

1970

air transport

facts & figures

Traffic and Financial Summary
of the U. S. Scheduled Airline Industry

1969 AT A GLANCE

	1969	1968	Per Cent Change
TRAFFIC			
Revenue Passengers (000).....	159,188	150,151	6.0
Revenue Passenger Miles (000).....	125,414,212	113,958,321	10.1
Available Seat Miles (000).....	250,845,906	216,445,750	15.9
Passenger Load Factor.....	50.0%	52.6%	-4.9
Freight Ton Miles (000).....	3,246,326	2,804,878	15.7
U.S. Mail Ton Miles (000).....	1,334,535	1,257,051	6.2
Express Ton Miles (000).....	109,465	105,153	4.1
Cargo Ton Miles (000).....	4,690,326	4,167,082	12.6
Total Revenue Ton Miles (000).....	19,989,378	18,114,334	10.4
Total Available Ton Miles (000).....	42,779,192	37,223,333	14.9
Ton Mile Load Factor.....	46.7%	48.7%	-4.1
FINANCES			
Passenger Revenues (\$000).....	7,118,353	6,221,054	14.4
Cargo Revenues (\$000).....	974,551	861,452	13.1
Total Operating Revenues (\$000).....	8,792,027	7,762,683	13.3
Total Operating Expenses (\$000).....	8,396,219	7,237,612	16.0
Net Operating Income (\$000).....	395,808	525,071	-24.6
Net Profit (\$000).....	55,308	216,130	-74.4
Profit Margin on Sales.....	0.6%	2.8%	-78.6
Rate of Return on Investment.....	3.3%	5.0%	-34.0
Passenger Yield.....	5.68¢	5.46¢	4.0
Freight Yield.....	19.96¢	19.51¢	2.3

**The Standard Reference of U. S. Scheduled Air Transportation
Official Publication of the Air Transport Association of America**

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STUART G. TIPTON
President
Air Transport Association
of America

The Airline Commitment—A New Jet Age

Ten years ago the airlines had just embarked on what has become known as the Civil Jet Age. Much was made of the fact that the airlines had inaugurated the age with a multi-billion dollar improvement program.

In 1958, Paul W. Cherington, recently an assistant secretary for transportation but then a professor of business administration at Harvard, wrote a report on "The Status and Economic Significance of the Airline Equipment Investment Program." The report said that the \$4 billion investment in aircraft and equipment was of such a size as to "hold some significance to the national economy over the next few years. This substantial investment of private capital is a dynamic element of our national economy which should not be permitted to falter." The dynamic nature of the airlines' investment was underscored by the report's statement that the 5,000 suppliers in the program would develop 120,000 jobs annually to fulfill the airline commitment.

The report was prepared for the Federal Aviation Administration and was transmitted to President Eisenhower by his principal aviation adviser, FAA head Elwood R. Quesada.

The report, if anything, understated the impact of the Civil Jet Age on the economy. The airlines alone added 150,000 jobs, trebled their traffic and increased their dollar turnover from \$4.5 billion to \$15 billion annually.

We are now in the beginning of the second jet age, one which is being characterized by the introduction of new wide-bodied jet aircraft, capable of carrying up to 450 passengers. But even though it is the second jet age, it is the sixth overall re-equipment cycle of the airlines since World War II.

And the commitment is larger than ever. All told, the airlines will invest \$10 billion in capital expenditures for the period 1970 through 1973. Of this amount, \$6.6 billion is for new aircraft alone—almost exclusively wide-bodied jet aircraft.

This is the airline commitment in the future. It comes at a time when, as this year's Facts and Figures points out, airline profits are alarmingly low and first quarter signs in 1970 indicate further deterioration. Unless earnings improve, the airlines' re-equipment program is in jeopardy and with it a large and significant portion of the nation's economy.

Because the airlines are a tightly regulated industry and because of their enormous public service and

national defense responsibilities, they are in close partnership with the Federal government. The airlines' re-equipment programs, past and present, have been carried out from resources from the private sector.

The partnership role for the Federal government has been articulated over the years. Back in May 1954, a report by the President's Air Coordinating Committee on Civil Air Policy said:

"The goal of Federal policies should at this time be directed to the development of economically healthy carriers, capable of financing with private resources their own continuing growth."

And then in 1960 when the Civil Jet Age was one year old, a new President called for a study on civil air transportation. It was called "Project Horizon" and its most important goal was:

"To attain and maintain an economic, healthy, competitive, privately owned air carrier system capable of meeting the growing national needs of peacetime domestic and international air commerce. . . ."

What is needed then in the decade of the 1970's is the commitment on the part of the Federal government to match that of the airlines. During the decade of the first Civil Jet Age, the Federal government has all too often taken steps which have handicapped rather than helped. The list of actions which have been detrimental, and the inactions which would have helped, is a long one, but it includes: the repeal of the investment tax credit, the steady reduction of mail rates while the airlines were offering more and better service, the growing competition from foreign airlines, an airport development program which falls short of commercial aviation requirements and the steady reduction of subsidy for local service airlines at a time when they are being asked to provide more and better service to small communities. The failure of the Civil Aeronautics Board to recognize the need of the airlines for fare increases in the early years of the jet age hurt then and the CAB is making the same mistake again.

Beginning with the Civil Air Policy in 1954 and through every Administration's study of air transportation since then has run the single dominant goal: airlines must develop and maintain economic health. It is essential now, as the second jet age begins, that the Federal government recognize its commitment to that objective and make a real effort to carry it out.

The Impact of Air Transportation

On Passenger Travel

At a time when words like revolution and radical change are used all too frequently in an ominous sense, it is worth noting that scheduled air transportation, throughout its 56 years, has been undergoing continuing radical change and revolution of the most positive sort.

It is a revolution born of the repeated application of new technology. It continues to bring about productivity changes as radically different as the 28,000 seat miles per day produced by the DC-3 and the 4.5 million seat miles that will be produced daily by the U.S. supersonic transport.

This process could be called the longest and most significant revolution in modern industrial history. But the changes have been most significant in the past two decades, for it has been in these years that the airplane has become the dominant form of scheduled passenger travel between cities in the U.S. and between this country and overseas.

The magnitude of change over 20 years can be seen at a glance:

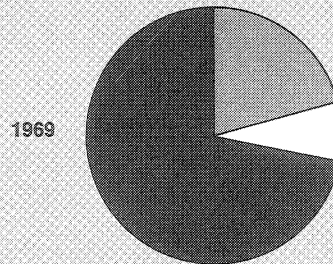
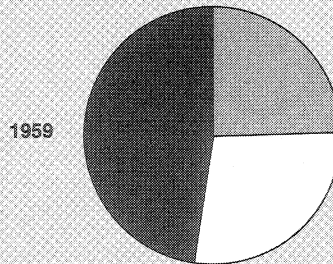
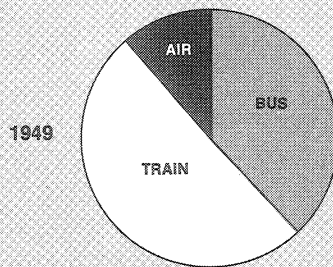
—The U.S. scheduled airlines carried somewhat less than 17 million passengers in 1949. Last year they carried more than 159 million.

—Twenty years ago the airlines accounted for 14 per cent of the common carrier passenger miles between cities in the United States. Last year they accounted for 75 per cent.

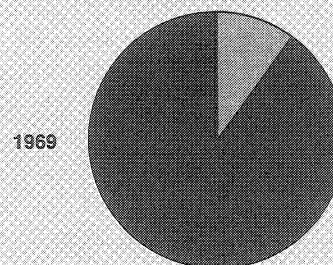
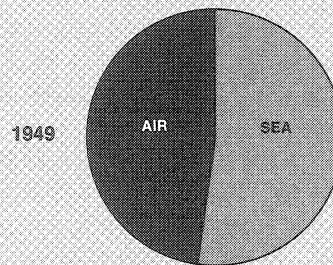
—Twenty years ago there were only 2.2 million air passengers between the U.S. and other countries. Last year there were 18.3 million.

The extent of the change is interesting, but assessing the new impact of air transportation may be more meaningful. Consequently, this year's Facts & Figures steps back for a twenty-year look at the

Distribution of Domestic Intercity Common Carrier Passenger Miles



Distribution of Passenger Travel Between U.S. and Foreign Countries



impact of air transportation. This section looks at the impact on the traveler. Subsequent sections cover impact upon shippers, upon the economy and upon the airlines themselves, in areas as diverse as employment, technology and finance.

The application of technology by the airlines over the past twenty years has been most pronounced in the continual upgrading of airline fleets through the acquisition of more productive aircraft. More productive aircraft, in turn, have made more service available at lower costs to the customer. Even with the two fare increases last year totaling about 10 per cent, average airline fares are still about five per cent lower than 10 years ago.

Personal Travel

The impact of improved air service was first felt by the business traveler. Productive people in business, the professions, government and the arts used air to make themselves, in fact, more productive. And business travel throughout most of the past 20 years has been far and away the major generator of airline revenue. A few years ago business travel accounted for about 85 per cent of domestic airline passenger traffic. But a turn-around is occurring in the travel mix. Stimulated by a variety of promotional fares, personal air travel has grown to the point where it now accounts for about half of airline passenger traffic.

A major part of the impact of air transportation over the past 20 years has occurred in the international air travel market. Improved international air service, in terms of speed, comfort and points served, occurred at an appropriate time for both the business and personal travel market.

In business and the professions, the past two decades have seen the pace of activity quickening in nearly every field. Greater cross-fertilization of ideas and more person-to-person meetings became essential. Interna-

tional air service proved both the beneficiary of these trends and the instrument that made them possible.

In the international pleasure travel market, the jet put nearly any spot in the world within the range of a two week vacation. This improved service coincided with growth in leisure time and in disposable income. Throughout most of the past two decades, however, the emphasis has been on selling the U.S. citizen on travel abroad. But recent years have seen the start of another new trend—the serious efforts by the U.S. Government and the travel industry to attract more foreign visitors to the United States.

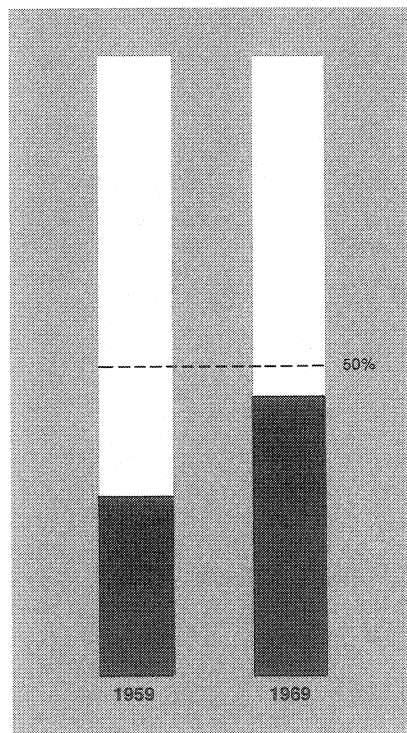
Promotional Fares

Airlines are helping attract more foreign visitors to the United States through a series of promotional fares. For travelers not living in the Western Hemisphere, "Discount 50" fares offer substantial reductions for travel to and from the U.S. and for travel within the U.S. Adults pay 50 per cent of the regular fare and their children are charged only 50 percent of the discounted adult fare.

The "Visit U.S.A. Fare" is another program designed to stimulate travel to this country. It applies to people residing more than 100 miles beyond the border of any state in the U.S. One ticket allows a traveler to take as many flights as he wishes within a certain time period, anywhere from 21 to 90 days.

Growing international air travel has had its own impacts—in a type of chain-reaction. Not the least of these other impacts has been a streamlining of border crossing formalities so that international travel is more convenient. The streamlining includes greatly simplified baggage handling procedures, preclearance at certain foreign points prior to departure, and one-stop inspection, under which the returning traveler is processed by only one officer who performs the inspectional duties of the bureaus of Customs and Immigration and the

Per Cent of U.S. Adult Population That Has Taken a Trip by Air



Departments of Agriculture and Public Health.

For the airlines, the growth of both the international and domestic pleasure travel market has added a new element of seasonality to passenger traffic patterns. More people fly to London in June than in February and more people fly to Miami in January than in November. Since service must be provided throughout the year, wider variations now occur in monthly load factors. And since capacity must be kept ahead of growing demand, load factors vary from year to year. Yet it is the new capacity, in the form of more productive aircraft, that helps counter the rising cost pressures evident elsewhere in airline operation.

If the most radical change in the impact of air transportation over the past 20 years has been more service for more people through more productive aircraft, more of the same sort of change is in store. The Boeing 747, carrying more than

350 passengers, is already in service. Other wide-bodied jets, the Lockheed 1011 and the Douglas DC-10, are scheduled to enter the system next year. Then will come the first of the supersonics, the 1,400 mph British/French Concorde. A U.S.-built supersonic transport, carrying about 300 passengers and flying at 1,850 mph, is expected to be introduced later in the decade and thus the Revolution continues.

On Air Cargo

More has been written in recent years about annual growth rates in air cargo than about what air cargo has meant in the long run to shippers, the airlines and the consuming public. Here are two lists of things as finite as auto fenders and sheets of industrial plastics that demonstrate air cargo's impact far better than abstract ton mile statistics.

The first list is a dusty old list of the 10 top commodities a major but very representative airline moved in air freight 20 years ago, when all the U.S. scheduled airlines produced only about 180 million ton miles of freight service. In that year, the top 10 commodities accounted for from 80 to 90 per cent of freight traffic. The second list presents the top 10 commodities the same airline moved in 1969, when the U.S. scheduled airlines produced a total of 3.2 billion ton miles of freight service and the 10 top commodities accounted for about 50 per cent of air freight traffic.

Ten Top Commodities Moving In Domestic Air Freight (Based on Revenue Ton Miles)

1949

- 1—Cut flowers
- 2—Baby chicks
- 3—Amusement & coin operated vending machines
- 4—Machine parts
- 5—Auto parts
- 6—Heating equipment & parts
- 7—Blood plasma
- 8—Fresh vegetables
- 9—Mushrooms
- 10—Fish oil

Economic Strength— Central Requirement for the Seventies

Although overall airline traffic was up 10.4 per cent, the year 1969 produced the greatest decline in earnings in the industry's history. The industry's net income in 1969 amounted to \$55.3 million, or \$160.8 million less than the \$216.1 million earned in 1968.

The financial performance of the industry in 1969 represented a continuation of a downward slide in earnings which began in 1967—the year after the airlines posted their highest earnings in history. Since 1966, the industry's earnings have plunged 87.1 per cent, from \$427.6 million to \$55.3 million.

A compilation by the First National City Bank of New York of 1968 and 1969 net income for 59 industrial groups places the magnitude of the airlines' decline in earnings in a national perspective. Of these 59 industrial groups, only one experienced a greater per cent decrease in earnings than the airline industry.

Preliminary results for the first quarter of 1970 indicate that this earnings slide is continuing at a rapid pace. Figures for 11 of the 12 major airlines show an increase in net loss for the first three months of 1970 from the same period of 1969, from \$19.9 million to \$50.4 million.

Rapidly increasing costs in every phase of airline operations—labor, interest expense, landing fees and rentals at airports, fuels and supplies—have been the principal cause for the decline in the industry's earnings position.

The airlines have been particularly vulnerable to accelerated wage demands. In recent years, the cost of labor has become the industry's principal ungovernable expense and

has been a major contributing factor in the industry's escalating cost spiral. Wage settlements since the third quarter of 1969 have been running in excess of 11 per cent annually—and these settlements are for three year contracts. In an industry which spends almost one-half of its revenue dollar on wages and salaries, this trend is cause for great concern.

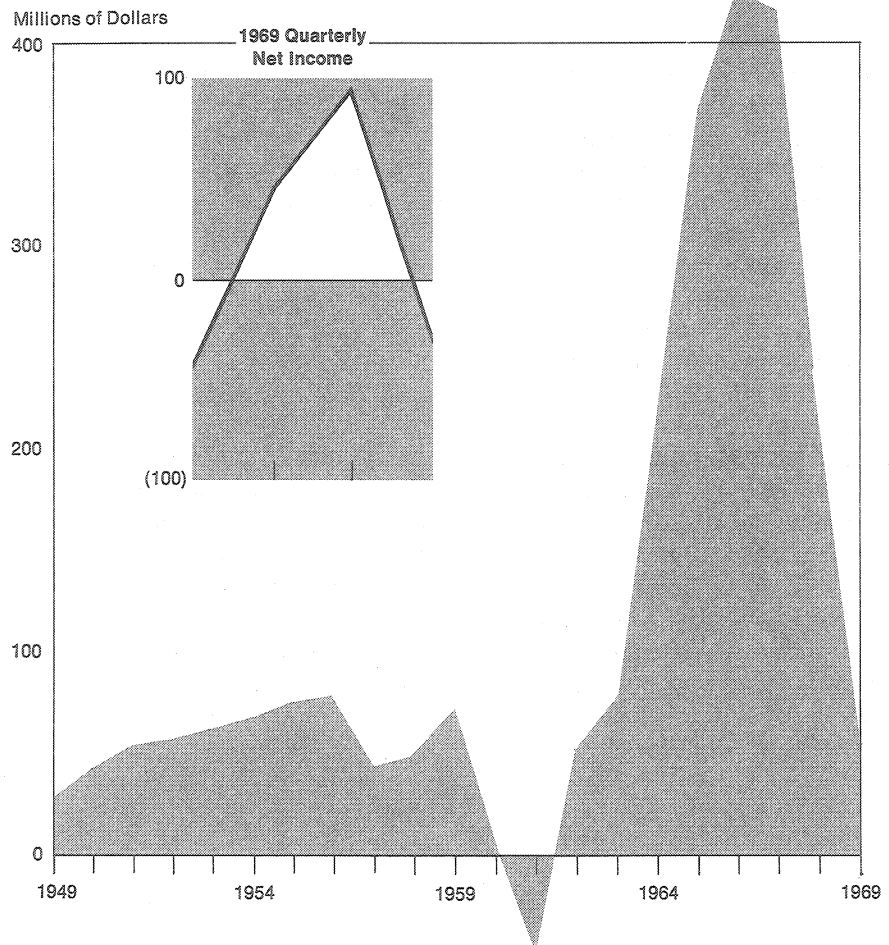
The cost-price spiral has brought the industry's rate of return on investment down to 3.3 per cent in 1969, far below the 10.5 per cent rate of return deemed to be fair and reasonable by the CAB. Over the past two decades the industry has achieved a 10.5 per cent return on investment in only four years. And in only two of these has the rate of return been as low as in 1969.

