

Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

FEBRUARY 28, 1944

★
Alaska Ace-in-Hole in Air Route Talks

Pilots flying between Far North and Seattle see territory as of great strategic value in position of vital link in Great Northern Route.....Page 12

★
Discuss Plans to Make Airports Pay

Representatives from 17 states attend conference at Ft. Wayne, Ind.; Heino offers "decentralization program".....Page 7

★
Airworthiness Requirements Group

Membership made up of 40 leading aircraft manufacturing companies, headed by Boeing Aircraft's Vice President Beall.....Page 10

★
Babson's Views on Air Stocks

Bearish on manufacturing issues and bullish on transportation equities, although current prices are believed to have discounted outlook..Page 38

★
ACCA Asks Certification Simplification

Proposal by Chamber's Committee is part of program by air industry to modify delay and cost of U. S. regulations.....Page 16

★
New Moves Enliven Reconversion

Baruch and Hancock issue report of industrial demobilization recommendations. George introduces bill covering same field.....Page 14

★
Convair Cites Research Value

Company's financial report reflecting record operation in fiscal year says work continues on 400-passenger craft.....Page 27

★
National Gets Florida-N. Y. Route

CAB authorizes competition along productive eastern seaboard and at same time puts one of smaller companies into field with Eastern. Page 30



Aviation Expert to Little Cabinet: William A. M. Burden, widely known authority, who has been special aviation assistant to the Secretary of Commerce, has been named Assistant Secretary of Commerce, in which post he is expected to continue his close association with the industry and its related activities. He brings to his new post a long career in commercial and government aviation administration.



EXTRA HORSEPOWER

...in a package!

NOT all of a plane's horsepower is in the engine. An emergency supply is needed to power the brakes, lower landing gear, operate bomb-bay doors...and to do other jobs in a hurry. Carbon dioxide, stored in handy containers under high pressure, provides this auxiliary power. A Kidde cylinder only 30 inches long holds over a million foot-pounds of energy! Kidde valves make this tremendous power available in an instantaneous burst or over any desired period.

The aviation industry has found many uses for gases-under-pressure, harnessed by Walter Kidde & Company. If you have a power-actuation job, our experience will be useful to you in working out equipment to handle it. Drop a line to our Research and Development Department.



WALTER KIDDE & COMPANY, INC., 256 MAIN STREET, BELLEVILLE, N. J.

THE AVIATION NEWS

Washington Observer

BARUCH REPORT—Crowding news from the war fronts for attention in Washington is the Baruch report on reconversion—a report which found enthusiasm in some quarters, general acceptance in most and some criticism in still others. The initial reaction of aircraft industry executives was that they had no strong criticism to offer and that generally it appeared to be sound. On details, of course, there was disagreement, but that was to be expected and even some of those who took immediate exception to the Baruch recommendations were inclined to modify their views on further study. While the report has all the makings of a sharp conflict between the executive and legislative branches of the government, this fight was not expected to develop in view of the urgency of moving up on the vital question of reconversion, which affects our whole future economy.

★

THE GEORGE COMMITTEE — Senator George, chairman of the Senate's post-war planning committee, was quick to criticize the Baruch report, largely on the basis that its execution would ignore the legislative branch, although proponents of the report insisted that its provision can not be put into effect without legislative action. It was regarded as significant that, when Senators George, Murray and Hill introduced an over-all bill to carry out the recommendations of the Senate committee for industrial and human demobilization, George said the bill did not differ materially from the recommendations made in the Baruch report.

★ ★ ★

STAND-BY PLANTS—In connection with reconversion, it does not appear right now that many, if any, of the various aircraft engine plants operated by automotive companies such as Chrysler, Buick, etc., will be held in reserve

as stand-by plants after the war, according to best information available in Washington. Companies like Wright, Pratt & Whitney and other old-line aviation engine firms probably will have first right of operation to any stand-by plants the Government decides on. In this connection it appeared likely that the old-line companies will get development orders from the government to assure continued research and development. Arrival of jet propulsion is a factor in any decisions on stand-by plants. One official expressed a doubt that many aircraft engine plants will be kept because there is some doubt that planes will be using engines of today's type ten years from now.

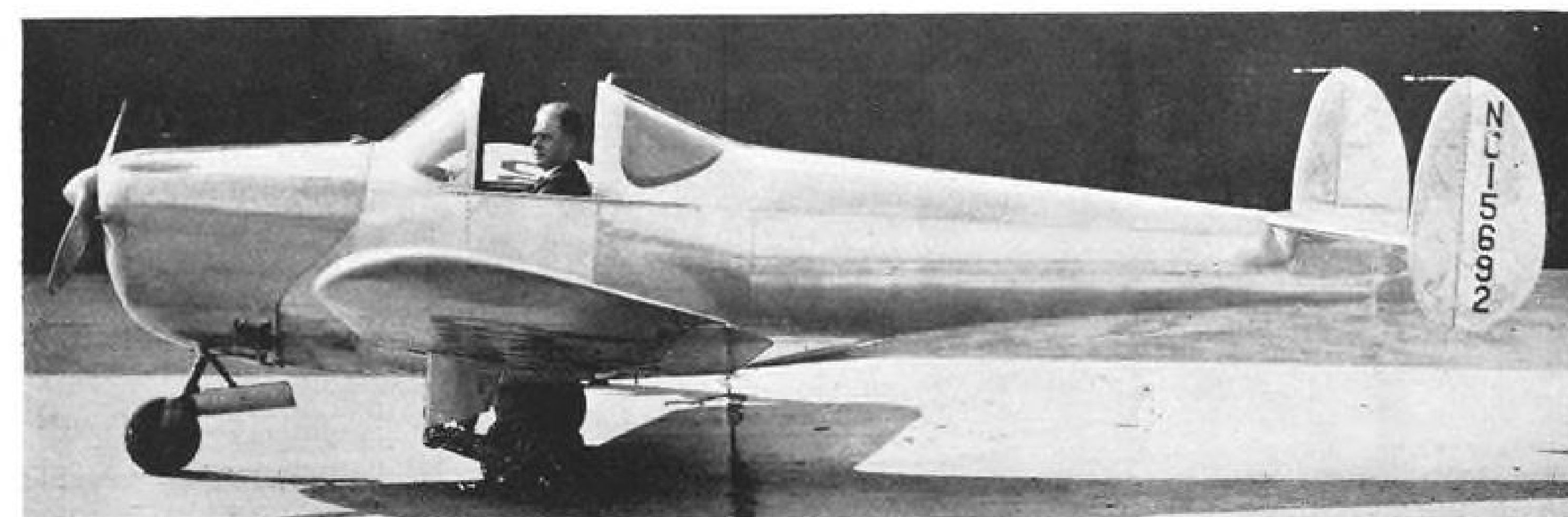
★ ★ ★

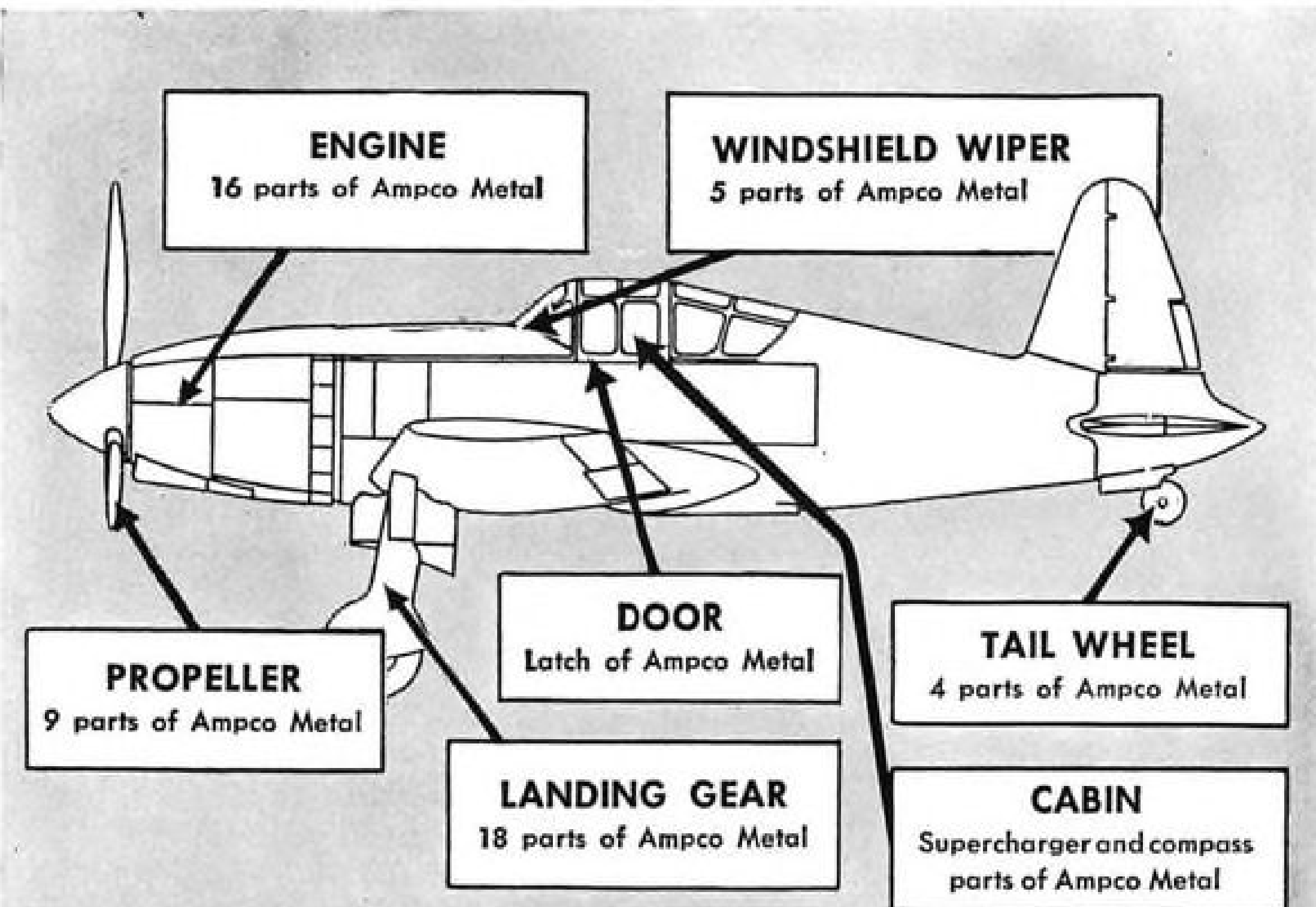
LINKED-CONTROLS PLANE—There is no change planned in the first model of the post-war *Ercoupe*, the linked-controls private plane which was the center of considerable controversy in prewar aviation circles because *Ercoupe* developed a stick control which was attached to the rudder, eliminating foot rudder controls. Pilots made turns with the control column. About the only change now planned, it has been learned, will be an improved power plant. In order to satisfy all buyers before the war, *Ercoupe* offered both tri-controlled and bi-controlled planes. They sold 700 and to their amazement, 693 were requested and sold with the linked-controls—without the foot pedals. Of the other seven, four went to the CAA for tests. If pre-war indications are a criterion, the innovative linked-controls *Ercoupe* may take a lead in the post-war light plane field. Certainly they merit watching.

★ ★ ★

NEW TRUMAN REPORT—A new over-all report from the Truman Committee is expected to be released shortly. There are indications that

Projected post-war Ercoupe, unchanged except for improved power plant.





Where durability means safety ...you find parts of wear-resisting Ampco Metal

Through the test of war, Ampco Metal has become . . . more than ever . . . the standard of the aircraft industry — to meet severe conditions of wear, shock, and corrosion . . . and to provide special, closely controlled combinations of physical properties for specific needs.

The Ampco aircraft bulletin lists and illustrates many applications of this superior alloy of the aluminum bronze class, which lasts several times as long as ordinary bronze (see composite parts summary above). Applications are increasing constantly — including many recent ones not yet released for publication.

Your nearest Ampco field engineer can give you the benefit of this intimate experience. Call him, or write for your copy of the Ampco aircraft bulletin.



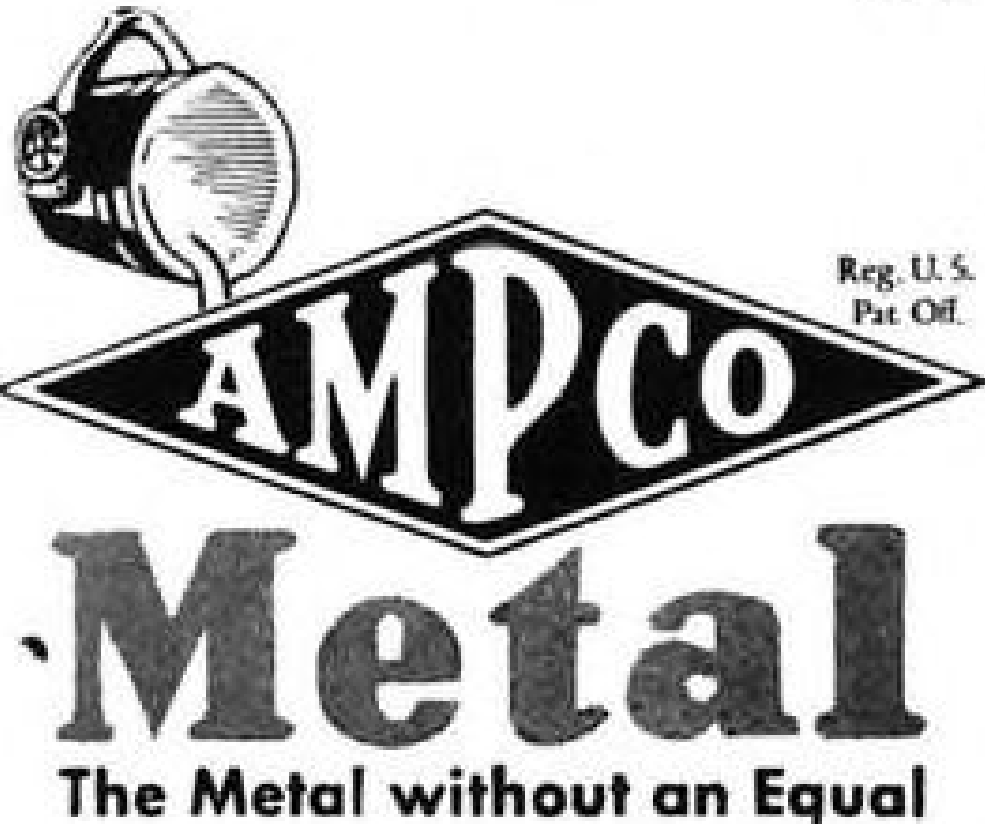
Airplane propeller attaching nut
—typical of the critical parts where Ampco Metal carries the responsibility for safety.

Ampco Metallurgical Specialties

Ampco Grades 12 to 22 (special alloys of the aluminum bronze class) . . . Ampcoloy (general industrial bronzes) . . . Special Custom Copper-base Alloys.

Sand Castings . . . Centrifugal Castings . . . Extruded and other Wrought Products . . . Precision-Machined Parts . . . Ampco-Trode (coated aluminum bronze welding electrodes) . . . Ampco Non-Sparking Safety Tools.

AA-1



Tear out and mail coupon

AMPCO METAL, INC.
Dept. AN-2, Milwaukee 4, Wis.

Please send "Ampco Metal in Aircraft" and File 41 of Engineering Data Sheets.

Name.....Position.....

Company.....

Address.....

City.....(.....) State.....

AVIATION NEWS

February 28, 1944

CONTENTS	PAGE
Washington Observer	3
Headline News Section.....	7
Air War	19
Aircraft Production	27
Transport	30
Personnel	36
Financial	38
Editorial	40

THE PHOTOS

Civil Aeronautics Administration..	Cover, 3
Staff	7, 8, 10, 30
British Information Services.....	9, 23
Northwest Airlines	11
U. S. Army Air Forces.....	12, 15, 18, 23
Navy	19
Boeing Aircraft Co.	27
Aeronautical Chamber of Commerce..	28
Lockheed Aircraft Corp.	29
Pan American Airways	32, 33
Canadian Pacific Air Lines	35
Pennsylvania-Central Airlines	37

THE STAFF

GEORGE W. PFEIL.....	Publisher
ROBERT H. WOOD.....	Editor
C. SCOTT HERSHEY.....	Managing Editor
JEROME BUTLER.....	Copy Editor
MERLIN H. MICKEL.....	Transport Editor
MARY PAULINE PERRY.....	War Agencies
BLAINE STUBBLEFIELD.....	Special Assignments
SCHOLER BANGS.....	Pacific Coast Editor
ALEXANDER MCSURELY.....	Mid-West Editor
DALLAS MALLARD.....	Art Director

Publication and Executive Offices,
330 W. 42nd St., N. Y. 18, N. Y.

Editorial Headquarters,
1252 National Press Building,
Washington, D. C.

Mid-West Office, 955 Reibold Bldg., Dayton, O.
Pacific Coast Office, 601 W. 5th St., Los Angeles

Copyright 1944. Vol. 1, No. 31. Published weekly by McGraw-Hill Publishing Co., Inc., price 50c a copy. Allow ten days for change of address. Subscription rates—United States, Mexico and Central and South American countries, \$5.00 a year, \$8.00 for two years, \$10 for three years. Canada, \$7.00 a year, \$12.00 for two years, \$16.00 for three years. All other countries \$9.00 a year, \$14.00 for two years, \$18.00 for three years. Entered as second-class matter July 31, 1943, at the Post Office at New York, New York, under the Act of March 3, 1879. Printed in U.S.A. Cable Address "McGrawhill, New York."

James H. McGraw, Founder and Honorary Chairman; James H. McGraw, Jr., President; Howard Ehrlich, Executive Vice-President; Curtis W. McGraw, Vice-President and Treasurer; Joseph A. Gerardi, Secretary; J. E. Blackburn, Jr., Director of Circulation, 330 West 42nd Street, New York 18, N. Y. Branch offices: Chicago, 520 North Michigan Ave.; San Francisco, 68 Post Street; Los Angeles, 601 W. Fifth Street; Aldwych House, Aldwych, London, W. C. 2; Washington; Philadelphia; Cleveland; Detroit; St. Louis; Boston; Atlanta. Return Postage Guaranteed.

Advertisers Index

Ampco Metal Co.....	4
Grand Rapids Industries, Inc.....	3rd Cover
Jordanoff Aviation Corp.....	18
Kelite Products, Inc.....	6
Kidde & Company, Inc., Walter.....	2nd Cover
Lawrance Aeronautical Corp.....	22
Mercury Aircraft, Inc.....	33
Pesco Products Co.....	17
Pratt & Whitney Aircraft.....	34
Reynolds Metals Co., Inc.....	24, 25
Socony-Vacuum Oil Co.....	20, 21
Titeflex Metal Hose Co.....	26
Timken Roller Bearing Co.....	4th Cover

the aviation section is, for the most part, favorable to the industry and that the committee feels that aircraft manufacturers have cooperated splendidly with committee investigators and have been quick to rectify mistakes which have been pointed out. The industry's production record and the types of planes being produced are said to have satisfied the committee members. The air cargo section may produce some surprises.

NEW WAREHOUSES OUT—Despite stores of surplus materials which are piling up in some categories, any new warehouse construction is said by War Department officials to be out of the question. Equipment which is still surplus after the war will be stored under tarpaulins outdoors until sold, under present plans. Negotiations are reported already under way with railroads to lease space in railroad yards and along rights-of-way. The psychological reaction on rail passengers of passing long rows of government equipment apparently has not been considered. All plans being made for relinquishing surplus equipment are being based, at this time, on materials located in this country.

BIGGER BRITISH BOMBER—The Handley Page "Halifax," four-engine bomber (Mark III) has been steadily improved since its prototypes were delivered to the RAF in November, 1940, mainly through installation of more power engines. British bombers generally have been underpowered, compared with ours. The latest design has four Bristol Hercules sleeve-valve radial engines, developing in aggregate 6,600 hp. Other constructional features are the same as in earlier types, but the larger engines increase the weight which in the Mark II was 62,000 pounds. The new job also has a bigger wing-span—104 feet instead of 99. Reports from London said the newest model has improved rate of climb, shorter takeoff and greater speed and higher ceiling. Improvements in rudders and stabilizing fins are said to have increased its power to maneuver and improved its defensive ability. Its armament is 9.303 Browning machine guns, four in the upper turret amidships, four in the tail and one in the nose.

RENEGOTIATION AID—Reserves for renegotiation refunds which war contractors may set up and show in their statements and annual reports are not to be regarded by government renegotiation officials as binding on contractors. As a matter of fact, the increasing practice of providing such a reserve has received the endorsement of the chairman of the Joint Price Adjustment Board as a practice to be encouraged as a matter of sound accounting.

Washington Observer

KAISER-HUGHES CONTRACT—Reappraisal of the project undertaken by Henry J. Kaiser and Howard Hughes for construction of three giant plywood planes which resulted in the tentative decision to cancel the contract is now said to be awaiting final action which WPB officials find a cushion on which to let the contractors down. WPB officials are said to favor handing them another contract along with cancellation of the flying boat trio. Kaiser has indicated that he will have some words to say if the contract is canceled and Kaiser is a man who can say them. The result is being awaited with interest in government as well as aviation circles.

GOOD (AVIATION) NEIGHBORS—Airmen who have been in South America say it is difficult to exaggerate the benefits to the aircraft industry of training Latin American personnel in this country. Latin-American pilots trained here during this war can be depended on to be boosters for American aircraft all their lives and many of them eventually will reach important posts in the aviation field in their respective countries. One airman, who has spent considerable time in South America, said for example that he had heard Brazilians, Argentines and others, trained in Italy, hold forth on the wonders of Italian aviation. It is natural that a pilot should feel partial to the country and the equipment in which he learns to fly and this feeling should be directed to our own aircraft industry.

