Topics — Day One

- Financial situation —
 How can airports and air
 navigation service providers be
 self-sufficient?
- 2. Attracting financing What are prospective financiers looking for?
- 3. Charges vs taxes Which is which and why?
- 4. Commercialization and privatization Will they deliver?
- 5. Cooperation and globalization What do they offer?
- 6. Non-aeronautical revenues Win-win for airport providers and users alike?

9:30 Introductory remarks

Moderator — Mr. John Gunther, Consultant to ICAO

9:35 Session 1— Financial situation

- Dr. Ghanem Mohammad Al-Hajri, Director General, Sharjah Airport Authority, United Arab Emirates
- Mr. Bernd P. Schuh, Member of the Board of Management, Finance, German Air Navigation Service (DFS)

10:30 Session 2 — Attracting financing

- Mr. Ellis J. Juan, Managing Director, Head of Investment Banking, Santander Investment Securities Inc.
- Mr. Adolfo Rufatt, Principal Infrastructure Economist, Regional Operational Department for Mexico and Central America, Inter-American Development Bank

11:20 Coffee break

11:35 Session 3 — Charges vs taxes

 Mr. Richard A. Janis, Tax Industry Leader, Transportation Practice, KPMG LLP (Former Tax Counsel, Air Transport Association of America)

12:00 Lunch

14:00 Session 4 — Commercialization and privatization

- Mr. Peter Harbison, Managing Director, Centre for Asia Pacific Aviation, Australia
- Mr. Dirk Ackerman, Managing Director, Airports Company South Africa (ACSA)
- · Mr. Tulsi R. Kesharwani, Consultant to ICAO

15:00 Session 5 — Cooperation and globalization

- Mr. Yves Lambert, Director General, EUROCONTROL
- Mr. Ousmane Issoufou Oubandawaki, Director General, Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)
- Mr. Frank O'Neill, President and CEO, Vancouver Airport Services Limited, Canada

16:00 Coffee break

16:15 Session 6 — Non-aeronautical revenues

- Mr. Adnan bin Shamsuddin, Executive Director of Operations, Malaysia Airports Holdings Berhad
- Mr. Niels Boserup, President and CEO, Copenhagen Airports A/S, Denmark

17:00 Closure of the day's discussion

Moderator — Mr. John Gunther, Consultant to ICAO

9:30 Session 7 — Economic regulation

- Mr. Brian McDonnell, Chief Executive, Irish Aviation Authority
- · Dr. Kenneth O. Rattray, Solicitor General, Jamaica

10:20 Coffee break

10:35 Session 8 — Major challenges

- Mr. Jonathan Howe, Director General, Airports Council International (ACI)
- Mr. Derek J. McLauchlan, Secretary General, Civil Air Navigation Services Organisation (CANSO)
- Mr. Pierre Jeanniot, Director General and CEO, International Air Transport Association (IATA)
- · Mr. Philip Butterworth-Hayes, Editor, Jane's Information Group
- Mr. Wong Woon Liong, Director-General, Civil Aviation Authority, Singapore
- Mr. Andy K. Mensah, Director-General, Ghana Civil Aviation Authority
- Mr. Jose Manuel Sanchez, Director, Panamerican Civil Aviation Institute (former Director, Planning, Directorate of Civil Aviation, Chile)

12:15 Summary and closing of the seminar

Moderator — Mr. John Gunther, Consultant to ICAO

14:00 Formal opening of the Conference

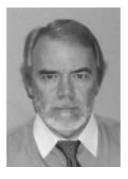
Topics — Day Two

- 7. Economic regulation What is the role of government in a changing world?
- 8. Major challenges What do airports and air navigation services providers face at the dawn of the 21st century?

(Panel discussion)

Mr. John Gunther, Moderator of the Seminar

Mr. Gunther is currently General Manager, Regulatory Policy in the Centre for Asia Pacific Aviation, an independent research and consulting firm based in Sydney, Australia. He has had a long association with the aviation sector. Between 1974 and 1976 he worked in the International Relations Division of the Australian Department of Aviation. From 1979 to 1999 he held a number of posts in the International Civil Aviation Organization and was Chief, Economic Policy Section in the Air Transport Bureau at the time of his departure. In that position he was directly responsible for the planning and conduct of, as well as the follow up work arising from, the 1994 ICAO World-wide Air Transport Conference. Mr. Gunther has degrees in economics and law from the Australian National University and a master's degree in aviation law from McGill University.



How can airports be self-sufficient?

Abstract

The world has seen rapid progress in technology, especially in the field of aviation. Faster and wider aircraft have appeared on the scene, allowing a much wider range of travellers to indulge in air travel. Today, in many cases, air travel has become commonplace, rather than a luxury.

The transition of air transport from an elite mode into a mass transport mode will be the most underlying development affecting the regulation of the air transport industry in the coming years. As a result of this development, the special treatment of air transport by governments will gradually diminish. The aviation industry may be subjected to various international free trade agreements, with the effect that traditional bilateral air service agreements are supplemented or replaced by more liberal agreements.

It is up to each airport to recognize and evaluate the uncertainties and insecurity of the future and then seek ways to overcome them.

This will call for a major revision in the role played by the airport. Airport Authorities of the modern age have been compelled to review their roles from that of mere airport operators.

We are now required to complement ancillary services in addition to our roles of 'Landlords'. In the light of this liberalization, simply providing basic services to airlines and passengers is insufficient to ensure the viability of running an airport.

Quality, innovation, new services and products are the key words to ensure survival in the competitive marketplace.

In order to ensure our survival, and the growth of traffic through our airports, we have realized the need to map out new strategies for revenue generation, outside the core business.

Lateral diversification will have to be resorted to, seeking markets from outside the conventional industry sphere. Non-aeronautical means of revenue generation will have to be set up and actively pursued.

Airports will have to resort to imaginative strategies tailored to the new realities in order to maintain their clientele.



Ghanem Mohammad Al-Hajri Director General Sharjah Airport Authority United Arab Emirates

Dr. Al-Hajri has been Director General of Sharjah Airport Authority since 1984, having previously served as Manager, Administration. He is currently Chairman of ACI. He is also the immediate past Chairman of the Gulf Airports Services Association (GASA). Dr. Al-Hajri is a graduate of the Woodbury University, USA, and has attended numerous airport training courses and programs. He obtained a master's degree in airport planning and management from Loughborough University of Technology and a Ph.D. in air transport from Cranfield University, UK.

How can air navigation service providers be self-sufficient? Abstract

The address covers relevant existing economic regulation, key factors determining an ANS provider's financial self-sufficiency, DFS's experience as a case study and potential problems and counter-strategies to overcome these.

The segment on economic regulation recalls ICAO policies and guidelines that serve as the basis for the determination of ANS charges and the consultation between ANS providers and airspace users. It adds relevant national regulatory aspects that govern DFS.

As key factors determining an ANS provider's financial self-sufficiency, the paper investigates the business environment of ANS, the relationship of the ANS provider with the State, State liability, business risk, the full-cost-recovery principle, cash-flow stability and ratings of corporatized ANS providers by rating agencies (e.g. Moody's, Standard & Poor's).

