This Vickers Viscount was delivered to its' first customer in the early days of the European Union, 50 years ago. In the picture she waits for her turn to take-off from Heathrow early 1980s, close to the end of the era of Viscount services for British Airways.

AIR TRANSPORT: QUARTERLY REPORT NO.18
1st QUARTER 2008 (January to March)

1 Overview

The first horizontal agreement of the year was signed between EU and Jordan. The text of the horizontal agreement with Israel was also agreed at technical level. These agreements remove nationality restrictions in each country's bilateral air services agreements with EU states. Towards the end of Q1, the EU-US Air Transport Agreement took effect. The agreement covers the largest international air transport market in the world, and allows airlines from each side free access to any point on the other.

The European network of air services continued to expand. Between the first quarters of 2007 and 2008 there was a net gain of some three hundred scheduled air routes. There was significant turnover of routes: the comparison of Q1 2007 and 2008 shows 368 routes dropped, while 666 were started. Although, LCCs were prominent in the generation of traffic and creation of routes, there were a number of new routes started by regional airlines and network carriers. The two largest European LCC, easyJet and Ryanair, operated just over nine-hundred routes between them in Q1 of 2008. Two hundred of these were new services started by Ryanair between Q1 of 2007 and Q1 of this year. Easyjet initiated half that number of routes in the same period.

AEA airlines reported total passenger numbers up by 2.6% in the three months to the end of March 2008, boosted slightly by the extra leap-year day. Increases in traffic matched overall change in capacity provided by the association's member airlines, so that average load factor remained unchanged over the previous year's first quarter. The situation was quite different among the regions of operation: only domestic traffic recorded a drop in RPK, with the important North Atlantic market up by five percent. Load factors between Europe and Africa, and across the South Atlantic fell as significant growth in RPK was not sufficient to match increases in capacity provided. Among the largest European carriers, Air France, Lufthansa and British Airways were the top performers in terms of RPK. BA joined Alitalia and Austrian in recording falls in RPK, although it managed to maintain its load-factor while that of the other two carriers fell. Virgin Atlantic reported an impressive nine percent growth in RPK as its recently extended long-haul network continued to establish itself.

There was a general improvement in 2007 margins over 2006. In particular, Austrian and Swiss both swung their results into positive territory. Alitalia reduced its operating loss, but margins remained negative, and the airline reported net debt had worsened by 6.8% to $1¼ billion. Among LCCs, Ryanair reported an operating margin of 20.4%, still healthy, but down three points from 2006

The first two months of 2008 saw ACI's European airports passenger throughput up over six percent, above the 4.6% increase recorded by the association's world-wide airports. Airport passenger traffic for 2007 showed wide variations in growth at European airports, with only Manchester among major airports recording a fall. The fastest growing airports in absolute terms were Madrid and Munich, while percentage increases were high at major airports in recently joined EU states: Bucharest's Otopeni up over 40% on 2006 and Riga and Sofia recording around 25% growth.

2   Highlights and key developments

2.1   Regulatory

In January, the Commission adopted an agenda for general and business aviation in Europe [COM(2007) 869 final]. It is the first time since the creation of the EU internal aviation market that the Commission has studied this sector, quantified its value and identified the challenges that it is facing. The Commission is proposing that general and business aviation is integrated into EU air transport policy. The increase in air traffic in Europe in particular necessitates the inclusion of this sector in order that initiatives in respect of the limited aviation infrastructure and capacity can be optimized.

In January, the Commission launched an investigation into potential state aid involving Aarhus airport in Denmark. Following a complaint, allegations that the operator of Aarhus airport, Aarhus Lufthavn A/S, has granted state aid to certain airlines in the form of discriminatory rebates on airport charges will be examined.

In February, the European Court of Justice confirmed that Greece has failed to comply with a Commission decision adopted in September 2005 finding that it had granted illegal and incompatible aid to Olympic Airways Services and Olympic Airlines, and asking for such aid to be recovered.

In February, the EU signed a "horizontal" agreement with Jordan removing nationality restrictions in its bilateral air services agreements with Member States. The horizontal agreement with Israel was agreed at technical level. In all, over thirty "horizontal" agreements are now in place, resulting in over 600 air services agreements being modified to replace nationality rules with the principle of EU airline designation.

In March, the Commission and the US Department of Transportation launched a joint research project to examine the impact of alliances on airline competition and the possible changes in the role of alliances following the EU–US Air Transport agreement. A report summarising the main findings of the research will be published in mid-2009.

The Commission opened a formal investigation procedure in March following a complaint on potential state aid given to Ryanair by Bratislava airport. The Commission decision requires the Slovak authorities to submit a copy of the agreement reached between the airline and the airport, which they have so far failed to do.

At the end of March, a new era in transatlantic aviation began when the EU–US Air Transport Agreement took effect. European carriers can now fly without restriction from any point in the EU to any point in the US. With some 50 million annual passengers between the EU and US, the agreement covers by far the largest international air transport market. Negotiations on the second stage of the agreement will start in May. The ultimate aim of the EU is to create a transatlantic Open Aviation Area with no restrictions on air services, including access to the domestic markets of both parties.

2.2   Airlines

2.2.1   Capacity and routes

There was significant growth in the number of routes offered by air carriers within and between European states (EU-27 plus Iceland, Norway and Switzerland) between the first quarters of 2007 and 2008. The table below shows intra-European flights increased by some 3%, while there was a net gain of some 300 airport–pair routes to the network. In the table, "routes lost" refer to those served in each month of Q1 2007, but not served in Q1 2008, while "routes gained" are those served in the first three months of 2008, but not flown in the same period of 2007.

Changes to the European air transport network, Q1 2007 to Q1 2008

	Flights scheduled (thousands)	routes lost	routes gained
Q1 2007	1,434.9		
		368	666
Q1 2008	1,476.5		

The following tables show the ten most prominent of the routes lost and gained, and the airline(s) operating them.

Ten busiest routes operated in Q1 2007, but dropped before Q1 2008

Airport pair		Avge flights per month Q1 2007	Airline(s) operating
Helsinki Finland	Lappeenranta Finland	238	Finncomm
Cologne/Bonn Germany	Frankfurt Germany	192	Lufthansa/ Eurowings
Metz/Nancy France	Paris(Orly) France	187	Air France
London(LHR) UK	Shannon Ireland	184	Aer Lingus
Bordeaux France	Munich(Intl) German	172	Lufthansa/ Eurowings
Amsterdam Netherlands	Muenster Germany	160	European Airlines
Saarbruecken German	Berlin(Tempelhof) Germany	155	Cirrus Airlines
Budapest Hungary	Paris(Orly) France	151	Sky Europe Hungary
Dusseldorf Germany	Berlin(Schoenefeld) Germany	143	Germanwings LTU
Paris(CDG) France	Katowice Poland	139	Brit Air

Source: OAG

While LCC figure in the table of new routes, it is also clear that there is considerable route development activity among regional and network airlines.

Ten busiest routes operated in Q1 2008, not operated in Q1 2007

Airport pair		Avge flights per month Q1 2008	Airline(s) operating
Angelholm Sweden	Stockholm(Bromma) Sweden	308	Golden Air
Stockholm(Bromma) Sweden	Ronneby Sweden	290	Avitrans Nordic
Dusseldorf Germany	Hanover Germany	258	LGW
Dusseldorf Germany	Saarbruecken Germany	232	LGW
Bucharest(Baneasa)	Vienna Austria	227	Sky Europe
Paris(Orly) France	Vienna Austria	224	Sky Europe
Bratislava Slovakia	London(Luton) UK	203	Sky Europe
Glasgow(Intl) UK	London(City) UK	190	BA Cityflyer
Bordeaux France	Frankfurt Germany	179	Lufthansa Cityline
Linz Austria	Munich Germany	167	Dolomiti /Augsburg

LCC were prominent in creating new routes. The table below highlights the number of routes operated by the two major LCC, Ryanair and easyJet (including easyJet Switzerland) in Q1 2008. Combined, the two airlines operated just over 900 routes. Of these, easyJet had started 97 not operated in Q1 2007, while Ryanair started 203. The ratio of routes dropped over the period to routes opened gives a measure of the volatility of the two carriers' network: 0.10 for easyJet (or one route dropped for each ten started), and 0.33 for Ryanair (one route dropped for three started).

Changes in the networks of the two major LCC

	Routes Q1 2008	dropped	started
Easyjet	334	10	97
Ryanair	568	68	203

2.2.2   Charter carrier news

Further airline consolidation in Germany is possibly in train following the announcement in January that Lufthansa and TUI Travel had signed a memorandum of understanding covering plans to merge TUIfly with Germanwings and Eurowings. While Eurowings, part of Lufthansa's regional division, is 51% owned by Albrecht Knauf, Lufthansa holds close to 100% of the carrier's voting rights. Germanwings, the low cost scheduled subsidiary of Eurowings, operates a fleet of 27 A319 aircraft. Combining the three airlines would result in a fleet of over 100 aircraft. The proposed merger is subject to due diligence and, of course, the necessary regulatory approval.

Germany's competition regulatory authority extended its deadline until June for completing its evaluation of Air Berlin's acquisition of the charter airline Condor. Air Berlin intends to acquire Condor in two stages, firstly by purchasing Thomas Cook's 75% shareholding in February 2009 and secondly by taking over the remaining stake in 2010 after Lufthansa first sells its stake in Condor to Thomas Cook.

Swiss International Airlines is to acquire charter carrier Edelweiss Air from tour operator Kuoni for an undisclosed sum. Edelweiss operates a fleet of three A320 and one A330-200 aircraft. The sale represents a strategic move by Kuoni to divest itself of its airline subsidiaries.

In March, Turkish charter carriers Tartan Towers Airlines and Golden Airlines had their air operator's certificates cancelled by the Turkish Civil Aviation Authority.

2.2.3   Traffic

Scheduled services of AEA members, November 2007 – January 2008

	Passengers	ASK	RPK	Load Factor
	thousands	millions	millions	%
Domestic	24,309	20,685	13,201	63.8%
Cross-border Europe	36,185	60,705	37,634	62.0%
Europe / N Africa Mid East	2,895	12,465	8,525	68.4%
North Atlantic	6,167	54,098	42,139	77.9%
South/Mid Atlantic	3,219	31,623	26,170	82.8%
Europe/rest Africa	2,199	19,304	14,879	77.1%
Europe /Far East, Australasia	4,614	46,828	37,594	80.3%
Other	59	144	76	
TOTAL	**79,648**	**245,852**	**180,218**	**73.3%**

Source:AEA

Passenger traffic carried by AEA airlines in the three months to the end of January 2008 was up by 2.6 percent on the same period 2006/07, totalling almost eighty million passengers. Three thirds of this traffic was carried by these European airlines was on intra-European sectors (domestic and cross-border), although the longer haul services accounted for the majority of RPK. In fact, just under one-quarter of total RPK were generated on the North Atlantic, while air services between Europe and Far East/Australia-Pacific routes accounted for a similar proportion of AEA airlines' RPK.

