

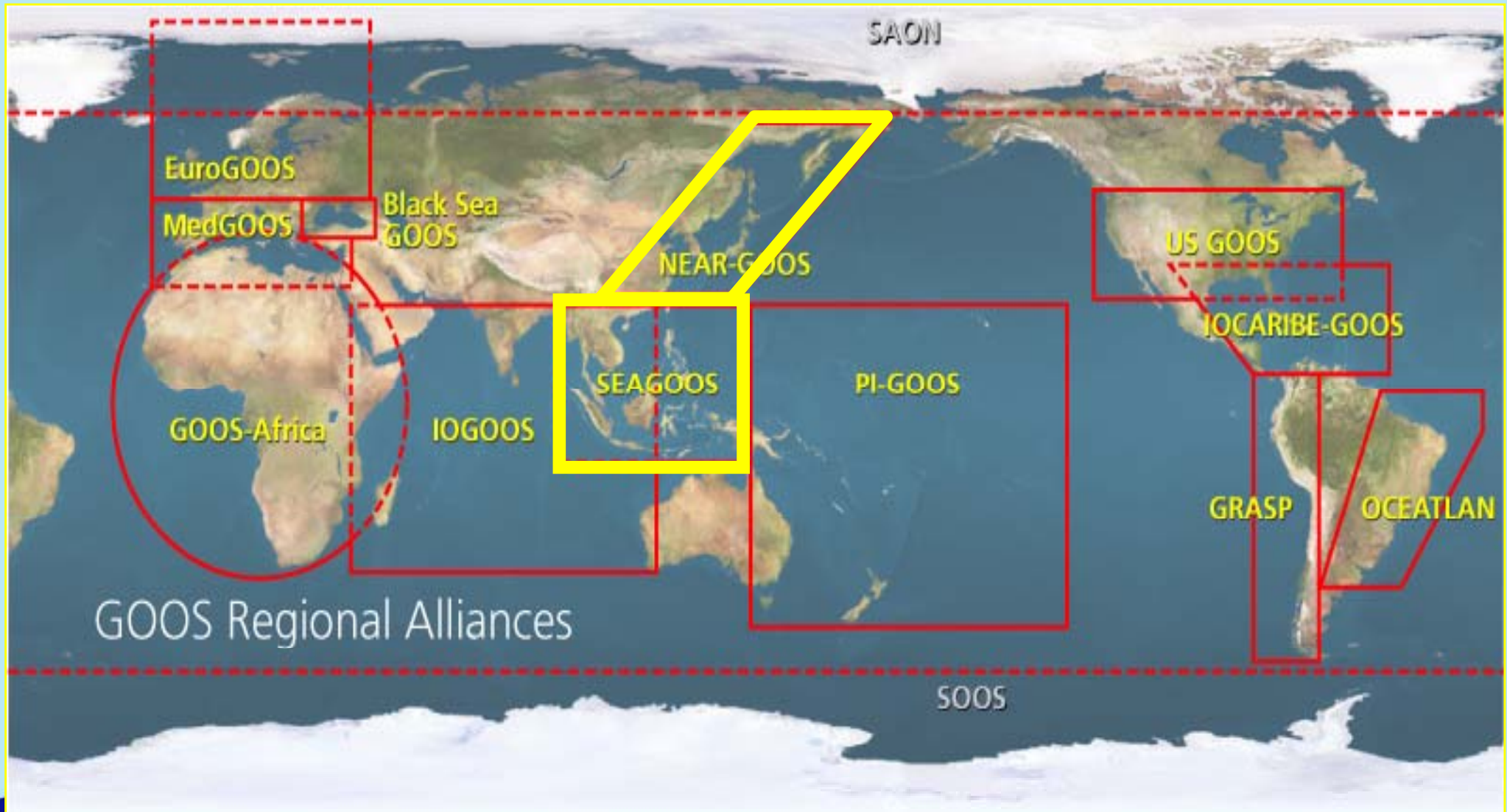
# South East Asian Global Ocean Observing System (SEAGOOS)'s Activities and Its Role on Ocean Observation

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# IOC GOOS Regional Alliances



