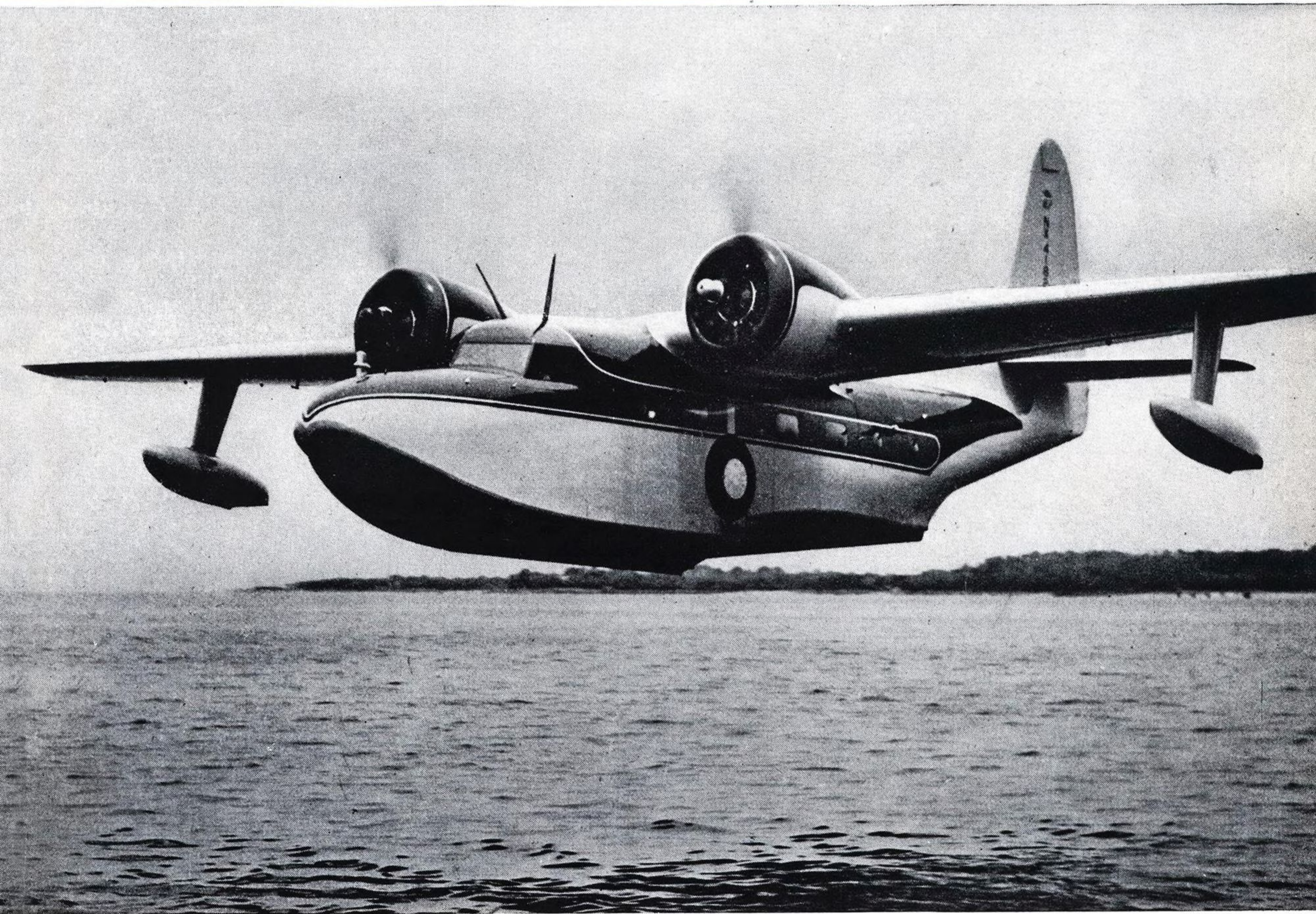


Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

OCT. 14, 1946



Latest Grumman Amphibian: *Newest in a long line of widely known amphibian planes named for water fowl, which included the Duck, the Gray Goose, and the Widgeon, is the Grumman Mallard, 8-10 place amphibian, aimed at air carrier, industrial company and private owner markets. (Story and additional pictures on pages 11-12)*

Airlines Launch Big Drive For Air Freight Business

ATA plans for cancellation of REA contracts; opposes certification of nonscheds.....Page 7

AAF-ATA Joint Group Will Plan Transport Program

Coordinated design, production effort sought; WD ponders shift to aerial army.....Page 9

New Cockpit Designs Stress Pilot Crash Protection

Cornell backs changes in structure and interior after crash injury research.....Page 15

Industry Warned About War Time Methods in Peace

California Tech professor cautions on production emphasis in postwar management.....Page 21

Area Certificate Issue Clouded in Cases Before CAB

Counsel and examiners disagree on Board's right to issue area-to-area routes.....Page 26

Court Stays CAB Review of Reopened Hawaiian Case

Questions Board's authority to review decision sanctioned by President.....Page 28

The Navy's NEW Seahawk

—for Reconnaissance and Rescue



Drawing on the wartime Seahawk's extensive service with the Pacific fleet, Navy and Curtiss-Wright engineers have developed the SC-2, a new scout plane of unprecedented range, speed, firepower, and general utility.

More room in the fuselage, with an extra seat aft of the pilot, provides for air-sea rescue work or for reconnaissance photography. Firepower has been increased beyond that of previous types by the installation of rockets under the wing. The new, hydraulically operated cabin enclosure is equipped for quick opening by compressed air in emergencies. A Wright Cyclone engine with two-speed supercharger gives the SC-2 a service ceiling of 28,000 feet, and provides increased range and speed. It is equipped with a Curtiss Electric hollow steel blade propeller.

The Seahawk is now being delivered to the Navy from the Curtiss-Wright, Columbus, Ohio, plant.

FIRST IN FLIGHT
CURTISS WRIGHT
Airplane Division
COLUMBUS, OHIO

Developing Flight to
Meet the Future.

THE AVIATION NEWS

Washington Observer

MITCHELL BOARD IDEA SURVIVES — Sen. Mitchell will continue to press for his air policy board regardless of President Truman's executive order expanding the old Air Coordinating Committee. With addition of the Post Office and CAB as voting representatives, the group covers more interdepartmental ground, but it is still strictly a Federal mediator between aviation agencies. Mitchell's board would take a detached view of broad civil and military aviation problems.

MORE MILITARY SECRECY — There is no doubt that the Pentagon is worrying about our relations with Russia, far more than our civilians. As a result, Washington news men are running into a curtain of secrecy that is reminiscent of wartime. Every significant development in aeronautical research is going on the secrecy list. Most recent subject to be added concerns supersonic work. A press demonstration of the giant Convair B-36 bomber which had been scheduled for late this month has been canceled by the AAF, and no further information about the big ship will be released for the time being. Another AAF press trip to unveil guided missile developments at Wendover Field has been eliminated. The News has already cited new secrecy steps taken to protect details of future speed runs at Muroc Dry Lake by the AAF.

PROCUREMENT FUNDS IN DANGER — The aircraft industry is worried over the huge amount of unobligated funds piling up in AAF and Bureau of Aeronautics. Total is now believed to be about \$500,000,000. Both services hesitate to grant any additional contracts, because manufacturers—for reasons not their fault—are many months behind in deliveries on present schedules. Funds appropriated for 1947 procurement by AAF and BuAer are not as large as believed necessary to keep the industry healthy over a long period, yet the huge amount unobligated will have an adverse effect upon 1948 procurement requests—now only a few months away.

PROFIT LIMITATION OUT — Industry officials feel certain now that the forthcoming Congress will repeal the profit limitations on aircraft and shipbuilding contained in the Winson-Trammell Act. Bill for repeal was introduced last session, but became tangled in the unification fight. Now the Comptroller General has submitted a report to the Budget Bureau recommending repeal. This aligns General Accounting Office with Treasury, War and Navy which previously sent the same recommendation to Budget.

AVIATION NEWS • October 14, 1946



NON-SCHEDULES LINE UP SUPPORT — Air Transport Association is preparing to combat all cargo route applicants who threaten competition to its member airlines, but the air freighters are counting on strong backing from municipal groups and chambers of commerce to establish the need for certification of their service. Thus the national battle between the two groups moves to the local areas.

AIR PARCEL POST DRIVE NEXT — Post Office officials, having made a historic move in the reduction of foreign air mail rates as a sequel to domestic cuts, will turn their attention to air parcel post as their next major objective. Parcel post legislation was near passage as the last congress adjourned, and the department hopes for early action by the next congress. Gael Sullivan, Second Assistant Postmaster General, hopes to see more feederlines in the northwest, southwest and southeast sections of the country. He will move to bring RFD under the jurisdiction of his office and intends to start a survey next year of the entire postal network for measures that can be taken to expedite airmail.

BRITISH LOOK AHEAD ON TRANSPORTS — Visitors returned from England in recent weeks report that British aircraft spokesmen concede America's present leadership in transports, but promise that within five years they will have superior models. This coincides with pledges made throughout the world by British foreign trade salesmen. Concentration on jet and turbine transports is evident in England. Meanwhile, with new purchases anticipated by KLM of Convair 240's and by Air France of the 240 or Martin 202, for European short-range services, British European Airways is reconsidering its decision, already announced, to buy a fleet of Vickers Vikings. Instead, it appears at this point that further purchases by the British of U. S. planes are likely to be added to the recent deals for Constellations and Stratocruisers. The resulting announcement is expected to arouse a furore in Parliament.

SUBCONTRACTORS IN AIA? — At the suggestion of the Army and Navy, Aircraft Industries Association is considering a plan to extend some form of associate membership to the largest wartime subcontractors, such as automobile and refrigerator manufacturers. Sole purpose would be to provide a method of keeping such companies advised of industrial preparedness plans. Subcontractors would in no sense be full members of AIA.

WASHINGTON OBSERVER — 3



FLY WESTERN TO SUN SPOTS

On the map of Western Air Lines' flourishing airways lie sun-spots whose sole cosmic effects are to warm and relax those who come to enjoy them.

CALIFORNIA—the "sun" coast, with gleaming miles of bright, clean sand, rimmed by the horizon-bound ocean.

PALM SPRINGS and the wondrously productive IMPERIAL VALLEY—swank, beautiful resort towns, bordered with lush canyons and date farms and nestling under imposing 10,000-foot "Mt. San Jac."

LAS VEGAS—gay, gaudy, exciting, relishing the pleasantly indolent air of the sun-favored frontier town it is.

DEATH VALLEY—fabled sub-floor of the continent, where winter's warm and friendly sun underlays the brilliant colors that nature exposed.

At most, these sun spots are just a few hours away by air. Plan your winter vacation now, with your air travel agent. Use coupon for illustrated booklet.

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WESTERN AIR LINES

AMERICA'S PIONEER AIRLINE

AVIATION NEWS

THE STAFF

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ROBERT B. HOTZ.....News Editor
MERLIN H. MICKEL.....Transport Editor
CHARLES L. ADAMS.....Transport
WILLIAM KROGER.....Special Assignments
BLAINE STUBBLEFIELD.....Special Assignments
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Editorial Headquarters
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Pacific Coast Office, 621 So. Hope St.,
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FLY WESTERN TO SNOW SPOTS

Along the 4400 miles of Western Air routes are winter playgrounds that are unsurpassed...just a few hours by Western and connecting airlines from any part of the country

BANFF—gorgeous and spectacular winter wonderland lying northernmost on Western's skyways.

SUN VALLEY—Nestled in the Western side of the Rockies, with famous JACKSON HOLE nearby and ALTA, near Salt Lake.

COLORADO—along the eastern Rockies, where every ice and snow sport may be fully indulged.

YOSEMITE—Sequoia, Tahoe, and many new winter resorts that are sprouting the length of the High Sierras.

SOUTHERN CALIFORNIA—the towering Sierra Madre range gives vacationists the happy choice of winter sports that are only minutes from metropolitan centers.

Plan your winter outing now, with your air travel agent. Use coupon for illustrated booklet.

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Send me "Sky-Trails to Snow-Sports"

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WESTERN AIR LINES

AMERICA'S PIONEER AIRLINE

News Digest

DOMESTIC

Two persons were killed and three injured in the crash of a United Air Lines DC-4 near Cheyenne, Wyo. Four crew members and 35 passengers escaped injury.

Revival of AAF competition for the Mackay, Cheney, Frank Luke, Jr., Daedalian and Colombian trophies has been ordered by AAF Commander Spaatz.

Maj. Gen. James E. Fechet (ret.), former chief of the air corps, was awarded the Distinguished Service Medal for war time service after his recall from retirement.

Navy has ordered 98 Lockheed Neptunes (P2V) after the record-breaking long distance flight of the Truculent Turtle.

PCA-Capital Airlines will begin nonstop DC-4 service between Chicago and Washington on Oct. 17 with two roundtrips daily.

FINANCIAL

Aircraft industry exported 1,055 complete aircraft with a value of \$37,147,000 and 1,099 engines valued at \$6,168,000 during the first six months of 1946.

Consolidated Vultee Aircraft Corp. declared a dividend of 50 cents a common share for the three-month period ending Aug. 31, 1946. It is payable Nov. 15 to stockholders of record Nov. 1.

West Coast Airlines Inc. has filed a registration statement with SEC for 245,000 shares of common stock to raise \$1,715,000.

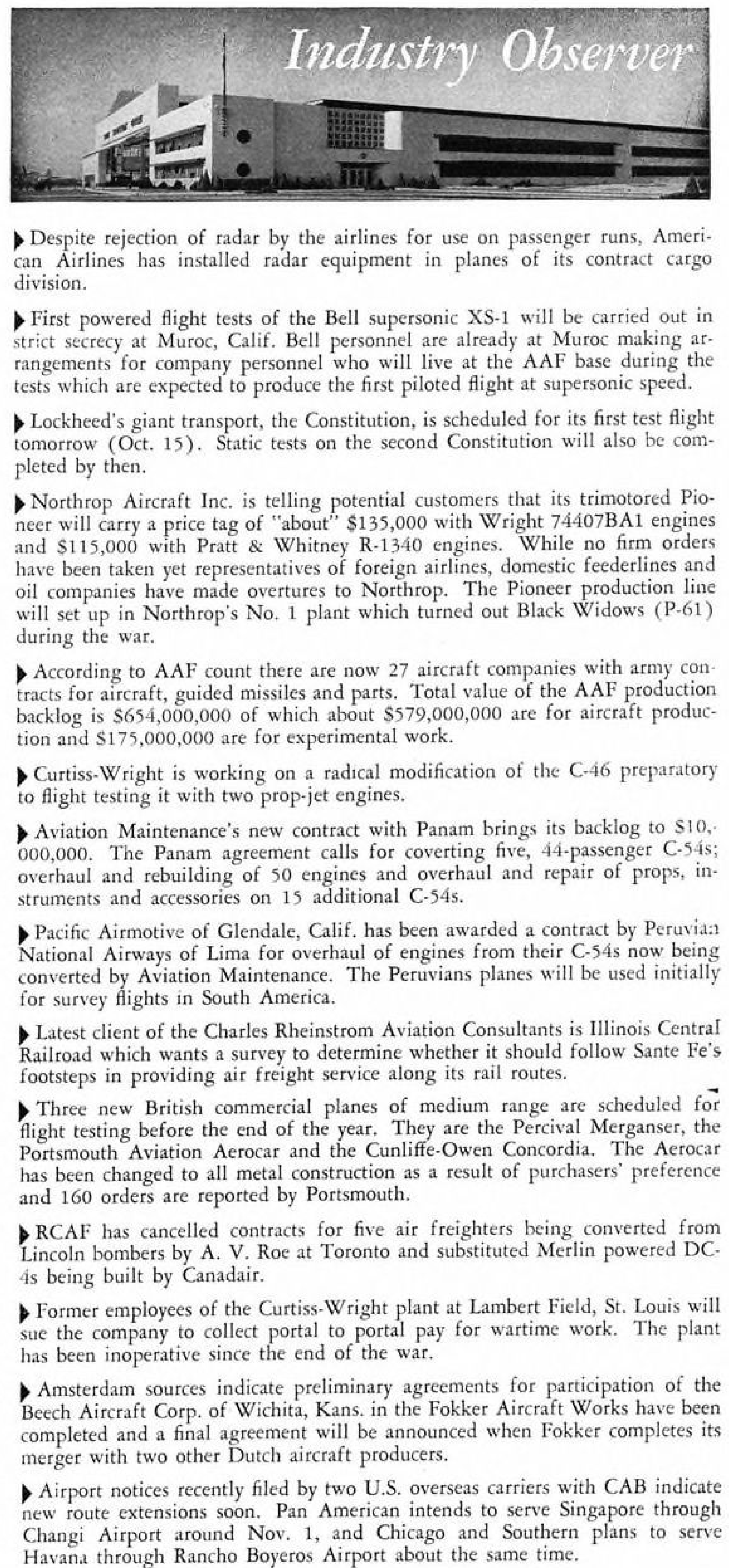
Northwest Airlines reported a net income of \$988,851 after taxes for the fiscal year ending June 30, 1946. This equals \$1.82 a common share; compares with \$1.35 a share for previous year on a net income of \$727,714.

FOREIGN

Iceland's parliament ratified an agreement for American use of Reykjavik airport.

George L. Prescott, comptroller of Chennault Air Transport of China, and a brother of Robert Prescott, president of National Skyways Freight Corp. was killed by a stray shot fired by Filipino gangsters in the lobby of the Manila hotel. The gunmen were aiming at a Filipino counterintelligence agent of the U. S. Army.

Lord Nathan replaced Lord Winston as Britain's Minister of Civil Aviation.



Industry Observer

Despite rejection of radar by the airlines for use on passenger runs, American Airlines has installed radar equipment in planes of its contract cargo division.

First powered flight tests of the Bell supersonic XS-1 will be carried out in strict secrecy at Muroc, Calif. Bell personnel are already at Muroc making arrangements for company personnel who will live at the AAF base during the tests which are expected to produce the first piloted flight at supersonic speed.

Lockheed's giant transport, the Constitution, is scheduled for its first test flight tomorrow (Oct. 15). Static tests on the second Constitution will also be completed by then.

Northrop Aircraft Inc. is telling potential customers that its trimotored Pioneer will carry a price tag of "about" \$135,000 with Wright 74407BA1 engines and \$115,000 with Pratt & Whitney R-1340 engines. While no firm orders have been taken yet representatives of foreign airlines, domestic feederlines and oil companies have made overtures to Northrop. The Pioneer production line will set up in Northrop's No. 1 plant which turned out Black Widows (P-61) during the war.

