

**1965  
FACTS  
&  
FIGURES**

**AIR TRANSPORTATION**

OFFICIAL PUBLICATION OF THE AIR TRANSPORT ASSOCIATION OF AMERICA

# 1964 AT A GLANCE

## Traffic, Financial and Service Summary For the United States Scheduled Airline Industry

	1964	1963	% Change over 1963	1954	% Change 1964 over 1954
<b>TRAFFIC</b>					
Passengers (000).....	81,774	71,414	14.5	35,448	130.7
Passenger Miles (000).....	58,493,581	50,361,217	16.1	20,612,871	183.8
Freight Ton Miles (000).....	1,301,488	1,025,660	26.9	311,876	317.3
U.S. Mail Ton Miles (000).....	371,308	356,600	4.1	118,986	212.1
Express Ton Miles (000).....	78,310	70,832	10.6	41,523	88.6
Cargo Ton Miles (000).....	1,751,106	1,453,092	20.5	472,385	270.7
Total Revenue Ton Miles (000).....	8,015,933	6,859,301	16.9	2,563,795	212.7
<b>FINANCIAL</b>					
Total Operating Revenues (\$000).....	4,252,159 <sup>P</sup>	3,757,097	13.2	1,440,977	195.1
Total Operating Expenses (\$000).....	3,781,465 <sup>P</sup>	3,463,823	9.2	1,316,602	187.2
Net Operating Income (\$000).....	470,694 <sup>P</sup>	293,274	60.5	124,375	278.4
Net Profit or Loss <sup>1</sup> (\$000).....	226,405 <sup>P</sup>	76,897	194.4	67,761	234.1
Rate of Return on Investment <sup>2</sup> .....	10.8% <sup>P</sup>	6.5%	---	10.2%	---
Profit Margin on Sales <sup>3</sup> .....	5.3% <sup>P</sup>	2.0%	---	4.7%	---
<b>SERVICE</b>					
No. of Carriers.....	50	52	-3.9	52	-3.9
No. of Aircraft in Service.....	1,834	1,812	1.2	1,443	27.1
Fastest Cruising Speed (mph).....	625	625	---	350	78.6
Plane Miles Flown (000).....	1,189,094	1,094,918	8.6	689,777	72.4
Available Seat Miles (000).....	106,315,632	94,843,563	12.1	33,377,036	218.5
Average No. of Scheduled Daily Flights.....	10,803	10,379	4.1	8,224	31.4
No. of Points Served <sup>4</sup>					
Domestic.....	542	551	-1.6	550	-1.5
International.....	154	148	4.1	164	-6.1
Route Miles Served					
Domestic.....	280,976	280,117	0.3	170,471	64.8
International.....	348,933	326,740	6.8	240,094	45.3
No. of Employees.....	189,660 *	178,887	6.0	109,541	73.1
Average Annual Wage (\$)......	7,916 *	7,611	4.0	5,106	55.0
Total Payroll (\$000).....	1,501,348 *	1,361,460	10.3	559,276	168.4

<sup>P</sup> Preliminary

<sup>1</sup> After taxes, special items and non-operating income or loss

<sup>2</sup> Net income before interest and after taxes as per cent of average net worth and long term debt and advances

<sup>3</sup> Profit as per cent of revenues

<sup>4</sup> Many points serve more than 1 city  
Does not include Alaskan Points

\* As of September 30, 1964

*Twenty-sixth Edition*

**1965**

**Facts and Figures**

The Standard Reference of  
United States Scheduled Air Transportation

# AIR TRANSPORT ASSOCIATION OF AMERICA

Twenty-Sixth Edition

## Facts and Figures, 1965

### Definition of Terms

**AVAILABLE TON MILES.** Total ton miles of lift capacity available for sale in scheduled and charter service.

**CHARTER FLIGHT.** Transportation of passengers or property on other than scheduled and designated extra section flights.

**TON MILE.** A ton flown one mile.

**PASSENGER MILE.** One passenger flown one mile.

**PASSENGER LOAD FACTOR.** The percentage of available seat miles actually sold in scheduled service.

**REVENUE PASSENGER MILES.** The number of fare paying passengers flown times the length of trip in miles. This is the amount of available seat miles sold.

**REVENUE PLANE MILES.** Aircraft miles flown in scheduled service.

**REVENUE TON MILES.** The ton miles sold in scheduled and charter service. In the construction of this traffic measure passenger miles are converted to ton miles on the basis of about 10 to 1. That is, ten passengers with allowable free baggage are accepted as equalling one ton.

**TON MILE LOAD FACTOR.** Percentage of available ton miles sold in scheduled and charter service.

**U. S. MAIL TON MILE.** A ton of mail flown one mile. The mail figures are in two categories. These are defined as Priority and Non-Priority. Priority mail includes air mail and air parcel post. Non-Priority mail is first class mail that moves in air service. At present Non-Priority mail is being flown on an experimental basis between certain selected cities.

**NET OPERATING INCOME.** The total operating revenue from air transportation services less the operating expenses (see definition of Operating Expenses). Net Operating Income is before taxes and interest charges and does not include non-operating items.

**NET PROFIT OR LOSS.** Net income after Federal income taxes—the amount available for dividends or investments in the business.

**OPERATING EXPENSES.** The expenses incurred in the conduct of the business except for such items as debt financing and other non-operating items.

**PASSENGER REVENUES.** Passenger revenues from scheduled operations.

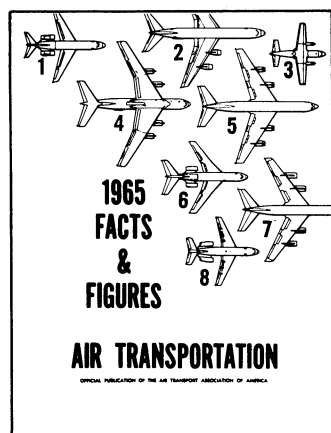
**PUBLIC SERVICE REVENUES.** Payments by the Federal Government to insure air service to communities in the United States and its territories which could not otherwise afford it; to maintain essential international air routes which are not yet self-supporting; and to develop helicopter service.

**PROFIT MARGIN OF SALES.** Net profit after interest and after taxes as per cent of operating revenues.

**RATE OF RETURN ON INVESTMENT.** Total return, i.e., net profit plus interest paid on long-term debt, as per cent of average investment. Investment is the average of total net worth (stockholders' equity) plus long-term debt at the beginning and end of each year.

As used in this report, rate of return on investment is not reduced by those tax benefits resulting from the investment credit which, under the provisions of the revenue law, will be excluded by the CAB in its official method of calculating the rate of return.

**THE COVER:** New turbine equipment on order by the U. S. scheduled airlines as of December 31, 1964.



1. Douglas DC-9
2. Douglas DC-8
3. Nord 262
4. Lockheed L-300-B
5. Boeing 707
6. Boeing 727
7. Boeing 720
8. BAC III

### Table of Contents

<b>1964 AT A GLANCE</b> .....	2
<b>A JOB FOR THE ABLEST LEADERS OF THE GENERATION</b> .....	4
<b>AIRLINES GEAR FOR NEW TRANSPORTATION SYSTEM</b> .....	5
Demand Analyzed .....	5
Fleet Expansion Continues .....	6
Diversified Jet Fleet Developing .....	6
New Look for the Airlines .....	6
Airlines at Mid-Point in Transition .....	7
<b>PASSENGER SERVICES KEEP PACE</b> .....	7
Reservation Confirmation .....	8
Improved Terminal Design .....	8
Baggage—Its Care and Handling .....	8
Changes in Passenger Fares .....	8
<b>IMPROVED SERVICE TO SHIPPERS</b> .....	9
Growing Demand for Air Freight .....	9
<b>PLANNING FOR ON-TIME PERFORMANCE</b> .....	10
Lower Weather Minimums Will Cut Time in Half .....	10
Campaign to Improve Smaller Airports .....	11
Eliminating Ground Delays at Airports .....	11
New Equipment Improves Safety, Speeds Traffic Flow.....	11
Simplicity of Jet Engine .....	12
Revolution Taking Place in Airline Communications.....	12
<b>AIRLINE INVESTMENTS AND PROFITS</b> .....	13
Earnings Improvement .....	13
New Air Transportation Network .....	13
Investment Multiplied 40 Times Since War .....	13
Overhaul in Capital Structure .....	14
Wave of New Capital Investment .....	14
Aircraft on Order .....	14
Ups and Downs in Profits .....	15
The Profit Rate and Fare Levels .....	15
<b>LOOKING AHEAD TO 1965</b> .....	16
New Post Office Program .....	16
Helicopter Technology Shows Great Improvement .....	16
Major Growth Expected in Travel to the U.S. ....	17
<b>A DEVELOPING NEW AIR TRANSPORT SYSTEM (Photo Spread)</b> .....	18, 19
<b>TABLES AND LISTINGS</b> .....	20 through 36

Revised data filed by the scheduled carriers with the Civil Aeronautics Board are the major source of the statistics.



STUART G. TIPTON,  
*President*  
*Air Transport Association*  
*of America*

## **A JOB FOR THE ABLEST LEADERS** **OF THE GENERATION**

The year's report of air transportation tells a story of rapid growth and radical change. It is the story of an industry which is the number one form of public passenger transportation between cities at home and which transports three out of every four persons traveling overseas.

Most observers and analysts of the industry believe that airlines are only at the beginning of their usefulness to the life of the nation. Successful managers and leaders of business, government, education, law, social work, philosophy and the arts are finding increasingly creative ways to use the tool of fast transport.

Public attention is usually focused on the physical equipment needed to provide the service to fill public demand. But perhaps more important than equipment are the people who make the system work.

The airlines currently employ 190,000 people. They will need 50,000 new faces by 1970. The airlines have always provided among the most interesting and challenging jobs in industry. In the future, this will be more true than ever before. The managers and leaders of the airline industry have the satisfaction of knowing that they are working in the forefront of their professions applying unique solutions to new situations. As has always been the case, the airlines expect, in the future, to attract among the ablest of our generation.

The management team of an airline will increasingly find the prosperity of the communities it serves tied in to the efficiency and quality of its service. On the national level, the multi-billion dollar air transport fleets have growing importance as a second line of defense in an emergency. On the international level, airline responsibility for fostering cultural and trade relations of the nation throughout the world is becoming heavier with each year. Management must correctly judge the impact of the continuing technological revolution on air transport service.

Unique problems of finance face the economists and money managers of the airlines. Investment in new equipment must be made at an extremely rapid rate if public demand is to be met. Airlines must compete for money at reasonable terms against other rapidly growing industries. In many older industries, financial management problems are cut and dried. For the airlines, nothing is cut and dried.

Aviation is a major application of science. The theories of those who work in the nation's scientific laboratories must be translated by airline engineers into practical and economically feasible terms. As subsonic flight merges into supersonic flight, new challenges in navigation, meteorology, metallurgy and the application of computers, requiring the ablest engineers of our generation, will be met.

In the sales field, leaders of the industry are concerned with changing the habits of a nation. Fast transport is a tool to be used by the nation to improve its methods of work and broaden its horizons for play. The freedom of movement conferred by the airplane must be matched to the needs of the nation; this is a challenge which has always appealed to the ablest.

Air cargo is growing at a much faster rate than passenger service and seems likely one day to overtake the passenger business. Air cargo managers are experts in the total cost of distributing commodities and must therefore understand and help modify the distribution patterns of the nation's industries.

Airlines depend on hundreds of millions of communications messages. No greater communications challenge exists in the country than is provided by the airlines. Here again, airline communications specialists must work in the forefront of their profession applying the newest inventions available.



# AIRLINES GEAR FOR NEW TRANSPORTATION SYSTEM

## Demand Analyzed

Public demand for airline service continued strong in 1964.

On combined U.S. domestic and international routes, the airlines flew 82 million passengers over 58 billion passenger miles, an increase of 14.5 per cent and 16.1 per cent respectively over the previous year. Total ton miles of service, the indicator of combined passenger, cargo, express and mail volume, was 8.02 billion in 1964, an increase of 16.9 per cent.

The following table shows the growth pattern for the airline industry for the past 10 years, demonstrating a pattern of ups and downs in public demand.

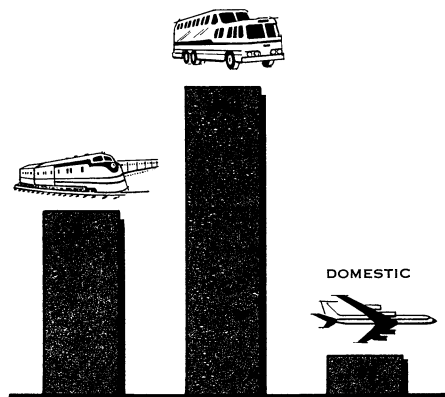
Some analysts of the industry are predicting a future average annual growth rate of about 7 per cent. On that assumption, public demand for airline service will grow by 1970 to 120 million passengers and 90 billion passenger miles. Total ton miles of service performed will be 12 billion.

Cargo traffic (freight, mail and express) continued to show strong growth. The industry performed a total of 1.8 billion ton miles, up 20.5 per cent from 1963. Freight registered the strongest gain in this category. The airlines performed 1.3 billion ton miles, a gain of 27 per cent over the previous year. 1964 was the best year in a ten-year upward trend in demand for freight service. The average annual rate of increase for freight has been 16 per cent.

Demand for coach and economy type service continued strong in 1964 and accounted for 73 per cent of passenger traffic, compared with 70 per cent in 1963. This trend coupled with increasing use by the public of promotional and excursion fares resulted in a decline in average yield per passenger mile from 6.09 cents to 5.95 cents, or 2.3 per cent. In the past 15 years, domestic airline fares have held relatively stable, increasing only about 6 per cent, while bus fares have increased 48 per cent and rail fares, 29 per cent.

### AIR FARES STAY LOW AS OTHER MODES INCREASE

*% Increase 1949-1964*

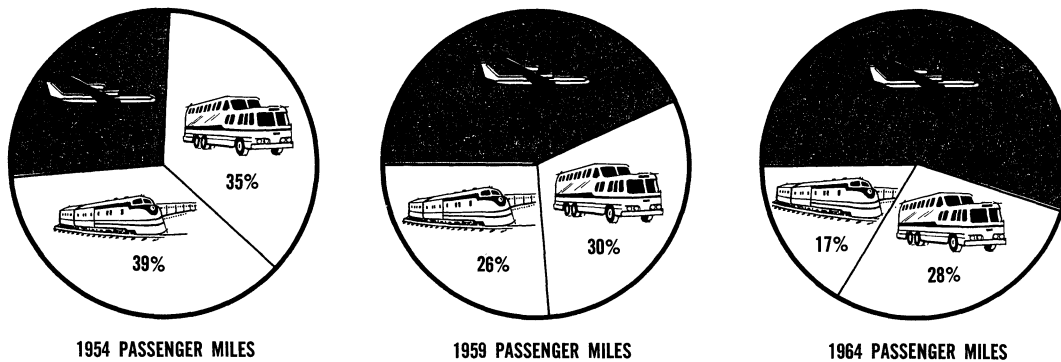


### TRAFFIC GROWTH U.S. Scheduled Airlines

Year	Passengers (in thousands)	% Annual Growth	Passenger Miles (in millions)	% Annual Growth	Total Ton Miles*	% Annual Growth
1954	35,448	12.0	20,612.9	13.0	2,563.8	12.0
1955	41,709	17.7	24,351.0	18.1	3,087.8	20.4
1956	46,005	10.3	27,624.8	13.4	3,618.6	17.2
1957	49,466	7.5	31,260.8	13.2	4,082.4	12.8
1958	49,169	-.6	31,499.4	.8	4,120.2	.9
1959	55,999	13.9	36,371.8	15.5	4,734.1	14.9
1960	57,872	3.3	38,863.0	6.8	5,024.3	6.1
1961	58,408	.9	39,830.8	2.5	5,393.9	7.4
1962	62,549	7.1	43,760.4	9.9	6,238.3	15.7
1963	71,414	14.2	50,361.2	15.1	6,859.3	10.0
<b>1964</b>	<b>81,774</b>	<b>14.5</b>	<b>58,493.6</b>	<b>16.1</b>	<b>8,015.9</b>	<b>16.9</b>

\* Includes charter operations.

