

WEATHER ON WINGS



香港天文台
HONG KONG OBSERVATORY

January 2012

Dial-a-Weather: 1878 200

Home page: <http://www.hko.gov.hk>, <http://www.weather.gov.hk>



The Observatory Won

the Civil Service Departmental Service Enhancement Award



Editorial Board

The Observatory won the Gold Prize of the Departmental Service Enhancement Award (Small Department Category) under the Civil Service Outstanding Service Award Scheme 2011. The Presentation Ceremony was held in the Hong Kong Convention and Exhibition Centre on 12 September 2011. The Acting Chief Executive, Mr Henry TANG, officiated at the Presentation Ceremony and celebrated the outstanding achievements of the winning departments and teams with over 600 guests and civil servants. This is the third time that the Observatory has won this award, after 2005 and 2009. More details on the award scheme and the scheme presentation ceremony can be found on the Civil Service Bureau's web page: <http://www.csb.gov.hk/english/info/2194.html>.



Mr SHUN Chi-ming, the Director, receiving the trophy from Dr LEUNG Ka-lau, Legislative Council Member.



One of the outstanding services of the Observatory recognized by the adjudicators is the personalized weather service "MyObservatory" which is currently available on the mobile platforms iPhone, iPad, Android as well as PDA (Personal Digital Assistant)

Observatory staff celebrating after the award presentation ceremony.

Contents

Headline	1	Aviation Meteorology.....	7	People	20
Friends of the Observatory.....	3	Atmosphere & Environment...	10	Happy Business	22
New Products & New Services ...	5	Our Partners	12		

Permanent Secretary for Commerce and Economic Development (Commerce, Industry & Tourism) Visited the Observatory

Editorial Board

Mr WONG Ho-yuen, Andrew, JP, the Permanent Secretary for Commerce and Economic Development (Commerce, Industry & Tourism), visited the Observatory on 16 November 2011. Mr WONG was briefed on the work and the future direction of the Observatory. He also visited the Central Forecasting Office and the TV Studio.



Permanent Secretary (2nd right) visiting the Central Forecasting Office

Director Visited the China Meteorological Administration, the State Oceanic Administration, the Civil Aviation Administration of China and the China Earthquake Administration

Editorial Board

Mr SHUN Chi-ming, the Director, led a delegation to Beijing to pay visits respectively to the China Meteorological Administration (CMA), the Civil Aviation Administration of China (CAAC), the China Earthquake Administration (CEA) and the State Oceanic Administration (SOA) during 26 to 28 October 2011. This was the first time Mr SHUN visited the above four closely-co-operating counterparts in Mainland China since Mr SHUN assumed the post of the Director of the Observatory in April 2011. This was also the

first time that a Director visited the SOA and CEA. The objectives of the visits were to review the past operational collaboration with the respective bureau, and to take further collaborative developments in the implementation of observational networks, data sharing, exchanges in scientific research and technology, and international co-operation, etc. The fruitful results from the visit have laid a solid foundation for further strengthening the co-operation with our counterparts in the future.



Mr SHUN (left) meeting with Mr GAO Yi (right), Deputy Director-General of the Air Traffic Management Bureau of CAAC.



Mr SHUN (4th left) photographed with Mr ZHAO Heping (4th right), Vice Administrator of CEA.



Mr SHUN (2nd right, front row) photographed with Mr CHEN Lianzeng (middle, front row), Deputy Administrator of the SOA.



Mr SHUN (left) meeting with Dr ZHENG Guoguang (middle), Administrator of the CMA and Ms JIAO Meiyan (right), the Deputy Administrator.



*Friends of the
Observatory*

15th Anniversary Meteorological Day Camp

Time flies. "Friends of the Observatory (FoOb)" has been established for 15 years. More than 70 members of FoOb participated in a meteorological day camp to celebrate the 15th anniversary of FoOb on 19 November 2011 at Lei Yue Mun Park and Holiday Village. Under the concerted effort of FoOb volunteer committee members and the Observatory staff, the event was well planned, educational activities well-received and friendship among members enhanced. During the event, Mr SHUN Chi-ming, the Director, also shared with participants his experience of cloud observation and skills of taking photos of the changing atmosphere. It is hoped that FoOb members will continue to take part in weather related educational activities in the years to come. We are thankful to the Leisure and Cultural Services Department for providing the camp site.



The preparation committee composed of Observatory staff and FoOb committee members



Observatory staff and FoOb committee members planning and preparing for the "Meteorological Day Camp" in their spare time



The Director (center) photographed with FoOb members

Meteorological Day Camp Photo Album



The Director (2nd left) examining the entries of the "Home-made Anemometer" competition



A cheerful moment of members of the FoOb



Members working on their own "Home-made Anemometer"

Playing games



Acquiring components for their "Home-made Anemometer"

Group representatives presenting their final products



The director (2nd right) presenting the prize to the Champion



The director shared his experience of cloud observation and skills of taking photos of the changing atmosphere



Chorus singing

The Observatory Enhances its Enquiry Service on Records of Weather Warnings and Signals

CHENG Yuen-chung



The Observatory launched the "Today's Weather Warnings and Signals Record" webpage to facilitate members of the public to browse record of weather warnings that are currently in force or have been in force in the day. The service has been available on both the main and the mobile websites of the Observatory.

Main website:

<http://www.weather.gov.hk/wxinfo/dailywx/wxwarntoday.htm>



Mobile website:

<http://m.weather.gov.hk/wxreport/wxwarntoday.htm>

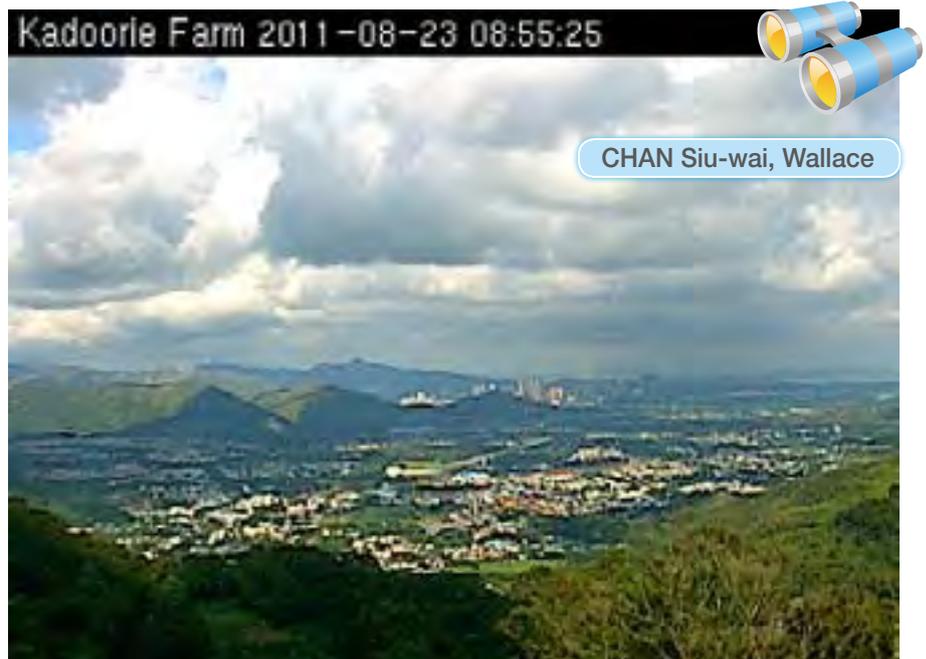


In addition, the service can be accessed on the mobile application "MyObservatory" on iPhone (Version 3.1 or above) and Android (Version 2 or above). The public can also gain access to the new service through the "Dial-a-Weather" (187 8200; selection language, press 3 and then 1).

