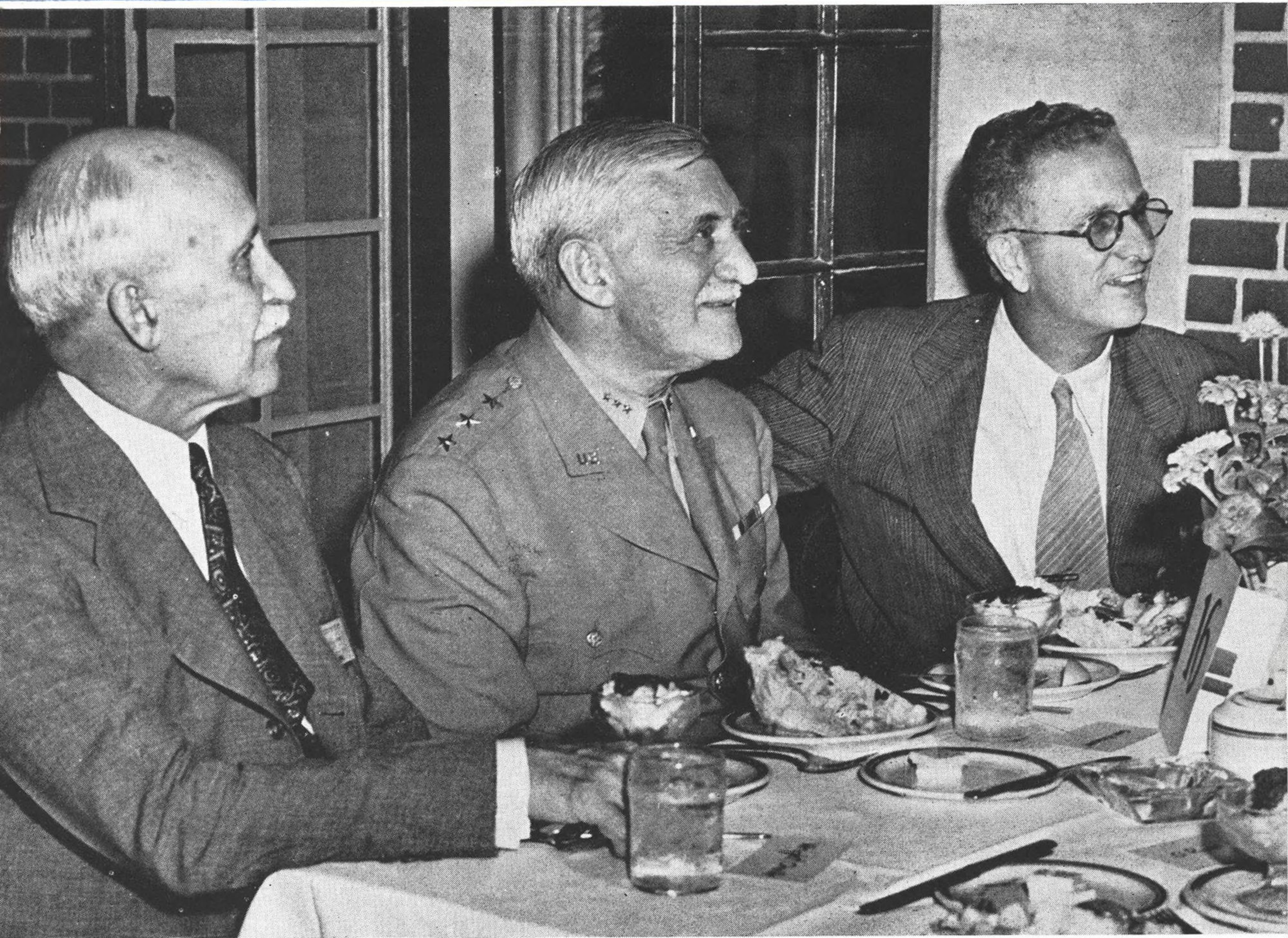


Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

AUGUST 28, 1944



Aviation Notables at Wright Field: *Three leaders who are making aviation news were caught together in this unusual photograph—Orville Wright, who recently observed his 73rd birthday; Lieut. Gen. William Knudsen who is heading the merger of the Air Service and Materiel Commands and T. P. Wright nominated by President Roosevelt to be Civil Aeronautics Administrator.*

AAF Maps Program to Keep Equipment in Top Shape

Asks that 20 percent be replaced annually to assure continued development and maintain strong aircraft industry.....Page 7

State and Justice Depts. Oppose "Chosen Instrument"

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House, Senate Resolutions Ask for Air Policy Group

Commission designed to study problems of military and civil aviation and recommend basic national policies on aviation.....Page 13

Wright Brings Industrial, U. S. Experience to CAA Job

Engineering and administrative work of Stanton's successor expected to fit him for forthcoming world air parleys.....Page 10

Steamship Firms Gain in Fight to Operate Airlines

Grace Line and United Fruit file new plans for Caribbean and South American air service; Federation asks end of discrimination.....Page 35

Record War Air Cargoes Handled in First Half of 1944

Total of 22 million pounds transported through joint operations of ATC, NATS and contract carriers throughout world.....Page 33

KEN-RAD Metal Tubes

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THE AVIATION NEWS

Washington Observer

WRIGHT NOMINATION—Nomination of T. P. Wright as administrator for the Civil Aeronautics Authority has been brewing for some time and his selection probably is the forerunner of other moves in the civil aviation administrative picture to give the United States the strongest possible position in forthcoming international conferences. Wright was reluctant to leave the Aircraft Resources Control Office and Aircraft Production Board until he was certain that requirements of the armed forces for aircraft could be met. The fact that he now feels free to leave the production post means that he is satisfied on that score.

MORE CUTBACKS—Wright's agreement to accept the CAA post indicates to observers in Washington that more aircraft cutbacks are in the offing. Insiders find it difficult to see how we will need as many airplanes within the next few months as would be produced under present schedules. Emphasis will remain on heavy, long-range equipment.

INVENTORY CLEARANCE—Reason behind the large surplus declaration now being made by the Army is that it is conducting the first "inventory clearance" since the start of the war. Something in the neighborhood of \$500 million in goods will be turned over to Surplus War Property Administration for channeling into civilian hands or other disposal. While the peace clouds in Europe naturally have some effect on decisions, the "clearance" is largely just that and similar to the same type of "sale" that would be held by a department store.

CAR RELEASE—One release that is probably dictated by war successes is that of 7,000 pas-

senger automobiles from the Army pool. Army has kept only a "small balance" of original 25,000 which must last out war. In addition, 52,000 trucks have been shifted to Treasury Procurement, or will be soon, together with 70,000 tires. Most of the tires are off-size and go with the off-standard trucks being disposed of. Thousands of the trucks, too, are those that can't be economically repaired and used by the Army but can be patched up and used by civilians. War plants and essential civilians will get the call on these, of course. Truck priorities come through ODT, passenger cars through OPA.

PRODUCTION SIDELIGHTS—These developments in aircraft manufacturing are topics of conversation in Washington:

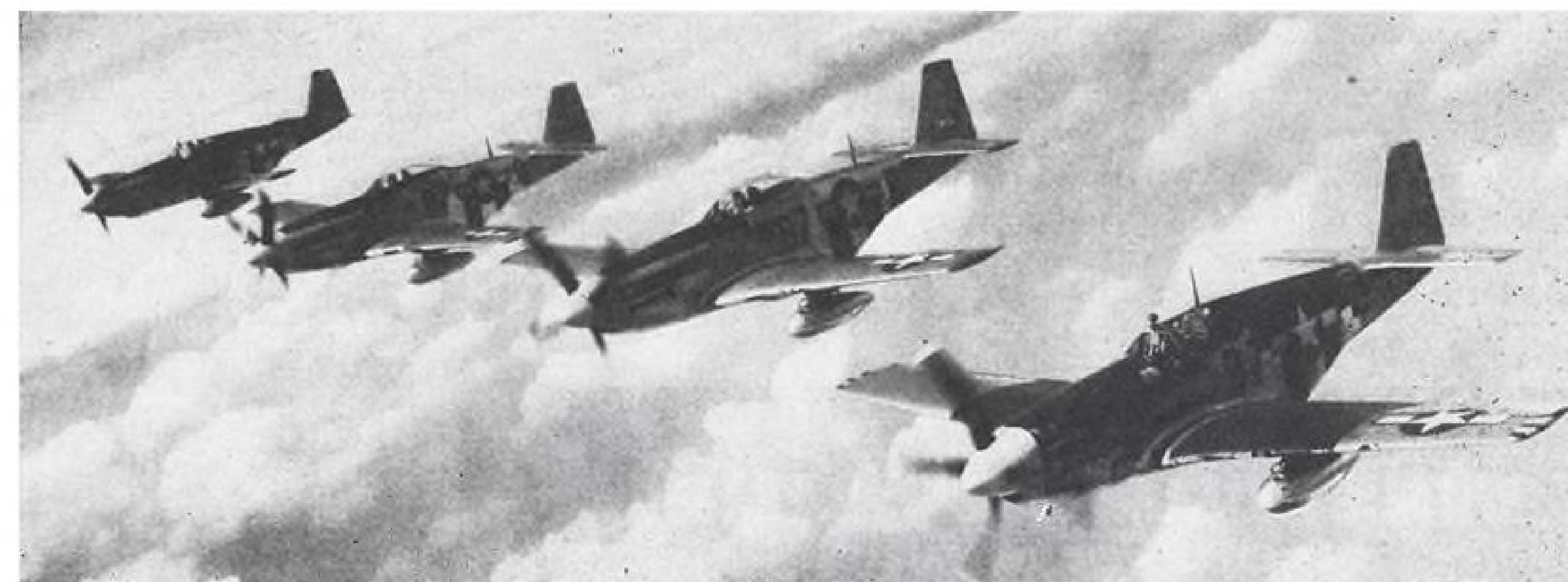
Feeling is growing in the industry that all interceptor and fighter type aircraft of the future will utilize jet propulsion, and the transformation may come within five years. Other types of aircraft will convert slower.

Official decision to name the Consolidated B-32 the "Dominator" does not set well with the manufacturer, which has become identified as the producer of the famous "Liberator." Company pleaded unsuccessfully for some title such as "Super-Liberator."

Censors are watching the British air weeklies, "Flight" and "Aeroplane," much more carefully to prevent entry into this country of material not yet released by authorities here. One recent shipment of the "Aeroplane" was held up for days.

Cessna no longer is building completed aircraft since its famous twin-engined "Bobcat" was discontinued for the Canadians.

British respect for "Corsairs" continues to rise and a recent cutback ordered at Goodyear may



P-51 North American Mustangs in fighting formation on escort mission.

AVIATION NEWS

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be nullified for another British consignment.

Allied Aviation's new Trimmer amphibian, which "Aviation News" pictured before the ship was completed, is making test flights.

Tall tales about amazing take-off and speed characteristics of two new west coast jet planes are filtering back to the east. One plane's leap from the ground is said to resemble a helicopter takeoff.

Doubt is expressed unofficially in Washington that the Fisher P-75 will ever go into full production.

The famous Douglas A-26 probably will undergo downward schedule revisions within two or three months.

Other slowdowns in schedules, of varying proportions, appear inevitable for the Convair PB4Y, Convair PBV, Martin PBM, Curtiss SB2C, Eastern's TBM, Convair's TBY, Lockheed P-38, Bell P-63, and Republic P-47.

TRANSPORT SATURATION—While there are some who foresee construction of only a few hundred new transports to saturate the passenger and cargo field in the immediate post-war era, other observers are not so concerned. They believe that the production of later models will force obsolescence upon the first post-war series—long before the first post-war planes begin to show signs of wear. If this contention holds then the situation might follow the pattern of the automotive industry of improving a model to the point where a customer would have to buy the new model or else lose shirt or lose face, depending upon whether he was interested in making money with the vehicle or keeping up with the Joneses.

HOSPITAL ASSEMBLY LINE—The project of Northrop Aircraft in making it possible for overseas casualty patients to perform certain kinds of aircraft production work is being closely watched in official circles in Washington. Northrop has created an actual airplane production department at the Army's new Birmingham General Hospital, Van Nuys, Calif. Wounded veterans are given instruction by plant supervisors and are turning out small parts for the P-61 Black Widow, while convalescing.

PROSPECT FOR PERISHABLES —Recent spurt in national publicity on glowing prospects for air transportation of perishables is displeasing to some conservatives in the industry, who fear a misleading and unjustified overselling campaign. But enough sound computing and thinking has been done by several trunk airlines on the subject to convince most skeptics. The air future for perishables is considered much better than that even for either air mail or express. This is true even if all overnight mail were to be sent by air, research people say.

LIGHTPLANES FOR CIVILIANS—There are increasing signs of an early return to production of civilian aircraft by lightplane manufacturers. At least one company has advised representatives of a South American country in Washington that it intends to resume private types shortly and will be in a position to accept orders.



Convalescent service men aid war output

GERMANY'S COLLAPSE MEANS PLANES —Return of DC-3 type aircraft to the airlines by the Army will continue until the seating capacity of the industry reaches the level of May, 1942, but the collapse of Germany will speed up the stream of Army planes to the civil airways.

*

AIRLINES VOTE ON USED TYPES—In preparation for the day when these used military transports will be available, the domestic airlines have voted informally on the types they will prefer, and the results have been communicated to the Army Air Forces. Top preference went to the DC-3 versions—which include the C-47 and C-53—and the Curtiss Commando C-46, Douglas Skymaster C-54, and Lockheed Constellation C-69. The only DC-3 version not eagerly sought is the C-49. The airlines voted to put in minor category the Lockheed Lodestar C-60, Consolidated Express C-87, and the Beech Expediter UC-45. At the bottom were placed the C-49, Noorduyn C-64 and Fairchild AT-21.

*

FEW FOUR-ENGINED SHIPS—Because of the need for many more long-range transports to carry on the Pacific war, domestic lines at this time see no likelihood for receiving heavy transports this year or early in 1945.

Dams are storing new wealth in the West

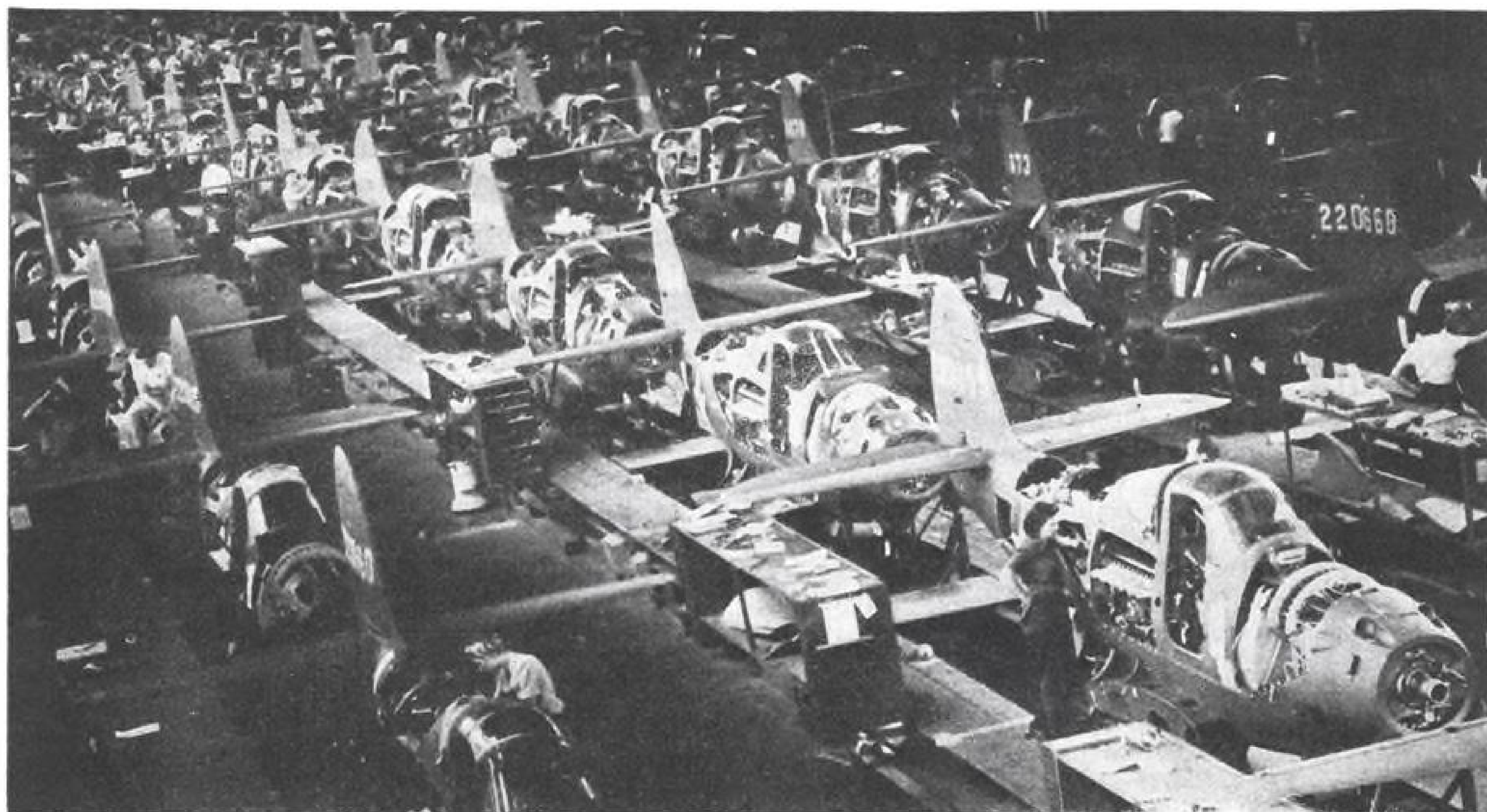
For the past 15 years, Westerners remember that there has always been a major dam under construction. After Boulder Dam came Parker, then Bonneville and Grand Coulee; Friant, and the new giant of them all, Shasta.

These and many smaller dams have given the West new potential wealth in hydro-electric power, new sources of year-round water for millions of once arid regions. And cheap power has already attracted new industry to the West: a great aluminum plant, drawing power from Grand Coulee; the world's largest magnesium plant near Boulder. Yet, their value is still to be realized.

To keep up with this vast industrial expansion has been the goal of Western Air Lines. As the West's own airline, born in the West, owned and operated by Westerners, Western Air is alert to its responsibilities to bring air transportation to the traveler and shipper of the West as wartime conditions permit.

GENERAL OFFICES: 510 W. SIXTH STREET, LOS ANGELES 14, CALIFORNIA





Move Over, Merlin!

By EDWIN C. HILL

"I well appreciate how Merlin, of the 'Connecticut Yankee', must have felt—completely flabbergasted by the manufacturing genius of Mark Twain's boy from Hartford. "On my first tour through one of Bell Aircraft's assembly plants, I saw thousands of Bell employees performing tasks which before Pearl Harbor would have seemed as much of a fantastic dream as was 'Sir Boss's' in Mark Twain's book. "I saw one group of women lift with a crane an Allison engine, accurately placing it into proper position in the fuselage. "I saw another group skillfully threading yards of electric wires, enough to wire two average homes, through the wings and fuselage of an Airacobra, attaching each wire to the proper electrical unit.

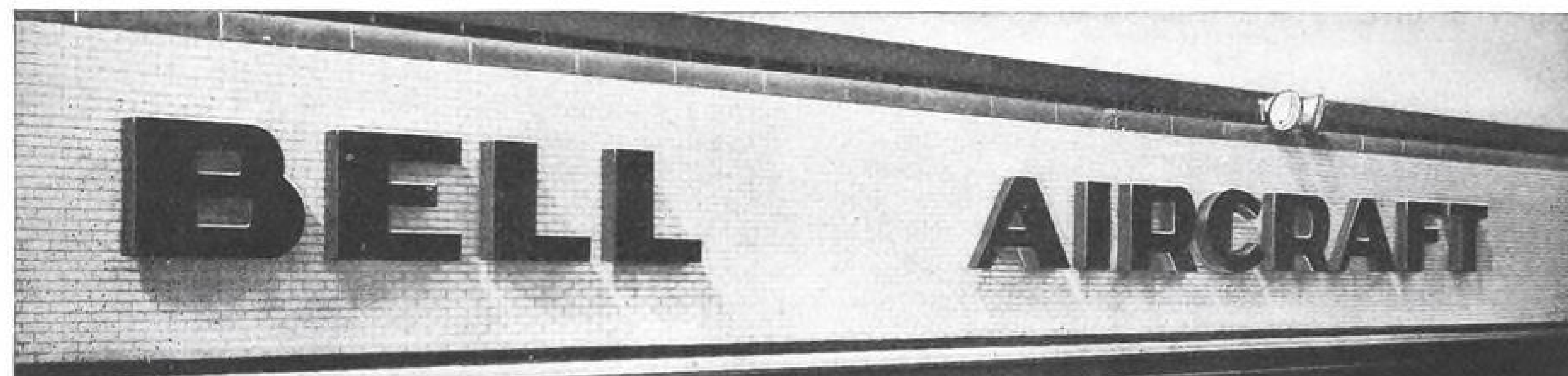
"I saw hundreds of planes traveling slowly down numerous production lines. From their embryonic stage, they were gradually transformed into air weapons bristling with fire power—each ship armed with four 50 caliber machine guns and a cannon that spews out one hundred and fifty 37 mm. shells a minute. "Even more impressive than seeing housewives, ministers, and bank clerks using tools with the skill of a New England tool maker, were the systematic methods of production which utilize every working hour and eliminate any possible waste. "At Bell Aircraft, Victory is being speeded by advanced ideas in military aircraft, developments which are helping to accelerate the advance of the science of aeronautics.

A notable newsman gives you an idea of the manufacturing wizardry which has been developed for the Allied Forces today... for you tomorrow



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"And when the day of victory comes, look to Bell Aircraft to be one of the pioneers to bring to our daily lives the advancements and improvements in material goods which will be one of the gains from fighting and winning a grim and bloody war."



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BUY WAR BONDS AND SPEED VICTORY

AAF Maps Replacement Program To Keep Equipment in Top Shape

Gen. Echols tells Woodrum Committee that organization will ask Congress that 20 percent be replaced annually to assure continued development and maintain strong aircraft industry.

By WILLIAM G. KEY

The Army Air Forces will propose to Congress that one-fifth of whatever post-war air force is provided be replaced each year under a long-term scheduled replacement program that will guarantee continued research and development and maintain a strong aircraft manufacturing industry.

Plans are being drawn not only for air forces of varying size, but also on the basis of the AAF remaining in the present War Department, on the basis of a single Department of War, and on the basis of an independent air force, Maj. Gen. O. P. Echols, Assistant Chief of Air Staff, Materiel and Services, disclosed at a hearing on surplus property disposal before the Woodrum Post-War Military Policy Committee.

► **Hearings Begun**—The Woodrum Committee last week started a series of hearings scheduled to bring out surplus disposal policies of the services, but top billing went to research and continued development of American planes insofar as aviation was concerned. The session last week turned out to be a preview of a forthcoming series of hearings aimed specifically at research and scientific development. This series will probably be the next taken up by the Woodrum Committee, and had been tentatively scheduled before the hearings last week.

General Echols also revealed that a large portion of the aircraft surplus will not go to the Surplus War Property Administration as surplus. War weary planes—planes beyond economical repair because of hard and constant usage either in combat or training—will be disposed of through reclamation and salvage in accordance with existing War Department regulations rather than reported as

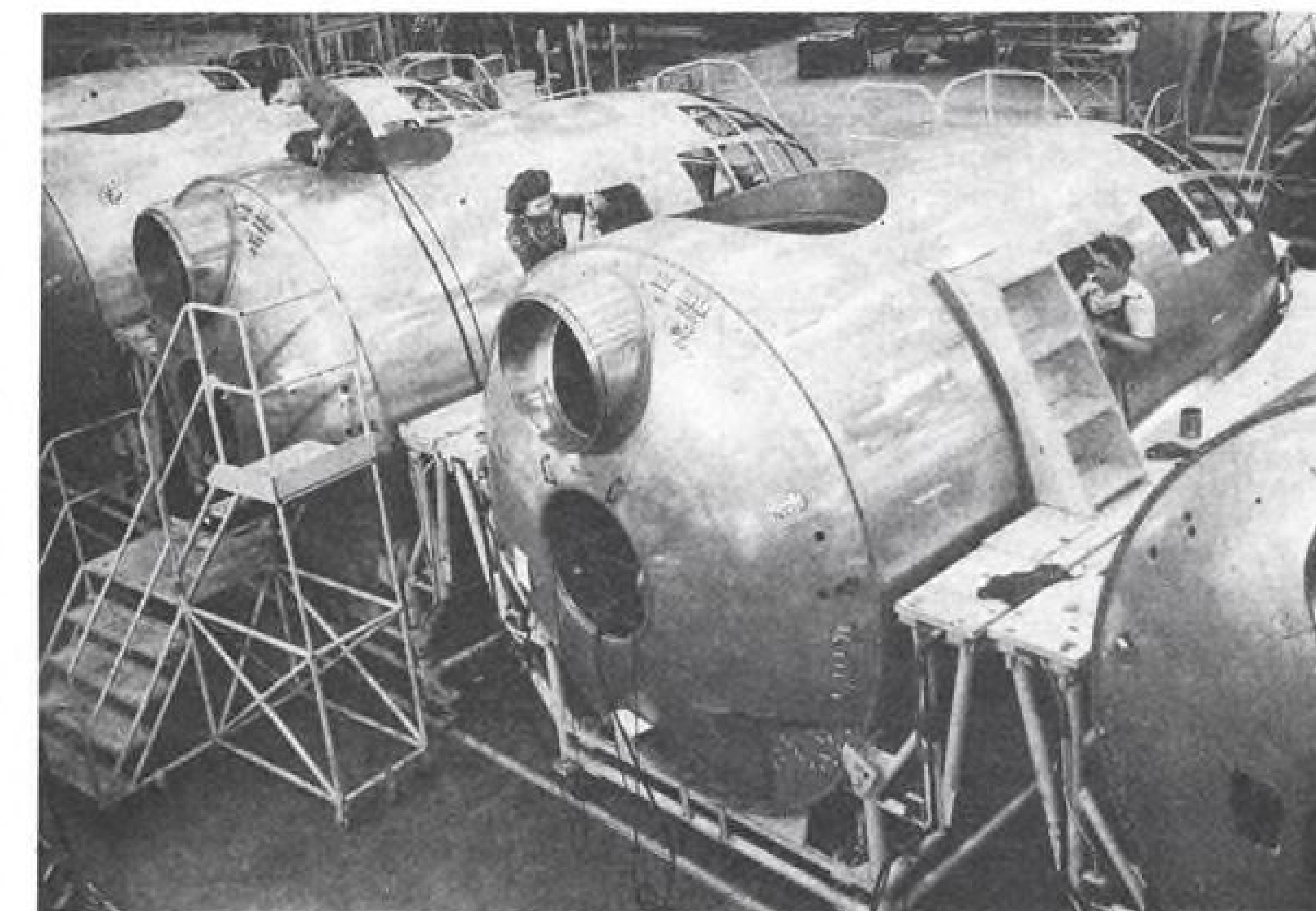
surplus to the Reconstruction Finance Corp.

