

WORLDWIDE AIR TRANSPORT CONFERENCE: CHALLENGES AND OPPORTUNITIES OF LIBERALIZATION

Montreal, 24 to 29 March 2003

Agenda Item 1: Preview

1.1: Background to and experience of liberalization

EUROPEAN EXPERIENCE OF AIR TRANSPORT LIBERALIZATION

(Presented by Albania, Armenia, **Austria**, Azerbaijan, **Belgium**, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, **Denmark**, Estonia, **Finland**, **France**, **Germany**, **Greece**, Hungary, Iceland, **Ireland**, **Italy**, Latvia, Lithuania, **Luxembourg**, Malta, Moldova, Monaco, **Netherlands**, Norway, Poland, **Portugal**, Romania, Serbia and Montenegro, Slovakia, Slovenia, **Spain**, **Sweden**, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, **United Kingdom**)¹

INFORMATION PAPER

SUMMARY

This paper outlines European (European Union (EU) and European Civil Aviation Conference (ECAC)) experience with the liberalization of its air transport market. The annexes contain detailed information on specific aspects of a liberalized market in different Member States. The paper is offered to the Conference for information and as background to its deliberations.

1. SOME INTRODUCTORY COMMENTS

1.1 The Member States of ECAC and the European Community, together with the European Commission, are pleased to present the attached information paper to the Conference setting out their experience of air transport liberalization.

¹ The 15 Member States of the European Union appear in bold

1.2 One of the key issues before the Conference is the identification of means to achieve further liberalization in the air transport sector at a regional, international and global level.

1.3 In Europe, liberalization was not entered into lightly. Arriving at workable and acceptable liberalization measures took many years and much negotiation. Air transport is an industry of strategic importance and all governments are keen to ensure both that levels of air service are preserved and that their national industry is as healthy as possible. Key concerns that arose in the course of liberalization in Europe included:

- a) that national flag carriers would find it impossible to adapt to a more open trading environment, putting jobs and air services under threat;
- b) that essential but uneconomic services could be lost as carriers turned their focus to profitable routes;
- c) that new entrants would focus on major trunk routes, leaving regional services underdeveloped; and
- d) that tough competition would place pressure on airlines to cut corners in matters of safety and security, while removing control over traffic rights will make it more difficult for the authorities to enforce standards.

1.4 Many of these concerns may now be shared by other ICAO Members presently contemplating liberalization measures.

1.5 The attached paper explains the effects of Europe's regional liberalization and demonstrates that means can be found of overcoming potential problems. It shows that liberalization has been a positive experience for both consumers and airlines.

1.6 Mechanisms were found that allowed flag carriers to restructure, in some instances with the help of their governments, and the majority have survived and prospered in the liberalized environment.

1.7 Some airlines have indeed cut jobs in order to improve their efficiency, but the rapid growth of new airlines in the liberalized market has led to an increase in overall employment in the air transport industry measured over a decade of liberalization.

1.8 New carriers have certainly placed much attention on the major trunk routes between Europe's major cities, but growth has not been confined to these routes - many new regional services have been opened on a commercial basis over the past ten years.

1.9 Moreover, means have been created of preserving essential, but uneconomic routes, by using public service obligations and open tendering - a process that allows thin routes to survive, but on the basis of fair competition and at the lowest cost possible to the taxpayer.

1.10 European states have continuously deepened their cooperation on matters of safety and security, both through ECAC and through the EC. There is no evidence that safety or security standards have suffered as a result of the liberalization process.

1.11 There have been some difficulties. In particular, some of the national flag carriers have found it very hard to compete, on one hand, against larger competitors and, on the other, against new entrants who

have started their operations with a clean sheet. But a number of them have proved that it is possible for an airline to find its niche in a liberalized environment without regulatory protection and to be a successful business.

1.12 In summary, the European experience of liberalization has been positive and means have been found of addressing many of the concerns that were raised at the beginning of the process.

1.13 The process itself is of course, not complete and may be said to be in mid course. It should also be understood that the process that Europe has chosen is one that has been adapted and will continue to be adapted to the needs of European air transport. It differs significantly from the process of deregulation in the United States.

1.14 The Member States of ECAC and the EC, together with the European Commission, offer the attached paper in order to provide other ICAO Members with more detail about the liberalization process and its effects. They look forward to working with ICAO states to explore potential for applying this experience more widely at regional and global level.

2. BACKGROUND

2.1 This paper summarizes Europe's experience of air transport liberalization, focussing in particular on the single market established within the EU. Unlike airline deregulation in the United States, liberalization within the EU brought together a number of distinct national markets, previously interlinked by a web of bilateral air services agreements, into a single market. The decision to create a European single market in aviation formed part of the move to a single internal market across a whole range of economic activity, as embodied in the Single European Act. The reforms were introduced against a background of actual or impending recession, high cost levels amongst many of the major national airlines combined with pre-existing dominance in their home markets, and growing congestion at a number of the most important EU airports. This covering paper provides an overview of the regulatory changes by which liberalization was achieved and its broad effects. A series of annexes exemplify various aspects of Europe's experience in more detail. It is hoped that these papers will provide a useful contribution to the debate that will take place at the ICAO conference on air transport liberalization in March 2003.

3. THE ECONOMIC REGULATORY FRAMEWORK

3.1 Prior to the process which led to the establishment within the EU of the single market in 1993, the air transport market across the whole of Europe was a collection of national markets. Domestic air services within each country were governed by national rules which varied enormously in the degree to which competition was permitted or promoted. International air transport in Europe was governed by the bilateral air services agreements between each pair of countries. Although some of these agreements were relatively liberal, all contained traditional ownership and control restrictions and many restricted market access and capacity, frequently allowing only one airline from each country to operate services, often on a limited number of specified routes. International fares were generally agreed between airlines under the auspices of IATA and both international and domestic fares were usually subject to government regulation.

3.2 With the development of two international agreements in 1987 which permitted partial capacity and tariff liberalization, ECAC took the first steps in Europe towards liberalizing the air transport market. However, it was within the EU that the real progress towards full liberalization was made, aided by the EU's institutional framework and its general impetus towards economic integration. A process of

progressive liberalization swept away the pre-existing institutional barriers to entry and competition and created a genuinely single market within the EU. This has since been extended to cover Iceland, Norway and Liechtenstein through the creation of the European Economic Area, while Switzerland is also now associated with the market through a bilateral agreement. In advance of their full accession to the EU, negotiations are under way with eleven more ECAC States on the early creation of a yet wider European Common Aviation Area based on EU rules. The description that follows focuses on the experience of liberalization as it has occurred thus far within the EU.

3.3 The “Third Package”

3.3.1 As its name suggests, the Third Package of liberalization measures which took effect on 1 January 1993 represented the culmination of a gradual process of dismantling the bilateral restrictions which had begun with the First Package in December 1987. Most significantly, the Third Package gave practical effect for the first time in the air transport sector to the right of establishment provisions of the Treaty of Rome by introducing common licensing criteria for air carriers across the whole of the EU. It replaced national ownership and control restrictions with the concept of a “Community air carrier”, under which EU airlines must be majority owned and effectively controlled by EU Member States and/or nationals of EU Member States. Any airline meeting these (and specified financial and safety) requirements must be licensed by the EU Member State in which it has its registered office and principal place of business. Once an airline has been granted an Operating Licence by any EU Member State it is afforded the rights laid down in the Market Access Regulation, which allows airlines to exercise traffic rights on virtually any route within the EU. The Air Fares Regulation also establishes the right in principle for airlines to set their own fares freely.

3.3.2 Having said that, in order to accommodate EU Member States who felt that their national markets would need time to adjust to the notion of a completely open environment, the Regulation did not seek to abolish national markets in a single step. It essentially provided for a transitional period during which a number of provisions circumscribed the general right of access in certain respects, mostly relating to domestic services. The most significant restriction which continued to apply after 1 January 1993 was that relating to cabotage services - domestic services operated in one EU Member State by a carrier licensed in another Member State. EU Member States were not obliged until 1 April 1997 to open their domestic markets to free competition from all EU-licensed carriers, although airlines were entitled to operate consecutive cabotage services as extensions to services to or from their own state provided that no more than 50% of the capacity was made available on the cabotage sector. Provision was also made for Member States to impose public service obligations on routes to regional airports in their territory which were considered vital for economic development so as to ensure that air services would be provided (see part of Annex 3, but in particular, Annex 4).

3.4 Competition Rules

3.4.1 The removal of restrictions on market entry, capacity, frequency and pricing resulted in greater emphasis being placed on the use of normal competition law to safeguard against anti-competitive behaviour and abuse of market power. In fact, rules had already been adopted in 1987 that gave the European Commission the power to apply the competition rules of the EU Treaty (Articles 81 and 82) to air transport services within the EU and to adopt certain group exemptions. Article 81 prohibits agreements between firms which prevent, restrict or distort competition unless those agreements can be shown to promote technical or economic progress and that consumers enjoy a fair share of the resultant benefits. Article 82 prohibits the abuse of a dominant position. The Commission also has exclusive competency to assess the competition issues raised by a transaction that falls within the scope of the EU Merger Regulation. The Commission does not yet have equivalent investigation and enforcement powers for air transport between the EU and third countries.

3.4.2 Specific block exemptions concerning certain categories of agreement in the air transport sector were adopted and, while some have since been removed, those relating to consultations on passenger tariffs on intra-EU scheduled air services and slot allocation at EU airports remain in force. The effect of these block exemptions has been that operators have not needed to apply to the Commission for an individual exemption each time they are involved in these practices.

3.5 State Aid

3.5.1 Early in the liberalization process the Commission adopted a strict policy to apply the EU Treaty's provisions on state aid to the airline industry and, in particular, attached a clear "one time, last time" condition to any state aid that it approved. The Commission has left little doubt in its communications that a second injection by Governments not in accordance with the "market economy investor principle" will only be considered in the most exceptional of circumstances and in light of unforeseeable events external to the company. (For more information, see Annex 7).

3.6 Slot allocation, Ground-handling and Computer Reservation Systems

3.6.1 A number of other measures have been adopted to accompany the freedoms granted under the Third Package, in particular aimed at enabling airlines to secure fair access to key infrastructure and services. An EU Regulation (95/93) established common rules for the allocation of slots at congested EU airports aimed at facilitating competition in particular through encouraging and giving a degree of priority to new entrants in the allocation of available slots. The market for ground-handling services at EU airports was progressively opened to greater competition by an EU Directive (96/67) in the expectation that this would lead to reduced operating costs for airlines and improved quality of handling services. A code of conduct for computer reservation systems was also introduced (by EU Regulation 2299/89 as subsequently amended) aimed at ensuring that the distribution of airline products was neutral and non-discriminatory between airlines.

