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SUMMARY OF MEMBERS' REPORTS 2025

(submitted by AWG Chair)

Summary and Purpose of Document:
This document presents an overall view of the progress and issues in meteorology, hydrology and DRR aspects among Typhoon Committee (TC) Members with respect to tropical cyclones and related hazards in 2025

Action Proposed

The Committee is invited to:

a) Take note of the major progress and issues in meteorology, hydrology and DRR activities in support of the 19 Priorities detailed in the Typhoon Committee Strategic Plan 2022-2026; and

b) Review the Summary of Members' Reports 2025 in APPENDIX B with the aim of adopting it as an "Executive Summary" for distribution to Members' governments and other collaborating or potential sponsoring agencies for information and reference.

APPENDICES:
1) Appendix A – DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT
2) Appendix B – SUMMARY OF MEMBERS' REPORTS 2025

APPENDIX A:
DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

6.2 SUMMARY OF MEMBERS' REPORTS

1. *The Committee took note of the Summary of Members' Reports 2025 highlighting the key tropical cyclone impacts on Members in 2025 and the major activities undertaken by Members under the TC Priorities and components during the year.*

2. *The Committee expressed its sincere appreciation to AWG Chair for preparing the Summary of Members' Reports and the observations made with respect to the progress of Members' activities in support of the 19 Priorities identified in the TC Strategic Plan 2022-2026 and their relevance to the Early Warnings for All (EW4All) initiative of the United Nations.*

Recommendations of AWG

1. *Consider the key tropical cyclone impacts on Members in 2025 and review the initiatives and activities to be pursued in support of the 19 TC Priorities to mitigate future impacts.*

2. *Adopt Section 2 of the Summary of Members' Reports 2025 as an "Executive Summary" to be distributed to Members' governments for information and reference.*

3. *Any other text to be included in the Session Report.*

APPENDIX B

SUMMARY OF MEMBERS' REPORTS 2025

Tom Evans (AWG Chair)

This document concisely summarizes the key tropical cyclone activity/impacts in the Typhoon Committee region in 2025 and Members' major initiatives supporting the Typhoon Committee Priorities based on Members' Reports submitted for the 20th Integrated Workshop (20th IWS)/High-Level Forum held in Macao, China during 2 – 5 December 2025. For detailed information and interpretation, please refer to the corresponding Member Report in the Member Report Section of the 20th IWS website: *(https://typhooncommittee.org/20IWS/Members20IWS.html)*

1. Objectives

The objectives of this Summary are to extract the key aspects of tropical cyclone impact and related topical issues of regional interest in Members' countries or territories, and to consolidate the information and observations for:

(a) the attention of Members' governments to encourage allocating the necessary resources for the purposes of operational effectiveness and readiness, disaster mitigation and risk reduction, or leveraging available resources and support for technology transfer and capacity-building through regional cooperation initiatives; and

(b) reference by sponsoring agencies with a view to coordinating and synergizing effort in the planning of relevant projects and programmes for such purposes, as well as channeling resources and aids into identified areas of gaps or needs.

2. Key Observations in 2025

2.1 Overview (courtesy of RSMC Tokyo – Typhoon Center)

Over the western North Pacific and the South China Sea, a total of 27 named tropical cyclones (TCs) formed in 2025 over the western North Pacific and the South China Sea, which was almost the same as the 30-year average of 25.1 (1991 – 2020). Thirteen of these reached typhoon (TY) intensity, which was almost the same as the 30-year average of 13.3. The year's first TC formed on 11 June, which was the fifth latest since 1951. This delayed start to the TC season may be attributable to springtime cumulus convection which was suppressed in the central part of the equatorial North Pacific. In the following month, the atmospheric circulation pattern changed and a total of seven named TCs formed in July, which was the second highest since 1951. With the increased number of named TC formations from July onward and the consistent genesis of named TCs, the overall number for 2025 was almost the same as the average.

