"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,

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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Vice-Chairman

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-Bra-bazon, RAF air officer commanding the Middle East sector, feels about the American-built fighter planes which are being deliveryflown 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 can 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!

Personnel, Payrolls---Statistics Tell Story of Aircraft Benefits

Economic benefits derived by American workers from the aircraft industry's tremendous expansion program were reflected this week in statistics compiled by the Aviation News Committee.

In California, for instance, the average weekly earnings of aircraftsmen far outstripped the average hours worked. Figures from the Division of Labor Statistics of the State Department of Industrial Relations showed that while average hours per week in July increased 0.7 per cent over June and 5.3 per cent over July, 1940, average earnings were up 3.6 per cent and 16.3 per cent for the same

In Kansas, the State Labor Department reported that an employment increase of 6.9 per cent and a rise in payrolls of 9.6 per cent were caused chiefly by the expansion in the aircraft manufacturing industry in that state.

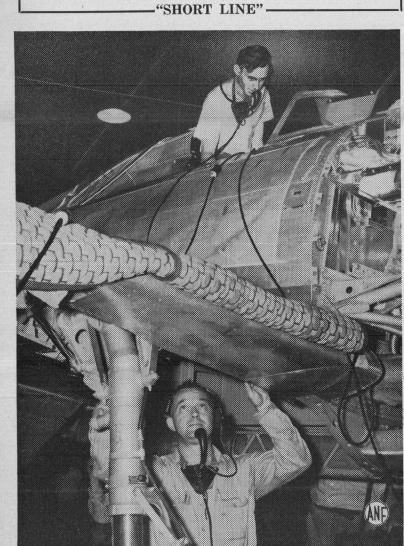
In the State of Washington, the Department of Labor and Industries reported that during the first seven months of 1941 the airplane manufacturing industry accounted for \$12 289 881 of the entire industrial payroll of \$248,347,224, while workman hours in the plane plants totaled 13,201,508 out of 301,976,297

for all industry. And in Maryland employment in aircraft plants showed an increase of 109.8 per cent from August, 1940, to August, 1941.

Let's Go! U.S.A.—Keep 'em Flying!

A NEW FEATURE!

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



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. (EDITORS: IF YOU ARE NOT RECEIVING AVIATION NEWS FEATURES MATS OR GLOSSY PRINTS, WRITE TO AVIATION NEWS COMMITTEE. 7046 HOLLYWOOD BLVD., LOS ANGELES, FOR THIS FREE SERVICE.)



on Pacific Coast

Million Square Feet

Added to Arsenal

of Democracy

LOS ANGELES, Nov. 00.—(ANF)

-To the accompaniment of roar-

ing motors in the sky and the applause of thousands of spectators,

nearly three million square feet of

productive floor space were offi-

cially added to the arsenal of de-

mocracy by the American aircraft

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

"BLACKOUT PLANT"

centered on the 1,400,000-square foot "blackout" plant of the Doug-

las Aircraft Co., from which will

come long-range four-engine Fly-

ing Fortress bombers, swift attack bombers of the A-20 and DB-7

types and C-47 Army cargo trans-

ports. Highlight of the ceremonies

was the appearance of the Doug-

las B-19, world's largest bomber,

which swooped down over the

black-walled buildings of the new

factory at a height of less than

Simultaneously with the dedication of the newly-completed

plant, concrete was poured for a

large, which will give fresh impe-

tus to the nation's expanded out-

put of long-range bombers. At

peak production the new plants

At San Diego, Assistant Secre-

tary 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 aircraftsmen will pro-

duce parts and sub-assemblies for the famous U. S. Navy's PBY-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

HIGHWAY CONNECTION

the new building, officially desig-

nated as Plant 2 and unofficially

known as the "largest machine

shop west of the Mississippi," is

connected with the main Consoli-

dated plant by a full-sized high-

truck trailers regularly feed a

stream of sub-assemblies into the

starting point of final assembly

employed in the parts plant.

Some 12,000 workers are already

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

Let's Go! U.S.A.—Keep 'em Flying!

America's largest twin-engine

airliner, the new 20-ton Curtiss-

Wright C-55, designed for com-

merce 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

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

The C-55 was originally designed

at its Buffalo, N. Y., plant.

Becomes Army Plane

Commercial Giant

way.

over which specially-built

Covering 1,500,000 square feet,

for Britain's Royal Air Force.

will employ 30,000 workers.

unit, approximately as

At Long Beach the spotlight was

dedications took place.

industry in the past fortnight.



