*A Guide to*

# AIRPLANES OF THE U. S. A.

By JOHN B. WALKER

*With Blueprints and 60 Illustrations in Color*



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# What This Book Contains

In this book you will find pictures, blueprints and descriptions of the outstanding American airplanes—commercial, military and private. In addition, the progress of flight, from the Wright Brothers' first airplane to the giant airliners of today, is briefly described and pictured. Condensed, accurate specifications are included for each airplane, with the exception of a few late military models on which neither the government nor the manufacturers will release performance data. There are also charts indicating in chronological order all official speed and distance records.

An American invention, the airplane has largely been brought to its present state of amazing perfection by American ingenuity, courage and persistence. Such glowing names as Wilbur and Orville Wright, Glenn Curtiss, Commander Read, Lindbergh, Byrd, Chamberlain, Maitland, Acosta, Balchen, Goebel, Earhart, Doolittle, Hawks, Williams, Knight, Post, Thaden, Cochrane, Turner, Hughes and a hundred others are indelibly engraved in the records of aviation's progress. Their epic flights and daring deeds advanced our knowledge of airplane design, construction and navigation—made possible the safe, easy-to-fly sport planes of today, the high-speed pursuits and bombers, the giant luxurious passenger transports that span the continent and link America with Europe, Asia and all the world.

To these pioneers who have contributed so much to the progress of aviation. this book is gratefully and respectfully dedicated.

JOHN B. WALKER

# Highlights of Aviation History

**1500** J. B. Dante made flights with a glider in Perugia, Italy.

**1783** The Montgolfier brothers, at Annonay, France, successfully flew hot air balloon. It rose to height of 6,000 ft. and traveled 1½ miles.

**1852** Giffard made a flight in an elongated balloon steered by a rudder and propelled by a steam engine driving a screw. It was the first successful dirigible, or steerable balloon.

**1896** Octave Chanute, America, made successful glider flights.

**1903** Dec. 17. The first flight in a heavier - than - air, motor - driven plane, was made by Orville and Wilbur Wright, Americans, at Kitty Hawk, N. C.

**1908** July 4. Glenn H. Curtiss won the Scientific American Trophy, flying at a speed of 39 miles per hour.

**1909** Louis Bleriot, France, flew the English Channel from Baraques to Dover, 32 miles.

July 30. The Wright airplane successfully completed the U. S. Government test, and was accepted by the War Department.

**1911** Sept. 17. C. P. Rodgers started from New York on the first flight across the United States, landing at Pasadena on November 5, after numerous forced landings.

**1914** The World War caused airplanes to be used for the first time on a large scale. Capt. E. V. Rickenbacker emerged as America's leading "ace" by 1918.

**1918** The first regular and permanent airmail service in the world was established between New York and Washington, D. C.

**1919** May 16 to 31. Lt. Commander A. C. Read, U. S. Navy, and crew, in the flying boat NC-4, made the first transatlantic flight from Newfoundland to Portugal by way of the Azores. They arrived in Plymouth, England, on the 31st.

June 14. John Alcock and A. W. Brown, England, made the first non-stop flight across the Atlantic Ocean from St. Johns, Newfoundland, to Clifton, Ireland, in about 16 hours.

**1923** May 2-3. Lieutenants Kelly and Macready made a non-stop flight from New York to San Diego, 2,516 miles, in 26 hours, 50 minutes.

**1924** April 6 to Sept. 28. United States Army aviators, in four Douglas planes, left Seattle on round-the-world flight. Actual flying time 371 hours, 11 minutes, over a period of 175 days.

(*Continued on next page*)

## HIGHLIGHTS OF AVIATION HISTORY—Continued

July 1. The U. S. Post Office Department opened regular through day and night airmail service between New York and San Francisco over the route now flown by United Air Lines.

**1926** May 9. Commander R. E. Byrd and Floyd Bennett flew from Kings Bay to the North Pole and return.

June 30 to Oct. 1. A. Cobham, England, flew from London to Australia and back, 28,000 miles.

**1927** May 20-21. Col. Charles A. Lindbergh, United States, made the first non-stop flight from the United States to Europe by flying from New York to Paris, a distance of 3,610 miles in 33½ hours.

Aug. 16-17. Art Goebel flew from Oakland, California, to Honolulu, Hawaii; won the Dole Prize Race.

**1928** June 17-18. Amelia Earhart was the first woman to fly across the Atlantic.

**1929** The Graf Zeppelin made a world flight. Stops were made at Friedrichshafen, Tokyo and Los Angeles. The complete flight took 21 days, 7 hours, 34 minutes, a new record for round-the-world travel by any method.

Nov. 28-29. Comdr. R. E. Byrd and Bernt Balchen flew over the South Pole.

**1931** June 23 to July 1. Wiley Post and Harold Gatty circled the globe in 8 days, 15 hours, 51 minutes, a record-breaking 15,474-mile flight.

**1932** May 20-21. Amelia Earhart flew from Harbor Grace, N. F., to Londonderry, Ireland, in 15 hrs., 18 min.

**1933** July 15 to 22. Wiley Post circled the globe alone in 7 days, 18 hours, 49½ min., covering 15,596 miles.

**1935** Jan. 11-12. Amelia Earhart flew alone from Hawaii to California in 18 hours and 16 minutes. She was the first woman to make the flight.

Nov. 22. The Pan-American Airways inaugurated the first scheduled transpacific airmail service from San Francisco, Calif., to Manila, P. I.

**1937** Jan. 19. Howard Hughes set a new transcontinental speed record, Burbank, Calif. to Newark, N. J., in 7 hours, 28 minutes.

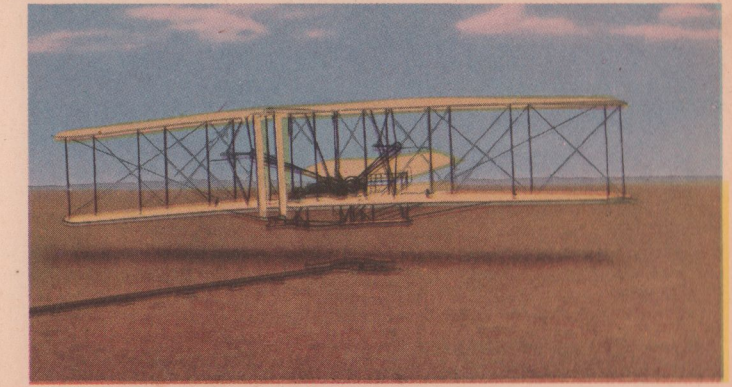
July 12-14. Two Soviet airmen flew from Moscow, Soviet Union, over the North Pole to San Jacinto, Calif., for a non-stop record of 6,296 miles.

**1938** July 10 to 14. Howard Hughes with four companions flew around the world in 3 days, 19 hours, and 8 minutes.

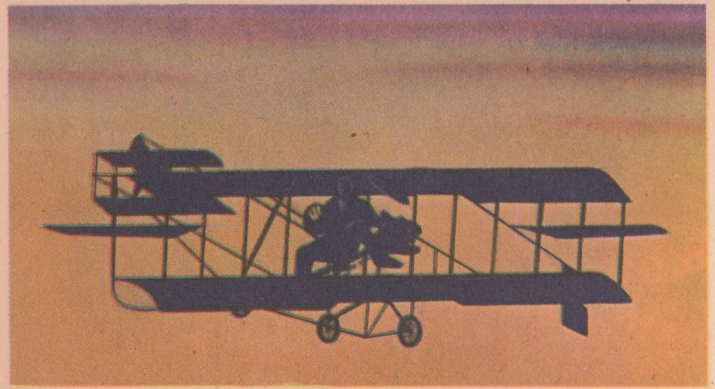
**1939** Pan-American Airways inaugurated transatlantic service between the United States, Marseilles, France, and Southampton, England.



**MAN TAKES WING** • "You might as well try to fly!" At the turn of the century this expression was widely used to indicate utter impossibility. Yet, on December 17, 1903, at Kitty Hawk, N. C. a heavier-than-air machine rose from the ground under its own power, traveled through the air in man-controlled horizontal flight and returned safely to earth. This, the original airplane, was conceived, designed and built—including the engine—by Wilbur and Orville Wright of Dayton, Ohio. Orville was first to fly; then Wilbur. Before the day was over, four flights were made—the longest a flight of 59 seconds, during which the airplane traveled 852 feet. Telegrams describing this history-making event were dispatched to Dayton and New York newspapers. The Dayton paper didn't believe it, and wouldn't print it. The New York paper fired its reporter for wasting money to send in such a "fairy tale." But next day photographic evidence confirmed the story and newspapers throughout the world heralded the accomplishment of the Wright Brothers. Man had conquered a new element—the air. The years of experiment and toil—of heartbreaking setbacks and ridicule which the Wright Brothers suffered—ended in a blaze



*Wright Brothers' First Flight*



*An Early Glenn Curtiss Plane*

of world acclaim.

Flimsy as it was, the Wright Brothers' first plane embodied all the fundamentals of today's giant airliners. Radical improvements have been made but the basic principles remain identical.

This very first airplane was powered with a four-cylinder water-cooled gasoline engine weighing 179 pounds and developing 40 horsepower. The two crude wooden propellers were chain-driven. Sled skids were used instead of wheels and the plane was launched from a greased wooden track. During 1904, 105 demonstration flights were made, and the Wrights offered to sell their invention to the United States Government for $100,000. The Government could see no practical military or commercial use for the airplane and turned down the offer. Four years were to pass before the first U. S. military plane was ordered.

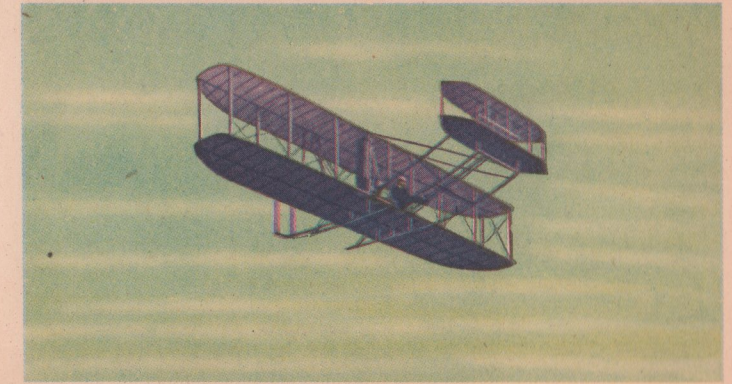
Meanwhile another great name in aviation was beginning to make newspaper headlines—that of Glenn H. Curtiss. By 1907 Curtiss had become a figure in aviation and built the famous "White Wing" and "June Bug" airplanes, the latter winning the Scientific American Trophy in 1908. In 1909 Curtiss was selected to represent America in the first Gordon Bennet Race in France. Curtiss won. In 1910 he



flew from Albany to New York, setting a non-stop record of 135 miles in two hours, 32 minutes. On June 1 he made the first successful seaplane flight at Hammondsport, N. Y. In 1914 Curtiss designed and built the airplane "America," the first multi-engine flying boat. Co-operating with the U. S. Navy, he developed the NC-4 which made the first transatlantic flight. Curtiss held license number 1 in the Aero Club of America and number 2 in the Aero Club of France.

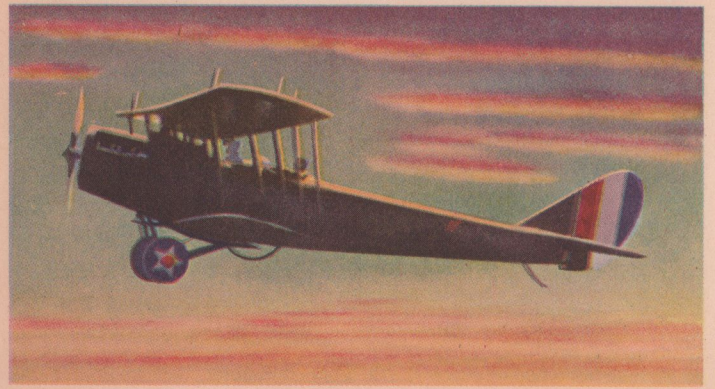
**THE ARMY TAKES TO THE AIR** • After refusing the Wright Brothers' offer to sell their invention for $100,000, the Government waited four years while foreign nations took command of aviation development. Hence the foreign terminology used today—fuselage, aileron, etc. As late as 1911, a list of certified pilots showed the United States with but 26 while France had 353, England 57, Germany 46 and Italy 32.

Finally, in February, 1908, nearly five years after the Wrights had demonstrated the practicability of flight, the U. S. Signal Corps asked for bids on an airplane. The specifications—amusing today, but considered impossible at that time—were as follows: A speed of 40 m.p.h. 100% of the time



*The Army's First Plane (1909)*

when in level flight, with a bonus of 10% of the price for each mile over 40. The airplane to be steerable in all directions, under perfect control and equilibrium, and to be provided with some device to permit safe landing in case of accident to the propelling machinery. Must carry at least two persons and sustain a load including the two persons of 350 pounds. Must fly for at least one hour, and carry sufficient fuel for 125 miles. Must be capable of being disassembled and transported in Army wagons, and permit of re-assembly in one hour. The American Magazine of Aeronautics, in commenting on the Government specifications said, "The demands are of such nature that the likelihood of the absence of practical bidders is great." Bids ranged from $500 to $10,000,000. The Wrights secured the contract with a bid of $25,000.