Based on the provisional best track analysis, the mean genesis point of named TCs was 18.8°N and 131.7°E, representing a north-westward deviation from the 30-year average (16.3°N and 135.9°E). The mean in summer (June to August) was 21.1°N and 130.4°E, representing a north-westward deviation from the 30-year summer average (18.5°N and 134.2°E), and that in autumn (September to November) was 16.4°N and 133.2°E, representing a westward deviation from the 30-year autumn average (16.2°N and 137.0°E). The mean duration of TCs with tropical storm (TS) intensity or higher was 4.8 days, which was shorter than the 30-year average of 5.2 days.

The 2025 typhoon season started with Wutip (2501), which formed over the South China Sea at 12 UTC on 10 June 2025. The last-named tropical cyclone of the year was Koto (2527), which formed in November 2025 over the Sulu Sea and weakened to tropical depression (TD) intensity over the South China Sea.

2.2 2025 – Greater engagement for reducing impacts

Engagement continued to increase across the western Pacific nations as opportunities for gaining insight on providing impact-based forecasts grew. The High-Level Forum, hosted by Macao, China and conjoined with the 20th Integrated Workshop, saw half of the Permanent Representatives (PRs), seven, come together along with four experts to discuss their perspectives of the committee's future direction – the 2027-2031 Strategic Plan. The results were a focused direction for the Strategic Plan drafting committee along with the issuance of a Joint Statement, signed by the seven PRs. The discussions enhanced the emphasis on the need to apply the advancements knowledge and technology. AI techniques applied to modeling have expanded delivering promising results as forecasters receive training on how to translate these results into actionable and impact-based support services. Many of the working group initiatives concentrated on applying new techniques in forecasting, delivering decision support services in plain and actionable language, and how to influence reducing disaster risk. The continuing need for concentrating on these three areas is seen in the devastation still occurring as typhoons significantly our nations.

2.3 Members' initiatives supporting the Priorities of the Typhoon Committee Strategic Plan (2022-2026)

The table below consolidates Members' key initiatives as reported in their respective Member reports submitted for the 20th IWS. The numbers of initiatives are an indication of which Priorities received relatively more emphasis from the initiatives reported by the Members.

WG	No.	Priorities	No. of initiatives
Integrated	1	Strengthen the cooperation between TRCG, WGM, WGH, and WGDRR to develop impact-based forecasts, decision-support and risk-based warning.	12

	2	Strengthen cross-cutting activities among working groups in the Committee.	12
	3	Enhance collaborative activities with other regional/international frameworks/organizations, including technical cooperation between TC/AP-TCRC and TC/PTC cooperation mechanism.	16
Meteorology	4	Enhance the capacity to monitor and forecast typhoon activities particularly in genesis, intensity and structure change.	27
	5	Develop and enhance typhoon analysis and forecast techniques from nowcast to medium-range, and seasonal to long-range prediction.	23
	6	Enhance and provide typhoon forecast guidance based on NWP including ensembles, weather radar and satellite related products, such as QPE/QPF.	19
	7	Promote communication among typhoon operational forecast and research communities in Typhoon Committee region.	6
	8	Enhance training activities with TRCG, WGH, and WGDRR in accordance with Typhoon Committee forecast competency, knowledge sharing, and exchange of latest development and new techniques.	8
	9	Enhance RSMC capacity to provide regional guidance including storm surge, in response to Member's needs.	1
Hydrology	10	Improve typhoon-related flood (including riverine flood, flash flood, urban flood, and coastal flood) monitoring, data collection and archiving, quality control, transmission, processing, and sharing framework.	15
	11	Enhance capacity in typhoon-related flood risk management (including land-use management, dam operation, etc.) and integrated water resources management and flood-water utilization.	11
	12	Strengthen capacity in effective flood forecasting and impact-based early warning, including hazard mapping and anticipated risk based on methodological and hydrological modelling, and operation system development.	13
	13	Develop capacity in projecting the impacts of climate change, urbanization and other human activities on typhoon-related flood disaster vulnerability and water resource availability.	2
	14	Increase capacity in utilization of advanced science and technology for typhoon-related flood forecasting, early warning, and management.	10
DRR	15	Provide reliable statistics of mortality and direct disaster economic loss caused by typhoon-related disasters for monitoring the targets of the Typhoon Committee.	8
	16	Enhance Members' disaster risk reduction techniques and management strategies.	34
	17	Evaluate socio-economic benefits of disaster risk reduction for typhoon-related disasters.	0
	18	Promote international cooperation of DRR implementation project.	6
	19	Share experience/knowhow of DRR activities including legal and	10

