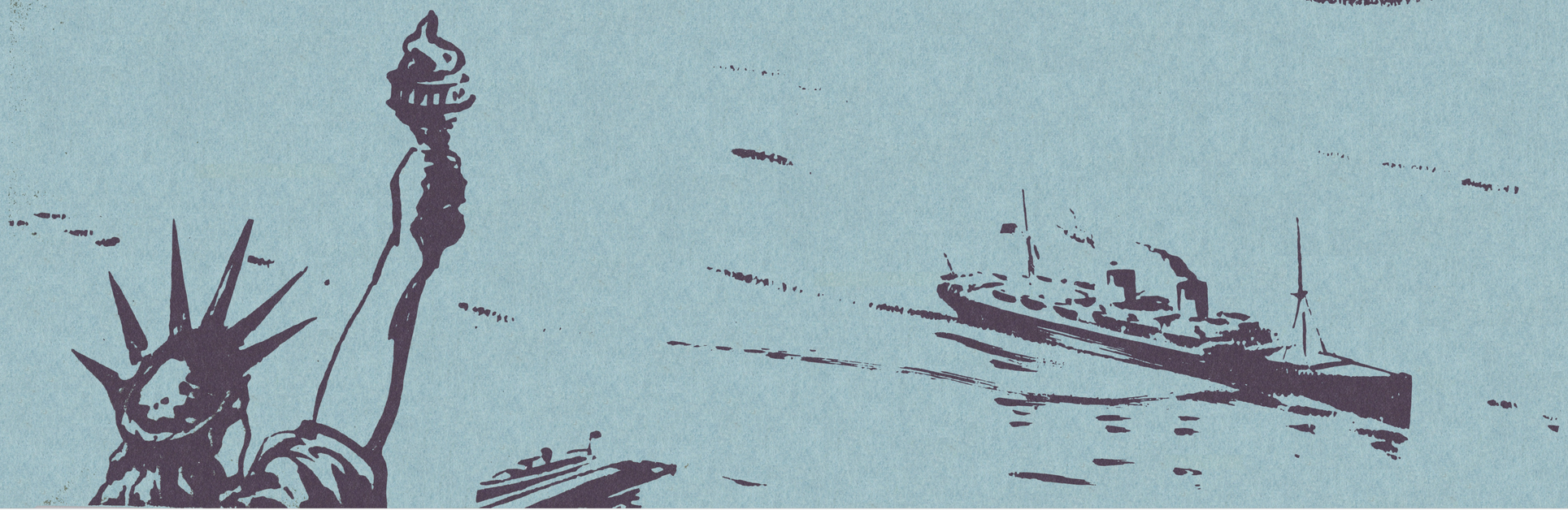
AIRPLANES OF AMERICA



AIRPLANES OF AMERICA

"As the crow flies" has long been a familiar expression among men who have envied the ability of birds to go from one place to another by the shortest possible way.

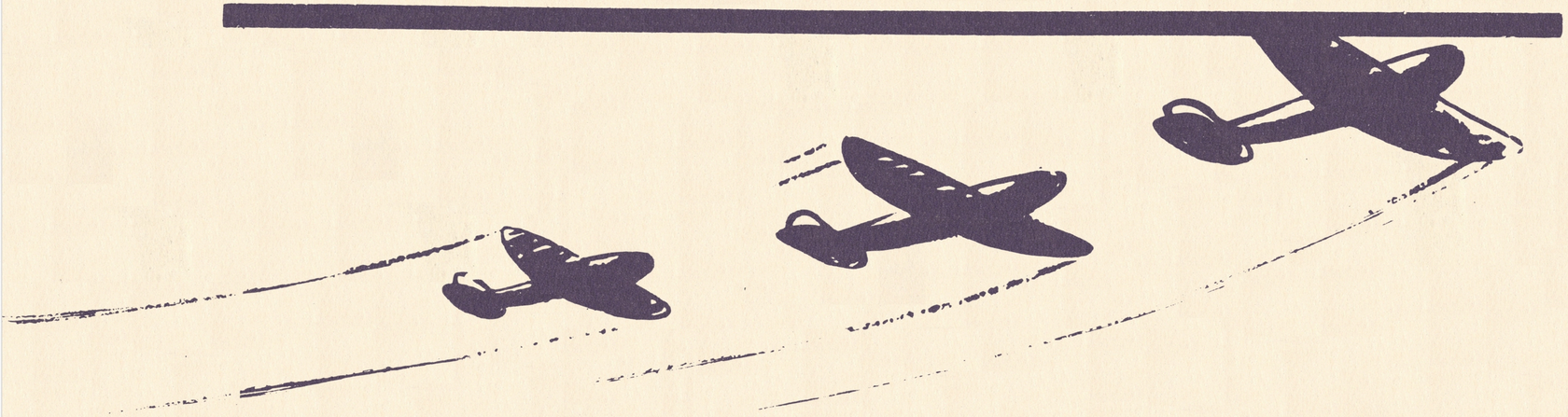
Ever since Orville Wright made the first successful flight with a heavier-than-air machine, the inventive genius of America has been busy with the development of the airplane. Today, America leads the way in the production of airplanes of all kinds—for defense, for commerce and for pleasure.

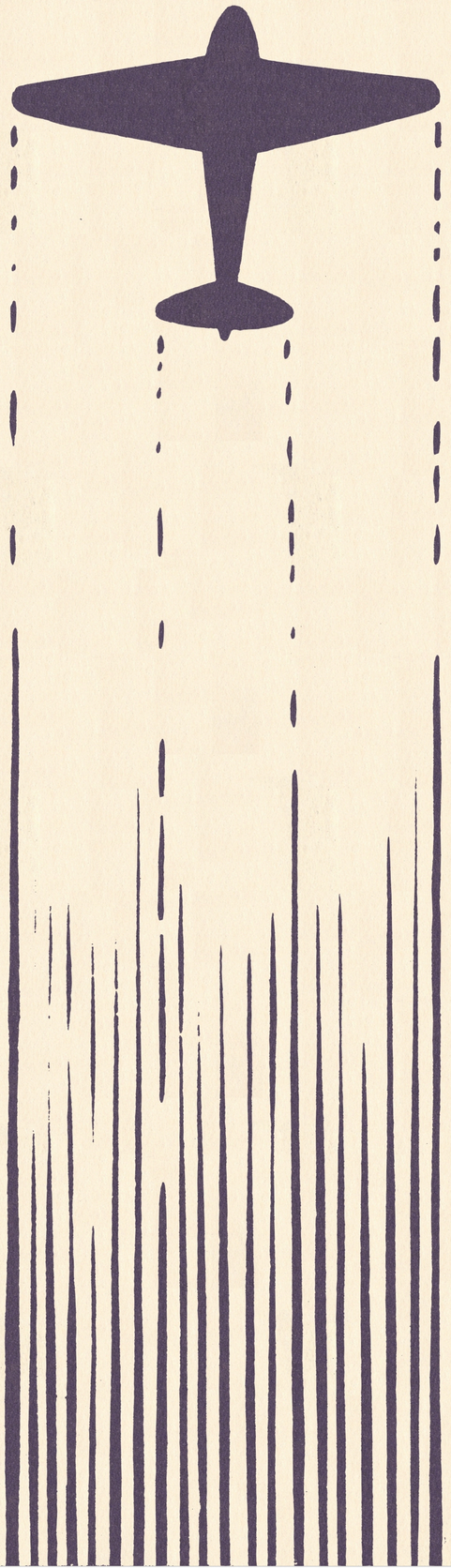
This series of authentic pictures should be interesting, not only to boys and girls, but also to men and women who are aware of the importance of the airplane to the welfare of our country.

George Krug

*Name*_____

*Address*_____





Aviation in America

THE RECORDS of man's attempts to imitate the flight of birds, go back many years.

About the time of the Spanish American War, the War Department commissioned Samuel P. Langley, then Secretary of the Smithsonian Institution, to build an airplane, furnishing him with $50,000. On October 7, 1903, Langley's machine was ready. But the launching apparatus failed and the plane slid into the Potomac. He repaired the plane and tried again. Another failure. Whether his machine was capable of flight was the great controversy of the day. Years later his plane was taken out of the storehouse, refitted, and flown with the original engine.

During the time Langley was building his airplane, the Wright brothers were experimenting with gliders at Kitty Hawk, N. C. Having learned means of control they built a light gasoline engine of 12 horsepower and on December 17, 1903, the problem which had baffled the world for ages was solved. With Orville Wright as pilot, the plane stayed in the air 12 seconds, and flew 120 feet—the first time in history that man had successfully flown a heavier-than-air machine.

Next to the Wright brothers, the foremost personality in pioneer American aviation was Glenn H. Curtiss who began his career in 1904, as a builder of engines for Tom Baldwin, a noted aeronaut of the time. In 1907, Curtiss joined a group who were experimenting with crude airplanes at Hammondsport, N. Y. Flying his own planes Curtiss established many records. In 1909, he won the grand prize at the world's first airplane races in France and the following year he flew from Albany to New York, the first long flight made in the United States. Later Curtiss developed the hydroplane or flying boat, making his first experiments in over-water flying in 1911. In Europe a Frenchman, Louis Bleriot, won undying fame by achieving the first airplane flight across the English Channel.

The development of aviation was advanced to a remarkable degree by the World War. Hardly had the conflict ended before nations began to covet the honor of being the first to send an airplane a great distance; and manufacturers commenced to plan machines suitable for such extended voyages. The first trans-Atlantic flight was made by the United States Navy plane N.C. 4 in 1919, stopping en route at the Azores, and that same year Alcock and Brown succeeded in making the first nonstop flight across the ocean. But the goal that most aviators were striving to attain was a nonstop flight between Paris and New York, for which there was a standing prize of $25,000. This epochal flight was achieved in May, 1927 by Charles A. Lindbergh.

Two of the most remarkable flights recorded took place in 1933, when two French aviators made a nonstop flight of 5,900 miles from New York to Syria and Wiley Post flew solo around the world in less than 8 days. Then, in 1935, two Americans, Anderson and Stevens, climbed 72,394 feet into the blue for the altitude record, a record which still stands. In July, 1937, Russian aviators made a nonstop flight of 6,295 miles from Moscow to San Diego, Calif. Howard Hughes with four companions followed with shattering world records when they made a round-the-world flight in the amazing time of 91 hours 17 minutes.

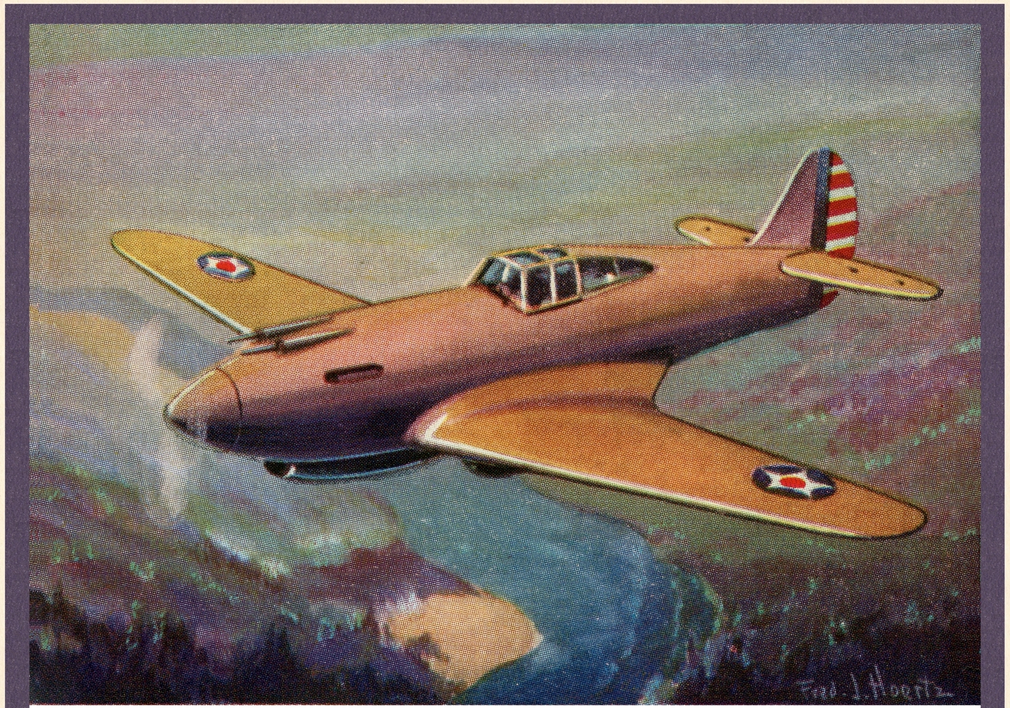
Scheduled air transportation in the U. S. began on May 15, 1918, with the inauguration of first air-mail which opened one of the amazing chapters in our aviation history. In 1927, for instance, the number of passengers carried in commercial planes was less than 10,000; last year it exceeded two million. They were flown over some 23,000 miles of lighted and radio-equipped airways, maintained and equipped by the Civil Aeronautics Authority.

Recent notable developments in commercial flying have been the inauguration of services from the United States across the Pacific to the Orient and over the Atlantic to Europe. Huge clippers capable of carrying 40 passengers and a crew of 8 at a speed of more than 200 miles an hour are used.

Probably the most revolutionary of recent developments is the new stratosphere service—25,000 feet in the air. Airplanes, having air-tight cabins and equipment for oxygen, essential while flying at such great altitudes, are now in use. Aviation progress in the last ten years has exceeded every expectation. And the achievements of the present day are only the beginning of a marvelous new and greater era.

