

Briefing from the Director

Editorial Board

The Director of the Observatory, Mr Shun Chi-ming (left) and the Director of the Agriculture, Fisheries and Conservation Department, Dr Leung Siu-fai (right), officiated at the launch ceremony of a new book, *Climate Change and Biodiversity in Hong Kong*.



The Director, Mr. Shun Chi-ming (centre) introduced Hong Kong Observatory's newest developments, with four Assistant Directors.

The Director of the Observatory, Mr Shun Chi-ming, hosted a press briefing in March this year, in which he highlighted the upcoming initiatives of the Observatory, reviewed the weather of Hong Kong in 2018, and covered the weather outlook for this year. During the briefing, Mr Shun and the Director of the Agriculture, Fisheries and Conservation Department, Dr Leung Siu-fai, also officiated at the launch ceremony of a new book entitled *Climate Change and Biodiversity in Hong Kong*.



Climate Change and Biodiversity in Hong Kong

Sham Fu-cheung

The Hong Kong Observatory (HKO) and the Agriculture, Fisheries and Conservation Department published a book entitled *Climate Change and Biodiversity in Hong Kong*, describing climate change and its influence on biodiversity, with exquisite pictures and plain language.

Cover of *Climate Change and Biodiversity in Hong Kong*.

Talk on Extreme Weather

Editorial Board

Sand painting artist Hoi Chiu took all participants more than 50 years back in time, using exquisite sand art for a "look back to Wanda", indicating how Hong Kong people faced this major storm.

The "Talk on Extreme Weather" held by the Observatory on 23 March, the "World Meteorological Day", attracted around 600 members of the public, including uniformed and underprivileged groups. The activity began with a live performance by sand painting artist Hoi Chiu regarding Typhoon Wanda, following by a talk by the Director of the Observatory, Mr Shun Chi-ming, on the influence of climate change. There was also the first performance of the song, "Climate and Life", jointly produced with local singer Albert Au. Notably, this was the first talk given as a live broadcast through the HKO Facebook page, allowing citizens who did not attend in person to see and hear the talk in real time.



"Climate and Life"



The Director of the Observatory, Mr Shun Chi-ming (right) announced the song "Climate and Life", which has climate change as the theme, and was performed in public for the first time by local singer Albert Au (left).



The Director of the Observatory, Mr Shun Chi-ming (fifth from right), with the mistress of ceremonies, Fong Kin-yi (fifth from left); local singer Albert Au (fourth from right); and HKO colleagues, after giving the Extreme Weather Lecture.



Features

2019 Hong Kong Observatory Open Day

Editorial Board



The Director, Mr Shun Chi-ming (left), pictured with small fans during his autograph session on the Open Day.



Citizens taking pictures with the meridian line running north-south, drawn on the floor of the HKO Headquarters.



Citizens taking pictures with an Observatory mascot, "Dr. Tin".



Behind-the-scenes Open Day support from HKO colleagues and "Friends of the Observatory" volunteers.

The annual Observatory Open Day was held successfully on 23rd and 24th March this year. The Open Day adopted the theme of this year's World Meteorological Day – "The Sun, the Earth and the Weather". An exhibition introduced information about near-Earth space weather, and showcased how the HKO applies advanced technology to provide public weather forecasting, along with specialised services such as weather forecasting for aviation, microclimate monitoring and radiation monitoring.

Several partner organisations joined the Open Day this year. They included the Hong Kong Jockey Club Disaster Preparedness and Response Institute, which introduced their survival kit; China Light and Power, which promoted energy saving tips; and students from the School of Creative Media of the City University of Hong Kong, who introduced their works combining science and art.

Hong Kong Observatory, a winner in Hong Kong ICT Awards 2019

Woo Wang-chun, Lee Yiu-fai

In the Hong Kong ICT Awards 2019, announced on 4 April, the Hong Kong Observatory won the Smart Business Grand Award and the Smart Business (Solution for Business and Public Sector Enterprise) Gold Award for its in-house developed nowcasting system, "SWIRLS" – which makes use of Artificial Intelligence to forecast rainfall and lightning. SWIRLS supports rainstorm forecasting and public services, and provides tailor-made services for government engineering departments and many types of management organisations. Recently, the HKO not only strived to share nowcasting techniques with overseas countries and regions, it also held and participated in international training programs.

