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STUDY OF QUIET TURBOFAN STOL AIRCRAFT

FOR

SHORT-HAUL TRANSPORTATION

FINAL REPORT

VOLUME IV

MARKETS

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ADVANCED CONCEPTS AND MISSIONS DIVISION
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MOFFETT FIELD, CALIFORNIA 94035

Douglas Aircraft Company - Long Beach

FOREWORD

This document is one of six volumes which comprises the final report of a contract study performed for NASA, "Study of Quiet Turbofan STOL Aircraft for Short-Haul Transportation," by the Douglas Aircraft Company, McDonnell Douglas Corporation.

The NASA technical monitor for the study was R. C. Savin, Advanced Concepts and Missions Division, Ames Research Center, California.

THe Douglas program manager for the study was L. S. Rochte. He was assisted by study managers who prepared the analyses contained in the technical volumes shown below.

Volume I	Summary	
Volume II	Aircraft	L. V. Malthan
Volume III	Airports	J. K. Moore
Volume IV	Markets	G. R. Morrissey
Volume V	Economics	M. M. Platte
Volume VI	Systems Analysis	J. Seif

The participation of the airline subcontractors, (Air California, Allegheny, American and United), throughout the study was coordinated by J. A. Stern.

The one year study, initiated in May 1972, was divided into two phases. The final report covers both phases.

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SYMBOLS AND UNITS

Advanced Passenger Train	APT
California Public Utilities Commission	CPUC
Central Business District	CBD
Civil Aeronautics Board	CAB
Conventional Takeoff and Landing	CTOL
High Speed Ground Transportation	HSGT
Kilometers	KM
Origin-Destination	O&D
Statute Miles	ST MI

SUMMARY

Market analysis activity in support of the NASA sponsored "Study of Quiet Turbofan STOL Aircraft for Short-Haul Transportation", included an examination of the Civil Aeronautics Board's listing of the top 1000 U.S. origin-destination city pairs. The top 1,000 U.S. city pairs account for almost three quarters of total domestic passenger miles and represent less than two percent of total city pairs.

Air transportation was used by travelers in 51,676 separate city pairs in the United States in 1970. The distances between the city pairs ranged from very short to over 5000 miles (8050 km). They had annual traffic volumes from 10 passengers to over 5 million. This study categorized the top 1000 city pairs by distance and annual passenger volume to determine the markets with the best potential for the development of STOL service.

Origin-destination passenger traffic was then projected to 1985 using trend analysis and socio-economic data. A total of 494 city pairs was selected as candidates for STOL service in 1985. These city pairs were selected because they were separated by a distance of less than 600 miles (966 km) and had a forecast annual traffic volume of more than 50,000 passengers or more by 1985. Traffic between these city pairs (1970) represents 15 percent of the U.S. passenger miles/kilometers and 50 percent of the passengers.

Seven short haul representative networks were formulated from a total of 319 city pairs. These networks were identified as the Northeast, California, Chicago, Southeast, Southern, Northwest, and Hawaii regions. All of the city pairs contained in these regions were under 600 statute miles

(966 km) and are expected to generate 50,000 or more origin-destination air passengers by the year 1985. These 319 city pairs are expected to generate a total of 124 million origin-destination air passengers by the year 1985.

This represents 87 percent of the 142 million origin-destination air passengers expected to travel between the 494 city pairs in 1985. The great majority of the higher density city pairs have been included in the seven representative regions. Both in terms of number of city pairs and number of passengers the seven regional networks constitute a representative statistical sample.

Examination of higher density city pairs ($\geq$300,000 psgrs/yr) where it might be possible to utilize STOL commuter service led to the identification of 96 candidate routes. These routes were used to determine the market demand for 150 passenger STOL aircraft for stage lengths of 600 statute miles or less (966 km).

Comprehensive investigation of the city pair markets for STOL service required an examination of the traffic demand at distances 600 miles (966 km) and above. Two additional categories were examined. They were 600 to 900 miles (966 to 1449 km) and 900 to 1200 miles (1449 to 1931 km). City pairs investigated in these two categories were limited to those with a forecast annual traffic volume of 50,000 passengers by 1985. The increase in market demand with range extension is substantial. The number of additional city pairs is 164 in the first category and 134 in the second category.

The increase in passenger miles/kilometers, upon which aircraft requirements and revenues are based, is even more substantial. Markets with distances up to 900 miles (1449 km) account for 51 percent of total U.S. domestic passengers and 24 percent of the passenger miles/kilometers. At 1200

miles (1931 km) 792 city pairs represent 61 percent of total passengers and 36 percent of the passenger miles/kilometers.

A patronage model was used to help determine the modal split as a function of competition from alternate modes, passenger preferences, fares, total costs (including access), total trip times, and schedule frequency. Over 1200 parametric patronage model runs were made for 23 city pairs in three representative regions. Parametric studies in these 23 markets revealed that the most important factor in attracting passengers to STOL service was competitive fare levels. This parametric data was used to help develop the final modal split methodology.

The U.S. market demand for STOL aircraft is as follows. Sensitivity variations from this base case have been developed to depict the upper and lower market demand boundaries.

U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 & 1990

YEAR		STAGE SEGMENT		
	s mi km	0-600 0-966	0-900 0-1449	0-1200 0-1931
1985	HIGH	290	445	645
	BASE	240	375	535
	LOW	175	270	385
1990	HIGH	420	645	940
	BASE	320	500	715
	LOW	235	360	560

Foreign demand estimates for STOL aircraft are shown below. High and low cases were also developed.

FOREIGN CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 and 1990

YEAR		STAGE SEGMENT		
	s mi km	0-600 0-966	0-900 0-1449	0-1200 0-1931
1985	HIGH	390	505	575
	BASE	320	415	475
	LOW	230	300	340
1990	HIGH	655	850	975
	BASE	545	710	810
	LOW	390	505	580

In view of the specialized military requirements for the STOL mission and the unique commercial requirements for safety, economy and low community noise, there is no military market foreseen for off-the-shelf civil STOL aircraft. There are significant commonality benefits which apply to both military and commercial designs in the propulsion, wing, and operating sub-systems which could reduce the overall program cost.

INTRODUCTION

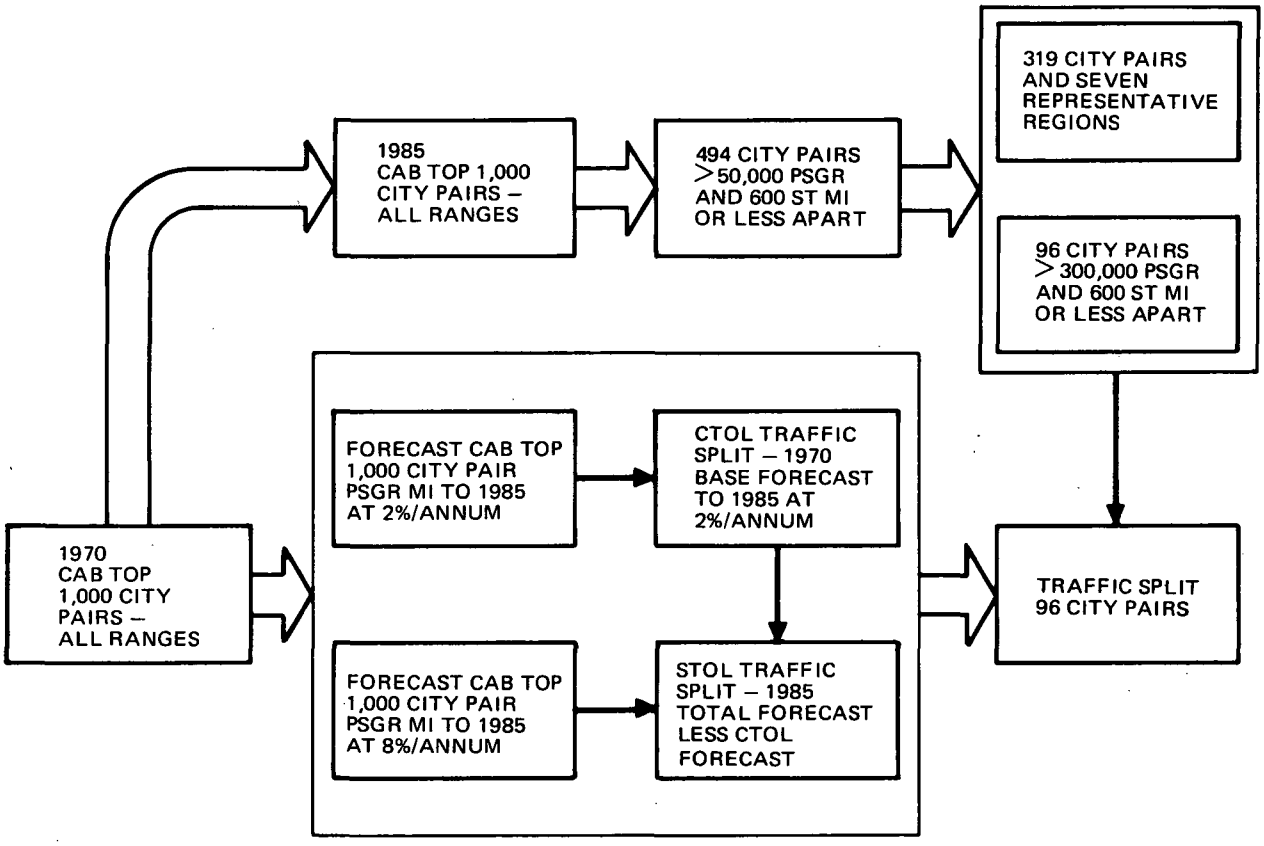
Increasing demand for convenient, interurban transportation, compatible with environmental constraints, might best be satisfied by quiet, relatively short takeoff and landing aircraft. Studies have been conducted which investigate many concepts of STOL aircraft and operating systems. Most of these studies have been limited to a particular geographic region or have analyzed short haul transportation as separate from the long haul system without sufficiently investigating the compatibility of the two systems. It is possible for the present small, turboprop STOL airplanes to operate in a limited number of markets relatively independent of the remaining air transport systems but the introduction of larger turbofan aircraft with increased range and higher speed will require integration into the total air transportation scenario.

The market portion of this study addresses itself to the relationship between quiet STOL aircraft characteristics and the passenger demand on a national basis. That passenger demand can be greatly influenced by the characteristics of the aircraft is shown dramatically by the surge of traffic after the introduction of commercial jets. Aircraft demand is derived from the passenger demand but advances in technology can have a significant impact on the latter.

Since one of the objectives of this study was to determine the relationship between STOL characteristics and the economic and social viability of short-haul air transportation, considerable attention was given to the potential role of STOL as a short haul reliever system. A large proportion of the arrivals and departures at the nation's busiest airports are short haul origin-destination passengers. An environmentally viable STOL

reliever system would increase the available long haul capacity of the major hub airports and offer the air commuter more convenience and reduced total trip time. A study flow chart has been prepared to show the city pair and traffic split analysis.

MARKETS – STUDY FLOW
CITY PAIR AND TRAFFIC SPLIT ANALYSIS



1.0 SELECTION OF CITY PAIRS

Selection of candidate city pairs for potential STOL service was based on analysis of historical origin - destination (O & D) data, assessment of future travel trends and conformance to criteria established to provide a competitive level of service. The criteria specified annual passenger density requirements and city pair distance limitations. These reflect the study aircraft characteristics such as seating capacity and design range.

1.1 Data Collection

The principal source of city pair traffic data is the "Origin - Destination Survey of Airline Passenger Traffic" compiled by the Civil Aeronautics Board (CAB) which provides information on traffic carried by certificated scheduled air carriers. CAB Form 295-C was used as a supplement for commuter airline traffic and the California Public Utilities Commission (CPUC) provided data on intra-state traffic in California. These sources provide all the significant information on domestic origin - destination air traffic for the base year 1970.

From 1959 through 1967, the CAB provided a list of the top 500 city pairs in terms of passengers. In 1968, this list was expanded to include the top 1000 city pairs. The individual cities included in these lists are shown alphabetically in Appendix 11.1 along with their three letter code. Appendix 11.2 shows the same list, but arranged alphabetically by three letter code. The CAB and CPUC data were organized to obtain an origin - destination time series as shown in Appendix 11.3. This list includes slightly more than 1000 city pairs as a time series was prepared if the city pair was in the top 1000 for any or all of the years 1968, 1969 or 1970.

1.2 Traffic Forecast

The statistics discussed above were used as the base for providing city pair forecasts. An existing Douglas computer program was used to project the traffic for each of the city pairs using linear, geometric, exponential smoothing and polynomial trend fitting techniques. The program also computed the historical average annual growth rate for each of the city pairs. Several examples are shown in Appendix 11.4. The four derived growth rates were compared with the historical growth rate and then the judgment of the market analysis group and the airline subcontractors was applied to determine the most realistic growth rate through 1985. The judgment of the market analysis group and the airline subcontractors is based upon the evaluation and application of historical causative and associative factors and patterns and their probable effect and relationship in the future.

Using the methodology discussed above, a traffic forecast was developed through 1985 for each of the city pairs listed in Appendix 11.2. The results were that almost all of these city pairs were above 50,000 annual origin-destination passengers by 1985. Several were not above 50,000 and were dropped from further consideration. In addition, a small number of the cities listed independently by the CAB were considered to be part of a major metropolitan area and were combined with the major city in that area. An example of this is the combination of Oakland and San Jose traffic with that of San Francisco. The only other metropolitan area in which this situation was a major factor was Los Angeles.

Candidate city pairs were organized into a matrix based on their stage length and 1985 forecast level of traffic. The number of city pairs by range and traffic density categories is shown in Table 1-1. There was a

Table 1-1
U.S. CITY PAIRS - 1985
BY STAGE LENGTH AND ANNUAL PASSENGER VOLUME[1]

Stage Length (Statute Miles)	Passengers (Thousands) 50-74	75-99	100-149	150-199	200-299	300-399	400-499	500-599	600-699	700-799	800-899	900-999	1000-1999	2000-2999	3000+	Total	Stage Length (Kilometers)
0 - 99	2	5	1	2	2		1									13	0 - 160
100 - 199	27	13	23	7	6	9	1	1	1		1	1	1	1	1	93	161 - 321
200 - 299	17	20	16	24	18	7	8	2				3	5		2	122	322 - 482
300 - 399	19	22	14	12	16	5	3		1	1		1	4		1	99	483 - 643
400 - 499	24	14	16	11	12	4	7	2	2	1	1		2	2		98	644 - 804
500 - 599	16	10	15	8	6	5	3	1	1	2	1		1			69	805 - 965
600 - 699	12	13	17	9	4	9	2	3					2			71	966 - 1126
700 - 799	6	10	9	7	3	3	2			1			1		1	43	1127 - 1287
800 - 899	14	5	14	6	5	1	1	1					3			50	1288 - 1448
900 - 999	12	8	10	4	9	5	1	1	2	1	1		1			55	1449 - 1609
1000 - 1099	10	12	6	5	5	2	2	1	2	1	1		1		1	49	1610 - 1769
1100 - 1199	5	1	9	4	5	2	1		1	1			1			30	1770 - 1930
1200 - 1299	4	4	8	4	2					1		1				24	1931 - 2091
1300 - 1399	3	4	4	4	2		1	1				1				20	2092 - 2252
1400 - 1499	2	3	2	1	2	1	2					1				14	2253 - 2413
1500 - 1599	3	3	4	2	3		1	2	1							19	2414 - 2574
1600 - 1699	2	1	2	2	1	1					1					10	2575 - 2735
1700 - 1799	2	2	3	4	1	2	1							1		16	2736 - 2896
1800 - 1899	2	3	4	2	1								1			13	2897 - 3057
1900 - 1999	1	1	5	1	1	1			1							11	3058 - 3218
2000 - 2099	4	2					2									8	3219 - 3379
2100 - 2199	1		3	2	1	2										9	3380 - 3540
2200 - 2299		2	1	1	1		1			1						7	3541 - 3701
2300 - 2399	2	4	4	1	1		1		1			1				15	3702 - 3862
2400 - 2499	2	1	2	2	1	1	1		1					1		12	3863 - 4023
2500 - 2599	1		1		2		1						1	1		7	4024 - 4183
2600 - 2699	1		1	1	2	1			1							7	4184 - 4344
2700 - 2799	1		1					1								3	4345 - 4505
Total	195	163	195	126	112	61	42	16	15	10	6	9	25	6	6	987	

[1]Separate airports have been combined into metropolitan areas.

total of 987 city pairs after eliminating those under 50,000 annual passengers and combining cities in metropolitan areas.

1.3 Selection Criteria

The selection of city pairs for Phase I and Phase II studies followed different guidelines. In the Phase I portion of the study selection criteria were developed which were oriented toward obtaining a limited number of representative city pairs for parametric analysis. In Phase II criteria were established which were designed to identify all potential STOL markets in the United States.

1.3.1 Phase I Criteria - The criteria for Phase I were established considering the requirements of the study. This resulted in the selection of city pairs which provided a variety of stage distances and included both higher and lower density city pairs. The specifications for selecting city pairs for Phase I were that they be 575 statute miles (925 kilometers) or less apart and be able to support four daily round trips at 60 percent load factor with a 50-passenger aircraft. This frequency and load factor criteria requires approximately 100,000 annual passengers. There were 236 city pairs which the forecasts indicated would meet this criteria in 1980. Of the 236 city pairs, 23 were selected, with the help of the airline subcontractors, for parametric analysis. These 23 city pairs were confined to three regions to provide representative networks.

1.3.2 Phase II Criteria - In Phase II of the study, it was required to determine the market demand for STOL aircraft and to examine the effect of range extension. For this reason, the criteria used required that the market group identify all city pairs which would be potential candidates for STOL

service. These were later narrowed to the most likely city pairs for service within the time frame considered.

When determining aircraft requirements and revenues, passenger miles are a more valid measure than passengers. Figure 1-1 shows passenger miles plotted against range. This figure shows a fairly constant demand experienced in passenger miles for stage lengths of 200 through 999 miles (322 - 1609 kilometers). There is a peak at 1000 to 1099 miles (1610 - 1769 kilometers) with a dropoff in demand at longer stage lengths.

The figure also indicated the proportion of passenger mile demand for city pairs with an average of 50 passengers a day or more. This corresponds very closely to the top 1000 origin - destination city pairs. Fifty passengers or more a day are the equivalent of 18,250 or more annual passengers while inclusion in the top 1000 city pairs in 1970 required 17,730 or more annual passengers. The total number of city pairs in the United States between which some travelers moved by air in 1970 is 51,676. The top 1000 markets account for approximately 73 percent of the passenger miles and less than 2 percent of the city pairs. The potential STOL markets could be reduced to those in the top 1000 city pairs and less than 600 miles (966 kilometers) apart. The shaded area of Figure 1-1 shows the passenger mile demand of this portion of the air travel market. Using the distance criterion of less than 600 miles (966 kilometers) and the requirement that forecast 1985 demand exceed 50,000 annual passengers, 494 city pairs were identified as being potential STOL markets.

The complete list of 494 city pairs along with the 1985 origin - destination traffic forecast is shown in Appendix 11.5. The passenger distribution versus range for these city pairs is shown in Figure 1-2. It can be seen from this figure that the number of passengers decreases significantly

FIGURE 1-1.

DOMESTIC REVENUE PASSENGER-MILE DISTRIBUTION 1970

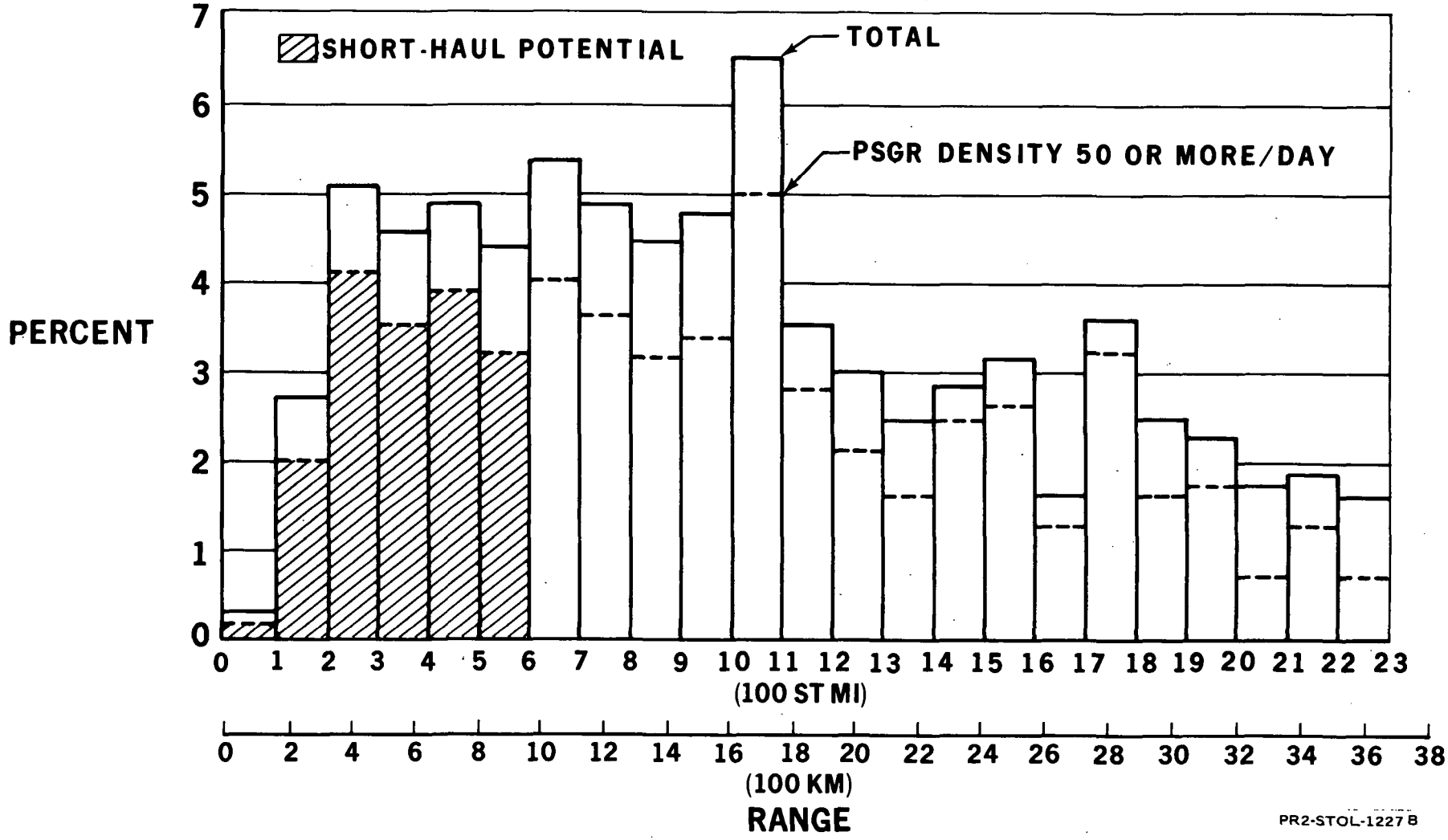
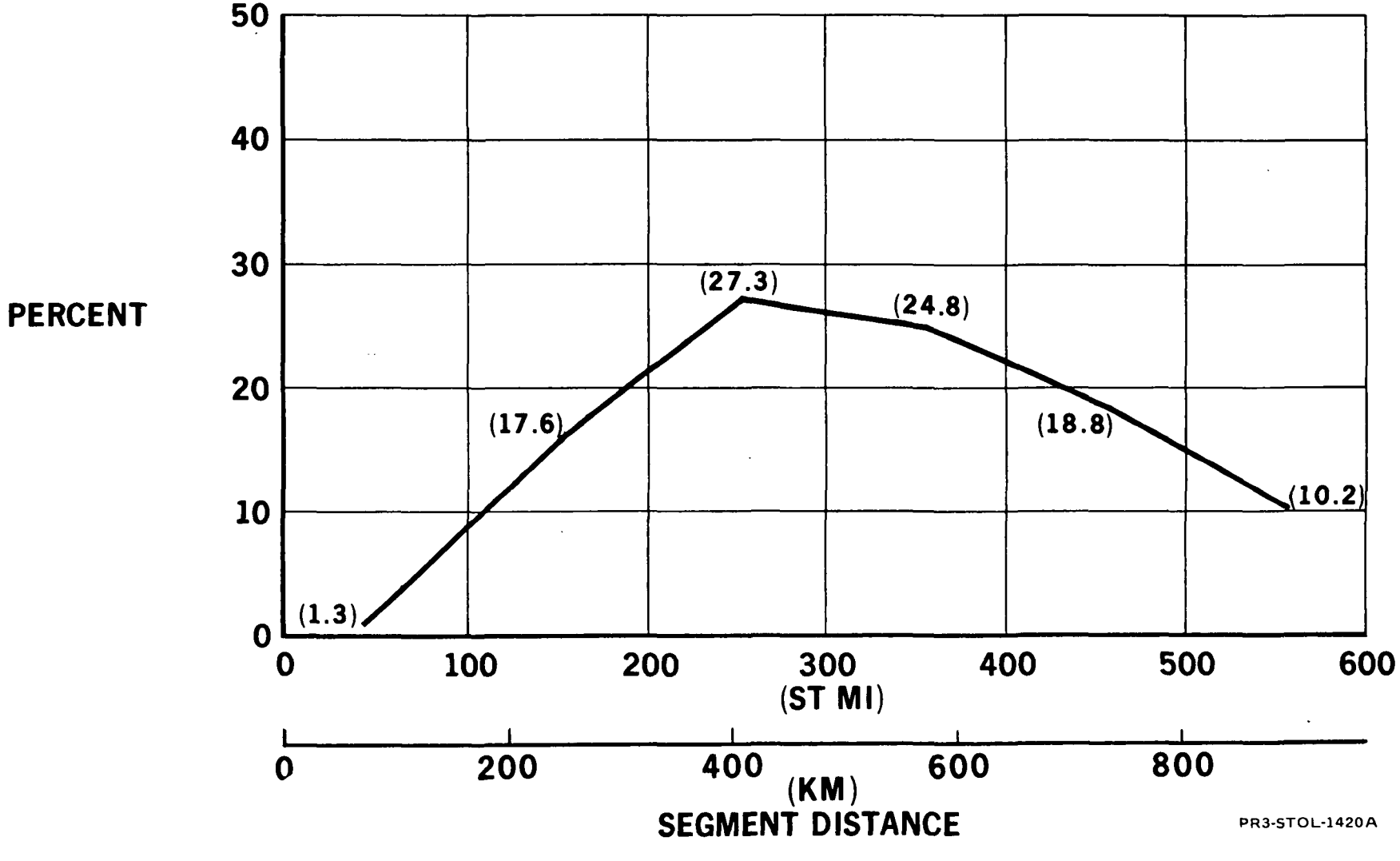


FIGURE 1-2

UNITED STATES

SHORT HAUL PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985
(O&D AIR PASSENGERS)



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as range increases, although passenger miles shown in Figure 1-1 do not. These 494 city pairs formed the base for estimating the U.S. STOL market demand and total system requirements.

One of the study tasks was to investigate the market impact of extending the design range of the study STOL aircraft. Therefore, market demand was examined as a function of stage length for all the 987 city pairs expected to exceed 50,000 annual passengers in 1985. The market potential was examined in terms of passengers, passenger miles, and number of city pairs. This is shown below in Table 1-2.

TABLE 1-2

DOMESTIC UNITED STATES
1970 MARKET DISTRIBUTION VS. STAGE LENGTH
BASED ON 987 CITY PAIRS

st mi	0-599	0-899	0-1199	
km	0-966	0-1448	0-1930	TOTAL
Passengers (%)	40.7	51.2	61.1	100.0
Passenger Miles (%)	15.2	24.3	36.4	100.0
City Pairs Number	494	658	792	987
(%)	50.0	66.6	80.2	100.0

It can be seen from this table that an aircraft with a design range of 1200 miles (1931 kilometers) could serve most of the passengers and higher density city pairs in the United States. Although the percent of passenger miles in markets of this range and higher passenger density is not as large, it is significant. The remainder of the passenger mile percentage is spread through lower density city pairs with ranges from 0 to over 5000

miles (0 - 8050 kilometers).

The actual number of passenger miles was determined for 100-mile (161 kilometer) increments by passenger density for the 792 city pairs with stage lengths up to 1199 miles (1930 kilometers). This information is shown in Table 1-3 for 1970 and Table 1-4 for 1985. The passenger miles were also summed by lower density, less than 300,000 annual passengers, and higher density, greater than 300,000 annual passengers categories. The figure of 300,000 passengers was arrived at by assuming air service to be four daily round trips with a 150 seat aircraft. This would provide 438,000 seats annually. To meet the study load factor of 60 percent would require 263,000 annual passengers. This was rounded to the nearest passenger density category used in Table 1-3 and Table 1-4 which is 300,000 annual passengers. The passenger mile demand for city pairs generating more than 300,000 annual passengers was used as the base for estimating the U.S. market demand for STOL aircraft. There were 96 city pairs under 600 miles (966 kilometers) which met this criteria. In addition, there were 30 city pairs between 600 and 899 miles (966 - 1448 kilometers) and 29 between 900 and 1199 miles (1449 - 1930 kilometers). The U.S. market demand for STOL aircraft is based on these city pairs.

Table 1-3
1970 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 0-99	100-199	200-299	300-399	400-499	500-599	Stage Length (Kilometers) 0-160	161-321	322-482	483-643	644-804	805-965
50-74	2.7	92.6	85.5	121.1	203.6	173.6	4.3	149.0	137.6	194.9	327.7	279.4
75-99	13.4	75.5	132.5	199.4	169.0	137.9	21.6	121.5	213.2	320.9	272.0	221.9
100-149	3.9	161.7	152.2	183.7	267.5	328.0	6.3	260.2	243.3	295.6	430.5	527.9
150-199	9.1	57.6	321.8	203.9	254.8	238.5	14.6	92.7	517.9	328.1	410.1	383.8
200-299	16.4	89.5	324.1	382.7	367.0	219.0	26.4	144.0	521.6	615.9	590.6	352.4
300-399		220.4	189.0	187.9	185.7	295.0		354.7	304.2	302.4	298.8	474.8
400-499	16.9	26.3	294.4	135.5	417.6	252.5	27.2	42.3	473.8	218.1	672.1	406.4
500-599		30.0	85.5		158.7	112.1		48.3	137.6		255.4	180.4
600-699		44.4		76.2	157.4	146.5		71.4		122.6	253.3	235.8
700-799				60.6	105.9	255.7				97.5	170.4	411.5
800-899		63.0			116.1	131.6		101.4			186.8	211.8
900-999		28.4	225.4	109.6		240.6		45.7	362.7	176.4		387.2
1000-1999		33.3	575.2	775.0	492.1			53.6	925.7	1247.2	792.0	
2000-2999		97.1			601.6			156.3	873.9		968.2	
3000 +		391.2	543.0	1781.3				629.6		2866.7		
Total	62.4	1411.0	2927.6	4216.9	3497.0	2531.0	100.4	2270.8	4711.5	6786.4	5627.9	4073.2
Density Less Than 300,000	45.5	476.9	1015.1	1090.8	1261.9	1097.0	73.2	767.5	1633.6	1755.5	2030.8	1765.4
Density Greater Than 300,000	16.9	934.1	1912.5	3126.1	2235.1	1434.0	27.2	1503.3	3077.9	5031.0	3597.0	2307.8
Cum Above 300,000	16.9	951.0	2863.5	5989.6	8224.7	9658.7	27.2	1530.5	4608.4	9639.4	13236.4	15544.2

Table 1-3 (Continued)
1970 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 600-699	700-799	800-899	900-999	1000-1099	1100-1199	Stage Length (Kilometers) 966-1126	1127-1287	1288-1448	1449-1609	1610-1769	1770-1930
50-74	162.0	87.1	237.0	237.0	272.0	116.0	260.7	140.2	381.4	381.4	437.7	186.7
75-99	222.6	192.2	110.7	206.0	345.0	28.0	358.2	309.3	178.2	331.5	555.2	45.1
100-149	420.5	259.4	424.7	336.0	204.0	405.0	676.7	417.5	683.5	540.7	328.3	651.8
150-199	456.7	257.8	255.7	190.0	258.0	211.0	735.0	414.9	411.5	305.8	415.2	339.6
200-299	170.3	198.0	286.2	591.0	407.0	419.0	274.1	318.7	460.6	951.1	655.0	674.3
300-399	575.6	276.2	105.4	428.0	219.0	240.0	926.3	444.5	169.6	688.8	352.4	386.2
400-499	155.0	190.7	119.3	128.0	359.0	162.0	249.4	306.9	192.0	206.0	577.8	260.7
500-599	334.3		148.8	147.0	177.0		538.0		239.5	236.6	284.8	
600-699				412.0	442.0	257.0				663.0	711.3	413.6
700-799		169.2		186.0	272.0	283.0		272.3		299.3	437.7	455.4
800-899				337.0	285.0					542.3	458.7	
900-999												
1000-1999	525.9	352.0	873.2	248.0	465.0	524.0	846.4	566.5	1405.3	399.1	748.3	843.3
2000-2999												
3000 +		1246.6			1850.0			2006.2			2977.3	
Total	3022.9	3229.2	2561.0	3447.0	5555.0	2645.0	4864.9	5196.9	4121.5	5547.4	8939.9	4256.7
Density Less Than 300,000	1431.1	994.5	1314.3	1560.0	1486.0	1179.0	2304.7	1600.5	2115.2	2510.6	2391.5	1897.4
Density Greater Than 300,000	1590.8	2234.7	1246.7	1887.0	4069.0	1466.0	2560.1	3596.4	2006.4	3036.8	6548.4	2359.3
Cum Above 300,000	11249.5	13484.2	14730.9	16617.9	20686.9	22152.9	18104.3	21700.7	23707.9	26743.9	33292.3	35651.6

Table 1-4
1985 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 0-99	100-199	200-299	300-399	400-499	500-599	Stage Length (Kilometers) 0-160	161-321	322-482	483-643	644-804	805-965
50-74	7.2	263.1	262.6	394.3	665.1	546.7	11.6	423.4	422.6	634.6	1070.4	879.8
75-99	36.2	190.7	424.7	668.8	546.8	481.4	58.3	306.9	683.5	1076.3	880.0	774.7
100-149	9.3	435.2	474.3	556.6	891.1	1093.2	15.0	700.4	763.3	895.8	1434.1	1759.3
150-199	27.5	145.8	1005.7	654.1	861.6	754.3	44.3	234.6	1618.5	1052.7	1386.6	1213.9
200-299	34.2	259.3	1067.1	1331.1	1273.2	804.8	55.0	417.3	1717.3	2142.2	2049.0	1295.2
300-399		575.4	578.3	600.9	607.9	1006.6		926.0	930.7	967.1	978.3	1620.0
400-499	38.3	80.5	959.4	473.9	1441.4	729.3	61.6	129.6	1544.0	762.7	2319.7	1173.7
500-599		89.9	274.8		512.6	307.2		144.7	442.2		824.9	494.4
600-699		107.4		239.2	561.6	348.6		172.8		385.0	903.8	561.0
700-799				215.2	321.9	935.7				346.3	518.0	1505.9
800-899		165.5			361.3	465.2		266.3			581.5	748.7
900-999		90.0	678.9	302.3				144.8	1092.6	486.5		
1000-1999		105.8	1892.2	2263.6	1327.5	745.3		170.3	3045.2	3642.9	2136.4	1199.4
2000-2999		250.9			2009.9			403.8			3234.6	
3000 +		1295.4	1871.9	4361.6				2084.7	3012.5	7019.3		
Total	152.7	4054.9	9489.9	12061.6	11381.9	8218.3	245.7	6525.7	15272.5	19411.3	18317.4	13226.1
Density Less Than 300,000	114.4	1294.1	3234.4	3604.9	4237.8	3680.4	184.1	2082.6	5205.3	5801.5	6820.1	5923.0
Density Greater Than 300,000	38.3	2760.8	6255.5	8456.7	7144.1	4537.9	61.6	4443.1	10067.2	13609.8	11497.3	7303.1
Cum Above 300,000	38.3	2799.1	9054.6	17511.3	24655.4	29193.3	61.6	4504.7	14571.9	28181.7	39679.0	46982.1

Table 1-4 (Continued)
1985 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 600-699	700-799	800-899	900-999	1000-1099	1100-1199	Stage Length (Kilometers) 966-1126	1127-1287	1288-1448	1449-1609	1610-1769	1770-1930
50-74	496.0	281.2	753.0	708.3	869.0	368.0	798.2	452.5	1211.8	1139.9	1398.5	592.2
75-99	738.9	643.3	367.5	669.0	1069.0	96.0	1189.1	1035.2	591.4	1076.7	1720.4	154.5
100-149	1344.9	829.6	1400.2	1142.0	708.0	1285.0	2164.4	1335.1	2253.4	1837.9	1139.4	2068.0
150-199	1536.7	869.9	920.0	680.0	857.0	777.0	2473.1	1400.0	1480.6	1094.4	1379.2	1250.5
200-299	645.9	640.0	1014.8	1915.0	1432.0	1422.0	1039.5	1030.0	1633.2	3081.9	2304.6	2288.5
300-399	2009.6	772.0	257.2	1416.0	636.0	804.0	3234.1	1242.4	413.9	2278.8	1023.5	1293.9
400-499	603.4	705.5	401.1	414.0	1016.0	509.0	971.1	1135.4	645.5	666.3	1635.1	819.2
500-599	1026.2		486.1	509.0	567.0		1651.5		782.3	819.2	912.5	
600-699				1169.0	1373.0	784.0				1881.3	2209.6	1261.7
700-799		600.5		692.0	810.0	853.0		966.4		1113.7	1303.6	1372.8
800-899				845.0	861.0					1359.9	1385.6	
900-999												
1000-1999	1698.1	1262.8	2864.8	925.0	1283.0	1567.0	2732.8	2032.3	4610.4	1488.6	2064.8	2521.8
2000-2999												
3000 +		3260.6			3846.0			5247.4			6189.5	
Total	10099.7	9865.4	8464.7	11083.0	15325.0	8466.0	16253.9	15876.8	13622.6	17836.4	24663.2	13624.7
Density Less Than 300,000	4762.4	3264.0	4455.5	5114.0	4935.0	3948.0	7664.3	5252.9	7170.4	8230.2	7942.1	6353.7
Density Greater Than 300,000	5337.3	6601.4	4009.2	5969.0	10390.0	4518.0	8589.6	10623.9	6452.2	9606.2	16721.1	7271.0
Cum Above 300,000	34530.0	41132.0	45141.2	51110.2	61500.2	66018.2	55571.6	66195.5	72647.7	82253.9	98975.0	106246.0

2.0 SHORT HAUL REGIONS

During the four months allocated to the first phase of this study, it was specified that the Contractor should conduct ". . . parametric systems analyses of a number of different STOL transportation systems in representative regions of the U.S. and develop the approach for analyzing total systems requirements in Phase II." Three representative regions were developed using a total of 23 city pairs. Both high and low density city pairs were used to construct these representative regions. In addition, the city pairs selected were drawn from a mix of range categories.

In order to assure broader representation of the U.S. market and to conduct the tradeoffs necessary to optimize system operations, etc., the three Phase I regions were expanded and four additional regions were formulated for Phase II analysis. A total of 319 city pairs was examined in these seven regions. The information generated in this expanded analysis was also used to help define the national demand for STOL service.

2.1 Representative - Phase I

Three representative short haul market regions were studied during Phase I. These regions are identified by the crosshatched area in Figure 2-1. The city pairs selected for each representative region were modified from those shown on Figure 2-1. Allegheny Airlines and Air California assisted Douglas in the development of these networks. Selected city pair networks for each region were later reviewed by American Airlines and United Air Lines. It was agreed that the 23 city pairs chosen constituted an adequate sample.

Figures 2-2, 2-3, and 2-4 show these 23 city pairs combined into

FIGURE 2-1

REPRESENTATIVE SHORT-HAUL MARKET REGIONS

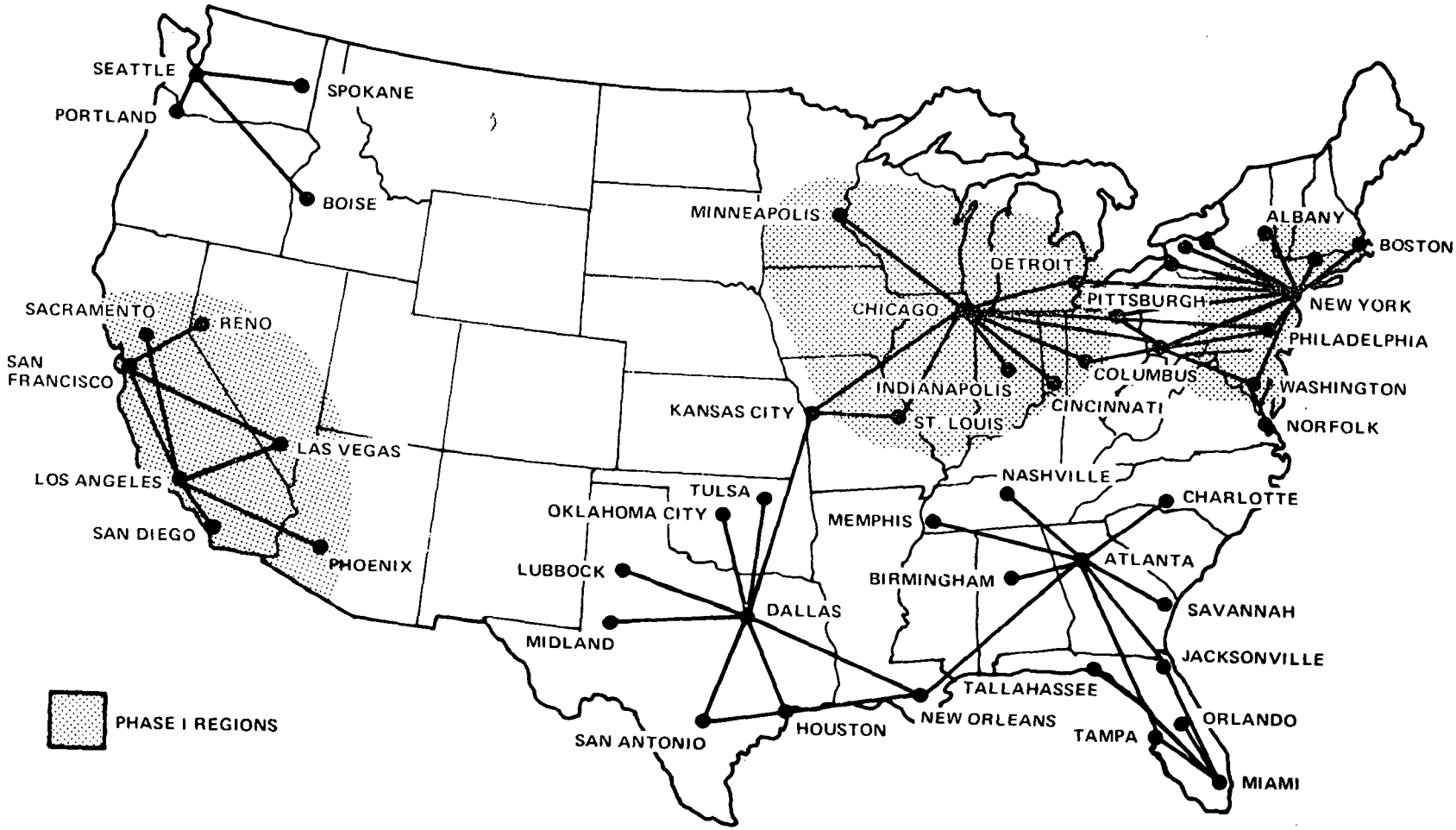

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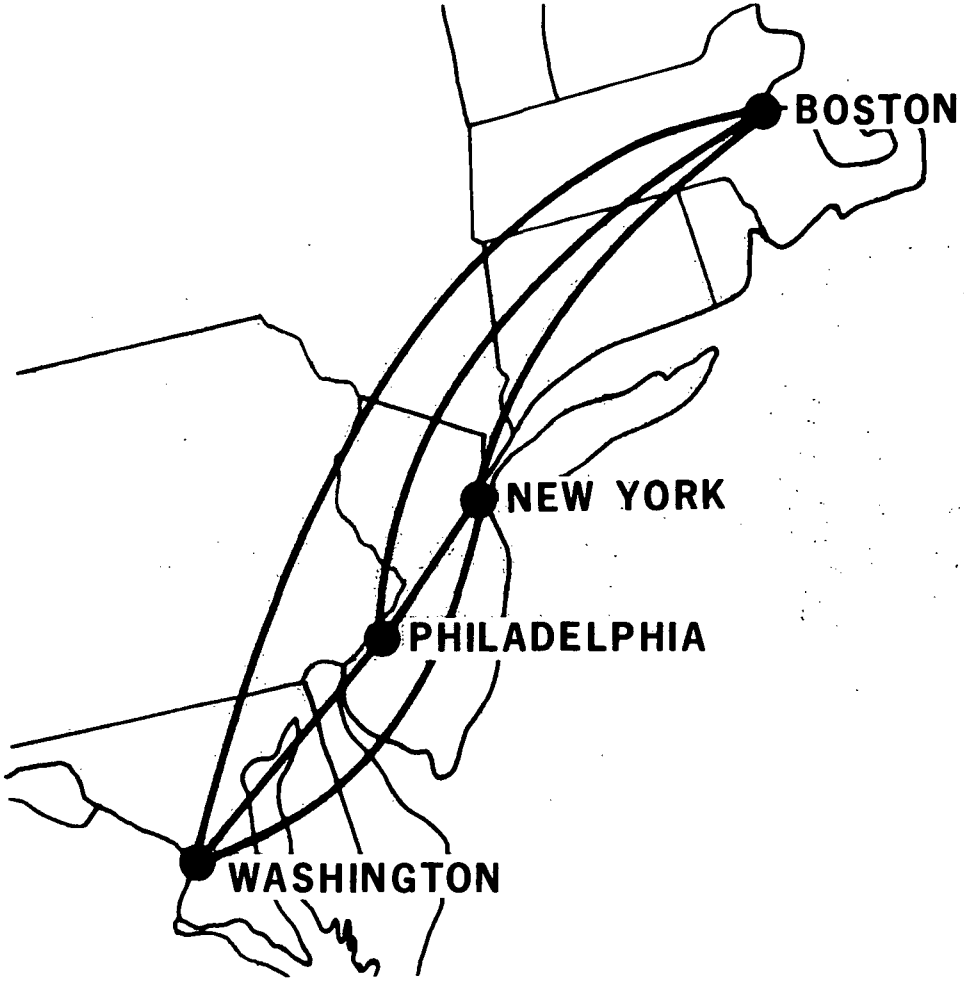
FIGURE 2-2.

NORTHEAST REGION

REPRESENTATIVE CITY PAIR NETWORK



PR2-STOL-09637

FIGURE 2-3.

CALIFORNIA REGION

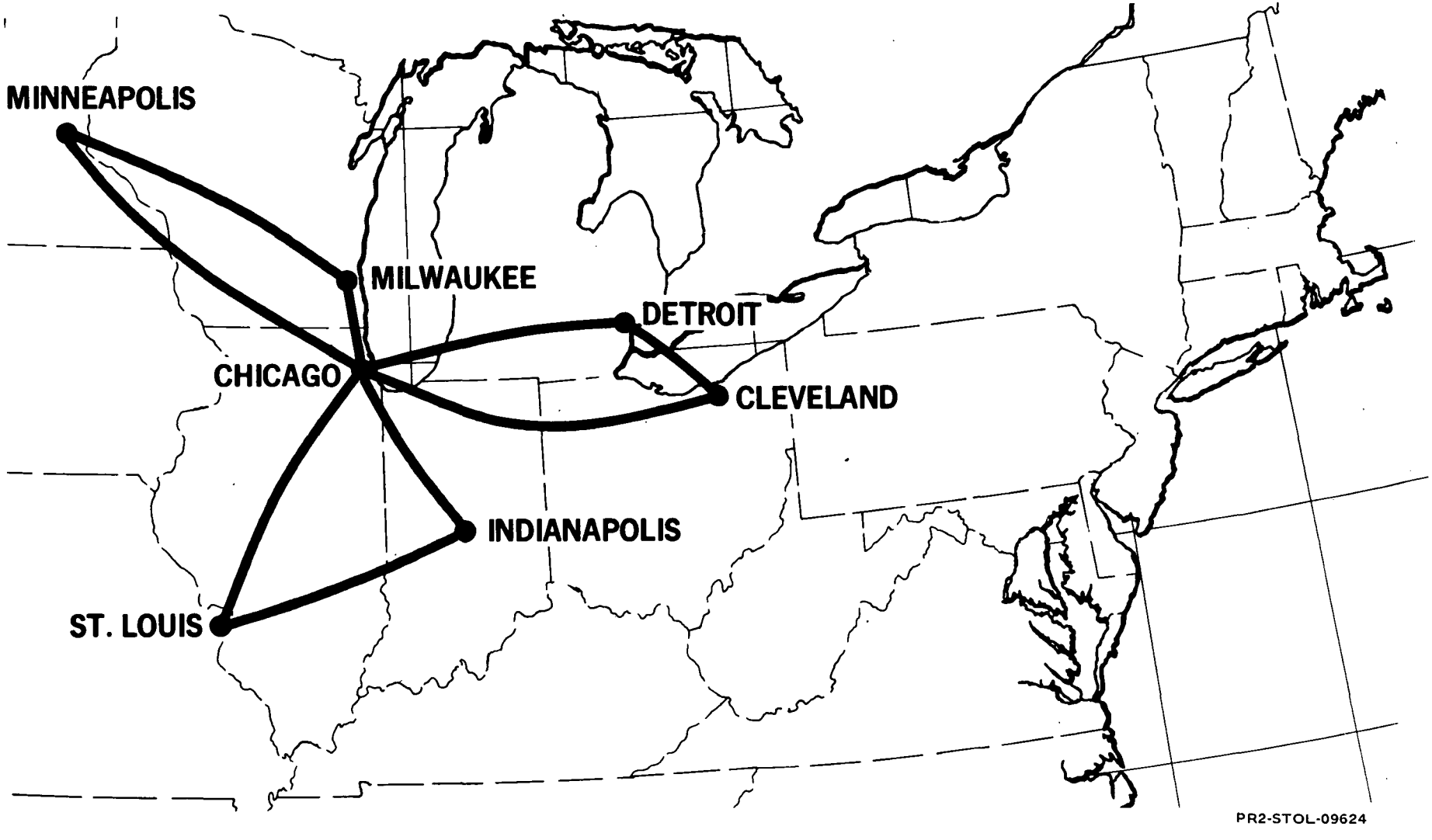
REPRESENTATIVE CITY PAIR NETWORK

PR2-STOL-09625

FIGURE 2-4.

CHICAGO REGION

REPRESENTATIVE CITY PAIR NETWORK



representative Northeast, California and Chicago regions. The Douglas Patronage Model was used to determine the modal split between the various transportation modes in use between these cities. This is discussed in Sections 4.0 and 5.0.

2.2 National - Phase II

During Phase II the three representative regions were expanded by the inclusion of additional city pairs. Four additional representative regions were added for Phase II analysis. This was done in order to perform a more detailed systems analysis. These seven representative regions are as follows:

Representative Region	No. of Cities	1985 Origin & Destination Passengers
Northeast	100	44,806,883
California	26	28,371,671
Chicago	61	18,613,911
Southeast	77	17,477,042
Southern	37	9,002,995
Northwest	11	2,116,829
Hawaii	7	3,657,979
Total	319	124,097,310

Lower density city pairs were included in the various regions in order to examine the tradeoffs resulting from scheduling aircraft of varying seating capacities.

2.2.1 Northeast Region. - Table 2-1 and Figure 2-5 show the 1985 passenger distribution versus segment distance for the 100 city pairs included in the expanded Northeast region. Figure 2-6 is a map which depicts the location of

Table 2-1
NORTHEAST REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIRS	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-904	500-599 805-965
ALB BOS	145	233			179366				
ALB BUF	251	404				221477			
ALB CLE	419	674						78066	
ALB DTT	479	771						106587	
ALB NYC	139	224			297428				
ALB PHL	208	335				133185			
ALB PIT	367	591					76018		
ALB ROC	198	319			92175				
ALB SYR	119	192			56317				
ALB WAS	321	517					184466		
BAL BDL	283	455				195322			
BAL BOS	370	595					370899		
BAL BUF	281	452				65522			
BAL CLE	312	502					151275		
BAL CVG	430	692						87136	
BAL DTT	404	650						191946	
BAL IND	515	829							63054
BAL NYC	179	288			599817				
BAL ORF	159	256			131875				
BAL PHL	96	154		193003					
BAL PIT	210	338				235810			
BDL BUF	317	510					111581		
BDL CLE	471	758						214321	
BDL DTT	540	869							241799
BDL NYC	107	172			193024				
BDL PHL	190	306			250453				
BDL PIT	406	653						185466	
BDL ROC	267	430				89112			
BDL SYR	192	309			64019				
BDL WAS	319	513					386331		
BGR BOS	201	323				179163			
BGR NYC	384	618					82571		
BOS BTV	181	291			68202				
BOS BUF	396	637					309845		
BOS CLE	558	898							421332
BOS HAR	337	542					86954		
BOS NYC	191	307			6907105				
BOS ORF	468	753						191084	
BOS PHL	274	441				1707300			
BOS PIT	496	798						404980	
BOS PWM	95	153		84224					
BOS ROC	343	552					262728		
BOS SYR	264	425				276658			
BOS WAS	406	653						2453000	
BTV NYC	261	420				164159			
BUF NYC	289	465				1227913			
BUF PHL	282	454				316676			
BUF PIT	186	299			101086				
BUF WAS	290	467				231329			
CLE NYC	410	660						1522841	
CLE ORF	434	698						54642	
CLE PHL	365	587					473335		
CLE PVD	536	863							53099
CLE ROC	239	385				93700			
CLE SYR	312	502					81398		
CLE WAS	297	478				428466			
CMH NYC	472	760						624804	
CMH PHL	412	663						217083	
CMH WAS	310	499					274670		
CVG NYC	579	932							602122
CVG PHL	513	826							177702
CVG WAS	400	644						207437	
DAY NYC	543	874							411354

Table 2-1 (Concluded)
NORTHEAST REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
DAY PHL	483	777						152895	
DAY WAS	379	610					224038		
DTT NYC	489	787						2076400	
DTT ORF	527	848							72180
DTT PHL	452	727						655940	
DTT SYR	364	586					109554		
DTT WAS	391	629					611733		
ERI NYC	335	539					86208		
ERI PHL	304	489					66061		
HAR NYC	154	248			148518				
HAR PIT	182	293			207981				
IND PHL	593	954							194800
IND WAS	487	784						225768	
NYC ORF	291	468				463601			
NYC PHL	84	135		208000					
NYC PIT	329	529					1725380		
NYC PVD	150	241			328167				
NYC PWM	275	442				109003			
NYC ROC	252	406				1119154			
NYC SYR	197	317			840229				
NYC WAS	215	346				5473051			
ORF PHL	215	346				218837			
ORF PIT	330	531					83774		
ORF PVD	420	676						71431	
ORF WAS	149	240			192394				
PHL PIT	274	441				941578			
PHL PVD	231	372				162383			
PHL ROC	259	417				187297			
PHL SYR	228	367				131433			
PHL WAS	133	214			291000				
PIT PVD	467	752						57877	
PIT ROC	224	360				78000			
PIT SYR	279	449				78551			
PIT WAS	194	312			414864				
PVD WAS	364	586					238043		
PWM WAS	487	784						52647	
ROC WAS	292	470				192984			
SYR WAS	297	478				163064			
Total Passengers (44,800,630)				485227	11364020	14884728	5996862	9832351	2237442
Percent of Total (100.0)				1.1	25.4	33.2	13.4	21.9	5.0

FIGURE 2-5

NORTHEAST REGION

REPRESENTATIVE CITY PAIR NETWORK
PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985
(O&D AIR PASSENGERS)

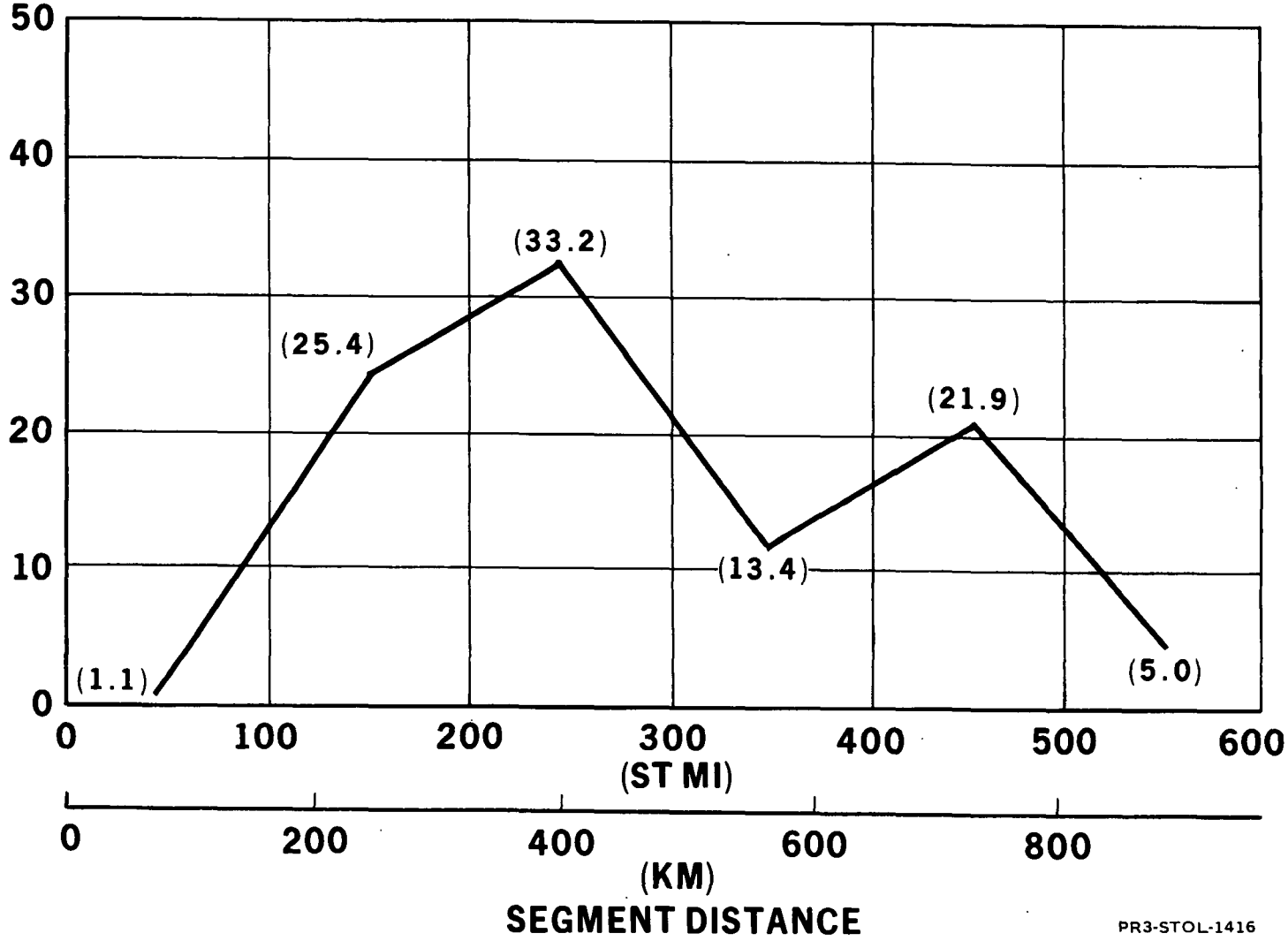


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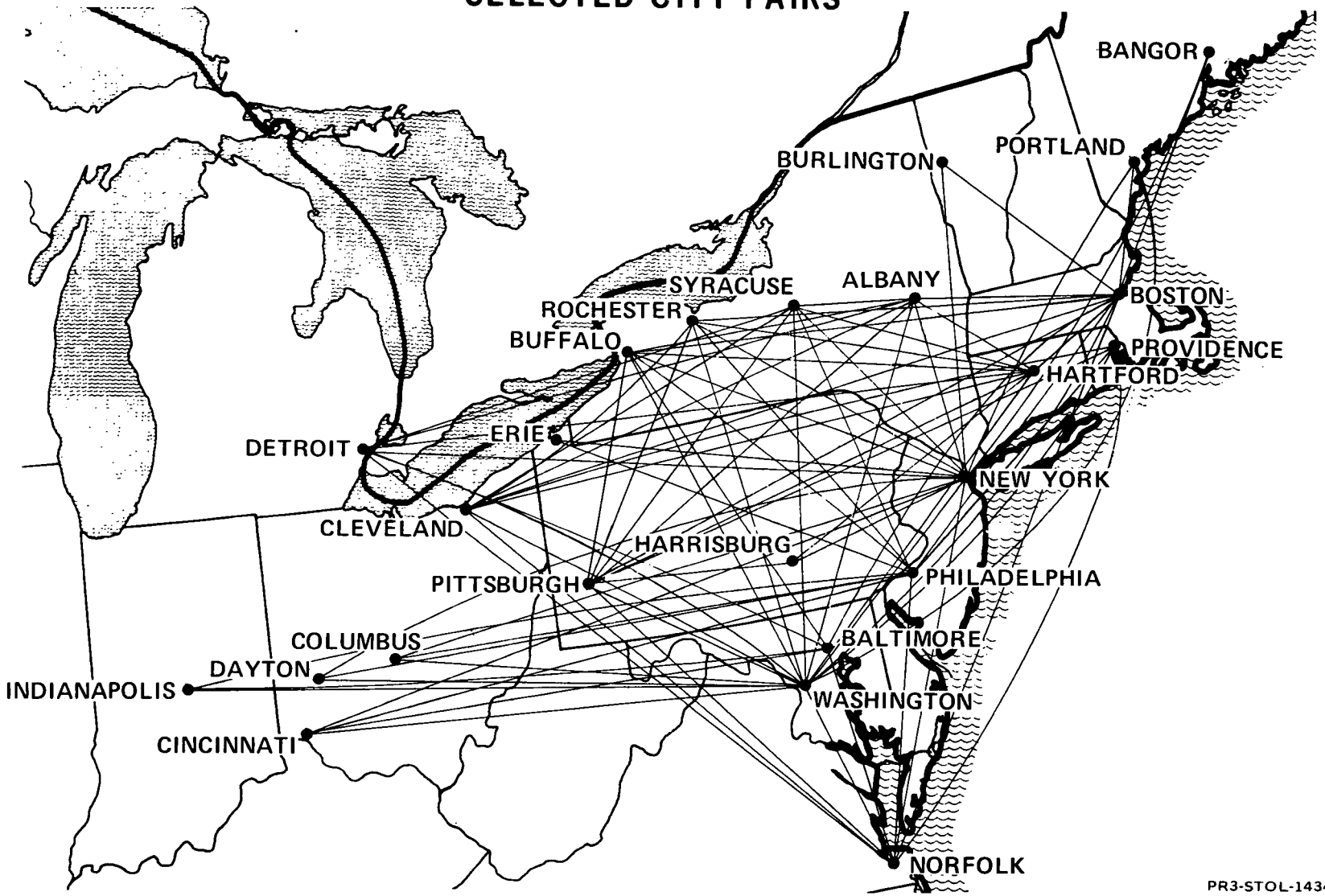
FIGURE 2-6

NORTHEAST REGION

SELECTED CITY PAIRS



PR3-STOL-1434

these city pairs.

2.2.2 California Region. - A total of 26 city pairs constitute the expanded Phase II California region. Over 28 million passengers will travel between these city pairs in 1985. As in Phase I, the California region is dominated by the 300 to 400 statute mile range category (483-643 KM). The Los Angeles-San Francisco city pair accounts for this situation. Table 2-2 and Figure 2-7 contain the projected 1985 O&D distribution for the 26 city pairs in the California region. A map of these city pairs is shown on Figure 2-8.

2.2.3 Chicago Region. - The Chicago market region was modified and expanded to include a larger representative sample of city pairs capable of supporting STOL service. There are now 61 city pairs included in the Chicago region.

By increasing the number of city pairs and including some that do not feed directly into one central point, Chicago in this instance, several operational problems were investigated. These included the necessity for aircraft to "overnight" in locations other than the base city in order to provide flights at convenient times of day.

In the expanded network, 21 of the 61 city pairs feed into Chicago. This required investigating the tradeoffs between desirable flight times, aircraft requirements and gate requirements. A number of city pairs of lower passenger density was also included in the network to examine the tradeoffs of a mixed fleet with two aircraft of different passenger capacities. Table 2-3 and Figure 2-9 contain, respectively, tabular and graphic portrayals of passenger distribution versus segment distances for the year 1985. A total of 18.6 million passengers are forecast to travel between the 61 city pairs that constitute the Chicago region by 1985. Figure 2-10 contains the

Table 2-2
CALIFORNIA REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

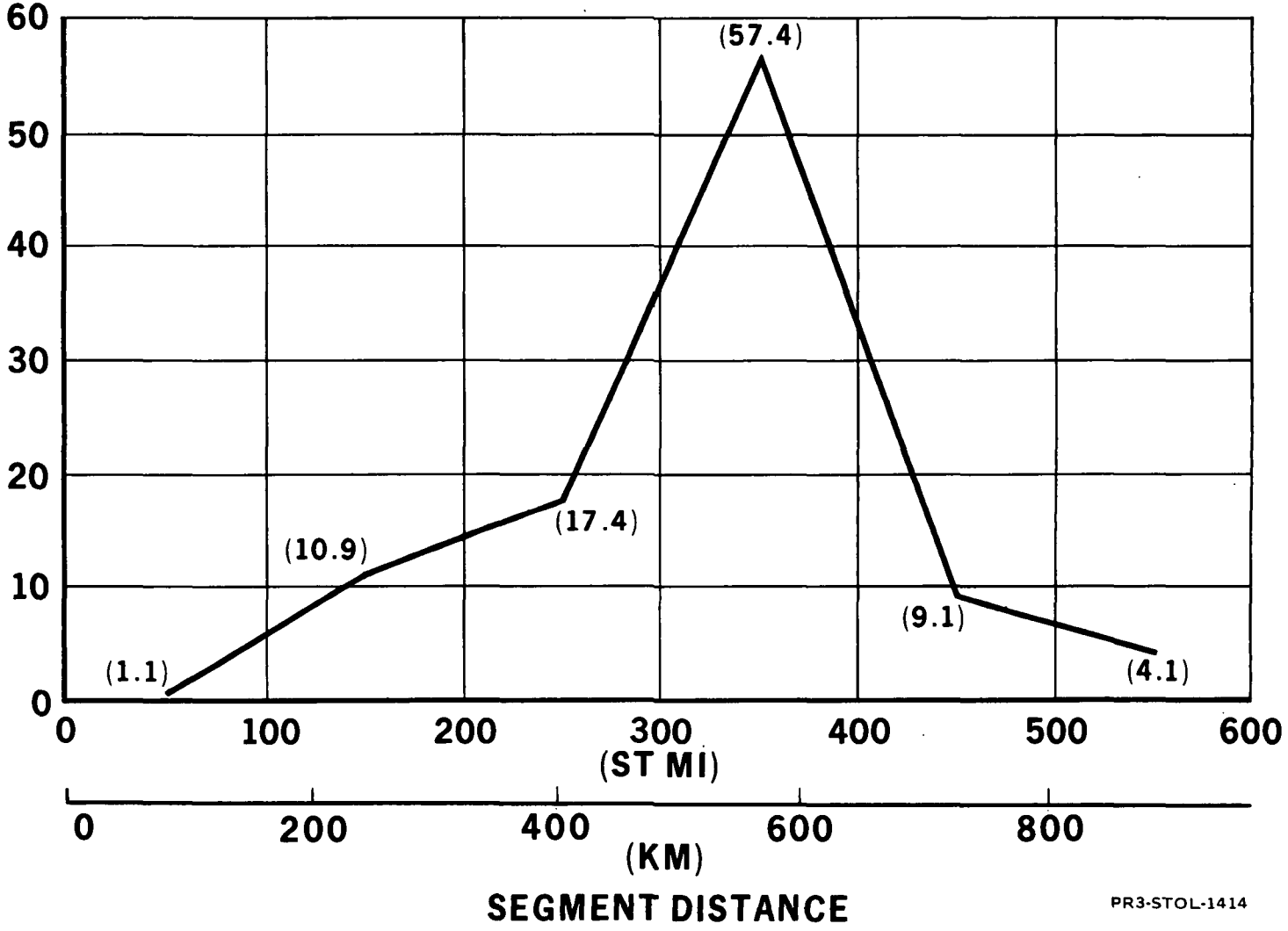
CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
DEN PHX	589	948							309198
EKA SFO	239	385				157688			
FAT LAX	213	343				444000			
FAT SFO	164	264			362000				
LAS LAX	227	365				3078439			
LAX PHX	255	410				253710			
LAS RNO	345	555					277046		
LAS SAN	258	415				257298			
LAS SFO	419	674						551750	
LAX MRY	273	439				472715			
LAX PHX	358	576					1362133		
LAX RNO	393	632					234180		
LAX SAN	101	163			2248000				
LAX SBA	100	161			107385				
LAX SFO	355	571					12613000		
LAX SMF	379	610					1435000		
LAX TUS	438	705						480051	
MRY SFO	87	140		107125					
PDX SFO	540	869							863453
PHX SAN	304	489					270650		
RNO SFO	187	301			375241				
SAN SFO	456	734						1439000	
SAN SMF	480	772						108000	
SAN TUS	367	591					99425		
SBA SFO	272	438				261184			
SFO SMF	78	126		204000					
Total Passengers (28,371,671)				311125	3092626	4925034	16291434	2578801	1172651
Percent of Total (100.0)				1.1	10.9	17.4	57.4	9.1	4.1

FIGURE 2-7

CALIFORNIA REGION

REPRESENTATIVE CITY PAIR NETWORK
PASSENGER DISTRIBUTION vs SEGMENT DISTANCE -1985

(O&D AIR PASSENGERS)



PR3-STOL-1414

FIGURE 2-8

CALIFORNIA REGION

SELECTED CITY PAIRS

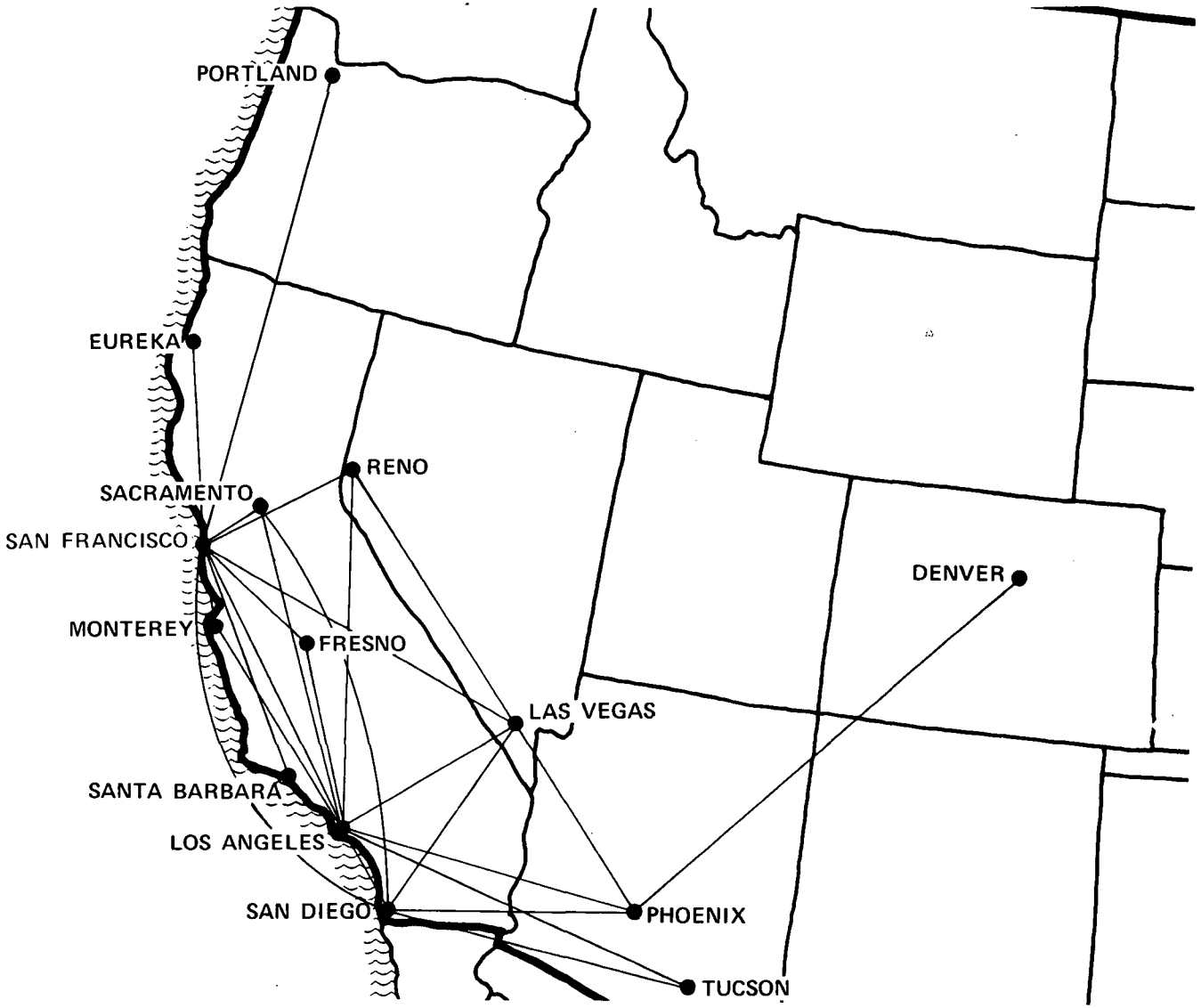


Table 2-3
CHICAGO REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI	KM	ST.MI. KM	RANGE CATEGORY 0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
BUF CHI	467	752						312249	
BUF CLE	26	42		62060					
BUF DTT	230	370				150949			
CHI CLE	312	502					968940		
CHI CMH	287	462				480830			
CHI CVG	254	409				541012			
CHI DAY	231	372				339171			
CHI DSM	306	492					352393		
CHI DTT	238	383				1651370			
CHI EVV	254	426				165395			
CHI FWA	148	348			108703				
CHI GRR	134	216			122662				
CHI IND	167	269			538212				
CHI MKC	407	655						887797	
CHI MSN	118	190			160331				
CHI MSP	344	554					1876763		
CHI OMA	423	681						324412	
CHI PIA	131	211			144415				
CHI PIT	404	650						796667	
CHI ROC	522	840							235503
CHI SPI	172	277			125750				
CHI STL	256	412				1540859			
CHI TOL	206	332				170001			
CLE CVG	226	364				131180			
CLE DAY	168	270			93559				
CLE DTT	94	151		407967					
CLE PIT	104	167			97440				
CLE STL	492	792						250873	
CMH DTT	161	259			130419				
CMH PIT	144	232			63395				
CMH STL	410	660						97305	
CVG DTT	238	383				204866			
CVG PIT	256	412				85817			
CVG STL	308	496					175606		
DAY DTT	175	282			59743				
DAY PIT	214	344				95062			
DAY STL	339	546					93642		
DEN MKC	552	888							394916
DEN OMA	484	779						196002	
DLH MSP	144	232			57230				
DSM MKC	174	280			85436				
DSM MSP	232	373				151048			
DSM STL	260	418				117223			
DTT GRR	126	203			54446				
DTT IND	241	388				184835			
DTT MKE	244	393				224064			
DTT MSP	534	859							334726
DTT PIT	198	319			325334				
DTT ROC	286	460				160924			
DTT STL	451	726						422559	
FSD MSP	197	317			77868				
IND PIT	325	523					113813		
IND STL	299	481				213190			
MKE MSP	297	478				345273			
MKE STL	317	510					123330		
MKC STL	229	368				357259			
MSN MSP	228	367				106147			
MSP OMA	282	454				226175			
OMA STL	342	550					97935		
PIT STL	553	890							165090
STL TUL	351	565					97830		
Total Passengers (18,675,971)				470027	2244943	7642650	3900252	3287864	1130235
Percent of Total (100.00)				2.5	12.0	40.9	20.9	17.6	6.1

FIGURE 2-9

CHICAGO REGION

REPRESENTATIVE CITY PAIR NETWORK
PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985
(O&D AIR PASSENGERS)

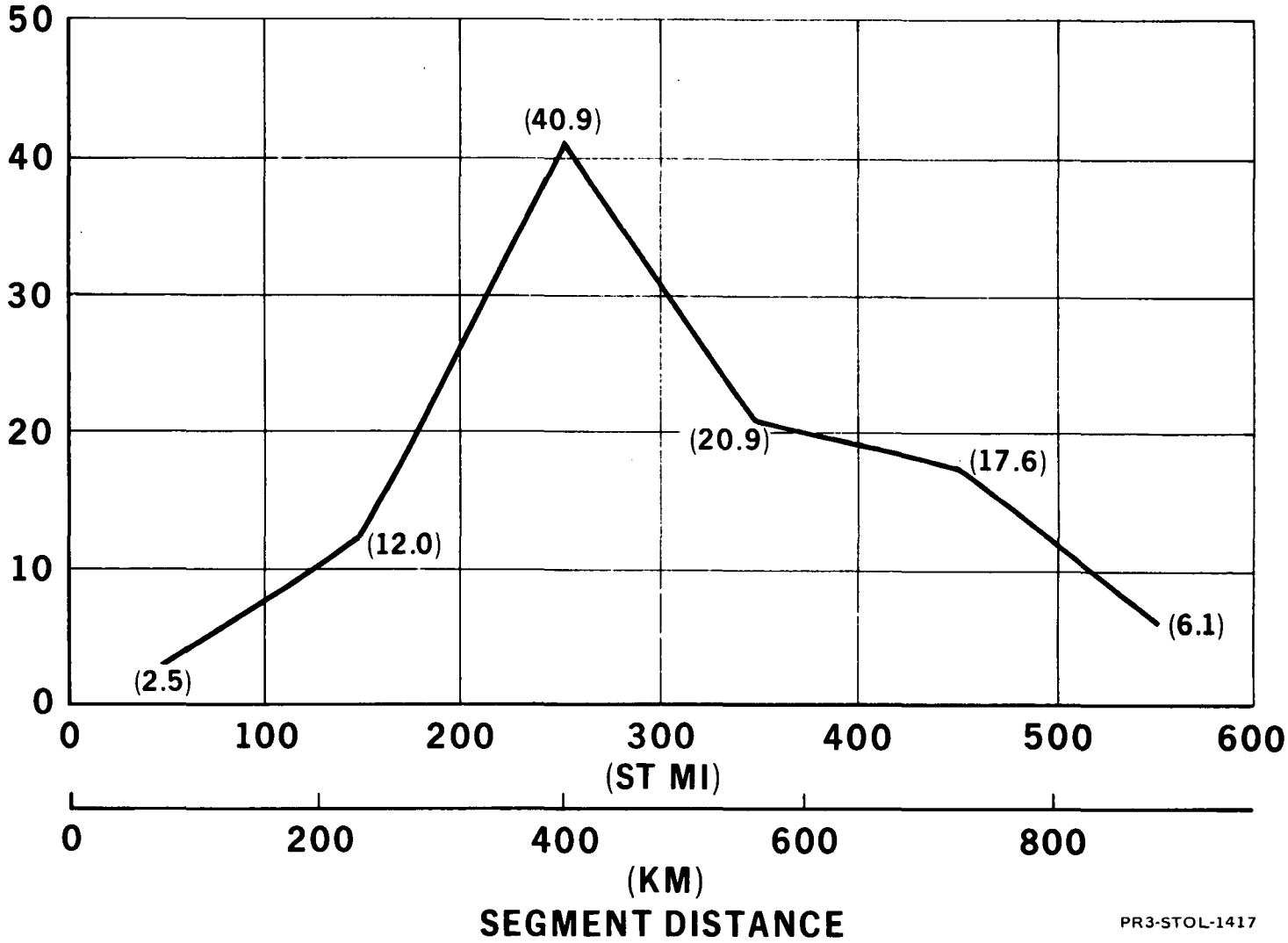


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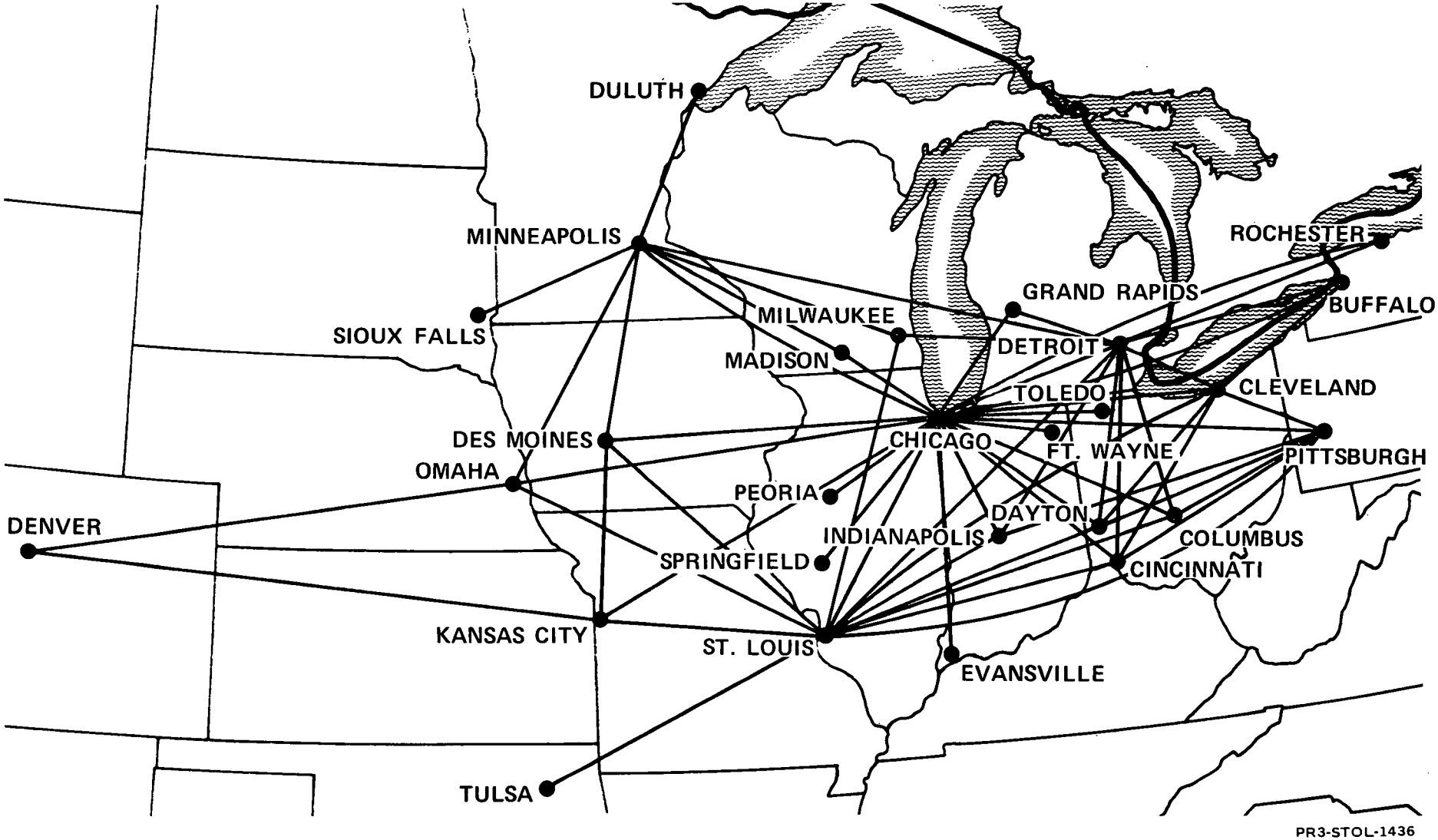
FIGURE 2-10

CHICAGO REGION

SELECTED CITY PAIRS



location of each of these city pairs.

