



*Training Course:
Navigating Hydrographic Data: A
Comprehensive Training Program*

*18 - 22 April 2027
Cairo (Egypt)*

Training Course: Navigating Hydrographic Data: A Comprehensive Training Program

Training Course code: MM235306 From: 18 - 22 April 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

Introduction

Hydrographic data is fundamental to safe navigation, marine infrastructure development, offshore operations, and environmental management. The ability to accurately acquire, process, analyze, and interpret hydrographic data is essential for maritime professionals working in increasingly data-driven and technologically advanced environments.

This program, developed by [Global Horizon Training Center](#), provides a comprehensive approach to managing hydrographic data, from collection and processing to analysis and visualization. It integrates modern surveying technologies, geospatial tools, and data management techniques to ensure accuracy, reliability, and practical usability.

Participants will gain hands-on knowledge of hydrographic data workflows, enabling them to support navigation safety, optimize marine operations, and contribute to strategic decision-making in maritime and coastal projects.

Course Objectives

By the end of this program, participants will be able to:

- Understand the lifecycle and importance of hydrographic data
- Apply best practices in hydrographic data acquisition
- Process and validate bathymetric and geospatial data
- Analyze hydrographic datasets for operational and planning purposes
- Utilize GIS and specialized software for data visualization
- Ensure data quality, accuracy, and compliance with standards
- Support navigation safety and marine project planning
- Integrate hydrographic data into decision-making processes

Target Audience

This program is designed for:

- Hydrographic Surveyors and Technicians
- Marine Engineers and Offshore Professionals
- GIS and Geospatial Analysts
- Port and Coastal Management Personnel
- Environmental and Marine Scientists
- Maritime Authority and Government Staff

Outline

Day 1: Fundamentals of Hydrographic Data

- Introduction to Hydrographic Data and Its Applications
- Types of Hydrographic Data Bathymetry, Tides, Currents
- Data Sources and Collection Methods
- Standards and Guidelines IHO Standards
- Data Accuracy and Quality Requirements

Day 2: Data Acquisition and Survey Integration

- Hydrographic Survey Methods and Equipment
- GNSS Positioning and Integration
- Multibeam and Single Beam Data Collection
- Tidal Corrections and Environmental Factors
- Field Data Collection Best Practices

Day 3: Data Processing and Quality Control

- Hydrographic Data Processing Workflows
- Cleaning and Filtering Raw Data
- Quality Assurance and Validation Techniques
- Error Detection and Correction
- Data Standardization and Formatting

Day 4: Data Analysis and Visualization

- Bathymetric Analysis and Interpretation
- GIS Applications in Hydrography
- Creating Digital Maps and Marine Charts
- Seabed Analysis and Spatial Modeling
- Data Visualization Tools and Techniques

Day 5: Applications and Advanced Data Management

- Hydrographic Data in Navigation and Port Planning
- Offshore and Coastal Engineering Applications
- Data Management Systems and Storage
- Emerging Technologies AI, Automation, Digital Twins
- Final Workshop: Hydrographic Data Project Development

Registration form on the Training Course: Navigating Hydrographic Data: A Comprehensive Training Program

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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