

# ETA Competency Requirements

## CENTRACOM Gold Elite Console System Technician

The following is a listing of each topic considered necessary to be included in a course of study towards the education of technicians performing installation, maintenance and repair of a CENTRACOM Console System. There are 2 categories of training. This COMPETENCY listing is the syllabus, or identification of each individual subject, in which the technician must be knowledgeable and skilled.

Technician seeking the ETA CENTRACOM Console System Technician specialty are required to also have a basic education in fundamental electronics. That basic knowledge is assessed in the Associate CET examination.

## CENTRACOM Competencies

### Communication Systems Concepts

- Two-Way Radio System Concepts, including Antennas, Towers, and Transmission Lines, Frequency and Spectrum, Range and Coverage, Radio Systems, System Enhancements
- Motorola Model Numbering System
- Requirements for Setting Up a "Basic Communications System"
- Communication System Fundamentals
  - Basic Simplex System Operation
  - Half-Duplex (Repeater Systems)
  - Simulcast Operation
  - Voting Systems
  - Compare the operation of conventional communication systems and trunking systems
  - Smartnet Trunking
  - Trunked Simulcast Systems
  - SmartZone Systems
  - Frequency Modulation, Securenet, and ASTRO systems
- Radio Frequency Path Fundamentals
  - Decibel concepts
  - Transmission line concepts
  - Antenna System
  - RF Propagation
  - Radio Frequency Interference

### CENTRACOM Console System

- System Hardware
  - Conventional Command and Acknowledgement
  - Operator Position Hardware
- Console Interface Electronics (CIE)
- Elite Operator Positions
  - Time Division Multiplexing Switching
  - Central Electronics Bank (CEB)

## ETA International

- Wiring
- Power Supplies
- Card Cage
- CEB Boards
  - Maintenance and Diagnostic
  - Embassy Switch
- Software and Programming
  - Install CENTRACOM software
  - Console Database Manager Application Program
  - Alias Database Manager Application Program
  - Motorola Upload Program Utility
  - CENTRACOM Elite Admin Program
  - CENTRACOM Elite Dispatch Program
- Troubleshooting