New Real-time Weather Photos Overlooking the Western Part of the New Territories

To enrich its regional weather information, the Observatory has added real-time weather photos overlooking the western part of the New Territories to its website. These photos, captured by a camera installed at Kadoorie Farm and Botanic Garden in Tai Po, allow the public to appreciate the weather conditions at locations such as Kadoorie Gap, Shek Kong, Kam Tin, Yuen Long and Tin Shui Wai.

The photos enable hikers to assess the latest weather conditions in their vicinity and help reduce the risks brought by inclement weather. The photos also reveal real-time weather conditions, such as cloud cover, cloud base height and visibility, of Shek Kong and Kadoorie Gap. They will facilitate flight planning by both helicopter and fixed-wing pilots, enhancing flight safety.



CHAN Siu-wai, Wallace

Real-time weather photos overlooking the western part of the New Territories

Members of the public can access the weather photos at the Observatory's regional weather webpage (www.hko.gov.hk/wxinfo/ts/index_e_webcam.htm) and mobile platform webpage (m.hko.gov.hk/wxreport/wxphoto.htm).

Chinese Domain Names of Hong Kong Observatory Website Launched

TONG Yu-fai

The Chinese domain names "天文台.香港" and "香港天氣.香港" of the Observatory website have been launched. Apart from the existing English domain names, members of the public can access the Observatory's website by inputting the Chinese domain names on their Internet browsers.

More Channels for Delivering Weather Video Clips



WAT Kam-shing

Launched in YouTube in 2009, the weather video clips produced weekly by the Observatory have been well received and become increasingly popular. The video clips are also available at the Tudou website now. Members of the public are welcome to watch the weather videos at <http://www.tudou.com/home/hkweather>.



Revamped

"Weather Information for Hiking and Mountaineering" Webpage

To enhance the weather services for hiking and mountaineering activities, the Observatory launched a revamped webpage on weather information for hiking and mountaineering. The new webpage integrates information on hiking routes of Hong Kong with real-time regional weather information and digital weather forecasts. A new feature of the webpage is to enable a hiker to overlay selected hiking routes or locations on various weather maps (such as temperatures, relative humidity, rainfall, wind direction and speed) to better understand the latest weather situation along their routes and plan their hiking and mountaineering activities. Please visit http://www.weather.gov.hk/sports/hiking_e.html.

TONG Yu-fai



Launch of New Version of "MyObservatory" for iPhone and Android

CHOY Chun-wing

The personalized weather service "MyObservatory" has been well-received since its launch in March 2010. More than 1.4 million copies of the app have been downloaded and the total number of page views has exceeded 2 billion by end of 2011.

In order to provide enhanced weather services for people on the move, a new version of "MyObservatory" for iPhone and Android was launched on 4 October and 12 December 2011 respectively. It features the following new functions:

- User selectable default screen to show local weather forecast or 7-day weather forecast;
- Weather tips for weather warnings in force;
- Display of weather warnings that are currently in force or have been in force earlier in the day;
- Information on radiation; and
- Predicted tide charts.



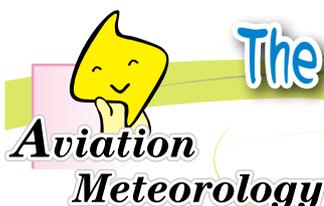
For details, please refer to http://www.weather.gov.hk/MyObservatory_e.htm.



Sample screens of the new functions for iPhone version 3.1



Sample screens of the new functions for Android version 2.0



The Observatory Offered Training for Participants of "Dragonair Aviation Certificate Programme"

LI Luen-on

During 24 to 26 October 2011, the Observatory provided a basic training course in aviation meteorology for 24 participants of the "Dragonair Aviation Certificate Programme". This programme aimed at nurturing future talents for the aviation industry and was jointly organized by Dragonair and the Hong Kong Air Cadet Corps, in association with the Observatory and other aviation organizations. Through this program, local youngsters can explore the aviation world and develop a deeper understanding of the various aspects of expertise in the aviation industry.

In this basic training course, apart from understanding the impact of weather on aviation safety, each participant was arranged to gain hands-on experience at the Airport Meteorological Office. Participants were impressed by the aviation weather services provided by the Observatory. One participant commented, "The Hong Kong Observatory is undoubtedly one of the most sophisticated weather forecast organizations in the world, and it has done a lot of work quietly behind the scene to support Hong Kong people, pilots, and many different parties everyday!"



Participants and lecturers of the training course photographed with Captain Marcus De Santis (8th left, front row), Chief Pilot of Dragonair, and Mr SHUN Chi-ming (7th left, front row), the Director, at the Central Forecasting Office.



Hong Kong's Aviation Weather Services Showcased in "Wonder Airport" Programme

LAM Ching-chi, Queenie

The Hong Kong's aviation weather services were showcased in a travelogue documentary programme "Wonder Airport". The crew filmed the Airport Meteorological Office and they were much interested in the Observatory's windshear and turbulence warning service including the application of a Doppler Light Detection And Ranging (LIDAR) for operational windshear alerting in fine weather conditions. The Airport Thunderstorm and Lightning Alerting System (ATLAS) for detection and forecast of thunderstorm and lightning activities for the protection of ground airport staff also attracted attention. The programme is produced by BS Nippon Television Corporation at the invitation of the Hong Kong Tourism Board. The theme of the programme was "The best airport where east meets west. Exploring the airport to see the secrets of the world's best airport".



Ms Queenie LAM (2nd right), gave an interview in the documentary TV programme "Wonder Airport".

