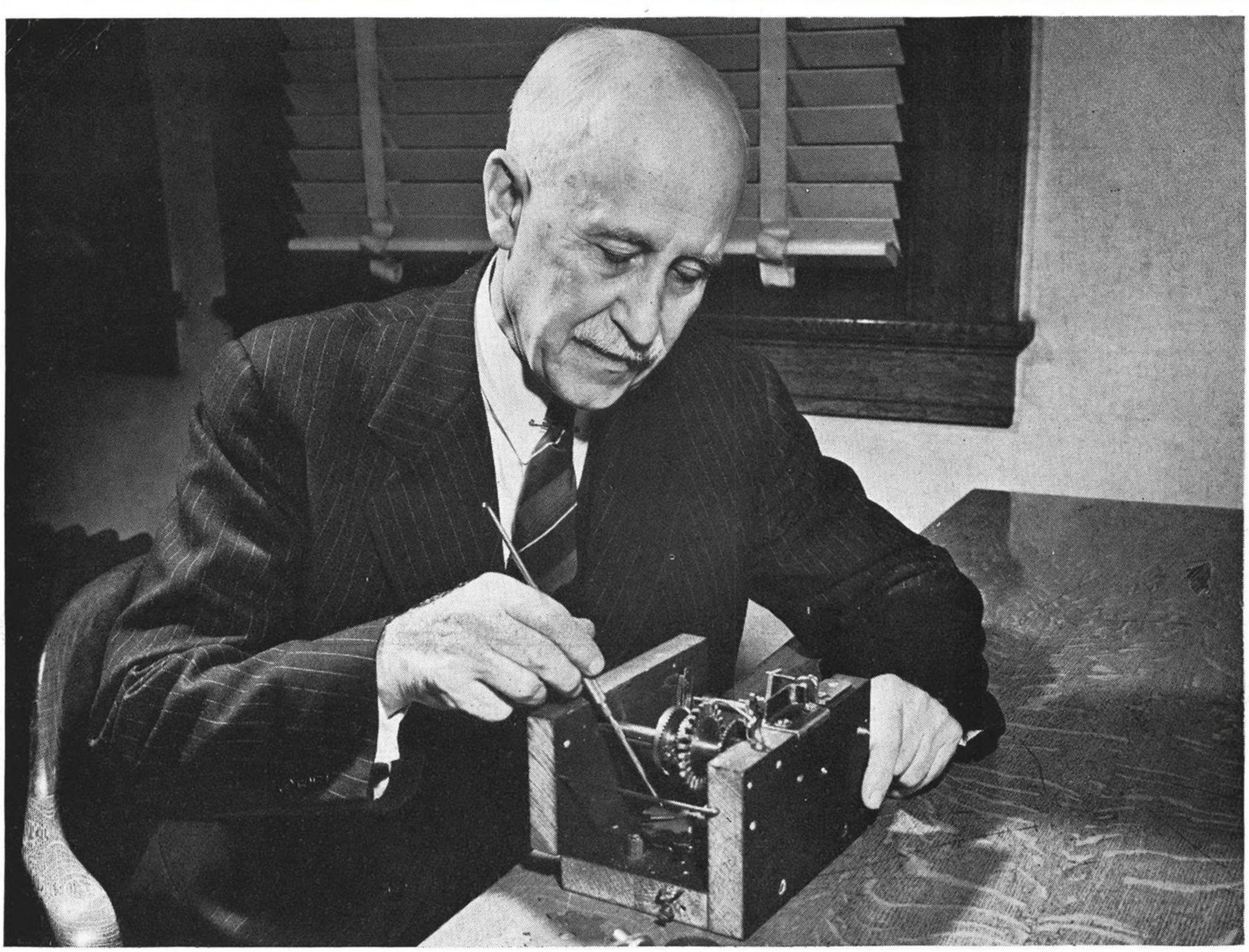
Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC. DECEMBER 13, 1943



Nation Pays Him Tribute: *On the 40th anniversary of the historic flight at Kitty Hawk, Orville Wright is working on a new aviation invention. This exclusive photograph was taken recently at his home in Dayton. Only at President Roosevelt's insistence did he consent to make one of his rare public appearances at a Washington dinner this week in his honor.*

Washington Observer

PRODUCTION TEMPO—A total output this year of more than 85,000 planes, forecast here months ago, nears realization since it is only necessary that December production keep pace with November's 8,789 units, because of the additional working days this month. Thus, the aircraft industry, two years after Pearl Harbor, is producing at an annual rate of about 108,000 planes, with peak expected shortly before mid-1944.

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WEST COAST COMEBACK—Not the least of the factors which has pulled production off its disquieting plateau of last summer has been the comeback of the Pacific Coast companies, nearly all of which are now meeting or exceeding their monthly quotas. For example, seven major West Coast companies, operating ten plants, produced 2,581 military aircraft in November against 2,496 in October.

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CAUTIOUS ANNOUNCEMENT—Bomber production figures were actually close to 1,100, according to government officials, but OWI announced the 1,000 figure in anticipation of a labor layoff in December which may result in a drop-off in production.

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WHAT'S AHEAD IN '44—Big jobs lie ahead since the war production task is at least 20 percent bigger than that in 1943. There is little doubt, however, that in the general production picture reconversion will play some part in next year's program. It appears that, whatever such plans may be developed, their execution will have to be carried out by an organization similar to WPB, composed of men from industry.

★

HEAD MAN—It is generally assumed in Washington that once the President disposes of matters concerning his history-making conferences, one of the first domestic problems he will tackle will be conversion, and possibly even appointment of a man to head the program. Optimism over the war's outcome is increasing despite the repeated admonition of leaders that the war is still to be won.

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JUSTICE DEPT. AT WORK—Justice Department officials are working behind the scenes to aid in framing legislation in connection with reconversion to head off possible fractures of anti-trust laws and the control of an industry by one firm or group of firms. Much of the Department's work will become apparent in various Congressional committee reports.

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NAVAL TRANSPORT STUDY—After official release of the OWI's report on the U. S. airlines' contract operations for the Army Air Transport Command, the Elmer Davis organization plans a similar report on the world-wide Naval Air Transport Service. The Navy has pledged full cooperation. OWI has completed the ATC study and last week awaited final clearance in one or two War Department offices.

★

MORE TESTS FOR THE *MARS*—Although the Navy has taken delivery of the giant flying boat *Mars* from the Glenn L. Martin Co., the Naval Air Transport Service, which will fly the ship, plans further tests. It is still anticipated that additional craft of the type will be ordered soon. Present plans call for regular transoceanic flights for the *Mars* in the near future.

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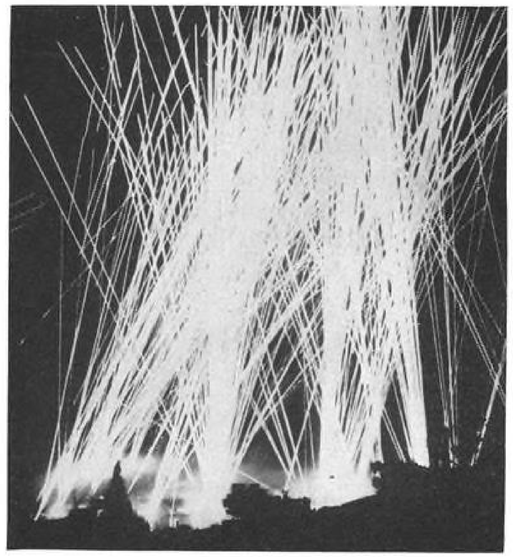
DECISIVE BOMBINGS NEAR?—Col. Edgar S. Gorrell, president of the Air Transport Association, who recently returned from Europe, believes bombing of Germany in the next 45 days or so will be decisive in the war. He declined to amplify his statement, but it is known that



Flak Fireworks Over Algiers

AVIATION NEWS

December 13, 1943

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Washington Observer

Col. Gorrell talked with a lot of people abroad who are well informed on aviation matters.

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DRYDEN ON ROCKET PLANES—Although it got no credit, Jesse Jones' refurbished monthly "Domestic Commerce," was responsible for an aviation story which was picked up and used prominently last week by Associated Press papers. Frank W. Connor, veteran writer, now on the Bureau of Foreign and Domestic Commerce press staff, submitted a list of aviation questions to Dr. H. L. Dryden, chief of the Bureau of Standards' Division of Mechanics and Sound. The AP writer in condensing his story had Dr. Dryden publicizing an attempt to "perfect an airship without tail or propeller that can streak through the air like a rocket," and succeeding in the "not too distant future." The Navy protested to Commerce officials until told that Dr. Dryden had actually discussed separate projects, both a long time off.

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FLYING WING—The Standards aerodynamics expert said that a successful jet propulsion power plant would have "many distinct advantages," especially since propellers cause difficulties above 400 or 500 miles an hour, but despite much pioneering a propellerless plane is not likely soon. He said "some of the best scientific and technical minds in aviation" are at work on problems of the flying wing. Three groups, all "adequately supported financially and otherwise," are on the project. "How to distribute to best advantage in the wings the weight carried in the body of the conventional plane is one of the big difficulties," he said, adding that the problems are not insuperable. Superplanes carrying 100 transoceanic passengers will depend on construction improvements, traffic demands, and terminal facilities.

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NO LIMIT TO SIZE—Reiterating statements by Glenn Martin and others, Dr. Dryden sees no physical limit to aircraft. "It is largely a matter of using more material of the right kind in the right places, making every vital part proportionately larger and stronger. "It took a long time for marine architects and engineers to get around to designing and building huge luxury ocean liners like the "Queen Mary." . . . The super-airplane . . . to operate at a profit . . . must carry capacity loads. Such loads would not be available over all routes," Dr. Dryden believes.

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LANDING CRAFT PRIORITY—A story published in Washington that landing craft had been given top priority, even above aircraft, caused some concern in the aviation industry, but the fact is that priority ratings remain unchanged and although temporarily the makers of landing craft are given an overriding directive, it can be recalled at any time and it does not mean that the position of aircraft has been changed to any great extent.

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BUDD'S PUBLICITY—The latest flurry of publicity on the Budd stainless steel twin-engine transport, which has been test-flying for some weeks, brought more furrowed brows to the company's aircraft officials who have sought religiously to keep the project out of the headlines. The "New York Herald Tribune" came up with an "exclusive," using material it obtained officially from a high Navy officer's staff. Next day the Navy's public relations office issued a formal announcement. The Budd Co. hopes to issue its own belated story, perhaps with pictures, sometime in January. With passage of the severe aluminum shortage there is considerable speculation in aircraft circles as to whether the welded stainless steel aircraft program will be pushed to the extent that had been previously announced.

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"WILDCATS" OVER EUROPE?—Rear Admiral D. C. Ramsey, chief of the Bureau of Aeronautics, dropped a hint while on a tour of the Grumman plant the other day that Navy aircraft may be used in the future to strike at Germany as well as at Japan. The Admiral, terming the Grumman *Wildcat* as one of the best in the world, said that "we consider the Grumman plane will play a successful part in the prosecution of the war against the entire Axis."

★ ★ ★

PEACE PLANNING—Despite warnings of government and military leaders that there are countless hard days ahead before the war is won, the nation nevertheless is turning its thoughts more and more to practical problems connected with reconversion to peacetime production. The aircraft industry, in the forefront of production of weapons which probably can hasten peace most, naturally is making plans for reconversion, but at the same time probably is most on the alert to prevent a letup in the war effort.

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HUGHES' ARMY ORDER—Washington officials verify reports that the AAF has placed an order with Howard Hughes for his Duramold D-2, but it was handled at Wright Field instead of Washington.

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NATA Asks Easing of Air Laws, Plan on War Surplus, Feeder Lines

Excessive red tape, grounding private flyers, assailed as important deterrent to development of lightplane industry at St. Louis meeting.

By ALEXANDER McSURELY

Strong criticism of what was characterized as excessive federal government restrictions hampering the future development of aviation, demands for a special federal commission to handle distribution of surplus war goods in orderly fashion, and plans for participation by fixed base operators in a network of feeder airlines were the most significant developments of a double-barreled four-day St. Louis convention of the National Aviation Training Association (which changed its name to the National Aviation Trades Association) and the Aviation Distributors and Manufacturers Association.

Speech after speech in the four-day meeting lambasted the surplus red tape entangling private flying, called for simplification of regulations, while talks of the retiring NATA president, Leslie Bowman, of Ft. Worth, and the incoming NATA president, Roscoe Turner, of Indianapolis, at the closing business session re-emphasized these points.

▸ **Urges Collective Action**—Said Turner: "Aren't you tired of being kicked around and being told how to run your business? Up to now you have been individualists, but today we have reached the point where the individual doesn't make much of a mark. It is: Whom do you represent and how many? Collectively we can make a lot of things happen."

Bowman outlined an enlarged program for NATA under its new name, to serve every type of non-scheduled and independent commercial aeronautical activity, called for elimination of wartime restrictions on civilian flying as soon as possible, and a thorough revising of Civil Air Regulations in the simplest form possible, consistent with safety.

▸ **Recommendations** — Resolutions adopted at the closing session asked for continuation of the Civil Pilot Training Act of 1939, due to expire next June 30; commended the Army for recognition in a newly published field manual of the principle that "Land power and air power are co-equal and interdependent forces; neither is an auxiliary of the other"; and called for appointment of a special federal body to dispose of surplus war goods. The association also expressed itself as "not in favor of H.R. 3420 (the Lea Bill) as now written" and asked for a hearing by NATA representatives before the bill or any similar measures are enacted; called for additional development of many small airports and landing strips by federal and state agencies to accommodate the rapidly expanding group of private flyers in the postwar era and asked for simplification of government military and peacetime restrictions on civilian flying.

▸ **Civil Aeronautics Act Revision**—It asked that principles of sovereign authority by the federal government over the air space, and prevention of monopoly in air transportation be made a part of legislative revision of the Civil Aeronautics Act of 1938; opposed entry by inexperienced operators or surface transportation companies into any division of the air transportation business; asked CAB to act now on preliminary steps necessary to grant certificates on new routes, particularly feeder lines, in order to provide jobs for demobilized U. S. Air Forces veterans, and to provide for delivery of all first-class mail by air.

It demanded that the War Depart-

New Officers and New Name: *National Aviation Training Association, at its recent St. Louis meeting, changed its name to the National Aviation Trades Association and elected the officers shown above, from left to right: Henry von Berg, Carson City, Nev., second vice-president; Roscoe Turner, Indianapolis, president; and F. Leslie Marsden, Buffalo, N. Y., first vice-president.*

ment and WPB "as soon as victory appears safe" permit aircraft factories to build feeder planes, and other commercial type planes and permit short-haul operators to begin operating on many test flights.

▸ **Student Training Program**—Revival of the Civilian Pilot Training Program for high school classes was urged as was immediate CAB action revising CAR No. 24, to permit returning veterans who have had mechanics or technical training to take examinations under the new system, and also to establish a new airplane and engine certification system for CAA-approved schools before the veterans' administration begins its large-scale training program for ex-servicemen.

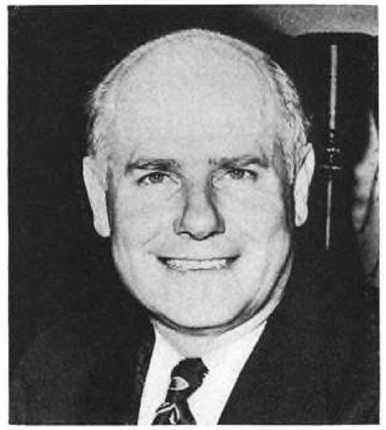
The resolution opposing the Lea Bill in its present form was not discussed, although previously Bowman had issued a statement approving the general nature of the bill, and opposing state control of aviation.

▸ **Favors Federal Law**—"I would rather by far take the chances of getting necessary changes made in one federal law than I would in trying to get changes made in various state laws," Bowman said. "Courts have held that radio waves cannot be stopped at a state boundary and people who are against federal control should remember that airplanes are in the same category."

Robert H. Hinckley, former Assistant Secretary of Commerce, and former Civil Aeronautics Authority chairman, made simplification of flying regulations a main point of his talk on "A Four-Point Program for a Three-Dimensional World." He warned NATA members, however, that "the future will be what you make it. You can't be free from government control if you won't demand and take responsibility yourselves.

▸ **Cites Red Tape Hazard**—"In the past, unwise regulations have had the effect of blocking private flying," he said. "I, personally, know of cases where people have sold their personal planes and let their licenses lapse solely because of the nuisance of complying with the regulations."

Now assistant to the president of Sperry Gyroscope Co., Inc., Hinckley named as his other three main points for further development of the Air Age: one, mass aviation education and training through elementary schools, high schools and colleges, with flight operators providing laboratory training as a complement to school training; two, improved and additional landing areas and navigation aids, including landing areas in the great recreational areas, such as national and state parks, and three, landing strips along highways.



NATA Speaker: *Robert H. Hinckley, former CAA chairman, now assistant to the president of Sperry Corp., who told NATA members they could not be free from government control unless they demanded it and assumed responsibility, pointing out that unwise regulations in the past have had the effect of blocking private flying.*

▸ **Excessive Regulation**—Leslie Neville, editor of *Aviation*, told members of ADMA: "Personal plane flying has suffered for years from too much law. The original mandate of the Civil Aeronautics Act was 'to regulate and promote' civilian aviation. There has been infinitely more regulation than promotion."

Warning of the dangers of ignoring technical progress in aviation, he pointed out that many lightplane manufacturers in the pre-war period were so absorbed in getting light engine manufacturers to provide increased horsepower that they ignored several new aerodynamic developments that would have given them the desired performance without increasing the power. "This cannot continue in the postwar period," he added.

▸ **Air Cargo Discussed**—Warren H. Atherton, of Stockton, Calif., national commander of the American Legion, pointed out that the airplane's principal usefulness after the war would be in hauling high per-unit value cargoes, and in personal transportation. "It will not take any business away from the railroad or steamship. It will create more," he added.

Representative Jennings Randolph, of West Virginia, cited the need of better transportation from airports to downtown areas, and discussed the need for developing substitute airplane fuels from coal and oil shale to supplement the nation's oil supplies.

▸ **Asks Uniform Laws**—Wayne W. Parrish of *American Aviation*, drew a satirical parallel between present regulations affecting the private flyer and a need for similar regulations protecting the safety of the automobile driver.

