Australian Government

Assessment Requirements for AVIY4004 Land aeroplane

Release: 1

Assessment Requirements for AVIY4004 Land aeroplane

Modification History

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

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
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating landing performance
- carrying out correct procedures in a go-around
- communicating effectively with others including using an aeronautical radio
- compensating for the secondary effect of controls
- completing relevant documentation
- conducting aeroplane cross-wind landing procedures:
  - verify existing wind conditions, make proper correction for drift, and maintain a precise ground track
  - configure aeroplane for cross-wind conditions
  - control aeroplane during transition from final approach to touchdown and during after-landing roll
  - apply cross-wind drift corrections during landing and taxi procedures
- conducting aeroplane landing procedures:
  - maintaining constant landing position aim point
  - achieving a smooth, positively-controlled transition from final approach to touchdown, including control ballooning during flare
  - achieving touchdown at a controlled rate of descent, in the specified touchdown zone within tolerances
  - controlling bouncing after touchdown
  - aligning touchdown with centreline within tolerances
  - ensuring separation is maintained
  - maintaining positive directional control and cross-wind correction during after-landing roll
  - using drag and braking devices, as applicable, in such a manner to bring the airplane to a safe stop

    - completing applicable after-landing checklist items in a timely manner
- conducting aeroplane missed approach:
    - recognising the conditions when a missed approach should be executed
    - making the decision to execute a missed approach when it is safe to do so
    - making a smooth, positively-controlled transition from approach to missed approach, including
        - selecting power, attitude and configuration to safely control aeroplane
        - manoeuvring aeroplane clear of the ground and conducting after take-off procedures
        - making allowance for wind velocity during go-around
        - avoiding wake turbulence
- conducting aeroplane missed landing procedure
    - recognising the conditions when a missed landing should be executed
    - making decision to execute recovery when it is safe to do so
    - making a smooth, positively-controlled transition from missed landing to missed approach, including
        - selecting power, attitude and configuration to safely control aeroplane
        - manoeuvring aeroplane clear of the ground and conducting after take-off procedures
        - making allowance for wind velocity during go-around
        - avoiding wake turbulence
- conducting aeroplane short landing procedures:
    - landing aeroplane at nominated touchdown point at minimum speed
    - controlling ballooning during flare
    - controlling bouncing after touchdown
    - maintaining direction after touchdown
    - applying maximum braking without locking up wheels
    - stopping aircraft within landing distance available
- exercising sound judgement sufficient to perform landing procedures
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- maintaining compliance with regulatory requirements
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising and responding to conditions leading to a go-around
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures

- selecting and using relevant equipment, including trim controls, flaps, carburettor heat and braking devices
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- using instruments to monitor aeroplane performance
- working collaboratively with others when landing aeroplane
- 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 forces involved during a flare
- aeroplane limitations
- aeroplane performance
- aeroplane weight and balance
- air traffic procedures
- all required checklist items
- CASR Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- causes of aquaplaning and procedures to avoid aquaplaning
- causes of loss of control of aeroplane on landing
- causes of loss of directional control during landing
- circuit and landing procedures
- contents of aircraft flight manual (AFM) and pilot's operating handbook (POH)
- cross wind limits for the aeroplane type flown
- day visual flight rules (VFR) criteria
- effect of wind on landing performance
- environmental conditions that represent visual meteorological conditions (VMC)
- how to calculate a cross wind component
- in a Defence context, relevant Defence Orders and Instructions
- options when local conditions are not suitable for landing
- principles of aerodynamics
- propeller wash, rotor wash and jet blast
- relevant sections of aeronautical information package (AIP)
- relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders

- relevant WHS/OHS and environmental procedures and regulations
- steps for landing an aeroplane in normal headwind and crosswind
- techniques used to land an aeroplane in a cross wind
- touch and go procedures
- typical single-engine aeroplane aircraft systems
- wake turbulence considerations
- windsock and other indicators that are used to determine wind velocity.

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.

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

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

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