, the Hong Kong Observatory ranked third, in terms of the number of awards, among all government departments in the Civil Service Outstanding Service Award Scheme 2015.

The awards were:

Silver Prize of the Departmental Service Enhancement Award (Small Department Category)

Bronze Prize of Best Public Image Award

Bronze Prize of Team Award (Specialised Service)

The adjudicators' comment: "the Hong Kong Observatory has been proactive and forward-thinking, taking full advantage of the departmental strength, and making successive breakthroughs in different services categories to meet the needs of various communities. The passion of the staff was most admirable. The department's services are directly linked with us and greatly improve our daily life."

The Civil Service Outstanding Service Award Scheme, organised by the Civil Service Bureau once every two years, sets out to recognise the efforts of government departments and teams in providing outstanding services to the community, promote a customer-focused culture and inspire civil servants to continuously strive for excellence in service delivery. It is very encouraging for the Observatory to have won the awards amidst the competition from all the government departments.

Secretary So Has a Swell Time in HKO TV Studio

Linus YEUNG

Mr Gregory SO, the Secretary for Commerce and Economic Development, visited the Hong Kong Observatory Headquarters on 19 August. He spoke to weather forecasters to find out about the operation and challenges of weather prediction, and experienced first-hand the touch control Integrated Information Display System. The newly installed system gives weather forecasters, who typically have to focus on many things at a time, more comprehensive meteorological information. Meanwhile, staff members of the

Mr Gregory SO (third form right), Mr SHUN Chi-ming, the Director of the Hong Kong Observatory (second from right), and staff members in front of the Integrated Information Display System.

Observatory introduced to Mr SO the department's latest developments, including mobile applications, location-based weather forecasts as well as weather information for members of the public planning for outdoor activities. The Secretary was impressed that Hong Kong's public meteorological services had taken on a customer-focused touch. He commended staff members for providing people-oriented services through science, information technology and innovative thinking, and developing weather services tailored to the needs of different user groups. What's more, Mr SO took the opportunity to make a guest appearance in an episode "Hong Kong – What a Great Place!" of "Cool Met Stuff" alongside Observatory weather presenter Mr Linus YEUNG. The duo introduced weather service for travellers using the new weather graphic system and had a swell time hopping around the globe with their fingertips.

New Page

New Radar at Tate's Cairn

SO Chi-kuen

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 Cairn.

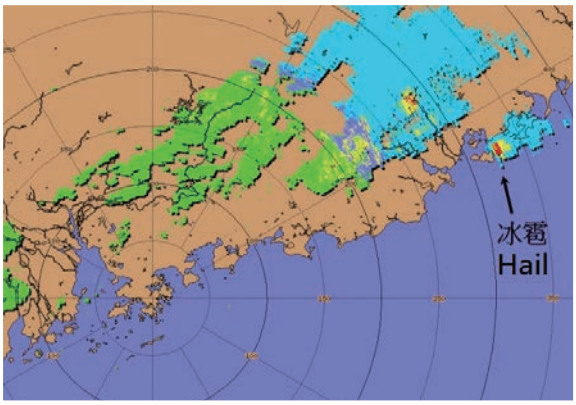


Figure 2: At about 5:41 p.m. Hong Kong time on 20 April 2015, a radar imagery obtained by the Tate's Cairn radar showed hails over the Shantou area (key - green: rain; pale blue: wet snow; blue: ice crystals (snow); yellow: graupels; red: hails).

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.

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.

