

Air Transport 1972

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1971 AT A GLANCE

TRAFFIC	1971	1970	Per Cent Change	FINANCIAL	1971	1970	Per Cent Change
Passengers Enplaned (000).....	173,667	169,922	2.2	Passenger Revenues (\$000).....	8,220,500	7,626,804	7.8
Revenue Passenger Miles (000).....	135,651,780	131,710,018	3.0	Freight Revenues (\$000).....	795,271	713,423	11.5
Available Seat Miles (000).....	279,869,172	265,119,871	5.6	Total Operating Revenues (\$000).....	10,026,280	9,289,618	7.9
Passenger Load Factor.....	48.5%	49.7%	(2.4)	Total Operating Expenses (\$000).....	9,712,037	9,246,536	5.0
Freight Ton Miles (000).....	3,712,257	3,407,552	8.9	Net Operating Income (\$000).....	314,243	43,083	629.4
U.S. Mail Ton Miles (000).....	1,313,361	1,470,131	(10.7)	Net Profit (Loss) (\$000).....	29,002	(200,480)	—
Express Ton Miles (000).....	82,998	106,514	(22.1)	Rate of Return on Investment.....	3.5%	1.2%	191.7
Cargo Ton Miles (000).....	5,108,616	4,984,197	2.5	Passenger Yield.....	6.06¢	5.79¢	4.7
Total Revenue Ton Miles (000).....	20,905,505	20,185,500	3.6	Freight Yield.....	21.4¢	20.9¢	2.4
Total Available Ton Miles (000).....	47,223,830	44,298,170	6.6				
Ton Mile Load Factor.....	44.3%	45.6%	(2.9)				
Average Daily Scheduled Flights.....	13,697	14,026	(2.4)				

1972—A TIME TO TAKE STOCK



STUART G. TIPTON
President
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of America

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The theme of last year's *Facts & Figures* was that the airlines, bottoming out of their depression of 1970, would begin an economic turnaround in 1971.

That turnaround did begin in the last quarter of 1971 and now in the first quarter of 1972 the turnaround is in full cry. Problems remain, to be sure, and they are discussed later, but airline conditions are immeasurably improved.

This is a good time then to take stock of the air transport industry, to look over its accomplishments of the recent past and to describe some of the improvements that have been planned for the next several years.

Air transportation today is truly a major transportation miracle of coordinated, widespread, conveniently available service taking place 13,697 times a day. That is the number of average daily flights the U.S. scheduled airlines operate in this country and around the world. One of the characteristics of the miracle and one of the signs of its success is the fact that it is usually taken for granted, even by the millions of people who use the system.

It is pretty much taken for granted these days that the air transport system will fly the passenger, his baggage and a mountain of freight and mail to destination on time, safely and at a cost to the user that is often less than it was 10 years ago.

Such performance levels have been achieved as the direct result of a number of technological revolutions that have taken place in the airlines over the past decade. Here are a few that should not be lost sight of:

- 330 million reservations were made last year and 80 per cent were done by simply using

a telephone. A quarter of a billion dollars worth of airline reservation networks allow the passenger to complete the entire transaction in less than three minutes. Any one airline will reserve space for a customer on any other airline. And the reservation system is available to the passenger or shipper 24 hours a day, seven days a week.

- The safety and efficiency of the jet aircraft are taken for granted, as they should be. But it must be recognized that airline safety is a triumph of engineering skill and personnel dedication. Since the jet age began in the late 1950's, a good safety record has gotten steadily better. Last year the chances were 99.99989 per cent in favor of the airline passenger completing his flight safely.

- Even with all kinds of weather, heavy traffic, and the requirements of maintenance, the service is remarkably reliable. Scheduled miles completed—the best indicator of reliability—now stands at 97.3 per cent. Only 2.7 per cent of scheduled mileage is canceled.

- Perhaps the greatest aspect of the miracle is that the airlines, despite the fact that they have bought billions of dollars worth of new aircraft, hired and trained thousands of highly paid and highly skilled personnel, spent billions more in making it all work, have held down the cost of the product to the user. Ten years ago, the average revenue per passenger mile was 6.24 cents. Last year it was 6.06 cents. Shippers have also benefitted. A decade ago, the average revenue per freight ton mile was 24.12 cents and by last year it had been reduced to 21.42 cents. During this period, the cost of

living as measured by the Consumer Price Index increased some 37 per cent.

This is just part of the record that the airlines have written during the first decade of the jet age. Now in the midst of the transition to a second jet age, it is important to know how the industry has responded to the twin demands of the public for more and more air transportation and to the increasingly important requirement to make aircraft quieter and cleaner.

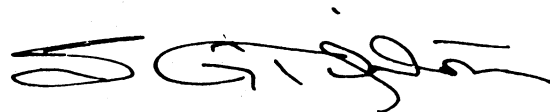
To meet the public's requirement for air transportation during the first half of this decade, the airlines have ordered a new kind of equipment—the advanced technology jet. It is exemplified by the B-747, DC-10 and now the L-1011. These wide-bodied aircraft are already increasing the capacity of the system dramatically for passengers and shippers. They are even more comfortable aircraft than their predecessors. They will cost the airlines some \$6 billion.

The advanced technology jets have been designed to be good neighbors environmentally. They are markedly quieter than conventional jets and they are virtually smoke-free. The airlines are also going back and cleaning up—at a cost of \$30 million—all of their JT8-D engines which power the B-727, B-737 and DC-9. Although noise is proving to be a harder nut to crack, the airlines are continuing to speed technological developments which will make later versions of the new aircraft even quieter.

New aircraft are not the only improvements the airlines contemplate. They are working on new reservations systems which will allow a passenger to place a credit card into a machine, make a reservation and have the ticket drop in his hand

and all within seconds. They are working on a baggage retrieval system which will completely automate moving luggage from one airline to another. The airlines are investing heavily in new terminals which will allow passengers to drive practically to planeside. And so it goes.

It is indeed fortunate that the airlines have made these advancements and contemplate their continuation, because the nation's dependence upon airline service has increased even more rapidly. While efforts are being made to improve rail passenger service, the extent to which these efforts could be successful is still in doubt. We have a magnificent highway system, but great reliance cannot be placed on it for transportation over long distances. Liner services overseas have virtually disappeared, with air transportation providing approximately 92% of the passenger service. In ever-increasing measure, military planning places reliance upon the availability of civil airlift in any national emergency. Consequently, airlines must continue their efforts to take advantage of every opportunity to improve and expand their services, and those in government that regulate them must recognize that the maintenance of a scheduled air transport system is of crucial importance to the United States.

A handwritten signature in black ink, appearing to read "S. G. Light", is written over the bottom portion of the text on the right side of the page.

THE AIRLINES IN 1971—ECONOMIC PRESSURES REMAIN

Although the \$29 million earned by the scheduled airlines in 1971 represents a substantial turnaround from 1970's \$200 million loss, it remained a difficult year for the industry with many economic problems still wanting solution. It should also be noted that the industry's earnings for 1971 include \$27 million in refund payments to airlines when the SST program was terminated.

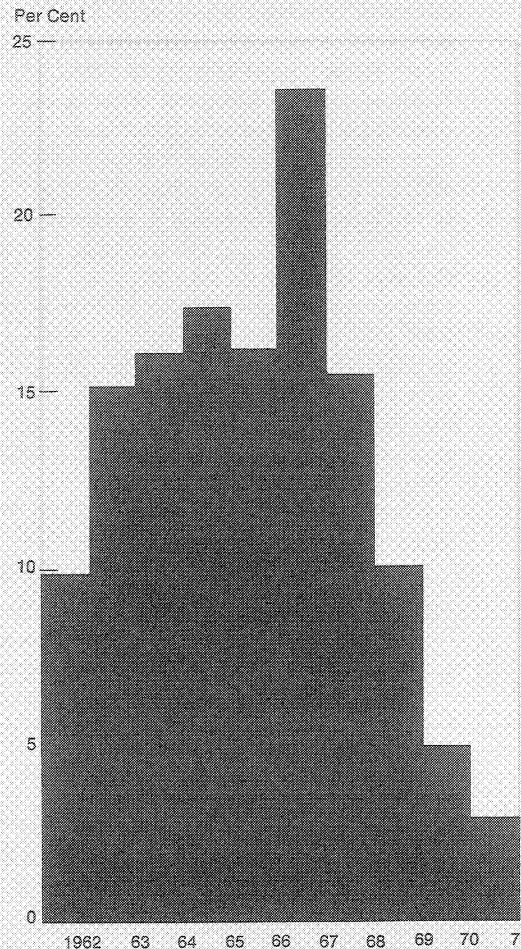
There were, however, some bright spots in the economic picture which contributed to the airlines being able to just about break even instead of repeating 1970's disastrous performance. Some of the most important factors which went into the turnaround included:

- The Civil Aeronautics Board (CAB) granted, effective May 1, 1971, a six per cent increase in domestic passenger fares and said that an additional three per cent increase would follow later in the year. This additional three per cent, however, was held up by the wage/price freeze and has still not been granted.
- Domestic passenger traffic, which had been declining for many months, began to rebound in October, giving the carriers a better than expected fourth quarter.
- Extensive cost-cutting measures, begun by the airlines in 1970, began to show positive results.

■ In 1971, airline passenger traffic growth reached its lowest level in 10 years. The primary reason for this was the poor performance of domestic traffic which had been declining on monthly basis since August 1970. By January 1971, it was also declining on an annual basis. This trend continued until the fourth quarter of last year when domestic traffic suddenly rebounded. This resurgence of traffic has continued into 1972.

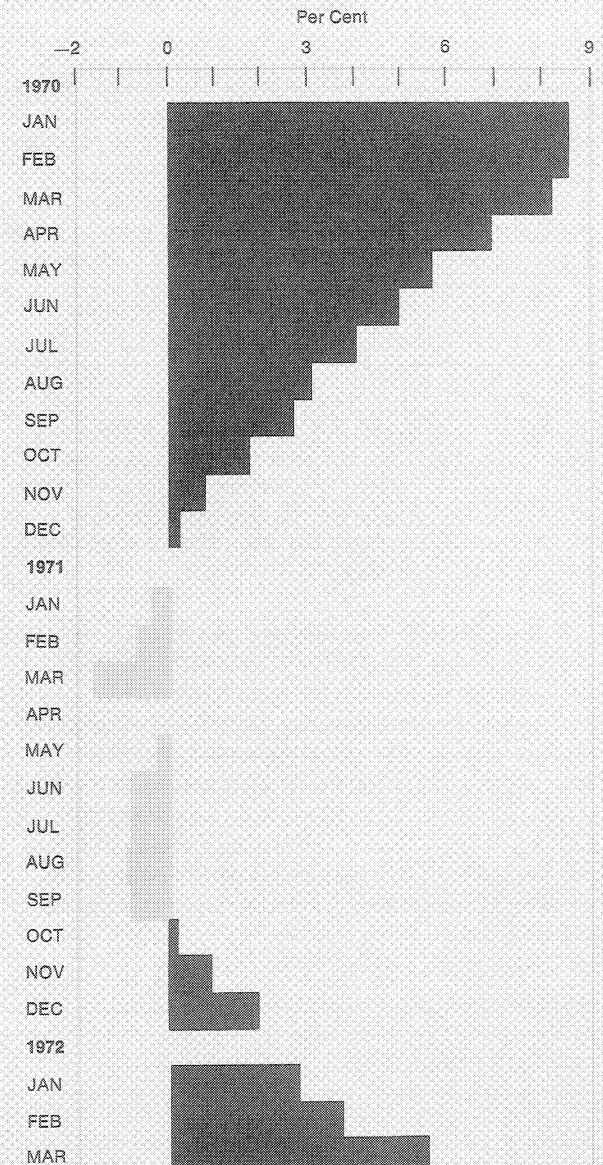
Annual Per Cent Change in Revenue Passenger Miles

Scheduled Airline Industry



Per Cent Change in Revenue Passenger Miles—12 Months to Date

Domestic Trunk Airlines



- The wage/price freeze announced in August and the subsequent Phase II program of economic controls helped the industry to keep its ever-spiraling costs under control.

The \$29 million profit which these factors helped the industry to realize in 1971 represents a 3.5 per cent rate of return on total investment which falls far short of the 12.0 per cent rate of return set by the CAB in 1970 as a fair and reasonable return for the carriers. In fact, the earnings "shortfall," or the difference between what the carriers should have earned in order to realize a 12.0 per cent rate of return and what they actually did earn, was around half a billion dollars in 1971 alone.

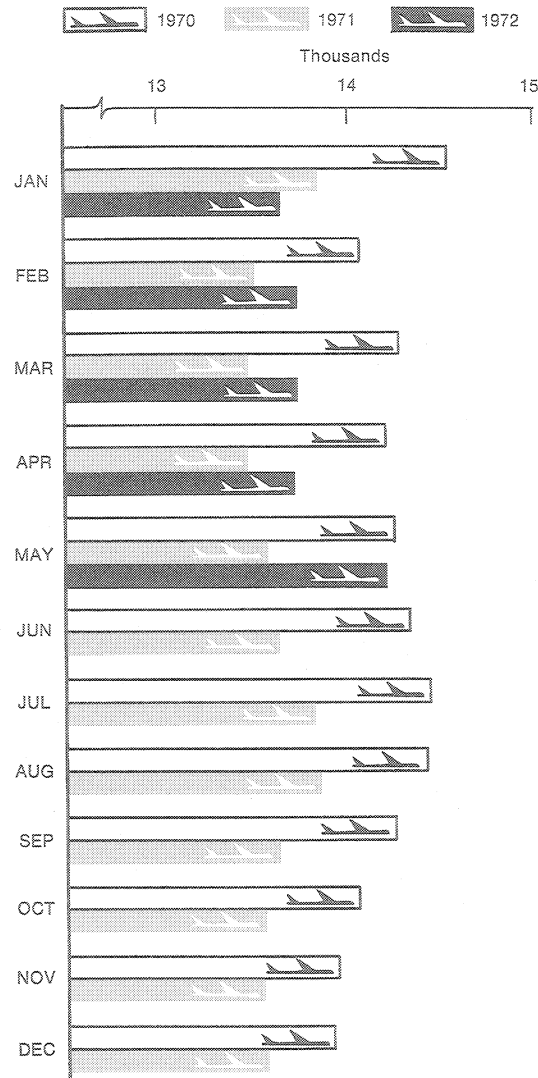
The outlook for 1972 is for a better profit performance than 1971's but still inadequate in terms of return on investment. The Chairman of the CAB has predicted that the airlines will earn \$200-\$250 million in 1972 which, in his words, "does not represent a very large return on investment." First quarter 1972 figures indicate a better earnings picture for the year. The 12 major airlines have reported a net loss of \$38 million, a substantial improvement from the \$140 million deficit in the first quarter of 1971.

There are a number of reasons why the airlines have not in the past and are still unable, even given recent favorable trends, to earn a reasonable rate of return. These include the fact that the industry does not have effective control over a major portion of its operating costs, especially labor costs, increasing competition from the supplemental carriers and the fact that average airline fares, even with the six per cent increase in domestic fares last year, are still lower than they were 10 years ago.

Although the recent traffic surge has prompted airlines to restore some of the flights that were dropped in the past couple of years, there are still fewer daily flights than there were in 1970.

Daily Scheduled Departures— Domestic Service

Scheduled Airline Industry



Airline Costs—Extensive Cutbacks Finally Pay Off

Starting in late 1969 and early 1970, as the magnitude of the economic problems facing the industry became more and more apparent, the airlines embarked on an extensive cost-cutting program which continued through 1971 and is still going on.

An important element of the program was the furloughing of airline employees. In 1970, some 12,000 people were laid off and in 1971 another 10,000 had to be cut. Because hiring did continue where necessary, these cuts did not result in proportionate declines in the total airline labor force. At the end of 1971 there were 292,185 people employed in the industry, a 1.7 per cent decline from the 297,374 employed at the end of 1970 and an even larger 6.3 per cent decline from the end of 1969, the year in which industry employment reached its peak.

The reason that fewer airline employees were needed was that the whole level of airline activity was declining. Passenger traffic on domestic routes was down, first on a month-to-month basis and then on an annual basis. Because of the decline in traffic and the industry's low profits, the airlines began, in early 1970, to eliminate unprofitable flights from their schedules. In 1970, the airlines operated an average of 14,026 scheduled flights per day. In 1971 this declined to 13,697 flights per day, a decrease of about 330 flights offered to the public every day. Now, in the first quarter of 1972, as traffic has continued the resurgence begun in the fourth quarter of last year, the airlines are adding some flights in order to handle heavy demands at peak travel times. Even so, in May, 1972, the last

month for which data are available, the airlines still had fewer flights scheduled than in May, 1970.

Another cutback in service to the public has been in the less visible areas of passenger service—in such items as in-flight meals, movies and many “frills” which the airlines are now offering on a more selective basis. Much of this has been in such minor items as fresh cut flowers on aircraft, linen versus paper napkins and in-between-meal snacks.

Passenger Traffic Rebound Aids Financial Results

Until the fourth quarter, 1971 was shaping up as a very dismal traffic year for the domestic carriers. For the domestic trunks, traffic was actually below the previous year's level on a 12-month-to-date basis for every month of 1971 through September. In October, however, passenger traffic, perhaps responding at last to the brightening national economic outlook and the addition of two new three-day weekends as a result of the Monday Holiday Law which went into effect in 1971, jumped 9.1 per cent over October, 1970. This encouraging trend continued through December and now in the first quarter of 1972 seems to be strengthening with domestic trunk traffic up 13.8 per cent over the first quarter of last year.

Capacity, or the number of available seat miles offered, in 1971 gained 5.6 per cent, due mostly to the addition to airline fleets of a number of the wide-bodied jets. This capacity increase, coupled with the overall industry growth in revenue passenger miles of 3.0 per cent resulted in a decrease in passenger load factor from 49.7 per

cent to 48.5 per cent. In the first quarter of 1972, however, passenger load factor for the industry increased from 44.3 per cent to 48.8 per cent, reflecting a 14.8 per cent gain in traffic and a 4.2 per cent addition to capacity.

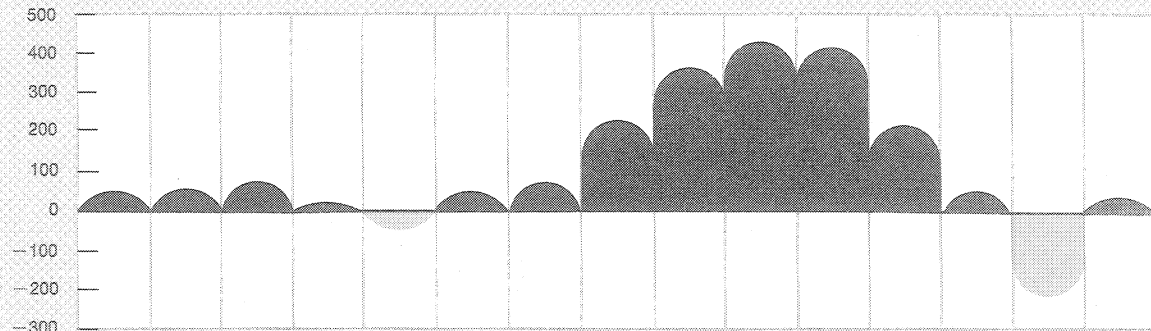
Revenue Growth Finally Outpaces Expenses

One of the most immediate indicators of the improved airline financial picture was the fact that in 1971, for the first time since 1965, operating revenues increased at a faster pace than operating expenses. Total operating revenues last year came to \$10.0 billion, a 7.9 per cent

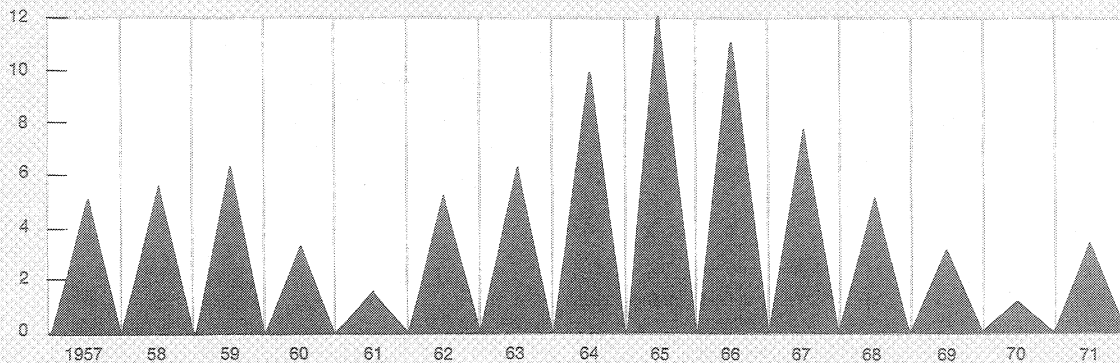
Although the airlines did turn a slight profit last year, 1971 still ranks as one of the poorest earnings years in the history of the airlines. The industry rate of return was far below the 12.0 per cent which the CAB has said is fair and reasonable and which the industry has only achieved once.

Scheduled Airline Industry

Net Income (Millions of Dollars)



Rate of Return on Investment (Per Cent)



increase over 1970 and total operating expenses were \$9.7 billion, 5.0 per cent more than in 1970. The result was a substantial improvement in operating profit, from \$43.1 million in 1970 to \$314.2 million last year.

