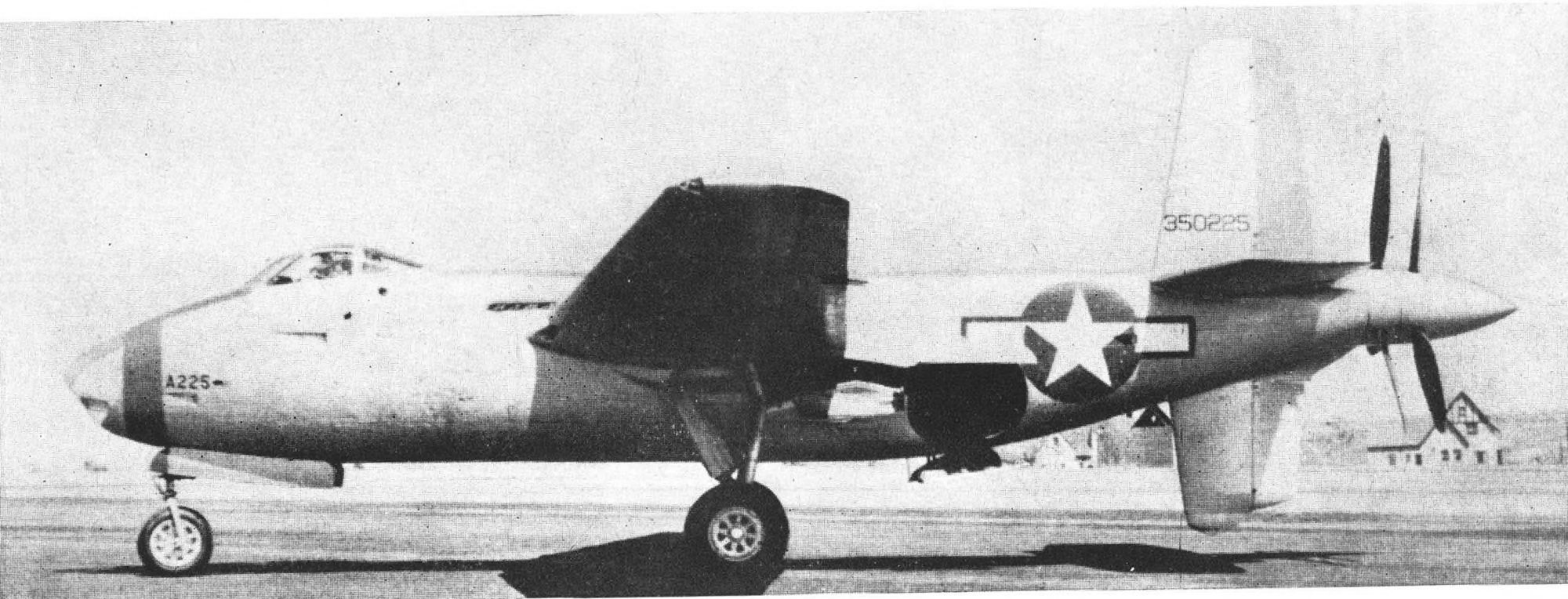
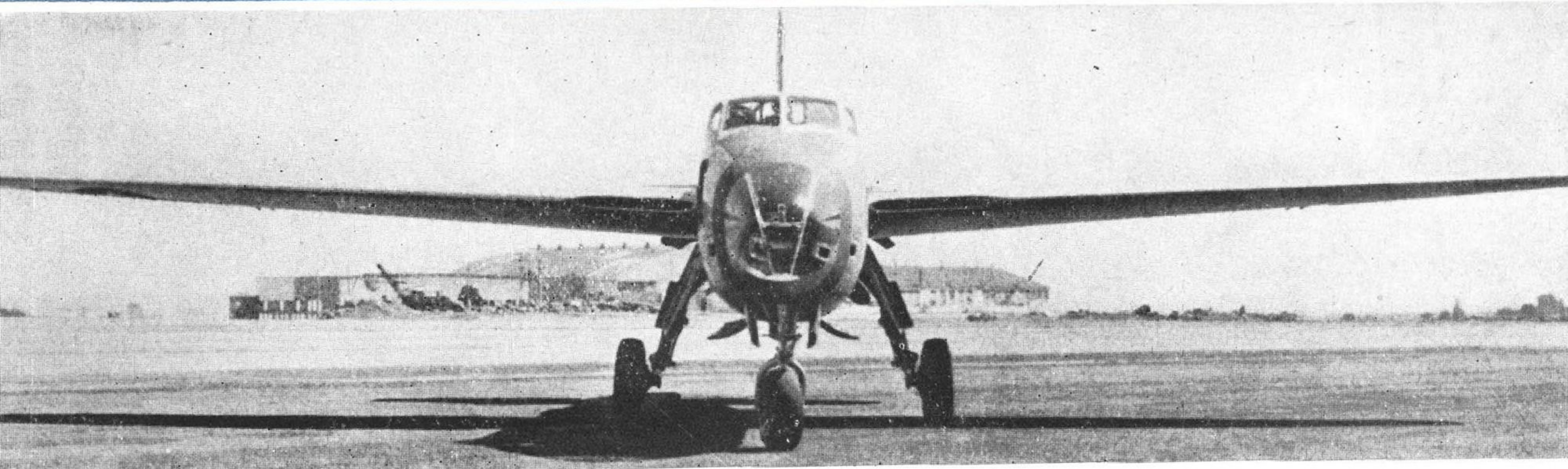


Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

SEPT. 17, 1945



Douglas' Experimental "Mixmaster": *First views of the XB-42, powered by engines located in the tail, driving counter-rotating propellers. This experimental bomber, first in the 400-mph. class, is being studied by company engineers for application of its unusual features to commercial versions of the previously announced Skybus feederliner. (See stories on page 12.)*

Lockheed, ALPA Lone Objectors to Stall Rule End

Certification for airline use of war-born transports with excessive landing speed dependent on outcome of CAB hearings.....Page 40

RFC Reverses Sales Policy; Plane Dealers Get Discounts

Prices cut for BT's, PT's and Cessnas as agency ends long criticized ban on "to-the-trade" disposal.....Page 7

Senate 'Port Bill Passage Finds Controversy Continues

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Research Policies To Shape In Senate Next Month

Present trends point toward overall agency with no segregation of military and naval programs.....Page 24

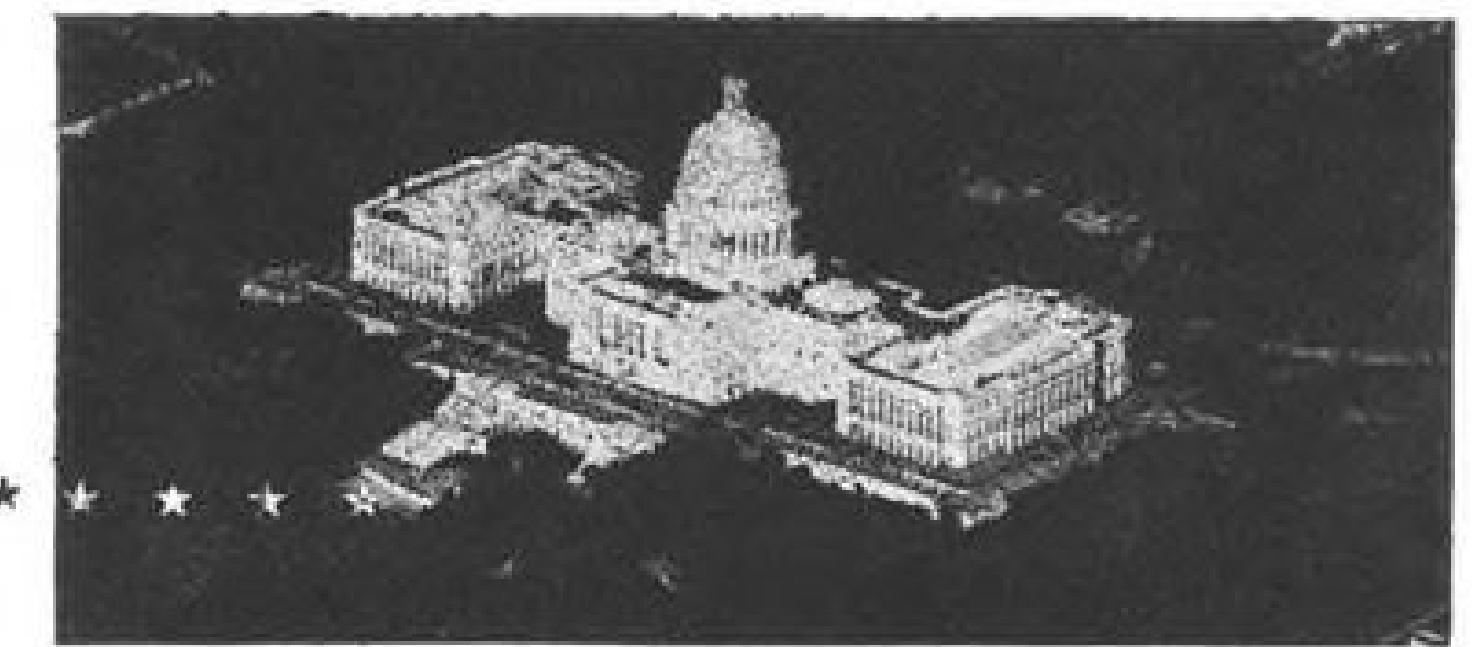
Foreign Trade Plan Studied As Aircraft Export Shapes

Executives see development of airports abroad, full use of air attachés and purge of German ideas from South America as essential.....Page 11

Non-Schedule Rules Hearing Looms As Opposition Unites

Last-minute rally of protests against CAB examiners' proposal to provide economic regulations seen paving way for oral arguments soon...Page 10

Washington Observer



AIRCRAFT SCHEDULES—There has been a great amount of pulling and hauling the past two weeks on Army-Navy peacetime aircraft schedules. Although some changes have been made in orders, vitally affecting several companies, the total amount of the peacetime program is reported but slightly changed from original estimates and the best available predictions at this time put the business of the industry around one billion dollars annually.

APPROPRIATION REQUESTS—Requests for appropriations for the peacetime air forces are expected to go to Congress shortly and the amount will affect the industry materially. In revising their schedules—with the atomic bomb the most important factor—the services are attempting to choose from among the aircraft manufacturers those facilities which they regard as the best and most dependable suppliers. While not yet definite, Navy has in general settled on its old favorites, Grumman, Chance Vought, Curtiss and Martin. Army is said to be interested in keeping North American, Boeing, Lockheed and Republic as strong economic units. These companies and some others are scheduled to get enough of the annual program to keep plant and labor nucleus going. In addition, both branches will expend very considerable amounts for experiment and research. Bulk of the appropriations will go into this phase of the program, according to present plans.

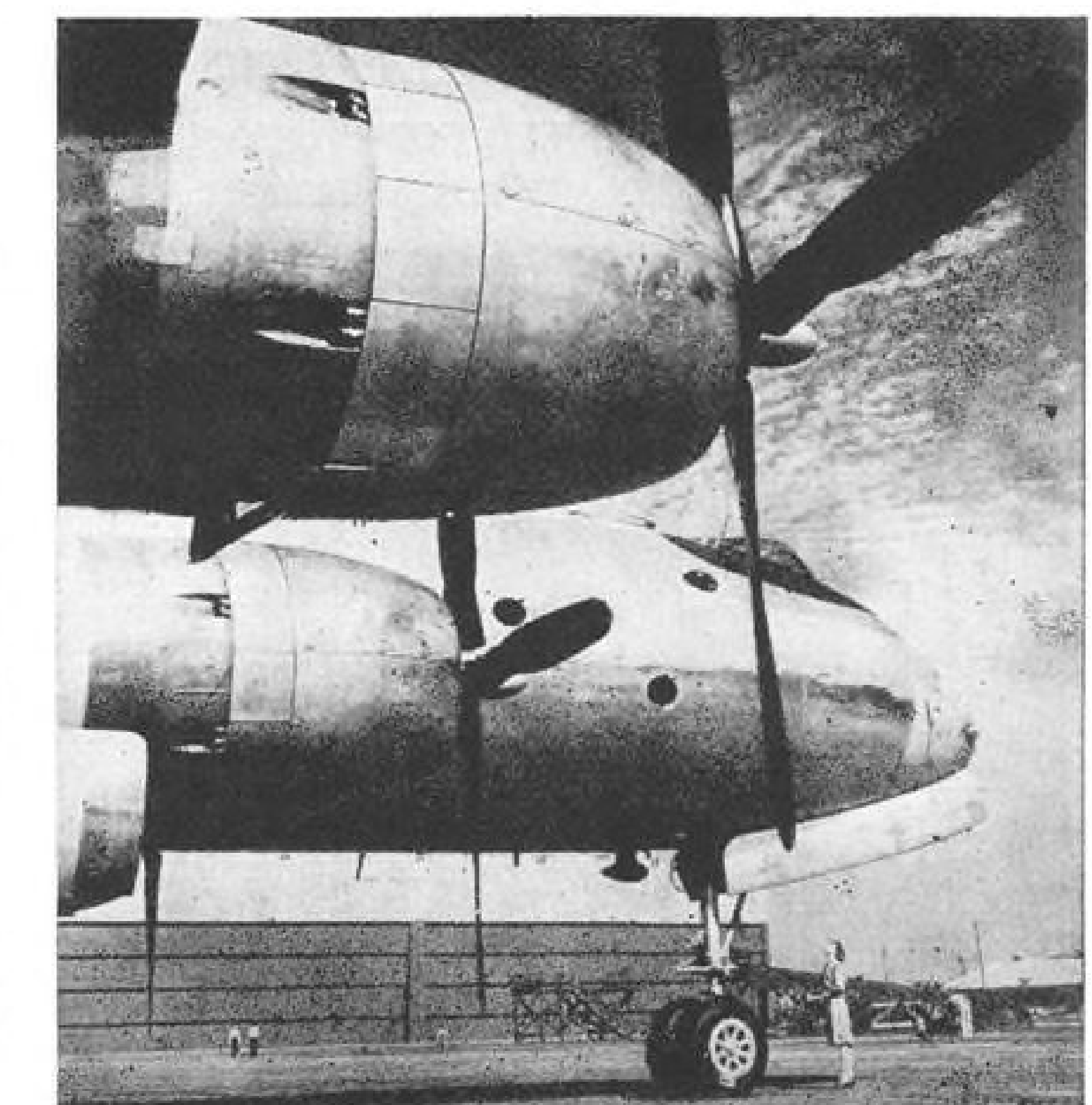
WALLACE AIDS CAA CLEAN-UP—Henry Wallace is taking a personal interest in Administrator T. P. Wright's continuing investigation of inefficiency and irregularities in CAA. Meanwhile, more shake-ups are slated in both Washington and regional offices as it is realized that the general reorganization order of last Spring, raising division heads to assistant administrators is not panning out. For the first time, it now appears that several old guard leaders may be removed, perhaps by the end of the year. The well-entrenched CAA office holders, by various methods have effectively prevented many of Administrator Wright's policies from going into effect.

BASE DISCUSSION—It is understood that the State Department has advised the British that we are ready to discuss future use of a dozen or more airbases, for which we traded them destroyers on a 99-year military rights basis, and that the British countered with a desire to discuss the use of Kindly Field, Bermuda. Location of the field is significant in the air transport picture and it is reported that U. S. negotia-

tors would prefer to discuss all fields at the same time. However, it appears that the agreement and terms reached on Kindly Field may determine the pattern for peacetime use of other bases and the announcement on this should be watched. There are some bases, of course, which are of no value commercially. Discussions on the whole deal will begin in the near future.

REQUIREMENTS COMMITTEE—WPB contemplates continuation of the Requirements Committee, which makes overall allocations of materials to the various claimant agencies, for at least a part of the re-conversion period. Inasmuch as the Aircraft Resources Control Office is being disbanded after Sept. 30, the AAF and the Navy Bureau of Aeronautics are asking representation on the committee so that the joint aircraft program will have a voice in the division of materials.

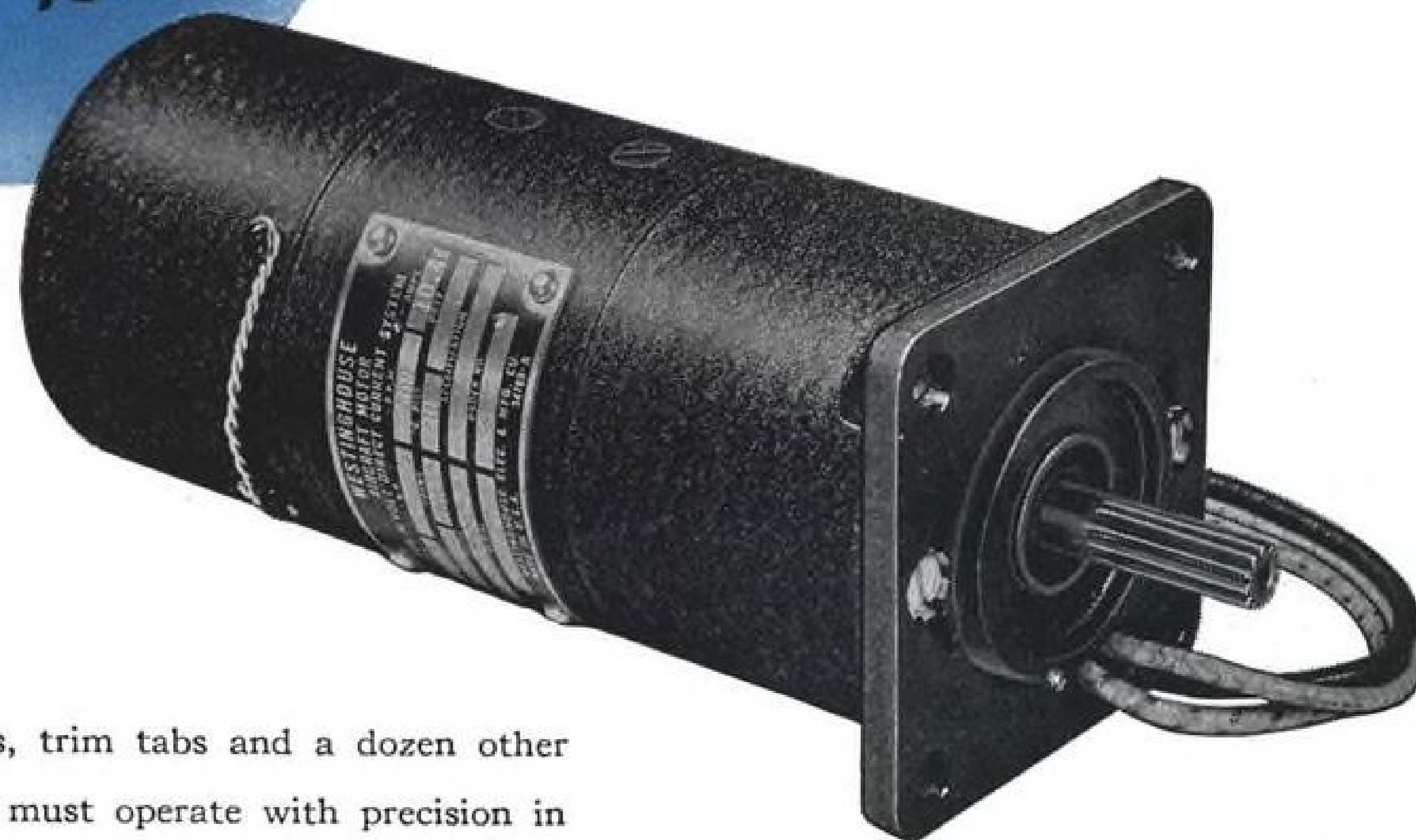
GERMAN TECHNICAL INTELLIGENCE—The 9th Air Force is reported well advanced with the job of packing and crating vast stores of technical intelligence material on the German Air Force for shipment to Wright Field. Members of the 9th's disarmament division have found middle-class homes a favorite hiding place for Luftwaffe equipment. Residents often claim the equipment was forced on them.



Douglas C-74, showing one of the bug-eye canopy enclosures for pilot and co-pilot and the clean cowlings housing P&W Wasp Major powerplants.

STOPS

in 1/50 second from 7500 rpm



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For further information on motors incorporating these brakes and on other aircraft electrical products, aviation engineers are requested to write to Westinghouse Electric Corporation, Lima, Ohio.

J-03230

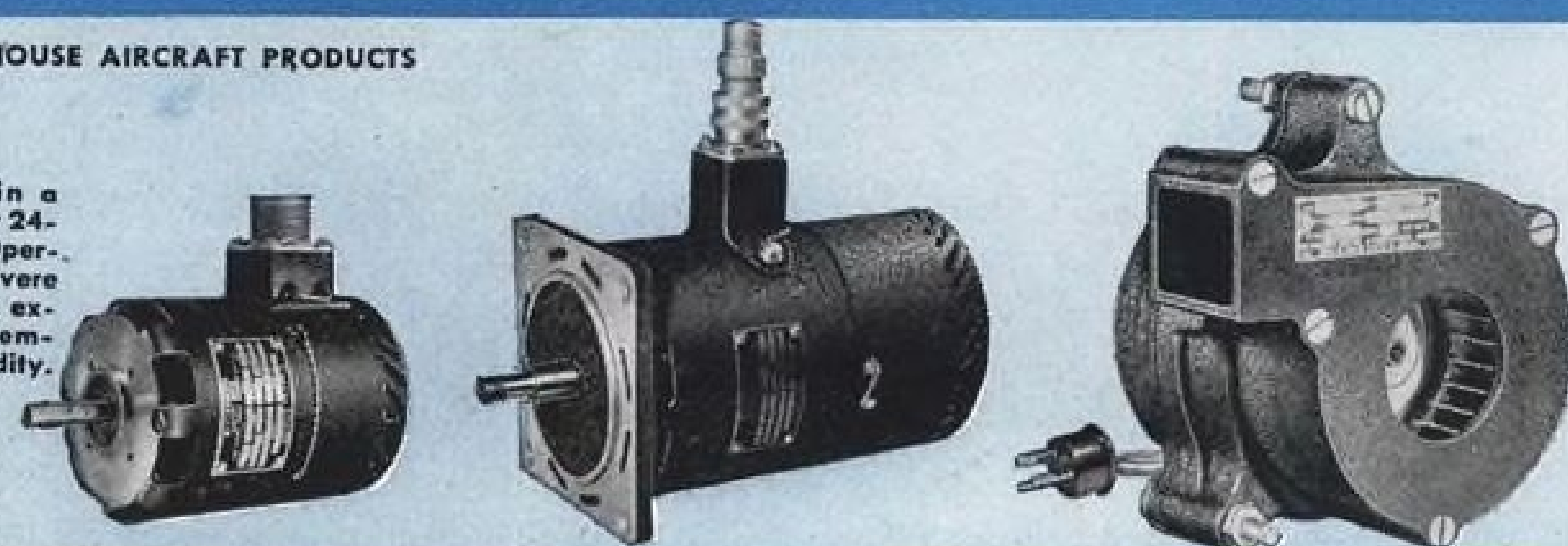
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Photo courtesy The Glenn L. Martin Company

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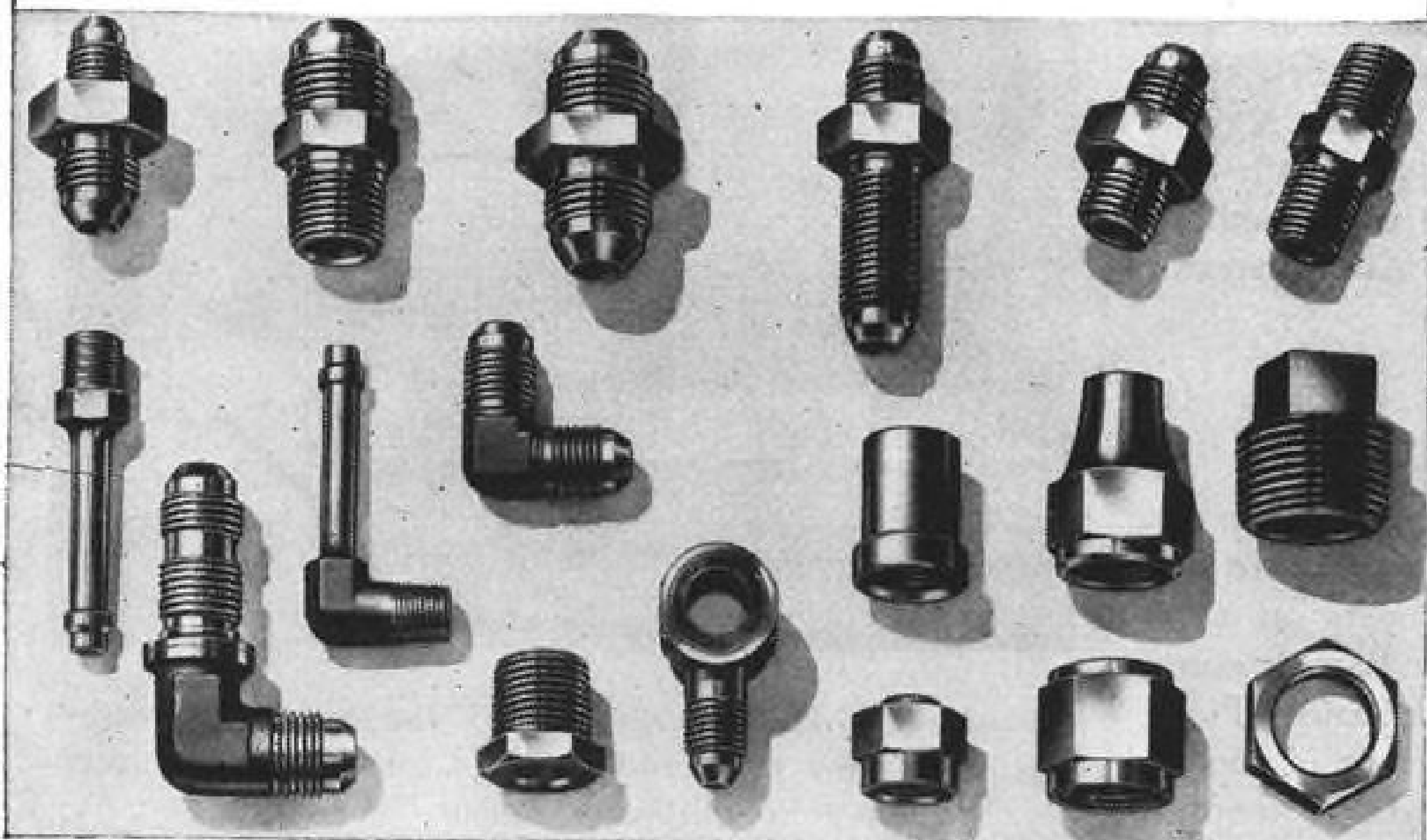
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News at Deadline

CAA Probe Dismissal

Edgar A. Goff, Jr., CAA aeronautical inspector at Pittsburgh, Pa., has been dismissed effective Sept. 12, as a result of the recent investigation of CAA inspectors by Administrator T. P. Wright. A CAA spokesman said that Goff was given opportunity to file an answer to malfeasance charges, and that his answer was regarded as unsatisfactory. Goff has the right of appeal under the Veterans' Preference Act of 1944.

EAL Accident Probe

The Civil Aeronautics Board will hold a hearing in Miami, Fla., September 19, to seek the cause of the crash of an Eastern Air Lines passenger transport in which 22 persons were killed ten days ago.

Hughes Boat Certification

Application may be made for commercial certification of the giant eight-engine flying boat, nearing completion at the Hughes Aircraft plant at Culver City, Calif., under sponsorship of the Defense Plant Corp. The original contract called for three such planes and specified that they should be commercially certificated. When a new contract was drawn, for one plane and no commercial certification, Civil Aeronautics Administration dropped the static tests and detail inspection it had been making. Presumably a lot of ground has been lost on this score. Whether it can be recovered is problematical.

New, Faster Corsair

Disclosure of a new faster and more maneuverable Corsair fighter for the Navy was made in connection with "E" award ceremonies at Goodyear Aircraft in Akron. It is the F2G, successor to the FG1.

S. D. Beck, basic project engineer on the Chance Vought design plane built by Goodyear, said that the plane had traveled 420 mph in a transcontinental speed test a few months ago and that its rate of climb was 7000 feet per minute, described by Beck as 50 percent faster than jet airplanes now in production.



Industry Observer

Reductions in Army-Navy aircraft schedules in the past three weeks are expected to bring 1946 service production down to an estimated billion dollars. Earlier schedules compiled by the two services since the end of hostilities were higher than had been anticipated, amounting to \$1,300,000,000. Most recent revisions involve reduction of 62% in units for B-29's the rest of this year and a cut of 67% in the first half of 1946; completion of P-47N production by Dec. 1, 1945; cut of 63% for the Lockheed P-80 in the first half of 1946; Northrop P-61 cut 50% in the last 4 months of 1945; and North American P-51 cut 34% the rest of this year.

How to punch a hole in the speed of sound brick wall and break through into super-sonic speeds is at the top of the list of projects the industry has assigned to its research aerodynamicists. Extremely rapid acceleration from 650 mph. to 800 mph. is an objective, to minimize duration of compressibility buffeting and structural stresses at sonic speeds. Strongly favored is use of supplemental rocket power. Some tests may be made with attaining maximum level flight speed at high altitude and then diving through sonic speed.

With few exceptions, U. S. plane companies are trimming to the bone their elaborate wartime public relations departments. One major manufacturer whose public relations budget reached a wartime peak of more than a million dollars a year plans to appropriate only \$50,000 for the department, starting immediately. Among the exceptions is Lockheed, which is keeping nearly all of its public relations staff.

Consolidated Vultee probably will abandon development of its Model 39. In the transport field it will concentrate on its big 6-engined Model 37 and its recently announced 30-passenger Model 110, whose development is being pushed at top speed. Prototype may be flying by March.

Despite widespread skepticism on the possibilities of the resonance jet engine as a transport prime mover, Douglas, Lockheed and North American are surveying the subject carefully. Proposals have been made that numbers of moderate-sized resonance jets be installed to exhaust from the trailing edge of the wing, with firing speeds of the engines varied to attain a "blending" of exhaust roar and minimize noise drawbacks. Jet engineers believe that with planes flying at high speeds the noise may not be as great to ground observers or passengers as some other experts believe.

Airline officials next month will witness Navy tests in California of the British airport fog dispersing system which was designated operation FIDO during the war.

Lockheed P-80 probably will remain grounded until the AAF has flown 100-hr. tests on five guinea pigs based at Muroc dry lake.

Navy has withdrawn its cancellation of 81 twin-engined Douglas JD utility transports, similar to the Army A-26C.

