22. Aircraft Wiring	
a. Multiconductor	A
b. Coaxial	A
c. Twisted Pair	A
d. Single Conductor	A
23. Perform Wire Maintenance Continuity Checks	3c
24. Use Test Equipment/Special Tools	
a. Analog Multimeter	2b
b. Digital Multimeter	2b
c. Oscilloscope	2b

Aircraft Fundamentals

25. Aviation Terminology	A
26. Basic Aviation/Aircraft Fundamentals & Safety	A
27. Basic Troubleshooting Theory	A
28. Identify Flight controls	A
29. Safety (Operational Risk Management/ Fall Protection)	A

Testing Information

LaserGrade Testing Centers will administer NCATT Certification Exams nationally. For exam information and a LaserGrade center near you, contact LaserGrade online at **www.lasergrade.com** or by phone at 1-800-211-2754. Testing information is also available at **www.ncatt.org**.

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- Certification based on industry competencies.
- Increased credibility.
- Involved in setting relevant training standards.
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- Able to ensure training meets industry standards.
- Certification demonstrates a competency of knowledge standards.
- Certification provides recognition among colleagues.
- Certification enhances the image of the professional Aviation Maintenance Technician.

NCATT

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NCATT

NATIONAL CENTER FOR AIRCRAFT TECHNICIAN TRAINING

AET STANDARDS

A National Science Foundation Project

National Center for Aircraft Technician Training Standard Level Definitions

Scale Value	Definition: The Individual
	Task
1	***IS EXTREMELY LIMITED.*** (Can do simple parts of the task. Needs to be told or shown how to do most of the task)
2	***IS PARTIALLY PROFICIENT.*** (Can do most parts of the task. Needs only help on hardest parts.)
3	***IS COMPETENT.*** (Can do all parts of the task. Needs only a spot check of completed work.)
4	***IS HIGHLY PROFICIENT.*** (Can do the complete task quickly and accurately. Can tell or show others how to do the task.)
	Task Knowledge Levels
a	***KNOWS NOMENCLATURE.*** (Can name parts, tools, and simple facts about the task.)
b	***KNOWS PROCEDURES***. (Can determine step-by-step procedures for doing the task.)
c	***KNOWS OPERATING PRINCIPLES.*** (Can identify why and when the task must be done and why each step is needed.)
d	***KNOWS ADVANCED THEORY.*** (Can predict, isolate, and resolve problems about the task.)
	****Subject Knowledge Levels***
A	***KNOWS FACTS.*** (Can identify basic facts and terms about the subject.)
B	***KNOWS PRINCIPLE.*** (Can identify relationship of basic facts and state general principles about the subject.)
C	***KNOWS ANALYSIS.*** (Can analyze facts and principles and draw conclusions about the subject.)
D	***KNOWS EVALUATION.*** (Can evaluate conditions and make proper decisions about the subject.)

Explanations:
A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b) *A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. ***These levels are currently in use by the United States Air Force.***

NCATT
Aircraft Electronics Technician "AET"
STANDARDS

Introductory and General Requirements

1. Basic Terms
   - a. Direct Current (DC) Terms — A
   - b. Alternating Current (AC) Terms — B
2. Basic Circuits
   - a. Theory of Operation — B
   - b. Troubleshoot Circuits — 2b
3. Basic Circuit Calculations
   - a. DC — B
   - b. AC — B
   - c. DC/AC Measurements — 2b
4. Resistors
   - a. Color Codes — A
   - b. Isolate Faulty Resistors — 2b
5. Inductors
   - a. Theory of Operation — B
   - b. Isolate Faulty Inductors — B
6. Capacitors
   - a. Theory of Operation — B
   - b. Isolate Faulty Capacitors — 2b
7. Transformers
   - a. Theory of Operation — B
   - b. Isolate Faulty Transformers — 2b
8. Analog Circuits, Devices & Switches — B
9. Power Supply Circuits
   - a. Rectifiers — B
   - b. Filters — A
10. Frequency Sensitive Filters
    Theory of Operation — A
11. Wave Generation Circuits
    - a. Oscillators — A
    - b. Waveshaping Circuits — A
12. Limiter Circuits
    - a. Diodes — B
    - b. Zener Diodes — B
    - c. Transistors — B
13. Digital Numbering Systems
    - a. Binary — B
    - b. Octal — B
    - c. Hexadecimal — B
14. Digital Logic Functions
    - a. Main Logic Gates — B
    - b. Flip-Flops — B
    - c. Counters — B
    - d. Adders — B

Common Maintenance Practices

15. Hazards/Safety Practices
    - a. RF Energy — A
    - b. Noise — A
    - c. Electrical Power — A
    - d. ESD Protection — A
    - e. Microwave — A
    - f. Hazardous Liquids — A
    - g. Practice FOD Prevention — 1a
    - h. First Aid for Electrical Shock — A
16. Hazardous Materials Handling
    - a. Types of Hazardous Materials/Fluids — A
    - b. Handling Procedures — A
    - c. Storage and Labeling — A
    - d. Proper Disposal — A
    - e. Material Safety Data Sheet — A
17. Technical Publications
    - a. Interpret Installation manuals — A
    - b. Interpret Technical Data — A
    - c. Locate and interpret avionics Installation Data — A
    - d. Interpret wiring diagrams — A
    - e. Interpret charts/blueprints/ drawings/sketches — A
    - f. Interpret Aircraft Equipment List Information — A

Fundamentals of On-Equipment Maintenance

18. Use Common Tools — 2b
19. Handling of Electrostatic Devices — A
20. Identify and Perform Corrosion Control — a
21. Use Safetying Devices
    - a. Safety Wire — 1a
    - b. Shear Wire — 1a