

More Power for U.S. Planes



P.M. RELEASE OCTOBER 1

Advanced production methods are rocketing American aircraft engine output to record figures, according to the Aviation News Committee of the Aeronautical Chamber of Commerce. This photograph shows 1700-horsepower Cyclones moving along a Wright Aeronautical Corp. assembly line. Every few minutes another engine rolls off the assembly line, which is divided into 20 stations, with workers posted at each station performing only one set of assembly operations on each passing engine. Formerly a four-man crew of highly-skilled craftsmen assembled an engine, requiring eight hours for the job.

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AERONAUTICAL CHAMBER OF COMMERCE Aviation News Committee

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Brothers Head Aerial Defenses of New York

NEW YORK, Oct. 00.—(ANF)—The aerial defense of metropolitan New York and command of the huge fleets of Army and Navy warplanes upon which rests the safety of the great city from air attack, repose, by an odd turn of fate, in the hands of two brothers—one a naval commander and the other a brigadier general of the United States Army.

The naval man, commandant of Floyd Bennett Field, is Commander Edward O. McDonald, in charge of aerial activities for the Third Naval District, which includes New York, Connecticut and northern New Jersey. Brigadier General John C. McDonald, as head of the Army's First Interceptor Group, commands the military airplane fleet at the Army's Mitchell Field, which is charged with protecting territory as far west as the Dakotas and south to North Carolina and Tennessee.

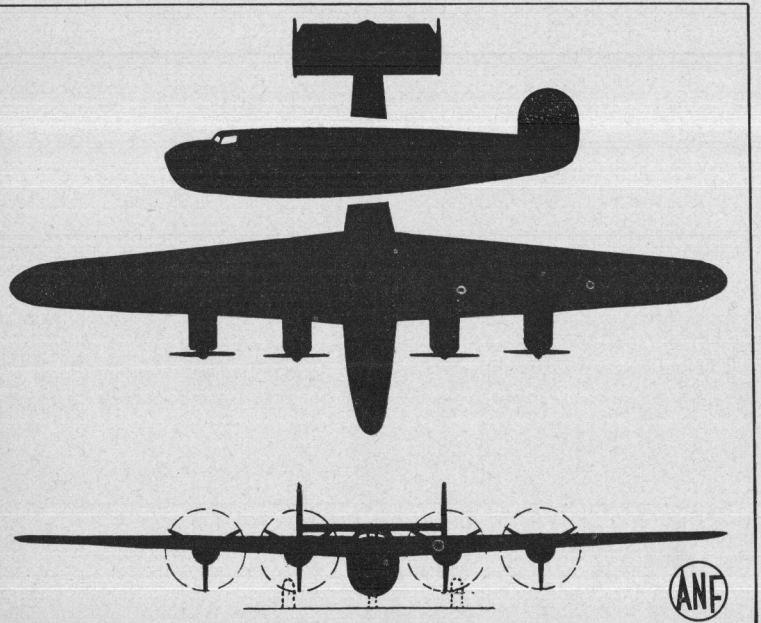
Let's Go! U.S.A.—Keep 'em Flying!

The U. S. War Department, already the world's largest carrier of air freight, is now testing two new cargo airplanes, the Douglas C-47 and C-53. Powered by Pratt & Whitney engines, the new ships can also be used as troop carriers, with space for 28 soldiers in addition to the crew.

RELEASE OCTOBER 1

Know America's Planes

CONSOLIDATED B-24



Tremendous range and heavy striking power, combined with maximum speeds of better than 300 miles per hour, characterize the four-engine bombers perfected by the American aircraft industry for U. S. defense. . . characteristics which are now making themselves felt in the war in Europe. Most recently developed of our long-range bombers is the Consolidated B-24, the export version of which, known as the Liberator, is in service in Britain. The Pratt & Whitney powered B-24 can be identified by the famed Consolidated "thin" wing, the tricycle landing gear and the twin-tail structure.