Now is the time for fixed base operators and others who plan to do so to start non-scheduled transport operations, in the opinion of those who are watching the CAB picture closely. Feeling is strong that the Board will give grandfather clauses to those who are operating as of some date to be set sometime between now and Jan. 1, making it difficult for others to enter the field afterward. This procedure was followed in the case of the scheduled airlines when the Civil Aeronautics Act became law.

The static test model of Howard Hughes' high-speed fighter, ordered by the AAF and designated as the F-11 photographic ship, has been shipped to Wright Field and the runway of Hughes Aircraft at Culver City is being lengthened from 6,000 to 9,000-ft. to accommodate the flying prototype.

Ryan has received Navy permission to demonstrate its hitherto secret Fireball jet fighter to the press Sept. 26.

RFC Reverses Sales Policy; Plane Dealers Get Discounts

Prices cut for BT's, PT's and Cessnas as agency ends long criticized ban on "to-the-trade" disposal; 15 to 20 percent cost reduction set for initial purchase of three planes.

In a reversal of a policy strongly criticized by practically all aviation quarters since its inception, Reconstruction Finance Corporation last week decided to sell surplus primary and basic trainers and Cessnas to aircraft dealers at discounts. At the same time it was announced prices will be cut effective Sept. 17.

Discounts of 20 percent on the purchase of three or more primary or basic trainers, and of 15 percent on the purchase of three or more Cessnas, will be taken off the new prices. Revised prices were being sent in to RFC headquarters by sales centers last week

and the new scale replacing the former \$875-\$2,400 range was expected to be released late in the week.

► Dealer Designation — Discounts will be given only on an initial purchase of three planes all at one time. Such a purchase will establish the buyer as a "dealer," and the discount will be applicable to all future purchases by the individual, whether of one or more planes.

In announcing this complete change of its original ban on "to-the-trade" disposal, RFC stated "this change has been made in order to expedite the disposal of surplus aircraft of these types and to assist private aviation businesses through the reconversion period. . . .

Name Change

Representatives of 11 aviation organizations comprising the Civil Aviation Joint Legislative Committee last week voted to change the group's name to Civil Aviation Legislative Council. Lowell H. Swenson, manager of the National Aeronautic Association, was, at the same time, elected secretary.

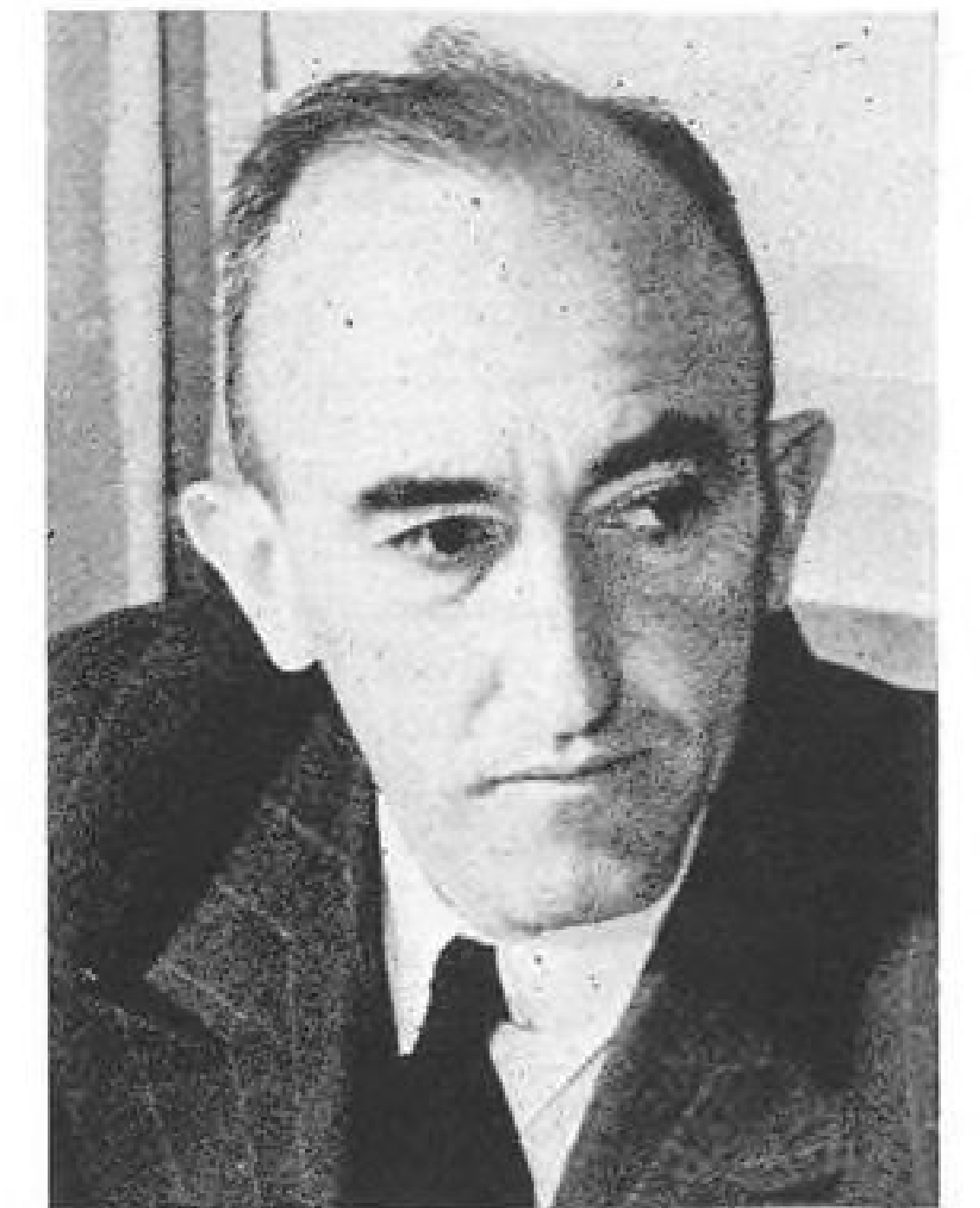
The council approved resolutions recommending: that the GI Bill of Rights be amended to make it possible for veterans to draw the full \$500 tuition allowance for "refresher" courses; that aircraft theft be included under Federal statutes punishing motor theft, as proposed in S.374; passage of the bill for a single administrator of surplus property disposal; that CAB grant a hearing on the examiners' report on non-scheduled aviation.

► Policy Revision—Changes in by-laws and policy were approved to be submitted to member organizations before being made public.

"The plan takes into account the fact that the government cannot provide the distribution and sales organization which would be necessary to reach all prospective purchasers, without enormous expense. This expense is not considered to be justifiable in view of the fact that such an organization already exists among the many hundred aircraft dealers, air service operators, and others throughout the country who have the facilities and experience necessary to service and sell the planes," the agency concluded.

► Followed Talks — The revised policy, says RFC, was "adopted following a number of conferences with members of the aviation industry and others."

The original policy was adopted about March of this year after conferences with the National Aviation Trades Association and other representatives of the industry, and it was pointed out in AVIATION NEWS at the time that RFC was ignoring the ready-made distribution set-up of airport



BOEING CHIEF:

William M. Allen, new president of Boeing Aircraft, a lawyer who has been the company's contract expert and trouble-shooter since its organization, and now heads the reconversion job.

service operators, dealers and distributors. The Non-Scheduled Flying Advisory Committee condemned the policy as "unfair in concept, uneconomical in operation and objectionable in its fundamental basis of engaging the government in a business directly competitive with established industry."

While under the revised policy, RFC will still sell on the price-tag basis to individuals, the hope seems to be that the dealers will absorb enough planes to make buying direct from the government unnecessary.

► Tardy Amends—For their part, dealers are gratified that at last RFC has recognized their existence, but express no great enthusiasm. Some feel it is making tardy amends. Others wonder if perhaps RFC feels it has skimmed the cream off the market.

Since this past April, RFC has sold about 2,700 PT's, 70 BT's, and 400 Cessnas. It has remaining approximately 3,600 PT's, 6,000 BT's, and more than 2,000 Cessnas.

With some predictions saying that as many as 5,000 new air-

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planes will be on the market before the end of the year, there is more than a little feeling that RFC may know the market for surplus planes is practically ended.

► **'Interim' Aid**—However, Lt. Col. Frank J. Murphy, heading up RFC's surplus aircraft division, doubted that new planes in volume would reach the market much before next summer. Meanwhile, he stated, the new RFC disposal policy would help dealers and aircraft service operators through the intervening time.

Under the changes, any dealer can go to his nearest sales center—or if he does not know its location, write to RFC in Washington for that information—and pick out three or more planes he wants. He then gives his check for the total marked on the tags, less the discount. He is allowed a ferrying allowance of 27 cents a mile to fly the planes to his base. When he puts them in shape for CAA certification, he can sell them at the price he sets.

AVIATION CALENDAR

- Oct. 2—Air Navigation Committee, Provisional International Civil Aviation Organization (PICAO), at Montreal.
- Oct. 3—Air Transport Committee, PICAO, at Montreal.
- Oct. 4—SAE Southern California Section, Aeronautic Meeting, Los Angeles.
- Oct. 4-5—Institute of Aeronautical Sciences, Light Aircraft Meeting, Detroit.
- Oct. 6-14—Detroit International Air Show.
- Oct. 8-14—Fourth Michigan Aviation Week.
- Oct. 12-13—Soaring Society of America, Annual Conference, Polytechnic Institute, Brooklyn, N. Y.
- Oct. 15—Interim Council, PICAO, at Montreal.
- Oct. 16—International Air Transport Association, Annual Meeting, Montreal.
- Oct. 25—Institute of Aeronautical Sciences, Meeting, Washington, D. C.
- Oct. 31-Nov. 3—Tentative depending on ODT regulations, 1945 National Aviation Clinic, Oklahoma City.
- Nov. 1—SAE Southern California Section, Aeronautic Meeting, Los Angeles.
- Nov. 5-6-7—National Association of State Aviation Officials, Annual Meeting, Coronado Hotel, St. Louis, Mo.
- Det. 17—Institute of Aeronautical Sciences, Wright Brothers Lecture, Washington.

► On hand at sales centers now are: 126 Consolidated BT-13's, and 2 Consolidated BT-15's; 212 Boeing PT-17's; 379 Fairchild PT-19's; 89 Ryan PT-22's; 52 Fairchild PT-23's, and 134 Cessnas.

► In storage depots are: 5,586 BT-13's; 906 BT-15's; 162 Boeing PT-13's; 1,334 PT-17's; 652 PT-19's; 82 PT-22's; 921 PT-23's, and 2,027 Cessnas.

Evans, Air Pioneer, Dies

Edward S. Evans, 66, president of Evans Products Co., a pioneer

in the air cargo field and founder of the first glider clubs in this country, died Sept. 6, in Lansing, Mich., after an illness of only one day.

As a past president of Lockheed Aircraft Co., Evans was instrumental in installing the first retractable landing-gear on aircraft. He also helped build the world's only metal-clad dirigible, which was later sold to the Navy. Evans' interest in gliding began in 1927, at which time he formed several clubs in the Lansing area.



DOUGLAS GLOBEMASTER:

Only after running the nose wheels upon a low ramp, to depress the tail (below), were engineers able to gain clearance between the top of the rudder and top of hangar opening to get the giant C-74 out of its assembly hangar for its recent test flight. In loading the Globemaster, a large electric hoist platform elevator provides the principal facility, as shown above handling a jeep. At the forward end of the fuselage a swing-out crane augments loading through a large side door.



Senate Airport Bill Passage Finds Controversy Continuing

Amended McCarran bill places funds under state government control; House opposition believed assured; measure, as passed by upper chamber, trims program finance below even conservative estimates of total required.

Passage of an amended version of the McCarran airport bill by the Senate last week has not ended the controversy over the scope and procedure of a Federal-aid landing facilities program.

In trimming from \$100,000,000 to \$75,000,000 the amount to be spent annually for five years, the Senate brought the fund below previous conservative estimates of the total required to launch a nation-wide airport construction program.

► **Fund Formula**—Also, in putting control of funds under state governments, rather than adopting the formula proposed in the original Commerce Committee bill for 65 percent to states and 35 percent to cities, the Senate practically assured a heated wrangle in conferences between senators and representatives.

The Lea bill now before the House requires that Federal money be matched by any other public agencies—which is considered as favoring the cities over the states. Rep. Clarence Lea (D-Calif.) and his Interstate and Foreign Commerce Committee have to date been unyielding in insistence upon their type of allocation.

Under the bill as passed by the Senate, Federal allocations—which must be matched by states—will be made to states on a basis of population and area. The state government is required to use 35 percent in the development of commercial city airports, classes four and five, and 65 percent on smaller fields.

► **Finance Aid**—A "saving" amendment, preventing a lag in airport development by states without funds to finance developments, was slipped through, however, by Sen. Pat McCarran (D-Nev.), sponsor of the bill.

It provides that "where a state has not appropriated any state funds for airport purposes or where a state does not have legislation which permits its participation in the program through an adequate state airport agency, the Administrator shall carry out projects

under this act by direct arrangements with any qualified public agency within the state."

Numerous states whose legislatures will not meet until 1947, McCarran declared, in arguing for his amendment, do not have aeronautical agencies authorized to deal with the federal government for airport development, and have made no allocation of matching funds.

► **'Danger Sign'**—Opening the way, in the view of many observers, to "pork-barrel" projects is an amendment requiring the CAA Administrator to submit to Congress for approval all plans to

construct class four and five airports.

Making possible still another point of dispute with the House, the Senate rejected an amendment which would rule out the use of Federal money in the purchase of land for airports. The Lea bill has such a prohibition.

Durand Retires

Dr. William F. Durand, internationally-known authority on jet propulsion and one of the original members of the National Advisory Committee for Aeronautics, has returned to retirement at the age of 86.

President Truman, on accepting the resignation, expressed the nation's appreciation of Dr. Durand's contributions to the public interest. Dr. Durand was appointed to the NACA originally by President Wilson, and served as chairman during World War I. After retiring in 1933, he was recalled by President Roosevelt and reappointed to NACA in 1941.

Army Cuts Plane Schedule Again

Army-Navy aircraft procurement program policies are still in the formative stage, but the Army has revised its schedules somewhat, resulting in cutbacks of several types of planes beyond those figures previously announced.

The Army schedules have not been made public, but it is understood that the output of Boeing B-29's has been reduced 62 percent for the rest of 1945 and at the rate of 67 percent for the first six months of 1946.

► The producing company plans to close its West Coast plants until its production program can be rearranged to the new schedule which is somewhat under the 20 a month which previous tapering off schedules had set (AVIATION NEWS, Aug. 27).

► Schedules at **Republic Aviation**, under the revision, remain about the same for the P-47N—that is; out at Evansville and down to a few planes by the end of the year. The company has some new types in production, however.

► The monthly unit rate of **Lockheed's** P-80 jet fighter will be cut about 63 percent the first six months of next year, output this year will be reduced, although the new schedules call for a sizeable number per month.

► **Northrop's** P-61 will be cut about 53 percent the last four months of

this year. Previous schedules called for 15 in September tapering off to about 10 a month through the middle of next year.

► **North American's** P-51 *Mustang* output will be cut about 34 percent over the rest of 1945. Previous schedules called for the elimination of production at the Dallas plant and at Inglewood a schedule of 150 for September, then off to about 30 airplanes a month.

► **Bell Aircraft's** contract for RP-63 armored airplanes has been reduced, necessitating the layoff of approximately 800 production employees. Present Bell Niagara Frontier employment totals about 5,000. Plans for tooling up for helicopter production at Bell are reported underway.

The percentages represent a "cut of a cut." The original AAF schedule was prior to VE Day, the next followed VE Day and the current schedule represents the revision of the schedule at the time the atomic bomb burst.

Experimental and research programs apparently continue, but the overall program still depends upon the report being drafted at the direction of President Truman under supervision of the Secretaries of War and Navy, John W. Snyder, director of reconversion, and Harold Smith, director of the budget.

Non-Schedule Rules Hearing Looms As Opposition Unites

Last-minute rally of protests against CAB examiners' proposal to provide economic regulations, including statement by CAA Administrator Wright, seen paving way for oral arguments soon.

Emphatic protests against CAB examiners' proposals to provide economic regulations for non-scheduled commercial flying intermingled with a large number of demands for a public hearing on the proposals, last week.

Since more than 40 requests for oral arguments, including a recommendation by Civil Aeronautics Administrator T. P. Wright, were received, it appeared likely that CAB would schedule such a hearing.

► **Deadline Deluge**—Virtually all of the answers and hearing requests were received at the Sept. 11 deadline, most of them by telegram, and some apparently provoked by an editorial in AVIATION NEWS, Sept. 10, which pointed out that only one response had come in, shortly before deadline, despite the importance of the matter to the industry.

Administrator Wright's recommendation opposing the examiners' report is expected to weigh heavily. He advocated continuation of the general exemption order No. 292.1 by the board (exempting non-scheduled flying from economic regulation) "until a better solution of the problem can be found."

His recommendation included a report from his CAA Non-scheduled Flying Advisory Committee favoring continuation of exemption.

► **Data Lacking**—The committee's resolution, proposed by Beverly Howard, of Hawthorne Flying Service, Orangeburg, S. C., and seconded by Arthur Boreman, Des Moines, committee chairman, expressed the committee's belief "that charter operators should be permitted unrestricted operating privileges until complete data and information shall have been developed, previous experience being entirely inadequate for the basis of any economic regulation."

Only two of the replies received were in wholehearted support of the examiners' recommendations and these, significantly, came from the Air Transport Association, and American Airlines, Inc.

The public counsel for CAB commented that "the proposed classification of the examiners and the regulation resulting therefrom are both too restrictive on the one hand and too unlimited on the other."

► **Individual Response**—A surprisingly large volume of replies from individual aircraft service operators who expect to do some charter flying and would be affected materially by the proposed restrictions, was found. Most of these were simple requests for an oral hearing on the proposed regulations, but there were a considerable group of specific comments ranging all the way from acid criticism to legalistic exceptions and objections. Among them:

► T. E. Byron, Aeroways, Inc., Cleveland: Proposed Docket 1501 and CAR release 58 for Part 42 would penalize all fixed base operators and persons normally using this service, immeasurably. To approve such regulations would subvert all civil aviation.

► C. C. Moseley, Grand Central Airport Co., Glendale, Calif: Urge limitation of 10 trips per month be eliminated and matter assigned for oral argument. Airlines are all organized and have their arguments already prepared while the non-scheduled operators are scattered and disorganized. This does represent small business in aviation in this country. It would appear to be the duty of CAB to protect them to fullest extent against encroachment by large interests.

► Huron Aviation Co., and Black River Flying Service, Port Huron, Mich.: Enactment of proposed regulations will seriously impair development and progress of aviation in small communities. Existing regulations must be revised to permit fixed base operation of feederlines on scheduled basis. Otherwise, smaller communities will be without air carrier and air-mail service for years to come.

► South Georgia Flying Service, Americus, Ga.: We feel proposed regulation is at least premature and would have harmful effect upon aviation as whole and as dis-

tinguished from scheduled air carrier service.

► J. F. Lanier, Memphis: Examiners' recommendations if adopted will mean death knell of charter operations by small operators.

► Parks Aircraft Sales and Service, East St. Louis, Ill.: Strongly urge delay until more post-war operating experience is available.

Other individual operators filing comments included: Fayetteville (Ark.) Flying Service; English Flying Service, Hattiesburg, Miss.; Mid-south Airways, and Memphis Instrument School, both of Memphis; Brookhaven (Miss.) Flying Service.

Adirondack Flying Service, Plattsburg, N. Y.; Texarkana (Ark.) Commercial Airport; McComb (Miss.) Airways; Dyersburg (Tenn.) Flying Service; Tupelo (Miss.) Flying Service.

Orlando (Fla.) Airlines; Otto Aviation Corp., Newark, N. J.; J. G. Tex Rankin, Tulare, Calif.; L. Mills, Lambert, Miss.; Batesville Aircraft Sales and Service, Marks, Miss.

Airport Operators of Troy, N. Y.; Norman B. Doerr, Berkley, Calif.; Southeastern Air Service, Atlanta, Ga.; Pierce Auto Freight Lines, Portland, Ore.; United Air Service and El Dorado Air Service, both of El Dorado, Ark.

Bandy Flying Service, Union City, Tenn.; Marden Airways, Waterville, Me., and Harry R. Playford Interests, St. Petersburg, Fla.

Other organizations filing comments and asking for the oral hearings included: Personal Aircraft Council of Aircraft Industries Association; Feeder Airlines' Association; United Pilots & Mechanics Association.

Aeronautical Training Society; Aircraft Owners and Pilots Association, and the Civil Aviation Legislative Council (formerly Civil Aviation Joint Legislative Committee) representing in addition to ATA, ATS, AIA, and FAA which filed separate comments, the following groups:

American Association of Airport Executives; Aviation Distributors & Manufacturers Association; Aviation Insurance Interests, National Aeronautics Association, National Association of State Aviation Officials, and National Aviation Trades Association.

WPB Readjustment Divisions To Close

A further indication of production trends is the announcement by the War Production Board of abolishment of the Production Readjustment Committee and the four divisions under its authority, effective Sept. 30.

The committee was responsible for the development of policies in the field of cutbacks, contract run-outs and other matters requiring production readjustments. It has authority, also, over post VE Day readjustments, the review of relative production urgencies affecting manpower and the use of specific productive facilities and manpower released by cutbacks.

Also abolished, as of Sept. 30, are the Aircraft Division in the Equipment Bureau, the Manage-

ment Consultant Division and the Conservation and Salvage Division, all under the office of WPB's operations vice-chairman.

News Writer Wins TWA Contest Honor

Merlin Mickel, AVIATION NEWS' transport editor, was one of the winners in the eighth annual TWA aviation writing and photography competition, results of which were just announced.

Transcontinental and Western Air will present prizes and awards at a dinner in New York next month, to the following:

► Newspapers, open class: James J. Streb, aviation editor of *The Associated Press*, first; Robert Mountsier, *New York Sun*, and Ralph Watts, the *Detroit News*.

► Magazines: Wayne Parrish, for his weekly column in *Liberty*: John Paul Andrews, *Air News*, and Merlin Mickel, AVIATION NEWS.

► Photography: A. Aubrey Bodine, *Baltimore Sun*, for his picture showing parachute troops in action over Alabama; William W.

DC-8 Specifications

	DC-8 Model 1004
Dimension:	
Span	110 ft. 2 in.
Wing Area	1104 sq. ft.
Length	77 ft. 10 in.
Height Overall	25 ft. 9.5 in.
Weights:	
Maximum Takeoff Weight	39,500 lb.
Maximum Landing Weight	39,500 lb.
Weight Empty	23,915 lb.
Useful Load	15,585 lb.
% Useful Load/Gross Weight	39.4
Engines:	Allison V-1710
Takeoff Power	1600 hp.
Rated Power	1200 hp.
Max. Cruise Power, 10,000 ft.	1025 hp.
Performance:	
Max. Cruise Speed, 10,000 ft.	270 mph.
Max. Two-Engine Climb, S.L., 10,000 ft.	1030 fpm.
Max. One-Engine Climb, S.L., 10,000 ft.	840 fpm.
C.A.R. Field Length, S.L., Takeoff	3950 ft.
Landing	3960 ft.
C.A.R. One-Engine Operating Altitude	12,000 ft.
Economy:	
Payload at 300 mi. range including	12,000 lb.
Passengers	48 max.
Cargo in excess of baggage (at not more than 10 lb./cu. ft.)	2400 lb.
Block-Block Speed at 300 mi. Range (against 10 mph. headwind)	223 mph.
Direct Operating Cost/Plane Mile	41.6c
Direct Operating Cost/200 lb. Mile	0.695c

(Note: All economy information is calculated by the methods recommended by the Air Transport Association.) (See comparison of DC-8 with DC-3 and other planes on Page 38 and story on Page 12.)

Dyvinia, *Buffalo Express Courier* and Fred H. Powers, *Democrat Chronicle*, Rochester, N. Y.

► Newspapers under 100,000 circulation: Albert I. Prince, *Hartford (Conn.) Times*; Nick Moser, *Reading (Pa.) Eagle* and Herbert A. Shaw, Jr., *Dayton (O.) Daily News*.

Judges were L. Welch Pogue, chairman of the Civil Aeronautics Board; Roy A. Roberts, managing editor, the *Kansas City Star*; Prof. H. H. Maynard, College of Commerce and Administration, Ohio State University, and Brig. Gen. T. B. Wilson, chairman of the board of TWA.

Foreign Trade Plan Studied As Aircraft Exporting Shapes

Aviation executives see development of airports abroad, full use of air attaches and purge of German ideas and equipment from South America as essential items; Export-Import Bank forms financing plans.

A foreign trade promotion campaign is being studied by aircraft manufacturing executives to meet the export problems which have developed with the end of the war.

At least three problems, outside of financing, are seen by industry leaders, looking to foreign markets. Among these are real utilization of civil air attaches whose operations can be of great advantage to the industry if they are permitted a wide scope, the development of foreign airports and, finally, cleaning German aircraft and aircraft ideas out of South America.

► **Loan Aids**—On the problem of financing, it is understood that the Export-Import Bank would like to help finance aircraft exports where the terms of the loan are not of interest to commercial banks. Their purpose is primarily to finance foreign trade and their regulations are flexible enough to permit them to cover widely varying conditions.

They will not, however, compete with the commercial banks when terms are obtainable which are acceptable to the bank. They can finance either the export products or technical services.

Normally, they will not finance local expenditures in other countries, but they are permitted to loan to exporters in this country, to foreign governments or to private interests where the use of the money is appropriate to foreign trade development.

► **Terms Studied**—Aircraft industry export executives are studying terms which include a description of the product, name of the country and purchaser, the reason why the loan is required,

the amount and terms required and, of course, appropriate reference. Financial statements covering the exporter and purchaser usually will be called for.

Of interest to the industry is the fact that the Export-Import Bank may make credits available to foreign governments in which case sales may be made for cash without any liability to the exporter.

One example cited at a recent meeting of the Export Committee of the Aircraft Industries Association was that Denmark recently borrowed \$20,000,000 which is available for the purchase of aircraft, among other things. Other countries are negotiating similar loans. A loan of \$1,000,000 was made to TACA specifically for the purchase of aircraft. This loan called for repayment in 36 months, installments including interest at four percent. The risk involved in the general financing of exports may be accepted up to 80 percent by the Export-Import Bank.

► **Needs Listing**—Aircraft manufacturers, through the Aircraft Industries Association, may be asked to provide an estimate of the foreign trade financial needs of the industry for the next two or three years on a world-wide basis.

It is understood that the purpose of the Export-Import Bank is to remove finance from the competitive situation. All American firms, the industry has been advised, will be treated on an equal basis. Procedure is limited only by the bank policy, a fundamental of which is that the bank must operate at a profit. At the same time, the bank expects to be able to meet all foreign competition.

Douglas Unveils Its New DC-8

New plane, successor to DC-3, propelled by twin counter-rotating stern props.

After many months of speculation in industry circles and numerous changes in design, Douglas Aircraft last week brought forth its DC-8, the plane that originally was to be designated the *Skybus* but which has grown so in stature since its conception that this title is no longer appropriate and will be dropped.

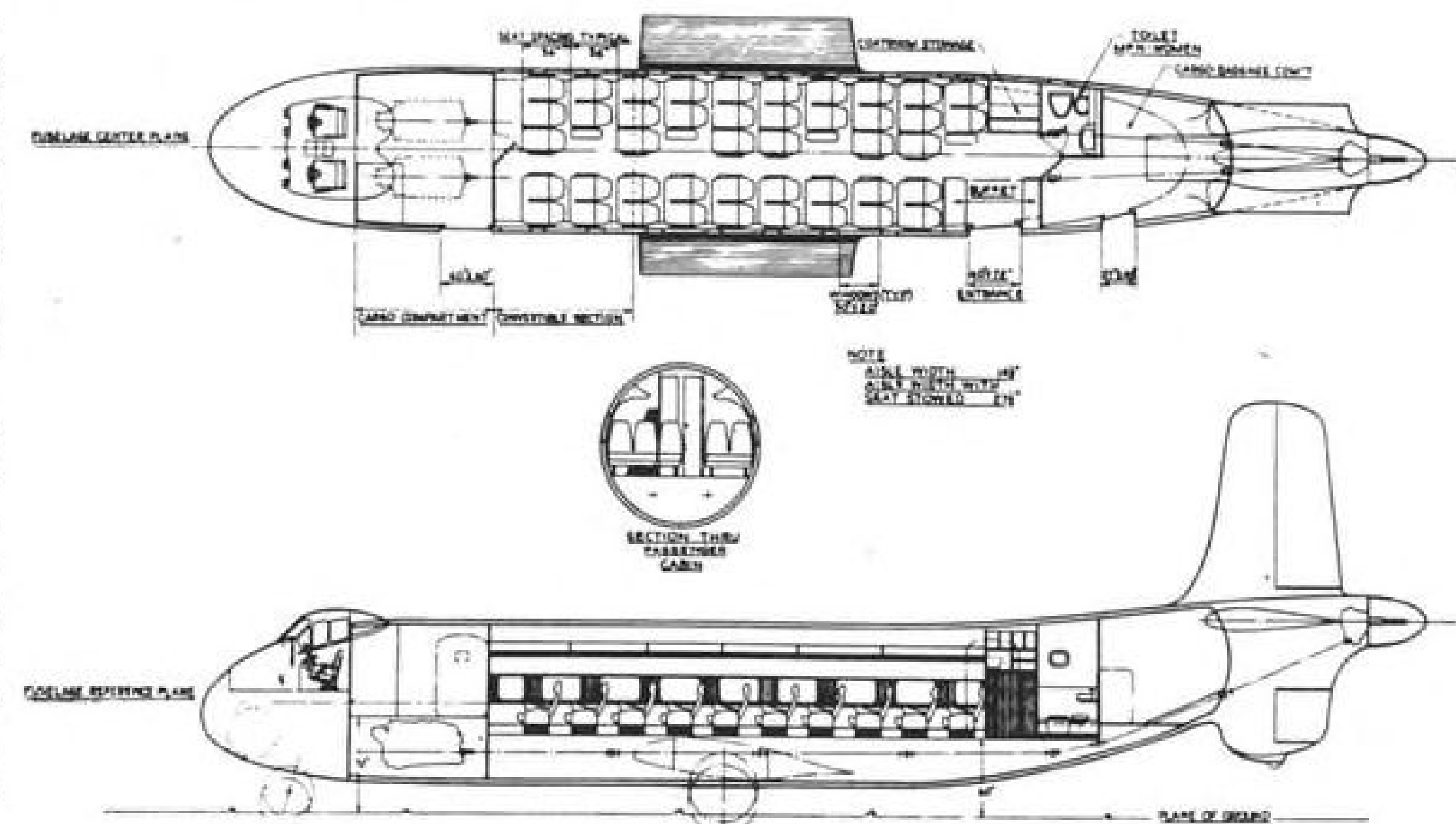
The DC-8 is a low-wing monoplane, featuring twin counter-rotating propellers on the aft end. It is reported to be 50 percent faster and to carry twice as many passengers as its forebear, the DC-3, with direct operating costs estimated at 6.95 mills per passenger mile.