► **Research and Development**—Throughout testimony and questioning by committee members, it was evident that research and development is emerging as the prime consideration in post-war air force thinking both or Congressmen and the military.

General Echols stressed that the AAF felt strongly that projects now under study at Wright Field and other experimental bases should be completed, regardless of the early end of the war. To this, Congressman Woodrum rejoined that he was sure that Congress would support requests for funds

to complete aeronautical research projects now under way and to maintain a high level of development through peace years. He said he felt that there was no use keeping an air force after the war unless increased research kept the country ahead in technical development. Gen. Echols cited the French Air Force as an example of a large air fleet rendered ineffective by failure to continue experimentation and to replace obsolescent types.

► **Queried on ATC Plans**—Members of the Woodrum Committee attempted to draw from General Echols the AAF's plans for continuation of the Air Transport Command after the war. He confirmed the fact that the Army is planning a permanent air transport system, the size of which will depend on the size of the air force and available civilian airline facilities. He said that to his knowledge the AAF did not contemplate accommodation of civilians on planes of any post-war ATC. General Echols said overseas service to the Army's own outlying bases was be-



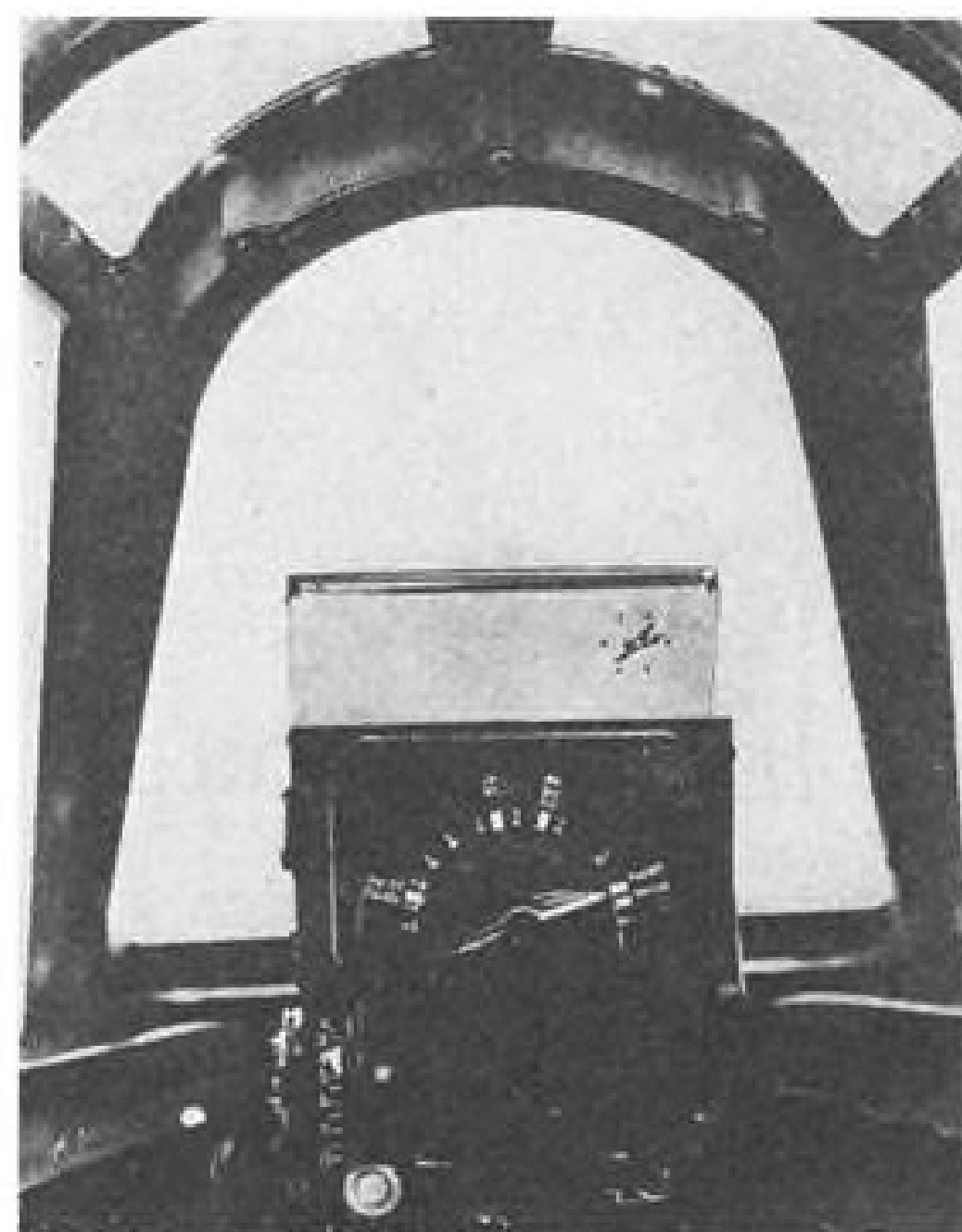
PRESSURE CABINS FOR B-29'S:

First photograph released showing exterior construction details of Boeing B-29 Superfortress pressure cabins. These are forward control cabin sections. Upper hole in the bulkhead connects with the tube which spans the B-29 bomb bays and gives the crew access to pressurized gunner's compartment. The tail gunner is isolated in a separate pressure cabin.

ing projected, but he asked permission to revise his testimony after his attempt to place the subject off-the-record had been rejected on protest of Rep. Maas (R., Minn.), that no military security was involved. Gen. Echols explained that he was "not sure of his ground," adding that he did know that the Army does not "intend to stay in national air transport in competition with civilians."

General Echols told the Woodrum Committee that he believed Assistant Secretary of War (Air) Robert Lovett was handling details of conversations with civilian airlines on the matter of civilians taking over ATC routes when the war ends.

► **AAF To Stay On In Europe**—That the Army expects to have to maintain an air force in Europe for some time after the surrender of Germany was indicated by General Echols in his prepared statement in which he said that "the planned operation of the Army Air Forces in Europe following the defeat of Germany" would be one factor in determining the quantity of material that would be declared surplus. Other factors, he said, would be the length of the war, including the date by which Germany will be defeated and the rate of military operations up to that date; the planned rate of operations against Japan following the defeat of Germany; logistical policies with respect to type and quantity of materiel to be transferred from the European and Mediterranean theaters of operation to the Far East, and the means made available for the packing and



NEW BRITISH GUNSIGHT:

British Air Commission reports efficiency of fighter aircraft has been doubled by the new gyro gunsight shown here. Fighter pilots may now open effective fire on enemy planes with the speeds of each aircraft upwards of 400 mph. at ranges of over 400 yards and angles considered impracticable only a few months ago.

transfer of such materiel; the rate of development of new and improved items of materiel and the consequent rate of obsolescence of material now in air forces stock; the margin of safety in Army Air Forces stocks determined necessary as insurance for the successful prosecution of the war; and the size of the postwar Army Air Force.

Col. Harris Named ATC Chief of Staff

Col. Harold R. Harris, senior vice-president of Pan American-Grace Airways before being called to active duty with the Army Air Forces, has been appointed chief of staff of the Air Transport Command.

Before his new assignment by Maj. Gen. Harold L. George, Col. Harris was assistant chief of staff in charge of operations and training. He succeeds Brig. Gen. Bob E. Nowland, now commanding general of the Ferrying Division of ATC.

► **World War Flyer**—After service in the Army Air Corps in World War I, Col. Harris was test pilot and chief of the flight test section of the Army Air Corps from 1918 to 1925. He then entered commercial aviation, being called to active duty at the outbreak of war. After

several staff assignments he became commanding officer of the Domestic Transportation Division of ATC until his appointment as assistant chief of staff.

Hughes Bares Plans For Post-War Planes

Expected to build high-performance executive aircraft as well as large land transports and flying boats.

Howard Hughes may be expected to seek a commanding post-war position as a builder of specialized aircraft with high speed and high performance and luxurious executive airplanes—massive air transports, perhaps bigger than his experimental Hughes-Kaiser HK-1, a 400,000-pound flying boat now approaching completion in Culver City, Calif.

During a press conference, held in Los Angeles to introduce as new director and vice-president of Hughes Tool Co. and general manager of Hughes Aircraft Co., Charles W. Perelle, former vice-president and director of Consolidated Vultee Aircraft Corp., Hughes was the target for a barrage of post-war questions.

► **Will Maintain Standards**—"Our company has been built around super-performance and we will not build flivver planes," he said.

Asked if his post-war interest will include development of flying boats bigger than the HK-1 and also a big land plane, Hughes replied "probably both."

Hughes declined to discuss details of his post-war plans during his production of military aircraft and accessories.

► **Kaiser May Build Craft**—However, these indications developed during the interview: If HK-1 is a success, Hughes may turn over actual production of the "World's biggest flying boat" to Henry Kaiser. While withdrawn from production of the prototype, Kaiser is believed by observers to be still interested in realizing his visionary "shipyard" production of big aircraft.

Hughes has in Perelle, who was Convair's production chief, strong support of his big plane and executive plane views. Perelle is convinced that massive airplanes may reach one million pound gross weight and still prove practical and he feels the post-war market for high speed executive planes somewhat smaller than the Constellation will be "excellent."

State and Justice Depts. Oppose "Chosen Instrument" Air Policy

Senate Commerce Committee told of stand in reply to request for opinion in connection with consideration of McCarran Bill; letter sent to Roosevelt virtually asking suspension of world air policy discussions till Congress has had time to study possible revisions in laws.

The State and Justice Departments have informed the Senate Commerce Committee that they are opposed to a chosen instrument for international air transportation.

Opinions of the Secretary of State and the Attorney General, requested by the committee in connection with the McCarran Bill, arrived on Capitol Hill at about the same time the committee dispatched its letter to President Roosevelt requesting virtually that the Administration hold up all action on international air arrangements until Congress—which has been working on the matter for a year—has had a chance to consider whether it wants to change present laws and policies.

► **McCarran Bill Opposed**—The State Department raised many objections to the McCarran Bill which would lodge all external air operations in one mammoth monopoly. Among these was a blunt statement that the provision of the bill, which in effect makes the Secretary of State an agent of the chosen instrument, runs counter to all known practices and is en-

tirely unacceptable. The chosen instrument, in effect, was typed as not in the national interest.

The Justice Department reminded the committee of the anti-trust laws. Airlines not desiring to join the chosen instrument could apply individually for over-ocean routes, if the McCarran Bill were adopted, but would find themselves in a strait-jacket when competing with a line behind which the law placed the entire resources of the government. This would be adequate provocation for an anti-trust suit.

► **Letter to Roosevelt**—The letter to the President, signed by Senators Josiah W. Bailey, chairman of the Commerce Committee, and Bennett Champ Clark, chairman of the Aviation Subcommittee, contained many statements discouraging to the executive branch, but did not appear to alarm the transport industry. It was recalled that this letter, as AVIATION NEWS said editorially several weeks ago, was decided upon before Congressional recess when Senator Owen Brewster was defeated in his attempt to get a resolution favoring a chosen instrument.

The letter raised all the old arguments familiar to the industry, and effectively answered many times by domestic airline executives, as well as every branch of the government.

These were its main contentions: Shipping companies should not be permitted to run airlines.

A chosen instrument offers many advantages. It has been the choice of all foreign countries in international aviation. (The letter did not add, however, that in foreign countries the chosen instrument has always resulted in government ownership of international air transport systems.)

Because Pan American has been successful in negotiating with foreign countries, that system might continue to be desirable. (The letter overlooked the fact that many governments now insist on dealing only with other governments, and in any case, reciprocity will be sought increasingly, whereas in pre-war days such was not the case.)

There should be a limitation on frequencies. The argument was that lower operations costs abroad would enable foreign lines to capture American traffic unless there is a limit on frequencies. (It was not mentioned that the foreign countries, not the United States, seek limitations, out of fear the U. S. will capture the lion's share of the traffic otherwise.)

The letter said "A number of important American companies concerned with air as well as surface transportation have presented the advantages of creating a community company. . ."

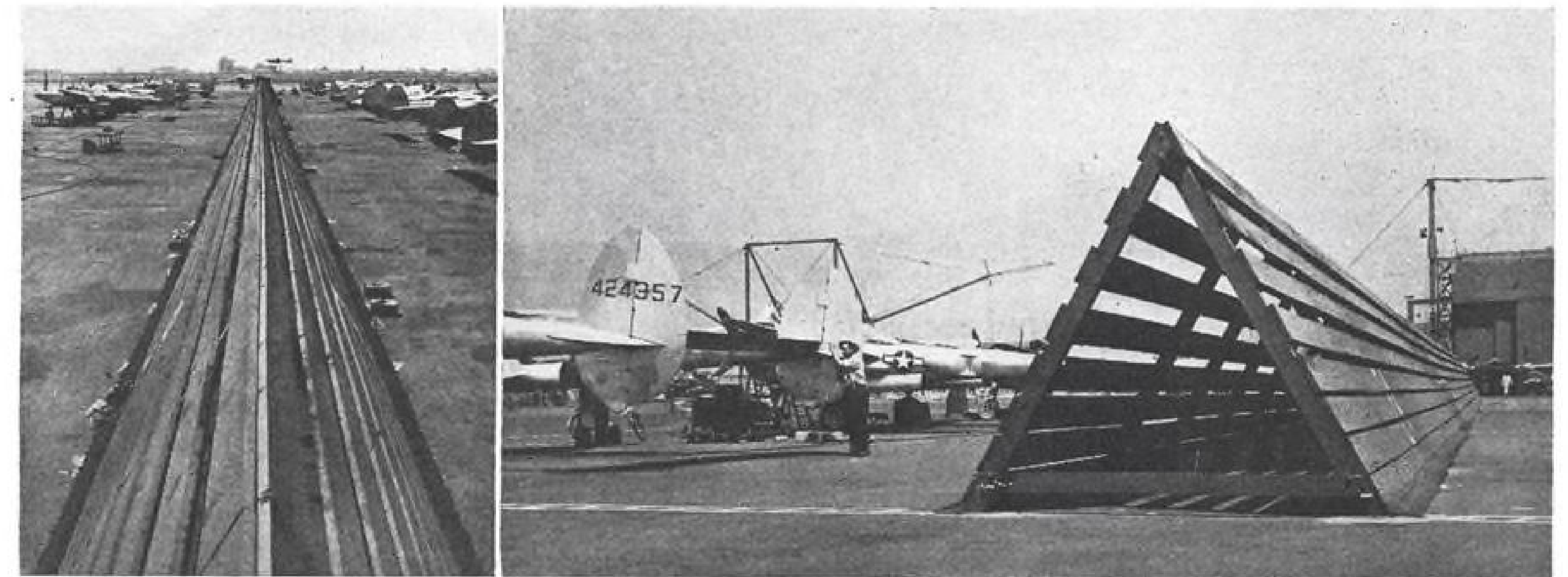
The number is two, to be spe-

120 C-69's Ordered

One hundred twenty Lockheed C-69 Constellations are scheduled for production for the Army, two have been delivered and a third is expected this month, was disclosed last week in hearings before the Woodrum Post-War Military Policy Committee.

Maj. Gen. O. P. Echols, Assistant Chief of Air Staff, Materiel and Services, revealed that delivery schedules called for an eventual 10 Constellations a month.

The first Constellation was built for TWA and has been taken over by the Army. In its first cross-country flight, it broke all existing records for any type of plane.



BLAST FENCES PERMIT CLOSE PARKING:

Lockheed Aircraft Corp., Burbank, Calif., uses rows of these wood propeller-blast fences to permit pre-flight engine tests of closely parked P-38 fighters just off the assembly line. Their success on the fighter

warmup ramp has led to installation of similar propeller blast deflectors at the heads of runways of Lockheed Air Terminal to protect adjoining residential property and streets from propeller wash.

cific. Those who oppose include all the domestic airlines except United, American Export Airlines, the State Department, the Justice Department, the Civil Aeronautics Board, the Army and Navy.

Although the committee admonished the executive to take no action "which would complicate the situation or prejudice the ultimate decision by the legislative authorities concerned with policy," there was no word at weekend that the President had ordered the CAB to stop international route proceedings or the State Department to stop international discussions.

► **Delay**—There would seem no reason for delay if it is true, as Senator Vandenberg stated on the Senate floor the same day the letter was placed in the record, that the Commerce Committee "has been at work for at least a year. It has a complete record; it has heard all the witnesses in point; it has the obvious and logical jurisdiction over the entire subject matter. . . ." But as yet there have been no open hearings, no legislative recommendations. Best informed sources on Capitol Hill moreover say there will be no legislation offered this year.

A delay might well jeopardize our international operations if the war in Europe should end soon.

Wright Choice As CAA Chief Brings Industrial, U. S. Experience to Job

Engineering and administrative work of Stanton's successor expected to fit him for forthcoming world air parleys.

By SCOTT HERSHEY

A combination of private industry and governmental experience in development of aviation should grow out of the shift in top personnel of the Civil Aeronautics Administration, whereby T. P. Wright becomes Administrator, succeeding Charles I. Stanton, who returns to his former post as deputy administrator.

Observers in Washington forecast that Wright's wide experience as an engineer and administrator will play an advantageous role for the United States in forthcoming parleys dealing with post-war international air operations, particularly as regards airworthiness requirements and other technical matters.

► **Curtiss-Wright Official**—Wright was vice-president and director of engineering for Curtiss-Wright Corp. before he was called to Washington as deputy director of aircraft production for the War Production Board until the division was discontinued in favor of the

Aircraft Production Board of which Wright is a member and recorder. He also is director of the Aircraft Resources Control Office, dominant agency for the Army Air Forces and the Navy Bureau of Aeronautics.

Stanton, in a letter to President Roosevelt last week, resigned as Administrator and asked to return to his duties as deputy administrator so that he could return to his Civil Service status and devote his entire time to the development of operational and technical problems. He was named Administrator May 27, 1942. The Administrator's post pays \$10,000 while the salary of the deputy is \$8,000.

► **Career Man**—He pointed out in his letter that his more than 20 years' service in the development of civil aviation had been up to that time as a Civil Service career man, interested particularly in development of the airways of the nation.

Mr. Roosevelt, in his reply, said Wright was pleased that Stanton was going to remain as his chief deputy with the special responsibilities of technical and operational problems.

"This seems to me a very happy situation," wrote Mr. Roosevelt, "since we will be getting the experience and services of Mr. Wright and retaining you in the organization where you have been doing such excellent work."

► **Nomination Sent to Senate**—Wright's nomination was sent to the Senate last week. He plans to take over the Administrator's post as soon as he can be relieved from his WPB and Aircraft Resources Control Office work.

The fact that Wright is willing to leave his aircraft production post was taken in Washington as an indication that the plane production situation is well in hand, leveling off, and undoubtedly that schedules are due for some sharp reductions soon. It is known that Wright felt his job was not completed until the invasion of Europe was an assured success and that the production program was such that there would be ample aircraft for future Pacific operations.

► **Called to Capital in 1940**—Wright

AVIATION CALENDAR

- Aug. 29-31—Southeastern States Airport Management Conference, Alabama Polytechnic Institute, Auburn, Ala.
- Aug. 29-Sept. 1—American Institute of Electrical Engineers, Los Angeles Technical Meeting, Biltmore Hotel, Los Angeles.
- Aug. 30 (Tentative)—Eastern Regional Committee, Aircraft Manufacturers Council and ACCA Board of Governors, New York, N. Y.
- Sept. 4-6—Aero Medical Association, Annual Meeting, Jefferson Hotel, St. Louis Mo.
- Oct. 5-7—SAE National Aircraft Engineering and Production Meeting, Los Angeles.
- Nov. 13-14—National Association of State Aviation Officials, Annual Meeting, Oklahoma City.
- Nov. 15-18—National Clinic of Domestic Aviation Planning, Oklahoma City.
- Dec. 4-6—SAE National Air Cargo Meeting, Chicago.
- Dec. 5-7—Second Annual Meeting, Aviation Distributors and Manufacturers Association, Jefferson Hotel, St. Louis, Mo.
- Dec. 6-7—National Aviation Trades Association, Annual Convention, Jefferson Hotel, St. Louis, Mo.

first was called to Washington in 1940 to serve with the advisory commission for the Council of National Defense. He returned to Curtiss-Wright some six months later after the expansion program had been set up. He was called back to the Capital in February, 1941, with OPM—now WPB—as assistant chief of the aircraft branch. Later, under a reorganization, he assumed his present duties.

Wright is the author of many papers dealing with research, design, economic and socio-political aspects of aeronautics, is a member of many scientific and engineering societies and organizations, a fellow of the Royal Aeronautical Society, London, and has presented several invitation lectures before that body in England.

He is 49, a native of Galesburg, Ill., a graduate of Lombard and Massachusetts Institute of Technology. His interests and activities in aviation have not been confined to manufacture of aircraft but also included application of that to air transportation.

► **Lauded by Burden**—William A. M. Burden, assistant Secretary of Commerce, commenting on Wright's selection, said that "the President's action in nominating T. P. Wright as Administrator of Civil Aeronautics is an outstanding step in preparing American civil aviation to meet its heavy post-war responsibilities."

He termed Wright a leading figure in American civil aeronautics and noted that he has had broad international experience.

At the same time, Burden said the CAA was fortunate in retaining the services of Stanton, "who has been serving as Administrator during the war emergency."

Roadable Plane's Utility Compared With That of Pure Aircraft

Machine designed solely for flying believed to have best sales prospects; airmobile presents numerous problems, despite strong support given all-purpose vehicle.

Utility has become such a prime design requirement in aircraft construction that it dominates most thinking. Two schools emerge on the subject: one supporting the "roadable airplane," and the other holding out for "pure aircraft." The latter group maintains the brightest immediate sales prospects and within that group the amphibious-minded have a problem, the solution of which holds the greatest promise. Fairly sharp contrasts are to be noted in thinking, but there is general agreement that most pre-war designs will not be suitable for the post-war mass market.

► **Strictly Air-Going Vehicles**—The "pure aircraft" school holds that aircraft should be strictly air-going vehicles. Chief contention rests on economic factors, the thought be-

ing that if an air vehicle is what is wanted, cost and weight should be applied to better aircraft.

The "roadability" people are strictly utility minded and believe that all transportation needs should be met in one craft capable of locomotion either in the air or on land highways.

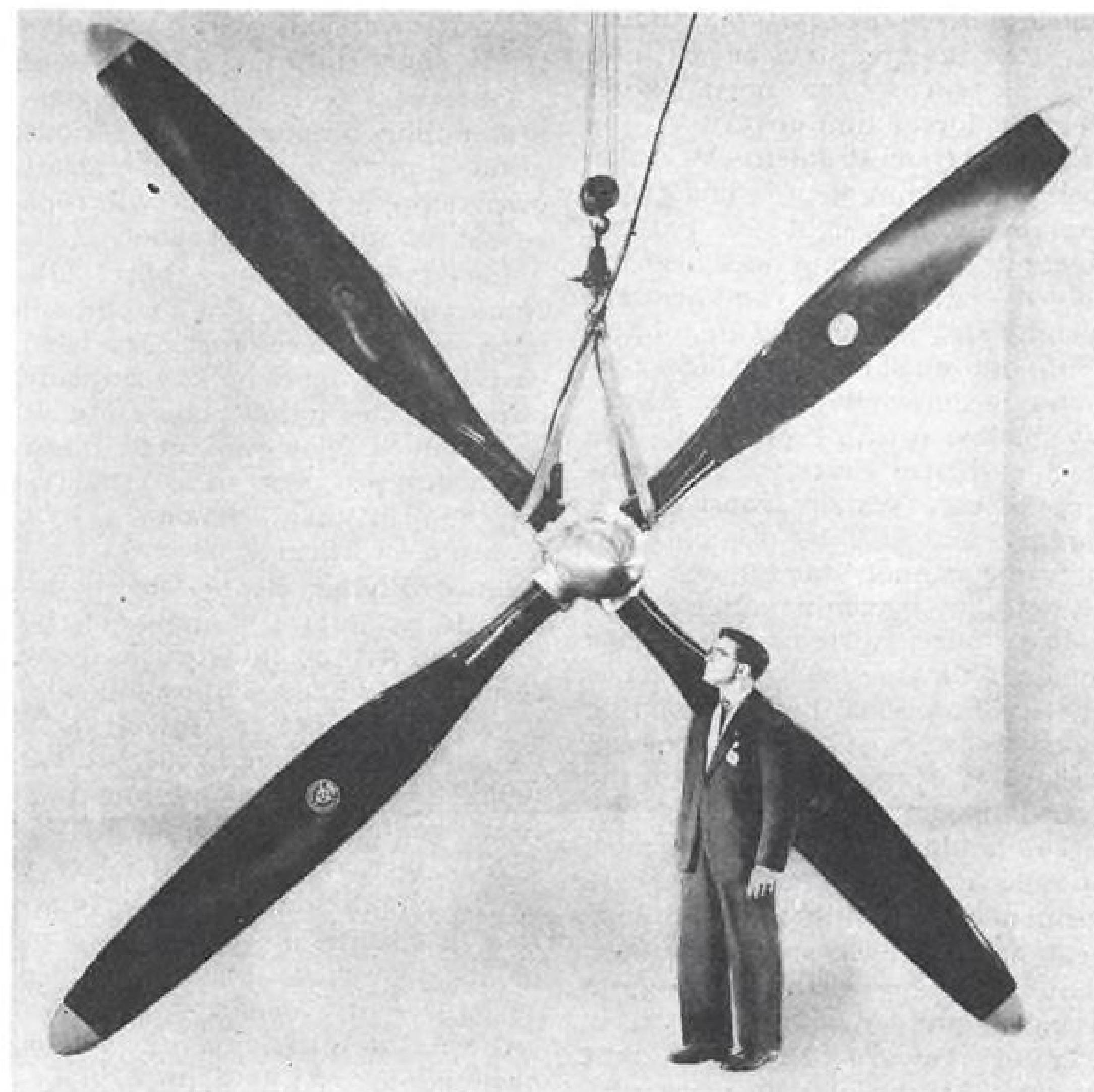
► **Practicability Challenged**—The first group accuses the second of biting off more than it can chew; contending that the weight and cost of such a vehicle would put it beyond the price of a less expensive airplane plus a low cost automobile; and finally, the hybrid result would be neither a good aircraft nor a satisfactory landgoing vehicle.