2.2.4 Southeast Region. - A total of 77 city pairs was included in the Southeast region. This region differs from the Chicago, Northeast and Southern regions in that the predominant range category is the 400 to 500 statute mile segment distance (644-804 KM). This range category accounts for just over 30 percent of the O&D air passengers.

A total of 17.5 million passengers are forecast to travel in the Southeast region, as defined above, in the year 1985. Table 2-4 and Figure 2-11 contain the 1985 passenger distribution versus segment distance for these city pairs. As opposed to the Northeast, California, and Chicago regions, the Southeast region has a fewer number of city pairs which have large annual passenger volumes. Figure 2-12 shows each of the city pairs in the Southeast region.

2.2.5 Southern Region. - Just over nine million O&D air passengers are expected to travel between the 37 city pairs comprising the Southern region in 1985. Table 2-5 and Figure 2-13 show the 1985 passenger distribution versus segment distance for these city pairs. It should be noted that the Southern region is dominated by the 200 to 300 statute mile range category (322-482 KM). City pairs in this segment distance constitute almost 30 percent of the O&D air passengers. All of this region's city pairs are shown in Figure 2-14.

2.2.6 Northwest Region. - The Northwest region was constructed with a total of eleven city pairs. Of these city pairs, the Spokane-Seattle route contributed the largest volume of passengers. Over 450,000 passengers were allocated to STOL service on this city pair for the year 1985. Table 2-6

Table 2- 4
SOUTHEAST REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
ATL BAL	576	927							239223
ATL BHM	134	216			173879				
ATL BNA	214	344				306485			
ATL CAE	192	309			276279				
ATL CHI	597	961							778460
ATL CHS	259	417				206933			
ATL CLE	559	900							238357
ATL CLT	227	365				228583			
ATL CVG	373	600					174631		
ATL DAB	366	589					65093		
ATL DAY	432	695						96364	
ATL FLL	581	935							173962
ATL GSO	306	492					218118		
ATL IND	432	695						133079	
ATL JAN	341	549					161468		
ATL JAX	276	444				400738			
ATL MCO	400	644						269982	
ATL MEM	332	534					417277		
ATL MGM	147	237			125836				
ATL MIA	595	958							791473
ATL MOB	302	486					158767		
ATL MSY	425	684						388519	
ATL ORF	516	830							141111
ATL PBI	545	877							127800
ATL PIT	526	847							192157
ATL PNS	272	438				109049			
ATL RDU	356	572					274751		
ATL RIC	481	774						132832	
ATL SAV	215	346				336176			
ATL SDF	321	516					230622		
ATL STL	484	779						242609	
ATL TLH	223	359				89487			
ATL TPA	410	660						441310	
ATL TRI	227	365				63158			
ATL TYS	152	245			108096				
ATL WAS	481	774						594920	
BHM MEM	212	341				84998			
BHM MSY	321	516					103153		
BNA CHI	401	645						241920	
BNA MEM	200	322				178732			
BNA WAS	552	888							154145
CAE WAS	404	650						135687	
CHI CLT	589	948							136868
CHI MEM	485	780						464401	
CHI SDF	277	446				417013			
CHS ORF	351	565					94319		
CHS WAS	442	711						140873	
CLE SDF	310	499					117842		
CLT NYC	537	864							572060
CLT PHL	453	729						151944	
CLT WAS	325	523					153963		
CRW WAS	238	383				109769			
DTT SDF	316	508					258395		
FLL TPA	190	306			85893				
GSO NYC	455	732						497703	
GSO WAS	244	393				163270			
JAN MEM	189	304			87549				
JAX MIA	329	529					271975		
MCO MIA	196	315			144819				
MEM MKC	379	610					108795		
MEM MSY	349	562					217939		
MEM STL	255	410				236248			
MIA TLH	403	649						189672	

Table 2- 4 (Concluded)
SOUTHEAST REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

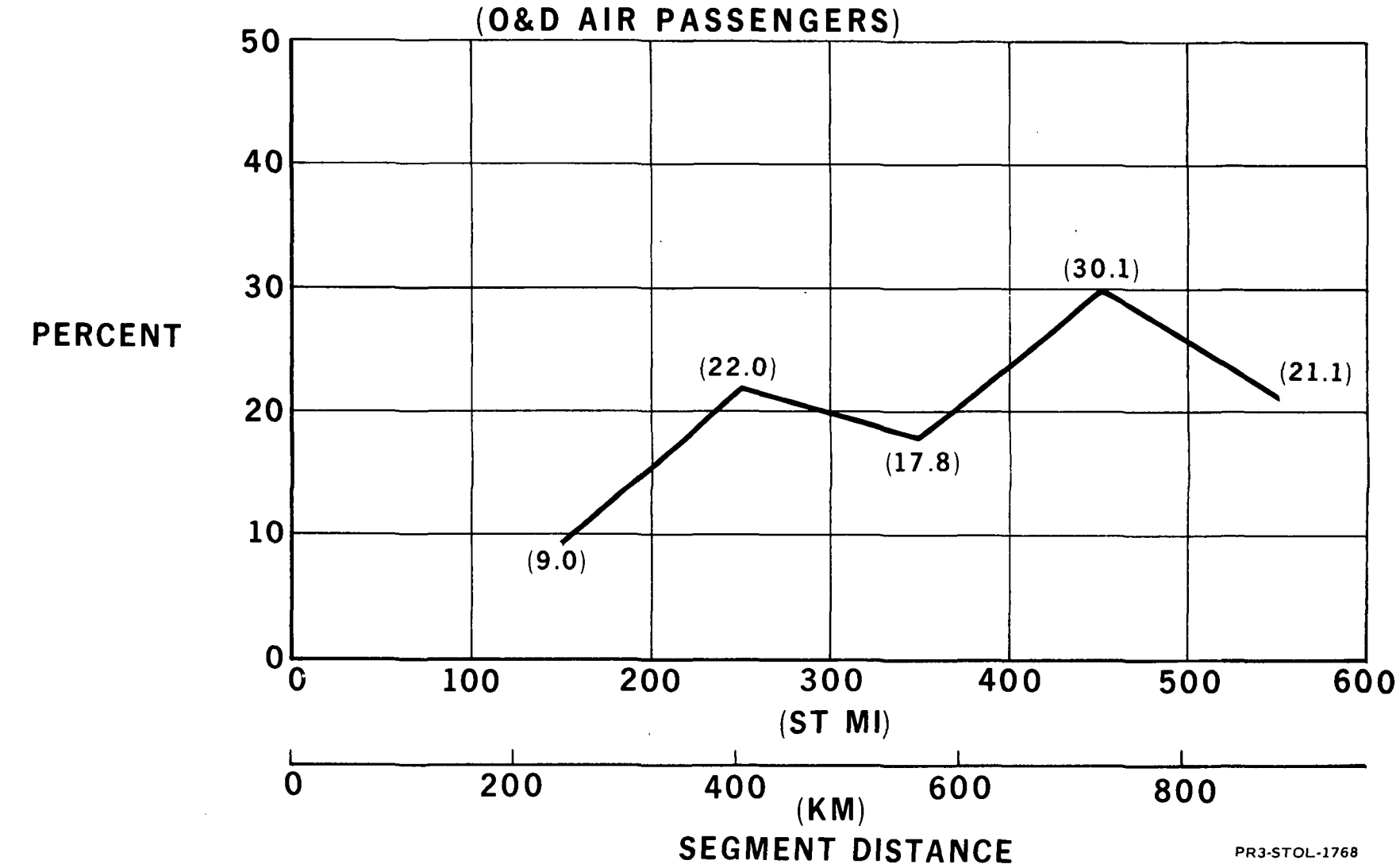
CITY PAIR	DISTANCE ST.MI.	KM	ST.MI. KM	RANGE CATEGORY 0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
MIA TPA	199	320			399011				
MSY TPA	495	797						118079	
NYC PHF	283	455				138527			
NYC RIC	286	460				309188			
NYC RDU	425	684						623757	
PBI TPA	167	269			77613				
PHL SDF	583	938							138982
PIT SDF	335	539					89362		
RDU WAS	225	362				218439			
ROA WAS	184	296			100865				
SDF STL	254	409				149387			
SDF WAS	463	745						198114	
TLH TPA	205	335				90342			
TYS WAS	428	689						197847	
Total Passengers (17,477,042)					1579840	3836522	3116470	5259612	3684598
Percent of Total (100.0)					9.0	22.0	17.8	30.1	21.1

FIGURE 2-11

SOUTHEAST REGION

REPRESENTATIVE CITY PAIR NETWORK

PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985

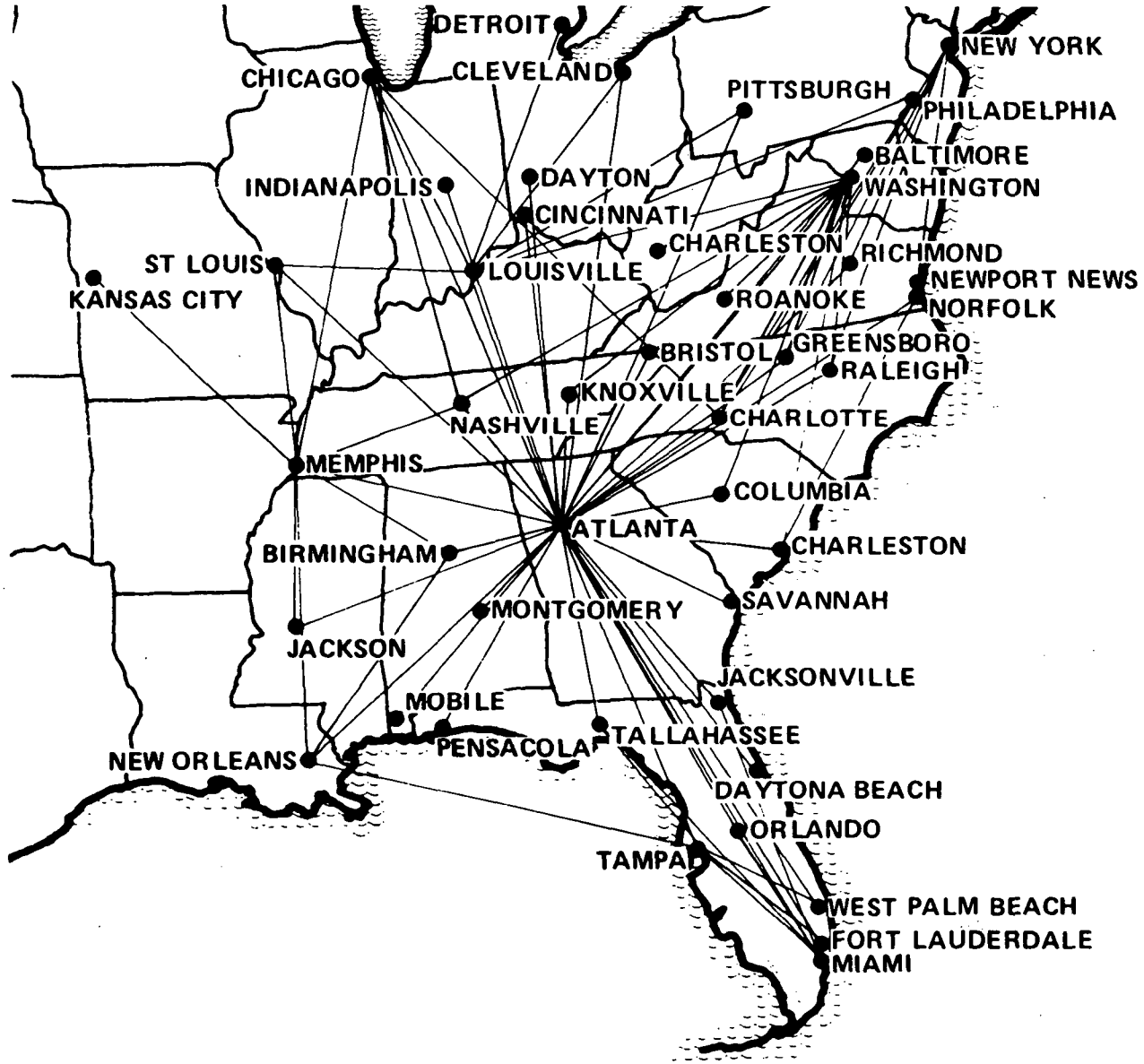


PR3-STOL-1768

FIGURE 2-12

SOUTHEAST REGION

SELECTED CITY PAIRS



PR3-STOL-1422

Table 2- 5
SOUTHERN REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
ABI DAL	182	293			64786				
ABQ DAL	594	956							210333
ABQ DEN	339	546					259381		
ABQ ELP	223	359				134499			
AMA DAL	336	541					216258		
AUS DAL	187	301			370785				
CRP DAL	353	568					199666		
CRP IAH	194	312			84571				
DAL ELP	576	927							269618
DAL IAH	222	357				945267			
DAL ICT	335	539					119263		
DAL LBB	307	494					357891		
DAL LIT	283	455				190018			
DAL MAF	333	536					248220		
DAL MEM	410	660						261210	
DAL MKC	448	721						356629	
DAL MSY	423	681						489430	
DAL OKC	185	298			395414				
DAL SAT	253	407				542988			
DAL STL	537	864							368753
DAL TUL	234	377				297403			
DEN ICT	428	689						150371	
DEN OKC	500	805							143235
ELP SAT	496	798						92687	
IAH MAF	435	700						148297	
IAH MEM	477	768						145294	
IAH MSY	303	488					710135		
IAH OKC	407	655						168729	
IAH SAT	192	309			200901				
IAH SHV	202	325				98597			
IAH TUL	441	710						234225	
ICT MKC	184	296			67985				
JAN MSY	160	257			53323				
LIT STL	296	476				96279			
MKC TUL	215	346				63360			
MLU MSY	203	327				69161			
MSY SHV	271	436				178033			
Total Passengers (9,002,995)					1237765	2615605	2110814	2046872	911939
Percent of Total (100.0)					13.8	29.0	23.5	22.7	11.0

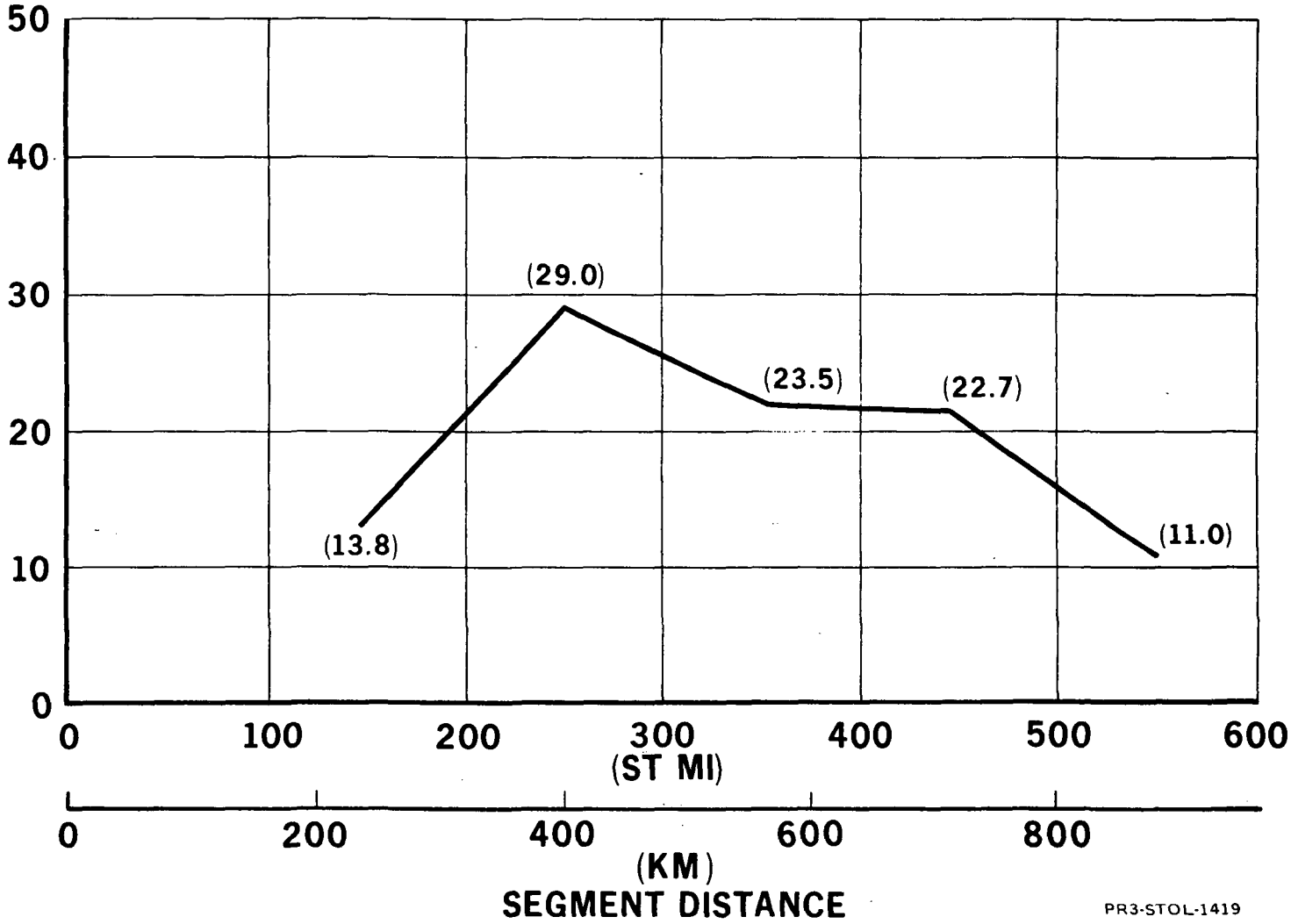
FIGURE 2-13

SOUTHERN REGION

REPRESENTATIVE CITY PAIR NETWORK

PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985

(O&D AIR PASSENGERS)

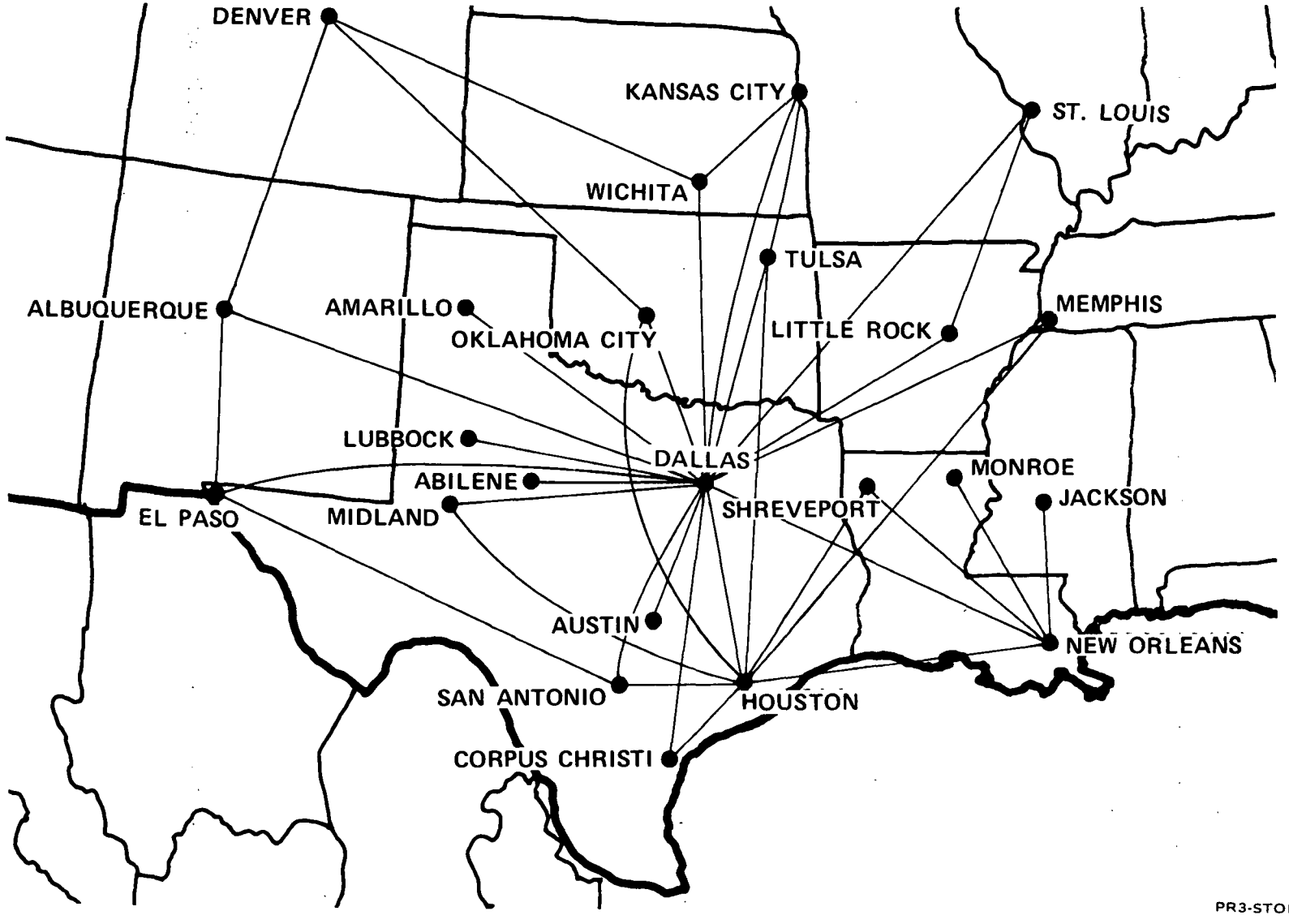


PR3-STOL-1419

FIGURE 2-14

SOUTHERN REGION

SELECTED CITY PAIRS



PR3-STOL-1430

39

Table 2- 6
NORTHWEST REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. KM	0-99 0-160	100-199 161-321	200-299 322-482	300-399 483-643	400-499 644-804	500-599 805-965
BOI PDX	344	554					148532		
BOI SEA	400	644						134944	
BOI SFO	516	830							134488
BOI SLC	291	468				107124			
EUG SFO	440	708						213152	
GEG PDX	278	447				206089			
GEG SEA	223	359				451404			
PDX RNO	444	715						130053	
PDX SEA	132	212			330454				
RNO SEA	566	911							138391
SEA YKM	105	169			72198				
Total Passengers (2,066,829)					402652	764617	148532	478149	272879
Percent of Total (100.0)					19.5	37.0	7.2	23.1	13.2

and Figure 2-15 show the 1985 passenger distribution versus segment distance for these eleven city pairs. It is significant that the 100 to 200 statute mile range category (161-321 KM) dominates this representative region with a total of just over 35 percent of the O&D air passengers. Figure 2-16 contains a map of the region's city pairs.

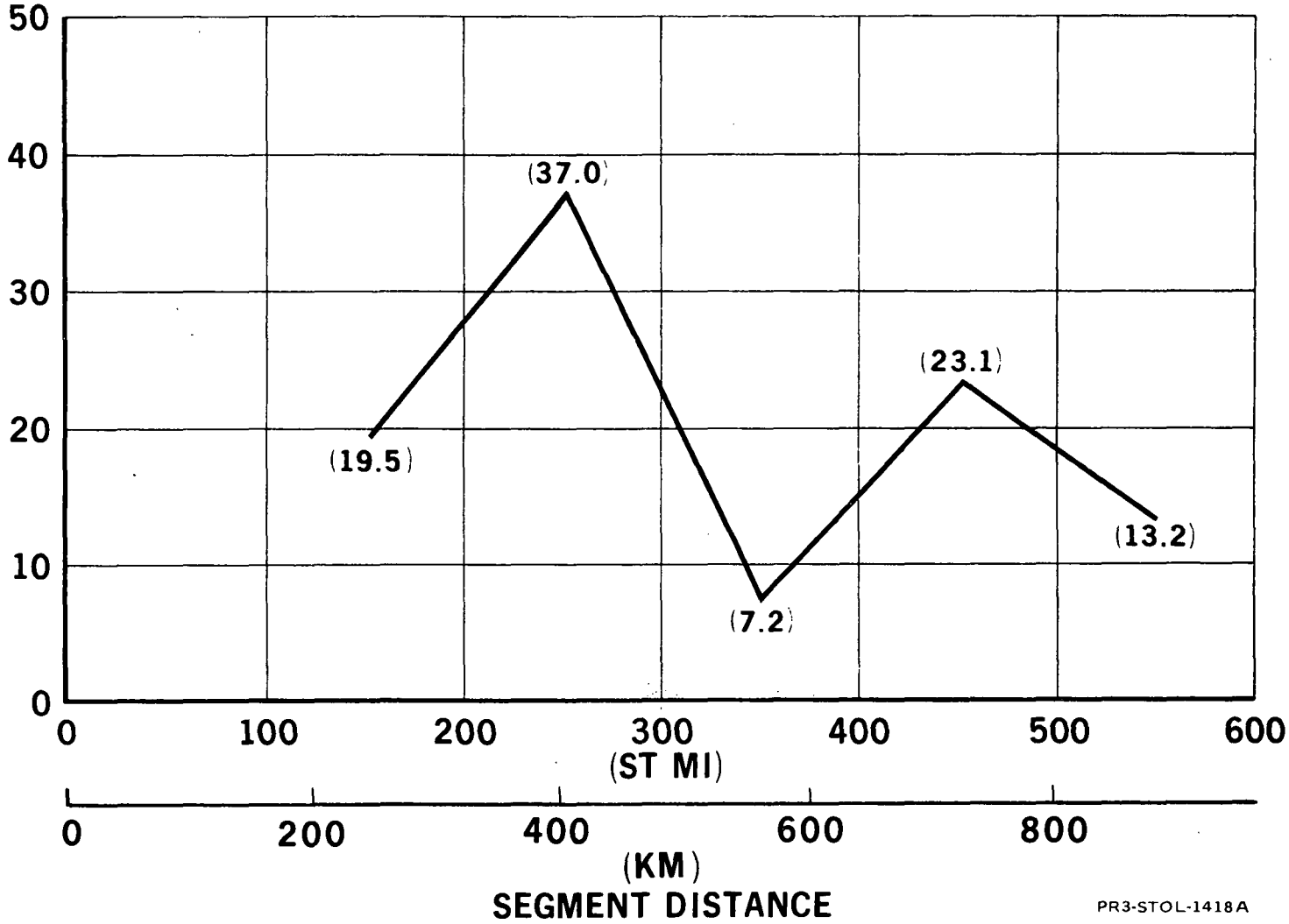
2.2.7 Hawaii Region. - The Hawaii region contains a total of seven city pairs. By 1985 almost 3.7 million O&D air passengers are forecast to travel between these city pairs. This market is dominated by the 100 to 199 statute mile stage segment (161-321 KM). Passengers in this range category comprise almost 69 percent of the total. Table 2-7 and Figure 2-17 depict the forecast 1985 passenger distribution versus segment distance for the seven city pairs comprising the Hawaii region. These city pairs are also shown in the map contained in Figure 2-18

In summary, seven representative regions comprising a total of 319 city pairs and 124 million passengers were examined during Phase II of this study. This compares with a total of 494 city pairs previously identified as being potential STOL markets. Each of these city pairs was required to be within the 0-600 statute mile (966 KM) range cateogry and to generate 50,000 or more origin and destination passengers by the year 1985.

FIGURE 2-15

NORTHWEST REGION

REPRESENTATIVE CITY PAIR NETWORK
PASSENGER DISTRIBUTION vs SEGMENT DISTANCE - 1985
(O&D AIR PASSENGERS)

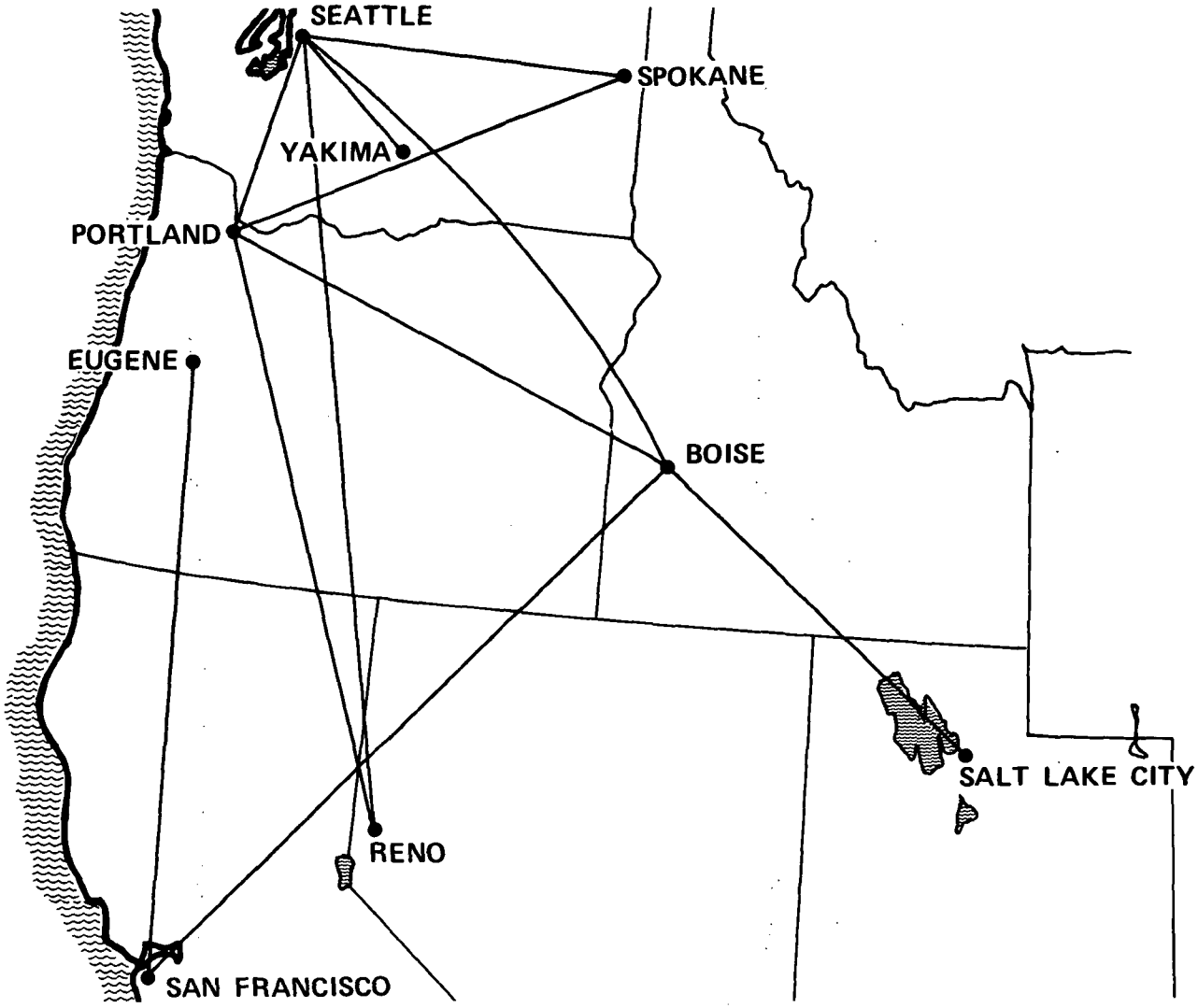


PR3-STOL-1418A

FIGURE 2-16

NORTHWEST REGION

SELECTED CITY PAIRS



PR3-STOL-1435

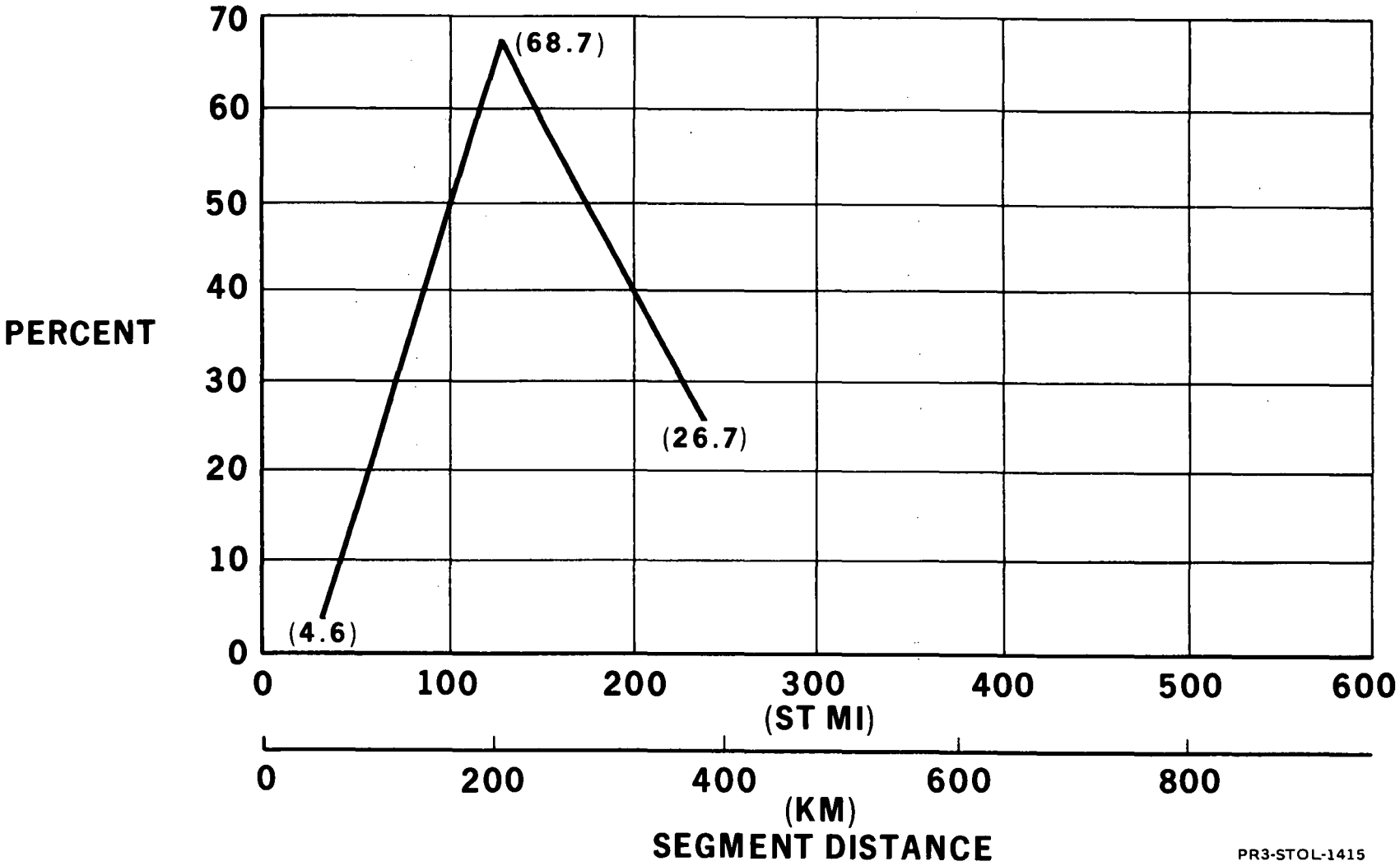
Table 2-7
HAWAII REGION PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	DISTANCE ST.MI.	KM	RANGE CATEGORY ST.MI. / KM	0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
HNL ITO	216	348				977217			
HNL KOA	169	272			383451				
HNL LIH	102	164			1036790				
HNL MKK	54	87		166411					
HNL MUE	171	275			138782				
HNL OGG	100	161			899974				
ITO OGG	121	195			55354				
Total Passengers (3,657,979)				166411	2514351	977217			
Percent of Total (100.0)				4.6	68.7	26.7			

FIGURE 2-17.

HAWAII REGION

REPRESENTATIVE CITY PAIR NETWORK
PASSENGER DISTRIBUTION vs SEGMENT DISTANCE -1985
(O&D AIR PASSENGERS)

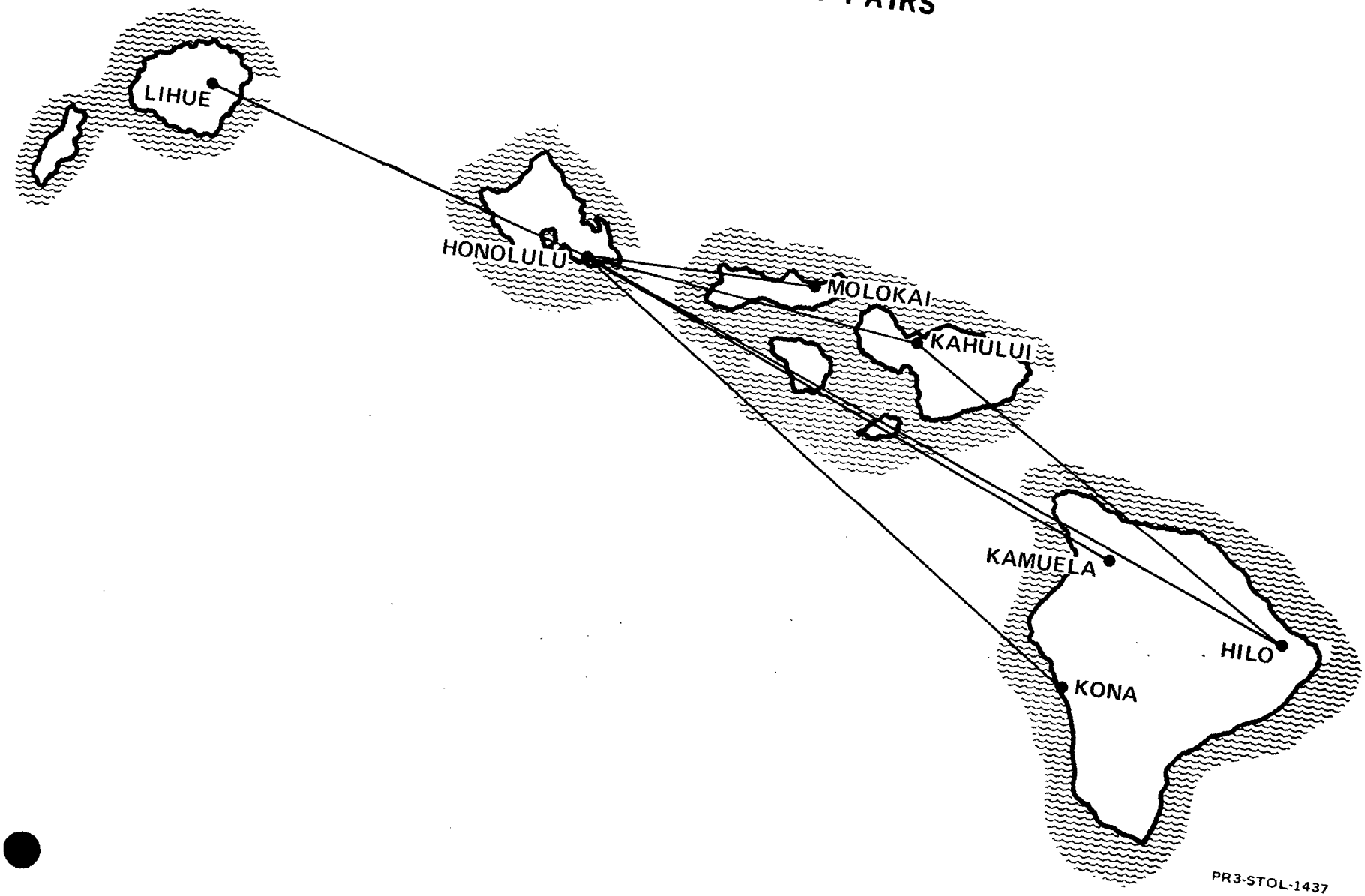


PR3-STOL-1415

FIGURE 2-18

HAWAII REGION

SELECTED CITY PAIRS



3.0 COMPETING TRAVEL MODES

3.1 Intercity Travel Mode Perspective

An overview of U.S. domestic intercity travel has been prepared from the Transportation Association of America's Transportation Facts and Trends.

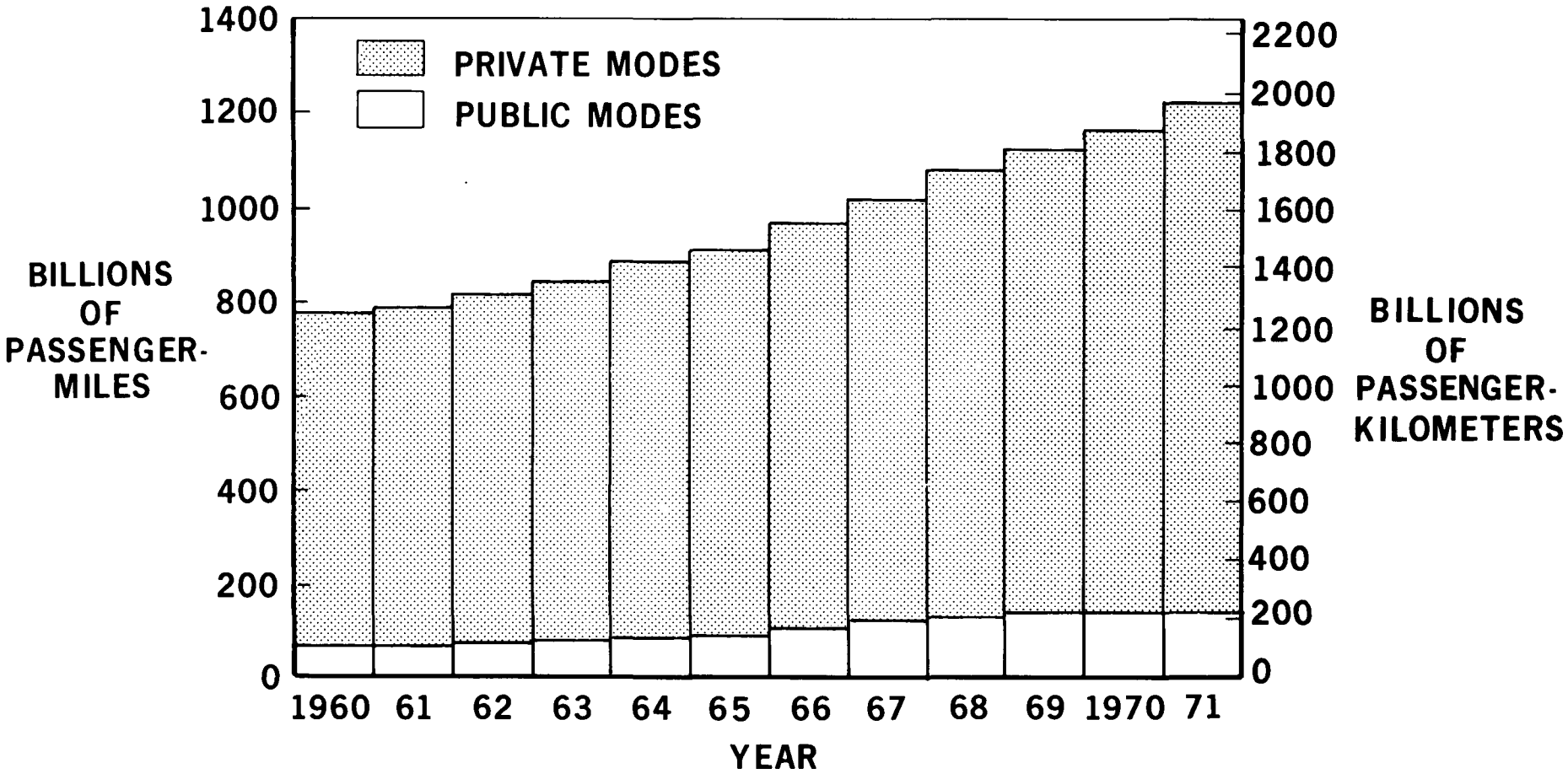
Between 1960 and 1971, total domestic intercity passenger-miles (passenger-kilometers) grew from 784 (1262) to 1221 (1965) billion at an average annual rate of 4.1 percent (Figures 3-1 and 3-2). In comparison, during the same period private mode intercity passenger-miles (passenger-kilometers), almost exclusively accounted for by private automobiles, grew from 706 (1136) billion to 1071 (1724) billion or at an average rate of 3.9 percent. And public mode intercity passenger-miles (passenger-kilometers), primarily accounted for by the air mode, grew from 75 (121) to 141 (227) billion or at an average annual rate of 6.1 percent (Figures 3-2 and 3-3).

During the 1960 to 1969 period, the common carrier share of total domestic intercity passenger-miles (passenger-kilometers) increased from 9.6 percent at the beginning of the period to 12.6 percent at the end. However, since 1969, the common carrier share has dropped. It fell to 11.9 percent in 1970 and further declined to 11.5 percent in 1971. The growth rate of public intercity travel began to decline in 1967 (Figures 3-2 through 3-5). See Appendix 11.5 for additional exhibits.

In contrast to the slowing growth of public mode domestic intercity travel since 1969, travel by private modes, primarily private automobile, has shown consistent growth for the same period. Besides the long decline of rail travel resulting from the increased popularity of air and

FIGURE 3-1.

DOMESTIC INTERCITY TRAVEL

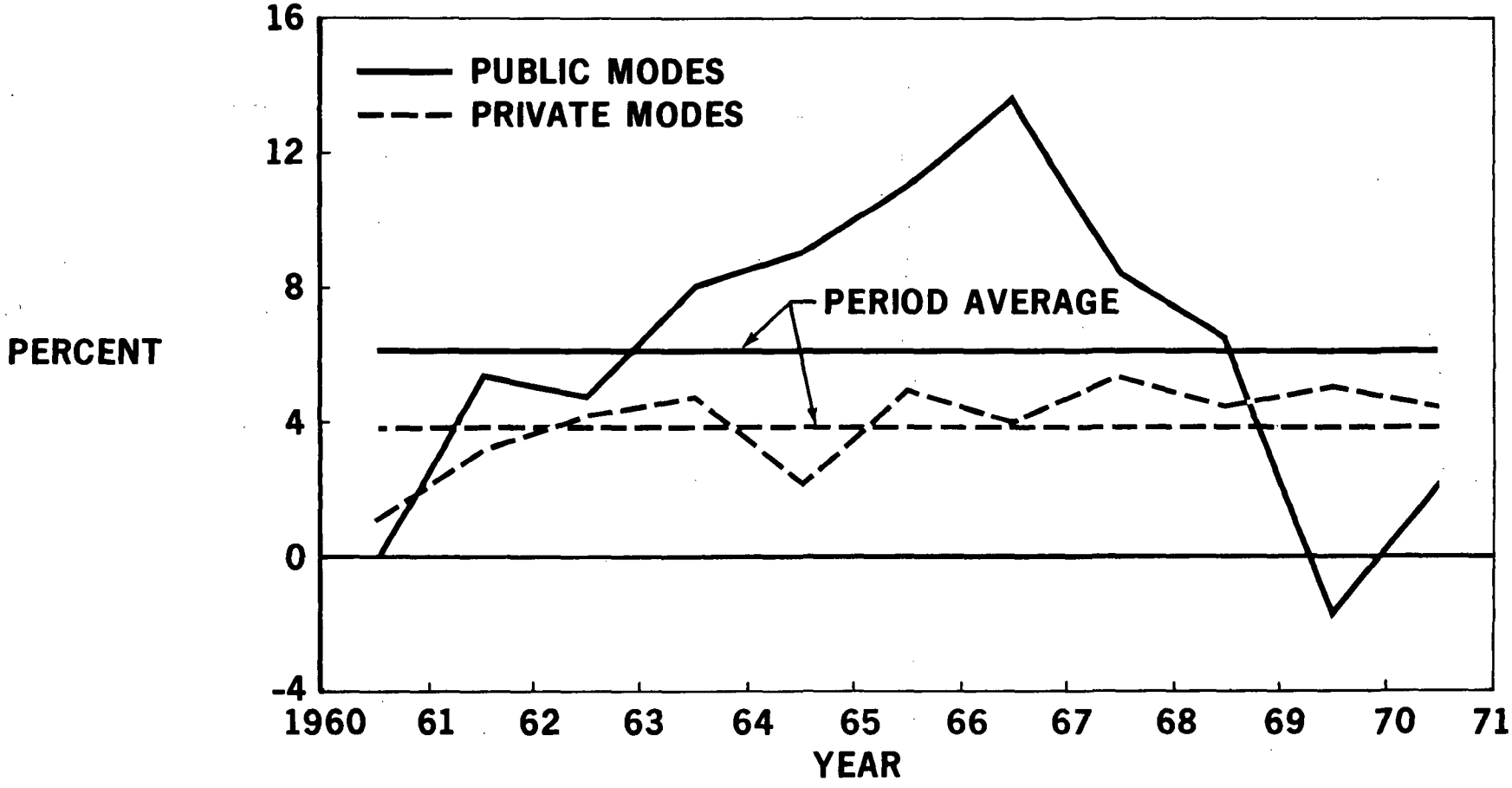


PR2-STOL-1059A

FIGURE 3-2.

ANNUAL GROWTH RATES
DOMESTIC INTERCITY PASSENGER MILES/KILOMETERS

PUBLIC AND PRIVATE MODES

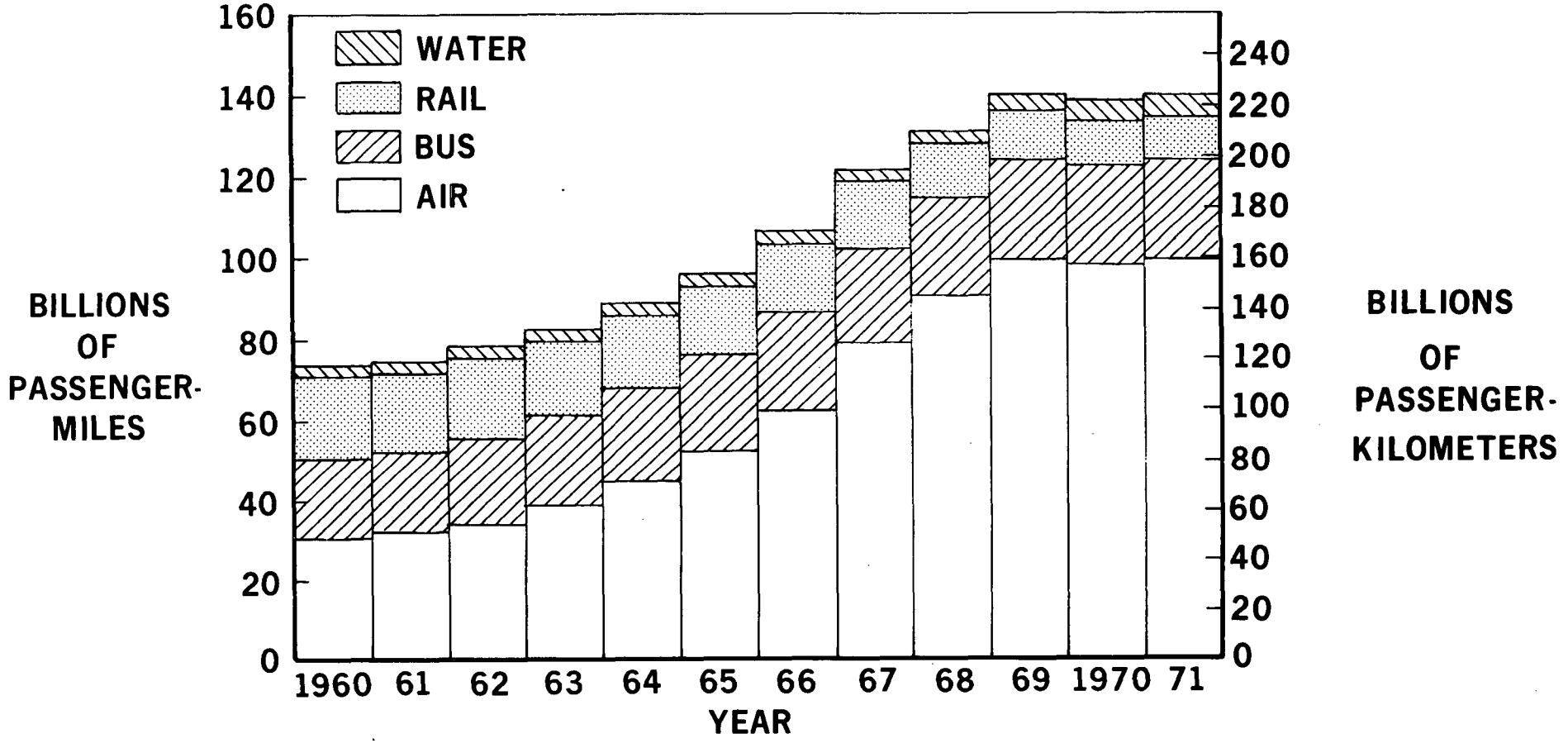


PR2-STOL-1057A

FIGURE 3-3.

DOMESTIC INTERCITY TRAVEL

PUBLIC MODES

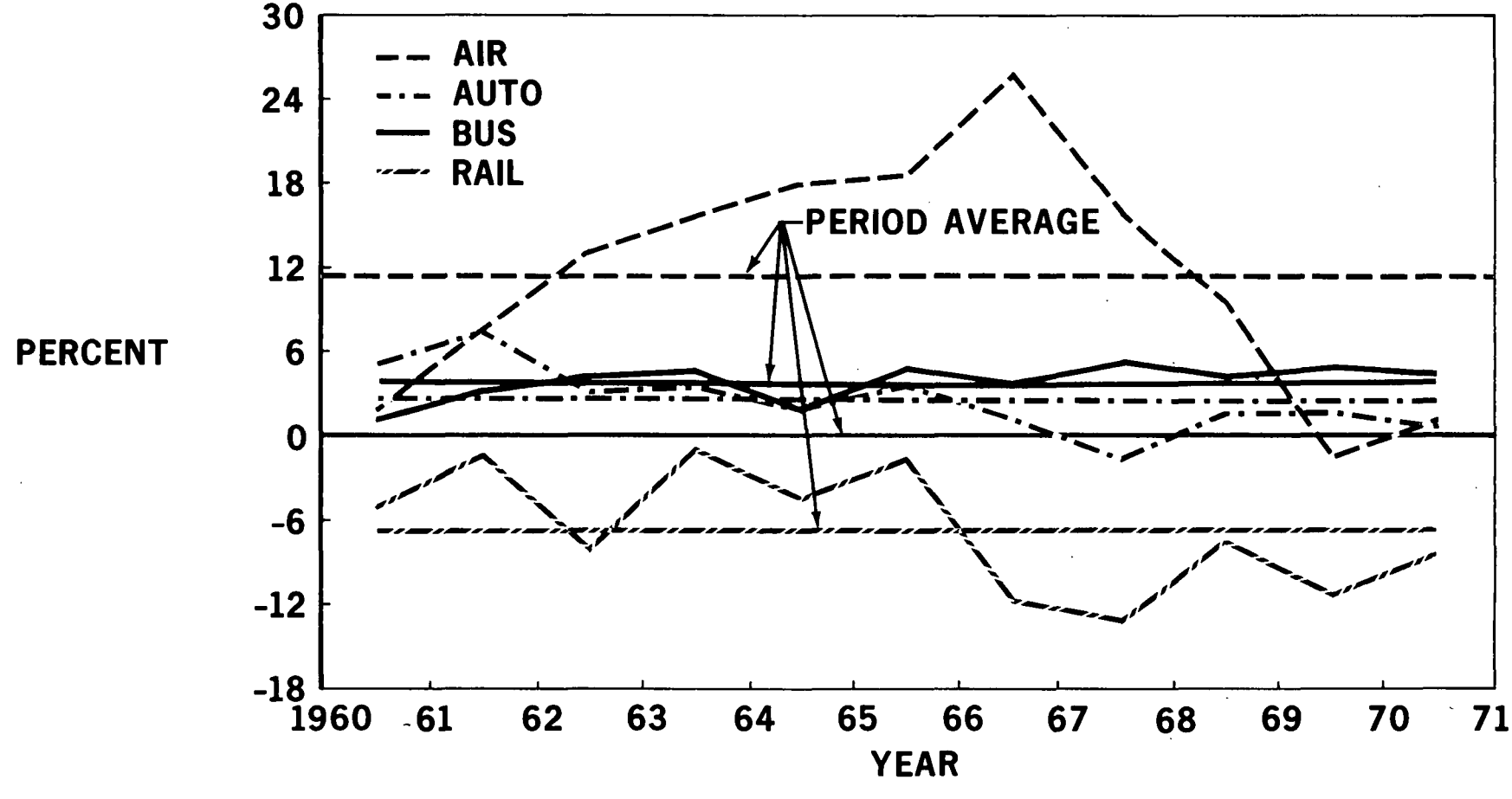


PR2-STOL-1058

FIGURE 3-4.

ANNUAL GROWTH RATES
DOMESTIC INTERCITY PASSENGER MILES/KILOMETERS

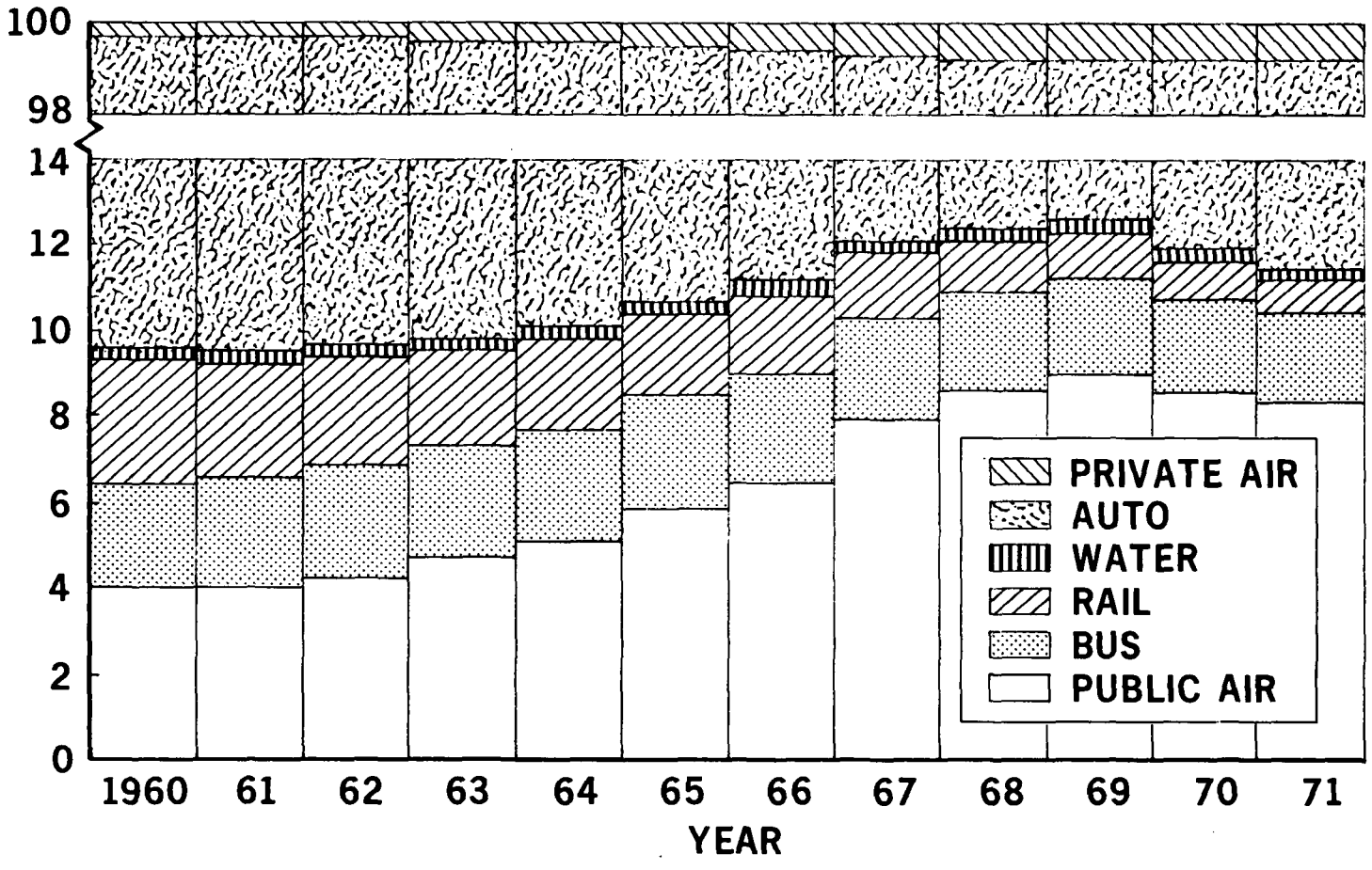
SELECTED MODES



PR2-STOL-1060 A

FIGURE 3-5.

DISTRIBUTION OF INTERCITY PASSENGER MILES/KILOMETERS BY MODE



PR2-STOL-1056 A

auto, there are several more reasons to account for this situation. These include: economic recession, airport and airways congestion, and the growth of interstate and intrastate highways and freeways.

First, the 1969 to 1971 recession caused individuals and businesses to either avoid travel or to opt for the least expensive means of travel, the automobile. Most of the 1969 to 1971 leveling of public mode travel occurred in the scheduled air carrier industry.

Second, public air mode intercity travel, which accounts for most of the domestic intercity public mode passenger-miles (passenger-kilometers) and which has shown the most dynamic growth of all of the intercity modes, public and private (Figure 3-4), was inhibited in 1968 and 1969 by airport and airways congestion.

Third, after capturing a declining share of total intercity passenger-miles (passenger-kilometers), the private auto mode's share began to increase again after 1969 (Figure 3-5). It is believed that the growth of interstate highway and freeway networks in recent years has provided individuals, driving more powerful and comfortable automobiles, with a private and convenient way to get from point of origin to point of destination. The private automobile has become an increasingly effective competitor to the public modes of intercity transport reversing the previous trend.

However, it is anticipated that public mode transport, stimulated primarily by air mode growth, will experience new vigorous growth in the years ahead. Important reasons are expected to be scarcity of land available

for highway and freeway expansion and new technology devised to relieve airport and airway congestion. The California State Division of Highways has reported that it has become increasingly difficult to obtain rights of way for highways and freeways within the state. Existing approved rights of way will be completed by 1980. Therefore, it can be expected that roadway congestion will significantly increase in future years. The same phenomenon will occur in some of the other states. If so, it is likely that improved modes of transport (including STOL) will be emphasized especially those which can accommodate large numbers of passengers at a lower environmental cost.

Trains, in order to be competitive in the future, must offer faster service with more amenities if they are to compete with the convenience of the automobile and the speed of the jet airplane on intercity routes. During the past decade, the rail mode's share of total intercity travel has dropped from 2.6 percent in 1961 to 0.8 percent in 1971 (Figure 3-5).

In consideration of the fact that rail accounted for over 30 percent of total intercity passenger-miles (passenger-kilometers) in the mid-1940s, its 1971 share would seem to indicate that it has little significance. However, under the auspices of the U.S. Department of Transportation, the rail mode may regain some of its former importance. High speed trains on short-haul runs traveling city center to city center are competitive in the Northeast Region with other modes as has been demonstrated by the Metroliner's success between Washington and New York. However, it might be pointed out that despite the Metroliner's success, four times as many passengers still fly between Washington and New York as take the train.

It is doubtful that rail will be able to recapture any significant share of the traveling public now using air travel. Modal split analyses were performed in this study for the Northeast Region under conditions with and without high speed rail competition to determine the individual impact of STOL and high speed rail on the total Northeast Region transportation system.

3.2 Modal Competition Dynamics

Table 3-1 offers a perspective of the competitive dynamics of U.S. transportation. It shows the changes in the shares of total U.S. person-trips by transport mode and by distance between the years 1953 and 1967. It is interesting to note that during the designated time period the automobile increased its competitive share for distances up to 100 miles (161 kilometers) while losing its competitive share for distances over 200 miles (322 kilometers). The air mode, which increased its competitive share for distances over 100 miles (161 kilometers) and which significantly increased its competitive share for distances over 200 miles (322 kilometers), therefore captured some of the auto's share of total person-trips as well as the shares of other modes of transport. Tables 3-2 and 3-3 are similar to Table 3-1 but offer a comparison of the competitive shares of total 1967 U.S. person-miles/kilometers by transport mode and by distance.

3.3 Regional Modal Competition

Passenger traffic data for the competing modes (air, auto, bus and rail) were assembled for 23 city pairs in the California, Chicago and Northeast regions. Tables 3-4 through 3-6 contain the assembled data for selected city pairs in the California and the Chicago regions for data which was adjusted to the year 1970 for the purposes of calibrating the Douglas Patronage Model.

Table 3-5 presents data for selected city pairs in the Northeast Region. It is 1968 data and was extracted from the Northeast Corridor Transportation Project Report NECTP-212 (December 1969). The Douglas Patronage Model was calibrated for the Northeast Region on the basis of the 1968 data with the escalation of fares for each of the travel modes to reflect current fare levels (1972 dollars).

Table 3-1

DISTRIBUTION OF PERSON-TRIPS [1/]
BY MODE BY DISTANCE
(Percent)

Straight Line One-Way Distance (S Mi/Km)	Air		Auto		Bus		Train		Other		Total	
	1963	1967	1963	1967	1963	1967	1963	1967	1963	1967	1963	1967
Less than 50/80	--	--	94	95	3	2	1	1	2	2	100	100
50-99/80-160	--	--	95	96	2	3	2	1	1	--	100	100
100-199/161-321	1	2	93	93	2	3	2	1	2	1	100	100
200-499/322-804	8	12	82	81	3	3	3	2	4	2	100	100
500/805 and Over	23	32	61	59	3	2	7	4	6	3	100	100
Total	3	7	89	87	3	3	2	1	2	2	100	100

[1/] For overnight trips or trips in excess of 100 miles

Source: Bureau of the Census

Table 3-2

DISTRIBUTION OF 1967 DOMESTIC PERSON-MILES/KILOMETERS[1/]
BY MODE BY RANGE CATEGORY
(Percent)

Straight Line One-Way Distance (S Mi./Km)	Air	Auto	Bus	Train	Other[2/]	Total
Less than 50/80	-	100.0	-	-	-	100.0
50 - 99/80 - 160	-	96.5	2.1	0.7	0.7	100.0
100 - 199/161 - 321	1.7	95.1	2.2	1.0	1.0	100.0
200 - 499/322 - 804	10.7	82.8	2.7	1.5	2.3	100.0
500 - 999/804 - 1609	23.8	66.6	2.1	4.0	3.5	100.0
1000/1610 and Over	25.1	68.7	1.4	2.3	2.5	100.0

[1/]For overnight trips or trips in excess of 100 miles

[2/]Includes no answer to "type of transport"

Source: Bureau of Census, Transportation Division

Table 3-3

DISTRIBUTION OF 1967 DOMESTIC PERSON-MILES/KILOMETERS[1/]
MODAL SPLIT-ALL RANGES
(Percent)

Straight Line One-Way Distance (S Mi./Km)	Air	Auto	Bus	Train	Other[2/]	Total
Less than 50/80	-	-	-	-	-	1.1
50 - 99/80 - 160	-	5.2	0.1	-	-	5.3
100 - 199/161 - 321	0.3	14.7	0.3	0.2	0.2	15.7
200 - 499/322 - 804	2.1	16.4	0.5	0.3	0.5	19.8
500 - 999/805 - 1609	3.4	9.6	0.3	0.6	0.5	14.4
1000/1610 and Over	11.0	30.0	0.6	1.0	1.1	43.7
Total	16.8	77.0	1.8	2.1	2.3	100.0

[1/]For overnight trips or trips in excess of 100 miles

[2/]Includes no answer to "type of transport"

Source: Bureau of Census, Transportation Division

Table 3-4

1970 PASSENGER DATA ESTIMATES
CALIFORNIA REPRESENTATIVE REGION

CITY PAIR	AUTO (000)	RAIL (000)	BUS (000)	AIR [1/] (000)
Los Angeles - San Francisco	6,700	45	184	5,126
Los Angeles - San Diego	23,700	100	1,100	933
San Francisco - San Diego	344	10	21	600
Los Angeles - Sacramento	1,100	15	43	600
Los Angeles - Fresno	1,600	25	75	109
San Francisco - Fresno	1,013	23	77	98
San Francisco - Sacramento	19,100	-	400	85
San Diego - Sacramento	100	N/A	7	45

[1/] Includes intra-state passenger data.

Sources: Civil Aeronautics Board
California Public Utilities Commission
California State Division of Highways
National Railroad Passenger Corporation
Greyhound Lines
Aerospace Corporation

N/A - Not Available

Table 3-5

1968 PASSENGER DATA ESTIMATES
NORTHEAST REPRESENTATIVE REGION

CITY PAIR	AUTO (000)	RAIL (000)	BUS (000)	AIR (000)
Boston - New York	2,150	260	345	2,410
Boston - Philadelphia	570	14	30	325
Boston - Washington	425	30	35	520
New York - Philadelphia	10,700	2,740	1,090	130
New York - Washington	2,400	460	550	1,905
Philadelphia - Washington	1,640	400	250	170

Source: Northeast Corridor Transportation Project

Table 3-6

1970 PASSENGER DATA ESTIMATES
CHICAGO REPRESENTATIVE REGION

CITY PAIR	AUTO (000)	RAIL (000)	BUS (000)	AIR [1/] (000)
Chicago - Minneapolis	384	N/A	N/A	523
Minneapolis - Milwaukee	495	200	100	105
Chicago - Milwaukee	5,541	288	N/A	55
Chicago - St. Louis	766	N/A	N/A	423
St. Louis - Indianapolis	207	N/A	N/A	48
Chicago - Indianapolis	N/A	N/A	N/A	179
Chicago - Detroit	918	38	176	531
Detroit - Cleveland	1,308	No Service	116	175
Chicago - Cleveland	732	15	56	351

[1/] Includes air commuter traffic where existent

N/A - Not Available

Sources: Civil Aeronautics Board
Chicago Area Transportation Study
Southeastern Wisconsin Regional Planning Commission
Missouri State Highway Commission
Aerospace Corporation

4.0 MODAL SPLIT ANALYSIS

During Phase I, the Douglas Patronage Model was used to determine the percent of travelers selecting automobile, bus, rail, or air (either CTOL or STOL) for any given city pair. Over 1200 parametric patronage model runs were made for 23 city pairs in the three representative regions which were studied in Phase I. These 23 city pairs constituted about 40 percent of the total forecast 1980 Phase I short haul market.

Because of the unavailability of city data for all of the 319 city pairs selected for analysis within the 5 months allowed for Phase II, the Douglas Patronage Model was not used. A modified modal split procedure was developed to facilitate analysis. For the seven Phase II networks, the modal split procedure is as follows. The 1970 level of CTOL traffic for U.S. short-haul city pairs was forecast to 1985 (Section 1.2). On average, the growth rate from 1970 to 1985 was 8 percent compounded annually. In order to maintain the viability of the present CTOL system, both with respect to connecting and origin-desgination passengers, the 1970 level of origin-destination passengers was assigned to CTOL aircraft.

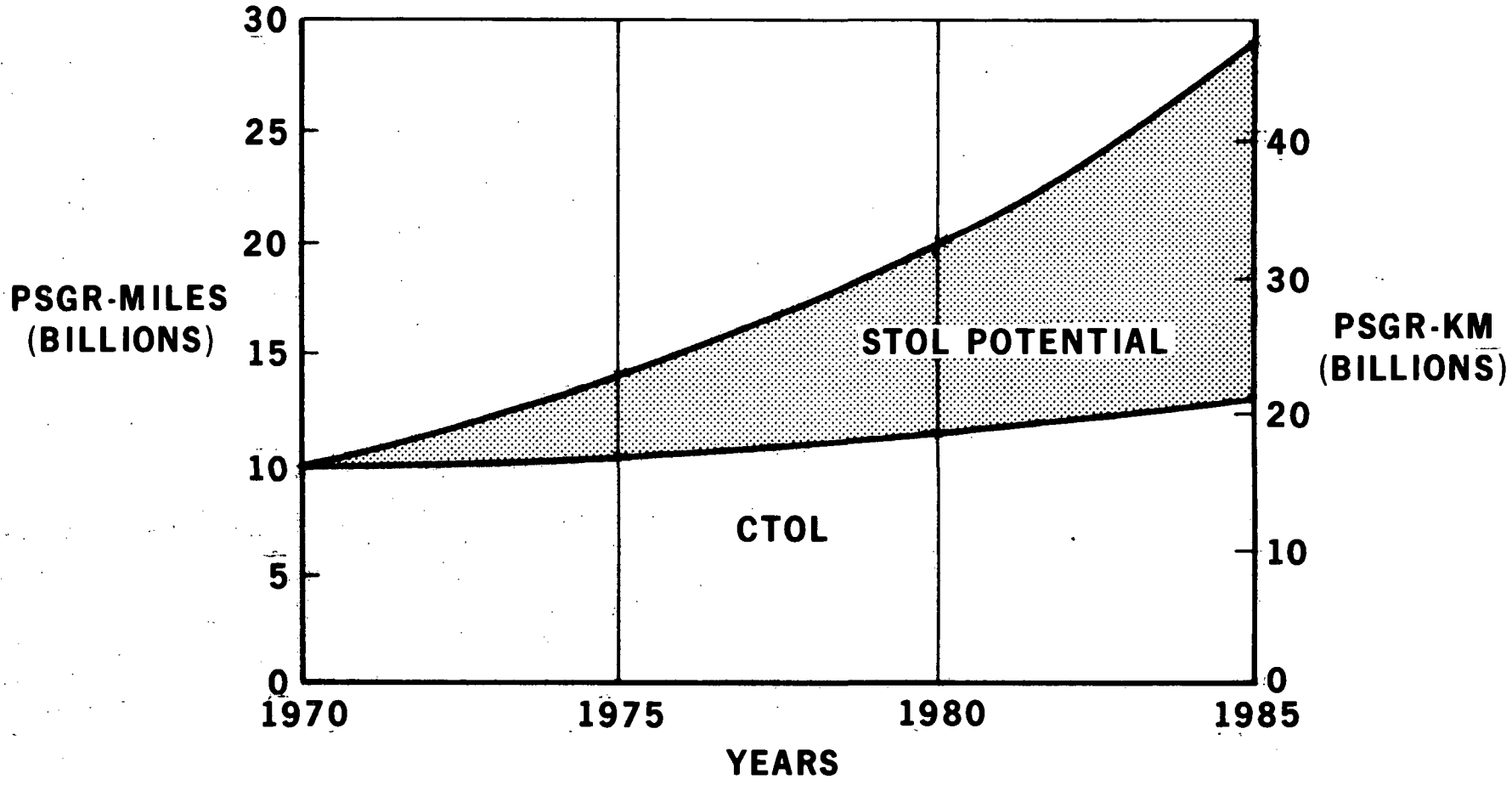
This 1970 CTOL base was allowed to expand by 2 percent a year reflecting the fact that not all U.S. city pairs are affected by airside and groundside congestion. The balance of the annual passenger growth, or 6 percentage points per annum, was allocated to the STOL system. Figure 4-1 depicts this modal split procedure. The traffic split for each of the 319 city pairs was computed individually.

The Douglas airline subcontractors were asked to comment on this modal split procedure. As a group, they endorsed the Douglas approach to this subject area. THe following comment on the modal split procedure was received from one of the airlines:

FIGURE 4-1

U.S. SHORT HAUL PASSENGER MILE/KILOMETER DEMAND

HIGHER DENSITY CITY PAIRS
STAGE LENGTHS - 600 ST MI/966 KM OR LESS
STOL & CTOL
1970 - 1985



PR3-STOL-1439 A

"Baseline data for 1970 is probably a safe (conservative) starting point for allocating future short haul STOL and CTOL traffic because traffic was extremely depressed that year. Beyond 1980, the allocating of 2 percent annual short haul growth to CTOL, and the remaining 6 percent annual short haul growth to STOL is also probably reasonable, although this must be examined in relation to the growth rates of connecting traffic as well as O & D traffic."