4. THE TECHNICAL FRAMEWORK

4.1 While liberalization was achieved through the establishment of an EU-wide economic regulatory framework, it is important to note that the harmonization of "technical" matters was not seen as a prerequisite to this liberalization. This was because there was already in train a long-standing process of harmonization of safety standards which had commenced some years ahead of the progressive liberalization of economic regulation, and in which ECAC had played an important role. The harmonization of safety standards was gradually taken over by the JAA (Joint Aviation Authorities), an associated body of ECAC, which expanded its original area of work from certification to include also maintenance, flight operations and personnel licensing. This expansion of the JAA's work has steadily evolved during the 1990s and has resulted in a large number of JARs (Joint Aviation Requirements), some of which have been adopted as EU Regulations. The main instrument has been EU Regulation 3922/91 (on the harmonization of technical requirements and administrative procedures in the field of civil aviation) which incorporated into EU law a number of JARs in the field of airworthiness and maintenance of aircraft and products. The EU Regulation to establish the European Aviation Safety Agency (EASA) has been adopted and the Agency should be set up in the relatively near future.

4.2 In the environmental arena, EU-wide action has focused primarily on aircraft noise rather than gaseous emissions. In particular, based on an agreement reached in ICAO in 1990, aircraft not meeting Chapter 3 noise standards were banned under EU Directive 92/14 from operating at EU airports after

31 March 2002, and a seven-year transitional period was established over which such aircraft were phased out.

5. FACTORS INFLUENCING THE EFFECTS OF LIBERALIZATION

5.1 Before summarizing the main effects of liberalization in the EU it is important to note some of the factors which have served to shape the way in which the liberalized market has developed, for example in comparison to the way in which the US domestic market developed after deregulation. The geography and demography of Europe has inevitably played its part in influencing this development. In the EU the scope for competition via indirect routing has been much more limited than in the US, not least because journey lengths within Europe tend to be much shorter - averaging less than 700 km on the denser routes between EU states - and a higher proportion of passengers end their journey at a hub city. This places greater emphasis, generally speaking, on the need for competition on a route to be head-to-head if it is to be effective. The relatively short distance of many routes also means that intra-EU air services increasingly face strong competition from improved surface modes. In particular the development of high-speed rail links are increasingly likely to attract passengers away from air services (although they can also have the effect of generating additional journeys to offset this).

5.2 The extent of new entry and development of competition on many of the denser routes has, however, been constrained by the lack of capacity at some of the more significant airports in Europe. While existing aviation infrastructure has shown considerable ability to handle increased demand, certain airports such as Heathrow have reached the point where the scope for further expansion within the existing infrastructure is strictly limited. For example, well over half of the 20 densest routes within the EU have a seriously constrained airport at one or both ends. Existing airport capacity is being expanded in some parts of the EU but concerns about adverse environmental impacts often make such expansion difficult.

5.3 There was some expectation that the establishment of the concept of a “Community air carrier”, based on common licensing criteria and with the right of establishment anywhere within the EU, might lead to a process of consolidation among the larger EU airlines. That this has not occurred is no doubt due in large part to the fact that under EU Member States’ bilateral agreements, third countries would in many cases be entitled to reject the designation of a carrier not owned and controlled by nationals of the designating country. Any cross-border acquisition or merger between airlines from more than one EU Member State would therefore place at risk the combined entity’s ability to exploit traffic rights to third countries. These continuing external factors are likely, therefore, to have constrained significantly the extent to which the structure of the European airline industry has been able to adapt in response to liberalization.

6. THE EFFECTS OF LIBERALIZATION: KEY INDICATORS

6.1 Notwithstanding the factors identified above, it is generally agreed that the liberalization of air transport markets in the EU has promoted greater competition to the benefit of passengers and shippers. The following is a brief overview of the main changes in key parameters that have occurred since 1992. This is necessarily at a highly aggregated level, but the attached papers detail some of the changes that have occurred in specific sectors of the liberalized internal market.

6.2 Industry Structure

6.2.1 The total number of airlines based in the EU that offer scheduled services has changed little between 1992 and 2000, increasing from 124 to 131 over that time. However, this disguises that there has been extensive entry and exit with only just over half of the airlines present at the start of 1993 still operating scheduled routes under their own code at the end of the period. Of the 144 start-up airlines, less than half (64) were still flying by early 2000. Having said that, these figures arguably overstate the volatility of the market because airlines which become full franchisees of other airlines are treated as withdrawals. Nevertheless, the lowering of barriers to entry appears to have encouraged innovation and entrepreneurship. In particular, liberalization has allowed the establishment of many new airlines which operate totally within the liberalized area. This has spurred the growth in competition, especially on domestic routes.

6.2.2 Apart from Sabena, the other 13 national airlines remain although most are now members of one or other of the principal global alliances. As mentioned above, chief among the factors which prevent closer consolidation are the government-imposed ownership and control restrictions that still form the backbone of most bilateral relations with countries outside the liberalized European area.

6.2.3 Perhaps of greatest importance in the start-up activity has been the emergence of low-fare no-frills airlines which have now taken 10% of the total domestic and intra-EU market and which are rapidly expanding. For the present the no-frills airlines are mainly based in the UK and Ireland where their share is even more significant; in 2001, for example, the no-frills airlines carried 25% of the traffic on routes between the UK and other EU Member States and 22% of the total domestic traffic in the UK (for more information, see Annex 5).

6.3 Output

6.3.1 The period since liberalization has seen a strong growth in the number of scheduled intra-EU routes served, particularly international routes (an increase of nearly 75%). Although some of this increase is attributable to former charter services being converted to the scheduled mode, passengers will have gained from the increased availability of direct services. The number of domestic routes served has also increased but, reflecting the greater maturity of these markets, the growth has been lower (12%).

6.3.2 Output levels of scheduled airlines have increased at a faster rate than the number of routes. Seats and available seat kilometres (ASKs) on domestic routes have grown by 41% and 44% respectively over the period while on international routes the growth in ASKs (138%) has outstripped the growth in seats (105%), indicating an increase in average stage length (which may also, at least in part, reflect the switch from charter to scheduled mode). Scheduled domestic flights grew by 49% between 1992 and 2000 while intra-EU international flights increased by 88%.

6.4 Competition at the Route Level

6.4.1 The number of international scheduled routes with three or more carriers has more than trebled, increasing by over 250%. Although routes do not necessarily coincide with economic markets, they are more likely to do so on short-haul routes and this can therefore be regarded as evidence of a significant increase in competition at the route level although it should be borne in mind that code-sharing agreements and other forms of alliance between operators are now more widespread. As noted above, the switching from charter to scheduled of some low-frequency services may have boosted the number of multi-airline operations, particularly on thin routes, but, even in winter, the number of scheduled multi-operator routes had more than doubled between 1992 and 2000. Domestic routes have historically been dominated by national

carriers so that the near doubling of domestic routes with a second carrier (an increase of 88%) is particularly significant.

6.4.2 The share of domestic ASKs performed on routes with more than one carrier has increased from about one third before 1993 to over two thirds in 2000 and, although the share of international ASKs on routes with three or more carriers rose at a slower rate, over half the international ASKs were on multi-airline routes by 2000.

Table 1. Air Transport Liberalization in the EU: Key Indicators

	Pre- Liberalization	Current (a)	Change	Source
Number of EU Scheduled Airlines	124	131	6%	AEA1
Number of EU domestic city-pair routes	813	910	12%	EU2
Number of domestic routes with more than one carrier	106	199	88%	EU2
Weekly Seats on EU domestic routes (in thousands)	2,891	4,084	41%	EU2
Yearly ASKs on EU domestic routes (in billions)	73	105	44%	EU2
Yearly Flights on EU domestic routes (in thousands)	1,486	2,220	49%	EU2
Share of EU domestic ASKs on routes with more than one carrier	34%	68%	+34ppts	EU2
Number of Intra-EU (international) city-pair routes	692	1,202	74%	EU2
Number of Intra-EU routes with more than two carriers	61	217	256%	EU2
Weekly Seats on Intra-EU routes (in thousands)	2,231	4,571	105%	EU2
Yearly ASKs on Intra-EU routes (in billions)	102	243	138%	EU2
Yearly Flights on Intra-EU routes (in thousands)	1,109	2,080	88%	EU2
Share of Intra-EU ASKs on routes with more than two carriers	42%	52%	+10ppts	EU2
No-Frills Airline share of total EU domestic ASKs	0.0%	3.9%	+4ppts	EU3
No-Frills Airline share of total Intra-EU ASKs	0.6%	12.9%	+12ppts	EU3
Change in Business Class Fares on routes within the EEA (nominal)	€242	€350	45%	EU1
Change in Normal Economy Fares on routes within the EEA (nominal)	€213	€243	14%	EU1
Change in Promotional Fares on routes within the EEA (nominal)	€147	€125	-15%	EU1
Change in AEA Average Yield (cents/RPK in US dollars at 2001 ER)	14.48	14.63	1%	AEA2
European Inflation (1992 = 100)	100	119	19%	EU1

Notes: (a) "Current" means 2000, except for the no-frills airline share, which refers to summer 2002.

(b) The analysis is based on OAG summer schedules and it therefore excludes non-scheduled services.

(c) No Frills airlines defined as bmibaby, Buzz, Debonair, easyJet, Go, Ryanair, Virgin Express

(d) “ppt” means “percentage point”.

(e) Association of European Airlines (AEA) average yield estimate relates to those member airlines which reported results on domestic and geographical European operations and has been adjusted to reflect a fixed dollar exchange rate.

(f) Inflation estimate based on actual rates for EEA states weighted by GDP from 1992 to 1998 and assumed rates for 1999 and 2000.

Sources:

AEA Association of European Airlines:

AEA1 – Analysis of airlines shown in OAG in February 2000 and January 1993;

AEA2 – Statistical Appendices to 2002 Yearbook.

EU European Commission publication: “Updating and development of economic and fares data regarding the European Air Travel Industry”:

EU1 - 2000 Annual Report;

EU2 - analysis of summer 2000 and summer 1992 monitoring data provided by EU;

EU3 - analysis of summer 2002 with summer 1992 monitoring data provided by EU.

