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"Symposium on Meteorological Development Plan for Guangdong-Hong Kong-Macao Greater Bay Area" and

Victor Li Sun-wai The "Symposium on Meteorological Development Plan for Guangdong-Hong Kong-Macao Greater Bay Area" was held in Hong Kong from 3 to 5 December 2018. The

"Senior Management Meeting between China Meteorological Administration and Hong Kong Observatory"



Administrator of the China Meteorological Administration (CMA), Ms Liu Ya-ming, and the Acting Director of the Macao Meteorological and Geophysical Bureau (SMG), Mr Tang lu-man, each led a delegation to attend the symposium. During the symposium, the three parties discussed in detail how to take forward the initiatives in the "Meteorological Development Plan for Guangdong-Hong Kong-Macao Greater Bay Area". They also agreed to capitalise on their respective strengths in collaborating to advance the relevant work items.

The Director of the Hong Kong Observatory (HKO), Mr Shun Chi-ming (right); the Administrator of the China Meteorological Administration (CMA), Ms Liu Ya-ming (middle); and the Acting Director of the Macao Meteorological and Geophysical Bureau (SMG), Mr Tang lu-man (left) attended the "Symposium on Meteorological Development Plan for Guangdong-Hong Kong-Macao Greater Bay Area

During the same period, meteorologists from mainland China and Hong Kong also held the 13th Senior Management Meeting between CMA and HKO. During this meeting, both parties assessed progress with cooperation over the past two years, explored the potential for future cooperation, and set the broad direction for fostering mutual cooperation for the development of meteorological services.



The Director of the Hong Kong Observatory (HKO), Mr Shun Chi-ming (fifth from right), and the Administrator of the China Meteorological Administration (CMA), Ms Liu Ya-ming (sixth from left), attended the Senior Management Meeting between CMA and HKO

# **GLOBAL HEAT HEA** INFORMATION NFTWORK



The Director of HKO, Mr Shun Chi-ming, gave a speech during the opening ceremony of the forum

The Director of HKO, Mr Shun Chi-ming (second from

left), attended the opening ceremony of the forum

### The First Global Forum on Heat and **Health is Held in Hong Kong** Choy Chun-wing

The First Global Forum on Heat and Health was held in Hong Kong from 17 to 20 December 2018. The forum was co-organised by the Global Heat Health Information Network (GHHIN), a network led by the Weather and Health Joint Office of the World Health Organization and the World Meteorological Organization; HKO; the University of Hong Kong; the Chinese University of Hong Kong; City University of Hong Kong; and Hong Kong Red Cross.

Experts in various fields – including meteorology, medical science, construction and urban planning - gathered from around the world and reviewed international research on heat and health in recent years. The HKO also participated in the forum by assigning experts to share HKO's experiences in developing meteorological information and services in dealing with hot weather, and thoughts regarding communicating with the

media and the public.





thoughts during the forum







Public Policy for Hong Kong and Taiwan of Facebook, Mr George Chen, officiated at the launch ceremony of the 1-Minute Weather Time-lapse Video Competition on 29 November 2018. The Director hoped the competition could encourage members of the public to take time-lapse weather videos, to enhance their understanding of weather and climate change. Mr Chen gave high praise to the Facebook page and Instagram platform of the HKO, for gaining high popularity in just a few months since their launch.

31 January, not only provided an opportunity for the public to share interesting weather videos through Instagram, but was also entertaining and educational. Winning entries will be uploaded to the HKO's Instagram platform and Facebook page, and showcased during the HKO Open Day.



# HKO Designated as a Testbed for LIDAR



The HKO is recently designated by WMO as a Testbed for Doppler Light Detection and Ranging (LIDAR) systems for aviation applications, as part of efforts to foster collaboration between national meteorological departments in testing, developing and standardising meteorological instruments and system performance. The designation serves as further recognition by the meteorological community of HKO's technologically advanced use of Doppler LIDAR. HKO began deploying LIDAR for operational windshear detection in 2002.

Currently, two long-range and five shortrange LIDARs are installed at Hong Kong International Airport (HKIA), for detection of windshear, building wakes and wake turbulence from aircraft.





One of the long-range (left) and two of the short-range (right) Doppler LIDARs at HKIA





# Research Forum on Leveraging Big Data and rtificial Intelligence in Weather Observations



The HKO organised the Research Forum "Leveraging Big Data and Artificial Intelligence in Weather Observations and Forecasting" on 18 October 2018.

Experts from local universities were invited to share their knowledge and research findings in relevant fields. The Observatory gave presentations on urban weather monitoring for smart cities, and application of deep learning in rainfall nowcasting. Participants also discussed the development and application of Artificial Intelligence with speakers in the forum.