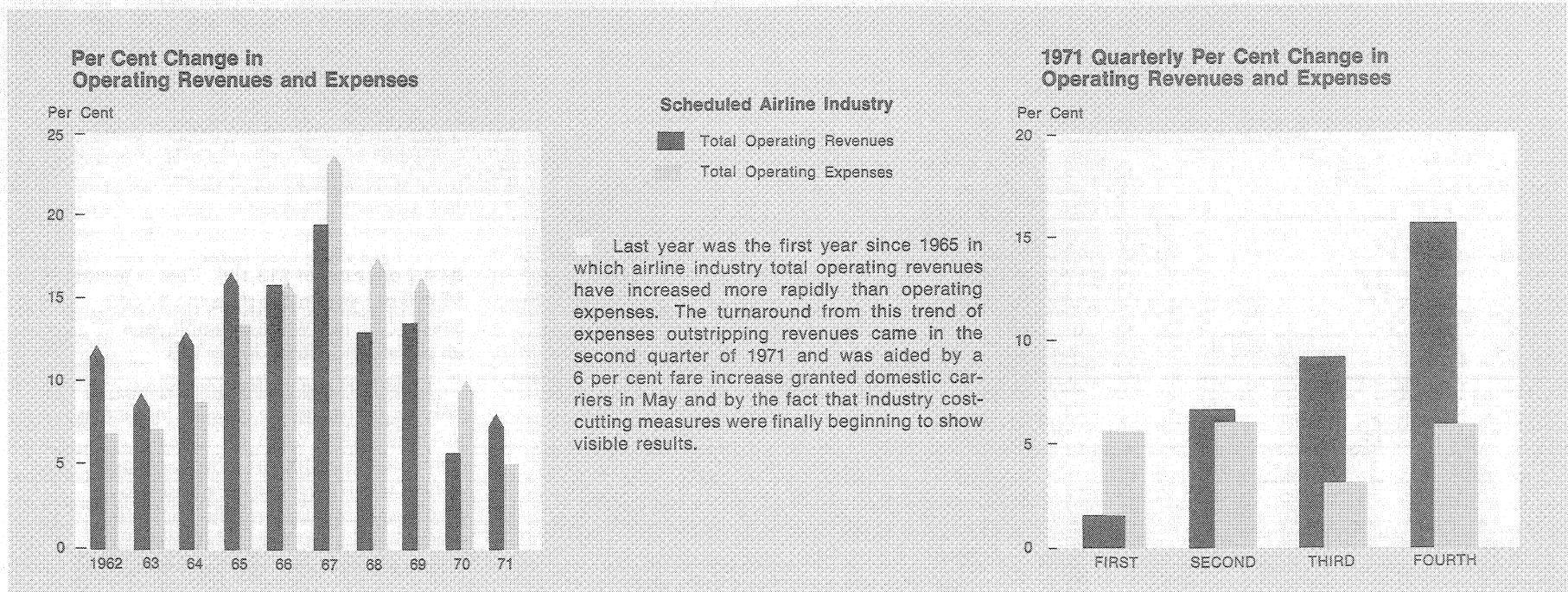
This turnaround in the five-year trend of revenues and expenses came about in the second quarter of last year. In the first quarter, expenses continued to outpace revenues, but in the second quarter, aided by the six per cent fare increase that went into effect on May 1, revenues moved ahead of expenses slightly. In the third and fourth quarters the full impact of the fare increase was felt as well as the results of cost cutting, and revenues grew considerably

faster than expenses. This is another encouraging trend that has continued from 1971 into the first quarter of this year.

Another way of measuring this trend is in unit revenues, costs and profit margins. In this, too, a five-year decline in unit operating profit margin was reversed. In 1970, this indicator fell to the lowest point in airline history—0.21 cents per mile, or less than one-quarter of a penny for profit for every ton mile flown. In 1971, however, the unit operating profit margin improved to 1.50 cents per mile.

DESPITE IMPROVED OUTLOOK, PROBLEMS PERSIST

Even though the industry did turn in an improved financial performance in 1971 and the prospects are for an even better year in 1972, the industry still faces a number of economic problems. As noted above, the most pressing of these include inadequate fare levels, the lack of effective control by the airlines over important segments of their costs and increasing competition from the supplemental carriers.

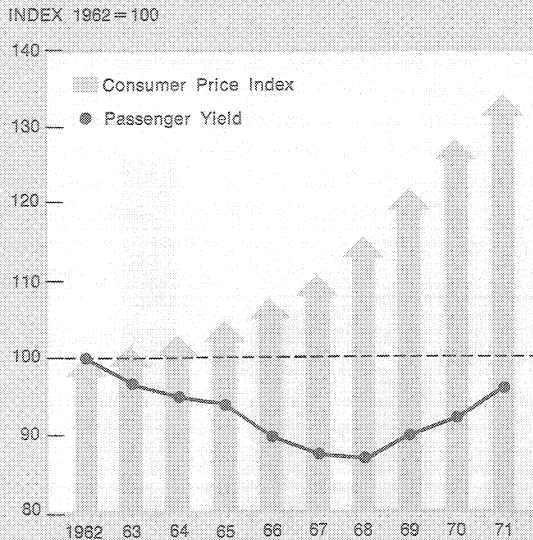


Airline Fare Yields Still Below Those of 10 Years Ago

Average airline fares, as measured by average revenue per revenue passenger mile, in 1971 showed an increase over 1970 of some 4.7 per cent, due, of course, to the six per cent increase granted by the CAB in May. This increase did not, however, bring average airline fares up even to those of 10 years ago. This is because more

Even with the 6 per cent increase in domestic fares granted by the CAB in May, 1971, airline fares, as measured by average revenue per revenue passenger mile, are still well below the fares of the early 1960's. In contrast, other goods bought by the public are now an average of more than one-third more expensive than they were in that period.

Airline Passenger Yield and Consumer Prices



and more passengers are taking advantage of promotional fares such as excursion, family, military and youth discounts and other fares designed to broaden the base of the air travel market.

Thus, while basic coach and first class fares are higher today than they were in the past, especially in short-haul markets which are less economical to operate, passengers are switching to the lower-cost promotional fares or are deciding to travel in coach rather than first class. This trend to the lowest available fare, which grows as the airlines become more and more personal and pleasure travel oriented, serves to keep down the amount of revenue the airlines receive per passenger mile.

Cost Inflation Continues to Hit Airlines Hard

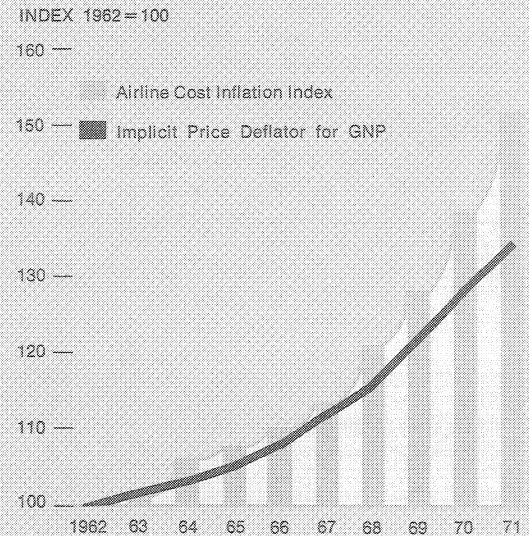
Despite the effects of the Administration's wage/price controls, cost inflation continued to be a serious problem for the airlines. In 1971, the industry experienced an inflation rate of 6.6 per cent, compared with a national inflation rate of 4.6 per cent. Over the past five years, inflation for the industry has grown at an average annual rate of 6.7 per cent, while that for the nation as a whole has been 4.4 per cent.

The single most important reason for this is that airline wage rates continue to be among the highest in private industry and continue to increase at a rapid rate. For example, even though airline employment in 1971 declined by 5,189 employees, airline payrolls continued to climb to \$3.8 billion, a 5.0 per cent gain over 1970. This meant that the average annual wage of airline employees increased

One of the major factors in the airline industry's poor profit performance of the past few years has been the fact that the rate of inflation of airline costs has been considerably higher than that of the nation as a whole.

Airline and National Economic Inflation

12 Major Airlines



by 6.9 per cent to \$13,156. This is almost \$5,400 per year more than the \$7,800 average annual wage of employees in all private industries in the U.S.

Not only are airline employees paid more than those in other industries, but their rate of wage increases continues to be higher. The average annual wage increase of workers in all private industry over the past five years was 5.5 per cent, while that for airline employees was 8.9 per cent.

The prospects for the future seem to indicate that this trend will continue, although the policies of Phase II make it a little more difficult to predict what will happen to wage contracts in the next couple of years.

Airport Costs Keep Climbing

Another vital aspect of airline costs is that associated with the use of airports. While these are difficult to measure because airlines do not keep separate records of total rental costs, it is known that airline rentals have increased markedly in the past few years. This is because airport managements, especially at the large airports, set rentals and landing fees at such levels as to be sure they recover all operating costs as well as the costs of financing capital improvements—both debt service and capital. It is estimated that the airlines are now supporting at least \$5 billion in bond issues at airports around the nation.

Landing fees for the domestic operations of the airlines have increased over the past 10 years more than three-fold and now total \$149.4 million per year. In addition, the airlines are spending many millions of dollars of their own funds to construct airport terminal facilities for passengers and cargo.

Supplemental Carriers Continue to Divert Traffic From Scheduled Services

Perhaps the most serious problem facing the scheduled airline industry today is that of diversion of traffic from the scheduled system to the supplemental carriers. Because these

carriers are free to carry passengers when and where they want, with no obligation to provide a regularly scheduled service year-round, they are invading peak travel markets at peak times and taking the traffic on which the scheduled carriers depend to make a profit to support unprofitable

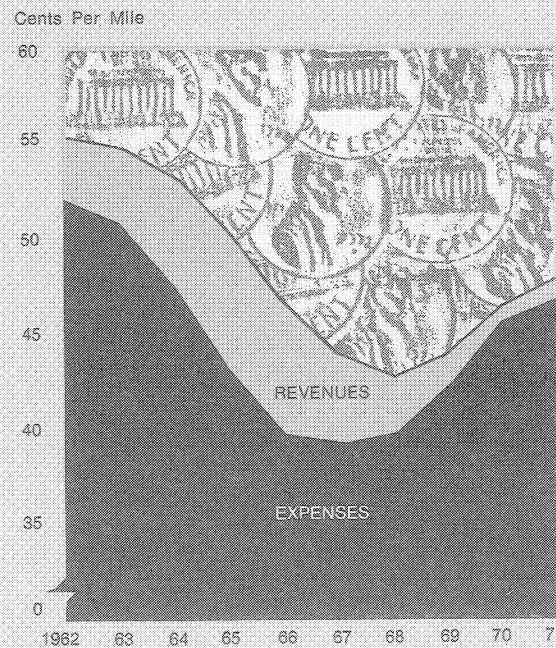
routes in low seasons. This process of "cross-subsidization" has been the heart of the scheduled system for many years and without it the scheduled system could well fail to survive in its present form.

To compound these problems, the CAB has proposed that all of the so-called "affinity" requirements be removed from the charter regulations,

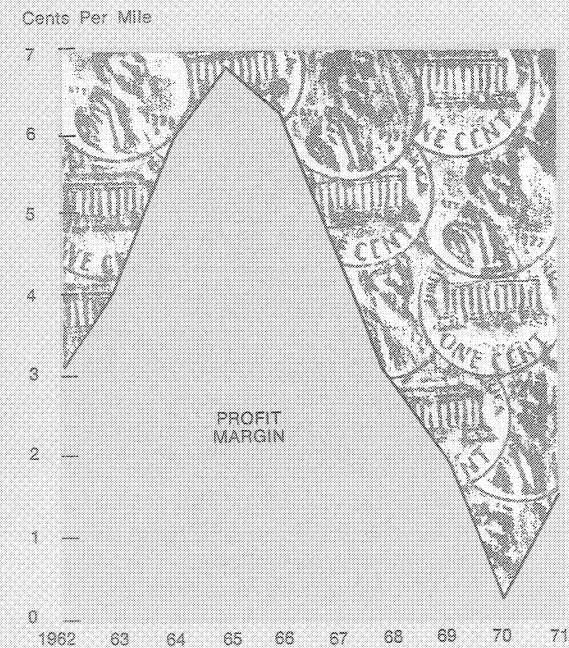
Another way in which airline cost cutting has paid off is in the area of unit costs, revenues and profits. Unit costs were held to a 1.4 per cent increase in 1971 while unit revenues gained 4.2 per cent, resulting in the first improvement in unit operating profit in six years.

Scheduled Airline Industry

Unit Operating Revenues and Expenses



Unit Operating Profit Margin



making it possible for any group that can get together six months in advance to charter an aircraft, or part of one. This Travel Group Charter rule has the potential to divert a great many more passengers in the future from the scheduled carriers.

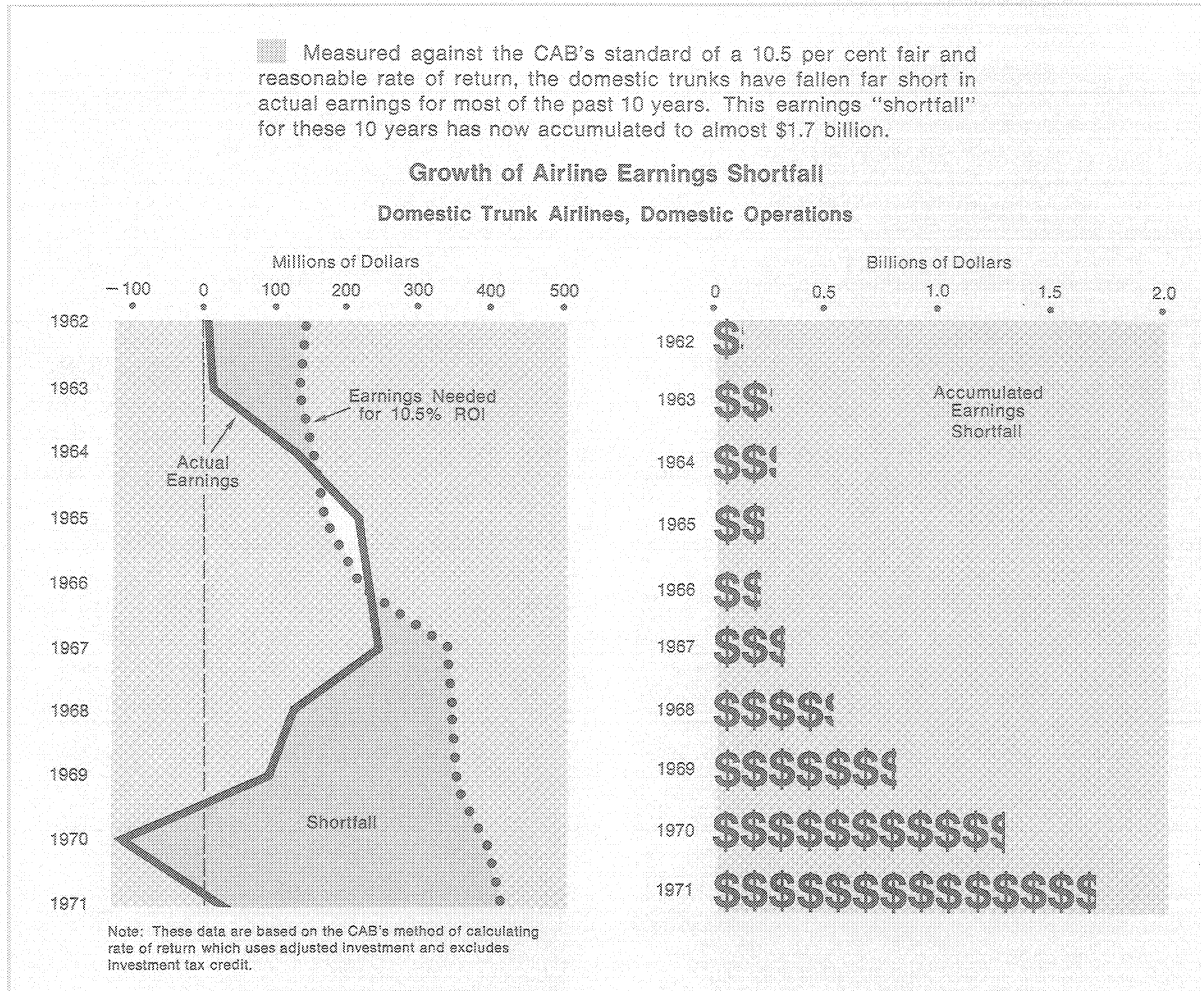
Aircraft Re-equipment—Another Large Cost Item

During 1971 and the first five months of 1972, the airlines took delivery of 111 new jet aircraft, 76 of which were of the new, wide-bodied type. The airlines also have on order for delivery during the rest of 1972 and in future years 195 new aircraft valued at \$3.7 billion.

Among the new wide-bodied jets delivered this year is the Lockheed L-1011 which has just been introduced into scheduled service. The introduction of the L-1011 marks something of a milestone in the airline re-equipment program in that with it, all of the wide-bodied jets are in service. This phase of airline re-equipment began with the Boeing 747 which came into service in January, 1970 and has posted a remarkable record of public service and safety in the more than two years that it has been flying in scheduled service. By the end of 1971, 165 747's had been delivered to airlines around the world and had flown more than 19 million passengers.

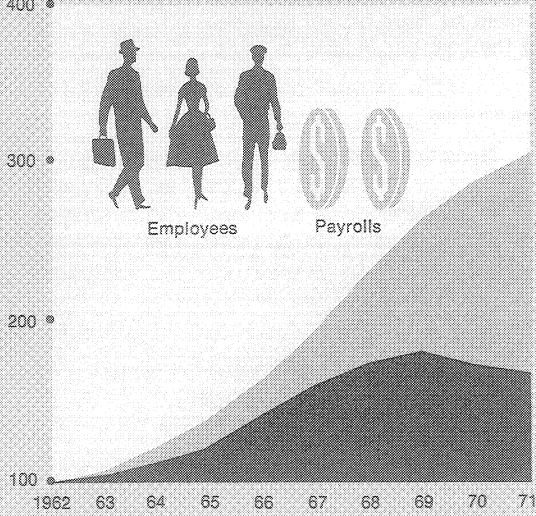
The next of this second generation of jets was the McDonnell Douglas DC-10 which began scheduled service in July, 1971 and has also proved to be reliable and well-received by the flying public. The introduction of the L-1011 rounds out this new "family" of jets.

The wide-bodied jets have a number of advantages over the smaller, first generation jets. Not only do they mean more comfort for the passenger but they are also a boon to the people on the ground as well. They are almost completely smoke-free and their engines are far quieter than the earlier jets, despite the fact that their engines are two to three times more powerful. The airlines now have almost \$6 billion worth of these new "good



Airline Payrolls and Employees

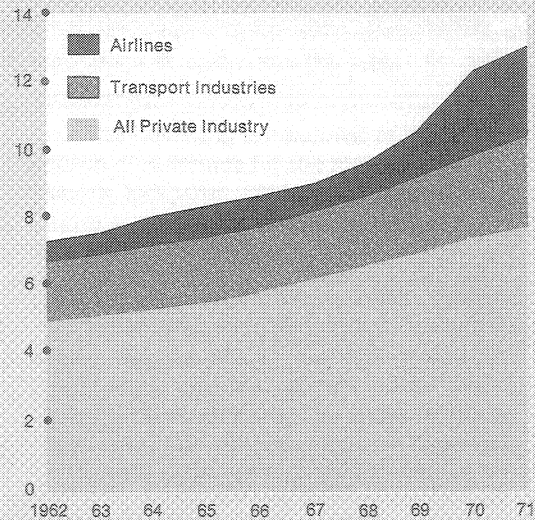
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Airline payrolls have increased at a much more rapid rate than the airline labor force. This has caused the annual average airline employee's salary to increase steadily to the point that it is now almost \$5,400 per year more than that of employees in all private industry.

Annual Average Salaries Compared

Thousands of Dollars



neighbor" jets in their fleets or on order and that money is a direct investment by the industry in a better environment.

This enormous investment in new aircraft, while necessary to meet the needs of the public in the seventies, has meant that the industry has had to borrow large sums of money for financing. As airline earnings have been low for the past several years and airline stocks depressed, equity financing has been virtually impossible for some carriers and economically unwise for others. Thus, the airlines have had to either borrow funds to pay for new aircraft or lease them from financing companies.

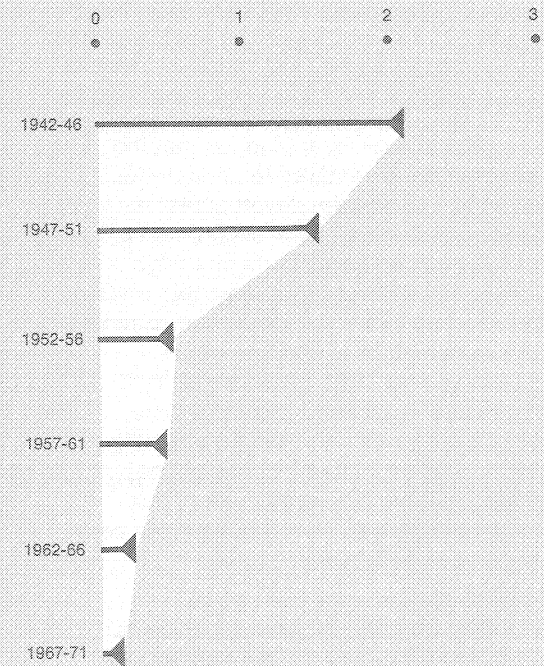
Because of this, airline long-term debt now stands at \$5.6 billion compared with \$3.1 billion five years ago. And with this growth in debt, interest payments have also risen rapidly. In 1971, the industry paid some \$334.4 million in interest expense which represents a 5.0 per cent increase over 1970 and a 164.2 per cent increase over five years ago. This dependence on long-term debt financing to re-equip themselves has also increased the airlines' debt equity ratio to 61/39 in 1971, a significant change from five years ago when it was 56/44. ■

■ The airline industry safety performance has improved steadily over the years and 1971 was one of the best years in the history of the airlines.

