

# WEATHER ON WINGS



香港天文台  
HONG KONG OBSERVATORY



May 2012

Dial-a-Weather: 187 8200

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



## Meeting the Media on 20 March

Editorial Board



△ Mr SHUN (centre) briefing the media on the Observatory's latest developments

Every year around the World Meteorological Day on 23 March, the Director of the Observatory meets the media to brief on the latest developments of the department. This year the press conference was held on the afternoon of 20 March with the theme for the World Meteorological Day: "Powering our Future with Weather, Climate and Water". Around 30 reporters attended.

Mr SHUN was pleased to report that the Observatory had won 16 international and local awards in the past year covering service enhancement, information and communication technology, and community engagement. These included the Civil Service Enhancement Gold Award for Small Department, and the UK Royal Meteorological Society Award. In the latest survey conducted in October 2011 by an independent market survey company, about 80% of the Observatory's weather forecasts were considered accurate by the public, the highest since 2006. They represented wide recognition of the Observatory's achievements.

Mr SHUN said that the Observatory had also taken great strides in enhancing the delivery of services over the internet, mobile platforms and social network platforms. A new record in the access rate of the Observatory's website was set in 2011, registering a total of 6.2 billion, about 3.4 times that of 2010. In particular, the access rate of "MyObservatory" soared to 1.9 billion in 2011 since its launch in March 2010. Last year, the Observatory launched on behalf of the World Meteorological Organization, the mobile application "MyWorldWeather" on iPhone platform, the world's first weather service for people on the move, automatically providing official weather forecasts of the city nearest to the user. The Observatory also broke new ground by disseminating quick earthquake messages through Twitter and Weibo for the public around 10 minutes after the occurrence of strong earthquakes.

Regarding partnership, the Observatory collaborated with the Government Flying Service to use its fixed-wing aircraft for collecting for the first time unique data near the centre of the Tropical Storm Haima in June 2011.

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Mr SHUN saw the future direction of providing weather forecast of higher resolution. He announced that from 20 March onwards, when a change in weather is expected in its local weather forecasts, for example, when the weather will change from fine to rainy, the Observatory would adopt two weather icons, instead of just one icon, so as to highlight the weather change. The Observatory would explore using similar approach in providing more detailed forecast for the first few days of the 7-day forecast. For people on the move, a higher resolution iPad version of "MyObservatory" was unveiled on 20 March. To better alert members of the public of impending inclement weather, the Observatory would provide "special weather tips" on the front page of the Observatory website. A new product for "MyObservatory" featuring location-specific rainfall forecast in the next couple of hours is also in the pipeline for this year. To take advantage of the bigger screen of iPad, the Observatory have developed a higher resolution version of "MyObservatory". Apart from supporting the display of higher resolution weather photos, this iPad version also comes with pamphlets on the Observatory's services.

Building on the Observatory's productive interaction with the aviation, shipping, fisherman, elderly and education communities, the Observatory will further extend its engagement to other sectors of the society progressively. As a new initiative of the Community Weather Information Network (Co-WIN), a new web platform for students and other contributing members to post weather photos and reports for sharing purpose, known as the Community Weather Observing Scheme, will be officially launched later this year, with a view to further promoting public education in weather and climate.



For the annual weather outlook this year, considering the influence of La Niña during the spring, the Observatory expects the typhoon season will start in June or earlier, with the number of tropical cyclones affecting Hong Kong to be normal to above-normal between 5 and 8. The annual rainfall is expected to be normal to below-normal.

As the rainy season approaches, Mr SHUN reminded the public about the possible impacts brought by thunderstorms, "Apart from lightning, heavy rain and flooding, strong wind gusts could also be brought by thunderstorms. Every couple of years, we saw short-term strong winds brought by thunderstorms (called "Shi Hu Feng" by local community) blowing down scaffoldings, toppling containers and damaging properties. We have updated the pamphlet on thunderstorm to promote better preparedness by the public, logistic community, container terminal operators and the like."

## The "MyObservatory" Won Top 10 Healthy Mobile Phone/Tablet Apps in 2011

CHENG Yuen-chung



The "MyObservatory" won "Top 10 Healthy Mobile Phone/Tablet Apps" in 2011. The competition was organized by the Television and Entertainment Licensing Authority. The prize of "Top 10 Healthy Mobile Phone/Tablet Apps" was newly introduced in 2011. It aims to encourage the use of apps with healthy, practical and educational content with a view to promoting the "Healthy Information, Healthy Mind" culture.

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. The page view statistics of the "MyObservatory" soared to 1.9 billion in 2011, exceeding the figure for the entire Observatory's website in 2010.

◀ (From right to left) Dr Samson TAM Wai-ho, the Deputy Chairman of Panel on Information Technology and Broadcasting in the Legislative Council presented the trophy to Mr CHENG Yuen-chung, Acting Senior Scientific Officer and Scientific Officers Mr TONG Yu-fai and Mr CHOY Chun-wing.

# Hong Kong Observatory Open Day

Editorial Board



▲ Visitors listening to the briefing about the Observatory's work



▼ Volunteer helps photographed with the Director at the end of the Open Day



▲ Director of the Observatory, Mr SHUN Chi-ming (5th left) at the autographing session.



The Observatory organized an Open Day on 24 and 25 March to celebrate the World Meteorological Day which fell on 23 March. Through words, pictures and exhibits, the Observatory introduced various services including weather, climate, aviation meteorology, geophysical science and radiation monitoring to the public. State-of-the-art equipment was displayed. Game booths, guided eco-tour and photo backdrop for posing as a member of Weather Family were also set up for the public.

Apart from the Observatory staff, more than 60 members of "Friends of the Observatory" volunteered to man the Open Day and enjoyed a happy weekend with the visitors. The Open Day attracted more than 16,000 people, the highest in recent years. Many visitors said the Observatory staff was friendly and helpful, and that they had learned from the well-presented exhibits and interesting games.

## New-Products & New Services

# Enhancement of Weather Services with Adoption of Two Weather Icons

CHOY Chun-wing



With effect from 20 March, the Observatory displays two weather icons on its website when significant change in weather is expected within the forecast period. This enables members of the public to get hold of the weather changes more easily and clearly. For instance, when the weather is forecast to change from fine to overcast with rain, or rain is forecast to intensify with thunderstorms, we will display two weather icons on its website. If no significant weather change is expected, the webpage will still only display one weather icon.

Apart from the Observatory's website, the new feature is available on the mobile version of the website and the iPhone version of the "MyObservatory". The new feature will be made available on the Android version of the "MyObservatory" in its next upgrade.

◀ Display of two weather icons on the front page of the Observatory's website

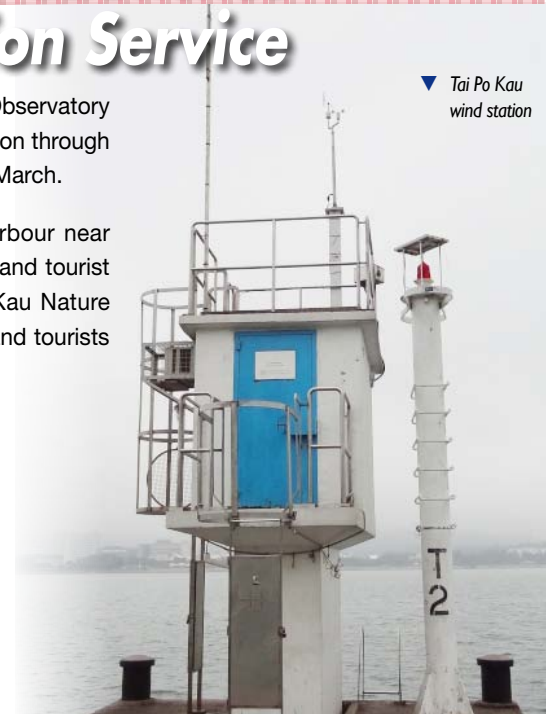
CHAN Ying-wah

# The Observatory Launches Tai Po Kau Wind Information Service

To further enhance the regional weather information service, the Observatory will provide real-time wind measurements from the Tai Po Kau wind station through the Observatory's website and Dial-a-Weather service starting from 27 March.