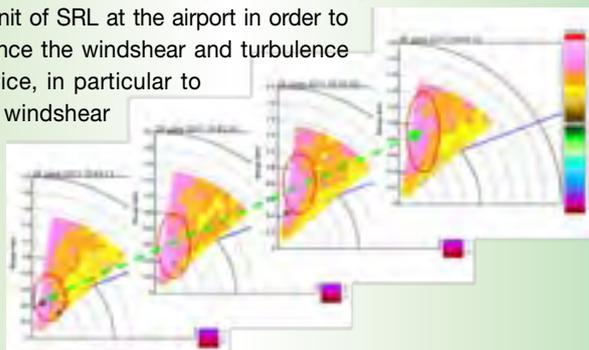
"Short-range" Light Detection and Ranging System,

LEE Yiu-fai

The Observatory conducted a pilot study of Short-Range Light detection and ranging system (SRL) on windshear detection for the arrival runway corridor to the east of the north runway (25RA) of the Hong Kong International Airport (HKIA) in the last three summers. The SRL was installed on the rooftop of the AsiaWorld-Expo to monitor transient and fine-scale airflow disturbances over 25RA. The airflow disturbances might be associated with low-level wind effects of the buildings/man-made structures. The SRL possesses a higher spatial resolution of about 75 metres and a shorter revisit time of 20 seconds, when compared with the existing operational long-range LIDAR system.

In the trials so far, SRL demonstrated capability of capturing the airflow disturbances over 25RA. Using pilot reports as 'sky truth' for verification, SRL can greatly reduce the alert duration, which enhances the capacity of runway, without compromising the hit rate of windshear alerting service. The Observatory is considering the installation of a permanent unit of SRL at the airport in order to further enhance the windshear and turbulence alerting service, in particular to address the windshear

due to low-level wind effects of buildings.



SRL wind velocity images on 29 June 2011. The arrow indicates the movement of the airflow disturbance as marked by the red ellipse within the two-minute period.

Reaching Out to the Community

SONG Man-kuen, Sandy

The Observatory participated in the "2011 Hong Kong Aviation Carnival" with the Civil Aviation Department, the Hong Kong Aviation Club, local airlines and helicopter companies, as well as various local aviation sports associations. An exhibition booth was set up by the Observatory to introduce the public to the weather services for the aviation community. Many visitors showed much interest in how the automatic weather station worked and showed off their skill in maneuvering a plane in a computer game on windshear.

The Aviation Carnival was held at the former Kai Tak Airport on 27 November 2011. It was the last event to celebrate the centenary of powered flight in Hong Kong. The opportunity was taken to also arouse public interest in aviation.



Miss Sharon LAU Sum-yee (middle), Assistant Director, photographed with Mr Francis CHIN Yiu-cheong, Q.S., J.P. (2nd right) of the Scout Association in front of the Observatory's exhibits at the Aviation Carnival.

Government Flying Services Turbulence Measurement

TSE Shuk-mei

To further enhance the turbulence alerting service, the Observatory collaborated with the Government Flying Services (GFS) to collect high quality turbulence measurements in the vicinity of the HKIA.

A GFS fixed-wing aircraft collects meteorological data including wind speed and direction near the HKIA three times a week regularly, using a data probe mounted externally under one of the aircraft wings (Figure 1). These data can be considered as 'sky truth' because of their high quality and high precision. Eddy Dissipation Rate (EDR), an internationally adopted metric of turbulence intensity, is derived from the data and compared against that measured by the Observatory's Light Detection and Ranging (LIDAR) system. Study results showed that the EDR from the GFS aircraft matched well with those from the LIDAR (Figure 2). The Observatory will make use of the aircraft data to develop LIDAR-based EDR products for turbulence alerting.



Figure 1: A GFS fixed wing aircraft with a data probe mounted on the wing tip collects meteorological data in the vicinity of the HKIA regularly

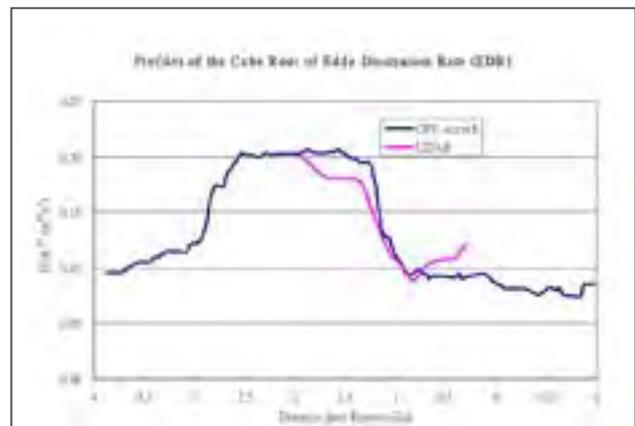


Figure 2: EDR profiles from data collected by the GFS aircraft compared with those from the LIDAR

Observatory Staff Lectured at the "Hong Kong Aviation" Seminar Series

CHEUNG Ping



Mr HO (4th left, second row) taking a group photo with scouts attending the talk on aviation meteorology

Mr Paul HO Ka-leong, Senior Experimental Officer, gave a talk on aviation meteorology to around 30 scouts on the evening of 18 October 2011 at the Hong Kong Scout Centre. The talk was part of a seminar series on "Hong Kong Aviation" organized by the Scout Association of Hong Kong – Kowloon Region (Air Activity). The seminar series was one of the "Centenary Hong Kong Aviation Activities" to commemorate Mr Charles Van den Born, a Belgium pilot who performed the first powered flight at Yuen Chau Kok, Shatin, a hundred years ago.

The Regional Headquarter Commissioner (Air Activity), Mr Anthony LUI, commented that the talk was informative yet easy-to-understand. The participants showed much interest in aviation meteorology. They listened attentively and enthusiastically asked questions. Mr LUI thanked the Observatory for active participation in public education activities on meteorology.

The Observatory Organized the World Meteorological Organization Workshop on “Implementing Competency Assessment for Aeronautical Meteorological Personnel”

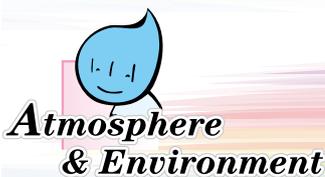
The Observatory organised an international workshop on “Implementing Competency Assessment for Aeronautical Meteorological Personnel” from 5 to 9 December 2011. This workshop marked the 13th occasion that the Observatory organized workshop or training course under the Voluntary Co-operation Programme (VCP) of the World Meteorological Organization (WMO). There were 21 participants from 20 countries, including Cambodia, China, Cook Islands, Fiji, Indonesia, Japan, Kiribati, Lao PDR, Malaysia, Mongolia, Myanmar, Papua New Guinea, the Philippines, Solomon Islands, Samoa, Saudi Arabia, Singapore, Thailand, Uzbekistan and Vietnam, attending the workshop. It set a record number of participating countries in the VCP workshop organized by the Observatory.

LAM Ching-chi, Queenie



Mr Kent Johnson (the one standing with open arms), Chair of the WMO Task Team on the Competency Assessment Toolkit, summarising the views of the participants in the group discussion session.

Miss Sharon LAU Sum-ye, Assistant Director of the Observatory, said at the Opening Ceremony, “Aeronautical meteorological service providers must be able to demonstrate that their aeronautical meteorological personnel satisfy the WMO Competency Standards from 1 December 2013. This workshop aims to promote sharing of experience among Members in their implementation of competency assessment for aeronautical meteorological personnel.” Hong Kong is one of the first WMO Members to implement the competency assessment system to satisfy the Standards.