Second group is convinced that not enough people could afford two



SOLAR AIRCRAFT'S 200,000TH MANIFOLD:

San Diego civic leaders lauded Solar Aircraft Co., world's largest manufacturer of aircraft engine exhaust manifolds, as "a shining example of private enterprise" on Solar's production of its 200,000th manifold. Founded during the depression, Solar survived by making pots, pans, beer barrels and musical instruments. Grouped about Manifold No. 200,000 are some of the 27 veteran Solar employees who once gambled six wageless weeks on ultimate success. Left to right are: H. A. Springer, assistant experimental engineer; A. R. Ware, janitor; Rex Radford, supervisor of tool distribution and storage; Eugene Smith, general superintendent; Capt. Lacey Hall, Army Air Forces resident representative; C. Hallock, hammer department assistant foreman; Edmund T. Price, president; J. F. Sebastian, heat treating department; A. W. Briggs, treasurer, and E. D. Foster, works manager.



18-FOOT CURTISS ELECTRIC PROP:

This 18-foot, two-inch Curtiss Electric propeller has been in service test on a big Army bomber and is reported to effect a 20 percent saving in weight over other types, as well as increasing useful load with less propeller weight.

vehicles to support a real light-plane industry.

Both sides have strong arguments, but to date the "purists" are way out in front simply because the airmobile group has not yet developed its product. Admittedly the airmobile design problem is a tough one, but its supporters firmly believe that private aviation will not be a reality until their job is completed.

► **All-purpose Vehicle**—The airmobile school has its extremist and conservative elements. The former wants a 100 per cent all-purpose vehicle—something you can run downtown to shop in, or fly to China. Opponents just can't visualize parking a fuselage in urban streets, nor can believe an owner would be willing to disassemble and reassemble the wings and empennage every time he wants to fly or "ride"—assuming that a cab-with-attachable-wings design is developed.

The conservative airmobilist thinks the craft should be primarily an airplane, with purely auxiliary means of getting about on the highway. He likens this to a sailing vessel with auxiliary power. He wants to drive the craft to his home from the landing strip or continue on his way, if he must, when weather forces him down.

► **Landing Gear Problem**—A really roadable landing gear is one problem involving weight and gearing power to the landing gear also involves considerable complication. Weight also is involved in folding wings and nuisance is the deterring factor in detachable wings. Nastiest shadow of all, however, is the matter of road casualty. An automobile can sustain considerable damage and still be useable. An airframe cannot stand much of a hit without becoming unfit.

The "pure" aircraft school has somewhat less cause for divergence in its conceptions, but the landing factor is one point for discussion because it bears so strongly on the ever important question of utility.

The landplane is by far the most popular type, more because of performance than utility. Landplane gear has less bulk and less weight than sea-going gear, resulting in less drag and horsepower required.

► **Trend Toward Utility**—Recent surveys of the vastly more air-conscious public show a marked trend toward utility as a prime requisite for private aircraft. It is only a trend, however. Speed and high performance still capture the general public's imagination and

form its outspoken demand. However, surveys among those who are really interested in owning an airplane and who are sufficiently air-educated to know what they want and what for, indicate that high performance is secondary to utility. Speed, therefore, is something which may be constantly worked for as a matter of improvement, but utility must be provided at the very outset.

Float planes would seem to have an advantage from this viewpoint because of the profusion of waterways in this country convenient to communities. To date the float plane has had considerably less appeal than landplanes. It is said, however, that floatplane owners have been considerably happier with their craft than landplane owners, and have had more use of their waterborne craft.

► **Mortality Rate**—The frightfully high "mortality" rate, i.e., short length of ownership, is the result of public ignorance resulting in improper evaluation of most important aircraft requirements. It seems that as long as the demand for high performance is catered to at the sacrifice of utility, individual aircraft ownership will be of relatively short duration.

Observers feel that as the general public becomes more serious minded on the question of aircraft ownership, the float plane will represent an appealing product.

Ideal solution for a pure, all-round airplane is the amphibian type. So far these craft have been costly, heavy and bulky—entirely out of the cheap lightplane class. It still offers, however, the most promising prospects of all, satisfying the utility requirements as best a pure aircraft can.

► **Small Flying Boat**—Most suitable design approach appears to be the small flying boat with auxiliary retractable wheels. Philosophically, it would be better to call it a "waterborne fuselage" because the whole idea is to reduce ancillary components to a minimum.

A key to what may be very bright amphibious future is progress in certain materials developments. Molded plastic bonded structures of wood or paper may answer the problems of weight, production costs, and imperviousness to corrosion.

Amphibious floats are considered in some quarters to have strong possibilities for adaption of landplane designs to both water and land operations.

20% Saving Claimed For New 18-ft. Props

Hollow steel Curtiss Electric blades reported to increase useful load of Army bomber used in test by 650 pounds.

The new 18-foot, two-inch Curtiss Electric propellers, which are disclosed as having been in service test on a big Army bomber, are reported, despite their size, to effect a 20 percent saving in weight over a propeller of comparable diameter with four solid aluminum alloy blades and to increase the useful load of the airplane approximately 650 pounds.

The propellers harness 3,000 hp. and more in the sub-stratosphere and the durability of hollow steel blades makes them lighter than many smaller diameter propellers using aluminum alloy.

► **15 Inches Wide**—Reverse thrust and automatic synchronization are embodied in this installation. The four hollow steel blades, each eight feet 8.5 inches in length, are 15 inches at the widest point. The design for this basic 18-foot propeller has been under development by Propeller Division, Curtiss-Wright, in cooperation with the AAF Materiel Command for about three years.

B-29 Labor Needs Given Priority

A nation-wide drive to recruit workers for production of Boeing's B-29 *Superfortress* is being launched by the War Manpower Commission which has instructed every war production area in the nation, including No. 1 critical areas having local labor shortages, to support the campaign.

For the first time in the past year and a half, the WMC in Los Angeles, a critical area and warplane production center, lowered the bars to permit Boeing to open a downtown recruiting office and to run recruitment display advertisements in 10 newspapers in the metropolitan area.

► **Plane Firms Cooperate**—Southern California aircraft companies, themselves hungry for workers, have bowed to the high urgency rating accorded Boeing, indicating the importance attached to the output of B-29's.

Boeing personnel division has sent labor recruiting officers to almost every state.

House, Senate Resolutions Ask Formation of Air Policy Group

Commission designed to study problems of military and civil aviation and recommend basic national policies on aviation as instrument of defense and commerce.

Aviation is a step nearer attainment of an Air Power Policy with the introduction of joint resolutions in the Senate and House providing for establishment of an Air Policy Commission to chart a new course based on the nation's future needs.

The aircraft industry's views on air power and its recommendations for an air power policy formed the background for the resolutions offered in the Senate by Senator Murray (D., Mont.) and in the House by Rep. Randolph (D., W. Va.)

► **Duties**—The Air Policy Commission would be charged with the duty of making a "full study and investigation" of the problems of present and future developments in military and civil aviation and recommending basic national policies on air power as an instrument of national defense and international security and the expansion of civil aviation.

The Commission would be composed of two members of the Senate, one from each party; two members of the House, one from each party; four members of the Executive branch of the government with a background of experience in military or civil aviation, to be appointed by the President and to serve in their personal capacity rather than as representatives of their departments or agencies; six public members from industry, science, labor and other sections of the national economy, none of whom may be directly engaged in the aircraft manufacturing or air transport industries, selected by the President. In addition, a chairman would be appointed by the President.

► **Report in Six Months**—An appropriation of \$100,000 would be provided the Commission for its studies, and it would be directed to make a preliminary report six months after undertaking its hearings and deliberations.

The resolutions are the outgrowth of testimony before the War Contracts Subcommittee of the Senate Military Affairs Committee, in the course of which

Eugene E. Wilson, chairman of the board of governors of the Aeronautical Chamber of Commerce and vice-chairman of United Aircraft Corp., cited the Air Power Policy resolution drawn at the Apr. 26 meeting of the Aeronautical Chamber in Los Angeles.

► **Urges Air Policy**—Mr. Wilson also told Senator Murray that an immediate requirement is the early delineation of an air power policy for the nation. He cited conditions following the last war, pointing out that the aircraft industry was threatened with destruction prior to the time President Coolidge appointed the Morrow Board.

Public opinion did not support the maintenance of large forces in that period, he said, but the aircraft industry was able to tide over that period by congressional passage of the Air Corps Act of 1926 and foreign orders, bringing this country to this war with technological superiority and the ability to expand rapidly.

► **Compares Situations**—Mr. Wilson then told Senator Murray that the aircraft industry sought no subsidy, but only the opportunity to compete on constructive ground. He said "we are impressed with the similarity of the situation here and that which existed at the time of the Morrow Board. There was great confusion and uncertainty. Committees met and discussed this whole problem, but nothing happened until this statesmanlike group resolved the principles and made some recommendations which Congress implemented into a policy."

The Aeronautical Chamber, in its April session, recommended formulation of an American Air Policy under four guiding principles.

The United States, the Chamber said, should maintain an air power sufficient not only to win this war but also to keep the peace:

► By maintaining adequate air forces at such strength and in such state of readiness as to preclude a successful assault upon our country or its possessions.

► By acquiring and maintaining air bases essential to our security and that of overseas trade.

► By facilitating the orderly and economic expansion of domestic and international air transport and of private flying.

► By preserving a strong aircraft manufacturing industry.

WEST COAST REPORT

Coast Plants Seek To Publicize Plans

Announcement of post-war programs expected next month, with view to persuading employees to stay on job.

Look for mid-September announcement of the post-war plans of West Coast manufacturers. They are on the verge of convincing the Army and Navy that disclosure of their plans is necessary to stem an exodus of workers, who will be persuaded to stay on their war jobs if assured that a fair percentage will be given continued employment in peacetime production. Up to now the military has frowned on all post-war talk and the companies have bowed to the wishes of their best customer.

► **PLANE MANUFACTURE**—Potentially bad news for railroads and steamship lines, unless they are able to win a place in the air transport picture, is the apparent trend of all West Coast airplane builders toward shelving plans for venturing into a variety of manufacturing enterprises.

Company heads momentarily seem most interested in building post-war airplanes, and lots of them. Surface carriers would rather see them building washing machines and refrigerators. Douglas recently denied flatly a rumor of having entered into a manufacturing deal with Sears Roebuck.

► **CONVERTIBLE B-29'S**—Those who have crawled through the fuselage of a Boeing *Superfortress* under construction are impressed by the absence of a bomber's customary hodge-podge of framework within the area. They note that it should be easy to convert it into a post-war passenger or cargo cabin.

There are similar rumbles of a possible peacetime conversion of Consolidated Vultee Aircraft Corporation's B-32 bomber—which still may get into the Pacific fight.

—S. B.

Wright, World War Robot Expert, Impressed by German JP Bombs

Simplicity of propulsive machinery and easy manufacture compensate for heavy fuel consumption, says co-inventor of airplane on 73rd birthday; scientist's role in world war pilot-less plane project revealed.

Orville Wright, who as engineering consultant for the old Dayton Wright Co. in World War I participated in that company's secret project for construction of gyro-controlled robot bombs, admits he is impressed by the simplicity of fabrication of the German jet-propelled flying bombs which have taken such a heavy toll in England.

The German design permits much lower pressures and for this reason probably would require more fuel, but the simplicity of the propulsive machinery, and its easy manufacture probably compensate for this, he believes.

► **Studied Robot Bombs**—As a member of the National Advisory Committee for Aeronautics, and in his contacts with leading aviation authorities, Mr. Wright has made a study of the German robot bombs.

Only a few people today know that the co-inventor of the airplane and the first man to fly it, Orville Wright, had a part in a robot bomb development project in the World War. The flying aerial torpedoes were powered by 40-horsepower motors, and carried biplane wings. The armistice in 1918 stopped the development, and radio-controlled devices since obsoleted the project.

► **Originated in England**—The project originated in England, and the development was supervised in Dayton by Charles F. Kettering. Henry Ford was making arrangements to build engines for the torpedoes, on a mass production basis, when the war ended.

The flying torpedoes carried a 200-pound load of TNT in the nose, and when the device had flown a predetermined distance, governed by an "air log" device, the wings were dropped off and the nose-heavy torpedo dropped to earth, to be exploded by a detonator in the nose.

► **Used Giro-Pilots**—The torpedoes were launched on a four-wheeled carriage which rode on a rail track for 50 feet. The wings had no ailerons, all controls being in the tail, and these were operated by a

bellows arrangement, worked by an early gyro-pilot, a Sperry development, according to records in Dayton.

Interviewed at his Dayton experimental laboratory on the eve of his seventy-third birthday, Aug. 19, which Congress back in 1939 designated as National Aviation Day, Wright disclosed that the East Kensington museum in England has asked permission to make a replica of the original Wright Kittyhawk plane, in the event it is returned to this country, as is planned, six months after the war ends, and that some time ago he had gone over some plans for the replica which had been sent him by the museum, checking them for inaccuracies.

► **New Covering Made**—The plane now in London, he said, has virtually all the original structure, except where ribs needed repairs, but a new fabric covering was placed on it when the plane was restored shortly before sending it to London. The fabric, however, is of the same muslin as that originally used, and was specially woven for the restoration, by the manufacturer of the original cloth.

The battered propellers of the original plane were never sent to England and Wright still has them.

Urge Army Research, Development Unit

Establishment of an Office of Military Research and Development in the War Department is proposed in a bill introduced by Rep. Snyder of Pennsylvania, to operate under a director and an assistant director detailed from the Army and one officer from the Army Air Forces, one from the Quartermaster Corps and one from the Medical Corps as a basic staff.

With the creation of the office, existing operations under Army jurisdiction which duplicate or overlap in such would be eliminated and all military research would be coordinated.

Surplus Bill Delay Causes Pessimism

House measure appears to have little chance of approval by Senate, which has own bill.

The House last week passed its own bill for disposition of surplus government property, but there appeared little likelihood that the measure would get through the Senate as it now stands for the simple reason that the Senate has its own bill, which resembles in no way the one passed by the House.

As the Senate moved ahead with its own measure, apparently ignoring the bill passed by the House, industrial and government leaders were frankly pessimistic that any disposal legislation would be enacted soon. Action on this problem, as on other phases of industrial and human demobilization, has been so painfully slow and so thoroughly entangled by parliamentary requirements that there was little or no evidence that early action was possible.

► **Work of House Experts**—The disposal bill passed by the House contained forty-four pages and represented the combined efforts of virtually every member of the House who considered himself an authority on the subject. In brief, it puts full power in the hands of a \$12,000 a year administrator.

In directing sales of approximately \$75,000,000,000 of excess stocks, the administrator would be advised by a 16-man advisory board formed of Cabinet members and agency heads. The board would be advisory only, and all decisions would be made by the administrator.

► **Senate Bill**—The Senate Military Affairs Committee sent to the floor its own disposal bill which differs radically from the House bill. The Senate measure creates an eight-member board, chosen to represent the geographic areas of the country as well as the different areas of economic interest. Members of this board would draw \$10,000 a year and would have full authority for directing surplus sales.

Already the House has defeated a proposal for an eight-member board, claiming that a single administrator could direct the program more efficiently, but the Senate is going ahead with its bill, nevertheless. If the bill is passed by the Senate there appears little doubt that the conferences be-

tween the two houses would extend for weeks before differences are adjusted.

► **Travel Allowances Cut Out**—Meanwhile, the House Ways and Means Committee was demonstrating how far apart the Senate and House actually were on agreeing on reconversion legislation when it started work on the George reconversion bill. Its first action was defeating, by a vote of fifteen to five, the Senate-approved provision for travel allowances for transporting migrant war workers back home. The committee also was preparing to change drastically the controversial unemployment compensation provisions of the measure, which caused it to be tied up for days in the Senate.

With these changes expected to be recommended by the Ways and Means Committee and perhaps supported on the floor, the George Bill will face considerable delay in conference.

So far Congress has taken definite action on only one phase of reconversion legislation. Before the recess, contract termination legislation has completed after more than a year and a half of discussion and consideration. The second and third phases—disposal of property and industrial and human demobilization—appear almost as far from final action as they were a year ago.

Spring Clutches Company Is Sold

Assets of L.G.S. Spring Clutches, Inc., have been sold to L.G.S. Spring Clutches Corp., a wholly-owned subsidiary of Curtiss-Wright Corp.

G. W. Vaughan, Curtiss-Wright president, said E. F. Theis, of Indianapolis, will be president of L.G.S. Spring Clutches Corp. and also will continue as manager of the Indianapolis plant of Curtiss-Wright, propeller division.

► **Expansion**—Immediate steps will be taken to expand the engineering and sales force of the spring clutch company, Vaughan said, and research and development of new spring clutch applications will be expedited. Now on war contracts, the firm's post-war outlook is regarded favorably because of the wide application of its products.

L.G.S. Spring Clutches, Inc., was incorporated in February, 1939. Its predecessor, L.G.S. Devices Corp., a division of Cord Corp., was started in 1925.

AAF 'Chute Delivery System May Be Used Commercially After War

Procedure perfected by Army is expected to be employed in carrying merchandise to communities lacking landing facilities.

By ALEXANDER MCSURELY

Experiences of the AAF in making large-scale aerial deliveries of ammunition, fuel, food and equipment to troops in advanced bases where other means of delivery is impracticable may serve as a guide to future peacetime uses of aerial delivery of mail and commercial cargo.

While currently AAF Materiel Command engineers who are studying ways to improve further aerial delivery techniques, with and without parachutes, are of the opinion that wherever possible the dropping of cargo by 'chute is more practicable than dropping the cargo in a free fall, they are continuing studies of free-fall drops.

► **Sky-Hook Tested**—Among the more novel devices now under study in the personal equipment laboratory, which has charge of cargo parachutes as well as 'chutes for use of air crews, is a free-fall plastic container patterned after the single-winged maple seed. Known commercially as the "Sky-Hook," the container is attached to a single blade, resembling a propeller blade, and will carry approximately 65 pounds.

Dropped from a plane, it spirals down to a spot landing, unaffected by wind, with the single blade making about 300 rpm. It lands at a falling speed of approximately 30 feet per second, not a great deal faster than the falling speed of a parachute-supported cargo container. Still under test, the container's future development may offer considerable future expansion possibilities for free-fall aerial deliveries.

► **'Chutes Preferred**—Generally speaking the engineers at the Command's big experimental center, Wright Field, Dayton, Ohio, believe that cargo dropped by 'chute is less subject to damage, its location is marked by the parachute when it lands and fairly accurate spot landings can be made, if the diameter of the supporting chute is diminished to permit a more rapid descent.

Cargo 'chutes used by the AAF vary from four to 90 feet in diam-

eter according to weight of the object to be dropped but the largest 'chute used in standard practice is one of 48 feet. Occasionally as many as four parachutes are attached to a single extremely heavy item to make its descent safer. Among unusual items which have been dropped by parachute are small motor vehicles, motor-sailboats for water rescues, large artillery pieces and once, years ago an airplane, which cut out its motor and came safely to earth riding under an 80-foot canopy.

► **Overloads**—A standard 24-foot cargo 'chute is used for cargo units weighing up to 300 pounds, although sometimes overloads up to 200 pounds, making a total weight of 500 pounds, have been successfully lowered by this size canopy.

Newly standardized are bomb-shaped cargo containers made of plastic and suspended on racks under C-47 cargo planes, or in some cases hung on the bomb racks of heavy bombers. A release similar to the bomb-release mechanism drops these from the plane, and as soon as the container drops a safe distance below, a static line similar to that used to open paratroopers' 'chutes, yanks the cover off the 'chute and opens it.

► **Containers**—Another interesting new container is built up from slats of plywood fastened together into a bomb-shaped structure. By adding more slats, this container can be expanded to any desired diameter.

Still in wide use are the older type cargo containers, which resemble blanket rolls, but are made largely of felt and covered with canvas. Felt padding at the ends, provides additional shock absorption to protect the contents from severe landing jolts.

Commercial usages of aerial deliveries already have had some application in small communities which have been able to take advantage of airmail service by aerial pickups and deliveries. Soon after the war, these same communities may be served by aerial deliveries of merchandise from nearby cities.

PRIVATE FLYING

Contract Schools to Dominate Coast Post-War Civil Aviation

Survey reveals that war pilot training units are in good position with regard to equipment and financing for resumption and expansion of peacetime aviation activities.

By SCHOLER BANGS

Virtually all the nation's once-flourishing 64 civil contract war pilot training schools will be dominant in the opening of West Coast civilian aviation enterprises the moment war ends.

Peace will find them financially secure, despite numerous contract renegotiations, and capable of investing millions in earned and borrowed capital in aggressively planned post-war operations.

► **Varied Enterprises**—These range from border-to-border chain airport services to local and highly specialized enterprises — flying schools; engine and airplane overhaul centers; charter services; personal aircraft sales; feeder lines; and agricultural dusting and seeding.

The extent to which they will bid for the Defense Plant Corp. air bases they now occupy will depend largely upon sales conditions not yet announced by the government.

► **Projects Held Up**—Because many of their planned projects can not be started until civilian flying is restored completely and without wartime restrictions, some can not, for competitive reasons, be announced at this time.

Glenn E. Carter, western field liaison representative of the Aeronautical Training Society, national organization of the civil contract schools, believes the generalized plans of several West Coast schools, obtained from school operators in a survey for AVIATION NEWS, are "an exceedingly moderate indication of what will be seen after Japan is whipped."

Maj. C. C. Moseley, operator of Cal-Aero Academy at Ontario, Calif.; Polaris Flight Academy, Lancaster, Calif.; and Mira Loma Flight Academy, Oxnard, Calif. (since cancellation of the Polaris contract Mira Loma has been transferred to Lancaster) un-

doubtedly will be an outstanding figure in western civil aviation.

► **Refresher Training**—He is confident that civilian schools will continue to handle Army Air Forces primary training, and instruction designed to convert military pilots into commercial flyers. He believes, too, that the schools will be used for refresher training of reserve officer pilots. Accordingly, he plans continued operation of Cal-Aero and Mira Loma.

Moseley also will continue into the post-war period his war-expanded enterprises at Grand Central Air Terminal in Glendale, Calif. These include Curtiss-

Wright Technical Institute, organized in 1929 and now one of the nation's largest aviation mechanics and aeronautical engineering schools; Aircraft Industries Co., now being equipped with sound-proof test and preparing for overhaul of all makes of aircraft engines. (A.I.C. also is western distributor for Wright, Lycoming and Jacobs engines, and Curtiss-Wright propellers); and Curtiss-Wright Tech's Special Devices Manufacturing Division, scheduled to switch from construction of Army and Navy mobile training units to manufacture of training and demonstration units for a wide range of civilian mechanical products.

► **Glendale Port Development**—If Glendale permits post-war flying on Grand Central Air Terminal, its runway extended to 5,000 feet for use as a military base, Major Moseley, as operator of the airport, undoubtedly will seek maximum development of the airport for feeder line, fixed base and personal aircraft uses.

Currently prominent because of its coast-wide feeder airline proposals, Southwest Airways is known to be considering the post-war operation of at least one of its three war training bases—Thunderbird Field, Glendale,



WESTERN POST-WAR CONFERENCE:

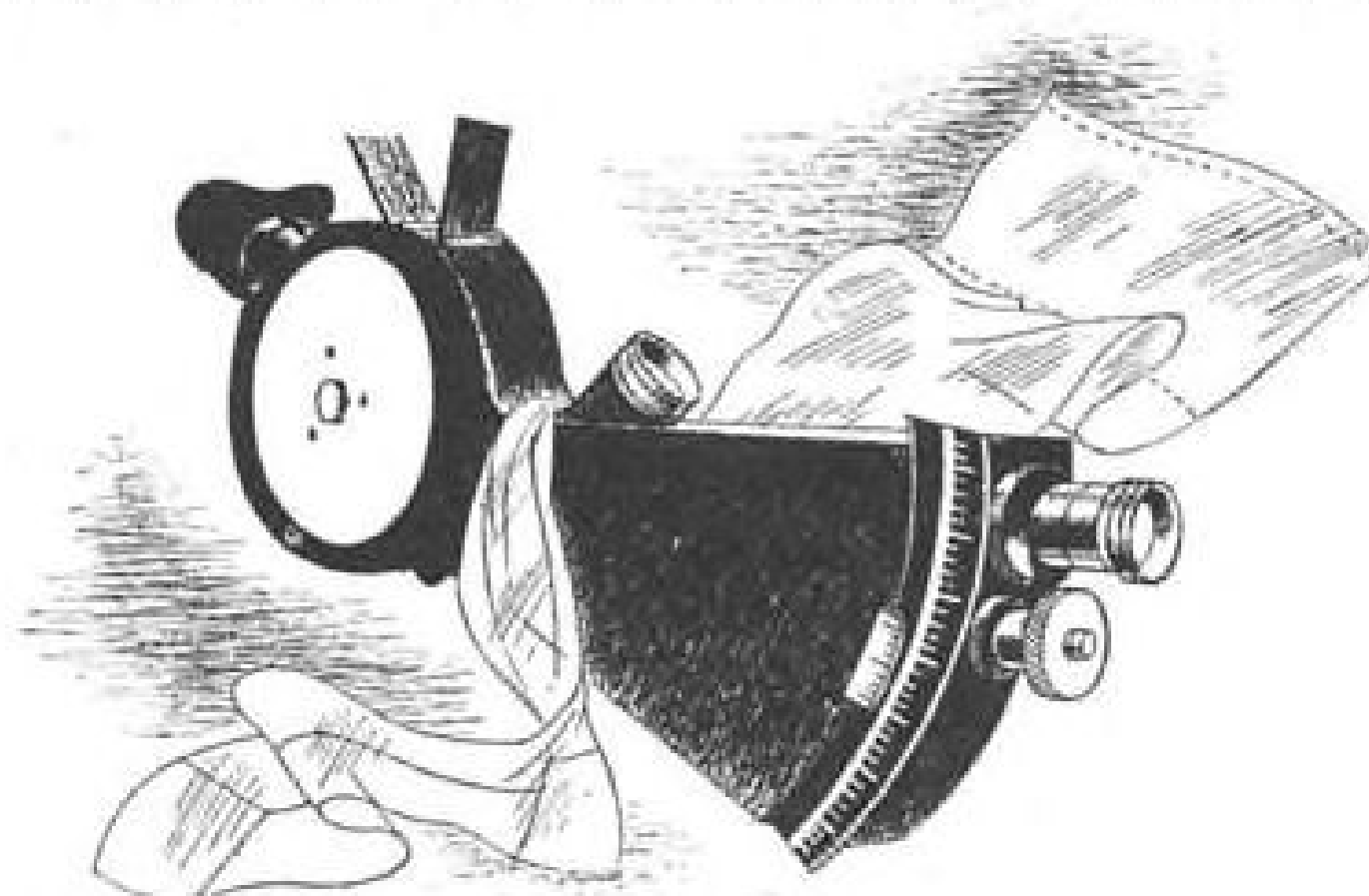
These members of the Western Information Council of the Aeronautical Training Society met in San Diego to plan the distribution of a forthcoming ATS questionnaire on post-war plans of member Army Contract Flying Schools. Left to right, standing, are: Earl D. Prudden, vice-president and general manager, Ryan School of Aeronautics; Harry Siegmund, Ryan public relations assistant; Frank Howe, public relations manager, Mira Loma and Cal-Aero Flight Academies; Glenn E. Carter, western field liaison representative, ATS; William L. Wagner, Ryan public relations director; Walter Bohrer, public relations director, Rankin Aeronautical Academy. Seated, left to right, are DeWitt Meredith, public relations director, Hancock College of Aeronautics; Keith Monroe, Ryan publicity manager; and Harry Donoho, editorial director for Maj. C. C. Moseley enterprises.