6.5 Fares

6.5.1 The aggregate general rate of inflation in EU states between 1992 and 2000 was 19%. Compared to this, on average across routes within the EEA, published Business Class and Normal Economy air fares rose by 45% and 14% respectively whereas promotional (i.e. conditioned) fares decreased by 15%, i.e. in real terms published promotional fares fell by about 30%.

6.5.2 Competition for business passengers, who are the principal purchasers of Business Class and fully-flexible tickets, tends to focus more on service quality than on price. It is difficult to quantify all aspects of service quality although in air transport the number of direct services, the available frequency and seat availability are important factors. Even for the more price-conscious business traveller, published Business Class fares necessarily provide an imprecise indicator of the price paid because of corporate discounts on the one hand and the possibility that business passengers may downtrade to economy class fares, particularly where there is a no-frills option, on the other.

6.5.3 In the US following deregulation full fares increased in price but there was a marked reduction in the proportion of passengers using such fares, as lower-priced alternatives became more easily available. There is no comprehensive data in Europe on the proportion of passengers buying the different types of fares and how these proportions have changed over time. However, AEA data indicates that average yields in the European area did not change greatly in nominal terms, i.e. have fallen quite sharply in real terms.

7. CONCLUSIONS

7.1 Some of the effects of liberalization are readily apparent, although not knowing what would have happened in the absence of liberalization makes it difficult to assess the impact of the single aviation market in Europe with any precision. But the new regulatory environment certainly has fostered innovation and enterprise, resulting in more routes served and greater competition on many existing routes. The emergence of no-frills carriers, which would have been impossible on many routes ten years ago, has changed

the way many people think about air transport, and has necessitated a competitive response from their longer-standing rivals. Consumers have benefited from a wider range of choice, both in locations served and in quality and type of service. The evidence on fares is mixed. Fares at the bottom end of the market have fallen, but it is less clear quite what impact liberalization has had on the prices paid by business travellers. As a general observation, for many - though certainly not all - users there is a wider range of fares and services available than previously. By contrast, liberalization has had only limited impact on the basic structure of the airline sector, almost certainly because this is influenced to such a key extent by the traditional international regulatory framework, which is outside the direct control of any one country or even group of countries.

APPENDIX A

OPENING UP OF THE SPANISH DOMESTIC MARKET UNDER LIBERALIZATION

1. INTRODUCTION

1.1 Key geographical features of the Spanish domestic market are the location of its 40 million inhabitants and the uneven topography of its territory: Madrid and its region (5,4 million inhabitants) situated in the geographical centre of the Iberian Peninsula, two groups of islands being important tourist resorts, i.e. the Canary and Balearic Islands (2,8 million inhabitants and 11 airports), and a population spread out on the periphery of mainland Spain (26 million inhabitants and 26 airports). Such features ensure that air transport is a transport mode of strategic importance.

1.2 In 1993, the Spanish market was fully liberalized. Before that date, scheduled air services were reserved for the airlines of the Public Group Iberia, under a state concession. Non-scheduled services were practically liberalized but reserved for national airlines. The following table illustrates the situation in 1992 and 2001.

Table 1. Operating Airlines.

1992		2001	
Scheduled services	Non-scheduled services	Scheduled services	Non-scheduled services
Grupo Pú blico IBERIA	Aviaco (partially)	Iberia L.A.E.	Air Europa
Iberia L.A.E.	Viva Air	Spanair	Futura
Aviaco	Air Europa	Air Europa	LTE
Binter Canarias	Spanair	Aebal	Iberworld
Binter Mediterráneo	Futura	Air Europa Express	Islandflug
Viva Air (non- scheduled)	LTE	Air Nostrum	
	Oasis	Binter Canarias	
	Centenial	Binter Mediterráneo	

1.3 In 1992, the Public Group Iberia was formed by five airlines. Non-scheduled traffic accounted for 15% of overall domestic traffic and was served by eight airlines.

1.4 In 2002, Iberia L.A.E remains as the sole operator of the privatized Group after the take-over of two of them (Aviaco and Viva Air) and the selling of two others (Binter Canarias and Binter

Mediterráneo). Seven other private airlines provide scheduled air services. Non-scheduled traffic accounts for scarcely 2% of the total and is served by five airlines.

1.5 On some routes other Community airlines have sporadically operated by providing consecutive cabotage services. Their participation has been marginal anyway because of both the periods of operation and their market share in the overall market.

2. THE NUMBER OF ROUTES IN WHICH THERE IS NOW REAL COMPETITION COMPARED WITH PRE-2002

2.1 The impact of liberalization can be assessed from the number of routes where there is real competition and the volume of traffic on such routes (see Table 2). Two or three airlines operate on the 40% of the routes accounting for 82% of traffic. The highest degree of competition exists on the route Madrid-Barcelona and on the routes from Peninsular Spain to the island regions of the Canary Islands (81% of the routes with three operators) and Balearic Islands (94% of the routes with three operators) where the three major operators compete (Iberia L.A.E, Spanair and Air Europa).

Table 2. Competition in routes for 2001

Operators	three	two	one
Routes	30	24	79
Traffic %	68	14	18

2.2 Special mention is made of the Canary Islands interisland traffic (16 routes) with 2.2 million passengers for the year 2001 where Binter Canarias (Regional company with eleven 72-seat turboprops) operates almost exclusively, under public service obligations in accordance with the provisions of Regulation EC 2408/ 92 where the principle of free market access is maintained.

3. INFORMATION ON FARES ON A SAMPLE OF ROUTES WITH THE LINK BETWEEN INCREASED COMPETITION AND THESE FARES BEEN DRAWN OUT

3.1 In 2001, on most of the high density routes (82% of the traffic volume) even though there was a general rise in the prices of the basic fares(see Table 3) competition ensured that a great majority of air transport users had an opportunity to travel at really attractive prices, as a consequence of the extensive use of promotional fares made by all airlines. In 1992, fares required government approval and their prices were closely related to the operating costs and mileage of the route to be operated. The use of promotional fares was scarce. At present, fares are freely set following market criteria, even the fares for those routes with little competition.

Table 3. Fare Development. 1994-2001

Submarket	2001 Traffic %	Basic Fare Increase	Yield Increase
Madrid-Peninsula	27.4	30%-50%	5% -8%
Peninsula-Balearic Islands	18.3	25%-50%	2% - 4%
Peninsula-Canary Islands	15.2	30%-40%	-2% - +2%
Madrid-Barcelona	14.7	29%	22% - 26%
Barcelona-Peninsula	12.1	40%-50%	2% - 5%
Interpeninsular	3	100%-120%	40% - 50%

3.2 In the period 1994-2001 the Consumer Price Index experienced a 24% increase in Spain.

3.3 For the group of routes having a notable tourist character or strong competition and linking mainland Spain and the Balearic and Canary Islands or with origins in Madrid and Barcelona, despite the strong increases in the basic fare prices, the average fare prices (yield) in 2001 remained at levels which were similar to those reached in 1994.

3.4 Where business traffic prevails (Madrid-Barcelona), as well as on the routes where one or two airlines operate, the market not being a tourist market, the routes are low density routes and regional airlines operate with high unit costs, the impact on prices was less significant on these routes.

4. **AN INDICATION OF ANY ROUTES THAT ARE NO LONGER SERVED SINCE LIBERALIZATION WAS INTRODUCED**

4.1 The whole network of domestic routes experienced a certain restructuring from Summer season 1992 to Summer season 2001. Throughout that period operations ceased on 19 routes, but services started on 42 new routes, with a favourable balance of 23 routes.

4.2 The most significant changes occurred as a result of a concentration of traffic by the three major airlines at Madrid and Barcelona airports, of the incorporation of new regional operators with medium sized fleets into routes with weak traffic, and the opening of new routes in the tourist Balearic market and the inter-island market of the Canaries.

5. **DETAILS ON MARKET ENTRY/EXIT AIRLINES**

5.1 Access by new airlines to the scheduled market began in the period 93/ 94 when the airlines Air Europa and Spanair started their operations on higher density traffic routes (Madrid-Barcelona air shuttle, Madrid-Canary Islands, and Madrid-Balearic Islands). These two airlines, which operated in the intra-European charter market up to that time, assigned a significant part of their medium range fleet to the scheduled market. As from 1995, three new regional operators: Air Nostrum (1995) (operating as from 1998 under a franchise agreement with Iberia), Air Europe Express (1998 - Air Europe subsidiary) and Aebal (2000

- Spanair subsidiary) entered the market to form a group of 8 airlines in Summer season 2001, sharing passenger traffic as indicated in Table 4.

Table 4. Scheduled traffic distribution in 2001

Airline	Iberia/ Air Nostrum	AirEuropa/ Air Europa Express	Spanair/ Aebal	Binter Canarias
Traffic %	59%	18%	14%	8%

5.2 Only two companies, Pan Air and Air Europa Express, have abandoned in 2002 the scheduled market after a short operating period.

6. INFORMATION ON FREQUENCY/CAPACITY ON A NUMBER OF SELECTED ROUTES

6.1 Another positive effect of liberalization with a strong increase in the weekly frequencies of scheduled air services (see Table 5), has originated from the simultaneous development of Madrid and Barcelona airports as hub airports, together with the entry of regional operators into the interpeninsular market as well as from the effect caused by the “scheduling” of the greater part of non-scheduled traffic destined to the tourist markets of the Canary and Balearic Islands.

6.2 The growth on the route Madrid - Barcelona (294%) which increased from 112 weekly frequencies in 1994 to 441 in 2001 is remarkable if compared to other routes. The three major airlines serving the route are in strong competition and operate under the air shuttle regime with an average fleet size being similar in both seasons. The growth is lower in markets where operations with small aircraft (50/ 70 seats) and high frequencies (Canary Islands) have been operating since 1994.