According to AAF count there are now 27 aircraft companies with army contracts for aircraft, guided missiles and parts. Total value of the AAF production backlog is \$654,000,000 of which about \$579,000,000 are for aircraft production and \$175,000,000 are for experimental work.

Curtiss-Wright is working on a radical modification of the C-46 preparatory to flight testing it with two prop-jet engines.

Aviation Maintenance's new contract with Panam brings its backlog to \$10,000,000. The Panam agreement calls for converting five, 44-passenger C-54s; overhaul and rebuilding of 50 engines and overhaul and repair of props, instruments and accessories on 15 additional C-54s.

Pacific Airmotive of Glendale, Calif. has been awarded a contract by Peruvian National Airways of Lima for overhaul of engines from their C-54s now being converted by Aviation Maintenance. The Peruvians planes will be used initially for survey flights in South America.

Latest client of the Charles Rheinstrom Aviation Consultants is Illinois Central Railroad which wants a survey to determine whether it should follow Sante Fe's footsteps in providing air freight service along its rail routes.

Three new British commercial planes of medium range are scheduled for flight testing before the end of the year. They are the Percival Merganser, the Portsmouth Aviation Aerocar and the Cunliffe-Owen Concordia. The Aerocar has been changed to all metal construction as a result of purchasers' preference and 160 orders are reported by Portsmouth.

RCAF has cancelled contracts for five air freighters being converted from Lincoln bombers by A. V. Roe at Toronto and substituted Merlin powered DC-4s being built by Canadair.

Former employees of the Curtiss-Wright plant at Lambert Field, St. Louis will sue the company to collect portal to portal pay for wartime work. The plant has been inoperative since the end of the war.

Amsterdam sources indicate preliminary agreements for participation of the Beech Aircraft Corp. of Wichita, Kans. in the Fokker Aircraft Works have been completed and a final agreement will be announced when Fokker completes its merger with two other Dutch aircraft producers.

Airport notices recently filed by two U.S. overseas carriers with CAB indicate new route extensions soon. Pan American intends to serve Singapore through Changi Airport around Nov. 1, and Chicago and Southern plans to serve Havana through Rancho Boyeros Airport about the same time.

The Birdmen's Perch



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



Hey, get a load of us!

You may have called us "Major" in the past. Or "Al." Or, even, "Sir."

But in the future, we expect you to add "Senhor"—as in: Senhor Major Al Sir! You see, we got a letter from Jayme Kanter, Aeronautical Editor, Rua Ramon Franco, 104, Rio de Janeiro!

Not only has Senhor Kanter been "... reading the Perch for a long time," but he says "... the Little Known Facts About Well Known Planes Dept. has always called my special attention." And he tops off by sending in a "Fact" which makes him our first International Perch Pilot (br).

His commission is on the way because:

"The fuel load of the "Rainbow," the slick new plane the P-47 boys are testing, is enough to drive 30 average autos on a week's trip from San Francisco to New York!"

Now, if our friend way down in Rio can qualify, you hangar hangers-on up here should certainly be able to rustle up a Little Known Fact (with proof!) and earn your commission as Perch Pilot (br).

Elwin Rozyskie, 307 Helen St., Camden, Ark., did:

"It takes 97 men to fly a single TBF off a carrier!"

And Perch Pilot Billy Steed, Leachville, Ark., is back for the 3rd time (5 accepted "Facts" make you a Senior Perch Pilot, you know) with:

"A single cylinder in the Navy's F.R.-1 develops more horsepower than a whole auto engine!"

Shoot your fascinating bits of information to the address on the top of the page, remember to furnish proof, and you, too, can get a handsome, engraved-type commission!

The kind the real Perch Pilots use!

SPOT NEWS

Maybe this'll surprise you.

Most airplane engines are considered "low-speed" engines—by comparison to the average auto engine.

And the bulk of the lubricating oil in a plane engine remains at moderate and constant temperatures.

But all over and through the engine there are "hot spots" where 500° to 750° temperatures are normal! It's at these points that your engine oil really takes a beating.

It's at these points that Gulfpride shows its superior resistance to decomposition ... to breaking down into carbon and varnish.

And, of course, any old Perch reader knows that the reason Gulfpride Oil has extra stamina and toughness is the exclusive Gulf Alchlor Process which extracts extra carbon-and-sludge-formers from already refined oils!

Must be this extra refining step which accounts for the extra loyalty so many pilots show toward Gulfpride Oil!



TEAR-IN-THE-EYE DEPT.

It is our sad duty to further publicize a sad fact:

Test pilots are on the way out!

Both kinds, too! The kind that zoomed through the air over Hollywood, shedding wings like confetti. And the kind that spent grueling hours of engineering study and data analysis for every twenty minutes they spent in saw-tooth climbs.

Pretty soon we'll be fresh outta both!

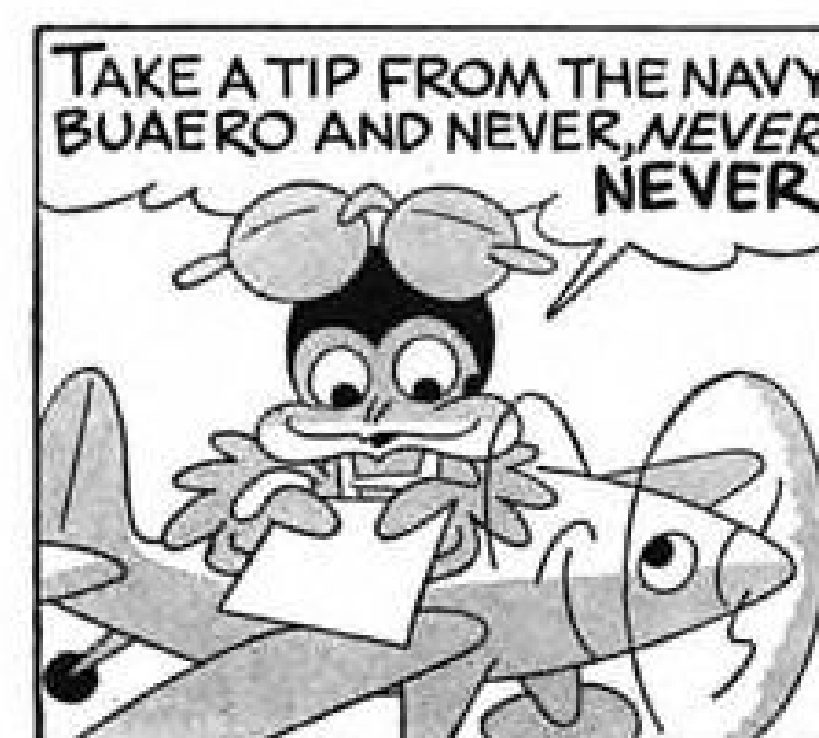
Here's how they do it now:

They stick a television transmitter in the test ship—along with remote controls. A fella sits around on the ground, or in a "mother" ship, and runs off dive tests, etc. by wiggling his fingers over a little control box.

And a television receiver on the ground gives constant instrument readings while another gadget registers and records all the loads and strains imposed on the airplane!

Shucks! Huh?

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



VOLUME 6, NUMBER 16

Aviation News
McGraw-Hill Publishing Co., Inc.

October 14, 1946

Airlines Launch Vigorous Drive To Capture Air Freight Business

ATA plans for cancellation of existing REA contracts; opposition to certification of nonscheduled carriers and reorganization of Air Cargo Inc.

A vigorous drive by the scheduled airlines to capture more of the air cargo business into which the nonscheduled carriers have made heavy inroads was underway last week as CAB, on the regulatory front, prepared for an extensive inquiry into the place of freight forwarders in the complex air cargo picture.

The scheduled operators set out on their long-studied campaign (AVIATION NEWS, June 10) with plans for increased service and reorganization of Air Cargo, Inc., as a service rather than a research group.

The Civil Aeronautics Board, breaking trail in the air freight forwarder field, launched a complete study of these indirect air services and whether they should be certified in the first investigation on such a scale. Board action will mean disposal of virtually the entire freight forwarder question, including the status of Railway Express Agency. Scrutiny of Northwest Airlines' air cargo agreement with REA remains a separate matter.

Air Transport Association, through which the airlines are acting to strengthen their position as cargo carriers, will oppose the certification or exemption of indirect air carriers. It also will object to certification of direct air carriers of property between points or in areas "which will be adequately served" by carriers already certificated.

ATA has its own comprehensive plan to give the public a fully coordinated air cargo service. As approved by the Association's Board and membership, the double-barrelled plan calls for (1) action individually and jointly to improve service between off-airline as well as airline points, and

2) an operating setup for Air Cargo, Inc., as a source of joint facilities and services.

First of these contemplates eight changes:

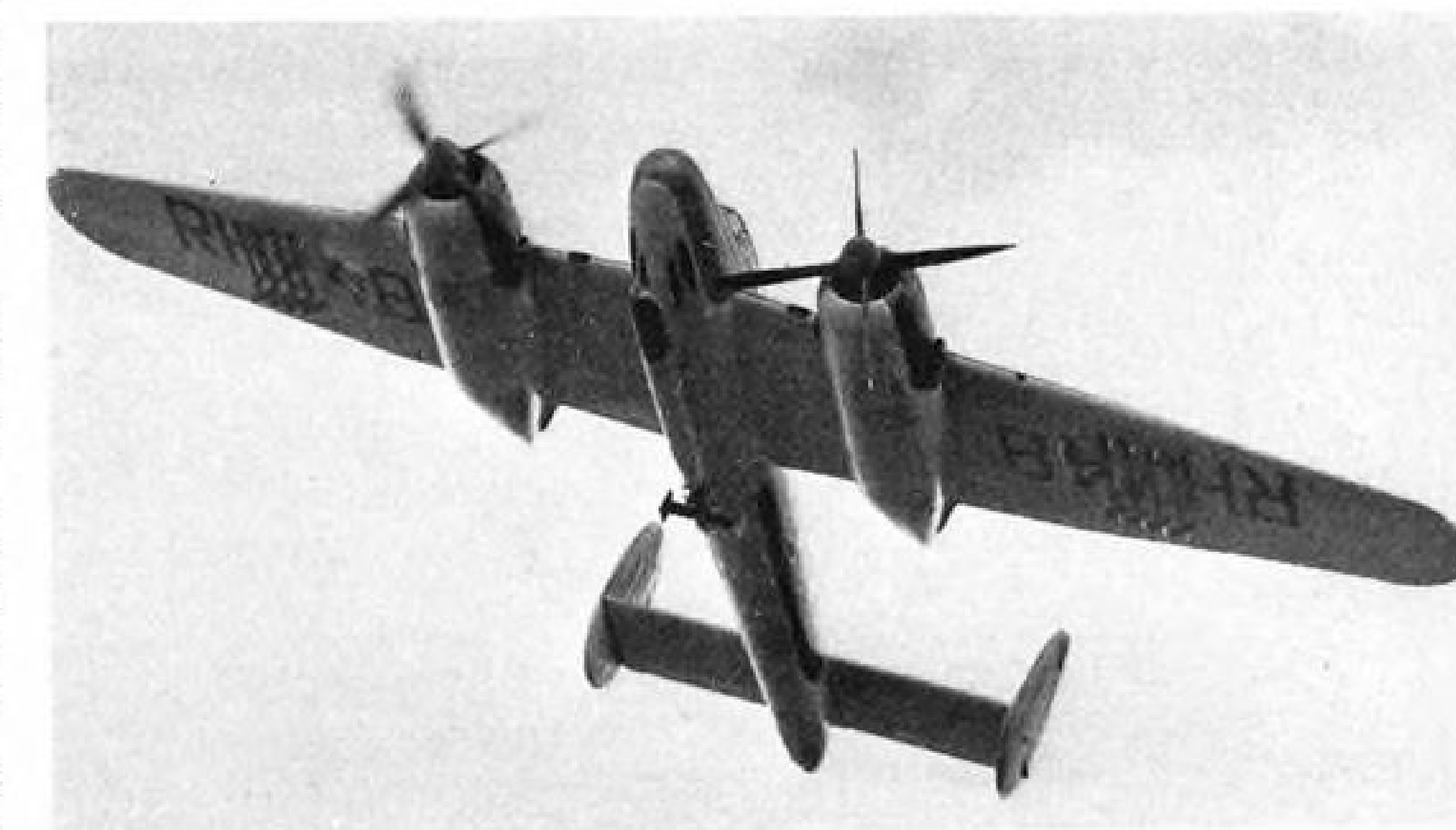
- ▶ Participation by all certificated carriers in the carriage of property.
- ▶ Elimination of the distinction between air express and air freight.
- ▶ Cancellation of existing contracts with Railway Express Agency.
- ▶ Publication of a joint air cargo tariff (under agreement already on file with CAB).
- ▶ Publication of joint rates where economically justified.
- ▶ Arrangements for handling interline shipments.
- ▶ Through-service or interchange agreements with surface transportation companies, including Railway Express and major truck lines.

REA's air express is the only

property service in which all scheduled airlines participate. The special air cargo committee that set up the plan pointed out that cancellation of present REA contracts would not mean that REA would relinquish its prominence as an air cargo pickup and delivery agency and a connecting surface carrier. The airlines would continue to use REA facilities wherever possible.

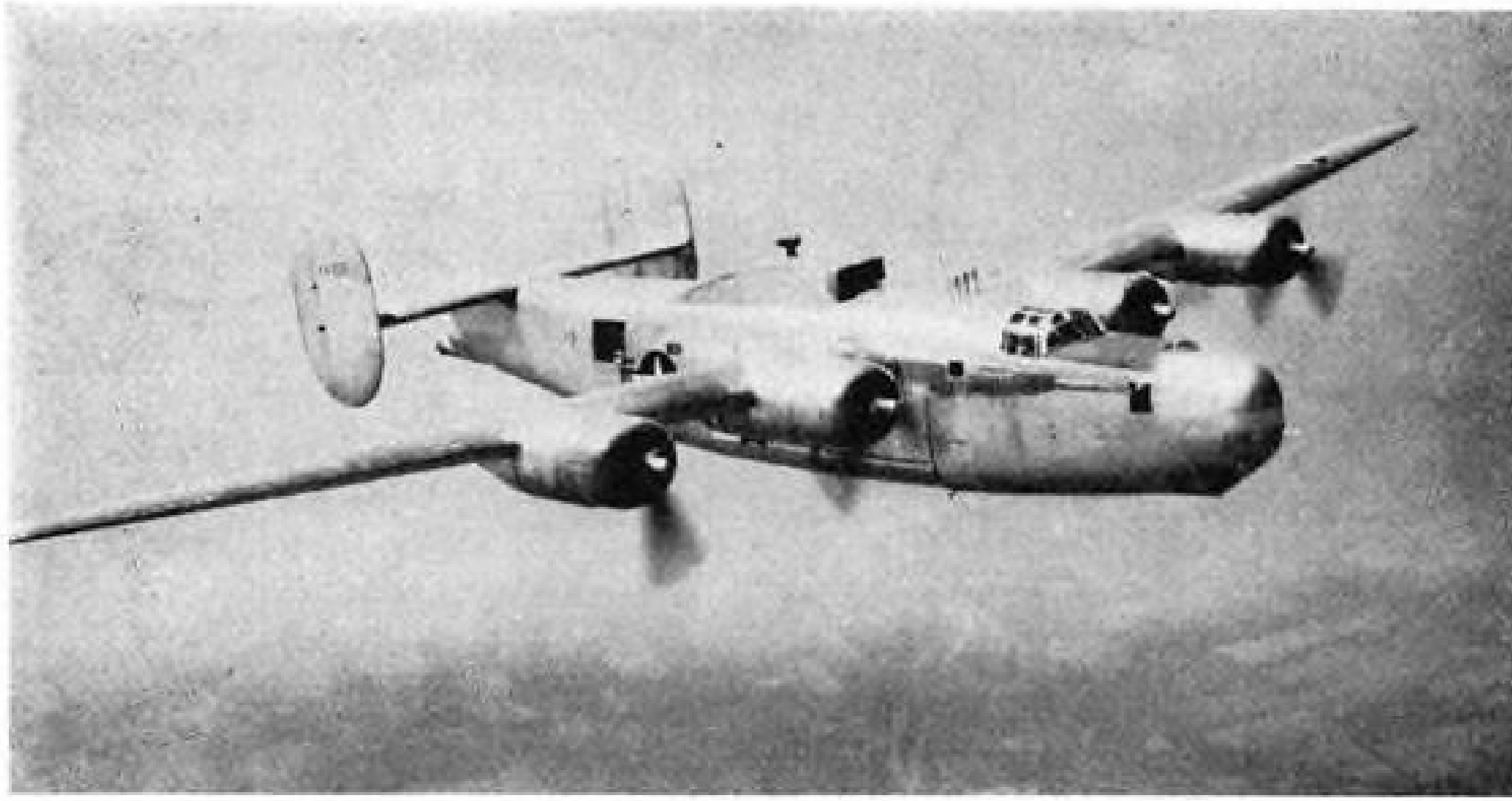
Under the second part of the program, Air Cargo, Inc., would not become an indirect air carrier, but would serve the airlines individually in their scheduled operations. Among the services suggested are: pickup and delivery, directly or by contract, possibly utilizing facilities of REA; joint facilities and personnel at airport cargo terminals, perhaps through agreement with the newly-formed Airlines Terminal Corp.; preparation of shipping documents; operation of local clearing houses for collection of shipping charges; and a central purchasing agency for air cargo supplies and other items; and arrangements for interchange of traffic with surface carriers.

The plan was approved in principle by ATA's Board, who di-



FULLY ARMED BRISTOL BRIGAND:

Unusual view of the British Bristol Brigand showing single engine performance with full bomb load including an externally slung torpedo and eight rail launched rockets. The Brigand is built for use as a long range torpedo bomber, mine layer and dive bomber. (Press Association photo)



COLLECTING ICE:

What happens in freezing weather when rain, snow or sleet is sucked into the intake of a jet engine is the subject of studies now being made by National Advisory Committee for Aeronautics with this modified B-24 bomber. The scoop atop the fuselage feeds air into a jet engine in the bomb bay. Directly forward of the scoop are nozzles which spray water into the intake. (NACA photo)

rected Air Cargo, Inc., to recommend a complete program under which the committee's recommendations may go forward. Association membership backed the Directors' action and instructed ATA Pres. Emory S. Land to expedite the plan.

Work started at once, both by Air Cargo's board of directors, and four special committees appointed by Land. These met last week to discuss interline and interchange procedures; draft agreements to be effected between air carriers and surface carriers on interchange of off-airline traffic; work out a uniform contract for pick-up and delivery and a proposed successor to the present agreement with REA; and study equipment interchange problems.