Conferring on the eve of official

announcement of the October production figures with officials of the Aeronautical Chamber of Com-

merce, 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

If the statement of Rep. Snyder,

who has charge of all Lend-Lease and War Department appropria-

tions, is confirmed by the official

production report, which is usu-

10th of the month, American air-

craft manufacturers will have met

again the most optimistic and ex-

acting schedules laid down in

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 produc-

tion during an unprecedented plant

expansion and labor training pro-

gram, have succeeded, in 15 months, in achieving a 300 per

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 turn-

ing 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 de-

livered to England and China far

exceeds expectations we had six

Rep. Snyder also declared the

U. S. plane industry has developed

warplanes "equal or superior in

all-round performance to any air-

Let's Go! U.S.A.—Keep 'em Flying!

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 com-

While much of the data relat-

ing to the new armor plate is

still on the Army's list of re-

stricted information, the Aviation

News Committee reports that al-

ready it is being installed on U. S.

The plate, hardened by a secret

process, was developed by two en-

gineers of the Breeze Corp., New-

Let's Go! U.S.A.-Keep 'em Flying!

bomber and pursuit planes.

American Warplanes

"We did not expect such rapid

cent increase.

months ago."

craft in the world."

bat airplanes.

ark, N. J.

New Armor Plate for

ally released between the 5th and

New Record-Breaking Gains

in U. S. Plane Production

Rep. Snyder Forecasts 12 to 14 Pct. Increase Over

Previous Month; Praises "Splendid Job" Being

Done by Aircraft Industry

tary 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.

WASHINGTON, Nov. 1.—(ANF)—Production of mili-

A.M. RELEASE NOVEMBER 1

Army and Navy Get

123 Trainer Planes

Spectacular Mass Flight

Made From Vultee

Factory

LOS ANGELES, Nov. 00.—(ANF)

Residents of the Los Angeles area

saw graphic evidence recently of

the rapid rate at which the Amer-

ican aircraft industry is producing

military airplanes. Occasion was the greatest single delivery of air-

craft in history, the turning over

to the U.S. Army, Navy and Ma-

rines of 123 basic trainers by Vul-

After a mass formation flight

over Los Angeles, the ships were

flown to Army training centers at

Moffett Field, Calif., Gunter Field, Ala., and Randolph Field, Tex.,

and Navy fields at San Diego,

Calif., Pensacola, Fla., and Corpus

Let's Go! U.S.A .- Keep 'em Flying!

Aircraftsmen by

the Thousands

Hiring rates of American air-

tee Aircraft, Inc.

Christi, Tex.

PLANE FACTS:

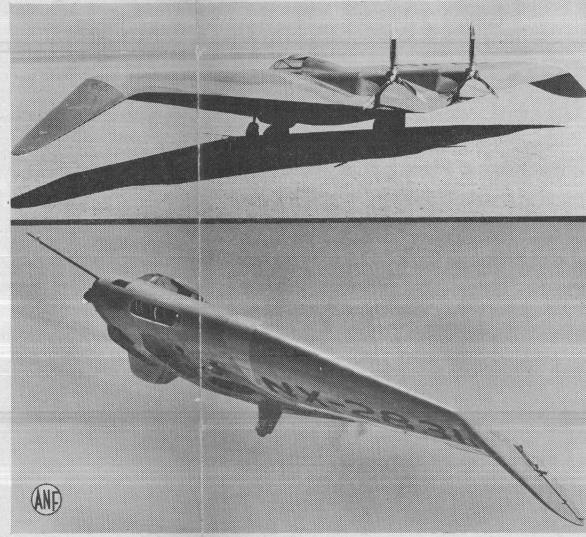
in Record Delivery

Predicted by Congressman

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

RELEASE NOVEMBER 1

2 Giant Aircraft Bird-like Flying Wing Makes Its Debut **Plants Dedicated**



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

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

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 he Grumman and Brewster s board 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 mod-

ern military airplanes. Q-What is a "saw-tooth

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

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

Let's Go! U.S.A.—Keep 'em Flying!

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

Proves Ability in 200 Test Flights

A-Yes. The Lockheed P-38, Bell 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"

er plants and personnel being

housed within the wing. Thus un-

necessary "drag" has been elimi-

contribute directly to the "lift" of

ship have been obtained through

the shape of the wing (character-

istic 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 con-

trolled and maneuvered as any

MANY ADVANTAGES

Previous concepts of flying wings

(the basic conception is as old as

the art of flying) have envisioned

that all the contents of the con-

a craft of huge proportions, so

ventional fuselage could be housed

within the wing. But the North-

rop design, if applied to a passen-

ger transport of normal size, would

have a thickness of only seven to

eight feet, ample for housing pas-

Having considerably less "drag"

than the conventional plane, the

Northrop Wing would require con-

siderably less horsepower to attain

comparative speeds and could

achieve considerably higher speeds

with the same horsepower used in

The structural simplicity and added space for cargo, passengers, etc., would, in the opinion of com-

pany officials, more than justify the adaption of the design to mod-

SOME DETAILS

Though no performance details

have been released, the company

announced that the "flying mock-

up" 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 en-

gines 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

The model was first test-flown

by Vance Breese, noted test pilot,

Since then more than 200 flights

Let's Go! U.S.A. Keep 'em Flying!