The new plane is of radical design, with motorless wings and a tail assembly placed at a level above the fuselage. Other features include a movable partition which permit conversion at short notice from all passenger to part cargo, thus allowing a 100 percent load factor at any time.

The plane is powered by two Allison V-type liquid-cooled engines, mounted in the fuselage below the forward cargo compartment floor. They are connected with the two counter-rotating propellers by drive shafts and a gear box. The low position of the engines permits maintenance from the ground without scaffolding.



Successor to the DC-3: Above, flight view of the DC-8 discloses its unusual lines. Sketches below indicate proposed seating arrangement and position of engine.



Fastest U. S. Bomber Unveiled

An experimental record-speed bomber built by Douglas, with exceptionally clean lines and unconventional in that the two Allison 1710 engines are located side by side in the fuselage, driving counter-rotating pusher propellers in the tail, is now being studied by engineers for commercial application of its novel features.

This airplane, the XB-42, sometimes known as the "mixmaster" because of the unusual propeller arrangement, was reported in authoritative Army Air Forces circles to have a maximum speed of 410-mph. at 27,100-ft., first bomber in the 400-mile-per-hour-class. It was reported to have a gross weight of 35,702 pounds, small for a bomber, with

a laminar-flow wing. Location of the engines in the rear was designed to increase the wing's efficiency, with no turrets or engine nacelles to interrupt streamlining.

► **Commercial Hint**—Prospects of utilizing this arrangement in commercial aircraft was indicated in *AVIATION NEWS*, June 10, 1944, when a Douglas drawing of a proposed post-war feederline transport, the *Skybus*, was pictured on the cover. This design had conventional power-plant arrangement, although mention was made at that time of an improved *Skybus*, which would utilize the same wings, fuselage and landing gear as the version pictured, but added that "the powerplants will be placed in new positions."

Engineering specifications on

the *Skybus* carried at that time described the proposed airplane as designed to carry 24 passengers, with a flight range of 600 miles and a cruising speed of 190-mph. It was to be powered by two 700-hp. engines.

While the *Skybus* was designed for 24 passengers, the cargo department was described as expandable through use of movable bulkheads, permitting flexible use by the feeder operator and for short haul operations of others. It was to operate with a takeoff gross weight of 17,300 pounds.

While no military requirement arose for the XB-42, the plane incorporated many features, including the unconventional powerplant arrangement, which are receiving close study for possible incorporation in commercial versions.

PRIVATE FLYING

Urban Airpark Pattern Seen St. Louis NATA Test Result

Sixty-day demonstration of landing facility in congested metropolitan area slated to begin Oct. 1; large-scale public unveiling of new planes and ground equipment expected.

By ALEXANDER MCSURELY

A 60-day demonstration of airpark operation in a congested metropolitan area, beginning Oct. 1, in Forest Park, St. Louis, is likely to provide a number of the answers to questions which officials of the country's largest municipalities have been asking ever since the downtown airpark idea was first suggested.

The project is sponsored by St. Louis members of the National Aviation Trades Association who have formed a non-profit corporation to carry out the demonstration.

► **Flight Displays**—An open invitation is being extended to manufacturers of all "personal-owner" type airplanes to display and fly their planes at the airpark for the entire period or any part of the time.

Manufacturers of hangars, windtees, radios, airport maintenance equipment, and other facilities and service commodities needed by private flyers, likewise may display their products without rental charge, and as much ground space as is needed will be assigned to each installation.

The manufacturer or distributor will be expected to set up his own exhibit and at the close of the demonstration, Nov. 30, remove it and pay whatever costs are involved in these two operations. The sponsoring committee will meet the cost of preparing the airpark for flight and afterward restoring city athletic equipment which is being removed to clear the strip.

► **Central Location**—The site is described as "within a mile of the oldest established residential area in St. Louis; near several fine apartment hotels; within easy walking distance of two urban business districts and, by taxicab, within 10 minutes of the city hall and the principal bank-hotel-shop-industry center."

A street-car which runs by the park was clocked at approximately 40 minutes for its trip to the downtown business area by a group who couldn't get a taxi after a visit to the park last December, to witness a one-day flight demonstration which was part of the NATA convention at that time. The strip, as then operated, was

only 1,500-ft. long, but removal of the athletic equipment will now make additional space available.

The sponsoring group, headed by Maj. A. B. Lambert, well known St. Louis aeronautical enthusiast, as chairman of the civic supervisory committee, and by Murray N. Whitehead as chairman of operations, emphasize that they are planning "No big celebrations, no stunts, no circus flying."

► **'Clinic' Reports** — The airpark will be a strictly routine operation, built up to the busiest schedule possible. Records will be kept for a guidebook on airpark operation which will be furnished without cost to other communities, aviation organizations or civic groups.

Sub-committees have been assigned to work on projects including:

► **Shuttle service**, for airline passengers between the airpark and Lambert Field, the big St. Louis municipal airport, 14 miles from the city, without charge; or similar shuttle service to outlying airports, to serve owners of planes which are too large to come into the airpark.

► **Daily commuter service** between outlying communities and St. Louis.

► **Charter flights**, for St. Louis businessmen, into the city's trade area and, conversely, flights into the airpark, by business or professional visitors from the surrounding territory. (Cities within one-day's flight range of St. Louis will be asked to designate their most convenient fields for auxiliary landing areas, during the airpark demonstration.)

Mayor Aloys B. Kaufman has invited other cities to send observers to St. Louis during the



To Reopen St. Louis Strip: Plans to operate a temporary airpark in Forest Park, St. Louis, Mo., from Oct. 1 to Nov. 30, on an area which was part of the first St. Louis municipal airport in 1919 have been announced by the St. Louis NATA airpark committee.

The operation will be a demonstration of personal plane operation in a congested metropolitan area with contact flight rules. Part of the area is shown above, photographed during the NATA flight demonstration at Forest Park last December.



Aerial Photo of St. Louis Airpark: The temporary St. Louis Airpark, in Forest Park, viewed from the air, shows relative position of the two-runway field to surrounding residential and business district. The field is being laid out by Gene Fryhoff of the Missouri State Department of Resources and Control. Just below the field is an express highway to the downtown area.

demonstration to see the business area airpark in operation. It is hoped that the St. Louis experiment may lead to undertaking of similar airparks in municipalities such as Chicago, Cleveland, Milwaukee, Dallas, Philadelphia.

Invitations have also been extended to CAA to make studies on new airport equipment in conjunction with the demonstration. While some war-created devices will not yet be ready for civilian demonstrations, it is anticipated that many heretofore "military secret" facilities will be ready for demonstration at the airpark.

► **Sponsor Shift**—It is understood that the St. Louis project originally had been sponsored by the national organization of NATA. Recently, at a meeting of the national board of directors at Kansas City, it was voted to change the sponsorship, so the local St. Louis NATA airpark group, which had been active in arranging the details, took over complete operation of the demonstration.

Scheduled for a period during which many of the personal plane manufacturers expect to get out their first post-war production planes, the St. Louis demonstration, centrally located as it is, may prove to be the largest show of personal planes at one location, this year, as the St. Louis NATA convention was last year.

Army Flying Suit Sales

Civilian flyers who want new Army flying suits, which have been declared surplus, can now get them for \$17—established as a retail ceiling price.

The ceiling applies to 70 percent

wool, green gabardine suits with pockets on chest, hips, above and below knees and on the left arm below the elbow, with one long zipper from neck down, and a zipper on each leg from knee to ankle. The OPA said sales will be handled by regional offices of the Department of Commerce.

Canadians Protest Flying Age Limits

New pilot medical regulations, reported under consideration by Canada's Department of Transport, are already being attacked by flyers in the 40-50 age group who claim new restrictions would ground most of the pioneer "bush" flyers who opened many of the Dominion's airlines.

Although no new regulations have actually been issued, many pilots are reported already planning protest meetings. According to Stewart Graham, assistant director of civil aviation for the Transport Department, new restrictions might shape as "a matter of eye accommodation and visual acuity . . . things that happen to the average man's eyesight as he gets older."

► **U. S. Reaction**—In America, the initial response among civil aviation circles was one of opposition to any rules that might disqualify that particular age group; long looked upon by officials as one of the most fertile fields for peacetime personal plane sales and activities.

Source of the Canadian rule considerations is said to be recommendations of RCAF medical ex-

aminers who hold the view that flying is essentially for younger men and women.

Well known, however, is the fact that most of Canada's best known pilots, outside of those on transcontinental and feeder services, are men who have pioneered flying in the northland, served in the air forces of the last war, and who volunteered for ferry command duty in the opening days of the Second World War.

Seven Small Fields Asked In Cleveland

Private flying facilities would provide full air access to city for businessmen and others.

Seven small, county-owned airports for personal planes, plus a lakefront downtown airport for medium-sized landplanes and sea-planes are included in the plan recently recommended for expansion of Cleveland, Ohio, airport facilities.

The plan, presented by the committee on airports, of the Cleveland Chamber of Commerce, headed by A. T. Colwell, vice-president of Thompson Aircraft Products Co., also calls for an east-side airport of 1,500 to 2,000 acres supplementing the present Cleveland municipal airport on the west side, and expansion of the present field to 1,306 acres.

► **Lakefront Plan**—The report asserts it is possible to construct a medium-size airport on the lakefront along a 14 block span, with 3,500-ft. runways. It is already planned by the city to fill in the lake at this point in order to provide land for another roadway and other purposes. Since the bulkheading or sheet piling and the fill for the new area will be used whether or not the lakefront field is built, these costs "are hardly chargeable against the airport." It is estimated that otherwise, cost of building the airport, including one or two hangars, need not exceed \$1,000,000 over a period of years.

"Such an airport is imperative, we believe, in order to give ready access to the business district of the city. After the war many corporations will undoubtedly purchase airplanes for the use of their officials in business."

The seven additional airports for private flyers, schools, etc., need not all be constructed immediately after the war, but it is recom-

mended that at least two, one on the east side and one on the west side, be constructed as soon as possible. Eventually, it is recommended that at least four of these fields have hard-surfaced runways, hangars, school buildings, etc., while the other three may be less elaborate installations with all-turf fields. The committee has recommended that the Cuyahoga County commissioners buy the land for appropriate sites, possibly obtaining some of it through tax delinquency, and that the fields be leased, when prepared, to private operators, with the county receiving a percentage of the gross income as rental.

Other recommendations of the committee would call for:

- Obtaining federal aid for airport construction where possible.
- Issue of mortgage revenue bonds "in so far as possible" to pay for the city and county share of the airport construction.
- Charging "all users of the airports the cost of the service rendered plus a reasonable profit."
- Control of all flight operations within the county by one central authority, whether municipal or county.
- Establishment of a central airline terminal in downtown Cleveland.
- Air taxi service, by a private company, to Cleveland municipal airport as soon as proper equipment becomes available.
- Street car service to Cleveland airport, if costs are justified.

Wisconsin Flying Interest 'Complete'

Wisconsin aviation interest, typified by a growing community-owned private flying base at Oconto Falls, has now extended into almost every town and city in the state, according to air officials there.

A state-wide survey showed that without reported exception, every city council has considered construction of a community airfield. Although many will continue for years without landing facilities, it is asserted that all are at least striving to make sure such facilities are available "nearby."

► **Quick Growth**—Less than three months old, the field at Oconto Falls has been built partially through funds provided by the property owner and partly through volunteer labor done by interested citizens. Three runways from 1,300-ft. to 2,000-ft. long, and

300-ft. wide, a barn-type hangar, fueling facilities, and a combined office and club house for the city's Aero Club, have already been provided on the field.

An Aeronca tandem trainer and a Fairchild PT-19 are based at the field for flight instruction under the guidance of an AAF veteran.

Among the unusual sources of aviation enthusiasm encountered at the field, is the state's only flying school superintendent, putting the field's planes to use in making long trips to interview prospective teachers.

Private Flight Cost High, Advises AAF

Potential personal plane buyers in the AAF are told in the latest issue of *Air Force*, their official monthly journal, that in addition to the initial cost of their planes it will cost them approximately 15 cents a mile to fly, or about \$1,200 to fly approximately 8,000 miles in a year.

Staff Sgt. Douglas Ingells, author of the article "Sky Flivers," advises the Air Force officers and GI's that for every hour they fly they can count on spending about \$3 for gas, oil, overhaul, and miscellaneous costs and, in addition, they will pay an annual \$500 for storage, depreciation, and insurance.

► **Utility Limits**—"Don't expect too much of it," the appraisal continues. "Utility is limited, chiefly

because of weather. When there are storms, you won't fly any more than you'd take a canoe out in a rough sea. Fog will ground all planes not equipped with expensive blind flying instruments which will cost as much as the plane itself. If you want to fly cross-country, plan on spending at least a couple of nights a week studying up on new rules and regulations and navigation. So what you're really getting, for the time being at least, is a flying machine whose use is comparable to that of a motor boat, good for a short spin or a short cruise if the weather is good."

After surveying the field the writer summarizes:

► "The typical private plane will have a wingspan of about 35-ft. so it can land between parallel telephone poles along almost any highway.

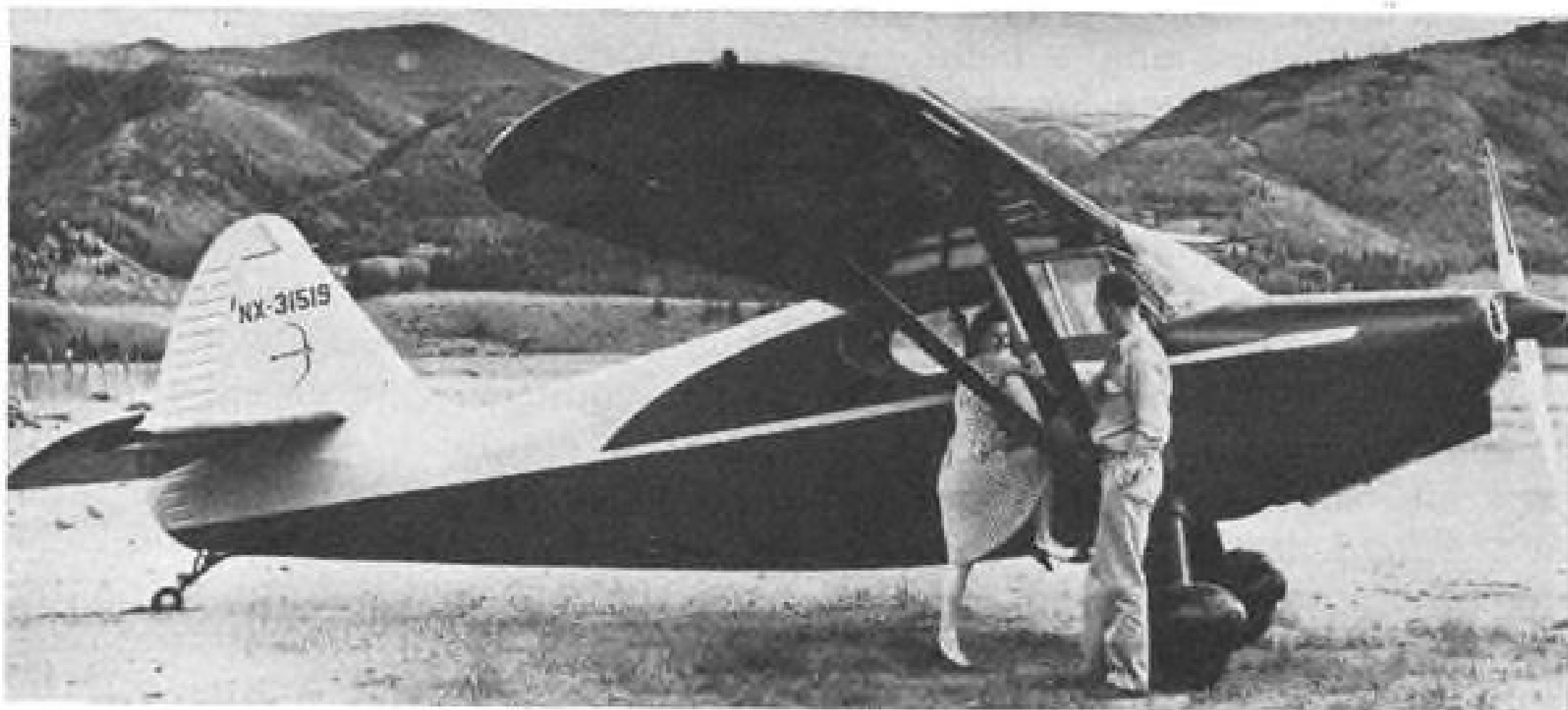
► "It will weigh about 1,300-lbs., will have a 65-75-hp. engine simply built so that you can make some minor repairs yourself the same as you do on an automobile. Accommodations will include room for pilot and one passenger with a baggage compartment carrying about 50-lbs. of baggage. Its fuel capacity will average about 16 to 18 gallons—enough to take it 300 to 400 miles non-stop. Top speed will be about 110-mph., ceiling about 16,000-ft. but there is no oxygen as standard equipment. It won't have two-way radio, wing slots and flaps or even windshield wipers unless you pay extra."

Time-saving through production



FIRST POST-WAR PRODUCTION AERONCA:

Workmen at Aeronca Aircraft Corp.'s Middletown, Ohio plant are shown completing the first production plane to roll from the plant's assembly line since the war ended, the tandem two-seat Aeronca Champion, priced at \$2,095. The Champion, with 65-hp. engine, will cruise at 90-mph., land at 38-mph., has 270 miles range, and 500-ft. per minute rate of climb.



Stinson's newest Voyager, the 150 model.

methods learned in war-time manufacturing of military equipment, is expected to make it possible to turn out better and cheaper planes, but first prices, the article concludes, will be about the same as the pre-war models since money saved in production has been used in high labor costs.

Stinson Reveals New Voyager 150

Deliveries will begin within 60 days on a new, faster and more powerful Stinson four-place personal airplane, according to James C. Welsch, private sales director for the Stinson division of Consolidated Vultee Aircraft Corp. The plane, known as the *Voyager 150*, succeeds the *Voyager 125* and will sell for \$5,000, said Welsch.

He added that more than \$7,000,000 in customer orders for the *Voyager 150* are banked against a scheduled production of 3,500 planes in 1945 and 1946.

► **150 Hp. Engine**—The new *Voyager 150*, powered with a Franklin 150 horsepower engine, will cruise at 125 miles per hour over a 500-mile range. Its maximum speed will be 133 miles per hour and its rate of climb 770 feet per minute.

Service ceiling of the new high-wing craft will be 14,000 feet, its takeoff at sea level 550 feet and its landing roll 230 feet. The plane weighs 1,206 pounds empty and its useful load is 944 pounds.

The *Voyager 150* will be equipped with a new, all-metal tail design which increases maneuverability and adds beauty. Wing slots make the plane spin-resistant and improved brakes assure greater landing safety.

To incorporate the latest engineering design into their first post-

war personal plane, company officials decided to manufacture the *Voyager 150* rather than the *Voyager 125*, which was powered with a 125 horsepower engine.

Among the major *Voyager 150* assemblies in production by the Stinson division at Nashville, Tenn., are the fuselage, the landing gear and motor mounts.

Kansas City Outlet Purchased By Parks

Sale of Missouri Aviation Corp. hangars on the Kansas City, Mo., municipal airport to Parks Aircraft Sales & Service, Inc., has been announced. The Missouri organization had occupied this location since its organization in 1929, but general offices of the company have been in downtown Kansas City since 1940.

Hereafter MAC will specialize in aeronautical supply, exclusively, and will discontinue its aircraft and engine repair work, formerly carried on at the airport.

► **Fills Need**—The Parks organization has been negotiating for a

permanent sales and service outlet at Kansas City for some time, while conducting temporary operations at the airport.

P-38 Purchased As Personal Plane

High speed and even higher cost, in all phases, feature first known individual acquisition of surplus fighter.

By KARL HESS

A greying, 53 year-old manufacturing executive recently slipped into the cockpit of his newly-purchased personal plane, blasted away from Bush Field, Ga., and whistled along the airway to Stout Field, Ind., at an average speed of 301-mph.

And all Arthur D. Knapp, president of Mechanical Products, Inc., of Jackson, Mich., was paying for the ride was about \$50.00 an hour operating cost; he had just become the first known civilian buyer of a surplus P-38 *Lightning*, twin-engine AAF fighter.

► **'Business' Use**—Despite the exuberance with which the veteran of 22 years private flying described his new ship, he was quick to add that the *Lightning's* main function wouldn't be solely to eat holes in his personal piloting budget. The craft is scheduled for more businesslike shifts of duty as flying laboratory for the testing of the company's high pressure hydraulic systems and electrical equipment.

Viewed as a strictly personal plane, apparently out of the question for even a wealthy manufacturer, Knapp's P-38 (version J) presents a graphic picture of what would face the average pilot with enough cash, and little enough judgment, to buy a surplus fighter for private use alone.

According to a recent tabulation made by researchers of Boeing Aircraft in Canada, the initial cost of such a ship would probably run about \$10,000. Knapp's exact bid on the *Lightning* was not revealed.

► **Certification Cost**—Piled on to that, immediately, would be approximately \$2,000 needed to put the plane into shape for CAA certification.

► **Then the spending really begins.**

Assuming the plane, as is the average well-used lightplane, would be flown 200 hours per year the operating cost might total more than \$10,000. Gas, at a "modest" 83 gallons, would cost

\$26.60 an hour. On an hourly basis, then, oil would run two-gallons at \$2.12; maintenance and periodic checks, about \$5.00; insurance, \$6.00; depreciation, \$12.00; spare parts, \$2.00, and personal property tax, 60 cents, plus hangar fees. And that for each hour flown, according to the Boeing estimate.

Compared to those figures is the average \$6.00 an hour overall operating and maintenance for an efficient 100-mph. lightplane that can carry two persons instead of a fighter's one. Despite the quadrupling of speed possible in a fighter, the figures are still out of the question for personal flying.

► **'Hard to Believe'**—Another, "sidelight hazard" of buying a surplus fighter was humorously illustrated for Buyer Knapp who was arrested as soon as he stepped from the plane, in civilian clothes, at Stout Field. Even the guards had never reckoned on a civilian flying "his own" P-38 and were convinced of Knapp's "legality" only after official proof of the strange ownership was presented.

Florida Flight Base Combines Services

Unusual facilities for the private flyer are offered at the Chapman Field headquarters of Embry-Riddle Company, just outside Miami, Fla., with consolidation of several divisions of the organization there.

George G. Wheeler, Jr., executive vice-president, in announcing the new setup, asserted it provided more complete facilities at one airport, than ever before had been available to the private flyer in south Florida.

► **Pilot Facilities**—It is now possible for a private flyer at Chapman Field to: take any phase of flight instruction; buy a new plane, or a surplus plane through the Defense Plant Corp. sales center; hangar it, and have the engine, instruments and plane overhauled there as well as obtain any necessary parts or supplies.

Maintenance and overhaul facilities are said to be the most complete in Florida, with separate aircraft, engine, and instrument overhaul departments and wood working, machine, propeller and paint shops. The stock of parts is also described as the most complete in the state, for such an operation.

The government-approved flight, school offers instruction for pri-

vate and commercial licenses and instructor and instrument ratings and includes Link trainers in its equipment. Seaplane flight training will continue at the Embry-Riddle seaplane base on MacArthur Causeway. Charter plane service to all parts of the United States, using twin-engine planes, rounds out the field's facilities.

► **Personnel Grows**—Staff at Chapman Field has been augmented by additional personnel from Carlstrom Field, formerly an Army aviation cadet school operated by Embry-Riddle with an outstanding safety record. Other Carlstrom Field personnel will be used at the Embry-Riddle government-approved technical school. Executive offices of the company will be in Coral Gables, Fla.

CAA, Army Join To Aid Air Vets

Skilled airplane and engine mechanics offered "refresher" courses for certification tests, while still in service.

Easing the transition to civilian life for thousands of experienced Army Air Force airplane and engine mechanics who are being released from military service is the objective of a CAA-Army refresher training course now being developed at some 600 Army bases.

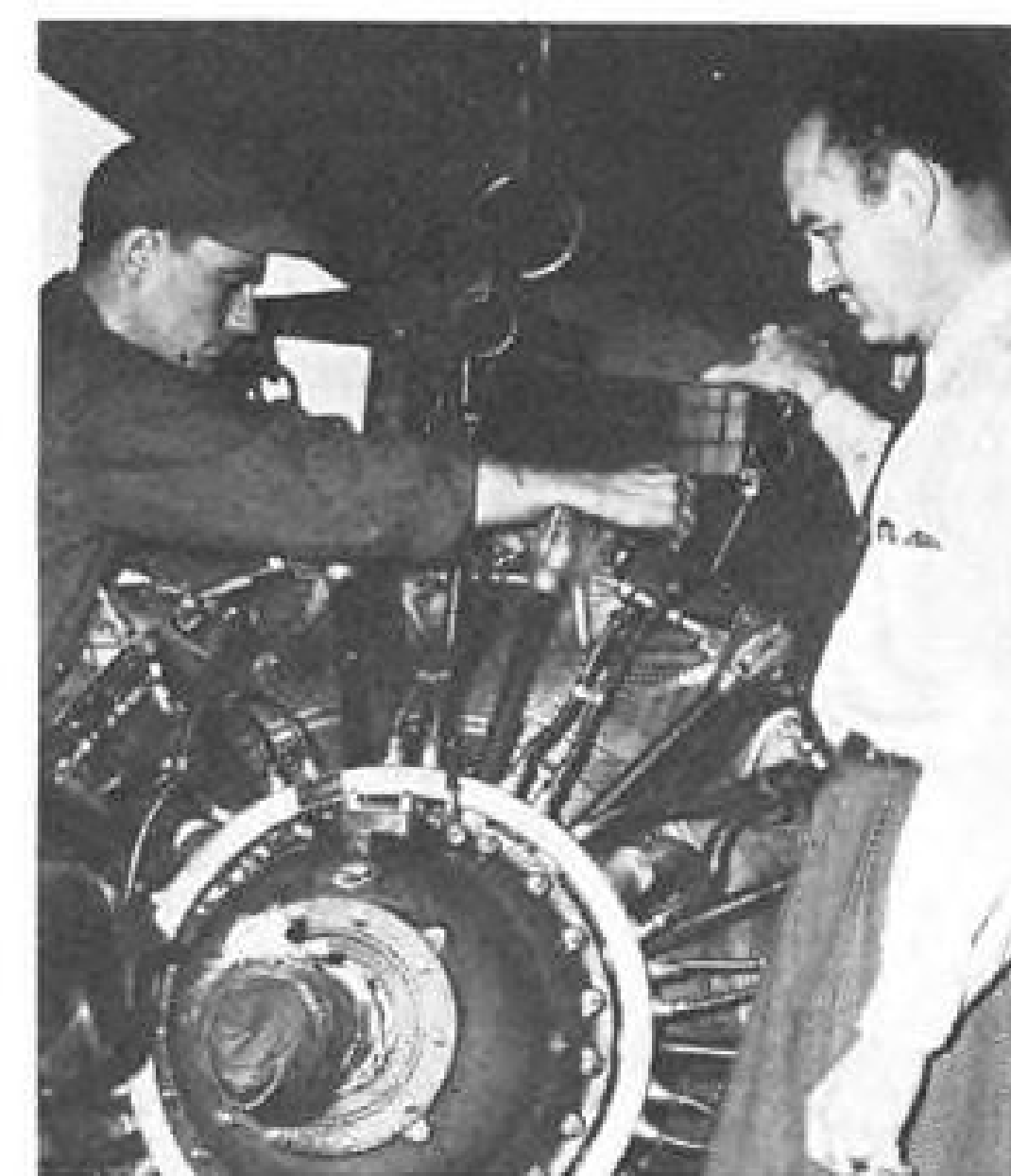
It is hoped the course will make it possible for the skilled mechanics to obtain their CAA certificates as mechanics before they

are discharged so they can immediately take over jobs waiting with airlines and aircraft service organizations.

► **CAR, Props**—The course, of 60- to 90-day duration, will include both theory and practical work in AAF shops, with special emphasis on Civil Air Regulations, and on propellers. A sampling test at Bolling Field recently indicated that many mechanics had had no experience in wooden propellers.

Of 120 men who took the sampling tests, many passed several of the six sections but few passed the Civil Air Regulations section.

The program has been developed following a tour of CAA General Inspection representatives and Army representatives to Army bases, made in December, 1944, to determine how the mechanics would meet civilian re-



Licensing Army Mechanics: CAA certificates for thousands of experienced Army Air Force airplane and engine mechanics, is the object of a new refresher course being offered at 600 Army bases, by military and CAA officials. Above: Master Sgt. George S. Marshall, Jr., Bolling Field, flight engineer, was first to obtain his CAA mechanic certificate. Below: Army mechanics at Bolling Field take CAA mechanics examination.



quirements. Assigned to the project are Lt. Col. Leigh Baker, chief of AAF non-military education unit; W. D. Ford, chief of the Aviation Mechanic Unit, CAA General Inspection; Lt. Col. Warner Corey, formerly of CAA, now stationed at Lauringberg-Maxton airbase, N. C., and Capt. H. B. Pickering, Middletown (Pa.) Air Technical Service Command.

► **Overseas Plan**—It is hoped that the courses may be offered to personnel in overseas bases, as well as to those in the 600 bases in this country. Only AAF airplane and engine mechanics and flight engineers with at least one year's experience are eligible for the training, since the plan is to refresh skilled men, rather than train beginners.

9 Flyers Grounded For CAR Violations

Disregard of Civil Air Regulations resulted in the revocation of six airmen's certificates and the suspension of three others, according to recent CAB reports. Low flying and illegal carrying of passengers was the major misdemeanor.

Summary of the violations and Board penalties follows:

REVOCATIONS

Frank Jay Billmeyer, student pilot, for making two solo flights although his instructor had not certified him as competent, performing aerobatics without being properly equipped with a parachute, and carrying various passengers who were not certificated instructors, May 20, 1945, in the vicinity of Havre Airport, Havre, Mont. Actions violated CAR sections 20.720, 60.72 and 20.7200. Certificate revoked.

Robert Vernon Henninger, student pilot, for flying over congested areas of Bismarck, N. Dak., at less than 1,000-ft. altitude, and in the vicinity of the city at less than 500-ft., performing aerobatic maneuvers, including abrupt dives and pull-ups, over congested areas of Bismarck and in the vicinity of the city at less than 1,500-ft., May 5, 1945. Actions violated CAR sections 60.350, 60.3500, 60.3503, 60.70, 60.700 and 60.701. Certificate revoked.

