

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE**

**FOURTH MEETING OF DIRECTORS OF CIVIL AVIATION
OF THE CENTRAL CARIBBEAN**

(Grand Cayman, Cayman Islands, 17 – 20 May 2000)

Agenda Item 12: Other business

12.1 The Air Transport Programme

AIR TRANSPORT CHALLENGES FOR THE 21ST CENTURY

(Presented by the Secretariat)

Summary

This Working Paper has been prepared to present to the Meeting some industry trends which characteristics and effects, not much known, will be determinant in the future of the institutions in charge of promoting and surveillance air transport.

1. Introduction

1.1 Given the importance of this theme and the growing uncertainty from authorities regarding the future operational and regulatory aspects of air transport, this paper presents a summary of the article "*Maturing industry must continue to cope with challenges of growth in 21st century*" included in the issue *ICAO Journal*, October 1999.

1.2 This paper highlights those aspects of special interest for civil aviation authorities in the Region and attempts to unveil some industry trends which characteristics and effects, not much known, will be determinant in the future of the institutions in charge of promoting and surveillance of air transport.

2. Air Transport present situation and its future effects.

2.1 According to the *United Nations Human Development Report* and other leading global social indicators, during the upcoming decades the world will be characterized by an increased global income and consumption, a growing and ageing population, increasing migration and urbanization, further globalization of markets and liberalization of trade rules, a further shift towards regressive and indirect taxation, greater strains on the environment, and a continuing information revolution which will redefine the employment nature through remote work and outsourcing.

2.2 The effect of the mentioned indicators is predominantly positive for air transport. It is expected that *traffic growth* continues to rise at rates higher than economic growth and that the growth of freight traffic as well as of integrated or express services will outdistance passengers. Due to the above, *increased congestion problems* will be faced by airport and air navigation services.

2.3 The gateways or hubs with relatively long runways will continue to define constraints, particularly in intercontinental flights. This means have *physical and environmental limitations on the supply of infrastructure*, which not only lead to potential for local monopoly but also place limitations on the supply of operations.

2.4 With traffic growth and no replacement in sight for fossil fuels, *the air transport small but significant contribution to global warming will increase*, bringing out greater demand for operational limitations and taxation or other market-based constraints. With increased emphasis on “user pay” as well as “polluter pay,” air transport will inevitably face increased external cost pressures.

2.5 The *costs of air transport and air navigation services* that have often been provided from the general exchequer will increasingly be passed on to air carriers, passengers and shippers, meanwhile the indirect subsidies obtained from duty free sales are likely to diminish if they are eliminated, expanding the adoption of this policy as initially Europe did.

2.6 *Exemptions from taxation* will increasingly come under criticism. In the case of taxes on the sale or use of air transport, and specially the value added tax, the exemptions are questioned because their lacks of equity in relation to other transport means and economic sectors. In the case of fuel taxes, there is the added justification of environmental protection and the arguments against taxation are not helped by the fact that air transport is viewed increasingly as an elitist sector.

2.7 Growth and safety go hand in hand. Public perception of *aviation safety* is shaped essentially by media reports on aircraft accidents and the exaggerated media coverage that comes along with aircraft accidents. A plateau in the accident rate means an increase in the number of accidents as traffic continues to grow, so efforts to reduce these rates are imperative.

2.8 Air transport high profile also makes it a prime target for terrorism, which develops new innovative modalities to achieve its goals. In order to face terrorism activities, the *protection of civil aviation against acts of illicit interference (AVSEC)* will continue to be an issue of the highest interest priority for governments, air carriers, manufacturers and service providers. On the other hand, the current problem of *unruly passengers* behavior (air rage) has posed new challenges to the security field, making necessary the development of measures to establish causes, prevention, restraint, and prosecution.

2.9 Air transport has been at the front of technology throughout its existence and has been a leader in harnessing *information technology*. Some examples are the evolution of computer reservation systems and electronic documentation, having the “smart cards” and biometric applications the potential to improve passenger and cargo flow at airports significantly. *Internet*, the information technology that once a force for consolidation and simplification, is now a vehicle for fragmentation and complexity.

2.10 Information technology is doubly challenging to air transport because of its potential as a surrogate for travel. The effects of video conferencing into business traffic have not yet proved to be substantial as expected but there is already some evidence that email and the internet are having a dampening effect on growth and the next wave could prove a powerful influence. In the Tourist traffic, the “virtual travel experience” offered by cruise ships, gated tourist communities and thematic settings, as well as the “virtual reality” imaging exemplified in Las Vegas, will undoubtedly affect the choice of destination.

2.11 Despite ongoing efforts to harmonize national and regional laws and to reduce extraterritorial dispute, the global community continues to have no effective tool for regulating multinational competition. The air carriers’ ownership trans-nationalization and alliances make difficult to States to have control on the commercial operation of these conglomerates.

2.12 In summary, five key influences that will shape air transport can be identified: safety, security, congestion, environmental protection, and information technology.

3. Future expectations.

3.1 *Air carriers.* Air carrier evolution might be summed up as “globalization and mobilization.” There will be a continuing trend for companies to relocate to wherever the profit is greatest and the regulation least, allowing the boom of “virtual airlines” (corporate management with leased or contracted out equipment, maintenance, ground handling, reservations, accounting, staff, etc.). It is expected that middle and lower grade personnel will work more hours for less pay and less security of tenure.