*JN-4—The Famous Old "Jenny"*

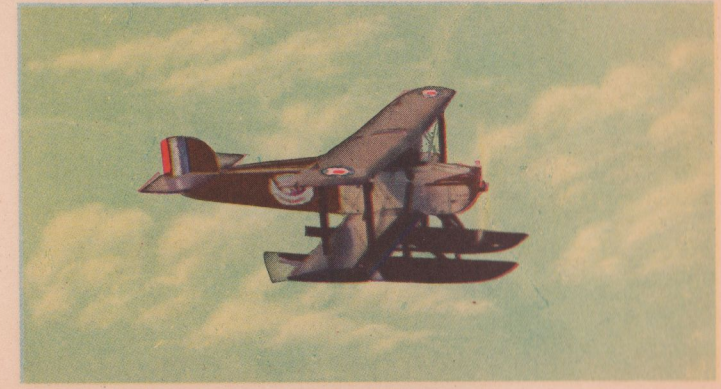
In 1912 the airplane had its first test in actual warfare during the Balkan Wars. With the advent of the World War in 1914 airplanes were first used for reconnaissance and observation. Later, armed with machine guns, they were used for strafing troops behind the lines and in the trenches. The bomber came into being but had not reached a very high stage of development by the time



of the Armistice. Few U. S. planes saw actual service during the World War. Production of planes and engines was just beginning on a mass scale when the war ended.

With demobilization, scores of pilots returned to civil life and, finding it tame indeed after aerial warfare, purchased discarded army planes and "barnstormed" the country, making exhibition flights and "hopping" passengers at country fairs. Mainly they flew JN-4's, the famous "Jennies" of 1919-25. These were powered with OX-5 8-cylinder 90 h.p. water-cooled engines, or with Hispano-Suiza "Hisso" engines of 125 h.p. These men kept alive the spirit of aviation and were the pioneering forerunners of our present splendid airline systems.

**FIRST AROUND THE WORLD** • Starting from Seattle, Wash., at 8:47 a.m., April 6, 1924, the Army Air Service Round-the-World-Flight expedition returned at 1:30 p.m., September 28, having circumnavigated the globe, covering 27,553 miles in 371 hours, 11 minutes, actual flying time. The elapsed time was 175 days. Four planes started. Three returned. The flight was undertaken to determine the feasibility of establishing a round-the-world airway, and to win for the United States the honor

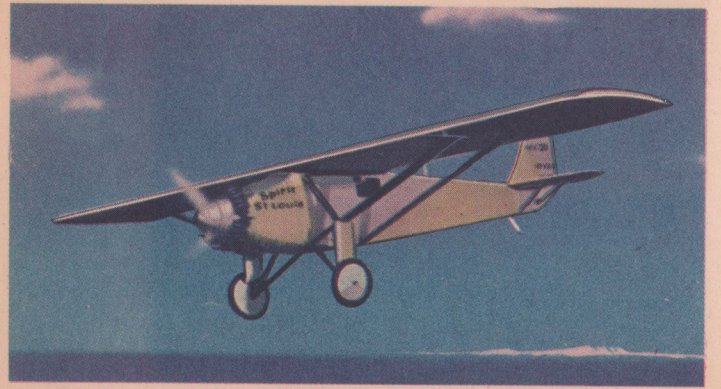


*Around-the-World Douglas (1924)*

of being first to circumnavigate the globe by air. In engineering, navigation and operation of the planes this World Flight crystallized, in one brilliant success, all of the extravagant promises that aviation held out in the way of conquering time and space.

The planes, built by Donald Douglas, were designed for use either as land or seaplanes, and were powered with 400 h.p. Liberty engines. Their top speed was 103 m.p.h. The average daily mileage of the flight was 156 miles; average speed 70 m.p.h. The longest single hop was 820 miles.

Scattered along the route in advance the army had cached 91,800 gallons of gasoline, 11,650 gallons of oil, spare engines, propellers, wheels, floats. The expedition cost $177,481.35. By special Act of Congress, Distinguished Service Medals were conferred on the eight members of the original crew.



*Lindbergh's Famous "WE"*

**WITH A SINGLE BEAT OF HIS WINGS** • Away back in 1919 a wealthy Frenchman named Raymond Orteig living in New York offered a prize of $25,000 for a non-stop New York to Paris flight. The idea was considered fantastic. Years went by and no one attempted the flight. The prize offer was forgotten by almost everyone.

But one young man, flying the air mail between St. Louis and Chicago, remembered, and dreamed bold dreams of winning it. He told his dreams to a group of St. Louis business men and aviation enthusiasts. They agreed to underwrite the purchase of a plane designed to make the flight.


*Wiley Post's "Winnie Mae"*

And so, one bright May morning, out of the West, unknown, unheralded, a young man in a silver Ryan monoplane arrived in New York and announced his intention of flying the Atlantic and winning the Orteig prize. Few knew his name, fewer took him seriously. But on May 20, 1927, the whole world knew his name, acclaimed him—for Charles A. Lindbergh had flown non-stop from New York to Paris—3610 miles in 33½ hours. His feat was heralded throughout the world. More than any single event since the invention of the airplane it made the world "air-conscious."

Lindbergh received the U. S. Congressional Medal, the French Legion of Honor, British Air Force

*Howard Hughes' Round-the-World Ship*

Cross, Belgian Cross of the Order of St. Leopold, Spanish Ne Plus Ultra Medal and a host of other honors. His name is inscribed among the immortals of aviation.

## AROUND THE WORLD ALONE •

An eye for an airplane was the beginning of one of aviation's most brilliant careers. A youngster by the name of Wiley Post, working as a driller in the Oklahoma oil fields, lost an eye in an accident, got $2,000 in settlement, bought a second-hand airplane and after 1 hour and 40 minutes instruction considered himself a full-fledged pilot. He first began to make aviation history when, in 1930, he won the Chicago-Los Angeles Air Derby in 9 hours, 9 minutes.

In 1931 his name blazed from headlines when he and Harold Gatty in the "Winnie Mae," a single-engine, Wasp-powered Lockheed Vega, flew around the world in 8 days, 15 hours and 51 minutes.

The next year Post electrified the world by circling the globe *alone*, in the same plane, in the then amazing time of 7 days, 18 hours and 49 minutes! This feat, unequaled before or since, is all the more remarkable when we consider that Post did *all* the flying, all the navigation, with practically no sleep or rest, for a distance of 15,596 miles.

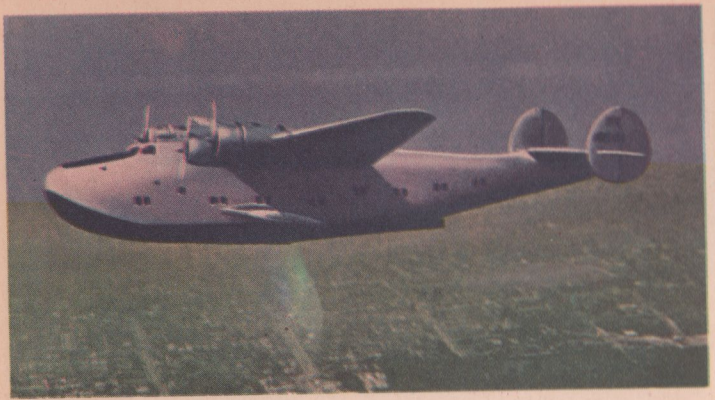
Post lost his life with Will Rogers in 1935 while on an exploration flight in Alaska. The "Winnie Mae" is now in the National Museum in Washington.

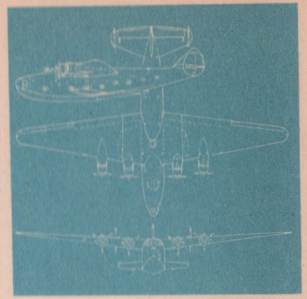
## HUGHES SHATTERS ALL RECORDS •

Around the world, 14,791 miles, in 3 days, 19 hours and 14 minutes. What a record! Great as was the feat of Wiley Post, who circled the globe alone, Hughes halved his time, and accomplished in less than four days a flight which the Army Air Service required 175 days to make just fifteen years before! He bettered Lindbergh's New York to Paris time by 17 hours. For this record-breaking accomplishment Hughes was awarded the Collier Trophy for the outstanding contribution to air transportation of 1939. In making this epochal flight Hughes had the assistance of two expert navigators, a radio engineer and a flight engineer. He flew a standard Lockheed 14 equipped with extra fuel tanks, and special flight, navigation and radio equipment. The 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.

This round-the-world trip was more than a "stunt flight." It was a scientific expedition designed to prove the accuracy of certain new instruments and the efficiency of the plane and engines.

During the entire trip the plane flew only 20 miles farther than the shortest distance between place of take-off and landing. It made no unscheduled stops, and at no time used more than 590 h.p. per engine.





## Boeing 314

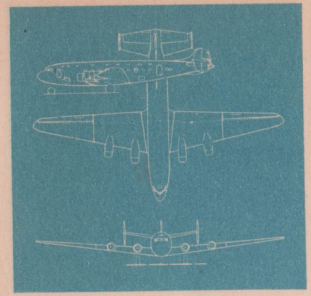
### *Yankee Clippers' Sail Again!*

The famous transatlantic and transpacific Pan American Airways Clipper, carrying 74 passengers and a crew of 11: the largest airliner ever built for regular passenger service.

**SPECIFICATIONS**—Wing span 152'. Length 106'. Height 27' 7". Weight empty 48,545 lbs. Useful load 33,955 lbs. Cargo capacity 10,500 lbs. Fuel 4200 gals. Oil 300 gals.

**PERFORMANCE**—Powered with four twin-row Wright "Cyclones" rated at 1200 h.p. each, has a maximum speed of 190 m.p.h., a cruising speed of 175 m.p.h., and a cruising range of 3100 miles. Manufactured by Boeing Aircraft Company, Seattle, Washington.





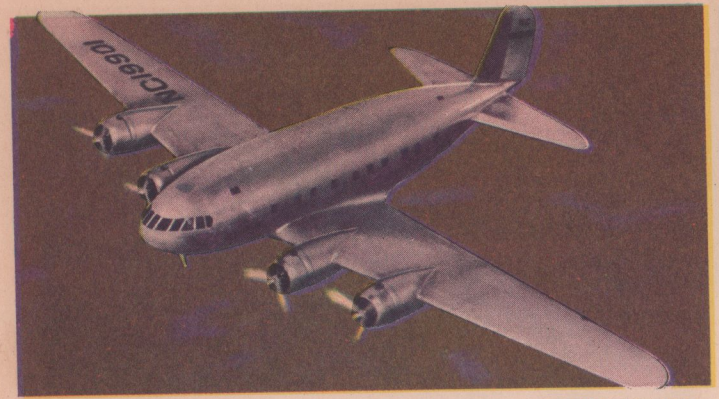

## Douglas DC-4

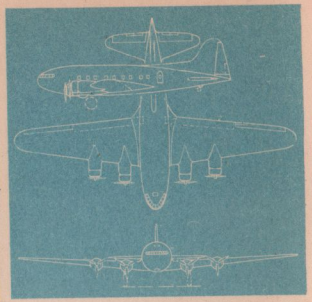
### *America Leads*

World's largest land transport, designed to carry 42 passengers and a crew of five. Equipped with pressure cabin for sub-stratosphere operation, and tricycle landing gear.

**SPECIFICATIONS**—Wing span 117' 6". Length 92' 3". Height 27' 10". Weight empty 34,546 lbs. Useful load 12,454 lbs. Fuel 1700 gals. Oil 88 gals.

**PERFORMANCE** — Powered with four Pratt & Whitney twin-row "Hornet" engines developing 1100 h.p. each, the DC-4 has a maximum speed of 257 m.p.h., a cruising speed of 235 m.p.h. and a cruising range of 2600 miles. Rate of climb 1200 ft./min. Service ceiling 22,900 ft. Manufactured by Douglas Aircraft Corporation, Santa Monica, California.





## Boeing 307

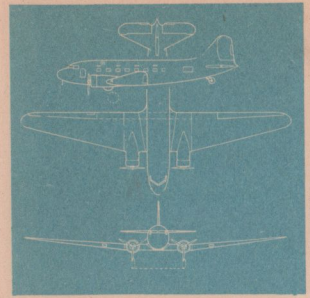
*The Stratoliner*

This passenger transport is designed with a pressure-cabin, permitting flight in the sub-stratosphere. Carries 33 passengers by day—16 sleeping and 9 sitting at night, and a crew of five.

**SPECIFICATIONS** — Wing span 107′ 3″. Length 74′ 4″. Height 20′ 9″. Weight empty 30,000 lbs. Useful load 16,000 lbs. Cargo 4000 lbs. Fuel 1700 gals. Oil 100 gals.

**PERFORMANCE** — Powered with four "Cyclone" engines, rated at 1100 h.p. each, the 307 has a maximum speed of 250 m.p.h., a cruising speed of 222 m.p.h. and a range of 1675 miles. Rate of climb 1250 ft./min. Service ceiling 24,500 ft. Manufactured by Boeing Aircraft Company, Seattle, Washington.