7. IMPLICATION FOR PASSENGER OF ANY AIRLINE FAILURES

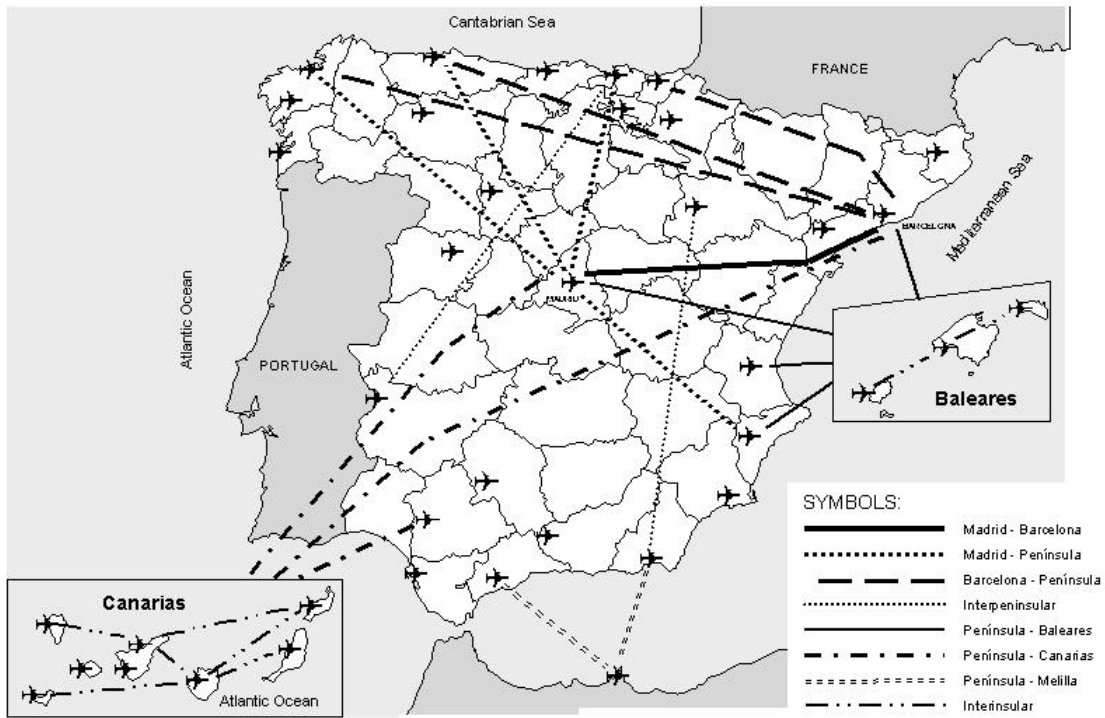
7.1 The effect caused by the exit of airlines due to changes in the route schedule to be operated or simply due to the exit from the market after ceasing their operations is practically non-existent. All airlines which had won market access (except some small airlines, with small number of aircraft) continued their operations in 2001.

8. OVERALL, HAS THE MARKET GROWN OR CONTRACTED UNDER LIBERALIZATION?

Table 5. Market development (in million passengers) and number of weekly frequencies

Submarket	Passengers 1992	Distribution %	Passengers 2001	Distribution %	Passenger Increase %	Frequency Increase %
Madrid- Peninsula	4,65	27.9	7,74	27.4	66.3	100
Peninsula-Balearic I.	2,57	15.4	5,18	18.3	101.7	122
Peninsula –Canary I.	2,17	13.1	4,28	15.2	97.0	60
Madrid-Barcelona	2,18	13.1	4,16	14.7	90.8	294
Barcelona-Peninsula	1,86	11.2	3,43	12.1	84.4	125
Interisland Canary I.	1,94	11.7	2,32	8.2	19	70
Other submarkets	1,26	7.6	1,15	4.1	-9	244
Total Scheduled	16,63	100	28,26	100	69.7	
Total Non-scheduled	2,98		0,74		-74.8	
Total Domestic	19,61		29,00		47.8	

8.1 The overall scheduled and non-scheduled domestic market (see Table 5) has experienced a significant growth, of 47.8% during the period from 1992 to 2001 which is well over the 30% growth of the GDP at constant prices. The strong fall in non-scheduled traffic, which has simply become “scheduledized” thus producing the strong increase in the scheduled traffic carried to the tourist regions of the Canary and Balearic Islands, must be underlined. Traffic originating in Madrid and Barcelona has grown steadily as a result of the development of these airports into hub airports of the three major airlines. While the overall traffic grows by 47.8%, domestic traffic at Madrid and Barcelona airports has grown by 74% and 64% respectively.



ANNEX 1 - SPANISH DOMESTIC MARKET

APPENDIX B

THE DEVELOPMENT OF THE GERMAN DOMESTIC AVIATION MARKET UNDER LIBERALIZATION

1. German aviation policy as well as the national aviation industry have dealt with the question of what impacts liberalization, globalization and privatization might have on the development of German civil aviation.
2. Against this background Germany had very early decided to play an active role in liberalization in Europe and has consequently taken a positive approach towards the opening up of the internal aviation market in Europe within the framework of the various EU Liberalization Packages. Germany is maintaining this strategy as it has proven to be right for the development of the national aviation market as a whole.
3. However, it has to be born in mind that the liberalization of a market so specialized as civil aviation cannot take place over night simply as a result of changing the basic framework. In fact, liberalization is a long -lasting process with no expectation of immediate results, as replacing governmental decisions by those of an entrepreneurial nature is a relatively cumbersome way of opening-up a market. Even if the legal framework for this change has already been set up, it takes a while for the market participants to cope with the new freedom and to benefit to the maximum from the changed environment. Only then will the political aim of intensifying the competition in the interests of consumers and a stimulation of the market be achieved.
4. The development of the German civil aviation market since the introduction of the European Liberalization Packages may serve as an example of how difficult such a process can be.
5. On the eve of the introduction of the Third Package in 1992, the German market was dominated by the flag carrier Lufthansa. Although there were two more German airlines providing scheduled services to national and international destinations, as well as some smaller regional airlines, there was no real competitor to Lufthansa.
6. For the German aviation market serious competition arose only when Deutsche British Airways (DBA) entered the market in 1992, taking over some internal German services (services that had been reserved before Germany's reunification for the airlines of the UK, US and France) to and from Berlin and competing with Lufthansa. In 1994, DBA set up its head office and main base at Munich and started scheduled services between Munich and Düsseldorf, and later on as well to more important German routes from Munich to (*inter alia*) Hamburg and Cologne. These routes had up to then been exclusively served by Lufthansa and the direct competition partly led to a very aggressive "price war" between the two carriers. This again resulted in fluctuations of tariffs in a tariff-system that up to then had been relatively fixed. For consumers, this development had the effect that they benefited not only from having the choice between two different carriers on those routes; in addition fares dropped and the tariff conditions became more consumer friendly (eg. off-peak prices, easier rebooking). The competition between the two carriers became even more aggressive when DBA finally pushed into Lufthansa's home base at Frankfurt and started a scheduled service Munich / Frankfurt. As an outcome of the situation, fares on that route dropped sharply between October 1997 and February 1998, by a third for the business fare and by nearly a half for the fully flexible economy

fare. Although DBA finally withdraw from that route in March 1998 and concentrated on other routes, the benefits of the price competition for consumers remained.

7. In the meantime, a number of other air carriers such as Eurowings, had successfully entered the German market and a considerable growth of routes and frequencies had taken place. Affected by that development were important routes like Frankfurt / Berlin on which Lufthansa in the beginning had had a virtual monopoly. This monopoly was now broken. This was for the first time a real market situation for civil aviation in Germany. The overall competition situation and the new awareness of air carriers of the market forces resulted in ever better conditions for consumers, as air carriers now had to compete for the consumer's favour. From time to time state authorities had to give advice to the participants of the newly developing market to keep things going in a fair and transparent way.

8. At present, the German aviation market is again being stimulated, as more and more Low Cost Carriers enter the market. In the beginning these carriers had only been active in profitable niches in the German market but with the growing success of the low cost concept they are now keen to expand their activities even to main routes that have up to now been the preserve of the established air carriers.

9. In principle, Germany welcomes this new competition in the aviation market, as long as it can be guaranteed by air carriers, that more and more reduced fares will not interfere with safety and security requirements.

10. From Germany's experiences with liberalization the following conclusions can be drawn:

- a) Noticeable effects of liberalization for the German aviation market have occurred gradually; and
- b) Possibly liberalization shows its most significant effects only now following the entry into the market of the Low Cost Carriers.

The emphasis on competition that arose with the liberalization of the aviation market had up to now mostly positive effects in Germany. Accordingly, Germany will continue to promote the liberalization of civil aviation.

APPENDIX C

OPENING UP OF THE AIR TRANSPORT MARKET IN GREECE UNDER LIBERALIZATION

1. INTRODUCTION

1.1 Until 1991, Greek air transport had developed within a protective domestic and international environment. This was due to the exclusive rights given to Olympic Airways for air transport operations. This regulatory framework started changing in anticipation of the European Single Aviation Market. Under the new legislation, air transport operations could be performed with aircraft registered in Greece as follows:

- a) Non-scheduled international and/or domestic flights for the carriage of passengers;
- b) Scheduled and non-scheduled international and/or domestic cargo flights; and
- c) Non-scheduled “air-taxi” domestic flights operating aircraft with less than 14 seats.

1.2 The 1991 legislation lowered the legal barriers to entry and allowed new Greek operators to enter the market and to engage in any of the above listed activities. A further effect on consumer’s choice was that with the opening of non-scheduled flights, Greek citizens were allowed to board charter flights to travel out of Greece on charters offering considerably lower fares.

1.3 After EU Reg. 2407/92 came into force, the CAA issued new Licenses with the purpose to grant, according to the new EU air policy, broader scope of rights to be exploited by the new entrants between points of Common EU areas.

1.4 During the early years of liberalization of the domestic market, the main players were Olympic Airways (OA), its subsidiary Olympic Aviation, Air Greece, Aegean Airlines and Cronus Airlines.

1.5 Needless to say that neither Greek air carriers nor any other European Union countries’ carriers enjoyed cabotage or 3rd and 4th freedom rights between European points to the Greek islands until the expiration day (01-06-1998) of the exemption granted by the EU Council in favour of Greece. Until this date, Greek and EU carriers used to exploit the market by operating charters and scheduled flights from the Greek mainland airports only and mainly on the trunk route Athens-Thessaloniki v.v. and a series of regular charters to the islands of the Aegean Sea. In 1994, according to the third EU liberalization package, Air France started exercising consecutive cabotage rights between Thessaloniki and Athens on their route schedule Paris-Thessaloniki-Athens v.v. Unsuccessful results obliged the airline to suspend such operations three months later. Some years later, in 1998, when restrictions of Reg. 2408/92 concerning Greek islands’ airports were abolished, Transavia Holland began to exercise consecutive cabotage rights on routes between Amsterdam and various islands’ airports to which they operated mixed charters from the Netherlands. Transavia’s operations remain today, but they are limited on the routes Amsterdam-Heraklion-Rhodes v.v. which are operated on a year-round basis.

