

## a note to Editors . . .

"SPLENDID JOB"—Rep. J. Buell Snyder, chairman of the potent House subcommittee on military appropriations, predicts new highs in airplane production. For Rep. Snyder's summation of the job the aircraft industry is doing, see Cols. 7 and 8.

STRANGE PLANE—At last, a successful "Flying Wing" has been perfected. You will find a story about and pictures of this revolutionary new airplane in Cols. 4, 5, 6.

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### AERONAUTICAL CHAMBER OF COMMERCE Aviation News Committee

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### British Air Officer Praises U. S. Planes 'Can Use All You Send Us,' He Writes

NEW YORK, Nov. 00.—(ANF)—"We can use all you can send us!" That's the way Col. Moore-Brabazon, RAF air officer commanding the Middle East sector, feels about the American-built fighter planes which are being delivered to the British army forces in increasingly large numbers.

Praising the performance of the American planes in general and that of the Curtiss Tomahawk in particular, a message from Col. Moore-Brabazon to the Curtiss-Wright Corp. here read:

"Air Marshal Tedder has told me of the brilliant performance American aircraft are giving. As air officer commanding the Middle East and with experience of what your Tomahawk fighters do, I send you the thanks of our fighter pilots for these grand machines.

"My pilots tell me again and again how they relish the performance, the maneuverability and the range of the Tomahawk—and their successes against the enemy fighters and bombers supply the proof. We can use all you send us."

Let's Go! U.S.A.—Keep 'em Flying!

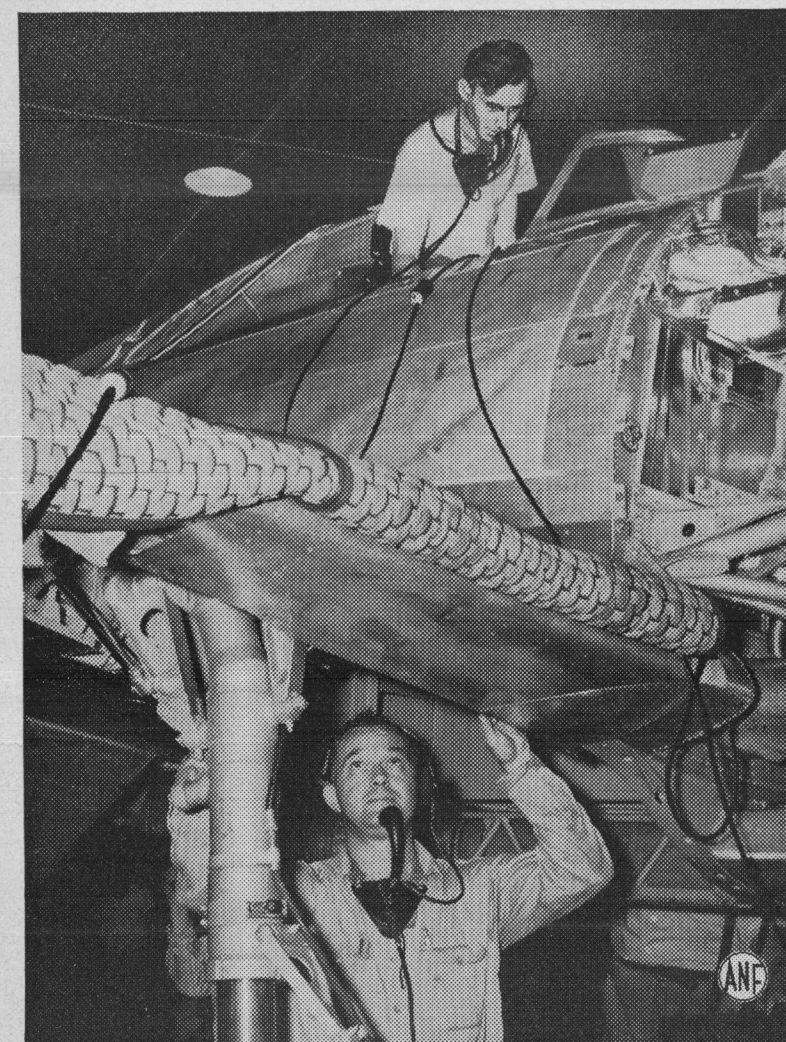
**GOOD NEIGHBORS**  
Five hundred young men from Latin America, each pledged to a career in commercial aviation, are to be brought to the United States and trained as pilots and aviation technicians by the U. S. Army Air Corps and the Civil Aeronautics Administration.