# IOC Workshop on the Establishment of SEAGOOS in the Wider Southeast Asia Region

Seoul, Republic of Korea, 30-31 August 2001

- Member Countries agree to establish SEAGOOS in the region
- Proposed activities during the Workshop:

## 1: CLIMATE AND TROPICAL CYCLONES

## 2: COASTAL DYNAMICS AND POLLUTION

ocean circulation, wave transformation in the nearshore environment, sediment and pollutant transport and fate, and storm surges

## 3: ECOSYSTEMS AND FISHERIES

- South China Sea Ocean Database for Living Marine Resources Application
- Assessing and Forecasting the Recovery of Stressed Coastal Ecosystems
- Effects of UV on Tropical Ecosystems as Bio-indicators of Ecosystem Health and for Rapid Assessment of Climate Change

# Fifth International Session of IOC Sub-Commission for the Western Pacific

Fremantle, Australia, 9-13 September 2002

## Recommendation SC-WESTPAC-V.3

- Terms of Reference for the SEAGOOS Co-ordinating Committee

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## Consultative Meeting/Brain Strom (2005-2007)

### Outcome:

-Operational Guideline for SEAGOOS

*(Completely adopted at Seventh Intergovernmental Session of IOC/WESTPAC)*

-Suggestion of Pilot Projects

*(Sea Level, Satellite application for SST etc.)*

# SEAGOOS Operational Guidelines

**Data exchange is one of issue to be considered for member country of SEAGOOS, which follow UNESCO-IOC data exchange policy:**

*“ Free and unrestricted data exchange among SEAGOOS members and SEAGOOS projects, in line with IOC data policy, is a primary requirement for participation in SEAGOOS ”*

*Joint Regional Workshop with Sea Start and National Research Council of Thailand*

## Workshop on Standardization and Exchange of Tide Gauges and Sea Level Data for Climate Change Research (2008)

- The tide gauges in most of countries of the region have different standard (vertical datum), even with in the country. The data from different tide gauge therefore could not be combined.
- The exchange and sharing of sea level measurement so far has been on case-by-case basis. No country has a formal policy regarding the issue.



# New Proposed Pilot Projects in 2008

(After Seventh International Session of IOC Sub-Commission for the Western Pacific)

## **Principle concept pilot projects are:**

- Easy to be implemented with small budget
- Require moderate input from members who are ready to contribute to the projects

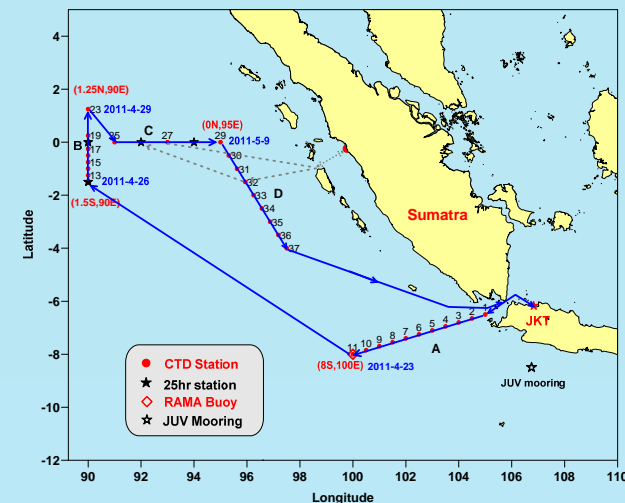
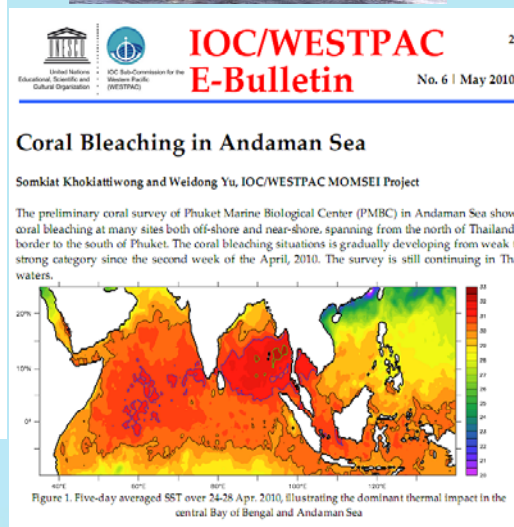
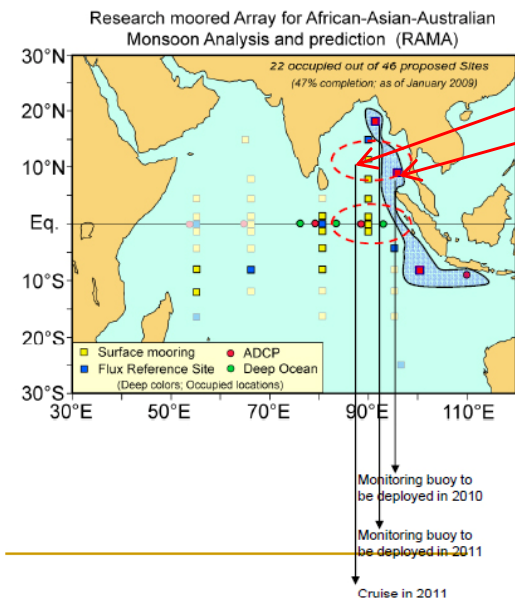
## **The main components of pilot projects are composed of :**