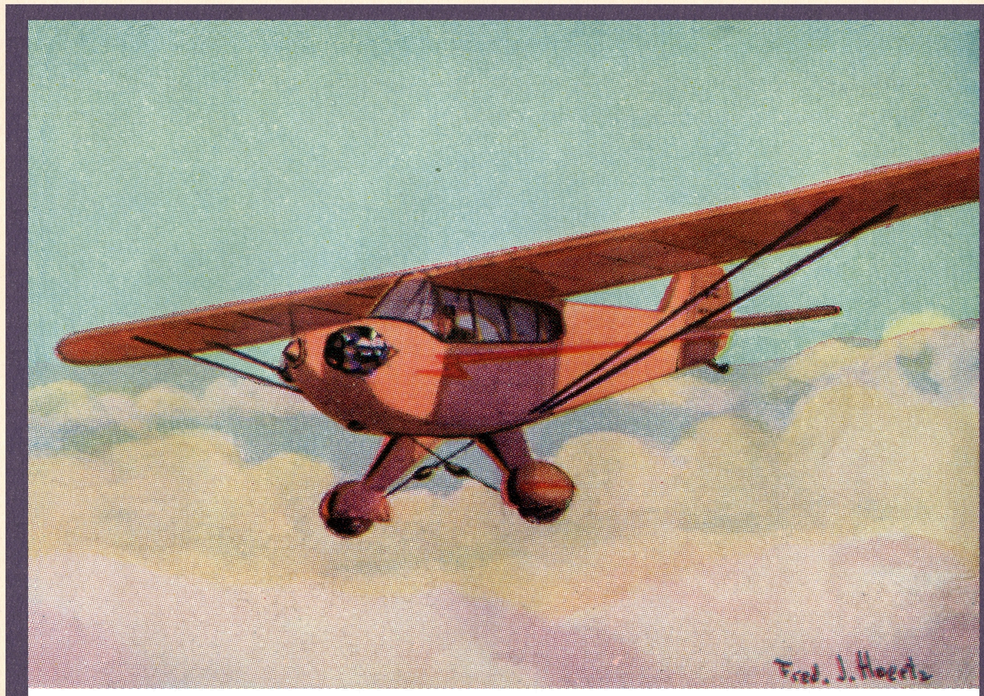
Capt Jack Knight

FIRST AIR MAIL PILOT



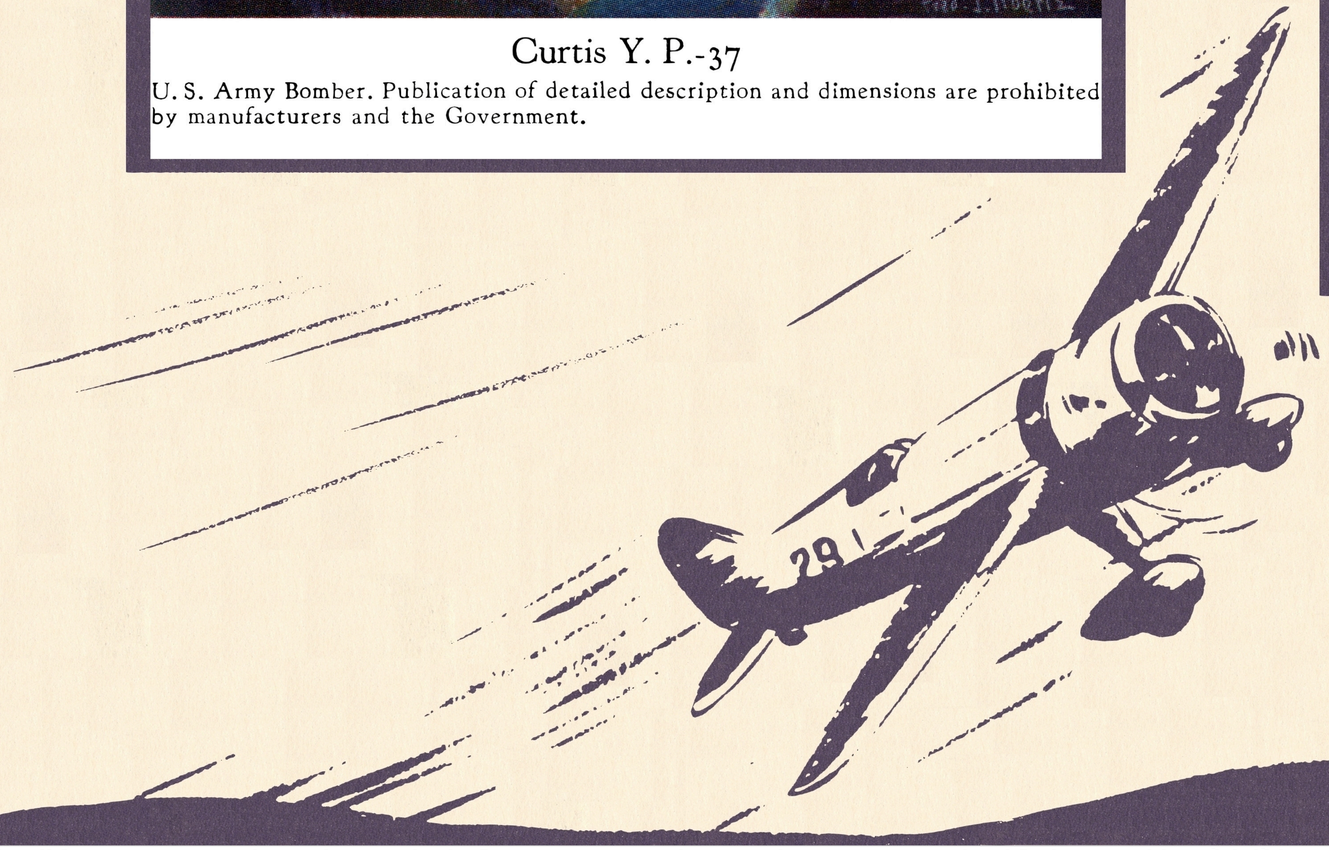
Curtis Y. P.-37

U. S. Army Bomber. Publication of detailed description and dimensions are prohibited by manufacturers and the Government.



Piper Cub

A very popular two place plane, which is safe and easy to fly. Maximum speed 100 m. p. h.—cruising speed 92 m. p. h. Powered with a choice of several 50 h. p. engines. Wing span 36′-2″—Length 22′-6″—Height 6′-10″.

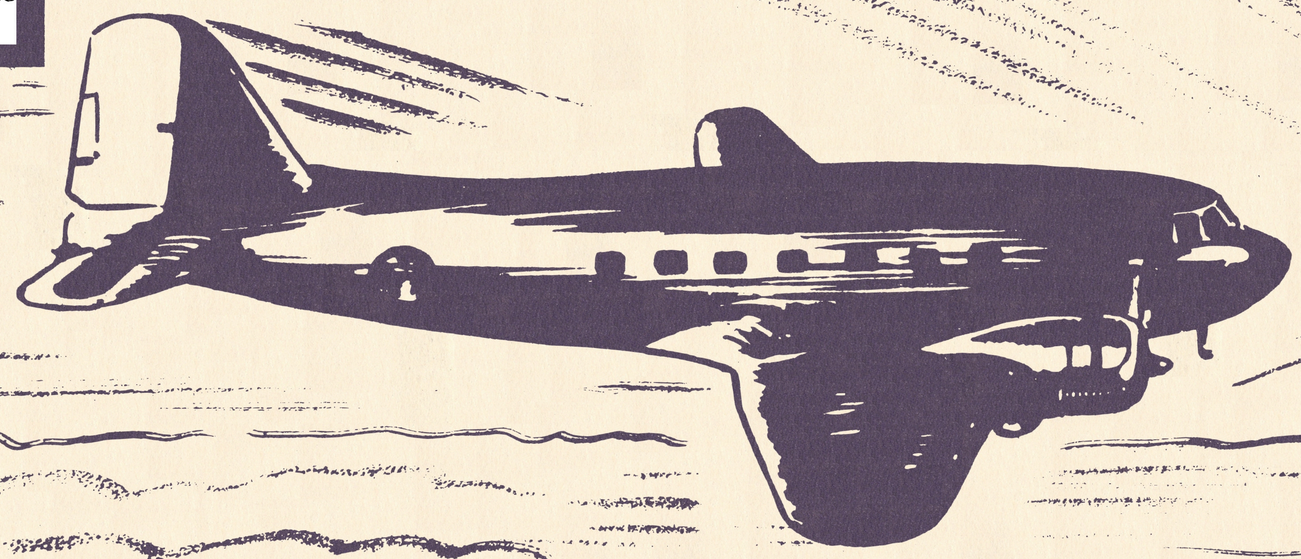


Douglas T. B. D.-1

U. S. Army dive bomber. Powered with Wright Cyclone engines or Pratt and Whitney Twin Row "wasps". Publication of detailed description and dimensions are prohibited by manufacturers and the Government.

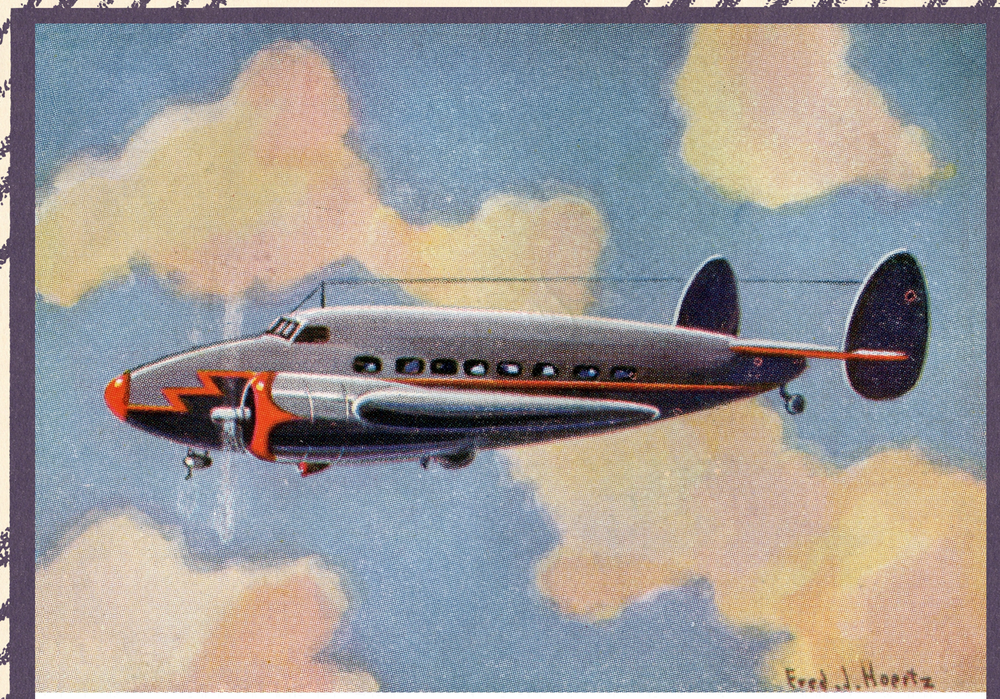
Douglas D. C.-3

A transport plane in service on the routes of American Air Lines and other airline companies. Powered by two 1050 h. p. engines; Maximum speed 216 m. p. h. There are two models—21 passenger day plane and 14 passenger sleeper plane.



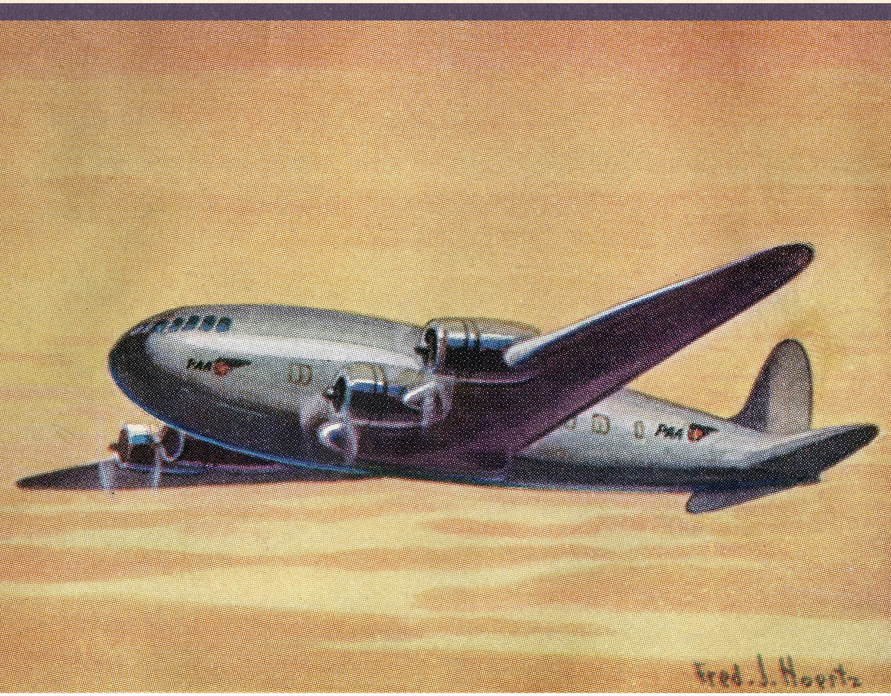
Spirit of St. Louis

Charles A. Lindbergh made the whole world air-conscious when he flew the silver Ryan Monoplane "We" non-stop from New York to Paris—3610 miles in 33½ hours in May, 1927.



