



Australian Government

AVIF0003 Manage human factors in flight dispatch operations

Release: 1

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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 flight dispatch operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes managing personal performance, maintaining situational awareness, and maintaining effective communications and interpersonal relationships. It also includes recognising and managing actual and potential threats, recognising and managing actual and potential errors, recognising and managing undesired aircraft states, and assessing situations and making decisions.

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

Flight dispatch and flight support operations are conducted as part of commercial and military aviation activities across a variety of operational contexts within the Australian and international aviation industry.

Work is performed independently or under limited supervision as a single operator or within a team 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 flight dispatch operations is monitored against workplace standards, procedures and requirements
- 1.3 Degradation of physiological condition is recognised and appropriate strategies are implemented to ensure a safe outcome of flight dispatch operations
- 1.4 Degradation of psychological condition is recognised and appropriate strategies are implemented to ensure a safe outcome of flight dispatch 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 team to maintain a safe flight dispatch operating environment

2 Maintain situational awareness

- 2.1 Flight dispatch support systems are monitored using a systematic scan technique
- 2.2 Information is collected to facilitate ongoing system management
- 2.3 Flight environment is monitored for deviations from planned operations
- 2.4 Hazards are identified, risks are assessed and hazard management is implemented
- 2.5 Flight environment information is collected to update flight support operating environment

3 Maintain effective communications and

- 3.1 Effective and efficient communications and interpersonal relationships are established and maintained with all

interpersonal relationships		stakeholders to ensure optimum outcome of a flight
	3.2	Effective listening skills are applied
	3.3	Questions are used to gain additional information and to clarify understanding
	3.4	Responses are sought and provided to others in a timely manner
	3.5	Information received is clarified as required, interpreted, and accurately communicated or reported with due observation of ethics and protocols required of the operational environment
	3.6	Flight support objectives are defined and explained to stakeholders including other team members, flight operations supervisors and flight crew
	3.7	Communication is undertaken in varying situations with culturally diverse, familiar and unfamiliar individuals, teams and crews
	3.8	Appropriate protocols and procedures are followed when using communications systems during routine and contingency flight dispatch operations
	3.9	Appropriate levels of assertiveness are applied that ensure optimum completion of a flight
4 Recognise and manage actual and potential threats	4.1	Potential environmental or operational threats that are likely to affect flight safety are identified
	4.2	Actual environmental or operational threats that affect flight safety are identified
	4.3	Competing operational priorities and task demands that may represent a threat to flight safety are identified
	4.4	Countermeasures to manage threats are identified and implemented
	4.5	Flight progress and effect of countermeasures are monitored and assessed to ensure a safe outcome
	4.6	Alternative countermeasures are identified and implemented, and effectiveness of countermeasures are re-evaluated for effectiveness
5 Recognise and manage actual and	5.1	Checklists and standard operating procedures are implemented to prevent aircraft handling, procedural or

potential errors		communications errors
	5.2	Committed errors are identified and responded to before aircraft enters an undesired state
	5.3	Aircraft systems are monitored using a systematic scan technique to collect and analyse flight information for potential or actual error recognition purposes
	5.4	Flight operating environment is monitored to collect and analyse flight information for potential or actual error recognition purposes
	5.5	Individual or team performance is monitored to recognise potential or actual error occurrence
	5.6	Countermeasure implementation and supervision are undertaken to prevent errors before aircraft enters an undesired state
	5.7	Countermeasure implementation and supervision are undertaken to correct errors after aircraft enters an undesired state
6	Recognise and manage undesired aircraft states	
	6.1	Undesired aircraft states are recognised
	6.2	Individual and team flight support tasks are prioritised to ensure an undesired aircraft state is managed effectively
	6.3	Corrective actions to assist flight crew recover from an undesired aircraft state are applied in a safe and timely manner
	6.4	Undesired aircraft states are reported and recorded as required in accordance with applicable workplace procedures
7	Assess situations and make decisions	
	7.1	Problems affecting flight performance are identified and analysed
	7.2	Potential solutions to flight performance problems are identified
	7.3	Potential solutions and risks are assessed
	7.4	Course of action is determined and communicated to flight crew, passengers and/or other personnel, as required
	7.5	Tasks are allocated and actioned to implement optimal course of action outcomes

- 7.6 Tasks are monitored for progress against determined course of action
- 7.7 Plan is re-evaluated as required to achieve optimal outcomes

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.

- Operational threats include one or more of the following:
- events or errors that:
 - occur outside the influence of the flight crew
 - increase the operational complexity of the flight
 - require crew attention and management if safety margins are to be maintained
- Errors must include one or more of the following:
- individual or group actions or inactions that:
 - lead to a deviation from individual, group or organisational intentions or expectations
 - reduce safety margins
 - increase the probability of adverse operational events on the ground and/or during flight
- Undesired aircraft states must include one or more of the following:
- incorrect aircraft systems configuration associated with a reduced margin of safety
 - inappropriate flight mode awareness and selection
 - misapplication of flight controls
 - pilot induced aircraft position
 - pilot induced speed deviation

Unit Mapping Information

No equivalent unit.

