

INDRA WILL IMPLEMENT SPAIN'S SYSTEM FOR SPACE SURVEILLANCE AND TRACKING

- **The company has been awarded the deployment in Spain of the complete S3T space surveillance system, which may be used to catalog uncontrolled orbiting objects**
- **As part of the project, Indra will develop a radar that is set to establish Spain as one of the few countries with surveillance capabilities in orbits of between 200 and 2,000 km**
- **This radar's capacity may be successively expanded until making it the most powerful radar ever designed in Europe**
- **This new Spanish infrastructure will enable security for satellites, space missions and launches into space**
- **Its services include collision warnings, object fragmentation and a re-entry warning service that includes information on the time and place of Earth impact**

Madrid, September 14, 2016.- The European Space Agency (ESA) has awarded Indra contracts to deploy the S3T surveillance and tracking system for objects in low Earth orbit, worth a total of €17 million. Indra has thus established itself as the main contractor in this Spanish program, the technical management of which has been entrusted to ESA, by virtue of an agreement with ESA, the Ministry of Industry, Energy and Tourism, and the Center for the Development of Industrial Technology (CDTI).

The system is set to establish Spain as one of the few countries in the world to have such capabilities, helping to drive Europe's independence in terms of ensuring the security of satellites and space missions.

As part of the program, Indra will be entrusted with developing and supplying the surveillance radar, as well as coordinating implementation and integration of the operations center and the radar and electro-optical sensors for gathering complementary information.

The surveillance radar provided by Indra will cover orbits of between 200 and 2,000 kilometers altitude above the Earth's surface, where most orbital debris and satellites to be protected are found.

This state-of-the-art radar is strategic for Indra. It is a cutting-edge system that few countries in the world have access to. Development of the same will pose a significant technological challenge due to its size and the significant number of objects that it must detect simultaneously.

Its scalable design may transform it into the most powerful radar ever designed in Europe through successive phases of Spanish and European investment.

The new S3T system will provide Spain with a catalog of Earth orbiting objects, which can then be used to offer collision warnings of these objects with satellites and space infrastructure; an object re-entry warning service that includes information on the time and place of Earth impact; and a fragmentation service, which will detect the presence of new debris clusters and help to identify the object that generated these.

Once the system comes online, Spain will be one of the few countries capable of providing such services to the European Commission, which will harness the infrastructure of member states to monitor and track the

trajectories of such objects in space. The service joins other key initiatives driven by the EC, such as Copernicus and Galileo.

To date, space missions and satellite launches depend on databases provided by the United States space monitoring system, the only country in the world capable of providing such services. It is thought that more than 70,000 uncontrolled objects are orbiting the Earth, posing a significant risk to the infrastructure that our communications and positioning systems, among many other services, depend on, as well as to the safety of the International Space Station.

About 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 140 countries.