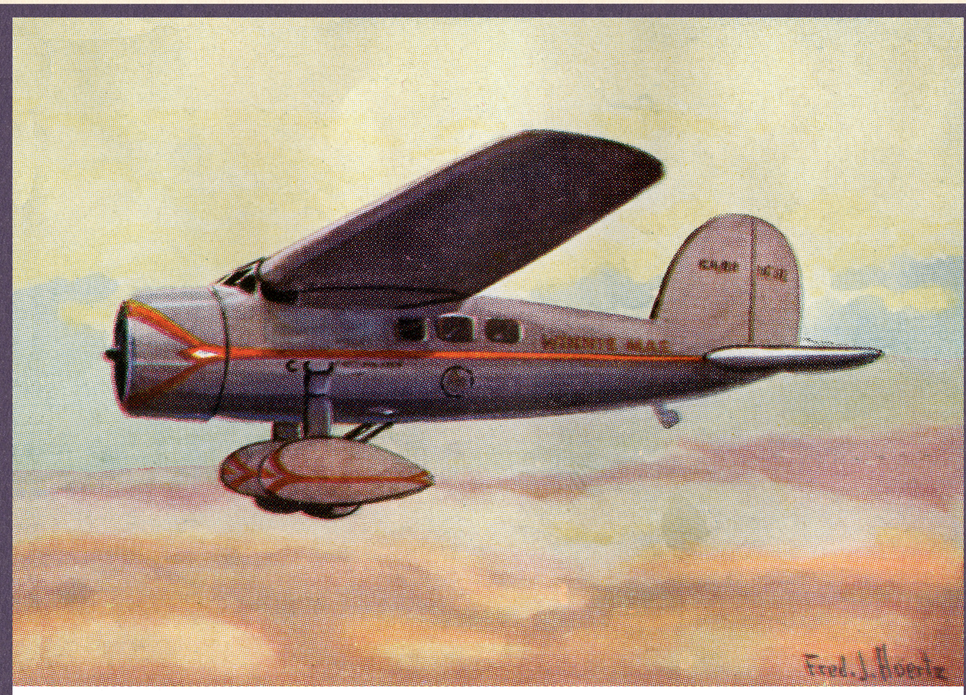
Lockheed Transport 14

Flown around the world by Howard Hughes—14,791 miles in 3 days, 19 hours and 14 minutes. This plane carried 1750 gallons of gasoline and had a cruising range of 4700 miles. It was powered with two 1100 h. p. Wright Cyclone engines.



Boeing Stratoliner

Passenger transport with pressure cabin for substratosphere flying. Carries 33 day passengers or 16 sleeping at night and 9 sitting. Powered with four 1100 h.p. engines, Boeing 307 has a maximum speed of 217 m. p. h. and a range of 1675 miles.

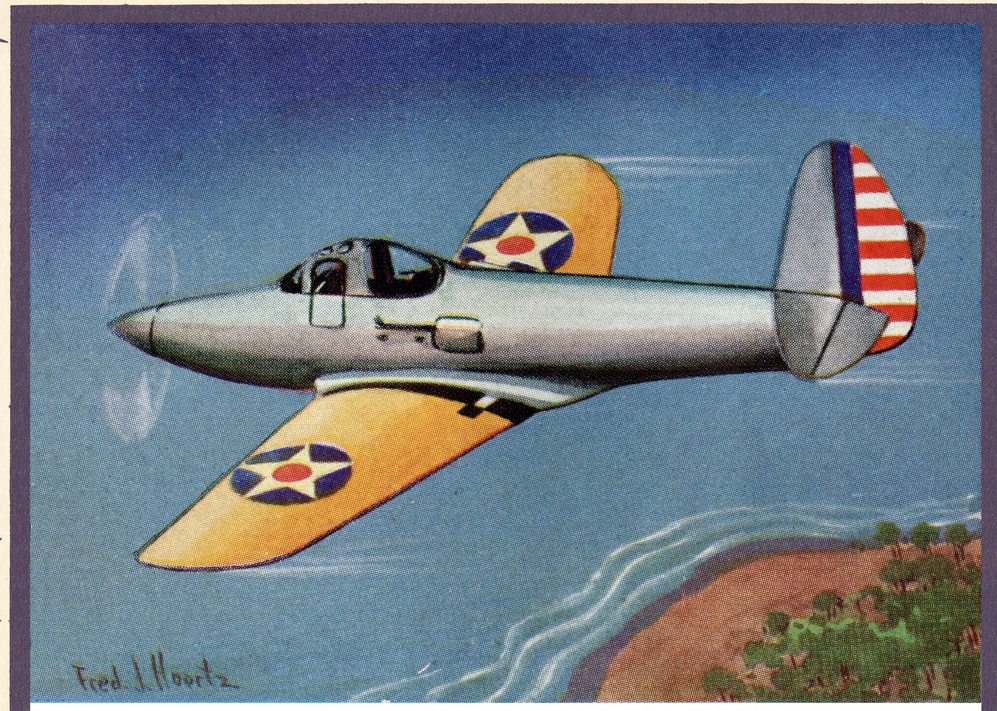


Winnie Mae

This famous Lockheed Viga was flown around the world in 1931 by Wiley Post accompanied by Harold Gatty, in 8 days, 15 hours and 51 minutes. The following year Wiley Post circled the globe *alone* in this plane in 7 days, 18 hours and 19 minutes.

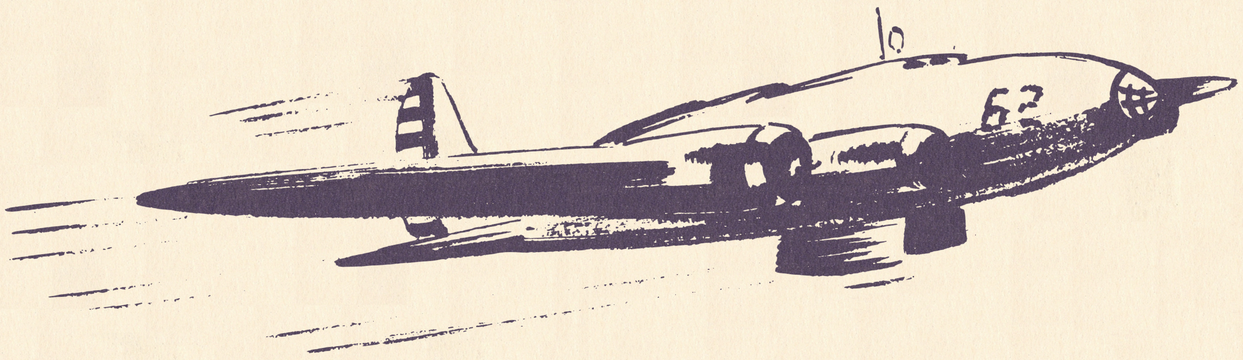
Beechcraft F-17-D

Wright Whirlwind 450 h.p. engine. Cruising range 700 miles at 202 m.p.h. The set-back wings is an abrupt departure from most designs. This feature greatly increases speed of private flying.



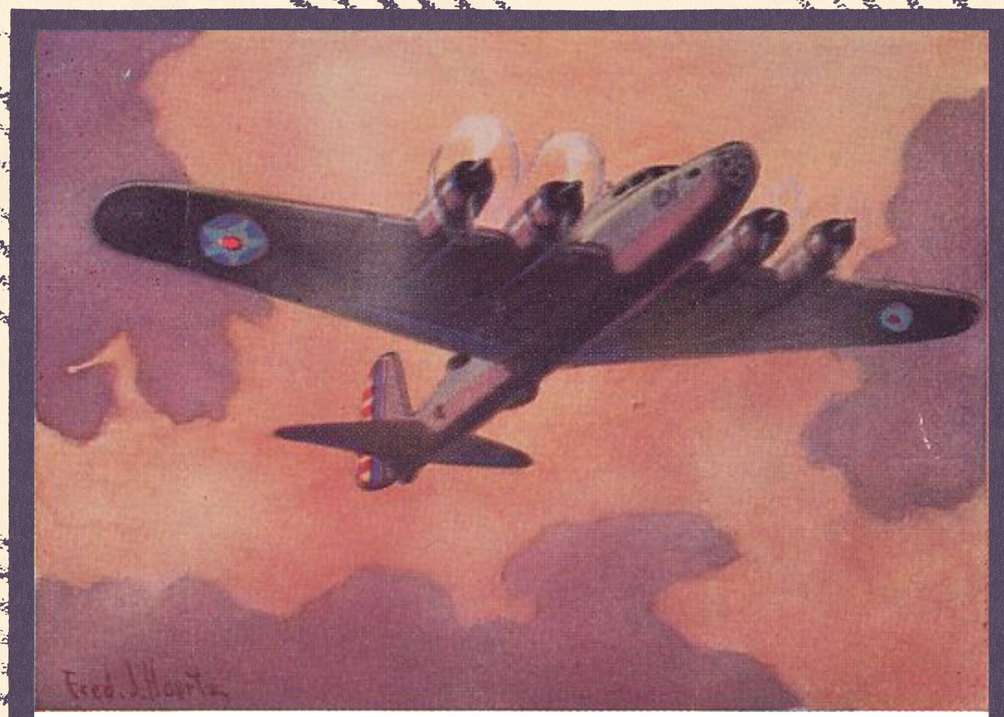
Bell U. S. Army "Aircobra" P-39

12 Cylinder Allison engine behind pilot's seat. Extension shaft drives propeller. Automatic self-closing cowl for front wheel. Unofficial estimated speed 400 m.p.h.



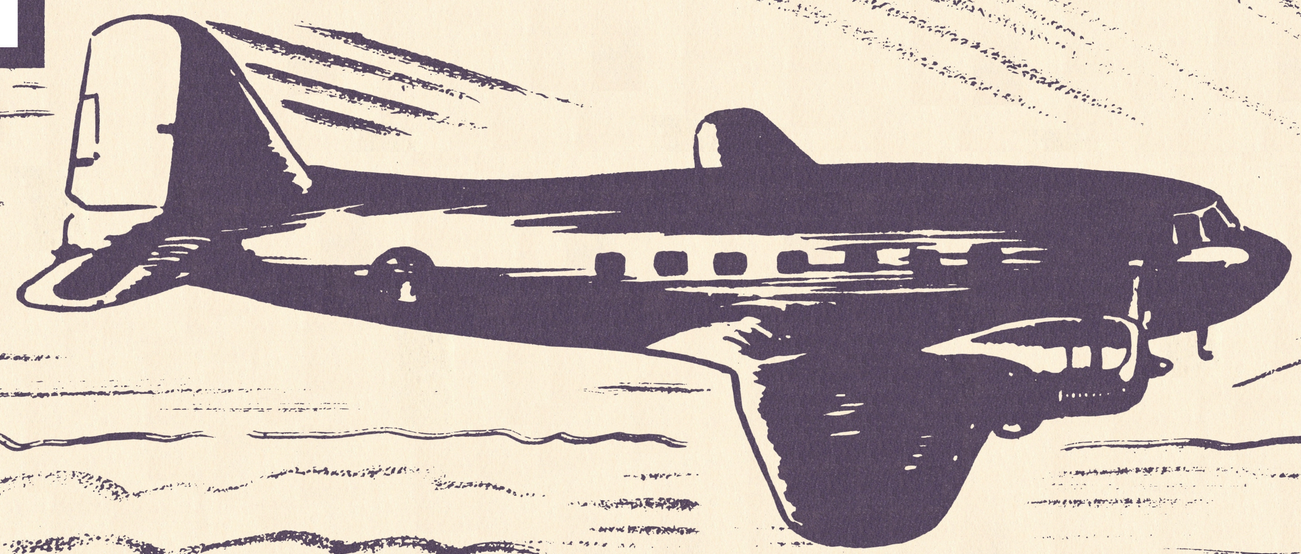
Aeronca Model LA

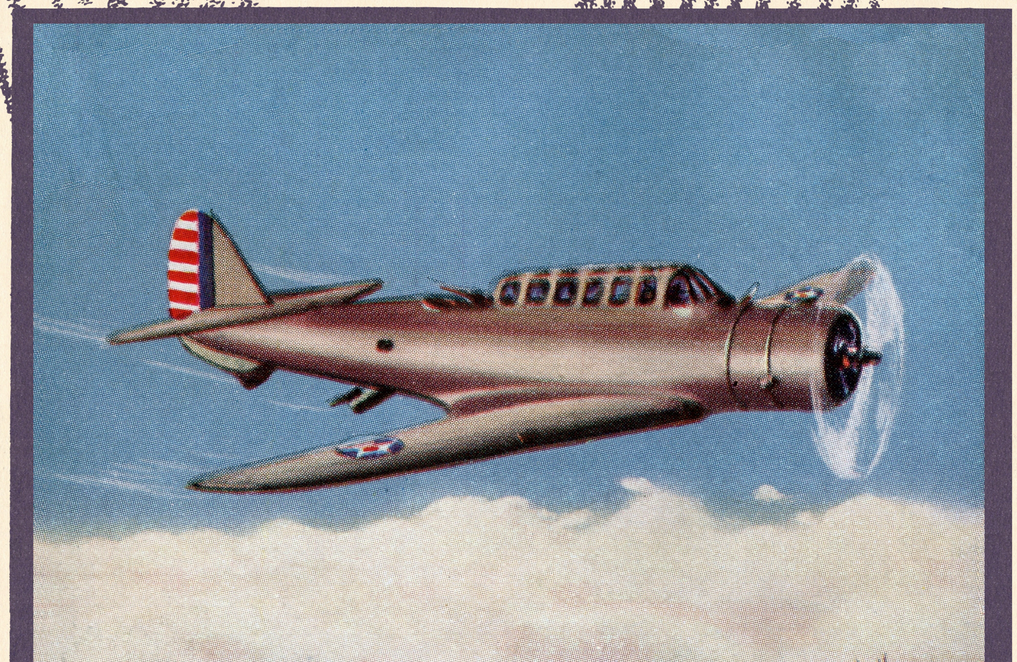
Engined with 65 h.p. Lycoming developing maximum speed of 102 m.p.h., cruising speed of 94 m.p.h. Can land at 35 m.p.h. Range 250 miles.



