

**Workshop on Modelling Monsoon
Intraseasonal Variability,**

**First meeting of the YOTC Task Force on the
Madden Julian Oscillation,
and**

**10th Session of the Asian-Australian
Monsoon Panel (AAMP10)**

Hosted by APEC Climate Center

BUSAN, Korea, 15-19 JUNE 2010



1. Overview

Workshop on Modelling Monsoon Intraseasonal Variability

This modelling workshop will:

- a) Provide an up-to-date assessment of the current capability to predict and simulate monsoon ISV
- b) Provide insight into the problems and issues that need to be addressed to move modelling capability forward
- c) Promote development and application of new diagnostics that provide insight into the physics essential for model simulations of the MJO and other monsoon ISV as well as the development and use of forecast skill metrics targeted to monsoon ISV.
- d) Provide a priority assessment for future research needs based on a – c above
- e) Attempt to match the current predictive capabilities with prediction needs of e.g. the agricultural and water resources sectors

Specific objectives and key agenda items are:

- 1) Assess the ability and utility of operational predictions of monsoon ISV at lead times to 1 month
- 2) Assess the current capability to simulate Monsoon ISV and MJO with global climate models and high resolution global and regional models, including the status of the “Hindcast Experiment for Intraseasonal Prediction”
- 3) Assess current state of knowledge of mechanisms and dynamics of monsoon ISV
- 4) Identify key deficiencies that need to be addressed to advance our ability to simulate and predict monsoon ISV
- 5) Assess new diagnostics of monsoon ISV that can provide insight into model performance and shortcomings and develop new forecast skill metrics tailored for monsoon ISV.

The format of the meeting will be a limited number of thematic overview talks, poster sessions (during which the bulk of the scientific presentations will be made), and then followed by plenary discussion sessions.

First meeting of the YOTC Task Force on the Madden Julian Oscillation

The MJO Task Force (TF) is a follow-on to the U.S. CLIVAR MJO Working Group and will cross-cut many WCRP and WWRP efforts, including CLIVAR AAMP and WGSIP, GEWEX Modelling and Prediction Panel, and THORPEX. The TF will be relevant to the scientific goals of programs such as YOTC, AMY, CASCADE, and CMMAP.

The proposed overall objective of the TF is:

Further development and promotion of process-oriented diagnostics/metrics that improve our insight into the physical mechanisms for robust simulation/prediction of the MJO and that facilitate improvements in convective and other physical parameterizations relevant to the MJO.

Specifically, the MJO TF aims to:

1. Organize analyses of the multi-scale interactions within the context of convectively-coupled tropical waves, both in observations and by exploiting recent advances in high-resolution modeling frameworks, with particular emphasis on vertical structure and diabatic processes. For this item, the YOTC MJO TF should help design modeling experiments in the context of YOTC, CMMAP, and/or CASCADE to best utilize the available data resources with focus on multi-scale and vertical processes.
2. Promote the ongoing evaluation of real-time MJO forecasts (as endorsed by WGNE).
3. Expand efforts to develop and implement MJO forecast metrics under operational conditions, including a boreal summer focus and multi-model ensemble development.
4. Develop an experimental modeling framework (e.g., hindcast experiment/dataset) to assess MJO predictability as well as forecast skill of the MJO and closely related phenomena from contemporary/operational models.
5. Interact with the proposed activity to simulate monsoon ISOs under the WCRP monsoon cross cut activity, including application of MJO diagnostics to outputs and integration of these simulations with the overall MJO experimental modeling framework.
6. Organize workshops and meetings of opportunity to further the work of the Task Force

The planned meeting will be the first face-to-face meeting of the MJO TF

10th Session of the Asian-Australian Monsoon Panel (AAMP10)

The AAMP-10 meeting will be held jointly with the AMY/AAMP/MJO Task Force modelling workshop, and MJO Task Force meeting. This is a unique opportunity to bring together scientists with a CLIVAR focus and scientists/forecasters with a WWRP focus (operational forecasting and application). The meeting will allow interacting with experts and enriching the approach to subjects of interest to the panel.

Specific objectives and key agenda items:

- a) Develop a strategy for AAMP contributions to WCRP seasonal and decadal prediction experiments.
- b) Direction for monsoon research, the most important common issues for improved monsoon simulation and prediction, status and plans related to MJO TF.
- c) Collaboration with other panels/programs and proposed new activities, including engaging the regional modelling community in studies of monsoon, including ISV fidelity.
- d) The AAMP role in the monsoon (IMS) cross cut.
- e) Develop a plan for joint activities/contributions to AMY.
- f) Discussion on the AMY role in IMS.
- g) Establish a set of monsoon diagnostics that can be uniformly applied to different classes of models to evaluate the fidelity of monsoon variability on diurnal to interdecadal time scales.