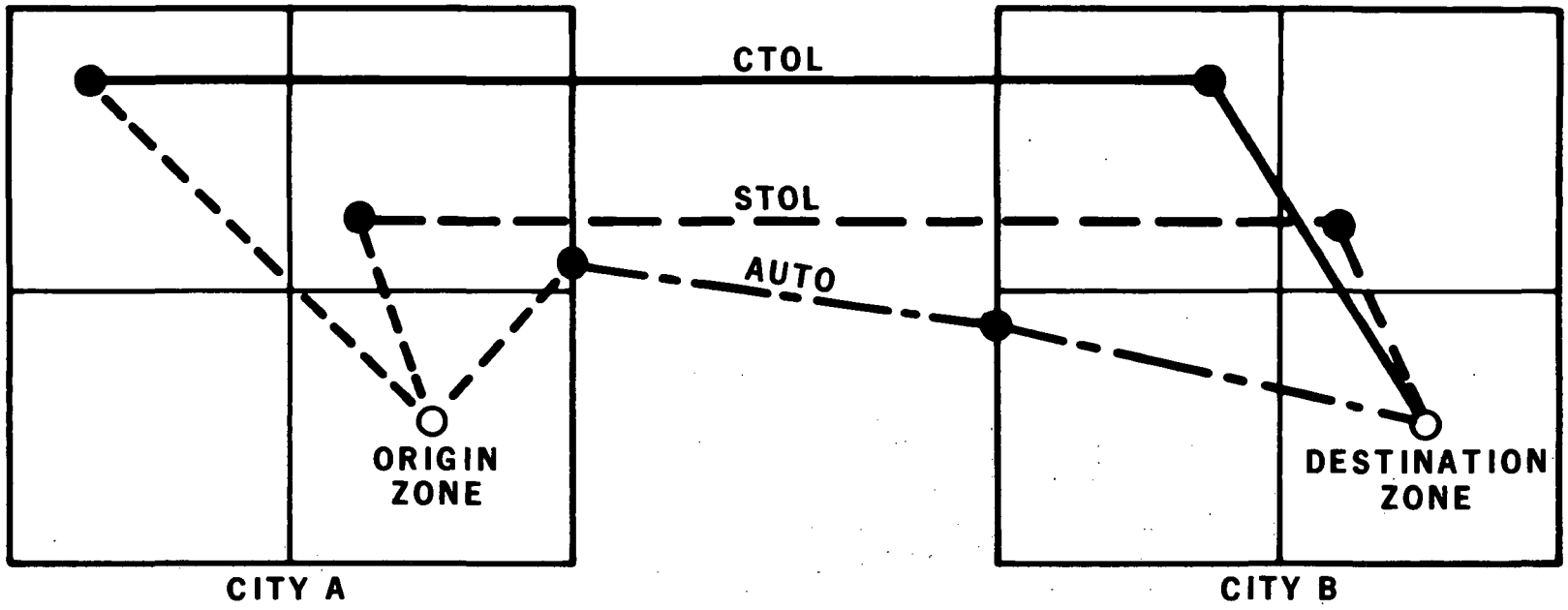
4.1 Phase I Patronage Model Modal Split Analysis

The STOL patronage model is essentially a gravity model which assumes that travel between city-pairs is increased by the attraction exerted by the population masses of the cities and impeded by the cost of travel. Cost is the portal to portal cost to the traveler and includes portal to terminal costs, terminal processing costs, fares, and intangible costs such as values of travel time, convenience of auto, delays, degree of safety and service frequency.

The essential element of the Douglas Patronage model modal split analysis is the determination of the percent of travelers selecting each mode of travel with a least cost selection criterion (Figure 4-2). Each city in a city-pair network is divided into zones determined by Origin-Destination Surveys (4.1.1) or other means with each zone having a percent of the city population. Costs from each zone centroid are calculated to each of the terminals of egress from a city (auto having only one). Terminal processing costs are determined and the total trip cost is determined as the least of

FIGURE 4-2.

PATRONAGE MODEL



MODAL CHOICE BASED ON LEAST COST

- OUT OF POCKET COST
- VALUE OF TIME
- INTANGIBLE COSTS

LEGEND

CTOL
STOL
AUTO

PR3-STOL-1438

the total costs of travel by each mode, i.e. portal to terminal costs plus terminal processing costs plus intangible costs plus fare. The percent of CTOL travelers and the CTOL traffic projection allows direct calculation of the traffic projections for all other modes. The model then iterates attempting to meet pre-assigned STOL load factors by varying STOL service frequency, which changes the cost factors since service frequency has a value. When further improvement of STOL patronage cannot be achieved by varying STOL service frequency within pre-assigned limits, the model concludes the particular study with the output reports.

4.1.1 Origin - Destination Surveys - Most large cities have conducted origin - destination surveys to determine the percentage of the air travelers who originate and terminate their journeys within each zone in the city. These survey data are used whenever possible and provide the data base to estimate the ground origins and destinations in cities which have not recently conducted an air travel survey. Some of the surveys used in this study are as follows:

Chicago	- 1969 O'Hare Passenger Survey, City of Chicago, Department of Public Works, September 1970.
Cleveland	- Cleveland Hopkins Airport Access Study, Regional Planning Commission, Cuyahoga County, Ohio, June 1970.
Detroit	- Travel Patterns and Characteristics of Airline Passengers, Detroit Metropolitan Airport 1968. Detroit Regional Transportation and Land Use Study and The Wayne County Road Commission, November 1969.
Indianapolis	- Air Travel Study, Indianapolis Regional Transportation and Development Study (IRTADS), March 1967.
Los Angeles	- Surveys of Airport Scheduled Air Passenger Market, Landrum & Brown, March 1967.

Because the number and percentage of persons originating and terminating their trips in any given zone varies from year to year according to socio-economic influences, every effort was made in this study to anticipate the variations. Figures 4-3 and 4-4 present an example of the anticipated variations in the percent of passengers originating and terminating their trips by zone in Metropolitan Kansas City between the years 1967 and 1990. Additional ground O & D surveys are in Appendix 11.6.

During Phase I, city data, including the ground origin - destination surveys of air travelers, was collected for the 17 cities in the California, Northeast and Chicago Regions.

4.1.2 Patronage Model Calibration - The actual city data collected was used to calibrate the Douglas Patronage Model for all of the city pairs in the first three regions studied in order to assure the accuracy of the modal split analysis. Tables 4-1 through 4-9 summarize the final calibration of the Douglas Patronage Model for one sample region. The calibration is within 2.5 percent of total traffic. Although calibration is poor for rail and bus, it should be pointed out that together they represent no more than 3.4 percent of the total regional traffic.

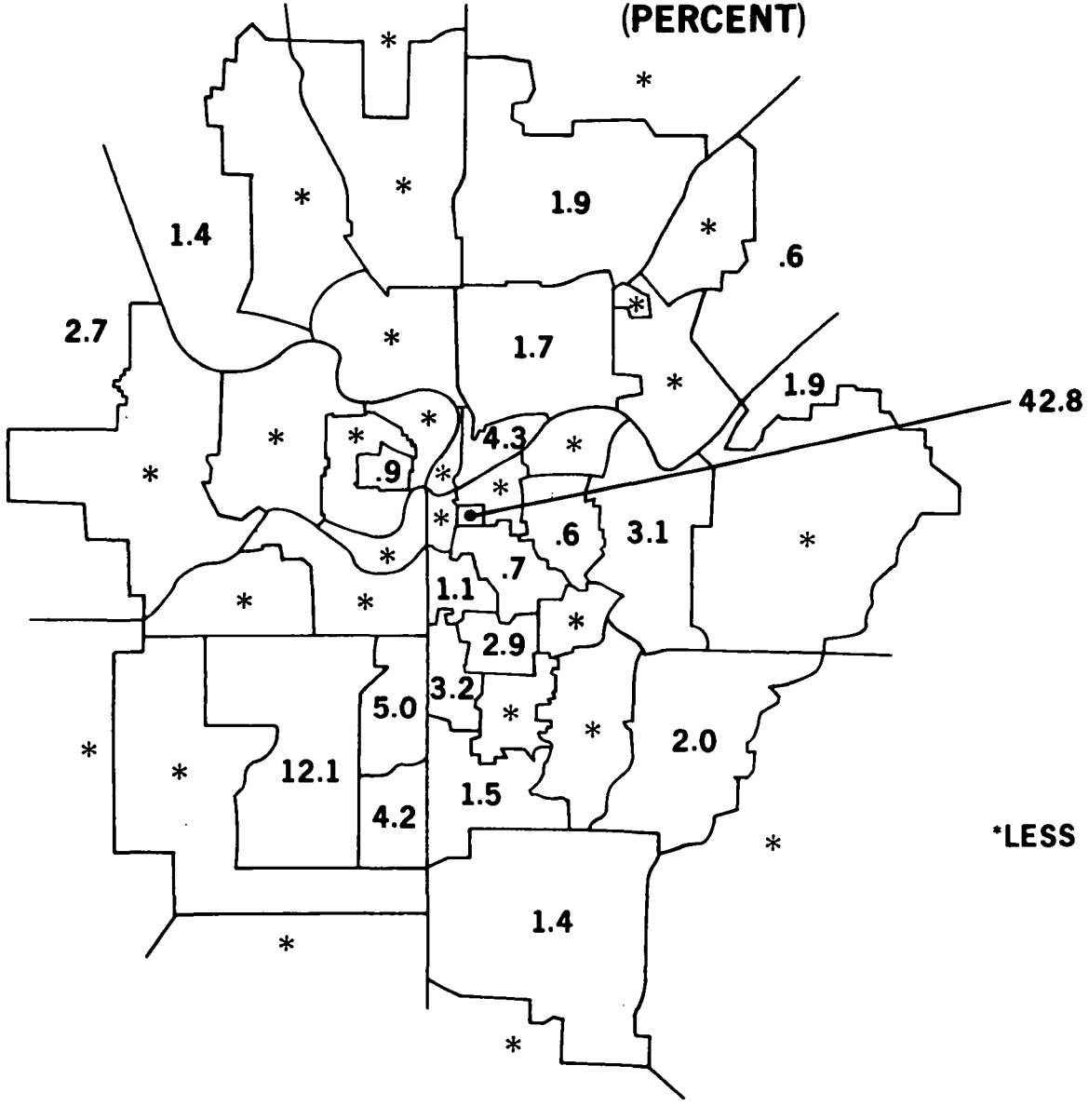
4.2 PHASE II MODAL SPLIT ANALYSIS

The Phase II modal split procedure described in the introduction of this Section did not mention connecting or transfer passengers. For the most part, connecting or transfer passengers will continue to use the CTOL System except in those cases where the STOL system offers a more direct flight routing. These connecting passengers together with the current level of O & D passengers now traveling between any given short haul city pair constitute

FIGURE 4-3.

KANSAS CITY METROPOLITAN AREA 1967 AIR PASSENGER TRIP ORIGINS AND DESTINATIONS

(PERCENT)

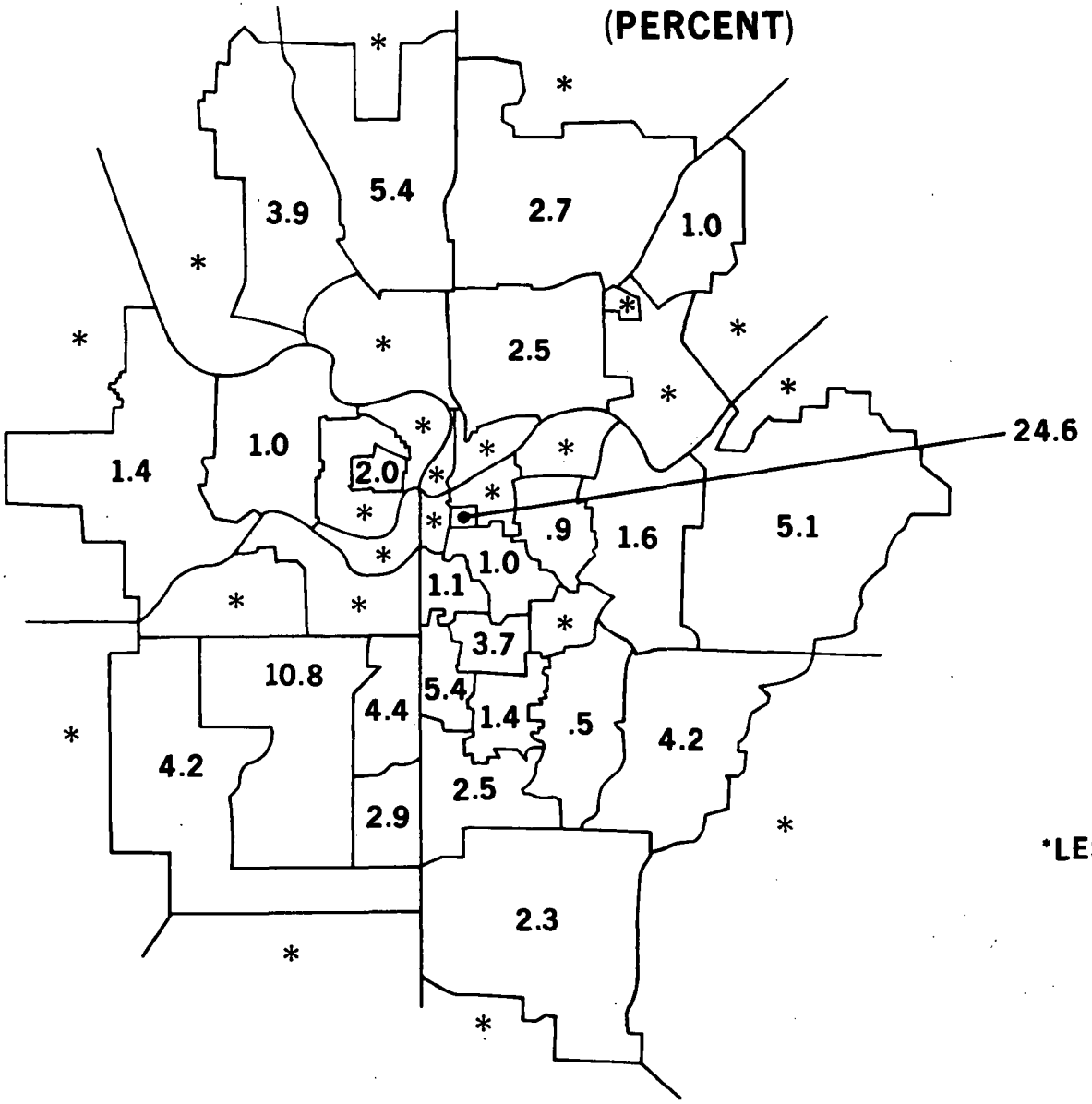


PR2-STOL-1070

FIGURE 4-4.

KANSAS CITY METROPOLITAN AREA 1990 AIR PASSENGER TRIP ORIGINS AND DESTINATIONS

(PERCENT)



*LESS THAN 0.5

PR2-STOL-1071

TABLE 4-1

PATRONAGE MODEL CALIBRATION

CALIFORNIA CORRIDOR

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	53.657	84.662	53.709	0.052	0.097
AIR	7.596	11.985	7.596	0	0
BUS	1.907	3.009	0.531	-1.376	-72.155
RAIL	0.218	0.344	0.024	-0.194	-88.991
TOTAL	63.378	100	61.860	-1.518	- 2.395

TABLE 4-2

PATRONAGE MODEL CALIBRATION

LOS ANGELES - SAN FRANCISCO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	6.700	55.6	6.696	0.004	0.060
AIR	5.126	42.5	5.126	0	0
BUS	0.184	1.5	0.103	-0.081	-44.022
RAIL	0.045	0.4	0.021	-0.024	-53.333
TOTAL	12.055	100	11.946	-0.109	- 0.904

TABLE 4-3

PATRONAGE MODEL CALIBRATION

LOS ANGELES - SACRAMENTO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	1.100	62.6	1.109	0.009	0.818
AIR	0.600	34.1	0.600	0	0
BUS	0.043	2.4	0.035	-0.007	-16.279
RAIL	0.015	0.9	0.001	-0.014	93.333
TOTAL	1.758	100.0	1.745	-0.013	0.739

TABLE 4-4

PATRONAGE MODEL CALIBRATION

LOS ANGELES - SAN DIEGO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	23.700	91.7	23.675	-0.025	-0.105
AIR	0.933	3.6	0.933	0	0
BUS	1.100	4.3	0.040	-1.060	-96.364
RAIL	0.100	0.4	0.002	.098	-98.000
TOTAL	25.833	100	25.640	-0.193	- 0.747

TABLE 4-5

PATRONAGE MODEL CALIBRATION

LOS ANGELES - FRESNO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	1.600	88.4	1.593	-0.007	0.438
AIR	0.109	6.0	0.109	0	0
BUS	0.075	4.2	0	-0.075	
RAIL	0.025	1.4	0	-0.025	
TOTAL	1.809	100	1.702	-0.107	-5.915

TABLE 4-6

PATRONAGE MODEL CALIBRATION

SAN FRANCISCO - SACRAMENTO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	19.100	97.5	19.166	0.066	0.346
AIR	0.085	0.4	0.085	0	0
BUS	0.400	2.1	0.302	-0.098	-24.500
RAIL	0	0	0	0	0
TOTAL	19.585	100	19.553	-0.032	- 0.163

TABLE 4-7

PATRONAGE MODEL CALIBRATION

SAN FRANCISCO - SAN DIEGO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	0.344	35.3	0.344	0	0
AIR	0.600	61.5	0.600	0	0
BUS	0.021	2.2	0.012	-0.009	-42.857
RAIL	0.010	1.0	0	-0.010	
TOTAL	0.975	100.0	0.956	-0.019	- 1.949

TABLE 4-8

PATRONAGE MODEL CALIBRATION

SAN FRANCISCO - FRESNO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	1.013	83.6	1.030	0.017	1.678
AIR	0.098	8.1	0.098	0	0
BUS	0.077	6.4	0.031	-0.046	-59.740
RAIL	0.023	1.9	0	-0.023	
TOTAL	1.211	100.0	1.159	-0.052	- 4.294

TABLE 4-9

PATRONAGE MODEL CALIBRATION

SAN DIEGO - SACRAMENTO

	1970 Data PAX (Millions)	Percent	Calibration Data (Millions)	Difference (Millions)	Percent Difference
AUTO	0.100	65.8	0.096	-0.004	- 4.000
AIR	0.045	29.6	0.045	0	0
BUS	0.007	4.6	0.008	0.001	14.286
RAIL	0	0	0	0	
TOTAL	0.152	100.0	0.149	-0.003	- 1.974

a sizeable volume of passengers. This will permit an adequate level of CTOL flight frequencies at popular times to serve both connecting and O&D passengers.

Tables 4-10 to 4-16 contain the results of the Phase II modal split procedure for the 319 city pairs studied. It should be noted, for example, that Table 4-10 contains the STOL/CTOL passenger allocation for each of the city pairs contained in the Northeast region. In addition, the percentage split between STOL and CTOL is also noted for each individual city pair. The overall STOL/CTOL passenger allocation for the Northeast region was 55.7 percent STOL and 44.3 percent CTOL.

Table 4-11 contains the STOL/CTOL traffic split for the 26 city pairs comprising the California region. A total of eight city pairs was examined during the Phase I portion of the study. The overall traffic split for the California region was 51.5 percent STOL and 48.5 percent CTOL.

In the Chicago region, different results were obtained largely because different study assumptions were being used at the time the market data was prepared. Under these study assumptions, designed to test the sensitivity of the modal split method, the modal split procedure was to assign the 1970 level of short haul CTOL traffic to the CTOL system and to assign all the traffic growth from 1970 to 1985 to STOL. This procedure, used only in case of Chicago, resulted in 66.5 percent of the traffic being assigned to STOL and 33.5 percent being assigned to CTOL. Table 4-12 contains the traffic split for each of the 61 city pairs making up the Chicago region.

A total of 77 city pairs was examined in the Southeast region. Table 4-13 tabulates the traffic split data by city pair. It should be noted that 61 percent of the traffic is allocated to STOL and 39 percent is allocated to CTOL. This is a higher STOL traffic split, using the same modal

TABLE 4-10
NORTHEAST REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
ALB BOS	104	58.1	75	41.9
ALB BUF	125	56.5	96	43.5
ALB CLE	43	55.1	35	44.9
ALB DTT	63	58.8	44	41.2
ALB NYC	105	35.3	192	64.7
ALB PHL	78	58.6	55	41.4
ALB PIT	42	55.2	34	44.8
ALB ROC	56	60.8	36	39.2
ALB SYR	30	53.5	26	46.5
ALB WAS	105	57.0	79	63.0
BAL BDL	116	59.4	79	40.6
BAL BOS	196	52.8	175	47.2
BAL BUF	34	51.5	32	48.5
BAL CLE	76	50.3	75	49.7
BAL CVG	43	49.4	44	50.6
BAL DTT	102	53.1	90	46.9
BAL IND	33	52.3	30	47.7
BAL NYC	266	44.3	334	55.7
BAL ORF	78	59.0	54	41.0
BAL PHL	106	54.9	87	45.1
BAL PIT	126	53.3	110	46.7
BDL BUF	70	62.5	42	37.5
BDL CLE	131	61.2	83	38.8
BDL DTT	152	62.8	90	37.2
BDL NYC	49	34.0	144	66.0
BDL PHL	157	62.8	93	37.2
BDL PIT	111	60.0	74	40.0
BDL ROC	55	61.7	34	38.3
BDL SYR	38	59.3	26	40.7
BDL WAS	234	60.6	152	39.4
BGR BOS	104	58.1	75	41.9
BGR NYC	48	57.8	35	42.2
BOS BTV	38	55.8	30	44.2
BOS BUF	174	56.1	136	43.9
BOS CLE	231	54.8	190	45.2
BOS HAR	51	58.6	36	41.4
BOS NYC	4094	59.2	2813	40.8
BOS ORF	124	64.5	67	35.5
BOS PHL	1200	70.2	507	29.8
BOS PIT	227	56.0	178	44.0
BOS PWM	38	45.2	46	54.8
BOS ROC	159	60.4	104	39.6
BOS SYR	153	55.2	124	44.8
BOS WAS	1751	71.4	699	28.6
BTV NYC	94	57.3	70	42.7
BUF NYC	544	44.2	684	55.8
BUF PHL	182	57.4	135	42.6
BUF PIT	26	25.7	75	74.3
BUF WAS	130	56.2	101	43.8
CLE NYC	688	45.1	835	54.9
CLE ORF	33	60.0	22	40.0
CLE PHL	266	56.2	207	43.8
CLE PVD	29	54.7	24	45.3
CLE ROC	55	58.5	39	41.5
CLE SYR	43	53.0	38	47.0
CLE WAS	237	55.3	191	44.7
CMH NYC	310	49.6	315	50.4
CMH PHL	124	57.1	93	42.9
CMH WAS	155	56.3	120	43.7
CVG NYC	261	43.3	341	56.7

TABLE 4-10
NORTHEAST REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
CVG PHL	97	54.5	81	45.5
CVG WAS	111	53.6	96	46.6
DAY NYC	189	46.0	222	54.0
DAY PHL	82	53.9	71	46.1
DAY WAS	120	53.6	104	46.4
DTT NYC	1001	48.2	1075	51.8
DTT ORF	46	63.9	26	36.1
DTT PHL	386	58.8	270	41.2
DTT SYR	62	56.4	48	43.6
DTT WAS	350	57.2	262	42.8
ERI NYC	36	41.9	50	58.1
ERI PHL	34	51.5	32	48.5
HAR NYC	75	50.3	74	49.7
HAR PIT	118	56.7	90	43.3
IND PHL	113	57.9	82	42.1
IND WAS	128	56.6	98	43.4
NYC ORF	258	55.6	206	44.4
NYC PHL	87	41.8	121	58.2
NYC PIT	874	50.7	851	49.3
NYC PVD	83	25.3	245	74.7
NYC PWM	42	38.5	67	61.5
NYC ROC	613	54.8	506	45.2
NYC SYR	409	48.7	431	51.3
NYC WAS	3182	58.1	2291	41.9
ORF PHL	141	64.4	78	35.6
ORF PIT	50	59.5	34	40.5
ORF PVD	45	63.4	26	36.6
ORF WAS	48	25.0	144	75.0
PHL PIT	536	56.9	406	43.1
PHL PVD	96	59.2	66	40.8
PHL ROC	113	60.4	74	39.6
PHL SYR	73	55.7	58	44.3
PHL WAS	124	42.6	167	57.4
PIT PVD	32	55.1	26	44.9
PIT ROC	46	58.9	32	41.1
PIT SYR	44	55.6	35	44.4
PIT WAS	233	56.1	182	43.9
PVD WAS	137	57.5	101	42.5
PWM WAS	27	50.9	26	49.1
ROC WAS	114	59.0	79	41.0
SYR WAS	90	55.2	73	44.8
SUMMARY (%)		55.7		44.3

TABLE 4-11
CALIFORNIA REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESGINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
DEN PHX	191	61.8	118	38.2
EKA SFO	91	57.6	67	42.4
FAT LAX	297	66.8	147	33.2
FAT SFO	230	63.5	132	36.5
LAS LAX	2177	70.7	901	29.3
LAS PHX	162	63.7	92	36.3
LAS RNO	179	64.6	98	35.4
LAS SAN	174	67.7	83	32.3
LAS SFO	287	51.9	265	48.1
LAX MRY	298	63.0	175	37.0
LAX PHX	791	58.0	571	42.0
LAX RNO	198	58.9	96	41.1
LAX SAN	992	44.1	1256	55.9
LAX SBA	65	60.7	42	39.3
LAX SFO	5713	45.3	6900	54.7
LAX SMF	627	43.7	808	56.3
LAX TUS	301	62.7	179	37.3
MRY SFO	46	43.0	61	57.0
PDX SFO	535	61.9	328	38.1
PHX SAN	163	60.1	108	39.9
RNO SFO	143	38.1	232	61.9
SAN SFO	639	44.4	800	55.6
SAN SMF	47	43.5	61	56.5
SAN TUS	64	64.6	35	35.4
SBA SFO	160	61.3	101	38.7
SFO SMF	90	44.1	114	55.9
SUMMARY (%)		51.5		48.5

TABLE 4-12
CHICAGO REGION AIR PASSENGERS

1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
BUF CHI	209	66.9	103	33.1
BUF CLE	28	45.1	34	54.9
BUF DTT	78	51.6	73	48.4
CHI CLE	618	63.7	351	36.3
CHI CMH	324	67.3	157	32.7
CHI CVG	350	64.6	191	35.4
CHI DAY	219	64.6	120	35.4
CHI DSM	237	67.3	115	32.7
CHI DTT	1138	68.9	513	31.1
CHI EVV	111	67.2	54	32.8
CHI FWA	73	66.9	36	33.1
CHI GRR	55	44.7	68	55.3
CHI IND	359	66.7	179	33.3
CHI MKC	603	67.9	285	32.1
CHI MSN	113	70.6	47	29.4
CHI MSP	1362	72.5	515	27.5
CHI OMA	207	63.8	117	36.2
CHI PIA	99	68.7	45	31.3
CHI PIT	535	67.1	262	32.9
CHI ROC	165	69.9	71	30.1
CHI SPI	81	64.2	45	35.8
CHI STL	1118	72.5	423	27.5
CHI TOL	110	64.7	60	35.3
CLE CVG	58	44.2	73	55.8
CLE DAY	42	44.6	52	55.4
CLE DTT	304	74.5	104	25.5
CLE PIT	47	48.4	50	51.6
CLE STL	176	70.1	75	29.9
CMH DTT	88	67.6	42	32.4
CMH PIT	25	39.6	38	60.4
CMH STL	68	70.1	29	29.9
CVG DTT	133	64.8	72	35.2
CVG PIT	45	52.3	41	47.7
CVG STL	121	68.7	55	31.3
DAY DTT	24	40.0	36	60.0
DAY PIT	62	65.2	33	34.8
DAY STL	64	68.0	30	32.0
DEN MKC	287	72.6	108	27.4
DAN OMA	139	70.9	57	29.1
DLM MSP	23	40.3	34	59.7
DSM MKC	47	55.2	38	44.8
DSM MSP	105	69.5	46	30.5
DSM STL	83	70.9	34	29.1
DTT GRR	35	64.8	19	35.3
DTT IND	96	51.8	89	48.2
DTT MKE	108	48.2	116	51.8
DTT MSP	235	70.1	100	29.9
DTT PIT	219	67.3	106	32.7
DTT ROC	114	70.8	47	29.2
DTT STL	304	71.8	119	28.2
FSD MSP	43	55.1	35	44.9
IND PIT	77	67.5	37	32.5
IND STL	48	22.5	165	77.5
MKE MSP	241	69.8	104	30.2
MKE STL	86	69.9	37	30.1
MKC STL	197	55.1	160	44.9
MSN MSP	76	71.6	30	28.4
MSP OMA	151	66.8	75	33.2
OMA STL	66	67.3	32	32.7
PIT STL	115	69.6	50	30.4
STL TUL	69	70.4	29	29.6
SUMMARY (%)		66.5		33.5

TABLE 4-13
SOUTHEAST REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
ATL BAL	152	63.5	87	36.5
ATL BHM	61	35.0	113	65.0
ATL BNA	200	65.3	106	34.7
ATL CAE	194	70.2	82	29.8
ATL CHI	509	65.4	269	34.6
ATL CHS	148	71.4	59	28.6
ATL CLE	154	64.7	84	35.3
ATL CLT	109	47.5	120	52.5
ATL CVG	112	64.0	63	36.0
ATL DAB	37	56.9	28	43.1
ATL DAY	60	62.5	36	37.5
ATL FLL	112	64.3	62	35.7
ATL GSO	148	67.8	70	32.2
ATL IND	86	64.7	47	35.3
ATL JAN	103	63.9	58	36.1
ATL JAX	241	60.0	160	40.0
ATL MCO	169	62.5	101	37.5
ATL MEM	281	67.3	136	32.7
ATL MGM	86	68.2	30	31.8
ATL MIA	483	61.0	308	39.0
ATL MOB	102	64.1	57	35.9
ATL MSY	254	65.2	135	34.8
ATL ORF	97	68.8	44	31.2
ATL PBI	89	69.5	39	30.5
ATL PIT	121	63.0	71	37.0
ATL PNS	79	72.4	30	27.6
ATL RDU	193	70.1	82	29.9
ATL RIC	85	63.9	48	36.1
ATL SAV	243	72.3	93	27.7
ATL SDF	150	64.9	81	35.1
ATL STL	162	66.6	81	33.4
ATL TLH	62	69.6	27	30.4
ATL TPA	275	62.3	166	37.7
ATL TRI	36	57.1	27	42.9
ATL TYS	51	47.2	57	52.8
ATL WAS	378	63.5	217	36.5
BHM MEM	53	62.3	32	37.7
BHM MSY	61	59.2	42	40.8
BNA CHI	141	58.2	101	41.8
BNA MEM	113	63.1	66	36.9
BNA WAS	89	57.8	65	42.2
CAE WAS	89	65.4	47	34.6
CHI CLT	75	54.8	62	45.2
CHI MEM	289	62.2	175	37.8
CHI SDF	235	56.3	182	43.7
CHS ORF	70	74.4	24	25.6
CHS WAS	94	66.7	47	33.3
CLE SDF	64	54.2	54	45.8
CLT NYC	291	50.8	281	49.2
CLT PHL	85	55.9	67	44.1
CLT WAS	85	55.2	69	44.8
CRW WAS	59	53.6	51	46.4
DTT SDF	148	57.3	110	42.7
FLL TPA	50	58.1	36	41.9
GSO NYC	292	58.6	206	41.4
GSO WAS	100	61.3	63	38.7
JAN MEM	56	63.6	32	36.4
JAX MIA	141	51.8	131	48.2
MCO MIA	57	39.3	88	60.7
MEM MKC	67	61.5	42	38.5
MEM MSY	139	63.7	79	36.3
MEM STL	152	64.4	84	35.6
MIA TLH	120	63.1	70	36.9
MIA TPA	122	30.5	277	69.5
MSY TPA	71	60.2	47	39.8
NYC PHF	74	53.2	65	46.8
NYC RIC	150	48.5	159	51.5
NYC RDU	411	65.8	213	34.2
PBI TPA	50	64.1	28	35.9
PHL SDF	80	57.6	59	42.4
PIT SDF	50	56.1	39	43.9
RDU WAS	144	66.0	74	34.0
ROA WAS	57	56.4	44	43.6
SDF STL	90	60.4	59	39.6
SDF WAS	112	56.5	86	43.5
TLH TPA	58	64.4	32	35.6
TYS WAS	145	73.2	53	26.8
SUMMARY (%)		61.0		39.0

TABLE 4-14
SOUTHERN REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
ABI DAL	41	63.0	24	37.0
ABQ DAL	138	65.7	72	34.3
ABQ DEN	173	66.7	86	33.3
ABQ ELP	88	65.6	46	34.4
AMA DAL	130	60.1	86	39.9
AUS DAL	239	64.4	132	35.6
CRP DAL	125	62.5	75	37.5
CRP IAH	18	21.1	67	78.9
DAL ELP	172	63.7	98	36.3
DAL IAH	483	51.1	462	48.9
DAL ICT	73	61.3	46	38.7
DAL LBB	233	65.0	125	35.0
DAL LIT	117	61.5	73	38.5
DAL MAF	154	62.0	94	38.0
DAL MEM	168	64.3	93	35.7
DAL MKC	221	61.9	136	38.1
DAL MSY	307	62.7	182	37.3
DAL OKC	247	62.5	148	37.5
DAL SAT	346	62.7	197	36.3
DAL STL	234	63.4	135	36.6
DAL TUL	181	60.9	116	39.1
DEN ICT	95	63.3	55	36.7
DEN OKC	92	64.3	51	35.7
ELP SAT	59	63.4	34	36.6
IAH MAF	90	60.8	58	39.2
IAH MEM	93	64.1	52	35.9
IAH MSY	440	61.9	270	38.1
IAH OKC	104	61.5	65	38.5
IAH SAT	88	43.8	113	56.2
IAH SHV	61	61.6	38	38.4
IAH TUL	141	60.2	93	39.8
ICT MKC	13	19.1	55	80.9
JAN MSY	23	43.3	30	56.7
LIT STL	58	60.4	38	39.6
MKC TUL	19	30.2	44	69.8
MLU MSY	42	60.8	27	39.2
MSY SHV	109	61.2	69	38.8
SUMMARY (%)		60.2		39.8

TABLE 4-15
NORTHWEST REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
BOI PDX	88	59.1	61	40.9
BOI SEA	77	57.0	58	43.0
BOI SFO	76	56.7	58	43.3
BOI SLC	60	56.1	47	43.9
EUG SFO	146	68.5	67	31.5
GEG PDX	128	62.1	78	37.9
GEG SEA	245	54.3	206	45.7
PDX RNO	79	60.8	51	39.2
PDX SEA	84	25.4	246	74.6
RNO SEA	83	60.1	55	39.9
SEA YKM	41	56.9	31	43.1
SUMMARY (%)		53.6		46.4

TABLE 4-16
HAWAII REGION AIR PASSENGERS
1985 STOL/CTOL MODAL SPLIT

CITY PAIR	ORIGIN DESTINATION PASSENGERS (000)			
	STOL	(%)	CTOL	(%)
HNL ITO	563	57.6	414	42.4
HNL KOA	220	57.4	163	42.6
HNL LIH	597	57.6	440	42.4
HNL MKK	96	57.8	70	42.2
HNL MUE	80	57.6	59	42.4
HNL OGG	518	57.5	382	42.5
ITO OGG	32	58.1	23	41.9
SUMMARY (%)		57.6		42.4

split procedure, than those obtained in the other representative regions. The reason for this difference is related to the fact that traffic growth rates in the Southeast region are higher than in most other areas of the United States.

Table 4-14 contains the STOL/CTOL traffic split for the Southern region. This region is similar to the Southeast region in that air traffic is growing very rapidly. It, too, has a higher STOL traffic split than most of the other representative regions. In 1985, just over 60 percent of the air traffic is expected to be STOL potential. This would mean over five million passengers out of a total of nine million passengers.

Eleven city pairs are included in the Northwest region. Table 4-15 indicates that the STOL/CTOL traffic split was 53.6 percent STOL and 46.4 percent CTOL. A total of just over two million air passengers are expected to travel over the eleven city pairs comprising the Northwest region in 1985. More than one million of these passengers are potential STOL passengers.

Table 4-16 contains air traffic split data for the Hawaii region. This region consists of seven city pairs which are expected to carry 3.7 million air passengers in 1985. Over two million passengers or 57.6 percent of the total are expected to be STOL traffic potential by 1985.

A summary of the STOL/CTOL 1985 traffic split by region is shown below.

Representative Region	Modal Split	
	STOL (%)	CTOL (%)
Northeast	55.7	44.3
California	51.5	48.5
Chicago	66.5	33.5
Southeast	61.0	39.0

Representative Region (Cont'd)	Modal Split	
	STOL (%)	CTOL (%)
Southern	60.2	39.8
Northwest	53.6	46.4
Hawaii	57.6	42.4

In terms of passengers, the traffic split by region reveals that the Northeast and California regions together account for 59 percent of the total traffic in the seven regions. A summary of the 1985 STOL/CTOL passenger allocation by region follows.

Representative Region	Passenger Allocation (Millions)		
	STOL	CTOL	TOTAL
Northeast	25.0	19.8	44.8
California	14.6	13.8	28.4
Chicago	12.4	6.2	18.6
Southeast	10.7	6.8	17.5
Southern	5.4	3.6	9.0
Northwest	1.1	1.0	2.1
Hawaii	2.1	1.6	3.7
TOTAL	71.3	52.8	124.1

It should be noted that the overall STOL/CTOL traffic split for the seven representative regions is 57.4 percent STOL and 42.6 percent CTOL.

A total of 319 city pairs and 124.1 million passengers were contained in the seven Phase II representative regions. In terms of number of passengers, this represented a 87.5 percent sample of the 141.9 million passengers

expected to travel by 1985 between the 494 higher density city pairs discussed in Section 1.0. This data was prepared in order to analyze STOL transportation systems in representative regions of the United States. In order to determine the national market for STOL aircraft and service it was also necessary to determine the overall STOL/CTOL traffic split for all city pairs meeting the criteria.

Table 4-17 contains passenger mile/kilometer data as a function of stage length and passenger density category for the year 1985. It should be noted that this exhibit contains 1985 STOL market demand data for extended ranges out to 1199 statute miles (1930 km). For the basic 0-600 statute mile market (0-965 km), there is a STOL demand for 16.193 million passenger miles (26.060 pax-km). This represents 55.5 percent of the total 1985 market (see Table 1-3). Similar information is shown for the extended range categories of interest. As noted above, the 0-600 statute mile (965 km) range category contained 494 higher density city pairs. A total of 792 higher density city pairs met the selection criteria for inclusion in the extended range 0-1200 statute mile (1930 km) analysis.

Table 4-17
STOL 1985 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 0-99	100-199	200-299	300-399	400-499	500-599	Stage Length (Kilometers) 0-160	161-321	322-482	483-643	644-804	805-965
50-74	3.6	138.5	147.5	231.3	391.1	313.0	5.8	222.9	237.4	372.2	629.4	503.7
75-99	18.2	89.1	246.4	400.4	319.3	295.8	29.3	143.4	396.5	644.4	513.9	476.0
100-149	4.1	217.6	270.8	309.3	531.0	651.7	6.6	350.2	435.8	497.8	854.6	1048.8
150-199	15.3	68.3	572.6	379.7	518.6	433.3	24.6	109.9	921.5	611.1	834.6	697.3
200-299	12.1	138.8	630.9	816.0	779.2	510.0	19.5	223.4	1015.3	1313.2	1254.0	820.8
300-399		278.7	323.9	348.0	357.9	609.5		448.5	521.3	560.1	576.0	980.9
400-499	15.6	45.1	563.1	291.5	879.3	389.3	25.1	72.6	906.2	469.1	1415.1	626.5
500-599		49.5	159.7		299.0	156.3		79.7	257.0		481.2	251.5
600-699		47.6		136.6	349.7	151.4		76.6		219.8	562.8	243.7
700-799				133.6	179.4	591.5				215.0	288.7	951.9
800-899		80.7			205.0	288.1		129.9			329.9	463.7
900-999		51.8	375.5	154.8				83.4	604.3	249.1		
1000-1999		61.8	1118.0	1220.4	665.1	421.5		99.5	1799.2	1964.0	1070.4	678.3
2000-2999		120.2			1200.1			193.4			1931.4	
3000 +		768.8	1141.0	1964.0				1237.3	1836.3	3160.8		
Total	68.9	2156.5	5549.4	6385.6	6674.7	4811.4	110.9	3470.6	8930.9	10276.6	10741.9	7743.2
Density Less Than 300,000	53.3	652.3	1868.2	2136.7	2539.2	2203.8	85.8	1049.8	3006.6	3438.7	4086.4	3546.7
Density Greater Than 300,000	15.6	1504.3	3681.2	4248.9	4135.5	2607.6	25.1	2420.8	5924.3	6837.9	6655.5	4196.5
Cum Above 300,000	15.6	1519.8	5201.0	9449.9	13585.4	16193.0	25.1	2445.9	8370.2	15208.1	21863.6	26060.1

Table 4-17(Continued)
STOL 1985 MARKET DEMAND
BASED ON TOP 1000 U.S. CITY PAIRS
PASSENGER MILE/KILOMETER DISTRIBUTION
BY STAGE LENGTH AND PASSENGER DENSITY CATEGORY
(Millions of Passenger Miles/Kilometers)

Passenger Density Category (000)	Stage Length (Statute Miles) 600-699	700-799	800-899	900-999	1000-1099	1100-1199	Stage Length (Kilometers) 966-1126	1127-1287	1288-1448	1449-1609	1610-1769	1770-1930
50-74	278.0	164.0	434.0	389.0	503.0	212.0	447.4	263.9	698.5	626.0	809.5	341.2
75-99	439.3	384.6	218.5	392.0	605.0	58.0	707.0	619.1	351.6	630.9	973.7	93.3
100-149	778.9	480.4	828.6	690.0	434.0	740.0	1253.5	773.1	1333.5	1110.4	698.5	1190.9
150-199	922.0	522.9	575.8	424.0	510.0	493.0	1483.8	841.5	926.7	682.4	820.8	793.4
200-299	416.7	373.5	629.6	1120.0	884.0	858.0	670.6	601.1	1013.2	1802.5	1422.7	1380.8
300-399	1234.8	400.2	115.3	840.0	341.0	481.0	1987.2	644.1	185.6	1351.8	548.8	774.1
400-499	394.8	448.9	240.5	242.0	533.0	291.0	645.4	722.4	387.0	389.5	857.8	468.3
500-599	576.2		285.8	311.0	329.0		927.3		460.0	500.5	529.5	
600-699				615.0	778.0	438.0				989.7	1252.1	704.9
700-799		372.8		442.0	444.0	472.0		600.0		711.3	714.5	759.6
800-899				391.0	477.0					629.3	767.7	
900-999												
1000-1999	990.2	789.0	1689.5	591.0	657.0	862.0	1593.6	1269.8	2719.0	951.1	1057.3	1387.3
2000-2999												
3000 +		1582.7			1356.0			2547.1			2182.3	
Total	6030.9	5519.0	5017.6	6447.0	7851.0	4905.0	9705.8	8882.0	8075.0	10375.4	12635.0	7893.8
Density Less Than 300,000	2834.9	1925.4	2686.5	3015.0	2936.0	2361.0	4562.3	3098.7	4323.5	4852.2	4725.0	3799.6
Density Greater Than 300,000	3196.0	3593.6	2331.1	3432.0	4915.0	2544.0	5143.5	5783.3	3751.5	5523.2	7910.0	4094.2
Cum Above 300,000	19389.0	22982.6	25313.7	28745.7	33660.7	36204.7	31203.6	36986.9	40738.4	46261.6	54171.6	58265.8

5.0 PARAMETRIC ANALYSIS

A number of parametric analyses have been performed for the 23 representative city pairs comprising the three Phase I regions. These analyses have been made considering existing airports of all types and existing airports plus special new STOLports. The studies were made for STOL operations in conjunction with existing travel modes such as auto, bus, rail, and CTOL.

The specific Phase I parameters investigated for the three regions were fares and aircraft seating capacity. Three fare levels of 1.00, 1.25 and 1.50 times CTOL coach fares were used as specified in the Request for Proposal. The aircraft seating capacities used were 50, 100, 150 and 200 seats. The number of seats affects the STOL patronage because, as frequency of service is increased, aircraft size decreases in order to maintain a 60 percent load factor for a fixed passenger demand.

In addition, several STOL airport alternatives within each city were investigated to determine the effect of different locations on STOL patronage. The STOL airport locations selected for each metropolitan area are shown in Table 5-1. In applying these parameters it was determined that there is a certain amount of interaction between them and a significant variation in their effect for each of three regions.

5.1 Fare Sensitivity

The most important parameter in Phase I for attracting patronage to STOL service was fares. However, a comparison of selected cities in the Northeast Region, California Region and Chicago Region show a substantial difference in the magnitude of the results. Fare changes in the California

TABLE 5-1
SELECTED AIRPORT LOCATIONS
FOR PHASE I CITY PAIRS

Area	Airports
San Francisco Metropolitan Area	San Francisco International Airport (SFO)
	Metropolitan Oakland International Airport (OAK)
	San Jose Municipal Airport (SJC)
	Crissy AAF (CSY)
	Metropolitan Oakland International Airport - North Field (OAK)
	San Carlos Airport (SQL)
	Concord, CA - Buchanan Field (CCR)
	Hayward Air Terminal (HWD)
Los Angeles Metropolitan Area	Los Angeles International Airport (LAX)
	Burbank, CA. - Hollywood Burbank Airport (BUR)
	Long Beach Airport (LGB)
	El Monte Airport (EMT)
	General Patton Field (General Services Administration Facility)
Fresno Metropolitan Area	Fresno Air Terminal (FAT)
	Fresno-Chandler Airport (FCH)
San Diego Metropolitan Area	San Diego International - Lindbergh Field (MYF)
Sacramento Metropolitan Area	Sacramento Metropolitan Airport (SMF)
	Sacramento Executive (SAC)
Boston Metropolitan Area	Logan International Airport (BOS)
	Bedford, Mass. - L. G. Hanscom Field (BED)
New York Metropolitan Area	LaGuardia Airport (LGA)
	Teterboro Airport (TEB)
	Secaucus, New Jersey, Proposed Airport Site

TABLE 5-1 (Concluded)
SELECTED AIRPORT LOCATIONS
FOR PHASE I CITY PAIRS

Philadelphia Metropolitan Area	Philadelphia International Airport (PHL)
	North Philadelphia Airport (PNE) 30th Street RR Depot, Proposed Airport Site
Washington, D.C. Metropolitan Area	Washington National Airport (DCA)
	Bolling Air Force Base (BOF)
	College Park Airport, College Park, MD (CGS)
	D.C. Union Station, Proposed Airport Site
Chicago Metropolitan Area	O'Hare International Airport (ORD)
	Merrill C. Meigs Field (CGX)
Cleveland Metropolitan Area	Cleveland Hopkins International Airport (CLE)
	Cleveland-Burke Lakefront Airport (BKL)
Detroit Metropolitan Area	Detroit Metropolitan - Wayne County Airport (DTW)
	Detroit City Airport (DET)
	Birmingham, Mich., Berz Airport (7D2)
Indianapolis Metropolitan Area	Indianapolis Weir Cook Airport (IND)
Milwaukee Metropolitan Area	General Mitchell Field (MKE)
Minneapolis Metropolitan Area	Minneapolis - St. Paul International Airport (MSP)
St. Louis Metropolitan Area	Lambert Field - St. Louis Airport (STL) Bi-State Parks Airport (CPS)

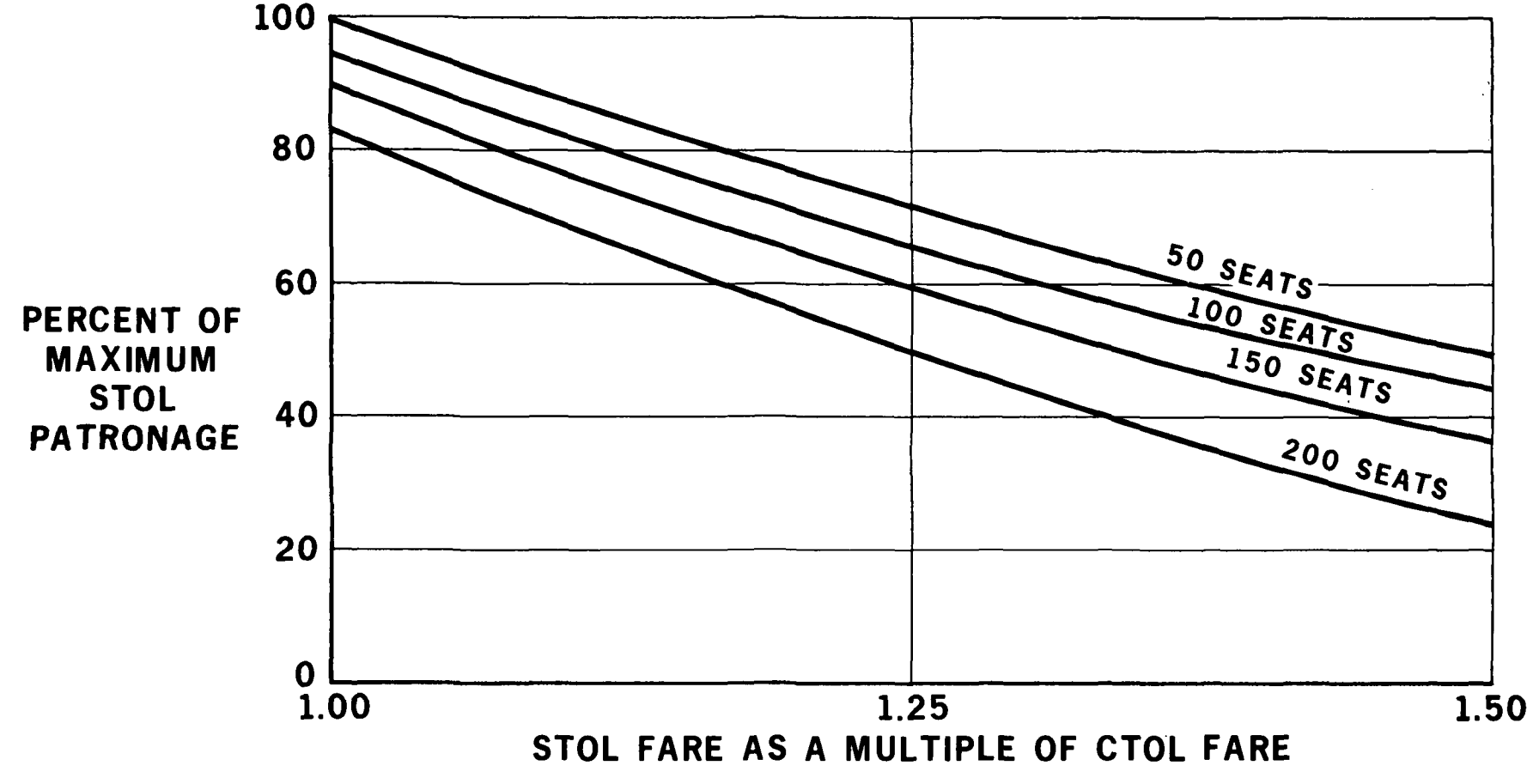
Region produced an approximately equal but opposite percentage change in STOL patronage (see Figure 5-1) while in the Northeast Region a fare change resulted in a percentage change in patronage twice that of the fare change (see Figure 5-2). The effect of fares on STOL patronage in the Chicago Region was in between that in the California and Northeast Regions as shown in Figure 5-3.

Several reasons can be given for the variation in sensitivity to parametric fares between the regions. One of these is the present fare structure. Coach fares for the stage lengths investigated typically run about 11-12 cents per mile (7 cents per kilometer) for the Chicago and Northeast regions while the California intrastate fares are about 5 cents per mile (3 cents per kilometer). When STOL fare multiples of CTOL fares are used in the California Region the absolute fare increase is small and the convenience of well located STOL airports can offset a substantial portion of this increase.

Another factor affecting the parametric fare results is the ground capture for STOL. For most cities in the Chicago and California regions there are a number of existing airports which are more convenient than the present air carrier airports. In general, this is not the case in the Northeast. If these existing airports are assumed to be used for STOL operations, the Douglas Patronage Model shows significant ground capture for STOL in the Chicago and California regions and very little in the Northeast. Therefore, the ground capture in these two regions reduces the effect of the higher fare parameters.

FIGURE 5-1.

1985
LOS ANGELES - SAN FRANCISCO
METROPOLITAN AREAS
EFFECT OF FARE BY AIRCRAFT CAPACITY

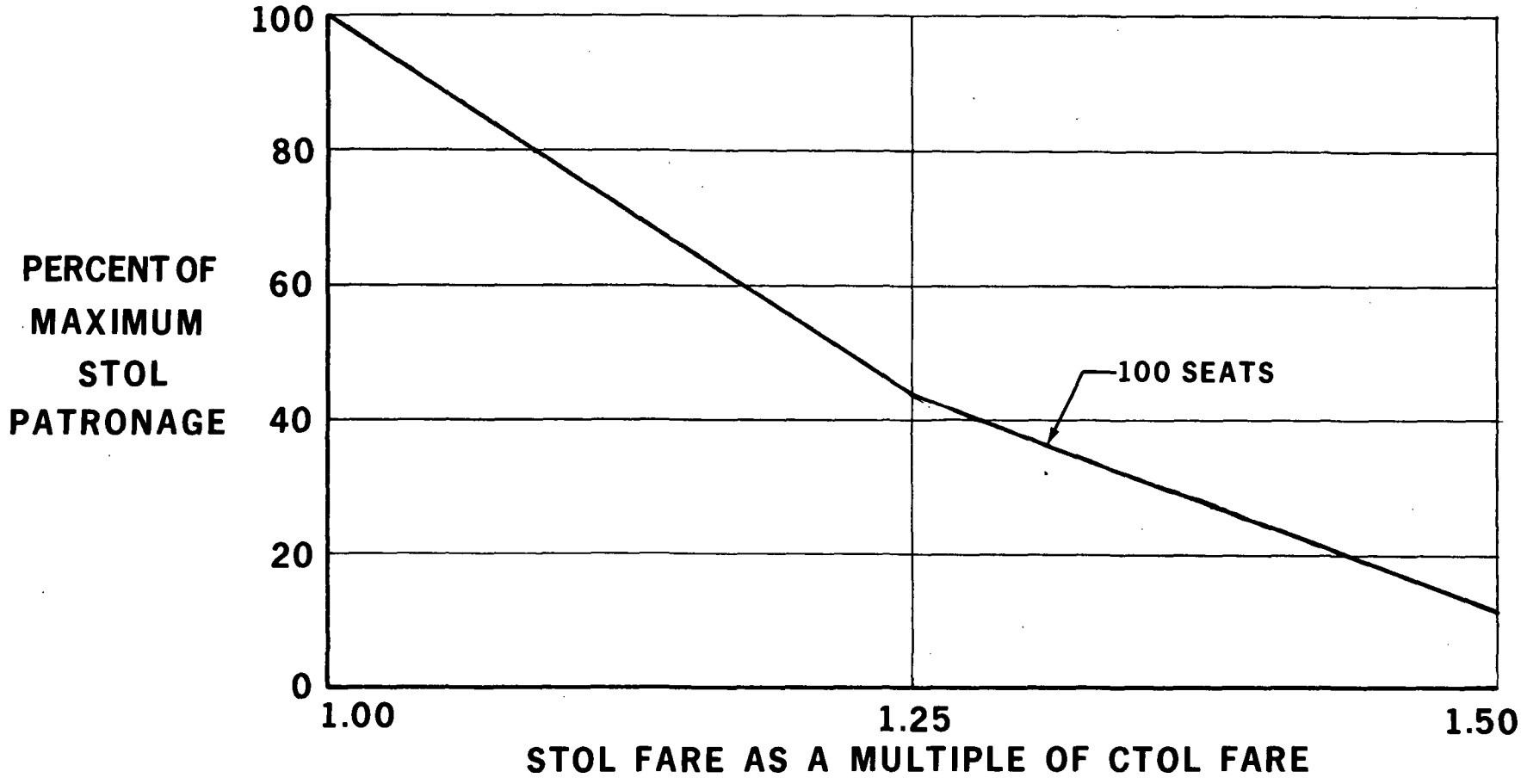


PR2-STOL-09631A

FIGURE 5-2.

1985
NORTHEAST REGION

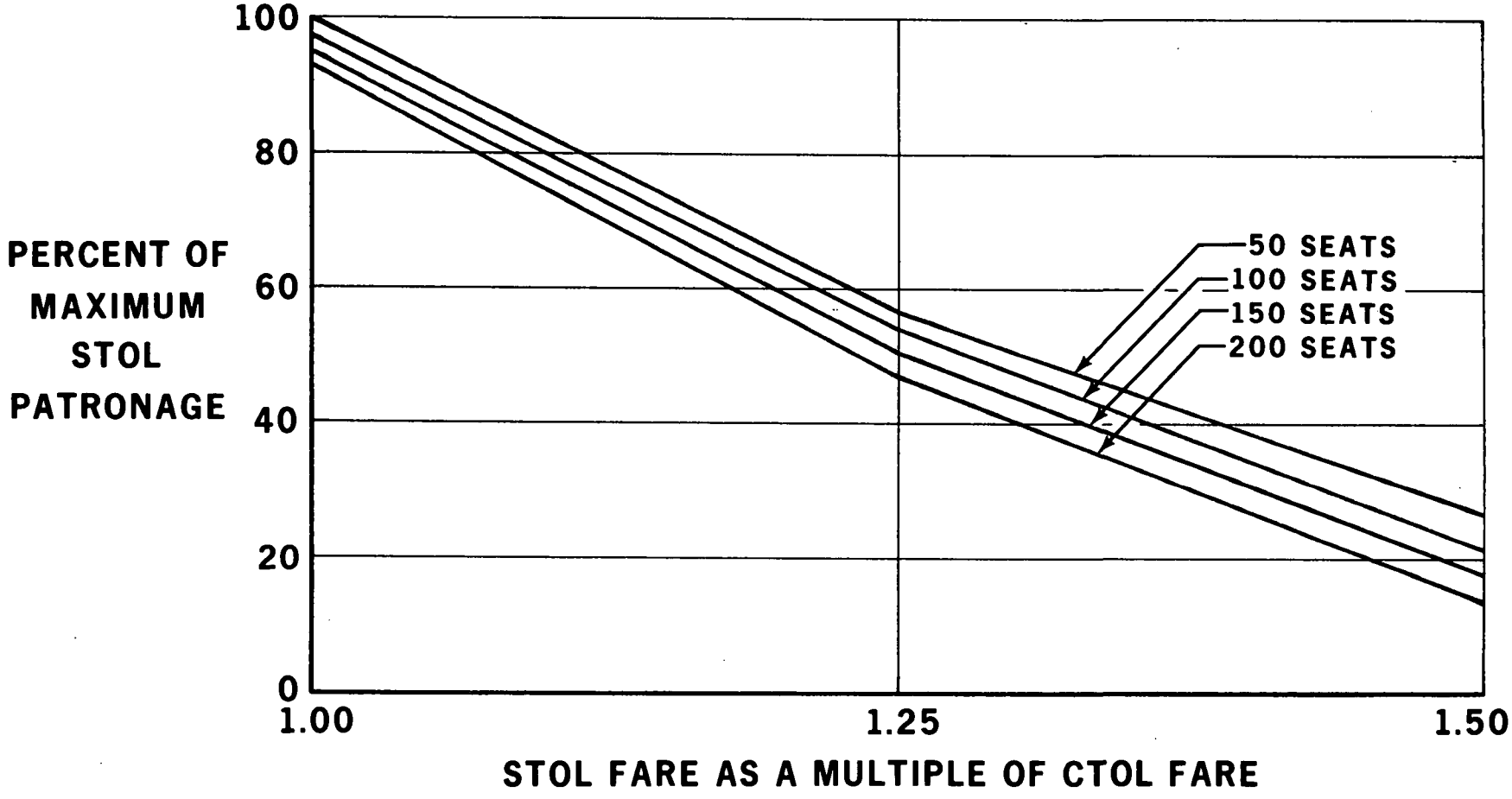
REPRESENTATIVE CITY PAIRS
EFFECT OF FARE ON STOL PATRONAGE



PR2-STOL-9895

FIGURE 5-3.

1985
CHICAGO - DETROIT
METROPOLITAN AREAS
EFFECT OF FARE BY AIRCRAFT CAPACITY



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5.2 Aircraft Size

Aircraft seating capacity is an important parameter affecting patronage because it relates to frequency of service. As aircraft size increases, it is necessary to decrease frequency in order to maintain the same load factor. This reduction in frequency results in some decrease in patronage which in turn requires an additional cut in frequency. The Patronage Model used a maximum of eleven iterations to examine this tradeoff between frequency and aircraft size. The effect of aircraft size on STOL patronage is influenced by individual city pair characteristics such as magnitude of origin - destination demand and STOL airports considered.

Figures 5-4 and 5-5 show the reduction in patronage in relation to aircraft size for two city pairs. The effect of aircraft size is slightly greater for Los Angeles - San Francisco than for Chicago - Detroit due to the number and location of STOL airports. Because of a larger O & D market between Los Angeles and San Francisco more STOLports were used in the analysis causing the traffic to be split between more airport pairs. The result is increased sensitivity to aircraft size.

A summary of the effects, of the combined fare and aircraft size parameters are shown in Tables 5-2 through 5-4 for one city pair in each region. These twelve combinations were examined for 1980 and 1985 for eight city pairs in California, six in the Northeast and nine in the Chicago region resulting in 552 different analyses. An example of one set of the twelve combinations is shown in Appendix 11.7 for Chicago - Detroit with 1985 traffic. In addition to the fare and aircraft size parameters, several different STOL airport locations were analyzed resulting in more than 1000 analyses.

FIGURE 5-4.

1985

LOS ANGELES - SAN FRANCISCO

METROPOLITAN AREAS

EFFECT OF FARE AND AIRCRAFT CAPACITY ON STOL PATRONAGE

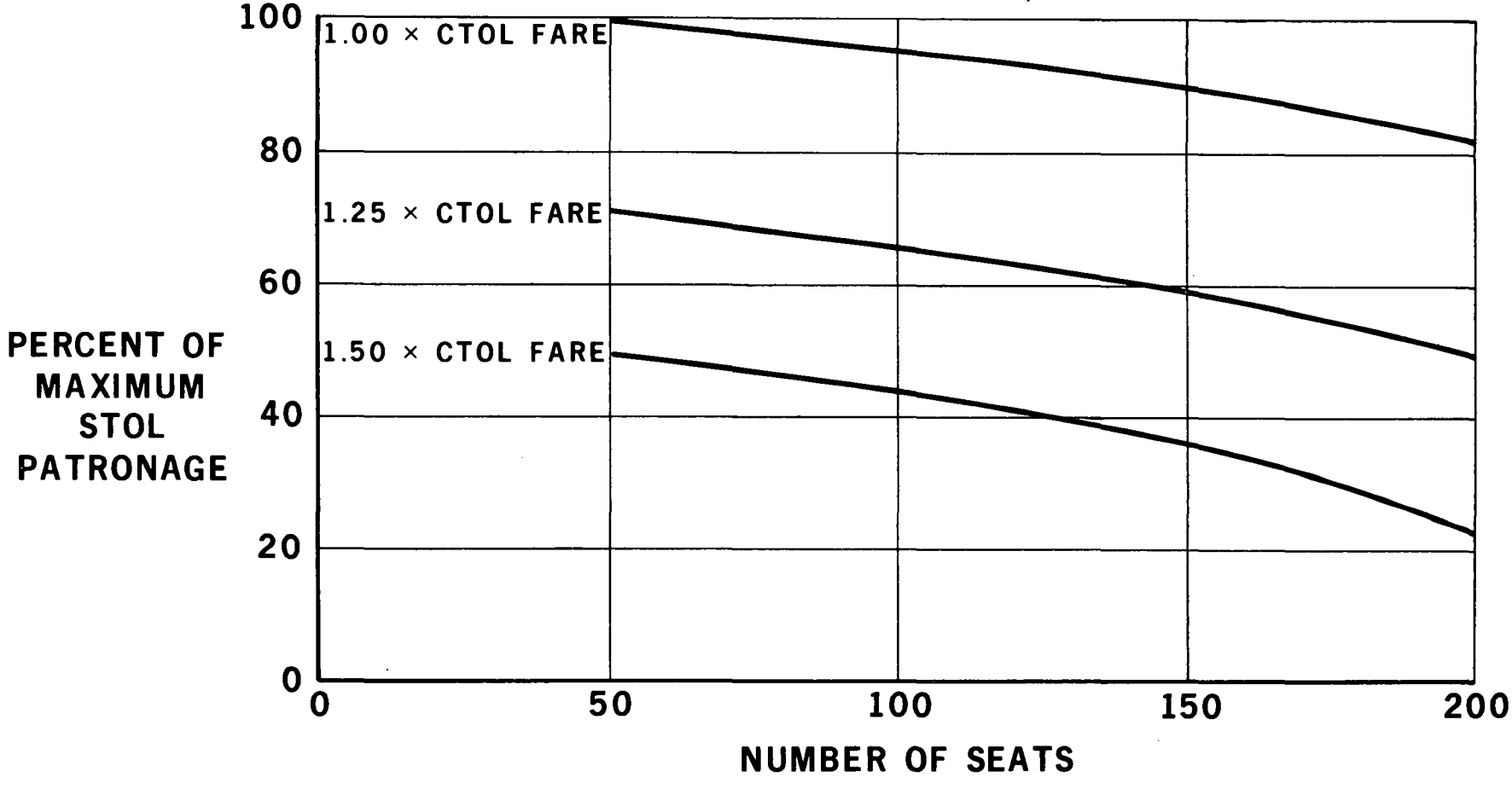

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FIGURE 5-5

1985
CHICAGO - DETROIT
METROPOLITAN AREAS
EFFECT OF FARE AND AIRCRAFT CAPACITY ON STOL PATRONAGE

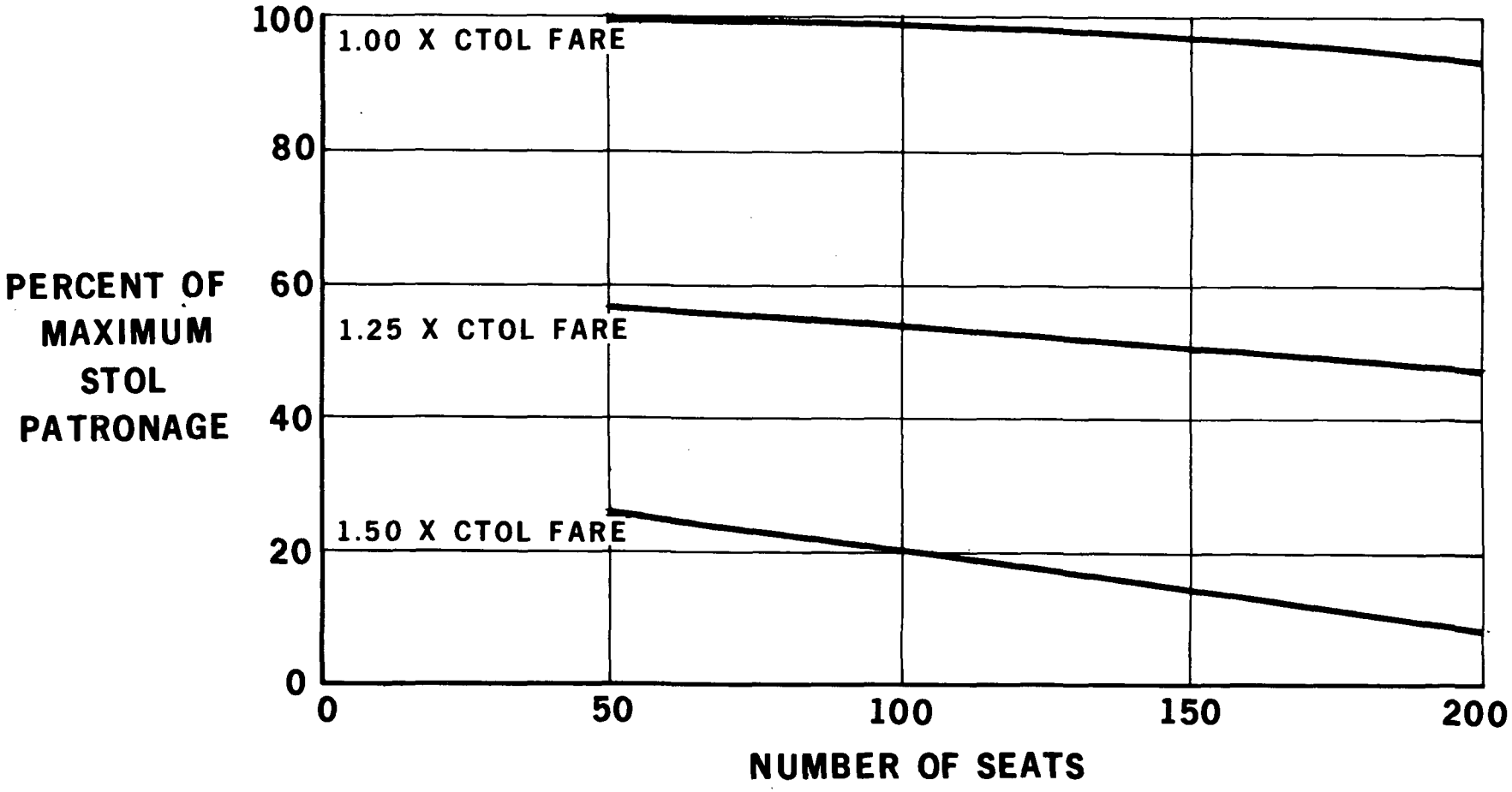

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TABLE 5-2

CTOL/STOL MARKET SHARE

1985 PASSENGER TRAFFIC BY ALL MODES
LOS ANGELES - SAN FRANCISCO METROPOLITAN AREAS
(PERCENT)

FARE (× CTOL)	SEAT CAPACITY			
	50	100	150	200
1.00	15 / 36	16 / 34	16 / 32	17 / 30
1.25	19 / 26	19 / 23	20 / 21	23 / 18
1.50	23 / 18	24 / 16	26 / 13	29 / 9

PR2-STOL-09652

TABLE 5-3

CTOL/STOL MARKET SHARE

1985 PASSENGER TRAFFIC BY ALL MODES
BOSTON-PHILADELPHIA
(PERCENT)

FARE (X's CTOL)	SEAT CAPACITY			
	50	100	150	200
1.00	28 / 29	29 / 26	44 / 6	44 / 6
1.25	38 / 13	47 / 3	47 / 3	47 / 3
1.50	48 / 1	48 / 1	48 / 1	48 / 1

PR2-STOL-9901

TABLE 5-4

CTOL/STOL MARKET SHARE

1985 PASSENGER TRAFFIC BY ALL MODES
CHICAGO - DETROIT
(PERCENT)

FARE (× CTOL)	SEAT CAPACITY			
	50	100	150	200
1.00	14 / 37	15 / 37	15 / 36	15 / 35
1.25	20 / 21	21 / 20	21 / 19	22 / 18
1.50	25 / 10	26 / 8	27 / 7	29 / 5

PR2-STOL-9940

5.3 STOL Airport Locations

Although STOL airport locations were not specifically selected for parametric analysis in Phase I, several conclusions could be made based on the output of the Patronage Model. Differences were observed between the regions when adding STOL airports. These differences could be attributed to the demographics of the representative regions.

In the California region, due to the influence of Los Angeles and San Francisco, it is desirable from the passenger standpoint to have a number of conveniently located STOL airports. The air travelers are not concentrated in any one area except near the present CTOL airport where hotel availability distorts the true ground origin and destination of the business traveler. New STOL airports and hotels would cause a shift in the ground origin - destination of overnight travelers toward these locations. In the Northeast region there is a heavy concentration of air travelers in the central business district (CBD) of the cities examined. These cities also have existing airports which for the most part are more convenient to the CBD than airports which would be used for STOL operations. This results in a passenger preference for CTOL operating from the hub airport rather than a STOL system using other airports. This is also the area, however, with the greatest percentage of congested airports and where a limitation on CTOL flights is necessary. The Chicago Region in general has air travelers concentrated near the CBD as well as airports capable of handling STOL operations. In this situation a STOL short haul system becomes the most desirable. In fact today in the Cleveland - Detroit market over 40 percent of the origin - destination air travelers use the commuter service between Burke Lakefront Airport and Detroit City Airport.

5.4 Market Demand

The parametric studies for each city pair were analyzed using expected 1980 and 1985 origin-destination traffic levels. The Patronage Model indicated that some city pairs could have a viable STOL operation in 1985 but not in 1980. Although there is a variation between city pairs, the minimum origin - destination traffic required in order to support STOL operations in competition with CTOL was about 275,000 annual passengers. For city pairs with greater traffic volume frequencies could be increased or in a few cases additional STOL airports could be used for more convenient service.

In actual practice, the parameters investigated are not independent. If fares are based on costs, they would be lower with larger aircraft. The lower fare would stimulate the market while the larger aircraft with less frequencies would have a negative effect on traffic. Figure 5-6 shows the effect the combined parameters on aircraft requirements for the Los Angeles-San Francisco metropolitan areas. The passenger demand for STOL service was converted to aircraft requirements based on block time, 60 percent load factor and 2500 hours a year utilization.

STOL ground travel capture factors from the auto, rail and bus modes were developed from the city pairs studied in Phase I. For example, parametric studies for the year 1985 in the Chicago-Detroit market reveal the following facts. A 200 seat STOL aircraft operating in competition with a 200 seat advanced CTOL aircraft not only captured the majority of the air market but also captured 17 percent of the traffic previously utilizing the ground modes. Ground capture has been estimated for this city pair for STOL fares ranging from 90 percent of CTOL fares to 130 percent of CTOL fares. Table 5-5 details these results.

FIGURE 5-6.

1985

LOS ANGELES - SAN FRANCISCO METROPOLITAN AREAS
STOL AIRCRAFT REQUIREMENTS VERSUS SEATING CAPACITY
(60% LOAD FACTOR)

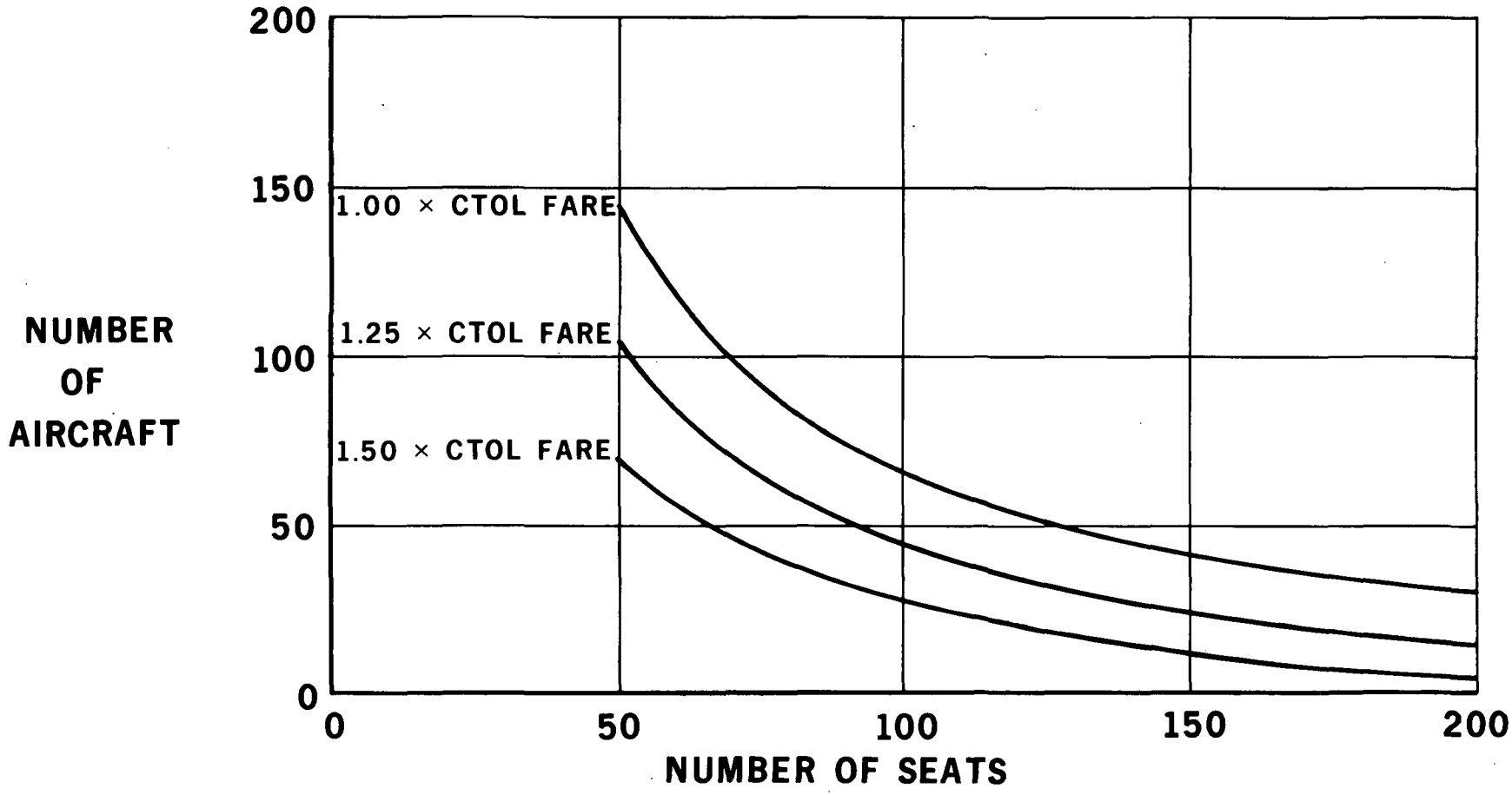

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TABLE 5-5
CHICAGO-DETROIT
PARAMETRIC MARKET STUDIES - 1985
(MEIGS - BERZ & DETROIT CITY STOL AIRPORTS)

STOL Fares (Ratio of CTOL	Ground Capture From All Modes (100 Seat A/C)	Ground Capture From All Modes (200 Seat A/C)
90	23%	22%
92	22%	21%
94	21%	20%
96	20%	19%
98	19%	18%
100	18%	17%
102	17%	16%
104	16%	15%
106	15%	13%
108	14%	12%
110	12%	11%
112	11%	10%
114	10%	9%
116	10%	9%
118	9%	8%
120	9%	7%
122	8%	7%
124	7%	6%
126	7%	6%
128	6%	5%
130	6%	3%

Note: Measure impact of varying STOL fare upon ground capture.

6.0 NATIONAL DEMAND FOR STOL SERVICE

The national demand for STOL service is predicated upon the fact that this service offers time and place convenience to the short haul O & D passenger. A STOL system is intended to provide additional passenger convenience for a relatively modest increase in fares over, for example, a new competitive CTOL short haul aircraft designed to meet the more stringent noise requirements expected to exist in the next decade. STOL service is primarily designed to appeal to O & D passengers traveling less than 600 statute miles (966 Km). Where STOL airports are located close to the ground origins and destinations of surface passengers, the STOL service is expected to capture travelers previously using the surface travel modes.

6.1 Passenger Convenience

One of the primary advantages of STOL service is passenger convenience. STOL airports can be located near the ground origins and destinations of short haul inter-city travelers currently using both the air and the surface modes. There has been an unabated trend to the suburbs in most metropolitan regions of the United States and this has led to the development of a satellite system of airports in many areas. The California Corridor is an example of this trend.

6.1.1 Satellite Airports. - Satellite airports are now in use both in the Los Angeles and the San Francisco metropolitan areas. In fact, most of the growth in this market over the past few years has occurred between the satellite airport pairs. The trend toward the use of satellite airports has also occurred in Miami-Fort Lauderdale, Houston, Long Island, New York City and Chicago.

6.1.2 Value of Time. - The use of disbursed suburban airports for STOL service benefits the passenger not only from a geographical convenience standpoint but also through real time savings. Time has a dollar value to business and non-business travelers alike. This is usually measured as a function of a person's annual income expressed in hourly terms. The value of transit time used in the Douglas Patronage Model was $7 per hour. This sum is equivalent to the hourly income of the average air passenger. A different value of time was used in certain specific applications. For example, empirical investigations have led to the conclusion that air passengers place a higher value on delay time. In view of this fact, the value of delay time was determined to be $9.35 per hour. These value of time factors were, of course, used as inputs to the Douglas Patronage Model.

Appendix 11.7 contains a parametric analysis of the Chicago-Detroit market for the year 1985. The value of time figures discussed above were used in this analysis. This appendix also contains the values used in estimating out-of-pocket costs such as parking and baggage handling.

