Aviation News

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CAB's chairman L. Welch Pogue, *who emphasizes that past statistics on surface transportation are no key to future airline traffic because aviation, like the railroad and automobile before it, will accelerate national and international trade to unprecedented activity.*

October Plane Output May Hit 8000

Primary materials adequate, with only shortage apparent in bearings; labor still principal problem; 9,000 monthly peak near.

Congress to Decide GAO Contract Dispute

Aircraft industry seeks sizable payment on terminations, with protracted bookkeeping postponed.

New Giant Blimp Passes Navy Tests

Goodyear Aircraft's M-1, largest non-rigid airship, completes tests prior to joining war against German submarine menace.

Are Bomber Losses Too Costly?

Military commentator says Axis toll gives false impression, while editorial asks for more realism in loss reports.

Missouri Pacific Files for Airline

Application for 108 cities brings to more than 60 the number of common carriers asking CAB for air service.

Sikorsky, Stout Back Greyhound Plan

Engineers testify at CAB hearings that proposal for 14-passenger air bus is practical, with production within a few years.

THE AVIATION NEWS

Washington Observer

PRIVATE GENERAL ARNOLD—The commanding general of the Army Air Forces rarely holds a news conference and when he does it's an event. When he finally does hold a news conference and then bars the working press generally, that's more than an event. It's a time for yowls of complaint and there were plenty of them in Washington last week when it was learned that Gen. Arnold was holding a news conference—admittance by invitation only.

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SELECTED LISTS—The basis on which the chosen few were selected was not disclosed. Even reporters who have been covering the War Department regularly for months were not admitted. It was reported that only three of the many magazines with Washington correspondents were permitted to have representatives on hand. A few publishers who haven't written a story in years were there. The chiefs of some of the news bureaus were invited but not their staff members who ordinarily write stories about the Air Forces. A carefully selected list of radio commentators was permitted inside as was another carefully selected list of columnists. Just where the line was drawn is not clear. Why some newsmen were chosen to hear the Air Forces story from Gen. Arnold and others were not considered qualified has not been explained. There are quite a few members of the Washington press corps who would like to know.

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PILOT PLANT VISITS OUT—The practice of having returning pilots and planes visit aircraft plants as part of the employee morale program has been quietly curbed. Industry representatives say such programs are great morale boosters and that the workers are inspired by the sight of a battle-scarred warplane they have helped build and a few words from pilot and crews who have flown those airplanes.

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CONTRACT RENEGOTIATION—Insiders say there will be little if any change in the renegotiation laws after Congress gets through working it over, and, what is more disappointing to the aircraft industry, it does not appear at this stage that any provision will be made for funds for reconversion to peace-time production. This despite the fact that many members of Congress are expressing a growing concern over the financial fate of various war industries in their own communities. In this connection, it might be well to watch the General Revenue Bill with which the Ways and Means Committee is now wrestling.

SALES TAX—In connection with the tax bill, there is more and more talk about a sales tax. The treasury never has liked it, still doesn't like it and probably never will like it, especially with elections coming up. But high treasury officials admit it may be an out. Aside from the revenue features of such a tax, its advocates point out that repeal of the Victory tax, which is being considered, would free some 9,000,000 persons from payment of Federal income taxes. Disregarding the advantages or disadvantages of the sales tax, it appears now that there will be both a Committee and House vote on it before the tax bill is passed.

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TAX ON GOVERNMENT MACHINERY?—The Government has asked the Supreme Court for a ruling on whether the states have a right to levy property taxes against Government-owned machinery placed in war plants. The Government contends that the property, being federally-owned, is not taxable by the state.

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NAVY LAND-BASED BOMBERS—There's been a lot of talk lately about the Navy's land-based aircraft but the old reliable "Coronado" patrol bombers are still rolling off the lines in

numbers embarrassing to the enemy, probably even more embarrassing if they knew how many women are working on the construction of the "Coronado." Incidentally, Secretary Knox, himself, tipped the Navy's hand on Consolidated

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THE STAFF

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Washington Observer

B-24 "Liberators" while telling the press of his recent trip abroad. He described an airbase being taken over by the Navy with "several squadrons of B-24s" operating against submarines.

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INTERNATIONAL AIR ROUTES—This issue is becoming hotter by the minute, so hot, in fact, that the House Interstate and Foreign Commerce Committee during recent executive sessions discussed whether it should be isolated for State Department consideration, rather than left with the Civil Aeronautics Board swamped with domestic route applications. It finally decided, however, that CAB should continue to devote its attention to the matter and no committee action was taken.

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LOCAL-FEEDER-PICKUP—Hearings on this problem before the CAB have caused Congressional ears to prick up a little and there were some reports that the whole question might be aired in Congress. Inside opinion, however, was that the need for such service is something for strictly CAB attention and that the Board is doing a good job obtaining facts on which to base a fair, juridical view of the problem.

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CORSAIR CHAMPIONS—You may have heard the observation by now, but we talked to a Marine flyer the other day who told us—deadpan—while we were discussing the *Corsair*, that

Navy Corsairs *on the line at Chance Vought*

the Navy must have made a mistake. Why? asked the Observer, with pencil poised. Why, replied the Marine flyer with a grin, in that *Corsair* they really gave us a good airplane.

CENSORSHIP LID LIFTED—SLIGHTLY—You may have noticed that you're getting weather forecasts over the radio again. On the face of things it may not appear like much. There are indications, however, that it may be the forerunner of a lightening of the censor's hand on other items in the war program, perhaps production figures. It is well known now that production figures originally were kept under wraps because they were unimpressive and we didn't want the enemy to know how little we were producing. Need for that sort of precaution seems to have passed.

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THE B-29—The Nazi High Command must have heard about the B-29 by this time. At least they have heard about our new super-bombers or super-*Flying Fortresses*. We have referred to the Boeing *Flying Fortress* and the Consolidated *Liberator* as the last of the small bombers. We have been able to talk and write about the new big bombers with a range and load far exceeding our present four-engine bombers. But to mention B-29 was out. The designation was a secret. Not the bombers themselves, mind you, but the designations. There was so much hush-hush, open secret stuff about them that even people who didn't know a P-40 from a C-54 got to know what the B-29 was and is.

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TITO PROTESTS—The ceremony at Bolling Field the other day, attended by President Roosevelt and ranking AAF officers, during which four "Liberators" were turned over to the Yugoslavian Air Force, might have been—and as a matter of fact was fine for the Yugoslav government-in-exile. But it was labeled as a "blunder which we can not allow to happen" by Gen. Tito, leader of the Yugoslav Partisans who would like to have some bombers himself. The government-in-exile armies are led by Gen. Draja Mihailovitch, Tito's rival.

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JAPS APE GERMANS—Competent military authority has it that the Japs, like the Germans, are now concentrating their aircraft production on fighter planes—a strong indication of defensive tactics. These same authorities point out that a shift to fighter planes probably will mean a unit increase in aircraft produced.

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LIGHT PLANES—Among the many aviation studies made recently is one on light or personal plane production possibilities to determine types of planes which may be available to private flyers once the Axis is licked. The report was not made with the idea of making it public. It was ordered by William A. M. Burden, special aviation assistant to the Secretary of Commerce.

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Aviation News

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OCTOBER 25, 1943

Don't Underestimate Post-War Airline Possibilities, Pogue Warns

Urges broader thinking and less attention to past statistics in estimating future per capita passenger volume; foresees lower rates that will combine with speed and flexibility to set new demands by business.

By MERLIN MICKEL

You can't judge air transportation's future by current travel statistics if you do the broader thinking about post-war aviation that L. Welch Pogue, Civil Aeronautics Board chairman, thinks necessary.

Speaking last week before a group studying post-war problems at McGill University, Montreal, Pogue said he hoped Canadians "Have not fallen into this error. It arises out of the failure to consider the history or to recognize the character of volume passenger travel."

▸ **Sees vast new travel field**—The CAB chairman used a good many glowing phrases, declaring, for instance, that "here is a facility for transportation which represents as great an improvement over other present means of movement of people and cargo as did railroad and steamship at the time they made their appearance. It has unprecedented speed; it is highly flexible. It translates distance into terms of hours—it has conquered time. It has the power to go anywhere over the earth—it has destroyed all barriers of land and water."

The decade after the war, he said in his own interpretation of the history of volume passenger travel, will see a doubling of overseas traffic, with the major portion of these passengers going by air.

▸ **Rate cut forecast**—Rates for such air travel, he predicted will be leveled to about 7½ cents a mile "almost immediately," and "it is more than likely that they will continue to decrease at a lesser rate to five cents and proceed more slowly to within a close range of four cents."

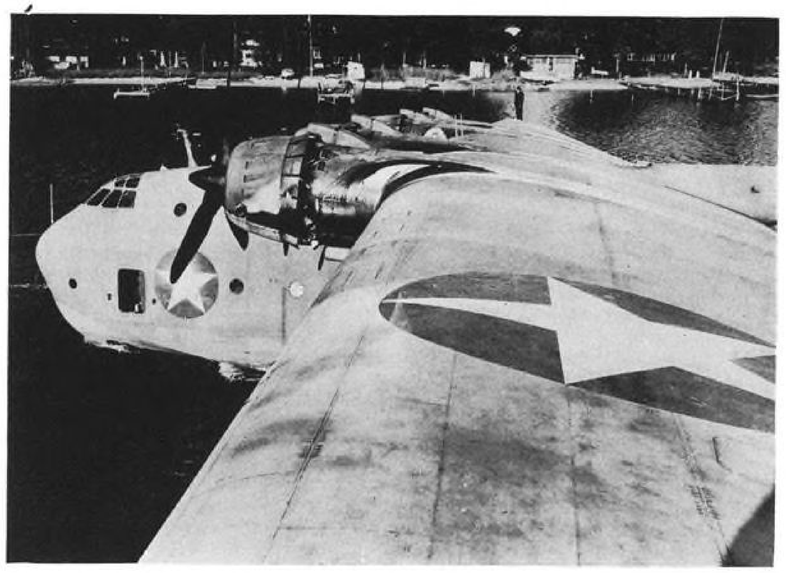
He also thinks all domestic and virtually all international first-class mail will go by air, and that air rates will be established for second-class mail. Air parcel post will become a reality and "Volume of mail will increase by reason of the development of new social and business relations between people with hundreds and thousands of miles but only a few hours between them."

▸ **Air-freight**—He pinned a lot of faith on air cargo, which he saw as developing industrially inactive and remote areas. Domestic rates in this field, he said, probably will be cut in half to 34 or 40 cents per ton mile, and then decrease gradually to about 15 cents a ton mile, followed by a further downward trend.

Transocean cargo rates will tend to be slightly higher than domestic, and this traffic may be expected to develop more slowly. But the outlook for air cargo is such that revenue from it probably will be more than that from passengers.

Preferred common carrier—in the United States, Pogue said, the airplane will be the "Preferred common carrier for intercity travelers." With aircraft improvements and increasingly efficient operation, he has no doubt rates will drop from the present 5 cents a passenger mile to 4 cents, and "there is every reason to believe they will continue their downward trend to a level of approximately 3 or possibly 2½ cents."

Furthermore, the resultant travel economy will develop a volume of business and pleasure traffic "that will require frequencies of service



NATS' NEWEST AND BIGGEST:

Martin Mars *is shown just before her takeoff on a grueling endurance flight in which she stayed in the air more than 32 hrs. The growing Naval Air Transport Service will get its largest single addition when this world's largest flying boat goes into operation as an overseas cargo carrier. Originally designed as a patrol bomber, the* Mars *has undergone structural and engine changes and tests necessary for conversion to service as a NATS workhorse.*

spaced only a few minutes apart, between an increasingly large number of cities which will grow closer together in point of time."

▸ **Post-War Opportunity** — Pogue forecast that growth trends in air transport will resume at the war's end. While he conceded that "Precisely timed accuracy" was impossible in a detailed prediction of the future, he declared preparation for post-war opportunities is necessary. Failure to recognize the "absolute newness of air transportation" he blamed for some errors of prediction.

He stressed the development of long-haul traffic as "the most striking domestic contribution which will be made by air transport to Canada and the United States, and to every other nation having great distances which enhance the speed value of air transportation."

▸ **Brings Nations Closer**—Internationally, the greatest contribution will come through "Strengthening and development of new communities of interest between nations remote in miles but close in hours."

In air mail, potential increase in long distance mail appears, he said, to be the most significant development "socially and economically," but despite great mail possibilities, no field of air transport presents opportunities as great and "ultimately unpredictable" as air cargo.

▸ **Speed Business Habit**—Yet, because the airlines started as passenger carriers, the airplane's adaptability to freight actually has not been tested. He suggested that speed may become a commercial habit and necessity. Flexibility of the airplane in scheduling and frequency of service and speed of air carriage are factors the full force and possible effect of which have not yet been measured in peacetime commercial practice. They will certainly result in a re-orientation of our economic life."

Since air cargo rates are "coming down rapidly and drastically," according to Pogue, "the airplane will not only take a portion of the long-haul traffic from the railroads, but, as did the railroads, it will constantly extend the length of the average haul by the creation of new long-distance traffic," not only in countries with large area, but in international commerce as well.

▸ **Global Transport**—The international field, in fact, may be expected to produce some of the biggest developments in air cargo, but it still is true that air cargo rates will not be able to approach most ocean rates for a long time, he declared.

Already, he said, value of air transportation's greater speed has been demonstrated. "Change days to hours and hours to minutes, and you have some of the contributions of air transportation to business."

ASF Reorganization:

Reorganization within Army Service Forces shifted the educational and training functions of special services division from its morale and entertainment activities to the division of military training under Brig. Gen. W. L. Weiber.

