

FUNDAMENTALS OF AIRPORT MANAGEMENT

SESSION I



OVERVIEW

Increasing passenger growth coupled with capacity constraints means that **operating an airport demands insight and collaboration for the timely allocation of workforces and assets** as well as the ability to make the right decisions at the right time to keep things moving.

Manage increasing demand, without decreasing profits

TYPES OF AIRPORTS

1. Primary commercial service airports
2. Commercial service airports
3. General aviation airports
4. Reliever airports

-
- Whether privately owned or part of a public system, there are fundamental characteristics of the administrative and organizational structure of an airport. The number of people employed at a given airport can range from as few as one, at the smallest of general aviation facilities, to as many as 50,000 at the world's largest airport authorities.
 - Those airports that employ fewer numbers of people expect these people to accept a wider range of responsibilities. For example, an airport management employee at a small airport might be responsible for maintaining the airfield, managing finances, and maintaining good relations with the local public. At the larger airports, employees are typically given very specific responsibilities for a particular segment of airport management.

MANAGEMENT BRANCHES

- Terminal Management
- Operations Management
- HR Management
- Finance Management
- Air Traffic Services Management
- Hazard Control Management

ASPECTS OF MANAGEMENT IN THE AIRPORTS

- landside to airside
- landing to take off
- access to real-time data to better anticipate
- plan and control operations
- assigning assets and resources more effectively

TERMINAL MANAGEMENT & FACILITATION

- Terminal Design Concept and Passenger flow
- Aesthetics and Good House Keeping
- Airport as an operational System
- Terminal Building - Civil Installations, Electrical Systems-Power Supply, Electrical installations & Electronic Systems / IT Systems.
- City Side Management
- Role of Airlines

-
- By 2027, air traffic volumes are estimated to be double what they were in 2012. And, by 2050, they will have grown by six times.
 - As an airport operator, ground handler or airline, you need to manage these increases while dealing with the capacity constraints of your current infrastructure and workforce.
 - You need to anticipate operational needs and mobilize airport resources accordingly

-
- Most of the airports around the world are owned by local, regional, or national government bodies. According to the Aircraft Rules, 1937, the airports other than government airports are permitted to be owned by Indian citizens, or Indian companies or corporations registered and having their principal place of business as India. In India, some airports are owned by the state governments, private companies, or even individual citizens.

AIRPORT - PLANNING AND DEVELOPMENT

- It involves planning, designing, and construction of terminals, runways, and other ancillary facilities for airlines to operate. Developing an airport requires huge amount of capital and anticipation of future growth of airlines and passengers.
- AAI is responsible for the development of airports in India.

- Airport Designing

Airport projects are involved with many considerations and issues hence they are highly collaborative. Designing of airport is taken up by architectural firms.

The architects work in collaboration with civil engineers to come up with the Airport Layout Plans. The experts come up with master plans which is referred to for further developments.

PLANNING AN AIRPORT

To plan an airport, the AAI is concerned for three approvals –

- Technical Approvals
 - Review and approve Airport Layout Plan (ALP).
 - Review and acceptance of forecast.
 - Airspace and procedure changes.
 - Land acquisition.
- Financial Approvals
 - Funding for the airport is approved once the project gets clearance for safety, security, capacity, and airport access systems.
- Environmental Approvals
 - Review and assess environmental issues.

-
- Safety Management
 - Disaster Management
 - Passenger Management

AIRPORT MANAGEMENT ON AN INTERNATIONAL LEVEL

Internationally, the recommended standards for the operation and management of civil-use airports are provided by the International Civil Aviation Organization (ICAO). ICAO, headquartered in Montreal, Quebec, Canada, is a membership-based organization, comprised of 188 contracting states that span the world.

ICAO came into existence as a part of the 1944 Chicago Convention on International Civil Aviation for the purpose of providing a source of communication and standardization among participating states with respect to civil aviation operations. ICAO publishes a series of recommended policies and regulations to be applied by individual states in the management of their airports and civil aviation systems.



