FINANCIAL SITUATION OF AIRPORTS AND AIR NAVIGATION SERVICES

Executive Summary

The study is based on data for the year 2003 provided by 91 States representing 93 per cent of world traffic expressed in tonne-kilometres performed in 2003 in scheduled services. Comparisons are made with earlier similar studies based on data for the years 1989 and 1998.

A slight majority of international airports in reporting States recovered their costs or made a profit in 2003. For some airports not all costs may have been included in their accounts. It can therefore be assumed that a significant number of international airports for which no data were reported, and which have relatively low volumes of traffic, operated at a loss during 2003.

The financial situation of air navigation services providers shows little improvement compared to the situation in 1998. Considering that major cost components were not always accounted for, it can be assumed that a number of States for which no data were reported, and which generally have low traffic volumes, do not recover the full costs of providing air navigation services.

The proportion of landing and associated airport charges in airlines' total operating expenses has constantly declined over the 1998-2003 period, from 4.4 per cent to 4.0 per cent, with the American regions being well below other regions of the world for this kind of expense.

From 1998 to 2003, the cost of air navigation services charges (ANS) paid by airlines has decreased by 1.6 per cent per annum. The relative share of ANS charges in airlines' total operating expenses decreased from 3.0 per cent in 1998 to 2.4 per cent in 2003, with North America and Asia/Pacific being below the world average for this kind of expense.

Total airline expenditure on airport and ANS charges per tonne-kilometre available decreased from 3.30 US cents in 1998 to 2.85 US cents in 2003 (or an average annual decrease of 2.9 per cent per annum in current terms).

Background

1. This study presents information on the financial situation of airports and air navigation services. It is based on a survey of Contracting States (State Letter EC 2/71-04/91 of 29 October 2004), supplemented by data provided under the ICAO Statistics programme and information available on various websites. The survey questionnaire sent to Contracting States is reproduced in Appendix A.

2. This study is based on data for the year 2003, and is composed of three sections: financial aspects of international airport operations, financial aspects of air navigation services operations; and the financial situation of scheduled airlines and impact of airport and air navigation services charges. Comparisons are made, where relevant and possible, with the results of similar studies prepared for the 2000 Conference on the Economics of Airports and Air Navigation Services (ANSConf 2000), and the 1991 Conference on Airport and Route Facility Management (CARFM).

3. While the number of States[1] responding to the survey amounts to only about half of the Contracting States of ICAO, these States represent, in aggregate, 93 per cent of world traffic expressed in total tonne-kilometres performed in 2003 in scheduled services. Consequently, the status and trends indicated in this study may be regarded as providing a reasonably accurate global picture of aviation economics and how it is developing.

Section 1 – Financial Aspects of International Airport Operations

Coverage

4. The basis for the analyses in this section is financial data covering over 500 airports provided by 79 States. Both income and expense data, as well as traffic data, were available for over 450 airports. The data were provided on ICAO Air Transport Reporting Form J - Airport Financial Data, and in response to the questionnaire. The traffic data used were essentially those provided on ICAO Air Transport Reporting Form I - Airport Traffic; traffic data were not available for 76 airports.

5. An important limitation of the analysis is that in many instances the data, in particular the expenses, seem to be incomplete. For example, depreciation and other capital costs, which are a major expense for capital intensive enterprises such as airports, were not reported in some instances or were reported in unexpectedly low amounts. Similarly, all or nearly all the expenses for areas such as approach and aerodrome control (often provided by the same entity that provides en-route services and included in the financial data for air navigation services) and meteorological services were not reported in several instances. For these reasons, and because of the different organizational structures under which airports operate, comparisons were not made between individual airports.

6. The number of airports for which data were reported is not high considering that the ICAO Regional Air Navigation Plans listed 1187 airports as being open to international traffic in 2003. However, the data provided refer essentially to the major international airports[2] in States which in 2003 accounted for 89 per cent of the total number of passenger-kilometres performed by the world's scheduled airlines, and 94 per cent of their international passenger traffic.

7. The data used for this study provide a comparable coverage to the ones achieved for the studies prepared previously for the 1991 CARFM Conference and ANSConf 2000. At these occasions, financial data were available for 297 (including consolidated revenue data for 71 airports in the United States) and 300 airports or groups of airports in 69 and 92 States, respectively, which in 1989 accounted for approximately 71 percent of the total number of passenger-kilometres performed by the world's scheduled airlines (91 per cent in 1998), and about 78 percent of their international passenger traffic (87 per cent in 1998).