Other changes put the specialized training or college program under the director of military training instead of under the director of personnel. The WAC director now reports directly to the ASF commanding general instead of to personnel, with the WAC training program under military training. Army Exchange Service, which operates the post exchanges, is no longer under supply but personnel.

New Lea Measure Is Ready for Vote

Battle forecast over separate bill on activity of surface carriers.

The Lea bill, revising the Civil Aeronautics Law, was expected to come up for consideration by the House of Representatives this week. There was some doubt that it would pass. After a fourth revision the bill, formerly known as HR 1012, was recently reported out by the House Interstate and Foreign Commerce Committee with a new number: HR 3420.

To open the way for early enactment, the controversial section 408 was eliminated from HR 3420, making it a separate issue. Thus, Section 408 still stands in force as is, and will so remain when HR 3420 becomes law. It will not be changed until action is taken on HR 3421, a separate bill containing amendments to Section 408. No date has been set as yet for hearings on this bill. Section 408 deals with the broad question of airline mergers and particularly with the extent to which surface transportation may enter into air operations.

▸ **Battle Over Section 408**—There is an underground battle in progress over Section 408, in which the chief belligerents are railroad and bus lobbies fighting for legislation which would permit them to install air auxiliary services in competition with existing airlines. These lobbies, representing interests vastly greater than air transport, are armed with large budgets and strong political influence.

Of course, HR 3420 will have to be passed by the Senate and approved by a conference committee before it goes to the President for signature. Except for removal of Section 408 there were no major changes from recent drafts.

New Giant Blimp Passes Tests

Navy's new M-1 blimp, largest non-rigid airship ever built, has completed first test flights and after further tests will join Navy's growing arsenal of weapons against the submarine.

This giant airship, built by Goodyear Aircraft Corp., at Akron, under closest guard and secrecy, is half again as large as the K-type ships used in coastal and anti-submarine patrol.

Disclosure of the new airship was first scheduled for last month and aviation writers were permitted to inspect the ship in the Goodyear hangar. Many details of its construction were disclosed at that time, including the new car, which is nearly three times as long as that on the K-ship. It comprises three connecting units, integrated by universal joints to allow freedom of motion in coordination with the flexible envelope above. The longer car better distributes the weight along the helium-filled envelope.

Outriggers carrying two Pratt & Whitney *Wasp* engines are attached amidships. A blister below gives wider range of observation and use of armament.

After this and other information had been released, Navy suddenly withdrew its approval pending the first test flights. Navy is authorized by Congress to acquire 200 airships. It is not known how many will be of the new M-type. An undisclosed number of the K-type ships is now in active service.

Capt. C. J. McGuire is in charge of the blimp program in the Bureau of Aeronautics. Rear Admiral Charles E. Rosendahl, inveterate advocate of lighter-than-air craft, commands the Lakehurst base and program.

Congress to Rule on Right of GAO To Audit Cancelled War Contracts

Aircraft industry, already in precarious financial position, seeks sizable cash payment on termination of orders, with protracted bookkeeping to be done later; compromise expected.

By BLAINE STUBBLEFIELD

Congress will determine whether the General Accounting Office shall have the right it demands to audit terminated war contracts before cash settlement of the manufacturer's claims. The aircraft industry, in view of its cash position which already has been explained to Congress as precarious, solidly advocates substantial payment on cancellation claims first—and auditing afterward. Negotiation on many World War I contracts continued for 15 and 20 yrs.

The industry wants legislation making mandatory, not merely permissive, the payment of 90 percent of such amounts as aircraft producers may certify are due them on account of termination of their contracts, plus loans. And manufacturers want to deal with the government agency that made the contract and which knows every case history, not with the comptroller-general or directly with any super-agency set up for the purpose.

▸ **Financial Status Revealed**—Facts of the industry's financial status, its current cancellation and post-war problems, together with its recommendations to Congress, were presented last week for the Aeronautical Chamber of Commerce by Webb Wilson, treasurer of Fairchild and chairman of the Chamber's Contract Termination Committee, before the Senate Military Affairs Committee. Wilson's presentation included a letter from James P. Murray, president of the chamber.

The Aero Chamber, now in course of rehabilitation, spoke for the industry by agreement with the Aircraft War Production Council, which is prohibited by anti-trust law and by its own regulations from making recommendations to Congress.

▸ **Contract Unification Group**—Coincidental with the dispute between the War Department and Comptroller-General Lindsay C. Warren over auditing procedure, the President announced at press conference that he is setting up a unit in the Office of War Mobilization to unify contract termination and other problems of all federal war procurement agencies.

The aircraft industry does not oppose the creation of this unit, to be under the guidance of OWM director James F. Byrnes. It is regarded as a necessary authority, to make over-all policy, instead of letting every procurement agency set up its own, which would result in overlapping systems in many plants.

▸ **Ruled in Coast Impasse**—It was the Byrnes office which took over the West Coast aircraft manpower impasse and issued a directive, for better or worse. At least it told the agencies involved what each must do. Byrnes is, in effect, a leveler of ambitions among the war agencies. On several occasions, recently, he has brought them to agreement by exchange of letters, which pass over the President's desk to give them weight.

Nevertheless, though it subscribes to the principle of over-all contract termination policy, the aircraft industry feels that, due to its fabulous expansion for production of the No. 1 weapon in this war, and due to the resulting thin margin between cash and liabilities ($1.09 against $1.00 at the end of 1942), it is entitled to special consideration. It is believed, in fact, that the House Ways and Means Committee, which handled proposed amendments to the renegotiation law, will issue its report in a few days, recommending specific benefits for aircraft producers in the form of liberalized renegotiation and tax benefit terms.

▸ **Other Lines Studied**—It is not only for post-war security that industry, including aircraft, asks for mandatory and quick termination settlement. Many of the firms whose contracts are being cancelled now, want their money quick to get back into some other war line.

About 8,500 contracts, nearly six billion dollars' worth, already have been terminated by the services and other agencies. As matters stand, the Army and Navy are making cash settlements on a few terminations, assuming they have the legal authority to do so. That is the point brought in question by Comptroller-General Warren, who says the General Accounting Office alone can handle claims against the U.S.

▸ **Compromise Likely**—The Army all along has wanted permissive power to handle termination settlements. It did not and does not want a mandate to pay specified percentages and make loans. To beat the comptroller, who is on pretty solid ground, Army certainly will have to compromise, perhaps in the direction of "must" payments. Under-Secretary of War Patterson says he wants (1) authority to make advance partial payments; (2) authority to make guaranteed or direct loans to prime and sub-contractors; (3) allowance of interest on termination claims. He wants *authority*, but not an order.

As previously indicated by AVIATION NEWS (Sept. 20, p. 21) contract termination is tied up with renegotiation, with plant liquidation, with demobilization of workers, with disposal of surplus war equipment (planes, trucks, ships). The President's OWM unit "to deal with war and post-war adjustment problems," points toward integrated consideration of all these factors.

Incentive Program

Intensive study is being made by west coast aircraft executives of incentive pay programs designed to increase production through adoption of two ten-hour shifts instead of three eight-hour shifts.

It was understood that nothing specific has yet been developed, but if equitable systems acceptable to labor can be worked out, it was considered likely that plans of this type may be in operation by the first of the year or shortly thereafter.

There was no inclination to adopt a uniform plan for all plants, but rather individual programs tailored to needs of specific companies.

While CIO and AFL national officers oppose incentive wage programs, it is believed that if local unions can agree with individual plants, national organizations will not intercede. Most local unions oppose plans involving a specific amount of production within a specific time rather than an over-all plant program.

First reports on operation of the West Coast Manpower Program indicate it is working well in its initial applications.

Sikorsky, Stout Back Greyhound Plan For 14-Passenger Helicopter Buses

Aviation engineers testify at CAB hearing on route applications that production and operation of rotor-powered vehicles could be effected immediately.

Igor I. Sikorsky and William B. Stout, leading aviation engineers, believe Greyhound's proposal to use 14-passenger helicopter "air buses" in connection with its bus operations is entirely practical, and say the helicopter has reached the stage where such air vehicles could be built immediately.

They testified in behalf of Greyhound Corp., which seeks local service routes, at CAB hearings on local-feeder - pickup service, as they neared a close in Washington.

▸ **Model Displayed** — Sikorsky appears as engineering consultant with Raymond E. Loewy, widely known industrial designer who described a proposed air bus.

The proposed helicopter would carry 14 passengers and a crew of two. It would have a gross weight of 13,000 lb., carry a 400-lb. cargo, with a maximum disposable load of 4,300 lb. Sikorsky stated that from actual experience with the XR-4, of which the Sikorsky division of United Aircraft is delivering a substantial number to the Army, he believes such a craft can be designed and put into production in about 2½ years.

▸ **Single Rotor Craft**—Other features of the proposed craft included a single rotor with three 35 ft. blades, and a diameter of 68-70 ft.; two 600 hp. motors, mounted on each side of the fuselage; 55 ft. body length; 14 ft. height; gas tanks in the housing between motors and fuselage; four entrances, fore and aft, on both sides of the ship.

Fuel consumption would be 100 gal. for 150 mi., carrying 600 lb., at 100 mph cruising speed. Vertical climb would be 600 ft. per min., and 1,000 ft. per min. with forward speed. The ship could reach an altitude of more than 10,000 ft. and land in an area 200x200 ft.

▸ **Short Haul Advantage** — In Sikorsky's opinion the helicopter will never replace the airplane but he believes that for distances under 250 mi. it will augment the airline's business. He likened control of the helicopter to that of the automobile, but said tests show the helicopter can stop more quickly than an auto. He emphasized the high degree of controllability already attained. He said that although it is slower the helicopter can now duplicate every maneuver of a plane.

▸ **No Subsidy Needed** — Arthur M. Hill, Greyhound vice - president; contended 1, that if Greyhound and other bus lines, are authorized to develop local air service, no direct subsidy by the government will be required; (2) that helicopter air buses would bring travel to millions now lacking any form of modern transportation, and would offer maximum advantages for trips from 50 to 250 mi.

Greyhound introduced detailed maps of proposed routes which would cover nearly 50,000 of the 60,000 mi. over which their buses operate with stops 25 to 60 mi. apart, integrated with the present bus system.

▸ **Experts Testify** — Testimony was also heard from Robert Driscoll, general counsel of the Greyhound Corp., and various technical experts. Dr. Richard R. Meade, formerly with the Wharton School of Business Administration, University of Pennsylvania, now retained by Greyhound as an analyst for post-war planning, presented a survey of general economic data concerning towns Greyhound proposes to serve.

An extensive survey conducted by J. R. Stewart Associates under supervision of Elmo Roper, on travel habits throughout the country in 1941, was submitted as evidence of demand for local air service.

▸ **Experimental Routes Asked**—Greyhound asked to be allowed to set up two experimental routes immediately if equipment could be obtained.

Earlier, recommendations were made to the board by several witnesses that fixed-base operators be allowed to run feeder air services, not only because they already had trained pilots, ground mechanics and experience in this type of operations, but to help alleviate post-war dislocations and unemployment.

Production Parley

War Department has asked 400 leaders of war production and public opinion from mid-western states to meet at Fort Knox, Ky., Oct. 28-29 for sessions similar to the conference of industry, labor and press leaders in Washington last month and attended by top aircraft company executives.

High-ranking Army officers and government production leaders will analyze the war situation on all fronts for the war production executives from Michigan, Illinois, Ohio, Indiana, Wisconsin, West Virginia, Kentucky, Iowa, Nebraska and Minnesota.

Martin-Nebraska Co. To Build New Plane

Hartson elected head of plant to produce craft "much larger than *Marauder*."

Joseph T. Hartson, executive vice-president of Glenn L. Martin Co., has been elected president of Glenn L. Martin-Nebraska Co. at Omaha. He will retain the executive vice-presidency and will spend most of his time at Omaha.

Martin, in stepping out of the presidency of the Nebraska Co., announced a greatly expanded program for all Martin plants.

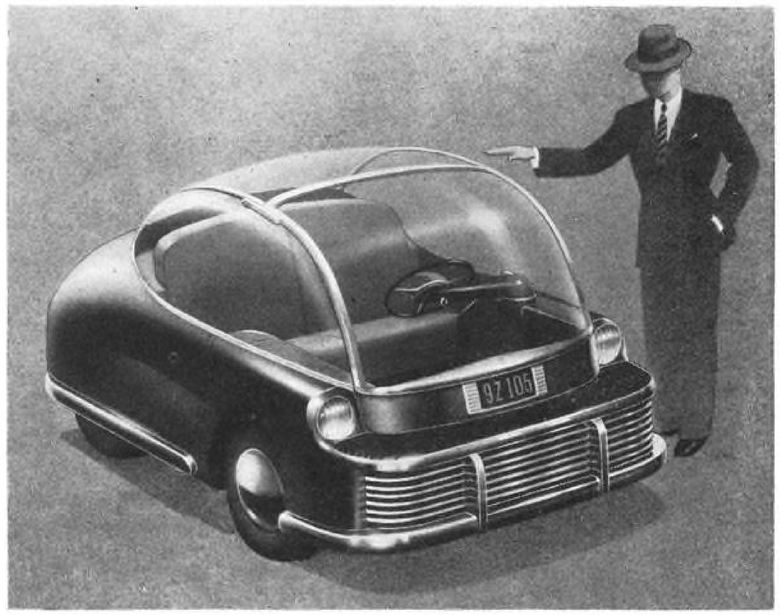
▸ **Work on New Plane**—The Nebraska Co., he said, has been selected by the Army to build a warplane much larger than the B-26 *Marauder* and higher priorities have been granted to insure rapid volume production. Output of the B-26 will be tapered off at the Nebraska plant in preparation for work on the new plane, but will be continued at Baltimore.