- development of observation and cruise in the region to serve operational oceanography and ocean & climate forecast,
- the capacity building for ocean observations, model development and analysis to serve various needs of member countries,
- data and information exchange/sharing practice among participating countries.

# South East Asian Regional-GOOS

## Monsoon Onset Monitoring and Its Social & Ecosystem Impacts (MOMSEI)

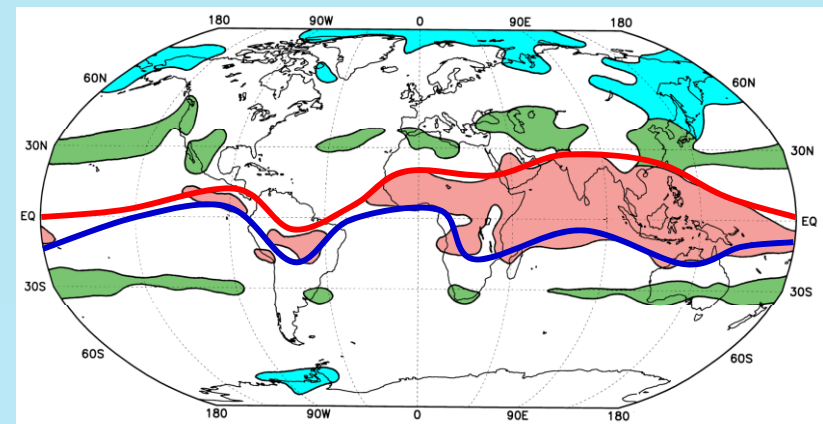
(China, Thailand, Myanmar, Malaysia, Indonesia, and Philippines)





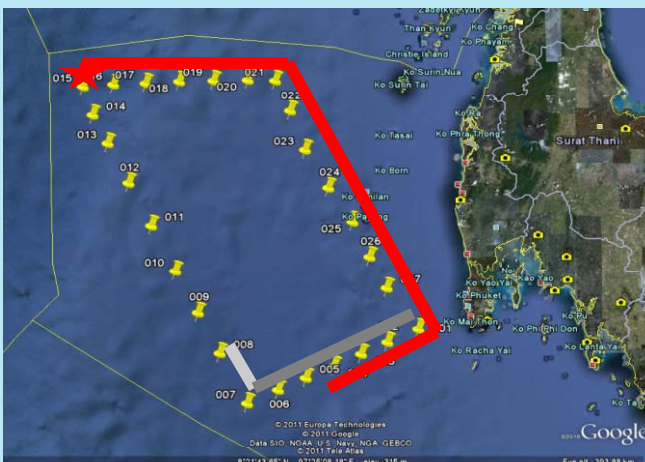
# Monsoon Onset Monitoring and its Social & Ecosystem Impacts (MOMSEI)