Analysis of data

8. At airports for which total income and expenses as well as traffic data were reported, the total income in 2003 was US$ 13 161 per traffic unit on average and total expenses US$ 11 954 per traffic unit on average (one traffic unit corresponds to 1000 passengers or 100 tonnes of freight or mail). The average annual increase since the previous survey (1998 data) was 0.8 and 2.8 percent, respectively. Airports with less than 50 traffic units were not included in these calculations. Total income expressed as a percentage

[1] The term "State", as used throughout the following text, has to be understood as the territorial entity under which airport operators or air navigation services providers operate.

[2] Where consolidated data was provided for a group of airports it is possible that the group included airports serving domestic traffic only.

of total expenses broken down by region is presented in Table 1-1. The Table indicates that for 278 airports, or about 52 per cent of the total, income exceeded (or was equal to) expenses in 2003. This compares to 77 per cent of airports in the 1998 study and 33 per cent in 1989. As was the case in the previous studies, but to a lesser extent, some of the airports showing revenues that exceed expenses by 175 per cent or more, appear not to have reported all their expenses.

Table 1-1. Total airport income in relation to total reported expenses (2003)

Regions	No. of States	No. of Airports	No. of Airports with Income Less than Reported Expenses				No. of Airports with Income Exceeding Reported Expenses				
			0-49%	50-74%	75-99%	Sub-Total	100-124%	125-149%	150-174%	175% & over	Sub-Total
Asia and the Pacific	14	116	21	17	53	91	4	6	4	11	25
Middle East and Africa	19	103	7	0	51	58	5	2	1	37	45
Europe	31	180	6	51	34	91	43	36	6	4	89
North America	3	41	3	0	6	9	24	5	2	1	32
Caribbean, Central and South America	10	92	1	1	3	5	76	3	0	8	87
Total Sample	77	532	38	69	147	254	152	52	13	61	278

9. The data reported showed a relationship between the volume of traffic and cost efficiency. Thus for airports with less annual traffic than 300 traffic units (that is 18 airports), expenses per traffic unit averaged US$ 40 600, for airports with traffic between 300 and 2 500 traffic units, the average was about US$ 14 400; and for airports with traffic between 2 500 and 25 000 traffic units, the average was about US$ 10 600. Airports with traffic exceeding 25 000 units were quite few (only 24) and showed a wide range (from US$ 500 to US$ 30 000), with a majority of the airports scoring around or less than US$ 10 000. These averages should be viewed with caution, however, because of the incomplete expense data.

10. Operating subsidies were reported by 27 States for 123 airports. These included States in Europe and North America with major aviation activities. In the previous survey (1998) subsidies were reported by 20 States for 62 airports or groups of airports.

11. Income from ground handling charges was reported by 46 States, mainly located in Asia/Pacific (11 States) and Europe (23 States), covering 268 airports. The income from ground handling charges accounted, on average, for 9.5 per cent of total income for these airports, which represents a sharp decrease from the previous survey (16 per cent in 1998), perhaps due to the enhanced competition created by the liberalization in the provision of such services.

12. Income from non-aeronautical activities, which include all revenues from concessions and rentals together with all “other” income which is not directly related to air traffic operations, accounted, on average, for 41 per cent of total income per airport (34 per cent in the 1998 survey). This percentage was highest in North America, with an average of about 57 per cent by airport, and Asia/Pacific (46 per cent), while the Caribbean, Central and South America showed the lowest regional average (27 per cent). (North American airports do not themselves provide air traffic services which reduce their charges on air traffic and thereby increases the share accounted for by non-aeronautical revenues). Many international European airports and major airports in Asia and the Pacific and Middle East showed shares of around 50 per cent or

higher. Airports with high traffic volumes generally have higher shares of non-aeronautical income; for example, the average for airports with more than 25 000 traffic units was 53 per cent.

13. Capital costs, including depreciation/amortization and interest were reported for 481 airports or about 90 per cent of the total airports covered. Comparing capital costs to total expenses shows that, on average, capital costs accounted for 31 per cent of total airport expenses, up from the 27 and 20 per cent they constituted in the previous 1998 and 1989 surveys. The average share of capital costs was higher for airports in Asia/Pacific and Europe, on average 32-33 per cent, than for airports in other regions, while it was on average much lower for airports in the Caribbean, Central and South America (8 per cent). In North America the average was 29 per cent. Of particular interest is the relationship between the share that capital costs constituted of total expenses and traffic volume. For airports with up to 5 000 air traffic units, that share was below 19 per cent of expenses, for airports with traffic units higher than 5 000, the share was 31 per cent.