The Tai Po Kau wind station is located at a pier by the Tolo Harbour near the Tai Po town areas. There are many outdoor recreational hot spots and tourist attractions nearby, including Tolo Harbour cycling track and Tai Po Kau Nature Trail, etc. The wind information from Tai Po Kau will enable the public and tourists to better appreciate the latest weather conditions in the area.

▼ Tai Po Kau wind station



Members of the public can readily access the relevant wind information from the Observatory's "Regional Weather" webpage at [www.hko.gov.hk/wxinfo/ts/index\\_wind\\_e.htm](http://www.hko.gov.hk/wxinfo/ts/index_wind_e.htm), the mobile platform webpage at <http://m.weather.gov.hk/wxreport/region.htm>, the "Regional Weather" page from the smartphone application, "MyObservatory", or by calling the Observatory's Dial-a-Weather service at 187 8200.

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©The Government of the Hong Kong SAR Map reproduced with permission of the Director of Lands

## Observatory Launches

# "Weather Information for the Marine Community" Website (Beta Version)

WU Chung-wai

To enhance weather services for the mariners, the Observatory has launched the "Weather Information for the Marine Community" website for operational trial. The website centralizes information and weather forecasts which are of interest to the marine community including real time weather observations, marine and tropical cyclone forecasts, information on port meteorological services, the Observatory's quarterly e-Bulletin for the Marine Community and other useful links such as with the World Meteorological Organization, International Maritime Organization and Pacific Tsunami Warning Centre. Members of the marine community and the general public are welcome to visit [http://www.hko.gov.hk/wservice/tsheet/pms/mariners\\_e.htm](http://www.hko.gov.hk/wservice/tsheet/pms/mariners_e.htm).



# New Navigation Menu and Site Map for the Observatory's Website

CHAN Man-choi

With the launch of various new services and information, the website of the Observatory is being enriched progressively. To facilitate user to browse the website, the Observatory has re-organized the navigation bar on the left hand side of the main webpage as well as the site map. In the new navigation bar and the site map, webpages are re-categorized according to their content. The categories are simplified and categories of similar nature are put together. It aims to facilitate users in searching for information on the Observatory's website.

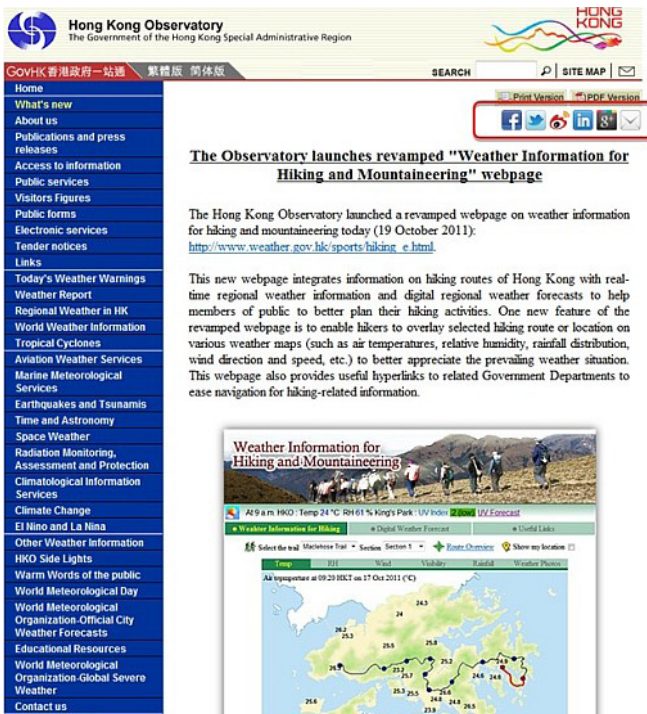
◀ New navigation menu (the red box on the left of the webpage) and hyperlink to Site Map (upper right hand corner)



## Share Articles and Information on the Observatory's Website

LO Chai-yuen

The Observatory's website has been enhanced to enable sharing of feature articles and information with social-networking websites or by email. To share a webpage, users simply need to click on the icon of social-networking websites and email near the top right corner of the webpage. This sharing feature now supports Facebook, Twitter, Sino Weibo, LinkedIn, Google+, and email.



▲ Click the icons inside the red box near the top right hand corner for sharing the webpage

## Digital Weather Forecast Service

LI Yuet-sim

More reference places available



▲ Users can check weather forecasts of regions where different golf courses are located

The Observatory has enhanced its digital weather forecast service by adding golf courses and water sports centres as the reference places. This will help the public obtain more easily the weather forecasts of their place of interest and better plan their activities in advance. Besides these two new categories, user can select places from other categories such as country park, peak, beach or tourist attraction. The Digital Weather Forecast webpage can be accessed at <http://www.hko.gov.hk/dfs/indexe.htm>.

# Severe Weather Information Centre Features Worldwide Fog Reports



LI Wai-ching

The World Meteorological Organization (WMO) Severe Weather Information Centre (SWIC), developed and operated by the Observatory, launched a new service to provide official fog observation reported from all over the world. The information will help users around the globe to be aware of areas with low visibility due to fog so as to take necessary precautionary measures against fog induced accidents.

Users can now gain access to fog information worldwide through the newly launched fog observation webpage (<http://severe.worldweather.wmo.int/fog>) on the SWIC.

▲ Location and visibility of fog report shown on the SWIC fog webpage

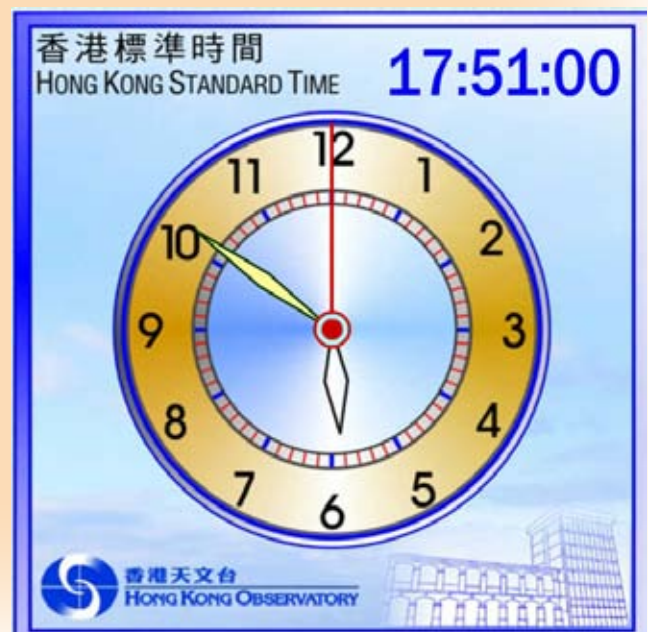
SWIC is a WMO website that integrates and enhances regional activities within an international framework to reduce loss of life and damage due to severe weather. The website (<http://severe.worldweather.wmo.int>) also provides official tropical cyclone information and observation data of severe weather, including heavy rain, thunderstorms and gales around the world.