The case study of DFS's experience from its inception in 1993 until today shows that financial self-sufficiency can be assured if an ANS provider follows the principles established by ICAO. This case study analyses balance sheets and statements of cash flow over the seven-year period.

Finally it addresses potential problems in assuring financial self-sufficiency, such as the lack of clearly isolating financially activities outside ANS, and counter-strategies to avoid them.



Bernd P. Schuh Member of the Board of Management, Finance, German Air Navigation Services (DFS)

Mr. Schuh is a Member of the Board of Management of DFS Deutsche Flugsicherung GmbH and Chief Financial Officer. He studied business administration and economics and graduated as MBA from the University of California at Los Angeles in 1970. Thereafter, he started his business career in the USA in the International Finance Division of Eli Lilly & Co., became Controller of a Lilly manufacturing plant near Strasbourg and Product Group Manager for pharmaceutical products with Eli Lilly France S.A., Paris. In 1975 he joined the management consulting firm Booz, Allen & Hamilton Inc. in Paris and Düsseldorf as Consultant and Project Manager. From 1981 he was Director of Finance and Administration of Becton Dickinson GmbH, Heidelberg, From 1986 to 1990 he had responsibility as Director of Accounting and Reporting Systems with Boehringer Ingelheim. Before joining DFS, Mr. Schuh was Director of Corporate Planning and Control with Feldmühle AG, Düsseldorf.

What are prospective financiers looking for? Abstract

The world seems to have followed two different approaches or models to transfer airport responsibilities to the private sector — the developing economy model and the European model. The presence of one or the other has important implications in the financing structures and instruments used to fund airport infrastructure development.

Briefly, the models could be described as:

- Model 1 (the developing country model: BOT concession schemes).
 Build-operate-transfer schemes that are based on a concession contract that includes investment commitments to expand, upgrade or built an airport facility.
- Model 2 (the European model: corporatization with a strategic sale and/or initial public offering at a later stage). Corporatization is understood as the creation of financially independent companies under private sector governance, while still under state ownership. The corporatization is followed by a strategic sale (to an airport-related investor). Once the airport corporation has demonstrated a positive financial track record, the rest of the ownership is divested via the capital markets.

The presentation will focus on key financing elements in the developing country model, realizing that the European or corporate model has a more ample variety of financing options through the use of developed capital markets.

For the sake of simplicity, we will divide the airport-related risks in debt financing into two main categories:

- those that are related to actions taken by the private sector (or under the sphere of its influence), or project-related risks and
- those that are related to actions taken by the sovereign (or under its sphere
 of influence) impacting the airport project economics or non-project-related
 risks.

Political and contractual risks (risk of sovereign default in a contract) are an inherent component of airport project finance in developing economies. Adjustments of the airport-related fees structure, delays in securing government approval for tariff increases, or changes in the transfer and convertibility regime are some of the concerns typically faced by lenders when financing airport projects in emerging markets. In recent years, multilateral agencies as well as private insurers have been developing specific risk coverage related products to help private sponsors mitigate these type of risks.

One of the greatest challenges facing the financing of airport infrastructure in emerging markets will be establishing the appropriate economic regulation mechanism and the means to enforce it, as well as providing fair arbitration rules.



Ellis J. Juan Managing Director Head of Investment Banking Santander Investment Securities Inc.

Mr. Juan is the Head of Investment Banking at Santander Investment Securities Inc., New York, responsible for the development of Infrastructure Finance practice. Prior to joining Santander, he was a Senior Private Sector Development Specialist at the World Bank where he was actively engaged in private sector participation projects in infrastructure development in emerging markets. He has also been involved in financial sector reform programs such as Peru's Banking Reform (1993-95) and Argentina's Provincial Banking Reform (1995-97). Mr. Juan has worked in Venezuela's private sector for almost 20 years and has extensive management operating experience. From 1989 to 1991 he served as Deputy Minister for Privatization during President Perez Economic Reform Program having successfully privatized several key state-owned enterprises (e.g. CANTV, Viasa, Astinave, etc.). Mr. Juan is a graduate of Columbia University (MBA) and holds an economics degree from Universidad Católica Andres Bello, Caracas, Venezuela.

Civil aviation: challenges of modernization

Abstract

Increasing responsibilities for Governments

The process of vertiginous change which is now under way in the civil aviation sector and the sector's growing importance in the integration of national economies into a globalized market present enormous challenges for Governments and for the national and international institutions involved in this sector.

A dichotomy

On the one hand, we have a sector in which the objective conditions are undergoing dynamic change and, on the other hand, we have enormous inertia and passivity in formulating an institutional and regulatory framework which is adequate for the sector. As a result, countries are poorly equipped to manage the sector under the most favourable conditions in a way that will benefit them economically.

Historically, this problem has been avoided through direct participation by national Governments in policy formulation, regulation, oversight, financing, infrastructure development and operation, and direct provision of services.

In the more recent past, and this very day, we are going through change, with major shortfalls in the sector's infrastructure, with major funding requirements, without trained human resources and with the need for more dynamic responses to ensure that the countries can maximize and seize the benefits of the sector's development.

The symptoms of the problem

The clearest and most evident symptoms of the current situation are mainly reflected in the lack of aviation and airport safety, difficulties in making effective economic arrangements for infrastructure development and difficulties in mobilizing private financing for the risk profiles associated with the projects.

The policy challenges

Independent of the fact that the programmes and arrangements selected in assigning ownership of assets, and the participation of the private sector, the main policy components which must be dealt with promptly are the following:

- · Liberalization and protection of competition in the market.
- Adequate institutional structures. Separation of roles in policy formulation, regulation and provision of services.
- Responsibility, accountability, autonomy and independence of the regulatory bodies.
- Effective cost recovery.
- · Institutional and regulatory frameworks that remain in effect.



Adolfo Rufatt
Principal Infrastructure
Economist
Regional Operational Department
for Mexico and Central America
Inter-American Development
Bank

Mr. Rufatt is currently Principal Infrastructure Economist, Regional Operational Department for Mexico and Central America at the Inter-American Development Bank. In infrastructure he has worked in water, electricity, telecommunications and transportation, including sector reorganization, privatization, concession design, and legal, regulatory and institutional reform. From 1974-1979, he worked for Wharton Econometrics at the University of Pennsylvania in econometric modelling and macroeconomic forecasting. Mr. Rufatt holds a degree in business engineering from the University of Chile, and a master and a Ph.D in economics from the University of Pennsylvania.

Which is which and why?

Abstract

Passenger traffic is forecasted to increase at a rate of almost 5 per cent per annum for the next ten years and should reach 2 billion passengers by 2005. The worldwide commercial airline fleet is expected to double over the next 15 years, increasing pressure on all existing aviation systems.

In response to this growth, the push to improve airport and air navigation service facilities to meet traffic demand, noise abatement policies, and safety and environmental concerns has increased along with the need to fund these improvements. As a result, there has been a proliferation and increase of charges and taxes imposed upon international air transportation.