14. Capital investments were reported for 385 airports in 61 States (see Table 1-2). The gross capital investments for these airports amounted to US$ 16 942 million[3] during 2003, or US$ 8 538 per traffic unit (to compare to US$ 6 376 per traffic unit in 1998, based on investments at 227 airports). The average was strongly influenced by some airports in Europe and North America undertaking major investment programmes. The averages for other regions were around US$ 5 000 per traffic unit for Asia/Pacific and around or below US$ 2000 for Middle East/Africa and the Caribbean, Central and South America.

Table 1-2. Capital investments at 385 airports (2003)

Regions	No. of States	No. of Airports	Total Capital Investments US$ '000	Capital Investments per Traffic Unit US$ '000
Asia and the Pacific	9	17	1 405 553	5 115
Africa and the Middle East	12	87	88 974	2 146
Europe	28	173	8 772 737	9 921
North America	3	36	6 553 106	9 228
Caribbean, Central and South America	9	72	122 298	1 659
Total Sample	61	385	16 942 668	8 538

15. Fifty-five States provided information regarding the number of staff employed at airports (covering 343 airports). The combined workforce for those airports amounted to over 525 000 staff members. Based on information from States that gave a breakdown by sector and for which traffic figures were available (47 States), most of them (three-quarters) were employed in aeronautical activities, while a quarter was engaged in non-aeronautical activities. Table 1-3 shows the regional differences: personnel employed in the non-aeronautical sector has the highest share in the Europe and Middle East/Africa regions; the lowest was recorded in the Caribbean, Central and South America region. However, in this latter region, the small number of States for which information was available, and the specific situation in one of them, should be taken into account. In the same table, an attempt has been made to roughly assess the general productivity per State in terms of number of traffic units produced per employee. (It has to be noted, however, that the type

[3] To which can be added US$ 1 629 million for an unknown number of airports in mainland China.

of staff included varies according to States and that data are not homogeneous). The information varies widely between airports, depending on the information provided, but the average at the world level, based on the 47 States that provided information in that respect, is 3.8 traffic units per employee. Here again important variations are to be noted between the regions considered: the highest value is in North America (Canada not included) and the lowest in Asia/Pacific and Middle East/Africa.

Table 1-3. Regional Share of staff employed in the different airport sectors and productivity (2003)

Regions	No. of States	No. of airports	Airport sector (%)				No. of traffic units per employee
			aeronautical activities	other aeronautical activities (sub-contracting, air carriers)	non-aeronautical activities	other non-aeronautical activities	
Asia and the Pacific	9	22	35.1	41	6.2	17.7	1.9
Africa and the Middle East	8	15	62.7	8.7	15.9	12.6	2.3
Europe	23	114	45.7	20.6	25.2	8.5	5.5
North America	2	35	15.1	59.6	5	20.3	7.2
Caribbean, Central and South America	5	31	39.5	58.1	2.3	0.1	3.6
Total sample	47	217	33.5	41.7	9.3	15.5	3.8

Conclusions

16. The data provided show that a slight majority of airports in reporting States recovered their costs or made a profit in 2003. However, it is also apparent that for a number of airports around the world certain cost categories have not been included at all, or were only partly included in the data reported. Taking that into account, it may be assumed that a significant number of international airports for which no data were reported, and which generally have low volumes of traffic, operated at a loss in 2003.

Section 2 – Financial Aspects of Air Navigation Services Operations

Coverage

17. The basis for the analyses in this section are the air navigation services' financial data provided by 75 States and traffic data provided by 73 of these States for 2003. The data were provided on ICAO Air Transport Reporting Forms K (financial data) and L (traffic data) or in response to the questionnaire.

18. In 2003 the airlines of the 75 reporting States accounted for 89 per cent of the world traffic expressed in total tonne-kilometres performed in 2003 on scheduled services and 87 per cent of the international tonne-kilometres performed. By comparison, data were provided by 57 and 78 States accounting for close to 70 and 80 per cent, respectively, of total international tonne-kilometres performed when the comparable analyses were carried out for 1989 and 1998. In analyzing the results of the present survey, it should be taken into account that out of 75 States 38 come from the same region (Europe), a situation that may have an impact on the global averages.