Climate Change FAQ

KOK Mang-hin

Through a question and answer approach, the Climate Change FAQs will explain some basic knowledge and facts of climate change in layman terms in order to enhance the public's understanding of the causes and impacts of climate change, and what we can do to mitigate its effects.

Q. Are the oceans warming up too?

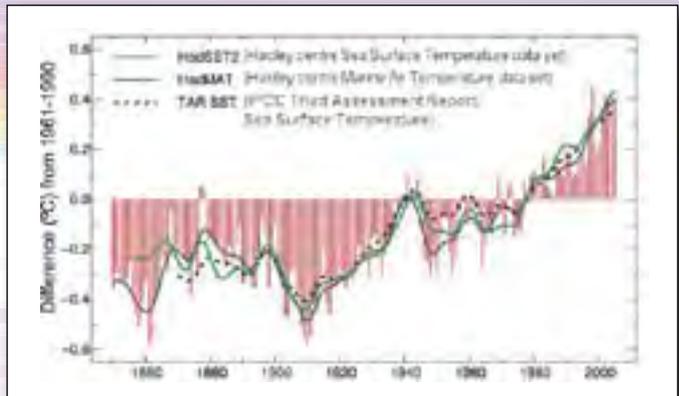
A. Human activities have increased the concentration of greenhouse gases in the atmosphere and enhanced the greenhouse effect, resulting in the accumulation of extra heat on Earth. The “extra heat” has not only pushed up global air temperatures with melting ice and snow, but also warmed up the oceans. The oceanic warming is not limited to the surface. Signs of warming are observed down to 700 m below the sea surface. A direct consequence of oceanic warming is sea level rise. According to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), thermal expansion of sea water accounts for a rise of about 18 mm from 1993 to 2003 (i.e. about 1.6 mm per year).

Q. What is the “2°C Target”?

A. The 2°C target was first put forward by the European Union (EU) in 1996 based on the impact studies of the 2nd Assessment Report of the IPCC published in 1995. At the 1939th Council Meeting held in Luxembourg in 1996, EU indicated that the global mean surface temperature should not exceed 2°C above pre-industrial levels in order to avoid severe climate change impacts on human and ecological systems. In 1990-2000, the global mean temperature was already about 0.6°C above pre-industrial levels (1750s or 1850s), i.e. only 1.4°C short of the 2°C target.

This threshold was later adopted by some other countries and widely cited by many researchers, green groups and organizations as the acceptable ceiling of global warming.

More information about EU's 2°C Target is available at http://ec.europa.eu/environment/climat/pdf/brochure_2c.pdf.



Annual anomalies (relative to the 1961 to 1990 mean) of global sea surface temperature from 1850 to 2005 (Source : Fourth Assessment Report, IPCC)

ASTRONOMICAL PHOTO ALBUM

WONG Wai-kwong

Penumbral Lunar Eclipse



(Courtesy of Hong Kong Space Museum)

There are three types of lunar eclipse: total lunar eclipse, partial lunar eclipse and penumbral lunar eclipse. When the Moon totally enters the umbra (the full shadow) of the Earth, it is a total lunar eclipse; When only part of the Moon passes into the umbra, it is a partial lunar eclipse; As to the penumbral lunar eclipse, it describes a phenomenon when the Moon only enters the penumbra of the Earth. During a penumbral lunar eclipse, the brightness of the Moon is only marginally reduced. While it is nearly unnoticeable to the naked eyes, the change in brightness can be recorded accurately by a camera.

Partial Solar Eclipse



(Courtesy of Hong Kong Space Museum)

A solar eclipse occurs when the Moon is located between the Sun and the Earth, blocking direct sunlight to the Earth. Although the Moon orbits around the Earth once every month, solar eclipse does not occur monthly as the orbits of the Moon and the Earth are not on the same plane. While a partial solar eclipse will be visible once every two to three years from a location, it may take hundreds of years for a total or annular solar eclipse to recur at the same place.

“Clouds in Hong Kong” Series

Clouds of Gloomy Weather - “Stratus”

CHIU Hung-yu

Stratus is one type of low level clouds. Its cloud base is below 2 kilometers. Stratus consists of tiny water droplets.

Stratus appears grey or greyish white in sheets of layer clouds with fairly uniform cloud base without reaching the ground. Stratus sometimes appears in the form of ragged patches too. The cloud base usually is only around three hundred metres or less above ground. It could often mask the middle parts of mountains or the tops of high buildings (Figure 1).

If the ground temperature drops, the humidity in the air will increase causing the clouds to thicken downward. The low stratus could also develop over cold sea surface when the air is moist and the wind is light or calm. When the cloud base reaches the ground or sea surface, the stratus becomes fog (Figure 2). Vice versa, the air humidity drops when the ground is heated by the sunshine. The thick fog will become thinner. Then, it will be lifted up above the ground and become low stratus.

Stratus usually appears in rainy or foggy days when the lower atmosphere is very moist and the air near the earth surface contains a lot of water. Since stratus is generally relatively thin, stratus itself alone will not rain. However; when the layer of stratus is thicker or under the conditions that the cloud base is very low and the earth surface is very moist, it may drizzle or may generate light rain. If the clouds split into fragments, the clouds appearing in the form of broken pieces are called stratus fractus or fracto-stratus (Figure 3 and Figure 4).



Figure 1: Stratus



Figure 2: Stratus and sea fog



Figure 3: The stratus and stratus fractus (or fracto-stratus) in rainy situations



Figure 4: Stratus fractus (or fracto-stratus) in rainy situations

(Courtesy of weather observers of the Observatory)

Soon after the month of December 2011 started, Hong Kong saw the first Cold Weather Warning in this winter. It reminded people of the re-emergence of La Niña development over the equatorial Pacific and the possibility of a cold winter in Hong Kong.

The previous La Niña event ended in April 2011. Since September 2011, sea surface temperatures of the central and eastern equatorial Pacific have fallen below the normal level again (Figure 1). Climate prediction centres around the world forecast the cooler-than-normal condition of the ocean to persist through this winter and a La Niña event to establish in early 2012. Meanwhile, most of the prediction centres forecast that the northeast monsoon over southern China will likely be stronger than normal this winter.

Data of recent decades show that Hong Kong tends to experience colder-than-normal winters during La Niña (Table 1). An HKO study points out that La Niña is normally associated with lower winter temperatures in Hong Kong and stronger northeast monsoon over southern China (<http://www.hko.gov.hk/lrf/enso/enso-impact.htm>, Lee and Cheng, 2011). Table 1 also shows that Hong Kong tends to receive normal to below-normal rainfall during La Niña winters.

The Observatory disseminated the seasonal forecast for this winter (December 2011 to February 2012) on its website (<http://www.hko.gov.hk/wxinfo/season/season.htm>) and expects normal to below-normal temperatures and rainfall in Hong Kong.