Passenger Fare Investigation

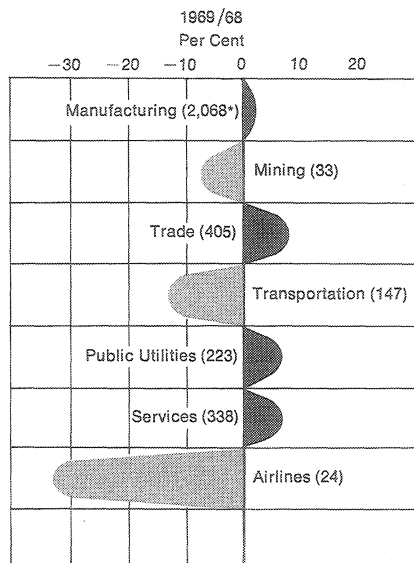
In the early part of 1969, the Civil Aeronautics Board, recognizing the industry's seriously deteriorating financial condition, granted the domestic airlines an across-the-board passenger fare increase which it estimated would increase revenues by about 4 per cent. But in less than half a year, inflation had negated the benefits of this increase.

In the latter part of 1969, the Board acted to alleviate the situation by restructuring domestic air fares—an action which it estimated would increase revenues of the domestic trunk carriers by about 6 per cent. The new fare structure is based upon a formula which more closely considers the relationship of fares to the actual cost of flying passengers. This new

Net Income
U.S. Scheduled Airline Industry



Per Cent Change in Net Income—Major Industrial Groups and Airlines



* Number of companies in group
 SOURCE: First National City Bank.
 Monthly Economic Letter, April 1970.

structure raises short-haul fares relative to long-haul fares in order to more accurately reflect rapidly rising airport and terminal costs. In addition, the Board approved a plan for the division of joint fares among the trunk airlines and the local service airlines. A joint fare is the single fare which a passenger pays for through service over the routes of two or more airlines.

Despite the two fare increases authorized in 1969, the industry faces an uncertain earnings future. The CAB reflected this concern as it approved the second 1969 fare increase:

“In light of the low level of earnings realized in the most recent periods and the inflationary cost increases being experienced by the carriers, there appears to be no prospect that the fare

increases approved herein will enable the industry to reach the 10.5 per cent return guideline in the immediate future.”

In January 1970, the Board indicated that it would undertake an investigation of the whole level and structure of domestic passenger fares. The purpose of this investigation, the CAB said, will be to “set rate making standards with respect to the various elements underlying both fare level and fare structure.” The Board noted that two important matters—load factor standards and fare structure—would be given serious consideration. In addition, the industry’s discount fares and return on investment will be thoroughly reviewed.

In respect to load factors, the CAB said that it would explore “load factors and their relation to passenger fares to determine whether load factors can and should be established in the vigorous competitive environment that exists in domestic air transportation . . .”

As to the fare structure, the Board said that a fare structure that provides “a closer relationship between the fares and the costs of service relating to various markets would also produce more equitable results among the carriers to achieve a fair return on investment.”

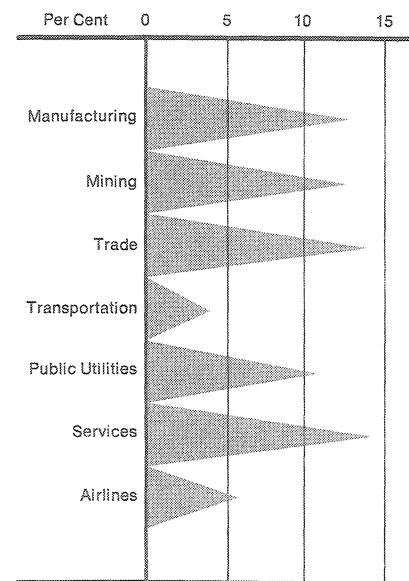
The industry’s passenger yield, boosted by the two fare increases, was 5.68 cents per revenue passenger mile in 1969 as compared to 5.46 cents in 1968. But despite these increases, this important measure of the industry’s performance still remained well below the level of 10 years ago when the yield was 5.96 cents per revenue passenger mile and even further below the industry high of 6.31 cents in 1962.

Revenues and Costs

Industry operating revenues for 1969 totaled \$8.8 billion, a 13.3 per cent increase over 1968. However, industry operating expenses grew by 16.0 per cent over the same period, to \$8.4 billion. This reduced industry operating profit some 24.6 per cent, from \$524.9 million to \$395.8 million.

Expressed in unit measures, operating revenue per revenue ton mile came to 43.98 cents in 1969, while operating expense per RTM was 42.00 cents. Operating profit per revenue ton mile declined by 31.7 per cent from 2.90 cents in 1968 to 1.98 cents in 1969. This decline in unit operating profit is part of a trend that began in 1965. In that year, unit operating profit reached its highest point in airline history—6.79 cents per mile.

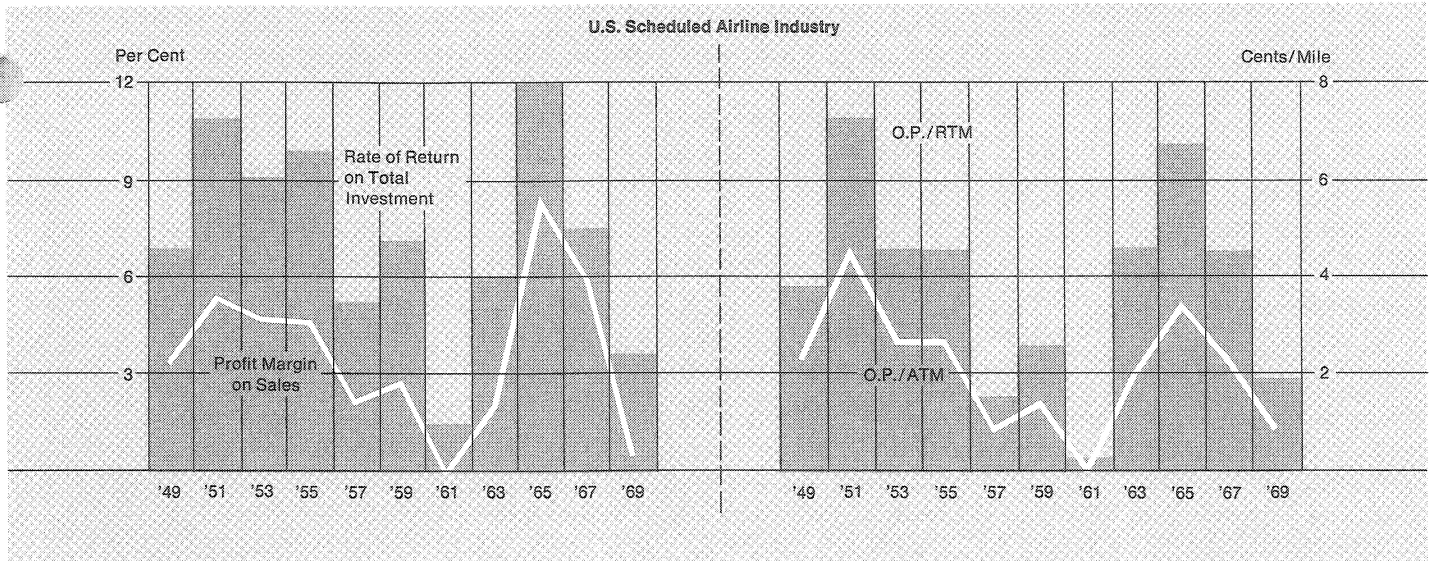
Profit Margin on Sales—Major Industrial Groups and Airlines, 1969



SOURCE: First National City Bank.
 Monthly Economic Letter, April 1970.

Measures of Profitability

Unit Operating Profit



1969 marked the third consecutive year in which the industry's expenses grew more rapidly than its revenues. The trend began in 1967 when most of the aircraft in the airlines' fleets had been converted to jet aircraft and the economies inherent in changing from piston to jet aircraft began to "bottom out." Contributing to the rapidly rising operating expenses have been sharp increases each year in labor costs, supplies and materials, fuels, landing fees, and other major expense items.

As last year's Facts & Figures pointed out, the growth of capacity and traffic in the airline business tends to run in cycles of leads and lags. That is, traffic growth will run ahead of capacity for a few years and then capacity will outpace traffic for a while. This is due to a number of factors: the long lead time required to order new flight equipment, the difficulty of accurately predicting airline traffic levels in the short term

and the difficulty in exactly matching capacity with traffic because of competition and the fact that capacity must be added or subtracted in plane-load units and is therefore not subject to fine tuning.

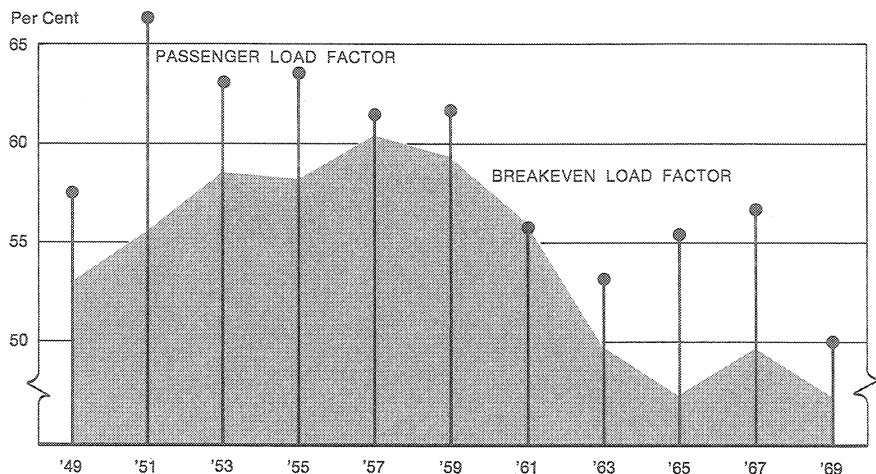
The breakeven load factor declined last year for two major reasons: increasing efficiency of airline operations and the two fare increases that raised the revenue collected from each passenger.

Load Factors

Another factor contributing to the decline in airline earnings was the fact that for the third year in a row, the margin between the actual and breakeven passenger load factor narrowed and fell to the lowest level since 1963.

The actual passenger load factor declined during 1969, also for the third straight year, indicating the rate of growth in the industry's expansion of capacity continues to outpace the rate of growth of traffic.

Actual and Breakeven Passenger Load Factor
U.S. Scheduled Airline Industry



However, it is not the movement of either the actual or breakeven load factor alone that affects the level of earnings, but the narrowing of the margin between them, and it is this that has been on the decline in recent years. In 1969, this gap was 3.6 percentage points, compared to 8.6 percentage points just three years earlier in 1966.

Capital Requirements

The industry is concerned because its deteriorating financial situation is occurring at a time of unprecedented capital requirements. In 1969, the airlines' total capital outlays for aircraft and ground support equipment, including airport terminal facilities, came to \$2.5 billion. For the previous five years, 1965-69, the airline industry had capital expenditures totaling \$8.2 billion, or an annual average of \$1.6 billion. For the previous five-year period, 1960-64, industry capital expenditures totaled \$3.2 billion, or an average of \$632.4 million annually. And looking ahead, capital expenditures are expected to continue at an even faster pace. A survey of the

12 major U.S. domestic and international airlines conducted last year indicates that they will spend another \$10 billion in the 1970-73 period.

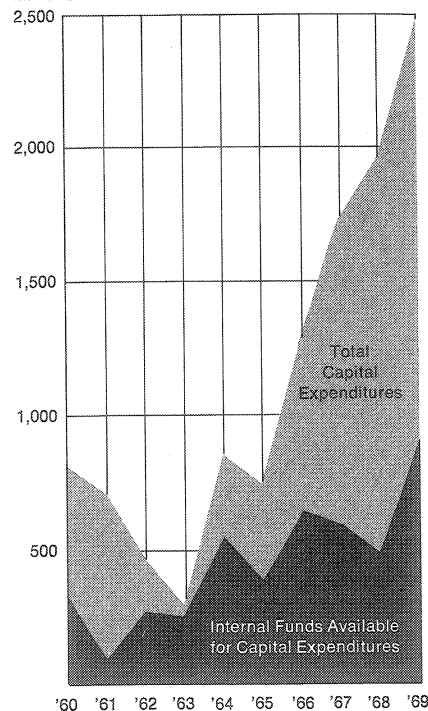
New Flight Equipment

The airlines now have on order \$6.6 billion worth of new flight equipment. They are also investing some \$2.5 billion in airport terminal facilities. Capital outlays of this magnitude can be financed only partly from internal funds. Much more than one-half of the industry's capital requirements have to be obtained externally—from debt and equity financing. And these external funds have to be obtained in an environment that is not conducive to raising funds of the magnitude required.

Cyclical Earnings

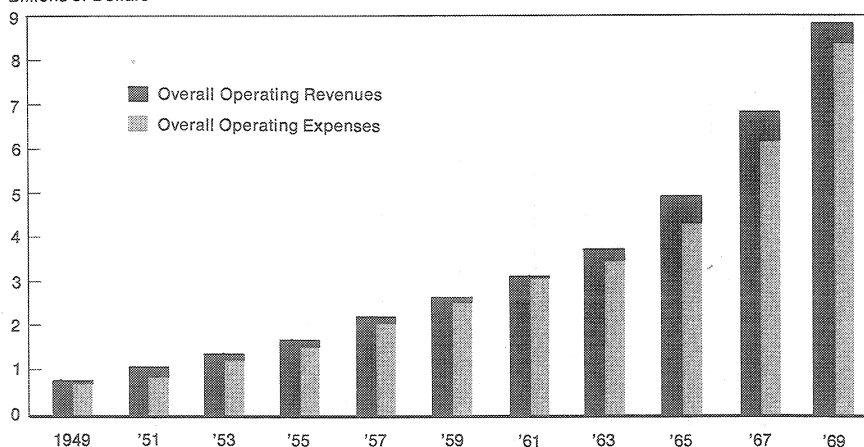
The cyclical swings characterizing industry earnings have made it exceedingly difficult for the industry to attract badly needed equity capital. The steady decline of airline earnings since 1967 has eroded investor confidence in airline equity issues and has forced the airlines to rely to an increasing extent upon debt financing. And, at a time when interest

Total Capital Expenditures
U.S. Scheduled Airline Industry
Millions of Dollars



Overall Operating Revenues and Expenses

U.S. Scheduled Airline Industry
Billions of Dollars



rates are high, debt financing has meant large increases in interest expense. Interest expense has increased over the past five years by 232.2 per cent as long term debt has grown three fold over the same period. In 1969, the industry's interest expense alone was an amount three times greater than the industry's entire earnings.

An adequate return on the industry's investment is essential for a strong air transport system. In the past, the airlines have invested heavily in aircraft and ground equipment, despite widely fluctuating profit levels. This has resulted in the offering of a public service that is unique in industry. The airlines, however, can not continue to provide more, and better service, through more, and better aircraft, while earnings continue the downward slide of the last three years.

12,000 Jobs Created

Expansion of airline traffic over the years has meant an expanding airline work force. In 1950, when the airlines were in the piston era, airline employment totaled 83,000. At the beginning of the jet age in 1958, 147,000 persons were employed by the airlines.

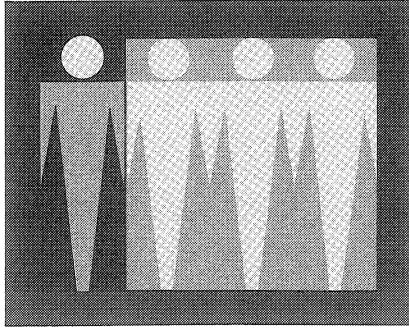
During the past decade, when the U.S. civilian work force as a whole increased by about 20 per cent, the airlines created more than 150,000 new jobs, for an employment growth rate five times that of the U.S. civilian labor force. In 1969, some 12,000 new airline jobs were created, pushing the total airline employment figure at the end of the year to 312,000.

The total industry payroll for 1969 came to \$3.3 billion, more than three times the level in 1960 and about 10 times the level in 1950. The average annual salary for airline employees has risen to \$10,652, an increase of about 60 per cent over a decade and 155 per cent over 1950.

In addition to these direct labor costs, the airlines spend a great deal to train their personnel. In 1969, the airlines spent an estimated \$200 million in personnel training. This comes out to about \$700 per employee, or the equivalent of sending every airline employee to college for a semester. In teaching techniques, the airlines rely heavily on the visual display of information, on practice until a skill becomes second nature and on simulating problems realistically. For example, the flight simulator is becoming to an increasing degree a valuable tool in training pilots in the characteristics of new aircraft.

At the present growth rate, it is anticipated that 200,000 new jobs will be created by the airlines during the next decade, making for a total airline work force of about a half million people. Of this number, the airlines estimate that they will hire about 2,500 new pilots and 8,000 new mechanics annually through 1975.

**For Every Airline Job
There are Another 3 Air
Transportation Related Jobs**



Multiplier Effect

Jobs created directly by the airlines are only the beginning. Related fields are just as dynamic in the potential careers they generate. Airline growth means airport growth. Airports have become small cities within themselves. The services related to air travel—hotels, motels, restaurants, book stores, clothing stores and a variety of other services—have created thousands of new jobs. It is estimated that for every airline job, there are three other jobs in air transportation-related fields.

Another very important related field is the extensive aircraft manufacturing, electronics and jet engine industries in which tens

of thousands of new jobs have opened up as a result of airline purchases. Many prime contractors, as well as countless subcontractors, all depend in large part on the airline industry.

The most dramatic example of the contribution made by aviation technology to the overall national economy is illustrated by the U.S. supersonic transport aircraft expected to be serving the public in the late Seventies.

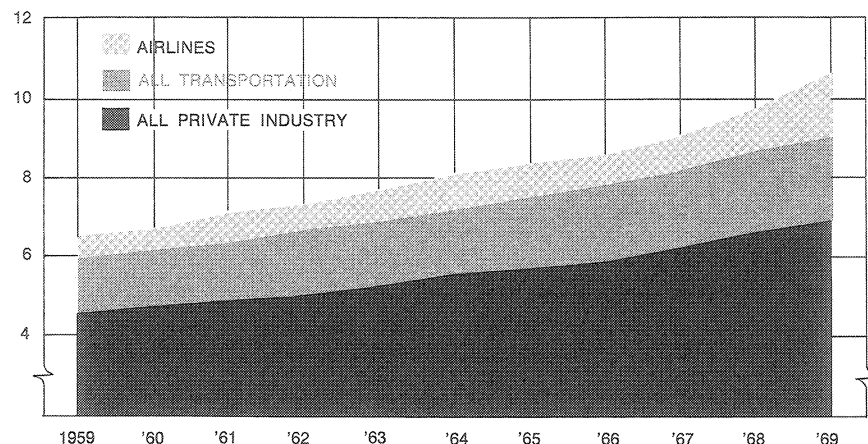
Depending upon the number of SST's built, \$20 to \$50 billion of national economic growth will result over the next five to ten years. To build these new aircraft, 250,000 new jobs will be created.

