

2004 Edition
**Operating Economy
of AEA Airlines**

Summary Report

November 2004
GN040047e



Dear reader,

This is the first edition of the Operating Economy Summary report.

The information which you will find in this report is derived principally from the annual RB8 Operating Economy data collection. For many decades the AEA has conducted the RB8 survey, which results in a massive volume of detailed information on AEA airline costs and revenues.

As with all AEA collections, RB8 is run on a voluntary basis, with the detailed results available only to participating member airlines. Despite the time investment required from submitting airlines, AEA believes that this is an invaluable source of industry information, which deserves to be better known. The 25 carriers which currently participate (out of a total membership of 31) undoubtedly support this premise. Thus the idea was launched to create a report, the first edition of which you now have before you. Its purpose is twofold. On the one hand, to make better use of the data available, by publishing top line results in an easily digestible format. On the other hand, to achieve recognition and continued support for the underlying statistical work. The intended distribution for this report reflects these objectives, with it being made available to all levels within a company and all member airlines. It is, however, not a public document, and its distribution will not extend beyond the member airlines of the AEA.

This first edition is just the beginning. It is our intention, in on-going dialogue with its readers, to continuously develop and improve the report, increasing its scope to better meet your requirements and to make these pages a handy supplement to the detailed database.

The figures – as could be expected – illustrate the difficult situation the industry faces. Since the data covers 2003 some major influential factors, such as the fuel price increases in 2004, are not yet fully reflected in the data. What is certain is that the turnaround is far from being achieved. To bring a more up-to-date view of the topic, we have included some forecasts for 2004 at the end of the report.

One word of explanation about the methodology applied in this report. All data comes from the RB8 data collection (latest available 2003), unless otherwise stated. Year-on-year comparisons are based on constant membership. Ratios and margins are calculated based on current membership, irrespective of changes in its composition. Cost- and revenue comparisons to previous year are strongly influenced by exchange rate fluctuations. A method has been developed and applied to ‘clean out’ these effects, details of which can be found in the ‘appendix’ at the end of the report.

AEA Market Research

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Note that figures shown in this report may differ from AEA data published elsewhere due to the specific methodology of RB8:

- Limited participation
- Collection of Airline Operating data only (no Group figures)
- Differences between Calendar Year and Financial Year of certain reporting airlines.

Data Coverage

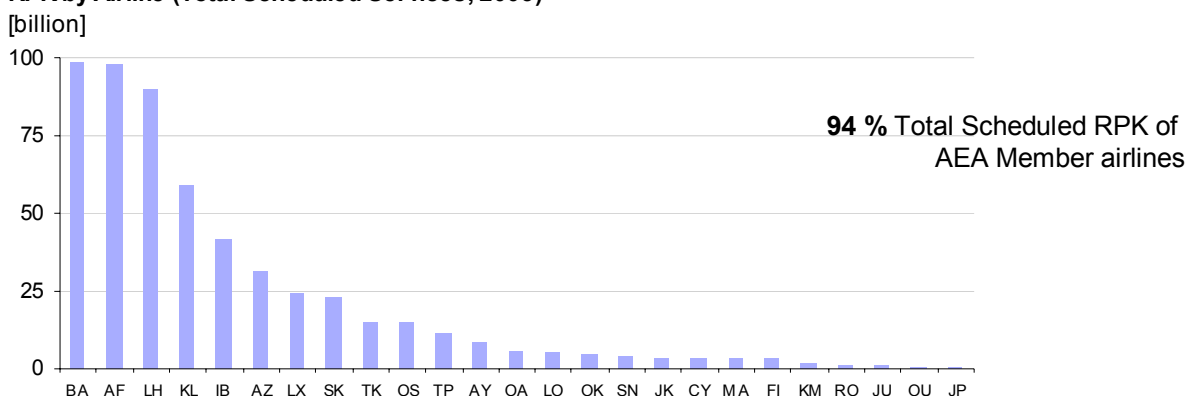
Participating Airlines in 2004 Edition:

AF	Air France	OA	Olympic Airlines
AY	Finnair	OK	CSA
AZ	Alitalia	OS	Austrian
BA	British Airways	OU	Croatia Airlines
CV	Cargolux	RO	Tarom
CY	Cyprus Airways	SK	SAS
FI	Icelandair	SN	SN Brussels Airlines
IB	Iberia	TK	Turkish Airlines
JK	Spanair	TP	TAP Air Portugal
JP	Adria Airways		
JU	JAT		
KL	KLM		
KM	Air Malta		
LH	Lufthansa		
LO	LOT		
LX	SWISS		
MA	Malev		

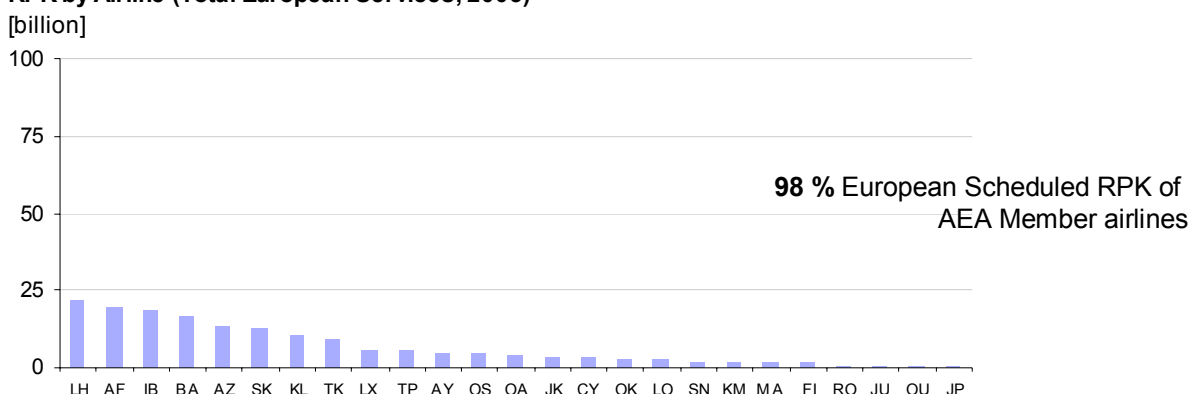
Not participating in 2004 Edition

BD	bmi
EI	Aer Lingus
IG	Meridiana
LG	Luxair
VS	Virgin Atlantic

RPK by Airline (Total Scheduled Services; 2003)



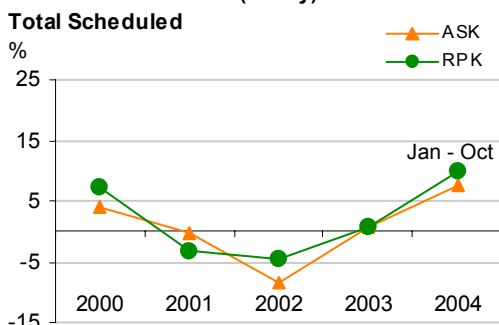
RPK by Airline (Total European Services; 2003)



The report analyses data from the 25 airlines which participated in the RB8 Data Collection 2004 Edition. This represents 94% of total AEA Scheduled traffic (in RPK) and 98% of European Scheduled traffic of the AEA member

airlines. The above charts show the volume, measured in Revenue Passenger Kilometres (RPK) for the submitting carriers. It is obvious that the large carriers strongly influence the industry results.

