

## **Report on TC's Key Activities and Main Events in the Region, 2020**

*(Submitted by TC Chair Dr. CHENG Cho-ming)*

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### **ACTION REQUIRED:**

The Committee is invited:

- a) To take note of the key events in 2020
- b) To consider the ideas and proposals of the TC Chair in formulating the future AOPs, initiatives and recommendations

### **APPENDICES:**

- 1) DRAFT TEXT FOR INCLUSION AT SESSION REPORT
- 2) TC's Key Activities and Main Events in the Region, 2020

## **APPENDIX A:**

### **DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT**

6.1 Report on TC's Key Activities and Main Events in the Region, 2020

6.1.1 The Committee took note of the report of the Typhoon Committee Chairperson on the TC's Key Activities and Main Events in the Region, 2020.

6.1.2 The Committee expressed sincere appreciation to the contributions of Dr. CHENG Choming as the chairperson of the Committee, and of Mr. SEKITA Yasuo and Mr. HASEGAWA Naoyuki in succession as the Vice Chairperson of the Committee.

6.1.3 The Committee dealt with related issues under the relevant agenda items.

*(Additional text to be added in the light of discussion on this item)*

## **APPENDIX B:**

### **Report on TC's Key Activities and Main Events in the Region, 2020**

In 2020, owing to the ongoing COVID-19 situation around the world, some activities of the Typhoon Committee were unavoidably affected. Despite this, with the concerted efforts of all Members, AWG, working groups, and TCS, the Committee successfully conducted its 52<sup>nd</sup> Session by way of video conferences on 6 March 2020 and 10 June 2020. The Committee has implemented the decisions of the 52<sup>nd</sup> Session smoothly. Moreover, the 15<sup>th</sup> Integrated Workshop of the Committee was conducted by means of video conference on 1-2 December 2020. The Committee also achieved its mission to integrate and enhance regional activities of Members within international frameworks to reduce the loss of lives and minimize social, economic, and environmental impacts by typhoon-related disasters. The related issues will be dealt with under the relevant agenda items. Some key activities and events are highlighted as follows.

#### **1. Tropical Cyclones in the Region**

- 1.1. In 2020, 23 named tropical cyclones of tropical storm intensity or above formed over the western North Pacific and the South China Sea. This number was less than the climatological average of 25.6 (1981-2010). It was worth noting that July 2020 was the first time ever that no tropical cyclone was named in the month of July.
- 1.2. There were 5 tropical cyclones that made landfall over China in the year, namely Nuri (2002), Hagupit (2004), Mekkhala (2006), Higos (2007) and Nangka (2016). This number was lower than the multi-year average for the same period (6.7). In addition, 3 tropical cyclones, Bavi (2008), Maysak (2009) and Haishen (2010) affected northeastern China in succession from late August to early September, bringing close to 170 mm of rainfall to the river basins in the region. Both the number and the rainfall set new records since 1949.
- 1.3. The Democratic People's Republic of Korea was affected directly by three tropical cyclones, namely, Hagupit (2004), Jangmi (2005) and Bavi (2008), three in a row in August.
- 1.4. There was no tropical cyclone which made landfall over Japan. It was the first time in recent 12 years. In 2020, 7 tropical cyclones of tropical storm intensity or above came within 300 km of the Japanese archipelago. They included Hagupit (2004), Jangmi (2005), Bavi (2008), Maysak (2009), Haishen (2010), Dolphin (2012) and Chan-hom (2014).
- 1.5. The Philippines was hit by 5 tropical cyclones of tropical storm intensity or above, namely Vongfong (2001), Saudel (2017), Molave (2018), Goni (2019) and Vamco (2022). Goni was the most intense storm which affected the country in the year. It made landfall over Bato, Catanaduanes on 1 November and caused catastrophic damage. 25 people died and 399 injured, and the social and economic loss was estimated to be over 17 billion Philippines Peso. A minimum pressure of 912.1 hPa was reported in Virac and a maximum gust of 198 km/h was reported in Legaspi City.
- 1.6. The Republic of Korea was affected by 4 tropical cyclones, and 3 of them made landfall over the Korean Peninsula, namely Jangmi (2005), Maysak (2009) and Haishen (2010). Among them, Maysak brought extensive rain to the country with a total rainfall of 1037 mm. A maximum gust of 66 m/s was recorded when Bavi (2008) passed through the West Sea of Korea.

- 1.7. Viet Nam was affected by 9 tropical cyclones in the year, namely Sinlaku (2003), Noul (2011), Linfa (2015), Nangka (2016), Saudel (2017), Molave (2018), Goni (2019), Etau (2021) and Vamco (2022). Molave was among the most intense storm with a maximum gust of 42 m/s recorded in Bình Châu and a total rainfall of more than 400 mm in some places. The 4 successive storms (Linfa, Nangka, Saudel and Molave) in October combined with the cold air activities caused heavy rain, floods and landslides to central regions of Viet Nam.
- 1.8. In 2020, 5 tropical cyclones affected Hong Kong, China, namely Nuri (2002), Sinlaku (2003), Higos (2007), Nangka (2016) and Saudel (2017). Among them, Higos (2007) necessitated the issuance of the Increasing Gale or Storm Signal, No. 9, which was the highest signal in the year. Higos (2007) also brought more than 150 mm of rainfall to Hong Kong, China.
- 1.9. A total of 5 tropical cyclones affected Macao, Hong Kong in 2020. They were Nuri (2002), Sinlaku (2003), Higos (2007), Nangka (2016) and Saudel (2017). During the passage of Higos (2007), a maximum gust of 215.6 km/h was recorded.
- 1.10. In 2020, there were 3 tropical cyclones affecting Thailand. They were Sinlaku (2003), Noul (2011) and Molave (2018).
- 1.11. Laos are directly impacted by 7 tropical cyclones in 2020, namely Sinlaku (2003), Noul (2011), Linfa (2015), Nangka (2016), Saudel (2017), Molave (2018) and Vamvo (2022).
- 1.12. Cambodia saw only one tropical cyclone in the year, namely Linfa (2015).

