

**SUMMARY OF TYPHOON COMMITTEE ROVING SEMINAR 2011
(Petaling Jaya, Malaysia, 20 - 23 September 2011)**

I. Organization

1. The Typhoon Committee Roving Seminar (TCRS) 2011: Heavy Rain and Flood Hazards associated with Landfalling Tropical Cyclones was successfully held on 20 - 23 September 2011 in Petaling Jaya, Malaysia. The Seminar was organized by the ESCAP/WMO Typhoon Committee and hosted by the Malaysian Meteorological Department, Ministry of Science, Technology and Innovation, Malaysia.
2. The Seminar was attended by 35 participants from Malaysia (13); China (6); Philippines (5); Thailand (3); Laos PDR (2); Viet Nam (2); Cambodia (1); Hong Kong, China (1); Macao, China (1) and Singapore (1). The three resource persons came from Hong Kong, China; Singapore and Thailand, along with one representative from the Typhoon Committee Secretariat. The list of participants is given in Attachment A.

II. Opening

1. The TCRS 2011 was officiated by Mr. Alui Bahari, Deputy Director General (Application), Malaysian Meteorological Department on behalf of the Secretary-General, Ministry of Science, Technology and Innovation, Malaysia.
2. Mr. Alui Bahari delivered the opening speech, expressing appreciation to the ESCAP/WMO Typhoon Committee for giving Malaysia the opportunity to host such an important seminar on tropical cyclones.
3. Mr. Derek Leong, Meteorologist of the Typhoon Committee, delivered the opening message addressing the significance of the Seminar and also expressing his sincere appreciation to the Ministry of Science, Technology and Innovation, Malaysian Meteorological Department as well as the resource persons.

III. Seminar Programme

1. Dr. Siriluk Chumchean of Mahanakorn University of Technology, Thailand, presented Topic A on "Overview of QPE/QPF techniques and hydrological applications".

2. Mr. H. Y. Yeung of Hong Kong Observatory presented Topic B on “Review of QPE/QPF operational systems and application to tropical cyclone rainfall forecasting”.
3. Prof. Chen Chang-Ning of Nanyang Technological University, Singapore, presented Topic C on “Cause, assessment and management of flood hazards associated with landfalling tropical cyclones and heavy rain”.
4. The Roving Seminar programme can be found in Attachment B.
5. A technical visit to the Control Center of Stormwater Management And Road Tunnel (SMART) was arranged by the Malaysian Meteorological Department on 22 September.
6. After a brief wrap-up discussion, the seminar was closed before lunch on 23 September. Some participants took the opportunity to visit the Malaysian Meteorological Department’s Weather Forecasting Center in the afternoon.

IV. Proposals and Recommendations

1. The participants warmly appreciated the effort made by the resource persons to provide new ideas and insight on the topics discussed.
2. About half of the participants felt that skills and knowledge learnt would lead to operational benefits in their services within the next five years. However, there were also some who failed to see any foreseeable opportunities to make progress. Feedbacks and recommendations collated from the participants are summarized in Attachment C.
3. Suggestions from the resource persons for future reference: (a) selection of participants with relevant background and experience to facilitate the training process; (b) capacity building in radar data processing; (c) QPE/QPF applications in support of nowcasting and flash flood forecasting; (d) impact of climate change on extreme rainfall.

V. Closing

1. The resource persons and participants expressed their gratitude and appreciation to the Malaysian Meteorological Department for the successful hosting of the Roving Seminar and for their warm hospitality.
2. Dr. Yap Kok Seng, Director General of Malaysian Meteorological Department delivered his closing remarks and, accompanied by Mr. Derek Leong, presented the certificates of attendance to the participants.
3. The TCRS 2011 was officially closed on 23 September 2011.