The 250,000 new jobs break down as follows: 50,000 for prime contractors, 100,000 for subcontractors and another 100,000 jobs in non-manufacturing industries such as wholesale and retail trade, professional and business services, finance, insurance and real estate, transportation, communications and other public utilities and even agriculture.

These 250,000 new jobs, with an estimated payroll of \$2.5 billion, are estimated to represent one out of every 50 new civilian jobs created by 1975 and will have to be drawn from almost every segment of industry in nearly every one of the 50 states.

Annual Average Wages

Thousands of Dollars



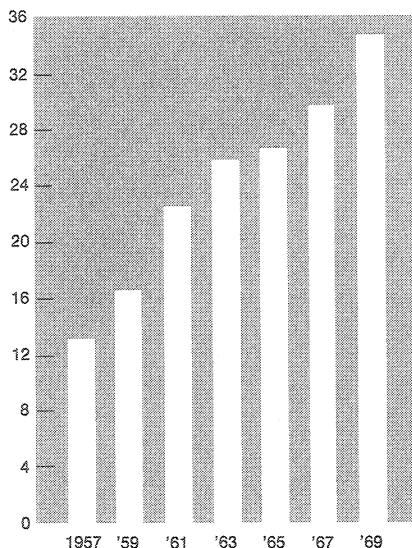
The Rising Pressure of Airline Employment Costs

The heavy capital outlays of the airline industry for flight equipment and ground facilities have sustained the rapid rise in public demand for air transportation and have made it possible to supply the public with the highest quality of service which advanced jet technology can offer. An equally important result of this investment policy has been the indispensable one of helping to withstand the surging pressures of inflation upon airline operating costs.

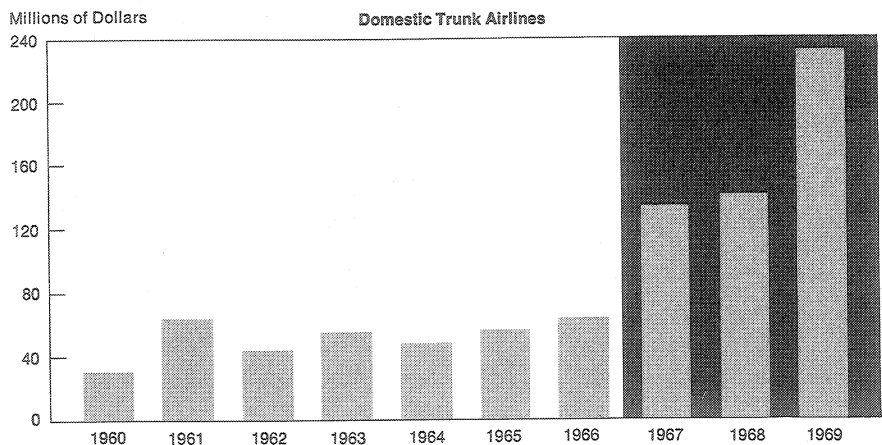
The largest single element of such costs is manpower. Employment costs—defined here as wages and salaries, personnel expenses, welfare programs, and payroll taxes—account for about 45 per cent of total operating expenses and an even larger proportion of cash operating expenses.

In the last three years, the cost pressures arising from increased rates of compensation including related expenses in all categories of airline personnel have reached a new level of intensity, offsetting to a large extent the operating economies achieved by an unprecedented magnitude of investment.

**Expansion of Investment Per Employee
Scheduled Airline Industry**
Thousands of Dollars



**Year-to-Year Increase in Employment Costs
Due to Higher Compensation Rates**



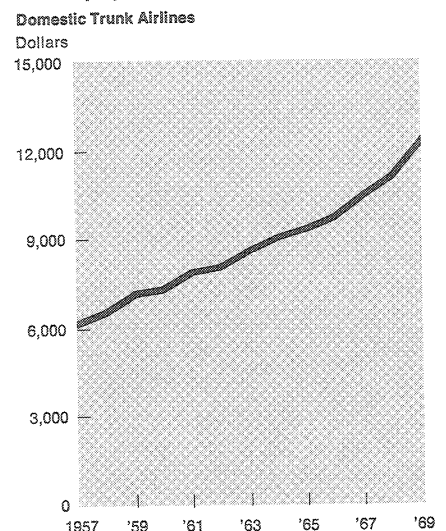
As used in the analysis which follows, changes in rates of compensation represent changes in all employment costs as defined above, per employee. In the three-year period 1967-1969, capital outlays of the trunk airlines totaled approximately \$7.5 billion. This was more than five times the volume of capital expenditures in the 1957-1959 period. In 1969, the number of personnel employed in the scheduled airline industry averaged 306.7 thousand, somewhat more than double the number employed in 1957. In the meantime, the cost of equipment and facilities operated by such personnel has been expanded nearly sixfold from \$1.8 billion in 1957 to \$10.6 billion in 1969. Consequently, the volume of investment per employee over this period has approximately trebled.

Investment, while of crucial and outstanding importance, is not, however, the only factor which produces improved efficiency and reduced costs. Employee performance is basic and management skill in the mobilization, organization, and utilization of capital and human resources is indispensable. The interaction of all sources of increased productivity—capital investment, personnel performance, and management effec-

tiveness—is needed to produce constructive results. Although the relative contribution of each of these sources to the continued improvement in airline operating efficiency which has occurred during the past decade is difficult to quantify, a disproportionate share of the benefits of such improved efficiency appears to have been preempted by labor in recent years.

An indication of significant developments along this line may be

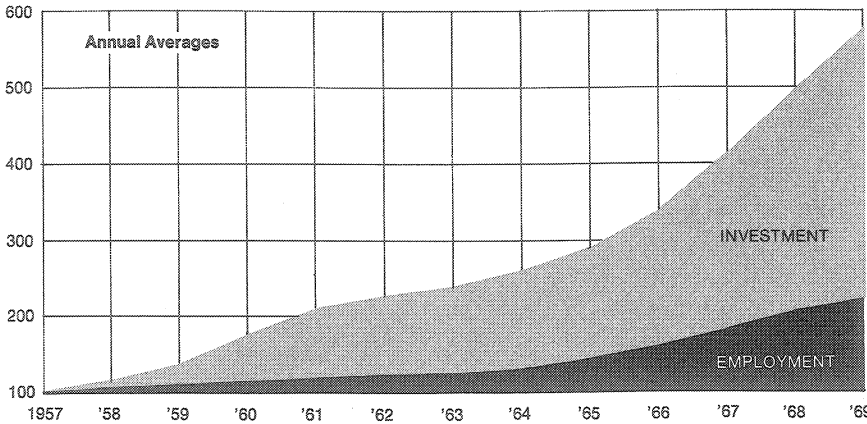
**Average Employment Cost
Per Employee**



Trend of Airline Investment and Employment

Scheduled Airline Industry

Index 1957 = 100



gleaned by using the domestic trunk line segment of the industry for purposes of illustration.

Changes in average employment costs per employee provide a helpful, even if necessarily imprecise, guide to the general trend of increased compensation rates of personnel of various types employed in airline operation. Between 1959 and 1966 average employment cost per domestic trunk line employee increased at an average rate of 5 per cent annually. In 1967 and 1968, the jump in average compensation rate was about seven per cent annually, in 1969 the increase was nine per cent.

Additions to operating expenses as a result of the increased levels of employee compensation reached record proportions in the last three years. In 1969 alone, the increase in the average rate of compensation produced an increase of about \$233 million in the total employment costs of the domestic trunks, the sharpest such increase in the entire jet era, exceeding even the substantial advances in 1967 and 1968.

Efficiency is the relationship of input to output. A rough measure of the trends in efficiency gains as reflected in labor input per unit of output, and the proportion of such

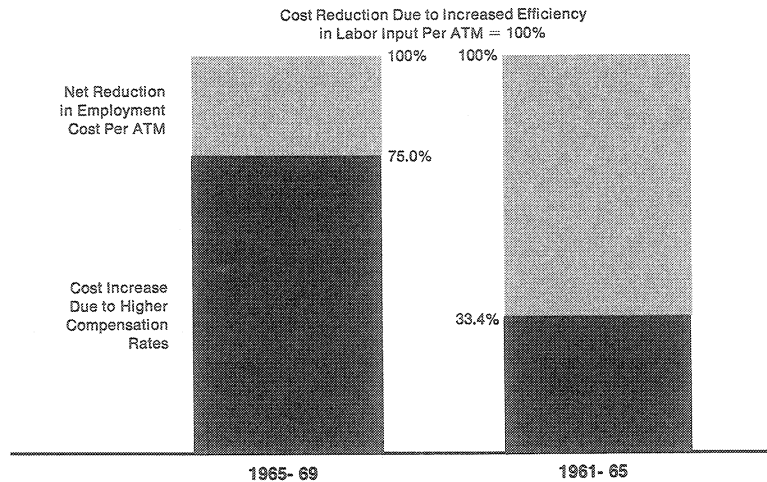
gains devoted to increased rates of compensation, can be derived by using average employment costs per employee as an index of the level of compensation rates, adjusting actual employment costs from year to year by this index to determine the physical volume of labor input, and relating such input to available ton miles operated as an indication of output. Comparisons can then be made between the shift which would have occurred in employment costs per available ton mile in any year if there had been no increase in compensation

rates from the previous year with actual employment costs per available ton mile, the difference representing the increase in such unit costs attributable to increased rates of compensation.

The share of efficiency gains which has been used to increase employee compensation has undergone a drastic increase in recent years. Between 1961 and 1965, for example, about one-third of airline efficiency improvement in terms of employment costs per available ton mile was used to increase wage and salary levels and related benefits. In contrast, between 1965 and 1969 fully three-fourths of the gain in efficiency was offset by higher rates of compensation.

In 1968, total employment costs of the domestic trunk lines were the equivalent of 8.68 cents per available ton mile operated. If the average rate of employee compensation in 1969 had been the same as in 1968, employment costs per available ton mile would have dropped to 7.96 cents in 1969. Higher compensation rates in effect in 1969, however, offset this entire cost reduction, and actual employment cost per available ton mile in 1969 was thus held to a level virtually unchanged from 1968, which was due to the gain in operating efficiency.

Effect of Higher Compensation Upon Unit Employment Costs, 1965-69 Compared With 1961-65
Domestic Trunk Airlines



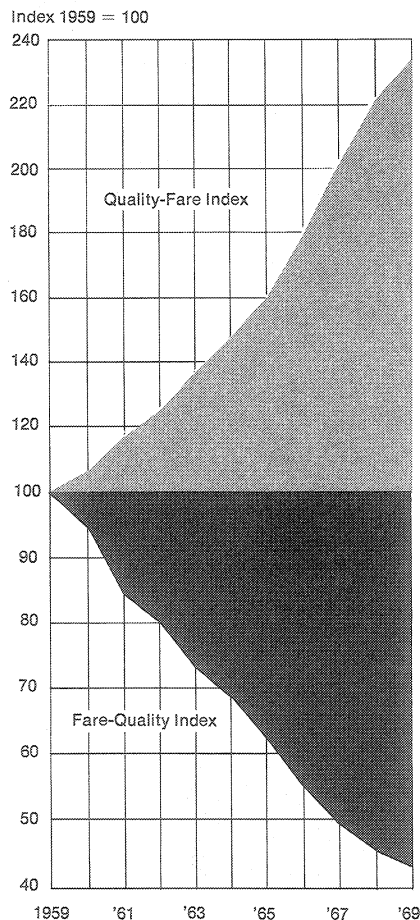
Air Travel Value, 1959-1969

Air travel value is a concept developed by Facts & Figures to express in a single measure the value of air transportation to the passenger in his role as a consumer of air service. In this brief analysis, air travel value is discussed in terms of the scheduled airline industry as a whole.

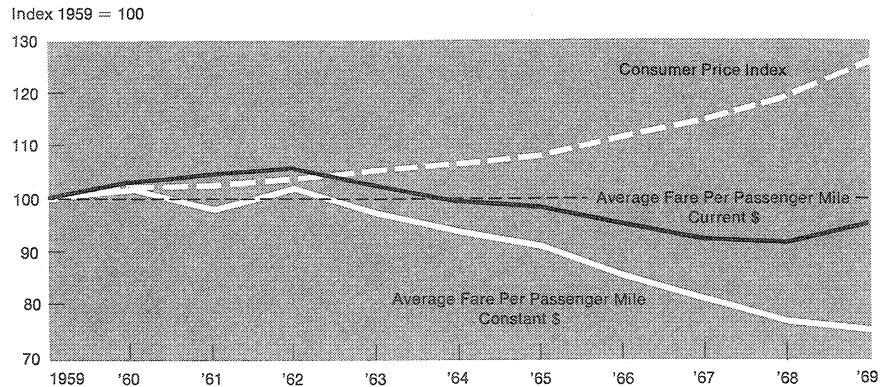
The past ten years have witnessed major changes in the three basic elements which comprise air travel value: service quality, passenger fares, and the buying power of the consumer dollar.

In this period, the airlines have converted almost totally to jet aircraft. At the end of 1959 only about 20 per cent of the total passenger services was performed by jet and another 14 per cent by turboprop,

Trend of Air Travel Value



Airline Fares Compared With Consumer Prices



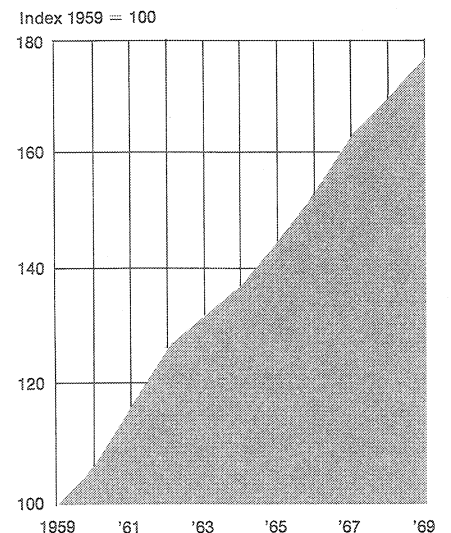
with piston aircraft still providing about two-thirds of the total; today, virtually all but a tiny fraction of airline passengers are moved by pure jet aircraft.

The sharp expansion of traffic growth throughout this period, at an average rate of more than 13 per cent per year, testifies to the considerable consumer satisfaction afforded by jet transportation. From the standpoint of the passenger, increased aircraft speed is perhaps the single most important and valued improvement in the quality of the air service product, though the significance of such factors as increased cabin comfort and rapidity of attaining cruising altitude is not to be underestimated. Because of mounting problems of airport and airway congestion, it has not been possible recently for air passengers to enjoy the full potential contribution of jet transport speed.

Even after allowing for major causes of delays occasioned by such congestion, however, the increase in speed of air transport service has been impressive. This is reflected in the trend of average speed of service as measured by the time elapsed on all flights from the moment an aircraft leaves the ground until it touches down again. In 1969, despite unprecedented congestion, the average speed of all scheduled service flights, as measured in this fashion, was more than three-quarters higher than the average speed ten years before.

Over this 10-year period, the cost of living generally has undergone a 28 per cent inflation, shrinking the purchasing power of the dollar accordingly. When this factor is taken into account so as to express average passenger fares in dollars of constant purchasing power, it may be seen that since 1959 per-mile passenger fares have effectively dropped by more than 25 per cent. Even during 1969, with fare increases averaging 3.7 per cent for the year, the steeper rise in the cost of living brought the average level of fares, in constant-dollar terms, somewhat below the level prevailing in 1968.

Average Airborne Speed of Scheduled Airline Service



The combination of the trend of speed of service with the trend of fares expressed in dollars of constant purchasing power produces the index of air travel value. The "quality-fare" form of that index shows the increased speed of air transport service actually enjoyed by travelers per dollar of constant purchasing power expended for such service. In 1969, this index advanced six per cent, and reached a level 2.3 times the consumer value of air travel 10 years ago.

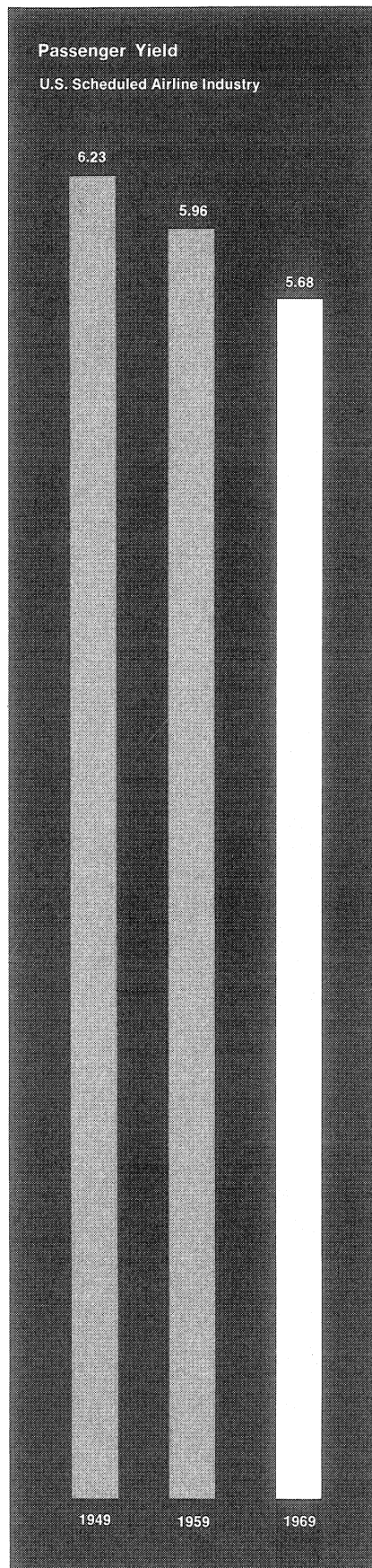
Stated somewhat differently, in the form of a "fare-quality" index, this rise in the consumer value of air transport service over the past decade represents a decline of almost 60 per cent in the money of constant purchasing power expended by consumers per mile of travel in relation to the dramatic improvement in the speed of service.

Air Fares Best Bargain in Travel Package

There are few items left on anyone's shopping list which cost the same or less than they did 10 years ago. Air transportation is one of these few remaining items.

During the 1960's, the airlines' performance in holding down—and in some cases reducing—the price of their product was in sharp contrast to the upward trend of prices in the national economy. While the cost of nearly everything else was rising, the airlines provided the public with ever-increasing opportunities to travel by air at greatly reduced rates.