**COMMON CARRIER PASSENGER TRAVEL IN THE UNITED STATES**  
**Airlines Now Account for More Than Half of Domestic Intercity**  
**Common-Carrier Passenger Travel**



**Fleet Expansion Continues**

Against a background of expanding public demand, the airline industry continued to increase its capacity and to replace piston engine equipment with turboprop and jet aircraft.

During the year, the airlines took delivery of 141 fixed-wing aircraft, 132 of which were pure jet.

While the turbine aircraft in 1964 were 45 per cent of the total airline fleet, they did about 85 per cent of the work.

**Diversified Jet Fleet Developing**

A clear pattern for the future developed during the year with the first deliveries of the Boeing 727, a medium range jet aircraft. In the next five years, a new round of equipment orders will provide the airlines with a wide variety of different aircraft designed to serve different markets.

As of April, 1965, with major new orders still expected, the airlines had on order 429 new jet and turboprop aircraft, plus 5 turbine helicopters, exceeding in dollar volume (\$2.1 billion compared to \$1.9 billion) the orders placed in 1957 at the height of the original transition from piston engine aircraft to jets.

**New Look for the Airlines**

In the next two years, the airline fleets will have an entirely new look.

For the longest intercontinental ranges of 3,000 to 6,000 miles, there will be the present Intercontinental Boeing 707s and Douglas DC-8s.

For the medium to long range flights of 1,500 to 3,000 miles there will be the familiar Boeing 707s, 720s, Douglas DC-8s and Convair 880/990 jets.

In the medium range of 1,000 to 1,500 miles, the three-engined Boeing 727 will find maximum utilization.

For high density routes, larger versions of 707 and DC-8 four-engined jets will be built capable of carrying up to 250 passengers.

For the short to medium-range market with stage lengths of 100 to 1,000 miles, the airlines have bought three jet aircraft:

- The BAC 111, first in service of the short range jets. It has a passenger capacity of up to 74.
- The Douglas DC-9, entering service late this year, is capable of carrying 90 passengers on the short haul routes.
- The Boeing 737 will be able to accommodate as many as 113 passengers on the short-stage routes.

The jets will cruise at between 500 and 600 miles an hour.

**New Turboprops**

The local service airlines are buying both jets and turboprops.

- The Fairchild FH 227 has an increase in capacity from 48 passengers to 52 passengers and speeds of 300 miles per hour.

- The French Nord-262 designed to carry 27 passengers at 230 miles per hour on low density, short haul routes.

- Improved versions of the Convair twin engined airplanes. Substitution of turboprop engines for piston engines on these airplanes will increase the speed from 265 to 315 miles per hour and will permit larger capacity.

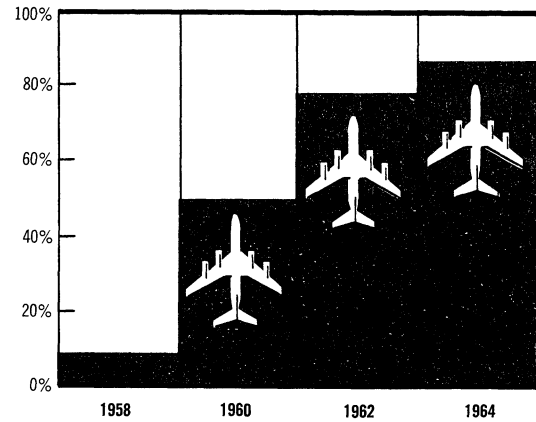
### Airlines at Mid-Point in Transition

The U.S. scheduled airlines are at the mid-point in their transition to all-turbine (jet and turboprop) fleets. The variety of aircraft on order will provide improved service throughout the nation to small, medium-sized and large communities. Service will continue to improve in quality and coverage as new equipment is delivered.

Scheduled airlines in 1964 served more than 600 U.S. cities (not counting Alaska and Hawaii), representing a population of about 95 per cent of urban U.S. total. In a planned transition, local service or feeder airlines have taken over from trunk airlines at many cities. Today, about two-thirds of the cities receiving air service—some 402—are served solely by the locals.

The transition from trunks to feeder line service in most cities has made possible more intensive cultivation of the market. In 52 cities, the local airlines generated passenger volumes

**GROWTH OF JET SERVICE**  
% of Passenger Miles in Turbine Powered Aircraft  
U. S. Scheduled Airlines



20 per cent larger than had formerly been generated by trunks and in 23 cities passenger volume was up 100 per cent.

Healthy traffic trends, representing improved public acceptance of local airline service, have resulted in reductions in public service payments from the government. In 1947, public service payments accounted for 80 per cent of local service revenues. The percentage in 1964 was about 25 per cent of total revenues.

## NEW PASSENGER SERVICES KEEP PACE WITH IMPROVEMENTS IN THE AIR

New approaches to serving the passenger on the ground have been developed by the airlines and more are on the way. Highlights include:

- Ability to answer between 85-90% of the 430,000 telephone calls a day within less than 20 seconds or four rings. In many cases this is better than the telephone company's own service to enquiring customers.

- Capacity to confirm bookings over the routes of several airlines usually during the first call in one to four minutes. A booking previously required from three to 24 hours.

- Checking the baggage at curb side at airports, instead of at ticket counters, expediting check-in and minimizing distances passengers are required to carry their own baggage.

- Better communications resulting in improved flight information. Closed circuit TV and clear flight information boards at airports and better telephone information are eliminating information lags.

- Additional service representatives on the passenger side of the ticket counters expedite check-in.

- Better designed terminals minimize walking distances to flights or provide moving walkways as an assist.

- Mechanical delivery equipment and baggage capsules on new airplanes cut down waiting time for baggage. The airline goal of delivery of a bag at the terminal exit simultaneously with arrival of a passenger from flight

is being met with increasing frequency at new terminals.

- Declining number of mis-routed bags. An interline central baggage retrieval clearing house maintains information on data processing equipment which can be queried from any part of the airline system.

### **Reservation Confirmation**

Today most of the available air space in the U.S. is on memory tapes of the computers of the nation's airlines. A query to the computer may result in answers to no less than eight questions: time of flight, flight number, availability of seat, best alternative if no seat is available, segment of flight, class of service, additional information such as whether meal is available.

All this may cover several airlines. The answer from the computer is printed on a sheet or appears as a battery of lights in less than one minute, often in less than one second and is then given to the customer. A similar transaction would have required several phone calls, up to 24 hours, and would have involved up to 17 reservation agents under the manual system.

### **Improved Terminal Design**

Primary goals of modern airport design are to reduce the walking distance from entrance to boarding gate, simplify the check-in process and provide clear and accurate information on flight departures. In addition, the airlines want the air terminal to be a cheerful, pleasant place where the traveler may relax.

Moving walkways at many major airports help reduce walking from check-in counter to departure gates. Motion picture theatres, fine restaurants, snack bars, nurseries for children, convenient motels increasingly cater to the needs of Americans on the move.

### **Baggage—Its Care and Handling**

The airlines carried over 100,000,000 pieces of baggage last year, a tiny fraction of which was not delivered to its owner on arrival. Whatever the fraction, a misdirected bag is a calamity for the traveler.

Baggage distribution within a terminal is being mechanized to avoid misdirection. Planes are designed to accept baggage "pods" which expedite delivery to the passenger at destination.

Most baggage is mis-routed when a passenger makes a close connection, but his baggage does not. Airlines are installing priority systems for rushing bags from one plane to another for close connections. Baggage is becoming more and more standardized. A growing problem occurs at serve-yourself terminals when passengers inadvertently pick up a bag that looks like his. Airlines urge passengers to use stickers or tags or other identification to avoid mistakes.

An unclaimed bag which lacks identification either inside or out is reported to the Airline Recovery Clearing House in Chicago. Particulars about it are reduced to a code and fed into data processing equipment. The equipment can then be queried by any airline in the country.

A match or near match of the description of the luggage produces a response when the equipment is queried.

### **Changes in Passenger Fares**

In response to public demand for special fares to meet special circumstances, the airlines have developed a variety of reduced fares. Here are some examples:

- Under the family plan, a wife may travel with her full-fare paying husband at 25 per cent off the regular fare on certain days of the week in domestic service. The 25 per cent discount also applies to accompanying members of their family, except that children between the ages of two and ten get a 50 per cent discount. Still further, the family plan permits one child under two to travel free. Should there be others less than two years of age, they pay half fare.
- On the West Coast of the United States, commuter-type service between certain city pairs costs less than standard service fares.
- Military personnel "on leave" may travel at half fare on a "stand-by" basis—that is, when space is available. Or, traveling on official business in groups of 25 or more, military personnel are entitled to a 20 per cent discount.
- The domestic carriers offer discounts ranging from 25 to 30 per cent for groups of 25 or more.
- Internationally, a traveler may avail himself of reduced group fares or excursion fares on an individual basis. The latter, while always below the lowest standard fare (tourist), vary according to the season of the year.

## IMPROVED SERVICE TO SHIPPERS

In 1964, the public demand for air freight service increased by 27 per cent over the previous year—to 1.3 billion ton miles. This all-time record reflected the vigorous promotional efforts of the airlines to persuade the business community to change its distribution patterns. More and more, companies are finding that they can eliminate costly protective packaging and warehousing by using air service. Reducing inventories drastically, they can cut down their total distribution costs and provide better service to their customers.

### Growing Demand for Air Freight

To meet the growing demand of modern management for air freight service, the airlines began adding all-cargo jet freighters to their fleets at mid-1963. The total jet freighter fleet now stands at 32, with 38 more on order for delivery during 1965 and beyond. This represents an investment of about \$475 million.

The freight-carrying capacity of the airline fleet is not limited to the all-cargo jets, each of which can haul up to 92,000 pounds. From 6,000 to 19,000 pounds of freight can move in the cargo holds of each of the 10,000 airline passenger flights scheduled daily. After passengers and baggage have been accommodated, the remaining cargo capacity on a modern jet is the equivalent of an all-cargo DC-4.

To complement the 600-mile-an-hour jets in the air, airlines are building a totally new mechanical jet-age loading system on the ground. In 1964, they spent more than \$40 million on new cargo-handling equipment and three airlines alone put more than \$125 million into new cargo terminal facilities at airports.

Are the size of the shipments commensurate with the capacity of the big jet freighters? Let the following example speak.

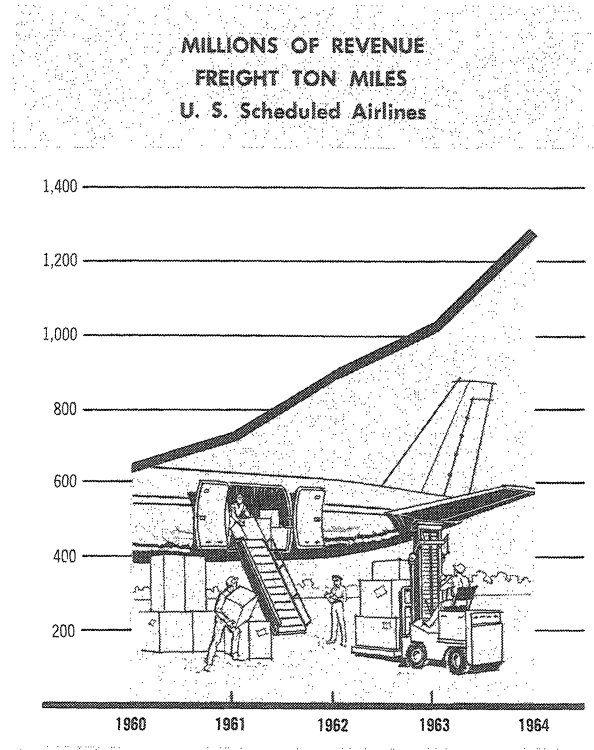
In the summer of 1964, cattlemen in this country, faced with a surplus of beef, were eagerly searching for new markets. Europe, in the midst of a beef shortage, was eager to buy. Air freight got the two together by providing the means of shipping 100,000 head of calves over a four-month period from New York's Kennedy International Airport to Milan, Italy.

Each calf moved in an especially designed inexpensive, disposable carton meeting the

highest standards of the Department of Agriculture. The speed of air freight eliminated the need for special facilities to hold and feed the calves. As a result, the calves moved at a cost of about 41 cents a pound—less than one-third the amount of any previous air rate.

Fresh fruits and vegetables are shipped in large volumes by air freight. In 1964, a large California co-op shipped 5,000,000 pounds of strawberries by air from the west coast to mid-western and eastern markets. One airline alone carried nearly 6,000,000 pounds of fresh berries during a seven-month period, compared with less than 100,000 pounds in the previous year. The same carrier forecasts air freight shipments of fruits and vegetables totaling more than 12,000,000 pounds in 1965, a gain of 20 per cent over the previous year.

While fresh fruits represent a fast-growing part of the air freight market, machine parts and equipment continued to hold first place in volume. One carrier alone flew nearly 28,000,000 pounds of machine parts, for a gain of 6 per cent over 1963.



## PLANNING FOR ON-TIME PERFORMANCE

Improvement of the national system of air transportation has as its goals greater safety of operations, better scheduled reliability and more efficient use of airspace and airports. This is a cooperative effort of the airlines, equipment manufacturers, the local airports, the Federal Aviation Agency, the Weather Bureau, the Civil Aeronautics Board and other government agencies. The airlines have the ultimate responsibility for developing and performing safe and efficient air transportation service for the general public and carry on much of the hard work of translating proposals for improvement into safe and efficient operations.

The improved airline safety record (see chart) shows the results of the cooperative improvement effort. Scheduled reliability cannot be expressed as a single figure, because so many factors make up the net reliability of a system as complex and far-reaching as the national air transportation network. In terms of scheduled aircraft miles completed, preliminary estimates put the 1964 figure slightly above 1963's 97.4 per cent completion figure.

Slightly over half of the flights not completed are cancelled because of weather. The airline effort to reduce weather cancellations concentrates on improving landing aids—on the ground and in the cockpit—to permit lower weather minimums.

Flight cancellations for mechanical reasons are the next largest group, accounting for roughly one third of all cancelled flights. A major airline effort is underway to improve inspection techniques to the point where incipient malfunctions can be detected and corrected—before they can delay or cancel a flight.

Most delays occur on the ground, before take-off, or in the terminal area before landing at destination. Delays en route or after landing at destination are few, by comparison.

### Lower Weather Minimums Will Cut Cancellations In Half

Lowering weather minimums and improving safety at the same time call for more precise measurement of visibility, better airport lighting, and the installation of instrument landing systems. Forty-one runways in the U.S. are now equipped with detector systems to measure "runway visual range" or RVR for short. Within the next two years, 184 runways will have these detectors and eventually every runway with ILS

(instrument landing system) will have these devices. There are 215 ILS runways in the U.S. today.

Most large airports used by jets already have approach lights and ILS. Additional lights are being set in the runway to light the touchdown zone and mark the center line. When an airport has the complete package of RVR detectors, ILS and lights, it can be approved for lower landing minimums—from today's 200 ft. cloud base height (ceilings) and 2400 ft. RVR to 100 ft. ceiling and 1200 ft. RVR. Weather Bureau studies of low visibility at selected landing cities in the U.S. suggest that this lower minimum will cut cancellations due to weather almost in half at many important airports (see table).

### Lower Minimums Improve Reliability

Locations	RVR less than 2600 ft. Hours per Year	RVR less than 1200 ft. Hours per Year
Anchorage, Alaska	105	44
Atlanta, Georgia	79	35
Buffalo, New York	61	26
Chicago, Ill. (O'Hare)	79	44
Denver, Colorado	26	9
Detroit, Michigan (Wayne)	35	18
Houston, Texas (Int'l)	131	70
Los Angeles, Calif. (Int'l)	184	114
Louisville, Ky.	35	18
Milwaukee, Wisconsin	114	61
New Orleans, La. (Moisant)	114	61
New York, N.Y. (J.F.K.)	105	44
New York, N.Y. (LGA)	44	18
Newark, N.J.	61	26
Oakland, California	79	61
Philadelphia, Pa. (Int'l)	88	53
Pittsburgh, Pa. (Greater)	79	44
Rochester, New York	35	18
San Francisco, Calif. (Int'l)	61	44
Seattle-Tacoma, Wash.	228	167
Washington, D. C. (National)	44	18
Windsor Lock, Conn. (Bradley)	105	61

Anticipating the approval before next winter of major jet airports for 100 ft. ceiling and 1200 ft. RVR minimums, the airlines have been engaged in training their crews and equipping their jets to use these lower minimums. This includes fitting their aircraft with precision altimeters for low altitude readings and electronic equipment (such as approach couplers and automatic throttles) to make the first part of the ILS approach automatically—before the pilot takes over to complete the landing manually. By conservative estimates, the airlines are spending \$35 million to achieve these lower minimums of

100 ft. ceiling and 1200 ft. RVR for their turbojet fleets.