**List of Participants of Typhoon Committee Roving Seminar 2011
(Petaling Jaya, Malaysia, 20 - 23 September 2011)**

| Member | Name of Participants |
|------------------|--------------------------------------|
| Cambodia | Ms. Phalla PEOU |
| China | Ms. WANG Haiping |
| China | Mr. HU Jianhua |
| China | Ms. DONG Lin |
| China | Mr. CHEN Tao |
| China | Ms. GAO Shan |
| China | Dr. LIAO Fei |
| Hong Kong, China | Mr. CHOW Chin Kin |
| Laos PDR | Mr. Sengduangduan PHOUTHANOXAY |
| Laos PDR | Ms. Sinthaly CHANTHANA |
| Macao, China | Mr. NG Hou Weng |
| Malaysia | Mrs. Livia Binti LAHAT |
| Malaysia | Mr. Rosli Bin ZAKARIA |
| Malaysia | Mr. Mohamed Fauzi Bin MOHAMED SALLEH |
| Malaysia | Mr. Mahluddin Bin SAHRIN |
| Malaysia | Ms. Zainab Binti HASHIM |
| Malaysia | Mrs. Yuslina Binti MOHD SANI |
| Malaysia | Mr. Kumarethiran SUBRAMANIAM |
| Malaysia | Ms. GOH Yee Cai |
| Malaysia | Mr. Mohd Khalil Aziz |
| Malaysia | Mr. PHUAH Eng Beng |
| Malaysia | Mr. Mohd Khairudin Shaari |
| Malaysia | Mr. Shamsumar Shuhani |
| Malaysia | Ms. Suhaily Sahat |
| Philippines | Mr. Sonny N. PAJARILLA |
| Philippines | Mrs. Nivagine Cervantes NIEVARES |
| Philippines | Mr. Eugene G. CABRERA |
| Philippines | Ms. Maria Ana Glaiza ESCULLAR |
| Philippines | Ms. Gladys S. SALUDES |
| Singapore | Mr. CHOW Kwok Wah |
| Thailand | Mr. Chokchai CHUMNUY |
| Thailand | Mr. Sombhop WONGWILAI |
| Thailand | Mr. Teerawat SENAHAN |
| Viet Nam | Mr. NGUYEN Viet Hung |
| Viet Nam | Mr. HOANG Phuc Lam |

| | |
|-----------------|---------------------------|
| Resource Person | Prof. CHEN Charng-Ning |
| Resource Person | Dr. Siriluk CHUMCHEAN |
| Resource Person | Mr. YEUNG Hon Yin |
| TCS | Mr. LEONG Kai Hong, Derek |

**TYPHOON COMMITTEE ROVING SEMINAR 2011
PETALING JAYA, MALAYSIA
20 - 23 SEPTEMBER 2011**

PROGRAMME

Theme:

Heavy Rain and Flood Hazards associated
with Landfalling Tropical Cyclones

- Topic A: Overview of Quantitative Precipitation Estimates/Forecasts (QPE/QPF) techniques and hydrological applications (Dr. S. Chumchean)**
- Topic B: Review of QPE/QPF operational systems and application to tropical cyclone rainfall forecasting (Mr. H.Y. Yeung)**
- Topic C: Cause, assessment and management of flood hazards associated with landfalling tropical cyclones and heavy rain (Professor C.N. Chen)**

TUESDAY, 20 SEPTEMBER 2011

9.00 am Registration

Opening Ceremony

9.30 am Doa Recitation

9.35 am Welcoming Remarks
Dr. Yap Kok Seng
Director General
Malaysian Meteorological Department and
Permanent Representative of Malaysia with WMO

9.40 am Welcoming Remarks
Mr. Derek Leong Kai Hong
Typhoon Committee Representative

9.50 am Opening Address
Y.Bhg. Dato' Madinah Mohamad
Secretary-General
Ministry of Science, Technology and Innovation, Malaysia

10.10 am Group Photo followed by Coffee/Tea Break

10.40 am Lecture on Topic A (*Dr. S. Chumchean*)
12.00 pm Lunch
2.00 pm Lecture on Topic C (*Professor C.N. Chen*)
3.15 pm Coffee/Tea Break
3.45 pm Tutorial Session on Topic C (*Professor C.N. Chen*)
5.00 pm Adjournment
8.00 pm Dinner hosted by the Secretary-General
Ministry of Science, Technology and Innovation, Malaysia