SAFETY RECORD

Trainees in the CAA pilot pro-

gram have established a safety

record of 6,200,000 miles per fa-

at the Muroc Lake Army base.

directly to the "lift."

have been made

sengers, crew and cargo.

the conventional ship.

ern transport aircraft.

conventional airplane.

2-Control and stability of the

ators, Northrop Aircraft, Inc., "points the way to a new family of airplanes in the near future."

subject of widespread speculation in recent weeks, but only now have official details been released by the company, including confirmation that a 38-foot, twinmade 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, pre-dicted 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 facili-

1—The ship, representing the

LOS ANGELES, Nov. 00.—(ANF)—Score another

which, in the opinion of its crefirst successful true flying wing, has no tail surface or auxiliary surfaces and no fuselage, the pow-

The Northrop Wing has been the engine flying scale model has

ties 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:

Two Engine Types 38-Foot, Twin-Engine Model of Unique Aircraft

plane, engine and propeller manufacturers are zooming as more and more aircraft are produced for democracy's defense. Examples: At Seattle, Boeing Aircraft Co. hired 10,000 new em-

ployes in 10 weeks. At Los Angeles, Lockheed Aircraft Corp. and its affiliate, Vega Airplane Co., have been employing workers at a rate of 2000 weekly and expect. if sufficient men and women are available, to have created 27,000 new jobs between now and April 1. Let's Go! U.S.A.-Keep 'em Flying!

Experiments conducted by Republic Aircraft Corp. indicate that the speed of the P-43 Lancer pursuit plane may be increased by nated, as all parts of the airplane the substitution of a four-blade propeller for the present three-blade

Let's Go! U.S.A.—Keep 'em Flying!

Lightweight rivets are a vital part of the modern fighting airplane. A total of 100,000 rivets goes into the Bell Airacobra, yet they add only 39 to 40 pounds to the ship's weight. In 150 different sizes, the rivets scale down to 1-64th of an inch in diameter.

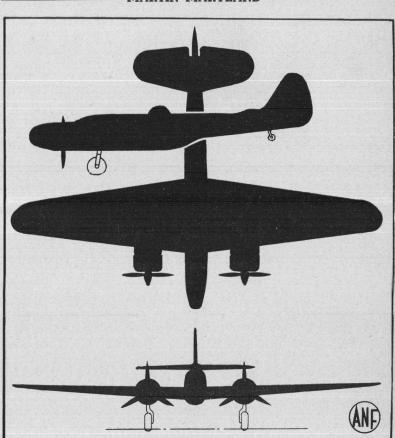
Let's Go! U.S.A.—Keep 'em Flying!

3-Several advantages of the Northrop Wing are cited. For ex-

RELEASE NOVEMBER 1

MARTIN MARYLAND-

Know America's Planes



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 tuselage "steps up" sharply toward the tail.

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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

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

bridge steel, was used because engineers of the Glenn L. Martin Co. decided that instead of loading the wings and other parts of the ship with dead weights they would apply loads with hydraulic power In this way the weights could be better controlled and the twisting forces applied more accurately.

During the tests 150 laboratory and engineering technicians carried on their multiple duties with perfect teamwork. Nerve center of the proof testing was a control desk directly below the towering prow of the aerial battleship.

From this desk, by means of a loud speaker system and rows of switches and buttons, went orders at which rows of men, with eyes glued to pressure gauges, pumped on long-handled levers which forced hydraulic pressure into the great jacks and shoved the wings

Huge stacks of lead bars at the bow and tail and underneath the hull kept the ship down while the wings were heaved upward. Simultaneously many hundreds of gal-

Pressure Exerted on Hull, Wings

lons of water in the hull contributed to the load.

The XPB2M-1 ("X" for experimental, "PB" for patrol bomber, "2M" for second patrol bomber type built by Martin, and "1" for first of its series) came through

the proof tests with flying colors. Driven by four 2000-horsepower Wright Duplex Cyclone engines. the big ship is capable of flying across the Atlantic and back non-

Half a Million Pounds of

Slung high under the right wing, another crew of technicians noted the readings of more than a hundred little electrical strain gauges scattered through all parts of the

At eight stations on the floor were surveyor's levels into which engineers sighted at deflection gauges suspended from 150 points on the wings and hull.