



Australian Government

Department of Education, Employment and Workplace Relations

AVIY4064A Lead an aircraft formation flight

Revision Number: 1

AVIY4064A Lead an aircraft formation flight

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to plan, brief and lead an aircraft formation safely while remaining within the aircraft's structural and engine limitations and the pilot's physiological limitations during visual flight. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

Application of the Unit

Work must be carried out in compliance with the relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA) and/or ADF; airspace control requirements and Day Visual Flight Rules; and aircraft control principles, regulations, safety codes, protocols and procedures required to lead or assume lead of an aircraft formation flight.

Use for ADF Aviation is to be in accordance with relevant Defence Orders and Instructions and applicable CASA compliance.

Operations are conducted within a variety of operational contexts within the Australian aviation industry.

Work is performed under limited supervision.

This unit of competency is nominally packaged at Certificate IV.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills This unit contains employability skills.

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. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan a formation flight	1.1 Formation flight tasking requirements are identified 1.2 Crews, briefing venue, timing and aircraft availability are coordinated 1.3 Task is analysed to determine manoeuvres and formations that ensure safe outcome 1.4 Flight route is planned to achieve formation outcomes in the time available and within performance capabilities of the flight 1.5 All air traffic, area limitations and navigation requirements are complied with 1.6 Actions in the event of abnormal or emergency situations involving the formation are planned
2 Brief and de-brief formation pilots	2.1 Ground and flight manoeuvres are briefed and confirmed with formation crews 2.2 Timings, route(s), speeds and altitudes to be flown are specified 2.3 Deputy leader responsibilities are briefed and confirmed 2.4 Communication procedures, minimum fuel, abnormal and emergency procedures and method of return for landing are briefed and confirmed 2.5 Achievements and any faults or errors that occurred during the formation flight are identified 2.6 Guidance and feedback is provided to other formation members during the post-flight de-brief
3 Lead a formation flight	3.1 Lead aircraft is manoeuvred using controlled corrective action to ensure a stable platform for pilots flying in formation stations 3.2 Formation is safely manoeuvred anticipating and allowing for formation size, proximity to obstructions, terrain, airspace limitations, weather conditions and air traffic, while ensuring compliance with regulatory requirements 3.3 Formation is directed and controlled using precise standard radio phraseology, hand and other signal procedures 3.4 Formation members' flight 'performances' and appropriate reactions to problems are monitored
4 Manage abnormal and emergency situations whilst leading a formation flight	4.1 Control of aircraft and formation when leading is maintained 4.2 Abnormal or emergency situations are managed in accordance with standard operating procedures or Flight Manual/Pilot's Operating Handbook as flight leader

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge:

- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- In Defence context, relevant Defence Orders and Instructions
- Relevant OH&S and environmental protection procedures and regulations
- Formation communication procedures (verbal and non-verbal)
- Air traffic, area limitations and navigation requirements for formation flight
- Planning and briefing requirements for formation flight
- Post-flight de-briefing techniques
- Formation manoeuvre safety limits considering formation size, proximity to obstructions, terrain, airspace limitations, weather conditions, air traffic and regulatory requirements
- Deputy formation leader's responsibilities
- Standard operating procedures for abnormal or emergency situations for formation flight

Required skills:

- Determine formation members possess the appropriate qualifications and currency
- Monitor formation pilots
- Recognise environmental conditions that impact the performance of the formation
- Conduct planning, briefing and de-briefing
- Communicate effectively with others when performing formation lead
- Read, interpret and follow instructions, regulations, procedures and other information relevant to performing formation lead, and prioritise workload
- Complete documentation related to performing formation lead
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when performing formation lead
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may occur when performing formation lead in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when performing formation lead
- Apply precautions and required action to minimise, control or eliminate hazards that may exist during the performance of formation lead
- Monitor and anticipate operational problems and hazards and take appropriate action

REQUIRED KNOWLEDGE AND SKILLS

- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments
- Work systematically with required attention to detail without injury to self, others or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective clothing and equipment conforming to industry and OH&S standards
- Implement OH&S procedures and relevant regulations
- Identify and correctly use equipment required to perform formation lead

