ICAO CIRCULAR

CIRCULAR 224-AT/91

1990

SURVEY OF INTERNATIONAL AIR TRANSPORT FARES AND RATES SEPTEMBER 1989

Approved by the Secretary General and published under his authority

INTERNATIONAL CIVIL AVIATION ORGANIZATION
MONTREAL • CANADA

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I. INTRODUCTION

Terms of reference, objectives and scope of the survey

1. This survey has been prepared pursuant to ICAO Assembly Resolution A21-26 Clause 1 a) by which the Assembly directed the Council to issue annually a survey of international air transport fares and rates. This report concerns data for September 1989 and is the sixteenth in the series, the previous report being Circular 219 for September 1988.

2. In addition to these surveys of published fares and rates for scheduled transport of passengers and freight, the Organization publishes analytical studies of regional differences in the level of scheduled passenger fares and corresponding airline costs. The latter studies are carried out pursuant to Assembly Resolution A21-26 Clauses 1 b) and 1 d). Since 1977 they have incorporated passenger and freight revenue yield data, for both scheduled and non-scheduled operations. Prior to 1977 such data had been incorporated in the annual surveys of fares and rates.

3. The purpose of the present report is to provide an overview of international fares and rates which are published in the multilateral airline tariff guides and are available to the general public, so as to permit comparisons of the levels of these fares and rates in different geographical areas.

4. As a basis the survey shows, for 17 different groups of international air routes, representative relationships between economy class normal passenger fares and general cargo rates for small shipments on the one hand and transport distances on the other hand for the sample month of September 1989. These relationships are compared amongst route groups and with world averages. A comparison is also made with September 1988 fares and rates levels. A sample survey is also presented, for each route group, of the relative availability and level of other types of fares and rates in September 1989.

Data sources

5. The main sources of data for this survey were the ABC World Airways Guide and the ABC Air Cargo Guide. The following basic data were obtained from magnetic tape provided by the publishers from the September 1989 issue of these guides for all international city-pairs with direct through-plane service:

a) country and route group for each city-pair;

b) economy class normal passenger fares available; and

c) general cargo rates available for shipments up to 45 kg.

Additional data sources included Airline Passenger Tariffs, Air Tariffs, and The Air Cargo Tariffs publications and the Resolution Manuals of the Association Internationale de Transporteurs Aériens (ATAF).

Analysis and statistical methodology

6. The basic data concerning the economy class normal passenger fares and general cargo rates were prepared and analysed with a view to providing information on three specific points:

a) how fares and rates vary according to distance from one route group to another;

b) how fares and rates changed compared with the previous year;

c) how city-pairs are distributed by distance within each route group to show the relative importance of short-, medium- and long-haul routes.

7. These analyses involved the use of standard statistical techniques to establish the relationship between fares and rates on the one hand and distances on the other. This relationship was computed by means of least squares regression analysis. Fares and rates selected for each year were analysed as a function of distance for each of the 17 route groups and for the world. Basic statistical details concerning these equations for each route group are shown in Appendix 3.

Selection of city-pairs and route groups

8. Economy class normal fares were analysed for a total of 10 084 city-pairs for which adequate data were available. General cargo rates for 7 813 city-pairs were also analysed. A city-pair was defined, for the purposes of this survey, on a directional basis. For example, Paris-Frankfurt was counted as one city-pair, while Frankfurt-Paris was counted as another.

9. Fares and rates were obtained for all those city-pairs listed in the ABC World Airways Guide and ABC Air Cargo Guide that met two criteria: firstly that each city be located in a different country; and secondly, that through-plane service, necessitating no connexion, be available. City-pairs for which only cabotage fares were quoted were not listed. As far as cargo rates are concerned, the survey reflects the ABC Air Cargo Guide listings which include only those city-pairs between which there are all-cargo aircraft services or combination aircraft services operating with wide-body aircraft.

10. Fares and rates between international city-pairs which met the above criteria were grouped on the basis of major route groups to permit regional analysis. These route groups, covering geographic areas described precisely in Appendix 1, are as follows:

- between North America and Central America/Caribbean
- between and within Central America and the Caribbean
- between Canada, Mexico and the United States
- between North America/Central America/Caribbean and South America
- local South America
- local Europe
- local Middle East
- local Africa
- between Europe and Middle East
- between Europe/Middle East and Africa
- North Atlantic
- Mid Atlantic
- South Atlantic
- local Asia/Pacific
- between Europe/Middle East/Africa and Asia/Pacific
- North and Mid Pacific
- South Pacific.

City-pair distances used for analysis

11. The distances between pairs of cities selected for this survey are those defined by the shortest airline-operated routing. Where two points are linked by a non-stop airline service, the distance is termed the non-stop stage distance. This is in

many cases synonymous with the "great circle" distance. However, this is not the case where the route flown departs from the most direct route due to the existence of restricted or prohibited areas, to navigational considerations or to other practical factors. Where two points are not linked by a non-stop airline service, the distance is determined by the non-stop stage distances of the sectors comprising the shortest airline operated route. These distances were computed within ICAO from the flight stage distances and flight itineraries provided by the publishers of the ABC World Airways Guide. All distances referred to in this survey are in kilometres.

Selection of fares and rates

12. The criteria used in selecting the passenger fares and the cargo rates for this survey were that they should be representative, available to the general public, and allow comparison on a world-wide basis. Furthermore, the fares and rates selected should be generally indicative of the level of international fares and rates as officially applied by the international scheduled airlines of the world.

13. There are two main categories of passenger fares on scheduled services, referred to as "normal" (unrestricted) fares and "special" fares. "Normal" (unrestricted) fares are those (in first, intermediate, or other class) which are available to members of the general public without limitations as to their purchase or use. In the past, "special" fares encompassed mostly promotional fares, i.e. fares lower than normal fares which are generally designed to generate revenue by attracting passengers who would not travel at the higher fares. These fares have conditions attached to them which limit their use in some instances (for example, requirements for advance purchase/reservations and/or limits on the period of stay).

14. In recent years, however, a new type of "special" fare has been created through the development of so-called "restricted" normal fares. These fares retain most of the characteristics historically associated with the normal fares, but they have restrictions on the availability or number of stopovers and, in some cases, on the ability to interline. On some routes, notably on the North Atlantic, these may be the only "normal" fares available in the economy class. Thus passengers who wish to retain all of the facilities traditionally associated with normal fares have to travel using the intermediate or first class fares. In most cases special fares are available for economy class round-trips only. Normal fares can, and special fares generally do, vary on a given route according to season.

15. Despite the appearance of the economy class "restricted" fares, economy class normal fares are still of major importance, and they also have a degree of commonality of definition among different routes which makes them susceptible to a route by route comparative analysis. Such a statistical analysis provides the foundation for this survey. Since, in some cases, economy class normal fares vary by season, and even by day of week or time of day, and since, in a few cases, different airlines may offer different economy class normal fares between the same city-pairs, the economy class normal fare selected for a city-pair for the purpose of this report was the highest available in the week commencing 1 September 1989. Return fares rather than one-way fares have been selected in order that they may be compared with special fares, most of which are available only on a round-trip basis; where return fares are available at less than twice the single fare, the former have been selected.

16. Special fares, even of a particular type, do not have the commonality of defini- tion concomitant with normal fares. In addition to the economy class "restricted" fares discussed above, there are many other types of special fares, for example excursion fares (including advance purchase excursion fares); standby fares; budget fares; incentive, affinity and non-affinity group fares; individual and group inclusive tour fares; youth, family, military, pilgrim, local resident, student and teacher fares; etc. The most widely available of the special fares are excursion fares, which are generally restricted with respect to their validity in time. However, there is

considerable variation from region to region in the combination of minimum and maximum travel duration and, in some cases, in the right to make intermediate stops at no extra cost.

17. In order to give an overview of the availability of different fare types among route groups on a comparative basis, fares have been classified into seven major groupings including first class normal, intermediate class normal and economy class normal fares as well as special fares in the case of economy class. The fares concerned are shown for a sample of 10 city-pairs in each route group. These samples show the different availability of the various fare groups and their level relative to the highest economy class normal fares. The 10 city-pairs selected from those used in the analysis of fare levels against distance are representative of each route group in terms of distances, traffic volumes, countries of origin and destination, and directionality of traffic.

18. It should be noted that in a few cases the tables of special fares may be incomplete, since there were seen to be some instances in 1989 of individual airlines offering special fares which were not quoted in any of the major multilateral airline guides. Also there are a number of fares which are not listed in the multilateral tariff manuals under the city-pairs concerned but are listed under the general rules sections of the manuals. These fares are sometimes agreed within IATA in the form of a resolution, established through single carrier filings, agreed on a bilateral basis or instituted through government orders. They generally apply to specific categories of people such as seamen, emigrants, students, etc. The level of these fares is usually specified as a percentage of normal fares. The applicability can range from a world-wide basis down to a city-pair. These fares are not shown in the tables of the sample city-pairs but a summary of their availability is given in Chapter II. It should also be noted that while, in many instances, either discounts or special fares are available for children, these fares have not been included in this survey.

19. A similar distinction between "normal" and "special" categories can be made with respect to cargo rates, the main categories being general cargo rates and specific commodity rates. The general cargo rates are set at different levels according to the weight of the shipment, but regardless of the nature or value of the commodity being shipped. These rates generally vary according to the direction of shipment. Specific commodity rates are promotional rates, lower than general cargo rates at comparable weights, but involving restrictions (in terms of the nature of the commodity and minimum shipment sizes) designed to minimize dilution of revenue from general cargo rates. They are often very limited in terms of geographical application since they are introduced on a market by market basis where potential traffic is seen to exist.

20. The basic general cargo rate is for shipments of up to 45 kg in weight (also called the N rate). At the 45 kg breakpoint there is generally a discount on the N rate in the order of 25 per cent. In route groups where air freight is well developed, still lower rates may be available for shipments of 100, 500, or 1 000 kg, for example, and/or other large shipments. For the purpose of this survey, the basic rate selected was the under-45 kg general cargo rate, which is available in all regions of the world. It should be noted, however, that where the distance between the city-pairs is very short this "under-45 kg" rate may be overridden by the minimum charge which is established for the originating country (or, in some cases, city) concerned.

21. Since April 1988 a revised cargo tariff structure replacing the minimum charges, the general cargo rates and the specific commodity rates has been used between some European countries and from these countries to other European countries. This pricing system consists of a basic charge per consignment plus a rate per kg applicable to each kilogram in the consignment. For the purposes of this study, the cargo rate for the relevant city-pair was computed for a consignment of 45 kg.

22. The availability and level of certain other general cargo rates, and also specific commodity rates (as a group), are presented in comparative tables for a sample of 10 city-pairs in each route group. The criteria for selecting the 10 city-pairs were similar to those used in the case of passenger fares. The actual city-pairs selected may differ from those used for fares, however, as the basic selection of the city-pairs used in the analysis of rate levels against distance excluded those city-pairs served only by narrow-body combination aircraft (see paragraph 9 above). Cargo rates such as bulk unitization (or freight-all-kinds) rates and discount rates for unit load devices are not presented separately since, where available, they bear a close relationship with one or other of the rate types presented. However, the text indicates route groups on which these rates are available.

23. It is important to note that the fares and rates used, while excluding any local taxes which are normally not included in the fares and rates as published in the multilateral tariff manuals, represent an indication of the price paid by passengers and shippers and should not be confused with the actual revenue yield to the airline which is the weighted average of all the revenue received by the carrier (after any proration) from all normal and special fares and rates.

Currencies

24. Since 1 October 1984 for rates and 1 July 1989 for fares, the IATA member airlines have established a world-wide system to negotiate and specify fares and rates in the local currency of the country of origin or in U.S. dollars (the latter usually for those countries where exchange rates suffer large fluctuations). Bankers' rates of exchange are used whenever currency conversion is required, such as when payment for air travel or for the shipment of merchandise by air is made in a country other than the one from where the travel or shipment commences. The currency adopted for comparative purposes throughout the survey is the United States dollar. The exchange rates used are the "IATA Clearing House Five Day Monthly Rate" for the month of August shown in Appendix 2.

Selection of survey period

25. The month of September was chosen as being one of the four sample months formerly covered by ICAO statistics on passenger traffic flow and is considered to be the most representative of year-round average fares and rates.

Structure of the survey

26. The next two chapters, Chapters II and III, present a comparative summary of the main results for the 17 major international route groups, together with certain estimated averages, for international passenger fares and international cargo rates respectively. Chapter IV presents a more detailed analysis for each of the 17 international route groups separately including, in the case of route groups involving travel between two or more world regions, an analysis of fares and rates by direction. Appendix 1 gives a description of the specific geographic areas covered by each of the 17 international route groups used in this survey, and Appendices 2 and 3 cover the currency conversion rates and the regression equations, respectively, for September 1989.

II. COMPARATIVE SUMMARY OF INTERNATIONAL PASSENGER FARES

Introductory remarks

1. The objective of this chapter is to provide a world-wide perspective of international passenger fares, to compare them among route groups and the estimated world averages, and to compare the situation in September 1989 with that in September 1988. The findings are factual and descriptive in nature. By virtue of the scope of the survey the comparisons made are general, and relate only to the estimated values of fares as determined by the analyses. Within each route group, individual city-pairs will differ more or less from the general situation for the group as a whole, and no attempt has been made in this survey to weigh city-pairs according to the volume of traffic. In consequence, city-pairs which are relatively insignificant from the standpoint of traffic have been accorded as much importance as those between which large volumes of passenger traffic flow. This does not detract from the value of assessing the level of international airline fares from a regional and global point of view.

Distribution of international city-pairs by route group

2. An indication of the complexity of the international scheduled fares system is provided by the number of city-pairs with through-plane service for which economy class normal fares were obtained - a total of 10 084. In addition there were a limited number of city-pairs with through-plane service for which pertinent information on fares was missing in the multilateral airline guides, so that the number of the city-pairs above is less than the actual numbers with through-plane service. When it is considered that there may be in excess of fifty different passenger fares between two cities, a measure is obtained of the magnitude of the work involved in establishing fares on a global basis.

3. It may be seen from Table II-1 that 2 988 city-pairs, almost 30 per cent of the total analysed, were located in the route group "local Europe". Four route groups out of the seventeen accounted for about 53 per cent of the total. In addition to "local Europe", these were "between Europe/Middle East/Africa and Asia/Pacific", "local Asia/Pacific" and "between Europe/Middle East and Africa". The three transatlantic route groups, "North Atlantic", "Mid Atlantic" and "South Atlantic" together accounted for almost 9 per cent of the total number of international city-pairs, while the two transpacific route groups accounted for about 2 per cent of the total number of international city-pairs.

Distribution of international city-pairs by distance

4. The average distance separating the 10 084 international city-pairs for which economy class normal fares were obtained was 3 301 km. This distance may be compared with an estimated average international passenger trip length in 1989 of 3 150 km. In comparing these two figures, it is important to bear in mind that the latter one is not only dependent on the volume of traffic travelling on different routes but also on the statistical base for counting airline passenger traffic. Thus a passenger who purchases a ticket between London and Tokyo, for example, may also decide to interrupt his journey at one or more cities en route. Although on a true ticket origin and destination basis this may be considered as one trip, in practice the passenger is considered as commencing a new journey after each stopover. The flight coupon surrendered to the airline at each new boarding therefore constitutes the statistical base for the airline passenger count rather than the ticket itself. When comparing fare and revenue yield data over time it

Table II-1. Distribution by route group of international city-pairs for which economy class normal fares were obtained (September 1989)

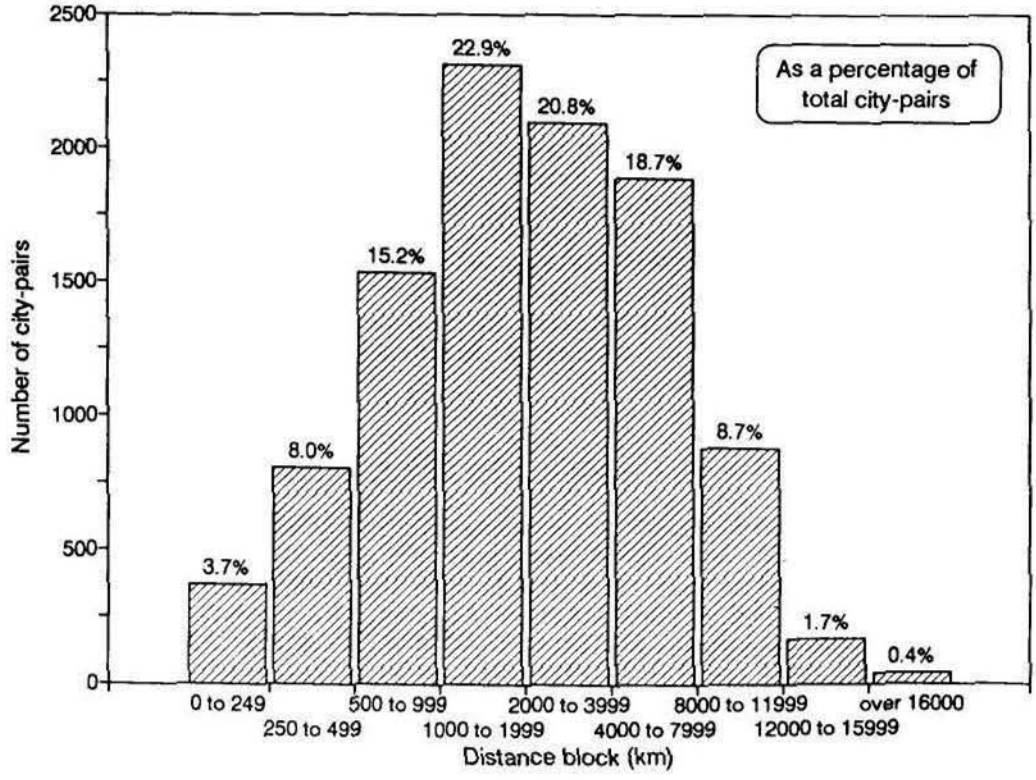
Route groups	Number of city-pairs	%	Cumulative %
International total - WORLD	10 084	100.0	-
Local Europe	2 988	29.6	29.6
Between Europe/Middle East/Africa and Asia/Pacific	815	8.1	37.7
Local Asia/Pacific	798	7.9	45.6
Between Europe/Middle East and Africa	760	7.6	53.2
Between Europe and Middle East	679	6.7	59.9
Between Canada, Mexico and the United States	649	6.4	66.3
North Atlantic	586	5.8	72.1
Local Africa	586	5.9	78.0
Between North America and Central America/Caribbean	404	4.0	82.0
Between and Within Central America and the Caribbean	402	3.9	85.9
Local Middle East	372	3.7	89.6
Between North America/CentralAmerica/ Caribbean and South America	296	3.0	92.6
Local South America	213	2.1	94.7
North and Mid Pacific	182	1.8	96.5
Mid Atlantic	180	1.8	98.3
South Atlantic	113	1.1	99.4
South Pacific	61	0.6	100.0

should also be noted that the average city-pair distance has been falling steadily with the increasing introduction of non-stop and limited-stop services (it was 3 770 km in 1975, 3 446 km in 1980 and 3 364 km in 1985), while the average passenger trip length has been on a generally rising trend (it was 2 510 km in 1975, 2 860 km in 1980 and 3 040 km in 1985).

5. Graph II-1 portrays the number and percentage distribution of city-pairs by distance block for the world sample of 10 084 city-pairs for which economy class normal fares were obtained in September 1989. Less than 4 per cent of the above city-pairs are separated by distances of less than 250 km, 8 per cent fall in the distance block of 250-499 km, and a further 15 per cent in the block 500-999 km. Thus, over one-quarter of the sampled international city-pairs are located in the less than 1 000 km distance range, while only about 11 per cent are located in the more than 8 000 km distance range.

Distribution of international city-pairs by route group and by distance

6. The average regional inter-city distance is shortest in the route group "between and within Central America and the Caribbean" at 644 km and in "local Europe" at 1 168 km, while the route groups with the longest average city-pair distance are the "North and Mid Pacific" at 10 780 km and the "South Pacific" at 9 622 km. Table II-2 compares the number of city-pairs in each route group that fall in the nine distance blocks selected for the purpose of this chapter.



Graph II-1. Distribution by distance block of city-pairs for which economy class normal fares were obtained (September 1989)

Table II-2. Distribution by distance block of city-pairs for which economy class normal fares were obtained (September 1989)

Route group	Number of city-pairs by distance (km)									Number of city-pairs	Average distance
	0 to 249	250 to 499	500 to 999	1 000 to 1 999	2 000 to 3 999	4 000 to 7 999	8 000 to 11 999	12 000 to 15 999	over 16 000		
International total - WORLD	369	805	1 532	2 308	2 093	1 886	882	169	40	10 084	3 301
Between North America and Central America/Caribbean	18	39	27	103	182	35	-	-	-	404	2 190
Between and within Central America and the Caribbean	134	86	93	70	19	-	-	-	-	402	644
Between Canada, Mexico and the United States	27	63	116	181	246	16	-	-	-	649	1 763
Between North America/ Central America/Caribbean and South America	4	12	37	50	83	74	36	-	-	296	3 771
Local South America	6	20	32	76	49	30	-	-	-	213	2 004
Local Europe	96	437	894	1 189	368	4	-	-	-	2 988	1 168
Local Middle East	16	52	60	141	103	-	-	-	-	372	1 396
Local Africa	43	53	129	175	143	43	-	-	-	586	1 709
Between Europe and Middle East	-	4	18	58	401	198	-	-	-	679	3 291
Between Europe/Middle East and Africa	2	4	17	72	142	440	83	-	-	760	4 957
North Atlantic	-	-	-	-	4	415	156	11	-	586	7 425
Mid Atlantic	-	-	-	-	-	82	96	2	-	180	8 385
South Atlantic	-	-	-	-	-	23	78	12	-	113	9 568
Local Asia/Pacific	23	35	107	160	241	192	38	2	-	798	3 109
Between Europe/Middle East/ Africa and Asia/Pacific	-	-	2	33	112	285	269	80	34	815	7 939
North and Mid Pacific	-	-	-	-	-	30	103	43	6	182	10 780
South Pacific	-	-	-	-	-	19	23	19	-	61	9 622

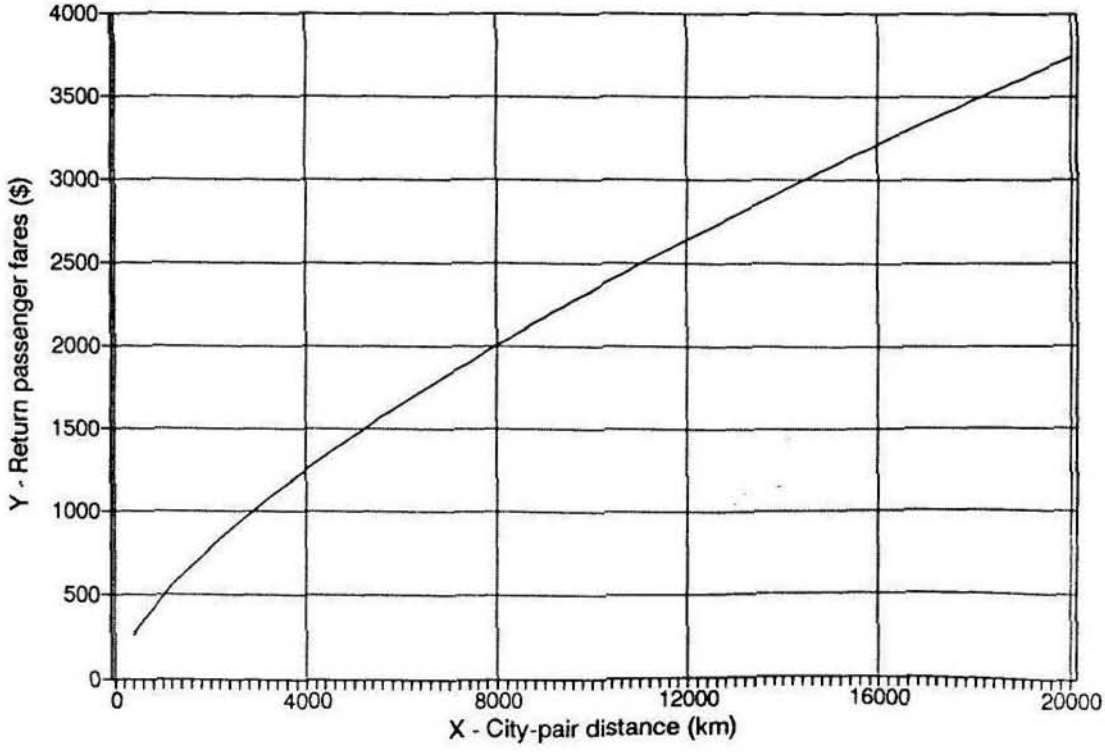
Relationship between estimated economy class normal fares and distance

7. As indicated in Chapter I, there are two basic categories of passenger fares on scheduled services: normal and special fares. For the purposes of this survey, economy class normal fares have been defined as economy class fares which are available to members of the general public without limitations as to their purchase and use. However, for those few city-pairs where there is no economy class normal fare available, the highest economy class restricted fare has been used. The fares presented are return fares in order that they may be compared with special fares, most of which are available only on a round-trip basis.

8. The relationship between estimated average economy class normal fares and distance in September 1989 may be observed in Graph II-2. The estimated averages shown in this graph are for the world as a whole and may be used as a basis for comparing fares shown in Chapter IV by route group. The curve of this graph has been statistically computed so as to reflect best the relationship between the fares and the distance (see Appendix 3 for further details).

Comparative level of economy class normal fares by route group

9. In September 1989, the lowest estimated average economy class normal fares for short distances were found on scheduled international routes on the "local South America" and "local Asia/Pacific" route groups (see Table II-3). Fares on the "local South America" routes were also among the lowest at the middle range of distances, along with fares for routes between North America and Central America/Caribbean ("North-Central America" in short form), between Canada, Mexico and the United States ("North America"),



Graph II-2. Relationship between estimated average economy class normal fares and distance (September 1989)

and between Europe/Middle East/Africa and Asia/Pacific ("Europe-Asia/Pacific"). At long distances, the lowest fares were found on routes across the "North- Mid Pacific". The lowest average fare at the average distance in any route group was 9.8 cents per passenger-kilometre (at 10 800 km) on North-Mid Pacific routes. In September 1989, however, as in the three previous years fares on this route group were found, on average, to be more dependent on other factors than distance and hence no average fare levels against distance are shown in Table II-3 for the North-Mid Pacific routes (see paragraph 15 below and Chapter IV for a fuller discussion).

10. In September 1989, the highest estimated average fare levels at shorter distances were seen for routes in "Europe". Fares for "Europe", "Europe-Middle East" and "Europe-Africa" routes were relatively high in the middle range of distances. For longest distance routes estimated average fare levels were relatively high for routes across the South Pacific. The highest average fare at the average distance in any route group was 28.5 cents per passenger-kilometre (at 1 200 km) on routes in "Europe".

Changes in level of economy class normal fares between 1988 and 1989

11. Fares in this survey are generally expressed as the United States dollar equivalents, at the applicable exchange rates, of local selling fares (see Chapter I). Hence the year-to-year changes in estimated fares include the effects of changes in the strength of the U.S. dollar relative to other currencies. Between September 1988 and September 1989, the U.S. dollar strengthened against most of the other world currencies. The local selling currency used in each country as well as the exchange rates to the U.S. dollar for each of the national currencies involved may be seen in Appendix 2. Where estimated fares are expressed in a currency against which the U.S. dollar had strengthened, the year-to-year increases in that currency are larger than those recorded when expressed in U.S. dollars. On the other hand, if estimated fares are expressed in a currency against which the U.S. dollar had weakened, the year-to-year increases in that currency are smaller than those recorded when expressed in U.S. dollars. The year-to-year changes in the survey therefore show a significant variation depending on the currency mix present in the individual route groups and the amount each currency has changed against the U.S. dollar during that same period.

12. As shown in Table II-4, between September 1988 and September 1989 the estimated world average economy class normal fares expressed in U.S. dollars show increases of about 1 per cent throughout all the reference distances, whereas the same fares expressed in local selling currencies show increases of just under 6 per cent for the same reference distances. The percentage changes between 1988 and 1989 shown for some individual route groups also vary considerably when fares are expressed in U.S. dollars or in the local selling currencies. It should be noted that in countries where the exchange rate of the national currency is volatile, air fares for international journeys are generally quoted in U.S. dollars. Also, with the introduction of the new IATA currency conversion system for international fares from 1 July 1989, the U.S. dollar was used as the local selling currency in many more countries in September 1989 than in September 1988 (see Appendix 2). Hence, in those areas where the local currencies are linked to the U.S. dollar, or where the fares themselves are expressed in U.S. dollars, such as in most of the Americas (route groups 1 to 5), the U.S. dollar changes shown in the table tend to reflect the changes as expressed in selling currencies. For routes within North America the small difference shown for increases in fares expressed in U.S. dollars with those shown for fares expressed in local selling currencies is due to the appreciation of the Canadian dollar against the U.S. dollar between September 1988 and September 1989.

13. Within Europe (route group 6) the differences in the changes in fare levels when expressed in local selling currencies compared with those expressed in U.S. dollars reflect the relative depreciation of the European currencies against the dollar between September 1988 and September 1989.