"For example," said Parrish, "just the other day I saw a man who had never driven anything but a Ford coupe step into a Plymouth sedan and drive away without being checked out."

He urged uniform, simplified federal traffic laws, enforced by state and local agencies.

▸ **Research**—Frank Tichenor of *Aero Digest* told NATA at a luncheon talk that postwar aviation policies, to be successful, must depend on research and technical knowledge, rather than on politics. He called for establishment of a Secretary of Air Commerce in the President's cabinet, and establishment of a clearly defined statutory code to take the place of bureaucratic discretion and regulation.

Tichenor, who is also chairman of the aeronautics advisory committee of the Department of Commerce, suggested that in the field of international flying, selected airports should be designated by our nation to be used by citizens of favored nations on terms of fair use and rentals and regulation of traffic control on the basis of air reciprocity.

▸ **CAP Program**—Lt. Col. Earle L. Johnson, national CAP commander, discussed a contemplated program of recruiting CAP cadets, and urged simplified federal regulations for flyers.

"Aviation must be a hometown business. You can't be independent and do your own thinking on a subsidy. And regulations must be simplified until the airplane is considered in terms comparable to the automobile."

Col. Johnson said CAP had enrolled 92,000 members and 42,000 additional cadets, making it the U. S.'s largest civilian aviation body.

▸ **Feeder Line Operations**—Discussing feeder line operations by fixed base operators, W. Haley Reed, Kansas City, outlined the program of Consolidated Air Lines, Inc., an organization of fixed base operators headed by Roscoe Turner, Indianapolis, which has filed applications for a system of feeder routes across the nation. Operators have available finances and are "ready to start tomorrow if applications are approved," he said.

Later he said 12 operators are cooperating in the organization, and that they expect to use twin-engine eight-passenger Beechcrafts, which can carry 800 pounds of cargo in addition to passengers. The planes will be equipped for pickup service, and routes will average about 40 miles between stops, maintaining a "block-to-block" speed of 120 mph.

New NATA Officers

Newly elected officers of the National Aviation Trades Association are: Roscoe Turner, Indianapolis, president; F. Leslie Marsden, Buffalo, first vice-president, Henry von Berg, Carson City, Nev., second vice-president; Leslie Bowman, Fort Worth, Tex., retiring president, chairman of the executive board, and members of the Board: Ray Hylen, Rochester, N. Y.; W. F. Underwood, Atlanta; Arthur Curry, Galesburg, Ill.; Clint Breedlove, Lubbock, Tex.; F. C. Anderson, Des Moines; Gwin Hicks, Coeur d'Alene, Ida., and von Berg. The organization formerly was known as the National Aviation Training Association.

Wins NATA Award

The annual NATA award for outstanding contribution to aviation was made to Capt. Eddie Rickenbacker and announced at the association banquet. Capt. Rickenbacker was unable to be present.

Higgins to Remain In Air Industry

Boat contractor reveals plans for helicopters and huge cargo plane.

By MARY PAULINE PERRY

Andrew Jackson Higgins, New Orleans boat-builder extraordinary and a newcomer to the aviation industry, has definite plans to stay in the aircraft industry after the war with his plans based on two specific projects now taking shape.

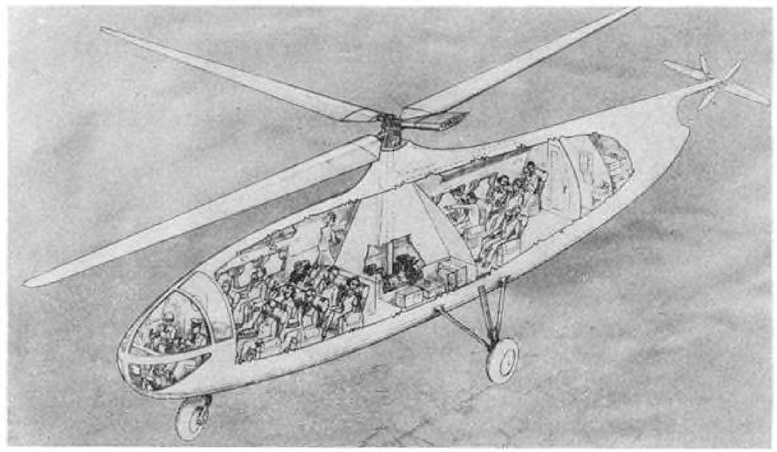
Higgins says he has no idea of entering the automobile manufacturing field as some other aircraft men have indicated they may do, on the grounds there are plenty of experts in that line, but Higgins believes the aviation industry is young enough and has sufficient room for expansion to support newcomers.

▸ **Rotor Plane**—His postwar plans are being built around a rotor plane designed by Enea Bossi and a large cargo plane on which Giuseppe M. Bellanca is now working. The large cargo plane, Higgins said, is too far in the future for comment, but the helicopter is "within our scope of development right now—in the immediate present."

Higgins looks to the construction of the helicopter commercially in sizes varying from two-place to 14-passenger airliners. He says they will have a comparatively low market price, and added that based on 1939 standards for materials and wages and on a volume of sale justifying economies of inline production, the two-passenger ships would sell for about $3,000.

▸ **Simplified Operation** — He expressed enthusiasm over the simplicity of operation, and said Bossi has developed safety devices to forestall accidents. To date, no attempt has been made to develop folding rotor blades.

Higgins said he felt it was a mis-



Higgins Helicopters: *This rotor plane was designed by Enea Bossi for Higgins Aircraft and is now ready for test flights. Andrew Jackson Higgins, New Orleans boat and plane builder, told* AVIATION NEWS *this plane will be built commercially after the war in sizes varying from two-place jobs to 14-passenger airliners. The cutaway drawing of the larger model has been prepared by Higgins engineers.*

take to advocate use of any particular material in airplane construction and that planes should be made of composite materials used where best suited to a point of structure or in placement. His postwar plans include use of as many varied materials in aircraft as in building.

Privately Developed—In this connection, he said the Bellanca cargo plane design is not radical and that the plane would be built of composite type of materials.

The Bossi rotor and the cargo plane are both Higgins developments and without government sponsorship.

Higgins plants are now devoted to production of Curtiss C-46 *Commandos.*

In addition to Bossi and Bellanca, Higgins' aircraft staff has as its director Col. John H. Jouett, who organized the Chinese air force and was formerly president of the Aeronautical Chamber of Commerce.

Wright Favors Free Competition On Postwar Foreign Air Routes

Notables of aviation world pay tribute this week to co-inventor of airplane at dinner in Washington on 40th anniversary of Kitty Hawk flight.

By ALEXANDER McSURELY

The co-inventor of the airplane and the first man to fly it believes that international air routes in the postwar period should not be limited to any one company or to any one country.

Orville Wright, 72-year-old scientist, who will receive tributes of the aviation world, Dec. 17, at Washington, on the 40th anniversary of the first motor-powered airplane flights at Kitty Hawk, N. C., in 1903, voiced his opinion in an interview at his secluded laboratory in Dayton, shortly before leaving for Washington to attend a dinner given in his honor.

Anniversary Dinner—"Aviation in Peace" will be the theme of the anniversary dinner, which will be attended by many of the country's aviation leaders. Jesse Jones, Secretary of Commerce, will preside.

Wright foresees a serious crisis in the aviation industry in the postwar period, paralleling the "dark age" of American aviation following World War I, unless intelligent and cooperative handling by government and industry are able to avert it.

World Trade Factor — "International air commerce will play an important role undoubtedly in future development of aviation," the white-haired inventor said, "but I do not think any one company or any one country should have a monopoly. Government subsidy paid for a large part of the expansion of our international air routes, before the war, and certainly the operations now going on would not be possible except for government financing. It does not seem fair that the companies, who have had the advantage of this government financing, should claim a right to monopolize the world's air routes because of this."

Opposes Cutthroat Competition—On the other hand, Mr. Wright does not favor a wide-open cutthroat competition between all airlines.

"If all our airlines which have signified their intention of operating foreign routes, do so, however, there won't be any business for anybody," he continued. "There must be some reasonable arrangement worked out."

Advancements in science may make some aviation procedures obsolete, he predicted, referring particularly to rocket propulsion for aircraft and to development of some more efficient method of landing and launching airplanes than the present bulky, heavy landing gears. He believes the helicopter will have practical value in short trips, although he does not consider it as likely to approach the conventional airplane in efficiency for longer hauls.

Private Flying—He is conservative on the development of private flying after the war, while admitting its great potentialities for widening the sphere of aviation.

The interviewer lit a cigarette and blew a fat lazy smoke-ring.

Mr. Wright watched it rolling through the air and grinned.

"Do you know the scientific principle involved in making that ring?" he asked. "The rolling motion that your tongue gives to it creates a centrifugal force that holds the smoke together."

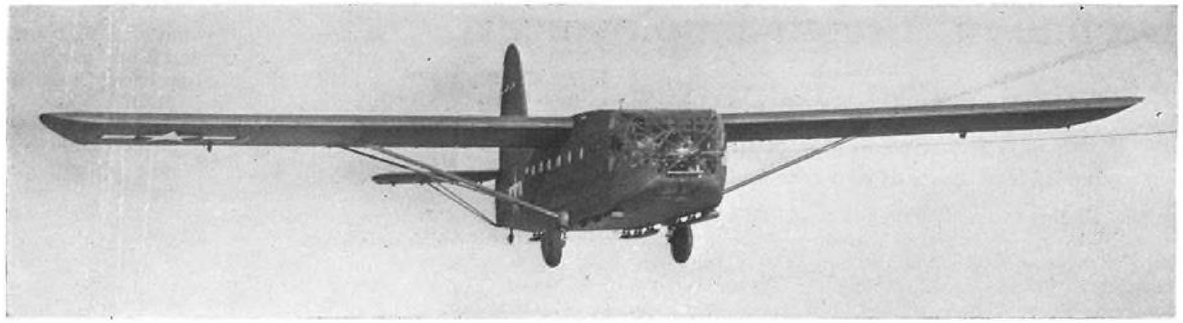
Smoke Tunnels—From this tangent he began a discussion of smoke tunnels and their use in testing aircraft structures by making visible the airflow over a wing or other air foil. A representative of the Griswold smoke tunnel in Connecticut recently visited him in Dayton to consult about some early smoke tunnel experiments in his laboratory here in 1919.

"We used a very small smoke tunnel, and used the blower from our regular wind tunnel. At one time we tried tobacco smoke provided by a man who sat there smoking and puffing it in, but it wasn't very successful. Later, we tried a mixture of chemicals to provide the smoke and it worked better. If conditions are right, the smoke shows little eddies and vortices in the air currents over an airfoil which offer a key to many of your design problems."

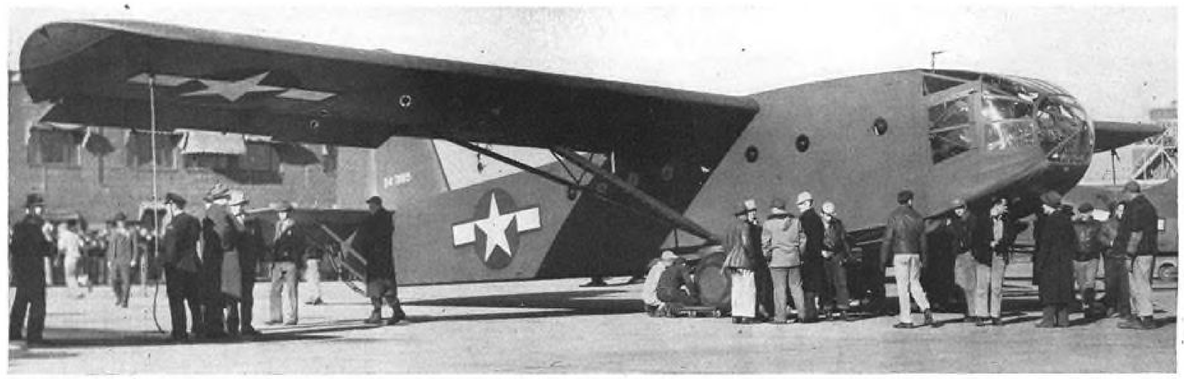
Kitty Hawk Flights—Naturally the conversation turned back to the Kitty Hawk flights, and the years of practical testing and experiments which led up to them.

Orville Wright receives all tributes in the name of the famous Wright Brothers team, rather than accepting individual credit for his own work. He credits that remarkable cooperative association between his brother Wilbur, who died of typhoid fever in 1912, and himself, as the most important single factor in their discovery of the principles which made power airplane flight possible.

Conduct Biggest Glider Tests: *Witnessing a test flight of the AAF's largest production model glider were, left to right, John E. Parker, president, Northwestern Aeronautical Corp., builders of the craft; R. W. Whittingham, Northwestern's production manager; James Lamont, chief inspector; Capt. Ben West, Wright Field, co-pilot and Lt. Col. Bruce B. Price, pilot, in charge of glider projects at Wright Field.*



Biggest AAF Motorless Aircraft Tested: *Shown in flight and on the ground is the largest motorless aircraft yet built as a part of the Army Air Forces glider program. Designed by Waco and constructed by Northwestern Aeronautical Corp., the giant craft won the approval of the test pilot during a recent test at Wold-Chamberlain Field, Minneapolis. Details are restricted, but the photograph indicates its size.*



Still Eager Aeronautics Student—Four decades after that wintry day when he crouched on the lower wing of the flimsy biplane and launched into space at Kitty Hawk, his hair is thinner and whiter, he is a little stouter, but he is still in excellent physical condition, and his gray-blue eyes sparkle as he discusses aeronautical theories or research in which he is presently engaged.

As Orville Wright goes to Washington for the anniversary observance, the original Kitty Hawk plane still remains in England, where it was sent in 1928 as the result of the long-standing controversy between the Smithsonian Institution and the Wrights.

A year ago, however, Dr. Charles G. Abbot, secretary of the Institution, published a statement giving full credit to the Wrights.

May Bring Plane to U. S.—Mr. Wright indicated recently that he was considering bringing the plane back, but that he would take no action while the war continued because of possible hazard to the historic aircraft during its passage back to this country.

PAA Lists Commercial Hops Over Atlantic

Reports 5,200,000 miles of non-military flights since Pearl Harbor.

Pan American Airways, in a sequel by its Atlantic Division to the recent report marking its 5,000th transocean crossing since Pearl Harbor, has disclosed some figures on non-military operations.

In the two years ended Dec. 7, PAA Clippers crossed the Atlantic 1,200 times, flying more than 5,200,000 miles. On them were 35,700 high-priority passengers and 6,108,000 pounds of air express, the largest single piece weighing 2,750 pounds. United States and foreign mail that passed through the marine terminal at La Guardia Field, New York City, was 1,404,000 pounds.

Notable Passengers—Among notables other than President Roosevelt who have used the Clippers are Queen Wilhelmina, King George of Greece, Crown Prince Olav, Secretary Morgenthau, Donald Nelson, Wendell Willkie, Harry Hopkins, W. Averill Harriman, and others.

As an outstanding war assignment PAA cites the circling of the world of a Clipper flight commanded by Capt. William M. Masland, assistant chief pilot of the Atlantic division, and 96 other flights completed in the interest of the government without curtailment of regular operations.

231,565,000 Miles Flown—In a separate announcement, PAA said Clippers have logged more than 231,565,000 miles in 16 years. In the three months ended Sept. 30, they flew 160,847,591 passenger miles and 16,911,731 plane miles. These compare with 141,396,499 passenger miles and 16,233,330 plane miles in the second quarter of 1943, and 97,169,765 passenger miles and 9,485,208 plane miles in third 1942 period.

Schulgen Assigned

Brig. Gen. George F. Schulgen has been assigned as chief of staff of the First Air Force at Mitchel Field, N. Y., to succeed Brig. Gen. R. E. Nugent, asssignment unannounced.

Decline in Aircraft Employment Arrested, Gains Reported by WMC

Total up nearly 3,900 in month; summary of week's activities in other federal bureaus and war agencies.

The decline of aircraft employment, which last summer threatened production and was an important factor in the launching of the West Coast labor plan, has been reversed.

Number of workers in the industry generally rose nearly 3,900 from Oct. 1 to Nov. 1, with further increases indicated in December, according to War Manpower Commission officials, who explain that this is due in part to the setting of employment ceilings and a decline in shipbuilding employment. Operations of the West Coast program are reported to have saved 97,000 workers required for West Coast shipyards after a review of employment needs of 28 major shipyards. There was no major revision in volume of shipyard activity as a result.

▸ **Situation Eases at Two Plants**—Two of the most critical aircraft plants, Lockheed and Boeing, reported an easing of their situations with some referrals reduced because of inability to absorb workers as fast as they were referred.

Boeing officials said the gain in workers was gratifying, but stressed the fact that there still is a continuing need for new employees to meet normal replacements in Seattle and to meet greatly increased requirements for the nearby Renton plant.

▸ **Women's Labor Reserve**—In connection with the manpower situation, the Women's Advisory committee of the War Manpower Commission has said that the assumption on the part of many male workers and employers that women form a labor reserve to be called up temporarily is having its repercussions in war production.

Belief of many women that they are a reserve group for war employment only is held by the committee to be a contributing factor to underutilization, absenteeism and turnover of women in the wartime labor market.

▸ **National War Labor Board** last week appointed to the Airframe Panel Charles Hook, Jr., assistant to the president of Rustless Iron & Steel Corp., Baltimore, who will represent industry. Hook has sat on various WLB tripartite dispute panels as industry member for the past year.

The Airframe Panel was set up by NWLB, late in September, to consider and make recommendations in all disputes in the airframe industry, involving wage or salary agreements. The Panel held a preliminary meeting in New York last month and several hearings are scheduled during the next month.

▸ **Membership**—Other members previously announced are: Thomas L. Norton, professor of economics at the University of Buffalo, chairman and public member; Garry Cotton, Grand Lodge representative of the International Assn. of Machinists, AFL, and Ed Hall, international representative of UAW-CIO, labor members. John Mead, labor relations representative of Bell Aircraft Corp., was chosen alternate industry member.

The Board also upheld a decision of the Detroit regional WLB denying pay to employees of the Nash-Kelvinator Propeller Division, Lansing, Mich., during a two-day work stoppage. UAW-CIO appealed the decision of the regional board, arguing that the company had violated the no-strike-no-lockout pledge. NWLB refused to review the case on its merits and said the union had failed to establish any grounds on which the regional board's decision might be reversed.