HIGHER LOADINGS—Western manufacturers anticipate extensive pressures on the CAB to revise current power loading limits to allow heavier loading of tomorrow's commercial planes. Availability of engines of greater horsepower will maintain stability of power load ratios, and improved airfoils and flaps will provide safe landing characteristics with loads far exceeding present CAA limits, they insist. Factory engineers will be ready with figures to support their claims. They say cargo and passenger planes now in preliminary engineering can not be completed unless CAA restrictions are revised—or as they prefer—modernized.

WASPS TAME "MARAUDERS"—The old, much-maligned "man-killers," Martin's B-26 "Marauder," has turned out to be gentle as a lamb in the hands of a new selected group of WASPS who have been assigned tentatively to operations with the AAF Training Command. In spite of the fact the B-26 has been considered a difficult plane to fly, the first class of WASPS in specialized training on the "Marauder" had a percentage of graduates approximating that of men's classes.



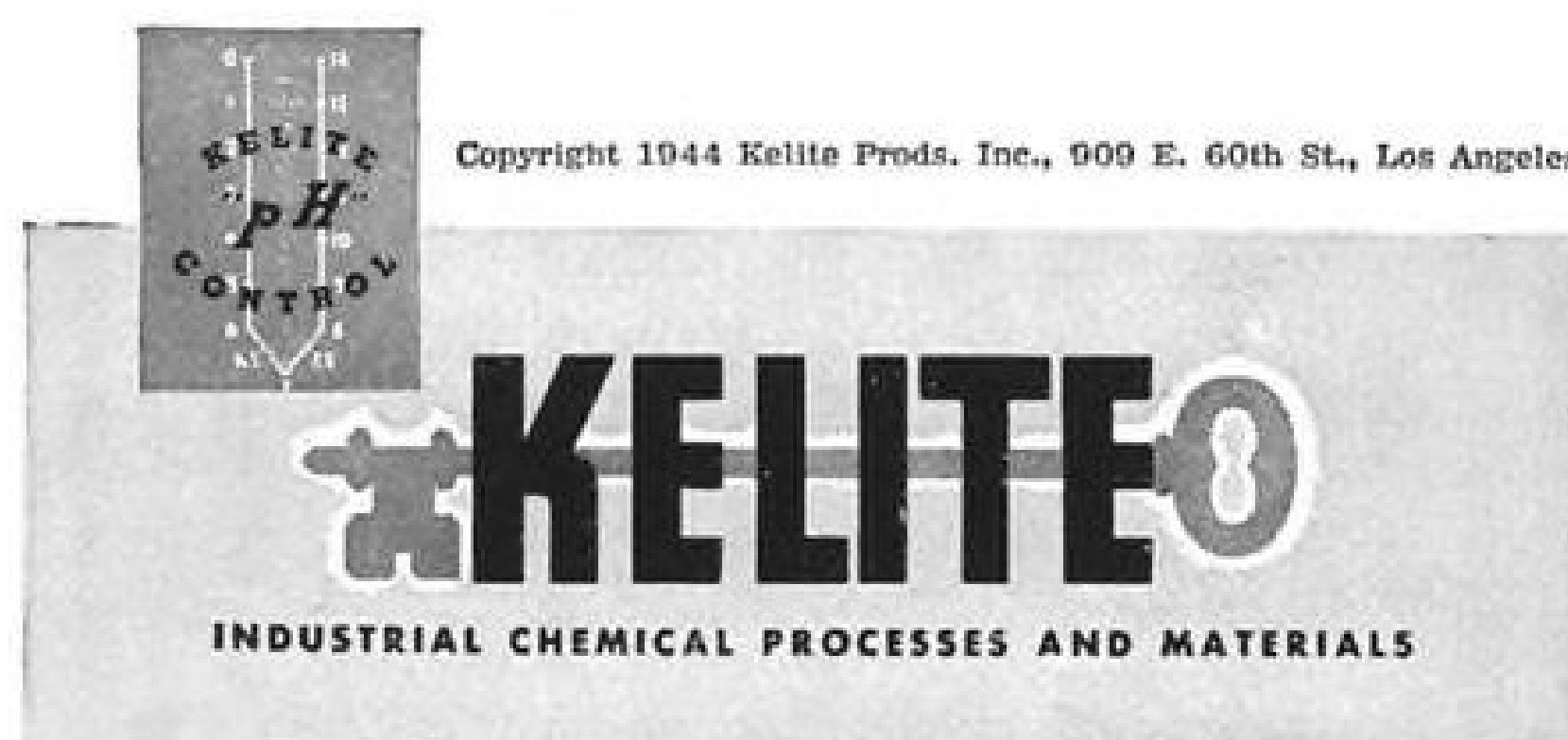
ship surfaces are best prepared with the help of Kelite Materials

IN THE GIANT SPRAY BOOTH where the new C-47's are painted for the Air Transport Command, Douglas uses Kelite No. 118-C4 to keep the water curtains running freely.

Western Air Lines, pioneer user of Douglas Transports, also makes use of specialized Kelite materials to solve processing and cleaning problems. And when the Army released a DC-3 to Western Air Lines for commercial service, it was speedily stripped of its olive-drab by a brushing with Kelite Regal Remover.

Kelite has simplified and speeded up many processing

and cleaning operations in aircraft manufacturing and maintenance through the application of scientific pH control. If you have a problem in processing or cleaning, there's a nearby Kelite Service Engineer who can help you.



MANUFACTURING PLANTS IN LOS ANGELES, CHICAGO, PERTH AMBOY, HOUSTON • OFFICES IN PRINCIPAL CITIES

Airport Heads Discuss Plans To Put Fields on Paying Basis

Representatives from 17 states attend conference at Ft. Wayne, Ind.; Heino urges air terminals 'decentralization' program.

By ALEXANDER MCSURELY

Constructive recommendations to put the airports of the nation on a paying basis were outlined by speakers and discussion leaders at the Airport Managers Conference at Ft. Wayne, Ind.

Called as a Midwest meeting, the conference took on national importance as representatives from 17 widely scattered states attended, and CAA Administrator Charles Stanton and other government and industry leaders made their appearance.

► **Airport Designs Studied**—Besides the most-emphasized problem of making the airport pay its way, the conference also studied airport designs of the future, listened to airline representatives' discussions of airport leases and schedule fees and gave general approval to the proposed simplification of Part 60, Civil Air Regulations.

Two other problems scheduled for consideration at the two-day session were left without spokesmen when Roscoe Turner, NATA president, Indianapolis, and Thomas E. Walsh, Michigan director of aeronautics, were prevented by illness from presenting addresses dealing respectively with private pilots and with government control of airports.

► **Decentralization Plan**—The most news-making talk of the session was the report of Albert F. Heino, United Air Lines architect, on a proposal for breaking the airport of the future down into unit airline terminals, a radical departure from the generally accepted present-day airport construction calling for one large terminal building.

Presenting a series of drawings to illustrate his plans, Heino reported that the "decentralization plan" simplified handling of large

crowds by serving them in smaller groups. Under his plan the passengers would go directly to the unit at which their plane was stationed, without passing through a central terminal building.

► **Unit Program**—Starting with a series of one-story buildings, interconnected to each other and to a central public building, the unit plan would make possible economical unit expansion as needed, Heino reported. When the time came that growth of cargo and passenger movements made separation of these activities desirable, the unit terminals would add another story,



ALBERT F. HEINO

and the passengers would be accommodated on the second floor, with cargo on ground floor level. Access would be provided directly from the passenger level to their planes.

The proposed designs would call for a public observation deck extending around the edge of the air-



Representative Airport Managers: Among those attending the recent Airport Managers Conference at Ft. Wayne, Ind., are left to right, seated: Robert Schott, Smith airport, Ft. Wayne, general chairman; Dudley Steele, Lockheed Terminal, Burbank, Calif.; Lieut. T. F. Hathaway, Akron municipal airport; Don W. Martin, Detroit municipal airport; (standing) George McSherry, Dayton municipal airport; John H. Gray, Atlanta municipal airport; Alfred McDonald, Wichita, Kan., director of parks and airports and J. Kirk Baldwin, Washington CAA airport management consultant.

port on the roofs of the various unit terminals and connected to the central public building. Transportation for passengers changing planes, to other unit buildings, would be provided in a tunnel under the unit terminals, connected with the public center. Electric cars, tractor trains, moving sidewalks or similar conveyances would carry passengers on one side of the tunnel, while tractor trains would haul cargo and mail on the other side for interconnecting schedules. Deplaning passengers would leave through a passageway leading to waiting surface transportation.

► **Denver Project**—Heino said that plans for a practical application of the composite unit terminal plan were now under way at Denver under supervision of George Cranmer, manager of parks, whom he credited with major contribution to the plan. The Denver terminal will be the first of its type constructed, he said.

Discussing future airports in more general terms, John J. Hogan, Chicago CAA airport engineer, urged immediate attention to zoning areas surrounding airports, to provide proper runway approaches. He commented that in many cases it would be cheaper for communities to buy new airport sites than to purchase land surrounding their present fields to clear approaches for longer runways.

► **Opposes Super-Airports**—Hogan tossed a wet blanket on the hopes of small communities for super-

airports, government financed, saying that the CAA did not "expect to build a lot of super-duper airports in communities that cannot support them."

A third approach to the air terminal of tomorrow was taken by E. J. Foley, assistant to vice-president, engineering, American Airlines, New York, who emphasized that a realistic study of factors entering into a community's future possibilities in the air world should be a pre-requisite to airport planning. He warned against communities' saddling themselves with airports beyond their future needs, just to "keep up with the Joneses." Present thinking puts a limit on runway length at 10,000 feet. Runway patterns not carefully planned can choke off future growth of a terminal, he warned.

► **Express Highways**—Transportation of passengers to and from the terminal will require express highways to the downtown area or some other rapid transportation, he pointed out. Hopes for helicopter taxi service, between terminal and downtown, are still far from fulfillment, since the helicopter is still very much in the development stage, he added.

To an observer who can remember some of commercial aviation's leaner years, one of the most significant things about the conference was the virtual agreement among speakers representing airlines and municipalities that the municipal airport should be a self-supporting operation, and that the municipal

taxpayer should no longer have to dig down in his pocket to pay an annual deficit for his airport.

► **Non-Profit Port Urged**—There were shadings of course to this general agreement. R. N. Averill, of Pennsylvania-Central Airlines, said an airport should be self-supporting but should not be a profit-making enterprise. He declared airport rentals to airlines had never yet been placed on a sound economic basis, and urged that careful studies be made, to determine an airport's operating cost, and all possible sources of revenue, so that a satisfactory arrangement could be made under which the airlines could pay their share.

"At present, the situation is on a horsetrading basis," he added.

Walker Winslow, Indianapolis municipal airport manager, came out boldly for airport operation at a profit. "Nobody ever criticized a municipal light plant or other utility for reducing the tax burden, and the municipal airport can be in the same category," he said. Winslow declared Indianapolis planned to operate a modest hotel at the airport, after the war, as one means of additional revenue.

► **Subsidy**—"If you think the taxpayers are going on many more years to subsidize a going business like aviation, you are much mistaken. The public was willing to make the original investment in an airport, much as it subsidized the railroads in the early days. From now on it's up to aviation to carry its own load," he declared.

Alfred MacDonald, Wichita director of parks and airports, called for a general formula covering the charges paid by airlines for use of airport facilities, pointing out that little uniformity of payment now exists.

► **Airport Financing**—Outlining legal precedents for municipal operation of airports, MacDonald discussed bond issues for acquiring airport land, pointing out that, generally speaking, municipal taxpayers were willing to make the first investment for the future of their city, and that it did not in most cases have to be self-liquidating.

He advocated further study by municipalities into the use of revenue bonds for financing of additional airport improvements, with a proviso that rentals obtained from the facilities erected be used to pay the interest and retire the principal obligation. Denver, he reported, recently financed a hangar and office building on such a basis.

► **Statistics**—Howard Crush, Cincinnati, manager of Lunken municipal airport, set the conference buzzing with a startling set of statistics and the frank admission that his airport was only receiving \$6.25 per flight schedule per month as a result of a schedule fixed back in the lean years and never changed. Average rate per schedule per month should be about \$25, he said.

He contrasted the returns per passenger, to the airlines and to the airport, on a transcontinental flight, saying that the airline had an investment of approximately \$100,000 in each transcontinental flight and received approximately \$125, while each airport along the line, with a much greater investment than the airline, received only a few cents per passenger, per landing. In his own airport, he said, it figured about one cent per passenger per landing.

► **Other Factors**—It was pointed out in discussion later that the Cincinnati manager's statistics did not take a number of factors into account, but his argument served as a convention waker-upper, and brought forth a suggestion from MacDonald that it would be to the advantage of an airline which had a schedule fee obviously out of line with operational costs involved to make a voluntary adjustment with the city in the interest of better relations with its potential customers in that city.

Opposition to granting of exclusive gasoline rights at an airport to the exclusion of competitor gas-



BRITISH BOMBER-RECONNAISSANCE PLANE:

First photos released of the Albemarle, twin-engined monoplane of composite wood and metal construction. It has a maximum speed of more than 250 mph at 10,500 feet and a range of 1,300 miles. It has been used for transport work and chiefly for towing targets.



oline companies was voiced by oil company representatives and airline speakers.

► **Specialized Fuels**—Louis Inwood, TWA executive assistant, Kansas City, pointed out that airlines were buying specialized fuels, adapted to their engines and that an exclusive gasoline concession at an airport interfered seriously with this practice. "Carried to its logical extreme, the airline might be told what kind of spark plugs it shall use and from whom it shall purchase them," Inwood said.

He said an airport "activity" fee per schedule was still the most equitable means for an airline to pay its share of airport cost, but added that the first few schedules should be at a higher monthly rate than additional schedules, and that gradations, according to weight of equipment used, should be adopted. "This fee should be adjusted to provide adequately an amount of money consistent with the proportionate use which the airlines as a group are making of the facilities used," he said.

► **Pre-War Operations**—J. Kirk Baldwin, CAA airport management consultant, reported that immediately before the war less than 15 percent of the nation's municipal airports were operating at a profit, due to poor management, or lack of proper accounting methods. He warned managers against being lulled by wartime prosperity at

many ports due to army and navy operations, and other increased revenues which cannot be expected to continue in peacetime.

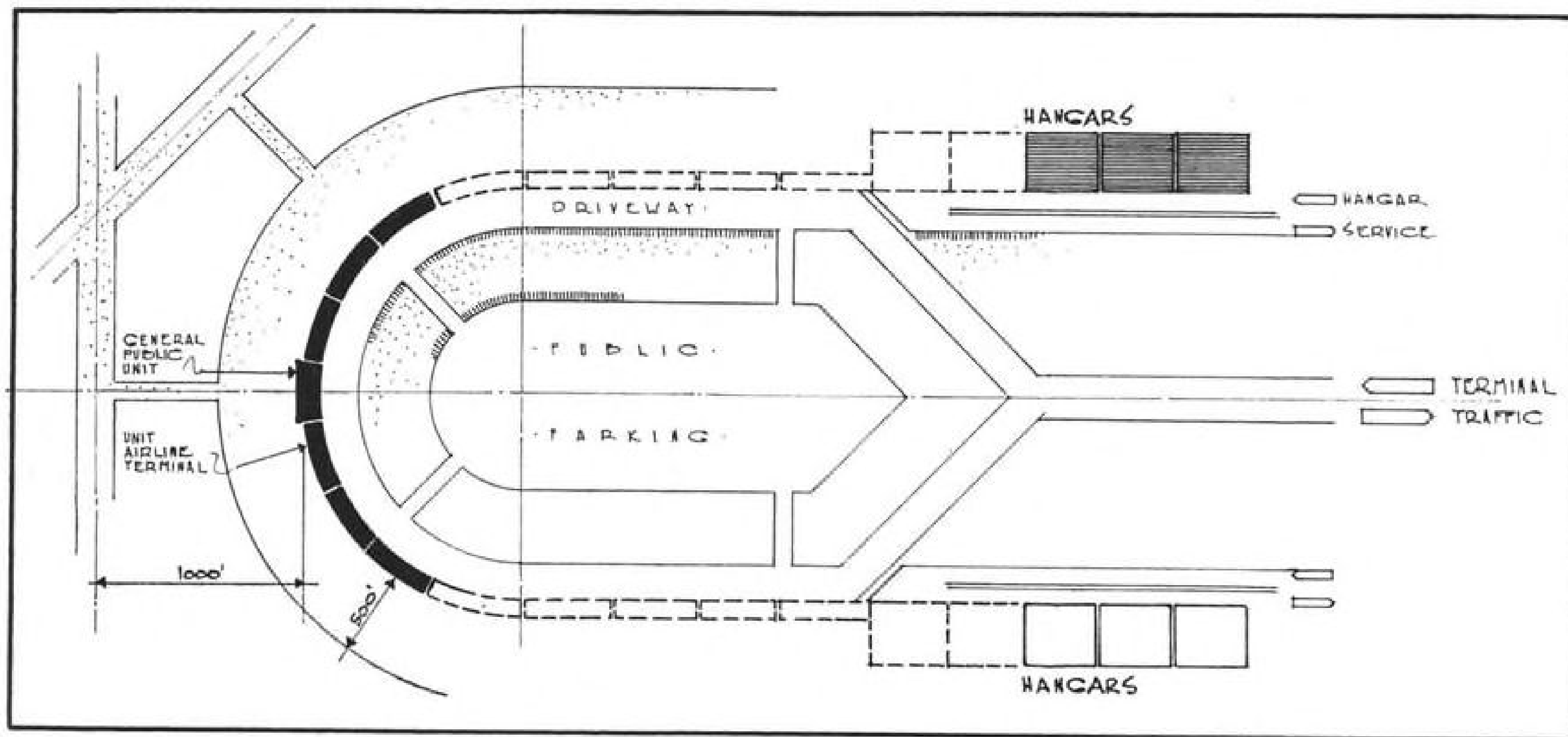
Dudley Steele, Lockheed terminal manager, Burbank, described various means of extra revenue found at his airport, through automobile parking and service facilities, restaurant, hotel and shop leases, gasoline service to airports, and similar enterprises. He urged establishment of bowling alleys, theaters and similar establishments at the airport.

► **Many in Armed Services**—Pat Moore, representing the American Association of Airport Executives, reported that more than half of that organization's membership was now in the armed services. Next meeting of the association is set for July 10, 11 and 12 at the Sherman Hotel, Chicago.

Robert T. Schott, manager of Smith municipal field, Ft. Wayne, was general chairman of the two-day conference, which was sponsored by the Ft. Wayne Board of Aviation Commissioners.

Canada's Air Industry

Post-war future of the Canadian aircraft industry is receiving increasing attention by industry and government officials who point out that one percent of Canada's total population is now engaged directly in aircraft production.



UAL Architect Suggests Unit Terminal Development Plan: Diagram shows a unit terminal plan suggested to Fort Wayne, Ind., Airport Managers Conference

by Albert F. Heino, United Air Lines architect. Plan would provide for expansion of both terminal and hangar buildings, each starting at separate ends.

Airworthiness Requirements Body Formed by Aeronautical Chamber

Membership made up of 40 leading aircraft manufacturing companies, headed by Boeing Aircraft's Vice-President Beall.

Chief engineers and technical executives of the aircraft manufacturing industry have taken a long step forward for their mutual benefit and for the progress of aviation generally in the formation of an Airworthiness Requirements Committee of the Aeronautical Chamber of Commerce.

Top technical men of more than 40 leading aircraft manufacturers make up the membership of the airworthiness requirements committee, a significant show of unity which bodes well for the future of the industry.

► **Beall Heads Group**—Back of the action is a desire to provide an active technical group, representative of the aircraft manufacturers, which can continually review all airworthiness requirements for suitability. Head of the group, whose organization has just been completed, is W. E. Beall, vice-president of engineering, Boeing Aircraft Co.

Organization of the committee had its inception in St. Louis early in February at a conference of chief engineers and technical executives under the auspices of the Technical Department of the Chamber, of which E. W. Norris is manager.

► **Plans Outlined**—A directive of

the organization, functions and operation has just been issued by Chamber headquarters in Washington, outlining preliminary plans which state that the committee will:

► Coordinate airworthiness problems with both company and technical specialists and engineering management.

► Initiate studies and experimental tests when deemed advisable, or when requested by the Government, in developing new requirements or revisions to current requirements.

► Provide government aeronautical agencies with a single contact on airworthiness problems.

► Assert the interests of the aircraft manufacturers regarding agreements that may be made by our government on uniform international requirements.

► Promote Army - Navy - civil standardization of design criteria, and, as a result of these, prepare and submit to the interested government agencies, recommendations for improvement of airworthiness requirements.

The set-up of the Airworthiness Requirements Committee begins with a National Committee, comprised solely of representatives of

the aircraft manufacturing industry whose companies are represented on the Aeronautical Chamber's Airplane Technical Committee. The Committee will be divided into an eastern and western division with the Rocky Mountains as the dividing line. Subcommittees composed of member technical specialists will be established as necessary to work on specific requirements problems.

► **Policy Group**—A steering committee will act as a board of directors and policy-making group. This committee is headed temporarily by Beall, as western representative and Herbert Rawdon, assistant chief engineer of Beech Aircraft, as eastern representative. Election of National, Eastern and Western chairmen will be forthcoming.

