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## SURVEY OF INTERNATIONAL AIR TRANSPORT FARES AND RATES SEPTEMBER 1986

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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 1986 and is the thirteenth in the series, the previous report being Circular 198 for September 1985.

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 normal economy 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 1986. These relationships are compared with each other and with world averages. A comparison is also made with September 1985 fares and rates levels. In addition to the above analyses, a sample survey has been carried out, for each group of routes, of the relative availability and level of other types of fares and rates in September 1986.

### 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 1986 issue of these guides for all international city-pairs with direct through-plane service:

- a) country and route group for each city-pair;
- b) normal economy passenger fares available; and
- c) general cargo rates available for shipments up to 45 kilogrammes.

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 normal economy 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 analyzed 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 2.

### Selection of City-Pairs and Route Groups

8. Normal economy fares were analyzed for a total of 9 135 international city-pairs for which adequate data were available. General cargo rates for 6 301 city-pairs were also analyzed. 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 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" fares and "special" fares. "Normal" 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. "Special" fares are lower than normal fares and are generally designed to generate revenue by attracting passengers who would not travel at the higher fares. On an increasing number of routes in recent years differing standards of cabin and check-in service have been offered to passengers travelling on normal and on special fares, but the most important distinction between these types of fare world-wide is the conditions attached to special fares that limit their use in some instances (for example, requirements for advance purchase/reservations and/or limits on the period of stay). 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.

14. Normal economy fares are evidently 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, normal economy 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 normal economy fares between the same city-pairs, the normal economy fare selected for a city-pair for the purpose of this report was the highest available in the week commencing 1 September 1986. This selection criterion, which was adopted for the 1984 survey, differs from that for the reports covering the years prior to 1984, when the lowest available normal economy fare was used. The reasons for



this change were the increasing difficulty of identifying the lowest available normal economy fare, particularly as in a number of markets fares offered as "normal" economy now contain conditions such as stopover and interlining restrictions, and the need to maintain comparability among routes. Where return fares are available at less than twice the single fare the former have been selected.

15. Special fares, even of a particular type, do not have the commonality of definition concomitant with normal fares. There are also many 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 these 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. In order to present special fares on a comparative basis, these fares have been classified into several types, both individual and group, and for a sample of 10 city-pairs in each route group a table is presented of the availability and level of each type relative to normal economy and first class fares. The 10 city-pairs were selected as representative of each route group in terms of distances, traffic volumes, countries of origin and destination, and directionality of traffic.

16. 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 1986 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 section of the manual. These fares, which are sometimes agreed within IATA in the form of a resolution or are instituted through government orders, 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, where available, they have been mentioned in the footnotes which accompany the individual tables. 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.

17. 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.

18. The basic general cargo rate is for shipments of up to 45 kilogrammes in weight (also called the N rate). At the 45 kilogramme 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 kilogrammes, for example, and/or other large shipments. For the purpose of this survey, the basic rate selected was the under 45 kilogramme 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 kilogramme" rate may be over-ridden by the minimum charge which is established for the originating country (or in some cases city) concerned.

19. 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 the same as those used in the case of passenger fares. 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.

20. 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

21. Payment for air travel or for the shipment of merchandise by air is generally made in the country in which travel or shipment commences, although provisions exist for payment in the currency of the country of destination or currencies of third countries. Until 1984 both fares and rates were established using a procedure devised by IATA in 1973 which followed the same principles. In 1984 a significant change was introduced in the way cargo rates are established. The two procedures now followed by IATA are outlined below.

22. For passenger traffic local selling fares are generally established by setting basic fares in U.S. dollars or pounds sterling at notional values (as they were defined prior to 1973) and converting them to local selling currencies through the use of adjustment factors which have been established for that particular purpose and which are changed occasionally by airlines or governments to adjust the fares to local market developments. Because the currency conversion factors applied are not related to prevailing bank rates of exchange they have produced anomalies in fares for travel from neighbouring countries or in the directional fares between pairs of countries, particularly in the last few years during which rates of exchange among major currencies

have fluctuated widely. These anomalies, which exist in fact, are reflected in this survey, since the currency adopted for comparative purposes throughout the survey is the United States dollar and the procedure adopted by ICAO has been to convert fares (and rates) as expressed in local selling currency into U.S. dollars at the official bank exchange rate quoted on 29 August 1986. The exchange rates used were taken from the ABC World Airways Guide, with minor adjustments, and are shown in Appendix 1.

23. For cargo rates, a new world-wide system was introduced in 1984 by the IATA airlines for the negotiation and specification of cargo rates in local currency of origin or in United States dollars (the latter usually for those countries where exchange rates tend to show large fluctuations), using bankers' rates where currency conversion is required.

#### Selection of Survey Period

24. 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

25. The next chapter, Chapter II, presents a comparison of the main results for the 17 major international route groups, together with certain estimated averages for international fares and rates as a whole, and summary results of this survey. Chapter III presents the summary results and analysis for each of the 17 international route groups separately. Appendices 1 and 2 cover currency conversion rates and the regression equations respectively for September 1986.

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## II - SUMMARY AND COMPARISONS

### Introductory Remarks

1. The objective of this chapter is to provide a world-wide perspective of international fares and rates, to compare fares and rates among route groups and the estimated world averages, and to compare the situation in September 1986 with that in September 1985. 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 and 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 passenger and freight traffic flow. This does not detract from the value of assessing the level of international airline fares and rates from a regional and global point of view.

2. Because fares and rates in this survey are expressed as the United States dollar equivalents, at the official bank exchange rates, of local selling fares and rates (see Chapter I), the year-to-year changes in estimated fares and rates include the effects of changes in the strength of the U.S. dollar relative to other currencies. Between September 1985 and September 1986, the U.S. dollar weakened against most of the other major world currencies, but nevertheless strengthened against currencies in some countries and regions, for example, the Middle East. This mixed performance of the U.S. dollar has meant that the year-to-year changes in the survey show a significant variation depending on the currency mix present in the individual route groups. If estimated fares and rates were to be expressed in a currency against which the U.S. dollar had strengthened, the year-to-year increases would have been larger than as recorded in this survey. On the other hand, if estimated fares and rates were to be expressed in a currency against which the U.S. dollar had weakened, the year-to-year increases would have been smaller than recorded in this survey. Official bank rates for each of the national currencies involved may be seen in Appendix 1, as in previous surveys.

### Distribution of International City-Pairs by Route Group

3. An indication of the complexity of the international scheduled fares and rates system is provided by the number of city-pairs with through-plane service for which normal economy fares were obtained - a total of 9 135. In addition there were a limited number of city-pairs with through-plane service for which pertinent information on fares or rates 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 and rates on a global basis.

4. It may be seen from Table II.1 that 2 569 city-pairs, more than one-quarter of the total analysed, were located in the route group "local Europe". Four route groups out of the seventeen accounted for more than 50 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 8 per cent of the total number of international city-pairs, while the two transpacific route groups accounted for some 2 per cent of the total number of international city-pairs.

#### Distribution of International City-Pairs by Distance and By Route Group

5. The average distance separating the 9 135 international city-pairs for which normal economy fares were obtained was 3 287 kilometres. This distance may be compared with an estimated average international passenger trip length in 1986 of 3 050 kilometres. The difference between the two figures reflects the relatively higher volume of traffic travelling on short-haul routes as opposed to long-haul routes as well as 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 stop-over. 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. These observations should be borne in mind when considering average international city-pair distances for each distance block. When comparing fare and revenue yield data over time it 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 kilometres in 1975 and 3 446 kilometres in 1980), while the average passenger trip length has been rising steadily (it was 2 451 kilometres in 1975 and 2 880 kilometres in 1980).

6. The average regional inter-city distance is shortest in the route group "between and within Central America and the Caribbean" at 636 kilometres and in "local Europe" at 1 157 kilometres, while the route groups with the longest average city-pair distance are the "North and Mid Pacific" at 10 829 kilometres and the "South Atlantic" at 9 973 kilometres. 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.

TABLE II.1

DISTRIBUTION BY ROUTE GROUP OF INTERNATIONAL CITY-PAIRS  
FOR WHICH ECONOMY FARES WERE OBTAINED

Route Groups	Number of City-Pairs	%	Cumulative %
International Total - WORLD	9 135	100.0	-
Local Europe .....	2 569	28.1	28.1
Between Europe/Middle East/ Africa and Asia/Pacific .....	780	8.5	36.6
Local Asia/Pacific .....	733	8.0	44.6
Between Europe/Middle East and Africa .....	730	8.0	52.6
Between Europe and Middle East.	712	7.8	60.4
Between Canada, Mexico and the United States .....	598	6.5	66.9
Local Africa .....	549	6.0	72.9
North Atlantic .....	462	5.1	78.0
Between North America/Central America/Caribbean and South America .....	364	4.0	82.0
Between and Within Central America and the Caribbean .....	358	3.9	85.9
Local Middle East .....	321	3.5	89.4
Between North America and Central America/Caribbean .....	288	3.2	92.6
Local South America .....	217	2.4	95.0
Mid Atlantic .....	144	1.6	96.6
North and Mid Pacific.....	141	1.5	98.1
South Atlantic .....	116	1.3	99.4
South Pacific .....	53	0.6	100.0

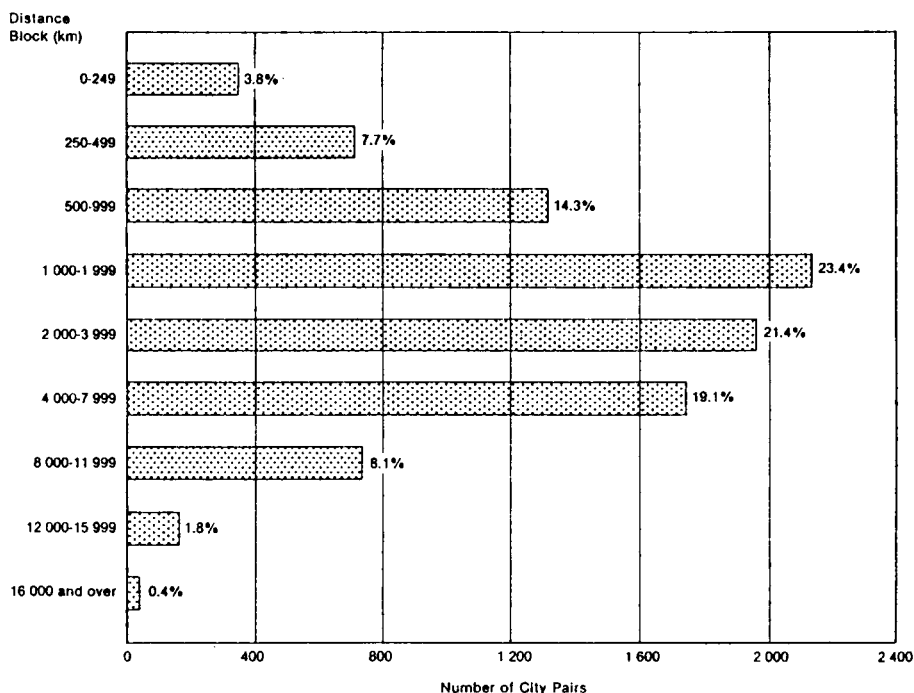
**TABLE II.2**  
**DISTRIBUTION BY DISTANCE BLOCK OF CITY-PAIRS**  
**FOR WHICH NORMAL ECONOMY FARES WERE OBTAINED: SEPTEMBER 1986**

Route Group	Number of City-Pairs by Distance (km)									Number of City-Pairs	Average Distance
	0-249	250-499	500-999	1000-1999	2000-3999	4000-7999	8000-11999	12000-15999	16000-		
International Total - WORLD .....	345	706	1 310	2 133	1 956	1 746	737	166	36	9 135	3 287
Between North America and Central America/Caribbean .....	12	31	18	104	163	36	-	-	-	364	2 280
Between and Within Central America and the Caribbean .....	115	84	85	58	16	-	-	-	-	358	636
Between Canada, Mexico and the United States .....	24	54	77	189	242	12	-	-	-	598	1 850
Between North America/Central America/Caribbean and South America .....	2	9	41	48	76	77	35	-	-	288	3 849
Local South America .....	6	25	28	74	56	28	-	-	-	217	1 991
Local Europe .....	104	363	744	1 062	292	4	-	-	-	2 569	1 157
Local Middle East .....	22	45	58	126	70	-	-	-	-	321	1 296
Local Africa .....	33	55	122	163	136	40	-	-	-	549	1 707
Between Europe and Middle East ..	-	2	24	64	389	233	-	-	-	712	3 350
Between Europe/Middle East and Africa .....	4	4	15	62	150	415	80	-	-	730	4 967
North Atlantic .....	-	-	-	-	6	352	93	11	-	462	7 135
Mid Atlantic .....	-	-	-	-	-	63	77	4	-	144	8 521
South Atlantic .....	-	-	-	-	-	17	82	17	-	116	9 973
Local Asia/Pacific .....	23	32	96	147	241	172	20	2	-	733	2 942
Between Europe/Middle East/ Africa and Asia/Pacific .....	-	2	2	36	119	261	246	84	30	780	7 824
North and Mid Pacific .....	-	-	-	-	-	22	82	31	6	141	10 829
South Pacific .....	-	-	-	-	-	14	22	17	-	53	9 758



7. Graph II.1 portrays the number and percentage distribution of city-pairs by distance block for the world sample of 9 135 city-pairs for which normal economy fares were obtained in September 1986. Only 4 per cent of the above city-pairs are separated by distances of less than 250 kilometres, 8 per cent fall in the distance block of 250-500 kilometres, and a further 14 per cent in the block 500-1 000 kilometres. Thus, over one-quarter of the sampled international city-pairs are located in the less than 1 000 kilometre distance range, while only 10 per cent are located in the more than 8 000 kilometre distance range.

GRAPH II.1



8. The distribution of the city-pairs by distance block for small shipment cargo rates was similar but with a slight tendency towards longer distances, with over 55 per cent of the city-pairs showing a stage distance of more than 2 000 kilometres (compared with just under 50 per cent for the fares).

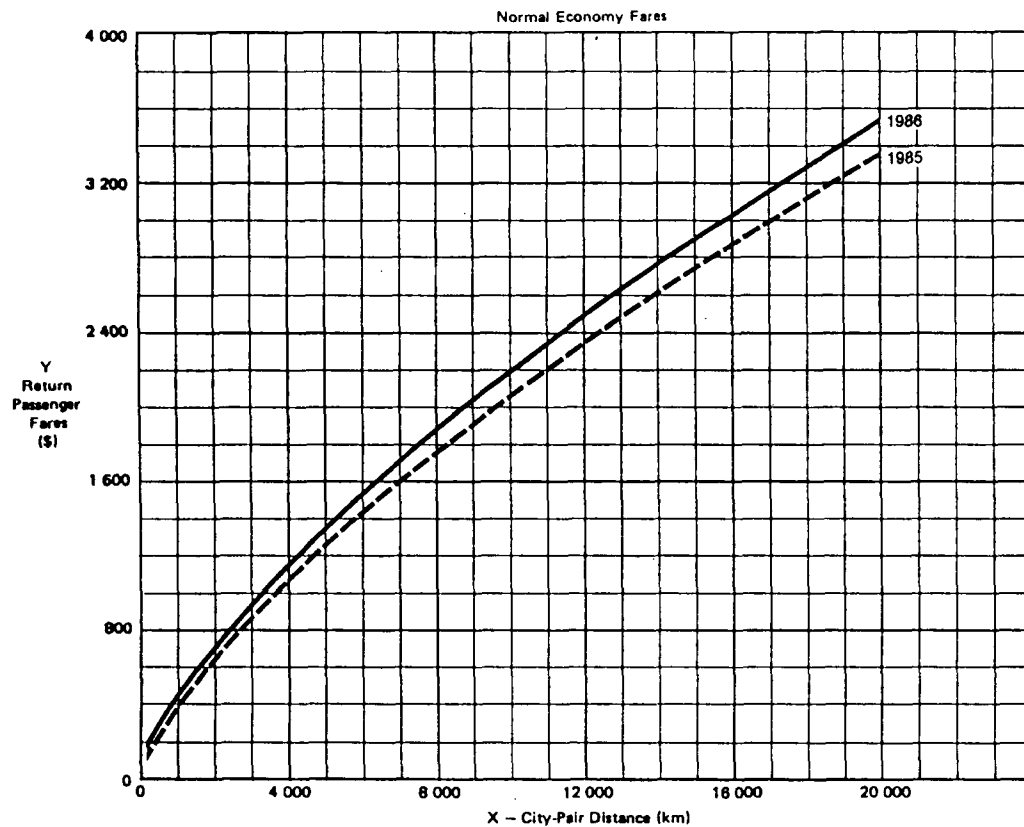
#### A - PASSENGER FARES

##### Relationship between Estimated Normal Economy Fares and Distance

9. As indicated in Chapter I, there are two basic categories of passenger fares on scheduled services: normal and special fares. Normal fares include first, intermediate and economy class fares. For the purposes of this survey, normal economy fares have been generally defined as economy class fares which are available to members of the general public without limitations as to their purchase and use. 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.

10. The relationship between estimated average normal economy fares and distance in September 1986 and in September 1985 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 III by route group. The curves of this graph have been statistically computed so as to reflect best the relationship between the fares and the distance (see Appendix 2 for further details).

GRAPH II.2



Comparative Level of Normal Economy Fares by Route Group

11. In September 1986, the lowest estimated average normal economy 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 these 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), and between Canada, Mexico and the United States ("North America"). At long distances, the lowest fares were found on routes in "Asia/Pacific" and across the "North-Mid Pacific". The lowest average fare at the average distance in any route group was 9.4 cents per passenger-kilometre (at 10 800 km) on North-Mid Pacific routes.

12. In September 1986, the highest estimated average fare levels at shorter distances were seen for routes in "Europe" and "Middle East". 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 between Europe and Africa, and across the Mid and South Atlantic. The highest average fare at the average distance in any route group was 25.5 cents per passenger-kilometre (at 1 200 km) on routes in "Europe".

#### Changes in Level of Normal Economy Fares between 1985 and 1986

13. As shown in Table II.4, between September 1985 and September 1986 the estimated world average normal economy fares show increases ranging from 16 per cent at 250 kilometres to about 6 per cent at 16 000 kilometres. The percentage changes between 1985 and 1986, would in many cases, be significantly different when expressed in local selling currencies, depending on changes in the value of these currencies relative to the U.S. dollar. For the majority of city-pairs, the increases in normal economy fares would be smaller in local selling currencies than in U.S. dollars, with the world average normal economy fare in local selling currencies showing increases ranging between 7 per cent at the shorter distances and 2 per cent at the longer distances.

14. The effect of the relative change in value of the U.S. dollar on the change in fares is illustrated by an analysis of the individual route groups. 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 1-5 in the tables), the U.S. dollar changes shown in the table closely reflect the changes as expressed in national currencies.

15. In Europe, between September 1985 and September 1986 most of the European currencies appreciated against the U.S. dollar with the exception of the currencies in Eastern Mediterranean countries and a few Eastern European countries which showed a continuing depreciation against the U.S. dollar. The changes in fares for routes within Europe (Route Group 6) therefore show significant differences when expressed in local selling currencies compared with those expressed in U.S. dollars. The increase in fares for the short distances (where there is a predominance of city-pairs in Western Europe) is significantly larger when expressed in U.S. dollars than in local selling currencies (31 per cent at 250 kilometres compared with 6 per cent).

16. On the North-Central Pacific (Route Group 16), a strong Japanese Yen was the major cause for the significant difference in fare changes when expressed in U.S. dollars with those expressed in local selling currencies. In terms of U.S. dollars, fares out of Japan showed an average increase of about 63 per cent whereas the same fares expressed in Japanese Yen showed an average increase of only some 7 per cent. For some other world areas where the national currencies decreased in value on average relative to the U.S. dollar there are marked differences when the fare changes are expressed in national currencies. In particular, the weakening of some currencies in the Middle East and the South West Pacific was such that the fares within Middle East and across the South Pacific (Route Groups 7 and 17) resulted in higher increases in local selling currencies than in U.S. dollars.

TABLE II.3  
COMPARISON OF AVERAGE NORMAL ECONOMY FARES  
PER PASSENGER-KILOMETRE  
BY ROUTE GROUP AND BY DISTANCE

Route Group (short title)	Cents per Passenger-Kilometre by Distance (km)							
	250	500	1000	2000	4000	8000	12000	16000
International Total - WORLD.. 1986 (1985)	33.2 (28.7)	27.0 (23.6)	21.9 (19.4)	17.8 (16.0)	14.4 (13.2)	11.7 (10.8)	10.3 (9.7)	9.5 (8.9)
1. North-Central America ... 1986 (1985)	27.6 (32.2)	21.4 (23.8)	16.6 (17.6)	12.8 (13.0)	9.9 (9.6)	- -	- -	- -
2. Central America ..... 1986 (1985)	31.9 (32.0)	24.0 (24.4)	18.1 (18.7)	13.6 (14.3)	- -	- -	- -	- -
3. North America ..... 1986 (1985)	25.0 (25.3)	18.7 (19.1)	13.9 (14.4)	10.4 (10.9)	7.7 (8.2)	- -	- -	- -
4. North-South America ..... 1986 (1985)	- -	21.5 (21.6)	18.2 (18.2)	15.4 (15.3)	13.0 (12.9)	11.0 (10.9)	10.0 (9.9)	- -
5. South America ..... 1986 (1985)	20.3 (20.4)	17.6 (17.8)	15.4 (15.5)	13.4 (13.5)	11.6 (11.8)	- -	- -	- -
6. Europe ..... 1986 (1985)	47.4 (36.3)	36.1 (27.9)	27.4 (21.5)	20.8 (16.6)	15.9 (12.8)	- -	- -	- -
7. Middle East ..... 1986 (1985)	32.4 (31.8)	26.4 (25.5)	21.4 (20.4)	17.4 (16.3)	- -	- -	- -	- -
8. Africa ..... 1986 (1985)	22.7 (20.7)	19.5 (17.8)	17.3 (15.4)	15.1 (13.3)	13.1 (11.4)	- -	- -	- -
9. Europe-Middle East ..... 1986 (1985)	- -	32.7 (27.5)	27.2 (23.0)	22.6 (19.3)	18.8 (16.2)	- -	- -	- -
10. Europe-Africa ..... 1986 (1985)	- -	26.9 (27.3)	22.7 (22.1)	19.2 (17.9)	16.2 (14.5)	13.6 (11.8)	12.3 (10.4)	- -
11. North Atlantic ..... 1986 (1985)	- -	- -	- -	- -	13.7 (12.0)	12.6 (11.1)	12.0 (10.6)	- -
12. Mid Atlantic ..... 1986 (1985)	- -	- -	- -	- -	14.8 (15.0)	13.2 (11.6)	12.4 (10.0)	- -
13. South Atlantic ..... 1986 (1985)	- -	- -	- -	- -	11.9 (11.5)	12.6 (11.2)	13.1 (11.1)	- -
14. Asia/Pacific ..... 1986 (1985)	18.4 (18.2)	16.3 (16.3)	14.4 (14.6)	12.7 (13.0)	11.2 (11.7)	9.9 (10.4)	9.2 (9.8)	- -
15. Europe-Asia/Pacific ..... 1986 (1985)	- -	- -	16.6 (18.3)	15.0 (15.6)	13.5 (13.2)	12.2 (11.2)	11.5 (10.2)	11.0 (9.5)
16. North-Mid Pacific ..... 1986 (1985)	- -	- -	- -	- -	16.5 (12.1)	11.2 (9.8)	8.9 (8.6)	7.5 (7.9)
17. South Pacific ..... 1986 (1985)	- -	- -	- -	- -	16.7 (14.8)	12.3 (12.2)	10.2 (11.0)	9.0 (10.1)

**TABLE II.4**  
**PERCENTAGE CHANGE IN AVERAGE NORMAL ECONOMY FARES<sup>1</sup>**  
**BY ROUTE GROUP AND BY DISTANCE BETWEEN**  
**SEPTEMBER 1985 AND 1986**

Route Group (short title)	Percentage Change by Distance (km)							
	250	500	1000	2000	4000	8000	12000	16000
International Total - WORLD .... 1986/1985	16.0	14.3	12.7	11.1	9.5	7.9	7.0	6.3
1. North-Central America ..... 1986/1985	-14.3	-10.2	-6.0	-1.6	3.1	-	-	-
2. Central America ..... 1986/1985	-0.1	-1.7	-3.2	-4.8	-	-	-	-
3. North America ..... 1986/1985	-1.2	-2.4	-3.6	-4.8	-6.0	-	-	-
4. North-South America ..... 1986/1985	-	-0.5	-0.2	0.2	0.5	0.8	1.0	-
5. South America ..... 1986/1985	-0.4	-0.7	-1.1	-1.4	-1.7	-	-	-
6. Europe ..... 1986/1985	30.8	29.1	27.4	25.7	24.1	-	-	-
7. Middle East ..... 1986/1985	1.7	3.5	5.4	7.2	-	-	-	-
8. Africa ..... 1986/1985	9.7	11.0	12.3	13.6	15.0	-	-	-
9. Europe-Middle East ..... 1986/1985	-	18.9	18.0	17.2	16.3	-	-	-
10. Europe-Africa ..... 1986/1985	-	-1.2	2.8	6.9	11.2	15.6	18.3	-
11. North Atlantic ..... 1986/1985	-	-	-	-	13.6	13.4	13.3	-
12. Mid Atlantic ..... 1986/1985	-	-	-	-	-1.2	13.9	23.8	-
13. South Atlantic ..... 1986/1985	-	-	-	-	3.3	12.5	18.3	-
14. Asia/Pacific ..... 1986/1985	1.6	0.2	-1.1	-2.4	-3.7	-5.0	-5.8	-
15. Europe-Asia/Pacific ..... 1986/1985	-	-	-9.5	-3.8	2.2	8.6	12.5	15.3
16. North-Mid Pacific ..... 1986/1985	-	-	-	-	37.0	14.4	3.0	-4.4
17. South Pacific ..... 1986/1985	-	-	-	-	12.7	0.0	-6.7	-11.2

Note: 1. Here expressed in terms of United States dollar equivalents. Due to fluctuations in exchange rates, year-to-year comparisons are dependent on the recording currency used (see paragraph II.2).

17. Between September 1980 and September 1985, the continued strengthening of the U.S. dollar against many other world currencies had had the effect of reducing the difference between the fare levels for those routes where fares are predominantly in U.S. dollars and for those which are usually quoted in local currencies. For example, in September 1980 the highest fares at 250 kilometres were those for travel within Europe (at 38.1 cents) whereas the routes between Canada, Mexico and the United States at the same distance showed some of the lowest fares (at 15.7 cents). This high/low ratio of 2.43 was by September 1985 reduced to 1.43 (36.3 cents within Europe against 25.3 cents in North America). The weakening of the U.S. dollar between September 1985 and September 1986 has once again increased the difference between the highest and the lowest fare. By September 1986 this high/low ratio stood at 1.90 (47.4 cents within Europe against 25.0 cents in North America).

### Special Fares

18. The most widely offered type of special fare on scheduled international air services was, as in previous years, the excursion fare. 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 normal economy fares, the relative importance of personal and tourist travel, the volume of traffic, and competitive considerations. In September 1986 excursion fares remained available for about 70 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 normal economy fares.

19. The existence of a wide range of other special fares, in addition to the economy excursion fares, 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, hence the use of the term promotional fares. On some routes however, the number of passengers travelling on promotional fares currently represents a relatively high proportion of the traffic. Since promotional fares are lower than the normal economy and special excursion 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.

20. The range of special fare types available and conditions applicable is wide and varies among geographical regions. Nevertheless, a study of city-pair samples selected from each route group suggests the following inferences on a world-wide basis: advance purchase excursion (Apex) and other similar types of deep discount fares (such as Pex and budget) are becoming increasingly prevalent and existed in almost 50 per cent of the cases in September 1986 (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), and they are on average about 45 per cent lower than normal economy fares; individual inclusive tour fares exist in some 20 per cent of the cases and are on average 40 per cent lower than the normal economy fares; other special fares for individual passengers are relatively rare, available in about 10 per cent of the cases at an average level about 60 per cent lower than the normal economy fares; group inclusive tour fares exist in some 33 per cent of the cases at an average level 50 per cent lower than the normal economy fares; and "other" group fares such as affinity group fares exist in 15 per cent of the cases, at an average level 50 per cent below the normal economy fare.

21. From the study of city-pair samples, it can be concluded that relative to 1985 there was no over-all major development in the availability of special fares. However, some changes did take place in individual route groups. One such change is the increase in the number of fares which have different price levels according to the day of the week travel takes place. While these had been commonly available for a number of years in the "North-Central America" and "North America" route groups, in September 1986 they were also available on a few routes within Europe, across the North Atlantic and the North-Central Pacific. A further change was the increase in deviations from fare conditions which traditionally have been associated with certain fare types. For example, in September 1986 in the South Pacific, excursion fares were available with restrictions on transfers and with no stopovers allowed while, on the other hand, Apex-type fares were available with an unlimited number of stopovers at no extra cost.