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Warplane Engine Production Soars to a Record High

August Horsepower Hits
4,500,000; Still
Increasing

PICTURE IN COLS. 1 AND 2

P.M. RELEASE OCTOBER 1

NEW YORK, Oct. 1.—(ANF)—Marking the virtual completion of their plant expansion programs, American aircraft engine manufacturers drove their production to a new all-time high during the month of August, turning out new warplane motors representing a combined total of nearly 4,500,000 horsepower!

This record-breaking achievement was reported here today by the Aviation News Committee of the Aeronautical Chamber of Commerce, which pointed out that horsepower production has been tripled in 12 months.

One year ago the production of the three principal engine producers—Pratt & Whitney, Wright Aeronautical and the Allison Division of General Motors—was progressing at the rate of about 1,500,000 horsepower per month. In the fall of 1939, at the outbreak of the war, production totaled but 500,000 horsepower monthly.

Their huge plants ablaze with lights seven nights a week, Pratt & Whitney and Wright are at the moment running about neck and neck in the matter of monthly production of radial air-cooled engines as translated into horsepower.

Wright produced 1,780,000 horsepower at its Paterson, N. J., plants during August, and Pratt & Whitney's plant at East Hartford, Conn., added 1,700,000 more horsepower to the existing supply of aviation engines.

Both firms are well ahead of the production schedules laid down by the Government, Wright having reached in August an output not scheduled for attainment until November.

Allison is reported to have turned out approximately 927,500 horsepower during August.

NEW METHODS

Largely responsible for increased production are complete programs of re-tooling with automatic and semi-automatic machinery, permitting the utilization of semi-skilled labor where once intricate hand work had to be done by specialists long skilled in their individual types of precision work.

Wright's output included engines ranging from 400 to more than 2000 horsepower—from Whirlwinds for training planes and M-3 medium tanks, on up through the Cyclone 9's, Cyclone 14's and Cyclone 18's for dive bombers, fighters and medium and heavy long-range bombers.

Pratt & Whitney expects to increase its horsepower output to 2,000,000 a month by December, and should attain maximum production of something like 2,800,000 sometime during 1942 after the remainder of its already completed plant expansion is tooling up and put to production.

LOOKING AHEAD

By mid-1943, War and Navy Department heads predict engines totaling 12,500,000 horsepower will be produced each month.

A part of this increased production will originate in the plants of automobile manufacturers, some of whom have arranged to build aircraft engines under licensing agreements signed by the aircraft engine firms, the latter having spent many months educating automotive engineers and craftsmen in the methods used to produce the far more powerful and complex aerial power plants.

Let's Go! U.S.A.—Keep 'em Flying!

Amazing Growth of Aircraft Firm Told

LOS ANGELES, Oct. 00.—(ANF)—The remarkable growth of the American aircraft industry under the stimulus of national defense is typified by Northrop Aircraft, Inc., which has just celebrated the second anniversary of groundbreaking for its plant at Hawthorne, near Los Angeles.

In September, 1939, the company had no orders and only a handful of employees. Today it holds orders totaling \$75,000,000. As of Sept. 15, 1941, 2800 persons were employed on two 10-hour shifts and the monthly payroll was more than half a million dollars. Plant buildings, which include a modern wind tunnel, cover an area of 555,000 square feet.

Let's Go! U.S.A.—Keep 'em Flying!

JOBS ARE WAITING
As part of the nationwide movement to absorb man-power released from the armed services, Consolidated Aircraft Corp. of San Diego, Calif., has offered jobs to qualified men who are leaving the Army and Navy after receiving special exemptions from military duty.

Let's Go! U.S.A.—Keep 'em Flying!

New Aerial Battleship Unveiled at Baltimore; Here Are Some Details

Big Martin Flying Boat
Has Wingspread of
200 Feet

EDITORS: Two new giants of the sky—the Martin XPB2M-1 flying boat and the Boeing B-17E long-range bomber—are very much in the news these days. In this and adjoining column are stories on these aerial monsters we feel sure will be of interest to your readers.