AEA carriers cut back capacity (ASK) on domestic networks by some four percent. As the corresponding drop in passengers carried, and RPK, was only around three percent, average passenger load-factor on these domestic services increased by just under one percentage point. Expansion in European cross-border capacity (ASK up 6.4%) was more than taken up by traffic growth (RPK up 6.8%), although passenger numbers were less than six percent up, suggesting the capacity increase was targeted on longer-haul European services.

**AEA members, November 07-January 08, growth over same period 06/07**

	Passengers	ASK	RPK	Load Factor
	thousands	millions	millions	change (points)
Domestic	-3.0%	-4.1%	-2.9%	0.8
Cross-border Europe	5.4%	6.4%	6.8%	0.2
Europe / N Africa Mid East	6.9%	7.5%	6.2%	-0.9
North Atlantic	4.9%	4.1%	5.0%	0.6
South/Mid Atlantic	7.4%	8.7%	6.6%	-1.7
Europe/rest Africa	5.3%	6.7%	4.3%	-1.8
Europe /Far East, Australasia	3.2%	1.5%	2.0%	0.4
TOTAL	**2.6%**	**4.4%**	**4.3%**	**0.0**

Source: AEA

There were capacity increases in all markets other than domestic. Outside Europe, only the North Atlantic and Far East/Australia sectors responded with RPK increases above the levels of capacity growth. This boosted load-factors on the North Atlantic by just over one-half of a percentage point, while the Asia Pacific routes improved by slightly less. As pointed out above, these two markets count for around one-half of AEA's total RPK.

Among AEA member airlines, Air France was top performer in terms of RPK generation in the three months to end January 2008, up 3.7% over a year earlier. The carrier's capacity increased by 4.5% over the same period, bringing its average load factor down by just over half a point. Lufthansa fared somewhat better in terms of load-factor changes year-on-year, increasing traffic by a significant margin above its growth in capacity (load-factor up just over one point). British Airways recorded capacity and RPK falls of just under one-half of a point, maintaining its average load-factor at 72%. Austrian's performance continued to reflect the rationalisation of its long-haul network, with RPK down by somewhat more than capacity falls, reducing average load-factor to just under 71%. The troubled Alitalia joined Austrian as the only major AEA carriers to record falls in RPK and average load-factor.

Ten largest AEA members, November 07 - January 08, RPK growth over 06/07
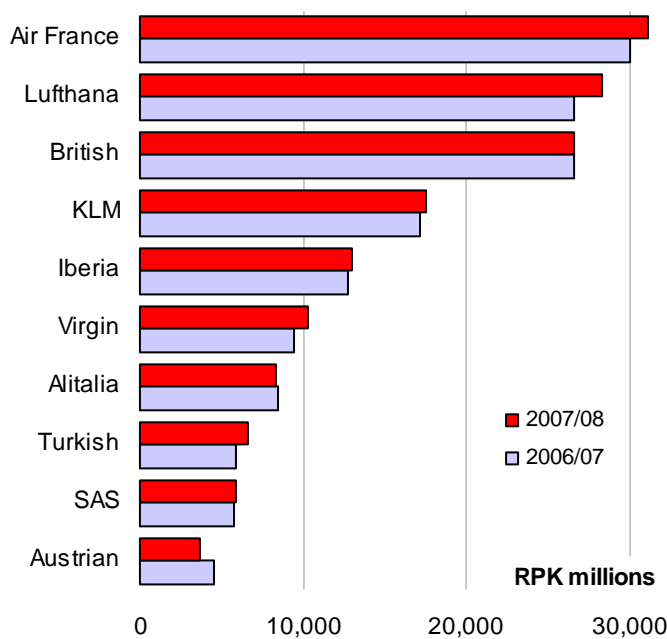
Virgin recorded impressive RPK growth (up 8.9%) as the long-haul routes recently introduced continued to attract more passengers, boosting the average load-factor on its services by 2.5 points to over 76%.

Air freight AEA members, Nov 07-Jan 08, with change over same period 06/07

Freight (TFTK)

	millions	change
Domestic	28	-1.0%
Cross-border Europe	187	6.2%
Europe / N Africa Mid East	291	-0.4%
North Atlantic	2,613	3.4%
South/Mid Atlantic	1,099	7.8%
Europe/rest Africa	891	11.7%
Europe /Far East, Australasia	4,411	2.8%
TOTAL	**9,523**	3.7%

Source: AEA

Air freight carried in the three months was 3.7% up on the same period one year earlier. The only negative performance was recorded in the domestic and Middle East markets, down one point and just under one-half point, respectively. The much larger markets of Far East/Australia and the North Atlantic (almost three-quarters of the AEA total freight tonne-kilometres) improved significantly, while strong growth on African routes and across the South Atlantic all contributed to the in total AEA freight traffic.

2.2.4   Financial

European carriers

Financial performance of major EU carriers for January to December, 2007

	Revenues ($m)	Operating result ($m)	Net result ($m)	Op.margin %	Net margin %
Air France-KLM	32,838	2,031	1,839	6.2	5.6
Alitalia	6,645	-278	-498	-4.2	-7.5
Austrian Airlines	3,466	38	5	1.1	0.1
British Airways	17,149	1,541	1,008	9.0	5.9
Finnair	3,191	207	149	6.5	4.7
Iberia	8,101	604	479	7.5	5.9
Lufthansa Group	32,781	2,017	2,422	6.2	7.4
Ryanair	3,599	733	705	20.4	19.6
SAS Group	8,195	205	100	2.5	1.2
Swiss	4,313	503	n/a	11.7	n/a
Total above	**120,277**	**7,601**	**6,209**	**6.3**	**5.4**

Source: Airline Business, April 2008 and airline annual reports; exchange rates averaged for calendar year from OANDA.com

Both Austrian and Swiss turned 2006 losses into profit in 2007. In the case of Swiss, now under control of Lufthansa, the turnround was impressive, the airline's operating margin changing from -2% to approaching +12%. Alitalia reduced its operating loss by 44% for the full year 2007, almost halving its pre-tax loss to €364m; but its net debt totalled €1.28 billion at the end of January 2008, up 6.8% compared to the end 2007 position. Its cash and other liquid resources were €282m at the same date, down 23%. This highlighted the need to come to a speedy agreement on the airline's future. Aer Lingus improved its operating profits by 17% and the other LCCs showed mixed

results: Norwegian converted their 2006 loss into a US$25m profit (3.2% margin), with Air Berlin's operating margin plummeting from 4.1% in 2006 to 0.8% in 2007. Vueling on the other hand reported a 2007 operating loss of $104m versus a loss of $15m in the previous year, with its latest year margin at -20%.

USA and Asia network carriers

Financial performance of major US carriers January to December, 2007

	Revenues ($m)	Operating result ($m)	Net result* ($m)	Op.margin %	Net margin %
Alaska Airlines	3,506	212	92	6.0	2.6
American Airlines	22,935	965	504	4.2	2.2
Continental	14,232	687	542	4.8	3.8
Delta Air Lines	19,154	1,096	604	5.7	3.2
Northwest	12,528	1,104	764	8.8	6.1
UAL/United	20,143	1,037	695	5.1	3.5
US Airways	11,700	533	440	4.6	3.8
Southwest	9,861	791	471	8.0	4.8
JetBlue	2,842	169	18	5.9	0.6
AirTran	2,310	138	53	6.0	2.3
Total above	**119,211**	**6,732**	**4,183**	**5.6**	**3.5**

* excluding reorganisation items   Source: Airline Filings

The US majors improved their profitability for the full calendar year 2007, with operating margins averaging 5.6% compared to 3.8% in 2006. The eight airlines' net profits advanced from US$1.2 to 4.2 billion in 2007. All eight majors reported healthy operating margins ranging from 4.2% for AMR/American Airlines to 8.8% for Northwest. Delta increased their margin from a scarcely profitable 0.3% in 2006 to 5.7% in 2007. The two largest US LCCs apart from Southwest (AirTran and JetBlue) also reported strong improvements in both operating and net results, with operating margins of 6.0% and 5.9% respectively in 2007. However, fuel price rises led to a substantial worsening in US fourth quarter profits, with the outlook for 2008 looking grim.

Financial performance of some major Asian carriers January to December, 2007

	Revenues ($m)	Operating result ($m)	Net result* ($m)	Op.margin %	Net margin %
AirAsia	564	176	205	31.2	36.3
Korean Air	9,501	686	12	7.2	0.1
Malaysia Airlines	4,386	238	250	5.4	5.7
Thai Airways	6,014	619	494	10.3	8.2
Total above	**20,465**	**1,719**	**961**	**8.4**	**4.7**

Cathay Pacific reported another strong increase in revenues for calendar year 2007 (up 24%), with operating profit well up as a result of operating margins up by 1.7% points to 10.3%. Both Air New Zealand and Qantas also returned higher operating profits for the six months to end December 2007, increasing revenues by 9% and 6% respectively. Both achieved excellent operating margins in the six months, with Qantas at 10.5% and Air New Zealand reporting a staggering 21.1%. The other major Asian airlines (AirAsia, the two large Japanese carriers, Jet Airways, Korean, Malaysia, Singapore and Thai) improved their operating margins from 4.5% to 7.5%

in the last three months of 2007, with net profits up from US$682m to $795m. AirAsia doubled its operating profit with its margin up from 25% to 35% in the last quarter of 2007.

Key developments and announcements- network carriers
World average jet kerosene prices fell by 1.4% in January 2008, followed by an increase in February 2008 of 5.0% (Airline Business, April 2008). The average jet kerosene spot price was 213.5 US cents per US gallon during 2006, up by 10%. The price rose strongly in the last four months of the year, up by almost 30% (December vs August 2007). However, Euro based airlines had the advantage of an 8% strengthening of their exchange rate against the US dollar, offsetting most of the annual increase in $ fuel prices. Some airlines increased fuel surcharges in March 2008.
British Airways moved to Heathrow Terminal 5 on 27 March, with domestic, most European and some intercontinental flights transferring on that day.

Acquisitions and disposals:
In January 2008, Lufthansa acquired 19% of the share capital of JetBlue and announced that they intended to explore 'innovative commercial arrangements'. In the same month TUI Travel said it had signed an MOU with Lufthansa with the aim of merging germanwings with TUIfly.
In March 2008, Air France-KLM submitted a proposal to acquire 100% of the share capital of Alitalia by means of a share swap valuing Alitalia shares at only around €0.10, more than 80% below their €0.54 mid-March trading price. It also agreed to inject €1 billion of fresh capital into the airline. This offer was accepted by the Alitalia board, but consent of the airline's unions was one of its pre-conditions and negotiations over the significant job cuts proposed is likely to be a major obstacle to be overcome before the bid succeeds. (AF-KLM subsequently withdrew their offer).
In March 2008, Lufthansa paid 269 million Swiss francs (around 172 million euros) to Swiss shareholders as a result of the performance option that was included in their original offer. This payout depended on the performance of the Lufthansa share price compared with the share price of a specified group of competitors (British Airways, Air France/KLM, Iberia). Together with the some 70 million Swiss francs (around 45 million euros), which Lufthansa paid for about 15 per cent of Swiss equity in 2005, the price for the complete acquisition of the Swiss carrier now amounts to around 339 million Swiss francs (some 217 million euros).
In March a Saudi businessman acquired a 20% stake in Austrian Airlines, thus diluting the Austrian government's stake in the airline which stood at 42.75%.

