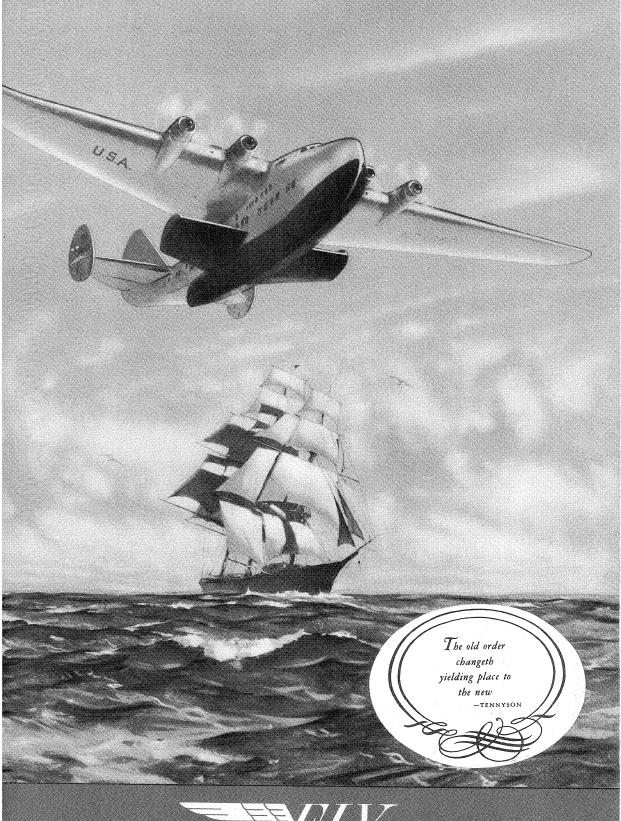
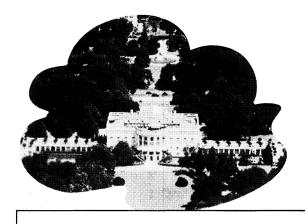
## Little Known Facts

ABOUT THE SCHEDULED AIR TRANSPORT INDUSTRY—VOLUME TWO



IT PAYS TO

TRANSPORT ASSOCIATION OF AMERICA - FIELD BUILDING, CHICAGO



#### THE WHITE HOUSE

Washington, D. C.

January 24, 1939

TO THE NATIONAL AVIATION FORUM:-

Civil Aviation is clearly recognized as the backlog of national defense in the Civil Aeronautics Act which set up the effective machinery for a comprehensive national policy with respect to the air.

Underlying the statute is the principle that the country's welfare in time of peace and its safety in time of war rests upon the existence of a stabilized aircraft production — an economically and technically sound air transportation system, both domestic and overseas — an adequate supply of well trained civilian pilots and ground personnel.

This new national policy set up by the Congress views American aviation as a special problem requiring special treatment. Aviation is the only form of transportation which operates in a medium which knows no frontiers but touches alike all countries of the earth. One fact which stands out is that hardly another civil activity of our people bears such a direct and intimate relation to the national security as does civil aviation. It supplies a reservoir of inestimable value to our military and naval forces in the form of men and machines, while at the same time it keeps an industry so geared that it can be instantly diverted to the production of fighting planes in the event of national emergency.

I hope the forthcoming National Aviation Forum will give serious thought to the many phases which enter into aeronautics as a national problem.

FRANKLIN D. ROOSEVELT





#### TRANSPORT EDGAR S. GORRELL

AIR IRANDERIA ADDULARIUN UP AMERICA.
FIELD BUILDING . 135 SOUTH LA SALLE STREET . TELEPHONE RANDOLPH 1148 AMERICA

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C. R. SMITH

Facts little known are often most significant.

In modern America, the graceful form of the airliner In modern America, the graceful form of the airliner os the sun and the moon. Yet most of us are only dimly aware airliner possible and the extraordinary record which make that Feb. 1, 1940 of the magnitude and variety of the activities which make airliner possible and the extraordinary record which the scheduled air transport industry is achieving.

Indisputably our domestic and international air services use of aeronautics as an instrument of terror and destruction. lead the world. While in other lands energies are bent to the use of aeronautics as an instrument of terror and destruction, while along with our Air Force a scheduled air transuse of aeronautics as an instrument of terror and destruction, we have built, along with our Air Force, a scheduled air transport industry which has contributed incalculably to the welfare our civil life and which has carried our trade flag to 53 port industry which has contributed incalculably to the weils of our civil life and which has carried our trade flag to 53 other nations.

So well have we built that this agency of swift and sure So well have we built that this agency of swift and su gasoline than did the military Air Forces of England, France, Germany, Italy and perhaps Russia combined:

In this great civilian effort not one step forward can in this great civilian effort not one step forward can Hence it is the public's due that there be submitted to it a nence it is the public's due that report of the industry's progress.

Three years ago we issued the first volume of "Little Known Facts." That volume is now hopelessly out of date.

Therefore, we have prepared a second volume to give you the facts whereby you can measure for vourself what your industry Increiore, we have prepared a second volume to give you the facts whereby you can measure for yourself what your industry

As your eye follows the curves on these charts, we hope with us the pride and satisfaction in the achievements yet to it may project the curves into the unrecorded future and share with us the pride and satisfaction in the achievements yet to with us the pride and satisfaction in the achievements yet to come which your participation in air transport makes certain.