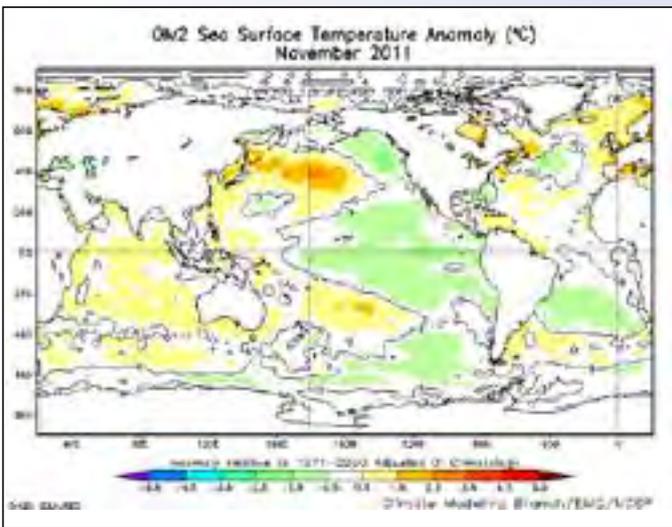


Table 1: Winter temperature and rainfall of Hong Kong during La Niña in recent decades

	Temperature (°C)	Temperature category ^{Note}	Total rainfall (mm)	Rainfall category ^{Note}
1970-1971	16.0	Below normal	103	Normal
1973-1974	15.7	Below normal	41	Below normal
1974-1975	17.1	Normal	278	Above normal
1975-1976	15.9	Below normal	68	Normal
1984-1985	16.1	Below normal	243	Above normal
1988-1989	16.7	Normal	133	Normal
1995-1996	16.7	Normal	36	Below normal
1998-1999	18.4	Above normal	18	Below normal
1999-2000	16.4	Normal	131	Normal
2007-2008	16.2	Below normal	77	Normal
2010-2011	16.0	Below normal	48	Below normal

Note: Reference is made to the average of winters during 1971-2000.

Figure 1: Sea surface temperature anomalies of November 2011 in degree Celsius (source: National Oceanic and Atmospheric Administration, USA)



Kowloon City District Council Visited the Observatory

Editorial Board



15 members of the Kowloon City District Council and District Office, headed by Dr WONG Kwok-keung, SBS, JP, the Chairman of the District Council, visited the Observatory on 9 September 2011. Mr SHUN Chi-ming, the Director, briefed the guests on the work of the Observatory. This was followed by a guided tour of the Central Forecasting Office, the Radiation Monitoring and Assessment Centre, the TV Studio, the Earthquake and Time Services Division and the History Room. The councilors were much impressed by the Observatory's application of science and technology in serving the public.

Members from Kowloon City District Council, Dr WONG (center, 1st row), and Miss SO Yuen-ling (2nd left, 1st row), the District Officer, photographed with the Director (3rd left, 1st row).

Media Luncheon

Editorial Board

In order to enhance communication with the media, the Observatory held the Media Luncheon on 18 October 2011. The Director and Assistant Directors exchanged views with about 30 reporters.

The Director pointed out that below normal rainfall in the first nine months was mainly due to the effect of La Niña happened at the beginning of the year. He also mentioned that the total number of page views of "MyObservatory" for smart phones app had exceeded 1,100 million from January to September 2011 and the users of both iPhone and Android had exceeded 1.1 million. For hiking and mountaineering weather information, users could simply select the hiking trails and regional temperature of different trails would show up clearly.



The Director (middle) exchanged views with reporters

"Mountaineering Safety Promotion Day" and "InnoCarnival 2011"

LI Yuet-sim and CHIU Hung-yu

To enhance public awareness of mountaineering safety, the Civil Aid Service joined hands with 17 government departments and non-governmental organizations to hold the "Mountaineering Safety Promotion Day" on 23 October 2011 (Sunday). The Observatory has long been rendering full support to this activity. A booth was set up to introduce weather phenomena which would affect mountaineering and hiking, as well as highlight the precautions to take under various severe weather conditions. The Observatory also took this opportunity to introduce the newly launched "Weather Information for Hiking and Mountaineering" webpage and other

services which help the public plan their outdoor activities, such as the "Digital Weather Forecast" webpage.

The Observatory, together with 7 partner government departments of the "Science in the Public Service" joined the "InnoCarnival 2011" organized by the Innovation Technology Commission from 5 to 13 November 2011 to showcase their scientific and technological work at the Hong Kong Science Park. The Observatory's exhibits in the InnoCarnival included "MyObservatory", Co-WIN, seismology and radiation. An estimated 180,000 students and members of the public visited the Carnival.



The director photographed with "Friends of Observatory" volunteers in front of the Observatory's booth.



Members of "Friends of the Observatory" and Observatory staff briefing the visitors on the exhibits

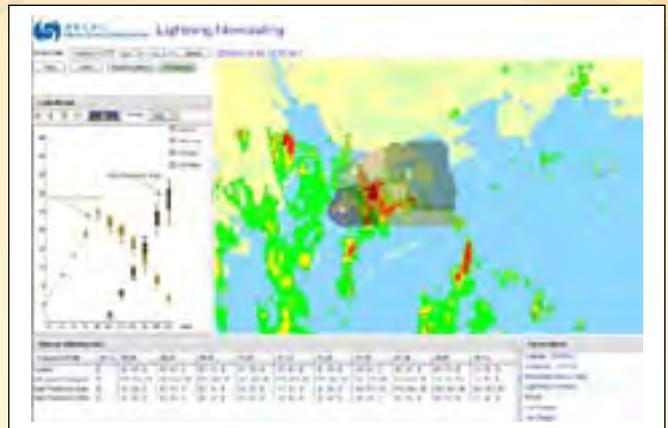
The Observatory Provides Lightning Nowcasting Service to Corporate Clients

CHAN Pak-wai

Lightning Nowcasting is a weather information product developed by the Observatory to assist specialised users to assess if early preventive actions are required for operations that are susceptible to the threat of lightning. With the use of radar and lightning observation data and sophisticated algorithms, the system automatically provides forecasts of the total number of lightning strikes in an hour in user-defined areas in Hong Kong and the lightning locations on a map, up to two hours ahead. Visual, audio and email alerts will be activated when the lightning number in any one of the pre-defined regions exceeds the threshold.

China Light & Power Hong Kong Limited (CLP), the first user of the product, uses Lightning Nowcasting for its lightning alert function. Mr Bruce CHAN of CLP said, "By having the alert service, we could mobilize our operation and emergency team early, and expedite power restoration in case any equipment fails due to lightning. At the same time, the lightning information could facilitate CLP to dispatch the emergency crew more safely and efficiently."

Lightning Nowcasting is now available as an add-on in the Weather Information SErver (WISE) for corporate clients.