### Campaign On To Improve Smaller Airports

Most of the nation's smaller airports still have minimum weather ceilings of 400 ft. and one mile of visibility or higher and none of them has RVR equipment. The introduction of approach lighting and instrument landing systems (ILS) have resulted in the lowering of minimums at the larger airports as discussed above. Since safety is never compromised, the absence of these aids at smaller airports means that flights are cancelled or airports are overflowed when the weather is bad. Studies have shown that local service airlines may miss nearly 10 per cent of their winter schedules as a result, compared to 4 per cent for the industry as a whole in winter.

The airlines through ATA have been taking a new look at the criteria on which such aids are programmed by FAA. They are mounting a campaign to assure that FAA's Planning Standards and the procedures for providing aids recognize the peculiar problems of the lower activity airports. These standards should come to grips more realistically than they do now with the needs of the smaller communities for low cost but efficient radio and lighting aids which make possible more reliable air service.

### Eliminating Ground Delays At Airports

The airlines are currently analyzing traffic movements at the nation's largest airports to develop recommendations to cut down these delays. No single change is likely to solve the problem, but the cumulative effect of a number of small changes will have a major impact.

Studies have revealed the following conditions which, if corrected, could cut precious minutes off ground time.

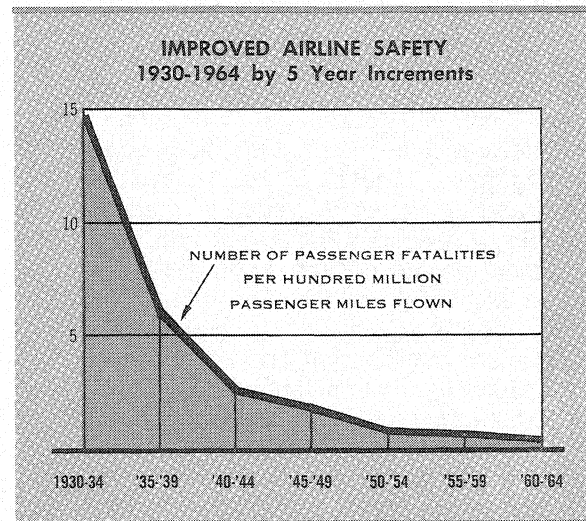
—Many runways have no turn-offs at appropriate intervals along them. Building turn-offs to clear runways faster will increase the capacity of runways to handle traffic.

—Better planning in using available runways has cut holding time in half at some airports. Where more than one runway is available for use, traffic flow is divided and passengers can often get off the ground as much as 15 minutes earlier in periods of heavy traffic.

—Analysis of some airport runway and taxiway layouts shows that the addition of by-pass holding pads and taxiways can shorten ramp to takeoff time by many minutes.

### New Equipment Improves Safety, Speeds Traffic Flow

Improvements in air traffic control are the product of the combined efforts of the system's users and the Federal government—which provides navigation, communications, and air traffic control facilities on the ground and operates the system. As one user group, the airlines are cooperating with the FAA in improving the usefulness of ground radar—which is the cornerstone of today's air traffic control system—by fitting their aircraft with an air traffic control (ATC) transponder that replies to interrogations from traffic control radars on the ground. ATC transponders give controllers many opportunities to select and display aircraft replies in ways that speed up the control function. This is because transponder replies are coded and the controller can select and display aircraft with a given code, or any combination of codes. At the outset of the ATC radar beacon system program in 1958, only 64 codes were available: this permitted code assignment by function, but not one code per aircraft.



Recently, the airlines have been increasing the code capability of their transponder equipment to over 4000 codes—which will allow each plane to have its own code. Soon, the airline fleets will also carry altitude-reporting equipment that will automatically send the airplane's altitude with the beacon reply. To get this information onto the controller's radar scope, FAA is preparing to use newly-developed ground equipment that will convert the coded transponder

signals into a display of aircraft identity and altitude alongside the radar return ("blip") from the aircraft. Airline investment in airborne beacon equipment is about \$25 million.

### **Simplicity of Jet Engine Results in High Mechanical Reliability**

Mechanical reliability is high by absolute standards. Records of one major airline's 1964 cancellations showed only 0.6 per cent of all flights cancelled for mechanical reasons. But the fact that this accounts for about one third of total cancellations lends impetus to airline efforts to find ways to reduce even further delays and cancellations for mechanical reasons.

The inherent reliability of turbojet engines, coupled with an improved program that combines regularly scheduled overhauls with frequent inspections between overhauls, has eliminated the engine as a major source of mechanical delays. The most graphic example of this is the present 6200 hours between overhauls for a typical turbojet engine that first saw airline service in 1959. By contrast, the best time between overhauls of piston engines in airline service is under 3000 hours.

The simplicity of the engine that powers a jet airliner is balanced by the variety and complexity of accessory systems carried aboard the plane. Electrical systems, cabin air-conditioning, radio navigation and communications equipment are examples. These accessory systems are tested and inspected at frequent intervals, with the help of special-purpose test and inspection equipment (some cockpit equipment even has built-in self-test circuits). The ultimate goal of the airlines is to be able to predict or detect an incipient malfunction and correct it—before it can affect on-time performance. It is this goal that explains the yearly increase in money spent for maintenance in the face of a much slower rise in plane hours operated and the inherent reliability of the turbojet engine.

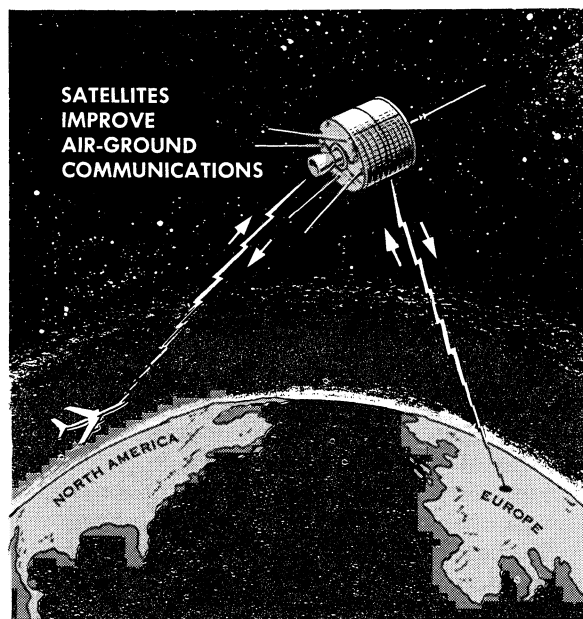
### **Revolution Taking Place In Airline Communications**

Rapid and accurate communications are essential to a smooth working air transportation system. The airlines are constantly making improvements to provide the most modern communications system, on the ground and in the air.

On the ground, airline teletype circuits have been interconnected via automatic switching

centers operated for the airlines by Aeronautical Radio, Inc. Airline messages have been standardized into a format that permits them to be used by computers. Thus, the computer of one airline can "talk" to the computer of another airline automatically. The big payoff for passengers is the speed with which reservations can be confirmed—even when the trip involves airlines throughout the world.

January, 1965 saw a milestone in air-ground communications. Successive tests on January 28 through January 31, proved conclusively that two-way communications can be carried out between a ground station and an airplane in flight via satellite. Frequencies in the VHF band were used. Communication in this band would have been impossible without the satellite relay, because the ground station was in California and the jet was over the Pacific and as far away as Hong Kong—7000 miles from the ground station.



The significance of this test is that it worked so well, even though the Syncom III satellite and its low-power telemetry transmitter were not designed for such use.

Now that the technical feasibility of air-ground communications via satellite relay has been demonstrated, the airlines are exploring the economic feasibility of such a link with COMSAT Corporation. If satellite communications prove sound on a cost-benefit basis, they could lead to printed messages in the cockpit and to tying the airplane into the automatic ground communications system for information



# AIRLINE INVESTMENT AND PROFITS

Five years of heavy new investment, culminating this spring in the largest backlog of equipment on order in the history of the airline industry, are beginning to produce respectable earnings for most airlines.

The tally sheet for the year shows that the U.S. scheduled airlines grossed \$4.3 billion. Net profit after taxes amounted to \$226.4 million.

## Earnings Improvement

As evidenced by the following table, these earnings represent a distinct improvement over the profits realized in the last few years:

U.S. Scheduled Airlines		
Year	Gross Oper. Rev.	Net Income
1964 P	\$4,252,159,000	\$226,405,000
1963	3,757,313,000	76,884,000
1962	3,438,731,000	52,302,000
1961	3,063,555,000	-37,874,000
1960	2,884,277,000	9,140,000
1959	2,618,471,000	72,681,000

Domestic Trunks		
Year	Gross Oper. Rev.	Net Income
1964 P	\$2,789,798,000	\$136,542,000
1963	2,451,915,000	10,665,000
1962	2,250,094,000	8,196,000
1961	2,026,368,000	-34,568,000
1960	1,942,635,000	68,000
1959	1,798,610,000	61,682,000

P Preliminary

Current results would have been entirely different if airline managements had called for retrenchment when the profits began to disappear. Instead, they held to their plans for the purchase of jet aircraft, electronic reservation systems and other ground equipment designed to improve the quality of air service.

This program is now being enlarged and reinforced. At the beginning of April the airlines had announced orders for 429 fixed-wing turbine aircraft at an estimated total investment of \$2.1 billion. At the height of the transition to jets in 1957, orders for new aircraft totaled \$1.9 billion. In no other year in the history of the industry has that total been exceeded until this year.

## New Air Transportation Network

The significance of this is that the airlines are in a transition phase in the building of a new air transportation network. They are buying

a variety of aircraft, each suitable for different public demands. Some are small with earning capacity for short hauls and low density routes, others are very large—some of the newest on order will seat over 250 people—and will be useful on high density routes. Others are medium range or long range jets, each adapted in earning capacity to a particular type of service. Not counted in the above listing are deposits for construction of the American SST and the British-French Concorde.

Continued earnings at an adequate rate over a sustained period of time will be needed to finance this improvement program on the time schedule required by the needs of the public.

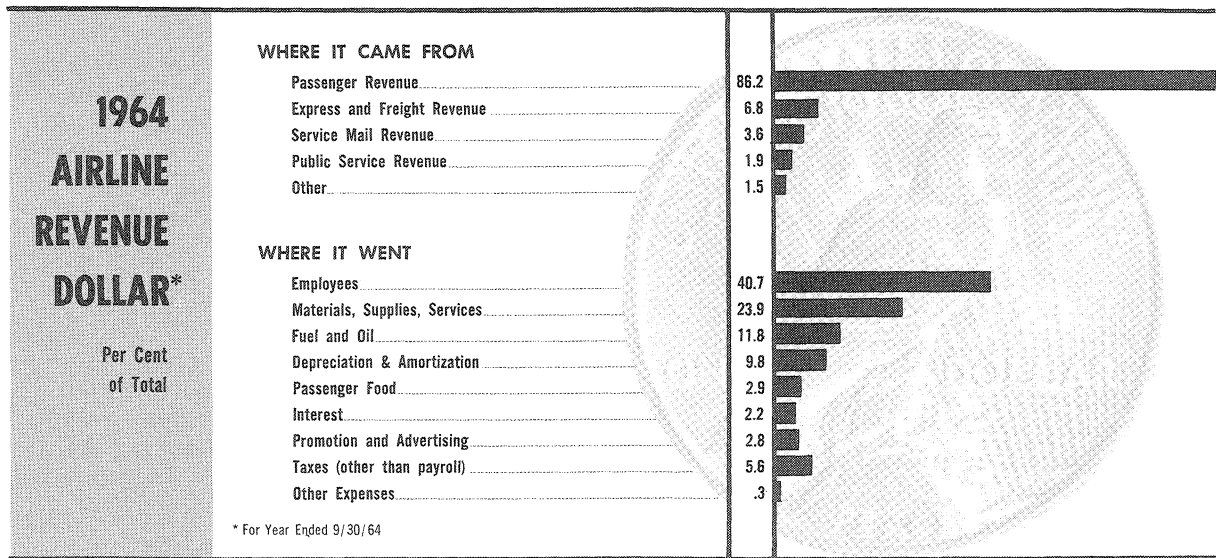
## Investment Multiplied 40 Times Since War

The industry's record of capital investment shows a phenomenal build-up since World War II. At the end of the war, the cost of property and equipment operated by the nation's scheduled air carriers totaled about \$125 million. By the end of 1954, this investment had multiplied 10 times to \$1¼ billion. In the past 10 years, the cost of property and equipment has quadrupled, representing at the end of 1964 a total investment in excess of \$5 billion. Thus, in the two decades since the end of the war, the airlines have multiplied their investment in property and equipment about 40 times. The capital outlays required to accomplish the jet revolution have been massive. Since 1960, the industry has spent over \$3 billion on equipment and related facilities in the air and on the ground.

The record of investment for the eleven trunk airlines alone in ground and flight equipment in the past five years follows:

Year	Investment in Flight and Ground Equipment (Domestic Trunk Lines)		
	Flight Equipment (000)	Ground Property and Equipment (000)	Total (000)
1960	\$ 592,979	\$ 45,705	\$ 638,684
1961	632,848	54,823	687,671
1962	380,919	36,375	417,294
1963	235,728	32,143	267,871
1964	644,507	80,605	725,112
<b>Total</b>	<b>\$2,486,981</b>	<b>\$249,651</b>	<b>\$2,736,632</b>

This volume of new investment was made possible by the willingness of the airlines to



assume financial burdens—and concomitant risks—on an unprecedented scale. In the past 10 years, the total long-term debt of the certificated air route carriers has increased eight times, from about \$225 million to more than \$1.8 billion. In 1954, debt represented only 28 per cent of the industry's total invested capital. At the end of 1964, debt comprised more than 60 per cent of the total.

### Overhaul in Capital Structure

The fundamental overhaul which has occurred in capital structure of the air carriers has necessarily been accompanied by a sharp increase in the load of fixed charges which must be borne. Now, more than 30 cents of every dollar earned on invested capital must be set aside for payment of interest on debt, in contrast with less than 15 cents 10 years ago.

The economies inherent in efficient operation of jet aircraft have enabled the airlines to offset to a large extent the inflationary pressures engendered by continually increasing costs of the man power they use and the things they buy. Large-scale investment is the price which must be paid to achieve these indispensable operating economies. It has required a great many more dollars invested in flight equipment and other property to produce a given amount of service than was the case in earlier years. Thus, in the six years 1959-1964, despite the tremendous service capabilities of jet equipment, the ratio of cost of property and equipment operated to avail-

able ton miles produced was, on the average, about one-third higher than in the preceding six years.

Correlative with this trend is a substantial increase in the amount of capital required to produce a given amount of revenue. In 1964, about \$0.75 was invested in the scheduled airline industry for each dollar of revenue produced, about 40 per cent more than was required 10 years ago.

### Wave of New Capital Investment

The great wave of capital investment in new equipment and facilities is continuing, not subsiding. It is clear that the improvement and expansion of air service will demand considerable further investment in the next few years. Unfilled orders placed by the airlines already amount to \$2.1 billion, and additional orders on a substantial scale are expected.

The order backlog of the airline industry is broken down as follows:

	Aircraft On Order*								
	U.S. Scheduled Airlines								
	(As of 12/31)								As of
	1957	'58	'59	'60	'61	'62	'63	'64	4/8/65
Total	467	429	308	239	207	181	329	292	429
Jet	230	293	240	200	202	170	309	284	402
Turboprop	167	136	68	39	2	11	20	8	27
Piston	70	—	—	—	3	—	—	—	—

\* Does not include aircraft on option.

Within the next eight or ten years, it is estimated that some 150 to 200 supersonic jets will be in operation by the U.S.-flag airlines. Precisely how much each will cost is still not definite, but prices are expected to range between \$25 million and \$40 million each, for a total cost of about \$4-8 billion.