Following is the list of members of the Airworthiness Requirements Committee:

Member	Address	Representative
Aeronea	Middletown, O.	William D. Hall, Chief Engineer
Allied	Baltimore	R. G. Ashton, Asst. Chief Eng.
Beech	Wichita 1.	Herb Rawdon, Asst. Chief Eng.
Bell	Buffalo	William M. Smith, Tech. Asst. to Dir. of Engineering
Bellanca	New Castle, Del.	B. J. Salvadori, Staff Engineer
Boeing	Seattle 14	R. H. Jewett, Preliminary Designer
Boeing	Wichita, Kan.	Cecil B. Barlow, Staff Engineer
Brewster	Hatboro, Pa.	L. Douglas, Chief Engineer
Cessna	Wichita	J. Gerteis, Chief Engineer
Commonwealth	Kansas City, Kan.	T. H. Sandbrook, Asst. Chief Eng.
Consolidated	Vultee Field, Calif.	A. P. Fontaine, Asst. Dir., Eng.
Culver	Wichita	C. M. Jamieson, Chief Engineer
Curtiss-Wright	Robertson, Mo.	Willis L. Wells, Chief Engineer
Douglas	El Segundo, Calif.	J. A. Leonhardt, Chief Engineer
Douglas	Santa Monica	E. B. Spordeder, Executive Engineer
Fairechild	Hagerstown, Md.	George W. Lescher, Executive Engineer
Fleetwings	Bristol, Pa.	Fletcher Platt, Structural Staff Eng.
G & A Aircraft	Willow Grove, Pa.	N. A. Hubbard, Chief Engineer
General	Astoria, Long Island, N. Y.	O. C. Koppen, Dir. & Engrg. Consultant
Globe	Fort Worth, Tex.	H. H. Epstein, Chief Project Engr.
Harlow	Alhambra, Calif.	D. C. Mendenhall, Chief Engineer
Howard	Chicago, Ill.	C. V. Carlson, Chief Engineer
Interstate	Los Angeles	James E. Thompson, Chief Engineer
Kellett	Upper Derby, Pa.	L. B. Kalinowski, Chief Engineer
Lockheed	Burbank, Calif.	Clarence L. Johnson, Chief Engineer
Luscombe	Trenton, N. J.	Rolf Gregory, Acting Chief Eng.
Glenn L. Martin	Baltimore 3	H. J. Stoneburner, Design Engineer
McDonnell	St. Louis 1, Mo.	D. S. Hooker, Pres. & Chief Eng.
Meyers	Tecumseh, Mich.	A. H. Meyers, Pres. & Chief Eng.
North American	Inglewood, Calif.	R. L. Schleicher, Chief Stress Eng.
Northrop	Hawthorne, Calif.	C. L. Bates, Chief Stress Eng.
Piper	Lock Haven, Pa.	J. V. McNary, Staff Engineer
Republic	Farmingdale, L. I.	R. W. Miller, Chief Commercial Projects
Ryan	San Diego 12, Calif.	J. W. Borden
Southern	Garland, Tex.	W. M. Mullings, Works Manager
Spartan	Tulsa, Okla.	W. Fred Stewart, Chief Engineer
Taylorcraft	Alliance, Ohio	Eli S. Newberger, Chief Engineer
United (Chance Vought)	Stratford, Conn.	E. J. Mailloux, Chief of Structures
Sikorsky	Stratford, Conn.	C. L. Morris, Chief Engineer
Universal Moulded Products Corp.	Bristol, Va.	R. Robt. J. Nebesar, Chief Engineer
Waco	Troy, Ohio	A. Francis Arcier, Vice-Pres., Engrg.



AIRCRAFT PROCESS ENGINEERS:

Permanent officers of the Wichita chapter, Society of Aircraft Process Engineers, elected at the recent organization meeting were, left to right: Blair Manire, Boeing Aircraft, chairman; William A. Hartman, Beech Aircraft, vice-chairman. Earl Krasser, Boeing, and W. K. Fossett, Beech, sponsored the organization of the national society last May by calling a meeting of process engineers from midwest aircraft plants. Purpose is to cooperate in the pooling of information for advancement of aircraft production during the war and has resulted in the creation of uniform methods of production in Wichita plants.

Gas Over 86 Octane Is Ration Exempt

OPA issues ruling on fuel except where used for motor vehicle.

By MARY PAULINE PERRY

The Office of Price Administration has exempted gasoline with an octane rating of 86 or higher from coupon rationing, except when blended for use in a motor vehicle.

This move was made because the country's entire output of high octane aviation gasoline is controlled by the Aviation Petroleum Products Allocation Committee by allocation and no useful purpose is served by subjecting it to coupon rationing, OPA said. When the fuel is needed for testing or for experimental purposes, APPAC does the allocating.

► **War Production Board** announced the U. S. had stepped up its 1943 primary aluminum production 75 percent above 1942. Total primary production in 1943 amounted to 1,800,000,000 pounds, while aluminum recovered from secondary sources added 500,000,000 pounds more.

Additional production controls to speed output of large size ball bearings, essential components for such war goods as heavy artillery and airport construction machinery, have been announced by WPB. The new order is expected to concentrate factory runs and make large anti-friction bearings available at a more rapid rate.

► **Aluminum Sheet**—WPB Aluminum and Magnesium Division director Philip D. Wilson told aluminum sheet producers that production must be stepped up at once if 1944 requirements of the aircraft production program are to be met. He also appealed to workers in aluminum sheet plants to stick to their jobs. Wilson said there was a 60 percent increase in airframe weight scheduled for 1944. Aluminum surplus is in pig, not in sheet, he said.

Rolls Royce Merlin Aluminum Casting Industry Advisory Committee has been formed within WPB with Stanton W. Ballard of the Aluminum Division as government presiding officer.

► **Committee**—Membership of the committee is made up of representatives from: Aluminum Alloys Corp., Detroit; National Bronze and Aluminum Foundry Co., Cleveland; Elmira Foundry Co., Elmira; Delco-Remy Corp., Anderson, Ind.;



NORTHWEST STRESSES VISIBILITY:

Northwest's ticket office at Seattle emphasizes interior display, rather than window shows, to attract the passerby. With traffic offices of United, Pan American and Alaska Star Airlines, it gives a modern air to Seattle's Metropolitan Center group of airline offices.

General Malleable Corp., Waukesha; Howard Foundry Co., Chicago; Metal Parts Corp., Racine; Maytag Co., Newton, Iowa; Aluminum Co. of America, Cleveland; Aluminum Industries, Inc., Cincinnati; Bohn Aluminum and Brass Corp., Detroit; National Foundry and Machine Co., St. Louis; and Acme Pattern and Tool Co., Dayton.

Brig. Gen. Albert J. Browning, Director of Purchases, War Department, has been appointed chairman of WPB's Procurement Policy Board, succeeding Frank M. Folsom, formerly assistant chief in charge of procurement of the Navy Department.

► **Procurement Policy Board** is composed of the top procurement officials of the Army, Navy, Maritime Commission, Treasury Procurement Division, WPB, OPA, and Smaller War Plants Corp. The function is to develop over-all purchase policies for the major war procurement agencies and make recommendations to WPB.

► **Defense Plant Corp.** announced an increase in its contract with Fleetwings Division of Kaiser Cargoes, Inc., to provide additional plant facilities at Bristol, Pa., at a cost of approximately \$730,000 resulting in an over-all commitment of about \$3,900,000.

The DPC contract with Fairchild Engine and Airplane Corp., has been increased by about \$30,000 for additional plant facilities in Burlington, N. C. Over-all commitment is approximately \$3,950,000.

Interstate Aircraft and Engineering Corp., El Segundo, has increased its DPC contract by approximately \$70,000 for additional facilities at a plant in De Kalb, Ill., with the result of approximately \$1,500,000 in total commitment.

► **Continental Motors**—An increase in contract with Continental Motors Corp., Detroit, to provide additional plant facilities in Garland, Tex., at a cost of approximately \$600,000, resulting in an over-all commitment of about \$4,500,000, has been announced by DPC.

DPC has executed a contract with National Bronze and Aluminum Co., to provide plant facilities at Cleveland at a cost of approximately \$1,900,000.

► **National War Labor Board** ruled that authority to direct a company to cease recognizing and bargaining with a minority union when another union has been certified as sole collective bargaining agent for its employees is not within the jurisdiction of the NWLB.

The decision modified an order

of the Dallas Board which directed Hughes Tool Co., of Houston, to cease and desist from recognizing and meeting with the president and committee of the Independent Metal Workers Union.

► **National Labor Relations Board** has certified two unions at Douglas Aircraft Co., Inc., Long Beach, Calif. Int'l Brotherhood of Electrical Workers-AFL was certified for electrical maintenance and electrical construction department employees and the remaining hourly paid production and maintenance employees were certified UAW-CIO.

In addition, the Park Ridge, Ill., Douglas plant was ordered to hold election for maintenance painters for the Brotherhood of Painters, Decorators and Paperhangers-AFL, UAW-CIO, or neither.

► **Election**—Board ordered Western Aeronautical Supply Mfg. Co., Inc., Glendale, to hold election for production and maintenance employees for Int'l Assn. of Machinists-AFL, UAW-CIO, or for neither.

► **Certified**—GMC Chevrolet Motor division, Aviation Engine Plant No. 2, Buffalo, advised that NLRB has certified UAW-CIO for timekeepers and factory clerks. The Board certified Bohn Aluminum and Brass Corp., Los Angeles, maintenance electricians for Int'l. Brotherhood of Electrical Workers-AFL, maintenance machinists and helpers for IAM-AFL, and production and maintenance employees for Int'l. Union Mine, Mill and Smelter Workers-CIO.

WEST COAST REPORT

Alaska Held U.S. Ace-in-Hole In World Air Route Poker Game

Pilots flying between far north and Seattle see territory as of great strategic value in position of vital link of great northern route to Orient and Siberia.

By SCHOLER BANGS

SEATTLE—Alaskan transport pilots, flying between the far north and Seattle, hope Secretary Hull and others concerned appreciate Alaska's barter value with respect to international horse trading for world air routes. Much has been written about Canada's commanding position on global airways but little about Alaska.

They look at it this way:

► If all nations, post-war, agree to free trade in air commerce and free use of their respective landing facilities, well and good.
► But if determination of landing privileges on global air routes becomes a poker game—Alaska is the United States' ace-in-the-hole.

They seem convinced that other nations besides the United States will want to operate northern Great Circle airways between the North American continent and the Orient, Russia, and possibly India:

"There isn't an airliner built, or planned, that will be able to fly the northern great circle to the

Orient or Russia without landing in Alaska to refuel.

► **Fuel or Cargo**—"Even if foreign operators did have such planes they'd still not want to by-pass Alaska; they'd still rather carry cargo than extra fuel.

"The right to land there and refuel is going to be of inestimable value, and is this country's assurance of parity at every international air commerce conference table.

► **Reciprocity**—"If we hand out Alaskan landing rights free to Great Britain and other governments, the United States will face the risk of losing operating rights over comparably valuable global routes elsewhere — unless she gains reciprocal airway rights from other governments at the moment of throwing open the air gateway to Alaska."

Alaskan pilots are emphatic in their belief that Canada may want to take a whirl at anticipated air trade with the Orient—through Alaska. They believe, too, that the heavily capitalized British Overseas has its eye on great circle routes that slice through Alaska.

► **THE PACIFIC NORTHWEST**—Look for more than "business as usual" among aviation enterprises in the State of Washington after the war.

There's an undercurrent of anticipation already in Seattle, and in the State Capital at Olympia.

Airlines now terminating domestic operations at Seattle have their eyes on a potential heavy volume of air freight to and from Alaska.

► **Weather Myth Exploded**—War-time cargo transport operations up the coast from Seattle, and by the inland route extending from Lethbridge, Canada into the Alaskan interior via Fairbanks, have exploded the myth that Alaskan flying is dangerous, intermittent, and requires a large amount of black magic.

One transport operation into Alaska, flown by United Air Lines out of Seattle up the Alaskan coast, scored 98 percent completion of scheduled flights—during a tough winter month. Seattle will gain post-war aviation importance as a stepping stone on routes to the Orient that will swing over the Gulf of Alaska and follow the great circle course.

► **BAROMETER**: Pan American Airways serves as a barometer of Seattle's aviation future. Its Alaska and Trans-Pacific divisions were consolidated Feb. 1, and Seattle was made headquarters for the company's Alaska Sector.

Seattle's post-war business growth and resumption of trade with the Orient by air as well as surface carrier indicates expansion of air services to the East Coast as well as to California. Northwest Airlines already is seeking to straighten out doglegs on its Seattle-Twin Cities route to strengthen the competitive position of the northern transcontinental route. Today, a considerable portion of potential northern transcontinental route business is lost to United Air Lines' mid-continent route through United's Seattle-Salt Lake City service.

► **TCA Strong Bidder** — Also, Trans-Canada Airways, operating fast coast-to-coast service out of Vancouver, just across the border from Seattle, is becoming a strong bidder for business developing in the Puget Sound area.

Looking ahead, Washington's Gov. Arthur B. Langley and his immediate assistant, Ross Cunningham, are preparing for aviation growth that will require a clear definition of the state's stand on intra-state air commerce regulation, financing, and taxation.

Governor Langley indicates a desire for rapid development of aviation manufacturing and commerce in his state when he says: "The state's views on these matters are industry's views." Under Ross Cunningham's chairmanship, the Governor has created an advisory committee on aviation that will recommend airport sponsorship policies and commerce regulation. State officials are expected to deal lightly with the subject of air line taxes that, momentarily, might not exceed materially their administrative and collection costs to the state. The state contemplates no regulatory action that would duplicate or overlap the CAA's supervision of airports and safety policies.

500 More Surplus WTS Planes Swell Number to Be Sold to 1,500

New batch of liaison and training types received from Army and Navy examined by field staffs for classification, disposal.

By BLAINE STUBBLEFIELD

About 970 light airplanes on loan by Defense Plant Corp. to training contractors under CAA's War Training Service have now been declared surplus and will be sold. Counting about 500 light planes recently received by WTS from Army and Navy — some liaison and some training types—the total surplus stock may reach 1,500 in coming weeks. It was first reported that the total would be about 1,000.

WTS field staffs are still reviewing all operations under instructions to dispense with all equipment that can be spared.

► **Bids Opened** — Two hundred eighty of the 970 surplus planes have been inspected and 104 have been posted in calls for bids. A number of bids were opened Feb. 22, but awards will require several days. Regulations require that bids be sent to DPC for approval but R. McLean Stewart, executive director of training, WTS, has power to pass on them.

It is not expected that any more of the approximately 5,000 planes purchased by DPC under a requisition order and lent to WTS will be declared surplus until the Navy's WTS cadet training program is discontinued, probably in June. The entire 5,000 will be sold eventually. There is no advance information on the number of planes that may be transferred to WTS from Army and Navy. When these transfers are received, WTS declares surplus like number of its less desirable equipment.

► **OPA Formula Used**—DPC purchased private planes under the same formula followed by OPA in setting up its used plane price ceiling. The formula is based on the Oct. 1, 1941, price of the plane when new, and it allows depreciation at the uniform rate of 8 percent per year.

For example, if DPC bought a plane four years old that cost \$1,000 when it was new, the discount was four times 8 percent or 32 percent, and the purchase price was \$680. If the original owner bids ceiling price now, about one year later, he will get his plane

back at 40 percent off, and the price will be \$560.

► **Gas Rations**—Apparently owners of private planes will continue to receive gas rations without difficulty. A recent amendment, No. 106, to Ration Order 5-C, does not affect the status of private flying.

There is no OPA regulation on the amount of gasoline that can be rationed to private flyers by local ration boards. The result is that some aircraft owners have claimed and received fatter gas books than they are entitled to. OPA is now compiling a tabulation of gas consumption of various planes, which will soon be in the hands of the boards.

Bill Asks Civilians Get Surplus Gliders

Hayden urges craft be turned over to CAA for distribution.

A bill authorizing the Civil Aeronautics administrator to receive surplus training gliders and sailplanes from the Army Air Forces and distribute them among various glider schools and clubs has been introduced by Sen. Carl Hayden.

Spokesmen for the senator and for the CAA said the Army has considerable surplus gliding equipment on hand, procured when the unpowered combat plane program was larger in scope than it is now. CAA does not possess any such equipment itself, and at present has no training program in which gliders can be used.

► **Hearings**—When and if hearings are held on the Hayden bill, expert witnesses will bring up the old question whether students should receive training in gliders or powered planes first. Some officials of CAA and the Air Forces will say that war training proves glider students are safer if they have power experience first. Of course opposite views will be expressed. It will be shown also that the membership of many glider clubs is largely experienced adults. It is believed the Army is willing to release the equipment.



RUSSIANS AT ASC HEADQUARTERS:

Satisfaction with lend-lease shipments to Russia was expressed by Lt. Col. A. P. Doronin, right, representative of the Soviet Embassy at a two-day conference at Air Service Command headquarters. Col. Doronin is shown above with Lt. Col. Michael Koustuk, Dayton liaison representative of the Russian purchasing commission, left, and Lt. Col. Charles H. Gitzinger, center, chief of the Russian-Dutch office, United Nations section, Air Service Command.

New Moves Enliven Battle For Reconversion Policy Rule

Baruch and Hancock issue comprehensive report of industrial demobilization recommendations while Senator George introduces bill covering same field.

Congress and the Administration squared off last week to determine who would decide the policies to guide the reconversion of American industry from wartime to peacetime production. The issue, which has been forming for the past six months, came suddenly to a head with these developments:

► Issuance by Bernard M. Baruch and John Hancock of a lengthy report of recommendations covering every phase of industrial demobilization.

► Introduction by Sen. Walter F. George of a bill covering the same field.

How great a controversy would result over the divergent opinions on approach—i. e. whether legislation or executive order would form the basis for reconversion and its allied problems—remains to be seen. Both proposals head in the same direction, both have the same objectives, and in many respects both share the same principles. But while the Baruch report urges enactment of legislation following the lines of the proposal, Sen. George is known to oppose this tailoring of legislation to fit Baruch's pattern and has made clear his intention of going ahead with legislation originating in Congress and not the White House.

► **Effective Pending Legislation**—The Baruch-Hancock report, which deals with all phases of the industrial demobilization problem, was promptly embraced in an executive order, and put into effect by James F. Byrnes, director of the Office of War Mobilization. Presumably, it will operate until legislation is enacted.

Most important provision of the Baruch report so far as the aircraft industry is concerned, is that which creates within the OWM a surplus property administrator who will direct disposition of all government-owned aircraft facilities, as well as all other surplus property and capital equipment. Serving as chairman of a surplus property policy board, the administrator will route property to these four major outlets for disposition:

► Consumer goods to the Treasury Procurement Division.

► Capital and producer goods, including all types of industrial property, to a single corporation within the Reconstruction Finance Corp.

► Ships and maritime property to the U. S. Maritime Commission.

► Food to the War Food Administrator.

► Under this plan, aircraft facilities will be disposed of by a unit of RFC, and there is little question but that this will be the Defense Plant Corp.

Acting quickly to implement the Baruch proposal, Byrnes named Will L. Clayton, former Assistant Secretary of Commerce, to the post of Surplus Property Administrator. Although not associated with Defense Plant Corp., the new administrator is a member of the Board of Directors of two RFC subsidiaries—Defense Supplies Corp. and the War Damage Corp. — and therefore familiar with RFC operations.

Immediately on taking over the job, Clayton acknowledged that the most monumental task facing him was disposition of the government-financed aircraft plants.

► **Peacetime Problem**—"There's not much you can do in peacetime with a plant turning out 9,000 planes a month," Clayton said in a discussion of the particular problems raised by the aircraft industry.

In general, he declared, "Policy-making and supervision will be our only task." The actual work of disposal, he pointed out, would be done by existing agencies.

When war facilities are reconverted to peacetime production, Clayton said, the status of many plants will be very questionable and a number of them will have to be scrapped or converted into storage depots. He did not discuss this point fully.

► **Negotiations**—Aircraft contracts, under the Baruch plan, would be terminated and settled by negotiations between the aircraft companies and the procurement agencies. Thus, most aircraft manufacturers will find themselves negotiating with the War and Navy Departments when their contracts are terminated. Ruling out the

2½% to Buy Planes

Two and one-half percent of the families of America plan to own an airplane after the war, according to figures released by the Northwestern National Life Insurance Co. Based on a poll of 25,000 families, other figures deduced by Northwestern on post-war purchasing plans included: new car, 50 percent; new home, 33 percent; new radio, 30 percent; new refrigerator, 23 percent; 28 percent plan to take vacation trips; and 2 percent hope to buy farms.

Comptroller General's recent proposal to review all settlements before payment, the Baruch report recommended "Quick cash pending settlement" on the following basis:

Immediate payment in full for all completed articles.

On the uncompleted portion of the contract, immediate payment in full of the government's estimate of "factual" items, where proof ordinarily is simple and on other items on which the government is able to satisfy itself, up to 90 percent of the contractor's total estimated costs.

Immediate payment in full of settlements with subcontractors as soon as approved.

Payment by government of interest on termination claims until settled.

As insurance against delays in validating claims, a new, simplified system of T Loans by local banks, with government guarantees, to be available to all war contractors, primes and subs.

For those unable to obtain such loans from their local banks in 30 days, the government to make the loans directly.

Until the new T Loans are authorized by Congress, extension of V and VT Loans to all eligible borrowers.

Finally, for hardship cases, unable to use any of these means, expedited settlements.

Of lesser importance, the Baruch report proposed creation of a "work director" (later changed to "re-training and re-employment director by Byrnes") to handle the "human side of demobilization"; a general tightening of the entire government machine for both mobilization and demobilization; early review of all wartime materials controls and limitation measures to determine under what conditions these orders can be modified; and the tightened han-

dling and advance planning of new contracts and contract cancellation.

Although the report specifically recommended extension of the priorities and allocation power of the War Production Board beyond their expiration date, no mention was made of the part to be played in reconversion—if any—of the Aircraft Production Board and the Aircraft Resources Control Office. The report did recommend, however, that WPB Industry Advisory Committees be strengthened.