2. Date and Venue

The Monsoon Intraseasonal Variability Modelling Workshop will be held from 15 to 18 June (noon). The AAMP and the YOTC MJO Task Force will meet in parallel from the afternoon 18 to 19 at the same venue.

The meetings will take place at the APEC Climate Center, Busan, Republic of Korea.

APEC Climate Center

1463 U-dong, Haeundae-gu, Busan, 612-020, KOREA

Tel: +82 51 745 3900 / Fax: +82 51 745 3949

E-mail: apcc@apcc21.net

Website: www.apcc21.net

3. Registration

Participants are asked to complete and submit the registration form (Annex B), and pickup service form (Annex C) to the local Coordinator at ipo@apcc21.net or by fax to +82 51 745 3949 **ASAP**.

4. Hotel Accommodation

Please return the reservation form in either Annex A-1 , A-2 or A-3 to the selected hotel correspondents, and a copy to local coordinator at ipo@apcc21.net.

- 1) Haeundae Centum Hotel (<http://www.centumhotel.co.kr/english/main.php>)
- It takes 15 minutes from Haeundae Centum Hotel to APCC on foot.

- The cost of 1 night is 91,300 KRW including breakfast & VAT.
- Please send attached reservation form to rsvn@novotelbusan.com (Cc to ipo@apcc21.net)

2) Novotel (<http://www.novotelbusan.com/eng/index.php>)

- It takes 15 minutes from Novotel to APCC by bus.
- Novotel serves free shuttle bus from Novotel to APCC and from APCC to Novotel.
- The cost of 1 night is 121,000 KRW including breakfast & VAT.
- Please send attached reservation form to jhryu@centumhotel.co.kr (Cc to ipo@apcc21.net)

- **Novotel is located on the seashore.**

3) Seacloud Hotel (<http://www.seacloudhotel.com/>)

- It takes 15 minutes from Seacloud Hotel to APCC by bus.
- Seacloud Hotel also serves free shuttle bus from Seacloud Hotel to APCC and from APCC to Seacloud Hotel.
- The cost of 1 night is 88,000 KRW including breakfast (1 person) & VAT.
- Please send attached reservation form to jitaek.park@seacloudhotel.com (Cc to ipo@apcc21.net)

- **Seacloud Hotel is located near beach.**

5. Transportation and Pickup Service

Pick-up service between Gimhae International airport and hotel will be arranged by local coordinator based on the returned pickup service form (Annex C).

1) Public Transportation

The local public transportation system provides prompt and efficient subway, bus and taxi services. There are three subway lines, and 134 bus routes, and about 25,000 private and corporate taxis providing taxi services 24 hours a day.

Taxis in Busan have also provided telephone interpretation services for the convenience of foreign visitors since May 2002.

2) Air Transportation

There are a growing number of international flights at Gimhae International Airport, which currently handles 241 international flights a week to and from 30 cities in 7 countries.

< There are direct flights to Japan(Tokyo, Osaka, Fukuoka, Nagoya and Sapporo), China(Beijing, Shanghai, Qingdao, Xian, Hong Kong, Shenyang, Dalian, Hangzhou, Guangzhou, Nanjing, Weihai, Yantai and Macao), Taiwan(Taipei), Russia(Vladivostok), Thailand(Bangkok), the Philippines(Manila, Cebu), the United

States(Guam, Saipan and Honolulu), Vietnam(Ho Chi Minh, Hanoi), Germany (Munich), and Cambodia (Siem Reap).

6. VISA

All delegates are required to possess passports that are valid for at least 6 months, or applicable travel documents, with visas or entry permits for Republic of Korea. The countries listed below are eligible for visa-exempt entry to Republic of Korea for 30 days:

	Countries eligible for visa-exempt entry
The continent of Asia (6)	Hong Kong, Japan, Macao, Brunei, Taiwan, Indonesia (government official)
The continent of America (8)	USA, Canada, the Argentine Republic, the Republic of Honduras, the Oriental Republic of Uruguay, the Republic of Paraguay, the Cooperative Republic of Guyana, the Republic of Ecuador
Europe (11)	Monaco, the Papal court, the Republic of Slovenia, Croatia, the Republic of Albania, Cyprus, San Marino, the Principality of Andorra, Bosnia-Herzegovina, Serbia, Montenegro
Oceania (13)	Guam, the Republic of Nauru, New Caledonia, Micronesia, the Solomon Islands, Kiribati, Fiji, the Marshall Islands, Palau, Samoa, Australia, Tuvalu, the Kingdom of Tonga,
Africa, The Middle East (12)	the Republic of South Africa, the Kingdom of Swaziland, the Republic of Egypt, Mauritius, Seychelles, the Kingdom of Saudi Arabia, the United Arab Emirates, the Republic of Yemen, the Sultanate of Oman, the State of Qatar, the State of Kuwait, the Republic of Lebanon (government official)

< Delegates from economies not listed above will need to apply for proper visas or travel documents to enter into Republic of Korea. For more information, please contact the Korean Embassy in your country to get a visa, and local coordinator at ipo@apcc21.net for any assistance ASAP.