Labour
British Airways is trying to reach agreement with its pilots' union regarding 'OpenSkies' - the new operation from various EU cities direct to the US. The union insists that the terms and conditions for these must be the same as those at mainline BA, while the airline maintains that 'OpenSkies' would not be viable on this basis.
In March 2008 a ballot of Air France cabin staff resulted in a majority vote against a new agreement with the airline.
Hundreds of flights were cancelled at airports throughout Germany on 5 March 2008 after thousands of the country's two million public sector workers went on strike, demanding pay increases. Those on strike included baggage handlers, firemen, check-in staff and ground crew. The dispute was over a back-dated claim for an 8% wage increase.

2.3 Airports

2.3.1   Traffic

Europe's ACI member airports increased passenger throughput by 6.2% in the two months to end February 2008, compared with the same period in 2007.   This represented the greatest regional increase, comfortably above the worldwide ACI growth of 4.6%.   North American airports continued to show the weakest growth figures.
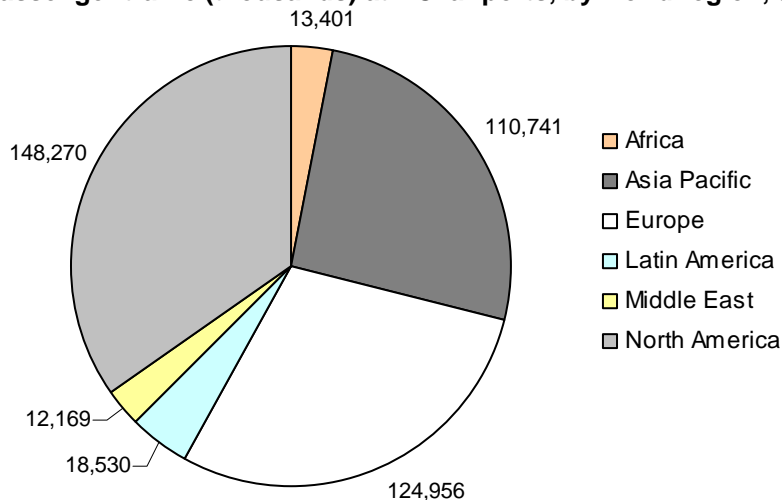
Year to February growth (2008/2007) at ACI airports worldwide
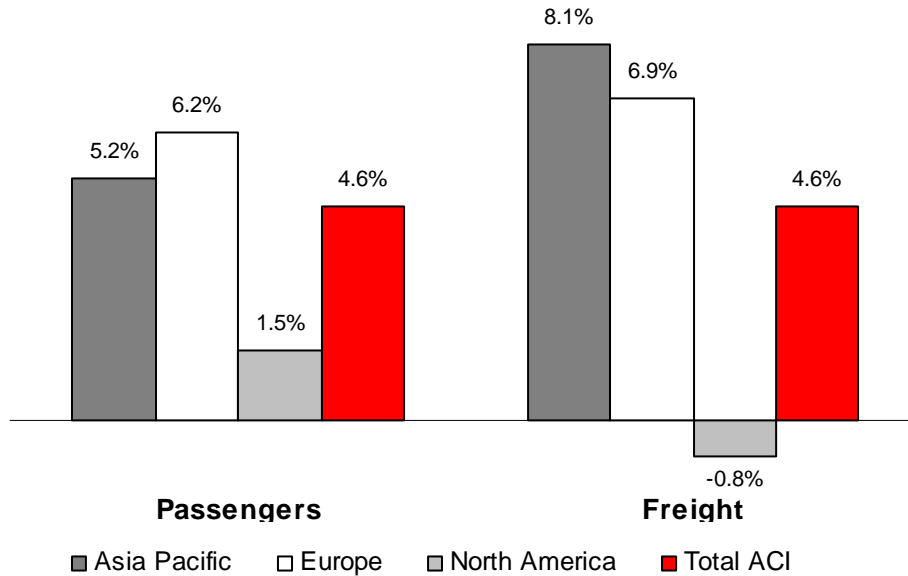
Source: ACI International

As can be seen in the following chart, North American airports (with 35% of ACI traffic) dominate world passenger totals, although Europe (29%) and Asia Pacific (26%) are not far behind.

Passenger traffic (thousands) at ACI airports, by world region, January-February 2008

Source: ACI

In terms of freight, the Asia Pacific region (the one with the highest volume of freight throughput) was the best performer in terms of growth over the previous year, although European airports improved significantly (up 7%). The year-on-year fall from North America held ACI airports' world growth back at 4.2%.

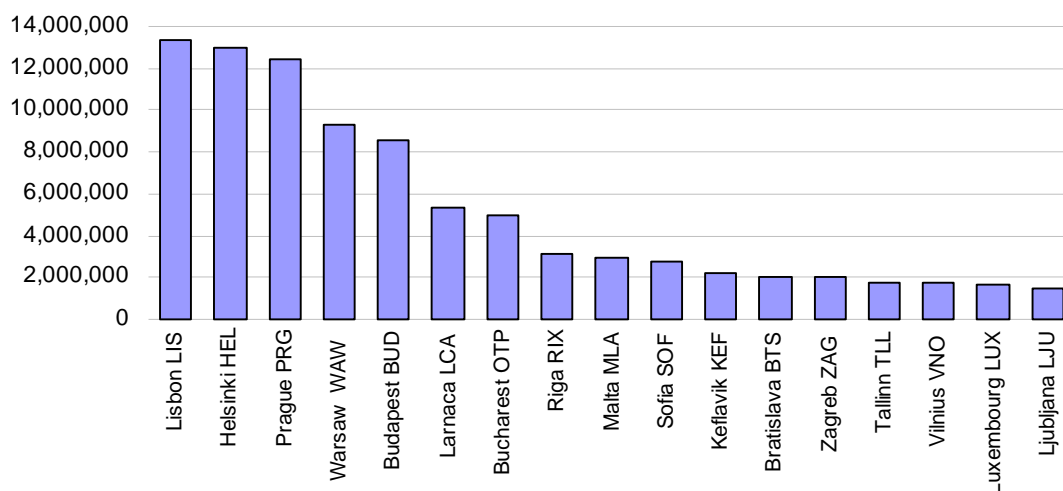**Passenger traffic 2007, and change over 2006 at major European airports**
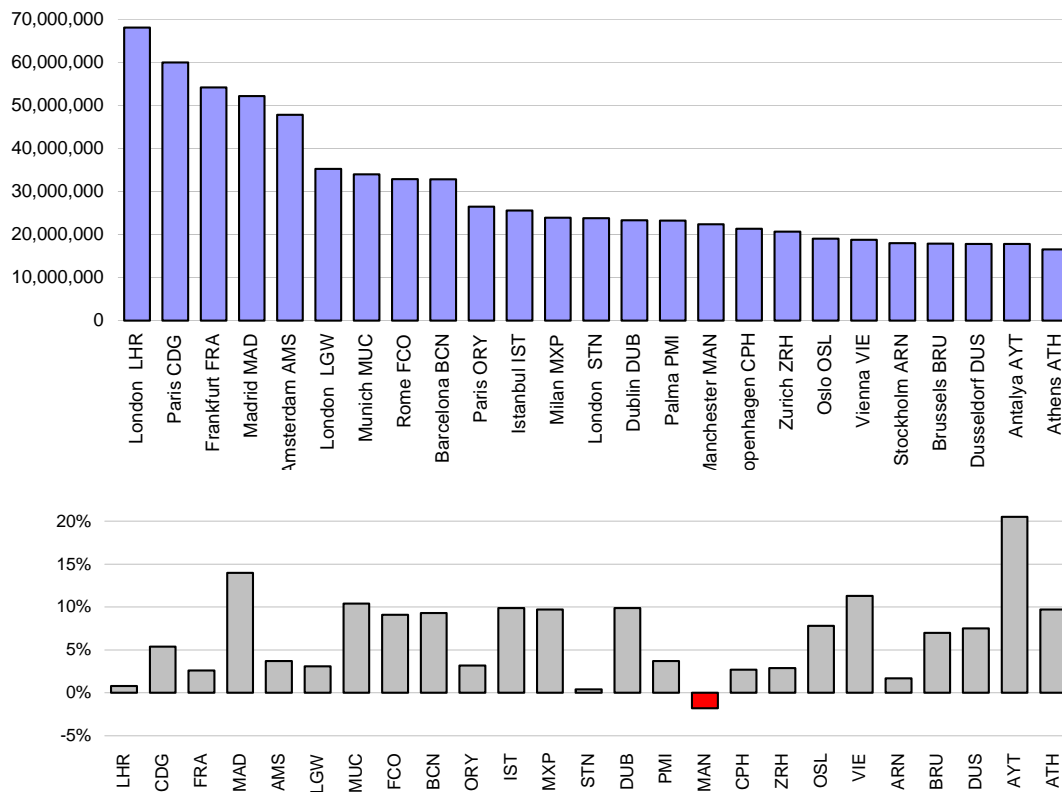

Source: ACI Europe

Looking at the full year (2007) performance of Europe's twenty-five largest airports in terms of passenger traffic, London Heathrow continues to lead the ranking, but with a lead narrowed by its relatively low growth rate. Paris CDG, Frankfurt and Madrid make up the remainder of the top four positions. Madrid was the fastest growing airport in absolute terms, increasing traffic by 7¼ million passengers, or close to fifteen percent of 2006 levels. Only Antalya, serving the fast growing resorts of Turkey's Aegean coast managed a higher relative annual increase, at just over twenty percent. For the group as a whole, traffic was up by 6.6%. Only Manchester posted a drop in passenger numbers. At a number of UK airports traffic shows the impact of the terrorism alerts in 2007 and the consequent imposition of tight security controls, but in addition there have been withdrawal of a number of charter services at Manchester at a time BA was rationalising its UK network.

Traffic growth at airports in the states which have most recently joined the EU continues to impress. Bucharest, for example, recorded 2007 passenger traffic up 40% over the previous twelve months, with Sofia up by 25%. On the other side of Europe, Lisbon recorded traffic up 10% as LCC establish their position at the airport, prompting ANA to relocate domestic traffic from its main passenger terminal at Lisbon.

Passenger traffic 2007, and change over 2006 at some smaller European airports

Change in annual passenger traffic 2007/2006, at some smaller European airports
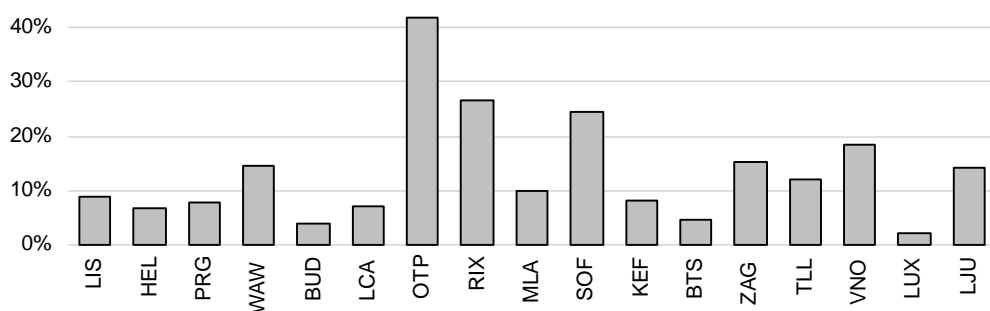
2.3.2   Delays

AEA publishes statistics covering punctuality reported by the organisation's member airlines at European airports. The table below summarises full-year 2007 delay data for departures and arrivals at the ten best performing, and ten worst performing, airports. A delay is defined as a flight leaving, or arriving, more than fifteen minutes' later than scheduled.