Against this background, this presentation will firstly address the distinction between charges and taxes, which are set forth in the following ICAO policy and guidance material: Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services (Doc 9082) and ICAO's Policies on Taxation in the Field of International Air Transport (Doc 8632); and secondly, describe the current application of these definitions in the transport industry.



Richard A. Janis Tax Industry Leader, Transportation Practice, KPMG LLP

Mr. Janis is a Partner and Tax Industry Leader, Transportation Practice at the Washington, D.C., office at KPMG LLP, an accounting, tax and consulting firm. He began his career with the airline industry at United Airlines in 1977 where he was responsible for tax research and planning. Prior to joining KPMG, he served as the tax counsel for the Air Transport Association of America (ATA) where he was responsible for handling international and domestic tax issues which had an impact upon the nation's airlines. Mr. Janis has previously participated as a panellist at seminars sponsored by the Section of Taxation of the American Bar Association as well as by airline associations, including ATA and IATA. He has served on the board of the California Taxpayers Association (Cal-Tax) and is member of the bar in the states of Washington and Illinois.

Will they deliver?

Abstract

Commercializing or privatizing a public facility must achieve more than merely satisfying ideologues. Certainly, the broad concept of "getting government out of commercial activities" has merit in many cases. But that alone is not enough, particularly for activities which are central to public and commercial well-being.

Who then are — or should be — the beneficiaries of transferring airports or other aviation resources into the private domain? The sale of assets delivers immediate returns to the national treasury — which can either be directed towards further aviation infrastructure development or to other ends — or merely allocated to consolidated revenues.

Other candidates as beneficiaries include the domestic travelling public, the tourism industry, investors and lenders (who must be fairly rewarded and attracted to future government initiatives, whether there is a trade sale or float), the general public, the airport operator, the airlines, the existing employees and other stakeholders. There are many others, creating a demanding cross-section of interests — many of whose needs have the potential to conflict.

The ultimate beneficiaries — and the extent to which they benefit — will depend largely upon the nature of the regulatory structure put in place to secure the future public interest. For many governments, this assessment of the public interest is a complex one.

Two basic principles apply to establishing a regulatory regime: it must be fair to all stakeholders, and it must be reasonably capable of achieving the established public goals, as they are defined in any particular case. This is a challenge which will vary from state to state. The nature of regulation will depend upon the complexity of the public interest needs and of the legal structure of the state involved.

The Australian model offers one precedent for a regulatory regime. But whatever the system, the willingness of all participants to cooperate towards achieving similar — or at least non-conflicting — goals will be crucial to success under a commercial system.

In short, a comprehensive move to privatization — or even a significant step towards commercialization — generates a greatly intensified need for new relationships between the main protagonists. In particular, the dynamics of interaction between airport operators and their main customers, the airlines, will evolve rapidly in this new environment.

There is clearly a long way to go in this respect, given the history of deeply entrenched differences. But establishing a successful system of private ownership will depend largely on making this transition from confrontation to cooperation.



Peter Harbison Managing Director Centre for Asia Pacific Aviation

Mr. Harbison is Managing Director of the Centre for Asia Pacific Aviation, an aviation consultancy based in Sydney, Australia. An aviation lawyer by training, he began his career in the Australian Civil Aviation Department, followed by 10 years in IATA, and subsequently several years with a legal firm in Sydney, specializing in aviation matters. Since setting up the Centre, he has developed it into a leading independent research and management consultancy in the region with emphasis on airport and airline services (including a monthly newsletter on airport and airline developments in the region), strategic and regulatory advice, marketing, training, tourism and forecasting.

Will they deliver?

Abstract

Airports can be described as public utilities whose primary role is to provide aviation infrastructure and facilities commensurate with economic demand. Their primary customer must be the economy of the country and therefore the fundamental requisite in providing the above is uncompromising safety and security standards. Moreover, airports have a responsibility to act in an unbiased and fair way to all commercial users. Whether in State or private hands, airports have a responsibility to the environment and surrounding communities. Hence regulation is necessary.

There are different rationale behind commercialization and privatization. Both fundamentally aim to achieve similar end goals. The application, however, is situation-dependent. In answering the question "Can they deliver?" I have identified five key contributing factors:

· Regulatory Structure

A move to dual structure must be adopted. The "user pays" principle must prevail. Charges must be predictable. Regulation must encompass issues such as efficiency, service standards and infrastructure components.

• Extent of competition

A likely deterrent in achieving success is unhealthy, non-commercial, preferential treatment for the home carrier. Regulation of tariffs in preventing predatory pricing must not be overlooked. It is important to ensure that sufficient domestic competition exists to protect airports.

• Relationships between airlines and airports

At ACSA we have adopted a "Partnerships in airport service excellence" strategy in maintaining sound relationships between airlines and airports. The need for consultation and cooperation is non-negotiable if we are to deliver a seamless travel experience at world-class levels to the travelling public.

• Government and industry legislation

The open skies policy should become reality. In the interim, airports should have a more meaningful role to play in bilateral negotiations. Airport management requires autonomy and limited government interference. Regional and national Government authorities should cooperate to limit and control the impacts of pollution.

• Innovation and "out of the box" approach

Innovation is required to unleash true commercial potential. We have heard and spoken about simplifying passenger travel, E- Business, the role of IT and improving non-aeronautical revenues. Now we should deliver. To be part of the global village an internationalization strategy is a must.

In conclusion, airlines and airports should concentrate on joint planning of airport infrastructure and focus on the displacement theory. Airport operators should not be "handcuffed" and expected to deliver world-class facilities. Robust regulatory structures, which focus primarily on the travelling passenger while striking a balance in meeting the expectations of airlines and airport company shareholders, should be instituted.



Dirk Ackerman Managing Director Airports Company South Africa (ACSA)

Before becoming the Managing Director of ACSA, Mr. Ackerman held numerous positions at the management and executive level, including National Mortgage Manager for the South African Permanent Building Society (part of the Nedcor Banking Group), General Manager for the South African Housing Trust and Managing Director of Intersite Property Management (Pty) Ltd. As CEO of ACSA, he has been instrumental in restructuring the company and maximizing earnings from nonaeronautical sources. He currently also sits on the Boards of Thebe Scitech, Rainbow Construction, OSIAS, Duna Properties, Vuna Construction, Strategy Systems Consulting Services and the Aviation Training and Development Foundation. Mr. Ackerman holds a bachelor degree in anthropology and law and is a sworn appraiser to the Department of Justice and a Commissioner of Oaths.

Privatization in the provision of airports and air navigation services Abstract

Privatization in the provision of airports and, to a limited extent, in the provision of air navigation services is gaining momentum in almost all parts of the world. Strictly, privatization connotes either full ownership or majority ownership of facilities and services. Where the ownership control rests with states, such as leases, management contract and minority participation in the shareholding should be considered as private participation or private involvement.

Airports and air navigation services are essentially monopolies upon which the users — aircraft operators, passengers and shippers alike — are highly dependent. Safety is another major concern which needs to be addressed. The Chicago Convention has placed a number of obligations on states, the most important being the responsibility for the provision of airports and air navigation services in their territory in accordance with Standards and Recommended Practices. There are certain other basic principles included in the Chicago Convention. If airport and air navigation services are privatized or private participation is permitted, it must be ensured that international obligations are fully complied with.