		policy framework, community-based DRR activities, methodology to collect disaster-related information.	

2.4 Members' activities related to the Early Warnings for All initiative

In echoing the Early Warnings for All (EW4All) initiative of the United Nations, Members are also invited to report the relevance of their activities with the four pillars of EW4All in the Member Report for the 19th IWS. The table below summarizes the number of initiatives addressing the four pillars of EW4All as reported in the Member Reports available for the 19th IWS.

Key Pillars of EW4All (https://public.wmo.int/en/earlywarningsforall)	**No. of initiatives**
Disaster risk knowledge and management	42
Detection, observation, monitoring, analysis, and forecasting	62
Warning dissemination and communication	50
Preparedness and response capabilities	38

3. Summary of Members' Reports

3.1 Cambodia

In 2025, Cambodia continued to experience a tropical monsoon, climate, characterized by two distinct seasons influenced by regional monsoon dynamics and broader climate variability. Although no tropical cyclone made landfall over Cambodia, several regional tropical cyclones affected weather conditions across the country through cyclone remnants and outer rainband effects. There were eight named tropical cyclones (TCs) that had impacts on Cambodia. Seasonal floods affected tens of thousands of households, particularly in lowland provinces and urban centers with poor drainage. Thousands experienced temporary displacement due to rising water levels and flash floods. Several fatalities and injuries were reported during peak flooding periods. Direct economic losses included damage to crops and livestock, repair needs for transport and irrigation infrastructure, reduced household income and productivity. Indirect losses were observed through disrupted local markets, increased transportation costs, and delayed agricultural cycles.

Cambodia made strong and measurable progress across all Key Result Areas in 2025. They highlighted seven major initiatives supporting the Typhoon Committee Priorities. These include improved forecasting capabilities, expansion of early warning dissemination, enhanced regional collaboration, and strengthened community preparedness. Continued investment in digital transformation, hydrometeorological infrastructure, and institutional coordination will further advance Cambodia's resilience to climate-related hazards.

In 2025, flash floods, landslides and strong winds, causing deaths and damage to people's homes and property occurred throughout the season. TC Kajiki caused the 22 kV medium-voltage grid system to collapse and many power poles to fall. Also, water management of hydropower dams, irrigation dams, agricultural areas, power grids and many infrastructures were affected along with livestock lost.

3.2 China

In 2025, a total of 26 typhoons were generated in the Western North Pacific (WNP) and the South China Sea (SCS), 2.7 above the multi-year average of 23.3 for the same period. A total of 10 TCs made landfall in China, 2.9 more than the multi-year average of 7.1. Another four TCs did not make landfall but still affected China's near-shore waters and inland regions. The TC activity in 2025 was characterized by genesis locations shifted westward and northward, weaker average intensity, stronger landfall intensity, concentrated generation timing, and active autumn TC activity. Specifically, seven TCs formed locally in the SCS, which is 2.5 more than the multi-year average, indicating frequent TC activity in the SCS this year.

TCs related disasters affected a total of around 9.5 million people across 12 provinces in China, resulting in 10 fatalities. Additionally, about 3.5 million people were urgently evacuated for safety, and around 1.4 million people were relocated for emergency assistance. Over 600 houses collapsed, and more than 7,800 buildings were damaged to

varying degrees. The area of crops affected totaled 224,710 hectares, with a complete loss of over 22,910 hectares.