Wayne L. Morse, writing the majority opinion, said the regional board found no evidence of a lockout in the sense that the purpose of a two-day shutdown was to force on the workmen an agreement with terms satisfactory to the company. The case had developed out of an incident concerning two foremen in the blade department, against whom employees had complained because of their failure to adjust grievances. Labor members dissented in the NWLB decision.

TESTS SEXTANTS:

A look into the infinity of a miniature solar system is simulated in this "collimator" specially designed by Bendix Aviation engineers to assure the accuracy of aircraft sextants, basic instruments for celestial navigation. Each of the radially mounted tubes contains an illuminated star-like reticle to permit accurate calibration of each sextant by permitting precise fixes on the simulated stars at angles ranging from zero to 90 degrees from the horizon.

▸ **President's Committee** on Fair Employment Practices announced that North American Aviation Co., Dallas, has revised its employment policy affecting Mexican aliens. Since October, when the Committee first took up the situation with the company management, more than 50 Mexicans have been hired. FEPC has received assurances of the Plant Security Divisions of the Air Corps in the Texas area, that applications by aliens for employment will be cleared without delay. There are no legal restrictions on employment of aliens in war industries, if certain security measures are met.

▸ **ODT**—Office of Defense Transportation has issued a bulletin entitled "Transportation Training," designed to tell officials about training programs that have helped with manpower problems. Included in the bulletin, the first of a series, is the training program developed by American Export Airlines. Copies may be procured from the Personnel Training Section, ODT, Washington, D. C.

▸ **PAW**—Construction of aviation gasoline plants and special refining units can be speeded up by obtaining new material that has been declared "excess and available for war plants," according to an announcement by Ralph K. Davies, Deputy Petroleum Administrator of PAW. There are numerous excess stock piles throughout the country, according to Davies, two of the largest in Houston and Los Angeles. Procedures necessary to obtain desired items have been reduced so that an operator can obtain supplies in less than 24 hours, if necessary. Specific information on location of stock piles of these materials, which at present are available only to refiners building aviation gasoline plants, may be obtained from the Redistribution Section, Construction Division, Petroleum Administration for War, Washington 25, D. C.

▸ **Defense Plant Corp.** increased its contract with Continental Aviation & Engineering Corp., Detroit, in the amount of $40,000,000. This will provide for additional plant facilities in Muskegon Co., Mich., and brings the overall commitment to approximately $55,000,000. Contract with Ford Motor Co. was increased by DPC by about $125,000 for additional plant facilities. DPC's previous commitment to Ford was $300,000.

▸ **Construction** amounting to almost $2,000,000 was authorized by the War Department at two airfields in Texas and one in Georgia. For buildings at Chatham Field, Savannah, and for special bombardment training facilities, $500,000 was authorized. Extension of runways and other construction at Hensley Field, Grand Prairie and at Laguna Madre Sub-Post of Harlingen Army Airfield, Texas, will cost $846,972 and $592,670, respectively.

▸ **Award** — Army-Navy production star award went to employees of the Eclipse-Pioneer division of Bendix Aviation Corp., Teterboro, N. J., for sustained performance in development and production of vital aircraft precision equipment. A previous Army-Navy E was awarded this division more than a year ago.

Wright Field's New All-Weather Chamber: *can test Army equipment developed for use in any climate. It can reproduce artificially, hail storms, rainstorms, sand storms, sleet, fog, jungle humidity, temperatures as low as 60 below zero and as high as 150 degrees above zero. Above: Two Aeromedical laboratory soldiers paddle their one-man life rafts in the chamber to test water emergency equipment. The big lights along the left wall are 1,500-watt sun lamps, which in combination with the smaller ultra-violet ray lamps, produce artificial sunlight. Cold air, to simulate Arctic conditions, comes in through the vents in the wall behind the men.*

New Weather Room Tests AAF Equipment

Wright Field chamber simulates arctic blizzards, jungle heat.

A new all-weather chamber at Wright Field can provide anything from an arctic snow storm to jungle heat and humidity. Developed to test Army Air Forces equipment under widely varying conditions, the new test room, in the aero-medical laboratory of the Materiel Command, is one of the most versatile pieces of equipment at the field.

The room is ten feet high, 13 feet long and 18 feet wide, and is lined with all welded stainless steel, with walls of six inches of tile and six inches of ferro-therm metal sheets as insulation. A wooden floor is removable for certain experiments.

▸ **Huge Sun Lamps Used**—Six huge sun lamps, of 1,500 watts each, provide sun heat when operated in combination with a battery of ten smaller ultra-violet ray lights.

The entire chamber can be converted into a pond one foot deep, by covering the floor with watertight rubberized cloth, which is hooked to floor and walls, providing a convenient place for testing life rafts and other emergency equipment.

An 18-inch blower provides winds of any desired velocity up to the highest found in any habitable areas of the world. Another blower, inside the chamber, will produce winds up to 40 mph. which can be focused directly on the equipment being tested.

▸ **Hot and Cold Rains**—Showerheads on the walls provide regulated hot or cold rains at will, and these rains can be lashed into a full gale if the blower is turned on. To get the effect of a stand storm, a hopper outside the chamber, connected with the blower, is opened and sand brought back from the Libyan desert is poured into the wind stream.

Humidity can be controlled to any degree through an electrically heated humidifier, and through control of the air pressure in the chamber. Fog is produced through spraying a fine mist from specially made nozzles in the roof of the chamber.

▸ **Temperature Control**—Two sets of electric coils automatically control the temperature in the chamber, and electric outlets for plugging in various items of electrical equipment such as electrically heated flying suits are provided.

Two individual compressors refrigerate the chamber for simulating arctic conditions and, when both are turned on, temperatures down to 60 below zero can be quickly attained. Controls are operated from a panel outside the test chamber, and the operator is in constant communication with the men making the tests, by interphone.

Plane Glider Group

Incorporation papers have been filed in Washington, D. C., for the Glider Institute of the Americas, Inc., which all glider manufacturers will be invited to join.

Budd Stainless Steel Cargo Plane Tested

Huge craft is first built for Navy, designed as air freighter.

Flight tests on the first large-size airplane of all-welded stainless steel construction, though incomplete, indicate the intended use of the craft will be realized.

The plane, built under Navy contract by Edward G. Budd Manufacturing Co., of Philadelphia, is a twin-engine cargo carrier, similar to the cutaway pictured in AVIATION NEWS August 2. Except for plywood doors and interior floors, the airplane is built entirely of stainless steel.

▸ **Designed for Cargo**—Details of construction looking to cargo handling are unusual in that this will be the first airplane the Navy has obtained which was designed entirely with cargo handling, loading and transportation as its primary mission. Other Navy cargo planes have been adaptations of personnel transports or combat types.

The plane is powered by two Pratt & Whitney engines, but other details, including cargo capacity, range, speed and performance are withheld.

▸ **Army, Navy Share Output**—Under terms of the contract, part of the production will be for the Navy and part for the Army. When the craft has been fully tested and accepted, the Navy plans to use it in the fleet of cargo carriers under operation by Naval Air Transport Service.

Budd Manufacturing Co. began preliminary engineering work on the new plane the day after Pearl Harbor and later received a Navy contract. Budd, aviation men recall, built its original stainless steel plane, a three-place amphibian named the *Pioneer* in 1929. This airplane is now mounted before the Franklin Institute in Philadelphia.

Builder Optimistic: *Edward G. Budd, whose company built the Santa Fe Super Chief shown above, believes there will be passengers enough for both the airlines and the railroads after the war.*

Aircraft Firms Find Veterans Aid Morale

Mutual benefits of employing ex-servicemen cited in OWI report.

Men being released from the armed forces at the rate of about 70,000 a month because of age or disability not only are helping to relieve the manpower situation but are contributing to their own morale as well as that of non-veteran workers in aircraft and other war plants.

In a comprehensive review of the situation, the Office of War Information reports a number of companies, especially airplane companies, have placed standing orders with the Veterans Employment Service for discharged service men.

▸ **Morale Booster**—Hugh A. Kerwin, assistant director of the service, expressed the general viewpoint of the industry when he commented that "nothing so lifts the morale of a discharged veteran as to find that, despite his disabilities, he is still able to hold down a good job. He is particularly pleased that the job he is able to perform contributes to winning the war."

▸ **Examples**—OWI cited numerous instances of veteran employment by aircraft plants, including Douglas, which has done particulaly well. For example, a former Marine flight sergeant shot down at Guadalcanal with the loss of an eye is now flight-testing radios in the *Dauntless* SBD dive-bomber. Another, a veteran of five major naval engagements, now suffering from psychoneurosis, is employed in production control where, removed from shop noise and given comparatively light work, he is making rapid progress.

Texas Division of North American Aviation reports 686 honorably discharged veterans on its rolls. OWI said the company, working in cooperation with the Veterans Employment Service, the Veterans Administration and American Legion posts, has made a concerted effort in its California, Texas and Kansas City divisions to employ discharged veterans.

▸ **Rehabilitation**—North American's efforts to employ as many veterans of the war as possible, the report says, has a three-fold purpose, first, to provide a method of rehabilitation of disabled war veterans, to help them find a place in civilian life; second, the company can utilize the knowledge and technical training many of these men gained in the armed forces; third, placement of veterans in production departments makes for a good morale factor by bringing into the plants the personal experience of combat. Consolidated-Vultee Aircraft is also using many veterans.

Threaten To Cancel Brewster Contract

Kaiser seeks to square plant with House group but with doubtful results.

By BLAINE STUBBLEFIELD

Majority of the House Naval Affairs subcommittee, which has just heard a month of testimony on the Brewster controversy, is of a mind to withdraw the *Corsair* contract six months from now, if production is not up to a fair rate.

Henry J. Kaiser, who was elected president last month when Frederick Riebel resigned, is seriously concerned about this threat to his production reputation and is spending about 90 percent of his time in an effort to rehabilitate Brewster.

▸ **Testimony Challenged**—Committee spokesmen said testimony designed to show that several other aircraft producers had worse records than Brewster was untrue; the company is, in fact, at the bottom of the list when all factors are considered, they insist.

Kaiser, who draws no compensation for his work with Brewster, says the rate of *Corsair* production can be run up to 288 a month by September, 1944. But the Committee prefers that he stick to a more realistic program calling for 65 in December, 106 in January, 126 in February, 140 in March, 144 in April, and 150 in May, which is regarded as peak.

▸ **Three Plants**—Company has three plants: Long Island City, a three-story building which makes parts; the $8,000,000 assembly plant at Johnsville, near Philadelphia, to which the New York parts are trucked; and the Newark converted-hangar plant, which does not figure in the *Corsair* picture as it makes wing panels for Consolidated-Vultee.

What luck the Committee would have if it tried to close the Brewster-Corsair contract is hard to say. James V. Forrestal, Under-Secretary of the Navy, addressing the Committee, strongly emphasized the need for planes, even though dealing with Brewster was expensive business. He said Brewster had produced the fastest fighter in the world in 1938 (the *Buffalo*) and there was nothing to indicate at the time that the company would fail to meet the responsibilities of its heavy expansion to over $100,000,000 in backlog.

▸ **Formidable**—One *Corsair* alone is a formidable weapon; six or a dozen of them will outfit an auxiliary carrier; less than a hundred is the complement of a fleet carrier. There are now about 50 carriers in all, and next year the Navy's deck-based air power may double.

The Committee still doesn't have a clear notion of what happened to Brewster. It blames the Navy for over-patience, and calls it unlucky in picking two presidents, C. A. Van Dusen and Riebel, who had successful records but couldn't master "organized loafing" and the "straitjacket labor contract" under which the company operates.

The Committee believes both Kaiser and the Navy are putting too much faith in the promise of Tom de Lorenzo, union leader, to cooperate. Production by Brewster of SB2A dive-bombers for the Navy, which never used them in combat, and for the British, is terminated with the new year.

Parks Tests Reaction To Simplified Plane

CAB issues special regulation permitting school employees to solo on two-control lightplanes.

The Civil Aeronautics Board has facilitated tests by Parks Air College of St. Louis and its affiliated schools on safety and ease of flying simplified two-control aircraft.

A CAB regulation will permit Parks employees in an experimental course of specialized dual flight instruction to make one solo flight in sight of and under supervision of a certified flight instructor without the usual paper work and fingerprinting.

▸ **No Safety Sacrifice**—An official at CAB, explaining that the regulation meant "no relaxation in safety," said the Air College plans to try out the planes—it has Ercoupes and may have others—on an average group of possibly as many as 500 employees to find their reaction to the ease of control attributed to this type of craft.

The employee personnel making the tests will have the customary five hours of dual instruction required on two-control planes (the requirement is eight hours on three-control planes) before they will be allowed to solo. And if they wish to go on with their instruction after making the first solo, they must go through the usual routine of being fingerprinted, filing applications, and obtaining identification cards.

▸ **Tests Simple Planes**—Asked about the report that Parks plans to sell Ercoupes after the war, CAB sources said their understanding was that the school intended to try other available two-control planes before making a decision.

Interest in this angle by CAB was disavowed, however, Washington officials making the point that the test solos, which are to be made at all of Parks' scattered five schools, might prove informative from a safety standpoint.

▸ **Cut Routine**—Parks officials first urged the CAB to make the experimental flights possible with a minimum of routine when they appeared in connection with the Board's feeder line and local service hearings.

The CAB's waiver of the usual restrictions so far as the test solos are concerned will be effective until next May 15.

Radar for Traffic

Postwar application of military aircraft radio developments may be expected to result in profound changes in traffic control and flight regulations, James A. Riddle, Radio Corp. of America, told the recent St. Louis meeting of Aviation Distributors and Manufacturers Assn.

Riddle said, for example, that he expects a meter to be available for the instrument board which will indicate the course of the plane, whether the plane is on the course, or to the left or right of the beam, instead of making the pilot dependent upon present audible radio range signals.

Ultra high frequency ranges, he says, eventually will replace present radio ranges, but the conversion will be gradual. Riddle does not expect the first postwar planes to be very different than those of the immediate prewar period, and that consequently first radio equipment to be made available likewise will have few changes.

Contract Termination, Salvage Units Merge

Consolidated group of Army Service Force to be known as Readjustment Division.

Contract Termination Branch and Redistribution and Salvage Branch of Army Service Forces have been merged into one department to be known as the Readjustment Division.

Contract Termination Branch, formerly in the Purchases Division, supervises cancellation of contracts necessitated by changing battlefront needs, shifts in availability of strategic materials, improvements in models, and similar factors.

▸ **Equipment Clearing House**—Formerly in the production division, the Redistribution and Salvage Branch re-channels war equipment from Army branches having an oversupply to other branches or war agencies that need such material. It also handles procedures under which surplus and salvage material are sold.

Heading the new division is Col. D. N. Hauseman, Ordnance Dept., who has been chief of the Philadelphia Ordnance district since 1940. His staff will include personnel transferred from other ASF divisions and from the Army Air Forces.

Synthetic Rubber Used To Seal Gas Tanks

Use of synthetic rubber for gasoline-absorbent "overcoats" on bullet-sealing fuel tanks in warplane wings has been disclosed by Goodyear Tire and Rubber Co.

W. C. Winings, manager of the firm's mechanical goods division, said large quantities of "Airfoam" are now being supplied several aircraft manufacturers for the lightweight overcoats which can absorb any slight amount of gasoline which may escape from a fuel tank after it is pierced by a bullet and before the hole seals itself. These coats absorb the escaping fuel almost as soon as it leaves the tank.

▸ **Quarter-Inch Sheets**—The foamed synthetic rubber, Airfoam, is produced in sheets about a quarter of an inch thick and as the bullet-sealing fuel cell is placed in the airplane wing or elsewhere, the sheets are fitted to it within the wing. Large quantities of natural rubber airfoam were provided for the fuel-cell coats before synthetic rubber was adapted to this use.

Plane Plant Deliveries Climb To 97 Percent of Schedules

Industry turns out 8,789 aircraft despite changes in design and constantly expanded requirements; Nelson cites results as proof of scheduling and follow-up policies.

By SCOTT HERSHEY

Significant feature of aircraft production in November—a new high of 8,789 planes—is not so much that it has made "production miracle" an understatement as it is that deliveries were 97 percent of schedules.

The industry has vivid recollections of production months that exceeded all prospects only to hear that while production was good, it was still below schedule, a situation that has prompted uninformed critics of the industry to contend that the airplane makers were falling down on the job somewhere along the line.

Scheduling Policy Bears Fruit—In his formal report on November aircraft output, WPB Chairman Donald M. Nelson emphasizes that scheduling and production follow-up policies, instituted and carried out by the Aircraft Production Board, have borne fruit with deliveries virtually on the accelerated schedules.

This comment is the more interesting in view of the fact that this program is headed up by WPB Executive Vice-Chairman Charles E. Wilson whose immediate plans for resignation were opposed by aircraft industry leaders. It does not mention, but it should not be overlooked, that an integral part of the success of this program lies, too, with the Aircraft Resources Planning Office, of which T. P. Wright is the head.

Miracle—As Nelson points out, the sustained accomplishment of the aircraft industry and its workers is almost unbelievable, the increase in numbers does not tell the whole story. He goes back to July, 1940, when 572 airplanes were produced. More than twice that number were produced in two days in November, 1943, and the month's total was more than 15 times that of July, 1940. During the 30 days in November, airplanes rolled out of our plants day and night, faster than one every five minutes. Thus, the aircraft industry in producing 8,789 airplanes during the month, produced at an average rate of 338 each working day.

The new production takes on added importance in that the output was composed in large proportion of combat types of which more than 1,000 were four-engine bombers.

Weight True Measure—The true measure of the output is in the weight, not units, and the total weight, including spare parts produced last month was 81,500,000 pounds. This represents an increase of 35 fold from July, 1940.

While Nelson expressed satisfaction with the record, he said emphasis still must be placed on need by the Services for even greater numbers of yet larger planes, as not only must battle losses be made up, but striking power must be continually added to.

In Spite of Obstacles—"The Aircraft Production Board, in cooperation with the Services and the industry, is determined to increase aircraft output in spite of the obstacles presented by the continuing increase in size of planes, by shortages of manpower and by introduction of necessary changes in types and equipment," Nelson said. "This will be accomplished by concentrating its efforts on production efficiency and manpower utilization."

In this, Nelson has the support of the industry. James P. Murray, Boeing vice-president and president of the Aeronautical Chamber of Commerce, in his recent annual report, also pointed out that the increase in numbers is largely in heavier planes, giving a vast increase in average weight of delivered airframes.