Let's Go! U.S.A.—Keep 'em Flying!

### A NEW FEATURE!

## Recording the Odd and Unusual in America's Vast Aircraft Production Program

"SHORT LINE"



RELEASE NOVEMBER 1

The telephone line you see in action here is one of the world's shortest, but it is helping speed production of military aircraft for the nation's defense. The two workmen, busy on a Pratt & Whitney-powered P-43 pursuit plane in the Republic plant at Farmingdale, L. I., are equipped with a phone hook-up which permits them to talk to each other, even though one man is inside the fuselage and the other outside. Prior to this assembly line innovation, the man inside had to crawl to the nearest opening to communicate with his fellow worker. Now this communication is accomplished instantly and a foreman who wants to give instructions to the man inside can do so without loss of time. Every day the American aircraft industry is perfecting similar methods of cutting production corners, according to the Aviation News Committee of the Aeronautical Chamber of Commerce.

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# Aviation News Features



Released by the Aviation News Committee, Aeronautical Chamber of Commerce of America

RELEASE NOVEMBER 1

## 2 Giant Aircraft Plants Dedicated on Pacific Coast

### 3 Million Square Feet Added to Arsenal of Democracy

LOS ANGELES, Nov. 00.—(ANF)—To the accompaniment of roaring motors in the sky and the applause of thousands of spectators, nearly three million square feet of productive floor space were officially added to the arsenal of democracy by the American aircraft industry in the past fortnight.

Two California cities—Long Beach and San Diego—were the scenes of dedication ceremonies which formally opened huge new factories from which will flow the world's latest, most formidable military aircraft. . . factories, incidentally, in which, according to the Aviation News Committee, work was already under way when the dedications took place.

"BLACKOUT PLANT"  
At Long Beach the spotlight was centered on the 1,400,000-square foot "blackout" plant of the Douglas Aircraft Co., from which will come long-range four-engine Flying Fortress bombers, swift attack bombers of the A-20 and DB-7 types and C-47 Army cargo transports. Highlight of the ceremonies was the appearance of the Douglas B-19, world's largest bomber, which swooped down over the black-walled buildings of the new factory at a height of less than 200 feet.

Simultaneously with the dedication of the newly-completed plant, concrete was poured for a second unit, approximately as large, which will give fresh impetus to the nation's expanded output of long-range bombers. At peak production the new plants will employ 30,000 workers.

At San Diego, Assistant Secretary of Navy for Air Artemus Gates opened the mile-long parts plant of Consolidated Aircraft Corp., in which \$8,000,000 worth of the most modern machinery and some 20,000 craftsmen will produce parts and sub-assemblies for the famous U. S. Navy's PBV-5 (Catalina) and PB2Y-3 (Coronado) patrol bombers, the U. S. Army's B-24 long-range bomber and the big Liberator bombers being built for Britain's Royal Air Force.

**HIGHWAY CONNECTION**  
Covering 1,500,000 square feet, the new building, officially designated as Plant 2 and unofficially known as the "largest machine shop west of the Mississippi," is connected with the main Consolidated plant by a full-sized highway, over which specially-built truck trailers regularly feed a stream of sub-assemblies into the starting point of final assembly lines.

Some 12,000 workers are already employed in the parts plant. Meanwhile, preliminary plans were announced for the dedication of the first of four bomber assembly plants the Government is building in the Middle West. Covering 1,216,725 square feet, the plant and auxiliary buildings are located at Kansas City, Kan. The plant will be operated by North American Aviation, Inc. and will turn out B-25 medium bombers, employing some 10,000 persons at maximum production. Dedication ceremonies have been tentatively set for Jan. 10.