China highlighted seven major initiatives supporting the Typhoon Committee Priorities. These include the application of AI weather models in TC forecasting, advancements in numerical modeling of TCs, the TC observation experiment and data application, application of Fengyun satellites in typhoon operational service and scientific research, advances in TC scientific research, improvement of Typhoon-related Disaster Management, and training in tropical cyclone operational skills.

3.3 Democratic People's Republic of Korea (DPRK)

In 2025, the Democratic People's Republic of Korea was not affected by tropical cyclones. Therefore, there was no hydrologic damage nor socio-economic impacts.

The Democratic People's Republic of Korea highlighted four areas supporting the Key Results Areas. These include improvement of typhoon forecasting, improvement of typhoon information service, reducing typhoon-related disasters, and strengthening regional cooperation.

3.4 Hong Kong, China

2025 was an eventful year in Hong Kong, China in terms of tropical cyclone. As of 21 November 2025, 14 tropical cyclones (TCs) affected Hong Kong, China, breaking the previous record of 11 set in 1974 for the highest annual number of TCs affecting Hong Kong in a year since 1946. Among these TCs, Typhoon Wipha in July and Super Typhoon Ragasa in September necessitated the issuance of the highest tropical cyclone warning, Hurricane Signal No. 10, breaking the record of issuing the No. 10 Signal twice in a year since 1964.

Although Hong Kong was much drier than usual in the first half of 2025, with outbreaks of heavy rain in July and August, the accumulated rainfall in the first eight months of the year caught up the normal value for the same period. On 14 August, the incessant downpour associated with the rainbands of Podul necessitated the issuance of the Black Rainstorm Warning for the fifth time this year, breaking the previous record of three times set in 2000 and 2006 since the commencement of rainstorm system operation in 1992. In terms of rainfall, Wipha was the wettest tropical cyclone affecting Hong Kong so far in 2025, with an accumulated rainfall of 238.3 millimetres recorded at the Headquarters during its passage. Under the influence of Wipha, a maximum sea level of 3.03 m (above chart datum) and a maximum storm surge of 1.61 m (above astronomical tide) were recorded at Tai Po Kau.

The socio-economic impacts were mainly experienced by two TCs. During the passage of Wipha, at least 33 people were injured. There were at least 2672 reports of fallen trees and seven reports of flooding. There were at least 600 road incident reports, including blockage of roads due to fallen trees, scaffoldings or flooding. There were five reports on collapsed scaffolds and 21 reports of building-related incidents, which mainly involved

unstable windows. Over 500 flights were cancelled at the Hong Kong International Airport. During the passage of Ragasa, its fierce winds triggered overtopping waves, causing flooding in many parts of the coastal areas of Hong Kong. At least 101 people were injured. A woman and her son were swept away by swells at the waterfront of Chai Wan and were later rescued. There were at least 1224 reports of fallen trees, 22 reports of flooding and four reports of landslides. There were more than 1600 road incident reports, including blockage of roads due to fallen trees, flooding or landslides. There were also 25 incident reports related loosened or damaged signboards and scaffoldings. More than 700 flights were cancelled at the Hong Kong International Airport.

Hong Kong, China, undertook 13 key initiatives in support of Typhoon Committee priorities. These initiatives included TC reconnaissance flights, enhancing tropical cyclone monitoring with marine satellite data, retrieving the 3D wind structure of tropical cyclones using multiple Doppler weather radars, Mosaic Model Map (M^3) - Real-time Territorial Flood Risk Visualization System, operational use of Artificial Intelligence (AI) weather prediction models for TC forecasting, calibration of field-driven Delft3D model for storm surge forecasting in Hong Kong, coastal sea level forecast for Hong Kong, updates in RSMC for nowcasting website with AI-STORMVIS and machine-learning satellite-derived reflectivity nowcast, TC Research fellowship on Com-SWIRLS and TrajGRU development, enhancements of systems and tools to support tropical cyclone forecast operations, provision of more computer model forecast products on "Earth Weather" webpage, public education on tropical cyclone and the associated hazards through collaborative efforts, enhancing public understanding of tropical cyclones and reminding the public on various typhoon hazards.

