#### A STATEMENT OF PRINCIPLES

The American aircraft industry, still under the guidance of those who gave man wings, and backed by countless thousands of loyal men and women along production lines across the nation, makes this solemn statement of principles:

To our fellow Americans, and to Fighters for Freedom everywhere, we pledge our every material resource—our every ounce of energy to the great task entrusted to us.

To the thousands of pilots now fighting for democracy, and to the legion of fledglings still to come, we rededicate ourselves to providing the finest equipment that aeronautical science can produce ... and in such numbers as to enable them to sweep the skies.

Given the materials with which to build, we shall carry the battle of production through to

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AERONAUTICAL CHAMBER OF COMMERCE **Aviation News Committee** LOS ANGELES:

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### **Aircraft Companies Speed Production** By Making Employes 'Safety-Conscious'

LOS ANGELES, April 00.—The health and safety of the aircraft employe is just as important to the war effort as

With the cooperation of employes who want to be on the job all the time, the aircraft companies have embarked on an all-out campaign to make their employes "safetyconscious." Rules and regulations for safeguarding health and welfare have been laid down in every aircraft plant.

To see that they are observed, the individual managements have appointed safety committees and councils in each factory to meet every few weeks to point out all unsafe conditions and offer suggestions for improvement.

Such things as pre-employment temperament examinations, firstaid drills, vitamin pills, free throat swabs, cold prevention capsules and monthly safety awards are all part of the health drive.

The pre-employment tests are designed to show whether or not a candidate for a job would constitute a potential threat to the health and welfare of his fellowemployes, not to exclude him from possible work.

First-aid drills and safety classes are required courses for new employes in almost every plant. Companies like Northrop now exude safety-conscious atmosphere by having Safety Representatives, wearing green and white arm bands, stationed strategically about the plant. Douglas and other companies have trained safety engineers and volunteer employe inspectors in every department.

First-aid stations are found in almost every plant corner at Lockheed. At Boeing, no matter how slight the injury, the employe is ordered to seek immediate treatment at the nearest first-aid station. This policy, which has also been adopted by Consolidated, reduces to a minimum the danger of infection.

Companies which employ women, like Vultee and Vega, require them to wear hairnets or snoods at all times. This rule applies especially to women working as machine op-

erators or adjacent to them. To build up vitality and resistance, companies like North American have been supplying high-potency vitamin pills to their employes. These pills, containing a high A, B, D and G content, reduce fatigue and increase efficiency.

To spur employe participation in this drive, most of the com-panies have individual safety awards and trophies which are given each month to that department which has made the best safety record.

Company records are now almost perfect. During the last three months of 1941, for example, Republic Aviation, competing with three other aircraft firms, won an Accident Prevention Campaign with a rating of 99.924 per cent. This concentration on employe health and safety is not without justification. Last year, according to figures compiled by the National Safety Council, 18,000 workers perished in occupational accidents and 29,000 others died in offthe-job accidents. In man-hours, the dollar loss could be estimated at \$3,750,000. If all these dead workers had been employed on one aircraft industry project, the coun-

try would have lost not only the

services of 47,000 men, but also

of 11,000 Flying Fortresses.





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

## AMERICAN AIRCRAFT ON OFFENSIVE IN BATTLE OF AUSTRALIA



Five types of American-built aircraft are now on active combat duty in Australia while four other models are on their way to her defense. In a specially-prepa ed montage, the Aviation News Committee of the Aeronautical Chamber of Commerce brings you pictures of the nine American warplanes that are in the vanguard of the vast "more aid to come program which will ultimately sweep the invader from the United Nations sky. Reading counter-clockwise, the pioneer American warplanes are: 1) the Boeing Flying Fortress, which, with 2) the Consolidated B-24, or "Liberator," constitutes the Army Air Corps' team of heavy offensive weapons: 3) the Bell P-39, or "Airacobra," best described

as a "cannon on wings"; 4) the Douglas A-20A, invaluable for lightning-like day or night thrusts at the foe; 5) the Lockheed "Hudson," affectionately called "Old Boomerang" by R.A.F. pilots for its amazing ability to return under the most trying conditions; 6) the Martin B-26, the twin-engine deadly attack bomber; 7) the Curtiss P-40, or "Tomahawk," the standby of the American Volunteer "Flying Tigers" in Burma; 8) the North American B-25. the Air Corps' twin-engine bomber which combines speed with a large bomb-load; and 9) the Consolidated PBY-5, or "Catalina." whose job it is to patrol the coast and blast the