Donald Frederick Sigmund, commercial pilot, for piloting from the front seat of an aircraft plainly marked "Solo Flight from Rear Seat Only," in the vicinity of McVillie Airport, Lisbon, Iowa, flying at less than 500-ft. near a farm, and piloting dangerously in that he dove at tractors at such low altitude that he missed their operators by only a few feet, banking and turning steeply at 40-ft. altitude and crashing into a tree near the farm house. Pilot flew various aircraft when he had not met, within the preceding 12 months, the physical requirements for the original issuance of pilot certificate. Actions violated CAR sections 01.112, 60.3503, and 20.73. Certificate revoked.

The certificates of the following student pilots were revoked because the airmen violated CAR section 20.720, and demonstrated a disregard for the lives and safety of others, by carrying passengers when not properly certificated for such operation:

Harry Tucksworth Lucas, Jr., flying in the vicinity of Roanoke, Va.

Robert Barnes King, piloting near Reynolds Field, Rocky Ford, Colo.

George I. Mills, flying near Mill Village, Penna.

SUSPENSIONS

Walter Chester Mikulski, student pilot, for piloting at less than 500-ft. over open country near Hebron, Conn., June 17, 1945. Action

Briefing For Private Flyers and Non-Scheduled Aviation

First step in reactivation of Howard Aircraft Corp., Chicago, whose "DGA" series of 4-5 place personal planes were among the best performers in the pre-war personal plane class, is the purchase of the business and principal assets of Electric Motor Corp., Racine, Wisc., according to announcement from Ray T. Haas, president. Haas said manufacturing operations at Howard have been at a standstill since early last year. The present management took control of the company in February. The Howard DGA planes were a high-wing monoplane type, modified from Bennie Howard's "Mr. Mulligan" racing plane which turned out some remarkable performances in race meets in the middle 30's.

WRITTEN REPAIR ESTIMATES—Aircraft Owners and Pilots Association is renewing its warning to its members to require a written estimate for any repair work on planes, before the work is started. The association reports it is receiving a number of complaints from pilots that they are being charged three-to-four times the amount given to them as an oral estimate before work was started. Investigation of a number of these cases reveals "considerable padding," with the operator unwilling or unable to produce an itemized account of work accomplished. AOPA points out to operators that such practices and the excessive hourly plane rentals and hangar rentals charged by many operators currently, are creating "a tremendous surge of ill will." Pilots who are paying the excessive rates now because they have no choice, have long memories. It is predicted that the gouging operators will find their business permanently injured as a result of this shortsighted practice.

BUILD YOUR OWN—A private flyers' airpark now under construction at Albuquerque, N. Mex., will permit flyers to build and own their individual hangars, according to announcement by Lewis W. Graham and William G. Bell, who will operate the field as the Graham-Bell Aviation Service. Their organization, incorporated for \$100,000 capital stock, plans a clubhouse, tennis courts, and swimming pool, with a hotel project also proposed. The Graham-Bell plan is one of privately-owned hangars which might bear consideration by many other planners of post-war airparks. It would be preferable, at least, if the airpark operator restricted the hangars to one style of architecture and materials, for a more uniform aesthetic effect. But it is likely that plane owners who have made a sizeable investment in an airplane would not balk at an additional moderate sum for a hangar, especially when they understood it would free them from the steady drain of monthly hangar rentals.

PINELLAS AIRPORT PLAN—A plan to establish five airparks in Pinellas County, Florida, in addition to Albert Whitted airport at St. Petersburg, for the private flyer, and the Pinellas airport for commercial airlines exclusively, is being advocated by Dr. James E. Mooney, county director of aviation. Under the plan, the Albert Whitted field would be used as a "civilian flying terminus" for the county while the five other smaller fields, would serve as secondary fields, and as home bases for private flyers residing in their areas.

KANSAS CITY SCHOLARSHIPS—Eleven Kansas City high school boys have just completed a flight scholarship program sponsored by the aviation department of the Chamber of Commerce which gave each of the boys eight hours flight time and ground instruction. The scholarships were awarded to the top-ranking students in aeronautics courses of the public high schools, and similar awards will be made to students in the 1945-46 school year as an incentive for greater interest in aviation among the high school students.

—Alexander McSurely

violated CAR section 60.350. Certificate suspended for six months.

Anthony Alexander Ackel, student pilot, for carrying a passenger who was not a certificated instructor from Sky Harbor Airport, Phoenix, to Gilpin Airport, Tucson, Ariz., Mar. 21, 1945. Action violated CAR section 20.720.

Certificate suspended for 90 days.

William Leonard Stark, commercial pilot, for flying at less than 1,000-ft. altitude over the congested parts of Rochester, N. Y., May 27, 1945, and performing aerobatics over the city. Actions violated CAR sections 60.350 and 60.70. Certificate suspended for six months.



...and it'll be an all-metal SILVAIRE for me when I buy my own!

Flyers who are slapping Japs out of the clouds are not risking their lives in inferior aircraft ... for nearly every Allied plane in the air today is all-metal.

Experienced pilots know that all-metal construction assures greater built-in strength, added durability. All-metal planes possess longer service life ... provide added safety. What's more, streamlined all-metal contours give precious extra miles per hour.

Because all-metal construction offers so many advantages, look first to Luscombe, builder of the renowned SILVAIRE, pioneer all-metal light plane.

When conditions permit, Luscombe will offer you striking new SILVAIRES — inexpensive to buy, economical and safe to operate, suited to business or pleasure. Send for a free copy of illustrated booklet describing the SILVAIRE, mail coupon today.

UNTIL OUR WAR JOB IS FINISHED, we'll continue to utilize our vast experience in all-metal fabrication of vital parts and sub-assemblies for many famous United Nations' fighter planes. When peacetime production again is resumed, beautiful new SILVAIRES will take to the skies ... even finer planes than those that carried the name SILVAIRE to fame before the war.

LUSCOMBE AIRPLANE CORPORATION, TRENTON 7, N. J. • DALLAS, TEX.

SILVAIRE
AMERICA'S FIRST ALL-METAL PERSONAL PLANE
BY LUSCOMBE

JMLCol-J2

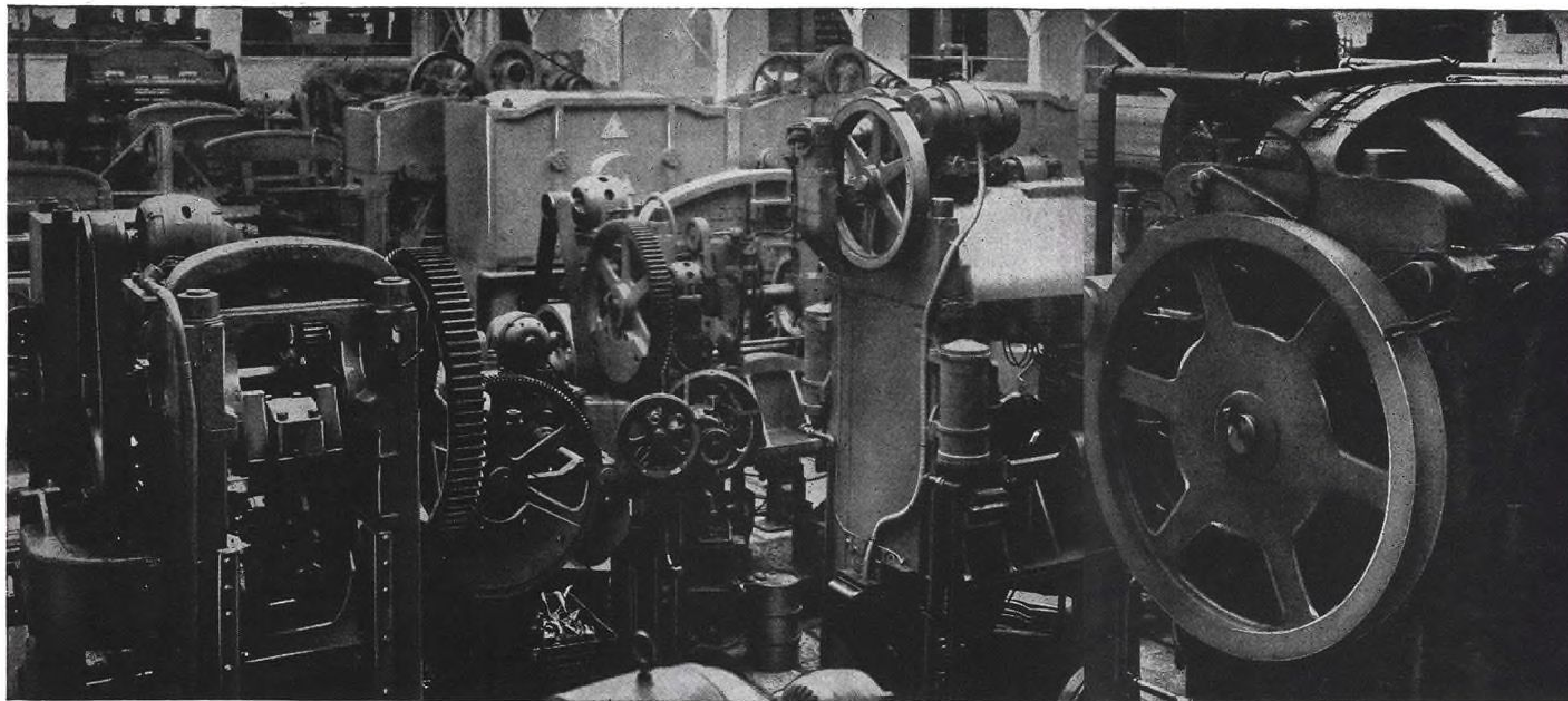
Luscombe Airplane Corporation, Dept. J-1, Dallas 1, Texas

- ☐ Please tell me more about the SILVAIRE.
☐ I'm interested in a SILVAIRE dealership.

Street.....
Name.....
City.....

FOR
RECONVERSION

RUST PROOFING



WHETHER reconversion of your plant to peacetime production is sudden or gradual, one of your first chores will have to be the rustproofing and processing of Government-owned machinery, tools and other production equipment scheduled to go into storage. This must be done, *with minimum delay*, in accordance with Ordnance

Instruction P.S. 300-4.

A stock of suitable Texaco rustproofing products on hand will greatly facilitate your compliance with this requirement, and speed your change-over to civilian production.

Texaco rustproofing products meet Ordnance specifications, and are easily applied by brush, dip or spray. The

protective coating they provide will assure preservation for years.

Whatever your rustproofing requirements, a Texaco representative can render helpful service. Get in touch with the nearest of more than 2300 Texaco distributing plants in the 48 States, or write to The Texas Company, 135 East 42nd Street, New York 17, N.Y.

REMEMBER...

1. Upon termination of war contracts, Government-owned production equipment must be rustproofed promptly, in accordance with official instructions.
2. Ordnance Specification P.S. 300-4 contains official instructions for the complete processing of such equipment.
3. These instructions require that only rustproofing materials meeting Government specifications be used.
4. Texaco rustproofing products meet Ordnance specifications for application on Government-owned equipment.

TUNE IN THE
TEXACO STAR THEATRE
WITH JAMES MELTON
EVERY SUNDAY NIGHT
—CBS



TEXACO

Rustproofing Products

PERSONNEL

Col. Henry Returns As Aide To PCA Head

Lt. Col. James D. Henry (photo) has returned to his duties as assistant to the president of Pennsylvania-Central Airlines. Early this year, Colonel Henry attained the distinction of being decorated twice in one day, receiving the Legion of Merit and cluster to the Bronze Star Medal. The former he received for "meritorious conduct in the performance of outstanding service as Deputy Commander and Chief of Staff, First Air Depot Area, 9th Air Force Service Command." Colonel Henry, who had been assistant to Lt. Gen. Lewis H. Brereton, commanding general of the First Allied Airborne Army, is now returned to inactive status.



C & S Staff Promotions Awarded Eight Officials

In a large-scale change of officials, Chicago and Southern Air Lines has announced eight promotions in various flight and traffic offices. They are:

Raymond G. Blair, who joined the C & S traffic department after serving as director of the materials branch for the Dodge Manufacturing Corp. of Mishawaka, Ind., becomes district traffic manager at the line's Chicago office.

Philip W. Parker, Jr., former traffic representative for the line, has

now been named city traffic manager at Shreveport, La., succeeding Forrest Campbell who left for a post with National Airlines.

Robert D. Campbell, another former traffic representative, is now supervisor of schedules and statistics at the general offices in Memphis, Tenn.

Gerald W. Davidson, first employed as station agent at St. Louis and later as chief traffic dispatcher, has been appointed supervisor of reservations procedure at the Memphis general offices.

Joseph A. Doussard, succeeding Davidson, becomes chief traffic dispatcher after serving with the line since 1941 when he was hired as a ticket agent.

L. D. Anderson, veteran C & S pilot and former chief pilot for both flight divisions, is now chief pilot of the Chicago-New Orleans route after creation of two separate flight divisions.

Victor L. Hoganson, former flight captain for the line and, more recently, flight superintendent at Ford's Willow Run plant, joins Anderson in the new flight division plan and will act as chief pilot for the Detroit-Houston route.

George E. Koeller, St. Louis station manager, has been named to the post of assistant to the superintendent of stations. With the line since 1941, Koeller was formerly associated with American Airlines at Lambert Field, St. Louis.

E. W. Ruddick, chief of the requirements branch in the aircraft division of the War Production Board until its recent dissolution, is joining the transportation department of Transcontinental & Western Air, Inc., in Chicago.



Chicago and Southern Promotions: Announcements of key personnel changes made last week by Chicago and Southern Air Lines included (left to right) Raymond G. Blair, named district traffic manager; Philip W. Parker, Jr., new city traffic manager for the line at Shreveport, La.; Gerald W. Davidson, now supervisor of reservations at the company's general offices, Memphis; Joseph A. Doussard, appointed chief traffic dispatcher; Victor L. Hoganson, made divisional chief pilot of the Detroit-Houston route and George E. Koeller, promoted to assistant to the superintendent of stations.

Elroy Scrivener (photo) becomes Pan American World Airways' first Atlantic Division advertising manager and will handle all ad work for the division in Europe, Africa, and India. Headquarters, along with the new division, will be at La Guardia field, N. Y. Formerly in charge of merchandising, copy, and production at the Rochester (N. Y.) Times Union, Scrivener has been associated with advertising and printing enterprises for 15 years. His addition to the line's staff is called the beginning of an expanded program of overseas promotion.



Stan Johnson (photo) has been promoted to the position of director of advertising and publicity for Continental Air Lines. Previously, under the title of director of public relations, he handled only the publicity activities of the airline. Johnson joined Continental Air Lines in September of 1944 from the sales promotion and advertising division of the Gates Rubber Co. of Denver. He is a veteran of World War II, having served in the Army Signal Corps.



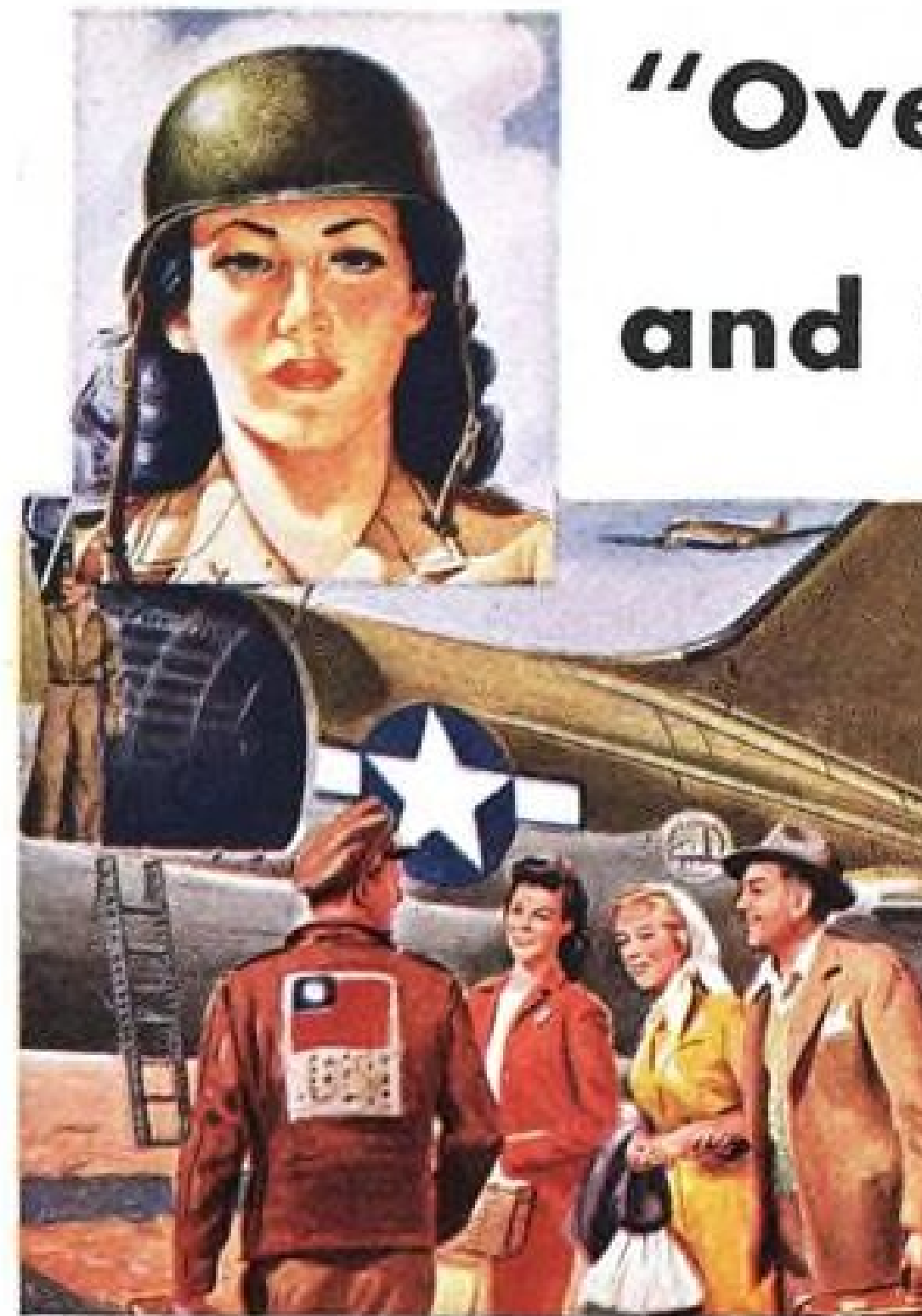
W. Sanger Green, formerly passenger and cargo manager, has been named general traffic manager of American Export Airlines. Under the reorganized traffic department, being set up to handle the expected increase in trans-Atlantic travel, William Muller has been appointed passenger traffic manager, and Arthur Cofod made cargo traffic manager of the airlines.

W. Homer Kelly has been named public relations director for Beech Aircraft Corp., a position which includes direction of the firm's advertising. Prior to joining Beech in the early days of the war, Kelly was associated with Western Lithograph Co. of Wichita, as vice-president, sales manager, and a director of the firm.

W. R. Hall, former Royal Canadian Air Force Pilot, has been appointed manager of the western department of United States Aviation Underwriters, Inc., and will make his headquarters at the company's Chicago office. Hall began his insurance career in 1933, subsequently joining the Hartford Accident & Indemnity Co. in Philadelphia.

"Over the Hump With the Wind and the Rain... *in my hair*"

Based on a true story taken from the war record of the Curtiss Commando



"A Girl Can't Say 'No' when she's on her way to cheer up lonesome G. I.'s who haven't seen an American girl in months. Not even when she's asked to make one of the most daring flights in the world... over the 19,000-foot Hump... with treacherous monsoon rains staging their big show of the year."



"Smiling Through an inferno of black storm clouds that rush past at 100 miles an hour... through solid walls of drenching rain. It was a trip that called for nerve... and it called for an airplane that was built to take it. Yes, that wind and rain really got in our hair! But there was no turning back."



"Command-o Performance. As usual, the Commando came through with flying colors. And our show went on for my favorite audience in the world... our battle-weary veterans. Was it worth it? Well, I hope it was worth as much to those boys as it was to me, to see them laugh and relax with a girl from home!"

THAT'S WHY
I WANT TO RIDE
THE AIRLINES THAT WILL

Fly Commando!



Design For High Living. New flying comfort aboard the Curtiss Commando is sure to delight your passengers. They will relax in the deeper, roomier lounge chairs, spaced to allow several additional inches of leg room, and designed for solid comfort. And they'll enjoy the unobstructed view from bigger windows beside each double seat, when they Fly Commando!



The More The Merrier. The more luggage and cargo a transport can carry in its holds, the better the airlines like it. A Commando has room for 3½ tons. And the ingenious Curtiss-Wright V-tab cuts loading time because the Commando is always in balance, no matter where the cargo loads are placed.



How To Please A Pilot. Just let him Fly Commando! The cockpit is designed for easy, restful handling. Controls are in easy reach of the pilots... no reaching back. Flight instrument panels are interchangeable right and left, and any instrument can be changed in less than a minute. So, Commandos spend less time at flight stops.

THE CURTISS
Commando

Today's Great Lifeline
Tomorrow's Great Airliner

Curtiss

Wright

FIRST IN FLIGHT

H.C.* helps Bennett buy more raw material

*HC means hidden credit (inventory)
—used as security for a bank loan



1 Bennett had a chance to buy "surplus" materials. And then discovered that this fortunate "buy" was going to practically drain his cash reserve.

2 Luckily, a Lawrence man dropped in. And it was then that Bennett learned an inventory was not a frozen asset, but actually "hidden credit."



HIDDEN IN YOUR INVENTORY may be all the credit you need for a loan! Whether it is grains or groceries, feeds or fertilizers, Lawrence Warehouse Company can help turn that inventory into working capital.

And the inventory remains right on your premises as raw material; during the pro-

cess of aging or curing; or as finished products. Lawrence simply acts as custodian.

Your banker puts his "ok" on Lawrence field warehousing...for he knows the 30-year record of Lawrence Warehouse Company in helping business men to obtain additional working capital. Send for new booklet giving full details. No obligation.

LAWRENCE WAREHOUSE COMPANY

Field Warehousing FOR BANK LOANS ON INVENTORY



New York: 72 Wall Street • Chicago: 1 N. La Salle Street • San Francisco: 37 Drumm Street
Los Angeles: W. P. Story Bldg. • Buffalo • Atlanta • Cincinnati • Boston • Philadelphia
Kansas City • St. Louis • New Orleans • Jacksonville, Florida • Dallas • Houston
Denver • Fresno, California • Portland, Oregon



3 So Bennett field warehoused his raw materials through Lawrence System...presented his warehouse receipts to his banker...and received an inventory loan that more than covered his current needs!

AIR FORCES

COMMENTARY

Ryan Fireball Composite-Engine Uses Turbo-Jet, Reciprocation

Twelve-hundred horsepower Wright *Cyclone* in nose supplemented by Whittle type GE jet unit in tail to provide short, powerful, takeoff for carrier operation; small output continues for Navy.

Details concerning the Ryan FR-1 *Fireball*, which has been in production for the Navy for several months and which will continue on a limited basis, indicate an aircraft type of unusual interest.

Now that the Pacific war is over it is expected that official stories and photographs will soon be forthcoming. The unique features of the Ryan fighter, however, have been widely known throughout the industry for a considerable period. **►Carrier Problem**—The turbo-jet unit at the present stage of development has the worst possible takeoff characteristics for use in carrier operations. The long takeoff run and general inefficiency at low altitudes and moderate speeds practically bar the pure jet unit as a power-plant for carrier-based aircraft. For this reason the "composite-engine" scheme appeared to offer a solution. This description is applicable to an aircraft having two power plants of different kinds. Thus the FR-1 has a 1,200-hp. Wright *Cyclone* R-1820 nine-cylinder radial engine in the nose to drive a propeller, and a General Electric turbo-jet unit of the I-series (Whittle type) in the tail.

The conventional engine-propeller combination alone is used for normal operations, and the turbo-jet power is added for the following requirements:

►A short takeoff run, such as from a carrier; from the deck of an Essex class carrier, for example, this would be somewhat less than 800-ft. A takeoff run with overload.

Under both of these conditions, JATO (jet or rocket assisted takeoff) can also be used. For combat operations when a special boost

for a high rate of climb or a high top speed is required.

If, and when, the reciprocating engine fails, a valued safety feature for single-engine fighters in over-water operations.

►**Single Fuel** — It is well known that turbo-jet units can burn kerosene, fuel oil, etc., but it is also true that with minor alterations in certain components they may use high-octane gasoline. It is natural, therefore, that in the composite-engine airplane the same fuel would be used for both the conventional engine in the nose and the turbo jet in the tail —High-octane gasoline. This is particularly true in the case of carrier fighters in the Pacific, where problems of supply are paramount.

Heinkel-Hirth Jet Data

The Heinkel-Hirth turbo-jet unit program began in 1936, and up to 1944 there were three experimental units and six projected units. The first to be completed was the HE S/3 unit which was installed in the HE-178 reconnaissance aircraft and test-flown in August 1939. The HE S/011 was the outcome of development work on the HE S/11, begun in 1944. It is a more powerful unit than the BMW 003 or the Jumo 004, and was scheduled to go into quantity production in 1946. It was to be the power plant of advanced versions of the HE-162 lightweight jet fighter, and certain versions of the JU-287 jet-propelled heavy bomber.

The O11 has an impeller at the intake, and a compressor consisting of a diagonal stage and three axial stages. It has an annular combustion chamber with turbu-

lence fingers and 16 injection nozzles. The turbine wheel is of the axial 2-stage type, with hollow blades. An adjustable jet nozzle is fitted, having two positions, fully in for idling, and fully out for all other conditions. Sea level static thrust is 2,860-lbs. Length, 3,510-mm.; diameter, 875-mm., and weight, 2,090-lbs. Fuel used is J-2 light diesel oil, and an emergency, K-1 diesel oil. Detailed reports of the unit may be issued by the U. S. Navy in due course.

NAVIGATOR

Army Radio Station Flown Into Japan

A complete, high-powered radio station able to furnish ground-to-plane communication, weather information, approach control, and communication with Okinawa, was flown into Japan and was in use within 45 minutes of the landing, the Army has revealed.

All necessary equipment, including jeeps on which were mounted control towers, was flown in 12 C-47's. Twelve more C-47's carried 140 officers and men to operate the installations. In command of the landing party was Col. G. A. Blake, commanding officer of the Pacific Wing of the Army Airways Communications System.

►**VJ Signal**—The 24 planes were loaded in Manila and flew first to Okinawa. They waited until official news came of the surrender terms and then made the 1,000-mile hop to Atsugi airdrome, outside Tokyo. The equipment was installed in the planes in 42 hours under the direction of Col. Reeder G. Nichols, commander of the 68th AACS Group.

Sperry Radar Role

Sperry Gyroscope Co.'s part in the development of radar in this country is now disclosed to have been based on initial research, at government behest during 1938, into ultra-high frequency radiation at larger levels of power that was possible at that time.

Bombing through overcast was one of the first problems met by the company which then went on to production of many versions of radar interception and gun and searchlight tracking devices. Present output is centered on automatic search, interception, and tracking devices for ground and airborne firepower.

PRODUCTION

Government's Research Policies To Shape In Senate Next Month

Present trends point toward overall agency with no segregation of military and naval programs; hearings, spurred by President's message, slated to begin Oct. 2.

By WILLIAM KROGER

Senate hearings slated to begin early next month are expected to give the aircraft industry some hint as to future government policies on research, with present trends pointing toward an overall agency, and no segregation of military and naval research as outlined in some previous proposals.

Following up recommendations in President Truman's message, to Congress, hearings on research bills will start Oct. 2, before a joint subcommittee composed of members of the Senate committees

on military affairs and commerce. **Bills Pending**—Before Military Affairs is the Kilgore-Pepper-Johnson bill for a National Science Foundation, and before the Commerce Committee are the bills of Sen. Warren G. Magnuson (D-Wash.) for a National Research Foundation (AVIATION NEWS, July 30), and Sen. J. William Fulbright (D-Ark.) for a Bureau of Scientific Research in the Commerce Department.

Such a joint subcommittee is an innovation in itself, but the fact

The President's Plan

Following are excerpts from President Truman's recommendation for a governmentally sponsored research program as taken from his recent message to Congress:

No nation can maintain a position of leadership in the world of today unless it develops to the full its scientific and technological resources. No government adequately meets its responsibilities unless it generously and intelligently supports and encourages the work of science in university, industry, and in its own laboratories.

During the war we have learned much about the methods of organizing science, and about the ways of encouraging and supporting its activities.

In order to derive the full profit in the future from what we have learned, I urge upon the Congress the early adoption of legislation for the establishment of a single Federal research agency which would discharge the following functions:

1. Promote and support fundamental research and development projects in all matters pertaining to the defense and security of the Nation.

2. Promote and support research in the basic sciences and

in the social sciences.

3. Promote and support research in medicine, public health, and allied fields.

4. Provide financial assistance in the form of scholarships and grants for young men and women of proved scientific ability.

5. Coordinate and control diverse scientific activities now conducted by the several departments and agencies of the Federal Government.

6. Make fully, freely, and publicly available to commerce, industry, agriculture, and academic institutions, the fruits of research financed by Federal funds.

Scientific knowledge and scientific research are a complex and interrelated structure. Technological advances in one field may have great significance for another apparently unrelated. Accordingly, I urge upon the Congress the desirability of centralizing these functions in a single agency.

Although science can be coordinated and encouraged, it cannot be dictated to or regimented. Science cannot progress unless founded on the free intelligence of the scientist. I stress the fact that the Federal research agency here proposed should in no way impair that freedom.

Experimentals

More than a score of experimental military aircraft are in various stages of construction in Southern California factories, John C. Lee, president of Menasco Manufacturing Co., has informed the Los Angeles Chamber of Commerce aviation committee, of which he is chairman.

Lee was optimistic over the post-war prospects of the entire West Coast aircraft industry, and cited its possession of more than one billion dollars worth of military and civilian orders after VJ cancellations. **Future Factors**—He cautioned, however, that Southern California's future as a center of aircraft manufacturing will depend upon the resourcefulness of plane designers and builders—sound governmental policies on surplus disposals—continued experimental development by private companies—community support.