They wouldn't fly without them...



Mascot of a Fortress crew who never flew without him, this Scottie had his own oxygen mask and parachute. On duty at Pearl Harbor December 7, at the Battle of Midway and the Guadalcanal campaign, he logged over 800 flying hours.

A pair of patent leather dancing slippers always decorated the feet of a co-pilot who had worn them on his last civilian date. They went on many a mission over Germany, worn under his flying boots.



A careful navigator used one of his best girl's nylon stockings to wrap around the lenses of his precious octant.



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Ethyl antiknock fluid goes along with fighting planes powered by U. S. made gasoline. It goes into practically every gallon of fighting grade aviation fuel—which is one reason why our fliers not only have the best gasoline—but plenty of it.

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Chrysler Building, New York City



DISCUSS PRIVATE FLYING:

Private flying and the role it will play in relations with South America was a subject at a recent session of the Personal Aircraft Council. In informal conversation are John E. P. Morgan, manager of the Personal Aircraft Council; Norris Mumper, director of aviation for the Coordinator of Inter-American Affairs; and Col. Harrison Brand, of the Aeronautical Chamber of Commerce.

Añiz; Thunderbird II, Phoenix, Ariz., and Falcon Field, Mesa, Ariz.

► **Thunderbird Field** — Leland Hayward, Southwest's president, prominent as a Hollywood motion picture agent before his aviation venture and his partner John Connelly, may be expected to negotiate with DPC for title to elaborately equipped Thunderbird Field, sixteen miles from Phoenix, and capitalize on its dramatic name as a base for civilian school and private flying operations.

Hayward also may convert Thunderbird Field—already thoroughly equipped with modern barracks, swimming pools, hangars and shops—into an aviation country club, following to some degree the pattern of Arizona's dude ranches.

Momentarily, however, Hayward and his associates, among them James Ray, vice-president, one of the nation's foremost autogyro and helicopter pilots, are concentrating their post-war planning energies on three feeder line applications; a 21-route coastal system touching 252 cities and towns; a 39-route system in Texas and Oklahoma planned to serve 318 cities and towns; and a three-route helicopter air mail and air express system to serve the Los Angeles greater metropolitan area, embracing 46 post offices.

► **"Tex" Rankin**—Among the West

Coast's most colorful school operators is J. G. "Tex" Rankin, head of Rankin Aeronautical Academy at Tulare, Calif. Rankin's pre-war fixed base school and charter operations in Portland, Ore., and at Lockheed Air Terminal, Burbank, Calif., are an indication that he will not be content with confining his post-war operations to one or two bases.

"Tex" Rankin's name (he still holds the international acrobatic and precision flying championship) and proved business ability support the belief of some West Coast observers that he will engage in multiple airport charter and aircraft maintenance operations.

► **Harry S. White**—When the war training contract of Coast Aviation Corp. at Dos Palos, near Fresno, Calif., is terminated, the school's operators, Harry S. White and associates, will be ready to launch a number of fixed base operations, a mechanics school, an aircraft service agency, and very likely an aggressive personal aircraft sales organization.

► **Had Pre-War School**—White's Palo Alto Airport, Inc., operating Mesa Del Rey contract school at King City, Calif., prior to the war operated a CAA-approved school and repair station, and was California and Nevada distributor for *Spartan*, *Ercoupe* and *Interstate* airplanes. White is credited with having sold personally more air-

planes in the West than any other person during the years 1939 and 1940.

Post-war plans of Ryan School of Aeronautics, operating contract schools at Hemet, Calif., (which may continue in operation after the war) and Tucson, Ariz., already have had extensive announcement, and include resumption of civilian school activities as well as local feeder line and international airline operations, if certificated by CAB.

Of all the West Coast contract school operators, Harry Claiborne and his associate Bruce Miles, of Claiborne Flight Academy, Wickenburg, Ariz., are the only ones who definitely indicate disinterest in post-war fixed base and school operations. They announce that they plan to develop an importing and exporting business in China and Japan when the war comes to an end.

► **Hancock College of Aeronautics**—This school, founded in 1927 by G. Allan Hancock, wealthy West Coast oil man, and converted to a civil contract school, is expected to resume civilian operations. Its training contract canceled, Hancock is retaining intact its structure of operating personnel at Santa Maria. Hancock's endowments to the University of Southern California in Los Angeles have led some observers to believe the aviation school may become a part of U.S.C.

Of the Coast's 16 contract schools in operation at the peak of military pilot training, five already have been canceled out: Twenty-Nine Palms Air Academy, glider and power light school at Twenty-Nine Palms, Calif.; Morton Air Academy, Blythe, Calif.; Claiborne Flight Academy; Hancock College of Aeronautics; and Polaris Flight Academy.

► **More Schools to Close**—Recent contract cancellations will close the following schools by Oct. 16: Ryan School of Aeronautics at Tucson; Cal-Aero Flight Academy; Palo Alto Airport's King City school; J. Lloyd O'Donnel's Visalia-Dinuba School of Aeronautics at Visalia, Calif.; and Southwest Airways' Thunderbird II at Phoenix.

No contract terminations are in view immediately for: Ryan School of Aeronautics at Hemet; Southwest Airways' Thunderbird Field at Glendale and Falcon Field at Mesa; Mira Loma Flight Academy; Rankin Aeronautical Academy at Hernet and Coast Aviation Corp. at Dos Palos.

THE AIR WAR

COMMENTARY

Crushing Air Blows Expected To Clear Path to Philippines

Coordinated attack believed likely as result of recent conferences; Mindanao already under attack by Gen. Kenney's *Liberators* from bases in northwestern tip of New Guinea; Halmahera group holds significant position on way to Davao.

The firm possession of the strategic Marianas sets the stage for the next act of the fast-moving Pacific drama. Powerful land-sea-air task forces under Admiral Halsey (Third Fleet) and Admiral Spruance (Fifth Fleet) are preparing to carry the war closer to Japan on practically a non-stop basis, one striking while the other builds up strength for a new blow. Saipan, Tinian and Guam contain three excellent harbors and ten large airfields. Five hundred miles to the north lie the Ogasawara (Bonin) Islands, a ladder chain heading straight for Tokyo. Already these islands are in the process of neutralization by Maj. Gen. Willis Hale's *Liberators* and preliminary blows from a naval task force. And 1,500 miles to the west lies Mindanao, already under air attack by Lieut. Gen. George Kenney's *Liberators* from the northwestern tip of New Guinea. It may well be that the next conference to be held by General MacArthur and Admiral Nimitz will be on Davao, Mindanao's southern port.

► **Stepping Stones**—It is hard to say whether the great enemy base at Truk will continue to be neutralized by air attacks of Maj. Gen. "Billy" Streett's Thirteenth Air Force from bases in the Admiralty Islands and Seventh Air Force bombers from the western Marshalls, or whether it will be captured and used as a base for our own naval operations. In any case it appears almost certain that the powerful enemy bases of Yap (including Ulithi) and Palau (including Ngulu) in the western Carolines will have to be occupied to protect our flank; Palau is some 500 miles due east of Mindanao, and probably is more powerful than

the much-heard-of base at Truk.

Similar steps are indicated in General MacArthur's return to the Philippines from the southeast. When his forces landed at Sansapor four weeks ago it was termed the last operation of the New Guinea campaign, a campaign which in 13 months advanced our lines more than 1,200 miles along the northern New Guinea coast. By means of our air blockade the enemy is now no longer able to operate by air or sea beyond the Halmahera-Philippines line, the main defense of their conquered empire in the southwest Pacific. From Sansapor to Davao is 675 miles, with the Halmahera group holding a position of considerable strategic significance along the way.

► **The Halmahera Islands**—This is the northernmost group of the Moluccas, or Spice Islands, and comprises the large sprawling island of Halmahera itself (6,500 sq. miles), with the small island groups of Batjan and Obimajor to the south and Morotai to the north. The latter is almost directly on the sea-air route from Sansapor to Davao, somewhat less than half way. Its possession would bring southern Mindanao within easy range of *Liberators* with normal loads, plus fighter escort.

The Japanese have been fully aware of the strategic importance of the Halmaheras, and during the past year, while our New Guinea campaign was in progress, have constructed a number of new airfields, and have made extensive use of the harbors in inter-island shipping.

It was largely from Halmahera that the seemingly endless supply of Jap bombers and fighters was flown in to the big enemy bases

of Lae-Salamaua, and later Wewak and Hollandia, the smashing of which played such an important part in the leap-frogging New Guinea campaign.

► **Target: Halmahera**—As our air power advanced westward (Hollandia, Apr. 22; Wake Island, May 17; Biak Island, May 27; Noemfoor Island, July 2; Sansapor, July 30), Fifth Air Force bombers began systematic attacks on enemy shipping in the Halmahera area, with ever increasing success. Practically all heavy shipping has been driven from the seas east of the Mindanao-Halmahera line and south through the Molucca Sea to Ceram (Amboina, chief port). During the last week of July, large-scale air attacks were begun on Halmahera air bases.

Lockheed F-5's had picked up a considerable concentration of enemy aircraft at the major fields of Galela, Miti and Lolobata. These were attacked on the 27th by *Liberators* and *Mitchells*, escorted by *Lightnings*, some 80 tons of bombs being dropped; 30 Jap planes were destroyed on the ground and 15 shot down in combat against a loss of two P-38's, one pilot being rescued. Low-level strafing by the P-38's and B-25's also caused considerable damage.

A second heavy attack (on Galela and Lolobata) was made on the 31st, with similar results. These two air bases were attacked again Aug. 7, with some 20 enemy aircraft reported wrecked on the ground or damaged. Enemy interception was consistently weak in all these attacks.

► **Knockout**—With the heavy attack on Miti airfield Aug. 18, *Liberators* and *Mitchells* dropping 87 tons of bombs and destroying 23 planes on the ground, it was reported that for the present at least Halmahera as an air base was practically neutralized. Some 134 aircraft were destroyed and installations wrecked. It is significant that the same week witnessed three night raids in succession on Davao from New Guinea.

The way for the final jump to the Philippines is rapidly being prepared. And when we are there, good-bye to the Celebes, Borneo, Sumatra and points south. With Jap oil and other strategic materials cut off, the swing to the inner defense line of Formosa and the Ryukyu Islands, and the landings on the China coast may proceed apace.

NAVIGATOR

GOOD YEAR AIRCRAFT PRODUCTION REPORT



CONTRACTS: W535AC-13243, 16137, 19167, 21811, 23434

MARTIN B-26 (Marauder)

1200 SETS: AILERONS, FLAPS, FINS,
RUDDERS, STABILIZERS, ELEVATORS

DESIGN CONTRACT RECEIVED: DECEMBER 1939

FIRST PRODUCTION UNIT DELIVERED: JUNE 1940

INITIAL CONTRACTS COMPLETED: JULY 1942

Remarks: Production of components for these famous medium bombers followed their detailed structural design in the Goodyear Aircraft Engineering Department. Manufacture of B-26 components continuing far beyond these initial contracts still goes on, and has led to award of contracts for other components to Goodyear. Exceptional performance of the B-26 and its remarkably low percentage of battle losses attest both excellence of Martin design and Goodyear craftsmanship.

Goodyear is building components for sixteen different Army-Navy types of aircraft, including complete Corsair fighters and airships.

HOW GOODYEAR AIRCRAFT CORPORATION SERVES THE AVIATION INDUSTRY

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



Akron, Ohio

Litchfield Park, Arizona

WAR BONDS BUY THE WINGS OF VICTORY

AIRCRAFT PRODUCTION

Pressurized Cabin One Secret of B-29's High Altitude Performance

Method of pumping compressed air from turbo-superchargers into cabin eliminates necessity and inconvenience of oxygen masks.

The ability of Boeing's B-29 Superfortress to operate at extreme altitudes is due in large part to the pressurized cabin, until now one of the closely-guarded secrets of the bomber now making periodic raids on Japan's industrial centers.

Compressed air from the turbo-superchargers is introduced inside the cabin while the airplane is flying in the thin air of high altitudes at the same time that a certain amount of air is released from the cabin, thus maintaining near-normal air pressure.

► **Pressure Held Constant**—There is no attempt to maintain sea-level pressure, but instead some comfortable flying altitude, usually below 10,000 feet is selected for the start of pressurization. Up to this selected point, pressure inside the airplane decreases in the same ratio as pressure outside as the airplane climbs.

Above this selected altitude, however, the pressure inside is held constant, in spite of decreasing outside pressure, by introducing air

into the cabin while the flow out of the cabin is gradually decreased. As the airplane climbs, more air is pumped into the cabin to maintain this constant pressure. Thus, at 30,000 feet, for example, the occupants of the plane fly with the same comfort as they did at lower altitude. The application of this to peace-time flying is obvious.

► **Advantages**—One great advantage of the pressurized cabin is that lack of oxygen and aeroembolism (aviator's bends) are prevented without the use of cumbersome oxygen masks and employment of other precautions. Until the advent of the pressurized cabin, high-altitude flying was possible only with the use of oxygen masks.

The pressurization feature of the B-29 was an outgrowth of Army experiments in pressurizing an airplane and of Boeing pioneering in developing the pressurized Stratoliner transport which was in use for about a year before the war.

► **Answers Oxygen Problem**—The Army asked Boeing in 1938 to sub-

mit plans for pressurizing the cabin of the *Flying Fortress*. At that time Boeing had just developed the *Stratoliner*. While Boeing had applied the principle to commercial craft, the Army's thinking, in the meantime had crystallized along the same lines in regard to bombers.

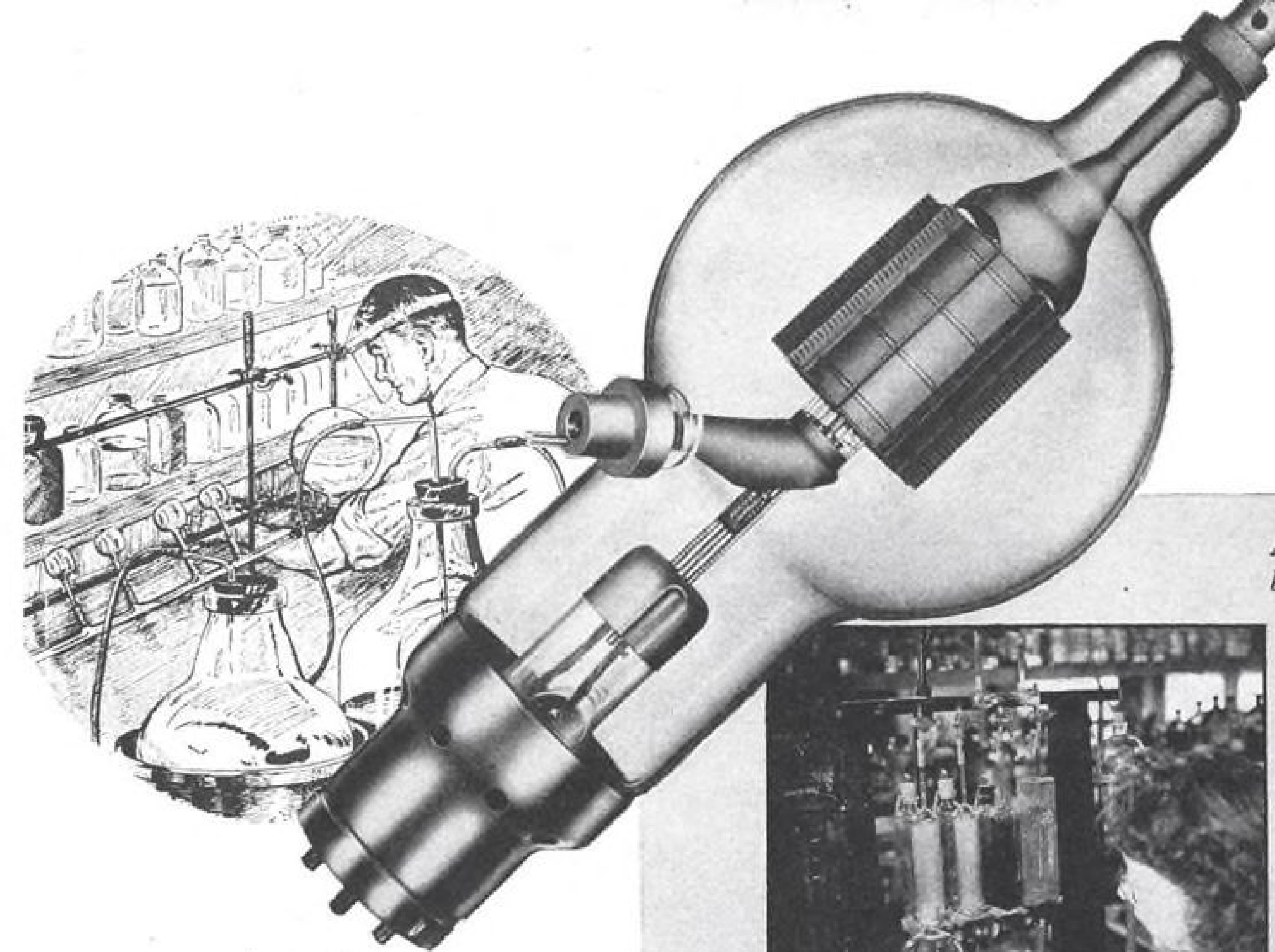
The Materiel Command was convinced that a pressurized bomber could eliminate oxygen masks, which were satisfactory for high altitude missions of short duration, but on long missions the use of the oxygen equipment impaired the efficiency of bomber crews.

Boeing turned its experiences in pressurizing the *Stratoliner* into building the B-29. Thus a peacetime development went to war in contrast to the many war-time aviation developments which will be put into peacetime operations.

► **Research**—Main objective of the pressurized cabin is to deliver the bomber's crew to its target in top physical and mental condition.

The thousands of hours' research spent on the project paid off in such refinements as the improved heating system, a better sealing compound for the bomber's skin joints, a more efficient gasket to prevent air leakage where control cables pass through bulkheads, a superior air-pressure control valve, a method of patching small bullet wounds sustained while the bomber is under pressure and other features.

Many of the developments in the pressurized cabin will be applicable to commercial transports after the war.



the Science behind the science of electronics

The pattern of progress in the science of electronics is determined by the achievements in creating and developing new and more efficient electron vacuum tubes. Therefore, the whole complex task of vacuum tube development—involving the intelligent application of many sciences—comprises the real science behind the science of electronics.

To create and produce the modern vacuum tube requires experience and skill of the highest order in these many sciences in addition to complete facilities for their application. The list includes everything from chemistry and metallurgy—the technology of glass fabrication and vacuum pumping—to physics, optics, thermo-dynamics and most important of all—Electronics.

The resources and resourcefulness of Eimac laboratories have accounted for many outstanding contributions to the science of Electronics. A fact which is attested to by the leadership which Eimac tubes enjoy throughout the world. These comprehensive facilities are continuously being utilized to achieve better and better results for the users of Eimac tubes.

Eimac Engineering is devoted solely to the development and production of electron vacuum tubes. However, since the electron vacuum tube is the heart of all electronic devices it is advisable for users and prospective users of electronics to look first to the vacuum tubes required. A note outlining your problem will bring advice and assistance without cost or obligation.

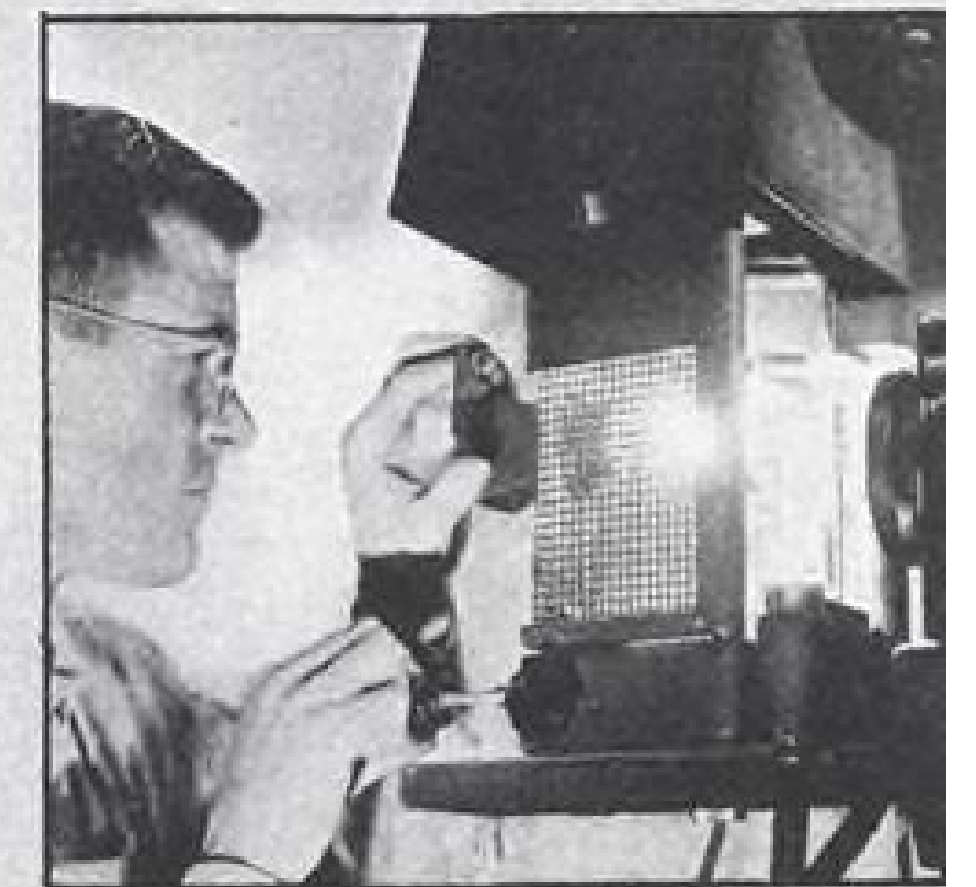
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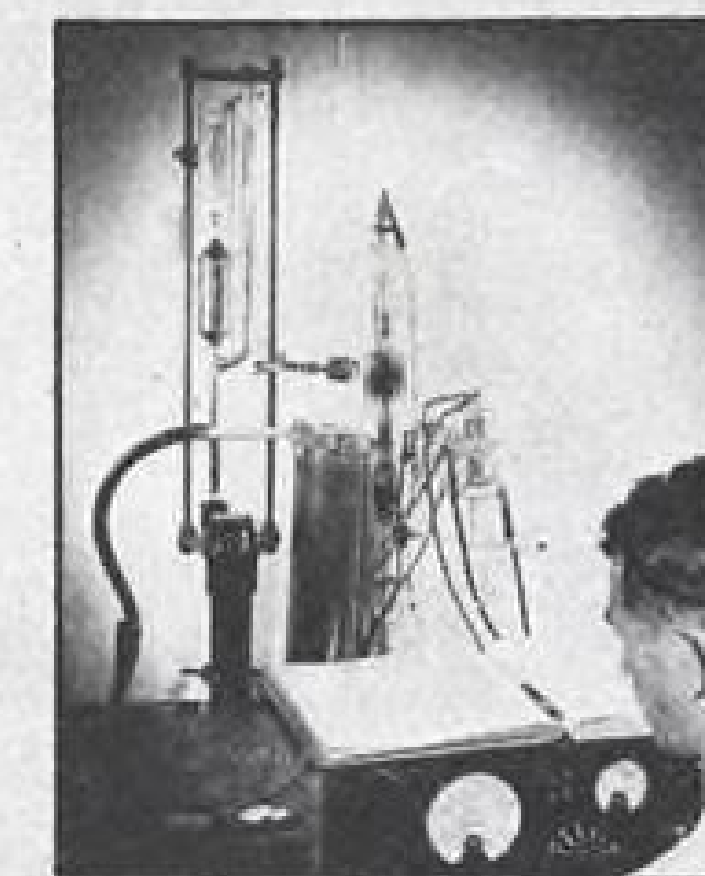
A few of the branches of the Science behind the Science of Electronics



CHEMISTRY—Making Gas Analysis in the Eimac Laboratory



METALLURGY—Spectrographic Analysis of the Rare Metals Used in Vacuum Tubes



VACUUM TECHNOLOGY—Constant Research to Develop Better Vacuum Techniques



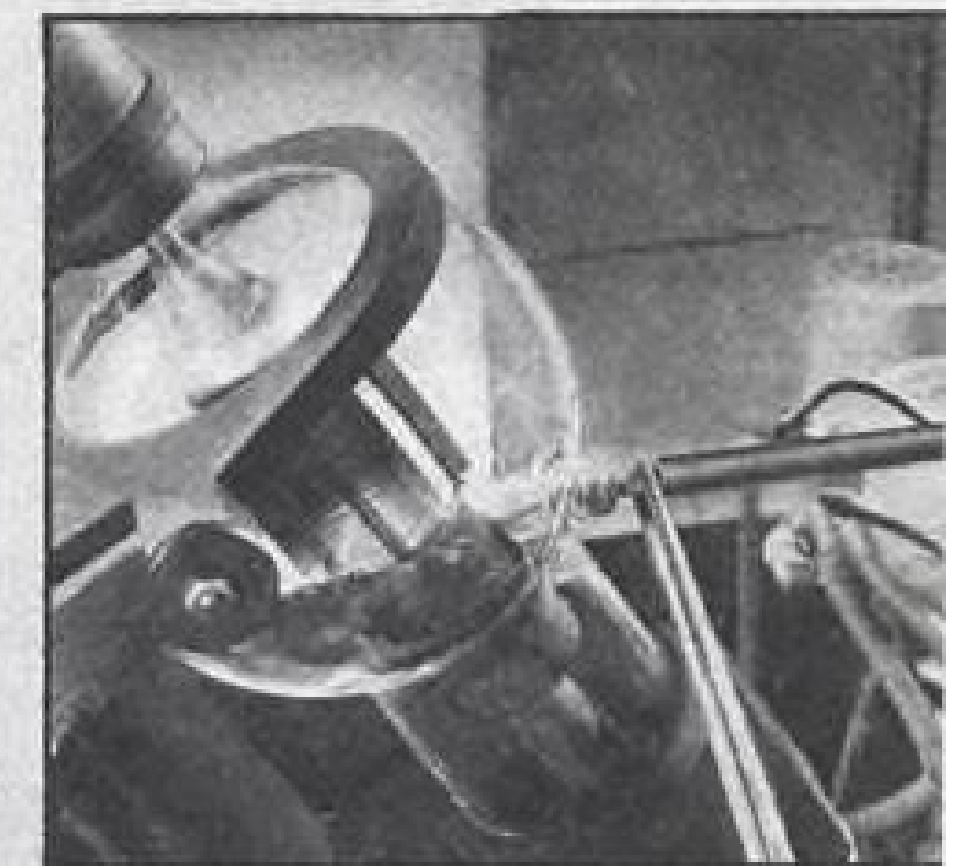
PHYSICS—Actually Viewing Emission of Electrons with Electron Microscope



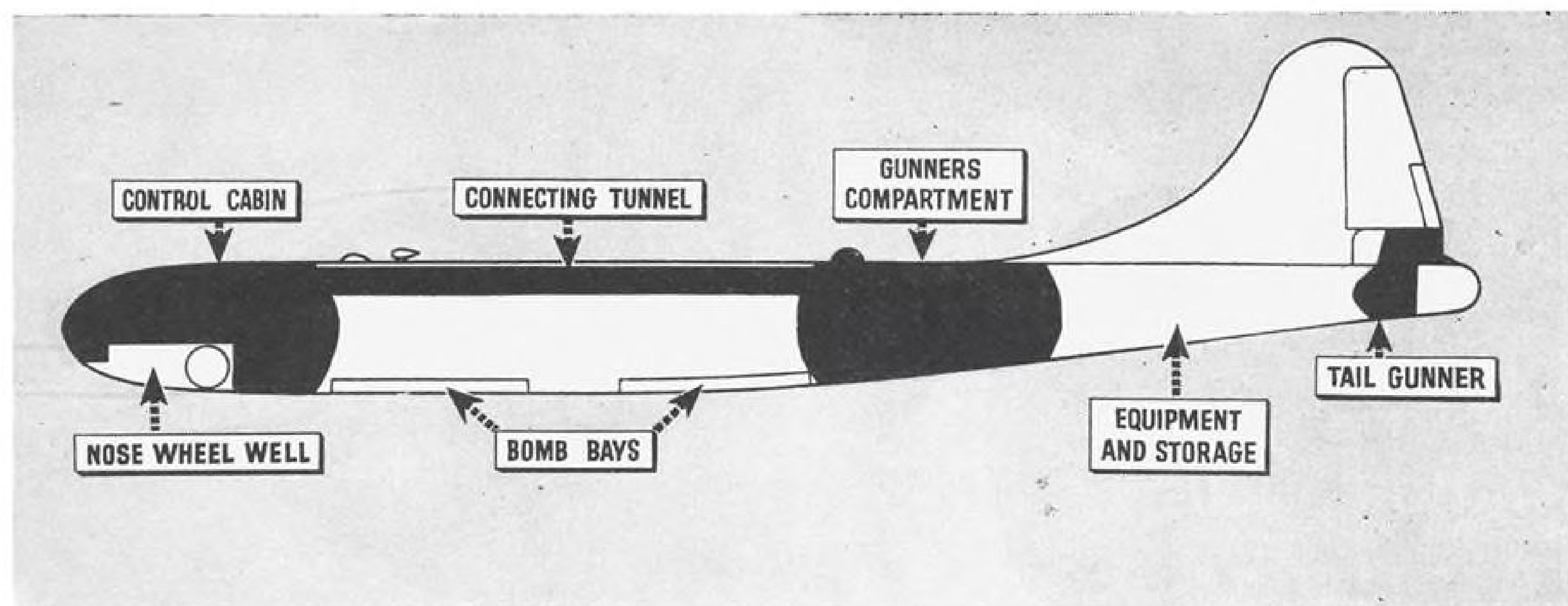
ELECTRONICS—Determining Facts about and Recording Data on Vacuum Tube Capabilities



OPTICS—Studying the Effect Processing has on the Structure of Materials Through Photomicrography



GLASS TECHNOLOGY—Special Equipment and Technique to Produce Complicated Glass Structures



Boeing's B-29 Pressurized Bomber: This is the first sketch released showing a cross-section cutaway of Boeing's Superfortress and shows the pressurized sections of the bomber. The forward control cabin, housing the pilot, co-pilot, bombardier, navigator, flight

engineer and radio operator, is connected with the gunner's compartment midship by a circular tube, large enough for a man to crawl through, spanning the non-pressurized bomb bays. The tail gunners' compartment is the third pressurized section.