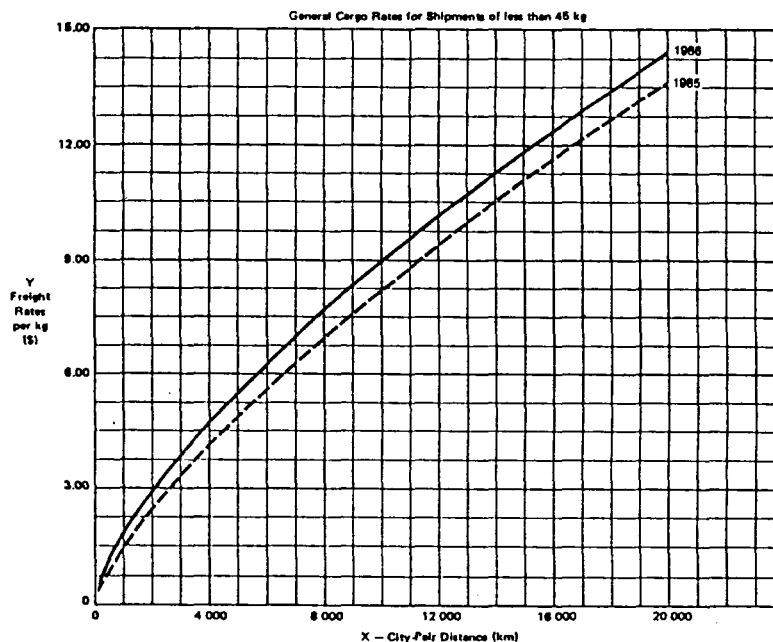
22. On most route groups levels of at least some special fares moved either up or down relative to those of normal economy fares, but only in a few groups were consistent trends for all special fare types discernible. For the "North-Central America", "Central America", "North America", "North-South America", and "South Pacific" route groups special fares appear in general to have fallen relative to normal economy fares between September 1985 and September 1986. In no single route group, however, did the level of special fares show a general increase relative to the normal economy fare between September 1985 and September 1986.

## B - CARGO RATES

### Relationship between Estimated General Cargo Rates for Small Shipments and Distance

23. The comparative relationship between the estimated average international general cargo rates for shipments of less than 45 kilogrammes and distance in September 1986 and September 1985 may be seen in Graph II.3. These

GRAPH II.3



are the rates paid per kilogramme 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 III 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 2 for further details).

#### Comparative Level of General Cargo Rates for Small Shipments by Route Group

24. In September 1986 estimated average general cargo rates for shipments of less than 45 kilogrammes, as shown in Table II.5, were lowest on the route groups "Africa" and "Asia/Pacific" at short distances, on the route groups "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 74 cents per tonne-kilometre (at 2 000 km) on international routes in "North America".

25. The highest estimated rates were found in the route groups "Central America", "South America" and "Europe" at short distances, on the route groups "South America" and "Europe" at medium distances, and on routes across the Mid and South Atlantic as well as 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 196 cents per tonne-kilometre (at 1 100 km) on routes in "Europe".

#### Changes in Level of General Cargo Rates for Small Shipments between 1985 and 1986

26. As shown by Table II.6, between September 1985 and September 1986, the estimated world average general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed increases of about 26 per cent at 250 kilometres and of almost 6 per cent at 16 000 kilometres. In terms of local selling currencies, cargo rates showed increases between 13 per cent at 250 kilometres and 2 per cent at 16 000 kilometres.

27. As for fares, for the individual route groups the degree of change shown in the general cargo rates expressed in U.S. dollars between 1985 and 1986 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 1-5 in the tables) where rates are generally expressed in U.S. dollars, the changes shown in the table 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. The routes most affected by the change in exchange rates were those in "Europe" where the rates as expressed in U.S. dollars show increases of up to 26 percentage points higher than when expressed in local selling currencies.



Other Cargo Rates

28. A study of city-pair samples selected from each route group suggests the following conclusions: on almost all routes, general cargo rates for shipments "over 45 kilogrammes" were some 25 per cent lower than those for smaller shipments. 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 45 per cent lower than the "under 45 kilogramme" 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-Middle East", "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 six 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 kilogramme" general cargo rate. Bulk unitization rates for the carriage of freight in Unit Load Devices (ULDs) were in general only widely available for routes originating or terminating in North America and on routes across the Mid Atlantic.

TABLE II.5

COMPARISON OF AVERAGE GENERAL CARGO RATES PER TONNE-KILOMETRE  
FOR SHIPMENTS OF LESS THAN 45 KILOGRAMMES  
BY ROUTE GROUP AND BY DISTANCE

Route Group (short title)	Cents per Tonne-Kilometre by Distance (km)							
	250	500	1000	2000	4000	8000	12000	16000
International Total - WORLD . 1986 (1985)	271 (215)	220 (180)	178 (150)	144 (125)	117 (105)	95 (87)	84 (78)	77 (73)
1. North-Central America ... 1986 (1985)	249 (254)	189 (191)	143 (144)	108 (109)	82 (82)	- -	- -	- -
2. Central America ..... 1986 (1985)	311 (260)	226 (203)	165 (159)	120 (124)	- -	- -	- -	- -
3. North America ..... 1986 (1985)	254 (230)	168 (154)	111 (103)	74 (69)	49 (46)	- -	- -	- -
4. North-South America ..... 1986 (1985)	- -	219 (214)	170 (168)	131 (131)	102 (103)	79 (81)	68 (70)	- -
5. South America ..... 1986 (1985)	358 (306)	269 (239)	202 (187)	151 (146)	113 (114)	- -	- -	- -
6. Europe ..... 1986 (1985)	338 (253)	262 (203)	203 (163)	157 (131)	121 (105)	- -	- -	- -
7. Middle East ..... 1986 (1985)	274 (268)	213 (203)	166 (154)	129 (117)	- -	- -	- -	- -
8. Africa ..... 1986 (1985)	189 (132)	157 (122)	130 (113)	108 (104)	90 (96)	- -	- -	- -
9. Europe-Middle East ..... 1986 (1985)	- -	179 (154)	166 (142)	154 (131)	142 (121)	- -	- -	- -
10. Europe-Africa ..... 1986 (1985)	- -	217 (211)	178 (167)	147 (132)	121 (105)	99 (83)	89 (72)	- -
11. North Atlantic ..... 1986 (1985)	- -	- -	- -	- -	120 (103)	94 (87)	82 (79)	- -
12. Mid Atlantic ..... 1986 (1985)	- -	- -	- -	- -	133 (120)	125 (113)	120 (109)	- -
13. South Atlantic ..... 1986 (1985)	- -	- -	- -	- -	140 (147)	124 (114)	116 (99)	- -
14. Asia/Pacific ..... 1986 (1985)	162 (142)	140 (124)	121 (109)	104 (96)	90 (84)	77 (73)	71 (68)	- -
15. Europe-Asia/Pacific ..... 1986 (1985)	- -	- -	163 (171)	140 (140)	121 (114)	104 (93)	95 (83)	90 (76)
16. North-Mid Pacific ..... 1986 (1985)	- -	- -	- -	- -	175 (130)	101 (91)	73 (74)	58 (64)
17. South Pacific ..... 1986 (1985)	- -	- -	- -	- -	119 (87)	88 (81)	74 (78)	65 (75)

TABLE II.6

PERCENTAGE CHANGE IN AVERAGE GENERAL CARGO RATES<sup>1</sup>  
FOR SMALL SHIPMENTS BY ROUTE GROUP AND BY DISTANCE  
BETWEEN SEPTEMBER 1985 AND 1986

Route Group (short title)	Percentage Change by Distance (km)							
	250	500	1000	2000	4000	8000	12000	16000
International Total - WORLD .... 1986/1985	25.7	22.2	18.7	15.4	12.1	9.0	7.1	5.9
1. North-Central America ..... 1986/1985	-1.9	-1.4	-0.9	-0.3	0.2	-	-	-
2. Central America ..... 1986/1985	19.7	11.3	3.6	-3.6	-	-	-	-
3. North America ..... 1986/1985	10.7	9.3	7.9	6.5	5.1	-	-	-
4. North-South America ..... 1986/1985	-	2.4	1.1	-0.1	-1.3	-2.5	-3.2	-
5. South America ..... 1986/1985	17.3	12.5	7.9	3.5	-0.7	-	-	-
6. Europe ..... 1986/1985	33.6	28.9	24.3	20.0	15.7	-	-	-
7. Middle East ..... 1986/1985	2.3	4.9	7.6	10.4	-	-	-	-
8. Africa ..... 1986/1985	42.8	28.5	15.6	4.0	-6.4	-	-	-
9. Europe-Middle East ..... 1986/1985	-	16.1	16.6	17.1	17.6	-	-	-
10. Europe-Africa ..... 1986/1985	-	2.6	6.7	11.0	15.4	20.0	22.8	-
11. North Atlantic ..... 1986/1985	-	-	-	-	16.4	8.1	3.6	-
12. Mid Atlantic ..... 1986/1985	-	-	-	-	10.9	10.5	10.2	-
13. South Atlantic ..... 1986/1985	-	-	-	-	-4.8	8.6	17.3	-
14. Asia/Pacific ..... 1986/1985	14.4	12.6	10.7	8.9	7.2	5.4	4.4	-
15. Europe-Asia/Pacific ..... 1986/1985	-	-	-4.9	0.3	5.8	11.6	15.1	17.7
16. North-Mid Pacific ..... 1986/1985	-	-	-	-	34.5	10.5	-1.5	-9.2
17. South Pacific ..... 1986/1985	-	-	-	-	36.1	8.6	-4.9	-13.4

Note: 1. Here expressed in terms of United States dollar equivalents. Due to fluctuations in exchange rates, year-to-year comparisons are dependent on the recording currency used (see paragraph II.2).

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### III - FARES AND RATES BY ROUTE GROUP

This chapter presents the analyses for the seventeen international route groups on a standardized basis to facilitate comparisons.

\* \* \* \* \*

#### 1. - BETWEEN NORTH AMERICA AND CENTRAL AMERICA/CARIBBEAN

##### Description of Route Group

1. This route group includes routes between Canada and/or the United States (including Alaska and Hawaii) on the one hand and Central America (excluding Mexico) and the Caribbean on the other. Central America/Caribbean is defined as Bahamas, Belize, Bermuda, Costa Rica, El Salvador, Guatemala, Honduras, the islands of the Caribbean Sea, Nicaragua and Panama.

##### Distribution of City-Pairs by Distance

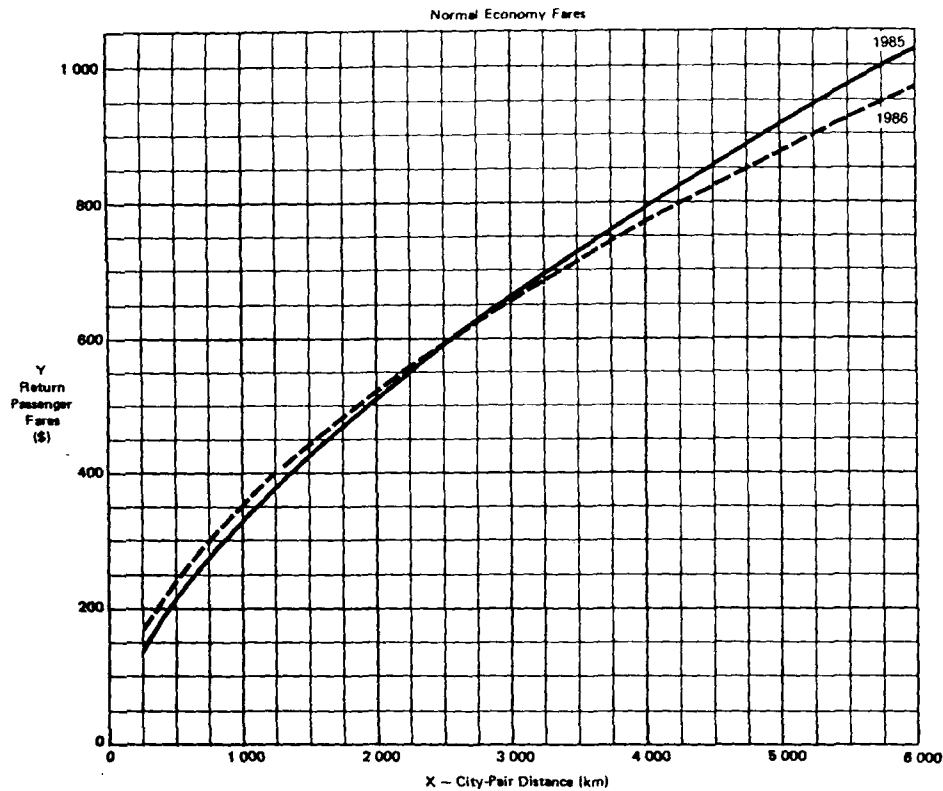
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 364 city-pairs in the route group. The increase in the number of city-pairs in September 1986 (from 282 in September 1985) was primarily due to a restructuring of routes which saw an increase in the number of through flights between interior points in the United States and the Caribbean. The average distance between the city-pairs in this route group is 2 280 kilometres. Small shipment general cargo rates were obtained for 116 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	12	3.3	3.3
250 - 499	31	8.5	11.8
500 - 999	18	4.9	16.7
1000 - 1999	104	28.6	45.3
2000 - 3999	163	44.8	90.1
4000 - 5999	36	9.9	100.0
Total	364	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	250	500	1000	2000	4000	6000
Fares per P-Km in cents						
1986	27.6	21.4	16.6	12.8	9.9	8.6
(1985)	(32.2)	(23.8)	(17.6)	(13.0)	(9.6)	(8.1)
Percentage change (%) 1986/1985	-14.3	-10.2	-6.0	-1.6	3.1	5.9

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre showed a decrease of some 14 per cent at 250 kilometres and an increase of almost 6 per cent at 6 000 kilometres. The additional city-pairs present in September 1986 compared with September 1985 (see paragraph 2) have caused the changes in fare levels in this route group to be 3 percentage points lower than they would otherwise have been at the shorter distances and about 4 percentage points higher than they would otherwise have been at the longer distances. The relatively high reduction in fares at the shorter distances caused the estimated normal economy fares in this route group to fall well below the estimated world international average (to 17 per cent below at 250 km compared with 12 per cent above in 1984). Despite the increase at the longer distances, these fares remained appreciably lower than the world average (reaching 32 per cent below at 6 000 km).

Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

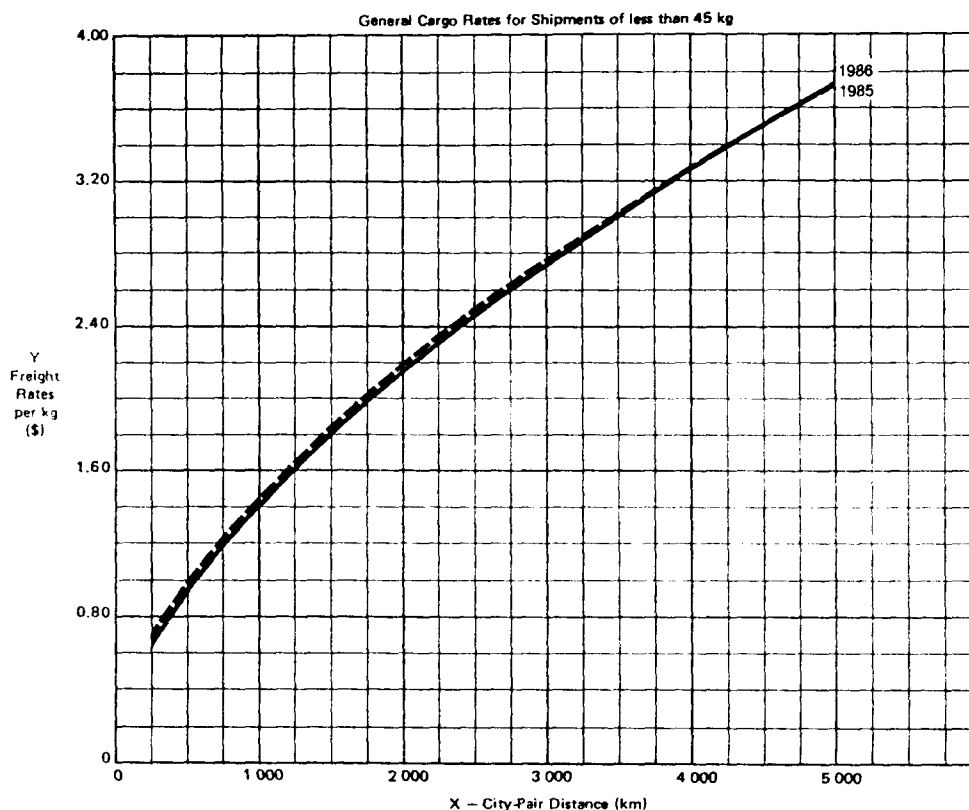
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES <sup>1</sup>						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>2</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>3</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Panama City - San Francisco <sup>4</sup>	5 438	882-1280	162-166	44-76	-	-	-	-	-
Los Angeles - San José	4 413	776- 942	100-160	65-77	46	61	-	57	57
Montreal - Fort-de-France	3 653	828	145	75	50	-	-	50	-
Aruba - New York City	3 153	708	133-149 <sup>6</sup>	63-74	-	38-68	-	42-56	48
Kingston - Toronto	2 876	698- 734	138-145 <sup>6</sup>	71-75	48-50	50	-	50	-
New York City - Santo Domingo <sup>4</sup>	2 506	380- 542 <sup>5</sup>	107-144 <sup>6</sup>	50-75	-	50-70	-	47-51	56-57
San Salvador - Houston	1 965	650- 990	-	50-88	-	-	-	-	-
New Orleans - Guatemala	1 727	424- 564 <sup>5</sup>	167	53-67	-	51	-	-	53
Port-au-Prince - Miami	1 147	160- 418 <sup>5</sup>	113-119 <sup>6</sup>	53-58	-	60	-	-	40
Fort Lauderdale - Nassau	295	104- 138 <sup>5</sup>	114	58-91	-	51-62	-	-	-

Notes: 1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.  
 2. Special fares introduced through government orders existed for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares were between 25 and 40 per cent below the level of the applicable normal economy fare. Also available in some cases were fares for refugees, emigrants, students, families, senior citizens and clergymen at levels some 10 to 50 per cent below the applicable normal economy fare.  
 3. Fares calculated as a percentage of the higher normal economy fare where applicable.  
 4. Intermediate class fares (between first and economy) also available.  
 5. Restricted "normal" economy fares also available.  
 6. First class excursion and/or Apex fares also available.

8. As illustrated by the sample, the type of special fare apparently most widely available to the general public in 1986 was the excursion fare within a range 9 to 56 per cent lower than the related normal economy fare. Inclusive tours on either an individual or group basis remained available for most city-pairs in the sample, while Apex fares were available for only 3 city-pairs in the sample. These and the other promotional fares shown were those published in multilateral tariff manuals in September 1986: other fares may also exist as individual airline tariffs.

### General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	250	500	1000	2000	4000	6000
Rate in cents per tonne-km						
1986	249	189	143	108	82	70
(1985)	(254)	(191)	(144)	(109)	(82)	(69)
Percentage change (%)						
1986/1985	-1.9	-1.4	-0.9	-0.3	0.2	0.5



11. Between September 1985 and September 1986, the estimated general cargo rates for shipments of less than 45 kilogrammes decreased by almost 2 per cent at 250 kilometres but remained virtually unchanged at 6 000 kilometres. The decrease at the shorter distances caused the estimated general cargo rates for small shipments in this route group to move below the world international average (8 per cent below at 250 km compared with 18 per cent above in September 1985), and these rates remained below the world average at longer distances (33 per cent below at 6 000 km, similar to September 1985).

Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes exist (including breakpoints at 100 and 300 kg) giving, as for the previous years, discounts averaging about 40 per cent for large shipments (over 500 kg). Specific commodity rates were available for 7 out of 10 city-pairs in the sample and they were on average one-third of the general cargo rates for small shipments. Bulk unitization rates for freight carried in Unit Load Devices (ULDs) were available for 4 out of 10 city-pairs in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate <sup>1</sup>			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Panama City - San Francisco	5 438	28-50	5.09	70	43-50	14-20	1
Los Angeles - San José	4 413	50	4.25	70	50-55	-	-
Montreal - Fort-de-France	3 653	43	3.13	75	58	18-53	8
Aruba - New York City	3 159	50	2.89	78	53	-	-
Kingston - Toronto	2 876	50	2.87	76	67	17-31	1
New York City - Santo Domingo	2 506	26-50	1.85	85	75	-	-
San Salvador - Houston	1 965	28-50	3.09	74	54	16	2
New Orleans - Guatemala	1 727	45-50	1.63-3.01	54-72	28-53	25-28	4
Port-au-Prince - Miami	1 147	23-50	1.22	81	64-81	41-56	3
Miami - Nassau	296	26-50	0.89	76	70	47	1

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

## 2. - BETWEEN AND WITHIN CENTRAL AMERICA AND THE CARIBBEAN

### Description of Route Group

1. This route group includes routes between or among 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.

### Distribution of City-Pairs by Distance

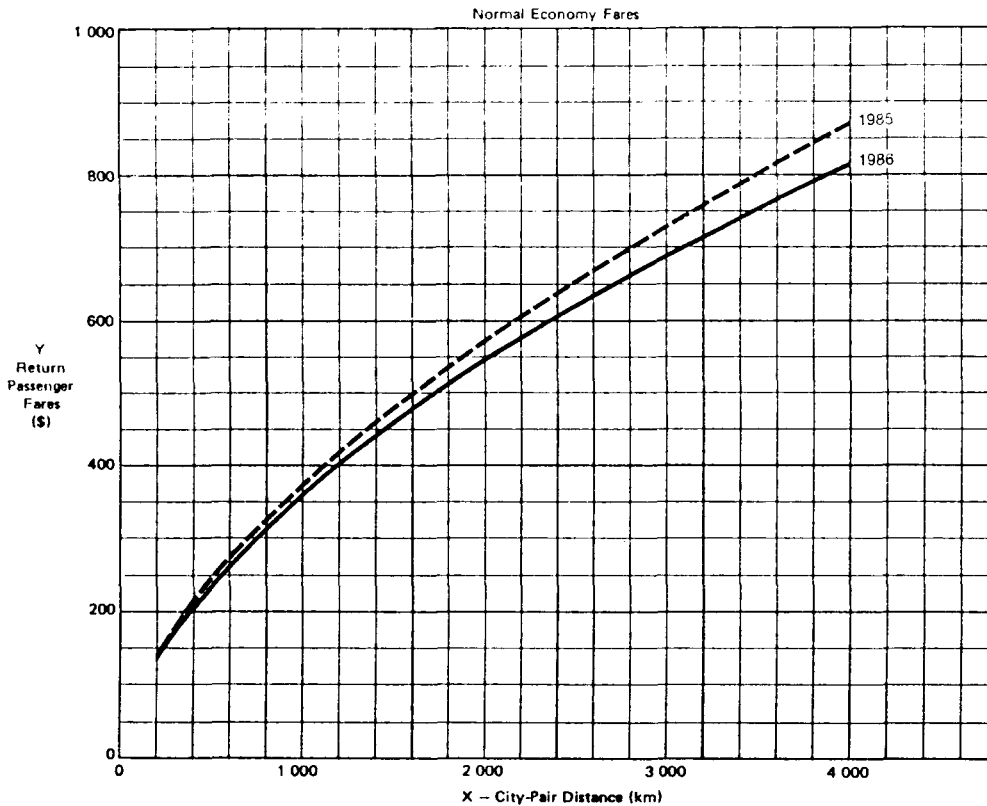
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 358 city-pairs in the route group. The increase in the number of city-pairs in September 1986 (from 299 in September 1985) was in part due to an improvement in the survey method regarding the identification of routes flown by smaller carriers. The average distance between the city-pairs in this route group is 636 kilometres. Small shipment general cargo rates were obtained for 161 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	115	32.1	32.1
250 - 499	84	23.5	55.6
500 - 999	85	23.7	79.3
1000 - 1999	58	16.2	95.5
2000 - 2999	12	3.4	98.9
3000 - 3999	4	1.1	100.0
Total	358	100.0	-

Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	250	500	1000	2000	3000
Fares per P-Km in cents					
1986	31.9	24.0	18.1	13.6	11.5
(1985)	(32.0)	(24.4)	(18.7)	(14.3)	(12.2)
Percentage change (%) 1986/1985	-0.1	-1.7	-3.2	-4.8	-5.6

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre remained almost unchanged at 250 kilometres but decreased by some 6 per cent at 3 000 kilometres. The additional city-pairs present in September 1986 compared with September 1985 (see paragraph 2) have caused the changes in fare levels in this route group to be about 2 percentage points higher than they would otherwise have been at the shorter distances and about 2 percentage points lower than they would otherwise have been at the longer distances. The estimated normal economy fares in this route group moved from 11 per cent above to 4 per cent below the world international average at the shorter distance while they moved further below the world average at the longer distance (to 27 per cent below at 3 000 km compared with 15 per cent below in September 1985).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

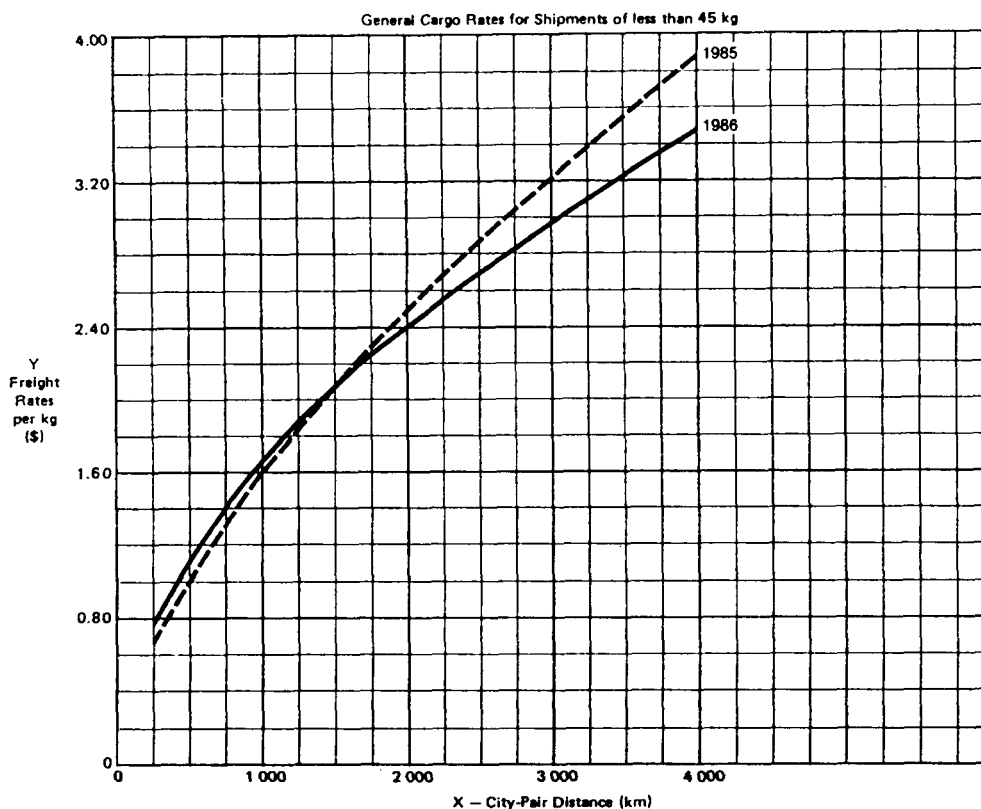
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>2</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
San Juan - San José <sup>3</sup>	2 173	520-852	115-131	45-86	34	38	-	34	-
Mexico - Havana	1 769	468	139	79	-	63	-	51	-
Fort-de-France - Port-au-Prince	1 371	556	136	57-61	-	-	-	-	-
San Salvador - Panama City	1 225	450-520	139	86	-	-	-	-	-
Port-of-Spain - Curaçao	848	352	143 <sup>4</sup>	62-71	-	62	-	-	-
St. Kitts - Barbados	586	280-330	150	64-75	-	-	-	-	-
Port-au-Prince - Kingston	476	228-248	130-140 <sup>4</sup>	59-72	-	60	-	-	-
Guatemala - Tegucigalpa	389	136-200	140	51-80	-	-	-	51	51
Belize - San Pedro Sula	229	130	-	69	-	-	-	-	65
Antigua - Pointe-à-Pitre	100	100	-	66-81	-	-	-	-	-

Notes: 1. Through government orders, special fares existed for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares were between 25 and 40 per cent lower than the applicable normal economy fare. Also available between a few countries were student fares which were at least 25 per cent lower than the applicable normal fares.  
2. Fares calculated as a percentage of the higher normal economy fare where applicable.  
3. Intermediate class fare (between first and economy) also available.  
4. First class excursion fares also available.

8. As illustrated by the sample, in 1986 the excursion fare was the special fare most widely available to the general public, with a level between 14 and 55 per cent lower than that of the related normal economy fare. A few group and individual inclusive tour fares were also available.

General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	250	500	1000	2000	3000	
Rate in cents per tonne-km	1986 (1985)	311 (260)	226 (203)	165 (159)	120 (124)	99 (108)
Percentage change (%)	1986/1985	19.7	11.3	3.6	-3.6	-7.6

11. Between September 1985 and September 1986 the estimated general cargo rates for shipments of less than 45 kilogrammes showed an increase of almost 20 per cent at 250 kilometres and a decrease of about 8 per cent at 3 000 kilometres. The estimated general cargo rates for shipments of less than 45 kilogrammes in this route group remained well above the world international average at the shorter distance (15 per cent above), but fell well below the world average at longer distances (to 23 per cent below at 3 000 kilometres compared with 4 per cent below in September 1985).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes existed in each case (including breakpoints at 100 and 300 kg) giving, as for the previous years, a reduction of up to 50 per cent for large shipments (over 500 kg). On the other hand, few specific commodity rates were available on this route group.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
San Juan - San José	2 173	50	3.43	77	58	-	-
Mexico - Havana	1 796	50	2.18	77	62	-	-
Fort-de-France - Port-au-Prince	1 355	50	3.47	78	49	-	-
San Salvador - Panama City	1 225	50	1.48	77	55	-	-
Port-of-Spain - Curaçao	848	50	1.90	75	52	41-51	4
St. Kitts - Barbados	586	50	1.74	76	54	-	-
Port-au-Prince - Kingston	476	50	1.33	80	58	-	-
Guatemala - Tegucigalpa	362	50	0.43	81	67	-	-
San Pedro Sula - Guatemala	290	50	0.39	62	62	-	-
Antigua - Pointe-à-Pitre	101	50	0.60	86	81	-	-

### 3. - BETWEEN CANADA, MEXICO AND THE UNITED STATES

#### Description of Route Group

1. This route group includes all routes between or among the above States. The United States here includes Alaska and Hawaii but excludes Puerto Rico and the Virgin Islands.