3.2 The conglomeration of *alliances* that manage to sidestep the greater regulation of this sector will expand and coalesce with many changes and interplays en route. The current airline alliances are no by means seamless and they have to develop common cultures which assure their development and evolution, allowing them to reach their main objective: to expand their market and slot access while attracting traffic through sophisticated yield management.

3.3 Studies consistently show that alliances are a powerful tool for diverting traffic from other airlines but that they not generate new traffic and have a tendency towards *multinational monopoly* where the main benefits are for airlines rather than their users. That is why; airlines may feel that they are better off under the present fragmented and ad hoc regulatory environment. *Survival options for smaller carriers* will be to find an alliance to join or to find a very specific niche in which to operate and survive.

3.4 The *charter and tour operator* segments of the industry have traditionally been less regulated than the scheduled airlines, particularly as far as ownership and control are concerned, and their further consolidation seems inevitable.

3.5 All these developments will lead in turn to great pressure for the inclusion of additional elements of air transport in the *General Agreement on Trade in Services (GATS)*, eventually encompassing traffic rights.

3.6 The pressure to reduce costs has magnified considerably. The primary cost item over which airlines can exercise control is ticketing, sales and promotion. This has already led to reduce commissions, electronic ticketing and airway billing, direct sales and innovative forms of distribution including CD-ROM, interactive television and the Internet. Efforts in these areas are expected to intensify.

3.7 As a result of the above mentioned, *travel agents* have been already led to introduce fees for passenger clients and to diversify into sales of other travel-related elements as well as to consolidate and the pressures upon them will become ever greater.

3.8 The global economy and the air transport industry will inevitably continue to go through cycles of growth and recession. As illustrated more recently by the downturn in Asia, some individual airlines have shown signs of being able to manage recession without too much damage, avoiding to order aircraft in good times with deliveries in bad times and focusing on the bottom line rather than on market share. The ability of conglomerations of airlines to handle a global slowdown in an environment of unleashed global competition has yet to be tested.

3.9 ***Aircraft.*** Regional aircraft will continue to make and increasing market share as carriers face constraints at hubs, seek slots at less congested airports, and improve origin-to-destination service for passengers. There will be a trend towards increased range, and jets will continue to dominate regional aircraft operations unless there are quantum hikes in fuel prices or taxes.

3.10 While the range of *aircraft types* has grown, there will be increased pressure from airlines for the evolution of “common cockpits” and for *more standardized versions* of aircraft types to facilitate pooling and interchangeability. Technological developments in structural materials, avionics and digital data link communications will continue, but congestion and environment will be the more influential drivers of evolutionary concepts such as the very large aircraft (550 seat plus), flying wing and folding-wing aircraft.

3.11 ***Airports.*** The wave of commercialization and privatization will continue remorselessly. Airports will increasingly cover their operating costs, not only through more complete cost recovery of landing and other user charges, but notably through increased income from non-aeronautical revenues resulting from a greater application of the “*concept of total commercial center*”. At the same time, airports will increasingly lobby to attract air services through direct and indirect participation in negotiations of air services agreements, through commercial promotional activity, and through the establishment of *international alliances*. Sharing of primary and secondary hubs and the development of point-to-point services will be the key element in strategy. *Ground handling* will become more competitive and global ground-handling companies will emerge.

3.12 With growing traffic and limited terminal space, Facilitation will become a more important issue for passengers and freight, the focus being on assimilation of facilitation concepts into government legislation, streamlining arrival and departure procedures, and using sophisticated electronic technology. A critical element will be baggage flow, although the “smart ships” will be widely used, the physical handling of baggage will continue affecting the efficiency of this activity. Off-airport baggage check-in and delivery will evolve hand in hand with security measures. On the other hand, the aging traveler population will increase attention and special facilities for elderly and disabled persons.

3.13 ***Air Navigation.*** Costs and practicalities will lead to further delegation by States and international harmonization through institutions of air traffic management in upper, and in some cases, other air space. Implementation of CNS/ATM systems will continue increasing air space capacity and reducing flight operations costs.

3.14 ***Governance.*** Government regulation of air transport may be categorized into four areas: safety, security, economic regulation, and environmental protection.

3.15 Among mayor *safety issues* will be the co-ordination and transfer of regulatory responsibility arisen from globalization, trans-nationalization, the emergence of regional and sub-regional blocks, and the commercialization of service providers, on which States delegate responsibility for provision of services but retain direct authority for the regulation of such services.

3.16 In the *security area*, the issues will largely parallel those facing safety, with greater emphasis on maintaining an adequate global security network which allows better prevention, dissuasion and actions against illicit interference acts.

3.17 The *economic regulation of air transport* will move from the specific to the generic, governed internationally by developments in trade in services, competition law, and the proposed Multilateral Agreement on Investment, with increasing authority given to the World Trade Organization. The primary focus of civil aviation authorities in the years to come will probably be on the regulation of airports and, to a lesser extent, of air navigation services.

3.18 The role of ICAO will be to facilitate the evolution of new regulatory arrangements in a gradual, progressive and orderly way, with the provision of safeguards where required, and to foster the fair and equal access to airports and air navigation services.