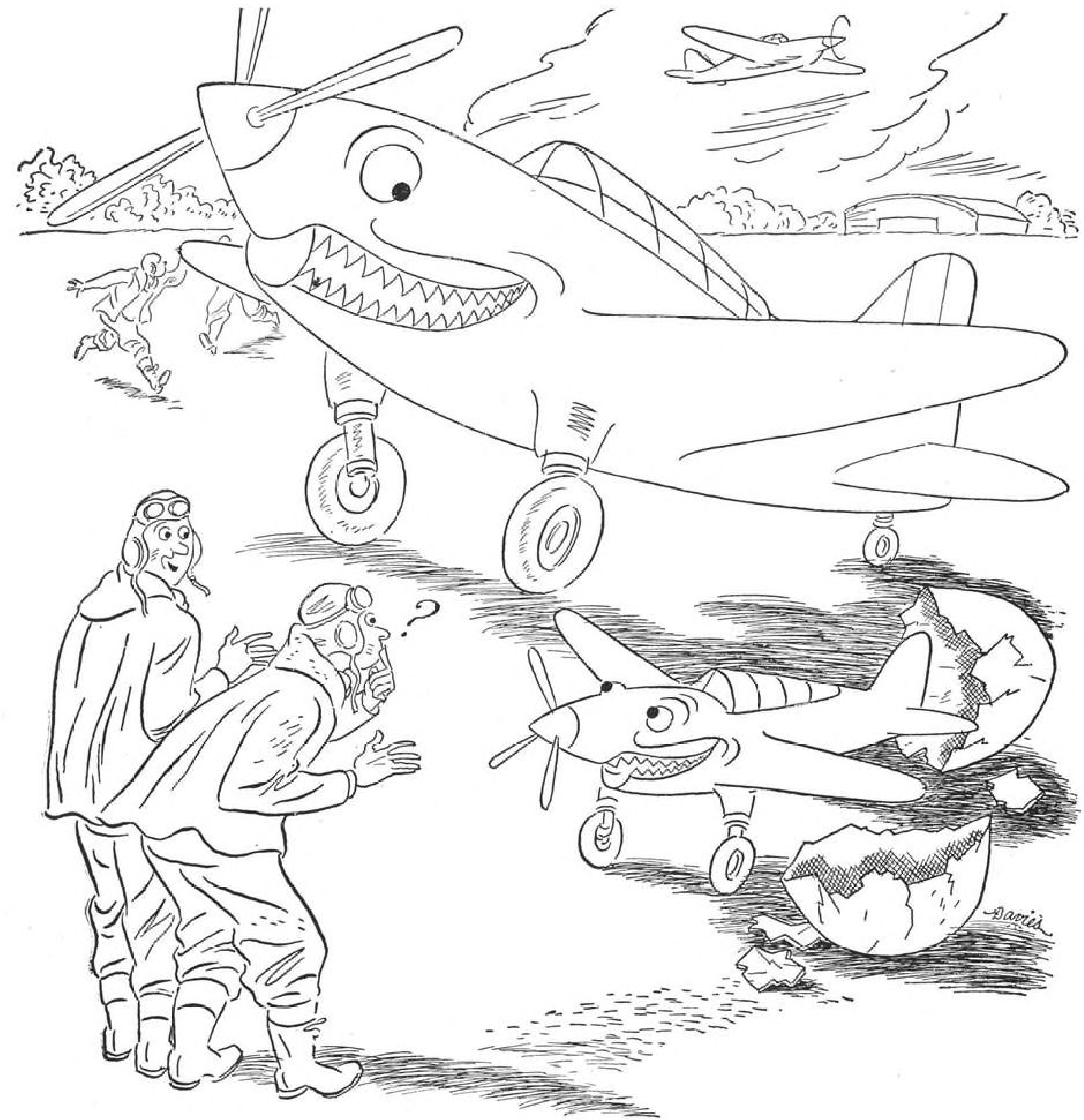
it is limited to members of the Military Affairs and Commerce committees is regarded as significant. Before the committee on Naval Affairs are two proposals for expenditures on national security research alone.

The President's recommendations were framed after consultation with Sens. Kilgore and Magnuson and more nearly approximate the objectives of the Kilgore-Pepper-Johnson measure. This is regarded by Congressional observers as pulling the rug from under the advocates of a separate armed forces research program.

Shift Request—Military Affairs Committee is expected to ask that the bills of Sen. Harry F. Byrd (D-Va.), and a measure passed by the House, both now in Naval Affairs, be transferred to Military Affairs. There, they will be consolidated with one of the other proposals.

An additional possibility is seen in the unusual procedure adopted for hearing the research bills. This is that it presages the formation of a standing Senate committee on research.

What loomed for a while as a dispute between Kilgore and Magnuson on the details of a Federal-sponsored research program is understood to have been eliminated in discussions between the two. Magnuson's proposal does not contain what to some is the entire purpose of Kilgore's bill: the pro-



“Even if I reported this, the CO wouldn't believe it!”

So many new aviation ideas have been hatched during wartime that it is easy for the general public to slip into the belief that major aviation progress is possible only during wars.

Nothing could be further from the truth. Most developments hailed as wartime discoveries were in practical use long before the beginning of hostilities. The needs of war served only to speed their production. Furthermore, the emphasis on military aviation has tended to sidetrack the development of commercial and private aircraft. This lag must be made up by strengthening of research programs, rather than their abandonment.

For example, engines must be developed to realize the full possibilities of future aviation fuels from both performance and economy standpoints. Aviation gasoline has already burst

through its “ceiling” of 100 octane. New refining methods and the use of Ethyl fluid have provided new fuels so high in antiknock quality that some means other than the “octane” scale will be required to express their ratings.

Post-war research workers, unhampered by the specialized requirements of military planes and fuels, may well make the years after the war the truly great era of aviation progress.

Ethyl Corporation
CHRYSLER BUILDING, NEW YORK CITY
Manufacturers of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasolines.

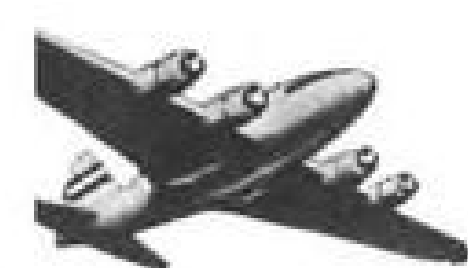
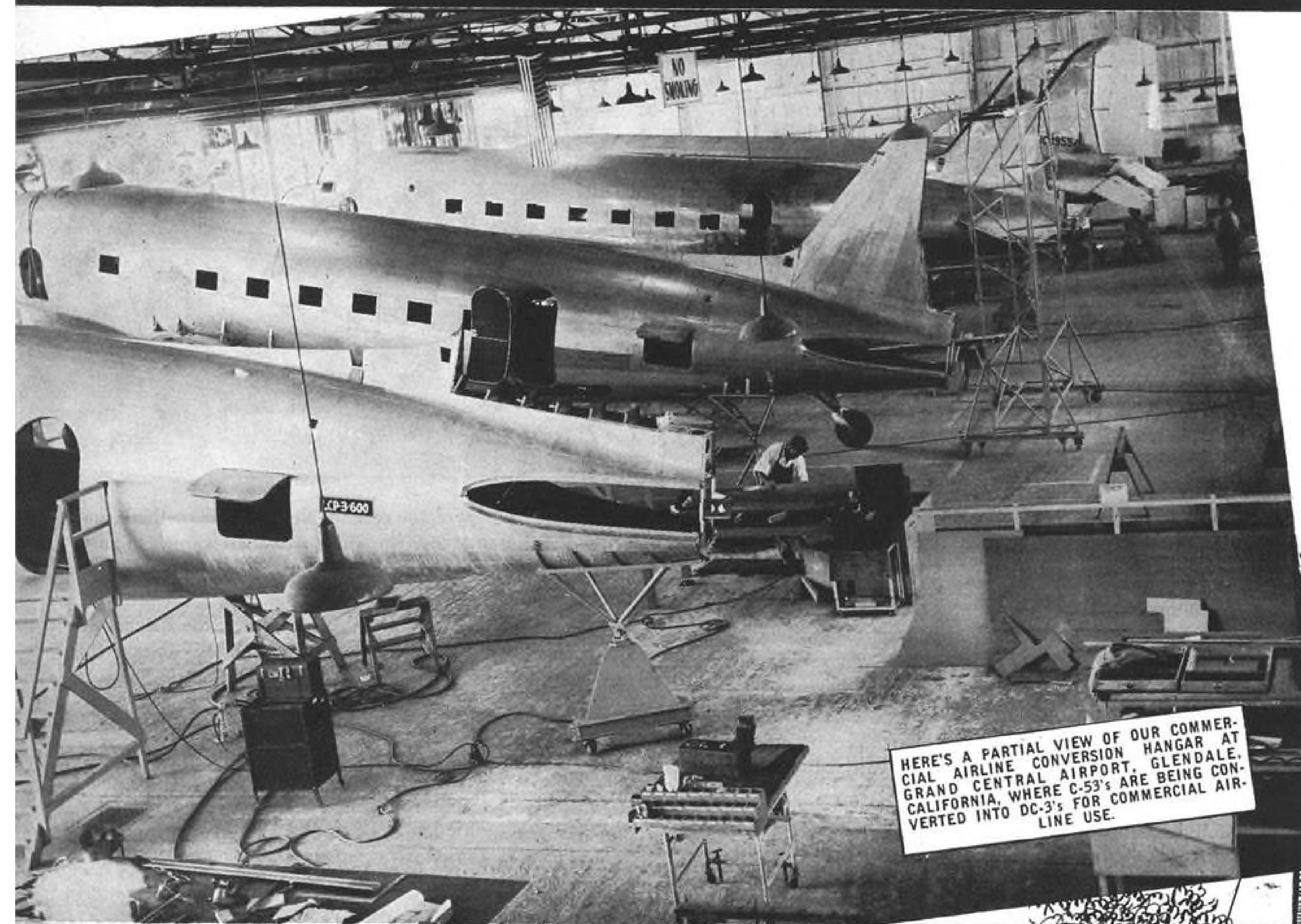


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WAR BONDS
+
GIVE TO THE
RED CROSS

We are Signally honored.....

**.....DOUGLAS AIRCRAFT COMPANY
names GRAND CENTRAL AIRPORT CO. as
"Authorized Conversion and Overhaul Center"**

GRAND CENTRAL AIRPORT....NOW GIVING NEW SERVICE TO THE AIRCRAFT INDUSTRY



AIRLINE CONVERSION

Grand Central Airport Company is one of four hand-picked, prominent and long-established firms of top technical standing in America, selected by Douglas Aircraft Company to do airline conversion on Douglas Aircraft. Selected on the basis of "a long standing and enviable reputation in the aircraft industry," Grand Central Airport Company's experience in overhaul and repair plus quality interior work is proving invaluable on the DC-3 conversion line.

We have already completed our first reconversion job and more will be off the line shortly. We have also been doing, for some time, this same work for the U. S. Navy on Lockheed's as well as Douglas aircraft. Operating an approved C.A.A. repair station since 1929, we are in the fortunate position of having an extremely large group of highly skilled personnel, many with more than 10 years of experience with our company. We have experience—THERE IS NO SUBSTITUTE FOR IT.



GRAND CENTRAL AIRPORT CO.

ESTABLISHED 1929

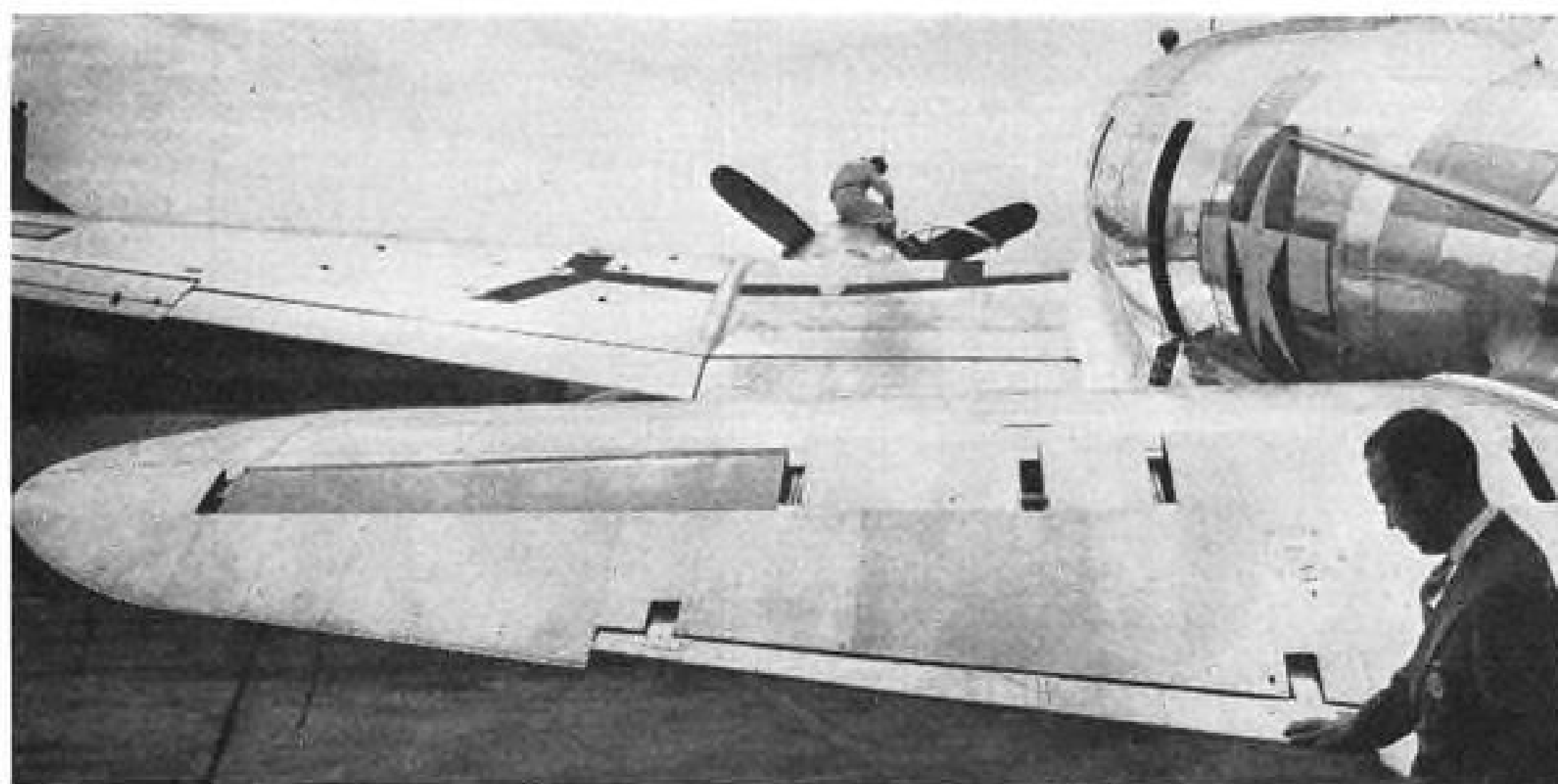
AUTHORIZED AND APPROVED SALES AND SERVICE FOR AIRPLANES AND ENGINES

GRAND CENTRAL AIRPORT

GLENDALE (LOS ANGELES CO.) CALIFORNIA

HOME OF FAMOUS CAL-AERO TECHNICAL INSTITUTE »

Since 1929 **DOING BUSINESS ON MERIT ALONE...our Policy...PRECAUTION...PRECISION...SAFETY**



Automatic Trim Tab: The new Curtiss-Wright "V-Tab" control surface, indicated by Harvey Gray, test pilot, is being looked to as a great simplification measure in peacetime airline flight operations. According to reports of initial tests, the tab eliminates the necessity of continually shifting cargo and control surface adjustments as freight or passenger load is changed at various stops. The tab, fully automatic, is set at the initial loading and thereafter makes balance adjustments as the load and center of gravity changes.

visions that any patents arising from Federally-financed research be made available without cost to all comers, on a non-exclusive basis.

► **Free Access**—An indication that the bill as finally adopted by committee will contain the references to patents is the President's recommendation that the fruits of research be made "fully and freely available."

While it seems that armed force research will not be a separate program, it is amply provided for under both the Magnuson and the Kilgore-Pepper-Johnson bills. Additionally, the Air Forces possibly will submit recommendations later to implement a half-formulated plan for taking into the AAF, direct from college, promising scientific workers.

New Oil Line

Assuring a higher margin of safety and anticipating any designed increases in pressure or temperature ranges for Army and Navy aircraft engine lubrication and cooling lines, the United States Rubber Co. has announced development of a new synthetic rubber hose built for high pressure and heat.

According to the company, resistance to pressure in a one-inch diameter hose covered with "Us-tex" chemically treated cotton yarn and shaped of the new heat resistant synthetic rubber, is double that of usual hoses. In use as an oil line, the hose will with-

stand up to 250 degrees F. and up to 300 degrees F. for installation in cooling systems.

Automatic Trimmer Handles 'CG' Shifts

A new trim tab device for transport airplanes has been developed by Curtiss-Wright to permit maximum loading of aircraft without consideration of weight distribution.

The new device is now being used on the C-46 *Commando* and, while it adds 10 pounds to the total weight, has resulted in an improved stability and a wide center of gravity range.

► **CW-20 Delivery**—The company reports that delivery of the CW-20 commercial *Commando* will begin soon after the first of the year.

Curtiss-Wright engineers report that maximum utilization of cargo and passenger space is the greatest boon of the new Curtiss V-Tab, which does not affect the airplane's speed and which operates automatically.

The company claims that use of the tab makes center of gravity a minor problem, that pilots do not have to trim ship while passengers walk back and forth in the cabin and that airline maintenance men will have to be concerned only with the total load of passengers and cargo, rather than figuring distribution of weight. In addition, the company asserts, it is not necessary to shift cargo from one compartment to another. Once the

aircraft is loaded, the V-Tab takes care of the plane's balance in flight.

Inventory Retention Eased By Services

To encourage war contractors to retain for their own use inventories remaining upon cancellation, the War and Navy Departments have announced changes in the joint termination regulation. The revisions are also designed to tighten up the sales of termination inventories.

The floor under the price the contractor must pay to retain the inventories has been removed. Formerly, he had to pay the "best price obtainable," but not less than 75 percent of cost. The latter restriction has now been removed. The contractor must warrant, however, that he intends to use the material in his plant and will not resell it. Price remains subject to government approval.

► **Scrap Control**—To control the sale of scrap, salvage and other unserviceable items in the termination inventory, the regulation provides that such sales must be on competitive bidding, with the government approving the price.

If a contractor desires to sell serviceable property, he must advertise it in a local newspaper for seven days in advance. Price cannot be lower than 50 percent of cost, and the government must again approve.

Those three requirements pertain to termination claims of more than \$10,000. Provisions for the disposal of small lots of termination inventory have been simplified, but the amount a contractor may dispose of without government approval being lowered from \$2,500 to \$300.

Fire-Resisting Hose

A special aircraft fuel hose capable of withstanding intense heat for at least 30 minutes has been developed by the Air Technical Service Command as a result of experiments on fire hazards in aircraft. Ordinary hoses are resistant to great heat for only about three minutes.

ATSC's goal in the tests is to perfect equipment forward of the fire wall, and in engine nacelles, that will resist long enough for the fire to be extinguished before it can spread and cause an explosion.

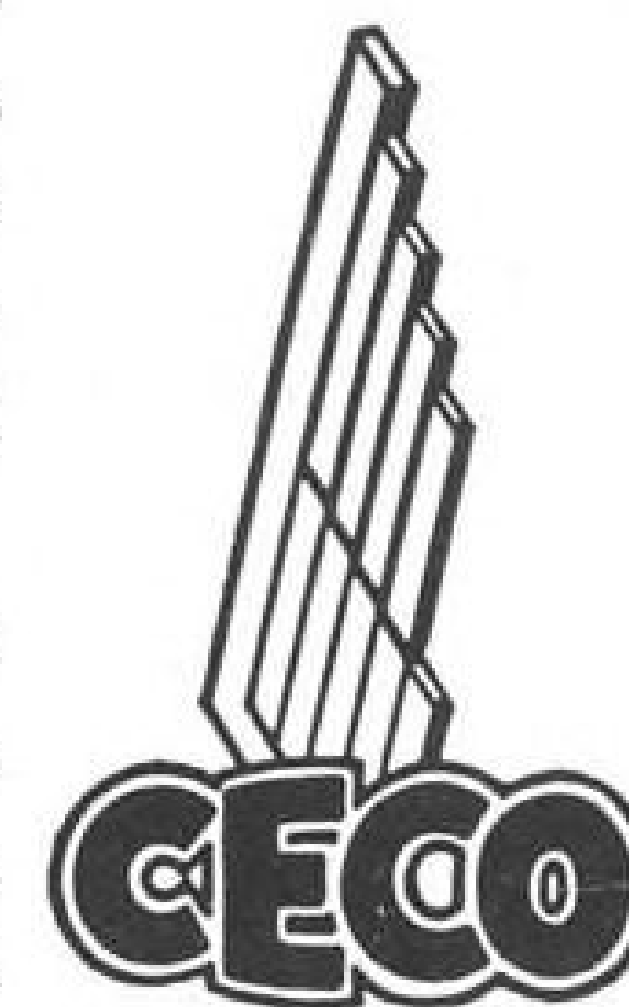


With twin 3-bladed rotors intermeshing like the blades of an egg beater, the Kellett XR-8 presents a new and novel design in helicopters. A purely experimental model built for the Army Air Forces, the XR-8 has the advantages of greater power efficiency, reduction of vibration, reduced drag, and reduced power transmission requirements.

Reports from test pilots indicate that it is highly maneuverable, and since the rotors revolve in opposite directions, there is no need for a tail rotor to counteract torque. While no performance figures have been released, the ship is powered by a Franklin air-cooled 245 h.p. engine using CECO fuel pumps.

Chandler-Evans is proud to have a small part in this new step in helicopter development. And as Chandler-Evans has always kept abreast of the newest and latest in America's other great war planes, so will it continue to serve the aviation industry when once again it turns to peacetime production.

The Kellett XR-8 has all the remarkable helicopter characteristics of vertical rise and descent, ability to hover, and to fly backwards and sideways as well as forwards. (Kellett Aircraft photo).



CARBURETORS
FUEL PUMPS
PROTEK-PLUGS

CHANDLER-EVANS CORPORATION

SOUTH MERIDEN
CONNECTICUT, U.S.A.

Bell Output Plans Center On 'Copters

Concentration on production of commercial helicopters has been revealed as Bell Aircraft Corp.'s main objective in the peacetime aircraft industry.

With discontinuance of B-29 production at Marietta, Ga., and a reduction in RP-63 output at Buffalo, the company has begun negotiations to acquire the government-owned Niagara Falls plant for its helicopter work.

► **Four Models**—"Our company is going into helicopter production on a big scale," President Lawrence D. Bell says. "We have developed four different models in the past few years. The helicopter will have great value to the military and also will be of utility to the ordinary man.

"In from seven to 15 years, there will be a helicopter industry

greater than the peacetime aircraft business."

Bell does not expect the helicopter to compete with the automobile or the airplane.

"It is a short-range utility machine," he explains, "operating at ranges unprofitable for the plane and too long for the auto. I believe the helicopter represents a brand new method of transportation, operating from door to door, you might say, both in heavily built-up and less populated areas."

Goodyear War Output Rose Above Half-Billion

Goodyear Aircraft, in a review of wartime production, reports an output of nearly \$790,000,000 worth of airships, airframes and component parts.

Officials said that in the period from October, 1940, to VJ Day, its workers, reaching a peak of 33,000,

turned out more than 4,000 complete FG1 Corsair fighter planes; well over 150 complete K and M type airships and thousands of sections and parts for more than 20 types of airplanes. Plane sets included 15,722 elevators; 12,662 fins; 12,799 rudders; 15,500 stabilizers; 9,611 ailerons; 14,532 outboard flaps; 15,055 inboard flaps, and 5,650 wings. In addition, 658 fuselages and thousands of spare parts also were completed.

► **Other Planes**—Contracts other than for the Corsair and airships, included those of the Boeing B-29; Northrop P-61; Lockheed's P-38 and PV Ventura; Grumman's TBF Avenger and F6F Hellcat; Martin B-26 Marauder and PBM Mariner; Consolidated B-24 and PB2Y Coronado and the Curtiss P-40. The company started with only 40 employees when it took its first war contract, in December, 1939.

'Practical' Research Urged In England

British plane manufacturers, turning from fighters to civil aircraft, urge the continuance of practical research in aeronautics.

Arthur Gouge, president of the Society of British Aircraft Constructors, Ltd., emphasized this when, after describing the part done by past research in the Battle of Britain, he said that "another and continuing great effort in practical research" will be needed, "not only to produce still better combat aircraft but also better transport aircraft and better private planes."

► **Research Center**—He predicted help from a British government plan for an aeronautical research center and provision of new and better research equipment to individual companies.

Maj. H. R. Kilner, deputy-president of the SBAC, another speaker at the opening of a London exhibition of paintings of British aircraft, asserted that the British plane building industry is convinced that it can produce aircraft "as reliable, and with a performance as high, as anything which can be produced by our competitors."

The manufacturers, he asserted, are taking advantage of rapid development in aeronautical science in civil air transports the British are building. "It may prove that 'marking time' may not be altogether to our disadvantage," he concluded.

Five Air Firms List Sales Data

Five aircraft manufacturing companies were included in the 83 corporations reporting their total sales, the relationship of war contracts to such sales, and the amount of unfilled war contracts on their books at the end of various fiscal periods, to the Securities and Exchange Commission.

Total sales for all 83 companies for the various periods covered amounted to \$7,405,306,000, of which \$5,716,558,000, or 77 percent, was war business. War contracts unfilled at the end of the periods aggregated \$19,799,303,000.

► **C-W**—The figures include data for Wright Aeronautical Corp., which are also included in the consolidated statement reported by Curtiss-Wright Corp., to its "parent."

Reporting for the period from April 1, 1945, to June 30, 1945, Curtiss-Wright showed total sales of \$368,100,000, of which \$364,560,000 represented war contracts. At the beginning of the period the company had a total of \$2,074,960,000 of war contracts on its books, of which \$1,689,503,000 were unfilled at the end of the period.

Douglas Aircraft Co., Inc., reporting for the period from Dec. 1, 1944, to May 31, 1945, showed total sales of \$439,845,000, of which \$436,727,000 represented war orders. At the beginning of the period the company had on its books war orders aggregating \$1,501,629,000, of which \$923,511,-

000 were unfilled on May 31.

Wright Aeronautical Corp., in its report for the period from April 1, 1945, to June 30, 1945, showed total sales of \$157,480,000, of which \$154,324,000 represented war contracts. At the beginning of the period the company had on its books \$1,228,332,000 of war orders, of which \$1,166,561,000 remained unfilled on June 30.

Boeing Airplane Co., in the period from April 1, 1945, to June 30, 1945, had total sales of \$166,925,000, of which \$166,918,000 represented war contracts. At the beginning of the period the company had \$1,130,019,000 of war contracts, of which \$1,198,476,000 remained unfilled on June 30.

Ryan Aeronautical Co., in the period from Nov. 1, 1944, to July 31, 1945, reported total sales of \$43,067,000, all of which were pursuant to war contracts. At the beginning of the period the company had an estimated \$73,000,000 of war orders, and had on its books on July 31, an estimated \$78,000,000 of such business.

Piper Aircraft Corp., reporting for the period from Oct. 1, 1944, to June 30, 1945, showed total sales of \$5,350,000, of which \$4,994,000 represented war orders. The company had an estimated \$8,590,000 of such orders on its books at the beginning of the period, and \$7,245,000 of unfilled orders on June 30, 1945.



Aeroprops for Extra Service Smiles

This General Motors Propeller Is Engineered for Easy Maintenance

THIS WAR has proved that easy maintenance is a "must" in any aircraft part. That's one of many reasons why the Aeroprop is in such demand today, and why it will serve you so well tomorrow.

The Aeroprop is remarkably clean and simple in design. It can be inspected and serviced in record time. A single blade, or the complete propeller, can be removed

and replaced in a matter of minutes. In war, that means fewer hours wasted on the ground. In peace, Aeroprop simplicity will help to shorten maintenance time and contribute to the economy, efficiency, and reliability of commercial flying.

This General Motors Propeller is one of many war-proved developments that will serve the fly-

ing public when the achievements of America's aircraft and accessory industries are converted to planes of peace.



Aeroprop Advantages—Lightness for payload... Strength for safety... Simplicity for easy service... Faster Automatic Pitch Change for flight efficiency... Full Feathering for engine protection... Engineered for reliability.

Aeroprop

LIGHT • STRONG • RELIABLE

AEROPRODUCTS DIVISION • GENERAL MOTORS CORPORATION • DAYTON, OHIO

Keep them flying—Buy Another War Bond!



The Birdmen's Perch

By Major Al Williams, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

WHAT'LL THEY
THINK OF NEXT!



GUESS WHAT THEY DID NOW!

A bunch of engineers in charge of getting-rid-of-every-darned-unnecessary-ounce on a certain plane were sitting around brooding, one day.

Of course, anybody but an engineer could see that it was downright impossible to remove a solitary remaining gadget or to make a single fitting or part any lighter than it was. But no one dared to tell the engineers because it might have ruined a whole day's brooding.

So they sat there with long faces and went over the weight tables again and again.

Pilot—183 lbs. (he'd flatly refused to reduce) . . . radio equipment—so many lbs. . . . landing gear—so many lbs. . . . tires—so many lbs., plus 180 lbs. of air to inflate them . . .

"—hey, maybe we ought to fill 'em with helium instead of air, tee hee."



FLUTTER SAYS

A pilot arrived in Moline
Before he had left where he'd been.
Interviewed, he admitted
He couldn't have did it
If he hadn't used Gulf Gasoline.

Well they did it! And knocked 154 lbs. off the gross weight!
How about that?

INSTRUMENT COURSE, Cont.

As we were saying last month, those oil instruments of yours are critical gadgets.

We can tell you all about what *we* do to Gulfpride Oil. We can tell you how *we* begin with the very finest crudes, and subject them to the most efficient refining methods we know of. We can tell you that after they've been refined *we* give them an extra refining treatment called the "Alchlor Process."

And *we* can tell you that last step gets more *extra* carbon makers and sludge formers out of Gulfpride than you could shake a piston at.

But while we can tell you what *we* do to Gulfpride, *we* can't tell you what *your* engine does to it! That's up to your oil instruments.

Your oil pressure gage, for instance, is probably indicating one of the following when it reads too high:

- Oil temperature too low.
- Oil pressure relief-spring tension too great.
- Too high viscosity lubricant.
- Defective gage.



Next month, we'll cover indications of the oil temperature gage. Meanwhile, you'll have enough time to treat your engine to fresh Gulfpride.