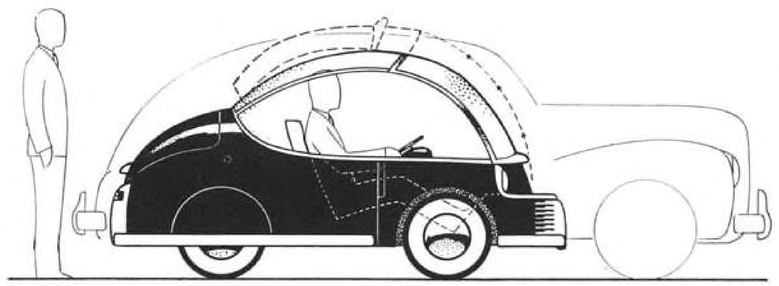
It was explained that the new program at the Nebraska plant will require the supervision of a top company executive, which resulted in Hartson's election as president.

Expansion Curb Eased For Air Industry

The aircraft industry has been affected less than other munitions producers by WPB's order of several months ago halting building of facilities for war production.

During August, about $160,000,000 worth of projects was approved by WPB, of which almost $53,000,000 was spent on aircraft.





DOUGLAS ENGINEER'S POST-WAR THINKING:

Douglas Aircraft Co.'s invitation to engineers to submit their ideas for post-war products which could be built by the aircraft industry brought forth this project from J. Gordon Legg. The 1946 model runabout would have 66 in. wheel base but standard auto width, seating three passengers, perfect visibility with plastic canopy, luggage storage behind the seat, 45 hp. rear drive engine which could be removed in 15 min. and replaced by a rental motor during repairs. The door lifts up in front and slides back over the top. The step is in front, with air conditioning and engine cooling units underneath. Aircraft wheel-type steering column swings forward, automatically locking pedals flush with the floor and setting the parking brake. It is released back to driving position by unlocking with key. Top rear panel of canopy can be removed for summer driving. The car would be primarily for short-distance commuting.

Hiring Rate Order Issued Wright Aero

Summary of Actions taken by Government agencies includes WPB, NLRB orders.

In a directive to Wright Aeronautical Corp., Paterson, N. J., setting a 65c hiring rate, and adjusting the job classification schedule, National War Labor Board said "the utmost cooperation of the union (UAW-CIO) and management" was required for successful production of vital war materials.

"Both these parties have assured the board of their firm intention to meet every obligation in this particular," Dr. George W. Taylor, NWLB vice-chairman, said in the opinion. "With the new hiring rate, and with a sound, imaginative and untiring recruitment program, both company and union working together can meet the manpower problem and provide the production for which the entire nation is waiting."

▸ **New Plant Opened**—The problem has been made acute by the recent opening of a plant by the company in Woodbridge, N. J., which must be fully manned while new workers are still needed at the Paterson plant. The board did not approve a 75c hiring rate requested by both the union and the company, which they considered would seriously undermine the wage stabilization already achieved in the area.

Based on comparable rates paid in other airplane and aircraft equipment factories in the Washington, D. C., area, the Regional WLB ordered pay increases ranging from 10 to 40 cents an hour for employees of the Engineering & Research Corp., Riverdale, Md.

* * *

▸ **War Department** awarded contracts for additional aprons and taxiway at Champaign, Ill., to cost about $400,000 for a runway and taxiway in Kern Co., Cal., costing about $200,000; and for reconstruction of a runway in Cumberland Co., N. J., which will cost approximately $200,000.

▸ **War Production Board** reinstated a CAA airport project at Athol-Orange, Mass., halted last Jan. 15. All preference ratings have been restored; the airport costing $435,000.

▸ **Defense Plant Corp.** executed a contract with Northwestern Aeronautical Corp., Minneapolis, for facilities at a Minnesota plant, costing approximately $800,000.

▸ **NLRB directed** that an election be held at the Eastern Aircraft Division of General Motors Corp., Baltimore, for time keepers to vote for or against representation by UAW-CIO. The board directed the regional director to recount ballots of a run-off election held Sept. 10 at the plant of Glenn L. Martin Co., Middle River, Md., as certain ballots have been challenged.

▸ **NLRB certified UAW-CIO** for timekeepers at the Trenton, N. J., plant of the Eastern Aircraft division of General Motors. NLRB also announced that an election at Laister-Kauffmann Aircraft Corp., St. Louis, resulted in certification of International Brotherhood of Electrical Workers (AFL) for production and maintenance employees.

▸ **Smaller War Plants Corp.** announced a new system which will enable small business concerns to get approved loan funds more conveniently. Regional Loan Agents of SWPC now have authority to make loans up to $25,000 without consulting the national body, subject to certain regulations.

* *

COMMENTARY

Bomber Losses in the Big League: Are They Becoming Too Costly?

Spectacular Axis toll in few raids recently has created false impression of rise in loss rates, whereas record shows drop in cost of allied attacks, Navigator says.

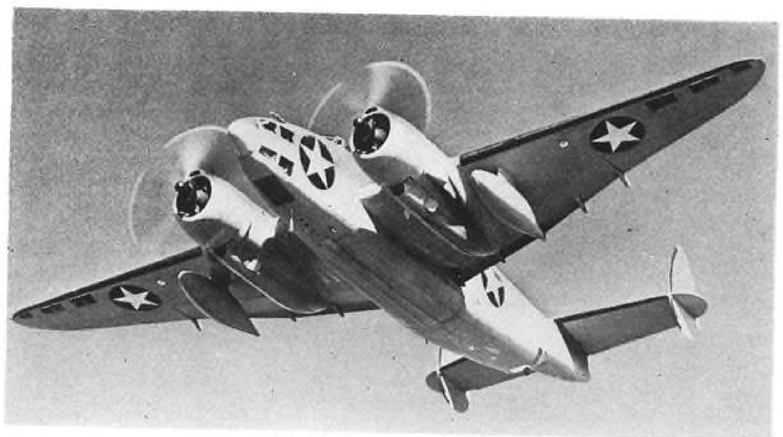
As our aerial blows against Germany mount in fury it has been a foregone conclusion that our losses would become correspondingly severe, especially in the light of the Luftwaffe's frantic attempts to break up the big missions of our Eighth Air Force. Recently many have called attention to the increasing losses of our heavy bombers, and to the principle (old as warfare) that in the long run every offensive weapon is matched by defensive measures which largely offset its effectiveness. It is just because this principle is so true that an all-out effort is being made right now to drive the Luftwaffe, Germany's main defense against strategic bombing, from the skies over Europe.

▸ **Relative Bomber Losses**—Contrary to popular opinion, including that of not a few military commentators of the radio and press, the relative bomber losses over Europe have *decreased* during the past few months, although the actual numbers have been high on a few spectacular missions. Actual figures are not available for publication, but a close analysis of the announced operations of the Eighth Air Force (and this is what we mean by the "big league" right now) indicates the following trend: Since June the monthly total of bomber sorties and tonnage of bombs dropped has grown steadily (September being almost double that of June), while the percentage of heavy bombers lost has decreased (September's ratio being far lower than June's). The tempo has been so stepped up during the first half of October that more bombers were sent over strategic targets, and more bombs were dropped with devastating effect than in the whole month of September, which included the epoch-making bad weather attack on Emden on Sept. 27, when *Pathfinder* squadrons dropped marker bombs for the guidance of the following bombers, and escorting *Thunderbolts* equipped with large drop-tanks went all the way in a record round trip of 700 mi. In June, 90 bombers were lost and in July a record-breaking 115, though a lower percentage than June. Since July, not only the percentage but the actual total of bombers lost decreased up to the end of September. This may not prove true for October and November, as the conditions thus far are very different.

▸ **Yardsticks for Losses**—This raises the question as to what is the real test of strategic bombing. Is there a true yardstick of air power whereby the ratio of bombers which can be lost can be determined? Several have been proposed, each having a certain interest and validity, but if taken alone lead to wrong conclusions because of failure to take all factors into consideration. For example, one widely read commentator has used the criterion of the number of bombs dropped on the targets for each bomber destroyed, a good yardstick from the point of view of testing the military principle of "economy of force." For June and July, this worked out to about 30 tons of bombs per bomber lost, for August 32 tons, and for September it jumped to nearly double that figure. Despite bad weather over Germany, September was a good month for the Eighth Air Force, but it wasn't that good.

▸ **Longer Missions Costly**—The first factor which this yardstick ignores is that the more distant missions involve greater exposure to enemy fighter planes both ways, with less chance of a damaged bomber returning to base without benefit of fighter escort all the way. Also, on the longer missions, more gasoline has to be carried, reducing the bomb loads. If the *Flying Fortress* can drop two tons on a target 500 mi. away, it can only carry one ton to a target 750 mi. away. The more distance, the more danger—and fewer bombs.

▸ **Importance of Targets**—An even more vital factor is the relative importance of targets. The fundamental mission of the Eighth Air Force is to destroy the Luftwaffe—in the air, on the ground, and on the produc-



U BOAT NEMESIS:

This Vega Ventura, *land-based patrol plane, the Navy's PV-1, is raising the U-boat's overhead and is hailed as a new solution to underwater enemy peril. It is as sturdy as the robust Lockheed* Hudson *it resembles and carries much more fire-power. The recent OWI report on U. S. combat craft says the Vega PV-1 has greater range and load capacity than the Japs have to offer in this class. Developed by the Navy as an anti-submarine weapon, it has been given greater range and more fire power, OWI says.*

tion line, as well as vital keys to the Nazi war machine in general. (The RAF bomber command appears to have the job of knocking out large industrial areas with its consequent effect on enemy morale.) Targets such as fighter aircraft and engine factories are of such basic importance to the enemy that they are savagely defended with flak and fighters. Destroying such prime targets as the Regensberg Me-109 factory and the Schweinfurt ball-bearing works is bound to take a heavier toll of our precious bombers and their gallant crews.

▸ **Results Vary Sharply**—In the light of these factors, the September record of light losses becomes clear. Except for the big raid on Stuttgart (45 bombers lost against 85 enemy fighters and 30 probables, with no important objectives announced as destroyed, owing to heavy clouds over the targets), and the highly successful mission against Emden (only seven *Fortresses* lost out of more than 300, with heavy damage inflicted on the port) practically all of the *Fortress* missions during September were against fighter air bases and factories in France. Losses in the attacks on the air bases were further cut down by the RAF sending preliminary sweeps of fast, hard hitting *Typhoons,* heavily armed with 20 mm cannon and light bombs.

▸ **Fighters vs. Bombers Lost**—Another yardstick often referred to in the press accounts of each mission is the ratio of enemy fighters shot down as against bombers lost. For some months the score has been running between 4 and 5 to 1, and the comment has frequently been made that this is not high enough. Nor is it, from this viewpoint only. Against 4 or 5 Nazi fighters and pilots shot down, many of the pilots landing in Germany and presumably living to fight another day, we are losing ten highly trained specialists—the pick of American youth—either killed or captured. Also the Germans can build 15 or 20 single-seat fighter planes for the cost in dollars and man-hours of one *Flying Fortress.* As an attrition factor in the present strategy, however, knocking out these day fighters is highly important, and such missions as the one against Emden four weeks ago, when some 40 German fighters were destroyed and 20 probably destroyed against our loss of seven *Fortresses* and one *Thunderbolt,* in addition to the heavy bombing damage, constitute a significant victory.

▸ **Percentage of Total Sorties**—Still another common yardstick is the percentage of bombers lost out of the total dispatched. (If the figures were available it would be more accurate and provide a better yardstick for comparing one mission against another if the percentage were taken of bombers lost out of those that actually reached the target rather than the total sent out from the home base).

The figure of 10 percent has been generally accepted as the one beyond which bomber missions "do not pay." In reporting the big RAF night shows, the newspapers frequently note that the British Air Ministry reported a loss of say 20 bombers, with the statement that this loss was "not incompatible."

Needless to say in any given case this may be quite a bit off the beam, but probably on the average it works out fairly well. The even larger repeat performance on Oct. 2 (only two bombers lost) was better still, with a loss ratio of less than 1 percent. The big attack on the vital ball-bearing works at Schweinfurt on Oct. 13, made by a large formation, possibly 300 heavy bombers, resulted in an announced loss of 60, or about 20 percent.

▸ **Real Test**—The true yardstick of strategic bombing and real test of bomber losses comes down to this: Can we, or the enemy, *best absorb the losses in bombers and crews* which occur in bombing attacks and in the enemy opposition encountered? This is the general test. A special test for each mission may also be applied, taking careful account of all factors involved: Was the *target which was destroyed* or damaged important enough to justify the loss of bombers sustained? In the light of the American production and training program there is but one answer to the first question. In nearly every recent case there has been a satisfying answer to the second one also. NAVIGATOR

COL. SCOTT VISITS CURTISS:

Col. Robert L. Scott, author of the current best seller, God Is My Co-Pilot, *visited the propeller division of Curtiss-Wright Corp., where props were made for his Curtiss P-40 fighter* Old Exterminator *in which he downed 13 Japs. With him are vice-president Robert L. Earle, general manager of the division (left), and Lt. Col. William L. Purcell, AAF resident representative at the factory. Col. Scott was commander of fighter pilots in Maj. Gen. Chennault's China Air Task Force from July, 1942, until last January.*

Yugoslav-AAF Unit

Four *Liberator* bombers dedicated and turned over to crews.