Table II-3. Comparison of average economy class normal fares per passenger-kilometre by route group and by distance

Route group (short title)		Cents per passenger-kilometre by distance (km)							
		250	500	1 000	2 000	4 000	8 000	12 000	16 000
International total - WORLD	1989	37.9	30.3	24.3	19.5	15.6	12.5	11.0	10.0
	(1988)	(37.5)	(30.0)	(24.0)	(19.3)	(15.4)	(12.4)	(10.9)	(9.9)
1. North-Central America	1989	37.9	27.6	20.1	14.7	10.7	-	-	-
	(1988)	(37.2)	(27.3)	(20.0)	(14.6)	(10.7)	-	-	-
2. Central America	1989	34.2	25.0	18.3	13.3	-	-	-	-
	(1988)	(34.1)	(24.9)	(18.2)	(13.3)	-	-	-	-
3. North America	1989	36.5	26.1	18.6	13.3	9.5	-	-	-
	(1988)	(33.9)	(24.1)	(17.1)	(12.2)	(8.7)			
4. North-South America	1989	-	21.4	18.4	15.9	13.7	11.8	10.8	-
	(1988)	-	(20.7)	(17.8)	(15.4)	(13.3)	(11.4)	(10.5)	-
5. South America	1989	22.0	18.8	16.2	13.9	11.9	-	-	-
	(1988)	(22.2)	(18.7)	(15.8)	(13.3)	(11.2)	-	-	-
6. Europe	1989	54.0	40.7	30.7	23.2	17.5	-	-	-
	(1988)	(54.7)	(40.9)	(30.6)	(22.9)	(17.1)	-	-	-
7. Middle East	1989	32.3	25.5	20.1	15.9	-	-	-	-
	(1988)	(32.0)	(25.3)	(20.1)	(15.9)	-	-	-	-
8. Africa	1989	25.7	21.9	18.7	15.9	13.6	-	-	-
	(1988)	(25.3)	(21.6)	(18.4)	(15.7)	(13.4)	-	-	-
9. Europe-Middle East	1989	-	23.2	21.4	19.8	18.3	-	-	-
	(1988)	-	(22.4)	(21.1)	(20.0)	(18.8)	-	-	-
10. Europe-Africa	1989	-	24.7	21.7	19.0	16.7	14.6	13.5	-
	(1988)	-	(26.2)	(22.6)	(19.4)	(16.7)	(14.4)	(13.2)	-
11. North Atlantic	1989	-	-	-	-	18.1	13.9	11.9	-
	(1988)	-	-	-	-	(17.1)	(13.4)	(11.7)	-
12. Mid Atlantic	1989	-	-	-	-	13.3	13.4	11.8	-
	(1988)	-	-	-	-	(16.3)	(13.9)	(12.7)	-
13. South Atlantic	1989	-	-	-	-	12.5	13.4	14.2	-
	(1988)	-	-	-	-	(11.8)	(13.1)	(13.8)	-
14. Asia/Pacific	1989	20.3	18.5	17.0	15.5	14.2	13.0	12.3	-
	(1988)	(19.6)	(17.8)	(16.2)	(14.8)	(13.4)	(12.2)	(11.6)	-
15. Europe-Asia/Pacific	1989	-	-	13.8	13.4	13.1	12.8	12.6	12.5
	(1988)	-	-	(14.4)	(13.9)	(13.4)	(12.9)	(12.6)	(12.4)
16. North-Mid Pacific[1]	1989	-	-	-	-	-	-	-	-
	(1988)	-	-	-	-	-	-	-	-
17. South Pacific	1989	-	-	-	-	13.6	14.2	14.6	14.9
	(1988)	-	-	-	-	(14.0)	(14.0)	(14.1)	(14.1)

1. Fare levels across the North-Mid Pacific were found to be more dependent on factors other than distance; hence no figures are shown for this route group.

Table II-4. Percentage change in average economy class normal fares by route group and by distance, between September 1988 and September 1989

Route group (short title)		Percentage change by distance (km)							
		250	500	1 000	2 000	4 000	8 000	12 000	16 000
International total - WORLD	in U.S.$	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.4
	(in selling currencies)	(5.0)	(5.7)	(5.6)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)
1. North-Central-America	in U.S.$	1.7	1.3	0.8	0.3	-0.1	-	-	-
	(in selling currencies)	(1.8)	(1.2)	(0.7)	(0.1)	(-0.4)	-	-	-
2. Central America	in U.S.$	0.5	0.5	0.5	0.5	-	-	-	-
	(in selling currencies)	(0.7)	(0.6)	(0.6)	(0.5)	-	-	-	-
3. North America	in U.S.$	7.7	8.2	8.7	9.1	9.6	-	-	-
	(in selling currencies)	(7.5)	(8.0)	(8.5)	(9.0)	(9.5)	-	-	-
4. North-South America	in U.S.$	-	3.3	3.2	3.0	2.9	2.7	2.7	-
	(in selling currencies)	-	(3.5)	(3.3)	(3.0)	(2.7)	(2.4)	(2.3)	-
5. South America	in U.S.$	-0.8	0.9	2.6	4.3	6.1	-	-	-
	(in selling currencies)	(-0.7)	(1.0)	(2.7)	(4.4)	(6.2)	-	-	-
6. Europe	in U.S.$	-1.4	-0.5	0.4	1.4	2.3	-	-	-
	(in selling currencies)	(3.5)	(5.0)	(6.5)	(8.1)	(9.7)	-	-	-
7. Middle East	in U.S.$	1.0	0.6	0.1	-0.3	-	-	-	-
	(in selling currencies)	(5.2)	(5.0)	(4.8)	(4.6)	-	-	-	-
8. Africa	in U.S.$	1.5	1.5	1.4	1.4	1.3	-	-	-
	(in selling currencies)	(10.7)	(10.3)	(9.8)	(9.3)	(8.8)	-	-	-
9. Europe-Middle East	in U.S.$	-	3.5	1.4	-0.7	-2.8	-	-	-
	(in selling currencies)	-	(28.0)	(18.9)	(10.5)	(2.7)	-	-	-
10. Europe-Africa	in U.S.$	-	-5.7	-3.9	-2.2	-0.4	1.4	2.0	-
	(in selling currencies)	-	(-1.8)	(0.6)	(3.2)	(5.8)	(8.4)	(10.0)	-
11. North Atlantic	in U.S.$	-	-	-	-	5.8	3.6	2.4	-
	(in selling currencies)	-	-	-	-	(7.2)	(6.1)	(5.5)	-
12. Mid Atlantic	in U.S.$	-	-	-	-	1.7	-3.9	-7.0	-
	(in selling currencies)	-	-	-	-	(5.5)	(-2.1)	(-6.2)	-
13. South Atlantic	in U.S.$	-	-	-	-	2.2	2.5	2.7	-
	(in selling currencies)	-	-	-	-	(12.5)	(6.1)	(2.5)	-
14. Asia/Pacific	in U.S.$	3.3	3.9	4.5	5.1	5.7	6.3	6.6	-
	(in selling currencies)	(5.5)	(6.6)	(7.7)	(8.8)	(10.0)	(11.1)	(11.8)	-
15. Europe-Asia/Pacific	in U.S.$	-	-	-4.7	-3.3	-1.8	-0.4	0.5	1.1
	(in selling currencies)	-	-	(7.3)	(6.5)	(5.7)	(4.9)	(4.4)	(4.1)
16. North-Mid Pacific[1]	in U.S.$	-	-	-	-	-	-	-	-
	(in selling currencies)	-	-	-	-	-	-	-	-
17. South Pacific	in U.S.$	-	-	-	-	-3.2	1.3	4.0	6.0
	(in selling currencies)	-	-	-	-	(-0.1)	(4.3)	(6.9)	(8.9)

1. Fare levels across the North-Mid Pacific were found to be more dependent on factors other than distance; hence no figures are shown for this route group.

14. Between September 1988 and September 1989 changes in fares in the Middle East and Africa were also affected by the increase in the value of the U.S. dollar against the national currencies of a few countries. Hence for routes within the Middle East (route group 7) and within Africa (route group 8) changes for fares expressed in U.S. dollars are smaller than those shown for fares expressed in the selling currencies. On routes between Europe and the Middle East (route group 9), the relatively large increases in fares expressed in local selling currencies compared with those shown for fares expressed in U.S. dollars reflect the relatively large depreciation against the U.S. dollar of some of the national currencies of countries in the eastern Mediterranean between September 1988 and September 1989.

15. On the North-Mid Pacific (route group 16), the relative strength of the Japanese Yen continues to be a major cause of wide variations in the fare levels on this route group as a whole, and hence no figures are shown for the North-Mid Pacific in Table II-4. Excluding fares from Japan, between September 1988 and September 1989 the estimated average fare levels expressed in U.S. dollars across the North-Mid Pacific show decreases of some 3 per cent at the shorter distances and increases of about 2 per cent at the longer ones, whereas in terms of local selling currencies the corresponding changes for these fares were decreases of some 4 per cent and increases of almost 1 per cent respectively. On the other hand, fares from Japan expressed in U.S. dollars showed an average decrease of some 13 to 14 per cent which, in terms of Japanese Yen, translates into an average decrease of 7 to 8 per cent between September 1988 and September 1989.

16. On routes involving the South Pacific (route group 17) the differences in the changes in fares when these are expressed in U.S. dollars compared with the same fares expressed in local selling currencies reflect the general depreciation of the currencies of countries in the South Pacific against the U.S. dollar between September 1988 and September 1989.

17. Changes in the value of the U.S. dollar against the other world currencies are in part responsible for altering the relationship between fare levels for routes where fares are predominantly in U.S. dollars and those which are usually quoted in other local selling currencies. Table II-5 demonstrates this effect by comparing at different periods in time the estimated average fare at 250 km of a route group with one of the highest fare levels (Europe) with that of a route group showing some of the lowest average fares (North America).

Table II-5. Effect of changes in the value of the U.S. dollar on the relative level of fares

Year	Estimated average fare at 250 km (U.S. cents per km) Local Europe	North America	Ratio local Europe/ North America	U.S. dollar relative to European currencies
1980	38.1	15.7	2.4	
				Strengthened
1985	36.3	25.3	1.4	
				Weakened
1987	54.0	26.4	2.1	
				Strengthened
1989	54.0	36.5	1.5	

Other normal fares

18. Apart from the economy class normal fare, the other type of fare most widely available on a world-wide basis is the first class normal fare which, in September 1989, remained available for about 98 per cent of the international city-pairs analysed. As in the previous year, these fares were on average some 55 per cent higher than the applicable economy class normal fares. However, they were substantially higher (on average between 85 and 105 per cent higher) on routes across the North Atlantic and the Pacific. In general on these routes intermediate class normal fares as well as first class and intermediate class restricted fares are widely available; however, across the North Atlantic first class and intermediate class restricted fares were available for substantially fewer city-pairs in September 1989 than in the previous two years.

19. In September 1989 intermediate class normal fares were available for about 70 per cent of international city-pairs. This significant increase over September 1988, when they were available for about 50 per cent of the city-pairs, was to a large extent mainly achieved after an IATA agreement was reached over the definition of intermediate class affecting routes to, from and within the Middle East. Intermediate class fares remained generally scarce on routes between North America and Central America/Caribbean, between and within the Caribbean and Central America and in local Europe. Where available, in September 1989 intermediate class normal fares were on average some 15 per cent higher than the applicable economy class normal fare though they were on average some 25 to 30 per cent higher across the North Atlantic and the South Pacific.

Economy class special fares

20. "Restricted" normal fares, that is fares which would otherwise be classified as normal fares but which have restrictions on the availability or number of stopovers and, in some cases, on the ability to interline, have made inroads in certain route groups. Although restricted fares exist for all three classes of travel, the economy class restricted fares are those most widely available. As in the previous year, in September 1989 they were available for about 15 per cent of the international city-pairs analysed. However, their availability varied widely from route group to route group. These fares were commonly available on routes to/from North America, and a few were available on routes between and within the Caribbean and Central America, between Europe/Middle East and Africa, on routes across the Mid Atlantic and between Europe/Middle East/Africa and Asia/Pacific. However, in September 1989, economy class restricted fares were generally absent on the other route groups. Where available these fares were on average at a level some 20 per cent below that of the applicable normal fare.

21. The most widely offered type of special fare on scheduled international air services was, as in previous years, the excursion fare. The conditions attached to this fare type are generally minimal and characteristically pertain to the minimum/maximum stay requirements. Some stopovers are generally allowed at no extra cost and in some specific areas there are provisions for additional stopovers at a specified charge. The relative availability of excursion fares varies widely from route group to route group. This is due to a number of factors, such as the level of economy class normal fares, the relative importance of personal and tourist travel, the volume of traffic, and competitive considerations. In September 1989 excursion fares were available for almost 80 per cent of international city-pairs. Where available, these excursion fares were, as in previous years, on average some 30 per cent lower than the economy class normal fares although they were substantially lower on routes across the South Pacific (some 60 per cent lower).

22. The existence of a wide range of other economy class special fares, in addition to those discussed above, was noted in Chapter I. Such fares were, and in most instances still are, intended by the airlines to develop or promote travel by specific segments of the travel market. On some routes, however, the number of passengers travelling on such promotional fares currently represents a relatively high proportion of the traffic.

Since promotional fares are lower than the normal fares, it follows that the lower unit revenues generated by promotional fare traffic must, in the long run, be either compensated for by higher average annual load factors or alternatively by revenues derived from normal fare-paying passengers, or some combination of both, to adequately cover the fully allocated costs involved.

23. The range of deep discount special fare types available and conditions applicable is wide and varies among geographical regions, nevertheless these may be broadly grouped into three major categories: the advance purchase excursion fares ("Apex"), the special excursion fares ("Pex") and the "Budget" fares. The main condition attached to the Apex-type fares, as their name suggests, is that reservation and payment must be made some period of time prior to travel. In addition they generally have minimum/maximum stay requirements, stopovers are usually not allowed (except on routes across the Pacific), combinations and transfers are often limited, voluntary re-routings are not allowed and there is almost always a cancellation fee associated with them. Pex-type fares have similar conditions to the Apex-type fare except that they do not have an advance purchase requirement, although reservation and payment are still required to be made at the same time. Budget-type fares are generally only available on routes within Europe and across the North-Mid Pacific. They share most of the characteristics associated with the two other types of special fares discussed above. The major difference is that in general Budget-type fares do not have a minimum/maximum stay requirement and only the outbound journey needs to be booked at the time of payment.

24. A study of city-pair samples selected from each route group suggests that on a world-wide basis, Apex- and Pex-type fares are becoming increasingly prevalent. In September 1989 these fares, including Budget-type fares, existed in about 60 per cent of the cases; they predominate on routes in North America, across the North and South Atlantic and across the Pacific, and they have also existed for some years on several other route groups. On average these fares were about 45 per cent lower than economy class normal fares. In September 1989, group fares existed in some 30 per cent of the cases at an average level some 50 per cent lower than the economy class normal fares.

25. From the study of city-pair samples, it can be concluded that relative to 1988 a significant development in September 1989 was the increase in availability of intermediate class fares (70 per cent of the cases against about 50 per cent in September 1988). The increase occurred mainly on routes within North America, South America, and the Middle East as well as for routes between Europe and the Middle East. On most route groups the levels of some fares moved either up or down relative to those of economy class normal fares, but few route groups exhibited a consistent trend between September 1988 and September 1989. The exceptions were on routes between North America and the Caribbean/Central America, between North and South America, and those across the Mid Atlantic and the North-Mid Pacific where most fare types increased relative to the economy class normal fare.

Preferential fares

26. Preferential fares are those which are available only to passengers who meet certain requirements in terms of age, occupation, family relationship or affiliation to certain enterprises or associations. Listed below are some of the major types of preferential fares together with their area of application and level of discount offered. Other preferential fares not listed below may also have been available in September 1989. Because of their nature and the way in which they are established, preferential fares are discussed here in some detail and not generally covered in the individual route group analyses of Chapter IV.

27. Apart from the discounts for children which have a world-wide application, the fares with the widest area of application are those for seamen. IATA resolutions establish individual fares for ships' crews at a level 25 per cent below that of the applicable economy class normal fare. In September 1989 these fares were available on all

international routes except those across the South Pacific. Group fares for ships' crews also adopted through IATA have a smaller coverage. They were only applicable in the Europe/Middle East/Africa area (except within Middle East and within Africa), between Europe/Middle East/Africa and Asia, and within Asia. Where available, these fares were some 25 to 50 per cent lower than the applicable economy class normal fare.

28. Other fares have been established through government orders to accommodate seamen (and in some cases their spouses and/or children) working on board vessels registered in Belgium, Denmark, Finland, France, Federal Republic of Germany, Greece, Ireland, Israel, Italy, Liberia, Malaysia, Morocco, Kingdom of the Netherlands, Norway, Panama, Singapore, Sweden, Switzerland, United Kingdom and the United States. These fares generally have world-wide application, although the actual area covered in practice is limited to the route network of the participating carriers. Where available, these fares were also some 25 to 45 per cent below the applicable economy class normal fare.

29. In September 1989, another fare type with a wide area of application was one for students. IATA resolutions covered this fare type for almost all areas except for routes across the North Atlantic, the Pacific, within the Americas and between certain points within the Middle East. These fares were generally available at a level 25 per cent below the applicable economy class normal fare although on routes within Africa and for specified points between the Middle East and Europe/Africa they were available at a level 40 per cent lower than the applicable economy class normal fare, and for routes between Europe/Africa/Middle East and the South Asian Subcontinent where they are available at levels 30 per cent lower than the applicable economy class normal fare. There were also a few student fares not covered by IATA agreements which were available for travel between certain countries in the Americas as well as for some routes across the Pacific.

30. The lack of student fares across the North Atlantic is in part offset by the availability of youth fares. For travel between the United States and certain countries in Europe these fares are at a level some 70 per cent below the applicable economy class normal fare, but they have a specific restriction on availability in that reservations can only be made less than 72 hours before departure in either direction. In September 1989, other youth fares were also available, with some exceptions, for travel between the United States/Canada and Africa/Middle East, Mexico and the Middle East, within Europe, within the Middle East, between Europe and the Middle East, between Northern Europe and South Africa, as well as from Japan to points in Europe, Asia and the South Pacific, and from the Philippines to points in South East Asia. Where available, these fares were at levels between 25 and 55 per cent lower than the applicable economy class fare.

31. Preferential fare types with a more limited area of application are those for spouses and families. In September 1989, spouse fares were commonly available within Europe, on routes between Europe and Western Africa and on routes from Japan to Europe, Asia/Pacific and the Americas. Family fares were applicable, with a few exceptions, between Europe and the Middle East, within Africa, within the Middle East, from the Middle East to Eastern Africa, from Japan to Canada, the United States and the South Pacific, and from Scandinavian countries and Finland to a number of countries in Europe. The general principle applying to these fares is that provided the head of the family pays the full amount of the first, intermediate or economy class normal fare, the spouse and/or other members of the family are allowed to travel at a fare level 50 per cent below the applicable normal fare.

32. In September 1989, emigrant fares, generally at levels between 20 to 40 per cent lower than the applicable economy class normal fares, were mainly found for travel from countries in Latin America and in the Asia/Pacific region to Canada and the United States, a few European countries to Canada and countries in South America, and from countries in South America to those in the South Pacific. Senior citizen fares were mainly to be found on routes within the Middle East, between a few specified countries within Europe and from the United States to points in Europe and in Central America and the Caribbean, at levels some 10 to 55 per cent lower than the applicable normal fare.

33. Other preferential fares exist for migrant workers wishing to visit their home countries (mainly within Europe and between the Middle East and Asia), teachers (within the Middle East), pilgrims (from points in the Middle East and Europe to Jeddah) and clergymen (mainly from the United States to the Caribbean). Preferential fares have also been established for United States citizens who are members of the military or who are government officials, and their families, for travel between the United States and points in Europe, in Central America and the Caribbean, and in Asia/Pacific. Most of these fares were at levels some 20 to 60 per cent below the applicable economy class normal fare in September 1989.

III. COMPARATIVE SUMMARY OF INTERNATIONAL CARGO RATES

Introductory remarks

1. The objective of this chapter is to provide a world-wide perspective of international cargo rates, to compare rates among route groups and the estimated world averages, and to compare the situation in September 1989 with that in September 1988. The findings are factual and descriptive in nature. By virtue of the scope of the survey the comparisons made are general, and relate only to the estimated values of rates as determined by the analyses. Within each route group, individual city-pairs will differ more or less from the general situation for the group as a whole, and no attempt has been made in this survey to weigh city-pairs according to the volume of traffic. In consequence, city-pairs which are relatively insignificant from the standpoint of traffic have been accorded as much importance as those between which large volumes of freight traffic flow. This does not detract from the value of assessing the level of international airline rates from a regional and global point of view.

Distribution of international city-pairs by route group

2. Under-45 kg general cargo rates were obtained for 7 813 city-pairs with international through-plane scheduled services operated with all-cargo aircraft or wide-body combination aircraft. In addition there were a limited number of city-pairs with through-plane service for which pertinent information on rates was missing in the multilateral airline guides, so that the number of the city-pairs above is less than the actual numbers which would meet the required selection criteria.

3. It may be seen from Table III-1 that 2 012 city-pairs, just over one-quarter of the total analysed, were located in the route group "local Europe". Four route groups out of the seventeen accounted for about 54 per cent of the total. In addition to "local Europe", these were "between Europe/Middle East/Africa and Asia/Pacific", "between Europe/Middle East and Africa" and "local Asia/Pacific". The three transatlantic route groups, "North Atlantic", "Mid Atlantic" and "South Atlantic" together accounted for some 11 per cent of the total number of international city-pairs, while the two transpacific route groups accounted for almost 4 per cent of the total number of international city-pairs.

Distribution of international city-pairs by distance

4. The average distance separating the 7 813 international city-pairs for which general cargo rates for shipments of less than 45 kg were obtained was 3 932 km. This distance may be compared with an estimated average international freight trip length in 1989 of 5 270 km. The difference between the two figures reflects the relatively higher volume of traffic travelling on long-haul routes as opposed to short-haul routes. When comparing rate and cargo revenue yield data over time, it should also be noted that the average city-pair distance had been falling steadily until recently with the increasing introduction of non-stop and limited-stop services (it was 4 048 km in 1975, 3 909 km in 1980 and 3 826 km in 1985), while the average freight trip length had been rising steadily at a rate of about 400 km every 5 years (it was 4 200 km in 1975, 4 600 km in 1980 and 5 000 km in 1985). The last four years however saw an increase in the average city-pair distance (from 3 826 km in 1985 to 3 932 in 1989) in part due to the increase in long-haul all-cargo services such as on routes across the North Atlantic and across the Pacific. For example, for routes across the North-Mid Pacific, in September 1989

Table III-1. Distribution by route group of international city-pairs for which general cargo rates (under 45 kg) were obtained (September 1989)

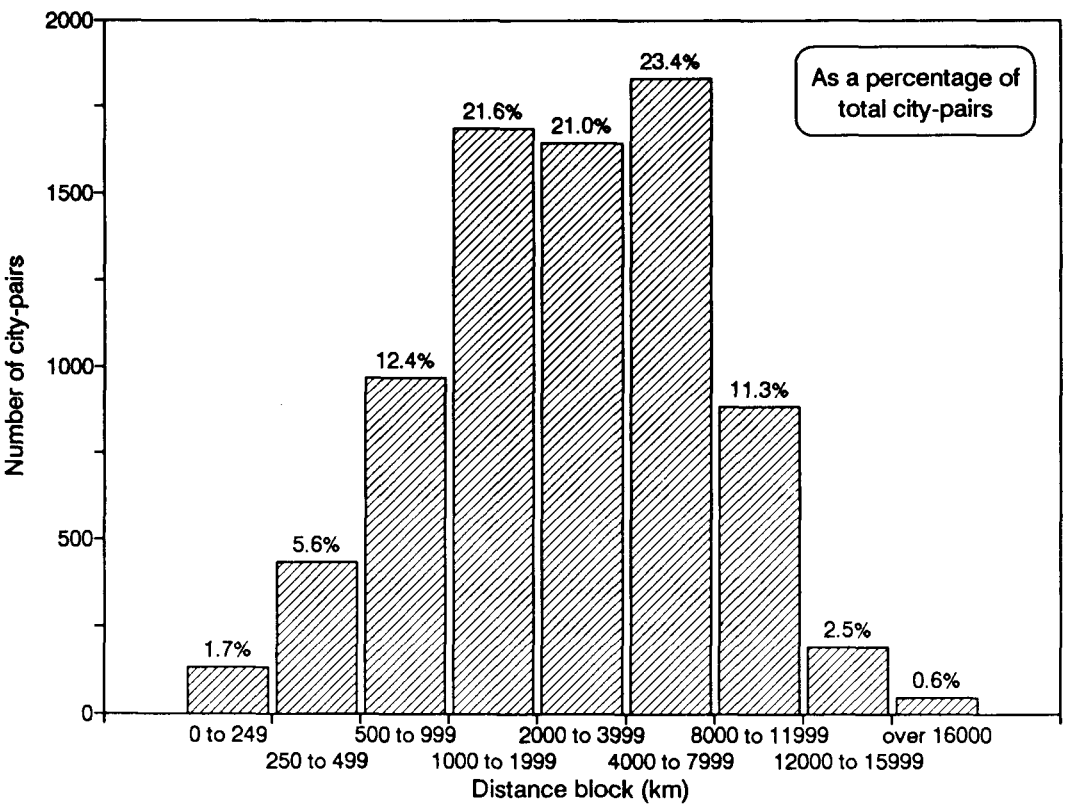
Route groups	Number of city-pairs	%	Cumulative %
International total - WORLD	7 813	100.0	-
Local Europe	2,012	25.8	25.8
Between Europe/Middle East/Africa and Asia/Pacific	814	10.4	36.2
Between Europe/Middle East and Africa	738	9.4	45.6
Local Asia/Pacific	673	8.6	54.2
Between Europe and Middle East	645	8.3	62.5
North Atlantic	560	7.2	69.7
Local Africa	501	6.4	76.1
Local Middle East	339	4.3	80.4
Between North America/Central America/ Caribbean and South America	267	3.4	83.8
North and Mid Pacific	211	2.7	86.5
Between and within Central America and the Caribbean	208	2.7	89.2
Between North America and Central America/Caribbean	175	2.2	91.4
Mid Atlantic	173	2.2	93.6
Between Canada, Mexico and the United States	165	2.1	95.7
Local South America	155	2.0	97.7
South Atlantic	114	1.5	99.2
South Pacific	63	0.8	100.0

there were 211 city-pairs between which freight could be shipped directly (on combination or all-cargo scheduled flights) compared with 182 city-pairs on which passengers were offered direct services.

5. Graph III-1 portrays the number and percentage distribution of city-pairs by distance block for the world sample of 7 813 city-pairs for which cargo rates were obtained in September 1989. Because one of the selection criteria for the city-pairs included in the analysis of cargo rates was that there should be a through-plane service operated with all-cargo aircraft or wide-body combination aircraft only, the distribution of city-pairs by distance tends to include a higher proportion of city-pairs at the longer distances. Hence in the case of cargo rates, almost 60 per cent of the city-pairs surveyed are in distance ranges over 2 000 km compared with about 50 per cent for passenger fares.

Distribution of international city-pairs by route group and by distance

6. The average regional inter-city distance is shortest in the route group "between and within Central America and the Caribbean" at 833 km and in "local Europe" at 1 256 km, while the route groups with the longest average city-pair distance are the "North and Mid Pacific" at 11 026 km and the "South Pacific" at 10 529 km. Table III-2 compares the number of city-pairs in each route group that fall in the nine distance blocks selected for the purpose of this chapter.



Graph III-1. Distribution by distance block of city-pairs for which general cargo rates (under 45 kg) were obtained (September 1989)

Table III-2. Distribution by distance block of city-pairs for which general cargo rates (under 45 kg) were obtained (September 1989)

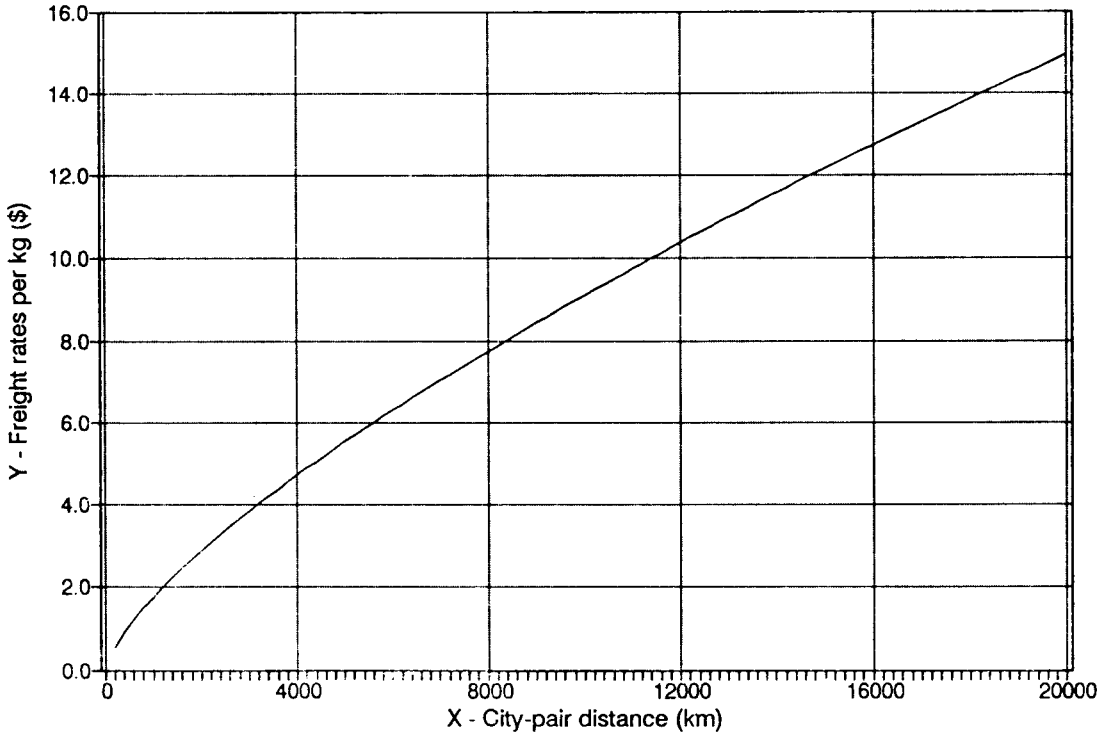
Route group	Number of city-pairs by distance (km)									Number of city-pairs	Average distance
	0 to 249	250 to 499	500 to 999	1 000 to 1 999	2 000 to 3 999	4 000 to 7 999	8 000 to 11 999	12 000 to 15 999	over 16 000		
International total - WORLD	133	434	968	1 685	1 644	1 828	883	193	45	7 813	3 932
Between North America and Central America/Caribbean	2	2	6	48	95	22	-	-	-	175	2 675
Between and within Central America and the Caribbean	38	44	54	58	14	-	-	-	-	208	833
Between Canada, Mexico and the United States	2	8	35	45	68	7	-	-	-	165	1 952
Between North America/ Central America/Caribbean and South America	1	4	32	46	71	77	36	-	-	267	4 093
Local South America	3	10	14	60	37	31	-	-	-	155	2 345
Local Europe	32	253	566	863	294	4	-	-	-	2 012	1 256
Local Middle East	16	50	58	131	84	-	-	-	-	339	1 344
Local Africa	22	39	103	158	138	41	-	-	-	501	1 847
Between Europe and Middle East	-	-	9	54	376	206	-	-	-	645	3 402
Between Europe/Middle East and Africa	2	4	13	67	140	427	85	-	-	738	5 002
North Atlantic	-	-	-	-	2	403	143	12	-	560	7 431
Mid Atlantic	-	-	-	-	-	79	92	2	-	173	8 398
South Atlantic	-	-	-	-	-	24	78	12	-	114	9 533
Local Asia/Pacific	15	20	76	123	218	182	37	2	-	673	3 378
Between Europe/Middle East/ Africa and Asia/Pacific	-	-	2	32	107	280	274	85	34	814	8 041
North and Mid Pacific	-	-	-	-	-	30	115	57	9	211	11 026
South Pacific	-	-	-	-	-	15	23	23	2	63	10 529

Relationship between estimated general cargo rates for small shipments and distance

7. The relationship between the estimated average international general cargo rates for shipments of less than 45 kg and distance in September 1989 may be seen in Graph III-2. These are the rates paid per kilogram at various distances. The estimated averages shown in this graph are for the world as a whole and may be used as a basis for comparison with the rates shown in Chapter IV by route group. The curves of this graph have been statistically computed so as to reflect best the relationship between the rates and the distance (see Appendix 3 for further details).