### Ups and Downs in Profits

When the CAB determined in 1960 that an average return of 10.5 per cent on investment would provide a just and reasonable level of profit for the domestic trunkline industry, it wisely recognized that the adequacy of profit could only be judged by averaging returns over an extended period of years.

The history of profit ups and downs in the airline industry demonstrates the importance of viewing the relation of profits to investment over a sufficiently long period to balance good years and bad. The year 1964 marked the emergence of the industry from a long drought characterized by exceedingly lean profits. Preliminary estimates indicate that net earnings of the domestic trunklines in 1964 were equivalent to a return of about 10 per cent on invested capital. The rate of return earned by the airline industry as a whole, including international operations, was slightly higher. The rates of return are inflated by those tax benefits resulting from the investment credit which, under the provisions of the revenue law, will be excluded by the CAB in its official method of calculating the rate of return.

In the 10 preceding years, the rate of return was as follows:

Year	Rate of Return on Investment	
	U.S. Scheduled Airlines	Domestic Trunks
1963	6.5%	4.2%
1962	5.7	4.1
1961	2.1	1.5
1960	3.2	2.8
1959	6.2	7.1
1958	5.5	6.5
1957	5.2	4.8
1956	8.9	9.6
1955	10.0	11.9
1954	10.2	11.2

In the last analysis, investment must be underwritten by earnings. In 1964, the airlines retained and reinvested about four-fifths of

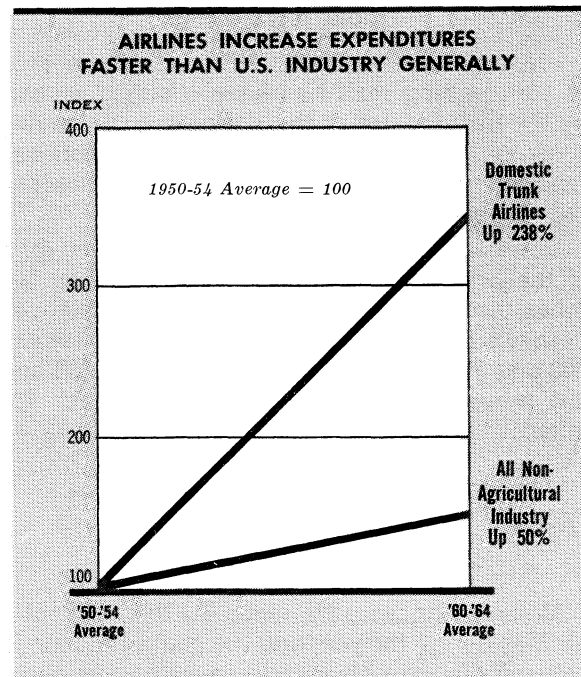
their net earnings to help finance their capital requirements. Given an adequate base of earnings, it will be possible for the airline industry to support, in a stable manner, the heavy investment program which lies ahead.

### The Profit Rate and Fare Levels

The implications of the profit rate attained in 1964 for future passenger fare levels must be appraised in the light of the substandard earnings of prior years, the historic volatility of industry profits, the unprecedented burden of fixed charges, and, above all, the relatively narrow margin of profit in relation to revenue. Even in the recovery year of 1964, net income after taxes represented only about 5 per cent of the total revenue of the industry.

Year	Profit Margin U.S. Scheduled Airlines	Domestic Trunks
1964 P	5.3%	4.9%
1963	2.0	0.4
1962	1.5	0.4
1961	loss	loss
1960	0.3	negligible
1959	2.8	3.4
1958	2.2	3.0
1957	2.1	1.9
1956	4.2	4.6
1955	4.7	5.6

P Preliminary



# LOOKING AHEAD TO 1965

## NEW POST OFFICE PROGRAM TO EXPEDITE ALL LETTER MAIL

Postmaster General John A. Gronouski's new program to deliver 95 per cent of the nation's letter mail anywhere in the country overnight has the strong support of the nation's airlines.

The plan calls for the elimination of airmail as a separate classification. When put into effect sometime in 1967, according to the present plan, all letter mail will move by the fastest means of transportation available. The Post Office would use that vehicle, air, rail, motor or water, most consonant with the overnight delivery goal.

If the program were in effect today, the airlines would give overnight delivery to 7,496,000,000 letters a year, two and a half times the present volume of mail carried by air.

A special study of the effect of expedited letter mail service between 2,000 city pairs indicates that on an annual basis:

- 6,117,919,000 letters would be delivered one day sooner.
- 971,098,000 letters would be delivered two days sooner.
- 388,439,000 letters would be delivered three days sooner.
- 19,421,000 letters would be delivered four days sooner.

Reorganization of the Post Office's method of transporting mail has been dictated in part by the phasing out of the nation's mail-carrying passenger trains. The Postmaster General has reported that there were 10,000 such trains a day 30 years ago, but only 1,100 today.

Airlines estimate that they would get little of the priority mail for distances less than 100 miles, about 25 per cent of the mail for distances between 100 and 200 miles; 50 per cent between 200 and 300 miles; 75 per cent between 300 and 400 miles and virtually all the mail over 400 miles.

## HELICOPTER TECHNOLOGY SHOWS GREAT IMPROVEMENT; NATIONAL APPLICATION SEEN

Major advances were made by the helicopter airlines during the year and the goal of economic self-sufficiency was clearly in sight. As three

Presidents have demonstrated, helicopters are practical and safe vehicles for jumping over surface transportation tangles on short hops within cities or for short inter-urban stages.

Leaders in Congress freely predict that, within a very few years, a new branch of air transportation would provide intra-urban and short haul interurban service all over the nation. Trips which now take an hour or more on the surface can be made by helicopter in under 10 minutes.

Among the important technical advances have been new and better equipment capable of carrying 25 to 28 passengers at 125 miles an hour. A practical 65 passenger "helibus", already flying in a military version, will be introduced in the 1970s capable of cruising at close to 200 miles an hour and operating from downtown New York to downtown Philadelphia in less than half an hour.

The FAA has also recently certified new all-weather navigation systems permitting the helicopter lines to provide service with the same regularity as fixed wing operators.

Turbojet engines are adding efficiency and lowering costs.

These advances have been made possible through government investment of \$49 million over 12 years in the development of pioneering helicopter airlines in New York, Chicago and Los Angeles. In early 1965, the Civil Aeronautics Board recommended a phase-out of subsidy by 1970. A total amount of \$13.5 million to be spread over five years will underwrite the technological development still needed.

Helicopter company plans call for a five-fold increase in traffic during the subsidy phase-out period. The nation's trunk and international airlines plan a sales promotion program to help the helicopter airlines reach their goal, including joint fares which would reduce the cost to the helicopter passenger and the guarantee of an adequate volume of business to support a certain number of daily helicopter flights.

## Public Acceptance

In 1957, helicopter lines originated 153,000 passengers. Last year, they carried 607,000. In 1957, helicopter lines accounted for 3,275,000 passenger miles. For 1964, the figure was 16,003,000, up more than 388 per cent.

Many communities have active applications for helicopter service before the CAB. Among them are Boston, Hartford-Springfield, New Haven, Dallas-Fort Worth, Houston, San Antonio, Washington-Baltimore, Seattle-Portland, Atlanta, and Orlando-Cape Kennedy. Far more are known to be interested, but are awaiting the economic breakthrough to self-sufficiency before applying.

Commenting on the possible termination of helicopter services should the five-year subsidy phase-out program not be approved by Congress, Senator A. S. Mike Monroney of Oklahoma recently said: "To discontinue them at this time for want of a few dollars to keep them going for an adequate time until they can carry their own weight, is poor judgment."

### MAJOR GROWTH EXPECTED IN TRAVEL TO THE U.S.

The United States earned more than \$1 billion from foreign tourism in 1964 and became for the first time in history the world's leader in tourist earnings.

It was a year, too, when receipts from foreign visitors represented the nation's fifth largest source of export earnings. Visitors from countries abroad other than Mexico and Canada totaled nearly one million—an all-time record and a 31 per cent increase over 1963 and a 92 per cent increase over 1961, the year the United States Travel Service of the Department of Commerce was established to promote foreign travel to this country.

### Trade Follows Travel

In the other direction, 2,700,000 U.S. citizens traveled to foreign countries in 1964 and spent approximately \$2.3 billion, including about \$650 million for transportation on foreign carriers to all foreign countries other than Canada. However, U.S. travel dollars spent abroad helped provide the funds to pay for record U.S. exports.

In 1964, U.S. commercial exports (non-government financed) to foreign countries exceeded \$22 billion. This represented an increase of 16 per cent over 1963 and 27 per cent over the 1960 level. Our commercial trade surplus increased from 2.3 billion in 1963 to 3.7 billion dollars in 1964. U.S. airborne exports totaled more than 326 million pounds. This represents a gain of 31 per cent over 1963. U.S. airborne imports also increased—to 121 million pounds, for a gain of 7 per cent over the previous year.

### Travel Stimulation

To stimulate the flow of travel and trade to and from the United States, the airlines spent \$150 million in 1964. A measure of the success of this promotional effort is that 80 per cent of all travelers between the United States and overseas foreign countries went by air. Sixty-two per cent of these were U.S. citizens.

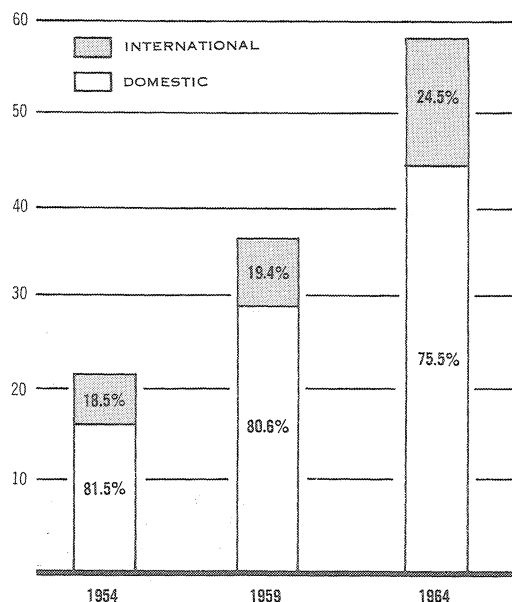
Airlines continued the "Visit USA" promotional fare, introduced in the latter part of 1963. For 1965, the special fare has been modified to allow unlimited air travel to any of 589 U.S. cities for twenty-one days at a cost of \$210.

The "Visit USA" fare is made possible through an agreement among twelve local service carriers and one Alaskan carrier and is available to nationals of foreign countries living 100 miles or more beyond the borders of the United States.

International travel received another boost in 1964 from the reduced transatlantic fares introduced in April. Rates went down as much as 21 per cent from those in effect at the end of 1963—an all time low—and greatly stimulated travel to the U.S. from abroad.

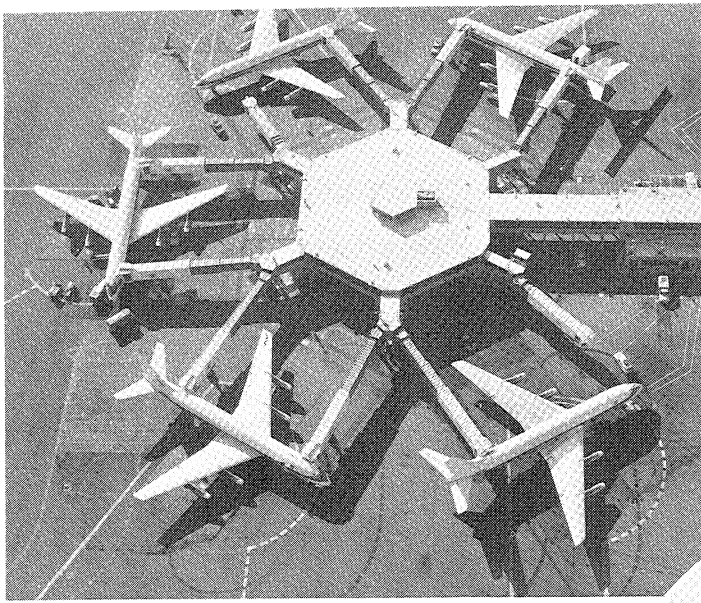
INTERNATIONAL SHARE OF U. S. AIRLINE TRAVEL INCREASES  
U. S. Scheduled Airlines

BILLIONS OF PASSENGER MILES





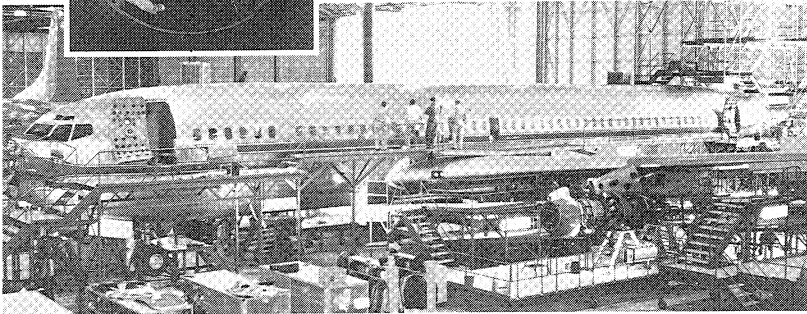
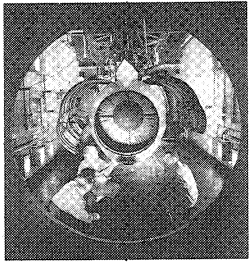
## A DEVELOPING NEW AIR TRANSPORT SYSTEM



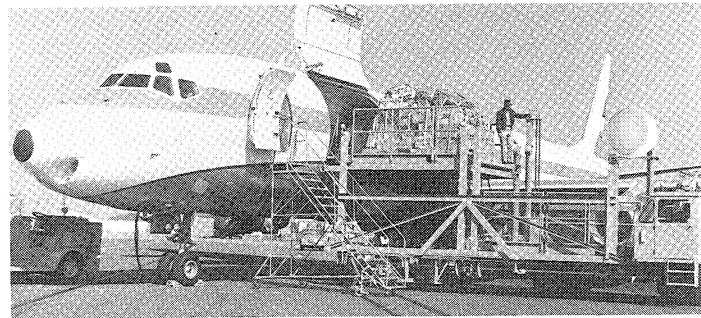
Airlines work with designers of modern airports toward joint goal of expediting movement of passengers from airport entrance to waiting aircraft—in fair weather and foul.



Helicopter airlines provide shuttle and feeder services over hundreds of square miles connecting with fixed-wing airline aircraft and extending the benefits of air transportation.



Airline fleets are maintained in mint condition by means of carefully worked-out schedules for periodic airframe and power plant overhaul.



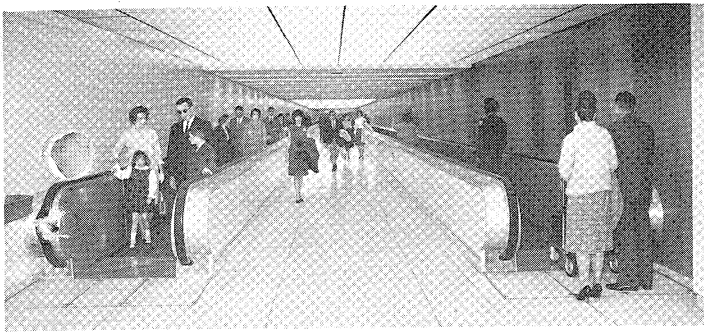
To complement 600-mile-an-hour jets in the air, airlines are building a completely new mechanized jet-age loading system on the ground.



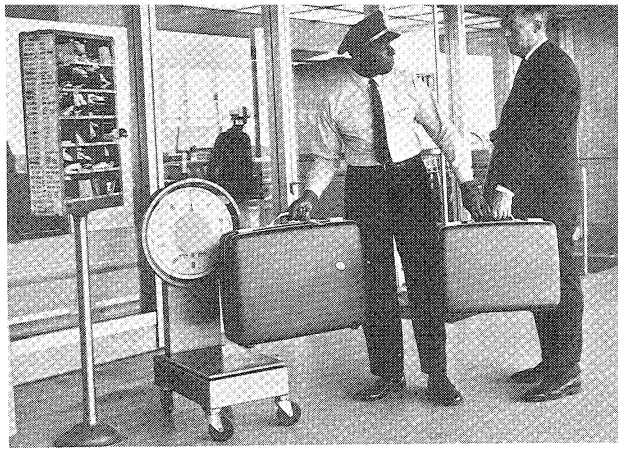
Electronic reservations systems are capable of memorizing and accurately reporting the availability of millions of seats on 10,000 airline flights a day. Agents can confirm reservations in seconds.