Decision to oppose certification of Railway Express agency and freight forwarders was made on recommendation of the same special Air Cargo Committee. Achievement of ATA's plan for a coordinated scheduled air cargo service, it was said, would enable the airlines to offer a service equal or better than that which could be offered by REA and the forwarders, whose certification, according to the ATA view, would merely provide "duplicate and wastefully competitive services."

Railway Express Agency is an air carrier, though not permitted to fly its own equipment. CAB has exempted it from certificate requirements, but is investigating a cargo agreement between Northwest Airlines and REA to determine whether the exemption order

extends into this field as well as express.

This is apart from the study of indirect air services in the transportation of property ordered recently by the Board and consolidated with hearings on applications in the freight forwarder case (Docket 681 et al.), some 50 of which have been received by the Board.

The full-scale investigation of the question is the first conducted by the Board, although individual cases have been disposed of in two instances. One resulted in the exemption under which REA is operating, while the other later denied

AVIATION CALENDAR

- Oct. 14-17—Fourth Annual National Aviation Clinic, Oklahoma City, Okla.
- Oct. 16-17—SAE National Transportation & Maintenance Meeting, Hotel Knickerbocker, Chicago, Ill.
- Oct. 18-20—Second Annual Electronics Trade Show, Los Angeles.
- Oct. 19-21—Third Annual Aviada, Las Vegas, Nev.
- Oct. 23-25—Second Annual Arizona Aviation Conference, Phoenix.
- Oct. 24-25—Institute of Aeronautical Sciences Navigation meeting—Hotel Statler, Washington, D. C.
- Oct. 29—International Air Transport Association meeting, Cairo, Egypt.
- Nov. 7-8—SAE National Fuels & Lubricants Meeting, Mayo Hotel, Tulsa, Okla.
- Nov. 15-24—National Aircraft Show, Cleveland.
- Nov. 20-22—National Aviation Trades Association convention Cleveland.
- Nov.—International Aeronautic Exhibition, Paris, France.
- Dec. 2-4—SAE National Air Transport Engineering Meeting, Edgewater Beach Hotel, Chicago.
- Dec. 12-15—International Aviation celebration, El Paso, Texas.
- Dec. 17—Anniversary dinner, Washington, D.C. Aero Club, Hotel Statler.
- Dec. 17—Wilbur Wright Memorial Lecture—Dr. Theodore Von Karman, Hotel Statler, Washington, D.C.
- Jan. 10-11-12—All American Air Maneuvers, Miami, Fla.

application by Universal Air Freight Corp., New York, for a similar exemption. Universal currently is an applicant for a certificate, and there were reports last week that REA would also seek one. The inquiry, proposed by Public Counsel Philip Schleit and G. Robert Henry, will seek the answer to the question whether REA's exemption order should be continued, modified or revoked. In addition it will go into such problems as the general need for indirect air carrier services, best type of operation, need for classification and extent to which they should be restricted and whether they should be required to acquire certificates of public convenience and necessity.

AAF Gets Control Of Missile Research

The commanding general, Army Air Forces, is responsible for research and development activities "pertaining to guided missiles," announced by Assistant Secretary of War W. Stuart Symington last week under a new directive. This confirms a forecast made Aug. 5 by AVIATION NEWS.

The directive supersedes the letter drawn up two years ago by Gen. McNarney, which divided the field between AAF and Army Ordnance, but it will have little effect upon the procedure that has been used for some time. Maj. Gen. Henry S. Aurand, general staff chief of research, will continue to be the arbiter in deciding what is and what is not a guided missile.

However, under the latest directive AAF for the first time has authority to plot spheres of work for Ordnance. It gives AAF power to call "upon other developing agencies to perform tasks for which they are best qualified."

Symington declared that possibly the most important effect of the directive will be to make impossible any conflict between AAF and Ordnance, although he insisted no conflict existed so far.

Jato Certified

First CAA approved type certificate for a rocket motor has been granted Aerojet Engineering Corp. covering Jato (Jet Assisted Take Off) units for all types of aircraft. Certificate designation is R-1.

AAF-ATA Joint Committee Will Plan Transport Program

Co-ordinated design and production effort sought as War Department ponders shift of entire Army to airborne operations.

AAF and the Air Transport Association are forming a joint committee to study transport aircraft designs equally useful for commercial and military purposes, Assistant Secretary of War W. Stuart Symington announced last week. The committee will also include Gael Sullivan, second assistant Postmaster General in charge of air mail. Symington expressed the hope that Admiral E. S. Land, ATA head, would chairman the committee.

Other members of the committee will be, for AAF: Gen. Carl Spaatz; Maj. Gen. Curtis Lemay, chief of research and development; Maj. Gen. Edward M. Powers, chief of materiel, and Maj. Gen. Robert M. Webster, ATC commander. ATA members, in addition to Land, will be: Milton W. Arnold, V-P, operations; and Allen W. Dallas, director of the engineering division. ATA alternates will be vice-president Robert Ramspeck; Emery M. Ellington, assistant director of operations; and Morrill B. Spaulding, assistant director of engineering.

Background of the group's formation is the fact that all transport planes used by AAF in World War II originally were designed for commercial purposes, plus the increased emphasis that the War

Department is giving to studies of the feasibility of transporting its entire ground army by air.

► **40 Generals Favor Plan**—On the basis of recommendations of 40 top-ranking ground generals to Gen. Eisenhower, the War Department already is making preliminary moves toward a future aerial army. Initial studies are being carried out at the Airborne School, Ft. Benning, Ga., under the command of Brig. Gen. William M. Miley.

Objective at Ft. Benning is to make the entire army "transportable" by air. While all soldiers would not be airborne troops, that is parachute or assault glider troops, all soldiers, together with equipment and supplies, would move by air.

The school is drafting plans for redesign of ordnance equipment to fit into aircraft. Also under consideration is a revolutionary "air trailer," a two-sectional detachable plane. The after section would be the trailer, for transportation of personnel and equipment. The forward part would be the power unit which could be detached in flight a few feet above the ground, saving landing and take off time.

► **Packet Still Backbone**—For the immediate future, however, the plane that will be the backbone of

the air army will be the Fairchild C-82 Packet, capable of carrying a 155 mm. cannon, or a 2½-ton truck, or 50 soldiers. It is estimated that 1,100 Packets could carry an entire infantry division and all its equipment.

Other planes under construction or development for the air transportable army are: Boeing C-97, to carry 20,000 lb. of equipment or 142 men; Douglas C-74, to carry 49,000 lb. or 125 men; Consolidated Vultee C-99, to carry 75,000 lb. or 300 men.

Industry observers, speculating on the role to be filled by the new AAF-ATA committee, point out that all of these aircraft were designed under military contracts, but now are either being developed in commercial versions or have commercial potentials. It is extremely unlikely that—because of the initial development expense—any large transport of the future will ever be designed and built originally for commercial use.

Purpose of the present War Department emphasis on an airborne army, in addition to the obvious value of speed, is to obtain tactical surprise. It is pointed out that in amphibious movements, landing places generally are limited and as well-known to the enemy as to the attacker. This is not true of an air assault.

Dreamboat Flight Is Prelude to B-50

Trans-Polar flight indicates capabilities of new Boeing bomber being built for AAF; 9,500 mile hop short of record.

Sifting the variety of results of the AAF's Boeing-built B-29 Pacusan Dreamboat trans-Polar flight from Honolulu to Cairo, observers decided last week that perhaps the most significant aspect is that the B-29 hop, following so closely the Lockheed P2V Australia-U. S. flight, demonstrated that the level of U. S. aeronautical engineering and operating skill is now so high that extreme range in aircraft is near to being commonplace.

The two flights taken together point to the conclusion that performance of such aircraft as the B-35 and B-36, each with a claimed range of 10,000 mi., are not speculative. Neither the P2V nor the B-29 were built for 10,000-mile-plus flights. That they achieved this range, is assurance



THRUST MEASUREMENT:

Testing thrust augmentation in a Bell P-59 jet plane through injection of a mixture of 25% alcohol and 75% water into the engine, National Advisory Committee for Aeronautics uses this ingenious contrivance to measure the thrust thus obtained. All the push of the plane is directed through the rod down onto the scale. In the injection system used in this test, the mixture is sprayed into the air inlets. Possibly as much as a 50% increase in thrust can be obtained. (NACA photo)

that long distance can be built into planes now under construction.

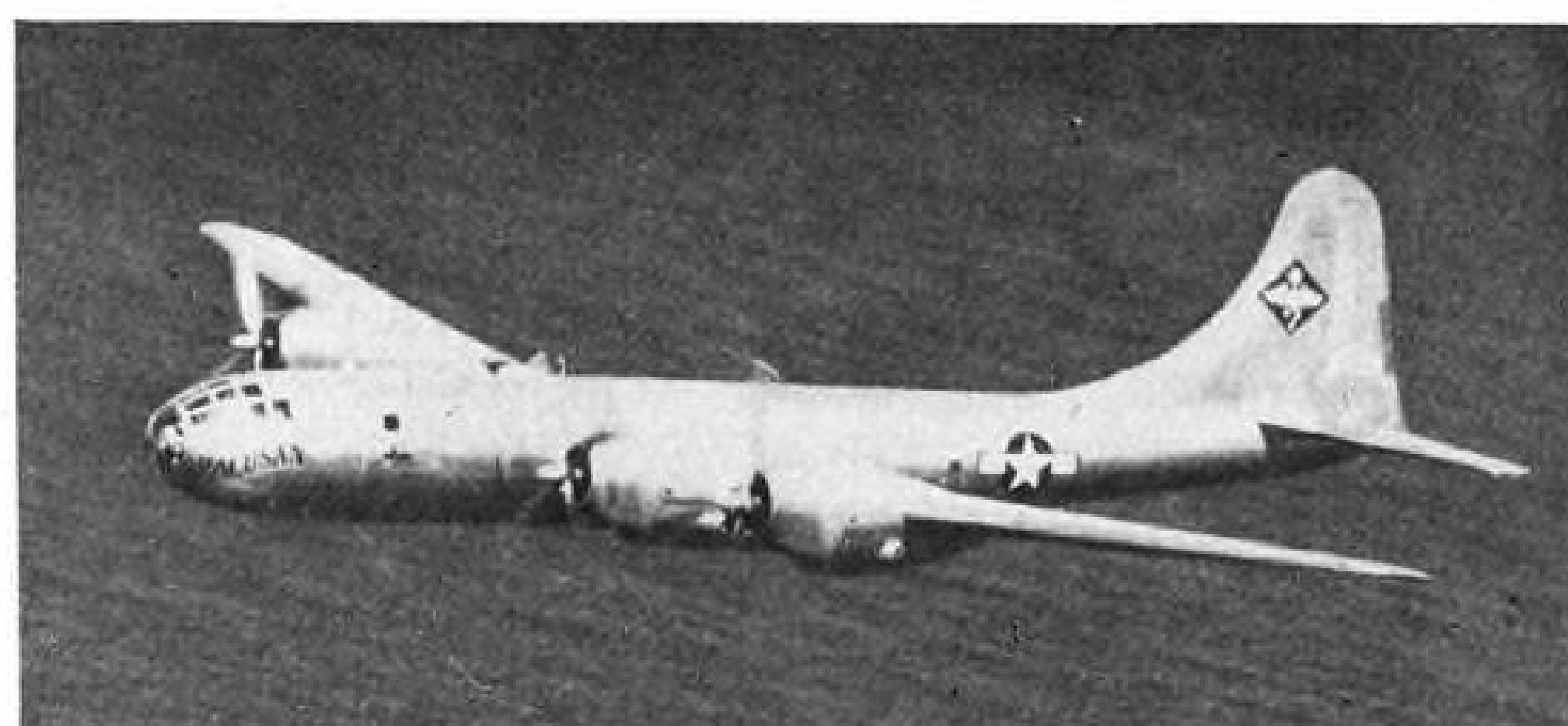
► **9,500-Mile Flight**—The Dreamboat's 9,500-mi. flight could add little to the luster of the B-29, proved in combat and previous high-speed, long-distance flights. But it did focus attention on the forthcoming B-50, a heavier, more powerful version of the B-29 now being built by Boeing Aircraft. Already working on an order for 60 B-50s, Boeing had its backlog fattened last week by an additional AAF order for an undisclosed number of the planes.

The B-50 will have a design gross weight of 140,000 lb., against 120,000 lb. for the B-29. (Significantly, the Dreamboat took off at an overload of 147,000 lb.) It will be powered by four Pratt & Whitney Wasp Major 3,500 hp. engines driving Curtiss electric reversible pitch propellers. The B-29 is powered by Wright Aeronautical 3,350 engines of 2,200 hp. each. The B-50 will have a larger tail area, thermal de-icing, greater range and speed. In all, it incorporates 500-600 engineering changes from the B-29.

While failing to achieve a world's distance record the Dreamboat's accomplishments were considerable. Their true extent probably will not be realized publicly for some time. Trans-Polar flights are not new and there is a wealth of information about weather and navigating conditions in the Arctic. But the observations made by the Dreamboat's crew will fill in a chink here and a chink there of the AAF's knowledge of the part of the world through which it insists any future aerial attack will come and where it will have to be repulsed.

► **147,000 lb. Gross**—In the same manner, it has long been realized that the shortest distance between a great many parts of the world for commercial operations is over the Arctic. There are neither the planes nor the need for such operations at present. But when there are, data collected during the Dreamboat's flight will be valuable.

The Dreamboat took off from Hickam Field at a gross of 147,000 lb., carrying 13,000 gal. (38½ tons) of fuel. Its average speed over the route was about 240 mph, possibly the fastest ever made on a flight of such duration. En route, the plane climbed as high as 22,000 ft. Both the speed and operating altitude were new for long-distance flights and are bound to furnish additional knowledge to the AAF.



Pointing Toward Polar Paths: AAF's Boeing-built B-29 Pacusan Dreamboat on a test flight off Hawaii prior to its over-the-Pole hop to Cairo. (Press Association photo)

Powers Outlines Preparedness Plan

AAF Materiel chief confirms pilot production line technique will be used.

A revealing glimpse of AAF's plan for pilot production lines as part of its overall industrial preparedness program has been given by Maj. Gen. Edward M. Powers, assistant chief of air staff for materiel, in a speech delivered under circumstances as interesting as the context.

Gen. Powers substituted for Brig. Gen. John C. Gordon, deputy chief of the air materiel command, before the Society of Automotive Engineers (AVIATION NEWS, Oct. 7). Gen. Gordon's speech, which was previously circulated and not withdrawn, dealt broadly in general terms with preparedness inside plants. Gen. Powers was more specific.

► **Powers Details**—He said:

"As an intermediate step between comprehensive paper mobilization plans and complete tooling for mass production, pilot lines of high production tools for one very heavy bomber and one fighter and major components of those aircraft are planned. Under this plan a manufacturer would develop a complete layout for his entire plant as would be required for mass production operations; prepare all necessary engineering drawings, master tools and gauges, together with the necessary sequences,

routing and operation planning; to enable him to design and fabricate the pilot line of high production tools.

"The pilot line is defined to include one each of all the high production dies, jigs, and fixtures necessary for the wartime type of operations. This means that where duplicate dies or fixtures are required to achieve the volume output, only one of each type would be fabricated. It is contemplated that the duplicate tooling required would be constructed during the production acceleration period after the start of mobilization, while the materials are being fabricated and production personnel trained. The parallel tooling for major components will include engines, landing gear, propellers, turrets, superchargers, instruments, fire control equipment, and electronic equipment."

► **Industry Waiting**—Such details of industrial preparedness plans have not previously been made officially, although AVIATION NEWS published the broad outlines Aug. 19. The fact that Gen. Powers was so specific in his speech, where Gen. Gordon had intended to be general indicates that industrial preparedness planning is so far along that officials from now on will be definite in their statements to industry.

The aircraft industry, in particular—while working closely with the Army-Navy Munitions Board which is in charge of industrial preparedness—has been awaiting some clear-cut indication of what is expected of it. It is believed that Gen. Powers' speech, as well as future statements, will furnish this lead, as has a recent meeting of industry leaders with Donald Nelson, President Truman's "coordinator" on stand-by plants and industrial preparedness.



Brig. Gen. J. C. Gordon

Mallard 10 Place Amphibian Latest Plane in Grumman Line

\$115,000 price tag on new aircraft aimed at air carrier and executive transport market; tests reveal good performance and high speed.

Aimed at the scheduled and non-scheduled air carrier markets as well as the rather restricted market of private owners and firms which can afford to own a \$115,000 airplane, the new Grumman Mallard, 8-10 place amphibian, offers advantages which make it a good buy in many respects, at that price.

Most interesting thing about the plane to prospective owners is its high cruising speed (180 mph.) and a top speed of more than 200. The Mallard is so fast that it offers respectable competition to most landplanes of the same capacity and power class. (Power plants are two 600 hp. Pratt & Whitney "H" Wasp engines of 600 hp., turning two Hamilton Standard hydromatic full-feathering propellers.)

Grumman Aircraft Engineering Corp., Bethpage, Long Island, is proud that the Mallard is the first amphibian to pass the latest stringent CAA tests for a Scheduled Air Carrier Operations rating, and adds that "the majority of airplanes now engaged in scheduled airline operations would not be able to qualify for this rating." (Presumably Grumman refers to the new CAR Part 04 rating, and to the fact that the Douglas DC-3s, have been exempted from this rating for a limited period.)

Advantages of the amphibious plane cited by Grumman include: ► **Safety**—Having emergency water landing facilities available which a landplane could not use, and hav-

ing a rugged hull structure for comparatively safe forced landings on uneven terrain.

► **Convenience**—Having downtown landing facilities available on the waterfronts of most large cities, eliminating long motor rides from outlying airports used by landplanes, and having lake landing facilities in remote areas thus easily available to hunting and fishing enthusiasts.

The all-metal, high-wing monoplane Mallard is the first Grumman equipped with tricycle retractable landing gear. The nose-wheel retracts into a small watertight compartment in the hull nose, while the main wheels are drawn into cutout wells in the sides of the fuselage.

The Mallard hull is designed for exceptional seaworthiness with minimum spray in rough water and minimum drag in a calm. A deep flare in the hull bottom is designed for smooth water landings and quick takeoffs.

Luxury fittings in the passenger

cabin, include complete upholstering, carpeting and soundproofing, with ventilation by a thermostatically controlled heating and ventilating system with individually controlled fresh air ducts. The forward compartment has two full length divans between cabinets and end tables finished in natural wood veneers. Center sections of the divans are removeable for installation of portable card tables. The aft compartment contains four reclining chairs in conventional airline arrangement, a dressing room with lavatory, mirror and toilet, and a large baggage compartment easily accessible in flight. Other fittings include recessed fluorescent lights, built-in smoke stands, and a refreshment cabinet.

