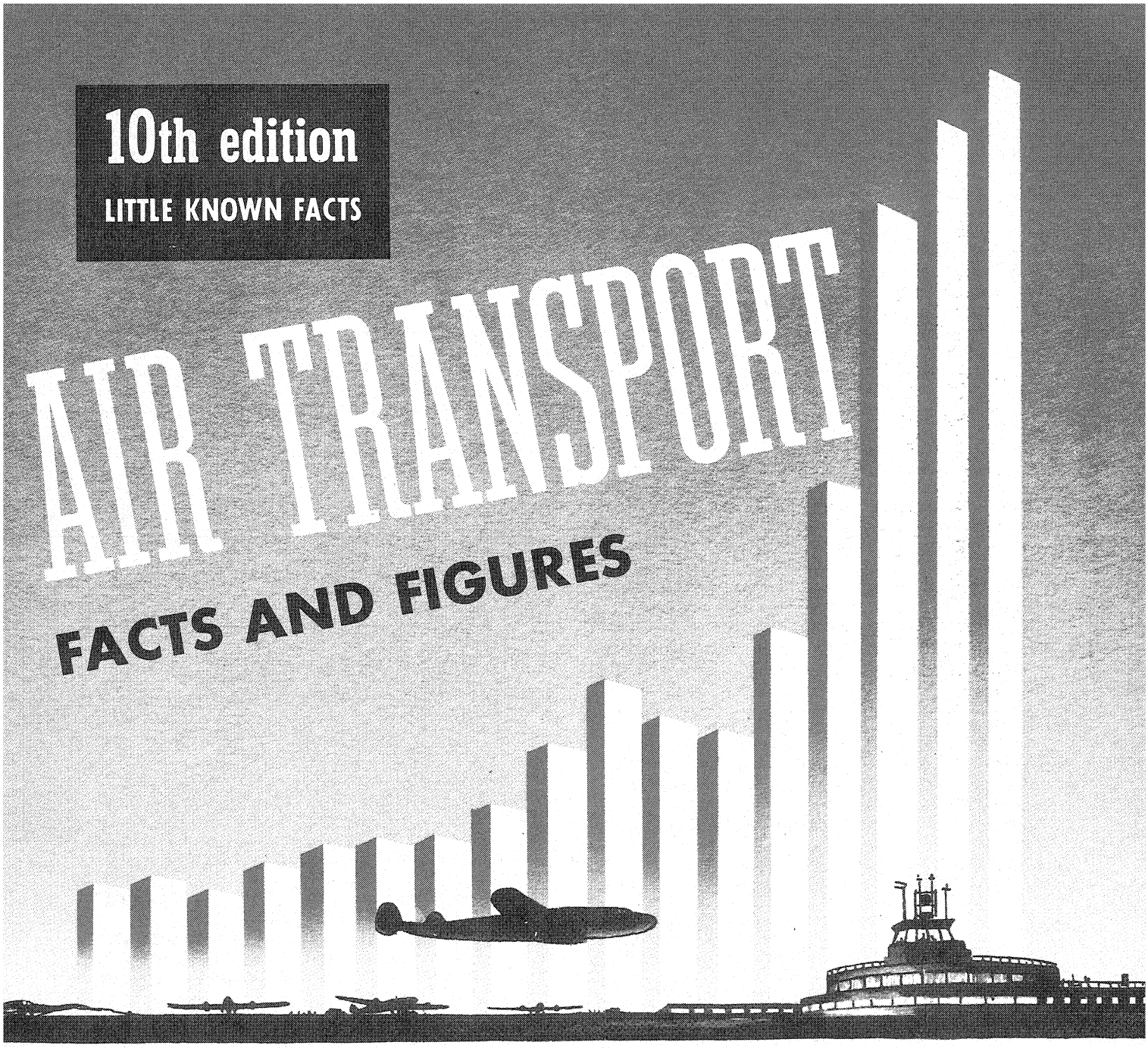


OPERATIONS OF THE SCHEDULED AIRLINES IN 1948

MORE progress was made during 1948 in almost every phase of scheduled airline operations than in any year in the history of the industry.

The industry profit-and-loss sheet, which was seriously depressed in 1947, showed genuine recovery and it was estimated that, when final figures are in, the industry might conclude 1948 with a $2 million to $5 million loss compared with a loss of nearly $22 million in 1947.

Spectacular improvement was made during 1948 in airline schedule dependability; the safety record was one of the three best in 13 years; passenger relations reached a new high in courtesy and service; air mail and air parcel post set new marks; and the phenomenal growth of air freight continued both in volume and service to shippers.

The scope of the scheduled airlines' operations is illustrated by the fact that the estimated number of arrivals and departures completed at airports throughout the country in fiscal 1948 exceeded 3,052,000, an average of nearly 8400 takeoffs and landings per day, slightly more than 348 per hour, or almost one every ten seconds. Only four of the 3 million operations resulted in fatalities to passengers.

Finance — It was estimated that an increase of 13 percent over 1947 gross revenues would be shown in

Chart, illustrating total domestic and international revenue miles flown, demonstrates growth of air transport during the last 17 years. First bar (1932) represents 51,171,887 revenue miles flown; last bar (1948), 436,569,000.

1949

the final 1948 figures for the scheduled airlines of the United States. These include domestic trunk and feeder lines and U.S. flag international carriers.

Operating expenses for the lines increased approximately 10 per cent in 1948.

The total gross revenue of the scheduled airlines for 1948 was estimated at $643,542,000 and total operating expenses at $650,277,000. If the nearly $5 million in retroactive mail pay, announced by the Civil Aeronautics Board in December, is indicated in 1948 revenues, total industry loss would be reduced.

From 1941, the last prewar year, to the present time airline assets have expanded more than five times. However, during this same period long-term debt has risen from approximately $1.5 million to more than $173 million. The greater part of this increase has been in the last three years and is accounted for by the replacement of older equipment with newer and more economical types. The first full postwar year, 1946, saw rapid airline expansion of assets both in flight equipment and other operating property. There are many among air transport men who believe that the present equipment is likely to remain substantially unchanged for the next few years and that correspondingly there may be but a small increase in total assets or in long-term debt within the near future.

Operational Improvements—For the first time, during 1948, it was possible to measure the effects of several programs developed by the Air Transport Assn., the military and the Civil Aeronautics Administration for the betterment of airline operations.

These programs include the installation of the Instrument Landing System, the Ground Controlled Approach System, high-intensity approach lighting, very high frequency radio communications, and various other modern navigational devices.

Results of these programs in 1948 are shown in the following facts:

Flight cancellations due to weather below acceptable operating limits were reduced by 50 percent; delays caused by waiting for weather improvement reduced by 62 percent; cargo and baggage handling delays reduced by 52 percent; passenger and ticketing delays reduced by 54 percent; servicing and fueling delays reduced by 42 percent.

FLIGHT OPERATIONS IMPROVED IN 1948

Cancellations Due to Weather	Reduced	50%
Delays Due to Weather	"	62%
Baggage-Handling Delays	"	52%
Passenger & Ticketing Delays	"	54%
Servicing & Fueling Delays	"	42%

Delays and cancellations due to air traffic congestion were substantially reduced throughout the airline system. Following are examples of this improvement at LaGuardia Airport in New York City:

During the winter period 1946-47, there were 3877 scheduled flights cancelled or unable to land due to traffic congestion. In the same period one year later (1947-48), there were *NO* cancellations caused by air traffic congestion.

During the winter period 1946-47, a total of 4582 scheduled flights were delayed at LaGuardia due to traffic congestion. In the same period a year later (1947-48), only 555 flights were so delayed, an elimination of 88 percent of all flight delays for this reason.

The average time per aircraft delayed at LaGuardia was reduced during the year from 33 minutes to 11 minutes. The airport capacity at LaGuardia was increased from 10 planes in and out per hour in 1947 to 30 per hour in 1948.

New to this edition of Facts and Figures are tables on domestic airline aircraft utilization. Close analysis of the table showing average miles flown per day by the various types of aircraft employed by the domestic airlines gives an excellent picture of utilization during the war of the DC-3 and the increasing use made in the postwar period of the newer types of aircraft. Between 1939 and the peak war year of 1944, daily mileage flown by DC-3s increased more than 62 percent. On the other hand, the DC-6 has increased its daily miles by 32 percent in two years and the Constellation by 54 percent in three years.

Safety – During 1948 there were four accidents on scheduled domestic airline routes, involving 83 passenger fatalities, while in 1947 there were five accidents involving 199 passenger fatalities.

The domestic scheduled airline record for 1948 was 1.4 passenger fatalities for each 100 million passenger miles (equal to one passenger flying around the earth at the Equator 4000 times) compared to 3.2 passenger fatalities per 100 million passenger miles flown in 1947.

The U.S. flag international carriers completed the year with one accident on scheduled flights, involving 20 fatalities. This gave the international carriers a record of 1.06 passenger fatalities per 100 million passenger miles, compared with 1.08 in 1947.