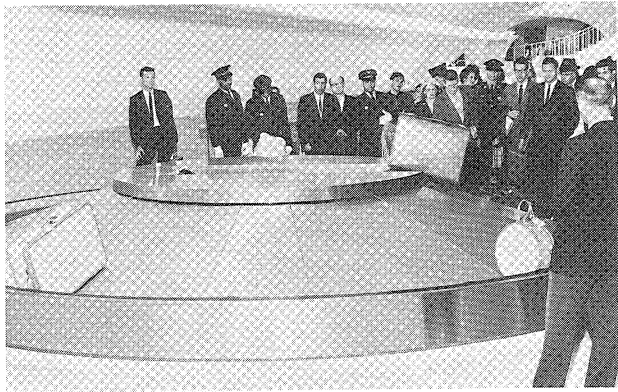
Recent proposal by Postmaster General (see section on mail) promises overnight delivery of 7½ billion letters a year anywhere in the United States.



Moving sidewalks at many major airports help to reduce the distance a passenger must walk from check-in counter to departure gate.



Baggage check-in at curb side instead of at ticket counters expedites passenger handling and minimizes distances passengers are required to carry their own luggage.



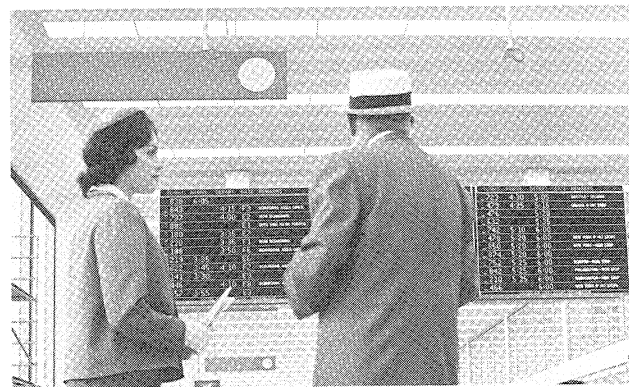
Automatic baggage-handling facilities are helping the airlines to meet their goal of having passenger and bag arrive at the terminal exit simultaneously.



Eye-pleasing decor, comfortable chairs and a close-up view of what's happening on the field are becoming standard. Passenger service girls (right) help expedite check-in at ticket counters.



Modern airline ticket counters and improved ticketing procedures expedite passenger check-in at terminals.



Newly developed electronic information boards at airports automatically display up-to-the-minute postings on flight arrivals and departures.

# AVAILABLE SERVICE AND UTILIZATION

## U. S. Scheduled Airline Industry

(In Millions Except Helicopter)

	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
<b>Domestic Trunk Airlines</b>							
1960	6,582.8	3,332.5	50.6	49,153.6	29,233.2	59.5	712.8
1961	7,176.2	3,435.2	47.9	52,525.0	29,534.8	56.2	676.8
1962	8,114.2	3,771.0	46.5	59,736.8	31,827.8	53.3	699.9
1963	9,223.0	4,257.6	46.2	67,601.3	36,383.8	53.8	752.7
1964	10,752.4	4,928.8	45.8	75,242.4	41,658.4	55.4	808.4
<b>Local Service Airlines</b>							
1960	282.3	121.2	42.9	2,724.7	1,141.6	41.9	93.3
1961	329.4	142.4	43.2	3,228.4	1,343.8	41.6	103.2
1962	388.6	170.3	43.8	3,797.5	1,607.7	42.3	113.0
1963	440.7	198.3	45.0	4,266.9	1,869.0	43.8	121.3
1964	504.0	239.5	47.5	4,836.3	2,244.5	46.4	133.5
<b>Intra-Hawaiian Airlines</b>							
1960	30.7	17.7	57.7	217.1	127.5	58.7	5.6
1961	21.6	12.5	57.9	202.3	125.6	62.1	5.2
1962	21.5	12.6	58.6	212.4	128.8	60.6	5.5
1963	25.8	14.1	54.7	239.5	144.0	60.1	5.7
1964	30.8	17.7	57.5	276.4	166.6	60.3	5.9
<b>Helicopter Airlines (in thousands)</b>							
1960	2,228	1,053	47.3	18,764	9,475	50.5	2,219
1961	2,183	969	44.4	18,276	8,604	47.1	2,157
1962	2,329	907	39.0	20,125	8,191	40.7	1,518
1963	3,071	1,332	43.4	27,657	12,510	45.2	1,462
1964	3,717	1,691	45.5	34,165	16,003	46.8	1,976
<b>Intra-Alaskan Airlines</b>							
1960	18.9	10.6	56.1	102.9	43.0	41.8	6.6
1961	20.5	11.8	57.6	105.9	46.0	43.4	7.4
1962	25.2	13.4	53.2	116.5	47.6	40.9	7.5
1963	30.6	16.5	53.9	118.0	46.6	39.5	7.5
1964	32.2	17.9	55.6	135.0	55.7	41.3	7.7
<b>All-Cargo Airlines (Domestic)</b>							
1960	325.1	249.7	76.8	-----	-----	-----	8.7
1961	385.2	295.1	76.6	-----	-----	-----	7.2
1962	615.1	472.1	76.8	-----	-----	-----	5.6
1963	475.6	343.3	72.2	-----	-----	-----	7.9
1964	550.0	395.0	71.8	-----	-----	-----	10.7
<b>International and Territorial Airlines</b>							
1960	2,039.0	1,218.2	59.7	13,346.1	8,306.3	62.2	168.5
1961	2,468.8	1,362.4	55.2	15,769.5	8,768.5	55.6	161.3
1962	2,925.9	1,619.9	55.4	18,724.4	10,137.8	54.1	171.5
1963	3,488.2	1,856.0	53.2	22,590.2	11,905.4	52.7	192.1
1964	4,162.7	2,228.2	53.5	25,791.4	14,352.4	55.6	214.4
<b>All-Cargo Airlines (International)</b>							
1960	102.1	73.1	71.6	-----	-----	-----	5.9
1961	175.3	133.1	75.9	-----	-----	-----	6.0
1962	232.2	177.5	76.4	-----	-----	-----	5.0
1963	242.3	172.3	71.1	-----	-----	-----	6.2
1964	266.6	187.2	70.2	-----	-----	-----	6.5
<b>CONSOLIDATED INDUSTRY</b>							
1960	9,383.5	5,024.3	53.5	65,567.3	38,863.0	59.3	998.0
1961	10,579.9	5,393.9	51.0	71,856.6	39,830.8	55.4	969.7
1962	12,325.9	6,238.3	50.6	82,611.9	43,760.4	53.0	1,009.8
1963	13,929.2	6,859.3	49.2	94,843.6	50,361.2	53.1	1,094.9
1964	16,302.4	8,015.9	49.2	106,315.6	58,493.6	55.0	1,189.1

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 Consolidated Industry totals because of rounding; Avalon Air Transport figures are included in industry totals for 1960, 1961 and 1962.



# REVENUE TON MILES OF TRAFFIC CARRIED

U. S. Scheduled Airline Industry  
(In Thousands of Revenue Ton Miles)

	Passenger	Priority U. S. Mail	Non Priority U. S. Mail	Express	Freight	Excess Baggage	Charter Flights	TOTAL
<b>Domestic Trunk Airlines</b>								
1960	2,777,148	108,061	22,845	55,440	320,950	29,071	18,968	3,332,483
1961	2,806,469	117,929	26,762	56,745	384,161	26,881	16,270	3,435,218
1962	3,023,888	131,711	28,501	64,879	473,955	25,430	22,665	3,771,029
1963	3,456,933	138,661	28,402	64,914	520,632	23,795	24,230	4,257,567
1964	3,958,037	151,764	29,707	70,530	650,732	22,787	45,252	4,928,809
<b>Local Service Airlines</b>								
1960	108,652	2,110	587	2,419	3,845	799	2,744	121,155
1961	127,602	2,771	584	3,019	5,492	875	2,084	142,428
1962	152,676	3,303	529	3,772	7,218	992	1,837	170,327
1963	177,555	3,765	587	4,311	9,024	1,006	2,099	198,347
1964	213,234	4,348	655	5,080	11,923	1,198	3,046	239,484
<b>Intra-Hawaiian Airlines</b>								
1960	10,156	82	5	-----	1,806	31	5,605	17,685
1961	10,047	82	14	-----	1,846	31	494	12,515
1962	10,308	90	19	-----	2,100	51	9	12,578
1963	11,519	93	21	-----	2,152	40	284	14,109
1964	14,578	99	27	-----	2,472	57	433	17,666
<b>Helicopter Airlines</b>								
1960	901	91	-----	40	7	5	10	1,053
1961	818	94	-----	40	7	5	6	969
1962	778	65	-----	44	6	3	10	907
1963	1,188	74	-----	44	6	5	15	1,332
1964	1,521	92	-----	44	5	5	24	1,691
<b>Intra-Alaskan Airlines</b>								
1960	4,434	1,796	-----	-----	2,422	127	1,844	10,625
1961	4,741	2,209	-----	-----	2,829	135	1,929	11,843
1962	4,874	2,576	-----	-----	2,620	147	3,211	13,428
1963	4,796	2,832	-----	-----	2,640	156	6,026	16,450
1964	5,711	3,091	-----	-----	3,176	171	5,748	17,897
<b>All-Cargo Airlines (Domestic)</b>								
1960	-----	674	233	1,050	88,516	-----	159,224	249,697
1961	-----	407	261	754	78,286	-----	215,352	295,060
1962	-----	175	146	417	81,816	-----	389,536	472,090
1963	-----	504	505	748	110,096	-----	231,409	343,262
1964	-----	896	951	1,818	147,994	-----	243,348	395,007
<b>International and Territorial Airlines</b>								
1960	831,066	82,626	12,233	520	191,065	13,922	78,350	1,218,245
1961	877,022	93,220	42,492	609	216,561	13,191	110,247	1,362,428
1962	1,017,184	108,987	52,760	798	263,931	15,125	150,848	1,619,903
1963	1,187,056	115,810	54,478	794	295,610	16,822	174,411	1,855,950
1964	1,437,259	124,769	45,411	824	393,859	16,921	198,322	2,228,176
<b>All-Cargo Airlines (International)</b>								
1960	-----	6,567	2,658	-----	34,853	-----	28,796	73,091
1961	-----	6,425	5,968	4	43,764	-----	76,823	133,094
1962	-----	4,441	6,602	14	66,537	-----	99,759	177,497
1963	-----	4,663	6,205	21	85,500	-----	75,647	172,284
1964	-----	4,856	4,642	14	91,327	-----	86,189	187,203
<b>CONSOLIDATED INDUSTRY</b>								
1960	3,732,533	202,007	38,565	59,469	643,468	43,955	295,606	5,024,283
1961	3,827,038	223,139	76,087	61,167	732,951	41,118	423,231	5,393,933
1962	4,209,940	251,349	88,563	69,924	898,187	41,748	668,135	6,238,261
1963	4,839,047	266,402	90,198	70,832	1,025,660	41,824	514,121	6,859,301
1964	5,630,340	289,915	81,393	78,310	1,301,488	41,139	582,362	8,015,933

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; Avalon Air Transport figures are included in the Consolidated Industry totals for 1960, 1961 and 1962.

# OPERATING

## U. S. Scheduled Airline Industry

	Passenger	U. S. Mail		Public Service Revenue	Express	Freight	Other <sup>1</sup>	Total
		Priority	Non-Priority					
<b>Domestic Trunk Airlines</b>								
1959.....	1,632,647	37,158	3,417	.....	19,158	67,027	39,203	1,798,610
1960.....	1,756,439	40,420	4,353	.....	21,785	74,792	44,846	1,942,635
1961.....	1,826,820	43,958	5,071	.....	21,446	85,289	43,782	2,026,368
1962.....	2,020,975	49,002	5,486	.....	24,332	102,364	47,935	2,250,094
1963.....	2,208,430	51,247	5,471	988	25,246	116,466	44,068	2,451,915
<b>1964 P.....</b>	<b>2,503,924</b>	<b>56,261</b>	<b>5,838</b>	<b>3,470</b>	<b>27,247</b>	<b>140,928</b>	<b>52,129</b>	<b>2,789,798</b>
<b>Local Service Airlines</b>								
1959.....	73,090	1,472	154	42,179	1,019	1,727	3,180	122,821
1960.....	83,602	1,764	159	54,126	1,353	2,108	3,369	146,481
1961.....	103,621	2,209	236	62,936	1,684	3,090	3,280	177,056
1962.....	125,467	2,674	188	67,948	2,061	4,076	3,685	206,099
1963.....	143,171	2,950	203	68,068	2,508	5,029	4,232	226,160
<b>1964 P.....</b>	<b>169,304</b>	<b>3,321</b>	<b>226</b>	<b>66,033</b>	<b>2,781</b>	<b>6,694</b>	<b>5,644</b>	<b>254,005</b>
<b>Intra-Hawaiian Airlines</b>								
1959.....	9,476	61	1	.....	.....	833	1,060	11,431
1960.....	11,184	65	2	109	.....	956	2,901	15,217
1961.....	11,642	68	4	697	.....	984	690	14,085
1962.....	11,824	72	6	355	.....	1,161	362	13,780
1963.....	13,129	77	6	716	.....	1,179	392	15,499
<b>1964 P.....</b>	<b>15,216</b>	<b>81</b>	<b>7</b>	<b>878</b>	.....	<b>1,410</b>	<b>317</b>	<b>17,908</b>
<b>Helicopter Airlines</b>								
1959.....	2,310	227	.....	4,915	132	40	136	7,760
1960.....	3,088	246	.....	4,931	210	41	85	8,601
1961.....	2,772	253	.....	5,258	189	39	89	8,603
1962.....	2,501	174	.....	5,518	215	39	135	8,583
1963.....	3,284	193	.....	4,641	217	41	261	8,637
<b>1964 P.....</b>	<b>4,827</b>	<b>240</b>	.....	<b>4,300</b>	<b>214</b>	<b>53</b>	<b>539</b>	<b>10,171</b>
<b>Intra-Alaskan Airlines</b>								
1959.....	4,968	1,803	.....	3,611	.....	1,299	2,813	14,494
1960.....	5,784	2,089	.....	4,852	.....	1,513	1,793	16,031
1961.....	6,181	2,529	.....	6,352	.....	1,775	2,029	18,866
1962.....	6,326	2,873	.....	5,139	.....	1,691	2,706	18,735
1963.....	6,256	3,092	.....	5,247	.....	1,728	3,812	20,135
<b>1964 P.....</b>	<b>7,268</b>	<b>3,192</b>	.....	<b>5,589</b>	.....	<b>2,032</b>	<b>3,866</b>	<b>21,948</b>

<sup>1</sup> Includes revenues from excess baggage, foreign mail, charter operations, and incidental revenues.  
P Preliminary.