- *Increase the ability to monitor the monsoon onset, long-term variability and cyclone activities.*
- *Help to gain better understanding on the ocean-atmosphere interaction during the monsoon and cyclone evolution.*
- *Contribute to the better prediction and more efficient public warning in response to the disaster.*
- *Build up the network of monsoon research.*



# MOMSEI Cruise start in 2010-2011

**Two oceanographic cruises were conducted in Andaman Sea (2010-2011)**

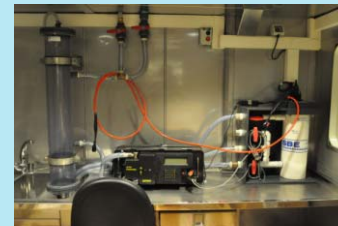
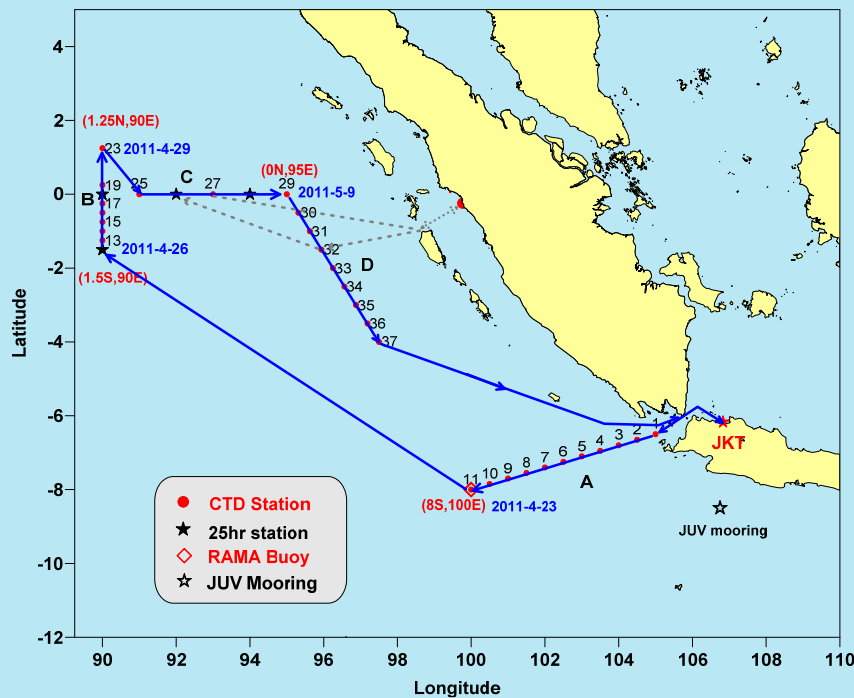




# MOMSEI Cruise start in 2010-2011



**One oceanographic cruises was conducted in Southwest of Sumatra (2010)**



# MOMSEI's Summer School

## (Capacity Building)



**First MOMSEI's Summer School** was held at First Institute of Oceanography (FIO), China, June 2010

The scientific knowledge on air- sea interaction and hand-on practice on the deployment and operation of oceanographic.

**Second MOMSEI' Summer School** was held at Phuket Marine Biological Center, Phuket, Thailand, August 2011

Climate variability and its impacts on coral reef ecosystem.