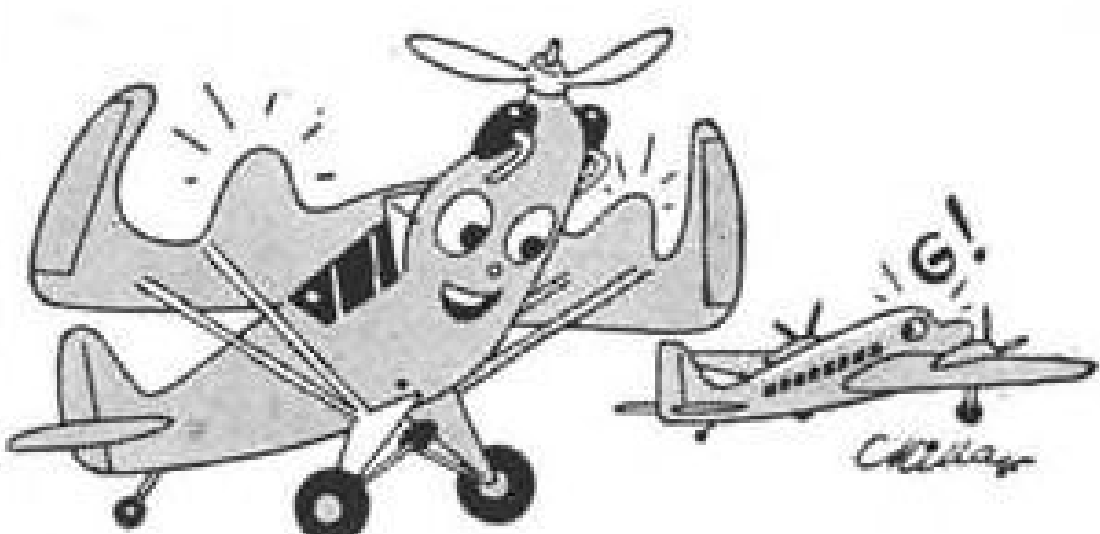
LITTLE KNOWN FACTS DEPT.

Here's the 3rd Little Known Facts About Well Known Planes we've run from George Clay, of Dallas, Texas!

That means that with 2 more Facts—fascinating enough to meet our lofty standards, and accompanied with proof—Perch Pilot George Clay will become a Senior Perch Pilot.

What's more, he'll be the first Senior Perch Pilot to be commissioned!

Unless someone else beats him to it, that is. Here's his 3rd accepted Little Known Fact:



The most popular light plane is stressed for more "G's"—pound for pound—than any commercial airliner!

A commission is on the way to H. R. Kensit, AMMH 1/c, Hdqtrs. Sqdn. 9-2, c/o Fleet Post Office, New York, N. Y., for:

Just the wiring in a PV-1 is more expensive than most PT's!

Lt. W. M. Bullock, LAAF, Laredo, Texas, rates a commission with:

It requires approximately 6 horsepower to retract the landing gear of the B-29's!

If you haven't got a Perch Pilot's commission yet, send us a Little Known Fact like those above.

If you have been commissioned, send 4 more Facts and we'll promote you to Senior Perch Pilot!

The address is up on top of the page, there.

Gulf Oil Corporation and Gulf Refining Company...makers of



OIL IS AMMUNITION—USE IT WISELY

B-25 Airliners

The modification of five B-25J Mitchell bombers into fast transports for high-ranking military personnel, by North American Aviation, has aroused considerable interest in respect to the commercial utilization of surplus military aircraft.

The modification consists solely of changes in the interior of the airplane. A standard Mitchell is stripped of all armament, armor plate, radio, and miscellaneous military equipment. In their places are installed a nose section which contains all radio equipment, heating and ventilation apparatus; sound-proofing, double windows and furnishings; baggage section, lavatory, sleeping compartment and passenger cabin.

► **Six Seats**—The resulting transport will carry six passengers with a crew of two. Range is approximately 2,000 miles at a speed of 265 mph. at 10,000-ft. With passengers and crew, plus 900-lbs. of baggage, the airplane weighs 28,200-lbs.

One of the main points in favor of the conversion is a simplified maintenance and supply problem. The transport uses standard B-25 parts which are in abundant supply.

Continuous Flow Fuel System Set For Army

A continuous flow fuel system, replacing fuel tank selector valves, will be installed in all military aircraft, according to Air Technical Service Command.

The new system, developed at Wright Field by ATSC engineers, is said to eliminate practically all chance of accidents arising from the older method of manually switching from one tank to another.

► **Float Valve**—Based on a simple arrangement of fuel lines and the use of a float-operated valve, the system provides a continuous flow of fuel without change in pressure.

Formerly, a pilot had to switch a fuel tank selector valve to the main tanks at takeoff, then change over to auxiliary tanks during flight and, when those were empty, switch back to main tanks. This procedure allowed a great chance for human error. The ATSC development, being fully automatic, does not require operation by the pilot.



SPECIFY AS

"Standard"

MODELS
4000
and
4100

Note the vertical position in which the Scott Master Cylinder becomes the back link of the parallelogram resulting in greatly simplified installation and maintenance.



● Designers and engineers welcome the patented Scott Master Cylinder, a highly efficient pressure generating device for use with aircraft hydraulic brake systems. Available in two sizes with displacements of .38 cubic inch and 1.2 cubic inch. Built for pressures up to 1200 lbs., with design operating pressure of 650 lbs. when installed as illustrated. Adjustable in length, both sizes are interchangeable. No internal valves or small ports to score piston. Reservoir built-in—not external. Easy to bleed. Throughout, a dependable Scott quality-built product—one which you can "specify as Standard" with complete confidence.



Scott
AVIATION CORPORATION

204 ERIE STREET
LANCASTER
NEW YORK

They'll feel they're going really modern



TRAVELING ON **FOAMEX**^{*}
COVERED WITH *Velon*^{*}

TODAY'S PASSENGERS are travel-eager — tomorrow's will be travel-wise. Gain and maintain travel leadership by giving them more beauty, more comfort. It's easy, it's profitable with Firestone's amazing materials, *Foamex* cushioning covered with *Velon* upholstery fabric.

Together they are the perfect seating combination—deep-cushioned comfort, high eye-appeal — both so practical that maintenance cost is brought down to almost zero.

Consider the glamour of interior of *Velon*. In any color, from palest pastel to deepest jewel tones, in a wide range of patterns, textures and weaves, *Velon* fabric stays ever new, fresh and beautiful. Dirt and grease cannot cling to its non-porous threads, nor can acids and alkalis stain it, so *Velon* stays clean longer. A cloth dampened in water or cleaning fluid restores its original beauty. As seat covering, curtains, wall lining, shades and trim, *Velon* can be exposed to the broiling sun's rays without fading or becoming over-heated. It is perfectly flexible, yet cannot bag, buckle or "grow" out of shape; so resistant to abrasion that it does not snag or scuff.

Consider the comfort of *Foamex* cushioning. Millions of tiny air-and-latex bubbles float the passenger in blissful relaxation. Each bubble is a perfect shock absorber, an air-breathing ventilator, an air-valve yielding gently to slightest pressure, resilient under heaviest weight. *Foamex* replaces old-style springs and stuffing with one welded-together material, sagproof, lump-proof. Both *Foamex* and *Velon* have proved themselves in transportation seating through years of wartime abuse. *Foamex* is now electronically processed to insure even longer wear.

The demand for *Foamex* to cushion men against shocks of battle has been satisfied. The need for *Velon* to protect them in steaming tropics has been filled. Now *Foamex* and *Velon* will be available to you, to attract passengers with beauty and comfort, to keep your maintenance costs way down. Start specifying this revolutionary seating combination. Write Firestone, Akron.

LISTEN TO THE VOICE OF FIRESTONE MONDAY EVENINGS OVER NBC

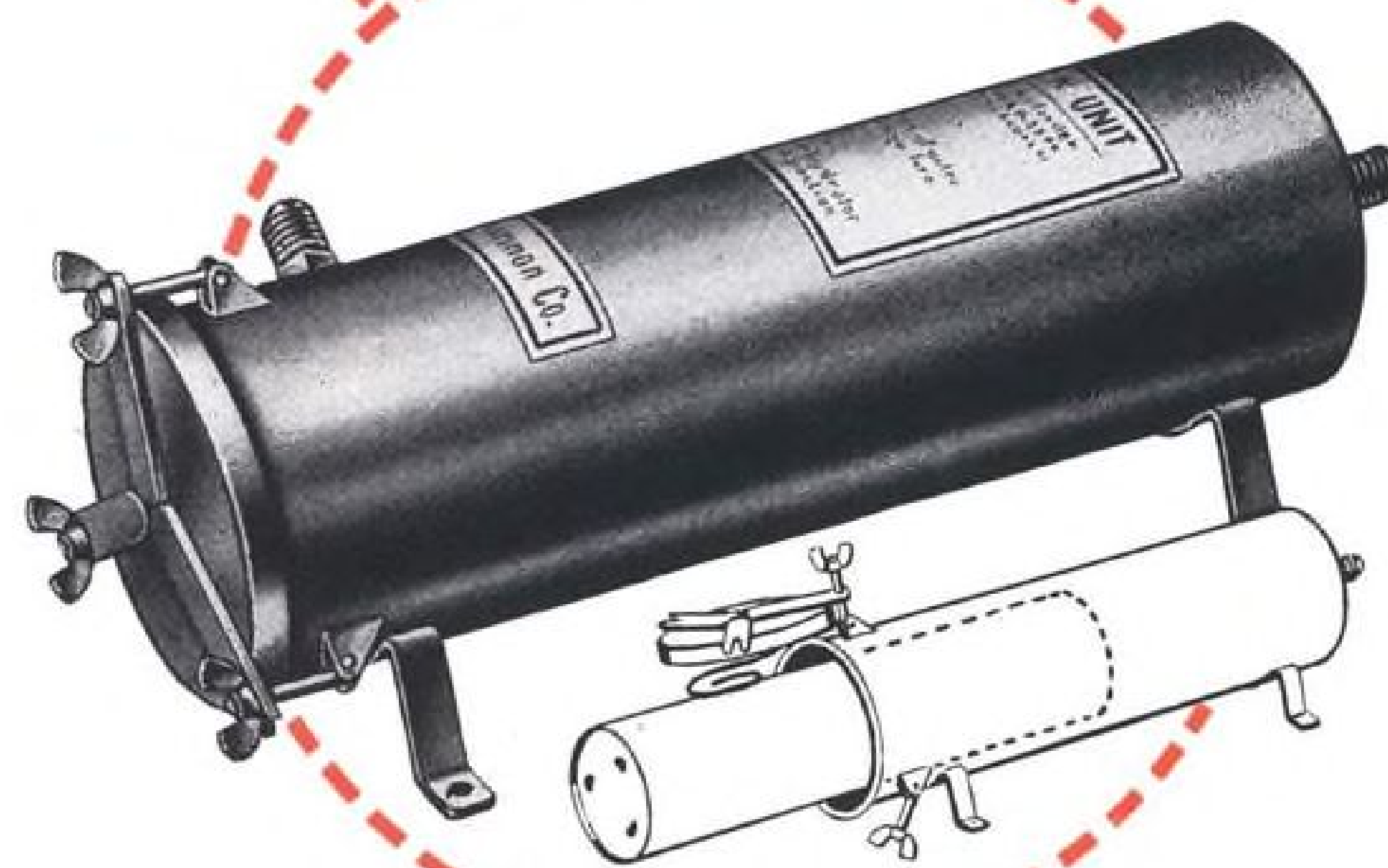


Firestone

*TRADE MARK



AIRBORNE DEHYDRATING EQUIPMENT



This D-10 Dehydrator Unit for the B-29 Bomber is just another practical application of the Russell R. Gannon System for the control of moisture content, relative humidity, and dew point of air and gases.

This unit including its dehydrating cartridge weighs but four pounds and has a moisture pick up capacity of 50 grams of water while maintaining a dew point of 90° F below zero.

The Gannon System is applicable to many other

dehydrating problems, and usually eliminates expensive and cumbersome installations.

The dehydrating chemicals are so inexpensive to replace as to be expendable at a negligible cost.

Precision tested dew point color change indicators are available to insure accuracy of working conditions.

If you have a dehydrating problem, consult Gannon. Gannon's Engineers welcome your inquiry.

Russell R.
GANNON Co.
AIR
CONDITIONING EQUIPMENT
Cincinnati 2 • Ohio

FINANCIAL

Alaskan Air Operations Report Gains International Significance

Territory's position as a hub of great circle operations sheds new light on Aeronautics and Communications Commission yearly survey; commercial records increase; private flying boom predicted.

With post-war planning placing Alaska as a hub of world aviation operations, the report of the Supervisor of the Alaska Aeronautics and Communications Commission on aircraft operations during the past June 30 fiscal year takes on more significance than in previous years.

The great circle routes to Manila, Hong Kong, Calcutta, Bombay and Tokyo are by way of Alaska. But, in addition to expansion of commercial air transportation facilities, the Alaska Commission points out in its report, that technical developments predict a large volume of post-war private flying. "We have every reason to expect an aeronautical future for Alaska," says the department's report.

► **Flight Hike**—Miles flown in the territory during the year ended June 30, 1945, were 24 percent above the previous fiscal year, being 4,986,351 as compared with 4,015,434. In 1943, miles flown were only 3,700,903.

Passenger miles flown during the period under survey reached 15,847,039, an increase of 31 percent over the 12,065,139 reported

in the 12 months ended June 30, 1944. In the 1943 period, passenger miles flown were 10,150,469.

Pounds of freight flown into the territory were up 13 percent to 2,908,878. In the year ended June 30, 1944, pounds of freight totaled 2,568,085, an increase of 6 percent over the 2,427,107 pounds the year before.

► **Postal Drop**—Mail flown in, however, fell off 7 percent to 915,264 pounds. The 1944 fiscal year total of 982,901 pounds was 37 percent below the 1,548,902 pounds flown in the year previous.

The accompanying table presents Alaskan aircraft operations on a yearly basis since 1930:

There are only 500 miles of railroads and 3,000 miles of vehicular roads to serve an area of approximately 600,000 square miles, thus making air transportation the most logical solution for the lack of other methods of travel. Planes operate to and from communities that have no other communications with the outside world other than occasional mail during the summer months. Only 220 communities have post offices. Ap-

ALASKAN AIRCRAFT OPERATIONS

Year Ended June 30:	Miles	Passenger Miles	Freight	Mail
1930.....	338,422	684,361	103,043	17,690
1931.....	381,234	947,695	161,718*	
1932.....	742,854	942,176	496,680*	
1933.....	1,059,155	1,222,510	634,016	151,570
1934.....	1,126,610	1,533,311	869,398	124,972
1935.....	1,685,654	2,148,692	1,496,917	225,840
1936.....	2,130,939	3,035,018	2,138,886	279,730
1937.....	2,209,209	4,021,798	2,947,726	264,201
1938.....	2,829,258	5,634,461	3,415,759	342,736
1939.....	3,247,046	5,801,787	4,010,730	489,574
1940.....	3,598,790	5,745,804	4,315,660	520,232
1941.....	4,434,232	7,918,054	4,947,516	611,422
1942.....	4,932,868	11,106,122	4,630,456	954,026
1943.....	3,981,939	10,607,968	2,617,704	1,604,817
1944.....	4,015,334	12,065,139	2,568,085	982,901
1945.....	4,986,351	15,847,039	2,908,878	915,264

*Mail and freight combined.

proximately 250 communities have no communication.

Pointing to the exorbitant construction costs which will prohibit for some time the opening of extensive roads, highways, telephone lines, and year around plane service to hundreds of isolated communities, the Commission emphasizes the necessity of knitting these communities together with a flexible, inexpensive and reliable radio telephone communications system. The Commission is endeavoring to secure 100 additional complete stations to install in various isolated communities.

Canadian Helicopter Production Begun

Engineering Products, Ltd., Montreal, has started production of the Szyner and Gottlieb helicopter, SG Mark 6, a three-passenger model designed for volume production.

It is reported the first model may cost about \$80,000 after which production costs will decrease. The craft will have a top speed of 130-mph., a cruising speed of 90-mph. and a payload of 800-lbs.

► **Syndicate**—An international syndicate is sponsoring the production of the helicopter at Montreal, members including J. E. Savard, of Savard Hodgson & Co., Montreal; Capt. Norman Edgar, of Western Airways Ltd., England; H. J. Curtis, Provincial Transport Co., Montreal and Bernard Szyner, New York aeronautical engineer.

Lightplane Hydraulic Unit Built By Adel

A new hydraulic power package has been developed by Adel Precision Products Corp., Burbank, Calif., to provide a compact, light weight source of power for actuation of landing gear and wing flaps in light airplanes.

The package, adaptable to non-aircraft uses, comprises an electric gear type fluid pump, visual reservoir, adjustable pressure relief valve, thermal relief valve, a cylinder by-pass valve and four-way selector valve connected to manual control. Overall size is four inches diameter, nine and 3/16 inches high. Weight, filled, is 4.875 pounds, empty 4.50 pounds. Four fittings are required to connect.



WITH THE ARMED FORCES *Everywhere..*

Somewhere in the Pacific
... You know I've never
been any place yet where
they don't have some Beech-
crafts and I don't believe
I'll ever find the place that
doesn't have them. ...
H.R.S.; Amm 3/c

☆

Oahu, Hawaiian Islands: ...
Get quite a thrill whenever
I see an SNB (Beechcraft)
over here. Was out at sea
not long ago and had an
opportunity to see them op-
erate....C.M.T.; PhoM 3/c.

☆

Okinawa: ... I have seen
several Beechcrafts in my
trip and they looked plenty
nice. ... E.Y.; Cpl.

☆

Philippine Islands: ...
Talked with some Air Corps
boys, and I wasn't surprised
when they said the Beech-
craft is the *nicest riding*
plane they've ever ridden in.
Guess that's why the gener-
als use them. ... V.K.; Sgt.

☆

Corregidor: ... I have seen
Beechcrafts, from one to a
dozen on about every island
we have been to. They have
really done a swell job. A
first class machinist that is
in our engine room, came
off Corregidor when it fell,
in one of them. He says an
angel will never look any
better to him than a Beech-
craft. ... K.L.S.; F 1/c

☆

China: ... The one thing I
want to do is to repair a
Beechcraft, but that will
probably never happen as
the plane is one hell of a
good ship. ... R.J.S.; Pfc.

☆

Iwo Jima: ... There's a lot
of islands between here and
Wichita, and on every one I
haven't missed seeing a
Beechcraft. ... B.G.; S/Sgt.

☆

Assam, India: ... Even now
in C.B.I. and ATC opera-
tions, I see the (Beechcraft)
C-45 and AT-7 in constant

use, and everything has
been in *perfect agreement*
wherever I go as to quality
and performance. ...
J.R.B.; 1st Lt.

☆

Myithyina, Burma: ... A
buddy of mine over here is
a former Beechcraft AT-11
pilot for bombardier train-
ing. We've both flown the
11's and also the 7's and I
might say that they are the
finest and *easiest handling*
ship the Air Corps have. ...
W.T.R.

☆

Admiralty Islands: ...
Recent pictures of Beech
planes around the globe
remind me to inform you
that even here in the
Admiralties Beech is doing
its part — and well, for daily
one can see on the line
GB-2's, and even C-45B's.
The entire flight crew has a
good word for the plane.
... E.T.A.; Lt. (jg)

☆

In the Atlantic: ... No mat-
ter where I go you will see
a Beech and we have been
in some rather remote spots.
Lots of planes come and go
but every one stops to see a
Beech take off or land. ...
P.W.W.; AMMF 2/c

☆

Greenland: ... Ours was
one of the first of the Arct-
ic Search and Rescue
squadrons, and now and

then we would get calls
from a ship which was lost.
We had two Beechcraft
AT-7's stationed there and
they were pressed into serv-
ice on the rescue missions.
They performed *wonder-
fully well*.

☆

North Africa: ... Rarely do
I find an Army, Navy or
Marine flier who at some
time did not train in a
Wichita plane. Everywhere
I fly I find Beechcrafts
doing their part and more.
Beechcrafts are working
every day all around the
world. ... C.R.; Lt.

☆

France: ... I saw an AT-11
(Beechcraft) the other day.
I know you would have
been pleased with many
favorable comments it
evoked from both the pilots
and the mechanics. It seems
to be a characteristic of
most of those gentlemen to
find fault with any and all
transient ships but they
*hadn't anything but good to
say for "your baby."* ...
C.K.

☆

Germany: ... Over here
Beechcrafts are thought
very highly of. They are
known as the *limousine of*
generals. Reliable enough
for a general and when a
guy who has his choice like
that picks them you know
the plane is good. ...
R.D.P.; Cpl.

Panama, Central America:
... I have been in several
places in Central America
seeing good old Beechcrafts
every place. ... J.W.D.; Cpl.

☆

Florida: ... The general at
the camp in Florida where
I am stationed has a UC-45
which makes me homesick
for Beechcraft each time I
see it. I've even had a ride
in it — *it's really a swell*
plane. ... V.M.B.; Pfc.

☆

Texas: ... Beech is the
nicest place I have ever
worked in my life, and not
only that, but the pilots say
the AT-11 is their favorite
ship. ... V.J.K.; Cpl.

☆

California: ... The pilots
like the Beechcrafts and the
ones who ride in them give
many compliments. ... *the*
reputation Beech has built
in the past will pay off in
the post war years. ...
E.H.C.; AMM 2/c

☆

Costa Rica: ... I certainly
like the Beechcraft. So do
all the pilots. ... V.L.T.;
S/Sgt.

☆

Note: Originals of these let-
ters are on file at the Beech
Aircraft Corporation's office
in Wichita.

Beech Aircraft



CORPORATION
BEECHCRAFTS DID THEIR PART WICHITA, KANSAS, U. S. A.

TRANSPORT

Expect Early Decision By AA On Five Proposed Planes

Boeing, Consolidated, Curtiss-Wright, Martin and Douglas offerings are submitted to airline employees for opinion.

By MARTIN V. MERRITT

An early selection by American Airlines of the plane it will order for short-range flights to supplement its fleet of DC-4's and DC-6's is seen in a message to American employees which asks their opinion of the planes under consideration. The airline has prepared a brochure which describes the five planes on which bids have been submitted and asks its employees to indicate in a poll which would be their choice, setting an early deadline "since the company is endeavoring to notify the successful bidder at the earliest possible moment."

American Airlines recently asked plane manufacturers to submit proposals on specifications drawn up by the airline (AVIATION NEWS, August 13, p. 47). The new planes, intended for use in 1947, call for seating approximately 30 passengers, 275 miles an hour cruising speed, tricycle landing gear, larger cabin windows, bigger passenger door and several other details. The airline, according to its announcement, plans to use DC-4's and DC-6's on long distance flights and between points of heavy traffic density and use the newly designed plane for shorter operations.

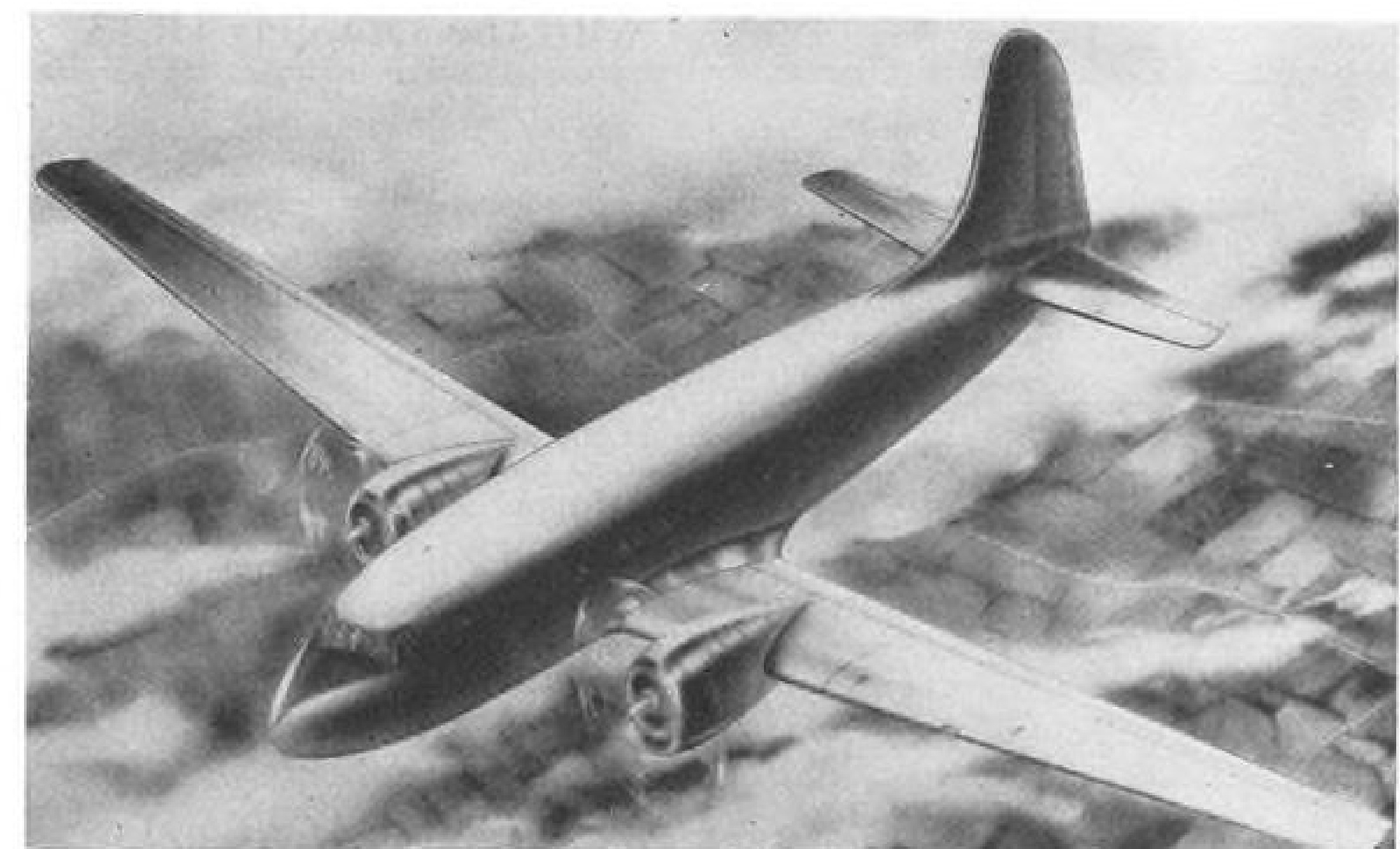
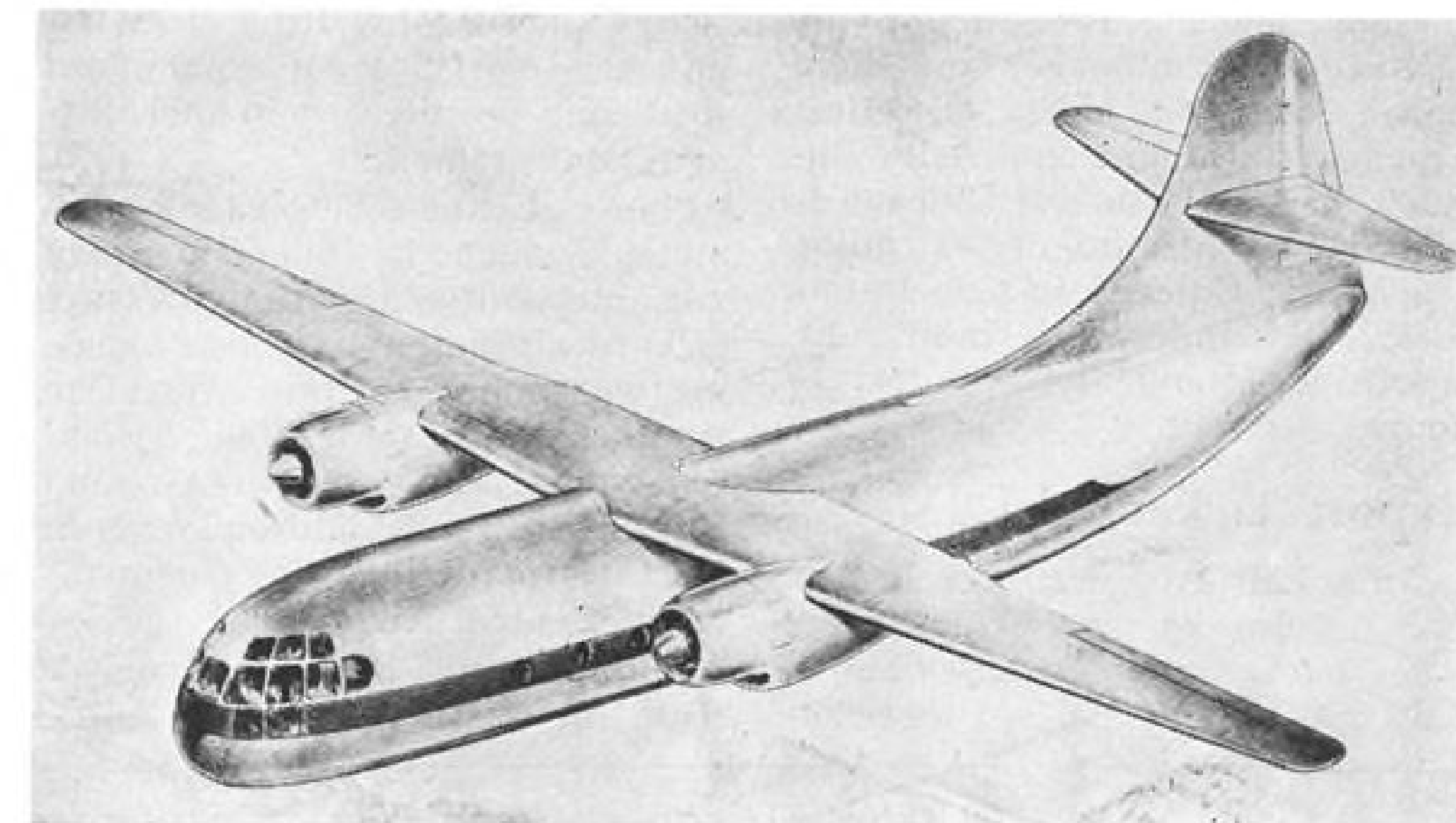
► **Five Planes**—Five manufacturers submitted bids and plans: Boeing, Model 431-16; Consolidated Vultee, Model 110; Curtiss-Wright, Model CW-28; Douglas, DC-8; Martin, Model 202.

Essential features common to the five planes indicate a trend toward increased payload without increased operating cost and to facilities that will permit quicker operation at landings, such as baggage racks within the cabin, quicker refueling, and more rapid loading and unloading.

Asked why the opinion of every employee of the airline was solicited in the selection of the new

plane, an American spokesman said:

"The engineering department recognizes that no one department of the company can anticipate all of the various problems which may arise in connection with a new plane. A feature which



Two of the Planes Being Considered by AA: Above, the Boeing 431-16, and below, the Curtiss-Wright CW28. Drawings of the DC-8 appear on page 12 of this issue. Drawings of the Martin 202 and the Convair 110 have been published previously. (See comparative table of specifications on the following page.)

seemed all right in the blueprint stage may prove to be a bug which a ramp agent could have detected beforehand. In the same way, a reservations or ticket girl may have a valid criticism which may bring about a change in design. We feel that everyone in the American organization has a stake in the new planes and should be given a chance to participate in their selection."