# Hong Kong Observatory Launches IPv6 Network Time Service

WOO Wang-chun

On March 29, the Observatory launched the IPv6 network time service to meet the needs of the Internet industry in connection with the development of the next generation Internet Protocol. The service may be accessed through the Observatory's Network Time Protocol (NTP) servers at the network address: [time.hko.hk](http://time.hko.hk).

The Observatory has for decades been responsible for the provision of Hong Kong standard time. Following the rise of the Internet, the Observatory also provides the network time service and Internet clock services, i.e. Web Clock and Palm Clock, enabling members of the public to access the standard time kept by the Observatory's atomic clocks through the Internet. The services are available at [www.hko.gov.hk/gts/time/clocks\\_e.html](http://www.hko.gov.hk/gts/time/clocks_e.html).

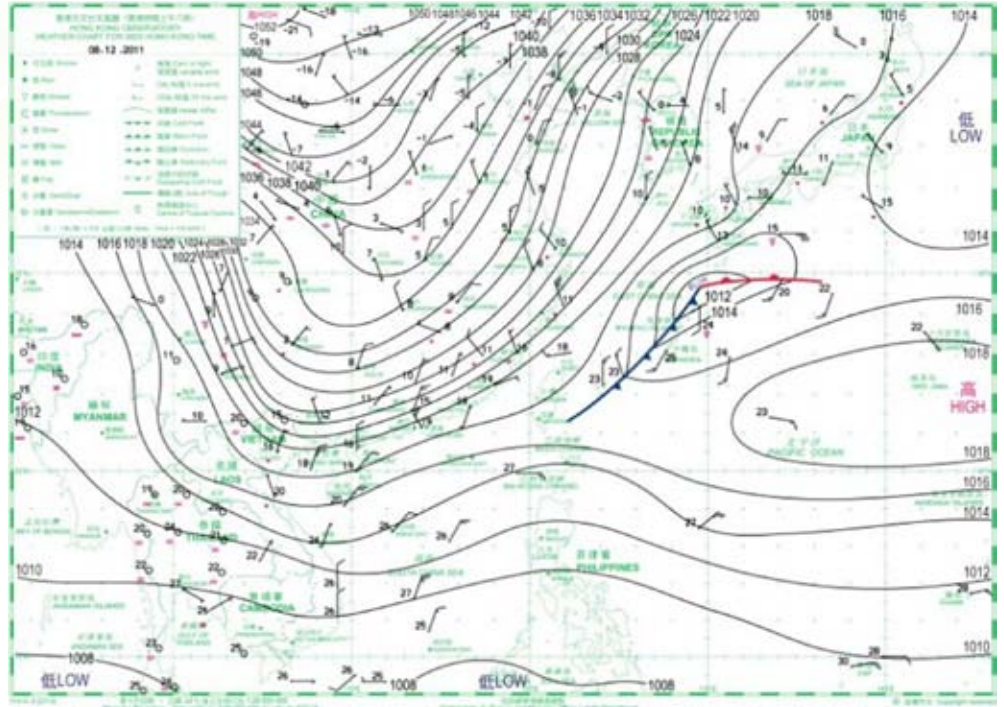


# The Observatory Launches Coloured Weather Charts

LUI Wing-hong, WAT Kam-shing

In January, the Observatory launched coloured weather charts to replace the previous monochromatic version. In the new weather charts, weather systems such as cold front, warm front, trough of low pressure, etc. are highlighted in colours for ease of reference.

Members of the public are welcome to visit <http://www.hko.gov.hk/wxinfo/currwx/wxcht.htm> for the coloured weather charts.



## Pamphlet on "Thematic Webpages for Outdoor Activities"

LI Yuet-sim

The Observatory has published a pamphlet on "Thematic Webpages for Outdoor Activities" to introduce the webpages developed by the Observatory specifically for outdoor activities as well as for other personalized and regional weather services. By making more use of the services provided by the Observatory, the public can better appreciate the likely change in weather in their area of interest and better prepare for their outdoor activities.

Please visit the Hong Kong Observatory Resource Centre to get a free copy of the pamphlet or visit [http://www.hko.gov.hk/publica/gen\\_pub/outdoor.pdf](http://www.hko.gov.hk/publica/gen_pub/outdoor.pdf) to browse the pamphlet.

# The Observatory Enhances the Service on Really Simple Syndication (RSS)

TONG Yu-fai

On 5 December 2011, the Observatory enhanced the service on Really Simple Syndication (RSS) with the following new channels:

- Detailed Weather Warning Information
- Quick Earthquake Messages
- Locally Felt Earth Tremor Report

RSS is a XML-based format widely used for publishing frequently updated information. After subscribing to RSS channels, users will be informed of the latest information regularly. Subscribe various channels on the Observatory's RSS website (<http://rss.weather.gov.hk/rsse.html>) now and receive the latest news about weather, earthquake, What's New, or HKO@YouTube.

► Observatory's RSS Website

**RSS Feeds of Weather Information**

You can now retrieve weather information in a fast and convenient way using the RSS technology.

Channel	URL	Subscribe
Weather Warning Summary	<a href="http://rss.weather.gov.hk/rss/WeatherWarningSummary2.xml">http://rss.weather.gov.hk/rss/WeatherWarningSummary2.xml</a>	Subscribe
Weather Warning Information	<a href="http://rss.weather.gov.hk/rss/WeatherWarningDetails.xml">http://rss.weather.gov.hk/rss/WeatherWarningDetails.xml</a>	Subscribe
Local Weather Forecast	<a href="http://rss.weather.gov.hk/rss/LocalWeatherForecast.xml">http://rss.weather.gov.hk/rss/LocalWeatherForecast.xml</a>	Subscribe
Current Weather Report	<a href="http://rss.weather.gov.hk/rss/CurrentWeather.xml">http://rss.weather.gov.hk/rss/CurrentWeather.xml</a>	Subscribe
7 day Weather Forecast	<a href="http://rss.weather.gov.hk/rss/SevenDaysWeatherForecast.xml">http://rss.weather.gov.hk/rss/SevenDaysWeatherForecast.xml</a>	Subscribe
Quick Earthquake Messages	<a href="http://rss.weather.gov.hk/rss/QuickEarthquakeMessage.xml">http://rss.weather.gov.hk/rss/QuickEarthquakeMessage.xml</a>	Subscribe
Locally Felt Earth Tremor Report	<a href="http://rss.weather.gov.hk/rss/FeltEarthquake.xml">http://rss.weather.gov.hk/rss/FeltEarthquake.xml</a>	Subscribe
What's New	<a href="http://rss.weather.gov.hk/rss/whatsnew.xml">http://rss.weather.gov.hk/rss/whatsnew.xml</a>	Subscribe
HKO@YouTube	<a href="http://gdata.youtube.com/feeds/base/users/HKOweatheruploads">http://gdata.youtube.com/feeds/base/users/HKOweatheruploads</a>	Subscribe

**What is an RSS feed?**

RSS usually stands for 'Really Simple Syndicator', which is a way of notifying you about content changes on websites. Subscribing to RSS feeds allows you to keep track of updates from multiple websites without having to go from one site to another.