Traffic – Total revenue passenger miles declined, during 1948, approximately 1.3 percent, with domestic airlines showing a decrease of 3.5 percent and international carriers an increase of 4 percent. Total revenues for passenger traffic in 1948 gained approximately 7 percent.

Revenue passenger miles for 1948 totaled 7,768,786,000 as compared with 7,867,138,000 for 1947.

The total operating revenues for 1948 were $643,541,849 as compared with $569,940,600 for 1947. Total operating expenses for 1948 were $650,277,263 as compared with $591,741,861 for 1947.

The scheduled domestic airlines continued to increase their portion of the first-class travel market in 1948, their percentage being nearly 35 percent as compared with approximately 32 percent in 1947.

The number of planes in the domestic airline fleet in 1948 increased from 810 in 1947 to 862 in 1948, and the average available seats reached 32.1 per plane as compared to 29.93 in 1947. The domestic lines carried 13,002,000 passengers in 1948 a total of 337,872,000 revenue miles for a daily average of revenue miles flown of 925,677.

The U.S. flag lines operating internationally increased their fleet from 154 planes in 1947 to 203 planes in 1948. They carried 1,324,000 passengers a total of 98,697,000 revenue miles for a daily average of revenue miles totaling 270,403.

A new Universal Air Travel Plan which enables travelers to buy air transportation on credit almost anywhere in the world, was inaugurated on Oct. 1, 1948 by agreement between the international airlines and the domestic airlines of North America.

According to terms of the plan, a credit card secured from one airline will be honored for transportation by

any of the approximately 100 scheduled airlines operating in the U. S. and throughout the world.

Air Mail, Air Express and Air Freight – In 1948, as in 1947, conspicuous increases were shown in the transport of commodities by both air express and air freight. The ton miles of express and freight for domestic trunk lines and international U. S. flag carriers were estimated at 144,700,000 as compared with 96,638,000 in the preceding year – a gain of almost 50 percent.

Domestic air freight alone showed a gain of almost 100 percent from 35,213,590 ton miles in 1947 to 68,760,000 in 1948.

Air mail ton miles rose from 36,413,000 in 1947 to 44,159,000 in 1948.

The December 1948 volume of domestic air mail was 2¾ times the volume of domestic air mail in September 1946, the last month of the 8 cent rate. The volume in December 1948 also was approximately 12 per cent higher than the wartime peak of air mail which was reached in March 1945. The unusual rise in air mail volume, as indicated in the December figures, was due to the increasing acceptance of air mail by the public, and to a consistent growth in the use of air parcel post.

Air Cargo, Inc. – Provision of ground transportation service for the pick-up and delivery of air cargo at the hundreds of points served by the scheduled airlines throughout the United States was completed during 1948 by Air Cargo, Inc., the airlines' freight organization.

Air Cargo, Inc. now directly provides service at practically all points served by more than one airline. Smaller cities adjacent to points directly served by the air carriers but included in the door-to-door pick-up and delivery pattern total over 2000 additional points.

Features of the Air Cargo, Inc. program include downtown terminals for shippers' convenience in practically every city now served, and expedited special service when required by shippers. Air Cargo, Inc. now has approximately 700 vehicles used daily in air cargo pick-up and delivery for the scheduled airlines.

Air Cargo, Inc. also set up during the year contracts with a number of national trucking organizations which provide for joint air-motor carrier transportation in many states and involving more than 5000 motor carriers.

Of the total operating revenues of the airlines for 1948, it is estimated that passenger traffic contributed 77.37 percent; mail 15.5 percent; freight and express 7.13 percent.

Planes and Equipment—Many airlines virtually completed their delivery programs of new planes during 1948. Scores of new-type Lockheed Constellations, Douglas DC-6s, Convair 240s and Martin 202s made their appearance on the nation's airways and added new standards of speed, convenience and comfort for air travelers. Boeing's new double-deck Stratocruiser is scheduled to begin operations on several of the airlines during 1949.

Nearly all of the scheduled airlines added many items of new equipment, improving seating and lighting comfort, air conditioning and other devices affecting passenger relations during the year. Air terminals and hangars were constructed and improved, food services expanded and bettered, cargo handling facilities of all kinds installed and broadened.

Airports—There were an estimated 6100 civil airports in the United States at the end of 1948, an increase of 16 percent from the 5258 at the beginning of the year. Certificated airline stops totaled 773, of which 249 had not begun operation because of incomplete construction and other factors.

ABOUT THE AUTHOR

Emory Scott Land, Vice Admiral, U.S.N. (Retired), is president of the Air Transport Assn. of America. He served in the Navy, from his graduation from Annapolis in 1902, until 1937, when he became a member of the U.S. Maritime Commission. He was designated Chairman of the Commission in 1938 and also served as War Shipping Administrator during World War II.

During his Naval service, he was Assistant Chief of the Bureau of Aeronautics. He became a pilot at the age of 50 and devoted eighteen months' time to the Daniel Guggenheim Fund for the promotion of Aeronautics.

Scheduled airline use of the nation's airports was estimated at 16.3 percent as compared to 17.2 percent in 1946.

From the record of 1948 it would appear that the postwar readjustment period was about over for the airline industry. It has been the most trying period in the industry's lifetime.

None can say that the airlines failed to meet the tremendous problems produced by the circumstances of the 1945-1948 period with courage and determination. Their comeback was a tribute to the type of free-enterprise management which has made commercial aviation the strong, competitive business it is.

With the addition of many new planes, with the continuing improvement of airline navigation and traffic control facilities, the commercial industry has been strengthened as an important element of national security. In case of emergency conditions, such as it met with such success during the early years of the last war, the industry new stands ready to offer the military approximately ten times the lift-capacity it had in 1941. In the growing stature of the Air Age, this component of the airline industry cannot be over-emphasized.

The air navigation and traffic control facilities, which the airlines, the military, and the civil aeronautics agencies have implemented during the past year at great expense, also are immediately available for military as well as commercial use, either to be integrated into the existing military system or to operate independently on a complementary basis.

The year ahead portends continuing progress in many branches of airline operations and management. Already very encouraging results are showing in the form of increasingly profitable business, as well as in "on-time" operations.

During 1948 the time required for many regularly scheduled flights was reduced again and again by the carefully tested new planes which were put into service. And flights were more comfortable and more regular, too.

The airline industry takes pride in the knowledge that, because of its own initiative and because of the cooperation it has received from civilian government agencies and the military, the United States continues to lead the world in commercial air transportation.

Our contribution to national defense should never be overlooked.

E. S. Land, President
Air Transport Association of America

PASSENGER-MILES, MAIL, EXPRESS AND FREIGHT TON-MILES • DOMESTIC AIRLINES

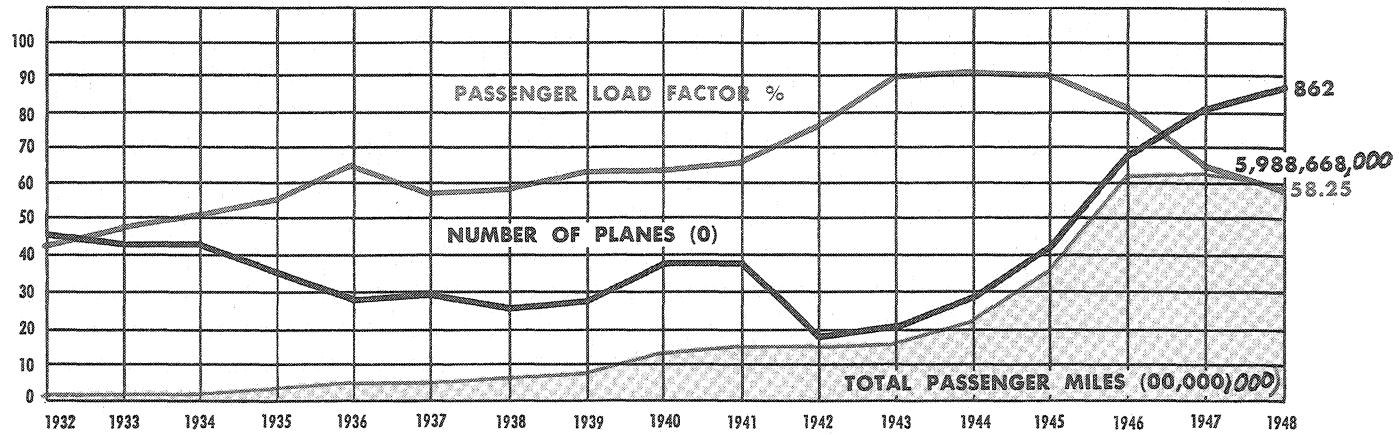
	Total Passenger Miles (000)	Passenger Load Factor	Air Mail Ton Miles	Express Ton Miles	Freight Ton Miles
1932	127,433	41.98	2,701,125	289,512	*
1933	174,820	46.77	2,567,924	422,860	*
1934	189,806	51.61	2,461,412	597,293	*
1935	316,336	54.76	4,132,708	1,097,602	*
1936	438,989	63.97	5,740,436	1,865,798	*
1937	481,116	57.54	6,698,230	2,162,488	*
1938	560,660	58.93	7,449,246	2,182,420	*
1939	755,118	62.14	8,610,726	2,713,099	*
1940	1,157,900	63.72	10,117,858	3,476,224	*
1941	1,506,303	64.32	13,118,015	5,258,551	*
1942	1,501,279	76.45	21,162,102	11,901,793	*
1943	1,670,935	89.98	36,061,868	15,139,359	*
1944	2,211,905	90.77	51,139,973	16,991,598	*
1945	3,408,290	89.33	65,092,921 (B)	21,793,432	1,403,420
1946	6,068,315	80.31	32,953,307 (B)	23,788,392	14,822,325
1947	6,307,690 (A)	65.12	33,086,175 (B)	28,766,659	35,911,554
1948 (Est.)	5,988,668 (A)	58.25	37,567,000	30,637,879	69,023,000

(A)—This figure is revenue passengers only. All others include revenue and non-revenue passengers.
(B)—Does not include regular mail carried under special contract and foreign mail.
*—Not available.