Respectfully yours,

Edgar S. Gorrell

ASSOCIATE MEMBERS CANADIAN AIRWAYS, LTD. ESG: DK

TRANS-CANADA AIR LINES

"BY COMMON ACTION TO ADVANCE THE AIRLINE INDUSTRY FOR BETTER SERVICE TO THE PUBLIC AND FOR THE NATIONAL DEFENSE".





# Foreword

Today, the people of the United States are enjoying the benefits of the finest and most efficient system of air transportation in the world.

A spirit of coöperation and partner-

ship between the United States Government and private enterprise, which we believe to be unprecedented in the history of American business, has achieved the rapid advances made in air transportation in recent years.

Neither the Government nor private enterprise alone could have made common carrier transportation by air what it is today.

## Scheduled Air Transportation THE INDUSTRY

DURING THE YEAR 1939, the swift airliners of the United States in domestic, territorial and international operation carried approximately 2,096,800 people, approximately 840,000,000 passenger miles\* with a safety record unprecedented in the history of the industry.

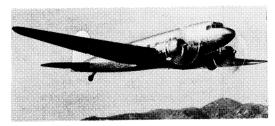
If a baby and his progeny were born in an airplane and flew every minute of their lives, to cover the same distance it would be 533 years later before his great-g

In all seasons of the year, this great industry maintains dependable schedules, day and night, between more than 265 major airports located in every state of the Union. And through our international aerial gateways, to the romantic Old World, to the fabled Orient, to the farthest pampas of the Argentine, to the last frontiers of Alaska, our airlines ply their trade.

Within the confines of the continental United States on 27,074 miles of improved Federal Airways there are 284 intermediate landing fields, supporting the major airports and linked by chains of beacon lights, to form a coördinated pattern of efficiency on the ground.

Along the spider-web of skyways the multi-motored planes are constantly manned by at least two pilots, and trans-oceanic clippers carry crews as great as twelve. These sky giants are always in contact with the ground by two-way radio, riding the radio beam unerringly to port, or guided by long-range direction finders.

The radio equipment in one airliner alone today costs more than did an entire plane a few years ago; and one of our air transport companies maintains a chain of radio stations larger in number than any of the commercial



broadcasting networks. The vast radio system of the airlines is an absolutely dependable "seeing-eye" for the expert crews.

The industry's enviable record is due to meticulous care and to an alert exploitation of the innermost realms of science. Years of painstaking research at tremendous expense are now bearing priceless fruit.

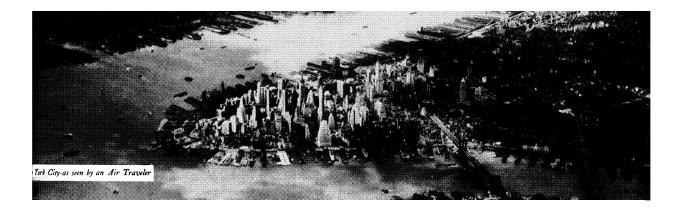
Astronomy, bacteriology, ceramics, chemistry, dietetics, medicine, metallurgy, psychiatry, physics and myriad other sciences make their hourly contributions to the efficiency and comfort of air transportation.

Nearly all our personnel, before they can attain their highly prized places in an airline, are given an intensive course of education and training by the line itself, since the specialized knowledge required can be secured in no other way. For instance, to become a captain aboard a transoceanic aircraft at least five years of the most specialized training is required.

To these wonderfully trained men and women no problem is too difficult, too hard to master. One airline, faced with the necessity of colonizing desert islands in mid-ocean, did the job, though to feed its people it had to raise vegetables in chemicals because of the absence of suitable soil.

\*One passenger flown one mile





Nor do these men and women content themselves solely with the swift and sure transportation of their passengers. They are bent, as well, upon providing royal ease and comfort for their precious cargo. They are the innkeepers of the chies

Last year, without charge, they served you over 2,500,000 breakfasts, lunches, dinners and midnight snacks. They placed before you 400,000 chickens, 1,000,000 portions of meat, 3,750,000 cups of coffee. Your every desire is realized for but a word.

800,000 sheets and 100,000 blankets were spread on 1000 air-cushioned mattresses that you might sleep soundly in the clean, clear reaches of the heavens; that you might travel, and find rest and pleasure the while.

The airline is the Michelangelo of modern business. Inventor it is, and engineer; pilot and navigator, mechanic and teacher, too; radio technician, weather man, nurse, explorer, caterer, financier, economist, geographer, interior decorator, travel expert, lawyer, doctor and publicist: countless talents and skills the airline must and does possess.

Little could the Wright Brothers comprehend what they had started, back in 1903, when they barely skimmed the windswept sands of Kitty Hawk in man's first struggling effort to master gravity and conquer the boundless air with powered flight.

Yet in that seemingly modest and inconspicuous feat, a vast industry was born. Here, in our land, through unceasing coöperation between government and private enterprise, that industry has tested its wings and found them true, and, consuming produce from every State, it furnishes a new and infinitely expanding outlet for the productive genius of American business.

## The Government

#### THE CIVIL AERONAUTICS AUTHORITY

"CIVIL AVIATION," recently wrote President Roosevelt, "is clearly recognized as the backlog of national defense in the Civil Aeronautics Act which set up the effective machinery for a comprehensive national policy with respect to the air."