The first Yugoslavian combat unit in the Army Air Forces was activated last week with the dedication at Bolling Field, Washington, of four Consolidated B-24 *Liberator* bombers and their delivery to their American-trained Yugoslavian combat crews.

▸ **Roosevelt Attends**—The ceremony was held in the presence of President Roosevelt, Maj. Gen. Barney M. Giles, chief of staff, AAF, and top government and diplomatic figures.

Maj. M. V. Mishovich, former Yugoslavian Air Attaché will be in command of the *Liberators* which will be assigned to the Strategical Air Force of the Northwest African Air Force under Maj. Gen. James H. Doolittle. It will operate as a unit, however, bearing the insignia of both the Army Air Force and the Yugoslavian Air Forces.

Plane Output Expected To Exceed 8,000 This Month; 9,000 in Sight

Primary material supply adequate except for shortage of bearings; Manpower continues to be principal problem; Army continues to stress heavy bombers.

By SCOTT HERSHEY

The upward trend of October aircraft output gained momentum to such an extent that production experts predicted the industry will go over 8,000 units this month and will "soon" reach 9,000 monthly.

Model changeovers and changes in emphasis within the aircraft program, which caused a temporary lag, apparently have been accomplished and all indications pointed to a record month, substantially above the 7,598 produced in September and the 7,612 units in August, previous record.

▸**Ready to Fly**—It is important, too, that no incomplete airplanes are being counted in the totals, as was sometimes the case in the past. Planes are counted now only after they have gone through the modification centers and been tailored to particular missions or particular theaters of operations.

There is no more serious shortage of primary materials which upset production some weeks ago. Surveys indicate the U. S. has plenty of carbon steel and an abundance of steel alloy as well as sufficient aluminum, copper and even molybdenum for all purposes.

▸**Bearing Output Speeded**—The only material shortage apparent at the moment is bearings and concerted efforts are being made to speed their production. Manpower remains the real production problem, particularly on the Pacific Coast, but with concentration on this phase of plane production, officials in Washington are hopeful for at least an easing of the situation.

Other reasons for lag in combat plane production from time to time include engine shortages for some models, maldistribution of raw materials, reorganization of plant layout, making up shortage of spares.

▸**Design Changes**—Constant improvements on models already in use and addition of totally new airplanes slow production, which makes records already set all the more remarkable. Constant development and change cannot help but have a deterrent effect on production rates.

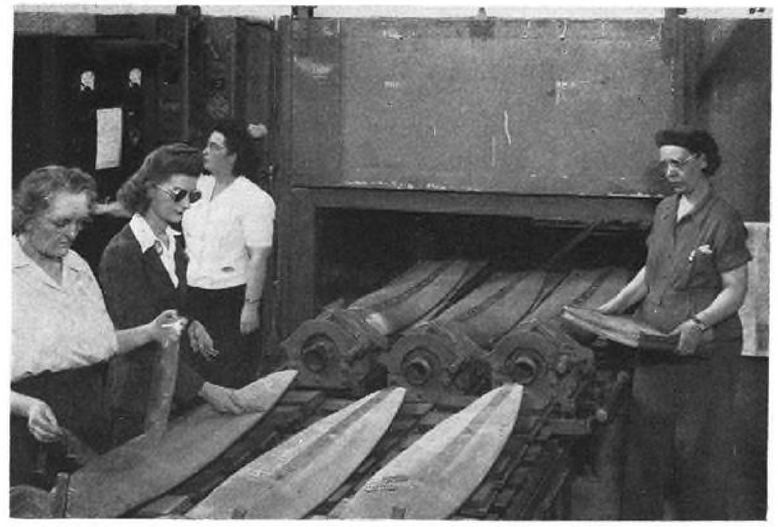
Related to this fact, in its effect on production, is any change in emphasis within the aircraft program. One of the best examples of this, as outlined in the recent Office of War Information report on U. S. combat planes, is the recent decrease in the proportion of training planes in the program and the proportionate increase in other types, especially heavy bombers.

▸**Dividends**—Heavy bombers carry the war to the enemy and the increased emphasis in the program already is paying dividends and will continue to pay dividends in the destruction of Axis targets, especially industrial targets such as the one on the Schweinfurt bearing plant. Our losses were heavy in men and planes. There must be and is increased stress on bombers in the production program and a cutting down of the more quickly produced trainers. This cannot but result in a lessening of total planes produced, even though the total poundage of airplane output continues upward.

OWI points out that airplane manufacturing plants, of which there are fewer than 100 in the country, do not comprise the largest segment of this industry which has to undergo transformation and expansion.

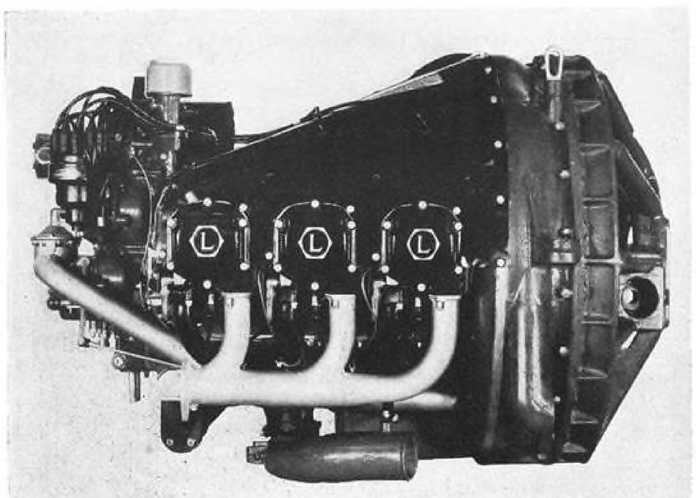
▸**Backbone of Industry**—The backbone of industry is the more than 26,000 manufacturing plants which supply the aircraft manufacturers with almost everything that goes into airplanes. On still another level are foundries and mills turning out basic shapes and forms and at the basis of the whole huge structure are the mines, whence come the materials.

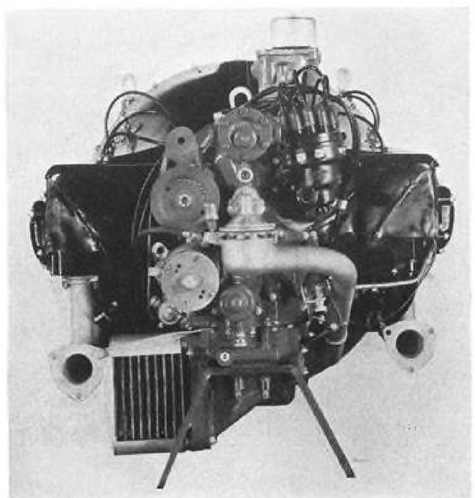
All these, in addition to the aircraft plants themselves, have had to be coordinated into the program. In spite of countless difficulties and in spite of the inevitable mistakes, the OWI report says the Materiel Command, the Navy's Bureau of Aeronautics and the services generally "consider that the men and women who design and make our combat planes, as well as the men who fly them, have been doing a stupendous job and doing it well."



NEW PROPELLER X-RAY:

American Propeller Corp. describes its new 400,000 volt x-ray installation as one of the most powerful in the industry. Three negatives of each complete blade are made automatically in the time formerly required for one blade. Operator on left places pentrameter strip, used to check intensity of ray penetration. Next girl marks blades for identification. Third operator tends electric switch moving car into the chamber, while operator on right holds plates which she will place under blades.





LYCOMING'S NEW 162-HP PACKAGE:

Side view (left) of new 162-hp unit which has been developed from wartime requirements by Lycoming Division of Aviation Corp. Present use cannot be announced but the company expects important post-war commercial opportunities to develop. Photograph shows location of the cooling fan on right end and mounting of accessories on left. Photograph on right shows accessory end.

Lycoming Develops Light, Compact Unit

Self-contained 162-hp aircooled engine weighing 755 lb. will power post-war vehicles.

Important post-war possibilities for bus, truck and helicopter use are seen in the new power plant developed by Lycoming Division of Aviation Corp.

William F. Wise, executive vice-president of Aviation Corp., in announcing it, described it as a complete, self-contained packaged power unit, combining a six-cylinder horizontally opposed aircraft engine with all accessories, plus a clutch and fly-wheel, into a single self-cooled package.

▸**Third of Usual Weight**—He pointed out that since it is a completed self-contained power unit and that it weighs less than one-third as much as existing power plants of comparable output now used in buses and other motor driven vehicles, which indicates its probable post-war usage. The new engine has a dry weight of 755 lb. and develops 162 net horse-power at 2800 rpm on 73 octane fuel at sea level atmosphere.

The unit, Wise said, was designed for enclosed, or submerged, installation. The principal element of the cooling system is a cast aluminum fan, or blower, mounted integrally with the flywheel and having an outside diameter of 28¼ in. The fan's 16 blades have airfoil shape. About one-half the column of air propelled by the blower is used for cooling purposes and the rest to maintain ample air supply to the carburetor at a pressure above atmosphere on the intake side of the heavy-duty air cleaner.

▸**Modification of O-435**—The unit is a modification of the standard Lycoming O-435 aircraft engine, though the modifications required to adapt it for use as a submerged unit were not extensive. A battery ignition system was provided in place of the usual aircraft magneto, and shape of the oil pump was changed to permit a uniform overall housing contour, in addition to the provision of the necessary cast clutch housing, flywheel, fan, cast air baffles and the like.

Brewster Hearings

House group investigates cause of lag in Kaiser plant production.

Public hearings were started last week in the House Naval Affairs Committee investigation into the affairs of Brewster Aeronautical Corp. on the heels of the election of Henry J. Kaiser as president of the aircraft firm.

Kaiser, who previously had been chairman of the board, succeeded Frederick Riebel, Jr., generally regarded as a Navy man, whose departure from Brewster had been persistently rumored.

▸**Seek Cause of Lag**—It has been no secret in aviation circles that Brewster production was bad and the House Naval Affairs Committee has indicated it will go fully into the situation and determine why. A subcommittee, which is holding hearings, is headed by Representative Drewry, of Virginia. Other members are Heber, of Louisiana, Harris of Virginia, Grant of Indiana and Johnson of California.

3 Air Service Firms Merge Activities

Pioneer Southern California companies operate as "AMSCO".

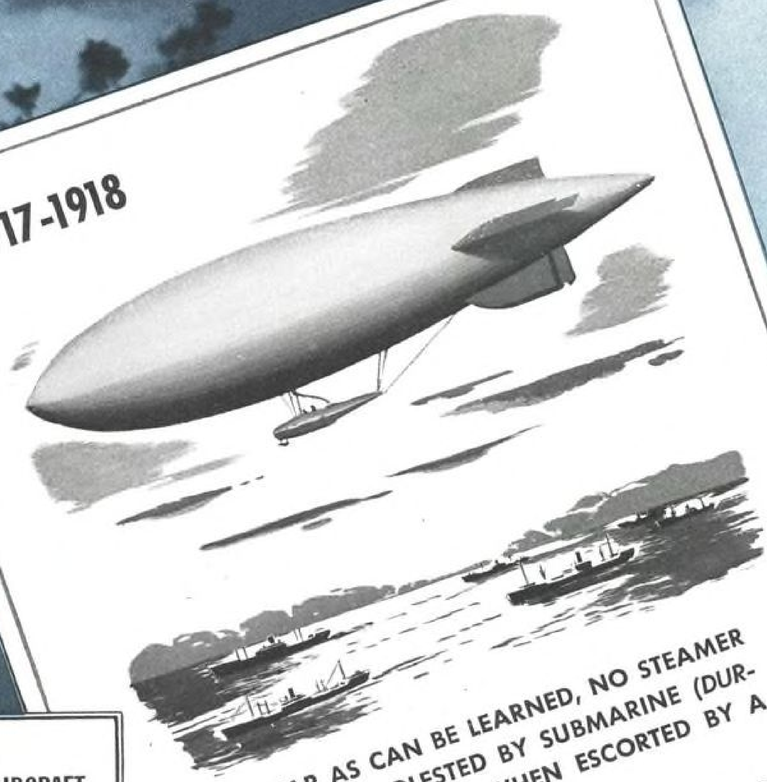
Coordination of aviation service and supply activities of three pioneer Southern California concerns has been announced by Earl Herring, president and general manager of the Airplane Manufacturing and Supply Corp., managing firm.

The parent concern will operate

(*Turn to page* 21)

Trail Blazing in the Skies

1917-1918



"SO FAR AS CAN BE LEARNED, NO STEAMER WAS EVER MOLESTED BY SUBMARINE (DURING WORLD WAR I) WHEN ESCORTED BY A NON-RIGID AIRSHIP."

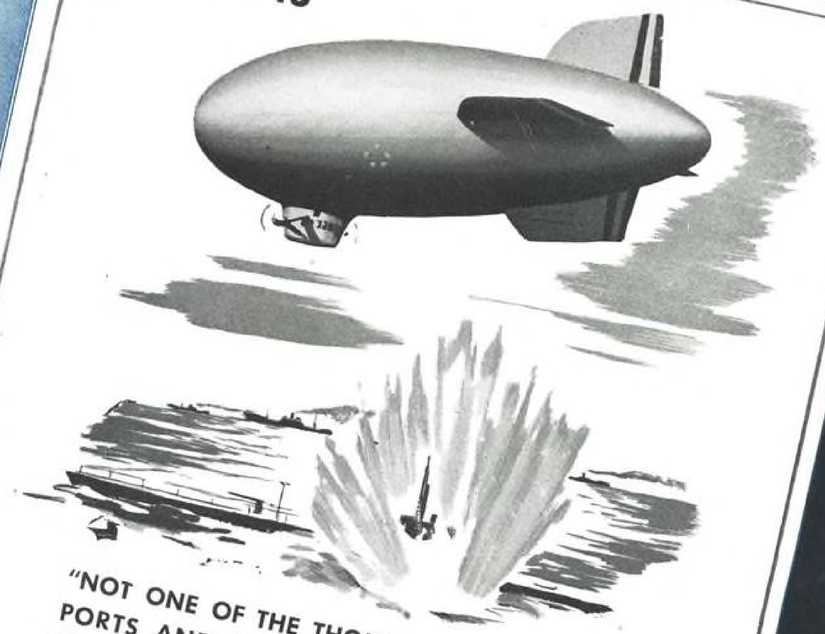
—from report of the late Rear Admiral W. M. Moffett, U. S. N., to the House Naval Affairs Committee.