The air traveler's average cost of travel—as measured by his fare per passenger mile—was 5.96 cents per mile in 1959. By 1968, it had dropped to 5.47 cents per mile, or 8.3 per cent below the 1959 figure. Two fare increases in 1969 raised it to 5.68 cents, still less than that of 1959. It is important to note that this was happening during a period when the government's Consumer Price Index, an important measure of



living costs, was rising 28 per cent between 1959 and 1969.

One way of measuring these increases in the cost of travel is to look at various items in what might be called the "travel package." Among the items in this package—an all-inclusive term including air fares, hotel accommodations, meals, tips, and the variety of services which the traveler uses—the cost of air transportation, susceptible to the same inflationary pressures as the other components, have held down this price to the traveler. In fact, in today's jet age, the percentage of a vacationer's *total* expenses represented by his air fare is substantially lower than it was 10 years ago.

Some examples of increases in costs to the traveler point up the fact that airline fares are a better and better bargain:

- Domestic hotel prices rose 22 per cent between 1962 and 1968, according to the Department of Commerce.
- Restaurant meal prices in major U.S. cities, as measured by the Consumer Price Index, have increased more than 50 per cent in the past 12 years.
- A recent survey of hotel prices in 24 major cities around the world shows that the average price of a room has gone up 44 per cent between 1963 and 1968.
- The same survey found that restaurant meals in these 24 cities increased 34 per cent.

These figures make it clear that the basic elements of travel costs—food and shelter—have been rising rapidly. Other travel costs—taxi rides, theater tickets, sightseeing tours—have all been going up. Because of all these increases in the various items in the travel package, it is the holding of the price line by the airlines that has kept travel within the economic reach of most people today.

Airports/Airways— Outlook Brightens for the Seventies

The burgeoning demand for air transportation is a well documented phenomena. The airlines have long since become the most important mode of public carriage in this country, but a severe shortage of airport and airways facilities has somewhat reduced the effectiveness of the system—penalizing the nation's economy.

1969 will be remembered as the year the public indignation at the failure of the system to keep pace with the demand for air transportation finally reached a head. It was undoubtedly hastened by the widely-publicized touch down of the first of the new family of wide-bodied jets—the 747.

In June of 1969, the Administration sent a proposed airport/airways development bill to Congress and in May or June 1970 the Airport/Airways Act will finally become law.

The major provisions of the legislation as finally passed are:

—The creation of an Airport Development Trust Fund authorizing a minimum level of \$280 million annually for airport construction over a five-year period. \$250 million will be available each year for modernization and improvement programs at air carrier and reliever airports and \$30 million annually for general aviation airports. These funds will be granted to local authorities on a matching basis.

—The provision of \$250 million annually for upgrading facilities and equipment used in the operation of the nation's airways.

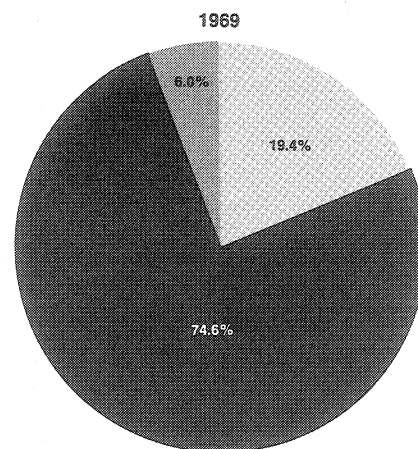
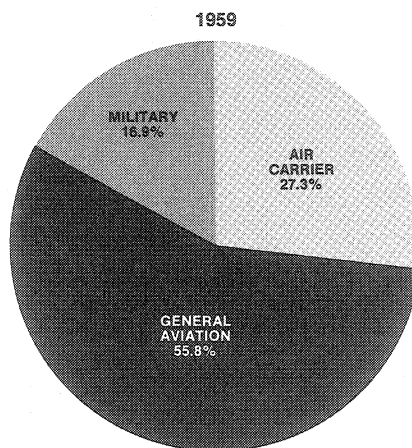
—Authority for the Department of Transportation to enter into contracts with airports to make specified annual payments for any three of the five years of the program.

—Authorization of \$15 million annually for planning grant programs relating to airport system planning and master planning.

—Establishment of a National Aviation Advisory Commission.

To provide some idea of the magnitude of improvement the new bill engenders, witness the fact that the old Federal Aid to Airports Program (FAAP) never yielded more than \$75 million to the development of public airports in any one year.

Aircraft Operations at Airports
With FAA Control Towers



User Charges

Although the amount of money generated by the Airport Trust Fund will fall short of the amounts of capital which are needed, the funds will provide a good deal more than airport operators and the FAA have had to work with in the past. The new plan, which derives its revenues solely from users of the system, means no new burden for the general taxpayer and no burden on the Federal budget.

To the airport operator and the city he represents it means the ability to float larger long-term bond issues more easily with guaranteed Federal grant money to plan long-term improvements.

To the passenger and the community will mean an extensive upgrading of airport facilities throughout the nation to provide an even faster and more efficient air transport system.

To the general aviation operator it means the alleviation of costly competition for scarce space at major airports and the availability of modern new facilities. And to all aviation it could mean the beginning of the end of costly congestion and delays in the air and on the ground—a welcome new era in air transportation.

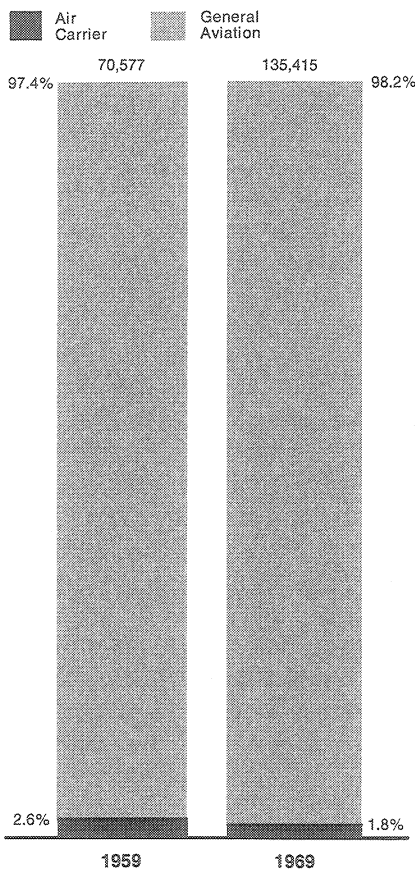
Airlines and their passengers will continue to provide the major portion of financing for the operation of the nation's air transport system. Funds for the new improvement program will be derived from the following sources:

Airline Ticket Tax (Domestic)	\$526.0 million
Passenger Tax (International)	\$ 28.4 million
Air Cargo Tax	\$ 40.2 million
Aircraft Registration/ Weight Tax	\$ 24.0 million
General Aviation Fuel Tax	\$ 47.2 million
Total	\$665.8 million

Airline Investment in Air Transportation System

Flight Equipment on Order	\$ 6.6 billion
Airport Terminal Construction	2.5 billion
Airport Landing Fees, Rentals and Bond Debt Support	3.3 billion
Total	\$12.4 billion

Active Aircraft in the Civil Aviation Fleet



Aid to Terminals

A glaring deficiency of the new Airport Trust Fund lies in its failure to include funds for the development of the terminal area—an area encompassing facilities which are the very heart of the airport's operation. No funds, for example, will be available for the improvement and modernization of passenger and baggage areas, cargo areas, parking lots and other areas of the airport where most of the congestion problems now exist. At the nation's large airports, the airlines estimate that 80 per cent of these airports' total financial needs in the next five years will be in the terminal area.

Today it is this terminal area and its related passenger and cargo handling facilities which constitute the principal impediment to the efficient flow of air transportation. The nation's air transportation is dedicated to the efficient movement of people and goods. The processing and handling of passengers and goods at both ends of the air journey are fundamental elements of the total system. If these functions break down because of inadequate terminal facilities, the entire system will be adversely affected. It is somewhat ironic that the new program for airport development, which derives the major portion of its funds from the

airline passenger, fails to provide for the air traveler's expedited movement at the beginning and end of his journey.

Airline Investment

Between now and 1975, the airlines, for their part, will privately invest more than \$9.1 billion in aircraft and in related airport ground and terminal facilities, to meet the requirements of increased public demand for air transportation. Of this, \$6.6 billion will go for new

flight equipment and \$2.5 billion for airport terminal facilities. Added to this staggering amount of investment will be an additional \$3.3 billion in airlines' payments to airports in the form of landing fees, rentals and revenue deficiency assessments, most of which will be applied by those airports to paying off airport bonds.

Altogether, the airline industry alone will have committed a total of nearly \$5.8 billion of private funds to the construction and development of airport improvements between now and 1975. This amount is more than 50 per cent of the total capital requirements for airport improvements during that period.

The airlines have been investing heavily in airport facilities because they recognize that the processing and handling of the passengers and goods at both ends of the air journey, together with the safe and efficient control of the aircraft in between, are fundamental elements of the nation's total transportation system. If these functions break down because of inadequate terminal or airways facilities—as they have in the past—our entire national economy is affected. With the passage of the Airport/Airways Act of 1970, together with the airlines' own continuing investment, the possibility of future air transportation breakdowns should be greatly lessened.

Enhancing Airline Safety

Flight Crew Training

1969 saw a number of milestones in the field of flight crew training. In every case, reaching these milestones was the product of years of persistent effort by the airlines, but the imminent introduction of the 747 and other wide-bodied jets gave impetus to reaching these milestones in 1969.

Airline training methods are among the most advanced in all industry because they combine a systematic approach to training with the latest developments in behavioral science. As a result, airlines have consistently invested heavily in tools for training. These tools range from working displays of aircraft systems—such as electrical and air conditioning systems—through cockpit procedures trainers (where the instruments and engine controls work) to flight simulators which reproduce the performance of an airplane in flight and on the ground.

Before a pilot can take command of an airplane as its captain, he must be trained and his qualifications checked for that particular airplane type. Once a pilot has trained and qualified as a captain on a particular type of airplane, he must be re-checked every six months to verify that he is still proficient.

Flight simulators are used in both initial and recurrent training, as well as for proficiency checks. During initial training, the pilot progresses from ground school—where he learns about aircraft and its systems—to a cockpit procedures trainer—where he becomes acquainted with location and operation of controls in normal and emergency conditions—to the simulator, where he learns to operate the airplane in simulated flight under normal and emergency conditions.

A flight simulator is a replica of the cockpit of a modern airliner, with functioning controls, lights and instruments. These flight controls, instruments, lights and warning bells and horns are controlled by a computer that is programmed to respond to the pilot's actions just the way a regular airplane would. Not only can the pilot go through all the procedures involved in a number of normal flight maneuvers, but his instructor can dial up all manner of problems for the pilot to cope with—a 20-knot cross-wind on landing, or fire in an engine for example.

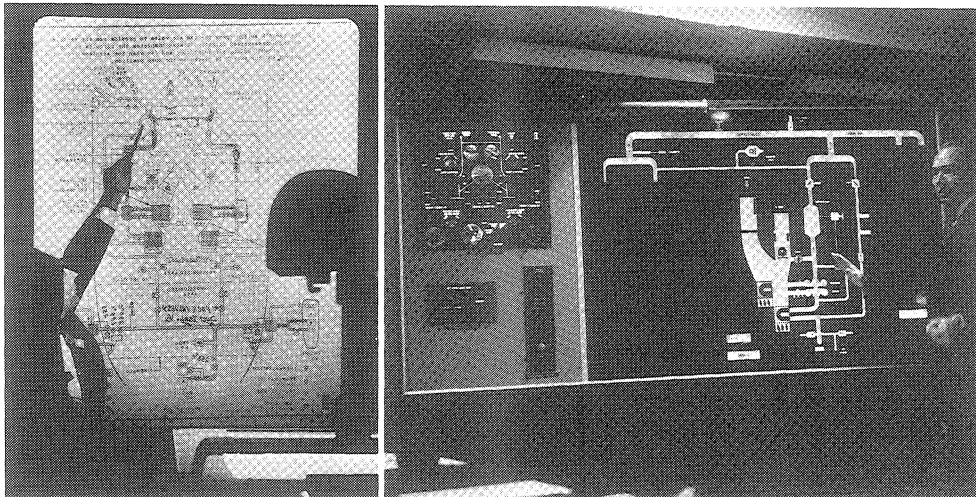
Although the simulator-cockpit is a fixed installation, it can move in response to the flight controls to simulate the effect of different aircraft maneuvers. Simulators vary in the number of movements they can reproduce, but the newest simulators on order by the airlines have six degrees of motion and require that

the crew use a seat belt to keep their seats while performing some of the more violent maneuvers.

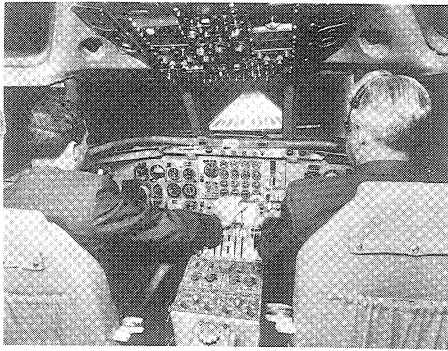
Visual attachments to flight simulators allow the pilot to see the airport and runway through his windshield, making possible simulator training in takeoff, landing and instrument approaches, under widely different weather conditions and flight regimes.

Simulators are superior to airplanes for training for a number of reasons. They enable pilots to be trained more thoroughly and efficiently for emergencies because, in a simulator, an instructor can let a problem develop to its ultimate conclusion. And by removing high-risk training from the airplane, the flight simulator increases the safety of both regular operations and training operations. Another beneficial by-product of simulator training is the removal of the noise and congestion caused by training flights.

A July 1969 survey by the Training Committee of the Air Transport Association showed that the 10 member airlines on the Committee had at that time an investment of \$83.3 million in 52 flight simulators. These same airlines also revealed their plans to add 20 more simulators by January 1972. This includes 11 simulators for the wide-bodied jets—the B-747 now in service and the DC-10 and L-1011 that are slated to enter airline service in 1971.



Progress in training aids is shown by contrasting methods. At left is projected schematic chart of aircraft air conditioning system, as used five to six years ago. At right is modern, backlit panel displaying workings of same air conditioning system. Instrument panel is working reproduction (twice life size) of switches and instruments used by flight crew. Selective lighting allows instructor to show portion of system, add to it as he talks.



Flight simulator with visual attachment

Airline studies, with FAA cooperation, have shown that training and rating in the simulator can produce a better qualified pilot than the previous method of training in the simulator, followed by rating in the airplane. Based on these studies, the airlines and FAA were able, during 1969, to increase the number of maneuvers that could be learned and checked in the simulator without having to be repeated in the airplane.

Another milestone of 1969 that was spearheaded by the introduction of the Boeing 747 is the joint airline-manufacturer development of a ground school training program for the new airplane. This ground school program combines the systematic approach to what a pilot needs to know with the latest behavioral science technology for making sure that he learns what he needs to know and proves it by doing it. This same approach is being applied to the other wide-bodied jets.

Collision Avoidance System

During 1969, the 15 year-old airline search for an airborne device to detect and warn of potential collisions came a giant step closer to being realized. At year end, Martin-Marietta completed a one and a half year \$2 million flight test and evaluation of airborne collision avoidance system and hardware for the airlines. The hardware, built to design criteria developed jointly by the airlines and the electronics manufacturers, was provided by McDonnell Douglas, Bendix Avionics, and a team from Sierra Research and Wilcox Electric Company.

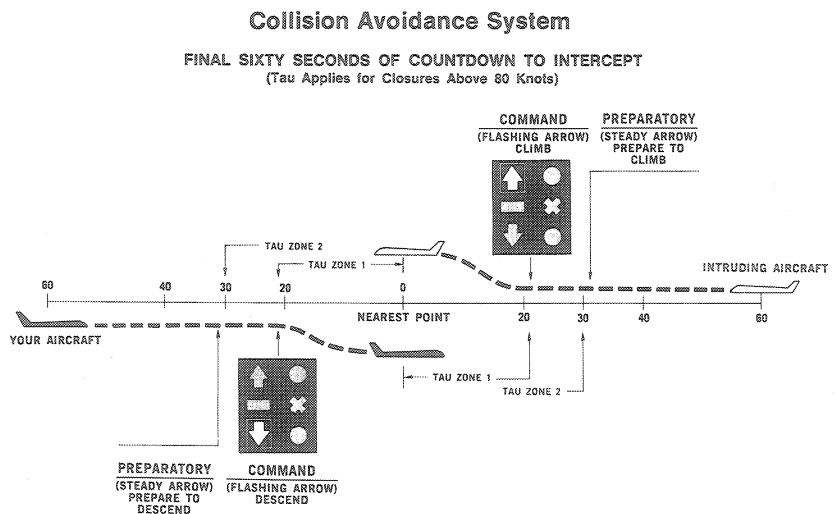
Altogether, 211 hours of data-gathering flights produced 187 two-aircraft intercepts, of which 51 were jet-to-jet intercepts. All flights were made in clear weather, so that pilots could see each other at all times. Flight data, as well as information transmitted and displayed by the collision avoidance system, were recorded for later analysis. Two-way aircraft-to-aircraft transmissions were recorded, on magnetic tape and by automatic camera from a photo panel, for a total of 128,000 data points. Another 49,000 data points were recorded from two-way ground-air and air-ground transmissions.

The collision avoidance system is an airborne device that detects potential collision threats, analyzes them, and tells the pilot what maneuver to make and when to make it to avoid a collision. Each aircraft in the system transmits information that other aircraft can use to determine the transmitting aircraft's altitude, distance and closing rate. For aircraft at or near the same altitude, time until nearest encounter (tau) is determined by dividing distance by closing rate.

Because both aircraft must carry the collision avoidance system equipment in order for either one to benefit from the protection it offers, initial use of the system probably will be limited to airline and larger private or corporate aircraft. However, the

system has a wide range of possible combinations that can be provided for different types of use—from the most sophisticated high speed system for an airline jet, costing from \$30,000 to \$50,000 per aircraft installation with dual equipment, to a very basic, minimum performance, minimum cost device for light planes for about \$400. The first production run of equipment will probably consist of the expensive, sophisticated, jet-speed equipment to be followed by slightly less sophisticated equipment which provides full collision avoidance protection for propeller-driven aircraft. This is expected to cost from \$8,000 to \$10,000. With production experience and advances in digital technology (used in the computers aboard the aircraft), lower cost equipment can be expected.