NUMBER OF PLANES, SEATS AND MILES • DOMESTIC AIRLINES

	Number of Planes	Average Available Seats (D)	Total Passengers Carried	Route Miles (A)	Revenue Miles	Daily Average Revenue Miles Flown
1932	456	6.61	476,041	*	45,893,522	125,736
1933	418	7.59	502,218	*	49,256,320	134,949
1934	423	8.86	475,461	*	41,525,667	113,769
1935	363	10.33	762,820	*	55,918,151	153,200
1936	280	10.67	1,042,042	*	64,307,480	176,185
1937	291	12.52	1,130,338	*	66,791,079	182,989
1938	260	13.91	1,365,706	39,267	68,610,143	187,973
1939	276	14.66	1,895,793	39,782	82,924,922	227,192
1940	369	16.54	3,038,619	44,643	110,101,039	300,823
1941	370	17.54	4,141,748	46,453	134,405,836	368,235
1942	186	17.91	3,559,369	49,297	111,340,622	305,043
1943	204	18.34	3,484,203	54,502	105,354,810	288,643
1944	288	19.05	4,761,313	62,937	138,732,219	379,050
1945	421	19.68	7,605,856	66,466	208,969,279	572,519
1946	674	25.25	13,705,360	84,358	309,888,684	849,010
1947	810	29.93	12,890,208 (C)	110,716	325,054,389	890,560
1948	862 (B)	32.10	13,002,000	139,030	337,872,000	925,677

*—Not available.
(A)—Includes duplication of routes. (B)—Includes 293 aircraft listed on both domestic and foreign certificates. (C)—Beginning 1947 only revenue passengers; before 1947 figures include revenue and non-revenue passengers. (D)—Obtained by dividing available passenger seat miles by revenue miles flown in passenger service.

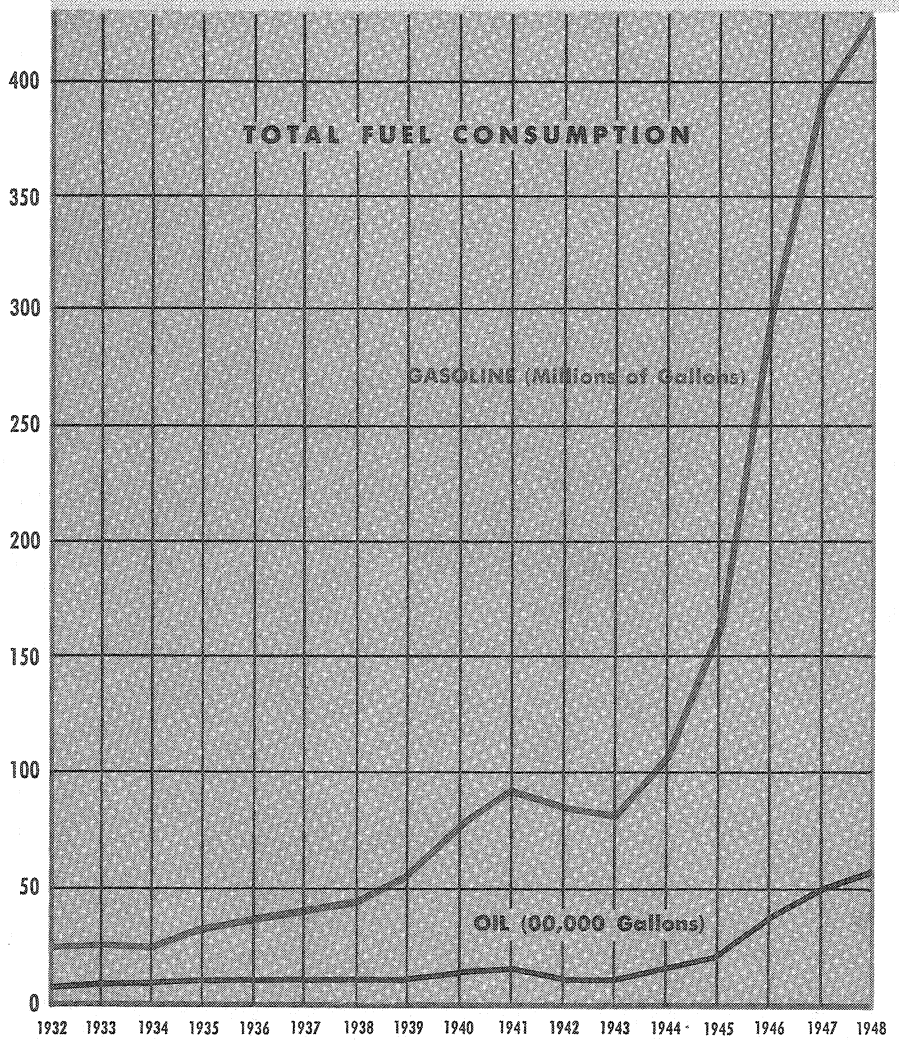


NUMBER OF PLANES, PASSENGERS AND MILES • INTERNATIONAL AIRLINES

	Number of Planes	Passengers Carried	Route Miles	Revenue Miles	Daily Average Rev. Mi.	Passenger (C) Mi. (000)	Ton Mi. (D) Express, Frt. [redacted] (000)
1932	108	71,519	19,574	5,278,365	14,422	20,754	*
1933	86	74,394	19,404	5,857,163	16,047	24,956	*
1934	99	96,804	22,192	7,539,106	20,655	36,844	*
1935	101	111,296	31,261	7,949,547	21,780	46,035	*
1936	94	87,723	31,990	6,904,246	18,864	41,829	*
1937	92	112,324	31,979	7,909,158	21,669	53,742	*
1938	73	109,265 (B)	34,968	7,042,503	19,295	53,799	*
1939	84	136,090	43,455	7,607,474	20,842	78,271	*
1940	68	170,179	53,322	9,651,733	26,371	104,495	*
1941	83	235,802	*	14,410,358	39,480	165,950	*
1942	68	276,200	*	18,681,059	51,181	240,314	*
1943	70	292,888	27,211	18,457,864	50,569	254,374	5,088
1944	70	356,662	29,708	22,272,638	60,854	322,123	6,207
1945	97	493,498	38,885	32,608,704	89,339	462,180	8,718
1946	147	1,066,414	66,419	59,375,572	162,673	1,130,196	15,090
1947	154	1,359,410	95,503	86,471,982	263,910	1,870,306	32,891
1948 (Est.)	203 (A)	1,324,000 (B)	172,177	98,697,000	270,403	1,945,000	45,000

(A)—203 planes listed for exclusive foreign service. In addition, 293 planes listed for domestic and international service.
(B)—Revenue passengers only. All other figures include revenue and non-revenue passengers.
(C)—Includes revenue and non-revenue passengers.
(D)—No reports on ton mile basis made before 1943.

FUEL CONSUMED



INTERNATIONAL

	Gasoline (Gallons)	Oil (Gallons)
1932	3,920,775	113,783
1933	4,433,166	118,203
1934	6,211,133	169,850
1935	5,947,754	167,135
1936	6,507,413	192,937
1937	7,463,111	207,135
1938	7,587,523	175,493
1939	8,740,576	184,975
1940	8,860,034	183,518
1941	11,302,376	(A) 276,454
1942	16,811,959	(A) 329,154
1943	13,760,354	242,577
1944	15,648,426	243,836
1945	25,086,866	315,930
1946	59,543,323	767,569
1947	102,723,690	1,224,810
1948 (Est.)	112,622,000	1,378,600

(A) Estimated.