6.2 Level of Competition

STOL service must charge fares which are comparable to those of the competitive CTOL system. It should be specified that a competitive CTOL system includes an Advanced CTOL Aircraft designed for the short to medium haul and meeting more stringent noise criteria expected to be in force in the next decade. Cost generated fares for typical short haul city pairs have been calculated for both the baseline STOL aircraft and an advanced short haul CTOL aircraft. The results demonstrate that the proposed STOL service could charge fares competitive with those of the CTOL system. This is especially true con sidering that STOL service will offer the passenger savings in ground travel

time and expense.

It should be pointed out that the STOL service must offer competitive flight frequencies with the CTOL service. In fact, markedly higher STOL fares would have to be offset by higher STOL flight frequencies.

This is also important if the STOL service is to capture traffic from the surface modes. Adequate flight frequency and convenient location are the two factors which govern possible STOL ground capture. When STOL airports are conveniently located, as in the case of the Chicago-Detroit city pair, substantial ground capture results.

7.0 NATIONAL DEMAND FOR STOL AIRCRAFT

Prior to determining the national demand for STOL service and related aircraft, it was necessary to prepare a traffic forecast, select city pairs, and derive a modal split procedure. These intermediate steps have been taken and it is now possible to determine the domestic market for STOL aircraft. Stage lengths of from zero to 600 statute miles (966 KM) were selected for purposes of calculating the baseline demand for STOL aircraft. This was done because the data output from existing computer programs is in terms of 100 statute mile (160 KM) increments. This was as close as it was possible to come to the 575 statute mile (925 KM) range used in the balance of this study.

During the course of the study, a target load factor of 60 percent was used. This load factor was used to convert forecast passenger miles into seat miles. The STOL 1985 market demand was calculated using the modal split procedure described in Section 4.0. Table 4-17 contains a forecast of STOL 1985 market demand. It includes the 0-600 statute mile (966 KM) range category. The STOL passenger mile demand at this range is 16.193 billion (26.060 billion passenger KM). At a 60 percent load factor this converts to 26.988 billion seat miles (43.433 billion seat KM).

The seat mile/kilometer productivity of the selected STOL aircraft is calculated below.

Seats	Yearly Utilization (Hours)	Block Speed MPH	Block Speed KPH	Annual Productivity (Millions) Seat Miles	Annual Productivity (Millions) Seat Kilometers
150	2500	300	483	112.5	181.1

Using these aircraft productivity values, it is possible to estimate the

domestic market for STOL aircraft. When the 1985 seat mile/kilometer demand is divided by the annual aircraft productivity an estimate of the U.S. domestic market for STOL aircraft is provided. This calculation indicates that there is a potential base market for 240 STOL aircraft in 1985.

It will be noted that the STOL passenger mile demand identified in Table 4-17 is composed of city pairs with an annual origin-destination passenger density of 300,000 or above. This volume of passenger travel was considered the minimum necessary to consider a dual STOL/CTOL air transportation system. City pairs with an annual traffic volume of less than 300,000 origin-destination passengers are potential candidates for dual STOL/CTOL service when traffic growth brings them to this point.

An estimate of the U.S. domestic market for the baseline STOL aircraft was also made for the year 1990. The traffic growth rates used are consistent with those used in the official annual Douglas publication, "Passenger Air Transport Market." Accordingly, in 1990, there is a demand for 320 STOL aircraft.

It was a requirement of this study to investigate the effects of designing the aircraft to fly extended ranges beyond the design range. The impact of this provision upon the market for the baseline STOL aircraft was accordingly ascertained for range categories up to 1200 statute miles (1931 km). In each extended range market study the basic modal split procedure described in Section 4.0 was used. These estimates are shown below.

U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 & 1990

YEAR	STAGE SEGMENT		
s mi	0-600	0-900	0-1200
km	0-966	0-1449	0-1931
1985	240	375	535
1990	320	500	715

It should be pointed out that the market demand for STOL aircraft increases over 50 percent when the stage segments of interest are expanded out to 900 statute miles (1449 km). When stage segments up to 1200 statute miles (1931 km) are included, the baseline STOL market more than doubles.

There was also a need to examine the sensitivity of the baseline market to different modal split assumptions. A high estimate was prepared for both 1985 and 1990 for the three range categories of interest by allocating all short haul market growth after 1970 to the STOL system. The CTOL system was held to its 1970 level. Similarly, a low STOL market estimate was prepared by assuming that the 1970 base level of CTOL short haul traffic would expand by four percent per annum. The residual level of forecast growth was assigned to the STOL system. These estimates are shown in Table 7-1.

Table 7-1

U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 & 1990

YEAR		STAGE SEGMENT		
	s mi	0-600	0-900	0-1200
	km	0-966	0-1449	0-1931
1985	HIGH	290	445	645
	BASE	240	375	535
	LOW	175	270	385
1990	HIGH	420	645	940
	BASE	320	500	715
	LOW	235	360	560

8.0 FOREIGN AND MILITARY MARKETS

In order to determine potential STOL aircraft production levels, it is necessary, not only to define the national demand for STOL service, but also to estimate foreign markets and possible military sales. Selection of city pairs to determine the foreign market for STOL aircraft followed the approach used for U.S. city pairs to the extent possible considering data availability. Possible U.S. and foreign military sales of STOL vehicles were also estimated. Potential commonality between military programs and the commercial program was then estimated and longer production runs were used for common components and assemblies when computing commercial STOL aircraft unit costs.

8.1 Foreign Civil Markets

The procedure for estimating the non-U.S. market for STOL aircraft was intended to be as close as possible to that used for the United States. In general, differences can be traced to greater data availability in the United States. For example, the U.S. Civil Aeronautics Board publishes detailed origin - destination passengers statistics that are not available elsewhere in the world. However, where possible, as in the case of the modal or traffic split analysis, a similar analytical approach was adopted.

8.1.1 Selection of City Pairs. - Detailed passenger traffic is not available for all foreign city pairs although seats flown between any city pair can be determined. Therefore, seats flown were used rather than passengers to estimate the traffic density. For U.S. city pairs 300,000 annual passengers were considered necessary in 1985 to offer adequate flight frequencies. The city pairs meeting this criterion averaged approximately 100,000 annual

passengers in 1970. Ninety-six U.S. city pairs with a 1970 origin-destination passenger density of 100,000 or more were identified between 0 and 600 statute miles (0-966 km). Interrogation of the Official Airline Guide (OAG) computer tapes established the equivalent annual volume of seat miles flown between each of these city pairs. Conversion of the OAG seat mile data into passenger miles at a 55 percent load factor (the U.S. average) allowed comparison with origin-destination passenger mile data. It was determined that 54 percent of the total traffic on these city pairs was origin-destination traffic. This ratio of origin-destination to total traffic was used to establish one of the criteria for the selection of non-U.S. city pairs. Non-U.S. routes require an annual base seat volume of 279,000 or 764 seats per day at 0-600 statute miles (0-966 km). For extended ranges, a criteria of 275,000 annual seats or 753 seats per day was used.

Using an existing computer program, the foreign city pairs with a potential for STOL service were determined by selecting from the OAG tapes all city pairs with one or both cities outside the U.S. and with respectively 764 and 753 non-stop seats per day for the base and extended range case.

This was done for range increments from 0-600 statute miles (0-966 km), 0-900 statute miles (0-1449 km) and, 0-1200 statute miles (0-1931 km). The number of city pairs which resulted from this procedure are, respectively 200, 225, and 235. These city pairs are contained in Appendix 11.8.

8.1.2 Competing Travel Modes. - Transport development in the twentieth century is becoming dominated by the automobile. In most countries of the world, it is the roads that carry most of the passenger traffic and growth is expected to continue at a rapid rate. The attraction of door-to-door service

at effectively infinite frequency and at a competitive cost is, of course, the main reason behind the dominance of automobile transport.

In the United States, automobile transport has become highly developed and its growth has become stabilized at an average rate about equal to the combined growth rates of the population and the gross national product. About 88 percent of all U.S. person-trips, currently defined as overnight or in excess of 100 miles (161 km), are made by auto. Likewise, 88 percent of intercity passenger miles are accounted for by the auto. In the short haul, up to 500 statute miles (805 km), better than 92 percent of U.S. person trips are made by auto.

In most other countries of the world, automobile transport is not yet as highly developed as in the U.S. and its current growth is, therefore, more dynamic. The dynamic growth of road transport makes it highly competitive with the public modes of transport, especially in the short haul. Japan is a good example. The expansion of superhighways and automobile ownership in Japan during the late 1960's significantly raised the automobile's share of total intercity passenger transport, most of which is under 500 statute miles (805 km). See Table 8-1.

Road transportation in Europe is more highly developed than in Japan, although not as highly developed as in the U.S. Road transport in Great Britain might be considered as representative of Europe. In Great Britain, which has a well developed road transport system, 50 percent of the families currently own one or more cars versus 80 percent in the U.S. In Great Britain it is forecast that by the mid-1980's there will be more than half again as many vehicles as now and trend extrapolation suggests that demand

Table 8-1

*TOTAL DOMESTIC INTER-CITY PASSENGER MARKET IN JAPAN**
(Passenger Totals in Millions)

	1959		1964		1969		Avg. Annual Growth (%)	
Mode	Pax	% Total	Pax	% Total	Pax	% Total	1959-64	1964-69
Rail	3,933.0	60.8	5,055.0	51.5	5,134.0	42.4	5.1	0.3
Bus	2,013.0	31.1	3,378.0	34.4	3,726.0	30.8	10.9	2.0
Car	515.0	8.0	1,379.0	13.0	3,235.0	26.7	21.4	18.6
Air	1.1	0.1	5.2	0.1	12.0	0.1	36.5	18.2
Total	6,462.1	100.0	9,817.2	100.0	12,117.0	100.0	8.7	4.3

*Japanese National Rail Authorities state that for rail modes only 32 percent of registered traffic (Transportation White Paper) is intercity, i.e., excluding commuters. This same control should be applied to other surface modes.

Source: Japanese Ministry of Transportation

will not be saturated until there is between one half and one car per person, a situation which will not be reached before the end of the century at the earliest. And despite gloomy predictions about the intra-urban situation, British road experts believe that road improvement programs aimed at doubling capacity by the late 1980's will allow higher speeds and less congestion that at present on inter-urban road journeys.

In Europe road transport is more competitive than air transport for business travel out to a distance of about 200 statute miles (322 km). See Figure 8-1. For pleasure travel, road transport would be more competitive for longer distances because of personal travel's lower priority on time and greater priority on costs.

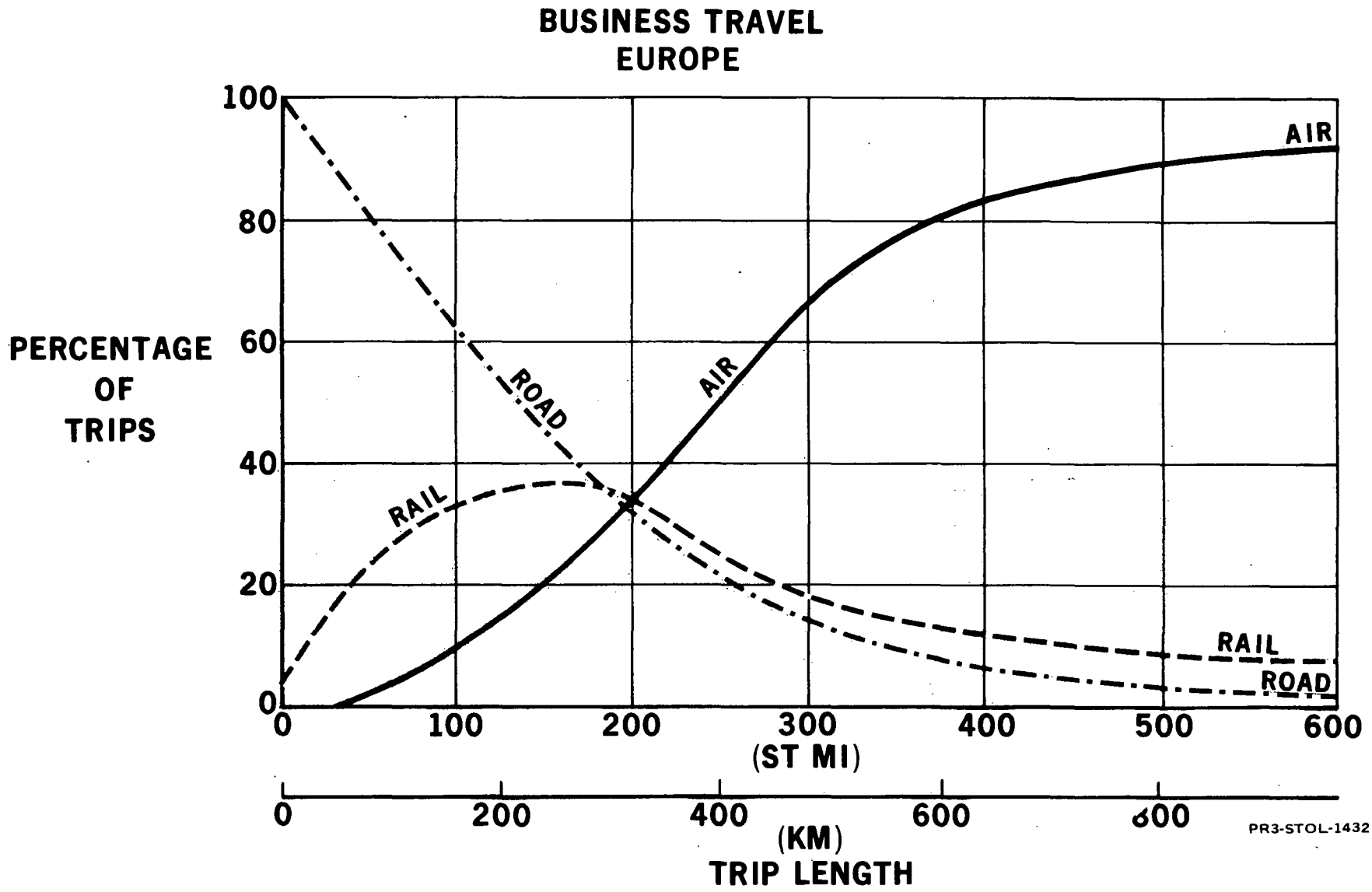
Generally speaking, automobile transport in Europe and Japan still has years of dynamic growth ahead and there is no question but that it is competitive with the public modes of transport in the short haul. And in countries less developed that Europe and Japan, future growth rates of automobile transport are potentially greater even than those currently being experienced in Europe and Japan.

In recent years, in some areas of the world, rail transport has become a significant competitor of short haul air transport. In Japan and Europe railways are having a significant effect on short-haul aviation which may not be checked by air technology until the 1980's.

The 250 statute miles (402 km) between Tokyo and Osaka is Japan's largest domestic air traffic route. In 1964 airlines transported 1.5 million passengers over the Tokyo-Osaka route, representing 28 percent of the total number of passengers carried by rail and air. During the fiscal year

FIGURE 8-1.

RELATIONSHIP BETWEEN MARKET SHARE AND TRIP LENGTH



1964 to 1966 period high speed rail service, the renowned new Tokaido Line, was introduced and rail passenger volume increased by 152 percent while air passenger volume decreased 43 percent. Air's share of the total air and rail market shrank to a low of 8.0 percent in 1966. To date, the airlines have recovered only half of their former (1964) share of the total common carrier traffic although air passenger traffic has experienced a healthy growth (Table 8-2).

In Europe high speed trains and the English Channel Tunnel (proposed for completion by 1980) are expected to restrict the growth of conventional short haul aviation during the late seventies and into the early eighties.

In Great Britain, the Advanced Passenger Train (A.P.T.), capable of speeds up to and exceeding 155 miles (249 km) per hour is expected to be competing with all trunk air routes by the early 1980's. On the routes within the British Isles, the time saved by air as compared to rail in 1980 is expected to be about two-thirds of the current savings. This means that air should come close to maintaining its market share. However, on the routes to Europe the air time savings might be one third of the current savings, which has serious implications for the future of conventional short-haul air transport. The following shifts in air's share of various London routes between 1971 and 1980 resulting from high speed rail advances and the Channel Tunnel are estimated:

Table 8-2

TOKYO-OSAKA CORRIDOR
Total Passenger Market Air and Rail

Fiscal Year (1)	Rail (000)	%	Air (000)	%	% Air/ Total	Rail+Air (000)	%	
Actual								
1963	2,801	--	1,428	--	33.8	4,229	--	
1964	3,978	42.0	1,520	6.4	27.6	5,498	30.0	New Tokaido Line Oct. 1, 1964
1965	7,233	81.8	1,248	-17.9	14.7	8,481	54.3	
1966	10,032	38.7	872	-30.1	8.0	10,904	28.6	Full Effect of Rail on Air
1967	12,831	27.9	1,310	50.2	9.3	14,141	29.7	Rail in Full Capacity Restores Air Volume
1968	15,153	18.1	1,343	2.5	8.1	16,496	16.6	
1969	16,774	10.7	1,875	39.6	10.1	18,649	13.1	Pre-Osaka Fair Preparation Rail Capacity Almost Doubled
Estimated								
1970	19,793	18.0	2,862	52.6	12.6	22,655	21.5	Osaka Fair (Expo 70)
1971	21,970	11.0	3,311	15.7	13.1	25,281	11.6	
1972	23,728	8.0	3,831	15.7	13.9	27,559	9.0	
1973	25,152	6.0	4,433	15.7	15.0	29,585	7.4	
1974	26,158	4.0	5,129	15.7	16.4	31,287	5.8	
1975	26,733	2.2	5,898	15.0	18.1	32,631	4.3	
1976	27,215	1.8	6,754	14.5	19.9	33,969	4.1	
1977	27,487	1.0	7,699	14.0	21.9	35,186	3.6	
1978	27,762	1.0	8,738	13.5	23.9	36,500	3.7	
1979	29,500	6.3	8,825	1.0	23.0	38,325	5.0	Rail Capacity Increased, Jan. 1, 1979
1980	30,944	4.9	8,914	1.0	22.4	39,858	4.0	

Source: Douglas Compiled from Data of Japanese Ministry of Transportation.

	Air Percentage of the Market	
	1971	1980
London to Newcastle	34%	27 - 30%
Manchester	14	13 - 14
Glasgow	60	38 - 43
Dublin	99	90 - 94
Paris	73	17 - 19
Brussels	60	17 - 19
Amsterdam	85	38 - 43
Dusseldorf	99	38 - 43
Hamburg	100	84 - 89
Zurich	100	72 - 79

Train technology advances on the Continent are expected to follow closely behind those in Great Britain so that the above implications should apply to the Continent as well. But as noted above, the primary threat to short haul air comes from high speed trains in conjunction with the Channel Tunnel which will dramatically cut train times between Great Britain and the Continent. Intra-British Isle and intra-Europe rail time savings are not expected to have near the impact on air's share of the market as the rail time savings between the British Isles and Europe.

Despite the competitiveness of road transport and the threat of high speed trains in Europe and Japan, short-haul air transport is expected to maintain good growth. Despite heavy competition from ground modes on some major trunk routes, short-haul air transportation is dispersing. Where,

for example, air traffic between Tokyo and Osaka was 58 percent of total Japanese domestic air traffic in 1960, it is only an estimated 12 percent today. Moreover, within six months after the Tokaido Line opened it was operating at 100 percent capacity at peak hours and it is expected to be growth limited by 1974. Air traffic experienced a rapid recovery beginning in 1967 and it is expected to grow vigorously during most of the seventies until anticipated rail capacity increases late in the seventies at which time there may again be a temporary slowing of air traffic growth.

Despite continuing improvement of European rail over the last decade intra-European air traffic has grown at a healthy average annual rate of 12 to 13 percent per annum. Except for the cross channel routes, rail time savings should not dramatically affect air's share of the intercity market on the continent, just as it is not expected to dramatically affect air's share of the intercity market within the British Isles.

Although rail might restrict short haul air travel to smaller growth rates in Japan and Europe during the late 1970s and early 1980s, it is the Douglas position that the 1980s may see air overcome these difficulties with new environmentally acceptable forms of short haul aviation allowing shorter journey times while the railways face rising costs and congestion.

8.1.3 Modal Split Analysis. - The annual Douglas "Passenger Air Transport Market" publication projects a non-U.S. traffic growth rate of 9.6 percent between 1971 and 1985. A literature survey and a review of Douglas experience indicates that air and ground congestion is not projected to be as severe in most areas of the world as it is in the U.S. For this reason, the 1971 level of passenger traffic for the range categories of interest was

assigned to CTOL and allowed to expand at a rate of 4 percent per annum. The remainder of the growth or 5.6 percent per annum was assigned to STOL. A similar procedure was followed to estimate the non-U.S. STOL aircraft market for the year 1990. In this instance, the forecast traffic growth rate between 1971 and 1990 was 9.2 percent. After allocating 4 percentage points to provide for continued CTOL growth, the remaining 5.2 percent was assigned to STOL.

8.1.4 Non-U.S. STOL Civil Market. - The estimated foreign civil market for 150 passenger STOL aircraft as a function of stage segment is shown below.

NON-U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 and 1990

YEAR	STAGE SEGMENT		
st mi	0-600	0-900	0-1200
km	0-966	0-1449	0-1931
1985	320	415	475
1990	545	710	810

It should be noted that these figures represent the base case. Sensitivity variations from this base case have been developed to depict the upper and lower market demand boundaries.

The upper or high STOL market demand boundary was developed by holding assumed CTOL growth to a rate of two percent per annum as opposed to four percent per annum in the base case. The remainder of the growth, in the case of the 1985 forecast, or 7.6 percent was assigned to STOL. A lower STOL market demand boundary was created by postulating a CTOL growth rate of six

percent per annum. As before, the remainder of the growth was allocated to STOL. Table 8-3 shows the high, base and low cases for the years 1985 and 1990.

8.2 Military Markets

It has already been pointed out that a separate study has been conducted to determine the areas of commonality between civil and military STOL aircraft. Those portions of the two aircraft which were determined to be common were identified and given the benefit of the cost reductions normally associated with a higher production run. Military sales estimates have been prepared for both the United States and for foreign countries.

8.2.1 U.S. Military Market. - The domestic military market may account for 300 STOL transports between 1980 and mid-1985. Douglas studies indicate that an additional 168 STOL transports may be delivered between 1985 and the year 2000, for a total of 468 units. Estimated deliveries for each 5-year period between 1980 and 2000 are shown in Table 8-4. The first column in this table includes six initial production deliveries in the year 1980.

8.2.2 Foreign Military Market. - Douglas also examined the current and projected inventories of over 50 foreign nations which now have C-130 or other airlift aircraft and estimated potential STOL transport sales. An analysis of the past procurement policies of these foreign nations, and the age and composition of their current and projected 1980 aircraft fleets, indicated:

1. Which foreign countries have been U.S. customers for airlift aircraft and which foreign countries have previously purchased European aircraft (such as the consortium, France and Germany, produced C-160 Transall);

Table 8-3

NON-U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 AND 1990

YEAR		STAGE SEGMENT		
	s mi	0-600	0-900	0-1200
	km	0-966	0-1449	0-1931
1985	HIGH	390	505	575
	BASE	320	415	475
	LOW	230	300	340
1990	HIGH	655	850	975
	BASE	545	710	810
	LOW	390	505	580

TABLE 8-4

ESTIMATE OF U.S. AND FOREIGN

MILITARY STOL TRANSPORT DELIVERIES

	DELIVERIES BY TIME PERIOD				
	1980-85	1986-90	1991-95	1996-2000	Total
FOREIGN					
° Potential European Consortium Sales	-	129	96	24	249
° Traditional U.S. Sales	15	54	83	110	262
Sub-Total Foreign	15	183	179	134	511
UNITED STATES	240	90	48	90	468
TOTAL U.S. AND FOREIGN	255	273	227	224	979

2. Which countries have traditionally purchased new aircraft (sometimes early in the production cycle, as in the case of Australia, and sometimes in rather small numbers, as in the case of the smaller oil producing nations);
3. Which countries because of financial circumstances will be likely to procure new C-130's now and defer the purchase of a military STOL transport until after 1995; and
4. Which countries are likely to have only military assistance program used aircraft in their inventories.

The results of this examination of the timing and magnitude of the foreign military market for the military STOL transport are presented in the upper half of Table 8-4. Potential European consortium sales are indicated separately inasmuch as it is not likely that this market would be available for the STOL transport if the Europeans ultimately produce a consortium aircraft. While it is difficult to estimate the total number of C-130 sales which were lost to foreign produced aircraft, 169 potential C-130 sales were lost to the Transall C-160 alone between 1967 and 1972. The C-160 is essentially a two-engine C-130 produced by the Transall consortium.

As summarized in Table 8-4, 528 U.S. and foreign military STOL sales may be anticipated by 1990 without the advent of a European competitive aircraft. With European competition, this number would drop to 399 aircraft. Over the entire 20-year time span of this estimate, 979 STOL transports may be delivered with no European competition versus only 730 if a European aircraft materializes.

In light of political and economic uncertainties, a gross estimate of the sensitivity of these market estimates is plus or minus 50 and 100 aircraft by 1990, with and without European competition, respectively, and plus or minus 100 and 200 aircraft on the same basis by the year 2000.

9.0 CONCLUSIONS

- There is a United States civil market for 150 passenger STOL aircraft operating between 0 and 600 statute miles (0-966 km).

When city pairs from 0-900 statute miles (1449 km) and from 0-1200 statute miles (1931 km) are considered, this market could more than double. Although a detailed systems analysis of these city pairs was not made, it is important for short haul aircraft to have range flexibility. A high and a low market is shown in the table below.

U.S. CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 & 1990

YEAR		STAGE SEGMENT		
	s mi km	0-600 0-966	0-900 0-1449	0-1200 0-1931
1985	HIGH	290	445	645
	BASE	240	375	535
	LOW	175	270	385
1990	HIGH	420	645	940
	BASE	320	500	715
	LOW	235	360	560

- The foreign market is growing faster than the U.S. market.

By the 1985-1990 time period, the foreign market for STOL aircraft will be markedly higher than the U.S. market. High and low market estimates have been included in the following table.

FOREIGN CIVIL MARKET FOR 150 PASSENGER STOL AIRCRAFT 1985 and 1990

YEAR		STAGE SEGMENT		
	s mi km	0-600 0-966	0-900 0-1449	0-1200 0-1931
1985	HIGH	390	505	575
	BASE	320	415	475
	LOW	230	300	340
1990	HIGH	655	850	975
	BASE	545	710	810
	LOW	390	505	580

- The preferred seating capacity for a STOL aircraft, of the configuration studied, is 150 seats.

Operational and economic factors dictated this result. Aircraft with larger capacities were not able to offer sufficient frequencies at economically acceptable load factors. Aircraft with smaller passenger capacities did not possess competitive economic characteristics.

- Market demand showed the greatest sensitivity to fares.

The parametric analyses performed during this study show that frequency, airport location, and market size are important factors in establishing a viable STOL system. Fare variations produced the greatest changes in market demand. It is very important that any potential STOL service offer fares comparable to those of a competitive CTOL system.

- There is no direct military market for commercial STOL aircraft.

In view of the specialized military requirements for the STOL mission and the unique commercial requirements for safety, economy and low

community noise, there is no military market foreseen for off-the-shelf civil STOL aircraft. There are significant commonality benefits which apply to both military and commercial designs in the propulsion, wing, and operating sub-systems which could reduce the overall program cost.

- o STOL patronage is directly related to the relative convenience of STOL and CTOL airports to the traveler.

Community acceptance factors prevented the inclusion of more than a few centrally located or downtown STOL airport sites. As a result, the potential time savings on the ground portion of a short haul trip utilizing a STOL aircraft has been impacted.

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11.0 APPENDICES

MARKET STUDY TEAM

The Market Study Team drew upon the resources of the entire McDonnell Douglas Corporation. Personnel were assigned to the team based upon prior participation in on-going commercial short haul transportation studies. The following personnel contributed to the study effort as indicated:

J. A. Keelan	Computer programs
D. B. McCaughey	Competitive modes
W. J. Richards	Market demand

APPENDIX 11.1
CITY CODE LIST
(ENCODING)

CITY NAME	CODE
Abilene, Texas	ABI
Akron/Canton, Ohio	CAK
Albany, Georgia	ABY
Albany, New York	ALB
Albuquerque, New Mexico	ABQ
Allentown/Bethlehem/Easton, Pennsylvania	ABE
Amarillo, Texas	AMA
Anchorage, Alaska	ANC
Asheville, North Carolina	AVL
Ashland, Ky/Huntington, W. Virginia	HTS
Aspen, Colorado	ASE
Atlanta, Georgia	ATL
Augusta, Georgia	AGS
Austin, Texas	AUS
Bakersfield, California	BFL
Baltimore, Maryland	BAL
Bangor, Maine	BGR
Baton Rouge, Louisiana	BTR
Beaumont/Port Arthur, Texas	BPT
Billings, Montana	BIL
Binghamton/Endct Jhnsn City, New York	BGM
Birmingham, Alabama	BHM
Bismarck/Mandan, North Dakota	BIS
Boise, Idaho	BOI
Boston, Massachusetts	BOS
Bradford, Pennsylvania	BFD
Bridgeport, Connecticut	BDR
Bristol/Kngsprt/Jhnsn City, Tennessee	TRI
Buffalo & Niagara Falls, New York	BUF
Hollywood-Burbank, California	BUR
Burlington, Vermont	BTV
Casper, Wyoming	CPR
Catalina Island, California	CIB
Cedar Rapids/Iowa City, Iowa	CID
Champaign/Urbana, Illinois	CMI
Charleston, South Carolina	CHS
Charleston/Dunbar, West Virginia	CRW
Charlotte, North Carolina	CLT
Charlottesville, Virginia	CHO
Chattanooga, Tennessee	CHA
Chicago, Illinois	CHI
Cincinnati, Ohio	CVG
Cleveland, Ohio	CLE
Colorado Springs, Colorado	COS
Columbia, South Carolina	CAE

APPENDIX 11.1
CITY CODE LIST
(ENCODING)

CITY NAME	CODE
Columbus, Georgia	CSG
Columbus, Ohio	CMH
Corpus Christi, Texas	CRP
Dallas & Ft. Worth, Texas	DAL
Dayton, Ohio	DAY
Daytona Beach, Florida	DAB
Decatur, Illinois	DEC
Denver, Colorado	DEN
Des Moines, Iowa	DSM
Detroit, Michigan	DTT
Dothan, Alabama	DHN
Duluth, Minn./Superior, Wis.	DLH
Elmira/Corning, New York	ELM
El Paso, Texas	ELP
Erie, Pennsylvania	ERI
Eugene, Oregon	EUG
Eureka/Arcata, California	EKA
Evansville, Indiana	EVV
Fairbanks, Alaska	FAI
Fargo, N.D./Moorhead, Minnesota	FAR
Fayetteville, North Carolina	FAY
Flint, Michigan	FNT
Fort Lauderdale, Florida	FLL
Fort Myers, Florida	FMY
Fort Wayne, Indiana	FWA
Fresno, California	FAT
Glens Falls, New York	GFL
Grand Forks, North Dakota	GFK
Grand Junction, Colorado	GJT
Grand Rapids, Michigan	GRR
Great Falls, Montana	GTF
Green Bay/Clintonville, Wisconsin	GRB
Greensboro, High Point, North Carolina	GSO
Greenville & Spartanburg, South Carolina	GSP
Harlingen/San Benito, Texas	HRL
Harrisburg/York, Pennsylvania	HAR
Hartford/Sprngfld/Westfld, Connecticut	BDL
Hilo, Hawaii, Hawaii	ITO
Honolulu, Oahu, Hawaii	HNL
Hoolehua, Molokai, Hawaii	MKK
Houston, Texas	IAH
Huntsville & Decatur, Alabama	HSV
Hyannis, Massachusetts	HYA
Indianapolis, Indiana	IND
Indio/Palm Springs, California	PSP

APPENDIX 11.1
CITY CODE LIST
(ENCODING)

CITY NAME	CODE
Islip, Long Island, New York	ISP
Ithaca/Cortland, New York	ITH
Jackson, Mississippi	JAN
Jacksonville, Florida	JAX
Juneau, Alaska	JNU
Kahului, Maui, Hawaii	OGG
Kailua, Kona, Hawaii	KOA
Kalamazoo, Michigan	AZO
Kamuela, Hawaii, Hawaii	MUE
Kansas City, Missouri	MKC
Keene, New Hampshire	EEN
Ketchikan, Alaska	KTN
Knoxville, Tennessee	TYS
Lafayette, Louisiana	LFT
Lake Charles, Louisiana	LCH
Lansing, Michigan	LAN
Las Vegas, Nevada	LAS
Lexington/Frankfort, Kentucky	LEX
Lihue, Kauai, Hawaii	LIH
Lincoln, Nebraska	LNK
Little Rock, Arkansas	LIT
Long Beach, California	LGB
Los Angeles, California	LAX
Louisville, Kentucky	SDF
Lubbock, Texas	LBB
Madison, Wisconsin	MSN
Manchester/Concord, New Hampshire	MHT
Medford, Oregon	MFR
Melbourne, Florida	MLB
Memphis, Tennessee	MEM
Miami, Florida	MIA
Midland/Odessa, Texas	MAF
Milwaukee, Wisconsin	MKE
Minneapolis/St. Paul, Minnesota	MSP
Mission/McAllen/Edinburg, Texas	MFE
Mobile, Alabama	MOB
Moline, Illinois/Davenport, Iowa	MLI
Monroe, Louisiana	MLU
Montgomery, Alabama	MGM
Muskegon, Michigan	MKG
Nashville, Tennessee	BNA
New Bedford/Fall River, Massachusetts	EWB
New Bern & Morehead/Beaufort, North Carolina	EWN
New Haven, Connecticut	HVN
New London/Groton, Connecticut	GON

APPENDIX 11.1
CITY CODE LIST
(ENCODING)

CITY NAME	CODE
New Orleans, Louisiana	MSY
Newport News/Hampton, Virginia	PHF
New York, New York	NYC
Norfolk, Virginia	ORF
Oakland, California	OAK
Oklahoma City, Oklahoma	OKC
Omaha, Nebraska	OMA
Ontario, California	ONT
Orlando, Florida	MCO
Oshkosh/Appleton, Wisconsin	OSH
Pasco/Kennewick/Richland, Washington	PSC
Pensacola, Florida	PNS
Peoria, Illinois	PIA
Philadelphia, Pennsylvania	PHL
Phoenix, Arizona	PHX
Pittsburgh, Pennsylvania	PIT
Port Angeles, Washington	CLM
Portland, Maine	PWM
Portland, Oregon	PDX
Poughkeepsie, New York	POU
Presque Isle/Houlton, Maine	PQI
Providence, Rhode Island	PVD
Raleigh/Durham, North Carolina	RDU
Rapid City, South Dakota	RAP
Red Bluff/Redding, California	RDD
Reno, Nevada	RNO
Richmond, Virginia	RIC
Roanoke, Virginia	ROA
Rochester, Minnesota	RST
Rochester, New York	ROC
Sacramento, California	SMF
Saginaw/Bay City/Midland, Michigan	MBS
St. Louis, Missouri	STL
Salinas, California	MRY
Salt Lake City, Utah	SLC
San Antonio, Texas	SAT
San Diego, California	SAN
San Francisco, California	SFO
San Jose, California	SJC
Santa Ana, California	SNA
Santa Barbara, California	SBA
Santa Maria, California	SMX
Sarasota/Bradenton, Florida	SRQ
Savannah, Georgia	SAV
Scranton/Wilkes-Barre, Pennsylvania	AVP
Seattle, Washington	SEA

APPENDIX 11.1
CITY CODE LIST
(ENCODING)

CITY NAME	CODE
Shreveport, Louisiana	SHV
Sioux City, Iowa	SUX
Sioux Fall, South Dakota	FSD
Sitka, Alaska	SIT
South Bend, Indiana	SBN
Spokane, Washington	GEG
Springfield, Illinois	SPI
Springfield, Missouri	SGF
Stockton, California	SCK
Syracuse, New York	SYR
Tallahassee, Florida	TLH
Tampa, Florida	TPA
Toledo, Ohio	TOL
Tucson, Arizona	TUS
Tulsa, Oklahoma	TUL
Utica/Rome, New York	UCA
Washington, D.C.	WAS
Waterloo, Iowa	ALO
Watertown, New York	ART
West Palm Beach, Palm Beach, Florida	PBI
White Plains, New York	HPN
White River Junction, Vermont	LEB
Wichita, Kansas	ICT
Wichita Falls, Texas	SPS
Williamsport, Pennsylvania	IPT
Worcester, Massachusetts	ORH
Yakima, Washington	YKM
Youngstown, Ohio	YNG
Yuma, Arizona	YUM

APPENDIX 11.2
CITY CODE LIST
(DECODING)

CODE	CITY NAME
ABE	Allentown/Bethlehem/Easton, Pennsylvania
ABI	Abilene, Texas
ABQ	Albuquerque, New Mexico
ABY	Albany, Georgia
AGS	Augusta, Georgia
ALB	Albany, New York
ALO	Waterloo, Iowa
AMA	Amarillo, Texas
ANC	Anchorage, Alaska
ART	Watertown, New York
ASE	Aspen, Colorado
ATL	Atlanta, Georgia
AUS	Austin, Texas
AVL	Asheville, North Carolina
AVP	Scranton/Wilkes-Barre, Pennsylvania
AZO	Kalamazoo, Michigan
BAL	Baltimore, Maryland
BDL	Hartford/Springfield/Westfield, Connecticut
BDR	Bridgeport, Connecticut
BFD	Bradford, Pennsylvania
BFL	Bakersfield, California
BGM	Binghamton/Endct/Johnson City, New York
BGR	Bangor, Maine
BHM	Birmingham, Alabama
BIL	Billings, Montana
BIS	Bismarck/Mandan, North Dakota
BNA	Nashville, Tennessee
BOI	Boise, Idaho
BOS	Boston, Massachusetts
BPT	Beaumont/Port Arthur, Texas
BTR	Baton Rouge, Louisiana
BTV	Burlington, Vermont
BUF	Buffalo & Niagara Falls, New York
BUR	Hollywood-Burbank -- Burbank, California
CAE	Columbia, South Carolina
CAK	Akron/Canton, Ohio
CHA	Chattanooga, Tennessee
CHI	Chicago, Illinois
CHO	Charlottesville, Virginia
CHS	Charleston, South Carolina
CIB	Catalina Island, California
CID	Cedar Rapids/Iowa City, Iowa
CLE	Cleveland, Ohio
CLM	Port Angeles, Washington
CLT	Charlotte, North Carolina
CMH	Columbus, Ohio

APPENDIX 11.2
CITY CODE LIST
(DECODING)

CODE	CITY NAME
CMI	Champaign, Urbana, Illinois
COS	Colorado Springs, Colorado
CPR	Casper, Wyoming
CRP	Corpus Christi, Texas
CRW	Charleston/Dunbar, West Virginia
CSG	Columbus, Georgia
CVG	Cincinnati, Ohio
DAB	Daytona Beach, Florida
DAL	Dallas & Ft. Worth, Texas
DAY	Dayton, Ohio
DEC	Decatur, Illinois
DEN	Denver, Colorado
DHN	Dothan, Alabama
DLH	Duluth, Minnesota/Superior, Wisconsin
DSM	Des Moines, Iowa
DTT	Detroit, Michigan
EEN	Keene, New Hampshire
EKA	Eureka/Arcata, California
ELM	Elmira/Corning, New York
ELP	El Paso, Texas
ERI	Erie, Pennsylvania
EUG	Eugene, Oregon
EVV	Evansville, Indiana
EWB	New Bedford/Fall River, Massachusetts
EWN	New Bern & Morehead/Beaufort, North Carolina
FAI	Fairbanks, Alaska
FAR	Fargo, North Dakota/Moorhead, Minnesota
FAT	Fresno, California
FAY	Fayetteville, North Carolina
FLL	Fort Lauderdale, Florida
FMY	Fort Myers, Florida
FNT	Flint, Michigan
FSD	Sioux Falls, South Dakota
FWA	Fort Wayne, Indiana
GEG	Spokane, Washington
GFK	Grand Forks, North Dakota
GFL	Glens Falls, New York
GJT	Grand Junction, Colorado
GON	New London/Groton, Connecticut
GRB	Green Bay/Clintonville, Wisconsin
GRR	Grand Rapids, Michigan
GSO	Greensboro/High Point, North Carolina
GSP	Greenville & Spartanburg, South Carolina
GTF	Great Falls, Montana
HAR	Harrisburg/York, Pennsylvania
HNL	Honolulu, Oahu, Hawaii
HPN	White Plains, New York
HRL	Harlingen/San Benito, Texas

APPENDIX 11.2
CITY CODE LIST
(DECODING)

CODE	CITY NAME
HSV	Huntsville & Decatur, Alabama
HTS	Ashland, Kentucky/Huntington, West Virginia
HVN	New Haven, Connecticut
HYA	Hyannis, Massachusetts
IAH	Houston, Texas
ICT	Wichita, Kansas
IND	Indianapolis, Indiana
IPT	Williamsport, Pennsylvania
ISP	Islip, Long Island, New York
ITH	Ithaca/Cortland, New York
ITO	Hilo, Hawaii, Hawaii
JAN	Jackson, Mississippi
JAX	Jacksonville, Florida
JNU	Juneau, Alaska
KOA	Kailua, Kona, Hawaii
KTN	Ketchikan, Alaska
LAN	Lansing, Michigan
LAS	Las Vegas, Nevada
LAX	Los Angeles, California
LBB	Lubbock, Texas
LCH	Lake Charles, Louisiana
LEB	White River, Junction, Vermont
LEX	Lexington/Frankfort, Kentucky
LFT	Lafayette, Louisiana
LGB	Long Beach, California
LIH	Lihue, Kauai, Hawaii
LIT	Little Rock, Arkansas
LNK	Lincoln, Nebraska
MAF	Midland/Odessa, Texas
MBS	Saginaw/Bay City/Midland, Michigan
MCO	McCoy AFB Orlando, Florida
MEM	Memphis, Tennessee
MFE	Mission/McAllen/Edinburg, Texas
MFR	Medford, Oregon
MGM	Montgomery, Alabama
MHT	Manchester/Concord, New Hampshire
MIA	Miami, Florida
MKC	Kansas City, Missouri
MKE	Milwaukee, Wisconsin
MKG	Muskegon, Michigan
MKK	Hoolehua, Molokai, Hawaii
MLB	Melbourne, Florida
MLI	Moline, Illinois/Davenport, Iowa
MLU	Monroe, Louisiana
MOB	Mobile, Alabama
MRY	Salinas, California
MSN	Madison, Wisconsin

APPENDIX 11.2
CITY CODE LIST
(DECODING)

CODE	CITY NAME
MSP	Minneapolis/St. Paul, Minnesota
MSY	New Orleans, Louisiana
MUE	Kamuela, Hawaii, Hawaii
NYC	New York, New York
OAK	Oakland, California
OGG	Kahului, Maui, Hawaii
OKC	Oklahoma City, Oklahoma
OMA	Omaha, Nebraska
ONT	Ontario, California
ORF	Norfolk, Virginia
ORH	Worcester, Massachusetts
OSH	Oshkosh/Appleton, Wisconsin
PBI	West Palm Beach/Palm Beach, Florida
PDX	Portland, Oregon
PHF	Newport News/Hampton, Virginia
PHL	Philadelphia, Pennsylvania
PHX	Phoenix, Arizona
PIA	Peoria, Illinois
PIT	Pittsburgh, Pennsylvania
PNS	Pensacola, Florida
POU	Poughkeepsie, New York
PQI	Presque Isle/Houlton, Maine
PSC	Pasco/Kennewick/Richland, Washington
PSP	Indio/Palm Springs, California
PVD	Providence, Rhode Island
PWM	Portland, Maine
RAP	Rapid City, South Dakota
RDD	Red Bluff/Redding, California
RDU	Raleigh, Durham, North Carolina
RIC	Richmond, Virginia
RNO	Reno, Nevada
ROA	Roanoke, Virginia
ROC	Rochester, New York
RST	Rochester, Minnesota
SAN	San Diego, California
SAT	San Antonio, Texas
SAV	Savannah, Georgia
SBA	Santa Barbara, California
SBN	South Bend, Indiana
SCK	Stockton, California
SDF	Louisville, Kentucky
SEA	Seattle, Washington
SFO	San Francisco, California
SGF	Springfield, Missouri
SHV	Shreveport, Louisiana
SIT	Sitka, Alaska
SJC	San Jose, California

APPENDIX 11.2
CITY CODE LIST
(DECODING)

CODE	CITY NAME
SLC	Salt Lake City, Utah
SMF	Sacramento, California
SMX	Santa Maria, California
SNA	Santa Ana, California
SPI	Springfield, Illinois
SPS	Wichita Falls, Texas
SRQ	Sarosota/Bradenton, Florida
STL	St. Louis, Missouri
SUX	Sioux City, Iowa
SYR	Syracuse, New York
TLH	Tallahassee, Florida
TOL	Toledo, Ohio
TPA	Tampa, Florida
TRI	Bristol/Kingsport/Johnson City, Tennessee
TUL	Tulsa, Oklahoma
TUS	Tucson, Arizona
TYS	Knoxville, Tennessee
UCA	Utica/Rome, New York
WAS	Washington, D.C.
YKM	Yakima, Washington
YNG	Youngstown, Ohio
YUM	Yuma, Arizona

APPENDIX 11.3
CITY PAIR ORIGIN - DESTINATION TRAFFIC TIME SERIES

The following appendix shows the origin - destination traffic for the top city pairs in the United States based on passengers. The data was compiled from the Civil Aeronautice Board (CAB) table of top city pairs for the years 1959 through 1970. The CAB listed the top 500 city pairs for the years 1959 through 1967, and the top 1000 thereafter. A city pair is included in the Appendix if the annual traffic volume in a given year exceeded the following levels:

YEAR	TRAFFIC LEVEL	NO. OF CITY PAIRS EXCEEDING TRAFFIC LEVEL
1959	12,680	500
1960	12,550	500
1961	13,030	500
1962	14,360	500
1963	16,720	500
1964	18,700	500
1965	22,100	500
1966	25,910	500
1967	31,440	500
1968	15,800	1000
1969	17,880	1000
1970	17,720	1000

For city pairs which exceeded the given levels between 1959 and 1967 a twelve year time series was constructed. For the remaining city pairs a three year time series is listed.

APPENDIX 11.3
(Continued)

The numbered column headings in the Appendix are explained below.

1 City pairs listed alphabetically by three codes.

2 Code for type of air carrier
$C = Air carriers CAB regulated (if not listed $C = $T)
$P = California Public Utilities Commission (CPUC) regulated air carriers
$T = Total of $C + $P

3 Data Source
CABOD = CAB
PUCOD = CPUC
C&POD = CAB + CPUC

4-7 Data Retrival Codes

8 Date of Data
Y = Annual Data
59 = Data Appearing in Column 9 is for 1959; Columns 10-18 are 1960-1968.
68 = Data Appearing in Column 9 is for 1968; Col. 10 & 11 are 1969 & 1970.
69 = Data Appearing in Column 9 is for 1969; Col. 10 contains 1970 data.

9 City pair traffic data for year appearing in Column 8

10-18 City pair traffic data for additional years (maximum 10 years). For twelve year time series, data continues on next line.

SEQ NO Computer sequence number for correcting entries.

APPENDIX 11.3

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M A S T E R F I L E L I S T I N G

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
ABE	BOS	$T	CABOD2		11122211	Y	68	15360	21840	25480							1
ABE	CHI	$T	CABOD2		11122211	Y	68	23370	30650	32180							2
ABE	CLE	$T	CABOD2		11122211	Y	68	14830	18190	16160							3
ABE	PIT	$T	CABOD2		11122211	Y	68	33780	36300	33940							4
ABI	DAL	$T	CABOD2		11122211	Y	68	20800	20520	17860							5
ABQ	BAL	$T	CABOD2		11122211	Y	68	16760	14080	12150							6
ABQ	CHI	$T	CABOD2		11122211	Y	68	31800	35230	36740							7
ABQ	DAL	$T	CABOD2		11122211	Y	59	13470	13960	16580	18790	21840	23140	27980	33650	37260	45120	8
ABQ	DAL	$T	CABOD2		11122211	Y	69	51990	54210									9
ABQ	DEN	$T	CABOD2		11122211	Y	59	17900	20270	22040	24430	26930	28580	32900	35890	43110	52370	10
ABQ	DEN	$T	CABOD2		11122211	Y	69	56350	63900									11
ABQ	ELP	$T	CABOD2		11122211	Y	68	31420	31170	33960								12
ABQ	LAS	$T	CABOD2		11122211	Y	59	8550	9370	12110	16360	17140	20090	25850	30960	36360	41240	13
ABQ	LAS	$T	CABOD2		11122211	Y	69	45340	38550									14
ABQ	LAX	$T	CABOD2		11122211	Y	59	26280	25110	26570	33220	35060	39610	49590	57140	70500	77960	15
ABQ	LAX	$T	CABOD2		11122211	Y	69	92320	90400									16
ABQ	NYC	$T	CABOD2		11122211	Y	59	13220	11510	11220	12640	15140	16940	20990	22960	28600	32920	17
ABQ	NYC	$T	CABOD2		11122211	Y	69	39360	40000									18
ABQ	PHX	$T	CABOD2		11122211	Y	59	13680	12960	14880	16840	18400	20040	23460	28930	34590	39180	19
ABQ	PHX	$T	CABOD2		11122211	Y	69	43830	44270									20
ABQ	SFO	$T	CABOD2		11122211	Y	59	13550	11950	12850	16080	17960	20620	29890	31580	41610	44940	21
ABQ	SFO	$T	CABOD2		11122211	Y	69	52220	57910									22
ABQ	WAS	$T	CABOD2		11122211	Y	68	10350	17720	20990								23
ABY	ATL	$T	CABOD2		11122211	Y	68	15430	18100	15000								24
AGS	ATL	$T	CABOD2		11122211	Y	59	12440	14360	13300	13150	19130	25970	28440	35460	41530	42180	25
AGS	ATL	$T	CABOD2		11122211	Y	69	43100	37460									26
AGS	NYC	$T	CABOD2		11122211	Y	59	9200	8970	9530	11360	14410	18120	24170	33790	40120	45800	27
AGS	NYC	$T	CABOD2		11122211	Y	69	50040	48150									28
ALB	BOS	$T	CABOD2		11122211	Y	59	29690	27070	25020	27100	31340	32690	36340	47730	58520	61780	29
ALB	BOS	$T	CABOD2		11122211	Y	69	66920	55920									30
ALB	BUF	$T	CABOD2		11122211	Y	59	24770	23680	26610	26680	29240	36760	44200	49450	57020	61830	31
ALB	BUF	$T	CABOD2		11122211	Y	69	69240	71290									32
ALB	CHI	$T	CABOD2		11122211	Y	59	14660	13580	14050	15950	20270	20900	22480	27640	30760	38380	33
ALB	CHI	$T	CABOD2		11122211	Y	69	46710	45810									34
ALB	CLE	$T	CABOD2		11122211	Y	68	23460	26170	25730								35
ALB	DTT	$T	CABOD2		11122211	Y	68	28030	32230	33230								36
ALB	NYC	$T	CABOD2		11122211	Y	59	80620	84210	82200	85320	95080	102990	132370	158000	174640	168540	37
ALB	NYC	$T	CABOD2		11122211	Y	69	164300	143070									38
ALB	PHL	$T	CABOD2		11122211	Y	68	29370	38510	40950								39
ALB	PIT	$T	CABOD2		11122211	Y	68	22420	23430	24640								40
ALB	ROC	$T	CABOD2		11122211	Y	68	28720	30300	27490								41
ALB	SYR	$T	CABOD2		11122211	Y	68	17190	20790	18510								42
ALB	WAS	$T	CABOD2		11122211	Y	59	16590	18250	15780	14490	15560	14370	17530	20520	27390	45200	43
ALB	WAS	$T	CABOD2		11122211	Y	69	54060	58720									44
ALO	CHI	$T	CABOD2		11122211	Y	68	30140	27990	26730								45
AMA	DAL	$T	CABOD2		11122211	Y	59	22480	25460	25930	29830	34210	34640	39450	45570	53100	66300	46
AMA	DAL	$T	CABOD2		11122211	Y	69	70970	64230									47
AMA	IAH	$T	CABOD2		11122211	Y	68	20620	22100	21090								48
AMA	LAX	$T	CABOD2		11122211	Y	68	20440	20590	19860								49
ANC	SEA	$T	CABOD2		11122211	Y	68	101430	88340	87770								50

APPENDIX 11.3

MARKET RESEARCH O & D DATA BANK EDITOR
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
ART	NYC	$T	CABOD2			11122211	Y	68	17210	14960	13580								51
ASE	DEN	$T	CABOD2			11122211	Y	68	14850	19090	19030								52
ATL	AVL	$T	CABOD2			11122211	Y	68	16600	15800	14850								53
ATL	BAL	$T	CABOD2			11122211	Y	59	6520	6320	4600	13390	11330	17880	26670	30970	39650	55710	54
ATL	BAL	$T	CABOD2			11122211	Y	69	59480	64690									55
ATL	BDL	$T	CABOD2			11122211	Y	68	16620	26330	31030								56
ATL	BHM	$T	CABOD2			11122211	Y	59	47000	47700	46900	47870	50340	56700	64650	72160	82250	87260	57
ATL	BHM	$T	CABOD2			11122211	Y	69	88600	83640									58
ATL	BNA	$T	CABOD2			11122211	Y	59	29630	31620	31210	32990	40170	48080	51460	54230	62560	76800	59
ATL	BNA	$T	CABOD2			11122211	Y	69	85300	79100									60
ATL	BOS	$T	CABOD2			11122211	Y	59	12260	14720	15430	15770	18030	22120	27010	30430	41310	59990	61
ATL	BOS	$T	CABOD2			11122211	Y	69	69480	76290									62
ATL	BUF	$T	CABOD2			11122211	Y	68	15400	19340	17560								63
ATL	CAE	$T	CABOD2			11122211	Y	59	17450	17280	18750	20460	25640	31700	33160	36300	43070	52170	64
ATL	CAE	$T	CABOD2			11122211	Y	69	58440	60710									65
ATL	CHA	$T	CABOD2			11122211	Y	59	12000	13120	11520	13740	15810	17100	17860	15810	18370	17260	66
ATL	CHA	$T	CABOD2			11122211	Y	69	18360	18110									67
ATL	CHI	$T	CABOD2			11122211	Y	59	55790	58770	60960	70210	77170	91520	106520	133000	148170	171380	68
ATL	CHI	$T	CABOD2			11122211	Y	69	184720	200360									69
ATL	CHS	$T	CABOD2			11122211	Y	59	10890	10310	10960	12090	13500	16500	20120	23850	29480	36430	70
ATL	CHS	$T	CABOD2			11122211	Y	69	40970	43780									71
ATL	CLE	$T	CABOD2			11122211	Y	59	14470	14480	20020	20060	22640	26430	31570	38910	43820	54130	72
ATL	CLE	$T	CABOD2			11122211	Y	69	65500	61940									73
ATL	CLT	$T	CABOD2			11122211	Y	59	43460	48180	50130	53060	58030	63720	63250	56370	62290	73130	74
ATL	CLT	$T	CABOD2			11122211	Y	69	87930	88880									75
ATL	CMH	$T	CABOD2			11122211	Y	68	23780	28930	30870								76
ATL	CSG	$T	CABOD2			11122211	Y	68	29030	25650	20910								77
ATL	CVG	$T	CABOD2			11122211	Y	59	13680	13620	15340	16310	19950	22260	28490	33110	39400	46220	78
ATL	CVG	$T	CABOD2			11122211	Y	69	46470	46900									79
ATL	DAB	$T	CABOD2			11122211	Y	68	16680	20450	20520								80
ATL	DAL	$T	CABOD2			11122211	Y	59	20360	20810	23930	28430	36780	43250	51620	67760	80850	91700	81
ATL	DAL	$T	CABOD2			11122211	Y	69	107020	116880									82
ATL	DAY	$T	CABOD2			11122211	Y	68	20690	23910	27270								83
ATL	DEN	$T	CABOD2			11122211	Y	68	15560	20280	22430								84
ATL	DHN	$T	CABOD2			11122211	Y	68	18480	19170	18510								85
ATL	DTT	$T	CABOD2			11122211	Y	59	20210	20930	22320	26920	31350	37870	42560	52620	60810	78370	86
ATL	DTT	$T	CABOD2			11122211	Y	69	89100	88570									87
ATL	FAY	$T	CABOD2			11122211	Y	68	16380	17280	17250								88
ATL	FLL	$T	CABOD2			11122211	Y	68	16480	37960	45580								89
ATL	GSO	$T	CABOD2			11122211	Y	59	13650	14680	17090	21950	26520	32090	34610	33180	41230	45100	90
ATL	GSO	$T	CABOD2			11122211	Y	69	51330	52430									91
ATL	GSP	$T	CABOD2			11122211	Y	59	23650	12140	14020	14930	17630	19610	19110	14020	14820	13980	92
ATL	GSP	$T	CABOD2			11122211	Y	69	16070	14030									93
ATL	HSV	$T	CABOD2			11122211	Y	68	23440	24070	26040								94
ATL	IAH	$T	CABOD2			11122211	Y	59	11800	14280	14020	16670	20620	23010	28930	34520	47700	55190	95
ATL	IAH	$T	CABOD2			11122211	Y	69	63700	72480									96
ATL	IND	$T	CABOD2			11122211	Y	68	26490	32770	35060								97
ATL	JAN	$T	CABOD2			11122211	Y	59	11910	12560	14700	13910	16440	18050	23070	25700	32390	34650	98
ATL	JAN	$T	CABOD2			11122211	Y	69	41850	42950									99
ATL	JAX	$T	CABOD2			11122211	Y	59	49640	47900	49710	54900	61720	70990	78180	83390	102420	112090	100

APPENDIX 11.3

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
ATL	JAX	$T	CABOD2		11122211	Y	69	118860	119350								101
ATL	LAX	$T	CABOD2		11122211	Y	59	13230	16900	18790	22930	27460	33850	42140	56570	71070	78890	102
ATL	LAX	$T	CABOD2		11122211	Y	69	89370	92210									103
ATL	MCO	$T	CABOD2		11122211	Y	59	16870	19860	21400	23990	26950	32300	37070	42590	52490	60660	104
ATL	MCO	$T	CABOD2		11122211	Y	69	68520	75460									105
ATL	MEM	$T	CABOD2		11122211	Y	59	24060	24650	26960	30970	35100	42880	51870	62860	75130	86940	106
ATL	MEM	$T	CABOD2		11122211	Y	69	96610	100990									107
ATL	MGM	$T	CABOD2		11122211	Y	59	9640	11520	10920	12730	16190	18150	22200	23160	29590	28930	108
ATL	MGM	$T	CABOD2		11122211	Y	69	30460	29920									109
ATL	MIA	$T	CABOD2		11122211	Y	59	74640	78520	82770	86480	94120	105860	12446	142420	180150	204590	110
ATL	MIA	$T	CABOD2		11122211	Y	69	220850	228660									111
ATL	MKC	$T	CABOD2		11122211	Y	68	27360	35070	35590								112
ATL	MOB	$T	CABOD2		11122211	Y	59	14400	15630	16690	18010	19070	23450	24710	26790	33080	36250	113
ATL	MOB	$T	CABOD2		11122211	Y	69	40770	41770									114
ATL	MSP	$T	CABOD2		11122211	Y	68	26250	32690	33880								115
ATL	MSY	$T	CABOD2		11122211	Y	59	28250	31050	32530	36600	42900	48090	56300	70580	84660	98180	116
ATL	MSY	$T	CABOD2		11122211	Y	69	100710	99860									117
ATL	NYC	$T	CABOD2		11122211	Y	59	120290	126490	130140	149750	169520	203760	231940	269190	314240	390610	118
ATL	NYC	$T	CABOD2		11122211	Y	69	438810	466180									119
ATL	ORF	$T	CABOD2		11122211	Y	68	27890	34450	32650								120
ATL	PBI	$T	CABOD2		11122211	Y	68	20690	24750	29490								121
ATL	PHL	$T	CABOD2		11122211	Y	59	21530	25640	26390	33070	39540	45370	51960	60400	71830	96740	122
ATL	PHL	$T	CABOD2		11122211	Y	69	105230	116390									123
ATL	PIT	$T	CABOD2		11122211	Y	59	12780	13380	17900	16330	18770	21750	25880	33450	40440	45910	124
ATL	PIT	$T	CABOD2		11122211	Y	69	54090	52610									125
ATL	PNS	$T	CABOD2		11122211	Y	68	17550	20560	21770								126
ATL	RDU	$T	CABOD2		11122211	Y	59	17850	17610	19620	21210	27070	27960	33990	33710	43040	52700	127
ATL	RDU	$T	CABOD2		11122211	Y	69	60600	60950									128
ATL	RIC	$T	CABOD2		11122211	Y	68	36240	37950	35920								129
ATL	SAT	$T	CABOD2		11122211	Y	68	20650	22160	22850								130
ATL	SAV	$T	CABOD2		11122211	Y	59	21670	19670	17260	19400	23460	27200	30700	36690	45870	59290	131
ATL	SAV	$T	CABOD2		11122211	Y	69	73340	69040									132
ATL	SDF	$T	CABOD2		11122211	Y	59	13420	12260	13100	14230	18380	23210	24540	31050	37380	42450	133
ATL	SDF	$T	CABOD2		11122211	Y	69	47250	60260									134
ATL	SEA	$T	CABOD2		11122211	Y	68	23430	27510	27040								135
ATL	SFO	$T	CABOD2		11122211	Y	59	8430	9380	9230	12580	14860	21670	29340	46260	60100	59220	136
ATL	SFO	$T	CABOD2		11122211	Y	69	64390	67310									137
ATL	STL	$T	CABOD2		11122211	Y	59	22040	14010	13730	16450	18950	22230	25550	32780	42750	53170	138
ATL	STL	$T	CABOD2		11122211	Y	69	64420	59850									139
ATL	TLH	$T	CABOD2		11122211	Y	68	18160	18290	20260								140
ATL	TPA	$T	CABOD2		11122211	Y	59	41180	43280	47470	49220	51510	58620	66570	74630	89750	103350	141
ATL	TPA	$T	CABOD2		11122211	Y	69	117010	122500									142
ATL	TRI	$T	CABOD2		11122211	Y	68	18110	20410	19910								143
ATL	TYS	$T	CABOD2		11122211	Y	59	16340	31620	16710	17780	20350	21220	25360	30490	36050	42510	144
ATL	TYS	$T	CABOD2		11122211	Y	69	44820	41560									145
ATL	WAS	$T	CABOD2		11122211	Y	59	44980	47850	49880	52910	58960	67860	78600	94430	109580	125690	146
ATL	WAS	$T	CABOD2		11122211	Y	69	153350	161320									147
AUS	DAL	$T	CABOD2		11122211	Y	59	37420	33500	36060	39820	47940	56890	63370	75530	90310	97910	148
AUS	DAL	$T	CABOD2		11122211	Y	69	108140	97550									149
AUS	IAH	$T	CABOD2		11122211	Y	59	21380	19510	23130	21450	23190	28920	32500	34740	38350	45750	150

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1	2	3	4	5	6	7		8	9	10	11	12	13	14	15	16	17	18	SEQ NO
AUS	IAH	$T	CABOD2			11122211	Y	69	40040	30210									151
AUS	NYC	$T	CABOD2			11122211	Y	68	19630	24380	24220								152
AUS	WAS	$T	CABOD2			11122211	Y	68	16780	21060	23090								153
AVL	NYC	$T	CABOD2			11122211	Y	68	23190	25910	24790								154
AVP	NYC	$T	CABOD2			11122211	Y	59	43750	42770	35980	36230	39050	40530	41460	43140	48120	42970	155
AVP	NYC	$T	CABOD2			11122211	Y	69	37100	25500									156
AVP	PIT	$T	CABOD2			11122211	Y	68	20140	20540	22330								157
AZO	CHI	$T	CABOD2			11122211	Y	68	27480	24510	22630								158
BAL	BDL	$T	CABOD2			11122211	Y	59	3980	6230	7800	7510	6870	10820	10980	15610	19500	28880	159
BAL	BDL	$T	CABOD2			11122211	Y	69	50140	58820									160
BAL	BOS	$T	CABOD2			11122211	Y	59	29820	34700	40330	41850	52150	59780	73960	73800	96500	140300	161
BAL	BOS	$T	CABOD2			11122211	Y	69	144020	129990									162
BAL	BUF	$T	CABOD2			11122211	Y	68	20760	24860	24050								163
BAL	CHI	$T	CABOD2			11122211	Y	59	28000	42710	82770	96640	86100	102580	128350	131230	135310	151240	164
BAL	CHI	$T	CABOD2			11122211	Y	69	159710	136920									165
BAL	CLE	$T	CABOD2			11122211	Y	59	9860	9380	13450	15130	18360	22590	30080	36280	35890	44010	166
BAL	CLE	$T	CABOD2			11122211	Y	69	49070	55760									167
BAL	CMH	$T	CABOD2			11122211	Y	68	22640	22950	11360								168
BAL	CVG	$T	CABOD2			11122211	Y	68	17270	30500	33220								169
BAL	DAL	$T	CABOD2			11122211	Y	59	1960	2010	9280	18040	11960	15810	22480	28720	29480	36170	170
BAL	DAL	$T	CABOD2			11122211	Y	69	40480	38780									171
BAL	DAY	$T	CABOD2			11122211	Y	68	20720	19830	6640								172
BAL	DEN	$T	CABOD2			11122211	Y	59	2990	9620	27960	39310	34030	37340	38820	32240	36160	37180	173
BAL	DEN	$T	CABOD2			11122211	Y	69	37650	32020									174
BAL	DTT	$T	CABOD2			11122211	Y	59	6930	8340	15100	18560	15350	17460	27320	31890	41760	52270	175
BAL	DTT	$T	CABOD2			11122211	Y	69	51080	66990									176
BAL	FLL	$T	CABOD2			11122211	Y	68	20070	27610	42940								177
BAL	HNL	$T	CABOD2			11122211	Y	68	15600	17400	22800								178
BAL	IAH	$T	CABOD2			11122211	Y	59	3830	2560	8370	19950	19210	20620	22110	26770	29780	35810	179
BAL	IAH	$T	CABOD2			11122211	Y	69	43980	41980									180
BAL	IND	$T	CABOD2			11122211	Y	68	12600	18730	21640								181
BAL	LAX	$T	CABOD2			11122211	Y	59	36610	77260	98600	115710	51240	64940	71470	80480	86740	92150	182
BAL	LAX	$T	CABOD2			11122211	Y	69	93850	79750									183
BAL	MCO	$T	CABOD2			11122211	Y	68	15070	14960	18410								184
BAL	MIA	$T	CABOD2			11122211	Y	59	21370	21190	37670	42090	39120	44860	52630	55500	73890	90590	185
BAL	MIA	$T	CABOD2			11122211	Y	69	88940	74430									186
BAL	MKC	$T	CABOD2			11122211	Y	59	3040	2370	10840	22980	26750	33070	42120	40840	42770	34480	187
BAL	MKC	$T	CABOD2			11122211	Y	69	32380	24540									188
BAL	MSP	$T	CABOD2			11122211	Y	59	2260	2270	10110	17740	7540	7500	10700	13190	12590	13390	189
BAL	MSP	$T	CABOD2			11122211	Y	69	12280	11620									190
BAL	MSY	$T	CABOD2			11122211	Y	59	2590	3510	8760	18070	19230	21800	33990	40520	40240	49580	191
BAL	MSY	$T	CABOD2			11122211	Y	69	48310	51050									192
BAL	NYC	$T	CABOD2			11122211	Y	59	74810	77310	88540	105650	122180	141290	170730	181620	240330	287850	193
BAL	NYC	$T	CABOD2			11122211	Y	69	290060	248170									194
BAL	ORF	$T	CABOD2			11122211	Y	59	3720	5080	6970	7310	9860	17410	17790	53500	34620	33900	195
BAL	ORF	$T	CABOD2			11122211	Y	69	41210	40100									196
BAL	PHL	$T	CABOD2			11122211	Y	59	610	870	3830	6850	9050	10030	11720	14210	19440	25940	197
BAL	PHL	$T	CABOD2			11122211	Y	69	51940	65320									198
BAL	PIT	$T	CABOD2			11122211	Y	59	22170	20130	22510	23930	27960	32580	39760	45240	54090	63840	199
BAL	PIT	$T	CABOD2			11122211	Y	69	73310	81840									200

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
BAL	SEA	$T	CABOC2	11122211	Y	59	2750	7340	16770	24030	16090	17910	24170	29360	42660	39580	201
BAL	SEA	$T	CABOD2	11122211	Y	69	40190	37190									202
BAL	SFO	$T	CABOD2	11122211	Y	59	16340	58370	74370	88110	36470	41340	51510	53580	65710	69830	203
BAL	SFO	$T	CABOD2	11122211	Y	69	72900	73330									204
BAL	STL	$T	CABOD2	11122211	Y	59	4470	4290	7890	16580	15890	31390	37870	35760	35710	37400	205
BAL	STL	$T	CABOC2	11122211	Y	69	42360	38960									206
BAL	TPA	$T	CABOD2	11122211	Y	68	19180	19390	20150								207
BAL	WAS	$T	CABOD2	11122211	Y	59	15100	11910	12630	11420	12020	13400	13920	14990	16470	8470	208
BAL	WAS	$T	CABOD2	11122211	Y	69	5820	5650									209
BDL	BOS	$T	CABOD2	11122211	Y	59	19440	15670	16610	16420	18610	17130	16750	18170	23860	29380	210
BDL	BOS	$T	CABOD2	11122211	Y	69	27180	24610									211
BDL	BUF	$T	CABOD2	11122211	Y	68	28020	32550	31230								212
BDL	CHI	$T	CABOD2	11122211	Y	59	39360	42650	46550	50550	58470	61230	72600	87740	101050	121160	213
BDL	CHI	$T	CABOD2	11122211	Y	69	144390	139100									214
BDL	CLE	$T	CABOC2	11122211	Y	59	20470	20290	25210	28680	32690	33600	42250	49750	53180	63460	215
BDL	CLE	$T	CABOD2	11122211	Y	69	68850	62090									216
BDL	DAY	$T	CABOD2	11122211	Y	68	17260	19950	16580								217
BDL	DEN	$T	CABOD2	11122211	Y	68	13580	18040	16200								218
BDL	DTT	$T	CABOD2	11122211	Y	59	15040	14660	15290	14480	16990	19800	24320	33370	37890	52600	219
BDL	DTT	$T	CABOD2	11122211	Y	69	61690	66750									220
BDL	LAX	$T	CABOD2	11122211	Y	59	10890	12020	17250	16550	20770	24730	30540	36340	47380	62500	221
BDL	LAX	$T	CABOD2	11122211	Y	69	73780	68110									222
BDL	MIA	$T	CABOD2	11122211	Y	59	22310	23020	22060	18950	25700	24390	31940	30000	45940	82920	223
BDL	MIA	$T	CABOD2	11122211	Y	69	99130	95900									224
BDL	MSP	$T	CABOD2	11122211	Y	68	18110	21410	20920								225
BDL	NYC	$T	CABOD2	11122211	Y	59	101580	97070	93330	97400	114010	138050	168280	173260	205710	214210	226
BDL	NYC	$T	CABOD2	11122211	Y	69	157990	107180									227
BDL	PHL	$T	CABOC2	11122211	Y	59	15400	18080	24750	30980	34340	39440	44410	51730	53700	65400	228
BDL	PHL	$T	CABOD2	11122211	Y	69	75640	69330									229
BDL	PIT	$T	CABOD2	11122211	Y	59	12860	13290	15600	17880	18830	21090	24090	32950	40810	42760	230
BDL	PIT	$T	CABOD2	11122211	Y	69	53290	55160									231
BDL	ROC	$T	CABOD2	11122211	Y	68	22640	25420	24600								232
BDL	SFO	$T	CABOD2	11122211	Y	59	7030	7450	9480	10470	12990	15340	18090	23690	31190	35510	233
BDL	SFO	$T	CABOD2	11122211	Y	69	42010	40860									234
BDL	STL	$T	CABOD2	11122211	Y	68	20150	23950	23080								235
BDL	SYR	$T	CABOD2	11122211	Y	68	17500	20190	19040								236
BDL	TPA	$T	CABOD2	11122211	Y	68	14840	18620	25420								237
BDL	WAS	$T	CABOD2	11122211	Y	59	31400	32980	37400	36980	43050	52300	62100	72470	90520	103790	238
BDL	WAS	$T	CABOD2	11122211	Y	69	118040	113480									239
BDR	BOS	$T	CABOD2	11122211	Y	68	18430	19550	20670								240
BDR	WAS	$T	CABOD2	11122211	Y	68	17710	19210	20440								241
BFD	NYC	$T	CABOD2	11122211	Y	59	14000	13780	12160	9540	11570	13710	16930	18030	19960	18920	242
BFD	NYC	$T	CABOD2	11122211	Y	69	15120	14100									243
BFL	LAX	$T	CABOD2	11122211	Y	59	15410	13420	10650	11790	13240	13920	14820	16870	22060	21710	244
BFL	LAX	$T	CABOD2	11122211	Y	69	24530	24670									245
BFL	SFO	$T	CABOC2	11122211	Y	59	19720	21340	18620	17150	18480	18710	20330	24050	27880	31810	246
BFL	SFO	$T	CABOD2	11122211	Y	69	30600	30700									247
BGM	NYC	$T	CABOD2	11122211	Y	59	56330	46910	39360	40550	51200	54670	53360	67060	61890	66230	248
BGM	NYC	$T	CABOD2	11122211	Y	69	59440	45660									249
BGR	BOS	$T	CABOD2	11122211	Y	59	19550	19020	18320	17600	21960	23700	28430	41860	49800	55360	250

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
BGR	BOS	$T	CABOD2			11122211	Y	69	57830	56480								251
BGR	NYC	$T	CABOD2			11122211	Y	59	15770	16070	17880	14800	17420	20060	22070	27630	31200	32110	252
BGR	NYC	$T	CABOD2			11122211	Y	69	37280	26030									253
BHM	CHI	$T	CABOD2			11122211	Y	59	12010	12080	11350	11430	14570	16770	21340	22290	28300	30160	254
BHM	CHI	$T	CABOD2			11122211	Y	69	40160	43370									255
BHM	DAL	$T	CABOD2			11122211	Y	68	20710	24590	26550								256
BHM	DTT	$T	CABOD2			11122211	Y	68	14380	21230	22410								257
BHM	IAH	$T	CABOD2			11122211	Y	68	13270	17630	18670								258
BHM	LAX	$T	CABOD2			11122211	Y	68	15570	18590	22010								259
BHM	MEM	$T	CABOD2			11122211	Y	68	18660	20910	24220								260
BHM	MIA	$T	CABOD2			11122211	Y	68	21140	27600	29320								261
BHM	MOB	$T	CABOD2			11122211	Y	59	16920	15860	15840	17590	17110	18710	20590	19020	23630	26960	262
BHM	MOB	$T	CABOD2			11122211	Y	69	29360	28200									263
BHM	MSY	$T	CABOD2			11122211	Y	59	14620	13750	15660	15030	17020	17720	21010	22420	24630	25350	264
BHM	MSY	$T	CABOD2			11122211	Y	69	30400	31150									265
BHM	NYC	$T	CABOD2			11122211	Y	59	32380	32310	33390	34640	36580	40940	45050	46380	54980	64360	266
BHM	NYC	$T	CABOD2			11122211	Y	69	80190	82090									267
BHM	WAS	$T	CABOD2			11122211	Y	68	15850	18560	22220								268
BIL	DEN	$T	CABOD2			11122211	Y	68	24980	27700	27020								269
BIL	GTF	$T	CABOD2			11122211	Y	68	21560	18620	14780								270
BIS	MSP	$T	CABOD2			11122211	Y	68	19470	20370	17970								271
BNA	BOS	$T	CABOD2			11122211	Y	68	14640	17270	21190								272
BNA	CHI	$T	CABOD2			11122211	Y	59	21200	22160	22070	21200	30210	33130	38230	45610	54220	60550	273
BNA	CHI	$T	CABOD2			11122211	Y	69	67410	74900									274
BNA	CLE	$T	CABOD2			11122211	Y	68	17960	35150	27750								275
BNA	CVG	$T	CABOD2			11122211	Y	68	16260	18060	17170								276
BNA	DAL	$T	CABOD2			11122211	Y	68	29100	34140	34610								277
BNA	DTT	$T	CABOD2			11122211	Y	68	20170	20980	22400								278
BNA	LAX	$T	CABOD2			11122211	Y	68	24290	30730	32530								279
BNA	MEM	$T	CABOD2			11122211	Y	59	26810	29920	32270	33640	39110	41990	42910	47610	45830	47500	280
BNA	MEM	$T	CABOD2			11122211	Y	69	48980	49340									281
BNA	MIA	$T	CABOD2			11122211	Y	68	22960	30790	31490								282
BNA	MSY	$T	CABOD2			11122211	Y	68	14670	16560	20740								283
BNA	NYC	$T	CABOD2			11122211	Y	59	35150	34860	38350	43180	52660	55890	66940	82740	86660	90000	284
BNA	NYC	$T	CABOD2			11122211	Y	69	98410	100850									285
BNA	PHL	$T	CABOD2			11122211	Y	68	27920	32180	31610								286
BNA	PIT	$T	CABOD2			11122211	Y	68	11060	13570	17820								287
BNA	SDF	$T	CABOD2			11122211	Y	59	14500	14770	13530	11470	15250	17390	18190	19340	22130	19540	288
BNA	SDF	$T	CABOD2			11122211	Y	69	20280	16010									289
BNA	STL	$T	CABOD2			11122211	Y	68	27110	28630	28960								290
BNA	TYS	$T	CABOD2			11122211	Y	59	17160	18290	22020	21160	23170	25090	26890	28060	31570	31080	291
BNA	TYS	$T	CABOD2			11122211	Y	69	29130	26520									292
BNA	WAS	$T	CABOD2			11122211	Y	59	18660	18150	19730	23930	30500	31650	35630	43350	45260	41890	293
BNA	WAS	$T	CABOD2			11122211	Y	69	48660	48190									294
BOI	DEN	$T	CABOD2			11122211	Y	68	18000	18530	18670								295
BOI	GEG	$T	CABOD2			11122211	Y	68	19200	22360	22910								296
BOI	LAX	$T	CABOD2			11122211	Y	68	18790	23750	27780								297
BOI	PDX	$T	CABOD2			11122211	Y	59	14000	14000	13950	13870	16330	18960	23240	27410	33790	40830	298
BOI	PDX	$T	CABOD2			11122211	Y	69	46100	45040									299
BOI	SEA	$T	CABOD2			11122211	Y	59	10490	11000	11410	12970	12420	14950	16340	20690	30190	34970	300

