Australian Government

Assessment Requirements for AVIY0083 Execute advanced aeroplane manoeuvres and procedures

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 Release 9. Updates to Element 6 and Performance Criteria.

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:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- applying precautions and required actions to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others when executing advanced aeroplane manoeuvres and procedures
- compensating for the secondary effects of controls
- completing relevant documentation
- conducting short take-offs and landings
- conducting steep turns, including:
  - descending flight
  - level flight.
- conducting flight at speeds just above the stall, including:
  - climbing and descending flight
  - straight and level flight
  - scenarios requiring significant trim change such as:
    - engine failure
    - go around
    - flap retraction
  - turning flight
- recognising symptoms of stall including where the aeroplane exhibits a tendency to drop a wing at the stall
- entering and recovering from stall conditions, including:
    - approach to land configuration
    - climbing
    - descending
  - initial symptoms of a stall

  - stall with full power
  - stall without power applied under the following conditions:
    - straight and level flight
    - turning
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising workload
- maintaining compliance with regulatory requirements
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate actions
- monitoring functions of fuel systems
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- performing pre-manoeuvre checks in accordance with regulatory requirements and manufacturer procedures
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising flight situations that may require advanced manoeuvres and procedures, and applying the necessary techniques
- recovering from stall including where the aeroplane exhibits a tendency to drop a wing at the stall, including:
  - initial symptoms of a stall
  - recovery without power applied
  - recovery with full power
  - wing drop at the stall
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS/OHS standards
- sideslipping an aeroplane, including:
  - recovery actions
  - sideslipping turn
  - straight sideslip
- using instruments to monitor aeroplane performance
- 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:

- aerodynamic and aeroplane operational considerations related to slow flight, sideslipping, stalling, spinning, steep turns and upset aeroplane states, including:
  - effects of weight, centre of gravity, 'g' force and angle of attack
  - relationship between angle of attack and stall
  - symptoms of approach to stall and throughout the stall, manoeuvre until recovery
- dangers of unbalanced flight
- characteristics of stick position and control authority at the point of stall
- priority given to reduce angle of attack during stall manoeuvres
- loss of height in relation to available height and energy state
- technique of converting excess speed to height
- technique of converting excess height to speed
- symmetrical and rolling 'g' force limitations
- higher stall speeds when aeroplane is turning
- effects on fuel, pitot and flap systems
- application of pre-manoeuvre checks in accordance with regulatory requirements and manufacturer procedures
- certification standards relating to stability, slow flight, stalling and spinning
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- contents of the aircraft flight manual (AFM)/pilot's operating handbook (POH)
- day visual flight rules (VFR) criteria
- effects of a sideslip on aeroplane performance
- effects of maximum rate and minimum radius turns
- effects of sideslipping on aeroplane on fuel, pitot and flap systems
- environmental conditions that represent visual meteorological conditions (VMC)
- functions and effects of all aeroplane controls
- ground hazards associated with minimum ground roll operations
- in a Defence context, relevant Defence Orders and Instructions
- increased induced drag during a steep turn
- increased stalling speed in a steep turn
- interpreting safety margins provided by aircraft certification and personnel licensing standards regarding stall and spin
- implications of aircraft limitations and procedures
- local and published noise abatement requirements and curfews
- operational circumstances where steep turns are required
- principles of aerodynamics
- procedures and techniques for short take-offs and landings
- procedures and techniques for sideslipping an aeroplane

- procedures and techniques for turning an aeroplane steeply
- procedures for recovering from stalls and spins
- recognising stall wing drop conditions
- relevant sections of aeronautical information package (AIP)
- relevant sections of CASRs and Civil Aviation Orders
- relevant WHS/OHS and environmental procedures and regulations
- take-off and landing performance chart calculations
- windsock and other indicators used to determine wind velocity.

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 this is not appropriate, assessment must occur in simulated workplace operational situations that reflect 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
- acceptable means of simulation assessment
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

Links

Companion Volume Implementation Guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816