Australian Government

Assessment Requirements for MEAAVI0055 Repair and overhaul aircraft radio frequency

Release: 1

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Modification History

Release 2. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA285 Repair or overhaul aircraft radio frequency communication and navigation system components.

Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- repair and overhaul aircraft radio frequency (RF) communication and navigations system components during scheduled or unscheduled maintenance on a representative range of components, applicable to the enterprise, from the following systems:
  - very high frequency (VHF) communications
  - high frequency (HF) communications
  - ultra-high frequency (UHF) communications
  - satellite communications
  - emergency location transmitters (ELT)
  - Aeronautical Radio Incorporated (ARINC) Communication Addressing and Reporting System
  - intercommunication and public address systems
  - automatic direction finding (ADF) navigation systems
  - very high frequency omni-directional range (VOR) navigation systems
  - instrument landing systems (ILS)
  - global positioning systems (GPS)
- recognise the serviceability state and repair or overhaul requirements for aircraft RF communication and navigation system components
- perform functional testing by applying logic processes and using test equipment and appropriate wiring diagrams and manuals to isolate component faults and assess post-repair/overhaul serviceability
- apply testing procedures, cleanliness requirements and safety precautions at all times and as relevant to the systems or components being maintained
- demonstrated high precision, high reliability soldering techniques and handling of components, including application of anti-static equipment, during repair or replacement of above system components.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component and system operation
- the basic function and operation of components of RF communication and navigation systems to enable testing for fault isolation and confirmation, to determine repair or overhaul requirements, and serviceability status post-repair or overhaul
- basic principles and functions relating to radio frequency communication and navigation system components and associated with:
  - advanced analogue fundamentals
  - digital fundamentals
  - alternating current (AC) and direct current (DC) electrical systems
  - electromagnetic radiation
  - antenna and transmission line (including waveguide) characteristics
  - radio transmission/signal propagation and frequency modulation
  - GPS
- satellite communications (industry specific)
- work health and safety (WHS) requirements for aircraft RF communication and navigation systems and components
- maintenance documentation for aircraft RF communication and navigation systems and components.

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in repairing or overhauling aircraft RF communication and navigation system components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to repairing or overhauling aircraft RF communication and navigation system components
  - tools and equipment specified in maintenance documentation
  - general and special-purpose tools and test equipment.

Assessment should be made across a sufficient number of components to establish the ability to apply attained skills and knowledge across the full range of RF components with the aid of applicable maintenance manuals and data.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371