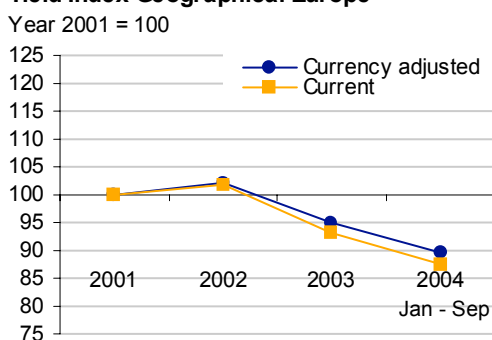
ASK and RPK Growth (vs. 1-y)



Offer and Demand

In 2003, traffic and capacity grew only moderately, compared to 2002. Not until 2004 did the first signs of recovery emerge. Growth rate for Total Scheduled services of AEA member airlines for the first 10 months of 2004 stood at +7.5% (ASK) and +9.8% (RPK). Load factors however were high in both 2003 and 2004 – obviously at the expense of stable yields.

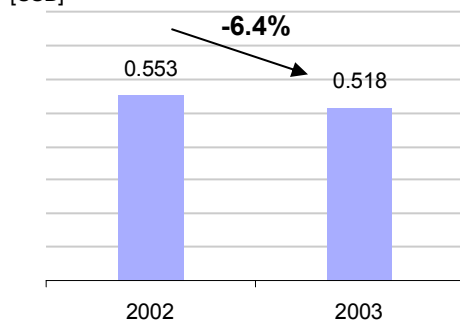
Yield Index Geographical Europe



Yields

The Passenger Yield (Passenger Revenue per RPK) saw a strong decline in 2003. European yields (currency adjusted) were 5%pts below the 2001 level. The decrease in the main long haul regions ranged from -4%pts to -10%pts. This trend continued during the first nine months of 2004, especially in Europe where another minus 5%pts yield decrease was recorded for the period January to September.

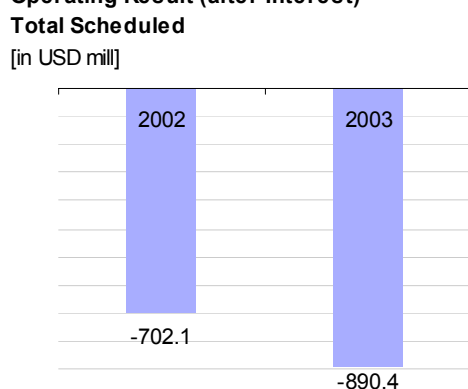
Total Operating Cost per ATK



Cost

The industry reduced Total Operating Expenses per ATK by -6.4% compared to the previous year. Indirect operating costs saw a steeper decline than direct operating costs, where the potential for further cost-cutting is limited.

Operating Result (after Interest)

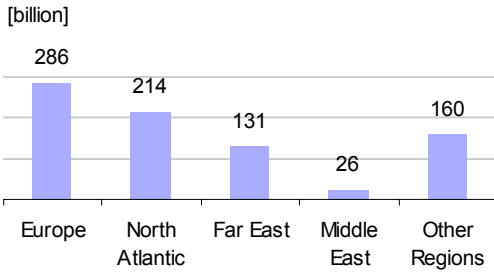


Profit

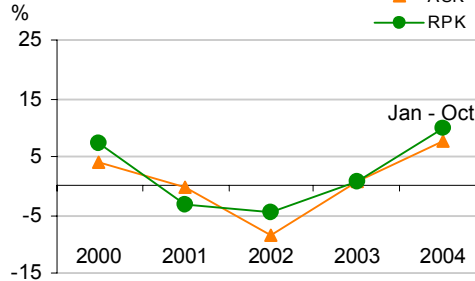
Despite cost reductions and more efficient use of resources, the 25 participating member airlines accumulated a loss (after interest) of almost USD 900 Million - a result that exceeds even that of 2002. Decreasing yields, especially in Europe and costs that are generally still too high are the main reasons for this result. Prospects for 2004 are not looking much better considering the additional 'Fuel cost' burden which - in 2003 - had only a limited impact on the bottom line. For 2004 prospects, please see the end of this report.

Operating Statistics

Weight of Regions (AEA Members' ASK 2003)

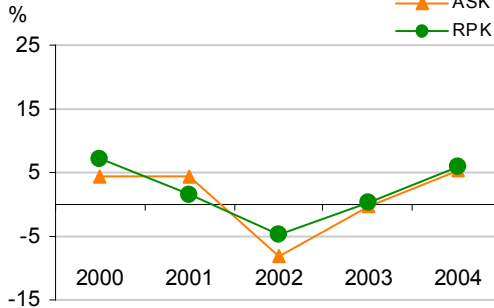


ASK and RPK Growth (vs. I-y) Total Scheduled

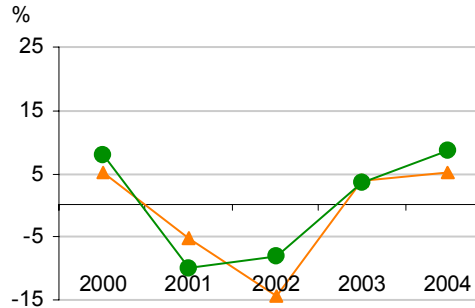


by region

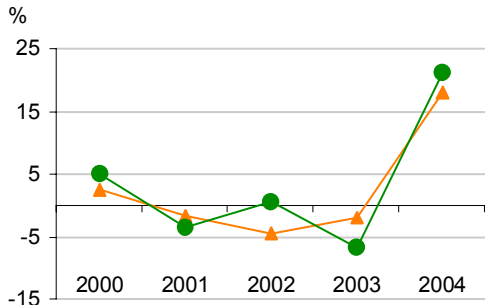
Geographical Europe (vs. I-y)



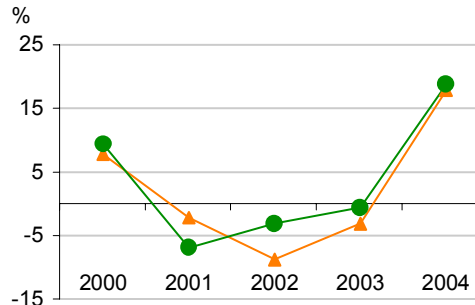
North Atlantic



Asia



Middle East



Europe is by far the most important market for AEA member airlines, followed by the North Atlantic region, the Far East and Sub Saharan Africa. 'Other' Regions in the chart above include Northern Africa and Mid and South Atlantic.