Airline Passenger Fatality Rate

Scheduled Airline Industry Five Year Averages

Passenger Fatalities Per
100 Million Passenger Miles

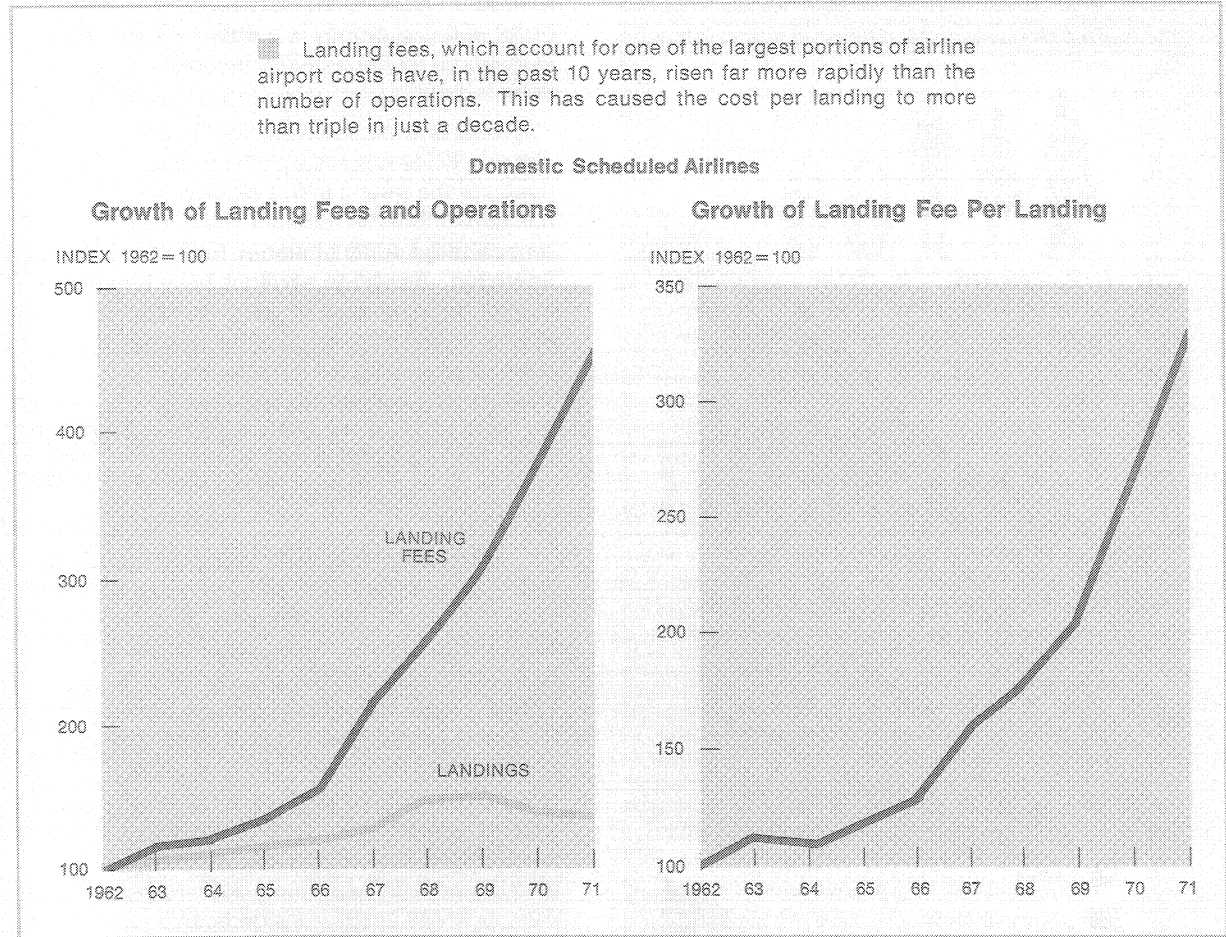


AIRPORTS—BILLIONS OF DOLLARS NEEDED FOR THE 1970'S

In July, 1970, the Airports and Airways Development Act of 1970 went into effect and with it the new Airport Development Aid Program (ADAP). During the first full year of the ADAP, Fiscal Year 1971, the Federal government allocated \$170 million for airport development and during the second year, Fiscal Year 1972, it is estimated that the minimum allowable under the act will be allocated—\$280 million.

The annual level of funds that the government is required to allocate for airports and airways development is \$595 million which consists primarily of \$280 million for airports and \$250 million for airways. However, the funds building up in the Trust Fund far exceed this minimum level of expenditure. In Fiscal Year 1972, for example, the estimated Trust Fund income will be \$610.4 million and by Fiscal Year 1975 the annual estimated income will be \$793.5 million. The great bulk of this income is derived from the eight per cent tax on domestic airline tickets.

The airlines are concerned, however, that the program, despite its improvements over the old Federal Aid to Airports Program (FAAP), is still quite inadequate to meet the airport needs of the seventies. The airlines serving



the 22 major hub airports were surveyed to learn how much they felt each of the 22 major hub airports would need between 1971 and 1990 in capital development funds. It was found that for the years 1971 through 1975, \$2.5 billion in capital improvements would be needed at these 22 airports. Of this

amount, however, only \$830.0 million is, under current restrictions, eligible for ADAP assistance. The other \$1.7 billion is for terminal and other ineligible improvements and will have to be financed privately. ADAP funds can only be used for landing area expenses such as land purchases and the paving,

lighting and instrumentation of runways and taxiways. ADAP usually contributes 50 per cent of the necessary funds on a matching funds basis, but can pay up to 82 per cent for certain landing aids.

This means that the airlines are going to have to support, in the next five years, at least \$1.7 billion in capital improvements at airports and added to this will be another \$415 million which is the half of the matching funds allocation that will have to be picked up by the locality.

Why will the airlines have to pick up these tremendous costs? Because at almost all large airports, landing fees and rentals charged to the airlines using the airport are geared to cover operating costs of the airport as well as principal and interest on any bonds outstanding for airport improvements. The other major source of airport revenues is rentals paid by airport concessions—restaurants, book shops, parking lots, etc. Large airports are big businesses and most finance capital improvements with revenue bonds, backed up by the revenues of the airports, rather than by general obligation bonds which depend on the local taxpayers.

The following breakdown of the source of revenues for the major airports indicates just how important airline and concession revenues are:

Airport Operating Income, Fiscal Year 1971

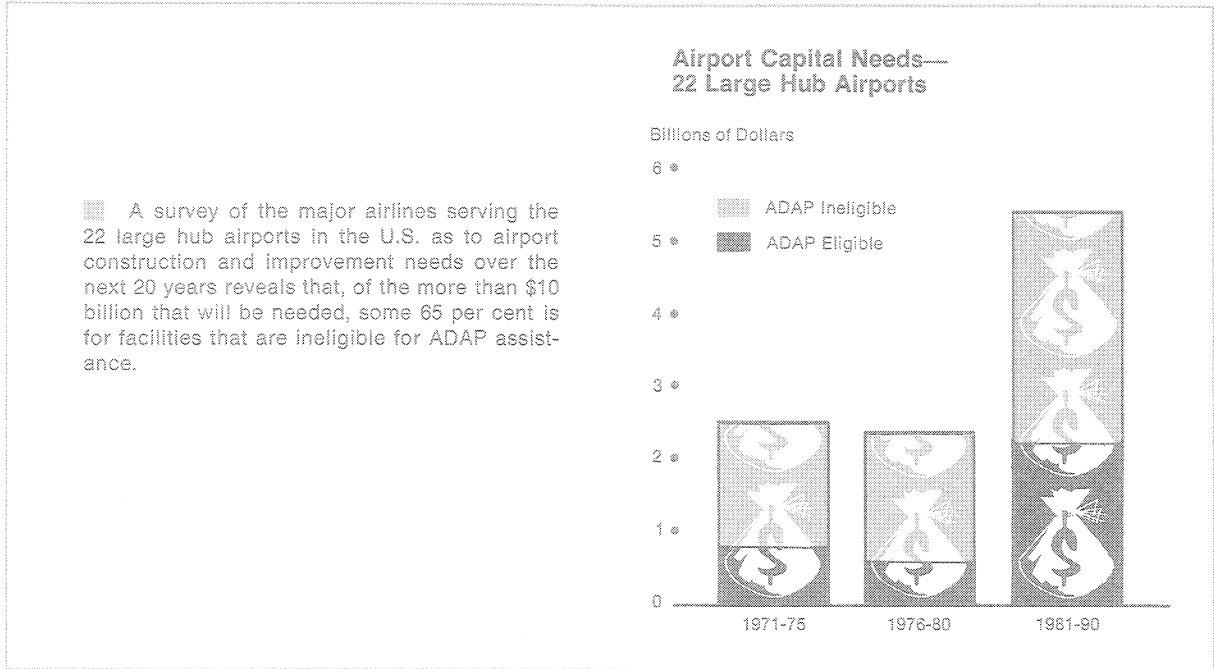
Landing area	28.5%
Terminal area, including parking	56.3
Aviation leased areas	9.1
Other leased areas	2.8
Other operating areas	3.3

Thus, when an airport decides to improve its plant, it is the airlines and concessions who end up paying the bill, through landing fees and rentals. And added to this financial burden on the airlines is the fact that each local airport authority or management must be dealt with individually—there is no way for an airline to have any central control over its airport costs.

This factor in airline costs is of growing concern to the industry because the airlines right now are supporting in excess of \$5 billion in airport debt.

Airline investment in airports does not stop with their support of airport bonds. They spend millions of dollars to build their own terminal facilities for passengers and cargo at many major airports.

In order to take at least some of this burden off of the airlines, the industry has proposed that the scope of ADAP be expanded. The first and most important step is to make the public areas of passenger terminals eligible for ADAP assistance—this means the sections of terminals which are used by the public but not rented by airport tenants, such as lobbies and moving sidewalks between terminals. Another change the industry has proposed is that the ratio of federal participation in ADAP be changed from the current 50/50 to 90/10. This step would make it easier for airports to take advantage of the program because they would not have to raise such large amounts to meet their share of the matching funds. ■



A SERIOUS THREAT OF DIVERSION—THE TRAVEL GROUP CHARTER RULE

Even though the airlines did manage a financial turnaround last year, there still remain some nagging problems. One of the most persistent of these is the continued diversion of traffic from the scheduled airlines to the supplemental, or charter, carriers.

This diversion poses not only a threat to the scheduled air transport system, but is also creating a situation in which the traveling public will be the ultimate loser. For, while the public may enjoy lower fares initially, the inevitable result is a scheduled system so economically weak that it will no longer be able to provide the widespread and readily available service that the traveling public has come to expect and rely upon.

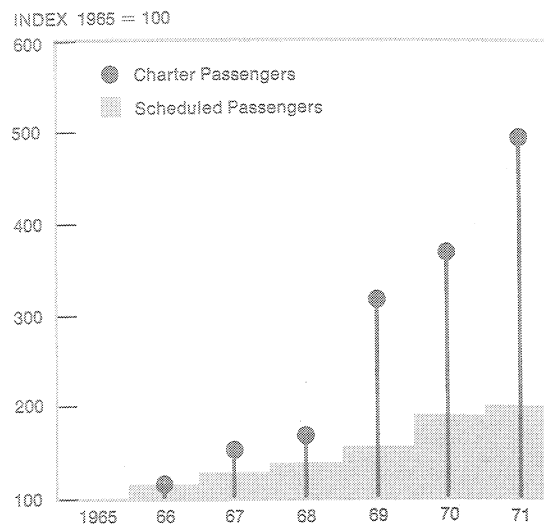
This is happening because the regulations on charter operations are being gradually relaxed to the point that the distinction between charter and individually ticketed services has become blurred. But now the CAB has proposed a rule that will go much further in breaking down those distinctions and will permit serious erosion of scheduled services. This rule is the Travel Group Charter proposal which will permit any charter organizer to solicit from the general public to form groups of 50 or more people for the purpose of chartering an aircraft on a pro-rata basis. There would be no affinity requirement.

In order to attempt to preserve the distinction between individually ticketed services and charter services, the CAB attached some restrictions to the Travel Group Charter rule. These include requirements that tours be organized more than six months in advance of the flight, that passenger lists, with standbys, be submitted to the CAB six months in advance and that passengers make non-refundable deposits equal to at least 25 per cent of the pro-rata share of the charter fare.

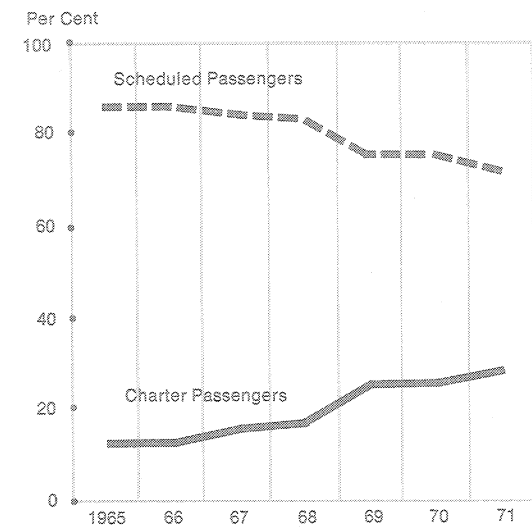
However, past experience with the much stricter affinity rules has shown that charter organizers have always found ways to circumvent the rules and operate what is, in effect, individually ticketed services. Even the head of CAB's Bureau of Enforcement conceded that the affinity rules are disregarded on a widespread basis and that "almost anyone from the general public could participate on many charters merely by paying a

■ In recent years, transatlantic passenger charter traffic has been growing at a much more rapid rate than scheduled passenger traffic and the result has been a steady erosion of scheduled traffic to the point that charters now account for almost 30 per cent of all transatlantic passenger traffic.

Growth of Transatlantic Passenger Traffic



Transatlantic Passenger Market Shares



nominal membership fee with no real membership requirements." One can only conclude that under greatly relaxed charter rules, diversion from the scheduled system can only increase.

A study was performed by a nationally known consulting firm, National Economic Research Associates (NERA), on just how much diversion the scheduled carriers could expect if the Travel Group Charter regulation goes into effect. The results for both domestic and international services were enough to cause concern for the survival of the scheduled system.

Diversion From International Service

The NERA study found that, under such a rule, the attitudes of the public towards the supplemental carriers are likely to improve as charter service expands and becomes better known. Also, a great increase in traffic on the supplementals would allow them to become more flexible in their scheduling of departures and destinations which would enhance their ability to compete with scheduled services even more effectively.

The study assumed that the passengers most likely to switch from scheduled to charter services would be those in economy class traveling for pleasure. Of these, it was assumed that 80 per cent in peak season and 70 per cent in off-peak season would be price-sensitive enough to switch to charters. This would result in an aggregate diversion of 77 per cent of all economy passengers on an annual basis. This amounts to some 3,244,000 passengers who would have been diverted in 1970, or a total of 51 per cent of all transatlantic passengers traveling

in all classes and for all reasons. This would have resulted in a loss in passenger revenues for the two U.S. flag carriers on the North Atlantic alone of some \$334.6 million in 1970.

The impact of such a rule on scheduled transatlantic traffic is striking. Assuming the reduced passenger traffic level carried by the existing level of capacity, the highest resulting load factor on any one route last year would have been 37 per cent. Obviously, no route could sustain its present level of service and any reduction in service would reinforce the trend toward charter services.

Effect on Domestic Scheduled Service

The NERA study identified the types of markets which would be affected if the charter carriers entered the domestic market on a large-scale basis. The most likely to experience heavy diversion to charter service would be those markets that are heavily tourist-oriented, such as Florida, the Southwest and Southern California, the Caribbean, Mexico and Hawaii. Another type of domestic market which could be subject to a lot of diversion is that in which the per mile yield is relatively high. There are not a great many tourist-oriented markets with high yields but there are a few with yields in the 5.5 cents per mile range that might be susceptible, for example, New York-Miami and New York-California.

A third type of market where diversion could be expected is that which is long-haul enough so that the absolute fare difference would become important. For example, a one

cent difference in yield would translate into a \$60 difference in roundtrip fare per passenger on a 3,000 mile trip. The last type of market is that in which the charter operators can develop their own ground accommodations. Another kind of diversion that would take place is that of traffic that would have gone to one destination going to another because of price differential.

The following list shows the kind of markets that could be expected to experience heavy charter diversion because they are relatively long-haul and have a high percentage of pleasure travelers:

<i>New York to:</i>	<i>Per Cent of Passengers Traveling for Pleasure</i>
Denver	49%
Honolulu	38
Jacksonville	63
Las Vegas	49
Los Angeles	35
Miami	69
New Orleans	33
Phoenix	49
San Diego	38
San Francisco	41
Tampa	63
Tucson	49
West Palm Beach	63

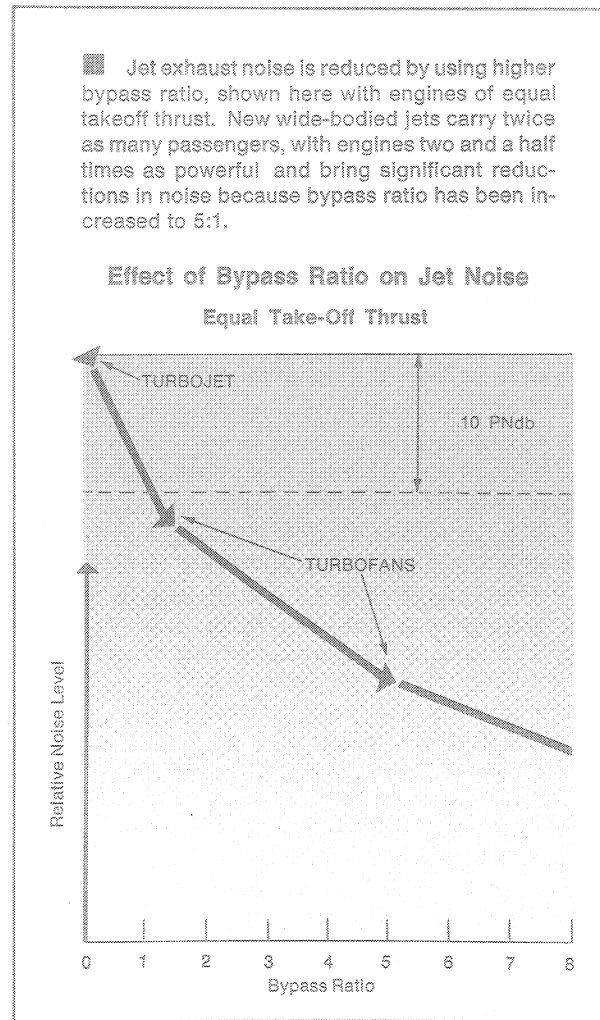
The study found that the net result of the introduction of charter competition into domestic markets would be either the large scale diversion of passengers to either charter flights or to new low-fare excursion classes that the scheduled carriers would introduce to remain competitive. Either one of these alternatives would place a severe financial burden on the profitability of the scheduled system which is already an historically marginal one. ■■■

THE AIRLINES AND THE ENVIRONMENT

The new, wide-bodied jets represent an important step in reducing the effects of jet aircraft on the environment—both in terms of noise and smoke pollution. All of the new aircraft use advanced-technology engines providing far more power (and therefore carrying capacity) than the first generation of jet aircraft. At the same time, the new engines retain the low level of exhaust emissions of the older engines and are virtually smoke-free and significantly quieter.

Since they can carry two or three times as many passengers as the older jets, the new aircraft enable the airlines to absorb great increases in traffic without corresponding increases in operations. The B747, for instance, is usually substituted for two B707 schedules, thereby eliminating one flight operation.

A key factor in this ability to increase power greatly while holding down or reducing noise and emissions is a design feature known as a high bypass ratio. The bypass ratio is the ratio of air that bypasses the combustion process to air that is compressed and burned with fuel. For the new-technology engines, the flow of bypass air is five times greater than the flow of air through the combustion chambers. This bypass ratio of 5:1 compares with a ratio of about 1.2:1 for engines powering the first generation of jet transports.



By holding down the flow of jet exhaust, the high bypass ratio engine holds down the amount of jet exhaust emissions. Added to this are net reductions in emissions brought about by improvements in combustion efficiency.

With noise, the primary result of the high bypass ratio design is a reduction of jet exhaust noise. This noise is caused by the interaction between high velocity jet exhaust gases and the air surrounding them. The high velocity is the result of air being compressed, then fed into the combustion chamber and burned, followed by a rapid expansion and exhaust at high velocities. Increasing thrust by using a higher bypass ratio avoids increasing the jet exhaust gas velocity—and the noise it causes.

Another form of noise reduction that comes with the wide-bodied jets is a lowering of the high-pitched whine of the fan blades and internal turbomachinery. The new engines have virtually eliminated the highly objectionable turbine whine by design changes in the front part of the engine. Also, the amount of noise has been reduced by extensive soundproofing of both the engine and the nacelle into which it fits on the airplane.

Just how far the wide-bodied jets have brought noise reduction can be seen by the charts showing the history of noise by aircraft type. Although these charts show only the values for the four-engine B747, values for the three-engine DC-10 and L-1011 are significantly lower even than those for the B747 using effective perceived noise levels (shown as EPNdB), which involves correcting the noise measurement for tone and duration of tone.

Approach noise reflects the predominance of noise generated in the engine and heard out in front, while sideline noise reflects the predominance of noise from the jet exhaust. (Although jet exhaust noise predominates on takeoff, takeoff noise measurements are difficult to plot because of the variability in operational procedures. Thus, sideline noise is a more accurate reflection of the trend in jet exhaust noise.)

The move from pure turbojets to early turbofans began a trend toward reduced sideline noise but noise from the fan and compressor raised approach noise. This was controlled with later versions of the engine powering the stretched DC-8 series in 1967.

When the early B747's entered service, they represented a significant reduction in both approach and sideline noise.

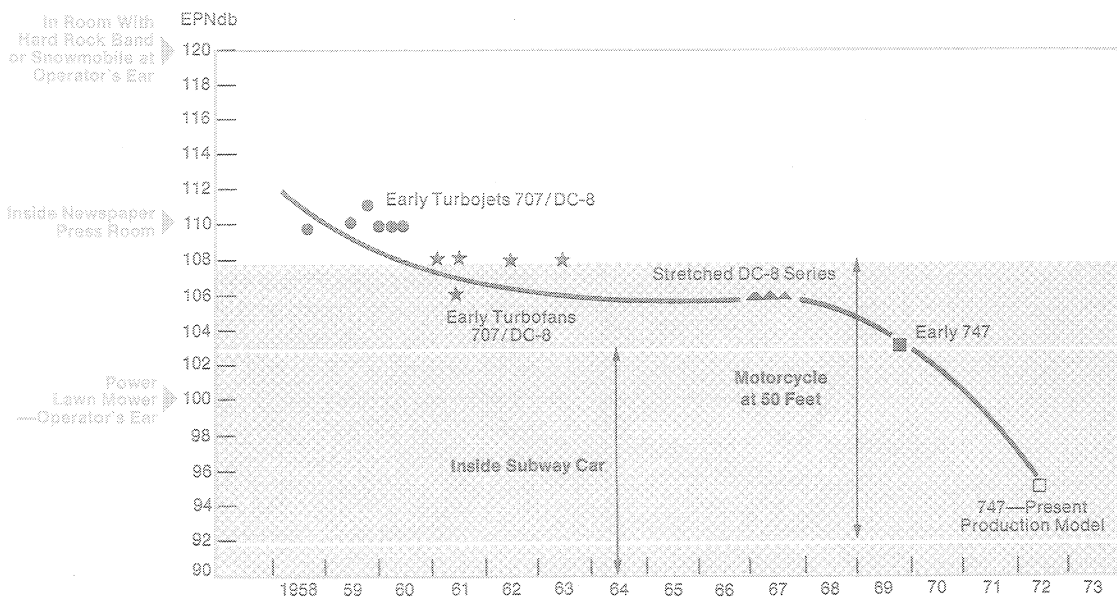
noise. Refinements developed since the design and production began were incorporated in later model B747's beginning with December, 1971 deliveries, producing an even greater reduction in noise.

