

#### Agenda Item 4.15 - Requests for Capacity Building Tides and Water Levels Workshops

1. For a number of years there have been various requests for the development and delivery of a 5 day Tides and Water Levels workshop. The development of the course and associated training material falls under the remit of the TWLWG, although the actual delivery could be undertaken by any qualified instructor and not necessarily a member of the TWLWG.

2. The Capacity Building Sub-Committee (CBSC) has reported a growing demand for such a course from the Regional Hydrographic Commissions (RHCs). Three fully funded courses have been approved for the 2014 CB work programme:

- i. SAIHC – Nairobi, Kenya
- ii. RSAHC – Abu Dhabi, UAE
- iii. EAHC – venue to be confirmed

Funding is available for the attendance of one student from each Member State within each RHC and one from the host Member State, with additional places available on a self funding basis. Travel and Subsistence is also available for the instructor. Dates for these courses can be agreed on availability of instructors and venues.

3. It is considered that the regions require the basics of tidal theory, chart datums, geodetic control etc. It was understood by CBSC that the TWLWG had developed such a 5 day course, based on one previously delivered by NGA/NOAA, and that there were WG members who be able to deliver the training.

4. It should be noted that within the framework of the Global Sea Level Observing System (GLOSS) and the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), the Intergovernmental Oceanographic Commission (IOC) of UNESCO, have developed a similar course, one of which was recently delivered in Bangkok, Thailand, 17-21 March, see Enclosure 1.

5. It is anticipated there will be further demand for this course in future years and therefore it would seem appropriate to coordinate this capacity building effort with all engaged agencies.

6. The TWLWG is requested to:

- a. Note this report;
- b. Confirm availability of appropriate course and training material;
- c. Consider their availability to instruct a course; and
- d. Take what other actions are deemed appropriate.

To: GLOSS National Contacts  
ICG/IOTWS Tsunami Warning Focal Points (TWFP)  
ICG/IOTWS Tsunami National Contacts (TNC)

Cc: ICG/IOTWS Officers  
ICG/IOTWS Working Group Chairs and Vice Chairs  
Official National Coordinating Body for liaison with the IOC Member States  
Permanent Delegates/Observer Missions to UNESCO of IOC Member States  
WESTPAC, SE Asia GOOS, Indian Ocean GOOS, Royal Thai Navy Hydrographic  
Department, IHO, WMO

Subject: Training Course for Operators of Sea Level Stations, 17–21 March 2014,  
Royal Thai Navy Hydrographic Department, Bangna, Bangkok, Thailand

Within the framework of the Global Sea Level Observing System (GLOSS) and the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), the Intergovernmental Oceanographic Commission (IOC) of UNESCO jointly with the Royal Thai Navy Hydrographic Department, is organizing a Training Course for Sea Level Operators to be held in Bangna, Bangkok, Thailand from 17-21 March, 2014.

IOC of UNESCO is inviting your institution to nominate a sea level station operator/technician to participate in this training course. The person should be responsible for conducting/supporting the maintenance/installation/analysis of the sea level station in your country; have experience with the maintenance or data analysis of observational stations (hydromet, geophysical); levelling or data processing experience/training/education, and should hold a permanent position with a national agency. The language of the workshop will be in English.  
[...]

The IOC Secretariat



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
COMMISSION OCÉANOGRAPHIQUE INTERGOUVERNEMENTALE  
COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL  
МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ  
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**IOC Circular Letter N° 2508**  
(Available in English)

IOC/WWW/TA  
21 January 2014

To: GLOSS National Contacts  
ICG/IOTWS Tsunami Warning Focal Points (TWFP)  
ICG/IOTWS Tsunami National Contacts (TNC)

cc: ICG/IOTWS Officers  
ICG/IOTWS Working Group Chairs and Vice Chairs  
Official National Coordinating Body for liaison with the IOC Member States  
Permanent Delegates/Observer Missions to UNESCO of IOC Member States  
WESTPAC, SE Asia GOOS, Indian Ocean GOOS  
Royal Thai Navy Hydrographic Department  
IHO, WMO

**Subject: *Training Course for Operators of Sea Level Stations, 17–21 March 2014, Royal Thai Navy Hydrographic Department, Bangna, Bangkok, Thailand***

Dear Colleagues,

Within the framework of the Global Sea Level Observing System (GLOSS) and the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), the Intergovernmental Oceanographic Commission (IOC) of UNESCO jointly with the Royal Thai Navy Hydrographic Department, is organizing a Training Course for Sea Level Operators to be held in Bangna, Bangkok, Thailand from 17-21 March, 2014.

IOC of UNESCO is inviting your institution to nominate a sea level station operator/technician to participate in this training course. The person should be responsible for conducting/supporting the maintenance/installation/analysis of the sea level station in your country; have experience with the maintenance or data analysis of observational stations (hydromet, geophysical); levelling or data processing experience/training/education, and should hold a permanent position with a national agency. The language of the workshop will be in English.

The course outline will include the following topics: introduction to sea level observations, tidal theory; analysis of tide gauge data; introduction to harmonic analysis; introduction to tidal analysis software; hands on training sessions; visit to a sea level station; tide gauge levelling and datum control; real time sea level observations and the use of the Global Telecommunication System (GTS); and satellite radar altimetry. .../...

**Chairperson**

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TOGO

Participants are also expected to provide a presentation on their national sea level observing activities.

The Intergovernmental Oceanographic Commission (IOC) of UNESCO will be able to cover air ticket and per diems for a limited number of participants nominated by the official IOC or Tsunami National Contact (TNC). A letter of recommendation from the head of the department/institution of the nominee should also be provided. Kindly notify the IOC – Ms Elena Iasyreva ([e.lasyreva@unesco.org](mailto:e.lasyreva@unesco.org)) copied to: [t.elliott@unesco.org](mailto:t.elliott@unesco.org) and [t.aarup@unesco.org](mailto:t.aarup@unesco.org). Priority for sponsorship will be given to participants from Member States of the Northern Indian Ocean and the SE Asia region. Please provide nominations no later than 16 February 2014.

Yours sincerely,

*[Signed]*

Wendy Watson-Wright  
Executive Secretary, IOC  
Assistant Director-General, UNESCO

Enclosure (1): Registration form

**REGISTRATION FORM**

*Training Course for Operators of Sea Level Stations, March 17-21 2014, Royal Thai Navy  
Hydrographic Department, Bangna, Bangkok, Thailand*

**Name as it appears in your Passport:**

Title: \_\_\_\_\_

\_\_\_\_\_

First Name

\_\_\_\_\_

Last Name

Passport Number: \_\_\_\_\_

Date of Issue: \_\_\_\_\_

Place of Issue: \_\_\_\_\_

Valid until: \_\_\_\_\_

Nationality: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Place of Birth: \_\_\_\_\_

Organization: \_\_\_\_\_

Job title (or position): \_\_\_\_\_

Sea Level Station Expertise: \_\_\_\_\_

\_\_\_\_\_

Complete Office Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Fax number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Name and location of the Airport of departure:

\_\_\_\_\_

Please send all necessary details to the attention of Ms Elena Iasyreva, (E-mail:  
e.lasyreva@unesco.org - - copied to: t.aarup@unesco.org- Fax - (33) 1 456 85 810.