



Celebration of the 80th Anniversary of Aviation Weather Services in Hong Kong

Electronic Flight Bag app: "MyFlightWx" launched

Cheung Ping

In 1937, the Hong Kong Observatory deployed a forecaster and an assistant to work at Kai Tak Airport, where aviation weather services were officially launched. As 2017 marked the 80th anniversary of Hong Kong Aviation Weather Services, the Hong Kong Observatory held a celebration event on 14 December 2017, and announced the launch of the electronic flight bag application "MyFlightWx". The Director of the Hong Kong Observatory, Mr Shun Chi-ming; Deputy Secretary for Commerce and Economic Development (Commerce and Industry), Mr Gary Poon; and partners from the aviation industry officiated at the launching ceremony.

The new "MyFlightWx" app replaces traditional paper-based meteorological flight documentation. Based on the flight plan corresponding to the flight number, the app will automatically download relevant weather information, including images and weather charts. On aircraft equipped with Wi-Fi, flight crew can download data updates during a flight and keep abreast of the latest weather conditions. Cathay Pacific is the first airline to use the app, and has provided valuable comments during its design and testing.



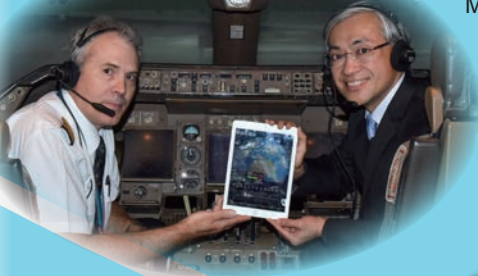
From left: President of the Hong Kong Aviation Club, Mr Edmond Chan; Executive Director of Airport Operations of the Airport Authority Hong Kong, Mr Ng Chi-kee; General Manager Operations of Cathay Pacific Airways, Mr Mark Hoey; Deputy Secretary for Commerce and Economic Development (Commerce and Industry), Mr Gary Poon; Director of the Hong Kong Observatory, Mr Shun Chi-ming; Deputy Director-General of Civil Aviation, Ms Linda So; and Chief Pilot (Operations) of the Government Flying Services, Mr West Wu, officiated at the launching ceremony of "MyFlightWx".

Mr Shun Chi-ming said, "MyFlightWx is the world's first electronic flight bag weather app developed by an official meteorological authority. Its launch represents a major milestone, and marks the first time that aeronautical meteorological information – including imagery – can be transmitted directly to aircraft in flight."

As air traffic becomes busier in future, the weather will have a greater impact on air traffic. The Hong Kong Observatory will continue collaborating with local, regional and international aviation users in various ways, contributing to safer and more efficient air transport.



Hong Kong Aviation Weather Services 80th Anniversary video



General Manager Operations of Cathay Pacific Airways, Mr Mark Hoey (left), and Director of the Hong Kong Observatory, Mr Shun Chi-ming, demonstrate the use of "MyFlightWx" in a Flight Simulator.

The Hong Kong Observatory held a gala dinner in the evening, inviting new and old colleagues from the Hong Kong Observatory and aviation services partners to come together to celebrate the 80th anniversary of Hong Kong Aviation Weather Services.





New generation of Community Weather Information Network Co-WIN 2.0 microclimate *launched*

Tam Kwong-hung



Results of a microclimate study conducted in Kowloon Peninsula: under the influence of easterly winds, the temperatures over the eastern part of Kowloon Peninsula are generally lower, while the temperatures over the central and western parts are somewhat higher.

Co-WIN 2.0 microclimate station made its debut on 4 November 2017, at the Zero Carbon Building (ZCB) in Kowloon Bay. Co-WIN 2.0 sensors were installed at different locations of ZCB in a demonstration of how a network of a prototype microclimate stations could provide information on air temperature, relative humidity, wind direction, wind speed, atmospheric pressure, UV Index and more.

New technologies have been adopted for the equipment, including an open-source microcontroller as well as microsensors for measuring wind, temperature, relative humidity and other weather elements. Some of the components, such as temperature shields, were fabricated with 3D printing technology. The new technologies help to reduce the size, power consumption and cost of the microclimate station, making it more suitable for operation within the city environment. The microclimate station can be mounted on a drone as well, so that measurement can also be taken aloft to provide three-dimensional data for urban microclimate monitoring.

