



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFEO809A Acquire data related to velocity

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

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This unit covers the competency required to acquire data related to velocity in a proof and experimental environment.

Explosive ordnance proof tests are conducted to ensure weapons systems or explosive ordnance in service with the Australian Defence Force meets the required standards. The acquisition of data related to velocity is a common component of proof tests and normally involves a number of personnel both in planning and implementation.

This unit does not cover the planning for data acquisition. Normally a data acquisition plan would be a component of the testing plan. If planning is required then it is covered in PUADEFEO602C Plan explosive ordnance trials.

Application of the Unit

Application of the Unit

This unit applies in a physical science or engineering environment where product undergoes testing to establish that it meets established standards and/or specifications related to velocity.

This unit was developed for data acquisition specialists working within proof and experimental organisations in Defence but is applicable to any individual in this field of work.

Typically these individuals must demonstrate the ability to work as individuals and as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their output. 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

Employability Skills This unit contains employability skills.

Pre-requisite Unit/s Nil

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 Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

1. Prepare for data collection

PERFORMANCE CRITERIA

- 1.1 *Stakeholders* and test participants are briefed in accordance with *organisational policies and procedures*, and *test plan*
- 1.2 Safety systems and procedures are checked and initiated in accordance with organisational policies and procedures, and test plan
- 1.3 Key activities and timelines are scheduled with full consideration to the specification and available resources, and are described according to organisational policies and procedures
- 1.4 *Administrative and legal requirements* for data collection are complied with and recorded
- 1.5 *Relevant personnel* are informed about the project
- 1.6 Designated staff responsibilities are communicated to staff to ensure clarity of understanding of the work and to provide a basis for ongoing assessment
- 1.7 Data collection equipment is selected and installed in accordance with the data collection plan

ELEMENT**PERFORMANCE CRITERIA****2. Gather data**

- 2.1 **Equipment** is operated according to **manufacturer's specification**, statutory and organisational policies and guidelines
- 2.2 Data is collected using **methodologies** detailed in the data collection plan
- 2.3 **Metadata** is documented according to accepted industry standards
- 2.4 Any discrepancies between specification and actual activities are identified and planned for
- 2.5 **Occupational health and safety (OH&S) requirements** are planned for and adhered to throughout the conduct of the project

3. Finalise the collection process

- 3.1 All **required documentation** is completed according to organisation's requirements
- 3.2 All data and documentation is stored according to organisation's requirements
- 3.3 Data integrity is checked in accordance with the validation plan

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- analyse and evaluate information
- communicate effectively with stakeholders
- identify relevant information
- liaise effectively with stakeholders
- prepare and present reports
- provide and receive feedback in a constructive manner
- review literature
- solve problems
- use appropriate information technology and software
- use a variety of verbal and non-verbal communication techniques

Required Knowledge

- analysis process
- codes of practice
- data acquisition methodologies
- information sources
- licencing requirements
- organisational guidelines and standards
- regulatory requirements
- relevant legislation
- research techniques
- standards relevant to organisational operations
- verbal communication techniques
- written communication to a level required in the preparation of letters and reports

Evidence Guide

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:

- establish the data collection process
- rectify collection faults
- maintain the data and documentation.

Consistency in performance

Competency should be demonstrated over time in a variety of environments and tests/trials.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated work environment, in accordance with all relevant legislation and organisational requirements.

Specific resources for assessment

Access is required to:

- live fire range
- data collection equipment.

EVIDENCE GUIDE

Method of assessment

This unit may be assessed with the following unit:

- PUADEFEO101D Work safely with explosive ordnance.

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

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.

Stakeholders may include	<p>Clients or customers (internal and external)</p> <p>End user/s</p> <p>General public</p> <p>Industry</p> <p>Landowner/s</p> <p>Organisation's senior management</p> <p>Other agencies</p> <p>Other functional areas within the organisation</p> <p>Project teams</p> <p>Relevant interest groups</p> <p>Sponsor/funding bodies</p> <p>Steering committee members</p> <p>Supplier/service provider</p> <p>Unions</p>
Organisations may include	<p>Defence</p> <p>Defence contractors and sub-contractors</p> <p>Defence Materiel Organisation</p> <p>Defence Science and Technology Organisation</p> <p>International test agencies</p>
Policies and procedures may include	<p>Government and organisational policy, guidelines and procedures relating to:</p> <ul style="list-style-type: none"> • delegation approvals • industrial agreements • procurement guidelines • resourcing • risk management • security • strategic or operational plans • technical and regulatory framework • testing and evaluation

RANGE STATEMENT**Test plans may include**

- training

Relevant commonwealth, state/territory and local laws affecting organisation's administration such as:

- financial management and accounting legislation and regulations
- OH&S legislation
- public sector management acts

Budget and financial management strategy

Contract management

Cost estimates

Data acquisition strategies

Evaluation criteria

Expected/measurable outcomes

Facilities

Functional performance specifications

Governance strategy

Implementation strategy

Inclusions and exclusions

Information/communication strategy

Intellectual property strategies

Milestones

Objectives

Occupational concept document

People plan including human resource management and human resource development

Performance criteria/indicators

Purpose

Quality assurance

Quality control

Quality standards

Rationale

Required resources

Resource management

RANGE STATEMENT

	Risk management
	Roles and responsibilities
	Safety criteria
	Schedule/timeline
	Specific equipment, instrumentation, and/or specialised facilities and required conditions
	Task/WBS
	Test and evaluation master plan (TEMP) criteria
	Test concept document
	Testing control mechanisms
	Testing deliverables and their acceptance criteria
Administrative and legal requirements may include	Access protocols and obligations
	Copyright
	Organisational protocols for accessing physical, financial and human resources
	Royalty obligations
Relevant personnel may include	Administrative staff
	Contractors
	Management
	Proof testing staff
	Technicians
	Trials staff
Equipment may include	Data-recording equipment
	Distance measuring equipment
	Electronic sensors
	Photogrammetric instruments
	Radars
Manufacturer's specification may include	Calibration specifications
	Equipment specifications
	Leaflets, operator's manuals
	Printed instruction
	Warranty documents

RANGE STATEMENT**Methodologies may include**

Conversion or translation from existing information (hard copy or digital)

Direct or indirect

Manual entry

Remote sensing

Metadata

Is summarised information about a data set that describes its characteristics including source, availability, quality, date of acquisition, conditions of use, coordinate system, datum

Occupational health and safety (OH&S) requirements may include

Development of a site safety plan

Identification of potential hazards

Inspection of worksites

Training of staff in OH&S requirements

Use of safety equipment and/or special clothing

Required documentation may include

Accident and injury reports

Authority/approval documentation

Meeting reports

Records and reports of communication

Reimbursements

Unit Sector(s)

Not applicable.