Teamwork—Murray pointed out what sometimes is overlooked: that necessarily the engine, propeller and accessory manufacturers and sub-

RECORD-BREAKING PRODUCTION:

The production by General Motors' Chevrolet division of Pratt & Whitney engines is shown in this final assembly plant, one of 17 units in the Chevrolet manufacturing system devoted to this particular project. These engines are being prepared for shipment.

contractors have performed along with the major aircraft manufacturers, since they all go together to make up the finished plane.

Boeing, for example, set an all-time record for production of *Flying Fortresses* last month. Production was almost ten percent higher than for October.

▸ **Contributing Factors**—P. G. Johnson, Boeing president, said the record was made possible through further increases in employment, fuller development of the branch plant program and continued improvement in the company's quantity production technique and manpower utilization. Johnson emphasized that there must be a further substantial increase in December.

Another example of factors contributing to the output was the report of M. E. Coyle, Chevrolet general manager and vice-president of General Motors Corp. He announced a new all-time high for aircraft engine production when Chevrolet Motor division turned out the largest single month's production ever attained in the aircraft engine field.

▸ **Engine Record Set**—Coyle said the mark was set in the production of 1200-hp. 14-cylinder engines, pointing out that Chevrolet's first Pratt & Whitney engine was completed just 20 months ago.

An interesting phase of the month's production picture was an unusual announcement by the Navy Department that they accepted well over 2,000 airplanes and then added "in fact we received almost 2,000 fighters and bombers."

▸ **New Fighter Types**—Fighter production was especially pleasing to the Navy, particularly in view of the fact that the Navy introduced two new types of fighters this year, the Chance Vought *Corsair* and the Grumman *Hellcat*, and such changeovers in production always cause delay.

Navy said companies on schedule or ahead of schedule during November were: Chance Vought division, United Aircraft, the Eastern Aircraft division of General Motors, Douglas, Grumman, Consolidated Vultee, Martin and Vega (now consolidated with Lockheed).

BREWSTER *BERMUDA* ON THE WING:

This unusual flight photograph shows the Brewster Bermuda *dive-bomber, camouflaged and carrying RAF insignia. Wing bombs are carried on missions. Brewster's production, which has been under investigation, has showed marked improvement in recent weeks, say Washington officials.*

Navy Maps Policy on Contract Termination

Knox names Capt. Lewis L. Strauss to head readjustment group.

In order to bring Navy Department activities in line with government policies on contract termination, property disposition and related matters, Secretary Knox has established the position of Assistant Chief of Procurement and Material for Industrial Readjustment and appointed Capt. Lewis L. Strauss to the new office.

Capt. Strauss will have under his direction the establishment, supervision and coordination of all Naval policies and proceedures regarding contract termination and related matters. He will have additional duty as special assistant to the Under-Secretary of the Navy and the Vice-Chief of Naval Operations in order to discharge his responsibilities. Capt. Strauss reported for active duty with the Bureau of Ordnance in February, 1941, as staff assistant to the Chief of the Bureau on technical matters,

Ryan Suggests Plan for Utilizing Surplus Planes, Plants After War

Urges in statement that warcraft be held in reserve for emergency rather than dumped on market; wants U.S.-built factories used as vast storage warehouses.

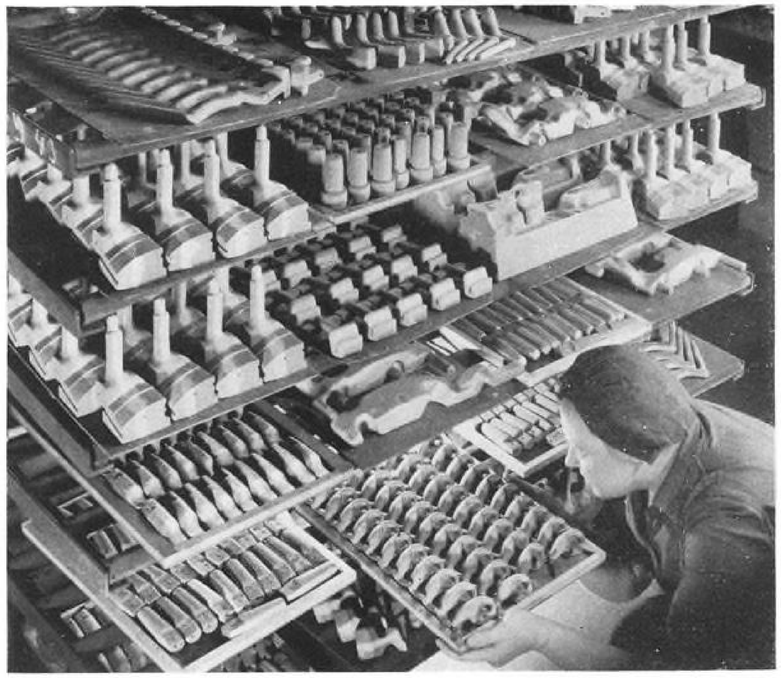
Attitude of the aircraft manufacturing industry on disposition of surplus aircraft and of government-owned aircraft manufacturing facilities—a major problem—is beginning to crystallize to some extent, although there is by no means unanimity of thought.

The industry does appear to be agreed on two points—they want no dumping of surplus aircraft on the market and they are opposed to the government taking over and operating war-built plants for aircraft manufacture.

▸ **Views of Industry**—Various views have been expressed by industry leaders, most of them informally, but T. Claude Ryan, president of Ryan Aeronautical Co. and head of the Aircraft War Production Council, West Coast, has come forward with some concrete suggestions which, because of his position in the industry, are bound to receive close study.

Ryan proposes that factories, built by the government for war production and not needed for airplane production after victory, be taken out of production and used solely as government warehouses for storage of left-over war planes.

▸ **Plant Disposal**—As regards the



MOLDS FOR AIRCRAFT ENGINE PARTS:

Looking like pastries produced by a master baker, these cores form molds into which magnesium is poured at a General Motors plant to cast aircraft engine parts. Those shown above are ready for the oven at a magnesium foundry. "Sculptured" of special core sand, these units are hardened, then aligned inside the molds to create the forms for the casting of intricate engine parts from molten magnesium.

plants, Ryan points out that they were built primarily as weapons of war and that their cost is justified as a part of winning the war. At the same time, he does not believe the cost will have to be entirely written off. They would be of value as reserve facilities, ready on short notice in case of any future threat of war.

Ryan believes these plants, properly cared for, should remain in serviceable condition for 20 to 50 years, depending on their type of construction. Contrary to this view, there are government economists who believe a large number of these plants will have no postwar utility, particularly those of emergency construction.

▸ **Storage Facilities**—Many are adjacent to plants owned by established aircraft manufacturers and Ryan believes it would be wise for the government to make provision whereby portions of these plants could be taken over from the government periodically as required by aircraft manufacturers.

Turning to the storage of surplus warplanes, Ryan contends this would have a parallel advantage for a period of years, somewhat less than that involved in the facilities due to the fact that development in design will make current planes obsolete, in Ryan's opinion "in four to ten years at the outside."

▸ **Emergency Value**—However, even if part obsolete, he takes the position that they would prove tremendously valuable in an emergency because of the large number immediately available and that after more up-to-date types were made, they still would be useful in wartime for transport and training.

On this point, Ryan finds himself in disagreement with some other industry executives who, while opposed to any plan that would bring about destructive and virtually fatal effects on the industry of dumping these planes on the market, also see a disadvantage in having planes in storage as a possible dumping threat over the market.

▸ **Free Enterprise**—As to speculation about the possibility of the government using war-built plants to set itself up in the aircraft manufacturing industry, Ryan expressed the unanimous view of the industry when he commented that "if this happened, it would be, of course, throwing overboard our American free enterprise system."

The fact seems now to be finally accepted, as Ryan points out, that our national security can be safeguarded only by maintaining aircraft manufacturing and operating on a large, healthy basis.

▸ **Takes Medium Ground**—Ryan takes the position of most sound airmen that the future of the industry lies somewhere between the views expressed by aviation enthusiasts who permit their imagination to run wild on one hand, and those prophets of gloom on the other who predict a complete collapse of the aviation industry as soon as war orders cease.

He contends that the rising curve of aircraft production which existed before the war should be picked up at a point higher than where it was broken by the war-imposed demands. Ryan is of the belief that if airline development, private ownership and other commercial utilization take place on the scale that is feasible and within the grasp of the country, there should be a large, sound and continually expanding aircraft manufacturing industry in the United States.

▸ **Outlook** — Ryan expressed his views on essential points in postwar aviation, in a specially prepared paper to meet various requests for aviation prospects. In it he emphasized that we should have no illusions that the almost unbelievably vast scale on which aircraft are manufactured for emergency demands—estimated at seven times the dollar volume ever reached by the automobile industry—can continue and that it must be adjusted to proportions that the peacetime market will justify.

▸ **Readjustment Leader**—"Air transportation and manufacture," he said, "might well lead in postwar readjustment and the re-employment of our people."

In this connection, Ryan holds that a strong air transport system, government-aided in its early stages, but privately operated will keep the aircraft industry strong enough to discourage any other country from trying to outbuild the United States.

▸ **Privately-Owned Aircraft** — The scale on which private-owner aircraft will be used after the war, one of the industry's highly controversial subjects, will depend, in Ryan's opinion, on individual economic prosperity, rapidity with which some of the more important technical developments can be adapted to peacetime uses and whether the government establishes a sound plan of encouraging private ownership and operation of aircraft.

Bendix Speeds Output Of Air Instruments

Reports 375,000 units a month turned out by Eclipse-Pioneer division.

Production of more than 70 basic types of scientific aircraft instruments and engine components—at a rate of 375,000 units per month—has been accomplished since Pearl Harbor by Eclipse-Pioneer division of Bendix Aviation Corp. and subsidiaries.

Raymond P. Lansing, vice-president, in disclosing the production rate, said that measured by dollar volume, the division's total monthly output has increased more than seven times over pre-Pearl Harbor levels, while unit deliveries have increased as much as 200 times over 1941 levels in many instances.

Operates 30 Plants—The division, one of the largest units of Bendix corporation, operates 30 plants from coast to coast. Lansing said the Eclipse-Pioneer division now is a center for engineering, development and manufacture of the greatest variety and volume of precision aircraft equipment produced in history.

One of the chief centers of the production is at Teterboro, N. J., where the division develops and manufactures such equipment as aircraft engine starters, generators, air and hydraulic pumps, auxiliary power units and a complete line of flight and remote indicating instruments. The division also produces magnesium, aluminum and other non-ferrous metal castings in its own foundries and mass produces optical lenses and prisms.

Floor Space Doubled—In two years, Lansing said, the division in its New Jersey plants has doubled its operating floor space and total number of employees. Five new plant structures, in addition to the nine already in operation before America's entry into the war, have been purchased, built or rented in nearby New Jersey communities to accommodate overflow of production and other activities that overtaxed the capacity of the main Teterboro plant and its branches.

An intensive program of subcontracting has played a major role in achieving the required production volume of aircraft equipment developed by the division's engineers.

New Production Equipment—Bendix engineers, Lansing said, have concentrated on designing and developing special production equipment designed to make efficient performance by newly trained workers. He cited 76 designs of various machines devised and 400 machines specially built to simplify manufacturing processes; creation of approximately 30,000 special tools or modifications of tools to lessen complicated production problems, transfer of about 20,000 tools and as many as 40 various complete "model" machines to subcontracting firms and purchase of 2,860 machines and test devices.

New Franklin Orders

Brazil buys Aircooled Motors Corp. engines for primary trainer planes.

Aircooled Motors Corp., of Syracuse, N. Y., has received two new orders for Franklin aircraft engines, indicating increased use of this type on primary training planes.

It was disclosed that the Brazilian government has purchased a quantity of Franklin 65 hp. engines, which will be used to power training planes in which Brazilian military and naval pilots receive primary instruction. These are horizontally opposed, air-cooled engines of the type familiar to light plane operators in this country.

Replacement Engines—War Training Service also has ordered a substantial number of Franklin engines for replacement purposes in its primary training planes. This order includes two models, one 65 hp, similar to those for Brazil and the other a 90 hp model.

These orders are in addition to continuing production of several other Franklin engines designed by Aircooled Motors for the Army Air Forces.

Bigger Glider

First production flight tests of the new Army YCG-13 glider, largest motorless aircraft in the Army Air Forces glider program, were made at Minneapolis, where the huge new craft has been manufactured by Northwestern Aeronautical Corp.

John E. Parker, Northwestern president, said that the craft has a load capacity greater than that of the twin-motor Douglas DC-3, and its function will be "entirely different" from that of gliders previously used in military operations. Test pilot for the flights was to be Lt. Col. Bruce B. Price, chief of the Wright Field glider branch.

Credit for design of the new glider goes to Waco Aircraft, of Troy, Ohio, whose chief engineer, Francis Arcier, has done the major portion of design work for the Army Glider program. The 15-place CG-4A glider, which has already been used in combat, and the earlier eight-place glider, used principally for training, were also designed by Arcier.

The YCG-13 is expected to be taken to Wright Field or to the Clinton County experimental glider base, at Wilmington, O., soon for further tests and flights.

Job Placements

The United States Employment Service during July, August and September found jobs for 227,510 in the aircraft and aircraft parts industries, of which 104,039 were women.

In a report of its activities the Service said 82,190 were unskilled workers. Professional and managerial total was 2,087; service employees numbered 6,179; clerical and sales 19,765; skilled 85,886 and semi-skilled 47,515.

Parts Group Grows

Eight new members have been added during the past month to the already influential Aircraft Parts Manufacturers Association in Los Angeles. They are Aircraft Bolt and Rivet Co., of Pasadena, and seven Los Angeles firms: Continental Specialties Co., Ltd.; New Plastic Corp.; Precision Manufacturing Co.; Quality Engraving Works, Inc.; Southwest Machine and Plastic Co.; Western Arc Welding, Inc.; and Western Screw Products Co.

Labor Saving System

Substantial labor savings in various Douglas aircraft production departments are reported by Henry E. Guerin, plant manager, through a new technique of pre-fabricating raw stock at the mills to specific shapes.

With the mills pre-shaping raw metal materials, he explained, cutting of flat stock at the plant is reduced, saving manufacturing man hours, while eliminating return of trimming and surface scrap effects a saving in transportation.

Guerin said this step is in line with the Douglas policy of utilizing manpower in direct assembly to the fullest, and that it is a refinement of the fluid labor pool dispatch system.

PERSONNEL

★ ★

Two appointments to the research and planning staff of Chicago and Southern Air Lines were announced. New assistant to the director, who has not yet been named, is **Thomas Marshall Miller** (right), for the past 17 months

with Dun & Bradstreet in Houston, Fort Worth and Dallas. His work in this new department of Chicago and Southern will consist mainly of compiling statistical data in connection with new route applications. The other appointee to this staff is **Henry George Howell** (left), who will act as a consultant in planning postwar routes in Mexico. Howell's background in Mexico includes experience as a copilot with the Serviceo Aereo Panini. He has recently been with the U. S. Naval Reserve at Great Lakes where he gave instruction in basic flying. Headquarters of both Howell and Miller will be in Memphis.

Al Williams, former Naval and Marine Corps pilot and well known aviation columnist, is starting on another tour of Army Air Force Flying schools to demonstrate precision flying for cadets. In his capacity as a civilian technical consultant, without compensation, to the Assistant Chief of Air Staff, Training, Williams will demonstrate a routine of spins, rolls, loops and stalls in a fighter type aircraft. Following this, he will explain in informal talks, the importance of such acrobatics in flying fighter planes. He will operate from the Fort Worth, Tex., headquarters of the Training Command.

Bruce Uthus, director of CAA Pre-Flight Aeronautics Program, has been awarded a Doctor of Laws degree by Oklahoma City University for his services to aviation education. This degree was the first honorary one awarded by the University in seven years. The first course in the country for training high school aeronautics instructors was offered by Oklahoma City University, which also has participated in the CAA pilot training program for several years, and operates its own airport.

George R. Corey, Jr., San Francisco area traffic manager for American Airlines, has been appointed general traffic manager of American Airlines de Mexico. The announcement was made in Los Angeles by A. R. Bone, Jr., western traffic manager. Corey has been with the air line since 1938. He is succeeded in San Francisco by **Dall DeWeese**, with American for the past year, and for fifteen years previous, associated with U. S. Lines' Panama-Pacific steamship route.

Mary Winterberger, of Atlanta, Ga., has been appointed chief stewardess for Delta Air Lines.

The daughter of Mrs. L. W. Winterberger of Atlanta, she attended Brenau College in Gainesville, Ga. Miss Winterberger joined Delta in September, 1942, and has been flying as regular stewardess for the past 14 months. She succeeds Miss Annette Adams, who resigned to be married.

NEW WRIGHT FIELD BOSS:

Col. Rudolph Fink, who assumes post of commanding officer of Wright Field, with the departure of Col. E. M. Robbins to an undisclosed overseas post, is shown above. He was formerly assistant chief of the equipment laboratory at the field.

Bullard, Jr. **Hadden, Jr.** **Boon**

Various shifts in station management personnel were announced by United Air Lines. **J. J. McVeigh**, station manager at Allentown, Pa., has been transferred to the dispatch office at LaGuardia Field. He is succeeded by **Benjamin Bullard, Jr.**, former station attendant at Moline, Ill. **E. A. Bauman**, acting station manager at North Platte, moves to Cheyenne as assistant to the station manager. He is succeeded by **S. M. Hadden, Jr.**, formerly at South Bend, Ind., whose place is taken by **G. Daniel Boon**, station attendant at Des Moines.

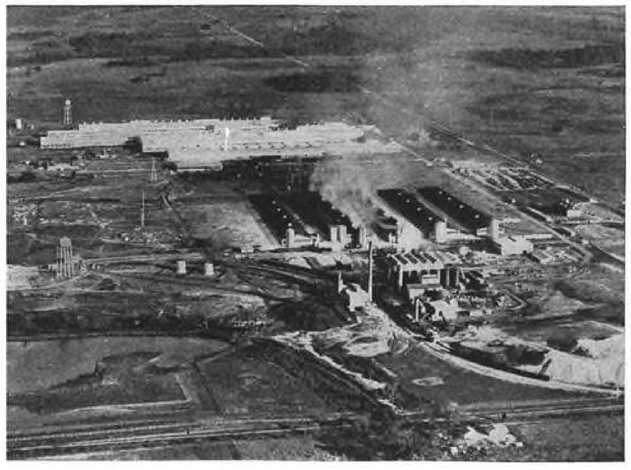
In line with reorganization of airport maintenance facilities both in Miami and along the Latin-American air routes of Pan American Airways System, the office of construction engineer, headed by **Frederick J. Gelhaus** was abolished, and Gelhaus was named superintendent of airport and maintenance for the Caribbean area. Gelhaus was construction engineer for Pan American's first project at Key West. Concurrently **W. F. Godwin** was named division superintendent of airport and maintenance for the Caribbean area, with **W. E. Thomas** as his assistant.