Comparative level of general cargo rates for small shipments by route group

8. In September 1989 estimated average general cargo rates for shipments of less than 45 kg, as shown in Table III-3, were lowest on the route groups "Africa", "Europe-Middle East" and "Asia/Pacific" at short distances, on the route groups "North-Central America" and "North America" at medium distances, and on the route groups "North-South America" and "Asia/Pacific" at the longest distances. The lowest average rate at the average distance in any route group was 75 cents per tonne-kilometre (at 2 000 km) on international routes in "North America".



Graph III-2. Relationship between the estimated average international general cargo rates for shipments of less than 45 kg and distance (September 1989)

9. The highest estimated rates were found in the route groups "South America" and "Europe" at short distances, on the route group "Europe-Middle East" at medium distances, and on routes across the South Atlantic and in the route group "Europe-Asia/ Pacific" at the longest distances surveyed. The highest average rate at the average distance in any route group was 180 cents per tonne-kilometre (at 1 300 km) on routes in "Europe".

10. No cargo rate levels against distance are shown in Table III-3 for routes across the Mid Atlantic and the North-Mid Pacific for September 1989 as these rates were found to be more dependent on other factors than distance (see Chapter IV for a fuller discussion).

Changes in level of general cargo rates for small shipments between 1988 and 1989

11. As for passenger fares, cargo rates in this survey are generally expressed as the United States dollar equivalents, at the applicable exchange rates, of local selling rates (see Chapter I). Hence, the year-to-year changes in estimated rates include the effects of changes in the strength of the U.S. dollar relative to other currencies. Between September 1988 and September 1989, the U.S. dollar strengthened against most of the other world currencies. The local selling currency used in each country as well as the exchange rates to the U.S. dollar for each of the national currencies involved may be seen in Appendix 2.

12. As shown by Table III-4, between September 1988 and September 1989 the estimated world average general cargo rates expressed in U.S. dollars for shipments of less than 45 kg showed decreases of almost 2 per cent at 250 km and of just over 1 per cent at 16 000 km. In terms of local selling currencies, cargo rates showed increases ranging from about 3 per cent at the shorter distances to 2 per cent at the longer distances.

13. For the individual route groups the degree of change shown in the general cargo rates expressed in U.S. dollars between 1988 and 1989 depends to a large extent on the change in the relationship of the selling currencies in the countries concerned and the U.S. dollar. Hence in those areas such as the Americas (route groups 1 to 5) where rates are generally expressed in U.S. dollars, the changes shown in the table tend to reflect the changes in selling rates. In other areas containing countries whose currencies increased in value on average relative to the U.S. dollar, the change in cargo rates in local selling currencies is less than indicated by the figures shown with the opposite being shown for those route groups when on average the U.S. dollar appreciated against the local selling currencies. The effect of changes in exchange rates on individual routes for cargo rates is not necessarily the same as for passenger fares because of the different city-pair mix in each route group and because in a number of countries either the fares or the rates but not both are established in U.S. dollars (see Appendix 2).

14. Between September 1988 and September 1989, most of the currencies of the countries in Europe, the Middle East and Africa depreciated against the U.S. dollar. Hence, the change in rates for routes within Europe (route group 6), within Middle East (route group 7) and within Africa (route group 8) are higher when rates are expressed in local selling currencies than when expressed in U.S. dollars. For routes between Europe and the Middle East (route group 9) the relatively high increase at the shorter distances for rates expressed in local selling currencies is due to the continued depreciation of the national currencies of countries in the eastern Mediterranean in relation to the U.S. dollar. The national currencies of the major countries in the South Pacific depreciated against the U.S. dollar between September 1988 and September 1989, hence the change in rates for routes across the South Pacific (route group 17) are in general lower when expressed in U.S. dollars than when expressed in local selling currencies. (For a more detailed analysis on exchange rates see paragraphs 13 through 17 in Chapter II.)

Table III-3. Comparison of average general cargo rates per tonne-kilometre for shipments of less than 45 kg, by route group and by distance

Route group (short title)		Cents per tonne-kilometre by distance (km)							
		250	500	1 000	2 000	4 000	8 000	12 000	16 000
International total - WORLD	1989	261	214	176	144	118	97	86	80
	(1988)	(266)	(218)	(179)	(146)	(120)	(98)	(88)	(81)
1. North-Central America	1989	233	181	140	109	84	–	–	–
	(1988)	(216)	(170)	(133)	(105)	(82)	–	–	–
2. Central America	1989	317	231	168	123	–	–	–	–
	(1988)	(313)	(228)	(165)	(120)	–	–	–	–
3. North America	1989	268	176	115	75	49	–	–	–
	(1988)	(251)	(163)	(106)	(68)	(44)	–	–	–
4. North-South America	1989	–	209	163	128	100	78	68	–
	(1988)	–	(211)	(161)	(123)	(94)	(72)	(61)	–
5. South America	1989	312	244	190	149	116	–	–	–
	(1988)	(327)	(254)	(197)	(152)	(118)	–	–	–
6. Europe	1989	364	271	201	149	111	–	–	–
	(1988)	(366)	(276)	(209)	(158)	(119)	–	–	–
7. Middle East	1989	251	195	152	119	–	–	–	–
	(1988)	(269)	(209)	(162)	(126)	–	–	–	–
8. Africa	1989	173	152	133	116	102	–	–	–
	(1988)	(178)	(155)	(136)	(118)	(103)	–	–	–
9. Europe-Middle East	1989	–	122	127	131	136	–	–	–
	(1988)	–	(131)	(135)	(138)	(142)	–	–	–
10. Europe-Africa	1989	–	219	181	150	124	103	92	–
	(1988)	–	(247)	(199)	(160)	(129)	(104)	(91)	–
11. North Atlantic	1989	–	–	–	–	119	98	87	–
	(1988)	–	–	–	–	122	98	87	–
12. Mid Atlantic	1989	–	–	–	–	–	–	–	–
	(1988)	–	–	–	–	–	–	–	–
13. South Atlantic	1989	–	–	–	–	133	125	120	–
	(1988)	–	–	–	–	(137)	(126)	(120)	–
14. Asia/Pacific	1989	195	167	142	122	104	89	81	–
	(1988)	(187)	(161)	(138)	(119)	(102)	(88)	(80)	–
15. Europe-Asia/Pacific	1989	–	–	128	120	113	106	102	99
	(1988)	–	–	(145)	(132)	(120)	(109)	(103)	(99)
16. North-Mid Pacific[1]	1989	–	–	–	–	–	–	–	–
	(1988)	–	–	–	–	–	–	–	–
17. South Pacific	1989	–	–	–	–	139	101	83	73
	(1988)	–	–	–	–	(141)	(102)	(85)	(74)

1. Rate levels across the Mid Atlantic and the North-Mid Pacific were found to be more dependent on other factors than distance; hence no figures are shown for these route groups.

Table III-4. Percentage change in average general cargo rates for small shipments by route group and by distance between September 1988 and 1989

Route group (short title)		Percentage change by distance (km)							
		250	500	1 000	2 000	4 000	8 000	12 000	16 000
International total - WORLD	in U.S.$	-1.9	-1.8	-1.7	-1.6	-1.5	-1.4	-1.3	-1.3
	(in selling currencies)	(3.4)	(3.2)	(3.0)	(2.7)	(2.5)	(2.3)	(2.1)	(2.0)
1. North-Central America	in U.S.$	7.9	6.6	5.4	4.1	2.9	-	-	-
	(in selling currencies)	(8.2)	(6.7)	(5.3)	(3.8)	(2.4)	-	-	-
2. Central America	in U.S.$	1.3	1.5	1.8	2.0	-	-	-	-
	(in selling currencies)	(1.6)	(1.8)	(1.9)	(2.0)	-	-	-	-
3. North America	in U.S.$	6.6	7.7	8.9	10.1	11.3	-	-	-
	(in selling currencies)	(4.6)	(5.9)	(7.3)	(8.6)	(9.9)	-	-	-
4. North-South America	in U.S.$	-	-0.9	1.5	3.9	6.4	9.0	10.5	-
	(in selling currencies)	-	(-0.6)	(1.6)	(3.9)	(6.2)	(8.6)	(10.0)	-
5. South America	in U.S.$	-4.6	-3.9	-3.2	-2.5	-1.8	-	-	-
	(in selling currencies)	(-4.6)	(-3.9)	(-3.2)	(-2.5)	(-1.8)	-	-	-
6. Europe	in U.S.$	-0.3	-2.0	-3.7	-5.4	-7.0	-	-	-
	(in selling currencies)	(6.5)	(3.7)	(1.0)	(-1.6)	(-4.2)	-	-	-
7. Middle East	in U.S.$	-6.7	-6.3	-5.9	-5.5	-	-	-	-
	(in selling currencies)	(-0.9)	(-0.4)	(0.1)	(0.7)	-	-	-	-
8. Africa	in U.S.$	-2.5	-2.3	-2.1	-1.8	-1.6	-	-	-
	(in selling currencies)	(6.0)	(5.9)	(5.8)	(5.7)	(5.5)	-	-	-
9. Europe-Middle East	in U.S.$	-	-6.5	-5.8	-5.1	-4.4	-	-	-
	(in selling currencies)	-	(12.9)	(8.7)	(4.6)	(0.7)	-	-	-
10. Europe-Africa	in U.S.$	-	-11.5	-9.0	-6.4	-3.7	-0.9	0.7	-
	(in selling currencies)	-	(-8.2)	(-4.7)	(-1.1)	(2.7)	(6.6)	(8.9)	-
11. North Atlantic	in U.S.$	-	-	-	-	-2.1	-0.6	0.3	-
	(in selling currencies)	-	-	-	-	(-1.0)	(1.7)	(3.3)	-
12. Mid Atlantic	in U.S.$	-	-	-	-	-	-	-	-
	(in selling currencies)	-	-	-	-	-	-	-	-
13. South Atlantic	in U.S.$	-	-	-	-	-2.5	-0.7	0.3	-
	(in selling currencies)	-	-	-	-	(6.5)	(2.6)	(0.3)	-
14. Asia/Pacific	in U.S.$	3.9	3.5	3.0	2.5	2.1	1.6	1.4	-
	(in selling currencies)	(5.3)	(5.5)	(5.8)	(6.0)	(6.2)	(6.5)	(6.6)	-
15. Europe-Asia/ Pacific	in U.S.$	-	-	-11.6	-8.7	-5.7	-2.7	-0.9	0.5
	(in selling currencies)	-	-	(-2.0)	(-0.6)	(0.7)	(2.1)	(2.9)	(3.5)
16. North-Mid Pacific[1]	in U.S.$	-	-	-	-	-	-	-	-
	(in selling currencies)	-	-	-	-	-	-	-	-
17. South Pacific	in U.S.$	-	-	-	-	-1.5	-1.6	-1.7	-1.8
	(in selling currencies)	-	-	-	-	(2.0)	(1.1)	(0.6)	(0.2)

1. Rate levels across the Mid Atlantic and the North-Mid Pacific were found to be more dependent on other factors than distance; hence no figures are shown for these route groups.

Other cargo rates

15. A study of city-pair samples selected from each route group suggests the following conclusions: on about 80 per cent of all international city-pairs, general cargo rates for shipments "over 45 kg" were available at some 25 per cent lower than the rates for smaller shipments. The availability of these rates was somewhat less than for previous years in part due to the new cargo tariff structure in Europe discussed in Chapter I. For about 40 per cent of the city-pairs there was at least one additional general cargo rate which could be used for very large shipments and which was on average almost 50 per cent lower than the "under-45 kg" rate. However, these rates for large shipments were predominant in particular route groups, and were uncommon in the route groups "Europe", "Middle East", "Africa", "Europe-Africa" and "Asia/Pacific". Some specific commodity rates existed for about 70 per cent of the city-pairs. Where available, there were on average about five different types of specific commodity rates for a city-pair, in most of the cases with more than one rate per commodity depending on the minimum weight, and these rates were on average about 60 per cent lower than the comparable "under-45 kg" general cargo rate. Bulk unitization rates for the carriage of freight in unit load devices (ULDs) remained in general only widely available for routes originating or terminating in North America and on routes across the Mid Atlantic.

IV. FARES AND RATES BY INTERNATIONAL ROUTE GROUP

This chapter presents the analyses for the 17 international route groups on a standardized basis to facilitate comparisons. Descriptions of the route groups are given in Appendix 1. Details of the statistical methods used for estimating average economy class normal passenger fares and general cargo rates for small shipments are given in Appendix 3.

Route Group 1: Between North America and Central America/Caribbean

Economy class normal passenger fares

1. The curves on the Graph IV-1 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	3000	5000
Fares per pass-km in cents, 1989					
Average	37.9	27.6	20.1	12.2	9.7
Northbound	38.0	27.6	20.1	12.1	9.6
Southbound	37.8	27.6	20.2	12.3	9.7
Percentage change (%), 1989/1988					
Average	1.7	1.3	0.8	0.0	-0.3
Northbound	1.3	0.9	0.5	-0.1	-0.3
Southbound	2.2	1.6	1.1	0.2	-0.2

Other passenger fares

3. Table IV-1 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first class normal fares were widely available in this route group. Special fares for first class travel were also available in September 1989 for 7 out of the 10 city-pairs, a significant increase over the three city-pairs for which these fares were available in September 1988. The economy class excursion fare remained the special fare most widely available to the general public in September 1989. These fares were within a range 13 to 58 per cent lower than the related economy class normal

fare. Economy class restricted fares were available on 9 city-pairs, three more than for September 1988. Apex fares remained available for 8 city-pairs in the sample. These and the other fares shown were those published in multilateral tariff manuals in September 1989; other fares may also exist as individual airline tariffs.

General cargo rates for small shipments

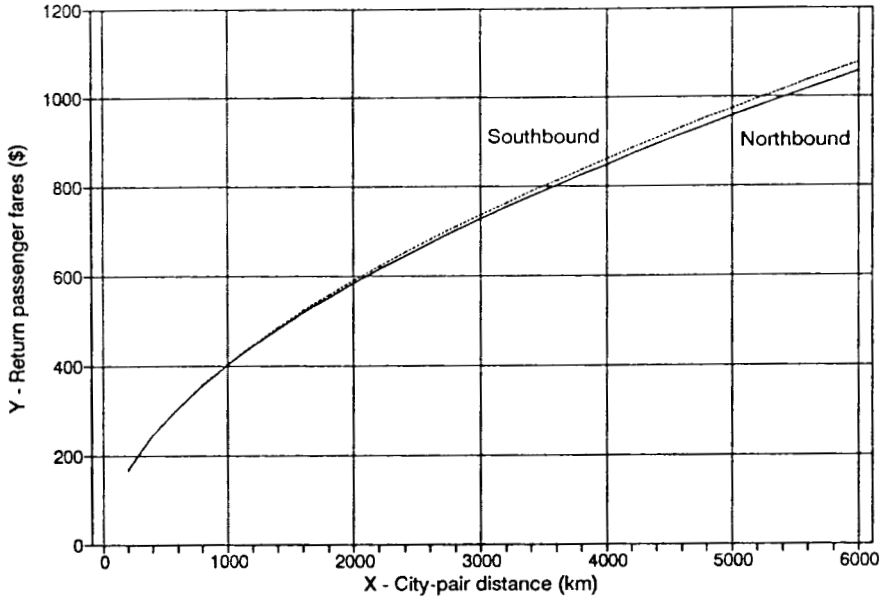
4. The curves on Graph IV-2 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

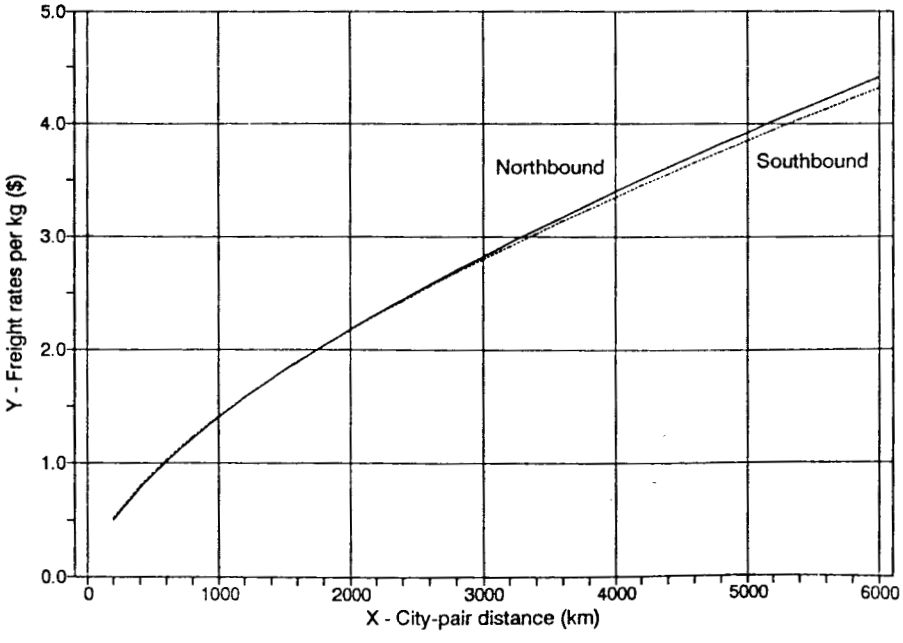
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	3000	5000
Rates in cents per tonne-km, 1989					
Average	233	181	140	94	78
Northbound	230	179	140	94	79
Southbound	236	182	141	93	77
Percentage change (%), 1989/1988					
Average	7.9	6.6	5.4	3.4	2.5
Northbound	8.0	7.3	6.6	5.5	4.9
Southbound	7.6	5.9	4.2	1.5	0.3

Other cargo rates

6. Table IV-2 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg exist (including breakpoints at 100 and 300 kg) giving discounts averaging about 45 per cent for large shipments (over 500 kg). Specific commodity rates remained available for 9 out of 10 city-pairs in the sample. They were on average at a level of about 40 per cent of the general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) remained available for 5 out of 10 city-pairs in the sample.



Graph IV-1. Economy class normal passenger fares (route group 1)



Graph IV-2. General cargo rates for shipments of less than 45 kg (route group 1)

Table IV-1. Range of passenger fares available (route group 1)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES[1] First class normal	Inter-mediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	GROUP FARES economy class
			(as a percentage of the highest economy class normal fare)					
Panama City - Los Angeles	4 840	1 186	174-197	115	66-72	42-73	49	-
Los Angeles - San José	4 410	816	-	-	100	77	58	66
Montreal - Fort-de-France	3 670	1001	145	-	-	75	50	37-39
Aruba - New York	3 320	728	132[2]	-	90	54-79	52-69	52
Kingston - Toronto	2 870	732	139-167[2]	138	100	71-75	45-60	49-53
New York - Santo Domingo	2 500	510	137[2]	-	75-100	66-87	70	63
San Salvador - Houston	1 990	750	80-125[2]	-	48-87	48-67	-	-
New Orleans - Guatemala	1 710	564	115-186[2]	-	75-109	53-81	-	47-53
Port-au-Prince - Miami	1 150	418	113-123[2]	-	52-80	53-75	59	43
Fort Lauderdale - Nassau	290	204	111-128[2]	-	56-97	47-72	53	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
2. First class, restricted, excursion and/or Apex fares also available.

Table IV-2. Range of cargo rates available (route group 1)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate[1])	Over 500 kg (as a percentage of under-45 kg rate[1])	Range (as a percentage of under-45 kg rate[1])	Number of commodities
Panama City - Los Angeles	4 840	50	4.88-5.12	68-71	48-51	19-30	3
Los Angeles - San Jose	4 410	50	4.46	70	55	-	-
Montreal - Fort-de-France	3 670	59	6.62	81	31	14-58	7
Aruba - New York	3 320	50	2.91	78	53	38-56	2
Kingston - Toronto	2 870	50	3.01	76	67	17-30	3
New York - Santo Domingo	2 500	45-50	1.84-1.85	83-85	75	50-71	4
San Salvador - Houston	1 990	50	3.24	74	54	15	2
New Orleans - Guatemala	1 710	45-50	1.79-3.10	58-72	27-54	31-35	4
Port-au-Prince - Miami	1 150	45-50	1.22	81	64-81	25-57	12
Miami - Nassau	300	50	0.89	78	70	48	1

1. Rates calculated as a percentage of the higher under 45 kg rate where applicable.

Route Group 2: Between and within Central America and the Caribbean

Economy class normal passenger fares

1. The curve on Graph IV-3 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	2000	3000
Fares per pass-km in cents, 1989	34.2	25.0	18.3	13.3	11.1
Percentage change (%), 1989/1988	0.5	0.5	0.5	0.5	0.5

Other passenger fares

3. Table IV-3 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first class fares remained widely available in September 1989, while those for intermediate class were rare. The economy class excursion fare remained the special fare most widely available to the general public, with a level between 12 and 66 per cent lower than that of the related economy class normal fare. A few special fares of other types were also available.

General cargo rates for small shipments

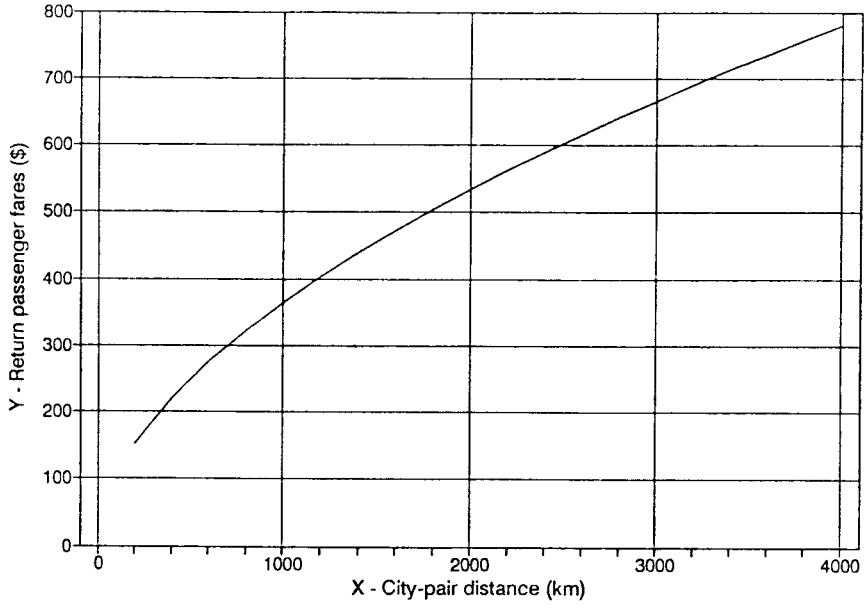
4. The curve on Graph IV-4 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

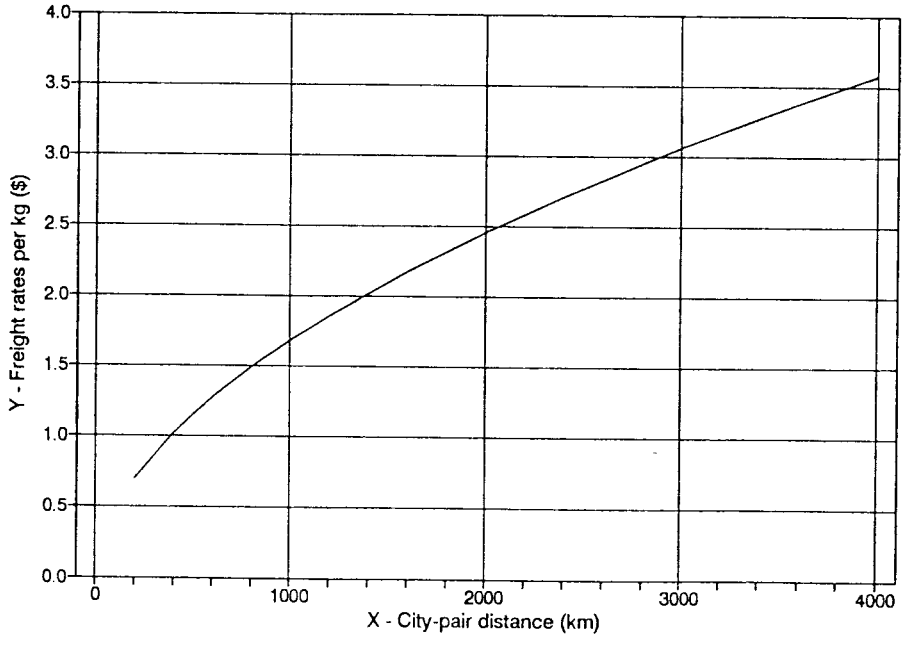
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	2000	3000
Rates per tonne-km in cents, 1989	317	231	168	123	102
Percentage change (%), 1989/1988	1.3	1.5	1.8	2.0	2.2

Other cargo rates

6. Table IV-4 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several cargo rates for shipments of more than 45 kg existed in each case (including breakpoints at 100 and 300 kg) giving, as for the previous years, a reduction of up to about 50 per cent for large shipments (over 500 kg). On the other hand, few specific commodity rates were available on this route group.



Graph IV-3. Economy class normal passenger fares (route group 2)



Graph IV-4. General cargo rates for shipments of less than 45 kg (route group 2)

Table IV-3. Range of passenger fares available (route group 2)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES[1]					GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	Economy class
		(as a percentage of the highest economy class normal fare)						
San Juan - San José	2 170	780	138-143	108	73	49-64	37	37
Mexico - Havana	1 770	468	-	-	-	79	-	51
Fort-de-France - Port-au-Prince	1 370	556	136	-	-	57-61	-	-
San Salvador - Panama City	1 190	450	166	-	-	68-71	-	-
Port-of-Spain - Curaçao	850	388	130[2]	-	-	34-65	-	-
St. Kitts - Port of Spain	760	372	147	-	-	86	-	-
Port-au-Prince - Kingston	480	248	140[2]	-	-	59-72	-	-
Guatemala - Tegucigalpa	410	160	175	-	-	75-88	-	64
Belize - San Pedro Sula	240	130	-	-	-	69	-	-
Antigua - Point-à-Pitre	100	112	-	-	-	65-79	-	-

1. *Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.*
2. First class excursion fares also available.

Table IV-4. Range of cargo rates available (route group 2)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
San Juan - San José	2 170	22-50	3.45	77	57	-	-
Mexico - Havana	1 770	50	2.18	77	62	-	-
Fort de France - Port-au-Prince	1 370	52	3.76	78	49	-	-
San Salvador - Panama City	1 190	50	1.48	77	55	-	-
Port of Spain - Curaçao	850	50	2.02	75	52	40-50	5
St. Kitts - Port-of-Spain	760	50	1.98	77	58	-	-
Port au Prince - Kingston	480	50	1.41	80	57	-	-
Guatemala - Tegucigalpa	410	50	0.43	81	67	-	-
San Pedro Sula - Guatemala	290	50	0.39	62	62	-	-
Antigua - Pointe-à-Pitre	100	50	0.63	85	81	-	-

Route Group 3: Between Canada, Mexico and the United States

Economy class normal passenger fares

1. The curve on Graph IV-5 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	2000	4000	6000
Fares per pass-km in cents, 1989	36.5	26.1	18.6	13.3	9.5	7.8
Percentage change (%), 1989/1988	7.7	8.2	8.7	9.1	9.6	9.9

Other passenger fares

3. Table IV-5 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first class fares were widely available in September 1989. Intermediate class fares were available on 6 of the 10 city-pairs in the sample, three more than for September 1988. Excursion and Apex fares were the special fares in economy class most widely available in this route group in 1989. The level of the excursion fares ranged between 13 and 52 per cent below that of the related economy class normal fares whereas that of Apex fares ranged between 16 and 71 per cent below. Economy class restricted fares were only available for 5 city-pairs in the sample. In September 1989 there appeared to be no economy class group fare for the 10 city-pairs in the sample whereas in September 1988 these fares were available for 4 of the 10 city-pairs.

