Australian Government

Assessment Requirements for AVIH0014 Navigate aircraft under visual flight rules

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.

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 on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- adjusting aircraft performance to achieve desired timings
- applying air safety practices and regulations
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating distance and rate of closure rates to/from ground features
- calculating fuel endurance
- carrying out dead reckoning (DR) navigation techniques
- communicating effectively with others
- completing relevant documentation
- determining dead reckoned position
- fixing aircraft position
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- maintaining compliance with regulatory requirements
- maintaining construction, communication and execution of a traffic deconfliction plan
- maintaining navigation logs
- 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
- performing diversion procedure
- planning applicable altitudes/flight levels and tracking tolerances to avoid controlled airspace
- prioritising work load and flight navigation tasks
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs

- recognising significant variances from forecast meteorological conditions and taking appropriate actions, including issuing an air report (AIREP)
- reporting and/or rectifying problems, faults or malfunctions promptly in accordance workplace procedures
- selecting and using appropriate navigational instrument systems and aids
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- sourcing and interpreting aviation weather forecast products and services appropriate to flight planning and navigation procedures
- working systematically with required attention to detail without injuring 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 include knowledge of:

- air navigation techniques
- aircraft fuel usage rates
- allowances for changed visual aspects of ground features at low level
- arrival procedures within visual meteorological conditions (VMC)
- basic global navigation satellite system (GNSS) principles, including:
  - characteristics of different chart types
  - aeronautical information publication (AIP) visual charts
  - chart symbology
  - topographic details
  - scale representation
  - tracks, distances and rhumb lines
  - plotting positions:
    - latitude and longitude
    - bearing and distance
  - map projections
- chart reading techniques
- circuit and circuit joining procedures
- computations and conversions, including:
  - ground speed, distance and fuel usage
  - airspeed, air temperature and height
  - determine wind speed and velocity
  - rates/gradients of climb and descent
  - top of climb (TOPC) and top of descent (TOPD) calculations
- controlled airspace requirements
- critical point and point of no return

- DR navigation techniques
- departure procedures within VMC
- diversion considerations and procedures
- en route GNSS navigation principles
- en route navigation techniques
- factors affecting en route performance, range and endurance
- featureless terrain and extended over-water flight navigation techniques
- flight planning requirements
- identification by shape, dimensions, contrast and colour, and uniqueness of ground features
- identification of control area (CTA), control zone (CTR), and prohibited, restricted and danger areas
- in an Australian Defence Force (ADF) context, relevant Defence Orders and Instructions
- limitations of navigation aids/systems
- low level and reduced visibility navigation techniques
- maximum payload and minimum fuel operations
- pilot navigation principles, including:
  - map to ground
  - ground to map
  - position lines
  - ground feature selection
  - chart selection and preparation
  - track made good (TMG)
  - track drift
  - estimated time of arrival (ETA) calculation methods
- potential impacts of specific weather phenomena on aviation operations
- principles of operation of navigation aids and systems
- procedures for requesting clearances from and into controlled airspace
- radio navigation aids, including:
  - identification by frequency information
  - extracting aid information from publications
  - aggregating errors and scalloping
  - establishing position lines
  - station homing and station passage
  - establishing position fixes
- relevant WHS/OHS and environmental procedures and regulations
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to visual flight rule (VFR) navigation
- time definitions and application to air navigation, including:
  - local mean time
  - coordinated universal time (UTC)
  - local (standard) time

- - local summer time
  - zone conversion
  - daylight time calculations
- traffic rules and procedures
- use of a navigational computer.

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

AVI Training Package Companion Volume Implementation Guide available on VET Net: - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816