ASK and RPK changes in the first four regions mentioned above have a disproportionate impact on the industry. All regions suffered after 2001 in terms of growth. Recovery in 2003 was only limited, especially in the Middle East and Asia, both regions pulled down by the Iraq war and the SARS epidemic respectively. The recovery on a total level in 2004 (Jan – Oct) seems obvious with a 9.8% RPK increase compared to last year's period.

Demand growth rates in Europe increased from a minimal +0.3% in 2003 to +6.0% (January – October 2004 period). Far East (+21.1%) and Middle East (+18.7%) are increasing most – picking up after very weak 2003 levels.

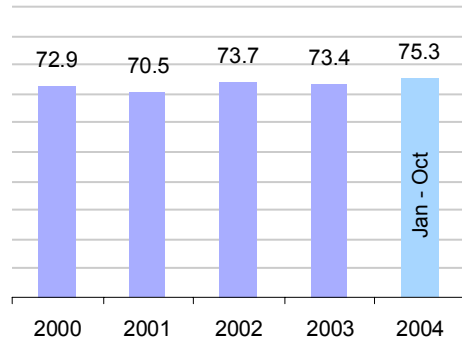
These positive growth rates are misleading to some extent, as in 2004 AEA traffic levels (RPK) will reach a level last seen in 2001. The industry has lost 3 years of growth.

Source: RB3

Operating Statistics

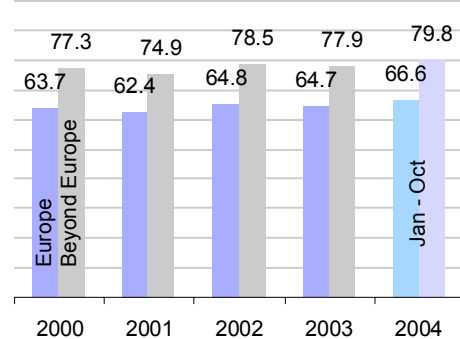
Passenger Load Factor [%]

Total Scheduled



Passenger Load Factor [%]

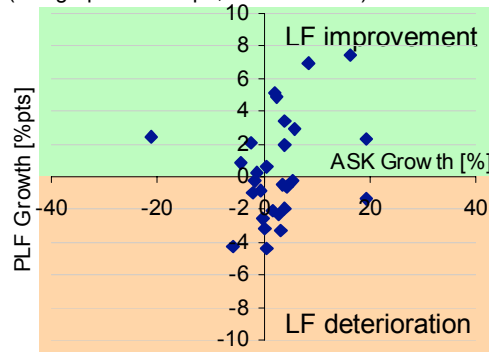
Geo. Europe and beyond Europe



During the first ten months of 2004 load factors increased by +0.9%pts in Europe and 2.0%pts on flights beyond Europe. (compared to previous year). 2003 figures were influenced by the 2nd Gulf war and the SARS epidemic. Middle East load factors were down as low as 55% in March 2003 and Far East load factors reached only 62% in April 2003 when the full impact of the crisis was felt.

ASK vs PLF

(Geographical Europe, 2003 vs 2002)



Comparing the load factors of the member airlines, the variations are quite significant, ranging from 53% to 76% in Geographical Europe. The numbers reflect the diversity of fleet, networks and strategy of the member airlines. However, a distinct correlation between size and load factor could not be observed.

Generally - despite the negative influence factors described above - load factors reached considerable levels in 2003. Percentages of almost 65% in Europe are the highest ever recorded.

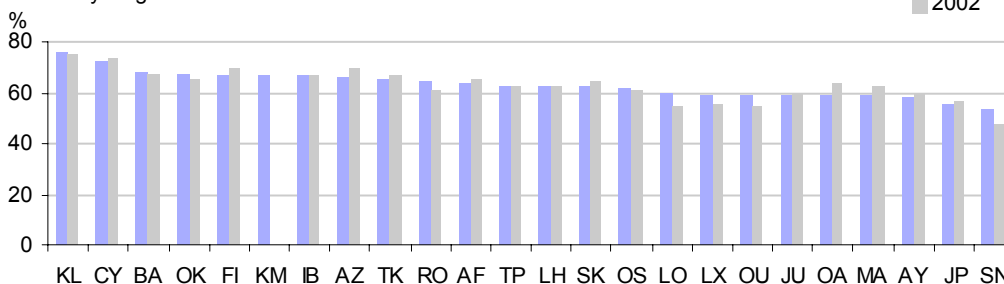
Among AEA members, there is a balance between those carriers which increased load factors (on European routes) and those which suffered a decrease compared to the previous year.

High load-factors are generally a positive sign for the industry. However, a certain part of this success is achieved at the expense of a continuous downward trend in yields.

Source: RB3

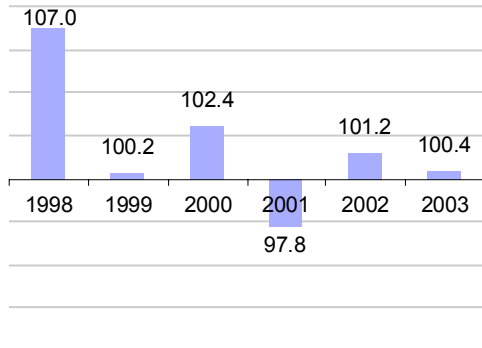
Passenger Load Factor (PLF) - Geographical Europe

