

**10<sup>th</sup> MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE  
IHO-IRCC10  
Goa, India, 4-6 June 2018**

**Paper for Consideration by IRCC10**

**Development of tides, water level and currents capacity**

<b>Submitted by:</b>	IHO Secretariat
<b>Executive Summary:</b>	This paper presents the development of training course material for tides, water level and currents operation and of the inventory of tide and current equipment around the world.
<b>Related Documents:</b>	xxx
<b>Related Projects:</b>	xxx

### 1. Introduction / Background

The TWCWG maintains an inventory of National Tide Gauges and Current Meters in use by Member States, both permanent and temporary. This inventory is available at:

[www.iho.int/twcwg](http://www.iho.int/twcwg) → Inventory of National Tide Gauges and Current Meters

Additionally a list of addresses for the tides and currents online information in an Excel file is available at:

[www.iho.int/twcwg](http://www.iho.int/twcwg) → Actual Tides and Currents On-line Links

Both these are updated as and when new information is provided.

The TWCWG also developed modular training course material that can be used by RHCs in their Capacity Building programmes in order to bring up-to-date content to further develop coastal States and other interested parties in their regions. More information about the training material is available at the TWCWG web page or directly at:

[www.iho.int/twcwg](http://www.iho.int/twcwg) → Tides and Water Level Workshop Course Material

### 2. Analysis/Discussion

The TWCWG has developed training material and resource information to support States in establishing tide gauges, water level meters and current meters for a wide range of hydrographic activities and other applications.

Material presented in paragraph 1 is available at no cost and represent an asset for the work of hydrographers and other marine users. The TWCWG has capacity to deliver the course on a regional basis, which includes theory and practical elements; the objective being to install, operate and maintain a simple tide, water level or current station using the equipment made available by the host country.

### 3. Conclusions

RHCs can benefit from a regional network of tide gauges and current meters by sharing expertise in monitoring water levels and currents for a wide range of applications, in particular for establishing a regional reference framework. RHCs can also benefit from the training material developed and training resource offered by the TWCWG to support Member States, other States wishing to develop an organic capability and contribute to the Intergovernmental Oceanographic Commission of UNESCO (IOC) Global Sea Level Observing System (GLOSS) programme for sea level monitoring.

A side benefit is that a Member State considering obtaining new gauges can see if their choice is in use by another state and therefore obtain independent feedback/assessment on its performance/ease of use before purchase, thus avoiding over engineering or wrong system for the intended role.

### 4. Recommendations

RHCs are invited to consider the value of the information available in the repositories presented in Paragraph 1 and to encourage States in the regions to contribute information to achieve a more

comprehensive inventory. RHCs are also encouraged to make use of the training material and training resource for developing hydrographic capability in the region by including the course in their regional capacity building plans.

#### **5. Justification and Impacts**

The training course material and information were developed to benefit RHCs and IHO Member States and are available at no cost.

#### **6. Action Required of IRCC**

The IRCC is invited to:

- a. note this report;
- b. encourage RHCs to use the tides, water level and currents training material developed and the training resource offered by the TWCWG in their capacity building work programmes;
- c. invite RHCs to encourage States in the region to contribute to the inventory of tide gauges and current meters; and
- d. take any other action as appropriate.