# MOMSEI Annual Expert Meeting

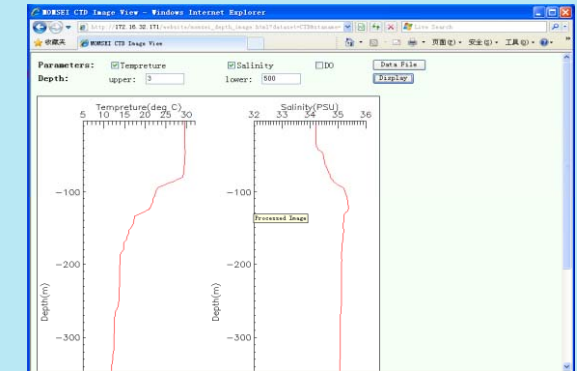
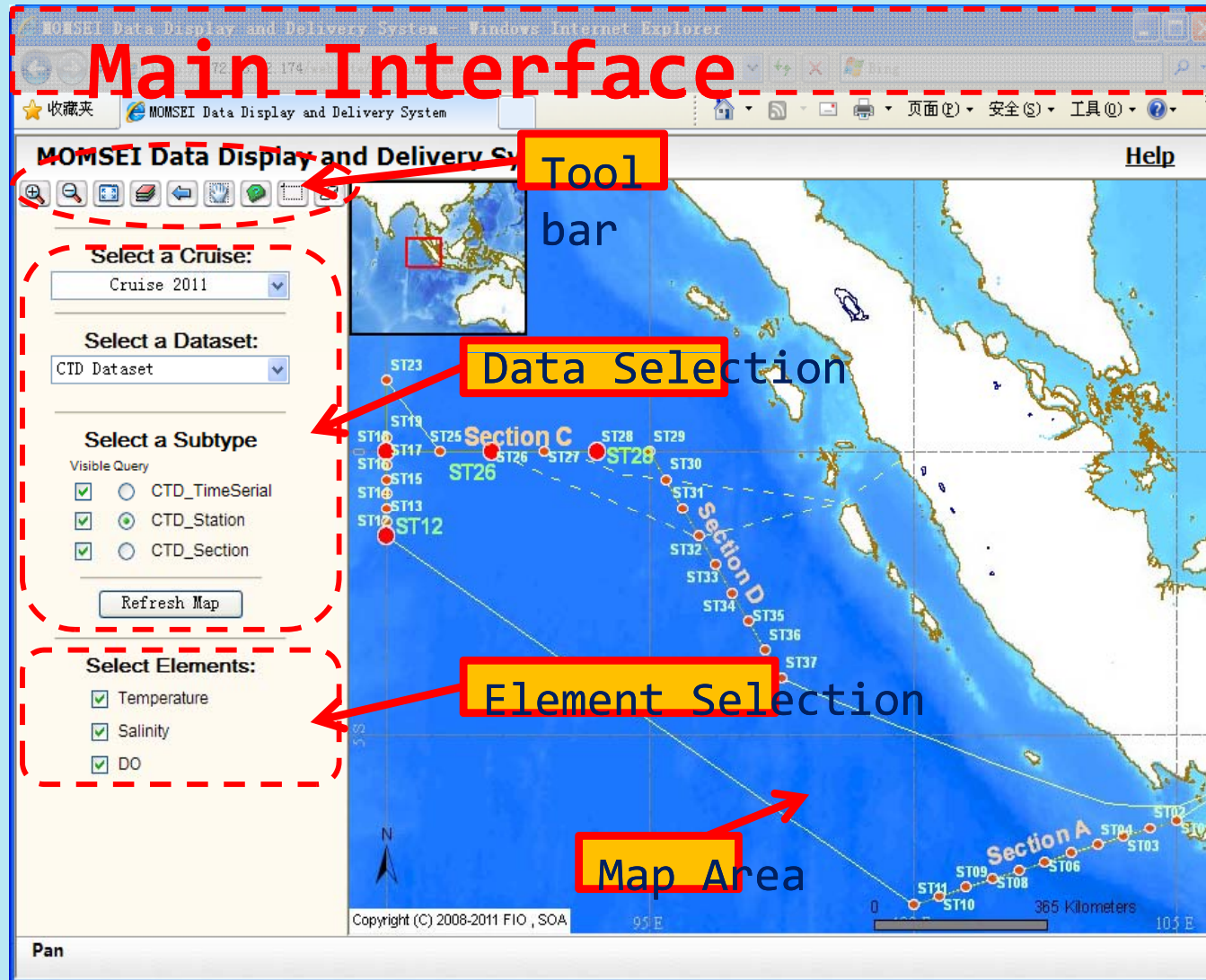
The MOMSEI expert meeting has been conducting, total 5 meeting;

- March 2009, Phuket, Thailand
- August 2009, Qingdao, China
- November 2009, Manila, Philippines
- December 2010, Melaka, Malaysia
- August 2011, Yogyakarta
- .....2012, Myanmar