Analysis of Data

19. Table 2-1 shows that income equaled or exceeded expenses for air navigation services (ANS) providers located in 51 of the 65 States reporting both income and expense data. This shows little improvement compared to the situation in 1998, when 47 out of 61 States had income that exceeded expenses, and reflects the economic difficulties that both airlines and ANS providers have been facing during the 2001-2003 period. However, the situation has greatly improved since 1989, when only 24 States out of 49 reported income in excess of expenses. The improvement has taken place mainly in Europe and is primarily explained by the growing emphasis States at large are placing on recovering their air navigation services costs. Also of relevance is the continued growth of air traffic, and an increase in the number of States levying approach and aerodrome control charges. However, as with airport data, very high ratios of income over expenses may primarily depend on less complete identification and reporting of expenses than for income.

Table 2-1. Total air navigation services income in relation to total reported expenses (2003)

Regions	No. of States	No. of States with Income Less than Reported Expenses				No. of States with Income Exceeding Reported Expenses				
		0-49%	50-74%	75-99%	Sub-Total	100-124%	125-149%	150-174%	175 % & over	Sub-Total
Asia and the Pacific	9	1	0	3	4	3	0	1	1	5
Africa and the Middle East	12	0	0	3	3	2	1	1	5	9
Europe	37	1	1	3	5	24	4	1	3	32
North America	3	0	1	0	1	2	0	0	0	2
Caribbean, Central and South America	4	0	1	0	1	1	1	0	1	3
Total Sample	65	2	3	9	14	32	6	3	10	51

20. Air navigation services charges accounted for an average of 94 per cent of the total income per State for the 70 States for which this information was available for 2003. Twenty-five States reported air navigation services charges as the only income source, as compared to forty-four in the 1998 survey. For the 51 States reporting approach and aerodrome control charges the income from this source accounted on average for 18.6 per cent of total income from charges. Important differences have to be noted between regions, with the highest shares being recorded in Africa/Middle East, Asia/Pacific and North America (from around 32 to 39 per cent) and the lowest in the Caribbean, Central and South America and Europe (around 12 to 16 percent). Compared to the previous surveys, it appears that more States are now applying approach and aerodrome control charges, which partly explains the overall improvement noted in the preceding paragraph.

21. Of the 66 States for which total expense data were available for 2003, 58 reported depreciation and/or amortization, which for these States accounted on average for 6 per cent of total expenses. This is a marked change from either 1998 or 1989 when depreciation reported by 53 and 39 States, respectively, averaged 18 and 9 per cent of total expenses. This may be due to the fact that a major upgrading of the air navigation system was undertaken in several States during the 1990s, while investments have been much less during the early 2000s. Nevertheless, since cost data on depreciation and/or amortization were still not available (or not reported) in several instances, the question again arises as to the extent to which many States are allowing for this important cost item when establishing the cost basis for their air navigation services charges, and thereby building reserves for facility renewal and expansion.

22. Fifty States reported capital investments for 2003. For these States the gross capital investments accounted for US$ 1 046 million, which corresponded to US$ 37 per flight. This marks a notable fall compared to the situation in 1998 when investments represented US$ 139 per flight. For States providing a breakdown in their capital investments (36 States), CNS/ATM accounted for about 94 per cent of the total, on average, with a majority (over 77 per cent) going to ATM. Investments in MET represented only about 1 per cent.

23. From the data available on costs by category of service in 57 States, air traffic management (ATM) and communications, navigation and surveillance (CNS) combined accounted for the major share of total expenses (about 84 per cent, on average, but close to 95 or even 100 per cent in many States). The share accounted for by meteorological services (MET) was also of significant magnitude in some States but was generally about 5 percent of total costs. The share of aeronautical information services (AIS) costs accounted on the average for about 2 per cent. Search and rescue (SAR) costs, which were reported by a very small number of States (16), accounted for less than 1 per cent globally. One notable exception, however, was in a major State in Asia where such costs represented about one third of the total expenses. Compared to 1998 and 1989, ATM (or ATS) and CNS (or COM) costs combined appear to have continued to grow in relative (as well as absolute) terms while the relative share of MET has declined.