► **Speculation Renewed**—The Baruch report also renewed speculation over whether or not Donald M. Nelson would remain as head of the War Production Board, since the agency would play a purely operational part in reconversion and would have no voice in determination of policy on any of the four major phases—termination, disposal, re-employment, and financing. Despite the fact that Nelson is known to have said he would not head a WPB whose sole job was to carry out policies laid down from a higher level, it is generally believed that Nelson regards WPB's role under the Baruch plan as important enough to merit his occupation.

Whether Charles E. Wilson will stay on as executive vice-chairman, now that many issues seem settled, is considered doubtful. Most people close to WPB have felt that Wilson would stay as long as the top job of bossing reconversion was open, but with that attraction now gone, it is thought likely that Wilson will soon be able to convince the White House that his return to General Electric would aid the war effort.

The measure introduced by Sen. George, and which may eventually become law and replace the Baruch plan now operating through executive order, would establish an Office of Demobilization, headed by a director who will also be chairman of a National Demobilization Board. The director would develop and coordinate unified programs for dealing with termination, financing, disposal, and other problems of demobilization. Like the executives created by the Baruch plan, the director would be under the Office of War Mobilization, but only for the duration.

Unlike the Baruch plan, the George measure singles out the aircraft industry—among others—for special treatment.

► **Aircraft Industry**—"No government agency shall dispose of any government-owned plants for pro-

duction of aircraft, synthetic rubber, aluminum, magnesium, or steel, or any government-owned shipyard or pipeline, unless such disposition is required by a valid contract provision in effect upon the enactment of this act," the measure states, adding that "The director shall prepare a study of such plants and facilities and report to Congress his recommendations for their disposal."

Chief point of difference between the two proposals is disagreement over an over-all administrator, such as that created by the George Bill. In many other respects, the proposals are parallel. However, the struggle now appearing inevitable will not be over this point but over the question of who will plan reconversion: Congress or the White House?

Burden to Retain Most of Air Duties

Expected to continue aviation responsibilities in new post as Assistant Secretary of Commerce.

William A. M. Burden, special aviation assistant to the Secretary of Commerce, expects to retain most of his present duties in his new post as Assistant Secretary of Commerce, to which he was named last week by President Roosevelt.

Burden is widely known and highly regarded as an aviation authority and indications were that his knowledge and experience would not be lost to aviation activities of the department.

► **Continued Approval Expected**—Approval of his nomination by the Senate was regarded as routine. He succeeds William L. Clayton, who resigned to take charge of the disposition of surplus war materials under the Baruch program to implement post-war reconversion.

Burden has served as vice-president of the Institute of Aeronautical Sciences, and member of the Advisory Committee of the Daniel Guggenheim School of Aeronautics. In his Commerce Department post, he has been responsible to the secretary for the activities of the Civil Aeronautics Authority, as well as the Weather Bureau and Coast and Geodetic Survey.

► **Air Transport Economist**—Widely known as an air transport economist, Burden has served as official and director of numerous major aviation companies, including United Air Lines and National Aviation Corp. He is among those officially credited by the administration with eliminating Axis air lines from Latin America, where he has traveled widely. He is the author of *The Struggle for Airways in Latin America*, as well as articles on aviation economics. Burden attended Browning School in New York and Harvard University.

His appointment as assistant secretary, while it may take him away from some of the direct contacts he has had with aviation in the Commerce Department, assures the aviation industry of a sympathetic and well-informed official in this department of government, which is becoming increasingly important in the post-war aviation picture.



NORTH AFRICAN WARRIOR:

This veteran B-25 Mitchell desert warrior, of the Ninth Air Force, which has reached the U. S. after participating in bombing missions from El Alamein across North Africa to Sicily. Bombs painted on the cowling represent missions, while on the map are recorded individual towns and battlefields bombed.

ACCA Group Urges Simplification Of Plane Certification System

Proposal by Chamber Technical Committee is part of program by air industry to modify delay and cost of U.S. regulation.

Recommendation by the Aeronautical Chamber of Commerce that the Civil Aeronautics Board and Administration simplify their airplane type certification system is part of a broad move by aviation to assume more responsibility and to modify the delay and cost of government regulation.

The proposal was written by the Chamber's Airplane Technical Committee, following a meeting at St. Louis, Feb. 1 and 2, and submitted to the board and the administrator, Feb. 22. A covering letter from ATC suggested that CAB-CAA call a meeting within 45 days, to be attended by a five-man committee selected from the personnel of ATC and by representatives of any other interested groups.

► **Industry Circularized**—Preparation of the recommendation began last September, when ATC circularized the industry with a preliminary draft, and later submitted resulting comments from manufacturers. ATC will meet twice a year, next time in October, and will alternate between the East and West Coasts.

The Board and the administrator have known of the ATC project right along and have expressed willingness to consider a revised certification program. It probably will be months before conclusive action can be taken. ATC says the submitted draft of its recommendation is by no means final. It is only a first step toward broad and perhaps extensive revision.

Some participants in this revision effort believe CAB-CAA has been complacent in some small degree. But the main causes of obsolescence in aircraft airworthiness control are lack of government personnel to do the work and rapid accumulation of new data due to war operation of airplanes.

► **Action Applauded**—The Aero Chamber's action in meeting this situation is applauded by many onlookers. CAB-CAA could not get engineers at civil service pay to do the job, but the Chamber is getting the industry's best men to work out a program without tak-

ing them off their regular jobs. Of the 41 aircraft manufacturers who signed approval of ATC's submitted draft, 35 had engineers in the St. Louis meeting. The rest gave their approval later.

ATC's recommendations on civil aircraft procedure cover both carrier and non-carrier types. In dealing with non-carrier planes, ATC overlaps the Chamber's Private Aircraft Department's program, but only on the matter of simplifying certification of airplanes. The department is trying also for revision of the certification of private pilots, and for further certification of the air rules. Incidentally, the department is believed advocating blanket authorization of manufacturers to approve their own new types of planes, a much more drastic step than the ATC group is ready to undertake at this time.

The recommendation notes the establishment of an Airworthiness Requirements Committee by the Aero Chamber, discussed elsewhere in this issue.

► **Recommendation**—Under the head of civil approval of military aircraft, ATC recommends that CAA give full consideration to existing war service records as a basis for granting airworthiness certificates to those models which may be of commercial value. CAA is called on to re-analyze its requirements in the light of current military experience, in the public interest.

Much of the information on performance of planes in Army's Air Transport Command and in Navy's Air Transport Service cannot be released for commercial use. But it is known that many aircraft in the services are carrying vastly greater loads than were permitted under Civil Air Regulations, apparently with good safety records. ATC recommends utmost use of the data and urges the Services to release them as early as possible. It is the Committee's opinion that other branches of the Air Forces and the Bureau of Aeronautics can contribute to the streamlining of CAB-CAA regulations. It is recommended that funds be set up for the Board and the administra-

tor to obtain and test representative military models.

► **Category System**—The Committee also asks that CAB-CAA establish a suitable aircraft category system for administrative purposes. No mention is made of possible groupings, but AVIATION NEWS learned that a subdivision of four is being considered: 1, Transport; 2, Cargo, for goods only; 3, Acrobatics, to take unusual stresses; 4, Personal models for normal stresses.

ATC says the industry heartily endorses the policy of U. S. participation in discussions leading to international agreement on uniform airworthiness standards. At present, we have reciprocal agreements with other countries: that is, we permit them to fly planes here that could not be certificated under our laws. Under this system, it is possible for countries having low airworthiness standards to build and fly airplanes at less cost, with economic advantage over countries having high standards.

'44 Plant Expansion To Top Half Billion

Estimated by WPB at 50 percent of 1933 total of \$1,014,000,000 outlay on plane factories.

Construction of additional aircraft facilities in this country during 1944 is expected to exceed \$500,000,000, according to WPB estimates. This compares with the 1943 total of \$1,014,000,000 and \$1,172,000,000 in 1942.

Following the usual trend, the approximately \$500,000,000 of aircraft plant expansion slated for this year would be divided in this way: from \$400,000,000 to \$415,000,000 in machinery and equipment; from \$100,000,000 to \$110,000,000 in construction.

► **First Quarter Heaviest**—The 1944 aircraft plant expansion will be heaviest in the first quarter—nearly \$200,000,000—with progressive declines later. Last year, aircraft activity held to the following quarterly pace: first quarter—\$337,000,000; second—\$305,000,000; third—\$210,000,000; fourth—\$162,000,000.

Expansion work at aircraft plants is expected to hold or be only slightly under the December level (\$57,657,000) in the early months of 1944, due to the sizable volume of undelivered machinery and equipment of the present program and the strong rate of approvals for new work recently.



Lockheed Ventura



SEND FOR THIS BOOK. Read how radically advanced PESCO pumping equipment opens new opportunities for all industry in more efficient use of controlled liquid flow, pressurized power.

Fair weather or foul, the sharp-eyed crew of a navy patrol bomber is ready for anything. Anti-submarine patrol. Convoy cover. Bombing a naval objective. Laying mines. Making a perilous rescue. Or a task never done before. Whatever the mission, the performance of these gallant naval airmen is legend. So, too, is the performance of the planes they fly, a tribute to the diligence and skill of the men who make them. PESCO Products Co., 11610 Euclid Ave., Cleveland 6, Ohio. (Division Borg-Warner)

In Aircraft Hydraulics, Fuel Pumps, Air Pumps, Related Accessories...

PERFORMANCE POINTS TO **Pesco** FIRST

are your **MANUALS** engineered as well as your products?



Displayed above are a few Jordanoff manuals

SINCE long before Pearl Harbor, Jordanoff Visual Manuals have been showing non-technical men how to handle some of the most intricate mechanisms ever devised.

These manuals—whether on Familiarization and Inspection, Repair and Maintenance, Operation or Technical Orders—are the products of engineering skill—a skill that translates

technical language into basic terms the average man can understand; a skill that shows pictorially how the equipment is built, how it runs and how it is kept running.

Our staff of experienced engineers, mechanical artists, and technical editors are at your service. Consult us now for a Jordanoff Visual Manual that is engineered to match your products.

Pioneers in the production of visual manuals

JORDANOFF AVIATION CORPORATION

605 MADISON AVENUE • NEW YORK 22, N.Y. • PLAZA 3-6360

THE AIR WAR

COMMENTARY

New Russian Bombers and Bases Prepare for More Raids On Nazis

Soviet High Command gives major credit to aviation for victories in late 1943 and commentator reports that Russ independent bombing command may see extended action.

It is widely agreed that Russian superiority in tanks was a major factor in the victories of the Red Army in 1942. It is not so well known that the Soviet High Command is convinced that the great victories of the last half of 1943 are largely attributable to the superiority of aircraft employed by the revitalized Red air force.

A correlative is the realization of the immense value of the Allied air offensive in the west, which caused the transfer of hundreds of Luftwaffe fighters and pilots from the Eastern front to the defense of Nazi war industry. This has been recognized in official statements from Moscow.

► **Production Estimates**—One of the first glimpses of what the Russians were doing in the way of increased aircraft production came in a statement of Wendell Willkie, who spent several days of his 'round-the-world flight visiting the new production facilities which had been set up since Germany's invasion in 1941.

He stated that Russia was at that time second in plane production only to the United States and England (about 5,000 and 3,000 per month, respectively; Germany's was about 2,500 per month at that time). If this estimate was accurate, the Russian figure at that stage would have been between 2,500 and 3,000 per month, probably a bit high.

Fifteen months later at Teheran, Marshal Stalin announced that the Russian aircraft industry was producing 3,000 planes per month; however, this may be only combat types.

► **Blitz Almost Worked**—When Hitler struck suddenly in June, 1941, he hoped to destroy the Soviet Air Force on its air fields and in the sky, and then knock out the aircraft and engine factories. No

doubt there was considerable exaggeration in Goebbels' reports of the "thousands" of Russian planes destroyed in the air and on the ground, but the fact is that Hitler came nearer achieving his initial objective than was realized at the time.

The Red Falcons put up the most heroic resistance in their slightly improved fighters of the Spanish Civil War, the I-15 *Chato* (biplane) and I-16 *Rata*, but in speed, fire-power and maneuverability their planes were outclassed by the Messerschmitt and Heinkel fighters.

Such improved fighters as the Mig-3 (I-18) and Yak-1 (I 26—"I" stands for a Russian word for "pursuit" and corresponds to the Army Air Corps "P" designation) were just coming into production. After the *Wehrmacht* had been stopped before Moscow, Stalin summed up the situation by stating that as far as military aircraft

Motley Air Force

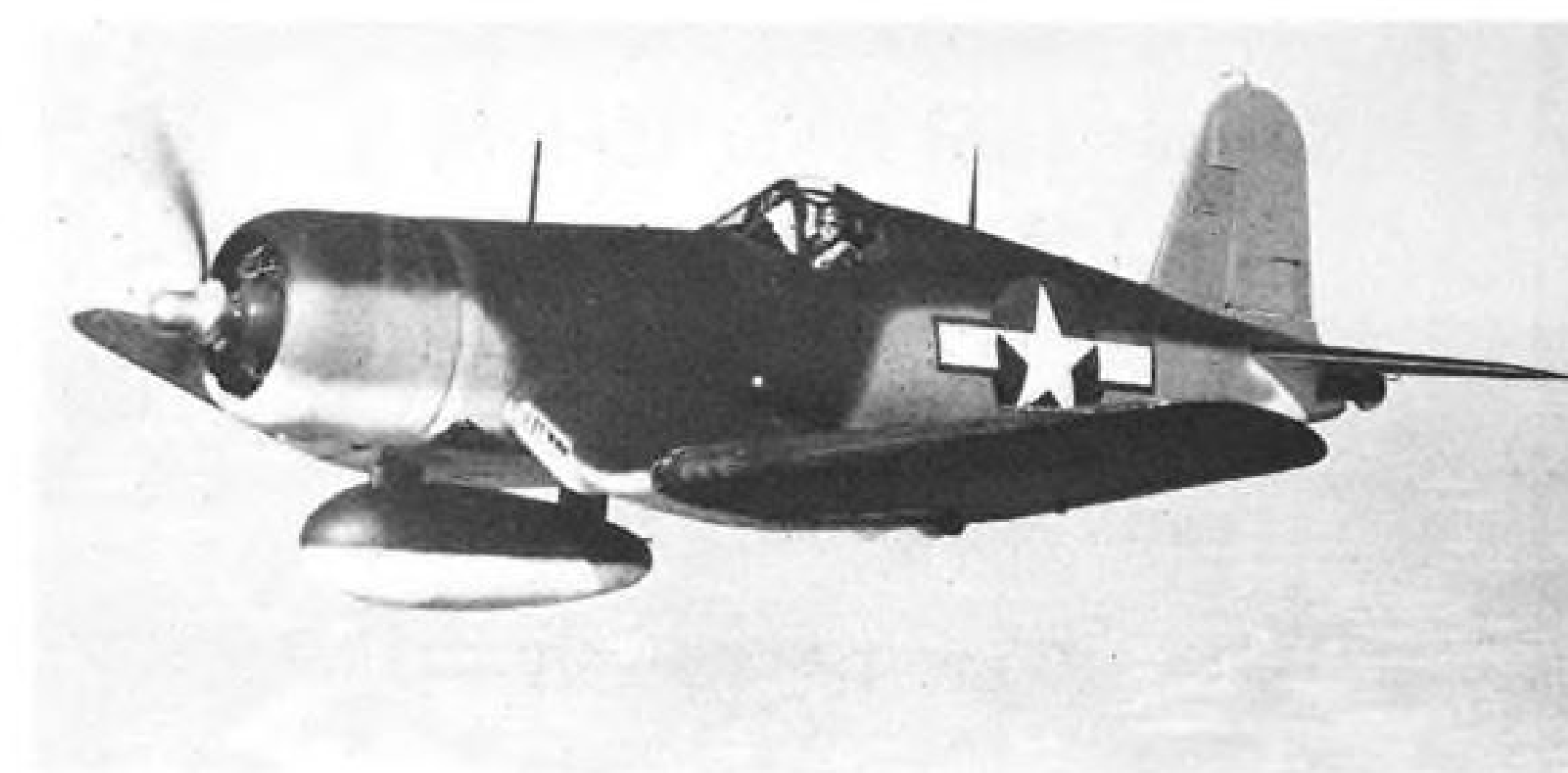
Returning pilots report that the Irish Free State is building up its Air Force, non-existent before the war, with an assortment of American, British, and German aircraft.

All the equipment now used by the neutral nation has been acquired by interning combat craft which have landed in Eire. Purchases have been made from the country owning the ships. So far, the air force includes a few *Spitfires*, *Hurricanes*, *Grumman Martlets*, *Heinkels*, *Hudsons* and several others.

was concerned, a new start would have to be made.

► **An Industry Revolutionized**—In the autumn of 1941 an unusually skillful job was done in the wholesale evacuation of aircraft and engine factories far behind the endangered areas to the new industrial region beyond the Ural mountains, where already new plants were beginning to function. This resulted in a certain amount of dislocation, and during the winter of 1941-42 the entire Russian aircraft industry was drastically reorganized, and with the help of American technical experts, was readjusted to the assembly-line and conveyor-belt system of production.

No obsolete models were to be put into production, and Russian Aeronautical engineers, including Toupolev (engines), Yakovlev, Ilyushin, Lavochkin, Gurievitch



LONGER RANGE FOR THE CORSAIR:

First picture of the Chance Vought F4U-1 Corsair Navy fighter with its new droppable fuel tank. The Pratt & Whitney powered craft made its debut in February, 1943, and wound up the year with a record of 584 Jap planes destroyed. Only 108 Corsairs were lost.

Now in Volume Production for Today and Tomorrow's

GIANTS OF THE SKIES...



FLYING HORSEPOWER

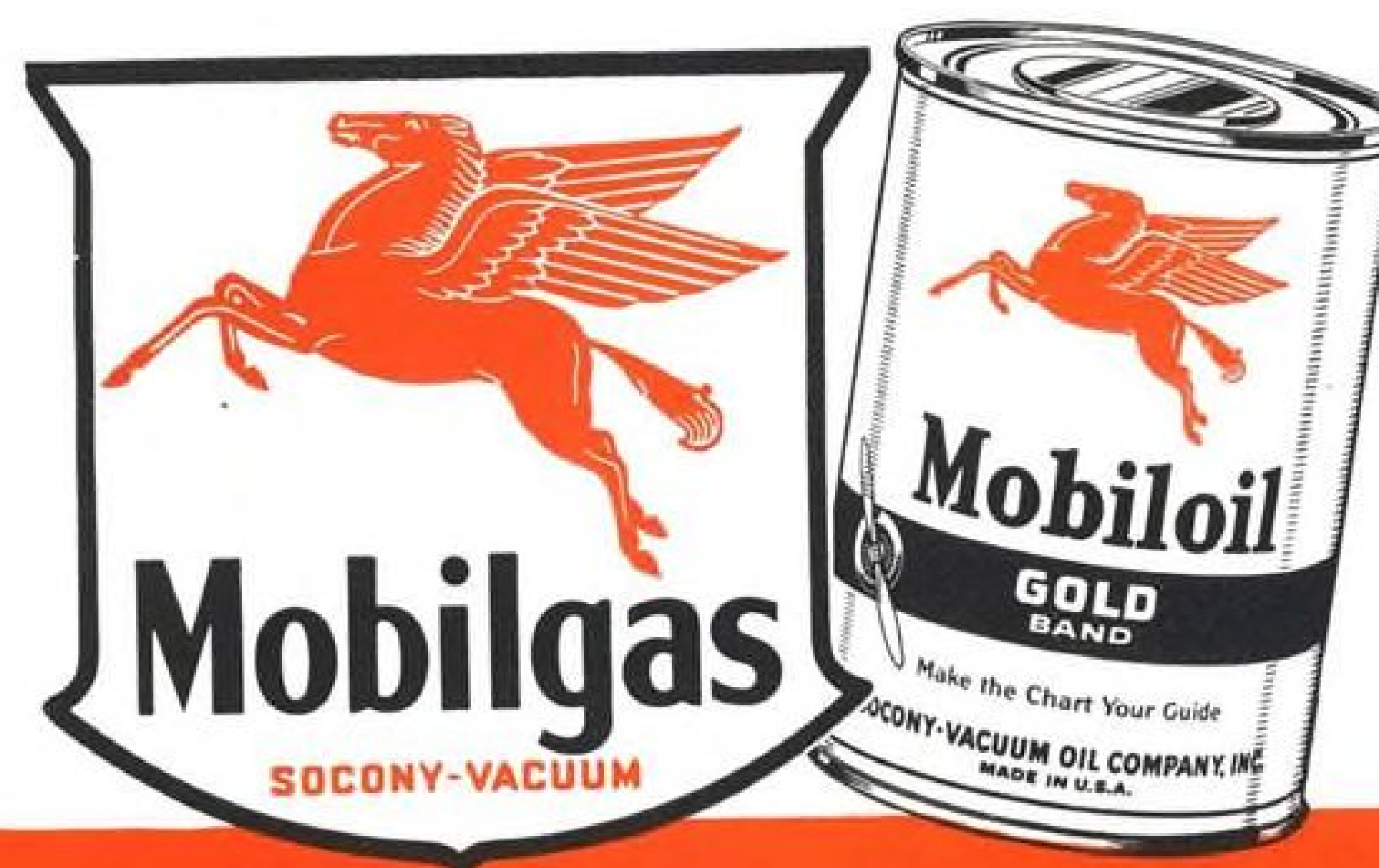
**Sensational New Mobilgas
in Full Production—gives
big ships longer range—
makes fighters faster
and gives quicker climb!**

ON THE WINGS of "Flying Horsepower," America's big bombers and transports are ranging hundreds of miles farther across the Pacific and over Axis Europe. Faster flying, faster climbing, more maneuverable fighters are chalking up still higher scores against the enemy.

