



## Press Release

### **INDRA IMPLEMENTS TRAFFIC MANAGEMENT TECHNOLOGY FOR TUNNELS ALONG THE NECAXA-TIHUATLÁN HIGHWAY IN MEXICO FOR €14 M**

- **The multinational has designed, set up and deployed the intelligent transportation systems as well as control and communications systems for the highway's 83 kilometers (sections 1 and 2)**
- **The new road between Necaxa and Tihuatlán will decrease travel time between Mexico City and Tuxpan municipality, in Veracruz**

Indra, one of the leading technology and consulting multinational firms in Spain and Latin America, has deployed traffic management technology in the six tunnels of the new Necaxa-Tihuatlán highway. Indra has also implemented intelligent transportation systems (ITS) as well as control and communication systems in sections 1 and 2 (83 km in total).

For this 14 million-euro project, Indra is a technological partner of AUNETI (Autopista Necaxa-Tihuatlán), in a joint venture with FCC. The company's most advanced solutions allow to control the six tunnels and 10 bridges along the new highway.

A new operational control center in "El Piñal" manages traffic along the new road's two sections. This center is equipped with Indra's Horus integrated roadway and tunnel management solution that allows centralized control of various systems installed in the new tunnels, designed as per the European tunnel directive in order to guarantee maximum security and operativeness, both in everyday management efforts as well as in emergency situations.

Thanks to Indra's technology, operators will be able to monitor the status of the roadway at all times, and have access to real time information for decision-making purposes. It is also possible to offer drivers optimal safety and service quality, which will help reduce the risk of incidents and optimize the use of resources in those situations; information will be displayed in real time.

#### **Intelligent Transportation Systems**

Horus integrates the intelligent transportation systems (ITS) installed by Indra along the highway, such as closed circuit television (CCTV) systems, traffic meters, road signage, communications, emergency callboxes, fire detection, lighting control, ventilation and loudspeakers.



Indra has installed advanced automatic incident detection systems throughout the entire Necaxa-Tihuatlán highway; these systems enable immediate response to events that could endanger user safety or traffic along the highway. There are several systems for quick implementation of appropriate measures (e.g. two-way use of only one lane without disrupting traffic flow), such as video surveillance systems with automatic incident detection, air quality measurement equipment, fire detection systems and weather stations, which trigger alarms in case of an emergency.

The solution implemented by Indra also includes variable message panels that will provide drivers with real time information regarding road conditions, speed limits and incidents. Tunnels are also equipped with visibility sensors, an artificial lighting system, an emergency and evacuation system, as well as power generators and backup power systems to address any contingency that may arise.

The road between Necaxa and Tihuatlán decreases travel time between Mexico City and Tuxpan municipality, in Veracruz. This, in turn, will result in fuel savings and lower operating costs for heavy vehicles.

### **Cutting-edge technology for traffic and tunnel management**

This new contract strengthens Indra's leading position in the Transport & Traffic market in Mexico. Over the last years, the company has shown significant growth and developed such projects as the implementation of the most advanced electronic toll system in Latin America and its intelligent transportation systems in Viaducto Elevado Bicentenario, ticketing and safety systems in the suburban railroad of Mexico City, the toll and ITS system in Arco Norte freeway and in the road network Circuito Exterior Mexiquense, among others.

Indra has been in Mexico since 1997 and has offices in Mexico City, Guadalajara, Monterrey and Querétaro. It employs over 2,000 professionals, has a software lab and provides a solid range of solutions and services for Financial Services, Transport & Traffic, Public Sector and Healthcare, Energy and Utilities, Industry and Mass Market, Defense and Telecommunications.

The multinational has already implemented its technology for smart transport infrastructures in over 50 countries and it is one of the leading companies in terms of development and implementation of comprehensive solutions for traffic management and control, tunnel control systems, and toll systems. Indra has a number of key customers in this field in the United States, Canada, Mexico, Chile, Brazil, Spain, Portugal, Ireland, Montenegro, India and China.

Indra, chaired by Javier Monzón, 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 €570M in the last three years. With sales approaching €3,000 million, it employs 43,000 professional and has customers in 138 countries.