Range of the Mallard is quoted at over 1,000 miles. It is credited with good single-engine performance, having a single-engine ceiling of approximately 10,000 ft. and has made more than 40 single-engine takeoffs with full gross load (12,500 lbs.)

The plane is equipped with the latest safety devices including dual brake systems, dual hydraulic pumps, with an auxiliary hand pump; engine fire extinguishers, and an automatic fire detector which gives warning in the cockpit and puts fire extinguishers in operation.

Pilot's compartment is roomy, fitted with dual controls. A small

Mallard Specifications

Performance data and specifications of the new 8-10 place Grumman Mallard amphibian are:

Wingspan.....	66 ft. 8 in.
Length.....	48 ft. 4 in.
Height.....	19 ft. 4 in.
Wing area.....	444 sq. ft.
Top speed.....	215 mph.
Cruising speed (55% power).....	180 mph.
Gross weight.....	12,500 lbs.
Useful load.....	3,375 lbs.
Rate of climb.....	1,320 ft./min.
Ceiling (single-engine).....	10,500 ft.
Range load data at 180 mph. cruising speed:	
Seven persons and 55 lbs. baggage.....	1,228 mi.
Eight persons and 200 lbs. baggage.....	1,030 mi.
Ten persons and 300 lbs. baggage.....	695 mi.



Amphibian Interior: Looking forward to pilot's compartment, interior view of Grumman Mallard amphibian's luxurious passenger cabin shows facing divans and airline type seats, accommodating 8 passengers, plus crew of 2. (Martin and Kelman photo)



Grumman Executives: Top executives of Grumman Aircraft Engineering Corp., are shown together with their newly announced Grumman Mallard amphibian, at the company plant, Bethpage, Long Island, left to right: William T. Schwendler, executive vice-president; L. A. Swirbal, president, and LeRoy R. Grumman, chairman of the board. (Martin and Kelman photo)

hatch on the nose, and entered from the cockpit permits the co-pilot to cast or catch a hawser when he approaches a seaplane dock.

In a press demonstration flight the Mallard landed smoothly in a slightly ruffled sea, climbed an inclined ramp, made a 360 degree turn unassisted, returned to the water, taxied out and took off after a short run.

The company has already delivered two Mallards, has two others flying as demonstrators, and several more in various stages of completion on the assembly line in Plant 2. Orders have been received from air commuter and feeder airline operators and industrial firms, as well as private owners.

Cold, Injection Flaws Scuttle Speed Test

Sudden cold weather and engine water injection difficulty brought postponement of the AAF world speed record flight at Muroc, Calif. on the eve of an attempt to break the British record of 616 mph.

Scheduled for a speed duel last week over the blistering Mojave Desert record course were Republic's XP-84 Thunderjet, and Lock-

heed's XP-80-R, a Shooting Star with a new and thinner airfoil. A drop in daytime temperatures from 90 degrees (F.) to as low as 66 degrees at 10:30 a.m. and attendant lowering of the speed of sound, would have brought the aircraft dangerously close to compressibility buffeting to reach and exceed a ground speed of 621 mph necessary to claim an official new record. It is unlikely that the desert flight test base will regain a 90-degree temperature until next Spring.

Mechanical trouble combined with the weather to postpone the record attempt. Water injection (a water-alcohol injection proposal having been discarded) was to have been used for the first time in jet engines to give momentary thrust boosts over the speed course. Ground tests disclosed that the sudden injection of water contracted compressor turbine shells more rapidly than the turbine blades, resulting in blade-shell contact and the loss of one engine, a TG-180, in ground tests.

A planeload of East Coast newsmen flown by the Army to California to witness the speed tests was met at Los Angeles by embarrassed Army officers who told of the flight postponement and offered as substitute a tour of Hollywood and Beverly Hills night spots.

Both planes have been returned to their respective factories for further study, and the engines will be sent to the General Electric laboratory at Lynn, Mass. There is some possibility that before next Spring, AAF may again schedule a speed run in Florida.



IATA LEADER:

Sir William Hildred, director general of the International Air Transport Association, stopped at LaGuardia Field late last month after attending opening sessions of IATA's Western Traffic Conference at Rio de Janeiro.

Truman Informed

President Truman is being kept abreast of aviation developments. CAB Chairman James M. Landis spent "quite a bit of time" with him one day last week reviewing the direction of the Board's effort of the last two months. In addition to the international scene, they discussed such major domestic issues as safety, the nonscheduled airline problem, certification of feederlines, and expansion of the domestic scheduled airlines. The President was reported to have a deep personal interest in the entire situation.

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As a result it is possible that both Lockheed and Republic will have lost their opportunity to claim

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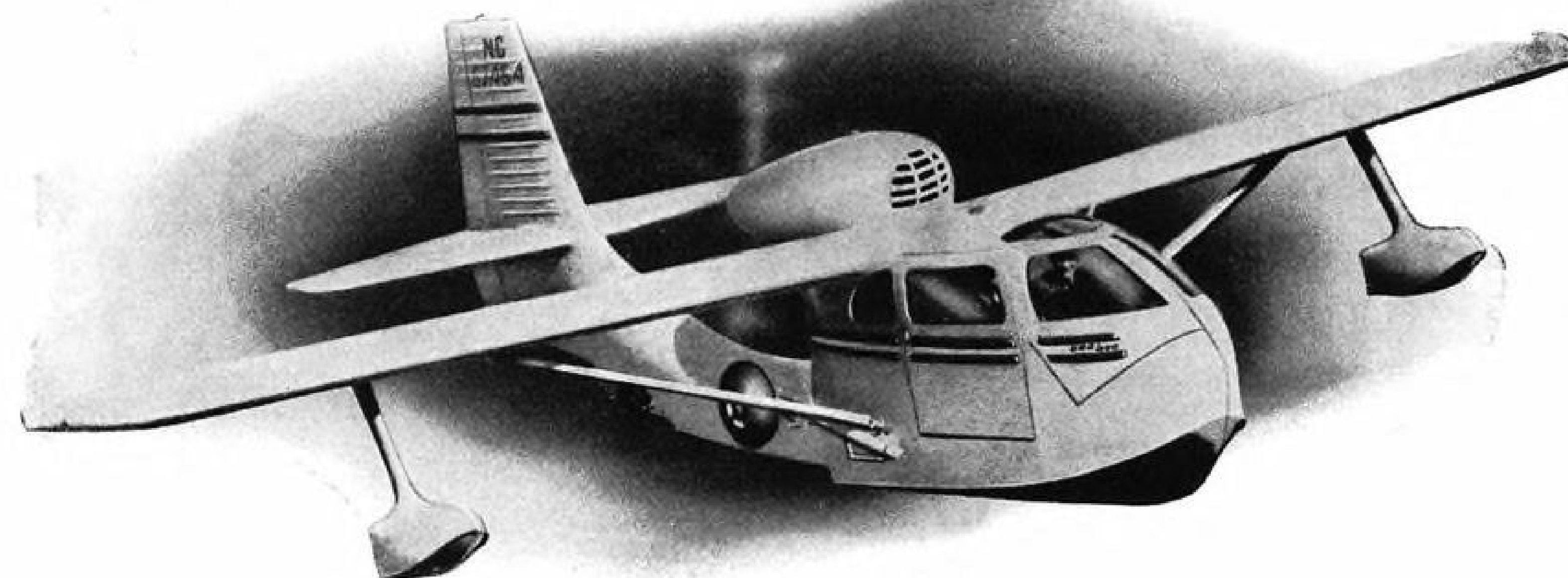
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The Decca Navigator Company realize that the great expansion of Civil Aviation during the next few years will produce many severe problems. Foremost amongst these will be that of Air Traffic Control. Even more vital than the provision of a satisfactory navigational aid along the route, the problem of traffic control in the vicinity of the main airports may well prove to be the bottleneck in the entire programme of air expansion that lies before us.

To this end the Decca System is being planned to solve both to-day's and to-morrow's problems.

The Decca Track Control Unit, latest development of the Decca Navigator System, already goes far to eliminate what could well be a major problem. This unique and revolutionary instrument not only provides the pilot with all information necessary to allow him to follow any required track but also includes switch selection off any one of a large number of standard approaches to the terminal airport.

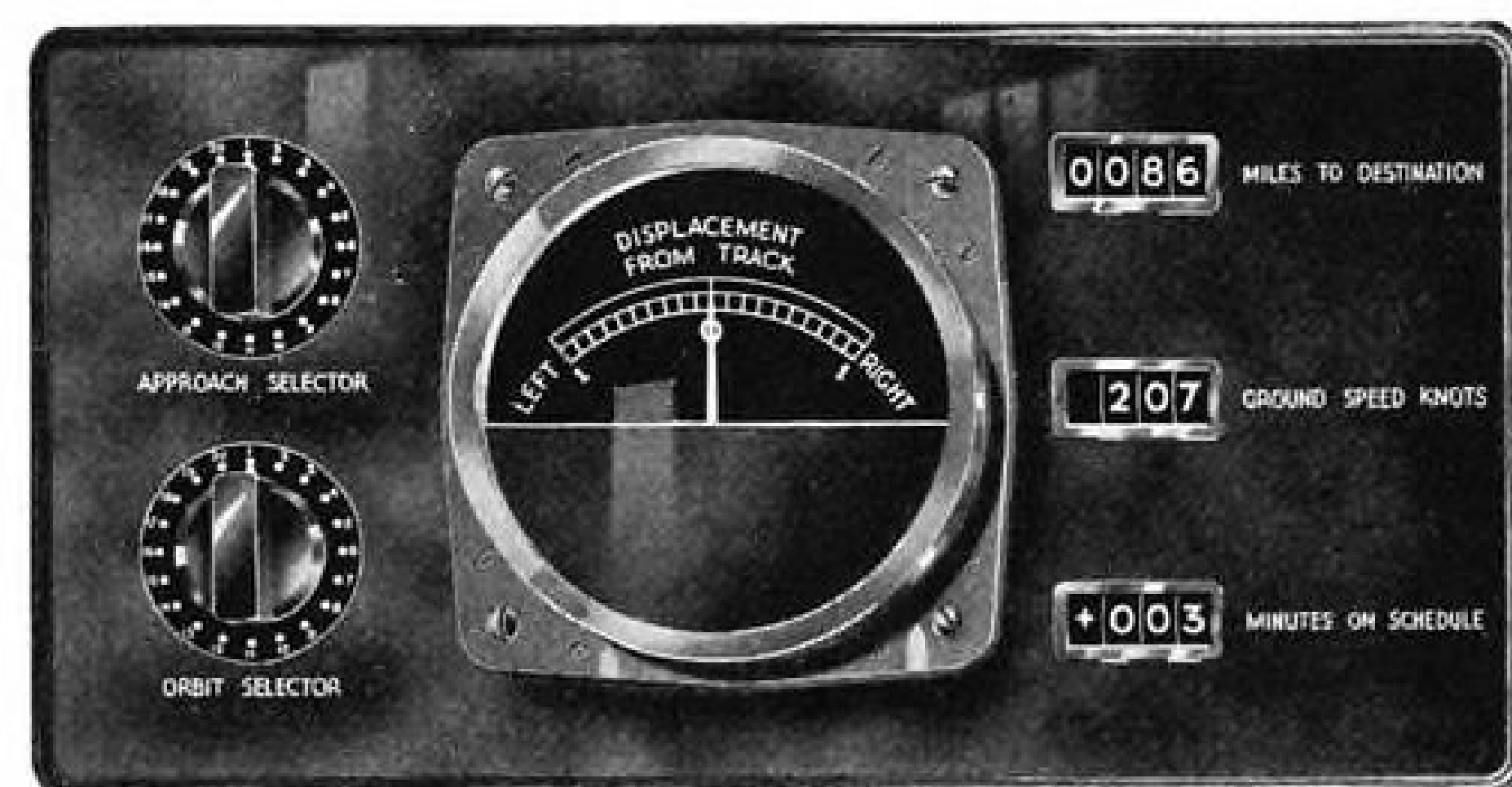
Outstanding among the facilities are the following:—

- * Throughout flight an instantaneous indication is given to the pilot of his position with respect to required route and his displacement to left or right of track in terms of distance.
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All the above facilities are given automatically by means of the Decca Track Control Unit working in conjunction with the Decca Navigator System. This unit, by reference to the Decca Navigator, constantly checks the position of the aircraft and compares this position with the required position necessary to make good the intended track. Continuously, accurately and automatically it presents the result of these checks to the pilot by means of a simple display panel.

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All who are studying the future of modern Civil Aviation will appreciate how great a part these unique facilities will play in overcoming the problem of airport traffic saturation. It is not the policy of the Decca Navigator Company to provide just an aid to navigation, but an instrument capable of ensuring the maximum flow of air traffic along the air routes and into the airports with safety, accuracy



and reliability.

Adoption of the Decca System of Navigation to-day ensures the ability to keep pace with the demands of to-morrow's flying.

The Decca Navigator Company will be happy to discuss with all responsible for the planning of civil aviation the part this new development can play in solving their navigation and air traffic control problems.

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SCHOOLS

New Cockpit Designs Stress Pilot Protection for Crashes

Cornell Medical College recommends changes in structure and interior after extensive research and crash injuries.

Wider public acceptance of the personal airplane, is anticipated in the near future with reduction of hazards of lightplane flying now made possible by designing greater protection for pilot and passengers into the cabin or cockpit following recommendations of Crash Injury Research, Cornell University Medical College, New York.

Recommendations are based on an extensive survey and analysis of aircraft crashes, which was started by Crash Injury Research for the National Research Council, during World War II. Now the research work, is being directed toward causes of injury in lightplane accidents, under financial sponsorship of the Personal Aircraft Council of the Aircraft Industries Association, the Aircraft Owners & Pilots Association, the CAA, Army and Navy.

► **Research Studies**—Studies of the research organization, headed by Dr. Hugh De Haven and assisted by Margaret Helburn, former WASP and test flyer, are based on CAB safety bureau and Army and Navy accident investigations. By analyzing reports as to damage to plane, magnitude and direction of forces, injury to occupants, and injuries caused by airplane structure, certain general recommendations to personal plane manufacturers, for safer designs are being developed.

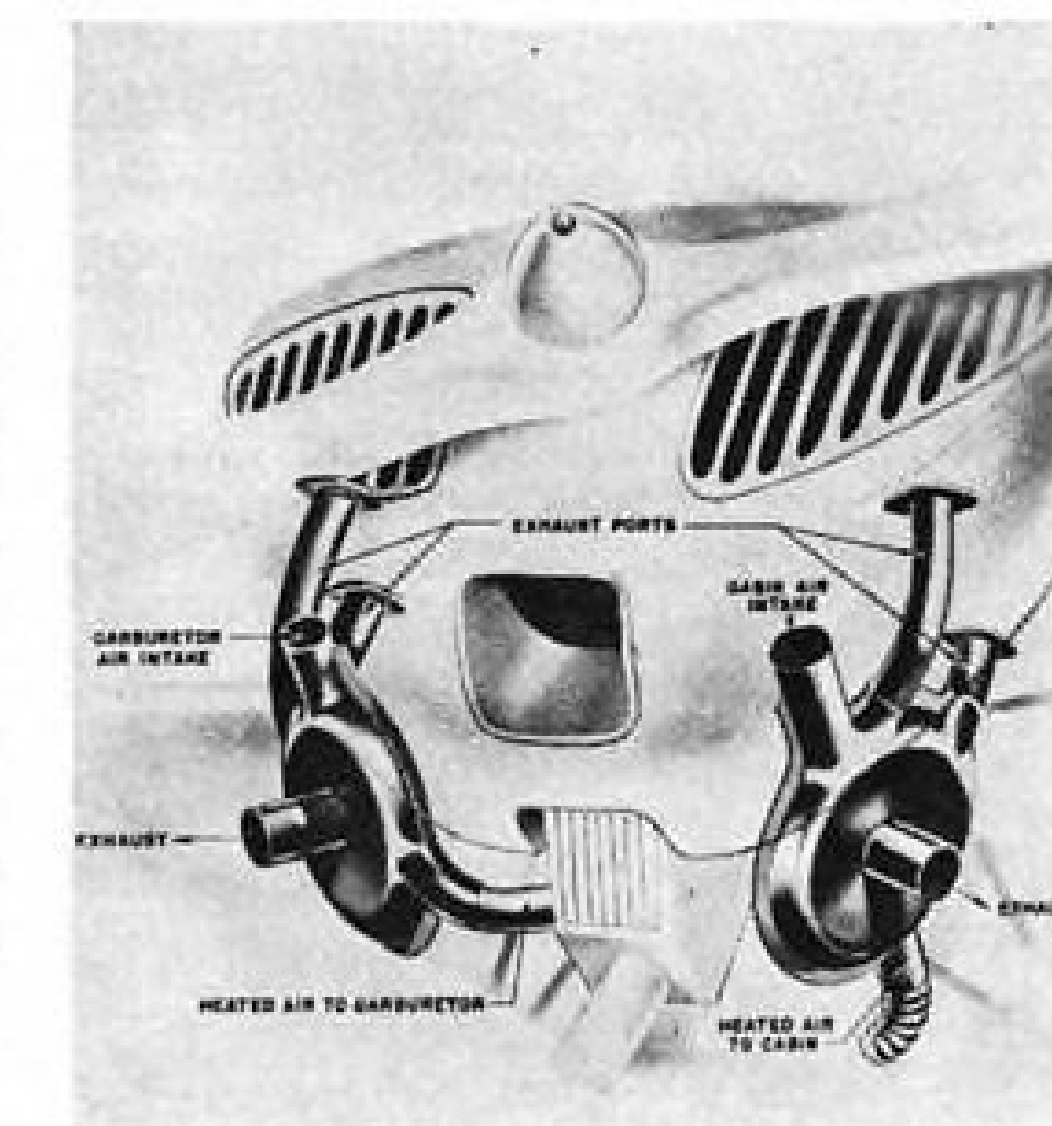
The studies may be divided into two main classifications:

- Injuries resulting from insufficient protective cabin structure about the occupants.
- Injuries resulting within the protective cabin structure, from insufficient holding capacity of safety belts, and from projecting controls and other hard or sharp objects with which the occupant may come in bodily contact.

It has been determined that the human body can survive applica-

tion of 40 times the force of gravity, if it is applied briefly at right angles to the long axis of the body. However to withstand such a force in a plane crash, the pilot would need a cockpit which would hold together under such a force, and would need strong supporting harness to hold his body in place.