**Curtiss-Wright Workers** 

Pledge 'Keep 'em Flying'

WASHINGTON, April 00 .-

(ANF)—Curtiss - Wright employes

have sent President Roosevelt a

In the form of a scroll several

hundred feet long and containing

thousands of signatures, the

"We, the undersigned defense

workers in the airplane division

of the Curtiss-Wright Corporation,

pledge that we will turn all our

efforts to fulfilling your request

for 185,000 airplanes. We pledge,

moreover, that we will continue

these efforts until the United

States has set the 'rising sun' and

won a final and lasting victory

over the Axis powers. We pledge

Let's Go! U.S.A.—Keep 'em Flying!

**Power British Bombers** 

An example of the adaptability

of American aircraft engines was

revealed recently in dispatches

from Australia, which told of the

installation of Pratt & Whitney

power plants in British-designed

**American Engines** 

ourselves to 'Keep 'em Flying.' "

pledge to "Keep 'em Flying."

pledge reads:

U-boats from the seas.

THIS FREE SERVICE.)

A vertical turn is one in

What are plastics, exactly?

"Plastics," as applied to air-

which the degree of bank is be-

craft construction, are low-density.

synthetic resins and materials in

solid form which can be formed or

molded, under suitable conditions,

to any desired shape. In the manu-

facture of plastics, the chemical in-

gredients unite by means of pol-

What is a barrel-type en-

tween 70 and 90 degrees.

**AEROQUIZ** 

merization.

#### **West Coast Hiring Facilities Pooled in Vast Employe Drive**

LOS ANGELES, April 00.-(ANF)-In an effort to recruit every possible employable in this area, the aircraft companies, with the cooperation of the United States Employment Service, have established a Central Aircraft Hiring Office to serve as a clearing house

for all plants in this area. With a staff of more than 100 trained personnel officers, the Central Aircraft Hiring Office is possibly the largest employment bureau in the world. It interviews applicants at the rate of 5000 a day. In its first month of operathe office examined more tion. than 100,000 men and women. Nearly 60,000 were found to have sufficient qualifications to be passed on to the aircraft personnel

representatives. Applicants are sorted out at the counter. Those who pass the preliminary test are given more thorough examinations by professional interviewers. If they apparently meet the required standards, they are then given aptitude tests by trained psychologists, in an effort to determine their mechanical

The Central Aircraft Hiring Office is equipped to handle as many as 10,000 job-seekers a day. It was established last month to speed machinery for finding the 100,000 aircraft employes which, the aircraft plants estimate, will be needed for production work by the end of the year.

RELEASE APRIL 15

#### (EDITORS: IF YOU ARE NOT NOW RECEIVING AVIATION NEWS FEATURES MATS, WRITE TO AVIATION NEWS COMMITTEE, SHOREHAM BUILDING, WASHINGTON, D. C., FOR Military Aircraft To Be Built Plastics Formed by

Union of Chemicals LOS ANGELES, April 00.—(ANF)-Military airplanes made of wood What is a vertical turn?

and other non-strategic materials will soon be filling the skies.

# **Pre-Flight Laboratory**

of aeronautical research.

tween the windward and the lee-

Some of the details tested by this captive engine are oil cooling, fuel flow, exhaust back pressure, engine and propeller vibration, prop clearance and heat dispersion. Although the experiments are conducted on the ground, at sea level, the results obtained give the test engineers a pretty fair idea of how the motor will act when it gets up in the air.

NO LIMIT ON JAPS Cessna Aircraft Company is boosting defense stamp sales by "Jap hunting license" cards. The cards read: "Open season declared December, 1941. NO LIMIT. Shoot a Jap a day the defense way.'

validates the "license."

#### **PLANE FACTS:** Stuka a Girl,

Not a Dive Bomber

In Iceland, "stuka" is a girl, not

a dive-bomber.

The Navy plans to earmark \$130,000 for the procurement of Navy "E" pennants and buttons to

be distributed to the employes and

plants that fulfill their war con-

tracts with outstanding ability. The maximum load of airplane gasoline a camel can carry across the desert is 80 gallons.

If all the employes in the Los Angeles aircraft plants, their families and the merchants required to feed, clothe and supply them could be grouped together, they would form a city one-fifth larger than San Francisco.

First two Axis spies to face death penalty charges in this country in this war are accused of stealing plans and specifications of the Boeing Flying Fortress.