**How can I subscribe to RSS feeds?**

Websites usually display one or more of the following icons to indicate that RSS feeds are available:

The most common ways to view RSS feeds are:

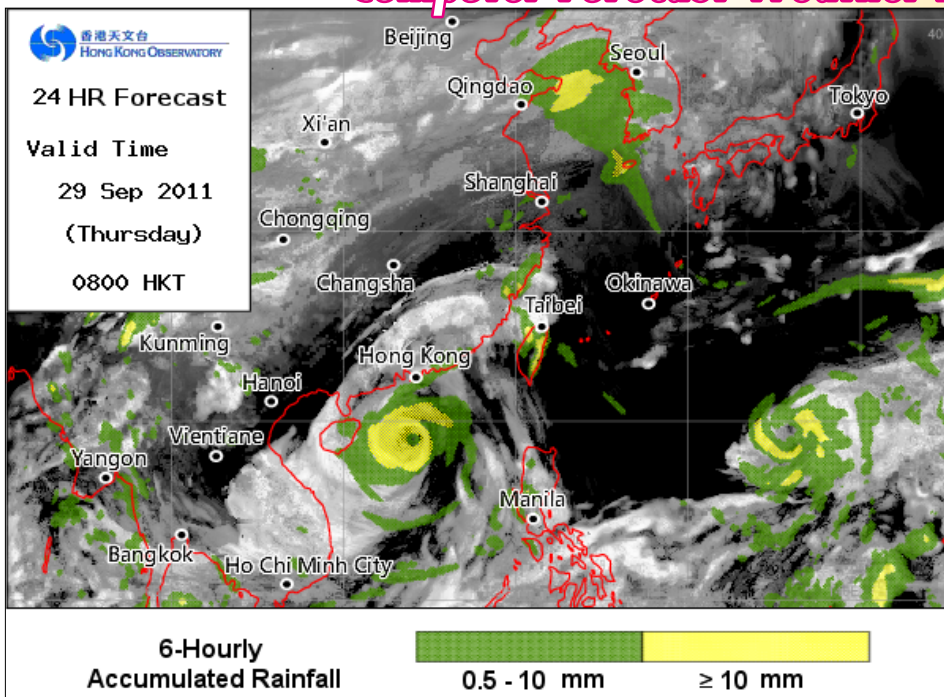
- Using an Internet browser equipped with an RSS subscription function. Most browsers can present the headlines of RSS feeds in the form of browser bookmarks.
- Using a dedicated RSS reader, which is a software developed to view feeds with more advanced functions.
- By integrating RSS feeds into your website or blog, which is becoming increasingly popular.

You can subscribe to an RSS feed in two simple steps:

1. Choose an RSS reader to view a feed, and
2. Indicate the RSS feed to which you would like to subscribe.

# Enhancements to Computer Forecast Weather Map

CHAN Sai-tick



▲ Forecast surface weather map

only indicates cloud and rain against selected cities. Latitude and longitude grid lines are now added to all forecast weather maps to aid the users easily identify the location of weather systems.

Members of the public are welcome to get access to the enhanced weather maps at <http://www.hko.gov.hk/nhm/nhme.htm>.



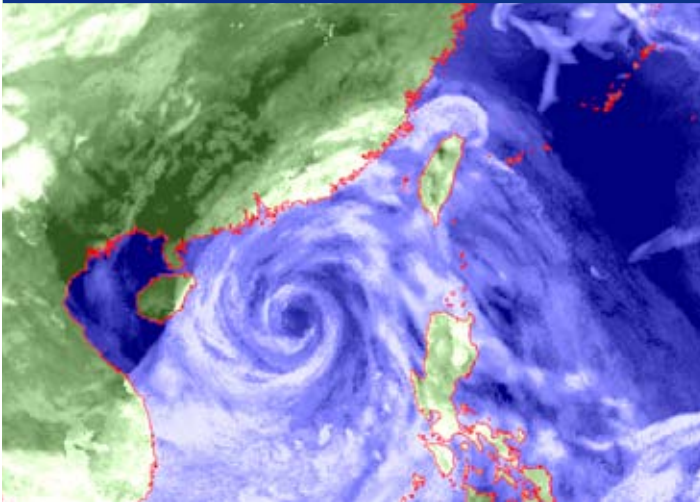


▲ Mr Li Luen-on (middle), Chief Experimental Officer, briefing participants on the new features of AMIDS.

A briefing for airlines and pilots on the Observatory's aviation weather services was conducted at the Dragonair House at Chek Lap Kok on 14 March. It was well received with about 60 representatives from the local aviation community. The participants were briefed on a number of topics, including the latest developments of windshear and turbulence alerting service, the forecast products on significant convection and tropical cyclones for the airport, and new features of the Aviation Meteorological Information Dissemination System (AMIDS) dedicated for aviation users. The briefing provided a valuable opportunity for experience sharing on the use of aviation weather service.

## Forecast Satellite Cloud Image from Numerical Weather Prediction Model

WONG Wai-kin



▲ 24-hour forecast of satellite cloud image from the model, showing that Typhoon Nesat affected the northern part of South China Sea (8 p.m. Hong Kong time on 28 September 2011)

mesoscale numerical weather prediction model. The new method fully considers the cloud formation at different heights using more detailed upper-air temperature forecasts from the model in order to produce more realistic and fine-scale distribution of simulated clouds. The new forecast cloud images have been incorporated in the "Computer Forecast Weather Map" (see the other article titled: "Enhancements to the Computer Forecast Weather Map"). Evolution of satellite cloud images from actual to 3-days ahead will also be displayed in the TV weather programme.

You may be familiar with the meteorological satellite images provided by the Observatory. In particular, the infra-red imagery can show the distribution of clouds day and night, where the brighter clouds indicate higher top that represent regions with more intense convection and precipitation. In the past only the actual satellite images are available; the Observatory has recently enhanced its service and provides the forecast cloud images. These forecast infra-red satellite images are developed by making use of the data from the



▲ Actual satellite cloud image

# Workshop on Aviation Community Weather Observation

HO Ka-leung, Paul

The Observatory organised a two and a half day workshop on aviation community weather observation for air scouts and air cadets this year for the first time. About 40 leaders and members attended the workshop. The content of the workshop included weather impacting aviation safety, cloud and visibility observation and reporting, as well as the sharing platform of weather reports for general aviation. The participants also practised weather observation at the Observatory's Headquarters and the Terminal Doppler Weather Radar station at Tai Lam Chung. In future, the participants are expected to continue practising weather observation after the workshop and to contribute real-time weather reports to the sharing platform for general aviation, which would be useful for flight planning by general aviators.



▲ The participants of the Workshop on Aviation Community Weather Observation taking a group photo with Miss LAU Sum-ye (4th right, front row), Assistant Director, and the instructors of the Observatory.

## “Changeable Clouds” Series of Public Educational Materials

LAM Ching-chi, Queenie

To promote weather learning and to raise public awareness of and preparedness for severe weather, the Observatory has launched a series of public educational materials about clouds and special weather phenomena. The materials are designed with the students and youngsters in mind. The photos in the first series, “Changeable Clouds”, were all taken by Observatory staff. Among them, weather observers in the Airport Meteorological Office contributed the most. The “Changeable Clouds” series contains jigsaw bookmarks and a box of four postcard sets which introduces the low, medium and high clouds according to the classification established by the World Meteorological Organization as well as special weather phenomena. To obtain these attractive educational souvenirs, do come and join the public educational activities organized by the Observatory!



▶ Front (top) and back (bottom) design of the “Changeable Clouds” jigsaw bookmarks

# International Training Course on Weather Radar



KONG Wai

◀ Mr Kong Wai (1st left, front row), Scientific Officer, photographed with the lecturers and participants of the International Training Course on Weather Radar.