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
BOI	SEA	$T	CABOD2	11122211	Y	69	41520	42540								301
BOI	SFO	$T	CABOD2	11122211	Y	59	10010	9640	11350	11880	12980	18030	21000	24510	33010	35270	302
BOI	SFO	$T	CABOD2	11122211	Y	69	39220	42990								303
BOI	SLC	$T	CABOD2	11122211	Y	59	15660	16090	18080	17880	19650	21450	22070	28840	29770	35700	304
BOI	SLC	$T	CABOD2	11122211	Y	69	38350	35160								305
BOS	BTV	$T	CABOD2	11122211	Y	59	9560	11170	9660	11210	11180	12610	13860	16580	31770	32800	306
BOS	BTV	$T	CABOD2	11122211	Y	69	32150	21500								307
BOS	BUF	$T	CABOD2	11122211	Y	59	41600	38880	36750	41720	47330	52110	57180	69950	77380	89910	308
BOS	BUF	$T	CABOD2	11122211	Y	69	102510	100570								309
BOS	CHI	$T	CABOD2	11122211	Y	59	128980	136070	144020	160750	181320	199250	231480	277520	303280	341080	310
BOS	CHI	$T	CABOD2	11122211	Y	69	363930	351350								311
BOS	CLE	$T	CABOD2	11122211	Y	59	48510	51150	51130	57590	65750	70880	88610	101160	111980	131770	312
BOS	CLE	$T	CABOD2	11122211	Y	69	147610	141210								313
BOS	CLT	$T	CABOD2	11122211	Y	68	21770	27050	29350								314
BOS	CMH	$T	CABOD2	11122211	Y	59	21960	10840	21470	10630	13210	14610	8080	22940	26820	31590	315
BOS	CMH	$T	CABOD2	11122211	Y	69	42050	43660								316
BOS	CVG	$T	CABOD2	11122211	Y	59	21960	20610	21470	21930	24220	24570	29800	39650	46590	54290	317
BOS	CVG	$T	CABOD2	11122211	Y	69	65070	59560								318
BOS	DAL	$T	CABOD2	11122211	Y	59	10270	12300	15170	15170	18450	20340	22830	30840	34350	43980	319
BOS	DAL	$T	CABOD2	11122211	Y	69	56770	59510								320
BOS	DAY	$T	CABOD2	11122211	Y	59	15380	17930	15980	17680	17740	19580	23910	27310	32550	41840	321
BOS	DAY	$T	CABOD2	11122211	Y	69	45480	40200								322
BOS	DEN	$T	CABOD2	11122211	Y	59	10510	12230	13710	14200	17710	19540	25120	31890	39280	48810	323
BOS	DEN	$T	CABOD2	11122211	Y	69	64160	57680								324
BOS	DTT	$T	CABOD2	11122211	Y	59	43500	48110	50870	58460	73310	77530	93250	116510	126430	157190	325
BOS	DTT	$T	CABOD2	11122211	Y	69	168200	165780								326
BOS	FLL	$T	CABOD2	11122211	Y	68	41730	58170	75260								327
BOS	GSO	$T	CABOD2	11122211	Y	68	13870	15480	17730								328
BOS	HAR	$T	CABOD2	11122211	Y	68	15300	23220	26810								329
BOS	HNL	$T	CABOD2	11122211	Y	68	23130	24340	25460								330
BOS	IAH	$T	CABOD2	11122211	Y	59	6210	7740	8260	7590	11440	13860	17650	19720	23760	33070	331
BOS	IAH	$T	CABOD2	11122211	Y	69	37110	42420								332
BOS	IND	$T	CABOD2	11122211	Y	68	34000	40620	38350								333
BOS	ISP	$T	CABOD2	11122211	Y	68	27930	30850	39420								334
BOS	JAX	$T	CABOD2	11122211	Y	68	22880	26210	26620								335
BOS	LAS	$T	CABOD2	11122211	Y	68	16040	22660	20300								336
BOS	LAX	$T	CABOD2	11122211	Y	59	77780	80240	88010	89260	102840	107380	13305	163970	201980	220610	337
BOS	LAX	$T	CABOD2	11122211	Y	69	236230	222540								338
BOS	MCO	$T	CABOD2	11122211	Y	68	18330	20590	22210								339
BOS	MEM	$T	CABOD2	11122211	Y	68	15670	19990	18410								340
BOS	MIA	$T	CABOD2	11122211	Y	59	116140	119080	123290	129320	131470	147320	187570	216480	275690	253070	341
BOS	MIA	$T	CABOD2	11122211	Y	69	257390	236650								342
BOS	MKC	$T	CABOD2	11122211	Y	68	33260	35430	33650								343
BOS	MKE	$T	CABOD2	11122211	Y	68	33160	36550	38150								344
BOS	MSP	$T	CABOD2	11122211	Y	59	14350	12870	15330	18730	22380	25990	31780	38400	48910	62520	345
BOS	MSP	$T	CABOD2	11122211	Y	69	70870	65170								346
BOS	MSY	$T	CABOD2	11122211	Y	68	24280	29160	35410								347
BOS	NYC	$T	CABOD2	11122211	Y	59	853350	885640	950350	1182400	1550310	1689300	1830050	1895060	2297810	2369710	348
BOS	NYC	$T	CABOD2	11122211	Y	69	2342450	2050880								349
BOS	ORF	$T	CABOD2	11122211	Y	59	5770	6640	8260	10240	14290	15520	19670	21540	32630	43000	350

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
BOS	ORF	$T	CABOD2	11122211	Y	69	56840	49520								351
BOS	PBI	$T	CABOD2	11122211	Y	68	13420	18930	24640							352
BOS	PHL	$T	CABOD2	11122211	Y	59	123780	146250	158620	175960	191590	211720	244030	291530	330160	384370	353
BOS	PHL	$T	CABOD2	11122211	Y	69	417750	376690								354
BOS	PHX	$T	CABOD2	11122211	Y	68	19440	24780	28850							355
BOS	PIT	$T	CABOD2	11122211	Y	59	40300	39860	39540	45120	50280	56430	70230	83530	104100	120490	356
BOS	PIT	$T	CABOD2	11122211	Y	69	138950	132000								357
BOS	PQI	$T	CABOD2	11122211	Y	68	18620	18850	18050							358
BOS	PWM	$T	CABOD2	11122211	Y	59	11870	11750	13570	14330	19230	22170	24670	31510	38950	32400	359
BOS	PWM	$T	CABOD2	11122211	Y	69	34990	33590								360
BOS	RDU	$T	CABOD2	11122211	Y	68	16700	18250	20250							361
BOS	ROC	$T	CABOD2	11122211	Y	59	18670	20890	21020	25420	27100	31600	38640	48330	61590	69760	362
BOS	ROC	$T	CABOD2	11122211	Y	69	83260	77280								363
BOS	SAN	$T	CABOD2	11122211	Y	68	31540	33310	33280							364
BOS	SDF	$T	CABOD2	11122211	Y	68	20920	23520	24960							365
BOS	SEA	$T	CABOD2	11122211	Y	59	11300	10870	10930	14170	11200	13400	18420	21690	33830	38560	366
BOS	SEA	$T	CABOD2	11122211	Y	69	45630	42840								367
BOS	SFO	$T	CABOD2	11122211	Y	59	42260	48600	52920	56590	65860	76370	93700	119330	154560	163710	368
BOS	SFO	$T	CABOD2	11122211	Y	69	179320	171650								369
BOS	STL	$T	CABOD2	11122211	Y	59	20030	21300	20140	23710	27550	29690	37690	43340	52450	61570	370
BOS	STL	$T	CABOD2	11122211	Y	69	74860	71160								371
BOS	SYR	$T	CABOD2	11122211	Y	59	25510	24600	27060	29830	36160	36700	44630	53490	70940	76390	372
BOS	SYR	$T	CABOD2	11122211	Y	69	87990	91950								373
BOS	TPA	$T	CABOD2	11122211	Y	59	29430	28290	28230	26570	31230	31370	37500	35070	47580	73680	374
BOS	TPA	$T	CABOD2	11122211	Y	69	79420	80850								375
BOS	WAS	$T	CABOD2	11122211	Y	59	160820	170770	186490	218420	301160	347360	374410	443210	498870	516370	376
BOS	WAS	$T	CABOD2	11122211	Y	69	538160	518950								377
BPT	DAL	$T	CABOD2	11122211	Y	59	13540	13300	13630	14650	14400	16570	18110	21780	24200	28430	378
BPT	DAL	$T	CABOD2	11122211	Y	69	28450	24660								379
BTR	DAL	$T	CABOD2	11122211	Y	68	15750	19540	21530							380
BTR	IAH	$T	CABOD2	11122211	Y	68	32380	31780	28270							381
BTR	SHV	$T	CABOD2	11122211	Y	68	16650	17770	18390							382
BTV	NYC	$T	CABOD2	11122211	Y	59	23210	25350	19970	20570	24680	26570	34820	47960	53280	57600	383
BTV	NYC	$T	CABOD2	11122211	Y	69	60200	51750								384
BUF	CHI	$T	CABOD2	11122211	Y	59	51710	52410	55120	52400	66050	70660	79210	97980	97750	108720	385
BUF	CHI	$T	CABOD2	11122211	Y	69	111580	103490								386
BUF	CLE	$T	CABOD2	11122211	Y	59	32510	31550	27640	24870	25990	24070	25750	31700	38080	35490	387
BUF	CLE	$T	CABOD2	11122211	Y	69	38120	34460								388
BUF	DTT	$T	CABOD2	11122211	Y	59	41090	41120	40130	42030	47050	50050	54240	64980	65080	69950	389
BUF	DTT	$T	CABOD2	11122211	Y	69	79590	72610								390
BUF	FLL	$T	CABOD2	11122211	Y	68	1280	4860	22300							391
BUF	LAX	$T	CABOD2	11122211	Y	59	15570	16210	15290	15020	20100	23920	28380	36310	39410	43480	392
BUF	LAX	$T	CABOD2	11122211	Y	69	46610	44750								393
BUF	MIA	$T	CABOD2	11122211	Y	59	27330	26070	22060	19520	22670	26740	31970	41540	56190	71620	394
BUF	MIA	$T	CABOD2	11122211	Y	69	70600	49080								395
BUF	NYC	$T	CABOD2	11122211	Y	59	270000	286770	269840	273110	291460	328010	389550	431790	452900	533920	396
BUF	NYC	$T	CABOD2	11122211	Y	69	550920	508040								397
BUF	PHL	$T	CABOD2	11122211	Y	59	33020	36320	43080	41970	48500	48040	58290	68230	78370	95390	398
BUF	PHL	$T	CABOD2	11122211	Y	69	104640	99830								399
BUF	PIT	$T	CABOD2	11122211	Y	59	41280	41830	42330	35300	39440	43500	49270	53520	57840	60660	400

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
BUF	PIT	$T	CABOD2			11122211	Y	69	59260	56130								401
BUF	SFO	$T	CABOD2			11122211	Y	68	25470	26190	25870							402
BUF	SYR	$T	CABOD2			11122211	Y	59	19250	18970	14510	14990	14840	14830	19190	20750	20210	23440	403
BUF	SYR	$T	CABOD2			11122211	Y	69	23680	20020								404
BUF	TPA	$T	CABOD2			11122211	Y	68	30840	29920	27530							405
BUF	WAS	$T	CABOD2			11122211	Y	59	26820	26410	37790	30280	33060	40650	46770	56600	69020	73170	406
BUF	WAS	$T	CABOD2			11122211	Y	69	76290	75400								407
BUR	LAS	$T	CABOD2			11122211	Y	68	36470	85030	86390							408
BUR	OAK	$C	CABOD2			11122211	Y	68	90	20	10							409
BUR	OAK	$P	PUCOD2			11122211	Y	68	35618	189732	205109							410
BUR	OAK	$T	C&POD2			11122211	Y	68	35708	189750	205119							411
BUR	SAN	$C	CABOD2			11122211	Y	68	160	10	0							412
BUR	SAN	$P	PUCOD2			11122211	Y	68	136090	215866	182347							413
BUR	SAN	$T	C&POD2			11122211	Y	68	136250	215876	182347							414
BUR	SFO	$C	CABOD2			11122211	Y	68	570	580	180							415
BUR	SFO	$P	PUCOD2			11122211	Y	68	376548	388774	396958							416
BUR	SFO	$T	C&POD2			11122211	Y	68	377118	389354	397138							417
BUR	SJC	$C	CABOD2			11122211	Y	68	30	50	2320							418
BUR	SJC	$P	PUCOD2			11122211	Y	68	47988	246805	248734							419
BUR	SJC	$T	C&POD2			11122211	Y	68	48018	246855	251054							420
BUR	SMF	$C	CABOD2			11122211	Y	68	100	160	30							421
BUR	SMF	$P	PUCOD2			11122211	Y	68	0	4059	51640							422
BUR	SMF	$T	C&POD2			11122211	Y	68	100	4219	51670							423
CAE	CHI	$T	CABOD2			11122211	Y	68	16490	18780	22860							424
CAE	MIA	$T	CABOD2			11122211	Y	68	18970	25480	22800							425
CAE	NYC	$T	CABOD2			11122211	Y	59	8370	10290	11070	11570	14570	21380	27430	40380	61990	87380	426
CAE	NYC	$T	CABOD2			11122211	Y	69	100410	90610								427
CAE	PHL	$T	CABOD2			11122211	Y	68	13330	14200	18020							428
CAE	PIT	$T	CABOD2			11122211	Y	68	12380	18660	8950							429
CAE	WAS	$T	CABOD2			11122211	Y	68	24890	28020	34590							430
CAK	CHI	$T	CABOD2			11122211	Y	59	24000	22350	22350	21120	24300	24580	30930	50160	55590	63220	431
CAK	CHI	$T	CABOD2			11122211	Y	69	65710	60720								432
CAK	DTT	$T	CABOD2			11122211	Y	59	13920	11810	9310	11050	7890	8620	7300	8530	12400	14730	433
CAK	DTT	$T	CABOD2			11122211	Y	69	8830	10840								434
CAK	MIA	$T	CABOD2			11122211	Y	68	18750	19950	19930							435
CAK	NYC	$T	CABOD2			11122211	Y	59	43900	41920	39310	36490	33070	33290	38630	60260	67430	73910	436
CAK	NYC	$T	CABOD2			11122211	Y	69	72310	62230								437
CHA	CHI	$T	CABOD2			11122211	Y	68	18240	21840	23940							438
CHA	MEM	$T	CABOD2			11122211	Y	68	17830	16930	16380							439
CHA	NYC	$T	CABOD2			11122211	Y	59	15470	18370	16970	15010	17680	19110	21320	23290	28610	33740	440
CHA	NYC	$T	CABOD2			11122211	Y	69	36660	34830								441
CHI	CID	$T	CABOD2			11122211	Y	59	20460	21790	21170	25160	29580	30360	36770	41570	48530	54180	442
CHI	CID	$T	CABOD2			11122211	Y	69	58690	51580								443
CHI	CLE	$T	CABOD2			11122211	Y	59	166780	173740	176350	189510	212650	242070	286480	301540	341040	361170	444
CHI	CLE	$T	CABOD2			11122211	Y	69	400890	351190								445
CHI	CLT	$T	CABOD2			11122211	Y	59	12050	14220	15410	15160	18830	22440	27770	29350	32100	42180	446
CHI	CLT	$T	CABOD2			11122211	Y	69	45140	46000								447
CHI	CMH	$T	CABOD2			11122211	Y	59	64320	63710	60480	72720	77630	93410	114680	123580	137640	161250	448
CHI	CMH	$T	CABOD2			11122211	Y	69	171540	157160								449
CHI	CMI	$T	CABOD2			11122211	Y	59	7630	7920	9208	10640	14670	20940	24820	30490	34500	39340	450

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CHI	CMI	$T	CABOD2			11122211	Y	69	32350	28660								451
CHI	COS	$T	CABOD2			11122211	Y	68	31550	36440	39030							452
CHI	CRW	$T	CABOD2			11122211	Y	68	16120	17110	16030							453
CHI	CVG	$T	CABOD2			11122211	Y	59	81150	89380	92080	98950	112190	125710	143860	160110	167960	181490	454
CHI	CVG	$T	CABOD2			11122211	Y	69	198220	190940								455
CHI	DAL	$T	CABOD2			11122211	Y	59	62450	73360	75370	81780	103560	115480	120980	154810	164390	188710	456
CHI	DAL	$T	CABOD2			11122211	Y	69	215530	214230								457
CHI	DAY	$T	CABOD2			11122211	Y	59	65320	61380	62220	73500	75500	83080	97070	101810	120050	134390	458
CHI	DAY	$T	CABOD2			11122211	Y	69	143140	120040								459
CHI	DEC	$T	CABOD2			11122211	Y	68	22850	21890	17930							460
CHI	DEN	$T	CABOD2			11122211	Y	59	64060	71670	77830	85730	104340	115080	142890	180100	200860	252100	461
CHI	DEN	$T	CABOD2			11122211	Y	69	283910	273420								462
CHI	DLH	$T	CABOD2			11122211	Y	68	29230	30160	29100							463
CHI	DSM	$T	CABOD2			11122211	Y	59	48990	46750	49570	53210	60940	69220	79010	91740	104560	119050	464
CHI	DSM	$T	CABOD2			11122211	Y	69	123380	115020								465
CHI	DTT	$T	CABOD2			11122211	Y	59	268160	270530	263690	269770	315720	346700	391570	430470	460910	493130	466
CHI	DTT	$T	CABOD2			11122211	Y	69	541900	513410								467
CHI	ELP	$T	CABOD2			11122211	Y	68	22100	26460	27350							468
CHI	EVV	$T	CABOD2			11122211	Y	59	20090	21520	23350	21560	23940	28540	34210	42010	49290	54980	469
CHI	EVV	$T	CABOD2			11122211	Y	69	57880	54210								470
CHI	FAR	$T	CABOD2			11122211	Y	68	17510	16460	14950							471
CHI	FLL	$T	CABOD2			11122211	Y	68	73240	121680	138430							472
CHI	FNT	$T	CABOD2			11122211	Y	68	27930	31330	27370							473
CHI	FSD	$T	CABOD2			11122211	Y	68	21800	21770	21660							474
CHI	FWA	$T	CABOD2			11122211	Y	59	17730	16460	17720	20320	22490	25250	26940	33450	39750	42600	475
CHI	FWA	$T	CABOD2			11122211	Y	69	38030	36280								476
CHI	GRB	$T	CABOD2			11122211	Y	59	9860	8960	6940	10480	15030	18800	21780	26540	31570	38580	477
CHI	GRB	$T	CABOD2			11122211	Y	69	36980	32540								478
CHI	GRR	$T	CABOD2			11122211	Y	59	42930	41150	41350	42290	47200	49730	51770	62110	69650	74380	479
CHI	GRR	$T	CABOD2			11122211	Y	69	73920	68110								480
CHI	GSO	$T	CABOD2			11122211	Y	68	31680	34150	37510							481
CHI	HAR	$T	CABOD2			11122211	Y	59	8970	7340	7640	8500	9350	10710	15100	15050	19300	23950	482
CHI	HAR	$T	CABOD2			11122211	Y	69	33900	42390								483
CHI	HNL	$T	CABOD2			11122211	Y	68	48890	56260	67870							484
CHI	IAH	$T	CABOD2			11122211	Y	59	32900	37450	41890	44960	55240	65540	77130	91870	109910	122670	485
CHI	IAH	$T	CABOD2			11122211	Y	69	142870	158260								486
CHI	ICT	$T	CABOD2			11122211	Y	59	14460	14880	14940	15250	17640	22400	25530	31990	35440	43760	487
CHI	ICT	$T	CABOD2			11122211	Y	69	46180	41670								488
CHI	IND	$T	CABOD2			11122211	Y	59	106030	107530	105160	107540	131570	136750	150060	172130	189290	194540	489
CHI	IND	$T	CABOD2			11122211	Y	69	193890	179380								490
CHI	JAN	$T	CABOD2			11122211	Y	68	20070	25250	30670							491
CHI	JAX	$T	CABOD2			11122211	Y	59	20180	19060	18630	21310	23400	26000	31320	32580	35560	41230	492
CHI	JAX	$T	CABOD2			11122211	Y	69	44030	46350								493
CHI	LAN	$T	CABOD2			11122211	Y	59	14300	14290	14020	15270	19190	20890	25270	35690	39760	41160	494
CHI	LAN	$T	CABOD2			11122211	Y	69	40380	34100								495
CHI	LAS	$T	CABOD2			11122211	Y	59	21890	22250	27710	32720	37980	42360	59570	72670	100860	135720	496
CHI	LAS	$T	CABOD2			11122211	Y	69	156890	163230								497
CHI	LAX	$T	CABOD2			11122211	Y	59	268450	274620	263150	286090	365570	421330	473640	556810	557140	631540	498
CHI	LAX	$T	CABOD2			11122211	Y	69	665190	653870								499
CHI	LEX	$T	CABOD2			11122211	Y	68	19330	21120	24160							500

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CHI	LIT	$T	CABOD2		11122211	Y	68	26720	30240	33910							501
CHI	LNK	$T	CABOD2		11122211	Y	68	19640	23120	22970							502
CHI	MBS	$T	CABOD2		11122211	Y	59	19540	19430	20690	18880	22590	28430	34800	36600	41940	47680	503
CHI	MBS	$T	CABOD2		11122211	Y	69	52380	45910								504
CHI	MCO	$T	CABOD2		11122211	Y	59	11300	12040	13670	14520	15990	16360	20390	25380	28560	32920	505
CHI	MCO	$T	CABOD2		11122211	Y	69	37100	48230								506
CHI	MEM	$T	CABOD2		11122211	Y	59	30250	27350	34710	38730	42380	55330	67060	78980	90040	112720	507
CHI	MEM	$T	CABOD2		11122211	Y	69	124860	129800								508
CHI	MIA	$T	CABOD2		11122211	Y	59	247320	246480	226430	238470	245240	272720	334800	393160	481750	486250	509
CHI	MIA	$T	CABOD2		11122211	Y	69	445950	440970								510
CHI	MKC	$T	CABOD2		11122211	Y	59	118670	117820	122960	131110	155710	179520	205730	232020	247390	288200	511
CHI	MKC	$T	CABOD2		11122211	Y	69	305750	285370								512
CHI	MKE	$T	CABOD2		11122211	Y	59	35670	32030	28450	31860	41940	47900	58310	68740	74080	66460	513
CHI	MKE	$T	CABOD2		11122211	Y	69	55170	53810								514
CHI	MKG	$T	CABOD2		11122211	Y	59	14790	12730	12730	13030	15100	17200	19430	23220	28460	30660	515
CHI	MKG	$T	CABOD2		11122211	Y	69	27110	24970								516
CHI	MLI	$T	CABOD2		11122211	Y	59	36350	29670	32790	36820	43500	46240	51790	58670	66760	71730	517
CHI	MLI	$T	CABOD2		11122211	Y	69	71290	58250								518
CHI	MSN	$T	CABOD2		11122211	Y	59	19280	16740	15240	19010	24410	27410	31070	43640	53480	53110	519
CHI	MSN	$T	CABOD2		11122211	Y	69	52150	47030								520
CHI	MSP	$T	CABOD2		11122211	Y	59	199950	207100	228070	249070	277690	328700	389500	411400	487480	477790	521
CHI	MSP	$T	CABOD2		11122211	Y	69	560560	515250								522
CHI	MSY	$T	CABOD2		11122211	Y	59	31710	30980	35180	37470	48280	50010	61760	85170	90720	111830	523
CHI	MSY	$T	CABOD2		11122211	Y	69	124110	143540								524
CHI	NYC	$T	CABOD2		11122211	Y	59	826240	837740	849540	887970	1005690	1148770	1299520	1404450	1501500	1719490	525
CHI	NYC	$T	CABOD2		11122211	Y	69	1852940	1728950									526
CHI	OAK	$T	CABOD2		11122211	Y	68	37280	42740	43710								527
CHI	OKC	$T	CABOD2		11122211	Y	59	16510	15630	16570	19220	22880	25840	31110	39300	41720	49480	528
CHI	OKC	$T	CABOD2		11122211	Y	69	55650	56490									529
CHI	OMA	$T	CABOD2		11122211	Y	59	53200	53750	57510	60060	70230	79710	86950	101110	110660	128080	530
CHI	OMA	$T	CABOD2		11122211	Y	69	130430	117090									531
CHI	ONT	$T	CABOD2		11122211	Y	68	5140	23290	29640								532
CHI	ORF	$T	CABOD2		11122211	Y	59	18930	13220	14650	14580	19280	23500	27380	33860	38630	52740	533
CHI	ORF	$T	CABOD2		11122211	Y	69	57560	48830									534
CHI	OSH	$T	CABOD2		11122211	Y	59	11220	8960	8500	10440	14610	17460	19520	26980	26840	28130	535
CHI	OSH	$T	CABOD2		11122211	Y	69	25260	18400									536
CHI	PBI	$T	CABOD2		11122211	Y	59	5200	7120	7230	9750	11090	14800	16740	19830	21030	31560	537
CHI	PBI	$T	CABOD2		11122211	Y	69	37970	42250									538
CHI	PDX	$T	CABOD2		11122211	Y	59	17150	19720	21250	21530	24710	29560	38390	41610	47510	53710	539
CHI	PDX	$T	CABOD2		11122211	Y	69	56230	53890									540
CHI	PHL	$T	CABOD2		11122211	Y	59	143360	162020	168220	185630	203930	229280	273850	288140	345580	405450	541
CHI	PHL	$T	CABOD2		11122211	Y	69	413540	373050									542
CHI	PHX	$T	CABOD2		11122211	Y	59	41920	42300	47020	49470	56830	62040	71920	86150	97190	122260	543
CHI	PHX	$T	CABOD2		11122211	Y	69	149180	154180									544
CHI	PIA	$T	CABOD2		11122211	Y	59	20580	21290	21230	22430	28900	35190	45220	52640	57980	60220	545
CHI	PIA	$T	CABOD2		11122211	Y	69	55120	45400									546
CHI	PIT	$T	CABOD2		11122211	Y	59	110220	111140	120190	128200	147470	164850	206330	211170	247900	269450	547
CHI	PIT	$T	CABOD2		11122211	Y	69	292860	262210									548
CHI	PSP	$T	CABOD2		11122211	Y	68	14370	19240	20650								549
CHI	PVD	$T	CABOD2		11122211	Y	59	12940	13590	12800	10860	13020	13260	16210	18510	18220	26480	550

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CHI	PVD	ST	CABOD2			11122211	Y	69	38560	37840								551
CHI	RDU	ST	CABOD2			11122211	Y	59	8820	10380	10730	11660	17060	22100	26140	28090	34450	42230	552
CHI	RDU	ST	CABOD2			11122211	Y	69	41760	40810									553
CHI	RIC	ST	CABOC2			11122211	Y	68	26650	29600	31350								554
CHI	ROC	ST	CABOD2			11122211	Y	59	24820	25990	26980	29890	35110	40430	47300	63960	63850	69240	555
CHI	ROC	ST	CABOD2			11122211	Y	69	74790	70920									556
CHI	RST	ST	CABOD2			11122211	Y	59	19810	17960	18410	20020	25240	28260	37610	35510	46230	48020	557
CHI	RST	ST	CABOD2			11122211	Y	69	49290	49240									558
CHI	SAN	ST	CABOD2			11122211	Y	59	24200	26040	27150	30350	37290	44640	52330	61620	66440	80410	559
CHI	SAN	ST	CABOD2			11122211	Y	69	94690	94190									560
CHI	SAT	ST	CABOD2			11122211	Y	59	22110	19000	17380	20360	21780	24520	25920	50560	46970	68500	561
CHI	SAT	ST	CABOD2			11122211	Y	69	66340	72830									562
CHI	SBN	ST	CABOD2			11122211	Y	59	17370	13390	13100	15200	20880	22850	25240	31010	39780	41430	563
CHI	SBN	ST	CABOD2			11122211	Y	69	39670	31420									564
CHI	SDF	ST	CABOD2			11122211	Y	59	64330	66930	66300	61750	81610	98250	103070	104290	111520	133750	565
CHI	SDF	ST	CABOD2			11122211	Y	69	140370	134980									566
CHI	SEA	ST	CABOD2			11122211	Y	59	44230	43030	46580	62740	49100	55690	73420	97990	125900	127780	567
CHI	SEA	ST	CABOD2			11122211	Y	69	141920	136180									568
CHI	SFO	ST	CABOD2			11122211	Y	59	152490	162780	158890	164260	195580	222630	281900	339460	378410	361380	569
CHI	SFO	ST	CABOD2			11122211	Y	69	364260	353030									570
CHI	SGF	ST	CABOD2			11122211	Y	68	15790	18230	17130								571
CHI	SHV	ST	CABOC2			11122211	Y	68	14770	16960	19090								572
CHI	SJC	ST	CABOD2			11122211	Y	68	11280	33380	33150								573
CHI	SLC	ST	CABOD2			11122211	Y	59	13860	14230	16990	16590	18280	19680	23390	28690	32430	39130	574
CHI	SLC	ST	CABOD2			11122211	Y	69	41480	40220									575
CHI	SMF	ST	CABOD2			11122211	Y	68	21180	23550	23400								576
CHI	SPI	ST	CABOD2			11122211	Y	59	18510	19130	22620	24130	27470	29580	36610	47550	58070	52200	577
CHI	SPI	ST	CABOC2			11122211	Y	69	52910	45260									578
CHI	SRQ	ST	CABOD2			11122211	Y	68	18180	22230	23950								579
CHI	STL	ST	CABOD2			11122211	Y	59	164650	177760	179780	197540	226750	259030	282600	334640	372800	427570	580
CHI	STL	ST	CABOD2			11122211	Y	69	454250	423030									581
CHI	SUX	ST	CABOD2			11122211	Y	68	26410	26230	24410								582
CHI	SYR	ST	CABOC2			11122211	Y	59	20800	21690	22510	25390	29350	31280	36130	46570	51340	57290	583
CHI	SYR	ST	CABOD2			11122211	Y	69	65380	64570									584
CHI	TOL	ST	CABOD2			11122211	Y	59	32320	30630	30820	31480	34030	37700	46530	48450	52590	62030	585
CHI	TOL	ST	CABOD2			11122211	Y	69	67920	60420									586
CHI	TPA	ST	CABOD2			11122211	Y	59	64430	64520	63590	65430	71780	81240	97590	103480	125540	151230	587
CHI	TPA	ST	CABOD2			11122211	Y	69	154700	175800									588
CHI	TUL	ST	CABOC2			11122211	Y	59	19620	18970	20590	20980	24940	28150	32880	40480	41770	46120	589
CHI	TUL	ST	CABOD2			11122211	Y	69	51620	50520									590
CHI	TUS	ST	CABOC2			11122211	Y	59	19040	19180	20250	20610	23100	25060	28730	33960	36280	46710	591
CHI	TUS	ST	CABOD2			11122211	Y	69	52940	57940									592
CHI	TYS	ST	CABOD2			11122211	Y	59	11780	10770	13640	11530	15390	16040	17690	21880	25290	28010	593
CHI	TYS	ST	CABOD2			11122211	Y	69	32130	34270									594
CHI	WAS	ST	CABOC2			11122211	Y	59	167640	153500	144140	136110	187460	212790	237110	310700	349340	371960	595
CHI	WAS	ST	CABOD2			11122211	Y	69	421920	407080									596
CHI	YNG	ST	CABOD2			11122211	Y	59	13200	11900	11780	12660	15530	16510	20130	28020	32760	35650	597
CHI	YNG	ST	CABOD2			11122211	Y	69	39880	35450									598
CHO	NYC	ST	CABOD2			11122211	Y	68	21680	20870	20810								599
CHS	MIA	ST	CABOD2			11122211	Y	68	17590	19090	18930								600

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CHS	NYC	ST	CABOD2			11122211	Y	59	15050	16690	14770	17240	26200	34550	39820	49450	55000	57270	601
CHS	NYC	ST	CABOD2			11122211	Y	69	69300	79860									602
CHS	ORF	ST	CABOD2			11122211	Y	68	22140	23020	18280								603
CHS	PHL	ST	CABOD2			11122211	Y	68	17080	19750	20440								604
CHS	WAS	ST	CABOD2			11122211	Y	59	7320	9370	7610	8670	14060	16970	22880	23370	29250	29360	605
CHS	WAS	ST	CABOD2			11122211	Y	69	33050	34800									606
CID	LAX	ST	CABOD2			11122211	Y	68	13960	17930	17760								607
CID	MSP	ST	CABOD2			11122211	Y	68	19460	20640	19580								608
CID	NYC	ST	CABOD2			11122211	Y	68	19410	21300	18830								609
CLE	CLT	ST	CABOD2			11122211	Y	68	17430	20900	22830								610
CLE	CMH	ST	CABOD2			11122211	Y	59	48620	44370	32680	29220	32620	30040	25950	26580	30100	27260	611
CLE	CMH	ST	CABOD2			11122211	Y	69	25240	21230									612
CLE	CVG	ST	CABOD2			11122211	Y	59	56040	53870	49520	49390	51150	51460	49920	62540	69300	67670	613
CLE	CVG	ST	CABOD2			11122211	Y	69	68000	72840									614
CLE	DAL	ST	CABOD2			11122211	Y	59	8280	8950	9580	11410	17210	17520	21970	26920	30320	36560	615
CLE	DAL	ST	CABOD2			11122211	Y	69	46010	50230									616
CLE	DAY	ST	CABOD2			11122211	Y	59	37980	32400	30400	31940	34580	34880	38610	44490	50340	51480	617
CLE	DAY	ST	CABOD2			11122211	Y	69	54620	51950									618
CLE	DEN	ST	CABOD2			11122211	Y	68	29040	36660	35120								619
CLE	DTT	ST	CABOD2			11122211	Y	59	89200	84330	77860	75700	72940	74640	78360	88920	100470	94390	620
CLE	DTT	ST	CABOD2			11122211	Y	69	97680	104190									621
CLE	FLL	ST	CABOD2			11122211	Y	68	15620	31150	38420								622
CLE	IAH	ST	CABOD2			11122211	Y	68	25230	28280	35430								623
CLE	IND	ST	CABOD2			11122211	Y	59	25950	23110	23150	28350	29110	36520	40760	43110	51550	59740	624
CLE	IND	ST	CABOD2			11122211	Y	69	61590	52390									625
CLE	LAS	ST	CABOD2			11122211	Y	68	18290	22690	22980								626
CLE	LAX	ST	CABOD2			11122211	Y	59	52150	52440	56880	60780	73310	79480	90030	110640	120630	137000	627
CLE	LAX	ST	CABOD2			11122211	Y	69	148560	144120									628
CLE	MEM	ST	CABOD2			11122211	Y	68	16390	19780	20430								629
CLE	MIA	ST	CABOD2			11122211	Y	59	82770	89270	103370	90120	101560	105220	121730	13669	151070	171680	630
CLE	MIA	ST	CABOD2			11122211	Y	69	178380	156420									631
CLE	MKC	ST	CABOD2			11122211	Y	68	28810	30500	27520								632
CLE	MKE	ST	CABOD2			11122211	Y	59	31960	29200	30420	31250	31660	33130	37500	42450	47780	53670	633
CLE	MKE	ST	CABOD2			11122211	Y	69	57690	55170									634
CLE	MSP	ST	CABOD2			11122211	Y	59	17400	16950	30420	20430	21790	25230	33190	35780	42790	48050	635
CLE	MSP	ST	CABOD2			11122211	Y	69	55090	50140									636
CLE	MSY	ST	CABOD2			11122211	Y	68	19410	21950	20160								637
CLE	NYC	ST	CABOD2			11122211	Y	59	288010	291740	317750	332570	372070	424920	493320	536200	586380	646580	638
CLE	NYC	ST	CABOD2			11122211	Y	69	682020	620340									639
CLE	ORF	ST	CABOD2			11122211	Y	68	15160	18530	15570								640
CLE	PHL	ST	CABOD2			11122211	Y	59	65240	65600	68030	76290	83460	92020	115940	128000	152540	158570	641
CLE	PHL	ST	CABOD2			11122211	Y	69	172620	153850									642
CLE	PHX	ST	CABOD2			11122211	Y	68	22980	27170	29570								643
CLE	PIT	ST	CABOD2			11122211	Y	59	29960	31500	30130	35550	42480	45690	51580	52420	55790	54880	644
CLE	PIT	ST	CABOD2			11122211	Y	69	52000	50350									645
CLE	PVD	ST	CABOD2			11122211	Y	68	15590	19690	17550								646
CLE	ROC	ST	CABOD2			11122211	Y	59	12410	12830	13710	14260	15290	15000	17140	22240	25740	26020	647
CLE	ROC	ST	CABOD2			11122211	Y	69	28810	28930									648
CLE	SAN	ST	CABOD2			11122211	Y	68	16470	19360	19170								649
CLE	SDF	ST	CABOD2			11122211	Y	59	20160	21470	20050	19540	21880	27220	26840	31950	34940	51560	650

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CLE	SDF	$T	CABOD2	11122211	Y	69	34790	39550								651
CLE	SEA	$T	CABOD2	11122211	Y	68	21050	22760	21910							652
CLE	SFO	$T	CABOD2	11122211	Y	59	20390	20950	24250	25640	32690	37090	44560	50780	60380	69020	653
CLE	SFO	$T	CABOD2	11122211	Y	69	73100	67580								654
CLE	STL	$T	CABOD2	11122211	Y	59	31590	33030	32000	33370	39320	41120	50320	54980	63310	68880	655
CLE	STL	$T	CABOD2	11122211	Y	69	80030	74820								656
CLE	SYR	$T	CABOD2	11122211	Y	68	26010	27850	28250							657
CLE	TPA	$T	CABOD2	11122211	Y	59	24460	24100	24330	28990	32340	34100	39790	42810	44950	60980	658
CLE	TPA	$T	CABOD2	11122211	Y	69	62950	65990								659
CLE	WAS	$T	CABOD2	11122211	Y	59	56140	56060	64880	67490	79650	89880	99800	112830	138880	14530	660
CLE	WAS	$T	CABOD2	11122211	Y	69	163650	141810								661
CLT	DTT	$T	CABOD2	11122211	Y	68	19200	24090	23290							662
CLT	MIA	$T	CABOD2	11122211	Y	59	14400	15940	15430	15640	19180	18080	21600	24380	30010	37170	663
CLT	MIA	$T	CABOD2	11122211	Y	69	42890	43070								664
CLT	NYC	$T	CABOD2	11122211	Y	59	54630	60790	59760	68610	83290	101330	113600	106870	136730	163130	665
CLT	NYC	$T	CABOD2	11122211	Y	69	195110	208800								666
CLT	PHL	$T	CABOD2	11122211	Y	59	10340	13410	14040	13130	19290	24490	29740	28710	36430	45100	667
CLT	PHL	$T	CABOD2	11122211	Y	69	47410	50010								668
CLT	PIT	$T	CABOD2	11122211	Y	68	19360	21520	23040							669
CLT	RDU	$T	CABOD2	11122211	Y	59	14210	12010	17140	11430	11170	11450	11590	11610	13960	16520	670
CLT	RDU	$T	CABOD2	11122211	Y	69	14500	14510								671
CLT	RIC	$T	CABOD2	11122211	Y	68	16750	17440	14680							672
CLT	WAS	$T	CABOD2	11122211	Y	59	16960	17810	19560	20480	23270	24670	31180	35990	42540	48660	673
CLT	WAS	$T	CABOD2	11122211	Y	69	56540	51100								674
CMH	DAL	$T	CABOD2	11122211	Y	68	17080	19150	21160							675
CMH	DTT	$T	CABOD2	11122211	Y	59	21850	21460	20430	21740	22330	23690	22370	27410	27300	44990	676
CMH	DTT	$T	CABOD2	11122211	Y	69	46490	41980								677
CMH	IND	$T	CABOD2	11122211	Y	68	17760	18710	15160							678
CMH	LAX	$T	CABOD2	11122211	Y	59	13010	12430	11830	12730	17100	20480	28360	31570	41180	51670	679
CMH	LAX	$T	CABOD2	11122211	Y	69	53190	53280								680
CMH	MIA	$T	CABOD2	11122211	Y	59	20360	21080	18960	19570	26480	24600	25500	28600	35850	50610	681
CMH	MIA	$T	CABOD2	11122211	Y	69	49910	53090								682
CMH	MSP	$T	CABOD2	11122211	Y	68	18790	21270	19010							683
CMH	NYC	$T	CABOD2	11122211	Y	59	83130	87040	86960	102770	111370	130510	158670	167590	194860	212540	684
CMH	NYC	$T	CABOD2	11122211	Y	69	236720	233560								685
CMH	PHL	$T	CABOD2	11122211	Y	59	17760	19610	18510	21720	23280	25320	33440	33850	48670	60090	686
CMH	PHL	$T	CABOD2	11122211	Y	69	65940	68720								687
CMH	PIT	$T	CABOD2	11122211	Y	59	26000	23920	21860	24840	26270	29500	34380	34100	40260	42830	688
CMH	PIT	$T	CABOD2	11122211	Y	69	44940	37840								689
CMH	SDF	$T	CABOD2	11122211	Y	68	17510	17310	15910							690
CMH	SFO	$T	CABOD2	11122211	Y	68	29050	32520	28840							691
CMH	STL	$T	CABOD2	11122211	Y	68	31260	31150	28900							692
CMH	TPA	$T	CABOD2	11122211	Y	68	21980	24150	28520							693
CMH	WAS	$T	CABOD2	11122211	Y	59	29460	31520	33770	40090	45160	51080	58970	64070	76090	83790	694
CMH	WAS	$T	CABOD2	11122211	Y	69	90960	89030								695
CMI	NYC	$T	CABOD2	11122211	Y	68	13040	15330	22420							696
COS	DEN	$T	CABOD2	11122211	Y	68	22970	18870	16560							697
COS	LAX	$T	CABOD2	11122211	Y	68	25550	33550	35230							698
CPR	DEN	$T	CABOD2	11122211	Y	59	15150	16930	16360	16700	20910	20930	23260	28090	31820	36850	699
CPR	DEN	$T	CABOD2	11122211	Y	69	33200	30700								700

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
CRP	DAL	$T	CABOD2			11122211	Y	59	19700	16590	16600	19150	22820	25930	29260	35010	42320	49430	701
CRP	DAL	$T	CABOD2			11122211	Y	69	52830	56270									702
CRP	IAH	$T	CABOD2			11122211	Y	59	33120	33170	32330	34090	41280	45830	48560	55020	63760	72240	703
CRP	IAH	$T	CABOD2			11122211	Y	69	61160	50480									704
CRP	SAT	$T	CABOD2			11122211	Y	68	16390	14330	8080								705
CRW	NYC	$T	CABOD2			11122211	Y	59	23920	26620	28790	27850	33890	34530	39160	42630	51320	52170	706
CRW	NYC	$T	CABOD2			11122211	Y	69	51940	52430									707
CRW	PIT	$T	CABOD2			11122211	Y	59	16970	15810	17900	20440	20260	21650	22660	26750	27800	28920	708
CRW	PIT	$T	CABOD2			11122211	Y	69	26390	22120									709
CRW	WAS	$T	CABOD2			11122211	Y	59	16890	18060	18130	17830	23420	26110	29770	33800	39160	40940	710
CRW	WAS	$T	CABOD2			11122211	Y	69	35130	37620									711
CSG	NYC	$T	CABOD2			11122211	Y	68	24170	36820	34990								712
CSG	WAS	$T	CABOD2			11122211	Y	68	11010	19050	18270								713
CVG	DAL	$T	CABOD2			11122211	Y	68	24730	27590	31020								714
CVG	DTT	$T	CABOD2			11122211	Y	59	36140	32580	30140	32420	35400	42810	44340	54430	57620	70240	715
CVG	DTT	$T	CABOD2			11122211	Y	69	78170	71800									716
CVG	FLL	$T	CABOD2			11122211	Y	68	1560	24170	26890								717
CVG	IAH	$T	CABOD2			11122211	Y	68	15860	18500	19170								718
CVG	LAX	$T	CABOD2			11122211	Y	59	18090	16370	16310	18410	22450	24130	30720	37640	44430	51200	719
CVG	LAX	$T	CABOD2			11122211	Y	69	55760	59510									720
CVG	MEM	$T	CABOD2			11122211	Y	68	15260	17120	18900								721
CVG	MIA	$T	CABOD2			11122211	Y	59	35920	39100	42670	43980	46010	52450	61720	70730	77210	89330	722
CVG	MIA	$T	CABOD2			11122211	Y	69	74430	70970									723
CVG	MKC	$T	CABOD2			11122211	Y	68	18280	24240	22530								724
CVG	MKE	$T	CABOD2			11122211	Y	68	10080	11250	18670								725
CVG	MSP	$T	CABOD2			11122211	Y	68	16550	17930	20090								726
CVG	NYC	$T	CABOD2			11122211	Y	59	114630	115100	125420	132010	145110	161920	190650	215650	232440	229460	727
CVG	NYC	$T	CABOD2			11122211	Y	69	262850	253030									728
CVG	PHL	$T	CABOD2			11122211	Y	59	20250	20100	21180	20690	20960	22680	30220	35890	46200	58730	729
CVG	PHL	$T	CABOD2			11122211	Y	69	75480	60310									730
CVG	PIT	$T	CABOD2			11122211	Y	59	23990	22420	21920	26040	26210	29720	33060	35530	41830	43390	731
CVG	PIT	$T	CABOD2			11122211	Y	69	44180	41280									732
CVG	SDF	$T	CABOD2			11122211	Y	59	19740	18090	16970	16720	17660	18620	20560	21790	15640	17110	733
CVG	SDF	$T	CABOD2			11122211	Y	69	12730	8130									734
CVG	SFO	$T	CABOD2			11122211	Y	68	32780	35130	33440								735
CVG	STL	$T	CABOD2			11122211	Y	59	19860	20080	19500	22910	25600	30610	33990	38160	40600	49300	736
CVG	STL	$T	CABOD2			11122211	Y	69	58510	54520									737
CVG	TPA	$T	CABOD2			11122211	Y	59	13380	12720	12370	14570	16870	21590	25930	29070	35980	43880	738
CVG	TPA	$T	CABOD2			11122211	Y	69	45860	46080									739
CVG	WAS	$T	CABOD2			11122211	Y	59	23570	24670	25190	28610	32530	35100	42390	57700	65290	70950	740
CVG	WAS	$T	CABOD2			11122211	Y	69	74960	70500									741
DAB	NYC	$T	CABOD2			11122211	Y	59	12830	13170	12900	9860	16640	16880	19410	19840	24090	35450	742
DAB	NYC	$T	CABOD2			11122211	Y	69	40010	43980									743
DAL	DAY	$T	CABOD2			11122211	Y	68	22140	24840	26640								744
DAL	DEN	$T	CABOD2			11122211	Y	59	22960	27050	27690	31550	40640	45080	49790	62360	73820	93280	745
DAL	DEN	$T	CABOD2			11122211	Y	69	113470	115570									746
DAL	DSM	$T	CABOD2			11122211	Y	68	13750	19020	13360								747
DAL	DTT	$T	CABOD2			11122211	Y	59	12500	15010	16220	16400	21690	23840	25600	37160	43040	49000	748
DAL	DTT	$T	CABOD2			11122211	Y	69	63740	64790									749
DAL	ELP	$T	CABOD2			11122211	Y	59	16810	20540	24840	27510	30770	32400	37430	46030	59660	69470	750

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DAL	ELP	$T	CABOD2		11122211	Y	69	87100	72610								751
DAL	HNL	$T	CABOD2		11122211	Y	68	15200	17650	24750							752
DAL	IAH	$T	CABOD2		11122211	Y	59	156860	151450	150810	167000	192810	213010	235590	269720	310040	352180	753
DAL	IAH	$T	CABOD2		11122211	Y	69	365730	342610								754
DAL	ICT	$T	CABOD2		11122211	Y	59	13380	13500	13690	14110	16880	18460	20190	24310	29320	33420	755
DAL	ICT	$T	CABOD2		11122211	Y	69	34340	33890								756
DAL	IND	$T	CABOD2		11122211	Y	68	19550	23780	28660							757
DAL	JAN	$T	CABOD2		11122211	Y	68	22850	24620	29060							758
DAL	LAS	$T	CABOD2		11122211	Y	59	3520	3740	6620	10280	12970	14870	16870	21350	30560	40630	759
DAL	LAS	$T	CABOD2		11122211	Y	69	57100	66230								760
DAL	LAX	$T	CABOD2		11122211	Y	59	76000	79720	84950	75290	100310	112660	130120	182220	214560	229360	761
DAL	LAX	$T	CABOD2		11122211	Y	69	287870	273500								762
DAL	LBB	$T	CABOD2		11122211	Y	59	28250	31170	33950	40090	46820	54480	61870	73130	86080	101160	763
DAL	LBB	$T	CABOD2		11122211	Y	69	103860	93130								764
DAL	LIT	$T	CABOD2		11122211	Y	59	12920	13920	16570	21370	28510	28160	34650	39460	42180	48740	765
DAL	LIT	$T	CABOD2		11122211	Y	69	53070	54220								766
DAL	MAF	$T	CABOD2		11122211	Y	59	29490	31740	35290	41010	39620	42090	51100	58060	63320	76270	767
DAL	MAF	$T	CABOD2		11122211	Y	69	80170	70340								768
DAL	MCO	$T	CABOD2		11122211	Y	68	15830	17990	20330							769
DAL	MEM	$T	CABOD2		11122211	Y	59	16210	17790	20520	25810	32130	35440	38890	4906	56040	62110	770
DAL	MEM	$T	CABOD2		11122211	Y	69	71460	69290								771
DAL	MIA	$T	CABOD2		11122211	Y	59	13180	14090	17130	18420	22290	23870	32670	36390	47380	63290	772
DAL	MIA	$T	CABOD2		11122211	Y	69	74810	79610								773
DAL	MKC	$T	CABOD2		11122211	Y	59	26570	31550	32130	36390	41760	45050	51790	62770	79530	91040	774
DAL	MKC	$T	CABOD2		11122211	Y	69	96220	101340								775
DAL	MSP	$T	CABOD2		11122211	Y	59	8940	8920	11330	13000	14210	16540	18830	25600	31540	39620	776
DAL	MSP	$T	CABOD2		11122211	Y	69	43850	46780								777
DAL	MSY	$T	CABOD2		11122211	Y	59	37240	38750	41800	52020	66320	74510	86130	101550	114180	132230	778
DAL	MSY	$T	CABOD2		11122211	Y	69	136210	135110								779
DAL	NYC	$T	CABOD2		11122211	Y	59	105090	122250	126200	131500	149780	172050	185060	229620	254480	262840	780
DAL	NYC	$T	CABOD2		11122211	Y	69	298300	298010								781
DAL	OKC	$T	CABOD2		11122211	Y	59	46890	47460	49890	54070	65390	68430	74360	89330	96870	104180	782
DAL	OKC	$T	CABOD2		11122211	Y	69	116070	109760								783
DAL	OMA	$T	CABOD2		11122211	Y	68	17280	19120	20990							784
DAL	PHL	$T	CABOD2		11122211	Y	59	13660	14560	17460	21860	26470	28830	32900	40810	47550	64940	785
DAL	PHL	$T	CABOD2		11122211	Y	69	71270	75490								786
DAL	PHX	$T	CABOD2		11122211	Y	59	7410	8230	12080	15770	18760	20650	24150	28420	28990	37420	787
DAL	PHX	$T	CABOD2		11122211	Y	69	52200	55500								788
DAL	PIT	$T	CABOD2		11122211	Y	68	23930	27200	30890							789
DAL	SAN	$T	CABOD2		11122211	Y	59	5690	6800	9680	10960	18040	19880	23180	25920	33490	42580	790
DAL	SAN	$T	CABOD2		11122211	Y	69	46100	44950								791
DAL	SAT	$T	CABOD2		11122211	Y	59	65620	71330	74170	79790	90720	101400	106340	124380	137420	170890	792
DAL	SAT	$T	CABOD2		11122211	Y	69	160670	146230								793
DAL	SDF	$T	CABOD2		11122211	Y	68	21560	23350	26880							794
DAL	SEA	$T	CABOD2		11122211	Y	59	6400	5330	6220	8160	8470	9320	13460	19110	31510	40950	795
DAL	SEA	$T	CABOD2		11122211	Y	69	46460	49110								796
DAL	SFO	$T	CABOD2		11122211	Y	59	26150	31880	36060	40910	54280	56490	14800	90350	104640	118850	797
DAL	SFO	$T	CABOD2		11122211	Y	69	137930	141100								798
DAL	SHV	$T	CABOD2		11122211	Y	59	21630	20280	19560	20380	26520	33640	31100	31810	29200	31440	799
DAL	SHV	$T	CABOD2		11122211	Y	69	33520	30990								800

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DAL	SPS	$T	CABOD2		11122211	Y	68	16790	17130	11780							801
DAL	STL	$T	CABOD2		11122211	Y	59	20480	20940	25530	31000	39860	43620	49720	62090	69860	84800	802
DAL	STL	$T	CABOD2		11122211	Y	69	96510	99580									803
DAL	TPA	$T	CABOD2		11122211	Y	68	17190	23030	27220								804
DAL	TUL	$T	CABOD2		11122211	Y	59	35680	36270	36350	36160	42200	45120	51190	60230	63550	72990	805
DAL	TUL	$T	CABOD2		11122211	Y	69	81600	86040									806
DAL	TUS	$T	CABOD2		11122211	Y	68	14780	19470	17500								807
DAL	WAS	$T	CABOD2		11122211	Y	59	35130	37470	39200	39310	55740	60490	63570	83620	87570	96580	808
DAL	WAS	$T	CABOD2		11122211	Y	69	107870	108020									809
DAY	DTT	$T	CABOD2		11122211	Y	59	24520	21610	20050	20880	21820	25330	26820	27410	30820	39990	810
DAY	DTT	$T	CABOD2		11122211	Y	69	38440	35660									811
DAY	LAX	$T	CABOD2		11122211	Y	59	27700	26370	29490	28310	30500	33480	42190	44420	55720	60220	812
DAY	LAX	$T	CABOD2		11122211	Y	69	65870	57890									813
DAY	MIA	$T	CABOD2		11122211	Y	59	13430	11010	10510	11300	9250	8540	10460	12640	15960	29520	814
DAY	MIA	$T	CABOD2		11122211	Y	69	31760	31990									815
DAY	MSP	$T	CABOD2		11122211	Y	68	16000	16650	14930								816
DAY	NYC	$T	CABOD2		11122211	Y	59	80660	76750	77520	94010	94450	105970	132670	131270	158960	176620	817
DAY	NYC	$T	CABOD2		11122211	Y	69	188480	164520									818
DAY	PHL	$T	CABOD2		11122211	Y	59	17700	18380	16680	20860	19650	23080	29620	30320	42700	51980	819
DAY	PHL	$T	CABOD2		11122211	Y	69	63360	52620									820
DAY	PIT	$T	CABOD2		11122211	Y	59	15970	15370	15730	18700	19970	22220	24240	28890	35540	38470	821
DAY	PIT	$T	CABOD2		11122211	Y	69	40200	33270									822
DAY	SFO	$T	CABOD2		11122211	Y	68	27630	27540	25770								823
DAY	STL	$T	CABOD2		11122211	Y	68	26460	32150	30100								824
DAY	TPA	$T	CABOD2		11122211	Y	68	12650	18390	23190								825
DAY	WAS	$T	CABOD2		11122211	Y	59	35270	32240	30920	37340	39320	45290	55760	56370	65100	70050	826
DAY	WAS	$T	CABOD2		11122211	Y	69	82340	76890									827
DEN	DSM	$T	CABOD2		11122211	Y	68	24600	29480	31490								828
DEN	DTT	$T	CABOD2		11122211	Y	59	12050	13660	14120	15720	17890	17900	23010	27740	34480	47750	829
DEN	DTT	$T	CABOD2		11122211	Y	69	57930	56150									830
DEN	ELP	$T	CABOD2		11122211	Y	68	28850	23890	24640								831
DEN	FSD	$T	CABOD2		11122211	Y	68	17370	16760	16440								832
DEN	GJT	$T	CABOD2		11122211	Y	59	14420	15680	17490	18510	22050	25230	31600	33140	42700	59610	833
DEN	GJT	$T	CABOD2		11122211	Y	69	57960	56490									834
DEN	HNL	$T	CABOD2		11122211	Y	68	14130	17340	21200								835
DEN	IAH	$T	CABOD2		11122211	Y	59	10540	12210	12660	15530	17670	20570	23660	31440	39980	50570	836
DEN	IAH	$T	CABOD2		11122211	Y	69	66910	70950									837
DEN	ICT	$T	CABOD2		11122211	Y	59	9890	11060	13770	15800	17140	17030	20430	20800	31400	35160	838
DEN	ICT	$T	CABOD2		11122211	Y	69	39060	41340									839
DEN	IND	$T	CABOD2		11122211	Y	68	18670	23500	21920								840
DEN	LAS	$T	CABOD2		11122211	Y	59	18340	20160	22520	28620	30670	31640	39030	47650	54000	81200	841
DEN	LAS	$T	CABOD2		11122211	Y	69	94730	86360									842
DEN	LAX	$T	CABOD2		11122211	Y	59	102760	119990	127470	133600	159290	168320	185490	227450	248010	27169	843
DEN	LAX	$T	CABOD2		11122211	Y	69	304710	303620									844
DEN	LNK	$T	CABOD2		11122211	Y	68	21100	20230	17580								845
DEN	MEM	$T	CABOD2		11122211	Y	68	11100	17200	17830								846
DEN	MIA	$T	CABOD2		11122211	Y	68	21160	27980	34370								847
DEN	MKC	$T	CABOD2		11122211	Y	59	31600	32810	36580	41540	44590	51240	64020	73520	84340	109390	848
DEN	MKC	$T	CABOD2		11122211	Y	69	110060	107530									849
DEN	MKE	$T	CABOD2		11122211	Y	68	26860	31370	30800								850

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
DEN	MSP	$T	CABOD2		11122211	Y	59	18410	18930	22920	22750	30390	31840	38440	53860	60870	78940	851
DEN	MSP	$T	CABOD2		11122211	Y	69	90880	88970									852
DEN	MSY	$T	CABOD2		11122211	Y	68	17400	21740	25090								853
DEN	NYC	$T	CABOD2		11122211	Y	59	68530	74940	80770	82100	90000	102760	131520	155490	181750	210150	854
DEN	NYC	$T	CABOD2		11122211	Y	69	249440	232730									855
DEN	OKC	$T	CABOD2		11122211	Y	68	32520	36840	38100								856
DEN	OMA	$T	CABOD2		11122211	Y	59	18890	21130	23000	22830	26620	31200	37220	44470	48760	63450	857
DEN	OMA	$T	CABOD2		11122211	Y	69	61010	56940									858
DEN	ONT	$T	CABOD2		11122211	Y	68	3660	9700	19420								859
DEN	PDX	$T	CABOD2		11122211	Y	59	11810	11710	12350	13820	15170	18490	19950	19200	25500	38500	860
DEN	PDX	$T	CABOD2		11122211	Y	69	44780	42870									861
DEN	PHL	$T	CABOD2		11122211	Y	59	10100	12440	15000	16420	18240	20910	25440	28790	34350	45890	862
DEN	PHL	$T	CABOD2		11122211	Y	69	54840	51600									863
DEN	PHX	$T	CABOD2		11122211	Y	59	25370	29400	31110	35730	40050	44490	48050	61920	60950	79420	864
DEN	PHX	$T	CABOD2		11122211	Y	69	85550	87500									865
DEN	PIT	$T	CABOD2		11122211	Y	68	24900	26760	25830								866
DEN	RAP	$T	CABOD2		11122211	Y	68	18660	18720	18030								867
DEN	SAN	$T	CABOD2		11122211	Y	59	11980	12610	14590	14720	18580	22980	25560	33150	35510	47620	868
DEN	SAN	$T	CABOD2		11122211	Y	69	48560	46880									869
DEN	SAT	$T	CABOD2		11122211	Y	59	5950	6990	8240	8570	10320	11320	15510	30110	5320	35170	870
DEN	SAT	$T	CABOD2		11122211	Y	69	45140	34350									871
DEN	SEA	$T	CABOD2		11122211	Y	59	18280	17550	21220	27790	24570	25670	32340	38540	53990	66780	872
DEN	SEA	$T	CABOD2		11122211	Y	69	74900	79300									873
DEN	SFO	$T	CABOD2		11122211	Y	59	60290	64090	71260	76350	108950	100960	117410	147420	169960	186440	874
DEN	SFO	$T	CABOD2		11122211	Y	69	191660	174810									875
DEN	SJC	$T	CABOD2		11122211	Y	68	7630	20030	20160								876
DEN	SLC	$T	CABOD2		11122211	Y	59	40420	43810	50830	51040	57080	60610	67250	85430	93610	109920	877
DEN	SLC	$T	CABOD2		11122211	Y	69	116800	120300									878
DEN	SMF	$T	CABOD2		11122211	Y	68	15530	17700	18920								879
DEN	STL	$T	CABOD2		11122211	Y	59	12640	12080	14560	15710	16770	19910	24670	32500	48280	70500	880
DEN	STL	$T	CABOD2		11122211	Y	69	80190	72880									881
DEN	TUL	$T	CABOD2		11122211	Y	68	30060	33660	33660								882
DEN	TUS	$T	CABOD2		11122211	Y	68	25070	24100	31930								883
DEN	WAS	$T	CABOD2		11122211	Y	59	23280	23900	11770	6310	12400	13100	22110	40160	48360	61260	884
DEN	WAS	$T	CABOD2		11122211	Y	69	80680	84470									885
DLH	MSP	$T	CABOD2		11122211	Y	59	22620	15490	12960	13480	17510	18800	25850	31080	39590	45560	886
DLH	MSP	$T	CABOD2		11122211	Y	69	46500	34160									887
DSM	LAX	$T	CABOD2		11122211	Y	59	8070	9010	8290	9680	11200	14850	15870	24070	32680	37850	888
DSM	LAX	$T	CABOD2		11122211	Y	69	41390	40080									889
DSM	MKC	$T	CABOD2		11122211	Y	59	21020	22670	21240	21230	23490	26690	30930	33850	38510	45680	890
DSM	MKC	$T	CABOD2		11122211	Y	69	40440	38270									891
DSM	MSP	$T	CABOD2		11122211	Y	59	18330	20330	21200	21270	21850	23300	27810	32400	39080	41540	892
DSM	MSP	$T	CABOD2		11122211	Y	69	44310	45740									893
DSM	NYC	$T	CABOD2		11122211	Y	59	13470	14280	13540	15270	16630	20100	22270	25800	32680	36920	894
DSM	NYC	$T	CABOD2		11122211	Y	69	42600	39150									895
DSM	OMA	$T	CABOD2		11122211	Y	59	16460	17870	16680	16440	17100	16650	21940	21940	20310	21230	896
DSM	OMA	$T	CABOD2		11122211	Y	69	18220	12870									897
DSM	SFO	$T	CABOD2		11122211	Y	68	18990	22660	21260								898
DSM	STL	$T	CABOD2		11122211	Y	59	12980	13550	14610	15810	16730	19630	22330	26780	29930	31910	899
DSM	STL	$T	CABOD2		11122211	Y	69	33400	33820									900

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
DSM	WAS	$T	CABOD2	11122211	Y	68	18160	19500	19910							901
DTT	FLL	$T	CABOD2	11122211	Y	68	4170	38350	58180							902
DTT	GRR	$T	CABOD2	11122211	Y	68	20260	20700	18530							903
DTT	HNL	$T	CABOD2	11122211	Y	68	16870	19700	24040							904
DTT	IAH	$T	CABOD2	11122211	Y	59	7700	8990	9320	10010	11640	13670	15620	20840	26440	29100	905
DTT	IAH	$T	CABOD2	11122211	Y	69	39400	44480								906
DTT	IND	$T	CABOD2	11122211	Y	59	49810	50810	45310	48820	52910	59330	61450	66180	74220	87680	907
DTT	IND	$T	CABOD2	11122211	Y	69	92370	88910								908
DTT	JAX	$T	CABOD2	11122211	Y	68	15950	19730	21950							909
DTT	LAS	$T	CABOD2	11122211	Y	68	33830	40970	41010							910
DTT	LAX	$T	CABOD2	11122211	Y	59	71580	76980	79790	86580	105410	118210	139980	179670	187430	212460	911
DTT	LAX	$T	CABOD2	11122211	Y	69	236030	224030								912
DTT	MCO	$T	CABOD2	11122211	Y	68	16630	21410	23920							913
DTT	MEM	$T	CABOD2	11122211	Y	59	9660	8750	10050	11330	13070	16830	18650	22250	27930	35970	914
DTT	MEM	$T	CABOD2	11122211	Y	69	42770	47830								915
DTT	MIA	$T	CABOD2	11122211	Y	59	94920	100020	100630	104210	111910	122160	14744	185370	224110	282130	916
DTT	MIA	$T	CABOD2	11122211	Y	69	260540	246090								917
DTT	MKC	$T	CABOD2	11122211	Y	59	19550	19880	18880	18730	20650	23180	29120	33110	38790	50400	918
DTT	MKC	$T	CABOD2	11122211	Y	69	55080	50760								919
DTT	MKE	$T	CABOD2	11122211	Y	59	69740	69500	63800	65750	63170	72490	83950	81560	98210	101120	920
DTT	MKE	$T	CABOD2	11122211	Y	69	117140	115780								921
DTT	MSP	$T	CABOD2	11122211	Y	59	43230	41810	42260	44270	46860	55990	62980	65470	82620	87960	922
DTT	MSP	$T	CABOD2	11122211	Y	69	107670	99690								923
DTT	MSY	$T	CABOD2	11122211	Y	59	8560	8090	7580	12710	13560	14670	16200	25080	26000	30540	924
DTT	MSY	$T	CABOD2	11122211	Y	69	37610	42240								925
DTT	NYC	$T	CABOD2	11122211	Y	59	376630	379800	400050	417090	461060	548820	615020	667370	712160	795470	926
DTT	NYC	$T	CABOD2	11122211	Y	69	873280	799450								927
DTT	ORF	$T	CABOD2	11122211	Y	68	19150	25350	18860							928
DTT	PBI	$T	CABOD2	11122211	Y	68	14390	23080	24110							929
DTT	PHL	$T	CABOD2	11122211	Y	59	83390	89840	95670	95600	105110	113510	137410	150200	183450	202570	930
DTT	PHL	$T	CABOD2	11122211	Y	69	217800	200010								931
DTT	PHX	$T	CABOD2	11122211	Y	59	8340	9160	10760	10310	13020	13460	17060	19350	19390	30520	932
DTT	PHX	$T	CABOD2	11122211	Y	69	41250	42910								933
DTT	PIT	$T	CABOD2	11122211	Y	59	52520	51870	57700	54560	59220	65690	85110	85120	101490	106350	934
DTT	PIT	$T	CABOD2	11122211	Y	69	115090	106040								935
DTT	PVD	$T	CABOD2	11122211	Y	68	16080	19500	18990							936
DTT	ROC	$T	CABOD2	11122211	Y	59	16290	17750	18820	19850	24340	27740	31180	35130	37640	39910	937
DTT	ROC	$T	CABOD2	11122211	Y	69	45190	47400								938
DTT	SAN	$T	CABOD2	11122211	Y	68	29950	35870	33780							939
DTT	SAT	$T	CABOD2	11122211	Y	68	18220	18460	19770							940
DTT	SDF	$T	CABOD2	11122211	Y	59	19090	16840	18810	22280	22600	28310	35660	50140	57480	76040	941
DTT	SDF	$T	CABOD2	11122211	Y	69	99690	82140								942
DTT	SEA	$T	CABOD2	11122211	Y	59	12420	11140	11910	16280	11080	12900	15410	20680	33310	33890	943
DTT	SEA	$T	CABOD2	11122211	Y	69	40670	41720								944
DTT	SFO	$T	CABOD2	11122211	Y	59	31970	35010	38810	40040	48410	54180	69390	93790	109310	117730	945
DTT	SFO	$T	CABOD2	11122211	Y	69	130590	130910								946
DTT	STL	$T	CABOD2	11122211	Y	59	36360	38110	41120	47070	47440	54100	66810	75330	93410	117570	947
DTT	STL	$T	CABOD2	11122211	Y	69	128000	119250								948
DTT	SYR	$T	CABOD2	11122211	Y	59	14030	14960	15320	17620	20060	21050	21830	26550	29130	35570	949
DTT	SYR	$T	CABOD2	11122211	Y	69	35820	36310								950

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
DTT	TPA	ST	CABOD2		11122211	Y	59	32520	31210	29280	35910	43180	42160	50240	62680	76400	113660	951
DTT	TPA	ST	CABOD2		11122211	Y	69	119210	128910									952
DTT	WAS	ST	CABOD2		11122211	Y	59	81230	85500	94670	87840	105720	121250	148470	157990	201380	193040	953
DTT	WAS	ST	CABOD2		11122211	Y	69	226620	195000									954
EEN	NYC	ST	CABOD2		11122211	Y	68	17560	17010	12090								955
EKA	SFO	ST	CABOD2		11122211	Y	59	28400	30350	30480	26800	25020	25780	41590	34740	41490	41410	956
EKA	SFO	ST	CABOD2		11122211	Y	69	48540	49710									957
ELM	NYC	ST	CABOD2		11122211	Y	59	28920	28310	27410	29270	34370	41120	46760	54890	52240	54990	958
ELM	NYC	ST	CABOD2		11122211	Y	69	51050	41090									959
ELP	IAH	ST	CABOD2		11122211	Y	59	8590	8080	10290	10070	13380	17150	20720	25770	26370	35750	960
ELP	IAH	ST	CABOD2		11122211	Y	69	42510	31610									961
ELP	LAX	ST	CABOD2		11122211	Y	59	27900	27250	31120	34800	42650	49750	57040	89940	84900	93400	962
ELP	LAX	ST	CABOD2		11122211	Y	69	101040	97240									963
ELP	NYC	ST	CABOD2		11122211	Y	59	21470	22780	26750	30560	36110	35140	45210	51380	58480	52060	964
ELP	NYC	ST	CABOD2		11122211	Y	69	59780	58440									965
ELP	PHX	ST	CABOD2		11122211	Y	68	27540	30720	26450								966
ELP	SAT	ST	CABOD2		11122211	Y	68	28690	31490	24790								967
ELP	SFO	ST	CABOD2		11122211	Y	68	28320	29590	29540								968
ERI	NYC	ST	CABOD2		11122211	Y	59	15910	15170	15660	16010	18980	22050	25080	28880	34460	36800	969
ERI	NYC	ST	CABOD2		11122211	Y	69	35240	36640									970
ERI	PHL	ST	CABOD2		11122211	Y	68	20110	20550	23710								971
EUG	LAX	ST	CABOD2		11122211	Y	68	15860	20770	19670								972
EUG	SFO	ST	CABOD2		11122211	Y	59	8530	9750	10750	12490	15290	17760	22500	25450	35410	43780	973
EUG	SFO	ST	CABOD2		11122211	Y	69	48480	50200									974
EVV	IND	ST	CABOD2		11122211	Y	59	14790	12900	12900	12140	13880	13750	15800	21420	25620	28860	975
EVV	IND	ST	CABOD2		11122211	Y	69	25360	22870									976
EVV	NYC	ST	CABOD2		11122211	Y	68	18630	19800	19350								977
EVV	STL	ST	CABOD2		11122211	Y	68	16640	15420	12400								978
EWB	NYC	ST	CABOD2		11122211	Y	59	25600	23640	21610	20170	17490	20240	23850	27510	34310	24250	979
EWB	NYC	ST	CABOD2		11122211	Y	69	23890	13080									980
EWN	WAS	ST	CABOD2		11122211	Y	68	22070	18470	16440								981
FAI	NYC	ST	CABOD2		11122211	Y	68	1790	7860	32440								982
FAI	SEA	ST	CABOD2		11122211	Y	68	58010	47010	45920								983
FAR	MSP	ST	CABOD2		11122211	Y	59	20870	21220	15290	22750	24930	26610	33510	33830	48920	53650	984
FAR	MSP	ST	CABOD2		11122211	Y	69	57330	47290									985
FAT	LAX	ST	CABOD2		11122211	Y	59	36940	34760	33320	37980	41180	44110	50760	57590	76310	91880	986
FAT	LAX	ST	CABOD2		11122211	Y	69	105560	107440									987
FAT	SFO	ST	CABOD2		11122211	Y	59	49560	44250	41300	40530	48940	50770	60390	67320	86020	96170	988
FAT	SFO	ST	CABOD2		11122211	Y	69	106760	96150									989
FAY	NYC	ST	CABOD2		11122211	Y	68	14280	19560	20260								990
FAY	PHL	ST	CABOD2		11122211	Y	68	5630	5430	22050								991
FAY	WAS	ST	CABOD2		11122211	Y	68	19930	19930	18160								992
FLL	NYC	ST	CABOD2		11122211	Y	68	246620	360690	434180								993
FLL	PHL	ST	CABOD2		11122211	Y	68	20700	37090	54630								994
FLL	PIT	ST	CABOD2		11122211	Y	68	21410	26920	32190								995
FLL	TPA	ST	CABOD2		11122211	Y	68	25300	32380	26630								996
FMY	NYC	ST	CABOD2		11122211	Y	68	21160	28140	24270								997
FNT	NYC	ST	CABOD2		11122211	Y	68	16310	17090	14540								998
FSD	LAX	ST	CABOD2		11122211	Y	68	18830	17500	17500								999
FSD	MSP	ST	CABOD2		11122211	Y	59	18840	18590	20020	18780	20710	23450	29330	34630	40030	44080	1000

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
FSD	MSP	$T	CABOD2			11122211	Y	69	42610	34880								1001
FWA	NYC	$T	CABOD2			11122211	Y	59	19830	19490	20110	18520	19960	21460	24350	27780	31930	37070	1002
FWA	NYC	$T	CABOD2			11122211	Y	69	42240	38240									1003
GEG	LAX	$T	CABOD2			11122211	Y	68	32200	35690	33560								1004
GEG	PDX	$T	CABOD2			11122211	Y	59	22740	25050	23150	26880	26630	32220	41270	45210	53990	57650	1005
GEG	PDX	$T	CABOD2			11122211	Y	69	60550	58000									1006
GEG	SEA	$T	CABOD2			11122211	Y	59	67130	67040	62550	66790	68490	81350	106310	122460	168220	157490	1007
GEG	SEA	$T	CABOD2			11122211	Y	69	173070	152560									1008
GEG	SFO	$T	CABOD2			11122211	Y	59	17560	17510	18660	17380	20330	25190	31410	39880	44020	47350	1009
GEG	SFO	$T	CABOD2			11122211	Y	69	53800	52620									1010
GFK	MSP	$T	CABOD2			11122211	Y	59	10280	8190	7260	9340	14350	19400	27810	31630	43350	32810	1011
GFK	MSP	$T	CABOD2			11122211	Y	69	33000	28100									1012
GFL	NYC	$T	CABOD2			11122211	Y	59	15280	16100	13630	12210	11260	9270	11700	11290	11590	10500	1013
GFL	NYC	$T	CABOD2			11122211	Y	69	9090	5970									1014
GJT	LAX	$T	CABOD2			11122211	Y	68	15200	17650	18810								1015
GON	WAS	$T	CABOD2			11122211	Y	68	25850	27390	22000								1016
GRB	MSP	$T	CABOD2			11122211	Y	68	20050	19430	18680								1017
GRR	MKE	$T	CABOD2			11122211	Y	59	13100	11410	8880	12210	11260	12100	11450	11810	15200	17830	1018
GRR	MKE	$T	CABOD2			11122211	Y	69	16900	15820									1019
GRR	NYC	$T	CABOD2			11122211	Y	59	17930	17470	17860	17980	18850	20200	22000	24970	31640	38960	1020
GRR	NYC	$T	CABOD2			11122211	Y	69	46570	40890									1021
GSO	MIA	$T	CABOD2			11122211	Y	68	22040	23040	26730								1022
GSO	NYC	$T	CABOD2			11122211	Y	59	34500	37680	44110	46810	59840	76770	86630	85080	112620	130380	1023
GSO	NYC	$T	CABOD2			11122211	Y	69	149480	153240									1024
GSO	PHL	$T	CABOD2			11122211	Y	68	24760	22150	23220								1025
GSO	WAS	$T	CABOD2			11122211	Y	59	9790	10620	12540	23900	27130	28600	35690	40550	46470	42280	1026
GSO	WAS	$T	CABOD2			11122211	Y	69	47170	47040									1027
GSP	NYC	$T	CABOD2			11122211	Y	59	16120	18990	17490	20400	30190	35080	37790	37780	45280	55410	1028
GSP	NYC	$T	CABOD2			11122211	Y	69	66670	68990									1029
GSP	WAS	$T	CABOD2			11122211	Y	68	15170	18830	19700								1030
HAR	NYC	$T	CABOD2			11122211	Y	59	24940	21530	23270	21040	22840	36400	42340	45830	57110	65210	1031
HAR	NYC	$T	CABOD2			11122211	Y	69	59280	55130									1032
HAR	PIT	$T	CABOD2			11122211	Y	59	25560	20680	26950	26280	28520	35400	42010	51560	64250	62630	1033
HAR	PIT	$T	CABOD2			11122211	Y	69	68880	67320									1034
HNL	ITO	$T	CABOD2			11122211	Y	68	371470	353880	308060								1035
HNL	KOA	$T	CABOD2			11122211	Y	68	124510	142580	120880								1036
HNL	LAS	$T	CABOD2			11122211	Y	68	20020	27660	26810								1037
HNL	LAX	$T	CABOD2			11122211	Y	68	394190	428650	479740								1038
HNL	LIH	$T	CABOD2			11122211	Y	68	306960	358090	326840								1039
HNL	MKK	$T	CABOD2			11122211	Y	68	59360	61710	52460								1040
HNL	MSP	$T	CABOD2			11122211	Y	68	13700	16530	18530								1041
HNL	MUE	$T	CABOD2			11122211	Y	68	45540	47750	43750								1042
HNL	NYC	$T	CABOD2			11122211	Y	68	95430	100010	113810								1043
HNL	OAK	$T	CABOD2			11122211	Y	68	3770	9370	18680								1044
HNL	OGG	$T	CABOD2			11122211	Y	68	270810	289590	283710								1045
HNL	PDX	$T	CABOD2			11122211	Y	68	35100	43100	48690								1046
HNL	PHL	$T	CABOD2			11122211	Y	68	18660	21290	21510								1047
HNL	SAN	$T	CABOD2			11122211	Y	68	41170	48510	56630								1048
HNL	SEA	$T	CABOD2			11122211	Y	68	72290	85290	100090								1049
HNL	SFO	$T	CABOD2			11122211	Y	68	283840	289390	291330								1050

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1		2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
HNL	WAS	$T	CABOD2			11122211	Y	68	30550	35390	32540							1051
HPN	WAS	$T	CABOD2			11122211	Y	68	12850	20390	17610							1052
HRL	IAH	$T	CABOD2			11122211	Y	68	26770	18040	15390							1053
HSV	LAX	$T	CABOD2			11122211	Y	59	3920	3630	6710	11790	16300	17130	23270	24100	24540	21630	1054
HSV	LAX	$T	CABOD2			11122211	Y	69	23270	24060								1055
HSV	MCO	$T	CABOD2			11122211	Y	68	19430	18200	15580							1056
HSV	MSY	$T	CABOD2			11122211	Y	59	380	240	630	7030	18170	19280	23270	15140	14480	15970	1057
HSV	MSY	$T	CABOD2			11122211	Y	69	13700	11060								1058
HSV	NYC	$T	CABOD2			11122211	Y	59	14760	14330	13790	14620	18040	22480	27170	26530	28670	34810	1059
HSV	NYC	$T	CABOD2			11122211	Y	69	36800	33090								1060
HSV	WAS	$T	CABOD2			11122211	Y	59	11210	13550	15730	17030	21580	25810	30540	36550	42150	44010	1061
HSV	WAS	$T	CABOD2			11122211	Y	69	46750	41380								1062
HTS	NYC	$T	CABOD2			11122211	Y	68	14410	19070	18470							1063
HTS	PIT	$T	CABOD2			11122211	Y	68	16570	16280	15960							1064
HTS	WAS	$T	CABOD2			11122211	Y	68	14300	19650	16060							1065
HVN	WAS	$T	CABOD2			11122211	Y	68	11810	12460	20440							1066
HYA	NYC	$T	CABOD2			11122211	Y	59	14410	10920	11480	10690	9930	10560	12970	12290	15000	16900	1067
HYA	NYC	$T	CABOD2			11122211	Y	69	15810	12040								1068
IAH	IND	$T	CABOD2			11122211	Y	68	14010	16610	18730							1069
IAH	LAS	$T	CABOD2			11122211	Y	68	21600	29370	29410							1070
IAH	LAX	$T	CABOD2			11122211	Y	59	25040	27690	35530	48320	61120	76860	102460	127500	141070	154120	1071
IAH	LAX	$T	CABOD2			11122211	Y	69	165340	172670								1072
IAH	LBB	$T	CABOD2			11122211	Y	68	26350	27220	25460							1073
IAH	LFT	$T	CABOC2			11122211	Y	59	13830	14450	12970	10730	12470	13350	11760	13870	16280	17540	1074
IAH	LFT	$T	CABOD2			11122211	Y	69	16440	13320								1075
IAH	LIT	$T	CABOD2			11122211	Y	68	16420	21010	20080							1076
IAH	MAF	$T	CABOD2			11122211	Y	59	15190	15520	18220	19930	22400	22910	28880	31920	35060	44570	1077
IAH	MAF	$T	CABOD2			11122211	Y	69	48040	43260								1078
IAH	MEM	$T	CABOD2			11122211	Y	68	31170	36880	39290							1079
IAH	MFE	$T	CABOD2			11122211	Y	68	12310	21740	18900							1080
IAH	MIA	$T	CABOC2			11122211	Y	59	15430	17580	18950	21540	23590	27500	34780	37910	48460	56580	1081
IAH	MIA	$T	CABOD2			11122211	Y	69	70240	86020								1082
IAH	MKC	$T	CABOD2			11122211	Y	59	11180	12300	13720	14370	15460	19890	24760	29340	32630	38020	1083
IAH	MKC	$T	CABOD2			11122211	Y	69	41940	43700								1084
IAH	MSP	$T	CABOD2			11122211	Y	68	21180	24530	27530							1085
IAH	MSY	$T	CABOD2			11122211	Y	59	79400	84030	88700	94190	119010	129180	154580	160660	183240	190110	1086
IAH	MSY	$T	CABOC2			11122211	Y	69	197650	200130								1087
IAH	NYC	$T	CABOD2			11122211	Y	59	79570	87650	93730	96590	116490	134550	156060	167920	199700	240950	1088
IAH	NYC	$T	CABOD2			11122211	Y	69	263640	280800								1089
IAH	OKC	$T	CABOD2			11122211	Y	59	14350	14560	15430	15730	20880	21780	24350	33380	40510	44930	1090
IAH	OKC	$T	CABOD2			11122211	Y	69	49740	47880								1091
IAH	PHL	$T	CABOD2			11122211	Y	59	7940	8900	11670	16160	20200	20930	26110	29910	36730	49930	1092
IAH	PHL	$T	CABOD2			11122211	Y	69	54300	59710								1093
IAH	PHX	$T	CABOD2			11122211	Y	68	17670	20450	21310							1094
IAH	PIT	$T	CABOD2			11122211	Y	68	26860	32660	37590							1095
IAH	SAN	$T	CABOD2			11122211	Y	68	17770	23710	20740							1096
IAH	SAT	$T	CABOD2			11122211	Y	59	43420	45830	45820	48400	51990	57950	69500	90810	93500	115080	1097
IAH	SAT	$T	CABOD2			11122211	Y	69	104080	83830								1098
IAH	SEA	$T	CABOD2			11122211	Y	68	22230	25480	28680							1099
IAH	SFO	$T	CABOD2			11122211	Y	59	10040	11880	14950	20360	24540	27910	41540	48560	62930	65780	1100