# Common Alerting Protocol Workshop

**Cheng Yuen-chung** 

The HKO hosted a training and implementation workshop on the Common Alerting Protocol (CAP), from 30 October to 2 November 2018. CAP is a common standard for disseminating hazard-related alerts. The workshop provided a platform for participants to share best practices in adopting the CAP standard, and its application in early warning systems for disaster risk

reduction. At the workshop, the HKO introduced the Severe Weather Information Center (SWIC) website of the World Meteorological Organization (WMO), which incorporates warnings in CAP format from over 60 WMO Members.





Group photo of the participants of the 2018 CAP Training and Implementation Workshop

# The HKO and the European Centre for Medium-Range Weather Forecasts Cooperate for First Time in Joint Research

Wong Wai-kin

The HKO has conducted its first research collaboration with the European Centre for Medium-Range Weather Forecast (ECMWF). Senior Scientific Officer Wong Wai-kin was invited to visit the UK in June and November 2018 to help develop pan-European radar nowcasting, which is fused with predictions from the ECMWF numerical weather model and ensemble prediction system using

the "SWIRLS" system to support refined rainfall forecasts and flood warnings for the next few hours to several days. In addition to the research cooperation, the first 3D printing duck of the HKO also joined the visit and "landed" at ECMWF.



Wong Wai-kin (second from left) with ECMWF's Director-General Dr Florence Rabier (second from right) during his visit to ECMWF

# Collaboration Between HKO and the Senior Citizen Home Safety Association

Choy Chun-wing

The HKO has closely collaborated with the Senior Citizen Home Safety Association (SCHSA) over the years, to promote the use of weather information for better care of the elderly. Every year before cold weather arrives, HKO and the SCHSA hold joint press conferences to urge the public to take precautions against the cold weather. In future, HKO will further strengthen collaboration with SCHSA in social media, including through enhancing contact

with SCHSA's Silver Age Studio, and using social media to share tips with elderly persons on how to prepare for a variety of weather.



The Assistant Director of the Observatory, Dr Cheng Cho-ming (right), and the Chief Executive Officer of the SCHSA, Ms Maura Wong (left), held a joint press conference on 7 December 2018, urging the public to take precautions against the cold weather





# Launch of Real-time Weather Information at International Commerce Centre and

Stephen Lau Po-wing

Clear Water Bay



The HKO website now includes real-time weather photos captured at the International Commerce Centre (ICC) in West Kowloon

In December 2018, the HKO added real-time weather photos captured at the International Commerce Centre (ICC) and real-time temperatures at Clear Water Bay Automatic Weather Station to its website, to help the public learn about the most up-to-date weather situation at these places, and further enhance regional weather information.

The "Regional Weather in Hong Kong" web page shows temperatures at various locations. The red box marks the location of the newly-added Clear Water Bay Automatic Weather Station, and temperatures measured there

Media Liaison Group Me Media Lunch Gathering

**Eunice Lee** 

The Media Liaison Group met on 19 November 2018. In addition, Director Shun Chi-ming invited media representatives to have lunch together on 29 December. More than 20 journalists attended the lunch, during which the Director informed them regarding the extreme winds and record-breaking storm conditions brought by Super Typhoon Mangkhut in September 2018, and mentioned that with global warming, extreme weather will be more frequent.



The Assistant Director of the Observatory, Dr Cheng Cho-ming (tenth from left), with colleagues and media representatives

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Hui Kin-chung

The weather in 2018 was

impacted Hong Kong.

The Weather of 2018

warmer than normal, with an annual mean temperature of 23.9 degrees, making it the third warmest year on record. The monthly mean temperature of 28.3 degrees in May was a record high for May. Also in May, there were 16 very hot days and 6 hot nights; both totals broke the records for May. The total rainfall from January to May 2018 was 175.0 millimetres, 73 percent below normal, and the second lowest on record for this period. Six tropical cyclones required a tropical cyclone warning signal throughout the year, including Mangkhut, which led to a No. 10 Hurricane Signal being issued on September 16. The extreme winds and record-breaking storm surges resulting from Mangkhut seriously



# Tai O Tide Station has been added to the "Tidal Information" webpage

In September 2018, real-time tide measurements from the Tai O Tide Station, operated by the Drainage Services Department, were added to the "Tidal Information" webpage of the HKO, to enhance tidal information services and monitoring of tidal variations at various locations in Hong Kong. The Tidal Information service is available on the HKO website (https://www.weather.gov.hk/tide/ marine/realtide uc.htm), mobile website (https://www.weather.gov. hk/m/rt\_uc.htm) and the My Observatory mobile apps.



Tai O Tide Station has been added to the "Tidal Information" webpage

# Dr. Tin WhatsApp Stickers Editorial Board

Dr. Tin WhatsApp stickers are now available! Dr. Tin will be here for you in any weather!

Android users can download Dr. Tin WhatsApp stickers in the newest, Android version of the My Observatory mobile apps. The iOS version will follow soon.