DOMESTIC

	Gasoline (Gallons)	Oil (Gallons)
1932	19,766,173	588,238
1933	21,893,630	806,208
1934	18,925,141	668,906
1935	27,312,855	712,640
1936	30,646,408	680,335
1937	33,961,273	637,435
1938	37,722,669	654,377
1939	47,196,559	736,221
1940	65,674,895	1,104,289
1941	81,657,020	1,282,064
1942	68,908,271	1,008,371
1943	65,025,412	894,262
1944	89,513,646	1,266,741
1945	134,824,120	1,709,566
1946	236,388,751	2,876,250
1947	294,196,130	3,733,728
1948 (Est.)	322,340,119	4,117,646

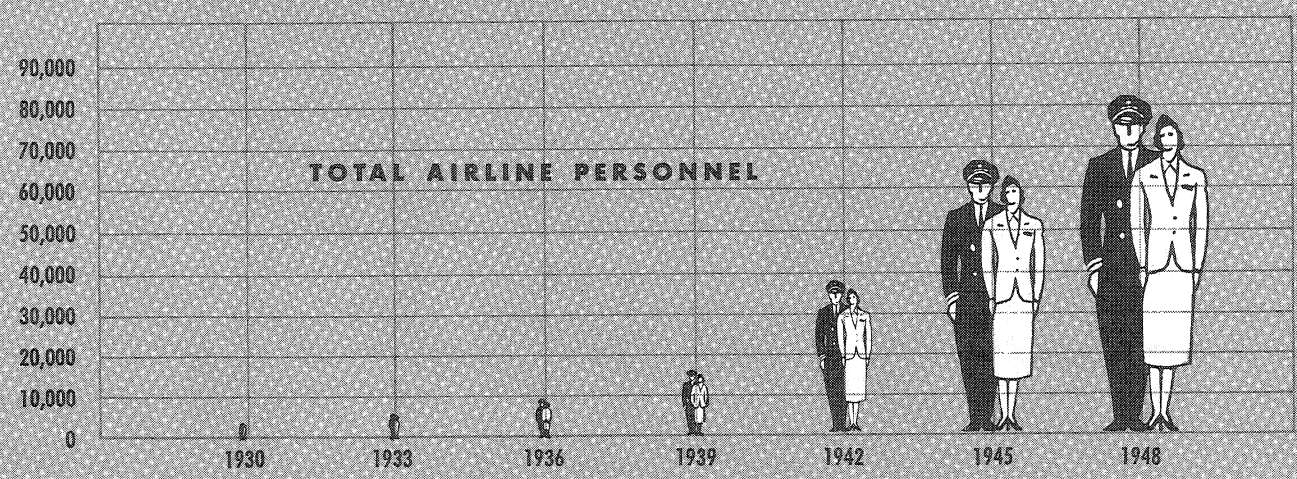
PERSONNEL

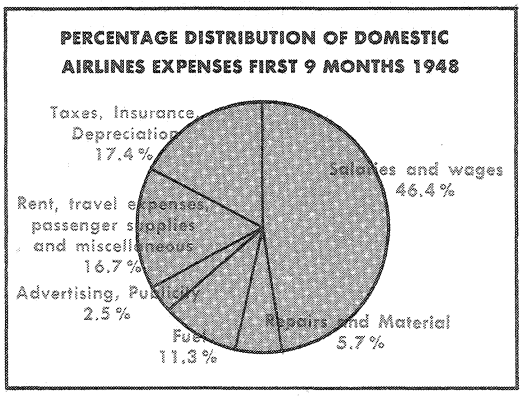
DOMESTIC

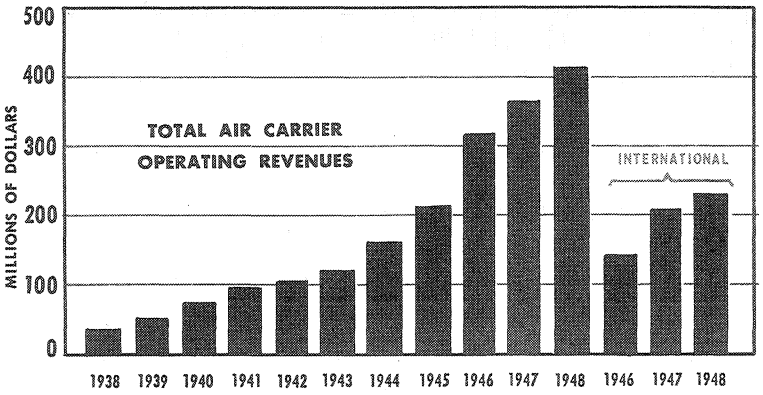
Year	Pilots & Copilots	Pursers Stewards Stewdsses.	Other Flight Personnel	Meteorologists & Dispatchers	Mechanics	Other Hangar and Field Personnel	Ticket Agents and Reservationists, Office Employees	All Others	Total
1932	640	0	0	0	1,641	939	800	0	4,020
1933	680	0	0	0	1,810	1,089	790	0	4,369
1934	667	0	0	0	1,650	923	961	0	4,201
1935	874	213	0	0	2,016	470	2,372	0	5,945
1936	1,055	333	0	0	2,164	546	2,981	0	7,079
1937	1,064	339	0	0	2,228	658	3,297	0	7,586
1938	1,135	358	0	186	2,436	712	3,715	472	9,008
1939	1,412	536	0	181	2,822	877	4,583	228	10,639
1940	1,934	914	18	193	4,054	1,880	5,855	1,131	15,984
1941	2,217	1,028	19	220	4,423	2,224	7,807	1,285	19,223
1942	2,194	753	112	1,581	9,348	2,969	7,717	2,236	26,910
1943	2,125	845	8	1,685	8,271	3,356	10,973	2,391	29,654
1944	2,879	1,322	11	1,870	7,136	3,509	12,201	2,270	31,198
1945	4,967	2,075	108	2,613	10,844	7,012	19,241	3,453	50,313
1946	5,712	3,342	98	3,577	16,107	10,307	24,626	5,413	69,182
1947	5,030	3,061	181	2,619	15,372	8,407	21,980	2,348	58,998
1948 (Est)	4,710	3,285	752	2,857	14,894	9,950	17,378	7,453	61,279

INTERNATIONAL

Year	Pilots & Copilots	Pursers, Stewards, Stewdsses.	Other Flight Personnel	Meteorologists & Dispatchers	Mechanics	Other Hangar & Field Employees	Ticket Agents and Reservationists, Office Employees	All Others	Total
1932	77	0	0	0	435	576	502	0	1,590
1933	77	0	0	0	517	750	584	0	1,926
1934	92	0	0	0	558	928	698	0	2,276
1935	121	0	0	0	602	1,048	636	0	2,407
1936	186	57	0	0	710	1,221	742	0	2,916
1937	291	81	0	0	1,050	1,698	880	0	4,000
1938	278	93	0	0	977	1,923	995	0	4,266
1939	287	103	7	0	1,181	2,138	1,559	0	5,275
1940	340	122	15	0	1,359	2,397	1,834	0	6,067
1941	447	182	30	0	1,966	2,707	1,903	0	7,235
1942	452	378	129	29	3,534	4,415	3,366	0	12,803
1943	207	147	322	511	2,140	1,835	1,859	2,604	9,625
1944	466	194	266	631	2,827	2,239	3,033	1,753	11,409
1945	930	411	938	864	5,099	2,435	4,663	2,628	17,968
1946	1,508	1,079	1,405	1,454	7,269	2,463	6,961	5,233	27,372
1947	1,603	1,016	1,152	1,211	5,774	3,201	10,679	1,518	26,154
1948 (Est)	1,536	1,199	1,036	886	4,619	3,039	3,610	5,592	21,517







AIR CARRIER OPERATING REVENUES

Year	Passenger	% of Total	Mail	% of Total	Express & Freight	% of Total	Others	% of Total	Total
DOMESTIC:									
1938	$24,860,594	57.9	$15,837,951	37.0	$ 1,278,164	3.0	$ 907,974	2.1	$ 42,920,683
1939	34,843,711	62.3	18,482,476	33.0	1,619,132	2.9	1,002,447	1.8	55,947,766
1940	53,308,172	69.4	20,090,123	26.1	2,077,726	2.7	1,387,622	1.8	76,863,643
1941	69,791,338	71.7	22,696,351	23.3	2,919,003	3.0	1,904,442	2.0	97,311,134
1942	74,819,050	69.1	23,470,088	21.7	6,977,943	6.4	2,981,749	2.8	108,248,830
1943	87,481,456	71.0	24,212,580	19.7	8,381,539	6.8	3,029,390	2.5	123,104,965
1944	116,440,690	72.3	33,317,366	20.7	8,306,288	5.2	2,863,848	1.8	160,928,192
1945	166,519,922	77.5	33,693,467	15.7	10,835,138	5.0	3,694,563	1.8	214,743,090
1946	275,593,712	87.2	20,981,542	6.6	13,620,295	4.3	6,037,244	1.9	316,232,793
1947	308,575,954	84.6	29,444,746	8.1	19,377,860	5.3	7,433,388	2.0	364,831,948
1948 (Est.)	336,662,000	80.8	48,385,000	11.6	24,118,000	5.8	7,310,000	1.8	416,475,000
INTERNATIONAL:									
1946	$91,416,814	62.4	$35,443,612	24.1	$11,318,501	7.8	$ 8,457,609	3.7	$146,636,536
1947	140,652,112	67.3	40,824,878	19.5	17,526,275	8.4	10,016,262	4.8	209,009,530
1948 (Est.)	147,030,000	63.1	54,724,400	23.5	20,644,276	8.9	10,563,520	4.5	232,962,190