For now Socony-Vacuum's new aviation gasoline is flowing to world-wide Allied bases in volume. The first of 31 revolutionary Thermoform Catalytic Cracking plants is "on stream" at Beaumont, Texas, producing the base stock for this super aviation fuel.

Proving itself in war, "Flying Horsepower" will be ready when peace comes—ready to help lift aviation's dreams of Tomorrow off the drafting boards into the skies.

SOCONY-VACUUM OIL CO., INC., 26 Broadway, N.Y.C., and
Affiliates: Magnolia Petroleum Co., General Petroleum Corp. of Cal.



NEW MOBILLOIL HELPS KEEP ENGINES CLEAN!

In superior qualities, Socony-Vacuum's new Mobiloil for aircraft matches the new Mobilgas. The new oil—latest development from our 78 years' lubrication experience—has proved exceptional in wear-resisting characteristics. It helps keep engines free from ring-clogging deposits and helps protect moving parts from wear.

Get the Facts on the **NEW Mobilgas – Mobiloil** *FOR AIRCRAFT USE!*



Helping the mighty Martin "Mars" smash world's records on its recent long distance flights were the two Lawrance Aeroelectric Power Plants with which this famous airplane is equipped. These specially designed units, like all other Lawrance models, make possible the wider use of electricity in aircraft by providing a dependable flow of current to operate such vital accessories as cargo hoists, main engine starters, radio, lights, and cabin heating and ventilating equipment. Like the evolution of the huge Martin "Mars", the development of Lawrance Aeroelectric Power marks a long step forward in the progress of air transportation.

LAWRANCE AERONAUTICAL CORPORATION

LINDEN, NEW JERSEY

Lawrance Aeroelectric Models:

Model	Weight	Output
Model 75 B	308 lbs., 8	12 KW
Model 30 C-2	212 lbs., 5	7½ KW
Model 30 D	186 lbs.,	
Model 20 A (Below)	111 lbs., 5	7½ KW



and Petriakoff, were to take full account of the strong points of American engines and German and British aircraft in their new designs, finally, they were to concentrate on a few superior types, mostly tactical aircraft for cooperation with the Red Army.

► **New Models**—The new planes include the famous IL-2 *Sturmovik* assault plane and dive-bomber, the IL-4 being the current model. The Yak-series of fighters is currently at the Yak-9 stage, many of them using considerable birch plywood construction, with glue of a phenol-formaldehyde basis. The Lagg-3 was an all-plywood job, as is the new and smaller La-5.

A captured Yak-5 was tested in the *Deutsche Versuchsanstalt* near Berlin last spring, and an article in *Luftwissen* concluded that this type of construction showed a surprisingly high strength. The Germans have since brought out a version of the FW-190 with wooden wings.

These Russian fighters are in the 360-390 mph. speed bracket, and are armed with 20-mm. cannon and 12.7-mm. machine guns. The IL-2 and -4 are heavily armed and have 30-mm. cannon and anti-tank rocket projectors, the latter also featuring the LA-5. These designations, IL-LA-YAK-PE- etc. are the first letters of the names of the above aircraft designers, MIG-combining two and LAGG- three.



BRITISH AIR CHIEFS:

Air Chief Marshal Sir Charles Portal, Chief of the Air Staff, visited Italy to confer with other air chiefs shortly before he became Marshal of the RAF. Shown, left to right, are Air Chief Marshal Sir Arthur Tedder (Air Officer Commanding-in-Chief, Mediterranean Air Command) now Deputy Commander-in-Chief, to General Eisenhower, European Theater; Air Chief Marshal, now Marshal of the RAF; Sir Charles Portal (Chief of Air Staff); Air Vice Marshal Broadhurst, (Air Officer Commanding Desert Air Force) and Air Marshal Sir Arthur Coningham (Air Officer Commanding North African Technical Air Force.)

► **Strategic Bombers**—The day is fast approaching when the Soviet Independent Bombing Command, which was reorganized in the winter of 1942-43 under Gen. Golovanoy (a Russian "Tooey" Spaatz), may see extended action.

Its work in the spring of 1943 was highly effective, but the time

was not ripe for the full use of strategic airpower from Russia, nor was there sufficient equipment. The bases are now ready and improved versions of the PE-8 and DB-6A heavy bombers have been built up in quantity.

It is not likely that *Liberators* and *Fortresses* of the 15th Air Force, based in Italy, may share some of these bases for shuttle-bombing runs. Gen. Arnold's recent prophecy (December) of air blows against Germany from the east, the south and the west may be near fulfillment.

NAVIGATOR

Gen. White Assigned To New Air Post

Appointed assistant chief of Air Staff Intelligence succeeding Maj. Gen. Bissell.

Brig. Gen. Thomas D. White, former chief of staff of the Third Air Force, has been appointed assistant chief of Air Staff Intelligence to succeed Maj. Gen. Clayton L. Bissell. Gen. Bissell recently was assigned to the War Department general staff as chief of the Intelligence division.

Before being attached to the Third Air Force, Gen. White served as chief of the U. S. Military Air Mission to Brazil. He also served in China, Moscow, Italy and Greece.



NEW HELMETS REDUCE HEAD INJURIES:

Army Air Forces' two new helmets which have reduced head injuries. On the left is the recently publicized M3, developed by Ordnance Dept. for the AAF, worn by most crew members. It is of one-piece type with hinged flaps to protect headphones. The M4 on right is for gunners who have limited space in their turrets. Both are worn over regulation flying helmets and protect wearers from low-velocity anti-aircraft shell fragments.

Thousands of man -hours SAVED...

by Prefabricated Plane Parts Service . . .

Pioneered by **REYNOLDS**

HERE'S one answer to your manpower shortage. An answer that's already saving thousands of precious man-hours of airplane labor for every leading manufacturer of combat planes.

Under this plan, pioneered by Reynolds only 3 years ago, completely finished parts come to your production lines ready for immediate assembly. No longer is it necessary to tie up valuable plant space with large stocks of aluminum sheet or die-cutting and forming machines.

All of this is done for you, at the Reynolds plant, by workmen skilled in the prefabrication of the parts you use. Men in your plants who would ordinarily fabricate these parts can be used on assembly lines and in other important jobs.

Big savings in scrap handling realized

The Reynolds prefabricated plane parts service also does away with scrap handling. Aluminum scrap, which averages 30% of every sheet, is immediately re-rolled into prime sheet, then

prefabricated into more new parts, practically overnight. There is no needless cross-shipping of scrap. In figuring prices on parts, Reynolds allows plane manufacturers full price for scrap accumulated, thus saving entire cost of handling.

It is this kind of progressive thinking and co-operative planning that has resulted in an organization which now operates 40 plants in 14 states, and continues to grow by leaps and bounds. For Reynolds men are not satisfied to have been the first to supply finished plane parts from aluminum sheet. They have given themselves the continuous job of finding new ways to make aluminum better . . . easier and cheaper to use.

That's why you'll find Reynolds' resources, equipment and engineering skill can be of assistance in helping you with your aluminum problems, *no matter what they may be*. Reynolds Metals Company, Aluminum and Parts Divisions, Louisville, Ky.



REYNOLDS

The Great New Source of

ALUMINUM

INGOT • SHEET • EXTRUSIONS • WIRE • ROD • BAR • FORGINGS • TUBING • FOIL • POWDER

ON THE WAY TO THE ASSEMBLY LINE. Completely finished by Reynolds' skilled workmen these prefabricated plane parts, here being individually inspected, will save manpower, plant space, transportation and scrap handling for some plane manufacturer.

"TAIL GUNNER... TO GENERAL..."

What! Does the general *listen* to the tail gunner? In deed, if not in actual fact. Thus, a thousand tail gunners in a one thousand plane raid can see and report vital information to a thousand pilots . . . who in turn report via radio to their squadron commander . . . to group commanders . . . to generals . . .

- But only because their radios are shielded from high tension engine ignition interference. How? By the TITEFLEX RADIO SHIELDED IGNITION HARNESS on each engine—which thus helps keep clear the lines of radio communication from base to bombed-out Berlin.

- By actual performance under the worst con-

ditions known to man, Titeflex ignition harnesses and flexible tubing have established themselves as *standard equipment on the majority of America's wartime airplanes.*

And Now . . . Aerocon

—a new, improved ignition conduit which by actual flight test provides even greater resistance to vibration—even greater electrical shielding protection. Already approved by the Army and Navy, already accepted by engine manufacturers. Data on AEROCON ignition conduit will be supplied to engine designers and engineers upon request.

TITEFLEX, INC., 508 Frelinghuysen Ave., Newark 5, N. J.



AIRCRAFT PRODUCTION

Convair Sees Post-War Value In Intensive Research Program

Company's financial report, reflecting record operations in fiscal year, says work continues on 400-passenger craft; statement is first since Consolidated-Vultee merger.

Intensive research and experimental activities being carried on by Consolidated Vultee are indicated in the first report to stockholders issued since the merger of Consolidated Aircraft Corp. and Vultee Aircraft Inc., in March, 1943.

While noting that its engineering skills at present are being devoted to the war program, the report adds significantly that the knowledge gained in designing military aircraft will be of definite value for post-war commercial aircraft.

► **New Transport Designed**—Design engineering on new types of Consolidated Vultee planes is conducted at San Diego, Fort Worth, Vultee Field, Stinson and the Stout Research Division and now under construction is a new military transport, similar to the *Liberator Express*, but with a larger fuselage to provide space for more efficient cargo and troop transportation.

The company is now engaged in development of a new four-engine, heavy bomber of advanced design, about which little can be said at this time.

► **400-Passenger Plane**—Work continues on the giant airplane, designed as a transport able to make non-stop trips to Europe and return. It is large enough to accommodate 400 passengers by equipping it with seats such as those used in military transports and 200 passengers or more in comfort on post-war trans-oceanic flights. More will be heard about this craft later, which applies, too, to the new four-engine bomber.

The report reflects record-breaking production of warplanes and discloses that the company's backlog at the end of the fiscal year was about \$3,000,000,000.

► **Financial Report**—Net income from sales (including operations of Vultee Aircraft for eight months only) amounted to \$19,267,941 after providing \$6,800,000 for post-

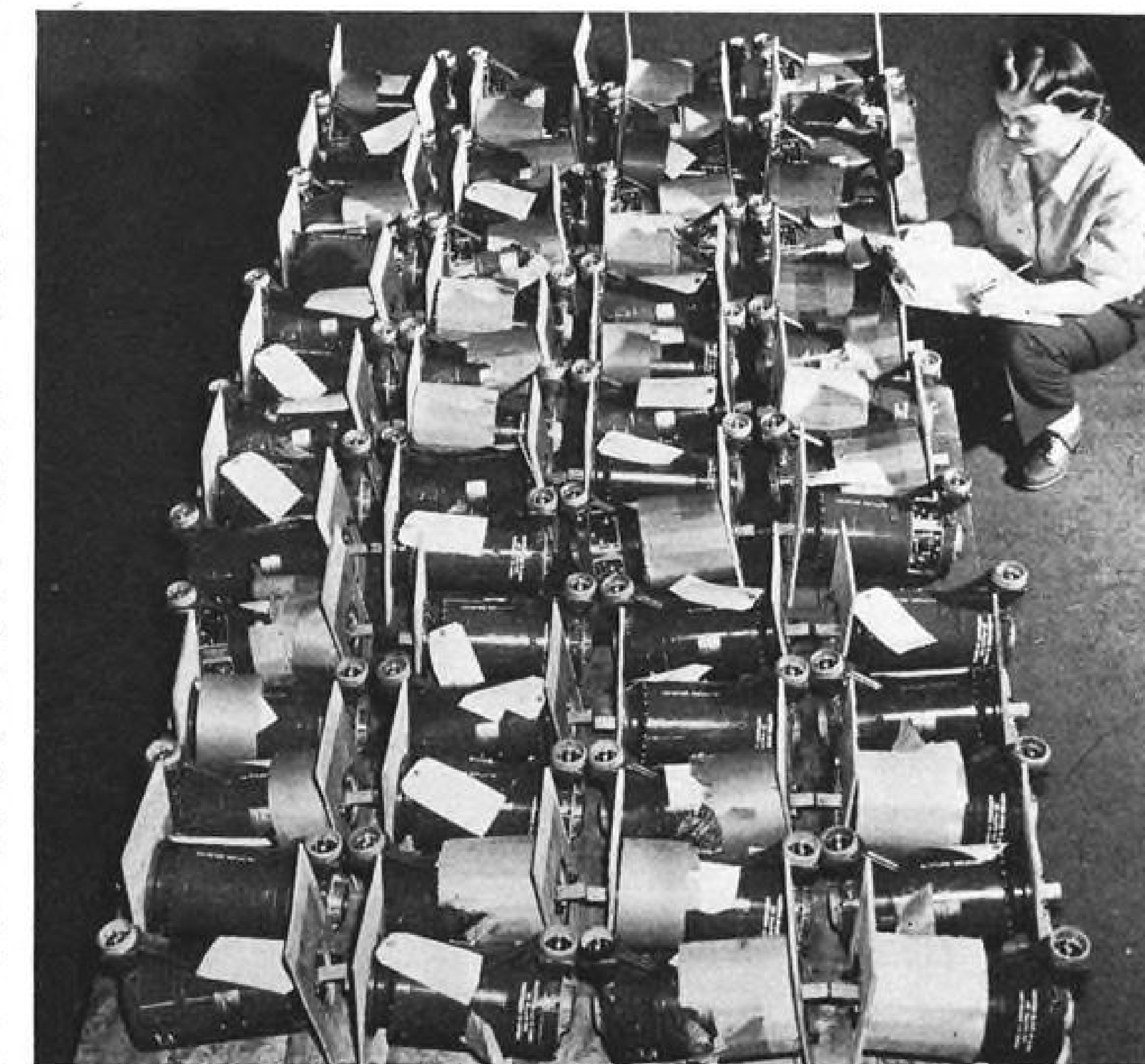
war adjustments. The net income includes, as a deduction from excess profits tax, a debt retirement fund of \$5,143,000 and a post-war refund of \$2,047,000.

The report said that, in the year ended Nov. 30 last, Consolidated Vultee reduced cost to government of airplanes and parts delivered by \$251,000,000 below original contract prices. These reductions, the report added, were made through voluntary refunds of cash and price reductions and amounts reserved

for further cash refunds. They do not include the waiver of substantial amounts due under escalator provisions of contracts.

► **Refunds**—Renegotiation proceedings for the fiscal year have not yet been started and no indications had been given as to amount of refund the Price Adjustment Board believes should be made. Provision has been made by the company for a refund of \$80,000,000. Including this reserve, the total reduction to the government in price paid for airplanes and parts, including voluntary cash refunds and price reductions already made, amounted to approximately \$251,000,000.

The report said that if a further refund were required, so as to have the 1943 renegotiations conform to the settlement for the 1942 fiscal year, there would be a reduction of net income after taxes of approximately \$7,500,000. It was the management's opinion, however, that in view of the production record, the reduction in cost of airplanes to the government, refunds and reductions, no refund should be required in excess of the amount already provided.



"FLYING FORTRESS" GENERATORS:

Electric power for 15 Boeing Flying Fortresses will be produced by the 60 Westinghouse aircraft generators shown above as they receive a final check-up before shipment. Weighing only 43½ pounds, each of these generators will produce 5,700 watts of direct current at 28½ volts, 200 amp., when directly connected to an aircraft engine turning at 2,500 to 4,500 rpm.

New Research Group Formed by ACCA

Designed to meet needs of expanding aviation industry.

To meet the growing need of the industry and related activities for a clearing house of authoritative information, a Research and Statistics Department of the Aeronautical Chamber of Commerce has been organized.

Plans for exchanging data assembled by that department and similar units in aviation, publishing and other organizations were discussed at a luncheon meeting in New York, attended by magazine, newspaper and research organization representatives.

► **Program**—J. Carlton Ward, Jr., Fairchild president and vice-president of the Chamber, presided and outlined the program of the new department, emphasizing the necessity now and the increasing importance of authoritative information along statistical lines to the welfare of the industry generally. The industry, he said, was eager to cooperate with the research and statistics departments of organizations dealing with the industry and besought cooperation for mutual benefit.

Representatives of various organizations present discussed the Chamber's plans, expressing general approval and offering cooperation in the project, after E. Earle Lothrop, manager of the Chamber's department explained his program.

► **Cooperation** — The department must necessarily have the full cooperation of Chamber members in order to gather and compile information necessary for a complete statistical picture of the industry as it now is operating and as it will operate in the future.

Information about the aircraft industry is now scattered and the sources widely separated in the individual companies, in government agencies, financial houses, aviation insurance companies, publishing houses, Aircraft War Production councils and the Chamber itself.

'Helldiver' Output Tops 6-Month Total

Output of Navy's *Helldiver* dive-bomber was greater in January than in the first half of 1943, according to J. P. Davey, general manager, Curtiss-Wright Corp. plant at Columbus, who received

congratulatory telegrams from Navy and War Production Board on the production.

Charles E. Wilson, chairman of the Aircraft Production Board, noted that the plant had met the January schedule and Rear Admiral DeWitt Clinton Ramsey, chief of the Bureau of Aeronautics, lauded the output and said "to date you have delivered more than your scheduled number of these powerful offensive dive-bombers to the fleet and have set a record for *Helldiver* production in January."

Air Absorbs Shock Of Landing Planes

Firestone announces development of new pneumatic spring.

Development of a new-type landing mechanism called an air-spring strut, which harnesses air to absorb the shocks of airplane landings, takeoffs and taxiing runs, has been announced by Firestone Tire and Rubber Co.

Engineers of the company say tests show that the air-spring strut adds to the comfort and safety of flying, increases the life of airplanes and reduces maintenance costs through elimination of landing shocks and taxiing vibrations. The air in the new land-

ing mechanism is confined in a flexible rubberized container which operates somewhat like an accordion bellows. With the air-spring, the shock-absorbing properties of a pneumatic tire are repeated in the landing strut.

► **Replaces Oil**—Oil has been generally used heretofore to absorb the energy of an airplane's first impact in landing, being confined and forced through a small hole at high pressure. The Firestone air spring uses an identical principle, except that a large volume of air at low pressure is used instead of oil. The design of the air spring eliminates pressure-tight sliding joints and their leakage and friction troubles.

Production of the air-spring is now under way and Firestone engineers expect it to play an important part not only in wartime application but also in the post-war aviation picture. The mechanism can be engineered to fit any airplane.

5,000th 'Corsair'

Chance Vought Aircraft Division of United Aircraft Corp., has delivered its 5,000th airplane since the company's founding in 1917—an F4U-1 *Corsair* fighter for the Navy. Near the end of 1943, Chance Vought completed its 2,000th F4U.



ACCA Research and Statistics: Behind the new Research and Statistics Committee of the Aeronautical Chamber of Commerce are these men, photographed at a recent meeting in New York. Shown (seated, left to right) Col. Harrison Brand, Jr., general manager of the Chamber; A. T. Hapke, Jr., manager of market research for Republic Aviation and chairman of the committee; J. Carlton Ward, Jr., president of Fairchild Engine and Airplane Corp. and Chamber vice-president and (standing) E. Earle Lothrop, manager of the Chamber research and statistical department and James C. Willson, Curtiss-Wright Corp.

Lockheed Engine Changed in 27½ Min.

Company reports "power egg" system developed to speed power plant replacement.

A so-called "power egg" system which permits a complete change of aircraft power plant in 27½ minutes has been designed by Lockheed Aircraft engineers and applied to its new four-engine C-69 *Constellation*, reducing the ground time for maintenance of a transport airplane to a new low.

The 27½-minute engine change has been made by Lockheed Flight test crews supervised by designers of the power egg—Hall L. Hibbard, vice-president and chief engineer, and C. L. (Kelly) Johnson, chief research engineer.

► **Connections Easily Reached**—In order to achieve this interchangeability, particular attention was paid to the grouping of lines, ducts and connections at the fire wall, with quick disconnects for all units. Collector rings on the big Wright twin-row 2200 hp. engines exhaust through two jet-type tail pipes that protrude through the cowl of the power egg itself, and the nacelle is fixed to the airplane at the fire wall by only ten mounting bolts, all readily accessible.

► **Procedure**—Sequence and procedure of the exchange are as follows: 1. Carburetor air scoop removed to attach hoist. Disconnections at fire wall started (3 mins.); 2. Disconnections completed, hoist sling secured, engine ready to be lowered (9 mins.); 3. Engine swung aside and lowered (11 mins.); 4. New power plant swung into place preparatory to securing structural connections (15 mins.); 5. Engine in place, structural, electrical, hydraulic and cable connections being made (23 mins.); 6. New power plant completely installed, ready for propeller to be pulled through (27½ mins.).

Lockheed engineers said that, aside from its unique interchangeability, the *Constellation's* nacelle is so designed that it uses 2,200 hp. with no more aerodynamic drag than pioneer Lockheed ships required in housing 800 hp.

► **High Speed Rivet Machine**—Another speed-up process developed by Lockheed is a machine designed to set from 33,600 to 75,000 rivets an hour, compared with the normal hourly rate of 350. Reidar Olsen, Lockheed manufacturing engineer, who invented the machine,



Record Power Plant Change: Lockheed engineers have developed a "power egg" system which permits a complete change of power plant in 27½ minutes, which has been applied to the new four-engined Lockheed *Constellation*. Photograph shows one of the steps in the quick exchange.

says it punches and rivets in a continuous operation and is adaptable to any airplane surface. He said three men in six minutes could do work normally requiring 100 man-hours.

50 Firms Working On Helicopters

New book lists U. S. companies in field and assesses rotary wing future.