► **Shielded Cockpit**—A relatively well-shielded box-like structure is provided in many conventional tractor-type trainer planes by the engine mount, landing gear mounts and wing arrangement. However studies indicate that a number of existing personal plane cabin structures will not withstand more than 10 to 15 times the force of gravity. On a basis of Crash Injury Research recommendations a number of manufacturers are now developing



RYAN LIGHTPLANE MUFFLER:

Ryan Aeronautical Company, San Diego, has announced a new eight-pound stainless steel engine muffler for 65-85 hp. lightplanes which incorporates complete exhaust system, eliminates 90 percent of engine noise with less than 2 percent power loss, and provides for carburetor and cabin heat. Air Associates, Inc., exclusive national retail outlet for the new muffler, will exhibit it at the National Aircraft Show, Cleveland, Nov. 15-24. Above, Betty Hughes, San Diego girl flyer inspects the muffler installation on a lightplane. Diagram shows details of installation. Similar mufflers are being developed by Ryan for larger personal plane engines.

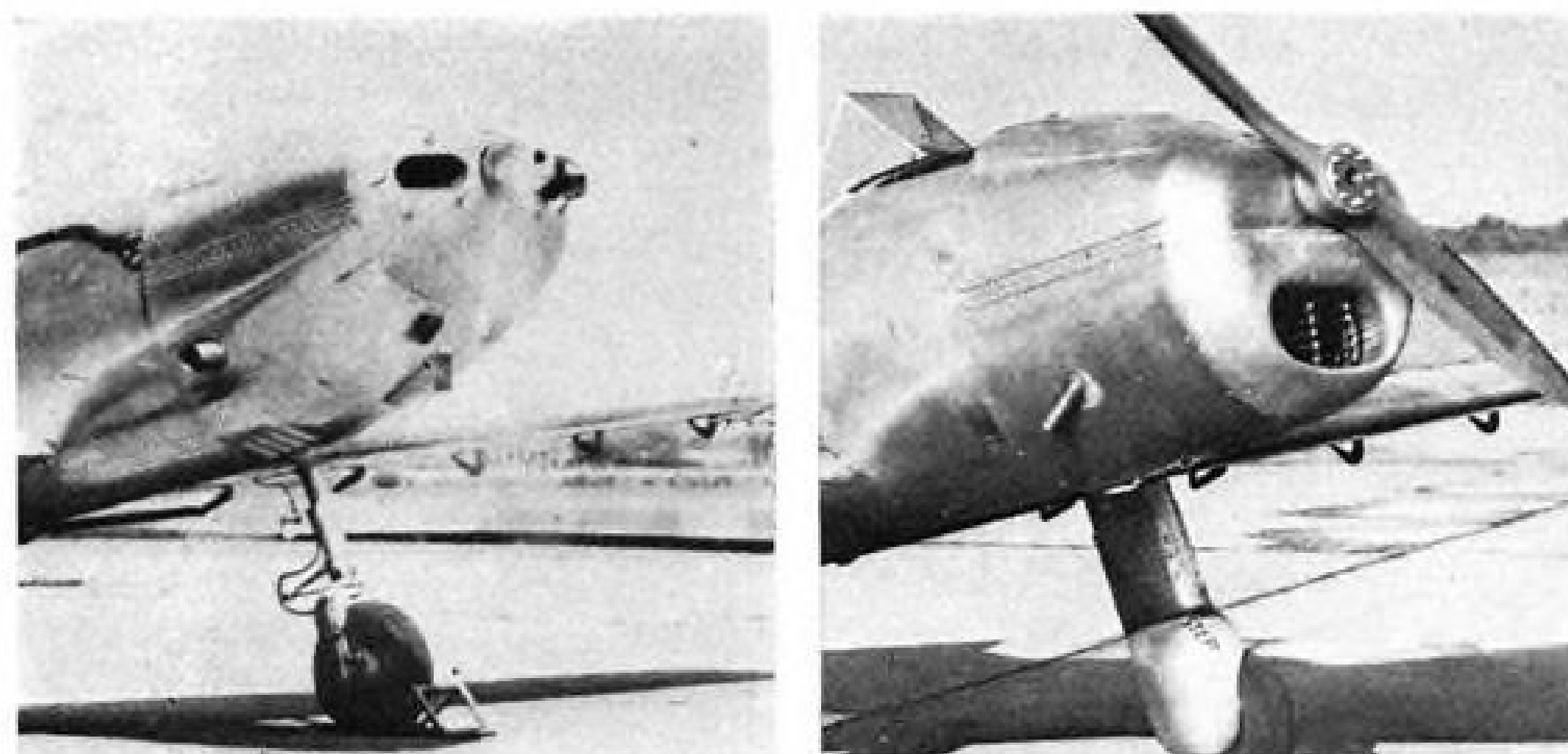
new cabin designs with increased occupant protection. A similar design project is being undertaken by the U. S. Navy, which is developing new cockpits designed to hold together under a 40 G force, and equipped with protective harness sufficient to withstand such a force.

Need for stronger safety belts has been recognized in the new Part 03 of the Civil Air Regulations which requires belt assemblies on planes coming out after Jan. 1, 1947, to withstand a 2,000 lb. pull, a one-thousand pound increase over former requirements.

Manufacturers have already developed webbing for safety belts which will hold 2,700 lbs. This will not only provide a safeguard against loss of strength by deterioration, but will make possible use of two-inch safety belt assemblies which have a holding capacity of more than 4,000 lbs. Crash Injury Research has been advised that some manufacturers are planning to exceed the new minimum CAR requirements and provide 4,000 lb. safety belts on their forthcoming models.

► **Head Injuries**—In plane accidents where the cabin structure withstands the shock of impact, most serious cause of fatality or serious injury is head injury, while push-pull control columns with improperly designed wheels have been the causes for most chest injuries, including puncture wounds. De-





NACA LIGHTPLANE COWLING:

Little known modification by NACA adaptable to lightplanes, is the cowlings designed in wartime for the Kaiser-Fleetwings Model 33 Trainer, later revised in design for a radio-controlled target plane. Picture at left shows the original cowlings on the Model 33, while at right, is shown the NACA designed cowlings with large single air inlet, low draw design, carefully shaped discharge vent, modified exhaust tubes. Both cowlings housed the same Franklin 130 hp. engine.

sign trends are away from control wheels cast of brittle metal, and toward wheels with broad area of somewhat ductile metal curved to conform to the chest.

These will provide "semi-harness" support of the torso, and prevent the head from contact with forward structure, in many cases. Good protection has already been shown in several accidents in planes which used such wheels. Taylorcraft and North American Navion are among planes using this type wheel. (AVIATION NEWS, Sept. 9).

Common sense design of instrument panels in a number of new planes has already removed such obvious hazards as primers, knobs, trim tab handles, switches, etc. Some new planes will make use of a "metallic cushion" type instrument panel of thin curved sheet metal which can be dented deeply by the pilot's head without loss of consciousness or serious head injury. This and other forthcoming developments eventually will make the panel a shield against injury rather than an injury cause.

Pivot Recommended—A pivoting arrangement on the backrest of the front seat of the tandem trainer is recommended as a safeguard for the rear seat occupant, and is being tried on at least one new tandem. The heretofore rigid framework of backrests has been cause for a number of serious and fatal head injuries to rear seat occupants.

Increased distance between the pilot and the nose of the plane, so that the impact of a crash will be

absorbed by the forward structure's collapse, is also desirable. A number of new plane designs are placing the pilot well to the rear of the ship.

Crash Injury Research is confident that if its recommendations for safer plane designs are carried out that pilots of such planes will come through extremely severe accidents with only moderate injuries, and that personal plane fatality and serious injury records will show a sharp reduction in frequency.

It is anticipated that despite any changes in designing personal planes that are non-spinnable and controllable in all conditions of flight, the private flyer may be expected to continue to run out of gas, to fly into bad weather, or fly low to "buzz" the house of his girl friend. As long as he does any of these there will continue to be personal plane accidents, and the most logical approach to safeguarding him is by building his vehicle to protect him from the effects of such accidents.

Michigan Aviation Groups Seek Constitution Change

Michigan aviation interests backed by the state aeronautics commission, are conducting a vigorous campaign for an amendment to the state constitution which will permit the state to take advantage of the federal airport aid program. Unless the amendment is vetoed, the state will lose over \$14,000,000

in federal funds which was to have been made available under the proposed matching program. The Michigan constitution in its present form does not authorize the state or political subdivisions to establish airports, and construction of approximately 150 airports by aeronautics funds from the state, cities and counties has been declared unconstitutional, in a recent interpretation, which also threatens the maintenance and operation of the existing fields.

Skycraft Test Flight Indicates No 'Bugs'

Following a recent successful first flight, extended tests of the Skylark Mfg. Co. (Venice, Calif.) Skycraft four-passenger personal airplane are expected to begin immediately.

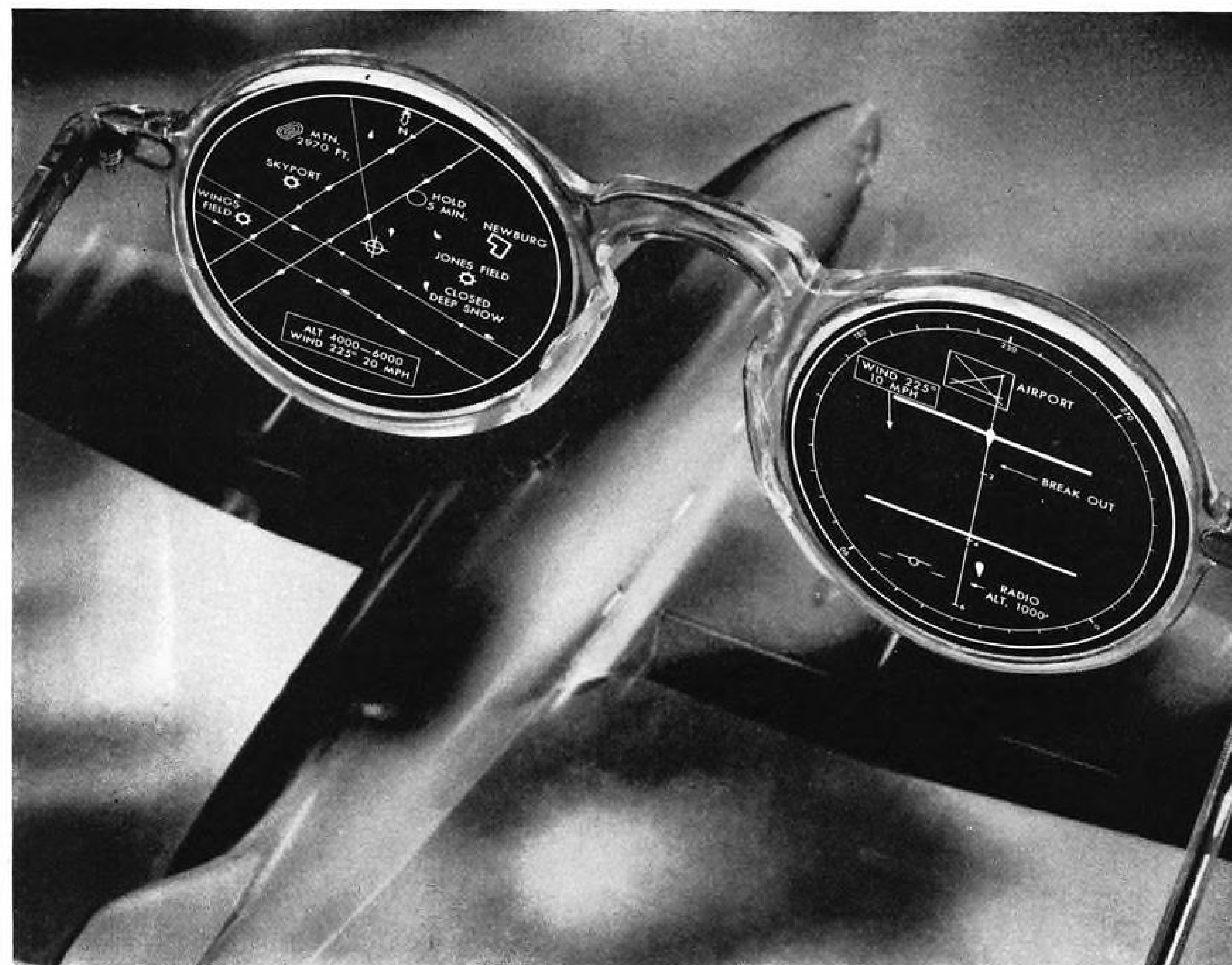
Because the plane is a twin-boom pusher with its 190-hp. Lycoming engine buried in the fuselage behind the passenger cabin, particular interest lies in the report of Test Pilot George Lyle that low cylinder head temperatures maintained throughout the first flight (Sept. 15). Apparently successful cooling of the Skycraft engine surmounts one of the most persistent "bugs" noted in aircraft using this type of engine installation.

Forthcoming tests will determine the plane's ability to meet design specifications of 140 mph. cruising speed and a range of 650 miles with four passengers and 100 lbs. of baggage.

While the Skycraft originally was announced as a plane to sell in the "\$5,000 class" (AVIATION

Ferguson Confirms

President Malcolm P. Ferguson, of Bendix Aviation Corp., last week confirmed in an official announcement the company's decision to "proceed no further" with its experimental personal plane development program. He said Bendix preferred to be a partner to all plane manufacturing companies rather than become a competitor, and would continue to produce aircraft parts and equipment with added emphasis on equipment relating to personal planes. The Bendix decision to abandon its light-plane development project was first reported in AVIATION NEWS, Sept. 30.



Teleran pictures—air traffic control by radar plus television.

Teleran—"radio eyes" for blind flying!

It's a television "information please" between airplane and airport—with the pilot's questions given split-second answers on a television screen mounted in the cockpit.

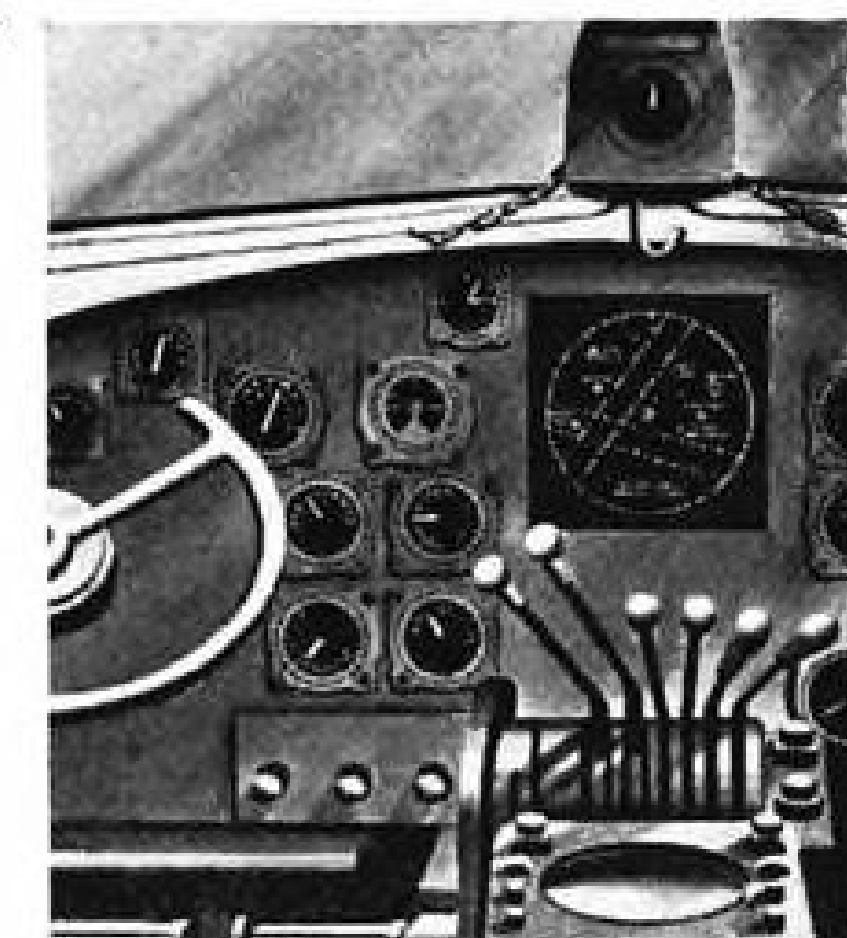
Teleran (a contraction of TELEvision—Radar Air Navigation) collects all of the necessary information on the ground by radar, and then instantly transmits a television picture of the assembled data to the pilot aloft in the airplane.

On his receiver the pilot sees a picture showing the position of his airplane and the position of all other aircraft near his altitude, superimposed upon a terrain map complete with route markings, weather conditions and unmistakable visual instruc-

tions. The complex problem of air traffic control is well handled by Teleran.

Teleran—another achievement of RCA—is being developed with Army Air Forces co-operation by RCA Laboratories and RCA Victor, endless sources of history-making developments in radio and electronics. They are also your assurance that any product bearing the RCA or RCA Victor monogram, is one of the finest instruments of its kind science has yet achieved.

Radio Corporation of America, RCA Building, Radio City, New York 20... Listen to The RCA Victor Show, Sundays, 2:00 P.M., Eastern Standard Time, over the NBC Network.



Instrument Panel of the Future. The Teleran indicator, mounted in a cockpit, simplifies the pilot's job by showing his position relative to the airport and to other planes in the vicinity. It promises to become one of the most useful developments in the history of aviation.



RADIO CORPORATION of AMERICA

News, March 19, 1945) deliveries are expected to begin next Spring with the plane price-tagged at \$6,700 for the standard version, and \$7,500 for the deluxe model. So far all of the several hundred orders placed with the company have been for the deluxe model.

Where the airplane will be built still is undecided. Skylark officials are considering production offers made by three plants having facilities for the immediate setup of production lines. One plant involved in the negotiations is the Hughes Aircraft Co. at Culver City, Calif.

Bendix Names 7 New Radio Dealers

Appointment of seven additional "Master Service Dealers" for Bendix aviation radio equipment, all of them with headquarters already established in metropolitan airports, has been announced by George Myrick, personal aviation sales manager, Bendix Radio division, Bendix Aviation Corp., Baltimore.

The new dealers, like other Bendix dealers previously announced, will provide installation and service facilities and will sell Bendix airline-type radio equipment for executive planes, and the Flight-weight equipment for lightplanes.

Dealers are: Page Airways, Inc., headed by James P. Wilmot, Rochester, N. Y., municipal airport, dealer for northern New York and Susquehanna and Bradford counties in Pennsylvania, with 30 sub-dealers; U. S. Flying Services, Inc., headed by Harry Playford, Albert Whitted Airport, St. Petersburg, Fla., dealer for a large part of Florida; Northwestern Aeronautical Corp., headed by John Parker, Holman Field, St. Paul, Minn., dealer for the state of Minnesota.