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
IAH	SFO	$T	CABOD2		11122211	Y	69	74150	84550								1101
IAH	SHV	$T	CABOD2		11122211	Y	59	14010	14160	12790	13980	15520	15670	17410	16970	21790	23940	1102
IAH	SHV	$T	CABOD2		11122211	Y	69	31980	27710								1103
IAH	STL	$T	CABOD2		11122211	Y	59	14950	15000	15960	19310	23230	28720	35540	40460	46270	53520	1104
IAH	STL	$T	CABOD2		11122211	Y	69	65030	68090								1105
IAH	TPA	$T	CABOD2		11122211	Y	68	18760	21860	23360							1106
IAH	TUL	$T	CABOD2		11122211	Y	59	25840	25530	25740	27640	32120	33340	37880	45430	53120	56550	1107
IAH	TUL	$T	CABOD2		11122211	Y	69	64010	69470								1108
IAH	WAS	$T	CABOD2		11122211	Y	59	18360	18830	15850	10210	19740	21510	31260	33280	41840	50110	1109
IAH	WAS	$T	CABOD2		11122211	Y	69	49020	56160								1110
ICT	LAX	$T	CABOD2		11122211	Y	59	11460	11450	10060	10920	10830	12360	17800	24130	30860	37390	1111
ICT	LAX	$T	CABOD2		11122211	Y	69	44220	39690								1112
ICT	MKC	$T	CABOD2		11122211	Y	59	27890	28350	25410	26810	30280	33530	39270	42820	48550	53560	1113
ICT	MKC	$T	CABOD2		11122211	Y	69	49870	40580								1114
ICT	NYC	$T	CABOD2		11122211	Y	59	12960	10890	10470	9440	10450	12500	18010	20930	25880	30980	1115
ICT	NYC	$T	CABOD2		11122211	Y	69	33240	28740								1116
ICT	SEA	$T	CABOD2		11122211	Y	68	19370	19940	17000							1117
ICT	SFO	$T	CABOD2		11122211	Y	68	14760	18610	17790							1118
ICT	STL	$T	CABOD2		11122211	Y	68	22130	23950	18430							1119
ICT	TUL	$T	CABOD2		11122211	Y	68	16550	17830	14520							1120
IND	LAX	$T	CABOD2		11122211	Y	59	15350	15630	14160	17980	22950	27250	35330	45210	54520	66550	1121
IND	LAX	$T	CABOD2		11122211	Y	69	77240	71760								1122
IND	MEM	$T	CABOD2		11122211	Y	68	19360	20170	18840							1123
IND	MIA	$T	CABOD2		11122211	Y	59	22350	23730	22350	19830	24010	25430	29070	32360	40820	55740	1124
IND	MIA	$T	CABOD2		11122211	Y	69	55910	55030								1125
IND	MKC	$T	CABOD2		11122211	Y	68	26940	28710	26840							1126
IND	MSP	$T	CABOD2		11122211	Y	68	19400	23150	24750							1127
IND	NYC	$T	CABOD2		11122211	Y	59	69490	69580	72140	84860	91200	108750	137280	146520	182330	196580	1128
IND	NYC	$T	CABOD2		11122211	Y	69	213050	200660								1129
IND	PHL	$T	CABOD2		11122211	Y	59	14090	16110	16360	15200	14620	17650	27200	33440	44320	55760	1130
IND	PHL	$T	CABOD2		11122211	Y	69	65060	60900								1131
IND	PIT	$T	CABOD2		11122211	Y	59	15650	15900	13000	14740	14340	16870	21770	24820	31550	38570	1132
IND	PIT	$T	CABOD2		11122211	Y	69	41670	37200								1133
IND	SDF	$T	CABOD2		11122211	Y	59	12920	11150	8810	7870	7740	5290	4490	4600	9720	9720	1134
IND	SDF	$T	CABOD2		11122211	Y	69	10440	10620								1135
IND	SFO	$T	CABOD2		11122211	Y	68	32770	37960	38420							1136
IND	STL	$T	CABOD2		11122211	Y	59	20080	19010	18510	24010	26500	30610	37510	40730	52490	57160	1137
IND	STL	$T	CABOD2		11122211	Y	69	56700	47680								1138
IND	TPA	$T	CABOD2		11122211	Y	68	24740	26730	32090							1139
IND	WAS	$T	CABOD2		11122211	Y	59	22950	23650	23390	25370	27770	31350	42670	49340	60080	67780	1140
IND	WAS	$T	CABOD2		11122211	Y	69	76740	72570								1141
IPT	NYC	$T	CABOD2		11122211	Y	59	18110	15720	15310	15380	15200	20400	20300	19150	18240	18490	1142
IPT	NYC	$T	CABOD2		11122211	Y	69	16240	12760								1143
ISP	WAS	$T	CABOD2		11122211	Y	68	26650	29120	35110							1144
ITH	NYC	$T	CABOD2		11122211	Y	59	10910	33360	26920	28990	33580	35030	39050	46570	47320	48920	1145
ITH	NYC	$T	CABOD2		11122211	Y	69	46510	35740								1146
ITO	LAX	$T	CABOD2		11122211	Y	68	19180	17610	21160							1147
ITO	OGG	$T	CABOD2		11122211	Y	68	19900	20260	17450							1148
JAN	MEM	$T	CABOD2		11122211	Y	68	22760	22090	24470							1149
JAN	MSY	$T	CABOD2		11122211	Y	59	11760	11790	13470	13980	15290	14520	15330	15660	21370	22830	1150

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
JAN	MSY	$T	CABOD2		11122211	Y	69	23900	22250								1151
JAN	NYC	$T	CABOD2		11122211	Y	68	20630	21900	26230							1152
JAX	MCO	$T	CABOD2		11122211	Y	59	12910	10360	11100	10930	11770	12140	11030	9260	7920	5380	1153
JAX	MCO	$T	CABOD2		11122211	Y	69	5630	4120									1154
JAX	MIA	$T	CABOD2		11122211	Y	59	56810	58950	60650	63000	66540	73940	81920	87550	96920	102470	1155
JAX	MIA	$T	CABOD2		11122211	Y	69	104520	97070									1156
JAX	MSY	$T	CABOD2		11122211	Y	68	18250	20410	20960								1157
JAX	NYC	$T	CABOD2		11122211	Y	59	61580	58590	65970	63860	70750	78030	87770	89630	109190	114240	1158
JAX	NYC	$T	CABOD2		11122211	Y	69	131820	126780									1159
JAX	ORF	$T	CABOD2		11122211	Y	68	17310	24770	19930								1160
JAX	PHL	$T	CABOD2		11122211	Y	68	33720	36000	37560								1161
JAX	PNS	$T	CABOD2		11122211	Y	68	17040	16920	10340								1162
JAX	TPA	$T	CABOD2		11122211	Y	59	26150	25720	24570	25860	28120	31610	31790	30930	31390	32950	1163
JAX	TPA	$T	CABOD2		11122211	Y	69	31860	21950									1164
JAX	WAS	$T	CABOD2		11122211	Y	59	16600	17260	17140	18460	20320	24590	28090	29970	37060	36900	1165
JAX	WAS	$T	CABOD2		11122211	Y	69	42380	44150									1166
JNU	SEA	$T	CABOD2		11122211	Y	68	22460	19390	21140								1167
KTN	SEA	$T	CABOD2		11122211	Y	68	16790	14310	15890								1168
LAN	NYC	$T	CABOD2		11122211	Y	68	21900	23320	18830								1169
LAS	LAX	$T	CABOD2		11122211	Y	59	221730	257830	237770	312860	423330	528580	607810	684960	799420	810900	1170
LAS	LAX	$T	CABOD2		11122211	Y	69	661570	565600									1171
LAS	MKC	$T	CABOD2		11122211	Y	68	25930	35520	37970								1172
LAS	MKE	$T	CABOD2		11122211	Y	68	18990	20430	20950								1173
LAS	MSP	$T	CABOD2		11122211	Y	59	5200	4950	5090	6390	8310	8860	10490	15110	18250	29890	1174
LAS	MSP	$T	CABOD2		11122211	Y	69	42340	42950									1175
LAS	NYC	$T	CABOD2		11122211	Y	59	15100	19120	24620	27440	30710	37190	44200	55410	82820	100890	1176
LAS	NYC	$T	CABOD2		11122211	Y	69	123060	118200									1177
LAS	OAK	$T	CABOD2		11122211	Y	68	24780	23350	8040								1178
LAS	ONT	$T	CABOD2		11122211	Y	59	7330	11670	15250	23930	32500	37560	40320	43840	53050	47440	1179
LAS	ONT	$T	CABOD2		11122211	Y	69	48390	45820									1180
LAS	PHL	$T	CABOD2		11122211	Y	68	20130	25110	25860								1181
LAS	PHX	$T	CABOD2		11122211	Y	59	24870	28220	30510	40490	51780	54690	52250	61450	60540	57630	1182
LAS	PHX	$T	CABOD2		11122211	Y	69	69450	68420									1183
LAS	RNO	$T	CABOD2		11122211	Y	59	15610	17980	20230	25300	31380	33700	37910	43760	54250	55440	1184
LAS	RNO	$T	CABOD2		11122211	Y	69	66010	73290									1185
LAS	SAN	$T	CABOD2		11122211	Y	59	10740	11180	11040	13480	20170	22020	27450	27600	37090	53020	1186
LAS	SAN	$T	CABOD2		11122211	Y	69	61710	61680									1187
LAS	SEA	$T	CABOD2		11122211	Y	68	26820	30140	24850								1188
LAS	SFO	$T	CABOD2		11122211	Y	59	77430	69100	65140	75810	110520	101400	133550	162670	181870	181260	1189
LAS	SFO	$T	CABOD2		11122211	Y	69	170660	149540									1190
LAS	SJC	$T	CABOD2		11122211	Y	68	11660	33520	38710								1191
LAS	SLC	$T	CABOD2		11122211	Y	59	12300	12680	12450	15290	18380	21520	22130	31320	33130	38030	1192
LAS	SLC	$T	CABOD2		11122211	Y	69	44160	39900									1193
LAS	SNA	$T	CABOD2		11122211	Y	59	130	1080	460	1590	2430	1920	11640	24150	35390	51030	1194
LAS	SNA	$T	CABOD2		11122211	Y	69	67030	83830									1195
LAS	STL	$T	CABOD2		11122211	Y	68	28400	36470	36070								1196
LAX	LIH	$T	CABOD2		11122211	Y	68	56460	73020	84690								1197
LAX	LIT	$T	CABOD2		11122211	Y	68	19000	23180	26660								1198
LAX	MCO	$T	CABOD2		11122211	Y	68	23090	24520	26960								1199
LAX	MEM	$T	CABOD2		11122211	Y	59	9900	9880	11630	12850	17170	22930	25070	35430	39390	46570	1200

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
LAX	MEM	$T	CABOD2		11122211	Y	69	55140	54540								1201
LAX	MIA	$T	CABOD2		11122211	Y	59	32380	39140	40640	40310	44970	55290	78090	84820	112530	117500	1202
LAX	MIA	$T	CABOD2		11122211	Y	69	140420	150110									1203
LAX	MKC	$T	CABOD2		11122211	Y	59	48330	58440	60210	63560	73270	80950	93380	112820	130330	139740	1204
LAX	MKC	$T	CABOD2		11122211	Y	69	152660	152870									1205
LAX	MKE	$T	CABOD2		11122211	Y	59	18810	16990	17380	21480	23500	29370	33840	17410	56670	67320	1206
LAX	MKE	$T	CABOD2		11122211	Y	69	69550	64190									1207
LAX	MRY	$T	CABOD2		11122211	Y	59	37990	40390	41110	36520	40980	45540	49200	62310	87920	101100	1208
LAX	MRY	$T	CABOD2		11122211	Y	69	126740	129780									1209
LAX	MSP	$T	CABOD2		11122211	Y	59	50350	54190	58860	59070	75440	83580	93860	115170	155760	186910	1210
LAX	MSP	$T	CABOD2		11122211	Y	69	177560	177140									1211
LAX	MSY	$T	CABOD2		11122211	Y	59	17700	18790	19040	20980	30330	35000	47540	60790	70240	78540	1212
LAX	MSY	$T	CABOD2		11122211	Y	69	91320	100370									1213
LAX	NYC	$T	CABOD2		11122211	Y	59	484760	473690	452100	452130	510330	613660	694290	794500	926140	992820	1214
LAX	NYC	$T	CABOD2		11122211	Y	69	1081300	1055070									1215
LAX	OAK	$C	CABOD2		11122211	Y	68	130000	124900	43310								1216
LAX	OAK	$P	PUCOD2		11122211	Y	68	569488	551356	638513								1217
LAX	OAK	$T	C&POD2		11122211	Y	68	699488	676256	681823								1218
LAX	OGG	$T	CABOD2		11122211	Y	68	38320	42180	48840								1219
LAX	OKC	$T	CABOD2		11122211	Y	59	21520	20030	23890	26820	31470	37810	41220	50040	60530	66940	1220
LAX	OKC	$T	CABOD2		11122211	Y	69	81050	80750									1221
LAX	OMA	$T	CABOD2		11122211	Y	59	21300	24070	24870	25230	30150	36190	41030	50300	59480	71170	1222
LAX	OMA	$T	CABOD2		11122211	Y	69	70500	71070									1223
LAX	PDX	$T	CABOD2		11122211	Y	59	66800	71910	77360	75140	88120	108880	122240	146730	172780	197890	1224
LAX	PDX	$T	CABOD2		11122211	Y	69	204740	177830									1225
LAX	PHL	$T	CABOD2		11122211	Y	59	59300	69960	79770	85700	89520	104200	121590	147050	181680	204350	1226
LAX	PHL	$T	CABOD2		11122211	Y	69	212980	200400									1227
LAX	PHX	$T	CABOD2		11122211	Y	59	135730	142530	160120	175680	197820	228660	258660	290020	313890	329320	1228
LAX	PHX	$T	CABOD2		11122211	Y	69	351660	317800									1229
LAX	PIT	$T	CABOD2		11122211	Y	59	35050	37130	36040	39520	47950	54980	67000	73020	99130	110830	1230
LAX	PIT	$T	CABOD2		11122211	Y	69	117990	108220									1231
LAX	PSP	$T	CABOD2		11122211	Y	59	17380	15720	15230	16600	20920	22350	24860	29650	31480	33820	1232
LAX	PSP	$T	CABOD2		11122211	Y	69	32650	28250									1233
LAX	RNO	$T	CABOD2		11122211	Y	59	21240	29320	27560	29390	36080	45180	49730	51970	61830	77540	1234
LAX	RNO	$T	CABOD2		11122211	Y	69	75670	71110									1235
LAX	ROC	$T	CABOD2		11122211	Y	68	29990	32130	27260								1236
LAX	SAN	$C	CABOD2		11122211	Y	59	170800	163050	151930	130810	152980	166600	192750	216420	220980	172180	1237
LAX	SAN	$C	CABOD2		11122211	Y	69	178540	146070									1238
LAX	SAN	$P	PUCOD2		11122211	Y	59	0	0	92758	127676	162275	198332	282200	444300	552006	542362	1239
LAX	SAN	$P	PUCOD2		11122211	Y	69	595182	578246									1240
LAX	SAN	$T	C&POD2		11122211	Y	59	170800	163050	244688	258486	315255	364932	474950	660720	772986	714542	1241
LAX	SAN	$T	C&POD2		11122211	Y	69	773722	724316									1242
LAX	SAT	$T	CABOD2		11122211	Y	59	17900	15310	18680	22350	23370	29290	39560	56850	57690	70230	1243
LAX	SAT	$T	CABOD2		11122211	Y	69	74120	75550									1244
LAX	SBA	$T	CABOD2		11122211	Y	59	14540	12210	12220	12270	14390	17160	19960	25460	32090	31010	1245
LAX	SBA	$T	CABOD2		11122211	Y	69	32980	31110									1246
LAX	SCK	$T	CABOD2		11122211	Y	68	18640	22180	17350								1247
LAX	SDF	$T	CABOD2		11122211	Y	68	28290	32700	34250								1248
LAX	SEA	$T	CABOD2		11122211	Y	59	166190	171070	178070	208890	190450	219410	246390	332570	392690	396420	1249
LAX	SEA	$T	CABOD2		11122211	Y	69	387750	329080									1250

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
LAX	SFO	$C	CABOD2		11122211	Y	59	958760	883600	863990	781250	918970	1187090	1537770	1483660	1511550	1278720	1251
LAX	SFO	$C	CABOD2		11122211	Y	69	1141650	920830									1252
LAX	SFO	$P	PUCOD2		11122211	Y	59	206000	385000	473230	743063	1023245	1172568	1292600	1660013	1646408	824224	1253
LAX	SFO	$P	PUCOD2		11122211	Y	69	857429	1005880									1254
LAX	SFO	$T	C&POD2		11122211	Y	59	1164760	1268600	1337220	1524313	1942215	2359658	2830370	3143673	3157958	2102944	1255
LAX	SFO	$T	C&POD2		11122211	Y	69	1999079	1926710									1256
LAX	SHV	$T	CABOD2		11122211	Y	68	16360	18180	20090								1257
LAX	SJC	$C	CABOD2		11122211	Y	59	48250	56010	51390	70450	62660	58300	56060	60870	15270	11660	1258
LAX	SJC	$C	CABOD2		11122211	Y	69	52980	1030									1259
LAX	SJC	$P	PUCOD2		11122211	Y	59	0	0	0	0	0	0	0	254630	556919	633659	1260
LAX	SJC	$P	PUCOD2		11122211	Y	69	560481	621958									1261
LAX	SJC	$T	C&POD2		11122211	Y	59	48250	56010	51390	70450	62660	58300	56060	315500	572189	645319	1262
LAX	SJC	$T	C&POD2		11122211	Y	69	613461	622988									1263
LAX	SLC	$T	CABOD2		11122211	Y	59	54260	59080	62700	63230	66250	85440	93320	112690	125080	143640	1264
LAX	SLC	$T	CABOD2		11122211	Y	69	144950	132800									1265
LAX	SMF	$C	CABOD2		11122211	Y	59	124090	124220	137110	142260	176530	203070	228930	268960	280680	232780	1266
LAX	SMF	$C	CABOD2		11122211	Y	69	209920	180640									1267
LAX	SMF	$P	PUCOD2		11122211	Y	59	0	0	0	0	0	0	0	0	195363	285406	1268
LAX	SMF	$P	PUCOD2		11122211	Y	69	346941	370389									1269
LAX	SMF	$T	C&POD2		11122211	Y	59	124090	124220	137110	142260	176530	203070	228930	268960	476043	518186	1270
LAX	SMF	$T	C&POD2		11122211	Y	69	556861	551029									1271
LAX	SMX	$T	CABOD2		11122211	Y	59	16220	8530	8100	10140	10720	10490	12460	15120	17880	17060	1272
LAX	SMX	$T	CABOD2		11122211	Y	69	13160	15320									1273
LAX	STL	$T	CABOD2		11122211	Y	59	49320	55830	52470	59650	67940	74100	93220	116720	145350	159440	1274
LAX	STL	$T	CABOD2		11122211	Y	69	173970	164500									1275
LAX	SYR	$T	CABOD2		11122211	Y	68	22460	23830	25440								1276
LAX	TPA	$T	CABOD2		11122211	Y	59	11010	9150	11420	13030	15620	19620	24210	24660	33360	30050	1277
LAX	TPA	$T	CABOD2		11122211	Y	69	38710	38650									1278
LAX	TUL	$T	CABOD2		11122211	Y	59	14460	14400	15560	18650	22370	26960	30840	38930	42140	52100	1279
LAX	TUL	$T	CABOD2		11122211	Y	69	59270	58800									1280
LAX	TUS	$T	CABOD2		11122211	Y	59	48470	47570	47640	52190	55090	56240	70030	86950	101580	117960	1281
LAX	TUS	$T	CABOD2		11122211	Y	69	138900	133070									1282
LAX	WAS	$T	CABOD2		11122211	Y	59	80190	53070	44840	41590	121280	139070	176470	205480	238680	216670	1283
LAX	WAS	$T	CABOD2		11122211	Y	69	257560	245830									1284
LCH	MSY	$T	CABOD2		11122211	Y	68	17370	14770	15260								1285
LEB	NYC	$T	CABOD2		11122211	Y	68	19730	16140	14400								1286
LEX	NYC	$T	CABOD2		11122211	Y	68	27050	33190	33220								1287
LEX	WAS	$T	CABOD2		11122211	Y	68	21520	24960	22740								1288
LFT	MSY	$T	CABOD2		11122211	Y	59	17800	19040	18880	16450	21130	22410	22250	27350	31440	33220	1289
LFT	MSY	$T	CABOD2		11122211	Y	69	31630	28910									1290
LGB	SFO	$C	CABOD2		11122211	Y	68	55130	65340	58540								1291
LGB	SFO	$P	PUCOD2		11122211	Y	68	4333	2059	3137								1292
LGB	SFO	$T	C&POD2		11122211	Y	68	59463	67399	61677								1293
LIH	SFO	$T	CABOD2		11122211	Y	68	38070	43220	36900								1294
LIT	MEM	$T	CABOD2		11122211	Y	59	13790	11920	14350	14770	18110	19930	24060	24870	26940	25960	1295
LIT	MEM	$T	CABOD2		11122211	Y	69	22270	18850									1296
LIT	MKC	$T	CABOD2		11122211	Y	68	15850	17610	17360								1297
LIT	NYC	$T	CABOD2		11122211	Y	68	23050	24930	27400								1298
LIT	STL	$T	CABOD2		11122211	Y	68	23770	26590	28320								1299
LIT	WAS	$T	CABOD2		11122211	Y	68	14760	16770	17840								1300

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
LNK	MKC	$T	CABOD2		11122211	Y	68	21700	19130	16830							1301
MBS	NYC	$T	CABOD2		11122211	Y	68	26370	31830	27670							1302
MCO	MIA	$T	CABOD2		11122211	Y	59	34390	36610	34100	38780	42060	37100	31580	33730	47890	50860	1303
MCO	MIA	$T	CABOD2		11122211	Y	69	48150	64870								1304
MCO	NYC	$T	CABOD2		11122211	Y	59	30340	34710	36660	43140	51900	56860	68530	67320	85600	91500	1305
MCO	NYC	$T	CABOD2		11122211	Y	69	104820	107720								1306
MCO	PHL	$T	CABOD2		11122211	Y	68	22390	25300	25650							1307
MCO	WAS	$T	CABOD2		11122211	Y	59	17530	18400	21080	27340	26120	24660	29300	28890	37900	37510	1308
MCO	WAS	$T	CABOD2		11122211	Y	69	43600	42670								1309
MEM	MIA	$T	CABOD2		11122211	Y	68	29490	34130	32510							1310
MEM	MKC	$T	CABOD2		11122211	Y	68	29530	31410	30830							1311
MEM	MSY	$T	CABOD2		11122211	Y	59	20230	19050	22440	23400	25360	32440	35790	41960	48290	54670	1312
MEM	MSY	$T	CABOD2		11122211	Y	69	61470	59260								1313
MEM	NYC	$T	CABOD2		11122211	Y	59	35200	36960	38500	40510	48130	53950	58350	72560	78910	89350	1314
MEM	NYC	$T	CABOD2		11122211	Y	69	109130	106530								1315
MEM	PHL	$T	CABOD2		11122211	Y	68	26250	32150	30620							1316
MEM	SDF	$T	CABOD2		11122211	Y	68	20410	22490	27790							1317
MEM	SFO	$T	CABOD2		11122211	Y	68	22490	27310	29740							1318
MEM	STL	$T	CABOD2		11122211	Y	59	23150	21780	25380	27700	30480	38790	40850	47660	57100	60960	1319
MEM	STL	$T	CABOD2		11122211	Y	69	63230	61730								1320
MEM	TYS	$T	CABOD2		11122211	Y	68	28910	29600	27770							1321
MEM	WAS	$T	CABOD2		11122211	Y	59	14860	15800	17760	17790	21340	23450	28690	34940	34520	37470	1322
MEM	WAS	$T	CABOD2		11122211	Y	69	46060	45880								1323
MFR	PDX	$T	CABOD2		11122211	Y	59	15530	14230	13570	10770	12150	15680	17480	19430	22430	23190	1324
MFR	PDX	$T	CABOD2		11122211	Y	69	25440	24240								1325
MFR	SFO	$T	CABOD2		11122211	Y	68	26800	29170	29450							1326
MGM	NYC	$T	CABOD2		11122211	Y	68	18210	22130	25550							1327
MHT	NYC	$T	CABOD2		11122211	Y	59	12200	10960	15300	15190	16020	18280	21370	24860	40210	38610	1328
MHT	NYC	$T	CABOD2		11122211	Y	69	38670	26460								1329
MIA	MKC	$T	CABOD2		11122211	Y	59	11170	10940	12320	9750	16020	13100	20840	22490	73890	39890	1330
MIA	MKC	$T	CABOD2		11122211	Y	69	42450	40920								1331
MIA	MKE	$T	CABOD2		11122211	Y	59	18670	15920	11160	11450	13090	13580	19490	25230	35210	30560	1332
MIA	MKE	$T	CABOD2		11122211	Y	69	34300	31830								1333
MIA	MSP	$T	CABOD2		11122211	Y	59	21370	20210	20050	22030	21360	26120	35370	41380	54750	46420	1334
MIA	MSP	$T	CABOD2		11122211	Y	69	52150	55500								1335
MIA	MSY	$T	CABOD2		11122211	Y	59	30600	31540	34440	34690	37220	40070	49970	54020	68780	78170	1336
MIA	MSY	$T	CABOD2		11122211	Y	69	90500	94730								1337
MIA	NYC	$T	CABOD2		11122211	Y	59	953540	931250	914280	855090	945080	1078890	1283550	1261340	1628650	1598880	1338
MIA	NYC	$T	CABOD2		11122211	Y	69	1707820	1693970									1339
MIA	ORF	$T	CABOD2		11122211	Y	68	19130	21050	19610								1340
MIA	PBI	$T	CABOD2		11122211	Y	59	12690	10930	21850	29520	27890	32940	41200	25860	13070	9890	1341
MIA	PBI	$T	CABOD2		11122211	Y	69	6690	7010									1342
MIA	PHL	$T	CABOD2		11122211	Y	59	125010	112600	120250	126360	144000	153730	202720	211170	279770	313310	1343
MIA	PHL	$T	CABOD2		11122211	Y	69	278410	250730									1344
MIA	PIT	$T	CABOD2		11122211	Y	59	71210	74630	89880	77330	85300	92630	113240	115910	148920	149410	1345
MIA	PIT	$T	CABOD2		11122211	Y	69	157230	142720									1346
MIA	PNS	$T	CABOD2		11122211	Y	68	15100	18240	11340								1347
MIA	PVD	$T	CABOD2		11122211	Y	59	8580	12740	10060	6370	10730	7580	10330	9940	14090	21670	1348
MIA	PVD	$T	CABOD2		11122211	Y	69	26940	31750									1349
MIA	RDU	$T	CABOD2		11122211	Y	68	18600	23740	25880								1350

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
MIA	ROC	$T	CABOD2	11122211	Y	59	10660	10110	10180	10290	10350	12130	17280	23670	31310	39470	1351
MIA	ROC	$T	CABOD2	11122211	Y	69	44280	41260									1352
MIA	SAT	$T	CABOD2	11122211	Y	68	17840	18210	18620								1353
MIA	SDF	$T	CABOD2	11122211	Y	59	16790	17510	15370	15530	17290	18320	21530	23100	29860	38920	1354
MIA	SDF	$T	CABOD2	11122211	Y	69	37970	37590									1355
MIA	SEA	$T	CABOD2	11122211	Y	68	17590	18990	18400								1356
MIA	SFO	$T	CABOD2	11122211	Y	59	12910	16270	15800	19250	22200	26910	36710	44260	54610	68650	1357
MIA	SFO	$T	CABOD2	11122211	Y	69	73950	80640									1358
MIA	STL	$T	CABOD2	11122211	Y	59	39240	44380	49780	42510	44390	45820	48780	58310	75940	89800	1359
MIA	STL	$T	CABOD2	11122211	Y	69	96190	85430									1360
MIA	SYR	$T	CABOD2	11122211	Y	68	25550	28360	23410								1361
MIA	TLH	$T	CABOD2	11122211	Y	59	13290	14700	16220	14870	18960	21180	24020	23100	36250	38540	1362
MIA	TLH	$T	CABOD2	11122211	Y	69	46770	52360									1363
MIA	TPA	$T	CABOD2	11122211	Y	59	122330	130000	128750	139980	153080	164830	192600	186740	181880	172940	1364
MIA	TPA	$T	CABOD2	11122211	Y	69	182850	206180									1365
MIA	WAS	$T	CABOD2	11122211	Y	59	99740	98820	93550	90710	105590	114830	142410	144990	195470	17670	1366
MIA	WAS	$T	CABOD2	11122211	Y	69	207230	209370									1367
MKC	MKE	$T	CABOD2	11122211	Y	68	16570	20950	18920								1368
MKC	MSP	$T	CABOD2	11122211	Y	59	27960	29730	31810	33370	34940	41230	47760	57370	65370	72160	1369
MKC	MSP	$T	CABOD2	11122211	Y	69	78700	77010									1370
MKC	MSY	$T	CABOD2	11122211	Y	68	23670	25550	28090								1371
MKC	NYC	$T	CABOD2	11122211	Y	59	76290	76240	78570	78780	86700	104860	126680	136870	155330	174710	1372
MKC	NYC	$T	CABOD2	11122211	Y	69	193330	172910									1373
MKC	OKC	$T	CABOD2	11122211	Y	59	17340	19460	19050	20330	19940	23880	26470	30780	35710	36760	1374
MKC	OKC	$T	CABOD2	11122211	Y	69	36400	38820									1375
MKC	OMA	$T	CABOD2	11122211	Y	59	38480	42170	39750	38560	43330	50070	55520	58900	67450	75840	1376
MKC	OMA	$T	CABOD2	11122211	Y	69	71140	65040									1377
MKC	PHL	$T	CABOD2	11122211	Y	59	13630	13290	13300	15740	17470	20130	25370	27350	32470	46910	1378
MKC	PHL	$T	CABOD2	11122211	Y	69	50130	44620									1379
MKC	PHX	$T	CABOD2	11122211	Y	68	27780	32230	32390								1380
MKC	PIT	$T	CABOD2	11122211	Y	68	22850	23150	23090								1381
MKC	SAN	$T	CABOD2	11122211	Y	68	19780	24950	21820								1382
MKC	SAT	$T	CABOD2	11122211	Y	68	22710	22920	23450								1383
MKC	SDF	$T	CABOD2	11122211	Y	68	17330	21170	16250								1384
MKC	SEA	$T	CABOD2	11122211	Y	68	26810	30410	30330								1385
MKC	SFO	$T	CABOD2	11122211	Y	59	23530	23130	25260	26460	33450	35300	44640	59340	74070	82210	1386
MKC	SFO	$T	CABOD2	11122211	Y	69	90680	83810									1387
MKC	SGF	$T	CABOD2	11122211	Y	68	15500	22350	19930								1388
MKC	STL	$T	CABOD2	11122211	Y	59	87300	82630	88540	99460	100980	112970	128360	133060	155300	182530	1389
MKC	STL	$T	CABOD2	11122211	Y	69	185980	160030									1390
MKC	TUL	$T	CABOD2	11122211	Y	59	19970	19840	19090	20260	19540	22300	25370	26980	33970	35390	1391
MKC	TUL	$T	CABOD2	11122211	Y	69	34230	32740									1392
MKC	WAS	$T	CABOD2	11122211	Y	59	26350	27030	24280	12700	15750	11620	13890	22040	31780	52620	1393
MKC	WAS	$T	CABOD2	11122211	Y	69	65610	72660									1394
MKE	MSP	$T	CABOD2	11122211	Y	59	54650	51990	52390	52350	55710	60820	75670	72150	102160	97070	1395
MKE	MSP	$T	CABOD2	11122211	Y	69	106950	104410									1396
MKE	NYC	$T	CABOD2	11122211	Y	59	95500	89560	87770	93980	96760	114190	130750	123470	154950	147950	1397
MKE	NYC	$T	CABOD2	11122211	Y	69	174050	169860									1398
MKE	PHL	$T	CABOD2	11122211	Y	59	16100	25630	15310	16850	16770	19380	22760	25630	31440	36190	1399
MKE	PHL	$T	CABOD2	11122211	Y	69	36780	38750									1400

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
MKE	PIT	$T	CABOD2			11122211	Y	68	25770	26660	25510							1401
MKE	SFO	$T	CABOD2			11122211	Y	59	8630	8700	8660	10090	12190	14160	19250	22870	31270	38630	1402
MKE	SFO	$T	CABOD2			11122211	Y	69	41390	40890								1403
MKE	STL	$T	CABOD2			11122211	Y	59	13250	12590	11740	12950	13330	13780	18920	22590	27230	35530	1404
MKE	STL	$T	CABOD2			11122211	Y	69	38300	37140									1405
MKE	TPA	$T	CABOD2			11122211	Y	68	16290	21000	24650								1406
MKE	WAS	$T	CABOD2			11122211	Y	59	21780	20310	22150	20330	23790	26550	29610	33000	41960	45260	1407
MKE	WAS	$T	CABOD2			11122211	Y	69	55210	54550									1408
MLB	NYC	$T	CABOD2			11122211	Y	68	24500	29080	26910								1409
MLI	MSP	$T	CABOD2			11122211	Y	68	20440	21370	19980								1410
MLI	NYC	$T	CABOD2			11122211	Y	68	18870	21230	21020								1411
MLI	STL	$T	CABOD2			11122211	Y	68	20460	19160	17140								1412
MLU	MSY	$T	CABOD2			11122211	Y	68	18620	19960	19680								1413
MOB	MSY	$T	CABOD2			11122211	Y	68	18670	21440	20030								1414
MOB	NYC	$T	CABOD2			11122211	Y	59	18920	18250	17510	18270	20320	22870	23510	20150	26160	31930	1415
MOB	NYC	$T	CABOD2			11122211	Y	69	37180	36180									1416
MRY	SFO	$T	CABOD2			11122211	Y	59	22910	21740	21970	23650	25310	31540	36670	45970	54020	50590	1417
MRY	SFO	$T	CABOD2			11122211	Y	69	49210	44700									1418
MSN	MSP	$T	CABOD2			11122211	Y	59	12940	13930	12780	14150	15480	15900	23040	26040	33770	37310	1419
MSN	MSP	$T	CABOD2			11122211	Y	69	37950	30330									1420
MSN	NYC	$T	CABOD2			11122211	Y	59	14090	14010	15660	14800	15490	20240	30750	33180	43310	42540	1421
MSN	NYC	$T	CABOD2			11122211	Y	69	48450	42870									1422
MSN	WAS	$T	CABOD2			11122211	Y	68	19500	21630	20860								1423
MSP	MSY	$T	CABOD2			11122211	Y	68	17430	17600	21520								1424
MSP	NYC	$T	CABOD2			11122211	Y	59	119130	119340	131530	137450	149730	171230	195300	196850	254260	241330	1425
MSP	NYC	$T	CABOD2			11122211	Y	69	289480	268160									1426
MSP	OMA	$T	CABOD2			11122211	Y	59	28310	29810	29390	31620	33460	35490	42410	47010	57070	63110	1427
MSP	OMA	$T	CABOD2			11122211	Y	69	68740	74650									1428
MSP	PDX	$T	CABOD2			11122211	Y	68	21760	25160	27500								1429
MSP	PHL	$T	CABOD2			11122211	Y	59	20770	19280	22150	22670	26730	31230	40570	42960	56110	69550	1430
MSP	PHL	$T	CABOD2			11122211	Y	69	79720	69310									1431
MSP	PHX	$T	CABOD2			11122211	Y	59	9270	8870	10660	11940	13930	16710	17840	25210	28720	36980	1432
MSP	PHX	$T	CABOD2			11122211	Y	69	46640	49470									1433
MSP	PIT	$T	CABOD2			11122211	Y	68	27790	31190	26760								1434
MSP	RST	$T	CABOD2			11122211	Y	59	17640	13570	8830	9990	10230	10520	12380	10280	13410	16460	1435
MSP	RST	$T	CABOD2			11122211	Y	69	16300	9690									1436
MSP	SAN	$T	CABOD2			11122211	Y	59	9000	7490	8870	8880	11990	17160	21040	27760	32860	42390	1437
MSP	SAN	$T	CABOD2			11122211	Y	69	43420	41260									1438
MSP	SAT	$T	CABOD2			11122211	Y	68	20240	21090	23870								1439
MSP	SDF	$T	CABOD2			11122211	Y	68	14200	16310	24330								1440
MSP	SEA	$T	CABOD2			11122211	Y	59	18010	16820	17840	23800	19800	20530	27660	35470	59100	53730	1441
MSP	SEA	$T	CABOD2			11122211	Y	69	63390	61570									1442
MSP	SFO	$T	CABOD2			11122211	Y	59	26220	28470	29580	30690	42070	51750	58470	76570	100340	129060	1443
MSP	SFO	$T	CABOD2			11122211	Y	69	128770	126920									1444
MSP	SLC	$T	CABOD2			11122211	Y	68	17450	17550	16330								1445
MSP	STL	$T	CABOD2			11122211	Y	59	19730	21570	23380	26020	28280	33220	38530	49870	61550	72990	1446
MSP	STL	$T	CABOD2			11122211	Y	69	74080	80330									1447
MSP	TPA	$T	CABOD2			11122211	Y	68	22610	26930	30650								1448
MSP	WAS	$T	CABOD2			11122211	Y	59	36460	38150	40420	34750	47830	54170	69220	74510	99250	112640	1449
MSP	WAS	$T	CABOD2			11122211	Y	69	133540	120440									1450

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
MSY	NYC	$T	CABOD2	11122211	Y	59	76180	82900	88000	91300	109080	125300	136400	153380	173490	208430	1451
MSY	NYC	$T	CABOD2	11122211	Y	69	215980	218060									1452
MSY	PHL	$T	CABOD2	11122211	Y	59	10610	10940	12260	15050	18150	19200	24170	27960	31450	43740	1453
MSY	PHL	$T	CABOD2	11122211	Y	69	45840	45190									1454
MSY	PIT	$T	CABOD2	11122211	Y	68	16970	19330	17420								1455
MSY	SAT	$T	CABOD2	11122211	Y	59	8800	9220	9530	9610	12020	12070	16330	28160	22980	30570	1456
MSY	SAT	$T	CABOD2	11122211	Y	69	24380	24210									1457
MSY	SEA	$T	CABOD2	11122211	Y	68	15860	18200	20220								1458
MSY	SFO	$T	CABOD2	11122211	Y	59	9730	10960	10910	15430	19770	22780	32030	41890	51350	51540	1459
MSY	SFO	$T	CABOD2	11122211	Y	69	56790	64530									1460
MSY	SHV	$T	CABOD2	11122211	Y	59	22380	20830	19810	21050	22830	25560	29010	35220	41630	47290	1461
MSY	SHV	$T	CABOD2	11122211	Y	69	50930	50660									1462
MSY	STL	$T	CABOD2	11122211	Y	59	14300	13470	13040	15540	18440	21680	25720	29710	34710	43740	1463
MSY	STL	$T	CABOD2	11122211	Y	69	46920	47820									1464
MSY	TPA	$T	CABOD2	11122211	Y	59	14890	15160	15120	15650	17050	19890	24800	26650	32280	32570	1465
MSY	TPA	$T	CABOD2	11122211	Y	69	34440	35460									1466
MSY	TUL	$T	CABOD2	11122211	Y	68	17750	17730	19480								1467
MSY	WAS	$T	CABOD2	11122211	Y	59	23480	24010	17620	12630	17960	19210	20760	23330	29560	37300	1468
MSY	WAS	$T	CABOD2	11122211	Y	69	47810	50650									1469
NYC	OAK	$T	CABOD2	11122211	Y	68	39240	39030	26670								1470
NYC	OKC	$T	CABOD2	11122211	Y	59	17440	17690	21230	23740	26970	31460	36990	40550	48290	56500	1471
NYC	OKC	$T	CABOD2	11122211	Y	69	61130	62300									1472
NYC	OMA	$T	CABOD2	11122211	Y	59	25390	25520	27600	29370	33890	39570	43230	45250	54570	63470	1473
NYC	OMA	$T	CABOD2	11122211	Y	69	63500	57840									1474
NYC	ORF	$T	CABOD2	11122211	Y	59	74320	65270	69210	76190	87050	95840	106760	112520	150000	157750	1475
NYC	ORF	$T	CABOD2	11122211	Y	69	179560	152800									1476
NYC	ORH	$T	CABOD2	11122211	Y	59	41220	35970	33890	29600	25750	26990	31110	38650	50090	37090	1477
NYC	ORH	$T	CABOD2	11122211	Y	69	36090	26350									1478
NYC	PBI	$T	CABOD2	11122211	Y	59	63370	61260	69820	64860	78530	86940	102030	97560	121810	141690	1479
NYC	PBI	$T	CABOD2	11122211	Y	69	164450	181360									1480
NYC	PDX	$T	CABOD2	11122211	Y	59	22650	22580	23320	25760	26120	33530	38110	41750	50060	57260	1481
NYC	PDX	$T	CABOD2	11122211	Y	69	61440	51240									1482
NYC	PHF	$T	CABOD2	11122211	Y	59	20210	19720	21870	20790	26060	32640	32190	33320	48480	52010	1483
NYC	PHF	$T	CABOD2	11122211	Y	69	60070	48010									1484
NYC	PHL	$T	CABOD2	11122211	Y	59	58820	63900	64230	69110	80780	106290	119370	119700	134480	119500	1485
NYC	PHL	$T	CABOD2	11122211	Y	69	112950	90400									1486
NYC	PHX	$T	CABOD2	11122211	Y	59	30020	32290	35330	40000	43050	48220	58130	71030	72070	90020	1487
NYC	PHX	$T	CABOD2	11122211	Y	69	108970	111390									1488
NYC	PIA	$T	CABOD2	11122211	Y	68	16740	19850	23770								1489
NYC	PIT	$T	CABOD2	11122211	Y	59	314170	305270	316940	343070	377490	407930	496460	535800	616210	653990	1490
NYC	PIT	$T	CABOD2	11122211	Y	69	703220	631530									1491
NYC	PNS	$T	CABOD2	11122211	Y	68	19290	21430	23550								1492
NYC	PVD	$T	CABOD2	11122211	Y	59	121000	117440	113410	120630	137190	154660	175750	206240	226320	223580	1493
NYC	PVD	$T	CABOD2	11122211	Y	69	208870	182220									1494
NYC	PWM	$T	CABOD2	11122211	Y	59	38980	36560	41350	38550	37440	39340	46540	52140	55940	54630	1495
NYC	PWM	$T	CABOD2	11122211	Y	69	53220	49880									1496
NYC	RDU	$T	CABOD2	11122211	Y	59	36640	36450	37830	36910	50020	65930	81490	87730	116870	139130	1497
NYC	RDU	$T	CABOD2	11122211	Y	69	159360	157710									1498
NYC	RIC	$T	CABOD2	11122211	Y	59	52170	52570	52940	51280	64350	74360	81670	81990	109070	118640	1499
NYC	RIC	$T	CABOD2	11122211	Y	69	120880	117710									1500

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
NYC	ROA	$T	CABOD2		11122211	Y	59	17490	15640	15450	12300	13650	15770	18900	19430	35390	37170	1501
NYC	ROA	$T	CABOD2		11122211	Y	69	38860	38860									1502
NYC	ROC	$T	CABOD2		11122211	Y	59	147950	150540	163540	170780	199580	224800	261580	316810	339750	379740	1503
NYC	ROC	$T	CABOD2		11122211	Y	69	405960	375610									1504
NYC	RST	$T	CABOD2		11122211	Y	68	16210	15820	13190								1505
NYC	SAN	$T	CABOD2		11122211	Y	59	33060	31110	33480	30260	36640	42970	49570	63040	73040	83960	1506
NYC	SAN	$T	CABOD2		11122211	Y	69	97430	96100									1507
NYC	SAT	$T	CABOD2		11122211	Y	59	33540	32820	30610	39690	45640	47870	52080	70010	71560	88310	1508
NYC	SAT	$T	CABOD2		11122211	Y	69	85170	80810									1509
NYC	SAV	$T	CABOD2		11122211	Y	59	7310	6050	6680	7430	9230	10870	15170	19170	27020	34080	1510
NYC	SAV	$T	CABOD2		11122211	Y	69	40720	46330									1511
NYC	SBN	$T	CABOD2		11122211	Y	59	16700	17250	18300	18150	18660	19240	23920	24240	31290	34390	1512
NYC	SBN	$T	CABOD2		11122211	Y	69	38570	33660									1513
NYC	SDF	$T	CABOD2		11122211	Y	59	59080	61880	61040	67680	78590	90860	92140	107270	122460	120260	1514
NYC	SDF	$T	CABOD2		11122211	Y	69	132550	142870									1515
NYC	SEA	$T	CABOD2		11122211	Y	59	74120	64400	62560	76620	62240	75660	101600	125770	168660	172380	1516
NYC	SEA	$T	CABOD2		11122211	Y	69	182030	149570									1517
NYC	SFO	$T	CABOD2		11122211	Y	59	294790	303840	285980	291020	340400	411280	488280	578630	674920	664070	1518
NYC	SFO	$T	CABOD2		11122211	Y	69	697140	709350									1519
NYC	SHV	$T	CABOD2		11122211	Y	68	19450	20450	20630								1520
NYC	SJC	$T	CABOD2		11122211	Y	68	8150	28410	14780								1521
NYC	SLC	$T	CABOD2		11122211	Y	59	18500	19490	24390	23500	25540	29600	32190	32850	38000	48600	1522
NYC	SLC	$T	CABOD2		11122211	Y	69	52190	49100									1523
NYC	SMF	$T	CABOD2		11122211	Y	68	22740	21440	21380								1524
NYC	SRQ	$T	CABOD2		11122211	Y	59	9590	16800	12880	16890	15270	15450	27090	29490	40720	44850	1525
NYC	SRQ	$T	CABOD2		11122211	Y	69	51150	51140									1526
NYC	STL	$T	CABOD2		11122211	Y	59	145740	148680	151570	166060	181160	210830	249150	273800	312680	325060	1527
NYC	STL	$T	CABOD2		11122211	Y	69	353100	340920									1528
NYC	SYR	$T	CABOD2		11122211	Y	59	180910	184140	173030	190170	203790	220530	259460	325020	344130	34668	1529
NYC	SYR	$T	CABOD2		11122211	Y	69	348230	319880									1530
NYC	TOL	$T	CABOD2		11122211	Y	59	37640	40320	38760	35550	37020	43520	52250	52770	60420	68890	1531
NYC	TOL	$T	CABOD2		11122211	Y	69	73730	64600									1532
NYC	TPA	$T	CABOD2		11122211	Y	59	122490	113740	122240	113710	122800	129980	152980	148430	185590	228050	1533
NYC	TPA	$T	CABOD2		11122211	Y	69	257550	283980									1534
NYC	TRI	$T	CABOD2		11122211	Y	68	21750	25890	23740								1535
NYC	TUL	$T	CABOD2		11122211	Y	59	25200	23420	23850	27890	28750	33760	37400	42740	45160	48440	1536
NYC	TUL	$T	CABOD2		11122211	Y	69	51950	54590									1537
NYC	TUS	$T	CABOD2		11122211	Y	59	17990	17780	19240	20500	20430	21780	24870	30020	31910	38090	1538
NYC	TUS	$T	CABOD2		11122211	Y	69	43850	48350									1539
NYC	TYS	$T	CABOD2		11122211	Y	59	18120	19660	19520	20640	23000	25770	29060	32230	41940	45840	1540
NYC	TYS	$T	CABOD2		11122211	Y	69	48140	45140									1541
NYC	UCA	$T	CABOD2		11122211	Y	59	54080	50150	45330	45620	50310	55080	60450	73400	73740	76380	1542
NYC	UCA	$T	CABOD2		11122211	Y	69	72590	57380									1543
NYC	WAS	$T	CABOD2		11122211	Y	59	709800	726540	820100	1002970	1208020	1325920	1457280	1509700	1841610	1852930	1544
NYC	WAS	$T	CABOD2		11122211	Y	69	1870670	1666940									1545
NYC	YNG	$T	CABOD2		11122211	Y	59	34490	32670	29860	32620	36060	37360	40870	50130	58350	64820	1546
NYC	YNG	$T	CABOD2		11122211	Y	69	71790	61640									1547
OAK	ONT	$C	CABOD2		11122211	Y	68	16320	5990	690								1548
OAK	ONT	$P	PUCOD2		11122211	Y	68	8271	66306	71553								1549
OAK	ONT	$T	C&POD2		11122211	Y	68	24591	72296	72243								1550

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1	2	3	4 5 6	7	8	9	10	11	12	13	14	15	16	17	18 SEQ NO
OAK	PDX	$T	CABOD2	11122211	Y	68	35050	39270	35280							1551
OAK	PHX	$T	CABOD2	11122211	Y	68	14800	19090	19700							1552
OAK	RNO	$T	CABOD2	11122211	Y	68	32610	35670	16570							1553
OAK	SAN	$C	CABOD2	11122211	Y	68	8660	11290	2440							1554
OAK	SAN	$P	PUCOD2	11122211	Y	68	99945	88895	135839							1555
OAK	SAN	$T	C&POD2	11122211	Y	68	108605	100185	138279							1556
OAK	SEA	$T	CABOD2	11122211	Y	68	50010	57930	56200							1557
OAK	SLC	$T	CABOD2	11122211	Y	68	3090	14590	18730							1558
OAK	SNA	$C	CABOD2	11122211	Y	68	1210	600	170							1559
OAK	SNA	$P	PUCOD2	11122211	Y	68	127721	146287	145268							1560
OAK	SNA	$T	C&POD2	11122211	Y	68	128931	146887	145438							1561
OGG	SEA	$T	CABOD2	11122211	Y	68	13490	15120	20120							1562
OGG	SFO	$T	CABOD2	11122211	Y	68	23680	25590	31480							1563
OKC	SAT	$T	CABOD2	11122211	Y	68	20870	21560	20280							1564
OKC	SFO	$T	CABOD2	11122211	Y	59	8450	8720	9500	10870	11930	14160	18440	23900	31570	34250	1565
OKC	SFO	$T	CABOD2	11122211	Y	69	40820	44840									1566
OKC	STL	$T	CABOD2	11122211	Y	68	28260	31710	30880								1567
OKC	WAS	$T	CABOD2	11122211	Y	68	26110	31310	32410								1568
OMA	SEA	$T	CABOD2	11122211	Y	68	16910	17550	20880								1569
OMA	SFO	$T	CABOD2	11122211	Y	59	12780	12710	14370	14120	17100	19650	24950	30240	36010	41160	1570
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OMA	STL	$T	CABOD2	11122211	Y	68	33820	32500	31700								1572
OMA	WAS	$T	CABOD2	11122211	Y	68	22290	23980	26330								1573
ONT	PHX	$T	CABOD2	11122211	Y	68	19060	23550	30420								1574
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ONT	SAN	$P	PUCOD2	11122211	Y	68	0	3939	17369								1576
ONT	SAN	$T	C&POD2	11122211	Y	68	1000	6469	19579								1577
ONT	SEA	$T	CABOD2	11122211	Y	68	14120	16030	22130								1578
ONT	SFO	$C	CABOD2	11122211	Y	59	4820	4020	4990	8730	48170	68650	87940	116000	159170	133520	1579
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ONT	SFO	$P	PUCOD2	11122211	Y	59	0	0	0	0	0	0	0	0	0	80338	1581
ONT	SFO	$P	PUCOD2	11122211	Y	69	126030	157153									1582
ONT	SFO	$T	C&POD2	11122211	Y	59	4820	4020	4990	8730	48170	68650	87940	116000	159170	213858	1583
ONT	SFO	$T	C&POD2	11122211	Y	69	203520	212683									1584
ONT	SJC	$C	CABOD2	11122211	Y	68	150	280	1630								1585
ONT	SJC	$P	PUCOD2	11122211	Y	68	12292	88676	84221								1586
ONT	SJC	$T	C&POD2	11122211	Y	68	12442	88956	85851								1587
ONT	SMF	$T	CABOD2	11122211	Y	68	26090	31210	34180								1588
ORF	PHL	$T	CABOD2	11122211	Y	59	18330	14070	16390	21210	23490	22460	25940	29880	48410	53420	1589
ORF	PHL	$T	CABOD2	11122211	Y	69	60050	58050									1590
ORF	PIT	$T	CABOD2	11122211	Y	68	22260	25300	24950								1591
ORF	PVD	$T	CABOD2	11122211	Y	68	15610	15520	18690								1592
ORF	WAS	$T	CABOD2	11122211	Y	59	76280	59510	62180	61240	76210	90360	112310	118200	134750	123470	1593
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PBI	PHL	$T	CABOD2	11122211	Y	68	17900	19620	24570								1595
PBI	TPA	$T	CABOD2	11122211	Y	68	19940	23890	20730								1596
PBI	WAS	$T	CABOD2	11122211	Y	68	22660	25260	28410								1597
PDX	PHX	$T	CABOD2	11122211	Y	68	16450	19650	19940								1598
PDX	RNO	$T	CABOD2	11122211	Y	68	31090	36890	38360								1599
PDX	SAN	$T	CABOD2	11122211	Y	68	37270	35190	34160								1600

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1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
PDX	SEA	$T	CABOD2		11122211	Y	59	123290	111750	108360	119960	113210	137220	161060	173040	207840	207720	1601
PDX	SEA	$T	CABOD2		11122211	Y	69	212420	183490									1602
PDX	SFO	$T	CABOD2		11122211	Y	59	107610	106080	118720	118820	139110	166680	193580	234200	261420	257790	1603
PDX	SFO	$T	CABOD2		11122211	Y	69	247920	208890									1604
PDX	SLC	$T	CABOD2		11122211	Y	68	26620	30180	28750								1605
PDX	SMF	$T	CABOD2		11122211	Y	68	17040	21880	20590								1606
PDX	WAS	$T	CABOD2		11122211	Y	68	15850	20540	20760								1607
PHF	PHL	$T	CABOD2		11122211	Y	68	19490	20620	19500								1608
PHF	WAS	$T	CABOD2		11122211	Y	59	17860	18520	27040	25320	28050	34090	37940	42400	46570	41120	1609
PHF	WAS	$T	CABOD2		11122211	Y	69	37540	26620									1610
PHL	PHX	$T	CABOD2		11122211	Y	68	23420	26210	28020								1611
PHL	PIT	$T	CABOD2		11122211	Y	59	115960	138300	156510	156120	165960	180930	203320	249420	291280	292210	1612
PHL	PIT	$T	CABOD2		11122211	Y	69	310120	302240									1613
PHL	PVD	$T	CABOD2		11122211	Y	59	7340	15430	20370	20140	22000	28840	26420	33110	39810	42230	1614
PHL	PVD	$T	CABOD2		11122211	Y	69	43310	49240									1615
PHL	RDU	$T	CABOD2		11122211	Y	68	18460	21000	17800								1616
PHL	RIC	$T	CABOD2		11122211	Y	59	13970	14430	13200	16900	17920	20740	19920	15960	18670	18280	1617
PHL	RIC	$T	CABOD2		11122211	Y	69	17040	15070									1618
PHL	ROC	$T	CABOD2		11122211	Y	59	20710	20980	24830	28260	29370	31160	37000	42480	50810	62400	1619
PHL	ROC	$T	CABOD2		11122211	Y	69	59380	54940									1620
PHL	SAN	$T	CABOD2		11122211	Y	68	28610	28200	30130								1621
PHL	SAT	$T	CABOD2		11122211	Y	68	23100	19420	20020								1622
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PHL	SDF	$T	CABOD2		11122211	Y	69	39250	43510									1624
PHL	SEA	$T	CABOD2		11122211	Y	59	10640	10910	12870	16900	13460	16670	30960	27950	34120	45630	1625
PHL	SEA	$T	CABOD2		11122211	Y	69	51390	45890									1626
PHL	SFO	$T	CABOD2		11122211	Y	59	30210	38160	43560	46350	55050	71410	88870	108640	134330	155370	1627
PHL	SFO	$T	CABOD2		11122211	Y	69	158500	149640									1628
PHL	STL	$T	CABOD2		11122211	Y	59	23580	23830	25880	28830	31270	37600	45970	49340	61350	83950	1629
PHL	STL	$T	CABOD2		11122211	Y	69	87770	79820									1630
PHL	SYR	$T	CABOD2		11122211	Y	59	17140	21320	23350	21340	23200	30950	32960	34450	42680	42370	1631
PHL	SYR	$T	CABOD2		11122211	Y	69	41440	42780									1632
PHL	TOL	$T	CABOD2		11122211	Y	68	15810	17860	17440								1633
PHL	TPA	$T	CABOD2		11122211	Y	59	19720	18940	18460	20720	23470	25370	30270	33060	41800	56670	1634
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PHL	WAS	$T	CABOD2		11122211	Y	59	72750	78140	89000	106510	127480	133900	146920	157640	175550	179880	1636
PHL	WAS	$T	CABOD2		11122211	Y	69	158650	123590									1637
PHL	YNG	$T	CABOD2		11122211	Y	68	15010	18560	15850								1638
PHX	PIT	$T	CABOD2		11122211	Y	68	16590	19070	18690								1639
PHX	SAN	$T	CABOD2		11122211	Y	59	25170	27890	30740	34470	40930	48220	51500	60270	64940	79720	1640
PHX	SAN	$T	CABOD2		11122211	Y	69	83940	79500									1641
PHX	SEA	$T	CABOD2		11122211	Y	68	35870	33930	35190								1642
PHX	SFO	$T	CABOD2		11122211	Y	59	41040	45510	50360	55480	66350	73370	84380	99840	117690	112630	1643
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PHX	SLC	$T	CABOD2		11122211	Y	69	42930	43620									1647
PHX	SNA	$T	CABOD2		11122211	Y	59	2840	4420	7910	9080	11590	20010	19480	24090	34630	50060	1648
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PHX	STL	$T	CABOD2		11122211	Y	68	28550	36170	37160								1650

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MASTER FILE LISTING

1	2	3	4 5	6	7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
PHX	TUS	$T	CABOD2		11122211	Y	59	20040	21850	23800	30960	33930	34120	41200	49500	53280	49030	1651
PHX	TUS	$T	CABOD2		11122211	Y	69	41340	32310									1652
PHX	WAS	$T	CABOD2		11122211	Y	68	26660	34510	35200								1653
PHX	YUM	$T	CABOD2		11122211	Y	68	18950	16340	12840								1654
PIA	STL	$T	CABOD2		11122211	Y	68	18010	14980	15110								1655
PIT	PVD	$T	CABOD2		11122211	Y	68	15440	17250	18760								1656
PIT	ROC	$T	CABOD2		11122211	Y	68	26810	28710	24250								1657
PIT	SDF	$T	CABOD2		11122211	Y	59	13020	14040	12700	11630	12590	16140	19820	18630	19960	25550	1658
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PIT	SFO	$T	CABOD2		11122211	Y	59	18960	19080	19590	23380	28060	31350	43180	49830	66660	68160	1661
PIT	SFO	$T	CABOD2		11122211	Y	69	68920	66100									1662
PIT	STL	$T	CABOD2		11122211	Y	59	20430	17870	17760	21380	21820	24330	31580	34000	45280	50280	1663
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PIT	SYR	$T	CABOD2		11122211	Y	68	27910	29880	26400								1665
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PSC	SEA	$T	CABOD2		11122211	Y	68	21290	27280	28210								1671
PSP	SFO	$T	CABOD2		11122211	Y	59	8900	9280	7070	9080	19870	28570	32560	35350	36890	44680	1672
PSP	SFO	$T	CABOD2		11122211	Y	69	40250	25590									1673
PVD	WAS	$T	CABOD2		11122211	Y	59	17380	18810	18990	19080	20740	25770	33160	46590	61520	65880	1674
PVD	WAS	$T	CABOD2		11122211	Y	69	74000	75460									1675
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RDU	WAS	$T	CABOD2		11122211	Y	69	62970	55230									1679
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RIC	ROA	$T	CABOD2		11122211	Y	69	18650	17490									1681
RIC	WAS	$T	CABOD2		11122211	Y	59	19190	18010	18170	20120	23180	24450	21560	23590	26860	25360	1682
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RNO	SEA	$T	CABOD2		11122211	Y	59	4720	4440	5250	7920	23180	8330	12050	16670	30000	36650	1684
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RNO	SFO	$T	CABOD2		11122211	Y	59	115210	103320	94710	104680	141520	164490	177120	184000	223340	213800	1686
RNO	SFO	$T	CABOD2		11122211	Y	69	191560	142690									1687
RNO	SJC	$T	CABOD2		11122211	Y	59	260		240	3380	18210	18080	16490	9780	13350	21990	1688
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RNO	SLC	$T	CABOD2		11122211	Y	68	14870	16530	20510								1690
RNO	SMF	$T	CABOD2		11122211	Y	59	23750	23880	22140	24670	31640	34670	27780	27370	32970	31360	1691
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ROC	WAS	$T	CABOD2		11122211	Y	59	19170	21110	22480	21790	21330	24500	31380	42060	47590	55200	1697
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SAN	SEA	$T	CABOD2		11122211	Y	59	21780	18860	20670	24050	23620	30670	39540	48570	61670	69200	1699
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SAN	SFO	$P	PUCOD2			11122211	Y	59	0	0	0	0	0	0	0	349549	325000		1703
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SAN	SFO	$T	C&POD2			11122211	Y	59	65890	53280	55630	41750	50210	57040	73650	94100	439629	416840	1705
SAN	SFO	$T	C&POD2			11122211	Y	69	374682	297794									1706
SAN	SJC	$C	CABOD2			11122211	Y	68	900	3830	270								1707
SAN	SJC	$P	PUCOD2			11122211	Y	68	47658	48957	93307								1708
SAN	SJC	$T	C&POD2			11122211	Y	68	48558	52787	93577								1709
SAN	SLC	$T	CABOD2			11122211	Y	68	17310	20630	20840								1710
SAN	SMF	$C	CABOD2			11122211	Y	59	9990	10190	11580	13050	16160	18890	21800	26030	14640	10490	1711
SAN	SMF	$C	CABOD2			11122211	Y	69	11280	8360									1712
SAN	SMF	$P	PUCOD2			11122211	Y	59	0	0	0	0	0	0	0	0	19460	34310	1713
SAN	SMF	$P	PUCOD2			11122211	Y	69	37563	34860									1714
SAN	SMF	$T	C&POD2			11122211	Y	59	9990	10190	11580	13050	16160	18890	21800	26030	34100	44800	1715
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SAN	STL	$T	CABOD2			11122211	Y	68	23480	25530	26550								1717
SAN	TUS	$T	CABOD2			11122211	Y	59	7900	8250	1490	8450	10250	8720	23020	14860	14520	22130	1718
SAN	TUS	$T	CABOD2			11122211	Y	69	26390	25590									1719
SAN	WAS	$T	CABOD2			11122211	Y	59	11800	7960	6430	6320	16640	19430	23740	32110	37390	37800	1720
SAN	WAS	$T	CABOD2			11122211	Y	69	46190	50650									1721
SAT	SEA	$T	CABOD2			11122211	Y	68	15530	16530	18590								1722
SAT	SFO	$T	CABOD2			11122211	Y	59	10510	9860	12110	12620	13490	16610	24520	37160	33820	41210	1723
SAT	SFO	$T	CABOD2			11122211	Y	69	41930	43590									1724
SAT	STL	$T	CABOD2			11122211	Y	68	22350	23740	24920								1725
SAT	WAS	$T	CABOD2			11122211	Y	59	14810	14670	15840	14850	17910	18310	22810	30430	31020	32820	1726
SAT	WAS	$T	CABOD2			11122211	Y	69	31040	34810									1727
SBA	SFO	$T	CABOD2			11122211	Y	59	21360	21440	23900	25250	25800	30470	36800	42410	55090	63770	1728
SBA	SFO	$T	CABOD2			11122211	Y	69	67930	75250									1729
SDF	SFO	$T	CABOD2			11122211	Y	68	19370	21060	21430								1730
SDF	STL	$T	CABOD2			11122211	Y	59	19460	20780	19650	21370	22910	26320	28270	30710	39080	43000	1731
SDF	STL	$T	CABOD2			11122211	Y	69	46080	43820									1732
SDF	TPA	$T	CABOD2			11122211	Y	68	14750	16890	19140								1733
SDF	WAS	$T	CABOD2			11122211	Y	59	23580	24130	23730	25250	33040	40150	43930	45270	55670	55890	1734
SDF	WAS	$T	CABOD2			11122211	Y	69	63450	63770									1735
SEA	SFO	$T	CABOD2			11122211	Y	59	186540	186840	200450	246880	226230	266530	329960	417250	472770	469310	1736
SEA	SFO	$T	CABOD2			11122211	Y	69	435740	352850									1737
SEA	SIT	$T	CABOD2			11122211	Y	68	17770	8930	8880								1738
SEA	SLC	$T	CABOD2			11122211	Y	59	15760	15400	17940	19810	17550	18620	22980	31170	39130	42900	1739
SEA	SLC	$T	CABOD2			11122211	Y	69	50990	48830									1740
SEA	SMF	$T	CABOD2			11122211	Y	68	26820	32640	27900								1741
SEA	STL	$T	CABOD2			11122211	Y	68	32180	35000	32760								1742
SEA	WAS	$T	CABOD2			11122211	Y	59	23180	17830	13460	10610	15030	18080	20980	29310	35990	42040	1743
SEA	WAS	$T	CABOD2			11122211	Y	69	52280	49510									1744
SEA	YKM	$T	CABOD2			11122211	Y	59	17260	15440	13640	14850	14100	17870	18550	23910	29360	25500	1745
SEA	YKM	$T	CABOD2			11122211	Y	69	26630	22760									1746
SFO	SLC	$T	CABOD2			11122211	Y	59	60670	59790	69410	69370	80350	86410	100390	119940	131310	148420	1747
SFO	SLC	$T	CABOD2			11122211	Y	69	142890	122830									1748
SFO	SMF	$C	CABOD2			11122211	Y	59	33980	34190	29490	31040	34690	35780	42720	53680	72070	53810	1749
SFO	SMF	$C	CABOD2			11122211	Y	69	54440	36150									1750

APPENDIX 11.3

MARKET RESEARCH O & D DATA BANK EDITOR
M A S T E R F I L E L I S T I N G

10/25/72

1	2	3	4 5 6 7	8	9	10	11	12	13	14	15	16	17	18	SEQ NO
SFO	SMF	$P	PUCOD2 11122211	Y	59	0	0	0	0	0	0	0	0	0	1751
SFO	SMF	$P	PUCOD2 11122211	Y	69	4234	76220								1752
SFO	SMF	$T	C&POD2 11122211	Y	59	33980	34190	29490	31040	34690	35780	42720	53680	72070	53810	1753
SFO	SMF	$T	C&POD2 11122211	Y	69	58674	112370									1754
SFO	SNA	$C	CABOD2 11122211	Y	59	650	750	670	280	280	570	570	750	580	5980	1755
SFO	SNA	$C	CABOD2 11122211	Y	69	3750	1880									1756
SFO	SNA	$P	PUCOD2 11122211	Y	59	0	0	0	0	0	0	0	0	273693	297879	1757
SFO	SNA	$P	PUCOD2 11122211	Y	69	316883	274617									1758
SFO	SNA	$T	C&POD2 11122211	Y	59	650	750	670	280	280	570	570	750	274273	303859	1759
SFO	SNA	$T	C&POD2 11122211	Y	69	320633	276497									1760
SFO	STL	$T	CABOD2 11122211	Y	59	23510	23710	25330	27280	30200	40520	53830	67640	87640	97530	1761
SFO	STL	$T	CABOD2 11122211	Y	69	106050	99420									1762
SFO	SYR	$T	CABOD2 11122211	Y	68	15430	16180	19270								1763
SFO	TPA	$T	CABOD2 11122211	Y	68	21700	24530	25660								1764
SFO	TUL	$T	CABOD2 11122211	Y	68	22720	27030	29340								1765
SFO	TUS	$T	CABOD2 11122211	Y	59	11190	12890	13880	15030	17690	19180	23020	29130	35290	40810	1766
SFO	TUS	$T	CABOD2 11122211	Y	69	44510	45570									1767
SFO	WAS	$T	CABOD2 11122211	Y	59	71750	41620	32100	27670	83750	103830	131000	167430	192550	189580	1768
SFO	WAS	$T	CABOD2 11122211	Y	69	202840	199260									1769
SGF	STL	$T	CABOD2 11122211	Y	68	21030	21740	19130								1770
SJC	SNA	$C	CABOD2 11122211	Y	68	90	550	240								1771
SJC	SNA	$P	PUCOD2 11122211	Y	68	153854	180524	186612								1772
SJC	SNA	$T	C&POD2 11122211	Y	68	153944	181074	186852								1773
SLC	WAS	$T	CABOD2 11122211	Y	68	19830	25350	24860								1774
STL	TPA	$T	CABOD2 11122211	Y	59	12330	11660	13320	17030	18610	20320	20120	19840	25030	31990	1775
STL	TPA	$T	CABOD2 11122211	Y	69	35470	38200									1776
STL	TUL	$T	CABOD2 11122211	Y	59	15050	13320	15570	15790	17160	19180	20220	24240	27650	28100	1777
STL	TUL	$T	CABOD2 11122211	Y	69	31300	29420									1778
STL	WAS	$T	CABOD2 11122211	Y	59	42670	45870	47480	46590	50180	46610	61240	76320	109100	123230	1779
STL	WAS	$T	CABOD2 11122211	Y	69	129870	117990									1780
SYR	WAS	$T	CABOD2 11122211	Y	59	20240	26920	29760	24560	31610	33680	35670	39120	52020	47930	1781
SYR	WAS	$T	CABOD2 11122211	Y	69	56270	53820									1782
TLH	TPA	$T	CABOD2 11122211	Y	68	21150	23520	24130								1783
TOL	WAS	$T	CABOD2 11122211	Y	68	15600	19170	16220								1784
TPA	WAS	$T	CABOD2 11122211	Y	59	26870	25100	23580	22590	25160	28660	37300	40050	49510	54800	1785
TPA	WAS	$T	CABOD2 11122211	Y	69	61110	62370									1786
TUL	WAS	$T	CABOD2 11122211	Y	68	18560	22060	21550								1787
TYS	WAS	$T	CABOD2 11122211	Y	59	12300	12120	14190	15830	18240	19640	23210	31120	36440	40730	1788
TYS	WAS	$T	CABOD2 11122211	Y	69	42670	38750									1789

END OF REPORT

APPENDIX 11.4
ORIGIN - DESTINATION TRAFFIC TRENDS

Several examples of the city pair O & D traffic are shown on the following pages along with four trend fitting techniques for each city pair. These projections based on twelve years of data were examined along with other socio-economic data for each of the cities to arrive at a 1980 and 1985 forecast. Multiple regression techniques as well as data interchange between the Douglas Marketing Department and the domestic airlines were used to refine the city pair forecasts for the potential STOL market.