Weather radar is indispensable for the detection of severe weathers such as rainstorms, and it is one of the most important equipment in the Central Forecasting Office. In order to support operational use and development, the Observatory will purchase new weather radars and update the existing weather radars in the next few years. I am pleased to attend the World Meteorological Organization's International Training Course on Weather Radar, which was held in Korea from 5 to 16 May, for gaining knowledge of establishing new weather radar station, weather radar observation and operation, development and application of weather radar products etc. This training course has consolidated my knowledge of radar meteorology and it will also be conducive to the radar development of the Observatory.



## Atmosphere & Environment

# Locally Felt Earth Tremor on 16 February

WOO Wang-chun

A locally felt earth tremor occurred at 2:34 a.m. on 16 February. The epicentre was located about 35 km northwest of Heyuan, Guangdong. The magnitude of the earthquake was 4.8. The intensity in Hong Kong was III(3) on the Modified Mercalli Intensity Scale.

The Observatory received a total of 71 felt reports from the public. Most reported having felt minor shaking, matching the description of an Intensity III(3) tremor. Out of the five real-time accelerometers of the Observatory at various places in Hong Kong, the one at Yuen Ng Fan Seismological Station recorded the highest Peak Ground Acceleration (PGA). The single-component PGA was recorded to be 4.6 mg (1 mg is one-thousandth of the gravity on the Earth's surface).

▶ Epicentre of the Locally Felt Earth Tremor on 16 February



# The Observatory Promotes

# Educational Science Articles via Weibo and Twitter

TONG Yu-fai

To promote a better understanding of weather and the services of the department among members of the public, the Observatory makes available educational science articles on the Weibo and Twitter websites regularly. These articles cover various interesting topics on weather phenomena and services provided by the Observatory including geophysics at services, etc.

The public is welcome to follow the Observatory on the Weibo and Twitter websites:

### HKO Weibo account:

<http://t.sina.com.cn/observatoryhk>

### HKO Twitter account:

<http://twitter.com/observatoryhk>

► Promoting popular science articles in the Observatory's Weibo webpage



## The Observatory Launches the Climatological Normals for 1981-2010

LEE Kin-wai



The 30-year climatological normals of meteorological elements measured at the Observatory's Headquarters and other key meteorological stations in Hong Kong have been updated based on the data for the period between 1981 and 2010 to serve as a benchmark against which meteorological observations and climate change can be compared. Members of the public can access information of the climatological normals for 1981-2010 at the Observatory's "Climatological Information Webpage" ([http://www.hko.gov.hk/cis/normal\\_e.htm](http://www.hko.gov.hk/cis/normal_e.htm)) starting 3 January. Information of the normals for 1961-1990 and 1971-2000 are also available at the same webpage for reference.

# Climate Change FAQ

TONG Hang-wai

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

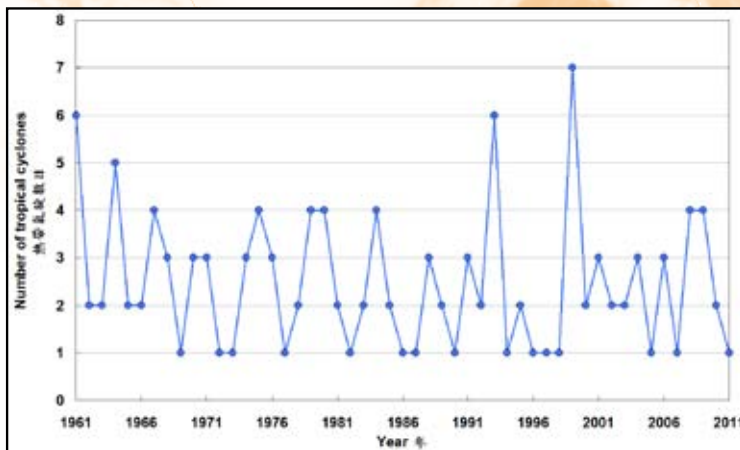
**Q:** Under the influence of global warming, are tropical cyclone activities changing?

**A:** Tropical cyclone is one of the most destructive weather systems on Earth. The possible change in tropical cyclone activity in a changing climate is a matter of great concern to the public and decision makers.

According to a study conducted by an expert team of the World Meteorological Organization, it remains uncertain whether the changes in tropical cyclone activities based on the records of different basins in the last century or so, have exceeded the natural variability. This is because the trend detection is complicated by the large fluctuations in the frequency and intensity of tropical cyclones and the limitations in the availability and quality of global historical records. Looking into the future, theory and climate model simulations suggested that, if 21st century warming occurs as projected, the global frequency of

tropical cyclones is expected to either decrease or remain unchanged. There will be some increase in the mean maximum wind speed of the tropical cyclones, although increases may not occur in all regions. The rainfall rates associated with tropical cyclones are likely to increase too.

In western North Pacific and the South China Sea (0-45°N, 100-180°E), analysis of the observational data shows that the annual number of tropical cyclones decreases from about 35 in the 1960s to about 27 after 2000. Locally, the annual number of tropical cyclones landing within 300 km of Hong Kong has decreased from about 3 in the 1960s to about 2.5 in the 2000s, but the trend is not statistically significant.



▲ Annual number of tropical cyclones landing within 300 km of Hong Kong (1961-2011)



## Space Weather Q & A's

LAM Hok-yin, CHIU Hung-yu

**Q:** What is space weather?

**A:** Space weather originates from the Sun. It generally refers to all solar activities such as sunspots and solar flares, and the effects they may have on the Earth. The intensity varies from time to time, sometimes strong and sometimes weak. "Good weather" means a calm period of solar activities, while "bad weather" is a period of frequent and disturbed activities which may affect telecommunications, navigation and power systems on Earth and the operations of satellites or spacecraft.

**Q:** Does solar activity have periodicity?

**A:** Solar activity is periodic. A solar cycle is an approximately 11-year period with increasing and decreasing sunspot numbers. Each cycle starts from the time of minimum activity. The cycle numbering system dates back to the eighteenth century and the current solar cycle is Cycle 24 which is expected to peak at 2013.



▲ The chart shows the sunspot numbers as the solar cycle progresses (Image source: Courtesy of NOAA, <http://www.swpc.noaa.gov/SolarCycle/>)

# Positive Results of Public Opinion Survey

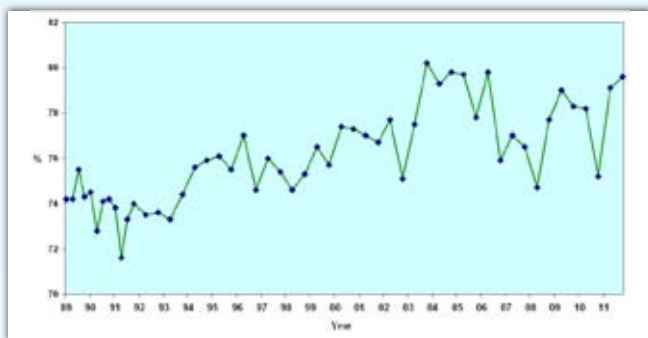
Editorial Board

Members of the public gave higher marks on the Observatory's forecasts relative to the past several years in the latest public opinion survey conducted by an independent consultant in October 2011. 79.6% of the weather forecasts issued by the Observatory were considered accurate by the public (Figure 1). This accuracy level is the highest since 2006.