Also Aero Enterprises, Inc., headed by Louis W. Mack, Sky Ranch Airport, Denver, dealer for Colorado, Wyoming and Montana; Aircraft Sales and Service, Inc., headed by William R. Zinn, Boeing Field, Seattle, dealer for state of Washington, and Alaska; Palo Alto Airport, Inc., headed by Harry S. White, at Palo Alto (Calif.) airport, dealer for Monterey, Fresno, and Mono counties and most northern California counties; D. L. Grubb, at John Rodgers airport, Honolulu, Hawaii, dealer for Hawaii.

Briefing For Private Flying

RESORT STRIP—The 1,700 acre Von Hoffman farm, near Bourbon, Mo., 70 miles southwest of St. Louis, has leveled a 2,000 ft. airstrip, 150 ft. wide, and is inviting private flyers of the Missouri-Illinois area to fly in and dedicate it, Saturday, Nov. 2. The farm is operated as a quail-hunting and trout-fishing resort and expects to attract a considerable number of flyer sportsmen by its new landing facility.

SPIN RECOVERY—Investigation of spinning and spin recovery of personal aircraft, is being undertaken by the NACA at Langley laboratory (Va.) The study will include verification of a formula already worked out on by military plane spin studies through investigation of low and high-wing tractor types, twin tailboom pushers and amphibians. The study will also investigate means of making personal planes incapable of spinning, even when stalled. (Presumably continuing the work that former NACA Engineer Fred Weick did which culminated in the spinproof Ercoupe.)

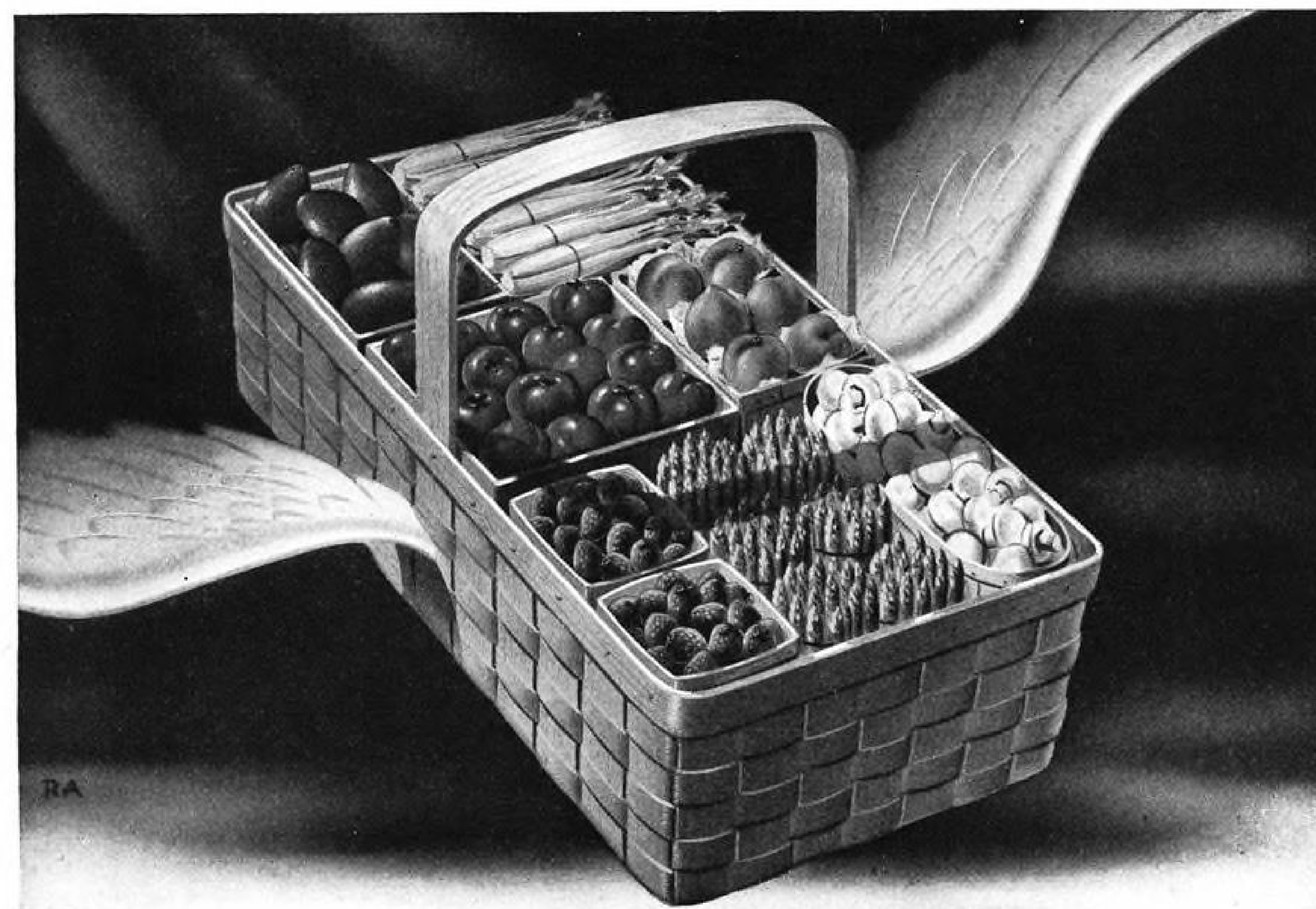
WEATHER REPORT—Los Angeles Daily News has started publication of flying conditions in the daily weather report column, and is believed to be the first newspaper in the country to make this daily report available to pilots.

COLOR CRUISE—Although only a small number of private flyers took advantage of the Michigan Aviation Color Cruise, Sept. 28-Oct. 4, the week's tour made an interesting and pleasant flying vacation for pilots and passengers of the 34 planes which participated. Wayne Sheldon, of the Michigan Dept. of Aeronautics, Lansing, is planning another shorter cruise, for private flyers, Oct. 18-21 to King's Gateway, on the Michigan-Wisconsin border.

COUNCIL ASSISTANT—Appointment of Jean Howard as assistant to Joseph T. Geuting, Jr., manager of the Personal Aircraft Council, is an indication of expanded plans for this organization. Miss Howard, a former WASP, will be a flying representative of the manufacturers' organization, at various aviation conferences, and made her first appearance in her new job, at the Michigan Color Cruise. She was advanced to this post after serving as secretary to Don Ryan Mockler, Hill & Knowlton public relations executive for the Personal Aircraft Council.

GLIDER DISTANCE RECORD—A 314 mile flight made by Dick Johnson, San Francisco, in a two-place Schweizer sailplane, from Prescott, Ariz., to Gobernador, N. M., recently sets a new American distance record for gliders, and comes within 71 miles of the world record for two-place gliders established by Russia in 1938, the Soaring Society of America has announced. Johnson, a Pan-American Airways pilot, made the flight on his vacation, with Robert Sparling as passenger. The glider carried a barograph in addition to its other equipment. During the flight it attained a maximum altitude of 16,000 ft. and averaged a speed of nearly 42 mph. The sailplane traveled the distance between Prescott and Gobernador in 7 hr. and 33 min.

LOW COST FLYING—Windsor Flying Club, at Windsor (Ont.) airport, charges its members \$15 a year dues. Flying students are given a rebate of \$2 an hour on their dual instruction rate of \$9 an hour, if they solo within three months, and if they get their private license in another three months, at \$8 an hour, a similar \$1 rebate is credited. In both cases, however, the rebate is credited against future flight time. The membership fee entitles the member and his family to all social activities of the club which are planned to include tennis, badminton, squash, skating, hockey, basketball, swimming pool, gun and revolver target range, club lounge bar and rooms for transients. Not all facilities are yet available. The club, as a member of the Royal Canadian Flying Clubs association, is operated on a non-profit basis, under government sponsorship. —Alexander McSurely



WHEN TIME MEANS MONEY SHIP BY AIR

Field-ripened fruits and vegetables command premium prices in big city markets...

New fabrics, new garments are on the spot at the peak of new fashion demand...

Inland customers get seafoods and other perishables in prime seacoast freshness...when you SHIP BY AIR.

So, for greater customer satisfaction and for greater profit, meet early season demand, minimize damage and spoilage in transit...SHIP BY AIR.

Investigate the many other advantages of Air Freight at the offices of America's great air transport specialists. They will deliver any product to its market *faster...at practical rates.*

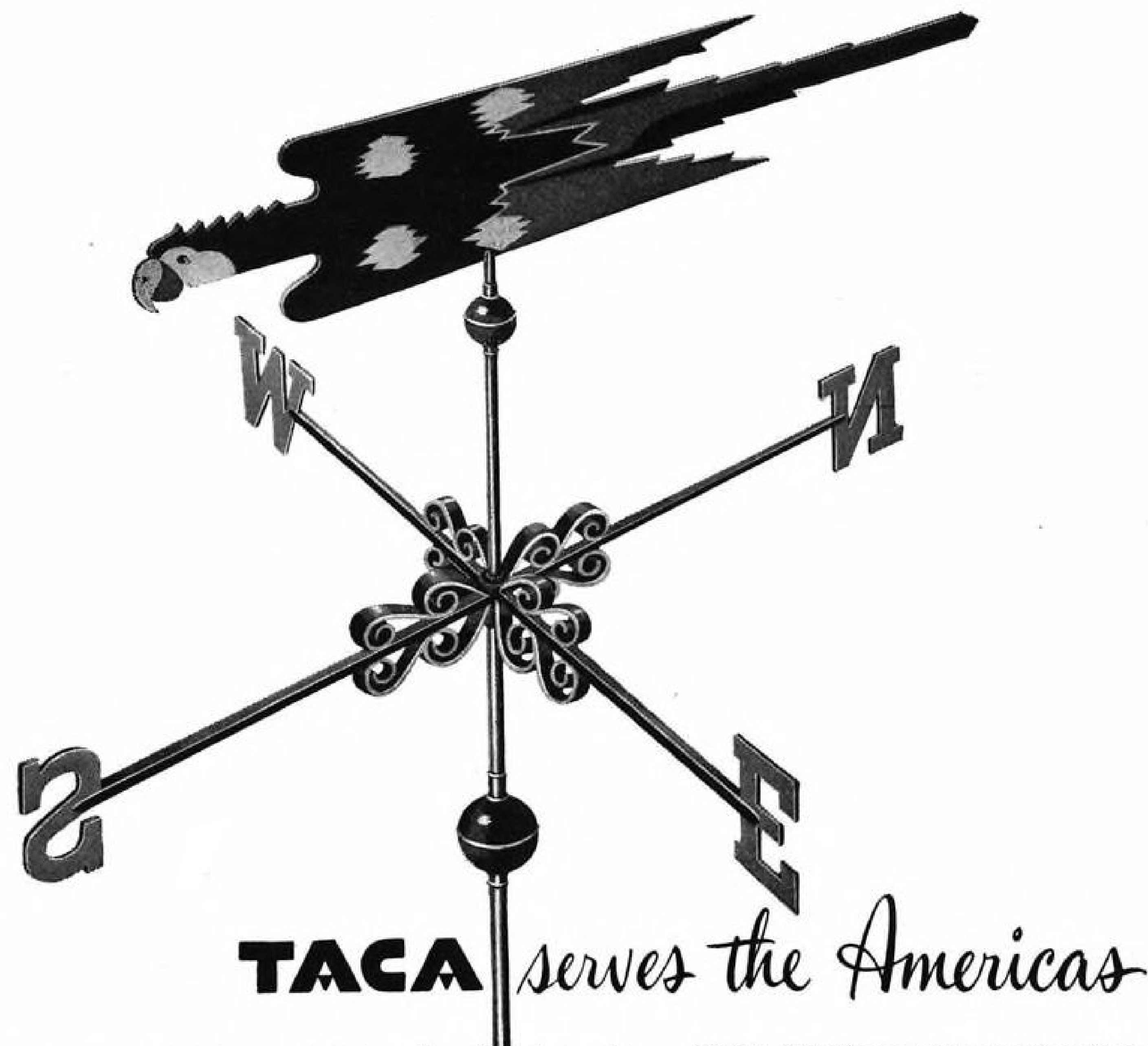
The Fairchild Packet, first plane designed *specifically* to carry cargo by the ton, is now exclusively in the service of the Army Air Forces. Fast loading, short takeoffs, economy in operation are characteristics that highlight the Packet's long list of capabilities for the new age of air freight.



Get your FREE copy of handy listing of "American Flag Airfreight Carriers." Write Fairchild today.

Fairchild Aircraft

Division of Fairchild Engine & Airplane Corporation, Hagerstown, Maryland



SINCE WE CAME TO NORTH AMERICA, we have heard people ask, "What does T-A-C-A stand for?"

The name, itself, is derived from "Transportes Aereos Centros Americanos"—Central American Air Transport. TACA was born in Central America, as an aerial life-line, opening up mines and markets and a new era of modern transportation. Even now, that pioneering continues, and in fifteen years TACA's wings have spread far . . . from Miami, Mexico City and the Caribbean down to Lima and Rio de Janeiro.

Today, TACA is a closely knit federation of seven "TACA" companies, manned by nationals of the countries in which they fly, and advised by technical experts from North America . . . a truly inter-American working partnership.

Today, TACA operates more than 60 fine, fast airliners over 24,000 miles of magnificent skyway in fifteen countries. Growing lustily, painstakingly improving passenger and cargo facilities, TACA is Latin-America's leading airline system.

TACA AIRWAYS AGENCY, INC.
Offices in Miami, New York, Washington, D. C.
... or consult your local travel agent

DOUGLAS DC-4 AIRLINERS—Now, TACA, as still another step in improving passenger service, has purchased a new fleet of fast, dependable Douglas DC-4 airliners. Cruising at 225 miles an hour to and from Latin America, they will provide every passenger luxury . . . and with 44 seats (instead of the capacity sixty) the very important luxury of spaciousness.



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PRODUCTION

Industry Warned Against Use Of War Time Techniques in Peace

California Tech professor cautions on production emphasis in postwar management, urges more attention to design and engineering talent.

Increasing doubt is being felt among close observers of the aircraft industry as to the long-term benefit of technological lessons learned during the war. Many feel that continuation of wartime practices may prove burdensome in peace.

Strengthening these observations is a study made by Prof. Horace N. Gilbert, California Institute of Technology, which stressed in particular the predominance in the wartime plant of the production viewpoint in company management. The number of production experts that was high in company management during the war is not suited for peacetime, Prof. Gilbert told the recent Los Angeles meeting of the Society of Automotive Engineers (AVIATION NEWS, Oct. 7).

Competition Shifts Emphasis—In peacetime, competition places greater demands upon engineering and design talent and reduces production to a secondary role. The demotion of top production personnel, reduction in their salaries and the restoration of engineering authority to its prewar position has been one of the most difficult problems of the reconversion period.

In many companies, certain key personnel from the production phase of the business have been retained in the upper management circle for obvious reasons. This practice, Prof. Gilbert points out, may create increasing friction and even generate unbalanced policies which may prove disastrous in the near or distant future, depending upon individual companies.

On the other hand, it might well prove equally disastrous to return to the prewar practice, followed by several well-known companies, of investing prime production responsibility in design engineers. A careful balance, achieved by a

perceptible "deflating" of the production function and "inflating" of the engineering function, will be necessary if the demands of competition, particularly in the non-military field, are to be met successfully.

Learned Little—Generally the aircraft industry learned little from automotive practice during the war and Prof. Gilbert states that even Willow Run, designed and operated during the war by Ford, utilized automotive techniques in only about 10% of its productive manhours. Wartime aircraft production methods for the most part were extensions of prewar practices. The major changes were in more extensive "break down" of operations and more elaborate and expensive tooling.

He points out the hard, unbending fact that "the determining consideration as to production method is volume," although several companies firmly believe that wartime

high-volume tooling methods are still valid, even when the "run" is as few as 20 or 30 airplanes. Although the risk of such thinking is great, these firms can enjoy a distinct competitive advantage, providing they possess an exceptionally able management.

One unqualified significant result of the war is that the tremendous volume of business created a large reservoir of production planning and cost estimating experience. In marked contrast to the prewar period, the engineering, production and accounting departments are now qualified to prepare highly accurate estimates on a new project, a fact of marked value to the industry today.

Major Disappointment—One major disappointment of the war period was the fact that the length of time required to introduce a new model into production was not reduced appreciably. Proof of this failure is the large number of prototypes, contracted as early as 1942, that have flown for the first time since V-J Day. Prof. Gilbert lays the blame equally on incompetent or hurriedly-trained engineering staffs and lack of positive guidance by the armed services. In contrast are the airline engineering departments of today which are providing decidedly more specific and determined procurement policies than did the Army and Navy during the war.

One technological lesson proved during the war was the remarkable gain afforded by full exploitation of the potentialities of a given type. By applied research and



CONVERSION CONCOURSE:

Extent of conversion work being done by Aviation Maintenance Corp., Van Nuys, Calif., is indicated by this view of 60 planes of varied type lined up outside the company's shops. AMC in three months has booked \$9,600,000 worth of business, most with Argentine and Peruvian governments, and with airlines. It has 1,800 employees working two shifts and uses a 77-acre plant.

development of a given airplane, the aircraft industry has an avenue for technological advances at a far less cost and with greater assurance of progress than the random and often pointless effort devoted to radical, experimental design effort following the introduction of a successful prototype.

Prof. Gilbert does not believe that the aircraft industry has made optimum use of the great reservoir of wartime knowledge available. Yet he is confident that not only are profitable lessons to be learned, particularly in the field of management, but many companies must either master many of these or fail to survive the competition of those that have.

Battle for Aluminum Discounted by NHA

Ryan enters housing picture as federal officials seek to boost aircraft industry's share of program over \$1,000,000,000 mark.

The threatened battle over aluminum for housing, for airplanes, and myriad postwar products in 1947 is not taken too seriously by National Housing Administration, which is negotiating with aircraft companies to build prefabricated aluminum panel homes at an annual rate as high as 500,000.

NHA spokesmen say prospective aluminum production for next year is 800,000,000 pounds. Aircraft, they estimate, will take only about 100,000,000 pounds. The Kaiser plant at Seattle is building up production and plans are in progress to open some government-owned plants. Stockpiling has been absorbing a lot of current production.