Delta Airliner Needs Shift To Larger Types

Although Delta Air Lines plans to use Douglas DC-3's when it starts its new Chicago-Miami route later this year, studies are being made now to determine what larger equipment may be best suited to the operation later.

Under consideration are Lockheed's 66-passenger Constellation,

Douglas' 44-passenger DC-4 and 52-passenger DC-6, and Curtiss-Wright's 36-passenger CW-20. The line anticipates a "substantial increase" in its fleet, now consisting of 12 DC-3's of which three are being converted, for the new operation. A conversion line will be set up in Atlanta to modify Army transports that become available. The company estimates that 800 additional personnel will be required—returning veterans will be given preference—and more than \$5,000,000 will be required for flight equipment and ground installations.

► **Record Route** — Delta says the authorization (AVIATION NEWS, Aug. 27) is the longest single domestic route awarded since the Civil Aeronautics Act of 1938 was passed. It will add 1,028 miles to the company's present system, and serve 10 additional cities with populations totaling more than 4,000,000.

Four new flight patterns are planned, with mileages and flight times based on local schedules: Chicago to Miami via Asheville, 1,280 miles, 8½ hours; Chicago to Miami via Atlanta, 1,331 miles, 8¾ hours; Chicago to Charleston, S. C., 817 miles, 6½ hours; Ft. Worth to Miami, 1,479 miles, 10 hours.

Export Ticket Sales

American Airlines, which flew 72,216,450 revenue passenger miles over its domestic system in July, has announced that its ticket

counters throughout the U. S. will make reservations for businessmen contemplating air travel to Europe over American Export Airlines, recently acquired by AA.

Export flies three round trips a week between New York and Foynes, Eire, via Botwood. Direct connections are made to London. American's July figures on revenue passenger miles were 36 percent higher than those for July, 1944.

Airline Radar Tests Expected To Grow

Possibility that the airlines may have a chance to test other Army radar equipment than the 10 low altitude altimeters now being tried out by six carriers is good, according to Aeronautical Radio, Inc.

Some navigational equipment will "come along in time," officials said. They are waiting until its military classification is reduced so it may be released to the commercial operators.

► **Planes Listed**—The radar altimeter, which is independent of variables affecting the pressure type of altimeter, has been placed in two planes each of American Airlines, Eastern Air Lines, Transcontinental and Western Air, and United Air Lines, and one each of Northwest Airlines and Pennsylvania-Central Airlines.

Others may become available soon for testing by other lines.

Whether the airlines will want to purchase such equipment will depend on the tests, reports on which are not expected for some time.

Each installation of the radar altimeter weighs about 30-lbs., but air radio men are hopeful that they can be lightened. Work to this end is now under way.

TCA DC-4's Expected

Use of the DC-4 on some sections of Trans-Canada Airlines' route across Canada is in prospect for early in 1946. The exact date is indefinite, as plans to make the aircraft for commercial use at the government's Canadair Ltd., Montreal, were scrapped some months ago and materials turned over to the Royal Canadian Air Force to produce C-47 transports for Pacific operations.

Now that the need for these RCAF transports has dropped with the end of the war, it is expected that work on the commercial DC-4M, as the Canadian version is known, will start at once.

ATA Western Meet

Presidents of all major airlines having western interests are being asked to attend, at Salt Lake City September 24 and 25, a meeting to further develop the public relations program of Air Transport Association's state relations committee.

PAA Proposed In South Atlantic

Pan American Airways was recommended for an overseas route from New York to Johannesburg, Union of South Africa, by way of Lagens (Azores), Dakar (French West Africa), Monrovia (Liberia) and Leopoldville (Belgium Congo) in a report to the Civil Aeronautics Board late last week by William J. Madden and James S. Keith, CAB examiners in the South Atlantic case. The examiners recommended denial of all other applications, including those of American Export Airlines and Pennsylvania-Central Airlines, only operating applicants in the case.

Pan American witnesses said during the hearing last January (AVIATION NEWS, Feb. 22, pg. 46) that if their company were certificated to Africa by way of the Azores the carrier would abandon the Caribbean-Brazilian-South Atlantic route for which it had been temporarily certificated.

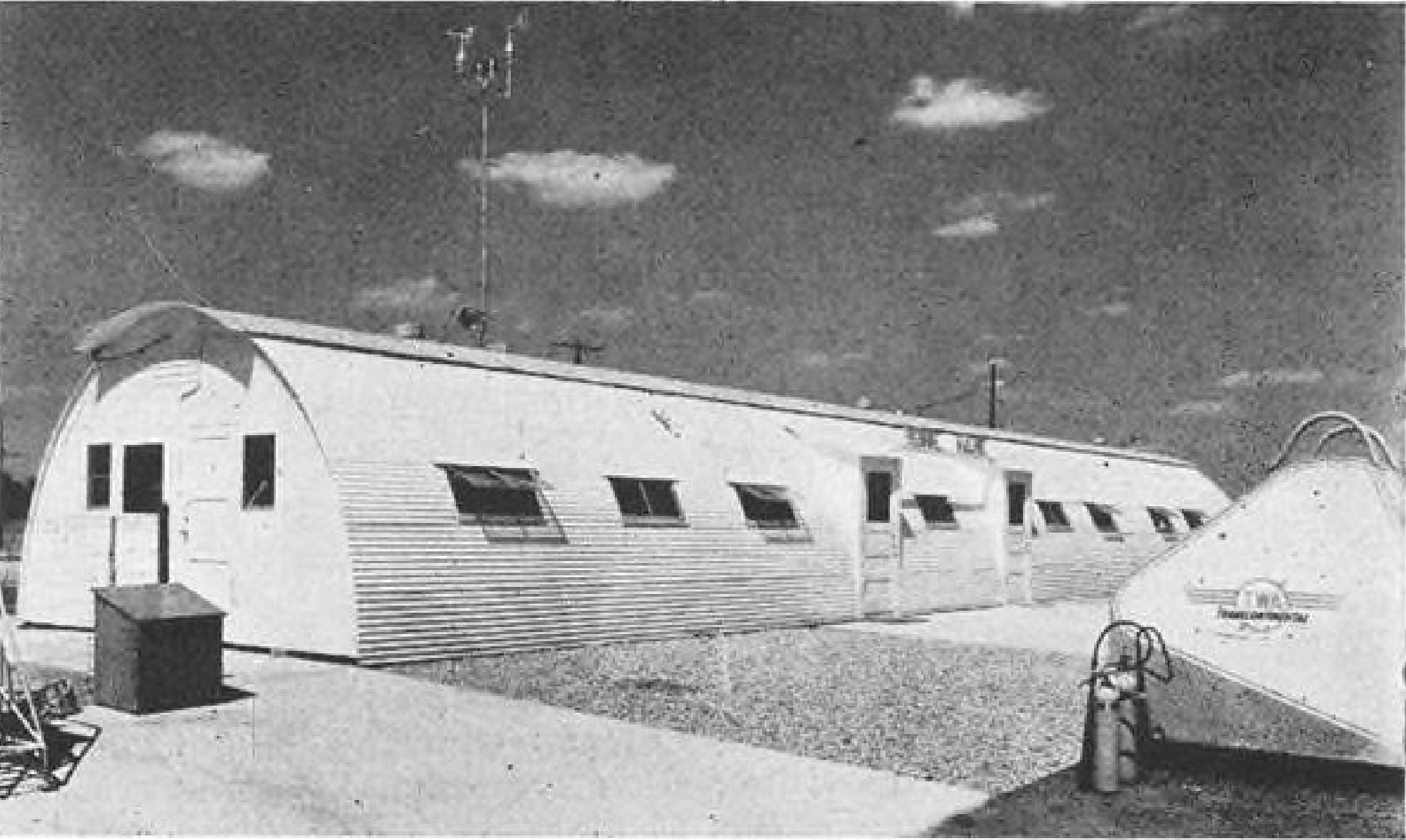
New Detroit Plan Asks Canadian Port

The Detroit Metropolitan Aviation Authority, running full tilt against Detroit Board of Commerce proposals, has urged the location of the area's major airport in Canada or, alternatively, development of an 1,900-acre area at Ford and Gully Roads that has been recommended by the Michigan Aeronautics Commission.

The planning body revived the possibility of using Wayne County Airport at Rolulus as an interim step because of "dangerous congestion" at the present municipal airport. The regional authority of St. Paul-Minneapolis, meantime, provided a model on which a Detroit engineering firm surveying the situation recommended that Detroit establish a regional program to provide 44 airfields of varying sizes for various uses.

► **Centralization** — The Authority adopted a resolution to eventually centralize all control of airports in the metropolitan area in a single authority.

A representative of the Oakland County Board of Supervisors cast the lone dissenting vote on the resolutions, with the explanation



TWA'S QUONSETS HELP TERRE HAUTE:

TWA adapted and connected two Stran-Steel Quonset huts, originally made for the Navy, as an administration building at Hulman Airport, Terre Haute, Ind. in a move that helped the city get on the airways map in advance of its post-war plans.

that the Board had instructed him to support the proposed Northwest airport site sponsored by the Detroit Board of Commerce and favored by the airlines.

ATC Peace Plans Partially Revealed

Fleet to lose about 2,350 transports, more than half of routes and personnel; equipment heads for airlines.

The frequently asked question of what will happen to the Air Transport Command after the war, was partly answered last week when the War Department announced that:

► ATC's fleet will be reduced to approximately 650 transports by July 1, 1946, from the present figure of nearly 3,000 transport planes. (War Department said "large numbers" of transport aircraft, including C-54's and C-47's, are being released for disposal as surplus, and a "great number . . . presumably" will go to the commercial airlines.)

► Its more than 210,000 military personnel will be cut to 80,000 or less within ten months.

► Route mileage will drop from nearly 180,000 now operated on regular flights on a world-wide basis to about 79,000, by mid-summer of next year.

The command will continue through service between the U. S. and American occupational forces overseas, but local intra-theater

services in the European and Pacific theaters will be turned over to air force units in those areas. Need for the famous route over the Hump between India and China is expected to exist no longer after an East China coast port is opened, and ATC thinks its CBI operations will be cut in a few months to through services required by military and other governmental agencies and return of personnel.

Flights between New York and Paris will continue, and the command will wait until the commercial airlines are operating the route from Paris through Rome, Athens and Cairo before it discontinues its flights there. It may operate to Berlin and Frankfurt, if theater commanders so desire.

Lockheed May Announce Constellations for KLM

Lockheed soon will announce KLM Royal Dutch Airlines as a buyer of an impressive number of Constellations. Negotiations were completed by Henry Veenendaal, KLM sub-director, who has been in Southern California for nearly a month shopping for equipment to restore the company's war-halted operations. Albert Plessman, KLM director, who recently left the West Coast, is believed completing a survey of eastern factory offerings. The party is known to have shown definite interest also in Martin's Model 202 and Convair's Model 110.

Comparison of Five New Transport Models with the Douglas DC-3

	<i>The Present Douglas DC-3</i>	<i>Boeing 431-16</i>	<i>Consolidated-Vultee 110</i>	<i>Curtiss-Wright CW-28</i>	<i>Douglas DC-8</i>	<i>Martin 202</i>
Seating Capacity (1)	21	30	30-47	32	34-48	30-42
Weight Gross	25,200 lbs.	36,000 lbs.	32,300 lbs.	40,000 lbs.	39,500 lbs.	34,300 lbs.
Weight Empty	17,500 lbs.	24,600 lbs.	22,000 lbs.	27,000 lbs.	25,000 lbs.	23,400 lbs.
Payload and Fuel	7,700 lbs.	11,400 lbs.	10,300 lbs.	13,000 lbs.	14,500 lbs.	10,900 lbs.
Cruising Speed	185 mph.	252 mph.	265 mph.	288 mph.	260 mph.	270 mph.
Power Plant (2)	2 Wright 1820 1100 HP each	2 P&W R2800 2100 HP each	2 P&W R2800 2100 HP each	2 Wright R3350 2500 HP each	2 Allison V1710 1650 HP each	2 P&W R2800 2100 HP each
Length	64'	72'	71'	73'	78'	72'
Height	17'	26'	25'	27'	26'	25'
Span	95'	96'	91'	100'	110'	93'
Wing Area	987 sq. ft.	738 sq. ft.	813 sq. ft.	875 sq. ft.	1104 sq. ft.	860 sq. ft.
Ceiling	22,000'	over 30,000'	over 30,000'	over 30,000'	over 30,000'	over 30,000'

(1) Variable according to space provided for passenger.
(2) Refers to cubic inches of displacement (1820=1820 cubic inches) R=Radial; V=V-in-line.

Lockheed, ALPA Lone Objectors As Industry Asks Stall Rule End

Certification for airline use of war-born transports built with landing speed exceeding present limits largely dependent upon outcome of CAB hearings on proposed CAR Part 04 revision.

By MERLIN MICKEL

Elimination of stalling speed restrictions as an airworthiness requirement for transport category aircraft was favored almost unanimously as the Civil Aeronautics Board heard aviation manufacturing and transport engineers comment last week on the proposed new Part 04 of the Civil Air Regulations.

Two voices were raised in opposition. One was that of Lockheed Aircraft Corp., the other the Air Line Pilots Association. The pilot group surprised those who had expected a strong opposing representation from this quarter, by appearing only as an observer

through its Washington attorney, John Dickerman.

► **Steady Objection** — Lockheed's stand for retention of the present 80-mph. stall speed in the landing configuration was consistent with the company's attitude when present and potential manufacturers of transport planes voted 10 to 1 in favor of elimination, with Lockheed the dissenter.

Company representatives said they would accept an increase to 85-mph. stall speed limit. This concession was made at the hearing for the first time. The Lockheed spokesmen said in effect, during presentation of the company's

reasons for objecting to removal of the limit, that if straight-in approach facilities were available at airports, the company would not oppose its elimination.

In the background of the discussion for and against removal of the limit was a post-war situation in which the fortunes of war were a significant factor. These found Lockheed building planes—among them the C-69 *Constellation*—to meet the CAR stall speed requirement. Engineers say the forthcoming Lockheed *Constitution*, a larger plane, will come close to it.

► **Other Builders**—While Lockheed was building and designing these ships, other companies such as Boeing and Consolidated-Vultee were working under military contract on large cargo planes where stall speed limits were not a consideration.

Thus, there was laid the basis for an economic contest. If the restriction is eliminated as proposed, planes such as Boeing's C-97 and Consolidated's Model 37 will not be prevented by the restriction from being certificated as airworthy for commercial use if they can meet other requirements, and can take full advantage of war-time development.

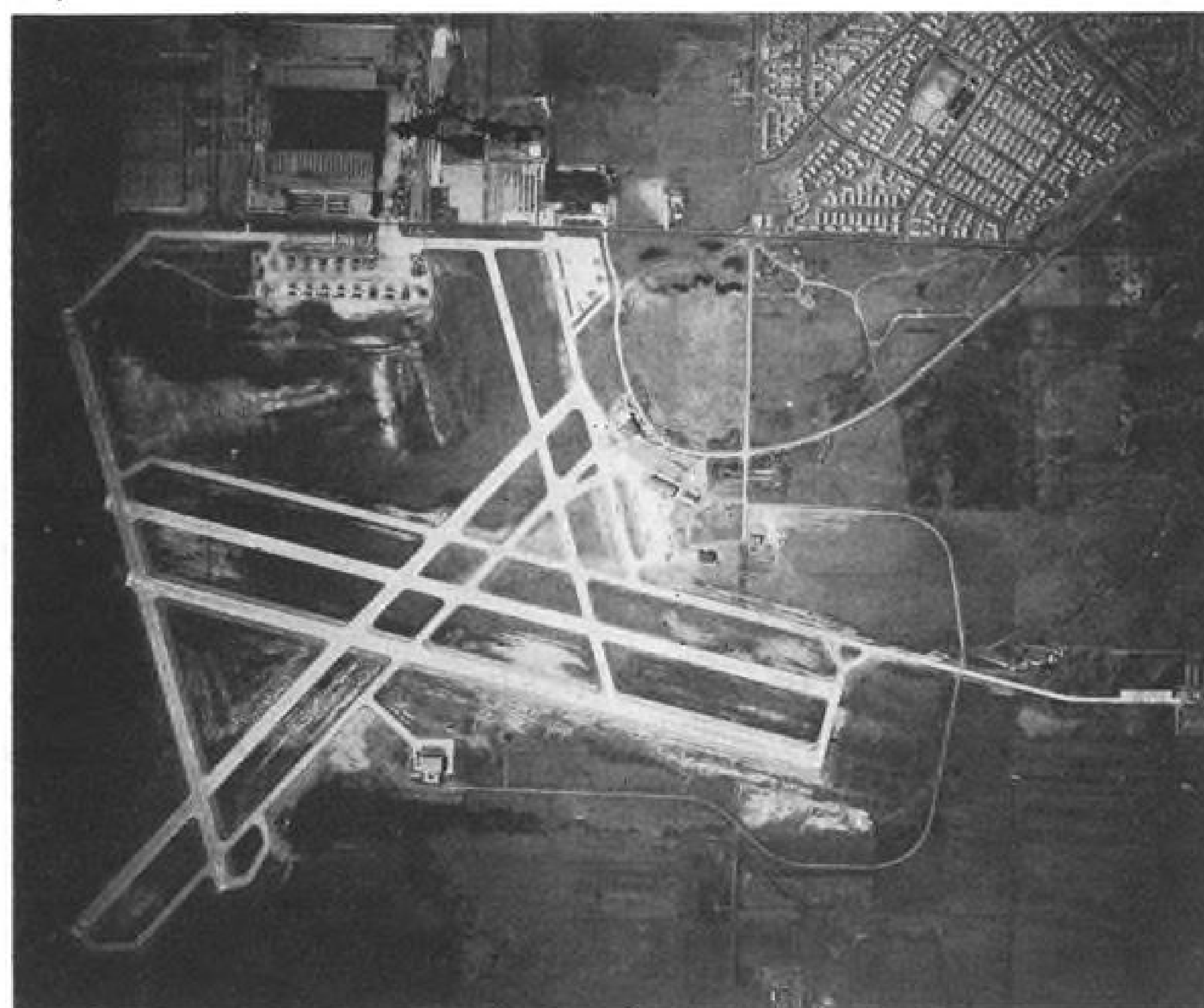
On the other hand, retention of the limit would not permit such planes, with their higher landing speed, to operate economically in commercial transport, if at all.

The Civil Aeronautics Administration, which after long study recommended the proposed revision, (AVIATION NEWS, July 2), said that discussions had shown that "more was involved in safety during the landing of an airplane than the number of miles per hour at which contact might be made with the ground during that process."

► **First Proposal** — CAA's original proposal for a transport category, made at a meeting with the industry in 1939 under sponsorship of the then Aeronautical Chamber of Commerce, contained no limitation on landing or stalling speed for transport category airplanes.

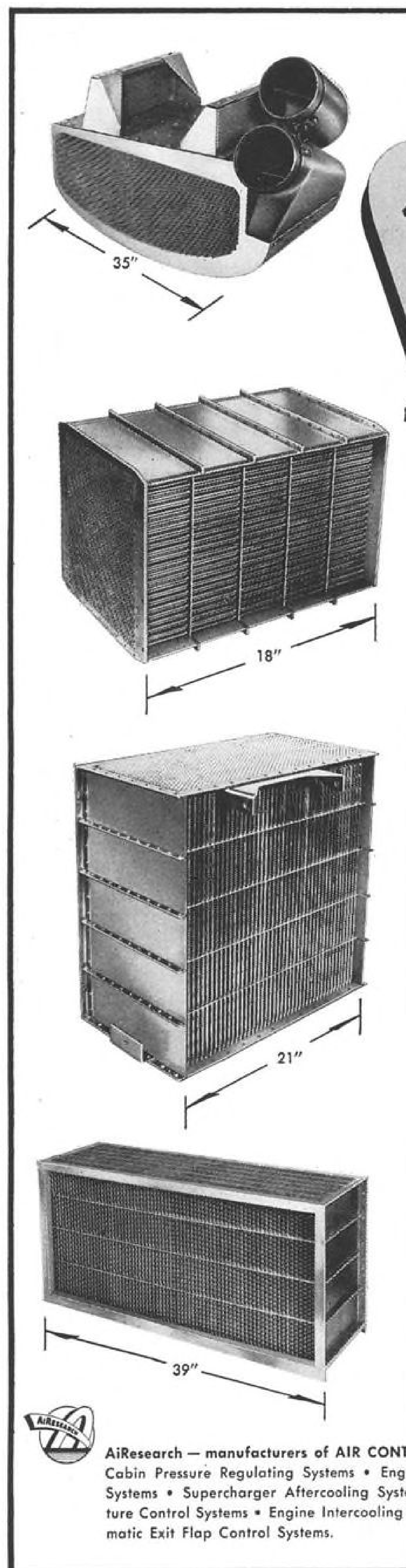
Increases in climb requirements with one engine inoperative on a twin-engine plane, and two inoperative on a four-engine plane, are proposed by CAA. The manufacturer generally agreed, but opinions differed as to degree. There was also agreement that some regulation should be added for all-engine operation.

As the end of the week drew near, the board had disposed of



FIRST AIR VIEW, WICHITA:

This first aerial photo of the Wichita, Kan., airport, since before the war, was taken by the AAF. The \$8,000,000 municipally-owned and operated field, greatly enlarged during the war, now covers more than 18,000 acres, with some runways 7,500-ft. long. Dual north-south (right to left) runways are paralleled by a taxi strip, as is the northeast-southwest runway. Concrete leading north off the north-south runway is a taxistrip connecting with the Cessna Aircraft Co. Boeing Aircraft plant is at top left. Administration building and airline flight apron are approximately in the center of the picture.



1,000,000 HOURS
of combat performance
already logged for
AiResearch Intercoolers

THE ONLY COMPANY THAT CAN
CLAIM SUCH A RECORD OF SERVICE

AiResearch is manufacturing supercharger Intercooler units for the P-38, the P-61, the B-17 and the B-29. These ships alone have logged well over a million combat hours, all trouble-free insofar as AiResearch Intercoolers are concerned. And AiResearch has designed and built numerous other models equally successful.

AiResearch designed the *first* mechanically assembled all-aluminum, corrosion-resisting Intercooler successfully put on a production line basis. The tubes are jig assembled and mechanically fastened for accurate control of dimensions. This method helps make them mechanically strong enough to withstand terrific back pressure.

Both round and flattened tube Intercoolers are standard products of AiResearch. The company's latest development is a flattened-dimpled tube unit used on the B-29, which has shown a remarkable increase in effectiveness and as much as a 40% reduction in cooling drag. Weight has been continually decreased. Intercoolers today weigh 30% less than earlier models.

These Intercoolers are tested in the AiResearch Laboratories under actual conditions of heat, cold and altitude. Lab performance and actual performance have been remarkably near the same. This experience in designing, testing and manufacture is available to other aircraft manufacturers and engineers who have an intercooling problem needing solution.



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Cabin Pressure Regulating Systems • Engine Oil Cooling
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DIVISION OF THE GARRETT CORPORATION

discussion on stalling speed, climb requirements, and cargo category, and the talk was turning to structural and powerplant requirements.

► **Warner**—Presiding over the sessions, which were expected to continue for the full week, was Dr. Edward P. Warner, CAB vice-chairman who is soon to resign to assume the presidency of the Interim Council of the Provisional International Civil Air Organization.

Other Board members present were L. Welch Pogue, chairman, Harlee Branch, and Oswald Ryan.

Groups participating in the discussion included the Aircraft Industries Association, Air Transport Association, CAA and ALPA.

Two New Examiners Added To CAB Staff

Recent additions to Civil Aeronautics Board's staff of trial examiners—bringing the total to 17—are J. Earl Cox and Frank Trelease.

► **Cox** went to the board from the Federal Trade Commission, where he had served as a trial examiner since 1942, presiding at the much publicized Willys Overland Jeep case among others. A graduate of Ohio Wesleyan University and the University of Chicago Law School, he practiced law in Akron, Ohio, for 25 years and, from 1928-31, served as judge of Akron's Municipal Court.

► **Trelease**, a graduate of the University of Colorado School of Law,

was assistant secretary of All American Aviation for two and a half years prior to joining CAB. He practiced law in Denver and taught at the University of Wyoming.

CAA Radar Buying Anticipated By Firm

Officers of Gilfillan Bros., Inc., of Los Angeles, look to CAA as a logical purchaser for the radar Ground Control Approach systems which they are developing for use on commercial airports.

Their system (AVIATION NEWS, Sept. 10) can be operated with three control tower operators, who have had only three weeks training, it was stated. Company engineers expect cost of their equipment will be considerably under \$200,000 per installation, and possibly in the neighborhood of \$100,000. It is understood Army installations of GCA cost approximately \$370,000.

► **Army Use**—One hundred of the mobile GCA installations were manufactured for and used by the Army following perfection of circuits by the radiation laboratory of Massachusetts Institute of Technology. Ten miles is said to be the device's successful range for initial contact with a plane seeking landing direction.

A strong argument for airline interest in the device is the fact that no extra equipment or added weight is required in the plane,

since the whole operation is handled on the ground, with the plane crew receiving instructions over the radio.

Gilfillan is awaiting results of CAA tests with its military mobile installation, and expects the device may be used in the near future at 35 major domestic airports, where traffic density is sufficient to make the 30 seconds landing interval, claimed for the radar landing system, an attraction.

Airlines Absorbing 280 Vets Weekly

Report by ATA estimates 3,000 on carriers' payrolls by year end; one-fourth former employees.

The Air Transport Association estimates that with about 280 veterans being hired or rehired by the airlines each week, more than 3,000 such personnel will be on the carriers' payrolls by the end of this month. More than a fourth of these will be former airline employees.

The transcontinental project, in which the four coast-to-coast operators and Pan American Airways are carrying troops across country under Army contract at the rate of 25,000 a month, has accounted for about 1,600 jobs, of which the majority are being filled by veterans. This includes 750 additional captains and copilots and 850 skilled mechanics.

► **Special Training**—The returned veterans are receiving special courses from many of the airlines in flying, operations, maintenance, communications, familiarization with new company policies, and other supplements to whatever aviation training they received in service. Rehabilitation courses for the physically handicapped are included. Eastern Air Lines has said it will be able to employ up to 1,000 veterans with amputations in such jobs as reservation clerks, ticket sellers, mechanics, weather and instrument experts and bookkeepers.

Of 27 pilots recently hired by Northwest Airlines, 25 were veterans. Pennsylvania-Central Airlines has 45 AAF pilots on its regular flights. Braniff Airways started September with more than 20 percent of its male personnel listed as veterans of World War II.

In a summary of the personnel situation, ATA said recently that the airlines probably could hire copilots from among returning

KELLETT 6 STEP PLAN ENABLES MANUFACTURERS TO...

- Cut Design and Production Costs
- Improve Product Quality
- Speed and Expand Output

More than \$30,000,000 worth of metal products have been produced in Kellett plants since 1940, largely for leading American manufacturing organizations for which we are subcontractors. These operations developed the unique facilities now available to other manufacturers at Kellett,

for the solution of any type of technical problem from the design of a marketable product to its production and delivery in quantity.

Any or all of these 6 basic steps in the Kellett Plan are provided in any desired combination for production on prime or sub-contract—

- 1 Engineering Design, under a skilled staff of practical engineers.
- 2 Tool Design and Manufacture, with ample facilities available.
- 3 Photographic Reproduction for loft-template or direct manufacturing application.
- 4 Experimental Manufacture of single-item or pilot models in metal or wood.
- 5 Engineering Testing through mechanical and chemical laboratory evaluation.

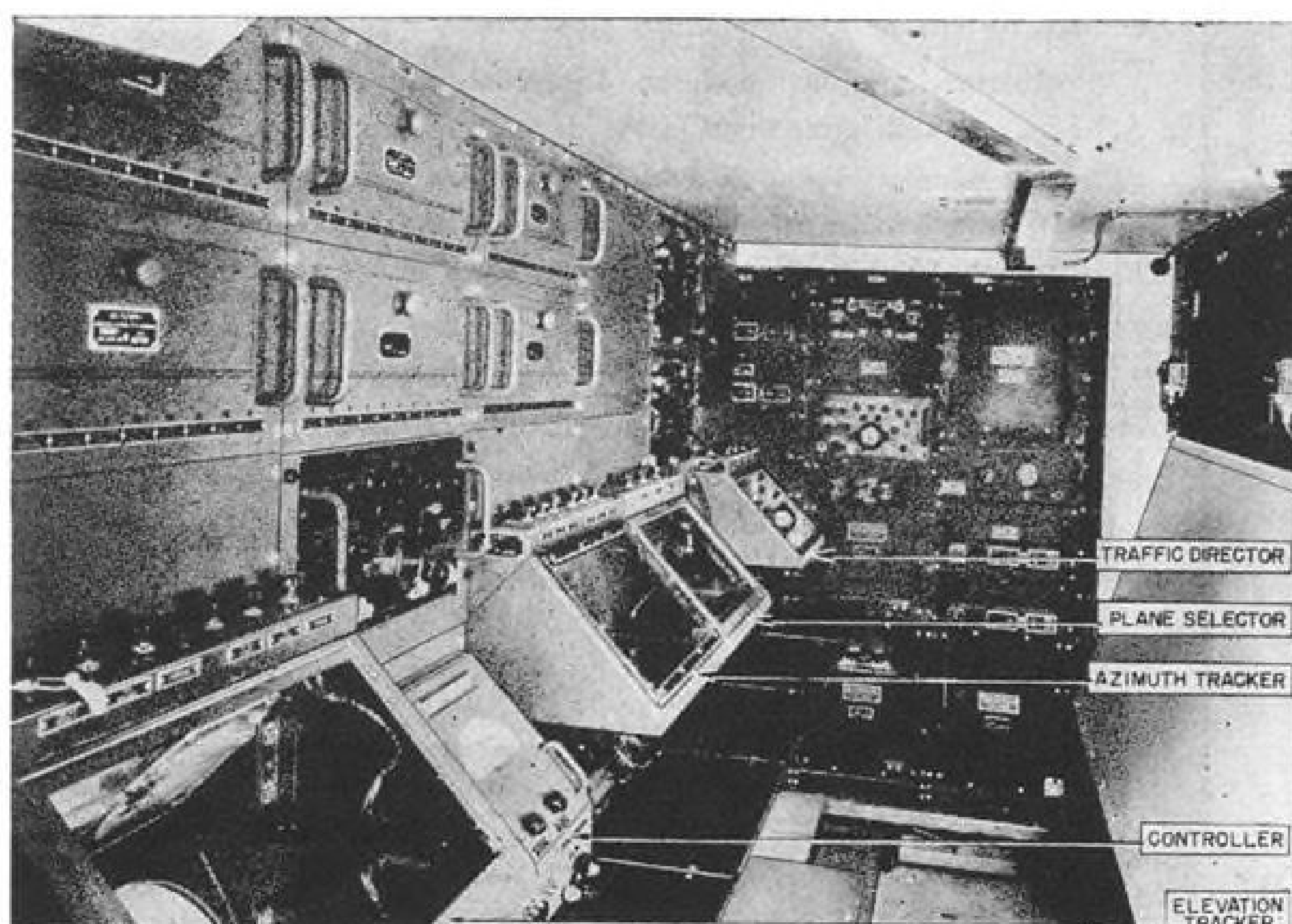
And finally, and most important—

- 6 Metal and Wood Manufacture, specializing in sheet metal and welded steel assemblies.