General cargo rates for small shipments

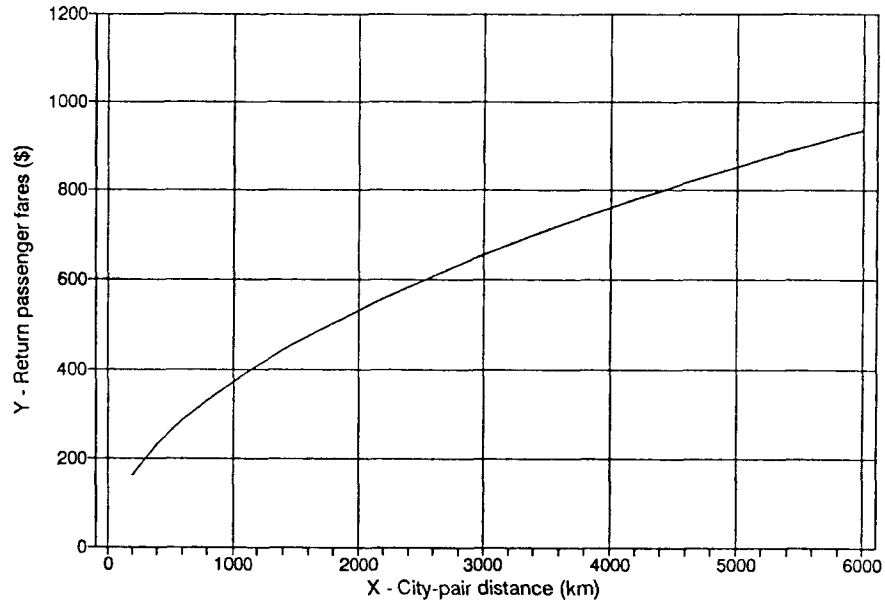
4. The curve on Graph IV-6 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

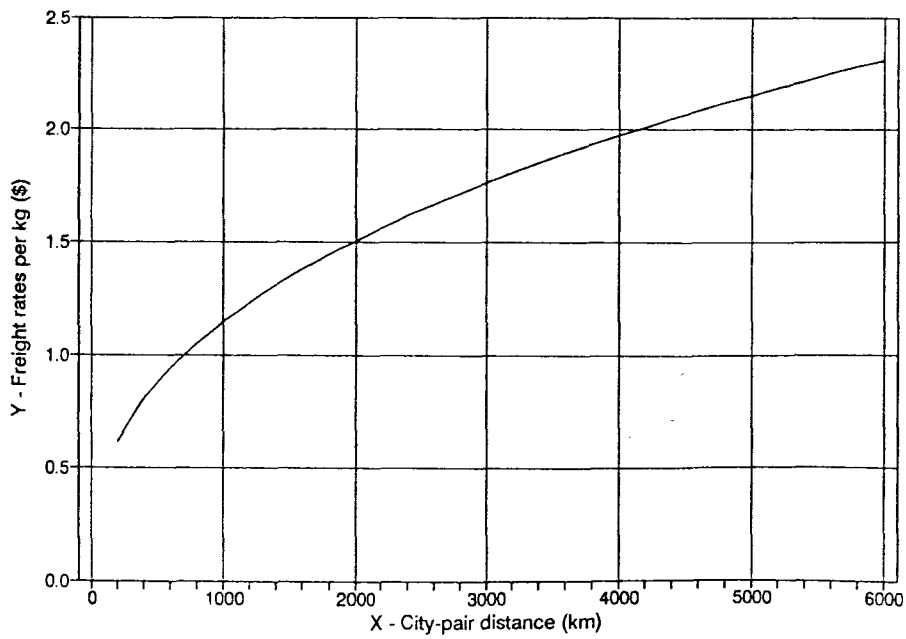
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	2000	4000	6000
Rates per tonne-km in cents, 1989	268	176	115	75	49	39
Percentage change (%), 1989/1988	6.6	7.7	8.9	10.1	11.3	12.0

Other cargo rates

6. Table IV-6 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several cargo rates for shipments of more than 45 kg were frequently available (including breakpoints below and above 500 kg). As in the previous year, the average reduction for large shipments (over 500 kg) was about 45 per cent on the general cargo rate for small shipments. Specific commodity rates remained available on a limited basis for only a few city-pairs in the sample. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for most of the sampled city-pairs between Canada and the United States.



Graph IV-5. Economy class normal passenger fares (route group 3)



Graph IV-6. General cargo rates for shipments of less than 45 kg (route group 3)

Table IV-5. Range of passenger fares available (route group 3)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES[1]						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	economy class
			(as a percentage of the highest economy class normal fare)					
Montreal - San Francisco	4 120	1 068	165	110	70	-	43-62	-
Mexico - Vancouver	3 940	716	149-159	103	-	75-77	55-64	-
New York - Calgary	3 280	844	165	106	-	-	46-61	-
Detroit - Mexico	3 100	620	151-153	130	70-100	64-71	64	-
Puerto Vallarta - San Francisco	2 500	436	150-206	-	93	84	73-84	-
Toronto - Tampa	1 770	528	161-165[2]	110	-	85-87	29-77	-
Mexico - Dallas	1 510	390	141-151	-	79-89	48-81	48-69	-
Chicago - Montreal	1 180	424	165	111	-	-	47-80	-
Miami - Cozumel	900	236	-	-	-	83	73	-
Toronto - Washington	570	496	156[2]	-	63-81	-	46-58	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
2. First class restricted fares also available.

Table IV-6. Range of cargo rates available (route group 3)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate[1])	Over 500 kg (as a percentage of under-45 kg rate[1])	Range (as a percentage of under-45 kg rate[1])	Number of commodities
Montreal - San Francisco	4 120	28	1.78	73	64	36-45	1
Mexico - Vancouver	3 940	50	3.00	87	72	25-36	3
New York - Calgary	3 280	30	2.27	81	74	-	-
Chicago - Mexico	2 720	37-50	1.66-3.12	45-63	41	-	-
Puerto Vallarta - San Francisco	2 500	26	1.53	78	64	-	-
Toronto - New Orleans	1 960	24-27	1.21-1.54	46-69	40-46	-	-
Mexico - Dallas	1 510	26-50	1.33	72	65	29-46	7
Chicago - Montreal	1 180	23	1.23	73	69	-	-
Miami - Cancun	860	37	1.00	85	-	-	-
Toronto - Washington	570	24-32	0.90-1.76	28-86	29	-	-

1. Rates calculated as a percentage of the higher under-45 kg rate.

Route Group 4: Between North America/Central America/ Caribbean and South America

Economy class normal passenger fares

1. The curves on Graph IV-7 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 500	1000	2000	4000	7000	10000
Fares per pass-km in cents, 1989						
Average	21.4	18.4	15.9	13.7	12.1	11.2
Northbound	21.8	18.5	15.7	13.3	11.7	10.7
Southbound	21.0	18.3	16.0	14.0	12.5	11.7
Percentage change (%), 1989/1988						
Average	3.3	3.2	3.0	2.9	2.8	2.7
Northbound	3.8	3.7	3.6	3.5	3.4	3.4
Southbound	2.7	2.6	2.4	2.2	2.1	2.0

Other passenger fares

3. Table IV-7 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first class fares were widely available in September 1989 in this route group whereas intermediate class fares as in previous years remained available on 6 out of 10 city-pairs in the sample. The most widely available economy class special fare was, as in previous years, the excursion fare. Where available, these fares showed reductions from the related economy class normal fares generally ranging from 12 to 59 per cent. Economy class restricted and Apex type fares remained available for about half the city-pairs in the sample. "Circle fares" from Chile or Peru to the United States via Mexico, and from Panama to points in South America were also available in September 1989. These are published fares which allow for travel by a continuous circuitous air route and include at least two free stopovers.

General cargo rates for small shipments

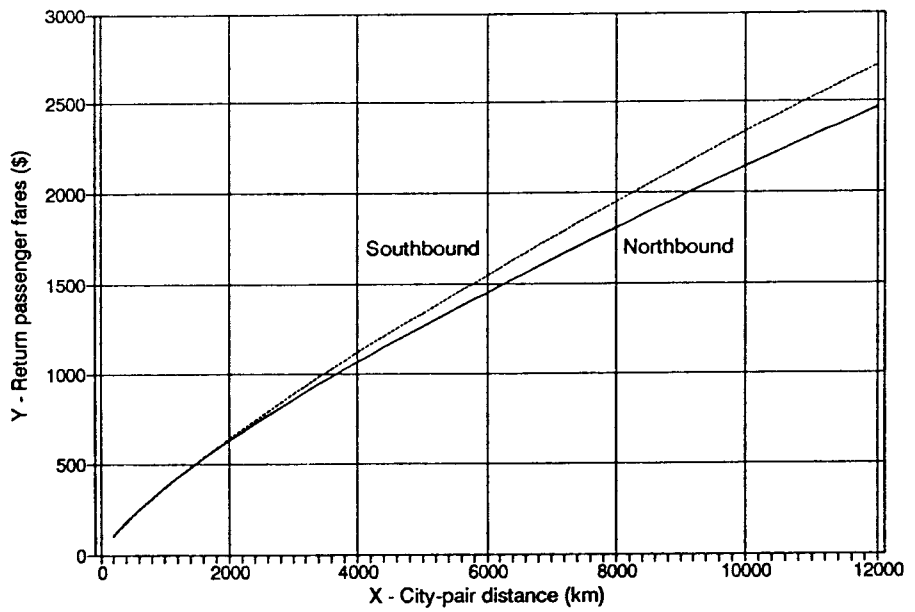
4. The curves on Graph IV-8 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

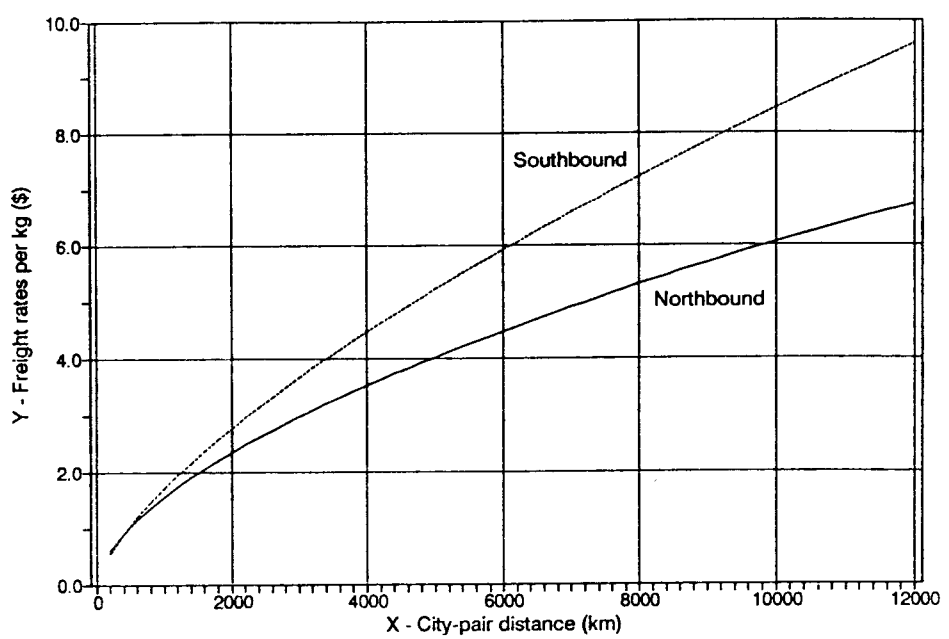
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 500	1000	2000	4000	7000	10000
Rates in cents per tonne-km, 1989						
Average	209	163	128	100	82	72
Northbound	207	156	117	88	70	61
Southbound	212	171	138	112	94	84
Percentage change (%), 1989/1988						
Average	-0.9	1.5	3.9	6.4	8.5	9.8
Northbound	-3.1	-1.0	1.0	3.2	4.9	6.1
Southbound	2.1	4.3	6.6	8.9	10.9	12.1

Other cargo rates

6. Table IV-8 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several cargo rates for shipments of more than 45 kg existed in each case (including breakpoints at 100 and 300 kg) giving, as in the previous years, a reduction of about 50 per cent on average for large shipments (over 500 kg). Specific commodity rates were also available for a number of city-pairs. These specific commodity rates were, on average, some 60 per cent lower than the general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for one city-pair in the sample (Caracas-Miami).



Graph IV-7. Economy class normal passenger fares (route group 4)



Graph IV-8. General cargo rates for shipments of less than 45 kg (route group 4)

Table IV-7. Range of passenger fares available (route group 4)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES[1] First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX	GROUP FARES economy class
			(as a percentage of the highest economy class normal fare)					
Montreal - Buenos Aires	10 110	2 651	158-177	113	75-76	-	41-53	-
Santiago de Chile - New York	8 410	2 174	152-183	114-120	73-77	46-72	55-58	53
Rio de Janeiro - San Jose	6 220	1 510	157-162	115-119	-	53-60	-	60
Los Angeles - Quito	5 620	1 178	167	-	-	64-82	61-64	57
Panama City - Asuncion	4 890	1 484	147	107-115	67-77	54-65	-	-
Miami - Manaus	3 880	1 522	163-185	116	70	56	38-43	32
Aruba - Lima	2 840	1 032	155	-	-	84	-	41
Caracas - Miami	2 190	656	141-149[2]	119-129	78-100	67-88	55-70	-
Bogota - Santo Domingo	1 690	678	140	-	-	41-70	-	-
Port-of-Spain - Georgetown	570	234	147[2]	-	-	59-100	-	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
2. First class restricted and/or excursion fares also available.

Table IV-8. Range of cargo rates available (route group 4)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate[1])	Over 500 kg (as a percentage of under-45 kg rate[1])	Range (as a percentage of under-45 kg rate[1])	Number of commodities
Montreal - Buenos Aires	10 110	55	9.29	76	50	38	1
Santiago de Chile - New York	8 410	33-50	4.17-4.85	65-77	45-48	22-62	23
Rio de Janeiro - San José	6 220	50	5.00	76	41	-	-
Los Angeles - Quito	5 620	40-50	6.02	73	54	-	-
Panama City - Asuncion	4 890	50	5.83	75	49	46-76	5
Miami - Manaus	3 880	50	5.41	77	58	44	1
Aruba - Lima	2 840	50	4.35	76	52	-	-
Caracas - Miami	2 190	50	2.18	72	47	14-56	9
Bogota - Santo Domingo	1 690	50	1.87	79	55	-	-
Port-of-Spain - Georgetown	570	50	1.62	73	52	44-47	2

1. Rates calculated as a percentage of the higher under 45-kg rate.

Route Group 5: Local South America

Economy class normal passenger fares

1. The curve on Graph IV-9 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	3000	5000
Fares per pass-km in cents, 1989	22.0	18.8	16.2	12.7	11.3
Percentage change (%), 1989/1988	-0.8	0.9	2.6	5.4	6.7

Other passenger fares

3. Table IV-9 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in this route group in September 1989, whereas in September 1988 intermediate class had been available for only half the city-pairs in the sample. Economy class excursion fares remained the only widely available special fares for individual travel in this route group. Their level was between 13 and 49 per cent lower than the related economy class normal fares. Also available in September 1989 were "circle fares" for travel within South America. These are published fares which allow for travel by a continuous circuitous air route and include up to four or five free stopovers.

General cargo rates for small shipments

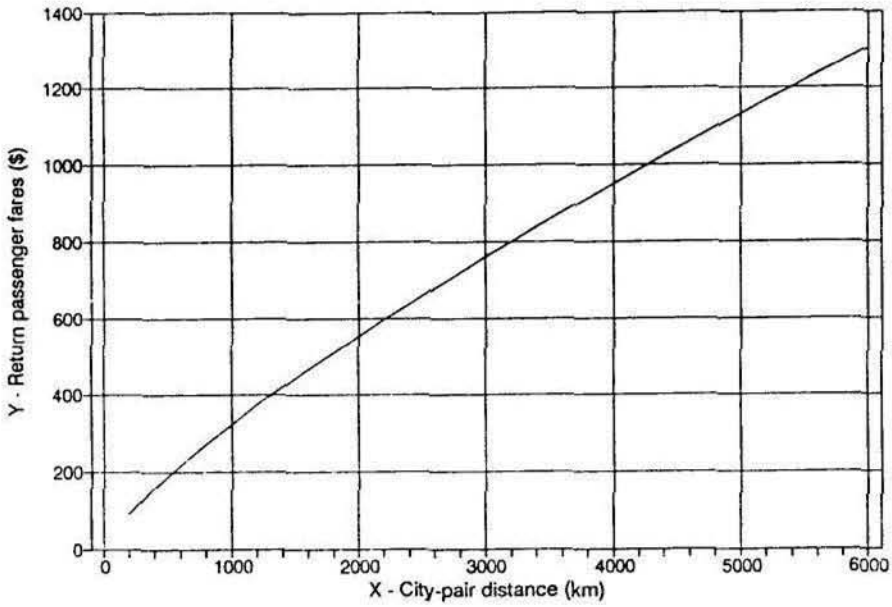
4. The curve on Graph IV-10 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

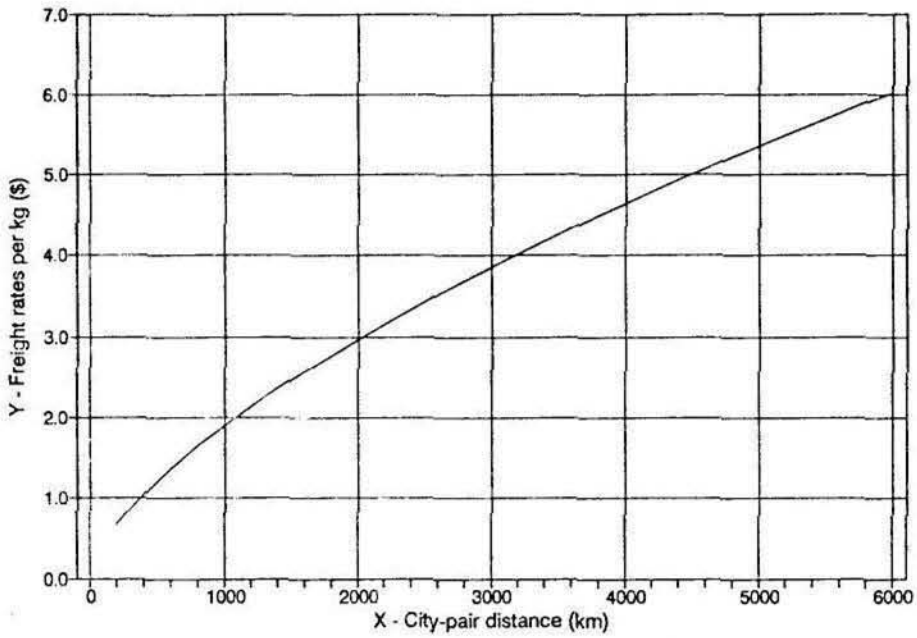
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	3000	5000
Rates per tonne-km in cents, 1989	312	244	190	129	107
Percentage change (%), 1989/1988	-4.6	-3.9	-3.2	-2.1	-1.5

Other cargo rates

6. *Table IV-10 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg existed in most cases (including breakpoints at 100 and 300 kg) giving, as for previous years, a reduction generally between 35 per cent and 66 per cent for large shipments (over 500 kg). Several specific commodity rates were also available in this route group, and they were on average some 70 per cent lower than the general cargo rates for small shipments.*



Graph IV-9. Economy class normal passenger fares (route group 5)



Graph IV-10. General cargo rates for shipments of less than 45 kg (route group 5)

Table IV-9. Range of passenger fares available (route group 5)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES					GROUP FARES
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class PEX	Economy class
			(as a percentage of the highest economy class normal fare)					
Bogota - Buenos Aires	5 250	1 284	147	115	-	59-69	-	-
Rio de Janeiro - Caracas	4 526	1 224	143-158	115	-	51	-	-
Santiago de Chile - Quito	3 870	824	154-159	119	-	87	-	78
Caracas - Lima	2 750	860	145	110	-	80	43-51	-
La Paz - Sao Paulo	2 380	770	158	115	-	54-61	-	-
Montevideo - Rio de Janeiro	1 830	540	155	115	-	76	-	-
Manaus - Iquitos	1 480	460	145-153	121	-	73-77	-	-
Buenos Aires - Santiago de Chile	1 140	394	136-143	105-115	-	61-79	-	50
Belem - Cayenne	810	294	154-163	116	-	64-67	-	-
Quito - Cali	470	220	146	115	-	55	-	66-81

Table IV-10. Range of cargo rates available (route group 5)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Bogota - Buenos Aires	5 250	50	5.23	75	53	36-47	2
Rio de Janeiro - Caracas	4 526	50	4.20	77	47	31-35	2
Santiago de Chile - Quito	3 870	50	4.71	77	34	21	1
Caracas - Lima	2 750	50	3.50	75	52	22-23	2
La Paz - Sao Paulo	2 380	35	3.76	77	53	-	-
Montevideo - Rio de Janeiro	1 830	35	2.25	74	52	24-34	3
Manaus - Iquitos	1 480	50	1.82	89	-	-	-
Buenos Aires - Santiago de Chile	1 140	35	2.09	72	53	21-44	3
Porto Alegre - Montevideo	700	35	1.06	83	58	28-53	2
Quito - Cali	470	50	1.27	83	65	-	-

Route Group 6: Local Europe

Economy class normal passenger fares

1. The curve on Graph IV-11 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	2000	3000	4000
Fares per pass-km in cents, 1989	54.0	40.7	30.7	23.2	19.7	17.5
Percentage change (%), 1989/1988	-1.4	-0.5	0.4	1.4	1.9	2.3

Other passenger fares

3. Table IV-11 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, in September 1989 first class fares remained widely available in this route group whereas intermediate class fares were only available for four city-pairs in the sample (and in one case at the same level as the economy class normal fare). Economy class excursion fares remained widely available to the general public in this route group. Where available, they were on average some 30 per cent lower than the related economy class normal fares. Pex fare types were available for eight city-pairs in the sample, while Apex and "Eurobudget" fare types were available on three city-pairs. "Eurobudget" fare levels ranged between 10 and 15 per cent below the applicable economy class normal fare, Pex-type fare levels were between 30 to 50 per cent below the applicable economy class normal fare, while Apex and Super Pex fare levels were some 40 to 65 per cent below the economy class normal fare.

General cargo rates for small shipments

4. The curve on Graph IV-12 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

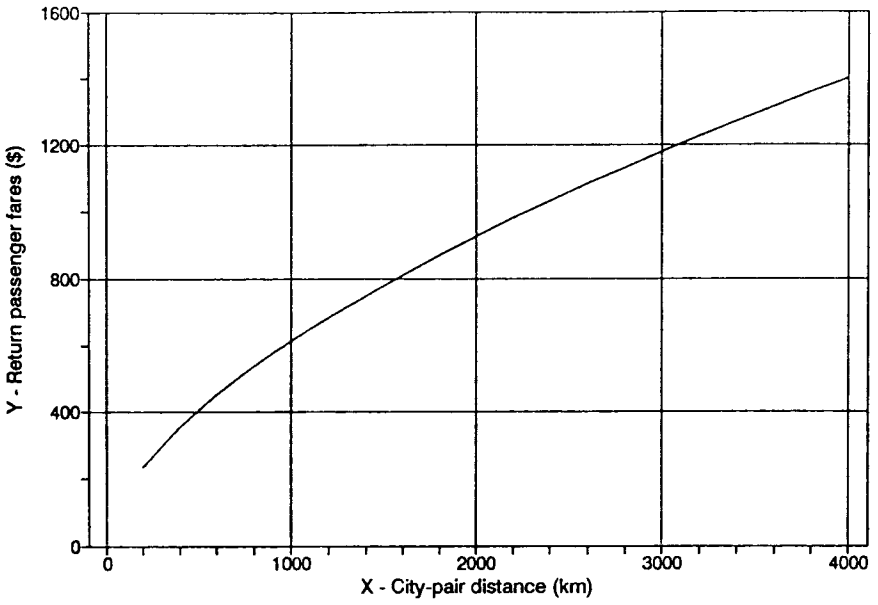
5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km					
	250	500	1000	2000	3000	4000
Rates per tonne-km in cents, 1989	364	271	201	149	126	111
Percentage change (%), 1989/1988	-0.3	-2.0	-3.7	-5.4	-6.3	-7.0

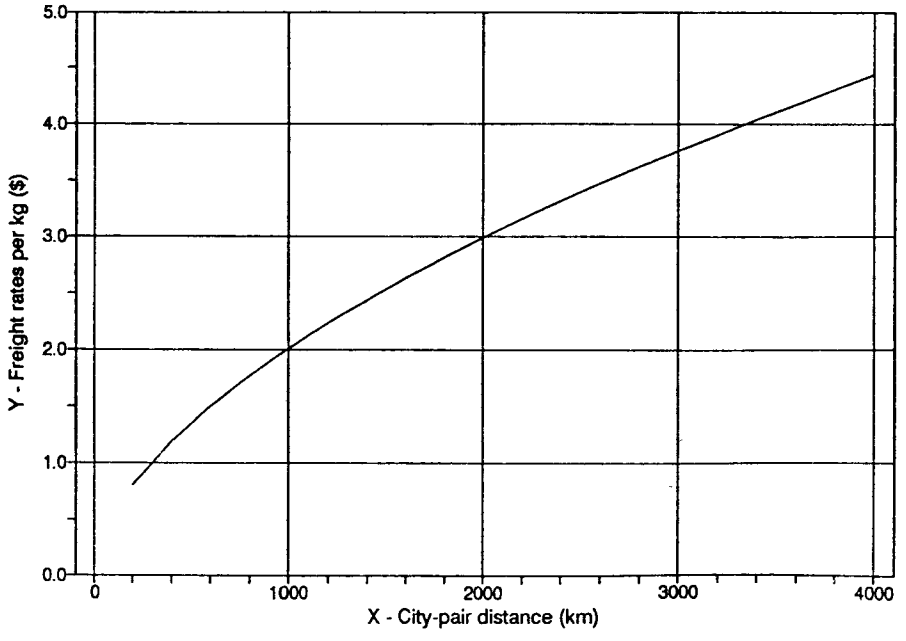
6. In September 1989 there was a significant spread in the level of actual cargo rates for small shipments (under 45 kg) for routes within Europe above and below the estimated average. This scatter is in part caused by the cargo tariff structure in use since April 1988 for shipments between a few European countries and from these countries to other points in Europe. This tariff structure consists of a basic charge per consignment plus a rate per kilogram applicable to each kilogram in the consignment. The resulting rates are significantly higher at the shorter distances (almost 60 per cent higher at 250 km) than the general cargo rates for small shipments applied on other routes within Europe. However, at the longer distances (beyond 1 200 km) they tend to be lower than the average general cargo rate for small shipments applied elsewhere in Europe.

Other cargo rates

7. Table IV-12 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. There were generally few large shipment general cargo rates available for a given route with a breakpoint higher than 45 kg (except for routes from the United Kingdom where the "small shipment" breakpoint was 100 kg). Specific commodity rates were available on many city-pairs at an average reduction, as in previous years, of around 45 per cent on the general cargo rates for small shipments.



Graph IV-11. Economy class normal passenger fares (route group 6)



Graph IV-12. General cargo rates for shipments of less than 45 kg (route group 6)

Table IV-11. Range of passenger fares available (route group 6)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Inter-mediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX[1]	economy class
		(as a percentage of the highest economy class normal fare)						
Paris - Gran Canaria	2 830	960	133	105	-	62	42	-
Oujda - Frankfurt	1 900	794	140	-	-	65	58	-
London - Seville	1 620	645	161	100	-	-	39-86	-
Zurich - Malta	1 380	835	139	-	-	71	54	46
Rome - Bucharest	1 160	773	149	-	-	69	52	37
Belgrade - Prague	740	470	136	-	-	67	-	32-57
Algiers - Tunis	620	93	133	-	-	71	-	-
Amsterdam - Birmingham	440	362	163	100-106	-	-	40-90	-
Brussels - Strasbourg	350	328	150	110	-	70	60	-
Copenhagen - Gothenberg	230	281	141	-	-	-	36-63	-

1. "Eurobudget" fares also included.

Table IV-12. Range of cargo rates available (route group 6)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Paris - Gran Canaria	2 830	50	3.60	76	-	34-41	2
Casablanca - Frankfurt	2 280	63	2.26	76	69	34-60	14
London - Seville[1]	1 620	52	2.74	-	-	-	-
Zurich - Malta[2]	1 380	36	2.61	-	-	-	-
Rome - Bucharest	1 160	61	2.79	75	-	48	1
Belgrade - Prague	740	32	1.05	84	-	35-43	4
Algiers - Tunis	620	32	0.31	75	-	39	1
Amsterdam - Birmingham	440	57	1.60	76	-	50-100	8
Brussels - Strasbourg[2]	350	32	1.44	-	-	-	-
Copenhagen - Gothenberg[2]	230	33	1.53	-	-	-	-

1. The first breakpoint for general cargo rates out of the United Kingdom is 100 kg (not 45 kg). On the route shown, other breakpoints exist at 1 000 kg and 1 500 kg.

2. Cargo structure based on a basic charge per consignment plus a rate per kilogram applicable to each kilogram in the consignment. For comparative purposes the charge per consignment is shown in the "Minimum Charge" column and the "under 45 kg" rate was computed for a consignment of 45 kg.

