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ATCRS

AIR TRAFFIC CONTROL RADAR SYSTEM



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Air Traffic Control Radar is the main radar system that is used for detecting and tracking all airborne targets around an airport. It includes a Primary Surveillance Radar (PSR) that enables the operator to focus on the moving targets specifically with its MTI feature and a Secondary Surveillance Radar (SSR) that enables tracking of the airplanes by IFF interrogation.



Technical Specifications

- Frequency Band : S Band (2700-2900 MHz)
- Max. Number of Tracks : 1000 (PSR)
: 750 (SSR)
- Elevation Coverage : PSR: 0 – 28000 feet
: SSR: 0 – 60000 feet
- Azimuth Accuracy : PSR:0.150
: SSR:0.150
- Range Accuracy : PSR:150 feet
: SSR:160 feet
- Range Resolution : PSR: less than 500 feet
: SSR: less than 300 feet
- Azimuth Resolution : PSR: less than 1,50
: SSR: less than 30
- Availability : % 99.999
- MTBCF : 45.000 hours
- MTBF : >950 hours
- MTTR : < 0,5 hour
- Cooling Type : Air Cooling

General Features

- 24/7 uninterrupted operation
- High reliability due to multiple transmit/receive modules architecture
- LRU/SRU level redundancy in matrix structure
- Hot Redundant
- PSR instrumented range: 80 NM
- SSR instrumented range: 250 NM
- Algorithm to reduce the impact of wind turbines
- Filter structure to prevent adverse impacts of 4G frequency
- Integration with flight plans
- Compliant with civil aviation standards set by ICAO and Eurocontrol