#### Distribution of City-Pairs by Distance

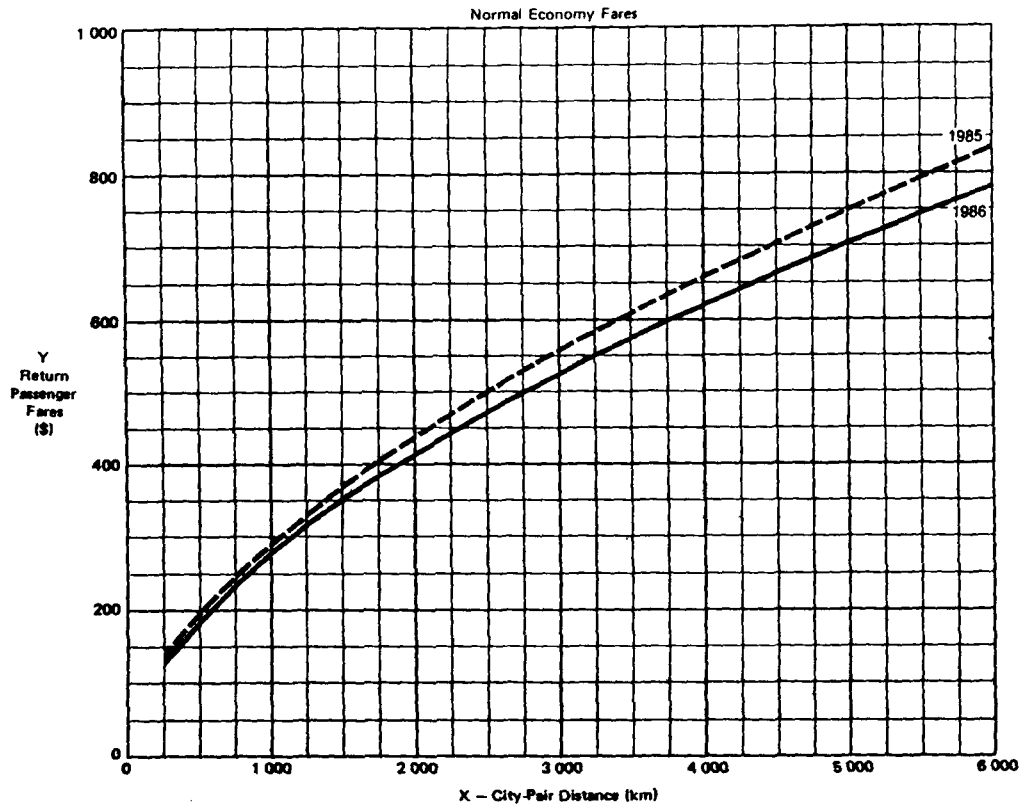
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 598 city-pairs in the route group. The increase in the number of city-pairs in September 1986 (from 464 in September 1985) was primarily due to a restructuring of routes between Canada and the United States by North American carriers. The average distance between city-pairs in this route group is 1 850 kilometres. Small shipment general cargo rates were obtained for 119 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	24	4.0	4.0
250 - 499	54	9.0	13.0
500 - 999	77	12.9	25.9
1000 - 1999	189	31.6	57.5
2000 - 3999	242	40.5	98.0
4000 - 5999	10	1.7	99.7
6000 - 7999	2	0.3	100.0
Total	598	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	250	500	1000	2000	4000
Fares per P-Km in cents	25.0	18.7	13.9	10.4	7.7
(1985)	(25.3)	(19.1)	(14.4)	(10.9)	(8.2)
Percentage change (%) 1986/1985	-1.2	-2.4	-3.6	-4.8	-6.0



6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre decreased by about 1 per cent at 250 kilometres and by 6 per cent at 4 000 kilometres. There was no significant change in the fare levels in this route group caused by the increase in the number of city-pairs between September 1985 and September 1986 (see paragraph 2). The estimated normal economy fares in this route group remained among the lowest in the world; in September 1986 they were 25 per cent below the world average at 250 kilometres and 47 per cent below the world average at 4 000 kilometres.

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

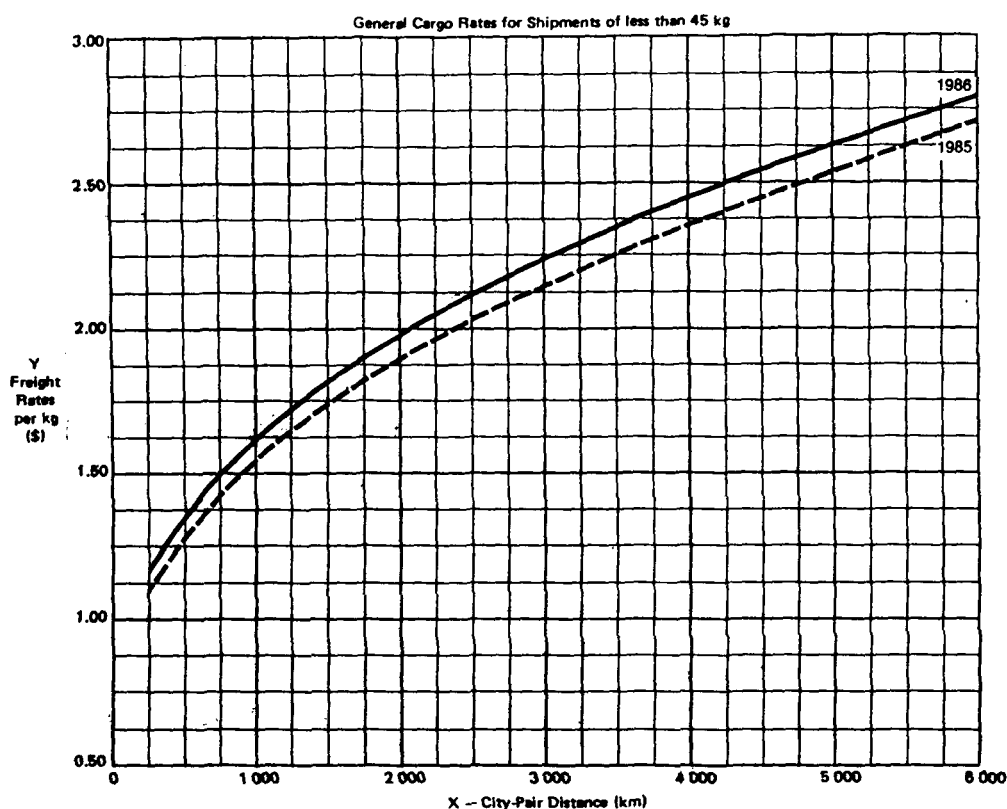
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES <sup>1</sup>						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>2</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>3</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Montreal - San Francisco <sup>4</sup>	4 534	752-792	120-144	-	36-65	-	-	-	-
Mexico - Vancouver <sup>4</sup>	3 946	700	140	73-74	47-63	63	-	61-72	63
Detroit - Mexico	3 111	375-614	114-137	62-78	62	58	-	57	-
Puerto Vallarta - San Francisco	2 522	395-494	119-156	59-71	63	63	-	54	59
New York - Winnipeg <sup>4</sup>	2 079	518	130-140	-	32-75	-	-	-	-
Toronto - Tampa	1 770	386	127-129	92	31-90	-	-	-	-
Mexico - Dallas <sup>4</sup>	1 506	235-400	92-125	49-80	46-65	65-75	-	44-62	-
Chicago - Montreal <sup>4</sup>	1 194	338	148-156	-	46-84	-	-	-	-
Miami - Cozumel	903	220-375	153	30-48	30-42	42	-	30	-
Toronto - Washington	573	255	130	-	65-71	-	-	-	-

- Notes:
1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.
  2. Through government orders, special fares existed for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares, which were only available for travel between Canada/United States and Mexico, were between 25 and 40 per cent lower than the applicable normal economy fare. Also available were fares for emigrants from Mexico to Canada/United States at levels up to 50 per cent below the applicable normal economy fare, and fares for senior citizens between Mexico and the United States, 10 per cent below the applicable normal economy fare.
  3. Fares calculated as a percentage of the higher normal economy where applicable.
  4. Intermediate class fares (between first and economy) also available.

8. As illustrated by the sample, excursion fares were available for only 6 city-pairs in 1986, but Apex fares were available for all 10 city-pairs in the sample. The level of the Apex fares ranged from 10 to 70 per cent below that of the related normal economy fare. Some individual inclusive tour fares remained available for 5 city-pairs and were complemented on the same city-pairs by group inclusive tour fares.

### General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km				
	250	500	1000	2000	4000
Rate in cents per tonne-km					
1986	254	168	111	74	49
(1985)	(230)	(154)	(103)	(69)	(46)
Percentage change (%)					
1986/1985	10.7	9.3	7.9	6.5	5.1

11. Between September 1985 and September 1986 the estimated general cargo rates for shipments of less than 45 kilogrammes increased by some 11 per cent at 250 kilometres and by about 5 per cent at 4 000 kilometres. Despite the increase at the shorter distances the estimated general cargo rates for small shipments in this route group fell below the world international average (6 per cent below at 250 km compared with 7 per cent above in September 1985). At longer distances these rates remained well below the world average (reaching 58 per cent below at 4 000 km).

12. Between September 1985 and September 1986, the spread of the under 45 kilogramme general cargo rates above and below the over-all average narrowed significantly. Thus in September 1986 these rates were more dependent on distance and less dependent on other factors than in September 1985.

### Other Cargo Rates

13. The table below shows for September 1986 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 kilogrammes were frequently available (including breakpoints below and above 500 kg). The average reduction for large shipments (over 500 kg) was around 40 per cent, slightly less than for the previous year. Specific commodity rates remained available 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate <sup>1</sup>			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Montreal - San Francisco	4 534	24	1.51	73	64	-	-
Mexico - Vancouver	3 946	50	3.00	87	72	-	-
Detroit - Mexico	3 111	45	1.57-2.09	57-70	53-72	47-51	1
Puerto Vallarta - San Francisco	2 522	26	1.39	78	64-78	-	-
New York - Winnipeg	2 079	25	1.63	85	73	51-62	1
Toronto - Tampa	1 770	20	1.04	69	59	39-67	3
Mexico - Dallas	1 506	26-27	1.00-1.34	60-72	49-72	25-46	7
Chicago - Montreal	1 194	23	1.23	74	70	-	-
Miami - Cozumel	903	33	0.76-1.08	59-85	49-75	-	-
Toronto - Washington	573	19-27	0.76-1.48	28-86	29-41	-	-

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

#### 4. - BETWEEN NORTH AMERICA/CENTRAL AMERICA/CARIBBEAN AND SOUTH AMERICA

##### Description of Route Group

1. This route group includes routes between North America and/or Central America/Caribbean on the one hand and South America on the other hand. South America is here defined as Argentina, Bolivia, Brazil, Chile, Colombia (including San Andres Islands), Ecuador, Falkland Islands (Malvinas), French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela.

##### Distribution of City-Pairs by Distance

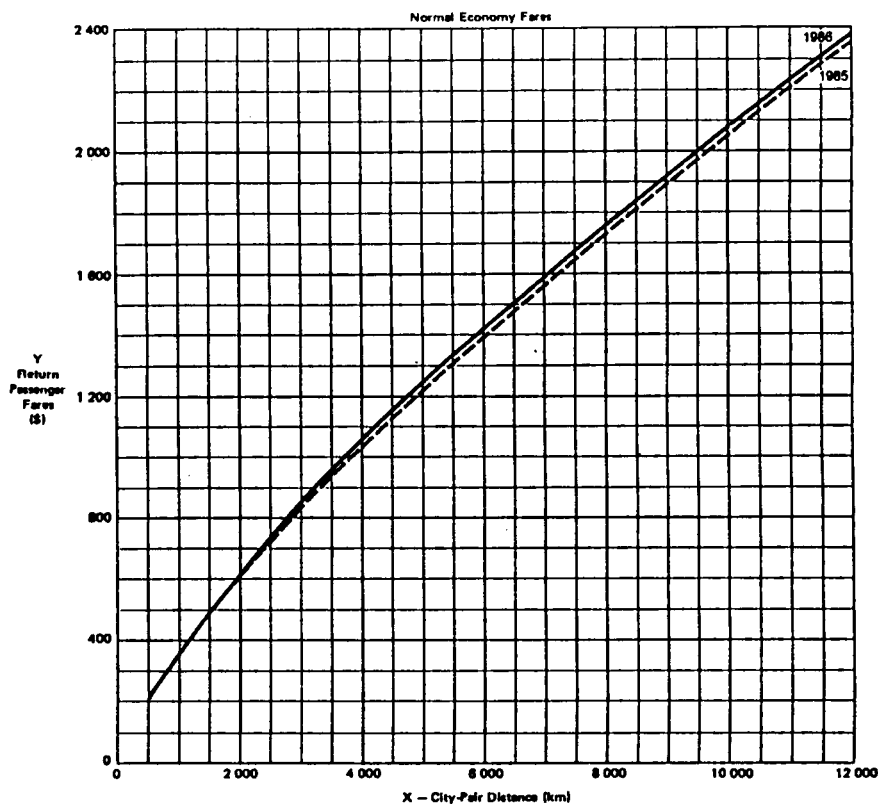
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 288 city-pairs in the route group. The average distance between them is 3 849 kilometres. Small shipment general cargo rates were obtained for 214 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 499	11	3.8	3.8
500 - 999	41	14.2	18.0
1000 - 1999	48	16.7	34.7
2000 - 3999	76	26.4	61.1
4000 - 7999	77	26.8	87.9
8000 - 11999	35	12.1	100.0
Total	288	100.0	-

Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	500	1000	2000	4000	8000	12000
Fares per P-Km in cents						
1986	21.5	18.2	15.4	13.0	11.0	10.0
(1985)	(21.6)	(18.3)	(15.3)	(12.9)	(10.9)	(9.9)
Percentage change (%) 1986/1985	-0.5	-0.2	0.2	0.5	0.8	1.0

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre remained virtually unchanged throughout the range of reference distances. Consequently, the estimated normal economy fares in this route group moved further below the world international average at shorter distances (to 20 per cent below at 500 km compared with 8 per cent below in September 1985) and moved just below the world average at longer distances (3 per cent below at 12 000 km compared with 2 per cent above in September 1985).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>2</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Rio de Janeiro - San Francisco <sup>3</sup>	11 890	2074	170-177	-	-	-	-	-	-
Montreal - Buenos Aires <sup>3</sup>	10 277	2009-2268 <sup>4</sup>	142-161	-	37-58	47-49	-	39	-
Santiago de Chile - New York City <sup>3</sup>	8 417	1250-2072 <sup>4</sup>	142-163	41-76	55	56-61	-	46	-
Los Angeles - Quito	5 626	1178	167	64-82	64	-	-	-	56-57
Panama City - Asunción <sup>3</sup>	4 918	1150-1376 <sup>4</sup>	124-148	65-70	-	-	-	-	-
Miami - Manaus <sup>3</sup>	3 877	1404-1446 <sup>4</sup>	163-168	57	40-42	65	-	33	-
Curacao - Lima	3 146	996	155	84	-	-	-	40-45	-
Caracas - Miami <sup>3</sup>	2 197	656-688 <sup>4</sup>	105-135 <sup>5</sup>	52-71	52	-	-	-	-
Bogota - Santo Domingo	1 688	646	140	43-67	-	-	-	-	-
Port-of-Spain - Georgetown	558	234	147	59	-	-	-	-	52

- Notes: 1. Through government orders, special fares existed for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares were between 25 and 40 per cent lower than the normal economy fare. Also available were fares for refugees, emigrants, clergymen and students at levels up to 50 per cent below the applicable normal economy fare.  
2. Fares calculated as a percentage of higher normal economy fare where applicable.  
3. Intermediate class fares (between first and economy) also available.  
4. "Normal" economy fares with restrictions on transfers and/or stopovers also available.  
5. First class excursion fares also available.

8. As illustrated by the sample, the most widely available special fare was, as in previous years, the excursion fare. Where available, these fares showed reductions from the related normal economy fares ranging from 16 to 59 per cent. A number of Apex and inclusive tour fares were also available. Restricted "normal" economy fares remained available for half the city-pairs in the sample. These fares have no booking or stay restrictions but limit the number of stopovers or transfers. "Circle fares" from the United States and Panama round South America were also available in September 1986. These are published fares which allow for travel by a continuous circuitous air route and include a number of free stopovers (a maximum of five out of Panama).

General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	500	1000	2000	4000	8000	12000
Rate in cents per tonne-km						
1986	219	170	131	102	79	68
(1985)	(214)	(168)	(131)	(103)	(81)	(70)
Percentage change (%)						
1986/1985	2.4	1.1	-0.1	-1.3	-2.5	-3.2

11. Between September 1985 and September 1986, the estimated general cargo rates for shipments of less than 45 kilogrammes increased by some 2 per cent at 500 kilometres and decreased by about 3 per cent at 12 000 kilometres. The estimated general cargo rates for small shipments in this route group moved down to the world international average at shorter distances (from 19 per cent above at 500 km in September 1985), and moved further below the world average at longer distances (19 per cent below at 12 000 km compared with 10 per cent below in September 1985).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes 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 a few city-pairs in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate <sup>1</sup>			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Rio de Janeiro - San Francisco	11 890	50	6.85	72	44	-	-
Montreal - Buenos Aires	10 277	47	7.02	76	50	-	-
Santiago de Chile - New York City	8 417	33-50	3.71-7.34	38-51	26-49	15-63	13
Los Angeles - Quito	5 626	40-50	5.90	73	54	-	-
Panama City - Asociación	4 918	50	5.83	75	49	66-76	2
Miami - Manaus	3 877	32-50	5.39	77	58	51	1
Curaçao - Lima	3 146	50	3.99	75	53	43-48	1
Caracas - Miami	2 197	50	2.18	72	47	10-56	7
Bogota - Santo Domingo	1 688	50	1.87	79	55	-	-
Port-of-Spain - Georgetown	558	50	1.52	74	53	46-49	2

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



## 5. - LOCAL SOUTH AMERICA

### Description of Route Group

1. This route group includes routes between or among the following States: Argentina, Bolivia, Brazil, Chile, Colombia (including San Andres Islands), Ecuador, Falkland Islands (Malvinas), French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela.

### Distribution of City-Pairs by Distance

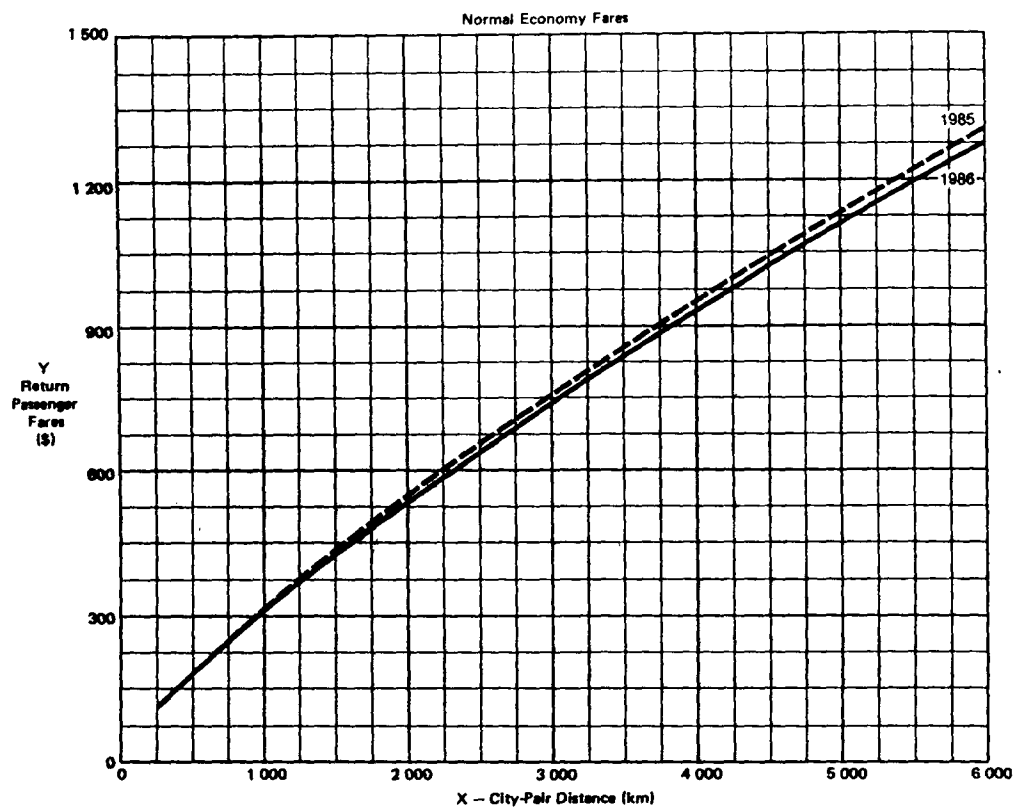
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 217 city-pairs in the route group. The average distance between them is 1 991 kilometres. Small shipment general cargo rates were obtained for 115 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	6	2.8	2.8
250 - 499	25	11.5	14.3
500 - 999	28	12.9	27.2
1000 - 1999	74	34.1	61.3
2000 - 3999	56	25.8	87.1
4000 - 5999	28	12.9	100.0
Total	217	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	250	500	1000	2000	4000	6000
Fares per P-Km in cents 1985 (1984)	20.3 (20.4)	17.6 (17.8)	15.4 (15.5)	13.4 (13.5)	11.6 (11.8)	10.7 (10.9)
Percentage change (%) 1985/1984	-0.4	-0.7	-1.1	-1.4	-1.7	-1.9

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre as expressed in U.S. dollars remained virtually unchanged at 250 kilometres and showed a decrease of just under 2 per cent at 6 000 kilometres. The estimated normal economy fares in this route group fell further below the estimated world international average both at shorter distances (from 29 to 39 per cent below at 250 km) and at longer distances (from 8 to 16 per cent below at 6 000 km).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

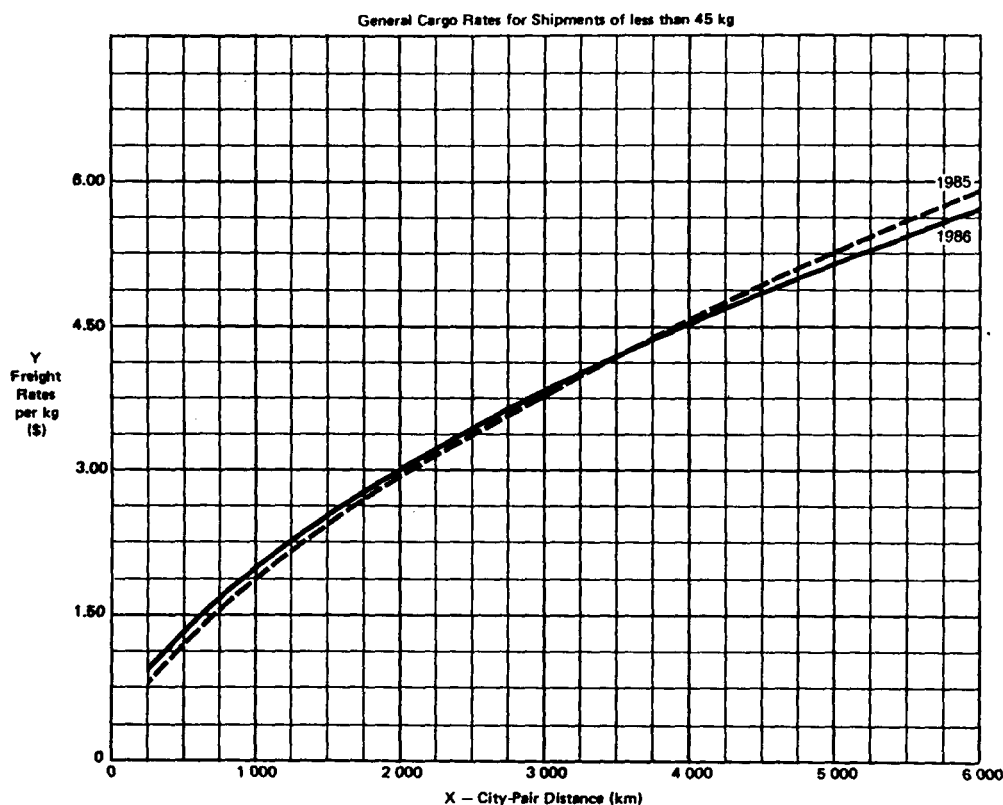
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>2</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Bogota - Buenos Aires	5 235	1186-1284	136-147	69-75	-	59	-	-	-
Santiago de Chile - Quito	3 785	824- 838	152-154	85	-	-	-	-	77
Gusyaquil - Asunción	3 697	902	153	-	-	-	-	-	-
Caracas - Lima <sup>3</sup>	2 921	860	145	80	51	-	-	47	-
La Paz - Sao Paulo	2 356	554- 770	158	-	-	-	-	58	-
Montevideo - Rio de Janeiro <sup>3</sup>	1 823	514	155	80	-	-	-	72	-
Manuas - Iquitos	1 481	460	145	86	-	-	-	77	-
Buenos Aires - Santiago de Chile <sup>3</sup>	1 143	356	143	88	-	-	-	-	-
Belem - Cayenne	814	280	162	-	-	-	-	-	-
Quito - Cali	460	220	146	55	-	-	-	-	66

Notes: 1. Through government orders, special fares existed for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares were between 15 and 40 per cent lower than the applicable normal economy fares. Also available from Ecuador to the rest of South America were student fares, 25 per cent below the applicable normal economy fare.  
2. Fares calculated as a percentage of the higher normal economy fare where applicable.  
3. Intermediate class fares (between first and economy) also available.

8. As illustrated by the sample, excursion fares were often available in this route group. Their level was generally between 12 and 20 per cent lower than the applicable normal economy fares, with substantially lower levels in two instances. Group fares were available for 6 of the 10 sample city-pairs in this route group. Also available in September 1986 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

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	250	500	1000	2000	4000	6000
Rate in cents per tonne-km						
1986	358	269	202	151	113	96
(1985)	(306)	(239)	(187)	(146)	(114)	(99)
Percentage change (%)						
1986/1985	17.3	12.5	7.9	3.5	-0.7	-3.1

11. Between September 1985 and September 1986 the general cargo rates for shipments of less than 45 kilogrammes showed an increase of about 17 per cent at 250 kilometres and a decrease of some 3 per cent at 6 000 kilometres. These changes in rate levels reflect more a change in the representation of the city-pairs than changes in the rates for city-pairs represented both in September 1985 and September 1986, which, in most cases, showed no change. The estimated cargo rates for small shipments in September 1986 remained among the highest in the world at distances below 3 000 kilometres (32 per cent above the world international average at 250 km), but fell below the world average at 6 000 kilometres (8 per cent below compared with 5 per cent above in September 1985).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Bogota - Buenos Aires	5 235	50	5.23	75	53	36-47	2
Santiago de Chile - Quito	3 785	50	4.71	77	34	21	1
Guayaquil - Asunción	3 697	50	5.67	75	49	37	1
Caracas - Lima	2 921	50	3.50	75	52	22-37	7
La Paz - Sao Paulo	2 356	35	3.76	77	53	-	-
Montevideo - Rio de Janeiro	1 823	22	1.76	74	52	23-32	3
Manaus - Iquitos	1 481	50	1.82	89	-	-	-
Buenos Aires - Santiago de Chile	1 143	35	2.09	72	53	14-44	5
Belem - Cayenne	814	50	1.60	76	52	-	-
Quito - Cali	460	50	1.27	83	65	-	-

## 6. - LOCAL EUROPE

### Description of Route Group

1. This route group includes all routes between or among the States of geographical Europe, Algeria, Azores, Canary Islands, Greenland, Iceland, Madeira, Malta, Morocco, Tunisia and Turkey.