Route Group 7: Local Middle East

Economy class normal passenger fares

1. The curve on Graph IV-13 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	2000	3000
Fares per pass-km in cents, 1989	32.3	25.5	20.1	15.9	13.8
Percentage change (%), 1989/1988	1.0	0.6	0.1	-0.3	-0.6

Other passenger fares

3. Table IV-13 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated in the sample, first and intermediate class fares were widely available in September 1989 whereas in September 1988 intermediate class fares were available on only one city-pair in the sample. The only special fares frequently available to the general public remained the economy class excursion fares. Where available, these fares were on average about one-third lower than the economy class normal fare. While there is a general lack of other economy class special fares available to the general public for travel within the Middle East, there are several preferential fares available for certain categories of passengers (youths, teachers, students, senior citizens, families, seamen and pilgrims). Where available these fares were some 20 to 50 per cent below the applicable economy class normal fare.

General cargo rates for small shipments

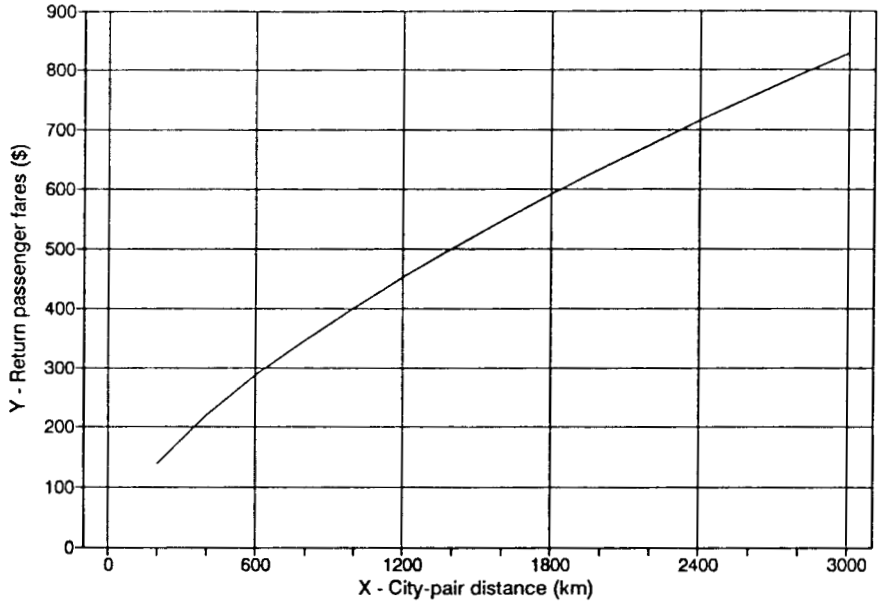
4. The curve on Graph IV-14 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

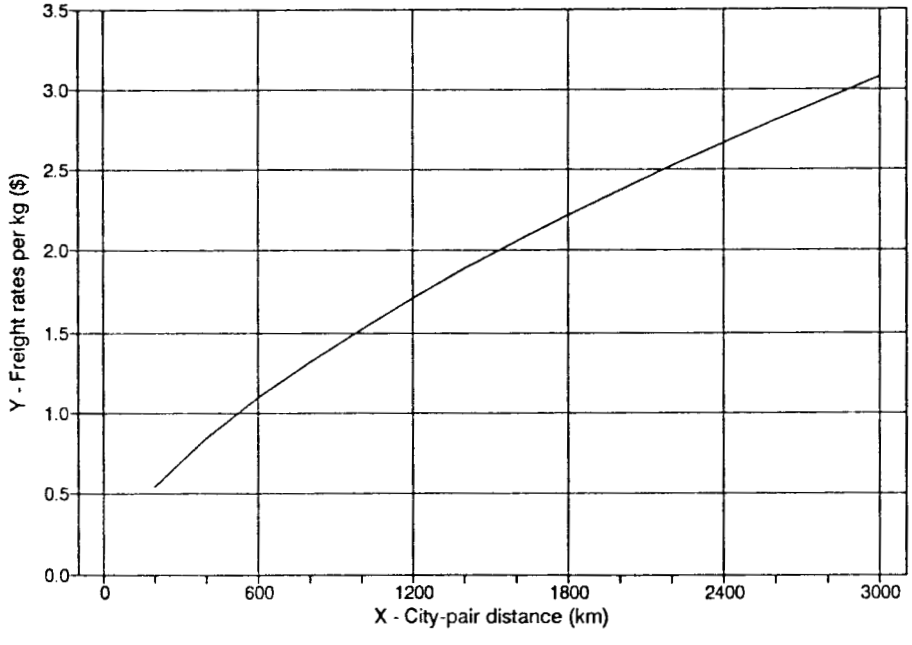
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	2000	3000
Rates per tonne-km in cents, 1989	251	195	152	119	103
Percentage change (%), 1989/1988	-6.7	-6.3	-5.9	-5.5	-5.3

Other cargo rates

6. Table IV-14 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Generally, and as for previous years, only one general cargo rate for larger shipments was available for a given route, with a breakpoint of 45 kg. This general cargo rate for shipments of more than 45 kg was about 25 per cent lower than the rate for small shipments. Some specific commodity rates continued to be available in this route group, giving an average reduction of around 65 per cent on the general cargo rates for small shipments.



Graph IV-13. Economy class normal passenger fares (route group 7)



Graph IV-14. General cargo rates for shipments of less than 45 kg (route group 7)

Table IV-13. Range of passenger fares available (route group 7)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES					GROUP FARES
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	economy class
			(as a percentage of the highest economy class normal fare)					
Dhahran - Khartoum	2 180	650	140	110	-	75	-	-
Sanaa - Damascus	2 140	831	140	110	-	66	-	-
Bahrain - Larnaca	1 880	810	138	110	-	62	-	-
Cairo - Riyadh	1 610	464	138	110	-	66	-	-
Tehran - Sharjah	1 220	449	150	110	-	-	-	-
Jeddah - Aden	1 170	603	140	110	-	66	-	-
Kuwait - Dubai	850	279	138	109	-	72	-	-
Muscat - Doha	700	307	154	-	-	52-70	-	-
Shiraz - Abu Dhabi	600	338	150	110	-	-	-	-
Amman - Beirut	240	112	137	110	-	-	-	-

Table IV-14. Range of cargo rates available (route group 7)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Dhahran - Khartoum	2 180	20	2.40	75	-	58	1
Sanaa - Damascus	2 140	10	2.05	75	-	29-55	4
Bahrain - Larnaca	1 880	21	2.66	75	-	30-51	4
Cairo - Riyadh	1 610	13	1.74	75	-	21-43	13
Tehran - Sharjah	1 220	22	2.01	75	-	20-56	13
Jeddah - Aden	1 170	20	2.15	75	-	-	-
Kuwait - Dubai	850	20	1.43	75	-	-	-
Muscat - Doha	700	15	1.38	75	-	-	-
Shiraz - Abu Dhabi	600	22	1.26	74	-	30-44	5
Amman - Beirut	240	11	0.35	78	-	-	-

Route Group 8: Local Africa

Economy class normal passenger fares

1. The curve on Graph IV-15 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 250	500	1000	2000	4000	6000
Fares per pass-km in cents, 1989	25.7	21.9	18.7	15.9	13.6	12.4
Percentage change (%), 1989/1988	1.5	1.5	1.4	1.4	1.3	1.3

Other passenger fares

3. Table IV-15 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in this route group in September 1989. Economy class excursion fares were also widely available with a level some 30 per cent lower on average than the related economy class normal fares. A few group fares were also available. While there is a general lack of other special fares available to the general public for travel within Africa, there are a large number of preferential fares available to certain categories of passengers (youths, students, families, senior citizens, African diplomats, artists, sports people and seamen). Where available, these fares were some 10 to 50 per cent below the level of the applicable normal fares.

General cargo rates for small shipments

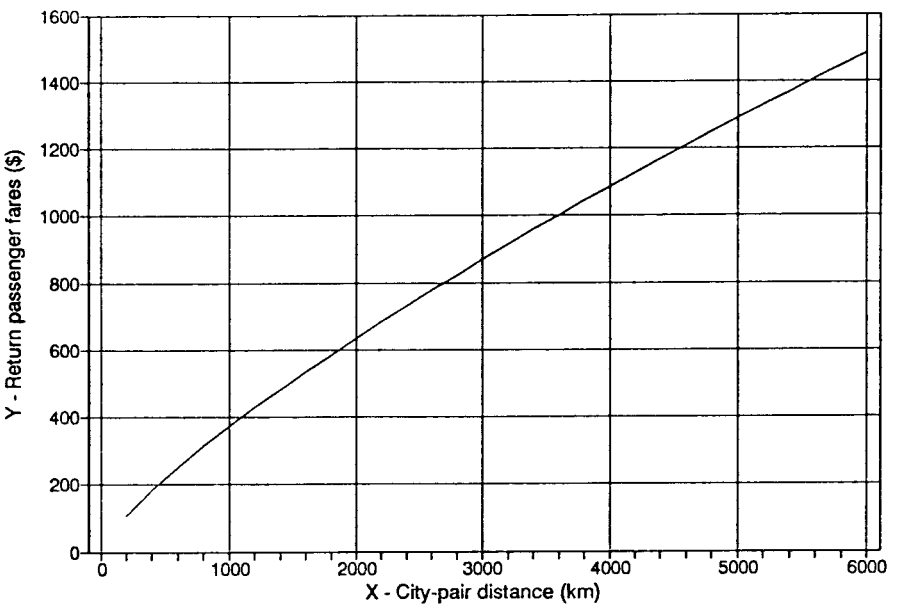
4. The curve on Graph IV-16 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

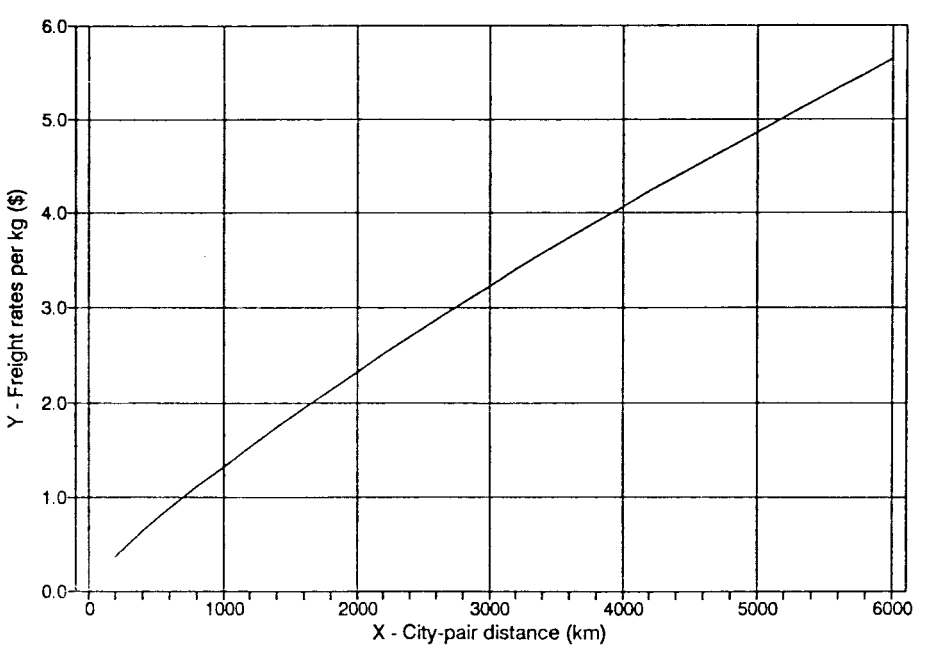
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 250	500	1000	2000	4000	6000
Rates per tonne-km in cents, 1988	173	152	133	116	102	94
Percentage change (%), 1989/1988	-2.5	-2.3	-2.1	-1.8	-1.6	-1.5

Other cargo rates

6. Table IV-16 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. The only general cargo rates widely available for other than small shipments remained those with a breakpoint of 45 kg, which were around 25 per cent lower than the general cargo rates for small shipments. On the other hand, some specific commodity rates remained available in this route group, giving an average reduction of around 60 per cent in the general cargo rates for small shipments.



Graph IV-15. Economy class normal passenger fares (route group 8)



Graph IV-16. General cargo rates for shipments of less than 45 kg (route group 8)

Table IV-15. Range of passenger fares available (route group 8)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Inter-mediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	economy class
		(as a percentage of the highest economy class normal fare)						
Addis Ababa - Lagos	3 920	1 240	140	110	-	69	-	-
Nairobi - Johannesburg	2 910	542	145	115	-	81	-	-
Lomé - Kinshasa	1 970	735	140	115	-	-	-	-
Dar-es-Salaam - Lusaka	1 500	399	145	115	-	61	-	-
Monrovia - Dakar	1 230	590	140	115	-	70	-	-
Johannesburg - Harare	960	377	145	115	-	70	-	-
Antananarivo - St. Denis	870	397	145	115	-	59-72	-	48
Abidjan - Cotonou	710	241	140	115	-	70	-	50
Niamey - Ouagadougou	420	173	140	115	-	70	-	50
Conakry - Freetown	120	108	141	115	-	70	-	-

Table IV-16. Range of cargo rates available (route group 8)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Addis Ababa - Lagos	3 920	39	4.19	75	-	23-58	6
Nairobi - Johannesburg[1]	2 910	23	2.19	-	-	17-42	5
Lomé - Kinshasa	1 970	33	2.16	75	-	65-74	3
Dar-es-Salaam - Lusaka	1 500	26	0.91	77	-	19-50	14
Monrovia - Dakar	1 230	43	2.56	75	-	37	1
Johannesburg - Harare[1]	960	13	1.19	-	50	40-60	3
Antananarivo - St. Denis	870	37	1.38	75	-	-	-
Abidjan - Cotonou	710	33	1.03	75	-	-	-
Niamey - Ouagadougou	420	33	0.65	72	-	-	-
Conakry - Freetown	120	39	0.58	76	-	-	-

1. The first breakpoint for general cargo rates is 100 kg (not 45 kg).

Route Group 9: Between Europe and Middle East

Economy class normal passenger fares

1. The curves on Graph IV-17 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 500	1000	2000	4000	6000
Fares per pass-km in cents, 1989					
Average	23.2	21.4	19.8	18.3	17.5
Eastbound	24.2	22.6	21.0	19.6	18.8
Westbound	22.1	20.3	18.7	17.2	16.4
Percentage change (%), 1989/1988					
Average	3.5	1.4	-0.7	-2.8	-3.9
Eastbound	5.9	2.2	-1.3	-4.8	-6.7
Westbound	0.7	0.3	-0.1	-0.4	-0.7

3. Between September 1988 and September 1989 there was a significant reduction in the directional imbalance in the level of the estimated economy class normal fare per passenger-kilometre expressed in U.S. dollars at the longer distances; however, at the shorter distances the directional imbalance in fare levels increased.

Other passenger fares

4. Table IV-17 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in this route group in September 1989, whereas in September 1988 intermediate class travel had been available only from Europe on two city-pairs in the sample. Economy class excursion fares remained widely available to the general public at levels about 25 per cent lower on average than the applicable economy class normal fares. Pex and group fares remained available to the general public for a few city-pairs in the sample.

General cargo rates for small shipments

5. The curves on Graph IV-18 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

6. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

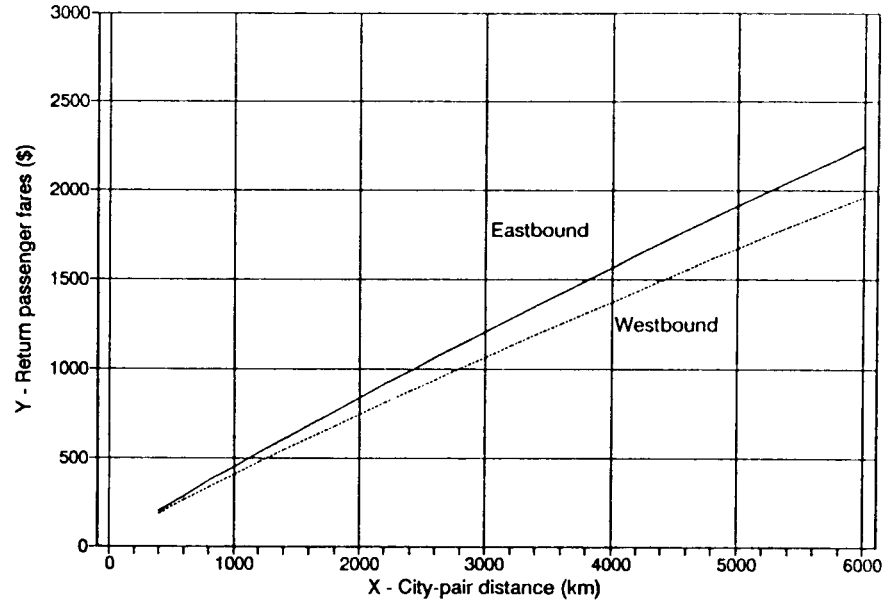
Estimated general cargo rates for shipments of less than 45 kg	Distance in km 500	1000	2000	4000	6000
Rates in cents per tonne-km, 1989					
Average	122	127	131	136	139
Eastbound	104	119	136	156	168
Westbound	143	135	127	119	115
Percentage change (%), 1989/1988					
Average	-6.5	-5.8	-5.1	-4.4	-4.0
Eastbound	11.1	5.4	0.0	-5.2	-8.1
Westbound	-22.5	-16.6	-10.3	-3.5	0.7

7. Between September 1988 and September 1989 there was a significant reduction in the directional imbalance in the level of the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kg. The directional imbalance in rate levels between the eastbound and westbound direction however continues to be significant at short and long distances.

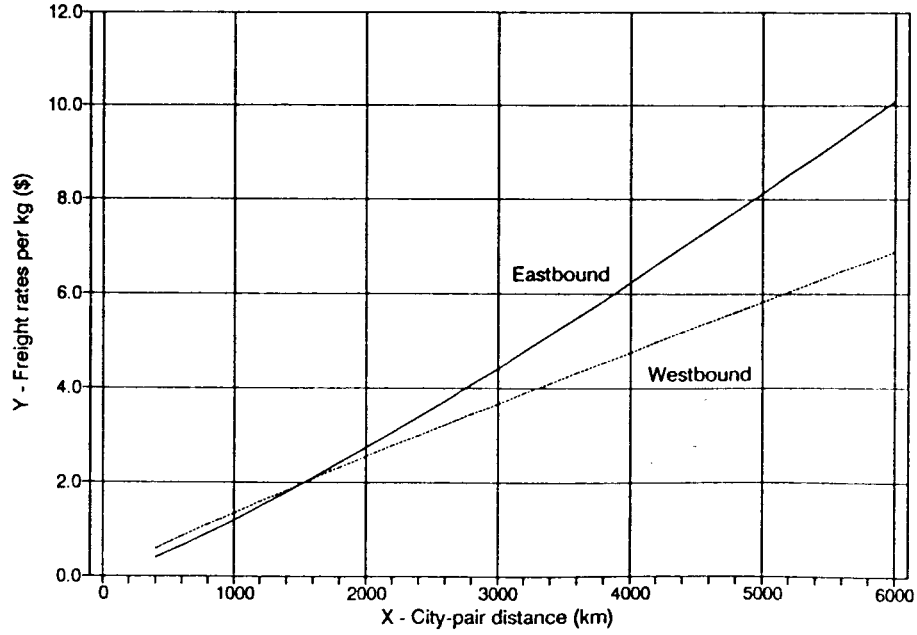
8. In September 1989 there was a significant spread of actual general cargo rates for small shipments (less than 45 kg) above and below the estimated average for rates in both directions. Thus, as in previous years, in September 1989 rates in this route group remained less dependent on distance and more dependent on other factors than rate levels in some other areas of the world.

Other cargo rates

9. Table IV-18 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. General cargo rates with a breakpoint of 45 kg remained 25 per cent lower than the general cargo rates for small shipments (for routes from the United Kingdom the first breakpoint was 100 kg). General cargo rates for large shipments (over 500 kg) were available for 4 of the 10 city-pairs in the sample, one less than in September 1988. A large number of specific commodity rates were available for 6 of the city-pairs in the sample (one more than for September 1988). Where available they were at levels some 60 per cent lower on average than the general cargo rates for small shipments.



Graph IV-17. Economy class normal passenger fares (route group 9)



Graph IV-18. General cargo rates for shipments of less than 45 kg (route group 9)

Table IV-17. Range of passenger fares available (route group 9)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Inter-mediate class normal	Economy class restricted	Economy class excursion	Economy class PEX	Economy class
			(as a percentage of the highest economy class normal fare)					
London - Abu Dhabi	5 510	1 665	187	115	-	87	61	-
Dubai - Brussels	5 150	1 783	144	110	-	53-69	-	-
Geneva - Dhahran	4 670	1 947	145	106	-	70	-	-
Tehran - Paris	4 188	1 629	147	110	-	78	-	-
Jeddah - Algiers	3 840	1 171	137	110	-	69	-	47
Amsterdam - Tel Aviv	3 310	1 509	146	-	-	52-62	35	49
Cairo - Frankfurt	2 920	758	145	110	-	69	-	-
Warsaw - Damascus	2 460	708	147	110	-	69	-	-
Sofia - Baghdad	2 100	967	140	110	-	69	-	-
Amman - Istanbul	1 210	377	129	110	-	69	-	-

Table IV-18. Range of cargo rates available (route group 9)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
London - Abu Dhabi[1]	5 510	79	7.21	-	40	59- 61	6
Dubai - Brussels	5 150	50	6.63	75	32	22- 37	5
Geneva - Dhahran	4 670	71	9.29	75	-	17- 29	8
Tehran - Paris	4 188	48	6.22	75	27	20-54	10
Jeddah - Algiers	3 840	47	3.67	75	35	-	-
Amsterdam - Tel Aviv	3 310	68	5.46	75	-	36-100	10
Cairo - Frankfurt	2 920	25	2.23	75	-	16-45	12
Warsaw - Damascus	2 460	19	3.75	75	-	-	-
Sofia - Baghdad	2 100	27	3.03	75	-	-	-
Amman - Istanbul	1 210	25	1.28	75	-	-	-

1. The first breakpoint for general cargo rates out of the United Kingdom is 100 kg (not 45 kg).

Route Group 10: Between Europe/Middle East and Africa

Economy class normal passenger fares

1. The curves on Graph IV-19 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 500	1000	2000	4000	7000	10000
Fares per pass-km in cents, 1989						
Average	24.7	21.7	19.0	16.7	15.0	14.0
Northbound	25.3	21.3	17.9	15.0	13.0	11.9
Southbound	24.3	22.2	20.2	18.4	17.1	16.3
Percentage change (%), 1989/1988						
Average	-5.7	-3.9	-2.2	-0.4	1.1	2.0
Northbound	-11.4	-7.8	-4.0	-0.1	3.1	5.3
Southbound	1.0	0.5	-0.1	-0.6	-1.1	-1.3

3. Between September 1988 and September 1989 there was a significant reduction in the directional imbalance in the level of the estimated economy class normal fares per passenger-kilometre at the short and long distances.

Other passenger fares

4. Table IV-19 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in this route group in September 1989. Economy class excursion fares were also widely available, with levels averaging some 30 per cent lower than the applicable economy class normal fare. For 6 city-pairs, Apex and Pex-type fares were also available at levels some 45 per cent lower than the applicable economy class normal fare.

General cargo rates for small shipments

5. The curves on Graph IV-20 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

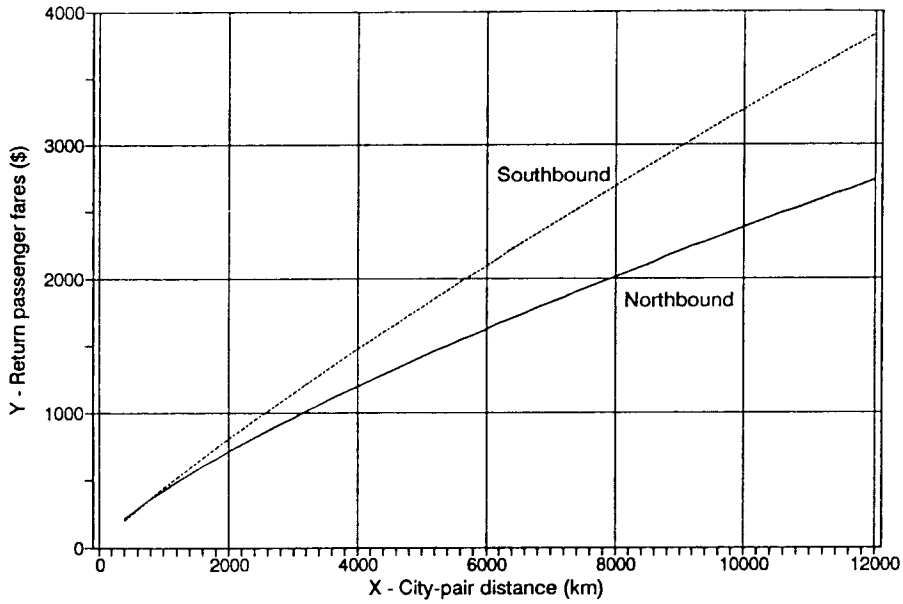
6. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km 500	1000	2000	4000	7000	10000
Rates in cents per tonne-km, 1989						
Average	219	181	150	124	107	97
Northbound	303	207	141	96	71	58
Southbound	161	160	160	159	158	158
Percentage change (%), 1989/1988						
Average	-11.5	-9.0	-6.4	-3.7	-1.5	0.0
Northbound	-10.6	-8.0	-5.3	-2.6	-0.4	1.1
Southbound	-11.9	-9.5	-6.9	-4.4	-2.2	-0.8

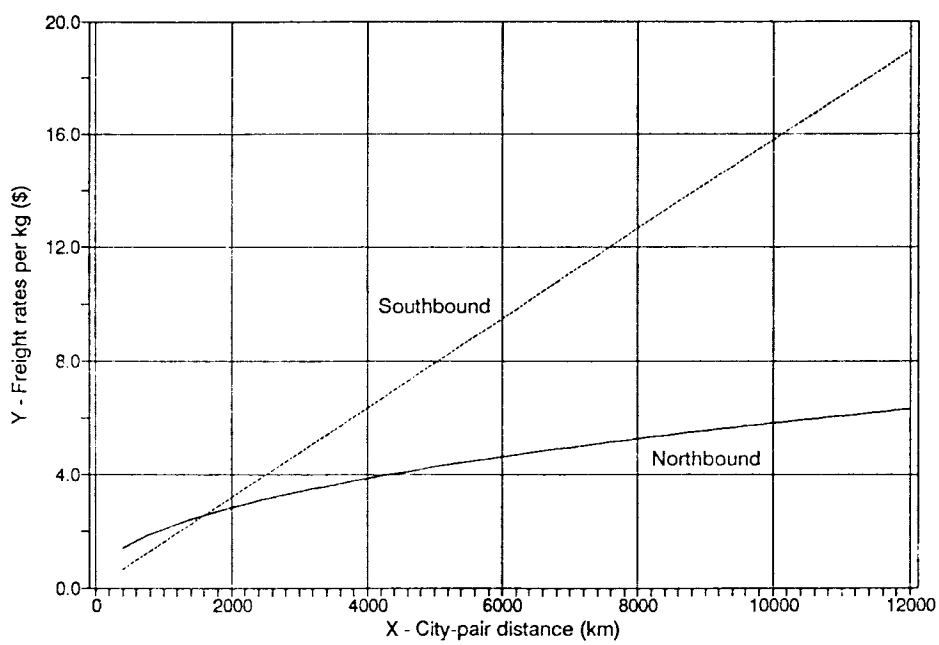
7. In September 1989, rates in the northbound direction remained much less dependent on distance and more dependent on other factors than those in the southbound direction.

Other cargo rates

8. Table IV-20 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. As in previous years, the only general cargo rates for large shipments widely available were those with a breakpoint of 45 kg, at a level 25 per cent lower than the general cargo rates for small shipments. A significant number of specific commodity rates remained available in this route group, giving an average reduction of around 60 per cent on the general cargo rate for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for one city-pair in the sample (London-Johannesburg).



Graph IV-19. Economy class normal passenger fares (route group 10)



Graph IV-20. General cargo rates for shipments of less than 45 kg (route group 10)

Table IV-19. Range of passenger fares available (route group 10)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES					GROUP FARES
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX	Economy class
			(as a percentage of the highest economy class normal fare)					
Moscow - Maputo	9 360	3 981	168	116	-	67	-	-
London - Johannesburg	9 070	2 100	233	123	72	85	64	-
Harare - London	8 300	1 855	153	109	-	62-67	45	-
Johannesburg - Tel Aviv	6 620	1 404	156	111	-	74	62	-
Kinshasa - Brussels	6 240	2 502	145	115	-	66	55	-
Rome - Nairobi	5 400	2 091	160	107	-	75	51	42-47
Abidjan - Paris	4 900	1 710	151	115	-	67	55	-
Khartoum - Kano	2 640	948	129	115	-	-	-	-
Addis Ababa - Jeddah	1 410	639	145	110	-	65	-	-
Tunis - Tripoli	540	153	140	-	-	-	-	-

Table IV-20. Range of cargo rates available (route group 10)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate[1])	Over 500 kg (as a percentage of under-45 kg rate[1])	Range (as a percentage of under-45 kg rate[1])	Number of commodities
Moscow - Maputo	9 360	70	15.57	75	-	-	-
London - Johannesburg[2]	9 070	79	9.51	-	-	67-77	10
Harare - London[2]	8 300	36	2.88	-	56	30-41	2
Johannesburg - Tel Aviv[2]	6 620	29	2.80	-	-	-	-
Kinshasa - Brussels	6 240	49-57	4.12-6.08	50-75	-	20-57	13
Rome - Nairobi	5 400	68	8.15	75	-	30-58	13
Abidjan - Paris	4 900	47	4.68	75	-	15-45	17
Khartoum - Kano	2 640	84	3.25	75	-	37	1
Addis Ababa - Jeddah	1 410	39	2.59	76	-	13-48	8
Tunis - Tripoli	540	31	0.37	75	-	37-62	4

1. Rates calculated as a percentage of the higher under-45 kg rate where applicable.
2. The first breakpoint for general cargo rates is 100 kg (not 45 kg).