At least 50 companies are engaged in development or manufacture of helicopters, according to a new book, *The Helicopters Are Coming*, just published.

Although conceding that many "bugs" remain in rotary wing craft, which will prevent wide public use for a time C. B. F. Macauley, in what is described as the first popular book on the subject, strikes out at those who see little future for such aircraft.

► **No Comparison with Autos**—"Some of the pessimists who feel it their duty to warn the public against anticipating practical helicopters for a decade or two compare helicopters at their present stage of development with the automobiles of 35 years ago and airplanes of 25 years ago, and intimate that a similar amount of time will elapse before the helicopter 'arrives' for every man. That is just plain silly."

He points out that unlike the car, the helicopter does not wait for light, reliable engines or pioneering work in aerodynamics. It does not start from scratch. It is an offshoot of the plane. "It did not take 30 or 40 years to develop a jeep."

► **Basic Problems Solved**—Macauley, former managing editor of *Aviation* and later editor of *Air Tech*, now is assistant to the director of public relations for Fairchild Engine & Airplane Corp. He reports that "basic solutions to problems which previously stood in the way of safe and efficient helicopter flight have been worked out." Improving, refining, simplifying are going on at rapid pace.

Money, engineering brains, mechanical genius and production facilities now being utilized—much in secrecy—are on a scale so far beyond those afforded cars and airplanes in their earliest years that no comparison is possible, the writer says.

► **First Prices High**—The first few helicopters may be on sale about the end of the first peace year, at a price possibly higher than a medium-priced car. They will "certainly require more care and expense in upkeep."

But the ability of the helicopter to go places and do things impossible for cars or airplanes will more than offset its initial economic disadvantages, the book says. From there on, there will be a steady decrease in cost and upkeep, better performance and constantly widening market.

► **May Have Jets**—The single-rotor model probably will win out commercially. Some jet propulsion application may remove torque reaction. Many diverse types will develop. The helicopter lends itself to mass production to a greater extent than conventional aircraft now being turned out. Cost of operation probably will remain higher than that of an airplane of comparable weight-carrying capacity.

► **No Patent Restrictions**—Basic patents on rotors and their arrangements were issued 20 to 30 years ago and are no longer restricted. This throws the field wide open to all manufacturers.

While this undoubtedly accounts in part for the large numbers of organizations and individuals devoting their time and attention to the development or manufacture of helicopters, it also indicates a strong faith by sound technicians in the future of this craft.

CAB Grants National Airlines Extension of Florida-N.Y. Route

Board authorizes competition along productive eastern seaboard and at same time puts one of smaller companies into field covered only by Eastern.

By MERLIN MICKEL

The Civil Aeronautics Board, through last week's decision giving National Airlines an extension of its Florida route to New York, authorized competition along the productive eastern seaboard and at the same time put one of the smaller airlines into a field in which a big company—Eastern Air Lines—has been the only operator.

The stress the Board laid on the competitive angle was in some regard a repetition of the principles outlined late last summer when Western Air Lines was granted the right to operate between Los An-

geles and San Francisco, where United previously had been alone.

► **Competition**—It stated again that "there is a strong, although not conclusive, presumption in favor of competition on any route which offers sufficient traffic to support competing services without unreasonable increase of total operating cost."

National applied almost four years ago for a route to New York. However, it cannot operate the new route until equipment is available. The authorization carried the usual restriction that serv-

ice shall not be started until the national defense no longer requires that it be delayed. The line was reported to be planning to use *Constellations* when they become available after the war.

► **Extends Route**—The Board's decision would permit National to extend its route (AM 31) between Miami and Jacksonville via Tampa on to New York, via Savannah, Charleston, Wilmington, Norfolk and Philadelphia, except as to local traffic between Philadelphia and New York, and to include West Palm Beach between Tampa and Miami.

Eastern was authorized to extend AM 40 from Tampa to Miami, with the proviso that flights between those points originate or terminate at Atlanta or Birmingham or points north. This extension makes a connection between existing Florida services and establishes a single carrier service to Miami via Florida's west coast, since 40 connects Tampa with Tallahassee.

► **Two Applications Denied**—Application by Seaboard Airways for service between New York and New Orleans and New York and Miami, and Pennsylvania-Central's request for local service between Rocky Mount, N. C., and Jackson-

National Stock Up

National Airlines stock took a sharp rise the day after the CAB decision giving the line authority to operate a route between Florida and New York. Attorneys said it rose 4½ points to 17 in one day.

ville, Fla., were denied by the Board.

The Board eliminated from the docket an application by Colonial Airlines for a route between New York and Nassau, consolidating this request with other applications for routes between the United States and Latin America, to be heard May 15.

Morgan Takes Over State Dept. Post

Former DSC vice-president to have charge of increasing work of Aviation Division.

Increasing work of the Aviation Division of the State Department is to be directed by Stokeley Morgan who, as vice-president of Defense Supplies Corp., has been in charge of its general aviation program.

Morgan was on the job before official announcement of his new assignment. Chief of the division, he will be assisted by Joe D. Walstrom, who had charge of the work before the aviation section became a full division in the recent State Department reorganization.

► **Diplomatic Role**—Indications are that the functions under the new set-up will be much the same as in the past. Staff personnel is being added as the work grows in volume.

The Division cooperates with other interested government agencies in several fields. Its role is largely diplomatic. Landing rights for American airlines overseas are negotiated by the State Department, with final decision up to the Civil Aeronautics Board. Foreign airlines seeking authorization for routes into this country must file first through the State Department.

► **Flight Permits**—American membership in international aeronautical bodies, such as the International Technical Committee of Aero Legal Experts and the Permanent American Aeronautical Commission, is maintained through the State Department.

Permits for special flights into or out of the country are granted for

both civil and military craft by the Department. Training given citizens of foreign countries is arranged by it and carried out by the Civil Aeronautics Administration.

► **Other Functions**—These and other functions will continue to be the responsibility of the Aviation Division during the war. Post-war functions, not yet publicly outlined, may be more far-reaching. Reports even now are being prepared by the State Department on post-war transport problems.

The division formerly was one of three sections under the Depart-



STOKELEY MORGAN

ment's Transportation and Communications Division. Walstrom, who has been its acting chief, points out that although the State Department is concerned primarily with transport and cargo, it is the agency to which foreign governments, particularly Latin American, appeal for needed civil and military equipment. The State Department passes on their recommendations to the Munitions Assignment Board.

► **Experience**—Morgan and Walstrom have wide aviation and diplomatic experience. Former Pan American Airways executive from 1932 to 1940, Morgan joined the DSC in 1942, and there had a hand in the de-Germanization of the Axis airlines in Latin America. He was assistant chief of the Department's Division of Latin American Affairs from 1925 to 1927, and chief for the next two years. Earlier, he was at London, Copenhagen, La Paz, Bogota, Riga, Panama and Tegucigalpa, Honduras.

Walstrom, a foreign service officer, has handled Embassy matters on aviation in Guatemala, Bangkok, Siam, and Buenos Aires. In 1929 and 1930, he was with an airline in Mexico.

Tipton to Head ATA Legal Staff

Former assistant general counsel at CAB to build up own force.

Air Transport Association is planning on building its own legal staff, with Stuart G. Tipton, former assistant general counsel at the Civil Aeronautics Board as head.

Tipton already has gone to ATA, where his future staff probably will consist of three or four legal assistants and secretarial aides. At CAB, present intention is that John H. Wanner will succeed Tipton, although he has not yet moved into the job. Wanner has been chief of the Economic Operations Section in the general counsel's office.

► **Westwood to Aid**—For a while, Tipton will have the aid and advice of Howard C. Westwood, member of the Washington law firm that is relinquishing the ATA account by June 30. Westwood has passed his draft examination, but induction is being delayed so that he may help the new counsel.

Tipton helped draft the Civil Aeronautics Act and formerly was head of the CAA's enforcement division. Later he became CAB assistant general counsel to handle safety regulations, and was chief of Operations, Legal Division, when he resigned. One of his last official duties was the drafting of the new streamlined air traffic rules submitted for industry comment.

Robert McCraith, ATA's man in charge of personnel and labor matters, is to enter the service soon.

Head of New Haven Explains Air 'Ad'

Significant of an advertisement published last December by the New Haven Railroad, in which it urged "coordination of interests between an established airline and our rail and highway systems," became apparent when Howard S. Palmer, president and trustee of the New Haven, talked before the Advertising Club of New York.

Palmer said that, if surface carriers were permitted to get into the air, his railroad "should soon be able to announce the formation of a coordinated rail-air-highway system to serve Southern New England." He cited the New Haven's knowledge of the territory, and said its participation in such a tie-up would advance "by years" the progress of the affected airline.



CONFEREES AT KANSAS STATE MEETING:

Picture shows some of the conferees at the Kansas State Aviation Conference at Wichita. Seated, left to right: John G. Stutz, Topeka, executive director Kansas League of Municipalities; Andy S. Swenson, Wichita, conference chairman; William J. Lawson, Dallas, special representative Braniff Airways; Alfred MacDonald, director of Wichita Parks and Airports and regional director, American Association of Airport Executives; T. E. Flaherty, Kansas City, 5th CAA regional supervisor of airports. Standing,

left to right: Donald A. Duff, Denver, assistant to executive vice-president, Continental Air Lines; Donald Pratt, Hays, Kan., president P-T Air Service; Don Flower, Wichita, sales manager Cessna Aircraft Co.; Mayor Z. Arthur Nevins of Dodge City; S. B. Warren, Kansas City, assistant to the vice-president of traffic of TWA, and Warren Blazier, Wichita, personnel director of Beech Aircraft Corp. and former aviation manager of the Wichita Chamber of Commerce.

Applications Filed For 3 More Routes

Permits asked for Las Vegas-Carson City line, Alaska area and Washington-Ocean City, service.

Desert Airways, Inc., a Nevada corporation with its business address at Vail Field Airport, Los Angeles, has applied to the Civil Aeronautics Board for a passenger route between Las Vegas and Carson City, Nev., via Ely and Reno, Nev. The line would operate one daylight flight daily each direction, using single-engine Waco, Stinson or Beechcraft planes.

The application stipulates that Desert Airways would carry mail and goods at a later date if conditions warrant, and switch to twin-engine aircraft when such equipment becomes available. The same request has been filed with Nevada Public Service Commission.

► **Alaska Service**—Walatka Air Service of Dillingham, Alaska, contending three other lines have failed to provide adequate service in the Bristol Bay area, applied for the following three non-scheduled operations for passengers, property and mail: between Dillingham and Naknek via intermediate points; transportation of workers during the cannery season from Dillingham to Good News Bay, Bethel and Quinhagak; transportation of mail under sub-contract to Woodley Airways from Naknek to various points in Bristol Bay area.

► **Helicopter Line**—Aloysius John Fahey, 31-year old Washingtonian, aspires to operate a daily helicopter

service for passengers, freight, mail, express and local pick-up and delivery from Washington, D. C., to Ocean City, Md. by two routes.

Fahey would use 14-passenger craft capable of carrying a 3,000-pound payload. He suggested as possible terminal points in Washington the Union Station Plaza, the Mall, some wide street downtown or the top of a department store.

CAB Maps Hearing On 8 Applications

Consolidates filings for service in Washington-Montreal area.

The Civil Aeronautics Board has consolidated applications for service in the area generally bounded by Washington, D. C., Trenton, Ottawa and Montreal, Canada, and Buffalo, and announced it soon will open the proceeding. Pre-hearing conference was set for Feb. 26.

Lines presently involved are American, Eastern, Hylan Flying Service, Union Airways, Colonial, Page Airways, Pennsylvania-Central and United. Proposals for service in this area, in various applications filed with the Board, were severed from the original applications and consolidated into the proceeding.

► **Service Proposed**—The applications now propose service as follows:

American Airlines—AM 7 to include as intermediate points Elmira and Binghamton, Endicott, Johnson City, N. Y., between Scranton and Syracuse; AM 7 to

be extended from Wilkes-Barre to Philadelphia via Allentown and Bethlehem, Pa.; Syracuse to Ottawa; Syracuse to Montreal via Watertown and Massena, N. Y.

► **Eastern Air Lines**—Washington, D. C., to Syracuse, via Baltimore, Reading, Wilkes-Barre and Scranton, and Binghamton, N. Y., and beyond Syracuse to Ottawa and Montreal.

Hylan Flying Service—Buffalo to Rochester, Scranton to Rochester, Binghamton to New York, Rochester to Massena, Rochester to Washington, Binghamton to Washington, Binghamton to Philadelphia, Binghamton to Syracuse, all via several intermediate points.

Union Airways—Hagerstown, Md., to Scranton; Hagerstown to Rochester; Hagerstown to Washington, all via intermediate points.

► **Colonial Airlines**—New York to Massena via Binghamton, Syracuse and Watertown; Massena to Washington, D. C., via Watertown, Syracuse, Binghamton, Harrisburg, Pa., with Lancaster and York, Pa., as alternate to Harrisburg; Massena to Ottawa and Massena to Montreal; Burlington, Vt., to Ottawa.

Page Airways—Washington to Rochester via Hagerstown, Md., Harrisburg, Sunbury, Williamsport, Pa., Elmira and Dansville, N. Y.

► **Pennsylvania-Central Airlines**—Buffalo to Ottawa via Rochester; Washington to Syracuse via Baltimore, Wilmington, Philadelphia, Allentown-Bethlehem, Wilkes-Barre, Scranton and Binghamton; Syracuse to Montreal via Ottawa.

United Air Lines—Cleveland to Montreal via Erie, Pa., Buffalo, Rochester and Ottawa.

Two CAA Employees On 'Lost' Plane

Two Civil Aeronautics Administration employees were on a plane disclosed by the Navy to be overdue and presumed lost at sea on a flight from the Pacific Northwest to Seattle.

Fourteen were aboard the plane, operated under Navy contract by Pan American. They included five crew members, five men in the Naval Service, the two CAA men and two other Pan American employees.

► **Rolston Missing**—One of the CAA employees missing is David R. Rolston, who has been assistant civil engineer for Federal Airways at Anchorage. Raymond S. Griffith

was assistant chief aircraft communicator at Burlington, Iowa. Rolston joined CAA in 1943 and Griffith in 1938.

Wreckage and a life raft were found where the plane was believed to have gone down, but there was no trace of survivors.

'Clipper' Cheques

A check system to enable the world air traveler better to cope with the currency situations in the different countries he visits has been devised by Pan American Airways. "Clipper Air Cheques," as PAA calls them, are



designed with consideration for post-war use as well as to ease the monetary difficulties of the wartime traveler.

Talman Discusses Plane Conversion

Commercial air transport will have to look to new planes, rather than converted military transports, for useful operation after the war, although the latter may be of temporary value until the new ships are available, E. Lee Talman, executive vice-president of Transcontinental and Western Air, told the New York Security Dealers' Association.

Talman sees commercial air transportation, domestic and international, with four post-war duties: to provide a market to maintain aircraft production facilities, to continue pioneering in aircraft development to the benefit of military aviation, an impetus to commerce and hence promotion of post-war employment, and improvement of communication and travel toward international understanding and good will.

BOAC Mileage Gains 25 Percent

Totals 12,481,485 in 1943, British Air Ministry reveals.

British Overseas Airways Corp. flew 12,481,485 miles in 1943, a 25 percent increase over 1942, and the equivalent of one and one-third times around the world every day.

The line, which is controlled directly by the British Air Ministry, released figures on its 1943 operations last week and outlined the routes it operates.

► **Freight Loads Increase**—These statistics showed that the greatest increase in its operations was in freight. In 1943, BOAC carried 3,975 tons of freight compared with 2,139 in 1942, or an increase of 85.8 percent. Increases also were shown in passenger ton miles, freight ton miles, total traffic ton miles, total passengers carried and mail carried. Only decrease was 6.8 percent in mail ton miles.

BOAC operates over 50,000 route miles. Some of the routes which security regulations permitted to be made public are:

United Kingdom—Canada, 3,200 miles; United Kingdom—United States, a direct route in summer with diversion in winter to include Portugal, Bathurst, Nigeria, Brazil, Trinidad and Bermuda; United Kingdom—Ireland, a shuttle service which connects Pan American Airways and American Export Airlines trans-Atlantic services with England; United Kingdom—Portugal, Gibraltar, North Africa, Egypt; United Kingdom—Sweden.

► **9,000-Mile Route**—From Cairo, BOAC operates services throughout the Middle East, Africa and to India. Longest route given in the report is the Horseshoe Route, 9,000 miles by flying boat from South Africa to India.

ATS Group to Meet

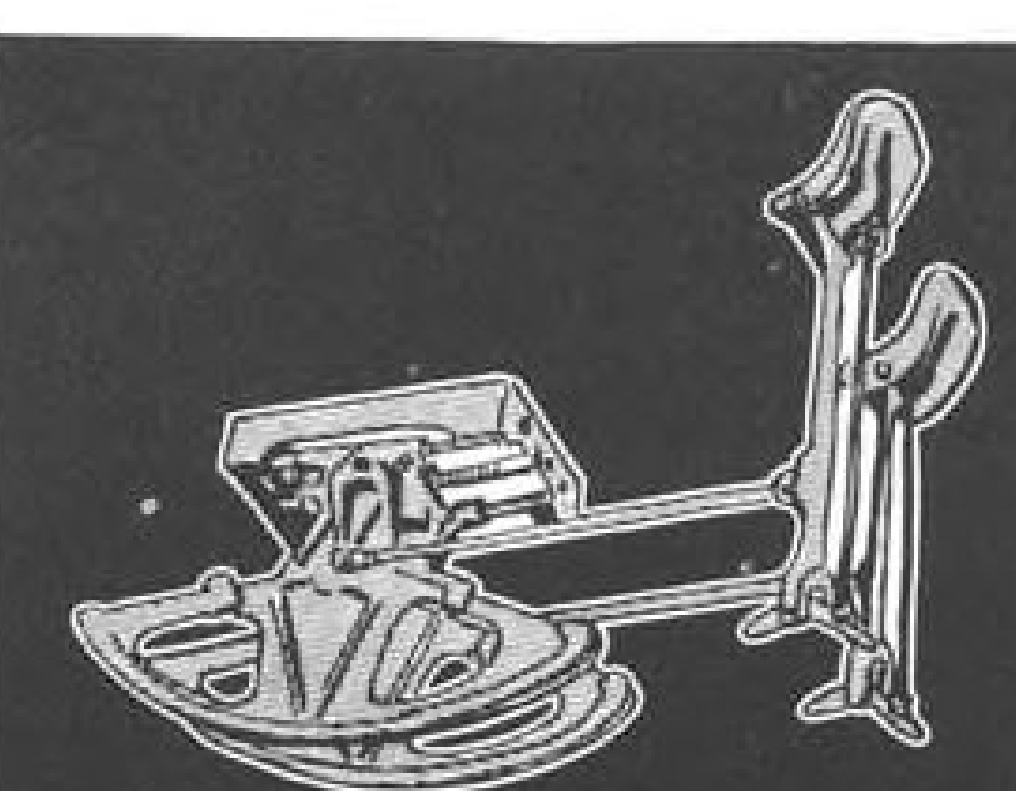
Members of the Aeronautical Training Society, doing flight training for the Army Air Forces and the United Nations, will hold a regional meeting in Los Angeles Mar. 6. Some 16 schools in the far western states will be represented, according to J. Wendell Coombs, president of ATS.

A post-war aviation program will be the theme of the convention, with reports on flying safety, manpower utilization and other educational ATS projects.



CHILEAN AIRMEN AT TREASURE ISLAND:

The Chilean Air Force mission is shown as it visited Pan American's base at Treasure Island. Left to right: Col. Raul Gonzales, chief of the mission; Lieut. Gen. Manuel Tovarias Arroyo, General de Aire and Commander in Chief of the Chilean Air Force; Admiral Osterhaus; and Brig. Gen. Oscar Herreros Walker, Comodore del Aire and chief of staff of the Chilean Air Force.



on time

... one reason why many aircraft makers turn to Mercury for vital parts is our ability to maintain required delivery schedules . . . superior craftsmanship and the *know how* which comes from long experience enables us to get production through on time.

aluminum fuel and oil tanks • ailerons, fins, rudders and similar surfaces • aircraft parts and accessories.



Port Profit Plan Wins Coast Support

Preliminary conference held in Los Angeles with others scheduled to follow.

From West Coast plant operators will come early response to the Civil Aeronautics Administration's campaign to make operation of municipal airports profitable.

A preliminary conference held recently in Los Angeles CAA offices with strong representation of municipal airports will be followed by meetings to develop specific recommendations to J. Kirk Baldwin, national head of the CAA's recently created airport management unit of the Airports Division.

► **Other Meetings**—Similar meetings, for the Pacific Northwest area, are expected to be called by Paul Morris, CAA regional manager at Seattle.

Municipal airport managers attending the Los Angeles conference believe they have overlooked many bets in efforts to get their airports out of the red. They feel concerted effort is required to prevent airport development from becoming

a political football, and to meet the competition of privately owned airports.

► **Competition**—They see in Lockheed Aircraft Corp.'s big Burbank, Calif., Lockheed Air Terminal, an example of private ownership competition municipal airports may expect.

Lockheed Air Terminal, considered a highly profitable enterprise, provides terminal facilities for five major airlines; gives its parent company a large area for assembly hangars as well as flight testing facilities; leases facilities to aircraft maintenance concerns and operates highly profitable public concessions that include a garage, and automobile parking lots.

► **Concessions** — What Lockheed does privately, Capt. B. M. Doolin, manager of Mills Field, San Francisco's municipal airport, hopes to equal by the time the airport reaches its full \$10,000,000 development.

Champion of municipal airport operations, Doolin believes they can be profitable, but admits private airports can engage in various profitable operations that municipal airports can not support because of political reactions that would result from competition with private enterprise.