7. Other Events

APEC Climate Symposium 2010 and US-Korea Workshop on Dynamical Seasonal Prediction

The APEC Climate Symposium (APCS) would help bring together climate forecasters, researchers, policy makers, and various stakeholders in APEC region to discuss recent discoveries, technological advances, and applications. This Symposium facilitates the exchange of climate information, and the interactive access of the proposed APCC climate data archives with the support of web application tools.

The international workshop, co-organized by U.S. (GMU) and Korea (APCC) is designed to assess the current status of dynamic seasonal prediction and to developing a visionary strategy that will enable and accelerate collaborative activities in dynamic seasonal prediction. The purpose of the workshop is to develop collaborative research project between U.S. and Korean scientists in the area of dynamic seasonal prediction. New collaborative activities and long-term strategies are expected to emerge from this workshop.

The five-day symposium, panel discussion, tutorial session, and side meetings will take place from 20 – 24 June 2010 at the APEC Climate Center.

Those interested in participating in these events with own funding, please contact the local organizer (Ms. Joo, syjo0@apcc21.net) for invitation.

8. General Information

Weather

Korea's climate is regarded as a continental climate from a temperate standpoint and a monsoonal climate from a precipitation standpoint. The climate of Korea is characterized by four distinct seasons: spring, summer, fall, and winter. The hot months of summer last from June to early September. Half of the annual rainfall occurs during the monsoon season from late June to early July. Mid-July through mid-August is the hottest period and the most popular time for Koreans to go on vacation.

< Average Temperatures and Rainfall of June in Busan

Centigrade: 20.5

Fahrenheit: 68.9

Humidity (%): 79.3

Rainfall (mm): 222.5

This is the mean value from 1971 to 2000.

Currency

1 USD = 1,200KRW (21 December 2009)

Local Time

Present Time (GMT+9)

Clothing

As a result of global warming, summer in Korea is definitely getting longer and hotter. It also rains more than in the past. June was once considered part of spring but feels more like summer now. People start to wear light slacks and short-sleeved shirts in June. In July and August, the temperature on any given day can rise to as much as 35~40°, so short pants, sleeveless shirts, sunglasses, and hats are now the common fashion.

Electricity

The standard voltage in Korea is 220 volts. The outlet has two round holes and is the same type used in France, Germany, Austria, Greece, Turkey, and many other countries. If you do not have a multi-voltage travel adapter, you can borrow one from your hotel's front desk. If you want to buy one in Korea, you can do so at a duty-free shop, or convenience shop at Incheon International Airport.

Tour Attractions

- 1) Beaches: Gwangalli beach, Imrang beach, Ilgwang Beach, Dadaepo Beach, Songdo Beach
- 2) Sea, Island, Lighthouse: Island of mystery, Oryukdo Islets, Chungsapo, Sinsundae, Molwoondae, Yigidae
- 3) Mountains, Buddhist Temples: Mahasa (temple), Mt. Geumjung, Mt. Seunghak, Beomesa (temple), etc.

< More information at http://etour.busan.go.kr/02_sightseeing/index.jsp

ANNEX A-1: Hotel Reservation Form

Novotel Ambassador Busan

The Monsoon Workshop, the AAMP10 and YOTC MJO TF meetings
(15-19 June 2010, Busan)

Please specify room type, check-in & check-out dates and the number of nights you wish to stay at the hotel. No advance payment is necessary but credit card details are required to guarantee your hotel reservation. Payment should be settled in Korean Won at check-out.

Hotel	Room Type	Room Rate
Novotel Ambassador Busan	City view	KRW 121,000
	Ocean view	KRW 163,350

- The breakfast & VAT are included in the cost.
- Basically 1 room for 2 persons accommodated.
- Credit card guarantee is needed when booking.
- Room cancellation should be before 3 days of arriving date and late cancellation or No Show is being charged 1 night room.

*** Please send a fax or e-mail for reservation ASAP with application form due to limited room volume.**

Novotel Ambassador Busan

Contact person// Rsvn Mgr JH Park, Paul Park// E-mail: rsvn@novotelbusan.com

Tel: 82-51-743-1234

Fax: 82-51-743-1250

Room Type	<input type="checkbox"/> Ocean view <input type="checkbox"/> City view	
	<input type="checkbox"/> Double <input type="checkbox"/> Twin	
Breakfast	<input type="checkbox"/> 1 Person <input type="checkbox"/> 2 Person	
Date	Check in Date :	Check out Date :
Telephone		Fax
Family name		First name
E-mail		Mobile phone
Credit Card No.		Valid Date
Remark		

ANNEX A-2: Hotel Reservation Form

Haeundae Centum Hotel

The Monsoon Workshop, the AAMP10 and YOTC MJO TF meetings
(15-19 June 2010, Busan)

Please specify room type, check-in & check-out dates and the number of nights you wish to stay at the hotel. No advance payment is necessary but credit card details are required to guarantee your hotel reservation. Payment should be settled in Korean Won at check-out.