Route Group 11: North Atlantic

Economy class normal passenger fares

1. The curves on Graph IV-21 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 4000	6000	8000	10000	12000
Fares per pass-km in cents, 1989					
Average	18.1	15.5	13.9	12.8	11.9
Eastbound	19.0	16.0	14.1	12.9	11.9
Westbound	17.2	15.1	13.7	12.7	12.0
Percentage change (%), 1989/1988					
Average	5.8	4.5	3.6	2.9	2.4
Eastbound	12.6	8.0	4.9	2.5	0.6
Westbound	-0.5	1.2	2.4	3.3	4.1

3. Between September 1988 and September 1989 there was a significant increase in the directional imbalance in fare levels at the shorter distances for routes across the North Atlantic. When comparing fare levels by direction on the North Atlantic it should be noted that these refer to return fares. On many North Atlantic routes carriers are applying lower fares for return journeys in an attempt to discourage the practice of passengers obtaining reduced fares through the purchase of two one-way fares. In September 1989 return fares for 104 out of 294 city-pairs in the westbound direction were some 6 to 17 per cent lower than twice the corresponding one-way fare.

4. In September 1989 fares on North Atlantic routes remained less dependent on distance and more dependent on other factors than fare levels in some other areas of the world.

Other passenger fares

5. Table IV-21 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available on the North Atlantic but were frequently very high relative to the economy class "normal" fares, in some cases reflecting the low level of the economy class restricted fare and non-availability of an economy class unrestricted fare. First and/or intermediate class restricted fares were available for only one city-pair in the sample; this is significantly less than for previous years (first and/or intermediate class restricted fares were available for 3 city pairs in the sample in September 1988 and 6 city-pairs in September 1987). Economy class restricted fares remained a major feature of this route group (offered on 8 out of 10 city-pairs in the sample). Excursion fares were available on several of the sample city-pairs in this route group at levels some 40 per

cent lower than the applicable highest economy class "normal" fare. Apex and/or Pex-type fares were seen to be available for almost all city-pairs. The average reduction of some 60 per cent on the applicable economy class normal fare was somewhat greater than for September 1988. Group fares, as in the previous year, remained available on some routes.

General cargo rates for small shipments

6. The curves on Graph IV-22 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

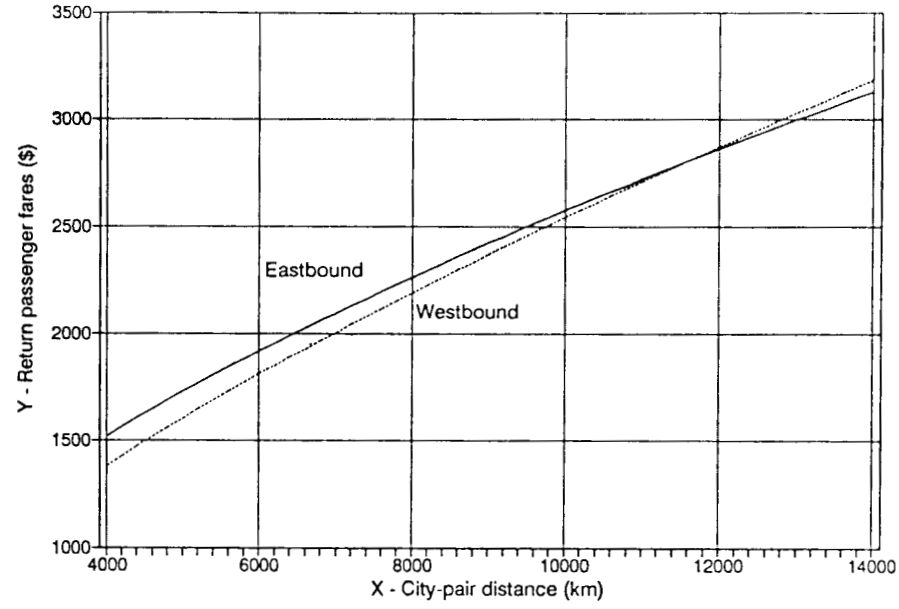
7. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km 4000	6000	8000	10000	12000
Rates in cents per tonne-km, 1989					
Average	119	106	98	92	87
Eastbound	133	111	98	89	82
Westbound	108	102	97	94	92
Percentage change (%), 1989/1988					
Average	-2.1	-1.3	-0.6	-0.1	0.3
Eastbound	-0.3	0.2	0.6	0.9	1.2
Westbound	-2.7	-2.3	-2.1	-1.9	-1.7

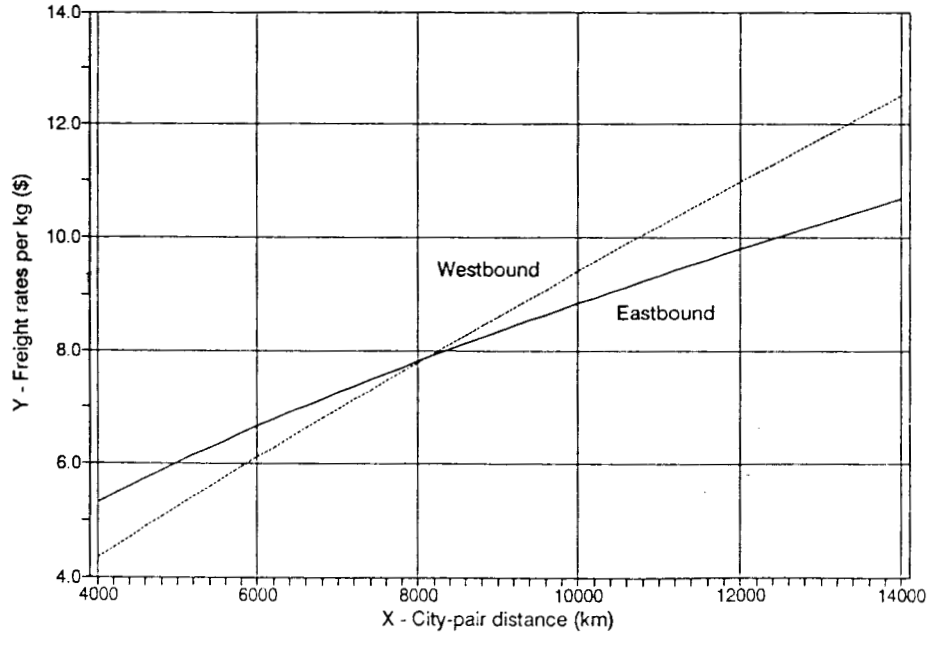
8. Between September 1988 and September 1989 the directional imbalance in the level of the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kg, as in the previous year, remained significant at most distances. Also, as in the previous years in September 1989 there was a significant spread in the level of general cargo rates for small shipments (less than 45 kg) above and below the average rates in the westbound direction (to North America). Thus in September 1989 North Atlantic rates to North America remain significantly less dependent on distance and more dependent on other factors than those in the eastbound direction.

Other cargo rates

9. Table IV-22 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg exist in each case, including for most city-pairs discounts for shipments over 100 and 300 kg as well as breakpoints greater than 500 kg. Large shipments of over 500 kg benefited from reductions of between 47 and 71 per cent, averaging some 60 per cent. Specific commodity rates were available for the majority of the selected city-pairs, giving an average reduction of some 65 per cent on the general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for most city-pairs in the sample. On the route from London to New York, these rates have completely replaced the relatively large number of specific commodity rates which were formerly offered.



Graph IV-21. Economy class normal passenger fares (route group 11)



Graph IV-22. General cargo rates for shipments of less than 45 kg (route group 11)

Table IV-21. Range of passenger fares available (route group 11)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES[1] First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX	GROUP FARES economy class
			(as a percentage of the highest economy class normal fare)					
Jeddah - New York	10 220	2 152	162-167	107-110	82-84	47-62	-	24-51
Amsterdam - Los Angeles	8 960	2 353	197-215	124-129	98-100	43	26-35	-
New York - Lagos	8 440	2 174	149-167	102-116	91-96	69-81	54-63	60
Houston - Paris	8 070	2 162	200-241	116-140	54-98	-	35-47	45
Frankfurt - Atlanta	7 410	2 201	185	107	100	-	37-41	-
Miami - Madrid	7 110	1 580	241-253	128-157	95	59-66	43-46	43-46
Chicago - Copenhagen	6 850	2 620	155	-	76-84	42	27-34	-
Milan - Toronto	6 610	1 947	187	109	-	58	52	-
London - New York[2]	6 510	1 606	282-308[3]	152-212[4]	57-69	-	38-52	44-46
Montreal - Warsaw	6 460	2 092	179	114	-	56	42-43	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
2. Fares for supersonic aircraft also available.
3. First class excursion fare also available.
4. Intermediate class restricted fares also available.

Table IV-22. Range of cargo rates available (route group 1)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Jeddah - New York	10 220	61	11.98	76	46	31	1
Amsterdam - Los Angeles	8 960	68	8.65	79	37	32-40	10
New York - Lagos	8 440	65	12.06	76	53	33-56	7
Houston - Paris	8 070	60	7.75	80	32	20-40	10
Frankfurt - Atlanta	7 410	77	8.40	77	42	28-36	17
Miami - Madrid	7 110	60	7.65	80	32	20-25	1
Chicago - Copenhagen	6 850	60	7.35	-	-	23-26	3
Milan - Toronto	6 610	68	5.72	79	46	42-47	5
London - New York[1]	6 510	79	5.40	-	29	-	-
Montreal - Warsaw	6 460	59	6.72	81	32	23-74	4

1. The first breakpoint for general cargo rates is 100 kg (not 45 kg).

Route Group 12: Mid Atlantic

Economy class normal passenger fares

1. The curves on Graph IV-23 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 6000	8000	10000	12000
Fares per pass-km in cents, 1989				
Average	14.6	13.4	12.5	11.8
Eastbound	14.3	12.7	11.5	10.7
Westbound	14.9	14.1	13.5	13.0
Percentage change (%), 1989/1988				
Average	-1.6	-3.9	-5.7	-7.0
Eastbound	6.7	0.2	-4.5	-8.3
Westbound	-9.3	-7.8	-6.5	-5.5

3. Between September 1988 and September 1989 there was a significant reduction in the directional imbalance in fare levels at the shorter distances, but the imbalance remained significant at the longer distances.

4. In September 1989 the spread in actual economy class normal fare levels on the Mid Atlantic above and below the estimated averages remained significant, particularly in the eastbound direction. Hence, fare levels on the Mid Atlantic continue to be less dependent on distance and more dependent on other factors compared with routes in other areas.

Other passenger fares

5. Table IV-23 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in this route group. Economy class excursion fares continued to be widely available in September 1989. The average reduction of some 25 per cent on the economy class normal fares was somewhat smaller than in September 1988. Apex and Pex-type fares remained available for some of the other city-pairs in the sample, at a level about 50 per cent lower than the applicable economy class normal fare.

General cargo rates for small shipments

6. The curve on Graph IV-24 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route

group at different distances. The graph shows only the variation of rates with distance in the westbound direction as no relationship appears to exist for those in the eastbound direction (see paragraph 8 below).

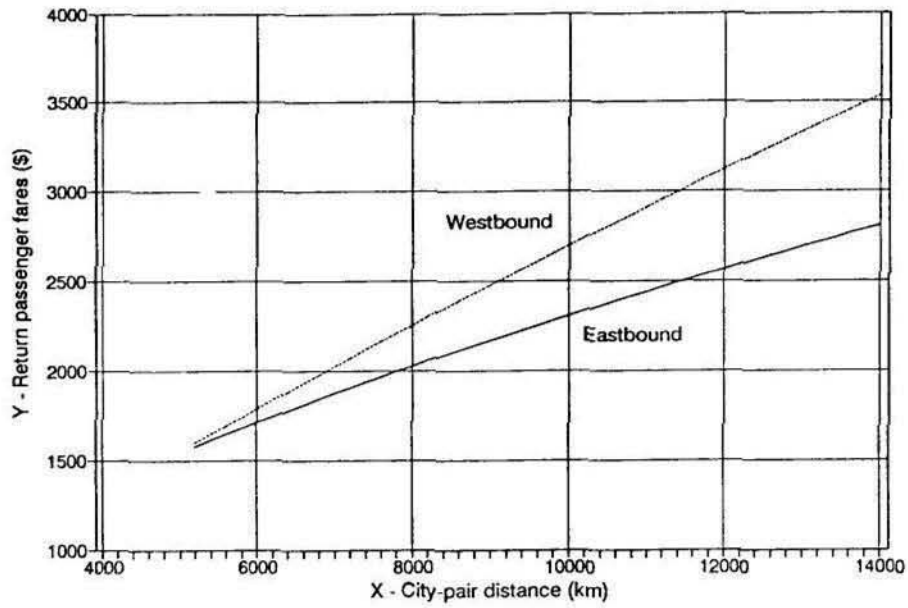
7. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km 6000	8000	10000	12000
Rates in cents per tonne-km, 1989				
Average		[see paragraph 8]		
Eastbound		[see paragraph 8]		
Westbound	129	133	136	139
Percentage change (%), 1989/1988				
Average		[see paragraph 8]		
Eastbound		[see paragraph 8]		
Westbound	-2.2	-3.1	-3.8	-4.4

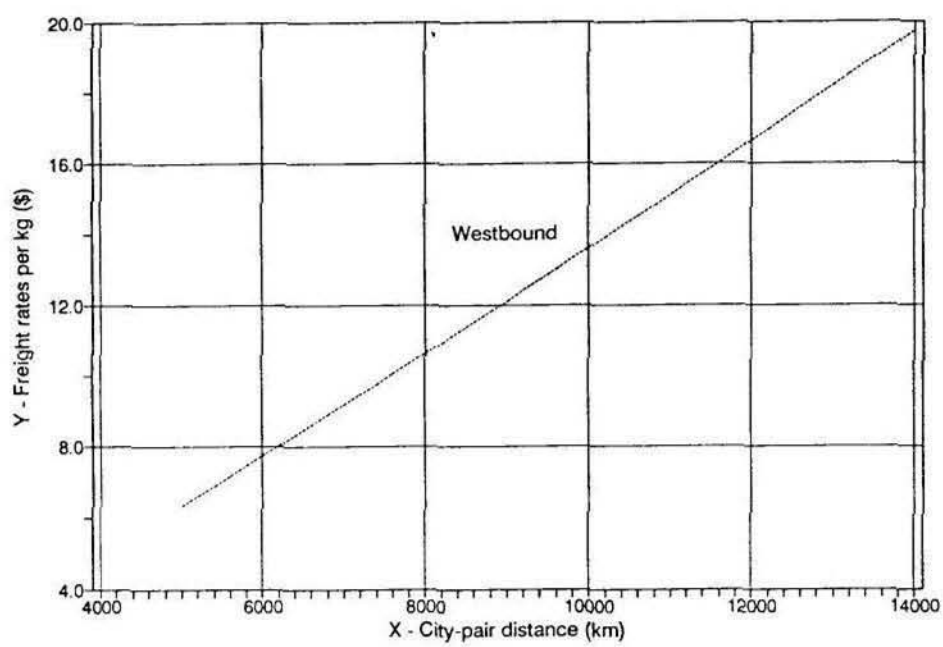
8. Between September 1988 and September 1989 there was a significant broadening of the spread in the level of actual rates for small shipments (less than 45 kg) above and below the average in the eastbound direction (i.e. from the Caribbean and Latin America). In September 1989 the level of rates in the eastbound direction was virtually independent of distance and is therefore not included in the above table. At the same time the level of rates in the westbound direction remained less dependent on distance and more dependent on other factors than rate levels in some other areas of the world.

Other cargo rates

9. Table IV-24 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg existed in each case, including discounts for shipments over 100 and 300 kg as well as over 500 kilograms. As in previous years, shipments over 500 kg benefited from reductions of some 60 to 70 per cent on the small shipment rate. Specific commodity rates were available for all city-pairs in the sample, giving as in previous years a reduction of some 70 per cent on average from the small shipment rate. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for 6 of the 10 city-pairs in the sample, one city-pair less than for September 1988. The high level of the general cargo rates across the Mid Atlantic should therefore be considered in the context of the particularly large number of lower rates available.



Graph IV-23. Economy class normal passenger fares (route group 12)



Graph IV-24. General cargo rates for shipments of less than 45 kg (route group 12)

Table IV-23. Range of passenger fares available (route group 12)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES					GROUP FARES
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX	Economy class
			(as a percentage of the highest economy class normal fare)					
Lima - Madrid	10 030	2 500	163	108	-	63-80	58	-
Moscow - Havana	9 860	2 184	165	112	-	69	-	59-61
Amsterdam - Guayaquil	9 840	2 667	165	109	-	80	46	-
Mexico - Frankfurt	9 770	1 984	159-171	103-108	-	79	58	-
Bogota - Paris	8 660	2 194	171	109	-	67-77	-	-
Caracas - Milan	8 060	1 966	165	110	-	60-80	-	-
Frankfurt - San Juan	7 375	1 966	150-158	111-118	-	87-88	44	-
Port-of-Spain - London	7 090	1 804	188	122	72	-	47-51	-
Madrid - Santo Domingo	6 690	2 041	169	112	-	81	50-58	-
Lisbon - Recife	5 860	1 491	165	110	-	76	57	57

Table IV-24. Range of cargo rates available (route group 12)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Lima - Madrid	10 030	51	12.80	77	36	9-33	11
Moscow - Havana	9 860	86	15.58	78	40	39-44	1
Amsterdam - Guayaquil	9 840	68	14.90	77	42	28-36	9
Mexico - Frankfurt	9 770	60	8.60	84	41	13-65	15
Bogota - Paris	8 660	55	9.00	80	38	11-42	15
Caracas - Milan	8 060	60	9.00	80	27	9-27	11
Frankfurt - San Juan	7 350	77	8.06	80	42	30-38	17
Port-of-Spain - London	7 090	68	13.10	76	38	4-58	4
Madrid - Santo Domingo	6 690	70	9.29	77	36	21-49	6
Lisbon - Recife	5 860	40	8.09	75	43	22-40	18

Route Group 13: South Atlantic

Economy class normal passenger fares

1. The curves on Graph IV-25 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 6000	8000	10000	12000	14000
Fares per pass-km in cents, 1989					
Average	12.8	13.4	13.8	14.2	14.5
Eastbound	14.5	13.7	13.2	12.8	12.4
Westbound	11.5	13.1	14.5	15.8	17.0
Percentage change (%), 1989/1988					
Average	2.4	2.5	2.6	2.7	2.8
Eastbound	1.7	2.6	3.3	3.8	4.3
Westbound	4.6	3.0	1.7	0.7	-0.1

3. Between September 1988 and September 1989 the directional imbalance in economy class normal fares between the eastbound and westbound directions remained significant at most distances. Also in September 1989 fare levels on the South Atlantic in the eastbound direction (from South America) remained more dependent on distance and less on other factors than fare levels in the westbound direction.

Other passenger fares

4. Table IV-25 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, in September 1989 first and intermediate class fares were widely available in this route group. Economy class excursion fares continued to be widely available in September 1989 but at levels about 20 per cent below the related economy class normal fare, compared with levels some 30 per cent below in September 1988. Apex and Pex-type fares remained available for most city-pairs in the sample at levels ranging between about 40 and 60 per cent below the economy class normal fare. In September 1989 group fares were available for 2 of the 10 city-pairs in the sample, whereas none appeared to be available in September 1988.

General cargo rates for small shipments

5. The curves on Graph IV-26 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

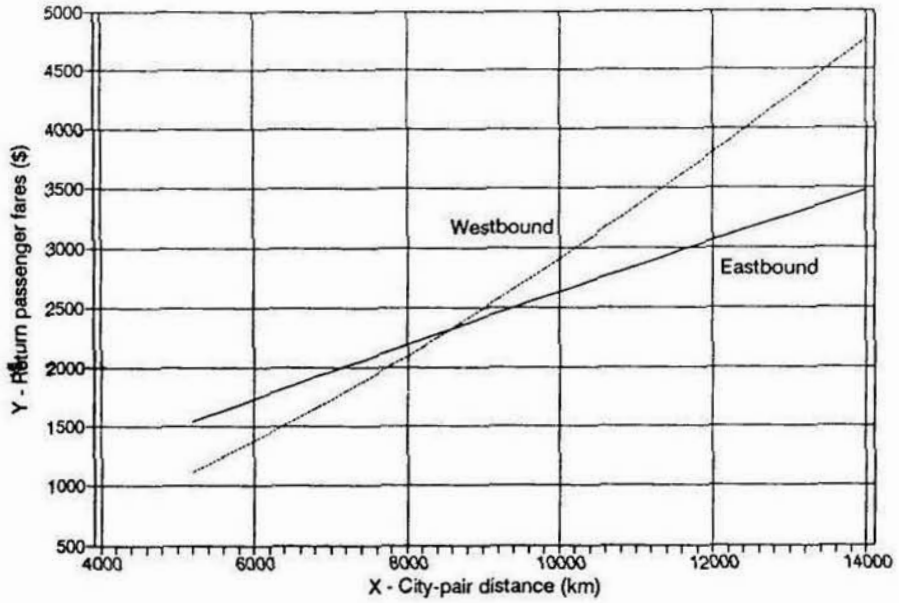
6. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km 6000	8000	10000	12000	14000
Rates in cents per tonne-km, 1989					
Average	128	125	122	120	119
Eastbound	139	123	111	103	96
Westbound	119	127	134	140	145
Percentage change (%), 1989/1988					
Average	-1.5	-0.7	-0.2	0.3	0.7
Eastbound	-3.8	-1.8	-0.2	1.1	2.3
Westbound	2.2	0.5	-0.9	-1.9	-2.8

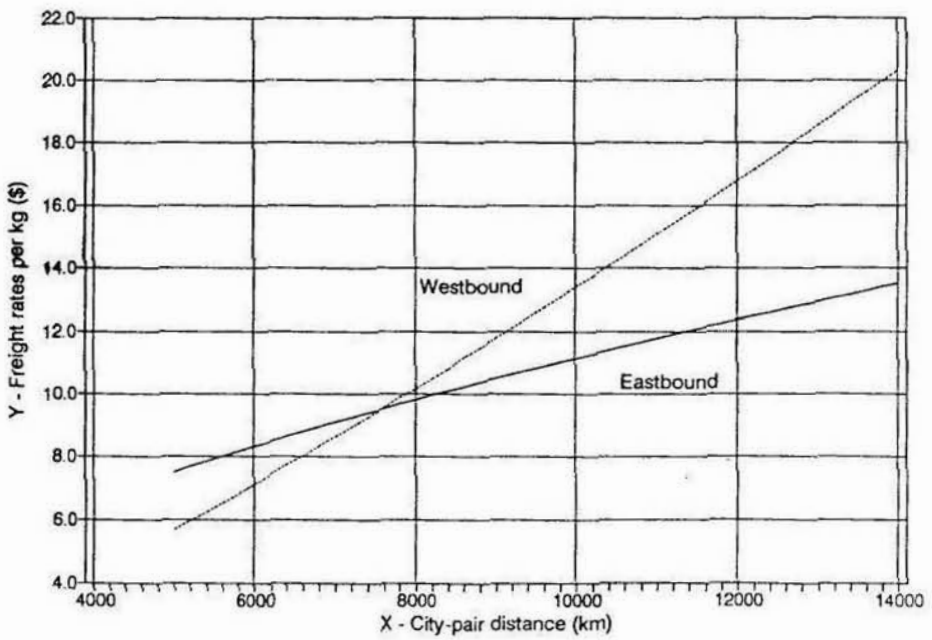
7. Between September 1988 and September 1989 there continued to be a significant directional imbalance in the level of general cargo rates for small shipments (less than 45 kg) for routes across the South Atlantic. Also, in September 1989, cargo rates for this route group in the westbound direction remained less dependent on distance and more dependent on other factors than those in the eastbound direction.

Other cargo rates

8. Table IV-26 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several cargo rates for shipments of more than 45 kg exist in each case (including breakpoints at 100 and 300 kg) giving, as for the previous years, an average reduction of some 60 per cent for shipments over 500 kg. As in previous years a large number of specific commodity rates also remained available in this route group, with an average level some 70 per cent lower than the general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) remained available for one city-pair in the sample (London-Rio de Janeiro). The high level of the general cargo rates across the South Atlantic should thus be considered in the context of the particularly large number of lower rates available.



Graph IV-25. Economy class normal passenger fares (route group 13)



Graph IV-26. General cargo rates for shipments of less than 45 kg (route group 13)

Table IV-25. Range of passenger fares available (route group 13)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Inter-mediate class normal	Economy class restricted	Economy class excursion	Economy class PEX, APEX	Economy class
		(as a percentage of the highest economy class normal fare)						
Frankfurt - Santiago de Chile	12 700	3 713	149	110	-	108	43	-
Santiago de Chile - Paris	12 316	2 911	150	110	-	67	54	-
Amsterdam - Montevideo	11 380	3 305	153	110	-	76	43	-
Buenos Aires - Rome	11 170	2 883	150	110	-	78	48-57	-
Copenhagen - Rio de Janeiro	10 180	3 194	156	108	-	76	51	-
Asuncion - Madrid	9 620	2 429	154	110	-	76	58	-
Rio de Janeiro - Casablanca	9 300	2 153	161	110	-	76	58	-
London - Rio de Janeiro	9 250	2 523	204-215	128-131	-	93	48	-
Lisbon - Sao Paulo	8 070	1 678	159	110	-	76	55	55
Rio de Janeiro - Abidjan	5 290	1 583	141	115	-	80	-	65

Table IV-26. Range of cargo rates available (route group 13)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Frankfurt - Santiago de Chile	12 700	77	16.06	75	36	27-33	6
Santiago de Chile - Paris	12 316	50	12.72	75	36	10-20	16
Amsterdam - Montevideo	11 380	68	16.13	75	37	26-40	14
Buenos Aires - Rome	11 170	50	12.19	75	38	12-49	20
Copenhagen - Rio de Janeiro	10 180	66	12.64	76	37	27-32	2
Asuncion - Madrid	9 620	50	10.77	76	38	15-32	8
Rio de Janeiro - Casablanca	9 300	50	9.06	75	43	22-43	15
London - Rio de Janeiro[1]	9 250	79	9.92	-	37	43-74	3
Lisbon - Sao Paulo	8 070	40	8.24	75	43	17-40	19
Sao Paulo - Dakar	5 310	50	7.39	78	34	15-19	2

1. The first breakpoint for general cargo rates out of the United Kingdom is 100 kg (not 45 kg).

Route Group 14: Local Asia/Pacific

Economy class normal passenger fares

1. The curve on Graph IV-27 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km						
	250	500	1000	2000	4000	7000	10000
Fares per pass-km in cents, 1989	20.3	18.5	17.0	15.5	14.2	13.2	12.6
Percentage change (%), 1989/1988	3.3	3.9	4.5	5.1	5.7	6.1	6.4

Other passenger fares

3. Table IV-27 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class fares were widely available in September 1989. Some individual economy class special fares were also available for 8 out of 10 city-pairs in the sample one more than for September 1988. Where available, these fares ranged between 11 and 51 per cent below the level of the related economy class normal fare. A few group fares were also available. Other fares, not appearing in multilateral tariff manuals, are known to be available for many city-pairs in this route group.

General cargo rates for small shipments

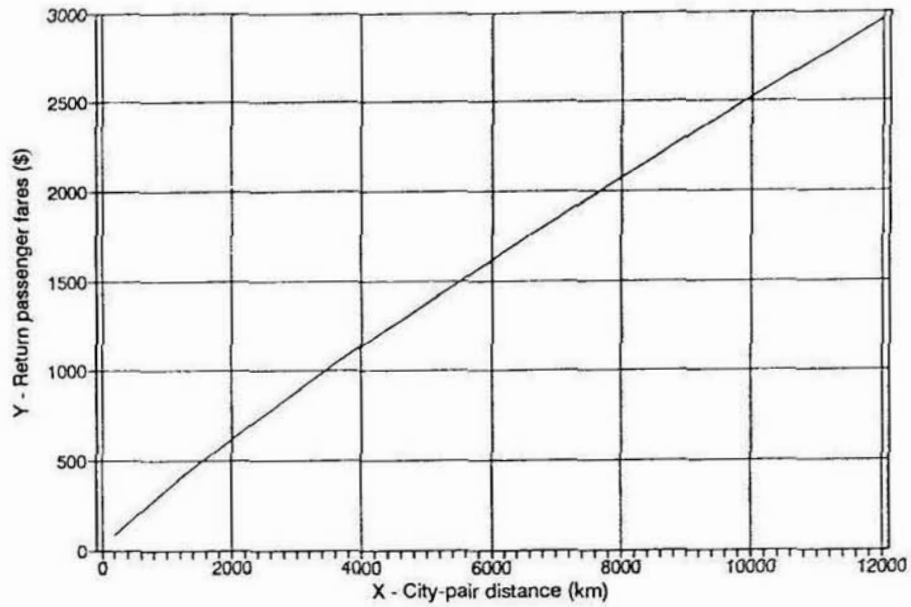
4. The curve on Graph IV-28 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

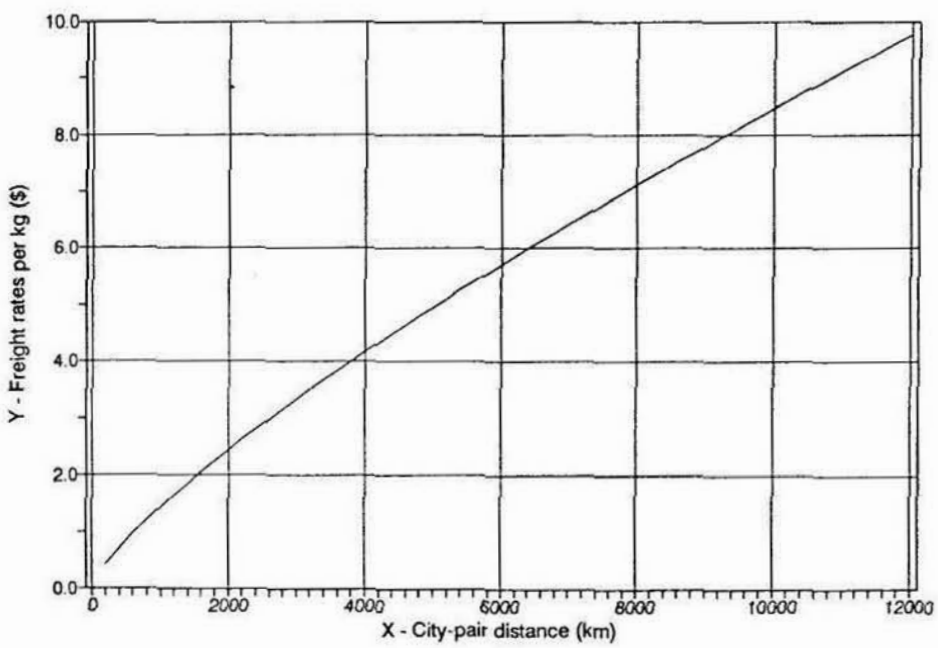
Estimated general cargo rates for shipments of less than 45 kg	Distance in km						
	250	500	1000	2000	4000	7000	10000
Rates per tonne-km in cents, 1989	195	167	142	122	104	92	85
Percentage change (%), 1989/1988	3.9	3.5	3.0	2.5	2.1	1.7	1.5

Other cargo rates

6. Table IV-28 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. The only general cargo rates widely available for other than small shipments remained those with a breakpoint of 45 kg. These general cargo rates for shipments of more than 45 kg were about 25 per cent lower than the rates for small shipments. Specific commodity rates were available for most city-pairs in the sample at a level some 60 per cent lower on average than the general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for a few city-pairs mainly within the South West Pacific area.