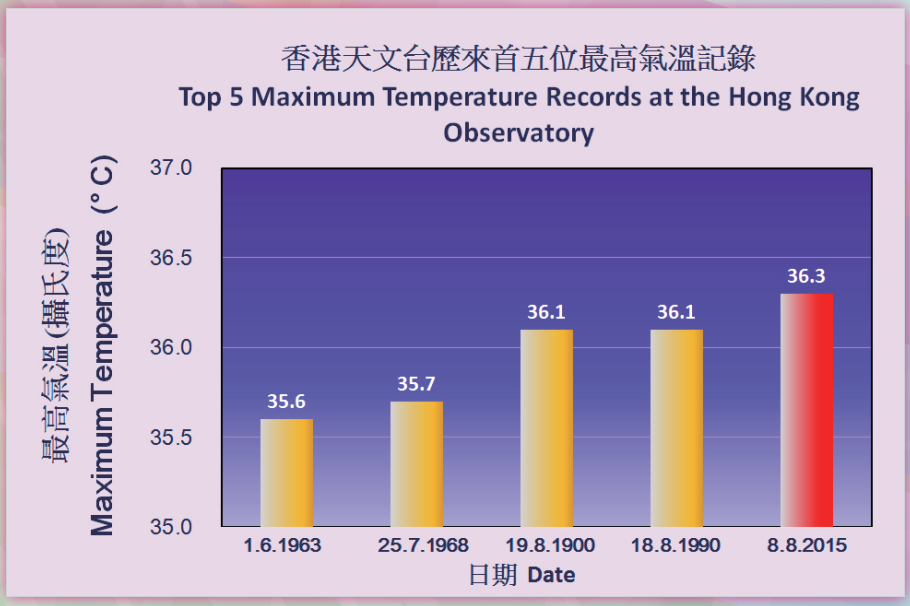
New Radar Webpage

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.

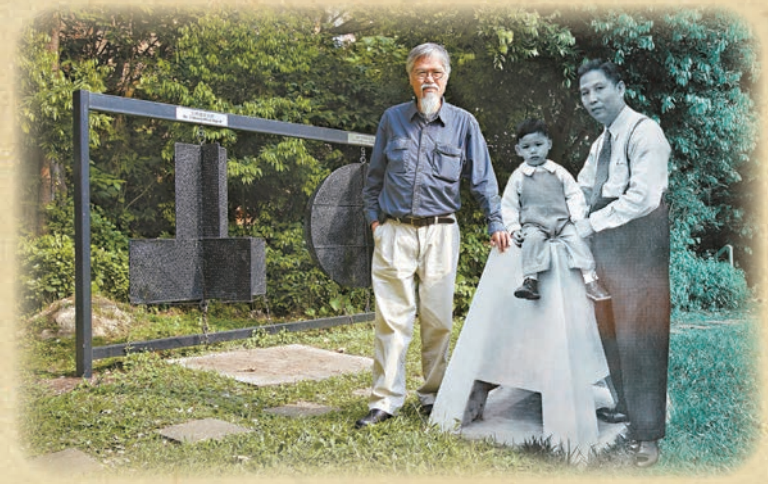


Passing It On

An Old "Friend"

LAU Tin-chi

When I was young at Primary 3, my father retired from the Observatory and we moved from Hillwood Road to a flat in Chatham Building of the Hong Kong Chinese Civil Servants' Association in Hung Hom. In our new home, my father had kept his steel desk and placed it by the window. On the wall next to the desk, there was a square object measuring approximately 6 inches by 6 inches, made up of a wooden frame and two meters. I knew the rectangular meter on the right. People called it, in Cantonese, a "meter showing summer and winter", but its proper name was "thermometer". On either side of a very thin glass tube about four inches long, there were scales marked in degree Celsius and Fahrenheit. At that time, the British system was still in use in Hong Kong and the Observatory reported temperatures in Fahrenheit.



In the early 1950s, Lau Pak-wa (right), the father of Lau Tin-chi, worked in the Hong Kong Observatory. This photograph shows him with the young Lau Tin-chi sitting on a stone pier at Hong Kong's first survey station. Today, Lau Tin-chi (left) revisits the place, and he says the giant stone pier has shrunk. (Photo courtesy of Apple Daily)

To the left of the thermometer was a larger meter with three "pointers" and some English words on it. Given the fact that I was in Primary 3 and "a man and a pen" pretty much summarised my English proficiency, I had no idea what this meter did.

My father cherished this small piece of instrument that he had hung on the wall. I could not reach the bottom part of it even on tip toe, let alone mess with it. On a typical day, my father would not pay much attention to the instrument, but he would look at it closely during the typhoon season.