In the first battle of the Atlantic, Goodyear was America's principal producer of lighter-than-air ships, building upwards of 100, most of which saw active service along the sea frontier.

HOW GOODYEAR AIRCRAFT CORPORATION SERVES THE AIRCRAFT INDUSTRY

1. *By constructing subassemblies to manufacturers' specifications.*
2. *By designing parts for all types of airplanes.*
3. *By re-engineering parts for mass production.*
4. *By extending our research facilities to aid the solution of any design or engineering problem.*
5. *By building complete airplanes and airships.*

1942-1943



"NOT ONE OF THE THOUSANDS OF TRANSPORTS AND SUPPLY VESSELS THAT HAVE BEEN ESCORTED BY THE NAVY'S NEW NON-RIGID AIRSHIPS HAS BEEN LOST TO SUBMARINE ATTACK."

—from official U. S. Navy report, July, 1943.

History repeats itself in more ways than one. Today Goodyear is again the nation's major designer and builder of airships, now equipped to mass-produce the world's largest non-rigid ships as a result of more than 30 years' continuous experience in lighter-than-air development.

Back the attack with WAR BONDS

GOODYEAR
AIRCRAFT

as "AMSCO" and will direct activities of the oldest names in the aircraft service industry now operating 13 plants in California.

▸ **Tools, Parts and Service**—Of the three producing concerns, Pacific Airmotive (PAC) has been engaged in airplane and engine overhaul work since 1927, the Manufacturing Division of Airplane Manufacturing & Supply Corp. manufactures tools and testing equipment. Airplane Parts & Supplies has distributed aircraft parts for the past ten years.

In addition to Herring, officers of AMSCO are: Edward O. Locher, assistant general manager and secretary and treasurer; Ralph B. Lacoe, vice-president; and K. R. Jamison, vice-president in charge of sales.

Aero Medical Meeting

Annual convention of Aero Medical Association of the United States has been transferred from New Orleans to Cincinnati, Netherlands Plaza Hotel, and the dates changed to Oct. 26-27, according to Dr. J. S. Brachman, secretary.

Light Plane Manufacturers Plan To Have Department in Chamber

New Division, headed by John E. P. Morgan, is expected to be in operation early next year, officials announce in Washington.

Light or personal plane makers will have their own show in the Aeronautical Chamber of Commerce.

John E. P. Morgan, authority on such aircraft and inveterate advocate of *Grasshopper* planes, will be in charge of the new department, which will be set up within the chamber, probably about Jan. 1.

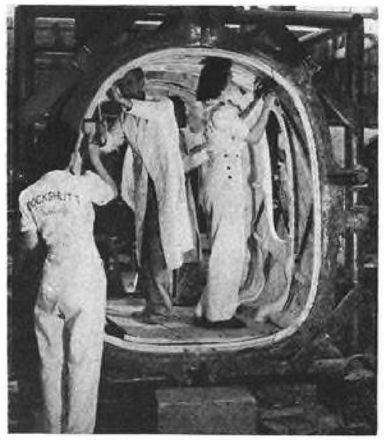
▸ **Unified Action**—Plans for unified action by the personal plane manufacturers started several months ago when Dwane L. Wallace, of Cessna Aircraft, proposed an association of personal plane manufacturers or the organization of such a unit within the Aeronautical Chamber. Several meetings were held, the most recent in connection with the Economic Development Committee sessions in Colorado Springs.

There, tentative plans for the new department were made and approved and submitted to the Chamber's Board of Governors. Morgan, Washington representative of several light plane companies, was prevailed on to manage the department.

▸ **Response**—Preliminary letters to various companies planning to manufacture such aircraft brought responses from more than two dozen. Morgan said the response had been most gratifying, and particularly the spirit of cooperation shown by the manufacturers. He is now working on a program for the department dealing strictly with the problems of personal plane output, including projects to promote universal acceptance of private aircraft.

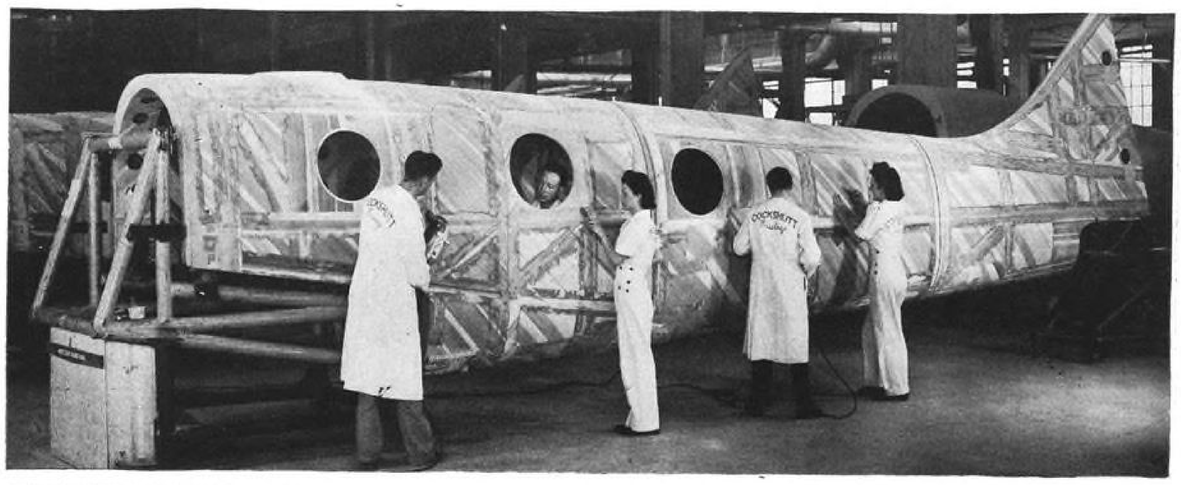
Aviation men know the widely publicized helicopter will not cloud the skies in the days right after the war, but they do expect to see a lot of these rigid wing warriors back on the job of flying for fun.

▸ **Interested Firms**—Among companies which have declared an interest in the Chamber's new department under Morgan's direction are: Aeronca, Beech, Cessna, Consolidated Vultee, Culver Aircraft, Douglas, Fleetwings (Kaiser), Fairchild, General Aircraft, Grand Rapids Industries, Globe, Howard, Interstate, Lockheed, Luscombe Airplane, McDonnell Aircraft, Meyers Aircraft, Northwest Aeronautical, Piper, Republic Aviation, Ryan Aeronautical, Spartan Aircraft, Taylorcraft Aviation, Vega Aircraft and Waco.



MOLDED FUSELAGE:

Use of molded red pine veneer for fuselage construction of Anson V *twin-engine bomber and observer trainers is saving strategic materials, especially seamless tubing, at plant of Cockshutt Molded Aircraft, Ltd., Brantford, Ont. Top photo shows forward, center and tail sections ready to be put together after madapolin, linen-like fabric, has been glued over each section. Layer on layer of thin plywood strips, laid cross-grain and permanently joined by special plastics under heat and pressure, are molded as shown. Other photo shows splicing of two halves of forward section.*



the unseen force that helped conquer the air...

Next to the development of the plane itself perhaps the greatest single contribution to the conquest of the air is the electron vacuum tube. The very heart of radio communications, cross country beacons and instrument landing equipment —*these delicate devices provide the invisible power which enables man to fly safely*. The dependability of air travel is a direct reflection of the dependability and stamina of the vacuum tubes in these services. Eimac tubes are the established leaders in this field. First choice of the major airlines ...first in the new developments in radio...first among the leading electronic engineers throughout the world.

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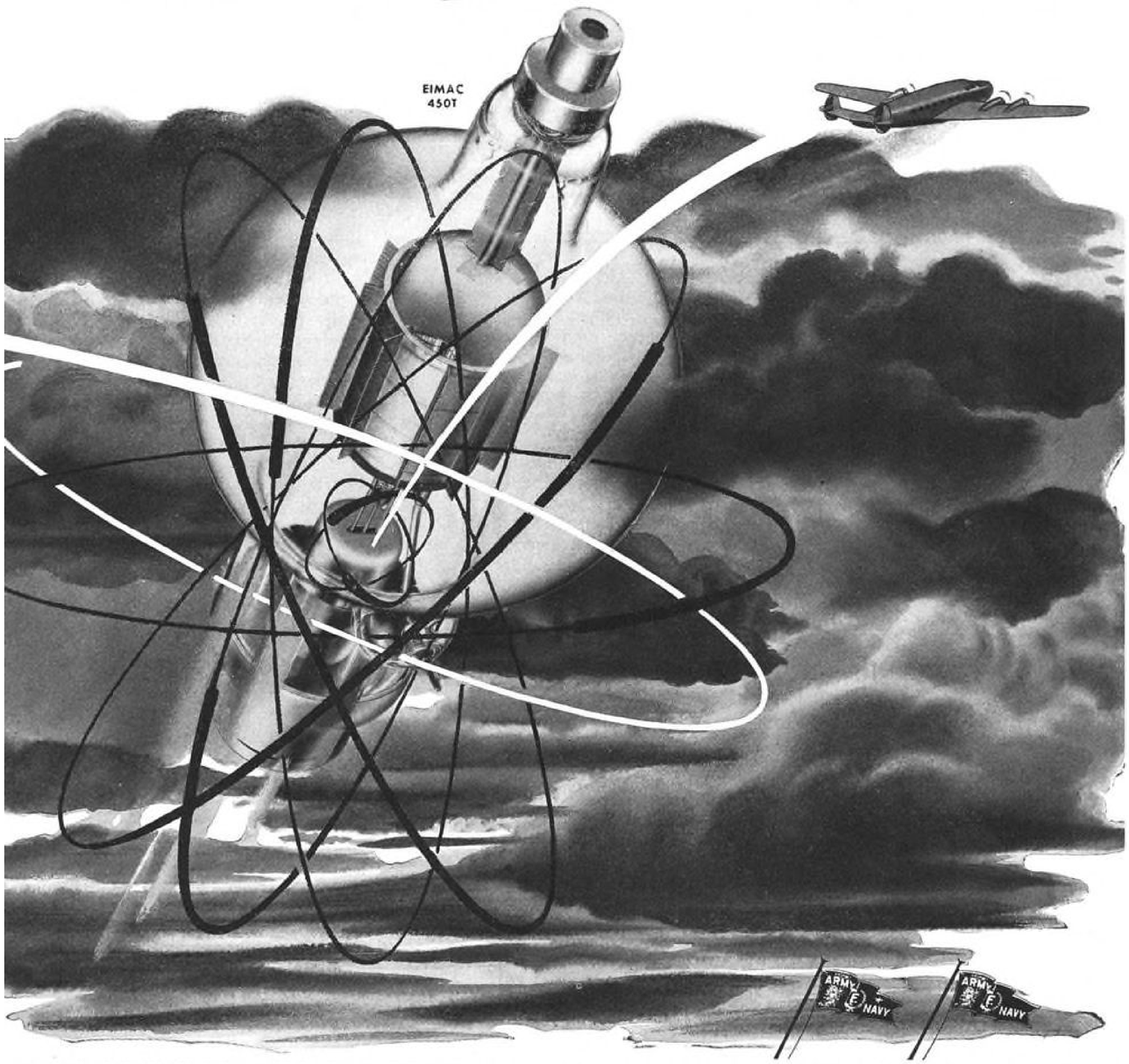

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San Francisco to Salamaua

ROHR equipped Navy Consolidated Coronados flown under contract by Pan American to outposts of attack

Teamwork...a vital weapon of the United Nations...begins in war production factories and extends to fighting units on every front.

Teams of Rohr Production Fighters work around the clock preparing huge Consolidated Coronados for the next team...skilled flight crews of Pan American World Airways...on a mission of quick supply to far-flung forces of the Allies.

Teamwork is the dominant spirit of men and women on Rohr production lines...determined to help cut the time to Victory!

HELPING TO WRITE THE STORY OF TOMORROW

ROHR

PARTS ☆ ASSEMBLIES

ROHR AIRCRAFT CORPORATION • CHULA VISTA, CALIFORNIA

PERSONNEL

United Air Lines, with 3,000 women employees, has established a women's counselor service. Eastern division at Chicago will be headed by **Mrs. Clara Parker** (left) and **Mildred Howard** will have charge of western division at San

Francisco. Women are serving as passenger agents, traffic saleswomen, Link Trainer operators, radio operators, shop workers and at other jobs.

M. C. McCune, cost accounting supervisor of the Miami division, Consolidated Vultee Aircraft Corp., was appointed assistant division treasurer. He was formerly supervisor of inventory and budget control and before joining Convair was with an accounting firm.

George Strompl has started a year's leave of absence from Douglas Aircraft, with which he has been connected for 23 yr., to operate an airplane modification center in Alabama for the Army. Strompl was one of the six men that made up the Douglas embryo, and has been, successively, superintendent, plant manager and foreign projects manager. He organized the Douglas Middle East Project No. 19, at the start of the war. Recently he has been organizing the new Chinese project in California.