1.6 The years following liberalization, the development of the domestic market was actually rapid and impressive, since the bigger new entrants started to compete with Olympic in the market. The trunk route Athens-Thessaloniki, and later on Crete and Corfu, became one of the first priority routes for

competition, given the high level of traffic. The entrance of the new carriers in the trunk routes changed the general scene of competition. For the first time in the domestic market, new entrants offered to the public, lower and promotional fares, additional free tickets business class, and other facilities attracting more and more passengers. Their new competition policy resulted in increased traffic and upgraded services. O.A. and OAL maintained the biggest share of about 60%, while new entrants got 40% until the year 1999 with a declining tendency in favour of the new entrants.

1.7 On the other hand, small new entrants such as SEEA, AVIONIC, HELLAS WINGS etc exploited some of the smaller markets to the islands and mainland by light aircraft and regular non-scheduled passenger or light cargo operations. These low cost air carriers had the advantage of entering the domestic market and competing with bigger carriers with surprisingly low fares, although they were characterised as “no frills” carriers. Some of them survived in the market for a number of years due to the low cost of operations, in terms of labour and overheads. Others did not succeed in maintaining their services for long, due to seasonality of traffic, the high cost of airport user charges, aircraft costs, etc.

1.8 Competition in the domestic market increased during the year 1999-2000 due to the activities of the bigger private airlines operating scheduled flights to more destinations. In late 1999, AEGEAN AIRLINES took over AIR GREECE and the commercial strategy implemented by the newly reorganized bigger airline, intensified domestic competition to the detriment of OA/OAL and other smaller carriers’ operating results. Following this, the merger of AEGEAN and CRONUS inaugurated stronger rules of competition in the domestic market against OA and other domestic air carriers. It is worthwhile mentioning here that the market share of AEGEAN and CRONUS on routes where they operated parallel services with OA and OAL, exceeded 49%.

1.9 Today, 12 domestic scheduled services are operated by two carriers and three scheduled services by three carriers. A small number of seasonal, inter-regional routes are mainly operated by smaller carriers during summer.

2. DETAILS ON MARKET ENTRY/EXIT BY AIRLINES

2.1 As we have seen earlier, until 1991 Olympic Airways and its subsidiary Olympic Aviation had a monopoly of the Greek scheduled and non-scheduled services. Since then, and following the third liberalization package, new operators have entered the market.

2.2 The development of the industry after 1992 is shown in the following table:

Licences	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Issued	9	1	3	4	1	1	4	6	2	-	2
Revoked	-	-	-	2	3	-	2	3	2	2	2

2.3 The majority of the new entrants operated smaller aircraft (less than 20 seats) and engaged mainly in non-scheduled domestic services.

2.4 Nevertheless, the big challenges of the new competitive market, under capitalization, and the lack of efficient management, resulted in of a number of the new carriers failing and having their licences revoked. Carriers such as SEAA, Apollo, Cretan, Venus, Galaxy with type A licences and which were engaged in non-scheduled domestic and international operations, didn't manage to overcome the above problems and had their licences revoked.

2.5 By the 1999, the main competitors of Olympic Airways were the following:

- a) **Cronus Airlines** (established in 1994, with a fleet of 6 Boeing 737, operating to Germany, Austria and Italy and later to Thessaloniki, Heraklio, Rhodes and Chania);
- b) **Air Greece** (established in 1994 with two ATR-72 and later 3 ATR-72 and 2 Fokker, operating from Heraklio to Athens, Thessaloniki and Rhodes and later to Germany and Italy); and
- c) **Aegean Airlines** (former Aegean Aviation established in 1992 as an air taxi operator, after 1999, expanded to regular services to Thessaloniki, Heraklio, Chania and Rhodes with two AVRO RJ100).

2.6 In 1999, major transformations occurred in the market due to capital injections. Aegean Airlines took over Air Greece, becoming the largest private airline with a combined fleet of 9 passenger aircraft. In 2001, the merger of Aegean Airlines and Cronus Airlines resulted in an airline with 15 aircraft, connecting on a daily basis, 12 major cities in Greece, and 6 in Europe.

2.7 Another airline, Axon Airways, which entered the Greek market in 1999, operating in domestic and European destinations, had its licence revoked in 2002.

2.8 By September 2002, 16 carriers held a valid licence including, Olympic Airways and its subsidiaries. Yet only two of them are the key players: Olympic Airways and Aegean-Cronus (Hellenic Star Airways, which until recently was operating non-scheduled flights, has lately acquired a SAAB 340 and DHC-7, aiming to extend its scheduled activities to certain international routes). The remaining carriers are smaller ones with aircraft with less than 20 seats, and they are mainly engaged in a variety of chartered air transport activities.

2.9 Thus, the Greek air transport market which, in the early years of liberalization, saw the - eventually unfruitful - effort of many enthusiastic, but poorly prepared new entrants to exploit the opportunities offered by the new liberalized environment, is today dominated by two main carriers. The future will show if the current trend towards consolidation of the market will continue to be the main characteristic for the coming years.

3. **FARES**

3.1 For a long period of time before liberalization, domestic airfares charged by OA for its domestic services were established at reasonable levels due to regard being paid to all relevant factors, ie cost of operation, reasonable profit, suitable for the composition of traffic on each route, social aspects etc. The most significant characteristic of the Greek air tariff policy was the prior approval given by the Price Committee of the Ministry of National Economy. To this end, OA was obliged firstly to have this proper

acceptance and then to submit tariffs for approval by the Civil Aviation Administration (CAA). The Price Committee used to take into consideration different factors such as inflation rates, social and national characteristics of every route etc. All these factors led to the implementation of a low fare policy, especially on routes connecting islands and remote regional airports with Athens, Thessaloniki and other regional centres. When EU Regulation 2409/92 came into force, different conditions and procedures of fare establishment prevailed. Low cost airlines established a number of promotional fares especially during the low season and attracted a large number of business passengers and weekenders to Thessaloniki, Iraklion, Chania and Rhodes, offering fares from about 20% to 40% lower than those of OLYMPIC. Further discounts were given to students, military personnel, senior citizens and others, in addition to ordinary discounts for children and infants.

3.2 Gradually, published fares increased to levels ranging from the same to about 25% lower than Olympic Airways. Today, as there are only two major airlines competing for 12 major routes in Greece (Olympic and Aegean) the level of published fares is approximately the same.

3.3 A comparison of recently published full economy fares offered by the two competitors on major domestic trunk routes can be seen on the table below:

	Olympic	Aegean-Cronus
Athens to		
Thessaloniki	94	100
Heraklio	94	100
Chania	94	100
Rhodes	94	100

Figures reflect full economy, one-way published fares in late summer 2002.

4. PUBLIC SERVICE OBLIGATIONS (PSO)

4.1 The liberalized environment under which the air transport market operates has created a need for the provision of an adequate level of services in certain regional routes that could not be provided by air carriers considering their commercial interest. This is the reason why the Greek Government, following other European countries, has, according to provisions of Reg. 2408/92, decided to impose PSOs on a number of routes considered vital for the economic development of their region. The first programme (which started operation in December 2001 after the completion of a public tender procedure) includes 10 routes. A second programme of PSOs was recently launched on another 12 routes, and the relevant tender procedure is due to be completed by early 2003.

4.2 The PSO system under Reg. 2408/92 is an important tool in order to ensure the necessary transportation standard and quality for the remote areas of the country which the liberalized market cannot provide.

5. CONCLUSION

5.1 The monopolistic air transport regime of the country ended after coming into force of the third liberalization package. The new legislation paved the way for new entrants.

5.2 Competition rules in air transport were for the first time implemented.

5.3 Olympic Airways, Olympic Aviation and the new entrants increased frequencies on domestic routes.

5.4 Pluri-sectoral operations have been established e.g. Corfu - Athens - Rhodes etc.

5.5 Consumers enjoy increased travel choices, especially as regards charter and scheduled flights to/from certain domestic or European destinations.

5.6 After the first years of expansion of the industry, there is a clear trend towards consolidation of the market. The challenges caused by such market conditions means that in the future, substantial focus should be placed on certain aspects of competition.

APPENDIX D

OPERATING SUBSIDIZED REGIONAL ROUTES IN A LIBERALIZED MARKET AS EXEMPLIFIED BY THE NORWEGIAN EXPERIENCE

1. INTRODUCTION

1.1 In a country with a shape and topography like Norway and with a firmly established policy aiming at maintaining settlements in all rural areas, adequate air transport plays an important role and is almost a prerequisite for the economic development of its peripheral regions. With the liberalization of the domestic air transport market it was necessary to ensure the possibility for the State concerned to maintain air services on low-density routes. This possibility is provided for in an EC Regulation adopted in 1992, which sets out the rules for the State to contribute to the financing of Public Service Obligation (PSO) routes through public tenders open to all EEA air carriers holding a valid licence and an Air Operator's Certificate. By means of public tenders, competition is promoted also on low-density routes while at the same time requirements such as number of flights, seating capacity, aircraft size, maximum fares and service continuity are secured.

2. BACKGROUND

2.1 Domestic air services in Norway were previously operated pursuant to a system of licences whereby carriers accepted an obligation to serve a route or routes in return for being granted a monopoly on the same route or routes. The assignment of a set of both "profitable" and "less profitable" routes to each of the carriers concerned ensured a cross subsidisation of the routes to be served. In order to cover the extra costs for carriers, as a result of cross subsidization, passengers faced higher price levels for domestic airline tickets. In addition to this system based on cross subsidization, the Norwegian carrier Widerøe was granted exclusive access - and was subsidized by the State - to a large and complex STOL network comprising 26 airports. Full liberalization of the domestic air transport market (except for the STOL network) took place as from 1 April 1994 and the STOL network was subsequently declared PSO-routes and offered by public tendering three years later as from 1 April 1997. Since then a few other routes have been added to the PSO-routes in addition to the STOL network. The PSO-routes in Norway are now serving 29 regional airports and are expected to carry a total of about 1.5 million passengers in 2002. These routes are thus representing one of the most comprehensive tender invitations within European civil aviation. This would have to be compared to the total of more than 50 Norwegian airports with scheduled air services and a total of approximately 9 million passengers on domestic air services per year. The cost of this program amounts to approximately 400 million Norwegian kroner (NOK) per year.