Graph IV-27. Economy class normal passenger fares (route group 14)



Graph IV-28. General cargo rates for shipments of less than 45 kg (route group 14)

Table IV-27. Range of passenger fares available (route group 14)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES					GROUP FARES
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	Economy class
			(as a percentage of the highest economy class normal fare)					
Auckland - Singapore	8 410	1 875	143-150	102-115	-	59	49	40
Karachi - Manila	5 720	967	144	110	-	55	-	-
Beijing - Bombay	4 760	1 642	129	110	-	-	-	-
Bangkok - Seoul	3 690	1 121	147	110	-	85	-	-
Hong Kong - Tokyo	2 940	699	142	110	-	89	-	-
Melbourne - Christchurch	2 410	707	175	136	-	-	68	68
Port Moresby - Brisbane	2 090	633	175	133	-	-	76	63
Sydney - Noumea	1 980	709	146	125	-	60	-	50
Kuala Lumpur - Jakarta	1 200	318	131	110	-	75	-	-
Madras - Colombo	650	101	132	110	-	-	-	-

Table IV-28. Range of cargo rates available (route group 14)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Auckland - Singapore	8 410	29	7.53	75	-	18-45	6
Karachi - Manila	5 720	21	3.89	75	-	15-52	4
Beijing - Bombay	4 760	9	3.47	71	-	-	-
Bangkok - Seoul	3 690	27	3.98	75	-	37-58	3
Hong Kong - Tokyo	2 940	24	2.67	75	-	50-52	5
Melbourne - Christchurch	2 410	27	3.38	75	44	28-41	2
Port Moresby - Brisbane	2 090	34	2.52	-	85	27-72	4
Sydney - Noumea	1 980	27	1.83	74	-	70	1
Kuala Lumpur - Jakarta	1 200	19	1.08	75	-	-	-
Madras - Colombo	650	11	0.41	75	-	62	1

Route Group 15: Between Europe/Middle East/Africa and Asia/Pacific

Economy class normal passenger fares

1. The curves on Graph IV-29 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 1000	3000	6000	10000	14000	18000
Fares per pass-km in cents, 1989						
Average	13.8	13.3	12.9	12.7	12.6	12.5
Eastbound	19.1	15.9	14.1	13.0	12.2	11.7
Westbound	10.0	11.1	11.9	12.5	12.9	13.2
Percentage change (%), 1989/1988						
Average	-4.7	-2.4	-1.0	0.1	0.8	1.4
Eastbound	-5.0	-3.2	-2.1	-1.3	-0.7	-0.3
Westbound	-3.6	-1.2	0.4	1.6	2.3	2.9

3. Between September 1988 and September 1989 there remained a significant directional imbalance in the level of the estimated economy class normal fare per passenger-kilometre at most distances.

Other passenger fares

4. Table IV-29 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first and intermediate class normal fares were widely available for this route group in September 1989. A few restricted or special fares for first and intermediate class were also available as were some economy class special fares. Economy class excursion fares, Apex or Pex-type fares were available for 7 of the 10 city-pairs in the sample (one city-pair more than for September 1988), with levels ranging from 29 to 55 per cent below the related economy class normal fare. Other fares, not appearing in multilateral tariff manuals, are known to be available for some city-pairs in this route group.

General cargo rates for small shipments

5. The curves on Graph IV-30 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

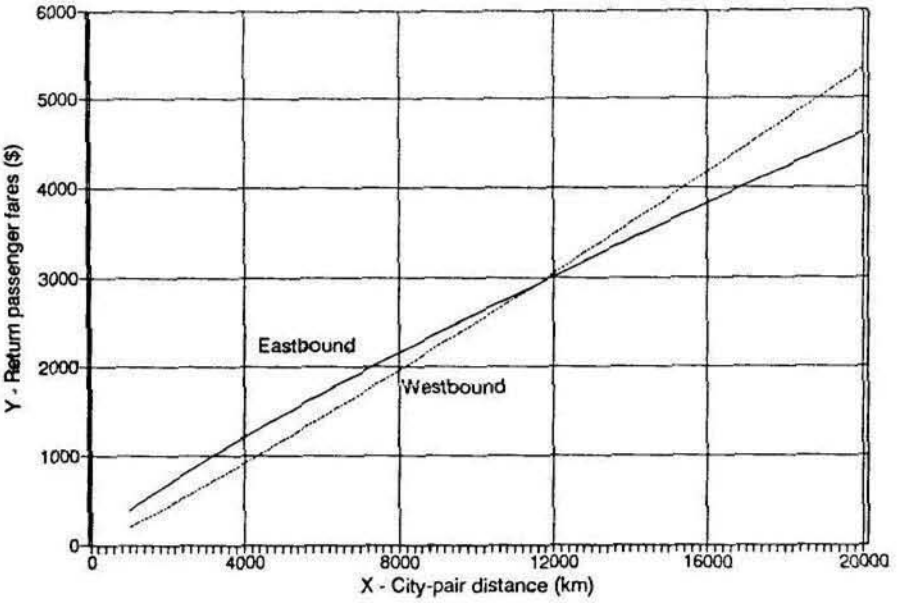
6. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km 1000	3000	6000	10000	14000	18000
Rates per tonne-km in cents, 1989						
Average	128	116	109	103	100	98
Eastbound	179	151	136	126	119	115
Westbound	93	89	86	85	84	83
Percentage change (%), 1989/1988						
Average	-11.6	-7.0	-4.0	-1.7	-0.1	1.0
Eastbound	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4
Westbound	-20.0	-11.5	-5.6	-1.0	2.1	4.5

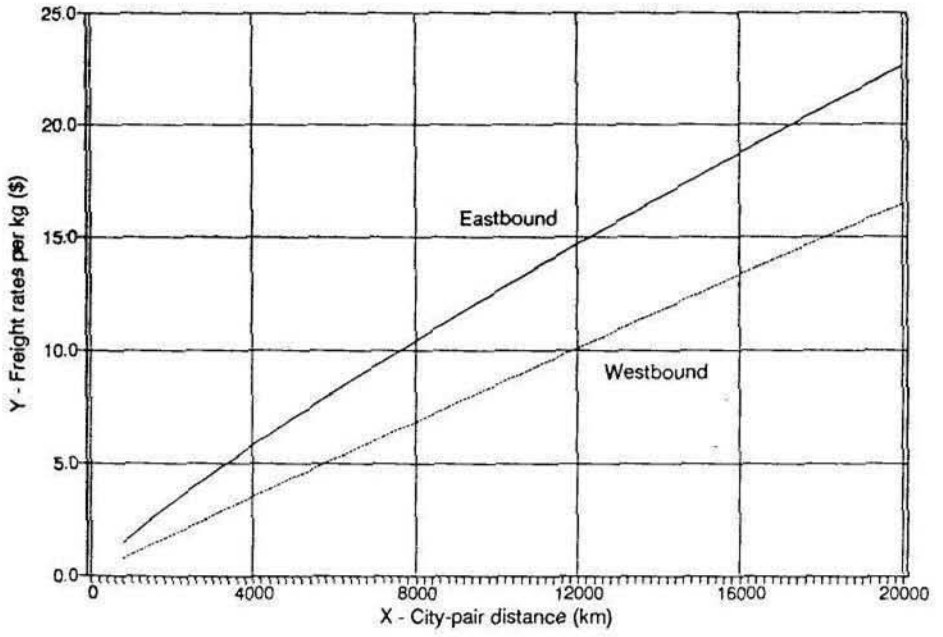
7. Between September 1988 and September 1989 there was a significant increase in the directional imbalance in the level of the estimated general cargo rate for small shipments (less than 45 kg) at the shorter distances. In September 1989, the directional imbalance was consequently significant at all distances.

Other cargo rates

8. Table IV-30 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. As in previous years the only general cargo rates for large shipments widely available were those with a breakpoint of 45 kg, which were 25 per cent lower than the general cargo rate for small shipments. Where available, discounts for large shipments (over 500 kg) were generally in the order of 50 to 60 per cent with substantially lower levels in at least one instance. A significant number of specific commodity rates remained available in the route group but at a level some 60 per cent lower on average than the general cargo rate for small shipments (compared with 65 per cent for September 1988). In September 1989 there were no bulk unitization rates for freight carried in unit load devices (ULDs) for the ten city-pairs in the sample, whereas in previous years these rates were available for one city-pair in the sample.



Graph IV-29. Economy class normal passenger fares (route group 15)



Graph IV-30. General cargo rates for shipments of less than 45 kg (route group 15)

Table IV-29. Range of passenger fares available (route group 15)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES: First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	GROUP FARES economy class
			(as a percentage of the highest economy class normal fare)					
Melbourne - Belgrade	15 690	3 591	139[1]	110[2]	-	46	-	-
Zurich - Seoul	12 340	3 331	174	107[2]	-	-	51	-
Jakarta - Rome	11 630	2 884	162	107	-	57	-	-
London - Tokyo	9 590	3 542	203	107	52	-	45	-
Perth - Harare	8 500	2 821	150	115	-	-	56	48
Bahrain - Manila	7 560	1 993	151	110	-	70	-	-
Bombay - Moscow	5 500	1 089	139	110	-	-	-	-
Nairobi - Bombay	4 530	551	151	110	-	-	-	-
Dhaka - Dubai	3 540	758	131	110	-	-	-	-
Dhahran - Karachi	1 710	641	142[1]	110	-	71	-	-

1. First class restricted and/or excursion fares also available.
2. Intermediate class restricted fares also available.

Table IV-30. Range of cargo rates available (route group 15)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Melbourne - Belgrade	15 690	42	8.35	75	25	22-27	1
Zurich - Seoul	12 340	71	20.03	75	40	17	7
Jakarta - Rome	11 630	64	9.80	75	-	32-54	11
London - Tokyo[1]	9 590	79	12.75	-	51	28-53	9
Perth - Harare[1]	8 500	42	6.14	-	50	26-36	1
Bahrain - Manila	7 560	58	12.73	75	-	-	-
Nairobi - Bombay	5 500	27	2.31	75	-	50	1
Bombay - Moscow	4 530	25	3.66	75	50	34-58	12
Dhaka - Abu Dhabi	3 540	22	3.48	75	47	-	-
Dhahran - Karachi	1 710	37	2.74	75	-	39-54	2

1. The first breakpoint for general cargo rates is 100 kg (not 45 kg).

Route Group I6: North and Mid Pacific

Economy class normal passenger fares

1. The curve on Graph IV-31 has been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group. The graph shows only the variations of fares with distance in the westbound direction as no such relationship appears to exist for those in the eastbound direction (see paragraph 3 below).

2. Estimated economy class normal fare levels per passenger-kilometre for which a relationship with distance exist are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 6000	8000	10000	14000	18000
Fares per pass-km in cents, 1989					
Average			[see paragraph 3]		
Eastbound			[see paragraph 3]		
Westbound	12.0	10.6	9.7	8.4	7.6
Percentage change (%), 1989/1988					
Average			[see paragraph 3]		
Eastbound			[see paragraph 3]		
Westbound	-3.2	-2.2	-1.4	-0.3	0.6

3. Between September 1988 and September 1989 there was a significant narrowing of the spread in the level of fares expressed in U.S. dollars above and below the average in the eastbound direction (from Asia). As in previous years, however, the figures suggest that, on average, fares in this direction are still generally independent of distance. This apparent lack of relationship between fares and distance is caused by the relatively high fares out of Japan compared with those from the rest of Asia. In September 1989, economy class normal fares from Japan across the North-Mid Pacific were represented by 32 of the 90 city-pairs in the eastbound direction. In U.S. dollar terms these fares were on average between 40 and 60 per cent higher than the estimated average fares from other Asian countries across the North-Mid Pacific. In September 1989, fare levels from the other Asian countries in this route group were somewhat lower than those in the westbound direction at the shorter distances but similar to them at the longer distances. Excluding fares from Japan, the over-all average fare levels expressed in U.S. cents per passenger-kilometre ranged from 11.6 at 6 000 km to 7.5 at 18 000 km.

Other passenger fares

4. Table IV-31 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, the first class normal fares are relatively high in comparison with the economy class normal fares on the North-Mid Pacific routes. On the other hand, intermediate class normal and restricted fares were available for all the city-pairs in the sample. Also intermediate class normal fares were, in several cases, at the same level as the highest economy class normal fare. Economy class restricted fares remained available for nearly all the city-pairs in the sample in September 1989. For some of these city-pairs, the economy class restricted fares were equal to the level of the highest economy class normal fare whereas for the others they ranged on average some 8 to 18 per cent below the economy class normal fare. Economy class excursion fares were

offered on 6 of the 10 city-pairs in the sample, at average levels some 25 per cent below the economy class normal fare. The relatively commonly available Apex and Pex-type fares offered reductions of around 40 per cent of the economy class normal fare on average. A number of additional group fares at levels between 17 and 49 per cent below the economy class normal fare also remained available in September 1989. "Circle fares" were also available for a few city-pairs in the sample. These are published fares which allow for travel by a continuous circuitous air route which may include points in the South Pacific; generally four free stopovers are allowed.

General cargo rates for small shipments

5. The curve on Graph IV-32 has been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances. As for fares, the graph shows only the variation of rates with distance in the westbound direction as no such relationship appears to exist for those in the eastbound direction (see paragraph 7 below).

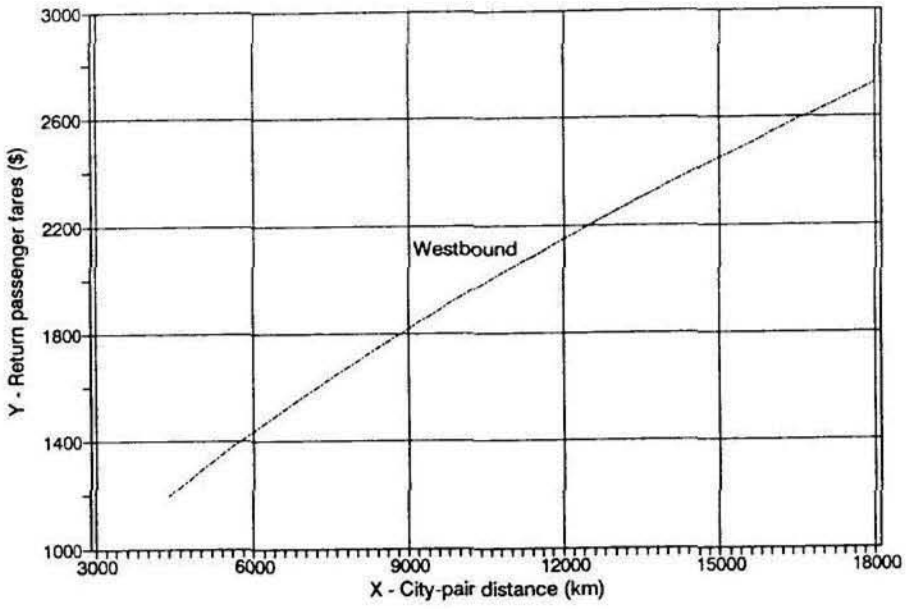
6. Estimated small shipment general cargo rate levels per tonne-kilometre for which a relationship with distance exists are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km				
	6000	8000	10000	14000	18000
Rates per tonne-km in cents, 1989					
Average			[see paragraph 7]		
Eastbound			[see paragraph 7]		
Westbound	109	90	77	61	52
Percentage change (%), 1989/1988					
Average			[see paragraph 7]		
Eastbound			[see paragraph 7]		
Westbound	6.9	4.0	1.8	-1.4	-3.8

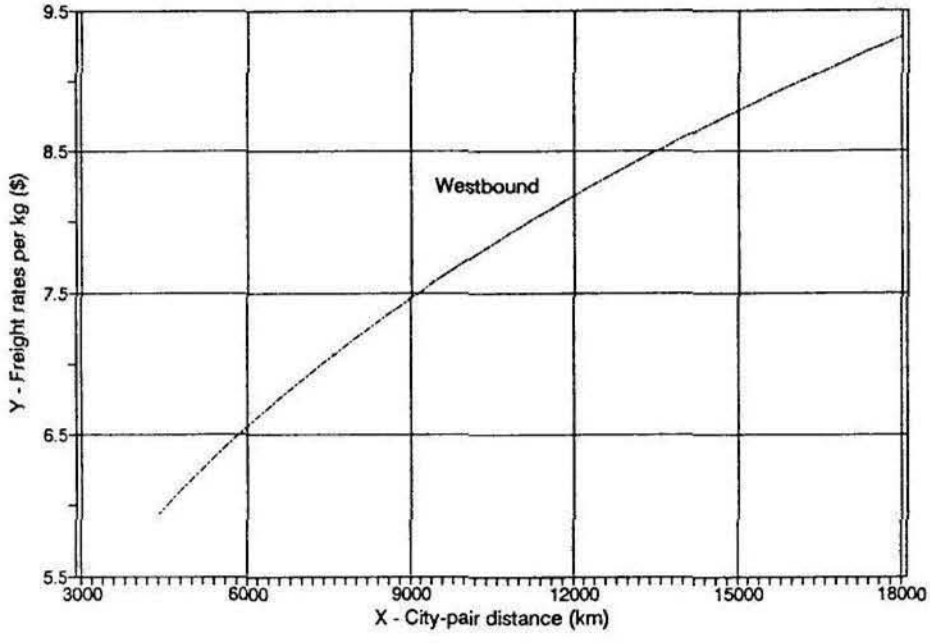
7. Between September 1988 and September 1989 there was a broadening of the under 45 kg general cargo rate for individual city-pairs above and below the average in the westbound direction. Hence cargo rates from the Americas were less dependent on distance and more dependent on other factors in September 1989 than in September 1988. As in previous years in September 1989 cargo rates from Asia across the North-Mid Pacific remained virtually independent of distance. The scatter of actual rates above and below the average from Asia is generalized and not mainly due to the higher rates for Japan, although the latter were a factor.

Other cargo rates

8. Table IV-32 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg existed in each case (including breakpoints at 100 and 300 kg for all city-pairs in the sample) with an average reduction of some 50 per cent for large shipments (over 500 kg). In September 1989, specific commodity rates were available for almost all the city-pairs in the sample with an average reduction of some 60 per cent on the applicable general cargo rate for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) remained available for 7 out of 10 city-pairs in the sample.



Graph IV-31. Economy class normal passenger fares (route group 16)



Graph IV-32. General cargo rates for shipments of less than 45 kg (route group 16)

Table IV-31. Range of passenger fares available (route group 16)

City-pair (originating city first)	Flight distance (km)	INDIVIDUAL FARES[1]						GROUP FARES
		Highest economy class normal (U.S.$)	First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX[2]	economy class
		(as a percentage of the highest economy class normal fare)						
Lima - Tokyo	15 470	2 560	203-207	117-118[4]	100	-	67	63
Bangkok - Dallas/ Fort-Worth	14 970	2 431	161	100	92	75	47-51	78
Singapore - San Francisco	13 680	2 396	157-173	100-117	100	58-88	53-70	58-82
Los Angeles - Manila	12 380	1 850	157-210[3]	100-116[4]	82	69-75	43-73	51-79
Tokyo - Mexico	11 446	2 810	186	100	-	-	-	-
San Francisco - Hong Kong	11 110	1 850	178-210[3]	100-116	91	75	47-76	51-79
Hong Kong - Vancouver	10 250	1 593	219	121[4]	100	87	79-84	83
Seattle - Okinawa	9 330	1 944	216	121[4]	100	-	57	-
Seoul - Seattle	8 350	1 768	171-206	100-105[4]	89	68-82	60-72	57-78
Honolulu - Tokyo	6 130	1 436	218	118[4]	89	-	55-62	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
2. "Budget" fares also included.
3. First class restricted fares also available.
4. Intermediate class restricted fares also available.

Table IV-32. Range of cargo rates available (route group 16)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate[1])	Over 500 kg (as a percentage of under-45 kg rate[1])	Range (as a percentage of under-45 kg rate[1])	Number of commodities
Lima - Tokyo	15 470	60	11.39	76	49	27-35	10
Bangkok - Dallas/Fort Worth	14 970	55	6.36	75	58	47-60	4
Singapore - San Francisco	13 680	54	8.42	76	54	37-71	6
Los Angeles - Manila	12 627	50	7.06	76	-	-	-
Tokyo - Mexico	11 450	70	15.50	76	50	50	2
San Francisco - Hong Kong	11 110	50	7.48	76	48	22-33	2
Hong Kong - Vancouver	10 250	60	8.96-9.63	68-76	43-46	35-63	11
Los Angeles - Osaka	9 760	50	7.40	76	47	29-50	13
Seoul - Seattle	8 350	41	4.24	79	67	-	-
Honolulu - Tokyo	6 130	50	6.08	76	48	30-50	4

1. Rates calculated as a percentage of the higher under 45 kg rate where applicable.

Route Group 17: South Pacific

Economy class normal passenger fares

1. The curves on Graph IV-33 have been statistically computed so as to reflect best the way in which the economy class normal passenger fares vary with distance for city-pairs within this route group.

2. Estimated economy class normal fare levels per passenger-kilometre are shown in the following table:

Estimated economy class normal fares per passenger-kilometre	Distance in km 4000	6000	8000	12000	16000
Fares per pass-km in cents, 1989					
Average	13.6	14.0	14.2	14.6	14.9
Eastbound	14.0	14.4	14.6	14.9	15.2
Westbound	13.2	13.6	13.9	14.3	14.6
Percentage change (%), 1989/1988					
Average	-3.2	-0.6	1.3	4.0	6.0
Eastbound	-0.5	0.7	1.6	2.9	3.8
Westbound	-5.7	-1.9	0.9	4.9	7.9

Other passenger fares

3. Table IV-33 shows for September 1989 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides. As illustrated by the sample, first class normal fares are relatively high in comparison with economy class normal fares on South Pacific routes. On the other hand, intermediate class normal fares as well as first and/or intermediate class restricted fares were available for almost all the city-pairs in the sample. Economy class restricted fares were also widely available in this route group. In general they were at a level ranging some 10 to 30 per cent lower than the applicable economy class normal fare, with substantially lower levels in a few instances. Economy class excursion fares, in most cases at a level of more than 50 per cent below the economy class normal fare, were widely available. Apex-type fares were very common, ranging from 29 to 74 per cent below the applicable economy class normal fares. In September 1989, one-way Apex fares were available, often at a higher level than the excursion fares (special fares are generally only available for round trips). As for previous years, in September 1989 most excursion or Apex-type fares could be used alternatively as inclusive tour fares on this route group. Several "circle fares" were also available in September 1989. These are published fares which allow for travel by a continuous circuitous air route which may include points in the North-Mid Pacific; generally four free stopovers are allowed.

General cargo rates for small shipments

4. The curves on Graph IV-34 have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kg for this route group at different distances.

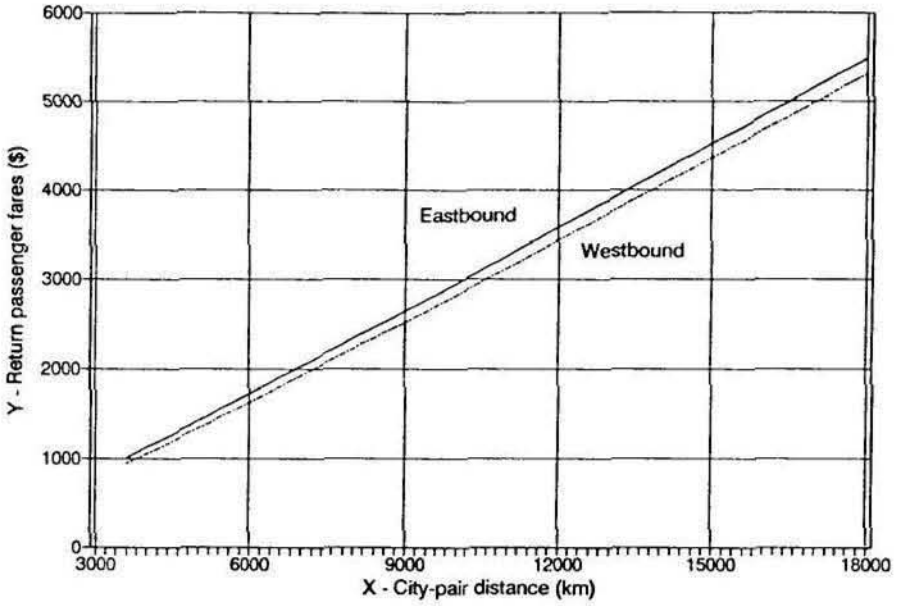
5. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the following table:

Estimated general cargo rates for shipments of less than 45 kg	Distance in km				
	4000	6000	8000	12000	16000
Rates in cents per tonne-km, 1989					
Average	139	115	101	83	73
Eastbound	136	113	100	83	73
Westbound	143	117	102	83	72
Percentage change (%), 1989/1988					
Average	-1.5	-1.6	-1.6	-1.7	-1.8
Eastbound	-7.7	-6.9	-6.3	-5.4	-4.8
Westbound	7.0	4.9	3.5	1.5	0.1

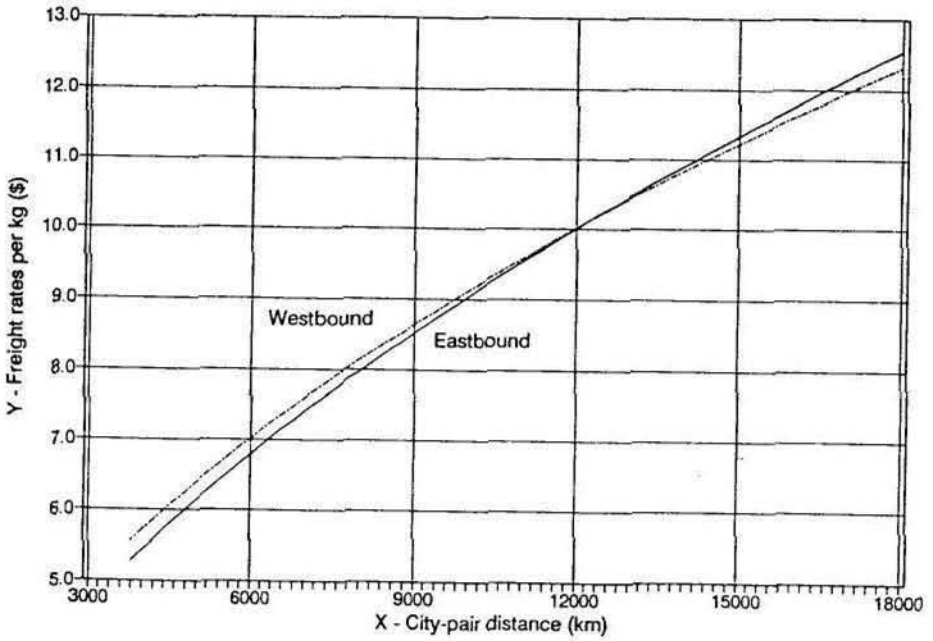
6. Between September 1988 and September 1989, there was a significant reduction in the spread of actual rates for small shipments above and below the average in the eastbound direction (i.e. from the South Pacific). Thus in September 1989 these rates were more dependent on distance and less dependent on other factors than in September 1988. However, they still remained substantially less dependent on distance and more dependent on other factors than those in the westbound direction.

Other cargo rates

7. Table IV-34 shows for September 1989 for a sample of 10 city-pairs in the route group the range of cargo rates available as appearing in multilateral airline guides. Several general cargo rates for shipments of more than 45 kg were often available (including breakpoints at 100 and 300 kg for most city-pairs in the sample). As for previous years, reductions of about 35 per cent on average were available for large shipments (over 500 kg) with a substantially lower level in one instance in the sample. Specific commodity rates were also fairly common in this route group (though less than for September 1988), with an average reduction of some 60 per cent on the applicable general cargo rates for small shipments. Bulk unitization rates for freight carried in unit load devices (ULDs) were available for 7 out of 10 city-pairs in the sample, two more than for September 1988.