The best performing airports in terms of departure delays were Brussels, Dusseldorf and Vienna.   At these airports, over eighty-two percent of flights left on-time, although for delayed departures at Brussels the average delay was forty-two minutes, one of the worst scores among the sample. Bottom of the league were London's Heathrow and Gatwick airports, where one in three flights left was delayed for over fifteen minutes.

Of the twenty airports making up the table below, only five showed worse performance in 2007 than in 2006, nine improved their on-time performance.

Major European airports with the best, and worst, record for departure delays (AEA airlines) 2007

Airport	departures %	compared to 2006	average delay (minutes)		arrivals %	average delay (minutes)
London Heathrow	35.5	▲	32.7		32.4	37.0
London Gatwick	30.2	=	31.5		31.8	36.9
Rome	30.1	▲	41.8		24.9	41.9
Dublin	28.1	▲	39.8		28.7	38.1
Paris CDG	27.3	▼	37.9		20.9	37.7
Madrid	26.5	▼	40.8		30.5	39.3
Athens	26.4	▲	40.9		26.7	40.5
Larnaca	26.1	▲	55.0		36.6	50.7
Frankfurt	24.3	=	36.0		23.9	39.6
Barcelona	24.2	▼	40.5		23.3	39.6
Amsterdam	21.4	=	41.0		15.2	54.3
Zurich	21.4	▲	34.8		21.7	35.9
Geneva	21.2	▲	39.6		24.1	34.9
Milan Malpensa	21.1	▼	42.5		22.8	37.7
Paris Orly	20.7	▼	45.2		25.8	38.8
Milan Linate	19.7	=	38.7		25.1	37.2
Oslo	19.3	=	38.7		23.5	38.2
Vienna	17.9	▲	33.1		18.6	37.2
Dusseldorf	17.6	▲	37.8		22.0	35.7
Brussels	16.9	=	42.2		18.2	39.7

Source: AEA

2.3.3 Ownership and airport developments

Regional Airports Ltd has offered London Southend airport for sale. The airport, which mainly operates as an aircraft maintenance base, is located at the mouth of the River Thames and around one hour by train from London's financial centre. A bid has been received from a consortium headed by nearby London City airport.

Schiphol Airport Group has embarked on its first business venture in mainland China. The European airport operator will provide consultancy advice to Guangzhou airport in the areas of retail and cargo development.

The Walloon regional government in Belgium announced plans to sell its 27% equity stake in Brussels Charleroi airport. Brussels National airport announced plans to develop a terminal dedicated to low cost airlines. The plan involves reopening sections of the old passenger terminal.

Public authorities in France have authorised the construction of a new airport for Nantes. The new airport, situated between Nantes and Rennes, will have two runways and will replace the existing facility Nantes Atlantique.

2.3.4 Regulatory news

Ferrovial continued the process of divesting BAA of its non-core assets. In March it sold the BAA duty-free subsidiary WDF to Italian travel retail and catering company Autogrill for around €700 million. Also in March, BAA agreed to sell a number of real estate assets held by its Airport Property Partnership joint venture with Morley Fund Management in a deal worth €340 million.

The UK CAA announced new price-caps for Heathrow and Gatwick airports which will apply from April 1, 2008 to 2013. The decision reflects the need for additional

investment at both airports in relation to Terminal 5 and the Heathrow East project. The formula that is used allows the airports to set charges so that increases to forecast aeronautical revenue per passenger do not exceed the inflation rate plus or minus a factor X, determined by the regulator. The formula for Heathrow for 2008-2013 is RPI+7.5 and for Gatwick, RPI+2. Easyjet responded to the announcement by launching a legal challenge against the CAA's determination. The UK government, on the advice of the CAA, decided to remove Manchester from the price-cap regime. However, the government rejected a proposal to de-designate Stansted.

Members of the European Parliament have voted in favour of two amendments to the proposed directive on airport charges. The first aims to exclude airports handling less than five million passengers per year from the legislation and the second involves setting conditions relating to charges set to pre-finance capital investment. Under the amendment, airlines would be entitled to further information from the airport relating to the setting of pre-financing charges.

The Irish High Court has blocked Ryanair from mounting further legal challenges against Dublin Airport Authority's plans to build a second terminal at Dublin. The new facility, which is to open in 2010 at a cost of around €600 million, will be designed to accommodate an annual traffic throughput of fifteen million passengers.

2.4 Safety and security

Airclaims (www.airlclaims.com.uk) records a safety record in 2007, with passenger fatalities down by 20% on 2006. During 2007, there were 631 passenger fatalities, 159 fewer than in 2006, and below the average for the decade of 719. There were a total of fifteen fatal aviation accidents in 2007 involving passengers. Although this represents an increase in fatal accidents over 2006 (thirteen accidents) it maintains the long term improvement in the aviation industry's safety record. The average number of fatal accidents each year since 2000 is 16.0, and in the 1990s the average was 24.2.

Thirteen EU states are among the thirty-nine countries from ICAO's membership of 190 nations to have met the organisation's March deadline for testing the English language skills of pilots and controllers. ICAO cites seven fatal accidents since 1976 that were caused by inadequate English language communication skills, or the use of multiple languages in the same airspace sector. Five years ago the agency began a drive for a single aviation language in the international air traffic control environment, with pilots and controllers individually tested to a minimum communication skill level in English.

Passengers were evacuated from a British Airways Boeing 777 after it was severely damaged while landing at London Heathrow on 17 January. The flight was arriving from Beijing, but touched down 350m short of the runway after the engines lost power, skidding for some distance across the grass before the runway. The aircraft was a write-off, but no fatality occurred. Accident investigators have not yet discovered the cause of the accident.

American Airlines experienced a similar power loss incident six weeks' later, on a B777 approaching Los Angeles. Both carriers' 777-200s are fitted with Rolls-Royce Trent 800 engines.

2.5 ATM

The number of flights in Europe increased by 5.3% year-over-year in 2007 to a record 10 million, led by strong growth in Eastern Europe where some countries registered a 20% increase in flights. Eurocontrol is predicting that the number of flights in 2008

will increase by a further 4.2%, with the highest growth areas being the Adriatic coast and Poland, as well as the Baltic states of Estonia, Latvia and Lithuania. The growth in 2007 was primarily driven by low-cost carriers, which saw their number of flights increase by a quarter and, in 2008, 20% of all flights are expected to be operated by low-cost carriers. A total of 11% of flights in Europe were delayed last year, compared to 10% in the previous year. Of these delays, 56% were attributed to airlines, 16% to airports, while 12% were en-route and 9% resulted from the weather. Delays caused by air traffic management increased to an average of 2.1min per flight from 1.9min in 2006, and a further increase is forecast for this summer. Eurocontrol predicts that ATM delays will exceed 3min per flight during the summer months, compared to 2.6min during the same period last year.

Eurocontrol has accepted a three-part implementation package detailing a step-by-step transition to the air traffic management concept derived by its Single European Sky research programme SESAR. The first package, covering 2008-12, will implement short-term initiatives enabling latent capacity in the en route and airport network to be released. Under the second package, 2013-20, network efficiency will be increased through greater automation and improved trajectory management. Among the crucial aspects of this package will be the creation of a large-scale information-sharing environment. These two stages will increase network capacity by 63%, reduce delays by 40% to 1.2min per flight and increase fuel-efficiency by 2.9% against 2007.

Following feasibility studies, NEAP - North European ANS Providers, a group made up of service providers from Norway, Finland, Denmark, Estonia, Iceland, Ireland and Sweden, decided to work towards the creation of the Northern European Functional Airspace Block (FAB). This will be the largest FAB in Europe, and will make a major contribution to the European Single Sky Project.

2.6 Manufacturers

2.6.1   Aircraft manufacturers

In January the two major airframe manufacturers confirmed their final order totals for 2007. The overall combined total for Airbus and Boeing came to 2,754 net orders (valued at $321 billion) this set a new record – beating the previous figure of 2,057 reached in 2005.

Boeing received the lion's share of the orders 1,413 or 51% pushing Airbus down below 50% for the first time in recent years. Airbus suffered a number of cancellation in 2007 related to the redefinition of the A350 programme.

Airbus
The financial position of Airbus in 2007 was revealed when EADS issued their results. While aircraft deliveries had increased from 434 in 2006 to 453 in 2007, overall revenue was flat at €25.2 billion. However, the overall result was such that its losses had deteriorated from a €572 million in 2006 to a €881 million deficit in 2007.

By way of explanation for the poor performance EADS gave the following reasons: weak dollar causing a €1.1 billion revenue impact, plus €323 million less than expected from the A400M military transporter which faces a 6-12 month delay in deliveries. EBIT was hit by provisions of €1.1 billion against the A400M delivery schedule and continuing A350 XWB costs, another €600 million in respect of the Power8 restructuring programme, and €300 million attributed to softening pricing

towards the end of the year. Savings from Power8 and reduced A380 costs of €1.5 billion mitigated the impact.

In February, Airbus carried out an "alternative fuel" flight from Filton to Toulouse with one of its A380s . The Rolls-Royce Trent 900-powered aircraft used a gas-to-liquid (GTL) kerosene mix produced by Shell.

Boeing

Boeing announced a further delay to their B787 programme. The first flight was announced to have slipped to the end of the second quarter of 2008. This announcement was the third such slippage and was to "provide additional time to complete assembly of the first airplane", according to the manufacturer. With this delay first deliveries to airlines were expected to be from early 2009.

Bombardier

Bombardier announced total orders for the year to 31 January 2008 amounted to 238 aircraft representing a huge increase over the 87 aircraft ordered in the previous year. Deliveries were also up by 14% over the previous year.

The manufacturer announced its intention to offer the C-Series to customers, following a stop-start development period the manufacturer claimed serious interest from customers including Qatar Airwasy, ILFC and Lufthansa.

On 10 March SAS announced an order for 27 aircraft from Bombardier as part settlement of its grounding of its Q400 aircraft. In the deal, SAS and Estonian Air will receive thirteen CRJ900 NextGen regional jets and Wideroe and Air Baltic will receive fourteen Q400 NextGen turboprop aircraft. Deliveries will start later in 2008.

ATR

ATR announced total orders for 2007 as 113 aircraft and thereby set a new record. Combined with the orders received by Canadian rival Bombardier, this continued the recent trend in increased orders for fuel efficient turboprop aircraft. Deliveries were up in the year and revenues increased from $700 million to $1.1 billion.