In early 2017, the Observatory set up 33 button-sized microsensors for measuring temperatures in parks, green belts, waterfront, kerbsides and hills on the Kowloon Peninsula, to observe the urban microclimate in Hong Kong. The preliminary findings showed that local topography, building orientation and winds at the Victoria Harbour all had an influence on the temperatures in urban areas. The Observatory hopes that the technologies under study will contribute to future urban planning.

Different set-up of Co-WIN 2.0 microclimate stations



Microclimate sensors on a bollard



Microclimate sensors on a lamp pole



Microclimate sensors on a drone



DIRECTOR AND MEDIA AT LUNCHEON

Editorial Board

On 7 December 2017, Director of the Hong Kong Observatory, Mr Shun Chi-ming, had lunch with media representatives with around 30 reporters joining the event. During the luncheon, Mr Shun remarked that if Super Typhoon Hato had come 20 to 30 kilometres closer to Hong Kong, more severe local sea water flooding and damages due to storm surge would have occurred. In addition, under the influence of global warming, the average temperature in Hong Kong has hit record highs in recent years. A record-breaking high temperature of 36.6 degrees Celsius was recorded on 22 August 2017, the day before Hato hit Hong Kong.



New TV weather presenters making their debut



Milestones



The Observatory has been providing TV weather services since 1987; and a Weather On-Air team was set up in 2013 to provide all television stations with internally-produced free TV weather programmes (including Cool Met Stuff).

The programmes were immensely popular, and in the Civil Service Outstanding Service Award Scheme 2017, the team was awarded the bronze prize of the Specialised Service Award. Recently, newly trained weather presenters joined the team and worked together to present the changing weather scenarios to the audience.



Lee Fung-ying



Mr Choy Chun-wing



Mr Yeung Wai-lung



Dr Ho Chun-kit



Ms Leung Yan-yu, Christy



Dr Chong Sze-ning



Mr Chan Yan-chun



Cooperation

香港天文台
HONG KONG OBSERVATORY

長者安居協會
SENIOR CITIZEN HOME SAFETY ASSOCIATION

Close Cooperation

Choy Chun-wing

The Observatory has been collaborating with the Senior Citizen Home Safety Association (SCHSA) over the years to enhance elderly care services through the provision of weather information. The partnership between the Observatory and the SCHSA is showcased in the "Climate Services for Health – Case Studies" recently published by the World Health Organization and the World Meteorological Organization.

This year, the Observatory and SCHSA will jointly organize the "Sky of Silver Age II" Weather Photo Competition. A new category of time lapse video will be introduced in the competition. Please visit the SCHSA's website for more details.



At a joint press conference on 15 December 2017, Assistant Director of the Hong Kong Observatory, Dr Cheng Cho-ming (left), and Chief Executive Officer of SCHSA, Ms Irene Leung, urged the public to be mindful of the weather changes and take care of the elderly proactively.



Daya Bay Contingency Plan Inter-departmental Exercise

Leung Wai-hung



Mr Tsui Kit-chi, Assistant Director of the Hong Kong Observatory (first from right), together with colleagues, participated in the Daya Bay Contingency Plan exercise.