Let's Go! U.S.A.—Keep 'em Flying!

### Commercial Giant Becomes Army Plane

America's largest twin-engine airliner, the new 20-ton Curtiss-Wright C-55, designed for commerce but converted into a giant military cargo transport, has been accepted by the U. S. Army Air Forces, and the company plans to produce a large number of them at its Buffalo, N. Y., plant.

The C-55 was originally designed to transport 36 passengers, a crew of five and 5000 pounds of baggage at a speed of 210 miles an hour at high altitudes. It has a wing span of 108 feet and is powered with 1700-horsepower Wright engines.

Let's Go! U.S.A.—Keep 'em Flying!

### AERONAUTICAL RESEARCH

## How Science Tortured the Flying Giant

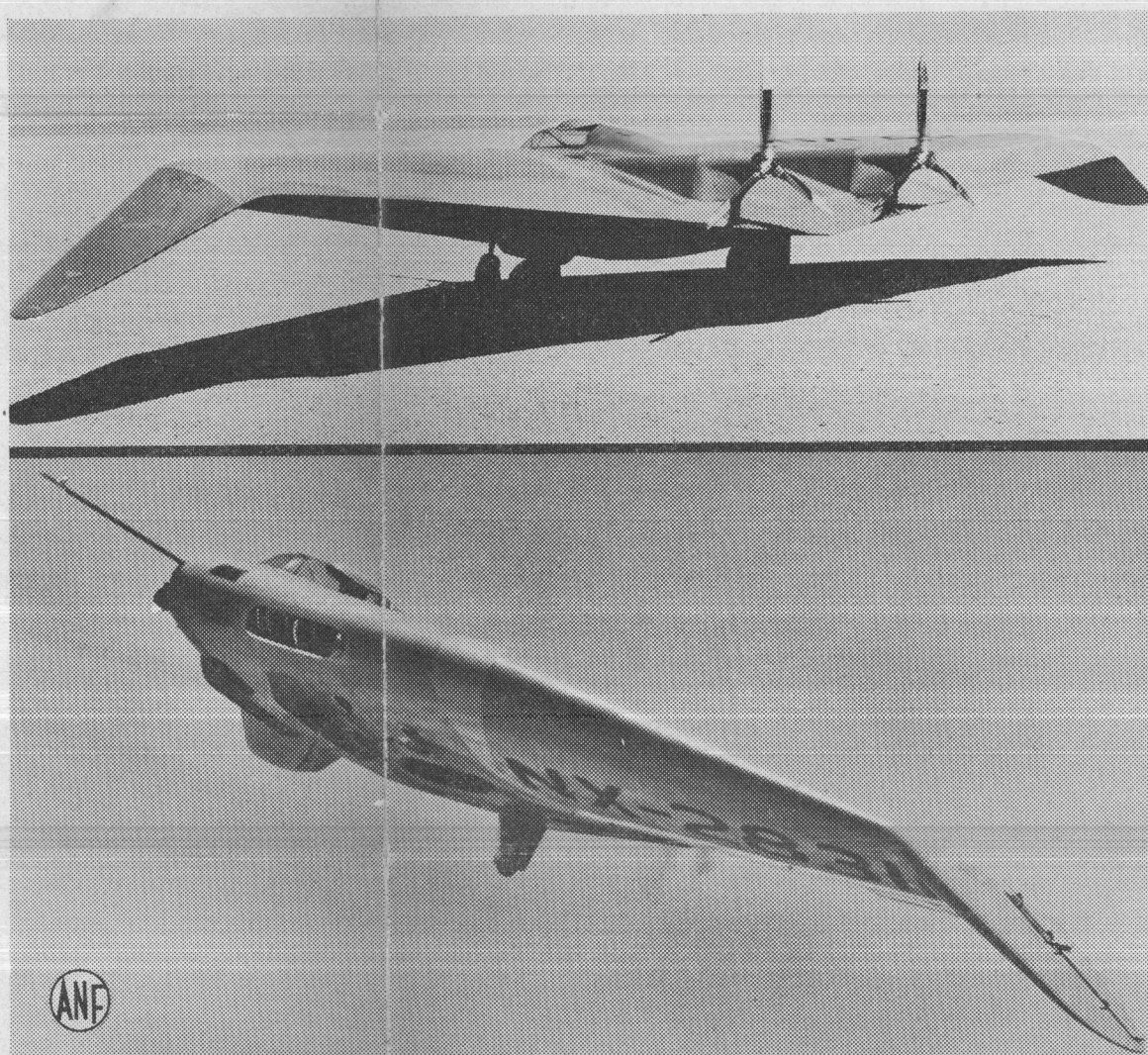
### Biggest Patrol Bomber Can Really Take It, Tests Prove