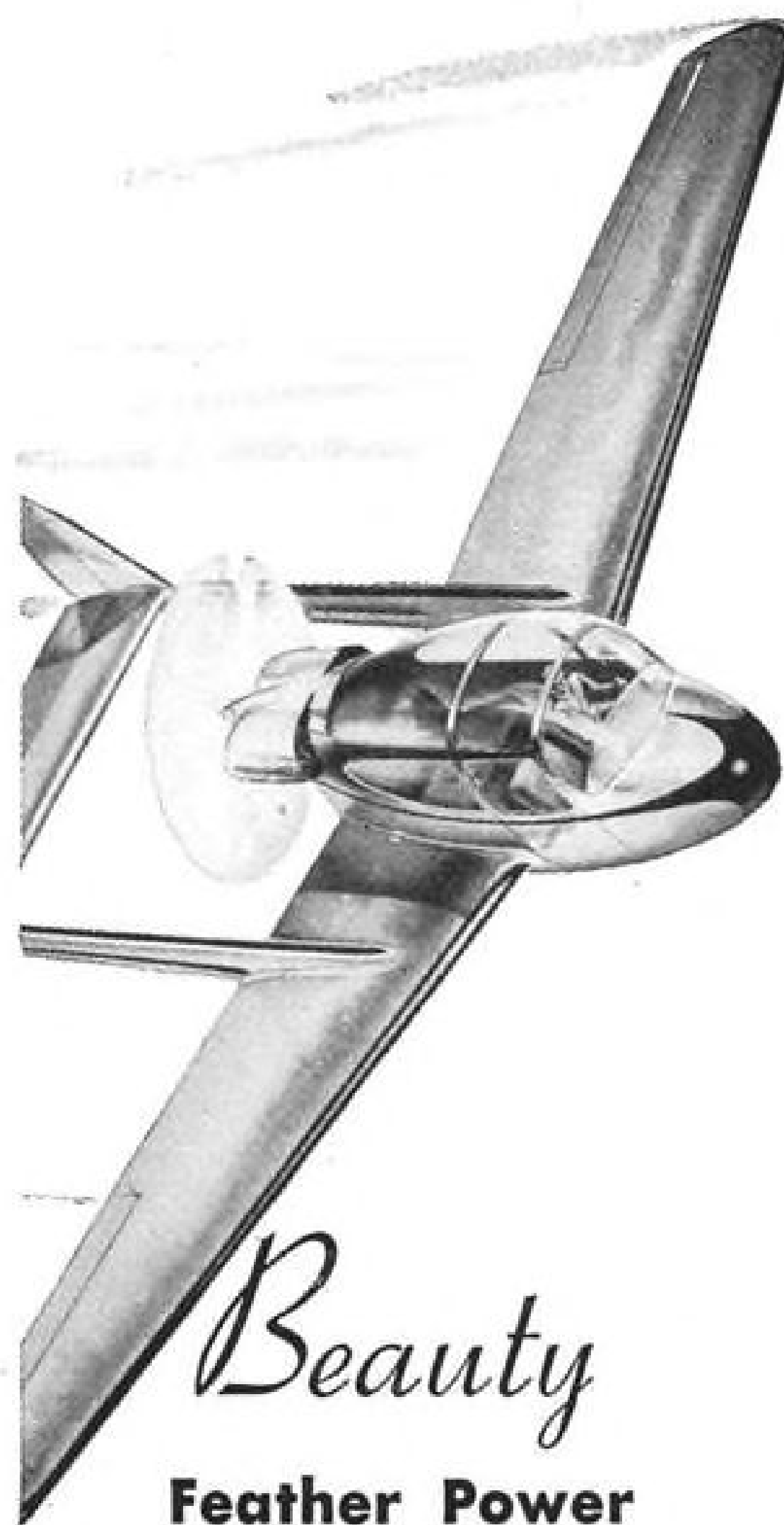
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Radar Trailer for Airports: Photo shows interior of the Gilfillan radar landing control trailer, part of a mobile unit for use with, or supplementary to, present airport control equipment.



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veterans to the limit of their training facilities, but the captain situation was more acute, despite release by the Air Transport Command of as many former airline pilots as possible for the transcontinental project. Before Japan surrendered, difficulty was encountered in obtaining release of former airline pilots in the Navy, but ATA has renewed its request for these men with the hope that the situation may have eased.

► **Mechanics Needed**—Veterans' applications for jobs as mechanics are increasing, the association reports, but some of the airlines still need more of this type of personnel.

Colonial Favored In Canadian Case

Examiners reversed by CAB action granting line new line direct through Washington-Montreal-Ottawa service.

Highlight of last week's decision by the Civil Aeronautics Board in the long-pending Canadian case is the selection of Colonial Airlines to provide new through service between Washington, D. C., and Montreal and Ottawa, Canada.

CAB also authorized extension of Colonial's FAM 1 from Burlington, Vt., to Ottawa via Massena, N. Y., to give direct service between New York and Ottawa.

► **Bilateral Agreement**—By taking this action, the Board sanctioned operations over three of six additional routes allotted the U. S. in a bilateral agreement, Feb. 17, with Canada and, at the same time, reversed recommendations of Examiners William J. Madden and H. Heinrich Spang against the Washington - Ottawa - Montreal routes (AVIATION NEWS, Feb. 26).

The Board felt that its examiners should have considered the desirability of direct air service be-

tween the capitals of the two countries, especially since this does not now exist and "rail facilities are slow and circuitous." Also cited was "an unusual lack of transportation facilities for reasonably direct service in a North-South direction through the area generally."

In selecting Colonial's proposal for Washington-Ottawa-Montreal service over those of American Airlines and Eastern Air Lines, CAB pointed to Colonial's entire dependency on its New York-Montreal route and the diversion of traffic and revenue which might result if either of the other carriers were chosen. Colonial, the Board said, will have opportunity "to spread part of its existing costs over the new route operation and thereby reduce its present per-mile costs."

In the proceeding, the Board:
► Granted PCA authority to serve Elmira-Corning and Rochester, N. Y., on AM 34, to meet the former's need for connections with cities to the South and to provide improved, direct air service between Rochester and Washington.
► Granted American authority to serve Elmira-Corning and Binghamton, N. Y., on AM 7, to meet the former's need for New York, Buffalo, Syracuse, and Rochester service and the latter's need for direct New York and Buffalo-Rochester service.

► Deferred American's application for extension of AM 7 from Wilkes-Barre to Philadelphia pending submission of Middle Atlantic Case.

► Dismissed applications of Hylan Flying Service and Union Airways.

► Denied all other applications.

230 Army C-54's Seen Surplus Soon

Price set by SPB for "B" version quoted at \$300,000 with 50 percent reduction for conversion.

Domestic and foreign airlines expect to have approximately 230 surplus C-54's, four-engine Army version of the commercial Douglas DC-4, from which to make se-

Aircraft Structural Engineer

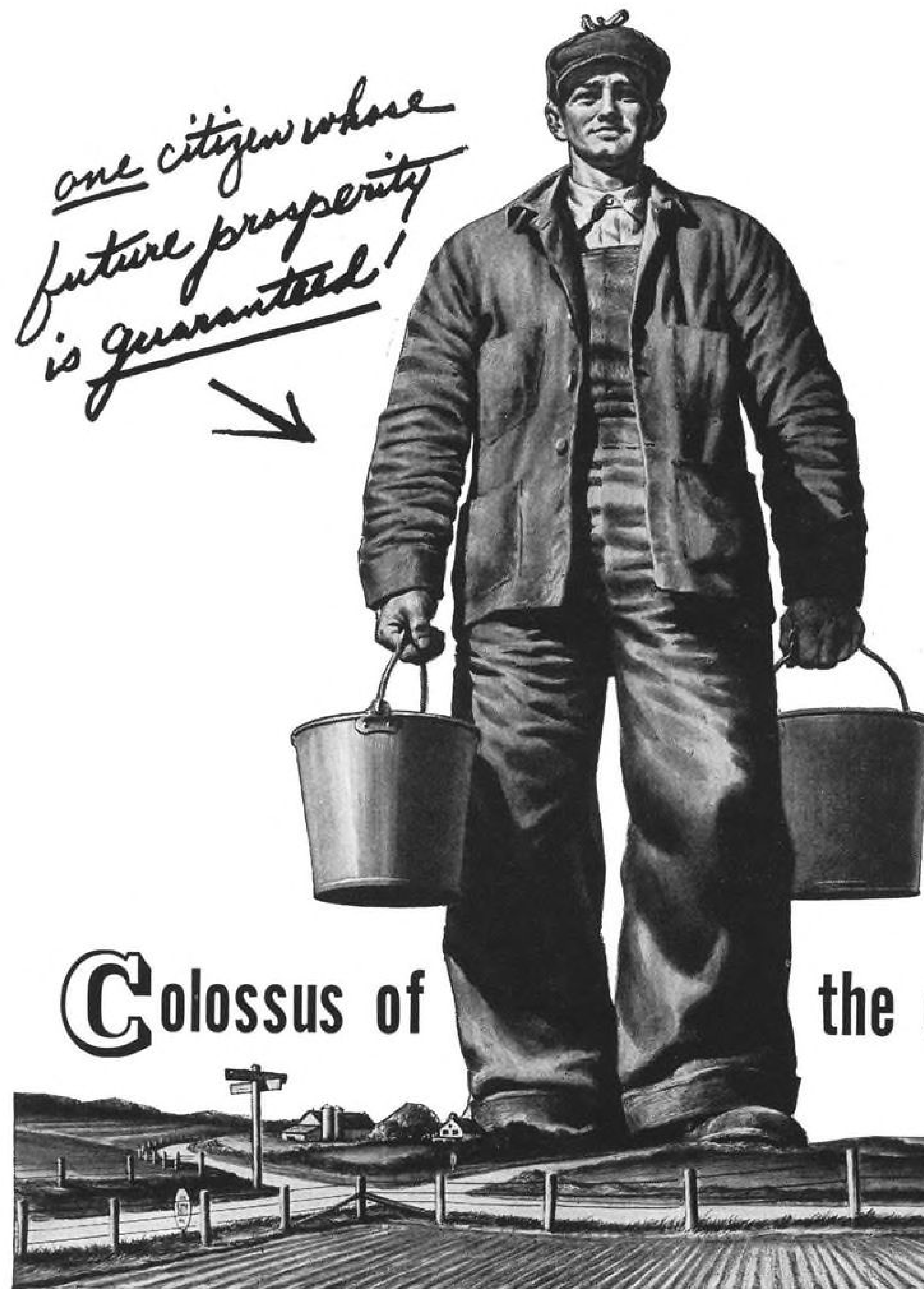
Must be familiar with weight and balance procedure, repair of aircraft structure and aircraft overhaul. Must have some knowledge of aircraft and structural design. Airline experience.

P-151, AVIATION NEWS
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P-156, AVIATION NEWS
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By Richard Von Mises, Graduate School of Engineering, Harvard University. 629 pages, 6x9, 408 illustrations, \$6.00

This up-to-the-minute reference source of modern aircraft design and operation presents a thorough analysis and description of fundamental principles of aerodynamics. Gives in detail the graphical and analytical methods of performance computation and discusses the dynamics of non-uniform motion with reference to airplane control and stability.

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lection by the end of the year. This includes 20 basic C-54's previously declared surplus, for which there have been no buyers, and 20 C-54E's already allocated to U. S. flag lines with North Atlantic route certificates.

Reliable sources say 30 C-54A's and 30 C-54B's will be declared surplus this month; 40 of each in October; 25 C-54's of undisclosed model in November, and a like number in December.

Another 200 probably will be put in the surplus group during the first six months of 1946.

It appeared, meanwhile, that the first commercial plane of this type from the Douglas factory might come off the line in about 90 days.

Douglas expects the Army to be out of its Santa Monica plant by the end of October, and is planning on starting a commercial production line immediately behind the last of the Army planes. It is doubtful that these will be designated DC-4's, but what number they will carry has not been announced.

Market Probed — Douglas has been trying to determine how many new planes will be needed, but, although it has some firm orders, has not been able to do so as extensively as it wishes. The company has sought information on the Army's estimate of surplus C-54's, the price Surplus Property Board will put on them, and Civil Aeronautics Board allocations.

Some progress has been made

in determining the first two of these factors, but the second can't be known until the airlines decide how many of the surplus planes they desire, and this in turn may depend on the availability of new ships.

SPB's price on the C-54B is quoted at about \$300,000, with 50 percent deduction allowed for cost of conversion.

Douglas thinks it may be able to sell new four-engine planes of comparable type for about \$400,000.

This problem of conversion of Army surplus planes to airline use will be an important factor in the carriers' decisions on the number of such planes they can handle. Some negotiations already are under way. One airline for example, is reported to be dealing with Republic Aviation Corp. for the conversion of 50 surplus C-54's, and more may be included in the contract. What the cost of the work will be had not been announced late last week.

While confusion in connection with C-54 surpluses gradually was being clarified, SPB was proceeding with twin-engine types. Seventeenth allocation, announced last week, was of 23 C-53's of the DC-3 type, and one C-60 Lockheed Lodestar.

Twenty-two of the C-53's went to American lines: Eastern, Northwest, TWA and United, three each; Continental, Panagra and PCA, two each, and Braniff, Colonial, Delta and Western, one each. One went to Indian National Airways. The C-60 was taken by French Military Airlines.

This brought to 230 the total of twin-engine surplus planes allocated. Domestic lines received 161 and foreign 69.

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DC-7 Construction Hangs In Balance

Only order for 108-passenger ship believed headed for cancellation unless drastic engineering changes are made.

Unless drastic engineering changes are made in the design, Douglas Aircraft Company's proposed 108-passenger DC-7 probably will not be built.

On the basis of original engineering specifications for the airplane, Pan American World Airways, so far the only prospective customer, with a conditional forty million dollar order for 26, is now expected to make use of its contract escape clauses.

► **Re-Design** — Whether Douglas will launch a re-designing of the plane to meet the competition of big planes more recently designed by other manufacturers for sale to Pan American and other long-range air carriers, is problematical.

Pan American definitely is interested in having equipment which will permit it to meet a three cents per passenger mile fare objective.

The original design of the DC-7, and Douglas officials so far have announced no modifications, showed a transport capable of an operating cost approximating 3.80 cents per passenger mile at a range of 2,400-2,500 miles based upon a 65 percent load factor and including an 85 percent overhead allowance.

► **Range Economy**—At a range of 1,000 miles the DC-7 would appear

to be more practical, although unsuited to Pan American needs, in showing an operating overall cost of 2.55 cents per passenger mile.

Douglas has used extreme caution in implying that its recently test-flown Army C-74 *Globemaster* transport is a military version of the proposed DC-7 while declining, at the same time, to say definitely when and if a DC-7 will go into production.

So far, the company appears to be content with the Army's existing order for 14 *Globemasters*, now under production at the Douglas Long Beach, Calif., plant.

PCA Field Offices Decentralize Hiring

PCA has established a Department of Personnel Administration in a move to decentralize personnel functions and hire and induct new employees in the field.

Where new employees formerly were brought to the line's headquarters at Washington to be signed on and indoctrinated, they now do so at training supervisors' offices at Washington, New York, Norfolk, Pittsburgh, Cleveland, Detroit and Chicago.

► **Believed Permanent** — Wartime transportation and housing difficulties were responsible for the decentralization, but PCA officials expect it to be retained.

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**P-157, AVIATION NEWS
330 West 42nd Street New York 18, N. Y.**

CAB SCHEDULE

- Sept. 17. Rebuttal exhibits due on Baltimore's application for designation as a coterminal on North Atlantic routes. (Docket 1975.)
- Sept. 19. Hearing on Petersen-Bristol Bay acquisition in Anchorage, Alaska. (Docket 1965.)
- Sept. 21. Exchange of rebuttal exhibits in Great Lakes Area case. (Docket 535 et al.)
- Sept. 21. Hearing date on Baltimore's application for designation as a coterminal on North Atlantic routes. Postponed from tentative date of Sept. 13. (Docket 1975.)
- Sept. 22. Exchange of exhibits in investigation of government travel discount reductions proposed by Pan American Airways; Pan American-Grace Airways; Uraba, Medellin and Central Airways; and Cia Mexicana de Aviacion. (Docket 1941.)
- Sept. 24. Oral argument in Hawaiian case. (Docket 851 et al.)
- Sept. 26. Briefs due in Southeastern States case. Postponed from Sept. 15. (Docket 501 et al.)
- Sept. 28. Hearing in investigation of government travel discount reductions proposed by Pan American Airways; Pan American-Grace Airways; Uraba, Medellin and Central Airways; and Cia Mexicana de Aviacion. (Docket 1941.)
- Sept. 29. Hearing on Northern Airways' application for pickup service in Alaska, at Fairbanks. (Docket 1835.)
- Oct. 1. Briefs due in Pacific case. (Docket 547 et al.)
- Oct. 1. Hearing in Great Lakes Area proceeding. (Docket 535 et al.)
- Oct. 1. Exchange of exhibits in the Mississippi Valley case. (Docket 548 et al.)
- Oct. 1. Oral argument in Rocky Mountain Area proceeding. Postponed from Sept. 10. (Docket 152 et al.)
- Oct. 4. Oral argument in Florida case. Postponed from Sept. 5 and 17. (Docket 489 et al.)
- Oct. 8. Oral argument in West Coast case. (Docket 250 et al.)
- Oct. 22. Rebuttal exhibits due in Mississippi Valley case. (Docket 548 et al.)
- Nov. 5. Hearing in Mississippi Valley case. (Docket 548 et al.)
- Nov. 20. Rebuttal exhibits due in Middle Atlantic case. (Docket 674 et al.)
- Nov. 30. Exchange of exhibits in Middle Atlantic case. Postponed from Nov. 1. (Docket 674 et al.)
- Dec. 3. Kansas City-Memphis-Florida hearing. (Docket 1051 et al.)
- Dec. 3. Tentative hearing date in Middle Atlantic case. (Docket 674 et al.)
- Dec. 7. Exchange of exhibits in Kansas City-Memphis-Florida case. Postponed from Nov. 1. (Docket 1051 et al.)
- Dec. 24. Rebuttal exhibits due in Kansas City-Memphis-Florida case. Postponed from Nov. 20. Hearing, previously set tentatively for Dec. 3, postponed to unspecified time in January. (Docket 1051 et al.)

CAB ACTION

- The Civil Aeronautics Board:
- Approved interlocking relationships of Sidney Maestre as director of Transcontinental & Western Air and Missouri-Kansas-Texas Railroad Co.
- Dismissed complaints of Northeast Airlines and Pennsylvania-Central Airlines Corp. against passenger fare reductions, effective Aug. 20, by American Airlines, Eastern Air Lines, Northwest Airlines, and United Air Lines.
- Consolidated in Great Lakes Area case (Docket 535 et al.) application of Columbian Airlines (Docket 1963).
- Granted Alaska Airlines' request for delay in hearing on Docket 863 pending decision in Pacific case. Other part of this consolidated proceeding, application of Toussaint Air Service (Docket 1927), will be assigned for hearing later.
- Dismissed, at applicant's request, applications of Alaska Airlines for exemption order for Fairbanks-Whitehorse service (Docket 873) and exemption order permitting scheduled operations between Fairbanks and Juneau (Docket 920).
- Granted Ports of Seattle and Tacoma. Advisory Commission of State of Washington, and cities of Seattle and Tacoma, and denied Seattle and Tacoma Chambers of Commerce, permission to intervene in Pacific case (Docket 547 et al.).

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SHORTLINES

► Northwest Airlines is looking forward to development of a feeder line sometime in the future. Airport facilities and operations at Eau Claire, Wausau, and Green Bay, Wis., currently are being studied.

► The Canadian Air Transport Board, Ottawa, has issued a 36-page directive on tariff rules, the third issued by the board since it started early this year. For use by all services, scheduled or non-scheduled, the directive shows in detail how tariffs must be filed and published.

► United Air Lines reports that 11 major league ball clubs and numerous minors have signed volume travel plan contracts with UAL for air transportation when conditions permit.

► Northwest Airlines has received a merit award citation from *Financial World*, which described the carrier's 1944 annual report as a "distinguished achievement in annual reporting."

► United Air Lines is spending more than \$500,000 to modernize and enlarge ticket offices throughout its system. New offices are being built at 11 cities, with remodeling underway at 13 more. . . . Addition of two daily round trips between Chicago and San Francisco this month was

due to bring to 22 the number between Chicago and the West Coast. Sixteen flights are operated between Chicago and the east. . . . Revenue passenger miles flown in July were 37 percent higher than July, 1944.

► The Salem, Ore., city council recently approved a proposal from Civil Aeronautics Administration for installation of an instrument landing system and approach lights at the city's McNary Airport. Estimated cost is \$65,000. Construction may start next month.

► Chicago and Southern Air Lines revenue passengers carried in the first eight months of this year numbered 90.59 percent more than during the same period of 1944. Revenue passenger miles were up 85.73 percent. Revenue passengers carried last month showed an 88.62 percent increase over August, 1944.

► Pan American Airways employees on its Pacific-Alaska division in San Francisco, Honolulu and Seattle have had their work week cut from 48 to 40 hours.

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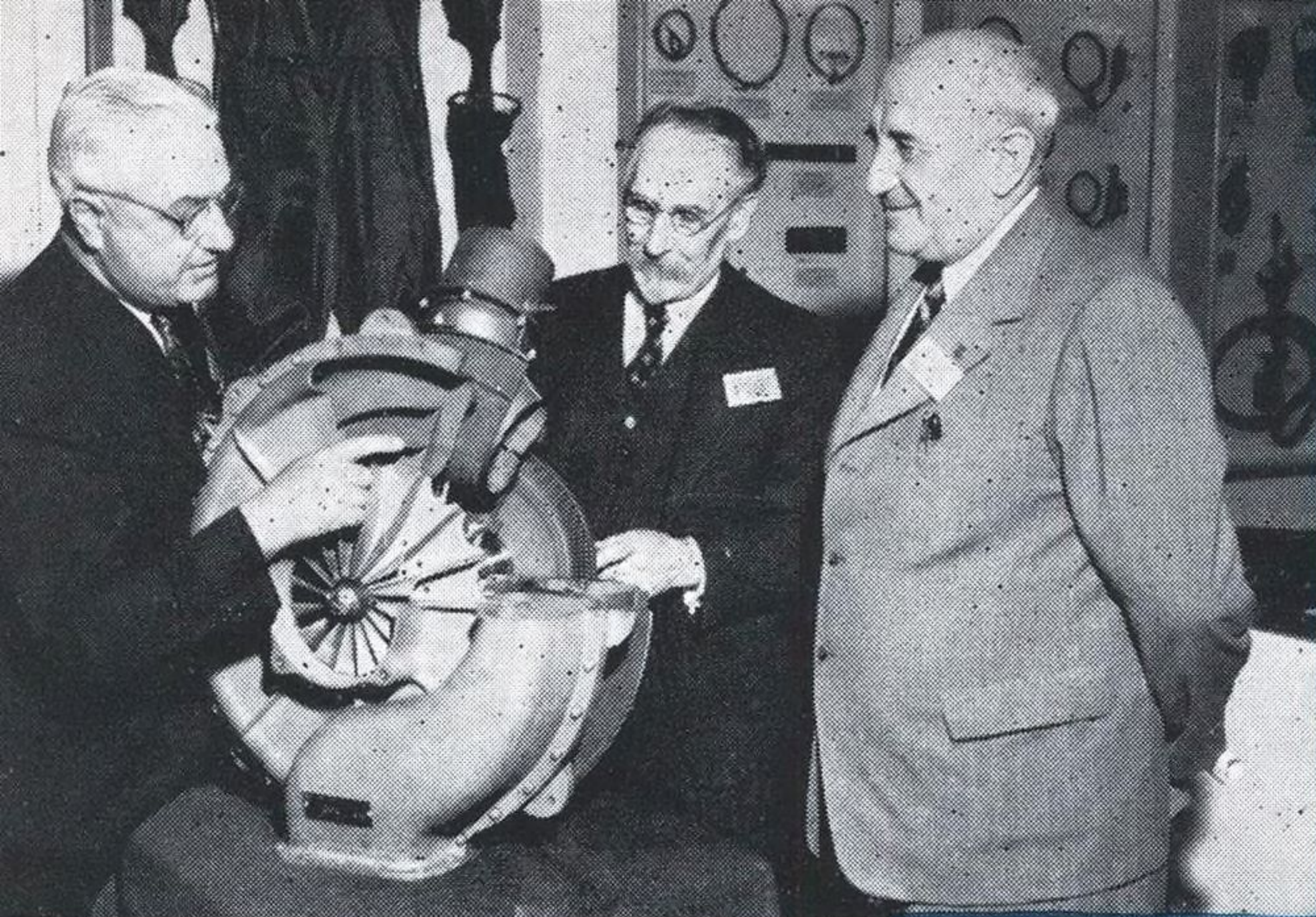
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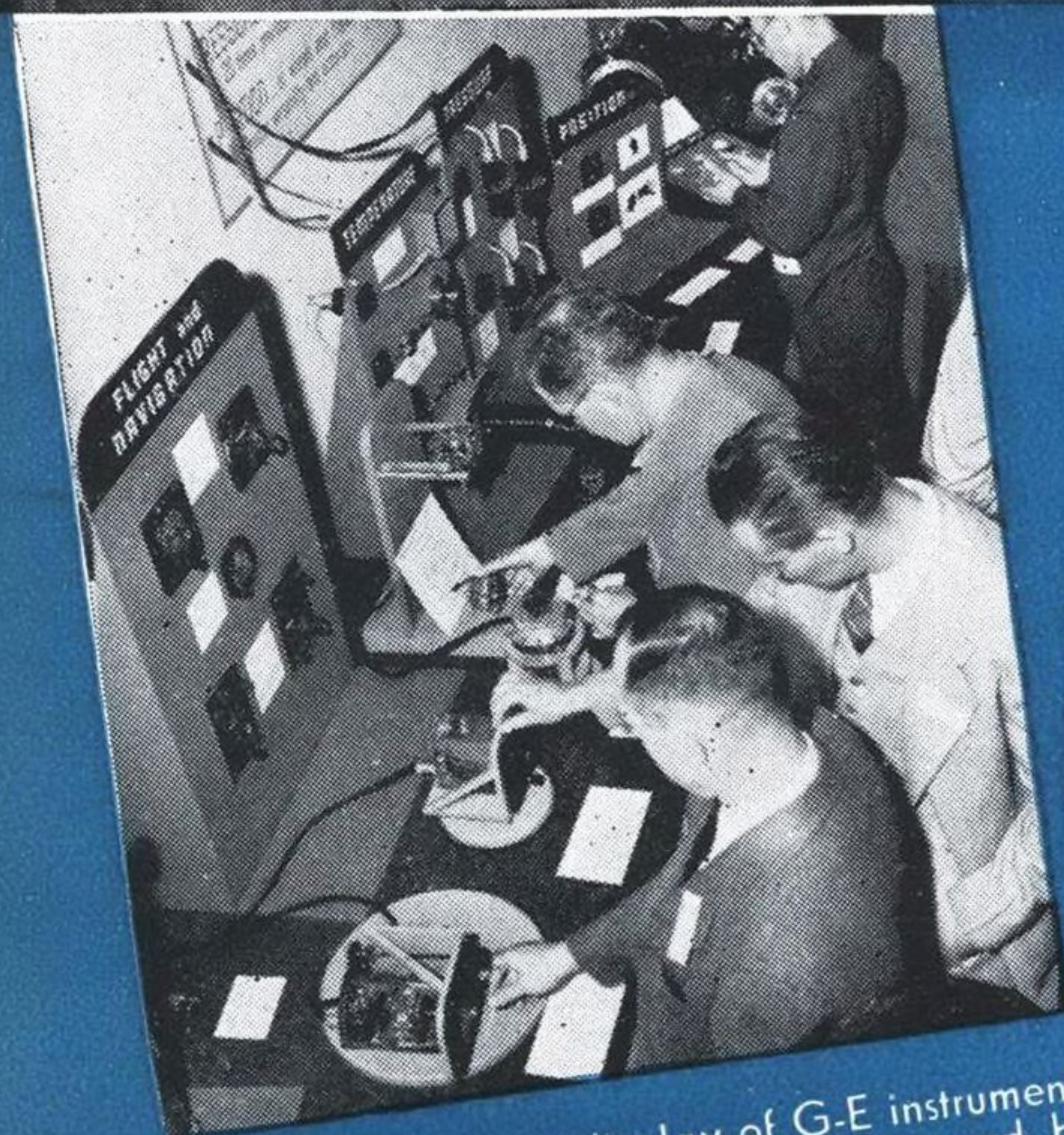
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Dr. Moss, A. L. Berger, and W. A. Reeves examine a G-E turbosupercharger—forerunner of the powerful gas turbine for aircraft.



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G-E engineers discuss fuel-system equipment.

MILESTONE at SWAMPSCOTT

LEADING JET TECHNICIANS HOLD HISTORIC MEETING TO DISCUSS PROGRESS

Jointly sponsored by the Army Air Forces Air Technical Service Command and General Electric, a three-day closed session of American and English engineers at Swampscott, Mass., revealed common problems and new developments in the science of jet propulsion. Technicians of leading aircraft and aircraft-engine manufacturers discussed performance characteristics of G-E aircraft gas turbines for jet propulsion and propeller drive, combustion development, metallurgical advancements, air-compressor design, jet-plane design, and the intricate sequence of tests that gas turbines must undergo from factory to flight.

In what was probably the first such meeting ever held, it was generally felt that the aircraft gas turbine will take a leading part in the advance of commercial as well as military aviation—and General Electric is proud to be associated with this work. The Company's vast resources in trained personnel and equipment have ably fitted it to play an increasingly important role in both the development and manufacture of aircraft gas turbines for jet propulsion and for propeller drive. *Apparatus Dept., General Electric Company, Schenectady 5, N. Y.*



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