The vital and peculiar significance of civil aeronautics to the national defense is axiomatic. But without a consistent governmental policy for the orderly development of the industry, for curbing rampant and cutthroat competition, for fixing rates

and nourishing and protecting the investment painfully expended in building air routes, common carrier transportation by air would bleed itself to death and so irreparably cripple our national security.

This essential government policy was adopted by Congress in the Civil Aeronautics Act. It is administered by the Civil Aeronautics Authority.

The Authority is an administrative court of five members, appointed by the President and confirmed by the Senate, whose duty is to decide cases as they are presented, and promulgate the rules necessary for safe and economical operation.



A Modern Airport Traffic-Control Tower

Under the new Authority the industry has found stability. For the first time the airlines are able to make long range plans for adequate financing and for the perfection of their equipment, organization and operation.

It is not by chance, however, that the Authority is called the Civil Aeronautics Authority, instead of the Air Transport Authority, for it is charged with the duty of regulating all civil aeronautics—a duty probably of greater diversity than

that imposed upon any other single governmental agency.

The Authority regulates more than 1,500 charter and fixed-base airplane operators, whose total annual business, in passengers and property carried, about equals the total business of all the scheduled airlines.

Furthermore, the Authority is charged with overseeing many of the activities of some 2,000 firms engaged in one or more phases of the aeronautical industry, manufacturing and otherwise.

The Authority also regulates thousands of individual pilots and their aircraft, and is engaged in a huge civilian pilot training program.



Within the Authority there is an Administrator, who is charged with the active promotion of civil aeronautics. He must supervise construction and maintenance of the system of Federal airways and air navigation facilities within the United States (including its territories and possessions) used by those who operate planes for business or pleasure, and used, as well, by our Army and Naval Air Forces.

The Authority also has its Air Safety Board, consisting of three members whose sole duty is to make studies and recommendations for an even finer record of safety in all civil aeronautics, striving ever for perfection.

The men filling these various posts are exceptionally well qualified. Collectively, they represent a fine balance of experience in aeronautics, of technical training, of legal background, and of accomplishments in business and in government service which would be difficult to match.

Theirs is a supremely important function. They are discharging it in the spirit of true statesmanship.

#### THE UNITED STATES POST OFFICE DEPARTMENT

THE UNITED STATES Post Office Department, from the earliest days of our Republic, has been a persistent pioneer in the encouragement of successive forms of transport.

Transportation by stagecoach, canal boat, pony express, railroads, ocean steamships and finally, airplanes, has been actively promoted by the Department for the greater convenience of travelers and trade.

If the Department were to claim the triumphs of civil aeronautics as the children of its dreams, no one could gainsay. In twenty-one years the route miles of its air mail service have multiplied by 31,400 per cent, the miles flown by 360,000 per cent.

These years have seen the service gradually expand to

cover all 48 states, our territories and possessions, and to reach 53 nations beyond the seven seas.

Notable in this advance has been the record made under the present Postmaster General, the Honorable James A. Farley, who, with the able support of men unsurpassed in devotion to their duty, has carried on the work of his predecesses.



Loading a modern airliner with n

the work of his predecessors in the best tradition of a matchless Postal Service.

#### THE UNITED STATES WEATHER BUREAU



Launching a radiosonde which transmits twicea-minute radio signals depicting the temperature, humidity and pressure of the atmosphere at various altitudes even into the stratosphere

THE WEATHER MAN is the guardian of those silver wings that speed toward far horizons.

Dazzling speed! More than three miles a minute, 270 feet per second. Twice as fast as planes flew formerly in serving the public. This is the speed of the modern luxury airliner.

The pilots who guide these mighty sky-ships must have instantaneous weather reports from

every section over which they are to fly. With the speed of their sleek craft increasing so rapidly, it is necessary that the weather conditions 100, 300, 600 miles ahead be known at all times.

With the creation of scheduled airline transportation, weather reporting had to be revolutionized. No longer could it be defined as "forecasting." It had to become a science as exact as humanly possible.

It was necessary for the Weather Bureau both to expand enormously the points from which it gathers information and to increase greatly the speed and detail with which that information is reported, analyzed and made available.

The officials of the Weather Bureau, in spite of inadequate funds and insufficient equipment and personnel, doggedly went to work to fill in the gaps. They turned every teletype and radio station along the airways into a weather observing post. They pressed upon ships at sea for regular reports.

The result:

Even if there were not in operation a single one of the 10,000 planes licensed to miscellaneous persons, or of the 486 transport planes flown by the air carriers;

Even if the Army and Navy did not make over a million flights annually (44% of the airway traffic is by Army and Navy planes) and train 20,000 regular and reserve pilots;

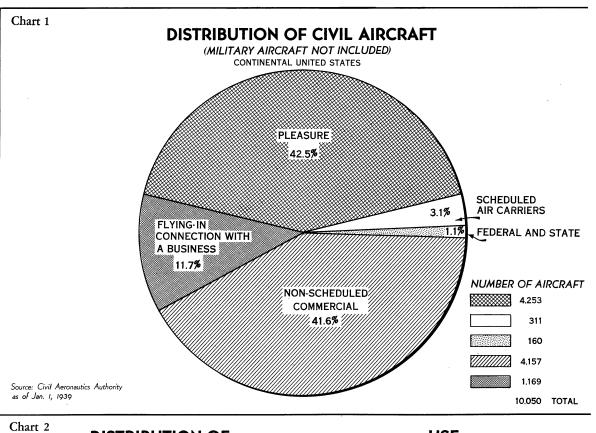
Still the United States Weather Bureau, in serving the entire nation with its revolutionary new weather reporting, would justify its present and future appropriations.