Looking to the future ATR announced that it is evaluating new aircraft including a type larger than the ATR72.

Embraer

Embraer's figures for 2007 showed a total of 476 aircraft, including 46 ERJ145s and 430 E-Jets (31 E-170s, 70 E-175s, 282 E190s and 47 E195s). Its delivery performance improved dramatically in the year with a 30% increase over 2006.

2.6.2 Engine manufacturers

Pratt and Whitney

Pratt and Whitney moved into the second phase of their Geared Turbofan (GTF) testing in 2008 with engine performance, acoustic tests and nacelle system validation being the prime issues. Ground testing of the engine had begun in November 2007 and the engine has been selected to power the upcoming Mitsubishi Regional Jet and Bombardier's C-Series.

Rolls-Royce

Rolls-Royce announced that its civil aerospace division had generated an 8.7% increase in revenues in 2007 to £564 million with sales rising 3.3% to a little over £4 billion and with deliveries totalling 851 engines (slightly down from the 856 delivered in 2006). Its orderbook increased, particularly for the new variants of its Trent engines which power the A380, B787 and A350XWB types

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2.7   The environment

The Federal Aviation Administration (FAA) announced in January 2008 that it is working on a five-pronged plan aimed at studying the effect that aviation has on climate change. A senior FAA official outlined the five components of the plan, which is different from the European Union's proposition to include aviation in its emissions trading scheme.

The International Civil Aviation Organization (ICAO) has convened a group to discuss aviation and climate change (the Group on International Aviation and Climate Change - GIACC - on which Europe is represented with three out of a total 15 members).

Evaluation of alternative fuels began in February 2008 when Airbus flew an A380 test aircraft with one of its Rolls-Royce Trent 900 engines burning a 40% blend of gas-to-liquid (GTL) kerosene with standard jet fuel. This was part of an Airbus-led initiative to promote widespread use of biofuels by 2030. Airbus, Shell Aviation and Snecma are leading this European Commission-funded research project, which is investigating the economic and industrial consequences of switching from kerosene-based jet fuels to biofuels and other alternatives, testing up to five fuels in realistic conditions. Airbus aims to have a 50% blend fuel approved by 2009, and 100% GTL by 2013.

On the other side of the Atlantic, the US Department of Transportation (DOT) announced plans in February 2008 to issue a 14-month contract to find the best option for incentivising industry, academia and the general public to speed up the development of non-fossil alternative aviation fuel technologies for the commercial aviation fleet. In a recently-published notice, the DOT revealed that it will provide between $25,000 and $500,000 in funding to as many as three contractors to develop research roadmaps that integrate alternative fuels incentive programs into current development plans for the FAA's next generation air transportation system (Nextgen).

easyJet in February 2008 was maintaining pressure on manufacturers to achieve a 2015 target for introducing new open rotor engines to power next generation narrowbody aircraft, and a 2018 entry-into-service (EIS) for the technology is now being discussed by powerplant makers.

3   A historical review of European air transport

3.1   Regulatory policy in Europe over the past 50 years

Viewed over the past fifty years, the deregulation of Europe's air transport industry is a comparatively recent affair. Prior to 1993, agreements concerning international airline services within Europe had been based on the exchanging of reciprocal traffic rights between individual states. The basic aim of the regulatory policy established by European governments had been to protect their scheduled, mostly publicly owned, flag carrying airlines from competition. Tight control of market entry on domestic and international routes, provided national carriers with virtual monopoly power. Multiple designation remained the exception rather than the rule on intra-European routes. The absence of competition resulted in inefficiency, necessitating high fares.

In 1961, the Council of Ministers exempted air and sea transport from the competition rules of the Rome Treaty until a Community-wide policy could be developed. Only in the mid 1970s, after the European Court of Justice decided the general rules of the Treaty were applicable to maritime transport, did the Council of Ministers begin to address air transport. In 1979, the Commission issued its first Memorandum dealing with air transport, setting out a list of broad objectives for air transport.[1]

Following the 1979 Memorandum, the Commission prepared a report dealing with scheduled airline fares within the Community. This concluded that, in relation to costs, fares were not excessive, but suggested that procedures for tariff development could be improved. The Commission's other initial involvement concerned inter-regional air services.[2] Neither of these developments led to any significant changes.

The Commission introduced its second Memorandum in 1984.[3] The main thrust of its recommendations were harmonisation of existing bilateral agreements, with greater emphasis being placed on the use of market forces in the areas of capacity and fares, and the introduction of the Treaty's competition rules to this sector. As regards tariffs the Memorandum introduced the concept of zones of non-intervention or approval, as a means to circumvent governments failing to reach agreement on the introduction of innovative fares. In terms of the sharing of capacity it proposed rejecting a strict division in favour of a minimum 25% safeguard level for each of the two participants. As to the competition rules the aim was to apply the then Articles 85 to 90 for an initial seven year period to intra-Community routes only, with the possibility of exemptions being granted by the Commission. In the end, the application of the Treaty's competition rules was determined in the Nouvelles Frontieres case[4]. Here, the European Court's decision was that the competition rules applied to the air transport sector. Before, the Commission had had little scope to push Member States in the direction of agreeing a multilateral policy aimed at removing barriers to competition, but they were now in a position to be able to force the Council to do this. The Commission gave number of the Community's scheduled airlines two months to terminate certain activities which it reasoned to be in contravention of the then Article

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[1] European Community (1979), 'Civil Aviation Memorandum No.1 - The Contribution of the European Communities to the Development of Air Transport Services'.

[2] 'Inter-Regional Air Services', Council Directive, European Commission, July 1983.

[3] European Community (1984), 'Civil Aviation Memorandum No.2 - Progress Towards the Development of a Community Air Transport Policy'.

[4] European Court, April 1986.

85 of the Rome Treaty. In addition, the Commission threatened to withdraw its proposals on group exemptions from the competition rules. The net result of these pressures was the First Package of liberalisation measures agreed in December 1987. The Commission regarded the 1987 package as an important first step on the road to securing an internal market for air transport.

It was clear from the second package proposals published in July 1989 that the Commission was keen to overcome shortcomings of the first package of measures and push ahead as much as possible with liberalising the bilateral arrangements existing between Member States. The second package of liberalising measures was agreed by the Council of Ministers in June 1990. The gradual process of easing the existing bilateral regime continued until the end of 1992, with the implementation of a multilateral agreement occurring with the third package of liberalising measures. In its third package of proposals published in July 1991, the Commission wanted to see the rapid introduction of 'cabotage' throughout the Community with very few exceptions. In the event, the freedom for any EC owned and registered carrier to enter any intra-European city-pair market did not become a reality until 1997.

Having achieved free market conditions for air transport within the EU, the Commission turned its attentions to liberalising the restrictions governing the sector with respect to third countries. The Commission had consistently argued that the Open Skies agreements between the US and individual Member States resulted in the fragmentation of Europe's common aviation market and therefore infringed EU law. The Commission sought to obtain full powers to negotiate air services agreements using a two-pronged approach.[5] In 1998, legal action was taken under the procedure of Article 226 (ex Article 169) against Austria, Belgium, Denmark, Finland, Germany, Luxembourg and Sweden that had signed Open Skies agreements with the US, and against the UK with respect to the ownership and control clause in its bilateral agreement with the US. In November 2002, the European Court of Justice reached its final judgement on the case. The Court found that the eight agreements contained elements that deprived Community air carriers of their rights under the Treaty, the nationality clauses in the agreements being a clear violation of the right of establishment enshrined in Article 43. In June 2003, EU Transport Ministers granted a mandate to the Commission to negotiate an air transport agreement with the US.

A key outcome of the Court's ruling was that all existing bilateral agreements between Member States and third countries containing provisions contrary to Community law should be amended or replaced by new agreements compatible with such. To date some 600 bilateral agreements with third countries have been amended. The regulatory freedom achieved for air transport within the EU is unique. The extension of this freedom to encompass neighbouring countries is now well in train. The recently implemented EU-US bilateral agreement represents an important first milestone in liberalising regulatory conditions pertaining with other more distant important third country trading partners. It is clear that experience gained in Europe is influencing air transport regulatory policy in other parts of the world.

Air Traffic Management (ATM)

One of the most seminal events impacting on ATM in Europe occurred in 1963, when the Eurocontrol International Convention relating to Cooperation for the Safety of Air Navigation entered into force. In October 2002, the European Community became a

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[5] Soames (2000), EU Policy and programme. in: UK air transport policy in the context of Europe conference, 1 June, London.

member of Eurocontrol. The accession of the EC strengthened Eurocontrol and gave it added legal force. Following the accession, the EC has the same rights and obligations as any Member State. The Commission coordinates the position of the EU Member States in those matters for which the Community holds competence (research and development policy, standardisation, trans-European networks, Single European Sky).

Eurocontrol and the EC signed a Memorandum of Cooperation to enhance their synergy in five areas of cooperation: implementation of the Single European Sky (SES); research and development; global navigation satellite systems; data collection and analysis in the areas of air traffic and environmental issues; and international cooperation in the field of aviation.

The legislative package for the SES was adopted by the European Parliament and the Transport Council in 2004 and entered into force the same year. SES will be achieved through adoption of implementing rules to be developed by Eurocontrol on the basis of mandates entrusted to it.

As part of the SES initiative, SESAR (Single European Sky ATM Research) represents its technological pillar. SESAR aims at developing the new generation air traffic management system capable of ensuring the safety and fluidity as well as contributing to an environmentally friendly development of air transport worldwide over the next 30 years. SESAR has three major phases: Definition Phase (2005-2008); Development Phase (2008-2013); and Deployment Phase (2014-2020).

3.2 Airlines

3.2.1 Scheduled network airlines

Airline privatisation
The trend towards the privatisation of government owned airlines gathered pace during the 1980s, as part of overall economic programmes introduced by governments of all political persuasions. This was encouraged by aid agencies such as the World Bank, the Asian Development Bank and the European Bank for Reconstruction and Development.

The justification for privatisation was both strategic and financial, with many governments focusing on the reduction of their budget deficits. The average government stake in the largest 25 international airlines was 28% in 1996, 19% in 2001 and 16% in 2005 (ranked and weighted by international tonne-kms performed in each year). From the mid-1980s the major flag carrier was privatised in the UK, Japan, the Netherlands, Australia, Malaysia and Canada. This was followed from around the mid-1990s by the governments of Germany, France, Italy, Spain and the Netherlands all reducing significantly their shareholdings.

Consolidation
Cross-border mergers raise issues under the existing web of bilateral agreements through the ownership and control restrictions that they contain. These have recently been partly removed as a result of the EU/US 'open skies' agreement and more widespread acceptance of EU designation by means of the 'horizontal agreements'. These make cross-border mergers within the EU automatically acceptable to the US and many other countries.

In anticipation of this and further such agreements, Air France and KLM merged operations in 2004, followed by Swiss and Lufthansa in 2005. Both these are still structured with safeguards in case route rights are withdrawn by third countries. However, there is a dwindling number of countries that could threaten the more significant routes and markets. Austrian Airlines took control of Slovak Airlines (62%) in 2005 but in 2007 the airline filed for bankruptcy, while Lufthansa increased their share in Air Dolomiti to 51.9% in 2003 (and later to 100%). Cross-border mergers are also possible in Latin America, Australia and New Zealand.