ASSETS & LIABILITIES—DOMESTIC TRUNK AIRLINES—SELECTED YEARS

	1941	1944	1945	1946	1947	1948*
Current assets	$48,378,162	$139,685,990	$148,083,458	$152,381,834	$132,484,511	$143,245,000
Flight Equipment (net)	25,816,357	13,895,946	41,162,511	117,884,329	173,885,000	192,217,000
Other Op. property	5,832,000	11,531,413	24,085,302	47,408,722	70,741,538	73,696,000
Non-Operating property	903,134	1,292,305	642,872	2,832,701	2,789,790	2,645,000
Other Assets	5,726,255	21,313,663	34,729,196	66,592,900	54,676,717	43,820,000
TOTAL ASSETS	$86,655,908	$187,719,317	$248,703,339	$387,100,486	$434,577,556	$455,623,000
Current liabilities	21,931,456	53,431,795	73,412,182	105,659,559	81,829,236	89,106,000
Long term debt	1,561,727	147,126	24,421,800	90,097,738	161,170,650	172,393,000
Capital stock	32,043,968	48,751,442	52,245,472	92,896,915	112,621,702	121,311,000
Capital surplus	22,402,837	27,631,474	32,919,664	46,989,868	41,929,868	60,744,000
Earned surplus	5,823,247	43,833,022	58,614,766	41,018,688	10,302,299	—4,056,000
Operating reserves	1,006,165	687,501	505,977	1,139,235	1,591,145	2,125,000
Other liabilities	1,886,508	13,236,957	6,583,478	9,298,483	25,114,656	14,000,000
Net worth and liabilities	86,655,908	187,719,317	248,703,339	387,100,486	434,577,556	455,623,000
Net worth	60,299,650	126,767,395	143,779,903	180,905,570	178,871,869	177,999,000

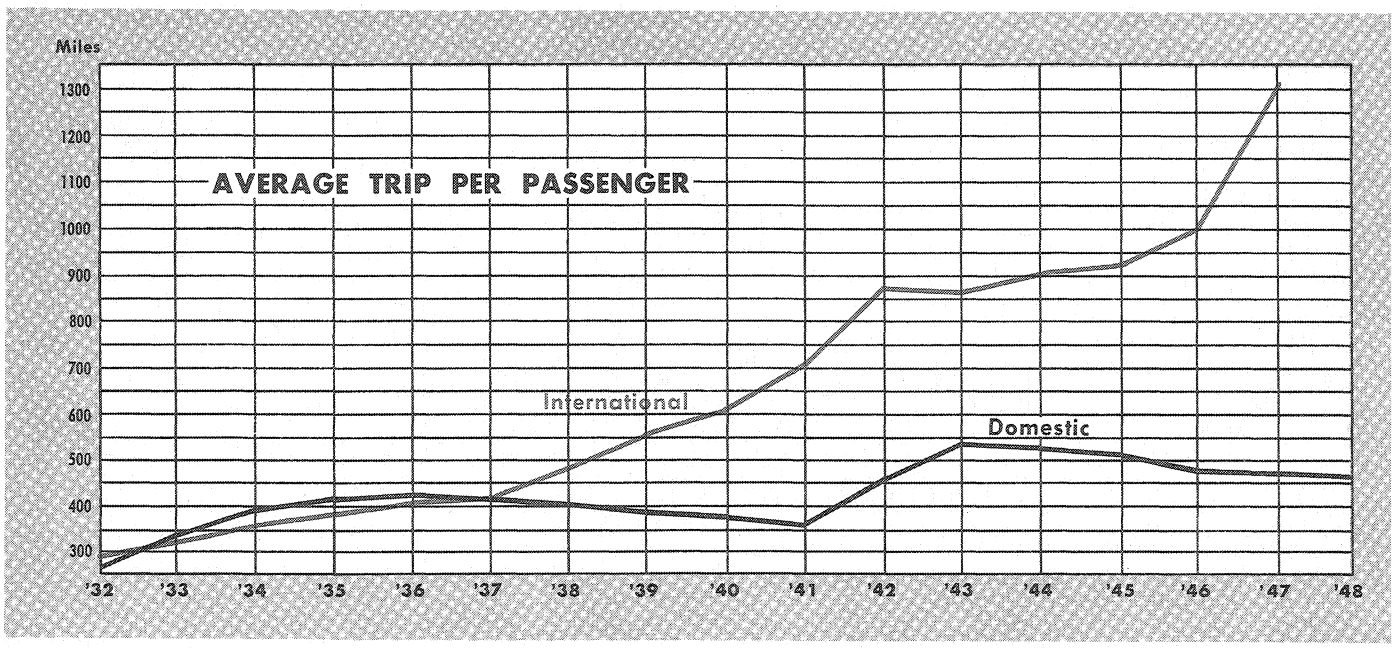
*—As of September 30. All other years are as of December 31.

DOMESTIC AIRLINE REVENUE PASSENGER MILES BY MONTHS

(in millions)

	1941(A)	1942(A)	1943(A)	1944	1945	1946	1947	1948
January	69,048	104,574	97,508	135,477	200,819	331,714	380,757	401,902
February	75,168	95,094	107,276	119,217	182,869	331,963	372,276	357,204
March	85,899	128,701	120,660	136,125	240,475	406,404	493,864	440,320
April	103,512	148,607	129,447	148,984	246,418	461,703	526,188	484,249
May	122,810	137,757	130,130	174,410	277,213	512,625	563,771	540,573
June	130,760	103,913	137,832	186,798	295,402	562,722	546,685	589,946
July	136,726	110,864	147,125	204,357	320,154	569,875	543,541	562,381
August	146,813	121,554	154,026	219,661	332,014	624,479	611,838	571,175
September	147,573	120,690	151,562	217,256	315,895	611,962	609,756	554,115
October	141,306	124,054	153,315	230,403	339,687	557,486	578,889	542,976
November	106,618	108,779	142,507	208,483	314,704	468,875	435,083	459,490
December	103,352	93,456	134,731	196,986	296,805	508,148	441,231	.....
TOTAL	1,369,585	1,398,043	1,606,119	2,178,207	3,362,455	5,947,956	6,103,879	5,505,331

(A) Figures do not include all airlines.



AVERAGE PASSENGER FARES AND TRIPS

	Average Passenger Fare Per Mile		Average Trip Per Passenger		Ratio of Domestic Air Pass. Miles to Pullman Pass. Miles
	Domestic	International	Domestic	International	
1932	6.1¢	*	268	289	1.9%
1933	6.1¢	*	348	315	2.8
1934	5.9¢	*	399	351	2.8
1935	5.7¢	*	415	381	4.4
1936	5.7¢	*	421	414	5.3
1937	5.6¢	*	418	416	5.2
1938	5.2¢	*	401	487	6.8
1939	5.1¢	*	394	557	8.9
1940	5.1¢	*	375	614	14.1
1941	5.0¢	*	360	713	15.0
1942	5.3¢	*	452	880	7.9
1943	5.3¢	7.9¢	541	874	6.5
1944	5.4¢	7.9¢	538	910	7.8
1945	4.5¢	8.7¢	511	942	12.5
1946	4.5¢	8.3¢	487	1,057	29.4
1947 (Est.)	5.0¢	7.6¢	474	1,332	48.5
1948 (Est.)	5.6¢	*	462	*	50.0

* Not available.

PASSENGERS CARRIED

(Monthly Average)

	Domestic	International
1932	39,670	5,960
1933	41,851	6,199
1934	39,622	8,067
1935	63,568	9,275
1936	86,837	7,310
1937	94,195	9,360
1938	113,809	9,105 (A)
1939	157,983	11,341
1940	253,218	14,182
1941	345,146	19,650
1942	296,614	23,017
1943	290,350	24,407
1944	396,776	29,722
1945	633,821	41,125
1946	1,142,113	88,845
1947	1,074,183 (A)	113,284 (A)
1948	1,083,500 (A)	108,350 (A)

(A) Revenue passengers only.