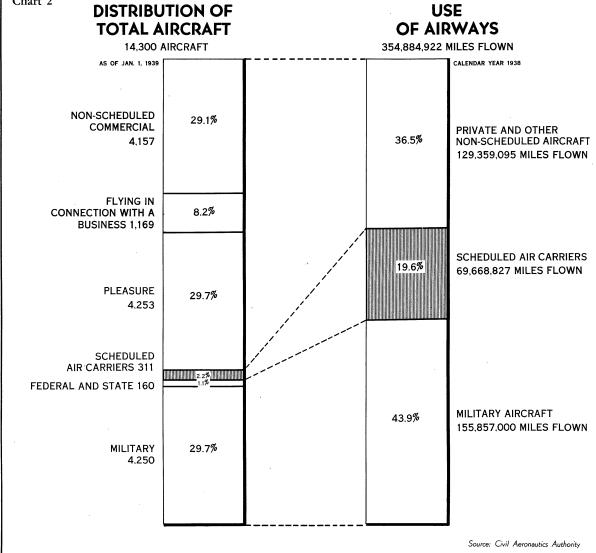
For it not only serves the vital need occasioned by the development of air transportation, its efficient new technique has redounded to the benefit of all.

Farmers and fishermen, foresters and fruit growers, mariners and innkeepers, tourists and astronomers—in every walk of life, the new work of the Weather Bureau has incalculably aided everyone whose pleasure and profit depend upon knowledge of the weather's caprice.

Until the requirements of aeronautics made immediate and vital the need for improving the weather service, there were serious gaps in the Bureau's coverage. Many a killing frost, many a vicious hurricane, laid its destructive hand upon Americans everywhere without adequate warning.



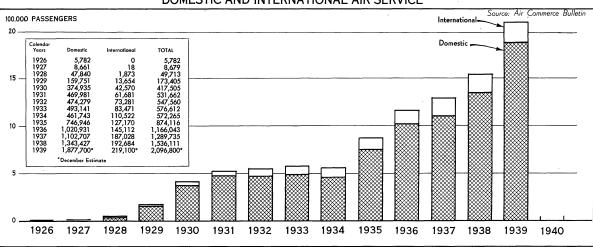




#### TOTAL PASSENGERS CARRIED - UNITED STATES

(REVENUE AND NON-REVENUE)

DOMESTIC AND INTERNATIONAL AIR SERVICE

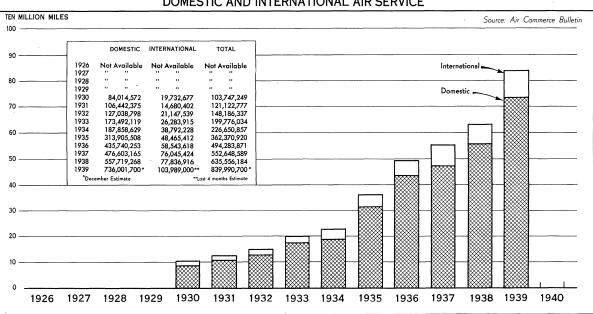


#### PASSENGER MILES FLOWN-UNITED STATES

Chart 4

Chart 3

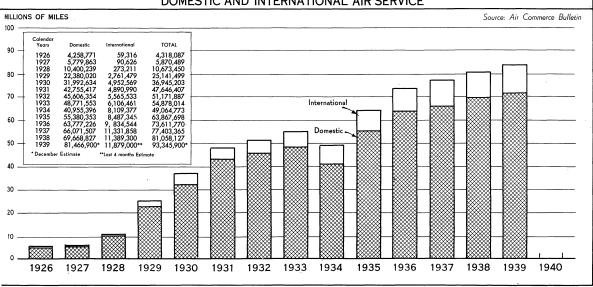
DOMESTIC AND INTERNATIONAL AIR SERVICE



#### REVENUE MILES FLOWN - UNITED STATES

Chart 5

DOMESTIC AND INTERNATIONAL AIR SERVICE



#### **PASSENGER** REVENUE (DOMESTIC)

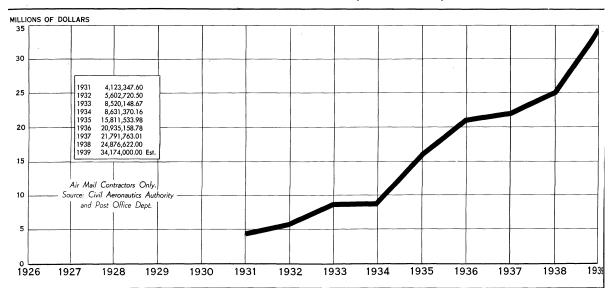


Chart 7

PASSENGERS CARRIED (DOMESTIC)