Sorted by height 2003

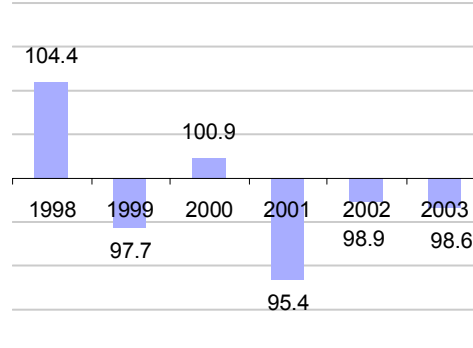


Overall Performance

Operating Ratio before Interest

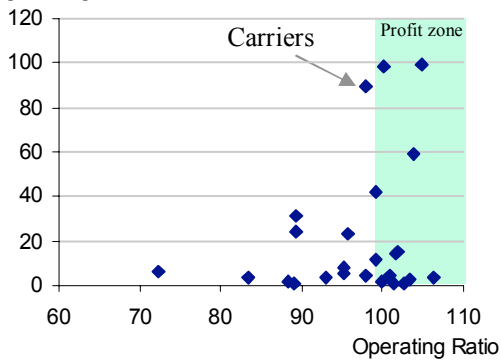


Operating Ratio after Interest



Correlation RPK and Operating Ratio

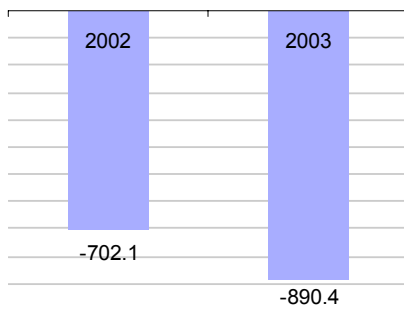
Total Scheduled 2003
[RPK bill]



The year 2003 was marked by a loss (after interest) for AEA airlines - the third consecutive loss. Operating ratios ranged from 106.3% to 72.3% with an AEA average of 98.6%. Performance seems to be independent of the size (RPK) of the airline, with both large and small carriers achieving positive results in 2003. Compared to previous years however, a certain market polarisation became clear in 2003.

Operating Result (after Interest)

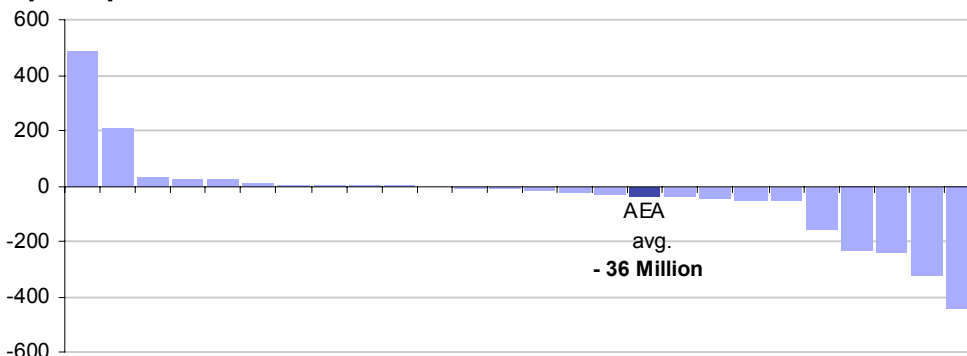
Total Scheduled
[in USD mill]



In total RB8 participating member airlines lost an accumulated amount of USD 890.4 Million in 2003 (after correction of the foreign exchange rate influence). For BA, KL, KM and RO the financial year ends in March. Improved market conditions in the first 3 months of 2004 has a positive influence on their results.

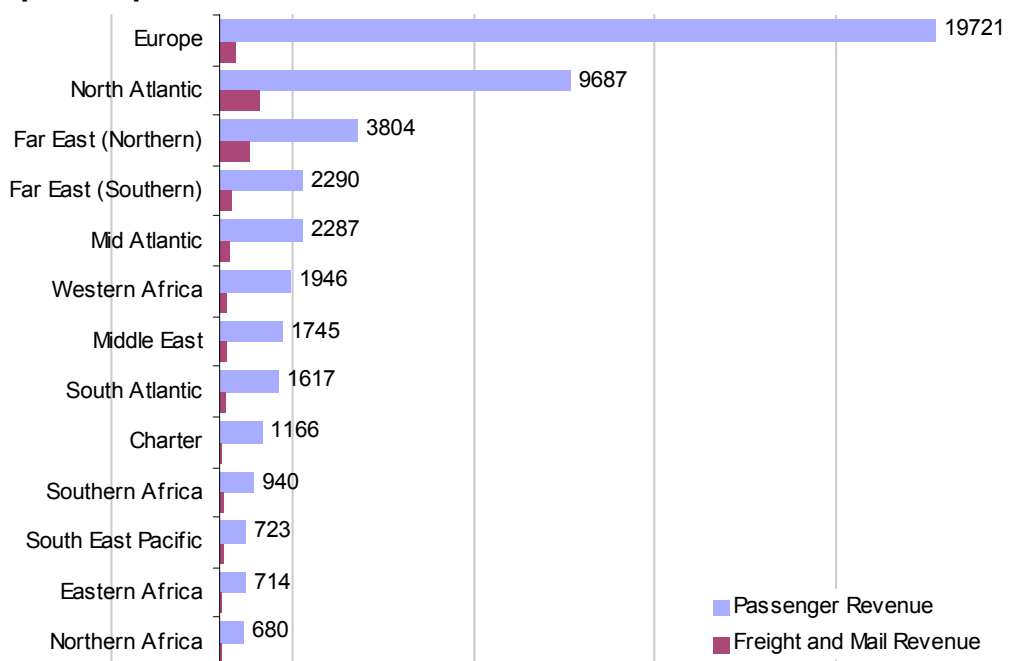
Operating Results by Airline (after Interest) - Total Scheduled 2003

in [USD mill]



Revenue per Region 2003

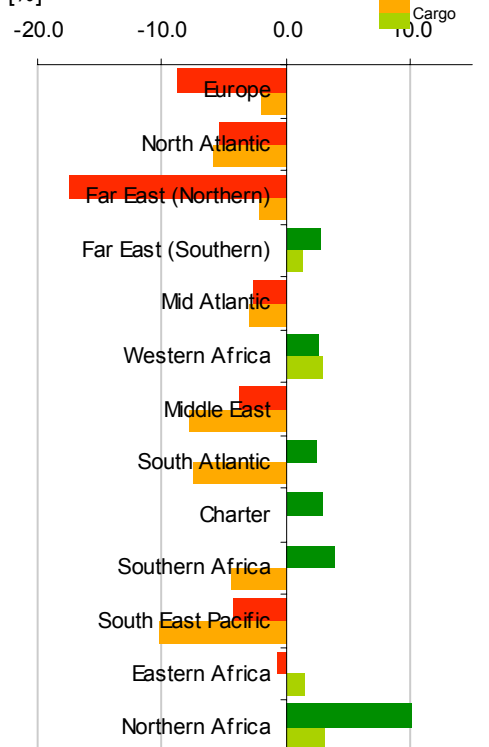
[USD million]



Revenue Development

2003 vs 2002

[%]

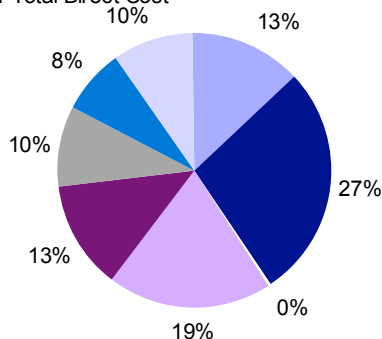


The above chart shows the importance of the European routes to AEA member airlines. The decrease of passenger revenues of -8.7% from 2002 to 2003 with almost unchanged RPK (-0.5%) is all the more dramatic. The same pattern applies to the second and third most important revenue generating regions: North Atlantic routes lost 5.4% passenger revenues compared to the previous year, whereas RPK increased by 5.2%. Far East (Northern Routes) were strongly influenced by the revenue shortfalls in Spring 2003 due to the SARS epidemic, resulting in a -17.4% passenger revenue decline being over proportional compared to the -8.9% decline in RPK.