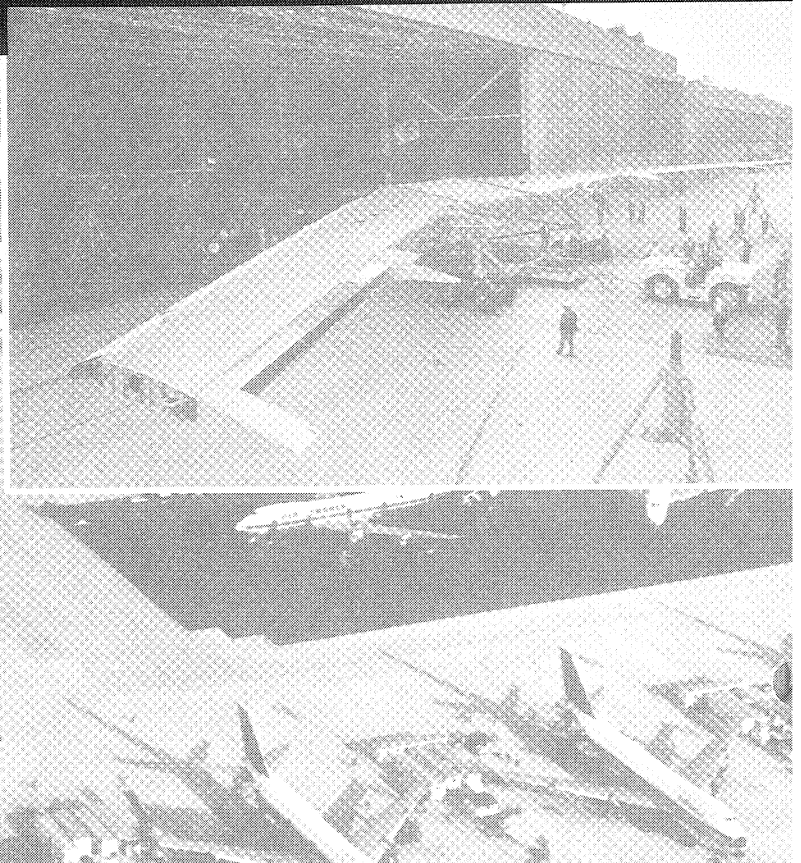
The airlines and manufacturers are now developing specifications that will define the shape, volume and inter-connection characteristics of CAS hardware built to the industry design criteria. When these specifications have been completed and accepted by the airlines and manufacturers—probably in the second half of 1970—the way will be clear for the manufacturers to offer CAS hardware for purchase by the airlines. If this happens, then it will probably be late 1971 or early 1972 before deliveries can be made to airlines ordering CAS.



The Second Civil Jet Age Begins

AIRCRAFT ON ORDER AS OF JUNE 1, 1970

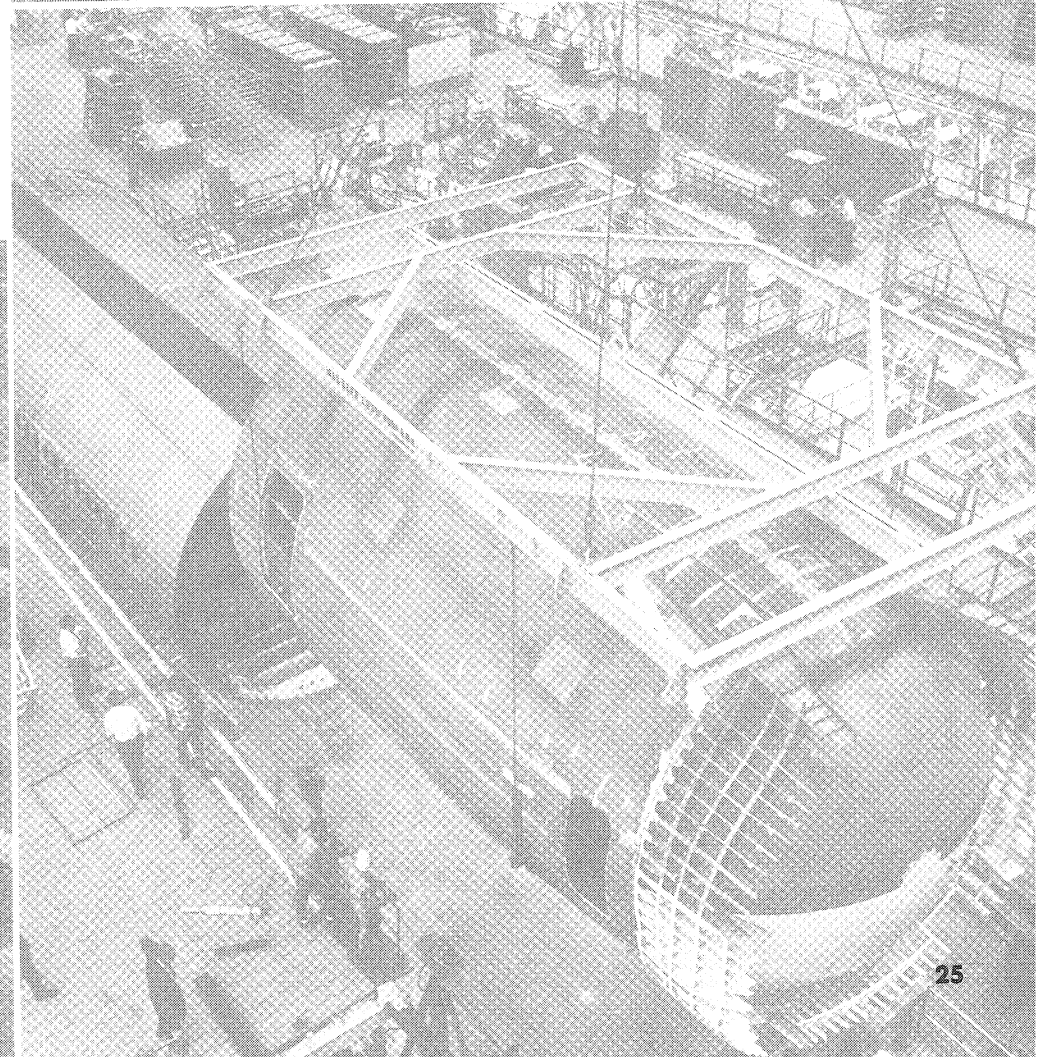
Manufacturer	Model	TOTAL	For Delivery In				
			1970	1971	1972	1973	1974 & beyond
Boeing:	B-707	2	2	—	—	—	—
	B-727	36	32	4	—	—	—
	B-737	5	5	—	—	—	—
	B-747	129	85	36	8	—	—
DeHavilland:	DHC-6	2	2	—	—	—	—
Douglas:	DC-8-63	4	4	—	—	—	—
	DC-9	9	9	—	—	—	—
	DC-10	78	—	11	39	24	4
Lockheed:	Tristar 1011	71	—	9	40	12	10
Total		336	139	60	87	36	14



The aircraft on order figures for 1970 include 54 jet aircraft that have already been delivered during the first five months of the year. These aircraft are valued at \$675 million.

In addition to these 336 subsonic jets that the airlines have on firm order, the airlines also have placed orders for 38 British-French supersonic Concorde's with an approximate value of \$760 million. The airlines also have reserved 59 delivery positions for the United States SST, the Boeing 2707, and have already invested more than \$70 million in advance payments for these aircraft. The total cost of the Boeing SST's is more than \$2 billion.

Thus the airline equipment program for the new generation of subsonic superjets and the supersonic jets totals more than \$9.4 billion over the next decade.



TRAFFIC AND SERVICE

In Millions Except Helicopters

	Available Ton Miles Flown	Revenue Ton Miles Flown	Ton Mile Load Factor (%)	Available Seat Miles Flown	Revenue Passenger Miles Flown	Passenger Load Factor (%)	Revenue Plane Miles Flown
TOTAL INDUSTRY							
1959.....	8,336.5	4,734.1	56.8	59,247.1	36,371.8	61.4	1,030.2
1964.....	16,302.5	8,015.9	49.2	106,315.8	58,493.7	55.0	1,189.1
1965.....	19,661.0	9,895.0	50.3	124,319.9	68,676.5	55.2	1,353.5
1966.....	23,502.5	12,440.9	52.9	137,844.5	79,889.3	58.0	1,482.3
1967.....	30,785.1	15,684.3	50.9	174,818.5	98,746.6	56.5	1,833.6
1968.....	37,223.3	18,114.3	48.7	216,445.8	113,958.3	52.6	2,146.0
1969.....	42,779.2	19,989.4	46.7	250,845.9	125,414.2	50.0	2,384.9
Domestic Trunk Airlines							
1959.....	5,949.3	3,166.8	53.2	45,793.2	28,127.2	61.4	743.5
1964.....	10,752.4	4,928.8	45.8	75,242.4	41,658.4	55.4	808.4
1965.....	12,850.6	5,983.5	46.6	88,731.2	48,987.0	55.2	926.4
1966.....	14,403.8	7,083.0	49.2	97,174.7	56,802.8	58.5	995.7
1967.....	18,769.4	8,970.0	47.8	124,141.6	70,990.1	57.2	1,258.3
1968.....	23,097.8	10,321.3	44.7	153,864.6	81,611.8	53.0	1,486.5
1969.....	26,918.5	11,327.8	42.1	178,646.7	89,184.6	49.9	1,662.9
Local Service Airlines							
1959.....	238.5	108.8	45.6	2,309.2	1,024.3	44.4	85.4
1964.....	504.0	239.5	47.5	4,836.3	2,244.5	46.4	133.5
1965.....	585.2	281.0	48.0	5,545.7	2,621.2	47.3	145.2
1966.....	758.2	371.1	48.9	6,908.1	3,467.5	50.2	165.1
1967.....	1,024.1	442.4	43.2	8,862.4	4,114.3	46.4	185.0
1968.....	1,469.8	593.7	40.4	12,153.6	5,489.2	45.2	211.2
1969.....	1,859.4	694.6	37.4	14,722.4	6,310.6	42.9	227.6
Intra-Hawaiian Airlines							
1959.....	21.2	12.7	59.9	187.2	110.9	59.2	5.3
1964.....	30.8	17.7	57.5	276.4	166.6	60.3	5.9
1965.....	34.2	20.2	59.1	319.7	195.2	61.1	6.7
1966.....	40.4	23.2	57.4	387.1	226.7	58.6	7.2
1967.....	49.2	27.8	56.5	463.7	274.1	59.1	7.7
1968.....	60.6	29.6	48.8	580.4	301.4	51.9	8.1
1969.....	83.7	32.4	38.7	772.2	327.0	42.3	8.7

NOTE: Available Ton Miles and Revenue Ton Miles include charter operations; all other items are for scheduled services only. In some instances, individual figures may not add to totals because of rounding; Aspen Airways figures are included in industry totals for 1967, 1968 and 1969.

TRAFFIC AND SERVICE

U.S. Scheduled Airline Industry

	Available Ton Miles Flown	Revenue Ton Miles Flown	Ton Mile Load Factor (%)	Available Seat Miles Flown	Revenue Passenger Miles Flown	Passenger Load Factor (%)	Revenue Plane Miles Flown
Helicopter Airlines (in thousands)							
1959.....	1,759	856	48.7	14,628	7,477	51.1	1,899
1964.....	3,717	1,692	45.5	34,165	16,003	46.8	1,976
1965.....	4,338	1,968	45.4	41,413	18,811	45.4	1,984
1966.....	5,157	2,574	49.9	51,992	25,420	48.9	2,241
1967.....	6,345	2,970	46.8	62,041	29,670	47.8	2,660
1968.....	6,146	2,492	40.5	59,923	24,856	41.5	2,547
1969.....	4,398	1,708	38.8	43,079	17,074	39.6	1,909
Intra-Alaskan Airlines							
1959.....	19.8	11.5	58.1	100.7	37.7	37.4	5.9
1964.....	32.3	17.9	55.4	135.2	55.8	41.3	7.7
1965.....	31.5	18.5	58.7	149.1	65.2	43.7	7.9
1966.....	31.4	19.2	61.1	147.0	68.4	46.6	8.0
1967.....	33.2	19.7	59.3	168.1	78.1	46.5	8.5
1968.....	35.7	19.9	55.7	204.4	76.8	37.6	7.2
1969.....	47.1	24.5	52.0	253.4	101.3	40.0	7.4
All-Cargo Airlines (Domestic)							
1959.....	332.5	274.3	82.5	-----	-----	-----	9.7
1964.....	550.0	395.0	71.8	-----	-----	-----	10.7
1965.....	618.3	469.2	75.9	-----	-----	-----	10.8
1966.....	705.2	554.8	78.7	-----	-----	-----	11.0
1967.....	729.3	519.5	71.2	-----	-----	-----	11.2
1968.....	704.8	494.2	70.1	-----	-----	-----	11.6
1969.....	726.6	474.7	65.3	-----	-----	-----	10.5
International and Territorial Airlines							
1959.....	1,683.8	1,100.8	65.4	10,842.1	7,064.2	65.2	172.1
1964.....	4,162.7	2,228.2	53.5	25,791.4	14,352.4	55.6	214.4
1965.....	5,139.0	2,856.7	55.6	29,532.8	16,789.0	56.8	247.8
1966.....	6,654.0	3,883.8	58.4	33,175.6	19,298.4	58.2	285.7
1967.....	9,031.0	5,113.3	56.6	41,118.7	23,259.3	56.6	350.7
1968.....	10,779.3	5,978.6	55.5	49,575.0	26,450.6	53.4	408.1
1969.....	11,599.8	6,339.8	54.7	56,398.3	29,468.3	52.2	450.5
All-Cargo Airlines (International)							
1959.....	89.6	58.4	65.2	-----	-----	-----	6.5
1964.....	266.6	187.2	70.2	-----	-----	-----	6.5
1965.....	397.9	264.0	66.3	-----	-----	-----	6.8
1966.....	904.3	503.1	55.6	-----	-----	-----	7.3
1967.....	1,142.4	588.5	51.5	-----	-----	-----	9.4
1968.....	1,068.3	674.1	63.1	-----	-----	-----	10.4
1969.....	1,538.4	1,093.3	71.1	-----	-----	-----	14.7

REVENUE TON MILES FLOWN

In Thousands of Revenue Ton Miles

	Passenger	Priority U.S. Mail	Non Priority U.S. Mail	Express	Freight	Excess Baggage	Charter Operations	TOTAL
TOTAL INDUSTRY								
1959.....	3,489,760	181,670	18,614	57,090	589,053	43,177	346,371	4,734,093
1964.....	5,630,345	289,913	81,396	78,310	1,301,487	41,137	582,369	8,015,941
1965.....	6,629,164	372,294	110,683	89,859	1,730,295	42,769	909,401	9,894,985
1966.....	7,736,469	542,772	209,075	98,360	2,050,736	38,215	1,754,984	12,440,910
1967.....	9,561,035	567,301	408,825	98,883	2,351,108	39,419	2,648,005	15,684,289
1968.....	11,023,490	581,883	675,168	105,153	2,804,878	48,060	2,865,022	18,114,334
1969.....	12,147,051	577,029	757,506	109,465	3,246,326	50,182	3,091,192	19,989,378

Domestic Trunk Airlines

1959.....	2,672,087	98,487	17,929	53,107	282,472	29,419	13,271	3,166,772
1964.....	3,958,036	151,763	29,708	70,530	650,732	22,786	45,251	4,928,807
1965.....	4,667,700	182,673	32,866	80,424	835,118	19,355	165,401	5,983,537
1966.....	5,429,052	236,018	41,420	87,128	988,485	13,159	287,753	7,083,014
1967.....	6,788,789	266,730	120,581	89,343	1,190,067	15,557	498,919	8,969,988
1968.....	7,802,904	285,988	252,443	94,874	1,439,161	20,011	425,942	10,321,322
1969.....	8,526,913	296,792	285,376	98,454	1,606,225	22,073	492,009	11,327,847

Local Service Airlines

1959.....	97,516	1,693	503	2,211	3,125	711	3,061	108,820
1964.....	213,233	4,350	655	5,080	11,923	1,194	3,047	239,481
1965.....	249,244	5,520	813	5,983	15,485	1,068	2,872	280,986
1966.....	330,286	7,770	1,050	7,099	19,782	642	4,493	371,122
1967.....	391,810	7,794	5,012	6,417	22,054	694	8,622	442,406
1968.....	522,665	9,720	10,419	7,482	31,415	890	11,062	593,665
1969.....	607,806	10,039	12,347	7,998	40,051	976	15,315	694,550

Intra-Hawaiian Airlines

1959.....	8,879	76	.....*	.....	1,625	30	2,058	12,668
1964.....	14,578	99	26	.....	2,472	58	433	17,665
1965.....	17,079	106	229	.....	2,431	59	285	20,189
1966.....	19,834	114	750	.....	2,454	60	12	23,224
1967.....	23,988	119	807	.....	2,823	56	35	27,827
1968.....	26,375	107	788	.....	2,272	81	8	29,630
1969.....	28,614	120	800	.....	2,745	64	18	32,361

NOTE: In some instances individual figures may not add to totals because of rounding; Foreign Mail ton miles carried by International & Territorial Airlines and by All-Cargo Airlines in international operations are included only in the total ton mile column; Aspen Airways figures are included in industry totals for 1967, 1968 and 1969.

* Less than 500.