BALTIMORE, Nov. 00.—(ANF)—When America's newest aerial giant—the 140,000-pound Martin 170 flying boat—takes to the air for the first time this month there will be no question of its ability to carry tremendous loads or withstand the worst ocean gales.

For aeronautical engineers have subjected the monster patrol bomber to some of the most unmerciful "torture" ever applied to any structure, even going so far as to bend the monster wing six feet upwards to prove to their own satisfaction that the ship could "take it."

For many days the plane, designated by the Navy as the XPB2M-1, stood in a massive torture rack of steel, bearing hydraulic pressure loads which at times approached half a million pounds. This rack, containing 150 tons of

## Bird-like Flying Wing Makes Its Debut



This fantastic looking object is a real airplane which has proved its airworthiness in more than 200 test flights. It is the Northrop Wing, a tailless aircraft of radically new design which typifies the tremendous technical advances made by American aircraft manufacturers. These two photographs, from the Aviation News Committee, show (top) a rear view of the flying wing with its two pusher propellers, and (bottom) a head-on view of the strange ship in flight.

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## AEROQUIZ U. S. Fighters Use Two Engine Types

Q—Are U. S. pursuit airplanes powered by both air-cooled and liquid-cooled engines?

A—Yes. The Lockheed P-38, Bell P-39, Curtiss P-40 and North American P-51 utilize Allison in-line liquid-cooled power plants, while the Republic P-43 and P-47 and the Grumman and Brewster shipboard fighters are powered by Wright and Pratt & Whitney radial air-cooled engines.

Q—Are any of the combat aircraft now in production in American factories biplanes?

A—No. With the exception of some training ships, the monoplane has displaced the biplane in modern military airplanes.

Q—What is a "saw-tooth climb?"

A—A maneuver utilized during test flying to determine an airplane's climbing and altitude performance. The pilot flies at specified speeds for definite intervals at various altitudes.

Let's Go! U.S.A.—Keep 'em Flying!

## Big U. S. Bomber Makes Record African Flight

The long-range bomber, perfected by American aircraft builders for hemisphere defense, has scored another triumph.

According to word received by Consolidated Aircraft Corp. at San Diego, Calif., a four-engine Consolidated B-24, carrying Maj. Gen. George H. Brett, chief of the U. S. Air Corps, on a special mission, made a 26,000-mile flight to the North Africa and Near East war zones, the average speed for the entire trip being 237 miles per hour. A return trip of 3400 miles from West Africa to Brazil was made in 13 hours, 45 minutes.

Let's Go! U.S.A.—Keep 'em Flying!

## Here Are the First Official Details of Flying Wing, Newest U. S. Plane

38-Foot, Twin-Engine Model of Unique Aircraft Proves Ability in 200 Test Flights

LOS ANGELES, Nov. 00.—(ANF)—Score another triumph for the researchers and engineers of the American aircraft industry!

Taking the center of the aeronautical stage this week was a radically new type of aircraft, a tailless "flying wing" which, in the opinion of its creators, Northrop Aircraft, Inc., "points the way to a new family of airplanes in the near future."