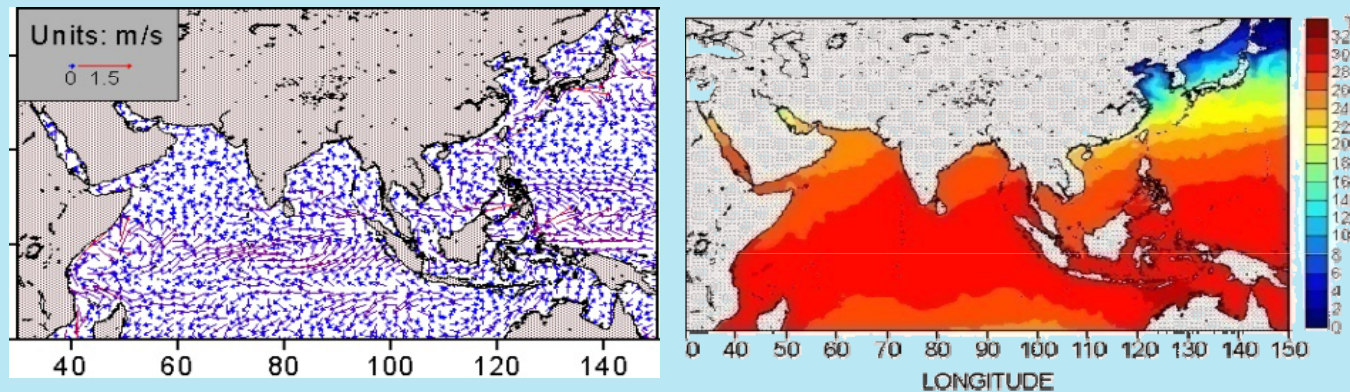
# Data and Information of MOMSEI Project



# South East Asian Regional-GOOS

## Ocean Forecasting Demonstration (OFD)

(China, Thailand, and Malaysia)



The Project was approved by Eighth International Session of IOC Sub-commission for Western Pacific, Bali, Indonesia, 2010.

**Aims of project** is (a) to develop an ocean forecasting system on a pilot basis in the two regions (Gulf of Thailand and South China Sea) of interest, through the development of a wave-tide-circulation coupled numerical model, (b) To serves as an important capacity building initiative particularly in the areas of numerical ocean modeling and operational oceanography.

# South East Asian Regional-GOOS

## Ocean Forecasting Demonstration (OFD)

*(China, Thailand, and Malaysia)*

The first workshop of the project was held at Phuket Marine Biological Center, Phuket, Thailand, during 30 September – 1 October 2010.

*(expert from China, Thailand, Malaysia, and Singapore)*

*To share the information on on-going ocean forecasting systems in the region and identify possibility towards the implementation of the pilot project, including the finalization of work plan during intersession period of IOC/WESTPAC (2010-2012)*

The second workshop of the project was held at Phuket Marine Biological Center, Phuket, Thailand, March 2011.

*(expert from China, Thailand, and Malaysia)*

*To discussed on the model validation and cruise plan including capacity building for young scientist.*



# South East Asian Regional-GOOS

## Ocean Forecasting Demonstration (OFD)

*(China, Thailand, and Malaysia)*

### Capacity Building:

#### Workshop on Ocean Model

*At IOC Regional Training and Research Center on Ocean Dynamics and Climate, Qingdao, China during 10-16 June 2011*