### Distribution of City-Pairs by Distance

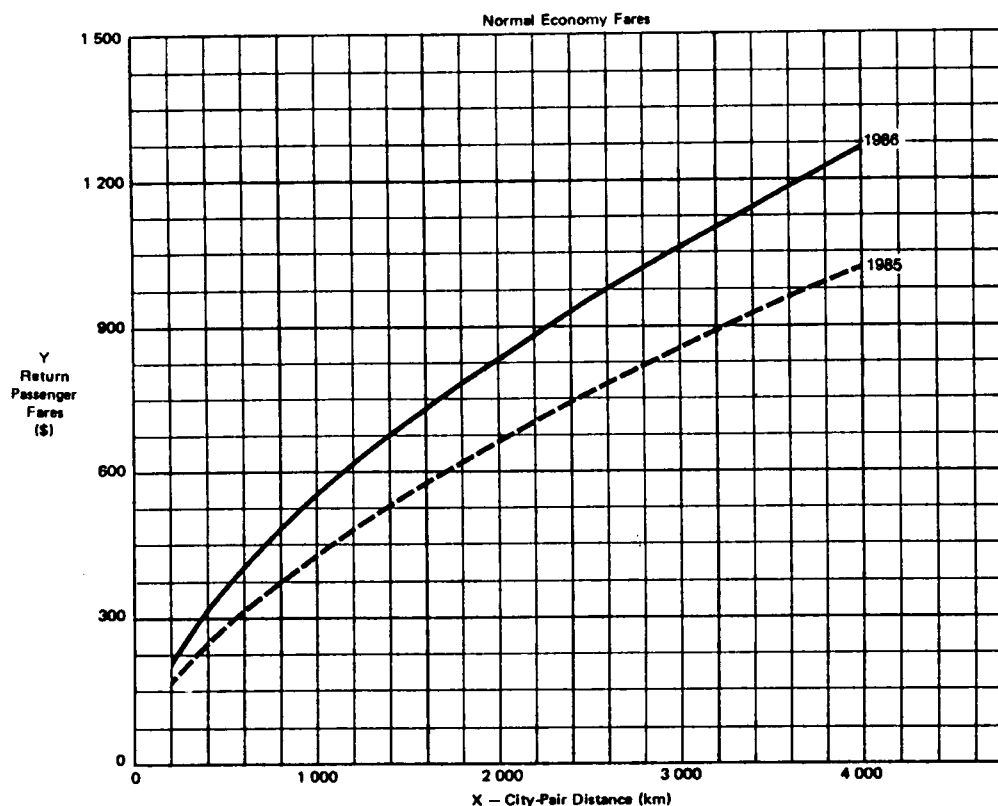
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 2 569 city-pairs in the route group. The average distance between them is 1 157 kilometres. Small shipment general cargo rates were obtained for 1 693 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	104	4.0	4.0
250 - 499	363	14.1	18.1
500 - 999	744	29.0	47.1
1000 - 1999	1 062	41.3	88.4
2000 - 3999	292	11.4	99.8
4000 - 5999	4	0.2	100.0
Total	2 569	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	250	500	1000	2000	4000
Fares per P-Km in cents	47.4	36.1	27.4	20.8	15.9
(1985)	(36.3)	(27.9)	(21.5)	(16.6)	(12.8)
Percentage change (%) 1986/1985	30.8	29.1	27.4	25.7	24.1

6. Between September 1985 and September 1986, the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed increases of some 31 per cent at 250 kilometres and 24 per cent at 4 000 kilometres. Normal economy fares expressed in local selling currencies showed an average increase of 6 per cent at 250 kilometres and 11 per cent at 4 000 kilometres. The difference in the changes shown for fares expressed in U.S. dollars compared with those for the same fares expressed in local selling currencies reflects the relatively large devaluation of the U.S. dollar against most European currencies between September 1985 and September 1986. In U.S. dollar terms, these average "local Europe" fares were by a substantial margin the highest in the world at shorter distances; in September 1986 they were 43 per cent higher than the world average at 250 kilometres and 34 per cent higher than the world average at 500 kilometres. However, they were closer to the world average at the longer distances (10 per cent above at 4 000 km).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX, APEX, Euro- budget	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Paris - Las Palmas <sup>3</sup>	2 827	893	133	60	41	-	40	-	41
Oujda - Frankfurt	1 899	574	138	65	-	-	-	-	-
London - Seville <sup>3</sup>	1 839	585	151	-	44-89	-	-	-	-
Zurich - Malta	1 381	829	140	71	56	-	-	38-45	-
Rome - Bucharest	1 147	727	150	67	50	-	-	37	-
Belgrade - Prague	740	312	136	65	-	44	-	30	-
Algiers - Tunis	626	170	134	-	-	-	-	-	-
Amsterdam - Birmingham <sup>3</sup>	444	363	150	-	36-85	-	-	-	-
Brussels - Strasbourg	348	283	150	70	60	-	-	50	-
Copenhagen - Gothenberg	240	261	140	-	28-55	-	28	47	-

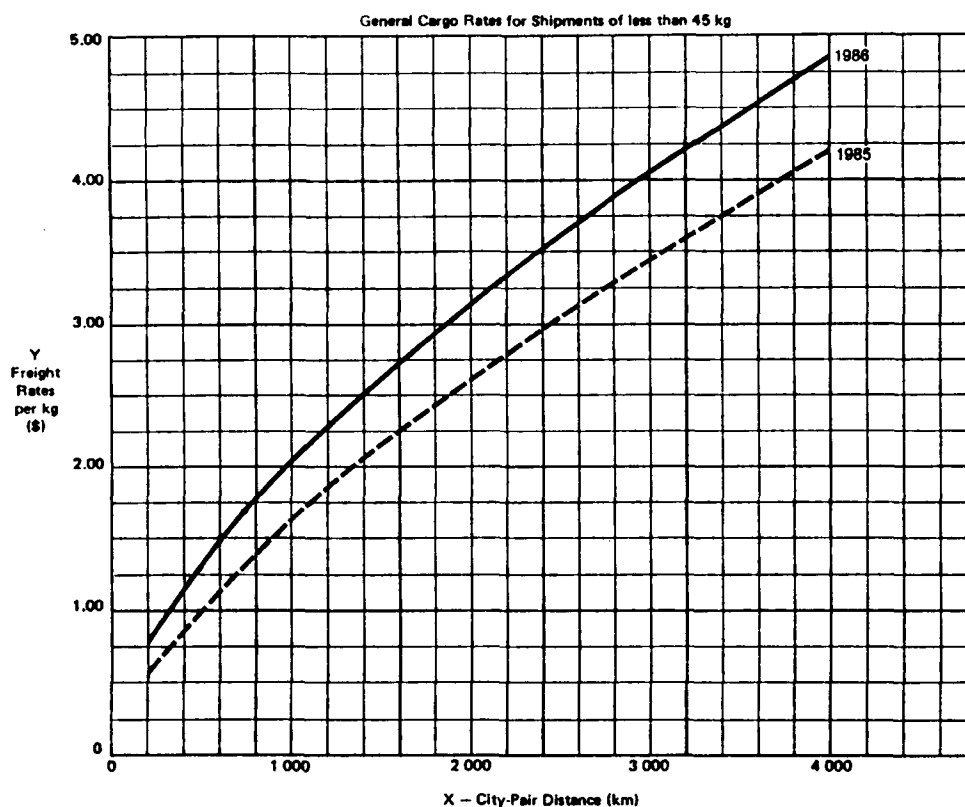
Notes: 1. Youth fares shown. Other special fares, in some cases introduced through government order, existed for migrants, seamen, students, senior citizens, spouses and families, at a level between 10 and 50 per cent below the normal economy fare.  
2. Special fares existed for ships' crews and for school parties, at a level between 25 and 70 per cent below the applicable normal economy fare.  
3. Intermediate class fares (between first and economy) also available.

8. As illustrated by the sample, in September 1986 excursion fares were available to the general public for a number of city-pairs in the route group; where available they were on average about 33 per cent lower than the related normal economy fares. "Pex" and "Eurobudget" fare types were available for seven city-pairs in the sample, with Apex fares also being available on 2 of these city-pairs. The levels of these types of fares ranged between 15 and 72 per cent below the applicable normal economy fare. Individual and group inclusive tour fares were available for a number of city-pairs in the sample.



### General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes		Distance in Km				
		250	500	1000	2000	4000
Rate in cents per tonne-km	1986	338	262	203	157	121
	(1985)	(253)	(203)	(163)	(131)	(105)
Percentage change (%)	1986/1985	33.6	28.9	24.3	20.0	15.7

11. Between September 1985 and September 1986 there were increases in the general cargo rates for small shipments ranging from almost 34 per cent at 250 kilometres to about 16 per cent at 4 000 kilometres. Expressed in local selling currencies, cargo rates showed average increases of 8 per cent at 250 kilometres and about 2 per cent at 4 000 kilometres. As for fares, the significant difference between the changes in the rate levels when expressed in U.S. dollars and those when the rates are expressed in local selling currencies reflects the devaluation of the U.S. dollar against most European currencies between September 1985 and September 1986. In U.S. dollar terms, the rates moved further above the world average at short distances (from 10 to 25 per cent above at 250 km) but remained close to the world average at longer distances (3 per cent above at 4 000 km).

12. Between September 1985 and September 1986, the spread of individual under 45 kilogramme general cargo rates above and below the over-all average for this route group increased significantly in part because changes in rate levels in many countries did not fully compensate for the relatively large decrease in the value of the U.S. dollar against most of the European currencies. Thus in September 1986 cargo rates in Europe were less dependent on distance and more dependent on other factors than in September 1985.

### Other Cargo Rates

13. The table below shows for September 1986 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 kilogrammes (except for routes from the United Kingdom where the "small shipment" breakpoint was 100 kg). Specific commodity rates were available on fewer routes than in 1985, although an average reduction of around 45 per cent on the general cargo rates for small shipments was maintained.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Paris - Las Palmas	2 827	47	3.38	75	-	32-37	2
Oujda - Frankfurt	1 899	45	1.45	75	-	-	-
London - Seville <sup>1</sup>	1 839	50	2.47	-	-	-	-
Zurich - Malta	1 381	60	3.19	75	-	-	-
Rome - Bucharest	1 147	60	1.90	75	-	42-51	2
Belgrade - Prague	740	22	0.81	75	-	32-45	3
Algiers - Tunis	626	51	0.49	75	-	40	1
Amsterdam - Birmingham	444	54	1.47	76	-	45-100	14
Brussels - Strasbourg	348	51	1.09	77	-	45-57	13
Copenhagen - Gothenberg	240	55	0.74	75	-	-	-

Note: 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.

## 7. - LOCAL MIDDLE EAST

### Description of Route Group

1. This route group includes all 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.

### Distribution of City-Pairs by Distance

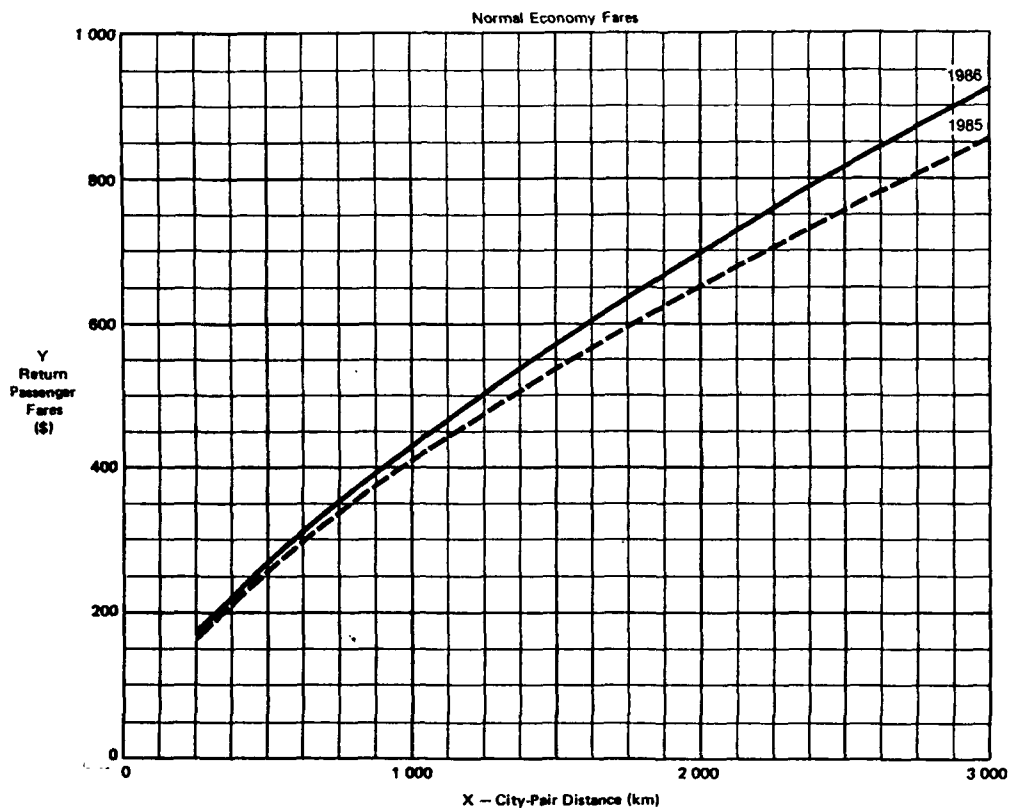
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 321 city-pairs in the route group. The average distance between them is 1 296 kilometres. Small shipment general cargo rates were obtained for 279 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	22	6.9	6.9
250 - 499	45	14.0	20.9
500 - 999	58	18.1	39.0
1000 - 1999	126	39.2	78.2
2000 - 2999	69	21.5	99.7
3000 - 3999	1	0.3	100.0
Total	321	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre		Distance in Km				
		250	500	1000	2000	3000
Fares per P-Km in cents	1986	32.4	26.4	21.4	17.4	15.5
	(1985)	(31.8)	(25.5)	(20.4)	(16.3)	(14.3)
Percentage change (%)	1986/1985	1.7	3.5	5.4	7.2	8.3

6. Between September 1985 and September 1986, the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed an increase of about 2 per cent at 250 kilometres and 8 per cent at 3 000 kilometres. As a result of the strengthening of the U.S. dollar with respect to several Middle East currencies, in terms of local selling currencies, the normal economy fares showed larger increases ranging from about 4 per cent at 250 kilometres to 16 per cent at 3 000 kilometres. In terms of U.S. dollars the estimated normal economy fares in September 1986 fell close to the world international average fare level at all the reference distances concerned.

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Sanaa - Damascus	2 200	489	140	65	-	-	-	-	-
Dhahran - Khartoum	2 177	623	140	76	-	-	60	-	-
Bahrain - Larnaca	1 884	792	138	64	-	54	-	-	-
Cairo - Riyadh	1 625	908	138 <sup>2</sup>	66	-	-	60	-	-
Baghdad - Sharjah	1 394	506	134	63	-	-	60	-	-
Jeddah - Aden	1 144	579	140	66	-	-	60	-	-
Kuwait - Jeddah	851	384	140	70-77	-	-	60	-	-
Muscat - Doha	729	307	154	52-70	-	-	-	-	-
Shiraz - Abu Dhabi	597	344	150	-	-	-	-	-	-
Amman - Beirut	212	149	137	-	-	-	60	-	-

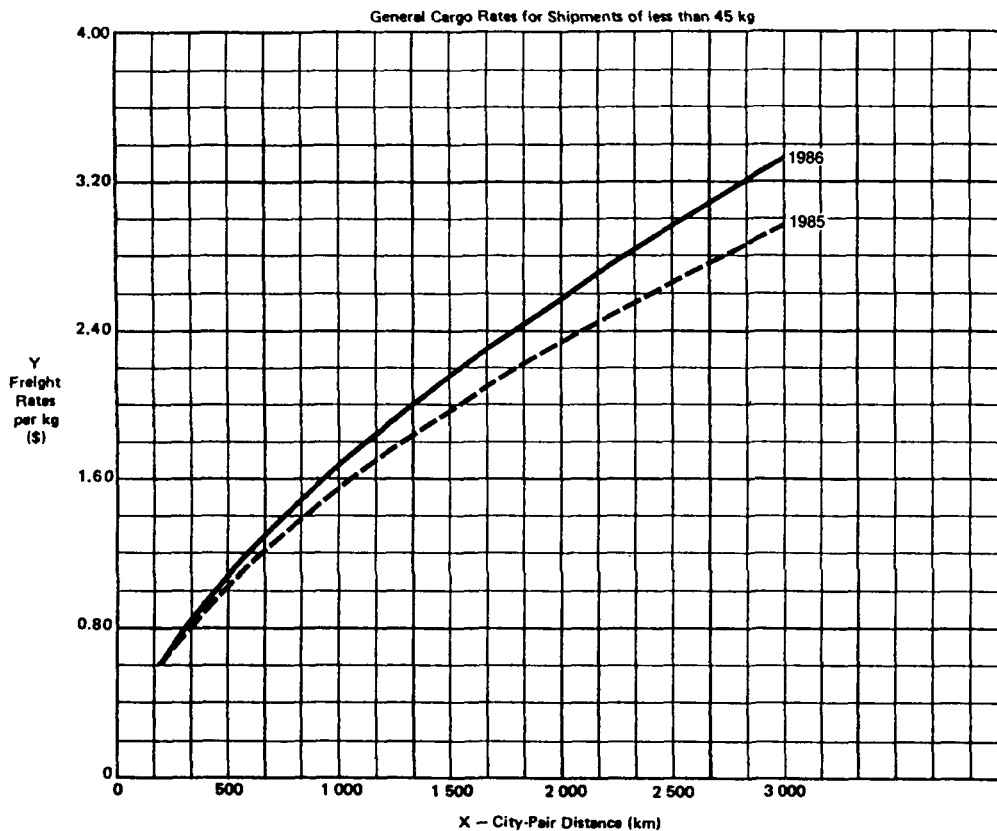
Notes: 1. Youth fares shown. Other special fares, in some cases introduced through government orders, existed for senior citizens, teachers, seamen, students, families and pilgrims were widely available for travel between specific countries in the Middle East, with discounts ranging between 20 and 50 per cent off the applicable normal economy fare.

2. First class excursion fare also available.

8. As illustrated by the sample, the only special fares frequently available to the general public remained the excursion fares, which are generally only restrictive with respect to their validity in time. Where available, the excursion fare between two cities was on average about one-third lower than the normal economy fare. While there is a general lack of other special fares available to the general public for travel within the Middle East, there are several preferential fares available for certain categories of passengers (for example, youths, teachers, students, pilgrims, etc.).

### General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	250	500	1000	2000	3000	
Rate in cents per tonne-km	1986 (1985)	274 (268)	213 (203)	166 (154)	129 (117)	111 (99)
Percentage change (%)	1986/1985	2.3	4.9	7.6	10.4	12.0

11. Between September 1985 and September 1986 the general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed an increase of about 2 per cent at 250 kilometres and of 12 per cent at 3 000 kilometres. As a result of the strengthening of the U.S. dollar with respect to several Middle East countries, in terms of local selling currencies the general cargo rates for small shipments showed larger increases, of about 5 per cent at 250 kilometres and 20 per cent at 3 000 kilometres. In U.S. dollar terms, general cargo rates for the shorter reference distances in September 1986 fell to just above the world average (from 25 to 1 per cent above at 250 km) but they remained at the same level relative to the world average at the longer distances (12 per cent below at 3 000 kilometres).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes. This general cargo rate for shipments of more than 45 kilogrammes 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 70 per cent on the general cargo rates for small shipments.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Sanaa - Damascus	2 200	9	1.84	75	-	29-55	4
Dhahran - Khartoum	2 177	20	2.40	75	-	58	1
Bahrain - Larnaca	1 884	27	2.81	75	-	30-50	2
Cairo - Riyadh	1 625	29	3.47	75	-	10-43	19
Baghdad - Sharjah	1 394	21	2.33	75	-	-	-
Jeddah - Aden	1 144	20	2.15	75	-	-	-
Kuwait - Jeddah	851	21	1.32	75	-	-	-
Muscat - Doha	729	15	1.38	75	-	-	-
Shiraz - Abu Dhabi	597	21	1.22	74	-	30-44	5
Amman - Beirut	212	20	0.63	78	-	-	-

## 8. - LOCAL AFRICA

### Description of Route Group

1. This route group includes all international routes within the area comprised of the continent of Africa and offshore islands but excluding Algeria, Azores, Canary Islands, Egypt, Madeira, Malta, Morocco, Sudan and Tunisia.

### Distribution of City-Pairs by Distance

2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 549 city-pairs in the route group. The average distance between them is 1 707 kilometres. Small shipment general cargo rates were obtained for 385 city-pairs.

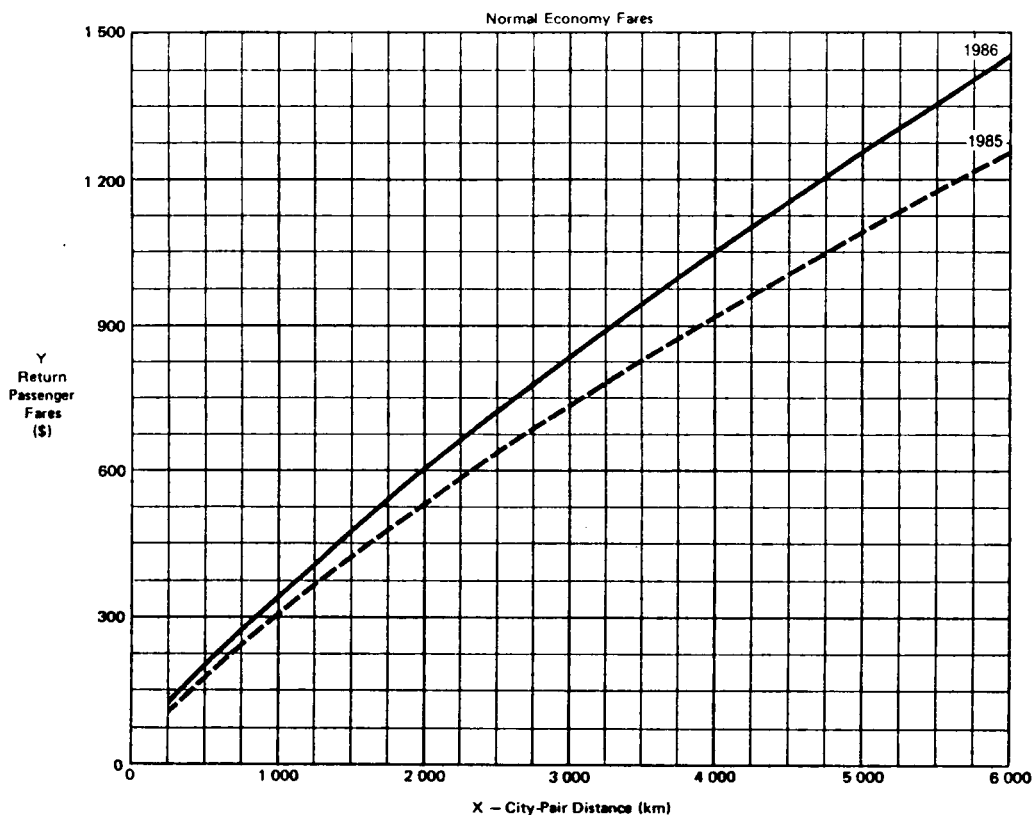
3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	33	6.0	6.0
250 - 499	55	10.0	16.0
500 - 999	122	22.2	38.2
1000 - 1999	163	29.7	67.9
2000 - 3999	136	24.8	92.7
4000 - 5999	32	5.8	98.5
6000 - 7999	8	1.5	100.0
Total	549	100.0	-



Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	250	500	1000	2000	4000	6000
Fares per P-Km in cents						
1986	22.7	19.8	17.3	15.1	13.1	12.1
(1985)	(20.7)	(17.8)	(15.4)	(13.3)	(11.4)	(10.5)
Percentage change (%) 1986/1985	9.7	11.0	12.3	13.6	15.0	15.8

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed increases ranging between 10 per cent at 250 kilometres and 16 per cent at 6 000 kilometres. In terms of local selling currencies the normal economy fares showed increases ranging from some 15 per cent at 250 kilometres to around 13 per cent at 6 000 kilometres. The varying differences over the range of distances between the changes in fare levels expressed in U.S. dollars and those expressed in local selling currencies reflect the varying fortunes of the U.S. dollar against African currencies (a devaluation against the CFA Franc used by most of the West African Francophone countries and an increase in value against most of the currencies of the other African countries). In terms of the U.S. dollar, fares for this route group relative to the world international average moved further below the world average (32 per cent below at 250 km compared with 27 per cent below in September 1985) but moved closer to the world average at the longer distances (to 5 per cent below at 6 000 km compared with 11 per cent below in September 1985).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

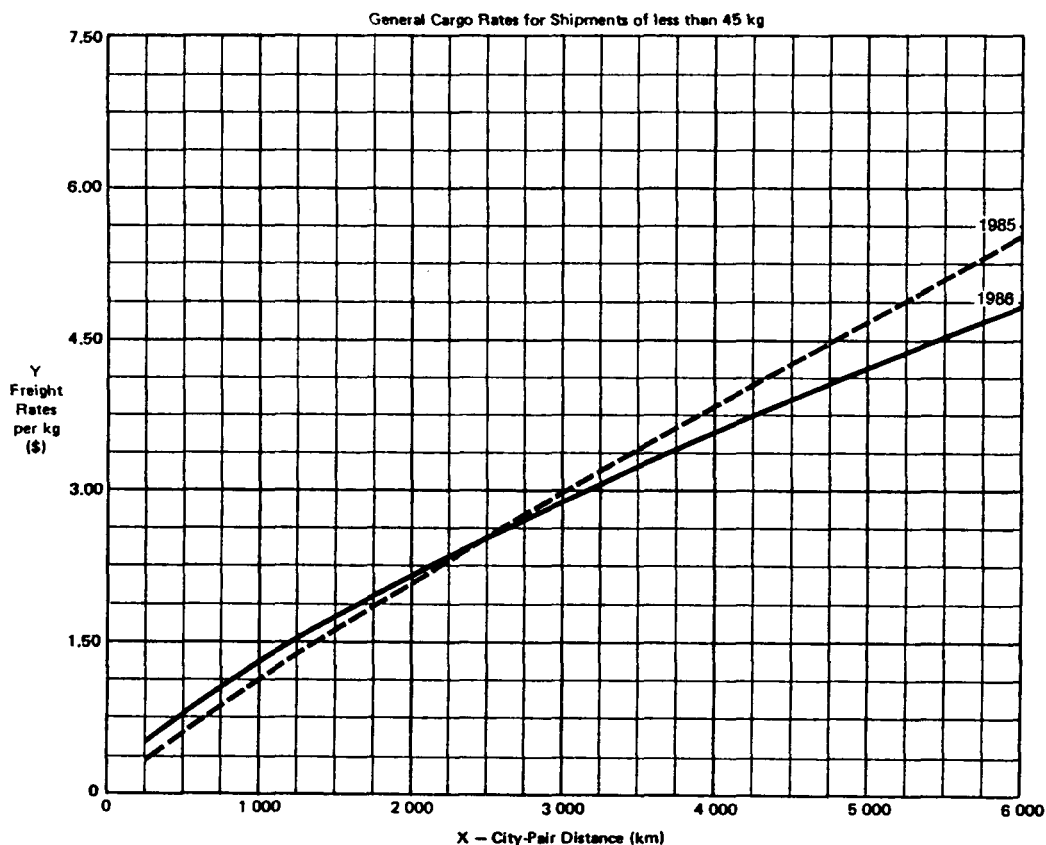
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Addis Ababa - Lagos	3 915	1240	135	69	-	-	-	-	-
Nairobi - Johannesburg	2 913	625	145	81	-	55	-	-	-
Lomé - Kinshasa	1 967	699	135	-	-	-	-	-	-
Dar-es-Salaam - Lusaka	1 505	204	145	61	-	-	-	-	-
Monrovia - Dakar	1 210	562	135	70	-	-	-	-	-
Johannesburg - Harare	959	263	145	70	-	-	-	-	-
Antananarivo - St. Denis	871	316	124	75	-	-	-	60	-
Abidjan - Cotonou	710	240	135	70	-	75	-	50	-
Miamey - Ouagadougou	422	173	135	70	-	75	-	50	-
Conakry - Freetown	129	86	135	70	-	-	-	-	-

Notes: 1. Special fares, in some cases introduced through government order, existed for seamen, students, youths, senior citizens, war invalids, families and African diplomats. These fares were at levels between 25 and 50 per cent below the applicable normal fares.  
2. Special fares existed throughout this route group for sportsmen, artists and other affinity groups at 10 to 40 per cent below the applicable normal economy fare.

8. As illustrated by the sample, excursion fares were widely available in 1986 with a level some 30 per cent lower on average than the related normal economy fares. A few individual and group inclusive tour 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 (for example, students, families, diplomats, artists, sportsmen, etc.).

General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes		Distance in Km					
		250	500	1000	2000	4000	6000
Rate in cents per tonne-km	1986 (1985)	189 (132)	157 (122)	130 (113)	108 (104)	90 (96)	81 (92)
Percentage change (%)	1986/1985	42.8	28.5	15.6	4.0	-6.4	-12.0

11. Between September 1985 and September 1986 the estimated general cargo rates in U.S. dollars for shipments of less than 45 kilogrammes showed an increase of almost 43 per cent at 250 kilometres, but a decrease of 12 per cent at 6 000 kilometres. In local selling currencies, general cargo rates showed an increase of 36 per cent at 250 kilometres and a decrease of about 14 per cent at 6 000 kilometres. The differences between the changes in local selling currency and those in U.S. dollars are not similar to those shown for the passenger fares because of the different city-pair mix between the two samples and because in a number of African countries the U.S. dollar is used as the local selling currency for cargo rates. Despite the relatively large increase in rates at the shorter distances, in U.S. dollar terms general cargo rates for this route group remained among the lowest in the world (30 per cent below the world international average at 250 km and 22 per cent below at 6 000 km).

12. Between September 1985 and September 1986, the spread of the under 45 kilogramme general cargo rates above and below the over-all average increased significantly. Thus in September 1986 these rates were less dependent on distance and more dependent on other factors than in September 1985.

