

AIRCRAFT MECHANICS, 47.0600.50

The technical standards were developed by a committee of industry representatives on February 23, 2012 and endorsed by the Arizona Career and Technical Education Quality Skills Commission, the validating authority for the Arizona Skills Standards Assessment System, on May 16, 2012. The technical standards are taught together with the Arizona Workforce Employability Standards. Modifications were made on June 3, 2017 to better align standards 8, 9, and 10 with the FAA requirements.

STANDARD 1.0 PERFORM ELECTRICAL MAINTENANCE AND REPAIR

- 1.1 Calculate and measure electrical power
- 1.2 Measure voltage, current, resistance, and continuity
- 1.3 Determine the relationship of voltage, current, and resistance in electrical circuits
- 1.4 Read and interpret aircraft electrical circuit diagrams, including solid-state devices and logic functions

STANDARD 2.0 PREPARE AIRCRAFT DRAWINGS

- 2.1 Identify aircraft drawings and symbols and interpret system schematics
- 2.2 Draw sketches of repairs and alterations
- 2.3 Interpret graphs and charts prior to maintaining and repairing systems

STANDARD 3.0 WEIGH AND BALANCE AIRCRAFT

- 3.1 Weigh aircraft
- 3.2 Perform weight and balance check and record data

STANDARD 4.0 MAINTAIN AND REPAIR FLUID LINES AND FITTINGS

- 4.1 Fabricate and install rigid fluid lines
- 4.2 Fabricate and install flexible fluid lines

STANDARD 5.0 INSPECT AND TEST AIRCRAFT MATERIALS AND PROCESSES

- 5.1 Identify and select nondestructive testing processes
- 5.2 Identify and select aircraft hardware and materials
- 5.3 Perform precision measurements

STANDARD 6.0 PERFORM GROUND OPERATION AND SERVICES

- 6.1 Identify types of fires and fire extinguishers
- 6.2 Identify safe practices in aircraft fueling and handling
- 6.3 Identify aircraft ground movement procedures
- 6.4 Identify procedures for securing aircraft in a variety of conditions

STANDARD 7.0 PERFORM AIRCRAFT CLEANING AND CORROSION CONTROL

- 7.1 Identify and select aircraft cleaning materials
- 7.2 Identify types of aircraft corrosion
- 7.3 Identify corrosion removal techniques
- 7.4 Identify corrosion treatment techniques

STANDARD 8.0 PREPARE AIRCRAFT MAINTENANCE FORMS AND RECORDS AND INTERPRET PUBLICATIONS

- 8.1 Write descriptions of work performed using typical aircraft maintenance records
- 8.2 Complete required maintenance forms, records, and inspection reports

8.3 Apply information from maintenance publications

STANDARD 9.0 APPLY BASIC PHYSICS TO AIRCRAFT SYSTEMS

- 9.1 Use and understand the principles of simple machines
- 9.2 Use and understand the principles of sound, fluid, and heat dynamics
- 9.3 Use and understand the principles of basic aerodynamics
- 9.4 Use and understand the principles of aircraft structures
- 9.5 Use and understand the principles of theory of flight

STANDARD 10.0 INTERPRET MECHANIC PRIVILEGES AND LIMITATIONS

- 10.1 Identify mechanic privileges within the limitations prescribed by FAR Part 65
- 10.2 Identify the information in FAR Part 65 pertaining to eligibility for Aviation Maintenance Technician certification and ratings