CAB ACTION

● CAB Examiners Francis W. Brown and William F. Cusick are holding hearing today (Feb. 28) in the Chicago-New York case involving applications for express service by Northwest, Transcontinental and Western Air, Colonial, American, Chicago and Southern, Northeast, Pennsylvania-Central, United and Braniff.

● Petitions by Transcontinental and Western Air and Continental to intervene in the proceeding whereby Braniff seeks to make Lubbock, Tex., an intermediate point were denied by the CAB. At the same time the Board approved similar petitions from Essair and the cities of Fort Worth, Dallas, Lubbock, Amarillo and Wichita Falls, Tex. Examiner Thomas L. Wrenn expects to hold hearings in mid-March.

● CAB permitted Northern Cross, Inc., certified to operate regular and irregular routes in Alaska, to suspend service temporarily because the line's president, also a pilot, is now on active duty as an officer in the Army Air Forces.

● Board ordered withheld from public disclosure certain exhibits submitted by Continental regarding mail compensation over AM 29, 43 and 60.

● American's opening of service in Joplin, Mo., through use of Joplin Municipal Airport, was approved by CAB.

● CAB denied the petition of Kansas City Southern Transport Co. and Kansas City Southern Railway Co. for indefinite postponement of hearings in the New Orleans-Kansas City case. Hearings are set for Apr. 1 and involve Mid-Continent, Delta and National in addition to the petitioners.

ACF Official Tells Of Post-War Roads

Campbell describes equipment planned by railroads in bid for competitive passenger traffic.

Prognostications on post-war railroad equipment — equipment with which the airlines may be competing — were voiced by E. D. Campbell, American Car and Foundry vice-president before a section of the American Society of Mechanical Engineers at Berwick, Pa.

Campbell feels that the passenger car is well standardized in dimension, but is a ripe field for development of riding comfort. Among the things involved here are easy riding trucks, satisfactory seats, better lighting with perhaps reading lights at individual seats, air conditioning and unit heating, pleasing but not lavish interior decoration, and "sleeper coach" travel acceleration through assurance of seats and better luggage accommodations.

► **Lighter Freight Cars**—He predicts that freight cars will be lighter and will roll on trucks capable of 80 miles an hour without damage to lading. Steel alloys for strength and some use of aluminum alloy to slow deterioration also may be expected, Campbell says.

Line Circularizes Feeder Route Data

Southwest Airways urges 600 communities to prepare for post-war development.

Southwest Airways Co., Beverly Hills, Calif., has distributed a pamphlet to civic officials and newspaper editors in more than 600 cities and towns it wishes to provide with post-war "area airline service," in which it emphasizes that the Civil Aeronautics Board and all communities should prepare at once a system of feeder operations to go into effect immediately after the war.

CAB is urged to "decide who should operate area airlines, where they should be operated and when . . . we believe it is expedient to franchise these lines into existence at the earliest possible moment."

► **Collaboration Urged** — "Meanwhile, progressive towns and communities . . . if investigation proves a need, should collaborate in establishment of area airlines."

The pamphlet, compiled from testimony Southwest gave during the CAB feeder investigation, discusses thoroughly the need for area airlines, how they should operate, equipment they should use, and concludes that new companies should operate these services.



CPA PILOTS DECORATED FOR RESCUE OF U. S. AIRMEN:

For the finding and rescue of 27 members of the United States Army Air Forces in the wilds of central Quebec almost a year ago, four civilian airmen of Canadian Pacific Air Lines were presented with the United States Air Medal. Ceremonies were at Dorval Airport, Montreal, and presentations were made by the U. S. Ambassador to Canada, Ray Atherton, with high-ranking RAF and AAF personnel present. Shown left to right are the four CPA men, Peter Midlige, Rimouski; Norman Creve, Montreal; Capt. Ray Roy, Rimouski; and Capt. Normal Forrester, Montreal; with Mr. Atherton; Col. Orlady, AAF; Lieut. J. Baxter, AAF; Air Vice-Marshal R. L. G. Marix, head of the RAF Transport Command; Air Commodore G. W. Powell of the same unit, and L. B. Unwin, CPA president.

SHORTLINES

► Northwest Airlines reports January mail loads carried by its planes totaled 491,655 pounds, an increase of 202,576 over January, 1943. Pound miles of 405,842,503 compared with 224,360,979 in January last year. Total mail poundage between Chicago, the Twin Cities and the West Coast in 1943 was 5,001,481.

► Colonial Airlines announces a record for passenger traffic increase on its Montreal-New York route in January, with a boost of 76.3 percent over the same month a year ago. Airmail was up 2.4 percent and express increased 45.7 percent.

► Mid-Continent Airlines express pound-miles for December were 4,591,331, against 3,402,588 in November. Mail pound miles were up to 42,200,000 from 30,500,000 and passenger miles rose from 1,180,000 to 1,340,000. Net earnings for 1943 were reported at \$195,599 after taxes and before adjustments.

► Swedish Aero Transport Co. has received route authorization between Stockholm and Vichy, Foreign Commerce Weekly reports, and plans to fly it three times a week with 15-passenger facilities.

► Hopes for a land-air connection between Moscow and Chicago after the war are held by Russia, according to Vice-President Wallace in the *Survey Graphic*.

Former Soviet Foreign Minister Molotov expressed such hope in 1942, Wallace wrote.

► Increases in passenger, mail and express traffic have been reported by Trans-Canada Air Lines in final figures for 1943, compared with 1942. Respectively, they were up 37,555 pounds, 1,417,795 and 458,768. Passengers carried last year numbered 142,001, airmail was 3,726,607 pounds and air express was 821,605 pounds.

► United Air Lines is giving a 16-week course in aircraft mechanical work to enrollees from Naval Air Transport Service squadrons. The work is in addition to instruction given AAF flight and ground personnel.

► Chicago and Southern carried 18.56 percent more revenue passengers during the first eleven months of 1943 than the same period of 1942, but turned down 20,553 from July through November because of equipment shortage, says R. L. Heininger, traffic manager. Passengers for the eleven months numbered 75,976 against 64,085 for the same period in 1942. Revenue passenger miles were 32,568,143, compared with 26,366,531. The increase is 23.52 percent. November revenue passengers were 28.97 percent above November a year earlier, and revenue passenger miles were 3,017,052 against 2,247,306 in November, 1942.

► American Airlines is accommodating air travelers to and from Mexico at its new \$25,000 International Building at Meacham Field, Fort Worth, while they wait to clear customs and immigration at the port of entry on American's international route to Monterrey and Mexico City. With two passenger waiting rooms, the building has an international ticket counter with Spanish-speaking agents and houses U. S. Customs, Immigration, Public Health Service, Office of Censorship, Department of Agriculture and American's international air express service.

► Canadian Pacific Air Lines' plans for an integrated system in Canada in cooperation with other air lines will be the basis of CPA's 1944 advertising campaign in publications in Canada, the United States and Great Britain. The campaign will aim at attracting new passengers and opening new areas in Canada, and will tell of CPA's war contributions in training schools, repair depots and freight movements.

► A TCA plane with a full load of ten passengers, mail and express, recently flew the 365 air miles from Toronto to New York in one hour and 28 minutes. Two hours is schedule.

HELP WANTED

PRATT & WHITNEY AIRCRAFT

offers excellent opportunities in the engine installation field to persons trained in aircraft or engine installations. Among our many urgent requirements are the following:

Aeronautical and mechanical analytical engineers for heat rejection, fuel systems, vibration and power.

Design engineers	Project engineers
Layout draftsmen	Engineering aides
Detail draftsmen	Sheet metal workers
Checkers	Aircraft welders
Technical illustrators	Metal workers
Test engineers	Assembly shop
(flight test)	helpers
	Wood workers

To arrange for an interview, please write or wire your qualifications to Sales Engineering Department, or phone 8-4811, extension 391.

PRATT & WHITNEY AIRCRAFT

East Hartford, Connecticut

All hiring shall be done in conformance with the War Manpower Stabilization Act

PERSONNEL

Ira Stuart Wilson, New York financial and accounting executive, has been elected vice-president in charge of finance of Aircraft Accessories Corp. Wilson's headquarters will be at the Electronics division of the company, with offices located in



Kansas City, Kan.

Igor Sikorsky, engineering manager of Sikorsky Aircraft Division of United Aircraft Corp., has been awarded the 1943 Fawcett aviation award for his work in developing the helicopter. Six additional awards were made for significant accomplishments, including the Army's Air Transport Command for "its scientific pioneering of global air routes."

Leslie G. Brown has been appointed assistant to the vice-president in charge of operations of Braniff Airways. Brown is returning to Braniff after serving as a captain in the Air Transport Command for nearly two years. He will coordinate flight operations, ground operations, maintenance, purchasing, operation engineering, military cargo operations and department personnel.



R. Jack McAfee has been named assistant to the vice-president in charge of manufacturing at Ryan Aeronautical Co. He was formerly with Consolidated's Fort Worth branch. Mel Thompson has been promoted to assistant contract administrator at Ryan Aeronautical Co.

Paul Gibson Larie, who has been assistant secretary and assistant treasurer of American Airlines, Inc., has been named comptroller.

Wilbur L. Morrison has been named vice-president of Pan American Airways, in charge of its newly formed Latin American division, which consolidated the operations of the former eastern and western divisions.

Kenneth C. Rowe has joined Howard Aircraft Corp. as assistant to the president. Rowe was executive officer for the OPA in Washington before his recent appointment.

Lloyd D. Brace, vice-president of First National Bank of Boston, has been elected a director of Republic Aviation Corp.

Josef Müller, former partner of W. J. Newens Advertising Agency, Lincoln, Neb., has become advertising art director for Amsco Airplane Mfg. & Supply Corp., North Hollywood.

J. Cliff Roberts, formerly advertising manager of Transcontinental and Western Air, Inc., has rejoined the Chicago office of J. Walter Thompson Co., to serve as director of sales promotion on the Ford Motor Co. account.

Pan American's Atlantic division announces a change of administrative functions. Edward McVitty, division engineer since the Atlantic division was created in 1937, will devote full time as assistant division manager. Albert P. Elebash, formerly assistant division engineer, will take over the top engineering position in trans-atlantic operations. A. E.



McVitty



Elebash

(Mike) La Porte has been appointed to the new post of chief flight of-



La Porte



Gray

ficer and he will be principal staff representative of the division operations manager, with special inter-



NEW PAA DIVISION HEAD:

L. C. Reynolds, former acting manager of the trans-Pacific division of Pan American has consolidated into a single administrative unit all of the airline's trans-Pacific and Alaska services, with Headquarters in San Francisco.

est in flight personnel. Capt. Harold E. Gray, first man to fly the *Mars*, becomes division operations manager and will have charge of the operations, maintenance, meteorology and communications departments. Captain Gray was the first PAA pilot to be designated master pilot.

Comdr. Robert J. C. Maulsby, USN (aviator), and Lieut. Comdr. John R. Fell, USNR, have been detached from duties in the Aviation Training Division of the Navy's Bureau of Aeronautics.

Comdr. Willard K. Goodney, USN (aviator) has been detached from the Navy's Bureau of Aeronautics Engineering division.

Comdr. Paul L. Dudley, USN, has succeeded Comdr. Frederick N. Kivette, USN, as assistant director of the Aviation Training division in the Navy's Bureau of Aeronautics.

Capt. Steadman Teller, USN, has been detached from the Navy's Aviation Planning division of the Bureau of Aeronautics.

Joseph Gottfried, formerly with the Social Security Board in New York, has become supervisor of employee services for Fairchild Aircraft Corp. H. M. McKay has been appointed assistant general manager of Fairchild Burlington plant, instead of general manager as was announced recently.

W. J. Augustine, formerly executive assistant to T. P. Wright and recorder of the Aircraft Resources Control Office, has resigned and returned to Republic Aviation Corp., which he had left to work with the old War Production Board Aircraft Production Division. When the division was abolished, he remained with ARCO. Taking over some of Augustine's duties is Lieut. Alva G. Mnye, USNR, who was with WPB's Aircraft Production Division prior to joining the Navy. Augustine's engineering duties have been divided among the personnel of ARCO.

Comdr. David G. Click, formerly industrial relations director for Sperry Gyroscope Co., Inc., has been appointed special assistant to the Assistant Secretary of the Navy, Ralph A. Bard. He has been officer in charge of the Industrial Relations Section of the division of Shore Establishments.

Ed S. Moreland (photo) has been named assistant sales manager of Pesco Products Co., Cleveland, to direct field activities under supervision of N. M. "Dutch" Forsythe, vice-president in charge of sales. Pesco, manufacturers of aircraft accessories,



also announced appointment of Louis Matthews as general superintendent; Jay M. Roth as director of engineering for pump and automotive developments; and John A. Lauck as chief engineer, pump department.

Charles Marvin has been named chief tool engineer of Consolidated Vultee's Fort Worth division, succeeding C. L. R. Smeltzer, who becomes assistant chief tool engineer. Marvin has been the company's special representative in the Douglas and Lockheed programs.

R. C. Golt has been appointed contract coordinator for the Allison division of General Motors Corp., to supervise contracts with government agencies in connection with orders for Allison liquid-cooled engines. He has been district manager



for Frigidaire division of General Motors at New Orleans and Kansas City.

B. A. Shepperd becomes station manager at Topeka, Kan. Kenneth G. Campbell will replace him at Hutch-



INTELLIGENCE CHIEF:

Brig. Gen. Thomas D. White, who has succeeded Maj. Gen. Clayton Bissell, as assistant chief of Air Staff, Intelligence, has retained Col. W. C. Bentley as deputy and the staff remains the same as under General Bissell. General Bissell is now chief of the Intelligence division, War Department General Staff.

inson, Kan. Guy J. Cox has been named station manager at Salina, Kan., and will be replaced at La Junta, Colo., by Marshall Poth from Pueblo.

Rear Admiral Arthur W. Radford was awarded the Legion of Merit for outstanding service as director of aviation training in the Navy's Bureau of Aeronautics.

Robert T. Hayes, station agent at Albuquerque for Continental Air Lines, has been promoted to station manager at Carlsbad, N. M.



PCA PILOTS IN AIR CORPS:

Three former Pennsylvania-Central Airlines pilots now in the AAF are pictured with Marion McClintic, chief hostess of PCA's western division. Left to right are: Capt. Richard M. Husted, Major James B. Fornasero, and Major Keith G. Cantine. Husted has won the Distinguished Flying Cross with Oak Cluster and the Air Medal with Oak Cluster for having completed 100 hazardous flights in the Asiatic theater of war. He and Fornasero recently returned from the China theater.

P. E. Floyd, formerly sales manager of the Chicago district of the Allegheny Ludlum Steel Corp., has been appointed assistant general manager of sales for the corporation. Floyd has been chief of the stainless section, Steel Division, of the War Production Board with offices in Washington.



Howard Field, Jr., pioneer aircraft hydraulics engineer, has opened his own office as a consulting engineer and is located in Los Angeles. He has been with North American Aviation's engineering department for the past seven and a half years prior to opening his office.



Continental Air Lines has announced the following transfers and promotions, some effective now and some when they start service over Route 60, between Denver and Kansas City: F. A. Lewis will be district manager and Lawrence B. Bishop will be station manager at Kansas City. Jane Mohr, from the Denver office will work with Lewis in the Kansas City city ticket office. Traffic agents at the Kansas City airport include: H. D. Gatch from Denver; and Phil Howard from El Paso, Tex. Station agents include Kenneth Borgmier and Anne Finlayson, both from Tulsa, and Harold Ferguson from Roswell, N. M. Harry H. Atkinson replaces Bishop.

Babson Reflects Popular Stand On Airline and Industry Stocks

Bearish on aviation manufacturing issues and bullish on transportation equities, although current prices are believed to have discounted post-war outlook on both to large extent.

By ROGER WILCO

The airlines are strongly favored and the aircraft group virtually disowned in an undated study released by Roger W. Babson, chairman of the board, Babson's Reports, Inc., an investment advisory service.

The survey, entitled, "The Future of Air Transport," deals in generalities.

It is significant, however, in that it reflects a type of investment philosophy that has boomed airline equities and depressed aircraft securities in recent times.

► **Post-War Fears**—Babson asserts, "... hundreds of thousands of men ... have been introduced to air transportation. Their enthusiasm for this entire industry ... forecasts an expansion which will make the past age of railroading look sick." The aircrafts are brushed off with the familiar post-war fears.

Now, both of these broad premises are substantially correct—provided they are properly qualified, which Babson fails to do. In addition, a fundamental fallacy to successful investment exists.

► **Discounted**—All things are relative—and this is never more so than prices in the marketplace. True, the airlines have a glowing future, but equities of this group have mirrored that optimism in a liberal measure. Of course, the aircraft industry will have difficulties after the war but prices have materially discounted this factor. This is not to say that airline shares are too high and aircraft equities too low. It merely means that current prices already reflect the known factors as they exist today.

Evaluating the future prospects of an industry with current prices is the key to successful investment. For example, the air transport

group has for years been accorded the best "growth" prospects of any industry and therefore was popularly supposed to have the most attractive investment opportunities. Actually, however, it remained for defaulted securities of an industry relegated to the decadent group, to record the best gains in the market in recent years.

► **Railroad Bonds**—Bonds of railroads, long in receivership, had fallen sharply in price because of general investment disgust as to the long-term trends of the industry and the then-existing status of the securities. Yet, many of these bankrupt issues rose more than a hundred-fold and contributed the most liberal profits to discerning investors. The sudden reversal, albeit temporary, in railroad fortunes together with reorganization developments imparted dynamic factors to these defaulted bonds. All prices are relative: many railroad bonds at 100 cents on the dollar were high but at 5 and 10 cents on the dollar were decidedly undervalued.

Bendix Helicopter

Vincent Bendix, industrialist, will announce shortly a new helicopter. Impressions from a picture of this new helicopter show it to be egg-shaped, with apparently no rudder. It is motivated by a double contra-rotating spinner overhead. It is a four-seater family plane with excellent visibility. Upper portion is almost completely covered with a transparent plastic. It has a low, tricycle landing gear which would allow highway driving.

This type of investment reasoning may find its counterpart in viewing securities of the two aviation groups. The most glamorous equities are not always the most profitable.

► **Favored Issues**—Returning to the Babson survey, a number of airlines appear to be favored for purchase and one company recommended for sale. The basis for these conclusions, along with certain general statements in the basic study, is lacking in consistency. The air carriers favored are: United, Pan American, American and Eastern. Liquidation of TWA is recommended.

Among other things, Babson asserts that the air lines "have no problems concerning fixed charges, production contracts or labor. The air transport companies will be carrying passengers and freight regardless of the ups and downs of the airplane manufacturing companies."

Furthermore, as a major basis for suggesting disposal of TWA, the recent mail rate cut for this carrier is cited.

► **Mail Rates Factor**—As a matter of fact, all domestic carriers recommended by Babson were given the same mail rate cut. Moreover, there is considerable speculation as to continued mail rate reductions to be ordered by the Civil Aeronautics Board. This in itself directs attention to the considerable influence a federal regulatory agency exercises over the industry and the many unknowns it introduces.

The air carriers may not have any problems in the direction indicated by Babson but that does not mean that they are worry-free.

The costs of air operations are steadily rising, a greater burden of airport financing and the expensive processes of expansion are some of the factors the airlines are facing. There are many others.

► **Inflation Hedge**—A number of the air carriers mentioned by Babson are credited with having "some inflation hedge merit." This is not only doubtful but points to a vulnerable position of the carriers.

The air transport companies, in a period of inflation, would be caught with rising costs on one hand and fixed revenues on the other. Passenger, mail and cargo rates are rigid and can be changed only with CAB approval. The history of rate adjustments discloses that any correction would require considerable time and may well come at a period to be of lit-

tle value to the carriers. Unless, of course, if the CAB decided to order retroactive mail rate increases, a substantial measure of relief would be afforded. But this would return the industry heavily in hock to the government and bring on many other problems.

► **Roadbed**—Babson regards as favorable the absence of huge outlays of capital by the air carriers for the "roadbed" as had to be provided by the railroads and canals. This is correct but it also reveals how vulnerable the industry is to assuming a greater portion of such expenditures in the future. This condition also justifies considerable control of the industry by the government as long as airway aids and similar facilities are provided.

It is unquestionable that the air transport industry will experience an unprecedented growth in the post-war era. It is important, however, to be cognizant of those factors which may serve to deter net profits from keeping pace with gross revenues. It is the former element which interests the discerning investor when it comes to laying down the chips.

Fairchild Process Cuts Engine Weight

Company reports chemical bonding of aluminum to steel also improves motor cooling efficiency.

A new development which makes possible marked reduction in the structural weight of an air-cooled engine and improves the cooling efficiency of its cylinders has been announced by J. Carlton Ward, Jr., president of Fairchild Engine and Airplane Corp., who says it will enable planes to fly farther, faster and higher.

"This means airplanes thus powered can have one or a combination of several advantages," Ward said. "They can carry greater bomb loads, or heavier armor, or more armament and ammunition. They can lift more gasoline and so increase their range. Their speed and maneuverability can be stepped up."

► **New Metal Technique**—Commenting on a hitherto impossible technique for chemically bonding pure aluminum to steel, perfected by Marshall G. Whitfield and Victor Sheshunoff, research engineers associated with Al-Fin Corp., a wholly owned Fairchild subsidiary, Ward said "the existence of the Al-Fin process has been a military



GETS SERVICE PIN:

Capt. Jimmie Graham, Pennsylvania-Central, who aided in the supply mission to Alaska, receives a ten-year service pin from J. H. Carmichael, PCA vice-president, as Capt. A. E. Wilson, Eastern Division chief pilot, looks on. Graham has 10,000 hours flying commercial airliners.

secret for many months, but now it can be told that it has been used in the production of our aircraft engines for more than a year."