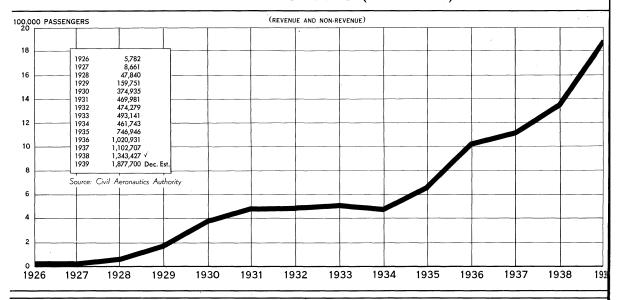
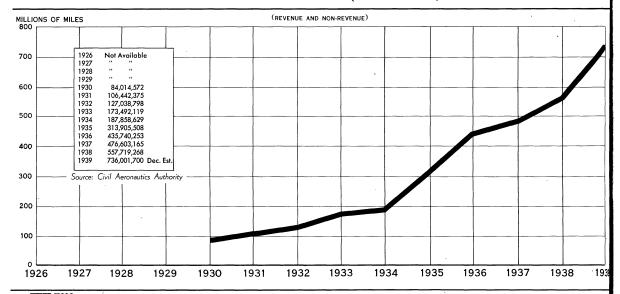


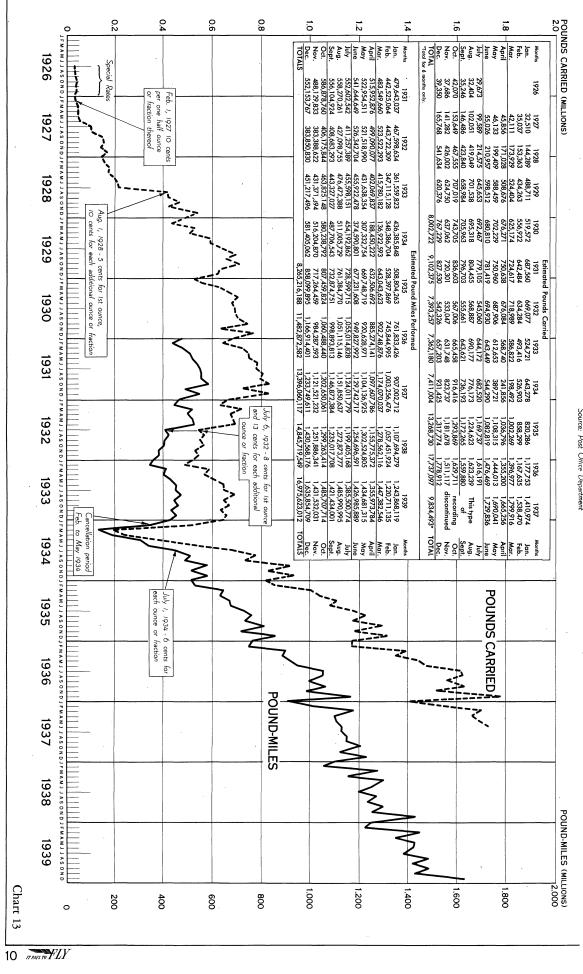
Chart 8

PASSENGER MILES (DOMESTIC)