24. With regard to the recovery of costs of providing MET services it appears that many States may not take these costs into account when establishing the cost basis for their air navigation services charges. The reason is probably that MET services are usually performed by another branch of government or entity, separate from that involved in providing ATM and CNS services. A similar situation applies to SAR costs.

25. Fifty-six States provided information regarding the number of staff employed in air navigation services. The combined workforce for those States amounted to over 73 000 staff members. Based on information from States that gave a breakdown by sector (47 States), most of them (about three quarters) were employed in ATM and CNS; next came MET with about 9 per cent of the total. Table 2-2 shows the regional differences: personnel employed in the CNS/ATM sector has the lowest share in the North America and Asia/Pacific regions; personnel employed in the MET sector has the highest share in the Asia/Pacific region. In the same table, an attempt has been made to roughly assess the general productivity per State in terms of number of flights handled per employee (it has to be noted, however, that the type of staff included varies according to States and that data are not homogeneous). The average at the world level, based on the 56 States that provided information in that respect, is 412 flights per employee. Here again important variations are to be noted according to the regions considered: the highest value is in North America (United States not included) and the lowest in Asia/Pacific.

Table 2-2. Regional Share of staff employed in the different ANS sectors and productivity (2003)

Regions	Air navigation service sector (%)							No. of flights per employee
	ATM	CNS	ATM/CNS	MET	SAR	AIS	Other	
Asia and the Pacific	31.8	36.8	68.6	18.6	5.7	6.7	0.3	193
Africa and the Middle East	39.7	35.5	75.2	4.6	4.7	15.5	0.0	321
Europe	50.1	34.3	84.4	3.7	0.4	2.9	8.7	462
North America	53.6	12.4	66.0	1.1	1.0	2.6	29.3	735
Caribbean, Central and South America	56.4	14.0	70.4	8.9	2.5	18.3	0.0	322
Total sample	44.3	30.4	74.7	8.9	2.7	5.7	8.1	412

ATM: *Air traffic management*
CNS: *Communication, navigation and surveillance*
MET: *Meteorological services for air navigation*
SAR: *Search and rescue*
AIS: *Aeronautical information service*
Other: *Training, management, support and other personnel*

Conclusions

26. The data available indicate that the financial situation of air navigation services has continued to show an improvement over the last few years. However, major cost components such as depreciation or amortization are sometimes not included and the same applies to MET costs, a significant category of service. Bearing this in mind, it may be assumed that the majority of States for which no data were reported, and which generally have low volumes of traffic, do not recover the full costs of providing air navigation services.

Section 3 - Financial Situation of Scheduled Airlines and the Impact of Airport and Air Navigation Services Charges

Development of Traffic

27. The total scheduled traffic of the world's scheduled airlines, measured in revenue tonne-kilometres performed, increased at an average annual rate of 3.2 per cent over the 1998–2003 period (see Table 3-1), which represented a slowdown compared to the period related to the previous studies (5.1 per cent per annum from 1989 to 1998). During the same period, the number of aircraft departures increased at a much lower rate (2.3 per cent per annum), reflecting a slight decrease in average payload capacity (from 26.1 tonnes in 1998 to 25.6 tonnes in 2003). Passengers carried on scheduled flights increased at an average annual rate of 2.8 per cent over the period (as compared to 3.1 per cent during the preceding period). Passenger load factor improved in 2003 by 3 points, compared to either 1998 or 1989.

Table 3-1. World's scheduled airlines total scheduled traffic (1989-1998-2003)

	Unit	1989	1998	2003	Average annual growth rate	
					1989-1998 (%)	1998-2003 (%)
Aircraft departures	[000]	14 179	19 690	22 043	3.7	2.3
Passengers carried	[000]	1 119 101	1 471 635	1 689 603	3.1	2.8
Passenger load factor	%	68	68	71	-	+ 3 points
Total tonne-km performed	Millions	223 655	348 517	407 645	5.1	3.2
Total tonne-km available	Millions	367 563	584 683	673 390	5.3	2.9
Average aircraft payload capacity	Tonnes	26.8	26.1	25.6	-0.3	-0.3

Airline Financial Results

28. The financial situation of the world's scheduled airlines, international and domestic combined, is summarized in Table 3-2 for the 1998 -2003 period. Over this period operating revenues in US$ increased at a lesser annual rate (1.7 per cent) than total operating expenses (2.9 per cent). Operating results expressed as a percentage of operating revenues fluctuated, with an operating result of 5.4 per cent in 1998 followed by profits of 4.0 and 3.3 per cent during the following two years and then reaching negative values from 2001 to 2003, due to the events that affected global air transport in 2001 and onward. Net results (profit or loss after income tax expressed as a percentage of operating revenues) varied from 2.8 per cent in 1998 to a maximum loss of -4.2 per cent in 2001, and then slowly rising to a still negative -2.3 per cent in 2003. These results for the world's scheduled airlines as a whole do not portray the considerable differences in the financial results of individual airlines.