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THUNDER OUT OF RUSSIA!

You now see the Red Star of Russia on hundreds of American-built Thunderbolts fighting on the Eastern front. At the controls are daring Russian pilots daily pouring destruction upon Hitler's dwindling hordes.

For the Russians have found that the withering fire from the Thunderbolt's eight 50-caliber machine guns makes it a worthy companion of their own famous Stormovik for ripping tanks, locomotives, fuel dumps and other enemy targets on the ground.

The air forces of England, France and Brazil have also adopted the Thunderbolt as a weapon to suit the demands of many tactical situations—from high altitude fighting to low level strafing and dive bombing. And thus it is that Thunderbolt squadrons are converging upon enemy strongholds from every United Nations

front, helping draw ever tighter the noose of ultimate defeat.

The production in quantity of this lethal, seven-ton fighting plane continues. The courage and skill of the United Nations pilots who fly it are known and feared in Tokyo as in Berlin. And with these pilots into every battle go the hearts of the thousands here at Republic who are pledged to keep the Thunderbolts rolling until there's nothing left to shoot at—high or low!

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Republic *firsts* in war point to *firsts* in peace

REPUBLIC AVIATION
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Operations Started At Rio Engine Plant

Limited production reported at Brazil factory, built and equipped under lend-lease.

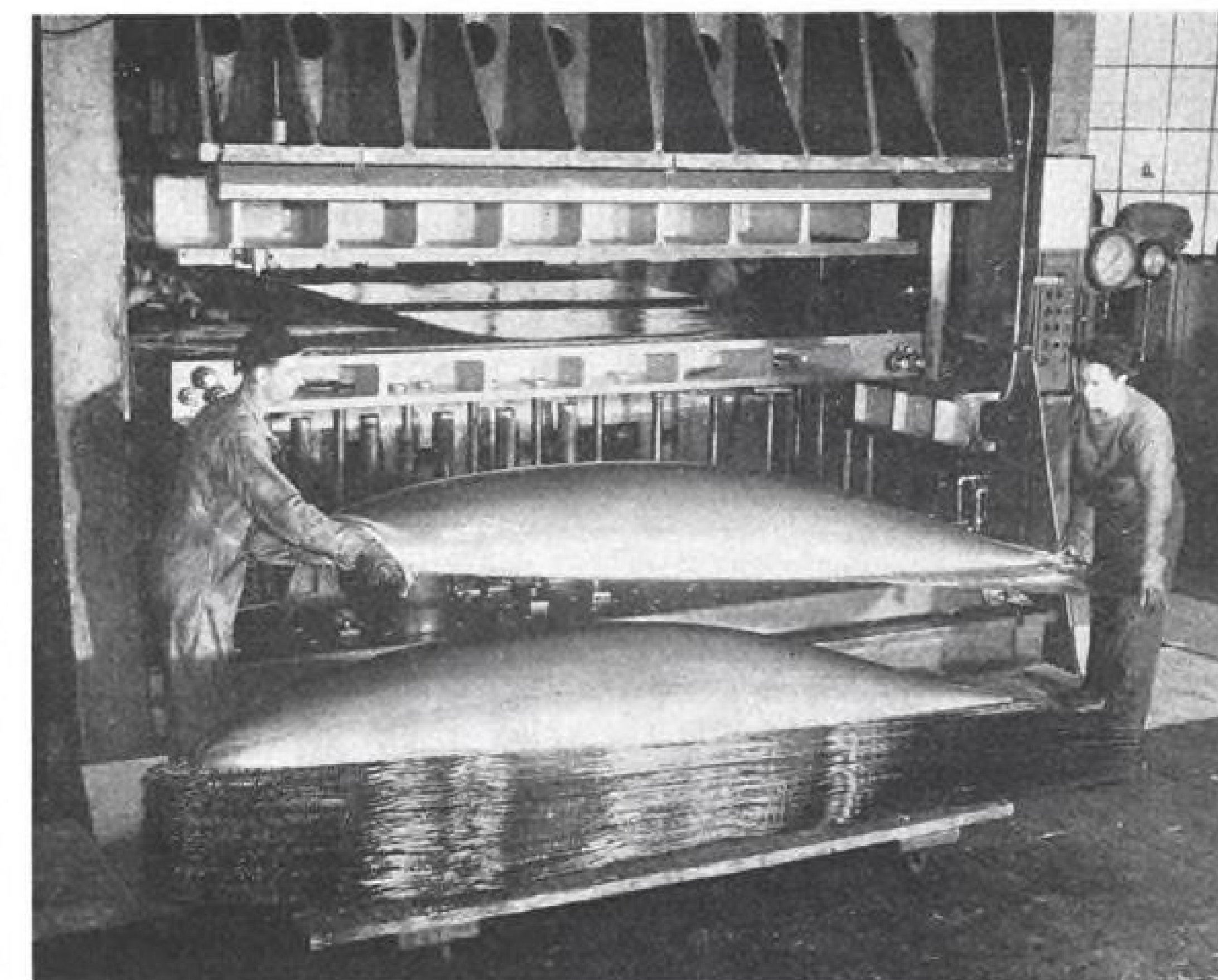
Brazil's airplane engine factory, built and equipped under lend-lease, has begun operation in a limited production schedule chiefly designed to service engines for military aircraft.

Replacement parts will constitute the most important immediate production, but it is planned to have the plant, owned and operated by the Brazilian government, producing 450 hp. Wright and in-line air-cooled Fairchild *Ranger* engines next year for installation in Brazilian-built planes.

► **Work Begun in 1942**—The new reinforced concrete factory is 22 miles from Rio de Janeiro on reclaimed marshland. Work on the factory was started in July, 1942, after Gen. Antonio Guedes Muniz, of the Brazilian Air Force, had obtained American agreement to build and equip the plant as part of lend-lease aid given Brazil.

Lack of complete equipment has prevented full production in the plant, but this is expected from the United States soon, South American sources say.

► **Uses Brazilian Labor**—The factory will use all Brazilian labor to produce an expected 500 engines a



MASS PRODUCTION OF DROP TANKS:

Streamlined production methods are being utilized by Weber Showcase and Fixture Co., in Los Angeles, to turn out quantities of drop tanks for fighter planes. The company, which made iceboxes and store fixtures before the war, has devised this die stamp punch to shape tank halves.

year. These will be installed in a new all-metal plane to be produced in quantity in a plant under construction at Lagoa Santa, state of Minas Geraes. It is understood that a prototype of the plane has been built, and pictures show a tri-

motor ship somewhat resembling a twin-engine Beech.

Franchises have been granted for the engine construction by Wright and Fairchild. Brazilian sources say it is hoped to supply many of the planes needed for peacetime aviation in that country from the new plants and others that may follow as experience is gained.



7,000th LIBERATOR HEADS FOR WAR:

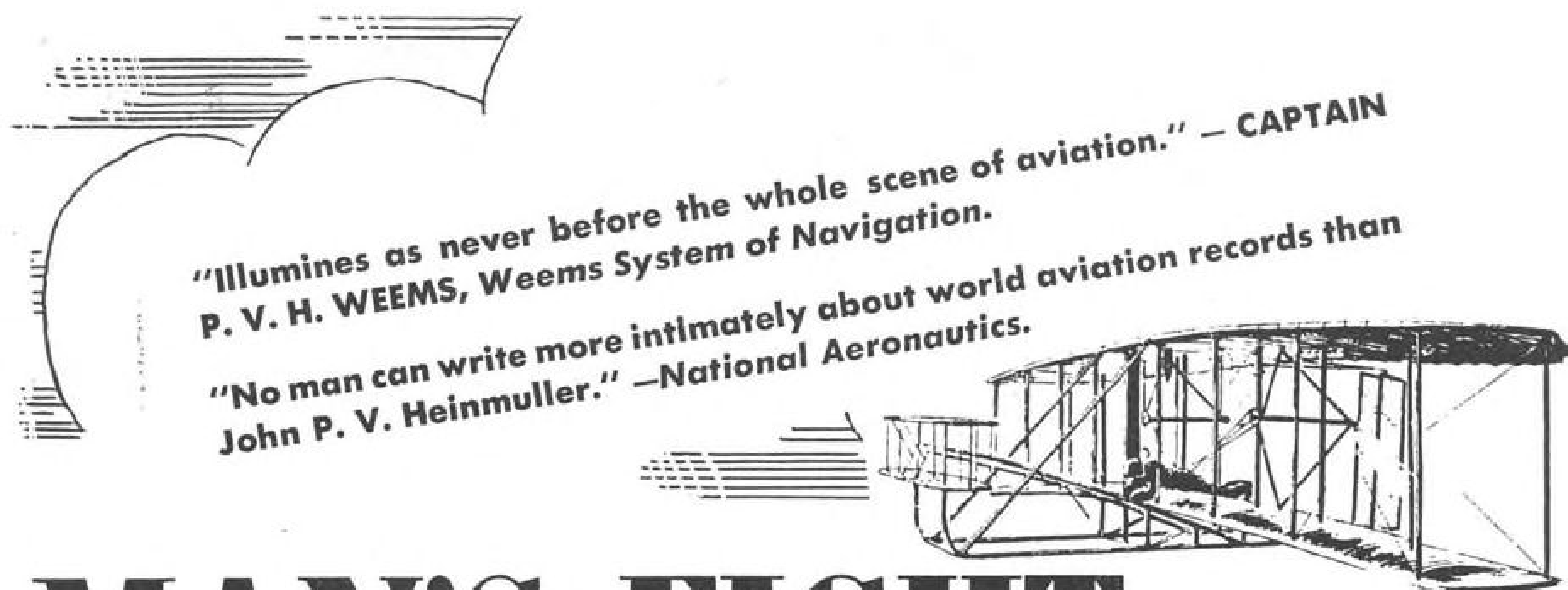
First flight photo of the "V-Grand" 7,000th B-24 Liberator produced by Consolidated Vultee and the 5,000th manufactured at the San Diego plant. The plane, decorated with the signatures of 7,000 Convair employees, was recently accepted at Mitchel Field, N. Y., by a 10-man AAF combat crew.

ASC Group Selects Spares for B-32

Progress being made by Consolidated Vultee in manufacture of their new big B-32 bombers is indicated by the fact that an Air Service Command spares provisioning team has met with company officials and representatives of the Navy and the RAF to select critical parts needed for maintenance of the planes in training and combat areas.

► **Data Studied**—Company officials said the B-32 will be one of the best provisioned airplanes from the standpoint of spare parts that they have ever delivered. Technical data obtained from specialized depots, major overhaul bases and records maintained throughout the world were utilized in the selection.

In addition to the selection of spares, two ASC tooling engineers



MAN'S FIGHT TO FLY

By **JOHN P. V. HEINMULLER**

Chief Timer, National Aeronautic Association, Federation Aeronautique Internationale, and President of the Longines-Wittnauer Watch Company

Foreword by **CAPTAIN EDDIE RICKENBACKER**

HERE ARE:

- World's Speed Records
- World's Altitude Records
- Test Flight Records
- Biographical sketches of the outstanding flyers
- Round-the-World Flights
- The story of the future "Flivver of the Air," the Helicopter
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- The story of Mears and Coll-yer, pioneers for correct time in the air
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TO see clearly the future of the aviation industry and its thrilling history you must know the past records of the machines and the pioneers who risked their lives to perfect the coming generation's transportation. Only one man in the world is qualified to write this record — John P. V. Heinmuller, for over a decade the Chief Timer of the international aeronautic associations. In **MAN'S FIGHT TO FLY**, Famous World-Record Flights and a Chronology of Aviation, Mr. Heinmuller sets down for the first time not only the authentic and accurate records of the progress of aviation, but the thrilling stories of the record-making flights and of aviation's pioneers. This material has been collected, through years of research, from the official records of both the Federation Aeronautique Internationale and the National Aeronautic Association, the author's own records as Chief Timer, and those available in the famous Tissandier Collection.

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worked with Convair service engineers in choosing special tools and equipment to be used in maintenance of the B-32.

Cutbacks to Release 300,000 Within Year

100,000 fewer workers to be needed by end of 1944 as result of schedule changes, Gen. Echols tells Senate Committee.

Aircraft production cutbacks may be expected to continue since the whole story has not yet been disclosed, but it appears that nearly 300,000 airplane workers will be released by the middle of 1945.

Maj. Gen. Oliver P. Echols, assistant chief of air staff, told the Senate War Investigating Committee that cutbacks will release approximately 100,000 aircraft workers by the first of the year.

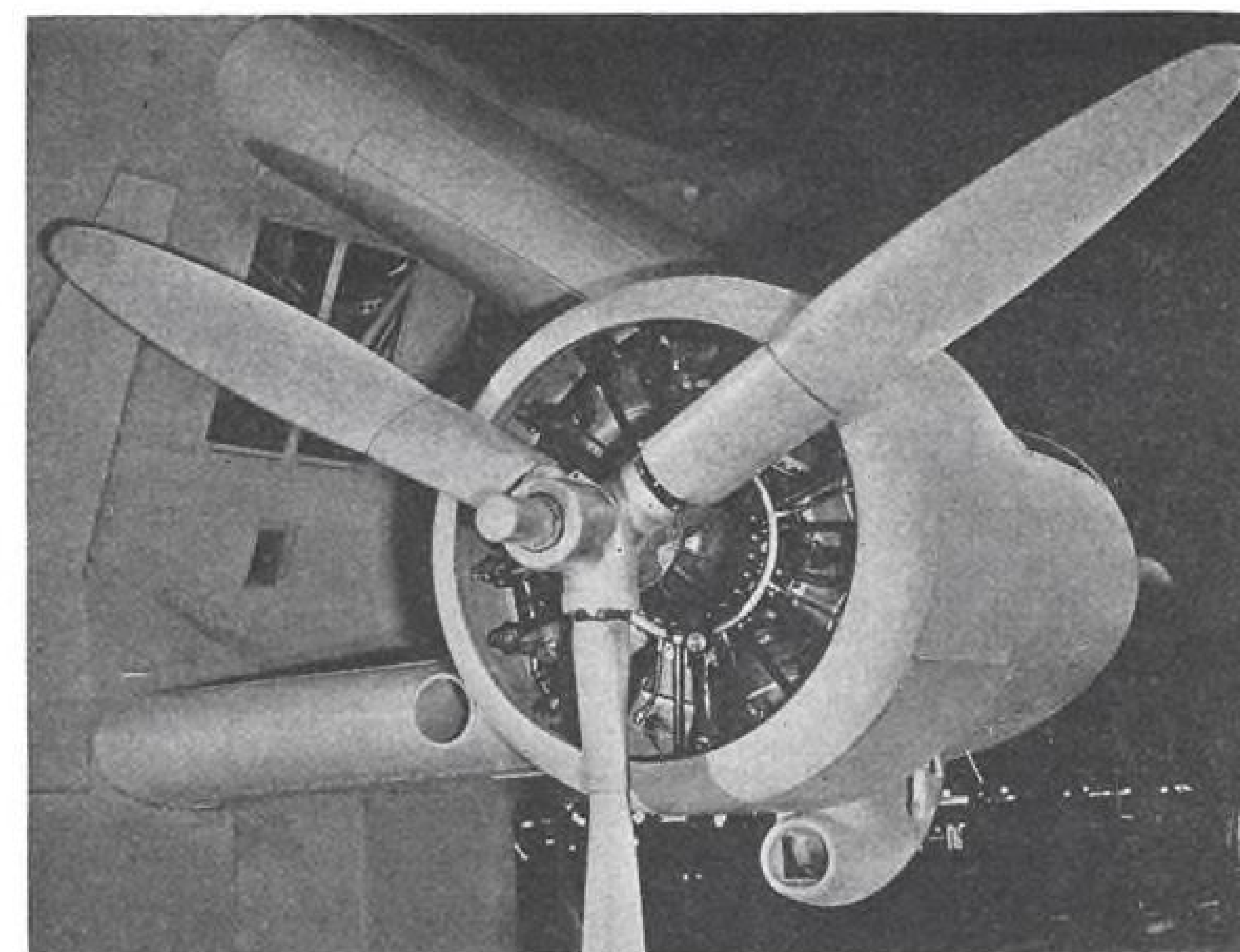
► **Schedules Shifted**—The Army's cutback announcement two weeks ago emphasized that concentration on the output of Boeing's B-29 and Consolidated Vultee's upcoming B-32 bombers was the impelling reason for the production schedule shifts which involved principally C-46's, B-24's and P-47's.

It developed that Ford's Willow Run plant, instead of the trifling reduction announced two weeks ago, will be slowed down to 50 percent of current output of B-24 *Liberators*. This may be in preparation for other work not yet announced. Willow Run at present is turning out about one bomber an hour. Some 15,000 workers probably will be released as a result of this reduction.

► **Attrition Rate Low**—Losses in heavy bombers have been much less than expected, which accounts in part for the production shifts, although the Army plans to keep equipment in condition in the event that their plans go wrong as they did when the recent shortage of tanks developed after a sharp tank production cutback.

Gen. Echols reported that approximately 8,000 "obsolete" and unusable airplanes have been turned over to the Surplus War Property Administration for disposal and that additional planes will be added in the next two or three months.

Maj. Gen. Lucius D. Clay, director of materiel in the Army Service Forces, expressed a doubt that any large quantity of Army supplies would be returned from Europe to be sold in this country.



New Blimp Prop: First adaption of fully-controlled reversible-pitch propeller to lighter-than-aircraft is on Goodyear's big M-1 blimp. This navy craft uses the Curtiss electric propellers as brakes without reversing their direction. The blimp can be brought to a virtual standstill in the air by reversing the blade angles.

Reversible Pitch Prop Used on Blimp

Fully - controllable - reversible aircraft propellers have been adapted to lighter-than-aircraft on Goodyear's M-1 blimp, enabling the operators to use the propellers as brakes.

Operation of the propellers as brakes is accomplished without reversing their direction. The blimp can be brought to a virtual standstill in the air by reversing the blade angles of one of its Curtiss electric propellers to create reverse or backward thrust.

► **Used on Flying Boats**—Reverse thrust has long been used to give Navy flying boats increased maneuverability and engineers report that the controllable feature permits adjustment of blade angles in flight and contributes to faster take-off with heavily loaded craft.

New Plastics Firm

Announcement of the formation of Resin Industries, Santa Barbara, Calif., has been made by Grant C. Ehrlich, president, who said the company will serve the West Coast in the field of synthetic elastomers and will provide engineering and production service to members of the aircraft, shipbuilding and allied industries.

► **Synthetic Elastomers**—The company will produce synthetic elastomers, including vinyl resin, ethyl cellulose, and similar compounds in tubing, tape, sheet and other forms. It also will offer these materials in combination with a variety of fabrics, both coated and impregnated.

Ehrlich pointed out that the past few years have seen the application of synthetic compounds of the thermoplastic type in many fields, but their outstanding wartime use has been in electrical equipment, wire and cable.

Cutbacks to Release 17,000 at Dallas

North American Aviation will release 17,000 workers by mid-November as a result of the cutback in B-24 *Liberator* production at the Dallas plant.

J. H. Kindelberger, president, said final deliveries of all bombers will be made in November but that the production of North American's P-51 *Mustang* will continue well into 1945 and that the present production rate on AT-6 *Texan* trainers will continue on present schedules through November, decline in December and January and then level out at approximately six percent of present production.

► **Terminations Drop**—Gradual de-

cline in employment terminations already has started with a layoff of 3,687 and will whittle the labor force to approximately 17,500 by Nov. 15. No reduction in work week hours to retain personnel is planned and Kindelberger believes a reported 32-hour-week is impractical.

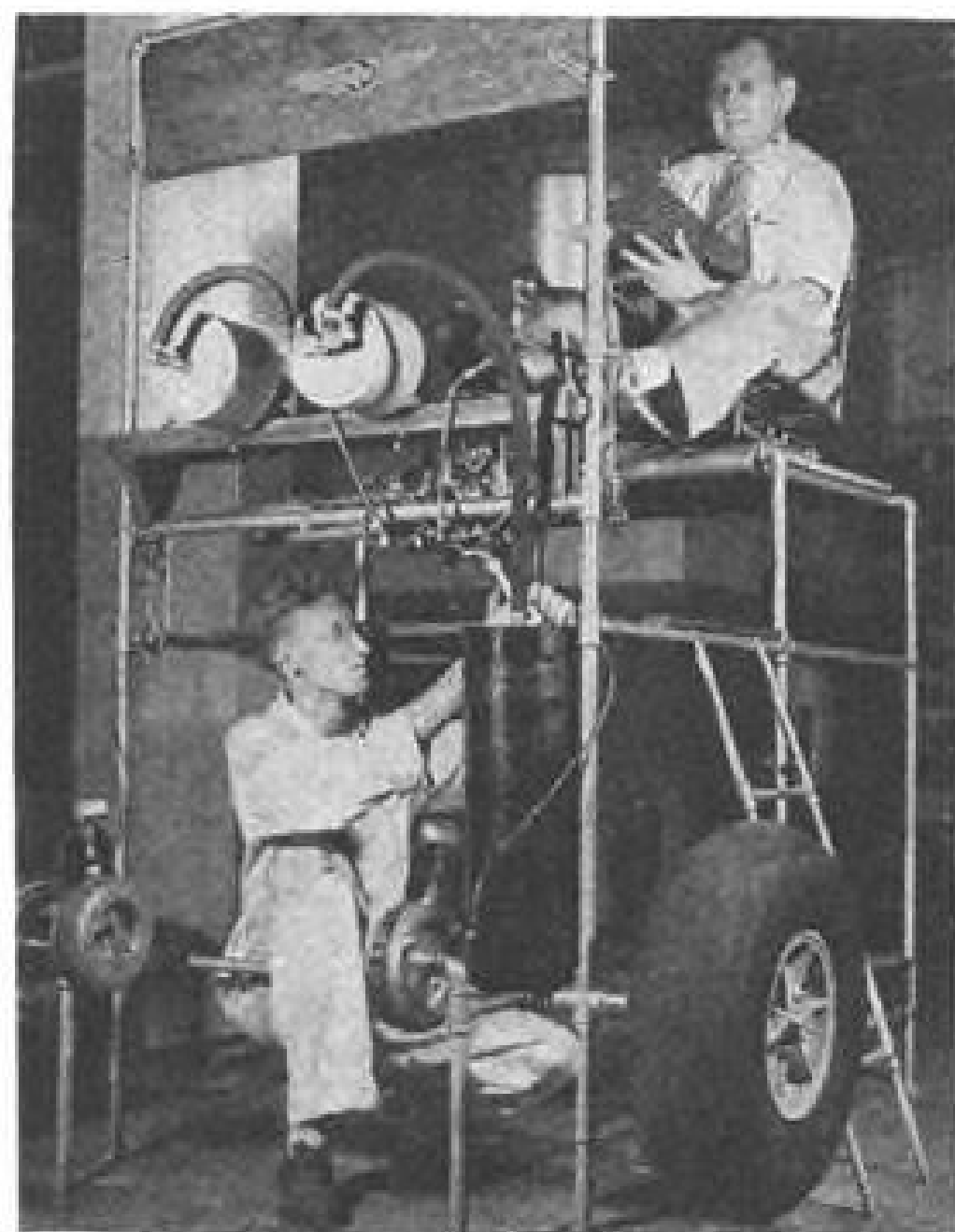
Research Puts Pesco In Good Position

Firm paves way for post-war operation with development of peace-time products in spare time.

