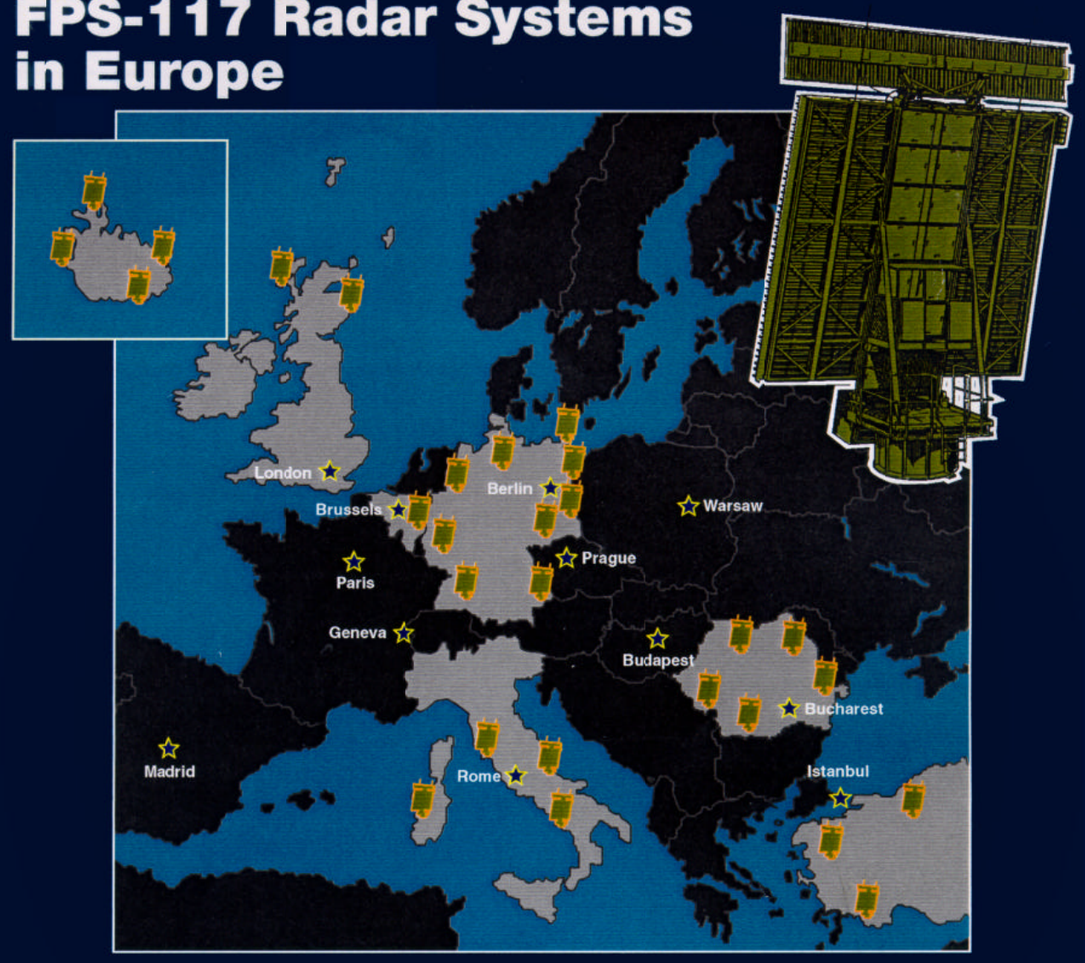
# 28 NATO Compatible FPS-117 Radar Systems in Europe




Selected for the most critical and demanding missions, Lockheed Martin's FPS-117 record of performance is without equal. Lockheed Martin has 22 years of experience producing and deploying solid-state radar systems around the world. The FPS-117 has accumulated over one million hours of operating experience making it the most proven radar in its class. By selecting the FPS-117 to perform Air Space Management for your country, you are selecting a design that has been validated by 14 countries, including the United States, Germany, Italy and the United Kingdom. Combining highly accurate positional data for air traffic control with demonstrated NATO compatibility, Lockheed Martin's FPS-117 is the right choice for satisfying your dual-use air-surveillance requirements.

LOCKHEED MARTIN

Lockheed Martin – Ocean, Radar & Sensor Systems

# Specifications

### General Information

| | |
|---|---|
| Radar System Utilization | 70 kW max |
| Transmit Power | |
| Peak | ≥24.75 kW |
| Effective Radiated | 125 MW |
| Duty Factor | 16% |
| Power Supply | 28 volts |

### System Configuration

**Transceive Group**
Total Weight – 30,000 lbs
Antenna - 24' x 24'
- Row Transceivers - 44
- Row Feed Assemblies - 44
- Row Power Supplies - 10
- Column Feed Assemblies - 4

IFF Antenna – Large Vertical Aperture
Platform Electronics
Exciter
Final Receiver
Pedestal/Platform
Transceive Group Trailer (FPS-117(E)1T)

**Processor Shelter**
ISO Shelter- 8' x 8' x 20'
Total Weight – 15,000 lbs

4 Cabinets
- Preprocessor
- Signal Processor
- DC Power Supply
- Data Processor
- Radar Environmental Simulator (Optional)

**Operations Shelter**
ISO Shelter- 8' x 8' x 20'
Total Weight – 15,000 lbs

NATO Standard Radar Control Console (SRCC)
Data Entry Terminal
Communications Interface
Beacon/Target Processor

### Performance

| | Coverage | Accuracy |
|---|---|---|
| Range | 5 to 250 nmi | 30 meters |
| Azimuth | 360° | ≤0.20° |
| Altitude | 100 kft | ≤610 meters at 150 km |
| Elevation | 20° | |
| Data Rate | 10 Sec | |

### Reliability, Maintainability, Availability

| | |
|---|---|
| MTBF | ≥1000 Hrs |
| MTTR | 30 Min |
| Availability | ≥0.996% |
| Periodic Maintenance Time/Year | ≤35 Hrs |
| On-Line Automatic Performance Monitoring/Fault Isolation | |

### Logistics and Support

Complete Training Programs
- Operations
- Maintenance (all levels)

Established Logistics Channels

### RF (Transmitter) Characteristics

| | |
|---|---|
| Frequency Band | L (D) Band (1215 MHz to 1400 MHz) |
| Bandwidth | 185 MHz |
| Agility | >20 Frequencies<br>Beam-to-Beam Selection |
| Type Waveform | LFM (Linear Frequency Modulated)<br>Instantaneous Bandwidth - 1.25 MHz<br>Subpulse Separation - 15 MHz |

### Environmental Performance

(System mounted in 55-foot radome and tower)

| | |
|---|---|
| Temperature | - -40°C to +50°C |
| Salt Fog | - Air 5% (Weight) Salt Concentration |
| Dust | - Particles up to 150 microns |

For more information contact:
Manager - Marketing
Lockheed Martin
Radar Systems Department
PO Box 4840
Syracuse, N.Y. (USA) 13221
1 - (315) 456-3683
1 - (315) 456-1793 (Fax)

S076/4-96