Southern California Soaring Assn. elected **Milton Stoughton**, chief designer in development engineering at Vultee Field, as a director of the organization. Stoughton has been at Vultee Field since July, 1939, and is a former director of the Soaring Society of America.

Maj. John R. MacFaden has been relieved after two years of duty in public relations work at Wright Field. Major MacFaden has been selected to set up a new public relations department for the newly activated Redistribution Branch, Headquarters, Army Air Forces. He will be located at Redistribution Station No. 3, Santa Monica, Calif.

E. L. Huff, formerly electrical engineer at the Brackenridge plant of the Allegheny Ludlum Steel Corp., has been appointed chief engineer of all plants of the corporation, according to a recent announcement by F. B. Lounsberry, vice-president, manufacturing.

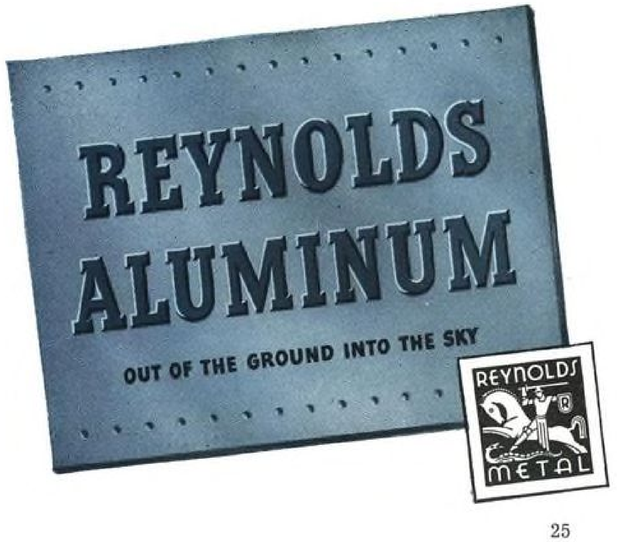
Reynolds Aluminum and finished airplane parts start in this Arkansas bauxite mine. Reynolds mines more bauxite per year than had ever been mined yearly before the war in the United States.



Aerial view of Reynolds plant at Listerhill, Alabama. Here bauxite is refined into alumina; the alumina is reduced into aluminum; and the aluminum is cast, alloyed and fabricated into sheet and rod.

Reynolds rolled aluminum alloy forging stock, tested and Army-Navy inspected, ready to be forged into aircraft propellers.

View of the Reynolds 300,000 sq. ft. expansion of the Parts Division in Louisville. New equipment includes giant 5,000 ton hydraulic press.



John A. Nooney (left) has resigned as treasurer of Chicago and Southern Air Lines to open his own auditing firm in St. Louis. His firm will continue to han-

dle the C and S account and Nooney will act as adviser on tax matters and accounting problems. He joined the airline as treasurer in 1942, was formerly with Touche, Niven & Co. (auditors for C and S) and before that with American Airlines. Until a successor is named, **C. O. Burgin** (right), recently named executive staff assistant, will serve as treasurer. Burgin, whose work will consist chiefly of roving assignments, came to the airline from California, where he was general traffic manager of the Pacific Bridge Co. He also has been associated with the San Francisco Chamber of Commerce, Hercules Powder Co., Luckenbach Steamship Co., Atlantic, Gulf & Pacific Steamship Corp., Pacific Mail Line and the Acme Fast Freight Co.

Brig. Gen. Frank O'Driscoll Hunter, in command of the First Air Force since October, has received his promotion to major general. Gen. Hunter was formerly deputy commander of the Eighth Fighter Command in England and directed the first sweeps of P-47 fighters over enemy-held territory. He was twice wounded in World War I, and holds six citations.

Edward W. Place has been appointed assistant to the eastern regional traffic manager of Transcontinental & Western Air. Before joining TWA last March, Place was associated with various Wall Street firms for 15 years, including four years as senior partner in the investment firm of Keresey & Co. He will serve on the staff of Lee Swigart, recently appointed eastern regional traffic manager.

O. T. Larson, vice-president of Trans-Canada Air Lines, has been granted a leave of absence to fulfill a war assignment in a civilian capacity. Larson joined Trans-Canada in 1937, as technical adviser, meteorology and dispatch, and later was appointed general superintendent of the airline. He has been active in affairs of the Institute of Aeronautical Sciences, the Royal Meteorological Society and the American Meteorology Society. His selection for his new post was made on recommendation of Gen. Arnold, according to an announcement from Trans-Canada.

New executive assistant to the Director of Public Relations, Navy Department, is **Comdr. John L. Collis.** Collis was aide and flag lieutenant on the staff of Commander Minecraft, Battle Force, and was in the *USS Oglala,* flagship when that vessel was lost in the Pearl Harbor attack. He assumed command of the *USS Tracy* in April, 1942, and later that year was assigned to duty in command of a mine division. He was awarded the Legion of Merit for "exceptionally meritorious service" while commanding a division of mine layers. In addition, he has the American Defense Service Medal with Fleet Clasp, the Asiatic-Pacific Area Campaign Medal with three stars and four clasps, and the American Area Campaign Medal.

John Nuveen, Jr., has been appointed Regional Director of WPB's Chicago Regional Office, by Hiland G. Batcheller, operations vice-chairman. Nuveen, a partner of the investment firm of John Nuveen and Co., of Chicago, and formerly chief deputy director of the Chicago Regional office, replaces A. T. Kearney. Kearney will now be special assistant to the operations vice-chairman in carrying out the decentralization program.

A. N. Coleman, personnel manager, has been given the newly created post of director of industrial relations of Harvey Machine Co., Los Angeles. He is chairman of the labor relations committee of Aircraft Parts Manufacturers Assn. and permanent chairman of the association's Personnel Managers Group.

J. G. (Tex) Rankin, who as holder of the international acrobatic flying championship has heard thousands roar their acclaim, had his "proudest moment" recently—pinning on the tunic of his 20-year-old son, Dale, the

silver wings which he won 25 years ago as a World War pilot. Today Rankin heads an Army training school, Rankin Aeronautical Academy, at Tulare, Calif.

William J. Eiden has been named assistant manager of the bomber modification project operated by Northwest Airlines at St. Paul airport. Eiden, who is administrative assistant to E. I. Whyatt, vice-president and treasurer, will aid Ralph E. Geror, acting general manager on the project. Harold Foster is mechanical and production supervisor.

Brig. Gen. Thomas B. Wilson, chairman of the board of Transcontinental & Western Air, now on leave as chief of transportation for the Allied Forces in the Southwest Pacific area, has received the medal of the Legion of Merit. The citation, which accompa-

nied the medal, personally presented by Gen. Douglas MacArthur, read, in part: "For exceptionally meritorious conduct in the performance of outstanding services in the Southwest Pacific area from Apr. 17, 1942 to Oct. 19, 1943. With great foresight and inexhaustible energy, Brig. Gen. Wilson directed the expansion of port installations, the procurement and operation of a considerable fleet of seagoing and coastal vessels and the coordination of all available means of transport by land, water and air. His notable accomplishment in a service so essential to this theater constituted an invaluable contribution to the success of operations."

Roy Backman is Western Air Lines' new district traffic manager in charge of San Diego and El Centro areas. The post was created following CAB approval of scheduled stops for Western at El Centro, Palm Springs and San Bernardino on the Los Angeles-San Diego route. Backman, with Western one year, formerly was associated with the Salt Lake City Chamber of Commerce.

* *

Heavy Taxes More Than Offset Increased Income of Airlines

Net income for year to be decidedly lower than 1942 as result of sharp rise in operating cost and increase in excess profit levies.

By ROGER WILCO

Third quarter reports recently issued by the various airlines continue to show earnings at a high level. It is evident, however, that compared to the same periods a year ago, net profits are definitely on the downgrade.

While revenues have increased, operating expenses, in general, outdistanced the gains in gross income. In addition to the increased operating charges assumed by the carriers, federal income taxes of the excess profits variety are now coming into play.

▸ **Profits Decline**—The decreasing trend of airline earnings can be detected by an examination of the recent quarterly reports. Comparative results for September, however, show a more vivid picture of the changing scene. This is presented in the accompanying table. Representative air carriers are presented and afford a very broad cross-section of the industry. All data are taken from the Civil Aeronautics Board monthly form 2,780 reports.

It can be seen that while operating revenues for each of the seven carriers are up, operating expenses have also mounted. As a result, with but one exception, operating profits are down from 8.6 percent to 59.5 percent for the separate lines. No detail in respect to revenues and expenses is presented but could afford interesting items for discussion.

▸ **Taxes Take Heavy Toll**—In the case of American Airlines where an operating profit gain of 26.1 percent is shown for September, excess profits taxes have taken a heavy toll of earnings. This can be more clearly seen by an examination of the results for the first nine months of 1943, compared with the 1942 period.

In this instance, net profit before federal income taxes for the current period was $7,256,897, an increase of $3,002,318 or about 70 percent above last year. However, federal income and excess profits taxes (less postwar refund credit of $485,000 for 1943) were up from $1,847,100 to $5,210,000, or an increase of more than 182 percent. As a result, net profits for the period were down $360,582, or about 15 percent.

▸ **Trend Downward**—As far as can be determined, the trend of net earnings for the domestic air transport industry, on a comparative basis, continued down for October. This condition supports the position consistently taken by this department in that the airlines will be hard pressed to repeat during 1943 the record earnings of last year.

Airline Officials Buying Own Stocks

Aircraft company executives, however, appear more inclined to liquidate.

Activity by aviation officials in their own securities continues at low ebb, the Securities and Exchange Commission for October discloses. However, airline officials for the most part are prominent on the buying side, while aircraft people appear inclined to liquidate their shares.

Reported was the purchase by T. E. Braniff of 1,500 shares of Braniff Airways, bringing his total holdings to 342,288. It was not so long ago that Mr. Braniff was selling some of his shares to the public. Also revealed are the current holdings of other Braniff officers. This shows holdings as follows: C. G. Adams, 3,000; C. E. Beard, 1,995; R. C. Shrader, 1,500 and H. C. Thurman, 4,209.

▸ **Wolfe Buys WAL Stock**—Thomas Wolfe continues to acquire Western Air Line stock, this time purchasing 400 shares, bringing his total to 5,200. While Francis Hartley, Jr., director, purchased 500 shares to boost his holdings to 4,500, Sigmund Janas sold 300 shares of Colonial Airlines, reducing his ownership to 20,110. In a belated report for September, Shreve Archer, through his trust, shows sale of 100 shares of Northwest Airlines, bringing his total down to 1,200. At one time, Mr. Archer was one of the largest stockholders in Northwest.

Outstanding purchase among the aircraft group was the acquisition by J. C. Markey of 700 shares of Aro Equipment Corp., boosting his holdings to 120,820.

The aircraft stock sales may be summarized as follows:

Company	*Official*	*Shares Sold*	*Balance Held*
Air Associates	Harold I. Crow	1,000	3,235
Bellanca	S. Samuel Arsht	300	200
Jacobs Aircraft Engine Co.	Albert R. Jacobs	1,800	5,232 R. W.

Continental Earns $1.12 Per Share

Airline reports net income of $280,819 in year ended June 30.

Officers of Continental Air Lines have notified stockholders that the company showed a $280,819 net income for the fiscal year ended last June 30. Reached after taxes, this figure equalled $1.12 a share on out-

Comparative Financial Results—Representative Airlines

September, 1943 and 1942

	American	Braniff	Chicago & Southern	Eastern	TWA	United	Western
Operating Revenues							
Sept. 1943	$2,708,767	$476,688	$240,656	$1,279,068	$1,833,171	$2,491,694	$241,542
Sept. 1942	2,328,423	319,376	183,637	1,263,665	1,599,039	2,297,763	207,409
Operating Expenses							
Sept. 1943	2,131,998	333,924	193,949	857,214	1,323,182	1,917,206	193,342
Sept. 1942	1,870,894	195,924	128,495	635,611	836,042	1,216,574	88,531
Operating Profit							
Sept. 1943	576,769	112,764	46,707	421,854	509,989	574,488	48,200
Sept. 1942	457,529	123,451	55,142	628,054	762,997	1,081,189	118,878
Decline in Operating Profit	+ 119,240	10,687	8,435	206,200	153,008	506,701	70,678
Percentage Change	+26.1%	−8.6%	−15.2%	−32.8%	−20.1%	−46.8%	−59.5%

SOURCE: *Civil Aeronautics Board—Form 2780 Reports.*

HUNTER HEATER READIES MOTOR ON COLDEST DAY IN FEW MINUTES

Quick-on Duct Connections Permit Easy Set-Up of "Cold-Starting" Device

BURNS ANY TYPE OF GASOLINE

CLEVELAND, OHIO—Details of a gasoline heater made by Hunter and Company of this city for preheating aircraft engines quickly to starting temperatures in severe weather have recently been released for general distribution. Advantages claimed for the Hunter device are its lightness, simplicity of construction, the ease with which it can quickly be set up and taken down, and the fact that it operates on any type of gasoline at hand.

The Hunter preheater, weighing approximately 45 pounds, delivers 25,000 B.t.u. per hour and re-circulates heated air through the engine housing by means of flexible ducts. This makes it possible to pump hot air over a cold engine in sufficient volume to bring it to an easy starting temperature in a matter of minutes, even in sub-zero weather.

Flexible ducts are provided which connect the heater to the breather openings of an engine cowl, as shown in the illustration. These are so designed that they can be quickly attached with the aid of a simple harness provided with the equipment. Allowance is made for variation in sizes and types of cowl. Special hoods are available for delivery of heat to radial installations.

Rapid heating and recirculation of the air within the enclosed area assures even heating of all parts of the engine. Thus when the intake manifolds have been brought to proper temperature, the oil sump, cylinders and valves also are preheated to a degree that assures prompt action of the lubrication system when the engine starts.

This simple heater can be detached from the flexible ducts and set inside a plane cabin, or used to blow hot air over an area where mechanics are working in low temperatures, or for a number of special services in addition to its main job.

Complete information on the Hunter Preheater may be obtained by writing or wiring Hunter & Co., 1540 E. 17th Street, Cleveland, Ohio.

(Advertisement)

standing stock, compared to 22 cents a share in the previous fiscal year.

▸**Revenues Up**—Commercial operations showed gains, although a decrease of 17.87 percent occurred in revenue miles. Heaviest gain percentage occurred on express revenue, which was 223 percent over the year ended June 30, 1942. Express pounds were 147 percent higher.

The total of 12,797,786 passenger miles for the 1943 fiscal period was 61 percent higher than 1942. Revenue passengers carried were up 46 percent. Passenger revenue was $650,754, or 88 percent higher than the previous year, approaching for the first time in the company's history the level of mail revenue. The mail figure of $685,135 was 7 percent below 1942 mail income.

Despite the drop in mail revenues, increases of 98 and 87 percent were shown respectively for pounds of mail carried and mail pounds operated.

▸**Load Factor of 78 Percent**—Continental's passenger load factor was 78 percent for fiscal 1943, a 92 percent increase over fiscal 1942. With half its equipment gone to the army, the line flew about 80 percent of the previous year's revenue miles.

Terrell C. Drinkwater, executive vice-president, credited three factors for the increase in net income, which he cautioned is "subject to any adjustments that may be made by Army Air Forces auditors of the general accounting office," or through renegotiation of Army contracts. The three were increases in passenger load factors and revenue passenger and express miles, elimination of round trip and air travel plan discounts effective July 1, 1942, and income from army contract operations.

▸**Not Representative of Peacetime**—The report, commended Louis H. Mueller, chairman of CAL's Board of Directors should be analyzed "with care, in view of the company's executive war activities," and not regarded as representative of the company's activities under normal conditions.

Budd Reports Refund Of 15 Million to U. S.

Manufacturing company turns in $9,000,000, wheel firm $5,750,000.

Renegotiation of contracts by the War and Navy price adjustment boards resulted in refunds of about $15,000,000 by Edward G. Budd Manufacturing Co., and Budd Wheel Co.

Edward G. Budd in a letter to stockholders said the refunds included $9,000,000 by Budd Manufacturing Co. and $5,750,000 by the Wheel company.

▸**Heavy Taxes Cited**—Budd said actual refunds after tax credits amounted to less than $4,110,000, explaining that the balance would have been recaptured by the Government in excess profits taxes if the refunds had not been agreed upon.

He said the refunds left 1942 profits of Budd Manufacturing, reported as $5,222,096 before renegotiation, at $2,722,029 and Budd Wheel, $2,752,269 before renegotiation, at $1,142,269.

GM Production Rate $12,500,000 Daily

Fifty percent of output is in aircraft field, Wilson reports.

Approximately one-half of General Motors' current war production is in the aircraft field—complete planes, engines, propellers, subassemblies and parts.

C. E. Wilson, president of General Motors, reports the corporation is producing war materials at a rate exceeding $12,500,000 a day.

▸**2,300 Items Produced**—The corporation, Wilson reports, with its network of subcontractors and suppliers, is producing more than 2,300 separate items for war use. These range from ball bearings so small that it takes 3,000 to fill a thimble to 30-ton tanks. There are also such items as machine guns, Wildcat fighter planes, Avenger torpedo bombers, aircraft and antiaircraft cannon and aircraft engines.

Ramsey Lauds Corsair

Rear Admiral DeWitt C. Ramsey, chief of the Bureau of Aeronautics, in ceremonies awarding the Army-Navy "E" to the Chance Vought division of United Aircraft, told workers the *Corsair* "is making aviation history."

He cited our specific reports recently received from a Marine Air Wing: "The *Corsair* can climb faster and better and has more speed than the new *Zero*. Moreover, we are armored so much better than the *Zero* that its fire does not knock us down. In our first big encounter with enemy craft recently, four *Corsairs*, piloted by Marines, partly destroyed and turned back a flight of 16 twin-engine bombers escorted by 28 to 30 *Zeros*.