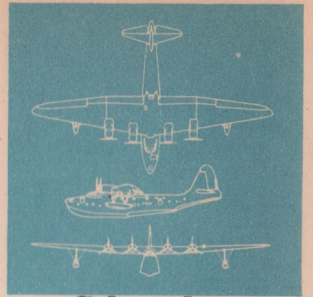

## Douglas DC-3

*Seen on Airlanes*

There are two models of this popular transport—a 21-passenger day plane and a 14-passenger sleeper plane. More planes of this type are in use on the airlines than any other.

**SPECIFICATIONS** — Wing span 95′. Length 64′ 5.5″. Height 14′ 11.5″. Weight empty 15,800 lbs. Useful load 8600 lbs. Cargo capacity 3450 lbs. Fuel 822 gals.

**PERFORMANCE**—Powered with two 1050 h.p. Twin-row "Wasps" or 900 h.p. "Cyclones," the DC-3 has a maximum speed of 216 m.p.h., a cruising speed of 190 m.p.h. and a range of 2100 miles (max.). Rate of climb 1080 ft./min. Service ceiling 21,400 ft. Manufactured by Douglas Aircraft Corporation, Santa Monica, California.



## Sikorsky VS-44-A

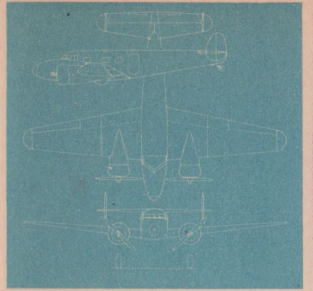
*Non-Stop to Europe*

Designed for American Export Airlines non-stop transatlantic service, a fleet of these giant Vought-Sikorsky flying boats was scheduled to be in service by the fall of 1941. They are to be flown over the southern route.

**SPECIFICATIONS**—Wing span 124'. Length 79' 3". Height 27' 7". Weight empty 30,200 lbs. Gross weight 57,500 lbs. Fuel 3900 gallons. Wing area 1670 sq. ft.

**PERFORMANCE** — Powered with four Pratt & Whitney 1050 h.p. "Hornets," the VS-44-A has a cruising speed of 175 m.p.h. at an altitude of 7500 ft. Its normal range is 3800 miles. Rate of climb 600 ft./min. Service ceiling 17,500 ft. Manufactured by Vought-Sikorsky Aircraft Division of United Aircraft Corporation, Stratford, Connecticut.





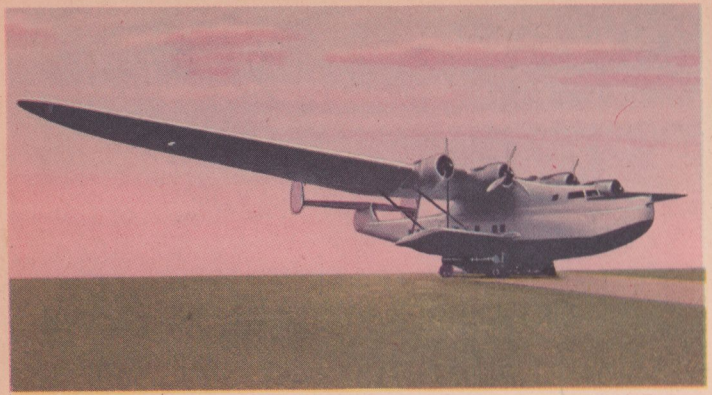
## Lockheed 12-A

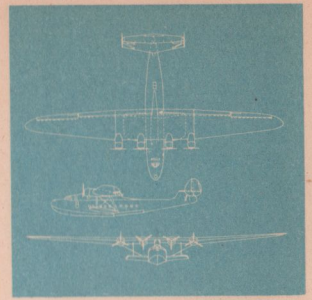
*Bantam Transport*

An eight-place (six-passenger) all metal high-performance transport designed for use on smaller airlines, and for private owners who demand a plane with airline performance.

**SPECIFICATIONS** — Wing span 49' 6". Length 36' 4". Height 9' 9". Weight empty 5960 lbs. Useful load 2990 lbs. Fuel 200 gals. Oil 14 gals.

**PERFORMANCE** — Powered with two 400 h.p. Pratt & Whitney "Wasp" Jrs., the 12-A has a maximum speed of 225 m.p.h., a cruising speed of 212 m.p.h. and a range of 824 miles. Rate of climb 1360 ft./min. Service ceiling 22,300 ft. Manufactured by Lockheed Aircraft Corporation, Burbank, California.





## Martin 156-C

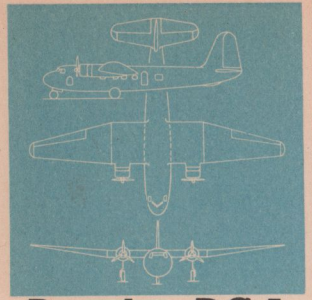
### *Transoceanic Transport*

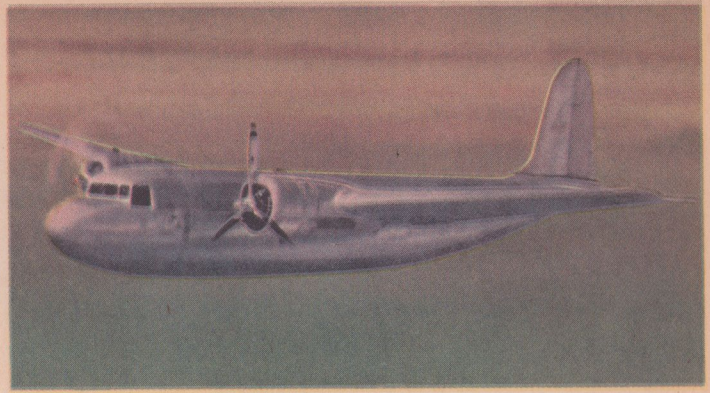
This giant flying boat (places for 33 to 53) is designed to carry tremendous loads over long distances. The passenger compartment is convertible into a 26-berth sleeper.

**SPECIFICATIONS**—Wing Span 157′. Length 92′ 2.5″. Height 27′ 2.25″. The hull is built with 5 watertight compartments. Weight empty 31,292 lbs. Useful load 31,708 lbs. Fuel 3800 gals. Oil 216 gals.

**PERFORMANCE**—Powered with four 850 h.p. Wright "Cyclones," the 156-C has a maximum speed of 182 m.p.h., a cruising speed of 140 m.p.h. and a landing speed with flaps of 67 m.p.h. Manufactured by the Glenn L. Martin Company, Baltimore, Maryland.







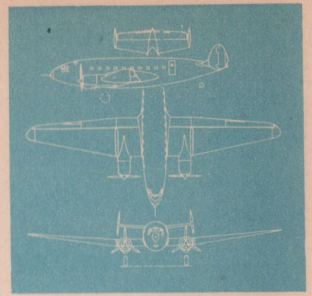
## Douglas DC-5

### *A New High-Wing Transport*

A seventeen-passenger plane featuring greater visibility for passengers through high wing design and port-hole windows. Note port engine stopped, and propeller "feathered" edge on the airstream.

**SPECIFICATIONS**—Wing span 78′. Length 62′ 2″. Height 19′ 10″. Weight empty 13,674 lbs. Baggage 560 lbs. Fuel 550 gals. Oil 34 gals.

**PERFORMANCE**—Twin-powered with either 900 h.p. Wright "Cyclones" or 1050 h.p. Pratt & Whitney "Wasps," the DC-5 has a maximum speed of 245 m.p.h., a cruising speed of 211 m.p.h. and a range of 1500 miles. Rate of climb 1580 ft./min. Manufactured by Douglas Aircraft Corporation, Santa Monica, California.



## Curtiss-Wright C-55

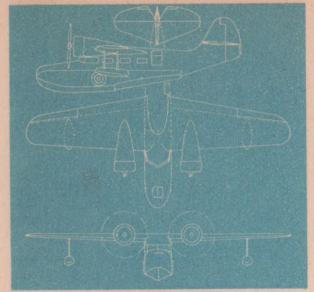
### *The Largest Twin*

The largest, most powerful twin-engined land transport built in America. Carries 40 by day, 20 in berths at night. Crew of four.

**SPECIFICATIONS**—Wing span 108′. Length 76′. Height 19′ 2″. Weight empty 24,750 lbs. Useful load 13,250 lbs. Cargo 5200 lbs. Fuel 1000 gals. Oil 80 gals.

**PERFORMANCE**—Powered with two 1600 h.p. twin-row Wright "Cyclones," the C-55 has a maximum speed of 262 m.p.h., a cruising speed of 222 m.p.h. and a range of 1500 miles. Rate of climb 1440 ft./min. Service ceiling 26,900 ft. Manufactured by St. Louis Airplane Division of Curtiss-Wright Corporation, Robertson, Missouri.





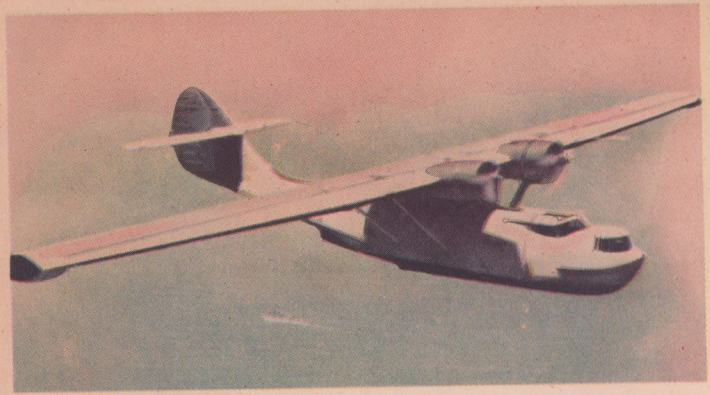
## Grumman G-21A

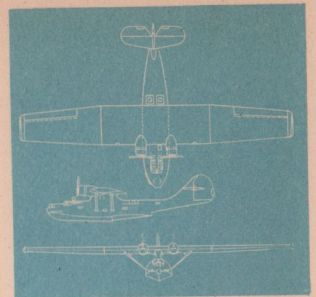
### *A Fast Amphibian*

Designed for Coast Guard patrol flying and rescue work, or for the private owner who demands a luxurious high-performance amphibian. Eight-place.

**SPECIFICATIONS**—Wing span 49′. Length 38′ 4″. Height 12′. Weight empty 5425 lbs. Useful load 2575 lbs. Fuel 220 gals. Oil 15 gals.

**PERFORMANCE**—Powered with two Pratt & Whitney "Wasp Jrs." rated at 400 h.p. each, this amphibian has a maximum speed of 201 m.p.h., a cruising speed of 190 m.p.h., and a range of 1000 miles. Rate of climb is 1300 ft./min. Service ceiling 22,000 ft. Manufactured by Grumman Aircraft Engineering Corporation, Bethpage, Long Island, New York.





## Consolidated P B Y

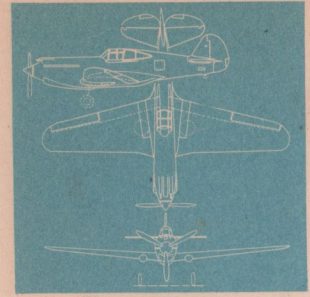
### *"Catalina"*

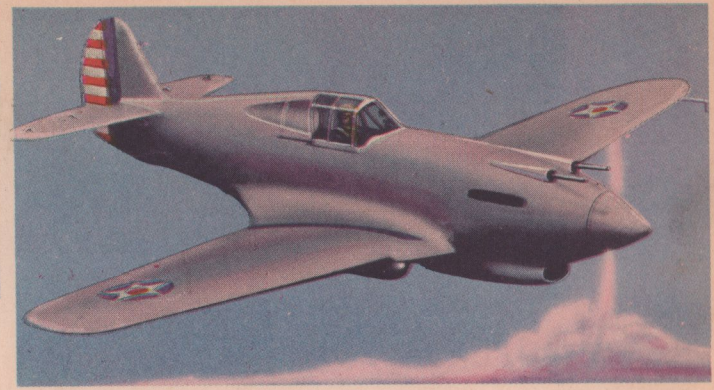
A long-range, high load capacity five-place patrol bomber developed in co-operation with the United States Navy. The export version, supplied to the British R.A.F., is known as the "Catalina."

**SPECIFICATIONS**—Wing span 104'. Length 67' 1". Height 18' 6". Weight empty 14,240 lbs. Useful load 12,840 lbs. Cargo capacity 9250 lbs. Fuel capacity 1750 gals.

**PERFORMANCE** — Powered with two 900 h.p. Pratt & Whitney twin-row "Wasps," the PBY has a maximum speed of 198 m.p.h., a cruising range of 3900 miles and a service ceiling of 18,500 ft. Manufactured by Consolidated Aircraft Corporation, San Diego, California.