Table 3-2. Financial situation of world's scheduled airlines
(total scheduled and non-scheduled operations for international and domestic services)

Item	1989	1998	1999	2000	2001	2002	2003	Average annual change 1998-2003
Total operating income	177,800	295,500	305,500	328,500	307,500	306,000	321,800	1.7%
Total operating expenses	170,200	279,600	293,200	317,800	319,300	310,900	323,300	2.9%
Operating result	7,600	15,900	12,300	10,700	-11,800	- 4,900	-1,500	-
Net result	3,500	8,200	8,500	3,700	-13,000	- 11,300	-7,560	-
Percentage of total operating revenues								
Operating result	4.3%	5.4%	4.0%	3.3%	-3.8%	-1.6%	-0.5%	-
Net result	2.0%	2.8%	2.8%	1.1%	-4.2%	-3.7%	-2.3%	-

Airport and air navigation services charges

29. Table 3-3 shows the changes in absolute terms and as a percentage of total operating expenses of airport and air navigation services charges between 1998 and 2003. The costs of landing and

associated airport charges[4] levied on the international and domestic services of the world's scheduled airlines are obviously linked to the traffic actually performed. As such, they increased until 2000, then dropped in 2001 and 2002, and started slowly to increase again in 2003, but at a level still low compared to the year 2000. When looking at the first and last years of the period considered, they only marginally increased from US$ 12 400 million in 1998 to US$ 12 987 million in 2003, representing a slight average annual increase of 0.9 per cent in current terms (see Table 3-3). The decrease in relative terms of this expense item in airlines' overall operating expenses could partly be explained by that airport managers have taken into account the difficulties of their main clients (airlines) in monitoring and limiting (when not actually decreasing) their charges. As a consequence, landing and associated airport charges as a proportion of total operating expenses have declined over the period, from 4.4 per cent in 1998 to 4.2 per cent in 2000, and then stabilized at 4.0 per cent since 2001.

Table 3-3. Impact of airport and air navigation services charges
International and domestic services of scheduled airlines total scheduled and non-scheduled operations

Item	1989	1998	1999	2000	2001	2002	2003	Average annual change 1998-2003
Landing and associated airport charges	6,290	12,400	12,780	13,490	12,660	12,440	12,987	0.9%
Air navigation services charges	2,560	8,510	8,620	8,830	8,020	7,460	7,834	-1.6%
Total airport and air navigation charges	8,850	20,910	21,400	22,320	20,680	19,900	20,821	-0.1%
Percentage of total operating expenses								
Landing and associated airport charges	3.7%	4.4%	4.4%	4.2%	4.0%	4.0%	4.0%	-
Air navigation services charges	1.5%	3.0%	2.9%	2.8%	2.5%	2.4%	2.4%	-
Total airport and air navigation charges	5.2%	7.5%	7.3%	7.0%	6.5%	6.4%	6.4%	-
Millions of tonne-km available								
Total tonne-km available (scheduled and non-scheduled services)	350,760	634,181	674,573	718,336	717,934	712,762	730,739	2.9%
Cents per tonne-km available								
Total operating expenses	48.5	44.1	43.5	44.2	44.5	43.6	44.2	0.1%
Landing and associated airport charges	1.79	1.96	1.89	1.88	1.76	1.75	1.78	-1.9%
Air navigation services charges	0.73	1.34	1.28	1.23	1.12	1.05	1.07	-4.4%
Total airport and air navigation charges	2.52	3.30	3.17	3.11	2.88	2.79	2.85	-2.9%

30. It is often believed that the reason why, in percentage terms, airport charges appears to have remained at a relatively low value is because of the increases in the prices of fuel and insurance. However even when the latter two items were removed from the calculations the lowering trend was shown, suggesting that there are also other expenses such as general and administrative costs which have been increasing at a faster rate than airport charges.

[4] User charges paid directly by passengers to airports, which are substantial in global terms, are not included.