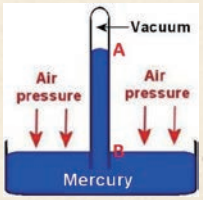
I realised that the pointers did not move like the hands of a clock. Normally the pointers stayed quiet, but when a "typhoon is coming", the pointer on the left would move downwards.

Before the arrival of the typhoon, my father would be busy looking at this small instrument. He would adjust the small silver pointer and observe how the other one moved. A few hours later, if the other pointer moved further downwards, he would announce with absolute certainly that, "the typhoon will hit!" As a kid, I did not understand all the fuss about typhoons. Although I would get an extra day off from school, I would be stuck at home and it was rather boring.

As I grew older, I learnt that the instrument was a barometer. Not requiring any batteries or other power sources, the "mechanics" inside senses the atmospheric pressure and causes the pointers to move. For details of the principle, you need to ask a scientific officer. After my father passed away, I had a good look at this "old friend" that had been in our family for decades. It was given to my father by the then Observatory's Director Mr Heywood and his wife. The names of the givers and receiver, along with the date of presentation, were inscribed on a small plate under the wooden frame. Our "old friend" had served our family since my father's retirement up till his passing, but after I became its owner, it was treated as an ornament on my desk because I did not know how to use it. Therefore, when I met Mr Shun, the current Director, and Ms Song, Senior Scientific Officer, and learned from them that there was a History Room in the Observatory, I offered to send this "old friend" that had been with our family for more than six decades to a place where its existence would be more meaningful. When members of the public visit the History Room, hopefully our "old friend" can show them what a home barometer in the past looks like.

Measuring Atmospheric Pressure

The figure on the right shows the operating principle of a mercury barometer. The height of the mercury column AB changes with the weather. On a cloudy or rainy day, or when there is a typhoon, the mercury column is shorter, indicating low atmospheric pressure. On the other hand, it is taller on a sunny day, reflecting high atmospheric pressure. This allows us to work out the atmospheric pressure by measuring the height of AB.



Engaging the Youth

Little Reporters Interview HKO Director

LEE Fung-ying

In the activity "Through the Eyes of Little Reporters", organised by Ming Pao Daily News, pupils from various primary schools experienced what it was like to be a reporter. They came to the Hong Kong Observatory and interviewed Mr SHUN Chi-ming, the Director. The interview, which lasted about an hour, went on smoothly, and everyone had a great time.

The Director also introduced the little reporters to various measuring instruments in the Observatory.

Excerpt of the Interview

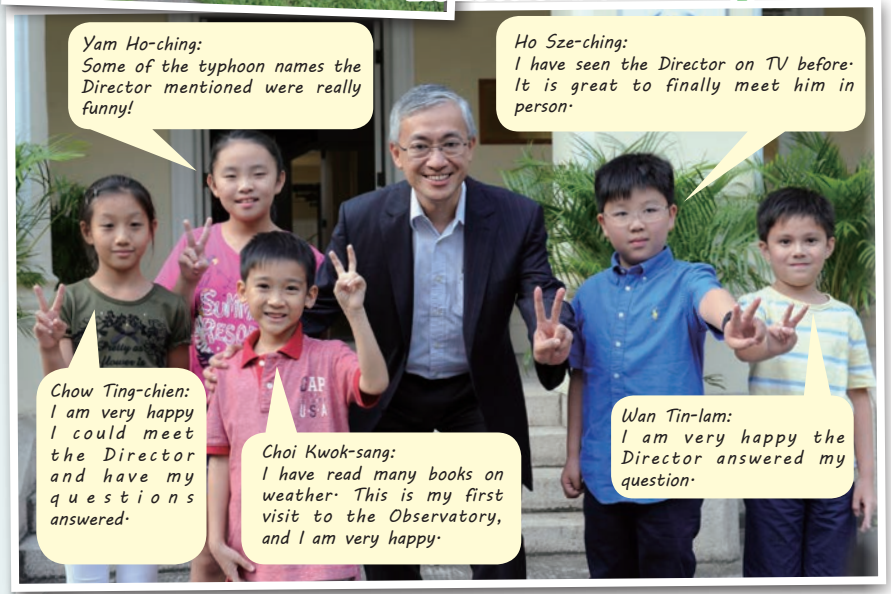
Reporter: Who decides the names of typhoons?