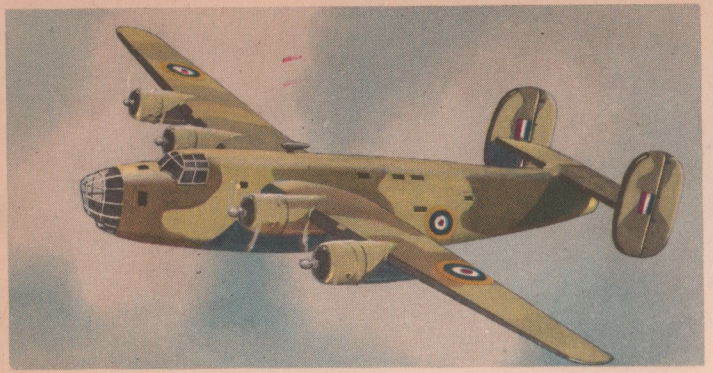
## Curtiss P-40

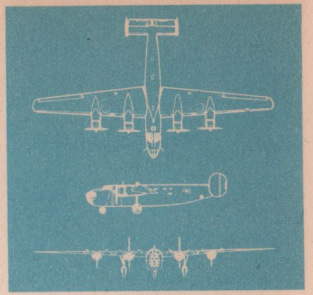
### *Popular Fighter*

One of the finest, fastest, most maneuverable fighters in the world. Large numbers of P-40's are being turned out for the U. S. Army Air Forces, and, under the name "Tomahawk," for the R.A.F.

**SPECIFICATIONS** — Wing span 37' 3". Length 31' 7". Height 10' 6". Weight empty 5381 lbs. Gasoline capacity 120 gals. Armed with two machine guns synchronized to fire through propeller, and four machine guns mounted in the wings.

**PERFORMANCE** — Powered with a 1090 h.p. liquid-cooled Allison engine, the P-40 has a top speed of 365 m.p.h. and a cruising range of 945 miles. Further details are a military secret. Manufactured by the Curtiss Aeroplane Division, Curtiss-Wright Corporation, Buffalo, New York.





## Consolidated B-24

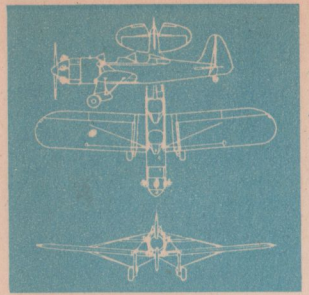
***Tested by the R.A.F.***

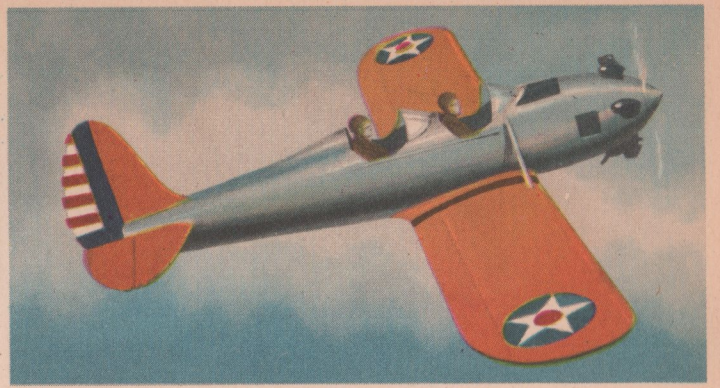
One of the largest, longest-range bombers in the U. S. Army Air Forces, the B-24 has seen much active service in Europe with the British R.A.F., under the name "Liberator," as shown here.

**SPECIFICATIONS**—Wing span 110′. Length 63′ 4″. Height 17′ 11″. Gross weight 40,000 lbs. Bomb capacity 8000 lbs. Armed with power-driven gun turrets fore, aft, and midship, above and below the fuselage.

**PERFORMANCE**—Powered with four 1200 h.p. Pratt & Whitney twin-row Wasp engines, the B-24 has a top speed of 330 m.p.h. and a range of 3000 miles. Manufactured by the Consolidated Aircraft Corporation, San Diego, California.







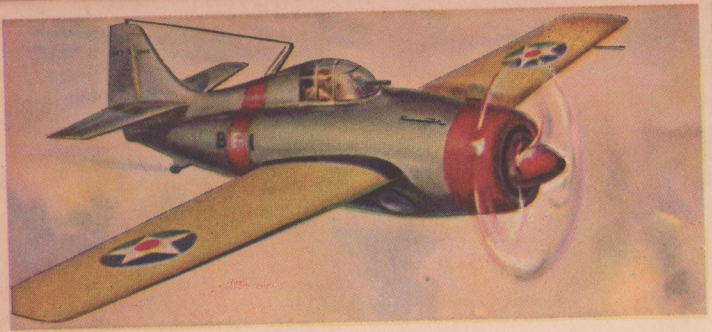
## Ryan PT-21

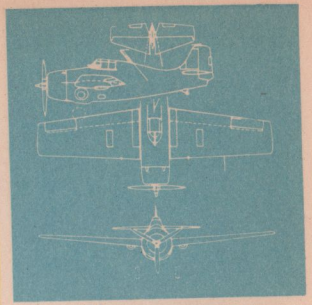
***Primary Military Trainer***

A military adaptation of the popular Ryan ST, this tandem-seat all-metal plane is widely used by the civilian schools which provide the ten weeks' primary training course for the Army Air Forces.

**SPECIFICATIONS**—Wing span 30′ 1″. Length 23′ 3″. Height 6′ 10″. Weight empty 1240 lbs. Fuel capacity 24 gals.

**PERFORMANCE**—Powered with a 160 h.p. Kinner radial engine, the PT-21 has a top speed of 129 m.p.h., cruises at 120 m.p.h. and has a range of 266 miles. Rate of climb 850 ft./min. Service ceiling 15,800 ft. Manufactured by Ryan Aeronautical Company, San Diego, California.





## Grumman F4F-3

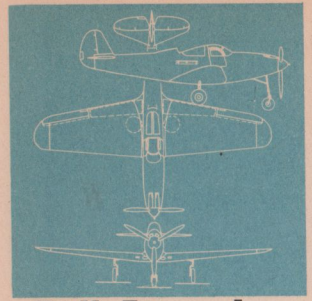
### *Navy Fighter*

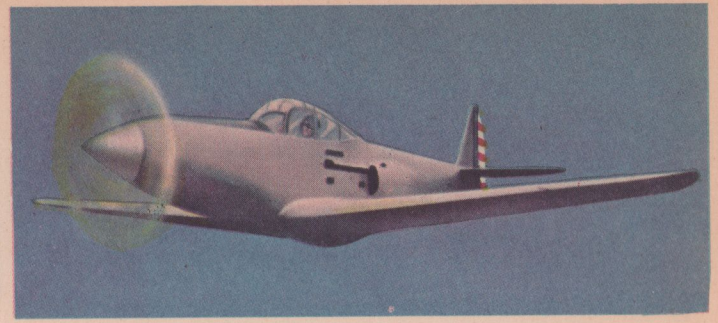
Standard fighter of the U. S. Navy Air Service, the F4F-3 is primarily designed for operation from aircraft carriers.

**SPECIFICATIONS**—Wing span 38′. Length 28′ 10″. Height 9′ 2½″. Weight empty 5425 lbs. Gasoline capacity 160 gals. Armed with two machine guns synchronized to fire through the propeller, and four guns mounted in the wings.

**PERFORMANCE** — Powered with a 1200 h.p. Wright Cyclone engine, the F4F-3 has a top speed of 350 m.p.h. Further details have not been released. Manufactured by the Grumman Aircraft Engineering Corporation, Bethpage, Long Island, New York.







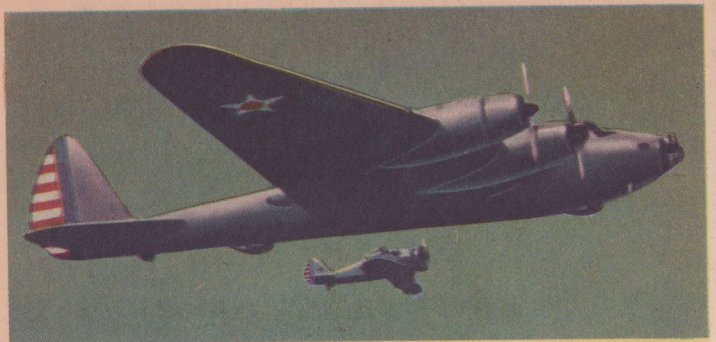
## Bell Airacobra P-39

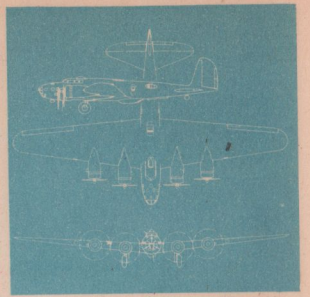
### *Winged Bullet*

America's fastest, most perfectly streamlined fighter, the P-39 is a single-seat single engine fighter with retractable tricycle landing gear.

**SPECIFICATIONS**—Wing span 34′. Length 29′ 9″. Height 9′ 2.75″. Weight empty 4995 lbs. Gasoline capacity 140 gals. Armed with a shell cannon, firing through the propeller hub, and four machine guns mounted in the wings.

**PERFORMANCE** — Powered with a 1090 h.p. liquid-cooled Allison engine, back of the cockpit and driving the propeller through a long shaft and reduction gear. Top speed a military secret, but the P-39 is reported to do well over 400 m.p.h. The plane has been power-dived at a speed of 625 m.p.h., a world's record. Manufactured by the Bell Aircraft Corporation, Buffalo, New York.





## Boeing B-17

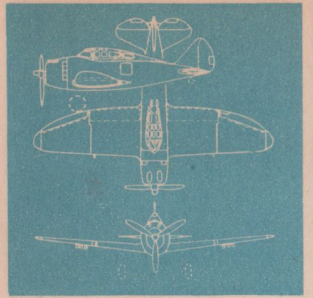
### *Flying Fortress*

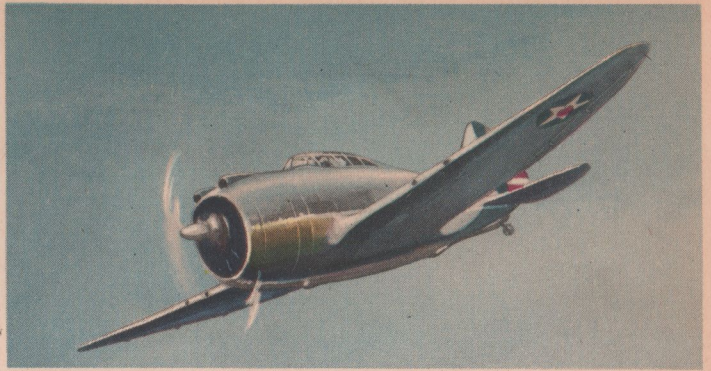
The world-famous standard heavy bomber of the U. S. Army Air Forces. A number of these planes have been flown across the Atlantic to the R.A.F., where they have been used in long distance bombing raids against Germany.

**SPECIFICATIONS**—Wing span 103′ 9⅜″. Length 67′ 10 $\frac{9}{16}$″. Height 15′ 4½″. Weight empty 31,600 lbs. Gasoline capacity 1700 gals. The B-17 carries a load of 10,000 lbs. of bombs and is armed with power-driven gun turrets in the nose, tail and midship. Quarter-inch armor plate protects all crew positions except in the ship's tail.

**PERFORMANCE**—Powered with four 1200 h.p. Wright "Cyclones," the B-17 has a top speed of 325 m.p.h. and a range of more than 3000 miles. Its rate of climb is 2260 ft./min. Service ceiling is 36,700 ft. Its engines are supercharged for high altitude performance. Manufactured by the Boeing Airplane Company, Seattle, Washington.







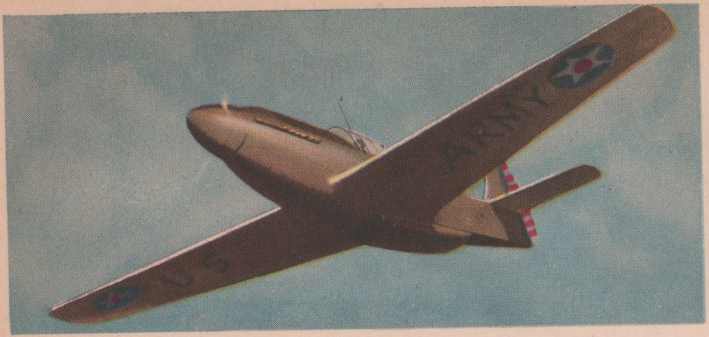
## Republic P-47

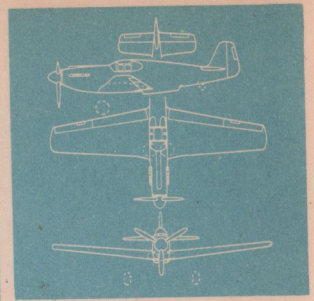
### *Interceptor*

One of the outstanding pursuit planes of the U. S. Army Air Forces, the P-47 is a high altitude interceptor fighter.

**SPECIFICATIONS**—Wing span 36′. Length 28′ 6″. Height 10′ 2″. Weight empty 5478 lbs. All-metal construction.

**PERFORMANCE**—Powered with an 1850 h.p. exhaust-driven turbo-supercharged Pratt & Whitney twin "Wasp" engine, this Republic plane has a top speed of better than 400 m.p.h. Its rate of climb is nearly 4,000 ft./min. Service ceiling is 35,000 ft. Manufactured by Republic Aviation Corporation, Farmingdale, New York.