The HKO also received a Certificate of Merit in the Smart Mobility (Smart Transportation) Award for MyFlightWx, an app which employs a geographical information system to provide pilots with weather information before take-off and during flights.

The Smart Business Grand Award and the Smart Business (Solution for Business and Public Sector Enterprise) Gold Award.



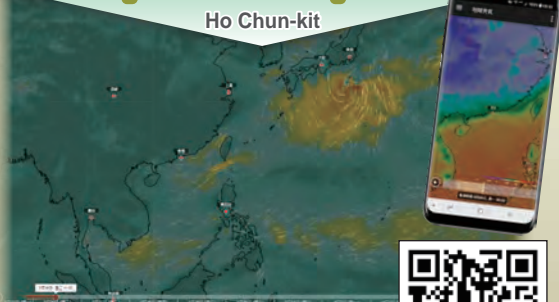
The Certificate of Merit in the Smart Mobility (Smart Transportation) Award.

The Director of the Observatory, Mr Shun Chi-ming (seventh from left); the Assistant Director, Miss Lau Sum-ye (sixth from left); the Assistant Director, Dr Cheng Cho-ming (sixth from right); and other HKO colleagues attended the presentation ceremony of the Hong Kong ICT Awards 2019 on 4 April.

Milestones

New "Earth Weather" website offering interactive display of computer forecast products

Ho Chun-kit



To help members of the public to easily appreciate large-scale weather changes in the Asia-Pacific region, the Hong Kong Observatory launched "Earth Weather" website (<http://maps.weather.gov.hk/wxviewer>) in March. This displays wind forecasts from a computer model for the next nine days, using animated streamlines. Users can also select a colour overlay showing the distribution of temperatures or wind speeds. "Earth Weather" can also be browsed through the MyObservatory app.



"Interactive Map of Storm Damage by Mangkhut" Webpage



In 2018, through its Facebook page, the Hong Kong Observatory collected photos and videos taken by the public during the passage of Super Typhoon Mangkhut. Selected photos and videos have been put on the GIS-based webpage "Interactive Map of Storm Damage by Mangkhut" for research and educational use. The picture shows the layout of the webpage.

Enhancing the Online Dissemination of Regional Weather Information

Cheng Yuen-chung



The Observatory has recently enhanced its online weather information services by adding real-time wind direction and wind speed information from the automatic weather stations at North Point, Central Pier, and Lamma Island, on the Regional Weather and Met on Map webpages. The information from these three wind stations will also be included in the MyObservatory app.



New Space Weather Webpage

Lam Ching-chi



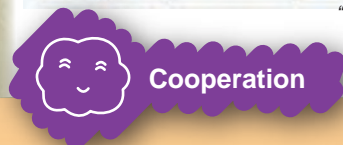
Phenomena

Explore various space environments between the Sun and the Earth



"Space Weather" webpage

The Hong Kong Observatory has recently launched a new Space Weather webpage, with the aim to arouse public interest of space weather and promote awareness of relevant parties to possible effects of space weather for enhancing their resilience. The webpage has been significantly enhanced with photos and illustrations to explain various space weather phenomena, and introduces tips for aurora viewing. A new, more child friendly version with interactive educational games allows children to readily learn more about space weather.



2019 Joint Guangdong, Hong Kong and Macao Meeting and Seminar on Cooperation in Meteorological Operations Held in Hong Kong

Editorial Board

Meteorologists from the Guangdong Meteorological Service, Macao Geophysical and Meteorological Bureau and Hong Kong Observatory gathered in Hong Kong to attend the 33rd Guangdong - Hong Kong - Macao Seminar on Meteorological Science and Technology and the 24th Guangdong - Hong Kong - Macao Meeting on Cooperation in Meteorological Operations, on 6th to 8th March 2019. Representatives of the Hainan Meteorological Service and Guangxi Meteorological Service attended the meeting for the first time, setting a milestone for expanding regional meteorological cooperation.