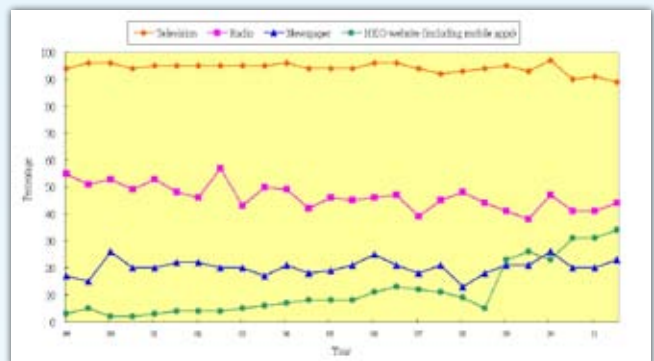
Moreover, 84.3% of the respondents perceived the weather forecasts over the past several months to be accurate, the highest since 2003. Around 90% of the respondents

considered that the four aspects of forecast (temperature, state of sky, rainstorm and tropical cyclone) are accurate or somewhat accurate, significantly higher than previous years.

The survey results also reveal that, while television and radio remain respectively the top two popular channels to access weather information by the public, the Observatory's website including smartphone apps has surpassed newspaper to become the third most popular channel (Figure 2).



▲ Figure 1: Percentage of forecasts issued by the Hong Kong Observatory perceived to be accurate by the public



▲ Figure 2: Percentage of respondents using various channels to access weather information

## New Contributing Members for the SWidget Service of the Severe Weather Information Centre

CHENG Yuen-chung

The Severe Weather Information Center (SWIC) of the World Meteorological Organization (WMO) has been enhanced with the provision of severe weather warnings from two additional weather services via the SWidget service. The two new contributing weather services are the China Meteorological Administration of China and Malaysian Meteorological Department of Malaysia. Launched in 2010, SWidget is a software tools developed by the Observatory on behalf of WMO to display weather warnings in different regions automatically on personal computers. SWidget service now provides near real-time weather warnings from seven contributing weather services in Hong Kong, Macao, Guam USA, Republic of Korea, Singapore, Malaysia, and Guangdong province of China.

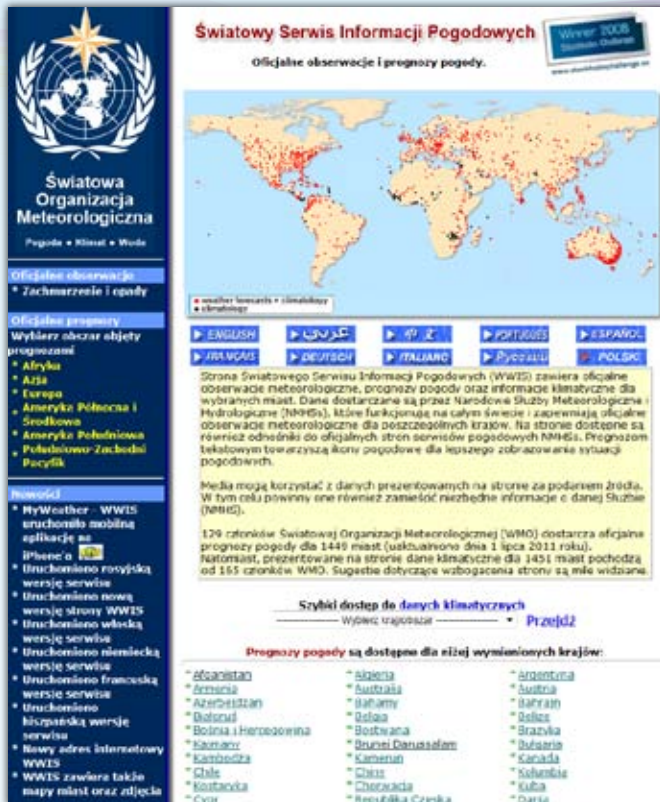
Users can download the SWidget software from the SWIC website at <http://severe.worldweather.org/swidget/swidget.html>.



◀ Sample dialogue boxes showing Thunderstorm Warning and Strong Wind - Rough Sea Warning (above) from Malaysia; Cold Weather Warning Signal and Fog Warning Signal (below) from Guangzhou, China (English version only)

# Launch of Polish-language Version of World Weather Information Service Website

CHENG Yuen-chung, LI Wai-ching



The Observatory and the Institute of Meteorology and Water Management - National Research Institute (IMGW-PIB) of the Republic of Poland launched the Polish-language version of the World Weather Information Service (WWIS) website (<http://worldweather.wmo.int/pl>) of the World Meteorological Organisation (WMO) on 13 December 2011. With the launch of the Polish version, the WWIS now serves the international public in ten languages: Arabic, Chinese, English, French, German, Italian, Polish, Portuguese, Russian, and Spanish. At present, 131 WMO members supply official weather forecasts for more than 1,600 cities to the WWIS. The cumulative total number of page visits to the WWIS has exceeded the one billion mark since its launch in 2000.

Members of the public can access the WWIS website through this link: <http://worldweather.wmo.int>, and can go to the Polish version by clicking the "Polski" icon.

◀ Polish Version of the WWIS Website

# Director Visiting the Senior Citizen Home Safety Association

LEE Tsz-cheung



The Director led a delegation to visit the Senior Citizen Safety Association (SCHSA) on 2 March. During the visit, the two organizations shared their experience in using weather information in the provision of caring services for the senior citizens in Hong Kong and also exchanged views on future cooperation to better serve senior citizens and those in need.

Over the years, the Observatory has been cooperating closely with the SCHSA in matters related to weather information service, research and education for the safety of senior citizens. The visit further deepened the mutual understanding and tie between the Observatory and SCHSA.

◀ The Director (middle) presenting the book "Weathering the Storm" to Ms Irene LEUNG, Chief Executive Officer of SCHSA (left) and Mr Timothy MA, ex-Chief Executive Officer of SCHSA (right).

# Observatory Engaged in Typhoon Committee

Editorial Board

The Director was elected Vice-chairperson of the 44th Session of the United Nations ESCAP / World Meteorological Organization (WMO) Typhoon Committee held at Hangzhou from 6 to 11 February. Ms JIAO Mei-yan, Deputy Administrator of the China Meteorological Administration (CMA), host of the Session, was elected the Chairperson. Supported by CMA, Mr SHUN chaired the meetings for most of the agenda items of the Session and introduced a number of changes to increase the efficiency and effectiveness in conducting the meetings. The Session also agreed to take forward a number of proposals made by CMA and the Observatory to study further improvements of the future governance and operations of the Committee.

More than 100 meteorological, hydrological and disaster reduction experts from 11 countries and territories in the Asia/Pacific area attended the Session to review the work progress of the Committee and discuss the planning and implementation of measures required for minimizing the loss of life and damages caused by tropical cyclones. The Observatory contributed in providing expert support to the Committee, including Mr LAI Sautak, acting Assistant Director, chairing its Training and Research



▲ The Director (2nd right) chairing a meeting at the 44th Session of the Typhoon Committee

Coordination Group, and Dr LEE Tsz-cheung, Senior Scientific Officer, serving as a key member in the assessment of the impact of climate change on tropical cyclones in the region.

The ESCAP/WMO Typhoon Committee is one of the five regional bodies of the WMO to coordinate matters relating to the operations of tropical cyclone warnings, including the sharing of responsibilities for the warning services, infrastructures, and new technological and scientific developments. Currently, it is composed of 14 Members in the Asia/Pacific region including Hong Kong.