APPENDIX 11.4

PERIOD/YEAR	ATL-WAS DEMAND	MKT SHARE	GROWTH RATE	ATL-WAS DEMAND	MKT SHARE	GROWTH RATE	ATL-WAS DEMAND	MKT SHARE	GROWTH RATE	ATL-WAS DEMAND	MKT SHARE	GROWTH RATE
1959	44980	100.0	0.0	44980	100.0	0.0	44980	100.0	0.0	44980	100.0	0.0
1960	47850	100.0	6.4	47850	100.0	6.4	47850	100.0	6.4	47850	100.0	6.4
1961	49880	100.0	4.2	49880	100.0	4.2	49880	100.0	4.2	49880	100.0	4.2
1962	52910	100.0	6.1	52910	100.0	6.1	52910	100.0	6.1	52910	100.0	6.1
1963	58960	100.0	11.4	58960	100.0	11.4	58960	100.0	11.4	58960	100.0	11.4
1964	67860	100.0	15.1	67860	100.0	15.1	67860	100.0	15.1	67860	100.0	15.1
1965	78600	100.0	15.8	78600	100.0	15.8	78600	100.0	15.8	78600	100.0	15.8
1966	94430	100.0	20.1	94430	100.0	20.1	94430	100.0	20.1	94430	100.0	20.1
1967	109580	100.0	16.0	109580	100.0	16.0	109580	100.0	16.0	109580	100.0	16.0
1968	125690	100.0	14.7	125690	100.0	14.7	125690	100.0	14.7	125690	100.0	14.7
1969	153350	100.0	22.0	153350	100.0	22.0	153350	100.0	22.0	153350	100.0	22.0
1970	161320	100.0	5.2	161320	100.0	5.2	161320	100.0	5.2	161320	100.0	5.2
AVERAGE		100.0	12.3		100.0	12.3		100.0	12.3		100.0	12.3
	POLY REG		3464.4	GEO PROG		6228.5	EXP SMTH		0.0	LST SQRE		12598.8
1971	185309	100.0	14.9	182903	100.0	13.4	182605	100.0	13.2	171670	100.0	6.4
1972	211388	100.0	14.1	207384	100.0	13.4	199407	100.0	9.2	182057	100.0	6.1
1973	239558	100.0	13.3	235154	100.0	13.4	216208	100.0	8.4	192478	100.0	5.7
1974	269819	100.0	12.6	266655	100.0	13.4	233009	100.0	7.8	202932	100.0	5.4
1975	302172	100.0	12.0	302388	100.0	13.4	249811	100.0	7.2	213418	100.0	5.2
1976	336617	100.0	11.4	342924	100.0	13.4	266612	100.0	6.7	223933	100.0	4.9
1977	373156	100.0	10.9	388910	100.0	13.4	283413	100.0	6.3	234475	100.0	4.7
1978	411789	100.0	10.4	441077	100.0	13.4	300215	100.0	5.9	245045	100.0	4.5
1979	452516	100.0	9.9	500259	100.0	13.4	317016	100.0	5.6	255639	100.0	4.3
1980	495339	100.0	9.5	567403	100.0	13.4	333817	100.0	5.3	266257	100.0	4.2
1981	540257	100.0	9.1	643577	100.0	13.4	350619	100.0	5.0	276897	100.0	4.0
1982	587271	100.0	8.7	730000	100.0	13.4	367420	100.0	4.8	287560	100.0	3.9
1983	636382	100.0	8.4	828052	100.0	13.4	384221	100.0	4.6	298242	100.0	3.7
1984	687590	100.0	8.0	939300	100.0	13.4	401022	100.0	4.4	308943	100.0	3.6
1985	740896	100.0	7.8	1065523	100.0	13.4	417824	100.0	4.2	319663	100.0	3.5
AVERAGE		100.0	10.7		100.0	13.4		100.0	6.6		100.0	4.7

APPENDIX 11.4

PERIOD/YEAR	BDL-CLE DEMAND	MKT SHARE	GROWTH RATE	BDL-CLE DEMAND	MKT SHARE	GROWTH RATE	BDL-CLE DEMAND	MKT SHARE	GROWTH RATE	BDL-CLE DEMAND	MKT SHARE	GROWTH RATE
1959	20470	100.0	0.0	20470	100.0	0.0	20470	100.0	0.0	20470	100.0	0.0
1960	20290	100.0	-0.9	20290	100.0	-0.9	20290	100.0	-0.9	20290	100.0	-0.9
1961	25210	100.0	24.2	25210	100.0	24.2	25210	100.0	24.2	25210	100.0	24.2
1962	28680	100.0	13.8	28680	100.0	13.8	28680	100.0	13.8	28680	100.0	13.8
1963	32690	100.0	14.0	32690	100.0	14.0	32690	100.0	14.0	32690	100.0	14.0
1964	33600	100.0	2.8	33600	100.0	2.8	33600	100.0	2.8	33600	100.0	2.8
1965	42250	100.0	25.7	42250	100.0	25.7	42250	100.0	25.7	42250	100.0	25.7
1966	49750	100.0	17.8	49750	100.0	17.8	49750	100.0	17.8	49750	100.0	17.8
1967	53180	100.0	6.9	53180	100.0	6.9	53180	100.0	6.9	53180	100.0	6.9
1968	63460	100.0	19.3	63460	100.0	19.3	63460	100.0	19.3	63460	100.0	19.3
1969	68850	100.0	8.5	68850	100.0	8.5	68850	100.0	8.5	68850	100.0	8.5
1970	62090	100.0	-9.8	62090	100.0	-9.8	62090	100.0	-9.8	62090	100.0	-9.8
AVERAGE		100.0	10.6		100.0	10.6		100.0	10.6		100.0	10.6
	POLY REG		3978.0	GED PROG		4590.8	EXP SMTH		0.0	LST SQRE		3978.0
1971	67131	100.0	8.1	70720	100.0	13.9	64581	100.0	4.3	67131	100.0	8.1
1972	72152	100.0	7.5	80500	100.0	13.8	67072	100.0	3.9	72152	100.0	7.5
1973	77153	100.0	6.9	91579	100.0	13.8	69563	100.0	3.7	77153	100.0	6.9
1974	82136	100.0	6.5	104126	100.0	13.7	72055	100.0	3.6	82136	100.0	6.5
1975	87101	100.0	6.0	118331	100.0	13.6	74546	100.0	3.5	87101	100.0	6.0
1976	92050	100.0	5.7	134410	100.0	13.6	77037	100.0	3.3	92050	100.0	5.7
1977	96984	100.0	5.4	152602	100.0	13.5	79529	100.0	3.2	96984	100.0	5.4
1978	101903	100.0	5.1	173184	100.0	13.5	82020	100.0	3.1	101903	100.0	5.1
1979	106809	100.0	4.8	196461	100.0	13.4	84511	100.0	3.0	106809	100.0	4.8
1980	111703	100.0	4.6	222784	100.0	13.4	87003	100.0	2.9	111703	100.0	4.6
1981	116585	100.0	4.4	252542	100.0	13.4	89494	100.0	2.9	116585	100.0	4.4
1982	121455	100.0	4.2	286179	100.0	13.3	91985	100.0	2.8	121455	100.0	4.2
1983	126316	100.0	4.0	324195	100.0	13.3	94477	100.0	2.7	126316	100.0	4.0
1984	131166	100.0	3.8	367151	100.0	13.2	96968	100.0	2.6	131166	100.0	3.8
1985	136007	100.0	3.7	415683	100.0	13.2	99459	100.0	2.6	136007	100.0	3.7
AVERAGE		100.0	5.4		100.0	13.5		100.0	3.2		100.0	5.4

APPENDIX 11.4

PERIOD/YEAR	BHM-CHI DEMAND	MKT SHARE	GROWTH RATE	BHM-CHI DEMAND	MKT SHARE	GROWTH RATE	BHM-CHI DEMAND	MKT SHARE	GROWTH RATE	BHM-CHI DEMAND	MKT SHARE	GROWTH RATE
1959	12010	100.0	0.0	12010	100.0	0.0	12010	100.0	0.0	12010	100.0	0.0
1960	12080	100.0	0.6	12080	100.0	0.6	12080	100.0	0.6	12080	100.0	0.6
1961	11350	100.0	-6.0	11350	100.0	-6.0	11350	100.0	-6.0	11350	100.0	-6.0
1962	11430	100.0	0.7	11430	100.0	0.7	11430	100.0	0.7	11430	100.0	0.7
1963	14570	100.0	27.5	14570	100.0	27.5	14570	100.0	27.5	14570	100.0	27.5
1964	16770	100.0	15.1	16770	100.0	15.1	16770	100.0	15.1	16770	100.0	15.1
1965	21340	100.0	27.3	21340	100.0	27.3	21340	100.0	27.3	21340	100.0	27.3
1966	22290	100.0	4.5	22290	100.0	4.5	22290	100.0	4.5	22290	100.0	4.5
1967	28300	100.0	27.0	28300	100.0	27.0	28300	100.0	27.0	28300	100.0	27.0
1968	30160	100.0	6.6	30160	100.0	6.6	30160	100.0	6.6	30160	100.0	6.6
1969	40160	100.0	33.2	40160	100.0	33.2	40160	100.0	33.2	40160	100.0	33.2
1970	43370	100.0	8.0	43370	100.0	8.0	43370	100.0	8.0	43370	100.0	8.0
AVERAGE		100.0	12.4		100.0	12.4		100.0	12.4		100.0	12.4
	POLY REG		1390.2	GEO PROG		2332.6	EXP SMTH		0.0	LST SQRE		4017.4
1971	50313	100.0	16.0	49276	100.0	13.6	49636	100.0	14.4	45932	100.0	5.9
1972	57909	100.0	15.1	56005	100.0	13.7	55838	100.0	12.5	48523	100.0	5.6
1973	66158	100.0	14.2	63672	100.0	13.7	62040	100.0	11.1	51139	100.0	5.4
1974	75060	100.0	13.5	72408	100.0	13.7	68242	100.0	10.0	53779	100.0	5.2
1975	84615	100.0	12.7	82364	100.0	13.7	74445	100.0	9.1	56441	100.0	4.9
1976	94825	100.0	12.1	93711	100.0	13.8	80647	100.0	8.3	59123	100.0	4.8
1977	105688	100.0	11.5	106646	100.0	13.8	86849	100.0	7.7	61825	100.0	4.6
1978	117206	100.0	10.9	121390	100.0	13.8	93051	100.0	7.1	64544	100.0	4.4
1979	129377	100.0	10.4	138200	100.0	13.8	99253	100.0	6.7	67279	100.0	4.2
1980	142204	100.0	9.9	157365	100.0	13.9	105456	100.0	6.2	70029	100.0	4.1
1981	155685	100.0	9.5	179219	100.0	13.9	111658	100.0	5.9	72793	100.0	3.9
1982	169821	100.0	9.1	204138	100.0	13.9	117860	100.0	5.6	75570	100.0	3.8
1983	184612	100.0	8.7	232556	100.0	13.9	124062	100.0	5.3	78359	100.0	3.7
1984	200059	100.0	8.4	264966	100.0	13.9	130264	100.0	5.0	81159	100.0	3.6
1985	216160	100.0	8.0	301929	100.0	13.9	136467	100.0	4.8	83970	100.0	3.5
AVERAGE		100.0	11.3		100.0	13.8		100.0	7.9		100.0	4.5

APPENDIX 11.4

PERIOD/YEAR	CHI-CVG DEMAND	CHI-CVG MKT SHARE	CHI-CVG GROWTH RATE	CHI-CVG DEMAND	CHI-CVG MKT SHARE	CHI-CVG GROWTH RATE	CHI-CVG DEMAND	CHI-CVG MKT SHARE	CHI-CVG GROWTH RATE	CHI-CVG DEMAND	CHI-CVG MKT SHARE	CHI-CVG GROWTH RATE
1959	81150	100.0	0.0	81150	100.0	0.0	81150	100.0	0.0	81150	100.0	0.0
1960	89380	100.0	10.1	89380	100.0	10.1	89380	100.0	10.1	89380	100.0	10.1
1961	92080	100.0	3.0	92080	100.0	3.0	92080	100.0	3.0	92080	100.0	3.0
1962	98950	100.0	7.5	98950	100.0	7.5	98950	100.0	7.5	98950	100.0	7.5
1963	112190	100.0	13.4	112190	100.0	13.4	112190	100.0	13.4	112190	100.0	13.4
1964	125710	100.0	12.1	125710	100.0	12.1	125710	100.0	12.1	125710	100.0	12.1
1965	143860	100.0	14.4	143860	100.0	14.4	143860	100.0	14.4	143860	100.0	14.4
1966	160110	100.0	11.3	160110	100.0	11.3	160110	100.0	11.3	160110	100.0	11.3
1967	167960	100.0	4.9	167960	100.0	4.9	167960	100.0	4.9	167960	100.0	4.9
1968	181490	100.0	8.1	181490	100.0	8.1	181490	100.0	8.1	181490	100.0	8.1
1969	198220	100.0	9.2	198220	100.0	9.2	198220	100.0	9.2	198220	100.0	9.2
1970	190940	100.0	-3.7	190940	100.0	-3.7	190940	100.0	-3.7	190940	100.0	-3.7
AVERAGE		100.0	8.1		100.0	8.1		100.0	8.1		100.0	8.1
	POLY REG		7076.3	GEO PROG		8572.5	EXP SMTH		0.0	LST SQRE		7076.3
1971	202992	100.0	6.3	209486	100.0	9.7	199169	100.0	4.3	202992	100.0	6.3
1972	215024	100.0	5.9	229787	100.0	9.7	207399	100.0	4.1	215024	100.0	5.9
1973	227038	100.0	5.6	252005	100.0	9.7	215629	100.0	4.0	227038	100.0	5.6
1974	239032	100.0	5.3	276319	100.0	9.6	223959	100.0	3.8	239032	100.0	5.3
1975	251009	100.0	5.0	302923	100.0	9.6	232089	100.0	3.7	251009	100.0	5.0
1976	262969	100.0	4.8	332032	100.0	9.6	240319	100.0	3.5	262969	100.0	4.8
1977	274914	100.0	4.5	363878	100.0	9.6	248549	100.0	3.4	274914	100.0	4.5
1978	286843	100.0	4.3	398715	100.0	9.6	256779	100.0	3.3	286843	100.0	4.3
1979	298757	100.0	4.2	436821	100.0	9.6	265009	100.0	3.2	298757	100.0	4.2
1980	310658	100.0	4.0	478500	100.0	9.5	273239	100.0	3.1	310658	100.0	4.0
1981	322545	100.0	3.8	524084	100.0	9.5	281469	100.0	3.0	322545	100.0	3.8
1982	334419	100.0	3.7	573934	100.0	9.5	289699	100.0	2.9	334419	100.0	3.7
1983	346281	100.0	3.5	628447	100.0	9.5	297929	100.0	2.8	346281	100.0	3.5
1984	358132	100.0	3.4	688055	100.0	9.5	306159	100.0	2.8	358132	100.0	3.4
1985	369972	100.0	3.3	753230	100.0	9.5	314389	100.0	2.7	369972	100.0	3.3
AVERAGE		100.0	4.5		100.0	9.6		100.0	3.4		100.0	4.5

APPENDIX 11.5

DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
ABE BOS				98862			
ABE PIT				116187			
ABI DAL			64786				
ABQ DAL							210333
ABQ DEN					259381		
ABQ ELP				134499			
ABQ LAS						165479	
ABQ PHX					158172		
ABY ATL			58120				
AGS ATL			197483				
ALB BOS			179366				
ALB BUF				221477			
ALB CLE						78066	
ALB DTT						106587	
ALB NYC			297428				
ALB PHL				133185			
ALB PIT					76018		
ALB ROC			92175				
ALB SYR			56317				
ALB WAS					184466		
ALO CHI				82123			
AMA DAL					216258		
AMA IAH							68783
ASE DEN			60366				
ATL AVL			55066				
ATL BAL							239223
ATL BHM			173879				
ATL BNA				306485			
ATL CAE			276279				
ATL CHI							778460
ATL CHS				206933			
ATL CLE							238357
ATL CLT				228583			
ATL CMH						116693	
ATL CVG					174631		
ATL DAB					65093		
ATL DAY						96364	
ATL FAY					64496		
ATL FLL							173962
ATL GSO					218118		
ATL HSV			82603				
ATL IND						133079	
ATL JAN					161468		
ATL JAX				400738			
ATL MCO						269982	
ATL MEM					417277		
ATL MGM			125836				
ATL MIA							791473
ATL MOB					158767		
ATL MSY						388519	
ATL ORF							141111
ATL PBI							127800
ATL PIT							192157
ATL PNS				109049			
ATL RDU					274751		
ATL RIC						132832	
ATL SAV				336176			
ATL SDF					230622		
ATL STL						242609	
ATL TLH				89487			

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
ATL TPA						441310	
ATL TRI				63158			
ATL TYS			108096				
ATL WAS						594920	
AUS DAL			370785				
AVL NYC							64296
AVP PIT				60750			
AZO CHI			73397				
BAL BDL				195322			
BAL BOS					370899		
BAL BUF				65522			
BAL CLE					151275		
BAL CVG						87136	
BAL DTT						191946	
BAL IND							63054
BAL NYC			599817				
BAL ORF			131875				
BAL PHL		193003					
BAL PIT				235810			
BDL BUF					111581		
BDL CLE						214321	
BDL DTT							241799
BDL NYC			193024				
BDL PHL			250453				
BDL PIT						185466	
BDL ROC				89112			
BDL SYR			64019				
BDL WAS					386331		
BDR BOS			68259				
BDR WAS				65562			
BFL LAX			64710				
BFL SFO				80413			
BGM NYC			90805				
BGR BOS				179163			
BGR NYC					82571		
BHM CHI							137576
BHM DAL							93047
BHM IAH							63560
BHM MEM				84998			
BHM MOB				81368			
BHM MSY					103153		
BIL DEN						101720	
BIS MSP					57004		
BNA CHI						241920	
BNA CLE						87054	
BNA CVG				52022			
BNA DTT						73870	
BNA MEM				178732			
BNA MSY						71098	
BNA PIT						56058	
BNA SDF			51567				
BNA STL				101493			
BNA WAS							154145
BOI GEG				78103			
BOI PDX					148532		
BOI SEA						134944	
BOI SFO							134488
BOI SLC				107124			
BOS BTV			68202				
BOS BUF					309845		

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
BOS CLE							421332
BOS HAR					86954		
BOS NYC			6907105				
BOS ORF						191084	
BOS PHL				1707300			
BOS PIT						404980	
BOS PQI					57258		
BOS PWM		84224					
BOS ROC					262728		
BOS SYR				276658			
BOS WAS						2453000	
BPT DAL				86542			
BTR DAL					80167		
BTR IAH				103541			
BTR SHV				67262			
BTV NYC				164159			
BUF CHI						312249	
BUF CLE		62060					
BUF DTT				150949			
BUF NYC				1227913			
BUF PHL				316676			
BUF PIT			101086				
BUF WAS				231329			
CAE MIA							82592
CAE PHL							78199
CAE WAS						135687	
CAK CHI					177915		
CAK NYC					112072		
CHA CHI						68884	
CHA MEM				54318			
CHI CID				171281			
CHI CLE					968940		
CHI CLT							136868
CHI CMH				480830			
CHI CMI			111353				
CHI CVG				541012			
CHI DAY				339171			
CHI DEC			49747				
CHI DLH						94121	
CHI DSM					352393		
CHI DTT				1651370			
CHI EVV				165395			
CHI FNT				114330			
CHI FSD						63377	
CHI FWA			108703				
CHI GRB			103796				
CHI GRR			122662				
CHI GSO							136253
CHI HAR							134094
CHI ICT							134590
CHI IND			538212				
CHI LAN			118521				
CHI LEX					76320		
CHI LIT							106822
CHI LNK						81619	
CHI MBS				163805			
CHI MEM						464401	
CHI MKC						887797	
CHI MKE		94149					
CHI MLI			104904				

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
CHI MSN			160331				
CHI MSP					1876763		
CHI OMA						324412	
CHI OSH			58368				
CHI PIA			144415				
CHI PIT						796667	
CHI ROC							235503
CHI RST				156197			
CHI SBN		93487					
CHI SDF				417013			
CHI SGF						60283	
CHI SPI			125750				
CHI STL				1540859			
CHI SUX						81961	
CHI TOL				170001			
CHI TUL							155430
CHI TYS						94022	
CHI WAS							1261159
CHI YNG					110286		
CHO NYC				66013			
CHS MIA						69907	
CHS ORF					94319		
CHS PHL							93398
CHS WAS						140873	
CID MSP				67213			
CLE CLT						66428	
CLE CVG				131180			
CLE DAY			93559				
CLE DTT		407967					
CLE IND				157410			
CLE MKE					155881		
CLE NYC						1522841	
CLE ORF						54642	
CLE PHL					473335		
CLE PIT			97440				
CLE PVD							53099
CLE ROC				93700			
CLE SDF					117842		
CLE STL						250873	
CLE SYR					81398		
CLE WAS				428466			
CLT DTT							69782
CLT NYC							572060
CLT PHL						151944	
CLT PIT					68458		
CLT WAS					153963		
CMH DTT			130419				
CMH NYC						624804	
CMH PHL						217083	
CMH PIT			63395				
CMH STL						97305	
CMH WAS					274670		
COS DEN		81181					
CPR DEN				97385			
CRP DAL					199666		
CRP IAH			84571				
CRW NYC						112152	
CRW WAS				109769			
CVG DTT				204866			
CVG MEM						63723	

APPENDIX 11.5

(CONTINUED)

DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
CVG MKC							65555
CVG MKE					50793		
CVG MSP							62674
CVG NYC							602122
CVG PHL							177702
CVG PIT				85817			
CVG STL					175606		
CVG WAS						207437	
DAL ELP							269618
DAL IAH				945267			
DAL ICT					119263		
DAL JAN					103401		
DAL LBB					357891		
DAL LIT				190018			
DAL MAF					248220		
DAL MEM						261210	
DAL MKC						356629	
DAL MSY						489430	
DAL OKC			395414				
DAL OMA							69798
DAL SAT				542988			
DAL STL							368753
DAL TUL				297403			
DAY DTT			59743				
DAY NYC							411354
DAY PHL						152895	
DAY PIT				95062			
DAY STL					93642		
DAY WAS					224038		
DEN ELP							95734
DEN FSD						58657	
DEN GJT				179175			
DEN ICT						150371	
DEN LNK						70200	
DEN MKC							394916
DEN OKC							143235
DEN OMA						196002	
DEN PHX							309198
DEN RAP					57194		
DEN SLC					425691		
DEN TUL							120429
DLH MSP			57230				
DSM MKC			85436				
DSM MSP				151048			
DSM STL				117223			
DTT GRR			54446				
DTT IND				184835			
DTT MKE				224064			
DTT MSP							334726
DTT NYC						2076400	
DTT ORF							72180
DTT PHL						655940	
DTT PIT			325334				
DTT ROC				160924			
DTT SDF					258395		
DTT STL						422559	
DTT SYR					109554		
DTT WAS					611733		
EKA SFO				157688			
ELM NYC			130344				

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
ELP PHX					89426		
ELP SAT						92687	
ERI NYC					86208		
ERI PHL					66061		
EUG SFO						213152	
EWN WAS					52150		
FAR MSP				154232			
FAT LAX				444000			
FAT SFO			362000				
FLL TPA			85893				
FNT NYC							52961
FSD MSP			77868				
FWA NYC							101438
GEG PDX				206089			
GEG SEA				451404			
GFK MSP				89138			
GON WAS					85009		
GRB MSP				62288			
GSO NYC						497703	
GSO PHL					86578		
GSO WAS				163270			
GSP WAS					64697		
HAR NYC			148518				
HAR PIT			207981				
HNL ITO				977217			
HNL KOA			383451				
HNL LIH			1036790				
HNL MKK		166411					
HNL MUE			138782				
HNL OGG			899974				
HPN WAS				55862			
HSV MCO							50954
HVN WAS				70555			
IAH LBB						96111	
IAH LIT					68645		
IAH MAF						148297	
IAH MEM						145294	
IAH MFE					64077		
IAH MSY					710135		
IAH OKC						168729	
IAH SAT			200901				
IAH SHV				98597			
IAH TUL						234225	
ICT MKC			67985				
ICT STL					213191		
IND MEM					66209		
IND MKC						83849	
IND MSP							81169
IND PHL							194800
IND PIT					113813		
IND STL				213190			
IND WAS						225768	
ITH NYC			113373				
ITO OGG			55354				
JAN MEM			87549				
JAN NYC			81375				
JAX MIA					271975		
JAX MSY							66489
JAX ORF							58641
LAN NYC							59235

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
LAS LAX				3078439			
LAS PHX				253710			
LAS RNO					277046		
LAS SAN				257298			
LAS SFO						551750	
LAS SLC					151035		
LAX MRY				472715			
LAX PHX					1362133		
LAX PSP		89613					
LAX RNO					234180		
LAX SAN			2248000				
LAX SBA			107385				
LAX SCK					55037		
LAX SFO					12613000		
LAX SLC							394031
LAX SMF					1435000		
LAX TUS						480051	
LEX NYC							97338
LEX WAS						71735	
LIT MKC					54916		
LIT STL				96279			
LNK MKC			58820				
MBS NYC							87165
MCO MIA			144819				
MEM MKC					108795		
MEM MSY					217939		
MEM SDF					98201		
MEM STL				236248			
MEM TYS					91452		
MFR PDX				76893			
MFR SFO					93420		
MHT NYC				73004			
MIA TLH						189672	
MIA TPA			399011				
MKC MKE						56926	
MKC MSP						253258	
MKC OKC					128020		
MKC OMA			125869				
MKC SDF						50624	
MKC SGF			69271				
MKC STL				357259			
MKC TUL				63360			
MKE MSP				345273			
MKE PIT						75375	
MKE STL					123330		
MLI MSP				64892			
MLI STL			57471				
MLU MSY				69161			
MOB MSY			65598				
MRY SFO		107125					
MSN MSP				106147			
MSP OMA				226175			
MSP STL						283474	
MSY SAT						87217	
MSY SHV				178033			
MSY TPA						118079	
MSY TUL							64063
NYC ORF				463601			
NYC ORH			50775				
NYC PHF				138527			

APPENDIX 11.5

(CONTINUED)

DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
NYC PHL		208000					
NYC PIT					1725380		
NYC PVD			328167				
NYC PWM				109003			
NYC RDU						623757	
NYC RIC				309188			
NYC ROA					100223		
NYC ROC				1119154			
NYC SYR			840229				
NYC TOL							151132
NYC TRI							75307
NYC UCA			117427				
NYC WAS				5473051			
NYC YNG					160775		
OKC SAT						72458	
OKC STL						109573	
OMA STL					97935		
ORF PHL				218837			
ORF PIT					83774		
ORF PVD						71431	
ORF WAS			192394				
PBI TPA			77613				
PDX RNO						130053	
PDX SEA			330454				
PDX SFO							863453
PDX SMF						61264	
PHF PHL				63862			
PHL PIT				941578			
PHL PVD				162383			
PHL RDU					76721		
PHL ROC				187297			
PHL SDF							138982
PHL SYR				131433			
PHL TOL						55323	
PHL WAS			291000				
PHL YNG					51336		
PHX SAN					270650		
PHX SLC							135891
PHX TUS			58188				
PIA STL			53248				
PIT PVD						57877	
PIT ROC				78000			
PIT SDF					89362		
PIT STL							165090
PIT SYR				78551			
PIT WAS			414864				
PNS TPA					50496		
PSC SEA			89487				
PSP SFO						81176	
PVD WAS					238043		
PWM WAS						52647	
RDD SFO			61381				
RDU WAS				218439			
RIC ROA			50820				
RIC WAS		61899					
RNO SEA							138391
RNO SFO			375241				
RNO SLC						66338	
ROA WAS			100865				
ROC WAS				192984			

APPENDIX 11.5

(CONTINUED)
DOMESTIC PASSENGERS VS STAGE LENGTH - 1985
ORIGIN DESTINATION PASSENGERS - DISTANCE

CITY PAIR	ST MI / KM	RANGE CATEGORY 0-99 / 0-160	100-199 / 161-321	200-299 / 322-482	300-399 / 483-643	400-499 / 644-804	500-599 / 805-965
SAN SFO						1439000	
SAN SMF						108000	
SAN TUS					99425		
SBA SFO				261184			
SDF STL				149387			
SDF WAS						198114	
SEA YKM			72198				
SFO SLC							454937
SFO SMF		204000					
SGF STL			72017				
STL TUL					97830		
SYR WAS				163064			
TLH TPA				90342			
TYS WAS						197847	
TOTAL PASSENGERS (141,879,984)		1853119	24987403	38658454	35221086	26645656	14514266
PERCENT OF TOTAL (100.0)		1.3	17.6	27.3	24.8	18.8	10.2

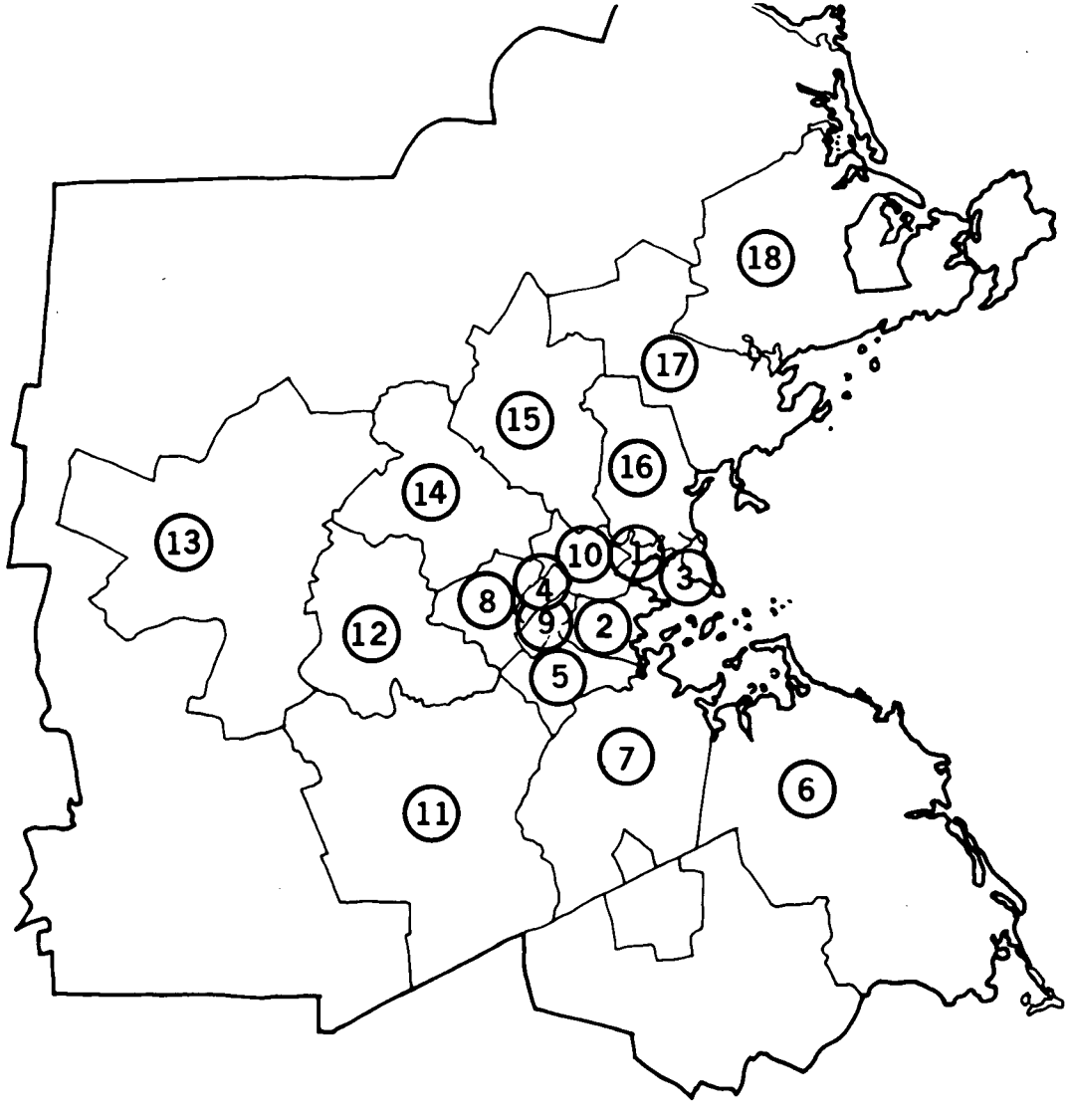
APPENDIX 11.6
AIR PASSENGER GROUND O&D SURVEY DATA

The following eight figures represent a sample of the data base required by Douglas in performing modal split analyses. For each sample city a map is shown which depicts air passenger ground origin and destination zones. Each ground origin and destination zone contains a number which represents the percentage of a city's total CTOL metropolitan airport traffic which either originates or terminates an air trip in that particular zone. The total of all the zones in a given city equals 100 percent. Due to space limitations some of the city maps do not contain all of the passenger origin and destination zones. This is especially true of cities with large metropolitan areas.

BOSTON

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION



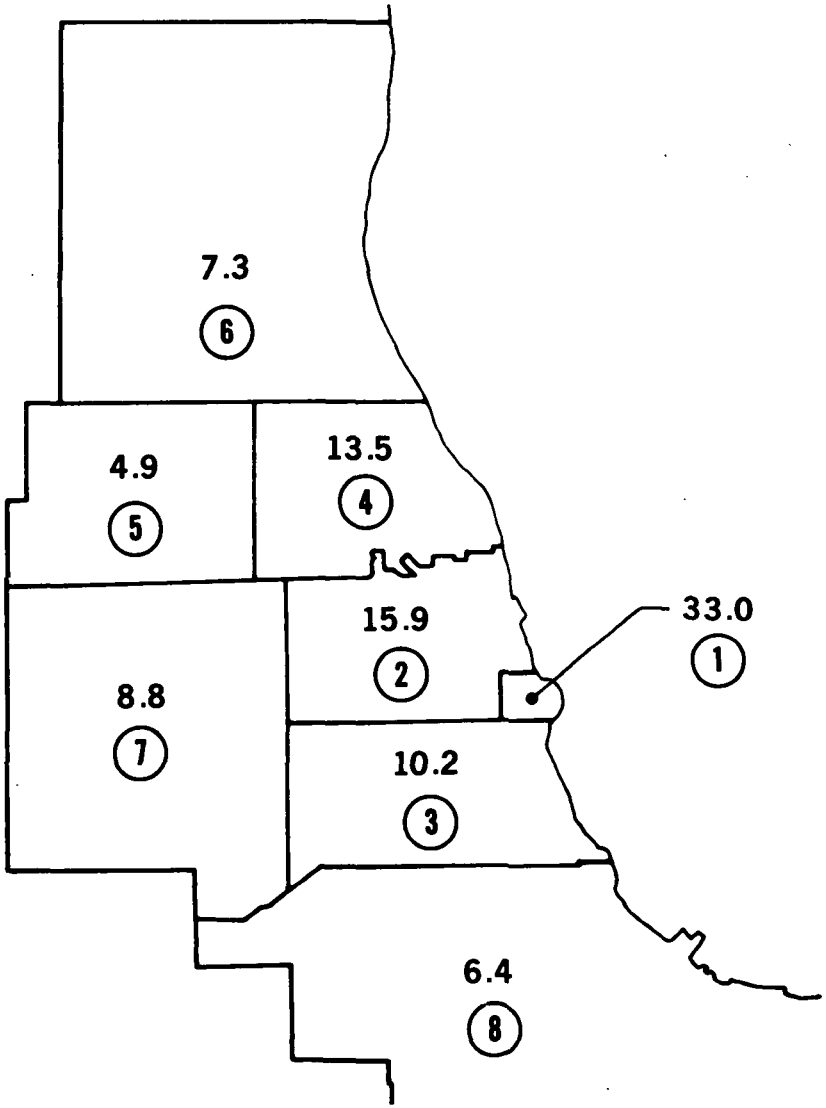
1	19.63	10	4.49
2	6.63	11	4.27
3	1.63	12	4.27
4	2.05	13	5.11
5	5.73	14	6.16
6	4.48	15	5.30
7	7.90	16	5.62
8	4.94	17	6.17
9	2.15	18	3.47

PR2-STOL-1068

CHICAGO

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION

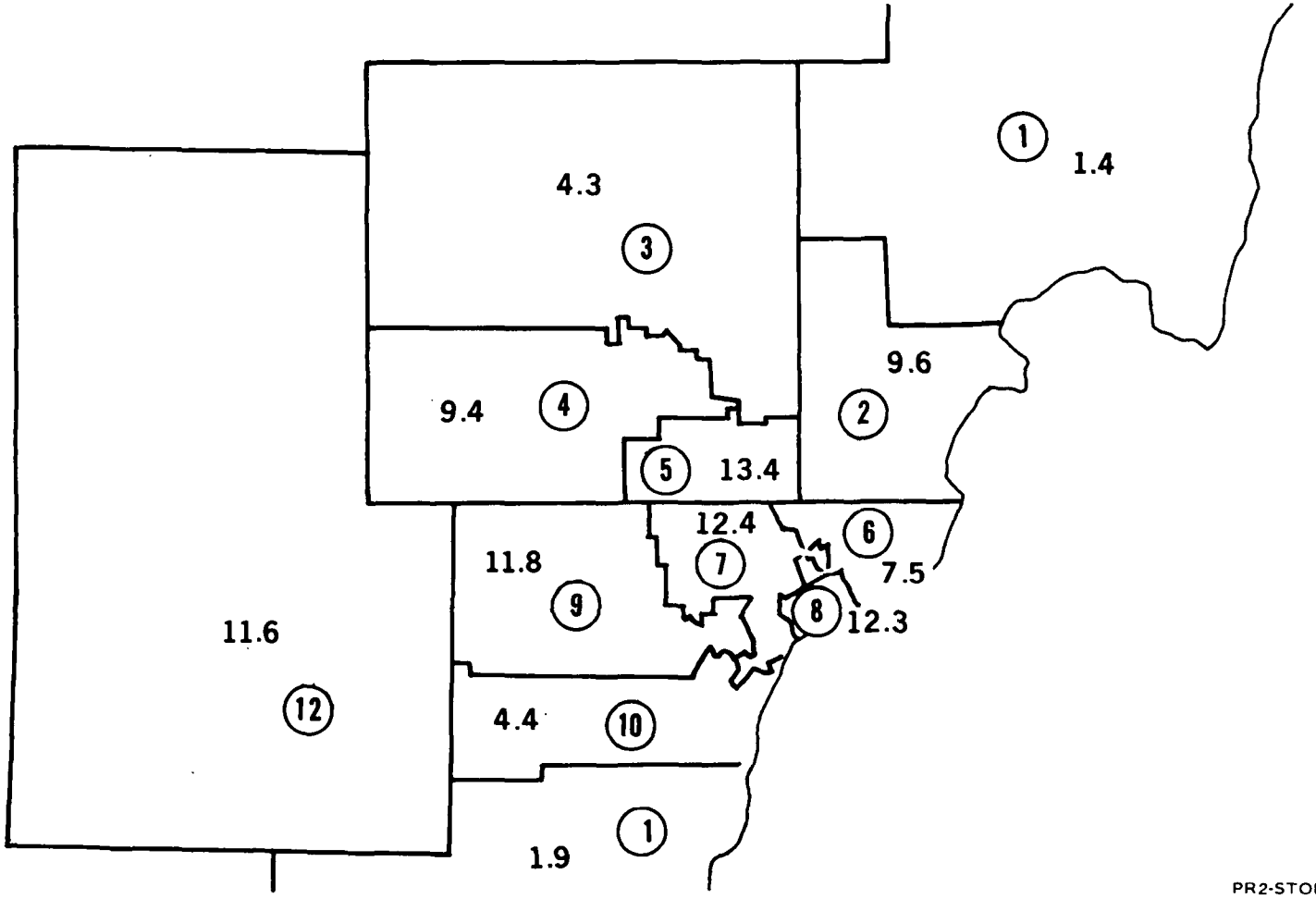


PR2-STOL-1065

DETROIT

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION

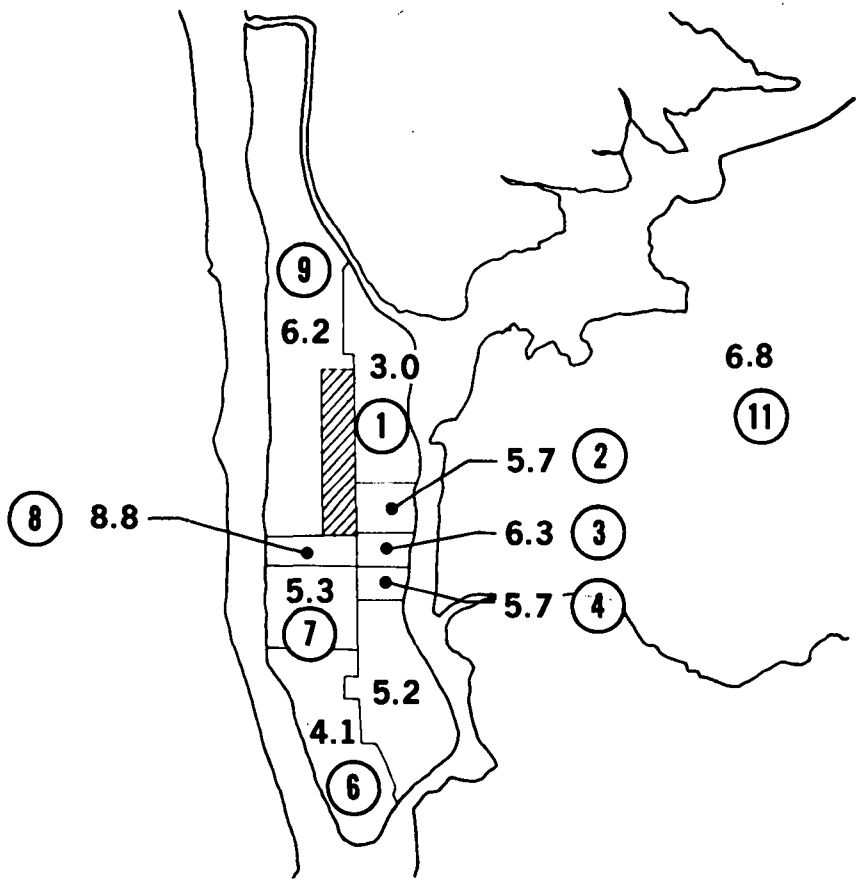


PR2-STOL-1063

MANHATTAN O&Ds

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION

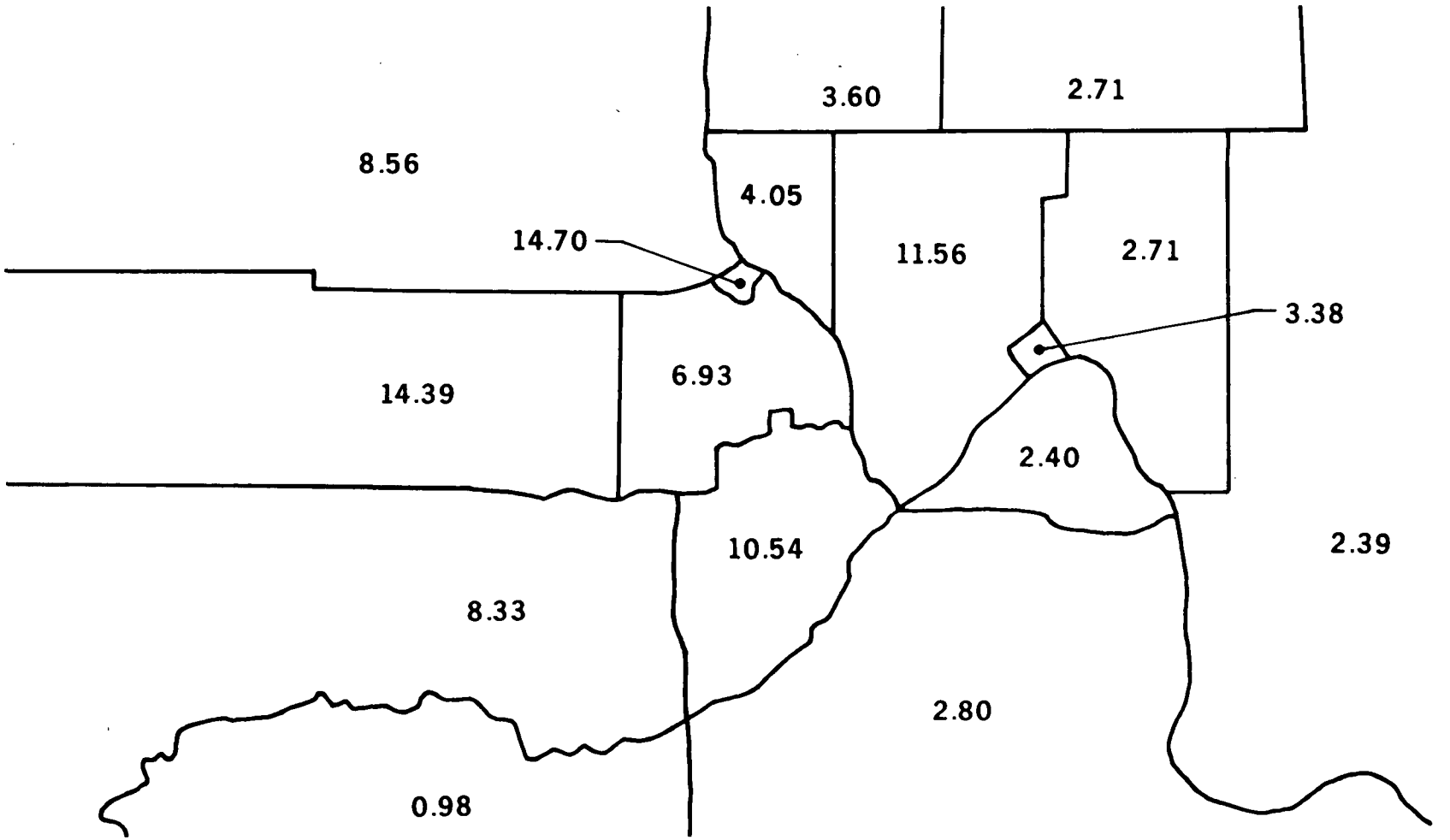


PR2-STOL-1069

MINNEAPOLIS - ST. PAUL

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION

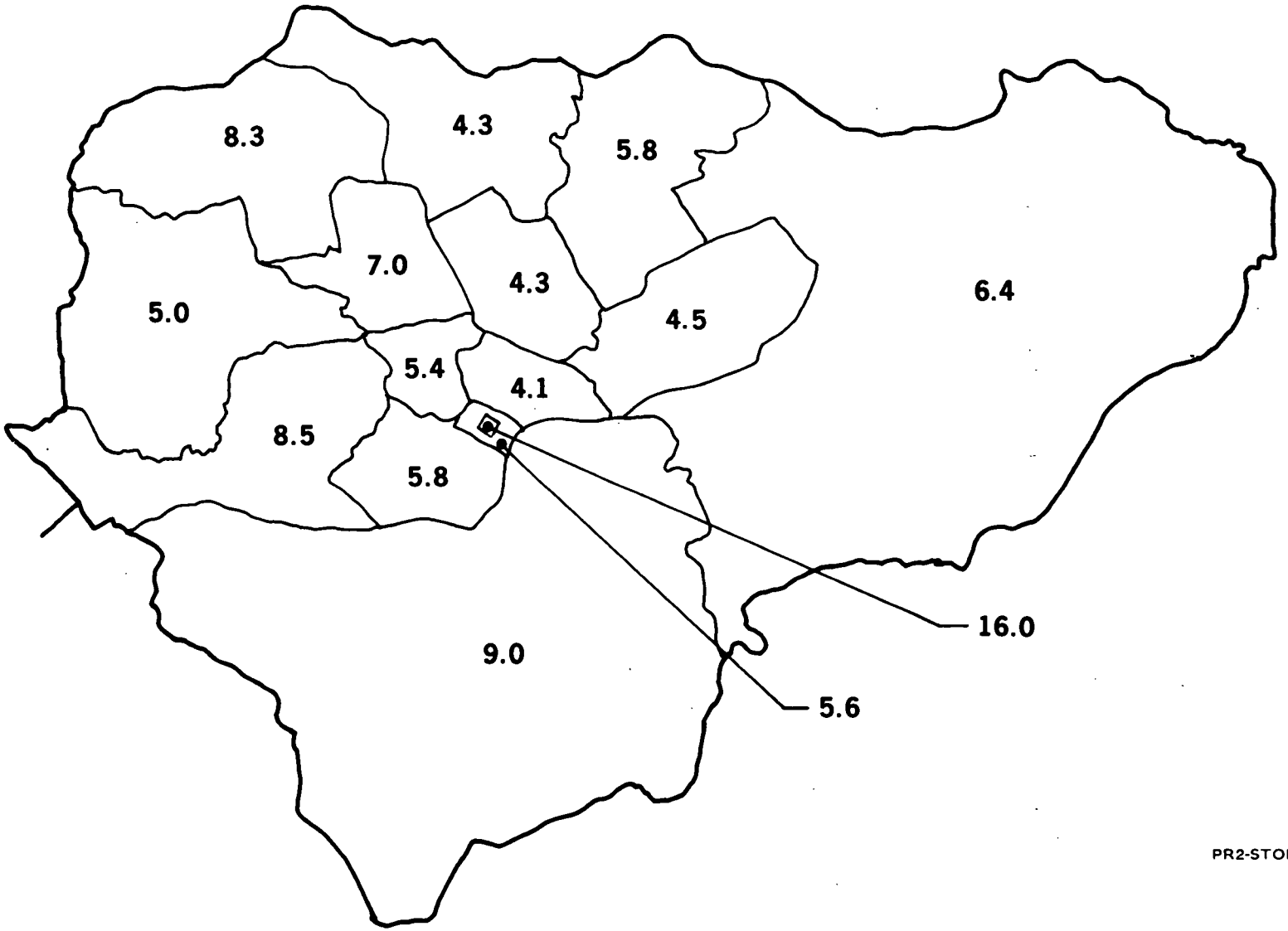


PR2-STOL-1062

PHILADELPHIA

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION

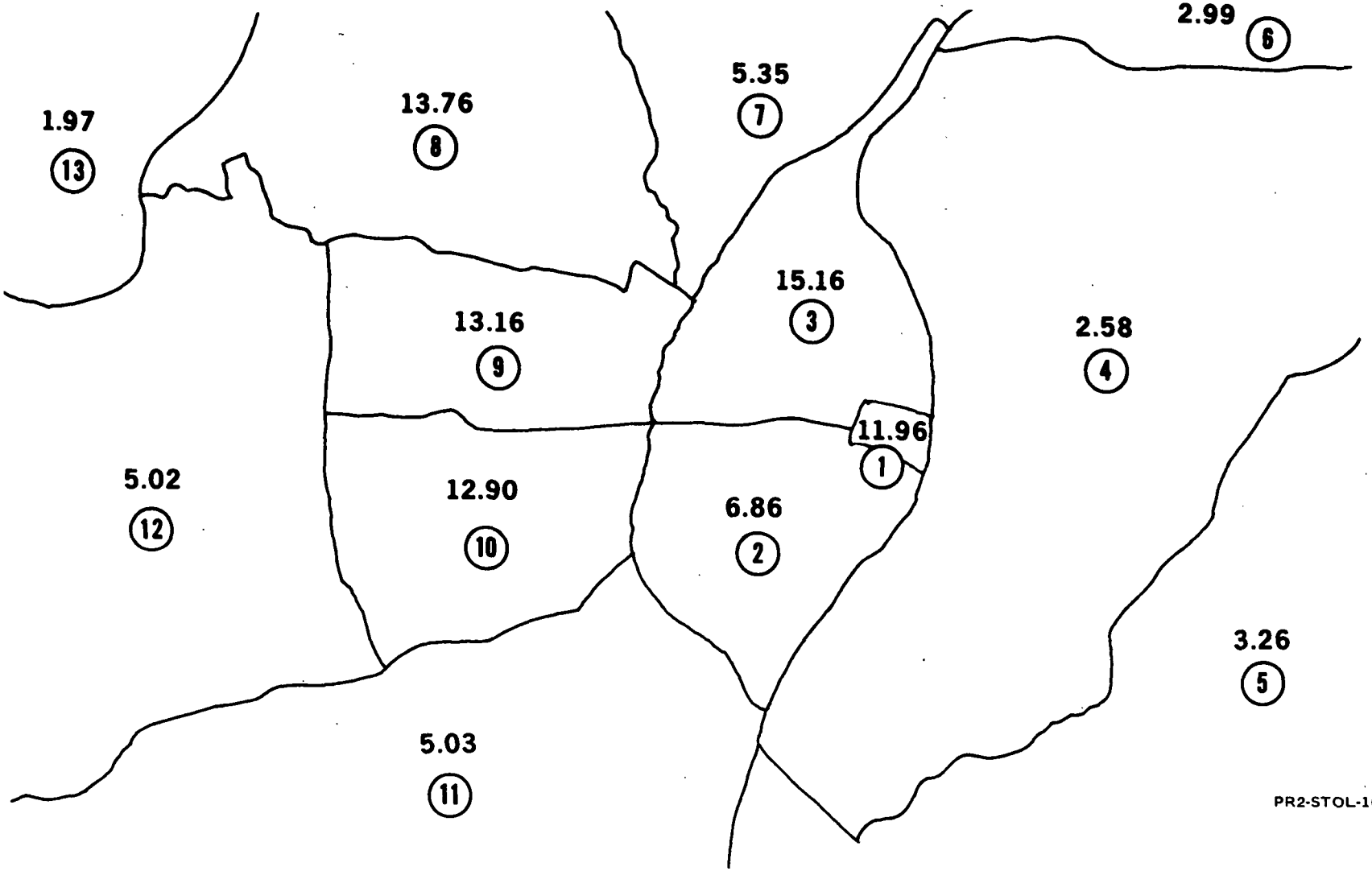


PR2-STOL-1064

ST LOUIS

GROUND ORIGIN AND DESTINATION ZONES

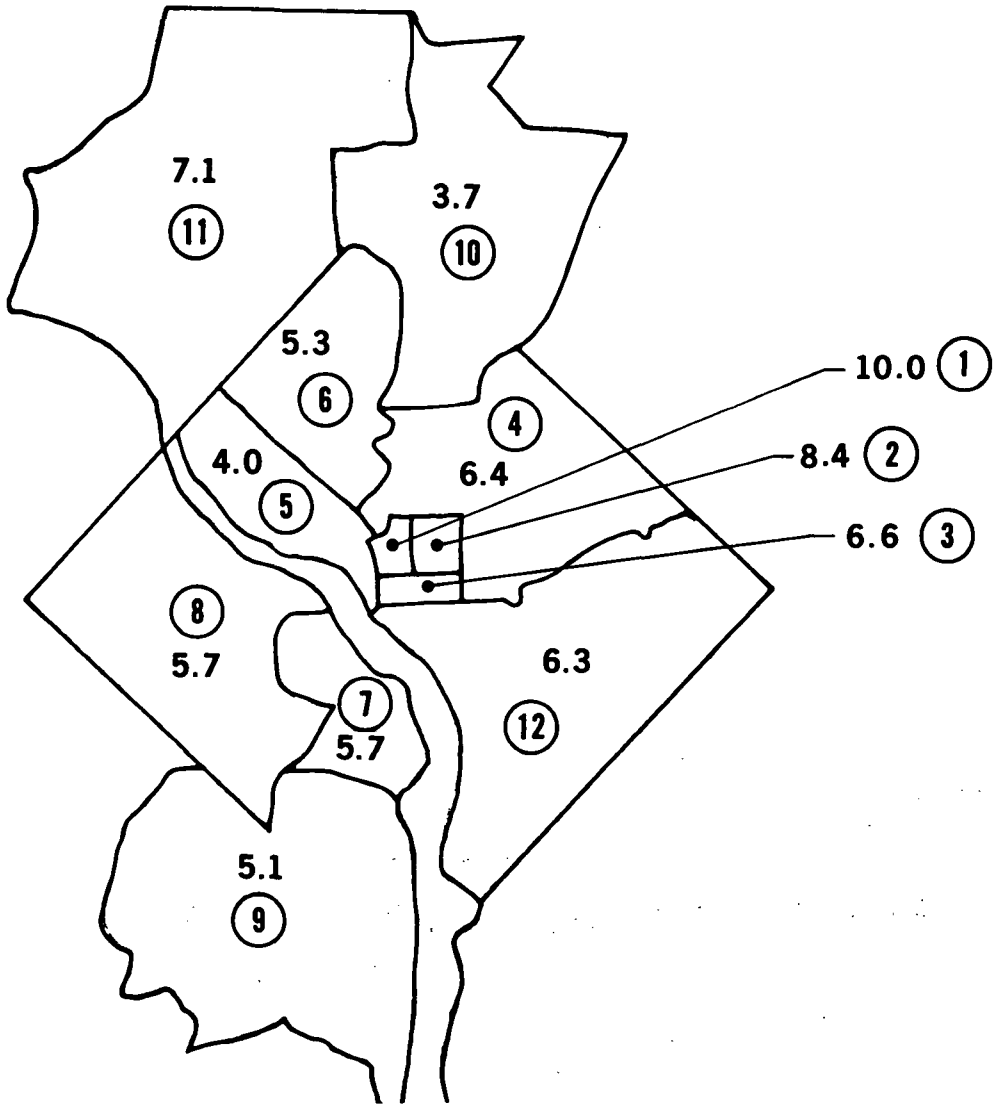
PERCENTAGE AIR TRAFFIC DISTRIBUTION



WASHINGTON

GROUND ORIGIN AND DESTINATION ZONES

PERCENTAGE AIR TRAFFIC DISTRIBUTION



PR2-STOL-1066

APPENDIX 11.7
CITY PAIR PARAMETRIC ANALYSIS

The following Appendix contains an example of the parametric analyses conducted in Phase I for the 1985 Chicago-Detroit market. The parameters used in the twelve runs are as follows:

Run No.	Aircraft Seating Capacity	Fare Multiple (X's STOL Coach)
1	50	1.00
2	50	1.25
3	50	1.50
4	100	1.00
5	100	1.25
6	100	1.50
7	150	1.00
8	150	1.25
9	150	1.50
10	200	1.00
11	200	1.25
12	200	1.50

The modes referred to in the runs are as follows:

Mode No.	Mode Type
1	CTOL
2	Auto
3	Bus
4	Rail
5	STOL

A description of the terminals identified by number in the following tables are listed below. The terminals marked by an asterisk were used in this set of parametric runs.

APPENDIX 11.7
(Continued)

City 1 - Chicago

Terminal No.	Mode	Description
1*	CTOL	O'Hare International Airport
2	CTOL	Chicago-Midway Airport
3*	Auto	Intersection I-80 & I-65
4	Auto	Intersection I-80 & I-55
5	Auto	Intersection I-90 & Ill-31
6*	Bus	Central Business District
7*	Rail	Central Business District
8*	STOL	Merrill C. Meigs Field
9	STOL	Chicago-Midway Airport
10	STOL	O'Hare International Airport
11	STOL	Mitchell Field, Lombard, Ill.
12	STOL	Palwaukee Airport

*Terminals used for Parametric Runs 1-12

City 2 - Detroit

Terminal No.	Mode	Description
1*	CTOL	Detroit Metropolitan Wayne County Airport
2*	Auto	Intersection I-94 & Mich.-14
3	Auto	I-75 at Monroe, Mich.
4*	Bus	Central Business District
5*	Rail	Central Business District
6*	STOL	Detroit City Airport
7*	STOL	Berz Airport, Birmingham, Mich.
8	STOL	McKinley Airport, Fraser, Mich.
9	STOL	Willow Run Airport
10	STOL	Detroit Metropolitan-Wayne County Airport

*Terminals used for Parametric Runs 1-12.

APPENDIX 11.7

INPUT FOR CITY 1

CHICAGO

NO OF SECTIONS = 8

NO OF TERMINALS= 12

TERMINAL NO.	MODE	CONTINGENCY TIME (MIN)	BAG RECL. TIME (MIN)	BAG HAND. COST (DOL)	AVE. DELAY TIME (MIN)	PARKING COST (DOL)
1	1	20.00	5.00	0.05	3.00	2.00
2	1	20.00	5.00	0.05	3.00	2.00
3	2	0.0	0.0	0.0	0.0	0.0
4	2	0.0	0.0	0.0	0.0	0.0
5	2	0.0	0.0	0.0	0.0	2.00
6	3	20.00	5.00	0.05	3.00	2.00
7	4	20.00	5.00	0.05	3.00	2.00
8	5	20.00	5.00	0.05	3.00	2.00
9	5	20.00	5.00	0.05	3.00	2.00
10	5	20.00	5.00	0.05	3.00	2.00
11	5	20.00	5.00	0.05	3.00	2.00
12	5	20.00	5.00	0.05	3.00	2.00

SECTION NO	TYPE	PORTION OF TRAF	TERMINAL NO. 1 DIST / TIME	2 DIST / TIME	3 DIST / TIME	4 DIST / TIME	5 DIST / TIME	6 DIST / TIME	7 DIST / TIME	8 DIST / TIME	9 DIST / TIME	10 DIST / TIME	11 DIST / TIME	12 DIST / TIME
1	1	0.3300	16.0	12.0	38.0	46.0	37.0	1.0	1.0	3.0	12.0	16.0	21.0	23.0
			35.0	25.0	53.0	62.0	52.0	5.0	5.0	12.0	25.0	35.0	40.0	45.0
2	1	0.1590	10.0	10.0	42.0	46.0	34.0	6.0	6.0	10.0	10.0	10.0	15.0	14.0
			20.0	20.0	58.0	62.0	45.0	12.0	12.0	25.0	20.0	20.0	30.0	28.0
3	2	0.1020	20.0	3.0	29.0	38.0	40.0	6.0	6.0	6.0	3.0	20.0	23.0	23.0
			40.0	10.0	40.0	51.0	56.0	12.0	12.0	15.0	10.0	40.0	45.0	45.0
4	2	0.1350	6.0	21.0	50.0	53.0	24.0	16.0	16.0	19.0	21.0	6.0	19.0	4.0
			12.0	45.0	67.0	70.0	35.0	30.0	32.0	38.0	45.0	12.0	38.0	11.0
5	2	0.0490	15.0	30.0	65.0	55.0	8.0	26.0	26.0	29.0	30.0	15.0	12.0	13.0
			30.0	45.0	82.0	72.0	15.0	52.0	52.0	58.0	55.0	30.0	24.0	26.0
6	3	0.0730	22.0	36.0	75.0	65.0	27.0	32.0	32.0	35.0	36.0	22.0	23.0	12.0
			44.0	72.0	100.0	87.0	36.0	64.0	64.0	70.0	72.0	44.0	46.0	24.0
7	2	0.0880	18.0	19.0	51.0	28.0	25.0	23.0	23.0	24.0	19.0	18.0	6.0	25.0
			36.0	38.0	68.0	37.0	33.0	46.0	46.0	48.0	38.0	36.0	12.0	50.0
8	2	0.0640	36.0	16.0	19.0	33.0	51.0	20.0	20.0	19.0	16.0	36.0	35.0	44.0
			72.0	32.0	25.0	44.0	68.0	40.0	40.0	38.0	32.0	72.0	70.0	88.0

APPENDIX 11.7

INPUT FOR CITY 2

DETROIT

NO OF SECTIONS = 12

NO OF TERMINALS= 10

TERMINAL NO.	MODE	CONTINGENCY TIME (MIN)	BAG RECL. TIME (MIN)	BAG HAND. COST (DOL)	AVE. DELAY TIME (MIN)	PARKING COST (DOL)
1	1	20.00	5.00	0.05	3.00	2.00
2	2	0.0	0.0	0.0	0.0	0.0
3	2	0.0	0.0	0.0	0.0	0.0
4	3	20.00	5.00	0.05	3.00	2.00
5	4	20.00	5.00	0.05	3.00	2.00
6	5	20.00	5.00	0.05	3.00	2.00
7	5	20.00	5.00	0.05	3.00	2.00
8	5	20.00	5.00	0.05	3.00	2.00
9	5	20.00	5.00	0.05	3.00	2.00
10	5	20.00	5.00	0.05	3.00	2.00

SECTION NO	TYPE	PORTION OF TRAF	TERMINAL NO. 1 DIST / TIME	2 DIST / TIME	3 DIST / TIME	4 DIST / TIME	5 DIST / TIME	6 DIST / TIME	7 DIST / TIME	8 DIST / TIME	9 DIST / TIME	10 DIST / TIME
1	3	0.0140	57.0	81.0	78.0	46.0	46.0	38.0	38.0	27.0	67.0	57.0
			100.0	130.0	120.0	70.0	70.0	60.0	60.0	40.0	115.0	100.0
2	2	0.0960	29.0	53.0	48.0	13.0	13.0	7.0	10.0	3.0	40.0	29.0
			55.0	80.0	80.0	25.0	25.0	15.0	20.0	10.0	70.0	55.0
3	3	0.0430	34.0	58.0	54.0	26.0	26.0	26.0	10.0	18.0	44.0	34.0
			62.0	85.0	90.0	45.0	45.0	40.0	20.0	35.0	75.0	62.0
4	3	0.0940	26.0	50.0	46.0	22.0	22.0	21.0	10.0	19.0	36.0	26.0
			50.0	75.0	80.0	35.0	35.0	40.0	20.0	35.0	61.0	50.0
5	2	0.1340	22.0	46.0	40.0	13.0	13.0	13.0	5.0	16.0	32.0	22.0
			45.0	70.0	70.0	25.0	25.0	25.0	10.0	30.0	57.0	45.0
6	2	0.0750	22.0	46.0	40.0	5.0	5.0	1.0	16.0	10.0	32.0	22.0
			45.0	70.0	70.0	10.0	10.0	5.0	30.0	20.0	67.0	45.0
7	1	0.1240	16.0	40.0	35.0	6.0	6.0	9.0	10.0	21.0	26.0	16.0
			35.0	65.0	65.0	12.0	12.0	18.0	20.0	35.0	50.0	35.0
8	1	0.1230	18.0	42.0	35.0	1.0	1.0	5.0	14.0	16.0	28.0	18.0
			40.0	68.0	65.0	5.0	5.0	10.0	28.0	32.0	55.0	40.0
9	2	0.1180	11.0	22.0	37.0	15.0	15.0	19.0	21.0	30.0	16.0	11.0
			25.0	45.0	65.0	30.0	30.0	38.0	42.0	50.0	30.0	25.0
10	1	0.0440	6.0	30.0	22.0	13.0	13.0	18.0	22.0	27.0	16.0	6.0
			15.0	55.0	40.0	25.0	25.0	36.0	44.0	45.0	35.0	15.0
11	3	0.0190	19.0	40.0	11.0	26.0	26.0	30.0	38.0	40.0	22.0	19.0
			40.1	65.0	22.0	45.0	45.0	50.0	55.0	60.0	45.0	40.0
12	3	0.1160	19.0	5.0	38.0	32.0	32.0	42.0	44.0	48.0	10.0	19.0
			40.0	10.0	60.0	55.0	55.0	65.0	65.0	70.0	20.0	40.0

APPENDIX 11.7

08/30/72 RUN 1 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	27.00

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	45.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	180.0	0.0	0.0	
5	0.0	0.0	0.0	450.0	0.0	
6	0.0	0.0	0.0	0.0	15.0	
7	0.0	0.0	0.0	0.0	25.0	

APPENDIX 11.7

08/30/72 RUN 1 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
	PERCENT	PAX/	PERCENT	PAX/		
MODE	TRAFFIC	YR	TRAFFIC	YR	DELTAS	
2	0.59	2931970.	0.44	2160444.	-0.16	-771526.
1	0.33	1656759.	0.52	2559804.	0.18	903045.
3	0.07	362003.	0.05	230489.	-0.03	-131514.
TOT		4950745.		4950738.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
	PERCENT	PAX/	PERCENT	PAX/		
MODE	TRAFFIC	YR	TRAFFIC	YR	DELTAS	
1	0.33	1656759.	0.14	706608.	-0.19	-950151.
2	0.59	2931970.	0.44	2160444.	-0.16	-771526.
3	0.05	271369.	0.03	171967.	-0.02	-99402.
4	0.02	90638.	0.01	58521.	-0.01	-32117.
5	0.0	0.	0.37	1853185.	0.37	1853185.
TOT		4950745.		4950738.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.632
8 7	0.596

STOL LOAD FACTOR = 0.619 21.17 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	7.1	0.0	0.0	0.0	0.0	7.1
2	0.0	21.6	0.0	0.0	0.0	21.6
4	0.0	0.0	1.7	0.0	0.0	1.7
5	0.0	0.0	0.0	0.6	0.0	0.6
6	0.0	0.0	0.0	0.0	11.8	11.8
7	0.0	0.0	0.0	0.0	6.7	6.7
SUM	7.1	21.6	1.7	0.6	18.5	

APPENDIX 11.7

08/30/72 RUN 2 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	33.75

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	25.7
7	0.0	0.0	0.0	0.0	42.9

APPENDIX 11.7

08/30/72 RUN 2 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL		
	PERCENT	PAX/	PERCENT	PAX/	
MODE	TRAFFIC	YR	TRAFFIC	YR	DELTAS
2	0.59	2931970.	0.53	2601604.	-0.07 -330366.
1	0.33	1656759.	0.41	2046208.	0.08 389449.
3	0.07	362003.	0.06	302923.	-0.01 -59080.
TOT		4950745.		4950737.	

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL		
	PERCENT	PAX/	PERCENT	PAX/	
MODE	TRAFFIC	YR	TRAFFIC	YR	DELTAS
1	0.33	1656759.	0.20	995122.	-0.13 -661637.
2	0.59	2931970.	0.53	2601604.	-0.07 -330366.
3	0.05	271369.	0.05	226596.	-0.01 -44774.
4	0.02	90638.	0.02	76326.	-0.00 -14312.
5	0.0	0.	0.21	1051074.	0.21 1051074.
TOT		4950745.		4950737.	

TERMINAL IN CITY	LOAD FACTOR
8 6	0.606
8 7	0.597

STOL LOAD FACTOR = 0.602 12.35 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	10.0	0.0	0.0	0.0	0.0	10.0
2	0.0	26.0	0.0	0.0	0.0	26.0
4	0.0	0.0	2.3	0.0	0.0	2.3
5	0.0	0.0	0.0	0.8	0.0	0.8
6	0.0	0.0	0.0	0.0	6.6	6.6
7	0.0	0.0	0.0	0.0	3.9	3.9
SUM	10.0	26.0	2.3	0.8	10.5	

08/30/72 RUN 3 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	40.50

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	52.9
7	0.0	0.0	0.0	0.0	100.0

APPENDIX 11.7

08/30/72 RUN 3 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.58	2858475.	-0.01	-73495.
1	0.33	1656759.	0.35	1743251.	0.02	86492.
3	0.07	362003.	0.07	349008.	-0.00	-12995.
TOT		4950745.		4950735.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.25	1253458.	-0.08	-403301.
2	0.59	2931970.	0.58	2858475.	-0.01	-73495.
3	0.05	271369.	0.05	261530.	-0.00	-9840.
4	0.02	90638.	0.02	87481.	-0.00	-3157.
5	0.0	0.	0.10	489781.	0.10	489781.
TOT		4950745.		4950735.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.589
8 7	0.631

STOL LOAD FACTOR = 0.604 5.73 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
1		16.6	0.0	0.0	0.0	0.0	16.6
2		0.0	29.3	0.0	0.0	0.0	29.3
4		0.0	0.0	2.7	0.0	0.0	2.7
5		0.0	0.0	0.0	0.9	0.0	0.9
6		0.0	0.0	0.0	0.0	0.0	0.0
7		0.0	0.0	0.0	0.0	0.0	0.0
SUM		16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
1		12.5	0.0	0.0	0.0	0.0	12.5
2		0.0	28.6	0.0	0.0	0.0	28.6
4		0.0	0.0	2.6	0.0	0.0	2.6
5		0.0	0.0	0.0	0.9	0.0	0.9
6		0.0	0.0	0.0	0.0	3.1	3.1
7		0.0	0.0	0.0	0.0	1.8	1.8
SUM		12.5	28.6	2.6	0.9	4.9	

08/30/72 RUN 4 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	27.00

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	29.0
7	0.0	0.0	0.0	0.0	52.9

APPENDIX 11.7

08/30/72 RUN 4 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.44	2186610.	-0.15	-745360.
1	0.33	1656759.	0.51	2529814.	0.18	873055.
3	0.07	362003.	0.05	234315.	-0.03	-127688.
TOT		4950745.		4950740.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.15	717995.	-0.19	-938764.
2	0.59	2931970.	0.44	2186610.	-0.15	-745360.
3	0.05	271369.	0.04	174834.	-0.02	-96535.
4	0.02	90638.	0.01	59480.	-0.01	-31158.
5	0.0	0.	0.37	1811810.	0.37	1811810.
TOT		4950745.		4950740.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.601
8 7	0.612

STOL LOAD FACTOR = 0.605 10.58 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	7.2	0.0	0.0	0.0	0.0	7.2
2	0.0	21.9	0.0	0.0	0.0	21.9
4	0.0	0.0	1.7	0.0	0.0	1.7
5	0.0	0.0	0.0	0.6	0.0	0.6
6	0.0	0.0	0.0	0.0	11.6	11.6
7	0.0	0.0	0.0	0.0	6.5	6.5
SUM	7.2	21.9	1.7	0.6	18.1	

APPENDIX 11.7

08/30/72 RUN 5 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	33.75

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	52.9
7	0.0	0.0	0.0	0.0	90.0

APPENDIX 11.7

```
08/30/72   RUN    5    1985    CHICAGO -  DETROIT
W/O  HSGT  CITY   1  STOL/CTOL AIRPORTS  NONE
W/O  HSGT  CITY   2  STOL/CTOL AIRPORTS  NONE
```

WITHOUT HSGT

MODE	WITHOUT STOL PERCENT TRAFFIC	WITHOUT STOL PAX/ YR	WITH STOL PERCENT TRAFFIC	WITH STOL PAX/ YR	DELTAS	
2	0.59	2931970.	0.53	2629395.	-0.06	-302575.
1	0.33	1656759.	0.41	2013698.	0.07	356939.
3	0.07	362003.	0.06	307642.	-0.01	-54361.
TOT		4950745.		4950736.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

MODE	WITHOUT STOL PERCENT TRAFFIC	WITHOUT STOL PAX/ YR	WITH STOL PERCENT TRAFFIC	WITH STOL PAX/ YR	DELTAS	
1	0.33	1656759.	0.21	1017481.	-0.13	-639278.
2	0.59	2931970.	0.53	2629395.	-0.06	-302575.
3	0.05	271369.	0.05	230161.	-0.01	-41208.
4	0.02	90638.	0.02	77481.	-0.00	-13158.
5	0.0	0.	0.20	996205.	0.20	996205.
TOT		4950745.		4950736.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.597
8 7	0.581

STOL LOAD FACTOR = 0.591 5.95 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	10.2	0.0	0.0	0.0	0.0	10.2
2	0.0	26.3	0.0	0.0	0.0	26.3
4	0.0	0.0	2.3	0.0	0.0	2.3
5	0.0	0.0	0.0	0.8	0.0	0.8
6	0.0	0.0	0.0	0.0	6.3	6.3
7	0.0	0.0	0.0	0.0	3.6	3.6
SUM	10.2	26.3	2.3	0.8	10.0	

APPENDIX 11.7

08/30/72 RUN 6 .1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	40.50

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	128.6
7	0.0	0.0	0.0	0.0	300.0

APPENDIX 11.7

08/30/72 RUN 6 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.59	2898946.	-0.01	-33024.
1	0.33	1656759.	0.34	1695937.	0.01	39178.
3	0.07	362003.	0.07	355850.	-0.00	-6153.
TOT		4950745.		4950734.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.26	1303613.	-0.07	-353146.
2	0.59	2931970.	0.59	2898946.	-0.01	-33024.
3	0.05	271369.	0.05	266704.	-0.00	-4665.
4	0.02	90638.	0.02	89149.	-0.00	-1489.
5	0.0	0.	0.08	392315.	0.08	392315.
TOT		4950745.		4950734.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.620
8 7	0.649

STOL LOAD FACTOR = 0.629 2.20 A/C REQ
NIT = 6

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	13.0	0.0	0.0	0.0	0.0	13.0
2	0.0	29.0	0.0	0.0	0.0	29.0
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	2.7	2.7
7	0.0	0.0	0.0	0.0	1.2	1.2
SUM	13.0	29.0	2.7	0.9	3.9	

APPENDIX 11.7

C8/30/72 RUN 7 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	27.00

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	45.0
7	0.0	0.0	0.0	0.0	81.8

APPENDIX 11.7

```
08/30/72   RUN    7    1985    CHICAGO -  DETROIT
W/O  HSGT  CITY   1  STOL/CTOL AIRPORTS  NONE
W/O  HSGT  CITY   2  STOL/CTOL AIRPORTS  NONE
```

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.45	2214820.	-0.14	-717150.
1	0.33	1656759.	0.50	2497437.	0.17	840678.
3	0.07	362003.	0.05	238481.	-0.02	-123522.
TOT		4950745.		4950739.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.15	730332.	-0.19	-926427.
2	0.59	2931970.	0.45	2214820.	-0.14	-717150.
3	0.05	271369.	0.04	177958.	-0.02	-93411.
4	0.02	90638.	0.01	60522.	-0.01	-30116.
5	0.0	0.	0.36	1767096.	0.36	1767096.
TOT		4950745.		4950739.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.608
8 7	0.610

STOL LOAD FACTOR = 0.609 6.83 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	7.3	0.0	0.0	0.0	0.0	7.3
2	0.0	22.1	0.0	0.0	0.0	22.1
4	0.0	0.0	1.8	0.0	0.0	1.8
5	0.0	0.0	0.0	0.6	0.0	0.6
6	0.0	0.0	0.0	0.0	11.4	11.4
7	0.0	0.0	0.0	0.0	6.3	6.3
SUM	7.3	22.1	1.8	0.6	17.7	

APPENDIX 11.7

08/30/72 RUN 8 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	33.75

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	81.8
7	0.0	0.0	0.0	0.0	150.0

APPENDIX 11.7

```
08/30/72   RUN    8    1985    CHICAGO -  DETROIT
W/O  HSGT  CITY   1  STOL/CTOL AIRPORTS  NONE
W/O  HSGT  CITY   2  STOL/CTOL AIRPORTS  NONE
```

WITHOUT HSGT

MODE	WITHOUT STOL PERCENT TRAFFIC	WITHOUT STOL PAX/ YR	WITH STOL PERCENT TRAFFIC	WITH STOL PAX/ YR	DELTAS	
2	0.59	2931970.	0.54	2659930.	-0.05	-272040.
1	0.33	1656759.	0.40	1978062.	0.06	321303.
3	0.07	362003.	0.06	312744.	-0.01	-49259.
TOT		4950745.		4950737.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

MODE	WITHOUT STOL PERCENT TRAFFIC	WITHOUT STOL PAX/ YR	WITH STOL PERCENT TRAFFIC	WITH STOL PAX/ YR	DELTAS	
1	0.33	1656759.	0.21	1043020.	-0.12	-613739.
2	0.59	2931970.	0.54	2659930.	-0.05	-272040.
3	0.05	271369.	0.05	234013.	-0.01	-37356.
4	0.02	90638.	0.02	78731.	-0.00	-11907.
5	0.0	0.	0.19	935030.	0.19	935030.
TOT		4950745.		4950737.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.588
8 7	0.588

STOL LOAD FACTOR = 0.588 3.75 A/C REQ
NIT = 6

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	10.4	0.0	0.0	0.0	0.0	10.4
2	0.0	26.6	0.0	0.0	0.0	26.6
4	0.0	0.0	2.3	0.0	0.0	2.3
5	0.0	0.0	0.0	0.8	0.0	0.8
6	0.0	0.0	0.0	0.0	6.0	6.0
7	0.0	0.0	0.0	0.0	3.3	3.3
SUM	10.4	26.6	2.3	0.8	9.4	

08/30/72 RUN 9 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	40.50

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1				
2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	180.0	0.0	0.0
5	0.0	0.0	0.0	450.0	0.0
6	0.0	0.0	0.0	0.0	225.0
7	0.0	0.0	0.0	0.0	450.0

APPENDIX 11.7

08/30/72 RUN 9 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.59	2915196.	-0.00	-16774.
1	0.33	1656759.	0.34	1676743.	0.00	19984.
3	0.07	362003.	0.07	358794.	-0.00	-3209.
TOT		4950745.		4950734.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.27	1354696.	-0.06	-302063.
2	0.59	2931970.	0.59	2915196.	-0.00	-16774.
3	0.05	271369.	0.05	268933.	-0.00	-2436.
4	0.02	90638.	0.02	89865.	-0.00	-774.
5	0.0	0.	0.07	322044.	0.07	322044.
TOT		4950745.		4950734.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.606
8 7	0.509

STOL LOAD FACTOR = 0.573 1.32 A/C REQ
NIT = 11

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
	1	16.6	0.0	0.0	0.0	0.0	16.6
	2	0.0	29.3	0.0	0.0	0.0	29.3
	4	0.0	0.0	2.7	0.0	0.0	2.7
	5	0.0	0.0	0.0	0.9	0.0	0.9
	6	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0
	SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
	1	13.5	0.0	0.0	0.0	0.0	13.5
	2	0.0	29.2	0.0	0.0	0.0	29.2
	4	0.0	0.0	2.7	0.0	0.0	2.7
	5	0.0	0.0	0.0	0.9	0.0	0.9
	6	0.0	0.0	0.0	0.0	2.3	2.3
	7	0.0	0.0	0.0	0.0	1.0	1.0
	SUM	13.5	29.2	2.7	0.9	3.2	

08/30/72 RUN 10 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	27.00

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	45.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	180.0	0.0	0.0	
5	0.0	0.0	0.0	450.0	0.0	
6	0.0	0.0	0.0	0.0	60.0	
7	0.0	0.0	0.0	0.0	112.5	

APPENDIX 11.7

08/30/72 RUN 1C 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.45	2241742.	-0.14	-690228.
1	0.33	1656759.	0.50	2466546.	0.16	809787.
3	0.07	362003.	0.05	242448.	-0.02	-119555.
TOT		4950745.		4950738.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.15	743093.	-0.18	-913666.
2	0.59	2931970.	0.45	2241742.	-0.14	-690228.
3	0.05	271369.	0.04	180932.	-0.02	-90437.
4	0.02	90638.	0.01	61515.	-0.01	-29123.
5	0.0	0.	0.35	1723445.	0.35	1723445.
TOT		4950745.		4950738.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.597
8 7	0.607

STOL LOAD FACTOR = 0.600 5.07 A/C REQ
NIT = 5

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	7.4	0.0	0.0	0.0	0.0	7.4
2	0.0	22.4	0.0	0.0	0.0	22.4
4	0.0	0.0	1.8	0.0	0.0	1.8
5	0.0	0.0	0.0	0.6	0.0	0.6
6	0.0	0.0	0.0	0.0	11.2	11.2
7	0.0	0.0	0.0	0.0	6.1	6.1
SUM	7.4	22.4	1.8	0.6	17.2	

APPENDIX 11.7

08/30/72 RUN 11 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	33.75

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1					
	2	1	3	6	7	8
1	45.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	180.0	0.0	0.0	
5	0.0	0.0	0.0	450.0	0.0	
6	0.0	0.0	0.0	0.0	112.5	
7	0.0	0.0	0.0	0.0	225.0	

APPENDIX 11.7

08/30/72 RUN 11 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.54	2692042.	-0.05	-239928.
1	0.33	1656759.	0.39	1940630.	0.06	283871.
3	0.07	362003.	0.06	318063.	-0.01	-43940.
TOT		4950745.		4950736.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.22	1072445.	-0.12	-584314.
2	0.59	2931970.	0.54	2692042.	-0.05	-239928.
3	0.05	271369.	0.05	238029.	-0.01	-33340.
4	0.02	90638.	0.02	80035.	-0.00	-10603.
5	0.0	0.	0.18	868173.	0.18	868173.
TOT		4950745.		4950736.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.576
8 7	0.587

STOL LOAD FACTOR = 0.580 2.65 A/C REQ
NIT = 6

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
1		16.6	0.0	0.0	0.0	0.0	16.6
2		0.0	29.3	0.0	0.0	0.0	29.3
4		0.0	0.0	2.7	0.0	0.0	2.7
5		0.0	0.0	0.0	0.9	0.0	0.9
6		0.0	0.0	0.0	0.0	0.0	0.0
7		0.0	0.0	0.0	0.0	0.0	0.0
SUM		16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY	TERMINAL IN CITY 2	1	3	6	7	8	
1		10.7	0.0	0.0	0.0	0.0	10.7
2		0.0	26.9	0.0	0.0	0.0	26.9
4		0.0	0.0	2.4	0.0	0.0	2.4
5		0.0	0.0	0.0	0.8	0.0	0.8
6		0.0	0.0	0.0	0.0	5.8	5.8
7		0.0	0.0	0.0	0.0	2.9	2.9
SUM		10.7	26.9	2.4	0.8	8.7	

08/30/72 RUN 12 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

AUTO DISTANCE = 192.0 MI AUTO SPEED = 65.0 MPH

MODE	TIME (MIN)	FARE
1	53.0	27.00
2	177.2	12.34
3	325.0	14.50
4	355.0	16.25
5	53.0	40.50

PROJECTED CTOL TRAFFIC = 1656760.PAX/YR

SERVICE FREQUENCY TIMES (MIN)

TERM IN CITY	TERMINAL IN CITY 1					
2	1	3	6	7	8	
1	45.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	180.0	0.0	0.0	
5	0.0	0.0	0.0	450.0	0.0	
6	0.0	0.0	0.0	0.0	450.0	
7	0.0	0.0	0.0	0.0	450.0	

APPENDIX 11.7

08/30/72 RUN 12 1985 CHICAGO - DETROIT
W/O HSGT CITY 1 STOL/CTOL AIRPORTS NONE
W/O HSGT CITY 2 STOL/CTOL AIRPORTS NONE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
2	0.59	2931970.	0.59	2931580.	-0.00	-390.
1	0.33	1656759.	0.33	1657170.	0.00	411.
3	0.07	362003.	0.07	361981.	-0.00	-22.
TOT		4950745.		4950733.		

PROJECTED TRAFFIC BY MODE

WITHOUT HSGT

	WITHOUT STOL		WITH STOL			
MODE	PERCENT TRAFFIC	PAX/ YR	PERCENT TRAFFIC	PAX/ YR	DELTAS	
1	0.33	1656759.	0.29	1411151.	-0.05	-245608.
2	0.59	2931970.	0.59	2931580.	-0.00	-390.
3	0.05	271369.	0.05	271353.	-0.00	-16.
4	0.02	90638.	0.02	90632.	-0.00	-6.
5	0.0	0.	0.05	246019.	0.05	246019.
TOT		4950745.		4950733.		