#### Other Cargo rates

13. The table below shows for September 1986 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 for other than small shipments generally available remained those with a "breakpoint" of 45 kilogrammes, which were around 25 per cent lower than the general cargo rates for small shipments (on routes to and from Johannesburg shown in the sample the first breakpoint for general cargo rates was 100 kg). 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Addis Ababa - Lagos	3 915	39	3.75	75	-	25-65	6
Nairobi - Johannesburg <sup>1</sup>	2 913	26	2.53	-	-	19-42	5
Lomé - Kinshasa	1 967	32	2.03	75	-	64-74	1
Dar-es-Salaam - Lusaka	1 505	9	0.70	75	-	20-54	13
Monrovia - Dakar	1 210	43	2.46	75	-	37	2
Johannesburg - Harare <sup>1</sup>	959	10	0.66	-	50	25-60	7
Antananarivo - St. Denis	871	24	1.05	75	-	-	-
Abidjan - Cotonou	710	32	0.96	75	-	-	-
Niamey - Ouagadougou	422	32	0.61	73	-	-	-
Conakry - Freetown	129	39	0.56	75	-	-	-

Note: 1. The first breakpoint for general cargo rates for these city-pairs is 100 kg (not 45 kg).

## 9. - BETWEEN EUROPE AND MIDDLE EAST

### Description of Route Group

1. This route group includes all international routes between these two geographical areas. Europe is defined as including geographical Europe, Algeria, Azores, Canary Islands, Greenland, Iceland, Madeira, Malta, Morocco, Tunisia and Turkey. The Middle East includes 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.

### Distribution of City-Pairs by Distance

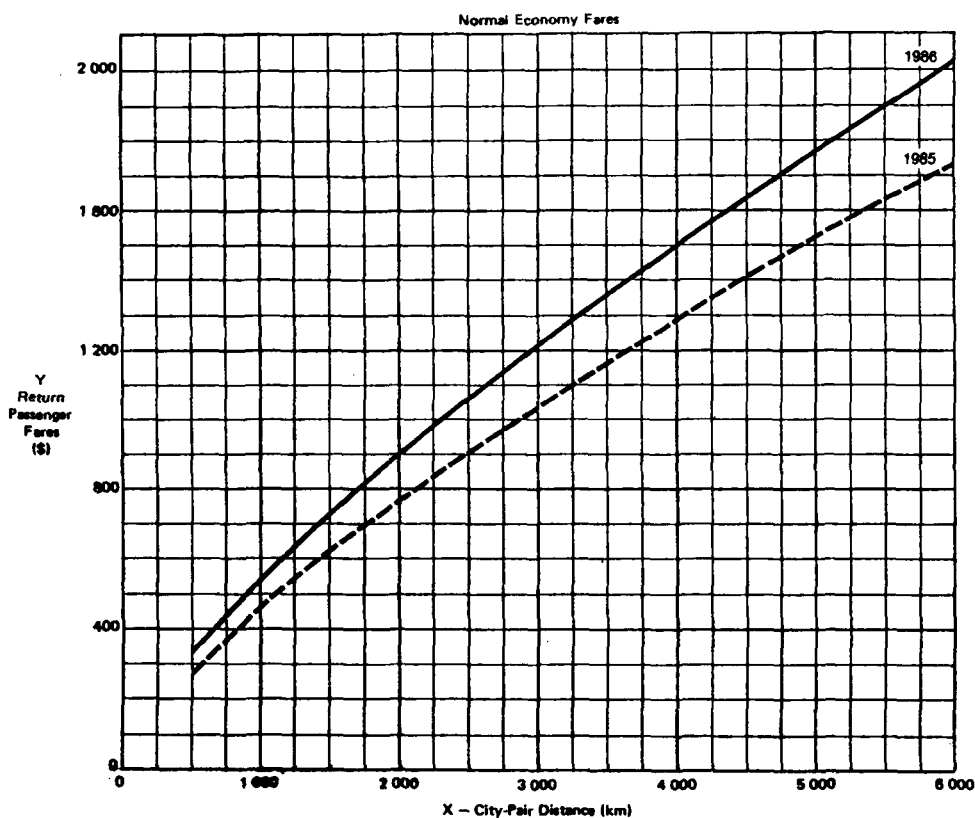
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 712 city-pairs in the route group. The average distance between them is 3 351 kilometres. Small shipment general cargo rates were obtained for 554 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
250 - 499	2	0.3	0.3
500 - 999	24	3.4	3.7
1000 - 1999	64	9.0	12.7
2000 - 3999	389	54.6	67.3
4000 - 5999	228	32.0	99.3
6000 - 7999	5	0.7	100.0
Total	712	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	500	1000	2000	4000	6000
Fares per P-Km in cents					
1986	32.7	27.2	22.6	18.8	16.9
(1985)	(27.5)	(23.0)	(19.3)	(16.2)	(14.6)
Percentage change (%) 1986/1985	18.9	18.0	17.2	16.3	15.8

6. Between September 1985 and September 1986 the estimated normal economy fare per passenger-kilometre expressed in U.S. dollars showed an increase of 19 per cent at 500 kilometres and of some 16 per cent at 6 000 kilometres. When expressed in local selling currencies, normal economy fares showed average increases of about 26 per cent at 500 kilometres and of only 3 per cent at 6 000 kilometres. The increase at the shorter distances reflects a decline in value relative to the U.S. dollar of the local selling currencies of European countries in the Eastern Mediterranean as well as of many countries in the Middle East. In contrast, at longer distances the increases in local selling currency fares are much lower than those for fares expressed in U.S. dollars due to a substantial decline in the value of the U.S. dollar against the local selling currencies of other European countries. In terms of U.S. dollars, estimated normal economy fares in the route group in September 1986 remained among the highest in the world at the reference distances concerned (21 per cent above the world international average at 500 km and 33 per cent above at 6 000 km).

7. Between September 1985 and September 1986 there was a continuation of a trend started in 1982 of a broadening of the spread in actual fares above and below the estimated average, indicating that fares in this route group remained less dependent on distance and more dependent on other factors.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

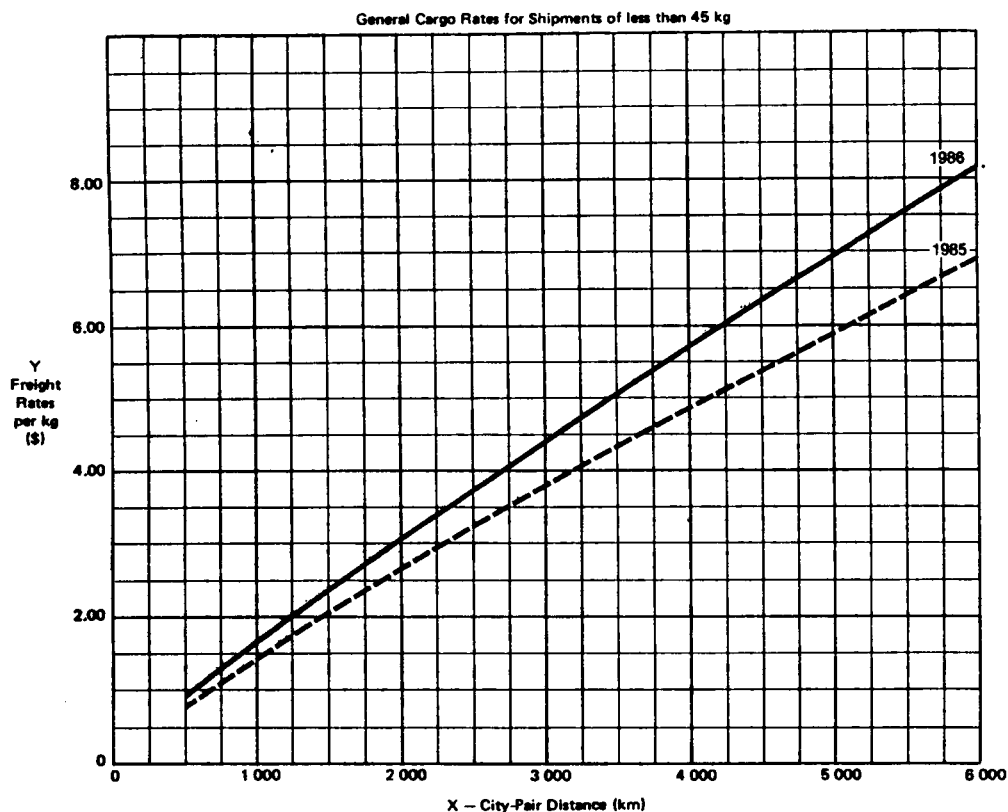
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
London - Abu Dhabi <sup>3</sup>	5 496	1336	213	97	-	-	-	-	-
Dubai - Brussels	5 147	1836	144	68	-	-	-	-	-
Zurich - Dhahran	4 315	2008	142	67	-	-	-	-	-
Jeddah - Algiers	3 849	1162	137	68	-	-	-	47	-
Amsterdam - Tel Aviv	3 314	1427	146	51-61	35	-	37	34	48
Cairo - Frankfurt	2 921	1512	145	68	-	-	-	-	-
Warsaw - Damascus	2 464	772	147	68	-	-	-	-	-
Tehran - Athens	2 462	1079	149	75	-	-	-	-	-
Sofia - Baghdad	2 099	1213	139	68	-	-	-	-	-
Amman - Istanbul	1 188	522	129	67	-	-	-	-	-

Notes: 1. Special fares existed for seamen, families, students and youths (and also for pilgrims to Jeddah). These fares were at levels between 25 and 55 per cent below the level of the applicable normal economy fare.  
2. Special fares were available throughout this route group for ships' crews at 35 per cent below the level of the normal economy fare.  
3. Intermediate class fares (between first and economy) also available.

9. As illustrated by the sample, excursion fares remained widely available to the general public in 1986 on routes between Europe and the Middle East, at levels around 30 per cent lower on average than the applicable normal economy fares. Group fares were available to the general public for 2 of the 10 city-pairs in the sample.

#### General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes		Distance in Km				
		500	1000	2000	4000	6000
Rate in cents per tonne-km	1986	179	166	154	142	136
	(1985)	(154)	(142)	(131)	(121)	(115)
Percentage change (%)	1986/1985	16.1	16.6	17.1	17.6	17.9



12. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed increases ranging between 16 per cent at 500 kilometres and 18 per cent at 6 000 kilometres. General cargo rates expressed in local selling currencies however showed increases ranging between about 34 per cent at 500 kilometres, but only 3 per cent at 6 000 kilometres. As for fares, the difference between the changes in rate level when expressed in U.S. dollars and those in local selling currencies reflect the varying fortunes of the U.S. dollar against the local selling currencies of the countries included in this area (see paragraph 6). In U.S. dollar terms, the general cargo rates for this route group at the shorter distances dropped further below the world international average in September 1986 (reaching 19 per cent below at 500 km) but remained well above the world average at longer distances (31 per cent above at 6 000 km). As with passenger fares (paragraph 7), general cargo rates in this route group continued to be less dependent on distance and more dependent on other factors than rates in other areas.

### Other Cargo Rates

13. The table below shows for September 1986 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 kilogrammes 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), introduced in 1983, were available for 3 of the 10 city-pairs in the sample. As in previous years, a large number of specific commodity rates were also available in this route group, at levels some 60 per cent lower on average than the general cargo rates for small shipments.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
London - Abu Dhabi <sup>1</sup>	5 496	67	6.94	-	37	53-55	6
Dubai - Brussels	5 147	50	7.46	75	-	22-33	6
Zurich - Dhahran	4 315	72	9.40	75	24	17-31	8
Jeddah - Algiers	3 849	47	4.07	75	26	53	1
Amsterdam - Tel Aviv	3 314	65	5.17	75	-	34-100	10
Cairo - Frankfurt	2 921	58	4.46	75	-	20-45	11
Warsaw - Damascus	2 464	25	2.94	75	-	29	1
Tehran - Athens	2 462	46	4.88	75	-	49	1
Sofia - Baghdad	2 099	48	5.48	75	-	-	-
Amman - Istanbul	1 188	45	2.27	75	-	-	-

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

## 10. - BETWEEN EUROPE/MIDDLE EAST AND AFRICA

### Description of Route Group

1. This route group includes all routes between, on the one hand, the geographical areas of Europe and/or Middle East and, on the other hand, the continent of Africa and offshore islands. Europe is defined as including geographical Europe, Algeria, Azores, Canary Islands, Greenland, Iceland, Madeira, Malta, Morocco, Tunisia and Turkey. The Middle East includes 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.

### Distribution of City-Pairs by Distance

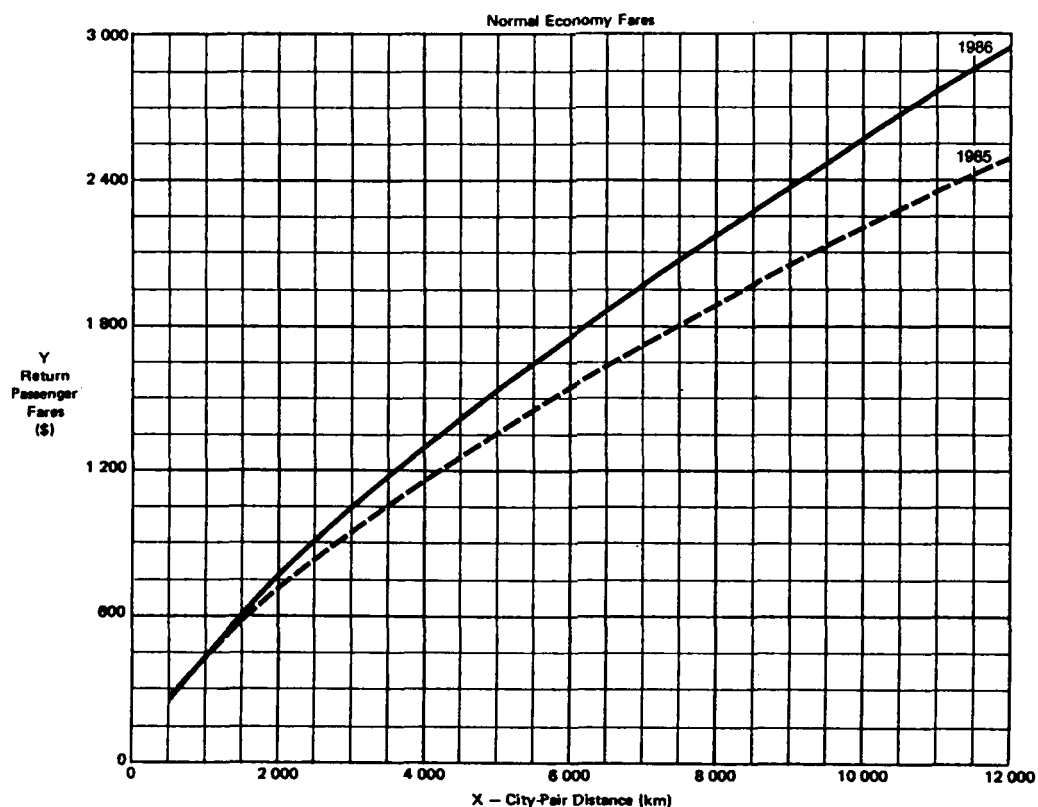
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 730 city-pairs in the route group. The average distance between them is 4 967 kilometres. Small shipment general cargo rates were obtained for 595 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	4	0.5	0.5
250 - 499	4	0.5	1.0
500 - 999	15	2.1	3.1
1000 - 1999	62	8.5	11.6
2000 - 3999	150	20.6	32.2
4000 - 7999	415	56.9	89.1
8000 - 11999	80	10.9	100.0
Total	730	100.0	-

Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	500	1000	2000	4000	8000	12000
Fares per P-Km in cents 1986 (1985)	26.9 (27.3)	22.7 (22.1)	19.2 (17.9)	16.2 (14.5)	13.6 (11.8)	12.3 (10.4)
Percentage change (%) 1986/1985	-1.2	2.8	6.9	11.2	15.6	18.3

6. Between September 1985 and September 1986 the estimated normal economy fare per passenger-kilometre expressed in U.S. dollars showed a decrease of about 1 per cent at 500 kilometres and an increase of about 18 per cent at 12 000 kilometres. In terms of local selling currencies these fares showed increases of 9 per cent at 500 kilometres and about of 7 per cent at 12 000 kilometres. The significant differences shown in the changes in fare levels when expressed in U.S. dollars compared with those expressed in local selling currencies reflect varying changes in the relationship between the U.S. dollar and dollar-linked currencies with many of the currencies of the countries covered by this route group. In September 1986 the estimated normal economy fare in U.S. dollar terms for this route group moved down to the world international average at short distances (from 16 per cent above the world average at 500 km) but rose further above the world average at the longer distances (from 7 per cent above to 19 per cent above at 12 000 km).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

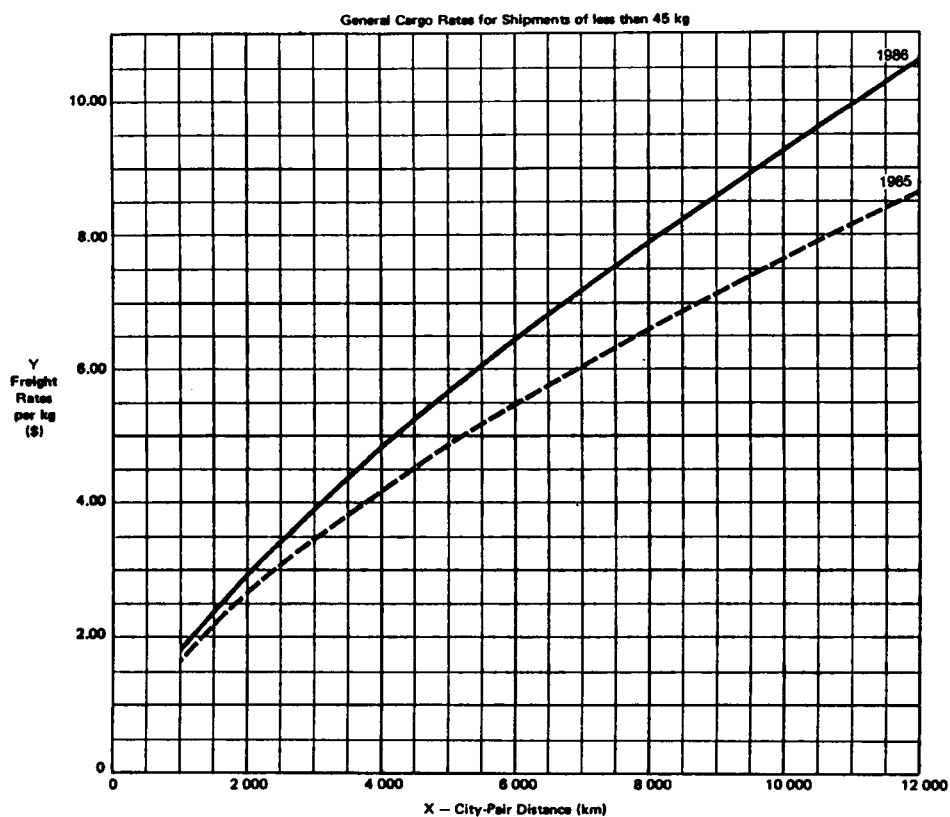
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX, APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Moscow - Maputo <sup>3</sup>	9 627	3428	168	67-78	-	-	-	-	-
London - Johannesburg <sup>3</sup>	9 056	1724 <sup>4</sup>	216	87-99	63	-	-	-	-
Nairobi - London <sup>3</sup>	8 285	1259	153	54-67	44	-	-	-	-
Johannesburg - Tel Aviv <sup>3</sup>	6 624	859	156	74	62	-	-	-	-
Kinshasa - Brussels <sup>3</sup>	6 238	1783	139	64	54	-	-	-	-
Rome - Nairobi <sup>3</sup>	5 393	1912	160	74	-	-	40	-	-
Abidjan - Paris <sup>3</sup>	4 886	1563	151	67	55	75	-	-	-
Khartoum - Kamp	2 625	769	128	-	-	-	-	-	-
Addis Ababa - Jeddah	1 394	639	145	65-75	-	-	-	-	-
Tunis - Tripoli	536	133	138	-	-	-	-	-	-

- Notes:**
1. Special fares existed throughout this route group for seamen, while for a few city-pairs fares were also available for spouses, families, teachers, students, youths, African diplomats, missionaries, senior citizens, war invalids, ethnic groups and emigrants. All these fares were at levels between 15 and 60 per cent below the normal economy fare.
  2. Special fares were available throughout this route group for ships' crews, sportsmen, artists and affinity groups at levels between 10 and 40 per cent below the normal economy fare.
  3. Intermediate class fares (between first and economy) also available.
  4. "Special" economy class fares, with restrictions on transfer and no stopovers allowed, also available.

8. As illustrated by the sample, excursion fares were fairly widely available in 1986, with levels averaging some 30 per cent lower than the applicable normal economy fare. For 5 city-pairs Apex- and Pex-type fares were also available. In September 1986 intermediate class fares (between first and economy class) were available on all city-pairs between Africa and Europe shown in the sample, compared with only 3 of these city-pairs in September 1985.

General Cargo Rates for Small Shipments

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	500	1000	2000	4000	8000	12000
Rate in cents per tonne-km 1986	217	178	147	121	99	89
(1985)	(211)	(167)	(132)	(105)	(83)	(72)
Percentage change (%) 1986/1985	2.6	6.7	11.0	15.4	20.0	22.8

11. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed an increase of about 3 per cent at 500 kilometres, and of almost 23 per cent at 12 000 kilometres. In local selling currencies cargo rates showed increases between 8 and 9 per cent at all the reference distances concerned. The significant differences shown in the change in rate levels when expressed in U.S. dollars with the same rates expressed in local selling currencies reflect varying changes in the relationship between the U.S. dollar and dollar-linked currencies with many of the currencies of the countries covered by this route group. In U.S. dollar terms, the estimated cargo rates for small shipments in this route group moved closer to the world international average (from 17 per cent above to 1 per cent below at 500 km and from 8 per cent below to 6 per cent above at 12 000 km).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes, which were in general around 25 per cent lower than the general cargo rates for small shipments, with substantially lower levels in a few cases (on routes to and from Johannesburg shown in the sample the first breakpoint for general cargo rates was 100 kg). 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) became available for one city-pair in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate <sup>1</sup>			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Moscow - Maputo	9 627	65	14.37	75	-	-	-
London - Johannesburg <sup>2</sup>	9 056	67	9.15	-	-	55-75	10
Harare - London	8 285	23	3.42-3.70	44-75	28	19-25	3
Johannesburg - Tel Aviv <sup>2</sup>	6 624	23	2.92	-	-	30	1
Kinshasa - Brussels	6 238	46-57	3.89-5.83	50-75	-	25-57	12
Rome - Nairobi	5 393	67	7.77	75	-	30-58	13
Abidjan - Paris	4 886	46	4.39	75	63	15-45	17
Khartoum - Kano	2 625	19	1.44	75	-	34	1
Addis Ababa - Jeddah	1 394	39	2.59	76	-	13-48	6
Tunis - Tripoli	536	27	0.77	75	-	33-59	9

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

2. The first breakpoint for general cargo rates for these city-pairs is 100 kg (not 45 kg).

11. - NORTH ATLANTIC

Description of Route Group

1. This route group includes routes between Canada and/or the United States (excluding Puerto Rico and the Virgin Islands) on the one hand and Europe and/or Middle East and/or Africa on the other hand.

Distribution of City-Pairs by Distance

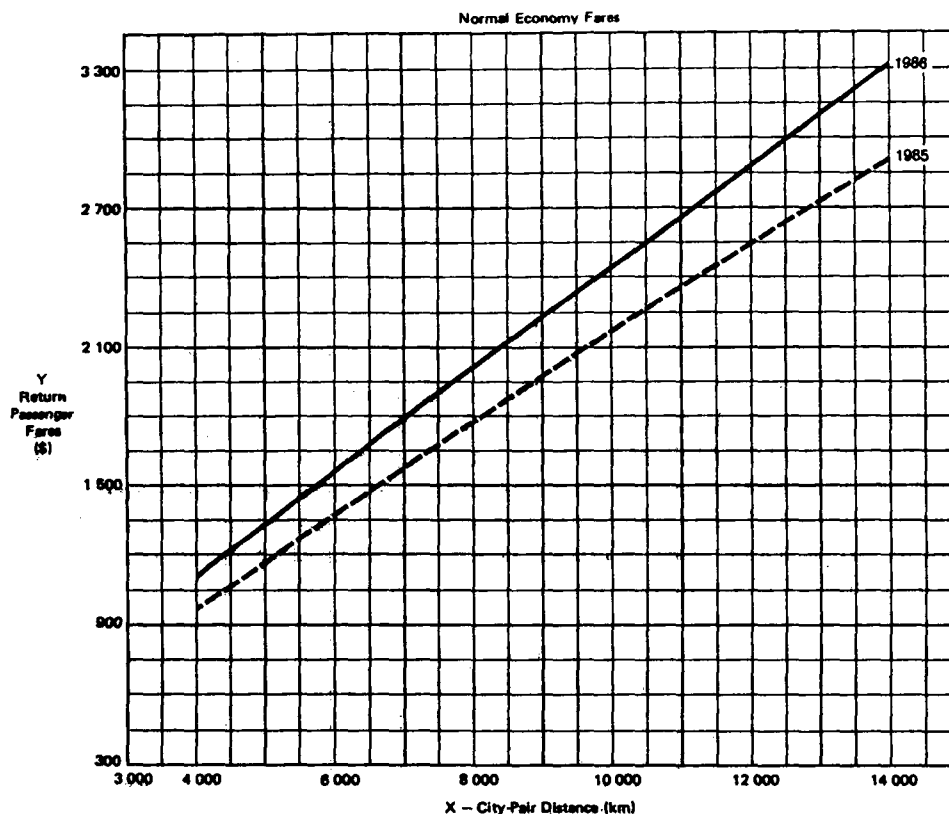
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 462 city-pairs in the route group. The average distance between them is 7 135 kilometres. Small shipment general cargo rates were obtained for 419 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
2000 - 3999	6	1.3	1.3
4000 - 5999	103	22.3	23.6
6000 - 7999	249	53.9	77.5
8000 - 9999	68	14.7	92.2
10000 - 11999	25	5.4	97.6
12000 - 13999	10	2.2	99.8
14000 - 15999	1	0.2	100.0
Total	462	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	4000	6000	8000	10000	12000
Fares per P-Km in cents 1986	13.7	13.0	12.6	12.3	12.0
(1985)	(12.0)	(11.5)	(11.1)	(10.8)	(10.6)
Percentage change (%) 1986/1985	13.6	13.5	13.4	13.3	13.3



6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed increases of just over 13 per cent throughout the range of reference distances concerned. In terms of local selling currencies, the normal economy fares showed increases ranging between 4 and 6 per cent at these reference distances. The significantly lower change in fare levels when expressed in local selling currencies compared with those in terms of U.S. dollars reflects the devaluation of the U.S. dollar in relation to most of the currencies of the European countries included in this route group. In U.S. dollar terms, the estimated normal economy fares on the North Atlantic rose towards the estimated world international average for the shorter distances (from 9 per cent below to 5 per cent below at 4 000 km), while at longer distances it moved further above the world average (from 9 per cent above to 17 per cent above at 12 000 km).

7. While in September 1986 there continued to be a wide spread in the level of the normal economy fares above and below the average on the North Atlantic, this spread was less than in previous years, indicating that these fares for North Atlantic routes are becoming more dependent on distance and less dependent on other factors.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES <sup>1</sup>						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX APEX	Individual Inclusive Tour	Other <sup>2</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare							
	(Km)	(US\$)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
Jeddah - New York <sup>3</sup>	10 230	2022	149	62	-	-	67	49	51
Amsterdam - Los Angeles	8 959	1937 <sup>4</sup>	197	50-58	43-68	-	-	-	-
New York - Lagos <sup>3</sup>	8 441	2040-2224	150-163	73-79	57-62	-	56-61	54-58	-
Houston - Paris <sup>3</sup>	8 082	2160	176	-	42	-	42	-	42
Frankfurt - Atlanta <sup>3</sup>	7 403	2291 <sup>5</sup>	147	-	31	31	-	-	-
Miami - Madrid	7 108	1432 <sup>5</sup>	248	62-65	47-51	51	-	-	47
Chicago - Copenhagen <sup>3</sup>	6 858	1982-2298	158	-	36-66	-	24-47	30-32	34
Milan - Toronto	6 635	1737	190	62	57	-	53	-	-
Montreal - Warsaw	6 466	1587	177	58	41-43	-	-	-	-
London - New York <sup>3,6</sup>	5 562	1285	285	-	48	-	35	-	48

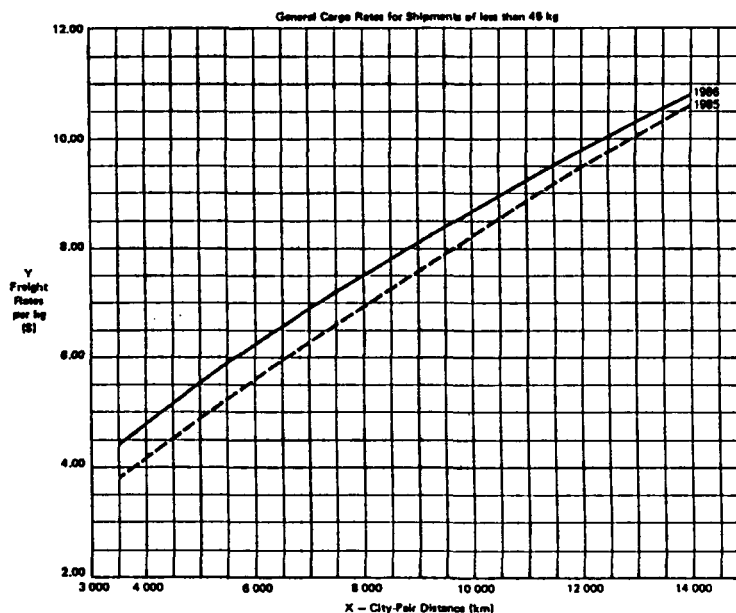
- Notes: 1. Where applicable, only midweek fare levels are shown; weekend fares are somewhat higher.  
2. Standby and youth fares shown in table. Special fares also existed for seamen (except to/from the U.S. where only those fares established through government orders are applicable) and for emigrants from Europe to Canada. Seamen's fares were at a level 25 to 40 per cent below the applicable normal economy fare whereas emigrant fares were between 25 and 45 per cent below.  
3. "Normal" fares with restrictions on transferability and/or stopovers also available.  
4. Special "normal" economy fare shown; no stopovers allowed.  
5. Restricted "normal" economy fare shown; stopovers limited to a maximum of two at a charge.  
6. Fares for supersonic aircraft also available.