Broadly, the States have the following ownership and management options for their airports:

- government ownership
- · management contract
- lease
- · private sector minority participation in equity
- private sector ownership or majority control.

A change in ownership and management may not solve all the problems faced by an airport or a group of airports. It is not feasible to generalize the specific situations in which a particular option may be suitable. The most appropriate choice can be determined only after a specific study. Some major issues requiring attention in connection with privatization are:

- Since the private sector will be interested in only profit-making facilities, consider how the remaining facilities and services will be managed.
- Provide rules and regulations to ensure safety and other concerns. Moreover, strengthen the existing regulatory body and preferably make it independent.
- The process of privatization should be transparent. The tender document to be submitted by the interested parties should be well prepared.
- Ensure that the short-listing of suitable bidders is done carefully, as this is by far the most important step.
- The contract document should be prepared carefully.

The success of an option will depend on a proper study, keeping in view the objectives, clarity of objectives, provision of necessary safeguards through appropriate regulations and establishment of, preferably, an independent regulatory authority.



Tulsi Kesharwani Consultant to ICAO

Mr. Kesharwani is an Air Transport Economist with over 40 years' experience in the aviation industry. In India, he worked in the National Planning Commission (Transport Division) for about 18 years and thereafter joined the International Airports Authority in the initial years of its formation and organized a new Commercial Department. He retired as a full-time Member of Finance of the Board of Directors. For the past 15 years, Mr. Kesharwani has been a consultant to ICAO and to the Asian Development Bank. He has worked on 33 international assignments in the field of aviation economics and finance in different parts of the world, of which 31 were in ICAO. The last assignment with ICAO was to prepare a report on privatization in the provision of airports and air navigation services.

What do they offer?

Abstract

Cooperation and globalization are concepts that ICAO epitomizes. Nonetheless, they are still needed in aviation, particularly in operational fields. On the economic front, EUROCONTROL's Central Route Charges Office offers an excellent example of multinational coordination, providing as it does a uniform, prompt and efficient service to a wide variety of customers.

However, there is a growing need for close cooperation in other economic areas, as the rise in privatized or corporatized Air Navigation Service providers in Europe both contributes to the complexity of the system and makes for some difference in service levels.

EUROCONTROL's Performance Review Commission and its associated Unit have recently published a report, which includes: the difference in unit costs; the question of gross margins; the varying costs of meteorological services; cost-benchmarking and the importance of sharing economic information.

These areas are examined in turn and the conclusion reached is that a greater degree of coordination and transparency is still required.



Yves Lambert Director General EUROCONTROL

Mr. Lambert, formerly Director of Air Navigation in France (1989 to 1993) and Secretary General of ICAO (1976 to 1988), has been Director General of EUROCONTROL since 1 January 1994. An engineering graduate from the Ecole polytechnique and the Ecole nationale de l'aviation civile in Paris, Mr. Lambert began his career in 1961 as Head of the Civil Aviation Technical Service in Algeria, later Director of the Organization for Aeronautical Management and Safety in Algeria. He subsequently headed the Air Traffic Services Bureau in the French Air Navigation Directorate. He was representative of France on the ICAO Council before his appointment as the Secretary General of ICAO. He has received many decorations and awards for his outstanding achievements and contributions.

What can they offer?

Abstract

Cooperation between those involved in air transport is a necessity to ensure its development, which is closely linked with globalization in the 21st century in conditions of equilibrium and safety, which are not a sure thing. The interests at play are different and even contradictory at the outset.

- Globalization: inevitable and full of promise but entailing many dangers.
 - It is a stimulus to opening the sector up to competition and therefore a promise of productivity gains and a potentially increased, better-quality and lower-priced global transport supply. But it is also, and this is its root cause, the result of a will to conquer markets and achieve the maximum return on investor capital.
 - The difficulty therefore lies in channelling this movement towards good objectives in keeping with the development of air transport: ensuring a supply meeting the entire range of the demand, without discrimination between geographic areas or types of airlines, both at the level of the airports and that of air traffic.
 - To do this, competition must take place within a clearly defined framework and protecting the end-user, the air passenger, from the risks of uncontrolled development or the emergence of private monopolies. The existence of "strong" States is therefore more necessary than ever to fully exercise their sovereignty over the airspace for which they are responsible. The strengthening of the highly powerful certification, control and concession-granting authorities must go hand in hand with and even precede liberalization of the sector.
 - Such globalization must not have the effect of freezing technological disequilibria or even aggravating them in the developing countries. It is therefore natural to centre our sector's development around the areas of competence which are already in place and to ask investors to devote a sizeable, negotiated portion of their efforts to personnel training.

Properly prepared globalization can contribute to meeting development aspirations; cooperation between States and players is the key and will make it possible to avoid serious additional disequilibria and even monumental failures.

- Cooperation between everyone involved in air transport: a necessity.
 - Cooperation among States, more necessary than ever to simplify the organization of services, to take advantage of synergies and improve the quality of services in the context of the new satellite technologies.
 - Cooperation among ATS providers, for the benefit of the airlines, to take advantage of the new technologies and implement ICAO recommendations.
 - Cooperation among ATS providers and users unavoidable since the fees paid must only finance the production of the services, today as well as tomorrow, for CNS/ATM to derive the benefits expected from satellite technologies.
 - Cooperation between providers (ATS, airport services) and equipment suppliers. Service quality is at stake; availability of equipment, rapid response in the event of failure, while controlling costs. This objective can benefit from genuine partnerships with equipment manufacturers.



Ousmane Issoufou Oubandawaki Director General ASECNA

Before becoming the head of ASECNA on 13 December 1998, Mr. Oubandawaki was Minister of Transport, Niger, and Chairman of the Board of Directors of Air Afrique. A graduate engineer from the National Civil Aviation School in Toulouse, France, he began his career as Commander of Niamey airport and subsequently moved up to exercise many senior national responsibilities in the field of civil aviation, including Managing Director of Air Niger (1980–1983) and Director of Civil Aviation of Niger (1983–1985). He was then assigned to ASECNA Headquarters in Dakar and successively served as Director of Operations, Secretary General, Administrative and Financial Manager, and Director of Human Resources. In 1996 he returned to Niger as Minister of Defence and was finally appointed Director General of ASECNA after three years of ministerial duties in the service of his country.

What do they offer?

Abstract

Leading edge airport operators have become global by extending their reach to include airports outside of their home jurisdiction. These global airport operators are responding to the desires of many governments to turn over the management, development and financing of airports to others. Currently, approximately 2 per cent of the world's airports are privatized; however, the World Bank estimates that over 150 additional airports will be privatized within the next few years. What drives the trend towards airport privatization and how extensive will this model be compared to the traditional approach of government-operated airports?

The trend towards government withdrawal from airports has brought together an international mix of global airport operators, developers, financial institutions and investors. These new players in the business of operating airports bring different experiences and expectations. What has been the track record to date and is it likely that this trend towards privatization will continue?

