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

- Airlines are the primary Users and customers of airports, and a major source of revenue.
- Airports and airlines have a joint interest in developing cost effective, functional airport facilities which Users need to drive efficiencies, passenger experience and competition between them.
- Best practice consultation between airline communities and airports is essential to ensure capital investments deliver a return on investment for Users, demonstrated through a transparent Business Case process airlines review and approve.
- A critical element is to ensure airports consult with Users to demonstrate cost relatedness between capex and charges, and agree the overall level of affordability Users are willing to fund.
- ***This is a pre-requisite for all the following comments and recommendations that follow in this positon paper.***
- As a backdrop for investment various enablers should be in place including:
- A stable political / economic system.
- Regional and / or national economic growth.
- Ability to accommodate environmental constraints without undue impact on aircraft operations.
- Airport situated along or at the cross road of one or more major air routes.
- Strategically located to maximise economic benefits for User's, airports, and the broader economy, while minimizing social and environment impacts.

MASTER PLAN DEVELOPMENT

- Possession of a thoroughly vetted master plan is required to demonstrate the ultimate capacity of an airport, and so future phases can be developed cost effectively in a modular and flexible manner when triggered by traffic forecasts.
- A master plan is also required so that all airside, landside and airport support facilities can develop uniformly to improve operational flexibility and efficiency and maintain or improve Level of Service in a structured, balanced and orderly fashion.
- A land use plan should be in place to safeguard for the ultimate layout of the airport's runway system and support facilities.
- *See «IATA Master Planning» position paper for further information*

AIRSIDE DEVELOPMENT

Runways & Taxiways

- Runways and taxiways should be capable of accommodating traffic demand in the peak hours.
- Ability to minimise runway occupancy times supported by the appropriate airfield infrastructure i.e. Rapid Exit Taxiways (RET's), Rapid Access Taxiways (RAT's), aircraft sequencing, holding bays.
- Minimum separation distances recommended by ICAO between runways, taxiways, taxi-lanes and objects to facilitate the appropriate aircraft code operations should be in place.
- Infrastructure to minimise taxi-time and fuel burn, and maximise operational efficiency and flexibility i.e. duel parallel taxiways where appropriate.

Aprons

- Cul-de-sac aircraft parking positions are not recommended to avoid push back conflicts.
- Aprons should be located to minimise or eliminate the need for aircraft and Ground Services Equipment (GSE) to cross runways. Where this is not possible «around the end taxiways» and vehicular tunnels should be considered if the investment is justified.
- Apron configuration and capacity should aim to enhance scheduling opportunities and enable airline Users to collocate operations for efficiency.
- Sufficient parking positions should be available to accommodate peak hour demand and the level of pier service required via contact gates.
- Fixed apron support services designed to minimise emissions, noise and apron service road congestion where the investment is justified e.g. fuel hydrants, ground power and pre-conditioned air.
- Sufficient provision for Ground Services Equipment (GSE), parking, staging areas and disposal of aircraft waste (in close proximity to stands).
- Front of stand service roads to avoid delays on aircraft push-back and vehicle congestion is preferred.
- Passengers should not be permitted to walk across service roads to access terminal buildings unless risk assessed and absolutely necessary.

Air & Ground Navigation & Traffic Control Aids

- No threat to schedule integrity or reliability from airspace or ATC issues.
- No restrictions on airspace capacity.
- No conflict with adjacent airports or military traffic restrictions.
- All weather operations should be supported.
- No operational curfews should be imposed unless agreed with Users.