9. As illustrated by the sample, first class fares are very high relative to normal economy fares on the North Atlantic, particularly from London to New York. At the same time "normal" economy fares with restrictions in terms of transferability and/or stopovers remained a major feature of this route group

(offered on 8 out of 10 city-pairs in the sample), their levels ranging from 11 to 27 per cent below the applicable unrestricted (or less restricted) "normal" economy fare. In at least three of these cases in the sample no unrestricted normal economy fare appeared to be available in September 1986, although intermediate class fares (between first and economy, not shown in the table) were available for all city-pairs. Excursion fares were available on several of the sample city-pairs in this route group at a level some 35 per cent below the highest "normal" economy fare on average. Apex- and/or Pex-type fares were seen to be available for almost all city-pairs, at levels some 50 per cent lower than the normal economy fare on average. Standby, youth and group fares, as in the previous year, remained available on some routes. For 4 city-pairs in the sample, some special fares had a price differential according to the day of the week, the weekend fares being up to 10 per cent higher than those for travel at mid-week.

#### General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes		Distance in Km				
		4000	6000	8000	10000	12000
Rate in cents per tonne-km	1986	120	104	94	87	82
	(1985)	(103)	(93)	(87)	(82)	(79)
Percentage change (%)	1986/1985	16.4	11.5	8.1	5.6	3.6

12. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed increases ranging between 16 per cent at 4 000 kilometres and about 4 per cent at 12 000 kilometres. In terms of local selling currencies, the estimated general cargo rates for small shipments showed an increase of about 5 per cent at 4 000 kilometres and a decrease of 2 per cent at 12 000 kilometres. As for passenger fares, the significant difference between the changes in rate levels when expressed in U.S. dollars and those in local selling currencies reflect the devaluation of the U.S. dollar against the currencies of most of the European countries included in this route group. In U.S. dollar terms, general cargo rates on the North Atlantic for September 1986 remained close to the world international average (3 per cent above at 4 000 km and 2 per cent below at 12 000 km).

13. As in the previous years, in September 1986 there was a wide spread in the level of general cargo rates for small shipments (less than 45 kg) above and below the average indicating that compared with rates in other areas these North Atlantic rates remain less dependent on distance and more dependent on other factors.

#### Other Cargo Rates

14. The table below shows for September 1986 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 kilogrammes exist in each case, including for most city-pairs discounts for shipments over 100 and 300 kilogrammes as well as over 500 kilogrammes (out of the United Kingdom and to/from Scandinavia the first breakpoint for general cargo rates is 100 kg). Large shipments of over 500 kilogrammes 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, also giving an average reduction of some 60 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Jeddah - New York	10 230	61	11.96	77	46	31	1
Amsterdam - Los Angeles	8 959	65	8.18	79	37	32-40	10
New York - Lagos	8 441	60	11.68	76	53	26-55	8
Houston - Paris	8 082	60	7.74	80	32	42-46	3
Frankfurt - Atlanta	7 403	73	7.95	77	42	28-36	16
Miami - Madrid	7 108	60	7.63	80	32	25-55	16
Chicago - Copenhagen <sup>1</sup>	6 858	60	7.33	-	-	23-26	3
Milan - Toronto	6 635	67	5.61	79	46	42-47	5
Montreal - Warsaw	6 466	47	5.68	81	34	22-74	7
London - New York <sup>1</sup>	5 562	67	4.80	-	29	-	-

Note: 1. The first breakpoint for general cargo rates for these city-pairs is 100 kg (not 45 kg).

## 12. - MID ATLANTIC

### Description of Route Group

1. This route group includes routes between, on the one hand, gateway points in the geographical areas of Central America/Caribbean or in South America but north of Rio de Janeiro and, on the other hand, Europe and/or Middle East and/or Africa. Central America/Caribbean is defined as 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.

### Distribution of City-Pairs by Distance

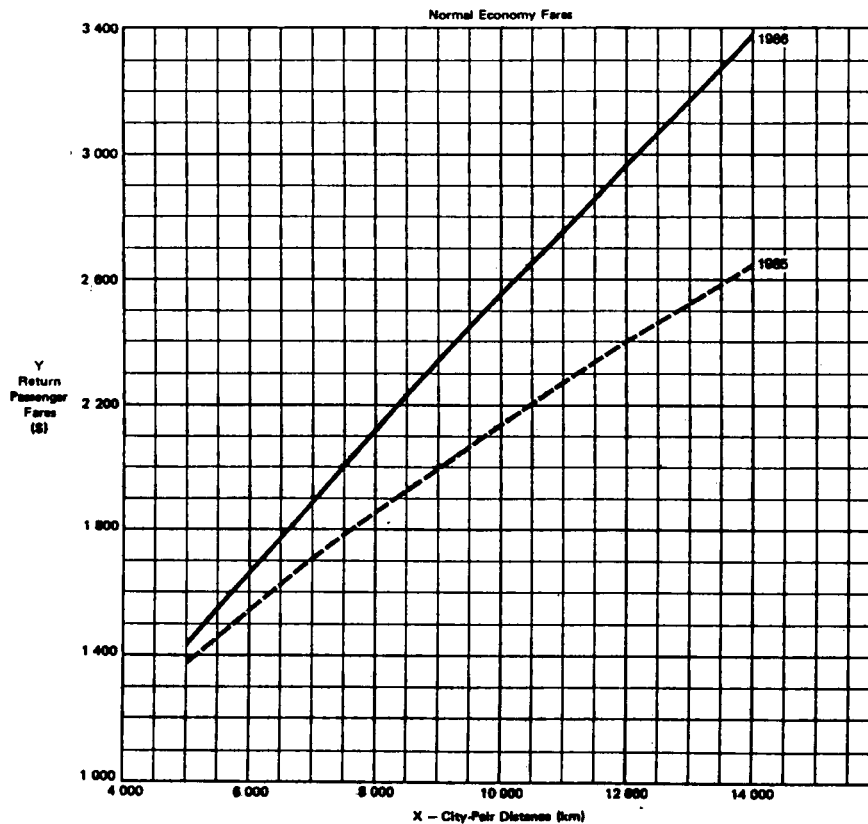
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 144 city-pairs in the route group. The average distance between them is 8 521 kilometres. Small shipment general cargo rates were obtained for 115 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
4000 - 5999	5	3.5	3.5
6000 - 7999	58	40.3	43.8
8000 - 9999	53	36.8	80.6
10000 - 11999	24	16.6	97.2
12000 - 13999	4	2.8	100.0
Total	144	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km			
	6000	8000	10000	12000
Fares per P-Km in cents 1986 (1985)	13.9 (12.9)	13.2 (11.6)	12.8 (10.7)	12.4 (10.0)
Percentage change (%) 1986/1985	7.4	13.9	19.3	23.8

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed an increase of some 7 per cent at 6 000 kilometres and of almost 24 per cent at 12 000 kilometres. In terms of local selling currencies, the normal economy fares are estimated to have increased at around 6 per cent throughout the range of reference distances concerned. Although at the short distances the over-all change in fares in terms of U.S. dollars is about the same as that for fares expressed in local selling currencies, on a directional basis the changes would be substantially different. Routes from Latin America actually show a decrease of around 4 per cent in terms of U.S. dollars, primarily reflecting the loss in value of the Venezuelan Bolivar against the U.S. dollar, whereas those from Europe show an increase of about 20 per cent in terms of U.S. dollars due to the increase in value of most European currencies against the U.S. dollar. Expressed in terms of U.S. dollars the estimated normal economy fares in this route group in September 1986 remained above the estimated world international average at the shorter distances (9 per cent above at 6 000 km) and rose well above it at longer distances (from 3 per cent above to 20 per cent above at 12 000 km).

7. Although for September 1986, the spread in fares above and below the over-all averages narrowed significantly compared with the previous eight years, 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.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

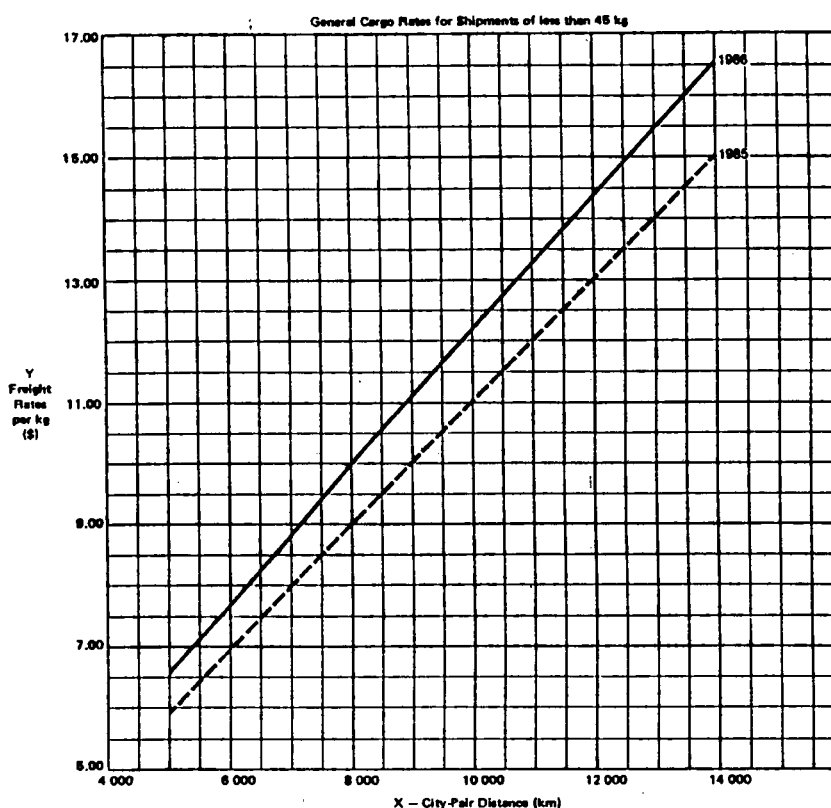
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES					GROUP FARES		
		Normal Economy	First Class	Excursion; Special Excursion	PEX APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Amsterdam - Guayaquil <sup>3</sup>	11 112	2780	148	75	43	57	-	-	-
Lima - Madrid <sup>3</sup>	10 040	2644	150	58-76	-	-	-	-	-
Moscow - Havana	9 871	2072	148	66	-	63	-	63	-
Mexico - Frankfurt <sup>3</sup>	9 754	1944	162	80	59	-	-	75	-
Zurich - Panama City <sup>3</sup>	9 515	2620	153	82	51	-	-	50	-
Bogotá - Paris <sup>3</sup>	8 642	2394	147	58-71	-	-	-	-	-
Caracas - Milan <sup>3</sup>	8 079	2156	143	58-73	-	-	-	-	-
Paris - San Juan	7 427	2118	152	74	-	-	-	52	-
Port-of-Spain - London <sup>3</sup>	7 099	2037 <sup>4</sup>	188	-	60-66	-	-	60	-
Madrid - Santo Domingo	6 703	1987	151	74	-	-	-	49	-

- Notes:
1. Special fares existed throughout this route group for seamen, and for immigrants to Colombia and Ecuador. The level of all these fares was between 25 and 40 per cent lower than that of the applicable normal economy fare.
  2. Special fares were available between certain countries for ships' crews, sportsmen and other affinity groups at levels 25 to 45 per cent below the applicable normal economy fare.
  3. Intermediate class fares (between first and economy) also available.
  4. Special economy fare with restrictions on transferability and stopovers also available.

9. As illustrated by the sample, excursion fares continued to be widely available in this route group, at levels around 25 per cent lower on average than the normal economy fares. "Special" excursion fares with restrictions on transfers and no stopovers allowed remained available for 3 city-pairs in the sample, at a level 42 per cent lower than the normal economy fare in each case. Apex- and Pex-type fares remained available for some of the other city-pairs in the sample at a level about 45 per cent lower than the applicable normal economy fare. Group inclusive tour fares remained fairly widely available for this route group.

#### General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km			
	6000	8000	10000	12000
Rate in cents per tonne-km	128	125	122	120
(1985)	(116)	(113)	(111)	(109)
Percentage change (%)	10.6	10.5	10.3	10.2
1986/1985				

12. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed increases of about 10 per cent throughout the range of reference distances concerned. In terms of local selling currencies, general cargo rates are estimated to have increased some 6 per cent at 6 000 kilometres and decreased about 8 per cent at 12 000 kilometres. Cargo rates from Venezuela are quoted in U.S. dollars hence, as for fares the significant difference between the changes in rate levels when expressed in U.S. dollars and those in local selling currencies to a large extent reflect the devaluation of the U.S. dollar against the currencies of most of the European countries included in this route group. In U.S. dollar terms, the general cargo rates in this route group in September 1986 remained among the highest in the world on average for distances between 6 000 and 12 000 kilometres, ranging from 23 per cent above the world average at 6 000 kilometres to 43 per cent above at 12 000 kilometres.

13. The spread in the level of cargo rates for small shipments (less than 45 kg) above and below the average continues to be significant on the Mid Atlantic. Thus rates in this route group appear to be less dependent on distance and more dependent on other factors compared with routes in other areas.

#### Other Cargo Rates

14. The table below shows for September 1986 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 kilogrammes existed in each case, including discounts for shipments over 100 and 300 kilogrammes as well as over 500 kilogrammes. As in previous years, shipments over 500 kilogrammes benefited from reductions of some 60 to 70 per cent on the small shipment rate. Specific commodity rates were also available for most city-pairs in the sample, giving a reduction of some 70 per cent on average from the small shipment rate, although between 1985 and 1986 the specific commodity rates for some city-pairs were consolidated into fewer types. Bulk unitization rates for freight carried in Unit Load Devices (ULDs) were available for 7 of the 10 city-pairs in the sample. 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Amsterdam - Guayaquil	11 112	65	13.99	76	42	25-35	11
Lima - Madrid	10 040	51	13.52	77	35	9-31	10
Moscow - Havana	9 871	80	14.38	78	40	39-44	1
Mexico - Frankfurt	9 754	55	8.60	84	41	10-59	14
Zurich - Panama City	9 515	72	14.43	76	39	27-29	8
Bogota - Paris	8 642	66	11.13	77	37	14-57	11
Caracas - Milan	8 079	60	9.00	80	27	6-27	8
Paris - San Juan	7 427	64	8.76	79	32	-	-
Port-of-Spain - London	7 099	68	11.99	76	38	14-58	4
Madrid - Santo Domingo	6 703	63	8.32	76	36	20-49	6



### 13. - SOUTH ATLANTIC

#### Description of Route Group

1. This route group includes routes between on the one hand Rio de Janeiro or any other gateway south thereof in South America and on the other hand the geographical areas of Europe and/or Middle East and/or Africa.

#### Distribution of City-Pairs by Distance

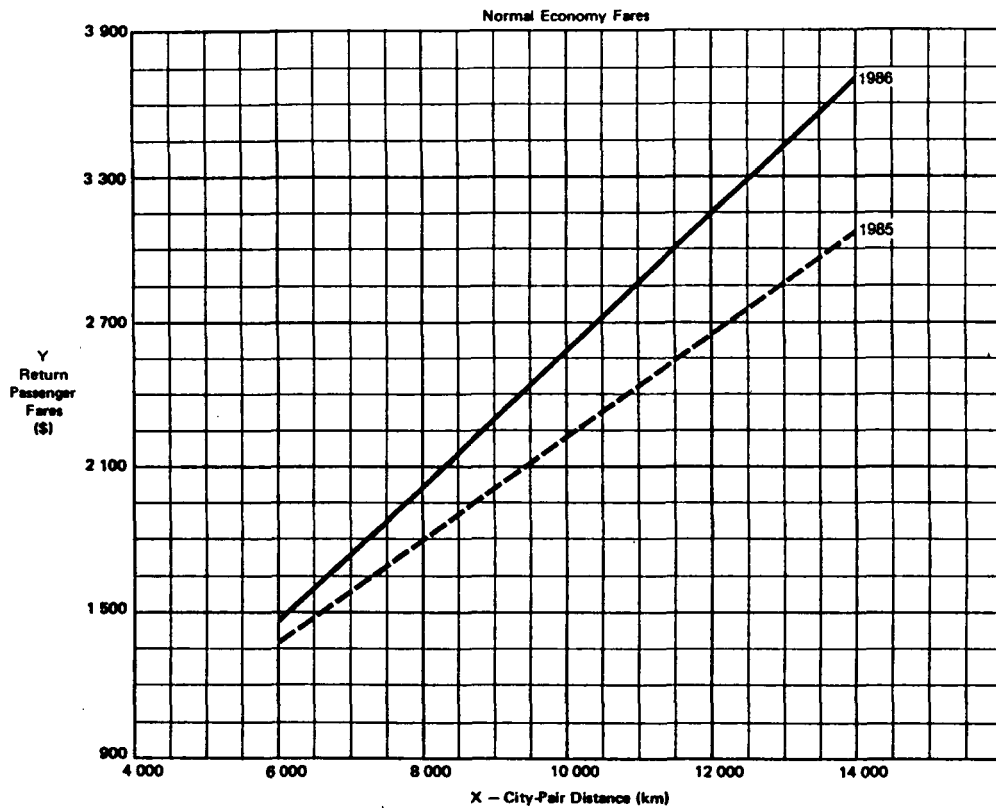
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 116 city-pairs in the route group. The average distance between them is 9 973 kilometres. Small shipment general cargo rates were obtained for 110 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
4000 - 5999	2	1.7	1.7
6000 - 7999	15	12.9	14.6
8000 - 9999	46	39.7	54.3
10000 - 11999	36	31.0	85.3
12000 - 13999	17	14.7	100.0
Total	116	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km				
	6000	8000	10000	12000	14000
Fares per P-Km in cents					
1986	12.3	12.6	12.9	13.1	13.3
(1985)	(11.4)	(11.2)	(11.1)	(11.1)	(11.0)
Percentage change (%) 1986/1985	8.6	12.5	15.6	18.3	20.5

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed an increase of almost 9 per cent at 6 000 kilometres and of about 21 per cent at 14 000 kilometres. In terms of local selling currencies normal economy fares on the South Atlantic showed increases of about 5 per cent at 6 000 kilometres and some 3 per cent at 14 000 kilometres. The significant and varying differences between the changes in fare levels when expressed in U.S. dollars and those in local selling currencies to a large extent reflect the varying fortunes of the U.S. dollar against the currencies of the countries included in this route group. In U.S. dollar terms, the estimated normal economy fares on the South Atlantic for September 1986 remained 3 per cent below the estimated world international average at 6 000 kilometres but rose to 27 per cent above the world average at 14 000 kilometres (from 18 per cent in September 1985).

7. The spread of fares above and below the estimated over-all averages continued to narrow significantly on South Atlantic routes compared with previous years because the U.S. dollar (in which all fares for travel originating in South America are expressed) depreciated against most of the European currencies and some increases were also made to the currency adjustment factors for travel from Europe, causing a further reduction in the directional imbalance in the fare levels which had existed on these routes in previous years.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

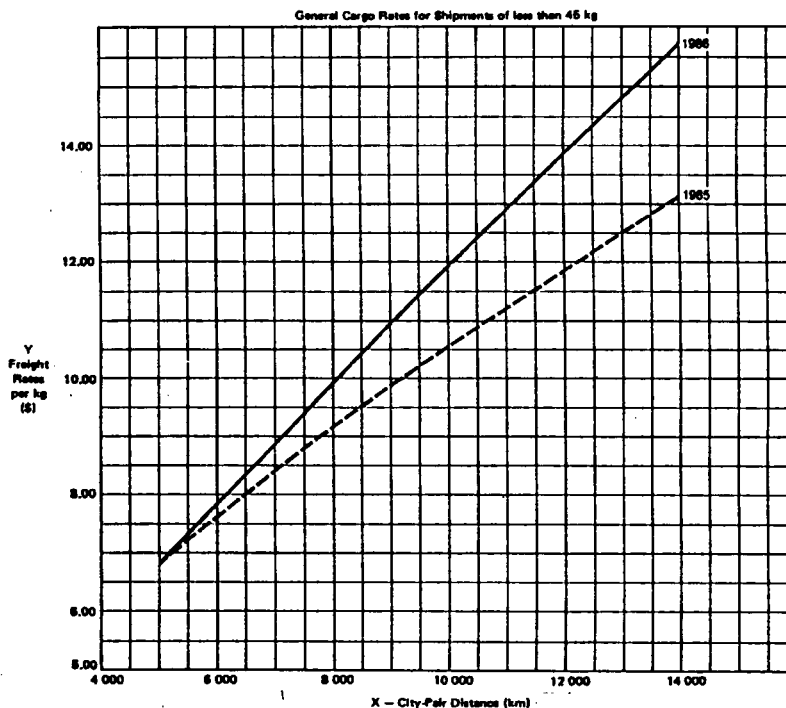
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Frankfurt - Santiago de Chile <sup>2</sup>	12 625	3394	147	99	44	40	-	-	-
Santiago de Chile - Geneva <sup>2</sup>	12 292	2650	146	52-71	-	-	-	-	-
Buenos Aires - Rome <sup>2</sup>	11 154	2684	147	74	50	-	-	-	-
Paris - Montevideo <sup>2</sup>	11 068	3075	154	70	39	-	-	-	-
Copenhagen - Rio de Janeiro	10 190	3147	145	65	46	-	-	-	42
Asunción - Madrid <sup>2</sup>	9 369	1618	156	70	54	-	-	-	-
London - Rio de Janeiro <sup>2</sup>	9 250	2379	169	73	40	-	-	-	-
Capetown - Buenos Aires <sup>2</sup>	8 064	1186	140	46	42	-	-	-	42
Rio de Janeiro - Casablanca <sup>2</sup>	7 317	2046	161	70	50	-	-	-	-
Sao Paulo - Dakar	5 414	1740	140	80	-	-	-	-	-

Notes: 1. Between a few countries emigrant fares were available at 35 to 45 per cent below the normal economy fare. Through government orders there were further reduced fares for ships' crews (and in some cases their families) for vessels registered in certain countries, at levels between 25 and 35 per cent lower than the normal economy fare.  
2. Intermediate class fares (between first and economy) also available.

9. As illustrated by the sample, in September 1986 intermediate class fares (between first and economy) were available for most city-pairs in the sample (8 out of 10 city-pairs). Excursion fares continued to be widely available on the South Atlantic, giving an average reduction of some 30 per cent on the normal economy fare. Apex and Pex-type fares remained available for most city-pairs in the sample at levels ranging between about 45 and 60 per cent below the normal economy fare. A few group fares remained available in September 1986.

#### General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes		Distance in Km				
		6000	8000	10000	12000	14000
Rate in cents per tonne-km	1986	130	124	120	116	113
	(1985)	(127)	(114)	(105)	(99)	(93)
Percentage change (%)	1986/1985	2.9	8.6	13.4	17.3	20.8

12. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed increases of some 3 per cent at 6 000 kilometres and almost 21 per cent at 14 000 kilometres. When expressed in local selling currencies general cargo rates showed a decrease of about 4 per cent at 6 000 kilometres and an increase of 4 per cent at 14 000 kilometres. As for fares, the significant and varying difference between the changes in rate levels when expressed in U.S. dollars and those in local selling currencies to a large extent reflect the varying fortunes of the U.S. dollar against the currencies of the countries included in this route group. In U.S. dollar terms, general cargo rates for small shipments on the South Atlantic remained among the highest in the world for the distances considered. In September 1986 they were 25 per cent above the world average at 6 000 kilometres and 38 per cent above the world average at 14 000 kilometres.

13. As for passenger fares, the spread of rates above and below the estimated over-all average narrowed somewhat on South Atlantic routes compared with the previous year. Thus cargo rates for this route group became more dependent on distance and less dependent on other factors than in previous years.

#### Other Cargo Rates

14. The table below shows for September 1986 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 kilogrammes 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 kilogrammes (out of the United Kingdom the first breakpoint for general cargo rates is 100 kg). 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, although between 1985 and 1986 the specific commodity rates for some city-pairs were consolidated into fewer types. 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. Bulk unitization rates for freight carried in Unit Load Devices (ULDs) remained available for one city-pair in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Frankfurt - Santiago de Chile	12 625	73	15.21	75	36	27-33	6
Santiago de Chile - Geneva	12 292	50	12.72	75	36	11-36	9
Buenos Aires - Rome	11 154	50	12.19	75	37	12-59	16
Paris - Montevideo	11 068	64	13.86	75	37	19-35	2
Copenhagen - Rio de Janeiro	10 190	62	13.02	76	37	25-32	13
Azuación - Madrid	9 369	50	10.77	76	38	15-26	6
London - Rio de Janeiro <sup>1</sup>	9 250	67	9.55	-	31	40-74	2
Capetown - Buenos Aires	8 064	23	3.54	75	45	13-38	5
Rio de Janeiro - Casablanca	7 317	50	9.06	75	43	33-43	2
Sao Paulo - Dakar	5 414	50	7.39	78	34	15-19	2

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

## 14. - LOCAL ASIA/PACIFIC

### Description of Route Group

1. This route group (IATA Tariff Conference 3) includes all 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.

### Distribution of City-Pairs by Distance

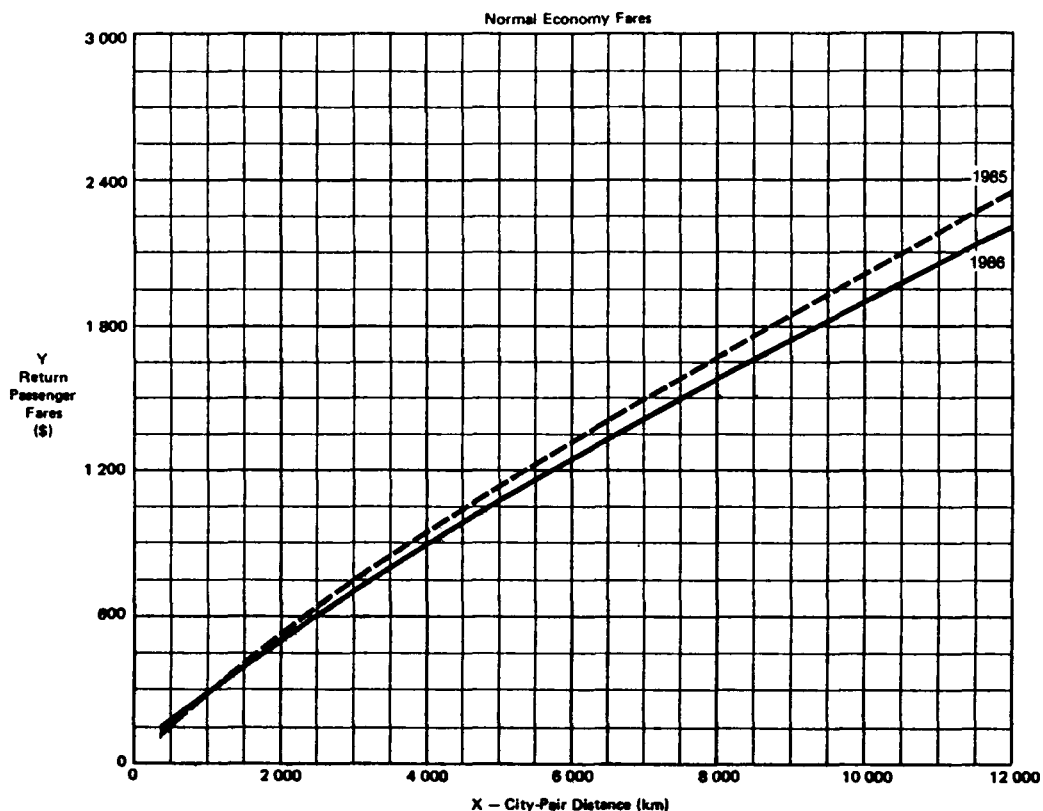
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 733 city-pairs in the route group. The average distance between them is 2 942 kilometres. Small shipment general cargo rates were obtained for 509 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
0 - 249	23	3.1	3.1
250 - 499	32	4.4	7.5
500 - 999	96	13.1	20.6
1000 - 1999	147	20.0	40.6
2000 - 3999	241	32.9	73.5
4000 - 7999	172	23.5	97.0
8000 - 11999	20	2.7	99.7
12000 - 15999	2	0.3	100.0
Total	733	100.0	-

Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km						
	250	500	1000	2000	4000	8000	12000
Fares per P-Km in cents							
1986	18.4	16.3	14.4	12.7	11.2	9.9	9.2
(1985)	(18.2)	(16.3)	(14.6)	(13.0)	(11.7)	(10.4)	(9.8)
Percentage change (%) 1986/1985	1.6	0.2	-1.1	-2.4	-3.7	-5.0	-5.8

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed an increase of about 2 per cent at 250 kilometres and a decrease of almost 6 per cent at 12 000 kilometres. These fares show very similar changes when expressed in local selling currencies, reflecting status quo in fare levels for most city-pairs in the route group and decreases in most fares to/from Singapore as well as some fares from Manila. In U.S. dollar terms, between September 1985 and September 1986, the estimated average normal economy fares fell further below the world international average at shorter distances (reaching 45 per cent below at 250 km) and remained among the lowest available on a world-wide basis for distances below 1 000 kilometres. At the longest distances, they fell from the world average level (to 11 per cent below at 12 000 km compared with 1 per cent above in September 1985).

### Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Auckland - Singapore <sup>3</sup>	8 417	1288	150	64	53	73	-	46	-
Karachi - Manila <sup>3</sup>	5 900	953	144	58	-	-	-	-	-
Beijing - Bombay	4 767	1347	129	-	-	-	-	-	-
Bangkok - Seoul	3 967	1000	140	85	-	-	-	-	-
Hong Kong - Tokyo <sup>3</sup>	2 903	579	136	89	-	-	-	-	-
Melbourne - Christchurch <sup>3</sup>	2 408	425	160	-	68	-	-	-	68
Port Moresby - Brisbane <sup>3</sup>	2 092	525	159	-	69	-	-	65	65
Sydney - Noumea <sup>3</sup>	1 981	460	140	-	-	66	-	57-67	-
Kuala Lumpur - Jakarta	1 189	327	131	75	-	-	-	-	-
Madras - Colombo	669	113	132	-	-	-	-	-	-

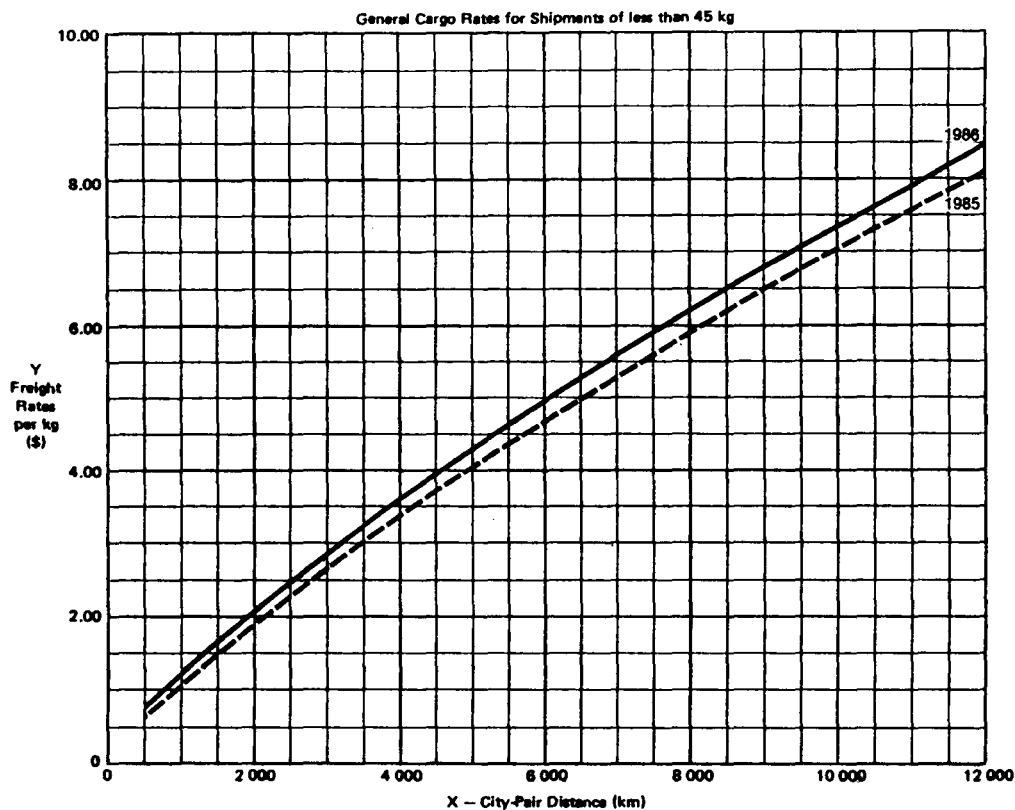
Notes: 1. Special fares existed for seamen, students and, in a few cases, for spouses and youths. These fares were at a level 25 to 50 per cent below the applicable normal economy fare.  
2. Special fares were available throughout this area for ships' crews, affinity and incentive groups, at between 10 and 45 per cent below the applicable normal economy fare.  
3. Intermediate class fares (between first and economy) also available.

8. As illustrated by the sample, some individual special fares were available for 8 out of 10 city-pairs in the sample. Where available these fares ranged between 11 and 47 per cent below the level of the normal economy 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

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km						
	250	500	1000	2000	4000	8000	12000
Rate in cents per tonne-km 1986 (1985)	162 (142)	140 (124)	121 (109)	104 (96)	90 (84)	77 (73)	71 (68)
Percentage change (%) 1986/1985	14.4	12.6	10.7	8.9	7.2	5.4	4.4

11. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes increased some 14 per cent at 250 kilometres and about 4 per cent at 12 000 kilometres. Very similar changes were recorded for the same rates expressed in local selling currencies. In U.S. dollar terms, between September 1985 and September 1986 the general cargo rates on these routes fell further below the world average and have become some of the lowest rates in the world at all reference distances. In September 1986 they were 40 per cent below the world average at 250 kilometres and 15 per cent below at 12 000 kilometres.

### Other Cargo Rates

12. The table below shows for September 1986 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 rate for other than small shipments generally available remained those with a "breakpoint" of 45 kilogrammes (in the case of Port Moresby-Brisbane the first breakpoint occurs at 100 kg). This general cargo rate for shipments of more than 45 kilogrammes was about 25 per cent lower than the rate 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 city-pairs within the South West Pacific area.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Auckland - Singapore	8 417	22	5.44	75	-	17-49	16
Karachi - Manila	5 900	20	3.93	75	-	16-52	3
Beijing - Bombay	4 767	9	2.73	71	-	-	-
Bangkok - Seoul	3 967	27	3.91	75	-	37-58	3
Hong Kong - Tokyo	2 903	24	2.67	75	-	43-52	5
Melbourne - Christchurch	2 408	18	1.71	75	44	28-41	2
Port Moresby - Brisbane <sup>1</sup>	2 092	31	2.18	-	85	28-74	3
Sydney - Noumea	1 981	18	1.09	75	-	61	1
Kuala Lumpur - Jakarta	1 189	14	1.11	75	-	-	-
Madras - Colombo	669	14	0.50	75	-	59	1

Note: 1. The first breakpoint for general cargo rates out of Papua-New Guinea is 100 kg (not 45 kg).

15. - BETWEEN EUROPE/MIDDLE EAST/AFRICA AND ASIA/PACIFIC

Description of Route Group

1. This route group includes all routes between the geographical areas of Europe and/or Middle East and/or Africa on the one hand and the geographical area of Asia (to the east of the Islamic Republic of Iran and the Ural Mountains)/Pacific on the other hand.

Distribution of City-Pairs by Distance

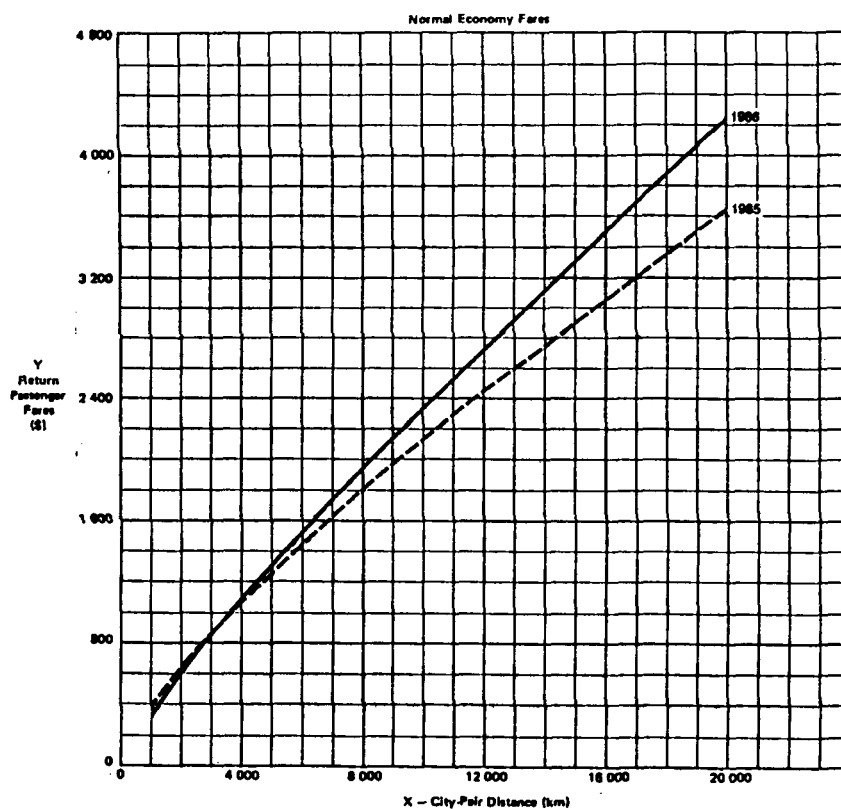
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 780 city-pairs in the route group. The average distance between them is 7 824 kilometres. Small shipment general cargo rates were obtained for 703 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
250 - 499	2	0.3	0.3
500 - 999	2	0.3	0.6
1000 - 1999	36	4.6	5.2
2000 - 3999	119	15.3	20.5
4000 - 7999	261	33.4	53.9
8000 - 11999	246	31.5	85.4
12000 - 15999	84	10.8	96.2
16000 & over	30	3.8	100.0
Total	780	100.0	-

### Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km					
	1000	2000	4000	8000	12000	16000
Fares per P-Km in cents 1986 (1985)	16.6 (18.3)	15.0 (15.6)	13.5 (13.2)	12.2 (11.2)	11.5 (10.2)	11.0 (9.5)
Percentage change (%) 1986/1985	-9.5	-3.8	2.2	8.6	12.5	15.3

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed a decrease of almost 10 per cent at 1 000 kilometres and an increase of about 15 per cent at 16 000 kilometres. When expressed in local selling currencies, estimated normal economy fares showed a decrease of less than 1 per cent at 1 000 kilometres and an increase of almost 4 per cent at 16 000 kilometres. The significant difference between the changes in fare levels when expressed in U.S. dollars and those in local selling currencies reflect the varying fortunes of the U.S. dollar against the currencies of the countries included in this route group. In U.S. dollar terms, between September 1985 and September 1986, the estimated normal economy fares for this route group fell further below the estimated world international average at the shorter distances (reaching 24 per cent below at 1 000 km) but remained above the world international average at the longer distances (rising to 16 per cent above at 16 000 km).

Special Passenger Fares

7. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

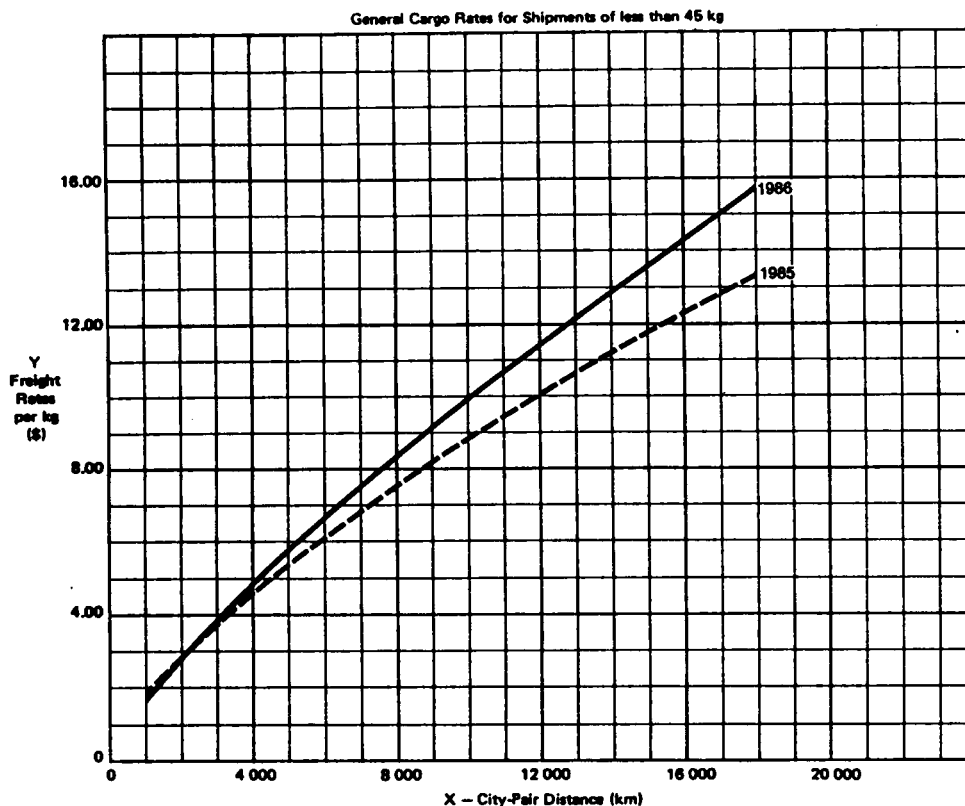
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour <sup>2</sup>
		As a percentage of normal economy fare							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Melbourne - Belgrade	15 704	2567	121-154	49-66	-	-	-	-	-
Zurich - Seoul <sup>3</sup>	12 354	3427	165	-	50	-	-	-	-
Jakarta - Rome	11 123	2746	162	60	-	-	-	-	-
London - Tokyo <sup>3</sup>	10 024	2709 <sup>4</sup>	210	-	50	-	-	-	-
Perth - Johannesburg <sup>3</sup>	8 954	1834	150	-	55	-	-	53	-
Bahrain - Manila <sup>3</sup>	7 558	1988	151	70	-	-	-	-	-
Bombay - Moscow	5 024	1015	139	-	-	-	-	-	-
Nairobi - Bombay <sup>3</sup>	4 533	698	151	-	-	-	-	-	-
Dhaka - Dubai <sup>3</sup>	3 542	632	131	-	-	-	-	-	-
Dhahran - Karachi <sup>3</sup>	1 709	639	142 <sup>5</sup>	71	-	-	-	-	-

- Notes:
1. Special fares were available throughout this route group for seamen, with student, spouses, youths, ethnic, emigrants and worker fares available for travel between a few countries. All these fares were at a level between 25 and 50 per cent below the applicable normal economy fare.
  2. Special fares existed for ships' crews and for affinity groups throughout this route group at levels between 25 and 35 per cent lower than the applicable normal economy fare.
  3. Intermediate class fares (between first and economy) also available.
  4. "Special" economy fare with restrictions on transferability and stopovers also available.
  5. First class excursion fare also available.

8. As illustrated by the sample, few published special fares were available to the general public for this route group in September 1986. Excursion fares or Apex fares were available for 7 of the 10 city-pairs in the sample, with levels ranging from 29 to 51 per cent below the applicable 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

9. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



10. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km					
	1000	2000	4000	8000	12000	16000
Rate in cents per tonne-km 1986 (1985)	163 (171)	140 (140)	121 (114)	104 (93)	95 (83)	90 (76)
Percentage change (%) 1986/1985	-4.9	0.3	5.8	11.6	15.1	17.7

11. Between September 1985 and September 1986 the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed a decrease of almost 5 per cent at 1 000 kilometres, and an increase of about 18 per cent at 16 000 kilometres. When expressed in local selling currencies, the changes in general cargo rates ranged from increases of 5 per cent at 1 000 kilometres to 7 per cent at 16 000 kilometres. As for fares, the significant difference between the changes in rate levels when expressed in U.S. dollars and those in local selling currencies reflect the varying fortunes of the U.S. dollar against the currencies of the countries included in this route group. In U.S. dollar terms, between September 1985 and September 1986 the estimated rates for small shipments in this route group fell below the world international average at the shorter distances (to 8 per cent below at 1 000 km in September 1986 compared with 14 per cent above the previous year). At the longer distances, however, they moved further above the world average (from 4 per cent above to 17 per cent above at 16 000 km).

### Other Cargo Rates

12. The table below shows for September 1986 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 kilogrammes, which were 25 per cent lower than the general cargo rate for small shipments (for London - Tokyo and Perth - Johannesburg the first breakpoint is 100 kg). 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, at an average level some 60 per cent below 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.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Melbourne - Belgrade	15 704	33	6.71	75	24	21-26	1
Zurich - Seoul	12 354	72	20.27	75	40	17	7
Jakarta - Rome	11 123	44	9.35	75	-	32-54	10
London - Tokyo <sup>1</sup>	10 024	67	12.27	-	48	24-48	6
Perth - Johannesburg <sup>1</sup>	8 954	33	4.61	-	50	20-55	6
Bahrain - Manila	7 558	58	13.08	75	-	41	1
Bombay - Moscow	5 024	29	4.41	75	50	30-55	11
Nairobi - Bombay	4 533	28	2.80	75	-	50	1
Dhaka - Abu Dhabi	3 617	20	3.25	75	50	-	-
Dhahran - Karachi	1 709	37	2.73	75	-	54	1

Note: 1. The first breakpoint for general cargo rates for these city-pairs is 100 kg (not 45 kg).

## 16. - NORTH AND MID PACIFIC

### Description of Route Group

1. This route group includes all routes via the North and Central Pacific Ocean between, on the one hand, points in the Americas (that is, IATA Tariff Conference 1, or the geographical areas of North America, Central America/Caribbean, and South America) and on the other hand Asia and/or the islands adjacent thereto (that is, IATA Tariff Conference 3 except Australia, New Zealand, Papua New Guinea and the islands of the South Pacific).

### Distribution of City-Pairs by Distance

2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 141 city-pairs in the route group. The average distance between them is 10 829 kilometres. Small shipment general cargo rates were obtained for 166 city-pairs.

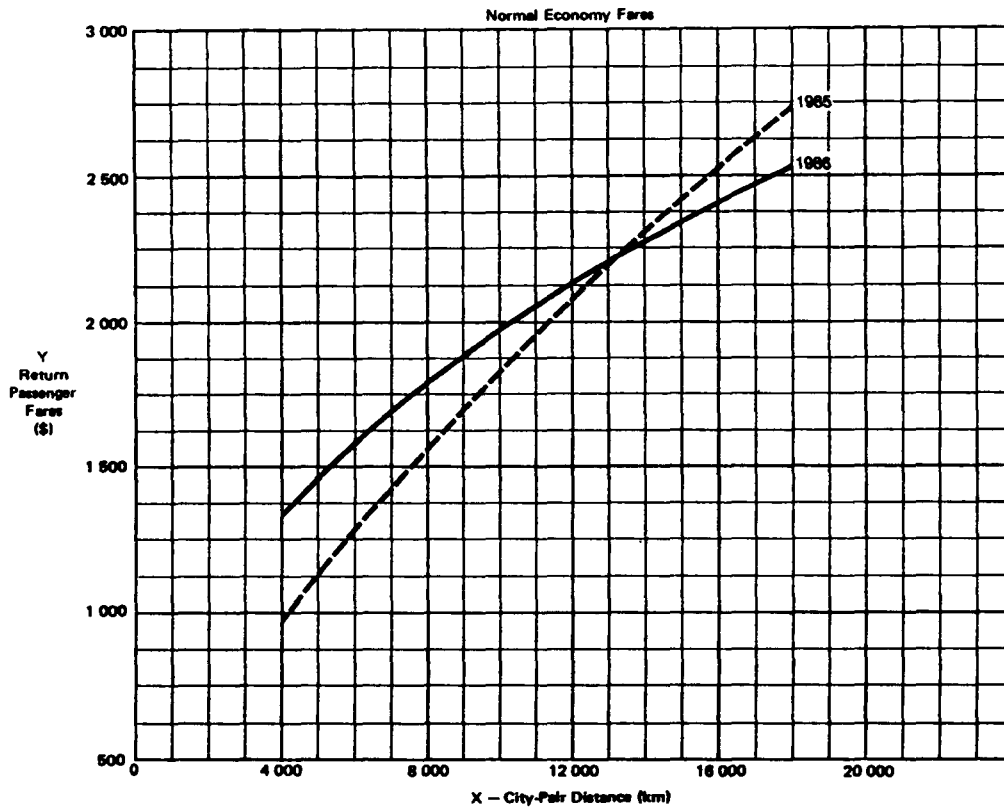
3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
4000 - 5999	4	2.8	2.8
6000 - 7999	18	12.8	15.6
8000 - 11999	82	58.2	73.8
12000 - 15999	31	21.9	95.7
16000 and over	6	4.3	100.0
Total	141	100.0	-



Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km			
	6000	8000	12000	16000
Fares per P-Km in cents				
1986	13.1	11.2	8.9	7.5
(1985)	(10.7)	(9.8)	(8.6)	(7.9)
Percentage change (%) 1986/1985	23.3	14.4	3.0	-4.4

6. Between September 1985 and September 1986 there was a very significant increase in the spread in the level of fares above and below the over-all average for the route group when expressed in U.S. dollars. This results primarily from an increase in directional imbalances in fares between North America and Japan caused by a large increase in the value of the Japanese Yen against the North American currencies (a rise of nearly 56 per cent against the U.S. dollar). Normal economy fares from Japan across the North/Mid Pacific are represented by 26 of the 141 city-pairs in this route group. In U.S. dollar terms they were on average twice as high as fares from other Asian countries across the North/Mid Pacific in September 1986, having been only 1.2 times as high in September 1985, although in terms of the Japanese Yen they rose only 7 per cent on average. Thus fare levels on the North-Central Pacific have become less dependent on distance and much more dependent on other factors than in September 1985, and the over-all estimated figures for September 1986 should be interpreted with caution.

7. Between September 1985 and September 1986 the over-all estimated normal economy fares per passenger-kilometre expressed in U.S. dollars showed an increase of about 23 per cent at 6 000 kilometres and a decrease of some 4 per cent at 16 000 kilometres. In terms of local selling currencies, the estimated normal economy fares for this route group as a whole showed an increase of almost 6 per cent at 6 000 kilometres and a decrease of about 5 per cent at 16 000 kilometres.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

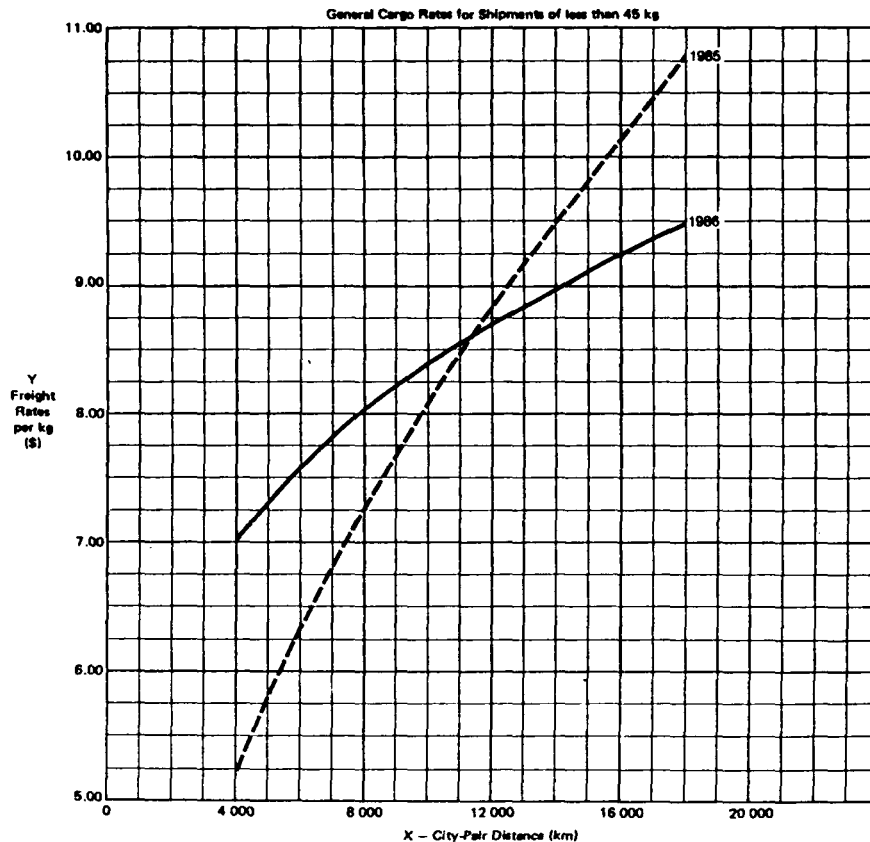
CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES <sup>1</sup>						GROUP FARES	
		Normal Economy	First Class	Excursion	APEX Budget	Individual Inclusive Tour	Other <sup>2</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>3</sup>							
	(Km)	(US\$)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Lima - Tokyo	15 543	2696	182	-	74	-	-	80	-
Bangkok - Dallas-Ft. Worth <sup>4</sup>	14 680	2386	161-171	80	50-65	54-61	54	83	-
Singapore - San Francisco <sup>4</sup>	13 692	2171-2311	148-163	49-89	55-69	77-79	48-60	70-76	68-80
New York City - Okinawa <sup>4</sup>	12 292	2276	174	-	64	-	51	71-77	-
Tokyo - Mexico	11 508	2990	160-173	-	62	-	-	-	-
San Francisco - Hong Kong <sup>4</sup>	11 106	1850	178	64-75	44-65	57	49-64	52-79	56-70
Hong Kong - Vancouver <sup>4</sup>	10 438	1521-1549	175-206	74-76	56-64	-	-	77-80	54-69
Los Angeles - Osaka <sup>4</sup>	9 220	1694	158-173	-	58	-	48	70	63
Seoul - Seattle <sup>4</sup>	8 341	1768	171-172	68-82	72	-	53-67	57-78	63-70
Honolulu - Tokyo <sup>4</sup>	6 194	1282	159-174	-	57	-	45-57	62	63

- Notes: 1. Where applicable, only midweek fare levels shown; weekend fares are somewhat higher.  
2. Military, student and youth fares shown in table. Emigrant and refugee fares from Asia/Pacific to Canada and the United States were available at levels up to 50 per cent below the applicable normal economy fare. Through government orders, special fares existed for ships' crews (and in some cases their families) of vessels registered in certain countries. Also available were special fares for clergymen, spouses, and for government officials of certain countries. All these fares were between 25 and 50 per cent below the applicable normal fares.  
3. Fares calculated as a percentage of the higher normal economy fare where applicable.  
4. "Normal" fares with restrictions on transfers and/or stopovers also available.

9. As illustrated by the sample, the first class fares are relatively high in comparison with the normal economy fares on the North-Central Pacific routes. On the other hand, intermediate class fares (between first and economy, not shown in the table) were available for all the city-pairs in the sample. A diverse range of special fares continued to be available in this route group in September 1986. Excursion fares were offered on 5 of the 10 city-pairs in the sample, at average levels some 30 per cent below the normal economy fare. The relatively commonly available Apex-type fares offered reductions of around 40 per cent of the normal economy fare on average. A number of additional individual and group fares at levels between 17 and 55 per cent below the normal economy fare also remained available in 1986. For most city-pairs in the sample, normal fares with restrictions in the number of transfers and/or stopovers were also available. "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 to five free stopovers are allowed.

General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km			
	6000	8000	12000	16000
Rate in cents per tonne-km    1986 (1985)	127 (106)	101 (91)	73 (74)	58 (64)
Percentage change (%)    1986/1985	19.9	10.5	-1.5	-9.2

12. As for fares between September 1985 and September 1986 there was a significant increase in the spread of the under 45 kilogramme general cargo rates for individual city-pairs above and below the over-all averages for this route group (see paragraph 6). By September 1986 these rates were consequently virtually independent of distance and the over-all estimated figures should be interpreted with considerable caution.

13. Between September 1985 and September 1986 the over-all estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed an increase of almost 20 per cent at 6 000 kilometres and a decrease of around 9 per cent at 16 000 kilometres. In terms of local selling currencies, the general cargo rates for small shipments in this route group showed an increase of about 6 per cent at 6 000 kilometres and a decrease of 10 per cent at 16 000 kilometres.

#### Other Cargo Rates

14. The table below shows for September 1986 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 kilogrammes 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). Many specific commodity rates also remained available in this route group, with an average reduction of some 55 per cent on the applicable general cargo rate for small shipments, as well as bulk unitization rates for freight carried in Unit Load Devices (ULDs) which were available for 7 out of 10 city-pairs in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate <sup>1</sup>			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Lima - Tokyo	15 543	60	11.39	76	49	-	-
Bangkok - Dallas-Ft. Worth	14 680	54	6.22	75	58	46-60	2
Singapore - San Francisco	13 692	23	7.64	76	54	34-71	8
New York City - Okinawa	12 292	50	10.52	75	46	-	-
Tokyo - Mexico	11 508	97	17.56	80	50	45	2
San Francisco - Hong Kong	11 106	50-60	7.46	76	47	-	-
Hong Kong - Vancouver	10 438	60	8.97-9.17	74-75	45-47	38-63	12
Los Angeles - Osaka	9 220	50-60	7.39	76	47	26-40	12
Seoul - Seattle	8 341	41	7.96	75	46	38-49	8
Honolulu - Tokyo	6 194	50-60	6.07	76	48	27-36	3

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

## 17. - SOUTH PACIFIC

### Description of Route Group

1. This route group includes all routes via the South Pacific Ocean between, on the one hand, points in the Americas (that is IATA Tariff Conference 1, or the geographical areas of North America, Central America/Caribbean, and South America) and, on the other hand, Australia, New Zealand, Papua New Guinea and the islands of the South Pacific.