An overview of various privatization models will be given, drawn from the experience of a global airport operator, Vancouver Airport Services (YVRAS). YVRAS has contracts at 14 airports in 7 countries, and it will describe the types of partners that comprise a consortium and the advantages that each of them brings to privatization. The typical process of airport privatization will be described as will the contributions of each of the partners in the process. The goals of privatization from the government's and investors' perspectives will be outlined. Finally, an assessment of the advantages of privatization and an opinion on what the travelling public can expect from privatized airports will be given.



Frank O'Neill President & CEO Vancouver Airport Services Ltd.

Mr. O'Neill is the President and Chief Executive Officer of Vancouver Airport Services Ltd. (YVRAS), a wholly-owned subsidiary of Vancouver International Airport Authority. From 1987-1992, he was the Airport General Manager at Vancouver until its transfer from the Government of Canada to a local airport authority. Since November 1994, he has been responsible for establishing and leading YVRAS to market expertise in airport management and operations, retail planning and management, business planning and transition management. In an aviation career spanning more than 35 years, Mr. O'Neill has held many senior positions. He also served as President of Airports Council International (ACI), Pacific Region from 1993-1996, member of ACI Governing Board 1993-1998, member of ACI Governing Board Executive Committee 1996-1998, and member of ACI World Standing Committee, Economics 1992-1994.

Win-win for airport providers and users alike? Abstract

Airlines and air travellers are two main customers of an airport that not only influence the share of the aeronautical and non-aeronautical revenues but also contribute to the financial well-being of an airport. To the airlines, airports serve as the collecting and distributing points where air travellers choose to embark and disembark. To the air travellers, airports are transition points that serve as destination links to start, continue and close journeys.

The challenge faced by airport providers is to satisfy the needs of the airlines, air travellers and other users, which through societal evolution has upgraded the thought of an amenity from luxury to expectation, as people expect more out of everything. However, this demand could be capitalized to the airport providers' advantage through proper planning and design of the terminal building layout that enables retail establishments to co-exist compatibly with passenger processing functions.

The design and retail plans should be creative and innovative to attract upscale, branded merchandise as well as food and beverage outlets in terms of revenues and service. Apart from achieving the objective of maximizing non-aeronautical revenues, airport providers also want airports to be user-friendly and provide the highest possible level of passenger convenience and comfort and to promote the culture of the region where the airport is located.

The combined interests of the airport providers, the air travellers and other users, if properly planned, integrated and executed, would definitely result in a win-win situation for all.



Adnan bin Shamsuddin Executive Director of Operations Malaysia Airports Holdings Berhad

Mr. Adnan is the Executive Director of Operations of Malaysia Airports Holdings Berhad, a publicly-listed company licensed to operate all the airports in Malaysia. He obtained his undergraduate degree in economics from the University of Malaya in 1971, joined the Malaysian Civil Service and was posted to the Ministry of Transport. He later pursued post-graduate studies in the United States in 1975 and, in 1977, after completion, was posted to the Department of Civil Aviation as Director of Air Transport. He remained with DCA for 15 years, his last position being that of Deputy Director General of Civil Aviation. Mr. Adnan has been involved in the transport and aviation industry for a total of 29 years and sits on the Regional Board of Airports Council International.

Win-win for airport providers and users alike? Abstract

- Copenhagen Airports A/S is a listed company since 1994.
- Copenhagen Airports A/S is quoted on the Danish Stock Exchange and has 8000 shareholders.
- Copenhagen Airports has an obligation to offer quality services to the airlines at fair prices.
- Copenhagen Airports A/S is also obliged to create value for the shareholders.
- The privatization of Copenhagen Airport ignited an explosive growth in commercial income.
- During the period 1994–1999 the concession income doubled.
- The income growth combined with increased efficiency has made it
 possible for Copenhagen Airport to reduce the airport charges seven years in
 a row.
- Airport charges have been reduced in spite of heavy infrastructure investments.
- Loss of duty-free has caused higher airport charges. (Voluntary agreement with the airlines including a three years price freeze)
- The growing commercial income financed a big part of the heavy investment programme.



Niels Boserup President & CEO Copenhagen Airports A/S

Mr. Boserup was appointed President and Chief Executive Officer of Copenhagen Airports A/S in March 1991. After studying mathematics and science, he graduated from the Danish University of Journalism with a master's degree. He started his career as financial editor of a major Danish newspaper 'Jyllands-Posten' and in 1973 was appointed Deputy Chief Editor. In 1976 he became Vice President of the industrial group Burmeister & Wain, responsible for public relations, personnel and marketing. Between 1982 and 1991, Mr. Boserup served successively as Director and Vice Chairman of the Danish insurance group 'Baltica'. He is a former President of Airport Council International, European Region, and is currently a board member of several companies and organizations in Denmark.

What is the role of the government in a changing world? — the Irish experience

Abstract

The Irish Aviation Authority is a corporatized company whose equity is owned by the Government. Subsequent to a major consultancy report by the Minister for Transport in 1984, it was decided to re-organize the provision of air navigation and regulatory services and to change the institutional structure of these.

A new Chief Executive was appointed, the existing structure re-organized, management processes changed and major investment undertaken. The investment programme was ahead of budget and on time and re-organization achieved through a consensus with the staff of the Air Navigation Services. At the end of this process, there was a clear consensus for the need to change and, in this regard, the Government decided that the Air Navigation Services Office, which was part of the Department of Transport, should be corporatized and structured as a separate and independent entity.

The Government at that time accepted that a civil service context was unsuitable from a cultural, finance and planning point of view and wished to set up a commercial organization which would deal with the continuing multi-annual requirements for the provision of air navigation services and for the safety regulation of the aviation industry. Staff trade unions were extensively consulted and agreed to the process.

The rationale behind seeking Government decision was that:

- Safety must be the absolute criterion for provision of services and regulation of the industry.
- The corporatized Authority should control its own finances.
- The Authority should have flexibility in staffing.
- The Authority should have flexibility in capital expenditure and in its operations.
- · Cost effectiveness would be enhanced.
- Commercial disciplines would apply.
- A corporate structure and legal entity would facilitate all of the above.

The IAA Act, 1993, was passed by the Irish Parliament. Under this Act, the majority of the ICAO Annexes were delegated to the Authority, as well as responsibilities under the Eurocontrol Convention. The functions of the Chief Executive were defined, as were staff entitlements and upper limits of capital investment. Also defined were the functions of the Authority and this led to considerable clarification of its remit in a corporate structure.

Since its inception, the safety record of Irish aviation has continued to improve. It has remained a profitable and cost-effective provider of air navigation services and, due to its structure, is capable of focused strategic action in partnership with its staff. The provision of consultancy and training services on a commercial basis has also been developed.