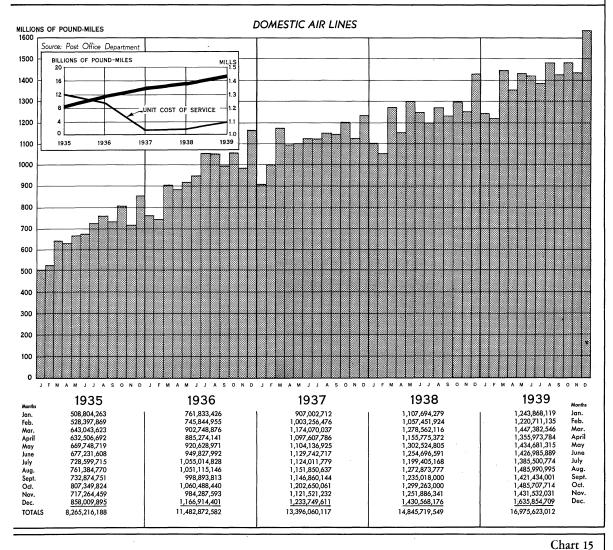
# DOMESTIC AIR-MAIL CARRIED, 1929-39

Source: Post Office Department



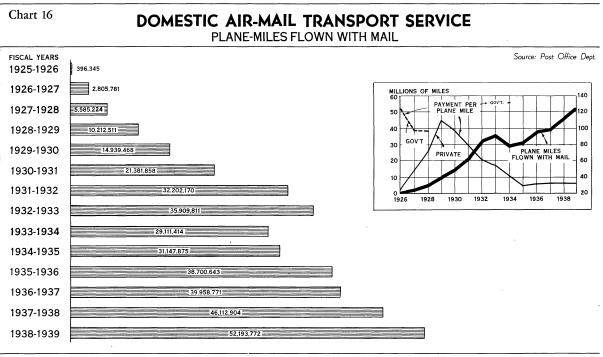
#### Chart 14

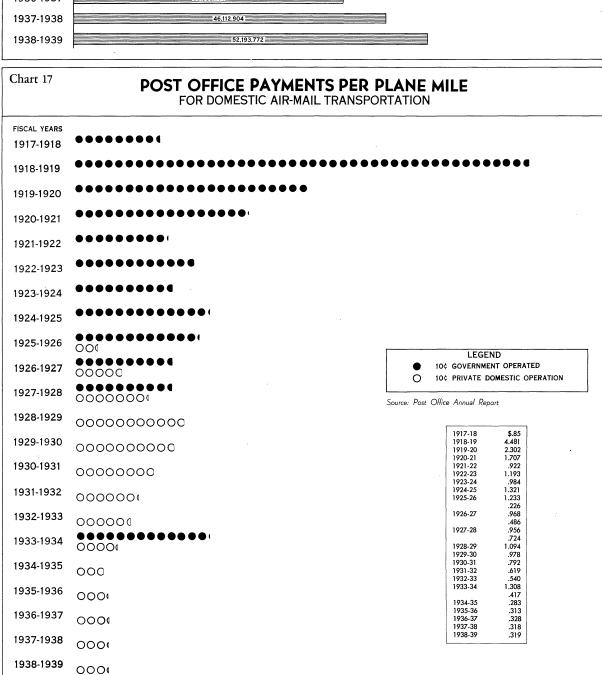
#### POUND-MILES OF MAIL FLOWN

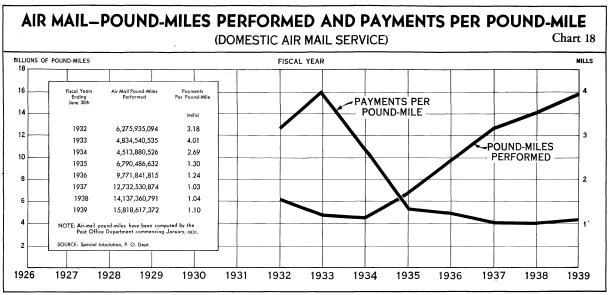


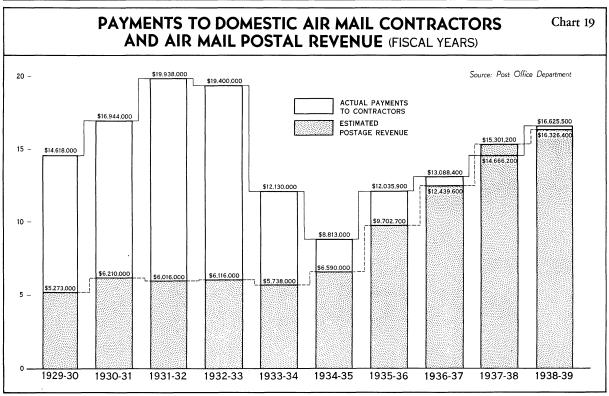
#### ROUTE MILES OF DOMESTIC AIR-MAIL SERVICE

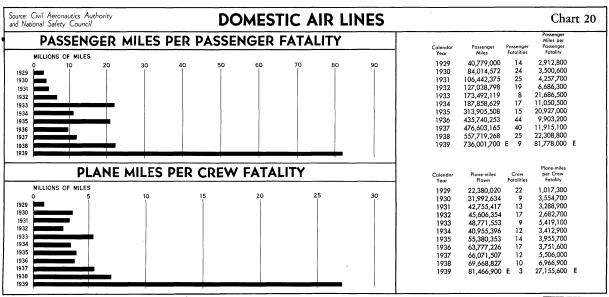
FISCAL YEAR 1925-26 3,597 5.551 1926-27 1927-28 10.932 1928-29 14,406 1929-30 14,907 1930-31 23,488 26,747 1931-32 27.679 1932-33 28,820 1933-34 28,884 1934-35 1935-36 29,198 29,622 1936-37 1937-38 33,655 1938-39