## North American "Apache"

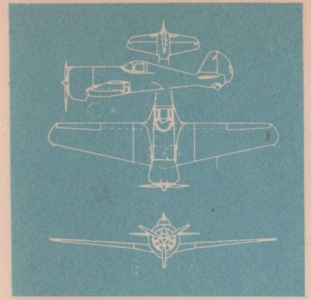
### *High Altitude Fighter*

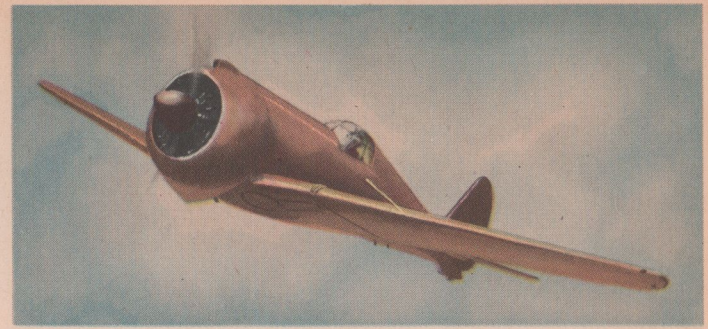
Sleek and slim as a projectile, the Apache is rated as one of America's finest fighters. It gets "upstairs" amazingly quick, and maneuvers beautifully at high altitudes.

**SPECIFICATIONS**—Wing span 37'. Length 32' 2". Height 8' 8". Weight empty 5990 lbs. Fuel capacity 105 gals. Armed with four machine guns, mounted in the wings, and a shell gun which fires through the propeller hub.

**PERFORMANCE**—Powered with a 1325 h.p. Allison liquid-cooled engine, the Apache is reputed to have a top speed approaching 400 m.p.h. Its normal range is above 600 miles. Further details have not been released. Manufactured by North American Aviation, Inc., Inglewood, California.







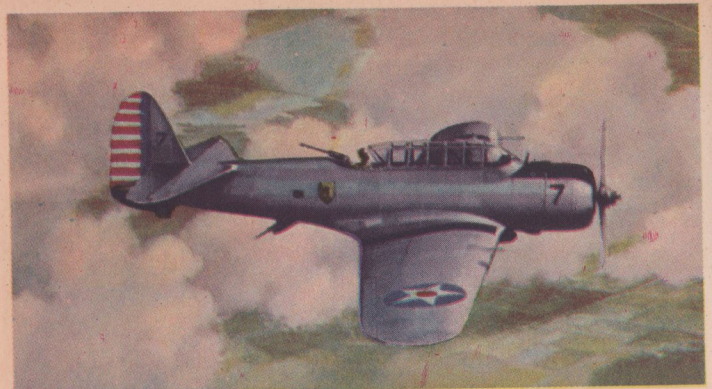
## Curtiss 21-B

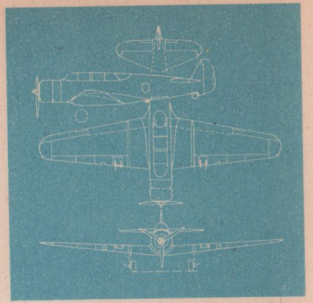
### *Interceptor*

One of the fastest-climbing airplanes ever built, the 21-B is designed to skyrocket aloft and intercept approaching enemy aircraft before they reach vital objectives in the area which these 21-B's are assigned to protect.

**SPECIFICATIONS**—Wing span 35'. Length 26' 4". Height 8' 8". Weight empty 3382 lbs. Fuel capacity 163 gals. Armed with 6 or 8 heavy-calibre machine guns.

**PERFORMANCE** — Powered with a 1000 h.p. Wright "Cyclone," the 21-B has a top speed of 333 m.p.h., a cruising speed of 282 m.p.h. and a range of 630 miles. Rate of climb 4350 ft./min. Service ceiling 34,300 ft. Manufactured by St. Louis Airplane Division of Curtiss-Wright Corporation, Robertson, Missouri.





## Vultee V-12D

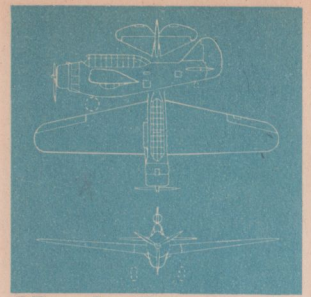
***Attack Bomber***

The advance guard of the heavy bombers, these 2-3 place high-speed attack bombers carry lighter bomb loads but are faster, more maneuverable.

**SPECIFICATIONS**—Wing span 50′. Length 38′. Height 12′ 11.4″. Weight empty 7416 lbs. Useful load 5526 lbs. Fuel 350 gals. Oil 30 gals.

**PERFORMANCE**—Powered with a Pratt & Whitney engine of 1200 h.p., this Vultee has a maximum speed of 281 m.p.h., a cruising speed of 248 m.p.h. and a range of 2070 miles. Rate of climb 1300 ft./min. Service ceiling 25,500 ft. Manufactured by Vultee Aircraft Division, Aviation Manufacturing Corporation, Downey, California.





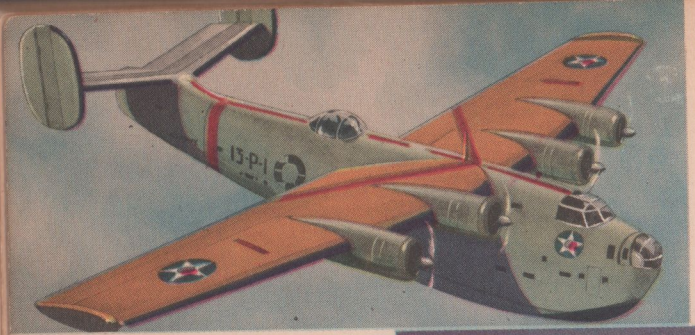
## North American O-47A

***Observation***

One of the Air Forces' new army-cooperation planes, the O-47A is a three-place mid-wing type designed for reconnaissance, artillery-spotting, photographing and general liaison work. It is equipped with special long-range radio.

**SPECIFICATIONS**—Wing span 46′ 3″. Length 33′ 3″. Height 10′ 6″. Armed with fixed, forward-firing machine guns, plus a flexible-mounted rear-firing gun in the aft cockpit.

**PERFORMANCE** — Powered with an 840 h.p. Wright Cyclone engine, equipped with a three-blade Curtiss electric propeller, the top speed of the O-47A is reported better than 250 m.p.h. Further details have not been released. Manufactured by North American Aviation, Inc., Inglewood, California.



## Consolidated PB2Y2

*"Coronado"*

*(Left)*

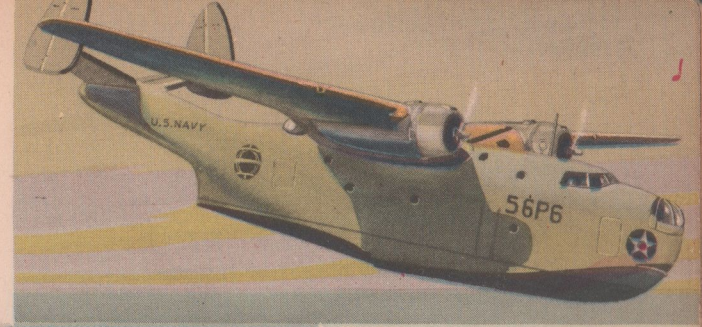
Flagship of the U. S. Naval Air Service, largest, fastest, and with the longest range of any naval aircraft. Top speed 225 m.p.h. Range 4000 miles.

## Martin PBM-1

*"Mariner"*

*(Right)*

A 20-ton gull-wing flying boat, designed for mid-ocean patrol and bombing. Carries a tremendous load of bombs and is armed with gun turrets fore, aft, and midship.

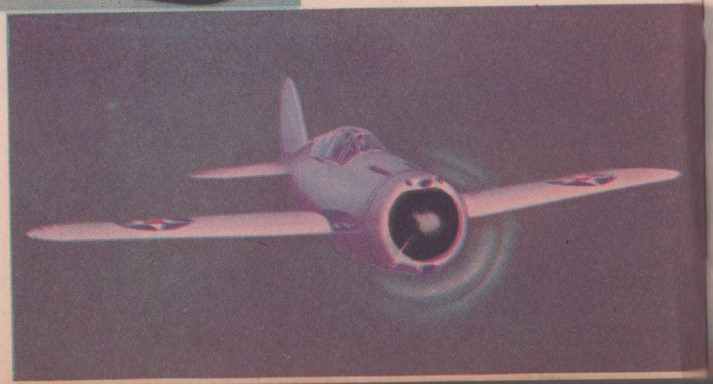


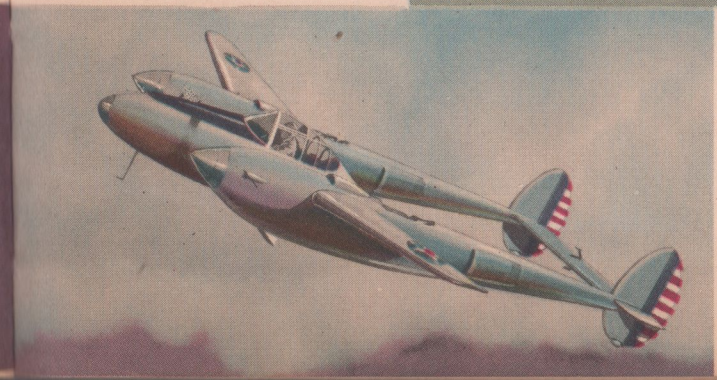

## Brewster F2A-1

*"Buffalo"* *(Right)*

With its short, streamlined-barrel fuselage and stubby wings, this Navy fighter is ideal for use on aircraft carriers. Speed is reported in excess of 360 m.p.h.



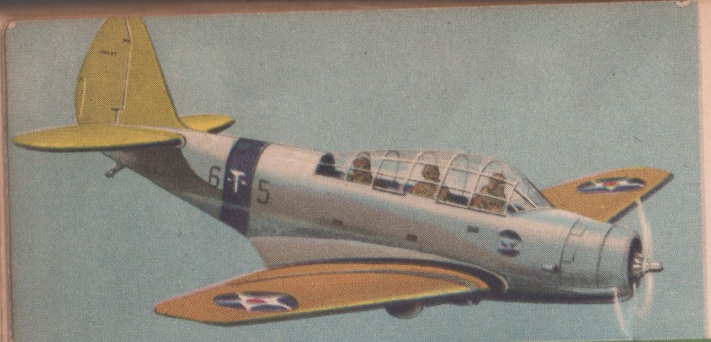




## Lockheed P-38

*(Left)*

Fastest single seat twin-engine fighter in the world. Top speed is a military secret, but it is estimated at well above 400 m.p.h. Powered with two 1350 h.p. Allison engines.



## Douglas TBD-1

*"Devastator"*

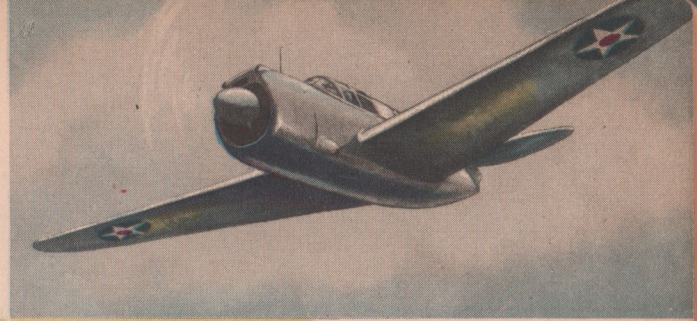
*(Left)*

A new torpedo plane being furnished in large numbers to the U. S. Naval Air Service. Powered with a 1000 h.p. Cyclone engine, it has a top speed of 275 m.p.h. and carries a 2000-pound torpedo.

## Curtiss XSB2C-1

*(Right)*

Successor to the famous "Helldiver," and designed to meet U. S. Navy specifications for a dive bomber with twice the range, double the bomb capacity and armament and a speed 100 m.p.h. faster than any other.



## Vought-Sikorsky OS2U-1

*"Kingfisher"* *(Right)*

A Navy observation-scout plane. Used as a land plane when assigned to aircraft carriers, the OS2U-1 may be fitted with floats and catapulted from battleships or cruisers.



## North American B-25

*(Left)*

A medium bomber, powered with two 1250 h.p. "Cyclone" engines. The top speed is more than 300 m.p.h. Range is 1728 miles. Carries heavy protective armament and can handle a bomb load in excess of 4000 lbs.


## Vought-Sikorsky XF4U-1

*"Corsair"*

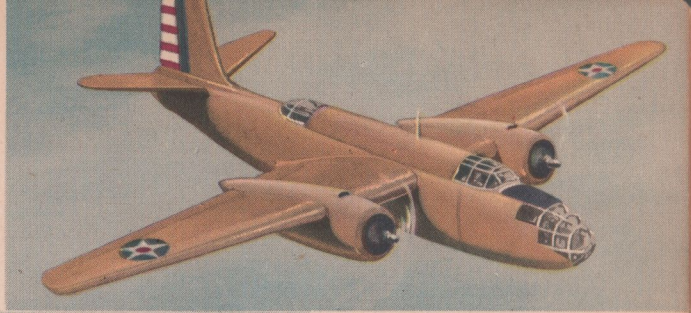
*(Left)*

Rated by the U. S. Navy as the fastest fighter built in America. Designed for operation from aircraft carriers. Powered with a 2000 h.p. "Wasp" engine, its top speed is better than 400 m.p.h.