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 AVIF0003 Manage human factors in flight dispatch operations

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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:

- accepting responsibility for flight dispatch operational outcomes
- accepting responsibility for own performance
- applying effective listening techniques
- applying effective questioning techniques to obtain information and clarify information while communicating with others
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- determining and implementing appropriate threat and error countermeasures
- giving and receiving instructions related to managing human factors in flight dispatch operations
- identifying symptoms of deterioration in own physiological condition that might endanger the safety of aviation operations and taking appropriate corrective action
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- maintaining compliance with relevant regulatory requirements including avoiding alcohol and drugs before and when conducting flight dispatch operations
- making timely operational decisions
- managing and controlling stress before and when conducting flight dispatch operations
- managing contingency flight dispatch operations:
 - abnormal situations
 - emergency conditions
- managing lifestyle aspects that may impact on personal performance
- modifying activities depending on workplace contingencies, situations and environments
- monitoring aircraft flight path and flight support systems to achieve desired performance using a systematic scan technique
- operating and adapting to differences in communications equipment in accordance with standard operating procedures
- operating effectively as a flight dispatch team member
- planning own work, predicting consequences and identifying improvements
- reporting or rectifying human factors that may occur, in accordance with regulatory requirements and workplace procedures
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- responding appropriately to cultural differences in the workplace
- responding appropriately to feedback from other flight dispatchers or flight crew
- reporting and rectifying identified problems, faults or malfunctions promptly in accordance with workplace procedures
- selecting and using appropriate flight support instruments, displays, communications equipment and aids
- setting priorities and task management
- taking initiatives and responding to changing conditions
- using appropriate normal, abnormal and emergency aviation terminology
- working collaboratively with others when managing human factors in flight dispatch

operations

- 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, performance criteria and range of conditions and include knowledge of:

- aspects of lifestyle that may adversely influence personal physiological condition
- aspects of lifestyle that may adversely influence personal psychological condition
- aspects of flight dispatch team operations that can prevent an undesired aircraft state
- effective communication techniques during normal, abnormal and emergency flight dispatch situations:
 - verbal and non-verbal communication
 - one and two-way communication
 - effects of different communication styles
 - miscommunication (including cultural differences)
- effective decision-making processes:
 - identify problems and causal factors
 - assess component parts systematically and logically
 - employ analytical techniques to identify solutions and consider the value and implications of each
 - generate solutions and/or alternative courses of action
 - assess alternative solutions and risks with other flight dispatch team members
 - determine course of action
 - communicate decision and delegate tasks to flight crew
 - monitor progress against agreed plan
 - evaluate decisions in accordance with changing circumstances
 - ensure decision making is improvement-focused and directed towards achieving optimum outcomes
- 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
- flight dispatch team coordination principles:
 - assertion skills
 - barriers to effective communication
 - decision-making processes:

- communication – attitude
- personality
- judgement
- leadership styles
- leadership qualities
- listening skills
- poor team coordination
- verbal and non-verbal communication influences
- human factors that may influence personal performance during flight dispatch operations
- judgment and decision making:
 - aviation judgment concepts:
 - types of judgment
 - motor skills and human factors
 - aeronautical decision making:
 - decision-making concepts
 - pilot responsibilities
 - behavioural aspects
 - identifying hazardous attitudes:
 - physical factors
 - psychological factors
 - social influences and interface between people
 - flight support operations judgment awareness:
 - risk assessment
 - flight dispatcher stress management
 - applying decision-making concepts:
 - practical application
 - managing resources
 - safety awareness
- leadership, style of management:
 - concern for performance
 - concern for people
 - democratic versus autocratic style
 - encouraging inputs and feedback
 - optimising flight crew performance in flight
 - correcting crew coordination deficiencies
- normal and emergency decision-making models to flight dispatch operations:
 - gather, review, assess, decide, evaluate (GRADE)
 - relay, advise, indicate, solution, emergency (RAISE)
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to human factors and non-technical skills

- relevant sections of CASRs and Civil Aviation Orders related to threat and error management (TEM)
- recognition techniques and management strategies for:
 - actual and potential threats
 - actual and potential errors
 - undesired aircraft states
- situational awareness models to identify real or potential environmental or operational threats to aviation safety:
 - perception
 - comprehension
 - projection
- task management:
 - workload organisation and priority setting to ensure optimum safe outcome of a flight
 - event planning to occur in a logical and sequential manner
 - anticipating events to ensure sufficient opportunity is available for completion
 - using technology to reduce workload and improve cognitive and manipulative activities
 - task prioritisation and protection while filtering and managing real time information
- TEM model:
 - principles and components of TEM
 - definition of threats
 - definition of errors
 - undesired aircraft states
 - TEM countermeasures.

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.

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