Boeing B-17

U. S. Army "Flying Fortress". 4 Wright Cyclone engines. Over 4,000 h.p. Top speed 268 m.p.h. cruising speed 220 m.p.h.



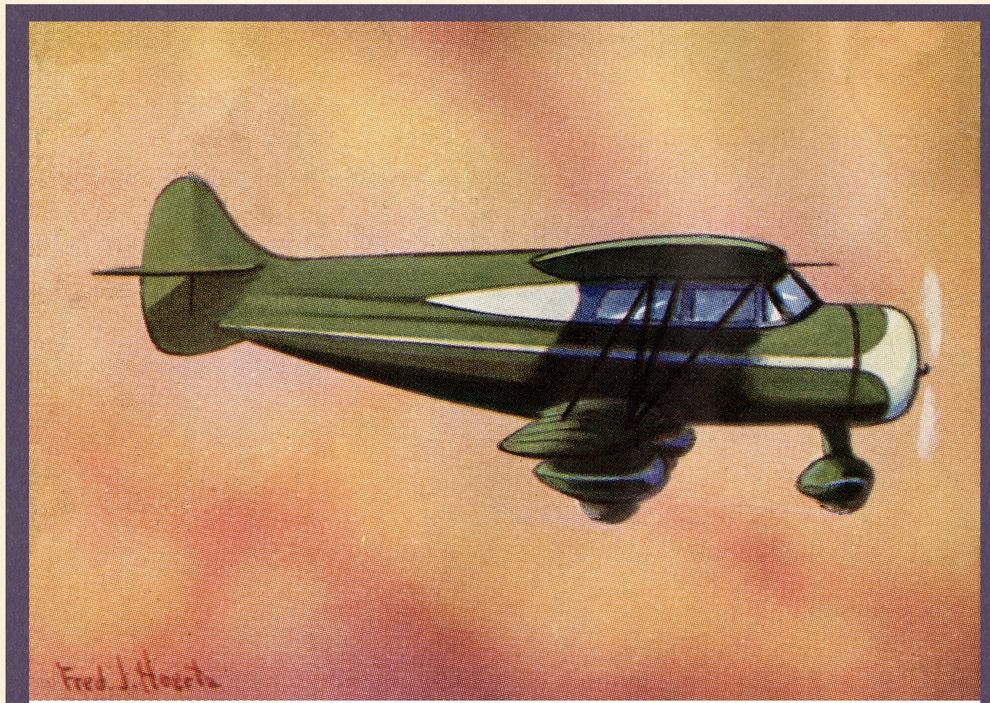


Vultee V-12-A Attack Bomber

Powered with 900 h.p. Wright "Cyclone" engine. Armament-two, thirty caliber flexible machine guns and two, fifty caliber fixed wing machine guns. Speed 287 m.p.h.

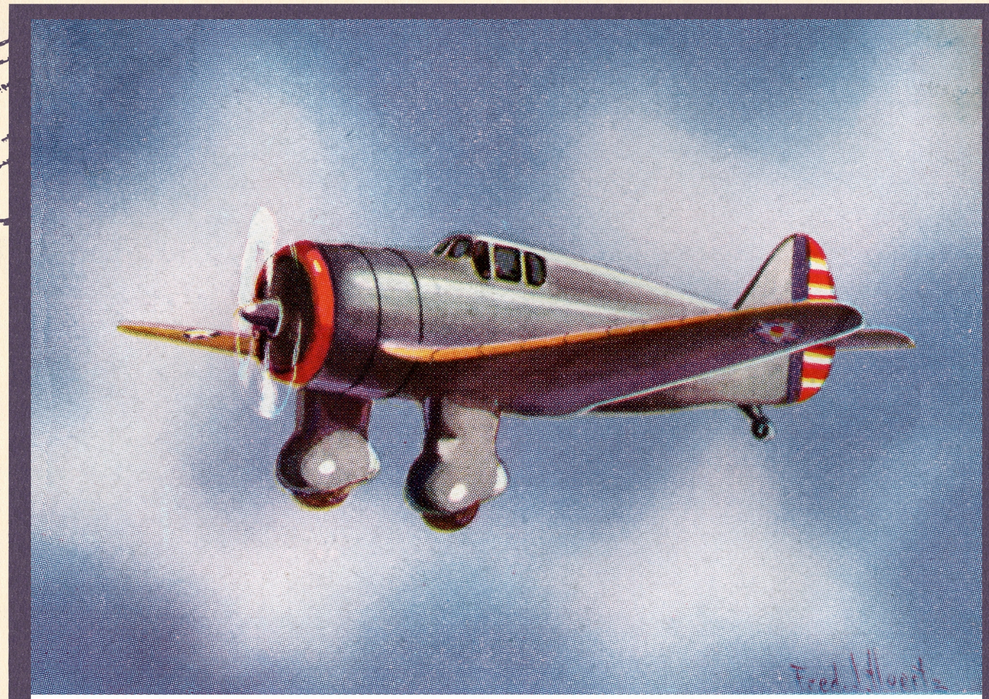
Cessna C-145

"Airmaster" powered with a 145 h.p. Warner Super-Scaral engine. Can climb 1,000 ft. per minute, maximum speed 162 m.p.h.



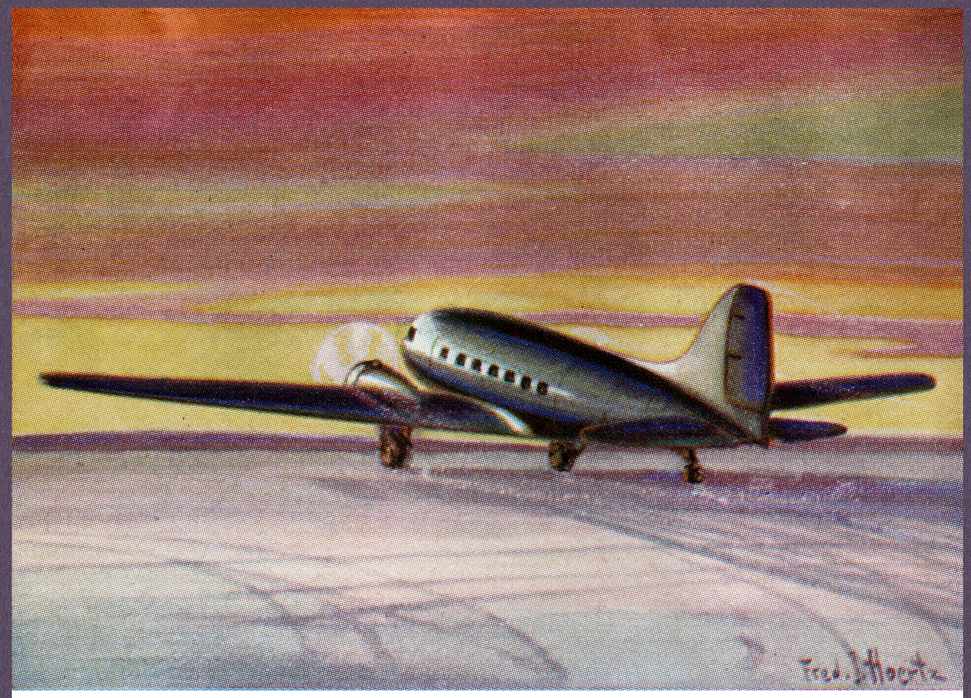
Waco N.

Five place private plane powered with Jacobs 300 h.p. engine. Has steerable front wheel of tricycle landing gear. Speed 161 m.p.h.



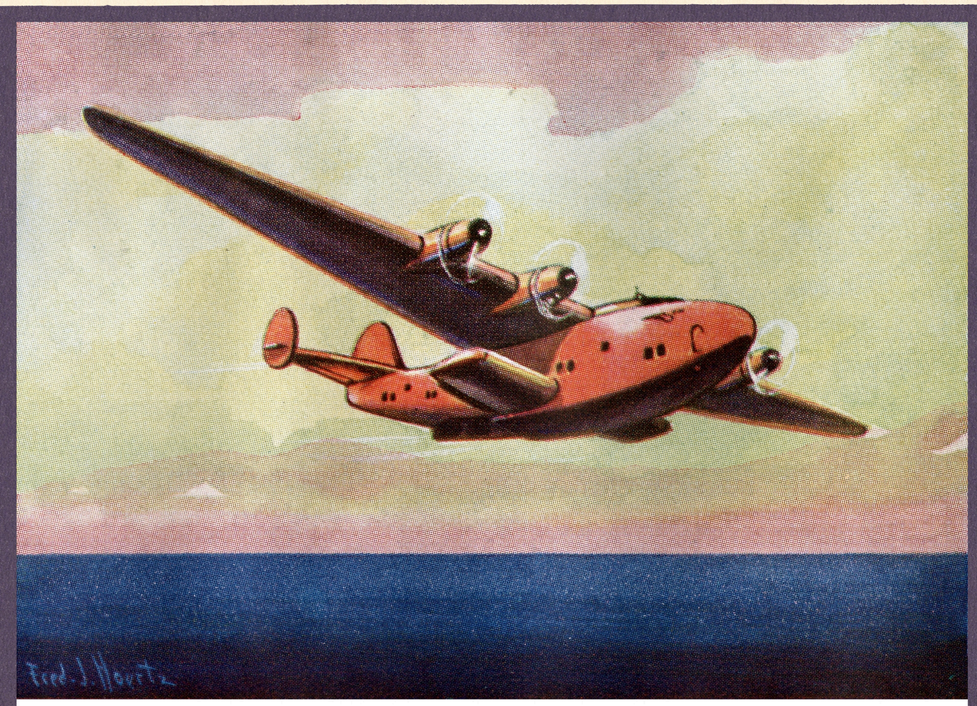
Curtiss Hawk 75

Single Seat fighter, powered with an 840 h.p. Wright Cyclone engine. Rate of climb 2,340 ft. per minute. Maximum speed of 280 m.p.h. cruising range 240 m.p.h. for 1,380 miles. Machine gun fires through the propeller.



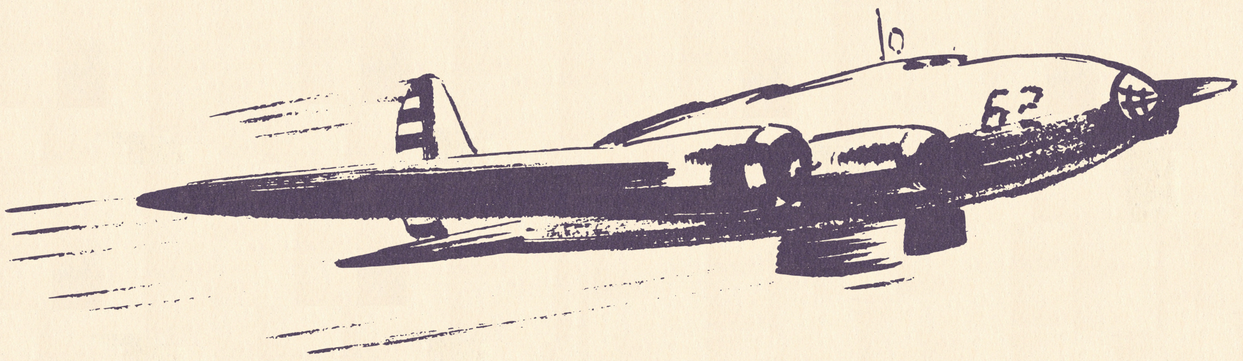
Twin Engined Air Masters

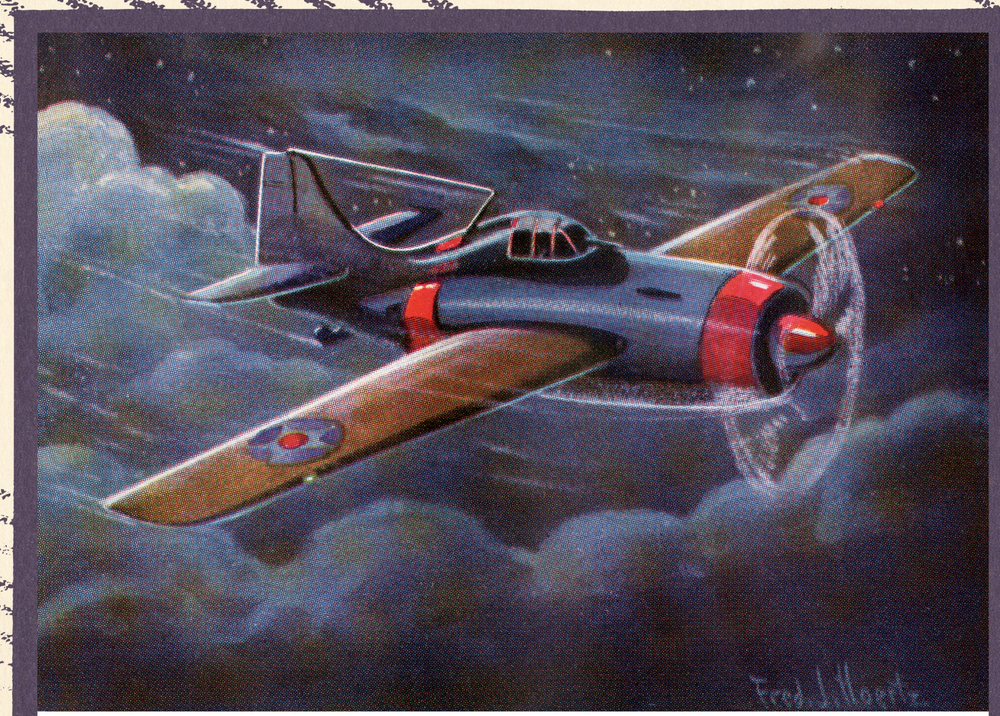
Eastern Air Lines, Inc. Twin engined Air Masters are Douglas Transports. This type of plane is used at present by most major airlines in this country and abroad.