Wartime research into aircraft hydraulic and vacuum equipment by Pesco Products Co., Cleveland Division of Borg-Warner Corp., is expected to result in widely divergent uses of the principles learned in industrial, automotive and farm machinery fields, as well as a continuing and increased use in aircraft products.

"While we intend to keep primarily in the aircraft accessories field, we expect to broaden the applications of our research to many types of ground machinery," Robert J. Minshall, Pesco president stated.

► **New Brake Unit**—Pesco engineers demonstrated a new vacuum



NEW BRAKE INTENSIFIER:

Newly developed brake intensifiers are checked for performance in the experimental laboratory of Pesco Products Co., Cleveland, a division of Borg-Warner. The intensifiers have many peacetime applications both for aircraft and ground vehicles. These units will increase the power application of hydraulic brakes while lightening the foot pedal load.



WORKERS FOLLOW THEIR BOX SCORE:

This scoreboard at the Farmingdale, L. I., plant of the Republic Aviation Corp., tells the employees that their war work makes possible the one-sided score set up by American pilots in the European and Pacific war theaters against the best planes the Axis can throw against them.

brake intensifier unit for increasing hydraulic brake pressure while lightening the foot pedal load, equally applicable to brake systems of large aircraft, trucks and buses and showed a new clutch actuator utilizing the hydraulic principle with potential applications to various automotive, industrial and construction machines utilizing clutch equipment. The actuator provides a lightened clutch pedal load with more accurate control of the clutch and a constant adjustment feature conserving clutch linings, representatives said.

Still other applications of hydraulic actuation to road and farm machinery, including tractors, plows, combines, etc., are being studied. In other fields, the principles of controlled and pressurized flow of liquids are being applied to dairy machines which will homogenize milk and separate cream, and to hydraulic pressure paper cutters and other diversified machinery.

► **War Work Not Neglected**—Pesco officials stressed the fact that their production was continuing full time on war production of aircraft pumps and other hydraulic and vacuum accessories and that their research studies of post-war applications have been made in interludes between their wartime research problems, which have been

consistently assigned a top priority.

One spokesman indicated that while no actual post-war contracts have been signed, the company already has a backlog of informal commitments for various peacetime applications amounting to approximately 85 percent of its present production.

New Martin Plastic

A new application of plastics devised by the Glenn L. Martin Co., of Baltimore, has resulted in a 32 percent weight saving, 60 percent saving in tooling costs and a 50 percent reduction in overall costs in its first production use.

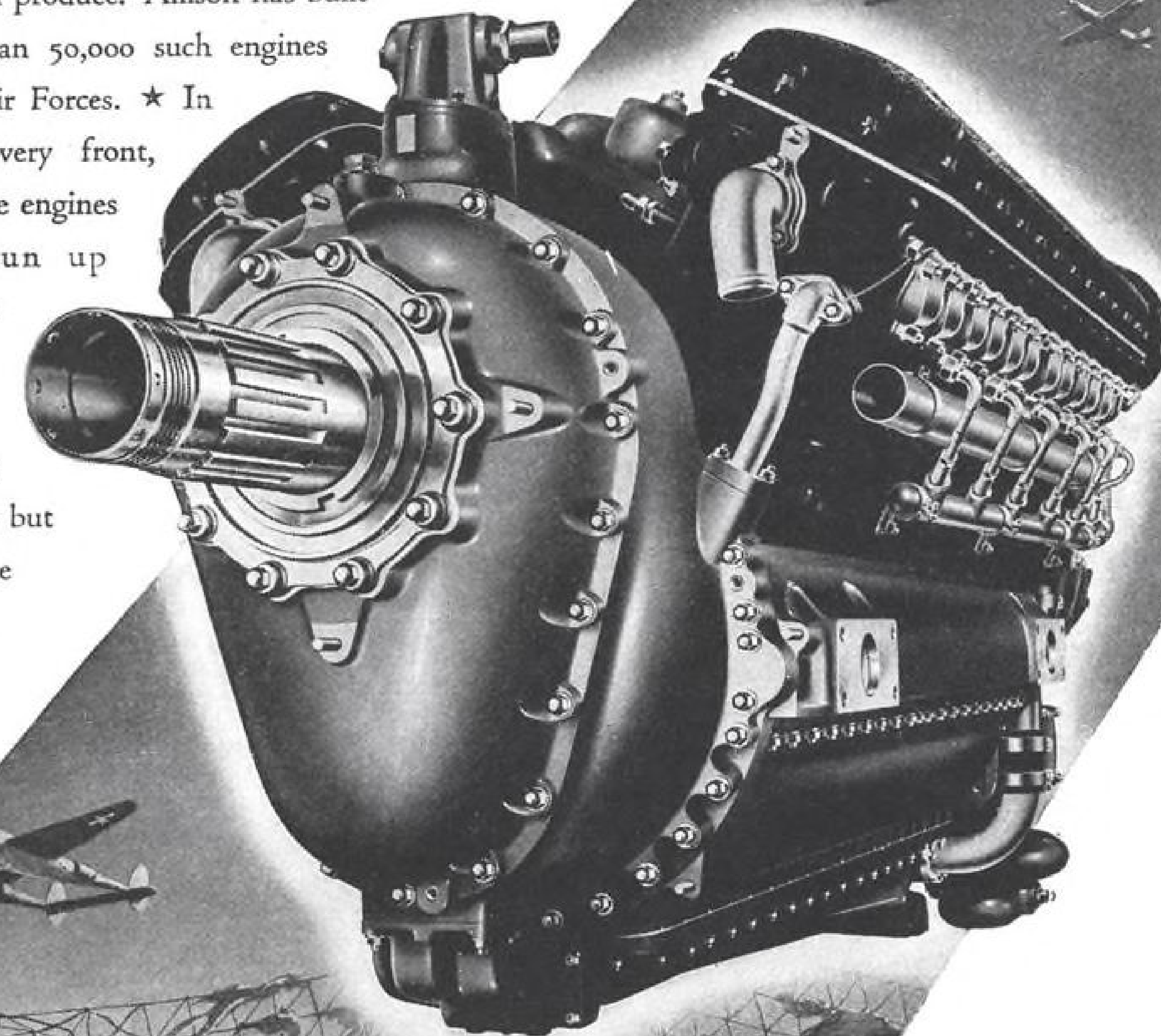
Used as a loop antenna mounting plate for the Martin PBM Mariner, the new composite material is made up from a high tensile surface material and a resin impregnated wood pulp core.

Heads Copper Co.

Frank Russell, general manager of the National Aircraft War Production Council who will direct the organization on a consulting basis after Sept. 1 (AVIATION NEWS, Aug. 21), has been elected president of Cerro de Pasco Copper Corp. and Cerro de Pasco Railway Co., succeeding Harold Kingsmill, who remains as consulting engineer and director.

THEY MUST BE GOOD

The battle record of American fighter pilots plainly says, "They must be good!" ★ Here at home, our firm resolve is that the engines we supply them must be good too—the best that care and precision and long experience can produce. Allison has built and delivered more than 50,000 such engines to the U. S. Army Air Forces. ★ In service that covers every front, planes powered by these engines have helped to run up an impressive score against enemy aircraft. ★ This is an indication of qualities useful not only in war but in engines to power the planes in which you will travel when peace has been won.



POWERED BY ALLISON

P-38—Lightning
P-39—Airacobra
P-40—Warhawk
A-36 and P-51—Mustang
P-63—Kingcobra

More than 50,000 Allison engines built for the U. S. Army Air Forces power the above planes.

LIQUID-COOLED AIRCRAFT ENGINES

Allison 
DIVISION OF
Indianapolis, Indiana

Every Sunday Afternoon
GENERAL MOTORS SYMPHONY OF THE AIR—NBC Network

**KEEP AMERICA STRONG
BUY MORE WAR BONDS**

FINANCIAL

Slash in DC-3 Operating Costs Presages Rise in Cargo Volume

Douglas staff report cites possibility of "tremendous" increase by reducing ton-mile costs approximately 65 percent for sea-level airports.

Possibilities of a "tremendous" increase in air cargo volume by effecting substantial reductions in ton-mile costs through decreased operating costs for DC-3 cargo airplane was suggested in a staff report of Douglas Aircraft Co., Inc.

Pointing to the necessity of taking advantage of all possibilities for decreasing operating costs in order to insure an adequate volume of air cargo transportation, the survey concludes:

"The overall reduction in operating costs from the present DC-3 passenger airplane to the DC-3 cargo airplane operating under revised regulations is approximately 65 percent for sea level airports, corresponding to a figure of 13 cents per ton-mile. This suggests that future costs of less than 10 cents per ton-mile are obtainable, which should result in a tremendous increase in air cargo volume."

► **Economies Studied**—While some aviation quarters question certain of the suggested changes, as well as the author's method of computing possible ton-mile cargo costs, nevertheless they agree that "the effect of the considered changes in regulations on DC-3 type cargo airplane economy is of the same order of importance as the effects of basic design and operation, and so warrants careful consideration."

The purpose of the survey was to investigate the effects of the primary factors which may be expected to improve cargo airplane economy. It was restricted to DC-3 type cargo airplanes, and the results cannot be applied quantitatively to cargo airplanes in general. The results are based on cruising at 10,000 ft. on 50 percent rated power for ranges of 200 to 1,300 miles. Six cases were considered, as follows:

1. Present DC-3 passenger airplane with S1C3G engines—take-off gross weight 25,200 pounds, and landing weight 24,400 pounds.

2. Present DC-3 passenger airplane with S1C3G engines—take-off gross weight of 26,200 pounds, and landing weight, 25,200.

3. Same as (2) above except for the substitution of the P&WA 2SC9G engine which has normal rating of 1100 BHP instead of 1050 BHP and has war emergency ratings on 90 octane fuel with water injection.

4. Equivalent to (3) above except that the airplane is a cargo airplane with consequent reduction in furnishings, etc., of 660 pounds and with a crew of two instead of three.

5. Same airplane as (4) above except it is assumed that for cargo operation the payload factor can be increased from .65 to .80—the overhead costs can be decreased from 85 percent of direct costs to 67 percent—and the depreciation time can be increased from 15,000 hours to 20,000 hours.

6. Requires the use of war emergency ratings for meeting emergency climb requirements, and involves a 5 mph. higher stalling speed than that obtained at a gross weight of 24,400 pounds. Some relaxation of minimum terrain clearance requirements also would be required for this airplane.

► **Raise Gross Weight**—Operating from sea level airports, the survey suggests that by raising the gross weight on the cargo airplane from 25,200 pounds to 26,200 pounds operating costs can be decreased from 11 percent to 25 percent. A substitution of P&WA 2SC9G engines for P&WA S1C3G engines is recommended. This would raise costs 5 to 10 percent.

A further reduction of between 16 percent and 24 percent in operating costs could be effected through changing from passenger to cargo interior and removing one crew member. This would result in a total weight saving of 830 pounds.

► **36 Percent Cut Seen**—Increased

airplane utilization, increased payload, load factor, and decreased overhead—"All of which should be obtainable in going from passenger to cargo operation"—would reduce operating costs 36 percent, the survey suggests.

Finally, the report says, the use of war emergency ratings for meeting the emergency climb requirement permits an initial gross weight of 29,700 pounds this, in combination with an increased landing weight (corresponding to a 5 mph. increase in landing speed from the 24,400 pounds case) would reduce operating costs 23 percent to 39 percent.

Financial Reports

► **Kellett Aircraft Corp.** report for first six months of 1944 sales of \$5,572,615 compared with \$5,394,900 in the 1943 period and net earnings, subject to audit and year-end adjustments, of \$100,053 compared with \$128,087 for the first six months of 1943. Current assets showed an increase from \$2,993,462 to \$3,165,890 since January 1, 1944, while current liabilities rose from \$2,376,852 to \$2,468,121. Estimated profit before federal and state income taxes was \$500,268, with a tax reserve of \$400,214 established.

► **Breeze Corps.** directors have voted a dividend of 40 cents a common share, payable Sept. 10 to stockholders of record Sept. 1. This brings Breeze dividend payments this year to \$1.20.

Mitchell to Direct Airline Tax Study

Civil Aeronautics Board has appointed George W. Mitchell, Tax Economist of the Federal Reserve Bank of Chicago, to direct the special study of multiple state taxation of airlines being made by CAB under Congressional mandate.

The multiple taxation problem grew out of a Supreme Court decision last spring which confirmed the right of individual states to tax airlines operating through them. Congress then authorized a 180-day study of duplicate taxation, made by the Board.

► **Ryan Heads Committee**—CAB Member Oswald Ryan heads the investigating committee.

Mitchell was consultant to the Treasury Department in preparation of a report on intergovernmental fiscal relations.

TRANSPORT

Record War Cargoes Handled By Air in First Half of 1944

Total of 22 million pounds transported through joint operations of ATC, NATS and contract carriers on routes throughout world, OWI reports.

By DANIEL S. WENTZ II

More than 22,000,000 pounds of air cargo was handled by the world's largest air transport operation during the first six months of 1944, the Office of War Information reports. This approximate figure is based on data compiled by the Foreign Economic Administration, which is one of the largest shippers, the WPB, and the War and Navy Departments.

The total represents "inbound" cargo, but a substantial portion was carried by air only part of the way. Purchases by the FEA and other government agencies, including Army and Navy materials, accounted for 12 million pounds of the total; materials for Russia and Great Britain comprised a seven million pound item, and private purchases by American importers of three million pounds complete the total.

► **Four Plane Types Used**—Planes of the Air Transport Command, the Naval Air Transport Service and the contract carriers operating under them handled the cargo movement. Four main types of Army ships used are the Douglas C-54, the C-87 (converted B-24 Liberator), C-46 (Curtiss-Wright Commando), and the C-47 (Douglas DC-3). The Navy uses the R4DA (stripped-down DC-3), PB2Y-3R (Coronado 4-engined flying boat), PBM (Martin Mariner, twin-engined flying boat), R5D (Douglas Skymaster, Navy version of the DC-4), and the RY-2 (Consolidated 4-engined land plane).

One of the largest segments of this global air cargo system is the operation over the "hump" from China to India. Planes of the Air Transport Command and the

China National Aviation Corp., operating under Army contract carry substantial quantities of mercury, tin, hog bristles, tantalite, and drugs. As the critical portion of the route these materials travel is from China to India, a major portion of them is forwarded by rail to Calcutta and thence to final destination by steamship. ► **Mercury for Russia**—Most of the mercury brought out of China by air is destined for the U.S.S.R.

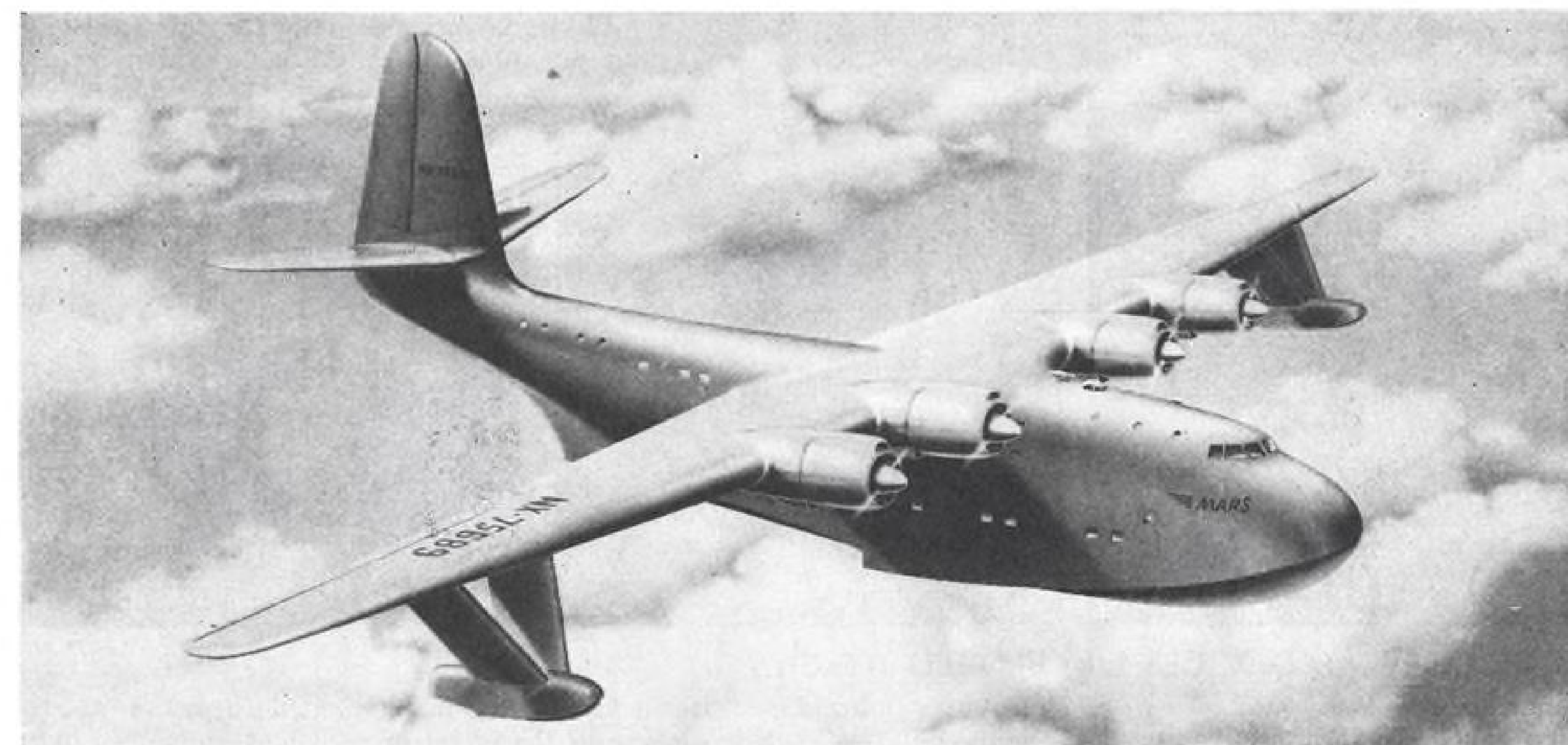
The materials are forwarded from China by FEA field agents, most of whom are Chinese graduates of American colleges.

Other chief cargo route is the so-called "main line" from Karachi, India, across Africa, the South Atlantic, and through South America and the Caribbean to ports of entry in the U. S.

This route has several feeders and branches—one from Basra and Teheran for Russian products, chiefly platinum—another through Central Africa. The British Overseas Airways Corp. and the Belgian Airline Sabena bring materials from South Africa to connect with the "main line" operations.

► **South America**—Natal, in Brazil, is a great stockpiling center for cargoes from India and Africa. Feeder operations in South America funnel minerals, drugs, insecticides, diamonds and other South American products into Natal for onward shipment via NATS or ATC planes.

On the west coast of South America, planes of the Sixth Air



LATEST SKETCH OF MARTIN MARS:

Twenty of the 72½ ton Mars flying boats shown above are now under construction by The Glenn L. Martin Co. for the U. S. Navy. Feature of the pro-

duction version is the single rudder tail, more than 40 feet high. An earlier sketch of the Mars appeared on the cover of AVIATION NEWS, Mar. 20.

Service Command, cooperating with the FEA, have carried between 50,000 and 70,000 pounds of cargo to Panama for forwarding to the U. S.

Navy planes carry 30 percent of the South American cargo to the U. S. while the Army accounts for 70 percent.

► **Pacific**—Other routes, which carry a relatively small amount of the cargo total, are operated between Australia and San Francisco, across the North Atlantic from Portugal, Sweden and England and from the Middle East.

Maintaining the constant flow of vital materials requires close cooperation with other United Nations governments. Within our own government, the cargo total was achieved by FEA-WPB-Army-Navy teamwork.

Ala. Port Parley To Open This Week

300 aviation experts and municipal and state authorities expected to attend meeting at Auburn.

Approximately 300 persons are expected to attend the Southeastern Regional Airport Conference at Alabama Polytechnic Institute, Auburn, Ala., Tuesday, Wednesday and Thursday of this week.

The conference is sponsored by the college, the Civil Aeronautics Administration and the Alabama Aviation Commission and will draw aviation experts and municipal and state authorities from the seven states of the second region of CAA.

► **Four Main Sections**—The conference will be held in four main sections, covering airport planning, airport operation, the airport and the community, and airports and government, E. W. Stanford, director of Aeronautics for the State of Alabama, announced. Rep. Jennings Randolph (D., W. Va.), co-author of a joint resolution now before Congress calling for a national air policy commission, will be principal speaker at a banquet Thursday night.

Among those who will speak at the sessions are: W. M. Robertson, manager of the second region, CAA; George E. Garaflo, CAA, Washington; Dexter C. Martin, director of the South Carolina Aeronautics Commission; Frank M. Hulse, president of Southern Airways, Inc., Decatur, Ala.; Oliver L. Parks, president of Parks Air College; J. Kirk Baldwin, airport management specialist of the CAA; Sheldon B. Steers, director of the Michigan Board of Aeronautics; and L. L. Schroeder, commissioner of the Minnesota Department of Aeronautics.

Boston Port Plans To Be Prepared

Massachusetts state officials, determined that Boston shall become an important international air terminal, have announced the award of contracts for engineering and designing terminal buildings and ground facilities at Boston's Logan International Airport.

Thomas D. Cabot, chairman of

the Massachusetts Aeronautics Commission disclosed that two Boston firms, Coolidge, Shepley, Bulfinch & Abbott, and Thompson & Lichtner, had been selected to prepare a report on requirements of the field, including preliminary drawings of proposed buildings and approaches. The report is expected to be submitted to the state by Dec. 15.

Cost of designing is estimated at \$40,000.

Eire Rushes Work on Trans-Atlantic Ports

Plans for improvements to the airports which will serve as termini for North Atlantic air routes are being rushed in Eire, where the Ministry for Industry and Commerce recently announced that the Office of Public Works was making arrangements to place contracts for hard surfaced runways at the Dublin Airport. Cost of improvements to the field is estimated at 200,000 pounds (\$800,000).

Work also is in progress at the seaplane base at Rhynanna on the River Shannon, which is planned to be the main flying boat terminal rather than Foynes. The Ministry stated that Foynes became an international terminal pending completion of facilities at Rhynanna.

► **Delayed by Emergency**—The rapid development of trans-Atlantic air traffic and the prolongation of the emergency made necessary improvements at Foynes beyond the temporary installations planned by the government.

Steamship Firms Seen Gaining In Fight to Operate Airlines

Grace Line and United Fruit file new plans for Caribbean and South American air service; National Federation of Shipping, on behalf of five largest ship owners' associations, asks end of discrimination against water carriers in consideration of air route applications.

Increasing indications that steamship operators will be permitted to engage in air transportation were seen by observers this week with some responsible quarters inclining to the belief that the civil aeronautics board would have to revise its present policy against water carriers' participating in aviation.

Meanwhile, the ship lines intensified their drive for air routes as the Grace Line and the United Fruit Co. filed new and comprehensive plans for Caribbean and South American air service, and the National Federation of American Shipping, on behalf of the five largest ship owners' associations, appealed for an end to discrimination in consideration of route applications by steamship companies.

► **Cite Need of Strong Merchant Marine**—The Federation based its arguments mainly on the intent of the steamship lines to "provide air transport only in connection with their regular steamship services," and on the national desire to supply the U. S. with a strong post-war Merchant Marine. The first obviously is designed to meet the provisos of the existing Civil Aeronautics Act, while the second is believed a bid for public support by the Maritime Commission for the shippers' position.

While conflict on the sea-air question between the Commission and CAB has not reached the publicity stage, the Commission makes no secret of its stand. Since 1937 it has advocated that steamship lines operate air service and earlier this year Vice Admiral E. S. Land, commission chairman, told the House Merchant Marine and Fisheries Committee that the Commission and the CAB "should advise each with the other" in matters wherein aeronautics affects the maritime industry and should collaborate "not only when ship lines operate airlines but also on routes where the American shipping industry does not operate airlines." Commission sources state private-

ly that Admiral Land believes the Maritime Commission, not the CAB, should have authority over all transoceanic air service.

► **Hawaiian Cases**—Indicative of the Commission's stand on the issue is its petition to intervene in the Hawaiian Cases (Docket 851 et al.) which include the application of Matson Navigation Co. to set up an airline to Hawaii.

The shipping industry plays on the "strong merchant marine" theme by asserting that after the war foreign competitors will operate airlines. Cargo traffic goes to the lines or countries carrying the greatest passenger trade, it is declared. Further, it will be so long before U. S. steamship companies can put a fleet back on the seas, that foreign lines will have moved in with air service and captured the bulk of the traffic, crippling the U. S. Merchant Marine before it could achieve a competitive status.

► **Backed by Maritime Commission**—The Maritime Commission has consistently urged that steamship companies launch coordinated air lines. The shipping industry as a whole was slow to accept the admonition. Grace Line joined with Pan American in South America, and Matson helped finance the Pacific route, but American Export Lines was the only one to follow to any great extent the Commission's line of thought.

American Export won its original fight for air service on the basis that its airline would supplement its surface operation, the same contention put forth by the Shipping Federation. Although CAB, following a court decision, later decided the steamship line could not operate an airline, the Federation asserts the CAB misinterpreted the court's findings.

The dispute hinges on Section 408 (b) of the Civil Aeronautics Act, which requires approval by CAB of control of an air carrier by a non-air carrier. Approval may be granted if it is found that the other carrier will "use aircraft

to public advantage in its operation and will not restrain competition."

► **Divestment Order Issued**—In granting American Export a certificate, CAB at first decided Section 408 (b) was not applicable. On the court's declaring that it was, the Board re-opened the case, held a hearing on whether approval of steamship control of the airline should be granted under Section 408 (b) and issued its now famous divestment order. In claiming CAB's order was erroneous, the Shipping Federation sees no legal bar to ship lines' operating air service provided it is to the public advantage.

Planning to use aircraft "to public advantage," ship lines which have applied for air routes are Atlantic Gulf and West Indies Steamship Lines, Grace Line, Inc., Matson Navigation Co., Moore McCormack Lines, Seas Shipping, Inc., United Fruit Co. and Waterman Line. The United States Lines is expected to file shortly.

All plan to offer an integrated service, selling one-way-by-air, one-way-by-sea tickets. With this, and with the coordination of traffic, sales, communications and overhead expenses, the ship firms maintain they can furnish over-water air transportation possibly 50 percent cheaper than at present.