Before these recent developments, airline mergers in Europe were restricted to transactions within countries, usually the major carrier acquiring regional airlines. In the UK, British Airways acquired (in competition with a bid from SAS) a more sizeable carrier, British Caledonian, in 1988, and subsequently took over various UK regional airlines (eg CityFlyer Express in 1999). Air France merged with the long-haul airline UTA and domestic carrier Air Inter in 1990 and later acquired various regional airlines. Lufthansa acquired majority voting rights in Eurowings in 2006, and most recently Air Berlin acquired LTU after absorbing dba.

Global alliances

Global alliances are a comparatively recent phenomenon. The three main airline alliances, Star, oneworld, and SkyTeam, account for over fifty-five per cent of the total world airline capacity (ASK), with most of the world's biggest airlines signed up. Airlines cooperate in global alliances in pursuit of increased profits, achieved through the twin activities of revenue enhancement and cost reduction.

Within an alliance, airlines expect to attract more customers because as a group they operate as a single virtual carrier, operating a network with world-wide coverage. By coordinating schedules and linking frequent flyer programs, the allied airlines create a series of incentives for travelers to keep itinerary within the alliance's network.

At the same time, the airlines can operate more efficiently by consolidating flights, and by combining a number of administrative functions, such as marketing and distribution. Partner airlines aim to gain economies of scale in shared maintenance and training facilities, in the purchase of fuel and aircraft parts, and in negotiating ground-handling contracts.

Consumer benefits from alliances stem from the ability of the airline members to reflect their reduced cost base in lower fares; in the availability of world-wide integrated networks of partner airlines and the provision of frequent flyer programmes offering free flights and other perks in return for loyalty to alliance member airlines.

The first alliances began in the 1990s, when Northwest and KLM were able to integrate and rationalize their services and networks within Wings Alliance, following the granting of antitrust immunity in 1993. Since then Wings has become part of Skyteam, including Delta, Air France and Alitalia.

Star Alliance was formed in 1997 around Lufthansa and United Airlines. Ten years on it is the largest alliance, although its world coverage slipped when Varig failed. Turkish is the alliance's latest recruit.

Oneworld rivals Skyteam for second place in terms of size. The largest of Oneworld airline members include American Airlines, British Airways, Cathay Pacific, Finnair, Iberia, Malév, Qantas, and LanChile.

Qualiflyer was an alliance that never reached global coverage. Centred on the Swiss national carrier the alliance collapsed with Swissair in 2001.

Recently, all three alliances have been looking at Asia to boost network coverage. China Southern Airlines has joined SkyTeam, while Star Alliance has signed up Air

China and Shanghai Airlines and has accepted the application of Air India to become a future member and Dragonair has joined oneworld as an affiliate.

3.2.2 Low-cost carriers

The low-cost revolution took off in 1971 when Southwest Airlines began passenger services within Texas. Since then, Southwest has served as a model for a number of low-cost, low-fare operations around the world. The European version took shape in 1991, when Ryanair was re-launched, adopting the low-fares business model.

The subsequent expansion of easyJet itself and the spread of the low-cost model across Europe has had a fundamental impact on the airline industry, and on European travel market. The model has evolved in different directions, some airlines keeping to a more rigid formula involving low frequency services to secondary airports, others adapting to the higher-yield business market requiring higher frequencies to mainstream airports.

LCC brought charter airline costs to the scheduled market. Network carriers have been forced to work towards reducing their own costs, and in many cases to the rationalization of their short-haul and domestic networks. Charter airlines have seen their traditional intra-European markets shrink as LCC targeted leisure routes between Northern Europe and Mediterranean resorts. From the start, LCC relied heavily on technology to control their distribution costs. They eschewed the role of agents to sell tickets, but were early adopters of web-based booking sites. These allowed passengers to reserve not only their flights, but also hotels, ground services and car rental, eroding the market of companies offering package holidays within Europe.

The evolution of LCC themselves, and the shifting of more orthodox carriers towards the LCC model, has blurred the definition of which airlines warrant the low-cost label. Depending on the definition adopted, there are somewhere in the region of thirty to forty LCC currently operating in Europe. Worldwide, LCC carried over half a billion passengers in 2007, operating a fleet of aircraft approaching three thousand in number, with a further two thousand aircraft on order.

3.2.3 Charter airlines

Europe accounts for the large majority of the world's non-scheduled passenger traffic, a situation that has existed since the late 1950s. Most of this activity is comprised of holidaymakers from northern Europe journeying south in search of the sun. In the early days of air inclusive tours the type of equipment used by charter airlines was invariably second hand aircraft previously operated by one of the flag carriers. The volatility of the highly competitive charter market and its poor reliability and quality image with travellers led tour operators to set up their own in-house airlines during the latter part of the 1960s and in the 1970s.

While a certain degree of supplier concentration occurred during the 1980s, it was during the 1990s that the tour-operating sector underwent considerable consolidation of both a vertical and horizontal nature. Most European charter airlines were now part of vertically integrated organisations incorporating a tour operator, travel agency chain and airline. The trend to vertical integration first occurred in the UK market, but spread to other major inclusive tour generating countries during the 1990s. Airtours was the first of the major tour operators to see the potential for cross-border acquisition, following the Third Package.

The vast majority of charter airlines today employ the most modern of jet aircraft available, often being the launch customers for particular types. Whilst the Boeing

737-200 with a seating capacity of 130 seats was the most popular aircraft in use in the 1970s and early 1980s, it was superseded by a combination of the Boeing 757-200 (with typically 235 seats) and the Airbus 320 (with 180 seats) from the mid 1980s. Today the Airbus 321 (with 220 seats) is prevalent on short and medium haul operations, and the Airbus 330-200 (with up to 374 seats) on long haul flights.

Charter airlines have invariably been able to carry their passengers at significantly lower unit costs than their scheduled full service counterparts. The emergence of "no-frills" low cost scheduled carriers (LCC) however has produced major challenges in this regard. The greater flexibility offered by low cost scheduled carriers has seen the demise of many short haul charter services. Increasing numbers of travellers have opted to put together their own holiday packages using the Internet. Charter airlines were slow to respond to this threat to their short haul markets. Some have established scheduled subsidiaries, with mixed results. The more successful strategy has involved refocusing on longer haul operations, which as yet have not proved to be as viable a market for LCC as short haul.

Competitive pressures on vertically integrated tour operating organisations have increased, leading some to fail or merge, and others to re-organise their assets, sometimes involving the sale of their charter airline subsidiaries. Downsizing has been very much in evidence. The extent to which a new generation of long haul LCC will target the more distant markets served by charter airlines however is as yet unclear.

3.2.4 Regional airlines

Regional airlines can be defined as those operating shorter sectors both point-to-point and feeding network carrier hubs, usually with aircraft of less than 100 seats. Over the years their feeder role has probably declined in Europe as the hubs have become slot constrained and some such as Heathrow set high minimum aeronautical charges to discourage flights with small aircraft.

Statistical trends on total regional airline activity can be misleading since many are owned by network airlines and consolidated with their parent's traffic data. There are now only one or two independent regionals of any size, with most majority or wholly-owned subsidiaries of airlines such as British Airways, Lufthansa and Air France-KLM. These three majors were keen on franchising in the 1990s but since then have tended to buy out former franchisees and other independents (eg British Airways acquiring CityFlyer Express and Lufthansa and Eurowings).

Regionals tended to focus on shorter sectors operated with turbo-props, but with the introduction of the 50-80 seat regional jet some of them switched to a mixed jet/turbo-prop fleet. However, the short sectors in Europe and very high fuel prices is likely to cause a reversal of this trend.

## 3.3 Airline capacity and traffic

3.3.1 Capacity

The chart below uses the number of routes offered by airlines' summer schedules to show how the intra-European network of scheduled air services has expanded between the years 1998 to 2007, with 1992 as a reference year. It is very clear that by far the greatest part of the growth of the European network came from cross-border services, understandable during a period when an airlines became able to enter more

and more free markets as the EU expanded, while at the same time shorter, mainly domestic, trips by rail began to compete with air connections.

Between 1992 and 1998, the number of domestic airport-pairs connected by the network increased by an average of just under one percent a year, while cross-border connection grew at seven times that rate. International network growth rates accelerated in the years following 2004 (ten states joined the EU) and in 2007, when Romania and Bulgaria joined. Between 1998 and 2007, growth of the total intra-European network averaged 5.5% per annum, fuelled almost entirely by cross-border connections.

Growth in the intra-European air transport network, 1992-2007
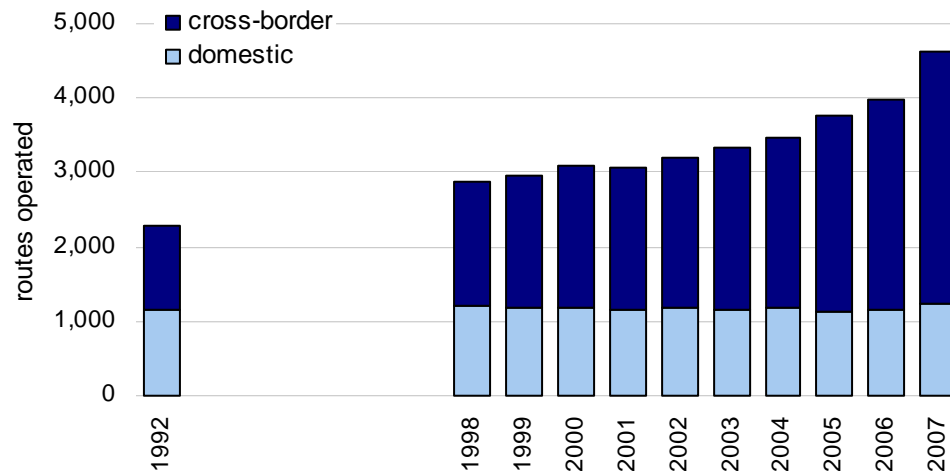
Source: OAG/BACK data

New routes generate additional flights, so it is not surprising to see in the table below that intra-European flights scheduled for the April to September period of the same years broadly track the increasing European network. That growth in flights lags somewhat growth in routes, particularly in the years following 2001, reflects possible saturation of many well-established routes and the increasingly tentative nature of new connections as airlines test the market for novel city pairings.