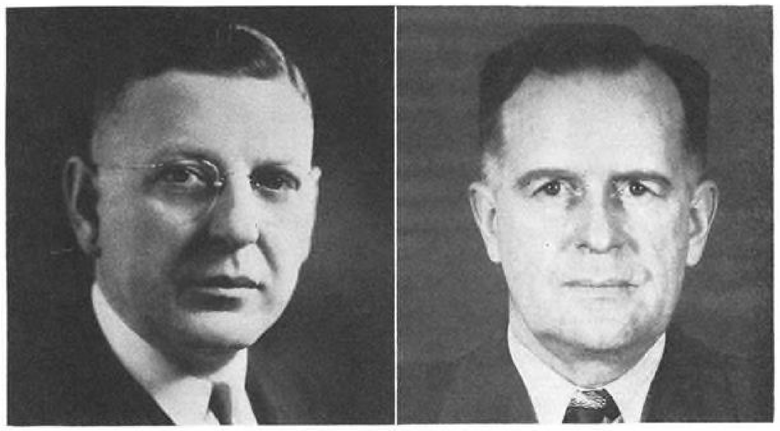
Five major appointments to the supervisory staff of Fleetwings have been announced. **S. H. Wilde** has been appointed assistant to **S. D. Hackley**, vice-president in charge of operations; **W. G. Stilson** will be assistant to **Russell E. Dill**, vice-president and chief administrative manager; **A. A. Schick** is to be procurement manager; **Douglas Albert** will head up the tooling program on the latest Fleetwings experimental airplane; and **Thomas G. Edwards** will be superintendent of the experimental department. In addition Fleetwings announced that **George Cudhea** has become assistant chief engineer, and **R. R. Wiese** has been promoted to administrative engineer.

H. Delaney Dilworth has joined United Air Lines' Chicago office as a rate and traffic analyst. According to United, the position is the first of its kind in the air transportation field, created in view of the steadily increasing volume of wartime air shipments and the need for accurate information on rates and tariffs.

HEADS SAE CONFERENCE: *C. L. "Kelly" Johnson, chief research engineer of Lockheed Aircraft Corp., who was general chairman of the recent meeting of the Society of Automotive Engineers in Los Angeles.*

Capt. Stan A. Palmer, a member of the first Army P-40 fighter squadron on Guadalcanal, with more than 75 combat missions to his credit, is a test pilot and assistant operations officer at the U. S. Army flight hangar near the main Curtiss-Wright Co. Buffalo plant airport. Capt. Palmer was shot down in combat during his Guadalcanal experiences, parachuting to the ocean 50 mi. north of Vella Lavella where he floated for a day and a night in his life raft.

ALL AMERICAN REPRESENTATIVES AT PICKUP INVESTIGATION: *Officials and representatives of All American Aviation, only certificated pickup operator, who told its story recently at Civil Aeronautics Board hearings on local-feeder-pickup service. Left to right are Austin M. Zimmerman, AAA general counsel; Josh Lee, CAB member; C. Edward Leasure, CAB chief examiner; Prof. Ross M. Cunningham, MIT, who conducted All American's feeder studies; Oswald Ryan, CAB member; Harry R. Stringer, AAA vice-president; Halsey R. Bazley, AAA president; William J. Madden and Albert F. Beitel, CAB examiners in charge of the investigation, and Capt. Thomas T. Kincheloe, AAA's chief pilot.*



NEW CURTISS-WRIGHT VICE PRESIDENTS:

Frank H. Harrison (left), manager of manufacturing for the International Harvester Co. and widely known in Middle Western industry and E. J. Harrington (right), coordinator of planning, production and material problems for the Lockheed Aircraft Corp., who have been elected vice presidents of Curtiss-Wright Corp. Harrison, for the present, will make his headquarters at the plant at Columbus, and will be in charge of operations there. Harrington will be at the New York offices as a member of the executive manufacturing staff, but is temporarily assigned to the Columbus factory.

Albert Launer, legal adviser to Fletcher Aviation Corp. on a part-time basis since the company's inception, has associated himself with Fletcher as head of its legal department, with headquarters at the Pasadena plant.

Bill Crane, formerly personnel director at Fletcher Aviation, Pasadena, has become works manager of Fletcher Aircraft in Burbank.

Brig. Gen. Franklin O. Carroll, chief of the Engineering Division, Materiel Command at Wright Field, has just returned from a six weeks' tour of the European, Northwest African and Middle East war theatres, via Air Transport Command, with an airline mileage of more than 25,000 mi. Gen. Carroll and **Col. Donald L. Putt**, of bombardment branch, engineering division, who went along, visited field staffs, advanced air bases and depots, and conferred with air commanders of the various theaters to get data on recommended changes in equipment and on future technical requirements.

Philip H. Patchin has resigned as vice-president of Standard Oil Co. of California, after 24 yr. service during which he took a leading part in the development of aviation. He directed the painting of guide signs on warehouse roofs on the Pacific Coast and developed the plan to install high-power aviation beacons at seven prominent points.

E. A. Keogh has been named auditor of property for United Air Lines, and is to have charge of a new department operating within United's treasury department at Chicago headquarters. He has been with the line for 16 yr. and will have **H. W. Bentson** as assistant.

Glen C. Evans is now station manager of Delta Air Lines' office at the Baton Rouge airport where operations began Oct. 15. Evans was previously at Dallas, Shreveport and Atlanta. **A. L. Hollis**, formerly with Delta in Fort Worth and Shreveport, will be station manager at the Alexandria airport. Delta has assigned 14 persons to New Orleans, under the direction of **L. H. Champenois**, in connection with the opening of its new route from that city to Fort Worth.

George P. Dane, formerly Miami City traffic manager for National Airlines, has been promoted to district traffic manager and superintendent of reservations for the entire line. **Jerry D. Outman**, formerly Jacksonville station manager for National Airlines, Inc., has been promoted to superintendent of passenger service in Jacksonville. **Murray T. Jackson** has been named Miami city traffic manager of National

Jackson **Dane** **Outman**

Airlines, Inc., after joining the line from the Columbus Hotel in Miami.

SPERRY VETERAN HONORED:

William I. Selover, Los Angeles district manager of Sperry Gyroscope Co. (center), receives a 30-yr. jeweled service pin from Sperry president R. E. Gillmor, at the Nassau plant, as Vice-President R. B. Lea looks on. Selover joined Dr. Elmer Sperry when he was first working on the Sperry Gyro-Compass. He later served as "grease monkey" for the historic Curtiss flying boat in which Lawrence Sperry was pioneering experimental models of the Gyropilot for Automatic Flying. He made many flights in the 1914 flying laboratory as an observer, until the plane was wrecked. In 1919, Selover went to Norway on the first merchant ship ever to use the Gyro-Compass. He has installed automatic pilots on many long-range planes, including those of Jimmy Mattern, Howard Hughes, Amelia Earhart and Wiley Post.

Missouri-Pacific Railroad Asks To Add Air Service for 108 Cities

Application brings to more than 60 the number of common carriers which have filed petitions with CAB; More truck and steamship lines apply.

By BARBARA FREDERICK

Application of a new company associated with Missouri-Pacific Railroad, filed with the CAB last week, brought to over 60 the number of common carriers who have filed for air service of one sort or another.

Three-quarters of the shares issued by the company, Eagle Airlines, Inc., St. Louis, Mo., incorporated in Delaware, are owned by Guy A. Thompson, trustee for Missouri-Pacific Railroad. The other 25 percent is owned by Texas & Pacific Railway Co.

▸ **6,000-Mile Network**—Eagle seeks to operate over a 6,000-mi. network on 16 routes, linking 108 cities, providing scheduled, non-scheduled and charter service for persons, mail, baggage and property of all kinds.

Operating in Missouri, Kansas, Arkansas, Texas, Louisiana, Nebraska, Oklahoma, Tennessee and New Mexico, the routes are laid out to parallel the rail routes of Missouri-Pacific Transportation Co., Texas & Pacific Coaches, Missouri-Pacific Freight Transportation Co., and Texas & Pacific Motor Transport Co., which now provide motorbus service over approximately 4,598.6 mi. and motor truck service over about 9,505.92 mi.

▸ **Coordinated Service**—Helicopters, as well as conventional transport planes would be used and coordinated air-rail-highway service is planned. Some terminals of the proposed service are St. Louis, Memphis, New Orleans, Brownsville, Laredo, El Paso, Pueblo and Omaha.

Further augmenting the list of applications from common carriers were two filed by Automobile Air Freight Corp., Detroit, and one by Courier Express, Inc., Logansport, Ind. The former, owned by Overlake Freight Corp., applied for unscheduled service using planes, helicopters and trailer freight planes to transport all types of automobiles and chassis, originating in Illinois, New York, Ohio, Pennsylvania and Wisconsin, located within 100 mi. of the Great Lakes and going to all points in the U.S., and to transport general merchandise on the return trip.

▸ **Further Application**—The company filed a further application from the same Great Lakes area for automobiles destined for Canada and Mexico. Overlake Freight Corp., through its subsidiary, Nicholson Universal Steamship Co., specializes in transportation of autos to and from points in the Great Lakes, and through its subsidiary, Great Lakes Forwarding Co., carries autos by highway through Connecticut, Delaware, Massachusetts, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, and Rhode Island. Automobile Air Freight Co. plans to offer a coordinated highway-air and water-air service.

Courier Express, Inc., which operates motor carriers in Indiana and Michigan, has asked for non-scheduled operations, carrying general merchandise only, over eleven routes extending spoke-wise from Indianapolis with nine connected terminals. It proposes to establish tariffs of combination truck-plane rates, not only for through service on its line, but in connection with other air and motor carriers. No mail subsidy is sought.

National Airlines filed four applications asking extension of Route 31 (Miami-Jacksonville) to Kansas City, via Atlanta and Memphis, and to Detroit, via Charleston, W. Va., and other intermediate points, with two routes from Charleston, either through Columbus and Toledo or through Akron and Cleveland. National also asked for four additional routes from Jacksonville to Washington, D. C., over alternate routes; to Pittsburgh; to Cincinnati through Columbia, S. C., with a choice of three routes after this intermediate stop; and to Cincinnati through Asheville, S. C., via alternative routes. National also filed for routes between Jacksonville and Pittsburgh and Chicago, with branches from Charleston, W. Va., radiating to Pittsburgh, Cincinnati, Indianapolis and thence to Chicago.

Northwest Airlines, seeking to integrate further routes with the "shortest transcontinental route" from New York to Seattle, via Cleveland, Detroit, Milwaukee, the Twin Cities and Spokane, for which it has applied, asked to run scheduled service from Seattle to Honolulu and return. It also has on file applications for service from Seattle to Alaska and the Orient.

UNITED'S ALL-CARGO DC-3:

With all passenger furnishings out, DC-3's are being used by United Air Lines on its new all-cargo coast-to-coast service. Capacity is three tons of cargo, compared with 1,400 lb. average carried on United's regular Main-liners, *passenger-cargo combination. Interior view shows how it is done.*

An amendment for Route 3 to include Aberdeen, S. D., as a stop between the Twin Cities and Billings, Mont., also was requested by Northwest. This city, which has just completed new airport facilities, asked the line to make the stop and the application stated that by so doing a saving of about 56 mi. would be effected.

To create the shortest cross-country airlane between Los Angeles and Washington, Los Angeles and New York, and Los Angeles and Boston, Braniff Airways requested an amendment to Route 15 (where it runs between Amarillo, Tex., and Oklahoma City) to extend through Albuquerque to Los Angeles on the west, and through Tulsa, St. Louis, Cincinnati, Washington, Baltimore, Philadelphia, Newark-New York to Boston, with double lane traffic between Cincinnati, via Columbus and Pittsburgh, to Newark-New York. Braniff asked that its hearing be consolidated with that of American, TWA and others who have applied for shorter transcontinental routes in this general area.

Among non-carriers who filed applications was Clarence E. Page of Oklahoma City, co-owner and co-director of Oklahoma Air College and Midwest School, El Reno, Okla. With the exception of Greyhound Bus Lines, Page filed applications for more routes than any other applicant. He asked to convey persons, property and mail over 65 routes, covering substantially every town with a population of 5,000 or over, in Oklahoma, Kansas, Texas, Louisiana, Arkansas, and southern Missouri.

A route between Washington, D. C., and Dublin, Ireland, was applied for by Edward G. Bern, Great Neck, N. Y., formerly vice-president of American Airlines and later with Hughes Aircraft.

State Airlines, Charlotte, N. C., filed application for seven routes: Detroit and Jacksonville, via two routes with intermediate stops; Detroit and Wilmington, N. C.; Louisville and Wilmington, N. C.; Cincinnati and Charleston, S. C.; New Bern, N. C. and Meridian, Miss.; and Louisville and Jacksonville, Fla., all via intermediate stops.

WAL Buys Inland

Asks that CAB approve purchase of Denver to Huron, S. D. route.

Western Air Lines has asked Civil Aeronautics Board to approve its purchase of Inland Air Lines.