On a recent short haul in Africa, American-made cargo planes carried more freight in three days

Bristol Beaufort bomber-torpedo than an equal number of trucks planes being built in factories could have delivered in 25 days. "down under." RELEASE APRIL 15

Know America's Planes

FAIRCHILD PT-19A TRAINER

Pictured above is the Fairchild PT-19A Army Air Corps two-place trainer. A primary trainer with all the characteristics of the tactical plane to which cadets must become accustomed in the later stages of their training, the PT-19A has recently been modified by the Fairchild company, and is now introduced as the P-26. Called the "Cornell," it is now being delivered to the RCAF in Canada. Much of the plane is made of wood and plastics. Wing spars, for example, are of solid spruce while the wings and tail are plywood covered.

(EDITORS: IF YOU ARE NOT RECEIVING AVIATION NEWS FEATURES MATS, WRITE TO AVIATION NEWS COMMITTEE, SHOREHAM BUILDING, WASHINGTON, D.C., FOR THIS FREE SERVICE.)

#### **PACIFIC FERRY** PLAN SPEEDS **AUSSIES AID**

Five Types Already On **Active Combat Duty** 

"Down Under" A.M. RELEASE APRIL 15

By Aviation News Features WASHINGTON, D. C., April 00. - (ANF)-Hardhitting Americanbuilt warplanes are rapidly wresting air superiority from the Japanese on all approaches to the continent "down under," U. S. War Department communiques have re-

vealed. Many of these planes are reaching the Australian war theatre by means of a Pacific ferrying service, similar to that operating across the Atlantic to Great Britain. Blasting away at enemy land, sea and air units, this rapidly growing air force has had the effect of slowing down Japan's attempts to secure a foothold on the Australian mainland. The advantage of numerical as well as technical air superiority appears to be shifting rapidly to the Allied nations as a result of the influx of American planes.

It is known that American airmen have had an important hand in the destruction of at least 1025 Japanese planes since the attack on Pearl Harbor. Many of these losses were inflicted in and about the Australian sector.

The fate of the continent, according to numerous observers, rests on the ability of the Allied nations to get a sufficiently large force of American fighting planes into the fray in time to halt the Japanese bombers. American planes already in service there have hung up an exceptionally brilliant performance record, according to War Department com-

Known to be on active combat duty there are large numbers of four-engine Boeing Flying Fortress bombers, the huge Consolidated PBY-5 flying boats, Bell Airacobras and Curtiss P-40 fighters, and the deadly Lockheed Hudson twinengine attack bombers. All are under command of Lieut. Gen. George H. Brett, head of all the air forces of Australia and the United

States operating in Australia. Other types of American fighting planes which are believed to have already arrived in Australia or to be en route there include the formidable Consolidated B-24 fourengine bombers and such deadly twin-engine bombers as the North American B-25, the Douglas A-20, and the Martin B-26. Heavily armed and equipped to operate at high altitudes, these planes may well be the determining factor in the battle of Australia.

Since March 1, according to Col. Eugene Eubank of the U.S. Army Air Forces in Australia, his pilots have destroyed a total of 50 Japanese fighter planes and sunk or damaged 46 Japanese transports

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

#### Air Force Chief's **Army Day Message Praises Aircraft** WASHINGTON, April 00.—(ANF)

-Army Day had a far deeper meaning this year, especially for the aircraft employes. Instead of just a day set aside to

remind them that they had an Army, it became a Day of Patriotic Resolve, one in which to put every nerve and sinew into the struggle to supply their Army with its great needs. As representative of the thou-

sands and thousands of production craftsmen in the aircraft plants throughout the country Colonel John H. Jouett, President of the Aeronautical Chamber of Commerce of America, reaffirmed the pledge made long ago by the aircraft industry: "To spare neither time nor effort to meet the Army's requirements.'

In a letter addressed to Lieutenant-General H. H. Arnold, commanding officer of the Army Air Forces, Colonel Jouett wrote, "Please accept, General Arnold, for the Army and the Air Forces, our wishes for your success and our sincere desire to give you the best planes-sufficient in quantity to insure victory-and to give them to you on time."

Speaking for the Army Air Corps, General Arnold replied, "We know that you will provide the best planes in quantity and in time. We know that you mean it. We know that you will not fail. With your backing and the backing of the nation, we cannot fail."

To show the public how well the Air Forces and the aircraft emploves are working as a team, General Arnold ordered "Open House" to be observed in those Army air stations not lying within restricted military areas.

"It is well," he commented, "that the public should see the type of equipment that our magnificent aviation industry is turning out.'