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of:
 - applying the underpinning knowledge and skills
 - following relevant legislation and workplace procedures
 - planning formation flight including all sub-tasks and actions in the event of abnormal or emergency situations
 - briefing and de-briefing formation pilots including all sub-tasks and deputy leader responsibilities
 - manoeuvring lead aircraft using controlled corrective action to ensure a stable platform for formation stations
 - manoeuvring formation safely by anticipating and allowing for all aspects of formation flying including compliance with regulatory requirements
 - controlling and directing formation using precise standard radio phraseology, hand and other signal procedures
 - monitoring formation members' flight 'performances' and appropriate reactions to problems
 - maintaining control and formation while leading aircraft
 - managing as flight leader abnormal or emergency situations in accordance with standard operating procedures or Flight Manual/Pilot's Operating Handbook

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
 - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
 - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
 - relevant and appropriate materials and equipment, and
 - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

EVIDENCE GUIDE

Method of assessment

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:
- through activities in an appropriately simulated environment at the registered training organisation, and/or
- in an appropriate range of situations in the workplace

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.

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| Tasks may be undertaken in: | <ul style="list-style-type: none"> • variable weather conditions in accordance with Day Visual Flight Rules (VFR) • Night Visual Meteorological Conditions (VMC) • Instrument Meteorological Conditions (IMC) • two or more aircraft |
| Performance may be demonstrated in: | <ul style="list-style-type: none"> • single engine aircraft • multi engine aircraft • variable air traffic conditions • variable flight situations • abnormal situations • classes of airspace as designated by the Civil Aviation Safety Authority |
| Aircraft may include: | <ul style="list-style-type: none"> • fixed wing • helicopter • other commercial or military aircraft |
| Crew may include: | <ul style="list-style-type: none"> • single pilot • multi crew |
| Instruments may be: | <ul style="list-style-type: none"> • fitted flight instruments • heads up display |
| Limitations may be imposed by: | <ul style="list-style-type: none"> • local noise abatement requirements and curfews • airspace endorsements |
| Abnormal or emergency situations may include: | <ul style="list-style-type: none"> • loss of contact • aircraft collision • aircraft malfunction |
| Mode selected may include: | <ul style="list-style-type: none"> • lateral • vertical combination • auto thrust |
| Dependent on the type of organisation concerned and the local terminology used, workplace procedures may be referred to as: | <ul style="list-style-type: none"> • company procedures • enterprise procedures • organisational procedures • established procedures • standard operating procedures |
| Information/documents may include: | <ul style="list-style-type: none"> • relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders pertaining to the navigation of aircraft • in Defence context, relevant Defence Orders and |

RANGE STATEMENT

	Instructions • Flight Manual/Pilot's Operating Handbook (POH) • Manual of Standards - Pilot Licensing (MOS-PL) • Aeronautical Information Publication (AIP) • En Route Supplement Australia (ERSA) • relevant sections of the Civil Aviation Advisory Publications (CAAP) • charts • operations manuals • approved checklists • workplace procedures and instructions and job specification • induction and training materials • conditions of service, legislation and industrial agreements including workplace agreements and awards • relevant Bureau of Meteorology, International Civil Aviation Organization (ICAO) and/or World Meteorology Organization (WMO) publications
Applicable regulations and legislation may include:	• relevant Civil Aviation Safety Regulations and Civil Aviation Orders • in Defence context, relevant Defence Orders and Instructions • relevant state/territory OH&S legislation • relevant state/territory environmental protection legislation • relevant Australian Standards
Performance includes tolerances specified in either of:	• relevant licence and aircraft requirements of the Civil Aviation Safety Authority (CASA) such as: • Day VFR syllabus • Manual of Standards • Relevant defence documentation such as: • Defence Orders and Instructions • approved curricula and training documentation

Unit Sector(s)

Not applicable.

Competency field

Competency Field

Y - Aircraft Operation and Traffic Management