Number of intra-European flights scheduled for summer (April-September)

| Flights scheduled	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Total	2,403,024	2,626,726	2,748,744	2,809,356	2,650,889	2,667,857	2,775,152	2,903,891	2,965,912	3,207,844	
domestic	1,203,579	1,291,216	1,302,253	1,305,061	1,246,887	1,216,107	1,224,532	1,250,689	1,248,808	1,317,794	
cross-border	1,199,445	1,335,510	1,446,491	1,504,295	1,404,002	1,451,750	1,550,620	1,653,202	1,717,104	1,890,050	
		Change over previous year									avg per annum
Total		9.3%	4.6%	2.2%	-5.6%	0.6%	4.0%	4.6%	2.1%	8.2%	3.3%
domestic		7.3%	0.9%	0.2%	-4.5%	-2.5%	0.7%	2.1%	-0.2%	5.5%	1.0%
cross-border		11.3%	8.3%	4.0%	-6.7%	3.4%	6.8%	6.6%	3.9%	10.1%	5.2%

Source: OAG/BACK data

3.3.2 Traffic

In the forty-four years since 1963, passenger traffic carried by AEA airlines increased twenty-five fold, from 30,000 million passenger kilometres to 775,000 in 2007. Over the period between 1975 and 2007, passenger traffic grew by 500%, as illustrated in the chart below. The trend for intercontinental or long-haul routes was similar to short/medium-haul up to 1994 after which year the latter increased more slowly. The AEA definition of short/medium-haul includes domestic, geographical Europe

(including Turkey), Europe to/from North Africa and Europe to/from the Middle East. Intercontinental or long-haul is all other scheduled routes.

Scheduled passenger-km traffic for AEA carriers, 1975 to 2007
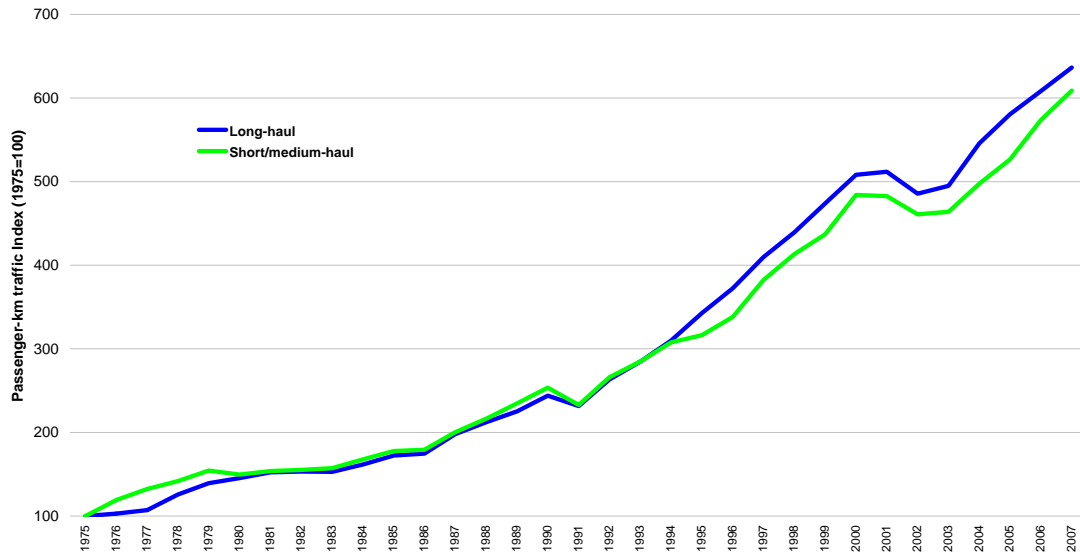
The figure below shows the overall increase in scheduled passenger-km traffic for the five major EU network carriers between 1975 and 2006. This is split between short/medium-haul and long-haul routes. Lufthansa and Air France experienced stronger growth on the long-haul routes while KLM and Lufthansa's short/medium haul sectors showed the highest expansion.

Increase in traffic for the five largest EU network carriers between 1975 and 2006
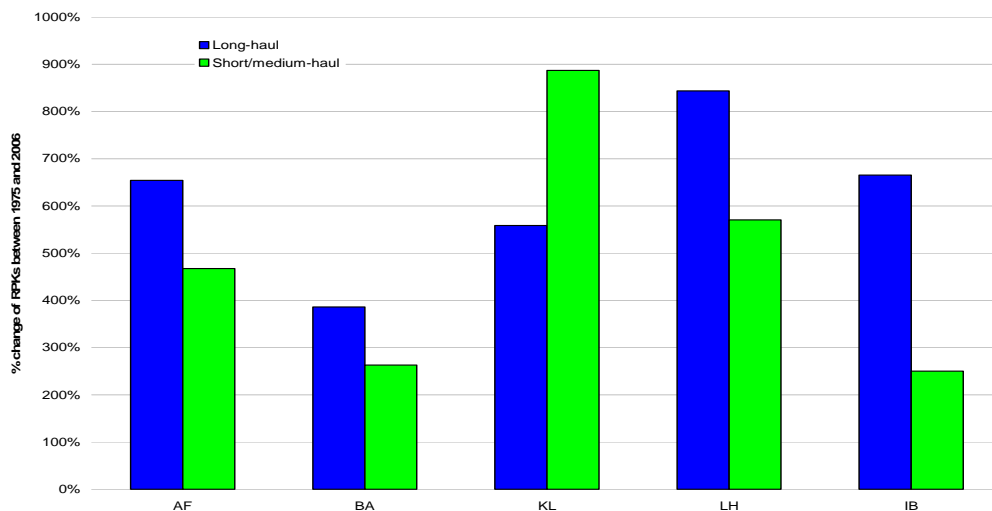
Passenger load factor trends

The figure below shows increases in passenger load factors by region for the AEA carriers. These have grown more on long-haul flights. Such flights tend to be booked more in advance, with less last minute changes and unattractive middle of the day departures. These characteristics are likely to offer more scope for attaining higher seat factors. However, since 9/11 significant increases have also taken place on

short/medium-haul routes where AEA members have partly adapted their pricing and revenue management to meet low cost airline competition.

**Passenger load factor trends for AEA carriers, 1975 to 2007**
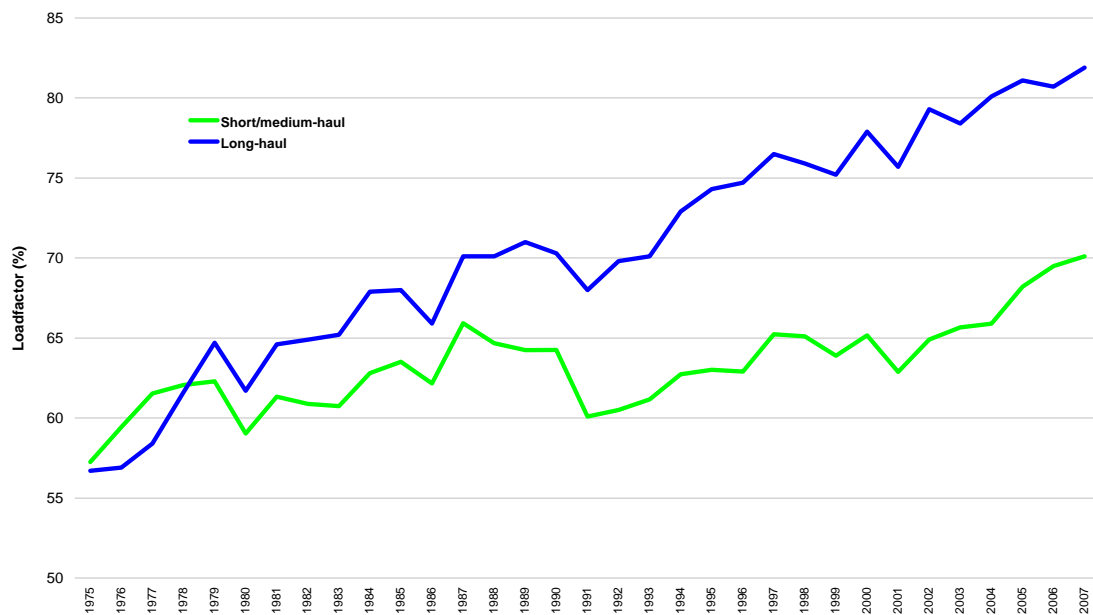
Average aircraft capacity

The figure below shows the longer term trend in average seats offered per flight on international flights, weighted by distance travelled. After rapid growth up to 1980, there has been a small decline since then driven by increased competition and the need to offer higher frequencies on existing routes and open new non-stop services.

Up to 1980, airline tended to operate in regulated markets often with pooling of capacity and revenues. For example, British Airways used to operate L1011 Tristars on London/Brussels in pool with Sabena. In the 1970s, narrow body long-haul aircraft (B707s and DC8s) were replaced with widebodied B747 and DC10 aircraft on international services, with some widebodies such as the Tristar example above and A300 also introduced on shorter haul sectors.

Average seats per km for international services, 1960 to 2005
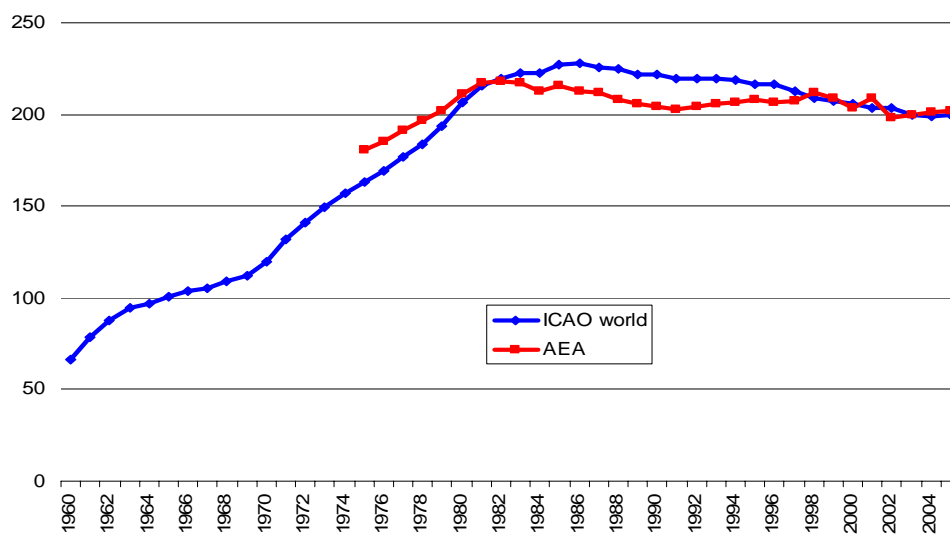
3.4 Airline financials

Airline costs

Unit costs have declined in spite of an increase in the price of jet kerosene (the Rotterdam spot market price) by around four times from 65 US cents at the beginning of 1990 to US$2.59-2.73 during the first two months of 2008. The October 1990 peak of US$1.41 a gallon was only first topped in October 2004, while in real terms the October 1990 peak was only surpassed in August 2006. Fuel price hedging has been practiced by the larger airlines for the past two decades, but fuel surcharges, at least on passenger fares, only became widespread over the past five years.

Productivity increases played a key role in moderating fuel cost increases and reducing other costs, with more widespread adoption of the low-cost airline business model for short to medium-haul flights and more efficient aircraft on long-haul.

A major area of cost reduction for airlines has been distribution. Scheduled airlines gradually reduced the commissions paid to travel agents to zero, first in North America and then Europe. Agents in those regions now mark up a net fare to replace their lost commission income. Airlines also increased the share of direct sales made though their own websites, and channelled some sales via electronic travel agents. Start-up airlines, especially those offering a low-cost business model, restricted sales to those via their own websites, with considerable distribution cost savings.