For the three-engine wide-bodied jets, the picture is equally impressive. The DC-10 and L-1011 are the first aircraft designed from the beginning to

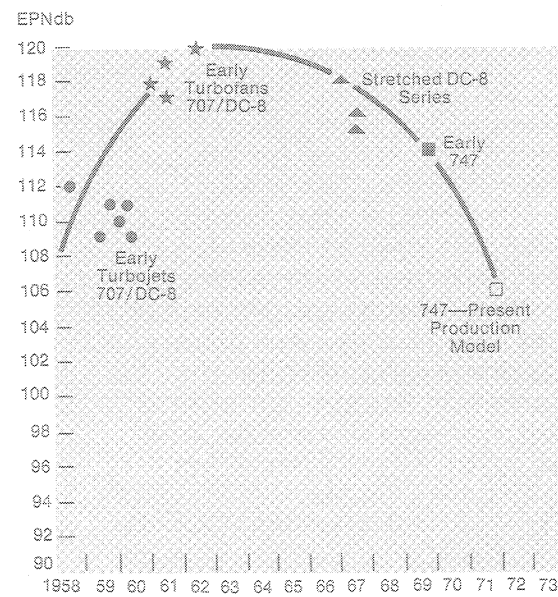
■ Move from turbojet to turbofan in 1961 began reduction of sideline noise, reflecting effect of 1:1 bypass ratio on lowering jet exhaust noise. This created high-pitched whine of fans, increasing approach noise. Trend toward lower approach noise began with the stretched DC-8s. High bypass ratio engines on wide-bodied jets (747) have cut both approach and sideline noise significantly. Noise from other sources is shown for comparison.

Long Range 4-Engine Transports

Sideline Noise



Approach Noise



meet Federal Air Regulation Part 36, adopted in November, 1969. As the newest aircraft in the fleet, they represent the greatest advances in noise reduction: 96 and 95 EPNdB sideline noise and 102 and 103 EPNdB approach noise. But even these numbers do not convey a true picture of the noise reduction achieved: an observer at an airport will notice a change in the type of noise as well as a reduction in amount and duration of the noise.

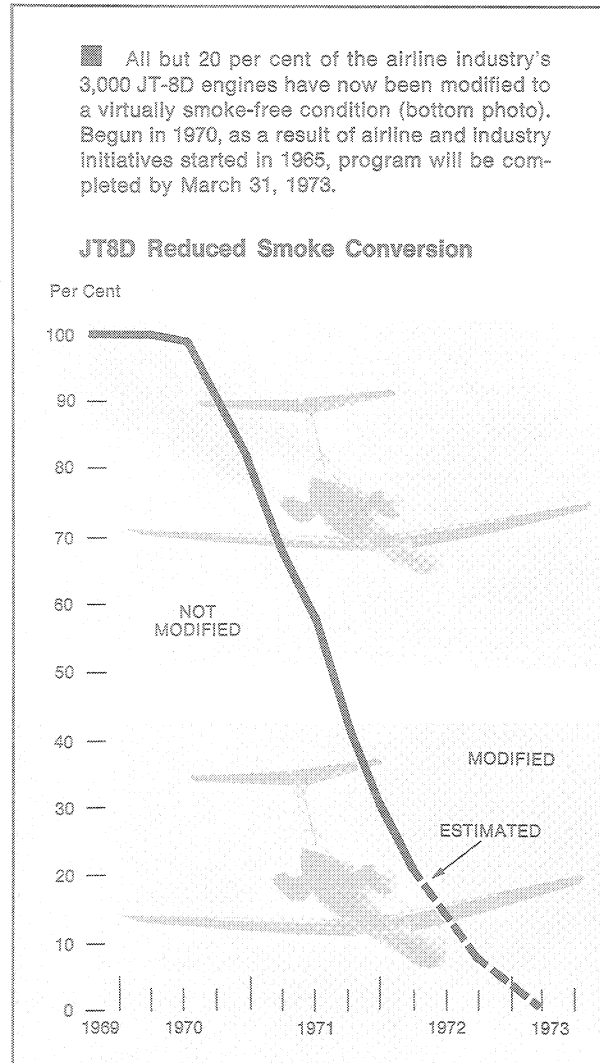
These two aircraft have the potential to have a much greater effect on the environment than even the B747. Since they are designed to operate over short- and medium-, as well as long-haul, routes and can carry two to three times as many passengers as the jets that they will replace, they will eventually be making many more takeoffs and landings. Thus, their ability to replace the first generation jets on a two- or three-for-one basis will have as important an impact on the environment as the design of the engines themselves.

But, even with the increasing use of new-technology aircraft, there will still be many of the smaller two- and three-engine aircraft in airline fleets. And the industry is well underway on a program to virtually eliminate the smoke from those aircraft as well.

This smoke reduction effort began in 1956, when knowledge of air pollution was far less sophisticated than it is today. Thanks to the jet engine, airline aircraft were responsible for a relatively small percentage of the total air pollution problem. So it was natural that the efforts then should be directed toward reducing

visible signs of pollution—the jet smoke plume. These efforts concentrated on the JT8-D engine which powers the Boeing 727 and 737 and the McDonnell Douglas DC-9.

■ All but 20 per cent of the airline industry's 3,000 JT-8D engines have now been modified to a virtually smoke-free condition (bottom photo). Begun in 1970, as a result of airline and industry initiatives started in 1965, program will be completed by March 31, 1973.



The choice of the engine on these aircraft was dictated by three factors: it produced some of the densest smoke plumes; it is widely used—the aircraft it powers represents over half the airline fleet, and because of the short routes flown by these aircraft they make more landings and takeoffs per day than the larger, long-range aircraft. Because these aircraft make so many takeoffs and landings, they were responsible for some 70 per cent of the smoke plume problem although they only accounted for one-half of the fleet.

An engine modification developed by Pratt & Whitney Aircraft, maker of the JT8-D, was delivered to selected airlines in the summer of 1968 for evaluation, and the program of retrofitting existing engines with this modification began early in 1970. The results of this program are plainly visible to aircraft watchers around the country: the telltale smoke plume is fast disappearing from the skies. Reports filed with the Federal government by the airlines show that an estimated 80 per cent of the JT8-D engines had been modified at the end of March, 1972. The program will be complete by the first quarter of 1973.

By the end of 1973, aircraft powered by the reduced smoke JT8-D engines will account for about 51 per cent of the airline fleet and another 13 per cent of the fleet will consist of the new advanced-technology jets. Thus, in 18 months, roughly 64 per cent of the airline fleet will be powered by virtually smoke-free engines—compared with less than one per cent in 1969. ■

SUPPORTING THE NEW AIRCRAFT

In addition to flying aircraft over their vast system, the airlines are also in the business of buying vast amounts of supplies to support those aircraft. The airline supply business came to some \$2 billion worth of purchases last year—a figure which would have put the industry in the top 10 of all retail stores in the U.S.—and it's only a sideline with the airlines.

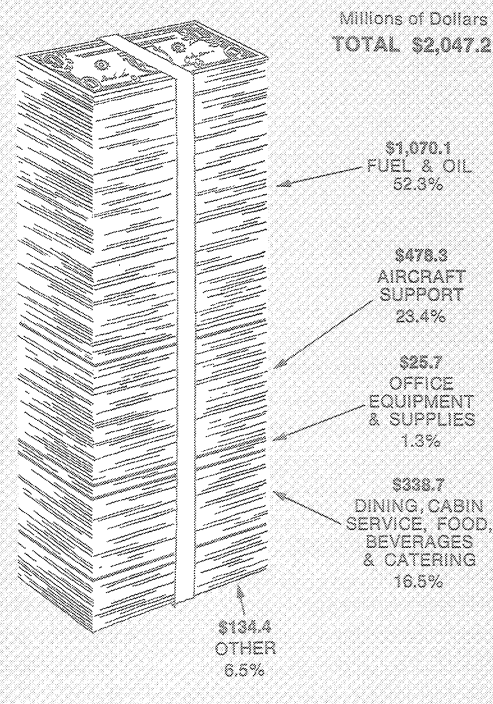
Roughly half of the industry's supply dollar goes for fuel. Another 23 cents goes for parts and equipment for aircraft, engines, and flight equipment and the ground equipment and supplies to support them. The biggest part of this is for aircraft and engine parts and accessories—nearly 18 of the 23 cents.

For every dollar of inventory, it costs the airlines at least 25 cents more to maintain that inventory. This cost includes interest, depreciation, modifications required by federal regulations and/or experience, cost of maintaining parts in flightworthy condition and the cost of storage space. For example, it is estimated that one square foot of warehouse space is required for every item in the stock room.

An airline with four types of aircraft comprising a fleet of 100 aircraft will have from 150,000 to 200,000 different items, requiring from 150,000 to 200,000 square feet of floor space. With floor space costing the airlines from \$10-\$30 per square foot, the cost of storage space alone can be anywhere from \$1.5-\$6

million. About 20 per cent of the airline expense dollar goes for purchasing fuel, supplies and parts to support their aircraft fleets. Advances in designing reliability into new aircraft and more efficient management of parts and supplies needed to support these aircraft has helped the airlines trim costs.

Where the 1971 Airline Purchasing Dollars Went



The average yearly investment in inventory would probably range from \$100-\$125 million. To this original cost of purchasing the inventory must be added a \$25-\$31 million annual cost of keeping it.

Through the years, the manufacturers and the airlines have been trying to balance inventories to insure that the airlines do not buy too many unneeded parts but, on the other hand, have enough on hand so that an aircraft does not spend time on the ground awaiting parts. Cost cutting in this area has been so successful that the airlines expect to spend millions of dollars less for supplies in 1972 than they did in 1971.

Another example of industry cooperation to reduce supply costs is the parts storage maintained at New York by Boeing for all 747 operators. This reduces the need for individual airlines to stock large numbers of different limited or occasional use items because they can be picked up at Kennedy Airport from Boeing and flown by the airline to the point where they are needed in a matter of hours.

Probably the best benchmark of this cooperative effort is the fact that airlines used to buy three engines worth of parts for every piston engine during its useful life, but, in today's jet age, this has been reduced to one engine worth of parts for every jet engine. For example, with the engines powering the wide-bodied jets costing in the neighborhood of \$1 million each, this means a savings to the airlines of some \$2.6 billion over the life of that fleet alone. ■

HOW THE AIRLINES RANKED IN 1971

Numbers in parentheses show
carrier rank in 1970

PASSENGERS ENPLANED

System Operations (000)

1. United	25,513	(1)
2. Eastern	22,582	(2)
3. American	19,286	(3)
4. Delta	16,918	(4)
5. Trans World	14,034	(5)
6. Pan American	10,500	(6)
7. Western	6,591	(7)
8. Allegheny	6,475	(9)
9. Northwest	6,090	(11)
11. Braniff	6,012	(8)
11. Continental	5,530	(10)
12. National	5,490	(13)
13. North Central	3,728	(12)
14. Hughes Airwest	2,927	(14)
15. Piedmont	2,845	(16)
16. Frontier	2,738	(15)
17. Ozark	2,720	(18)
18. Northeast	2,682	(17)
19. Texas International	2,371	(20)
20. Hawaiian	1,879	(21)
21. Southern	1,875	(22)
22. Mohawk	1,753	(19)
23. Aloha	1,121	(23)
24. Caribbean-Atlantic	525	(25)
25. Alaska	418	(26)
26. Wien Consolidated	340	(27)
27. New York Airways	337	(28)
28. San Francisco & Oakland Hel.	195	(29)
29. Aspen	50	(31)
30. Reeve Aleutian	28	(32)
31. Chicago Helicopter	19	(33)
32. Kodiak	11	(33)
Western Alaska	11	(35)

TOTAL OPERATING REVENUES

System Operations (000)

1. United	\$1,527,204	(1)
2. Trans World	1,252,035	(2)
3. American	1,244,363	(3)
4. Pan American	1,160,180	(4)
5. Eastern	1,053,757	(5)
6. Delta	703,714	(6)
7. Northwest	425,651	(7)
8. Braniff	337,034	(8)
9. Continental	331,554	(10)
10. Western	325,595	(9)
11. National	304,919	(11)
12. Allegheny	176,658	(12)
13. Flying Tiger	140,814	(13)
14. Northeast	125,997	(14)
15. North Central	100,796	(15)
16. Frontier	97,291	(16)
17. Hughes Airwest	96,394	(17)
18. Ozark	82,762	(20)
19. Seaboard	81,918	(18)
20. Piedmont	80,626	(19)
21. Texas International	69,978	(22)
22. Mohawk	63,185	(21)
23. Southern	60,334	(23)
24. Airlift	41,183	(24)
25. Alaska	33,897	(26)
26. Hawaiian	31,565	(27)
27. Wien Consolidated	23,182	(28)
28. Aloha	17,481	(29)
29. Caribbean-Atlantic	12,657	(30)
30. Reeve Aleutian	5,807	(31)
31. New York Airways	5,380	(32)
32. San Francisco & Oakland Hel.	2,552	(33)
33. Aspen	1,376	(35)
34. Kodiak	931	(34)
35. Chicago Helicopter	637	(37)
36. Western Alaska	440	(38)

REVENUE PASSENGER MILES

System Operations (000)

1. United	22,338,914	(1)
2. Trans World	19,300,284	(2)
3. American	17,535,288	(3)
4. Pan American	16,649,550	(4)
5. Eastern	14,908,429	(5)
6. Delta	10,006,575	(6)
7. Northwest	5,553,037	(8)
8. Western	5,129,169	(7)
9. Continental	4,712,450	(9)
10. National	4,505,066	(11)
11. Braniff	4,268,662	(10)
12. Allegheny	1,884,529	(13)
13. Northeast	1,824,258	(12)
14. Frontier	1,039,998	(14)
15. Hughes Airwest	881,889	(15)
16. North Central	818,689	(17)
17. Piedmont	785,272	(18)
18. Ozark	742,644	(20)
19. Texas International	705,524	(19)
20. Southern	527,550	(22)
21. Mohawk	465,396	(21)
22. Alaska	292,279	(23)
23. Hawaiian	253,026	(24)
24. Aloha	147,367	(25)
25. Caribbean-Atlantic	123,411	(26)
26. Wien Consolidated	99,325	(27)
27. Reeve Aleutian	23,058	(28)
28. New York Airways	5,752	(29)
29. Aspen	5,729	(30)
30. San Francisco & Oakland Hel.	2,875	(31)
31. Kodiak	560	(32)
32. Western Alaska	463	(33)
33. Chicago Helicopter	346	(34)

**OVERALL REVENUE TON MILES —
ALL SERVICES** System Operations (000)

1. Pan American	3,171,945	(2)
2. United	3,129,068	(1)
3. Trans World	2,759,885	(3)
4. American	2,541,304	(4)
5. Eastern	1,790,239	(5)
6. Delta	1,205,861	(6)
7. Northwest	967,303	(7)
8. Flying Tiger	857,645	(8)
9. Continental	754,751	(10)
10. Braniff	612,791	(9)
11. Western	598,449	(11)
12. National	530,380	(13)
13. Seaboard	486,542	(12)
14. Airlift	230,466	(14)
15. Allegheny	213,348	(16)
16. Northeast	206,240	(15)
17. Frontier	117,825	(18)
18. Hughes Airwest	96,840	(19)
19. North Central	96,047	(20)
20. Ozark	86,740	(22)
21. Piedmont	86,730	(21)
22. Texas International	78,512	(23)
23. Southern	66,535	(26)
24. Alaska	59,527	(24)
25. Mohawk	52,347	(25)
26. Hawaiian	29,074	(27)
27. Wien Consolidated	20,919	(28)
28. Aloha	15,656	(29)
29. Caribbean-Atlantic	13,604	(30)
30. Reeve Aleutian	6,767	(32)
31. Aspen	917	(31)
32. New York Airways	587	(33)
33. San Francisco & Oakland Hel.	299	(34)
34. Kodiak	197	(36)
35. Western Alaska	121	(37)
36. Chicago Helicopter	37	(39)

FREIGHT TON MILES
System Operations (000)

1. Pan American	722,574	(1)
2. United	533,683	(2)
3. American	435,789	(3)
4. Trans World	427,634	(4)
5. Flying Tiger	425,086	(5)
6. Seaboard	280,979	(6)
7. Eastern	171,438	(7)
8. Northwest	157,955	(9)
9. Delta	120,078	(8)
10. Continental	103,611	(12)
11. Braniff	69,649	(10)
12. Airlift	64,726	(11)
13. National	60,967	(14)
14. Western	51,133	(13)
15. Allegheny	13,888	(16)
16. Northeast	13,231	(17)
17. Frontier	7,227	(19)
18. Alaska	6,541	(18)
19. Wien Consolidated	6,450	(22)
20. Ozark	5,939	(21)
21. North Central	5,791	(20)
22. Piedmont	4,947	(23)
23. Hughes Airwest	4,349	(26)
24. Texas International	4,323	(25)
25. Southern	3,915	(27)
26. Hawaiian	3,185	(28)
27. Mohawk	2,516	(24)
28. Reeve Aleutian	894	(30)
29. Caribbean-Atlantic	868	(29)
30. Aloha	473	(31)
31. Kodiak	15	(33)
32. Western Alaska	10	(34)
33. Aspen	8	(35)
34. New York Airways	2	(36)
35. San Francisco & Oakland Hel.	1	(37)

TOTAL PASSENGER REVENUES
System Operations (000)

1. United	\$1,300,936	(1)
2. American	1,078,014	(2)
3. Trans World	1,061,600	(3)
4. Eastern	947,483	(4)
5. Pan American	825,762	(5)
6. Delta	640,130	(6)
7. Northwest	331,967	(8)
8. Western	295,808	(7)
9. National	280,261	(11)
10. Braniff	276,830	(9)
11. Continental	272,410	(10)
12. Allegheny	162,249	(12)
13. Northeast	116,046	(13)
14. North Central	83,821	(14)
15. Frontier	79,575	(15)
16. Hughes Airwest	77,490	(16)
17. Piedmont	68,644	(17)
18. Ozark	67,906	(18)
19. Texas International	56,203	(20)
20. Mohawk	48,013	(19)
21. Southern	45,216	(21)
22. Hawaiian	28,779	(23)
23. Alaska	19,774	(24)
24. Aloha	16,551	(25)
25. Wien Consolidated	11,513	(26)
26. Caribbean-Atlantic	11,362	(27)
27. New York Airways	5,272	(28)
28. Reeve Aleutian	2,864	(29)
29. San Francisco & Oakland Hel.	2,019	(30)
30. Aspen	1,050	(31)
31. Kodiak	212	(33)
32. Chicago Helicopter	187	(35)
33. Western Alaska	127	(36)



AIRCRAFT ON ORDER

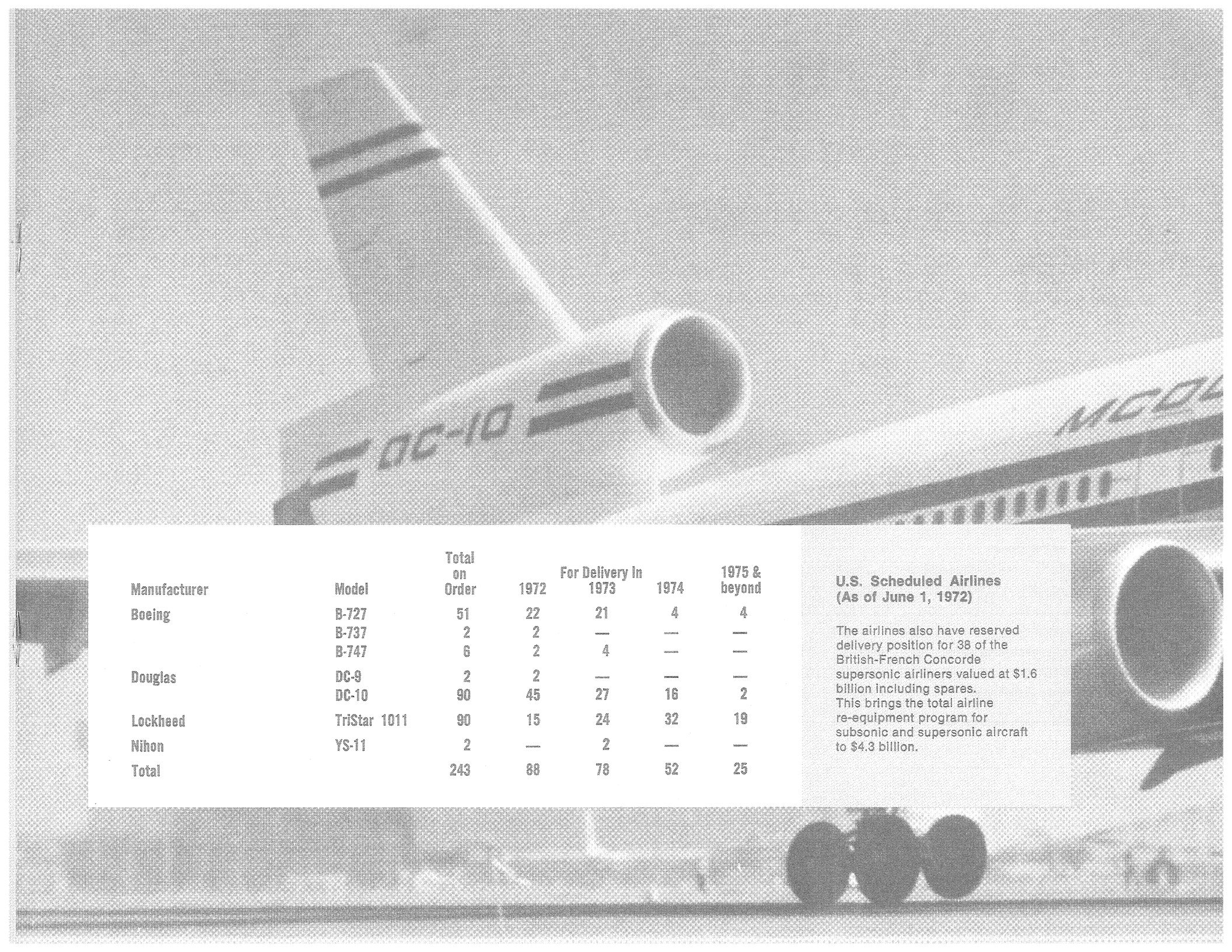
A striking feature of the airline re-equipment program is the fact that the industry has been steadily reducing the number of types of aircraft on order. Just five years ago, the industry had 15 different types of aircraft on order; today there are only five. This means that the carriers are progressively standardizing their fleets with cleaner and quieter aircraft, a trend that brings many benefits for the airlines and the public. With fewer types of aircraft to operate, the carriers can reduce the number of parts and spares and, in many cases, the number of maintenance and overhaul bases that have to be maintained.

