

ESCAP/WMO Typhoon Committee
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Yokohama, Japan

FOR PARTICIPANTS ONLY
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Report on TC's Key Activities and Main Events in the Region, 2016

(Submitted by TC Chair Mr. Raymond Tanabe)

ACTION REQUIRED:

The Committee is invited:

- a) To take note of the key events in 2016
- 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, 2016

APPENDIX A:
DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

5.1 Report on TC's Key Activities and Main Events in the Region, 2016 (agenda item X.X)

5.1.1 The Committee took note of the report of the Typhoon Committee Chairperson on the TC's Key Activities and Main Events in the Region, 2016.

5.1.2 The Committee expressed appreciation to the contributions of Mr. Raymond Tanabe and Mr. Toshihiko Hashida as the chairperson and Vice Chairperson of the Committee.

5.1.3 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, 2016

In the past year, under the contribution, cooperation and support of all TC Members, AWG, working groups, and TCS, the Typhoon Committee was successfully in achieving our goals and implement of the decisions of TC-48. The related issues will be dealt with under the relevant agenda items. Some key activities and events are as follows.

1. Typhoons in the Region

- 1.1 Typhoon season in 2016 was characterized by the absence of named storms in the first half of the year and above-average number of storms which made landfall over China and Japan. While more details can be found in the reports of RSMC Tokyo and TC Members, the following paragraphs highlight the major storms which had significant impacts to the Members.
- 1.2 There were 8 storms which made landfall over China in the year, including Nepartak (1601), Mirinae (1603), Nida (1604), Dianmu (1608), Meranti (1614), Megi (1617), Sarika (1621) and Haima (1622). Nepartak, the first named storm of the year, did not form until July 3. It was the second latest formation of a named storm according to JMA. Nepartak made the first landfall over Taiwan, China on July 8 followed by a second landfall over Fujian, China on July 9. There were 108 people dead or missing and the total direct economic loss was estimated to be 12.7 billion RMB.
- 1.3 Lionrock (1610) had an unusual track after it formed over south of Japan on August 19. It moved southwestward and intensified into a typhoon, then moved northeastward and became a super typhoon. After it turned northwestward and made landfall over Japan on August 30, it crossed the Sea of Japan on a westerly track and became extratropical. The remnants of Lionrock made landfall over Jilin, China and brought heavy rain and flooding to northeast China. The total direct economic loss was 7.2 billion RMB.
- 1.4 Meranti (1614) was the strongest tropical cyclone over the world in the year. The estimated peak intensity by Joint Typhoon Warning Center of USA was 165 knots (305 km/h). It made landfall over Batanes, Philippines on September 14 and a maximum gust of 80m/s (288 km/h) was reported. Meranti made landfall over China on September 15 and induced a storm surge of 50-290 centimetres to the coastal region. It was also the strongest tropical cyclone to make landfall over China in the year.
- 1.5 In Japan, there were 6 storms which made landfall in the year, including Chanthu (1607), Mindulle (1609), Lionrock (1610), Kompasu (1611), Namtheun (1612) and Malakas (1616). Among the 6 storms, 3 of them (Chanthu, Mindulle and Kompasu) made landfall over Hokkaido in August which set a record. In addition, Lionrock took an unusual westerly track towards Japan at high latitude and became the first storm which made landfall over the Pacific side of Tohoku region in record.
- 1.6 Chaba (1618) made landfall over Jeju, Republic of Korea on October 5 and caused

heavy rain and flooding. Gusts over 200 km/h were reported and the maximum rainfall recorded was 277.5 millimeters.

2. Improvement of TC Activities

2.1. SSOP-II: Implementation of Achievement of Project of SSOP for Coastal Multi-hazard Early Warning System

Following the decision of TC 48th Session, TCS submitted the final version of SSOP-II based on the repeated communication with ESCAP and RCMS-Tokyo. The proposed activities in the final version include:

- Activity 1: Conducting the training courses/workshops on mechanism of establishing and preparing SSOP for coastal multi-hazards EWS for DRR experts and warning experts from NTWCs, NDMOs, and Government sectoral agencies of 10 beneficiary countries at national level (3 days in RTC, Nanjing).
- Activity 2: Conducting consulting workshops (2 days) at national-level for selected 3 nations from TC and PTC regions (based on Activity 1) on supporting updating and improving the existing SOPs by using the knowledge of Manual of SSOPs in combine with Monsoon Forums of RIMES in April-May and October-November 2017 (or in October-November 2017 and April-May 2018, depends on the schedule of RIMES workshops) under the umbrella of UN ESCAP (2 x 3 national consulting workshops in selected countries, in total 6 workshops).
- Activity 3: Conducting RSMC attachment training in RSMCs Tokyo and New Delhi for Tropical Cyclones forecasters of selected 4 nations from TC and PTC regions (14 days in Tokyo x the number of selected nations in PTC region in Tokyo, 14 days in New Delhi x the number of selected countries in TC region).

The project will be started in March of 2017 should the funds become available. The following issues which are concerned seriously by ESCAP should be considered by the Committee, including:

- At this stage it is not guaranteed that RIMES will be implementing TTF-funded projects during this round of funding. Would this be a risk for a successful completion of the proposed project?
- Need to consider both quantitative and qualitative indicators of success. Additional qualitative indicators are needed to define and measure the outcomes of the proposed project.
- Need to specify who will be project managing the initiative? Is a consultant or full-time project manager foreseen at all stages of the project cycle?
- Refer to project management alternatively through an external consultant or staff, what will determine the selection?

2.2. EXOTICCA

The Terms of Reference (TOR) and composition of the Organizing Committee (OC) of EXOTICCA were approved in the 48th Session. Development of the terms and conditions for participating Members was completed and the documents were distributed to

Members for views and suggestions.

A joint workshop with WMO-TLFDP and UPDRAFT on typhoon intensity change forecast was held in Shanghai, China between 17 and 21 October, 2016.

During the year, both CMA and HKO continued field campaigns by using multi-instrument including aircraft drop-sondes, mobile GPS radio-sondes and rocket drop-sondes. Collaboration among participating Members will be carried out in 2017 and a demonstration research will be planned which includes structure analysis, modelling and mechanism of target typhoon intensity change.

2.3. Sharing forecast products and information

At the 48th Session, a decision (1.y) was made in that TCS would solicit Members to provide a list of links to their information, data and forecast products to be shared. TCS received input from China, Hong Kong and Japan, and a portal site (<http://www.typhooncommittee.org/member-products.html>) was set up for Members to browse the forecast products and information in a convenient way.

3. Strategic Development

Typhoon Committee has initiated to renew its strategic plan from 2017 to 2021. Under the leadership of Mr. Ken KLEESCHULTE and the efforts of the all focal points for development of Strategic Plan, a final draft of the Strategic Plan has submitted for approval at the Session. Extension of the current Strategic Plan for another year would only be considered if absolutely necessary. The draft Strategic Plan will be discussed at related item.

4. 50th Anniversary of the Typhoon Committee

The Typhoon Committee was established in 1968, and has already a long history of about forty-nine years. The Typhoon Committee, under the auspice of the ESCAP and WMO, has been playing a unique role in reducing the loss of life and properties and minimizing social, economic, and environmental impacts by typhoon-related disasters. The next year, 2018 will be the 50th anniversary of the Typhoon Committee. We will celebrate the anniversary for improving the visibility of the Committee.