TERMINAL IN CITY	LOAD FACTOR
8 6	0.588
8 7	0.398

STOL LOAD FACTOR = 0.493 0.88 A/C REQ
NIT = 11

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITHOUT STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	16.6	0.0	0.0	0.0	0.0	16.6
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
SUM	16.6	29.3	2.7	0.9	0.0	

PROJECTED TRAFFIC BY TERMINAL PAIR (100,000 PAX/YR
WITH STOL--WITHOUT HSGT

TERM IN CITY 2	TERMINAL IN CITY 1					
	1	3	6	7	8	
1	14.1	0.0	0.0	0.0	0.0	14.1
2	0.0	29.3	0.0	0.0	0.0	29.3
4	0.0	0.0	2.7	0.0	0.0	2.7
5	0.0	0.0	0.0	0.9	0.0	0.9
6	0.0	0.0	0.0	0.0	1.5	1.5
7	0.0	0.0	0.0	0.0	1.0	1.0
SUM	14.1	29.3	2.7	0.9	2.5	

APPENDIX 11.8

FOREIGN CITY PAIR FLIGHT DATA

This tabulation was obtained from the August 1971 Official Airline Guide-International Edition. The column headings are self explanatory. However, it should be pointed out that the city pairs are ranked by seats flown per day. There are 200 city pairs shown in the 0-600 statute mile (966 km) range category. In the 0-900 statute mile (1448 km) range category, there are a total of 225 city pairs. Finally, in the 0-1200 statute mile range category (1931 km) a total of 235 city pairs were identified.

APPENDIX 11.8

AUGUST 1971 AIRPORT-PAIR DIGEST

RANKED BY SEATS

0 - 600 ST MI (966 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
1	OSA-TYO	OSA-TYO	249	12	86.43	21521.	13824.	3442140.	81.67
2	CTS-TYO	SPK-TYO	510	3	69.71	35554.	12148.	6195625.	94.55
3	YUL-YYZ	YUL-YYZ	315	3	57.71	18180.	7474.	2354354.	61.23
4	LHR-ORY	LON-PAR	227	13	57.71	13101.	7443.	1689463.	67.40
5	FUK-OSA	FUK-OSA	297	3	49.00	14553.	5807.	1724679.	45.58
6	MEL-SYD	MEB-SYD	438	6	59.14	25905.	5714.	2502732.	70.31
7	FRA-LHR	FRA-LON	405	18	33.43	13539.	5056.	2047621.	45.71
8	HAJ-THF	HAJ-BER	156	2	55.71	8691.	4918.	767252.	37.88
9	FUK-TYO	FUK-TYO	546	3	31.00	16926.	4565.	2492490.	49.42
10	AMS-LHR	AMS-LON	229	6	40.00	9160.	4003.	916720.	37.02
11	FRA-THF	FRA-BER	268	3	44.29	11869.	3922.	1051019.	42.43
12	FCO-LIN	ROM-MIL	294	1	47.43	13944.	3692.	1085448.	52.52
13	HKG-TPE	HKG-TPE	502	10	28.43	14271.	3598.	1806267.	40.80
14	HAM-THF	HAM-BER	163	2	37.71	6147.	3550.	578697.	25.98
15	DUB-LHR	DUB-LON	279	2	33.86	9446.	3537.	986863.	35.90
16	CGH-GIG	SAO-RIO	224	7	36.57	8192.	3414.	764704.	27.96
17	CGH-SDU	SAO-RIO	228	4	62.43	14234.	3412.	777838.	65.06
18	ARN-CPH	STO-CPH	340	11	37.71	12823.	3320.	1128702.	44.85
19	BNE-SYD	BNE-SYD	464	5	33.71	15643.	3252.	1508994.	41.46
20	ACA-MEX	ACA-MEX	191	5	30.29	5785.	3207.	612482.	22.59
21	GVA-ZRH	GVA-ZRH	143	6	26.00	3718.	3125.	446834.	16.69
22	FRA-HAM	FRA-HAM	256	3	25.57	6546.	3099.	793271.	23.44
23	SJU-STT	SJU-STT	68	6	139.71	9501.	3029.	205953.	69.75
24	BCN-MAD	BCN-MAD	300	2	28.43	8529.	2899.	869829.	28.83
25	NCE-ORY	NCE-PAR	419	2	25.43	10655.	2782.	1165777.	35.51
26	MIA-NAS	MIA-NAS	183	3	24.86	4549.	2758.	504714.	19.10
27	KIN-MBJ	KIN-MBJ	83	6	23.14	1921.	2721.	225831.	11.26
28	YOW-YYZ	YOW-YYZ	226	2	30.00	6780.	2709.	612234.	28.05
29	KUL-SIN	KUL-SIN	203	13	27.29	5539.	2585.	524784.	21.30
30	FRA-ORY	FRA-PAR	294	12	19.00	5586.	2580.	758646.	21.04
31	YOW-YUL	YOW-YUL	94	4	32.43	3048.	2554.	240116.	17.36
32	KOJ-OSA	KOJ-OSA	360	1	22.00	7920.	2413.	868834.	26.27
33	GVA-ORY	GVA-PAR	245	5	21.43	5250.	2363.	578970.	19.69
34	ORD-YYZ	CHI-YYZ	435	3	21.14	9197.	2255.	980863.	27.50
35	GLA-LHR	GLA-LON	345	1	20.43	7048.	2247.	775166.	24.55
36	LHR-ZRH	LON-ZRH	489	8	20.86	10199.	2236.	1093613.	30.77
37	MUC-THF	MUC-BER	310	3	25.14	7794.	2235.	692806.	30.33
38	ESB-IST	ESB-IST	229	7	26.14	5987.	2216.	507464.	21.90
39	JNB-LBZ	JNB-DUR	312	1	22.86	7131.	2184.	681274.	19.99
40	BCN-PMI	BCN-PMI	124	3	28.71	3561.	2182.	270603.	19.77
41	FRA-MUC	FRA-MUC	193	2	21.71	4191.	2149.	414674.	18.10
42	PSE-SJU	PSE-SJU	52	3	130.71	6797.	2111.	109779.	56.46
43	GDL-MEX	GDL-MEX	285	2	18.14	5171.	2079.	592434.	16.65
44	BFS-LHR	BFS-LON	325	1	15.71	5107.	2061.	669964.	19.96
45	CBR-SYD	CBR-SYD	147	2	27.14	3990.	2035.	299208.	19.48
46	CPH-FBU	CPH-OSL	304	6	23.00	6992.	2025.	615687.	24.43
47	EDI-LHR	EDI-LON	331	1	14.86	4918.	2006.	663891.	19.80
48	FRA-VIE	FRA-VIE	385	7	14.29	5500.	1987.	765105.	17.26
49	YVR-YYC	YVR-YYC	426	2	17.43	7425.	1955.	832647.	21.17
50	JKT-SIN	JKT-SIN	556	13	16.00	8896.	1936.	1076257.	22.79
		SUBTOTAL			1841.83	478927.	177371.	53270976.	1739.51
		CUM TOTAL			1841.83	478927.	177371.	53270976.	1739.51

0 - 600 ST MI (966 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
51	AEP-CSO	BUE-MVD	137	3	36.71	5030.	1934.	264919.	25.20
52	BRH-LHR	BRU-LON	216	5	19.86	4289.	1927.	416139.	18.30
53	BDI-POS	BDI-POS	212	7	14.86	3150.	1900.	402739.	11.08
54	STT-STX	STT-STX	45	8	77.14	3471.	1867.	84021.	31.18
55	AMS-FRA	AMS-FRA	228	7	16.57	3778.	1862.	424438.	16.29
56	DUB-SNN	DUB-SNN	121	1	9.43	1141.	1823.	220566.	5.50
57	BOG-CLO	BOG-CLO	180	4	20.00	3600.	1808.	325466.	13.33
58	KMI-OSA	KMI-OSA	306	1	16.00	4896.	1808.	553248.	15.00
59	GVA-LHR	GVA-LON	468	6	17.29	8090.	1797.	840929.	24.30
60	BOG-MDE	BOG-MDE	145	4	21.57	3128.	1777.	257624.	12.96
61	JFK-YUL	NYC-YUL	334	4	17.86	5964.	1762.	588508.	23.38
62	KCZ-OSA	KCZ-OSA	133	2	28.00	3724.	1748.	232484.	24.50
63	ADL-MEL	ADL-MEB	403	2	16.86	6793.	1732.	697823.	18.29
64	GIG-VCP	RIO-SAO	249	13	11.00	2739.	1724.	429276.	9.77
65	DUS-THF	DUS-BER	295	2	17.71	5226.	1718.	506894.	17.24
66	BEG-ZAG	BEG-ZAG	216	5	18.57	4011.	1708.	368866.	14.93
67	OST-SEN	OST-SEN	97	1	42.00	4074.	1693.	164235.	26.92
68	CAG-FCO	CAG-ROM	243	1	16.00	3888.	1680.	408240.	15.67
69	BUF-YYZ	BUF-YYZ	69	2	20.00	1380.	1678.	115782.	9.73
70	FCO-FRA	ROM-FRA	596	14	12.86	7663.	1661.	989871.	21.88
71	SDQ-SJU	SDQ-SJU	240	4	15.71	3771.	1659.	398194.	12.57
72	MRS-ORY	MRS-PAR	390	3	16.57	6463.	1629.	635477.	21.73
73	BGO-FBU	BGO-OSL	188	1	19.14	3599.	1619.	304399.	13.71
74	FPO-NAS	FPO-NAS	129	5	25.57	3299.	1607.	207266.	15.94
75	FRA-ZRH	FRA-ZRH	178	5	13.57	2416.	1589.	282918.	10.67
76	AUA-CUR	AUA-CUR	74	4	16.29	1205.	1571.	116243.	7.00
77	STR-THF	STR-BER	320	2	16.00	5120.	1552.	496640.	17.67
78	DUS-MUC	DUS-MUC	310	2	14.43	4473.	1547.	479481.	15.15
79	AMS-BRH	AMS-BRU	99	8	14.57	1443.	1543.	152799.	9.93
80	MYJ-OSA	MYJ-OSA	170	1	24.00	4080.	1536.	261120.	26.00
81	MAZ-SJU	MAZ-SJU	76	3	89.14	6775.	1527.	116085.	52.67
82	LIN-ORY	MIL-PAR	396	3	14.57	5770.	1523.	603165.	18.57
83	CPH-GOT	CPH-GOT	152	2	19.57	2975.	1523.	231496.	16.01
84	LGA-YYZ	NYC-YYZ	357	1	15.14	5406.	1508.	538254.	18.71
85	MAD-SVQ	MAD-SVQ	245	2	16.86	4130.	1506.	368900.	14.13
86	JFK-YYZ	NYC-YYZ	367	1	16.00	5872.	1488.	546096.	22.17
87	LIS-MAD	LIS-MAD	319	7	12.29	3919.	1475.	470662.	12.44
88	YEG-YVR	YXD-YVR	503	2	13.14	6611.	1383.	695793.	17.81
89	AAR-CPH	AAR-CPH	92	1	23.71	2182.	1378.	126776.	18.58
90	LPA-TCI	LPA-TCI	68	1	31.71	2157.	1377.	93607.	15.52
91	AMS-ZRH	AMS-ZRH	376	4	12.14	4566.	1367.	514099.	15.64
92	CGN-THF	CGN-BER	291	2	14.00	4074.	1358.	395178.	13.50
93	LHR-MAN	LON-MAN	151	1	13.14	1985.	1343.	202858.	10.04
94	AAL-CPH	AAL-CPH	148	1	22.57	3341.	1336.	197686.	22.50
95	EBB-NBO	EBB-NBO	322	13	10.71	3450.	1335.	430008.	11.13
96	KMJ-OSA	KMJ-OSA	300	1	12.00	3600.	1332.	399600.	11.50
97	AMS-CPH	AMS-CPH	393	5	14.00	5502.	1325.	520669.	18.12
98	AGP-MAD	AGP-MAD	266	1	12.29	3268.	1320.	351120.	9.73
99	FCO-PMO	ROM-PMO	254	1	16.86	4282.	1315.	334046.	17.20
100	ATH-SKG	ATH-SKG	186	2	15.43	2870.	1310.	243687.	16.54
		SUBTOTAL			1021.41	204636.	79487.	19006336.	858.33
		CUM TOTAL			2863.23	683562.	256858.	72277024.	2597.84

0 - 600 ST MI (966 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
101	CTA-FCO	CTA-ROM	335	1	16.57	5551.	1292.	432820.	20.21
102	LGA-YUL	NYC-YUL	325	1	12.71	4132.	1291.	419529.	14.66
103	CPH-FRA	CPH-FRA	422	6	12.57	5305.	1290.	544501.	17.43
104	DUS-FRA	DUS-FRA	117	1	12.29	1437.	1275.	149192.	8.70
105	CHC-WLG	CHC-WLG	189	1	16.00	3024.	1271.	240300.	13.52
106	CGN-MUC	CGN-MUC	278	1	7.00	1946.	1271.	353338.	6.75
107	LYS-ORY	LYS-PAR	240	3	12.00	2880.	1257.	301577.	12.98
108	YXD-YYC	YXD-YYC	172	1	10.86	1867.	1256.	216081.	7.26
109	FCO-NAP	ROM-NAP	123	2	16.86	2073.	1251.	153926.	13.48
110	DUS-HAM	DUS-HAM	213	1	12.71	2708.	1245.	265124.	10.68
111	LBG-LHR	PAR-LON	214	4	12.14	2599.	1241.	265605.	10.62
112	ATH-RHO	ATH-RHO	264	1	14.57	3847.	1239.	327209.	18.14
113	YQB-YUL	YQB-YUL	145	2	20.71	3004.	1236.	179261.	15.74
114	OIT-OSA	OIT-OSA	242	1	20.00	4840.	1232.	298144.	25.83
115	BRH-FRA	BRU-FRA	189	4	12.57	2376.	1226.	231768.	11.13
116	ORY-ZRH	PAR-ZRH	299	5	12.86	3844.	1220.	364865.	13.21
117	OSA-TAK	OSA-TAK	85	1	22.00	1870.	1216.	103360.	14.67
118	BOS-YUL	BOS-YUL	255	1	12.00	3060.	1214.	309643.	11.00
119	BUD-SXF	BUD-SXF	433	2	12.86	5567.	1203.	521085.	21.75
120	ARN-HEL	STO-HEL	247	6	16.00	3952.	1197.	295624.	13.85
121	VIE-ZRH	VIE-ZRH	374	6	13.71	5129.	1191.	445380.	16.52
122	SJU-STX	SJU-STX	95	4	45.00	4275.	1180.	112141.	32.76
123	YVR-YYJ	YVR-YYJ	38	2	24.00	912.	1168.	44384.	10.00
124	FCO-ZRH	ROM-ZRH	431	9	11.14	4803.	1154.	497559.	15.13
125	BAQ-BOG	BAQ-BOG	429	3	13.29	5700.	1146.	491695.	16.06
126	DAR-NBO	DAR-NBO	414	16	8.43	3489.	1144.	473557.	10.14
127	SEA-YVR	SEA-YVR	126	1	10.00	1260.	1142.	143892.	6.25
128	FCO-MXP	ROM-MIL	319	2	7.57	2415.	1117.	356277.	7.27
129	CGH-POA	SAO-POA	520	6	11.14	5794.	1110.	577349.	14.06
130	FCO-TRN	ROM-TRN	329	1	14.00	4606.	1110.	365190.	15.42
131	MBJ-MIA	MBJ-MIA	526	3	10.00	5260.	1080.	568080.	13.75
132	AKL-WLG	AKL-WLG	298	1	12.57	3746.	1080.	321840.	13.36
133	BEY-CAI	BEY-CAI	348	4	8.57	2983.	1075.	374150.	15.92
134	PUS-SEL	PUS-SEL	210	1	19.71	4140.	1072.	225060.	19.12
135	FCO-VCE	ROM-VCE	257	1	13.14	3378.	1065.	273595.	13.13
136	YHZ-YQY	YHZ-YQY	190	2	10.00	1900.	1050.	199500.	7.00
137	FBU-GOT	OSL-GOT	153	4	11.00	1683.	1049.	160453.	7.92
138	MAR-MIQ	MAR-CCS	316	5	11.86	3747.	1040.	328505.	10.43
139	HAM-LHR	HAM-LON	462	3	10.00	4620.	1038.	479556.	13.92
140	DUS-LHR	DUS-LON	310	2	10.00	3100.	1016.	314960.	12.42
141	YQX-YYT	YQX-YYT	124	2	9.29	1151.	1008.	125010.	4.89
142	AMS-ORY	AMS-PAR	270	3	10.29	2777.	1005.	271466.	10.92
143	LST-MEL	LST-MEB	291	2	11.71	3409.	1000.	290875.	11.11
144	JER-LHR	JER-LON	175	1	12.57	2200.	991.	173500.	12.43
145	IST-IZM	IST-IZM	203	1	12.00	2436.	986.	200100.	8.00
146	GDL-PVR	GDL-PVR	127	3	7.57	962.	979.	124333.	3.77
147	BSL-ZRH	BSL-ZRH	49	1	12.00	588.	978.	47922.	5.25
148	BEG-OBV	BEG-OBV	186	2	10.86	2019.	969.	180154.	8.35
149	OMJ-OSA	OMJ-OSA	341	1	18.00	6138.	960.	327360.	31.50
150	MAD-PMI	MAD-PMI	337	1	9.14	3081.	955.	321883.	9.40
		SUBTOTAL			673.84	163584.	56783.	14788657.	657.81
		CUM TOTAL			3537.07	847147.	313640.	87065376.	3255.64

0 - 600 ST MI (966 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
151	CGN-FRA	CGN-FRA	85	1	8.57	729.	954.	81114.	5.36
152	FBU-TRD	OSL-TRD	247	2	12.71	3140.	954.	235673.	11.26
153	LHR-NCL	LON-NCL	252	1	8.29	2088.	953.	240120.	7.48
154	ARN-FBU	STO-OSL	254	4	11.43	2903.	939.	238542.	10.82
155	LHR-SNN	LON-SNN	370	3	8.57	3171.	936.	346320.	10.33
156	YQG-YYZ	YQG-YYZ	195	1	11.71	2284.	922.	179846.	9.71
157	ORY-TLS	PAR-TLS	356	3	9.71	3458.	920.	327622.	12.46
158	FRA-STR	FRA-STR	98	1	8.00	784.	919.	90104.	5.00
159	CEB-MNL	CEB-MNL	348	2	16.43	5717.	915.	318370.	26.50
160	CPH-HAM	CPH-HAM	174	2	10.29	1790.	912.	158738.	8.81
161	AEP-COR	BUE-COR	404	2	11.14	4502.	908.	366717.	13.10
162	DUB-MAN	DUB-MAN	164	4	9.43	1546.	905.	148397.	6.50
163	AMS-LBG	AMS-PAR	253	2	9.43	2385.	903.	228567.	8.65
164	HAM-MUC	HAM-MUC	388	1	8.71	3381.	903.	350475.	10.56
165	CPH-RNN	CPH-RNN	91	1	15.71	1430.	900.	81874.	12.00
166	FDF-PTP	FDF-PTP	121	2	7.86	951.	899.	108727.	4.89
167	MEX-MTY	MEX-MTY	450	2	6.29	2829.	894.	402429.	6.88
168	MUC-ZRH	MUC-ZRH	153	2	8.00	1224.	893.	136563.	5.67
169	LIN-ZRH	MIL-ZRH	142	3	10.57	1501.	888.	126137.	7.93
170	DTW-YYZ	DTT-YYZ	213	2	10.29	2191.	888.	189144.	8.28
171	BRQ-PRG	BRQ-PRG	127	1	8.86	1125.	886.	112486.	8.12
172	BTS-PRG	BTS-PRG	169	2	10.00	1890.	885.	167265.	10.13
173	FRA-GVA	FRA-GVA	286	7	7.86	2247.	884.	252824.	8.27
174	FPO-MIA	FPO-MIA	112	3	16.57	1856.	883.	98880.	11.41
175	HUN-TPE	HUN-TPE	73	1	14.00	1022.	880.	64240.	9.67
176	BRE-FRA	BRE-FRA	207	1	8.14	1686.	876.	181421.	6.79
177	ATH-HER	ATH-HER	194	1	12.29	2383.	874.	169611.	13.32
178	LIS-OPO	LIS-OPO	172	1	9.43	1622.	865.	148755.	6.29
179	CPH-MMA	CPH-MMA	16	1	20.00	320.	860.	13760.	8.33
180	CPH-ZRH	CPH-ZRH	591	3	10.00	5910.	859.	507416.	16.67
181	FCO-GVA	ROM-GVA	433	6	9.14	3959.	858.	371452.	12.15
182	CBR-MEL	CBR-MEB	291	2	10.57	3076.	845.	245812.	10.48
183	FRA-NUE	FRA-NUE	118	1	8.00	944.	842.	99390.	5.33
184	DUS-STR	DUS-STR	209	1	8.00	1672.	840.	175560.	7.00
185	DUS-ZRH	DUS-ZRH	276	2	8.00	2208.	831.	229317.	8.50
186	BOO-FBU	BOO-OSL	523	1	9.71	5081.	811.	424078.	14.13
187	MUC-STR	MUC-STR	120	3	7.14	857.	802.	96274.	4.52
188	HIJ-TYO	HIJ-TYO	423	1	14.00	5922.	800.	338400.	33.25
189	BMA-VBY	STO-VBY	25	1	14.29	357.	800.	20000.	10.71
190	YHZ-YQM	YHZ-YQM	102	2	9.00	918.	790.	80580.	5.08
191	LHR-RTM	LON-RTM	211	1	8.29	1748.	787.	166087.	7.60
192	HAC-TYO	HAC-TYO	165	1	16.00	2640.	784.	129360.	16.00
193	CGN-HAM	CGN-HAM	227	2	8.43	1913.	778.	176703.	7.77
194	FRA-HAJ	FRA-HAJ	174	1	8.00	1392.	778.	135422.	6.67
195	ISM-LHE	ISM-LHE	168	1	7.14	1200.	770.	129360.	6.10
196	YQR-YWG	YQR-YWG	330	2	8.29	2734.	755.	249291.	8.76
197	KKJ-OSA	KKJ-OSA	265	1	14.00	3710.	752.	199280.	19.25
198	BGO-SVG	BGO-SVG	99	2	13.71	1358.	751.	74391.	7.19
199	ACC-LOS	ACC-LOS	248	10	6.71	1665.	750.	185929.	5.86
200	ELS-PLZ	ELS-PLZ	143	1	8.00	1144.	749.	107107.	4.58
		SUBTOTAL			516.71	112563.	42932.	9705912.	492.12
		CUM TOTAL			4053.77	959709.	356571.	96770960.	3747.76

0 - 900 ST MI (1448 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
1	OSA-TYO	OSA-TYO	249	12	86.43	21521.	13824.	3442140.	81.67
2	CTS-TYO	SPK-TYO	510	3	69.71	35554.	12148.	6195625.	94.55
3	YUL-YYZ	YUL-YYZ	315	3	57.71	18180.	7474.	2354354.	61.23
4	LHR-ORY	LON-PAR	227	13	57.71	13101.	7443.	1689463.	67.40
5	FUK-OSA	FUK-OSA	297	3	49.00	14553.	5807.	1724679.	45.58
6	MEL-SYD	MEB-SYD	438	6	59.14	25905.	5714.	2502732.	70.31
7	FRA-LHR	FRA-LON	405	18	33.43	13539.	5056.	2047621.	45.71
8	HAJ-THF	HAJ-BER	156	2	55.71	8691.	4918.	767252.	37.88
9	FUK-TYO	FUK-TYO	546	3	31.00	16926.	4565.	2492490.	49.42
10	AMS-LHR	AMS-LON	229	6	40.00	9160.	4003.	916720.	37.02
11	FRA-THF	FRA-BER	268	3	44.29	11869.	3922.	1051019.	42.43
12	FCO-LIN	ROM-MIL	294	1	47.43	13944.	3692.	1085448.	52.52
13	HKG-TPE	HKG-TPE	502	10	28.43	14271.	3598.	1806267.	40.80
14	HAM-THF	HAM-BER	163	2	37.71	6147.	3550.	578697.	25.98
15	DUB-LHR	DUB-LON	279	2	33.86	9446.	3537.	986863.	35.90
16	CGH-GIG	SAO-RIO	224	7	36.57	8192.	3414.	764704.	27.96
17	CGH-SDU	SAO-RIO	228	4	62.43	14234.	3412.	777838.	65.06
18	ARN-CPH	STO-CPH	340	11	37.71	12823.	3320.	1128702.	44.85
19	BNE-SYD	BNE-SYD	464	5	33.71	15643.	3252.	1508994.	41.46
20	ACA-MEX	ACA-MEX	191	5	30.29	5785.	3207.	612482.	22.59
21	GVA-ZRH	GVA-ZRH	143	6	26.00	3718.	3125.	446834.	16.69
22	FCO-ORY	ROM-PAR	678	15	24.57	16659.	3119.	2114682.	44.52
23	FRA-HAM	FRA-HAM	256	3	25.57	6546.	3099.	793271.	23.44
24	SJU-STT	SJU-STT	68	6	139.71	9501.	3029.	205953.	69.75
25	BCN-MAD	BCN-MAD	300	2	28.43	8529.	2899.	869829.	28.83
26	NCE-ORY	NCE-PAR	419	2	25.43	10655.	2782.	1165777.	35.51
27	MIA-NAS	MIA-NAS	183	3	24.86	4549.	2758.	504714.	19.10
28	KIN-MBJ	KIN-MBJ	83	6	23.14	1921.	2721.	225831.	11.26
29	YOW-YYZ	YOW-YYZ	226	2	30.00	6780.	2709.	612234.	28.05
30	KUL-SIN	KUL-SIN	203	13	27.29	5539.	2585.	524784.	21.30
31	FRA-ORY	FRA-PAR	294	12	19.00	5586.	2580.	758646.	21.04
32	YOW-YUL	YOW-YUL	94	4	32.43	3048.	2554.	240116.	17.36
33	KOJ-OSA	KOJ-OSA	360	1	22.00	7920.	2413.	868834.	26.27
34	FCO-LHR	ROM-LON	897	16	22.29	19990.	2382.	2136782.	49.92
35	GVA-ORY	GVA-PAR	245	5	21.43	5250.	2363.	578970.	19.69
36	ORD-YYZ	CHI-YYZ	435	3	21.14	9197.	2255.	980863.	27.50
37	GLA-LHR	GLA-LON	345	1	20.43	7048.	2247.	775166.	24.55
38	LHR-ZRH	LON-ZRH	489	8	20.86	10199.	2236.	1093613.	30.77
39	MUC-THF	MUC-BER	310	3	25.14	7794.	2235.	692806.	30.33
40	ORD-YUL	CHI-YUL	745	7	14.00	10430.	2223.	1656454.	28.58
41	ATH-FCO	ATH-ROM	666	12	18.29	12178.	2223.	1480613.	32.17
42	ESB-IST	ESB-IST	229	7	26.14	5987.	2216.	507464.	21.90
43	JNB-LBZ	JNB-DUR	312	1	22.86	7131.	2184.	681274.	19.99
44	BCN-PMI	BCN-PMI	124	3	28.71	3561.	2182.	270603.	19.77
45	FRA-MUC	FRA-MUC	193	2	21.71	4191.	2149.	414674.	18.10
46	PSE-SJU	PSE-SJU	52	3	130.71	6797.	2111.	109779.	56.46
47	GDL-MEX	GDL-MEX	285	2	18.14	5171.	2079.	592434.	16.65
48	BFS-LHR	BFS-LON	325	1	15.71	5107.	2061.	669964.	19.96
49	CBR-SYD	CBR-SYD	147	2	27.14	3990.	2035.	299208.	19.48
50	CPH-FBU	CPH-OSL	304	6	23.00	6992.	2025.	615687.	24.43
		SUBTOTAL			1858.40	511446.	179436.	57321584.	1813.68
		CUM TOTAL			1858.40	511446.	179436.	57321584.	1813.68

0 - 900 ST MI (1448 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
51	EDI-LHR	EDI-LON	331	1	14.86	4918.	2006.	663891.	19.80
52	FRA-VIE	FRA-VIE	385	7	14.29	5500.	1987.	765105.	17.26
53	YVR-YYC	YVR-YYC	426	2	17.43	7425.	1955.	832647.	21.17
54	JKT-SIN	JKT-SIN	556	13	16.00	8896.	1936.	1076257.	22.79
55	AEP-CSO	BUE-MVD	137	3	36.71	5030.	1934.	264919.	25.20
56	BRH-LHR	BRU-LON	216	5	19.86	4289.	1927.	416139.	18.30
57	BDI-POS	BDI-POS	212	7	14.86	3150.	1900.	402739.	11.08
58	BKK-SIN	BKK-SIN	896	13	13.57	12160.	1897.	1699327.	28.51
59	STT-STX	STT-STX	45	8	77.14	3471.	1867.	84021.	31.18
60	AMS-FRA	AMS-FRA	228	7	16.57	3778.	1862.	424438.	16.29
61	BDA-JFK	BDA-NYC	762	3	6.00	4572.	1838.	1400556.	12.57
62	DUB-SNN	DUB-SNN	121	1	9.43	1141.	1823.	220566.	5.50
63	BOG-CLO	BOG-CLO	180	4	20.00	3600.	1808.	325466.	13.33
64	KMI-OSA	KMI-OSA	306	1	16.00	4896.	1808.	553248.	15.00
65	GVA-LHR	GVA-LON	468	6	17.29	8090.	1797.	840929.	24.30
66	BOG-MDE	BOG-MDE	145	4	21.57	3128.	1777.	257624.	12.96
67	JFK-YUL	NYC-YUL	334	4	17.86	5964.	1762.	588508.	23.38
68	KCZ-OSA	KCZ-OSA	133	2	28.00	3724.	1748.	232484.	24.50
69	ADL-MEL	ADL-MEB	403	2	16.86	6793.	1732.	697823.	18.29
70	GIG-VCP	RIO-SAO	249	13	11.00	2739.	1724.	429276.	9.77
71	DUS-THF	DUS-BER	295	2	17.71	5226.	1718.	506894.	17.24
72	BEG-ZAG	BEG-ZAG	216	5	18.57	4011.	1708.	368866.	14.93
73	OST-SEN	OST-SEN	97	1	42.00	4074.	1693.	164235.	26.92
74	CAG-FCO	CAG-ROM	243	1	16.00	3888.	1680.	408240.	15.67
75	BUF-YYZ	BUF-YYZ	69	2	20.00	1380.	1678.	115782.	9.73
76	FCO-FRA	ROM-FRA	596	14	12.86	7663.	1661.	989871.	21.88
77	SDQ-SJU	SDQ-SJU	240	4	15.71	3771.	1659.	398194.	12.57
78	CTS-OSA	SPK-OSA	646	2	10.00	6460.	1652.	1067192.	16.92
79	MRS-ORY	MRS-PAR	390	3	16.57	6463.	1629.	635477.	21.73
80	BGO-FBU	BGO-OSL	188	1	19.14	3599.	1619.	304399.	13.71
81	FPO-NAS	FPO-NAS	129	5	25.57	3299.	1607.	207266.	15.94
82	FRA-ZRH	FRA-ZRH	178	5	13.57	2416.	1589.	282918.	10.67
83	AUA-CUR	AUA-CUR	74	4	16.29	1205.	1571.	116243.	7.00
84	STR-THF	STR-BER	320	2	16.00	5120.	1552.	496640.	17.67
85	DUS-MUC	DUS-MUC	310	2	14.43	4473.	1547.	479481.	15.15
86	AMS-BRH	AMS-BRU	99	8	14.57	1443.	1543.	152799.	9.93
87	CPH-LHR	CPH-LON	608	4	15.71	9554.	1542.	937536.	27.63
88	MYJ-OSA	MYJ-OSA	170	1	24.00	4080.	1536.	261120.	26.00
89	MAZ-SJU	MAZ-SJU	76	3	89.14	6775.	1527.	116085.	52.67
90	LIN-ORY	MIL-PAR	396	3	14.57	5770.	1523.	603165.	18.57
91	CPH-GOT	CPH-GOT	152	2	19.57	2975.	1523.	231496.	16.01
92	LGA-YYZ	NYC-YYZ	357	1	15.14	5406.	1508.	538254.	18.71
93	MAD-SVQ	MAD-SVQ	245	2	16.86	4130.	1506.	368900.	14.13
94	JFK-YYZ	NYC-YYZ	367	1	16.00	5872.	1488.	546096.	22.17
95	LIS-MAD	LIS-MAD	319	7	12.29	3919.	1475.	470662.	12.44
96	EZE-SCL	BUE-SCL	707	14	9.86	6969.	1409.	995961.	17.27
97	FCO-MAD	ROM-MAD	826	7	11.71	9676.	1405.	1160175.	24.21
98	YEG-YVR	YXD-YVR	503	2	13.14	6611.	1383.	695793.	17.81
99	AAR-CPH	AAR-CPH	92	1	23.71	2182.	1378.	126776.	18.58
100	LPA-TCI	LPA-TCI	68	1	31.71	2157.	1377.	93607.	15.52
		SUBTOTAL			1007.70	243829.	83771.	26015936.	920.56
		CUM TOTAL			2866.09	755275.	263206.	83337328.	2734.24

RANKED BY SEATS

0 - 900 ST MI (1448 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
101	AMS-ZRH	AMS-ZRH	376	4	12.14	4566.	1367.	514099.	15.64
102	CGN-THF	CGN-BER	291	2	14.00	4074.	1358.	395178.	13.50
103	LHR-MAN	LON-MAN	151	1	13.14	1985.	1343.	202858.	10.04
104	AAL-CPH	AAL-CPH	148	1	22.57	3341.	1336.	197686.	22.50
105	EBB-NBO	EBB-NBO	322	13	10.71	3450.	1335.	430008.	11.13
106	KMJ-OSA	KMJ-OSA	300	1	12.00	3600.	1332.	399600.	11.50
107	AMS-CPH	AMS-CPH	393	5	14.00	5502.	1325.	520669.	18.12
108	AGP-MAD	AGP-MAD	266	1	12.29	3268.	1320.	351120.	9.73
109	FCO-PMO	ROM-PMO	254	1	16.86	4282.	1315.	334046.	17.20
110	ATH-SKG	ATH-SKG	186	2	15.43	2870.	1310.	243687.	16.54
111	HKG-MNL	HKG-MNL	701	7	9.86	6910.	1309.	917909.	16.81
112	CTA-FCO	CTA-ROM	335	1	16.57	5551.	1292.	432820.	20.21
113	LGA-YUL	NYC-YUL	325	1	12.71	4132.	1291.	419529.	14.66
114	CPH-FRA	CPH-FRA	422	6	12.57	5305.	1290.	544501.	17.43
115	DUS-FRA	DUS-FRA	117	1	12.29	1437.	1275.	149192.	8.70
116	CHC-WLG	CHC-WLG	189	1	16.00	3024.	1271.	240300.	13.52
117	CGN-MUC	CGN-MUC	278	1	7.00	1946.	1271.	353338.	6.75
118	LYS-ORY	LYS-PAR	240	3	12.00	2880.	1257.	301577.	12.98
119	YXD-YYC	YXD-YYC	172	1	10.86	1867.	1256.	216081.	7.26
120	FCO-NAP	ROM-NAP	123	2	16.86	2073.	1251.	153926.	13.48
121	DUS-HAM	DUS-HAM	213	1	12.71	2708.	1245.	265124.	10.68
122	LBG-LHR	PAR-LON	214	4	12.14	2599.	1241.	265605.	10.62
123	ATH-RHO	ATH-RHO	264	1	14.57	3847.	1239.	327209.	18.14
124	YQB-YUL	YQB-YUL	145	2	20.71	3004.	1236.	179261.	15.74
125	OIT-OSA	OIT-OSA	242	1	20.00	4840.	1232.	298144.	25.83
126	BRH-FRA	BRU-FRA	189	4	12.57	2376.	1226.	231768.	11.13
127	ORY-ZRH	PAR-ZRH	299	5	12.86	3844.	1220.	364865.	13.21
128	OSA-TAK	OSA-TAK	85	1	22.00	1870.	1216.	103360.	14.67
129	BOS-YUL	BOS-YUL	255	1	12.00	3060.	1214.	309643.	11.00
130	BUD-SXF	BUD-SXF	433	2	12.86	5567.	1203.	521085.	21.75
131	ARN-HEL	STO-HEL	247	6	16.00	3952.	1197.	295624.	13.85
132	VIE-ZRH	VIE-ZRH	374	6	13.71	5129.	1191.	445380.	16.52
133	CPT-JNB	CPT-JNB	789	1	12.00	9468.	1183.	933161.	21.58
134	SJU-STX	SJU-STX	95	4	45.00	4275.	1180.	112141.	32.76
135	ATH-CAI	ATH-CAI	693	16	10.29	7128.	1177.	815463.	20.85
136	YVR-YYJ	YVR-YYJ	38	2	24.00	912.	1168.	44384.	10.00
137	FCO-ZRH	ROM-ZRH	431	9	11.14	4803.	1154.	497559.	15.13
138	BAQ-BOG	BAQ-BOG	429	3	13.29	5700.	1146.	491695.	16.06
139	DAR-NBO	DAR-NBO	414	16	8.43	3489.	1144.	473557.	10.14
140	SEA-YVR	SEA-YVR	126	1	10.00	1260.	1142.	143892.	6.25
141	ALG-ORY	ALG-PAR	833	2	10.00	8330.	1139.	948906.	20.62
142	KHI-LHE	KHI-LHE	635	1	6.00	3810.	1134.	720090.	9.75
143	LHR-LIN	LON-MIL	608	2	12.57	7643.	1121.	681829.	22.30
144	FCO-MXP	ROM-MIL	319	2	7.57	2415.	1117.	356277.	7.27
145	CGH-POA	SAO-POA	520	6	11.14	5794.	1110.	577349.	14.06
146	FCO-TRN	ROM-TRN	329	1	14.00	4606.	1110.	365190.	15.42
147	MBJ-MIA	MBJ-MIA	526	3	10.00	5260.	1080.	568080.	13.75
148	AKL-WLG	AKL-WLG	298	1	12.57	3746.	1080.	321840.	13.36
149	BEY-CAI	BEY-CAI	348	4	8.57	2983.	1075.	374150.	15.92
150	PUS-SEL	PUS-SEL	210	1	19.71	4140.	1072.	225060.	19.12
		SUBTOTAL			698.27	200621.	61101.	19575760.	745.18
		CUM TOTAL			3564.36	955896.	324305.	102912816.	3479.41

APPENDIX 11.8

AUGUST 1971 AIRPORT-PAIR DIGEST
RANKED BY SEATS

0 - 900 ST MI (1448 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
151	FCO-VCE	ROM-VCE	257	1	13.14	3378.	1065.	273595.	13.13
152	BOM-DEL	BOM-DEL	708	2	8.00	5664.	1063.	752705.	14.68
153	SFO-YVR	SFO-YVR	799	3	10.29	8218.	1057.	844543.	20.84
154	YHZ-YQY	YHZ-YQY	190	2	10.00	1900.	1050.	199500.	7.00
155	FBU-GOT	OSL-GOT	153	4	11.00	1683.	1049.	160453.	7.92
156	MAD-ORY	MAD-PAR	640	5	7.43	4754.	1045.	668526.	12.62
157	MAR-MIQ	MAR-CCS	316	5	11.86	3747.	1040.	328505.	10.43
158	HAM-LHR	HAM-LON	462	3	10.00	4620.	1038.	479556.	13.92
159	DUS-LHR	DUS-LON	310	2	10.00	3100.	1016.	314960.	12.42
160	LHR-MAD	LON-MAD	776	4	8.71	6762.	1015.	787972.	17.27
161	YQX-YYT	YQX-YYT	124	2	9.29	1151.	1008.	125010.	4.89
162	AMS-ORY	AMS-PAR	270	3	10.29	2777.	1005.	271466.	10.92
163	LST-MEL	LST-MEB	291	2	11.71	3409.	1000.	290875.	11.11
164	JER-LHR	JER-LON	175	1	12.57	2200.	991.	173500.	12.43
165	IST-IZM	IST-IZM	203	1	12.00	2436.	986.	200100.	8.00
166	GDL-PVR	GDL-PVR	127	3	7.57	962.	979.	124333.	3.77
167	BSL-ZRH	BSL-ZRH	49	1	12.00	588.	978.	47922.	5.25
168	BEG-DBV	BEG-DBV	186	2	10.86	2019.	969.	180154.	8.35
169	OMJ-OSA	OMJ-OSA	341	1	18.00	6138.	960.	327360.	31.50
170	MAD-PMI	MAD-PMI	337	1	9.14	3081.	955.	321883.	9.40
171	CGN-FRA	CGN-FRA	85	1	8.57	729.	954.	81114.	5.36
172	FBU-TRD	OSL-TRD	247	2	12.71	3140.	954.	235673.	11.26
173	LHR-NCL	LON-NCL	252	1	8.29	2088.	953.	240120.	7.48
174	ARN-FBU	STO-OSL	254	4	11.43	2903.	939.	238542.	10.82
175	LHR-SNN	LON-SNN	370	3	8.57	3171.	936.	346320.	10.33
176	YQG-YYZ	YQG-YYZ	195	1	11.71	2284.	922.	179846.	9.71
177	ORY-TLS	PAR-TLS	356	3	9.71	3458.	920.	327622.	12.46
178	FRA-STR	FRA-STR	98	1	8.00	784.	919.	90104.	5.00
179	CEB-MNL	CEB-MNL	348	2	16.43	5717.	915.	318370.	26.50
180	CPH-HAM	CPH-HAM	174	2	10.29	1790.	912.	158738.	8.81
181	AEP-COR	BUE-COR	404	2	11.14	4502.	908.	366717.	13.10
182	DUB-MAN	DUB-MAN	164	4	9.43	1546.	905.	148397.	6.50
183	AMS-LBG	AMS-PAR	253	2	9.43	2385.	903.	228567.	8.65
184	HAM-MUC	HAM-MUC	388	1	8.71	3381.	903.	350475.	10.56
185	CPH-RNN	CPH-RNN	91	1	15.71	1430.	900.	81874.	12.00
186	FDF-PTP	FDF-PTP	121	2	7.86	951.	899.	108727.	4.89
187	OKA-OSA	OKA-OSA	754	4	6.14	4632.	895.	674507.	12.25
188	MEX-MTY	MEX-MTY	450	2	6.29	2829.	894.	402429.	6.88
189	MUC-ZRH	MUC-ZRH	153	2	8.00	1224.	893.	136563.	5.67
190	LIN-ZRH	MIL-ZRH	142	3	10.57	1501.	888.	126137.	7.93
191	DTW-YYZ	DTT-YYZ	213	2	10.29	2191.	888.	189144.	8.28
192	BRQ-PRG	BRQ-PRG	127	1	8.86	1125.	886.	112486.	8.12
193	BTS-PRG	BTS-PRG	189	2	10.00	1890.	885.	167265.	10.13
194	FRA-GVA	FRA-GVA	286	7	7.86	2247.	884.	252824.	8.27
195	FPO-MIA	FPO-MIA	112	3	16.57	1856.	883.	98880.	11.41
196	GIG-SSA	RIO-SSA	757	4	10.00	7570.	881.	667025.	17.85
197	HUN-TPE	HUN-TPE	73	1	14.00	1022.	880.	64240.	9.67
198	BRE-FRA	BRE-FRA	207	1	8.14	1686.	876.	181421.	6.79
199	ATH-HER	ATH-HER	194	1	12.29	2383.	874.	169611.	13.32
200	LIS-OPO	LIS-OPO	172	1	9.43	1622.	865.	148755.	6.29
		SUBTOTAL			520.29	142624.	47383.	13765389.	532.14
		CUM TOTAL			4084.64	1098512.	371687.	116677856.	4011.55

0 - 900 ST MI (1448 KM)

RANK	DAG CODE AIRPORTS	DAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
201	MEX-MID	MEX-MID	619	3	6.29	3891.	864.	534993.	9.19
202	CPH-MMA	CPH-MMA	16	1	20.00	320.	860.	13760.	8.33
203	CPH-ZRH	CPH-ZRH	591	3	10.00	5910.	859.	507416.	16.67
204	FCO-GVA	ROM-GVA	433	6	9.14	3959.	858.	371452.	12.15
205	CBR-MEL	CBR-MEB	291	2	10.57	3076.	845.	245812.	10.48
206	FRA-NUE	FRA-NUE	118	1	8.00	944.	842.	99390.	5.33
207	DUS-STR	DUS-STR	209	1	8.00	1672.	840.	175560.	7.00
208	SEL-TYO	SEL-TYO	732	3	6.43	4706.	833.	609442.	12.21
209	DUS-ZRH	DUS-ZRH	276	2	8.00	2208.	831.	229317.	8.50
210	BOO-FBU	BOO-OSL	523	1	9.71	5081.	811.	424078.	14.13
211	ATH-TLV	ATH-TLV	752	5	5.71	4297.	809.	608260.	10.04
212	MUC-STR	MUC-STR	120	3	7.14	857.	802.	96274.	4.52
213	LBG-MAD	PAR-MAD	657	2	4.86	3191.	800.	525600.	8.24
214	HIJ-TYO	HIJ-TYO	423	1	14.00	5922.	800.	338400.	33.25
215	BMA-VBY	STO-VBY	25	1	14.29	357.	800.	20000.	10.71
216	YHZ-YQM	YHZ-YQM	102	2	9.00	918.	790.	80580.	5.08
217	LHR-RTM	LON-RTM	211	1	8.29	1748.	787.	166087.	7.60
218	HAC-TYO	HAC-TYO	165	1	16.00	2640.	784.	129360.	16.00
219	CLX-GYE	LIM-GYE	708	7	6.43	4551.	780.	552038.	11.43
220	CGN-HAM	CGN-HAM	227	2	8.43	1913.	778.	176703.	7.77
221	FRA-HAJ	FRA-HAJ	174	1	8.00	1392.	778.	135422.	6.67
222	LHR-NCE	LON-NCE	645	2	7.43	4791.	778.	501810.	13.42
223	ADL-SYD	ADL-SYD	723	2	7.71	5577.	777.	562081.	13.70
224	ISM-LHE	ISM-LHE	168	1	7.14	1200.	770.	129360.	6.10
225	ATH-BEY	ATH-BEY	716	6	5.71	4091.	762.	545490.	10.36

APPENDIX 11.8

AUGUST 1971 AIRPORT-PAIR DIGEST
RANKED BY SEATS

0 - 1200 ST MI (1931 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
1	OSA-TYO	OSA-TYO	249	12	86.43	21521.	13824.	3442140.	81.67
2	CTS-TYO	SPK-TYO	510	3	69.71	35554.	12148.	6195625.	94.55
3	YUL-YYZ	YUL-YYZ	315	3	57.71	18180.	7474.	2354354.	61.23
4	LHR-ORY	LON-PAR	227	13	57.71	13101.	7443.	1689463.	67.40
5	FUK-OSA	FUK-OSA	297	3	49.00	14553.	5807.	1724679.	45.58
6	MEL-SYD	MEB-SYD	438	6	59.14	25905.	5714.	2502732.	70.31
7	FRA-LHR	FRA-LON	405	18	33.43	13539.	5056.	2047621.	45.71
8	HAJ-THF	HAJ-BER	156	2	55.71	8691.	4918.	767252.	37.88
9	FUK-TYO	FUK-TYO	546	3	31.00	16926.	4565.	2492490.	49.42
10	BKK-HKG	BKK-HKG	1064	18	30.00	31920.	4189.	4457245.	78.23
11	AMS-LHR	AMS-LON	229	6	40.00	9160.	4003.	916720.	37.02
12	FRA-THF	FRA-BER	268	3	44.29	11869.	3922.	1051019.	42.43
13	FCO-LIN	ROM-MIL	294	1	47.43	13944.	3692.	1085448.	52.52
14	HKG-TPE	HKG-TPE	502	10	28.43	14271.	3598.	1806267.	40.80
15	HAM-THF	HAM-BER	163	2	37.71	6147.	3550.	578697.	25.98
16	DUB-LHR	DUB-LON	279	2	33.86	9446.	3537.	986863.	35.90
17	CGH-GIG	SAO-RIO	224	7	36.57	8192.	3414.	764704.	27.96
18	CGH-SDU	SAO-RIO	228	4	62.43	14234.	3412.	777838.	65.06
19	ARN-CPH	STO-CPH	340	11	37.71	12823.	3320.	1128702.	44.85
20	BNE-SYD	BNE-SYD	464	5	33.71	15643.	3252.	1508994.	41.46
21	ACA-MEX	ACA-MEX	191	5	30.29	5785.	3207.	612482.	22.59
22	GVA-ZRH	GVA-ZRH	143	6	26.00	3718.	3125.	446834.	16.69
23	FCO-ORY	ROM-PAR	678	15	24.57	16659.	3119.	2114682.	44.52
24	FRA-HAM	FRA-HAM	256	3	25.57	6546.	3099.	793271.	23.44
25	SJU-STT	SJU-STT	68	6	139.71	9501.	3029.	205953.	69.75
26	BCN-MAD	BCN-MAD	300	2	28.43	8529.	2899.	869829.	28.83
27	NCE-ORY	NCE-PAR	419	2	25.43	10655.	2782.	1165777.	35.51
28	MIA-NAS	MIA-NAS	183	3	24.86	4549.	2758.	504714.	19.10
29	KIN-MBJ	KIN-MBJ	83	6	23.14	1921.	2721.	225831.	11.26
30	YOW-YYZ	YOW-YYZ	226	2	30.00	6780.	2709.	612234.	28.05
31	KUL-SIN	KUL-SIN	203	13	27.29	5539.	2585.	524784.	21.30
32	FRA-ORY	FRA-PAR	294	12	19.00	5586.	2580.	758646.	21.04
33	YOW-YUL	YOW-YUL	94	4	32.43	3048.	2554.	240116.	17.36
34	KOJ-OSA	KOJ-OSA	360	1	22.00	7920.	2413.	868834.	26.27
35	FCO-LHR	ROM-LON	897	16	22.29	19990.	2382.	2136782.	49.92
36	GVA-ORY	GVA-PAR	245	5	21.43	5250.	2363.	578970.	19.69
37	ORD-YYZ	CHI-YYZ	435	3	21.14	9197.	2255.	980863.	27.50
38	GLA-LHR	GLA-LON	345	1	20.43	7048.	2247.	775166.	24.55
39	LHR-ZRH	LON-ZRH	489	8	20.86	10199.	2236.	1093613.	30.77
40	MUC-THF	MUC-BER	310	3	25.14	7794.	2235.	692806.	30.33
41	ORD-YUL	CHI-YUL	745	7	14.00	10430.	2223.	1656454.	28.58
42	ATH-FCO	ATH-ROM	666	12	18.29	12178.	2223.	1480613.	32.17
43	ESB-IST	ESB-IST	229	7	26.14	5987.	2216.	507464.	21.90
44	JNB-LBZ	JNB-DUR	312	1	22.86	7131.	2184.	681274.	19.99
45	BCN-PMI	BCN-PMI	124	3	28.71	3561.	2182.	270603.	19.77
46	OSA-TPE	OSA-TPE	1067	6	16.86	17987.	2173.	2318438.	41.55
47	FRA-MUC	FRA-MUC	193	2	21.71	4191.	2149.	414674.	18.10
48	PSE-SJU	PSE-SJU	52	3	130.71	6797.	2111.	109779.	56.46
49	GDL-MEX	GDL-MEX	285	2	18.14	5171.	2079.	592434.	16.65
50	BFS-LHR	BFS-LON	325	1	15.71	5107.	2061.	669964.	19.96
		SUBTOTAL			1855.12	550371.	181737.	63182368.	1889.55
		CUM TOTAL			1855.12	550371.	181737.	63182368.	1889.55

APPENDIX 11.8

AUGUST 1971 AIRPORT-PAIR DIGEST
RANKED BY SEATS

0 - 1200 ST MI (1931 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
51	CBR-SYD	CBR-SYD	147	2	27.14	3990.	2035.	299208.	19.48
52	CPH-FBU	CPH-OSL	304	6	23.00	6992.	2025.	615687.	24.43
53	EDI-LHR	EDI-LON	331	1	14.86	4918.	2006.	663891.	19.80
54	FRA-VIE	FRA-VIE	385	7	14.29	5500.	1987.	765105.	17.26
55	YVR-YYC	YVR-YYC	426	2	17.43	7425.	1955.	832647.	21.17
56	JKT-SIN	JKT-SIN	556	13	16.00	8896.	1936.	1076257.	22.79
57	AEP-CSO	BUE-MVD	137	3	36.71	5030.	1934.	264919.	25.20
58	BRH-LHR	BRU-LON	216	5	19.86	4289.	1927.	416139.	18.30
59	BDI-POS	BDI-POS	212	7	14.86	3150.	1900.	402739.	11.08
60	BKK-SIN	BKK-SIN	896	13	13.57	12160.	1897.	1699327.	28.51
61	STT-STX	STT-STX	45	8	77.14	3471.	1867.	84021.	31.18
62	AMS-FRA	AMS-FRA	228	7	16.57	3778.	1862.	424438.	16.29
63	YWG-YYZ	YWG-YYZ	934	2	18.00	16812.	1861.	1738307.	39.67
64	BDA-JFK	BDA-NYC	762	3	6.00	4572.	1838.	1400556.	12.57
65	DUB-SNN	DUB-SNN	121	1	9.43	1141.	1823.	220566.	5.50
66	BOG-CLO	BOG-CLO	180	4	20.00	3600.	1808.	325466.	13.33
67	KMI-OSA	KMI-OSA	306	1	16.00	4896.	1808.	553248.	15.00
68	GVA-LHR	GVA-LON	468	6	17.29	8090.	1797.	840929.	24.30
69	BOG-MDE	BOG-MDE	145	4	21.57	3128.	1777.	257624.	12.96
70	JFK-YUL	NYC-YUL	334	4	17.86	5964.	1762.	588508.	23.38
71	KCZ-OSA	KCZ-OSA	133	2	28.00	3724.	1748.	232484.	24.50
72	ADL-MEL	ADL-MEB	403	2	16.86	6793.	1732.	697823.	18.29
73	GIG-VCP	RIO-SAO	249	13	11.00	2739.	1724.	429276.	9.77
74	DUS-THF	DUS-BER	295	2	17.71	5226.	1718.	506894.	17.24
75	BEG-ZAG	BEG-ZAG	216	5	18.57	4011.	1708.	368866.	14.93
76	MIA-SJU	MIA-SJU	1045	2	12.57	13137.	1704.	1780680.	29.60
77	OST-SEN	OST-SEN	97	1	42.00	4074.	1693.	164235.	26.92
78	CAG-FCO	CAG-ROM	243	1	16.00	3888.	1680.	408240.	15.67
79	BUF-YYZ	BUF-YYZ	69	2	20.00	1380.	1678.	115782.	9.73
80	FCO-FRA	ROM-FRA	596	14	12.86	7663.	1661.	989871.	21.88
81	SDQ-SJU	SDQ-SJU	240	4	15.71	3771.	1659.	398194.	12.57
82	CTS-OSA	SPK-OSA	646	2	10.00	6460.	1652.	1067192.	16.92
83	MRS-ORY	MRS-PAR	390	3	16.57	6463.	1629.	635477.	21.73
84	BGO-FBU	BGO-OSL	188	1	19.14	3599.	1619.	304399.	13.71
85	FPO-NAS	FPO-NAS	129	5	25.57	3299.	1607.	207266.	15.94
86	FRA-ZRH	FRA-ZRH	178	5	13.57	2416.	1589.	282918.	10.67
87	AUA-CUR	AUA-CUR	74	4	16.29	1205.	1571.	116243.	7.00
88	STR-THF	STR-BER	320	2	16.00	5120.	1552.	496640.	17.67
89	DUS-MUC	DUS-MUC	310	2	14.43	4473.	1547.	479481.	15.15
90	AMS-BRH	AMS-BRU	99	8	14.57	1443.	1543.	152799.	9.93
91	CPH-LHR	CPH-LON	608	4	15.71	9554.	1542.	937536.	27.63
92	MYJ-OSA	MYJ-OSA	170	1	24.00	4080.	1536.	261120.	26.00
93	MAZ-SJU	MAZ-SJU	76	3	89.14	6775.	1527.	116085.	52.67
94	LIN-ORY	MIL-PAR	396	3	14.57	5770.	1523.	603165.	18.57
95	CPH-GOT	CPH-GOT	152	2	19.57	2975.	1523.	231496.	16.01
96	LGA-YYZ	NYC-YYZ	357	1	15.14	5406.	1508.	538254.	18.71
97	MAD-SVQ	MAD-SVQ	245	2	16.86	4130.	1506.	368900.	14.13
98	JFK-YYZ	NYC-YYZ	367	1	16.00	5872.	1488.	546096.	22.17
99	LIS-MAD	LIS-MAD	319	7	12.29	3919.	1475.	470662.	12.44
100	EZE-SCL	BUE-SCL	707	14	9.86	6969.	1409.	995961.	17.27
		SUBTOTAL			1008.14	264135.	85854.	28373440.	957.62
		CUM TOTAL			2863.25	814506.	267590.	91555648.	2847.17

0 - 1200 ST MI (1931 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
101	FCO-MAD	ROM-MAD	826	7	11.71	9676.	1405.	1160175.	24.21
102	YEG-YVR	YXD-YVR	503	2	13.14	6611.	1383.	695793.	17.81
103	AAR-CPH	AAR-CPH	92	1	23.71	2182.	1378.	126776.	18.58
104	LPA-TCI	LPA-TCI	68	1	31.71	2157.	1377.	93607.	15.52
105	MIA-TUM	MIA-PTY	1155	5	11.14	12870.	1375.	1587959.	29.43
106	AMS-ZRH	AMS-ZRH	376	4	12.14	4566.	1367.	514099.	15.64
107	CGN-THF	CGN-BER	291	2	14.00	4074.	1358.	395178.	13.50
108	LHR-MAN	LON-MAN	151	1	13.14	1985.	1343.	202858.	10.04
109	AAL-CPH	AAL-CPH	148	1	22.57	3341.	1336.	197686.	22.50
110	EBB-NBO	EBB-NBO	322	13	10.71	3450.	1335.	430008.	11.13
111	KMJ-OSA	KMJ-OSA	300	1	12.00	3600.	1332.	399600.	11.50
112	AMS-CPH	AMS-CPH	393	5	14.00	5502.	1325.	520669.	18.12
113	AGP-MAD	AGP-MAD	266	1	12.29	3268.	1320.	351120.	9.73
114	SVO-SXF	MOW-SXF	990	3	12.00	11880.	1316.	1302556.	31.85
115	FCO-PMO	ROM-PMO	254	1	16.86	4282.	1315.	334046.	17.20
116	ATH-SKG	ATH-SKG	186	2	15.43	2870.	1310.	243687.	16.54
117	HKG-MNL	HKG-MNL	761	7	9.86	6910.	1309.	917909.	16.81
118	CTA-FCO	CTA-ROM	335	1	16.57	5551.	1292.	432820.	20.21
119	LGA-YUL	NYC-YUL	325	1	12.71	4132.	1291.	419529.	14.66
120	CPH-FRA	CPH-FRA	422	6	12.57	5305.	1290.	544501.	17.43
121	DUS-FRA	DUS-FRA	117	1	12.29	1437.	1275.	149192.	8.70
122	CHC-WLG	CHC-WLG	189	1	16.00	3024.	1271.	240300.	13.52
123	CGN-MUC	CGN-MUC	278	1	7.00	1946.	1271.	353338.	6.75
124	LYS-ORY	LYS-PAR	240	3	12.00	2880.	1257.	301577.	12.98
125	YXD-YYC	YXD-YYC	172	1	10.86	1867.	1256.	216081.	7.26
126	FCO-NAP	ROM-NAP	123	2	16.86	2073.	1251.	153926.	13.48
127	DUS-HAM	DUS-HAM	213	1	12.71	2708.	1245.	265124.	10.68
128	LBG-LHR	PAR-LON	214	4	12.14	2599.	1241.	265605.	10.62
129	ATH-RHO	ATH-RHO	264	1	14.57	3847.	1239.	327209.	18.14
130	YQB-YUL	YQB-YUL	145	2	20.71	3004.	1236.	179261.	15.74
131	OIT-OSA	OIT-OSA	242	1	20.00	4840.	1232.	298144.	25.83
132	BRH-FRA	BRU-FRA	189	4	12.57	2376.	1226.	231768.	11.13
133	ORY-ZRH	PAR-ZRH	299	5	12.86	3844.	1220.	364865.	13.21
134	OSA-TAK	OSA-TAK	85	1	22.00	1870.	1216.	103360.	14.67
135	BOS-YUL	BOS-YUL	255	1	12.00	3060.	1214.	309643.	11.00
136	BUD-SXF	BUD-SXF	433	2	12.86	5567.	1203.	521085.	21.75
137	ARN-HEL	STO-HEL	247	6	16.00	3952.	1197.	295624.	13.85
138	VIE-ZRH	VIE-ZRH	374	6	13.71	5129.	1191.	445380.	16.52
139	LPA-MAD	LPA-MAD	1097	2	5.57	6112.	1190.	1304959.	13.42
140	CPT-JNB	CPT-JNB	789	1	12.00	9468.	1183.	933161.	21.58
141	SJU-STX	SJU-STX	95	4	45.00	4275.	1180.	112141.	32.76
142	ATH-CAI	ATH-CAI	693	16	10.29	7128.	1177.	815463.	20.85
143	YVR-YYJ	YVR-YYJ	38	2	24.00	912.	1168.	44384.	10.00
144	FCO-ZRH	ROM-ZRH	431	9	11.14	4803.	1154.	497559.	15.13
145	BAQ-BOG	BAQ-BOG	429	3	13.29	5700.	1146.	491695.	16.06
146	DAR-NBO	DAR-NBO	414	16	8.43	3489.	1144.	473557.	10.14
147	SEA-YVR	SEA-YVR	126	1	10.00	1260.	1142.	143892.	6.25
148	ALG-ORY	ALG-PAR	833	2	10.00	8330.	1139.	948906.	20.62
149	KHI-LHE	KHI-LHE	635	1	6.00	3810.	1134.	720090.	9.75
150	LHR-LIN	LON-MIL	608	2	12.57	7643.	1121.	681829.	22.30
		SUBTOTAL			723.69	223163.	62879.	23059584.	797.10
		CUM TOTAL			3586.94	1037669.	330468.	114614976.	3644.26

0-1200 ST MI (1931 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
151	FCO-MXP	ROM-MIL	319	2	7.57	2415.	1117.	356277.	7.27
152	CGH-POA	SAO-POA	520	6	11.14	5794.	1110.	577349.	14.06
153	FCO-TRN	ROM-TRN	329	1	14.00	4606.	1110.	365190.	15.42
154	MBJ-MIA	MBJ-MIA	526	3	10.00	5260.	1080.	568080.	13.75
155	AKL-WLG	AKL-WLG	298	1	12.57	3746.	1080.	321840.	13.36
156	BEY-CAI	BEY-CAI	348	4	8.57	2983.	1075.	374150.	15.92
157	PUS-SEL	PUS-SEL	210	1	19.71	4140.	1072.	225060.	19.12
158	FCO-VCE	ROM-VCE	257	1	13.14	3378.	1065.	273595.	13.13
159	BOM-DEL	BOM-DEL	708	2	8.00	5664.	1063.	752705.	14.68
160	SFO-YVR	SFO-YVR	799	3	10.29	8218.	1057.	844543.	20.84
161	YHZ-YQY	YHZ-YQY	190	2	10.00	1900.	1050.	199500.	7.00
162	FBU-GOT	OSL-GOT	153	4	11.00	1683.	1049.	160453.	7.92
163	MAD-ORY	MAD-PAR	640	5	7.43	4754.	1045.	668526.	12.62
164	MAR-MIQ	MAR-CCS	316	5	11.86	3747.	1040.	328505.	10.43
165	HAM-LHR	HAM-LON	462	3	10.00	4620.	1038.	479556.	13.92
166	DUS-LHR	DUS-LON	310	2	10.00	3100.	1016.	314960.	12.42
167	LHR-MAD	LON-MAD	776	4	8.71	6762.	1015.	787972.	17.27
168	YQX-YYT	YQX-YYT	124	2	9.29	1151.	1008.	125010.	4.89
169	AMS-ORY	AMS-PAR	270	3	10.29	2777.	1005.	271466.	10.92
170	LST-MEL	LST-MEB	291	2	11.71	3409.	1000.	290875.	11.11
171	JER-LHR	JER-LON	175	1	12.57	2200.	991.	173500.	12.43
172	IST-IZM	IST-IZM	203	1	12.00	2436.	986.	200100.	8.00
173	GDL-PVR	GDL-PVR	127	3	7.57	962.	979.	124333.	3.77
174	BSL-ZRH	BSL-ZRH	49	1	12.00	588.	978.	47922.	5.25
175	BEG-DBV	BEG-DBV	186	2	10.86	2019.	969.	180154.	8.35
176	OMJ-OSA	OMJ-OSA	341	1	18.00	6138.	960.	327360.	31.50
177	MAD-PMI	MAD-PMI	337	1	9.14	3081.	955.	321883.	9.40
178	CGN-FRA	CGN-FRA	85	1	8.57	729.	954.	81114.	5.36
179	FBU-TRD	OSL-TRD	247	2	12.71	3140.	954.	235673.	11.26
180	LHR-NCL	LON-NCL	252	1	8.29	2088.	953.	240120.	7.48
181	ARN-FBU	STO-OSL	254	4	11.43	2903.	939.	238542.	10.82
182	LHR-SNN	LON-SNN	370	3	8.57	3171.	936.	346320.	10.33
183	YQG-YYZ	YQG-YYZ	195	1	11.71	2284.	922.	179846.	9.71
184	ORY-TLS	PAR-TLS	356	3	9.71	3458.	920.	327622.	12.46
185	FRA-STR	FRA-STR	98	1	8.00	784.	919.	90104.	5.00
186	CEB-MNL	CEB-MNL	348	2	16.43	5717.	915.	318370.	26.50
187	CPH-HAM	CPH-HAM	174	2	10.29	1790.	912.	158738.	8.81
188	AEP-COR	BUE-COR	404	2	11.14	4502.	908.	366717.	13.10
189	DUB-MAN	DUB-MAN	164	4	9.43	1546.	905.	148397.	6.50
190	AMS-LBG	AMS-PAR	253	2	9.43	2385.	903.	228567.	8.65
191	HAM-MUC	HAM-MUC	388	1	8.71	3381.	903.	350475.	10.56
192	CPH-RNN	CPH-RNN	91	1	15.71	1430.	900.	81874.	12.00
193	FDF-PTP	FDF-PTP	121	2	7.86	951.	899.	108727.	4.89
194	OKA-OSA	OKA-OSA	754	4	6.14	4632.	895.	674507.	12.25
195	MEX-MTY	MEX-MTY	450	2	6.29	2829.	894.	402429.	6.88
196	MUC-ZRH	MUC-ZRH	153	2	8.00	1224.	893.	136563.	5.67
197	LIN-ZRH	MIL-ZRH	142	3	10.57	1501.	888.	126137.	7.93
198	DTW-YYZ	DTT-YYZ	213	2	10.29	2191.	888.	189144.	8.28
199	BRQ-PRG	BRQ-PRG	127	1	8.86	1125.	886.	112486.	8.12
200	BTS-PRG	BTS-PRG	189	2	10.00	1890.	885.	167265.	10.13
		SUBTOTAL			525.56	153183.	48884.	14970578.	557.44
		CUM TOTAL			4112.49	1190837.	379351.	129585232.	4201.68

APPENDIX 11.8

AUGUST 1971 AIRPORT-PAIR DIGEST
RANKED BY SEATS

0-1200 ST MI (1931 KM)

RANK	OAG CODE AIRPORTS	OAG CODE CITIES	AIRPORT-PAIR DISTANCE	NUMBER OF AIRLINES	TOTAL DAILY SCHEDULED PASSENGER STATISTICS DEPARTURES	AIRCRAFT-MILES	SEATS	SEAT-MILES	AIRCRAFT-HOURS
201	FRA-GVA	FRA-GVA	286	7	7.86	2247.	884.	252824.	8.27
202	FPO-MIA	FPO-MIA	112	3	16.57	1856.	883.	98880.	11.41
203	GIG-SSA	RIO-SSA	757	4	10.00	7570.	881.	667025.	17.85
204	HUN-TPE	HUN-TPE	73	1	14.00	1022.	880.	64240.	9.67
205	BRE-FRA	BRE-FRA	207	1	8.14	1686.	876.	181421.	6.79
206	ATH-HER	ATH-HER	194	1	12.29	2383.	874.	169611.	13.32
207	LIS-OPO	LIS-OPO	172	1	9.43	1622.	865.	148755.	6.29
208	MEX-MID	MEX-MID	619	3	6.29	3891.	864.	534993.	9.19
209	CPH-MMA	CPH-MMA	16	1	20.00	320.	860.	13760.	8.33
210	CPH-ZRH	CPH-ZRH	591	3	10.00	5910.	859.	507416.	16.67
211	FCO-GVA	ROM-GVA	433	6	9.14	3959.	858.	371452.	12.15
212	CBR-MEL	CBR-MEB	291	2	10.57	3076.	845.	245812.	10.48
213	FRA-NUE	FRA-NUE	118	1	8.00	944.	842.	99390.	5.33
214	DUS-STR	DUS-STR	209	1	8.00	1672.	840.	175560.	7.00
215	BEY-THR	BEY-THR	906	8	5.86	5307.	839.	760393.	15.21
216	SEL-TYO	SEL-TYO	732	3	6.43	4706.	833.	609442.	12.21
217	JFK-NAS	NYC-NAS	1099	2	6.00	6594.	832.	914368.	16.58
218	DUS-ZRH	DUS-ZRH	276	2	8.00	2208.	831.	229317.	8.50
219	BOO-FBU	BOO-OSL	523	1	9.71	5081.	811.	424078.	14.13
220	ATH-TLV	ATH-TLV	752	5	5.71	4297.	809.	608260.	10.04
221	MUC-STR	MUC-STR	120	3	7.14	857.	802.	96274.	4.52
222	LBG-MAD	PAR-MAD	657	2	4.86	3191.	800.	525600.	8.24
223	HIJ-TYO	HIJ-TYO	423	1	14.00	5922.	800.	338400.	33.25
224	BMA-VBY	STO-VBY	25	1	14.29	357.	800.	20000.	10.71
225	YHZ-YQM	YHZ-YQM	102	2	9.00	918.	790.	80580.	5.08
226	LHR-RTM	LON-RTM	211	1	8.29	1748.	787.	166087.	7.60
227	HAC-TYO	HAC-TYO	165	1	16.00	2640.	784.	129360.	16.00
228	CLX-GYE	LIM-GYE	708	7	6.43	4551.	780.	552038.	11.43
229	CGN-HAM	CGN-HAM	227	2	8.43	1913.	778.	176703.	7.77
230	FRA-HAJ	FRA-HAJ	174	1	8.00	1392.	778.	135422.	6.67
231	LHR-NCE	LON-NCE	645	2	7.43	4791.	778.	501810.	13.42
232	ADL-SYD	ADL-SYD	723	2	7.71	5577.	777.	562081.	13.70
233	ISM-LHE	ISM-LHE	168	1	7.14	1200.	770.	129360.	6.10
234	CMN-ORY	CAS-PAR	1178	3	6.86	8078.	767.	903021.	19.61
235	ATH-BEY	ATH-BEY	716	6	5.71	4091.	762.	545490.	10.36

APPENDIX 11.8

CITY CODE LIST
(DECODING)

CODE	CITY NAME
AAL	Aalborg, Denmark
AAR	Aarhus, Denmark
ACA	Acapulco, Mexico
ACC	Accra, Ghana
ADL	Adelaide, S. Australia
AEP	Buenos Aires, Arg - Aeroparque
AGP	Malaga, Spain
AKL	Auckland, New Zealand
ALG	Algiers, Algeria
AMS	Amsterdam, Netherlands
ARN	Stockholm, Sweden - Arlanda Arpt.
ATH	Athens, Greece
AUA	Aruba, Neth. Antilles
BAQ	Barranquilla, Colombia
BCN	Barcelona, Spain
BDA	Bermuda, Atlantic Ocean
BDI	Barbados, West Indies
BEG	Belgrade, Yugoslavia
BEY	Beirut, Lebanon
BFS	Belfast, N. Ireland
BGO	Bergen, Norway
BKK	Bangkok, Thailand
BMA	Stockholm, Sweden - Bromma Arpt.
BNE	Brisbane, Qld., Australia
BOG	Bogota, Colombia
BOM	Bombay, India
BOO	Bodo, Norway
BOS	Boston, Mass., USA
BRE	Bremen, German Federal Rep.
BRH	Brussels, Belgium - National Arpt.
BRQ	Brno, Czechoslovakia
BSL	Basle, Switzerland
BTS	Bratislava, Czechoslovakia
BUD	Budapest, Hungary
BUF	Buffalo, N.Y., USA
BUN	Buenaventura, Colombia
CAG	Cagliari, Sardinia
CAI	Cairo, Egypt, UAR
CBR	Canberra, A.C.T., Australia
CEB	Cebu, Philippine Is.
CGH	Sao Paulo, Brazil - Congonhas Arpt.
CGN	Cologne, German Federal Rep.
CHC	Christchurch, New Zealand

APPENDIX 11.8

CITY CODE LIST
(DECODING)

CODE	CITY NAME
CLO	Cali, Colombia
CLX	Lima, Peru - Jorge Chavez Int. Arpt.
CMN	Casablanca, Morocco - Nouasseur
COR	Cordoba, Argentina
CPH	Copenhagen, Denmark
CPT	Capetown, Rep. of S. Africa
CSO	Montevideo, Uruguay - Carrasco Arpt.
CTA	Catania, Sicily
CTS	Sapporo, Japan - Chitose Arpt.
CUR	Curacao, Neth. Antilles
DAR	Dar Es Salaam, Tanzania
DBV	Dubrovnik, Yugoslavia
DEL	Delhi, India
DTW	Detroit, Mich. Metropolitan Arpt.
DUB	Dublin, Ireland
DUS	Dusseldorf, German Federal Rep.
EBB	Entebbe/Kampala, Uganda
EDI	Edinburgh, Scotland
ELS	East London, Rep. of S. Africa
ESB	Ankara, Turkey
EZE	Buenos Aires, Arg. - Ezeiza Arpt.
FBU	Oslo, Norway - Fornebu Arpt.
FCO	Rome, Italy - Leonardo Da Vinci Arpt.
FDF	Fort De France, Martinique
FPO	Freeport, Bahamas
FRA	Frankfurt, German Federal Rep.
FUK	Fukuoka, Japan
GDL	Guadalajara, Mexico
GIG	Rio De Janeiro, Bra. - Galeao Arpt.
GLA	Glasgow, Scotland
GOT	Gothenburg, Sweden
GVA	Geneva, Switzerland
GYE	Guayaquil, Ecuador
HAC	Hachijo Jima Island, Japan
HAJ	Hanover, German Federal Rep.
HAM	Hamburg, German Federal Rep.
HEL	Helsinki, Finland
HER	Heraklion, Crete, Greece
HIJ	Hiroshima, Japan
HKG	Hong Kong, Br. Crown Colony
HUN	Hualien, Rep. of China (Taiwan)

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CITY CODE LIST
(DECODING)

CODE	CITY NAME
ISM	Islamabad, W. Pakistan
IST	Istanbul, Turkey
IZM	Izmir, Turkey
JER	Jersey, Channel Is., U.K.
JFK	New York, N.Y. - Kennedy Int. Arpt., USA
JKT	Djakarta, Java, Indonesia
JNB	Johannesburg, Rep. of S. Africa
KCZ	Kochi, Japan
KHI	Karachi, W. Pakistan
KIN	Kingston, Jamaica
KKJ	Kita Kyushu, Japan
KMI	Miyazaki, Japan
KMJ	Kumamoto, Japan
KOJ	Kagoshima, Japan
KUL	Kuala Lumpur, Malaysia
LBG	Paris, France - Le Bourget Arpt.
LBZ	Durban, Rep. S. Afr - Louis Botha Arpt.
LGA	New York, N.Y. - La Guardia Arpt., USA
LHE	Lahore, W. Pakistan
LHR	London, England - Heathrow Arpt.
LIN	Milan, Italy - Forlanini - Linate
LIS	Lisbon, Portugal
LOS	Lagos, Nigeria
LPA	Las Palmas, Canary Is.
LST	Launceston, Tasmania
LYS	Lyon, France
MAD	Madrid, Spain
MAN	Manchester, England
MAR	Maracaibo, Venezuela
MAZ	Mayaguez, Puerto Rico
MBJ	Montego Bay, Jamaica
MDE	Medellin, Colombia
MEL	Melbourne, V Aust - Tullamarine
MEX	Mexico City, Mexico
MIA	Miami, Fla., USA
MID	Merida, Mexico
MIQ	Caracas, Ven - Maiquetia Arpt.
MMA	Malmo, Sweden
MNL	Manila, Phillipine Is.
MRS	Marseille, France
MTY	Monterrey, Mexico
MUC	Munich, German Federal Rep.
MXP	Milan, Italy - Malpensa Arpt.
MYJ	Matsuyama, Shikoku, Japan

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CITY CODE LIST
(DECODING)

CODE	CITY NAME
NAP	Naples, Italy
NAS	Nassau, Bahamas
NBO	Nairobi, Kenya
NCE	Nice, France
NCL	Newcastle, England
NUE	Nuremberg, German Federal Rep.
OIT	Oita, Japan
OKA	Okinawa, Ryukyu Is.
OMJ	Omura, Japan
OPO	Oporto, Portugal
ORD	Chicago, Ill - O'Hare Arpt., USA
ORY	Paris, France - Orly Arpt.
OSA	Osaka, Japan
OST	Ostend, Belgium
PLZ	Port Elizabeth, R. S. Africa
PMI	Palma De Mallorca, Spain
PMO	Palermo, Sicily
POA	Porto Alegre, Brazil
POS	Port of Spain, Trinidad
PRG	Prague, Czechoslovakia
PSE	Ponce, Puerto Rico
PTP	Pointe A Pitre, Guadeloupe
PUS	Pusan, Rep. of Korea
PVR	Puerto Vallarta, Mexico
RHO	Rhodes Island, Greece
RNN	Ronne, Denmark
RTM	Rotterdam, Netherlands
SCL	Santiago, Chile
SDQ	Santo Domingo, Dom. Rep.
SDU	Rio De Janeiro, Bra. - S. Dumont Arpt.
SEA	Seattle, Wash., USA
SEL	Seoul, Rep. of Korea
SEN	Southend, England
SFO	San Francisco, Calif., USA
SIN	Singapore, Singapore
SJU	San Juan, Puerto Rico
SKG	Salonika, Greece
SNN	Shannon, Ireland
SSA	Salvador, Brazil
STR	Stuttgart, German Federal Rep.
STT	St. Thomas, Virgin Is.
STX	St. Croix, Virgin Is.
SVO	Moscow, USSR - Sheremetyevo Arpt.

APPENDIX 11.8

CITY CODE LIST
(DECODING)

CODE	CITY NAME
SVQ	Seville, Spain
SXF	Berlin, Ger. Dem. Rep.
SYD	Sydney, NSW Australia
TAK	Takamatsu, Japan
TCI	Santa Cruz Tenerife, Canary Is.
THF	Berlin, Ger - Tempelhof Arpt.
THR	Teheran, Iran
TLS	Toulouse, France
TLV	Tel Aviv, Israel
TPE	Taipei, Rep. of China (Taiwan)
TRD	Trondheim, Norway
TRN	Turin, Italy
TUM	Panama City, Pan - Tocumen Arpt.
TYO	Tokyo, Japan
VBY	Visby, Sweden
VCE	Venice, Italy
VCP	Sao Paulo, Brazil - Viracopos Arpt.
VIE	Vienna, Austria
WLG	Wellington, New Zealand
YEG	Edmonton, Alta - Int. Apt., Canada
YHZ	Halifax, N.S.
YOW	Ottawa, Ontario, Canada
YQB	Quebec, Que.
YQG	Windsor, Ont., Canada
YQM	Moncton, N.B.
YQR	Regina, Sask.
YQX	Gander, Nfld., Canada
YQY	Sydney, N.S.
YUL	Montreal, Que., Canada
YVR	Vancouver, B.C., Canada
YWG	Winnipeg, Man., Canada
YXD	Edmonton, Alta., Canada
YYC	Calgary, Alta., Canada
YYJ	Victoria, B.C.
YYT	St. Johns, Nfld.
YYZ	Toronto, Ont., Canada
ZAG	Zagreb, Yugoslavia
ZRH	Zurich, Switzerland