Another facet of the airline fleet commonality program is the retirement of many older jets. During the period 1972 to 1975, the airlines will take

delivery of 243 new aircraft and at the same time retire at least 215 aircraft, all of the first generation of jets, as well as a few turboprops and other aircraft.

This will result in a net gain of only 28 aircraft in a period when passenger traffic is expected to almost double. This is one of the primary benefits for the public from the airline re-equipment program—the ability to absorb great increases in traffic without a significant increase in the size of the airline fleet or in airport operations.

This also means that, in 1975, after aircraft deliveries and retirements are taken into account, almost three-quarters of the airline fleet will be made up of advanced-technology aircraft or of retrofitted, smoke-free aircraft using the JT8-D engine.



Manufacturer	Model	Total on Order	For Delivery In			1975 & beyond
			1972	1973	1974	
Boeing	B-727	51	22	21	4	4
	B-737	2	2	—	—	—
	B-747	6	2	4	—	—
Douglas	DC-9	2	2	—	—	—
	DC-10	90	45	27	16	2
Lockheed	TriStar 1011	90	15	24	32	19
Nihon	YS-11	2	—	2	—	—
Total		243	88	78	52	25

**U.S. Scheduled Airlines
(As of June 1, 1972)**

The airlines also have reserved delivery position for 38 of the British-French Concorde supersonic airliners valued at \$1.6 billion including spares. This brings the total airline re-equipment program for subsonic and supersonic aircraft to \$4.3 billion.

TRAFFIC AND SERVICE U.S. Scheduled Airlines

TOTAL INDUSTRY	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	173,667	169,922	171,898	162,181	142,499	118,061	102,920	88,520	77,403	67,817	63,012
Revenue passenger miles (000).....	135,651,780	131,710,018	125,420,120	113,958,321	98,746,641	79,889,246	68,676,459	58,493,654	50,362,042	43,760,413	39,830,846
Available seat miles (000).....	279,869,172	265,119,871	250,845,929	216,445,750	174,818,524	137,844,486	124,319,945	106,315,777	94,844,743	82,611,938	71,856,741
Revenue passenger load factor (%).....	48.5	49.7	50.0	52.6	56.5	58.0	55.2	55.0	53.1	53.0	55.4
Average length of haul (miles).....	781	775	730	703	693	677	667	661	651	645	632
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	5,108,616	4,984,197	4,690,355	4,167,064	3,426,117	2,900,941	2,303,131	1,751,106	1,453,967	1,308,023	1,093,343
Express (000).....	3,712,257	3,407,552	3,240,965	2,804,878	2,351,108	2,050,735	1,730,295	1,301,487	1,026,533	898,187	732,950
Priority U.S. Mail (000).....	82,998	106,514	109,467	105,153	98,883	99,690	89,859	78,310	70,832	69,924	61,165
Nonpriority U.S. Mail (000).....	595,666	606,492	577,453	581,883	567,301	542,771	372,294	289,913	266,402	251,349	223,125
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	717,695	863,639	762,470	675,168	408,825	207,745	110,683	81,396	90,200	88,563	76,103
Total revenue ton miles—all services (000)...	2,220,375	2,019,832	3,091,193	2,865,022	2,648,005	1,754,930	909,401	582,369	514,169	668,135	423,931
Total available ton miles—all services (000)...	20,905,505	20,185,500	19,989,409	18,114,334	15,684,289	12,440,854	9,894,985	8,015,941	6,860,302	6,238,261	5,394,631
Ton mile load factor (%).....	47,223,830	44,298,170	42,779,192	37,223,333	30,785,135	23,505,292	19,660,993	16,302,481	13,930,752	12,325,910	10,578,367
Scheduled revenue aircraft departures.....	44.3	45.6	46.7	48.7	46.4	52.9	50.3	49.2	49.2	50.6	51.0
Scheduled revenue aircraft miles (000).....	4,999,252	5,119,556	5,378,343	5,348,110	4,945,947	4,373,318	4,197,584	3,954,083	3,788,362	3,660,147	3,750,482
Scheduled revenue aircraft hours.....	2,377,839	2,418,169	2,384,866	2,145,972	1,833,563	1,482,486	1,353,503	1,189,135	1,095,058	1,009,784	969,556
Scheduled revenue aircraft hours.....	5,703,310	5,846,195	5,895,772	5,521,311	4,924,613	4,233,467	4,071,943	3,774,772	3,606,638	3,491,051	3,654,519

For notes to statistical tables see page 45.

TRAFFIC AND SERVICE U.S. Scheduled Airlines

DOMESTIC TRUNK AIRLINES	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	124,254	122,866	129,883	118,810	105,854	86,423	76,677	65,963	58,222	51,032	48,352
Revenue passenger miles (000).....	97,611,612	95,899,744	95,657,705	81,611,832	70,990,141	56,802,788	48,986,972	41,658,368	36,383,756	31,827,840	29,534,792
Available seat miles (000).....	202,195,846	194,461,930	190,064,198	153,864,640	124,141,624	97,174,719	88,731,152	75,242,408	67,601,302	59,736,760	52,525,014
Revenue passenger load factor (%).....	48.3	49.3	50.3	53.0	57.2	58.5	55.2	55.4	53.8	53.3	56.2
Average length of haul (miles).....	786	781	736	687	671	657	639	632	625	624	611
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	2,591,481	2,555,646	2,622,526	2,072,466	1,666,721	1,353,051	1,131,081	902,733	752,609	699,046	585,595
Express (000).....	1,859,393	1,789,701	1,753,602	1,439,161	1,190,067	988,485	835,118	650,732	520,632	473,955	384,161
Priority U.S. Mail (000).....	73,547	95,445	99,331	94,874	89,343	87,128	80,424	70,530	64,914	64,879	56,746
Nonpriority U.S. Mail (000).....	342,144	344,491	347,440	285,988	266,730	236,018	182,673	151,763	138,661	131,711	117,928
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000).....	316,397	326,009	422,153	252,443	120,581	41,420	32,866	29,708	28,402	28,501	26,760
Total revenue ton miles—all services (000).....	432,428	443,083	806,533	425,942	498,919	287,753	165,401	45,251	24,230	22,665	16,272
Total available ton miles—all services (000).....	12,785,445	12,589,056	12,647,138	10,321,322	8,969,988	7,083,014	5,983,537	4,928,807	4,257,567	3,771,029	3,435,219
Ton mile load factor (%).....	30,823,508	29,623,686	29,165,115	23,097,750	18,769,379	14,403,764	12,850,594	10,752,433	9,222,953	8,114,187	7,176,178
Scheduled revenue aircraft departures.....	41.5	42.5	43.4	44.7	47.8	49.2	46.6	45.8	46.2	46.5	47.9
Scheduled revenue aircraft miles (000).....	2,919,100	2,979,044	3,184,595	3,005,352	2,749,451	2,290,949	2,252,205	2,105,980	2,075,499	1,991,680	2,105,370
Scheduled revenue aircraft hours.....	1,724,978	1,748,728	1,747,185	1,486,460	1,258,265	995,729	926,369	808,419	752,716	699,900	676,781
	3,934,178	4,008,837	4,073,520	3,597,467	3,134,676	2,589,592	2,541,328	2,354,069	2,288,840	2,229,780	2,386,985
LOCAL SERVICE AIRLINES											
Passenger Traffic											
Revenue passengers enplaned (000).....	27,432	26,726	24,547	23,389	19,032	16,295	12,911	11,022	9,322	8,055	6,853
Revenue passenger miles (000).....	7,851,491	7,430,666	6,312,630	5,489,224	4,114,304	3,467,510	2,621,201	2,244,488	1,868,988	1,607,673	1,343,761
Available seat miles (000).....	17,335,321	17,024,403	14,722,390	12,153,585	8,862,400	6,908,077	5,545,691	4,836,305	4,266,886	3,797,465	3,228,491
Revenue passenger load factor (%).....	45.3	43.6	42.9	45.2	46.4	50.2	47.3	46.4	43.8	42.3	41.6
Average length of haul (miles).....	286	278	257	235	216	213	203	204	200	200	196
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	86,203	86,264	70,440	59,036	41,277	35,701	27,801	22,008	17,687	14,822	11,866
Express (000).....	52,895	53,549	40,052	31,415	22,054	19,782	15,485	11,923	9,024	7,218	5,491
Priority U.S. Mail (000).....	6,907	8,706	7,999	7,482	6,417	7,099	5,983	5,080	4,311	3,772	3,019
Nonpriority U.S. Mail (000).....	12,208	11,209	10,040	9,720	7,794	7,770	5,520	4,350	3,765	3,303	2,773
	14,193	12,800	12,349	10,419	5,012	1,050	813	655	587	529	583
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000).....	23,561	21,077	15,315	11,062	8,622	4,443	2,872	3,047	2,099	1,837	2,084
Total revenue ton miles—all services (000).....	894,924	850,480	694,550	593,665	442,406	371,072	280,986	239,481	198,347	170,327	142,428
Total available ton miles—all services (000).....	2,195,583	2,146,702	1,859,433	1,469,783	1,024,078	761,028	585,229	503,972	440,716	388,594	329,384
Ton mile load factor (%).....	40.8	39.6	37.4	40.4	43.2	48.8	48.0	47.5	45.0	43.8	43.2
Scheduled revenue aircraft departures.....	1,515,963	1,554,585	1,585,363	1,620,940	1,561,417	1,479,063	1,376,203	1,304,837	1,238,138	1,199,407	1,125,100
Scheduled revenue aircraft miles (000).....	241,911	242,471	227,603	211,203	185,041	165,281	145,175	133,532	121,292	112,987	103,209
Scheduled revenue aircraft hours.....	868,660	895,306	895,966	908,525	888,417	863,581	808,244	764,737	711,679	680,899	644,540

TRAFFIC AND SERVICE U.S. Scheduled Airlines

INTRA-HAWAIIAN AIRLINES

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	3,000	2,643	2,442	2,243	2,024	1,692	1,453	1,252	1,074	954	917
Revenue passenger miles (000).....	400,393	355,034	327,017	301,429	274,143	226,674	195,186	166,607	143,982	128,846	125,586
Available seat miles (000).....	725,799	768,693	772,192	580,391	463,719	387,127	319,733	276,375	239,520	212,398	202,290
Revenue passenger load factor (%).....	55.2	46.2	42.3	51.9	59.1	58.6	61.0	60.3	60.1	60.7	62.1
Average length of haul (miles).....	133	134	134	134	135	134	134	133	134	135	137
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	4,683	4,352	3,665	3,167	3,749	3,318	2,766	2,597	2,266	2,209	1,942
Express (000).....	3,658	3,314	2,745	2,272	2,823	2,454	2,431	2,472	2,152	2,100	1,846
Priority U.S. Mail (000).....	—	—	—	—	—	—	—	—	—	—	—
Nonpriority U.S. Mail (000).....	154	143	120	107	119	114	106	99	93	90	82
	871	895	800	788	807	750	229	26	21	19	14
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	7	5	18	8	35	12	285	433	284	9	494
Total revenue ton miles—all services (000)...	44,730	39,866	32,361	29,630	27,827	23,224	20,189	17,665	14,109	12,578	12,515
Total available ton miles—all services (000)...	81,198	85,535	83,662	60,634	49,169	40,373	34,151	30,833	25,773	21,514	21,618
Ton mile load factor (%).....	55.1	46.6	38.7	48.9	56.6	57.5	59.1	57.3	54.7	58.5	57.9
Scheduled revenue aircraft departures.....	64,767	72,380	76,003	69,359	64,631	62,034	58,439	52,491	49,993	47,742	46,183
Scheduled revenue aircraft miles (000).....	7,276	8,147	8,697	8,131	7,665	7,221	6,661	5,930	5,718	5,461	5,231
Scheduled revenue aircraft hours.....	24,561	28,414	30,916	31,595	32,396	33,733	34,417	30,624	30,565	29,779	28,380

INTRA-ALASKAN AIRLINES

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	393	351	315	253	336	304	298	276	246	255	236
Revenue passenger miles (000).....	123,406	112,532	101,333	76,790	78,147	68,434	65,245	55,795	46,551	47,640	46,038
Available seat miles (000).....	363,089	258,622	253,389	204,431	168,052	146,924	149,124	135,151	117,988	116,548	105,901
Revenue passenger load factor (%).....	34.0	43.5	40.0	37.6	46.5	46.6	43.8	41.3	39.5	40.9	43.5
Average length of haul (miles).....	314	321	322	304	233	225	219	202	189	187	195
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	13,777	12,468	11,247	8,477	7,876	7,759	7,318	6,265	5,472	5,196	5,036
Express (000).....	7,369	6,385	5,972	3,825	3,630	3,664	3,617	3,176	2,640	2,620	2,828
Priority U.S. Mail (000).....	—	—	—	—	—	—	—	—	—	—	—
Nonpriority U.S. Mail (000).....	4,374	5,270	5,275	4,652	4,246	4,095	3,701	3,089	2,832	2,576	2,208
	2,034	813	—	—	—	—	—	—	—	—	—
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	1,747	2,220	2,679	3,432	3,662	4,252	4,271	5,754	6,025	3,211	1,930
Total revenue ton miles—all services (000)...	28,004	26,013	24,457	19,920	19,675	19,166	18,457	17,910	16,449	13,428	11,844
Total available ton miles—all services (000)...	52,710	49,285	47,051	35,688	33,204	31,417	31,465	32,270	30,562	25,182	20,468
Ton mile load factor (%).....	53.1	52.8	52.0	55.8	59.3	61.0	58.7	55.5	53.8	53.3	57.9
Scheduled revenue aircraft departures.....	67,623	65,223	61,885	66,389	96,529	99,357	103,086	103,429	104,068	102,438	99,391
Scheduled revenue aircraft miles (000).....	7,823	7,603	7,438	7,155	8,542	7,985	7,923	7,718	7,503	7,545	7,403
Scheduled revenue aircraft hours.....	38,784	38,485	38,371	40,831	55,332	54,498	55,604	55,215	54,952	55,008	54,508

TRAFFIC AND SERVICE U.S. Scheduled Airlines

HELICOPTER AIRLINES	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	551	573	744	1,048	1,225	1,075	732	626	477	376	462
Revenue passenger miles (000).....	8,973	11,341	17,083	24,856	29,670	25,420	18,811	16,003	12,510	8,191	8,603
Available seat miles (000).....	24,364	31,780	43,102	59,923	62,041	51,992	41,413	34,165	27,657	20,125	18,276
Revenue passenger load factor (%).....	36.8	35.7	39.6	41.5	47.8	48.9	45.4	46.8	45.2	40.7	47.1
Average length of haul (miles).....	16	20	23	24	24	24	26	26	26	22	19
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	3	4	6	8	9	10	10	6	6	6	7
Express (000).....	13	25	37	48	64	70	60	45	44	44	39
Priority U.S. Mail (000).....	4	5	34	57	61	60	84	92	74	65	94
Nonpriority U.S. Mail (000).....	—	—	—	—	—	—	—	—	—	—	—
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	6	4	5	10	9	13	20	24	15	10	7
Total revenue ton miles—all services (000)...	923	1,171	1,707	2,492	2,970	2,574	1,968	1,692	1,332	907	970
Total available ton miles—all services (000)...	2,414	3,240	4,400	6,146	6,345	5,157	4,338	3,717	3,071	2,329	2,183
Ton mile load factor (%).....	38.2	36.1	38.8	40.5	46.8	49.9	45.4	45.5	43.4	38.9	44.4
Scheduled revenue aircraft departures.....	78,503	84,519	111,124	191,631	151,421	139,568	126,683	125,629	85,989	96,768	147,064
Scheduled revenue aircraft miles (000).....	1,048	1,427	1,910	2,547	2,660	2,241	1,984	1,976	1,462	1,518	2,156
Scheduled revenue aircraft hours.....	9,630	12,707	17,957	23,346	25,066	22,652	20,286	20,435	15,222	18,554	29,676
ALL-CARGO AIRLINES (Domestic)											
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	275,705	258,726	215,123	198,768	186,116	195,486	171,097	151,659	111,853	82,554	79,708
Express (000).....	1,838	1,713	1,530	1,576	1,943	3,071	2,475	1,818	748	417	753
Priority U.S. Mail (000).....	3,717	1,863	861	701	624	1,639	1,173	896	504	175	407
Nonpriority U.S. Mail (000).....	7,075	7,273	4,674	2,486	1,673	1,062	1,087	951	505	146	261
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	35,173	42,727	259,539	295,406	333,365	359,331	298,111	243,350	231,409	389,536	215,996
Total revenue ton miles—all services (000)...	310,878	301,453	474,662	494,181	519,480	554,817	469,208	395,008	343,262	472,090	295,705
Total available ton miles—all services (000)...	565,295	543,375	726,584	704,824	729,323	705,242	618,309	549,955	475,602	615,110	385,224
Ton mile load factor (%).....	55.0	55.5	65.3	70.1	71.2	78.7	75.9	71.8	72.2	76.7	76.8
Scheduled revenue aircraft departures.....	10,257	11,724	13,400	15,016	15,633	16,009	17,439	16,520	11,743	7,664	12,745
Scheduled revenue aircraft miles (000).....	11,071	11,219	10,456	11,552	11,174	11,021	10,804	10,654	7,929	5,611	7,213
Scheduled revenue aircraft hours.....	23,463	24,606	27,064	34,433	37,052	38,833	40,236	41,284	29,894	21,967	31,942

TRAFFIC AND SERVICE U.S. Scheduled Airlines

INTERNATIONAL and TERRITORIAL AIRLINES

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passenger Traffic											
Revenue passengers enplaned (000).....	17,569	16,260	13,493	16,407	14,020	12,272	10,847	9,381	8,037	7,079	6,112
Revenue passenger miles (000).....	29,357,897	27,563,211	22,702,695	26,450,644	23,259,314	19,298,420	16,789,044	14,352,393	11,905,430	10,137,777	8,768,501
Available seat miles (000).....	58,632,397	51,959,992	44,411,659	49,575,001	41,118,729	33,175,647	29,532,832	25,791,373	22,590,210	18,724,360	15,769,527
Revenue passenger load factor (%).....	50.1	53.0	51.1	53.4	56.6	58.2	56.8	55.6	52.7	54.1	55.6
Average length of haul (miles).....	1,671	1,695	1,683	1,612	1,659	1,573	1,548	1,530	1,481	1,432	1,435
Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	1,011,599	941,563	936,110	926,091	795,858	720,627	596,416	393,858	295,610	263,931	216,560
Express (000).....	539	445	444	1,159	1,106	982	908	823	794	798	604
Priority U.S. Mail (000).....	189,468	200,444	195,477	273,239	277,909	283,742	173,158	124,768	115,810	108,987	93,205
Nonpriority U.S. Mail (000).....	256,615	338,688	257,680	395,540	272,890	158,663	70,579	45,413	54,478	52,760	42,509
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	1,111,578	938,464	1,253,832	1,684,105	1,387,435	737,520	296,471	198,323	174,411	150,848	110,299
Total revenue ton miles—all services (000)...	5,516,382	5,185,823	4,953,257	5,978,604	5,113,306	3,883,836	2,856,655	2,228,175	1,855,950	1,619,903	1,362,479
Total available ton miles—all services (000)...	11,667,687	10,203,702	9,220,759	10,779,326	9,030,981	6,653,990	5,139,006	4,162,677	3,488,240	2,925,899	2,468,843
Ton mile load factor (%).....	47.3	50.8	53.7	55.5	56.6	58.4	55.6	53.5	53.2	55.4	55.2
Scheduled revenue aircraft departures.....	294,379	299,529	295,489	367,960	298,573	280,481	257,377	238,886	213,508	201,209	197,895
Scheduled revenue aircraft miles (000).....	353,161	369,870	359,476	408,136	350,719	285,711	247,766	214,375	192,140	171,500	161,297
Scheduled revenue aircraft hours.....	733,046	767,440	753,347	858,123	727,445	610,954	549,964	486,101	454,244	435,269	452,319

ALL-CARGO AIRLINES (International)

Cargo Traffic (Ton Miles)—total (000).....											
Freight (000).....	507,716	356,502	287,810	208,097	154,790	126,000	110,856	91,327	86,370	66,537	43,764
Express (000).....	51	62	8	12	9	1,340	10	14	21	14	4
Priority U.S. Mail (000).....	40,353	39,933	15,894	7,419	9,818	9,334	5,878	4,856	4,663	4,441	6,425
Nonpriority U.S. Mail (000).....	119,908	176,689	64,523	13,493	7,861	4,801	5,109	4,643	6,205	6,602	5,968
Overall Traffic and Service											
Nonscheduled traffic—total ton miles (000)...	595,730	549,624	724,940	445,016	415,957	361,606	141,969	86,188	75,615	99,759	76,823
Total revenue ton miles—all services (000)...	1,263,775	1,122,874	1,093,261	674,127	588,545	503,149	263,986	187,202	173,121	177,497	133,094
Total available ton miles—all services (000)...	1,715,339	1,513,626	1,538,391	1,068,341	1,142,444	904,322	397,901	266,624	243,578	232,186	173,731
Ton mile load factor (%).....	73.7	74.2	71.1	63.1	51.5	55.6	66.3	70.2	71.1	76.4	76.6
Scheduled revenue aircraft departures.....	15,550	13,625	11,083	8,393	7,704	5,857	6,152	6,311	6,411	5,554	7,394
Scheduled revenue aircraft miles (000).....	23,236	20,760	14,665	10,428	9,429	7,297	6,821	6,532	6,196	4,980	5,878
Scheduled revenue aircraft hours.....	48,136	43,573	32,806	24,595	23,769	19,624	21,864	22,307	20,496	17,694	23,310

OPERATING REVENUES AND EXPENSES U.S. Scheduled Airlines (In Thousands of Dollars)

TOTAL INDUSTRY	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Operating Revenues—Total	10,026,280	9,289,618	8,790,951	7,753,211	6,864,726	5,745,038	4,957,851	4,250,838	3,759,051	3,438,731	3,063,555
Passenger.....	8,220,501	7,626,804	7,119,795	6,221,852	5,425,862	4,529,520	4,029,383	3,482,760	3,067,193	2,762,697	2,484,650
Freight.....	795,271	713,423	648,030	547,094	465,281	412,039	356,113	285,657	234,653	203,759	176,802
Priority U.S. Mail.....	169,397	175,248	168,358	162,763	184,232	189,252	138,238	122,746	117,916	111,178	98,587
Nonpriority U.S. Mail.....	110,268	123,311	120,015	104,466	76,082	43,481	25,234	19,050	21,086	20,520	16,844
Express.....	30,523	36,337	38,089	38,174	35,471	36,800	34,118	31,114	28,421	26,968	23,765
Charter.....	473,666	413,913	525,759	517,074	520,612	381,890	214,145	152,608	140,234	163,132	115,803
Public Service Revenue.....	63,392	45,857	40,003	46,745	59,912	65,619	80,622	82,806	82,222	82,393	78,952
Other *.....	163,263	154,723	130,903	115,044	97,273	86,439	79,997	74,098	67,327	68,084	68,152
Operating Expenses—Total	9,712,037	9,246,536	8,403,497	7,248,323	6,156,532	4,969,541	4,285,923	3,780,741	3,479,264	3,248,732	3,043,496
Flying Operations.....	2,901,406	2,705,243	2,468,714	2,080,537	1,733,888	1,368,532	1,157,945	1,029,893	949,417	896,319	858,328
Maintenance.....	1,417,650	1,402,045	1,302,001	1,193,639	1,087,177	900,306	815,958	749,367	665,006	639,273	576,235
General Services and Administration											
Passenger Service.....	989,709	939,681	830,681	716,056	578,639	458,887	381,860	309,389	263,185	234,323	220,671
Aircraft and Traffic Servicing.....	1,788,948	1,676,164	1,489,885	1,262,945	1,070,670	863,279	735,447	646,328	586,086	538,741	487,861
Promotion and Sales.....	1,151,445	1,112,409	1,035,401	900,940	776,304	645,574	551,134	479,203	419,978	380,796	352,256
Administrative.....	508,256	459,122	408,428	351,965	297,560	241,386	212,351	185,016	167,212	158,450	143,437
Total.....	4,438,358	4,187,376	3,764,394	3,231,906	2,723,173	2,209,126	1,880,793	1,619,936	1,436,462	1,312,310	1,204,225
Depreciation and Amortization.....	954,623	951,869	868,384	742,240	612,294	491,578	431,228	381,543	428,379	400,829	404,708
Net Operating Income	314,243	43,083	387,454	504,888	708,194	775,497	671,928	470,097	279,787	189,999	20,059

* Includes excess baggage, foreign mail, incidental revenues and other transport.
For notes to statistical tables see page 45.