Pan American Clipper

These Boeing-built Clippers have played a noteworthy part in the development of International air transportation—flying the Atlantic and the Pacific on regular schedules.



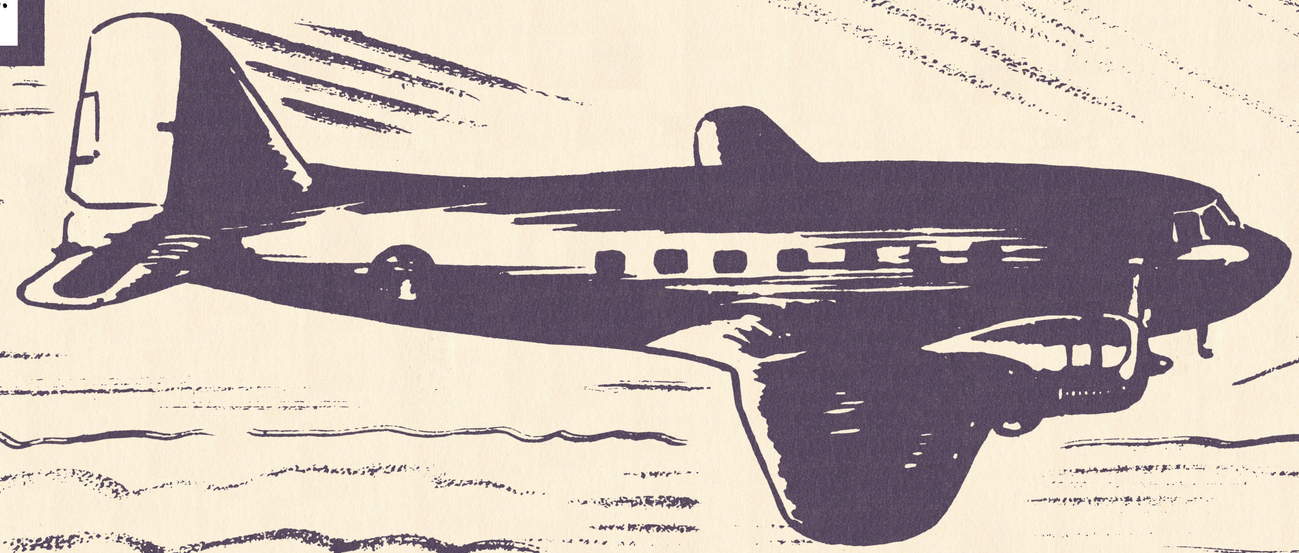


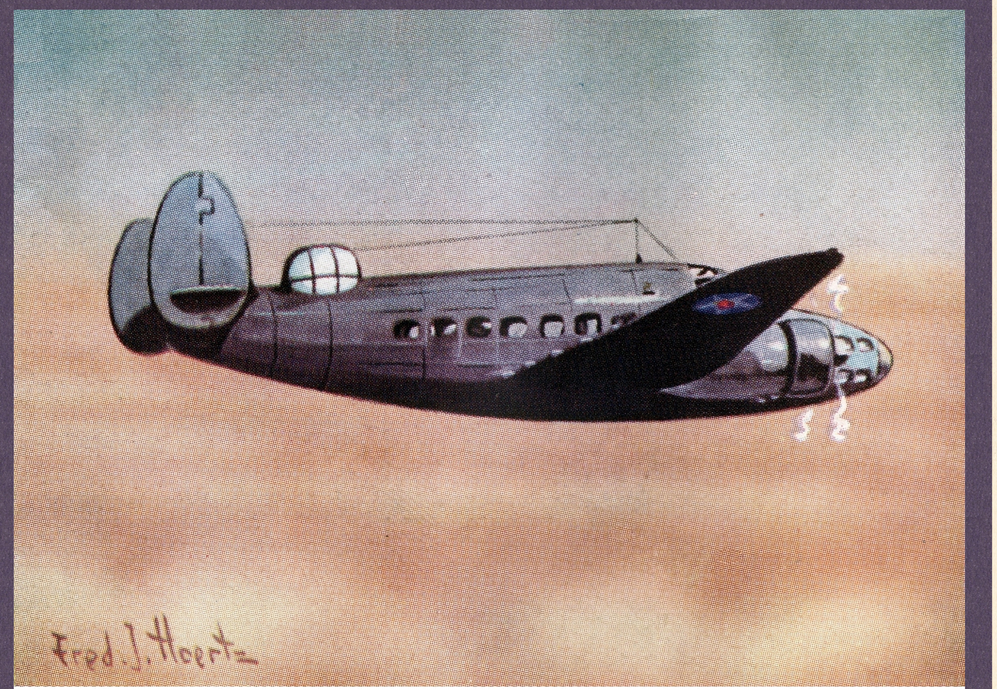
Gruman F-4-F-3

Performance details are military secrets. Unofficial speed over 350 m.p.h. Armed with two machine guns, also wing guns. Operates from land or aircraft carriers.

Kellett K D 1 B Autogiro

Due to its ability to rise and descend almost vertically this ship is useful for observation work, and it can operate without the conventional landing gear. Equipped with Jacobs 225 h.p. engine; speed 125 m.p.h.; Cruising speed 102 m.p.h.



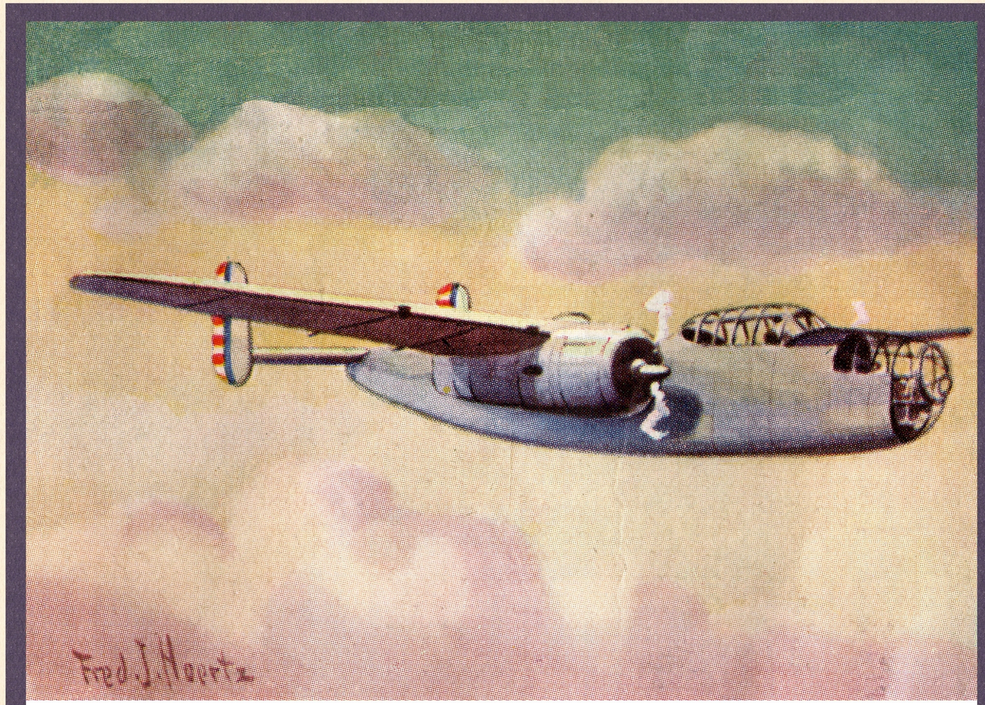


Lockheed B-14 Bomber

One of a fleet of Reconnaissance Bombers ordered by the British Air Ministry from the Lockheed Aircraft Corporation for delivery to the Royal Air Force. Powered by two Wright Cyclone Engines.

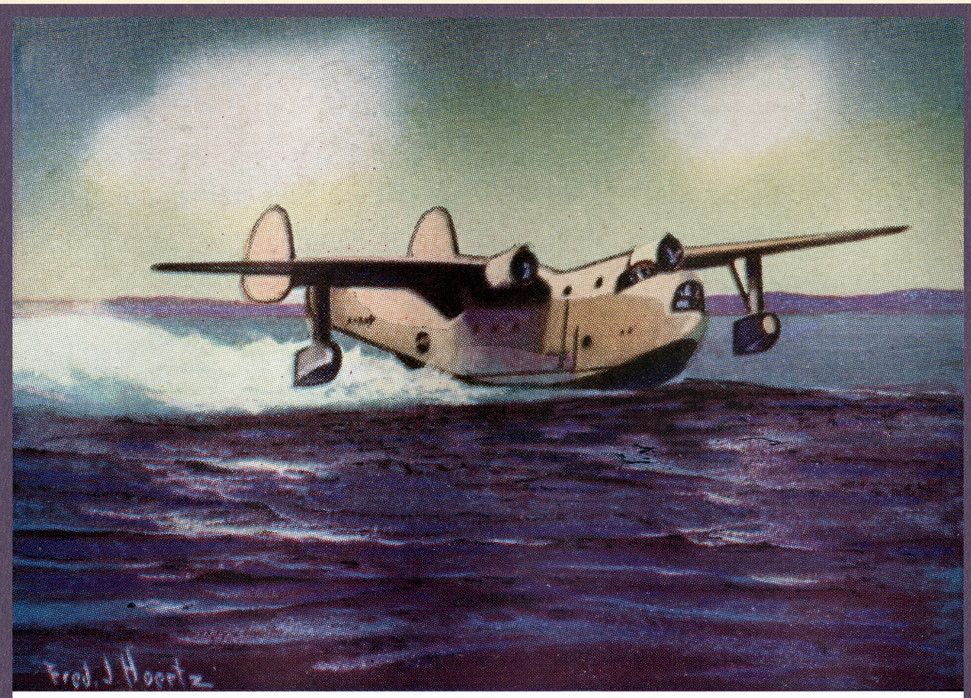
Consolidated 29

This Ocean Transport carries 62 passengers by day and 36 by night. Wing span 115 ft., length 79 ft. 3 in., weight 65,000 lbs. Powered by 4 Pratt & Whitney Wasp Engines. Maximum speed 226 m.p.h.; Range 5,200 miles.



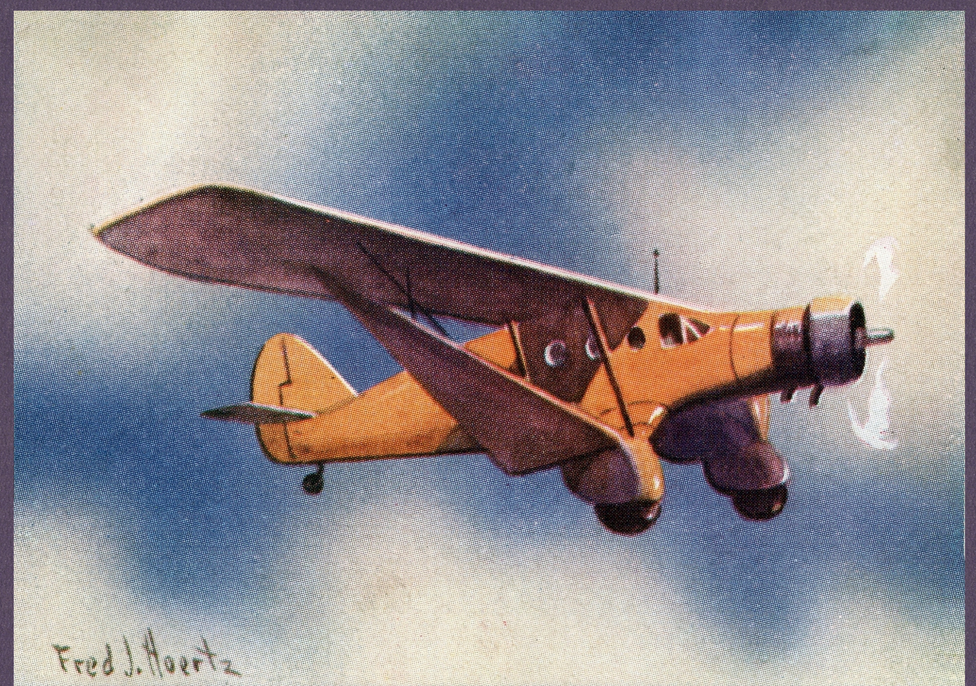
North American 40 A Bomber

Powered by two Wright Cyclone Engines with total of 2,500 h.p. Fuel capacity 916 gals.; gross weight 24,000 lbs., span 67 ft. 6 in., length 51 ft. 5 in., speed 308 m.p.h.; range 1,728 miles.