He said the most noteworthy application of Al-Fin has been in connection with construction of 12-cylinder Ranger engines and that Ranger 12's with Al-Fin cylinder barrels now produce more horsepower per pound of weight than any comparable engine.

► **Process**—He explained that the process developed by Whitfield and Sheshunoff is a means of permanently bonding pure aluminum and steel into an integral whole. Pure aluminum cooling fins, being light in weight and excellent conductors of heat, can better dissipate intense heat generated in the cylinder than the more common steel or shrunk on aluminum-alloy fins which do not form a perfect bond with the steel.

Willys Record

A new peak in output of mid-sections for the Navy's Corsair fighter was set by Willys-Overland Motors in January, after boosting production of assemblies during the last four months of 1943.

The division turned out more of the intricate center wing sections in October than in the preceding month, increased production substantially during November, and added further gains in December which were carried over into last month.

AAF Contracts Pass 52 Billion

1944 output expected to be 60 percent above last year.

The Army Air Forces to date have written or initiated contracts totaling 52 billion dollars and individual companies have as much as two, three or four billion in orders, yet out of 11,000 major contracts to the AAF, nine out of ten had no previous aviation manufacturing experience.

In poundage of planes produced this year, current schedules indicate it will be 60 percent above the weight of aircraft produced in 1943, a gain which will come from both the increase in the number of planes and the increase in the average weight per plane.

► **Unit Weight Increased**—An example is that the Boeing B-17 Flying Fortress used to weigh about 20 tons; today it weighs nearly 30 tons and Boeing's new B-29 Superfortress weighs far more than that.

This insight into the production picture was given recently by Gen. H. H. Arnold, who said that even many persons engaged in war production are not aware of the true range and magnitude of the air effort. Nine out of ten aviation workers had no aircraft employment before war began in Europe, and that four out of ten employees are women, most of whom had to be trained, starting from scratch.

► **Output Up 60 Percent**—Even under these conditions, Gen. Arnold pointed out, the output per aircraft employee gained 60 percent during 1943, due to better distribution of labor, labor utilization, cutting down turnover, by improving living conditions and by boosting morale—all of which contributed to worker efficiency which went up and up.

Financial Reports

► **Bellanca Aircraft Corp.** reports decline in 1943 net income to \$242,598 or \$1.05 per common share, from \$690,835 or \$3.01 a common share in 1942. Federal income taxes of \$730,000 after deducting \$70,000 post-war refund credit were said to be largely responsible. In 1942, taxes amounted to \$275,000. Sales last year totaled \$6,222,492 compared with \$3,855,072 in 1942. The 1943 figures are subject to renegotiation.

Competition and Service

THE LATEST DECISION of the Civil Aeronautics Board, in which all members concurred, gives additional evidence, borne out by previous action, that CAB is following when possible a consistent policy of service expansion to encourage competition in a better balanced domestic airline system. There have been complaints in the industry that CAB had no plan at all.

The Board's decision to grant National Airlines a new route along the populous East Coast from New York to Miami, through cities not served directly by Eastern should mean healthy competition. It will raise the status of National to one of the country's most important lines.

Other recent acts by CAB are consistent with this latest move. Continental was granted a Denver-Kansas City route and another of several hundred miles in Texas. The Texas "feeder" route was given to a small, new company. Western was allowed Los Angeles-San Francisco.

A better balanced airline system can mean only one thing: more—but not disastrous—competition. In simplest terms it means the public will get better service.

The Burden Nomination

THE NOMINATION of William A. M. Burden, 37, as Assistant Secretary of Commerce, is a fortunate move for aviation.

Since the departure of Assistant Secretary Robert Hinckley, there has been no one in the upper regions of the department who has been able to devote his time consistently to aviation problems. If ever aviation needed understanding men in high government positions, that time is now, when the future of the fastest growing industry in America depends so much on how problems are solved and how plans are made today.

Mr. Burden's interest in aviation dominates all others, as is shown by all of his experience in Scudder, Stevens and Clark; National Aviation Corp., as vice-president of Defense Supplies Corp., in directing the de-Germanization of Latin-American airlines. Since 1942 he has been in charge of CAA,

Weather Bureau and Coast and Geodetic Survey as special aviation assistant to the Secretary of Commerce—the latter a difficult assignment because of its nebulous position on the Commerce Department's organization chart.

His books and other writings on air transportation are well known. He is not a politician. He understands the vital requisite of long-range planning. He is a ready, eager listener with an open mind until he makes his decision. He will work hard for aviation.

Airlines and the Weather

BAD WEATHER has always made railroad men a bit smug. The Pullman advertising just before the war pictured business men looking out from their train windows at snowbound highways and skies filled with snow and scud. The man who had to get somewhere went the dependable way, even though it might take a little longer. At least, the ads said, he was sure of getting there.

As recently as five years ago it was pretty generally felt in non-air transportation circles that the airplane would never beat weather. Some ground transport executives still think so.

If the war were over, these uninformed individuals could be told some things that might surprise them. The public, already aviation-minded, would be astonished.

E. Lee Talman, energetic executive vice-president of TWA, told a New York group enough in one paragraph to give the skeptics new material for thought:

“Radar, and its related science, will permit the safe navigation and landing of aircraft under almost any weather condition. In the past, the airlines have properly sacrificed reliability of service in order to achieve safety, but the day is near at hand when complete reliability of schedules (even surpassing surface transportation) can be maintained consistent with the highest standards of safety.”

Of course we won't accomplish such perfection in a few months after the war, but it's still something that long-range planning cannot ignore. Neither can the airlines' competitors.

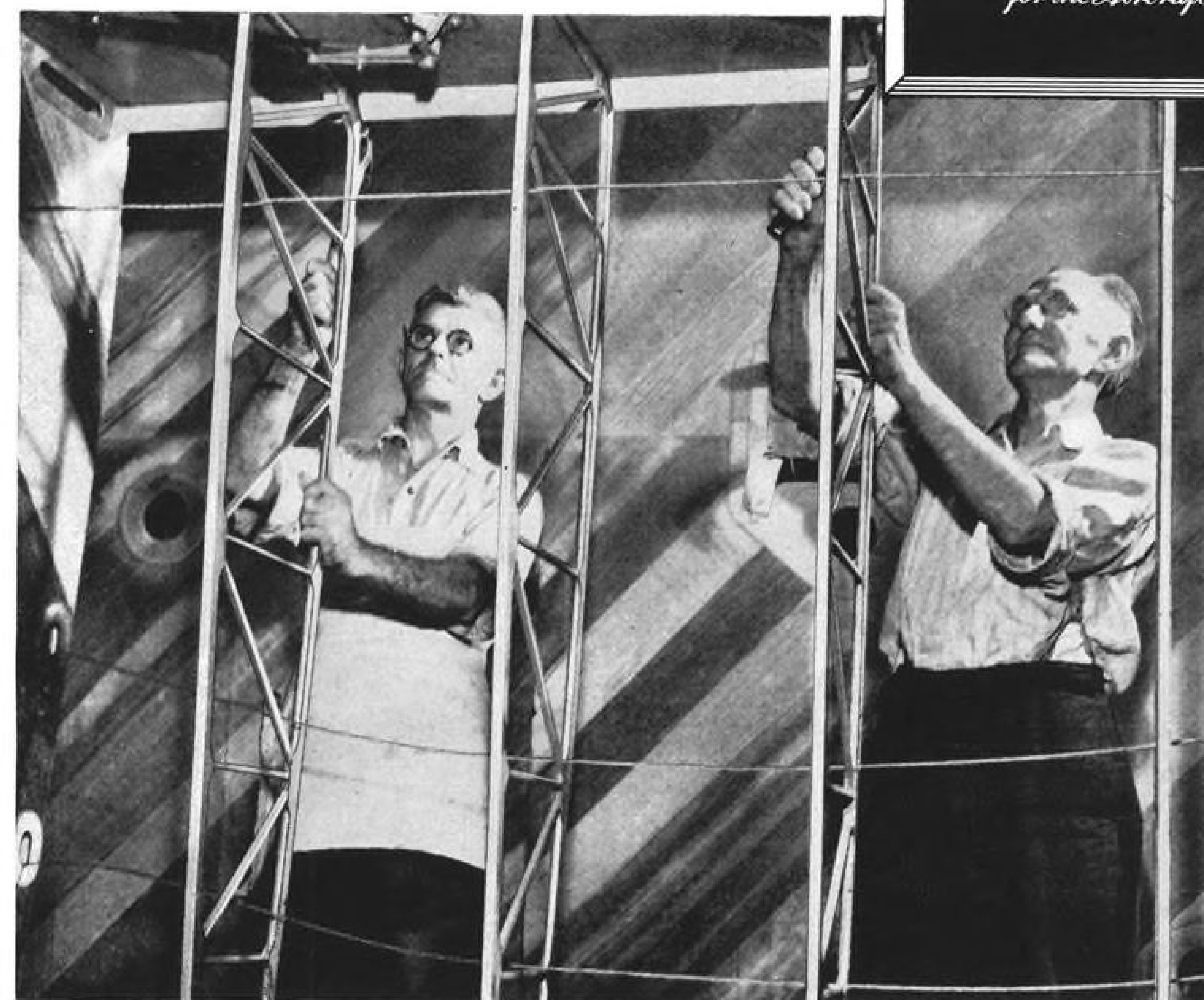
ROBERT H. WOOD

PRECISION WOODWORKING for AIRCRAFT

**GRAND
RAPIDS**
INDUSTRIES, INC.

GRAND RAPIDS, MICHIGAN

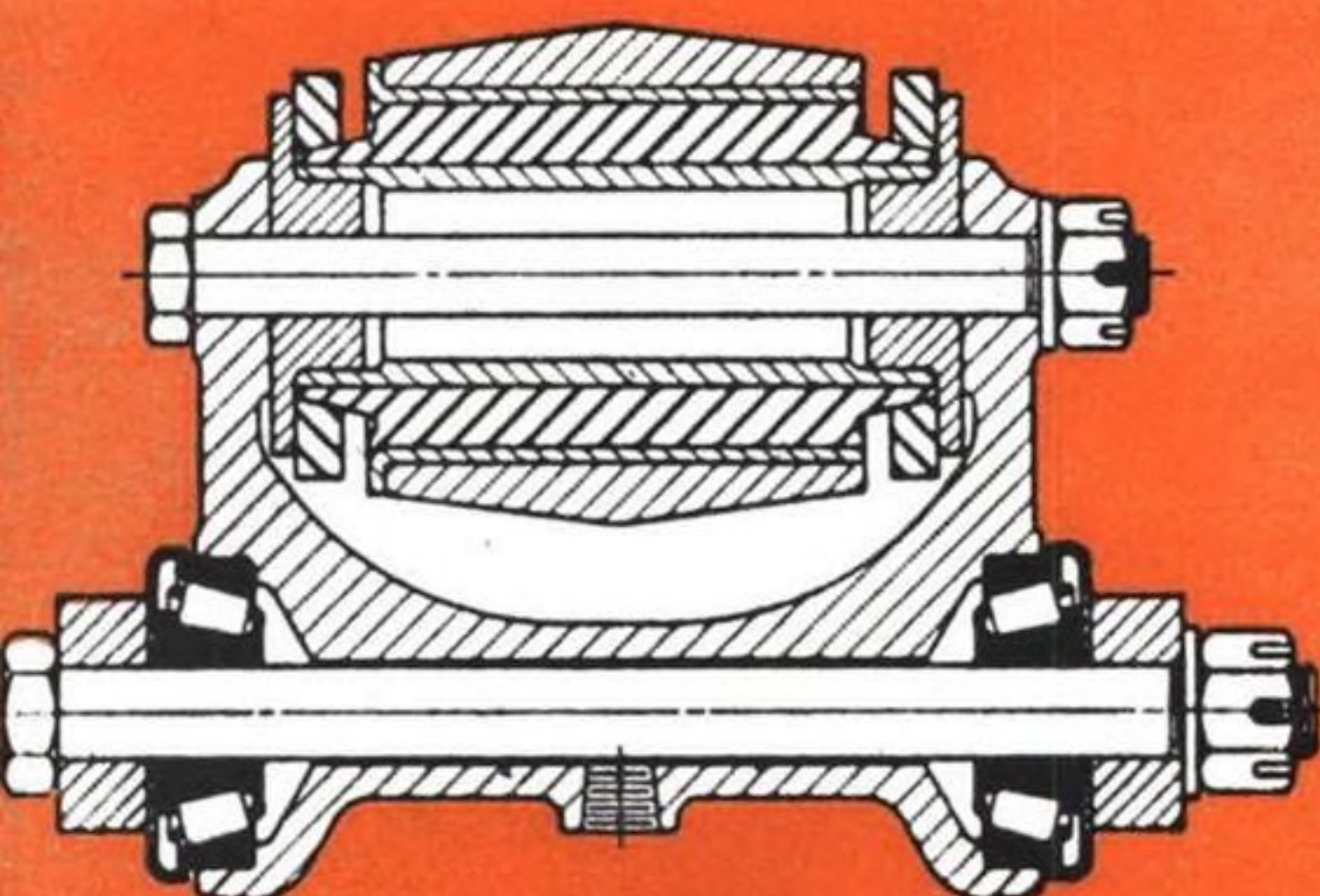
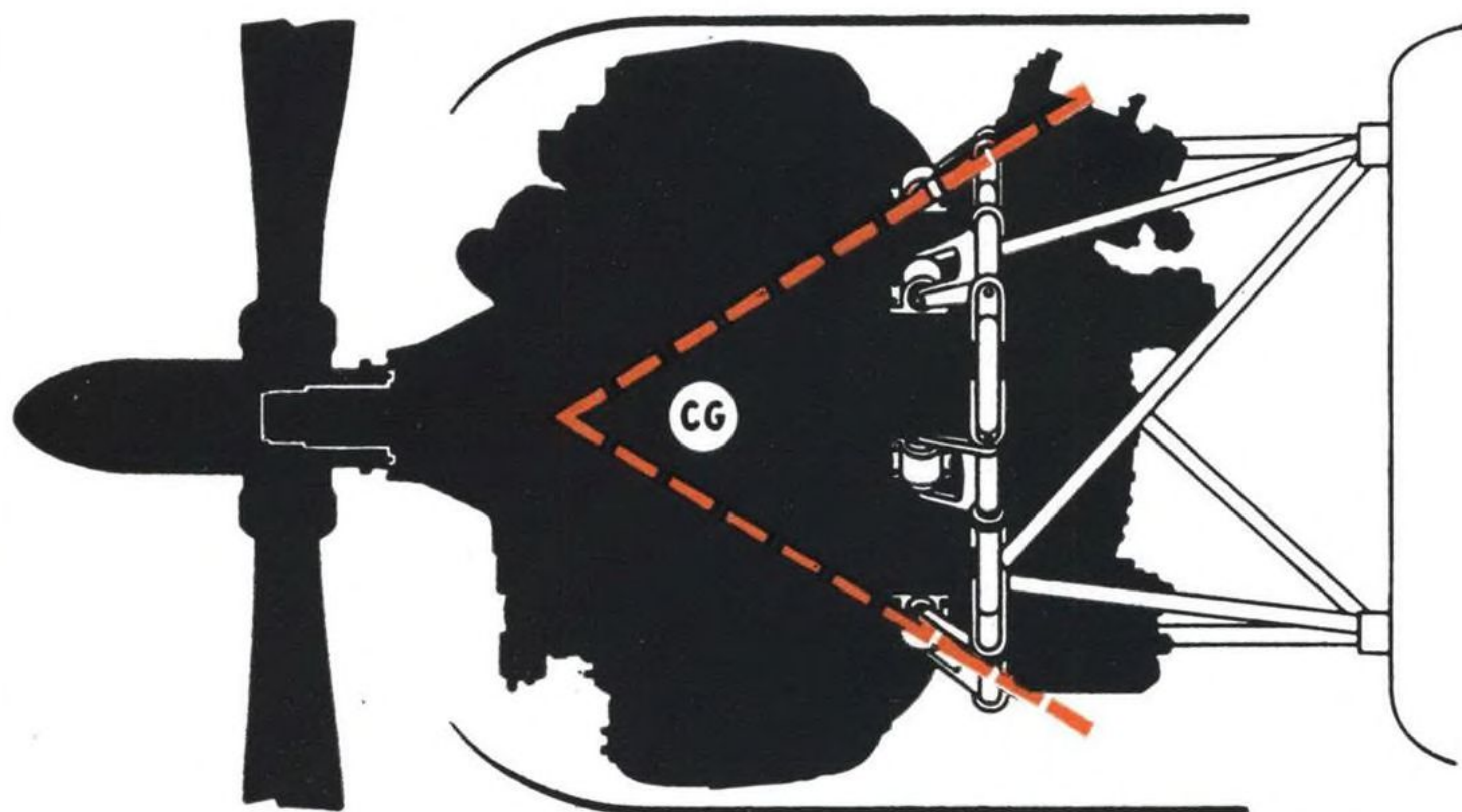
*15 Plants
Famous for Fine Furniture
United in War Production
for the Aircraft Industry*



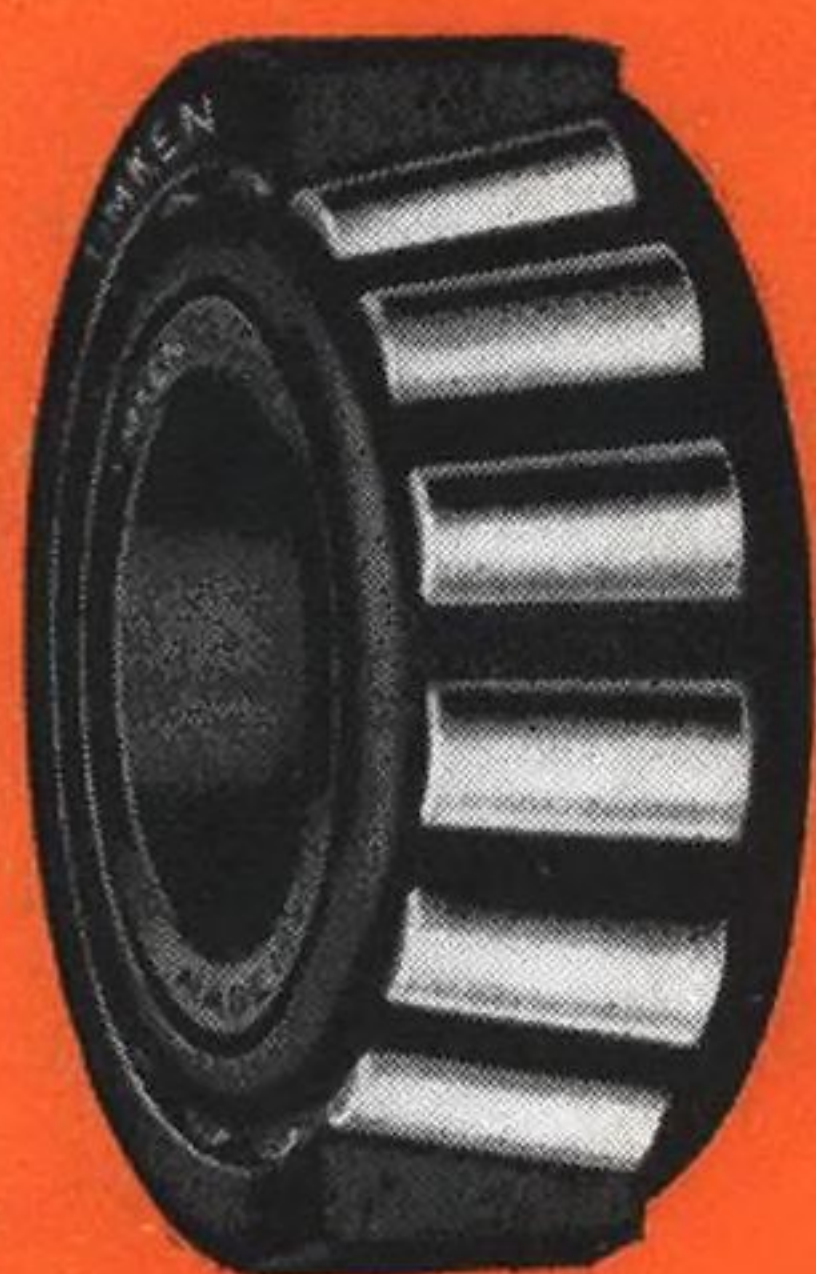
Facilities and experience of Grand Rapids Industries — research, engineering, production, skilled craftsmen, the output of fast, modern equipment of 15 factories — are available for AIRCRAFT or other war production, in WOOD, solid or laminated. Inquiries will receive immediate executive attention.

ENGINE *VIBRATION* ISOLATED BY LORD DYNAFOCAL ASSEMBLIES, TIMKEN BEARING EQUIPPED

Diagram shows how links are focused to achieve the equivalent of near center of gravity support. Diagram courtesy Wright Aeronautical Corp.



Timken Bearings shown pressed into link forging.



THROUGH controlled directional spring restraint, Timken Bearing Equipped, Lord Dynafocal Suspension Assemblies provide the equivalent of a support near the center of gravity of the engine and, at the same time, isolate engine vibration which occurs at critical speeds. The net result is a marked reduction in structural fatigue of wing, fuselage and tail parts.

Links spaced symmetrically around the engine mounting ring have two pivot points - - one a bonded rubber bushing, the other is formed by two Timken Bearings pressed into the link forging. (See line drawing.)

Timken Bearings permit the links to float freely. They carry radial loads generated by the propeller plus the engine weight and also thrust loads resulting from propeller torque. Hundreds of thousands of Timken Bearings have been used in this application manufactured by Lord - - and they have given highly successful performance.

THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS