



Australian Government

AVIO0038 Screen articles by interpreting X-ray images

Release: 1

AVIO0038 Screen articles by interpreting X-ray images

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Application

This unit involves the skills and knowledge required to screen articles by interpreting X-ray images in a transport security environment in compliance with relevant legislative requirements and national operating standards.

It includes setting up and testing X-ray screening equipment; operating X-ray screening equipment; interpreting X-ray images; and taking appropriate action when weapons, explosives and prohibited items are detected.

This unit addresses transport security technical skill requirements (physical, mental and task-management abilities) related to transport security duties of aviation, maritime and air cargo security personnel, and contributes to safe and effective performance in operational transport security environments.

Operations are conducted across a variety of operational contexts within the Australian transport security environment.

Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Pre-requisite Unit

Not applicable.

Competency Field

O – Security

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Set up and test X-ray screening equipment

- 1.1** X-ray screening equipment is set up in accordance with legislative requirements and workplace procedures
- 1.2** X-ray screening equipment tests are conducted in accordance with workplace procedures
- 1.3** X-ray screening equipment safety risks are identified and controlled during set up and testing, in accordance with workplace procedures

2 Manage loading of X-ray equipment

- 2.1** Loading items onto X-ray belt is controlled and appropriate actions is taken to maintain a steady flow through X-ray screening equipment
- 2.2** Issues interfering with flow of items through X-ray screening equipment are identified and appropriate action is taken to resolve issues concerned
- 2.3** Appropriate advice is provided about items to be identified by screening equipment in accordance with legislative requirements and workplace procedures
- 2.4** Physical position of items is controlled in accordance with workplace procedures
- 2.5** Persons with specific needs are identified and assisted in accordance with workplace procedures
- 2.6** Items with diplomatic status are processed in accordance with workplace procedures

3 Operate X-ray screening equipment

- 3.1** X-ray equipment is operated in accordance with workplace procedures
- 3.2** X-ray screening equipment safety risks are identified and controlled during operation, in accordance with workplace procedures

4 Interpret X-ray images of screened articles

- 4.1** X-ray images of screened articles are interpreted in accordance with workplace procedures
- 4.2** Image enhancement functions are used effectively in accordance with workplace procedures
- 4.3** Colours on X-ray images are correctly interpreted in accordance with workplace procedures
- 4.4** Article characteristics on X-ray images are correctly

		interpreted in accordance with workplace procedures
	4.5	Prohibited items, weapons and explosives on X-ray images are correctly detected in accordance with workplace procedures
5	Take appropriate action when weapons, explosives and prohibited items are detected	5.1 Suspected explosives are reported to supervisor and appropriate action is taken, in accordance with legislative requirements and workplace procedures
	5.2	Suspected unauthorised weapons or prohibited items are reported to supervisor and appropriate action is taken, in accordance with legislative requirements and workplace procedures

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.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is not equivalent to AVIO0014 Screen articles by interpreting X-ray images.

Links

Companion Volume Implementation Guides are found in VETNet' -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIO0038 Screen articles by interpreting X-ray images

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- completing relevant documentation
- following work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- identifying and responding to screening equipment failures during testing and screening of articles in a transport security environment
- identifying, selecting, using and routinely checking relevant equipment, processes and procedures when using X-ray screening equipment in a transport security environment
- manipulating X-ray images using enhancement functions to identify weapons and prohibited items correctly
- modifying activities in response to different workplace contingencies, risk situations and environments
- operating X-ray screening equipment and correctly interpreting characteristics on generated images
- processing a diplomatic bag
- providing accurate advice to persons moving through a screening point on metallic items likely to be picked up by the screening equipment
- providing appropriate assistance to persons with specific needs including:
 - attendant needs
 - medical needs
 - physical mobility needs
 - vision or hearing impairment needs
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- responding to and reporting security incidents and/or suspected presence of weapons, explosives and prohibited items detected using X-ray screening equipment in a transport security environment
- taking appropriate action when X-ray screening equipment identifies an unauthorised weapon, explosive or prohibited item
- using correct procedures to set up and test X-ray screening equipment while meeting

WHS/OHS requirements

- using X-ray screening equipment accurately to detect and identify prohibited weapons, explosives or prohibited items in articles being screened
- working collaboratively, communicating and liaising with others when interpreting X-ray images at an airport.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- components, operating principles and characteristics of typical weapons, explosives and prohibited items that may be contained in articles being screened
- definition, purpose and capability of threat image projection system
- features of X-ray images that indicate the possible presence of weapons, explosives or prohibited items in articles, including the meaning of colour (metals, organics and inorganics), characteristics
- legislative requirements and workplace procedures for completing routine tests of X-ray screening equipment
- legislative requirements and workplace procedures to be followed when screening equipment does not meet the required standard during testing
- legislative requirements and workplace procedures to be followed when screening equipment fails during screening operations
- methods, techniques and equipment involved when using X-ray screening equipment to screen articles
- organisation's transport security procedures and policies applicable for using X-ray screening equipment to screen articles
- peculiarities and limitations of the X-ray imaging process and how to overcome these using workplace procedures when interpreting X-ray images of articles
- prohibited items and weapons as outlined in legislation
- reporting requirements when the presence of weapons, explosives or prohibited items are detected using X-ray equipment
- roles and responsibilities of stakeholders in a transport security protection environment
- Screening Notices, such as those outlining the methods and techniques for controlling how items are placed on the X-ray belt
- sections of the legislation relevant for using X-ray screening equipment to screen personal effects, cargo and checked baggage in a transport security protection environment
- transport security procedures to be followed when an item cannot be cleared using X-ray screening equipment
- WHS/OHS requirements relevant to setting up and operating X-ray screening equipment.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training

Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

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