PCA AD ON CITY HALL:

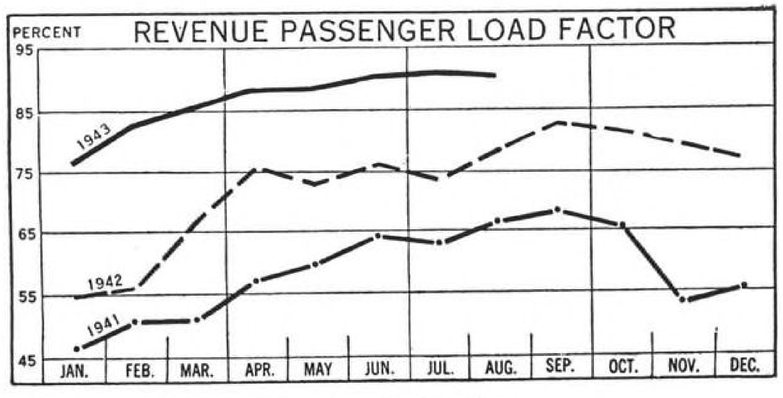
Milwaukee's City Hall carried the legend "Milwaukee PCA Victory City" in lights as part of the celebration in connection with PCA's presentation to the city of a scroll giving it that designation. The airline's press chief, Ray Bell, believes this is a new record in promotion.

In physical assets Western gets little—one Lockheed *Lodestar* and two *Beechcrafts*—but it will get, if CAB approves the deal, 1,300 mi. of air routes between Denver, Colo., and Great Falls, Mont., and from Cheyenne, Wyo., to Huron, S. D., with stops at twelve cities in the four states.

Earlier Western sought approval of its agreement to purchase 137,241 shares of Inland stock. The present application asks permission to purchase the remaining 26,977 outstanding shares.

Routes of the two lines have not been competitive, the application points out.

William A. Coulter, WAL president, said all Inland employees will be retained under Western management.



AIRLINES AGAIN DO "IMPOSSIBLE":

Not long ago anyone who said the airlines could attain a revenue passenger load factor of 90 percent and over would have been told such operation was not possible. This chart by Civil Aeronautics Administration shows it is being done. In June, the factor was 90.64 percent; in July 91.07. Compared are passenger load factors for 16 domestic airlines for 1941, 1942, and the first eight months of 1943. This year started with a figure of 76.92 percent in January.

World Air Transport Conference Urged

British end talks with agreement on need of United Nations parley.

London press dispatches report the British Empire Civil Air Transport Conference closed a few days ago with a unanimous agreement that a conference should be held on international air matters with all the United Nations participating.

Expectation was expressed that Prime Minister Churchill would make a statement soon, and that meetings may be held in Washington, with the United States and the British Empire participating.

Meanwhile it was disclosed that spare-time construction of a 130-ton sky liner for trans-Atlantic service by the Bristol Aeroplane Co. has been authorized by the British Ministry of Aircraft Production.

Described as revolutionary in motive power, shape and construction, the aircraft, according to censored information, will have 20,000 hp., a cruising speed of 250 mi. an hour, and will carry 150 passengers.

Airships Out

Of the hundreds of requests filed for air service recently, calling for use of planes, helicopters and gliders, none has provided for rigid airships. Five years ago this month the Civil Aeronautics Board received the only application that has come to it for a route for lighter-than-air craft.

The route applied for was from Frankfurt on the Main, Germany, to Lakehurst, N. J., or Opa-Locka, Fla. The applicant was the Deutsche Zeppelin Reederie, Dr. Hugo Eckener, director.

SHORTLINES

▸Northwest Airlines carried 10,125 revenue passengers in September, or nearly twice as many as in September a year ago. Its planes flew 7,000,000 revenue passenger miles, 3,000,000 more than the same month a year earlier, and 100,000 more than in August, which also set a record. Croil Hunter, president, credited the increase to new needs for speedy transportation between war centers from Chicago to the northwest.

▸Pennsylvania-Central Airlines is putting its planes into the municipal airport at Norfolk, after several months of landing at the Naval Air station while additional runways and other facilities were being installed at Municipal.

▸PCA has been given permission by CAB to intervene in American Airlines' application to include Akron, Ohio, as an intermediate stop on its Route 22 between Cleveland and Nashville. PCA stops at Akron on Route 14 between Norfolk and Detroit.

▸All American Aviation has started a new Manufacturing and Developmental Division, and the Board of Directors has elected Dr. Edward E. Minor, Jr., vice-president to head it. Dr. Minor is a member of the subcommittee on aircraft electrical equipment standardization of the Society of Automotive Engineers, and formerly was development and design engineer with Glenn L. Martin. Re-elections by the board: Halsey R. Bazley, president; Harry R. Stringer, vice-president, traffic; Charles W. Wendt, vice-president, treasurer; Harry S. Fries, assistant treasurer; Walter C. Gebelein, comptroller; Austin M. Zimmerman, secretary and general counsel.

▸Trans-Canada Air Lines has received two new Canadian-built *Lancaster* bombers from government-owned Victory Aircraft Ltd., Toronto, for its trans-Atlantic air service. When fully equipped for transport service and crews are trained, TCA expects to give twice weekly transocean service for official passengers and armed forces' mail, instead of the present weekly service.

▸Revenue passengers carried by Canadian companies in July numbered 30,889, Dominion Bureau of Statistics reports, an increase over June's 28,523 and 20,162 in July, 1942. Freight was 1,023,424 lb., against 973,351 in June and 1,119,721 in July, 1942. Last July's mail figure was 612,072 lb. compared with 595,070 in June and 378,923 in July, 1942.

▸The Canadian government is understood to be negotiating with Vancouver city officials for large scale expansion of the Vancouver Airport, the civic authorities having a long range view to development of a combined land and seaplane airport. Vancouver is Canada's third city.

Super-Colossal Plane Deflated by Raymond

Douglas official doubts feasibility of transport craft over 150,000 lb.

Throwing cold water on roseate predictions of "pseudo-scientific visionaries" dreaming up aerial *Queen Marys* with dozens of giant motors, with jet propulsion or rocket power, Arthur E. Raymond, vice-president in charge of engineering of Douglas Aircraft, predicts that the largest post-war transport plane will be 150,000-lb., four-engine craft carrying about 100 passengers and perhaps 20,000 lb. of cargo.

Raymond says "mere bigness doesn't signify anything. Your super airplane may look swell on the cover of *Popular Mechanics*, but even at 300 mi. an hour such a craft will get an operator nowhere if it is a money-loser in service."

▸ **Airliner of 1950**—Raymond believes the airliner of 1950 will be a direct outgrowth of the Douglas DC-3s and C-54s. As to the future of helicopters, which he thinks need a good deal of debunking at the moment, he considers their current stage of development comparable with that of the airplane about 1910.

He points out the helicopter's "fundamental incapability of being streamlined and its inherently small size," both reasons, in Raymond's opinion that will prevent the craft from ever proving efficient as a commercial carrier in competition with present types of planes.

'Copter Has Long Way To Go, Says Crosley

Declares craft is where plane was 5 years after Wrights.

Powel Crosley, Jr., considers the helicopter today "at about the same stage of development as the airplane was four or five years after the Wright Brothers first flew one at Kittyhawk, N. C."

Speaking at a recent Cincinnati meeting, the president of Crosley Corp., whose varied interests include a directorship on TWA's board, and who was a constant user of his personal airplane before the war, declared the helicopter needs much development before it is practicable for general transportation.

"In a trip from Cincinnati to New York it would have to make at least 50 stops to refuel. Some day they will be carrying heavier payloads and almost anyone will be able to operate them," he added.

Crash May Revise Civil Air Regulations

CAB studies clarification of rules after accident fatal to 17.

Civil Aeronautics Board discloses in an accident report just released that it is considering changing the language in a section of the Civil Air Regulations on manipulation of controls, to remove any ambiguity that may exist.

The report was on the crash of a Western Air Lines plane in which 13 passengers and four crew members were injured fatally and the remaining two passengers seriously injured last December near Fairfield, Utah. A severe pull-up, the board found, caused failure of one or both wing tips and the horizontal tail surfaces. Cause of the pull-up, which resulted in abnormally high air loads, remains a mystery.

▸ **Trainee at Controls** — Evidence showed the ship's first officer and a co-pilot-trainee were at the controls when the DC-3 struck the ground, while the captain had been in the companionway, seated in the jump seat or standing.

Section 61.7802 of the regulations, states that "no person, other than a first or second pilot, shall manipulate the controls of an air carrier aircraft while in scheduled flight: provided, that at the discretion of the first pilot such restriction shall not apply to authorized inspectors of the Administrator or to properly qualified company personnel or to properly qualified personnel of other carriers."

▸ **Interpretation**—The board speculated on whether the more experienced captain might have prevented or minimized Western's accident had he been at the controls, and said that, as a result of the mishap, it was revealed that the term "properly qualified company personnel" had not been uniformly interpreted.

After the accident, the Administrator made it clear, the board said, that interpretation of the section would render any company employee ineligible to occupy a pilot's seat or to manipulate the controls on scheduled flight unless and until he was listed as a pilot in the company's operations specifications.

"Any ambiguity in the subject section," the board said, "would be eliminated by appropriate changes in the language now under consideration by the board."

NEW CHICAGO TICKET OFFICE:

New ticket offices in Chicago's Field building were opened recently by Pennsylvania-Central Airlines. Present at the occasion were (left to right) Robert Baughman, new district traffic manager in Chicago; June Erickson, reservationist; C. Bedell Monro, president; J. J. O'Donovan, vice-president, and Frank Murray, city reservation manager.

Airlines Liquidate Crew Training Group

Washington and New York offices of AWTI to close; Army takes over Nov. 1.

Liquidation of Airlines War Training Institute has started, preparatory to assumption of its duties by the Army Nov. 1, and is expected to continue for a month or two after AWTI officially bows out of the picture Oct. 31.

According to Sam Solomon, Northeast Airlines president and head of the Institute, both its administrative office in Washington and its training unit in New York are to be closed.

▸ **Trains Crews**—The organization has been supervising training of crews for the Air Transport Command since August, 1942, through facilities and personnel of the domestic airlines, and has established a system of courses and textbooks and manuals for them that the ATC is taking over.

Its Washington quarters will be taken over by Transcontinental and Western Air, although some space will be retained for A. J. Naylor, secretary-treasurer, and a secretarial setup while they close AWTI's affairs.

Vega Absorption

Absorption of Vega Aircraft Corp. at Burbank, Calif., by Lockheed Aircraft Corp. through adoption of the Lockheed name is expected within the next few months.

Robert S. Gross, Lockheed president, while unwilling to admit the report, said "There has been a gradual pulling together of the two companies. . . ." "When we created Vega," he added, "the idea was that the company would engage in a special field of small airplane production. Then the government asked us to use the Vega plant to build the B-17. It has become increasingly obvious that Vega can't expect to engage in a specialized field of production now or after the war."

Courtlandt Gross, brother of Robert Gross and Vega president, has become vice-president and general manager of Lockheed.

BRIEFING

▸ United States Junior Chamber of Commerce is conducting a survey to determine total over-all postwar aviation market, to determine individual preferences of the prospective airplane and/or helicopter buyers and finally to collect data on the type of person who makes up this market. Each Chamber member was asked to interview three men who have flown as passengers on commercial airlines, excluding pilots.

▸ Aluminum forgings for military aircraft of all types are now being produced by Chevrolet at a rate that will result in a total poundage in 1943 ten times greater than in 1942, according to M. E. Coyle, Chevrolet general manager and vice-president of General Motors. Chevrolet is a major producer of aluminum aircraft forgings, including propeller blades, landing gear trunnions, crank case sections and other items.

▸ Randolph C. Walker, president of Aircraft Accessories, forecasts that principles developed in aircraft engineering and construction during the war will be utilized to advantage by the automotive and other industries after the war. He disclosed that the first unit for automotive use, a relay valve, is now under test in the company's research and development laboratory and says it weighs approximately one-fourth as much as similar units now in use, with a correspondingly smaller bulk.

▸ Lycoming Division of Aviation Corp., at Williamsport, Pa., reports women workers at the aircraft engine plant, who now constitute 25 percent of the total force, have had a consistently better absentee record than men, contrary to most plants. P. E. Garlen, division manager, said overall plant average for the last six months has been less than 2.5 percent, highest being in August and September when it was 2.6 and lowest in June when it was 2.08.

▸ First Canadian-built *Lancaster*, product of Victory Aircraft Ltd., Toronto, "The Ruhr Express" (AVIATION NEWS Aug. 16) has been called the "best first production aircraft ever received in Great Britain from North America," the Department of Munitions and Supply at Ottawa has announced. It is based on a report by Sir Stafford Cripps, British Minister of Aircraft Production, who also said: Since we have dealt with some 90 of them (first production aircraft) this is indeed a high compliment."

▸ Sun Oil Co. has completed a new plant for 100-octane aviation gasoline at Marcus Hook, Pa. The $13,000,000 plant completes Sun's original $20,000,000 war conversion plan.

U.S. Chamber Expected To Stand by Its Report

Cooper's protest on air transport policy only one received.

United States Chamber of Commerce sources say it is doubtful that the report on aviation by its special committee on International Transport will be reconsidered by the board, which has approved it.

Request for reconsideration was made by John C. Cooper, Pan American Airways vice-president and member of the committee. He told Eric Johnston, chamber president, in a dissenting letter that the policy agreed to by other committee members in effect proposed new legislation to permit surface carriers to control competitive airlines, and a new government policy of "freedom of innocent passage."

▸ **Circularized**—At the chamber it was pointed out that the committee's policy statement has been circularized to members of the chamber, who have until Oct. 28 to express opposition if they feel so inclined, and that 20 percent of the chamber's voting strength representing 20 states must do so before the board will need to change its stand. The next meeting of the board is scheduled to be held on Nov. 17 in Kansas City.

As this is written, no opposition other than Cooper's has been received, except for two other airline committee members who dissented conditionally from the surface participation recommendation if it involved changes in law. Pan American has an associate, non-voting membership in the chamber.