3. DEVELOPMENT SINCE APRIL 1997

3.1 As mentioned above, the PSO-routes consist, to a large extent, of routes serving STOL airports. The fact that the air carrier Widerøe was subsidised by the State to operate these routes prior to 1 April 1997, gave this air carrier a head start when the route network was offered by public tendering. Nevertheless, a total of 6 air carriers (including Widerøe) submitted tenders in 1996 for the contract period 1 April 1997 - 31 March 2000, and a total of 8 air carriers for the next period of three years.

3.2 For the next contract period running 1 April 2003 - 31 March 2006, the invitation to tender was answered by seven air carriers - of which only five are Norwegian. Of these seven air carriers, four

Norwegian carriers and one foreign carrier were awarded PSO-contracts. The awarded contracts amount to a total of 372 million NOK per year and proves that this last competition for tenders thus has reduced the cost of this program for the coming period. In addition to these five carriers, there is a helicopter carrier serving one route with a displaced contract period.

3.3 The introduction of PSO-routes and invitation to tender in 1997 was considered a political success and ensured the same quality of air services at a considerably lower governmental cost. The main reason for that was the incumbent carrier's fear of being outplayed by other competitors, which made the incumbent carrier reduce its costs before submitting the tender.

3.4 Since 1997 a few routes have been withdrawn from the PSO-programme indicating that a route submitted to public service obligation may develop into a commercially viable route. At the same time there is a tendency for routes previously exposed to competition to be subjected to PSO due to the prevailing competition and market conditions. Experience shows that it is necessary to have procedures ready in order to quickly re-instate a PSO-service (or a temporary solution) in case of demise of the operating carrier, or if the service in question is stopped for any other reasons.

4. GENERAL COMPETITION ASPECTS

4.1 On the PSO-routes competition is not considered as a goal in itself. However, as long as invitation to tender is the only way governments may finance air services in a liberalized market, it is necessary to expose the participants to competition in order to attain the most important goal, i.e. to provide transportation services satisfying standards and qualities pre-defined by the State to the lowest possible cost. Consequently, the invitation to tender must be designed to promote competition in order not to lose purchasing power and avoiding the risk of paying higher compensation than necessary. However, this may not always be political feasible.

4.2 One way to enhance competition is of course to split up larger PSO-networks into smaller route areas to facilitate the possibility for also smaller air carriers to submit tenders. In addition, it is most important to provide new entrants with the maximum of available information, since the incumbent carriers will always have the advantage.

4.3 In Norway the experience gained, however, has been mixed. The route areas in question in, e.g. the northern parts of the country put so great technical and operational pressure on the carriers due to severe winters and special geographical conditions, that the number of air carriers with the possibility to submit tenders is reduced considerably. Whether special conditions or not, it seems that a lengthening of the contract period would increase the number of tenders submitted, since carriers would gain more time to write off potential investments made necessary by the contract. In any case, the competition aspect within the PSO-system is to a certain extent dependent on the well functioning of the civil aviation market in general. Air carriers that have been outplayed by its competitors and lost their contracts must have something to fall back on in order not to be forced out of business.

5. REGIONAL ROUTES OUTSIDE THE PSO-NETWORK

5.1 Although a few routes have been withdrawn from the PSO-programme, it seems that both the will and the power to maintain air services exposed to competition have been weakened lately, and pressure is brought on the State to submit routes to PSO. A reason for this is *inter alia* the disappearance of the cross subsidization of routes. Nevertheless, a more efficient allocation of resources can now be seen subsequent to liberalization since the ticket price level on trunk routes has been reduced and capacity increased, while the opposite has occurred on more marginal routes.

5.2 In the long term liberalization is expected to make the civil aviation market in Norway grow, but experience has shown that there is a certain rigidity in the market that may possibly inhibit a sound development.

6. CONCLUSIONS

6.1 In Norway the experience shows that liberalization within the framework of the EC regulations has rendered the civil aviation market more efficient. The Community framework and its PSO provisions have generated an environment propitious for competition and resulted in less government spending, without lowering the level of services on the PSO-network.

APPENDIX E

THE IMPACT OF LOW COST CARRIERS IN EUROPE

1. BACKGROUND

1.1 In the current difficult climate for European aviation, one sector is performing extremely well, the so-called low cost/no-frills carriers. While the flag-carriers are experiencing severe difficulties, withdrawing from routes and cutting staff, the low cost sector continues to expand at a tremendous pace. There is evidence that the low cost carriers are even becoming dominant players on a significant number of intra-European shorthaul point-to-point routes. The extent to which this expansion of the low cost carriers will affect the traditional airline hub-and-spoke networks poses interesting questions for the European industry and policy makers.

1.2 Europe's experience of low cost scheduled operators began in 1991 when Irish carrier Ryanair transformed itself from a conventional regional airline into a carbon copy of the US low cost pioneer Southwest Airlines. By focusing initially on serving the large leisure market between Ireland and the UK, the airline had a dramatic effect on services across the Irish Sea. The second phase of Ryanair's rapid growth has involved the carrier in building up a network of intra-EU routes linking London's third airport, Stansted, with over 50 under-utilized, secondary airports in a number of countries, making the second largest low-cost carrier in Europe.

1.3 After the acquisition of its rival and British Airways offshoot Go, EasyJet, established in 1995, is currently the largest low cost carrier in Europe. Several other low cost scheduled carriers have also been established as a reaction to these developments or are currently being launched, including, Buzz and bmibaby in the UK, Virgin Express in Belgium, Basiq Air in the Netherlands, and German wings and Germania in Germany.

2. CHARACTERISTICS OF LOW COST CARRIERS

2.1 The chief difference between low cost carriers and traditional airlines fall into three groups: service savings, operational savings and overhead savings. Low cost airlines tend to focus on short haul routes (of generally less than 1,500 km). To achieve the low operating costs per passenger required, this type of carrier needs to have as many seats on board its aircraft as possible, to fill them as much as possible, and to fly the aircraft as often as possible. Competitive advantage derived from greater aircraft productivity is of paramount importance and is achieved by a combination of using uncongested secondary airports and not offering anything other than point-to-point services, like interlining. Secondary airports have two main advantages over larger airports: they tend to charge airlines less for using their services; and, as they are less busy, delays due to congestion are less. In addition, low cost airlines operate a single type fleet. By having only one aircraft type, pilots and cabin crew can operate on any aircraft in the fleet. Another key area where a low cost airline can gain a cost advantage over network carriers is in distribution. Significant cost savings can be made by selling directly to customers via the Internet and call centres and by using electronic ticketing. By not selling via travel agents, low cost airlines avoid travel agency commissions and also avoid computer reservation system fees. Lastly, the area of cost savings that is perhaps most apparent to passengers of low cost airlines is in the on-board service.

3. STRATEGIES OF LOW COST CARRIERS

3.1 There are basically two types of low cost business models in Europe: that of EasyJet, on the one hand, and Ryanair on the other. Ryanair serves secondary airports at relatively low frequencies and focuses on new leisure markets with no direct competition. The Ryanair model focuses on costs rather than on markets, which includes strongly persuading suppliers and airports to reduce charges. EasyJet serves primary -high costs- airports at high frequencies and focuses on existing, business and leisure, markets and also new markets, accepting competition from incumbent carriers. The other low cost carriers try to follow one or other of these models, although they tend to be offshoots of major carriers, so lack the cost advantages of EasyJet and Ryanair.

4. IMPACTS

4.1 The London airports, notably Gatwick, Luton and Stansted, have been the nursery of low cost carriers in Europe. The capacity constrained hub airport of Heathrow has until now no presence of low cost carriers. Since 1997, the number of routes served by no-frills operators from these airports has increased from 17 to 74, with around 15 new destinations being started each year. The increased number of routes served from these London airports is mainly attributable to the no-frills airlines; almost a quarter of the total seat capacity ex-London is now provided by low cost carriers, with Ryanair the second biggest carrier after British Airways. Very few of the destinations targeted by the low cost sector have been subsequently dropped.

4.2 In contrast to the rapid growth in the number of flights and seats supplied by the low cost carriers, the output of full service providers has either stagnated or contracted. The main carriers therefore find themselves in somewhat less dominant market positions in their home market. Customers have not lost out in terms of the routes served or the flights offered, but the incumbents have marginally reduced in importance in these markets. However, relatively few of the short haul markets served from London by the major carriers have experienced a reduction in capacity, which is most likely due to the need for these carriers to feed passengers into their long-haul network. This would seem to suggest that in the principal short haul markets, low cost developments have not forced network carriers to retrench. It is in the smaller markets that incumbents are more likely to reduce capacity in the face of increased competition.

5. OUTLOOK

5.1 Liberalization in Europe has opened up tremendous opportunities for the low cost carriers. If they maintain the 25% year on year growth that has been seen recently, they will possess around one third of the intra-European market in ten years time. In addition, new price sensitive markets will emerge, such as Germany, Scandinavia and the countries of Eastern Europe.

5.2 Despite the success of the low cost carriers, however, there is insufficient evidence to conclude that they severely cannibalize on the networks of the major full service carriers, as the majority of the passengers, especially on the thin routes, is newly generated traffic. On some thick European feeder routes, however, traffic is diverted from the network carriers. It appears unlikely that the no-frills airline will enter long-haul markets to any significant extent, as the characteristics of these markets militate strongly against the no-frills business model.

5.3 Uncertainties also remain over the sustainability of the low cost model. Simplicity has been the key to the success of the low cost carrier. The current expansion of some low cost carriers (notably Ryanair and EasyJet) is liable to expose them to more of the head-to-head competition at the same airport, which, in general, low cost carriers have hitherto sought to avoid. Meanwhile, the major carriers may learn to respond more effectively to the new environment, and the low cost segment will become available to ever more entrants.

6. CONCLUSIONS/POLICY CHALLENGES

6.1 Consumers have benefitted from the rise of the low cost sector in terms of more competition, more destinations, greater frequencies, and a greater diversity of fares. While there has been some impact on the major airlines, around 50% of the traffic carried by low cost airlines is newly generated, and there is little evidence that the hub and spoke networks of the major carriers are being adversely affected to any great extent. The feed of the major carriers may be squeezed on certain routes that are subject to point-to-point competition from low cost carriers, but indications are that they are more likely to respond by reducing aircraft size than by withdrawing from routes altogether.

6.2 There are a number of issues for aviation policy makers connected with the expansion of the low cost sector. These include mitigating environmental effects, especially at hitherto secondary airports, since the majority of the low cost carriers tend to select routes between regional airports. These airports are often confronted with a tremendous traffic growth, which requires large capital expenditure for infrastructure investments. Ensuring passenger rights are upheld, especially since some low cost carriers have different conditions of carriage compared to the traditional carriers; ensuring the maintenance of a level competitive playing field; maintaining high standards of safety in Europe's increasingly crowded skies; and organizing the allocation of ever scarcer capacity at congested European airports.

APPENDIX F

ASPECTS OF THE EXPERIENCE WITH LIBERALIZATION PROCESS OF THE AIR TRANSPORT MARKET WITHIN THE TRANSITIONAL PERIOD OF ROMANIA FOR ACCESSION AS FULL MEMBERSHIP STATE OF THE EUROPEAN UNION

1. SIGNIFICANT INCREASE IN COMPETITION AT THE ROUTE LEVEL

1.1 The Romanian air transport market has, in the last ten years, been faced with a sustained liberalization process, and has consequently seen a strong development of the air transport services carried out by European airlines to/from ROMANIA. This has led to a significant increase in competition at the route level.

1.2 In this period, frequencies and capacities on routes serving Romania have almost tripled. More destinations are now serviced on more days of the week, and a wider range of new tariffs is now offered to the travelling public. New aircraft have had to be purchased. At the same time, Romania has seen greatly increased use of co-operative marketing arrangements such as code sharing and blocked space arrangements between TAROM and other European, and in some cases North American airlines. One negative aspect of this increased competition has been a continuous depreciation of the market value of TAROM and other Romanian airlines.

1.3 The opportunities for TAROM to achieve in a short time benefits following the liberalization process of the air transport market were drastically reduced due to, first of all, the necessity to modernize its fleet (by abandoning the old aircraft, which had high operational costs) and also as a result of reducing the network served by TAROM scheduled services, because of the commercial difficulties it faced in an economy in transition.

1.4 In spite of the major potential of the Romanian market, such factors have resulted in a decreasing ability of TAROM to develop intensive, efficient air services comparable with those performed by many airlines of the EU Member States in direct competition on the same routes. Advancing the liberalization process at too fast a pace would possibly be to the competitive advantage of EU airlines.

1.5 Therefore the Romanian Government's efforts to establish a market economy compatible with the European Union principles and to enhance the ability of the state-owned enterprises to cope with competition are based on a sustained privatization process of these companies.

1.6 However, in the case of TAROM, the privatization process (which was originally planned for the year 2000) was postponed and the government decided, as a preliminary step with a view to privatization at a later stage, to concentrate on the turn-around of the flag carrier. To this end, the project "Restructuring of TAROM and preparation of the company for privatization", financed by the European Commission through the PHARE Programme, was started in October 2000 and is to be finalized shortly, Lufthansa Consulting being designated as the Consultant.

1.7 Following the implementation of some restructuring measures in the year 2001 (e.g. market-oriented network re-design/fleet size adjusted to network in order to optimize operating economies), the operating losses of TAROM were reduced to 22 billion lei from 700 billion in 2000. In accordance with the Restructuring Programme, TAROM is going to break even in 2005.

2. INVESTING IN THE ROMANIAN AIR TRANSPORT INDUSTRY

2.1 Regarding the development of the civil aviation infrastructure in the transitional period, major investments with high economic potential were started at a number of airports.

2.2 There are 17 airports in Romania - 4 of them of national interest (Bucharest-Otopeni, Bucharest-Baneasa, Constantza and Timisoara) being authorized for both international and domestic air traffic. Bucharest/Otopeni International Airport has a special economic importance, being at present in a full process of development and modernization, based on short, medium and long-term programmes approved by the Government.

2.3 There are 30 Romanian authorized air operators (9 of them hold an Air Operator Certificate, while the others have an Air Operator Authorization). By far the largest, the flag carrier TAROM is by far the largest operator with 18 B737, 2 B707, 7 ATR42 and 2 A310 aircraft to more than 35 international destinations.

2.4 The air operations performed on the domestic routes as well as the international air services have to fulfil the safety, quality and security standards and practices recommended by the international civil aviation organizations to which ROMANIA is a Contracting Party (ICAO, ECAC, Joint Aviation Authorities (JAA), EUROCONTROL). In addition, as candidate for accession to the European Union, Romania is progressively adopting EU Regulations and Directives.

3. DEVELOPING STRATEGIES FOR LIBERALIZATION OF AIR TRANSPORT

3.1 Romania became a Member State of the European Civil Aviation Conference in the summer of 1991, being an active part of its activities encouraging the implementation of the liberalization measures within European air transport. Having also full membership status of the Joint Aviation Authorities, the Romanian CAA has been permanently concentrating its efforts on ensuring that standards and requirements are properly set and achieved by air operators, with an emphasis on the implementation of the Joint Aviation Requirements/JARs as part of the national regulatory framework.

3.2 The necessary steps were undertaken so that the Civil Aviation Authority of Romania became a member of JAA in the month of December 2000, in order to perform a harmonization process of the specific national rules with the EU civil aeronautic regulations and, also to ensure common standards of the surveillance of air operators in respect of the implementation of the JAA regulations.

3.3 In the framework of gradual liberalization process of the air transport and related activities within the civil aviation field, the Civil Aviation Authority of Romania elaborated or supervised developing and restructuring programmes (for example, the restructuring of TAROM airline and preparation of the company for privatization), aiming to improve the economic results of the Romanian airlines or airports and also to meet the specific international safety and security standards and recommendations. The changes of the scheduled and non-scheduled traffic registered on three main Romanian international airports, in the last six years, is shown in Table 1.

Table 1

Aircraft movements, passengers and cargo performed/carried out on three main Romanian International Airports (Bucharest OTOPENI, Bucharest BANEASA and TIMISOARA) within the period of years 1996-2001

YEARS (1996-2001)	AIRCRAFT (commercial movement)	PASSENGERS (numbers)	CARGO (ton)
1996	33 555	1 667 808	263 963
1997	36 256	1 762 144	284 272
1998	33 218	1 841 066	478 914
1999	32 364	1 908 743	135 261
2000	38 601	2 160 642	191 207
2001	40 109	2 231 874	107 312

4. CONCLUSIONS

4.1 Starting with 1990, due to the transition process from the centralized economy to the free market economy, important changes have been made in the Romanian civil aviation sector. In addition to five air operators at the beginning of 1990, another 25 new air operators have been authorised to perform commercial air transport, aerial work or general aviation operations. However, only three of them - TAROM, CARPAT AIR, ANGEL AIRLINES - perform international scheduled air service, the most important being the national air carrier TAROM which operates 31 international and nine domestic destinations.

4.2 The tariffs to be applied by air operators do not need any approval and the State's interference is limited only to the cases of infringements of the competition rules, which are settled by the Competition Council. On domestic routes the tariffs have to be filed with the Romanian CAA and they are established in accordance with the principles stipulated in the Competition Law. On the international scheduled services, the tariffs are established and approved in accordance with the specific clauses from the bilateral air Services Agreements concluded by ROMANIA with 90 countries.

4.3 Taking into account the regulatory arrangements dealing with air carrier ownership and control recommended by ECAC, Romanian authorities intend to propose for negotiation of the future bilateral Air Transport Agreements a more liberal draft clause regarding the conditions to be fulfilled by a designated airline applying for an operation authorization, instead of the existing criterion of national ownership and effective control.

4.4 The Civil Aviation Authority of Romania reaffirms its desire to continue the implementation of liberalization measures in air transport, in order to enhance the opportunities of fair competition for all air operators and also to give due importance to the consumer interests by means of supervising the

implementation of the voluntary Commitments by those national airlines or airports which already adhered to them and also advising the rest of the air operators to consider such Commitments for signing and applying.

APPENDIX G

GOVERNMENT INTERVENTION IN AIR TRANSPORT IN THE EUROPEAN UNION

1. INTRODUCTION

1.1 Prior to liberalization in the EC, governments had traditionally played a major role in air transport provision, often being closely involved with the day-to-day operation of their national airlines. This was often based on an understandable wish to ensure that minimum levels of service were guaranteed and that the state maintained a viable domestic air transport industry.

1.2 However, in a liberalization process involving a number of states, such as the EC Single Market, it is important to ensure that competition between carriers from the different participating states is fair. The benefits of liberalizing a market will not be realized if certain players in the market are subject to special treatment by their governments. Discriminatory measures and, most importantly, State financial aid can distort competition by preserving over-capacity and enabling air carriers to engage in uneconomic pricing. In the case of the EC, the potential problems were recognized both in its founding treaties and subsequent legislation, which require non-discriminatory treatment for airlines and rigorous scrutiny of state aid.

1.3 Nonetheless, it was recognized in the early 1990's that after liberalization, governments would still retain certain strategic concerns about the level of air service provided on their territory and the need to maintain a viable domestic industry.

2. THE NEEDS OF THE AIR TRANSPORT INDUSTRY

2.1 The liberalization process removed the regulatory protection that most national airlines had enjoyed. In the early to mid 1990's, this led to a series of major financial problems at various European air carriers. A number of EC governments developed plans for capital injections and restructuring to ensure that those airlines survived.

2.2 The European Commission, which is charged with the enforcement of the state aid rules in the EC, accepted that there was a need for a period of restructuring in the airline industry. There was a clear need to allow some airlines to rebuild their balance sheets, restructure their operations and find a firm footing if they were to be able to take advantage of the new commercial opportunities available.

2.3 This restructuring was, however, subject to the so-called "one time, last time" rule, the idea being that this should be a one-off chance to restructure finances and operations. Prolonged government help would risk damaging the Community's more competitive and successful carriers. Therefore, after this one-off restructuring, each company was required to survive on their own efforts according to normal commercial conditions. In this way, the means were found of guiding this strategically important industry through the initial shock of liberalization and laying the foundations for a competitive and vibrant market.

3. **ONGOING INVESTMENTS**

3.1 A small number of EU airlines remain partly or wholly state-owned. In order to ensure that shareholding governments and airlines conduct their relations on a commercial basis, all investments by governments are scrutinised by the European Commission. They are tested against the “market investor” principle - that is, the government must act in the same way as a commercial investor and is not permitted to give the airline terms that are unduly favourable. Capital injections from governments must normally be accompanied by similar injections from private investors.