## Douglas A20-A

*(Right)*

Standard medium bomber of the U. S. Army Air Forces, the A20-A has been proven in action in Europe under the R.A.F. name, "Boston." Top speed is above 350 m.p.h. Bomb load, 4000 lbs.

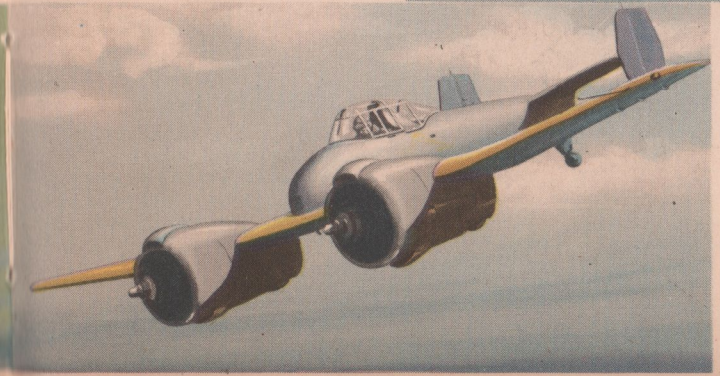


## Martin B-26

*(Right)*

Called the "Flying Torpedo," this slim, medium bomber is a veritable flying arsenal. It literally bristles with gun ports and carries over 4000 lbs. of bombs. Top speed is above 350 m.p.h.

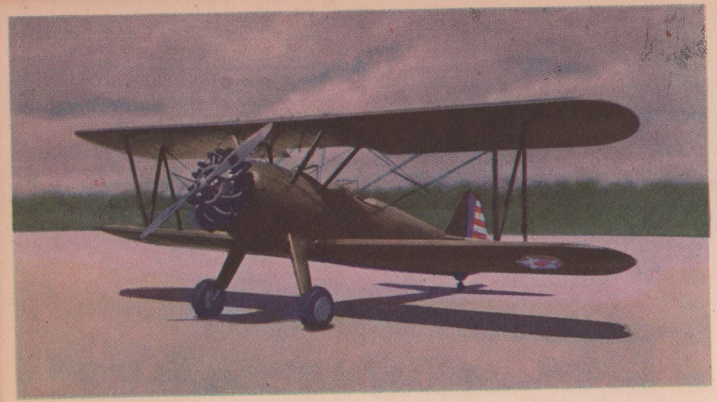


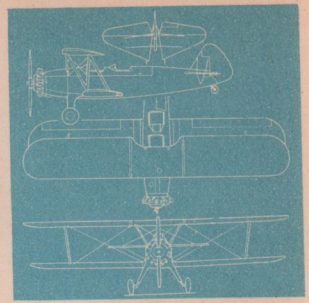


## Grumman Skyrocket

*(Left)*

The first twin-engine fighter designed for operation from U. S. Navy aircraft carriers. While unorthodox in appearance, the Skyrocket is reported to have excellent performance, including phenomenal rate of climb.





## Stearman PT-13

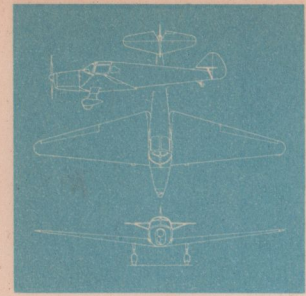
### *A Training Plane*

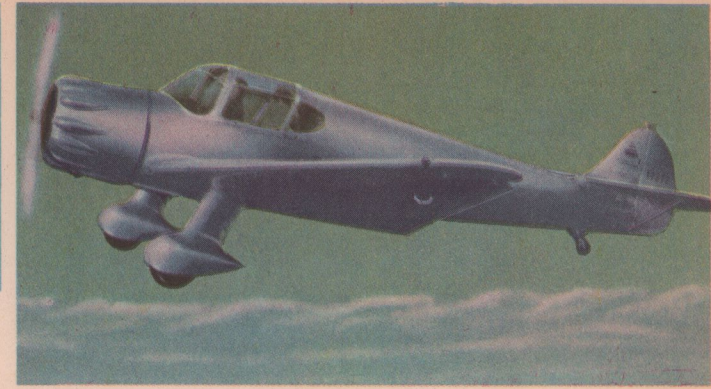
A popular primary military trainer. Widely used by the U. S. Army and Navy. Also used in several South American countries.

**SPECIFICATIONS** — Wing span 32′ 2″. Length 24′ 9″. Height 9′ 2″. Weight empty 1997 lbs. Useful load 773.5 lbs. Fuel 46 gals. Oil 5 gals.

**PERFORMANCE**—Powered with a 225 h.p. Lycoming engine, this Stearman has a maximum speed of 125 m.p.h., a cruising speed of 103 m.p.h. and a range of 386 miles. Its rate of climb is 825 ft./min. The service ceiling is 13,200 ft. Manufactured by Stearman Aircraft Division, Boeing Aircraft Company, Wichita, Kansas.







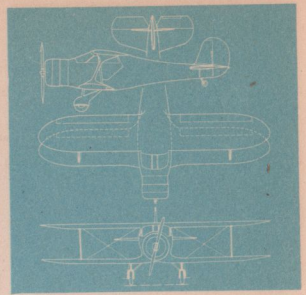
## Ryan S C

### *All-Metal Sport Plane*

Of all-metal construction from nose to tail, this latest member of the Ryan family of planes is a three-place high-performance sport plane.

**SPECIFICATIONS**—Wing span 37′ 6″. Length 25′ 5.12″. Height 7′. Weight empty 1345 lbs. Useful load 805 lbs. Fuel 37 gals. Oil 3 gals.

**PERFORMANCE**—Powered with a 145 h.p. Warner "Super-Scarab" engine, the S C has a maximum speed of 150 m.p.h., cruises at 135 m.p.h. and has a range of 525 miles. Rate of climb 900 ft./min. Service ceiling 17,200 ft. Manufactured by Ryan Aeronautical Co., San Diego, California.



## Beechcraft E

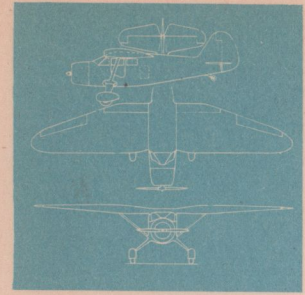
*One of the Fastest*

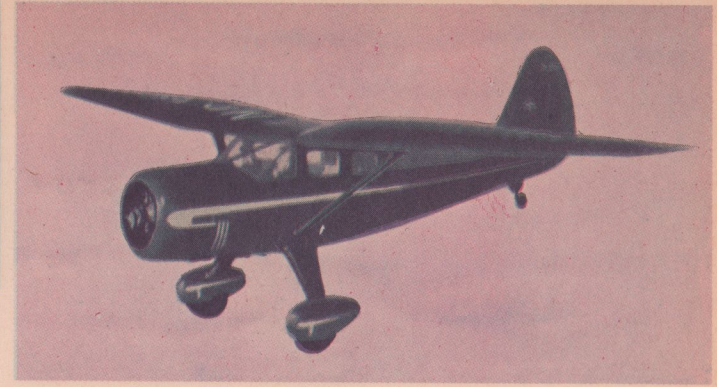
A sleek, stagger-wing, five-place biplane for fast, luxurious private transportation, the Beechcraft E is internationally popular.

**SPECIFICATIONS** — Wing span 32′. Length 25′ 11.25″. Height 8′. Weight empty 2080 lbs. Useful load 1270 lbs. Baggage 125 lbs. Fuel 77 gals. Oil 5 gals.

**PERFORMANCE**—Powered with a Jacobs L-5 engine rated 285 h.p., this Beechcraft has a maximum speed of 195 m.p.h., a cruising speed of 177 m.p.h., and a range of 700 miles. Rate of climb 1200 ft./min. Service ceiling 18,000 ft. Manufactured by Beech Aircraft Corporation, Wichita, Kansas.







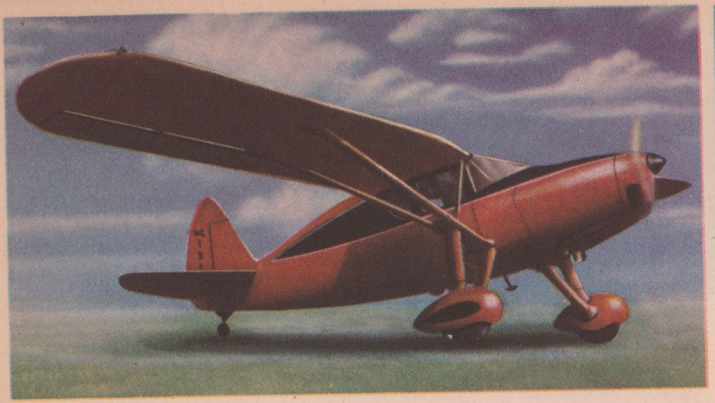
## Stinson Reliant SR-10J

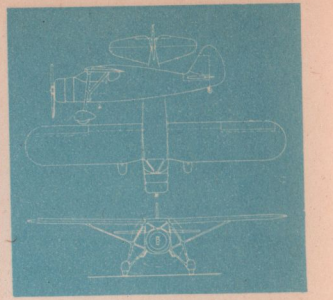
*One of Best Known*

The name Stinson has always stood for reliability, and Stinson planes are extremely popular the world over. Four- to five-place.

**SPECIFICATIONS**—Wing span 41′ 10.5″. Length 27′ 10¼″. Height 8′ 7″. Weight empty 2650 to 3045 lbs. Useful load 1345 to 1605 lbs. Fuel 76 to 100 gals.

**PERFORMANCE**—Powered with choice of engines ranging from 285 h.p. Lycoming to Pratt & Whitney "Wasp Jr." of 450 h.p. Cruising speed 155 to 177 m.p.h. Range 650 to 835 miles. Rate of climb 870 to 1330 ft./min. Service ceiling 12,700 to 21,000 ft. Manufactured by Stinson Aircraft Division, Aviation Manufacturing Corporation, Wayne, Michigan.





## Fairchild 24

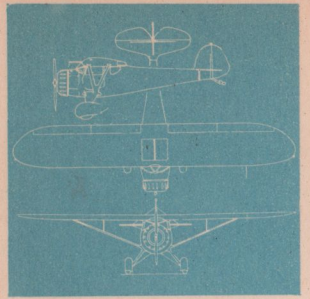
*An Old Timer*

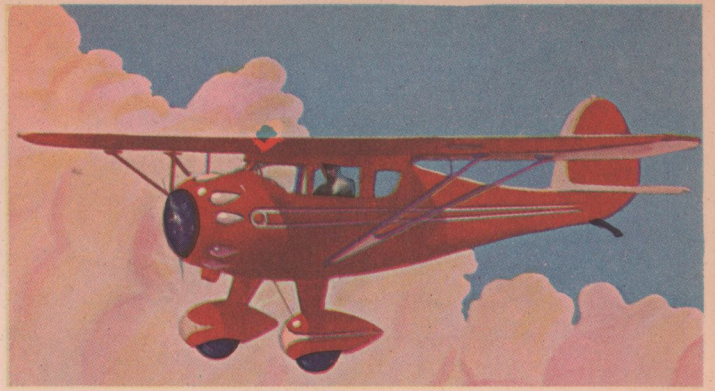
A four-place private owner type which has enjoyed a ten-year record of popularity with sportsmen pilots.

**SPECIFICATIONS**—Wing span 36′ 4″. Length 24′ 10″. Height 8′. Weight empty 1495 lbs. Useful load 1055 lbs. Baggage 112 lbs. Fuel 40 gals. Oil 3 gals.

**PERFORMANCE**—Powered with a 165 h.p. Ranger inverted engine, the "24" has a maximum speed of 134 m.p.h., a cruising speed of 126 m.p.h., and a range of 530 miles. Rate of climb 760 ft./min. Service ceiling 16,800 ft. Manufactured by Fairchild Aircraft Corporation, Hagerstown, Maryland.







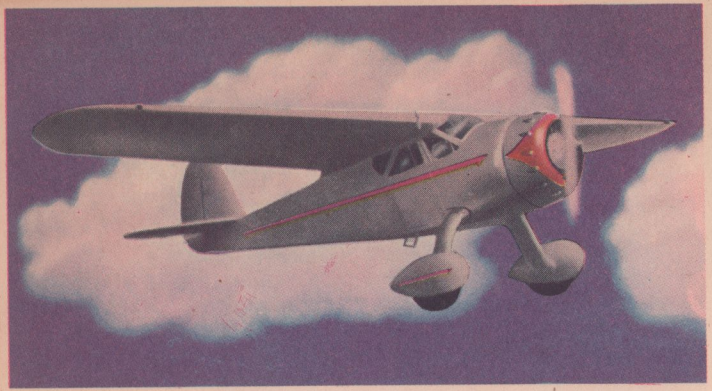
## Monocoupe 90A

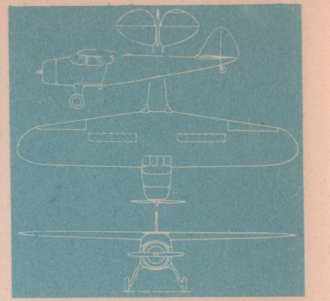
*Tops in Efficiency*

The first two-place cabin plane, Monocoupe is still piling up "firsts" in C-Racing, in economy, dependability and favor among private flyers.