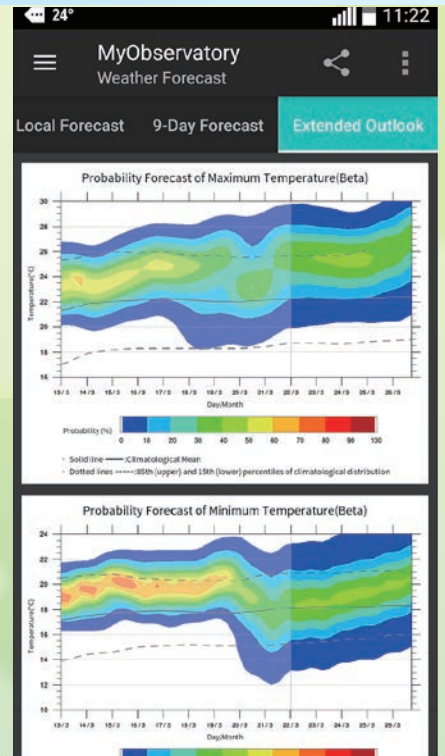
An inter-departmental exercise for the Daya Bay Contingency Plan (DBCP) codenamed "Checkerboard II" was conducted from 20 to 21 December 2017. The Observatory deployed a survey vehicle to measure ambient radiation and collect samples. The Aerial Radiation Monitoring System was deployed to track a simulated radioactive plume and measure the ground radiation. During the exercise, the Observatory was responsible for analyzing radiation data for a simulated nuclear accident, operating the Accident Consequence Assessment System, assessing the weather changes and the potential impact on Hong Kong due to release of simulated radioactive materials from the nuclear power station, as well as advising the SAR Government on appropriate counter-measures in consultation with relevant government departments.



"MyObservatory" Features Longer Range Weather Forecast

Wong Wai-kin, Or Ming-keung

The Observatory launched new versions of the "MyObservatory" app, featuring the trial product "Extended Outlook", which provides probabilistic forecasts of daily minimum and maximum temperatures in the form of time series for the next 14 days to facilitate public appreciation of the upcoming temperature trend. The probability of daily minimum and maximum temperatures is indicated by different colours; e.g. reddish colour indicates a higher probability and bluish colour indicates a lower probability.



Cool Met Stuff



Annual weather review 2017

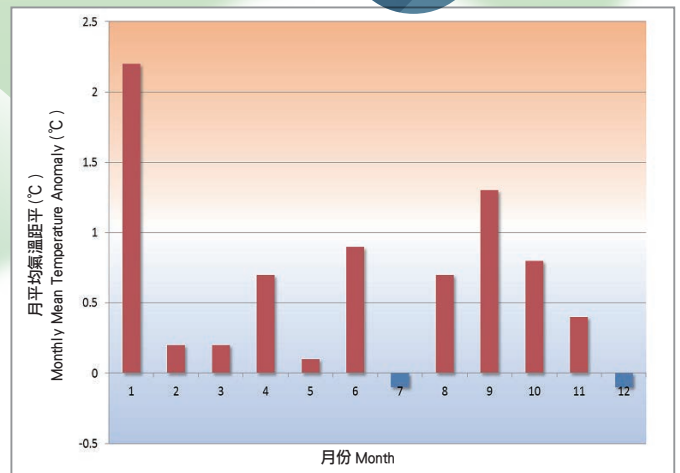


Cheung Sze-yuen

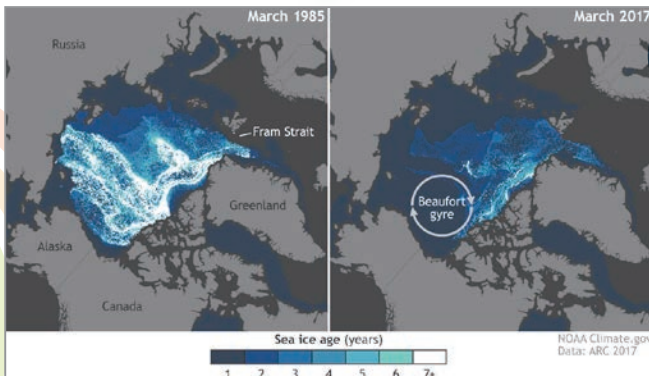
The weather of Hong Kong in 2017 was rather warm with frequent tropical cyclone activity. The annual mean temperature was 23.9 degrees, the third highest on record. The daily maximum temperature of 36.6 degrees recorded at the Hong Kong Observatory on 22 August was an all-time high. There were 41 hot nights, ranking the highest on record. Five tropical cyclones necessitated the issuance of the No.8 or above signals in 2017, a joint record with the years 1964 and 1999, and for the passage of Hato on 23 August, the No.10 Hurricane Signal was also issued.



Cool Met Stuff



Monthly mean temperature anomalies in Hong Kong in 2017



Very old sea ice in the Arctic has nearly vanished.