# REVENUES

(In Thousands of Dollars)

	Passenger	U. S. Mail		Public Service Revenue	Express	Freight	Other <sup>1</sup>	Total
		Priority	Non-Priority					
<b>All-Cargo Airlines (Domestic)</b>								
1959.....	.....	202	39	.....	357	18,658	34,014	53,269
1960.....	.....	238	41	.....	337	15,770	32,642	49,028
1961.....	.....	154	49	.....	246	13,166	45,765	59,381
1962.....	.....	81	25	.....	120	11,662	78,813	90,702
1963.....	.....	182	83	.....	237	15,562	51,523	67,586
1964 <sup>P</sup> .....	.....	394	149	.....	563	20,006	53,047	74,158
<b>International and Territorial Airlines</b>								
1959.....	444,618	36,638	.....	3,831	137	51,740	55,262	592,226
1960.....	527,568	40,201	3,198	4,146	177	58,625	50,707	684,621
1961.....	533,158	45,362	10,457	3,709	200	63,066	66,461	722,412
1962.....	595,221	53,905	13,030	3,433	235	71,017	73,603	810,446
1963.....	692,801	57,697	13,613	846	203	80,175	84,286	929,619
1964 <sup>P 2</sup> .....	780,673	57,048	11,430	4,264	304	99,834	86,857	1,040,406
<b>All-Cargo Airlines (International)</b>								
1959.....	.....	2,952	.....	.....	.....	10,371	4,771	17,860
1960.....	.....	4,229	.....	.....	.....	8,964	8,123	21,317
1961.....	.....	4,018	1,046	.....	1	9,388	21,838	36,291
1962.....	.....	2,380	1,786	.....	4	11,747	23,767	39,683
1963.....	.....	2,486	1,710	.....	9	14,472	18,870	37,548
1964 <sup>P</sup> .....	.....	1,327	2,289	.....	4	14,505	25,639	43,765
<b>CONSOLIDATED INDUSTRY</b>								
1959.....	2,167,109	80,512	3,611	54,536	20,803	151,461	140,439	2,618,471
1960.....	2,387,937	89,259	7,753	68,164	23,862	162,777	144,525	2,884,277
1961.....	2,484,644	99,611	15,820	78,952	23,765	176,805	183,973	3,063,577
1962.....	2,762,697	111,178	20,520	82,393	26,968	203,765	231,210	3,438,731
1963.....	3,067,071	117,925	21,086	80,504	28,417	234,655	207,439	3,757,097
1964 <sup>P 2</sup> .....	3,481,212	121,864	19,939	84,534	31,113	285,462	228,038	4,252,159

<sup>2</sup> Includes data for twelve months ended 9/30/64 for Trans Caribbean Airways.

Note: Avalon Air Transport figures are included in the Consolidated Industry totals for 1960, 1961 and 1962.

# DISTRIBUTION OF

## U. S. Scheduled Airline Industry

	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			
<b>Domestic Trunk Lines</b>									
1959.....	505,243	346,387	130,942	275,301	198,780	64,992	670,015	171,729	1,693,374
1960.....	548,125	397,032	150,356	305,674	215,093	74,360	745,483	217,145	1,907,785
1961.....	574,519	399,808	156,809	328,301	225,553	82,374	793,037	266,569	2,033,937
1962.....	593,816	444,047	164,546	362,912	241,895	89,255	858,608	278,694	2,175,166
1963.....	628,805	465,005	181,558	394,180	261,672	93,185	930,595	283,671	2,308,077
1964 P.....	<b>677,018</b>	<b>514,959</b>	<b>213,989</b>	<b>425,050</b>	<b>299,527</b>	<b>101,173</b>	<b>1,039,739</b>	<b>262,475</b>	<b>2,494,192</b>
<b>Local Service Airlines</b>									
1959.....	36,831	25,056	6,078	31,185	9,293	6,861	53,417	6,882	122,186
1960.....	42,031	30,967	7,183	36,492	11,605	8,247	63,527	7,784	144,309
1961.....	48,664	35,987	8,388	42,368	13,515	9,185	73,456	9,583	167,696
1962.....	55,082	42,309	9,726	48,095	16,298	10,611	84,730	10,604	192,724
1963.....	60,846	47,184	10,660	53,136	18,624	11,585	94,004	11,909	213,943
1964 P.....	<b>66,806</b>	<b>52,742</b>	<b>11,732</b>	<b>59,018</b>	<b>20,611</b>	<b>13,029</b>	<b>104,390</b>	<b>12,777</b>	<b>236,717</b>
<b>Intra-Hawaiian Airlines</b>									
1959.....	3,076	1,933	457	1,948	1,725	1,217	5,347	909	11,265
1960.....	4,266	3,273	695	2,373	2,059	1,391	6,518	1,411	15,468
1961.....	3,063	2,867	392	2,321	2,181	1,540	6,434	1,092	13,456
1962.....	2,933	2,677	409	2,430	2,074	1,599	6,512	1,106	13,229
1963.....	3,219	2,923	512	2,706	2,337	1,866	7,420	1,129	14,690
1964 P.....	<b>3,929</b>	<b>3,532</b>	<b>574</b>	<b>2,979</b>	<b>2,421</b>	<b>1,688</b>	<b>7,662</b>	<b>1,350</b>	<b>16,474</b>
<b>Helicopter Airlines <sup>1</sup></b>									
1959.....	1,696	2,017	-----	-----	-----	-----	2,361	1,036	7,110
1960.....	1,934	2,546	-----	-----	-----	-----	2,710	1,192	8,382
1961.....	1,946	2,633	-----	-----	-----	-----	3,086	1,143	8,807
1962.....	1,791	2,454	-----	-----	-----	-----	3,378	1,212	8,835
1963.....	1,744	2,789	-----	-----	-----	-----	3,307	1,000	8,840
1964 P.....	<b>1,943</b>	<b>3,530</b>	-----	-----	-----	-----	<b>3,813</b>	<b>996</b>	<b>10,282</b>
<b>Intra-Alaskan Airlines <sup>1</sup></b>									
1959.....	4,553	3,961	-----	-----	-----	-----	4,824	1,059	14,397
1960.....	4,369	4,309	-----	-----	-----	-----	5,328	1,049	15,055
1961.....	4,847	4,461	-----	-----	-----	-----	5,901	1,003	16,213
1962.....	5,334	4,811	-----	-----	-----	-----	6,191	1,084	17,421
1963.....	6,097	5,296	-----	-----	-----	-----	6,732	1,207	19,331
1964 P.....	<b>6,291</b>	<b>5,719</b>	-----	-----	-----	-----	<b>7,130</b>	<b>1,192</b>	<b>20,330</b>

P Preliminary.

<sup>1</sup> Detailed General Services & Administration expense data not reported by this group.

# OPERATING EXPENSES

(In Thousands of Dollars)

	Flying Operations	Maintenance	General Services & Administration				Total G. S. & A.	Depreciation & Amortization	Total Operating Expenses
			Passenger Service	Aircraft & Traffic Servicing	Promotion & Sales	Administrative			
<b>All-Cargo Airlines (Domestic)</b>									
1959.....	21,224	12,671	1,338	4,795	1,500	3,121	11,524	6,106	51,525
1960.....	20,349	11,442	1,165	5,380	1,874	3,028	11,879	5,933	49,603
1961.....	23,117	12,395	1,444	6,777	2,099	3,189	14,048	8,647	58,206
1962.....	31,061	20,849	1,847	8,411	2,169	4,032	16,461	12,029	80,401
1963.....	23,112	16,518	1,744	8,478	2,342	3,784	16,348	10,330	66,308
1964 P.....	24,237	16,458	2,921	11,069	3,246	3,742	20,978	9,165	70,839
<b>International and Territorial Airlines <sup>2</sup></b>									
1959.....	170,391	95,776	44,070	84,235	87,091	28,999	247,120	60,366	573,653
1960.....	179,707	101,516	47,737	98,216	101,778	28,912	280,056	78,049	639,328
1961.....	186,561	109,490	52,219	103,275	107,327	31,818	298,147	104,111	698,311
1962.....	193,422	113,602	56,045	111,892	116,745	36,752	325,472	91,356	723,853
1963.....	216,893	117,728	68,937	122,803	133,299	39,528	369,424	94,915	798,959
1964 P <sup>3</sup> .....	237,750	145,024	78,334	142,534	151,761	45,681	423,910	88,427	895,108
<b>All-Cargo Airlines (International)</b>									
1959.....	9,235	5,228	217	3,883	1,256	1,528	6,884	1,265	22,612
1960.....	11,256	5,998	534	3,968	1,292	1,697	7,491	1,587	26,332
1961.....	15,464	8,489	1,417	4,819	1,579	2,034	9,849	4,091	37,890
1962.....	12,700	8,413	1,749	5,001	1,615	2,367	10,732	4,699	36,543
1963.....	10,775	7,650	1,476	4,777	1,693	2,261	10,206	5,043	33,674
1964 P.....	12,068	8,242	1,794	5,240	1,700	2,161	11,621	5,592	37,523
<b>CONSOLIDATED INDUSTRY <sup>2</sup></b>									
1959.....	752,249	493,029	183,102	401,347	299,645	106,718	1,001,492	249,352	2,496,122
1960.....	812,152	557,180	207,670	452,103	333,701	117,635	1,123,161	314,193	2,806,686
1961.....	858,330	576,245	220,669	487,861	352,254	130,140	1,204,229	396,303	3,035,115
1962.....	896,319	639,273	234,323	538,741	380,796	144,616	1,312,310	400,829	3,248,732
1963.....	951,490	665,092	264,885	586,079	419,966	152,209	1,438,034	409,206	3,463,823
1964 P <sup>3</sup> .....	1,030,042	750,206	309,344	645,890	479,266	167,474	1,619,243	381,974	3,781,465

<sup>2</sup> The total of General Services and Administration expense is greater than the sum of the detail accounts since some airlines report total expense only.

<sup>3</sup> Includes data for twelve months ended 9/30/64 for Trans Caribbean Airways.

Note: Avalon Air Transport figures are included in the Consolidated Industry totals for 1960, 1961 and 1962.

# SUMMARY OF

## U. S. Scheduled Airline Industry

	Total Operating Revenues	Total Operating Expenses	Net Operating Income	Interest on Long-Term Debt	Other Non- Operating Income (Net)	Income Taxes	Net Profit or Loss <sup>1</sup>	Rate of Return on Invest- ment <sup>2</sup> (%)	Profit on Sales <sup>3</sup> (%)
<b>Domestic Trunk Airlines</b>									
1959.....	1,798,610	1,693,374	105,236	32,397	38,484	53,061	61,682	7.1	3.4
1960.....	1,942,635	1,907,785	34,850	43,950	31,791	18,212	68	2.8	....
1961.....	2,026,368	2,033,937	-7,569	61,569	20,528	-12,038	-34,567	1.5	....
1962.....	2,250,094	2,175,166	74,928	72,364	26,812	22,360	8,196	4.1	0.4
1963.....	2,451,915	2,308,077	143,838	70,089	16,857	57,186	10,665	4.2	0.4
<b>1964 P.....</b>	<b>2,789,798</b>	<b>2,494,192</b>	<b>295,604</b>	<b>68,782</b>	<b>17,336</b>	<b>110,068</b>	<b>136,543</b>	<b>10.1</b>	<b>4.9</b>
<b>Local Service Airlines</b>									
1959.....	122,821	122,186	635	1,887	197	-178	64	5.0	0.1
1960.....	146,481	144,309	2,172	2,872	713	294	1,940	9.1	1.3
1961.....	177,056	167,696	9,359	3,274	703	3,147	4,862	11.8	2.7
1962.....	206,099	192,724	13,374	3,748	1,475	5,263	5,962	11.7	2.9
1963.....	226,160	213,943	12,217	3,905	964	4,389	5,102	9.6	2.3
<b>1964 P.....</b>	<b>254,005</b>	<b>236,717</b>	<b>17,288</b>	<b>3,901</b>	<b>778</b>	<b>6,660</b>	<b>7,495</b>	<b>10.1</b>	<b>2.9</b>
<b>Intra-Hawaiian Airlines</b>									
1959.....	11,431	11,265	166	305	83	-37	50	4.8	0.4
1960.....	15,217	15,468	-251	494	228	....	-512	-0.2	....
1961.....	14,085	13,456	629	516	-99	....	133	6.5	0.9
1962.....	13,780	13,229	551	445	-65	28	-50	4.3	....
1963.....	15,499	14,690	809	485	-402	....	-213	3.2	....
<b>1964 P.....</b>	<b>17,908</b>	<b>16,474</b>	<b>1,434</b>	<b>400</b>	<b>89</b>	<b>186</b>	<b>937</b>	<b>15.1</b>	<b>5.2</b>
<b>Helicopter Airlines</b>									
1959.....	7,760	7,110	650	87	50	309	501	10.7	6.5
1960.....	8,601	8,382	219	59	51	92	150	4.0	1.7
1961.....	8,603	8,807	-205	32	50	-78	-46	0.1	....
1962.....	8,583	8,835	-252	233	129	-223	89	4.0	1.0
1963.....	8,637	8,840	-204	303	245	-92	-154	1.6	....
<b>1964 P.....</b>	<b>10,171</b>	<b>10,282</b>	<b>-110</b>	<b>555</b>	<b>598</b>	<b>106</b>	<b>-120</b>	<b>4.6</b>	<b>....</b>
<b>Intra-Alaskan Airlines</b>									
1959.....	14,494	14,397	97	339	244	169	28	4.9	0.2
1960.....	16,031	15,055	976	318	-16	196	430	9.3	2.7
1961.....	18,866	16,213	2,652	295	35	1,408	922	14.5	4.9
1962.....	18,735	17,421	1,314	288	46	573	514	8.9	2.7
1963.....	20,135	19,331	803	283	88	461	147	4.7	0.7
<b>1964 P.....</b>	<b>21,948</b>	<b>20,330</b>	<b>1,618</b>	<b>261</b>	<b>76</b>	<b>623</b>	<b>1,156</b>	<b>15.4</b>	<b>5.3</b>

P Preliminary. <sup>1</sup> Net Profit or Loss shown is after "Special Items," which are not included in the detail. Therefore, the items do not add to the profit figures shown.

<sup>2</sup> Net income before interest and after taxes as per cent of net worth and long-term debt. Not reduced by those tax benefits resulting from the investment credit which, under provisions of the revenue law, will be excluded by the CAB in its official method of calculating the rate of return.

# 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 (Net)	Income Taxes	Net Profit or Loss <sup>1</sup>	Rate of Return on Invest- ment <sup>2</sup> (%)	Profit Margin on Sales <sup>3</sup> (%)
<b>All-Cargo Airlines (Domestic)</b>									
1959.....	53,269	51,525	1,744	1,400	1,435	761	719	5.10	1.3
1960.....	49,028	49,603	-575	1,240	730	187	-1,128	0.24	....
1961.....	59,381	58,206	1,174	2,365	-2,911	311	-4,578	-3.19	....
1962.....	90,702	80,401	10,301	4,775	2,897	4,108	4,355	10.4	4.8
1963.....	67,586	66,308	1,279	4,302	2,786	215	-542	4.3	....
1964 P.....	74,158	70,839	3,320	3,398	1,963	1,263	622	5.0	0.8
<b>International and Territorial Airlines</b>									
1959.....	592,226	573,653	18,573	8,831	12,757	10,453	13,156	4.5	2.2
1960.....	684,621	639,328	45,293	16,715	6,424	18,818	16,216	5.3	2.4
1961.....	722,412	698,311	24,102	24,275	4,869	5,691	-2,169	3.1	....
1962.....	810,446	723,853	86,593	26,337	4,893	32,885	33,073	8.7	4.1
1963.....	929,619	798,959	130,660	24,234	6,247	49,251	62,965	13.1	6.8
1964 P <sup>4</sup> .....	1,040,406	895,108	145,298	22,709	11,475	63,143	77,421	13.6	7.4
<b>All-Cargo Airlines (International)</b>									
1959.....	17,860	22,612	-4,752	294	264	-1,046	-3,519	-27.8	....
1960.....	21,317	26,332	-5,015	583	176	5	-7,945	-71.9	....
1961.....	36,291	37,890	-1,599	1,628	8	....	-2,240	-2.1	....
1962.....	39,683	36,543	3,139	2,841	-356	....	118	7.7	0.3
1963.....	37,548	33,674	3,874	2,874	-299	....	-1,072	4.6	....
1964 P.....	43,765	37,523	6,242	1,259	-2,135	....	2,351	8.4	5.4
<b>CONSOLIDATED INDUSTRY</b>									
1959.....	2,618,471	2,496,122	122,349	45,540	53,514	63,566	72,681	6.2	2.8
1960.....	2,884,277	2,806,686	77,591	66,232	40,097	37,794	9,140	3.2	0.3
1961.....	3,063,577	3,035,115	28,459	93,959	23,167	-1,573	-37,758	2.1	....
1962.....	3,438,731	3,248,732	189,999	111,036	35,829	64,994	52,302	5.7	1.5
1963.....	3,757,097	3,463,823	293,274	106,475	26,486	111,410	76,897	6.5	2.0
1964 P <sup>4</sup> .....	4,252,159	3,781,465	470,694	101,265	30,180	182,049	226,405	10.8	5.3

<sup>3</sup> Profit as per cent of revenues.

<sup>4</sup> Includes data for twelve months ended 9/30/64 for Trans Caribbean Airways.