BALTIMORE, Oct. 00.—(ANF)—The curtain has been drawn aside on the largest flying boat in the world—the U. S. Navy's XPB2M-1, a long-range patrol bomber capable of flying across the Atlantic and back non-stop or of patrolling vast areas of the sea at high speed!

Dramatically, the Glenn L. Martin Co. revealed this colossus of the air, writhing in the hands of tormentors who loaded the hull and wings unmercifully in proof tests . . . tests that proved before the giant ship ever took to the air, that it can stand the heaviest loads and the buffeting of the most blustery of ocean gales.

With the tests completed—Martin officials announced the new giant had passed them with flying colors—installation of the flying boat's four huge engines got under way.

200-FOOT WINGS

The Aviation News Committee reported today that the XPB2M-1, which is able to base anywhere and be ready to hurl tons of bombs on enemy ships or bases, has a wing spread of 200 feet and a hull 117 feet long. The normal gross weight is 140,000 pounds. Power is furnished by four 2000-horsepower Wright Duplex Cyclone engines.

These are the only figures released thus far on the flying boat, which is comparable in size to the Army's great Douglas B-19 land bomber and a full third larger than the largest clippers.

HAS TWO DECKS

Martin officials and Navy officers have been equally reticent about how the interior of the ship is arranged, but the giant hull, clearly larger than any airplane body or fuselage in the world, has many compartments in its two decks.

The Navy maintains a discreet silence about the armament for this air battleship, but an observer cannot help noticing the astonishing number of huge globes, which could be brought else but power-driven gun turrets, indicating the craft can take good care of itself against attackers.

That the ship is intended for high-altitude operation is admitted by Martin officials, who point out she is able to keep far above the effective range of anti-aircraft fire. Obviously, one of the great tactical advantages of this air giant will be as a patrol ship because of the tremendous range and because it will be able to stay aloft and on duty for many hours longer than other naval aircraft.

IN FINAL STAGE

No announcement has been made of when the craft will fly, but it is now in its final stage of construction, with installation work the chief unfinished increment.

It was scarcely more than a year ago that the keel of the air battleship was laid with Navy sponsorship, albeit the original design was submitted in 1937. Thus in a year's time the craft has assumed its huge shape and shortly will go into final assembly.

SEE STORY IN
ADJOINING
COLUMN >

Warplanes Borrow an Idea from the Birds

Retractable Gear Has
Replaced Famous
'Tin Pants'

NEW YORK, Oct. 00.—(ANF)—When Roger Williams and the late Capt. L. A. Yancey in 1929 flew their Bellanca "Pathfinder" monoplane from Old Orchard, Maine, to Rome, the ship carried an innovation in the tin "pants" which covered the protruding landing gear—a pioneering effort to streamline the little craft.

Tin pants for landing gear, it was highly regarded a decade ago as designers sought to build more and more speed into their planes. But today the retractable landing gear has changed all that, for a plane can tuck its wheels up, as a bird does its feet during flight, and thus become a more nearly perfect aerodynamic unit than one with fixed landing gear projecting below.