WEDNESDAY, 21 SEPTEMBER 2011

9.00 am Lecture on Topic B (*Mr. H.Y. Yeung*)
10.15 am Coffee/Tea Break
10.45 am Lecture on Topic C (*Professor C.N. Chen*)
12.00 pm Lunch
2.00 pm Lecture on Topic C (*Professor C.N. Chen*)
3.15 pm Coffee/Tea Break
3.45 pm Tutorial Session on Topic B (*Mr. H.Y. Yeung*)
5.00 pm Adjournment

THURSDAY, 22 SEPTEMBER 2011

9.00 am Lecture on Topic B (*Mr. H.Y. Yeung*)
10.15 am Coffee/Tea Break
10.45 am Lecture on Topic A (*Dr. S. Chumchean*)
12.00 pm Lunch
2.30 pm Technical Visit

FRIDAY, 23 SEPTEMBER 2011

- 9.00 am Lecture on Topic B (*Mr. H.Y. Yeung*)
- 10.15 am Coffee/Tea Break
- 10.45 am Lecture on Topic A (*Dr. S. Chumchean*)
- 12.00 pm Lunch
- 2.00 pm Wrap-up Discussion
- 5.00 pm Closure of the Seminar

TRCG ACTIVITIES EVALUATION FORM
 Roving Seminar 2011
 (Petaling Jaya, Malaysia, 20 – 23 Sep 2011)

**35 responses out of 35 participants + 2 response out of 3 resource persons
 (not all questions answered by responders)**

Part A: Event Logistics

*Expectation levels as indicated
 number of responders*

(P = participants; R = resource persons)

| | Below expectation ☹ | | Met expectation ☺ | | Exceeded expectation ☺ | |
|--|------------------------|---|----------------------|---|---------------------------|---|
| | P | R | P | R | P | R |
| 1. Overall administration/organization | 0 | 0 | 16 | 0 | 19 | 2 |
| 2. Pre-event arrangement and liaison | 1 | 0 | 14 | 0 | 19 | 2 |
| 3. Venue facilities | 0 | 0 | 19 | 0 | 16 | 2 |
| 4. Informative announcements and instructions | 0 | 0 | 20 | 1 | 15 | 1 |
| 5. Travel arrangements | 0 | 0 | 8 | 0 | 23 | 2 |
| 6. Funding arrangements | 3 | 0 | 18 | 0 | 10 | 2 |
| 7. Accommodation | 3 | 0 | 21 | 0 | 8 | 2 |
| 8. Refreshments | 1 | 0 | 15 | 2 | 19 | 0 |
| 9. Social events and visitors' information | 0 | 0 | 14 | 1 | 19 | 1 |
| 10. Helpfulness and friendliness of organizers | 0 | 0 | 7 | 0 | 28 | 2 |

Specific points for improvement, if any:

Accommodation far from training venue, with participants and resource persons living in one place
 facilitating interaction

Workshop settings better than seminars for practical experience and deeper understanding

Handouts can be clearer and easier to read

More detailed schedule, and announcement/information may be more effective in written form

Not sufficient time for lectures and practicals

More advanced acceptance notification to allow time for participants to get prepared

Training venue facilities such as overhead projector and PA system to be improved; slides blurred, and microphones not working during Q&A

Properly installed software to save time and to facilitate effective use during tutorials

More computers for use by participants, with reliable network access

Seminar objectives not clear; and lectures to be set in logical sequence for better understanding

More secretariat support from the LOC to be included

Part B: Technical Contents (from participants only)

A – Lectures by S. Chumchean
 B – Lectures/tutorials by H.Y. Yeung
 C – Lectures/tutorials by C.N. Chen

| 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?

- ideas on more accurate QPE and nowcasting techniques
- ideas from SMART tunnel and New Orleans flood case study
- rainfall, severe weather and flood forecasting
- radar data assimilation, application and calibration
- quality control of raingauges
- hydrological applications and flood mitigation methodology
- radar-based QPE and new applications in QPF
- SWIRLS and QPF development strategies
- nowcasting products and more effective linkage with end-users

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 | 14 |
| (b) in 2 – 5 years | 3 |
| (c) in 5 years or more | 8 |
| (d) no foreseeable opportunity | 5 |



Group Photo of Seminar Participants, Resource Persons and Local Organizers



Visit to the Stormwater Management and Road Tunnel (SMART) Control Centre, Department of Irrigation and Drainage Malaysia