**SPECIFICATIONS**—Wing span 32′. Length 20′ 6″. Height 6′ 11″. Weight empty 940 lbs. Useful load 637 lbs. Baggage 116 lbs. Fuel 28 gals. Oil 2.5 gals.

**PERFORMANCE**—Powered with a Lambert 90 h.p. engine, the Monocoupe has a maximum speed of 130 m.p.h., a cruising speed of 110 m.p.h., and a range of 600 miles. Rate of climb 900 ft./min. Service ceiling 15,000 ft. Manufactured by Monocoupe Corporation, Orlando, Fla.





## Cessna C-145

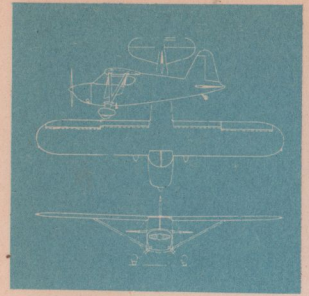
*Known as the "Airmaster"*

Fastest for its horsepower of any four-place plane, the Cessna first won distinction by winning a transcontinental race in 1928.

**SPECIFICATIONS**—Wing span 34′ 2″. Length 24′ 8″. Height 7′. Weight empty 1380 lbs. Useful load 970 lbs. Baggage 64 lbs. Fuel 35-53 gals. Oil 3.5 gals.

**PERFORMANCE**—Powered with a 145 h.p. Warner "Super-Scarab" engine, the Airmaster has a maximum speed of 162 m.p.h., a cruising speed of 151 m.p.h., and a range of 525-785 miles. Rate of climb 1000 ft./min. Service ceiling 18,000 ft. Manufactured by Cessna Aircraft Company, Wichita, Kansas.



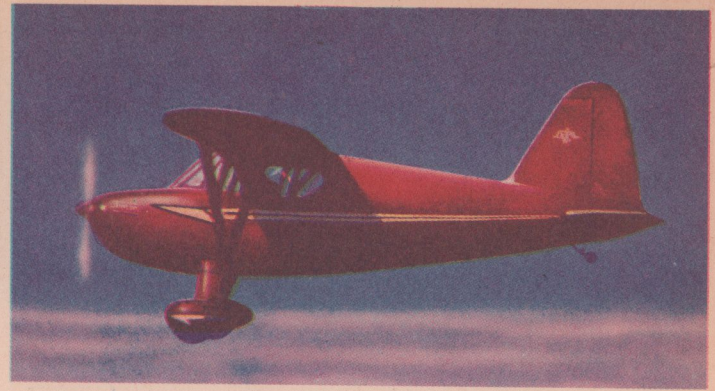


## Stinson 105

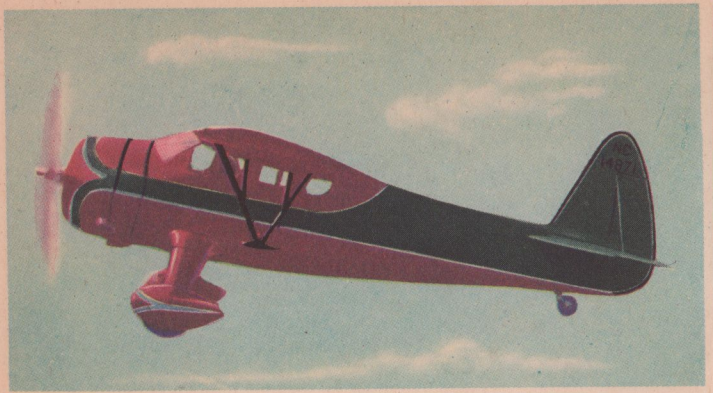
*Popular Three-Place Light Plane*

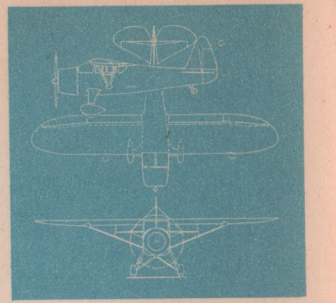
One of the "Big Four" in the light-plane field. Available as a land or sea plane, with two side-by-side seats forward, one side-ways in the rear.

**SPECIFICATIONS** — Wing span 34′. Length 22′. Height 6′ 6″. Weight empty 948 lbs. Useful load 650 lbs. Fuel 20 gals. Oil 1 gal.



**PERFORMANCE**—Powered with a 90 h.p. Franklin engine, the 105 has a maximum speed of 115 m.p.h., a cruising speed of 110 m.p.h. and a range of 380 miles. Rate of climb, 507 ft./min. Service ceiling 13,000 ft. Manufactured by Stinson Aircraft Division of Aviation Manufacturing Corporation, Wayne, Michigan.





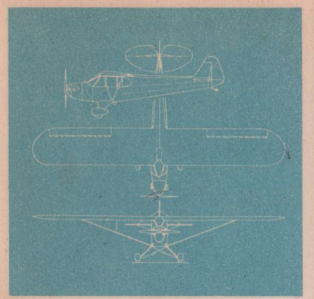
## Howard DGA-15

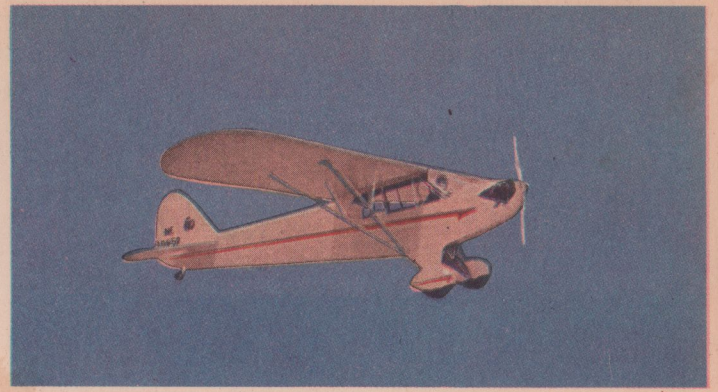
Designed and built by Benny Howard, famous racing and transport pilot, the Howard provides exceptional speed, yet is safe and easy to fly. Four-place.

**SPECIFICATIONS**—Wing span 38′. Length 25.47′. Height 8′ 5″. Weight empty 2500 lbs. Useful load 1650 lbs. Baggage 120 lbs. Fuel 118 gals. Oil 8 gals.

**PERFORMANCE**—Powered with a Wright "Whirlwind," rated 350 h.p., the DGA-15 has a cruising speed of 201 m.p.h., and a range of 1280 miles. Rate of climb 2200 ft./min. Service ceiling 19,000 ft. Manufactured by Howard Aircraft Corporation, Chicago, Illinois.







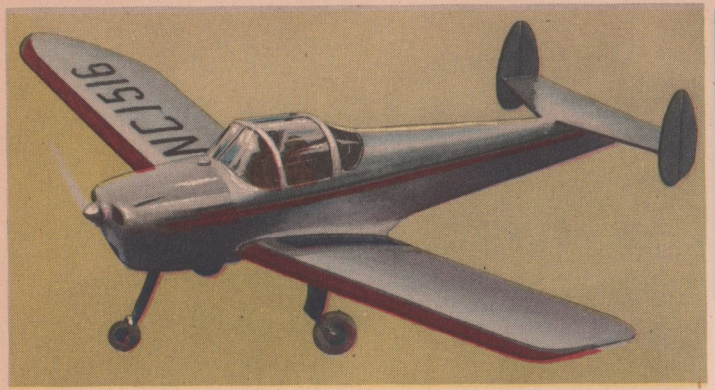
## Piper Cub J-4

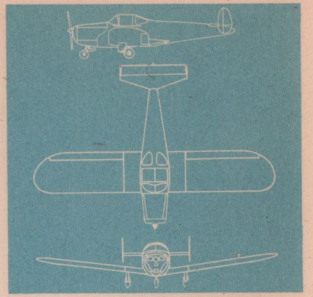
*Best Selling Light Plane*

Safe, rugged, easy to fly, the two-place Cub deserves much credit for popularizing private flying in America.

**SPECIFICATIONS** — Wing span 36′ 2″. Length 22′ 6″. Height 6′ 10″. Weight empty 800 lbs. Useful load 561 lbs. Baggage 105 lbs. Fuel 16 gals. Oil 1 gal.

**PERFORMANCE**—Powered with a Continental 75 h.p. engine, the Cub J-4 has a maximum speed of 100 m.p.h., cruising speed, 96 m.p.h. Range, 455 miles. Rate of climb 600 ft./min. Service ceiling 12,000 ft. Manufactured by Piper Aircraft Corporation, Lock Haven, Pennsylvania.



## Ercoupe 415-C

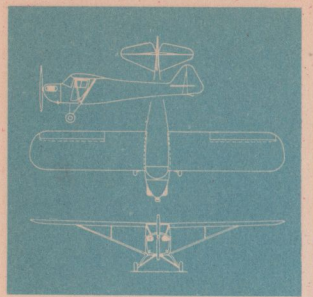
***Safety Plane***

Exceptionally easy to fly and ultra safe, the two-place Ercoupe is winning new devotees daily. Can be flown as an open or cabin plane.

**SPECIFICATIONS**—Wing span 30′. Length 20′ 2″. Height 5′ 5″. Landing gear head 84″. Weight empty 716 lbs. Gross weight 1175 lbs. Fuel 14 gals.

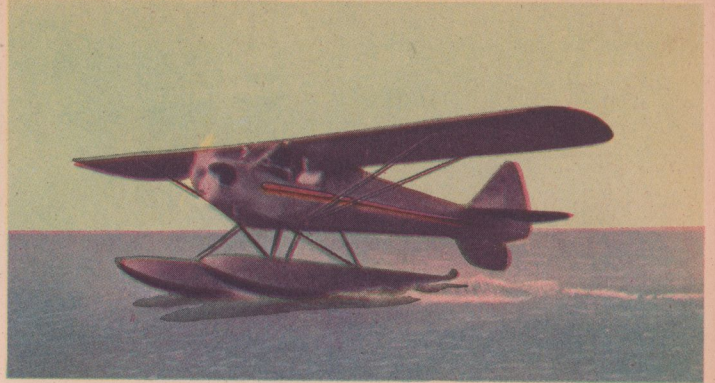
**PERFORMANCE**—Powered with a 65 h.p. Continental engine, the Ercoupe has a maximum speed of 117 m.p.h., cruises at 105 m.p.h. and has a range of 350 miles. Fuel consumption 4 gals. per hour. Rate of climb 800 ft./min. Service ceiling 14,000 ft. Manufactured by Engineering & Research Corporation, Riverdale, Maryland.





## Taylorcraft

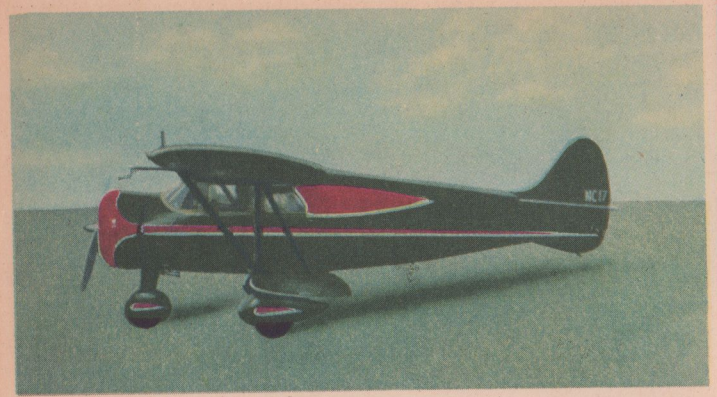
***A Very Popular Light Plane***

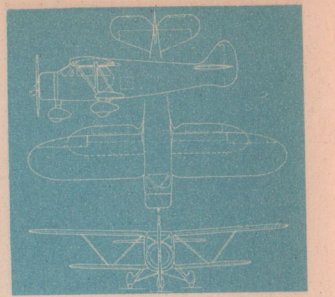


Available as either a land or seaplane, this side-by-side two-place sportship is one of the "Big Three" in sales.

**SPECIFICATIONS** — Wing span 36′. Length 22′. Height 6′ 10″. Weight empty 700 lbs. Useful load 518 lbs. Baggage 30 lbs. Fuel 18 gals. Oil 1 gal.

**PERFORMANCE**—Powered with a Continental 65 h. p. engine, the Taylorcraft develops a maximum speed of 105 m.p.h., cruises at 95 m.p.h., and has a range of 375 miles. Rate of climb 600 ft./min. Service ceiling 15,000 ft. Manufactured by Taylor-Young Airplane Company, Alliance, Ohio.





## Waco N

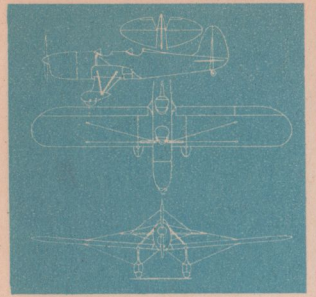
*"Ask Any Pilot"*

Pioneering private flying after the 1914-18 World War, Waco has been a consistent favorite. It also pioneered the "tricycle" landing gear, an added safety feature. Five-place.

**SPECIFICATIONS**—Wing span 34′ 9″. Length 27′ 7″. Height 8′ 6″. Weight empty 2564 lbs. Useful load 1236 lbs. Fuel 95 gals.