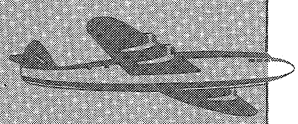
PASSENGER FATALITIES

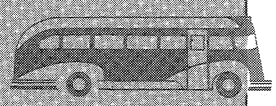
Scheduled Airline Passenger Fatalities

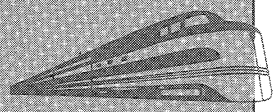
	Number of Domestic Fatalities	Fatalities Per 100 Million Passenger Miles	Number of International Fatalities	Fatalities Per 100 Million Passenger Miles	Total Number of Fatalities
1932	19	14.96	6	28.9	25
1933	8	4.61	0	0	8
1934	17	9.05	4	10.9	21
1935	15	4.78	0	0	15
1936	44	10.10	2	4.8	46
1937	40	8.39	11	13.9	51
1938	25	4.48	7	13.2	32
1939	9	1.20	10	12.8	19
1940	35	3.05	0	0	35
1941	35	2.35	2	1.2	37
1942	55	3.71	0	0	55
1943	22	1.34	10	3.9	32
1944	48	2.12	17	5.3	65
1945	76	2.23	17	3.7	93
1946	75	1.24	40	3.6	115
1947	199	3.21	20	1.08	219
1948 (Est.)	83	1.41	20	1.06	103

COMPARATIVE TRANSPORTATION SAFETY RECORD

Passenger Fatalities and Rate of Passenger Fatalities per 100,000,000 passenger miles







	1941	1942	1943	1944	1945	1946	1947	1948
Domestic Scheduled Air Transport Planes	35	55	22	48	76	75	199	83
Rate	2.32	3.66	1.32	2.09	2.14	1.20	3.21	1.41(est.)
Buses	*	*	*	*	120	140	140	*
Rate	.24	.23	.22	.22	.17	.19	.21	*
Railroad passenger trains	39	110	262	249	145	115	75	*
Rate	.14	.17	.31	.26	.16	.18	.16	*
Passenger Automobiles and taxicabs	*	*	*	*	12,900	15,400	15,300	*
Rate	4.0	2.7	2.7	2.9	2.9	2.5	2.3	*

* not available

AIRPORTS BY CLASSES • (AS OF DECEMBER 31)

Length of Runways	1941	1942	1943	1944	1945	1946	1947(A)	1948(A)
1800-2700 ft. Class I (and under)	1,523	1,238	910	1,215	1,620	2,491	3,525	4,006
2500-3500 ft. Class II	702	905	774	936	1,091	758	972	845
3500-4500 ft. Class III	187	367	430	464	484	485	471	422
4500-5700 ft. Class IV	72*	299*	366	473	488	443	361	314
5700-6700 ft. Class V	.....	.....	289	339	343	313	131	100
6700-7700 ft. Class VI	.....	.....	.....	.....	.....	.....	75	52
TOTAL	2,484	2,809	2,769	3,427	4,026	4,490	5,258	6016

*—Class IV and over (A) Civil airports only

USE OF AIRPORTS

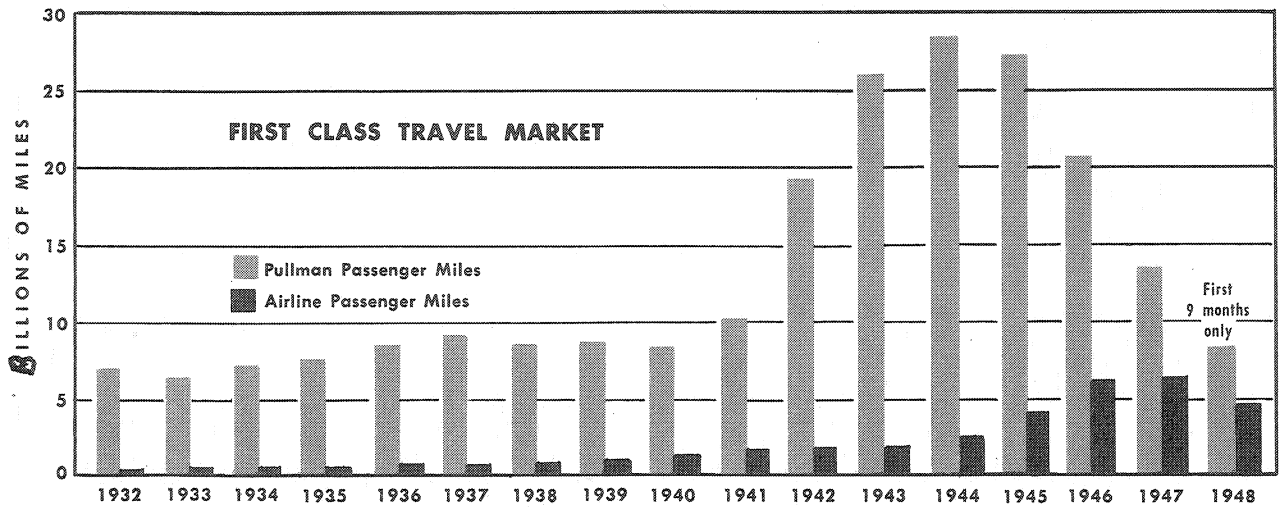
Number of Flight Operations

Fiscal Year	Military	Civil	Air Carrier	Air Carrier Percentage
1944	8,390,000	3,594,000	916,000	7.1
1945	6,460,567	3,343,303	1,409,102	12.6
1946	2,457,878	5,091,671	2,042,049	21.3
1947	1,402,909	11,262,191	2,630,472	17.2
1948	1,871,413	13,820,525	3,052,781	16.3

AIRLINE STOPS

Certificated as of ~~December~~ January 31, ~~1948~~ 1949

Total domestic..... 773
Stops in use (208 trunk; 168 feeder; 148 combination trunk and feeder)..... 524
Stops not in use (~~64~~ 49 trunk; 192 feeder; 11 combination trunk and feeder)..... ~~249~~ 252



DOMESTIC AIR CARRIER OPERATING EXPENSES

	Aircraft Operating Expenses	% of Total	Ground and Indirect	% of Total	Total Operating Expense
1938	$ 24,987,651	57.0	$ 18,876,986	43.0	$ 43,864,637
1939	26,294,372	51.6	24,692,097	48.4	51,391,560
1940	35,178,395	50.1	35,028,420	49.9	70,896,615
1941	44,932,205	50.0	44,986,928	50.0	89,919,134
1942	36,392,090	43.1	47,974,400	56.9	84,366,489
1943	34,613,411	36.2	60,949,609	63.8	95,563,020
1944	45,150,125	36.3	79,371,967	63.7	124,522,092
1945	69,222,625	38.3	111,403,704	61.7	180,626,329
1946	129,249,600	40.1	192,969,583	59.9	322,219,183
1947	169,159,986	43.8	217,027,687	56.2	386,187,673
1948 (Est.)	192,554,700	45.2	233,061,000	54.8	425,615,700

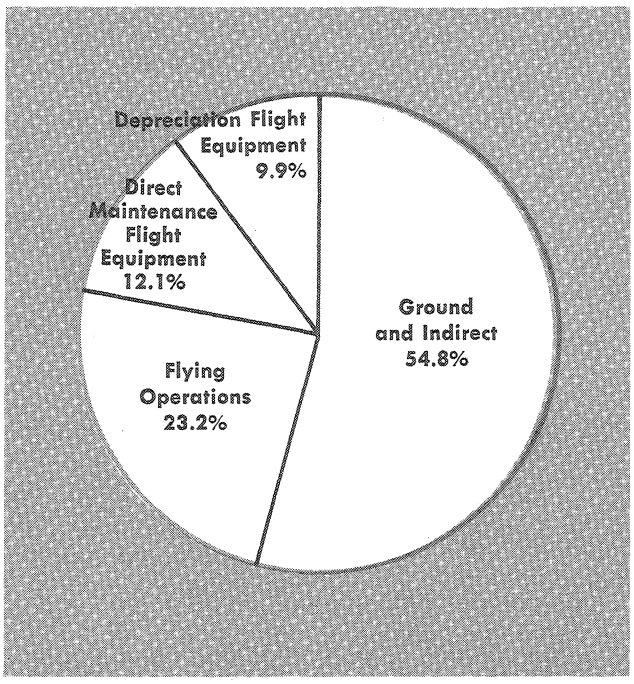
	Flying Operations	% of Total	Direct Maintenance Flight Equip.	% of Total	Depreciation Flight Equip.	% of Total
1938	$ 14,737,164	33.6	$ 5,345,247	12.2	$ 4,905,240	11.2
1939	15,809,055	31.0	5,651,202	11.1	4,834,126	9.5
1940	22,092,628	31.5	7,495,998	10.7	5,589,769	7.9
1941	27,391,837	30.5	9,789,797	10.9	7,750,571	8.6
1942	21,865,924	25.9	8,664,437	10.3	5,861,730	6.9
1943	20,739,121	21.7	9,132,260	9.5	4,742,030	5.0
1944	28,238,316	22.7	11,892,963	9.6	5,018,845	4.0
1945	43,421,033	24.0	16,392,654	9.1	9,408,938	5.2
1946	70,409,644	21.8	33,272,916	10.3	25,567,040	7.9
1947	88,835,181	23.0	42,902,710	11.1	37,422,095	9.7
1948 (Est.)	98,729,500	23.2	51,398,000	12.1	42,427,200	9.9

DOMESTIC AIRLINE PERCENTAGE OF FIRST CLASS TRAVEL MARKET

	Pullman Passenger Miles (000)	Airline Passenger Miles (000)	Total (000)	Airline Percentage of Total
1932	6,758,000	127,433	6,885,433	1.85
1933	6,141,987	174,820	6,316,807	2.77
1934	6,891,002	189,806	7,080,808	2.68
1935	7,146,270	316,336	7,462,606	4.24
1936	8,354,840	438,989	8,793,829	4.99
1937	9,170,428	481,116	9,651,544	4.98
1938	8,269,882	560,660	8,830,542	6.35
1939	8,485,399	755,118	9,240,517	8.17
1940	8,213,879	1,157,900	9,371,779	12.36
1941	10,070,407	1,506,303	11,576,710	13.01
1942	19,071,589	1,501,279	20,572,868	7.30
1943	25,891,466	1,670,935	27,562,401	6.06
1944	28,267,091	2,211,905	30,478,996	7.26
1945	27,275,789	3,408,290	30,684,078	11.11
1946	20,672,367	6,068,315	26,740,682	22.69
1947	13,000,000*	6,307,690	19,307,690	32.67
1948 (A)	*8,434,582	4,512,322	12,946,904	34.85

(A) First 9 months only.