31. Differences between regions are shown in Table 3-4, with the two American regions being far below other regions of the world in terms of the share of landing and associated airport charges in total airlines' operating expenses.

Table 3-4. Regional differences in the impact of airport and air navigation services charges (2003)

	Africa / Middle East	Asia / Pacific	Europe	Caribbean / Latin America	North America	Global
Landing and associated airport charges	5.2%	5.4%	5.4%	2.6%	2.0%	4.0%
Air navigation services charges	4.8%	2.2%	4.3%	2.6%	0.5%	2.4%
Total airport and air navigation charges	10.0%	7.6%	9.7%	5.1%	2.5%	6.4%

32. The costs of air navigation services charges paid by the airlines also reflect traffic variations: they increased from 1998 to 2000, then fell heavily in 2001 and 2002 to only slightly recover in 2003. Over the whole period they decreased from US$ 8 510 million in 1998 to US$ 7 834 million in 2003 at an average annual rate of 1.6 per cent. While the rising share of the fuel and insurance components in airlines' operating expenses and the traffic variations have to be taken into account, this again reflects the awareness of air navigation services providers of the difficulties faced by the air carriers and the moderation (or the actual decrease) in the revision of charges during this period. As a proportion of total operating expenses, air navigation services charges decreased from 3.0 per cent in 1998 to 2.8 per cent in 2000, then stabilized at 2.5/2.4 per cent from 2001 to 2003. The proportion of airline expenditure for airport and air navigation services charges combined thus decreased from 7.5 per cent of total operating expenses in 1998 to 7.0 per cent in 2000 and then continued to decrease, stabilizing at around 6.4/6.5 per cent from 2001 to 2003.

33. Table 3-4 shows the regional differences, with air carriers in North America and Asia/Pacific showing their share of air navigation services charges in total airline expenditure below the world average. With respect to total airport and air navigation services charges, the two American regions (2.5 and 5.1 percent, respectively), are below the world average (6.4 percent).

34. The apparently low air navigation charges shown for the air carriers in North America is because in the United States the air navigation services provided by the US Federal Aviation Administration (FAA) are paid for by a charge on passenger tickets and air waybills, and not by the air carriers themselves. While the figure shown reflects the worldwide costs paid the US carriers, domestic operations represent a significant percentage of their total services (90 per cent in terms of number of flights and some 66 per cent in terms of tonne-kilometres available).

35. In terms of unit operating expenses per tonne-kilometre available, landing and associated airport charges decreased from 1.96 US cents in 1998 to 1.78 cents in 2003. On average this represented an annual decrease of 1.9 per cent. Air navigation services charges decreased from 1.34 US cents per tonne-kilometre in 1998 to 1.07 cents in 2003; this represented an average annual decrease of 4.4 per cent. In real terms, unit operating expenses per tonne-kilometre available, landing and associated airport charges fell by close to 17 per cent over the 1998-2003 period, while those of the air navigation services charges fell by close to 27 per cent. Total airline expenditure on airport and air navigation services charges per tonne-kilometre available decreased from 3.30 US cents in 1998 to 2.85 cents in 2003; this represented an average annual decrease of 2.9 per cent. (By comparison in real terms total airlines' operating expenses per tonne-kilometre available fell by 8.2 per cent over the 1998 to 2003 period, or 1.7 per cent per annum).

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APPENDIX A

QUESTIONNAIRE

PART 1 - AIRPORTS[1]

FINANCIAL DATA (For 2003)

Note: Response to questions 1.1 to 1.4 need not be completed if ICAO Air Transport Reporting Form J — Airport Financial Data — for 2003 has already been filed with ICAO. Please refer to Form J for detailed reporting instructions.

Airport(s) _____

Year or 12 month period ended _____

Currency _____

1.1 **Income**

(a)	Air traffic operations (aircraft-related charges, passenger-related charges, and other charges)		_____
(b)	Ground handling charges		_____
(c)	Concessions, of which		_____
	fuel and oil	_____	
	duty-free shops	_____	
	automobile parking	_____	
(d)	Rentals		_____
(e)	Other revenues		_____
(f)	Operating subsidies (if any)		_____
(g)	Total income (sum of above)		_____

1.2 **Expenses**

(a)	Operation and maintenance (personnel costs, supplies, services contracted)	_____
(b)	Administrative overhead	_____
(c)	Other non-capital costs	_____
(d)	Capital costs (depreciation and/or amortization, interest, other capital costs)	_____
(e)	Total expenses (sum of above)	_____

[1] Use a separate form for each airport or group of airports (a breakdown to individual airports is preferable).