3.5 Japan

In 2025, 13 tropical cyclones (TCs) of tropical storm (TS) intensity or higher had come within 300 km of the Japanese archipelago as of 19 November 2025. Three made landfall, and the country was affected even by those that did not make landfall.

Tropical Storm Nari made landfall near Cape Erimo in Hokkaido on July 15. Strong winds hit northern Japan along with very rough sea conditions. Power blackouts affected around 3,900 households nationwide, although no casualties were recorded.

Tropical Storm Lingling made landfall near Hioki in Kagoshima Prefecture on August 21. Total 24-hour precipitation in Kagoshima Prefecture exceeded 300 mm, breaking previous records and surpassing normal monthly precipitation for the whole of August. Also on the 21st, some areas experienced maximum instantaneous wind speeds of over 30 meters per second and maximum wind speeds of over 20 meters per second. In the southern Kyushu and Amami regions, thunderstorms and very heavy rain occurred on the 22nd due to the influence of warm, moist air around a tropical depression and developed rainclouds in the depression itself. Damage reports included five minor injuries, flooding above floor level in 53 houses and below floor level in 51, and major damage to houses. Around 340 households experienced blackouts in the Kyushu Electric Power service area, and damage to pipes disrupted water supplies for around 80 households in Hioki (Kagoshima Prefecture).

Tropical Storm Peipah developed south of Japan on September 4 before moving

northward off the coast of Miyazaki Prefecture during the night. On the 5th it took a more easterly course and made landfall near Sukumo (Kochi Prefecture) at around 1:00, then made landfall in the northern part of Wakayama Prefecture at around 9:00. It subsequently moved eastward along the Pacific side of eastern Japan and transitioned into an extratropical cyclone east of Japan on the 5th. Total 24-hour precipitation in Miyazaki Prefecture exceeded 450 mm, breaking previous records and surpassing normal monthly precipitation for the whole of September. Rainfall exceeding 350 and 150 mm was observed in the prefectures of Shizuoka and Kanagawa, respectively. Torrential rain and thunderstorms occurred over a wide area from western to eastern Japan, and extreme gusting winds were recorded in some areas. As of September 22, the typhoon had caused 2 fatalities, 8 cases of serious injury and 82 cases of minor injury. A total of 36 houses were destroyed, 169 very heavily damaged, 1,085 heavily damaged, 1,054 flooded above floor level and 1,325 flooded below floor level. Power blackouts were recorded at around 4,230 households nationwide.

Japan reported on eight major initiatives aligned with Typhoon Committee Priorities. These included advancing TC information towards 2030 and beyond, attachment training, updates on JMA's numerical weather prediction system, International Organization for standardization/International Workshop Agreement (ISO/IWA) 50the session “Hydrological Risks,” 14th session of the Typhoon Committee’s Working Group on Hydrology Meeting, Asian Conference on Disaster Reduction, visiting researchers program, and GLobal unique disaster IDEntifier (GLIDE).

3.6 Lao PDR

From July to September 2025, there are 6 tropical cyclones that pass near or through Lao PDR having significant impacts. The two TC producing the largest impacts were Tropical Storm Wipha. On July 22, Tropical Storm Wipha moved up the northern part of Vietnam and weakened into a low pressure area with strong winds covering the northern region. According to the local government between July 21 and July 30, intense rainfall from Tropical Depression Wipha caused widespread flooding and landslides across northern and central Lao PDR, affecting 46 districts and over 571 villages, with four people dead, seven missing, and thousands displaced. Khammouane Province was the most affected, with severe flooding in Hinboun District impacting over 335 families and causing extensive damage to homes, farmland, and infrastructure.

