



# DISTINCTIVE

# AIRPORTS

*With a slew of world-class airports to boast of, Airports Authority of India's initiatives are changing the face of civil aviation in India*

**A**irports Authority of India (AAI), the mainstay and face of India's civil aviation, is responsible for building airport infrastructure across the length and breadth of our country—a role in which it has excelled and set global benchmarks. A Mini Ratna Public Sector Unit (PSU) on the threshold of achieving Navaratna status, AAI manages 115 airports, including 23 Civil Enclaves in India and is solely responsible for managing the whole of Indian airspace.

AAI has, in recent times, initiated massive plans to upgrade infrastructure at its airports across the country in view of the exponential growth of air traffic in India. With

respect to Communications, Navigation and Surveillance systems—Air Traffic Management (CNS-ATM), AAI has taken the initiative and drawn up a Master Plan for implementation of Future Air Navigation System (FANS). The implementation of the CNS-ATM Master Plan will put India amongst the elite group of countries having an efficient ATM system, supported by a strong and robust CNS infrastructure.

## AIRPORTS

Keeping pace with the influx of air traffic, AAI has initiated action to provide commensurate airport infrastructure. Airports at Chennai, Ahmedabad and Kolkata speak volumes about AAI's expertise in creating state-of-the-art airport facilities.



Kolkata Airport

## VISIONARY LEADERSHIP

Being a visionary and perfectionist, VP Agrawal, the Chairman of AAI, is creative, full of passion, and gainfully makes use of his expertise to nurture his business ventures. He is a guiding factor, a protective arm and a source of inspiration for the entire workforce under him. Agrawal is positive in his attitude, has the courage to explore vibrant, new ideas, and is blessed with an uncanny ability to see far into the future. He can easily be categorised as an entrepreneur who nurtures growth, initiates change, generates hope and instils a healthy work environment. The Chairman has embarked on a mission to bring about a perceivable change in the Indian airport infrastructure/aerial skyline.

modern structural interpretation of the traditional kite form possible.

For the first time, fully-illuminated water bodies have been provided inside the terminal. The inter-terminal link connecting the International Terminal to the Domestic Terminal is fully air-conditioned and has three sets, each, of travelators. Two lifts and two escalators have been provided on either side.

The building area is spread across 41,000 square metres with 32 check-in counters, 5 baggage claim belts, 4 aerobridges, and an adequate number of counters/kiosks for accommodating a tourist information centre, hotel booking, railway booking, florist, pre-paid taxi, snack/coffee bar, soft drink vending machine, etc, and a car park with a capacity to accommodate 900 cars has been constructed at a cost of Rs 300 crore.

### Kolkata Airport

The structure has five levels, one basement, housing baggage handling and other MEP services; the ground level has an arrival lounge and baggage claim for incoming passengers; Level 1 for operational offices, Level 2 has pax facilities, Level 3 is for check-in and departure and the topmost level has airline lounges and pax facilities.

The roof is a 3-dimensional steel-trussed space structure varying in height and configuration from level +21.5metres to a maximum of 31.65metres. The foundation is bored cast in-situ piles with the diameter of 600millimetres to 1000millimetres, with depth varying from 16 metres to 40 metres. The lens

roof trusses have a trapezium cross-section with a maximum depth of 4.5 metres at its mid-span. The profile of the curve has been designed so as to also provide sufficient depth over the supports to resist the cantilever forces, with clear spans of trusses varying from 72 metres to 90 metres based on their location in the plan.

The integrated passenger terminal will have an apron for parking aircraft on its northern and north-eastern sides. Eighteen aircraft are proposed to be parked at in-contact configuration. These stands will supplement the other 53 aircraft parking bays. Passengers will be able to embark or disembark from any aircraft stand and will be able to proceed to either the Domestic or International terminals. The approach road from the city will comprise a uni-directional 4-lane road merging with the existing road network without disrupting the vehicular flow to various other airport facilities. The proposed five-level terminal is to be served by an elevated roadway leading to the departure facilities. The city-side will also be linked with the upcoming Metro rail connectivity from the main city.

A landscaped courtyard at the heart of the building provides a symbolic and physical separation between

the air-side and land-side. It is further divided by an island of accommodation that projects forward between the check-in area and the baggage reclaim area. These two large spaces sit side-by-side in the land-side section of the building. To unify these two spaces, a spectacular roof passes above, retaining it as a whole. The landscape concept is conceived as one of the biggest pieces of land art inspired by works of literary giant Rabindranath Tagore. It offers two distinct spatial experiences—the vastness of the grand central garden and the intimacy of the internal courtyards. The central garden is a canvas inspired by paintings and poems of Tagore, and has two levels separated by a sweeping curve—directly inspired from one of Tagore's famous paintings. Compared to the simplicity of the lower level, the upper level of the garden is richly textured and patterned with letters and words extracted from one of the famous poems from *Gitanjali*.



