

LFV OPTS FOR THE RELIABILITY AND RANGE PROVIDED BY INDRA 3D RADARS TO ENHANCE AIR TRAFFIC SAFETY IN SWEDEN

- **Indra has secured a framework agreement with LFV to supply secondary radars and primary 3D radars to control en-route aircraft and approach and landing maneuvers at the country's airports**
- **3D radars provide more complete and reliable data, as well as more extensive detection ranges even in the most adverse weather conditions**
- **Indra is a leading supplier of radars, having delivered more than 300 systems across five continents**

Madrid, March 7, 2017.- Indra has signed a framework agreement with the Swedish Air Navigation Service Provider Luftfartsverket (LFV) to supply secondary radars and Long-range primary 3D radars, which will enhance air traffic monitoring and safety in the country. The first order envisages business in excess of ten million euros.

Indra is a globally leading supplier of radars, having deployed more than 300 systems around the world. The deal with LFV sees Indra further drive the introduction of 3D radars in the air traffic management market. Such systems provide additional features (such as altitude data), ensuring optimal safety levels and providing controllers with more complete information.

Traditionally air traffic control services have been founded on secondary radars that query aircraft and compile the altitude, position, speed and identification information that these provide. This monitoring is supported in some areas by two dimensional (2D) primary surveillance radars, capable of detecting aircraft without their cooperation, meaning the aircraft is not required to relay information. However, such radars are unable to generate information on aircraft's altitude.

3D radars, such as those that Indra will provide to LFV, determine altitudes without requiring the aircraft's cooperation. Altitude information significantly helps controllers to keep in-flight aircraft at safe distances from each other, meaning far greater safety assurances in operations management, even when aircraft are not cooperative. These systems harness the L-band frequency to operate even in the worst weather conditions, with longer detection ranges and wider radar coverage. All of which allows more robust flight management, avoiding delays and preventing challenging weather from rendering some routes unusable, and thus causing congestion on alternative routes.

The introduction of 3D radars in the air traffic management market has been driven by constant growth in the number of aircraft in the skies, as well as the need to detect aircraft in all weather conditions. Indra is a leading company in this technology, having developed cutting-edge systems that have been deployed to numerous countries. The growing use of such systems represents a major business opportunity and competitive advantage for the company.

The secondary radars that Indra supplies to LFV will also feature the latest technological developments.

As part of the agreement, Indra will provide maintenance services to LFV over the next fifteen years, ensuring proper functioning of the radars for their entire lifecycle.

LFV has a staff of around 1,100, providing secure, efficient and environmentally friendly navigation services to civil and military aviation in Sweden, having managed 726,000 flights in 2016, representing a 2% increase on the previous year.

The LFV deal drives Indra's leadership in Europe, where it already partners with the foremost air navigation service providers. The company is one of the leading air traffic management system providers, and is spearheading modernization of the new generation of systems that are making the Single European Sky initiative a reality.

Indra

Indra is one of the leading global consulting and technology companies and is a technological partner to its clients in key business operations around the world. It offers a comprehensive range of proprietary solutions and cutting-edge services with optimal technological capabilities, supported by a corporate culture of reliability, flexibility and adapting to client requirements. Indra is a world leader in the development of comprehensive technological solutions in fields such as Defense & Security, Transport & Traffic, Energy & Industry, Telecommunications & Media, Financial Services and Public Administrations & Healthcare. Through its Minsait unit it addresses the challenges posed by digital transformation. In 2015 it posted revenues of 2.85 billion euros and had 37,000 employees, a local presence in 46 countries and projects in more than 160 countries.