"Lightning Nowcasting" webpage showing actual and forecast numbers of lightning strikes in an hour in various regions.

Typhoon Committee Roving Seminar 2011

YEUNG Hon-yin



Group photo of the participants of the Typhoon Committee Roving Seminar 2011

Mr YEUNG Hon-yin, Scientific Officer, and Mr CHOW Chi-kin, Experimental Officer, participated in the Typhoon Committee Roving Seminar 2011 during 20 to 23 September 2011. The Malaysian Meteorological Department was the host of this year's seminar, the theme of which was on heavy rain and flood hazards associated with land-falling tropical cyclones. More than 40 hydrologists or meteorologists from the member countries of the Typhoon Committee (an intergovernmental body under the auspices of the United Nations Economic and Social Commission for Asia and the Pacific and the World Meteorological Organization) participated in the Seminar. Among them, three experts from Hong Kong, Singapore and Thailand were invited as lecturers and Mr YEUNG was responsible for the topic on operational quantitative precipitation forecast and its application to tropical cyclone conditions.

The Observatory Signs Co-operation Agreement with Shenzhen Meteorological Bureau

CHAN Sai-tick

On 25 November 2011, the Observatory signed the Long-term Co-operation Agreement in Numerical Weather Prediction Technology with the Shenzhen Meteorological Bureau. Under the agreement, the Observatory will provide professional knowledge and technology in forecasting, and will arrange training for technical personnel of the Shenzhen Meteorological Bureau. The Shenzhen Meteorological Bureau will provide high performance computing resources and facilities, and both parties will jointly develop numerical weather prediction techniques.

"This agreement will raise the standard in daily weather forecasting as well as in the monitoring of severe weather, thereby enhancing the weather services for people in both cities," said Mr SHUN Chi-ming, Director of the Observatory.

"We expect that the fruitful results of co-operation will bring higher quality weather services to the public in both places, and will set a model for meteorological co-operation between the Mainland and Hong Kong," said Ms WANG Yanqing, Director-General of Shenzhen Meteorological Bureau.

The agreement, the first in meteorology ever signed between Hong Kong and a Mainland city, marks a new height in meteorological co-operation between Hong Kong and Shenzhen.



The Director (right, front row) signs the Long-term Co-operation Agreement in Numerical Weather Prediction Technology with Ms WANG Yanqing (left, front row), Director-General of Shenzhen Meteorological Bureau.

A New Chapter of China-Hong Kong Co-operation on Meteorological Services -

The 26th Summer Universiade

CHAN Sai-tick

Letter of appreciation presented by Shenzhen Meteorological Bureau to the Observatory

The 26th Summer Universiade was held in Shenzhen in August this year. During the Universiade, the Observatory provided the Shenzhen Meteorological Bureau with real-time feed of weather observations, forecast products from the nowcasting system and numerical weather prediction modelling system to assist the Bureau in providing refined weather forecast and warning services for the race venues.

Besides, the Observatory for the first time ever participated in joint weather conferences via video link with experts from the Mainland meteorological authorities, including the National Meteorological Center, the Guangdong Meteorological Bureau and the Shenzhen Meteorological Bureau, to discuss the weather processes that would possibly affect the opening and closing ceremonies of the Universiade. The joint weather conferences have signaled a new chapter in China-Hong Kong co-operation on meteorological services. After the event, the Shenzhen Meteorological Bureau presented a letter of appreciation to the Observatory for the support offered.



Mrs Hilda LAM, Assistant Director (1st right), and colleagues of the Observatory participated in the joint weather conference with Mainland meteorological authorities

Exercise “PacWave 11”

LAU Dick-shum, Dickson

The Security Bureau, the Observatory together with 20 other relevant departments and organizations of the Government of the HKSAR participated in the 2011 Pacific-wide tsunami exercise “PacWave11” organized by the Intergovernmental Oceanographic Commission of UNESCO on 10 November 2011. A total of 38 countries around the Pacific Rim took part in the exercise. In addition to the testing of the notification mechanisms of the Pacific Tsunami Warning and Mitigation System and the Hong Kong Contingency Plan on Natural Disasters, the participating parties also exercised their emergency response procedures during the event. To meet the objectives of the exercise, a master scenario plan consisting of more than 50 scenarios was drawn up for the exercise.



Exercise “PacWave 11” at the Hong Kong Observatory Headquarters

Experts of China Institute for Radiation Protection Giving Lectures

CHIU Hung-yu

The Observatory organized an "Environmental Radioactivity Monitoring Training Course" between 19 and 30 September 2011. Four experts from the China Institute for Radiation Protection (CIRP) were invited to lecture for the course. The purpose is to train staff and to enhance their technical skills on radiation measurements and radiation protection.

Colleagues have benefited a lot from learning basic theories to practical skills.

Mr LIU Li-ye (standing), expert of CIRP, lecturing at the Observatory.



"Former Kowloon British School and 1883 Building of Hong Kong Observatory" Public Guided Tour

HUI Tai-wai

To complement with the International Conference on Heritage Conservation 2011 and the "Heritage Fiesta" organized by the Development Bureau, 27 public guided tours of "1883 Building of Hong Kong Observatory and the Former Kowloon British School" were arranged from 3 to 18 December 2011 which attracted about 500 visitors. Through the tour to the exterior of the monuments and the history room at the 1883 Building, which were guided by voluntary docents of "Friends of the Observatory" and "Antiquities and Monuments Office", the visitors could learn more about the history and architectural significance of both monuments.



The Fourth Anniversary of the Community Weather Information Network (Co-WIN)

CHAN Kin-yu

The Hong Kong Observatory and the Department of Applied Physics of the Hong Kong Polytechnic University held a celebration ceremony for the fourth anniversary of Co-WIN on 19 November 2011. They also announced the launch of the beta version of the Community Weather Observing Scheme (CWOS) (<http://co-win.org>). The aim of CWOS is to encourage community learning and participation in making weather observations. Through CWOS, it is hoped that the general public will become more aware of weather-related hazards and climate change.

Since its establishment in August 2007, Co-WIN membership has tripled from 35 to 105. Co-WIN members now span a wide spectrum of the community, including primary and secondary schools, tertiary institutes, an elderly centre, the Scout Association of Hong Kong and nature education centres such as WWF-Hong Kong.

The Co-WIN website can be accessed via <http://weather.ap.polyu.edu.hk/index.php>. The website is also linked to the Observatory's homepage at <http://www.weather.gov.hk/contente.htm>.



Guests and members celebrating the fourth Anniversary of Co-WIN

Visits • Courses • Talks • Meetings

21 July 2011



An enjoyable time for the delegates of the International Air Cadet Exchange Programme 2011, members of the Hong Kong Air Cadet Corps and Observatory staff photographed at the Observatory.

25 July 2011



Ms Queenie LAM Ching-chi (5th right), and Mr CHAN Pak-wai (3th left), Senior Scientific Officers visited the Meteorological Department, Shenzhen Air Traffic Management Station to share experience on aviation meteorology.