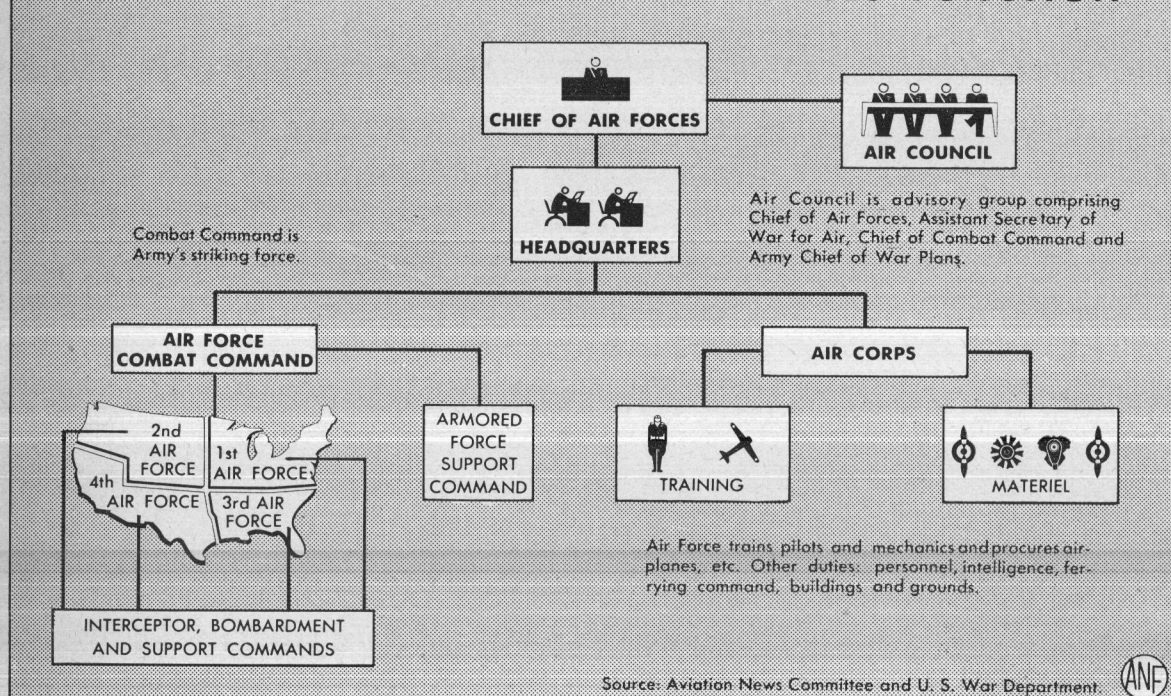
CONSTANT IMPROVEMENT
Technicians, designers, research experts and manufacturers work continuously on the problem of retractable landing gear, according to the Aviation News Committee. And each year has seen improvements in the technique of tucking away a plane's wheels to decrease drag and step up speed.

The result has been worth the effort, for experts declare that were it not for the retractable gear no plane could reach a speed in excess of 300 miles per hour. And today, even the heaviest American-built bombers better that.

Let's Go! U.S.A.—Keep 'em Flying!

A.M. RELEASE OCTOBER 1

HOW OUR REORGANIZED AIR FORCES FUNCTION



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Bigger and Better Fortress Produced Boeing's New B-17E Has Greater Firepower

SEATTLE, Oct. 00.—(ANF)—The American aircraft industry's leadership in perfecting and producing huge new warplanes of advanced design is being demonstrated anew here.

In the process of manufacture by the Boeing Aircraft Co. is the newest version of the famed Flying Fortress four-engine, long-range bombers—the B-17E which, according to the Aviation News Committee of the Aeronautical Chamber of Commerce, is bigger and more deadly than any of its predecessors.

Not a lone experimental model but the first of a huge production series, the B-17E was turned over to the Army Air Corps for testing last month. The War Department describes it as approximately five feet longer and of a greater gross weight than earlier Fortresses, one model of which—the B-17C (known in England as "Fortress I")—recently introduced extreme high-altitude bombing operations in the European war.

Armament of the new Wright-powered Fortress includes power turrets both on the top and bottom of the fuselage and a "stinger" turret in the tail, providing resistance from attack from any direction. Enlarged horizontal and vertical tail surfaces provide for the ship's enlarged size and weight.

To prepare for the Flying Fortress production program, Boeing has enlarged its Seattle floor area from 800,000 to 2,400,000 square feet in the last 12 months and has erected a 380,000-square foot plant at Wichita, Kan., which is being further enlarged to 1,700,000 square feet.