AIRCRAFT OPERATING EXPENSE

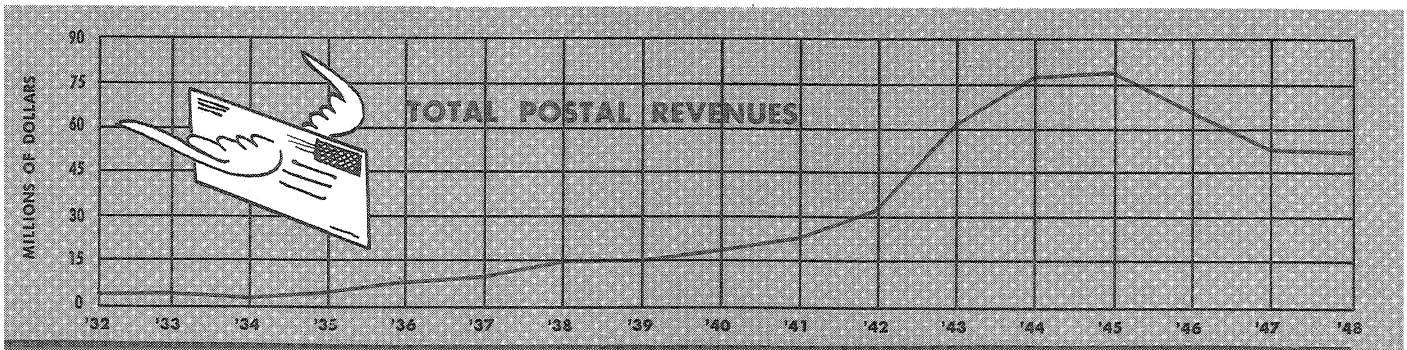


*Est.

POST OFFICE DEPARTMENT AIR MAIL REVENUES

Fiscal Year Ending June 30	Air Mail Revenues Domestic	Air Mail Revenues International	Cost of Air Mail** Service to P.O. Dept. Domestic	Cost of Air Mail** Service to P.O. Dept. International	Net Revenue to P.O. Dept.
1939	$ 16,326,358	$ 3,925,513	$ 25,061,293	$ 9,814,972	—$14,624,394
1940	19,122,906	5,914,405	28,039,250	14,119,547	—17,121,486
1941	23,920,465	9,309,793	30,881,839	17,333,961	—14,985,542
1942	33,417,367	12,015,864	36,508,587	15,736,672	— 6,812,028
1943	62,818,568*	31,646,182	44,463,208	23,068,539	26,933,003
1944	79,412,510	51,276,499	49,881,593	30,400,406	50,407,010
1945	81,237,389	110,675,066	49,937,041	57,652,079	84,323,335
1946	68,427,924	58,081,237	49,011,932	46,406,545	31,090,684
1947	54,356,782	21,772,578	73,341,207	33,130,428	—30,342,275
1948	53,586,950	23,815,519	80,662,381	51,571,220	—54,831,132
Total	$492,627,219	$328,432,656	$467,788,331	$299,234,369	$54,037,175

*Estimated.
**Includes direct costs allocated by P.O. Dept. to air mail service.



AIR MAIL POSTAL REVENUES

AND PAYMENTS TO AIRLINE CARRIERS

Fiscal Year Ending June 30	DOMESTIC Postal Revenues	DOMESTIC Payments to Airlines	INTERNATIONAL Postal Revenues	INTERNATIONAL Payments to Airlines
1932	$ 6,016,000	$ 19,938,123	$ 1,075,352	$ 6,962,984
1933	6,116,000	19,400,265	942,584	6,984,189
1934	5,738,000	11,737,529	1,290,804	6,942,375
1935	6,590,000	8,837,650	1,602,890	6,829,312
1936	9,702,700	12,179,266	1,950,010	6,619,760
1937	12,439,600	13,165,179	2,148,170	7,878,152
1938	15,301,200	14,739,929	3,757,499	8,582,275
1939	16,326,400	17,020,169	3,925,512	9,327,445
1940	19,122,900	19,425,732	5,914,405	12,431,965
1941	23,920,500	20,687,220	9,309,793	15,628,695
1942	33,417,400	23,473,170	12,015,864	14,298,159
1943	62,818,600	23,308,477	31,646,182	5,563,283
1944	79,412,510	28,401,373 (A)	51,276,499	3,231,371
1945	81,237,390	35,536,292 (A)	110,675,066	6,021,671 (A)
1946	68,427,924	26,787,756 (A)	58,081,237	10,024,515 (A)
1947	54,356,782	21,736,346 (A)	21,772,578	27,262,000 (A)
1948 (Est.)	53,586,950	47,000,000 (A)	23,815,519	40,500,000 (A)

Does not include airmail to and from armed forces overseas.
*Not available. (A) Subject to final adjustment.

AIR MAIL, MILES AND PAYMENTS

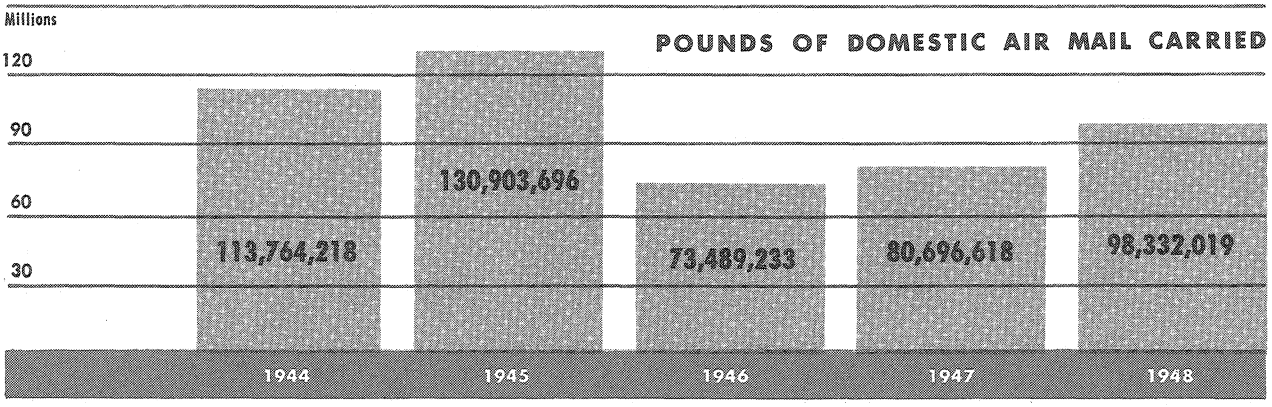
Fiscal Year Ending June 30	DOMESTIC						INTERNATIONAL	
	Payments Per Plane Mile	Load Per Mile Flown, Pounds	Pound Miles Per Route Mile	Revenue Miles Flown	Route Miles Air Mail Service	Thousands of Pound Miles Performed	Plane Miles Flown	Payments Per Plane Mile
1932	$.619	*	*	32,202,170	26,745	6,275,935	3,778,729	$1.84
1933	.540	*	*	35,909,811	27,679	4,834,540	3,775,455	1.84
1934	.403	*	*	29,111,474	28,820	4,513,880	3,767,102	1.84
1935	.284	218	235,095	31,148,693	28,884	6,790,486	3,682,621	1.85
1936	.315	253	334,675	38,695,963	29,198	9,771,841	3,754,537	1.76
1937	.329	319	429,834	39,958,771	29,622	12,732,530	4,448,608	1.77
1938	.319	306	420,067	46,166,162	33,655	14,137,360	4,994,558	1.72
1939	.326	303	426,608	52,141,758	37,080	15,818,617	5,357,405	1.74
1940	.328	315	492,090	59,236,453	37,943	18,671,367	5,907,124	2.10
1941	.273	295	513,579	75,689,839	43,411	22,294,962	8,238,349	1.90
1942	.263	352	703,768	89,307,567	44,623	31,404,257	8,858,294	1.61
1943	.262	634	1,251,401	88,963,296	45,304	56,492,340	15,633,483	.36
1944	.264	786	1,734,022	107,650,804	49,482	84,579,690	19,485,789	.17
1945	.213	723	2,162,025	166,576,371	56,849	122,908,961	24,275,760	.25
1946	.121	395	1,772,013	221,724,860 (A)	57,377	101,672,777 (A)	40,659,256	.25
1947	.069	203	658,592	314,505,965 (A)	102,454	67,475,414 (A)	61,213,887 (A)	.25
1948	.143 (A)	*	520,562	321,661,655 (A)	130,093	67,716,848 (A)	91,439,534	.44

*Not available.
(A) Subject to adjustment.