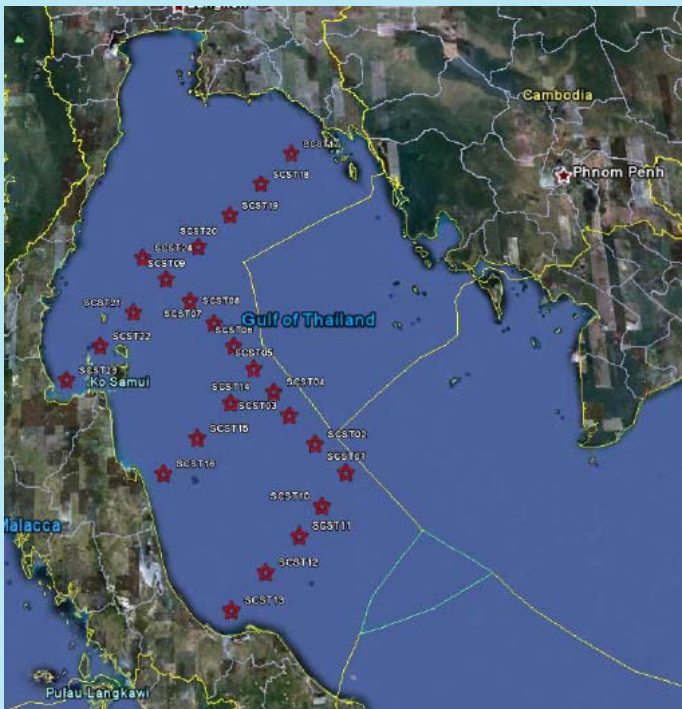
# South East Asian Regional-GOOS

## Ocean Forecasting Demonstration (OFD)

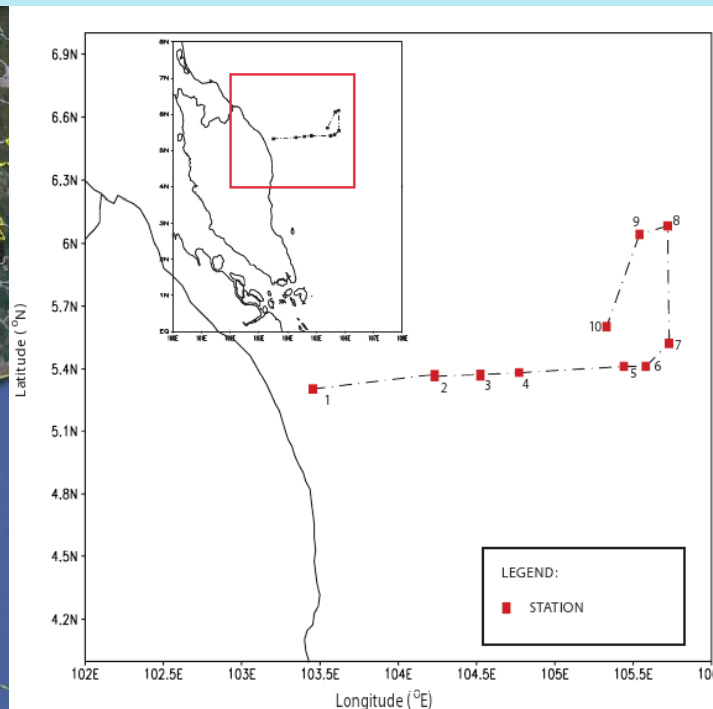
(China, Thailand, and Malaysia)

