



## Rodale Electronics, Inc.

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# AN/ALQ-167 Threat Radar Simulator

The Rodale Electronics Radar Simulator is the updated version Multi-Band Simulator Developed for the NATO Multiservice Electronics Warfare Support Group (MEWSG). It is configured within an AN/ALQ-167(V) Pod and emits pulsed RF to simulate various Air-to-surface missiles (ASM and SSM) for use in airborne EW trailing, test and evaluation applications.

## 10 Megawatts (100 DBM) Nominal Effective Radiated Power (ERP)... Pulsed RF Antennas... Interchangeable Kits... Forward Antenna Position

- ®Beamwidth .... Wide Or Narrow
- Polarization .... Linear, Horizontal Or Vertical, Manually Changed

## Frequency Coverage (GHz)... Interchangeable Magnetrons

Other frequency bands can be provided in addition to those listed below.

- 7.8 - to 8.5 (H-Band)
- 8.5 - to - 9.6 (I-Band)
- 12.0 - to - 13.2 (J-Band)
- 14.0 - to - 15.2 (J-Band)
- 15.5 - to - 17.5 (J-Band)

## Man-Machine Interface with the Simulator

- Cockpit Control Panel .... Single Or Dual, Optional
- Notebook Computer .... IBM PC Compatible .... RS-422 Serial Data Bus
  - Pre-Program Sixteen Emitter Scenarios
  - Real-Time Control Of Emitter Parameters
  - Automated Diagnostic Testing With Printer Output
  - On-Board Recording of Time-Tagged EW Scenarios
- Aircraft Multi-Function Display (MFD) Via RS-422 Or 1553B Serial Data Bus
- Electronic Support Measures (ESM) Via RS-422 Or 1553B Serial Data Bus

## Programmable Scenario Parameters

- Transmit Frequency .....+ / - 10 MHz Accuracy .... 10 MHz Steps
- RF Pulse Width .... 0.1 - to -2.0 Microseconds .... 0.1 Microsecond Steps
- Scan Mode .... Four Available Modes:
  - Steady
  - Off-Center Azimuth Sector
  - Circular
  - Centered Azimuth Sector
- Scan Rate .... 0.1 - to - 10 Second .... 0.1 Second Steps
- Scan Delay .... 0.1 - to - 10 Second .... 0.1 Second Steps
- Scan Width .... 0.1 - to - 2.0 Second ... 0.1 Second Steps
- PRF Value .... 200 - to - 6000 Hertz .... 1.0 Hertz Steps
- PRF Jitter .... Zero - to - (+ / -) 100 Microsecond .... 1.0 Microsecond Steps
- PRF Stagger .... 2 - to - 15 Time Delay Increments
- PRF Stagger Increment ... Zero - to - 50 Microsecond ..., 1.0 Microsecond Steps
- Emitter Scenarios .... Sixteen Discrete Scenarios Flight-Line Programmable Via RS-422 Serial Bus
- Pre-Flight Diagnostics .... Execute Pre-Programmed Test Routines

## Cockpit Control Panel Functions

- Emitter Scenario Switch .... Selects One Of Sixteen Pre-Programmed Scenarios
- Transmit Command Switch ... Three Positions .. OFF/STBY/OPER
- Test Switch .... Momentary Push-Button
- Pod Status Indicator Lights .... STBY (Standby) .... OPER (Operate) .... FLT (Fault)

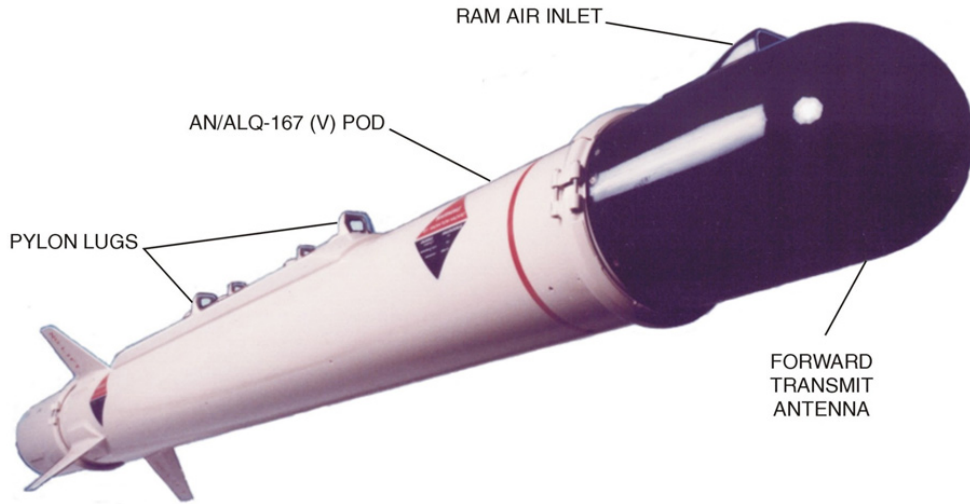
## Power Input / Weights / Dimensions... Maximums

- POD... 115/200 VAC +/- 10 Percent, 3 Phase, 400 Hz... 10.0 Amps Per Phase
- POD... 175 Kg... Length 350 cm... Diameter 26 cm, Excluding Fins & Hardback
- Cockpit Control Panel (Single)... 0.9 Kg... Height 6.7 cm... Width 15 cm... Depth 17 cm

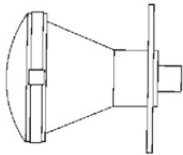
## Ram Air Cooled... Modular Configuration... Flight Certified... Options Available

- Technical Support
- Expansion Provisions
- Depot Maintenance
- Airborne Uninhabited Environment
- Special Test Equipment
- Alternative 1553B Serial Data Bus
- Installation/Commissioning
- Internal Aircraft Fit Custom Designs
- Factory And On-Site Training
- Highly Reliable And Field Maintainable
- Spare Parts .... Consumables, Components, Subassemblies

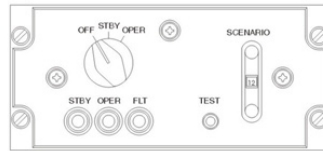
# ALQ-167 THREAT RADAR SIMULATOR



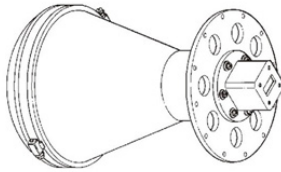
## INTERCHANGEABLE MAGNETRONS



ANTENNA KITS  
(TYPICAL)



COCKPIT CONTROL PANEL



NOTEBOOK COMPUTER



15.5-17.5 GHZ

14.0-15.2 GHZ

12.0-13.2 GHZ

8.5-9.6 GHZ

7.8-8.5 GHZ

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