



Australian Government

DEFSEN002 Operate a sonar system

Release: 1

DEFSEN002 Operate a sonar system

Modification History

Release	Comments
1	This unit was released in DEF Defence Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to DEFSO002C Operate a sonar system. • Unit code updated • Content and formatting updated to comply with new standards • All PC transitioned from passive to active voice • PC 1.1 removed • PC 1.4, 1.5 revised • PC 2.1 and 2.2 merged

Application

This unit describes the skills required to operate a sonar system. It includes the requirement to configure the system, build and maintain the continuous collection, and collate and analyse information to track existing contacts or identify new contacts. This activity could continue for a prolonged period, requiring the operator to hand over effectively to another operator.

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

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work as part of a team, under supervision, while performing routine tasks in a broad range of contexts and environments. They use discretion and judgement and take responsibility for the quality of their output.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Sensor Operations

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Configure sonar system	1.1 Confirm sonar system serviceability (daily system operability tests [DSOTs]) and report any faults to supervisor. 1.2 Optimise sonar display for operator use. 1.3 Optimise system in line with the environmental conditions. 1.4 Use environmental tools such as expendable bathythermograph or tactical environment support system.
2. Compile and maintain a sonar picture	2.1 Identify, track and discriminate between sonar contacts by collecting, collating and analysing information. 2.2 Collect acoustic information from other sensors/sources. 2.3 Report, display and disseminate sonar contact details to stakeholders. 2.4 Respond to threats. 2.5 Report problems beyond own capability to supervisor.
3. Finalise operations	3.1 Cease or transfer sonar system operation to new operator as directed by supervisor. 3.2 Secure and stow system. 3.3 Secure and stow documentation. 3.4 Report to supervisor on completion.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				
Performance variables																								
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity									

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to DEF0002C Operate a sonar system.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Companion Volume implementation guides are found in VETNet -

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Assessment Requirements for DEFSEN002 Operate a sonar system

Modification History

Release	Comments
1	These Assessment Requirements were released in DEF Defence Training Package release 1.0 and meet the Standards for Training Packages. Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- calculating range predictions
- interpreting environmental data
- optimising sonar equipment
- completing a minimum of ten hours of sonar systems operations, of which a minimum of three hours is contact time on a submerged contact (live or simulated)
- working within one's delegated authority

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- basic oceanography theory
- sonar organisation
- sonar records
- sonar systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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