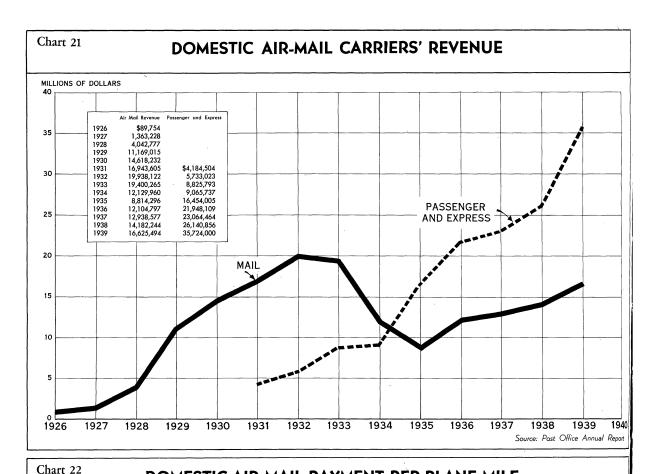


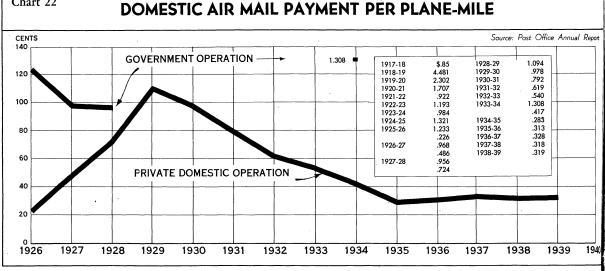


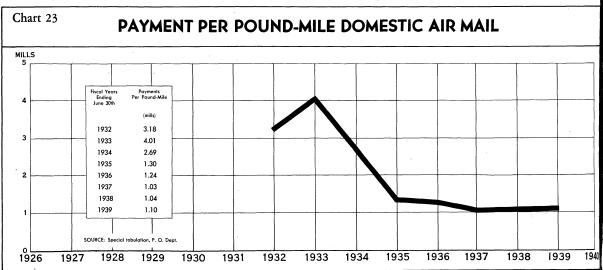


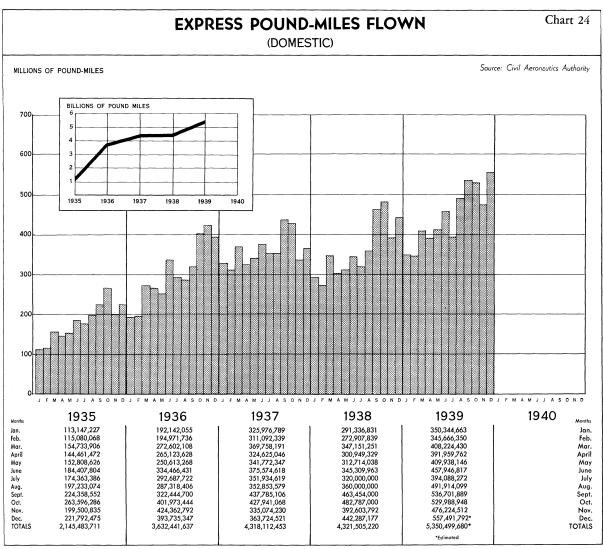


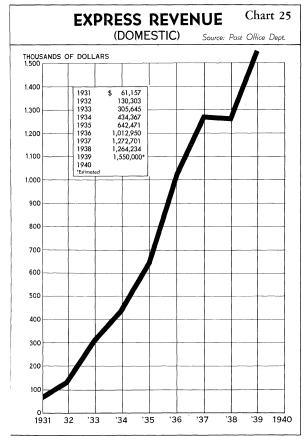


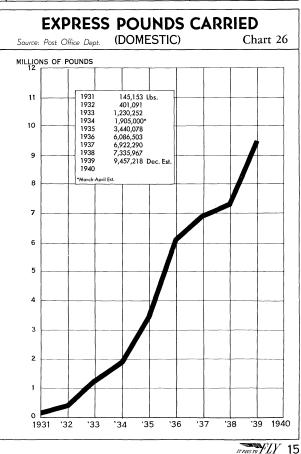


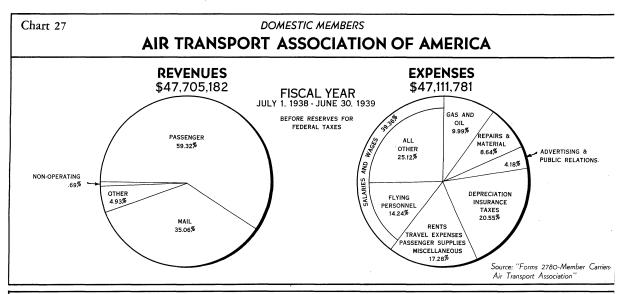


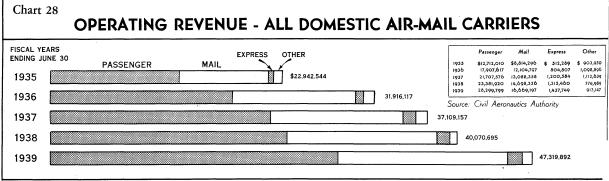


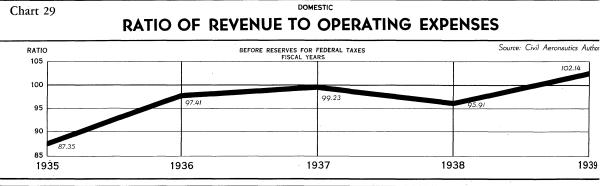


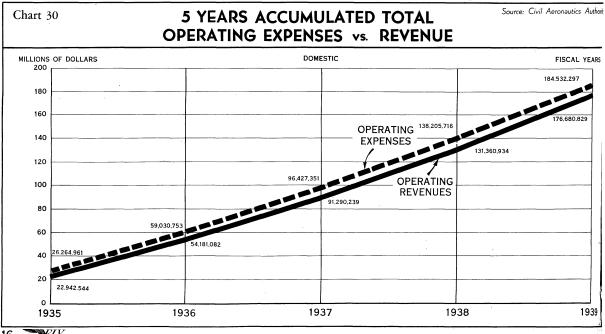








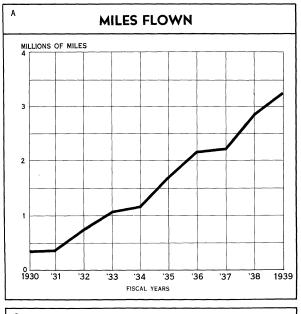


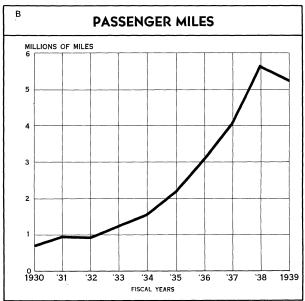


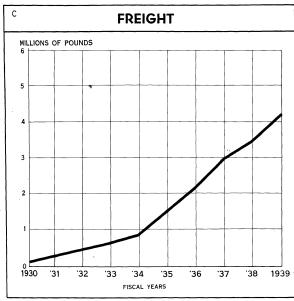
### **ALASKA**AIRCRAFT OPERATIONS FOR THE YEAR ENDING JUNE 30, 1939

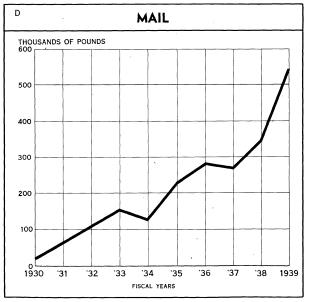
Source: Alaska Aeronautics and Communications Commission, office of the Supervisor.