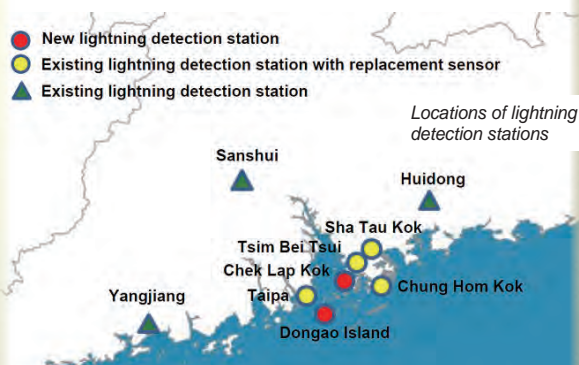


The Director of the Hong Kong Observatory, Mr Shun Chi-ming (middle); the Director General of the Guangdong Meteorological Service, Mr Zhuang Xudong (second from left); the Acting Subdirector of the Macao Geophysical and Meteorological Bureau, Mr Leong Weng Kun (second from right); the Director General of the Hainan Meteorological Service, Mr Xin Jiwu (first from right); and the Deputy Director General of the Guangxi Meteorological Service, Mr Zhong Guoping (first from left) attended the 24th Guangdong - Hong Kong - Macao Meeting on Cooperation in Meteorological Operations.

Observatory's New Lightning Sensors Now Fully Operational

Lee Shuk-ming

In 2018, the Observatory established two new lightning detection stations, at Chek Lap Kok and Dongao Island, Zhuhai. Meanwhile, new lightning sensors were installed at four existing stations – Chung Hom Kok, Tsim Bei Tsui, Sha Tau Kok and Taipa in Macau. After trial run and optimisation, the new and enhanced lightning detection stations are fully operational, and providing more accurate lightning information to weather forecasters, other users and members of the public.



The Observatory provided training in severe weather forecast techniques and support services to counterparts in Southeast Asia

Wong Wai-kin

At the invitation of the World Meteorological Organization (WMO), Mr Wong Wai-kin, Senior Scientific Officer of the Hong Kong Observatory (HKO), visited Vientiane, the Lao People's Democratic Republic during 19-23 February, to serve as an expert lecturer of a training workshop under the "Severe Weather Forecasting Demonstration Project" (SWFDP). He delivered lectures on severe weather nowcasting, and use of numerical weather prediction models and verification methods; and introduced products and development of the Regional Specialised Meteorological Centre for Nowcasting.



Mr Wong Wai-kin (third from left in the front row) with experts and participants of the training workshop.

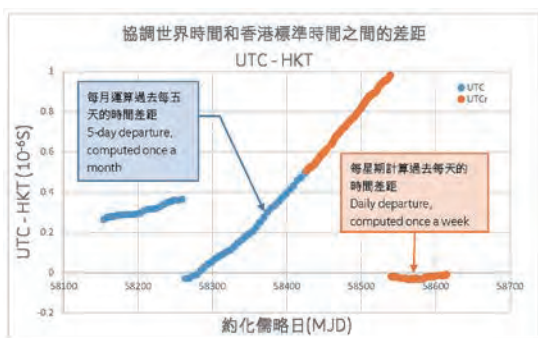


Milestones

The Observatory joined Rapid Coordinated Universal Time Project

Chan Sai-tick

The Hong Kong Observatory has been contributing to the determination of Coordinated Universal Time (UTC) since 2004, computing differences between Hong Kong Standard Time and UTC once a month. During the fourth quarter of 2018, the Observatory also joined the Rapid Coordinated Universal Time Experiment of the Bureau International des Poids et Mesures, to facilitate more efficient monitoring of Hong Kong Standard Time.



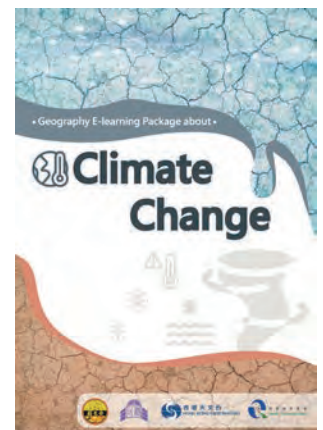
Note: The Modified Julian Date (MJD) is a count of days without specifying the year or month, in which 58484 is equivalent to 1 January 2019.

