

## **SUMMARY OF TYPHOON COMMITTEE ROVING SEMINAR 2016 (Viet Nam, 15-17 November 2016)**

### **I. Organization**

1. The Typhoon Committee Roving Seminar (TCRS) 2016 with the theme on Storm Surge was successfully held on 15-17 November 2016 in Viet Nam. It was organized by ESCAP/WMO Typhoon Committee (TC) and hosted by the National Hydro-Meteorological Service of Viet Nam (NHMS).
2. The Seminar was attended by 39 participants from Cambodia (2); China (2); Macao, China (1); Hong Kong, China (1); Philippines (1); Singapore (1); Thailand (1); Republic of Korea (1); Lao PDR (1) and Viet Nam (28). Four resource persons came from Hong Kong, China, Japan and USA and one representative came from the Typhoon Committee Secretariat (TCS). The list of participants is given in Attachment A.

### **II. Opening**

1. The TCRS 2016 was officiated by Mr. Tran Hong Thai, Deputy Director of NHMS, Viet Nam. Mr. Tran delivered the opening speech, highlighting the message from Secretary General of the World Meteorological Organization, Mr. Petteri Taalas, that climate change is increasing the risk of heavy rain and flood, hence impact-based forecasts are necessary to empower emergency managers with information they could act on. He also hoped that the Roving Seminar could serve as a platform for scientists, researchers and forecasters to share and strengthen the hydro-meteorological forecasts and contribute to the prevention and mitigation of natural disasters, economic development in each Member in the context of global climate change.
2. The Meteorologist of TCS, Mr. Fong Chi Kong in his address expressed his gratitude to Viet Nam for hosting the Roving Seminar as it is one of the main activities of the TC, coordinated by the TRCG since 2003. He also expressed his gratitude to the speakers from Japan, USA and Hong Kong for sharing valuable experiences in storm surge modelling and forecasts which help Members better understand the topic and improve their forecasts to provide a more effective disaster risk reduction approach.

### **III. Seminar Programme**

1. Mr. Nadao Kohno from Japan Meteorological Agency presented Topic A on “Advances in Operational Storm Surge and Coastal Inundation Prediction”.
2. Mr. Arthur Taylor from National Weather Services, USA presented Topic B on “SLOSH - Storm Surge Modeling and Applications for Decision Support”.
3. Mr. Dickson Lau from Hong Kong Observatory presented Topic C on “Development of an Operational Storm Surge Prediction System for a Coastal City - Hong Kong Experience”.
4. Dr. Nguyen Ba Thuy from National Center for Hydro-Meteorological Forecasting, NHMS of Viet Nam delivered an invited lecture on “Storm surge prediction considering the effect of wave”.
5. A technical visit to National Center for Hydro-Meteorological Forecasting and Ba Vi Weather Station were conducted on the afternoon of 17 November 2016.
6. The Roving Seminar Programme is given in Attachment B.

### **IV. Proposals and Recommendations**

1. The participants gave a warm appreciation to the four resource persons for their presentations and useful advice as well as examples of good practices on the relevant topics.
2. During the wrap up discussion, most participants indicated that they gained knowledge on storm surge modelling and forecasting, although some of them might not have immediate threats. The participant from Republic of Korea mentioned that climate change might change the path of typhoons so storm surge risk for Korean Peninsula might increase; and participant from Cambodia suggested that it would benefit more if the storm surge models could cover the southern part of the South China Sea and Gulf of Thailand. The feedbacks and recommendations collated from the participants are summarized in Attachment C.

3. Suggestions from the resource persons and organizers for future reference:
  - (a) more time could be given to hand-on exercise for participants to get more involved into the SLOSH and JMA Storm Surge Model;
  - (b) more details on how to use the new model for operational prediction;
  - (c) a training on SLOSH model should be given a priority;
  - (d) desirable to have more discussion about PC setting for hand-on exercise beforehand;
  - (e) content of the event is still wide and it is better to focus on storm surge only.

