# INTERNATIONAL HYDROGRAPHIC ORGANISATION

## TIDES AND WATER LEVELS TECHNICAL WORKSHOP

**Enabling outcomes**:

1. Definitions
   a. Basic definitions
   b. Tide Patterns
   b. Tide Levels and Datums

2. Tide Fundamentals
   a. Tide Raising Forces
   b. Basic Tide Theory
   c. Tide Pattern Generation
   d. Major Factors That Affect Tide

3. Tidal Streams and Measurements
   a. Tidal Streams/ Currents
   b. Progressive and Standing Waves
   c. Tide Levels and Datums
   d. Introduction to Co- Tidal Charts

4. Observations, Equipment and Procedures
   a. Types of Tide Gauges
   b. Installing a Radar Tide Gauge
   c. Measurements of Tidal Streams and Equipment Types

5. Tide Analysis and Predictions.
   a. Introduction to Analysis, Errors and Prediction methods
   b. Archiving of Data

6. Levelling in a Tide Gauge Practical
   Calibrating the Equipment and Data

**Assessment Criteria:**

In Accordance with:
*Standards of Competence for Hydrographic Surveyors (9th Edition, 2001)*

By Means of:
Progress tests and Model answer sheet

**Practical Assessment:**
Draw a tidal Curve using Hourly Tidal Information and graph paper.

**Demonstration:**
How to level a tide gauge into the national benchmark system.
Problem solving and basic maintenance
Calibration of tide gauge

**Note to Presenter:**
Any hints, tips or variations available to the presenter
M-13 Chapter 5 Water Levels and Flow