Education Package on Climate Change

Sham Fu-cheung

The Hong Kong Observatory collaborated with the Ho Koon Nature Education cum Astronomical Centre to compile the "Geography E-learning Package about Climate Change", enhancing teachers' and students' awareness of climate change and its impacts, while debunking some common climate myths. The education package consolidates the latest scientific information, and was compiled based on the latest version of Geography Curriculum and Assessment Guide (Secondary 4-6) published by the Curriculum Development Institute of the Education Bureau.

The education package can be downloaded from the HKO website: https://www.weather.gov.hk/climate_change/ed_package/CCpackage_e.pdf.



The cover of "Geography E-learning Package about Climate Change"

The Observatory joins hands with HK Electric to study the application of climate service in predicting electricity consumption

Tong Hang-wai

Against the backdrop of climate change, both energy supply and demand are increasingly exposed to the effects of weather and climate fluctuations. As part of its climate services, the Observatory produces climate forecasts for several months ahead, providing useful information to many sectors. The Hongkong Electric Company, Limited (HK Electric) made use of the Observatory's temperature forecasts for six months ahead, and incorporated the information into their model for predicting electricity consumption. It was found that the temperature information could significantly reduce errors in electricity consumption forecasts.



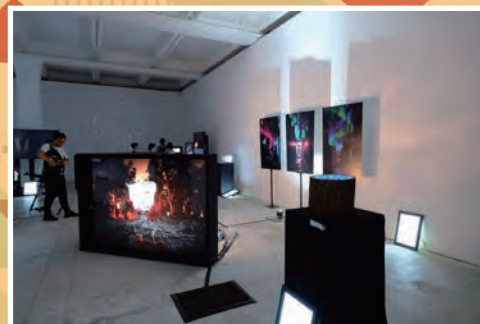
Experimental Officer of the Observatory, Mr Chan Wing-hang, presenting the results of the study at the 33rd Guangdong - Hong Kong - Macao Seminar on Meteorological Science and Technology.

Check out study report here:



SCIENCE X ART

Lee Fung-ying



Making use of meteorological statistics provided by the Hong Kong Observatory, students from the School of Creative Media of the City University of Hong Kong created works such as sculptures, movies and animations with materials including wood from trees fallen by the ferocious winds of Typhoon Mangkhut in 2018, to highlight the power of Mangkhut and other extreme weather, and investigate the complicated relationships between human and nature. The works were showcased at F Hall Studio in Tai Kwun from 28 to 29 April 2019, in an exhibition entitled "Blown Away – Art, Science and Extreme Weather".

Oceanographers and Meteorologists gather in Hong Kong

Lau Dick-shum

The Tenth Session of the Ship Observations Team (SOT) of the World Meteorological Organization (WMO) was held at Hong Kong Observatory at the beginning of April, to coordinate the development, implementation and maintenance of global ship-based observation projects. This was the first time a SOT Session has been held in East Asia, and more than 40 participants from 15 WMO member states and territories attended.



Session participants.

Closer ties between Hong Kong Observatory and the University of Reading, UK

Lam Ching-chi

The Hong Kong Observatory collaborated for the first time with the "Mathematics of Planet Earth (MPE) Centre for Doctoral Training (CDT)", which is jointly organised by the University of Reading and Imperial College London. This collaboration allowed doctoral students to conduct research at the Observatory, reinforcing the developments of atmospheric and oceanic sciences and young science talents. We also invited Dr Horatio Setiawan Boedihardjo, a lecturer at the University of Reading who grew up in Hong Kong, to talk of his personal growth in a management seminar.



The Director of the Observatory, Mr Shun Chi-ming (centre), presenting a souvenir to Dr Horatio Setiawan Boedihardjo (second from left).