Jet kerosene spot market price trend, June 1986 to February 2007
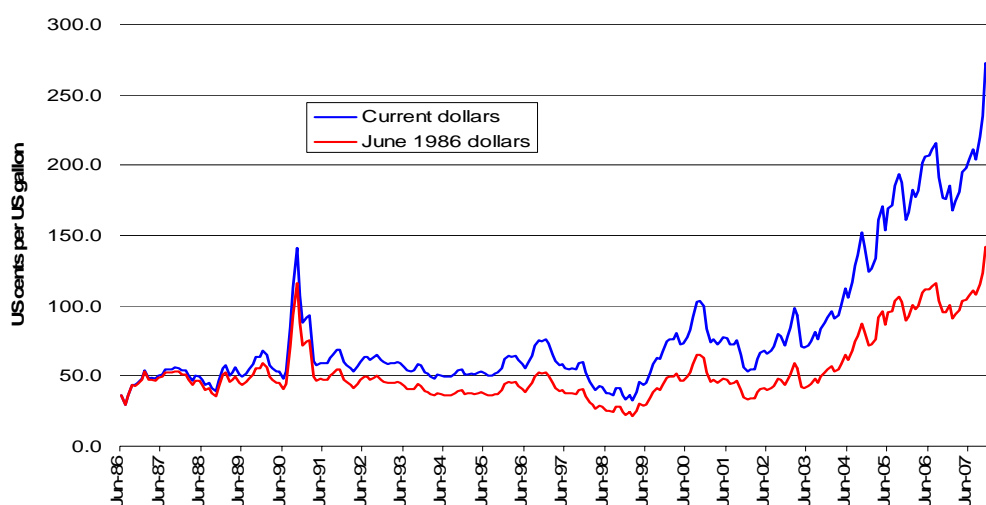
Source: US EIA (average of Rotterdam and Singapore markets and Department of Labor

The following figure shows the trend for the past twenty-six years for airlines registered in Europe, comparing their performance with world airlines. It can be seen that for European airlines the impact of the major economic downturns at the beginning of the 1980s and 1990s was longer lived than the post-2001 downturn. The "world" picture is very much dominated by airlines based in the US, where the impact of 9/11 was felt more deeply, and where recovery took longer.

Operating profit/loss as a % of revenues for world airlines and those based in Europe
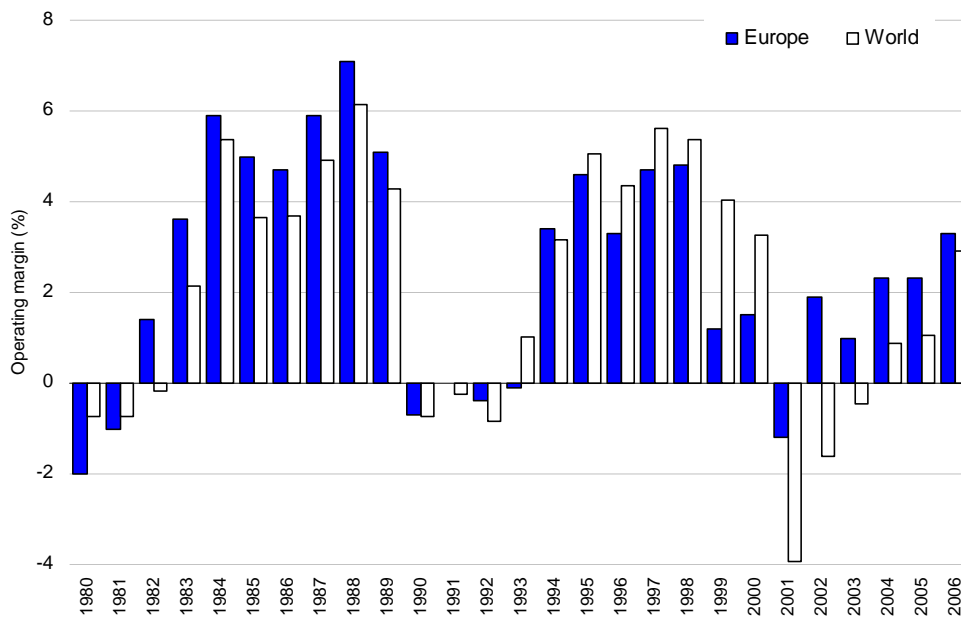
Source: ICAO

3.5 Airports

Aside from the fact that today airports are completely different in terms of their scale of operations and volume of traffic from 50 years ago, there has been a complete transformation in how they are managed. Most of the major international airports that exist today were, in the 1950s, the property of local municipal councils, national government ministries or public sector undertakings who had inherited these facilities from wartime operations.

The growth in air travel during the 1960s meant that it was necessary to provide fit-for-purpose facilities for mass market civilian usage. In the 1970s new airports were constructed such as Paris Charles de Gaulle to handle ever greater volumes of traffic. During this period there was also a noticeable change in the attitude of government towards airports, with the creation of airport authorities (e.g. Ireland's Aer Rianta).

While airports continued to remain in public ownership, the creation of airport authorities to manage these facilities marked the first step on the road to privatisation. Airport authorities were encouraged to adopt commercial disciplines such as cost recovery and investment appraisal as governments, due to the growing demands of other public expenditure priorities, were no longer prepared to finance expansion or fund operating deficits. Liberalisation of airline markets in the 1980s followed by intense competition meant airlines were becoming more demanding users of airport facilities - less inclined to automatically pass higher airport costs onto passengers.

In 1987, the first significant privatisation of an airport took place when the British Airports Authority was floated on the London Stock Exchange. This set a precedent that was followed by many other European airports in the late 1990s and early 2000s. Privatisation and the ensuing demand from shareholders increased the pressure on airport managers to generate adequate returns. Constrained by economic regulation and organised airline resistance, airports sought higher returns through diversification into new and more profitable commercial activities such as retail, car parking and real estate. Today, at a typical European international airport, over 50% of income will be

from non-airline sources: testimony to the considerable transformation that has taken place in the European airport industry over the past fifty years.

3.6 Safety

Advances in technology and in an improving regulatory environment are perhaps the principal reasons behind the improvement in safety exhibited in the following chart.

Passenger fatalities per 100 million miles flown
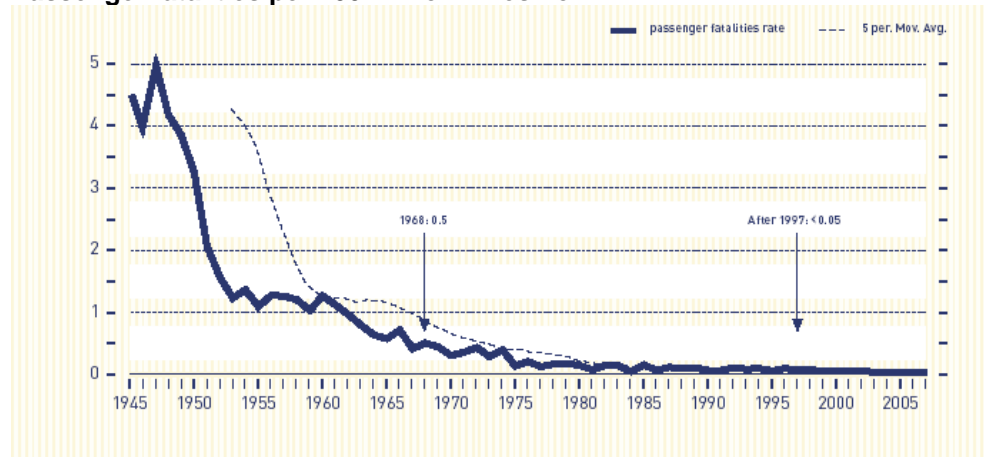
Source: European Aviation Safety Agency, Annual Safety Review

The scale used to incorporate earlier accident rates renders the trend as apparently flat in recent years. To make clearer the safety record of more recent years, and to remove distortion caused by changes in average sector length flown, the chart below shows accidents involving passenger fatalities per 100,000 flights. .
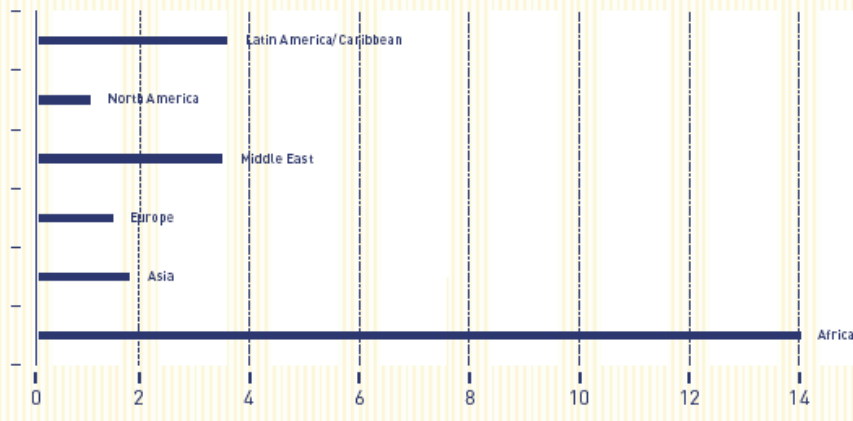
Accidents involving passenger fatalities per 100,000 flights
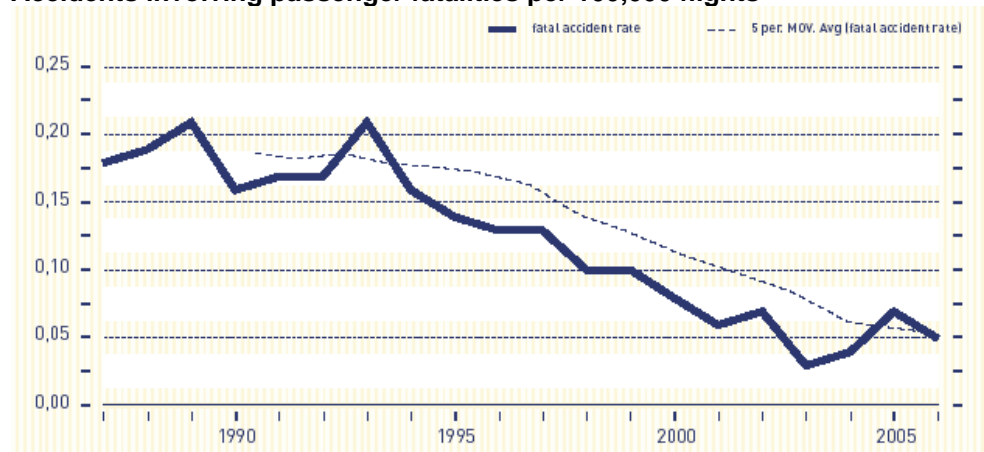
Source: European Aviation Safety Agency, Annual Safety Review

To place European accident rate within the context of the world statistics above, the last chart shows the rate of fatal accidents per million flights, by ICAO world regions, recorded in the five-year period to 2005.

Rate of fatal accidents per million flights by world region, 2000-2005

Source: European Aviation Safety Agency, Annual Safety Review