The Northrop Wing has been the subject of widespread speculation in recent weeks, but only now have official details been released by the company, including confirmation that a 38-foot, twin-engine flying scale model has made several hundred test flights in Southern California in the past 18 months.

**GREATER SPEEDS**  
So successful have these tests been that John K. (Jack) Northrop, company president, predicted today that "substantial increases in range, speed and economy in production and operation may be obtained in the near future." He added the belief that transport aircraft having cruising speeds approximately 100 miles per hour greater than the best now available can be built as soon as the necessary engineering can be completed and construction facilities made available.

No mention was made of the military possibilities of the Northrop Wing, but the U. S. Army Air Corps is known to have evinced considerable interest in the project. Today, in cooperation with Northrop Aircraft, the Aviation News Committee of the Aeronautical Chamber of Commerce, presents highlights of this startling aeronautical innovation and its potentialities:

1—The ship, representing the

first successful true flying wing, has no tail surface or auxiliary surfaces and no fuselage, the power plants and personnel being housed within the wing. Thus unnecessary "drag" has been eliminated, as all parts of the airplane contribute directly to the "lift" of the airfoil.

2—Control and stability of the ship have been obtained through the shape of the wing (characteristic are the bent-down wing tips) rather than by the use of external fins, rudders, etc., yet pilots who have handled the "flying mockup" in the air report it as readily controlled and maneuvered as any conventional airplane.

**MANY ADVANTAGES**  
3—Several advantages of the Northrop Wing are cited. For example: Previous concepts of flying wings (the basic conception is as old as the art of flying) have envisioned a craft of huge proportions, so that all the contents of the conventional fuselage could be housed within the wing. But the Northrop design, if applied to a passenger transport of normal size, would have a thickness of only seven to eight feet, ample for housing passengers, crew and cargo.

Having considerably less "drag" than the conventional plane, the Northrop Wing would require considerably less horsepower to attain comparative speeds and could achieve considerably higher speeds with the same horsepower used in the conventional ship.

The structural simplicity and added space for cargo, passengers, etc., would, in the opinion of company officials, more than justify the adaptation of the design to modern transport aircraft.

**SOME DETAILS**  
Though no performance details have been released, the company announced that the "flying mockup" of the Wing is about one-third to one-half the size of today's twin-engine transports, with a span of approximately 38 feet. The pilot's compartment and the two 120-horsepower air-cooled engines are "buried" in the wing. The engines drive pusher propellers by use of 10-foot shafts. The small housings for these shafts, which extend above and to the rear of the wing, are the only parts of the model which do not contribute directly to the "lift."

The model was first test-flown by Vance Breese, noted test pilot, at the Muroc Lake Army base. Since then more than 200 flights have been made.

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**SAFETY RECORD**  
Trainees in the CAA pilot program have established a safety record of 6,200,000 miles per fatality.

## New Record-Breaking Gains in U. S. Plane Production Predicted by Congressman

Rep. Snyder Forecasts 12 to 14 Pct. Increase Over Previous Month; Praises "Splendid Job" Being Done by Aircraft Industry

A.M. RELEASE NOVEMBER 1

WASHINGTON, Nov. 1.—(ANF)—Production of military aircraft in October will exceed September's record mark by 12 to 14 per cent, constituting "further evidence of the splendid job" American warplane builders are doing, Rep. J. Buell Snyder of Pennsylvania declared today.

Conferring on the eve of official announcement of the October production figures with officials of the Aeronautical Chamber of Commerce, Rep. Snyder, chairman of the House military appropriations subcommittee, estimated to the Aviation News Committee that between 2,150 and 2,200 military planes rolled off assembly lines last month.

If the statement of Rep. Snyder, who has charge of all Lend-Lease and War Department appropriations, is confirmed by the official production report, which is usually released between the 5th and 10th of the month, American aircraft manufacturers will have met again the most optimistic and exacting schedules laid down in July, 1940.

**TREMENDOUS INCREASE**  
At that time, the industry was producing about 550 military planes monthly. Rep. Snyder's predicted production for October would mean that the plane builders, striving by every means to boost production during an unprecedented plant expansion and labor training program, have succeeded, in 15 months, in achieving a 300 per cent increase.