OPERATING REVENUES AND EXPENSES U.S. Scheduled Airlines (In Thousands of Dollars)

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
DOMESTIC TRUNK AIRLINES											
Operating Revenues—Total	6,742,413	6,272,775	6,134,700	5,039,441	4,419,436	3,660,900	3,263,556	2,790,877	2,451,915	2,250,094	2,026,368
Passenger.....	5,951,686	5,536,144	5,350,986	4,451,341	3,901,528	3,233,095	2,908,045	2,504,861	2,208,430	2,020,975	1,826,821
Freight.....	414,430	387,120	365,015	284,707	235,774	201,289	174,150	140,962	116,466	102,364	85,288
Priority U.S. Mail.....	92,795	93,952	96,655	80,739	76,100	78,870	64,181	56,262	51,247	49,002	43,958
Nonpriority U.S. Mail.....	49,407	44,156	68,591	43,131	23,139	7,988	6,354	5,838	5,471	5,486	5,073
Express.....	26,331	31,257	33,317	33,146	30,752	31,601	29,703	27,247	25,246	24,332	21,447
Charter.....	107,933	100,294	147,482	87,475	104,962	70,429	44,375	17,629	12,420	12,700	8,985
Public Service Revenue.....	—	—	—	—	2,822	2,110	3,508	3,408	988	—	—
Other.....	99,831	79,851	72,655	58,902	44,360	35,518	33,240	34,668	31,648	35,235	34,796
Operating Expenses—Total	6,524,064	6,256,039	5,789,817	4,719,364	4,009,331	3,207,198	2,847,308	2,494,035	2,322,682	2,175,166	2,037,485
Flying Operations.....	1,951,064	1,830,972	1,690,242	1,341,342	1,101,480	869,925	767,902	676,974	626,708	593,816	574,519
Maintenance.....	973,947	974,254	908,489	802,853	735,445	596,269	566,413	514,552	464,803	444,047	399,810
General Services and Administration											
Passenger Service.....	683,239	653,762	600,072	488,635	396,449	311,564	266,279	213,988	179,890	164,546	156,810
Aircraft and Traffic Servicing.....	1,177,505	1,117,235	1,010,865	825,578	704,944	560,004	484,859	425,197	394,180	362,912	328,302
Promotion and Sales.....	745,720	728,402	701,427	579,244	501,987	410,282	348,223	299,629	261,691	241,895	225,554
Administrative.....	310,342	279,813	253,782	202,465	167,023	131,568	116,378	100,945	93,187	89,255	82,374
Total.....	2,916,805	2,779,212	2,566,147	2,095,921	1,770,403	1,413,418	1,215,739	1,039,759	928,949	858,608	793,039
Depreciation and Amortization.....	682,249	671,601	624,937	479,249	402,005	327,586	297,253	262,750	302,221	278,694	270,117
Net Operating Income	218,349	16,736	344,883	320,077	410,106	453,703	416,249	296,841	129,233	74,928	(11,118)
LOCAL SERVICE AIRLINES											
Operating Revenues—Total	828,024	736,831	611,080	501,308	399,716	348,332	291,374	253,728	225,975	206,099	177,056
Passenger.....	689,117	627,590	520,806	414,732	313,833	264,949	203,423	169,244	143,171	125,467	103,623
Freight.....	31,478	29,794	22,630	17,477	13,053	10,961	8,764	6,698	5,031	4,070	3,089
Priority U.S. Mail.....	6,155	6,376	5,892	5,900	5,138	5,316	4,103	3,327	2,950	2,674	2,229
Nonpriority U.S. Mail.....	3,423	4,800	3,474	2,971	1,352	301	261	220	203	188	216
Express.....	3,602	4,281	3,957	3,967	3,545	3,729	3,196	2,781	2,508	2,061	1,682
Charter.....	12,930	12,099	9,252	6,837	5,565	3,516	2,115	2,294	1,531	1,421	1,460
Public Service Revenue.....	58,863	40,339	34,804	40,950	50,961	54,924	66,012	65,779	67,882	67,948	62,937
Other.....	22,456	11,552	10,266	8,476	6,266	4,637	3,499	3,385	2,698	2,270	1,821
Operating Expenses—Total	798,937	745,629	628,517	510,518	399,025	324,866	267,283	236,762	214,015	192,724	167,697
Flying Operations.....	242,681	226,809	189,916	146,193	109,656	88,985	74,233	66,787	60,846	55,082	48,664
Maintenance.....	137,769	128,332	108,272	91,971	79,323	69,475	59,837	52,735	47,256	42,309	35,990
General Services and Administration											
Passenger Service.....	52,711	47,970	38,751	30,613	21,995	17,307	13,426	11,739	10,660	9,726	8,389
Aircraft and Traffic Servicing.....	183,510	165,121	144,372	120,179	95,933	80,353	66,346	59,053	53,143	48,095	42,368
Promotion and Sales.....	77,101	69,502	58,329	46,467	36,107	29,472	23,469	20,639	18,617	16,298	13,515
Administrative.....	46,985	42,653	34,344	28,136	22,813	18,472	14,874	13,051	11,585	10,611	9,186
Total.....	360,308	325,246	275,795	225,396	176,849	145,604	118,114	104,482	94,004	84,730	73,457
Depreciation and Amortization.....	58,180	65,242	54,533	46,958	33,196	20,802	15,098	12,758	11,909	10,604	9,586
Net Operating Income	29,087	(8,798)	(17,436)	(9,210)	691	23,467	24,091	16,966	11,959	13,374	9,359

OPERATING REVENUES AND EXPENSES

U.S. Scheduled Airlines (In Thousands of Dollars)

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
INTRA-HAWAIIAN AIRLINES											
Operating Revenues—Total	49,046	44,391	35,753	29,746	26,287	23,318	20,439	17,898	15,499	13,780	14,085
Passenger.....	45,330	39,972	33,075	27,538	24,344	19,716	17,074	14,924	13,129	11,824	11,642
Freight.....	2,410	2,321	1,943	1,577	1,540	1,375	1,378	1,410	1,179	1,161	984
Priority U.S. Mail.....	126	108	92	84	92	90	86	80	77	73	68
Nonpriority U.S. Mail.....	170	178	166	152	145	139	46	8	6	5	4
Express.....	—	—	—	—	—	—	—	—	—	—	—
Charter.....	9	7	23	13	—	12	228	299	206	12	260
Public Service Revenue.....	—	789	—	—	—	1,124	1,124	878	716	355	697
Other.....	1,001	1,016	454	382	166	860	503	300	187	350	430
Operating Expenses—Total	47,813	43,923	37,408	30,453	26,528	22,145	18,527	16,523	14,690	13,229	13,456
Flying Operations.....	13,975	13,258	13,097	8,674	8,548	6,478	4,514	3,851	3,219	2,933	3,063
Maintenance.....	7,474	7,194	6,793	6,069	4,909	4,369	4,002	3,574	2,923	2,677	2,867
General Services and Administration											
Passenger Service.....	2,255	1,858	1,604	1,047	859	712	646	576	512	409	392
Aircraft and Traffic Servicing.....	9,774	8,338	6,397	5,474	4,404	3,778	3,301	2,996	2,706	2,430	2,321
Promotion and Sales.....	7,116	6,065	4,805	4,205	3,761	2,925	2,722	2,439	2,337	2,074	2,181
Administrative.....	3,925	3,679	1,553	2,515	2,214	2,051	1,812	1,726	1,866	1,599	1,540
Total.....	23,070	19,941	14,360	13,241	11,239	9,465	8,482	7,737	7,420	6,512	6,434
Depreciation and Amortization.....	3,294	3,531	3,158	2,470	1,831	1,832	1,528	1,360	1,129	1,106	1,091
Net Operating Income	1,233	469	(1,654)	(707)	(241)	1,173	1,911	1,375	809	551	629
INTRA-ALASKAN AIRLINES											
Operating Revenues—Total	30,360	28,812	25,704	21,967	24,407	22,357	22,002	21,950	20,225	18,735	18,867
Passenger.....	14,717	13,241	11,869	8,867	9,707	7,972	7,860	7,267	6,244	6,326	6,181
Freight.....	4,217	3,532	3,307	2,132	2,191	1,996	2,119	2,031	1,723	1,691	1,775
Priority U.S. Mail.....	4,740	6,733	5,267	4,717	4,392	3,926	3,650	3,192	3,077	2,873	2,529
Nonpriority U.S. Mail.....	1,930	131	—	—	—	—	—	—	—	—	—
Express.....	—	—	—	—	—	—	—	—	—	—	—
Charter.....	1,480	2,014	2,064	2,310	2,363	2,458	2,345	3,237	3,327	2,110	1,617
Public Service Revenue.....	2,375	2,374	2,494	3,190	4,729	5,124	5,266	5,590	5,317	5,139	6,352
Other.....	902	786	703	751	1,022	881	761	631	538	595	413
Operating Expenses—Total	28,160	26,991	23,802	20,719	23,241	20,306	20,587	20,310	19,353	17,421	16,192
Flying Operations.....	8,273	7,885	6,633	6,042	6,372	5,566	5,751	6,293	6,112	5,334	4,847
Maintenance.....	6,273	6,515	5,977	5,142	6,449	5,297	5,919	5,690	5,274	4,812	4,444
General Services and Administration*											
Total.....	11,330	10,274	8,928	7,775	8,686	7,756	7,534	7,138	6,746	6,919	5,895
Depreciation and Amortization.....	2,284	2,318	2,263	1,759	1,733	1,687	1,383	1,189	1,221	1,084	1,006
Net Operating Income	2,200	1,821	1,902	1,248	1,166	2,051	1,415	1,640	872	1,314	2,675

* Breakdown waived in reporting required of these carriers.

OPERATING REVENUES AND EXPENSES U.S. Scheduled Airlines (In Thousands of Dollars)

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
HELICOPTER AIRLINES											
Operating Revenues—Total	8,567	8,340	9,175	12,870	16,506	14,232	11,135	10,174	8,637	8,583	8,603
Passenger.....	7,479	7,148	7,374	9,470	10,377	8,603	5,645	4,814	3,284	2,501	2,773
Freight.....	68	72	67	93	102	98	85	54	41	39	39
Priority U.S. Mail.....	26	33	130	209	325	158	221	240	193	174	253
Nonpriority U.S. Mail.....	—	—	—	—	—	—	—	—	—	—	—
Express.....	62	103	243	259	289	295	216	213	217	215	189
Charter.....	401	435	419	513	481	509	525	344	210	109	64
Public Service Revenue.....	—	—	—	—	—	584	2,712	4,300	4,641	5,518	5,258
Other.....	531	548	942	2,326	4,932	3,985	1,732	210	51	26	27
Operating Expenses—Total	9,394	11,530	14,346	16,177	17,249	14,929	11,369	10,295	8,839	8,835	8,808
Flying Operations.....	2,788	3,221	2,928	2,885	3,375	3,195	2,250	1,941	1,744	1,791	1,946
Maintenance.....	2,612	3,053	4,169	5,278	5,521	5,002	3,770	3,541	2,789	2,454	2,633
General Services and Administration*											
Total.....	3,485	4,537	5,835	6,306	6,379	5,563	4,354	3,817	3,305	3,378	3,086
Depreciation and Amortization.....	510	718	1,413	1,707	1,972	1,169	995	996	1,000	1,212	1,143
Net Operating Income	(827)	(3,190)	(5,171)	(3,307)	(743)	(697)	(233)	(121)	(202)	(252)	(205)
34 ALL-CARGO AIRLINES (DOMESTIC)											
Operating Revenues—Total	51,871	49,445	78,642	85,303	94,279	102,360	82,279	74,158	67,586	90,702	59,380
Passenger.....	—	—	—	—	—	—	—	—	—	—	—
Freight.....	41,283	37,073	29,469	27,564	25,960	27,635	22,817	20,006	15,562	11,662	13,166
Priority U.S. Mail.....	983	541	283	194	208	631	447	358	182	81	154
Nonpriority U.S. Mail.....	1,328	1,006	653	387	326	201	207	185	83	25	49
Express.....	336	536	379	407	538	858	681	563	237	120	246
Charter.....	4,396	5,665	41,191	54,414	63,345	68,776	57,046	52,745	51,444	78,371	44,884
Public Service Revenue.....	—	—	—	—	—	—	—	—	—	—	—
Other.....	3,544	4,679	6,668	2,337	3,902	4,259	1,082	302	79	442	882
Operating Expenses—Total	52,945	53,283	80,211	98,712	83,973	80,414	73,706	70,838	66,308	80,401	62,685
Flying Operations.....	20,394	20,975	30,147	35,170	34,139	30,774	24,270	24,237	23,112	31,061	23,117
Maintenance.....	5,594	8,612	16,420	19,354	21,339	19,887	19,350	16,476	16,518	20,849	12,395
General Services and Administration											
Passenger Service.....	2	15	1,783	2,579	423	1,512	1,266	2,921	1,744	1,847	1,444
Aircraft and Traffic Servicing.....	15,752	13,374	16,097	13,908	12,650	12,845	12,178	11,070	8,478	8,411	6,776
Promotion and Sales.....	3,128	2,434	3,251	3,448	3,160	2,837	3,107	3,245	2,342	2,169	2,100
Administrative.....	3,389	2,833	3,901	4,374	4,308	4,338	3,826	3,724	3,784	4,033	3,728
Total.....	22,271	18,657	25,032	24,310	20,541	21,533	20,378	20,960	16,348	16,461	14,048
Depreciation and Amortization.....	4,686	5,040	8,611	19,878	7,955	8,220	9,709	9,165	10,330	12,029	13,125
Net Operating Income	(1,074)	(3,838)	(1,569)	(13,408)	10,305	21,946	8,573	3,319	1,279	10,301	(3,305)

* Breakdown waived in reporting required of these carriers.

OPERATING REVENUES AND EXPENSES U.S. Scheduled Airlines (In Thousands of Dollars)

INTERNATIONAL and TERRITORIAL AIRLINES

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Operating Revenues—Total	2,068,683	1,913,592	1,689,387	1,949,766	1,769,682	1,474,480	1,210,875	1,040,020	931,452	810,446	722,390
Passenger.....	1,491,348	1,380,388	1,176,349	1,309,173	1,165,862	995,185	887,335	781,649	692,801	595,221	533,159
Freight.....	220,912	196,906	185,346	185,465	163,216	149,215	130,800	99,990	80,175	71,017	63,066
Priority U.S. Mail.....	52,313	54,126	54,103	68,815	94,055	96,683	63,170	56,943	57,697	53,905	45,361
Nonpriority U.S. Mail.....	37,896	49,176	37,666	55,922	49,596	33,373	16,989	11,527	13,613	13,030	10,457
Express.....	183	125	156	391	342	314	319	306	203	235	199
Charter.....	236,736	184,525	199,930	287,202	259,918	163,350	75,737	55,355	53,221	44,931	36,802
Public Service Revenue.....	—	—	—	2,606	1,400	1,753	1,999	2,851	2,679	3,433	3,709
Other.....	29,293	48,344	35,838	40,193	35,293	34,606	34,526	31,398	31,065	28,672	29,637
Operating Expenses—Total	2,042,163	1,894,391	1,638,275	1,747,946	1,496,540	1,220,894	1,001,362	896,187	799,462	723,853	698,685
Flying Operations.....	575,102	515,182	456,431	495,025	424,135	329,427	262,597	238,427	216,834	193,422	186,561
Maintenance.....	258,895	241,077	219,053	244,316	211,874	181,475	146,043	145,186	117,729	113,602	109,493
General Services and Administration											
Passenger Service.....	240,816	222,704	178,003	187,756	156,837	126,367	98,205	78,371	68,904	56,045	52,220
Aircraft and Traffic Servicing.....	362,241	332,268	278,708	281,377	238,244	194,943	161,691	142,773	122,803	111,892	103,275
Promotion and Sales.....	302,990	292,624	258,418	263,692	228,135	197,265	171,559	151,550	133,299	116,745	107,327
Administrative.....	115,509	102,644	90,641	94,899	81,298	67,894	61,198	51,729	44,383	40,790	35,326
Total.....	1,021,556	950,241	805,770	827,723	704,514	586,470	492,653	424,423	369,389	325,472	298,148
Depreciation and Amortization.....	186,611	187,889	157,019	180,881	156,017	123,521	100,070	88,151	95,510	91,356	104,483
Net Operating Income	26,520	19,202	51,113	201,820	273,142	253,586	209,513	143,833	131,991	86,593	23,706

ALL-CARGO AIRLINES (INTERNATIONAL)

Operating Revenues—Total	212,042	195,905	165,958	111,998	114,193	99,059	56,191	42,032	37,548	39,683	36,291
Passenger.....	—	—	—	—	—	—	—	—	—	—	—
Freight.....	78,447	54,388	38,474	28,067	23,440	19,471	15,999	14,506	14,472	11,747	9,388
Priority U.S. Mail.....	10,238	11,111	4,496	2,105	3,922	3,578	2,380	2,344	2,486	2,380	4,018
Nonpriority U.S. Mail.....	16,036	23,818	9,401	1,903	1,524	1,479	1,377	1,273	1,710	1,785	1,046
Express.....	(7)	20	2	4	3	3	3	4	9	4	1
Charter.....	102,237	99,216	111,260	78,273	83,957	72,839	31,777	20,704	17,807	23,275	21,694
Public Service Revenue.....	—	—	—	—	—	—	—	—	—	—	—
Other.....	5,092	7,353	2,323	1,645	1,347	1,690	4,654	3,203	1,063	492	144
Operating Expenses—Total	170,841	171,207	151,797	103,632	100,425	78,791	45,782	35,790	33,674	36,543	37,890
Flying Operations.....	72,966	70,699	64,544	44,968	46,136	34,182	16,428	11,384	10,775	12,700	15,464
Maintenance.....	18,396	25,159	25,031	18,441	22,250	18,532	10,623	7,613	7,650	8,413	8,488
General Services and Administration											
Passenger Service.....	8,083	10,208	8,131	5,425	2,076	1,424	2,038	1,794	1,476	1,749	1,417
Aircraft and Traffic Servicing.....	34,137	32,881	26,722	16,429	14,493	11,356	7,072	5,239	4,777	5,001	4,819
Promotion and Sales.....	11,148	8,417	5,582	3,885	3,154	2,792	2,055	1,700	1,693	1,615	1,579
Administrative.....	10,773	10,016	7,122	5,196	4,750	3,744	2,375	2,887	2,261	2,367	2,034
Total.....	64,140	61,522	47,558	30,935	24,473	19,316	13,540	11,621	10,206	10,732	9,849
Depreciation and Amortization.....	15,340	13,827	14,664	9,288	7,565	6,761	5,190	5,173	5,043	4,699	4,089
Net Operating Income	41,201	24,698	14,161	8,366	13,768	20,269	10,409	6,242	3,874	3,139	(1,599)

