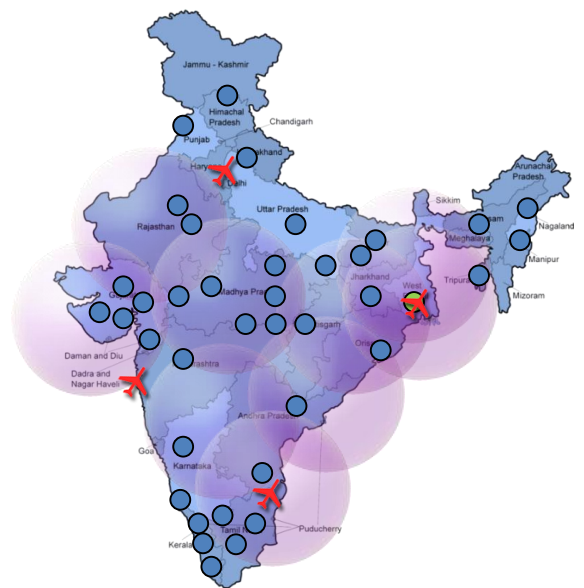Indra

MOST EXTENSIVE PRESENCE IN INDIA THANKS TO CUSTOMER CONFIDENCE

INDRA AUTOMATION AND SURVEILLANCE SYSTEMS TO PROVIDE SAFE CONTROL OVER INDIAN AIRSPACE

▶ Video

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Context

Indian airspace modernization

India, the seventh-largest country by area in the world, took a step forward to modernize its airspace control to enhance safety, efficiency and increase in airport and airspace capacity through the installation of Indra's ATS Automation Systems and Indra's Surveillance Radars.

Airports Authority of India (AAI) is the Air Navigation Service Provider (ANSP) in charge of managing a total of 125 Airports, which include 11 International Airports. AAI selected Indra to provide 38 tower automation systems for 38 different airports along India in four different configurations.

Furthermore, AAI provides Air Traffic Management Services (ATMS) over entire Indian Air Space from its Area Control Centers in New Delhi, Chennai, Kolkata and Mumbai, New Delhi and Kolkata ACCs using Indra's forefront technology.

AAI offers to its future controllers well training courses at its Simulator Centers in Delhi, Mumbai, Chennai and Kolkata equipped with Indra's latest generation simulation technologies.

80% of the Indian airspace covered by Indra's Surveillance technology

All major air-routes over Indian landmass are Radar covered. More than 80% of the Indian Airspace with the most important number of flight movements, is covered by Indra's radars.

During the year 2014-15, 1.6 million aircraft movements were handled in India using these systems, allowing over 190 million passengers to safely travel through Indian airspace.

Safety and Efficiency with Indra's latest technology

Indra has supplied its well proven technology to Airports Authority of India (AAI) in order to allow the Indian ANSP fulfill its goal of achieving the highest safety and efficiency standards for the full control of the entire Indian airspace.

- Nine (9) Indra's Monopulse Secondary Surveillance mode S radars in operation at Chennai, Bellary, Vizag, Porbandar, Bhopal, Udaipur, Jharsuguda, Kolkata and Katihar locations that cover over 80% of Indian airspace.

- Thirty-eight (38) Automation systems for 38 Airports along India in four different configurations for Tower, Approach and En-Rute operations.

- Kolkata ACC - The system is capable of 4D trajectory calculation. The system provided advance safety net features which detects conflicts and alerts the controllers. The safety net consists of Short Term Conflict Alert, Medium Term Conflict Detection, Safe Altitude Warning, Area Proximity warning etc., this feature enhances air safety to a great extent.

- Delhi ACC - ATM Automation System with over 140 positions for En-Route, Approach and Tower Air Traffic Operations for Delhi FIR, Airport tower and remote Positions, 1 ATM Backup System running in parallel with the Operational system, 1 ATM Training and Simulation System to support training capabilities and 1 Software Support and Test System for validation facilities.

- Four (4) Integrated ATM Training Simulators (IATS) in Delhi, Kolkata, Mumbai and Chennai Airports which faithfully reproduce a real control center, and can even be used as backup centers if necessary.

Bringing benefits to AAI

- Better aircraft detection performances and accuracy over long distances throughout Indian airspace.

- Given the air traffic increase, AAI has had to reinforce air traffic controller training and preparation using Indra's technology.

- Kolkata and Delhi's Area Control Centers (ACCs) are the country's most important centers and from which two of the greatest air traffic areas are managed. Better technology and coordination makes the Indian airspace safer.

- Though Indian flights have grown up and airspace has increased 40%, load on ATCOs has been reduced.

Indra's world-class Air Traffic Management system makes Indian airspace among the safest in the world

Adding value to AAI's Air Traffic Services

Kolkata and Delhi's Area Control Center, together with the 38 Towers and the ˙- ˙A cbcdi ˙gY˙GYW⊄bXUfm⍾i fj Y]˙`UbW˙a cXY˙G˙FUXUf˙gmⵘhYa g˙k \]W˙W⊄j Yf˙h\Y˙, $ı ˙cZ˙h\Y˙∌bX]Ub˙U]fgdUWW/˙gi ddcfh˙55=Z̄cf˙dfcj ]X]b[ ˙VYhhYf˙U]f˙hfUZZ]W⍾gYfj ]W⍾g˙Zcf˙9b!Fci hYŽ5ddfcUW˙ and Tower operations within the 5 FIRs of India: Delhi, Mumbai, Chennai, Kolkata UbX˙; i k U\UhⵏⵤU˙ck ]b[ cj Yf˙%- $ ˙a ]˙`]cb˙dUggYb[Yfg˙ to safely travel through Indian airspace.

Air Traffic Management leader

Indra is a leading company in the supply of Air Traffic Management (ATM) systems. With already 100 years of experience, it has implemented more than 4,000 facilities across 160 countries.

Indra has positioned itself as market leader in the supply of air traffic management and communications, navigation and surveillance systems.

In the field of R&D, Indra is one of the leading companies in the SESAR program, the key technology behind the Single European Sky initiative. Indra is also the technological partner of many major European navigation service providers, including ENAIRE, NATS, DFS and EUROCONTROL, among others, and also the preferred ATM supplier for much ANSPs in Latin America, Africa and Asia.