## Strengthening Cooperation between Meteorological Authorities of Guangdong, Hong Kong and Macao

LEE Lap-shun



▲ The Director (1st left) addressing the Guangdong - Hong Kong - Macao Meteorological Cooperation Meeting

On 17 January, the Director led a delegation of 8 people to attend the 17th Guangdong - Hong Kong - Macao Meteorological Cooperation Meeting in Macao with representatives of the Guangdong Meteorological Bureau and the Macao Meteorological and Geophysical Bureau. The meeting reviewed the work of the three parties in the past year. It also set the direction of cooperation in the coming year on numerous areas of development, including weather monitoring, weather forecasting techniques, numerical weather prediction modeling technique, climate forecast and data sharing, etc. It aims to foster further cooperation and promote continuous enhancement in weather services of the region. The cooperation meeting was followed by the 26th Guangdong - Hong Kong - Macao Seminar on Meteorological Science and Technology, in which experts from the three parties reviewed the significant weather events in the past year, discussed and shared the latest results of scientific research.



## Observatory Sharing Experience on Public Weather Services with Meteorologists in Eastern Africa

TONG Yu-fai

At the invitation of the World Meteorological Organization (WMO), Mr TONG Yu-fai, Scientific Officer, delivered lectures on public weather services at the Eastern Africa Regional Training Workshop on Severe Weather Forecasting and Warning held in Tanzania between 28 November and 2 December 2011.

The Workshop was organized by WMO for meteorologists of eastern Africa, with an aim to enhance the participants' capacity in severe weather forecasting and warning service delivery to the general public and key clients such as those in the agriculture and fisheries sectors.



▲ Mr TONG shared the experience of Hong Kong with participants during the workshop

In recent years, Observatory staff have often been invited by WMO to deliver lectures on public weather services, reflecting international recognition of the Observatory's expertise in this area.

## Primary School Meteorology Painting Competition Award Presentation Ceremony

LI Ping-wah

An Award Presentation Ceremony for the Primary School Meteorology Painting Competition organized by the Hong Kong Meteorological Society (HKMetSoc), co-organized by the Hong Kong Observatory (HKO) and the Hong Kong Society For Education In Art (HKSEA) was held at the HKO Headquarters on 24 March. The awards were presented by Mr SHUN Chi-ming, the Chairman of the HKMetSoc, also the Director of the HKO, and Ms LEUNG Chi-fun, the Executive Committee Member of the HKSEA. The theme of this competition was "My life under the typhoon signal". The artworks submitted were not only colourful, but also expressing the children's spontaneous feeling about tropical cyclones and their unlimited creativity and imagination which received great appreciation by the adjudicators. The winning paintings can be assessed via the HKMetSoc website at [www.meteorology.org.hk/painting.html](http://www.meteorology.org.hk/painting.html).



▲ The winners photographed with Ms LEUNG Chi-fun (1st left, back row), the Director (2nd left, back row) and adjudicator, Mrs NG CHAN Kam-chu (1st right, back row), during the award presentation ceremony.



▲ A few winning paintings

# Visits • Courses • Talks • Meetings

16 December 2011 and 25 April 2012

Mutual visiting between the Observatory and the Agriculture, Fisheries and Conservation Department (AFCD)

16 December 2011



Mr CHING Tin-shing, Fire Protection Officer of AFCD briefing Observatory staff on the operation procedures of their Fire Control Centre.



25 April 2012

AFCD colleagues visited the Observatory to understand the operations of weather forecast and warning systems.

19 December 2011



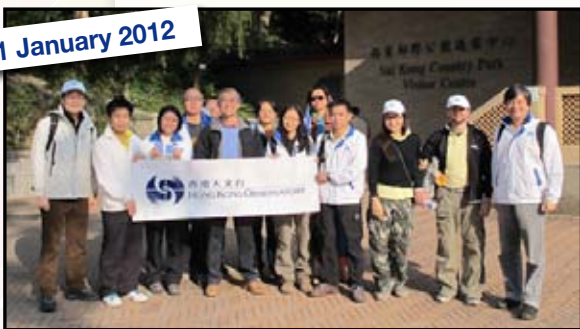
A group of 14 members from Ho Koon Nature Education cum Astronomical Centre visited the Airport Meteorological Office.

22 December 2011



Mr YU Kin-keung, Edward (2nd right), Principal Assistant Secretary (Commerce & Industry) 4, Commerce and Economic Development Bureau visited the Observatory.

1 January 2012



A hiking team composed of Observatory staff and volunteer helpers of the Friends of the Observatory, led by Mr SHUN Chi-ming (4th left, front row), the Director, participated in the 20th Cheung Sheung Hiking Festival.

9 to 12 January 2012



A delegation of 6 members from Southwest Regional Air Traffic Management Bureau, Civil Aviation Administration of China, led by Ms WU Juan (right), Deputy Director of its Meteorology Division, visited the Airport Meteorological Office.

24 to 25 February 2012 and 9 to 10 March 2012



The Observatory organized a workshop on aviation community weather observation for around 40 air scouts and air cadets. Participants went in groups to the platform of the antenna tower of the Terminal Doppler Weather Radar station at Tai Lam Chung to practice weather observation under the guidance of an experienced aviation weather observer.

27 to 29 February 2012



At the invitation of the National Meteorological Center of the China Meteorological Administration, Mr CHAN Sai-tick, Senior Scientific Officer, conducted a training workshop in Beijing. The theme of the workshop was on the technique to estimate the tropical cyclone intensity based on images captured by geostationary meteorological satellites.

28 February 2012



In order to better prepare colleagues involved in the "Daya Bay Contingency Plan", the Observatory once again organized the "Radiological Protection Officers' Course" which included lectures on radiological monitoring and protection basics and a syndicate exercise.

4 March 2012



The Observatory supported "I watch clouds" photography Competition which was organized by the Meteorology Team of Scout Association of Hong Kong, and the awards ceremony was held at the Observatory's Headquarters.

15 March 2012



Mr HUANG Jian-tao (2nd right), Director of the Earthquake Administration of Guangdong Province, led a delegation of 4 members to visit the Observatory.

17 March 2012



Mr TONG Hang-wai (standing), Scientific Officer, introducing a variety of weather phenomena affecting outdoor activities in a public lecture, and helping the participants make better use of the Observatory on-line information for preparing outdoor activities.

21 to 23 March 2012



Arranged through the World Meteorological Organization (WMO), Mr LEE Lap-shun (2nd left, front row), Senior Scientific Officer, gave lectures to 17 World Bank Staff in a workshop held in Shanghai on the weather warning system in Hong Kong and the recent activities of WMO in disaster risk reduction and public weather services.

22 March 2012



Dr FONG Soi-kun (2nd right), Director of the Macao Meteorological and Geophysical Bureau, led a delegation of 3 members to visit the Observatory, to understand the Observatory's environmental radiation monitoring programme.

27 March 2012



Ms SUN Chihua (3rd left), Deputy Director General, and Mr WANG Shu (3rd right), from Department of Climate Change, National Development and Reform Commission of China, visited the Observatory to understand our latest developments.

27 to 29 March 2012



The 4th Meeting of the Working Group on Aviation Meteorology in Pearl River Delta was held at the Observatory.

27 to 30 March 2012



Mr YEUNG Hon-yin (1st left), Scientific Officer, lectured in a training course organized by the Asia-Pacific Economic Cooperation (APEC) in Philippines. There were 55 trainees coming from different operational and research sectors of the APEC member economies in the Asia-Pacific region. Mr YEUNG spoke on the key elements of a rainstorm and related warning systems. He also shared the experience in the development of the Observatory's rainfall nowcasting system and its importance in supporting warning operations.

3 to 5 April 2012



A group of 7 delegates from Korea Meteorological Administration, led by Mr CHO Seok-joon (2nd right), the Administrator, visited the Observatory Headquarters as well as the Airport Meteorological Office.