INCOME STATEMENT U.S. SCHEDULED AIRLINES

TOTAL INDUSTRY	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Total Operating Revenues (\$000).....	10,026,280	9,289,618	8,790,951	7,753,211	6,864,726	5,745,038	4,957,851	4,250,838	3,759,051	3,438,731	3,063,555
Total Operating Expenses (\$000).....	9,712,037	9,246,536	8,403,497	7,248,323	6,156,532	4,969,541	4,285,923	3,780,741	3,479,264	3,248,732	3,043,496
Net Operating Income (\$000).....	314,243	43,083	387,454	504,888	708,194	775,497	671,928	470,097	279,787	189,999	20,059
Interest on Long-Term Debt (\$000).....	334,432	318,434	283,355	221,915	149,793	126,588	112,127	104,258	106,497	111,036	93,982
Income Taxes (\$000).....	22,286	(48,303)	94,898	135,240	236,231	279,570	234,740	174,088	114,105	64,984	(3,375)
Net Profit or (Loss) (\$000).....	29,002	(200,480)	52,723	209,952	415,388	427,633	367,119	223,172	78,480	52,319	(37,881)
Profit Margin on Sales (%).....	0.3	—	0.6	2.8	6.1	7.4	7.4	5.3	2.1	1.5	—
Rate of Return on Investment (%).....	3.5	1.2	3.3	4.9	7.6	11.0	12.0	9.8	6.1	5.2	1.6
DOMESTIC TRUNK AIRLINES											
Total Operating Revenues (\$000).....	6,742,413	6,272,775	6,134,700	5,039,441	4,419,436	3,660,900	3,263,556	2,790,877	2,451,915	2,250,094	2,026,368
Total Operating Expenses (\$000).....	6,524,064	6,256,039	5,789,817	4,719,364	4,009,331	3,207,198	2,847,308	2,494,035	2,322,682	2,175,166	2,037,485
Net Operating Income (\$000).....	218,349	16,736	344,883	320,077	410,106	453,703	416,249	296,841	129,233	74,928	(11,118)
Interest on Long-Term Debt (\$000).....	189,305	173,748	169,005	131,174	88,475	81,065	73,222	69,260	70,103	72,364	61,569
Income Taxes (\$000).....	19,270	(41,131)	91,023	88,435	145,250	165,500	148,101	110,250	59,640	22,360	(12,865)
Net Profit or (Loss) (\$000).....	39,864	(100,412)	110,427	126,521	244,475	238,636	221,889	134,362	13,117	8,196	(34,568)
Profit Margin on Sales (%).....	0.6	—	1.8	2.5	5.5	6.5	6.8	4.8	0.5	0.4	—
Rate of Return on Investment (%).....	3.3	1.4	4.3	4.9	6.9	9.7	11.2	9.1	3.9	3.7	1.0
LOCAL SERVICE AIRLINES											
Total Operating Revenues (\$000).....	828,024	736,831	611,080	501,308	399,716	348,332	291,374	253,728	225,975	206,099	177,056
Total Operating Expenses (\$000).....	798,937	745,629	628,517	510,518	399,025	324,866	267,283	236,762	214,015	192,724	167,697
Net Operating Income (\$000).....	29,087	(8,798)	(17,436)	(9,210)	691	23,467	24,091	16,966	11,959	13,374	9,359
Interest on Long-Term Debt (\$000).....	38,525	44,382	41,495	31,151	17,697	7,796	5,189	4,160	3,905	3,748	3,277
Income Taxes (\$000).....	638	(1,585)	(5,707)	(9,091)	(3,289)	6,558	8,353	5,948	4,374	5,263	3,147
Net Profit or (Loss) (\$000).....	(10,227)	(61,426)	(63,008)	(29,800)	(4,472)	10,376	12,722	7,776	4,872	5,962	4,841
Profit Margin on Sales (%).....	—	—	—	—	—	3.0	4.4	3.1	2.2	2.9	2.7
Rate of Return on Investment (%).....	3.7	(3.9)	(4.2)	(0.4)	2.4	7.2	10.4	9.4	8.8	11.0	11.1
INTRA-HAWAIIAN AIRLINES											
Total Operating Revenues (\$000).....	49,046	44,391	35,753	29,746	26,287	23,318	20,439	17,898	15,499	13,780	14,085
Total Operating Expenses (\$000).....	47,813	43,923	37,408	30,453	26,528	22,145	18,527	16,523	14,690	13,229	13,456
Net Operating Income (\$000).....	1,233	469	(1,654)	(707)	(241)	1,173	1,911	1,375	809	551	629
Interest on Long-Term Debt (\$000).....	1,845	2,605	1,553	1,013	772	527	468	417	485	445	516
Income Taxes (\$000).....	—	—	(4)	(482)	(385)	206	568	139	—	28	—
Net Profit or (Loss) (\$000).....	(403)	(3,115)	(3,707)	(1,533)	(1,039)	479	980	868	(213)	(50)	133
Profit Margin on Sales (%).....	—	—	—	—	—	2.1	4.8	4.8	—	—	0.9
Rate of Return on Investment (%).....	4.3	(3.8)	(10.5)	(1.4)	2.8	6.4	11.1	13.3	2.0	3.4	5.7
INTRA-ALASKAN AIRLINES											
Total Operating Revenues (\$000).....	30,360	28,812	25,704	21,967	24,407	22,357	22,002	21,950	20,225	18,735	18,867
Total Operating Expenses (\$000).....	28,160	26,991	23,802	20,719	23,241	20,306	20,587	20,310	19,353	17,421	16,192
Net Operating Income (\$000).....	2,200	1,821	1,902	1,248	1,166	2,051	1,415	1,640	872	1,314	2,675
Interest on Long-Term Debt (\$000).....	1,139	126	1,255	279	333	336	299	260	290	288	296
Income Taxes (\$000).....	563	269	335	293	587	933	701	613	457	563	1,417
Net Profit or (Loss) (\$000).....	636	274	488	1,429	160	1,032	470	1,171	221	531	914
Profit Margin on Sales (%).....	2.1	1.0	1.9	6.5	0.7	4.6	2.1	5.3	1.1	2.8	4.8
Rate of Return on Investment (%).....	5.9	4.7	6.0	8.2	2.9	12.5	6.5	14.7	4.7	8.4	13.8

For notes to statistical tables see page 45.

INCOME STATEMENT U.S. SCHEDULED AIRLINES

HELICOPTER AIRLINES	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Total Operating Revenues (\$000).....	8,567	8,340	9,175	12,870	16,506	14,232	11,135	10,174	8,637	8,583	8,603
Total Operating Expenses (\$000).....	9,394	11,530	14,346	16,177	17,249	14,929	11,369	10,295	8,839	8,835	8,808
Net Operating Income (\$000).....	(827)	(3,190)	(5,171)	(3,307)	(743)	(697)	(233)	(121)	(202)	(252)	(205)
Interest on Long-Term Debt (\$000).....	222	575	654	404	512	375	388	318	303	233	49
Income Taxes (\$000).....	—	(2)	(34)	(11)	(56)	(256)	166	85	(107)	(223)	(78)
Net Profit or (Loss) (\$000).....	(573)	(3,962)	(6,948)	(3,100)	(888)	(561)	(438)	(197)	(154)	89	(46)
Profit Margin on Sales (%).....	—	—	—	—	—	—	—	—	—	1.0	—
Rate of Return on Investment (%).....	—*	—*	(85.5)	(24.8)	(2.7)	(2.7)	(1.5)	0.7	1.1	3.1	(0.7)

ALL-CARGO AIRLINES (DOMESTIC)

Total Operating Revenues (\$000).....	51,871	49,445	78,642	85,303	94,279	102,360	82,279	74,158	67,586	90,702	59,380
Total Operating Expenses (\$000).....	52,945	53,283	80,211	98,712	83,973	80,414	73,706	70,838	66,308	80,401	62,685
Net Operating Income (\$000).....	(1,074)	(3,838)	(1,569)	(13,408)	10,305	21,946	8,573	3,319	1,279	10,301	(3,305)
Interest on Long-Term Debt (\$000).....	3,263	4,338	7,734	3,946	2,188	3,002	3,789	3,824	4,302	4,775	2,366
Income Taxes (\$000).....	406	296	264	(7,243)	3,205	8,467	3,280	636	(545)	4,108	(540)
Net Profit or (Loss) (\$000).....	(5,137)	(9,108)	(7,906)	(10,838)	4,851	12,245	2,720	(1)	(1,290)	4,355	(4,577)
Profit Margin on Sales (%).....	—	—	—	—	5.1	12.0	3.3	—	—	4.8	—
Rate of Return on Investment (%).....	(3.6)	(8.3)	(0.9)	(4.9)	5.3	17.1	7.2	4.0	2.8	9.8	(4.9)

INTERNATIONAL AND TERRITORIAL

Total Operating Revenues (\$000).....	2,068,683	1,913,592	1,689,387	1,949,766	1,769,682	1,474,480	1,210,875	1,040,020	931,452	810,446	722,390
Total Operating Expenses (\$000).....	2,042,163	1,894,391	1,638,275	1,747,946	1,496,540	1,220,894	1,001,362	896,187	799,462	723,853	698,685
Net Operating Income (\$000).....	26,520	19,202	51,113	201,820	273,142	253,586	209,513	143,833	131,991	86,593	23,706
Interest on Long-Term Debt (\$000).....	87,605	74,930	49,928	50,366	36,941	30,641	25,896	22,980	24,234	26,337	24,275
Income Taxes (\$000).....	(9,378)	(11,735)	7,936	62,512	88,620	94,945	73,572	56,418	50,287	32,885	5,558
Net Profit or (Loss) (\$000).....	(19,362)	(18,035)	19,910	122,957	163,108	149,890	121,883	76,731	63,012	33,073	(2,263)
Profit Margin on Sales (%).....	—	—	1.2	6.3	9.2	10.2	10.1	7.4	6.8	4.1	—
Rate of Return on Investment (%).....	3.2	2.4	3.2	7.5	11.1	14.6	15.0	12.2	12.1	8.1	2.6

ALL-CARGO AIRLINES (INTERNATIONAL)

Total Operating Revenues (\$000).....	212,042	195,905	165,958	111,998	114,193	99,059	56,191	42,032	37,548	39,683	36,291
Total Operating Expenses (\$000).....	170,841	171,207	151,797	103,632	100,425	78,791	45,782	35,790	33,674	36,543	37,890
Net Operating Income (\$000).....	41,201	24,698	14,161	8,366	13,768	20,269	10,409	6,242	3,874	3,139	(1,599)
Interest on Long-Term Debt (\$000).....	12,527	16,930	10,684	3,526	2,846	2,801	2,876	3,039	2,874	2,841	1,628
Income Taxes (\$000).....	10,096	5,595	1,128	816	2,278	3,216	—	—	—	—	—
Net Profit or (Loss) (\$000).....	17,815	1,244	2,949	4,274	9,213	15,536	6,892	2,462	(1,072)	118	(2,240)
Profit Margin on Sales (%).....	8.4	0.6	1.8	3.8	8.1	15.6	12.3	5.9	—	0.3	—
Rate of Return on Investment (%).....	11.9	5.9	6.2	6.2	13.6	33.0	21.7	11.6	3.1	6.0	(3.0)

* Rate of return cannot be computed due to negative investment base.

BALANCE SHEET U.S. Scheduled Airlines (In Thousands of Dollars)

TOTAL INDUSTRY	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	2,736,660	2,447,507	1,980,938	981,122
Investments and Special Funds	1,181,314	1,282,720	710,602	229,097
Flight Equipment	11,271,069	10,945,920	6,095,501	3,561,690
Reserve for Depreciation and Airworthiness	(3,930,205)	(3,485,009)	(2,105,171)	(1,378,443)
Ground Property and Equipment	1,754,447	1,598,213	717,531	437,240
Reserve for Depreciation	(741,652)	(631,791)	(351,440)	(220,643)
Other Property	447,189	428,319	145,376	83,686
Deferred Charges	352,616	324,879	117,030	122,597
Total Assets	13,071,438	12,910,758	7,310,369	3,816,346
Liabilities				
Current Liabilities	2,397,599	2,344,834	1,282,886	775,960
Long-Term Debt	5,598,225	6,094,471	3,077,460	1,884,407
Other Non-Current Liabilities	393,793	314,656	18,878	25,554
Deferred Credit	1,110,762	1,063,285	540,752	179,752
Stockholders' Equity—Net of Treasury Stock	3,571,060	3,093,511	2,390,391	950,674
Preferred Stock	36,385	36,153	17,138	39,589
Common Stock	286,134	259,471	275,876	186,157
Other Paid-In Capital	1,881,052	1,407,767	819,022	406,693
Retained Earnings	1,375,202	1,392,042	1,280,921	320,312
Less: Treasury Stock	1,922	1,922	2,567	2,076
Total Liabilities and Equity	13,071,438	12,910,758	7,310,369	3,816,346

DOMESTIC TRUNK AIRLINES

Assets				
Current Assets	1,952,220	1,782,773	1,488,583	694,186
Investments and Special Funds	954,357	998,265	477,165	139,299
Flight Equipment	8,747,474	8,465,213	4,681,260	2,759,409
Reserve for Depreciation and Airworthiness	(3,183,045)	(2,846,775)	(1,652,233)	(1,083,124)
Ground Property and Equipment	1,399,994	1,271,156	544,698	351,737
Reserve for Depreciation	(572,551)	(486,060)	(271,971)	(175,025)
Other Property	285,018	251,615	91,558	63,709
Deferred Charges	184,581	142,923	58,848	69,762
Total Assets	9,768,047	9,579,112	5,417,909	2,819,953
Liabilities				
Current Liabilities	1,651,892	1,652,418	890,833	523,565
Long-Term Debt	3,885,104	4,280,487	2,277,953	1,408,938
Other Non-Current Liabilities	348,054	260,873	14,835	22,203
Deferred Credit	970,384	900,192	454,805	148,173
Stockholders' Equity—Net of Treasury Stock	2,912,612	2,485,143	1,779,483	717,075
Preferred Stock	24,294	24,199	15,262	34,162
Common Stock	219,830	197,001	208,237	128,124
Other Paid-In Capital	1,357,565	994,378	606,614	292,126
Retained Earnings	1,311,863	1,270,504	950,447	263,276
Less: Treasury Stock	939	939	1,077	613
Total Liabilities and Equity	9,768,047	9,579,112	5,417,909	2,819,953

LOCAL SERVICE AIRLINES	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	207,725	193,057	112,012	44,202
Investments and Special Funds	21,694	19,813	38,962	2,428
Flight Equipment	664,507	666,478	277,338	95,492
Reserve for Depreciation and Airworthiness	(189,828)	(153,636)	(62,912)	(36,484)
Ground Property and Equipment	62,080	65,199	30,086	13,688
Reserve for Depreciation	(33,773)	(29,545)	(14,104)	(6,878)
Other Property	20,050	20,711	23,745	4,784
Deferred Charges	112,246	118,895	14,038	5,415
Total Assets	864,702	900,973	419,164	122,647
Liabilities				
Current Liabilities	228,679	234,143	99,782	44,199
Long-Term Debt	467,147	516,592	219,741	50,067
Other Non-Current Liabilities	8,208	18,524	47	58
Deferred Credit	5,860	9,433	3,488	618
Stockholders' Equity—Net of Treasury Stock	154,807	122,281	96,105	27,704
Preferred Stock	11,780	11,641	755	2,665
Common Stock	22,879	21,017	19,204	10,598
Other Paid-In Capital	209,812	169,561	39,547	9,254
Retained Earnings	(89,732)	(79,931)	36,633	5,263
Less: Treasury Stock	7	7	35	73
Total Liabilities and Equity	864,702	900,973	419,164	122,647

INTRA-HAWAIIAN AIRLINES

Assets				
Current Assets	11,147	9,245	5,721	3,680
Investments and Special Funds	90	85	1,681	9
Flight Equipment	29,100	31,416	17,146	12,047
Reserve for Depreciation and Airworthiness	(11,081)	(11,123)	(5,304)	(4,679)
Ground Property and Equipment	6,575	6,459	4,487	2,553
Reserve for Depreciation	(3,600)	(3,209)	(1,852)	(1,354)
Other Property	2,649	2,813	971	269
Deferred Charges	2,381	2,693	1,705	1,145
Total Assets	37,261	38,378	24,560	13,667
Liabilities				
Current Liabilities	15,486	14,677	4,992	3,719
Long-Term Debt	16,294	18,900	13,193	6,658
Other Non-Current Liabilities	1,573	946	173	—
Deferred Credit	599	146	440	74
Stockholders' Equity—Net of Treasury Stock	3,309	3,709	5,763	3,217
Preferred Stock	68	70	398	1,570
Common Stock	6,268	6,265	3,081	1,361
Other Paid-In Capital	6,593	6,592	1,413	1,793
Retained Earnings	(7,359)	(9,217)	871	(1,507)
Less: Treasury Stock	—	—	—	—
Total Liabilities and Equity	37,261	38,378	24,560	13,667

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BALANCE SHEET U.S. Scheduled Airlines (In Thousands of Dollars)

INTRA-ALASKAN AIRLINES	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	12,525	9,922	6,151	6,182
Investments and Special Funds	1,261	1,090	1,232	631
Flight Equipment	27,992	27,788	12,531	8,367
Reserve for Depreciation and Airworthiness	(10,126)	(8,864)	(7,248)	(4,272)
Ground Property and Equipment	8,776	8,664	7,089	3,897
Reserve for Depreciation	(4,370)	(3,847)	(3,184)	(1,882)
Other Property	298	137	709	142
Deferred Charges	1,500	1,836	670	487
Total Assets	37,856	36,725	17,949	13,552
Liabilities				
Current Liabilities	6,074	5,721	5,033	4,868
Long-Term Debt	15,374	16,973	4,264	3,695
Other Non-Current Liabilities	25	59	140	89
Deferred Credit	257	302	239	81
Stockholders' Equity—Net of Treasury Stock	16,127	13,669	8,273	4,818
Preferred Stock	244	—	480	—
Common Stock	3,777	3,382	2,721	2,372
Other Paid-In Capital	4,441	3,088	490	183
Retained Earnings	4,711	7,200	4,581	2,263
Less: Treasury Stock	—	—	—	—
Total Liabilities and Equity	37,856	36,725	17,949	13,552

HELICOPTER AIRLINES

HELICOPTER AIRLINES	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	2,793	2,396	7,071	3,098
Investments and Special Funds	234	368	1,058	588
Flight Equipment	4,091	4,080	11,384	5,347
Reserve for Depreciation and Airworthiness	(1,655)	(1,478)	(4,184)	(3,488)
Ground Property and Equipment	811	1,077	2,029	1,107
Reserve for Depreciation	(784)	(643)	(1,202)	(665)
Other Property	306	749	165	1,387
Deferred Charges	250	490	1,296	730
Total Assets	6,046	7,039	17,617	8,103
Liabilities				
Current Liabilities	6,760	6,968	5,031	2,303
Long-Term Debt	3,131	3,303	7,059	492
Other Non-Current Liabilities	932	621	84	38
Deferred Credit	90	64	165	308
Stockholders' Equity—Net of Treasury Stock	(4,868)	(3,919)	5,279	4,963
Preferred Stock	—	—	—	—
Common Stock	3,543	3,400	3,141	957
Other Paid-In Capital	3,587	3,676	2,919	2,673
Retained Earnings	(5,190)	(10,995)	(781)	1,334
Less: Treasury Stock	—	—	—	—
Total Liabilities and Equity	6,046	7,039	17,617	8,103

ALL-CARGO AIRLINES	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	98,661	76,826	65,222	28,541
Investments and Special Funds	39,401	48,404	16,442	21,920
Flight Equipment	248,464	259,575	175,184	131,774
Reserve for Depreciation and Airworthiness	(52,496)	(43,926)	(72,910)	(39,397)
Ground Property and Equipment	31,304	28,169	14,380	5,266
Reserve for Depreciation	(12,096)	(9,904)	(4,626)	(2,735)
Other Property	33,116	30,498	2,155	7,175
Deferred Charges	11,697	17,864	14,606	8,567
Total Assets	398,049	407,505	210,453	161,114
Liabilities				
Current Liabilities	59,050	58,553	45,052	39,693
Long-Term Debt	187,376	210,108	80,385	96,166
Other Non-Current Liabilities	29,522	27,876	1,378	35
Deferred Credit	39,085	35,579	12,313	1,838
Stockholders' Equity—Net of Treasury Stock	83,016	75,388	71,325	23,382
Preferred Stock	244	244	244	1,192
Common Stock	15,894	15,893	17,608	23,300
Other Paid-In Capital	39,864	39,816	24,627	21,633
Retained Earnings	27,832	19,680	29,090	(22,738)
Less: Treasury Stock	244	244	244	5
Total Liabilities and Equity	398,049	407,505	210,453	161,114

INTERNATIONAL AND TERRITORIAL AIRLINES

INTERNATIONAL AND TERRITORIAL AIRLINES	At December 31			
	1971	1970	1966	1961
Assets				
Current Assets	451,333	373,044	296,178	201,199
Investments and Special Funds	164,276	214,695	174,062	64,220
Flight Equipment	1,549,196	1,490,739	920,657	548,936
Reserve for Depreciation and Airworthiness	(481,901)	(418,814)	(300,378)	(206,783)
Ground Property and Equipment	244,791	217,312	114,762	58,925
Reserve for Depreciation	(114,429)	(98,487)	(54,500)	(32,075)
Other Property	105,149	121,070	26,070	6,214
Deferred Charges	39,920	40,085	25,867	36,485
Total Assets	1,958,333	1,939,642	1,202,718	677,119
Liabilities				
Current Liabilities	429,315	371,372	232,163	157,468
Long-Term Debt	1,023,247	1,047,404	474,865	318,390
Other Non-Current Liabilities	5,479	5,700	2,221	3,131
Deferred Credit	94,455	117,536	69,302	28,630
Stockholders' Equity—Net of Treasury Stock	405,837	397,629	424,163	169,501
Preferred Stock	—	—	—	—
Common Stock	13,927	12,493	21,884	19,413
Other Paid-In Capital	259,031	190,413	143,411	79,031
Retained Earnings	133,512	195,456	260,080	72,441
Less: Treasury Stock	575	733	1,212	1,385
Total Liabilities and Equity	1,958,333	1,939,642	1,202,718	677,119

UNIT REVENUES AND COSTS

PASSENGER REVENUES COMPARED	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Average Revenue Per Revenue Passenger Mile—Intercity Common Carriers											
(In Cents Per Mile)											
U.S. Scheduled Airlines											
Domestic—First Class.....	8.76	8.31	7.78	7.32	7.24	7.24	7.33	7.26	7.17	7.57	7.34
Coach.....	5.80	5.46	5.27	5.11	5.13	5.28	5.52	5.58	5.62	5.76	5.42
Total.....	6.33	6.00	5.79	5.61	5.64	5.83	6.06	6.12	6.17	6.45	6.28
International—First Class.....	8.21	7.96	8.09	7.42	7.59	7.60	7.62	8.16	8.56	8.42	8.44
Tourist.....	4.77	4.68	4.82	4.65	4.71	4.85	5.00	5.12	5.47	5.43	5.50
Total.....	5.10	5.01	5.18	4.95	5.01	5.16	5.29	5.45	5.82	5.87	6.08
Total.....	6.06	5.79	5.68	5.46	5.49	5.67	5.87	5.95	6.09	6.31	6.24
Railroads, Class I											
First Class.....	4.72	4.27	4.08	3.88	3.76	3.84	3.87	3.91	4.00	3.97	3.94
Coach.....	4.86	3.98	3.56	3.24	3.02	2.99	3.00	3.00	3.00	2.89	2.84
Motor Buses, Class I.....											
	3.81	3.60	3.39	3.18	2.98	2.89	2.88	2.74	2.72	2.71	2.70