In addition, the B-17E will also be produced under a tri-company "production pool," by the Douglas Aircraft Co. at Long Beach, Calif., and by the Vega Airplane Co. at Burbank, Calif.

Aviation's Who's Who

BURDETTE S. WRIGHT

Burdette S. Wright, one of the best-known figures in American airplane production circles, has two titles of which he is justifiably proud—one is that of major in the U. S. Army, the other is the tag of E. E., a degree he received from Purdue University in his native Indiana.

Born at New Albany in 1893, he was graduated as an electrical engineer from Purdue with the class of 1915 and got his first job with the Iowa Railway & Light Company at Cedar Rapids.

He was just settled in the new post when World War I came along and he joined a Coast Artillery unit. Not long afterward he was commissioned a first lieutenant. Aerial warfare fascinated the young engineer so he left his artillery outfit, was transferred to aerial observation in 1918, attending the army school at Tours, France.

Shortly before the end of hostilities he was assigned to the Fifth Army Corps observation group as operations officer. Later he was commissioned a captain. Named aide to then Assistant Chief Brigadier General William (Billy) Mitchell while on duty in the office of the Chief of the Air Corps in 1919, Mr. Wright developed many of the airway facilities which are in common use today, including weather maps, radio stations, airway markings, etc.

From 1925 to 1927, Mr. Wright was director of flying training and

operations officer at Kelly Field, San Antonio, Tex. In 1928 he was transferred from Texas to Washington, D. C., as chief of the Air Corps information service.

Upon his resignation from the army he was commissioned a major. The walls of his office at the Buffalo plant of the Curtiss-Wright Corp. are crowded with auto-graphed photographs of highly-placed individuals in Army, Navy and civilian life.

His military service terminated, he became associated with the Curtiss Aeroplane & Motor Co., and following the merger of this firm with the Curtiss-Wright Corp. he became vice president and general manager of the airplane division of Curtiss, the post he now holds. His principal hobby is wood-working and cabinet making, which he indulges in after business hours in a completely equipped workshop which he maintains at his home in a Buffalo suburb.

Let's Go! U.S.A.—Keep 'em Flying!

AEROQUIZ 8 Pursuit Types for Air Forces

Q—How many types of pursuit planes are in service with or being produced for the U. S. Air Forces?

A—Eight. Newest ships include the Bell P-39, Curtiss P-40, Lockheed P-38, North American P-51 and Republic P-43 and P-47. Older types are the Curtiss P-36 and Republic P-35.

Q—What is the value of military airplanes the American aircraft industry has contracted to build for the United States, Great Britain and other democracies?

A—More than five-and-a-half billion dollars worth.

Q—What country first armed an airplane with a machine gun?

A—The United States. In 1909 at College Park, Md., a machine gun was carried on a Wright bi-plane and was fired at a ground target.

Let's Go! U.S.A.—Keep 'em Flying!

Light Liaison Plane Delivered to Army

Indicative of the value of American-built light planes to national defense was the recent delivery of YO-57 liaison planes to the U. S. Army.

Produced by Taylorcraft Aviation Corp., manufacturers of light planes for commercial and training purposes, the new YO-57 is a two-place high wing monoplane powered by a Continental four-cylinder 65 horsepower motor. During Army maneuvers last summer, several types of light planes demonstrated their ability in courier work.

Let's Go! U.S.A.—Keep 'em Flying!

a note to Editors . . .

SKYPOWER—The U. S. Army's aviation organization has been thoroughly "streamlined" to match the tempo of aerial warfare. This week we bring you complete details of this reorganization, together with a comprehensive chart of the functions of our Army Air Forces. (See Cols. 6, 7, 8.)

HORSEPOWER—Production of engines for American warplanes has risen to record-breaking proportions. For the story of what has been accomplished, and how, see Col. 3. (Picture in Cols. 1 and 2.)