An update on global climate change

Sham Fu-cheung

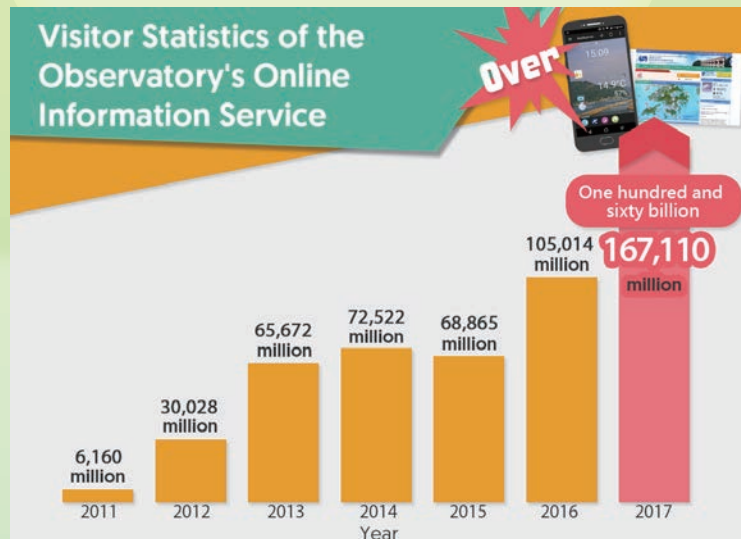
The World Meteorological Organization announced that the atmospheric concentration of carbon dioxide soared to 403.3 ppm in 2016, setting a new record of 3.3 ppm for annual increase. Present-day concentration of carbon dioxide is the highest in the last 800,000 years. With the unabated increase in greenhouse gases and the persistent trend of global warming, 2017 ranked among the three hottest years on record. The rate of warming in the Arctic is twice as fast as the global average. The Arctic average surface temperature from October 2016 to September 2017 was the second highest on record. The Arctic sea ice extent for December 2017 was the second lowest for the month on satellite record. The melting rate of Arctic summer sea ice was unprecedented in the last 1,500 years.



The usage of the Observatory's online information services **Exceeded 160 billion** page views

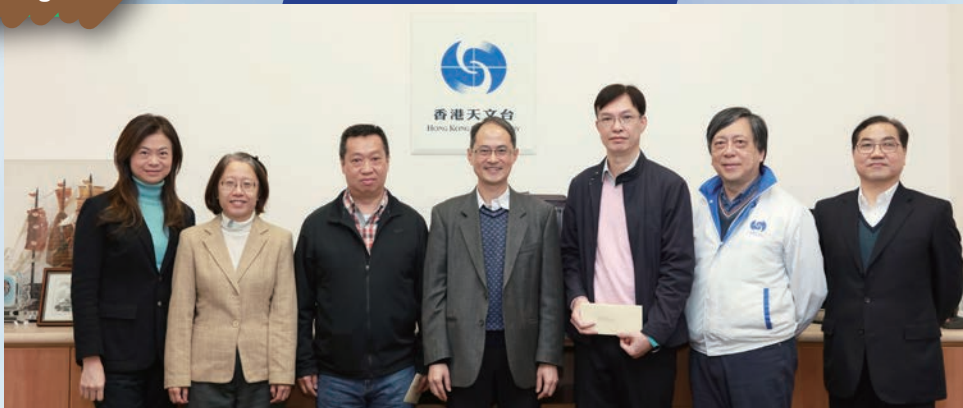
Tong Yu-fai

The Observatory's online information service is immensely popular and sets a new record of more than 160 billion page views in 2017, representing an increase of about 60% as compared with 2016. Over 80% of the usage was via the "MyObservatory" smartphone app, as the Observatory continues to provide more convenient online weather information services to the public.



HKO Sidelights

Staff Promotions



Mr Chiang Kwok-fai (third from left) and Mr Ng Yiu-wah (third from right) were promoted to Chief Scientific Assistants on 3 October 2017, pictured here with Dr Cheng Cho-ming (centre), Acting Director of the Observatory, and other colleagues.