Brian McDonnell Chief Executive Irish Aviation Authority

Mr. McDonnell has been a Board Member and Chief Executive, Irish Aviation Authority since 1 January 1994. Graduated from Military College in 1960, he was a military polit for 18 years until 1980, holding many decorations. After leaving Military Service he was rated on B737-200 and B747-100 aircraft and served as Air Carrier Inspector for Aer Lingus, Aer Turas and other carriers. Mr. McDonnell became Assistant Defence Secretary in 1986 and was appointed Chief Executive Air Navigation Services, Department of Transport in 1988. In his over 10 years' experience at the top Civil/ Public Service and Government/Executive level, he managed the transition of the Irish Aviation Authority in structure and culture from a Civil Service Department to a commercially focused organization. He is also former Chairman of National Civil Aviation Security Committee, Ireland and former Chairman of Eurocontrol's Committee of Management.

What is the role of government in a changing world? Abstract

Along with the trend towards globalization and liberalization, the role of the State in many countries has witnessed a perceptible shift from being the main provider of goods and services to that of facilitator, monitor and regulator. The modern role of the State in relation to airports and air navigation services must take into account the special characteristics relating to the sector and in particular:

- the obligations under the Chicago Convention and international agreements;
- the monopolistic character of airports and air navigation facilities and the need to provide protection against abuse of this position;
- the strategic nature of airports in relation to security;
- the overriding considerations of safety which demand strict supervision and oversight of airports and air navigation facilities;
- the increasing globalization of airspace through the introduction of global navigation satellite systems;
- the peculiar situation of some States, particularly island States dependent on tourism, and the strategic importance of the aviation sector to national development; and
- the funding requirements for expensive infrastructure and operational needs and the adequacy of the sources of such funding.

All these highlight the fact that the role of the State in the aviation sector cannot be simply minimalist, and the mechanisms deployed must be adequate to ensure that the special characteristics of the aviation sector are properly addressed.

The appropriate strategies to be deployed will require a relevant regulatory framework in order to meet the needs of different countries. It may be that no uniform model can be devised. But among the alternative approaches, the following could be usefully adapted, namely:

- the establishment of autonomous entities by the creation of independent publicly-owned corporations adequately funded;
- the establishment of adequately funded non-profit corporations such as NAV Canada;
- the adoption of a privatization model for airports which may be particularly
 appropriate in airports with high traffic densities. Any privatization model,
 however, must secure fundamental objectives including guarantees of:
 obligations consistent with the Chicago Convention and ICAO guidelines;
 safety and security; adequate funding; performance standards; reasonable
 and non-discriminatory charges; and protection of the consumers (airport
 and air traffic users).

The regulator will play an important role for the State as a watchdog and for requiring compliance with the objectives. The State cannot simply remain on the sidelines in countries where the airport and aviation are strategic assets on which the economy heavily depends. If the private operator fails to discharge its responsibilities the State will be required to intervene. In strategic situations the role of the State is that of a guarantor. In any event, the obligations under the Chicago Convention and other international agreements will continue to remain with the State notwithstanding the privatization of facilities and services or the creation of autonomous or other entities.



Kenneth O. Rattray Solicitor General of Jamaica

Dr. Rattray was educated at Beckford & Smith's School and London University, and holds the degrees of bachelor of laws (1956), master of laws (1960) and doctor of philosophy (company law) (1966). He has held the position of Solicitor General of Jamaica since 1972. He is actively involved in constitutional and international law issues, public sector reform and privatization, and has made significant contributions to developments in these areas. He has been involved in a wide and diversified area of international negotiations including matters relating to civil aviation, the Caribbean Community and Common Market, international financing, natural resource development, the Law of the Sea and Human Rights. He has actively participated in the work of ICAO since 1964. During his career, Dr. Rattray has won numerous honours and awards including the "Honour of Commander of the Order of Distinction" (1974) and the "Order of Jamaica" (1983). In 1998 he was awarded the Edward Warner Award, the highest honour in the world of civil aviation in recognition of his eminent contribution to the development of international civil aviation, particularly in the legal field.

Abstract

It is not an exaggeration to say that the air transport industry at the dawn of the new millennium faces a crisis of capacity. Demand for air travel around the world has increased dramatically in the last decade. With the global economy expanding significantly, forecast growth for aviation continues unabated. Since this growth must be accomplished with no degradation of safety, steps must be taken to improve or change the following impediments.

ATC and Air Navigation Services

In some parts of the world (Europe and the United States), the present system is in shambles. It simply cannot cope with existing traffic let alone future growth. Cross-border rivalries and a reliance on outdated ground-based systems must both be eliminated. ICAO's FANS CNS/ATM should be the blueprint for the future.

· Infrastructure

Huge investments in airports and accompanying facilities must be made to accommodate this growth. This is best accomplished by allowing investment by the marketplace, free of political and environmental restrictions.

Airlines

With the rapid growth of both traffic and alliances, it is no longer possible in some areas to accommodate scheduling demands of the airlines. This is aggravated by the additional low capacity regional jets in high density markets contributing to both congestion and inefficiency.

Constraints

Artificial constraints such as excessive government regulation, taxes, unreasonable security and environmental restrictions must be removed. The capacity of today's system could be significantly improved by elimination or reduction of such constraints.



Jonathan Howe Director General Airports Council International (ACI)

Mr. Howe has been Director General of ACI since September 1997. For the last 40 years, he has been involved in almost every aspect of aviation as a pilot, lawyer and administrator. During his many years at the United States Federal Aviation Administration (FAA), Mr. Howe oversaw the certification of new aircraft, directed FAA's legal and regulatory activities, and was Administrator of FAA's largest region. After leaving the FAA in 1986, he became President and CEO of the National Business Aircraft Association (NBAA). From 1992 to 1997, he was partner in the law firm Zuckert, Scoutt & Rasenberger where he was deeply involved in the firm's extensive international aviation practice.

The challenge facing air navigation service providers Abstract

The challenge facing the Air Navigation Service (ANS) Providers may be summarized as being the satisfaction of the airline, airport and other users' requirements by the provision of safe, efficient and economic services on an ongoing basis. As air traffic grows, these tasks become ever more challenging to the international organizations and to the service providers themselves. The following elements require particular attention:

- Introducing new technology and systems, on a timely basis, using CNS/ATM
 to handle increasing traffic levels in areas of high traffic density and enabling
 more efficient airline operations worldwide.
- Making improvements in safety so that the passenger perception that air travel is safe is enhanced despite traffic growth.
- Increasing the efficiency of ANS operations so that the customers are provided with services that represent good value for money.
- Improving relations between the provider and the customer increased customer focus to ensure clarity of the user requirements and mutual understanding of the problems in meeting them.
- Ensuring that the service providers have the freedom to do their job within a regulatory environment, both international and national, that protects the interests of the citizen.

In meeting these needs, the aviation world must learn from the major improvements for end-users which have been achieved in other disciplines such as telecommunications. This suggests that the traditional roles of the stakeholders in ANS provision should be re-examined in order to differentiate more clearly the roles of the regulators and the service providers. Equally important, the service providers should be encouraged to behave more like members of a service industry and less like traditional government traffic regulators. The role of ICAO in setting the Standards and technologies for aviation remains vital. Its decisions must be mandated on the member States and imposed on the service providers through the regulatory process.