28 August 2011



The Younger Members Section of Institution of Engineering and Technology Hong Kong visited the Observatory.

30 August 2011



Professor WU Guo-xiong (standing), State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics, visited the Observatory, delivered a talk on "Atmospheric Interaction and Vortex Formation of the Asia Summer Monsoon over Bay of Bengal" and shared experience with our colleagues.

9 September 2011



A forecasting team of the Observatory visited Hong Kong Maritime Rescue Coordination Centre to learn more about search and rescue operations.

15 October 2011



Mr LUI Wing-hong (standing), Chief Experimental Officer, gave a talk on "The Origin of Tropical Cyclone Names" which received good public response.

23 September 2011



Mr MA Wai-man (standing), Senior Scientific Officer, introducing the work on Environmental Radiation Monitoring of the Observatory to Mr XU Ping (2nd left), Deputy Director of National Nuclear Emergency of China and the delegation team.



17 October 2011

A delegation of School of Atmospheric Sciences, Nanjing University visited the Observatory.



18 to 19 October 2011

A group of 3 delegates of Korea Aviation Meteorological Agency, led by its Director of Information and Technology Support Division, Mr JO Gi-hyun (2nd left), visited the Airport Meteorological Office and a Light Detection And Ranging site at the Hong Kong International Airport.



24 October 2011

A delegation of directorates of Electrical and Mechanical Services Department, headed by the Director, Mr Stephen CHAN Hung-cheung (3rd right), visited the Observatory and was briefed on the latest development of the Observatory.



25 to 27 October 2011

A delegation team from Central and Southern Region, Air Traffic Management Bureau, Civil Aviation Administration of China, visited the Observatory and was introduced the latest developments of aviation weather service in Hong Kong. The visit was useful for experience sharing between the two organizations on the provision of aviation weather service.



29 October 2011

Observatory Staff visited automatic weather station at Kadoorie Farm.



31 October 2011

A group of 9 delegates from Singapore Environment Bureau, led by LG (NS) Desmond Kuek, Permanent Secretary, Ministry of the Environment and Water Resources, visited the Observatory. Experiences on climate change studies were shared.

3 November 2011



Mr YE Dong-bo (middle), Deputy Officer of Ministry of Science and Technology of the People's Republic of China (Office of Hong Kong, Macao & Taiwan Affairs), led a delegation to visit the Observatory. Mrs Hilda LAM briefed them on the operation of weather forecast.



5 November 2011

Mr TONG Yu-fai (standing), Scientific Officer, lectured on a theme "Dissemination of Weather Information", introduced the delivery on weather services of different platforms which was actively developed by the Observatory. "MyObservatory" is one of the mobile app.

5 November 2011



A group of more than 50 people from La Salle College Old Boys' Association visited the weather radar station at Tai Mo Shan and photographed with Miss Sharon LAU Sum-ye, Assistant Director of the Observatory (2nd left, front row).



16 November 2011

A delegation of Guangdong Meteorological Bureau visited the Observatory.

22 November 2011



Mr Peter LAU Ka-keung (1st right), Director of Highways, led a delegation of 7 members to visit the Observatory. Mr SHUN Chi-ming (2nd right), the Director, briefed them on the Observatory's work.

28 to 29 November 2011



About 60 colleagues from various government departments involved in the "Daya Bay Contingency Plan" participated the "Radiological Protection Officers' Course", which was co-organized by the Observatory, the Security Bureau, the Department of Health, the Electrical and Mechanical Services Department and the Government Laboratory. The course included lectures on radiological monitoring and protection basics, practicals on operation of instruments and a syndicate exercise.

1 December 2011



The Guild of Air Pilots and Air Navigators (GAPAN) visited the Observatory, Mr SHUN Chi-ming (4th right), the Director, presented souvenirs to the Master of GAPAN, Capt. OW Epton (4th left).



Dr CHENG Cho-ming

Promoted to Assistant Director

Dr CHENG Cho-ming, with keen interest in meteorology, has been working in the Observatory for more than 20 years. He became a forecaster at the Central Forecasting Office 6 months after joining the Observatory. He has also worked in different posts involving various fields such as maintenance of automatic weather stations, installation of meteorological instruments at the airport, etc. As the Senior Scientific Officer of Radar and Satellite Meteorology Division, he was responsible for the operation, maintenance and development on weather radar and meteorological satellite reception systems for many years. Dr CHENG was also one of the TV weather presenters who appeared on morning TV weather programs. He had been repeatedly named the best TV weather presenter for his excellent performance. Dr CHENG was promoted to Assistant Director of the Forecasting and Warning Services Branch on 26 October 2011.

Dr CHENG (left) receiving the promotion letter from the Director

Certificate Presentation Ceremony of "Applied Meteorology Course for Forecasters"

(From left to right) Mr Edwin LAI Sau-tak, Acting Assistant Director; Mr YUEN Chun-pong, Experimental Officer; Mr CHAN Wing-hang, Experimental Officer; Mr LEE Yiu-fai, Scientific Officer; Mr CHOY Chun-wing, Scientific Officer; Mr SHUN Chi-ming, Director; Miss CHEUNG Man-sze, Experimental Officer; Mr LEUNG Wing-mo, Ex-Assistant Director; Mr CHIU Yu-yeung, Experimental Officer; Mr YEUNG Wai-lung, Scientific Officer; Mr LAM Hok-yin, Scientific Officer photographed at the certificate presentation ceremony of "Applied Meteorology Course for Forecasters".



Certificate Presentation Ceremony of "Aeronautical Meteorological Observers"

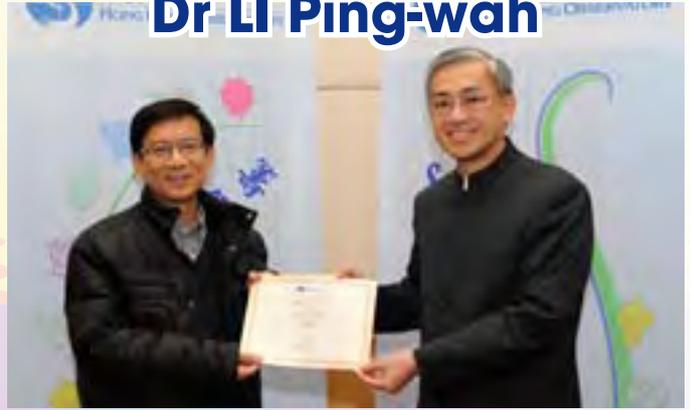


3 Scientific Assistants (from left to right), Mr WONG Chi-ching, Mr LAM Kin-yui and Mr CHAN Ho-yin, having successfully satisfied the qualification assessment for Aeronautical Meteorological Observers meeting World Meteorological Organization requirements, will be responsible for recording the weather at the Hong Kong International Airport.