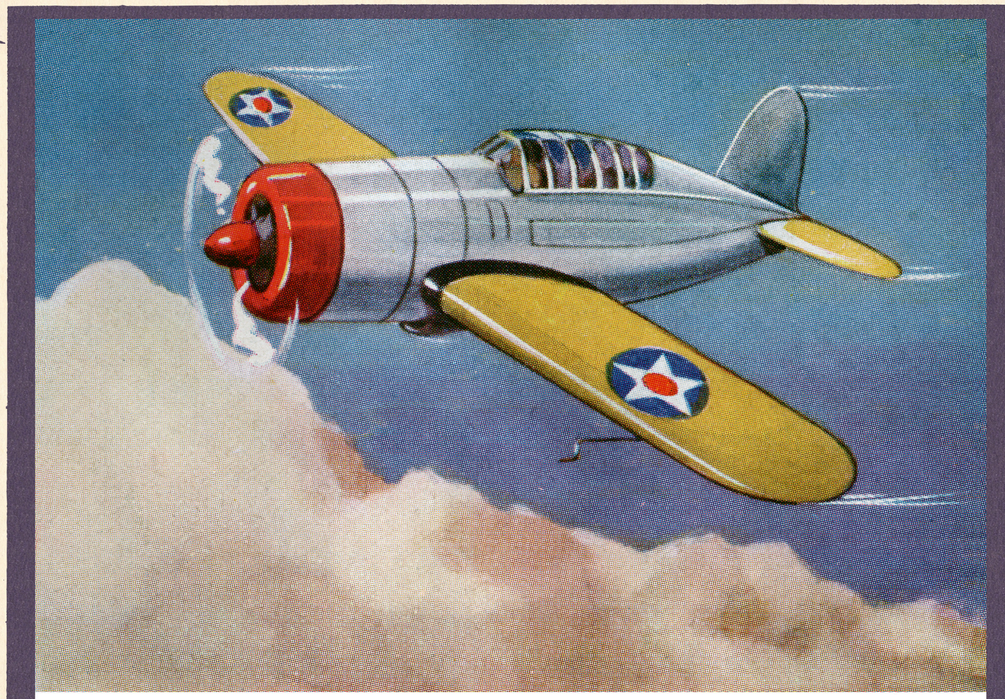
Martin P. B. M.-1 "Air Destroyer"

Performance secret. These ships carry heavier bomb loads than any Navy Plane and have a speed of over (unofficial) 250 m.p.h. One of these ships is used by the Navy's Air Scouting Chief as his flagship.



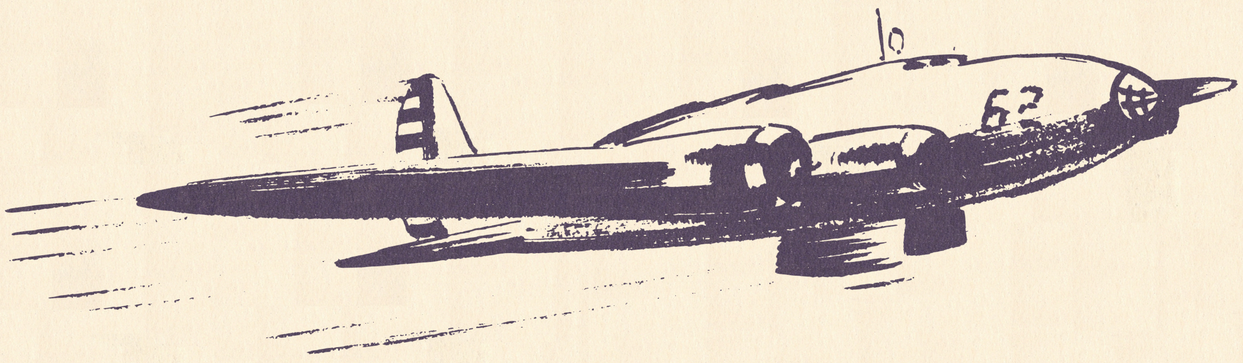
Bellanca Aircruiser

Powered by 760 h.p. Wright Cyclone or Pratt & Whitney 750 h.p. Hornet engine. Maximum speed 172 m.p.h. Cruising speed 161 m.p.h. Range 1,100 miles.



Brewster F 2 A-1

These single seat fighters built for U. S. Navy are powered by an 850 h.p. Wright "Cyclone" engine. Top speed believed to be over 300 m.p.h. Armed with two machine guns fired through propellers and two shell guns in wings.

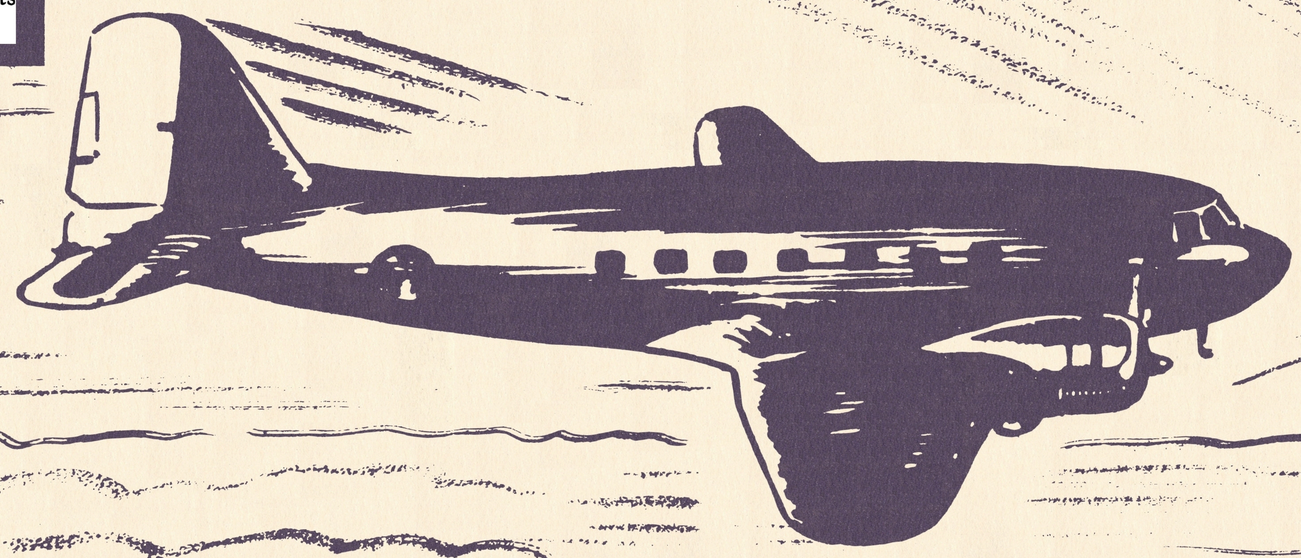


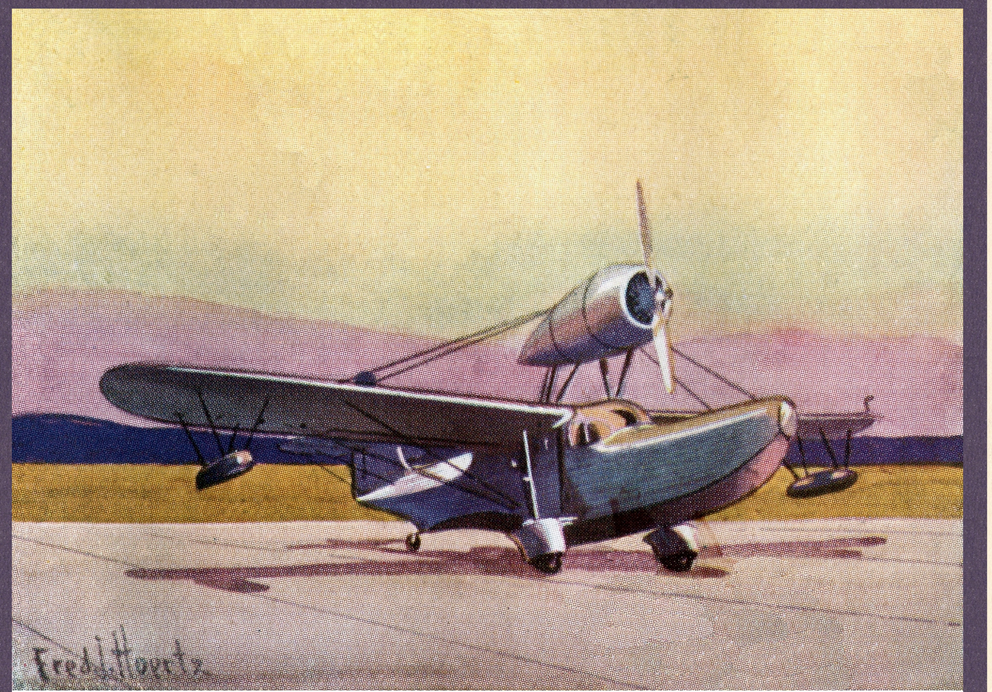
Rearwin Cloudster

Two and three place models. Ideal for training. Top speed 145 m.p.h. and cruises at 125 m.p.h. when powered with Ken-Royce engine. Various power plants are installed in this type of plane.

Fairchild M-62 Trainer

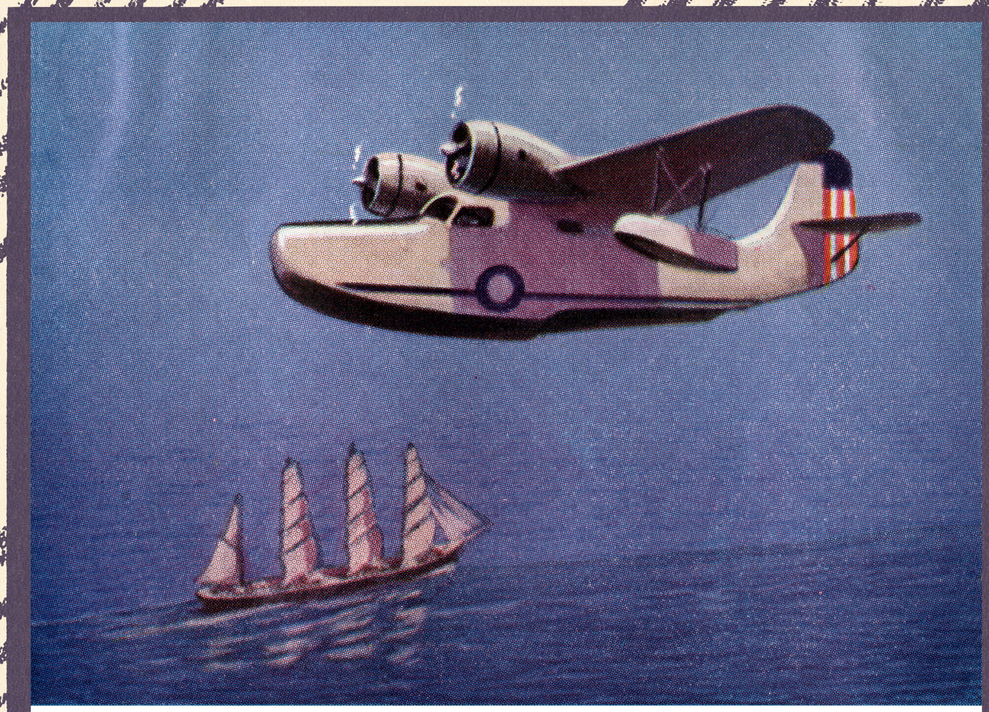
This ship is a primary, two place, low wing trainer. Powered by Ranger 175 h.p. engine. Gross weight 2,450 lbs.





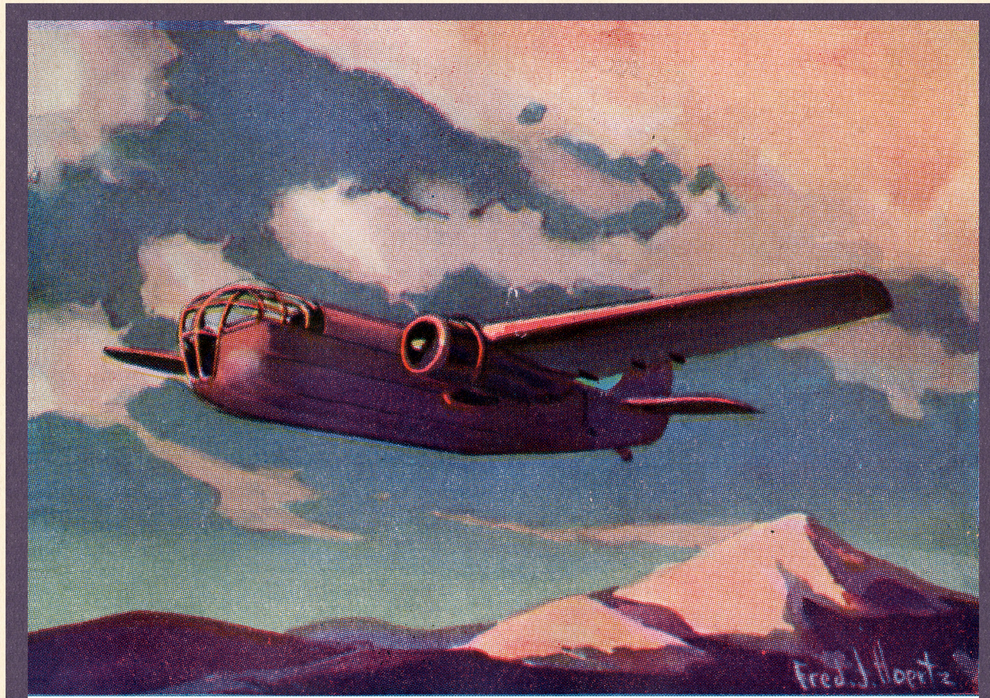
Fleetwing F-S "Seabird"

This ship, seating 4 people, has a wing span of 40 ft. 6 in., length 32 ft.; gross weight 3,750 lbs. Powered by 300 h.p. Jacobs engine; fuel capacity 70 gals.; speed 250 m.p.h.; Range 516 miles.