Graph IV-33. Economy class normal passenger fares (route group 17)



Graph IV-34. General cargo rates for shipments of less than 45 kg (route group 17)

Table IV-33. Range of passenger fares available (route group 17)

City-pair (originating city first)	Flight distance (km)	Highest economy class normal (U.S.$)	INDIVIDUAL FARES[1]					GROUP FARES economy class
			First class normal	Intermediate class normal	Economy class restricted	Economy class excursion	Economy class APEX	
			(as a percentage of the highest economy class normal fare)					
Sydney - Toronto	15 640	4 216	149	117	-	-	-	-
San Francisco - Melbourne	12 650	3 720	190-201	122-130	29-83	39-44	34-57	-
Vancouver - Sydney	12 520	3 752	187-201	120-129	80-84	40-48	36-59	-
Auckland - Los Angeles	10 490	3 195	176-187	114-121	75-83	-	30-55	-
Nadi - Vancouver	9 460	1 991	152-161	117-124	77-82	37	50	-
Los Angeles - Nadi	9 200	2 608	193-205	122-130	72-76	36-39	33-56	-
Melbourne - Honolulu	8 870	3 188	176-187	119-126	65-89	36	26-53	-
Honolulu - Auckland	7 090	2 388	207-215	126-131	31-82	47-55	32-71	-
Los Angeles - Papeete	6 610	1 864	211-213	124-125	100	-	48-52	40
Nadi - Honolulu	5 110	1 534	162-172	129-137	68-72	36	49	-

1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.

Table IV-34. Range of cargo rates available (route group 17)

City-pair (originating city first)	Flight distance (km)	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum charge (U.S.$)	Under 45 kg (U.S.$/kg)	Over 45 kg (as a percentage of under-45 kg rate)	Over 500 kg (as a percentage of under-45 kg rate)	Range (as a percentage of under-45 kg rate)	Number of commodities
Sydney - Toronto	15 640	53	11.45	52	22	-	-
San Francisco - Melbourne	12 650	60	11.44	80	63	-	-
Vancouver - Sydney	12 520	55	10.32	76	62	-	-
Auckland - Los Angeles	10 490	47	10.22	76	64	19-41	4
Nadi - Vancouver	9 460	46	5.90	76	67	20-45	3
Los Angeles - Nadi	9 200	60	7.95	76	67	36	1
Melbourne - Honolulu	8 870	38	7.95	60-64	-	31	1
Honolulu - Auckland	7 090	60	6.09	78	75	46	1
Los Angeles - Papeete	6 610	60	8.69	76	68	19-72	10
Papeete - Honolulu	4 420	50	6.87	77	73	29	3

APPENDIX 1. DESCRIPTIONS OF ROUTE GROUPS

Route group	Description
1	Between North America and Central America/Caribbean. Includes routes between on the one hand Canada and/or the United States (including Alaska and Hawaii) and on the other hand Central America and the Caribbean. Routes between the United States and Puerto Rico/Virgin Islands are considered domestic and are excluded. Central America/ Caribbean is defined as the geographical area covered by route group 2 but excluding Mexico.
2	Between and within Central America and the Caribbean. Includes routes between or among the Bahamas, Belize, Bermuda, Costa Rica, El Salvador, Guatemala, Honduras, the islands of the Caribbean Sea (including Puerto Rico and the Virgin Islands), Mexico, Nicaragua and Panama.
3	Between Canada, Mexico and the United States. Includes routes between or among the above States. The United States includes Alaska and Hawaii but excludes Puerto Rico and the Virgin Islands.
4	Between North America/Central America/Caribbean and South America. Includes routes between the geographical areas defined on the one hand by route group 1 and/or Mexico and on the other hand by route group 5 ("local South America").
5	Local South America. Includes routes between or among the following States: Argentina, Bolivia, Brazil, Chile, Colombia (including San Andres Island), Ecuador, Falkland Islands (Malvinas), French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela.
6	Local Europe. Includes routes between or among the States of geographical Europe, Algeria, Azores, Canary Islands, Greenland, Iceland, Madeira, Malta, Morocco, Tunisia and Turkey.
7	Local Middle East. Includes routes between or among the following States: Bahrain, Cyprus, Democratic Yemen, Egypt, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, United Arab Emirates and Yemen.
8	Local Africa. Includes routes between or among the States of continental Africa and offshore islands, but excluding Algeria, Azores, Canary Islands, Egypt, Madeira, Malta, Morocco, Sudan and Tunisia.
9	Between Europe and Middle East. Includes routes between the two geographical areas defined by route group 6 ("local Europe") and route group 7 ("local Middle East") respectively.
10	Between Europe/Middle East and Africa. Includes routes between on the one hand the geographical areas defined by route group 6 ("local Europe") and/or route group 7 ("local Middle East") and on the other hand the geographical area defined by route group 8 ("local Africa").

Route group	Description
11	North Atlantic. Includes routes between on the one hand Canada and/or the United States (including Alaska and Hawaii) and on the other hand the geographical areas defined by IATA Tariff Conference 2 ("local Europe" and/or "local Middle East" and/or "local Africa").
12	Mid Atlantic. Includes routes between on the one hand gateway points in the geographical areas defined by route group 2 and/or route group 5 ("local South America") but north of Rio de Janeiro and on the other hand the geographical areas defined by IATA Tariff Conference 2 ("local Europe" and/or "local Middle East" and/or "local Africa").
13	South Atlantic. Includes routes between on the one hand Rio de Janeiro or any other gateway south thereof in route group 5 ("local South America) and on the other hand the geographical areas defined by IATA Tariff Conference 2 ("local Europe" and/or "local Middle East" and/or "local Africa").
14	Local Asia/Pacific. Includes IATA Tariff Conference 3, that is international routes within Asia to the east of the Islamic Republic of Iran and of the Ural Mountains, Australia, New Zealand, Papua New Guinea, the islands of the Pacific Ocean excluding the Hawaiian Islands, Midway and Palmyra.
15	Between Europe/Middle East/Africa and Asia/Pacific. Includes routes between the geographical areas defined by IATA Tariff Conference 2 on the one hand and that defined by IATA Tariff Conference 3 on the other hand.
16	North and Mid Pacific. Includes routes via the North and Mid Pacific Ocean between on the one hand points in the Americas (i.e. IATA Tariff Conference 1) and on the other hand Asia and/or the islands adjacent thereto (i.e. IATA Tariff Conference 3 except Australia, New Zealand, Papua New Guinea and the islands of the South Pacific).
17	South Pacific. Includes routes via the South Pacific Ocean between on the one hand points in the Americas (i.e. IATA Tariff Conference 1) and on the other hand Australia, New Zealand, Papua New Guinea and the islands of the South Pacific.

APPENDIX 2. CURRENCY CONVERSION RATES

Country or area	Local selling currency in September 1989	IATA code	Currency units per U.S. dollar[1] 1989	1988
Afghanistan	Afghani	AFG	230.00	120.00
Albania	Lek	LEK	6.38	5.94
Algeria	Algerian Dinar	ALD	7.89	6.45
Angola	Kwanza	AKZ	30.41	29.92
Anguilla[3]	East Caribbean Dollar	ECD	2.70	2.70
Antigua and Barbuda[5]	East Caribbean Dollar	ECD	2.70	2.70
Argentina[2]	U.S. Dollar	USD	1.00	1.00
Aruba	Aruban Guilder	AWG	1.79	1.79
Australia	Australian Dollar	AUD	1.32	1.24
Austria	Schilling	AUS	13.71	13.24
Bahamas[3]	Bahamian Dollar	BSD	1.00	1.00
Bahrain	Bahraini Dinar	BHD	0.38	0.38
Bangladesh[3]	Taka	BDT	31.13	31.89
Barbados[2]	U.S. Dollar	USD	1.00	2.01[5]
Belgium	Belgian Franc	BFR	40.78	39.68
Belize[2]	U.S. Dollar	USD	1.00	2.00[5]
Benin	CFA Franc	AFR	329.15	321.05
Bermuda[3]	Bermudian Dollar	BED	1.00	1.00
Bhutan	Indian Rupee	INR	16.70	14.09
Bolivia[2]	U.S. Dollar	USD	1.00	1.00
Botswana	Pula	BTP	2.04	1.98
Brazil[2]	U.S. Dollar	USD	1.00	1.00
British Virgin Islands[2]	U.S. Dollar	USD	1.00	1.00
Brunei Darussalam	Brunei Dollar	BRD	1.96	2.04
Bulgaria	Lev	LEV	1.68	1.70
Burkina Faso	CFA Franc	AFR	329.15	321.05
Burundi	Burundi Franc	FRB	164.50	147.96
Cameroon	CFA Franc	AFR	329.15	321.05
Canada	Canadian Dollar	CAD	1.18	1.23
Cape Verde[2]	U.S. Dollar	USD	1.00	75.49[5]
Cayman Islands	Cayman Islands Dollar	CID	0.83	0.83
Central African Republic	CFA Franc	AFR	329.15	321.05
Chad	CFA Franc	AFR	329.15	321.05
Chile[2]	U.S. Dollar	USD	1.00	1.00
China	Renminbi	RMB	3.70	3.72
Colombia[2]	U.S. Dollar	USD	1.00	1.00
Comoros	CFA Franc	AFR	329.15	321.05
Congo	CFA Franc	AFR	329.15	321.05
Cook Islands	New Zealand Dollar	NZD	1.71	1.54
Costa Rica[2]	U.S. Dollar	USD	1.00	1.00
Côte d'Ivoire	CFA Franc	AFR	329.15	321.05
Cuba	Cuban Peso	CUP	0.76	0.76
Cyprus	Cypriot Pound	CYL	0.50	0.48
Czechoslovakia	Koruna	CKR	15.09	5.20

Country or area	Local selling currency in September 1989	IATA code	Currency units per U.S. dollar[1] 1989	1988
Democratic Kampuchea[2]	U.S. Dollar	USD	1.00	1.00
Democratic People's Republic of Korea	Rouble	ROU	0.63	0.63
Democratic Yemen	Yemeni Dinar	DYD	0.34	0.34
Denmark	Danish Krone	DKK	7.57	7.25
Djibouti	Djibouti Franc	DFR	175.87	170.00
Dominica[3]	East Caribbean Dollar	ECD	2.70	2.70
Dominican Republic[2]	U.S. Dollar	USD	1.00	1.00
Ecuador[2]	U.S. Dollar	USD	1.00	1.00
Egypt	Egyptian Pound	EGL	2.54	2.32
El Salvador[2]	U.S. Dollar	USD	1.00	1.00
Equatorial Guinea	CFA Franc	AFR	329.15	321.05
Ethiopia	Ethiopian Birr	ETB	2.07	2.07
Fiji	Fijian Dollar	FID	1.52	1.43
Finland	Markka	FIM	4.39	4.47
France	French Franc	FFR	6.58	6.42
French Polynesia	CFP Franc	PFR	119.69	116.74
French Antilles	French Franc	FFR	6.58	6.42
Gabon	CFA Franc	AFR	329.15	321.05
Gambia[2]	U.S. Dollar	USD	1.00	1.00
Germany, Democratic Republic of	DDR Mark	MRK	1.92	1.91
Germany, Federal Republic of	Deutsche Mark	DMK	1.95	1.89
Ghana[2]	U.S. Dollar	USD	1.00	1.00
Greece	Drachma	DRA	167.86	151.73
Grenada[3]	East Caribbean Dollar	ECD	2.70	2.70
Guatemala[2]	U.S. Dollar	USD	1.00	1.00
Guinea[2]	U.S. Dollar	USD	1.00	1.00
Guinea-Bissau[2]	U.S. Dollar	USD	1.00	650.00[5]
Guyana[2]	U.S. Dollar	USD	1.00	10.00[5]
Haiti[2]	U.S. Dollar	USD	1.00	5.00[5]
Honduras[2]	U.S. Dollar	USD	1.00	1.00
Hong Kong	Hong Kong Dollar	HKD	7.81	7.82
Hungary	Forint	FOR	61.67	55.76
Iceland[4]	Icelandic Krona	IKR	60.48	46.80
India	Indian Rupee	INR	16.70	14.09
Indonesia[2]	U.S. Dollar	USD	1.00	1.00
Iran, Islamic Republic of	Iranian Rial	IRI	73.66	71.45
Iraq	Iraqi Dinar	IRD	0.31	0.31
Ireland	Irish Pound	IRL	0.73	0.70
Israel[2]	U.S. Dollar	USD	1.00	1.00
Italy	Italian Lira	LIT	1392.65	1401.30
Jamaica[2]	U.S. Dollar	USD	1.00	5.49[5]
Japan	Yen	JYE	142.41	133.41
Jordan	Jordanian Dinar	JOD	0.57	0.37
Kenya	Kenyan Shilling	KES	21.20	17.00
Kiribati	Australian Dollar	AUD	1.32	1.24
Kuwait	Kuwaiti Dinar	KUD	0.30	0.28

Country or area	Local selling currency in September 1989	IATA code	Currency units per U.S. dollar[1] 1989	1988
Lao People's Democratic Republic[2]	U.S. Dollar	USD	1.00	1.00
Lebanon[3]	U.S. Dollar	USD	1.00	356.20[5]
Lesotho	Loti	LSL	2.74	2.44
Liberia[3]	Liberian Dollar	LID	1.00	1.00
Libyan Arab Jamahiriya	Libyan Dinar	LBD	0.31	0.30
Luxembourg	Luxembourg Franc	LFR	40.78	39.68
Madagascar	Malagasy Franc	FMG	1634.90	1526.22
Malawi	Kwacha	MWK	2.79	2.70
Malaysia	Malaysian Ringgit	RGT	2.68	2.65
Maldives[2]	U.S. Dollar	USD	1.00	1.00
Mali	CFA Franc	AFR	329.15	321.05
Malta	Maltese Lira	MAL	0.36	0.34
Mauritania	Ouguiya	MOG	86.35	78.96
Mauritius	Mauritius Rupee	MAR	15.84	14.30
Mexico[2]	U.S. Dollar	USD	1.00	1.00
Monaco	French Franc	FFR	6.58	6.42
Mongolia[2]	U.S. Dollar	USD	1.00	0.63[5]
Montserrat[3]	East Caribbean Dollar	ECD	2.70	2.70
Morocco	Moroccan Dirham	MDH	8.47	8.56
Mozambique	Metical	MZM	761.49	585.80
Myanmar	Kyat	BUR	7.04	6.59
Nauru	Australian Dollar	AUD	1.32	1.24
Nepal	Nepalese Rupee	NER	23.93	22.30
Netherlands, Kingdom of the	Guilder	DFL	2.20	2.13
Netherlands Antilles	Netherlands Antillean Guilder	AFL	1.79	1.79
New Zealand	New Zealand Dollar	NZD	1.71	1.54
Nicaragua[2]	U.S. Dollar	USD	1.00	1.00
Niger	CFA Franc	AFR	329.15	321.05
Nigeria	Naira	NGN	7.26	4.58
Norway	Norwegian Krone	NOK	7.12	6.92
Oman	Rial Omani	RIO	0.38	0.39
Pakistan	Pakistan Rupee	PAR	20.61	18.35
Panama[2]	U.S. Dollar	USD	1.00	1.00[5]
Papua New Guinea	Kina	NGK	0.87	0.87
Paraguay[2]	U.S. Dollar	USD	1.00	1.00
Peru[2]	U.S. Dollar	USD	1.00	1.00
Philippines[2]	U.S. Dollar	USD	1.00	1.00
Poland[2]	U.S. Dollar	USD	1.00	456.91[5]
Portugal	Portugese Escudo	PTE	162.54	152.91
Qatar	Qatari Riyal	QRI	3.64	3.64
Republic of Korea[2]	U.S. Dollar	USD	1.00	1.00
Reunion	French Franc	FFR	6.58	6.42
Romania	Leu	LEI	4.18	4.17
Rwanda	Rwanda Franc	FRR	82.40	79.51
Saint Kitts & Nevis[3]	East Caribbean Dollar	ECD	2.70	2.70
Saint Lucia[3]	East Caribbean Dollar	ECD	2.70	2.70
Saint Vincent and the Grenadines[3]	East Caribbean Dollar	ECD	2.70	2.70

Country or area	Local selling currency in September 1989	IATA code	Currency units per U.S. dollar[1] 1989	1988
Samoa	Tala	SAT	2.34	2.06
Sao Tome and Principe[2]	U.S. Dollar	USD	1.00	77.41[5]
Saudi Arabia	Saudi Riyal	ARI	3.75	3.75
Senegal	CFA Franc	AFR	329.15	321.05
Seychelles	Seychelles Rupee	SER	5.67	5.60
Sierra Leone[2]	U.S. Dollar	USD	1.00	1.00
Singapore	Singapore Dollar	SID	1.96	2.04
Solomon Islands	Solomon Island Dollar	SBD	2.37	2.16
Somalia[2]	U.S. Dollar	USD	1.00	227.25[5]
South Africa	Rand	ZAR	2.74	2.44
Spain	Spanish Peseta	PTS	121.87	123.60
Sri Lanka	Sri Lanka Rupee	CER	35.79	32.61
Sudan	Sudanese Pound	SUL	4.50	4.50
Suriname[3]	Suriname Guilder	SFL	1.79	1.79
Swaziland	Lilangeni	SZL	2.74	2.44
Sweden	Swedish Krona	SEK	6.60	6.49
Switzerland	Swiss Franc	SFR	1.68	1.59
Syrian Arab Republic	Syrian Pound	SYL	22.00	18.00
Thailand	Baht	BHT	25.62	26.54
Togo	CFA Franc	AFR	329.15	321.05
Tonga	Pa'anga	TOP	1.32	1.26
Trinidad and Tobago[2]	U.S. Dollar	USD	1.00	4.25[5]
Tunisia	Tunisian Dinar	TUD	0.95	0.91
Turkey[4]	Turkish Lira	TUL	2193.80	1511.61
Turks and Caicos Islands[2]	U.S. Dollar	USD	1.00	1.00
Tuvalu	Australian Dollar	AUD	1.32	1.24
Uganda[2]	U.S. Dollar	USD	1.00	1.00
Union of Soviet Socialist Republics	Rouble	ROU	0.63	0.63
United Arab Emirates	UAE Dirham	ADH	3.67	3.68
United Kingdom	Pound Sterling	UKL	0.64	0.59
United Republic of Tanzania	Tanzanian Shilling	TAS	143.14	103.26
United States	U.S. Dollar	USD	1.00	1.00
Uruguay[2]	U.S. Dollar	USD	1.00	1.00
Vanuatu	Vatu	VUV	118.05	105.50
Venezuela[2]	U.S. Dollar	USD	1.00	1.00
Viet Nam[2]	U.S. Dollar	USD	1.00	1.00
Yemen	Yemeni Rial	YEM	9.76	9.75
Yugoslavia[2]	U.S. Dollar	USD	1.00	2804.60[5]
Zaire[2]	U.S. Dollar	USD	1.00	207.97[5]
Zambia[2]	U.S. Dollar	USD	1.00	1.00
Zimbabwe	Zimbabwe Dollar	ZWD	2.20	1.86

1. "IATA Clearing House 5-day Monthly Rate" for the month of August.
2. International fares and rates from these countries are usually quoted in U.S. dollars.
3. International fares from these countries are usually quoted in U.S. dollars whereas cargo rates are usually quoted in local currency.
4. International cargo rates from these countries are usually quoted in U.S. dollars, whereas fares are usually quoted in local currency.
5. In September 1988 international fares, and/or rates from these countries were quoted in local currency.

APPENDIX 3. STATISTICAL METHODOLOGY AND EQUATIONS

1. In linear regression involving two variables there is an independent variable (the X value) and a dependent variable (the Y value). The linear function or relationship between these variables is estimated by determining two constants, a and b. In this survey fares and rates were considered as the dependent variable in separate analyses, while the distance between the city-pairs over which the fare or rate applied was taken as the independent variable. Here, the terms "dependent" and "independent" connote that the variable Y (in this case the fare or rate) is assumed to depend on, and is estimated from, the value of the variable X (in this case distance).

2. The straight line which estimates best the assumed relationship between two sets of statistical data (fares and distances) is computed in linear regression by the method of "least squares". The principle of least squares states that the [equation of the] line of best fit to a set of values is the line about which the sum of the squares of the errors of estimation (i.e. the differences between the values estimated by the equation and the actual values) will be minimized.

3. There are several types of assumed relationships or "models", to which linear least squares regression techniques may be applied. One is the simple relationship $Y = a + b(X)$, in which Y is assumed to be a linear function of X; another is the relationship $Y = a(X^b)$, in which Y is assumed to be a function of X to some "power", i.e. b. Using logarithms, the latter relationship can be transformed into the equivalent relationship $\log Y = \log a + b\ (\log X)$, which is also a linear relationship (if the logarithms of the data are used). Least squares regression techniques may also be applied to this logarithmic relationship; the least squares technique then produces the "best" estimating relationship (minimizing the errors of estimation) in terms of the logarithms of the data.

4. In this survey, economy class normal fares/"under 45 kg" general cargo rates (Y values) were analysed as a function of distance (X values) for each of the 17 route groups and for the world. Only log linear estimates of average fares and rates were computed since these have been found to provide a better relationship statistically than the linear arithmetic form. It was further decided to show the log linear estimates plotted on arithmetic graph paper, rather than on log/log paper, to assist readers of this survey.

5. The regression equations for September 1989 by route and by fare/rate type are shown in the following two tables. While in general the levels of fares and rates for most route groups are, to a greater and lesser degree, clearly dependent on distance, for a few route groups the coefficient of the correlation is relatively low. In such cases, only data for those route groups for which a statistical test (t-test) has shown the relationship between the level of fares or rates with distance to be significant are presented in this study.

Regression equations

Economy class normal passenger fares: September 1989
(X = city-pair distances in km; Y = return fare in U.S.$)

Route group		Number of city-pairs	X mean	Y mean	Equation $y = ax^b$ Coefficients a	b	Correlation coefficient R
International total	WORLD	10 084	3 301	1 052	4.412	0.681	0.909
Between North America and	ALL	404	2 190	594	9.388	0.544	0.943
Central America/Caribbean	Northbound	199	2 169	588	9.616	0.540	0.943
	Southbound	205	2 210	601	9.178	0.548	0.942
Between and within Central America and the Caribbean	ALL	402	644	269	8.364	0.547	0.911
Between Canada, Mexico and the United States	ALL	649	1 763	483	10.627	0.515	0.870
Between North America/	ALL	296	3 771	1 010	1.637	0.784	0.976
Central America/Caribbean	Northbound	147	3 707	965	1.894	0.764	0.978
and South America	Southbound	149	3 834	1 054	1.413	0.805	0.975
Local South America	ALL	213	2 004	543	1.492	0.779	0.960
Local Europe	ALL	2 988	1 168	667	10.178	0.594	0.828
Local Middle East	ALL	372	1 396	495	4.281	0.658	0.912
Local Africa	ALL	586	1 709	562	1.823	0.770	0.898
Between Europe and	ALL	679	3 291	1 250	0.935	0.887	0.880
Middle East	Eastbound	338	3 279	1 331	0.918	0.897	0.868
	Westbound	341	3 302	1 171	0.939	0.879	0.911
Between Europe/Middle	ALL	760	4 957	1 621	1.615	0.810	0.856
East and Africa	Northbound	377	4 929	1 434	2.422	0.748	0.824
	Southbound	383	4 983	1 805	1.111	0.867	0.915
North Atlantic	ALL	586	7 425	2 137	8.279	0.623	0.674
	Eastbound	292	7 413	2 172	12.636	0.577	0.697
	Westbound	294	7 438	2 103	5.451	0.667	0.667
Mid Atlantic	ALL	180	8 385	2 222	4.331	0.690	0.670
	Eastbound	89	8 402	2 093	10.780	0.583	0.649
	Westbound	91	8 368	2 349	1.646	0.804	0.760
South Atlantic	ALL	113	9 568	2 657	0.073	1.145	0.864
	Eastbound	56	9 619	2 550	1.389	0.820	0.954
	Westbound	57	9 518	2 761	0.004	1.464	0.888
Local Asia/Pacific	ALL	798	3 109	921	0.823	0.872	0.933

Route group		Number of city-pairs	X mean	Y mean	Equation $y = ax^b$ Coefficients a	b	Correlation coefficient R
Between Europe/Middle East/ Africa and Asia/Pacific	ALL	815	7 939	2 084	0.349	0.966	0.905
	Eastbound	405	7 955	2 161	1.214	0.832	0.895
	Westbound	410	7 924	2 009	0.103	1.096	0.934
North and Mid Pacific	ALL	182	10 780	2 128	16.399	0.523	0.565
	Eastbound	90	10 764	2 235	29.286	0.465	0.456
	Westbound	92	10 795	2 023	9.044	0.582	0.741
South Pacific	ALL	61	9 622	2 823	0.158	1.066	0.866
	Eastbound	31	9 623	2 884	0.179	1.054	0.863
	Westbound	30	9 621	2 759	0.139	1.077	0.871

Regression equations

General cargo rates for shipments of less than 45 kg: September 1989
(X = city-pair distances in km; Y = rates per kg in U.S.$)

Route group		Number of city-pairs	X mean	Y mean	Equation $y = ax^b$ Coefficients a	b	Correlation coefficient R
International total	WORLD	7 813	3 932	4.746	0.01259	0.715	0.865
Between North America and Central America/Caribbean	ALL	175	2 675	2.656	0.01769	0.633	0.790
	Northbound	81	2 694	2.696	0.01660	0.642	0.780
	Southbound	94	2 660	2.622	0.01861	0.626	0.798
Between and within Central America and the Caribbean	ALL	208	833	1.491	0.03954	0.543	0.826
Between Canada, Mexico and the United States	ALL	165	1 952	1.448	0.07798	0.390	0.854
Between North America/ Central America/Caribbean and South America	ALL	267	4 093	3.923	0.01894	0.645	0.912
	Northbound	129	4 003	3.348	0.02655	0.590	0.921
	Southbound	138	4 178	4.460	0.01425	0.693	0.933
Local South America	ALL	155	2 345	3.225	0.02244	0.643	0.861
Local Europe	ALL	2 012	1 256	2.385	0.03888	0.571	0.667

Route group		Number of city-pairs	X mean	Y mean	Equation $y = ax^b$ Coefficients a	b	Correlation coefficient R
Local Middle East	ALL	339	1 344	1.870	0.01822	0.641	0.820
Local Africa	ALL	501	1 847	2.310	0.00501	0.808	0.825
Between Europe and Middle East	ALL	645	3 402	4.870	0.00089	1.051	0.756
	Eastbound	324	3 387	5.445	0.00032	1.193	0.789
	Westbound	321	3 417	4.290	0.00248	0.911	0.758
Between Europe/Middle East and Africa	ALL	738	5 002	6.435	0.01183	0.728	0.655
	Northbound	366	4 970	4.462	0.09338	0.449	0.560
	Southbound	372	5 033	8.377	0.00167	0.944	0.841
North Atlantic	ALL	560	7 431	7.502	0.01277	0.714	0.626
	Eastbound	269	7 402	7.486	0.05151	0.559	0.754
	Westbound	291	7 457	7.517	0.00391	0.845	0.609
Mid Atlantic	ALL	173	8 398	10.995	0.00947	0.779	0.552
	Eastbound	84	8 409	10.502	0.15541	1.465	0.398
	Westbound	89	8 387	11.461	0.00053	1.103	0.691
South Atlantic	ALL	114	9 533	11.877	0.00287	0.908	0.717
	Eastbound	54	9 617	10.862	0.05817	0.571	0.897
	Westbound	60	9 459	12.791	0.00015	1.237	0.776
Local Asia/Pacific	ALL	673	3 378	3.872	0.00676	0.775	0.823
Between Europe/Middle East/ Africa and Asia/Pacific	ALL	814	8 041	9.240	0.00244	0.907	0.767
	Eastbound	410	8 069	10.914	0.00517	0.847	0.806
	Westbound	404	8 013	7.541	0.00121	0.961	0.815
North and Mid Pacific	ALL	211	11 026	8.863	1.30010	0.202	0.174
	Eastbound	101	10 918	9.807	4.33755	0.080	0.051
	Westbound	110	11 126	7.997	0.40858	0.319	0.560
South Pacific	ALL	63	10 529	9.319	0.06732	0.532	0.742
	Eastbound	29	9 995	9.106	0.05322	0.557	0.656
	Westbound	34	10 984	9.500	0.08203	0.512	0.842

- END -

ICAO PUBLICATIONS IN THE AIR TRANSPORT FIELD

The following summary gives the status and also describes in general terms the contents of the various series of publications in the air transport field issued by the International Civil Aviation Organization:

International Standards and Recommended Practices on Facilitation *(designated as Annex 9 to the Convention)* which are adopted by the Council in accordance with Articles 37, 54 and 90 of the Convention on International Civil Aviation. The uniform observance of the specifications contained in the International Standards on Facilitation is recognized as practicable and as necessary to facilitate and improve some aspect of international air navigation, while the observance of any specification contained in the Recommended Practices is recognized as generally practicable and as highly desirable to facilitate and improve some aspect of international air navigation. Any differences between the national regulations and practices of a State and those established by an International Standard must be notified to the Council in accordance with Article 38 of the Convention. The Council has also invited Contracting States to notify differences from the provisions of the Recommended Practices;

Council Statements on policy relating to air transport questions, such as the economics of airports and en-route air navigation facilities, taxation and aims in the field of facilitation;

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Manuals providing information or guidance to Contracting States on such questions as airport and air navigation facility tariffs, air traffic forecasting techniques and air transport statistics.

Also of interest to Contracting States are reports of meetings in the air transport field, such as sessions of the Facilitation Division and the Statistics Division and conferences on the economics of airports and air navigation facilities. Supplements to these reports are issued, indicating the action taken by the Council on the meeting recommendations, many of which are addressed to Contracting States.

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