5 Lines Join Douglas In DC-4 Delivery Plan

Map program for acquisition of planes for post-war operation.

Five airlines are joining Douglas Aircraft Co. in plans to assure quick large-scale delivery of new DC-4 transport planes when the war ends.

American, Eastern, Pan American, United and Western are negotiating for the new ships which, while smaller than the original DC-4, are expected to have greater capacity and performance.

▸ **Cost Prohibitive**—This original ship was tested prior to 1940 under agreement with Eastern, United, TWA, American and Pan American, but its cost of $1,500,000 and high upkeep made operation impractical.

Since then the C-54, cargo version of the DC-4, has been developed. It is expected that post-war conversion of the C-54 production line to DC-4 output will involve only minor interruptions, permitting almost immediate delivery to airlines.

▸ **Constellation**—The current agreement indicates TWA, which pulled out of the original setup during development tests to buy Boeing *Stratoliners*, is definitely basing its post-war hopes on the Lockheed *Constellation*.

Unofficial estimates are that the new DC-4's, which would carry 50 passengers plus cargo, may cost $445,000 each. No details have been given by Douglas, however, on costs under the agreement terms.

WINNERS OF TWA WRITING AND PHOTO CONTEST:

V. P. Conroy, TWA's traffic vice-president, is congratulating (left to right) Robert S. Ball, aviation editor of Detroit News, *winner in the open newspaper division; Max Karant, editor of* Flying, *first place in the magazine division; Alexander McSurely, now of* Aviation News *and other McGraw-Hill aviation publications, who as aviation editor of the Dayton, Ohio,* Journal-Herald *won first place in the division of newspapers under 100,000 circulation; and William W. Dyviniak, staff photographer of Buffalo, N. Y.,* Courier-Express, *first prize in the photographic division. The trophies will be held a year by the publications the winners represented. The annual contest is the sixth sponsored by TWA.*

Airlines Hail Easing Of Blackout Rules

TWA urges further relaxation when plants are visible from rail, bus lines.

The new relaxed cabin window blackout policy is finding favor generally with the airlines. First official reports since it became effective last July indicate satisfaction, for the most part, with few suggestions for change. The reports are being made monthly to the Air Transport Association, starting this month.

Transcontinental & Western Air was virtually the only line to suggest additional changes. It said there should be further easing of blackout restrictions where war plant installations are readily visible from the highway or railroad.

▸ **PCA Situation Eased**—Pennsylvania-Central Airlines has had a tight situation at Norfolk, but this has been eased somewhat with its shift to the Municipal Airport after months of landing at the Naval Air Station. Previously plane windows were covered for about 15 min. coming into the station, and buses in which passengers rode from the naval field to the gate of the air station also were blacked out. Curtains still are kept closed for the 15 min. and while the planes are on the ground. At Buffalo, Baltimore, Birmingham, Knoxville and Washington, PCA has a three-minute "curtain period" before landing and after takeoff.

The cabin window blackout policy, started in April, 1942, has been a self-policing operation. Seven cities are named in the regulation, however, where curtains must be drawn before landing and after take-off, for three minutes at Dallas, Tulsa, Colorado Springs, San Francisco and Oakland, and five at New York and San Diego.

FINANCIAL

* *

$100,000,000 Rail Equipment Firm Re-enters Aviation with New Gliders

Launching of Airborne Transport, Inc., new West Coast firm manufacturing troop carriers, marks return of General American Transportation Corp. for another try at air industry.

By ROGER WILCO

General American Transportation Corp., giant railroad equipment manufacturer and lessee, and popularly identified as GATX, has launched Airborne Transport, Inc., a new manufacturer of large troop gliders on the West Coast. This marks the return of a potent transportation agency to the aviation field.

Background and stature of this surface transportation company are such that its aviation plans can hardly be ignored. Once before, GATX entered the aviation industry but withdrew. Evidently, the company has not given up its aspirations in this direction.

▸ **Acquired Barkley-Grow**—Early in 1939, GATX acquired control of Barkley-Grow Aircraft in Detroit. This represented a small commitment and it was indicated that Barkley-Grow would serve as an "experimental laboratory" for future aviation plans. Shortly thereafter, GATX issued a comprehensive survey entitled, "A brief study and a plan for the participation of the American Railroads in air freight operations in the United States."

Company proposed that railroads and airlines join in a common effort toward the fullest possible development of air cargo service. GATX would act as intermediary and provide management experiences as the coalescing force in implementing this program.

▸ **Air Carriers Cold**—This proposal was placed before the air carriers and the railroads. The airlines cold-shouldered the idea. The railroads, through the Association of American Railroads, gave it formal consideration. It is not known what action, if any, the steam carriers took in this respect other than to incorporate this proposal along with the broad survey being accorded the entire consideration of air freight operations.

In any event, with negative interest on the part of the airlines, the GATX proposal became of academic interest. The company subsequently early in 1940, purchased a very small stock interest in Aviation and Transportation Corp., which was merged into the existing Aviation Corp. Some observers believed at the time that in this manner, GATX might gain entree to American Airlines (then about 35 percent controlled by Aviation Corp.), as well as to other extensive aviation facilities under the jurisdiction of the many-sided holding company.

In June, 1940, Aviation Corp. purchased the Barkley-Grog properties, GATX receiving additional stock in the process.

▸ **Test Completed**—Evidently, however, GATX felt its aviation experiment was completed and also perhaps not desirous of being identified with the Aviation Corp. interests, disposed of its stock in that holding company.

GATX has a highly successful record of progressive management in transportation, particularly in the railroad field. Its persistence in turning to aviation, therefore, is being watched with keen interest. Further, the company has the resources and means to follow through on any program it may choose to support.

▸ **Resources**—Total resources of the company are in excess of $100,000,000. This is without benefit of government capital. Principal activity is the building and leasing of all kinds of railroad freight cars. At last reports, the company owned about 55,000 freight cars of all types, representing the largest fleet owned by one enterprise.

In addition, GATX owns and operates extensive storage and terminal facilities. These properties, located throughout the country, are used for storage of oil and other liquid commodities. Further, the company owns a controlling interest in Pressed Steel Car Co., Inc., builder of railroad freight and passenger cars. Together, the two companies own General American Aerocoach Co., builder of motor buses.

Now, success in the air cargo glider field would give GATX a firm foothold in aviation.

National Aviation Cuts Air Stocks Again

Investment trust continues shift to diversified industrial securities.

National Aviation Corp., which started as an aviation trust, continues to withdraw from the aviation industry. This was disclosed by substantial liquidation of aviation securities between June 30 and Sept. 30. This is a continuation of the previous trend as indicated in Aviation News of Aug. 23.

Both aircraft manufacturing and air transport equities were sold and industrial securities purchased during this recent period.

▸ **Common Shares Sold**—Aircraft common stocks sold consisted of the following:

Bell, 1,600 shares; Boeing, 900 shares; Con.-Vultee, 100 shares; Grumman, 400 shares; Lockheed, 600 shares; United Aircraft, 1,000 shares; Curtiss-Wright, 7,800 shares.

Sale of the Curtiss-Wright stock left National Aviation without any interest in that issue. However, 20,000 shares of Curtiss-Wright "A" were retained, no doubt because of the income this equity affords.

Sales in the airline group took the following form:

	Shares
Chicago & Southern	2,000
Eastern	500
Northwest	1,800
Penn-Central	2,000
TWA	400
United	800

Holdings in Braniff were increased by 2,700 shares to a total of 12,200. This transaction was probably made to help facilitate the public offering of that airline's securities in August.

▸ **Shifts to Industrials**—Investments continued to be made in diversified industrials. These purchases consisted of 1,000 shares each of Firestone Tire, General Electric, General Motors, Goodyear, Gulf Oil and Standard Oil of New Jersey.

This continued shift from aviation to other industrials, merely represents a manifestation by National Aviation that the outlook for the aviation groups is less favorable than other enterprises.

High Time for Unity

THE AIR TRANSPORT INDUSTRY is getting a black eye in congressional and high government circles. So much bickering and disagreement aired in the press has exaggerated the industry's shortcomings.

Domestic lines snap at each other over rights to foreign routes while the big fellows slug it out among themselves. Smaller lines snipe at the big fellows over the domestic pie. Individual carriers are making private statements that conflict with their public pronouncements. Meanwhile, bus and truck lines and the railroads through their lobbyists are capitalizing on the situation.

The suspicion is rising rapidly on the part of responsible and powerful people in the capital that the industry has lost its ability or willingness to sit down and work out common problems.

This week the Lea bill and other legislation of vital importance to air transportation come up for debate and probably a vote in the House. It may not be an easy fight.

The Lea bill may be defeated. Or the House may open up the air to any comer, and if it does the senate may very well go along. That would be a stiff price to pay for what until now has been considered free publicity. Why not unity now, to meet the bigger problems that are on the horizon?

Sugar Coating Our Losses

GENERAL ARNOLD last week deplored what he called a tendency of the press to over-emphasize our bomber losses over Axis territory. Many of us think the press hasn't told enough about our losses in the air. War department statements on progress of the air war have put persistent emphasis on the box scores of our combat craft. American planes have done a remarkable job, but there is an increasing attitude among some aircraft industry officials and very definitely evident from returning airmen that the box scores have made the air war sound easier than the particular statistics being released would indicate.

The result has been excessive optimism about the course of the war which has probably had an important effect on the drop in morale of aircraft workers and has contributed to the high turnover rates in warplane plants.

More criticism of the war department's overemphasis on the "favorable" numerical ratio between the U. S. and the Axis appears brewing because the official announcements have dulled the nation's sense of values.

The American people have not realized the severe losses in terms of production man-hours and crews lost.

Only in fighter engagements, such as those between *Lightnings* and the latest Focke-Wulf models, are the odds even in terms of production manpower and crew. From a production point of view the relative stakes between the U. S. and the Japs are such that American units must knock down 2 to 3 *Zeros* for every one of our own fighters lost in order to claim a legitimate net gain over the Pacific enemy.

It is quite true as pointed out by the NEWS' military commentator this week, that damage inflicted on German industry may compensate for losses of dozens of *Fortresses*. The point is, however, that the average person does not realize that the man-hour production cost of our bombers is several times the value of German and Japanese fighters. Nor does he realize that the overwhelming majority of crews of U. S. bombers shot down by the enemy are complete losses, while many Axis flyers come down in friendly territory and ultimately rejoin their units. Even if every man in every plane on both sides was killed, it is pointed out, the American crew losses would run five to ten times those of the enemy.

For example, official OWI figures recently showed U. S. fighters in the first six months of the year had little more than 2 to 1 advantage over enemy fighters. Yet, many American fighters represent substantially more production time in man-hours, and it is probable that American pilot losses were relatively higher than the Axis.

There is no doubt that the United States expects losses in a war, and that it can afford them better than the Axis countries, but the fact remains that continual harping on box scores is not helping impress the nation with the urgency of overcoming manpower difficulties and getting more aircraft to the front.

Only if every type of warplane needed is turned out according to schedule can the united nations continue to reflect satisfaction with the course of the air war.

ROBERT H. WOOD

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The "Thunderbolt" was conceived for one purpose . . . to fight in the Stratosphere.

There, over seven miles straight up where few other aircraft go, is the "Thunderbolt-World." Ordinary planes that perform brilliantly at lower altitudes, lose their speed and maneuverability as they approach the Stratosphere.

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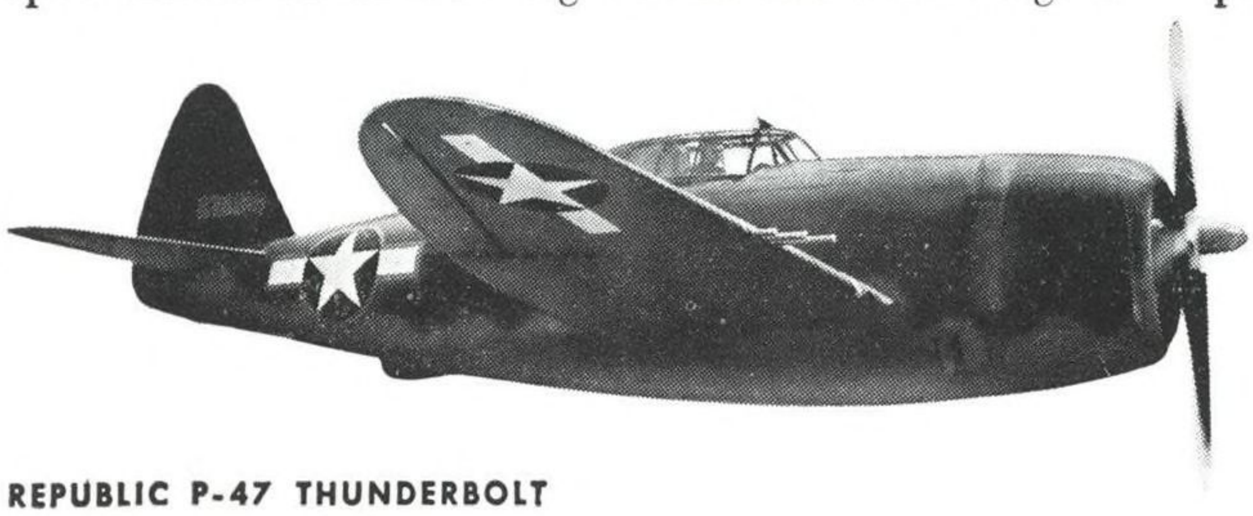
After the war, this knowledge will be used to speed up communication between nations . . . to bring the peoples of the earth closer together.



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