4. **REACTING TO A CRISIS**

4.1 EC rules do also make provision to provide financial assistance to an industry in the event of a crisis. The tragic events of 11 September 2001 presented all airlines with just such a sudden economic problem of unforeseen gravity. The suspension of flights, the immobilization of equipment and the withdrawal of war risks cover, left the European industry with a serious financial shortfall and, in the area of insurance, an operational problem.

4.2 Governments were authorized to provide financial assistance in two ways. They were permitted to compensate their airlines for the losses they incurred as a result of airspace closure and were permitted to establish state systems to provide war-risks insurance in return for the payment of substantial premiums. Within a liberalized system, it is possible to give emergency assistance, but it is important to do so on the basis of strictly enforced common rules and non-discriminatory treatment.

5. **ENSURING THAT SOCIAL AND REGIONAL NEEDS ARE SATISFIED**

5.1 A further concern upon liberalization was the fate of routes that were uneconomic, but essential in social terms - typically those connecting peripheral regions with centres of commerce and government. Prior to liberalization, flag carriers often provided such services of social importance within their home state in their role as monopoly or state-sponsored provider.

5.2 In the process of restructuring and placing all airlines on a normal commercial footing, it was recognized as important for essential regional services to survive, even if they were not economic. It is important to note that the overall number of scheduled routes flown within the EU has grown substantially, however, there remain some thin routes that are vital to the health of a community, which must be preserved.

5.3 EC legislation therefore provides for a system of “public service obligations”, in which states may identify routes which are vital and conduct a tendering process in which all Community carriers have a right to participate, before awarding a contract to the best offer. This transparent system has ensured that the application of market economics to the air transport sector has not resulted in the loss of essential services.

6. CONCLUSION

6.1 State aid has to be reduced and controlled within a liberalized market in order to ensure that competition between airlines became fair and based solely on commercial principles. In the European Community, it proved possible to manage the withdrawal of government influence over airlines in such a way as to give the airline industry a one-off chance to adapt to the new conditions, and to introduce new mechanisms to ensure that communities do not lose essential air services.

APPENDIX H

PRINCIPLES GOVERNING REGULATION OF SAFETY AND SECURITY

1. INTRODUCTION

1.1 No review of liberalization in air transport would be complete without an examination of the regulatory function and how this function can be better exercised.

1.2 This document aims to present the European experience in the field of aviation safety and security regulation gained during the air transport liberalization process, as well as the lessons to be learnt from it. The work carried out was crucial to support the single market objective of the EC, since the public and the governments would never have accepted a feeling of deregulation or a process which was not controlled from the safety and security points of view.

1.3 One of the most serious threats to air transport is the risk of airlines seeking to step out of a proper regulatory framework in order to avoid compliance with safety and security requirements. In the maritime industry, the possibility for shipping companies to evade safety regulation through flags of convenience has led to a spectacular abandonment of safety standards within a major part of the world's merchant shipping fleets. It is important for the further development of the aviation industry that such an evasion of regulation be prevented.

2. TOWARDS A UNIFORM AVIATION SAFETY REGULATION

2.1 The political commitment for the establishment of an Internal Market enabling the free movement of products, services and persons has led to the regional and international harmonization of aviation safety regulations under the auspices of JAA (Joint Aviation Authorities): an association of the national civil aviation authorities of 36 European countries which aimed at the outset to harmonize rules and practices with regard to the air safety and environmental certification of aircraft. In so doing, the experts agreed on the need to gradually define a rational set of international aviation rules operating to the highest safety standards. The initial objective was to promote the mutual recognition of permits, certificates and licences delivered on a national level on the basis of a joint high-level set of technical requirements.

2.2 This process of harmonization of rules in stages led to the JAA being assigned a second objective: standardization of the implementation of these joint requirements. The JAA were entitled to perform visits of Member States in order to evaluate the level of compliance of this new aviation regulation and their capacity to perform an effective oversight of its implementation. In addition, ECAC gave the JAA the tasks of piloting the SAFA programme (Safety Assessment of Foreign Aircraft) in order to record situations of non-compliance with regulations discovered during aircraft operations. This programme can be useful for validating the standardization visits of national civil aviation authorities.

2.3 Despite the work carried out for over fifteen years on harmonization, it still happened that the obligations imposed on operators varied from one country to another and sometimes created disparities between airlines competing in the same market. Thus, the European Council promulgated regulation EC 3922/91 on the harmonization of technical requirements and administrative procedures in

the field of civil aviation which superseded the national transposition of JAA rules. This raised the question of the continued adaptation of the regulation in a social, economic and technical ever-changing environment following an on-going process.

2.4 Because the airlines were beginning to share and exchange important operational functions including regulated safety tasks, such as crew composition and maintenance of aircraft, within a global alliance, the mutual recognition principle was no longer adequate. National and international safety legislation places the technical responsibility on the operator according to the aircraft's registration. However, despite this responsibility, operators have increasingly sub-contracted or outsourced the regulated safety tasks. JAA joint requirements have dealt with the matter of the technical responsibility of operators by requiring traceability (i.e. transparency) of maintenance and crew training operations. Finally, the principle of a joint licence for crew members and maintenance engineers, based upon the approval of means, initial and recurrent training facilities, programmes and exams, prevailed within the JAA.

2.5 Given the technical responsibility of the operator in implementing aviation safety regulations, this trend has clearly led to a centralized safety control mechanism, which is based more and more on multiple bilateral or multilateral approvals and agreements, and has led to duplication of work and even resulted in burdening the national authorities involved. The aim is to ensure that the oversight mechanism has a legal base and that sanctions are legally enforceable. Furthermore, safety monitoring by the national aviation authorities is becoming more and more difficult and complex than in the past. Therefore, the industry has to bear a number of similar authorizations involving a possible duplication of tasks.

2.6 Consequently, for many years, the European Community and the various players in the sector endeavoured to establish a genuine air safety authority in Europe, the European Aviation Safety Agency (EASA) which, like the American Federal Aviation Administration, would be able to set rapidly its own common standards to provide the highest level of safety and ensure that they are applied uniformly in Europe as well as to promote their dissemination throughout the world.

3. THE INITIAL HARMONISATION PROCESS OF AVIATION SECURITY REGULATION

3.1 Initially the aviation security standards based on ECAC's Document 30 were defined for the national authorities to implement them with their own personnel, mainly police or customs. However, the appropriate responses to the ever-growing and more sophisticated international terrorist threats have become genuine technical and operational challenges. The need for the highest possible security standards requires that the security industry develop equipment and that the aviation industry implement procedures at international level.

3.2 Aviation security is entirely under the responsibility of a State, since the deployment of security measures is proportional to the local threat assessment. However, the ECAC Aviation Security Audit Programme based on a peer review concept was established with the objective of promoting the effective implementation of the basic security measures at all airports in ECAC Member States. The final objective is to avoid duplication of security controls for the increasing number of transit passengers when the threat is considered as equivalent - that is the one-stop security concept. ICAO has taken over the idea and is in the process of developing a similar world-wide security audit programme, at the same time taking into consideration the experience gained through the existing Universal Safety Oversight Aviation

Programme (USOAP). The asset of ICAO and ECAC is the accompanying assistance mechanism, which helps Member States to adapt their regulations or internal procedures as required.

3.3 After the 11th September, the European Commission immediately proposed a draft regulation on common rules for civil aviation security. That text widely covers the appropriate technical standards for high technology equipment, operational procedures for the screening of passengers, baggage, cargo, mail, co-mail and co-mat shipment, as well as training programmes for airport and security staff.

3.4 Member States are still responsible for the reinforcement of applicable security measures, according to regional or local threat assessment, provided that such measures are considered by the European Commission to be neither discriminatory nor restrictive. Furthermore, a monitoring compliance clause empowers the Commission to perform inspections on the practical implementation by Member States of the government provisions.

3.5 The present initiatives in aviation security are to increasingly follow the general principles of safety risk management, and a preventative multi-layer system focusing on the most critical threats is under consideration. It is now recognized that the future work programme consists of the integration of security measures into transport systems, an effective redundant system and a proper international harmonization of standards.

4. THE MAIN LESSONS TO BE LEARNT

4.1 This review of the regulatory processes in aviation safety and security has resulted in describing more or less a comparable process: liberalization of air transport within the European community initially introduced a standardization and then a codification of reinforced safety and security requirements, which does not amount to simplification.

4.2 For the purposes of determining what action needs to be taken to achieve “a more practical technical regulation of aviation” for the aviation industry in a liberalized environment, regulation is assumed to be a technical regulation which respects (at least) the following principles:

- a) **High-level standards:** the regulation lays down the solution which offers the best safety and security protection for passengers and staff, not only the one which authorities and the industry consider to be the smallest common denominator from their point of view;
- b) **Reactivity:** the regulation is adopted in due time and can be adapted efficiently so as not to be overtaken by new technology or other events, and conversely introduces an urgency mechanism such as airworthiness directives or security alerts;
- c) **Proximity:** the regulation is known by stakeholders (having participated in the development process, they are able to understand the text and its relevance for specific problems they are facing, and/or they take responsibility for it and for its application);

- d) **Accountability:** the recipient of the regulation is clear and its legal consequences are reliable (for example, it does not require court cases to be interpreted and clarified); and
- e) **Enforceability:** the regulation is capable of achieving a high level of compliance not only by describing provisions regarding surveillance or sanctions but by enabling a proximity application.

4.3 Such principles should give the aviation industry the assurance that safety and security objectives can be achieved without imposing a heavy or disproportionate regulatory burden, such as repetitive validation processes or duplication of administrative authorizations. But the last principle, and not the least, for a technical regulation of aviation is:

- a) **Pragmatism:** the aims of the regulatory proposals should be clearly targeted and in proportion to the situation being addressed.

5. CONCLUSION

5.1 For the last fifteen years, European countries have experienced the development of extensive safety and security technical regulation. It is well established that that regulation has overcome former competition obstacles which could be concealed behind technical requirements. General opinion is that this regulatory corpus should be improved even further in terms of quantity, detail and quality.

5.2 Because the public expects governments to provide more safety and security as a social necessity, the regulatory process continues to grow whatever liberalization process is in progress. The issue of the effective implementation of rules means going further than the need for common safety and security standards and to foresee common bodies with legal control and enforcement powers.

5.3 That is the price to pay for the public to keep its trust in a liberalized air transport environment.

— END —