

Cape Cod Community College AMTS

Practical Project Guide for AMT 223 Curriculum, Subject Item 40

Part 147, Appendix C, Part II, Subject E Communication and Navigation systems.

Item 40. Inspect and repair antenna and electronic equipment installations.

Project 1

Purpose: To acquaint the student with the proper procedures in inspecting, troubleshooting, removing and repairing or replacing of aircraft antenna and electronic equipment installations.

References

- (1) 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 2 (FAA-H-8083-31) Chapter 11
- (2) Advisory Circular AC 43.13B Chapter 3. Antenna Installation. Page 23
- (3) Advisory Circular AC 43.13B Section 4, Metal Repair Procedures page 4-11
- (4) Piper Colt PA 22-108 Service Manual

Equipment and Tools Needed.

- (1) Piper Colt PA 22-108
- (2) Appropriate Shop Tools and Equipment
- (3) Personal Protection Equipment (PPE)

Supplies and Materials Needed:

- (1) Aircraft sheet metal
- (2) Rivets (if required)

Procedure:

- (1) The student will inspect the antenna and its supporting area, plus the associated electronic equipment installations bay, to determine overall condition in order to define a course of action.
- (2) An evaluation will be made to determine if the antenna, thru an operational check is in good condition, if not, troubleshooting will determine if the antenna can be repaired or should be replaced.
- (3) If a replacement is necessary, a new unit will be selected to comply with all operational needs and if necessary a new mounting plate installed according to manufacture instruction.

- (4) All cabling and wiring from the radio bay to the antenna will be checked for proper routing. In addition, radio installation racks will be inspected to ensure airworthiness condition and they are properly squired.
- (5) An operational check of the radio/antenna system will be accomplished.
- (6) All paperwork will be reviewed, it will be determined if a Major Repair and Alteration Form 337 is required, as well as a new weight and balance calculation is needed.
- (7) If all requirements are in order, the Aircraft Logbook will be signed off to return the aircraft to an Airworthy Condition.

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