

AN/FPS-117

LONG-RANGE AIR SURVEILLANCE RADARS



FPS-117 Long-Range Radar System

Radar Characteristics

General Characteristics

Frequency Band (D/L) - 1215 to 1400 MHz
 Active Electronic Elevation Scanning Array
 Solid State Transmitters

Antenna Characteristics

RF Power 24.6 kw
 Average RF Power 4.5 kw
 Antenna Aperture Size 52.6 m² (566.2 ft²)
 Number of Active Rows 44
 Scan Rate 5 or 6 RPMs

ABT Coverage Volume

Range 10 - 470 km (5 - 250 nmi)
 Azimuth 360°
 Height 0 - 30.5 km (0 - 100 kft)
 Elevation -6° to +20°

Deployment Configuration

Fixed or NATO Transportable

FPS-117 Performance

Frequency Control

4 Agility Modes
 100 Center Frequencies
 Sectorized Control

ABT Detection (80% P_D, 1m² RCS)

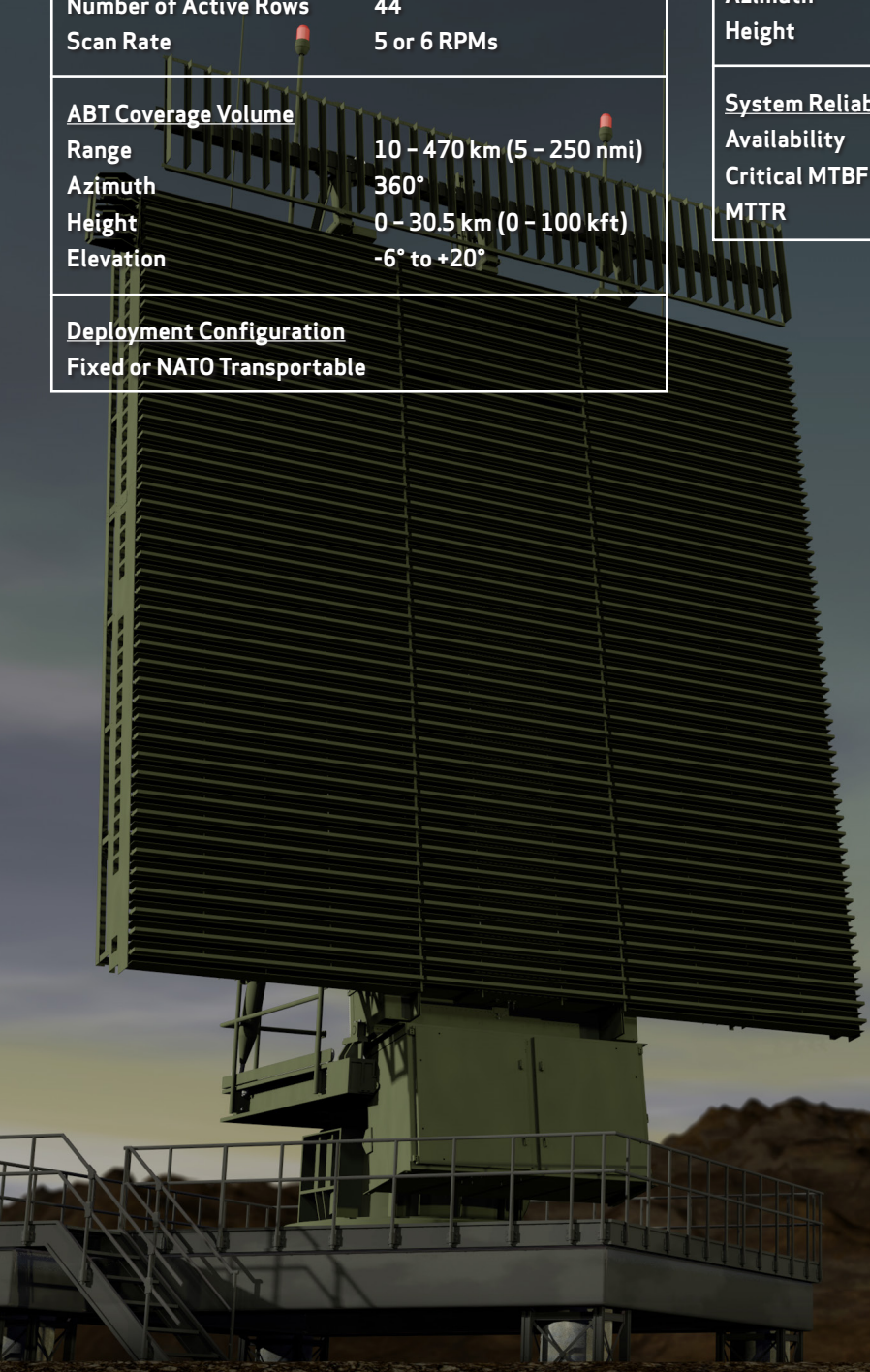
330 km (180 nmi)

ABT Accuracy

Range < 50 m (164 ft)
 Azimuth 0.18° at 250 km (135 nmi)
 Height 762 m at 250 km (2500 ft at 135 nmi)

System Reliability

Availability 99.5%
 Critical MTBF > 2000 Hours
 MTTR < 45 Minutes



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 PIRA# TOP201305001

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