In terms of Cargo revenues, the three main traffic regions suffered revenue deteriorations totalling almost USD 100 Million. Cargo offer (measured in Cargo ATK) declined by -4.6% in Europe and by -1.5% in the Far East, whereas it increased by 2.6% on North Atlantic Routes

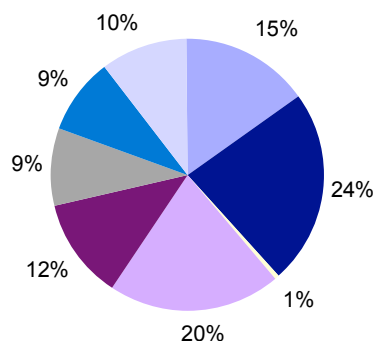
Cost Distribution 2000

% of Total Direct Cost



Cost Distribution 2003

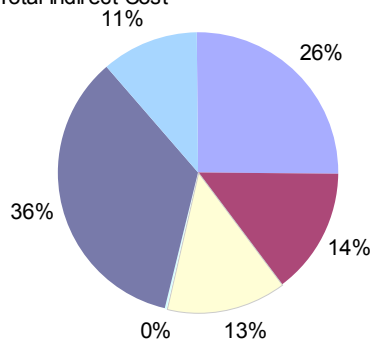
% of Total Direct Cost



- Flight Deck Crew
- Fuel & Oil
- Flight Equipment Insurance
- Maintenance & Overhaul
- Depreciation
- Rentals
- Airport Charges
- Navigation Charges

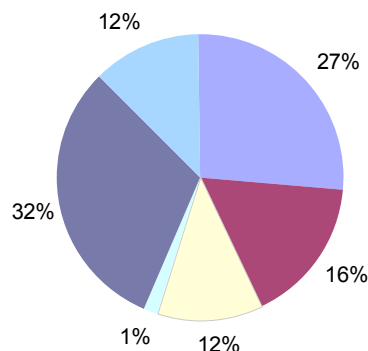
Cost Distribution 2000

% of Total Indirect Cost



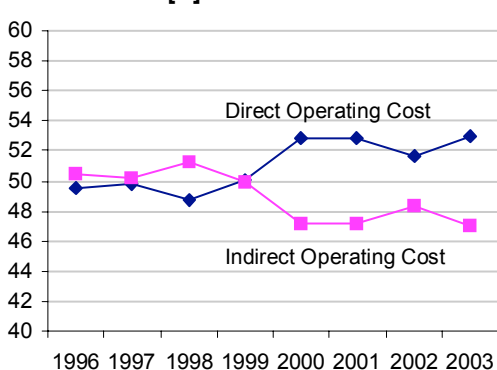
Cost Distribution 2003

% of Total Indirect Cost



- Station & Ground
- Cabin Attendants
- Passenger Service
- Load Insurance
- Ticket & Sales & Prom.
- General & Administration

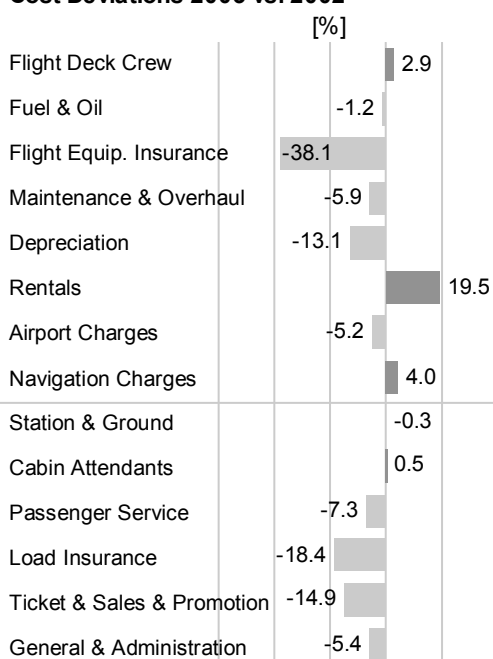
Share of Cost [%]



Measured in current USD, the cost distribution between ‘Direct Operating Costs’ and ‘Indirect Operating Costs’ remains constant when comparing the situation in 2000 and 2003. ‘Fuel & Oil’, ‘Maintenance & Overhaul’ and ‘Flight Deck Crew’ are still the main cost items in the direct costs. The biggest share of ‘Indirect costs’ continues to be ‘Tickets & Sales and Promotion’. Its decrease from 36% to 32% is significant however and is partly the result of the steady cut-back of agent commissions and the trend towards electronic distribution (see next page for details).

The 2003 data reinforce the ongoing trend of the increasing share of ‘Direct Operating Expenses’ as a percentage of Total Operating Expenses. In current US Dollars, the rate in 2003 is the highest ever recorded (53.0%). This figure reflects the efforts made in ‘overhead cost cutting’.

Cost Deviations 2003 vs. 2002



Direct Operating Cost (USD):

2002	29 159 484
2003	28 604 279

Deviation: **-1.9%** ↘

Indirect Operating Cost (USD):

2002	27 230 996
2003	25 323 149

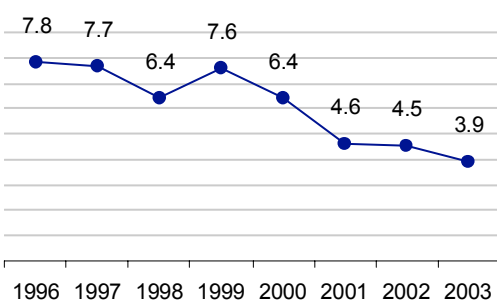
Deviation: **-7.0%** ↘

Total Operating Cost:

Deviation: **-4.4%** ↘

Net Commissions

[% of Passenger Revenue]



Crew Cost Development 2002 vs. 2003

Staff Numbers	
Cockpit Crew	- 1.7%
Cabin Attendants	- 1.3%
Average Cost in €	
Cockpit Crew	+ 3.6%
Cabin Attendants	+ 2.1%
Productivity (ATK /Staff Number)	
Cockpit Crew	+ 3.2%
Cabin Attendants	+ 2.8%