REVENUE TON MILES FLOWN

U.S. Scheduled Airline Industry

	Passenger	Priority U.S. Mail	Non Priority U.S. Mail	Express	Freight	Excess Baggage	Charter Operations	TOTAL
Helicopter Airlines								
1959.....	710	87	.....	41	7	4	7	856
1964.....	1,520	92	.....	45	6	6	24	1,692
1965.....	1,787	84	.....	60	10	6	20	1,968
1966.....	2,415	60	.....	70	10	7	13	2,574
1967.....	2,819	61	.....	64	9	8	9	2,970
1968.....	2,361	57	.....	48	8	7	10	2,492
1969.....	1,622	34	.....	36	7	4	4	1,708
Intra-Alaskan Airlines								
1959.....	3,872	1,501	.....	.....	2,140	116	3,869	11,498
1964.....	5,720	3,089	.....	.....	3,176	172	5,754	17,910
1965.....	6,680	3,701	.....	.....	3,617	188	4,271	18,457
1966.....	6,995	4,096	.....	.....	3,665	161	4,252	19,168
1967.....	7,976	4,246	.....	.....	3,630	161	3,662	19,675
1968.....	7,846	4,652	.....	.....	3,825	165	3,432	19,920
1969.....	10,295	5,275	.....	.....	5,972	236	2,679	24,457
All-Cargo Airlines (Domestic)								
1959.....	.....	582	161	1,250	104,237	.....	168,049	274,279
1964.....	.....	896	951	1,818	147,994	.....	243,350	395,008
1965.....	.....	1,173	1,087	2,475	166,362	.....	298,111	469,208
1966.....	.....	1,639	1,062	3,071	189,714	.....	359,331	554,817
1967.....	.....	624	1,673	1,943	181,876	.....	333,365	519,480
1968.....	.....	701	2,486	1,576	194,005	.....	295,406	494,181
1969.....	.....	861	4,674	1,530	208,058	.....	259,540	474,663
International and Territorial Airlines								
1959.....	706,696	73,697	21	481	158,868	12,897	139,878	1,100,817
1964.....	1,437,259	124,768	45,413	823	393,858	16,922	198,323	2,228,175
1965.....	1,686,674	173,158	70,579	908	596,416	22,093	296,471	2,856,655
1966.....	1,947,888	283,742	158,663	982	720,627	24,186	737,524	3,883,840
1967.....	2,345,565	277,909	272,890	1,106	795,858	22,941	1,387,435	5,113,306
1968.....	2,660,995	273,239	395,540	1,159	926,091	26,897	1,684,105	5,978,604
1969.....	2,971,304	248,446	394,747	1,437	1,090,055	26,824	1,596,457	6,339,791
All-Cargo Airlines (International)								
1959.....	.....	5,547	.....*	.....*	36,579	.....	16,178	58,383
1964.....	.....	4,856	4,643	14	91,327	.....	86,188	187,202
1965.....	.....	5,878	5,109	10	110,856	.....	141,969	263,986
1966.....	.....	9,334	6,131	10	126,000	.....	361,606	503,149
1967.....	.....	9,818	7,861	9	154,790	.....	415,957	588,545
1968.....	.....	7,419	13,493	12	208,097	.....	445,016	674,127
1969.....	.....	15,463	59,561	8	293,203	.....	724,940	1,093,261

* Less than 500.

OPERATING REVENUES

In Thousands of Dollars

	Passenger	Priority U.S. Mail	Non Priority U.S. Mail	Public Service Revenue	Express	Freight	Other ¹	Total Operating Revenues
TOTAL INDUSTRY								
1959.....	2,167,109	80,520	3,603	54,536	20,803	151,461	140,439	2,618,471
1964.....	3,482,760	122,746	19,050	82,806	31,114	285,657	226,706	4,250,838
1965.....	4,029,383	138,238	25,234	80,622	34,118	356,113	294,142	4,957,851
1966.....	4,529,520	189,252	43,481	65,619	36,800	412,039	468,329	5,745,038
1967.....	5,425,862	184,232	76,082	59,912	35,471	465,281	617,885	6,864,726
1968.....	6,221,054	168,771	107,060	48,427	38,189	547,101	632,080	7,762,683
1969.....	7,118,353	168,312	120,034	41,178	38,088	648,118	657,945	8,792,027
Domestic Trunk Airlines								
1959.....	1,632,647	37,158	3,417	-----	19,158	67,027	39,203	1,798,610
1964.....	2,504,861	56,262	5,838	3,408	27,247	140,962	52,297	2,790,877
1965.....	2,908,045	64,181	6,354	3,508	29,703	174,150	77,615	3,263,556
1966.....	3,233,095	78,870	7,988	2,110	31,601	201,289	105,947	3,660,900
1967.....	3,901,528	76,100	23,139	2,822	30,752	235,774	149,322	4,419,436
1968.....	4,451,341	80,732	43,138	-----	33,146	284,707	146,377	5,039,441
1969.....	5,087,549	83,837	49,150	-----	33,052	335,413	165,221	5,754,222
Local Service Airlines								
1959.....	73,090	1,471	155	42,179	1,019	1,727	3,180	122,821
1964.....	169,244	3,327	220	65,779	2,781	6,698	5,679	253,728
1965.....	203,423	4,103	261	66,012	3,196	8,764	5,614	291,374
1966.....	264,949	5,316	301	54,924	3,729	10,961	8,153	348,332
1967.....	313,833	5,138	1,352	50,961	3,545	13,053	11,832	399,716
1968.....	413,933	5,931	2,981	42,631	3,981	17,484	15,277	502,218
1969.....	521,006	5,892	3,474	35,981	3,957	22,630	19,518	612,457
Intra-Hawaiian Airlines								
1959.....	9,476	62	-----	-----	-----	833	1,060	11,431
1964.....	14,924	80	8	878	-----	1,410	599	17,898
1965.....	17,074	86	46	1,124	-----	1,378	731	20,439
1966.....	19,716	90	139	1,124	-----	1,375	872	23,318
1967.....	24,344	92	145	-----	-----	1,540	166	26,287
1968.....	27,538	84	152	-----	-----	1,577	395	29,746
1969.....	33,075	92	166	-----	-----	1,943	468	35,744

¹ Includes revenues from excess baggage, foreign mail, charter operations and incidental revenues.

Note: Aspen Airways figures are included in industry totals for 1967, 1968 and 1969.

OPERATING REVENUES

U.S. Scheduled Airline Industry

	Passenger	Priority U.S. Mail	Non Priority U.S. Mail	Public Service Revenue	Express	Freight	Other ¹	Total Operating Revenues
Helicopter Airlines								
1959.....	2,310	227	-----	4,915	132	40	136	7,760
1964.....	4,814	240	-----	4,300	213	54	554	10,174
1965.....	5,645	221	-----	2,712	216	85	2,257	11,135
1966.....	8,603	158	-----	584	295	98	4,494	14,232
1967.....	10,377	325	-----	-----	289	102	5,413	16,506
1968.....	9,470	209	-----	-----	259	93	2,839	12,870
1969.....	7,374	130	-----	-----	243	67	1,179	8,992
Intra-Alaskan Airlines								
1959.....	4,968	1,803	-----	3,611	-----	1,299	2,813	14,494
1964.....	7,267	3,192	-----	5,590	-----	2,031	3,868	21,950
1965.....	7,860	3,650	-----	5,266	-----	2,119	3,106	22,002
1966.....	7,972	3,926	-----	5,124	-----	1,996	3,339	22,357
1967.....	9,707	4,392	-----	4,729	3	2,191	3,385	24,407
1968.....	8,867	4,717	-----	3,190	-----	2,132	3,061	21,967
1969 ²	11,866	5,267	-----	2,492	-----	3,309	2,748	25,682
All-Cargo Airlines (Domestic)								
1959.....	-----	218	22	-----	357	18,658	34,014	53,269
1964.....	-----	358	185	-----	563	20,006	53,047	74,158
1965.....	-----	447	207	-----	681	22,817	58,128	82,279
1966.....	-----	631	201	-----	858	27,635	73,035	102,360
1967.....	-----	208	326	-----	538	25,960	67,247	94,279
1968.....	-----	194	387	-----	407	27,564	56,751	85,303
1969.....	-----	283	653	-----	379	29,469	47,858	78,642
International and Territorial Airlines								
1959.....	444,618	36,629	9	3,831	137	51,740	55,262	592,226
1964.....	781,649	56,943	11,527	2,851	306	99,990	86,753	1,040,020
1965.....	887,335	63,170	16,989	1,999	319	130,800	110,263	1,210,875
1966.....	995,185	96,683	33,373	1,753	314	149,215	197,956	1,474,480
1967.....	1,165,862	94,055	49,596	1,400	342	163,216	295,211	1,769,682
1968.....	1,309,173	74,798	58,499	2,606	391	185,465	327,395	1,958,327
1969 ³	1,456,597	68,314	57,191	2,705	455	216,797	307,195	2,109,254
All-Cargo Airlines (International)								
1959.....	-----	2,952	-----	-----	-----	10,137	4,771	17,860
1964.....	-----	2,344	1,273	-----	4	14,506	23,907	42,032
1965.....	-----	2,380	1,377	-----	3	15,999	36,431	56,191
1966.....	-----	3,578	1,479	-----	3	19,471	74,529	99,059
1967.....	-----	3,922	1,524	-----	3	23,440	85,304	114,193
1968.....	-----	2,105	1,903	-----	4	28,067	79,918	111,998
1969.....	-----	4,496	9,401	-----	2	38,474	113,585	165,958

² Includes figures for year ended 9/30/69 for Kodiak Airways.

³ Includes figures for year ended 9/30/69 for Trans Caribbean Airways.

OPERATING EXPENSES

In Thousands of Dollars

	Flying Operations	Maintenance	General Services & Administration				Total G. S. & A.	Deprecia- tion & Amorti- zation	Total Operating Expenses
			Passenger Service	Aircraft & Traffic Servicing	Promotion & Sales	Adminis- trative			
TOTAL INDUSTRY									
1959.....	752,249	493,028	183,102	401,347	299,645	117,398	1,001,492	249,353	2,496,122
1964.....	1,029,893	749,367	309,389	646,328	479,203	185,016	1,619,937	381,543	3,780,741
1965.....	1,157,945	815,958	381,860	735,447	551,134	212,351	1,880,793	431,228	4,285,923
1966.....	1,368,532	900,306	458,887	863,279	645,574	241,386	2,209,126	491,578	4,969,541
1967.....	1,733,888	1,087,177	578,639	1,070,670	776,304	297,560	2,723,172	612,294	6,156,532
1968.....	2,080,650	1,193,116	716,020	1,262,778	900,544	351,335	3,230,676	733,169	7,237,612
1969.....	2,467,416	1,300,769	830,559	1,489,362	1,034,459	408,533	3,762,912	865,122	8,396,219
Domestic Trunk Airlines									
1959.....	505,243	346,387	130,942	275,301	198,780	64,992	670,015	171,729	1,693,374
1964.....	676,974	514,552	213,988	425,197	299,629	100,945	1,039,759	262,750	2,494,035
1965.....	767,902	566,413	266,279	484,859	348,223	116,378	1,215,739	297,253	2,847,308
1966.....	869,925	596,269	311,564	560,004	410,282	131,568	1,413,418	327,586	3,207,198
1967.....	1,101,480	735,445	396,449	704,944	501,987	167,023	1,770,403	402,003	4,009,331
1968.....	1,341,342	802,853	488,635	825,578	579,244	202,465	2,095,921	479,249	4,719,364
1969.....	1,588,192	864,215	558,364	964,172	654,422	235,404	2,412,363	585,091	5,449,860
Local Service Airlines									
1959.....	36,831	25,056	6,078	31,185	9,293	6,861	53,417	6,882	122,186
1964.....	66,787	52,735	11,739	59,053	20,639	13,051	104,482	12,758	236,762
1965.....	74,233	59,837	13,426	66,346	23,469	14,874	118,114	15,098	267,283
1966.....	88,985	69,475	17,307	80,353	29,472	18,472	145,604	20,802	324,866
1967.....	109,656	79,323	21,995	95,933	36,107	22,813	176,849	33,196	399,025
1968.....	146,297	91,756	30,671	120,222	46,338	27,857	225,088	46,955	510,096
1969.....	189,916	108,266	38,751	144,378	58,329	34,344	275,801	54,533	628,517
Intra-Hawaiian Airlines									
1959.....	3,076	1,933	457	1,948	1,725	1,217	5,347	909	11,265
1964.....	3,851	3,574	576	2,996	2,439	1,726	7,737	1,360	16,523
1965.....	4,514	4,002	646	3,301	2,722	1,812	8,482	1,528	18,527
1966.....	6,478	4,369	712	3,778	2,925	2,051	9,465	1,832	22,145
1967.....	8,548	4,909	859	4,404	3,761	2,214	11,239	1,831	26,528
1968.....	8,674	6,069	1,047	5,474	4,205	2,515	13,241	2,470	30,453
1969.....	13,097	6,793	1,604	6,397	4,805	2,660	15,466	3,158	38,514

Note: Aspen Airways figures are included in industry totals for 1967, 1968 and 1969.

OPERATING EXPENSES

U.S. Scheduled Airline Industry

	Flying Operations	Maintenance	General Services & Administration				Total G. S. & A.	Depreciation & Amortization	Total Operating Expenses
			Passenger Service	Aircraft & Traffic Servicing	Promotion & Sales	Administrative			
Helicopter Airlines									
1959.....	1,696	2,017	-----	-----	-----	-----	2,361 ¹	1,036	7,110
1964.....	1,941	3,541	-----	-----	-----	-----	3,817 ¹	996	10,295
1965.....	2,250	3,770	-----	-----	-----	-----	4,354 ¹	995	11,369
1966.....	3,195	5,002	-----	-----	-----	-----	5,563 ¹	1,169	14,929
1967.....	3,375	5,521	-----	-----	-----	-----	6,379 ¹	1,972	17,249
1968.....	2,885	5,260	-----	-----	-----	-----	6,306 ¹	1,707	16,159
1969.....	2,861	4,082	-----	-----	-----	-----	5,733 ¹	1,369	14,045
Intra-Alaskan Airlines									
1959.....	4,553	3,961	-----	-----	-----	-----	4,824 ¹	1,059	14,397
1964.....	6,293	5,690	-----	-----	-----	-----	7,138 ¹	1,189	20,310
1965.....	5,751	5,919	-----	-----	-----	-----	7,534 ¹	1,383	20,587
1966.....	5,566	5,296	-----	-----	-----	-----	7,756 ¹	1,687	20,306
1967.....	6,372	6,449	-----	-----	-----	-----	8,686 ¹	1,733	23,241
1968.....	6,042	5,143	-----	-----	-----	-----	7,775 ¹	1,759	20,719
1969 ³	6,582	5,962	-----	-----	-----	-----	8,909 ¹	2,272	23,725
All-Cargo Airlines (Domestic)									
1959.....	21,224	12,670	1,338	4,795	1,500	3,891 ²	11,524	6,107	51,525
1964.....	24,237	16,476	2,921	11,070	3,245	3,724	20,960	9,165	70,838
1965.....	24,270	19,350	1,266	12,178	3,107	3,826	20,378	9,709	73,706
1966.....	30,774	19,887	1,512	12,845	2,837	4,338	21,533	8,220	80,414
1967.....	34,139	21,339	423	12,650	3,160	4,308	20,541	7,955	83,973
1968.....	35,170	19,351	2,579	13,908	3,448	4,374	24,310	10,721	89,555
1969.....	30,147	16,420	1,783	16,097	3,251	3,901	25,032	8,611	80,211
International and Territorial Airlines									
1959.....	170,391	95,776	44,070	84,235	87,091	31,724	247,120	60,366	573,653
1964.....	238,427	145,186	78,371	142,773	151,550	51,729	424,423	88,151	896,187
1965.....	262,597	146,043	98,205	161,691	171,559	61,198	492,653	100,070	1,001,362
1966.....	329,427	181,475	126,367	194,943	197,265	67,894	586,470	123,521	1,220,894
1967.....	424,135	211,874	156,837	238,244	228,135	81,298	704,514	156,017	1,496,540
1968.....	495,035	244,024	187,662	281,167	263,425	94,548	826,802	180,970	1,746,831
1969 ⁴	571,792	269,678	221,926	331,595	308,068	110,057	971,647	195,325	2,008,441
All-Cargo Airlines (International)									
1959.....	9,235	5,228	217	3,883	1,256	1,528	6,884	1,265	22,612
1964.....	11,384	7,613	1,794	5,239	1,700	2,887	11,621	5,173	35,790
1965.....	16,428	10,623	2,038	7,072	2,055	2,375	13,540	5,190	45,782
1966.....	34,182	18,532	1,424	11,356	2,792	3,744	19,316	6,761	78,791
1967.....	46,136	22,250	2,076	14,493	3,154	4,750	24,473	7,565	100,425
1968.....	44,968	18,441	5,425	16,429	3,885	5,196	30,935	9,288	103,632
1969.....	64,544	25,031	8,131	26,722	5,582	7,122	47,558	14,664	151,797

¹ Detailed General Services and Administrative expense data not available.

² Includes General Services and Administration expenses of Aaxico Airlines, Inc.

³ Includes figures for year ended 9/30/69 for Kodiak Airways.

⁴ Includes figures for year ended 9/30/69 for Trans Caribbean Airways.

SUMMARY OF PROFIT OR LOSS

In Thousands of Dollars

	Total Operating Revenues	Total Operating Expenses	Net Operating Income	Interest on Long-Term Debt	Other Non- Operating Income & Expenses (Net)	Income Taxes	Net Profit or Loss ¹	Rate of Return on Invest- ment ² (%)	Profit Margin on Sales ³ (%)
TOTAL INDUSTRY									
1959.....	2,618,471	2,496,122	122,349	45,540	53,514	63,566	72,681	6.2	2.8
1964.....	4,250,838	3,780,741	470,097	104,258	29,352	174,088	223,172	9.8	5.3
1965.....	4,957,851	4,285,923	671,928	112,127	37,232	234,740	367,119	12.0	7.4
1966.....	5,745,038	4,969,541	775,497	126,588	58,211	279,570	427,633	10.9	7.4
1967.....	6,864,726	6,156,532	708,194	149,793	85,751	236,231	415,388	7.6	6.1
1968.....	7,762,683	7,237,612	525,071	221,506	64,695	143,029	216,130	5.0	2.8
1969.....	8,792,027	8,396,219	395,808	346,307	102,928	95,293	55,308	3.3	0.6
Domestic Trunk Airlines									
1959.....	1,798,610	1,693,374	105,236	32,397	38,484	53,061	61,682	7.1	3.4
1964.....	2,790,877	2,494,035	296,841	69,260	17,030	110,250	134,362	9.1	4.8
1965.....	3,263,556	2,847,308	416,249	73,222	26,964	148,101	221,889	11.2	6.8
1966.....	3,660,900	3,207,198	453,703	81,065	31,499	165,500	238,636	9.7	6.5
1967.....	4,419,436	4,009,331	410,106	88,475	57,807	145,250	244,475	6.9	5.5
1968.....	5,039,441	4,719,364	320,077	131,174	25,483	87,865	126,521	4.9	2.5
1969.....	5,754,222	5,449,860	304,362	203,356	62,923	73,337	90,592	4.1	1.6
Local Service Airlines									
1959.....	122,821	122,186	635	1,887	197	-178	64	5.0	0.1
1964.....	253,728	236,762	16,966	4,160	737	5,948	7,776	9.4	3.1
1965.....	291,374	267,283	24,091	5,189	2,051	8,353	12,722	10.4	4.4
1966.....	348,332	324,866	23,467	7,796	1,379	6,558	10,376	6.8	3.0
1967.....	399,716	399,025	691	17,697	9,418	-3,269	-4,472	2.4	....
1968.....	502,218	510,096	-7,878	30,626	2,035	-8,082	-27,609	-0.4	....
1969.....	612,457	628,517	-16,060	41,714	-9,234	-5,707	-62,858	-4.1	....
Intra-Hawaiian Airlines									
1959.....	11,431	11,265	166	305	83	37	50	4.8	0.4
1964.....	17,898	16,523	1,375	417	104	139	868	13.3	4.8
1965.....	20,439	18,527	1,911	468	105	568	980	11.1	4.8
1966.....	23,318	22,145	1,173	572	84	206	479	6.4	2.1
1967.....	26,287	26,528	-241	772	346	-385	-1,039	2.8	....
1968.....	29,746	30,453	-707	1,013	296	-482	-1,533	-1.4	....
1969.....	35,744	38,514	-2,771	1,670	-277	....	-4,228	-10.5	....
Helicopter Airlines									
1959.....	7,760	7,110	650	87	50	309	501	10.7	6.5
1964.....	10,174	10,295	-121	318	361	85	-197	0.7	....
1965.....	11,135	11,369	-233	388	227	166	-438	-1.5	....
1966.....	14,232	14,929	-697	375	240	-256	-561	-2.8	....
1967.....	16,506	17,249	-743	512	311	-56	-888	-2.7	....
1968.....	12,870	16,159	-3,289	404	599	-11	-3,082	-24.8	....
1969.....	8,992	14,045	-5,053	610	-401	-21	-6,803	6.9	....

