ELDIS
RADAR
SYSTEMS

RL–2000/MSSR–1

COLLOCATED PRIMARY AND SECONDARY SURVEILLANCE RADAR

The radar system is designed to meet all the Air Traffic Control (ATC) requirements. The collocated radar consists of the Primary Surveillance Radar RL-2000 and the Monopulse Secondary Surveillance Radar MSSR-1. The system features fully solid-state highly modular configuration with whole system digitalization, fail-safe system and low lifecycle costs. The radar system is designed to be used in continuous operation. Every part of the system is easily maintainable and repairs are possible to carry out without any interruption to the radar operation.

The radar meets EUROCONTROL and ICAO standards.

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ANTENNA SYSTEM

The unit is composed from antenna pedestal, drive, antenna frame and antennas ASSR-35 LVA and APSR-34H.

RL-2000

RL-2000 is the latest generation of ELDIS primary surveillance radars for Terminal Approach Control Area. The radar meets EUROCONTROL and ICAO standards. The RL-2000 features fully solid-state highly modular configuration, fail-safe system and low lifecycle costs. Standard RL-2000 configuration includes the meteo channel. RL-2000 can be customized to meet specific customer requirements.

MSSR-1

Secondary Surveillance Radar MSSR-1 with full Mode S functionality and a coverage range of 256 NM. The MSSR-1 features fully solid-state highly modular configuration with whole system digitalization, fail-safe system and low lifecycle costs.

DATA PROCESSING

- Garble and interference replies suppresion
- Tracking and target correlations
- Mode S information database updating
- Statistical information about targets
- On-line monitoring of signal quality and internal diagnostics
- Variable data interface for ATCC

SIGNAL PROCESSOR

The signal processor is based on 64-bit processors with high computing performance. Adaptive CFAR filtering includes scan to scan evaluation and weather mapping. Extraction process involves amplitude filtering of target coordinates and their accuracy improvement.

EXTRACTOR UNIT

The extractor analyzes all received signals and detects individual reply codes and aerial targets. It consists of the reply detection unit, individual modes processing unit and target correlation unit.

CONTROL AND MONITORING SYSTEM (CMS-CAM)

Each system equipment or unit is fitted with independent BITE diagnostics to carry out performance monitoring and automatic system backup changeover at system level. LCMS is located on radar site, RCMS can be located in remote technical room in Control tower (TWR), etc. The CMS consists of radar status and performance monitoring and allows the authorized personnel to control and adjust radar configuration and parameters remotely. CMS incorporates a user-friendly graphical interface which is used for data and status presentation.

BASIC PARAMETERS

- RL-2000 is S-Band surveillance radar
- RL-2000 is produced with excellent detection up to 60 / 80 / 100 NM
- The radar is equipped by linear, circular or elliptical polarization
- RL-2000 is capable of excellent detection ensured by frequency diversity (up to four frequencies) and pulse compression ratio of long pulses
- Scanning speed up to 15 RPM with 256 NM coverage in ELS and EHS-S
- Altitude coverage 35 000 / 66 000 ft
- Operation in II / SI code with EUROCONTROL certification (EC 262/2009)
- Mode S Clustering ability
- Detecting ADS-B data from received signals
- Independent four-channel ADS-B system with 360° coverage

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