Note: Avalon Air Transport figures are included in the Consolidated Industry totals for 1960, 1961 and 1962.

# ASSETS, LIABILITIES AND

U. S. Scheduled Airline Industry

	1959	1960	1961	1962	1963	(Sept. 30) 1964
<b>Domestic Trunk Airlines<sup>1</sup></b>						
<i>Assets</i>						
Current Assets .....	633,794	681,196	694,186	810,571	868,744	813,951
Investments and Special Funds .....	132,780	130,063	139,299	110,957	178,514	180,875
Flight Equipment .....	1,898,778	2,327,772	2,759,623	3,021,445	3,050,528	3,368,316
Reserve for Depreciation and Airworthiness .....	-834,828	-926,748	-1,083,326	-1,221,806	-1,339,416	-1,386,418
Ground Property and Equipment .....	279,018	318,308	351,737	371,058	391,175	416,551
Reserve for Depreciation .....	-132,553	-153,437	-175,025	-187,769	-208,125	-227,770
Other Property .....	105,921	104,311	63,709	27,317	59,061	53,030
Deferred Charges .....	55,340	67,632	69,762	58,952	33,227	40,595
Total Assets .....	2,138,250	2,549,097	2,819,953	2,990,724	3,033,708	3,259,130
<i>Liabilities and Equity</i>						
Current Liabilities .....	474,011	499,245	523,565	592,202	654,977	617,714
Long-Term Debt .....	804,578	1,069,651	1,408,938	1,449,941	1,344,538	1,392,538
Other Non-Current Liabilities .....	2,014	103,438	22,263	27,552	2,315	5,020
Deferred Credits .....	114,563	137,751	148,173	190,154	239,773	311,983
Stockholders' Equity—Net of Treasury Stock .....	743,084	739,012	717,075	730,875	792,104	931,876
Preferred Stock .....	19,072	18,864	34,162	33,552	20,672	17,597
Common Stock .....	116,627	119,911	128,124	133,085	151,926	162,721
Other Paid-In Capital .....	262,522	278,465	292,126	303,713	353,189	383,502
Retained Earnings .....	345,298	322,391	263,276	261,668	267,926	369,439
Less: Treasury Stock .....	435	619	613	1,143	1,608	1,382
Total Liabilities and Equity .....	2,138,250	2,549,097	2,819,953	2,990,724	3,033,708	3,259,130
<b>Local Service Airlines</b>						
<i>Assets</i>						
Current Assets .....	29,911	38,131	44,257	49,502	54,732	62,317
Investments and Special Funds .....	2,055	2,487	2,428	4,076	10,209	12,534
Flight Equipment .....	67,202	82,394	95,492	107,589	121,013	132,574
Reserve for Depreciation and Airworthiness .....	-25,175	-29,867	-36,484	-39,668	-46,265	-50,843
Ground Property and Equipment .....	9,870	11,472	13,688	15,724	17,664	19,093
Reserve for Depreciation .....	-4,871	-5,779	-6,878	-8,241	-9,632	-10,925
Other Property .....	1,931	1,147	4,730	4,295	2,576	2,063
Deferred Charges .....	3,542	4,514	5,415	4,987	5,302	5,403
Total Assets .....	84,465	104,499	122,647	138,264	155,598	172,217
<i>Liabilities and Equity</i>						
Current Liabilities .....	34,215	43,031	44,199	49,115	50,672	50,804
Long-Term Debt .....	31,062	43,781	50,067	52,625	61,847	65,712
Other Non-Current Liabilities .....	4,072	159	58	142	171	454
Deferred Credits .....	293	441	618	1,301	2,430	3,502
Stockholders' Equity—Net of Treasury Stock .....	14,823	17,087	27,704	35,082	40,478	51,746
Preferred Stock .....	163	163	2,665	2,323	2,100	1,887
Common Stock .....	8,245	8,434	10,598	11,172	12,750	14,304
Other Paid-In Capital .....	7,180	7,474	9,254	10,877	10,817	15,802
Retained Earnings .....	-691	1,089	5,263	10,819	14,921	19,862
Less: Treasury Stock .....	74	73	73	109	109	108
Total Liabilities and Equity .....	84,465	104,499	122,647	138,264	155,598	172,217

<sup>1</sup> Balance sheet data for Domestic Trunk Airlines includes their international as well as domestic operations.



# STOCKHOLDERS' EQUITY

(In Thousands of Dollars)

	1959	1960	1961	1962	1963	(Sept. 30) 1964
<b>Intra-Hawaiian Airlines</b>						
<i>Assets</i>						
Current Assets.....	3,481	4,309	3,680	3,463	3,151	<b>3,679</b>
Investments and Special Funds.....	299	56	9	12	27	<b>12</b>
Flight Equipment.....	11,134	12,980	12,047	12,242	13,483	<b>13,875</b>
Reserve for Depreciation and Airworthiness.....	-4,104	-4,261	-4,679	-5,995	-6,703	<b>-7,055</b>
Ground Property and Equipment.....	1,778	2,231	2,553	2,587	2,886	<b>3,204</b>
Reserve for Depreciation.....	-1,147	-1,273	-1,354	-1,226	-1,374	<b>-1,482</b>
Other Property.....	144	96	269	229	491	<b>82</b>
Deferred Charges.....	859	1,086	1,145	1,060	726	<b>584</b>
Total Assets.....	12,444	15,224	13,667	12,371	12,686	<b>12,900</b>
<i>Liabilities and Equity</i>						
Current Liabilities.....	2,614	4,709	3,719	3,579	3,847	<b>3,966</b>
Long-Term Debt.....	6,164	7,393	6,658	5,555	5,754	<b>4,793</b>
Other Non-Current Liabilities.....	-----	-----	-----	-----	18	<b>26</b>
Deferred Credits.....	59	41	74	71	34	<b>88</b>
Stockholders' Equity—Net of Treasury Stock.....	3,607	3,081	3,217	3,167	3,033	<b>4,028</b>
Preferred Stock.....	1,625	1,613	1,570	1,555	1,458	<b>1,332</b>
Common Stock.....	1,304	1,317	1,361	1,376	1,546	<b>1,752</b>
Other Paid-In Capital.....	1,792	1,792	1,793	1,793	1,799	<b>1,851</b>
Retained Earnings.....	-1,114	-1,641	-1,507	-1,557	-1,770	<b>-907</b>
Less: Treasury Stock.....	-----	-----	-----	-----	-----	-----
Total Liabilities and Equity.....	12,444	15,224	13,667	12,371	12,686	<b>12,900</b>
<b>Helicopter Airlines</b>						
<i>Assets</i>						
Current Assets.....	3,315	3,236	3,098	3,620	3,264	<b>4,493</b>
Investments and Special Funds.....	164	471	588	214	199	<b>560</b>
Flight Equipment.....	5,488	5,612	5,347	10,018	9,760	<b>9,572</b>
Reserve for Depreciation and Airworthiness.....	-2,344	-3,021	-3,488	-2,933	-2,959	<b>-3,298</b>
Ground Property and Equipment.....	894	986	1,107	1,349	1,556	<b>1,654</b>
Reserve for Depreciation.....	-497	-588	-665	-765	-895	<b>-1,002</b>
Other Property.....	55	50	1,387	113	152	<b>182</b>
Deferred Charges.....	482	580	730	859	785	<b>842</b>
Total Assets.....	7,557	7,326	8,103	12,475	11,861	<b>13,002</b>
<i>Liabilities and Equity</i>						
Current Liabilities.....	2,021	1,762	2,303	2,207	2,579	<b>2,784</b>
Long-Term Debt.....	696	300	492	4,923	3,944	<b>4,617</b>
Other Non-Current Liabilities.....	1	55	38	31	21	<b>7</b>
Deferred Credits.....	152	199	308	235	232	<b>227</b>
Stockholders' Equity—Net of Treasury Stock.....	4,687	5,010	4,963	5,078	5,086	<b>5,367</b>
Preferred Stock.....	-----	-----	-----	-----	1,043	<b>1,456</b>
Common Stock.....	770	957	957	964	982	<b>994</b>
Other Paid-In Capital.....	2,686	2,672	2,673	2,692	2,647	<b>2,571</b>
Retained Earnings.....	1,231	1,381	1,331	1,423	414	<b>346</b>
Less: Treasury Stock.....	-----	-----	-----	-----	-----	-----
Total Liabilities and Equity.....	7,557	7,326	8,103	12,475	11,861	<b>13,002</b>

# ASSETS, LIABILITIES AND

U. S. Scheduled Airline Industry

	1959	1960	1961	1962	1963	(Sept. 30) 1964
<b>International and Territorial Airlines</b>						
<i>Assets</i>						
Current Assets.....	141,000	179,258	201,285	209,998	203,893	206,253
Investments and Special Funds.....	115,982	48,752	64,220	66,031	83,389	102,112
Flight Equipment.....	426,986	596,836	548,936	593,676	602,852	678,396
Reserve for Depreciation and Airworthiness.....	-181,146	-215,519	-206,783	-242,101	-271,755	-279,795
Ground Property and Equipment.....	45,587	54,502	58,925	62,553	65,927	84,533
Reserve for Depreciation.....	-25,130	-28,475	-32,075	-35,443	-38,682	-41,625
Other Property.....	7,006	5,317	6,214	3,603	4,566	6,145
Deferred Charges.....	19,179	31,117	36,554	31,459	31,098	37,256
Total Assets.....	549,464	671,788	677,274	689,776	681,289	793,275
<i>Liabilities and Equity</i>						
Current Liabilities.....	105,555	137,215	157,468	172,338	198,760	200,490
Long-Term Debt.....	262,388	335,540	318,390	301,521	226,232	266,663
Other Non-Current Liabilities.....	1,532	2,568	3,131	4,386	1,863	13,053
Deferred Credits.....	10,346	24,924	28,630	31,305	52,531	58,517
Stockholders' Equity—Net of Treasury Stock.....	169,643	171,541	169,656	180,227	201,902	254,552
Preferred Stock.....	-----	141	-----	-----	-----	-----
Common Stock.....	22,163	22,293	20,150	19,483	19,238	19,681
Other Paid-In Capital.....	80,773	78,764	79,031	80,901	78,411	95,649
Retained Earnings.....	68,253	71,915	71,859	81,194	105,368	139,931
Less: Treasury Stock.....	1,546	1,572	1,385	1,352	1,115	709
Total Liabilities and Equity.....	549,464	671,788	677,274	689,776	681,289	793,275
<b>Intra-Alaskan Airlines</b>						
<i>Assets</i>						
Current Assets.....	3,973	4,272	6,208	5,386	6,617	6,783
Investments and Special Funds.....	278	564	631	820	828	619
Flight Equipment.....	7,729	8,294	8,367	9,509	10,482	10,721
Reserve for Depreciation and Airworthiness.....	-2,742	-3,594	-4,272	-4,948	-5,689	-6,061
Ground Property and Equipment.....	3,475	3,725	3,886	4,138	4,363	4,712
Reserve for Depreciation.....	-1,500	-1,631	-1,880	-2,074	-2,295	-2,468
Other Property.....	316	137	144	418	331	512
Deferred Charges.....	371	346	469	455	568	812
Total Assets.....	11,900	12,113	13,550	13,704	15,205	15,630
<i>Liabilities and Equity</i>						
Current Liabilities.....	3,736	3,905	4,860	4,470	5,746	5,635
Long-Term Debt.....	4,841	4,081	3,695	3,432	3,392	2,502
Other Non-Current Liabilities.....	62	59	89	105	143	201
Deferred Credits.....	72	22	81	143	177	369
Stockholders' Equity—Net of Treasury Stock.....	3,189	4,046	4,826	5,554	5,746	6,923
Preferred Stock.....	-----	-----	-----	420	473	457
Common Stock.....	2,040	2,346	2,372	2,119	2,119	2,194
Other Paid-In Capital.....	179	184	183	283	283	349
Retained Earnings.....	970	1,516	2,270	2,733	2,871	3,923
Less: Treasury Stock.....	-----	-----	-----	-----	-----	-----
Total Liabilities and Equity.....	11,900	12,113	13,550	13,704	15,205	15,630

# STOCKHOLDERS' EQUITY

(In Thousands of Dollars)

	1959	1960	1961	1962	1963	(Sept. 30) 1964
<b>All-Cargo Airlines<sup>2</sup></b>						
<i>Assets</i>						
Current Assets.....	20,481	18,677	28,541	33,632	28,986	31,570
Investments and Special Funds.....	20,572	28,394	21,920	9,098	7,970	9,063
Flight Equipment.....	59,027	54,884	127,996	157,912	166,757	175,583
Reserve for Depreciation and Airworthiness.....	-22,331	-25,425	-35,620	-40,917	-53,157	-65,372
Ground Property and Equipment.....	4,214	4,050	5,266	5,613	6,301	6,972
Reserve for Depreciation.....	-2,378	-2,438	-2,735	-2,976	-3,443	-3,848
Other Property.....	701	6,231	7,175	5,618	7,688	7,667
Deferred Charges.....	2,233	3,532	8,567	8,621	7,181	7,368
Total Assets.....	82,519	87,905	161,114	176,599	168,283	169,001
<i>Liabilities and Equity</i>						
Current Liabilities.....	22,001	17,340	39,693	39,057	31,119	35,970
Long-Term Debt.....	28,325	46,797	96,166	105,080	97,767	90,533
Other Non-Current Liabilities.....	1,385	379	35	408	482	2,508
Deferred Credits.....	3,030	2,615	1,838	5,288	9,732	9,462
Stockholders' Equity—Net of Treasury Stock.....	27,778	20,774	23,382	26,766	29,182	30,529
Preferred Stock.....	1,193	1,192	1,192	1,192	1,192	1,192
Common Stock.....	10,303	15,325	23,300	23,016	24,052	24,697
Other Paid-In Capital.....	22,370	20,569	21,633	21,742	13,900	13,914
Retained Earnings.....	-6,078	-16,306	-22,738	-19,179	-9,957	-9,269
Less: Treasury Stock.....	10	6	5	5	5	5
Total Liabilities and Equity.....	82,519	87,905	161,114	176,599	168,283	169,001
<b>CONSOLIDATED INDUSTRY<sup>3</sup></b>						
<i>Assets</i>						
Current Assets.....	835,955	929,117	981,291	1,116,223	1,169,387	1,129,045
Investments and Special Funds.....	272,130	210,788	229,096	191,207	281,136	305,775
Flight Equipment.....	2,476,344	3,089,137	3,558,129	3,912,770	3,974,874	4,389,036
Reserve for Depreciation and Airworthiness.....	-1,072,670	-1,208,641	-1,374,879	-1,558,636	-1,725,942	-1,798,840
Ground Property and Equipment.....	344,836	395,349	437,235	463,099	489,872	536,719
Reserve for Depreciation.....	-168,076	-193,642	-220,642	-238,529	-264,447	-289,119
Other Property.....	116,074	117,289	83,636	41,596	74,863	69,678
Deferred Charges.....	82,006	108,814	122,647	106,402	78,886	92,860
Total Assets.....	2,886,599	3,448,211	3,816,498	4,034,131	4,078,628	4,435,156
<i>Liabilities and Equity</i>						
Current Liabilities.....	644,153	707,362	775,957	863,090	947,699	917,363
Long-Term Debt.....	1,138,054	1,507,543	1,884,406	1,923,077	1,743,474	1,827,357
Other Non-Current Liabilities.....	9,066	106,658	25,554	32,625	5,012	21,269
Deferred Credits.....	128,515	166,008	179,749	228,532	304,911	384,147
Stockholders' Equity—Net of Treasury Stock.....	966,811	960,640	950,837	986,807	1,077,532	1,285,021
Preferred Stock.....	22,053	21,973	39,589	39,041	26,937	23,921
Common Stock.....	161,452	170,618	186,897	191,249	212,613	226,342
Other Paid-In Capital.....	377,502	389,920	406,693	422,000	461,046	513,638
Retained Earnings.....	407,869	380,398	319,737	337,125	379,772	523,324
Less: Treasury Stock.....	2,065	2,270	2,076	2,608	2,837	2,204
Total Liabilities and Equity.....	2,886,599	3,448,211	3,816,498	4,034,131	4,078,628	4,435,156

<sup>2</sup> Balance sheet data for All-Cargo Airlines includes their international as well as domestic operations.

