



**Australian Government**

# **DEFSO003C Operate a torpedo fire control system**

**Release 2**

## DEFSO003C Operate a torpedo fire control system

### Modification History

| Release | TP version | Comments         |
|---------|------------|------------------|
| 2       | DEF12 V2   | Layout adjusted. |
| 1       | DEF12 V1   | First release.   |

### Unit Descriptor

This unit covers the competency required to operate a torpedo fire control system as part of a team and under supervision.

It includes the requirement to enable the torpedo fire control system, input pre firing data, to ensure accurate information is entered in to the system.

This activity could continue for a prolonged period requiring the operator to hand over effectively to another operator.

### Application of the Unit

This unit was developed for Combat Systems Operators working within Defence but is applicable to any individual in this field of work.

The torpedo fire control system is operated in a wide variety of environments and conditions. Typically operators work independently and as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their outputs. All activities are carried out in accordance with relevant organisational policies and procedures.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

### Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

| ELEMENT                                                                | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. <b>Enable torpedo fire control system</b>                           | <ul style="list-style-type: none"><li>1.1 Serviceability of <b>torpedo fire control system</b> is confirmed and any faults are recognised and reported to supervisor</li><li>1.2 Instructions are received from supervisor in accordance with <b>standard operating procedures</b> (SOPs)</li><li>1.3 Weapon parameters are inserted into torpedo fire control system in accordance with current threat parameters and ship manoeuvring</li><li>1.4 External and <b>internal communications</b> are established</li></ul>                                                                                                                                                            |
| 2. <b>Establish and update torpedo fire control system information</b> | <ul style="list-style-type: none"><li>2.1 Information is collected using sonar and <b>other sensors</b> in accordance with organisational procedures</li><li>2.2 Information is collated and correctly input into the torpedo fire control system</li><li>2.3 Information is continuously collected, collated and analysed to ensure most up to date information is entered into the torpedo fire control system</li><li>2.4 Parameters are updated and continually reported to command</li><li>2.5 <b>Problems or issues</b> beyond own capability are reported immediately to supervisor</li><li>2.6 Threats are responded to in accordance with organisational doctrine</li></ul> |
| 3. <b>Finalise operations</b>                                          | <ul style="list-style-type: none"><li>3.1 Torpedo fire control system operation is <b>transferred</b> to new operator as required</li><li>3.2 Operation of torpedo fire control system is ceased as directed by supervisor</li><li>3.3 Cleaning of system components is supervised and stowing of components is ensured in accordance with organisational procedures</li><li>3.4 Documentation is completed and secured in accordance with organisational procedures</li></ul>                                                                                                                                                                                                       |

## Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

### Required Skills

- apply organisational doctrine
- correctly input pre firing data into torpedo fire control system
- demonstrate correct voice procedure
- optimise sonar control room equipment
- use sonar/torpedo fire control system equipment

### Required Knowledge

- basic principles and characteristics of sonar theory
- daily system operability tests (DSOTS)
- external communications
- internal communications
- relevant registered publications
- threat identification
- torpedo search pattern characteristics

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Assessment must confirm the ability to:

- maintain effective communication by using clear and concise procedures
- complete a minimum of eight real/simulated torpedo firings
- work within one's delegated authority.

### **Consistency in performance**

Competency should be demonstrated over time that is sufficient to include dealings with a range and variety of situations.

### **Context of and specific resources for assessment**

#### **Context of assessment**

Competency should be assessed in an actual workplace or simulated workplace environment.

#### **Specific resources for assessment**

Access is required to:

- appropriate documentation and resources normally used in the workplace.

### **Method of assessment**

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions.

## Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><i>Torpedo fire control system</i></b> may include:                            | <ul style="list-style-type: none"> <li>• Associated communications equipment:               <ul style="list-style-type: none"> <li>• equipment for internal communications with command and external (under water telephone)</li> <li>• headsets</li> <li>• internal voice</li> </ul> </li> <li>• Torpedo control equipment</li> </ul>                                                                                                                                                                    |
| <b><i>Standard operating procedures</i></b> may include:                          | <ul style="list-style-type: none"> <li>• Australian Standards</li> <li>• Job guides, pamphlets and other publications</li> <li>• Manufacturers' handbooks, industry specifications and technical instructions</li> <li>• Work health and safety regulations</li> <li>• Organisational policies and procedures</li> <li>• Relevant local government by laws</li> <li>• Relevant state/territory or federal legislation or regulations</li> <li>• Written and verbal orders and job instructions</li> </ul> |
| <b><i>Internal communications</i></b> may include:                                | <ul style="list-style-type: none"> <li>• Broadcast circuits</li> <li>• Sound powered activated communications</li> <li>• Telephone</li> </ul>                                                                                                                                                                                                                                                                                                                                                             |
| <b><i>Other sensors</i></b> may include:                                          | <ul style="list-style-type: none"> <li>• Combat data system</li> <li>• Electronic support</li> <li>• Radar</li> <li>• Sonar</li> <li>• Sonar buoys</li> <li>• Visual</li> </ul>                                                                                                                                                                                                                                                                                                                           |
| <b><i>Problems or issues</i></b> may include:                                     | <ul style="list-style-type: none"> <li>• Mechanical failure</li> <li>• Power failure</li> <li>• System failure</li> <li>• Tactical consideration</li> </ul>                                                                                                                                                                                                                                                                                                                                               |
| <b><i>Transferring the torpedo fire control system operation</i></b> may include: | <ul style="list-style-type: none"> <li>• Comprehensive hand over of current situation and torpedo fire control system set up</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |

## **Unit Sector(s)**

Not applicable.