INTERNAL ORGANIZATION

- Administration and Finance
- Operation of Airport Facilities
- Engineering, Construction Works and Maintenance
- Marketing and Public Relations
- Ground Handling
- Air-traffic Operations
- Security, Immigration, Health and Customs

WORLD CLASS AIRPORTS – BEST PRACTICE

IATA has developed the following guide to develop world class airports in-line with recommended best practices. For design standards and recommended practices refer to IATA's Airport Development Reference Manual (10th Edition)

- ✓ ENABLERS FOR INVESTMENT
- ✓ AIRSIDE DEVELOPMENT
- ✓ MASTER PLAN DEVELOPMENT
- ✓ LANDSIDE DEVELOPMENTS
- ✓ AIRPORT SUPPORT ELEMENTS

CHALLENGES IN AIRPORT MANAGEMENT

Challenge I.

- How can I optimize capacity and resource planning?
- ✓ For your airport to run smoothly, you need the right people in the right place at the right time.
- ✓ As an increasing number of flights take to the skies, there's more work to be done on the ground. You need to handle more flights with the same infrastructure and resources.
- ✓ Having staff in the right places to carry out essential work, optimize turnaround time and keep things moving requires a great deal of planning.

Challenge 2: How can I drive business results?

How do you deal with increasing passenger numbers without drastically altering your existing infrastructure? By being as efficient as possible.

- ✓ Passengers hate disruption. So do airlines. And when problems occur, the knock-on effect can be devastating to airport management.
- ✓ To keep things moving, it's vital that all routine tasks on the day of operations are well managed to prevent disruption

-
- Need to give people access to the information and tools they need to carry out their tasks. That way you can avoid bottlenecks during peak periods.
 - By reducing the costly impact of delays. And, most importantly, you'll be prepared to deal with increasing passenger numbers.
 - By analysing the trends and monitor operations in real time, ensuring you're able to react to potential disruptions quickly and proactively.

Challenge 3: How can I maximize profitability?

- ✓ If your airport is running efficiently, your profits will increase along with passenger satisfaction levels.
- ✓ With passenger expectations rising, you face increasing pressure to improve the levels of service you offer.
- ✓ Need to minimize costly disruptions and ensure the services you provide are billed for accurately and on time.
- ✓ See the financial impact of actual and planned operations on your profits, so you can make more informed decisions

SOLUTIONS

- Implement robust and efficient operational planning
- Airport Management's scheduling and 'what if' scenario simulation ensures support for operational flight planning and management processes
- Proactively control real-time operations
- Airport Management enables prediction of events, automatic triggering of tasks and real-time intelligence for timely decision making.
- These help you to improve planning and operations, minimize disruptions and optimize your mobile workforce, equipment and infrastructure

-
- Airport Management helps you optimize performance and revenues with real-time dashboards, targeted advertising, accurate billing, definitions of KPIs and predictive analytics based on 'what if' billing scenarios
 - Achieve airport collaborative decision making (A-CDM) compliancy
 - provide the mandatory modules, integration capabilities and consultancy to drive the organizational changes required to achieve A-CDM

-
- Enable systems integration
 - Airport Management integrates and simplifies your infrastructure and data, facilitating collaboration with all internal and/or external airport stakeholders

OTHER CHALLENGES

- AIRLINE MARKETING AND MANAGEMENT
- ECONOMIC IMPACT IN PRIVATIZATION
- AIRPORT AIRLINE RELATIONS
- ENVIRONMENTAL ISSUES
- AUTOMATION
- CARGO PROBLEMS

-
- AIR TRAFFIC
 - CAPACITY CONSTRAINTS
 - AIRPORT-AIRSPACE CONGESTION
 - SAFETY
 - NEW LARGE AIRCRAFT
 - COMPACTING STRATEGIES:
 - AIRLINE MARKETING AND MANAGEMENT

Terminal 4



CONCLUSION

- It is a challenge for airports to meet 100% of the planning criteria required to become a «World-Class » Airport. Nevertheless it is critical that airports and their planning consultants take airline customers feedback and requirements into account in airport planning matters, Working in partnership to develop fit-for-purpose, cost effective airports is in our common interest, and that of our passengers.