



Australian Government

AVIF0014 Manage human factors in aviation operations

Release: 1

AVIF0014 Manage human factors in aviation operations

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 manage human factors in aviation operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes managing personal performance and communicating effectively within an aviation environment.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) related to safety management duties of aviation personnel, and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of recreational, commercial and military aviation activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision as a single operator or within a team environment.

Work is performed independently or under limited supervision within a single-pilot or multi-crew environment.

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

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

F – Safety Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Manage personal performance

- 1.1 Pre- and post-operational personal condition is managed to ensure safe and effective performance
- 1.2 Individual performance when conducting aviation operations is monitored against workplace standards, procedures and requirements
- 1.3 Degradation of physiological condition is recognised and appropriate strategies are implemented to ensure safe outcome of aviation operations
- 1.4 Degradation of psychological condition is recognised and appropriate strategies are implemented to ensure safe outcome of aviation operations
- 1.5 Sources of stress are identified and managed to maintain a safe aviation operating environment
- 1.6 Limitations to personal performance are communicated to crew/team to maintain a safe aviation operating environment

2 Communicate effectively within an aviation environment

- 2.1 Effective listening skills are applied
- 2.2 Questions are used to gain additional information
- 2.3 Information received is clarified/confirmed, interpreted, and accurately communicated or reported with due observation of ethics and protocols required of the operational environment
- 2.4 Communication is undertaken in varying situations with culturally diverse, familiar and unfamiliar individuals, teams and crews
- 2.5 Appropriate protocols and procedures are followed when using communications systems during routine and contingency aviation operations
- 2.6 Responses are sought and provided to others in a timely manner

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.

Aviation operations must include one or more of the following:

- flight operations
- flight support operations
- ground operations
- multi-crew
- single pilot

Unit Mapping Information

This unit replaces but is not equivalent to AVIF4001B Manage human factors in aircraft flight.

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 AVIF0014 Manage human factors in aviation operations

Modification History

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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 and performance criteria on at least one occasion and include:

- applying effective listening techniques
- applying effective questioning techniques to obtain information and clarify information while communicating with others
- applying effective verbal and non-verbal communication techniques
- identifying symptoms of deterioration in own physiological condition that might endanger the safety of aviation operations and taking appropriate corrective action
- identifying symptoms of deterioration in own psychological condition that might endanger safety of aviation operations and taking appropriate corrective action
- implementing contingency plans
- maintaining compliance with relevant regulatory requirements including avoiding alcohol and drugs before and when conducting aviation operations
- managing and controlling individual symptoms of stress before and when conducting aviation operations
- managing aspects of lifestyle that may impact upon personal performance
- managing and monitoring own physical performance
- managing and monitoring own psychological performance
- modifying activities depending on workplace contingencies, situations and environments
- reading, interpreting and following relevant instructions, regulations, procedures, information and signs
- reporting and/or rectifying problems, faults or malfunctions promptly, in accordance with workplace procedures
- responding appropriately to cultural differences in the workplace
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

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

- aspects of lifestyle that may adversely influence personal physiological condition
- aspects of lifestyle that may adversely influence personal psychological condition
- crew coordination:
 - basic principles of crew coordination
 - verbal and non-verbal communication factors
 - barriers to communication
 - listening skills
 - assertion skills
 - factors affecting decision-making processes
 - communication:
 - communication – attitude
 - personality
 - judgement
 - leadership style
 - leadership qualities
 - poor crew coordination factors
- effects of stress on personal performance and ways of managing and controlling the various stressors that may impact on aviation operations:
 - concepts of fatigue
 - environmental stress symptoms, causes and effects
 - ergonomics of control systems and instruments
 - principles of stress management
 - short and long-term stressor effects on performance
 - stress and arousal interaction
- fitness for aviation operations relevant to own role:
 - basic health
 - health and fitness
 - alcohol
 - drugs
 - blood donations
 - hyperventilation
 - atmospheric pressure changes
 - anatomy of the ear
 - vision, spatial disorientation and illusions
 - motion sickness

- acceleration ‘g’ effects
- toxic hazards
- the atmosphere and associated problems
- hypoxia
- human factors considerations
- human factors that may influence personal performance during aviation operations
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to human factors and human performance
- relevant work health and safety (WHS)/occupational health and safety (OHS) procedures and regulations.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

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

Links

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