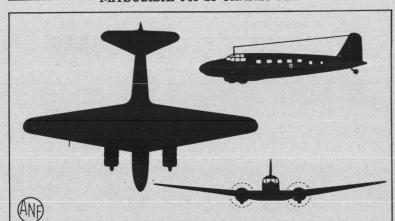
#### A. A barrel-type engine is one having its cylinders arranged equidistant from, and parallel to the Air Training Required

Of West Point Cadets WEST POINT, April 00 .- A minimum of 10 hours air training will be a required part of the curriculum for every cadet of the United States Military Academy.

Discussing the new regulation, Lieut. Col. R. W. Harper, assistant to Lieut. Col. J. M. Weikert, in charge of air corps training, said every man, regardless of what branch of the service he entered, will be taught at least the rudiments of aviation before he leaves West Point.

## Know the Enemy's Planes

MITSUBISHI Mc 20 TRANSPORT -



The eighth of a series of Japanese warplanes brought to you by the Aviation News Committee is silhouetted above. It is the Mitsubishi Mc 20 transport, whose origin stems from the Douglas DC-2. A low-wing monoplane of all-metal construction, the Mc 20 carries 11 Japanese parachutists and 5000 pounds of equipment. Powered by two Nakajimi 850 horsepower motors, the Mc 20 has a cruising speed of 200 miles per hour. (EDITORS: IF YOU ARE NOT RECEIVING AVIATION NEWS FEATURES MATS, WRITE TO AVIATION NEWS COMMITTEE. SHOREHAM BUILD-ING, WASHINGTON, D.C., FOR THIS FREE SERVICE.)

# With Non-Strategic Materials

North American Aviation Company, which is already using plywood structures in its combat trainers, has successfully substituted a low alloy of steel of the most common

grade in place of precious alumi-

num alloy. Ordinary steel will soon

is somewhat similar to the type of

steel formerly used in stoves and

railroad coaches. North American,

after considerable research, dis-

covered this steel could be rend-

ered suitable for aircraft construc-

tion by means of cold reduction.

rial opens revolutionary produc-

tion possibilities in view of the po-

tentially serious shortage of alu-

minum alloy and high steel alloys.

The steel and plywood planes,

North American engineers believe,

will match or surpass the present

aluminum alloy planes in strength

Curtiss-Wright is another air-

craft company which is thinking

in terms of non-strategic mate-

rials. Already the company is

making plans to construct a revo-

lutionary wooden ship which can

be used as a long-range military

The craft will be the largest

wooden airplane in the world. To

aid in its construction, Curtiss-

Wright is assembling experts in

In cases where plywood is used

in the construction of aircraft, the

plywood, in almost every case, is impregnated and molded to form

a tough plastic covering, which re-

places the stressed interior "skin"

In the new Curtiss-Wright plane,

plywood will be used to cover the

wings and fuselage. Interior ribs

and other light structural mem-

bers will be made of wood. Other

parts will be made largely of ma-

terials not included in the list of

Designed to carry troops, equip-

ment and supplies to distant areas,

the transport will be powered by

at least two high-powered engines.

numbers of this new type of plane

for the armed forces, a great per-

centage of its structure will be

sub-contracted. As its parts will

be mainly of wood, furniture mak-

To speed the output of large

the design and manufacture of

wood and plastic airplanes.

of sheet aluminum

military priorities.

and safety factors.

transport.

Use of the new aircraft mate-

The low carbon, low alloy steel

go on the assembly lines.

**Speeds Engine Tests** SEATTLE, April 00.—(ANF)—

An airplane engine which never leaves the ground is one of the most valuable assets in the Boeing Aircraft Company's vast storehouse

The engine, attached to a section of wing mounted on wheels, comprises a revolving laboratory for pre-flight testing. Operated by a test crew with a full set of instruments, the laboratory enables the crew to iron out the "bugs" in new power-plant installation

systems before putting the model into production. By means of a circular track, the motor is trundled around to take advantage of the wind blowing in any direction. The laboratory is suitable for making tests heading into the wind, as on a normal take-off, and under crosswind conditions, where there will be a difference in temperature be-

ward sides of the motor.

Since an engine requires more test flight time than any other part of the airplane, this motor laboratory cuts months from the amount of time usually spent in getting a new type of plane into production. With time now the all-important factor, Boeing's preflight testing is another vital contribution to the war effort.

A defense stamp on the card

ers and other wood-working organizations, which have not yet been actively engaged in the war effort, will be utilized.

#### **FDITORS:**

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