SHUN: The names of typhoons are decided by the Typhoon Committee made up of 14 Asia Pacific countries and regions. Sometimes, unusual suggestions are rejected, such as "Portuguese Custard Tart" proposed by Macau. Can you imagine hearing in the news that "Portuguese Custard Tart is approaching Hong Kong" when there is a typhoon? That is too funny.

Reporter: In recent years, temperatures around the world have been on the rise. Can we reduce the Greenhouse Effect simply by conserving energy?

SHUN: Of course it helps. Everyone should play their part. Apart from conserving water and electricity, we should refrain from buying things we do not need so as to reduce waste.

Reflections on the Experience



Special Educational TV Programme on Climate Change - Global Warming: Clear and Present Danger

LEE Sai-ming

Climate change is an immense challenge faced by people today, and the Hong Kong Observatory has strived to promote public education on climate change throughout the years. In order to enhance public awareness and knowledge on climate change, the Observatory and the Education Bureau joined hands in producing a two part special Educational Television programme entitled "Global Warming: Clear and Present Danger".

The programme illustrates basic scientific knowledge about climate change as well as presents the evidences and consequences of the phenomenon, including the potential impacts on Hong Kong against the background of global warming. It can be viewed on the Hong Kong Observatory website.

International Air Cadet Exchange Programme 2015

CHEUNG Ping

Over 45 members of the International Air Cadet Exchange Programme, accompanied by members of the Hong Kong Air Cadet Corps, visited the Hong Kong Observatory on 23 July 2015. During the visit, the participants learned about how meteorological observations were analysed and weather forecasts made, as well as attended a lecture on aviation meteorology delivered by Observatory staff.

Partnership

Hong Kong Scholar Wins WMO Research Award for Young Scientists for the First Time

Editorial Board

On 1 September, Mr SHUN Chi-ming, Director of the Hong Kong Observatory, presented the United Nations' World Meteorological Organization (WMO) Research Award for Young Scientists 2015 on behalf of WMO to Professor TAI Pui-Kuen of the Earth System Science Programme of the Chinese University of Hong Kong. Professor TAI is the first Hong Kong scientist to receive the accolade.

Professor TAI remarked, "I wish to thank members of my research team and my collaborating partners for their great work and support over the years. I would also like to express my sincere thanks to the Hong Kong Observatory, through which the nomination to WMO was successfully made. We will strive to continue our studies on the consequences of global environmental change, such that policy makers can be better informed to formulate optimal strategies for a sustainable future."

Official Launch of "Weather Information for Astronomical Observation" Webpage

HUI Tai-wai

As joint effort of the Hong Kong Observatory, the Hong Kong Space Museum and the Department of Physics of the University of Hong Kong, the "Weather Information for Astronomical Observation" webpage is officially in service. Over the past few months, the webpage has provided useful weather information to members of the public watching the Perseid Meteor Shower associated with Comet Swift-Tuttle as well as the "Super Moon" at Mid-Autumn Festival. Next time before you set off in search of the stars, remember to visit the webpage for the latest weather conditions at astronomical observation hot spots in Hong Kong.

HUI Tai-wai, Scientific Officer of the Hong Kong Observatory (left), Dr SO Chu-wing, Physics Project Manager of the University of Hong Kong (centre) and HO Man-hung, Assistant Curator of the Hong Kong Space Museum (right), introduces the "Weather Information for Astronomical Observation" webpage. (Photo courtesy of AM730)

Joint Initiative with Earthquake Administration of Guangdong Province to Set up Temporary Seismograph Stations

HUI Tai-wai

As part of the collaboration project on "Land-sea Deployment for 3-D Seismic Tomography Survey in the Pearl River Estuary Region", staff members of the Hong Kong Observatory and the Earthquake Administration of Guangdong Province set up five temporary seismograph stations in the wilderness in just two days and conducted measurement work for almost a month.