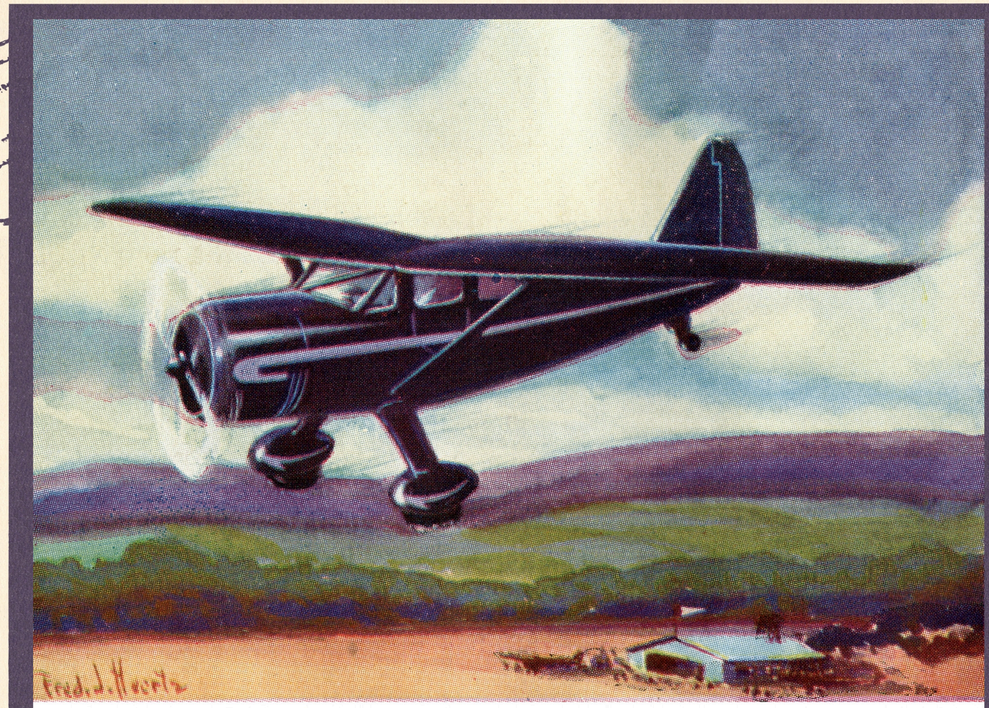
U. S. Coast Guard Patrol

These planes, powered by two motors, are capable of 100 m.p.h. in weather that would ground ordinary airplanes. Equipped with radio, telephone and direction finders. Each plane carries a pilot, co-pilot, machinist, radioman, and at times a first aid man.



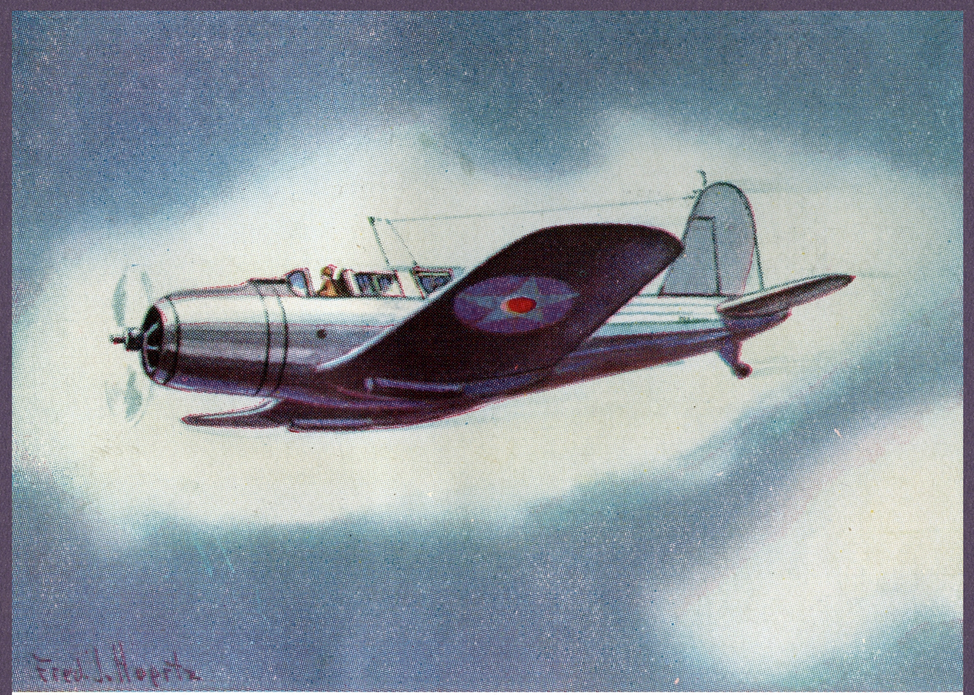
Stearman X-100 Attack Bomber

All-metal fuselage, powered by two 1,400 h.p. Pratt & Whitney Twin Wasp engines. Retractable landing gear. Rate of climb 3,178 ft. per minute. Maximum speed 250 m.p.h. Cruising range over 1,200 miles.



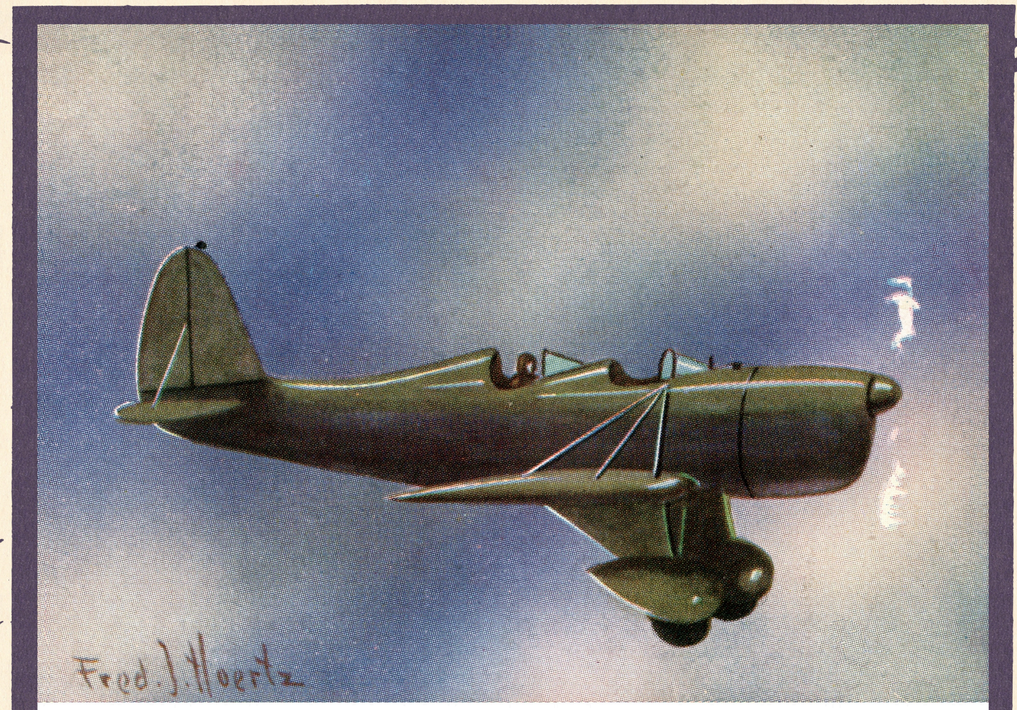
Stinson Reliant—S. R.-10

Powered with Lycoming, and Pratt & Whitney Wasp Jr. engines, ranging from 245 to 450 h.p. with cruising speed from 152 to 177 m.p.h. Climb from 870 to 1,330 ft. per minute.



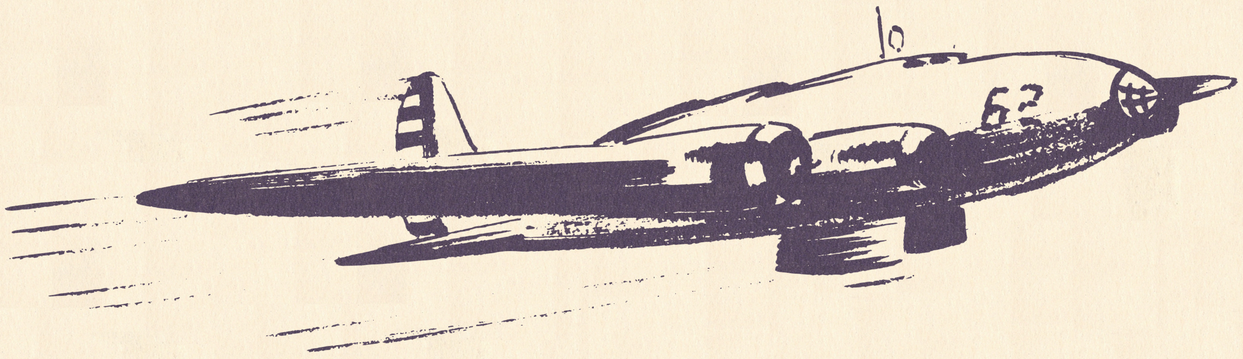
Vought-Sikorsky S. B. 2U-1

Standard U. S. Navy Scout Bomber powered with Pratt & Whitney Wasp engines. Performance secret. Retractable landing gear. Full complement of armament. Operates from aircraft carriers.



Ryan S. T.

A very popular sport and stunt plane.—Also used as a military and flying school trainer. Powered by a 125 h.p. Menasco inverted engine. Maximum speed 150 m.p.h.; cruises at 127 m.p.h.; climbs 1,200 feet per minute.

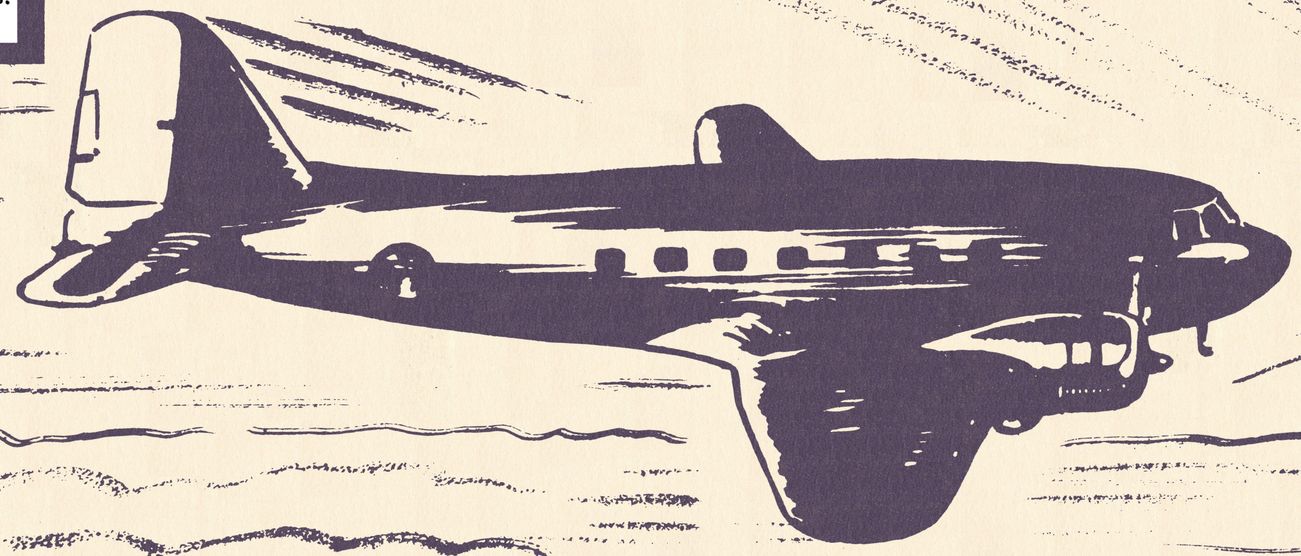


Braniff Airways Super B Liner

One of a large fleet of Douglas 21-passenger DC-3-Super B Liners operated in regular scheduled service from the Great Lakes to the Gulf by Braniff Airways.

Curtiss Scout Bomber U. S. Navy S B C 4

Designed to operate off Aircraft Carriers, and to serve as scout for fleet and to provide maximum striking power with its swift dive-bombing attacks. This plane is powered by a Wright Cyclone engine and carries considerable armament.

