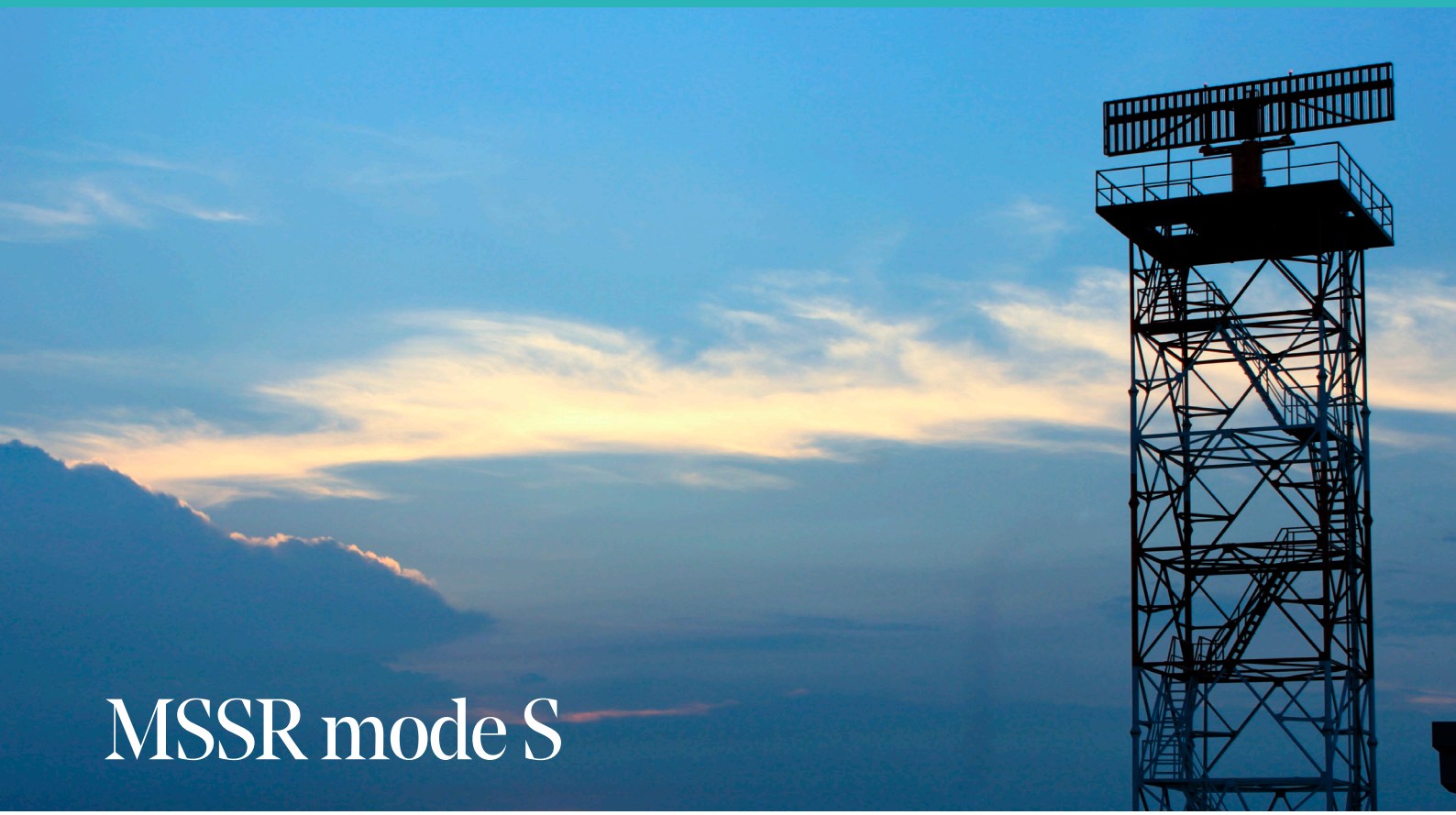

MSSR mode S

Monopulse Secondary Surveillance Radar

Indra's MSSR mode S represents the next generation of radar systems in the secondary surveillance domain. It is a fully digital version, with powerful and advance set of functionalities ensuring any functional need is met at all times while the performances are much above the requirements defined.

Experiences with Air Traffic Service Providers from all over the world have built the good reputation and well proven reliability of the system.

MSSR mode S radar has capability of receiving, decoding and performing a SMART integration of ADS-B reports generated by the aircrafts; this exclusive and revolutionary feature improves the performances of the previous MSSR systems while offers enhanced capabilities in terms of surveillance and safety.

MSSR mode S is based on field-proven technology and the wealth of experience implementing successful innovations to Indra ATM products. This provides performances, reliability and compliance to existing and future regulations, which gives you the ultimate capability to manage air traffic in en-route or approach stages. Digital reception, web-based HMI and integrated ADS-B, as well as its innovative design, make MSSR mode S one of the most advanced and capable radars in the world.

The architecture of the system integrates the experience gained by Indra in the last decades developing and installing surveillance solutions.

The system provides maximum operational versatility and flexibility by utilizing modular configuration concepts and modern technologies. What does this imply? A fully digital reception chain allowing the unit to comply all regulations with the highest capabilities such as enhanced mode S surveillance in all the coverage volume.

The redundant architecture plus proven design and components provide outstanding reliability and availability. Reliable web based high-quality Human Machine Interface providing any operator easy access to configuration parameters and notifications.

Smart ADS-B integration

- Unit integrates ADS-B reports from aircrafts improving performances and features (passive and on-ground acquisition, II/SI conflicts detection and mitigation, cone of silence reduction, reflection process)
- Continuous and independent ADS-B data reporting even when antenna rotation stops
- Sectorized or omni-directional antenna
- Large ADS-B coverage (up to 256NM) with no cone of silence
- Synergies between MSSR and ADS-B technologies are maximized while an efficient use of infrastructure is maintained

Features to face the future

- Transmitter with highest duty cycle and output power
- Fully digital MSSR receiver operating directly at radiofrequency level, avoiding the use of IF
- Local and remote control and supervision system with intuitive web-based user interface
- High coverage volume due to range reached and small cone of silence
- Test and Supervision Unit (UTS) available for remote radar maintenance
- Compliance with international standards(EUROCONTROL / ICAO / FAA)
- Intelligent BITE with remote control and performance supervision

Indra is positioned as the market's leading supplier of air traffic management and communications, navigation and surveillance (ATM-CNS) systems. 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, the key technology behind the Single European Sky initiative.

The core of the MSSR mode S 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 through the use of most advanced technology.

The use of MSSR mode S from Indra will ensure a perfect adaptation to the environment while maintaining the best coverage and performances ever seen in such kind of 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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