### Oceanographic Cruise:

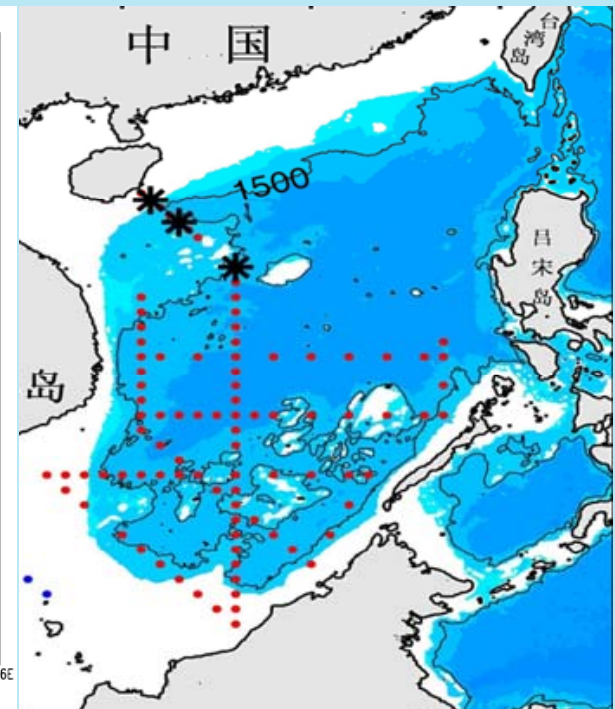
August 2011 by Thailand



September 2011 by Malaysia



August 2011 by China





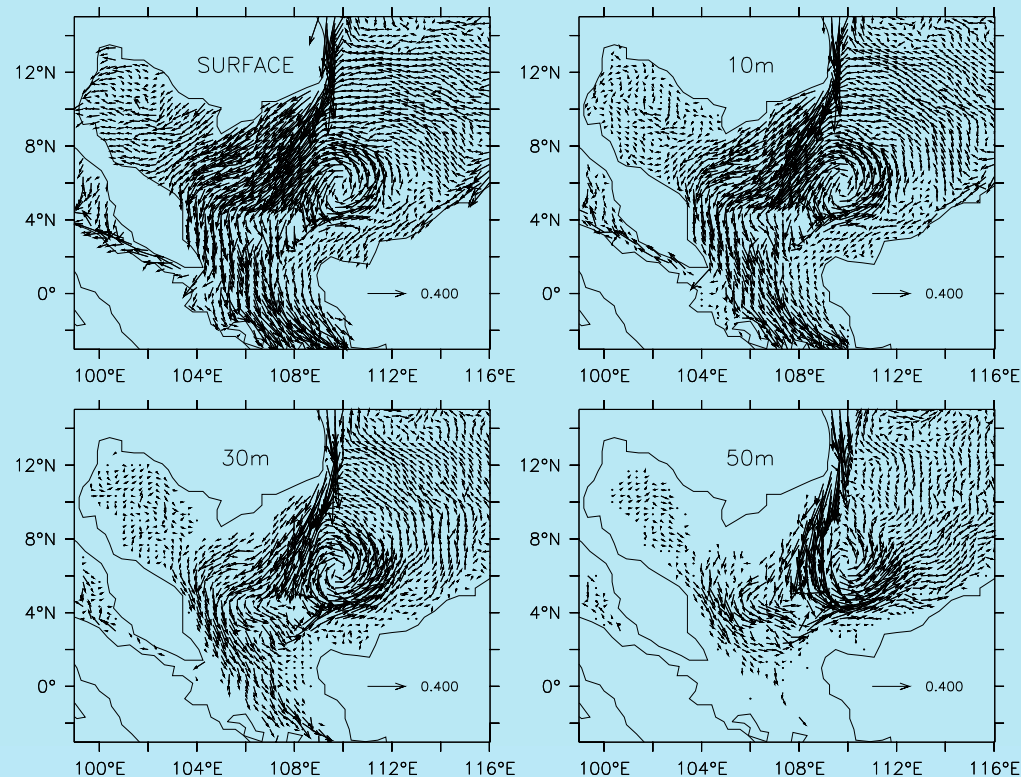
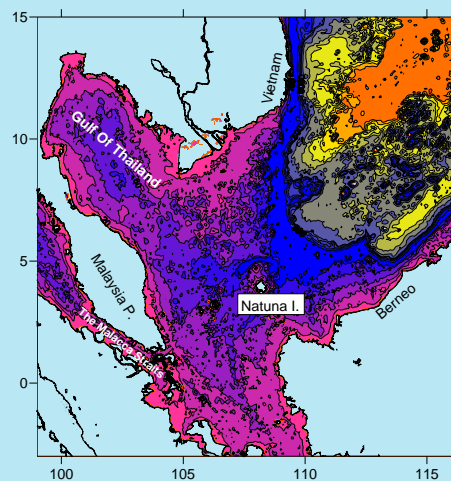
# South East Asian Regional-GOOS

## Ocean Forecasting Demonstration (OFD)

(China, Thailand, and Malaysia)

***Expect Final product after the first phase of Project***

- Provide ocean forecast of SCS and GOT on the website (at lease one year)



Circulation in DJF (Winter): Coastal current, eddy in whole volume.

# South East Asian Regional-GOOS

## Future plan and development of SEAGOOS

1. SEAGOOS Science Plan need to be developed.
2. Need participation and contribution from member countries.
3. Increase number of partner, existing in the region and interest in similar subjects.



Thank you  
for your attention

