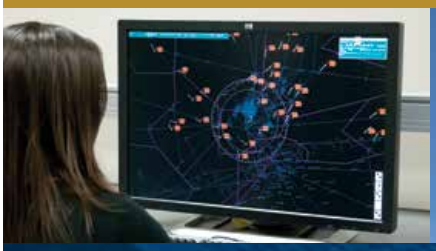
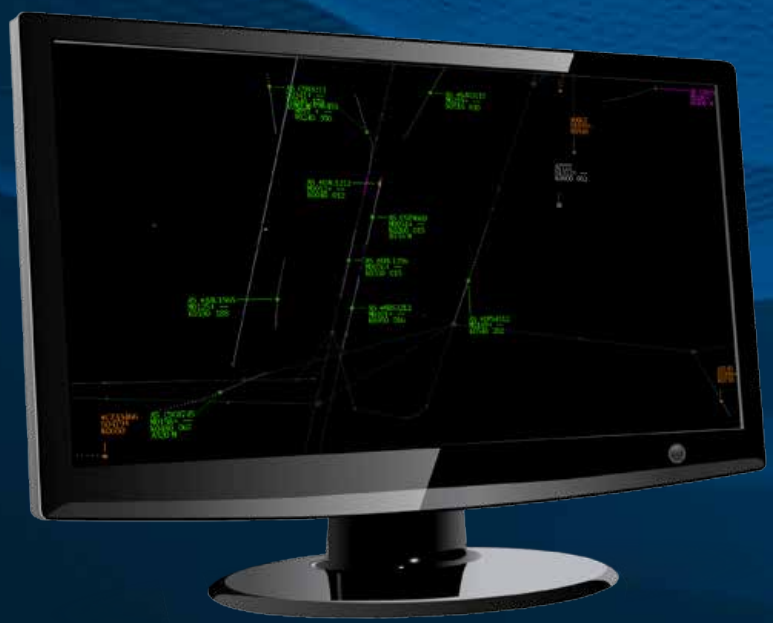
Sky Search

Surveillance Solutions



TELEPHONICS®
A Griffon Company

Advanced Technology With A Global Reach

Sky Search-2000M®

MSSR Transmitters	
Transmitter Frequency	1030 ±0.01 MHz
Peak Output Power	65 dBm ±1 dBm
Power Control	12 dB ranges, 1.0 dB steps (with Mode S transmitter)
Modulations	PPM, BPSK
MSSR Receivers	
Number of Channels	3 (Sum, Delta, Omni)
Receiver Type	Linear and Log
Center Frequency	1090 ±0.1 MHz
Frequency Response	ICAO, STANAG, and EuroControl
Maximum Range	256 NM
Minimum Range	0.25 NM
MSSR Processors	
Target Processor	
Probability of Detection	>99.9%
False Target Report	<0.04%
Overall Multiple SSR Target Reports	<0.3%
Code Availability	>98.5%
Systemic Errors	
Slant Range Bias	<15 meters
Azimuth Bias	<0.022 degrees
Random Errors	
Slant Range	15 meters
Azimuth	0.068 degrees
Target Resolution	
Range	100% for range separations >222 feet
Azimuth	100% for azimuth separations of > one effective antenna beam width
Data Outputs	
Format	ASTERIX, CAT1, CAT2, CAT7, CAT18, CAT21, CAT34, and CAT48
Channels	Dual
Links	Serial and Network
MSSR Antenna	
Type	LVA
Pedestal	
Rotation Rate	10/15 RPM
Redundancy	Dual Motors
Data Package	Dual Encoders
Maintenance	Automatic lubrication system, temperature, lube monitoring

Monopulse Secondary Surveillance Radar (MSSR)

Telephonics' Sky Search-2000M® combines our Sky Search Secondary Surveillance Radar with our advanced military-qualified Monopulse Secondary Surveillance Radar (MSSR) technology to achieve superior aircraft reporting for civil ATC applications.

Main Features:

- Modes 1,2,3/A,C, and S ELS/EHS
- Independent multi-channel Automatic Dependent Surveillance Broadcast (ADS-B)
- Exceptional positional accuracy resulting from implementation of amplitude monopulse azimuth calculation
- Automatic Adaptive Interrogation Rate Management that minimizes interrogations per FAA/CAA requirements
- Unique built-in calibration algorithm eliminates the need for a calibration parrot
- Comprehensive Built-in Test Equipment (BITE) for ease of maintenance
- ≥2000 target capacity advanced code correction algorithms
- Interlace with up to 4 modes
- Azimuthal Sector Control
- Use of Commercial-Off-the-Shelf components ensures supportability and minimizes life cycle costs

Sky Search-3000™

Co-Mounted PSR/MSSR

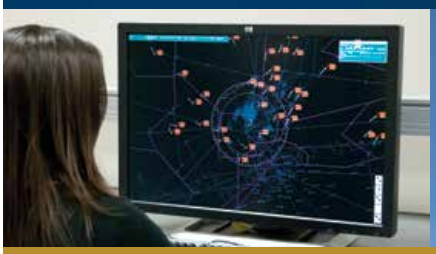
The Sky Search-3000 is an air surveillance radar system featuring an integrated SBand Primary Surveillance Radar (PSR) with a co-mounted MSSR and passive ADS-B system providing terminal approach control surveillance. The system assures service providers of having a high performing, low cost, and reliable system to safely and efficiently monitor air traffic.

Main Features:

- Developed in full compliance with ICAO and EuroControl standards
- Digital Signal Processing with Adaptive Parameter Management to decrease false target detection
- Solid-state transmitter that is air cooled and fault tolerant
- Weather detection processing dual channel providing six-level intensity classification per ICAO and U.S. FAA standards
- Modern local and remote Control and Monitoring System, BITE for user-friendly operation and maintenance
- Target output formats per ASTERIX Cat 1
- Linear and Circular Polarization to increase target detection and reduce the influence of weather clutter

Superior target reporting for civil Air Traffic Control applications

PSR Transmitters	
Frequency Band	S-band, 2700 -2900 MHz
Frequency Diversity and Agility	Multiple frequencies used in operation with Diversity
Amplifier type	Solid-state fail soft, 12 modules
Peak Power, Not Less	15 kW typical, up to 28 kW Pulses width 1 us and 40 us
PSR Receivers	
Receiver Type	Digital receiver with double frequency converter
Maximum Range	80 NM (RCS = 1m2, Pd=0.8)
Minimum Range	0.5 NM
PSR Processors	
A-MTD	Yes
Min/Max Doppler Speed	20/800 knots
Clutter Maps, Automatic	Yes
Beam Switching Maps	Yes
STC Maps	Yes
False Alarm Rate After Tracking	< 4 per scan
Range Accuracy	50 meters
Azimuth Accuracy	0.1 degrees
Range Resolution	230 m
Azimuth Resolution	2 degrees
PSR Antenna	
Polarization	Linear and Circular
Type	Cosecant Square

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