Press Release

INDRA COMPLETES THE DEVELOPMENT OF A STATE-OF-THE-ART CBRN RECOGNITION VEHICLE

- **Equipped with a complete system for detecting and analysing chemical biological radiological and nuclear agents**
- **Offers a secure work area so the scientific team can travel to the contaminated zone**
- **Conceived to address the needs of civil protection and defence agencies, it surpasses the systems currently available on the market**

Indra has completed the development of a vehicle for recognising Chemical, Biological, Radiological and Nuclear threats, in addition to improvised explosives (NRBCe).

The system allows specialised staff to travel to contaminated areas so they may perform tasks for detecting and identifying possible contaminant agents in safe conditions. This R&D project has been backed by the CDTI.

Using a commercial van as the platform, Indra has created a secure work area for two operators, an operations chief and the driver. The vehicle is pressurised, and in the event of an accident that affects its habitability, an oxygen mask system connected to the filtering device makes it possible to breathe clean air.

Operators have access to a measurement and gamma spectroscopy system as well as a system for sampling suspended particles in order to detect nuclear and radiological materials. In order to attach the system to the vehicle, an *ad hoc* design has been created. In addition, for their safety, technicians also carry an individual dosimeter that alerts them if radiation levels could present a danger.

They also have a system for detecting and identifying local chemical compounds as well as another for remotely detecting contaminant clouds that reaches distances of up to five kilometres. The vehicle is also equipped with a device for identifying chemicals using mass spectrometry.

In terms of biological analyses, the platform has a detection and sampling system. In the area of detecting explosives, it includes a portable LIBS spectroscopy system, which is a technology that uses a highly energetic laser for detecting explosive reside in traces of only a few nanograms.

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Madrid, 14 March 2013

Analysing and sending information

All the data gathered by the various devices is centralised in the information management system (LIMS) carried by the vehicle and then sent to the control centre using the most convenient link (Satcom, Tetra, etc.).

In addition, the vehicle has an application for monitoring contaminant agents in real time and georeferencing them. The information collected is combined with data provided by a meteorological unit. This system enables performing an initial estimate as to in what direction and at what speed the agent is spreading.

Operators have access to self-contained breathing equipment as well as A-level protection gear for performing tasks outside of the vehicle. This allows them to collect samples by foot and mark the contaminated area. All these features make this vehicle one of the most advanced systems available on the civil market. It can also be adapted easily to be used by Armed Forces by making slight changes in the vehicle characteristics.

A priority solution

NRBC safety and detecting improvised explosives are two areas in which the Ministry of Defence has been focusing the most efforts in recent years. With more than 20 years of experience, Indra is a pioneer company in this field. It has proprietary development systems that cover all the phases of a threat: early detection and alert, identification of the threat, protection of critical infrastructures and decontamination.

One of the latest solutions developed by the company is the Janus radiation monitor. This is a passive system, and therefore completely innocuous, that is capable of detecting gamma radiation and neutrons on people and vehicles. It is used to control the waste and materials that enter and leave industrial areas in order to ensure that they are not radiologically contaminated and prevent their accidental propagation. It is also being used in borders, port areas and airports to prevent the unauthorised transport of radioactive substances.

This is combined with the company's experience in applying various technologies for counteracting attacks with improvised explosive devices (IEDs). The company has supplied the European Defence Agency (EDA) with a transportable laboratory that is being used in Afghanistan. It is also a pioneer in the development of emergency command and control centres that monitor and coordinate actions in light of all types of emergencies.

Indra

Indra is one of the world's largest consultancy and technology multinationals, a leader in Europe and Latin America and is expanding in other emerging economies. Innovation is the cornerstone of its business, which is highly focussed on the customer and on sustainability. The multinational is one of the leaders in its sector in Europe in terms of investment in R&D and innovation, having invested more than €550M in the last three years. With sales approaching €3,000 million, it employs 42,000 professional and has customers in 128 countries.

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