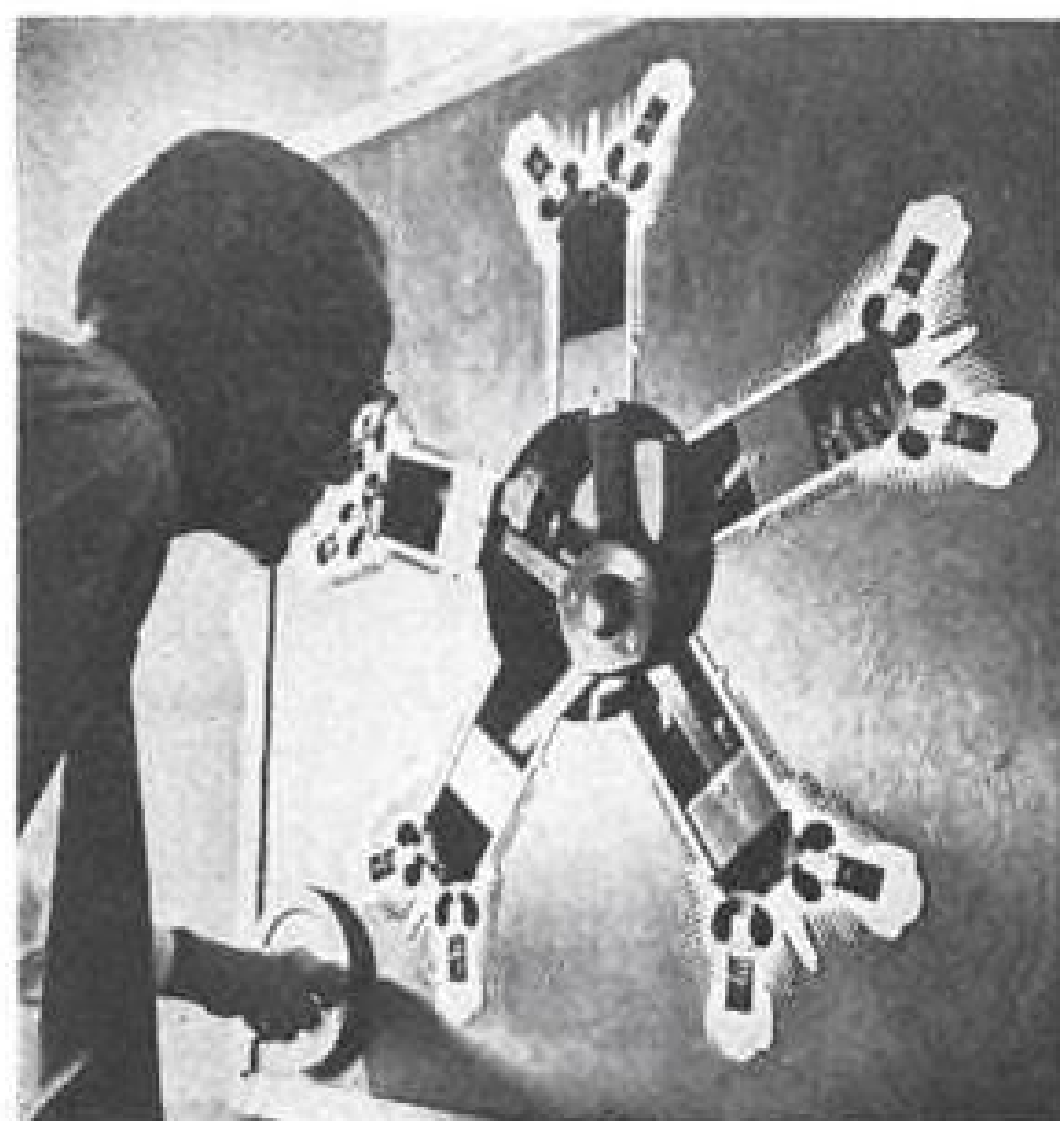
Burden Gets Preview Of Post-War Planes

Sees Airliners bigger than any yet announced on visit to Lockheed, Douglas and Hughes plants.

Post-war commercial airliners, bigger than any yet revealed in company announcements were shown in Los Angeles last week to William A. M. Burden, Assistant Secretary of Commerce, who visited the Lockheed and Douglas factories and Hughes Aircraft Co., where he viewed the progress being made on the giant Hughes flying boat.

The assistant secretary may now be presumed to have detailed industry information on the capacities and performance of projected big airliners, as well as their marketing possibilities. He also is understood to have canvassed major western aircraft manufacturers on the proximity of commercial use of jet propulsion and gas turbines in commercial aircraft.

► **Conferred with Staff**—No announcement of Burden's three-day



EDUCATIONAL DEVICES DEVELOPED BY CAA:

Laboratory devices and visual teaching aids have been developed by the CAA Aviation Education Service for public school aviation curricula. Left, CAA's Dr. Edgar Fuller demonstrates a crank-operated scale model of a radial aircraft engine which shows firing order, valve operation and cylinder and crankshaft motions. Howard Sinclair, center, dem-

onstrates a large-scale instrument designed to give a clear picture of the effect of variation, deviation and wind-drift on the compass heading of an aircraft in flight. Right, Bruce Uthus, head of the Aviation Education Service, inspects a working scale-model wind tunnel which can be built inexpensively in a school laboratory.

visit was made until he had returned from the coast.

In addition, he conferred with H. A. Hook, regional manager of Civil Aeronautics Administration's sixth region, and 100 members of his staff.

In conference with CAA officials, the assistant secretary explored the hitherto little discussed problem of language barriers in relation to aviation. It has been generally overlooked that the fullest development of international air commerce depends to some extent on bridging existing lingual differences.

► **Uniform Terminologies Urged**—Hook suggested to Burden that international air conferences consider the adoption of uniform and basic terminologies to provide a universal intelligence of voice radio messages vital to international operations. As an example of a basic language, Hook cited the Chinook jargon, developed during the Alaskan gold rush era, which provided a basis for understanding among the diverse nationalities thrown together in the Far North.

Hook disclosed that he already had suggested to the faculty of Stanford University consideration of the development of a uniform air commerce terminology as a post-war research project.

Automatic Weather Stations Developed

Automatic weather stations that require servicing only at intervals of several months have been put in operation for the Allies and are playing a major role in supplying vital information.

The services permitted disclosure of the "automatic weather stations," which have been spotted in remote areas from the arctic to the tropics to provide worldwide data for the armed services.

► **Developed for Navy**—The stations were developed at the request of the Navy by the Friez Instrument division of Bendix Aviation Corp. and consist of weather-proof insulated housing for intricate meteorological instruments and automatic radio devices to broadcast reports and data continuously gathered by recording instruments.

Some of the stations have been built in Greenland while others have been installed on small tropical islands of the Pacific and in other isolated sections where weather developments affect future operations.



PICK-UP LINE OFFICIALS VISIT BRAZIL:

Possibility of establishing an airmail pick-up system in Brazil is being investigated by Charles W. Wendt (center), vice-president-treasurer of All American Aviation only U. S. pick-up line. Mrs. Richard C. DuPont (right), member of All American's Board of Directors, and Mrs. Wendt are also making the trip. Wendt will speak with Brazilian government officials, airline executives, and financial and economic authorities. Photo shows party leaving for Brazil.

L. A. Renews Bid For "Air Capital" Title

Purchase of 1850 acres adjoining airport planned in move to keep post-war air commerce, now periled by San Francisco plan.

Despite its leadership in war-plane manufacture, Los Angeles has received warning that it may lose its post-war air commerce to San Francisco if Los Angeles airport facilities are not expanded immediately.

A blow to civic apathy was struck recently when plans were announced for expansion of mile-square Los Angeles airport.

► **Air Capital Title at Stake**—Ready to admit that their city's historic business rival, San Francisco, vigorous in its airport planning, may steal the title of "Air Capital of The West", Los Angeles airport commissioners now propose:

Purchase of an additional 1850 acres of low-cost land west and north from the existing partly-developed 640-acre airport;

Raising by bond issue or otherwise an unannounced sum to complete in two stages improvements shown in the accompanying map.

Los Angeles Airport manager, Woodruff DeSilva, new first vice-president of the American Associa-

tion of Airport Executives, believes that stage 1 improvements will permit the handling of 150 flight movements per hour, the "ultimate airport" being designed for 240 per hour.

► **Semi-Lubig Plan**—He terms the proposed layout a "semi-Lubig plan", adapting to land available runway proposals made by Hans J. Lubig of the Civil Aeronautics Administration's engineering division. Abandoned now because of the high cost of land that would be needed, is DeSilva's previous plan for a five-step development of Los Angeles Airport.

► **\$2,000,000 for Land**—The Los Angeles Airport Commission believes that five owners of the 1850 acres now proposed for purchase will sell for slightly under the \$2,000,000 immediately available (from a prior bond issue) for airport expansion.

DeSilva's "expandable airport" would have cost, fully "expanded," close to \$20,000,000.

Fate of the new airport proposal hinges on the ability of airport enthusiasts to sell civic leaders and business groups to the point of putting over a new bond issue to cover stage 1 development. An unofficial guess is that close to \$10,000,000 might be required.

► **May Revive Old Feud**—Revival of the "Los Angeles-San Francisco

feud," which Los Angeles used to good advantage to push harbor and industrial growth, may be used to advantage in the airport campaign.

No support from Los Angeles Airport Commissioners may be expected for the proposal by Dwight Gibbs, architect of the Los Angeles Downtown Business Men's Association, that hilltops of downtown Elysian Park be sliced off to build a \$20,000,000 airport that will be within five minutes of the city's shopping and hotel center.

► **12 Minute Motor Freeway**—City planners believe construction of a 12-minute motor freeway from the central business district to the Los Angeles Airport area is inevitable and that a major airport is indicated for anticipated heavy post-war commerce.

Today major air lines terminating at Los Angeles use Lockheed Air Terminal, 45 minutes from downtown, and draw their trade from the sprawling metropolis' southern harbor district through Long Beach Airport. They have contracts with the city to move terminal operations to Los Angeles Airport when and if operating facilities (runways and buildings) become available.

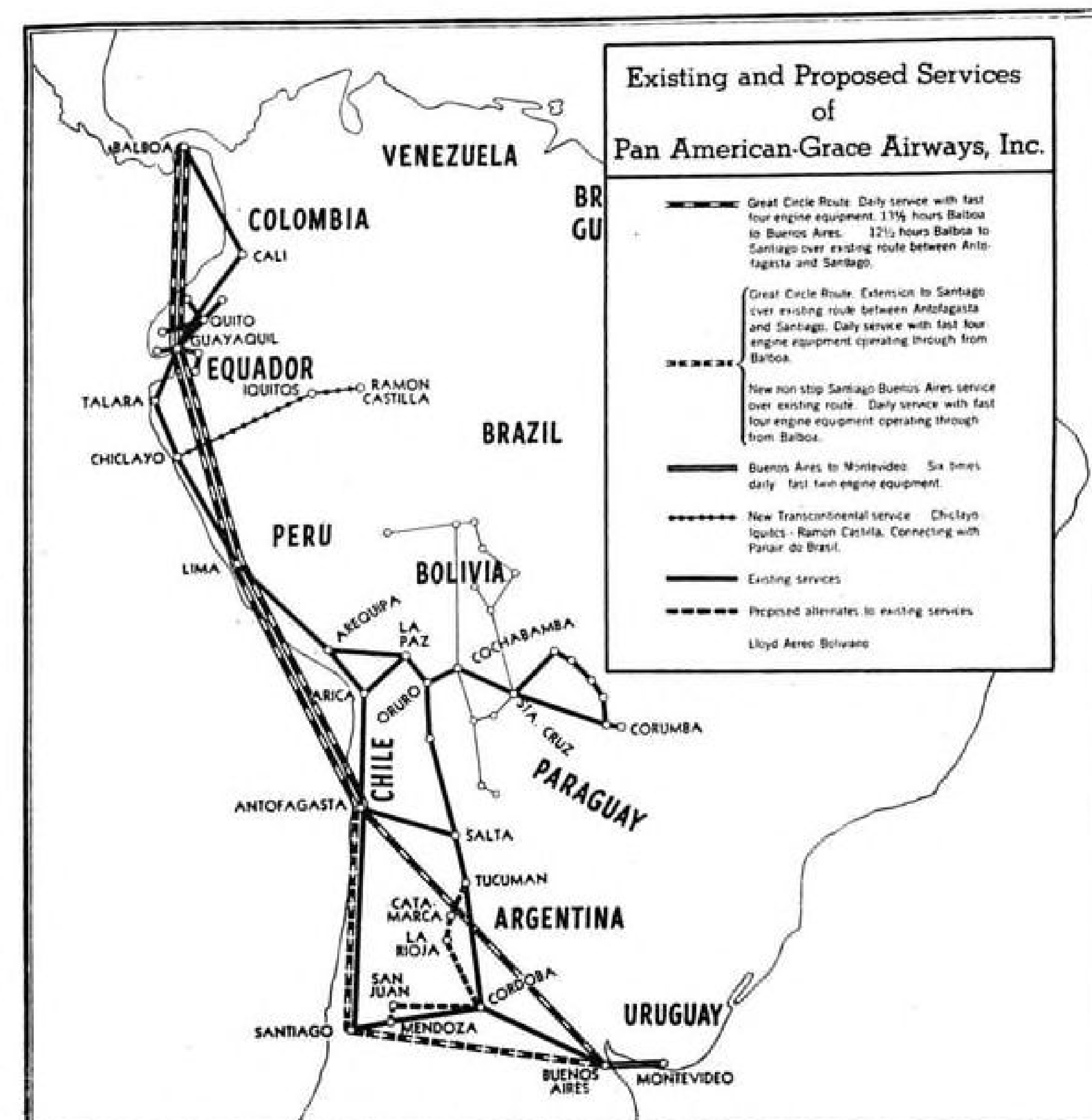
Objection Delays Panagra Peru Route

An objection to a proposed Pan American-Grace Airways route in Peru, introduced by Compania de Aviacion Faucett at a recent Civil Aeronautics Board prehearing conference, has delayed the proceeding temporarily, despite the fact that the Peruvian Government was understood to have requested rapid CAB action on the application.

The route asked by Panagra would link Chiclayo, on Peru's west coast, with Iquitos, an isolated interior city, connecting there with an extension of Panair do Brasil's upper Amazon River routes to form a South American transcontinental air route.

► **Service Held Inadequate**—Faucett, a small Peruvian airline, operates over a similar route to that sought by Panagra. It is also understood to be rendering a charter service to the United States Rubber Development Corp. Panagra will contend that existing airline service is inadequate.

Public counsel requested that Panagra submit evidence to show whether the disagreement between the line's directors will affect the Peruvian route proposal.



PANAGRA EXPANSION PLANS:

Map above shows proposed new and improved services for which Civil Aeronautics Board approval is being sought by Pan American-Grace Airways. Great circle routes would bring Lima, Peru, (3,729 miles) within 14 hours and Buenos Aires, Argentina, (5,671 miles) within 22 hours of New York. Panagra officials have announced that plans for the improved services are based upon the use of Lockheed Constellations or Douglas DC-6's. Night flying service also is planned.

Panagra's attorneys were unaware of the Faucett objection until it was introduced by Assistant Chief Examiner Francis W. Brown and Examiner James S. Keith at the prehearing conference. An indefinite delay has been granted to allow counsel to examine the objection.

Perishables Flown From Coast to N. Y.

Fruits, vegetables, seafood and flowers carried by UAL in converted DC-3.

A United Air Lines converted DC-3 cargoliner completed the first transcontinental air shipment of perishable fruits, vegetables, flowers and seafood from the West Coast to New York last week.

The food was served at an "airborne perishable clinic" luncheon at New York's Waldorf-Astoria, sponsored by United, Wayne University, and the Great Atlantic & Pacific Tea Co.

► **Year's Survey Made**—The three

organizations are engaged in a year-long survey of the possibilities of handling perishable cargo by air. Cargo shippers are definitely interested in coast-to-coast overnight delivery of foods to eastern markets.

The plane used was a newly-converted DC-3 being ferried east for the opening of United's third daily transcontinental all-cargo schedule.

OK Joint Port Use

Army and Navy have agreed on procedures for joint Army-Navy use of airfields. The agreement covers construction, maintenance, upkeep and repairs facilities and operation of utilities.

Generally speaking, the service originally establishing the field will direct construction, using the standard of that service, with payment to be made by the service needing the facilities. Operation of utilities also will remain under control of the service under jurisdiction of which the field comes.

UAL, Matson Fare-Cut Plans Peril PAA Coast-Hawaii Domination

Exhibits filed in CAB proceedings indicate United proposal to slash rates to less than half Pan American's charges; ship line offers combination of reduced charges.

A serious threat to Pan American Airways' pre-war position as sole operator between the West Coast and the Hawaiian Islands was seen in exhibits filed by applicants in CAB's West Coast-to-Hawaii proceeding in which both United Air Lines and Matson Navigation Co. propose fares considerably below Pan American's last published rates.

Pan American's former tariff was \$278.50 one way—\$500 round trip. United estimates a one-way fare of \$125 using four engined land planes of the DC-4 or similar type carrying 50 passengers by day or 24 as a sleeper.

► **May Reduce Fares**—Should United be certificated to fly the Hawaiian route, Pan American would presumably be forced to reduce its fares comparably to compete for traffic.

Through connections over its

domestic system, the line also might get many passengers formerly carried by Pan American or steamship companies.

United plans schedules leaving the Atlantic seaboard in the morning and arriving in Honolulu early the next morning. Flights from Chicago would reach the Islands in 18 hours.

► **Night Schedules**—Proposed night schedules between the West Coast and Hawaii leave California at 8 p.m. and arrive at Honolulu at 6:30 a.m. Day schedules are arranged to make the trip between 6:30 a.m. and 7 p.m.

United also proposes that the three tenths mill per pound-mile mail rate it receives for its domestic operations be extended to the overocean route.

Attorneys for United are expected to adopt the line of argument that the Honolulu route is an extension of the line's domestic system and not an international route.

► **Ship-Plane Fares**—Matson Navigation Co., the only steamship operator seeking an air route to Hawaii, announced a series of combination fares permitting passengers to travel by plane or ship or a combination of the two. Matson's lowest plane fare is \$175 one way by day, with a 10 percent reduction for round trip. The night fare of \$200 includes berth and a similar reduction for the round trip.

Under the combination plan, Matson would charge \$232.50 for the round trip if the steamship portion is cabin class; \$265.50 for first class steamer accommodations.

► **Steamer Fares Cut**—The line also announced steamer fares of \$83 one way (cabin class) and \$120 one way (first class), with a ten percent round trip reduction. These lowered rates would almost certainly have some diversionary effect upon potential air passengers between California and Hawaii.

Matson proposes to invest from eight to nine million dollars in air transport operations, most of it to purchase 8 DC-4's. Two



ELECTED BY AA:

Terrell C. Drinkwater, who recently resigned as executive vice-president and general counsel of Continental Airlines, has been elected a vice-president of American Airlines in charge of route development effective Sept. 1. He succeeds the late Hollis R. Thompson.

flights daily from San Francisco-Los Angeles and two weekly from Seattle-Portland are planned. The company estimates an annual travel of 100,000 passengers between Hawaii and California and an additional 11,000 between Hawaii and the Pacific Northwest. It believes that a "very large" group will want to use the Matson combination plane-steamship plan.

► **L. A. to Expand Airport**—On the West Coast, the Los Angeles Airport Commissioners proposed plans for expansion of the city's airport facilities by purchase of 1,850 additional acres of land and raising funds for its improvement by a bond issue or other means.

The Los Angeles Chamber of Commerce will present a 100-page exhibit when Civil Aeronautics Board hearings on the Hawaiian routes open.

► **Six Applicants, Six Interveners**—Applicants for the route are Hawaiian Airlines, Ltd., Matson Navigation Co., Northwest Airlines, Western Air Lines, United Air Lines and Ryan School of Aeronautics. Pan American Airways; the Ports of Seattle and Tacoma, Wash., and Portland, Ore.; Inter-Island Steam Navigation Co., and the Department of Justice are interveners.

CAB Examiners Thomas L. Wrenn and Lawrence J. Koters will hear the case. Hearings will open Sept. 5.



PHOTOELECTRIC WIRE:

United Air Lines has adopted the "Telefax" automatic photoelectric telegraph device to speed transmission of records between its offices at Oakland and San Francisco. Morris T. Cook (left) Western Union official, and H. L. Garrison, communications superintendent of United's Western division, inspect a reservations report transmitted from the Oakland station. Report is inserted in a slot in the transmitting unit where a photoelectric cell transforms it into electric impulses sent by wire.

New ACCA Blue Book Lists Plane Parts

Compilation of billing descriptions constitutes only authorized source of such information for aircraft traffic executives.

Filling a long-recognized need, comprehensive billing descriptions have been compiled by the traffic department of the Aeronautical Chamber of Commerce in a newly issued Blue Book of Airplane Parts.

It provides the only authorized source of such information for aircraft traffic executives and the Chamber reports that savings to aircraft manufacturers and to the government of as much as 53 percent may be effected on freight shipments through industry use of the billing descriptions.

► **Parts Listed**—The Blue Book lists various parts entering into aircraft construction under their technical and common names and shows the manner in which the shipment should be billed to the carriers, assuring application of the lowest shipping rate.

Billing descriptions used are from the railroad consolidated freight classification and readily apply to articles moving under class rates and where the items

are shipping under commodity rates, or under exceptions to the classification. Interpretations can be worked out in accordance with the information provided by the ACCA traffic department.

NAA Asks Plane Gas Tax Benefit Flying

Urges end of federal levy and application of all state funds collected on airplane fuels to development of aviation.

Retirement of the federal government from taxing aviation gasoline and other fuels and application of all state taxes on aviation gasoline to the general development and benefit of aviation are advocated by the National Aeronautic Association.

After a referendum by the board of directors, the NAA governors recommend to the commissioners on uniform state laws an act to provide for exclusive application of all aviation gasoline taxes to aviation development.

► **Uniform Law Asked**—NAA further invites the endorsement by all aviation groups of a uniform state

law to provide for the exclusive application of all aviation gasoline tax to aviation development.

While the NAA is not specific in recommending the uses to which such tax funds would be put, it is assumed they would be used for development of airports and other landing facilities, for the support of state aviation commissions and general aviation education.

► **Motor Gas Tax Used for Roads**—Many states use the state gasoline tax funds for development of highways, bridges and other facilities for motorists and the theory behind the action is that the users of aviation fuel who would pay the taxes should benefit directly.

The proceeds from state automobile gasoline taxes have reached such proportions in some states as to become a subject of controversy between those who would like to divert part of the revenues to general state funds and those who insist that the motorists who pay the tax should receive the benefit in improved motoring facilities.

Proposals for a state aviation gas tax possibly would become involved in this difference of opinion, particularly in those states where revenue would be sizable.

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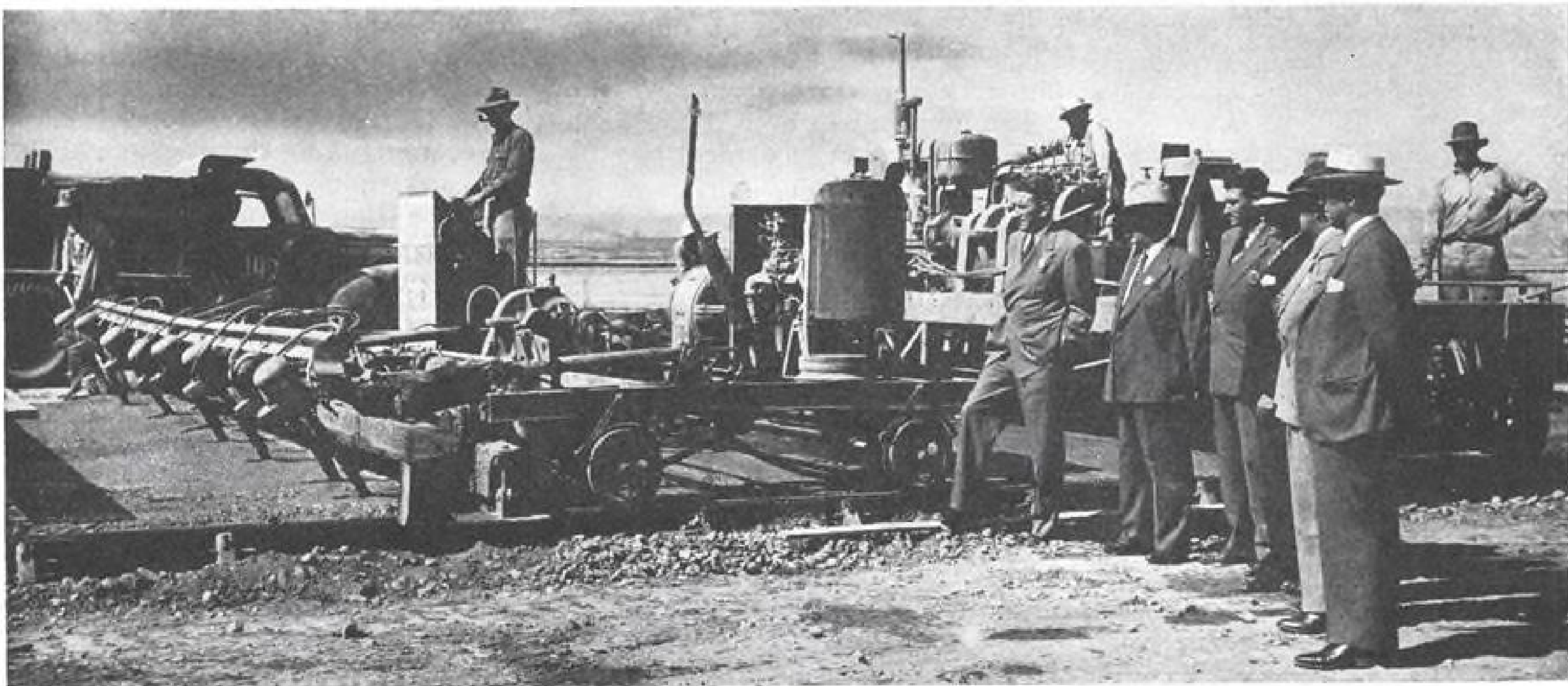
A large and old established manufacturer specializing in molded plastic plywood and other laminates is seeking several experienced sales engineers.

Applicants should have an engineering background and broad sales experience. Contacts with prospects in the consumer goods field and with aircraft manufacturers helpful. Willingness to travel essential. Headquarters located in New York City.

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In replying please give details of experience, education, age and general background. Replies will be treated confidentially. Those now employed at their highest skills in war work can not be considered.

P115 Aviation News, 330 West 42nd St., New York 18, N. Y.



NEW RUNWAY POURING METHOD USED AT SAN DIEGO:

When Lindbergh Field's 8,500-foot runway is completed, all records will have been broken for the fast pouring of concrete slabs. A new vibration technique speeds the settling of the freshly-poured mix. The machine that does it is shown here, heavy vibrator prongs, at the forward end, immersed in the concrete.

The new runway is costing Consolidated Vultee Aircraft Corp. \$2,100,000 and the U. S. Navy \$1,600,000. When ready for use at the end of October, it will support the heaviest aircraft now planned. The runway strip is 12 inches thick and designed to carry loads of up to 85,000 pounds per airplane wheel.