<sup>3</sup> Avalon Air Transport figures included only in Consolidated Industry 1960, 1961 and 1962.

**COMPARATIVE TRANSPORT SAFETY RECORD**  
**Passenger Fatality Rate per 100,000,000 Revenue Passenger Miles**  
*(For Selected Years)*

	1954	1959	1960	1961	1962	1963	1964
<b>U. S. Scheduled Airlines</b>							
Domestic							
Fatalities.....	16	209	306	124	121	48	<b>65</b>
Rate.....	0.09	0.68	0.96	0.38	0.34	0.12	<b>0.14</b>
International and Territorial							
Fatalities.....	0	59	1	0	0	73	<b>94</b>
Rate.....	0	0.80	0.01	0.00	0.00	0.58	<b>0.63</b>
Total U. S. Scheduled Airlines							
Fatalities.....	16	268	307	124	121	121	<b>159</b>
Rate.....	0.08	0.71	0.76	0.30	0.26	0.23	<b>0.26</b>
<b>Motor Buses</b>							
Fatalities.....	60	100	60	80	90	130	<b>N.A.</b>
Rate.....	0.11	0.18	0.11	0.15	0.16	0.23	<b>N.A.</b>
<b>Railroads</b>							
Fatalities.....	23	12	33	20	27	13	<b>10</b>
Rate.....	0.08	0.05	0.16	0.10	0.14	0.07	<b>0.05</b>
<b>Autos</b>							
Fatalities.....	22,500	24,800	24,600	24,700	26,800	28,900	<b>N.A.</b>
Rate.....	2.6	2.3	2.2	2.2	2.3	2.3	<b>N.A.</b>

N.A. — Not Available.

**AIRLINE FARES COMPARED**  
**Average Revenue per Passenger Mile — Intercity Common Carriers**  
*(For Selected Years, In Cents Per Mile)*

	1954	1959	1960	1961	1962	1963	1964	% Change 1954/1964
<b>Scheduled Airlines:</b>								
Domestic—Coach.....	4.33	4.63	5.01	5.42	5.76	5.62	<b>5.58</b>	+28.9
All Services.....	5.41	5.88	6.09	6.28	6.44	6.17	<b>6.12</b>	+13.1
International—Tourist*.....	5.32	5.38	5.59	5.50	5.43	5.47	<b>5.12</b>	- 3.76
All Services.....	6.76	6.29	6.35	6.08	5.87	5.82	<b>5.44</b>	-19.53
Total U.S. Scheduled Airlines.....	5.66	5.96	6.14	6.24	6.31	6.09	<b>5.95</b>	+ 5.12
<b>Railroads, Class I</b>								
First Class.....	3.35	3.84	3.83	3.94	3.97	4.00	<b>3.91 P</b>	+16.7
Coach.....	2.50	2.77	2.77	2.84	2.89	3.00	<b>3.00 P</b>	+20.0
<b>Motor Buses, Class I</b>	2.08	2.59	2.70	2.70	2.71	2.72	<b>2.74 P</b>	+31.7

\* Includes Economy Fares.

P Preliminary.

**PERSONNEL EMPLOYED**  
**By the Scheduled Airline Industry <sup>1</sup>**  
*(1955-1964)*

Year (Dec. 31)	Pilots and Copilots	Other Flight Personnel	Pursers, Stewards, Stewardesses	Communi- cations Personnel	Mechanics	Aircraft and Traffic Servicing Personnel	Office Employees	All Others	Total
1955.....	10,857	2,762	7,454	3,499	29,196	19,114	45,030	4,291	122,203
1956.....	11,386	3,384	8,097	3,605	30,962	20,657	49,336	4,076	131,503
1957.....	13,286	3,797	9,450	4,004	31,162	36,052	31,799	17,640	147,190
1958.....	12,897	3,667	9,811	3,978	29,580	37,256	32,003	17,958	147,150
1959.....	14,471	4,075	10,902	4,390	32,823	43,839	32,324	21,346	164,170
1960.....	13,535	3,811	10,600	4,233	34,181	43,334	35,440	21,101	166,235
1961.....	13,936	4,162	11,858	3,745	34,065	44,617	36,642	20,916	169,941
1962.....	13,820	4,151	12,178	3,418	34,925	46,696	36,952	20,687	172,827
1963.....	14,262	4,048	13,109	3,716	34,453	49,056	37,867	22,376	178,887
1964*.....	14,934	4,347	14,379	4,213	35,307	51,844	39,802	24,834	189,660

<sup>1</sup> Data for Alaskan and All-Cargo carriers not included prior to 1959.

\* As of September 30, 1964.

## REVENUE PASSENGERS CARRIED

### U. S. Scheduled Airline Industry

(For Selected Years, In Thousands of Passengers)

	1954	1959	1960	1961	1962	1963	1964
Domestic Trunk Airlines.....	29,347	44,488	45,184	44,677	46,759	53,380	60,541
Local Service Airlines.....	2,433	5,213	5,591	6,470	7,651	8,865	10,482
Helicopter Airlines.....	8	366	490	430	359	458	607
Intra-Hawaiian Airlines.....	558	755	857	838	877	973	1,119
Intra-Alaskan Airlines.....	183	178	201	216	240	225	248
International and Territorial Airlines.....	2,919	4,999	5,497	5,699	6,598	7,513	8,777
<b>TOTAL SCHEDULED</b>							
<b>AIRLINE INDUSTRY.....</b>	<b>35,448</b>	<b>55,999</b>	<b>57,872</b>	<b>58,408</b>	<b>62,549</b>	<b>71,414</b>	<b>81,774</b>

## AVERAGE LENGTH OF HAUL

(Statute Miles)

	1954	1959	1960	1961	1962	1963	1964
Domestic Trunk Airlines.....	553	632	647	661	681	682	688
International and Territorial Airlines.....	1,305	1,413	1,510	1,539	1,536	1,585	1,635

1 Includes Avalon Air Transport

## PASSENGER TRAVEL BETWEEN THE UNITED STATES AND FOREIGN COUNTRIES \*

(Thousands of Passengers)

	1954	1959	1960	1961	1962	1963	1964
Passengers via Air.....	1,853	4,064	4,576	4,954	5,364	5,997	6,905
Passengers via Sea.....	1,172	1,426	1,474	1,469	1,568	1,639	1,710
Total via Air and Sea.....	3,025	5,490	6,050	6,423	6,932	7,636	8,615
<b>Air Share (%).....</b>	<b>61.3</b>	<b>74.0</b>	<b>75.6</b>	<b>77.1</b>	<b>77.4</b>	<b>78.5</b>	<b>80.2</b>
U. S. Citizens via Air (%).....	66.1	64.3	63.0	61.2	61.4	61.8	61.8
Passengers via Foreign-Flag Airlines.....	623	1,706	2,071	2,496	2,684	2,977	3,465
Passengers via U. S.-Flag Airlines.....	1,230	2,358	2,505	2,458	2,680	3,020	3,440
<b>U. S.-Flag Airlines' Share (%).....</b>	<b>66.4</b>	<b>58.1</b>	<b>54.8</b>	<b>49.6</b>	<b>50.0</b>	<b>50.4</b>	<b>49.8</b>

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

Source: U. S. Department of Justice, Immigration and Naturalization Service, "Report of Passenger Travel Between the United States and foreign countries."

## INTERCITY PASSENGER TRAVEL IN THE UNITED STATES

(Passenger Miles in Millions)

	1954	1959	1960	1961	1962	1963	1964
Common Carriers							
Airlines.....	16,802	29,308	30,557	31,062	33,623	38,457	44,142
Railroads.....	24,537	17,502	17,064	16,154	15,859	14,396	14,069 <sup>E</sup>
Motor Bus 1.....	22,000	20,400	19,900	19,700	21,000	21,900	22,700 <sup>E</sup>
Total.....	63,339	67,210	67,521	66,916	70,482	74,753	80,911
<b>Air Share (%).....</b>	<b>26.5</b>	<b>43.6</b>	<b>45.3</b>	<b>46.4</b>	<b>47.7</b>	<b>51.4</b>	<b>54.6</b>
Private Automobile.....	552,000	659,435	680,600	692,000	713,000	748,500	782,000 <sup>E</sup>
Total Common Carrier and Auto.....	615,339	726,645	748,121	758,916	783,482	823,253	862,911
Common Carrier Share (%).....	10.3	9.2	9.0	8.8	9.0	9.1	9.4
<b>Air Share (%).....</b>	<b>2.7</b>	<b>4.0</b>	<b>4.1</b>	<b>4.1</b>	<b>4.3</b>	<b>4.7</b>	<b>5.1</b>

1 Includes charter

<sup>E</sup> Estimated

# AIRCRAFT IN SERVICE AND ON ORDER

By U.S. Scheduled Airline Industry

(For Selected Years)

Manufacturer	Model	(In service as of 12/31)						New Aircraft On Order 12/31/64*
		1954	1960	1961	1962	1963	1964	1965
Armstrong-Whitworth:	Argosy (Turboprop)	---	---	7	---	---	---	---
Boeing:	377	48	3	---	---	---	---	---
	B707 (Jet)	---	91	94	117	133	157	40
	B720 (Jet)	---	22	76	99	104	112	8
	B727 (Jet)	---	---	---	---	---	88	96
British Aircraft Corp:	BAC 111 (Jet)	---	---	---	---	---	---	49
Canadair:	CL 44 (Turboprop)	---	---	9	21	21	21	---
Convair:	240	102	51	46	50	49	51	---
	340/440	121	148	146	149	153	146	---
	540 (Turboprop)	---	4	5	---	---	---	---
	580 (Turboprop)	---	---	---	---	---	4	---
	880 (Jet)	---	14	39	45	46	48	---
	990 (Jet)	---	---	---	15	19	19	---
Curtiss:	C-46	60	42	44	40	34	20	---
Douglas:	DC-3	339	276	250	213	197	164	---
	DC-4	155	52	25	15	14	15	---
	DC-6	251	301	260	230	217	203	---
	DC-7	61	217	215	203	164	121	---
	DC-8 (Jet)	---	75	93	100	104	114	15
	DC-9 (Jet)	---	---	---	---	---	---	64
Fairchild:	F-27 (Turboprop)	---	42	44	46	50	54	---
Lockheed:	Lodestar	11	---	---	---	---	---	---
	Constellation	111	75	69	44	40	41	---
	Super Constellation	39	129	115	114	111	107	---
	Electra (Turboprop)	---	107	122	117	117	117	---
	L-300-B Starlifter (Jet)	---	---	---	---	---	---	12
Martin:	202	25	15	17	17	16	15	---
	404	100	80	64	66	59	65	---
Nord Aviation:	262 (Turboprop)	---	---	---	---	---	---	8
Sud Aviation:	Caravelle (Jet)	---	---	17	20	20	20	---
Vickers:	V-700 (Series) (Turboprop)	---	61	57	55	49	48	---
	V-800 (Series) (Turboprop)	---	13	13	12	11	11	---
Other:		20	24	27	23	84	73	---
<b>Total Fixed Wing:</b>		<b>1,443</b>	<b>1,842</b>	<b>1,854</b>	<b>1,811</b>	<b>1,812</b>	<b>1,834</b>	<b>292</b>
Jet		---	202	319	396	426	558	284
Turboprop		---	227	257	251	250	259	8
Piston		1,443	1,413	1,278	1,164	1,136	1,017	---
<b>Helicopters:</b>								
Bell:	B47	6	5	1	1	1	---	---
Sikorsky:	S51	3	2	1	---	1	1	---
	S55	11	5	5	5	2	2	---
	S58	---	7	7	5	4	4	---
	S61 (Turbine)	---	---	---	4	4	6	2
	S62 (Turbine)	---	1	---	---	4	4	---
Boeing Vertol:	V44B	---	5	5	1	---	---	---
	V107 (Turbine)	---	---	---	4	4	4	3
<b>Total Helicopters:</b>		<b>20</b>	<b>25</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>21</b>	<b>5</b>
Turbine		---	1	0	8	12	14	5
Piston		20	24	19	12	8	7	---

\* The U.S. scheduled airlines have placed 21 orders for the British-French Concorde and hold 42 tentative delivery positions for the U.S. supersonic transport. New aircraft on order does not include orders for the conversion of piston aircraft to turboprop which involve 46 aircraft.

# CLASSES OF UNITED STATES COMMERCIAL AIR CARRIERS

There are nine generally recognized classes of operators in the air transport industry of the United States. These classifications are used by the Civil Aeronautics Board in connection with the economic regulation of the industry and under the Federal Aviation Act are based largely on the scope of operations authorized or allowed by that Act. Classes One to Seven have certificates of convenience and necessity authorizing them to conduct regularly scheduled services.

1. **The Domestic Trunk Carriers** include those carriers which presently have permanent operating rights within the continental United States. There are currently eleven trunk lines, most of which operate high-density traffic routes between the principal traffic centers of the United States.

American	Delta	Northeast <sup>1</sup>	United
Braniff	Eastern	Northwest	Western
Continental	National	Trans World	

2. **The Domestic Local Service Carriers** have, with one exception, been certificated since 1945. These carriers, thirteen in number, operate routes of lesser traffic density between the smaller traffic centers and between these centers and principal centers.

Allegheny	Lake Central	Ozark	Southern
Bonanza	Mohawk <sup>1</sup>	Pacific	Trans-Texas
Central	North Central <sup>1</sup>	Piedmont	West Coast <sup>1</sup>
Frontier			

3. **The Intra-Hawaiian Carriers** operate between the several islands comprising the State of Hawaii.

Aloha	Hawaiian
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4. **The Intra-Alaskan Carriers** provide service within the State of Alaska.

Alaska Coastal-Ellis	Kodiak	Northern Consolidated	Western Alaska
Cordova	Howard J. Mays <sup>2</sup>	Reeve	Wien Alaska

5. **The Helicopter Carriers** presently operate between airports, central post offices, and suburbs of New York, Chicago, Los Angeles and San Francisco. Originally certificated as exclusive mail carriers they now fly passengers, air freight and air express, in addition to U. S. Mail.

Chicago Helicopter Airways	Los Angeles Airways	New York Airways	San Francisco & Oakland Helicopter Airlines <sup>3</sup>
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6. **The International and Territorial Carriers** include all U. S.-Flag air carriers operating between the United States and foreign countries other than Canada, and over international waters. Some of these carriers conduct operations between foreign countries and some are extensions of domestic trunk lines into Mexico and the Caribbean and to Alaska and Hawaii.

Alaska	Delta	Northwest	Trans Caribbean
American	Eastern	Pacific Northern	Trans World
Braniff	Mackey <sup>2</sup>	Pan American	United
Caribbean Atlantic	National	Pan American-Grace	Western

7. **The All-Cargo Carriers** operate scheduled flights carrying freight, express and mail between designated areas in the U. S., and in one case to the Caribbean and in another to Europe.

Aerovias Sud Americana	Flying Tiger	Slick
Airlift International	Seaboard World	

8. **Supplemental Air Carriers.** A class of air carriers now holding temporary certificates issued by the CAB authorizing them to perform passenger and cargo charter services as well as scheduled operations on a limited or temporary basis, supplementing the scheduled service of the certificated route air carriers. As of March 1, 1965, there were 14 such companies. Statistical data of these carriers is not included herein.

9. **Intra-state Air Carriers.** A class of air carriers operating as an intra-state common carrier, whose operations are limited to an area within the boundaries of a particular state, and whose operating authority is granted by the Aviation or Transportation Board of Control of that state. Statistics for this carrier group are not included in this report.

10. **Others.** Among other classes of operators are the air taxi operators and air freight forwarders. Air taxi operators are a class of air carriers operating light aircraft up to a gross weight of 12,500 lbs., and engaging in a wide variety of passenger and/or cargo transportation services, with no necessarily fixed routes. Air freight forwarders are classified as indirect air carriers and are engaged in the assembly and consolidation of cargo for transportation by a direct air carrier. There are 100 forwarders operating in domestic interstate and foreign and overseas commerce. Statistical data for these groups of carriers is not included herein.

<sup>1</sup> Also certificated to provide trans-border service.

<sup>3</sup> Certificated to carry persons, property and mail at a service rate.

<sup>2</sup> Certificated non-mail carriers.

# AIR TRANSPORT ASSOCIATION OF AMERICA

Twenty-Sixth Edition

## Facts and Figures, 1965

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