COMMENTARY

Axis and Allies Step Up Research To Produce Best Fighters, Bombers

Germany, fighting on interior lines, has edge on logistic situation but Allies are gaining upper hand in matter of numbers.

Until the war is concluded by a clean-cut decision, the struggle for better fighters and bombers will continue at breathles speed. At present, the Axis powers have a decided edge in the logistic situation, fighting on interior lines, and able to shift their air strength with reasonable facility as various points are threatened.

In the matter of numbers, the Allies, despite 3,000- to 15,000-mile supply lines, are beginning to have the upper hand. As to quality, in spite of the undoubted excellence of the Luftwaffe's latest ME-109 and FW-190 series, the JU-88 and ME-410 day and night fighter-bombers, and the improved Jap fighters, *Hamp* (formerly *Hap*), *Tojo* and *Tony*, the Allies probably have a slight edge. However, Germany's extensive aeronautical research facilities, equal to at least four prewar "Wright Fields," may pull some rabbits out of the hat which, temporarily at least, could throw serious monkey wrenches into the all-out air campaign just now getting into high gear.

▸**Speedy Improvements**—In modern air warfare, speed in adapting the latest battle-tested improvements is of the essence. It is a fact that America's gigantic aircraft production set-up, now racing at the breath-taking speed of a finished airplane every five minutes, soon to attain a rate of 10,000 per month, is also elastic enough so that the improvements come through so fast that in the combat planes each day's production of a particular model may be slightly better than that of the previous day.

▸**How the Changes Come Through**—To get the life-or-death improvements into the mill with all possible speed takes organization and teamwork of the highest order. At the top level in the Army Air Forces, two divisions of the Air Staff share this important responsibility. One is headed by the Assistant Chief of Air Staff, Materiel, Maintenance and Distribution, Maj. Gen. Oliver P. Echols, who has just returned from an extensive tour of the air combat theaters. Gen. Echols, after observation and consultation with our leading air officers on the spot, has up to date information on the performance of the planes, engines and related equipment now in operation, which were designed, procured, tested and modified under the jurisdiction of AAF's Materiel Command, Wright Field, the Proving Ground Command, Eglin Field, or the Air Force Tactical Center, Orlando. At all of these places returned airmen from the fighting fronts are giving the fruit of their hard-won experience in developing the best types of equipment and tactics for fighting the Japs or the Nazis.

▸**Pleasing the Customers**—Another outfit, not so well known, is the office of the Assistant Chief of Staff, Operations, Commitments and Requirements (O, C & R), Brig. Gen. Howard A. Craig. The comprehensive functions of this division include, among others, that of finding out what the boys who are fighting our war in the air really want, and then seeing that they get it. Reports are constantly flowing in, and these may be checked with newly returned officers and experts.

Through Gen. Echols' Materiel, Maintenance and Distribution division (M, M & D), the changes can be made with a minimum of delay through the distinctive American system of modification centers set up by each aircraft manufacturer, maintained by the company or by others, whichever is the most efficient in any given case. Gradually the changes are worked into the next series on the regular production line and in the meantime still further improvements are being slipped in at the "mod centers." Examples include additional guns, change of gun position, electric turrets in the nose to meet head-on attacks, long range drop tanks, improvements relating to instruments, safety, emergency escape, deadening of sound, new spots for armor plate, etc.

▸**General Arnold's "Musts"** — An

INSIDE AN AIRCRAFT CARRIER:

Hangar deck on a new U. S. Navy aircraft carrier, seldom photographed, is shown here in temporary use as a storage hold until supplies can be put in proper places. Photo gives an indication of the staggering amount of material needed by a flat-top for a long mission. Planes are in the background.

outstanding example of the value of first-hand observation and report is the list of "must" improvements Gen. Arnold dropped on the aircraft industry after his visit to England in 1940. It is the rapid incorporation of these features which enabled this country to catch up so rapidly, and which served to give our airmen a greatly needed advantage during the early delaying actions of the first few months of our war with Japan. These included self-sealing fuel tanks; armor protection for pilot, crew and vital parts of the plane; more and heavier calibre guns and aerial cannon; power-operated turrets for bombers; supercharged engines and improved oxygen supply for high altitude operations; and improved bombsight, automatic pilot and navigational instruments for long-range, all-weather operations. Many of these were worked in quickly; others, requiring longer research and development, are just coming into the picture. All are a result of battle-tested ideas.

▸ **Further Improvements Ahead**—It is impossible to get full details of many items of which fascinating hints have been dropped from time to time, but which will be coming along on the warplanes of the not too distant future. Six-blade counter-rotating props, engines of 2500 hp. and higher, more powerful fuels, pressurized cabins, remote fire-control, jet propulsion and rocket devices—these and other items are the subject of strenuous research by all the leading powers.

—NAVIGATOR

Planes Score Heavily In U-Boat Defeat

Major role revealed in assumption of anti-sub patrol job by Navy.

Coincident with announcement that the Army Air Forces had withdrawn from anti-submarine operations and that the Navy had assumed full responsibility is a compilation showing that aircraft scored heavily in submarine sinkings in August, September and October.

During this period, 21 enemy underseas craft were sunk by carrier-based airplanes, one by a long-range Navy patrol plane, one by Army and Navy aircraft working together, one by carrier and surface craft working together, one by Army aircraft and two by destroyers for a total of 27. Sixty submarines were counted as officially destroyed by United States and British forces during the three months.

▸ **90 Sunk in Three Months**—Navy officials pointed out that during May, June and July, United States and British forces destroyed 90 U-boats. U. S. Naval surface craft claimed two, naval surface craft and naval aircraft combined one, carrier-based planes nine, an unreported navy type, one, five by Army aircraft and eleven by Navy long range patrol planes for a U. S. total of 29.

▸ **Navy Takes Over**—The Navy has now acquired sufficient planes and trained sufficient crews to take over complete responsibility against the submarine. Army planes operating against U-boats were all land-based and operated in connection with several theaters of operations.

Jurisdiction in the battle against the submarine has been a lively discussion topic since Pearl Harbor. An outgrowth of the First Bomber Command, which since Dec. 8, 1941 has been engaged in anti-submarine activities, the Army Air Forces Anti-Submarine Command was activated in October, 1942, under Brig. Gen. Westside T. Larson.

AAF'S FLYING NURSES ARE NOW IN CHINA:

These scenes at the Army Air Forces' School of Air Evacuation show stages in training flight nurses for transporting wounded troops. The Army has just announced that the first unit has arrived in China. Equipment for training includes a mockup of a DC-3, in front of which aides are shown classifying patients by means of white field tags. Other scene pictures a sergeant demonstrating to flight nurses how to convert a standard Douglas transport into an ambulance plane in eight minutes.

Free Enterprise

THE OPPORTUNITY AND OBLIGATION TO COMPETE

WE can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.

* * *

Free enterprise does not imply the freedom to use any or all means to make a profit. It does not mean the right to monopolize. *It means the opportunity and obligation to compete.*

Competition requires *independence of action, free access to the market,* and *no large degree of control over the price* by any buyer or seller. In general, the larger the number of sellers and the more easily buyers can shift from one seller to another, the higher will be the degree of competition (and vice versa for buyers).

But let us not get too academic or go off the deep end. We cannot have perfect competition. We cannot subdivide businesses and labor unions into tiny units to make a multitude of buyers and sellers in each market; we cannot reduce our rich variety of products to a few rigidly standardized items; we cannot educate people to judge quality precisely; we cannot eliminate the costs of bridging space between buyers and sellers. On the other hand, have we gone as far as is practical and desirable in these directions?

We cannot even have a system of highly "sensitive" prices, that is, prices which fluctuate immediately in response to every minor change in demand and supply. This would occur in the dream world of competition-to-the-nth-degree. It cannot occur in the real world, or even in the ideal world of competition best suited to physical facts and human qualities. The economies of large-scale enterprise, the need for adapting products to human wants, the costs of transportation and the costs of issuing and acquiring market information put severe limits on price sensitivity.

Economists tell us that if prices were extremely sensitive, business booms and depressions would be much less severe—provided our stock of money remained fairly constant. But with the somewhat limited degree of sensitivity which is practicable in the economy, price and wage changes cannot prevent severe declines in business activity. ***We cannot count on competition alone to cure depressions.*** We must look mainly to other kinds of measures to prevent mass unemployment of men and machines.

If we cannot have prices which fluctuate with every small change in demand and supply conditions, we can work toward—and achieve, if we really want it—a system in which prices and wages are at least roughly responsive to long-run changes in demand and supply, a system in which most markets are not dominated by individual businesses, groups of businesses, labor unions, or farm organizations, and in which prices and wages are maintained at levels consistent with free access to markets and to jobs.

In any kind of an economic system there must be some means of determining prices, wages, and profits, and of bringing labor and capital into employment in the industry and place where they are most needed. There are two ways to do this: by administrative fiat or by the impersonal processes of the market. The first of these is typical of the totalitarian state; it frequently involves destruction of individual freedom or fumbling mismanagement. During the war all of us have had some experience with patronizing and paternalistic treatment by the state; we have found out what it means to be pushed around by bureaucrats; and we have discovered that the political determination of prices, wages, and profits leads to chaos when self-interest supersedes the fine fever of patriotism—as it eventually does. I do not mean to imply that we can do without controls over prices, production, and distribution in time of war; but I do suggest that we can learn something from their operation. Even with a united national purpose these controls work badly when human abilities are inadequate for the superhuman task, when personal or departmental jealousies crop up among officials, and when pressure groups try to prey on the rest of the public. Every day more Americans are beginning to understand why our forefathers feared the caprice and tyranny of power.

The impersonal processes of the market in determining prices and wages and in allocating productive resources will, in normal times, save us from the fumbling of bureaucrats and from the Babel of confusion, uncertainty, and annoyance produced by their regulations. But these market processes will not save us from paying toll to those who monopolize and restrict entry to markets or jobs.

If we want an economy in which we are free to try out new ideas, develop new products, and introduce more efficient methods of production, if we want an economy in which there are great opportunities for men of imagination, inventiveness and energy, if we want an economy wide open to progress, then we must have a free field and fair competition for all comers—without collusion as to prices, markets, or production. This is the only basis on which we have a right to demand freedom from governmental regulation for ourselves and on which we can combat monopolistic tendencies in other quarters.

Let us stand squarely for the principles of the anti-trust laws and against all collusion and combination in restraint of trade. Let us insist that the government review with a critical eye every combination and consolidation which might restrict competition. Let us face frankly the problems of economic power arising out of price leadership and encourage every honest effort to find means to deal with them. Let us not shrink from questions as to whether some great aggregations of plants are too large for efficiency, free entry into the industry, and a free price. While we resist the efforts of the Department of Justice to extend the anti-trust laws by far-fetched and distorted interpretation, and while we fight every attempt to use them as a tool of persecution, let us cooperate in sincere efforts to modernize these laws and extend them by specific legislation to monopolistic practices they cannot now reach. I do not have a simple formula for this, but I believe we must try to find one.

We can then, better face the problem of the growing monopoly in labor which is threatening to make the free enterprise system unworkable. Today labor is going through a stage of empire building reminiscent in some ways of a similar stage in business three-quarters of a century ago. Witness the same buccaneering spirit, the same concentration on selfish interests, and the same disregard for the public welfare. Business leaders learned the hard way that the public will eventually rise up against those who prey upon them. Will our labor leaders be wiser? The right to collective bargaining to protect the weak position of the individual employee is one thing—but the grant of unlimited monopoly privilege to combine into a private government which can dictate its own terms to businesses, industries, communities, and even to the government itself, and which can start a wage-price spiral such as to hinder the war effort and make full prosperity impossible in time of peace is something quite different. We need to find a middle way which will prevent employers from exploiting employees but which does not sow the dragon's teeth. The exercise of arbitrary power by labor threatens not only business, but also all workers outside the unions and all those dependent on pensions and savings for their existence, and ultimately, of course, the well being of union workers themselves.

The idea that the labor problem can be solved if great, powerful organizations of employers will sit down with great, powerful organizations of labor is a delusion. If our experience in the N.R.A. and in the war teaches us anything, it is that the best that can be expected in the long run from such a situation is an armed truce with intermittent civil war. And every truce would be a monopolistic arrangement to take advantage of those not members of the great organized groups. Business and labor unions, whenever confronted with postwar readjustments that are unfavorable to them will be sorely tempted to protect their own special interests at the expense of the public. There will be efforts on the part of businesses, abetted by labor unions, to limit productive capacity, to raise tariffs, to obtain subsidies, and to maintain prices at artificially high levels. The unions will oppose labor saving changes and will seek higher wages even in areas and industries of surplus labor. Already demands are emerging for direct joint action by business, labor, and agriculture to solve the transition problems of special concern to them. While these groups should have every opportunity to register their own self-interest, we cannot entrust our fate to decisions made by pressure groups. If experience is any guide, such coalitions will be almost certain to restrict opportunities for progress and expansion, to exploit the public, and ultimately to injure even the businesses, workers, and farmers included in them. We cannot afford a postwar N.R.A. Resort to temporary government regulation in the transition from war to peace may, however, be necessary in cases of great hardship.

We can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.

President, McGraw-Hill Publishing Company, Inc.

CAB Grants 3-Year Certificate To Essair for Test Feeder Route

Continental also granted 400-mile extension for service from Hobbs, N. M., to San Antonio.

By BARBARA FREDERICK

A "test case" in the operation of feeder airlines was authorized by the Civil Aeronautics Board last week. Essair, Inc., of Dallas, is to be "guinea pig" in the situation which will be studied carefully by CAB as a help in solving the difficult economic problems presented in the development of local air service.

At the same time, Continental Air Lines' system also was increased by about 400 miles with a three-year approval of service from Hobbs, N. M., to San Antonio.

Stating its desire to supplement its study of local service by "the accumulation of actual experience with new types of operation," the Board granted a temporary certificate of convenience and necessity for the transportation of persons, property and mail over a new route in Texas, to be known as Route 64.

▸ **Houston to Amarillo**—Effective from Nov. 5, 1943, until Dec. 31, 1946, the certificate calls for service between Houston and Amarillo via Austin, San Angelo, Abilene and Lubbock. It is subject to the condition that each point be served on each schedule. The certificate is the first to be granted Essair, and is the first authorizing a true "feeder."

President of Essair is Sam W. Marshall, now a major in the Army Air Corps. His friends say he is the originator of the feeder air service idea, and his company's application has been on file with CAB for over three years. Marshall is a flyer, a graduate of Massachusetts Institute of Technology, and has engaged in various banking and financial enterprises in Dallas. As a private engineer, he has had experience in laying out plans for community services of various sorts.

Serving as president, while Major Marshall is on active duty, is Gen. R. C. Marshall, Jr., Quartermaster General and head of the Construction Corps of the Army during the World War.

▸ **Conference**—Vice-president of the company is E. Y. Holt, a Texas business man, formerly in the Bureau of Internal Revenue for many years.

Company plans meetings within the next ten days to line up operating management, investigate available equipment, and discuss all other details to get the project under way. Originally it had planned to use *Lodestars* in their operations, but there is now some discussion of using Douglas planes. The company is said to be amply financed.

▸ **Texas Cases**—The decision to grant Essair this temporary certificate was part of a disposition by the Board of the so-called "Texas cases." Other orders concurrently issued allowed Braniff Airways to include Austin as an intermediate point on Route 50, between Houston and Laredo.

Continental Airlines certificate for Route 29 was temporarily amended, for three years, to give air service between El Paso and San Antonio via Hobbs, N. M., Midland, Big Spring and San Angelo, Tex. Service on this route and to Amarillo by Braniff is not to be started until the Board notifies the airlines that national defense no longer requires a delay.

▸ **AA Application Denied**—CAB denied the application of American Airlines to serve San Antonio on its temporary route between Monterrey, Mex., and El Paso and Fort Worth. This decision was opposed by Board Member Harllee Branch, who felt that the granting of American's application was definitely "required by public convenience and necessity" owing to the close community of interest between El Paso and San Antonio and of the latter "perhaps more than any other American city" with Monterrey and Mexico City.

"LUCKY 7" BACK FOR NEW PAINT JOB:

This Consolidated C-87—the Lucky 7*—is one of the Douglas C-54's and Consolidateds being used by American Airlines on Air Transport Command overseas contract flying. The ship is shown as it received an overhaul, repair and new paint job at La Guardia Airport, New York.*

Hawaiian Airmail Tops All Records

Navy statisticians calculate that the 841,742 pounds of air mail handled by the Navy Postal Service at Pearl Harbor during October was the largest amount of mail transshipped by air through any port in one month. It's an argument for V-mail.

Traffic Overload

Chicago and Southern Air Lines discloses that 17,108 revenue passengers could not obtain space during July, August, September and October this year. Shortage of equipment is blamed. Like other airlines, the company, with only two-thirds of its former equipment, is flying more miles daily than it did in peacetime.

These letters to and from men at sea and advanced Pacific bases weighed 569,424 pounds more than the July volume, first comparative month, and represented 383,460 pounds of mail brought to Pearl Harbor by air and 485,282 flown out.

▸ **Cooperation**—For the same month, the Fleet Post Office in San Francisco routed 193,000 pounds of air mail to overseas destination, and the figure at New York was 177,000 pounds.

In connection with the big Hawaiian transshipment, the Director of Naval Communications cited "excellent cooperation" by the Naval Air Transport Service, Army Air Forces, Army Transport Command and Army Postal Service.

UAL Seeks Routes In Northwest Area

Enters five applications prior to opening of pre-hearing talks.

On the morning of a scheduled pre-hearing conference on the original application of Northwest Air Lines for service between the Twin Cities and New York and later applicants or intervenors, United Air Lines filed five applications covering most cities that might be considered in any consolidated hearings on or adjacent to this route.

United asked to have its Route 1 certificate amended to include service between Toledo, Milwaukee and Moline, and between Chicago and Milwaukee; a further amendment to this route would include Rockford, Ill., Dubuque and Waterloo, Iowa, as intermediate points; and a third amendment would permit service to Gary and Elkhart, Ind., Sandusky and Lorain-Elvira, Ohio.

▸ **Two More Applications**—United filed two further applications, one from Cleveland to Montreal; the other from Cleveland to Newark-New York. The former would go via Erie, Buffalo, Rochester and Ottawa; the latter requests as intermediate points Ashtabula, Ohio, Erie, Pa., Jamestown, N. Y., Bradford, Pa., Elmira and Binghamton, N. Y., and Scranton-Wilkes-Barre, Pa.

