AN/TPS-79
3D Tactical Air Surveillance Radar
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3D Performance, Versatility, and High Mobility

Lockheed Martin’s AN/TPS-79 Air Surveillance Radar is the most effective medium range tactical radar for today’s demanding air surveillance and air traffic control environments.

The AN/TPS-79, a modern solid-state commercial-off-the-shelf radar, provides the most advanced 3D medium range, multi-mission, highly mobile and rapidly deployable modular radar system in the world today. The AN/TPS-79 is the next generation in medium range air surveillance radars.

High Performance

• Solid-state S-band design
• Enhanced target detection in clutter/ECM environments
• Fail-soft capability
• Three dimensional
• Exceptional signal-to-clutter performance
• Selectable circular (L&R) linear polarization for improved target detection in presence of clutter/rain/ECM
• Adaptive moving target detection
• Automatic frequency selection
• Tailored STC map to maximize receiver dynamic range
• High mean-time-between-failures for low life-cycle costs
• Highly mobile for rapid deployment
• Integrated radar/beacon antenna eliminates dual antenna alignment requirement
• Mode S compatible
• Comprehensive BIT and BITE

Specifications:

- Frequency (S-Band): 2.7 GHz to 2.9 GHz
- Peak Power: 11 KW
- Duty Cycle: 11%
- PRF: Fixed or Staggered
- Pulsewidth: 5 usec. and 120 usec
- Rotation: 12 or 15 rpm
- Signal to Clutter: ≥ 60dB
- Detection Performance: 110km for Pd=0.9, 1m²
- 3D Height: 30,000ft to 110Km (0-7π)
- Instrumented Range: 60 nmi
- Accuracies:
  - Range: 30m
  - Azimuth: 0.18π (at 1 sigma)
  - Height: 6000ft at 60 nmi
- MTBF: >1200 hr
- Availability: >0.99
- Deployment: <45minutes

Note: Performance is based on 12 rpm rotation

High Mobility, Rapid Deployment

The AN/TPS-79 is designed for rapid tactical deployment, set-up and redeployment. The radar can be easily configured for a HMMWV mounted shelter, a fixed site or for transportable operations. No special tools are required for system deployment. The MMSR is transportable by air (C-130, CH-53), sea (cargo ship) and land (truck/train). Set-up/pack-up time is less than 90 minutes.

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