



PSR S-Band Primary Surveillance Radar

Indra PSR S-Band Radar solution represents the most modern radar system incorporating the latest technologies in the surveillance domain.

Specifically designed for approach or en-route surveillance purposes, the system integrates the most advanced technology in signal generation, demodulation and processing, providing as well an integrated Weather channel according with NWS.

The system allows controllers to safely monitor all the aircraft in the airspace, clearly, simultaneously and without interferences in any environmental conditions.

Operational experience of the system with Air Traffic Service Providers from all over the world have built the good reputation and well proven reliability of the system, including weather detection and windfarm mitigation techniques to ensure the safe surveillance in all the controlled airspace.

Indra's PSR S-Band is a highly reliable surveillance radar designed as an unattended system intended to operate twenty-four hours a day, 365 days a year.

Integrated with modern web-based Human Machine Interface and graphical configuration and adaptation engineering tool, provides the operator with a complete access to every parameter and notification of the system.

Versatility, field-proven ATM technologies with innovative design concept providing amazing performances, high reliability and fully compliance to regulations.

Among the technologies integrated in the system the latest A-MTD target processing and parallel weather channel ensure a highly flexible and adaptable radar performance for different configurations:

- Terminal radar (60/80 NM)
- En-route radar (100 NM)

System embeds a smart configuration capability: "cross connections" between redundant modules allows routing the active elements to the best configuration providing outstanding reliability and availability, simplifying maintenance activities and resulting in significant operating and maintenance cost savings.

Windfarm Mitigation

- Capability of concurrent beam processing allows windfarm effect mitigation in first stages of signal processing
- High receiver dynamic range and adaptive STC avoids saturation in close ranges
- A-MTD Doppler filtering processing with very low side lobes ensures the system ability to self-adapt to the most complex environments including windmills
- Extended usage of synchronous and multilayer high-resolution clutter maps.
- Improved tracking algorithms avoiding wind farm effects (i.e. track seduction or false track)
- Evidences and demonstrations available

Features to face the future

- Fully solid-state Transmitter with graceful degradation
- Highest redundancy and availability in the market
- Local and remote control and supervision system with intuitive web-based user interface
- Latest A-MTD, Adaptive Doppler processing
- Altitude reporting/estimation
- Immunity against 4G/LTE and new 5G
- Integrated RF/IF and Digital signal injection for system maintenance and performance tests
- Compliance with international standards (EUROCONTROL / ICAO / FAA)
- Graphically configurable for parameters and site adaptation

Indra is the market leading supplier of air traffic management and communications, navigation and surveillance (ATM-CNS) solutions.

With a complete portfolio of products in the cooperative and non cooperative surveillance domain we cover all the stages of the flight.

In the field of R&D, we are one of the leading companies in the SESAR program, a key technology partner behind the Single European Sky initiative.

The core of the Indra PSR is fully compliant with latest versions of Eurocontrol specifications and ICAO regulation. This offers a quantum-leap in safety and efficiency for the provision and continuity of surveillance.

Indra PSR system ensures a perfect adaptation to the environment while maintaining the best coverage and performances ever seen in surveillance systems.

With more than 300 radar references worldwide Indra offers a well-reputed, reliable and modern solution, adaptable to the client's requirements and the particular needs of each site.

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