Two other carriers filed new applications. Colonial Airlines throws its hat into the Caribbean ring, and Chicago and Southern Air Lines applied for a route from Memphis to New York via Chattanooga, Greenville, Greensboro-Winston-Salem, High Point, N. C., Richmond and Washington.

▸ **Fixed Base Operators**—Four fixed base operators, now training pilots and mechanics under WTS training programs for the CAA or under direct contract to the Army, applied for local feeder and pickup routes. Each stated that in laying out its routes it had attempted to avoid paralleling any established routes.

The applicants were Aircraft Sales Co., Fort Worth, whose president, Leslie H. Bowman, is president of the National Aviation Training Assn.; Roscoe Turner Aeronautical Corp., Indianapolis, Ong Aircraft Corp., Kansas City; and Iowa Airplane Co., Des Moines. Each applied for several routes in its immediate territories, with numerous intermediate stops.

Other applicants included the Cambridge Taxi Co., which wants to provide helicopter taxi service from Cambridge, Mass., to any points in the New England States and New York. The Boston, Worcester and New York Street Railway Co., of Framingham, Mass., seeks to supplement its bus service with helicopters in Massachusetts and Connecticut. Another common carrier applicant was the Rocky Mountain Motor Co. of Denver, which requested two routes from Denver to Grand Lake, Colo., and Fort Collins, Colo.

Proposing to use planes such as the Curtiss-Wright "Commando," the Great Lakes Air Transport, Inc., Buffalo, wholly owned subsidiary of Great Lakes Transit Co., wants to carry property and mail, only, over the established civil airways on four main branches, extending roughly from New York to Omaha and from Boston to Washington.

Helicopters would bring customers and their property to and from the roof of the Milwaukee Boston store if its application were granted. Gliders, airplanes and helicopters carrying cargos of fresh produce to market and transporting raw and cooked food, seeds, flowers, drugs, medicinal ingredients or other perishables were proposed by Producers' Air Lines, Toledo, in another application.

Amendments to previous applications were sought by West Coast Airlines, Seattle, and Southair, Inc., Memphis. West Coast asked to carry passengers on the ten routes previously applied for. Southair made numerous changes in its former application, eliminating several routes and changing or adding intermediate points on others.

7 DC-3's Released

The War Department has released seven DC-3's, two of which have been allocated to American Airlines, two to Eastern Air Lines, two to United and one to TWA. They bring to 20 the planes turned back for commercial service since June 11 by the Army Air Forces.

State Rights Faces Test in PCA Action

AA also protests Michigan Board's authority in granting helicopter franchise.

Pennsylvania - Central Airlines' challenge of the Michigan Board of Aeronautics' authority in granting a helicopter route franchise to Great Lakes Skyways, Inc., is seen by the state board as a test of state's rights, according to word from Lansing.

It was disclosed in Washington, meanwhile, that American Airlines, also has protested the Aeronautics Board's action, to Gov. Harry F. Kelly.

▸ **Protest**—PCA's petition, protesting the franchise granted to the Great Lakes Greyhound subsidiary to operate between Detroit, Flint, Saginaw and Bay City, was addressed to the Governor, Attorney-General Herbert Rushton, and State Highway Commissioner Charles M. Ziegler. The Governor's legal counsel said the move was unprecedented, and expressed uncertainty how it could be brought before the State Aeronautics body for consideration. The State Board also established a precedent in giving a surface carrier authority to enter air operation.

"Our order has been issued, and I don't see how a petition which anticipates damages before they occur can hope to countermand that order," said Thomas E. Walsh, acting director of the Board. PCA's appeal claimed the Board granted to a "bus company with no air experience" a route serviced by PCA prior to April, 1942, and since suspended because of the war.

▸ **Postwar Plans** — Walsh asserted that Greyhound Skyways received the Board's charter because of "extensive" postwar plans it had widely publicized. He had considered the route "open," he added, because PCA had not indicated plans to resume service, and therefore he had not deemed a hearing necessary.

"This is a brand new field and one that will boom after the war," Walsh said. "It will have more and more bearing upon the state itself as a commuter air service develops. Our Board welcomes a chance to see where it stands with relation to federal authority."

▸ **Appeal** — PCA told the Appeal Board — the Governor, Attorney-General and Highway Commissioner —it found it "most difficult to comprehend why it is so necessary to rush the granting of certificates to a bus company to transport passengers by air when no equipment is presently available and when development of the helicopter and other small planes suitable for local, commercial use is still in the experimental stage, with the commercial and economic application open to considerable conjecture.

In another development on the State aviation front, Gov. Spessard Holland of Florida appointed a seven-man interim citizen committee on aviation to study probable trends of postwar aviation in Florida. The Committee, authorized by this year's legislature, will submit recommendations to the State lawmakers when they meet again in 1945.

Hearings May Reopen On N. Y.-Boston Line

CAB notified of change in rails' holdings of Northeast stock.

Hearings on applications to fly the New York-Boston route, recently concluded after sessions in both New York and Washington, may be reopened.

Northeast Airlines has notified the Civil Aeronautics Board that the Boston and Maine and Maine Central Railroads have disposed of 100,000 of the 150,000 shares of Northeast stock that they owned when the hearings closed.

▸ **Control**—The question of "control" of the airline by these railroads had played an important part in the hearings and an even more important one in the brief filed by Public Counsel Henry L. Hill and D. Franklin Kell. The brief stated that "in the absence of any issue of control . . . the public interest would best be served by authorizing the operation of Northeast between Boston and New York."

However, as public counsel felt unconvinced that the railroads did not control the airline, they recommended that the application of Colonial Airlines for this route be granted. Other lines also have applied.

▸ **Stock Disposal**—To give counsel opportunity to question Northeast and representatives of the railroads about the disposal of the stock, it seemed certain that the case would be reopened, probably after the first of the year.

S. J. Solomon, president of Northeast, refused to disclose the purchasers of the stock prior to further hearings.

AA Cites Saving In Reclaiming Oil

Company recommends re-use of lubricants by armed forces.

American Airlines, drawing on its own experience in use of re-refined lubricating oil, recommends reclaiming of oil by the armed forces as a lubricant-saving device.

O. E. Kirchner, chief AA engineer, suggests re-refining units at or near all key air bases, and points out that crankcase oils drained from ground or aircraft automotive equipment operated by the AAF, Navy Quartermaster Corps, or Ordnance Department might readily be re-refined to new oil specifications. In treating drained crankcase oil in the field, he says, no attempt at re-refinement should be made. Instead it may be reclaimed. Oil drain periods also may be extended.

▸ **25 Percent Re-refined**—About a fourth of the oil used by the airline throughout its entire system is re-refined lubricating oil, Kirchner states. The line started re-refining its lubricating oils in 1930, under direction of Gilbert K. Brower, materials engineer, at Dallas, Newark, Cincinnati, St. Louis and Chicago, but because 90 percent of all oil changes are made in New York at approximately 100-hour oil change periods, all such operations are now carried on there in one unit.

American is using over 8,000 gallons of re-refined oil a month in its aircraft engines operating out of New York, compared with 3,000 gallons between August, 1940, and May, 1941.

▸ **13,000 Barrels a Day**—Estimates have been made, according to Kirchner, that demands for aircraft lubricating oils will reach 13,000 barrels a day by the end of this year. Re-refining, he believes, will meet much of the demand, since "if only 10 percent of the average amount of this fuel oil requirement were re-refined, there would be an annual saving of 15,000,000 gallons of aircraft engine oil." Re-refinement of heavy duty motor oils used by other branches of the service, he said, would send the saving into "astronomical figures."

American has made no actual flight tests to compare operating experiences of an engine on re-refined oil with one on new oil, since re-refined oils are not used this way in service. "Our flight experience," AA's chief engineer reports, "has been based on using re-refined oils as produced in New York, in the same manner as new oil would be used: for refills and makeup."

Airline Operates Oil Re-Refinery: *American Airlines reports approximately 25 percent of the oil it uses is re-refined lubricating oil. Here Gilbert K. Brower, materials engineer and director of the program, watches a worker make an adjustment at a re-refining machine at New York.*

SHORTLINES

▸ A commission to regulate air transport was among the major principles in a postwar program advanced by National Association of Manufacturers at the Second War Congress of American Industry, sponsored by NAM in New York last week.

▸ In Chicago, Rep. Randolph (D., W. Va.) recommended immediate postwar construction of 15,000 to 20,000 new airports and $25,000,000 worth of highway flight strips, in addition to 50,000 to 60,000 miles of new express highways, to "take up the unemployment slack." He told the American Association of State Highway Officials that the United States can be expected to have 500,000 private airplanes within five years after the end of the war.

▸ Northwest reports it carried 10,062 revenue passengers in October, its planes setting a new record of 7,064,978 revenue passenger miles, 65,000 ahead of the previous high in August.

▸ Compania Mexicana de Aviacion, Pan American affiliate in Mexico, has added to service on its routes to this country and Cuba "to meet increased wartime air travel needs," PAA announces. Three daily flights have been started between Mexico City and Monterey, and service is daily between Mexico City and Laredo, Tex. Service from Mexico City to Havana and Miami has been increased to four times a week.

▸ Pennsylvania-Central is planning to open a new city ticket office about Dec. 15 in the Hotel Cleveland at Cleveland. PCA claims it is carrying almost a third of all air mail from Washington, having taken out 146,836 of the total of 487,694 pounds shipped from the capital in October.

▸ Mayor La Guardia told 200 persons who gathered to celebrate the fourth anniversary of La Guardia Field that the airport now has 5,000 more employees, exclusive of military operations, than it had in 1940. He estimated that the current year will see 6,500,000 more mail pounds and 3,500,000 more air express pounds leave the field than during the first year of its operation, and predicted that 100,000 more passengers will use the field this year than the 800,000 in 1940.

▸ Lehman Brothers have acquired an interest in Air Express International Agency, Inc., and affiliated companies, Chester M. Mayer, Agency president, announces. Paul E. Manheim of the banking firm has been elected a director. Air Express International Agency was organied in 1936 and has arrangements with Pan American Airways, American Export Airlines, TACA, British West Indian Airways, Aerovias Brasil, and KLM, Royal Dutch Airlines. Its offices are in New York, Miami and New Orleans.

▸ Panagra has rearranged schedules over the principal sectors of its South American air network to increase passenger and cargo service, using the third of three DC-3A's recently allotted it to help on the traffic between its Balboa and Buenos Aires terminals. Panagra says the flexibility of the new equipment will permit its use alternately for scheduled passenger-mail-express service and all-cargo service started 15 months ago.

CAB ACTION

● CAB ordered a consolidation into one proceeding of all applications for air service to Mexico, Central and South America and the Caribbean, on which prehearing conferences recently were held. This involves 31 applications, or portions thereof, filed by 18 companies.

● W. R. Grace & Co. was granted permission to intervene in the Caribbean hearing. Grace Line's petition to intervene had been vigorously opposed by airline counsel at the prehearing conference.

● CAB concurrently denied the motion of Royal Dutch Air Lines (KLM) for consolidation and hearing of its application (docket No. 1187) with the Caribbean hearing. The Board in a further order denied KLM's motion to intervene in this proceeding.

● The interlocking relationship between American Export Airlines and John Elliot Slater, who is executive vice-president of the airline and also of American Export Lines, was approved by CAB.

● Western Air Lines filed petitions to intervene in United Air Lines application to include Klamath Falls, Ore., as an intermediate stop; in Landon Lawson Clevinger's application for service between Seattle and Astoria, Ore.; and in Salt Lake Transit Co.'s application to provide helicopter service on various routes out of Salt Lake City.

● CAB consolidated into one proceeding many applications on file for the general area extending through Georgia and the Carolinas to Pittsburgh and the Great Lakes on the north and Jacksonville and Miami on the south. Companies whose applications have been consolidated are: American, Eastern, National, Delta, PCA, State Airlines Air Transport Corp. Virginia Central Airlines, Carolina Scenic Coach Lines, Hamish and Robert F. Turner, and the City of Spartanburg, S. C.

● A cross motion was filed with CAB by W. R. Grace & Co. in the amended application of Pan-American-Grace Airways, which seeks a route terminal in the United States. Grace objects to the Board's hearing oral argument on a motion of Pan American Airways to dismiss the Panagra proceeding for want of jurisdiction. Grace Line points out in its cross motion that, since Pan American apparently seeks to inject into its motion the entire question of the alleged limitations upon the scope of Panagra's corporate powers, much time could be saved by joining this question with the merits for consideration. Grace points out that there was much discussion on this issue during the hearings, which has been incorporated into the record, and also suggests that postponement of oral argument might give the CAB the benefit of any amendatory legislation which might be passed in the interim.

● City of Detroit petitioned CAB to be allowed to intervene in all of the 37 applications, representing 28 interests, which have been filed that suggest Detroit as an intermediate or terminal point. The city gave as one of its reasons for intervention that it now owns and operates the only airport regularly used by scheduled air lines and is a moving party in a court case seeking to condemn property for establishment of a second community airport.

● CAB issued an order granting the Air Line Pilots Association, International, leave to intervene in the Western Air Lines control of Inland Air Lines case.

● Interlocking relationship of David Watson as assistant treasurer of Hawaiian Airlines, Ltd., and serving in the same capacity for the Inter-Island Steam Navigation Co., was approved by CAB.

● In answer to various inquiries to both the Department of State and the CAB as to whether individual carriers could make direct approaches to a foreign government or a foreign air carrier with a view to obtaining landing rights or making operational arrangements, CAB issued a memorandum which outlined the reasons for acquisition of landing rights in a general way by the State Department. CAB stressed that this practice was not to be arbitrary, and that any carrier was at liberty at the time of hearing before the Board to present any unusual or compelling reasons which the carrier feels would justify its conducting independent negotiations abroad.

Main confusion CAB seeks to avoid is 1) embarrassment of several carriers competing with each other in negotiations with foreign governments; avoiding a carrier having completed negotiations with a foreign government and then being denied a certificate of convenience and necessity by CAB; avoiding possibility of exclusive arrangements being negotiated by an individual carrier which would restrict CAB in its power of selection of the operating carrier. In this last matter, CAB pointed out that it could not be influenced in its selection by consideration of special or private arrangements previously concluded by the air carrier on its own initiative. The memorandum was of particular interest to Pan American Airways.

State Dept. Winning Air Accord Powers

CAB reported merely acting in advisory capacity on foreign service aviation.

The State Department so far is winning the federal agency contest for power over United States foreign-service aviation. Spokesmen for the Civil Aeronautics Board admit the Board is acting merely in an advisory capacity and often does not know what the leaders of the President's Interdepartmental Committee on International Aviation—especially its chairman Adolph Berle—are doing. In other words, the President is carrying the ball.

Neither CAB nor the Post Office nor any agency or group can tackle him with assured success, but the Senate can, and probably will. Senator Champ Clark's aviation subcommittee of the Senate Commerce Committee is scouting for the Senate which is likely to demand the final yes or no on international air agreements.

▸ **Leak**—Clark and other Senators had copies of ICIA's report, while some aviation officials of the Administration were wondering what was in it. Outline of the report leaked through the Senate to a newspaper reporter, much to the annoyance of the State Department, which in effect confirmed the news story by refusing comment.

The report advocates policies well known and discussed by most persons interested in foreign air services. Almost universal interest in aviation as a main channel of world affairs will bring all proposals to the surface for open discussion. For that reason, ICIA's recommendations cannot yet be regarded as the framework of future air policy.

"Sounder Balance" For Airlines Urged

ATA recognizes need as vital to growth of U. S. air transportation system.

The airlines, through the Air Transport Association, have recognized the need for a "sounder balance" in their industry as a vital consideration in the growth of the Nation's system of air transportation.

The declaration invited the interpretation that the lines are willing to see some concessions granted by the Civil Aeronautics Board to small but strong members of their group when feeder, or local service, routes are certificated.

▸ **ATA Policy**—The stand of the ATA was contained in one of the points to be considered in the Association's own study of the air feeder line question, announced last month in AVIATION NEWS. These points now have been submitted to the CAB. The second states that:

"One of the most vital considerations in dealing with the so-called feeder problem . . . is that of securing a sounder balance among the airlines and preserving a proper balance in the future in order that the welfare of no group of airlines will ever be unduly dependent on any other group of airlines or permanently dependent upon government subsidy."

▸ **Expansion Brake**—Before ATA's board of directors approved this point, they were informed that its implementation would in effect place a brake on too rapid expansion of the airlines. It follows the thinking of some who feel that the large number of expansion applications before the Board is inconsistent with experience and financial resources, and are fearful that the optimistic expectations of many communities, coupled with speculative desires of promotors, could lead to a rate of growth unwarranted by actual conditions.

If the CAB takes kindly to the suggestion that a sounder balance among the airlines should be attained and kept, the course of action by the Board based on its feeder investigation may be influenced. That there is a disproportionate relationship—an "economic unbalance"—among the airlines was suggested some weeks ago by C. Bedell Monro, president of Pennsylvania-Central Airlines, who contended in a Milwaukee speech that the "Big Four" lines, with 81 percent of the business, are crowding the other twelve domestic lines in the latter's fight for the remaining 19 percent.

▸ **Plans and Observations** — While the ATA, as an organization, did not present evidence at the Board's feeder hearings, several member airlines were on hand with plans and observations, virtually all the result of long and careful private studies. The Association's suggestions to the Board came after close scrutiny of the facts brought out.

In another point advanced to the CAB, the Association, urging that solution of the feeder problem be guided by principles of the Civil Aeronautics Act "calling for *a system* of air transportation," took cognizance of United States transportation history, in which surface lines were built without economic justification or even with the definite intention that they later should be absorbed by other systems. Weak lines as well as strong resulted, with a confused wage and rate situation, bankruptcies and heavy regulation.

▸ **Recommendation**—The ATA recommended that the CAB examine carefully the history of branch and short line rail and motor operations, particularly as to absorption of initially independent interests by the larger lines, extent to which such lines have depended on division of rates with "no rational relationship to the portion of a through service rendered by the branch and short lines," problems created by sub-standard operating. labor, equipment and other cond. tions on the branch and short lines, and their general financial history.

Joint Control Asked For Global Routes

Civilians in Canada and Great Britain agree there should be joint regulation of international airlines after the war.