ICAO has been recommending that States examine, where appropriate, setting up ANS providers as autonomous organizations and more than 20 have already done so. This offers the prospect of enabling and encouraging the behaviour of the service provider to meet the tasks outlined above. In the first place, it encourages the provider to act as an industrial organization with the freedoms and obligations which this imposes. It enables the provider to obtain bank funding to finance its investments in a quick and efficient way, and it facilitates the separation of the functions of service provision and regulation.

The establishment of autonomous organizations offers the prospect of improving the performance of ANS provision so that the increased delays, which have caused so much concern in the past few years, can become and remain a thing of the past.



Derek J. McLauchlan Secretary General Civil Air Navigation Services Organisation (CANSO)

Mr. McLauchlan spent his early career in the satellite industry, firstly with the British Aircraft Corporation, secondly with the European Space Technology Centre in The Netherlands and then as General Manager for Space with Marconi Space and Defence Systems. He spent 12 years with ICL as Engineering Director for mainframe computers. He joined the United Kingdom National Air Traffic Services in 1989 as Director General for Projects and Engineering and became its first Chief Executive, a post he held from 1991 to 1997. On retiring from NATS, he accepted an invitation to establish the new Civil Air Navigation Services Organisation in Geneva where he is Secretary General. Mr. McLauchlan holds a B.Sc. from Bristol University and is a Chartered Engineer and a Fellow of the Royal Aeronautical Society, a Fellow of the Institute of Physics and a Fellow of the Institution of Electrical Engineers. He was awarded the CBE in 1998 for services to aviation.

Abstract

Freedom of movement, along with the other basic freedoms, has become a just expectation of every human being, and international commercial aviation plays a central role in the fulfilment of this expectation. The international aviation industry provides major social and economic benefits and is the basic engine of the fastest growing sector of the economy: travel and tourism.

Travel and tourism presently generates 192 million jobs (8% of world) and contributes USD 3,500 billion in gross economic output (12% of world). The demand for international travel is growing at 5% plus per annum.

The major challenge faced by airports and air navigational services, at the start of this 21st century, is to play their full part in meeting this demand, and to do so in a safe, cost-effective and efficient manner.

Although airlines play a central role in the providing of air transport services to the public, they must also depend on an efficient distribution network of travel and freight agents, uncongested and efficient airports, and reliable, delay-free air navigation services.

In many parts of the world, the current aviation policies lack coherence:

- Markets have been largely, if not totally deregulated.
- Airlines have been privatised and placed in highly competitive situations.
- But infrastructure providers remain driven by governmental process and are not allowed to freely respond to the market forces.

This lack of aviation policy coherence artificially constrains demands and represents a form of continued regulation.

This anomaly was recognized at the most recent World Economic Summit in Davos and led to the "Davos Declaration on Travel and Tourism" which strongly requested governments to ensure that infrastructures become market driven.

Additionally, the process of privatizing/corporatizing infrastructures needs appropriate safeguards to avoid monopolistic and uneconomical behaviour. This was the subject of an extensive review during the Santiago International Air and Space Fair (FIDAE) in Chile and gave rise to the "Santiago Declaration".

IATA strongly endorses both declarations and has proposed at this ANS Conference a number of recommendations regarding costing and charging methods for infrastructures.

Lastly, the time has come to more formally recognize the client/supplier relation between airport and ANS suppliers, on one hand, and the airlines, on the other hand, through appropriate service-level agreements.



Pierre Jeanniot Director General and CEO International Air Transport Association (IATA)

Mr. Jeanniot was elected as Director General of IATA in 1991, served as Director General Designate during 1992 and officially took over the position on 1 January 1993. After studying physics and mathematics at Sir George Williams (now Concordia), business administration at McGill University in Montreal and statistical mathematics at New York University, he embarked on a brilliant career in Canada's air transport industry. From 1984 to 1990 he served as President and Chief Executive Officer of Air Canada. He retired from the airline after having held senior positions in several key departments including sales, marketing, strategic planning and technical services. His accomplishments have won him many honours and awards including "Officer of the Order of Canada" (1989), "Chevalier de la Légion d'Honneur" of France (1991) and "Independence Medal of the First Order" of Jordan (1995).

Abstract

What do airports and air navigation service providers face at the dawn of the 21st century? Relentless demand for travel but a potential capping, on environmental grounds, of short-haul airline services. Cut-throat competition. A downturn in 2002–2005. The commercialization of ATC services through a redrawing of en-route airspace sectors on a business, rather than national-border, basis. New generations of larger airliners and a proliferation of smaller aircraft which will swarm, like colonies of ants, over busy airport and ATC networks. A digital revolution in aircraft, passenger, luggage and cargo handling systems. A lack of runways but a plethora of complex environmental and land-use restrictions. A growing web of airline alliances which demand more of airports and ATC providers than they could possibly give.

But of these, potentially the most challenging is the management of new generations of IT systems. There are two major problems:

- Introducing modern software-based solutions to complex ATM systems.
- The increasing reliance on globally-based, commercially-owned and only
 partially regulated telecommunications networks for passenger, cargo and
 baggage handling services.

We are living in the first few years of the Information Age. But technology is slowly slipping beyond our grasp — ask any nation which has tried to build a modern en-route ATC centre from scratch. According to Professor Les Hatton of the University of Kent (UK) the odds are heavily stacked against any such project succeeding. There are simply too many ways the software can go wrong and once the defects are in the system it becomes increasingly difficult to get them out. It may well be that software, as it is currently applied, is simply incompatible with the business of ATC and the demands of 100 per cent reliability.

According to Ian Angell, Head of the Department of Information Systems at the London School of Economics, the current generation of IT systems is accelerating inequality, disenfranchising large sections of society and making it harder for governments to keep track of organizations operating simultaneously around the world.

As more national administrations, airports, airlines and ATC agencies contract out key tasks — as they will have to, to stay competitive — they risk losing control of the essential building blocks of their operations. It is the growing complexity of these systems which is the problem — from finding lost bags to providing secure air-ground data links, to tightening airport security systems, to ensuring 100% reliability of satellite-based automated landing procedures. Who owns all this data? Who is legally responsible at each and every stage in the chain? Can the airport and airline be sure that it can always retain control over standards, or can radically change systems and procedures at short notice?

The Information Age has its attractions but we don't yet, perhaps, fully understand all its ramifications.



Philip Butterworth-Hayes Editor Jane's Information Group

Mr. Butterworth-Hayes is the founding editor of Jane's Airport Review and the current editor of Jane's Aircraft Component Manufacturers. He has been a writer and broadcaster on airport and air traffic control (ATC) affairs for over 15 years and has edited Airports International, Jane's Guide to Military Aircraft (1998) and Interavia Aerospace Review. He is an aviation consultant to BBC Television and between 1991 and 1999 organized the speakers' programme for the Maastricht ATC conference. He is also the author of a number of specialist Jane's Information Group publications, including The Market for ATC Equipment (1997, 1998), The Market for Civil Aircraft (1998) and The CNS-ATM Market (1998). He has been the European correspondent of Aerospace America (published by the American Institute of Aeronautics and Astronautics, Washington) since 1992. Mr. Butterworth-Hayes graduated with a BA honours degree from the University of Hull in 1976 and then spent several years teaching in North Africa. He began his career as a writer and commentator on civil aviation issues in 1984.

