Aviation Mechanical Assembly Technician-NAC – The CertTEC® (This certification is only accessible through attendance in a National Center for Aviation Training (NCAT) course at one of five locations nationwide – Wichita, KS; Indianapolis, IN; Tulsa, OK; Greenville, NC or Seattle, WA) The Aviation Mechanical Assembly Technician exam is in three parts and consists of an 80 question computer-based written exam, followed by an oral and practical evaluation of an individual's technical knowledge and skills. The examination focuses on basic Aviation Mechanical Assembly fundamentals in the following topic/subtopic areas:

- Introduction to Aviation
  - Aviation History
  - Aircraft Assemblies and Configuration
  - o Aircraft Flight and Control
  - Aircraft Construction and Materials
  - Corrosion
  - Federal Aviation Regulations and Documentation
  - Production Order and Installation Plan
  - Engineering Processes and Information Sharing
- Blueprint Reading
  - o Introduction to Blueprints
  - Blueprint Terminology
  - o Blueprint Views, Lines, and Symbols
  - Dimensions and Tolerance
- Precision Instruments
  - Basic Concepts and Term for Precision Instruments
  - Precision Rules
  - Calipers
  - $\circ$  Micrometers
  - o Gauges
- Power Island and Tools
  - Introduction to Power Island
  - Power Island Equipment
  - o Torque Tools
  - $\circ$  Drills
- Fasteners and Installation Inspection

- Nutplates
- o Rivets
- o Bolts
- o Temporary Fasteners
- Hi-Lok Fasteners
- Lockbolt Fasteners
- $\circ$  Lockwire
- Installation Inspection
- Drilling and Riveting
  - Marking Fastener Location
  - o Drilling
  - $\circ$  Deburring
  - Driving Protruding Head Rivets
  - $\circ$  Countersinking
  - Squeeze Riveting
  - o Drilling Composite and Titanium Materials
- Sealant Application and Safety
  - Sealing Principles and Functions
  - Chemical Hazards and PPE
  - Surface Preparation
  - Sealant Types
  - $\circ$  Sealant Application
- Electrical Bonding and Grounding
  - Aircraft Electricity
  - Measurements and Unit Conversion
  - Resistance Test Equip Insp
  - Multimeters and Ohmmeters