FREIGHT REVENUES COMPARED

Average Revenue Per Ton Mile—Intercity Common Carriers

(In Cents Per Mile)

U.S. Scheduled Airlines											
Domestic.....	22.61	21.91	21.03	19.97	19.89	20.21	20.46	20.97	21.72	21.31	22.08
International.....	19.70	19.36	18.29	18.83	19.63	19.92	20.76	23.60	24.78	25.04	27.83
Total.....	21.42	20.94	19.99	19.51	19.79	20.09	20.58	21.95	22.86	22.69	24.12
Railroads, Class I.....											
	1.59	1.43	1.35	1.31	1.27	1.26	1.27	1.28	1.31	1.35	1.37
Trucks, Class I.....											
	7.90 [Ⓜ]	7.30	7.10	6.90	6.60	6.30	6.50	6.50	6.30	6.40	6.30

AIRLINE REVENUE, COST AND PROFIT PER REVENUE TON MILE

(In Cents Per Mile)

Domestic Service

Unit Revenue.....	54.83	51.74	49.74	49.66	49.90	51.79	54.48	56.58	57.75	58.29	59.11
Unit Cost.....	53.09	51.75	47.43	47.00	45.67	45.57	47.81	50.87	54.77	56.03	59.17
Operating Profit Margin.....	1.75	(00.01)	2.31	2.66	4.23	6.22	6.67	5.71	2.98	2.26	(00.06)

International and Territorial Service

Unit Revenue.....	33.64	33.44	30.68	31.12	33.04	35.87	40.60	44.80	47.76	47.30	50.73
Unit Cost.....	32.64	32.74	29.60	27.82	28.01	29.63	33.56	38.59	41.06	42.31	49.25
Operating Profit Margin.....	1.00	00.70	1.08	3.30	5.03	6.24	7.04	6.21	6.70	4.99	1.48

Total Industry

Unit Revenue.....	47.96	46.02	43.98	42.86	43.77	46.18	50.10	53.03	54.79	55.12	56.79
Unit Cost.....	46.46	45.81	42.04	39.96	39.26	39.95	43.31	47.17	50.72	52.08	56.42
Operating Profit Margin.....	1.50	00.21	1.94	2.90	4.51	6.23	6.79	5.86	4.07	3.04	00.37

[Ⓜ] Estimated

PASSENGER TRAFFIC

PASSENGER TRAVEL BETWEEN THE U.S. AND FOREIGN COUNTRIES *

(Thousands of Passengers)

	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Passengers via Air.....	20,784	18,960	16,605	14,160	12,456	10,589	8,996	7,657	6,356	5,752	5,055
Passengers via Sea.....	1,758	1,711	1,714	1,378	1,397	1,570	1,608	1,651	1,727	1,624	1,495
Total via Air and Sea.....	22,542	20,671	18,319	15,538	13,853	12,159	10,604	9,308	8,083	7,376	6,550
Air Share (%).....	92.2	91.7	90.6	91.1	89.9	87.1	84.8	82.3	78.6	78.0	77.2
Passengers via Foreign-Flag Airlines.....	9,033	8,490	7,481	6,259	5,792	5,109	4,509	3,897	3,155	2,901	2,541
Passengers via U.S.-Flag Airlines.....	11,751	10,470	9,124	7,901	6,664	5,480	4,487	3,760	3,201	2,851	2,514
U.S. Flag Airlines' Share (%).....	56.5	55.2	54.9	55.8	53.5	51.8	49.9	49.1	50.4	49.6	49.7

* Figures are exclusive of travel over land borders (except Mexican air travel), crewmen, military personnel and travelers between continental United States and its possessions.

Source: U.S. Department of Justice, Immigration and Naturalization Service.

INTERCITY PASSENGER TRAVEL IN THE UNITED STATES

(Passenger Miles in Millions)

Common Carriers

Airlines.....	106,293	104,146	102,717	87,508	75,487	60,591	51,888	44,141	38,457	33,623	31,062
Railroads.....	9,908	6,179	7,622	8,737	10,920	12,903	13,260	14,048	14,396	15,859	16,154
Motor Buses ¹	25,500	25,300	24,900	24,500	24,900	24,600	23,800	23,300	21,800	21,300	19,700
Total.....	141,701	135,335	135,239	120,693	111,306	98,094	88,948	81,489	74,653	70,782	66,916
Air Share (%).....	75.0	77.0	76.0	72.5	67.8	61.8	58.3	54.2	51.5	47.5	46.4
Private Automobile.....	1,170,000 ²	1,120,000	1,070,600	1,016,000	967,000	902,000	859,000	802,000	766,000	720,000	692,000
Total Common Carrier and Auto.....	1,311,701	1,255,335	1,205,839	1,136,693	1,078,306	1,000,094	947,948	883,489	840,653	790,782	758,916
Common Carrier Share (%).....	10.8	10.8	11.2	10.6	10.3	9.8	9.4	9.2	8.9	9.0	8.8
Air Share (%).....	8.1	8.3	8.5	7.7	7.0	6.1	5.5	5.0	4.6	4.3	4.1

¹ Includes charter

² Estimated

SAFETY AND EMPLOYMENT

COMPARATIVE TRANSPORT SAFETY RECORD

Passenger Fatalities per 100 Million Passenger Miles	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
U.S. Scheduled Airlines											
Domestic											
Fatalities.....	174	0	132	258	226	59	205	65	48	121	124
Rate.....	0.16	0.00	0.14	0.30	0.30	0.09	0.38	0.14	0.12	0.34	0.38
International and Territorial											
Fatalities.....	0	2	0	47	0	0	21	94	73	0	0
Rate.....	0.00	0.007	0.00	0.18	0.00	0.00	0.12	0.63	0.59	0.00	0.00
Total											
Fatalities.....	174	2	132	305	226	59	226	159	121	121	124
Rate.....	0.12	0.001	0.11	0.27	0.22	0.07	0.31	0.26	0.23	0.26	0.30
Motor Buses											
Fatalities.....	n.a.	4	8	31	23	13	44	19	38	17	14
Rate.....		0.02	0.05	0.16	0.11	0.06	0.23	0.10	0.21	0.10	0.09
Railroads											
Fatalities.....	17	10	9	13	13	27	12	9	13	27	20
Rate.....	0.18 ^B	0.09	0.07	0.10	0.09	0.16	0.07	0.05	0.07	0.14	0.10
Autos											
Fatalities.....	34,700 ^B	34,800	37,200	36,500	34,800	34,800	32,500	31,500	28,900	26,800	24,700
Rate.....	2.0 ^B	2.1	2.3	2.4	2.4	2.5	2.4	2.4	2.3	2.2	2.2

^B Estimated

^P Preliminary

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FIVE-YEAR AVERAGES OF SELECTED SAFETY STATISTICS

	Passenger Fatalities per 100 Million Passenger Miles	Passenger Fatalities per One Million Aircraft Miles	Revenue Plane Miles per Fatal Accident (000)	Fatal Accidents per 100,000 Flights
1942-1946.....	2.10	0.35	35,405	n.a.
1947-1951.....	1.51	0.33	63,557	n.a.
1952-1956.....	0.50	0.16	120,586	0.19
1957-1961.....	0.48	0.18	131,451	0.20
1962-1966.....	0.22	0.11	242,085	0.13
1967-1971.....	0.13	0.08	412,585	0.10

PERSONNEL EMPLOYED AND PAYROLL

U.S. Scheduled Airlines	1971	1970*	1969	1968	1967	1966	1965	1964	1963	1962	1961
Pilots and Copilots.....	26,242	25,807	26,262	24,554	23,425	21,019	16,881	15,136	14,262	13,820	13,936
Other Flight Personnel.....	6,658	7,029	8,387	7,953	7,531	6,788	5,091	4,415	4,048	4,151	4,162
Pursers, Stewards and Stewardesses.....	35,682	34,274	33,621	29,970	25,100	20,925	17,322	14,470	13,109	12,178	11,858
Communications Personnel.....	2,275	2,777	3,264	3,403	3,316	3,174	3,123	3,195	3,716	3,418	3,745
Mechanics.....	45,759	48,177	52,886	52,046	50,016	45,327	41,667	39,360	34,453	34,925	34,065
Aircraft and Traffic Servicing Personnel.....	84,931	83,637	86,462	82,950	74,943	66,641	57,532	51,944	49,056	46,696	44,617
Office Employees.....	58,114	59,992	63,743	63,158	59,257	50,961	44,162	40,325	37,867	36,952	36,642
All Others.....	32,524	35,681	37,297	36,417	32,435	29,193	25,017	22,973	22,376	20,687	20,916
Total Employment.....	292,185	297,374	311,922	300,451	276,023	244,028	210,795	191,818	178,887	172,827	169,941
Total Payroll (\$000).....	3,843,872	3,659,716	3,322,719	2,921,120	2,491,330	2,097,588	1,755,401	1,536,603	1,320,400	1,265,841	1,215,895

* Figures for 1970 are understated due to the effects of a Brotherhood of Railway and Airline Clerks strike against Northwest Airlines and an Air Line Pilots Association strike against Mohawk Airlines.

AIRPORTS AND AIRWAYS

Active Aircraft in the Civil Aviation Fleet

	1971	1970	1966	1961
Air Carrier				
Piston.....	60	64	679	1,282
Turbine.....	2,315	2,357	1,322	576
Rotorcraft.....	14	16	21	19
Total.....	2,389	2,437	2,022	1,877
% of Total.....	1.7	1.8	1.9	2.3
General Aviation				
Piston.....	128,300	127,400	101,292	79,240
Turbine.....	2,500	2,400	915	160
Rotorcraft.....	2,600	2,700	1,622	800
Other.....	1,600	1,500	877	430
Total.....	135,000 [Ⓜ]	134,000	104,706	80,630
% of Total.....	98.3	98.2	98.1	97.7
Total	137,389	136,437	106,728	82,507

[Ⓜ] Estimated

Aircraft Hours Flown in Civil Aviation

Scheduled Air Carrier				
Domestic Service.....	4,922,128	5,035,182	3,602,540	3,178,890
International and Territorial Service.....	781,182	811,013	630,578	475,629
Total.....	5,703,310	5,846,195	4,233,118	3,654,519
% of Total.....	17.4	18.3	16.8	20.8
General Aviation	27,000,000 [Ⓜ]	26,030,414	21,023,000	13,890,000
% of Total.....	82.6	81.7	83.2	79.2
Total	32,703,310	31,876,609	25,256,118	17,544,519

[Ⓜ] Estimated

Total U.S. Airports, FAA Control Towers and Points Receiving Scheduled Airline Service

Total Airports on Record with FAA.....	12,070	11,340	9,673	7,715
Total FAA Control Towers.....	346	335	303	254
Points Receiving Scheduled Airline Service.....	479	482	527	569

Aircraft Operations at Airports With FAA Control Towers

	1971	1970	1966	1961
Air Carrier	9,791,525	10,393,294	8,206,322	6,980,246
% of Total.....	18.2	18.8	18.3	26.5
General Aviation	40,400,593	41,384,006	33,445,126	15,527,863
% of Total.....	75.2	74.9	74.4	59.0
Military	3,510,278	3,503,198	3,301,368	3,792,658
% of Total.....	6.5	6.3	7.3	14.4
Total	53,702,396	55,280,498	44,952,816	26,300,767

Distribution of Aircraft Operations at Large Hub Airports

(in order of enplaned passengers)

	1971			1961		
	Air Carrier	General Aviation	Military	Air Carrier	General Aviation	Military
Chicago O'Hare.....	88.2%	11.3%	0.5%	74.1%	20.9%	5.1%
Los Angeles.....	75.8	22.7	1.5	72.3	21.2	6.5
Atlanta.....	88.4	11.2	0.4	75.7	21.6	2.7
John F. Kennedy.....	87.8	12.0	0.2	88.3	11.0	0.8
San Francisco.....	78.1	20.3	1.6	67.4	26.1	6.6
LaGuardia.....	79.0	20.7	0.3	68.8	30.6	0.6
Dallas.....	69.9	29.3	0.8	54.2	43.7	2.1
Washington National.....	67.5	32.1	0.4	73.6	21.3	5.1
Miami.....	68.2	31.5	0.4	50.7	46.1	3.1
Boston.....	67.4	32.4	0.2	65.5	26.4	8.1
Detroit.....	68.4	31.4	0.2	70.3	27.1	2.6
Newark.....	74.2	25.7	0.1	75.4	23.2	1.4
Denver.....	52.9	46.6	0.5	35.3	60.5	4.2
Philadelphia.....	65.4	34.0	0.6	60.6	32.3	7.1
St. Louis.....	55.7	39.5	4.8	41.6	47.1	11.3
Pittsburgh.....	66.1	26.5	7.4	65.5	17.9	16.6
Minneapolis.....	54.4	39.2	6.4	37.8	34.6	27.6
Cleveland.....	46.1	53.6	0.3	56.7	41.9	1.4
Seattle/Tacoma.....	73.7	25.2	1.1	63.8	30.3	5.9
Houston.....	9.9	89.7	0.5	33.6	62.3	4.1
Kansas City.....	50.1	49.6	0.3	45.7	52.9	1.4
New Orleans.....	68.9	29.2	2.0	72.6	21.3	6.1
Las Vegas.....	42.7	48.4	8.8	26.5	71.7	1.8
Total 23 Large Hubs.....	69.7	28.8	1.5	60.7	33.8	5.5

AIRCRAFT IN SERVICE U.S. Scheduled Airlines

Manufacturer	Model	1971	1970	1966	1961	Manufacturer	Model	1971	1970	1966	1961
Boeing:	377	—	—	—	—	Martin:	202	—	—	—	17
	B707 (Jet)	359	399	239	94		404	17	18	73	64
	B720 (Jet)	106	115	129	76	Nihon:	YS-11 (Turboprop)	21	21	3	—
	B727 (Jet)	638	631	277	—	Sud Aviation:	Caravelle (Jet)	—	—	20	17
	B737 (Jet)	133	133	—	—	Vickers:	Viscount (Turboprop)	—	3	44	70
	B747 (Jet)	104	79	—	—	Other:		55	45	70	38
British Aircraft Corp.:	BAC 111 (Jet)	58	59	54	—	Totals:					
Canadair:	CL 44 (Turboprop)	1	8	22	9	Jet	2,022	2,041	978	319	
Convair:	240	—	—	30	46	Turboprop	293	300	344	257	
	340/440	4	6	112	146	Piston	60	80	679	1,282	
	540 (Turboprop)	—	—	—	5	Total Fixed Wing:	2,375	2,421	2,001	1,858	
	580/600 (Turboprop)	137	142	69	—	Helicopters:					
	880 (Jet)	41	41	64	39	Bell:	B47	—	—	—	1
	990 (Jet)	—	—	17	—		206 (Turbine)	3	3	—	—
Curtiss:	C-46	3	6	16	44	Sikorsky:	S51	—	—	—	1
Douglas:	DC-3	2	—	105	250		S55	—	—	2	5
	DC-4	—	—	3	25		S58	3	3	3	7
	DC-6	3	3	131	260	Boeing Vertol:	S61 (Turbine)	8	6	8	—
	DC-7	—	2	49	215		S62 (Turbine)	—	—	1	—
	DC-8 (Jet)	236	257	124	93		V107 (Turbine)	—	4	7	—
	DC-9 (Jet)	334	327	54	—		V-44B	—	—	—	5
	DC-10 (Jet)	13	—	—	—	Total Helicopters:		14	16	21	19
Fairchild Hiller:	F-27 (Turboprop)	34	35	63	44						
	FH-227 (Turboprop)	48	47	16	—						
Lockheed:	Constellation	—	—	37	69						
	Super Constellation	—	—	61	115						
	Electra (Turboprop)	24	36	114	122						
	L-382B/100 (Turboprop)	4	8	5	—						

NOTES TO STATISTICAL TABLES

Redefinition of Domestic Traffic. Effective January, 1970, the Civil Aeronautics Board (CAB) revised its definition of Domestic Traffic to include all traffic between the United States mainland and Hawaii and Alaska. This traffic had, in the past, been considered as International and Territorial.

Because of this redefinition, the Domestic and International and Territorial traffic and financial data for 1969-1971 are not strictly comparable to 1968 and previous years. The 1969-1971 traffic and financial data as shown in these tables include Alaskan and Hawaiian operations for all carriers. Alaskan and Hawaiian financial data for Pan American and Northwest for 1969 and the first half of 1970 are CAB estimates.

The new CAB definition of Domestic and International no longer includes Alaska Airlines in the International and Territorial category, putting it instead into a group called "Other" which also includes Aspen Airways and Tag Airlines. In this publication the data for Alaska Airlines are included in International and Territorial figures through 1968. For the years 1969-1971 Alaska Airlines data are included in industry totals only.

Total Industry Data. The total industry figures shown in this publication include Alaska Airlines for the years 1969-1971, Aspen Airways for 1967-1971 and Tag Airlines for 1969 and 1970.

Passengers Enplaned. Beginning in 1970, the carriers reported enplanements, rather than passenger originations. In order to show consistent passenger traffic statistics, only passenger enplanements are shown.

Net Profit or Loss. This figure is after "special items" and other non-operating income and expenses which are not shown. Therefore, the data shown do not add to the net profit or loss shown.

Rate of Return on Investment. The rate of return on investment reflects net profit plus interest paid on the noncurrent portion of long-term debt as a per cent of total investment. Total investment is a five-quarter average of total net worth (stockholders' equity) plus long-term debt. Additionally, the rate of return reflects net profit before tax adjustments resulting from the investment tax credit. The figures shown for 1971 are preliminary.

Balance Sheet. Balance Sheet data for the domestic trunk airlines include their international as well as domestic operations. The all-cargo category includes domestic and international all-cargo carriers.

DEFINITION OF TERMS

Revenue Passenger Mile. One fare-paying passenger transported one mile. Revenue passenger miles are computed by multiplying the number of revenue passengers by the miles which they are flown.

Available Seat Miles. The total number of seats available for the transportation of revenue passengers multiplied by the number of miles which those seats are flown.

Revenue Passenger Load Factor. A percentage which represents the proportion of seating capacity which is actually sold and utilized. Computed by dividing revenue passenger miles flown by available seat miles flown in scheduled revenue passenger service.

Revenue Ton Mile. One ton (2,000 pounds) of revenue traffic transported one statute mile. Revenue ton miles are computed by multiplying tons of revenue traffic (passengers, freight, mail and express) by the miles which this traffic is flown.

Available Ton Miles. The total number of tons available for the transportation of passengers, freight and mail multiplied by the number of miles which this capacity is flown.

Revenue Ton Mile Load Factor. A percentage which represents the proportion of total capacity available for passengers, freight and mail which is actually sold and utilized. Computed by dividing total revenue ton miles actually flown by total available ton miles.

Air Cargo. In the United States, this term refers to the total volume of freight, mail and express traffic which is transported by air. In other countries, this term refers only to air freight. U.S. air cargo consists of the following classes of service:

Priority Mail—Mail assured of airlift.

Includes air mail and air parcel post.

Non-Priority Mail—Airlift of first class mail on a space-available basis.

Air Express—An airline/REA Express partnership for the priority movement of packages generally under 50 pounds.

Air Freight—The airlift of commodities of all kinds.

Yield. The average amount of revenue received per revenue passenger mile or per revenue ton mile of freight, express, or mail. Computed by dividing total passenger revenue by the total number of revenue passenger miles flown. Yield for freight, express or mail is computed in the same manner.

Public Service Revenues (Subsidy). Payments by the Federal government which provide for air service to communities in the United States where traffic levels are such that air service could not otherwise be supported.

Revenue Passenger Enplanements. The total number of revenue passengers boarding aircraft in scheduled service, including originating, stop-over or on-line connecting passengers.

Revenue Plane Miles. Number of miles flown for which remuneration is received by an air carrier.

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CATEGORIES OF UNITED STATES SCHEDULED AIR CARRIERS

The following is a list of the generally recognized categories of air carriers which are included in this report. This list also indicates the carriers included in each carrier group in the statistical tables.

DOMESTIC TRUNK CARRIERS

These airlines are authorized to operate over specified routes within the United States. This group includes the domestic operations of the following airlines:

American	Northeast
Braniff International	Northwest
Continental	Pan American
Delta	(1969-1971)
Eastern	Trans World
National	United
	Western

LOCAL SERVICE CARRIERS

These airlines are authorized to operate over specified routes which are generally located within certain regions of the United States. A number of these carriers also operate to points in Canada and Mexico. This group includes the system operations of the following airlines:

Allegheny	Ozark
Frontier	Piedmont
Hughes Airwest	Southern
North Central	Texas International

INTRA-HAWAIIAN CARRIERS

These airlines operate solely within the State of Hawaii.

Aloha	Hawaiian
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INTRA-ALASKAN CARRIERS

These airlines operate solely within the State of Alaska.

Kodiak	Western Alaska
Reeve Aleutian	Wien Consolidated

ALL-CARGO CARRIERS

These airlines are authorized to operate flights carrying freight, express and mail over specified domestic and international routes.

Airlift International	Flying Tiger
	Seaboard World

HELICOPTER CARRIERS

These carriers are authorized to transport persons, property and U.S. mail over specified routes within certain localities.

Chicago Helicopter Airways	Los Angeles Airways*
	New York Airways
	San Francisco and Oakland Helicopter Airlines

INTERNATIONAL AND TERRITORIAL CARRIERS

These airlines are authorized to operate over specified routes between the United States and foreign countries and between the United States and its territories. This group includes the international and territorial operations of the following airlines:

Alaska (thru 1968)	National
American	Northeast
Braniff International	Northwest
Caribbean-Atlantic	Pan American
Delta	Trans World
Eastern	United (thru 1969)
	Western

*Ceased operations August 7, 1970.