14 April 2012



Mr LAU Dick-shum (standing), Experimental Officer, delivered a public talk on "Tsunami Warning System", introducing the Pacific tsunami warning and mitigation system, and the tsunami warning system in Hong Kong for better response to tsunami by the public.

21 April 2012



"Friends of the Observatory" visited King's Park meteorological station.



## Staff Promotion:

### Miss WONG Man-ting and Mr LAU Chi-yung



▲ Miss WONG Man-ting (left) was promoted to Clerical Officer on 15 February.



▲ Mr LAU Chi-yung (right) was promoted to Senior Scientific Assistant on 16 March, serving the post of observer at the Airport Meteorological Office.

## Staff Retirement: Mr GINN Wing-lui

▶ Mr GINN Wing-lui (3rd right), Senior Scientific Officer, started his pre-retirement leave on 17 February.



## Best TV Weather Programme Presenters 1st Quarter, 2012

Ms SONG Man-kuen, Sandy

# 4th Meteorology Training Course for Aviation Forecasters



▲ 4 Experimental Officers (left to right), Mr TANG Shu-yan, Mr KWAN Kam-lun, Mr WONG Chau-ping and Mr CHOW Chi-kin successfully completed the training course on the latest techniques in aviation weather forecasting with attachment to the Airport Meteorological Office.

## Colleagues Receiving Praises

Colleagues who received words of thanks and commendation from the public or organizations during January to April 2012:

Ms LAM Ching-chi (Senior Scientific Officer)

Mr CHOY Boon-leung (Scientific Officer)

Mr HUI Tai-wai, David (Scientific Officer)

Mr LAM Hok-yin (Scientific Officer)

Mr LEE Kwok-lun (Scientific Officer)

Mr SHAM Fu-cheung (Chief Experimental Officer)

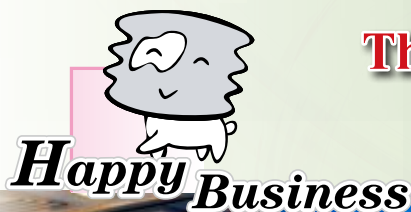
Mr CHOW Chi-kin (Experimental Officer)

Miss CHAN Man-ye, Eliza (Experimental Officer)

Ms YEUNG Pui-yi (Senior Scientific Assistant)

Mr NG Pui-man (Scientific Assistant)

Mr CHIU Chi-man (Photographer II)



## The Observatory Website Won the **2011 Top 10 ".hk" Website and Awarded Gold Prize for Corporate Group**

CHENG Yuen-chung

The Observatory's website won the 2011 top 10 ".hk" website and was awarded the gold prize for corporate group (with 100 or more employees). This is the second time that the observatory website has won in the top 10 ".hk" website competition after the bronze prize in 2010.

The Observatory's website is designed with the user in mind, providing one-stop webpages specialized for different user communities including school, senior citizen, fisherman and outdoor sports, etc. The visitor statistics of the website in 2011 reaches 6.2 billion, which is 3.4 times that of 2010.

◀ (From left to right) Dr Billy MAK, Associate Professor of the Department of Finance & Decision Sciences of the Hong Kong Baptist University, presented the gold prize for corporate group to Dr CHENG Cho-ming, Assistant Director, and Mr CHENG Yuen-chung, Acting Senior Scientific Officer.

# Community Weather Information Network Won Best Practice Award on e-Education 2011

The Community Weather Information Network (Co-WIN) was honored with the Most Popular Award (Open Stream) in the Best Practice Award on e-Education 2011 initiative supported by the Education Bureau.

CHAN Siu-wai

Co-WIN has developed an Online Educational Resources Platform ([http://weather2.ap.polyu.edu.hk/cowinwiki/index.php/Main\\_Page](http://weather2.ap.polyu.edu.hk/cowinwiki/index.php/Main_Page)) which enables experience sharing among teachers and students. Contents include basic knowledge on the theme "Weather and the Environment" prepared by the Observatory, training manuals and lecture notes on weather related topics prepared by teachers and the Polytechnic University. Recently, Co-WIN has launched the Community Weather Observing Scheme (CWOS) to provide an opportunity for community members to broaden their knowledge of weather and climate through first-hand experience in carrying out weather observations.

For schools and organizations interested in joining Co-WIN, please visit <http://weather.ap.polyu.edu.hk/index.php> for details.



▲ Mr Edwin LAI (centred), Acting Assistant Director, and the Co-WIN team photographed with Mr Kenneth CHEN (3rd left), Under Secretary for Education, and Mr Gary YEUNG (3rd right), the Founding Chairman of the Executive Committee of e-Education Alliance, after the ceremony.

## Visit to the Yuen Yuen Home for the Elderly

CHOW Chi-kin

The HKO volunteer team organized a visit to the Yuen Yuen Home and Service Centre for the Elderly at Shun Lee Estate after the Chinese New Year to celebrate the festival with the elderly. In the afternoon on 11 February, we visited the Centre with lots of interesting programme to share with the elderly, including singing, "Kung-Fu" show, dancing, introducing weather warnings, and playing quiz with prizes. The atmosphere came to a new high when the "Fortune God (Choi Sun)" appeared to give gifts and blessings to the elderly. All were eager to shake hands and take photos with this special guest. The room was full of laughter and love. Everyone enjoyed the afternoon very much.



## Staff Association Talk – 'Trail Walk in the Countryside'

CHAN Siu-wai

The Observatory Staff Association had the honour to invite Mr CHOW Kwok-keung, Chairman of the Hong Kong Hiking Association, China, to give a talk on 'Trail walk in the countryside' in early March. Mr CHOW delivered in layman's term the basic knowledge of trail walk and related safety issues. He also introduced the trail walk at Sha Tau Kok which has become increasingly popular recently. After the talk, colleagues took this opportunity to exchange with Mr CHOW and members of his association their travel stories in the aromas of coffee and tea. All participants had enjoyed a relaxing evening.



▲ The Director (right) pictured with Mr CHOW Kwok-keung, Chairman of the Hong Kong Hiking Association, China.

## Mailing Address

Staff Association

### Staff Association's "Four Seasons" Photo Contest

A seasonal photo contest with the theme "Four Seasons" was organized by the Staff Association in the last autumn and winter. The contest provided a platform for our colleagues to share their joys of photography and learn from each another the experience and skills of photography. Mr SHUN Chi-ming, the Director, Mr MAK Yan, senior photographer, Mr CHAN Ping-chung, Salon Chairman of the Photographic Society of Hong Kong, and Mr CHAN Siu-tung, Competition Chairman of the Photographic Society of Hong Kong, were invited as the judges of the photo contest.



▲ Winning work of the champion for autumn, Mr HO Man-wai.



▲ Winning work of the champion for winter, Mr KONG Wai.

## Caring Organization Scheme 2011/12

CHAN Wing-shan

The Observatory has been awarded the "Caring Organization" again under the "Caring Organization Scheme 2011/12". This is the seventh consecutive year that the Observatory has received the award. The "Caring Organization Scheme" is organized by the Hong Kong Council of Social Service, which aims to build a cohesive society by inspiring organization social responsibility through caring for the community, caring for the employees and caring for the environment. The Observatory is awarded the "Caring Organization" in recognition of its achievements in supporting and assisting the employee volunteering through the HKO Volunteers; encouraging donation in any format to social service bodies; providing safe and healthy working environment to employees; nurturing a family-friendly environment for employees through a series of family-oriented policies and activities, and promoting awareness in environmental protection and actively participating in related initiatives.