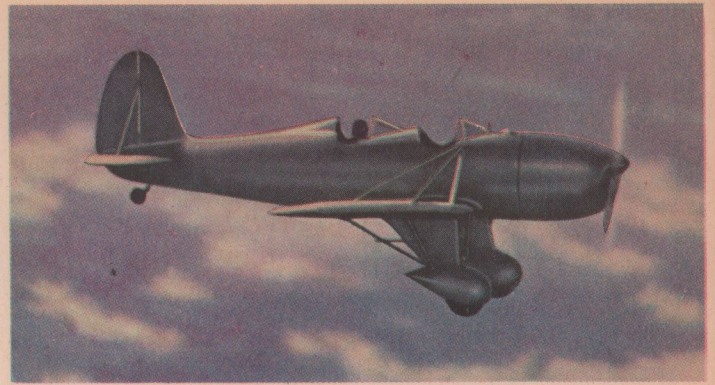
**PERFORMANCE**—Powered with a Jacobs 300 h.p. engine, the Waco N has a maximum speed of 161 m.p.h., a cruising speed of 151 m.p.h., and a range of 625 miles. Rate of climb 950 ft./min. Service ceiling 14,200 ft. Manufactured by Waco Aircraft Company, Troy, Ohio.





## Ryan S-T-A

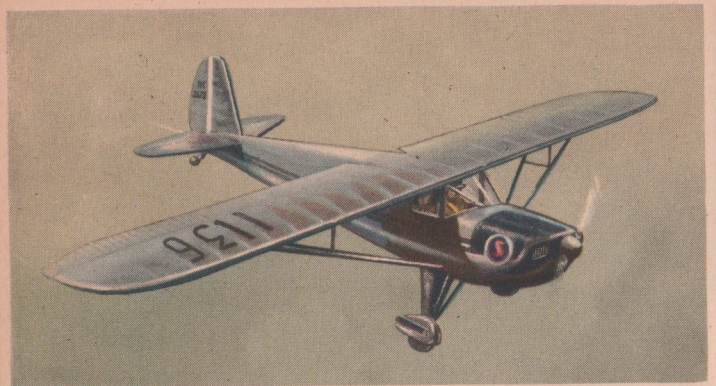
*Sleekest of the Sport Planes*

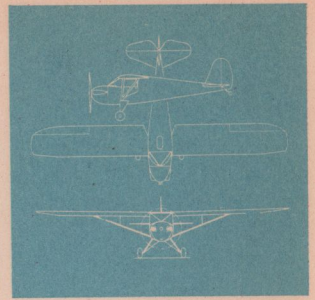


Enjoys high favor as a sport and stunt plane. Also used as a military and flying school trainer. Two-place. Metal fuselage.

**SPECIFICATIONS** — Wing span 29′ 11″. Length 21′ 5.37″. Height 6′ 11″. Weight empty 1081 lbs. Useful load 565 lbs. Baggage 40 lbs. Fuel 24 gals. Oil 2 gals.

**PERFORMANCE**—Powered with a 150 h.p. Menasco inverted engine, the S-T-A has a maximum speed of 142 m.p.h., cruises at 128 m.p.h. and has a range of 326 miles. Rate of climb 975 ft./min. Service ceiling 18,600 ft. Manufactured by Ryan Aeronautical Company, San Diego, California.





## Luscombe

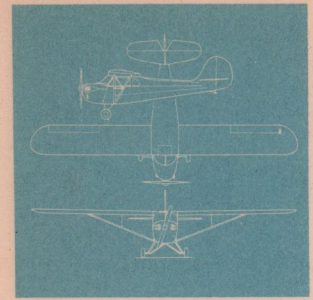
### *Silvaire*

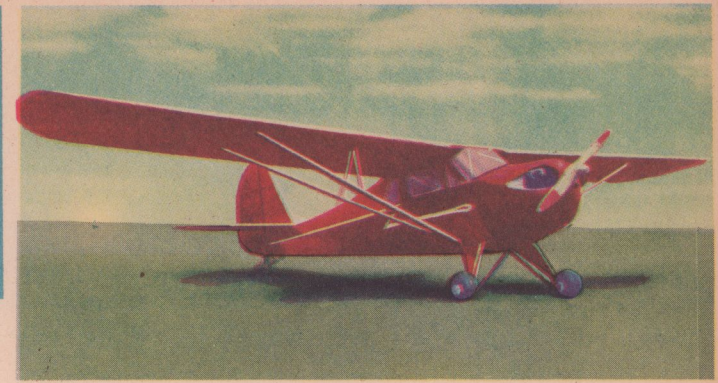
One of the most popular light planes, the all-metal, two-place Silvaire is widely used in the civilian pilot training program sponsored by the Civil Aeronautics Authority.

**SPECIFICATIONS**—Wing span 35′. Length 20′. Height 5′ 10½″. Weight empty 650 lbs. Gross weight 1200 lbs. Fuel capacity 15 gals.

**PERFORMANCE**—Powered with a 75 h.p. Continental engine, the Silvaire has a maximum speed of 120 m.p.h., cruises at 110 m.p.h. and has a normal range of 350 miles. Rate of climb 1100 ft./min. Service ceiling 17,000 ft. Manufactured by Luscombe Airplane Corporation, West Trenton, New York.







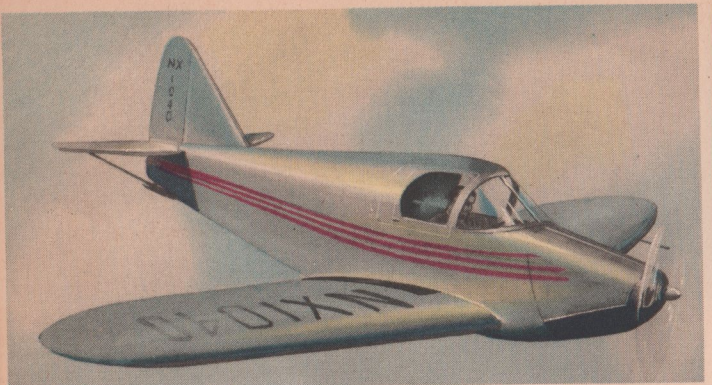
## Aeronca 65-C

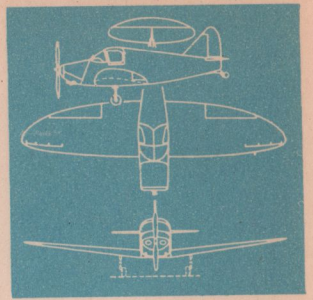
### *One of the Best Sellers*

A favorite of long standing in the light-plane field, the two-place Aeronca is noted for stamina, safety and economy.

**SPECIFICATIONS**—Wing span 36′. Length 21′ 9″. Height 6′ 9″. Weight empty 744 lbs. Useful load 480 lbs. Baggage 40 lbs. Fuel 17 gals. Oil 1 gal.

**PERFORMANCE**—Powered with a Continental 65 h.p. engine, the 65-C has a maximum speed of 109 m.p.h., cruises at 100 m.p.h., and has a range of 350 miles. Rate of climb 600 ft./min. Service ceiling 15,000 ft. Manufactured by Aeronautical Corporation of America, Cincinnati, Ohio.





## Culver

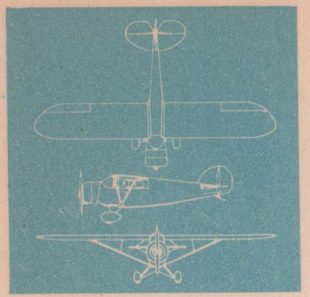
### *Cadet*

Fastest in the light plane field, the two-place Cadet is a favorite among sportsmen pilots who demand extra speed and performance.

**SPECIFICATIONS**—Wing span 27′. Length 17′ 8″. Height 5′ 6″. Weight empty 750 lbs. Gross weight 1305 lbs. Fuel capacity 20 gallons. Retractable landing gear.

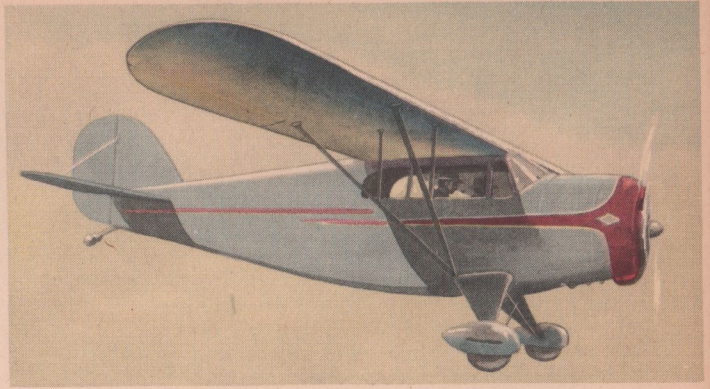
**PERFORMANCE**—Powered with a 75 h.p. Continental engine, the Cadet has a maximum speed of 140 m.p.h., cruises at 120 m.p.h. and stalls at 45 m.p.h. Its range is 600 miles. Rate of climb 800 ft./min. Service ceiling 17,500 feet. Manufactured by Culver Aircraft Corporation, Wichita, Kansas.





## Rearwin

### *Sportster*



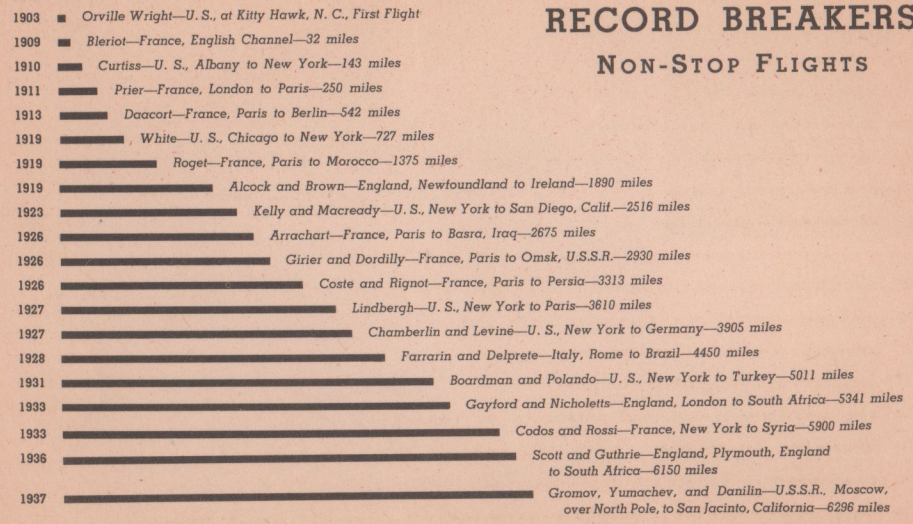
Stemming from a long line of successful and popular sport planes, this two-place Sportster is the fastest model in the Rearwin line.

**SPECIFICATIONS**—Wing span 35′. Length 22′ 2″. Height 6′ 9″. Weight empty 830 lbs. Gross weight 1460 lbs. Fuel capacity 24 gals.

**PERFORMANCE**—Powered with a 90 h.p. Ken Royce engine, the Sportster has a maximum speed of 125 m.p.h., cruises at 112 m.p.h., and stalls at 38 m.p.h. Its normal range is 500 miles. Rate of climb 1000 ft./min. Service ceiling 15,000 ft. Manufactured by Rearwin Aircraft & Engines, Inc., Kansas City, Kansas.

# RECORD BREAKERS

## NON-STOP FLIGHTS




# RECORD BREAKERS

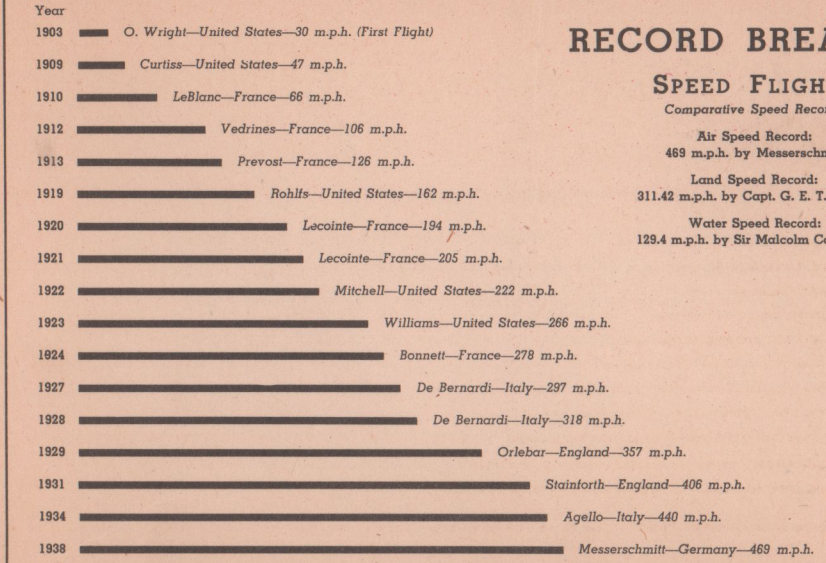
## SPEED FLIGHTS

*Comparative Speed Records*

**Air Speed Record:**
**469 m.p.h. by Messerschmitt**

**Land Speed Record:**
**311.42 m.p.h. by Capt. G. E. T. Eyston**

**Water Speed Record:**
**129.4 m.p.h. by Sir Malcolm Campbell**



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JOHN B. WALKER

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