In 2025, seasonal weather, combined with the southwest monsoon and tropical cyclones affecting Lao PDR, had resulted in continuous rainfall across many provinces. This led to floods, flash floods, and landslides, impacting 16 provinces and the capital, affecting more than 268,000 people and resulting in 14 fatalities.

3.7 Macao, China

In 2025, through 21 November, 14 tropical cyclones affected Macao, China, which makes 2025 the most active typhoon season for Macao on record. TCs Tapah and Matmo resulted in the issuance of up to Tropical Cyclone Signal No.8, and TCs Wipha and Ragasa resulted in the issuance of Tropical Cyclone Signal No.10, the others only resulted in the issue of

up to Tropical Cyclone Signal No.3 and No.1, which caused minor damages in Macao.
No injuries were reported in tropical cyclone Tapah and Matmo. No incidents were reported for Tapah and 5 incidents were reported for Matmo. Typhoon Wipha caused minor damages with 121 reported incidents and two injuries. Super Typhoon "Ragasa" brought prolonged severe weather and storm surges with flooding comparable to Typhoons Hato and Mangkhut. The highest sustained wind speed in the centre reached 220 km/h, resulting in 201 reported incidents and no people injured.

In support of Typhoon Committee Priorities, Macao, China reported ten major initiatives, including enhancement of objective tropical cyclone warning signal probability matrix, application of AI technology forecasting tools, expansion of meteorological and water-level monitoring networks, introduction of new meteorological visualization system, launch of the "Weather Outlook" service, launch of the "Zhuhai-Macao Meteorological Warning Webpage," TC interdepartmental video meeting, promotion and education of meteorology and disaster risk reduction knowledge, annual emergency exercise, and city information kiosk to display civil protection information.

3.8 Malaysia

From October 2024 to October 2025, a total of 32 TCs were recorded, comprising 17 Typhoons (Ty), 6 Severe Tropical Storms (STS), and 9 Tropical Storms (TS). Nineteen (19) TCs occurred within MET Malaysia's area of responsibility, which spans latitudes from 0° to 20°N and longitudes from 95° to 130°E. During TS Pabuk, nineteen strong wind and rough sea warnings were issued, which are the highest number of warnings issued in this tropical cyclone season. Westerly wind speeds of 50 - 60 km/h and/or rough seas with wave heights of up to 4.5 meters were observed in some parts of Malaysian waters during these TS events. The highest significant rainfall during TS Pabuk was recorded at nearly 120 mm.

Malaysia reported on three major initiatives supporting Typhoon Committee Priorities, including the development of key reference documents, progress of the Disaster Information / Warnings / Alerts Dissemination Process in National Disaster Command Centre (NDCC), and progress of understanding and managing disaster risks.

3.9 The Philippines

In 2025, a total of 21 tropical cyclones (TCs) were observed within the Philippine Area of Responsibility through 21 November. A total of 9 TCs made landfall over the Philippine archipelago. Several of these TCs exhibited a notable pre-landfall intensification, strengthening to tropical storm or typhoon category within six hours of landfall.

Several notable high-impact events happened due to hazards associated by TCs. First was during the passage of Typhoon EMONG, which brought heavy rains and typhoon-force winds particularly in the western portions of Luzon. Heavy rains were further enhanced due to the combined effects of the Southwest Monsoon and the TC. Accumulated rainfall of more than 200 mm was observed in Ilocos Region. Damage was reported in Pangasinan and La Union due to typhoon-force winds. In September, one of the strongest TCs that

affected the Philippines was Super Typhoon NANDO (RAGASA). Most of the heavy rainfall recorded in the western portions of Luzon and Visayas was associated with the enhanced Southwest Monsoon. The accumulated rainfall during the passage of NANDO dumped 100 mm over Luzon and the western portions of Visayas and Mindanao. NANDO traversed over the Luzon Strait, and most of the reported damages were confined to Northern Luzon. Typhoon TINO caused massive destruction and casualties, and although Typhoon TINO brought typhoon-force winds during its passage, most of the reported casualties and damage were caused by heavy rains that triggered flooding in Central Visayas. Super Typhoon UWAN approached the Bicol Region resulting in typhoon-force winds, which were felt in Catanduanes. Also, heavy rains and near zero visibility were reported. Furthermore, this TC was exceptionally large, prompting the issuance of a Wind Signal over a vast portion of the country. Due to its close approach to Cataduanes, the land interaction of its rainbands caused the TC to weaken before making its initial landfall in Aurora. Flooding and landslides, and impacts due to storm surge were reported.