Best TV Weather Programme Presenters 3rd Quarter, 2011 Mr YEUNG Hon-yin



Best TV Weather Programme Presenters 4th Quarter, 2011 Dr LI Ping-wah



Observatory Staff and Friends of the Observatory Receiving Praise

Editorial Board

Staff of the Observatory and Friends of the Observatory who received words of thanks and commendation from the public or organizations during September to December 2011:

Mr TAM Kwong-hung (Acting Senior Scientific Officer)

Mr TSANG Moon-tong, Martin (Scientific Assistant)

Mr WONG Wai-cheong (Scientific Assistant)

Ms Lixia Adamcova (Friends of the Observatory)

Observatory staff awarded the Secretary for the Civil Service's Commendation

CHAN Wing-shan

Two Observatory colleagues, Miss MOK Lai-ping and Mr KWOK Chuen-sai, were awarded the Secretary for the Civil Service's Commendation in 2011 as recognition of their meritorious performance in the past years.

Despite the heavy workload for a Personal Secretary I in the Observatory, Miss MOK handles all her work systematically with ease. She also fully utilises her leisure time to learn different things. Her beautiful Chinese calligraphy is particularly impressive.

Mr KWOK is a Property Attendant responsible for patrolling around the Headquarters of the Observatory. He has served for the Observatory for 24 years but he is always working with zeal and greeting others with his big smile everyday.

Our heartfelt congratulations to these two colleagues!



Miss MOK Lai-ping (2nd right) and Mr KWOK Chuen-sai (3rd right) of the Observatory with Miss Denise YUE, the Secretary for the Civil Service, Mr SHUN Chi-ming, Director and Mrs Hilda LAM, Assistant Director at the SCS's Commendation Awards Presentation Ceremony.



Dr CHAN Wai-man Speaking on How To Achieve The Target Of Good Health

CHIU Hung-yu

The Observatory invited Dr CHAN Wai-man, the ex-Assistant Director of Health, to share her insight on health management with the Observatory's colleagues in a forum held on 20 October 2011.

Dr CHAN pointed out that good health is a prerequisite for success at work and enjoying life. One needs to have the knowledge and method in order to have good health. Besides encouraging us to proactively establish and achieve the target of good health, Dr CHAN also introduced many useful tips in different aspects of health, and particularly emphasized on the importance of regular exercise and the danger of smoking. Furthermore, she reminded us the need to know the way to access health education and how to prevent ourselves from diseases, e.g. what medical services we have, when to do health assessment, physical examination, counseling and treatment, etc.

The talk raises our colleagues' awareness on health, and taught us how to build and achieve the target of good health.

Dr CHAN speaking on how to achieve the target of good health in the management forum



Sheng Kung Hui (SKH) St. Christopher's Home visited the Observatory

CHOW Chi-kin



40 children coming from the SKH St. Christopher's Home visited the Observatory in the morning of 8 October 2011. The HKO volunteer team arranged a splendid programme for them, including singing songs, dance performance, setting posture, and quiz games. Our honourable retired colleague, Master NG Tim-hung, also came back and taught the children to make towel dolls. In addition, 2 professional tour guides led the curious children to the Central Forecasting Office and the Exhibition Hall to let them learn more about the work of the Observatory. Everyone enjoyed a happy weekend, and the activity also ended in the midst of laughter.

The DHKO Cup Football Match

CHAN Siu-wai Wallace

The Hong Kong Observatory Staff Association (HKOSA) organized the Director of the Observatory (DHKO) Cup football match in September 2011. Athletes of the four branches of the Observatory, namely Development, Research and Administration; Forecasting and Warning Services; Aviation Weather Services; as well as Radiation Monitoring and Assessment, exerted their best efforts to fight for the DHKO Cup.

The DHKO Cup final was held on a sunny day (18 September 2011) at the Happy Valley recreation ground. Friends and relatives came to watch the games and support the players. After several grueling and exciting games, the energetic Forecasting and Warning Services team finally triumphed with their strong spirit of teamwork.



The winners received the DHKO Cup from the Director (Centre)

The Observatory Staff Association Tours

CHENG Sheung-tak

The Hong Kong Observatory Staff Association (HKOSA) provides a wide range of activities to colleagues. Two well-appraised tours were organized in summer and autumn. On 20 August 2011, the HKOSA organized a boat trip to the Hong Kong Geopark. Participants not only enjoyed the boating activities but also appreciated the magnificent rocks in different shapes at the Sharp Island and the Jin Island. The tour was greatly enriched by the introduction of rock weathering process by Miss Tam, a docent from the Geological Society of Hong Kong.

On 22 November 2011, the HKOSA organized another relaxing day trip in the New Territories featuring a vegetarian feast. Participants not only visited the Hong Kong Railway Museum to discover the railway history of Hong Kong but also enjoyed the tasty vegetarian dishes at the Wun Chuen Sin Koon. Last but not least, they were fully rewarded by hunting souvenirs at a renowned grocery shop nearby.



A group photo taken at the Wun Chuen Sin Koon



Everyone got ready to embark for the Geopark tour

Chinese Calligraphy

Ms MOK Lai-ping, Personal Secretary I, believes that handwriting expresses human characters and good penmanship is a manifestation of neatness and politeness. "My interest in Chinese calligraphy can be dated back to 1998 when 5 to 6 colleagues formed a group to learn calligraphy under the guidance of a private tutor during leisure time. The lessons were enjoyable and cheerful with mutual encouragement among classmates", she recalled. "Just like practicing Tai Chi, mastering the strength of handwriting can make oneself concentrate and relax and also help develop patience", she added.



Editorial Board

Ms MOK concentrating on practicing calligraphy

Mailing Address

Farewell Party for **Mr Leung Wing-mo** cum Celebration Party

CHAN Wing-shan, LEE Lap-chi

Mr LEUNG Wing-mo, former Assistant Director of the Observatory, proceeded on pre-retirement leave on 8 November 2011 after 29 years of service with the Observatory. Mr LEUNG served as the spokesman of the Observatory for a long time and his friendly smile seared deeply into the minds of many people. During the Fukushima Nuclear accident shortly after the Mega earthquake occurred in March 2011, there was public worry about the risk of radioactivity from Japan reaching Hong Kong. Mr LEUNG, the Assistant Director of the Radiation Monitoring and Assessment Branch led his staff to work devotedly and provided ample information and data to allay public concern.



The Director (left) presented a retirement souvenir to Mr LEUNG



Mr LEUNG sharing his enriched life experience



To bid farewell to Mr LEUNG, a farewell party was held and the awards won by the Observatory in the second and third quarters of 2011 were also celebrated on the same occasion. At the party, many colleagues shared with Mr LEUNG about his days in the Observatory and his working experience. The party concluded with good memories for everyone. We wish Mr LEUNG a happy retirement!

Observatory staff sent Mr LEUNG (5th left) the deepest thanks and best wishes