## **V. Closing**

1. The resource persons and participants expressed their gratitude to the NHMS of Viet Nam for hosting this seminar and for the warm hospitality.
2. Mr. Tran Hong Thai and Mr. Fong Chi Kong presented the attendance certificates to the participants.
3. The Roving Seminar was closed on 17 November 2016.

**List of Participants of the Typhoon Committee Roving Seminar 2016  
(Viet Nam, 15 - 17 November 2016)**

<b>Members</b>	<b>Name of Participants</b>
Cambodia	Mr. Lim HAK
	Ms. Phalla PEOU
China	Ms. ZHENG Yunxia
	Dr. LIN Yi
Macao, China	Mr. HO Kuok Hou
Hong Kong, China	Mr. HUNG Fanyiu
Philippines	Mrs. Maria Cecilia A. MONTEVERDE
Singapore	Mr. YANG Junhua
Thailand	Mr. Pawat SIRIYOTHA
Republic of Korea	Mr. CHO Kwang Woo
Lao PDR	Mrs: Somsanouk VANHLAKHALACK
Viet Nam	Mr. Tran Hong THAI
	Mr. Nguyen Ba THUY
	Mr. Dinh Thai HUNG
	Ms. Dang Thanh MAI
	Mr. Vo Van HOA
	Mr. Hoang Phuc LAM
	Ms. Le Thi HUE
	Ms. Nguyen Thu LAN
	Mr. Pham Dinh VAN
	Mr. Dao Dinh KHOA
	Mr. Nguyen Van LY
	Mr. Nguyen Xuan TIEN
	Mr. Tang Van AN
	Ms. Ton Thi THAO
	Mr. Bui Thanh QUYNH
	Mr. Tran Trung THANH
	Mr. Nguyen Hong SINH
	Mr. Vu Van QUAN
	Ms. Nguyen Thi Nhuy TAM
	Ms. Le Thi Bich NGOC
	Ms. Hoang Thi Le NHUNG
	Mr. Truong Ba KIEN

	Mr. Pham Tien DAT Mr. Nguyen Manh LINH Ms. Luong Thi Thanh HUYEN Mr. Nguyen Manh DUNG Ms. Pham Khanh NGOC Mr. Sanaul HoQue MONDAL
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Resource persons	Mr. Nadao KOHNO Mr. Masaki ITOH Mr. Arthur TAYLOR Mr. Dick Shum Dickson LAU
TCS	Mr. FONG Chi Kong

**Typhoon Committee Roving Seminar 2016  
Seminar Programme**

**Dates and Venue:** 15 – 17 November 2016, Hoa Binh Hotel, Ha Noi, Viet Nam

**Main Theme: Storm Surge**

Topic A – Advances in Operational Storm Surge and Coastal Inundation Prediction  
*Mr Nadao Kohno and Mr Masaki Itoh of Japan Meteorological Agency, Japan*

Topic B – SLOSH - Storm Surge Modeling and Applications for Decision Support  
*Mr Arthur Taylor of National Weather Services, U.S.A.*

Topic C – Development of an Operational Storm Surge Prediction System for a Coastal City  
- Hong Kong Experience  
*Mr Dickson Lau, Hong Kong Observatory, Hong Kong, China*

**Seminar Schedule:**

		Day 1 (15 Nov, Tue)	Day 2 (16 Nov, Wed)	Day 3 (17 Nov, Thu)
A M	0900 – 1030	Registration & Opening Ceremony (0900 – 1000)	Lecture Topic A (2) (0915-1030)	Invited Lecture by Dr. Nguyen Ba Thuy (0915 – 1030)
	1030 – 1045	Tea Break (1000 – 1030 on Day 1)		
	1045 – 1200	Experience Sharing by Member Representatives <sup>(a)</sup> (1030 – 1200)	Lecture Topic B (2)	Wrap-up Discussion
Lunch Break (1200 – 1330)				
P M	1330 – 1500	Lecture Topic A (1)	Hand-on experience session (Part I)	Technical Visit (National Center for Hydro-Meteorological Forecasting and Ba Vi weather station)
	1500 – 1515	Tea Break		
	1515 – 1645	Lecture Topic B (1)	Hand-on experience session (Part II)	
	1645 – 1700	Tea Break		
	1700 – 1800	Lecture Topic C (1)	Lecture Topic C (2)	

(a) One of the participants from each Member will be invited to represent his/her weather services to deliver a 10 to 15 minutes presentation regarding strategy to handle storm surge of his/her Service.