Based on the official report provided by the National Disaster Risk Reduction and Management Council (NDRRMC), the 21 TCs directly and indirectly (e.g., distant precipitation through monsoon) resulted in 1,131 casualties – 366 dead, 621 injured, and 144 missing individuals. Combined cost of damage to agriculture and infrastructure amounted to PHP 31.9 billion.

The Philippines reported on one Typhoon Committee Priorities which was establishing the Integrated Platform for Typhoon Monitoring and Forecasting in the Philippines.

3.10 Republic of Korea (ROK)

In 2025, although the overall typhoon activity in the Western North Pacific basin was near normal, large-scale circulation patterns around East Asia played a crucial role in steering typhoons away from the Korean Peninsula, resulting in no typhoons moving northward to Korea this year.

ROK reported on 11 major initiatives to support Typhoon Committee Priorities, including Prediction of Summer Typhoon Outlook (POP1), Deployment of Drifting Buoys for Typhoon Forecasts and Analysis (AOP12), AI-based developments for typhoon forecasting, improvement of typhoon intensity classification at KMA, GEO-KOMPSAT-2A Utilization for Tropical Cyclones (AOP10), continuous development of hydrological data quality control system and flood forecasting system for TC Member countries using Artificial Intelligence (AI) Technique, rapid flood risk detection through cutting edge science and technology, capacity building / knowledge sharing in DRR, setting up early warning and alert system, the 20th annual meeting of Typhoon Committee Working Group on Disaster Risk Reduction, and sharing information related to DRR.

3.11 Singapore

During the 2025 Pacific Typhoon season, there were few occasions during which tropical storms resulted in the convergence of prevailing winds around the surrounding region of Singapore. On June 8 and 10, Singapore experienced Sumatra squalls likely associated

with the intensification of Tropical Storm WUTIP. Strong winds were recorded on both days and heavy rain on 8 June 2025. However, no significant impacts reported.

Singapore reported on seven key initiatives supporting Typhoon Committee Priorities, including, smart drainage grid system for sensor data management and analytics, efforts to strengthen flood resilience among communities, data-driven probabilistic thunderstorm forecast guidance for Singapore, ASEAN Climate Outlook Forum (ASEANCOF) and the Southeast Asia Regional Climate Centre Network (SEA RCC-NETWORK), enhanced rainfall nowcasting for Singapore, operationalization of ensemble prediction system SINGV-EPS, and participation in the development of RDCA satellite products.

3.12 Thailand

From 1 November 2024 to 15 November 2025, Thailand was directly affected by KALMAEGI, which entered northeastern Thailand. KALMAEGI was the only tropical cyclone that entered Thailand during this period. In addition, the remnants of six tropical cyclones affected Thailand rainfall.

During the period of 7-9 November, the Department of Disaster Prevention reported that the tropical storm KALMAEGI caused flooding which affected 3,630 households across 27 districts, 62 subdistricts and 264 villages in 17 provinces. There were no injuries, missing persons, or fatalities resulting from the incident. During the other six TCs, DDPM reported nearly 450,000 households were affected, 34 fatalities, 4 injuries and 4 missing persons.