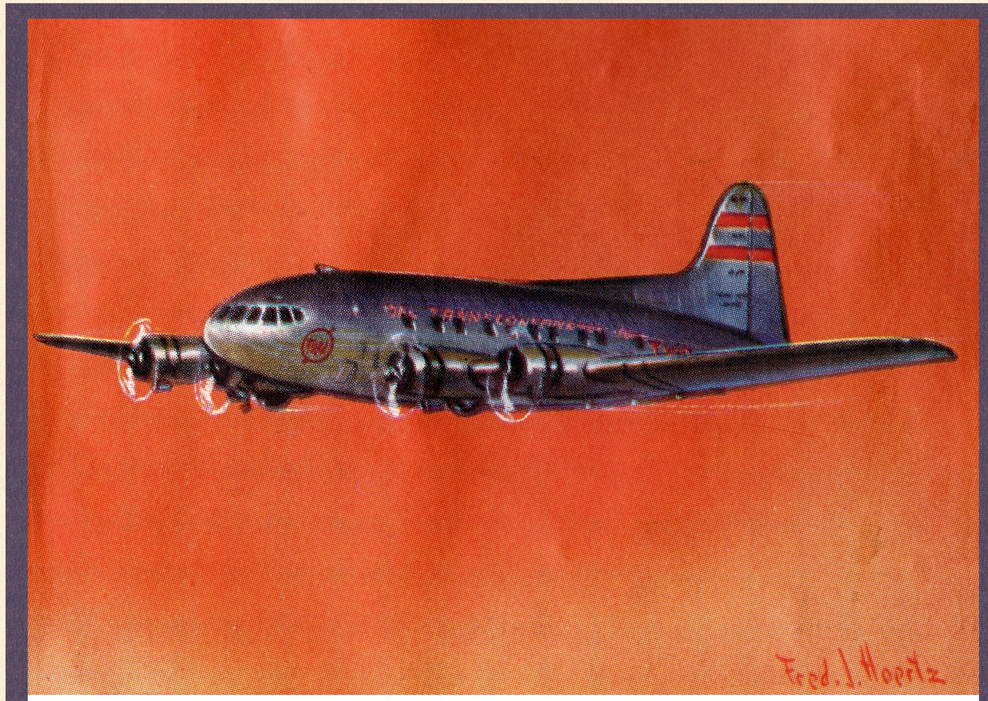


Republic E-P 1

The single seat fighter plane of the U. S. Army is powered by one Pratt & Whitney Twin Wasp engine. Details of performance not available.

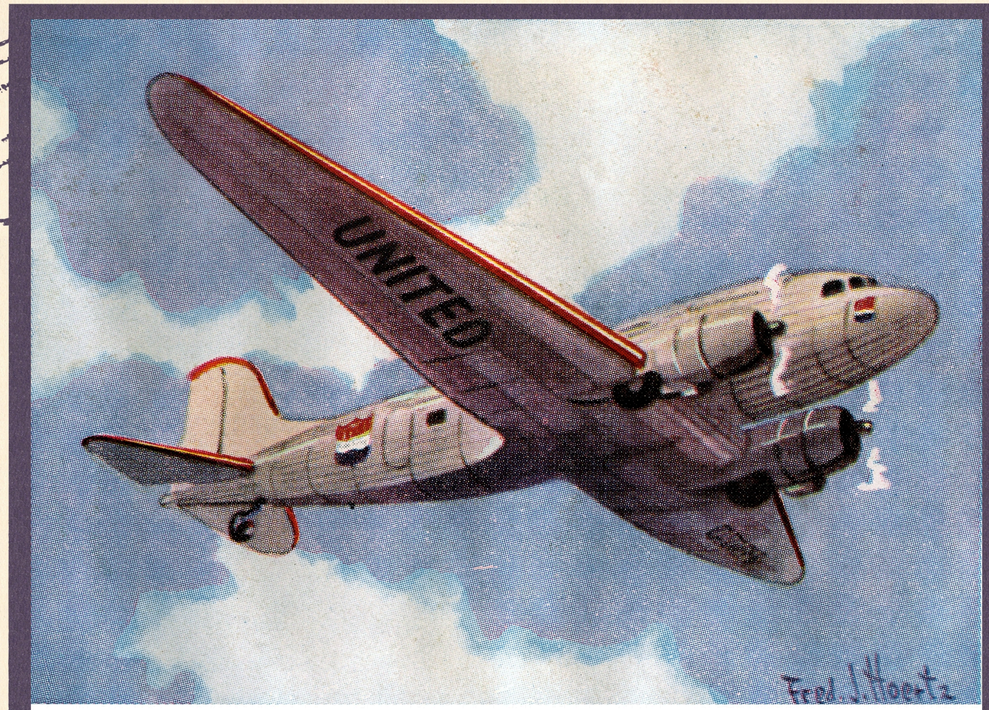
Spartan Executive

Five place, all metal, low winged, single motored plane used for private flying. Equipped with large comfortable seats and has unusually good visibility. Powered by 400 h.p. Pratt & Whitney Wasp Jr. engine.



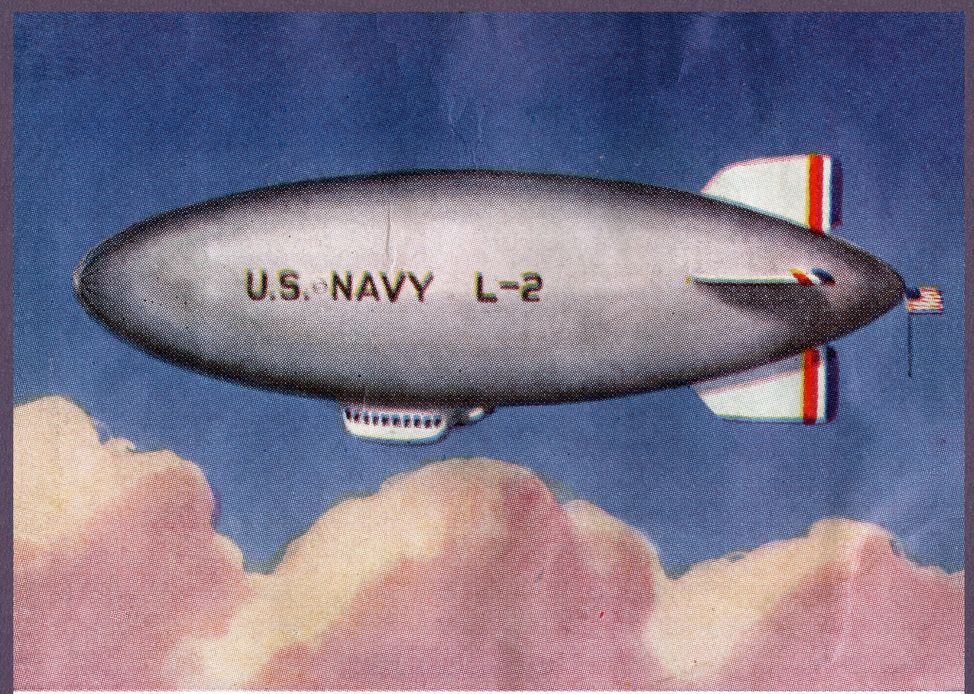
Boeing

These larger and more luxurious T.W.A. ships are now spanning the nation, setting new air travel standards. Equipped with pressure cabins for sub-stratosphere operation. Accommodations for 33 passengers by day and 25 by night.



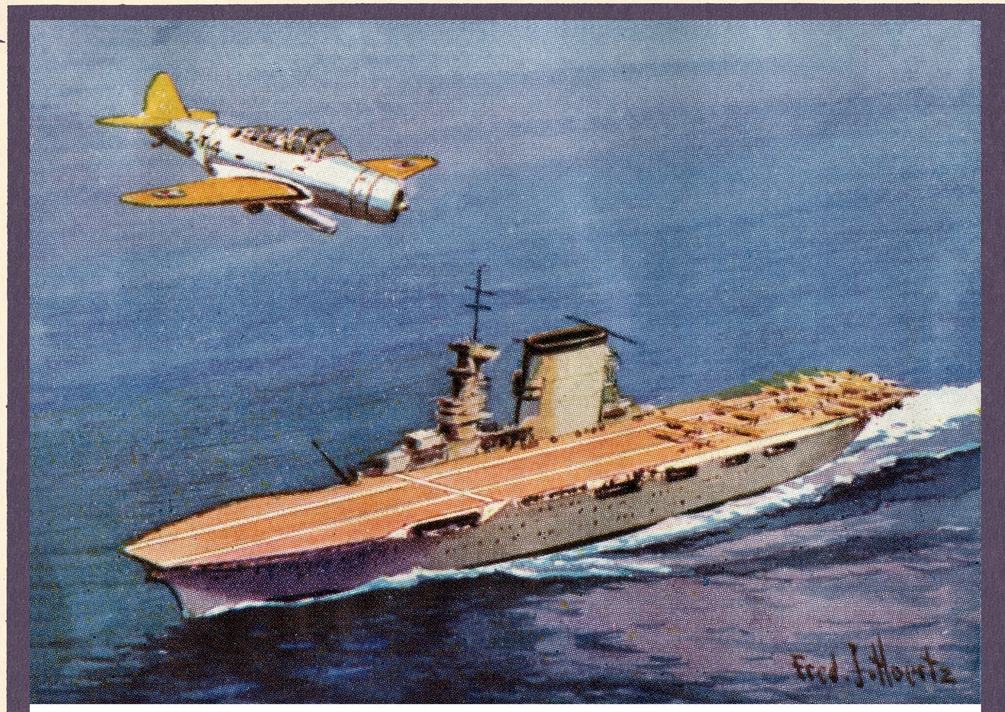
United Air Lines

Oldest air transport route in the United States operating air mail contract No. 1. These Douglas Ships are powered with two 1,050 h.p. Pratt & Whitney Twin Wasp engines. Top speed 206 m.p.h.



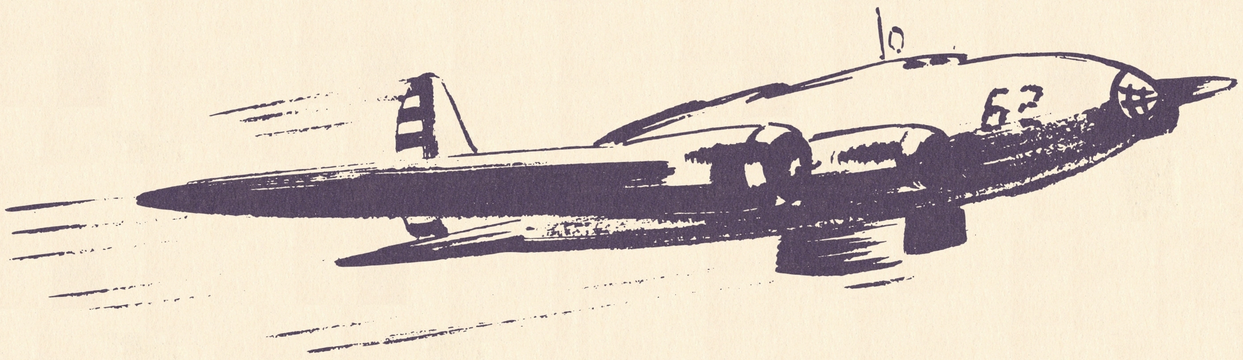
U. S. Navy Blimp L-2

The new U. S. Navy Blimp is the smallest and fastest of its kind. One of six now under construction at Akron, Ohio, used for training at Lakehurst, New Jersey. Speed about 75 m.p.h. Navy is expected to order 20 more.



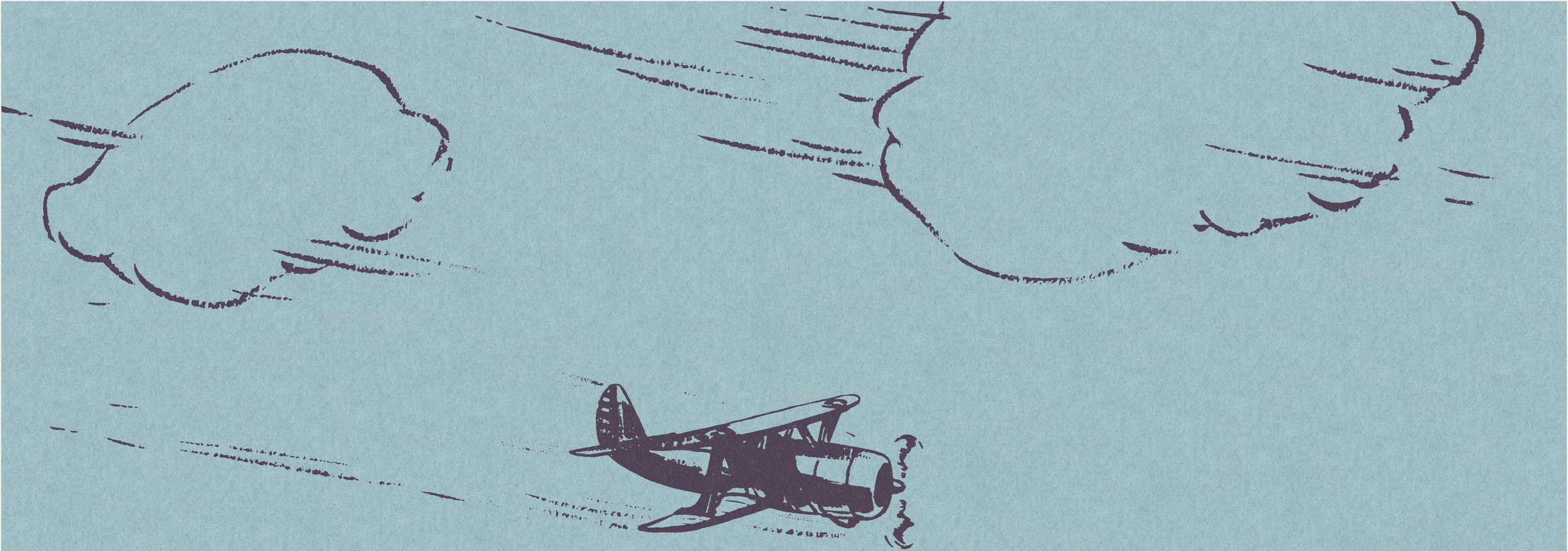
Airplane Carrier

These ships are the homes of most of the Fleet's aircraft. The ships are 888 ft. long and can be called floating flying fields. Each carrier has four or five squadrons of 18 planes; Fighters, Scouts, Torpedo planes and Bombers.



Printed in the U. S. A., especially for

KRUG'S

BROOKLYN • LONG ISLAND • WESTCHESTER • NEW YORK

FINE BAKERY PRODUCTS