1.3 **Capital investments**

Gross capital investments during the year _____

1.4 Please indicate whether all or nearly all the expenses associated with the airport areas or services listed below are included in the expense data reported above:

		All or Nearly All Expenses Included	
		Yes	**No**
(a)	Aircraft movement areas and their associated lighting	___	___
(b)	Passenger and cargo terminal facilities	___	___
(c)	Hangar and maintenance areas	___	___
(d)	Approach and aerodrome control (including communications, navigation and surveillance (CNS))	___	___
(e)	Meteorological services	___	___
(f)	Security	___	___
(g)	Crash, firefighting and rescue services	___	___

Staff

1.5 Please indicate the number of staff employed (converted to full-time staff) according to the following breakdown:

(a) Staff directly employed by the airport entity for aeronautical activities[2] _____

(b) Other staff engaged in aeronautical activities[2] (e.g. sub-contracting, air carriers) _____

(c) Staff directly employed by the airport entity for non-aeronautical activities _____

(d) Other staff engaged in non-aeronautical activities _____

(e) Total number of staff _____

Comments:_____
_____
_____

[2] Aeronautical activities are those activities which are related to the operation of air transport services, while non-aeronautical activities include all commercial activities at airports, such as shops, service activities, rentals of offices and other premises, free zones.

PART 2 - AIR NAVIGATION SERVICES

FINANCIAL DATA (For 2003)

Note: Response to questions 2.1 to 2.5 below need not be completed if ICAO Air Transport Reporting Forms K — Air Navigation Services Financial Data and L — En-route Services Traffic Statistics for 2003 have already been filed with ICAO. Please refer to forms K and L for detailed reporting instructions.

Financial Data - Revenues and expenses attributable to air navigation services

FIR(s)/UIR(s) (Flight information region(s)/upper flight information region(s)) covered: _____

Year or 12 month period ended: _____
Currency: _____

2.1 **Revenues**

(a)	En-route services	_____
(b)	Approach and aerodrome control services	_____
(c)	Grants and subsidies	_____
(d)	Other revenues	_____
(e)	Total revenues (sum of above)	_____

2.2 **Expenses**

(a)	Operation and maintenance (e.g. staff, supplies, services, etc.)	_____
(b)	Administrative overhead	_____
(c)	Depreciation and/or amortization	_____
(d)	Interest	_____
(e)	Other expenses	_____
(f)	Total expenses (sum of above)	_____

Expenses by function

2.3 Please indicate allocation of expenses by function (amounts or percentages of total expenses):

(a)	En-route services	_____
(b)	Approach and aerodrome control services	_____
(c)	Non-aeronautical activities	_____

Expenses by service

2.4 Please indicate the estimated share (percentage or absolute figure) of the total expenses accounted for by the following major facilities and services:

(a) ATM (Air traffic management) _____
(b) CNS (Communications, navigation and surveillance) _____
(c) MET (Meteorological services) _____
(d) SAR (Search and rescue services) _____
(e) AIS (Aeronautical information services) _____

Capital investments

2.5 Please indicate gross capital investments during the year by service:

(a) ATM _____
(b) CNS _____
(c) MET _____
(d) SAR _____
(e) AIS _____
(f) Total _____

Staff

2.6 Please indicate the number of staff employed (converted to full-time staff) according to the following breakdown:

	En-route services	Approach and Aerodrome control services	Total
(a) ATM	_____	_____	_____
(b) CNS	_____	_____	_____
(c) MET	_____	_____	_____
(d) SAR	_____	_____	_____
(e) AIS	_____	_____	_____
(f) Total	_____	_____	_____

TRAFFIC DATA (For 2003)[3]

FIR(s)/UIR(s) (Flight information region(s)/upper flight information region(s)) covered: _____

Year or 12 month period ended: _____

2.7 Please provide below, by category, the number of IFR (Instrument Flight Rules) flights or other flights for which flight plans were filed with the respective area control centre(s) or flight information centre(s):

(a) International civil flights (including international general aviation) _____

(b) Domestic civil flights (including general aviation) _____

(c) Other flights (State, including military flights) _____

(d) Total flights (sum of above) _____

— END —

[3] Only en-route traffic.