### Distribution of City-Pairs by Distance

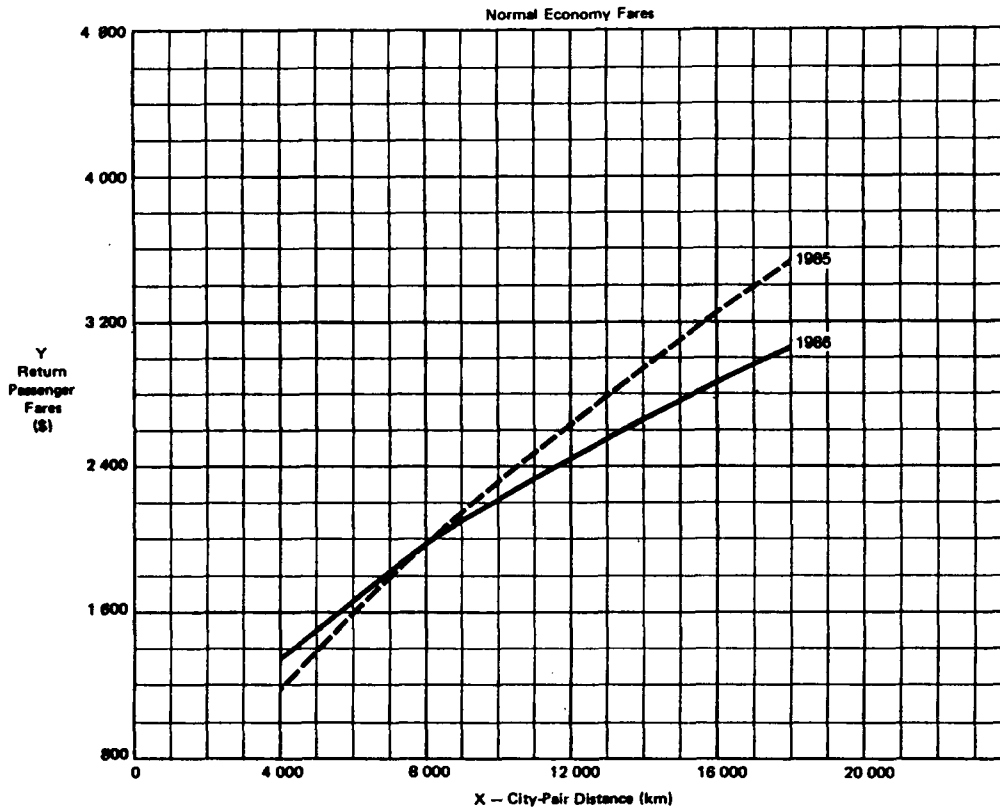
2. Normal economy class passenger fares and small shipment (under 45 kilogramme) general cargo rates were tabulated for all international city-pairs in the route group with through-plane services for which adequate data were available from multilateral airline guides. Information on normal economy class fares was obtained for 53 city-pairs in the route group. The average distance between them is 9 758 kilometres. Small shipment general cargo rates were obtained for 48 city-pairs.

3. The distances between pairs of cities for which normal economy class passenger fares were obtained are distributed as follows:

Distance Block (km)	Number of City-Pairs	Percentage	Cumulative Percentage
4000 - 5999	6	11.3	11.3
6000 - 7999	8	15.1	26.4
8000 - 11999	22	41.5	67.9
12000 - 15999	17	32.1	100.0
Total	53	100.0	-

Normal Economy Passenger Fares

4. The curves on the graph below have been statistically computed so as to reflect best the way in which the normal economy passenger fares vary with distance for city-pairs within this route group (see Appendix 2 for further details).



5. Estimated normal economy fare levels per passenger-kilometre are shown in the table below.

Estimated Normal Economy Fares per Passenger-Kilometre	Distance in Km			
	6000	8000	12000	16000
Fares per P-Km in cents	13.9	12.3	10.2	9.0
(1985)	(13.3)	(12.2)	(11.0)	(10.1)
Percentage change (%) 1986/1985	5.1	0.0	-6.7	-11.1

6. Between September 1985 and September 1986 the estimated normal economy fares per passenger-kilometre expressed in U.S. dollars for the South Pacific showed an increase of some 5 per cent at 6 000 kilometres and a decrease of just over 11 per cent at 16 000 kilometres. In local selling currencies, the estimated normal economy fares in this route group showed an increase of about 3 per cent at 6 000 kilometres and a decrease of about 1 per cent at 16 000 kilometres. The significant difference in the percentage change shown between the fares expressed in U.S. dollars compared with those in local selling currencies at the longer distances is mainly due to the depreciation of the Australian and New Zealand currencies in relation to the U.S. dollar. In September 1986, the average normal economy fares expressed in U.S. dollars for the South Pacific fell towards the world international average at the shorter distance (from 13 per cent above to 9 per cent above at 6 000 km) and fell below the world average at the longer distances (reaching 5 per cent below at 16 000 km having been 13 per cent above in September 1985).

7. Between September 1985 and September 1986 there was a significant increase in the spread in the level of fares above and below the average in this route group. This results mainly from an increase in the directional imbalance in fares between North America and the South West Pacific caused by a devaluation of the Australian and New Zealand currencies, and conversely from an increase in value of the CFP Franc used in French Polynesia against the North American currencies. Thus fare levels in the South Pacific have become less dependent on distance and much more dependent on other factors than in September 1985.

### Special Passenger Fares

8. The table below shows for September 1986 for a sample of 10 city-pairs in the route group the range of fares available as appearing in multilateral airline guides.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	INDIVIDUAL FARES						GROUP FARES	
		Normal Economy	First Class	Excursion	PEX APEX	Individual Inclusive Tour	Other <sup>1</sup>	Group Inclusive Tour	Group other than Inclusive Tour
		As a percentage of normal economy fare <sup>2</sup>							
	(Km)	(US\$)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
Sydney - New York <sup>3</sup>	16 241	2478-2496	179-187	57-61	-	-	38	-	-
San Francisco - Melbourne <sup>3</sup>	12 736	2936	195-201	37-39	34-50	-	-	-	-
Vancouver - Sydney <sup>3</sup>	12 527	2604-2766	185-203	41-42	37-46	-	-	-	-
Auckland - Los Angeles <sup>3</sup>	10 707	2021-2123	178-187	-	59-62	-	25	-	-
Nadi - Vancouver <sup>3</sup>	9 463	1790-2261	117-164	34-39	34	-	-	-	-
San Francisco - Nadi <sup>3</sup>	8 956	2206	187-199	31	38-48	-	-	27	-
Melbourne - Honolulu <sup>3</sup>	8 877	1892-1986	178-187	54-56	21	-	-	-	-
Honolulu - Auckland <sup>3</sup>	7 091	1960-2678	152-157	30-31	26-41	-	30	-	-
Los Angeles - Papeete	6 613	1658	153	89	62-65	62	-	42-57	-
Nadi - Honolulu <sup>3</sup>	5 108	1378-1446	149-157	40	40	-	-	-	-

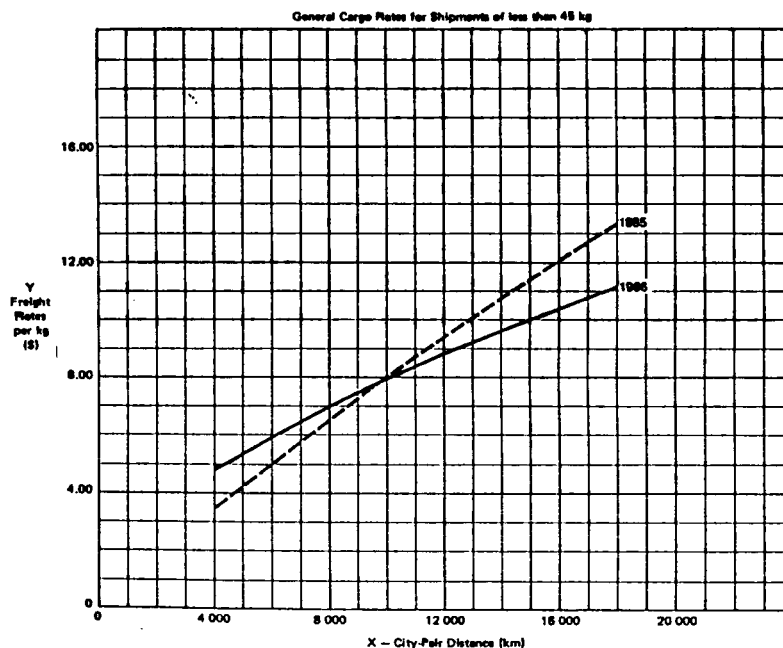
Notes: 1. Fare for active/retired employees of the U.S. Department of Defence and their dependents shown. This fare is also generally available for most of the other city-pairs in the sample at the same level as the Apex fares, without the booking restrictions associated with that fare type. Through government orders special fares existed for U.S. diplomatic personnel and for ships' crews (and in some cases their families) of vessels registered in certain countries. These fares were at a level 25 to 50 per cent below the applicable normal economy fares.  
2. Fares calculated as a percentage of the higher normal economy fare where applicable.  
3. "Normal" fares with restrictions on transfers and/or stopovers also available.



9. As illustrated by the sample, first class fares are relatively high in comparison with normal economy fares on South Pacific routes. On the other hand, intermediate class fares (between first and economy, not shown in the table) were available for all the city-pairs in the sample. In September 1986, regular excursion fares, in many cases at a level of more than 60 per cent below the normal economy fare, were more widely available than in the previous year. Apex-type fares were very common, ranging from 35 to 79 per cent below the applicable normal economy fares. In September 1986, while some excursion fares contained restrictions as to transfer with no stopovers allowed, some Apex fares had no restrictions on the number of free stopovers allowed. In these cases the Apex fares were frequently at a higher level than the excursion fares. Several other special fare types were also available, including individual and group inclusive tour fares. Also available for 9 of the 10 city-pairs were restricted "normal" fares for all three classes of service. The only major restriction on these fares is that they are not interlineable and do not allow for stopovers and they were, on average, some 15 to 20 per cent lower than the normal (i.e. unrestricted) applicable fare although greater discounts existed in a few cases. Although fewer individual or group inclusive tour fares were published than in September 1985, most excursion or Apex-type fares can be used as inclusive tour fares on this route group. Several "circle fares" were also available in September 1986. These are published fares which allow for travel by a continuous circuitous air route which may include points in the North-Central Pacific; generally four to five free stopovers are allowed.

General Cargo Rates for Small Shipments

10. The curves on the graph below have been statistically computed so as to reflect best the average level of general cargo rates for shipments of less than 45 kilogrammes for this route group at different distances (see Appendix 2 for further details).



11. Estimated small shipment general cargo rate levels per tonne-kilometre are shown in the table below.

Estimated General Cargo Rates for Shipments of less than 45 kilogrammes	Distance in Km			
	6000	8000	12000	16000
Rate in cents per tonne-km	100	88	74	65
1986 (1985)	(84)	(81)	(78)	(75)
Percentage change (%)	19.2	8.6	-4.9	-13.4
1986/1985				

12. Between September 1985 and September 1986, the estimated general cargo rates expressed in U.S. dollars for shipments of less than 45 kilogrammes showed an increase of some 19 per cent at 6 000 kilometres and a decrease of over 13 per cent at 16 000 kilometres. When expressed in local selling currencies, the general cargo rates for small shipments in this route group showed the same increase of 19 per cent at 6 000 kilometres but a decrease of about 8 per cent at 16 000 kilometres. As for passenger fares, the significant difference in the percentage change shown between the rates expressed in U.S. dollars compared with those in local selling currencies at the longer distances is mainly due to the depreciation of the Australian and New Zealand currencies in relation to the U.S. dollar. In terms of U.S. dollars, general cargo rates in this route group remained below the world international average level at the shorter distances (4 per cent below at 6 000 km) and they moved below the world international average level at the longer distances (reaching 16 per cent below at 16 000 km from 3 per cent above in September 1985).

13. As for fares, between September 1985 and September 1986 there was a significant increase in the spread in the under 45 kilogramme cargo rates for individual city-pairs above and below the over-all average for this route group (see paragraph 7). Thus in September 1986 these rates were less dependent on distance and more dependent on other factors than in September 1985.

Other Cargo Rates

14. The table below shows for September 1986 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 kilogrammes 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). Specific commodity rates were also fairly common in this route group, 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 six out of ten city-pairs in the sample.

CITY-PAIR (originating city first)	FLIGHT DISTANCE	GENERAL CARGO RATES				SPECIFIC COMMODITY RATES	
		Minimum Charge	Under 45 Kg	Over 45 Kg	Over 500 Kg	Range	Number of Commodities
				As a percentage of under 45 Kg rate			
	(Km)	(US\$)	(US\$/Kg)	(%)	(%)	(%)	
Sydney - New York	16 241	43	9.64	54	-	19	1
San Francisco - Melbourne	12 736	50	11.42	100	63	51	6
Vancouver - Sydney	12 527	47	8.73	76	62	47-61	9
Auckland - Los Angeles	10 707	34	7.80	76	64	19-43	23
Nadi - Vancouver	9 463	55	6.03	76	66	17-39	3
San Francisco - Nadi	8 956	50	7.94	76	67	34	1
Melbourne - Honolulu	8 877	30	5.31	64	-	27	1
Honolulu - Auckland	7 091	50	6.07	78	75	40-54	3
Los Angeles - Papeete	6 613	50	8.67	76	68	19-68	10
Papeete - Honolulu	4 419	49	6.28	77	73	29-31	2

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APPENDIX 1

CURRENCY CONVERSION RATES

Country or Area	Local Selling Currency	IATA Code	Currency Units per US\$ As of 29/8/86
AFGHANISTAN .....	Afghani	AFG	50.60
ALBANIA .....	Lek	LEK	6.82
ALGERIA .....	Algerian Dinar	AID	4.63
ANGOLA .....	Kwanza	AKZ	29.92
ANTIGUA AND BARBUDA .....	East Caribbean Dollar	EC\$	2.70
ARGENTINA <sup>1</sup> .....	U.S. Dollar	USD	1.00
ARUBA .....	Aruban Guilder	AWG	1.80
AUSTRALIA .....	Australian Dollar	AUD	1.64
AUSTRIA .....	Schilling	AS\$	14.48
BAHAMAS .....	Bahamian Dollar	BMD	1.00
BAHRAIN .....	Bahraini Dinar	BHD	0.38
BANGLADESH .....	Taka	BDT	30.30
BARBADOS <sup>2</sup> .....	Barbados Dollar	BDD	2.01
BELGIUM .....	Belgian Franc	BFR	43.17
BELIZE .....	Belize Dollar	BMD	2.00
BENIN .....	CFA Franc	AFR	336.90
BERMUDA .....	Bermudian Dollar	BED	1.00
BOLIVIA <sup>1</sup> .....	U.S. Dollar	USD	1.00
BOTSWANA .....	Pula	BTP	2.09
BRAZIL <sup>1</sup> .....	U.S. Dollar	USD	1.00
BRUNEI DARUSSALAM .....	Brunei Dollar	BR\$	2.16
BULGARIA .....	Lev	LEV	0.93
BURKINA FASO .....	CFA Franc	AFR	336.90
BURMA .....	Kyat	BUR	7.05
BURUNDI .....	Burundi Franc	FRB	101.65
CAMBODIA .....	CFA Franc	AFR	336.90
CANADA .....	Canadian Dollar	CAD	1.39
CAPE VERDE .....	Cape Verde Escudo	CV\$	89.27
CAYMAN ISLANDS .....	Cayman Islands Dollar	CID	0.84
CENTRAL AFRICAN REPUBLIC .....	CFA Franc	AFR	336.90
CHAD .....	CFA Franc	AFR	336.90
CHILE <sup>1</sup> .....	U.S. Dollar	USD	1.00
CHINA .....	Renminbi	RMB	3.70
COLOMBIA <sup>1</sup> .....	U.S. Dollar	USD	1.00
COMOROS .....	CFA Franc	AFR	336.90
CONGO .....	CFA Franc	AFR	336.90
COSTA RICA <sup>1</sup> .....	U.S. Dollar	USD	1.00
COTE D'IVOIRE .....	CFA Franc	AFR	336.90
CUBA .....	Cuban Peso	CUP	0.87
CYPRUS .....	Cypriot Pound	CYL	0.51
CZECHOSLOVAKIA .....	Koruna	CKR	6.00
DEMOCRATIC KAMPUCHEA <sup>1</sup> .....	U.S. Dollar	USD	1.00
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA .....	Rouble	ROU	0.68
DEMOCRATIC YEMEN .....	Yemeni Dinar	YTD	0.34
DENMARK .....	Danish Krone	DKK	7.78
DJIBOUTI .....	Djibouti Franc	DFR	177.00
DOMINICAN REPUBLIC <sup>1</sup> .....	U.S. Dollar	USD	1.00
EASTERN CARIBBEAN .....	East Caribbean Dollar	EC\$	2.70
ECUADOR <sup>1</sup> .....	U.S. Dollar	USD	1.00
EGYPT .....	Egyptian Pound	EGL	0.83
EL SALVADOR <sup>1</sup> .....	U.S. Dollar	USD	1.00
EQUATORIAL GUINEA .....	CFA Franc	AFR	336.90
ETHIOPIA .....	Ethiopian Birr	ETB	2.07
FIJI .....	Fijian Dollar	FID	1.17
FINLAND .....	Markka	FIM	4.93
FRANCE .....	French Franc	FFR	6.74
FRENCH POLYNESIA .....	CFF Franc	PFR	122.51
FRENCH ANTILLES .....	French Franc	FFR	6.74

Notes: 1. International fares and rates from these countries are usually quoted in U.S. dollars.  
 2. International rates from these countries are usually quoted in U.S. dollars, whereas fares are usually quoted in local currency.

Country or Area	Local Selling Currency	LATA Code	Currency Units per US\$ As of 29/8/86
GABON .....	CFA Franc	AFR	336.90
GAMBIA <sup>2</sup> .....	Dalasi	GAD	7.58
GERMANY, DEMOCRATIC REPUBLIC OF .....	DDR Mark	MRK	2.06
GERMANY, FEDERAL REPUBLIC OF .....	Deutsche Mark	DMK	2.06
GHANA <sup>2</sup> .....	Cedi	GHC	90.00
GREECE .....	Drachma	DRA	135.10
GRENADA .....	East Caribbean Dollar	ECD	2.70
GUATEMALA <sup>1</sup> .....	U.S. Dollar	USD	1.00
GUINEA <sup>1</sup> .....	U.S. Dollar	USD	1.00
GUINEA-BISSAU .....	Guinea-Bissau Peso	GVE	170.48
GUYANA <sup>2</sup> .....	Guyana Dollar	GTD	4.31
HAITI <sup>2</sup> .....	Gourde	GOV	5.00
HONDURAS <sup>1</sup> .....	U.S. Dollar	USD	1.00
HONG KONG .....	Hong Kong Dollar	HKD	7.81
HUNGARY .....	Forint	FOR	43.64
ICELAND <sup>2</sup> .....	Icelandic Krona	IKR	40.57
INDIA .....	Indian Rupee	INR	12.57
INDONESIA <sup>1</sup> .....	U.S. Dollar	USD	1.00
IRAN, ISLAMIC REPUBLIC OF .....	Iranian Rial	IRI	76.46
IRAQ .....	Iraqi Dinar	IRD	0.31
IRELAND .....	Irish Pound	IRL	0.75
ISRAEL <sup>1</sup> .....	U.S. Dollar	USD	1.00
ITALY .....	Italian Lira	LIT	1417.70
JAMAICA <sup>2</sup> .....	Jamaican Dollar	JAD	5.47
JAPAN .....	Yen	JYE	155.10
JORDAN .....	Jordanian Dinar	JOD	0.32
KENYA .....	Kenyan Shilling	KES	15.91
KIRIBATI .....	Australian Dollar	AUD	1.64
KUWAIT .....	Kuwaiti Dinar	KUD	0.29
LAO PEOPLE'S DEMOCRATIC REPUBLIC <sup>1</sup> .....	U.S. Dollar	USD	1.00
LEBANON .....	Lebanese Pound	LEL	35.00
LESOTHO .....	Maloti	LSM	2.62
LIBERIA .....	Liberian Dollar	LID	1.00
LIBYAN ARAB JAMAHIRIYA .....	Libyan Dinar	LBD	0.32
LUXEMBOURG .....	Luxembourg Franc	LFR	42.60
MADAGASCAR .....	Malagasy Franc	FMG	759.31
MALAWI .....	Kwacha	MWK	2.00
MALAYSIA .....	Malaysian Ringgit	MYR	2.60
MALDIVES .....	Maldivian Rufiyaa	MVR	7.00
MALI .....	CFA Franc	AFR	336.90
MALTA .....	Maltese Lira	MAL	0.38
MAURITANIA .....	Ouguiya	MOC	74.80
MAURITIUS .....	Mauritius Rupee	MAR	12.98
MAYOTTE .....	French Franc	FFR	6.74
MEXICO <sup>1</sup> .....	U.S. Dollar	USD	1.00
MOROCCO .....	Moroccan Dirham	MDE	8.82
MOLDBIQUE .....	Metical	MZM	39.93
NAURU .....	Australian Dollar	AUD	1.64
NEPAL .....	Nepalese Rupee	NER	20.50
NETHERLANDS, KINGDOM OF THE .....	Guilder	DFL	2.32
NETHERLANDS ANTILLES .....	Netherlands Antillean Guilder	AFL	1.80
NEW ZEALAND .....	New Zealand Dollar	NZD	2.03
NICARAGUA <sup>1</sup> .....	C.S. Dollar	USD	1.00
NIGER .....	CFA Franc	AFR	336.90
NIGERIA .....	Naira	NGN	1.33
NORWAY .....	Norwegian Krone	NOK	7.36
OMAN .....	Rial Omani	RIO	0.39

Notes: 1. and 2. See page 113.

Country or Area	Local Selling Currency	IATA Code	Currency Units per US\$ As of 29/8/86
PAKISTAN .....	Pakistan Rupee	PAR	16.91
PANAMA <sup>2</sup> .....	Balboa	BAL	1.00
PAPUA NEW GUINEA .....	Kina	NGK	0.98
PARAGUAY <sup>1</sup> .....	U.S. Dollar	USD	1.00
PERU <sup>1</sup> .....	U.S. Dollar	USD	1.00
PHILIPPINES <sup>1</sup> .....	U.S. Dollar	USD	1.00
POLAND .....	Zloty	ZLO	162.48
PORTUGAL .....	Portuguese Escudo	ESP	146.70
QATAR .....	Qatari Riyal	QRI	3.64
REPUBLIC OF KOREA <sup>1</sup> .....	U.S. Dollar	USD	1.00
REUNION .....	French Franc	FFR	6.74
ROMANIA .....	Leu	LEI	4.41
RWANDA .....	Rwanda Franc	FRW	85.09
SAINT LUCIA .....	East Caribbean Dollar	ECD	2.70
SAINT VINCENT AND THE GRENADINES .....	East Caribbean Dollar	ECD	2.70
SAMOA .....	Tala	SAT	2.23
SAO TOME AND PRINCIPE .....	Dobra	STD	37.49
SAUDI ARABIA .....	Saudi Riyal	ARI	3.75
SENEGAL .....	CFA Franc	AFR	336.90
SEYCHELLES .....	Seychelles Rupee	SER	5.99
SIERRA LEONE <sup>1</sup> .....	U.S. Dollar	USD	1.00
SINGAPORE .....	Singapore Dollar	SID	2.16
SOLOMON ISLANDS .....	Solomon Island Dollar	SBD	1.80
SOMALIA .....	Somali Shilling	SOM	85.00
SOUTH AFRICA .....	Rand	SAR	2.62
SPAIN .....	Spanish Peseta	PTS	134.70
SRI LANKA .....	Sri Lanka Rupee	CER	28.49
SUDAN .....	Sudanese Pound	SUL	2.93
SURINAME .....	Suriname Guilder	SFL	1.79
SWAZILAND .....	Lilangeni	SZL	2.62
SWEDEN .....	Swedish Krona	SEK	6.94
SWITZERLAND .....	Swiss Franc	SFR	1.66
SYRIAN ARAB REPUBLIC .....	Syrian Pound	SYL	3.93
THAILAND .....	Baht	BHT	26.09
TOGO .....	CFA Franc	AFR	336.90
TONGA .....	Pa'anga	TOP	1.64
TRINIDAD AND TOBAGO <sup>2</sup> .....	Trinidad & Tobago Dollar	TTD	2.41
TUNISIA .....	Tunisian Dinar	TUD	0.85
TURKEY <sup>2</sup> .....	Turkish Lira	TUL	687.04
TURKS AND CAICOS ISLANDS .....	S.M. Dollar	BMD	1.00
UGANDA <sup>1</sup> .....	U.S. Dollar	USD	1.00
UNION OF SOVIET SOCIALIST REPUBLICS .....	Rouble	ROU	0.68
UNITED ARAB EMIRATES .....	UAE Dirham	ADR	3.67
UNITED KINGDOM .....	Pound Sterling	UKL	0.66
UNITED REPUBLIC OF TANZANIA .....	Tanzanian Shilling	TAS	42.00
UNITED STATES .....	U.S. Dollar	USD	1.00
URUGUAY <sup>1</sup> .....	U.S. Dollar	USD	1.00
VANUATU .....	Vatu	VUV	91.13
VENEZUELA <sup>2</sup> .....	Bolivar	VBO	19.72
VIET NAM <sup>1</sup> .....	U.S. Dollar	USD	1.00
YEMEN .....	Yemeni Rial	YEM	9.50
YUGOSLAVIA .....	New Yugoslavian Dinar	YUD	397.10
ZAIRE <sup>2</sup> .....	Zaire	ZAI	60.05
ZAMBIA <sup>1</sup> .....	U.S. Dollar	USD	1.00
ZIMBABWE .....	Zimbabwe Dollar	ZWD	1.71

Notes: 1. and 2. See page 113.

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## APPENDIX 2

### STATISTICAL METHODOLOGY AND EQUATIONS

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).

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.

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 and the least squares technique then produces the "best" estimating relationship (minimizing the errors of estimation) in terms of the logarithms of the data.

In this survey, normal economy fares/"under 45 kilogrammes" 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.

The regression equations for September 1986 by route and by fare/rate type are shown in the following two tables.

## REGRESSION EQUATIONS

## Normal Economy Passenger Fares: September 1986

X = City-Pair Distances in Kilometres

Y = Return Fare in \$

Route Group	Number of City-Pairs	X Mean	Y Mean	Equation $y = ax^b$		
				Coefficients		Correlation Coefficient R
				a	b	
International Total - WORLD .....	9 135	3 287	977	3.515	0.698	0.90
Between North America and Central America/Caribbean .....	364	2 280	543	4.231	0.631	0.95
Between and Within Central America and the Caribbean .....	358	636	258	6.174	0.589	0.94
Between Canada, Mexico and the United States .....	598	1 850	384	5.205	0.576	0.91
Between North America/Central America/Caribbean and South America .	288	3 849	975	1.929	0.758	0.96
Local South America .....	217	1 991	525	1.230	0.799	0.95
Local Europe .....	2 569	1 157	591	8.415	0.605	0.86
Local Middle East .....	321	1 296	530	3.345	0.703	0.85
Local Africa .....	549	1 707	531	1.343	0.803	0.91
Between Europe and Middle East .....	712	3 351	1 351	3.407	0.734	0.76
Between Europe/Middle East and Africa .....	730	4 967	1 534	2.478	0.754	0.88
North Atlantic .....	462	7 135	1 846	0.711	0.885	0.75
Mid Atlantic .....	144	8 521	2 259	1.138	0.838	0.66
South Atlantic .....	116	9 973	2 604	0.115	1.088	0.81
Local Asia/Pacific .....	733	2 942	735	0.994	0.821	0.87
Between Europe/Middle East/Africa and Asia/Pacific .....	780	7 824	1 944	0.926	0.852	0.89
North and Mid Pacific .....	141	10 829	2 097	36.474	0.433	0.41
South Pacific .....	53	9 758	2 178	13.763	0.552	0.83

REGRESSION EQUATIONSGeneral Cargo Rates for Shipments of less than 45 Kilogrammes: September 1986

X = City-Pair Distances in Kilometres  
Y = Rates in \$ per Kilogramme

Route Group	Number of City-Pairs	X Mean	Y Mean	Equation $y = ax^b$		
				Coefficients		Correlation Coefficient R
				a	b	
International Total - WORLD .....	6 301	3 880	4.614	0.01437	0.698	0.87
Between North America and Central America/Caribbean .....	116	2 494	2.501	0.02293	0.598	0.81
Between and Within Central America and the Caribbean .....	161	814	1.422	0.03940	0.540	0.84
Between Canada, Mexico and the United States .....	119	1 982	1.418	0.06822	0.404	0.84
Between North America/Central America/Caribbean and South America .	214	4 259	3.999	0.02197	0.629	0.94
Local South America .....	115	2 290	3.226	0.03551	0.585	0.82
Local Europe .....	1 693	1 124	2.248	0.02598	0.631	0.73
Local Middle East .....	279	1 267	2.042	0.02029	0.637	0.75
Local Africa .....	385	1 599	1.959	0.00829	0.732	0.79
Between Europe and Middle East .....	554	3 407	5.237	0.00356	0.890	0.68
Between Europe/Middle East and Africa .....	595	4 941	6.073	0.01246	0.718	0.68
North Atlantic .....	419	7 297	7.215	0.02152	0.652	0.58
Mid Atlantic .....	115	8 362	10.531	0.00295	0.904	0.64
South Atlantic .....	110	9 771	11.838	0.00566	0.831	0.72
Local Asia/Pacific .....	509	3 347	3.319	0.00531	0.785	0.81
Between Europe/Middle East/Africa and Asia/Pacific .....	703	8 069	9.053	0.00718	0.785	0.73
North and Mid Pacific .....	166	11 652	9.140	1.32353	0.201	0.17
South Pacific .....	48	10 673	8.410	0.04247	0.569	0.64

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