**TRCG ACTIVITIES EVALUATION FORM**

Roving Seminar 2016  
(Ha Noi, Viet Nam, 15 – 17 Nov 2016)

**29 responses (out of 24 participants + 5 lecturers)  
(not all questions answered by responders)**

**Part A: Event Logistics**

<i>Expectation levels as indicated number of responders</i>	Below expectation ☹		Met expectation ☺		Exceeded expectation ☺	
	P	R	P	R	P	R
	<i>(P = participants; R = resource persons)</i>					
1. Overall administration/organization	0	0	8	0	16	5
2. Pre-event arrangement and liaison	0	0	8	4	16	1
3. Venue facilities	0	0	10	2	14	3
4. Informative announcements and instructions	0	0	8	3	15	2
5. Travel arrangements	0	0	7	1	17	4
6. Funding arrangements	0	0	9	2	15	3
7. Accommodation	1	0	10	1	13	4
8. Refreshments	0	0	7	2	17	3
9. Social events and visitors' information	0	0	6	1	18	4
10. Helpfulness and friendliness of organizers	0	0	5	0	19	5

**Specific points for improvement, if any:**

More details on how to use the new mode for operational prediction

there should be more discussion about PC setting for hand-on exercise beforehand

More time given to hands-on exercises

Training in SLOSH model should be given a priority

## Part B: Technical Contents (from participants only)

	A	B	C
Interest in Topic (1 to 5 ; from disinterested to most interested)			
Topic Contents (1 to 5 ; from irrelevant to topic to most relevant)			
Topic Organization (1 to 5 ; from loosely structured to well-structured)			
Lecture/Workshop Presentation (1 to 5 ; from poor to excellent)			
Training or Practical Material (1 to 5 ; from ill-prepared to well-prepared)			
Language (1 to 5 ; from hard to understand to easy to follow)			
Effectiveness (1 to 5 ; from little understanding gained to much understanding gained)			

Objectives and Scope (L = too narrow; M = just right; R = too wide)			
Emphasis (L = too theoretical; M = just right; R = too practical)			
Length (L = too short; M = just right; R = too long)			
Technical level (L = too elementary; M = just right; R = too difficult)			

## Part C: Follow-ups (from participants only)

1. What operational benefits (new ideas, skills or methodology) you think would be gained from your attendance in the event?

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| <ul style="list-style-type: none"> <li>- JMA SS (Theory to operation), skill about forecasting SS, data input to JMA SS</li> <li>- SLOSH (Basic Framework, Knowledge)</li> <li>- SS phenomenon and the risk for conducting risk assessment and impact studies</li> <li>- New idea for making a decision</li> <li>- whether the SS is bigger when TC moves faster or slower</li> <li>- More practicing with the models, new methodology to run SS in Thailand</li> <li>- Use the coupled model of surge wave and tide, EPS in SS model</li> </ul> |
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2. Any foreseeable opportunity for operational implementation of the above benefits?

Answer: Yes, benefits likely to be felt in about

(a) a couple of years or less	4
(b) in 2 – 5 years	13
(c) in 5 years or more	4
(d) no foreseeable opportunity	2





Group photo of the participants of the Roving Seminar with the Deputy Director General of National Hydro-Meteorological Service of Viet Nam, Mr. Tran Hong Thai (4th to the right, 1st row), Meteorologist of Typhoon Committee Secretariat, Mr. Fong Chi Kong (5th to the right, 1st row) and the lecturers.