LANDSIDE DEVELOPMENTS

Passenger Terminal

- Terminal concepts which provide functional, cost effective and user friendly solutions, enabling an efficient and seamless flow of passengers and resilient User operations.
- Terminal facilities sized to accommodate projected typical peak demand, designed taking IATA Levels of Service (LoS) « Optimum » into account.
- Sub-systems capable of modular, incremental expansion in order to respond to changes in traffic forecast demand, LoS, regulations or market innovations.
- Collaboration with control authorities to integrate standards with the airport LoS and passenger experience strategy.
- Dedicated airside passenger transfer facilities to support connectivity and Minimum Connection Times (MCT), and integrated transfer solutions for baggage where required and cost effective.
- Minimise walking distances augmented by moving walkways when acceptable distances are exceeded.
- Minimise level changes and turns of 90 degrees or more to support passenger wayfinding and an intuitive customer journey.
- Accurate and timely Flight Information Display Systems (FIDS) systems strategically located throughout the terminal / s.
- Effective directional wayfinding and signage to support the passenger journey.
- Common use systems to support efficiency.
- « Plug and play » compatible self-service facilities (off-airport, self-service kiosk, self-bag tagging and bag drop, self-boarding, e-borders) to meet IATA « Fast Travel » standards.
- Adequate number of and easy access to essential passenger amenities toilets / washrooms.
- Terminal facilities designed to accommodate Passengers with Restricted Mobility (PRM).
- Concessions should be planned around passenger operations to enable clear, unimpeded passenger routes. Retail should be « on the way, not in the way ».

Baggage Handling System

- Efficient, reliable and flexible Baggage Handling Systems (BHS) with 100 % in-line Hold Baggage Screening (HBS).
- Built-in system redundancy and flexibility to cope with partial system failure and common user operations.
- Flexibility to accommodate bar code bag tags or RFID technology as required by Users and where cost effective.

Ground Handling

- A choice of competing passenger, baggage, ramp and engineering handling provider with the option for airlines to self-handle if preferred.
- Dedicated facilities for Ground Handling, equipment including vehicle parking, container storage, offices and staging areas. Adoption of the IATA Safety Audit for Ground Operations (ISAGO) as a recognized operating standard.

Surface Access Systems & Parking

- Particularly for major hub airports, an airport plan capable of accommodating a multi-modal transport interchange i.e. road, rail (high speed, regional and local) and in some instances access by sea.
- Sufficient provision for local, regional and inter-state road connectivity and reasonably priced car parking.
- Frequent and reliable transport links to city centre (a rapid mass transit system is preferred if economically viable).
- Consolidated car hire facilities with individual terminal drop off / pick up points typically close to however not located at the main terminal building / s.

AIRPORT SUPPORT ELEMENTS

Cargo, Express Freight Terminals, Aircraft Maintenance & Catering

- A choice of competing freight and catering handling agencies.
- Sufficient freighter parking positions, with tether pits, adjacent to cargo / express terminals.
- Aircraft maintenance facilities to support level A and B checks, and AOG recovery, where agreed with airport Users.

Security Considerations

- Secure operating environment & airside/landside boundary that meets international standards.
- Sufficient vehicular access control points at convenient locations.

Aviation Fuel

- Sufficient fuel supply and a minimum fuel reserve to support resilient operations and peak demand.
- Open access to the market resulting in a choice of competing fuel suppliers.

USER CONSULTATION

- A User consultation mechanism established between the airport and airline community is essential, to capture User's requirement at an affordable cost.
- One option is IATA's Airport Consultative Committee (ACC) forum, which brings together airports and experts from the airline community to discuss and review development plans.
- This engagement mechanism should be initiated as early as possible in the planning and design process, to allow operational impact assessments and cost benefit analysis to be fully discussed and understood.

USER CHARGES, ECONOMIC REGULATION AND AIRPORT PERFORMANCE

- Robust, independent economic regulation which promotes single till regulation, transparent pricing mechanisms, avoids pre-funding and demonstrates cost-relatedness.
- Implementation of Airport Service Level Agreements (SLA) to monitor levels of service, promote continuous improvement and recognise cost-relatedness between aeronautical charges and service (see IATA Position Paper on « *Airport Service Level Agreement (SLA) – Best Practice* »).

CONCLUSIONS

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.