My Observatory (Android version).



# Observatory Staff Commended by the Public or Organisations

Observatory staff who received words of thanks and commendation from the public or organisations from October to December 2018:

Dr Lee Tsz-cheung (Senior Scientific Officer), Mr Choy Chun-wing (Scientific Officer),

Mr Lee Kwok-lun (Scientific Officer), Dr Wu Man-chi (Experimental Officer),

Ms Yu Mei-fung (Chief Scientific Assistant), Ms Chan Siu-yung (Senior Scientific Assistant),

Ms Mak Man-yi (Senior Scientific Assistant), Mr Chee Shiu-chung (Scientific Assistant),

Mr Lo Chin-ming (Scientific Assistant), Ms Lam Mei-sim (Scientific Assistant),

The Team of Cool Met Stuff







The Hong Kong Observatory Calendar 2019 is now on sale. The photos in the calendar echo the 2019 World Meteorological Day theme of "The Sun, the Earth and the Weather". The cover photo, "Sunshine Bridge", which was taken by a Hong Kong photographer, was also used in the 2019 Calendar of the World Meteorological Organization.



On 14 October 2018 and 6 January 2019, colleagues from the Observatory and Friends of the Observatory participated in the Mountaineering Safety Promotion Day 2018 organised by The Civil Aid Service (CAS), and the Cheung Sheung Hiking Day organised by the Hong Kong Hiking Association, China (HKHA China), respectively. Through exhibitions, games and talks, the activities introduced members of the public to the relationship between HKO services and hiking.



From 8 to 10 October 2018, the HKO hosted an international training workshop on Meteorology-Air Traffic Management (MET-ATM) integration, under the WMO's Voluntary Cooperation Programme (VCP). The workshop was attended by participants from 16 aviation weather services units based in locations spanning the world.



On 19 October 2018, Mr Sham Fu-cheung, Chief Experimental Officer of the Observatory, gave a talk at the ENGINEER Talks Special Series 2018 on Climate Change, which was organised by the Civil Engineering and Development Department.

## 香港天文台 Hong Kong Observatory



From 25 to 28 October 2018, the 13th Eco Expo Asia, organised by the Hong Kong Trade Development Council and co-organised by the Environment Bureau, was held in AsiaWorld-Expo with "Waste Less Save More for a Low-carbon Future" as the theme. During it, HKO talked about climate change. The Secretary for the Environment, Mr Wong Kam-sing (second from right); the Permanent Secretary for the Environment and Director of Environmental Protection, Mr Donald Tong (first from right); and the Deputy Executive Director of Hong Kong Trade Development Council, Mr Benjamin Chau (first from left), visited HKO's booth.





### 2018年公務員事務局局長嘉許狀頒發典禮

The Secretary for the Civil Service's Commendation Award Presentation Ceremony 2018



On 23 October 2018, HKO Senior Personal Secretary Ms Brenda Tong Lai-yee, and Senior Scientific Assistant Mr Sun Kam-tao each received the Secretary for the Civil Service's Commendation for their meritorious performance. After the awards ceremony, they posed for a photo with the Chief Secretary for Administration, Mr Mathew Cheung Kinchung (fourth from left); the Secretary for the Civil Service, Mr Joshua Law (third from left); the Chairman of the Public Service Commission, Mrs Rita Lau Wai-lan (third from right); the Director of the Hong Kong Observatory, Mr Shun Chi-ming (fourth from right); the Assistant Director of the Hong Kong Observatory, Miss Sharon Lau (second from left); and the Departmental Secretary, Mr Jerry Siu (first from left).



On 17 November 2018, the "Global AI Challenge on Meteorology" contest, jointly organised by the Meteorological Bureau of Shenzhen Municipality (SZMB) and the HKO, successfully concluded. The winning teams were awarded their prizes during the Institute of Electrical and Electronics Engineers International Conference on Data Mining 2018 (IEEE ICDM 2018), which was held in Singapore.



On 25 October 2018, the Chief Experimental Officer of HKO, Mr Sham Fu-cheung (second from left), and the Engineer of the Water Supplies Department, Mr Kwok Ue-mo (second from right), jointly delivered a climate change talk for students at Shau Kei Wan East Government Secondary School. More than 200 students and teachers attended the talk.



On 14 December 2018, "AI Challenge – Weather Forecasting Competition", which was organised by the HKO, successfully concluded. The awards ceremony was held during the Learning and Teaching Expo 2018.

# Happy Events in the Observatory

There are many happy events in the Observatory every year, and this was especially the case at the end of 2018. Marriage is a major event in life, and for Observatory staff, it is of course important to choose a good day when there is likely to be good weather. Four colleagues chose December 2018 to get married, to avoid the rainy season in Hong Kong. The Observatory wishes all the newlyweds a happy marriage and everlasting happiness.











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