"We did not expect such rapid production before January," Rep. Snyder said. "If the facilities for expansion of plane output are completed on schedule during the next two months, we may be turning out nearly 3000 planes monthly by the first of the year."

"Not only is aircraft production ahead of schedule but the number of fighters and bombers being delivered to England and China far exceeds expectations we had six months ago."

Rep. Snyder also declared the U. S. plane industry has developed warplanes "equal or superior in all-round performance to any aircraft in the world."

Let's Go! U.S.A.—Keep 'em Flying!

## New Armor Plate for American Warplanes

NEW YORK, Nov. 00.—(ANF)—A tough new armor plate only one-quarter of an inch thick which turns off 30-caliber machine gun bullets without a dent is one of America's newest contributions to the safety of the crews of its combat airplanes.

While much of the data relating to the new armor plate is still on the Army's list of restricted information, the Aviation News Committee reports that already it is being installed on U. S. bomber and pursuit planes.

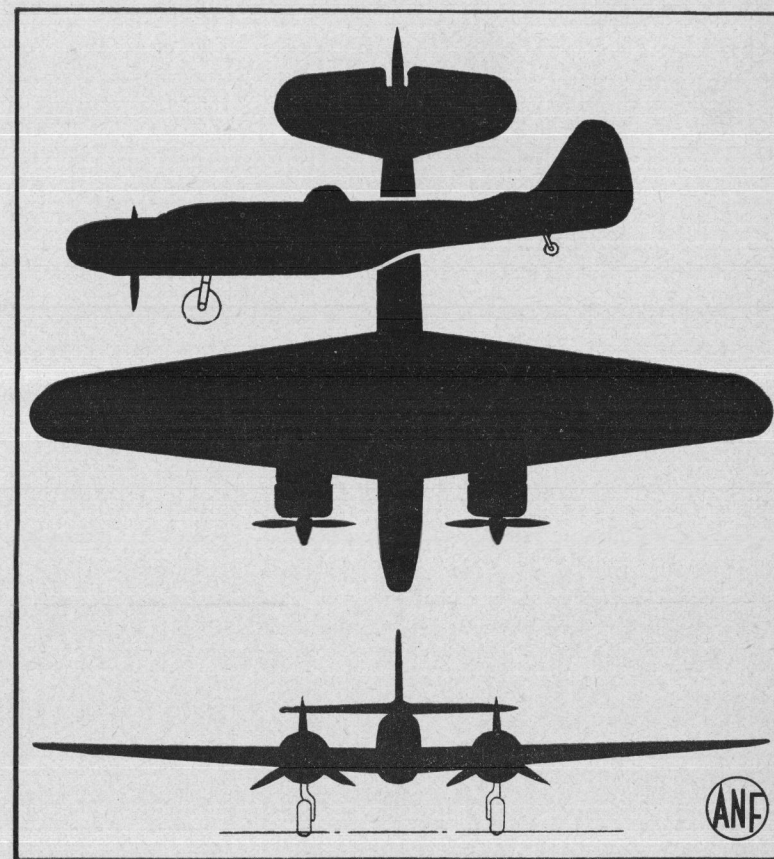
The plate, hardened by a secret process, was developed by two engineers of the Breeze Corp., Newark, N. J.

Let's Go! U.S.A.—Keep 'em Flying!

RELEASE NOVEMBER 1

## Know America's Planes

MARTIN MARYLAND



Seasoned in battle is this bomber, one of the many types American aircraft factories are producing in ever-growing numbers for Great Britain. The Martin Maryland, powered by two Pratt & Whitney engines, has made headlines by its feats on the Mediterranean and Near East fronts. Able to carry nearly a ton of bombs, the Maryland is armed with machine guns in turret, ports and wings. Points of recognition include the wings which taper on both leading and trailing edges, the gun turret amidships and the manner in which the underside of the fuselage "steps up" sharply toward the tail.

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