Thailand highlighted eleven initiatives supporting Typhoon Committee priorities. These initiatives include development of regional radar network, radar nowcasting based on RaINS/SWIRL, utilization of FengYun Satellite for High Frequency TC Observation, development of GTS and WIS2.0 network, application of Numerical Weather Prediction (NWP), Weather Radar, and Satellite to estimate quantitative precipitation forecasting during Typhoon events, improve typhoon-related flood (including riverine flood, flash flood, urban flood, and coastal flood) monitoring, data collection and archiving, quality control, transmission, processing, and sharing framework, enhance capacity in typhoon-related flood risk management (including land-use management, dam operation, etc.) and integrated water resources management and flood-water utilization, strengthen capacity in effective flood forecasting and impact-based early warning, including hazard mapping and anticipated risk based on methodological and hydrological modelling, and operation system development, flood marks in Chao Phraya river basin, sxpansion of CCTV installation for flood-risk river basins, and implementation of the Cell Broadcast System (CBS) to enhance the warning capacity to the public.

3.13 United States of America (USA)

From October 2024 through September 2025, were 17 tropical cyclones in Guam's area of responsibility. The 2025 typhoon season had a very slow start with the first tropical cyclone developing in June, which, based on preliminary JTWC data, was the fourth-latest on record. Seven tropical cyclones developed or passed near various islands of the

U.S. Affiliated Pacific Islands and Territories of the western North Pacific, but for only four tropical cyclones, were there more-significant concerns for impacts warranting the issuance of tropical cyclone watches or warnings by NWS Guam. These were Kong-reyMan-yi, Krosa, and Podul. Kong-rey was the most impactful with the heaviest impacts were over the islands of Saipan and Tinian, about 200 km north-northeast of Guam. Wind gusts reached up to 50 knots with heavy rainfall (300-400 mm in 24 hours) resulting in the worst flash flooding in 15 years. Several vehicles, homes and businesses took in flood waters resulting in minimal damage. Farther south, four lives were lost at sea in the Chuuk Lagoon due to strong waves and currents.

The USA highlighted ten initiatives supporting Typhoon Committee priorities. These initiatives include Weather-Ready Nation Program, annual tropical cyclone exercises, StormReady® and TsunamiReady®, outreach and education activities, Pacific International Training Desk, resource mobilization during extreme events, improved typhoon-related disaster risk management in various sectors – building resilience/awareness, leveraging additional communications for EW4ALL, Working Group on Hydrology AOP1 Workshop, and Working Group on Hydrology Annual Meeting.

3.14 Viet Nam

During January-November 2025, there were 14 tropical storms and five tropical depressions active in the BienDong Sea. The year 2025 was marked by numerous strong typhoons and successive tropical depressions, causing major losses in human life, housing, crops, and infrastructure. The United Nations described it as a season with -more typhoons than usual. and issued a large-scale humanitarian response plan. There was a clear pattern of compound disasters: floods, rain on saturated ground, landslides, and prolonged inundation. Several typhoons arrived in close succession, striking areas that had not yet recovered from previous storms. The regions hit hardest were the Northern Region (Hanoi, Thai Nguyen, Lang Son…), the North Central Region (Thanh Hoa, Nghe An, Ha Tinh, Quang Tri), and the Central Highlands (Gia Lai, Dak Lak)—with the main impact areas varying depending on each typhoon. Economic losses were estimated at several trillion VND (approximately 200–600 million USD) per major storm (for example: Matmo ~ US$300 million, Kalmaegi ~ US$300 million, Bualoi ~ US$300-600 million), indicating extremely large impacts on reconstruction and government support needs. Through October 2025, natural disasters have killed or left missing 241 people, injured 390 people; 262,749 damaged or blown-off houses; flooded or damaged 529,809 hectares of rice, crops, and other plants; killed or swept away 45,031 livestock and 3,353,138 poultry; damaged 57,979 hectares of aquatic products... Total estimated damage is over VND 54,767 billion.

Viet Nam reported on three major initiatives to support Typhoon Committee Priorities, including system infrastructure and forecasting products for operational purposes and for the RFSC, Short-range Regional Ensemble Prediction System (SREP-32), and new tropical cyclone forecasting support system at VNMHA.