SHORTLINES

► Pan American Airways is moving its Pacific operations base from Treasure Island in San Francisco Bay to the municipal airport at Mills Field, in San Mateo county. The system's flight training section was first to be transferred following the Navy's acquisition of Treasure Island. Next to be moved will be Navy flying equipment with its shops and other facilities and finally the trans-Pacific Clipper facilities.

► Chicago and Southern Air Lines claims the distinction of being the first domestic air carrier to re-establish peacetime service with all planes drafted by the Army back in commercial use.

► All American Aviation reports that the volume of air mail handled over

its system in the fiscal year ended June 30, increased 93.3 percent over the previous year's total.

► Colonial Airlines carried more than 5,190 passengers during July, an increase of 34 percent over July, 1943, and broke the June, 1944, record volume by 8 percent.

► Avenza (Aerovias Venezolanas) started a new service between La Guaira and eastern Venezuela during May. Expenditures for airport construction totaled more than 3,000,000 bolivares (\$900,000), with new fields at Barcelona and Zaraga and between 15 and 20 others under consideration.

► United Air Lines carried all time high air mail loads during July, topping by 79 percent loads carried in July, 1943. Planes returned from Army service provided more space for mail and helped set the record of 1,647,184 mail ton-miles as com-

pared with 920,360 in July, 1943. Express ton-miles decreased 8 percent.

► United is re-establishing complete mercantile divisions in all principal cities to serve manufacturers, department store buyers and others in the mercantile field. J. M. Mills, C. P. Murray and L. A. Swenson are rejoining United's traffic department Sept. 1 as managers of mercantile divisions at Chicago, Los Angeles and San Francisco.

► The landing field at the Palisades across the harbor from Kingston, Jamaica, is being enlarged by the government to be used by various airlines operating through Jamaica.

► An annual subsidy of 8,000,000 cruzeiros (\$400,000) has been granted by the Brazilian government to the aviation company, Navegacao Aerea Brasileira S. A. The subsidy provides that within three years the company must acquire at least three new airplanes either of the Lockheed Lodestar type now in use or any other type having the same passenger or freight capacity.

Hawaiian Hearing

Date for hearing in the Hawaiian proceeding has been changed from Sept. 5 to Sept. 6, Civil Aeronautics Board announced last week.

Prehearing conferences for North and Central Pacific routes, originally set for Sept. 1 and 15, have been consolidated and the joint prehearing will be held Sept. 15.



BRAZIL AIRLINE HEAD:

Dr. Paulo Sampaio, president of Panair do Brasil, arrives in Miami enroute to New York for conferences with Pan American officials. The Brazilian government is reported negotiating with the U. S. for landing rights for the Brazilian airline in Miami. Panair do Brasil is a PAA affiliate.

CAB SCHEDULE

Aug. 29. Preliminary briefs due in American Export case.

Aug. 31. Oral argument in the New York-Chicago proceeding (Docket 629 et al.).

Sept. 1. Prehearing conference on National Airlines' reopened rate case for Routes 31 and 39 (Docket 824).

Sept. 1. Briefs due in the Kansas City-Tulsa-New Orleans case. (Docket 651 et al.).

Sept. 2. Preliminary briefs on the Great Lakes-Florida case due. (Docket 570 et al.) Extended from Aug. 14.

Sept. 5. Hearing date for Rocky Mountain feeder case.

Sept. 5. Tentative hearing date for Braniff Airways proposed acquisition of control of Aerovias Braniff.

Sept. 6. Hearing on West Coast to Hawaii applications (Docket 851 et al.).

Sept. 10. Briefs due in the Kansas City-Tulsa-New Orleans case (Docket 651 et al.).

Sept. 12. Cincinnati-New York hearings before Examiner Frank A. Law, Jr., and Barron Fredericks.

Sept. 15. Prehearing conference, international route applications via the North and Central Pacific.

Sept. 18. Latin-American route hearing before Assistant Chief Examiner Francis W. Brown. (Docket 525 et al.).

Oct. 1. Deadline for exhibits in the Oklahoma-Texas feeder case.

Oct. 2. Exchange of exhibits in the Florida cases. (Docket 489 et al.).

Oct. 2. Prehearing conference international route applications, Australia.

Oct. 2. Date for exchange of exhibits in North Atlantic case. (Docket 855 et al.).

Oct. 15. Date for exchange of exhibits in South Atlantic case.

Oct. 16. Exhibits due in the New England Feeder case (Docket 399 et al.).

Oct. 16. Tentative hearing date for West Coast case before Assistant Chief Examiner Francis W. Brown and F. Merritt Ruhlen. (Docket 250 et al.). Postponed from Aug. 1.

Oct. 16. Deadline for exhibits in the South Atlantic case. (Docket 1171 et al.).

Oct. 16. Hearing date, North Atlantic routes.

Oct. 20. Date for exchange of rebuttal exhibits in the Oklahoma-Texas case. (Docket 489 et al.).

Nov. 1. Rebuttal exhibits in the Florida cases due. (Docket 489 et al.).

Nov. 1. Hearing date, South Atlantic routes.

Nov. 13. Deadline for rebuttal exhibits in the New England feeder proceeding (Docket 399 et al.).

Nov. 27. Hearing date for the Florida cases before Examiner William F. Cusick (Docket 489 et al.).

Dec. 4. Tentative hearing date for applicants for feeder routes in the New England states. (Docket 399 et al.).

Dec. 13. Tentative hearing date, North Pacific routes.

Jan. 10, 1945. Tentative hearing date, Central Pacific routes.

Feb. 1, 1945. Tentative hearing date, Australian routes.

CAB ACTION

• Civil Aeronautics Board has released for comment the draft of a proposed regulation limiting stopover times to 45 minutes in certain cases. The regulation would apply to certificates which contain restrictions requiring certain flights to originate or terminate at or beyond a certain named point or points. Scheduled stops at points short of those named shall not exceed 45 minutes.

If enacted, the regulation would provide the answer to a recent complaint filed by United against TWA, alleging that the latter's one hour and 42 minutes stopover at Los Angeles on New York-San Francisco flights violated in effect local service restrictions in TWA's certificate. The CAB regulation however, was under consideration for some time prior to United's complaint.

• Baltimore Aviation Commission has asked CAB permission to intervene in the North and South Atlantic routes cases.

• Pan American Airways has petitioned to have the Latin-American rate case reopened for reconsideration by the CAB.

• The Board authorized the Department of Justice to intervene in the West Coast case, tentatively scheduled for hearing Oct. 1-6.

• United Nations Airships, an applicant for trans-Atlantic routes using lighter-than-air craft, has withdrawn from the North Atlantic route case and requested separate hearing on its application.

• At the request of Harold B. Green, the Board dismissed his application for feeder routes on the West Coast. The application has been consolidated with the West Coast proceeding.

Also dismissed was an application of Great Lakes Air Transport, Inc., for freight routes between New York, Chicago, Detroit and other points.

• United Air Lines and the State of Rhode Island received CAB permission to intervene in the New England feeder case, tentatively scheduled for hearing Dec. 4.

• The Board removed from the Rocky Mountain Case an application of Western Air Lines for a circle route out of Las Vegas, Nev., and consolidated it with the West Coast case for hearing. An application of Nevada-Pacific Airlines is already in the West Coast proceeding, and a recently filed application of Western States Aviation Co. for routes in the same area has been proposed for consolidation with the case. In order that the three applications proposing service in similar territory may be heard simultaneously, they have been included in the West Coast proceeding.

• The City of Norfolk, Va., is seeking CAB's permission to intervene in both the North and South Atlantic route proceedings.

• Eastern Air Lines has asked the Board to exclude the application of the W. R. Grace and Co. for routes in the Caribbean and South America from the Latin American case, scheduled for hearing Sept. 18.

• A CAB consolidation order in the New England Case includes 26 applications for new air service, four of them by operating airlines. The latter are Eastern Air Lines, Northeast Airlines, Colonial Airlines and all American Aviation. Thirteen new dockets were created by the Board from portions of applications outside the scope of the case. Four relationships for approval, of interlocking relationships also will be heard.

• The State Department has requested permission to intervene in the North Atlantic proceeding. This is the first time the Department has sought to enter a CAB proceeding.

• Western Airlines has asked the Board to dismiss its application for a circle route out of Great Falls, Mont.

• The Board dismissed, at the request of Pan American Airways, an application filed by the carrier early last year to include Moses Point, Alaska, on the Fairbanks-Nome route.

• Another first-time intervener is the Maritime Commission which is asking to become a party to the West Coast to Hawaii case.

• Northwest will endorse the CAB examiner's recommendation that it be granted a Minneapolis-New York route in oral arguments scheduled for next Thursday. Airline attorneys, however, will urge the Board to reject the examiner's recommendation that Northwest be required to originate or terminate flights on the new route at Minneapolis-St. Paul or points west of the Twin Cities. The recommended restriction would seriously delimit local service opportunities, Northwest will contend.

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A nationally known company, leader in its field, is expanding its sales force for present and post-war business. Men located in or near Boston, Chicago, Detroit, Kansas City, Missouri, Dallas and Los Angeles are wanted. Must have an ME degree or the equivalent. Job is to sell aircraft, radio, transportation and diversified manufacturers. State in your own handwriting — age, education, draft status, experience, territories covered and salary expected. A representative of the company will arrange for a personal interview.

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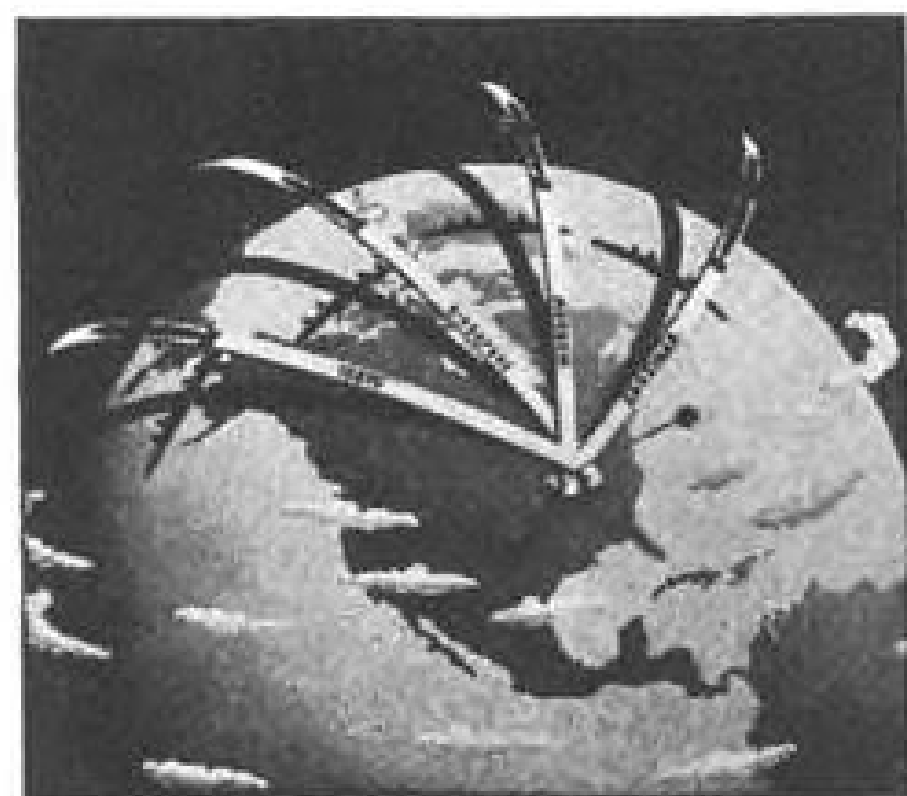
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A World A.T.A.

THE UNITED STATES GOVERNMENT would favor establishment of a world air transport association comprising all international commercial operators and would give its approval unofficially if U. S. airlines took the initiative, AVIATION NEWS is informed officially.

The probable need for a conference of international air carriers, like that of the shipping companies, has been recognized by the government since the beginning of investigations into America's post-war position in world-wide civil aviation. Some officials have reduced their views on this matter to writing and these have been studied on high levels.

A substantial segment of the air transport industry in this country likewise feels that such an organization will be essential, and plans for its establishment are being considered. In some industry circles formation of the conference is considered inevitable.

It is the feeling of officials, of course, that many matters relating to regulation of international aviation will be settled in inter-governmental agreements, but they point out that other problems of both technical and legal nature will confront carriers and perhaps had best be left to consideration of a conference of the carriers.

Airline executives who favor the conference stress that they, better than governments, will be able to iron out many important operational and other problems and will know better how to go about protecting their self-interests.

Enthusiasm for a conference of international air carriers also is evident in foreign countries. The I. A. T. A. had become virtually such a conference when the war in Europe began in 1939. A meeting scheduled to be held in New York, September, 1939, was called off owing to the outbreak of the war. At that time the I. A. T. A. comprised 29 airlines, including Pan American Airways, representing 24 countries.

Dr. D. Goedhuis, Secretary General of I. A. T. A., escaped several months ago from Holland and now has prepared an extensive report on I. A. T. A. which he proposes be used as a basis for discussion in reviving that body. The report was forwarded to this country by the American Embassy in London on behalf of Dr. Goedhuis. It states that the need for an I. A. T. A. is "universally felt" and the original organization was "successful" because "externally as well as internally there exists a strong solidarity of interests between those engaged in the operation of international airlines." Dr. Goedhuis points out:

External Relations—"The self interests of the air traffic companies are furthered by a central body because they can have their wishes complied with to a much greater degree than would be possible if these wishes were put forward by them individually; a central body can furthermore protect them from measures which would have an adverse effect on development of aviation." He states that I. A. T. A. obtained "far-reaching" results in the field of air legislation, in the postal field, in the field of air communications and in getting action to alleviate financial burdens imposed on operators by various governments. A general increase in international air travel safety was obtained also, Dr. Goedhuis says.

Internal Relations — "The interdependence of air

carriers is infinitely greater than the interdependence of carriers by sea or by land conducting international communications." Problems which arise from an international journey can be solved only through a central body, it is said. Some of these problems: timetables, rates, booking for a through journey via several airlines, conditions for carriage of baggage and goods, carrier liability, accountancy among successive carriers.

In the I. A. T. A. proposed, "business questions will be treated by business methods," and political matters will be excluded. Dr. Goedhuis suggests a parent body with three regional organizations to handle regional matters; these might be in Europe at the Hague, in East Asia at Singapore and in North America at Washington.

The project deserves immediate consideration by the members of the Air Transport Association.

Wasting Airliner Space

RECENT SUGGESTION by Office of Defense Transportation that airlines continue care in advertising lest they appear to encourage travel implied more violations than the record shows. The airlines have conformed rigorously to a program mutually adopted shortly after Pearl Harbor.

There have been few cases of misuse of advertising space and, as Col. Edgar S. Gorrell, president of Air Transport Association, says in a reply to Col. J. Monroe Johnson, ODT director, the few exceptions were mainly the result of an individual's failure to anticipate the exact effect of the advertising copy involved. At the same time, Col. Gorrell makes the significant point that no other transportation industry has been policed so carefully on this subject. A survey of railroad advertising should be made. It is fair to assume that the Association of American Railroads received a similar warning from Col. Johnson.

The airlines' problem, however, is increasing as Army transports join the commercial fleets.

Both ODT and the industry seek fullest possible use of passenger capacity for the war effort, but hundreds of persons on vital war missions automatically are taking slower transport means every day because they do not know enough about the workings of the air passenger priority system and their chances of obtaining airline seat space. This means, in the aggregate, a sizable number of empty, wasted seats week in and week out.

While there apparently is no objection if the airlines restrict their announcements to simple listings of new services, this policy deserves immediate revision when the European war ends and more planes go to the lines. Those added planes will mean better service for war industry men trying to eliminate the Japanese enemy. The inner circle of ferry pilots, government officials, and leaders of industry who are "in the know" will be more speedily moved by an airline's 10 transcontinental schedules a day than by five. But thousands of other essential travelers who have no knowledge of additional seats will never learn of them from mere timetables run in the local newspaper. Waste of airline facilities will be as unnecessary and unfortunate for the national welfare as is misuse of insufficient space today.

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While the problem of interference from high-tension ignition systems has been largely overcome, noise from other electrical wiring in the plane has made itself more apparent. Titeflex Aerocon—which helped solve the problem on high-tension ignition cables—this same conduit can and should be utilized by manufacturers of air frames to dampen

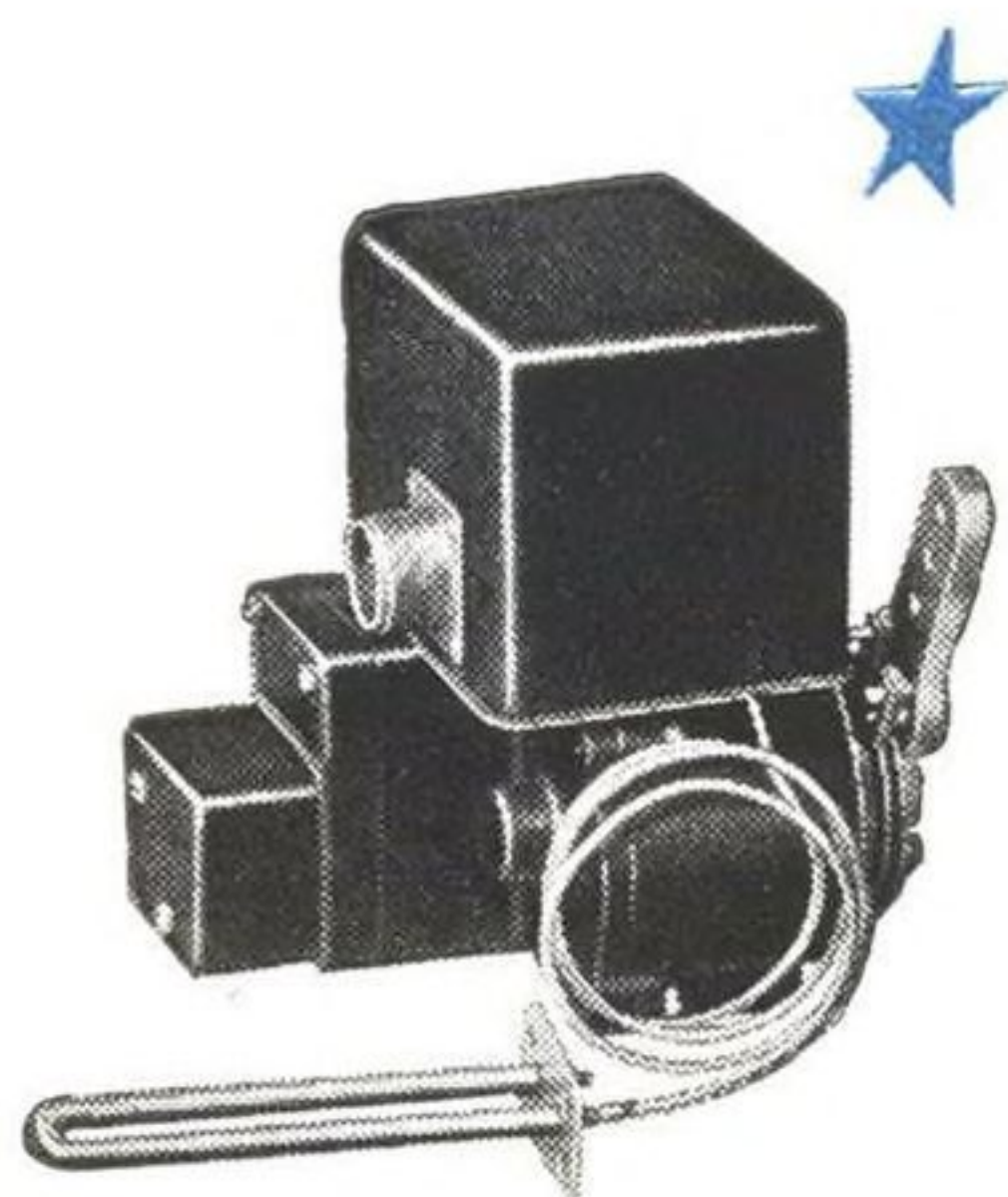
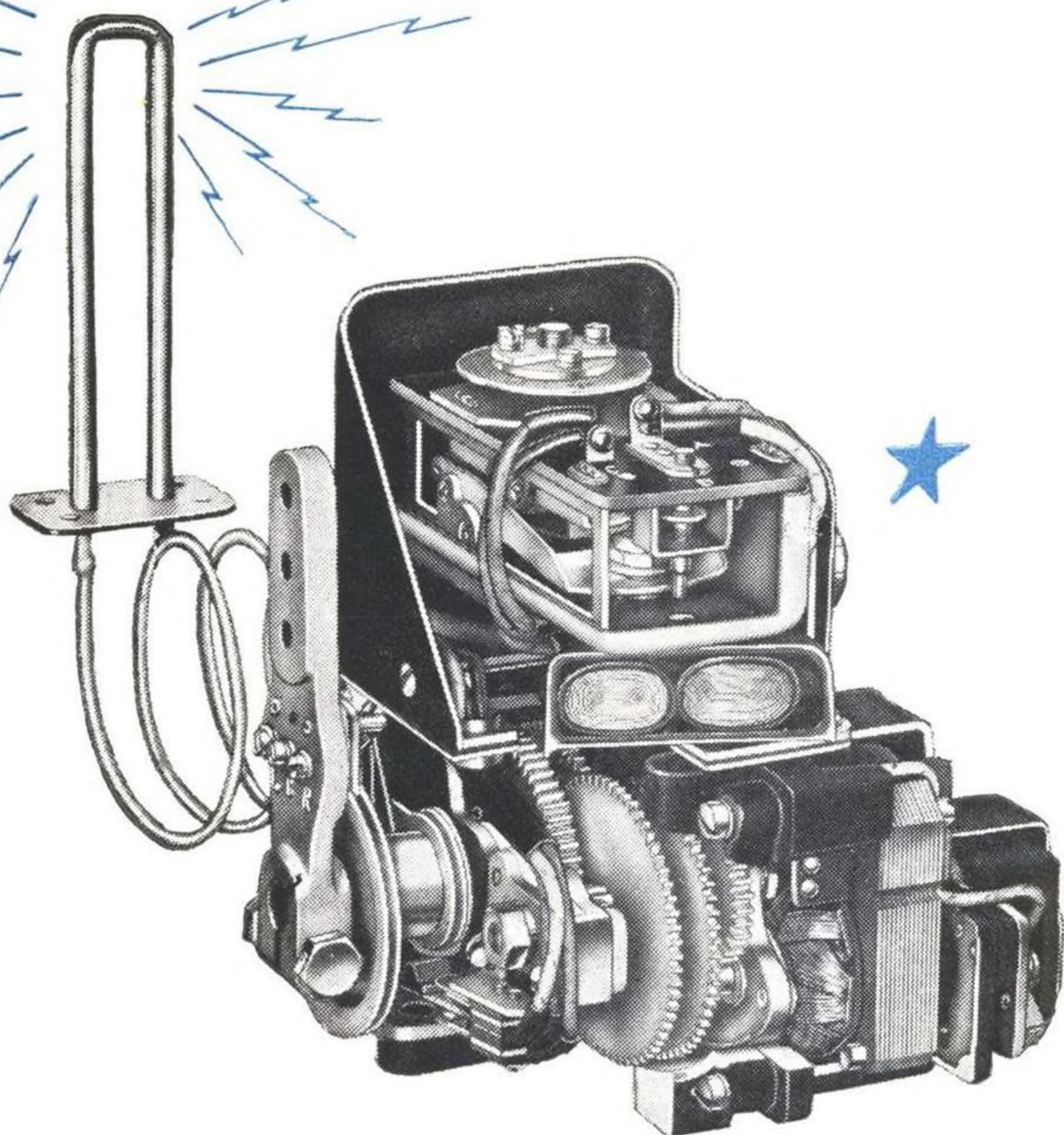
the interference of all electrical wiring—
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Titeflex Aerocon is available in all diameters for which conduit is required. The use of complete assemblies manufactured by Titeflex insures interference-free operation of radio and electronic devices on America's fighting aircraft. Titeflex engineers are prepared to cooperate with aircraft builders, and manufacturers are invited to submit their specifications.

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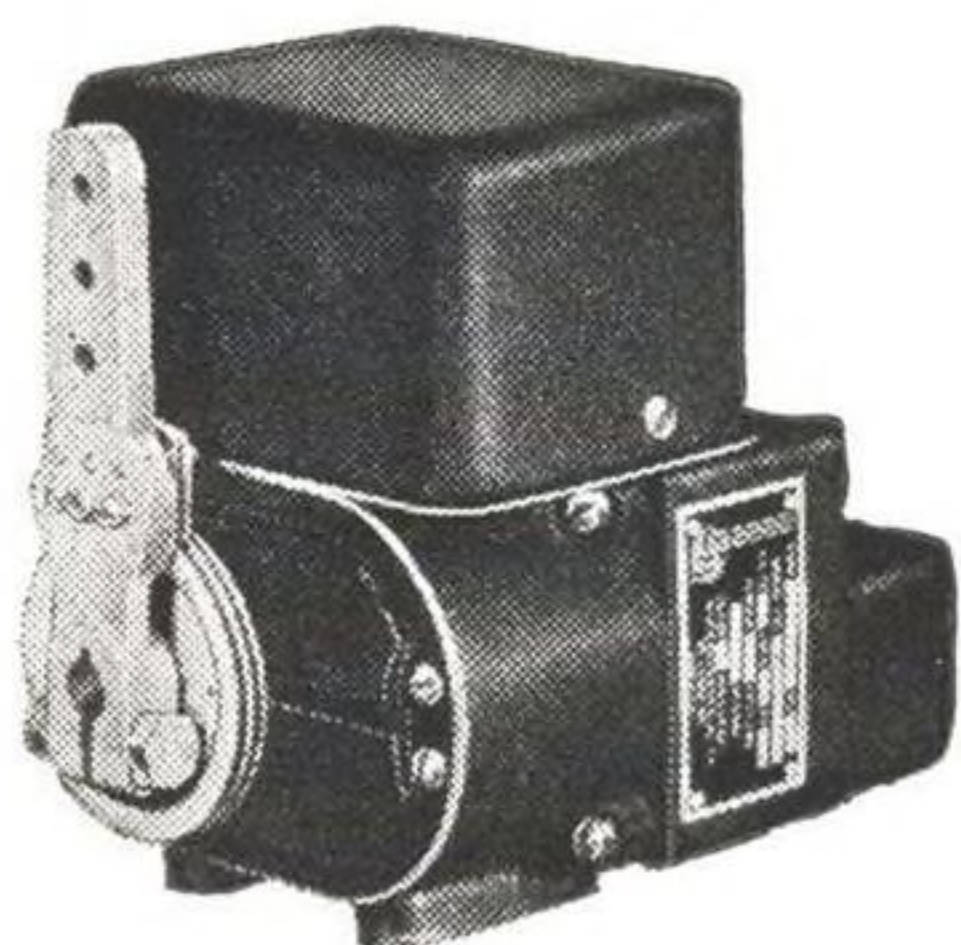
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