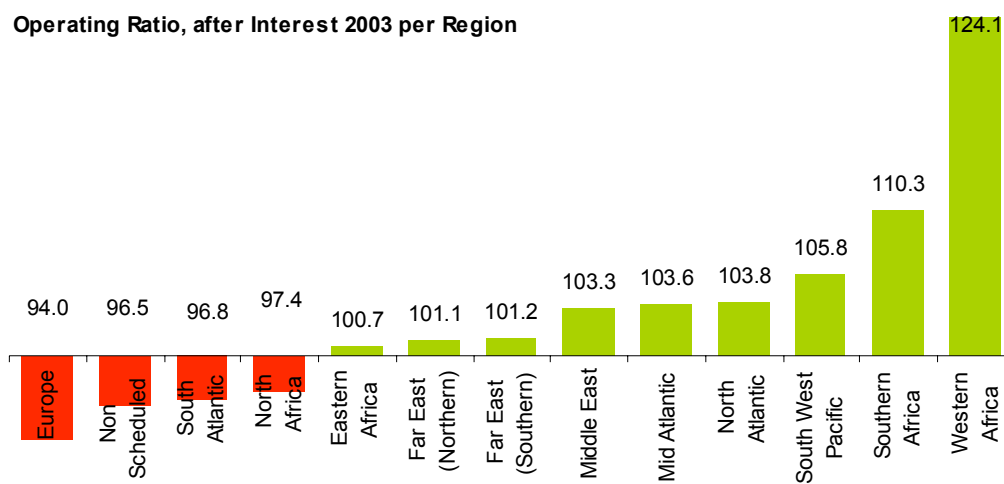
Cost deviation (2003 versus 2002) shows a general trend towards reducing costs. Figures are calculated on the basis of a constant membership and take into account the influence of the foreign exchange rate. Reductions in Indirect Operating Costs were almost double those of Direct Operating Costs. Ticket, Sales & Promotion costs, which account for 14.8% of the airline's Total Operating Expenditure, came down by 14.9%.

Commissions paid to agents are included in this position (22.7% of the Sales & Promotion cost). The chart on the left shows the continuous industry trend of year on year reductions in commissions.

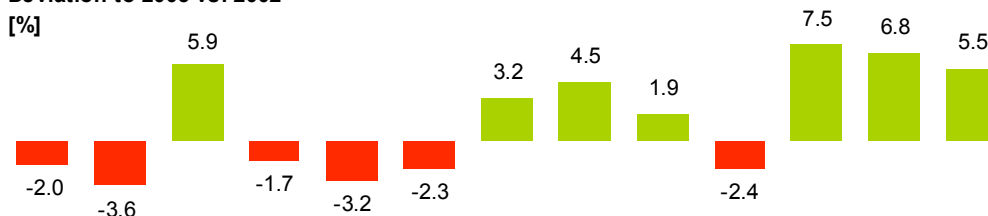
Reductions in staff numbers led to an increase in average cost per person for both Cockpit Crew and Cabin Attendants. Salary increases and/or the lay-off of less cost-intensive personnel might lead to that situation. However, there was a slight increase in the average productivity of crews.

Profitability

Operating Ratio, after Interest 2003 per Region



Deviation to 2003 vs. 2002

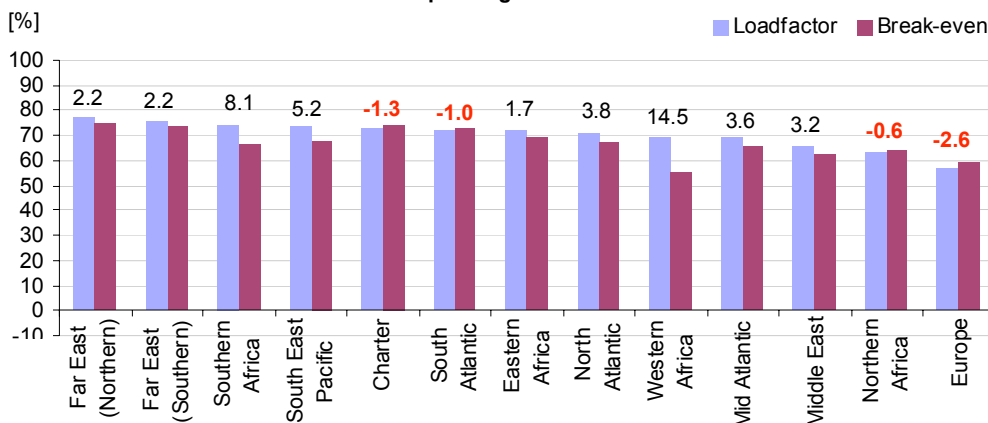


With an Operating Ratio of 94.0% Geographical Europe performed worst. This region accounts for USD 1390 Million, which cancels out the profits of USD 1271 Million of the best performing regions. The South Atlantic recovered from a difficult year in 2002 which was marked by a far-reaching economic crisis. The North Atlantic region – the second biggest market in terms of revenue - saw a distinct decrease of its operating

margin, suffering from both declining yields and load factors.

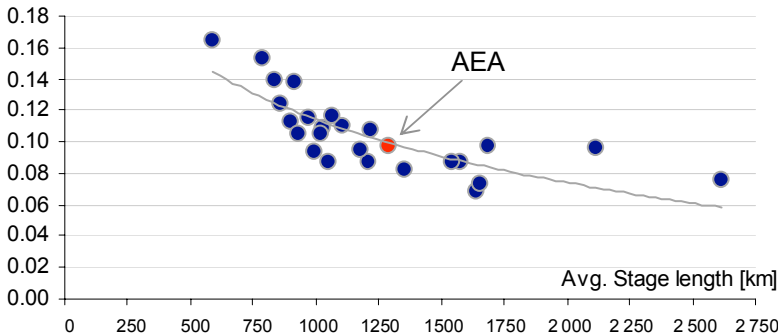
The above figures are reflected in the chart below, which compares the current load factors with the break-even figures. European operations needed a boost of 2.6% points in load factor in order to come into the profit zone, assuming constant yields and unit costs. Other regions with catch-up potential are minor contributors to the overall losses, due to relatively small volumes.