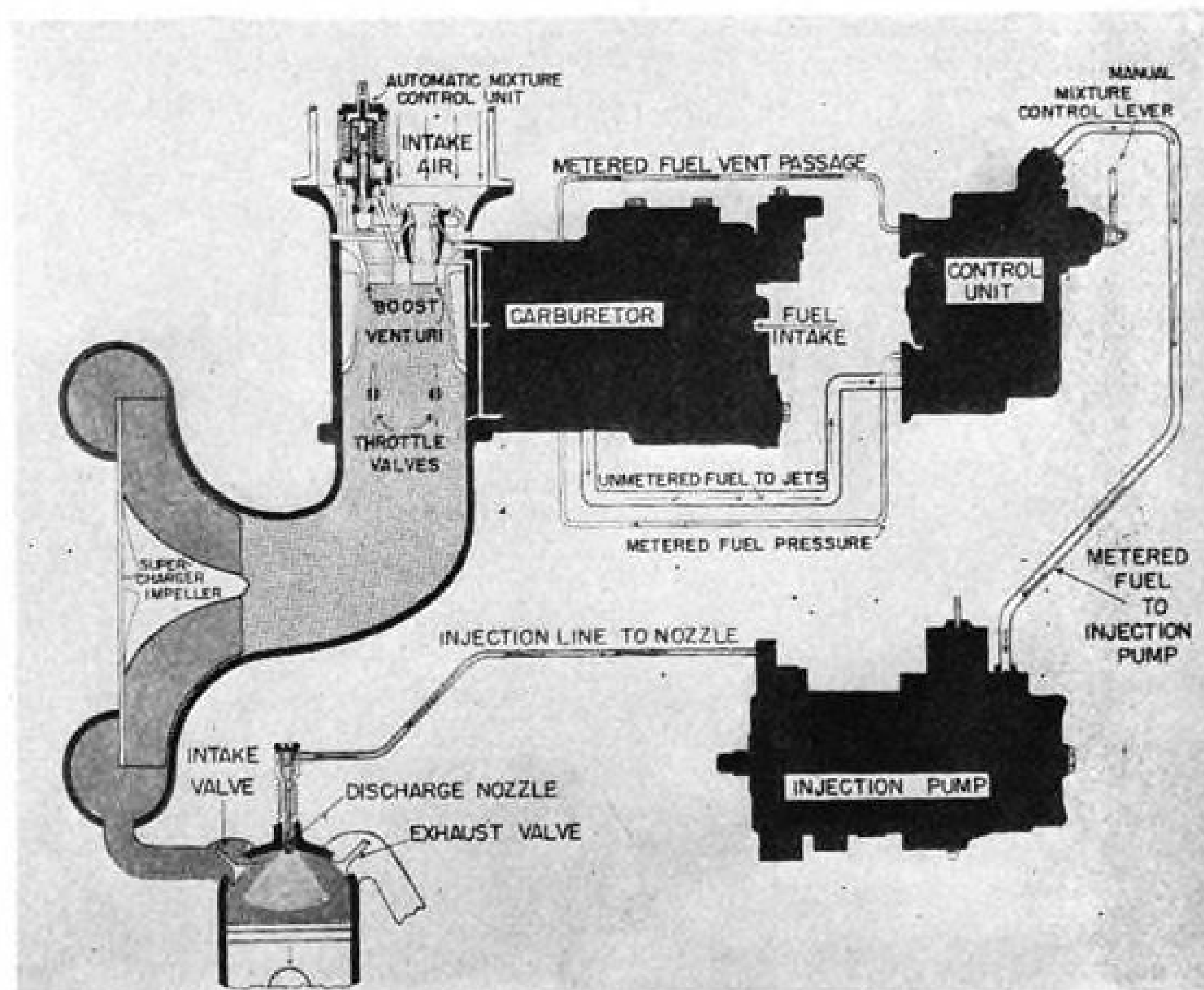
► **Approve Waffle Panel**—If output

Douglas Seat

Douglas Aircraft has produced a lightweight passenger seat designed for DC-3, C-47 and C-53 use on airline conversions.

The chairs are available in a choice of color and fabric, as standard left hand double units and right hand single units. Weight is 29 lbs. for single seat and 53 lbs. for the double unit.

Ease of removal and installation, removable padded spring cushion and cushion units, and a new hydraulic adjustable mechanism are features of the seat.



CONSTELLATION'S FUEL INJECTION:

Simplified diagram of the direct fuel injection system being put on the Curtiss-Wright 3350 engines of TWA's Constellations. While retaining the same carburetor, the system uses the carburetor as a master control which meters, or measures, the amount of fuel necessary for each bank of nine cylinders. Fuel and air is not mixed in what is labeled carburetor in the diagram. Each engine contains an injection pump for each of the two banks of nine cylinders. Each pump feeds the proper amount of fuel into each of the nine cylinders. Air is mixed with the fuel directly in the cylinder.

should be insufficient, NHA feels that need for aluminum in housing would justify preferences by Civilian Production Administration. Much aluminum sheet is now being used as clapboard substitute for siding, which is uneconomical, in NHA's opinion.

Final approval by NHA engineers of the Lincoln Homes Corp. "waffle" panel is one more step toward decision by aircraft companies to enter the field. The Lincoln house design seems destined for wide use in the pre-fab program, both by aircraft and non-aircraft companies.

Aircraft engineers are interested in the high-strength panels as they are related to further development of metal-and-plastic sandwich structures for application in thin, heavily-loaded, high-speed airfoil sections.

► **Ryan in Picture**—Douglas, Goodyear and McDonnell are still mentioned as foremost in negotiation with NHA on housing manufacture. Ryan recently came into the picture; Consolidated is still interested, as are several others.

Unofficial reports are that Doug-

las is being urged to consider a schedule of 200,000 houses per year, rather than the first-proposed 100,000. Aircraft company output of houses in 1947, if they come near meeting NHA proposals, would be greater than their production of airplanes, now estimated at less than \$1 billion for 1946.

From the West Coast, however, come reports that airframe builders are unwilling to commit themselves to proposals that they plunge instantly into emergency housing production.

► **Wyatt Visits Coast**—Wilson W. Wyatt, national housing expeditor, recently visited Los Angeles and left without having gained from the industry more than a display of interest that was cool in the light of the apparent inability of housing experts to offer: (1) specific contract proposals; (2) definite estimates of the probable life of any contract.

Spokesmen for both Douglas and Consolidated indicate that before contracts are signed many questions remain to be answered by government housing officials.

Douglas will have to be convinced that the company can come out of such a deal without an actual loss, and it also wants specific marketing estimates to determine the extent to which it will have to disrupt existing aircraft production and shift employees to housing manufacture.

Convair, also concerned with the possibility of facing a loss, has the added interest of learning when and where it might obtain metals and insulation materials.

Hughes Tool Co. Buys 1800 Shares of TWA

Purchase of 1800 additional shares of Transcontinental and Western Air common stock by Hughes Tool Co. has increased the firm's common holdings in the air carrier to 454,850 shares, according to the monthly stock transactions report of the Securities and Exchange Commission.

Approximate market value of the Hughes holdings in TWA common, \$5 par, is \$13,645,500.

Other aviation stock transactions noted in the latest SEC report, covering the month ended Sept. 10, included:

Brewster Aeronautical. Sale of 136 common shares, \$1 par, by James Work reduced Work's common holdings in the corporation to 65,150 shares.

Colonial Airlines. Sale of 200 common shares by Branch T. Dykes reduced Dykes total common holdings in the carrier to 554 shares.

Purchase of 100 additional common shares by Kennan Hamilton increased his total common holdings in the carrier to 1,110 shares.

Northwest Airlines. Philip D. Armour acquired 300 additional common shares, increasing com-

mon holdings in the carrier to 1,000 shares (market value, approximately \$28,000).

Goodyear Aircraft Will Make Caskets

Further expansion of Goodyear Aircraft Corp.'s non-aviation production will include cabinets for refrigerators, as well as the manufacture of 25 experimental prefabricated aluminum and wood houses.

The company has done research on more than 100 articles which might be manufactured to keep its production facilities and workers in use. Current employment at the plant is 2,500, while before the war it was 400.

Goodyear has started tooling up on a \$6,400,000 order from the government for 50,000 caskets to be used for burial of this country's war dead. This order alone is expected to give employment to 400 throughout 1947.

Other non-aeronautical interests of aviation firms:

Fairchild Camera & Instrument Corp. has set up a wholly-owned subsidiary at Burlington, Vt., to manufacture low-priced consumer items such as electric drills for home workshops. To be known as Fairchild Industries, Inc., the enterprise will employ about 150.

Bendix Radio, Baltimore division of Bendix Aviation, is going in for mass production of frequency modulation receivers for homes. The company will also manufacture television receivers for both black and white and color when there appears to be a market for the sets. Bendix is currently advertising a full line of home radios and radio-phonograph combinations, table and console models.



RYAN INSPECTION:

T. Claude Ryan, president of Ryan Aeronautical, and Rear Admiral Harold B. Sallada, chief of Navy's Bureau of Aeronautics, during the latter's recent inspection of the Ryan plant. Ryan has just been elected chairman of the western region executive committee of the Aircraft Industries Association.

Navy Orders Production Of 24 Martin Amphibians

First production order for the PBM-5A has been placed by the Navy with The Glenn L. Martin Co. The initial order for the amphibian version of the Mariner flying boat is for 24 planes, with deliveries expected to begin early next year.

At the present time, this constitutes the entire production scheduled for PBM-5As. The only plane of this type the Navy now has is the prototype XPBM-5A. Martin's program is based on delivery of two PBM-5As a month, the same rate presently in force for the flying boat.

Addition of the new Navy order, while no dollar figure was announced, is believed to put the Martin backlog in the neighborhood of \$200,000,000.

Boeing to Hire 5,600

Boeing Aircraft Co. payroll at Seattle will be increased 5,600 to a strength of 16,000 persons by April, according to Des Isaacson, Boeing personnel manager. The hiring rate is now higher than it has been at any time in the past two years, with 554 new and recalled persons hired in a recent week. The payroll was 10,400 as of Sept. 13 and is expected to reach 13,500 by Jan. 1.

New workers are being assigned to work on the Stratocruisers, B-50 Superfortresses and C-97 army transports.



ARGENTINE AIRCRAFT:

This Argentine twin-engined bomber is built by the Military Aircraft Factory at Cordoba. Designated the Calquin, it is powered by two Pratt & Whitney 1,765 hp. engines, carries a bomb load of 1,750 lb. a distance of 1,200 mi. at a maximum speed of 422 mph. The factory was established in 1927 and has been constructing planes of its own design.

A FREE ECONOMY IS WORTH FIGHTING FOR

BUSINESS must take the initiative if the price decontrol machinery, set up by Congress, is to be effective. The present price control law is far more than a set of instructions to the administrators of OPA; it is a challenge to business to be aggressive in speeding decontrol decisions and in persuading the Price Decontrol Board to adopt a strong stand for return to a free economy.

Thus far business has not met this challenge. *Two months after the passage of the new price law not a single application for decontrol of a major product had been filed by an industry advisory committee.* This is due in part to the red tape controlling such applications. Nonetheless, a continuation of such inactivity on the part of business can well result in perpetuating price control far beyond the time either the present law or sensible economic policy require.

It was the clear intent of Congress to hasten our return to a free economy. In the legislation continuing the general control of prices, Congress formally declared its purpose to have it "terminated as rapidly as possible."

To accomplish this, the House originally approved a formula which would have made decontrol mandatory when production had attained a prescribed level. The automatic decontrol provision was dropped before the bill was finally passed, partly because of the uncertain effects of strikes on production. But Congress did not mean to return the timing and extent of decontrol to the administrative discretion of OPA.

On the contrary, to assure having price control "terminated as rapidly as possible," Congress created a Price Decontrol Board and gave it power to overrule OPA when the board finds price control should be removed. Moreover, it gave to industry the right and the responsibility to seek decontrol. Also, in a further effort to speed up the decontrol process, it placed narrow limits on the time allowed for board decisions.

Congress had compelling economic reasons for doing its legislative best to speed up decontrol.

1. It is by all odds the best way to eliminate the

bottlenecks in production and the black markets which have plagued the country since V-J Day.

Rigid price ceilings promote shortages of badly needed commodities by discouraging their production. Such shortages both upset the flow of production and promote black markets. At present a considerable part of American industry is stymied by shortage of critical parts and materials. Price control is much to blame.

2. There must be flexibility of prices if a round of new wage adjustments, which may be forced on industry early in 1947, is to be negotiated without grave risks of seriously curtailing production.

When, under the leadership of the national administration, the first post V-J Day round of wage adjustments was made, price ceilings were held rigid while wages were boosted. The result was a series of price-wage squeezes which upset production. They would have been disastrous if we had not been in a sellers' market, created by a tremendous accumulation of wartime shortages. In 1947, however, many industries will be in a buyers' market. It must be possible, therefore, to have wage increases reflected promptly in price adjustments if we are to avoid a repetition of the costly post V-J Day round of strikes, which often had price control as the key issue.

3. Rapid decontrol is necessary to maintain a high level of employment and production.

Almost five years of price control inevitably twisted the factors of production and distribution far out of the equilibrium which would prevail in a free economy to which it is the clear purpose of the nation to return. Unless the return to a free economy is facilitated by a speedy and orderly decontrol, the jolt of an abrupt return to competition can be expected to upset employment and production seriously.

It's Up To Business

To encourage speed and boldness in decontrol, Congress provided for the reimposition of control over any prices which, after being released, might

get out of hand. The dangers of this sort are chronically exaggerated. During the 25-day period in July when there was no price control the Civilian Production Administration found that "manufacturers of finished industrial and consumer products have generally exhibited commendable restraint in increasing prices no more than increased costs."

All of this endeavor to speed up decontrol and expand its scope is likely to be futile, however, unless business furnishes the driving power for the machinery Congress provided. OPA certainly will not do it. Neither can the Decontrol Board be expected to go out and drum up cases.

The necessity for vigorous action by business in pressing for decontrol is increased by the fact that the general legislative standards to guide decisions by the Decontrol Board are vague. They must be clarified and sharpened by decisions in specific cases.

The main principle to guide the decontrol of non-agricultural products is that price ceilings shall be removed when supply is in approximate balance with demand. But what precisely does that mean? The meaning will become clear only through Decontrol Board decisions.

The same is true of the principle which makes automatic decontrol of a non-agricultural commodity contingent on whether or not it "is important to business costs or living costs." Business must press cases which will give specific meaning to those vague terms if decontrol is to get on apace.

Cards Are Stacked

At present the government has the cards pretty well stacked against rapid decontrol.

First, the key members of the staff of the Price Decontrol Board are holdovers from the Bowles regime which emphasized the importance of carrying on price control rather than speed in getting rid of it.

Second, in exercising his authority to prescribe regulations to govern petitions for decontrol, the OPA administrator has required excessively complicated statistical and economic data. Manufacturers who are sure they can convince any fair-minded board of the desirability of decontrolling certain of their products assert that they are blocked by statistical entanglements.

Third, OPA has discouraged business from moving immediately under one section of the law to speed decontrol. This section provides that products "not important in relation to business or living costs" may be freed from price ceilings immediately and must be freed by December 31, 1946, unless OPA specifically finds they are important to these costs.

Instead of making it possible for business to move under this section now, OPA has issued rules which have the effect of blocking such a course until the end of the year.

In the light of obstacles such as these, it is not surprising that the record of decontrol to date is not impressive.

Decontrol Record

Since June 30 there has been a drop from about 70% to about 60% in the total value of products under price control. But most of the drop has been accounted for by food products, which Congress took the lead in decontrolling, and by industrial machinery which was being decontrolled when Congress acted. By far the larger part of manufactured consumer goods remains under control.

This, however, is no time for business to be discouraged. Rather, business should accept the obstacles put in its way as a challenge and work harder than ever for speedy decontrol.

The case for decontrol should not be stated in narrow technical terms. It should be based on grounds of broad public policy, and should demonstrate how a speedy return to a free economy can hasten the full release of the nation's productive power.

For example, there should be very clear demonstrations of how, in far too many cases, rigid price ceilings—(1) discourage production of key parts and materials by making such production relatively unprofitable, (2) create shortages of key parts and materials which tie up broad ranges of production or result in piling up lopsided inventories of partially completed goods, and (3) thus cut away the foundations of a stable economy and the prospects of steadily sustained employment.

There should be equally full demonstrations of the well known sequence from shortages to unrealistic price ceilings to black markets. Meat prices are rolled back, but the meat is rolled under the counter.

A free economy is worth fighting for. Liberty is preserved only by the constant struggle of those who believe in it. Neither the interests of the nation in a strong and well-balanced economy nor the interests of business itself will be served by drifting at this time. Now is the time for business to lead a strong offensive for speedy elimination of price control.



President McGraw-Hill Publishing Company, Inc.

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SPECIAL AIR SERVICES

CHARTER NON-SCHEDULED INTRASTATE

Area Certificate Issue Clouded In Two Cases Before CAB

Public counsel holds Board has legal right to issue area-to-area routes; examiners in air flight case disagree; free transportation also an issue.

By CHARLES L. ADAMS

The important legal question of whether the Civil Aeronautics Board is empowered to issue area-to-area certificates to meet the need for flexibility in air cargo operations has brought out a significant difference of opinion at CAB. The issue is now a live one both in the Boston-New Orleans route case and the fast-developing airfreight case, with the examiners in the latter proceeding and public counsel in the former taking divergent positions.

Area-to-area routes, currently sought by an increasing number of cargo carriers in preference to the rigid, conventional point-to-point links, would enable a carrier to operate between any point in one designated area and any point in another designated area on the most direct airway over which weather is flyable at a given time. An area-to-area certificate also would permit a cargo line to serve bulk shippers at the most convenient shipping point and provide the carrier with a sufficient trade area from which to draw freight moving in both directions regardless of local seasonal fluctuations.

► **Counsel Says Yes**—Recent brief of public counsel in the Boston-New Orleans case—first proceeding in which active air cargo carriers have participated—argues that CAB has authority under the Civil Aeronautics Act to issue area-to-area certificates. The Board, public counsel said, is not required to name either terminal or intermediate points in any certificate it may issue, and the requirements of section 401 (f) of the Act will be satisfied if a certificate merely defines areas between which the holder is authorized to provide service.

In contrast, examiners in the

airfreight case declared in their supplemental prehearing report several months ago that both the Act and the Board's Economic Regulations require naming of every terminal and intermediate point to be included in the certificate for which application is made.

The examiners indicated that even when all co-terminals in each area are named area-to-area operations might not be able to meet the test of a scheduled service since every co-terminal would not be served on each flight.

U. S. Airlines has an area-to-area application pending in the Boston-New Orleans case, and its fate is being watched closely by parties to the less-advanced airfreight proceeding.

► **Fare an Issue**—Public counsel in the Boston-New Orleans case also

made their position clear on the question of whether the Board can authorize in a certificate free transportation of persons connected with shippers using the carrier's service. They found that CAB is without power under the Act to grant such free transportation in a certificate issued under section 401 but pointed out that the Board could issue an exemption permitting this practice after the certificate is awarded. Counsel also noted that once certificated a carrier could file a tariff with CAB requesting approval of free transportation of shippers' representatives.