¹ Net profit or loss shown is after "special items" and certain non-operating items which are not included in the detail. Therefore, the items do not add to the profit figures shown.

² The rate of return on investment reflects net profit plus interest paid on the non-current 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 rates of return reflect net profit before tax reductions resulting from the investment tax credit.

SUMMARY OF PROFIT OR LOSS

U.S. Scheduled Airline Industry

	Total Operating Revenues	Total Operating Expenses	Net Operating Income	Interest on Long-Term Debt	Other Non- Operating Income & Expenses (Net)	Income Taxes	Net Profit or Loss ¹	Rate of Return on Invest- ment ² (%)	Profit Margin on Sales ³ (%)
Intra-Alaskan Airlines									
1959.....	14,494	14,397	97	339	244	169	28	4.9	0.2
1964.....	21,950	20,310	1,640	260	21	613	1,171	14.7	5.3
1965.....	22,002	20,587	1,415	299	69	701	470	6.5	2.1
1966.....	22,357	20,306	2,051	336	128	933	1,032	10.9	4.6
1967.....	24,407	23,241	1,166	333	-81	587	160	2.9	0.7
1968.....	21,967	20,719	1,248	279	686	293	1,428	8.1	6.5
1969.....	25,682	23,725	1,958	1,176	106	314	573	6.2	2.2
All-Cargo Airlines (Domestic)									
1959.....	53,269	51,525	1,744	1,400	1,435	761	719	5.1	1.3
1964.....	74,158	70,838	3,319	3,824	1,140	636	-1	4.0	....
1965.....	82,279	73,706	8,573	3,789	1,216	3,280	2,720	7.2	3.3
1966.....	102,360	80,414	21,946	3,002	1,768	8,467	12,245	17.1	12.0
1967.....	94,279	83,973	10,305	2,188	-61	3,205	4,851	5.3	5.1
1968.....	85,303	89,555	-4,251	3,946	551	-2,173	-10,838	-4.9	....
1969.....	78,642	80,211	-1,569	7,769	1,696	264	-7,906	-0.9	....
International and Territorial Airlines									
1959.....	592,226	573,653	18,573	8,831	12,757	10,453	13,156	4.5	2.2
1964.....	1,040,020	896,187	143,833	22,980	9,700	56,418	76,731	12.2	7.4
1965.....	1,210,875	1,001,362	209,513	25,896	6,578	73,572	121,883	14.7	10.1
1966.....	1,474,480	1,220,894	253,586	30,641	21,890	94,945	149,890	13.8	10.2
1967.....	1,769,682	1,496,540	273,142	36,941	17,432	88,620	163,108	11.1	9.2
1968.....	1,958,327	1,746,831	211,496	50,482	35,285	64,758	126,962	7.5	6.5
1969.....	2,109,254	2,008,441	100,812	78,302	41,677	25,594	38,593	3.7	1.8
All-Cargo Airlines (International)									
1959.....	17,860	22,612	-4,752	294	264	-1,046	-3,519	-27.8	....
1964.....	42,032	35,790	6,242	3,039	259	....	2,462	11.6	5.9
1965.....	56,191	45,782	10,409	2,876	22	....	6,892	21.7	12.3
1966.....	99,059	78,791	20,269	2,801	1,223	3,216	15,474	32.8	15.6
1967.....	114,193	100,425	13,768	2,846	569	2,278	9,213	13.6	8.1
1968.....	111,998	103,632	8,366	3,526	251	816	4,274	7.8	3.8
1969.....	165,958	151,797	14,161	11,762	1,678	1,128	2,949	1.4	1.8

³ Net profit as a per cent of overall operating revenues.

BALANCE SHEET

In Thousands of Dollars

As of December 31

	1959	1964	1965	1966	1967	1968	1969
TOTAL INDUSTRY							
<i>Assets</i>							
Current Assets.....	835,955	1,183,263	1,528,691	1,980,938	2,267,759	2,172,251	2,383,590
Investments and Special Funds.....	272,130	299,393	469,755	710,602	1,068,162	1,285,099	1,494,642
Flight Equipment.....	2,476,344	4,523,735	5,024,466	6,095,501	7,566,748	9,021,794	9,947,835
Reserve for Depreciation and Airworthiness.....	-1,072,670	-1,815,056	-1,920,203	-2,105,171	-2,372,073	-2,545,815	-3,015,817
Ground Property and Equipment.....	344,836	556,977	620,525	717,531	862,004	1,035,802	1,255,507
Reserve for Depreciation.....	-168,076	-293,763	-320,740	-351,440	-400,237	-462,699	-534,817
Other Property.....	116,074	61,972	101,094	145,376	212,612	263,458	349,137
Deferred Charges.....	82,006	84,992	77,741	117,030	139,131	217,142	244,454
Total Assets.....	2,886,599	4,601,507	5,581,330	7,310,369	9,344,104	10,987,031	12,124,529

Liabilities and Equity

Current Liabilities.....	644,153	972,106	1,125,262	1,282,886	1,519,074	1,746,866	2,149,220
Long-Term Debt.....	1,138,054	1,876,962	2,149,837	3,077,460	4,188,973	5,253,373	5,485,075
Other Non-Current Liabilities.....	9,066	29,073	20,933	18,882	22,948	23,273	255,966
Deferred Credit.....	128,515	394,070	449,456	540,752	671,428	836,321	979,197
Stockholders' Equity—Net of Treasury Stock.....	966,811	1,329,292	1,835,841	2,390,391	2,941,645	3,127,199	3,255,071
Preferred Stock.....	22,053	23,647	19,135	17,138	38,283	52,205	36,330
Common Stock.....	161,452	227,730	264,199	275,876	343,550	346,512	264,587
Other Paid-In Capital.....	377,502	517,643	623,975	819,022	999,654	1,054,884	1,316,393
Retained Earnings.....	407,869	562,362	931,108	1,280,936	1,562,797	1,675,568	1,639,683
Less: Treasury Stock.....	2,065	2,089	2,575	2,567	2,640	1,971	1,922
Total Liabilities and Equity.....	2,886,599	4,601,507	5,581,330	7,310,369	9,344,104	10,987,031	12,124,529

Domestic Trunk Airlines¹

Assets

Current Assets.....	633,794	882,686	1,155,376	1,488,583	1,769,067	1,576,569	1,742,945
Investments and Special Funds.....	132,780	175,081	325,334	477,165	697,504	831,219	1,090,440
Flight Equipment.....	1,898,778	3,477,700	3,864,965	4,681,260	5,749,847	6,956,182	7,685,654
Reserve for Depreciation and Airworthiness.....	-834,828	-1,399,188	-1,509,256	-1,652,233	-1,882,877	-2,025,147	-2,450,209
Ground Property and Equipment.....	279,018	425,974	479,091	544,698	651,653	794,600	959,448
Reserve for Depreciation.....	-132,553	-231,433	-250,723	-271,971	-310,973	-356,253	-408,068
Other Property.....	105,921	50,547	65,734	91,558	168,116	207,456	232,872
Deferred Charges.....	55,340	38,893	35,347	58,848	69,615	121,572	129,588
Total Assets.....	2,138,250	3,420,258	4,165,869	5,417,909	6,911,951	8,106,199	8,982,670

Liabilities and Equity

Current Liabilities.....	474,011	686,810	789,602	890,833	1,080,742	1,202,723	1,505,064
Long-Term Debt.....	804,578	1,436,105	1,596,918	2,277,953	2,988,632	3,767,627	3,773,899
Other Non-Current Liabilities.....	2,014	6,073	15,454	14,835	18,600	16,386	246,086
Deferred Credits.....	114,563	321,469	377,687	454,805	568,615	711,030	838,548
Stockholders' Equity—Net of Treasury Stock.....	743,084	969,798	1,386,207	1,779,483	2,255,362	2,408,432	2,619,073
Preferred Stock.....	19,072	17,433	16,134	15,262	37,069	36,646	24,172
Common Stock.....	116,627	163,032	191,742	208,237	278,970	282,194	195,352
Other Paid-In Capital.....	262,522	385,103	470,160	606,614	749,971	770,795	985,496
Retained Earnings.....	345,298	405,514	709,203	950,447	1,190,930	1,319,737	1,414,993
Less: Treasury Stock.....	435	1,284	1,031	1,077	1,579	939	939
Total Liabilities and Equity.....	2,138,250	3,420,258	4,165,869	5,417,909	6,911,951	8,106,199	8,982,670

¹ Balance sheet data for Domestic Trunk Airlines include their international as well as domestic operations.

Note: Aspen Airways figures are included in industry totals for 1967 and 1968.

BALANCE SHEET

U.S. Scheduled Airline Industry

As of December 31

	1959	1964	1965	1966	1967	1968	1969
Local Service Airlines							
<i>Assets</i>							
Current Assets.....	29,911	66,053	85,449	112,012	141,021	175,836	166,344
Investments and Special Funds.....	2,055	12,999	19,553	38,962	46,451	48,134	20,984
Flight Equipment.....	67,202	135,606	191,980	277,338	456,107	609,260	654,960
Reserve for Depreciation and Airworthiness.....	-25,175	-50,035	-59,423	-62,912	-68,189	-94,884	-114,246
Ground Property and Equipment.....	9,870	19,707	22,779	30,086	36,940	45,011	51,808
Reserve for Depreciation.....	-4,871	-11,143	-12,385	-14,104	-16,965	-20,814	-25,121
Other Property.....	1,931	2,597	8,343	23,745	16,659	12,116	21,786
Deferred Charges.....	3,542	5,591	6,233	14,038	24,980	36,066	46,819
Total Assets.....	84,465	181,373	262,531	419,164	637,003	810,725	823,333

Liabilities and Equity

Current Liabilities.....	34,215	51,632	68,766	99,782	134,650	169,553	230,440
Long-Term Debt.....	31,062	69,732	112,039	219,741	392,753	530,087	521,040
Other Non-Current Liabilities.....	4,072	475	57	48	550	181	447
Deferred Credits.....	293	3,203	4,297	3,488	6,620	5,619	2,052
Stockholders' Equity—Net of Treasury Stock.....	14,823	56,334	77,372	96,105	102,430	105,285	69,354
Preferred Stock.....	163	1,887	952	755	660	15,186	11,832
Common Stock.....	8,245	15,091	17,505	19,204	20,813	19,525	23,476
Other Paid-In Capital.....	7,180	17,676	27,628	39,547	52,591	72,142	102,553
Retained Earnings.....	-691	21,771	31,323	36,633	28,401	-1,561	-68,500
Less: Treasury Stock.....	74	92	35	35	35	7	7
Total Liabilities and Equity.....	84,465	181,373	262,531	419,164	637,003	810,725	823,333

Intra-Hawaiian Airlines

Assets

Current Assets.....	3,481	3,405	6,465	5,721	7,142	7,380	8,116
Investments and Special Funds.....	299	318	1,963	1,681	1,801	3,049	1,527
Flight Equipment.....	11,134	14,100	13,330	17,146	22,446	27,391	30,729
Reserve for Depreciation and Airworthiness.....	-4,104	-7,055	-6,174	-5,304	-4,934	-6,893	-8,245
Ground Property and Equipment.....	1,778	3,314	3,446	4,487	5,163	5,758	6,116
Reserve for Depreciation.....	-1,147	-1,531	-1,616	-1,852	-2,132	-2,467	-2,760
Other Property.....	144	229	638	976	569	147	3,069
Deferred Charges.....	859	546	760	1,705	1,837	1,569	2,643
Total Assets.....	12,444	13,328	18,812	24,560	31,891	35,933	41,195

Liabilities and Equity

Current Liabilities.....	2,614	3,877	4,897	4,992	7,770	8,589	14,242
Long-Term Debt.....	6,164	5,156	8,240	13,193	14,279	16,402	19,368
Other Non-Current Liabilities.....	-----	113	120	173	106	416	747
Deferred Credits.....	59	87	335	440	2	-----	13
Stockholders' Equity—Net of Treasury Stock.....	3,607	4,095	5,221	5,763	9,733	10,527	6,824
Preferred Stock.....	1,625	1,211	573	398	310	130	83
Common Stock.....	1,304	1,921	2,852	3,081	5,746	6,204	6,252
Other Paid-In Capital.....	1,792	1,866	1,405	1,413	4,543	6,592	6,591
Retained Earnings.....	-1,150	-902	391	871	-866	-2,399	-6,102
Less: Treasury Stock.....	-----	-----	-----	-----	-----	-----	-----
Total Liabilities and Equity.....	12,444	13,328	18,812	24,560	31,891	35,933	41,195

BALANCE SHEET

In Thousands of Dollars

As of December 31

	1959	1964	1965	1966	1967	1968	1969
Helicopter Airlines							
<i>Assets</i>							
Current Assets.....	3,315	4,410	5,856	7,071	6,262	6,073	3,574
Investments and Special Funds.....	164	590	736	1,058	826	419	372
Flight Equipment.....	5,488	9,608	10,363	11,384	14,292	14,218	9,417
Reserve for Depreciation and Airworthiness.....	-2,344	-3,385	-3,995	-4,184	-5,157	-5,923	-4,328
Ground Property and Equipment.....	894	1,782	1,919	2,029	2,157	2,308	1,777
Reserve for Depreciation.....	-497	-1,027	-1,160	-1,202	-1,306	-1,449	-1,078
Other Property.....	55	126	241	165	358	269	573
Deferred Charges.....	482	884	1,205	1,296	1,040	801	525
Total Assets.....	7,557	12,987	15,165	17,617	18,472	16,716	10,832

Liabilities and Equity

Current Liabilities.....	2,021	3,008	5,015	5,031	5,217	6,505	6,613
Long-Term Debt.....	696	4,509	4,352	7,059	8,619	7,947	9,007
Other Non-Current Liabilities.....	.....	6	5	84	61	26	316
Deferred Credits.....	152	226	403	165	149	201	70
Stockholders' Equity—Net of Treasury Stock.....	4,687	5,241	5,390	5,279	4,426	2,038	-5,173
Preferred Stock.....	.....	1,456	.....	.....	.....	.....	.....
Common Stock.....	770	995	2,963	3,141	3,157	3,424	3,855
Other Paid-In Capital.....	2,686	2,573	2,648	2,919	2,939	3,366	3,764
Retained Earnings.....	1,231	216	-221	-781	-1,670	-4,752	-12,793
Less: Treasury Stock.....	.....	.....	.....	.....	.....	.....	.....
Total Liabilities and Equity.....	7,557	12,987	15,165	17,617	18,472	16,716	10,832

International and Territorial Airlines

Assets

Current Assets.....	141,000	186,730	230,019	296,178	272,353	328,889	361,641
Investments and Special Funds.....	115,982	101,862	112,659	174,062	228,892	347,845	353,950
Flight Equipment.....	426,986	701,856	739,019	920,657	1,096,492	1,102,427	1,226,964
Reserve for Depreciation and Airworthiness.....	-181,146	-284,887	-262,583	-300,378	-316,309	-325,942	-379,371
Ground Property and Equipment.....	45,587	94,355	99,902	114,762	142,028	160,754	203,478
Reserve for Depreciation.....	-25,130	-42,316	-47,905	-54,500	-59,798	-72,322	-86,541
Other Property.....	7,006	6,102	20,534	26,070	23,058	35,264	69,176
Deferred Charges.....	19,179	31,355	26,355	25,867	23,665	32,555	41,271
Total Assets.....	549,464	795,057	918,000	1,202,718	1,410,381	1,609,469	1,790,566

Liabilities and Equity

Current Liabilities.....	105,555	183,236	209,828	232,163	239,820	292,392	323,225
Long-Term Debt.....	262,388	274,502	338,496	474,865	629,706	716,163	883,000
Other Non-Current Liabilities.....	1,532	19,743	2,569	2,224	478	1,017	2,717
Deferred Credits.....	10,346	62,293	56,714	69,302	77,401	99,153	113,148
Stockholders' Equity—Net of Treasury Stock.....	169,643	255,284	310,392	424,163	462,543	497,786	468,476
Preferred Stock.....	.....	.....	.....	.....	.....	.....	.....
Common Stock.....	22,163	19,703	20,064	21,884	10,797	11,361	11,836
Other Paid-In Capital.....	80,773	96,190	106,519	143,411	153,850	164,845	179,863
Retained Earnings.....	63,048	140,099	185,319	260,080	298,679	322,361	277,510
Less: Treasury Stock.....	1,546	708	1,509	1,212	783	782	733
Total Liabilities and Equity.....	549,464	795,057	918,000	1,202,718	1,410,381	1,609,469	1,790,566