Loadfactor and Break-even Loadfactor per Region



Passenger Yield comparison 2003

Yield USD

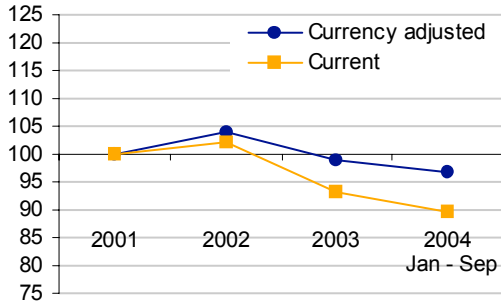


**Average
Stage length [km]
Total Scheduled**

2000	1'168
2001	1'247
2002	1'227
2003	1'286

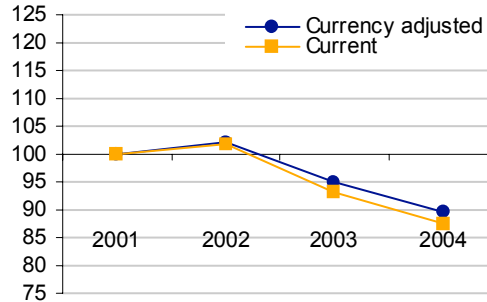
Yield Index Total Scheduled

Year 2001 = 100



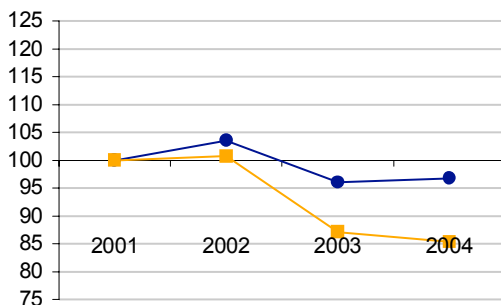
Yield Index Geographical Europe

Year 2001 = 100



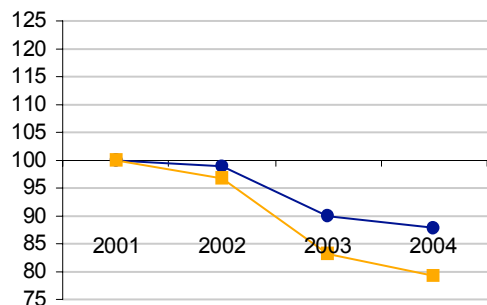
Yield Index North Atlantic

Year 2001 = 100



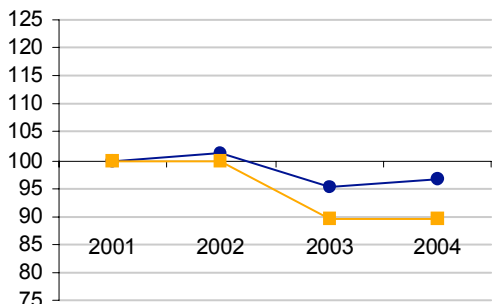
Yield Index Middle East

Year 2001 = 100



Yield Index Far East

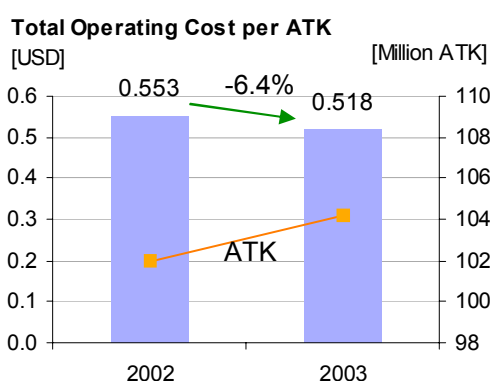
Year 2001 = 100



Yields show a general downturn in 2003 and 2004 (first 3 quarters). Yield decline reflects not only fare reductions and increases in average stage length, but also the shift from high yield First/Business traffic towards more low fare seats. Final 2004 yields are expected to drop slightly due to the traditionally weak 4th quarter not yet included. Numbers are exchange rate adjusted, based on a fixed USD/EUR exchange rate in year 2000.

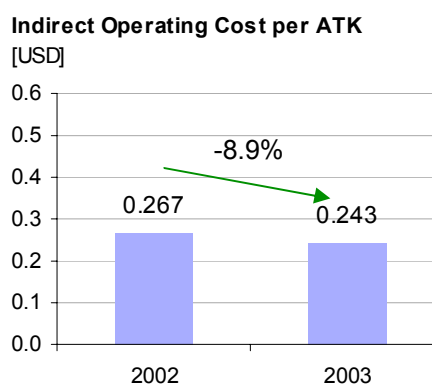
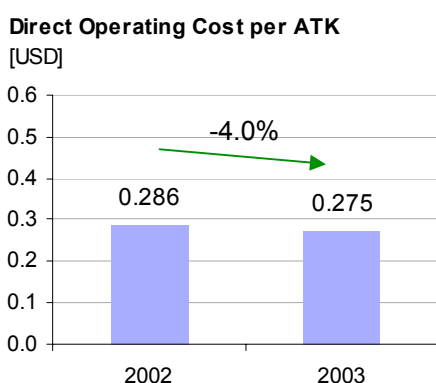
Source: RB12

Unit Cost

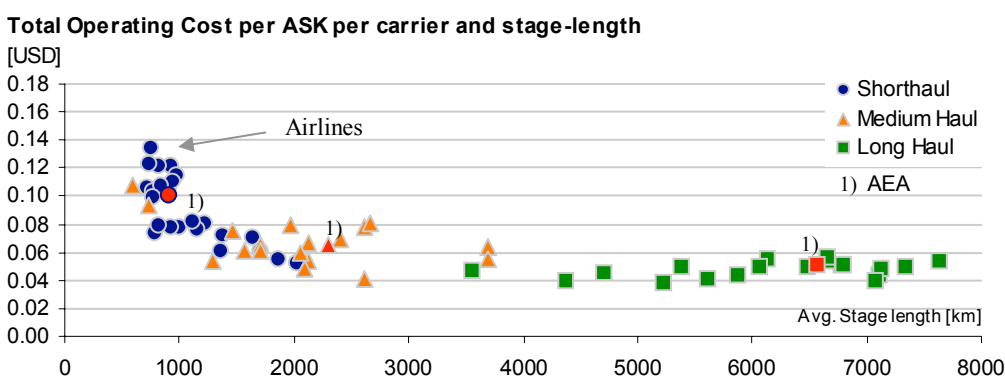


ATK (Available Tonne Kilometre) increased by 2.1% in 2003. Together with a decrease in total operating costs (-4.4%), this led to a more efficient use of aircraft, illustrated by the decrease of the cost per ATK by 6.4%.

The industry reduced indirect operating costs at a higher percentage rate than direct operating costs.



by region



Total Operating Cost per ASK (CASK)

Sector	2003	2002	Dev.
Short Haul	0.101	0.107	-5.3%
Medium Haul	0.066	0.071	-7.4%
Long Haul	0.051	0.054	-6.5%

Note: The amounts in the table above are in USD. Exchange rate influences are taken out to make the years comparable.