## **2. Improvement of TC Activities**

### **2.1. WGM**

- Implementing WGM's Annual Operating Plans in 2020  
With the assistance of TCP/WMO and TCS and the strong support from all Members, WGM has successfully completed the action plans (5 POPs, 9 AOPs and 1 PP) in 2020, which were endorsed at the 52<sup>nd</sup> Session.
- Conducting the third annual meeting of WGM  
The third annual meeting of WGM was hosted by Shanghai Typhoon Institute of China in 2020. Due to COVID-19 pandemic, the meeting was held online on 27 October and was attended by 13 Members (total 37 participants). The meeting reviewed the progress of WGM Annual Operating Plans in 2020 and proposed Implementation Plans for 2021. Nomination of new Chairperson of WGM was also conducted.

### **2.2. WGH**

- Implementing WGH AOPs activities in 2020  
Due to the impact of COVID-19 pandemic, many scheduled activities for hydrological component in 2020 were either still on-going or postponed. However, following the decisions made at 52<sup>nd</sup> Session of the Typhoon Committee related to WGH, WGH tried its best to conduct the activities for implementing its 7 AOPs of 2020 including domestic research, paper works and virtual meetings.
- Conducting WGH working meeting

Owing to the COVID-19 pandemic, WGH conducted the WGH 9<sup>th</sup> working meeting by video conference, which was hosted by Japan on 22 October 2020, instead of face-to-face meeting originally scheduled to be held in Kumamoto, Japan in October 2020 in combination with the 4th Asia Pacific Water Summit. Japan expressed its willingness to host a face-to-face conference for WGH 10<sup>th</sup> working meeting in Japan in 2021.

- **WGH Chairmanship**  
Based on the full discussion and communication, the WGH Members made the following consensus on the Chairmanship of WGH:
  - Current structure of TC WGs' chairmanship was running very well, and it had the most benefit for the Committee on mobilization of resources, cooperation and support.
  - WGH would maintain the current chair/vice-chair system.
  - Participants agreed to maintain setting one Chairperson and three Vice-chairpersons for WGH.

### 2.3. WGDRR

- **Implementing WGDRR's Annual Operating Plans in 2020**  
In 2020, Due to the COVID-19 pandemic, many planned activities for WGDRR component could not be implemented smoothly and relevant activities need to be postponed to 2021. However, with strong support from the Members, WGDRR still successfully completed the DRR education video project that aimed at raising the public awareness for typhoon-related disaster in TC region. The video has already been uploaded to TC Website for sharing with the Members.
- **Conducting the WGDRR annual meeting**  
The WGDRR annual meeting was supposed to be held in Republic of Korea and hosted by National Disaster Management research institute (NDMI) in May or June as usual. This year, the meeting was conducted online instead of face to face due to the travel restriction of COVID-19 pandemic. In the meeting, WG reviewed the progress and implementation of AOPs with the budget expenditure in 2020 and proposed the plans for 2021.

### 2.4 TRCG

- CMA's Typhoon Forecaster Training Programme was successfully held in Beijing on 9-11 December 2020 and was conducted online due to the COVID-19 pandemic. The training focused on developing operational forecasters' knowledge and skills in tropical cyclone prediction, covering topics on tropical cyclone monitoring, analysis and forecasting. Experts from CMA and invited lecturers of University of Hawaii, and University of Guam delivered lectures on a range of topics related to tropical cyclone forecasting. The training was attended by 59 local participants and 42 overseas participants, including 16 participants from the Typhoon Committee Members and 26 from Panel on Tropical Cyclone.
- The RSMC Forecaster's Training Attachment has been scheduled to Q1 of 2021 following the relocation of the JMA Headquarters. The training will likely be conducted online due to the development of the COVID-19 pandemic. Also, the Hong Kong Observatory offered the fellowship on a topic entitled "Verification of tropical cyclone wind structure forecasts from global NWP models and ensemble prediction system" to be conducted in Q1 of 2021.

## 3. Strategic Development

The Strategic Plan of Typhoon Committee from 2017 to 2021 has been approved at the 49<sup>th</sup> Session of the Typhoon Committee held in Yokohama, Japan during 21- 24 February 2017.

The Committee has initiated the updating of the Strategic Plan and requested USA to take the lead in drafting the Strategic Plan 2022-2026.

#### **4. Review of Rule and Procedures of the Typhoon Committee**

The Typhoon Committee took note that under special or emergency situations (such as COVID-19 pandemic), when face-to-face Typhoon Committee Session could not be conducted within a reasonable timeframe, the current Rule and Procedures of the Typhoon Committee might not have the necessary flexibility in adopting alternative approaches (e.g. video conference, correspondence, etc.). At the request of the Typhoon Committee, TCS, in consultation with AWG, was reviewing the need to update the Rules and Procedures of the Typhoon Committee and, if appropriate, recommend suitable amendments to better cope with special or emergency situations for Members' consideration.