



Australian Government

DEFSO006A Optimise and monitor sensor display

Release: 2

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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 optimise and monitor sensor displays.

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.

This unit would typically be applied in an operations room setting and includes operating a sensor display in order to display and allow interpretation of tactical information. It also includes monitoring the sensor display for irregularities and taking steps to return the sensor display to optimal performance.

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. Set up sensor display | 1.1 Access to appropriate <i>function</i> is gained in accordance with the shift supervisor tasking and <i>organisational policies and procedures</i>
1.2 Tactical display is set up in accordance with required function and shift supervisor tasking
1.3 <i>Tactical information</i> appropriate to required function is accessed and displayed in accordance with organisational policies and procedures
1.4 <i>Operational data</i> from <i>other sources</i> are used to set up <i>sensor</i> display and to build tactical picture |
| 2. Apply settings to sensor display | 2.1 Appropriate range scale is selected and set, in accordance with the needs of the tactical situation
2.2 <i>Sensor video</i> is selected and displayed to support the compilation of the tactical picture
2.3 IFF system equipment is prepared to support the compilation of the tactical picture
2.4 Sensor index error checks are performed in accordance with organisational policies and procedures |
| 3. Monitor sensor performance and respond to sensor degradation | 3.1 Sensors are monitored for <i>degradation</i> and rectification action is recommended to shift supervisor
3.2 Liaison is undertaken with other sensor operators to achieve optimum sensor performance
3.3 <i>Sensor alarms</i> are recognised and responded to in accordance with organisational policies and procedures |

Required Skills and Knowledge

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

Required Skills

- accurately analyse and validate tactical information
- accurately identify and respond to degradation in sensor display
- apply a range of problem solving strategies to work outcomes
- clearly articulate information and advice
- consistently evaluate and monitor own performance
- effectively communicate with operations room personnel and adequately receive and interpret instructions
- manage own tasks within timeframes
- operate sensor display settings accurately based on tasking and required function

Required Knowledge

- IFF system operation and settings
- operational data relevant to required function
- organisational policies and procedures
- procedure for sensor index error checks
- requirements of a tactical display over the range of functions
- roles and responsibilities of other sensor operators
- selection criteria for sensor range scale
- sensor alarms and meaning
- tactical information relevant to required function
- theory of radar
- theory of sonar
- types of sensor degradation and effect on sensor

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:

- apply settings to sensor display in accordance with the requirements of the intended function
- optimise and monitor a sensor display
- accurately recognise and respond to sensor degradation.

Consistency in performance

Competency should be demonstrated over time and across a range of simulated or actual workplace situations.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated environment.

Specific resources for assessment

Access is required to:

- sensor display equipment typically used in a functioning operations room
- organisational policies and procedures relevant to a functioning operations room.

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.

<i>Function</i> may include:	• Action picture supervisor • Air picture supervisor • Anti submarine/anti surface air controller • Sonar operator • Surface operator • Track supervisor
<i>Organisational policies and procedures</i> may include:	• Instructions • Operating manuals • Orders • Relevant Australian Standards • Relevant Commonwealth Acts • Relevant Maritime Laws • Security policy and procedure • Standard Operating Procedures
<i>Tactical information</i> may include:	• Contact of interest • Critical contacts of interest • Land tracks • Navigation plan • Operational areas • Sub-surface tracks • Surface tracks
<i>Operational data</i> may include:	• Air lanes • Combat air patrol stations • Cryptographic information • Data link information • Exercise area data • Handover gates • Local notice to mariners • Reference points • R/V information • Sensor tracking sectors
<i>Other sources</i> may include:	• Electronic messaging • Signals • Visual observations • Voice messages
<i>Sensor</i> may include:	• Radar

	• Sonar
Sensor video may include:	• Processed • Raw • Synthetic
Degradation may include	• Electronic attack • Environmental factors • Mutual interference • Systems defects
Sensor alarms may include:	• Screen text alerts • Warning bells

Unit Sector(s)

Not applicable.