Observatory Staff commended by the Public

Observatory staff who received words of thanks and commendation from the public or organizations from October to December 2017:

Mr Lee Lap-shun (Senior Scientific Officer)

Mr Lee Kwok-lun (Scientific Officer)

Mr Chan Ho-sun, Mr Wong Chau-ping, Mr Yung Chung-hoi (Experimental Officers)

Ms Yu Mei-fung (Chief Scientific Assistant)

Ms Chan Siu-yung, Ms Mak Man-yi (Senior Scientific Assistants)

Mr Chee Shiu-chung, Ms Lam Mei-sim, Mr Lo Chin-ming (Scientific Assistants)

HKO Sidelights



On 22 October 2017, Dr Cheng Cho-ming (fourth from left), Acting Director of the Observatory, together with volunteers from Friends of the Observatory, participated in the "Mountaineering Safety Promotion Day", to raise public awareness of hiking safety.



On 2 November 2017, Mr Cheng Tsz-lo (centre), Senior Experimental Officer, was awarded the Secretary for the Civil Service's Commendation for his outstanding performance; he is pictured here with Dr Cheng Cho-ming, Assistant Director of the Observatory; Mr Shun Chi-ming, Director of the Observatory; Mr Li Sun-wai, Senior Scientific Officer; and Mr Jerry Siu, Departmental Secretary (left to right).



On 5 November 2017, the "Sky Dragon" participated in the Sunshine Dragon Boat Race in Kwun Tong Promenade (Invitational Cup of the Buildings Department), finishing third runner-up in the Silver Cup. Team members pictured here with athletes from the Buildings Department after the race.

香港天文台
Hong Kong Observatory



On 26- 29 October 2017, the Observatory presented global climate change and Hong Kong climate projections at the 12th Eco Expo Asia. Mr Wong Kam-sing (second from right), Secretary for the Environment; Mr Donald Tong Chi-keung (first from right), Permanent Secretary for the Environment and Director of Environmental Protection; and Mr Benjamin Chau Kai-leung (first from left), Deputy Executive Director of the Hong Kong Trade Development Council visited the Observatory booth.

友·導向師友計劃
Life Buddies Mentoring Scheme
2017/18 起航禮 Launching Ceremony

4.11.2017



On 4 November 2017, Chief Secretary for Administration, Mr Matthew Cheung Kin-chung, who is also the Chairperson of the Commission on Poverty (CoP), presented a certificate of appreciation to Ms Lam Ching-chi, Senior Scientific Officer, at the 2017/18 launch ceremony of Life Buddies Mentoring Scheme, to thank the Observatory for supporting the scheme planned and organized by CoP.



In recruiting volunteers for Friends of the Observatory, new volunteers visited the Observatory headquarters on 25 November 2017 for an interview.



On 9 and 10 December 2017, the voluntary docents of Friends of the Observatory led guided tours for more than 400 visitors and showed them the physical warning signals on display at the Cheung Chau meteorological station in looking back at the evolution of the tropical cyclone warning signal system.



On 13 December 2017, Mr Shun Chi-ming, Director of the Observatory, gave a lecture on "Droughts and Earthquakes" at the Civil Service Training and Development Institute.



On 7 January 2018, guided by former Director Mr Lam Chiu-ying and local villager Mr Tsang Wai-keung, members of the Hong Kong Meteorological Society, CWOS Ambassador, Friends of the Observatory and HKO Staff Association explored the natural scenery of Lai Chi Wo and learnt about the history of the evolving Hakka villages spanning over a hundred years.



On 7 January 2018, Dr Cheng Cho-ming (sixth from left), Assistant Director of the Observatory, together with Observatory staff and volunteers from Friends of the Observatory, led a team to participate in the 26th Cheung Sheung Hiking Festival for promoting the health benefits of hiking activities.



On 13 January 2018, Friends of the Observatory docents visited the Geopark at High Island, and shared experience with docents of the Hong Kong UNESCO Global Geopark.



The Drainage Services Department and the Hong Kong Observatory jointly received the ACEHK Annual Awards 2018 from the Association of Consulting Engineers. The winning project applied data from the Observatory's "SWIRLS" nowcasting system to facilitate the implementation of river works and the reduction of flooding risk.



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