Cost savings per ASK compared to 2002 could be achieved in all three sectors and range from -6.2% to -7.4%.

When looking at these figures, cost and capacity development must be taken into consideration:

Short Haul: Cost -5.5% ASK -0.2%
Medium Haul: Cost -2.3% ASK +5.2%
Long Haul: Cost -3.7% ASK +3.0%

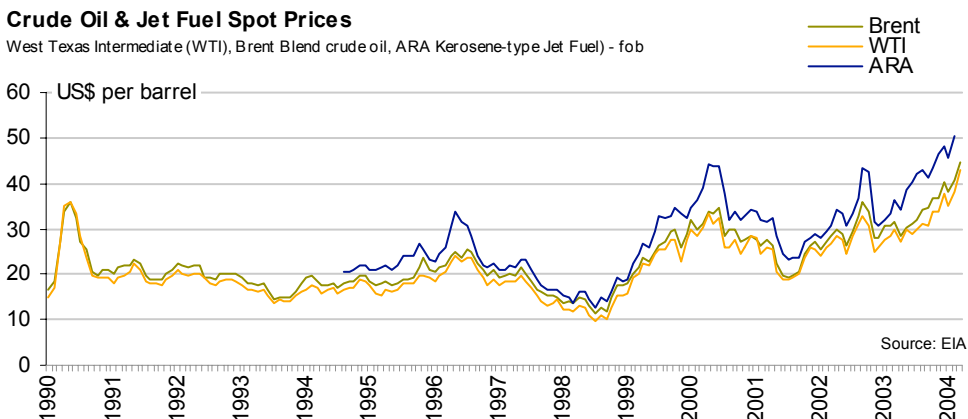
Thus, improved costs per ASK are not only a result of increased capacity but also represent cost savings in absolute terms.

According to AEA forecasts, scheduled traffic in RPK will grow by +8.5%* in 2004. Yearly total revenue passenger-kilometres will finally reach (and surpass) a level last seen in 2000. With annual capacity expected to grow at +7%, passenger load factors are set to reach an all-time high of close to 75%. Despite booming traffic levels, yields remain a concern, with an estimated loss of 4% (in €cents) in 2004.

* Forecast made earlier this year. AEA has meanwhile revised its traffic outlook for 2004 from +8.5% to +9.0 – +9.5%.

Crude Oil & Jet Fuel Spot Prices

West Texas Intermediate (WTI), Brent Blend crude oil, ARA Kerosene-type Jet Fuel) - fob



The average benchmark price for crude oil for 2004 currently stands at USD 34/barrel, almost 20% above its 2003 level. Daily peaks of close to USD50 were noted in August, adding a potential extra USD 1billion to the fuel bill of the AEA member airlines for 2004.

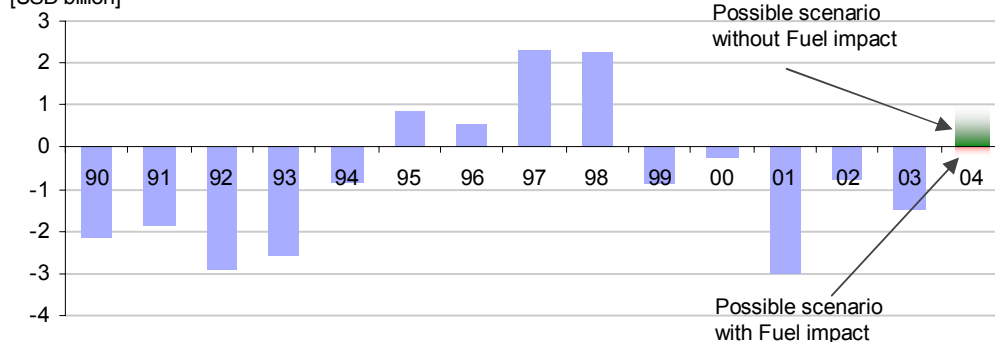
Some respite from the high fuel prices is provided by hedging, fuel surcharges and advantageous currency effects.

Following five consecutive years of losses, 2004 brought the prospect of a return to profitability with a modest operating profit of up to USD 0.5 billion. The result is based on an estimated drop of 5-6% in unit costs (in €cent) and the above-mentioned fall of 4% in yields.

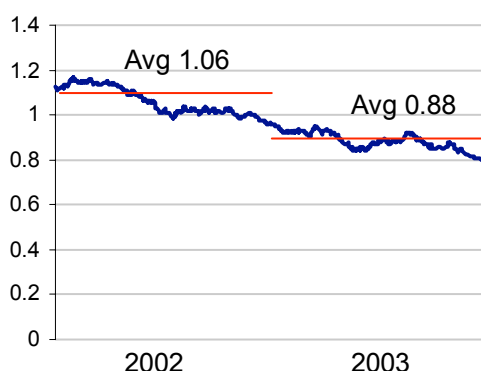
This scenario does not take into account the current fuel crisis. The higher fuel prices are set to wipe out any chance of a financial recovery.

Net Result after interest

[USD billion]



USD in EUR



AEA member airlines submit cost and revenue data to the RB8 collection in their home currency. The Secretariat converts them into USD at the rate reported by the carrier. Having one single currency is necessary in order to compare the data by airline and to consolidate an industry total.

When interpreting the results the impact of this conversion causes a distortion.

For the submitting airlines, AEA has calculated an overall average depreciation of the USD versus local currency of **-14.53%**.

This rate is applied to the 2003 data by calculations comparing 2003 results with 2002 results and aims to adjust for the currency impact. Without this adaptation cost and revenue comparisons would be distorted in such a way that the result would not make sense. The rate of -14.53 % does not take into account the inflation rate, either in the home countries or abroad.

Yield data (page 13) is taken from the RB12 quarterly yield collection. Carriers submit their data in EUR. Naturally, for all carriers a certain part of the revenues occur in foreign currency. The translation from the foreign currency (e.g. USD) into EUR is distorted by exchange rate variations. All yield calculations are corrected by the USD/EUR exchange rate variation, assuming the following shares of USD income per region: Europe (10%), North Atlantic (50%), Middle East (40%) and Far East (30%) and Total Scheduled (30%).

currency

ASK	Available Seat Kilometre
ATK	Available Tonne Kilometre
Bill	Billion
CASK	(Total Operating) Cost per ASK
EUR	Euro
Long Haul	Includes the Americas, Africa, Asia
Medium Haul	Includes North Africa, Middle East
Mill	Million
PLF	Passenger Load Factor
RPK	Revenue Passenger Kilometre
RTK	Revenue Tonne Kilometre
Short Haul	Includes Geographical Europe
USD	US Dollar
vs. l-y	versus last year
Yield	Revenue per RPK

glossary