

## **INDRA INSHIELD DIRCM SYSTEM FOR AIRCRAFT SELF-PROTECCION AGAINST INFRARED MISSILES SUCCESSFULLY TESTED AT NATO TRIAL**

- **Indra InShield DIRCM system proofed its capacities in the in-flight tests during the NATO EMBOW exercise, one of the world's most prestigious in this field**
- **InShield detects in fractions of a second the launch of surface-to-surface and surface-to-air projectiles and uses the DIRCM laser to counteract their tracking systems, deviating missiles from their target**
- **Indra works to implement this system in the Spanish Air Force A400M**
- **The use of heat-seeking missiles is the leading cause of downed military aircraft in conflict zones. With this system, Indra markets the definitive solution for this threat**

**Madrid, October 5, 2017.-** The InShield DIRCM system, the state-of-the-art solution developed by Indra to protect aircraft from infrared guided surface-to-land and surface-to-air missiles, has passed in-flight tests during the NATO Trial EMBOW XVI exercise, one of the most demanding and prestigious in the world.

These tests were performed at the WTD 91 Test Center in Meppen, Germany, with the collaboration of the Ministries of Defense of Spain, Germany, France and other allied countries.

The Spanish Directorate General of Armament and Equipment (DGAM) of the Ministry of Defense has contribute to finance the development of the system as part of its commitment to promote dual-use technologies - military and civil application -, as in the case of other similar projects on which it has worked.

The Indra system was integrated in a CH-47 Chinook helicopter of the Spanish Army Airmobile Forces (FAMET) and was certified to perform in-flight tests. Tests were coordinated with the Spanish Ministry of Defense, and were performed with the collaboration of Logistic Command of the Spanish Army (MALE) and its Acquisitions Direction and Weapons Subsystems Subdirectorate.

Upon passing NATO tests, the Indra system is qualified at operational tests, and is considered to be at TRL 8 (Technology Readiness Level 8). This is the highest level of development prior to its entry into service (TRL 9).

The company works in parallel to achieve this objective within the national SYP 21501 program for the supply of a Directional Infrared Counter Measures (DIRCM) that will be implemented in A400M military transport aircraft. Once completed, Indra will install the InShield systems in Spain's fleet of A400M.

EMBOW exercises have taken place for over 30 years to study current technologies for counteracting attacks against aircraft with the goal of identifying the most efficient systems and making them available to allied countries.

The surface-to-air heat-seeking missiles, also known as MANPADS, are easily carried by a single person and easy to operate. Their use is a main cause of downed aircraft in conflict areas.

With the development of InShield, Indra completes the ultimate solution for protection from these types of missiles. InShield design and modular architecture enable system integration in all types of aircraft, from small airplanes or helicopters to larger platforms. The system uses the most advanced electro-optics and solid-state laser technologies.

The solution's operating principle is based on detecting a missile during its launch phase to ultimately deviate it from its path, thanks to its laser jamming that blinds IR guidance. The process is triggered very quickly, and the InShield DIRCM system is able to respond to attacks from all types of missiles with an efficient countermeasure sequence, without requiring prior identification of the attacking missile's type.

**About Indra**

Indra is one of the world's top consulting and technology companies, the leader in IT in Spain, and the advanced technology partner for core business operations of its customers everywhere. It offers a comprehensive range of proprietary solutions and cutting-edge services with a high added value in technology, which adds to a unique culture that is reliable, flexible and adaptable to its clients' needs. Indra is a world leader in the development of end-to-end technology solutions in fields such as Defense and Security; Transport and Traffic, Energy and Industry, Telecommunications and Media, Financial Services, Electoral Processes, and Public Administrations and Healthcare. Through its Minsait unit, it addresses the challenges of digital transformation. In 2016 Indra posted revenues of €2,709m and had a workforce of 34,000 professionals, a local presence in 46 countries, and sales operations in more than 140 countries. Following its acquisition of Tecnocom, Indra's combined revenues amounted to more than €3,200m in 2016 with a team of nearly 40,000 professionals.