A Gallup poll, results of which were announced by *Opinion News* of Denver, asked the question whether countries concerned should get together after the war for such joint regulation, or each remain free to start international airlines "when and where they please."

Sixty-one percent of those in Canada to whom the question was put and 60 percent in Great Britain favored joint regulation.

TRANSPORT OFFICIALS AT KANSAS CITY MEETING:

Among representatives of airlines and prospective carriers who attended the recent conference at Kansas City to discuss local air service problems were: (left to right, seated) Alden B. Woodbury, vice-president, Parks Air College; E. Marion Johnson, director of planning and research, Delta Air Corp.; E. Lee Talman, executive vice-president, TWA; Terrell C. Drinkwater, executive vice-president, Continental Air Lines; (standing) S. W. Fordyce, III, assistant to president, Kansas City Southern Transport Co.; Frank N. Buttomer, director of research, Mid-Continent Airlines; Harry R. Stringer, vice-president, All-American Aviation; Charles E. Beard, vice-president, Braniff Airways; W. Haley Reed, secretary and counsel, Consolidated Air Lines.

A REPORT

to Advertisers and Advertising Agencies

from Aviation News

★ ★ ★

COMMENTS ON *AVIATION NEWS*

"The aviation publications of McGraw-Hill should give complete coverage of aviation." V.P., Aircraft Plant.

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"Enclosing $5. for one year's subscription." Maj. General, USAAF.

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"A definite contribution." V.P., Airline.

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"An important contribution." CAB Executive.

ON August 2d, we published Volume 1, No. 1 of *Aviation News*, a new, compact, weekly magazine of aeronautical news interpretation. Designed for key-executive reading, it meets the urgent need for timely and authoritative news of aviation, with its background and meaning.

In the short period of its existence, *Aviation News*, through alert, analytical reporting of significant aeronautical developments and constructive editorial discussion of aviation interests, has become an important force in the industry.

"A definite contribution..." This, from one of our most foresighted airline executives, is typical of the comments that daily come across the Editor's desk. Excerpts from but a small part of such letters are reprinted above. They bear the signatures of top-ranking airline and manufacturing men, of influential officers and authorities of both Army and Navy, of key U.S. aviation administrators . . . of aviation's leaders, planners and builders for whom the magazine is edited.

Subscribers, men such as these, had paid through November (*only 4 months after the first issue*) over $30,000 to keep abreast of the accelerating tempo of aviation developments through *Aviation News*.

We believe it is unprecedented for a magazine of this type to reach a paid circulation of 6443 (Nov. 29 Issue) in such a short period.

Aviation News' 10,000 paid circulation objective will be attained in record-breaking time.

This is especially noteworthy because (1) the yearly subscription price of *Aviation News* is $5. in a field where practically all other publications are $3., and (2) all circulation effort is restricted to a carefully selected list of manufacturing and operating executives and military and government officials.

Over $150,000 in advertising orders have been placed for the first year's issues of the magazine — much of this before Issue No. 1 went to press. Glance through the partial list of advertisers at the right. Note the names of the many experienced buyers of aviation advertising.

We submit this report with the sincere promise that *Aviation News* will continue to deliver to the influential executives of the aviation industry a complete aeronautical news service . . . timely, authoritative and compact.

George W. Hall

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A REPORT

to Advertisers and Advertising Agencies

from Air Transport

★ ★ ★

"The publication of *Air Transport* recognizes the need for a medium of information regarding one of the most important and rapidly expanding phases of air activity."

THIS comment from a high U. S. Navy Official is typical of the industry's response to *Air Transport*, the first issue of which was published in September. *Air Transport*'s presentation and analysis of the swift and significant transport developments of the war, and its forthright editorial discussion of the important questions affecting the industry's future have already established the publication as a vital force in the progress of air transportation. Note below a few of the comments we are receiving daily from airline and aircraft executives, military and government authorities — the key men of the industry for whom the publication is edited.

Well over $25,000 in paid subscriptions were sent in by such men as these — *within 2 months after the first issue.*

For this type of publication to reach a paid circulation of over 6000 (Nov. Issue 6221) so quickly is doubly significant. First — because the yearly subscription price of *Air Transport* is $5. (Charter Rate $4.) in a field where $3. is usually top. Second — because circulation effort is very carefully restricted to air transport key executives and personnel, top management manufacturing men, military and government officials closely concerned with aviation.

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Air Transport is strictly a transportation magazine, devoted wholly and exclusively to the needs of the air carrier and those touching interests concerned with the advancement of air transportation.

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George W. Hall

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Senators Ask Use of Canadian Airports Linked by Alaska Route

Subcommittee points to "large investment in facilities" and permanent improvements in recommending talks with Dominion.

Negotiations with Canada for free postwar use of airfields linked by the Alaska highway are recommended by a Senate subcommittee just returned from an inspection of the road.

"The United States," said the subcommittee, made up of members of the Senate Post Offices and Post Roads Committee, "has made a large investment in facilities of these airfields along the route of the highway. Improvements made are of permanent value for defense of Alaska and should remain available for use after the war. . . . The War Department should request the State Department to initiate negotiations at once with the Canadian Government looking to free use of the airfields after the war."

▸ **Air Route Established**—A chain of airports from Edmonton, Alberta, to Fairbanks, Alaska, was in existence when the highway project was decided on, the air route going from Edmonton to Fort St. John and Fort Nelson, British Columbia; Watson Lake and Whitehorse, Yukon Territory, and on into Alaska's interior.

"Early stepping stones," the report states, were small airfields that lacked personnel, shops, hangars and radio facilities. There were no emergency landing fields and aviation gasoline, food and supplies for personnel depended on air transport. To prepare for planes for Northwest Pacific operations and provide Alaska with supplies "should the water route become too hazardous," grading and surfacing of a connecting highway and construction of airport service facilities were required.

▸ **Major Routes Needed**—The subcommittee found that the general situation now has improved, but "the necessity remains for both a highway and an air route suitable for large operations as a part of the permanent Alaska defenses." It concluded, however, that the Alaska highway, as being completed, is adequate for anticipated military needs. Further construction of a proposed military highway was not considered warranted now.

Along the present new road, the group saw airports being expanded. Runways are being enlarged, hangars with shop facilities and barracks built and radio facilities being installed. Flight strips are going in at intermediate points. In addition to serving as a guide to planes from the United States to Alaska and beyond, the highway may be used for a landing in "extreme emergency," something that already has occurred on one of its Alaska sections.

Justice Dept. Studies Plant Liquidation

Eyes purchase option for possible use in monopolistic combinations.

Justice Department is watching plans of federal agencies and Congressmen for postwar liquidation of war plants. Justice feels that purchase options held by industrial operators could be used in such a way as to create monopolistic combinations against the public interest.

Fred E. Berquist, economist in the Antitrust Division, was expressing personal opinions when he recently addressed the National Industrial Conference Board on "Disposition of War Plants." The department didn't tell Berquist to speak nor did it tell him not to. It may be assumed that the address represents preliminary thinking on this subject by the Attorney General and staff.

▸ **Monopoly Dangers**—Berquist said existing industry could be crucified by a windfall policy of plant disposal in industries in which existing capacity and fixed charges are an important factor. On the other hand, the dangers of monopoly tendencies should be carefully avoided. As of Jan. 31, 1943, the speaker said 31 corporations held about half of total commitments for public-financed facilities.

However, the Justice economist dwelt briefly on the question of trusts and monopolies. He told AVIATION NEWS he had studied the subject while helping with the preparation of Senate Document No. 106, a report on federal agency postwar planning, and his main intention was to give helpful information.

▸ **Breakdown of Figures**—Berquist breaks down the government's $15,500,000,000 investment in war plants, both by agencies and by industries. He points out that this total in facilities is equal to only two months' cost of the war at the current rate of $7,500,000,000 a month. Therefore, plants should be disposed of with more consideration for beneficial effect on the national economy than for the salvage in dollars.

He poses two broad alternatives: (1) immediate disposition regardless of price, and (2) disposition with consideration for economic benefit as well as ultimate recoveries. While he favors the latter, he does not advocate slow procedure as such. He advocates orderly liquidation as likely to achieve both objectives. Many of the transition problems will be solved by communities rather than by Washington.

▸ **353 Plane Plants**—Of the 2,598 government-owned plants, valued at $15,500,000,000, 353 of them, valued at three billion are devoted to production of aircraft, engines, parts and accessories.

Many larger commitments, Berquist admits, including shipbuilding, aircraft, aluminum, magnesium, ordnance, and other categories, "may not be readily convertible or available for peace-time operations." He seems to believe the government may want to lock up these facilities for possible future wars, but even if not, they may not be suitable for peace production. Aviation facilities are given as the outstanding example of unbalance when war capacity is compared with normal capacity.

▸ **Five Plans Proposed**—The factors of unbalance in terms of normal requirements; uneconomical location; concentration in the hands of a few companies; the difficulties of participation in plant disposal by small business; and the unanswerable question: what will the postwar production requirements be?—all are dealt with in detail.

The speaker proposes five alternate plant disposal plans to fit varying conditions. He suggests an overall catalog of plants, and pamphlets giving complete details for interested persons. He would have Congress lay down a broad plant liquidation program to be followed by administrative agencies.

If Berquist had to put his proposals in one sentence he probably would say he wants war plants used to best advantage for reconstruction of the country.

Army Tests C-54

Of interest to airlines considering postwar conversions of military transports are latest figures on performance of Douglas Aircraft's four-engine C-54.

Outfitted as an invasion airplane to qualify for the Army's new "combat-transport" rating, a C-54 of 62,000 pounds gross loading, nearly maximum, was required to take off in 1800 feet and to use only 1900 feet of runway in landing.

Using the plane's electric hoist and two-track ramp, a crew assembled loading gear and stowed for flight a bulky field gun and 8160 pounds of ammunition. With this load, a 1300-foot takeoff and 1340-foot landing was specified.

No loading time was announced for a cargo that might have been comparable to commercial air line cargo.

The Army tested the C-54 as a paratroop ship, too. At a throttled speed of 105 mph., officers and infantrymen bailed out with no prop wash effect, the inboard engine idling. In glider tow tests, three gliders of unannounced loading were towed at speeds up to 150 mph. without overheating of the towplane's engines.

Brotherhoods Oppose Rails in Air Field

Also suggest U. S. International lines stay out of domestic traffic.

Another voice was added last week to the chorus on postwar aviation when two powerful railroad unions took a stand against surface transport invasion of the airways and favored a "single strong American flag line" in international operation.

The views were those of Alvanley Johnson, grand chief engineer of the Brotherhood of Locomotive Engineers, and A. F. Whitney, president of the Brotherhood of Railroad Trainmen, together representing over 250,000 workers.

▸ **Wage Standards Studied** — They concluded that present international and domestic laws on air sovereignty are "satisfactory," but suggested that Congress explore possibilities of providing that licenses to foreign flag air lines protect American wage standards. They also advocated that this country's international airlines stay out of domestic traffic and vice versa, and urged that licenses to foreign lines for discharge and pickup of traffic be limited to gateway airports. In restatement of policies already expressed, the unions proposed continued Federal regulation of domestic and international air transport, and that surface carriers be kept from operation or control of any airline.

Finally, they advocated that the United States concentrate on a single air line "to compete effectively in the postwar world against the great foreign airline monopolies," suggesting that such a line be organized subject to government approval and be privately owned, perhaps with all American transportation interests represented.

▸ **Ask U. S. Leadership**—The union heads expressed the opinion that it was the time for the government to "assume a leading part in the shaping of America's future international and domestic air transport policy." Urging a thorough public discussion of the problem, they said its solution should not be left entirely to diplomatic negotiations, and "the people of the United States should move now to formulate and establish a comprehensive policy."

The theme throughout was that air transport policy was "inextricably enmeshed" with issues of safety, war and peace. Until peace is assured, it was said, the American people should not in any way "relinquish their present advantages in commercial aeronautics and military air power."

▸ **Freezing Policy**—Unsettled international situation and peace outcome, it was said, call for a "freezing" of present air policy and the statement opposed any relaxation of control of air space, declaring that "for the present we must consider complete sovereignty of the air as a necessary principle of national safety."

The provision suggesting that Congress study to protect American wage standards was supported by the contention that "high wage standards are essential in a highly skilled industry like air transportation," and should be protected against cheap foreign labor.

▸ **Pan American Eyed**—Some airline sources suggested that the recommendation of a single American line for foreign operation might have been inspired by Pan American Airways, which has favored the "chosen instrument" idea. Unofficial Pan American sources said the statement came as a surprise, however, and those responsible for it said their only contact with airlines previous to the announcement was to request various viewpoints on the problem.

Interest of the brotherhoods was aroused when rumors started that the railroads would enter the air transport field.

BRIEFING

▸ Charles E. Wilson, WPB executive Vice-Chairman, told the National Association of Manufacturers meeting in New York that aircraft tonnage production in 1943 will be about 140 percent higher than 1942 and that our current rate is more than 235 percent higher, and for 1944 the industry is expected to raise this to a figure 325 percent higher than for 1942. He said that, as for numbers of planes, "we are now approaching our top levels."

▸ Arthur Hays Sulzberger, publisher *New York Times*, has urged the automobile industry to begin planning for aviation expansion because "we are moving with lightning rapidity toward becoming a land of three dimensions." Emphasizing that he was not overlooking the necessity of winning the war, he added that free enterprise was the basis of our way of life and it is our task to find out how to make it work. "Just as it is necessary for the general staff to plan for war in time of peace, so it is essential to plan for peace in time of war," he said.

▸ The will of Maj. Lewin B. Barringer, glider champion, who died in a Caribbean plane crash, provided for an annual memorial trophy to be awarded to the individual making the longest official distance soaring flight from any type of launching other than towing.

▸ Bell Aircraft at Buffalo has put 450 boys of 16 and 17 into 225 full-time jobs under an arrangement whereby they work in the plant three evenings a week. They are paired, with one working the first three evenings and the other the last three, under a strict stipulation between the management and the high school boy by which the young worker agrees that his scholastic marks will not go down.

▸ Concrete and visual examples and suggestions as to how the Navy Department and industry has saved thousands of pounds of critical materials, a large total of man and machine hours of labor and millions of dollars are offered by a Navy exhibit current in the Social Security Building in Washington.

Feeder Action by CAB

THE CIVIL AERONAUTICS BOARD has finally overcome its own inertia by acting on the vital problem of airline route expansion.

In granting Essair, Inc., a three-year certificate for an experimental Amarillo-Houston feeder service it has bestowed the first domestic certificate of convenience and necessity—although on a temporary basis—since the "grandfather" period when the existing air carriers were all certificated by the old Civil Aeronautics Authority, CAB's predecessor.

The decision not only brings a new company into the domestic picture for the first time in many months, but it breaks the log jam of applications which have piled up. Psychologically, the move eases the way for further action. Although no one anticipates that the Board will suddenly go hog-wild on route expansion, nevertheless, chances now appear better for moderate extensions in routes or addition of intermediate points, than at any time in recent years.

Nor should the opinion be taken as an indication that rapid action will follow on the hundreds of other feeder applications. Realistic observers believe that many of these will be weeded out in one way or another before hearings start.

It is unfortunate and even misleading that the majority opinion was signed only by vice-chairman Warner and member Lee. Chairman Pogue and member Ryan presented a separate concurring opinion with a dissent, while member Branch also added a similar opinion.

Actually, however, the Board members were unanimous in the feeling that Essair and Continental, which was granted a similar three-year certificate for Hobbs-San Antonio, should get expansion approval. The dissents were on minor points only, although perhaps significant in that both urged even more new service than the majority opinion. Pogue and Ryan held that a temporary certificate also should have been given Braniff for through operations between San Antonio and El Paso. Branch contended that American should have been permitted to serve San Antonio on its already operating El Paso-Monterrey link.

ENCOURAGING to the air transport industry are the Board's words that "this is an opportune time to experiment in this important Texas area with three-year authorization because the airlines involved, enjoying as they do better financial results than they have ever experienced in the past, can better afford to undertake new development of this kind than ever before. There is no serious risk that the government will be committed to any substantial financial outlay and there is a certainty, at the end of three years, that the experiment can be terminated if the indications at that time are adverse to its continuance."

If the "important Texas area" is a suitable experimental area for new type operations, the question naturally is being asked by the industry today —"What about other important areas which need air service, especially elsewhere in the spacious West?"

"The rendering of local air transportation service, such as Essair has proposed, presents a difficult economic problem to which a great deal of study is being devoted, and it is desirable that this study be supplemented by the accumulation of actual experience with new types of operation of particular interest or of potential importance," the opinion says.

"The service which will be rendered by local carriers concentrating upon the problems of a limited region in which the terrain and climate are generally favorable to such operations, and emphasizing service to intermediate points rather than competition for through traffic, seems to be sufficiently distinctive in character and of sufficient interest in relation to the general planning of future development to justify its establishment in the West Texas area on an experimental basis. The results during the designated life of the experiment can determine whether the experimental service should thereafter be converted into a permanent one; and the carrier's ability to make substantial progress toward self-support will be an important factor in determining its future as a certificated operator of services of the type proposed."

THIS NEW ATTITUDE toward careful experimentation, where the government is unlikely to be obligated for excessive costs, is long overdue. The Board for many long months has given every indication that it had been unable to agree on any route or rate policies for the future, and was niggardly in permitting necessary growth. Contradictions in opinions, apparent indecision on major problems, with Board members themselves frequently at odds throughout discussions of cases, threw a pall of uncertainty and doubt over what should have been a rapidly expanding airline system since pre-war days.

The Essair opinion gives little evidence of formulation of long-term policies, but it is to be hoped that it at least marks the beginning of the end of a long period of stagnation, and the start of a bolder era in which private industry will get a chance to show whether it can sink or swim, fancy theories aside.

Although the opinion repeats the cautious warning that starting of the services approved depends on national defense conditions, it is felt in Washington that operations can be started as soon as the carriers are ready. Equipment is admittedly a problem, but is not likely to be insurmountable.

ROBERT H. WOOD

The Captain Meets a Robot

THIS apparatus is the G-E automatic pilot—it's being examined here by Capt. J. S. Evans, U.S.N., inspector of naval material, Schenectady, and C. M. Young, G-E aeronautics engineer. Although robot pilots are anything but new to fliers or builders of aircraft, this particular pilot incorporates important design innovations which are expected to contribute greatly to the automatic operation of aircraft.

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