Abstract

The fundamental requirements facing airports and air navigation services providers at the dawn of the 21st century will remain unchanged. These are: safety, capacity, and efficiency.

However, providers will have to contend not just with higher traffic, as in the past, but also with a host of changes and developments. Collectively, these present challenges which may be conflicting and have significant impact on the costs and the bottom-lines of the providers.

Increasing traffic in itself is nothing new; but as traffic reaches much higher levels, the task of serving such traffic safely and efficiently becomes more daunting and will call for huge capital expenditure as well as better cooperation and coordination between providers.

Compounding the task are the changes and developments already taking place in the air transport industry, but which are likely to intensify. The more significant of these are listed below:

- Increasing liberalization of air services agreements will bring about not just
 increases in traffic, but also a higher probability of changes in the pattern of
 traffic flows, resulting in, on the one hand, demand for capacity increases
 and, on the other, uncertainties that such capacities will be used at all times.
- Similarly, airline alliances will impose more demand on capacity and flexibility on the part of providers, while injecting a greater element of uncertainty in the traffic flows. At the same time, airline alliances may use their clout to exert downward pressure on charges levied by providers.
- Privatization of airports and air traffic control services may become more commonplace. The management of such privatized entities will face intense pressure to achieve returns on investment which are sufficiently attractive to their shareholders. The pressure may be less stark for non-privatized entities, but it does exist as, increasingly, even governments are insisting on a business-like approach to the provision of airports and air navigation services.

On the technical front, providers will need to keep up and exploit new technologies, such as CNS/ATM and IT. New mindsets will be required to reap the full benefits of new technologies on a global basis so that greater efficiency may be possible at lower cost, and sooner rather than later.

Overall, providers will face more competition in a climate of higher capacity demands and greater uncertainty. Their challenge is to be able to compete while keeping costs down and yet achieving positive returns on investments. The stakes are higher, the rewards less certain.



Wong Woon Liong Director-General Civil Aviation Authority Singapore

Mr. Wong has been Director-General, Civil Aviation Authority of Singapore (CAAS) since 1 April 1992. Mr. Wong was a Colombo Plan scholar and has a first class honours degree in aeronautical engineering from the University of New South Wales, Australia, and a master of science degree from the Massachusetts Institute of Technology, USA. He attended the Advanced Management Programme at Harvard University, USA, and the Executive Programme at INSEAD, France. He sits on the CAAS Board and the boards of two publicly-listed Singapore logistics and aerospace companies, S CWT Distribution and Singapore Technologies Aerospace. He is Chairman of the Singapore Changi Airport Enterprise, a wholly-owned subsidiary company of CAAS, which is involved in airport/aviation consultancy and investments. He is the Secretary/ Treasurer in the Regional Board of Airports Council International (ACI), Pacific. He also sits on the ACI World Governing Board.

Abstract

From an African perspective, there are numerous anticipated challenges facing airports and air navigation service providers:

- Flight safety vs passenger growth: Concerns about flight safety generally and
 in Africa in particular by the traveling public become an obstacle to the
 anticipated traffic growth.
- Customer expectation: The increasing demands of discerning consumers and the corresponding responses to such demands by some airports and airlines call for harmonization of systems and procedures.
- Capacity constraints: Traffic growth and future large aircraft will increase
 design and capacity problems at airports and air navigation services (airport
 and airspace congestion). Airspace coordination between FIRs will also pose
 a problem in Africa.
- Capital requirements: Governments continue to have problems financing
 appropriately the desired level of facilities and infrastructure due to
 competing national priorities. Most lending institutions are no longer
 granting concessional loans, and because of risk of political instability,
 lending conditions are stringent and the cost of capital too high.
- Human resource factor: The mismatch between the slow pace of human resource development in aviation and the fast advancement of technology could lead to untold problems.



Andy Mensah Director-General Ghana Civil Aviation Authority

Wg. Cdr. Mensah was educated at Mfantsipim School in Ghana. He was employed by Cassleton & Co., Chartered Accounts (now KPMG) before entering the Military Academy Training School, Ghana, in 1964 to start a military career. He became Pilot Officer in the Ghana Air Force in October 1965 and retired voluntarily from the Ghana Armed Forces with the rank of Wing Commander in March 1983. That same year, he joined GDC Ltd (Ghana) as the Human Resources Manager. He was appointed Director-General of the Ghana Civil Aviation Authority in August 1988. During his career, Wg. Cdr. Mensah has had a proud record of accomplishments as the Director-General of the Ghana Civil Aviation Authority and is a winner of many prestigious military and civilian awards including the Best All Round Flight Cadet, the Ghana Millennium Excellence Award and the African Aviation Award for the Ghana Civil Aviation Authority.

Abstract

Perhaps except for airports built in the last decade, most airport systems currently in operation worldwide will require huge investments and greater participation from the private sector to meet increases in capacity, as well as new procedures related to safety, security and the handling of traffic and aircraft.

The administration of the airport systems will become very complex. Private administrations will face the risk of high investments, demanding shareholders, uncertain forecasts and weak users. Airport systems managed by public administrations will face the same problems exacerbated by the obvious lack of interest of governments to invest in this sector.

To meet these challenges, significant changes will have to be made in the administration of airports and air navigation services. Hence one of the most important challenges facing us is to prepare within our organizations the managerial and human resources required.

Simply put, the major challenge which faces airports and air navigation systems at the beginning of this millennium is their ability to find solutions to resolve the present capacity issues while at the same time maintaining levels of safety and security which are equal to or greater than those achieved today.

Growth in air transport is expected to continue unabated and will impact on all States. Those civil aviation administrations who have carried out strategic planning exercises will have identified the threats to and limitations of their systems in the face of the increase in demand as well as the problems associated with securing the necessary financial resources. However for most of the developing countries a greater challenge will be to meet the need for trained personnel.

The new air navigation systems are generally well defined in terms of engineering and/or technology. However the plans for the organization and administration of these systems are still at a theoretical level and, in the majority of the national administrations, known only to a few experts.

At present the privatization of air navigation services is very limited, hence it will be up to the national governments to train the new professionals and technicians required for these systems. This lead us to an additional concern due to the characteristic slowness of the public sector to react to meet these needs.



José Manuel Sánchez Director Panamerican Civil Aviation Institute (former Director, Planning, Directorate of Civil Aviation, Chile)

Mr. Sánchez has had a 30-year career in the Chilean Civil Aviation Directorate. holding senior positions in air traffic control, air navigation and air transport. At the time of his departure, he was Director of Planning. In that position he was responsible for strategic and modernization planning and led a successful privatization programme for major airports in Chile. He has also actively participated in the work of ICAO and other civil aviation bodies such as the Latin America Civil Aviation Commission. He has more than 12 years of experience in working for ICAO's technical assistance projects in various Latin American countries. Mr. Sanchez currently serves as the Director of the Panamerican Civil Aviation Institute "Dr. Assad Kotaite" which is located in Panama and managed by ICAO.