Months	Hours Flown	Trips	Plane Miles Flown	Passengers Carried	Passenger Miles Flown	Freight Pounds	Mail Pounds	Months	
July	3,504	1,373	369,851	3,809	634,471	708,365	17,416	July	
Aug.	3,274	1,245	371,003	4,008	772,866	399,814	17,686	Aug.	
Sept.	2,358	1,172	285,427	2,857	648,225	408,204	41,304	Sept.	
Oct.	2,071	818	304,082	2,291	465,416	397,392	18,390	Oct.	
Nov.	1,461	804	179,831	1,485	373,117	169,018	60,299	Nov.	
Dec.	1,792	715	195,848	1,609	351,858	446,574	86,091	Dec.	
Jan.	1,326	589	155,165	1,133	268,465	232,568	70,029	Jan.	
Feb.	1,442	542	159,207	1,380	280,990	184,288	65,402	Feb.	
Mar.	2,329	926	255,293	2,271	359,519	264,742	79,070	Mar.	
April	3,072	1,147	316,841	2,858	226,293	369,635	50,621	April	
May	3,137	1,137	322,226	3,038	576,816	208,850	34,612	May	
June	3,526	991	318,149	2,960	602,458	385,101	30,927	June	
TOTALS	29,292	11,459	3,232,931	29,699	5,260,524	4,174,551	544,847	TOTALS	

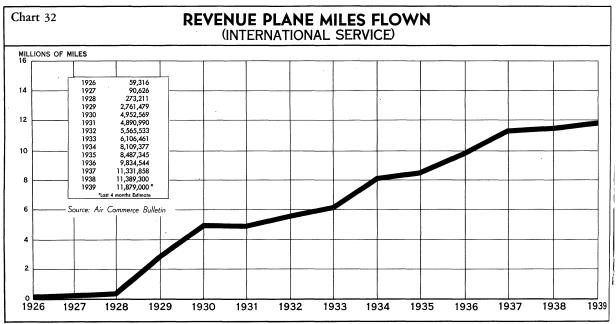


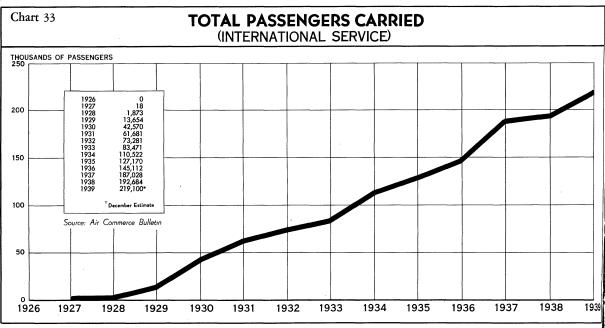


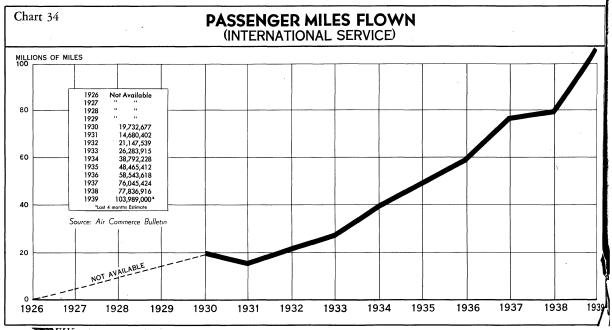




	Planes in Service	Plane Miles Flown	Passenger Miles Flown	Pounds of Freight	Pounds of Mail
Two-year period ending March 31, 1929	8	331,591	272,999	94,701	24,250
Year ending June 30, 1930	24	338,422	684,261	103,043	17,690
Year ending June 30, 1931	26	381,234	947,695	161,718*	
Year ending June 30, 1932	31	742,854	942,176	496,680*	
Year ending June 30, 1933	42	1,059,155	1,222,510	634,016	151,570
Year ending June 30, 1934	56	1,126,610	1,533,311	869,398	124,972
Year eding June 30, 1935	73	1,685,654	2,148,692	1,496,917	225,840
Year ending June 30, 1936		2,130,929	3,035,018	2,138,886	279,730
Year ending June 30, 1937	102	2,209,206	4,021,798	2,947,726	264,201
Year ending June 30, 1938	155	2,829,258	5,634,461	3,415,759	342,736
Year ending June 30, 1939	175	3,232,931	5,260,524	4,174,551	544,847







Source: Civil Aeronautics Authority

Chart 35

#### **AIR TRANSPORTATION** IS MORE THAN JUST AIRPLANES

The devoted service of the human beings necessary to keep planes in the air is a most important contribution to the progress of air transportation

1 PILOT 1 PASSENGER

2 PILOTS 10 PASSENGERS

2 PILOTS 1 STEWARDESS 14 PASSENGERS

2 PILOTS 1 STEWARDESS OR STEWARD 21 PASSENGERS





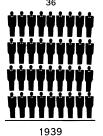




AIRLINE PERSONNEL ON THE GROUND FOR EACH PLANE IN THE AIR

(DOMESTIC)





More than 1,160 passengers and 15 tons of United States mail, on board approximately 208 common carrier transport planes under the United States flag, are in the air every second of each 24 hours.