Teamwork:
At around noon on 3 June, Wong Wai-kwong (front), Scientific Assistant of the Observatory and CHEN Jiantao (back), engineer of the Earthquake Administration of Guangdong Province, along with other team members arrived at the pier of the Wong Wan Chau Adventure Base to select sites and set up mobile seismograph stations on the island.

Laughing in the Sun:
On the afternoon of 4 June, Scientific Officer HUI Tai-wai photographed with Senior Engineer LIN Wei at Tai Shui Hang (Wu Lei Kiu) to declare the completion of the mobile seismograph station (blue box behind them).

Graphice/Carol Wong

Ask Dr Tin

New Cloud Type in Hong Kong: Asperitas

Courtesy of LEUNG Ping-wai

Asperitas
will be the first new cloud type to be officially recognised by the World Meteorological Organization since 1951.

If you pay closer attention to your surrounding environment, you may also discover interesting cloud types and weather phenomena.

Your photos may appear in the Hong Kong Observatory calendar or even in the future version of the International Cloud Atlas of WMO.

Basic characteristics:

It has well-defined, wave-like structures in the underside of the cloud. It is characterized by localized waves in the cloud base, either smooth or dappled with smaller features, sometimes descending into sharp points, as if viewing a roughened sea surface from below.

It is more chaotic and with less horizontal organization.

Asperitas occurs mostly with stratocumulus or altocumulus.

HKO Sidelights

Observatory Staff Commended by the Public

Staff of the Observatory who received words of thanks and commendation from the public or organisations during July to September 2015:

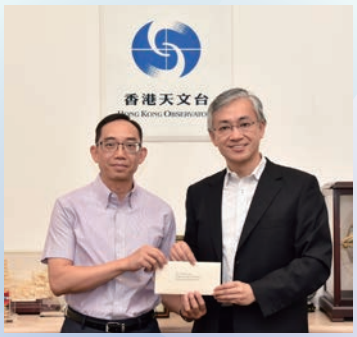
Dr CHENG Cho-ming
(Assistant Director)

Mr LEE Lap-shun,
Dr WONG Wing-tak
(Senior Scientific Officer)

Mr LEE Kwok-lun,
Mr WOO Wang-chun
(Scientific Officer)

Mr FUNG Kwok-chu
(Senior Scientific Assistant)

Staff Promotions



Mr IP Wing-sing (left) was promoted to Senior Radar Specialist Mechanic on 14 July.

Mr WONG Wai-kin (right) was promoted to Senior Scientific Officer on 18 August.

On 30 July, Mr SHAM Fu-cheung, Chief Experimental Officer of the Observatory, delivered a climate change talk to the Geological Society of Hong Kong at the James Hsioung Lee Science Building of the University of Hong Kong.

On 12 September, the Observatory's Volunteer Team joined the Mid-Autumn mooncake workshop organised by the Government Employees Association. The mooncakes were given to senior citizens in the community to share with them the festive joy of Mid-Autumn Festival.

In late August, the HKO Staff Association and the Observatory's Energy and Environment Working Group hosted a screening of the documentary "Taste The Waste" by German director Valentin Thurn. While watching the film, the viewers reflected on the film's messages and encouraged one another to make green changes in everyday life.

From 21 to 25 September, Scientific Officer, Dr Daniel YEUNG, gave lectures on weather services at the "Severe Weather Forecasting and Warning Services" training workshop in Bangkok, Thailand at the invitation of the World Meteorological Organization.

On 13 October, Mr SHUN Chi-ming, Director of the Observatory, attended the International Day for Disaster Reduction Seminar at the Hong Kong Polytechnic University. He reminded the public to remain vigilant in preventing and reducing natural disasters, as global warming made the occurrence of severe weather more likely.

For details of the activities, please visit:
http://www.hko.gov.hk/wisnew.htm
http://www.hko.gov.hk/hkonews/indexe.htm