First "Global Conversation" activity jointly hosted by the Observatory and the University of Exeter

Lam Ching-chi

The Observatory jointly hosted a forum with the University of Exeter (UoE), the Chinese University of Hong Kong (CUHK), the Hong Kong University of Science and Technology (HKUST) and others in April, to explore how the smart use of big data can help in studying and forecasting weather and environmental hazards. The forum introduced participants to ways scientists make more accurate assessments of climate change and predictions of extreme weather events through analysing climate data, in order to reduce the risks associated with a range of environmental threats. Over 100 participants, including representatives of government departments, public utilities and private entities, as well as academics, joined the forum.



The Director of the Observatory, Mr Shun Chi-ming (centre) joining the panel discussion at the forum.

Observatory staff Commended by the Public or Organisations

Observatory staff who received words of thanks and commendation from the public or organisations from January to April 2019:

Mr Shum Chi-tai (Scientific Officer), Mr Tsoi Tze-shun (Scientific Officer),

Mr Chan Ho-sun (Acting Senior Experimental Officer), Mr Chan Wing-hang (Experimental Officer),

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

Ms Lam Mei-sim (Scientific Assistant), Mr Chow Man-chung (Social Media Executive),

Ms Wong Ting-ting (Creative Content Designer)

HKO Updates



On 3 January, the Vice-Chancellor and President of the Chinese University of Hong Kong (CUHK), Professor Rocky S. Tuan, visited the Observatory.



On 8 April, Princess of Thailand, Maha Chakri Sirindhorn, visited the Observatory. The princess (centre) and the Director of the Hong Kong Observatory, Mr Shun Chi-ming (sixth from right) are pictured here with a representative of Thailand and senior officers of the Observatory.



On 8 January, members of Hong Kong Shipowners Association visited the Observatory.



On 15 January, representatives of Yuen Long District Council visited the Observatory.



On 17 January, the Dean of Engineering of The University of Hong Kong, Professor Christopher Chao (second from right), visited the Observatory.



On 18 January, the Chairman of the Senior Citizen Home Safety Association, Ms Christine M.S. Fang (fourth from right on the front row) and the association's Chief Executive Officer, Ms Maura H.H. Wong (third from right on the front row), visited the Observatory.



On 23 January, Mr Liu Jinluan, Director General of Guangzhou Meteorological Service (second from right), led representatives to visit the Observatory.



On 18 January, the Group Chief Operating Officer of A.S. Watson Group, Ms Malina Ngai, JP (third from left), visited HKO.



On 28 January, the Deputy Director General of Shenzhen Oceanic Administration, Mr Li Yu-chun (second from left), led representatives to visit the Observatory.



On 29 January, the Consul General of Consulate General of Finland in Hong Kong, Ms Johanna Karanko (right), visited the Observatory.



On 15 February, young reporters from PLK HKTA Yuen Yuen Primary School and St. Bonaventure Catholic Primary School interviewed the Director of the Observatory.



On 5 March, the Chairman of Southern District Council, Dr Chu Ching-hong, BBS, JP (second from right), led representatives to visit the Observatory.



On 11 March, the 50th Meeting of the Liaison Group on Aviation Meteorological Services was held at the Observatory.



On 28 March, representatives of Hong Kong Aero Engine Services Limited (HAESL) visited the Observatory.



On 29 March, members of Tsim Sha Tsui Harmony Association visited the Observatory.



HKO received Social Capital Builder (SCB) Logo Awards 2018.

Staff Retirement



Assistant Director, Mr Tsui Kit-chi (centre)



Senior Scientific Officer, Mr Tam Kwong-hung (left)

Radar Specialist Mechanic, Mr Chan Chuen-kit;

Senior Experimental Officer, Mr Wong Chi-fai;

Scientific Assistant, Mr Ho Kwan-pui.

Staff Promotions



Lee Ho-yin (left) was promoted to Senior Radar Specialist Mechanic.



Lau Chi-yung (right) was promoted to Chief Scientific Assistant, Cheng Yat-leung (left) was promoted to Senior Scientific Assistant.



Wong Chau-ping (fourth from right) and Wong Tak-kan (third from right) were promoted to Senior Experimental Officer; Leung Siu-mei (fourth from left) was promoted to Personal Secretary I.



Ho Ka-hon (first from left), Leung Kwai-kong (second from left) and Wong Wai-kwong (first from right) were promoted to Senior Scientific Assistant.



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