Precision approach radar - RP-6PA

Precision Approach Radar RP-6PA is built on the latest cutting edge technology. The radar is intended to provide an approach path for precise alignment and descent guidance to the aircraft on final approach to a specific runway, through the interpretation and verbal instructions of a ground-based controller via ground to air radio.

OVERVIEW

The system provides very high degree of resolution in terms of range, azimuth and elevation. Target information is displayed on the screen with independent azimuth and elevation windows. The display provides an accurate information regarding aircraft's range, azimuth, and glide slope together with auxiliary information such as deviations from descend path, radial speed of target and safety alerts.

MAIN FEATURES

- ICAO compliant
- Phased array antenna system
- Fully digital signal and data processing
- Adaptive MTI/MTD filtering
- Derived weather processing
- Standard ASTERIX data interface
- Graphical control and monitoring system
- Low operation and maintenance demands
- Designed for unattended round-the-clock operation
- Fully digital and state of the art radar
- NLFM pulse compression
- ECCM Capabilities
- Used for multiple approach directions

KEY TECHNICAL PARAMETERS

Coverage	
Range	0 to 15 NM
Elevation pattern	-1° to +7°
Azimuth pattern	-10° to +10°
Accuracy (RMS)	
In range	30 m +3% of the distance from the touchdown point
In azimuth	0.6% of the distance of the aircraft from the antenna +10% of aircraft deviation from the course line, or 9 m (whichever of them is greater)
In elevation	0.4 % of the distance of the aircraft from the antenna +10% of aircraft linear deviation from selected glide slope, or 6 m (whichever of them is greater)
Resolution	
In range	60 m
In azimuth	0 to 1.2°
In elevation	0 to 0.6°
Detection probability	> 90 % (@ RCS = 2 m2; PFA = 10-6)
Data update rate	1 sec
Maximum number of targets	100
Frequency range	9100 – 9300 MHz
Antenna	
Type	2× phased array antenna
Beam width (az/el)	1.2°/0.6°
Gain (az/el)	33 dBi/33 dBi
Polarization	vertical/horizontal/circular

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