POUNDS OF AIR MAIL, DOMESTIC AIRLINES, 1944-1948

	1944	1945	1946	1947	1948
January	8,456,674	11,049,607	7,464,318	6,277,245	6,946,678
February	8,097,692	10,224,785	6,166,800	6,199,727	6,683,024
March	8,870,568	12,136,830	6,490,309	6,511,265	7,751,924
April	8,253,891	11,021,140	5,934,201	6,646,407	7,220,696
May	8,908,702	11,806,977	6,009,768	6,798,560	7,707,009
June	9,120,304	11,685,451	5,464,615	6,491,651	7,426,041
July	9,249,413	11,396,335	5,357,859	6,432,484	7,369,330
August	10,213,289	11,600,028	5,316,405	6,301,397	7,560,556
September	9,979,840	11,902,348	4,886,066 (A)	6,272,634	8,229,105 (B)
October	10,594,319	10,444,634	6,098,131	7,070,890	8,904,571 (B)
November	10,551,525	8,844,591	6,196,036	6,577,665	8,970,567 (B)
December	11,468,001	8,790,970	8,104,725	9,116,693	13,562,518 (B)

(A) Sept. 1946—last month of 8¢ rate.
(B) Includes air parcel post.



AIRCRAFT UTILIZATION

		1939		1940		1941		1942	
	No. of Motors	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day
Beechcraft	2	....	.....	.....	.....	.....	.....	1.0	325
Boeing									
247-D	2	39.1	579	34.9	468	29.3	458	11.3	521
SA-307B	4	....	.....	3.1	1,354	5.0	1,596	0.8	1,230
Consolidated-Vultee Convair	2	....	.....	.....	.....	.....	.....	.....	.....
Douglas									
DC-2	2	45.2	785	42.2	715	16.9	650	5.6	668
DC-3	2	86.2	1,125	145.2	1,198	214.6	1,174	179.6	1,424
DST	2	30.5	1,512	38.6	1,569	44.8	1,526	16.5	1,584
DC-4	4	....	.....	.....	.....	.....	.....	.....	.....
DC-6	4	....	.....	.....	.....	.....	.....	.....	.....
Lockheed									
Electra	2	41.8	748	33.8	583	21.5	527	6.6	559
Lodestar	2	....	.....	4.4	661	13.7	829	10.9	1,152
Constel.	4	....	.....	.....	.....	.....	.....	.....	.....
Sikorsky	2	5.8	195	6.0	203	5.8	281	4.0	151
Stinson									
Single Mot.	1	....	.....	.....	.....	8.8	262	7.5	326
Tri-motored	3	3.2	133	2.0	109	.....	.....	1.8	0
Waco	1	....	.....	.....	.....	.....	.....	0.4	228
Martin 202	2	....	.....	.....	.....	.....	.....	.....	.....

1/Includes feeder lines and territorial lines. 1948 data are for 9 months only.

ROUTE MILEAGE AS OF DECEMBER 31, 1948

DOMESTIC		INTERNATIONAL		FEEDER	
All American	1,538	American Overseas	9,134	Arizona Airways	1,020
American	19,954	Braniff	7,600	Central	1,308
Braniff	4,831	Caribbean Atlantic	388	Challenger	1,613
Capital	5,720	Chicago & Southern	3,697	Empire	710
Catalina	47	Colonial	2,030	Florida	471
Chicago & Southern	6,162	Eastern	917	Iowa	1,251
Colonial	1,383	National	445	Island Air Ferries	227
Continental	2,923	Northwest	15,222	Los Angeles Airways	320
Delta	7,371	Pan American	98,689	Monarch	1,650
Eastern	12,461	Panagra	10,666	Parks	1,647
Inland	1,910	TWA	21,307	Piedmont	1,905
Mid Continent	4,474	UMCA	382	Pioneer	2,186
National	2,694	Western	1,640	Robinson Aviation	539
Northeast	2,182			Southern	1,374
Northwest	11,403	TOTAL	172,117	Southwest	1,216
Pan American	34	**OVERSEAS**		Trans Texas	2,028
TWA	11,580			Turner (Roscoe)	655
United	15,771	Eastern	1,040	West Coast	885
Western	3,103	United	2,400	Wiggins	643
Hawaiian	356	Northwest	2,736	Wisconsin Central	1,485
TOTAL	115,897	TOTAL	6,176	TOTAL	23,133

Feeders are classed with domestic, giving latter total as 139,030. This is, of course, duplicated route mileage. International and overseas total is 178,293.

DOMESTIC AIRLINES

1943		1944		1945		1946 1/		1947 1/		1948 1/	
No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day	No. Planes	Av. Mi. Per Day
2.0	437	1.2	323	0.8	66	0.4	502	5.3	564	6.5	219
1.0	248	.....	.....	.....	.....	1.0	607	3.8	661	0.8	800
.....	.....	.....	.....	3.6	2,094	5.0	1,695	5.0	1,315	5.0	1,326
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.3	907
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
161.8	1,671	205.8	1,814	314.4	1,756	426.6	1,638	438.2	1,275	429.2	1,194
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	85.8	1,758	148.3	1,511	155.0	1,317
.....	.....	.....	.....	.....	.....	.....	.....	21.1	1,388	46.3	1,825
.....	.....	.....	.....	1.3	727	3.0	587	.....	.....	.....	.....
11.5	1,392	14.3	1,719	17.7	1,545	16.7	1,265	11.4	1,056	12.0	258
.....	.....	.....	.....	.....	.....	6.6	1,190	21.4	1,659	30.9	1,828
3.0	210	2.8	240	2.0	184	0.1	100	.....	.....	.....	.....
9.3	379	10.6	377	10.9	404	11.0	445	7.6	412	7.0	439
4.4	151	4.0	148	4.0	61	.....	.....	.....	.....	.....	.....
0.3	337	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	2.0	572	15.4	843

THE SPEED OF AIR TRANSPORT — 1948

Selected examples of routine elapsed scheduled flight time between important cities

New York and Boston	1 hr.
Washington	1 hr. 5 min.
Miami	4 hrs.
New Orleans	4 hrs.
Chicago	3 hrs. 20 min.
Los Angeles	11 hrs. 10 min.
San Francisco	10 hrs. 55 min.
Seattle	14 hrs. 45 min.
London	13 hrs.
Paris	13 hrs. 40 min.
Anchorage	18 hrs. 55 min.
Lima	24 hrs. 5 min.
Rio de Janeiro	32 hrs.
Buenos Aires	40 hrs. 45 mn.
Tokyo	39 hrs.
San Francisco and Honolulu	12 hrs.
Los Angeles	2 hrs. 10 min.
Chicago	8 hrs.
Washington	10 hrs. 50 min.
Chicago & Minneapolis-St. Paul	1 hr. 45 min.
Dallas-Ft. Worth	3 hrs. 20 min.
Mexico City	9 hrs. 35 min.
Miami	4 hrs.
New Orleans	5 hrs. 20 min.
Washington and Los Angeles	11 hrs. 15 min.
Bermuda	4 hrs.
Atlanta	2 hrs. 48 min.
Rome	16 hrs.
Havana	5 hrs. 40 min.

LOCAL SERVICE AIR LINES

	1947	1948 (est.)
Number of Planes	50	73
Total Passengers Carried	246,747	426,800
Total Passenger Miles	53,452,034	81,286,000
Route Miles	20,998	23,133
Revenue Miles	10,206,749	18,304,000
Air Mail Ton Miles	176,790	341,000
Express Ton Miles	131,925	184,879
Freight Ton Miles	83,772	263,000
Passenger Load Factor	31.0	28.3

ARIZONA AIRWAYS
† ALL AMERICAN AIRWAYS
* CENTRAL AIRLINES
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†* MONARCH AIR LINES
* PARKS AIR TRANSPORT
†* PIEDMONT AVIATION
†* PIONEER AIR LINES
† ROBINSON AIRLINES
ROSCOE TURNER AERONAUTICAL CORP
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AVIATION WEEK is honored to present the Air Transport Association's 10th Annual Edition of "Little Known Facts" about the airlines. These vital Facts and Figures depict the development and progress of air transport throughout the years and have been assembled by ATA from revised CAB data on the air carrier industry.

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