Hotel	Room Type	Room Rate
Haeundae Centum Hotel	Deluxe Room	KRW 91,300

- The breakfast & VAT are included in the cost.
- Basically 1 room for 2 persons accommodated.
- Credit card guarantee is needed when booking.
- Room cancellation should be before 3 days of arriving date and late cancellation or No Show is being charged 1 night room.

*** Please send a fax or e-mail for reservation ASAP with application form due to limited room volume.**

Haeundae Centum Hotel

Contact person// J.H. Ryu, Marketing Manager // E-mail: jhryu@centumhotel.co.kr

Tel: +82-51-720-9902

Fax: +82-51-720-9108

Room Type	<input type="checkbox"/> Double	<input type="checkbox"/> Twin
Breakfast	<input type="checkbox"/> 1 Person	<input type="checkbox"/> 2 Person
Date	Check in Date :	Check out Date :
Telephone		Fax
Family name		First name
E-mail		Mobile phone
Credit Card No.		Valid Date
Remark		

ANNEX A-3: Hotel Reservation Form

Seacloud Hotel

The Monsoon Workshop, the AAMP10 and YOTC MJO TF meetings
(15-19 June 2010, Busan)

Please specify room type, check-in & check-out dates and the number of nights you wish to stay at the hotel. No advance payment is necessary but credit card details are required to guarantee your hotel reservation. Payment should be settled in Korean Won at check-out.

Hotel	Room Type	Room Rate
Seacloud Hotel	Deluxe Room	KRW 88,000

- The breakfast (1 person) & VAT are included in the cost.
- Basically 1 room for 2 persons accommodated.
- Credit card guarantee is needed when booking.
- Room cancellation should be before 3 days of arriving date and late cancellation or No Show is being charged 1 night room.

*** Please send a fax or e-mail for reservation ASAP with application form due to limited room volume.**

Seacloud Hotel

Contact person// J.T. Park, Manager // E-mail: jitaek.park@seacloudhotel.com

Tel: +82-51-933-1000

Fax: +82-51-933-1001

Room Type	<input type="checkbox"/> Double	<input type="checkbox"/> Twin	
Breakfast	<input type="checkbox"/> 1 Person	<input type="checkbox"/> 2 Person	
Date	Check in Date :	Check out Date :	
Telephone		Fax	
Family name		First name	
E-mail		Mobile phone	
Credit Card No.		Valid Date	
Remark			

ANNEX B: Registration Form

The Monsoon Workshop, the AAMP10 and YOTC MJO TF meetings
(15-19 June 2010, Busan)

Delegate Information	
Title (Mr/ Mrs/ Ms/ Dr):	
First Name:	
Last Name:	
Gender:	
Date of Birth (Year/month/date):	
Immigration Information	
Passport Type :	
Passport No. :	
Date of Issue:	
Date of Expiry:	
Citizenship:	
Arrival Date:	
Departure Date:	
Organization Information	
Economy:	
Organization:	
Position:	
Business Address:	
Business Phone:	
Email:	
Fax:	

Please send the registration form either via E-mail: Coordinator:
carlos_erenoy@yahoo.com and ipo@apcc21.net or Fax: +82 51 745 3949
Your prompt reply is highly appreciated.

ANNEX C: Pickup Service Form

The Monsoon Workshop, the AAMP10 and YOTC MJO TF meetings
(15-19 June 2010, Busan)

Travel itinerary for pickup service arrangement		
Please attach your photo here for pickup service arrangement		
Arrival	Airline:	
	Flight No.:	
	Date & Time:	
Departure	Airline:	
	Flight No.:	
	Date & Time:	
Special Dietary Requirements: <input type="checkbox"/> No preference <input type="checkbox"/> Vegetarian <input type="checkbox"/> No seafood <input type="checkbox"/> No chicken <input type="checkbox"/> No pork <input type="checkbox"/> No lamb <input type="checkbox"/> No beef <input type="checkbox"/> Other: _____ <input type="checkbox"/> Allergic to: _____		
Special Medical Assistance Required:		
Other Requirements:		

**Please send the registration form either via
E-mail: Local Coordinator: ipo@apcc21.net or
Fax: +82 51 745 3949
Your prompt reply is highly appreciated.**