Kolkata Airport



Chennai Airport



Chennai Airport

## Chennai Airport

The modernisation of Chennai Airport falls under the category of Brown Field Airport. Thus, it assumes a much higher degree of difficulties as the construction of the proposed integrated terminal building on the anvil is in continuation of the existing terminal buildings and other facilities, ensuring that no existing operation or safety are compromised. The mega project, at a cost of Rs 2015 crore (inclusive of Rs 470 crore for extension of the runway and the construction of a bridge over Adyar River), includes Domestic/International Terminal buildings, elevated corridor and allied works with respect to extension of the runway and the construction of the bridge over Adyar River.

The Integrated Terminal Building is a 3-level structure wherein the Domestic Terminal is spread over an area of 67,700 square metres, with 7 gates and 2 hardstand hold rooms, 52 check-in counters, excluding 8 counters for E-

ticketing, and the International Terminal has an area of 59,300 square metres, with the provision of 2 gates with multiple hardstand hold rooms, 52 check-in counters, excluding 8 counters for E-ticketing, 18/10 Immigration/Custom counters for incoming passengers and 18/4 Immigration/Custom counters for departing passengers.

The capacity of Chennai Airport will be 23 million passengers per annum—16 million domestic and 7 million international passengers. Peak hour passenger capacity will be 3,300 passengers for the Domestic Terminal and 2,300 passengers for the International Terminal. The elevated road (flyover), connecting the International and Domestic Terminal, is about one kilometre long and 34 metres wide, along with other utility services. The new Domestic and International Terminals will be elegant, modern structures defined by dramatic, twin wing-like hovering roofs providing 300-metre long, column-free space.

It is proposed to have a Metro rail station inside the airport premises, with a total area of 20,000 square metres with a four-level terminal having a concourse, platform, two-wheeler parking for Metro users and a car park for airport users.

## Ahmedabad Airport

The new International Terminal Building at Ahmedabad's Sardar Vallabhai Patel International Airport, has won the second prize in the national competition for professional excellence in Steel Structure Design and Construction organised by the Institute for Steel Development and Growth (INSDAG).

The design concept for this new International Terminal is conceived from the recognisable form of kites associated with Ahmedabad. It has been conceived on the premise that it is this main roofline that will then distinguish the building. It is steel construction technology that makes the



Ahmedabad Airport



Ahmedabad Airport

in pursuit of

Aurangabad Airport

# One Of A Kind

Kozhikode(Calicut) Airport

Chennai, Ahmedabad and Kolkata airports are no exceptions. State-of-the-art facilities have also been introduced by the AAI in airports, such as Trivandrum, Mangalore, Madurai, Aurangabad, Jaipur, Srinagar, Kozhikode, Bhopal, Dibrugarh and Udaipur airports.





Trivandrum Airport



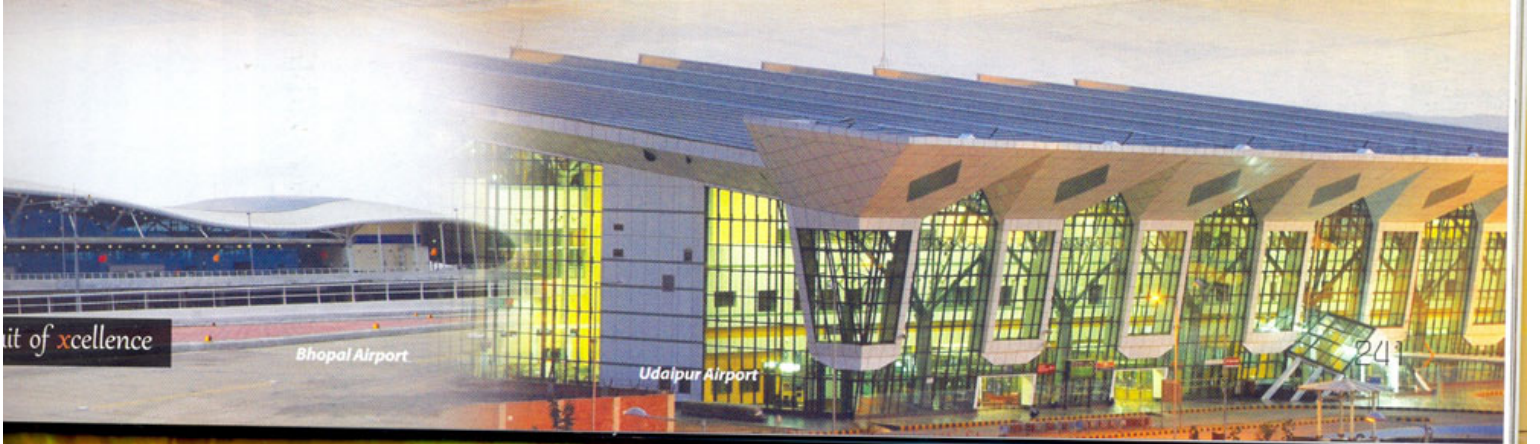
Jaipur Airport



Dibrugarh Airport



Srinagar International Airport



Bhopal Airport

Udaipur Airport