



**Australian Government**

# **NWPHYS004 Manage hydrographic surveying projects**

**Release: 1**

# NWPHYS004 Manage hydrographic surveying projects

## Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

## Application

This unit involves the skills and knowledge required to manage hydrographic surveying projects. It includes planning hydrographic survey projects, producing reports and other products whilst applying relevant professional ethics, industry standards, and national and international legislation and conventions.

This unit supports the attainment of skills and knowledge required for leaders with responsibility for performing hydrographic surveying and may lead to certification as a hydrographic surveyor.

## Pre-requisite Unit

Not applicable.

## Competency Field

Hydrographic Surveyor

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan hydrographic survey projects

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Compare, interpret and apply hydrographic instructions and tenders associated with survey specifications
- 1.2 Distinguish the roles and responsibilities of individuals within a survey team

- 1.3 Analyse proposed survey area and determine survey requirements
- 1.4 Identify and interpret relevant documentation and product, including plans reports, geographic information system (GIS) and charts, according to workplace procedures
- 1.5 Identify and interpret relevant metadata according to relevant industry standards and workplace procedures
- 1.6 Determine potential legal responsibilities for conducting surveying work according to relevant workplace procedures
- 2 Conduct hydrographic surveying**
  - 2.1 Gather and analyse data telemetry in support of on-board survey data according to hydrographic survey plan requirements
  - 2.2 Manage installation, calibration and determination of the attitude and position of each sensor according to manufacturer specifications
  - 2.3 Determine purpose and application of speed of sound measurements in acoustic systems according to manufacturer specifications
  - 2.4 Determine the effects on the survey quality of vessel motion while conducting hydrographic survey
  - 2.5 Identify and analyse methods of maintaining a survey vessel and survey systems on planned survey lines and routes according to the hydrographic survey plan requirements
  - 2.6 Apply survey data quality control methods to ensure quality assurance of survey operations
  - 2.7 Demonstrate the process of on-line data validation and selection methods while conducting hydrographic survey
- 3 Produce hydrographic survey documentation**
  - 3.1 Maintain quality assurance of survey data
  - 3.2 Synthesise survey information to produce survey reports
- 4 Apply legislation and international convention**
  - 4.1 Apply roles and responsibilities according to industry standards, legislation and conventions

- 4.2 Determine types of baselines using international conventions and territorial sea limits including the use of low tide elevations
- 4.3 Apply international conventions for data collection and vessel transit within maritime boundaries

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

## Unit Mapping Information

This is a new unit. No equivalent unit.

## Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>