BALANCE SHEET

U.S. Scheduled Airline Industry

As of December 31

	1959	1964	1965	1966	1967	1968	1969
Intra-Alaskan Airlines							
<i>Assets</i>							
Current Assets.....	3,973	6,580	6,623	6,151	7,661	7,140	9,236
Investments and Special Funds.....	278	659	682	1,232	2,571	1,283	1,682
Flight Equipment.....	7,729	10,601	12,203	12,531	14,360	22,662	27,196
Reserve for Depreciation and Airworthiness.....	-2,742	-6,002	-6,945	-7,248	-7,645	-6,893	7,788
Ground Property and Equipment.....	3,475	4,909	5,842	7,089	7,369	5,910	7,883
Reserve for Depreciation.....	-1,500	-2,536	-2,816	-3,184	-3,611	-2,858	-3,313
Other Property.....	316	465	1,059	709	614	1,050	172
Deferred Charges.....	371	653	635	670	743	719	1,831
Total Assets.....	11,900	15,328	17,285	17,949	22,064	29,317	36,898
<i>Liabilities and Equity</i>							
Current Liabilities.....	3,736	5,540	5,437	5,033	5,896	5,278	5,404
Long-Term Debt.....	4,841	2,416	4,085	4,264	4,770	11,527	17,600
Other Non-Current Liabilities.....	62	187	173	140	123	63	61
Deferred Credits.....	72	213	242	239	190	328	291
Stockholders' Equity—Net of Treasury Stock.....	3,189	6,968	7,348	8,273	11,079	12,116	13,543
Preferred Stock.....	-----	468	485	480	-----	-----	-----
Common Stock.....	2,040	2,223	2,552	2,721	3,735	3,376	3,381
Other Paid-In Capital.....	179	320	487	490	2,728	2,289	3,131
Retained Earnings.....	905	3,938	3,824	4,581	4,616	6,451	7,031
Less: Treasury Stock.....	-----	-----	-----	-----	-----	-----	-----
Total Liabilities and Equity.....	11,900	15,328	17,285	17,949	22,064	29,317	36,898
All-Cargo Airlines ²							
<i>Assets</i>							
Current Assets.....	20,481	33,398	38,903	65,222	64,116	70,232	91,734
Investments and Special Funds.....	20,572	7,884	8,827	16,442	90,117	52,876	25,688
Flight Equipment.....	59,027	174,264	192,603	175,184	213,048	289,388	312,916
Reserve for Depreciation and Airworthiness.....	-22,331	-64,504	-71,827	-72,910	-86,862	-80,310	-51,630
Ground Property and Equipment.....	4,214	6,936	7,547	14,380	16,534	21,272	24,996
Reserve for Depreciation.....	-2,378	-3,777	-4,135	-4,626	-5,434	-6,499	-7,935
Other Property.....	701	1,906	4,548	2,155	2,384	6,400	21,490
Deferred Charges.....	2,233	7,070	7,202	14,606	17,235	23,856	21,777
Total Assets.....	82,519	163,176	183,667	210,453	311,138	377,214	439,035
<i>Liabilities and Equity</i>							
Current Liabilities.....	22,001	38,003	41,718	45,052	44,640	61,094	64,232
Long-Term Debt.....	28,325	84,542	85,707	80,385	149,465	203,053	261,161
Other Non-Current Liabilities.....	1,385	2,476	2,555	1,378	2,628	2,220	5,593
Deferred Credits.....	3,030	6,579	9,777	12,313	18,418	19,958	25,075
Stockholders' Equity—Net of Treasury Stock.....	27,778	31,574	43,910	71,325	95,986	90,888	82,975
Preferred Stock.....	1,193	1,192	991	244	244	244	244
Common Stock.....	10,303	24,765	26,522	17,608	20,317	20,413	20,436
Other Paid-In Capital.....	22,370	13,915	15,128	24,627	32,969	34,792	34,994
Retained Earnings.....	-6,078	-8,294	1,269	29,090	42,700	35,683	27,545
Less: Treasury Stock.....	10	5	-----	244	244	244	244
Total Liabilities and Equity.....	82,519	163,176	183,667	210,453	311,138	377,214	439,035

² Balance sheet data for All-Cargo Airlines include their international as well as domestic operations.

UNIT REVENUES AND COSTS

PASSENGER REVENUES COMPARED

Average Revenue per Passenger Mile — Intercity Common Carriers

(In Cents Per Mile)

	1959	1964	1965	1966	1967	1968	1969
Scheduled Airlines:							
Domestic—First Class.....	6.78	7.26	7.33	7.24	7.24	7.32	8.03
Coach.....	4.63	5.58	5.52	5.28	5.13	5.11	5.33
Total.....	5.88	6.12	6.06	5.83	5.64	5.61	5.90
International—First Class.....	8.34	8.16	7.62	7.60	7.59	7.42	7.39
Tourist*.....	5.38	5.12	5.00	4.85	4.71	4.65	4.63
Total.....	6.29	5.45	5.29	5.16	5.01	4.95	4.94
Total U.S. Scheduled Airlines.....	5.96	5.95	5.87	5.67	5.49	5.46	5.68
Railroads, Class I							
First Class.....	3.84	3.91	3.87	3.84	3.76	3.88	4.08
Coach.....	2.77	3.00	3.00	2.99	3.02	3.24	3.56
Motor Buses, Class I	2.59	2.74	2.88	2.89	2.98	3.18	3.34

* Includes Economy Fares.

FREIGHT REVENUES COMPARED

Average Revenue per Ton Mile — Intercity Common Carriers

(In Cents Per Mile)

	1959	1964	1965	1966	1967	1968	1969
Scheduled Airlines:							
Domestic.....	22.76	20.97	20.46	20.21	19.89	19.97	21.09
International.....	31.66	23.60	20.76	19.92	19.63	18.83	18.45
Total U.S. Scheduled Airlines.....	25.71	21.95	20.58	20.09	19.79	19.51	19.96
Railroads, Class I.....	1.45	1.28	1.27	1.26	1.27	1.31	1.35
Trucks, Class I and II.....	6.30	6.50	6.10	6.60	6.60 ^v	6.70 ^u	6.80 ^u

^v Preliminary.

^u Estimated.

AIRLINE REVENUE, COST AND PROFIT PER REVENUE TON MILE

(In Cents Per Mile)

	1959	1964	1965	1966	1967	1968	1969
Domestic Service							
Unit Revenue.....	56.18	56.58	54.48	51.79	49.90	49.66	51.89
Unit Cost.....	53.14	50.87	47.81	45.57	45.67	47.00	49.66
Operating Profit Margin.....	3.04	5.71	6.67	6.22	4.23	2.66	2.23
International & Territorial Service							
Unit Revenue.....	52.63	44.80	40.60	35.87	33.04	31.12	30.61
Unit Cost.....	51.44	38.59	33.56	29.63	28.01	27.82	29.06
Operating Profit Margin.....	1.19	6.21	7.04	6.24	5.03	3.30	1.55
Total Industry							
Unit Revenue.....	55.31	53.03	50.10	46.18	43.77	42.86	43.98
Unit Cost.....	52.73	47.17	43.31	39.95	39.26	39.96	42.00
Operating Profit Margin.....	2.58	5.86	6.79	6.23	4.51	2.90	1.98

AIRPORTS AND AIRWAYS

ACTIVE AIRCRAFT IN THE CIVIL AVIATION FLEET

	1959	1964	1965	1966	1967	1968	1969
Air Carrier							
Piston.....	1,531	1,030	875	684	472	202	120
Turbine.....	296	813	1,000	1,322	1,700	2,099	2,283
Rotorcraft.....	23	20	21	21	22	13	12
Total.....	1,850	1,863	1,896	2,027	2,194	2,314	2,415
% of Total.....	2.6%	2.1%	1.9%	1.9%	1.9%	1.8%	1.8%
General Aviation.....							
Piston.....	67,878	86,482	92,556	101,292	109,910	118,734	126,300 ^B
Turbine.....	—	306	574	915	1,281	1,833	2,400 ^B
Rotorcraft.....	525	1,306	1,503	1,622	1,899	2,350	2,800 ^B
Other.....	324	648	809	877	1,096	1,320	1,500 ^B
Total.....	68,727	88,742	95,442	104,706	114,186	124,237	133,000 ^B
% of Total.....	97.4%	97.9%	98.1%	98.1%	98.1%	98.2%	98.2%
Total.....	70,577	90,605	97,338	106,733	116,380	126,551	135,415^B

^B Estimated

Source: Federal Aviation Administration.

AIRCRAFT OPERATIONS AT AIRPORTS WITH FAA CONTROL TOWERS

	1959	1964	1965	1966	1967	1968	1969
Air Carrier.....	7,352,849	7,447,434	7,819,114	8,206,322	9,359,960	10,377,089	10,929,013
% of Total.....	27.3%	21.8%	20.6%	18.3%	18.8%	18.8%	19.4%
General Aviation.....	15,008,103	23,019,865	26,572,650	33,445,126	37,222,622	41,564,024	41,952,176
% of Total.....	55.8%	67.3%	70.2%	74.4%	74.6%	75.2%	74.6%
Military.....	4,544,904	3,727,360	3,478,771	3,301,368	3,304,258	3,350,922	3,350,632
% of Total.....	16.9%	10.9%	9.2%	7.3%	6.6%	6.1%	6.0%
Total.....	26,905,856	34,194,659	37,870,535	44,952,816	49,886,840	55,292,035	56,231,821

Source: Federal Aviation Administration.

AIRCRAFT HOURS FLOWN IN CIVIL AVIATION

	1959	1964	1965	1966	1967	1968	1969
Scheduled Air Carrier							
Domestic Service.....	3,818,812	3,266,137	3,500,027	3,602,540	4,173,399	4,638,593	4,918,028
International & Territorial Service.....	684,356	508,408	571,828	630,578	751,214	882,718	977,686
Total.....	4,503,168	3,774,545	4,071,855	4,233,118	4,924,613	5,521,311	5,895,714
% of Total.....	25.9%	19.3%	19.6%	16.8%	18.2%	18.7%	19.1%
General Aviation.....	12,903,000	15,738,000	16,733,000	21,023,000	22,153,000	24,053,000	25,050,000^B
% of Total.....	74.1%	80.7%	80.4%	83.2%	81.8%	81.3%	80.9%
Total.....	17,406,168	19,512,545	20,804,855	25,256,118	27,077,613	29,574,311	30,945,714^B

^B Estimated

Source: Civil Aeronautics Board.

Federal Aviation Administration.

AIRPORTS AND AIRWAYS

TOTAL U. S. AIRPORTS, FAA CONTROL TOWERS AND POINTS RECEIVING SCHEDULED AIRLINE SERVICE

	1959	1964	1965	1966	1967	1968	1969
Total Airports on Record with FAA.....	6,426	9,490	9,566	9,673	10,126	10,470	10,847 ¹
Total FAA Control Towers.....	222	278	292	303	313	322	328
Points Receiving Scheduled Airline Service.....	566	547	532	527	521	525	525

¹ As of November 1, 1969.

Note: Several points are served by more than one airport.

Source: Civil Aeronautics Board.
Federal Aviation Administration.

DISTRIBUTION OF AIRCRAFT OPERATIONS AT LARGE HUB AIRPORTS (in order of number of enplaned passengers)

	1959			1964			1969		
	Air Carrier	General Aviation	Military	Air Carrier	General Aviation	Military	Air Carrier	General Aviation	Military
Chicago O'Hare.....	35.1%	40.6%	24.3%	84.7%	13.8%	1.6%	93.4%	6.1%	0.5%
Los Angeles.....	74.2	17.2	8.6	79.3	16.8	3.9	72.2	26.2	1.6
John F. Kennedy.....	87.2	11.2	1.7	89.4	10.1	0.4	86.3	13.5	0.2
Atlanta.....	74.7	20.6	4.7	76.7	21.5	1.9	83.6	16.1	0.3
San Francisco.....	59.4	31.4	9.2	74.9	21.0	4.2	78.4	20.1	1.5
La Guardia.....	75.0	24.7	0.3	54.2	45.2	0.6	78.3	21.4	0.3
Washington National.....	79.6	16.9	3.5	72.5	25.2	2.3	65.8	33.3	0.9
Dallas.....	57.7	39.7	2.5	57.5	40.7	1.8	65.0	34.3	0.6
Miami.....	51.2	39.1	9.7	49.6	48.6	1.8	67.6	31.9	0.5
Boston.....	58.7	28.0	13.2	65.4	28.7	5.9	67.8	31.9	0.3
Detroit Metropolitan.....	75.3	21.2	3.5	40.2	54.2	5.5	69.6	28.3	2.0
Newark.....	81.1	17.6	1.3	77.0	21.9	1.1	75.6	24.3	0.1
Philadelphia.....	59.4	30.3	10.3	62.6	34.7	2.7	67.8	31.0	1.1
St. Louis.....	43.8	40.0	16.2	34.2	56.4	9.3	56.0	39.2	4.8
Denver.....	34.5	58.5	7.0	31.0	67.5	1.5	45.9	53.7	0.3
Pittsburgh.....	67.4	14.6	18.1	60.4	21.0	18.6	59.9	30.8	9.3
Cleveland.....	54.0	44.6	1.5	49.9	48.9	1.1	45.2	54.5	0.3
Minneapolis/St. Paul.....	38.1	33.5	28.4	37.6	39.7	22.6	48.4	39.8	11.8
Seattle.....	75.8	18.4	5.8	63.0	31.8	5.2	65.2	33.7	1.1
Houston.....	38.7	55.5	5.7	33.7	65.2	1.0	20.9	78.2	0.9
Kansas City.....	49.8	49.1	1.1	43.6	54.9	1.5	57.9	41.6	0.4
New Orleans.....	71.1	20.3	8.6	66.4	29.1	4.5	68.4	29.5	2.1
Las Vegas.....	27.3	61.1	11.6	31.7	66.0	2.3	36.8	57.0	6.2
Total 23 large hubs.....	59.3	32.1	8.6	60.2	35.8	4.0	67.0	31.3	1.8

Source: Federal Aviation Administration.

GROWTH OF AIRLINE SERVICE

	1959	1968	1969
Number of Carriers.....	52	37	37
Average Number of Scheduled Daily Flights.....	10,714	14,612	14,737
Number of Points Served ¹			
Domestic.....	566	525	525
International.....	157	166	160
Route Miles Served			
Domestic.....	253,673	314,722	390,996
International.....	333,805	369,027	429,637
Total Payroll (000).....	\$1,046,571	\$2,921,120	\$3,322,719
Number of Employees.....	160,690	300,451	311,922
Average Annual Pay.....	\$ 6,513	\$ 9,722	\$ 10,652

¹ Many points serve more than 1 city. Does not include Alaskan points.

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.

PASSENGER TON MILE. Prior to January 1, 1970: One ton (2,000 pounds) of passenger weight, including free baggage (but not excess baggage), transported one statute mile. The combined passenger and free baggage weights were calculated as follows:

Domestic Operations	190 pounds
International/Territorial Operations	
Coach (tourist) passengers	200 pounds
First Class passengers	215 pounds

Effective January 1, 1970: One ton (2,000 pounds) of passenger weight, including all baggage, transported one statute

mile. A standard weight of 200 pounds per passenger, including all baggage, is used for all civil operations and classes of service.

Passenger ton miles are computed by multiplying passenger weight in tons (using the appropriate weight allowance) by miles flown.

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.

CARGO TON MILE. One ton (2,000 pounds) of cargo transported one mile. Cargo ton miles are computed by multiplying tons of cargo by the miles which the cargo is flown. Same procedure applies to the computation of freight, mail and express ton miles.

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 ORIGINATIONS. The unduplicated number of scheduled passengers who originate their journeys on the individual airlines. The return portion of a round trip is counted separately as an initial origination.

REVENUE PLANE MILES. Number of miles flown for which remuneration is received by an air carrier.

AIRCRAFT IN SERVICE

U.S. Scheduled Airline Industry

		<i>(In service as of 12/31)</i>						
Manufacturer	Model	1959	1964	1965	1966	1967	1968	1969
Boeing:	377	21	---	---	---	---	---	---
	B707 (Jet)	66	157	187	239	327	380	417
	B720 (Jet)	---	112	121	129	135	134	127
	B727 (Jet)	---	88	168	277	394	516	605
	B737 (Jet)	---	---	---	---	---	66	132
	B747 (Jet)	---	---	---	---	---	---	1
British Aircraft Corp.:	BAC 111 (Jet)	---	---	17	54	57	60	60
Canadair:	CL 44 (Turboprop)	---	21	24	22	19	14	9
Convair:	240	49	51	55	30	11	3	1
	340/440	158	153	145	112	78	46	7
	580/600 (Turboprop)	---	4	20	69	113	148	143
	880 (Jet)	---	48	47	46	45	41	41
	990 (Jet)	---	19	18	17	11	6	---
Curtis:	C-46	30	22	24	18	12	7	6
Douglas:	DC-3	305	164	140	105	70	14	5
	DC-4	62	15	5	5	4	---	---
	DC-6	325	203	177	131	102	7	7
	DC-7	220	121	64	49	27	15	10
	DC-8 (Jet)	18	114	130	142	161	217	254
	DC-9 (Jet)	---	---	4	54	142	260	316
Fairchild Hiller:	F-27 (Turboprop)	34	54	63	63	48	47	36
	FH-227 (Turboprop)	---	---	---	16	58	55	53
Lockheed:	Lodestar	42	---	---	---	---	---	---
	Constellation	62	41	36	37	6	---	---
	Super Constellation	137	107	70	61	39	---	1
	Electra (Turboprop)	96	117	117	114	109	86	40
	L-382B/100 (Turboprop)	---	---	---	5	9	9	9
Martin:	202	19	15	13	---	---	---	---
	404	85	65	71	73	57	46	37
Nihon:	YS-11 (Turboprop)	---	---	---	3	2	9	17
Nord Aviation:	262 (Turboprop)	---	---	5	---	12	12	---
Sud Aviation:	Caravelle (Jet)	---	20	20	20	20	20	20
Vickers:	Viscount (Turboprop)	82	59	59	52	38	19	3
Other:		16	73	75	63	66	64	46
Totals:								
Jet		84	558	712	978	1,292	1,700	1,973
Turboprop		212	255	288	344	408	399	310
Piston		1,531	1,030	875	684	472	202	120
Total Fixed Wing:		1,827	1,843	1,875	2,006	2,172	2,301	2,403
Helicopters:								
Bell:	B47	5	---	---	---	---	---	---
Sikorsky:	S51	2	1	---	---	---	---	---
	S55	5	2	2	2	2	---	---
	S58	6	4	4	3	3	---	---
	S61 (Turbine)	---	6	7	8	9	8	8
	S62 (Turbine)	---	3	1	1	1	1	---
Boeing Vertol:	V107 (Turbine)	---	4	7	7	7	4	4
	V-44B	5	---	---	---	---	---	---
Totals:								
Turbine		---	13	15	16	17	13	12
Piston		23	7	6	5	5	---	---
Total Helicopters:		23	20	21	21	22	13	12

Source: Federal Aviation Administration.

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.

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	National
Braniff International	Northeast
Continental	Northwest
Delta	Trans World
Eastern	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. This group includes the system operations of the following airlines:

Air West	North Central
Allegheny	Ozark
Frontier	Piedmont
Mohawk	Southern
	Texas International

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

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These airlines operate solely within the State of Hawaii.

Aloha	Hawaiian
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Kodiak	Western Alaska
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These airlines are authorized to operate flights carrying freight, express, and mail over specified domestic and international routes.

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

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