Other industry developments:

► **Matson Navigation Co.**, San Francisco, during July and August (first two months of air operation) flew 36,775 revenue plane miles carrying 9,127 lb. of cargo 22,796,870 revenue pound miles and 166 revenue passengers 424,123 revenue passenger miles for total revenue of \$37,018. Loss for July only was \$4,274. Carrier uses DC-4s in service between the West Coast and Hawaii.

► **Riddle Aviation Co.**, Coral Gables, Fla., has asked CAB for a temporary or permanent certificate authorizing transportation of passengers, mail and property from Miami and New York to Belem, Brazil, and from Miami and New York to Buenos Aires. Company would use C-47s—of which it owns seven—on the route.

► **S.S.W., Inc.**, Bethesda, Md., (operating base Contra Costa County airport, Concord, Cal.) commenced passenger/cargo nonscheduled operations with one DC-3 Sept. 26. Officers of the company, which will offer hunting trips for sportsmen, include A. C. Schirmer, president; T. W. Woodbeck, vice-president; and S. E. Spicher, secretary-treasurer.

► **Mor-Fresh Air Express, Inc.**, Council Bluffs, Iowa, (operations base Omaha, Neb., Municipal airport) is completing trial runs and soon will offer passenger/cargo service in continental U. S. with two DC-3As. Officers include

Flying Freight

The five members of the Independent Airfreight Association—Flamingo Air Service, National Skyway Freight Corp., Slick Airways, U. S. Airlines and Willis Air Service—flew approximately 4,000,000 ton miles of cargo during July and August.

The August total of 2,331,095 ton miles was an increase of 685,711, or about 42 percent, over the 1,645,384 ton miles flown in July. Ton mile increases of the individual carriers during the two months ranged from 11 to more than 250 percent.

L. E. Simpson, president; H. E. Tompkins, vice-president; and V. Honey, secretary-treasurer.

► **Viking Air Transport Corp.**, Glendale, Cal., has applied for a CAB certificate authorizing nonscheduled and contract transportation of persons and property between Los Angeles and Newark via Albuquerque, Amarillo, Oklahoma City, Chicago, etc.; between San Francisco and Newark via Salt Lake City, Cheyenne, Omaha, Chicago, etc.; between San Diego and Seattle via Los Angeles, San Francisco and Portland; and between Los Angeles and Miami via Phoenix, El Paso, Houston, New Orleans, etc. Company has also asked to carry persons, property and mail on a nonscheduled basis between Miami and San Juan nonstop and between Newark and San Juan via Richmond, Jacksonville and Miami. DC-3Cs—of which five are now on hand—would be used on the routes.

► **Willis Air Service, Inc.**, New York, is operating six New York-Chicago roundtrips weekly. Company recently opened Chicago offices at 188 West Randolph St.

► **Trans Caribbean Airways**, New York, is offering one-stop New York-Los Angeles service with DC-4 equipment.

District Court Ponders Veterans' Suit on C-54s

The U. S. District Court for the District of Columbia last week was considering a rehearing of the case in which George W. Tompkins, president of Air Travel, Inc., San Francisco cargo carrier, lost his suit to prevent the War Assets Administration from selling 38 surplus C-54s to the certificated overseas airlines. Tompkins' attorney indicated that if the rehearing is denied the case will be appealed.

Tompkins and Ralph Cox, Jr., Roosevelt Field, N. Y., had charged that WAA officials illegally ignored their Veterans' Preference Certificates in making the C-54s available to the airlines (AVIATION NEWS, Sept. 23). The court held that the case should be dismissed because it was a suit against the Government to which the Government had not consented. It fur-

ther declared that the veterans' priorities must be subordinated to the public interest and national defense as determined by the Civilian Production Administration and WAA.

Blame Shifting Fog In Trans-Luxury Crash

A treacherous fog condition which permitted unlimited vertical visibility directly over the airport and almost no horizontal visibility on the ground was an important factor in the crash of Trans-Luxury Airlines' DC-3 near Elko, Nev., last month, testimony on the accident has disclosed. CAB investigators found no evidence of power plant or structural failure after examining the wreckage.

Observers at the Elko airport reported that fingers of fog from an extensive patch along a nearby river alternately reached out over the field and retreated on rapidly shifting winds about the time of



SAFETY AWARD:

Achievement of the Contract Air Carriers Association of Miami in operating 6,862,892 plane miles without an accident between Jan. 1 and Sept. 1 was recognized recently by the Dade County Safety Council—affiliate of the National Safety Council. During the eight-month period 59,848 passengers and 1,500,000 lb. of cargo were carried by CACA members. Leonard P. Ireland (left) president of the safety council, is shown presenting a silver plaque to CACA President John Yandell.

the TLA accident. A twin-engine Beechcraft, which landed more than an hour before the DC-3's arrival, experienced unexpected difficulty because of the unusual fog formation, witnesses stated.

The Trans-Luxury pilot had reported to Elko by radio that he had the field in sight from 12,000 ft. at about 1:30 a.m. and was going to land. Several minutes later the plane crashed on a fog-covered knoll about two miles away, killing 21 persons. The only survivor was a 2-year-old child (AVIATION NEWS, Sept. 16).

Waterman Nets Profit From 'Tramp' Flights

Waterman Airlines, at hearing last week on its application for a temporary New Orleans-San Juan route certificate, brought out in detail through its exhibits and testimony the scope of both its intrastate service and controversial nonscheduled operations.

Between July 15, when Waterman began its nonscheduled activities, and Sept. 9, the carrier made 38 flights, including 32 with DC-4 and six with DC-3 equipment. Total passengers carried numbered 785, and net profit for July and August was \$18,683. Trips were flown between New Orleans and San Juan, New York and San Juan, Mobile and Oakland, Cal.; Oakland and Honolulu, New Orleans and New York, and New York and London.

"When and if the application in this proceeding receives favorable action from CAB," Waterman declared, "these nonscheduled 'tramp' operations will cease. Until that time, they will continue and expand." A second new DC-4, which could be used to double Waterman's nonscheduled operations, is on order for Spring delivery.

In describing its intrastate operations in Alabama, Waterman reported carrying 11,098 passengers and 16,886 lb. of freight between Mar. 11 and Sept. 8 of this year. Load factor was 44 percent, and net loss for the six months from March through August was \$241,839.

Waterman recently put new DC-3 equipment on the Alabama route, replacing Lockheed Lode-stars, and expects to have the intrastate operation in the black by spring. Service is provided to six points — Mobile, Dothan, Montgomery, Birmingham, Huntsville and Muscle Shoals.



NEW FEEDERLINER IN SERVICE:

First of Empire Airlines' new fleet of ten Beech D18C-T feederliners began flights this month on the New York carrier's intrastate routes, which heretofore have been operated with Cessna UC-78s. Similar to the D-18S, the new Beechcraft recently was granted a tentative approved type certificate by CAA specifying a maximum of 9,000 lb. gross weight for takeoff and landing. The D18C-T is powered by a pair of 525 hp. Continental engines, while the D-18S, which has a maximum gross weight of 8,500 to 8,750 lb., utilizes two 450 hp. Pratt & Whitney Wasp Juniors.

TRANSPORT

Court Decision Questions CAB Review of Presidential Decision

Further proceedings in reopened Hawaii case stayed by Circuit Court of Appeals backing of Pacific Overseas Airline plea.

By MERLIN MICKEL

CAB attorneys, including chairman James M. Landis, are giving close scrutiny to last week's Court of Appeals decision that stayed further proceedings in the reopened Hawaiian case and went outside the immediate issues to question the Board's authority to reopen any case decided with presidential approval.

The Board's Hawaiian case decision (AVIATION NEWS, July 8), sanctioned by President Truman, certificated United Air Lines to operate between San Francisco and Honolulu, but because of a 2-to-2 split on whether United or Hawaiian Airlines should be certificated between Los Angeles and Honolulu, the Board immediately announced this phase of the case would be reopened.

Added Weight — The court's memorandum questioning this action lends added weight to the doctrine previously pronounced by the Second Circuit Court of Appeals in the American Export case that presidential action in international route cases removes them from judicial review.

Stay of the Board order was sought by Pacific Overseas Airlines of Ontario, Cal. POA filed application for a Los Angeles-Honolulu route six weeks after the Hawaiian decision, and followed it two days later with a petition to intervene. This the Board denied, and POA took the case before the U. S. Court of Appeals for the District of Columbia.

On the day the case was heard, POA brought to court an affidavit from the Army to support its contention that war contract commitments had prevented it from making application for the route before it did so. In granting the stay, the court recognized that the affidavit was not in the record before the Board and could not be considered by the court, but remanded

the case for CAB consideration, upon the new evidence, of the reasons for POA's delay in filing its petition for intervention.

Court Upholds Board—The court conceded that the Board probably acted correctly in refusing to permit Pacific Overseas to intervene because of its unexplained lateness of filing. But in view of the circumstances, the court said, "We believe the Board will agree that no person should be penalized for his patriotism in time of national stress and common danger, and that the Board might have deemed it proper and expedient to excuse the apparently unwarranted delay of Pacific Overseas..." had CAB been informed of the situation.

The court declared that "it has not been suggested to us by any of the parties" that the Board might not have been within its power in reopening the Hawaiian case, "but it seems to us that there is implicit in the record a serious question as to whether the Board had that authority."

Presidential approval of the Board's decision, the court pointed

out, apparently constituted final disposition of the entire proceeding then pending. Perhaps, it was suggested, the Board should institute a new proceeding to determine whether another carrier should be certified between the U. S. and Hawaii and, if so, who the carrier should be.

The court foresaw the possibility that applicants denied certificates in the original proceeding might see fit to renew their requests, confining them to a route between Los Angeles and Honolulu, in which event the Board might consolidate them with POA's application.

At CAB, the court's observation were being examined for possible effect on other international cases. Notable the Latin American case, which the Board already has announced (AVIATION NEWS, July 29) it would reopen to determine need for additional through services between eastern U. S. cities and the Canal Zone via West Indian points. Petitions have been filed to reopen the Pacific and South Atlantic cases also.

Domestic route cases, frequently reopened by CAB, would not be affected, since they do not require presidential action.

Anglo-Italian Airline Plans Extensive Service

British European Airways operations under its new civil air agreement with the Italian government will be confined to Italy for the time being, but the company hopes to extend them before long to most European capitals and South America.

The agreement provides for an Anglo-Italian company to be called

"Aero Linea Italiana Internazionale" (International Italian Airline) with 60 percent of its capital of one milliard lire (over \$4,500,000) in Italian hands and 40 percent held by British European Airways. BEA will start services as soon as possible.

Steamship Lines Wait Air Verdict of CAB

Decision near on final attempt of surface carriers to obtain satisfaction from board before pressing fight in Congress.

Nine of the nation's leading steamship lines last week awaited CAB's answer to their latest plea for review of policies barring them from the airlines and at the same time realistically pushed efforts to obtain relief through Congressional action.

Recent oral argument before the Board, in which a complete reappraisal of the sea-air question was sought, is being viewed as the final attempt by steamship interests to obtain satisfaction from CAB as presently constituted. A Board refusal to reconsider its position or to issue a statement conciliatory to the surface carriers would leave appeal to the courts and Congressional amendment of the Civil Aeronautics Act as the only recourse, with the latter avenue the most promising.

Contend CAB Mistaken—Robert E. Kline, Jr., counsel for the nine steamship companies, renewed the

surface carriers' contention that Congress never intended to exclude them from the air through Section 408 (b) of the Civil Aeronautics Act. He said that as a result of CAB's mistaken interpretation of Congressional intent route certificates are still being limited to a favored few.

Recent international agreements have worked out so that competitive foreign shipping interests directly or indirectly have been permitted to engage in air transportation with this country, Kline asserted. He pointed out that in Great Britain, France, The Netherlands and other countries complete sea-air coordination is achieved at a government level and that some foreign operators are already advertising one-way-by-air, one-way-by-sea service.

Admiral Backs Lines—Both Kline and Vice Admiral William W. Smith, chairman of the U. S. Maritime Commission, emphasized that overocean freight traffic follows the passenger flow and that if the latter moves by foreign airline the former will travel by foreign surface carrier. Admiral Smith said CAB and the Maritime Commission should put U. S. commercial air and sea fleets in a position where they can complement each other in providing a solid front against foreign flag competition and be a nucleus for adequate national defense.

Stuart Tipton, Air Transport Association counsel, asked the Board to refuse the steamship companies' bid for reexamination of the sea-air controversy, asserting the sur-

Bribe Rules

KLM, Royal Dutch Airline, believes in moderation in all things. Employees have been informed at Karachi, India, that it's all right to accept one cigaret from a patron, but that anyone detected taking more than one will be discharged for accepting a bribe.

face interests were seeking to obtain another hearing on thoroughly argued issues. CAB Chairman James M. Landis and other Board members appeared skeptical that sufficient new factual evidence is yet available to prove that American surface carriers are facing destructive competition from foreign sea-air combines.

Airlines Oppose Commuters Airport Air Taxi Service

Asserting that any further traffic congestion would dangerously overload the city's airports, Northeast Airlines, Eastern Air Lines and Island Air Ferries recently opposed the New York area shuttle and feeder service proposals of Air Commuting, Inc., in oral argument before CAB.

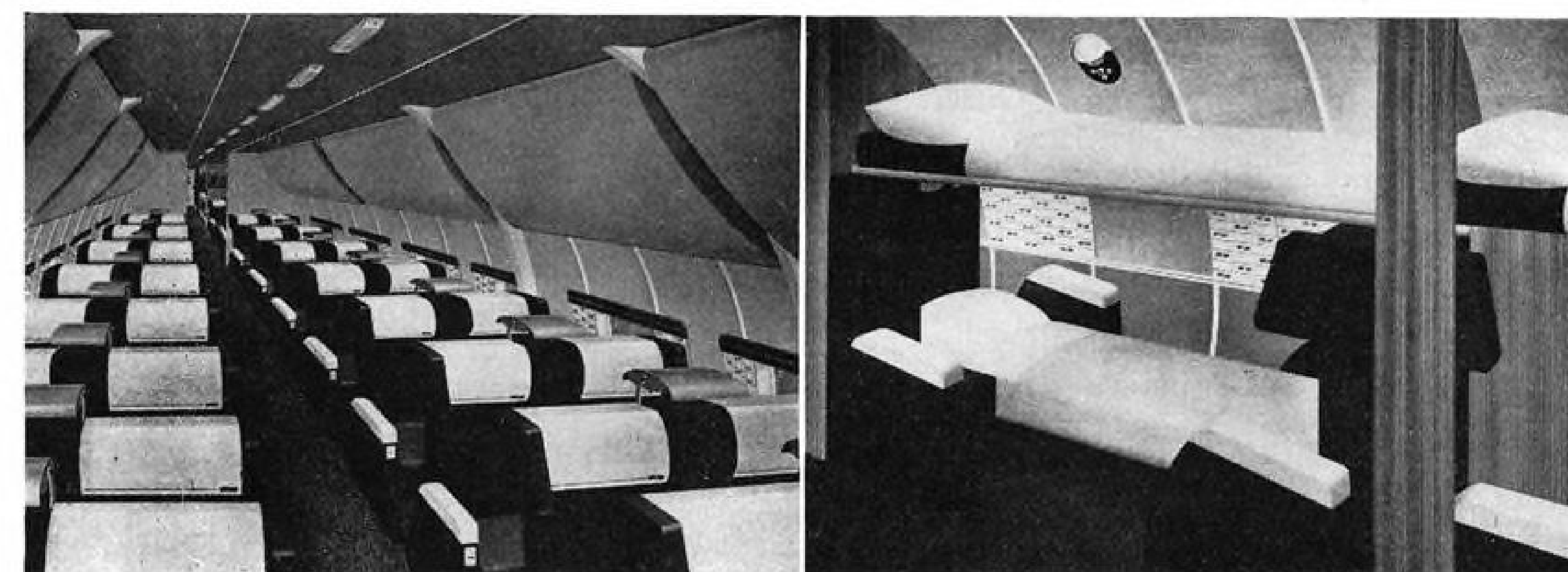
The operation, to be conducted with Grumman Mallard amphibians, has already received the endorsement of a Board examiner and the Port of New York authority.

Air Commuting told the Board that it should be granted a certifi-



AIRMAIL COMES TO GARY:

This helicopter settled to the ground in a Gary, Ind., school yard with a load of airmail from Chicago as part of helicopter airmail tests being conducted in that area by the Post Office Department. (Acme photo)



INSIDE THE TUDOR II:

Day and night interiors of the Avro Tudor II, which has been test flown successfully (AVIATION NEWS, May 6), are shown above. The British-built craft will be used by BOAC. With accommodations for 40 day or 20 night passengers, it will have a range of approximately 2,500 miles. Gross weight is 80,000

lb. This compares with 78,000 lb. for the Tudor I, which will carry 12 night or 24 day passengers, with a 4,200-mile range. Both ships, on which cruising speed is 245 mph. at 25,000 ft., are in production. Each is powered by four 1,660-hp. Rolls-Royce Merlin engines.

cate to test the feasibility of its novel airport-to-airport, airport-to-city commuting links, adding that Idlewild and Floyd Bennett Field will soon relieve congestion at LaGuardia. The carrier noted that since it planned contact flight operations only, it would not contribute to congestion arising from instrument conditions.

Northwest Officials Plan Orient Route Conferences

Northwest Airlines representatives are to leave for the Orient this month to arrange landing rights in Japan, China and the Philippines for NWA's trans-Pacific service.

Plans for inaugurating the operation around Feb. 1 were discussed during Northwest's annual stockholders' meeting recently, at which all officers and directors were re-elected. First DC-4 survey flight to the Orient is scheduled before the end of the year.

Stops Requested

American Overseas Airlines has requested CAB permission to serve Bremen, Hamburg, Hanover and Cologne, Germany, on its North Atlantic route.

CAB Hearings on Gander Crash Scheduled for N. Y.

Hearings on the recent American Overseas Airlines DC-4 crash near Stephenville, Newfoundland, were scheduled for New York City late last week, but CAB safety officials voiced only faint hope that the cause for the accident could be established definitely.

With no indication of engine failure, and in view of the clear weather, investigators were at a loss to explain why the plane had been unable to clear a 1,500 ft. hill some twelve miles from the take-off. Thirty-nine persons died in the disaster—worst in the history of U. S. commercial aviation.

Eastern Crash Caused By Broken Fuel Line

Crash of an Eastern Air Lines DC-3 near Cheshire, Conn., Jan. 18 probably was caused by failure of a fuel line or fuel line connection, resulting in an engine fire and subsequent collapse of the left wing, a CAB accident investigation report states. All 14 passengers and three crew members died in the mishap.

Evidence that the plane's crew



LUMBER LOAD:

The box car shortage led to what United Air Lines officials believe was the first large-scale commercial lumber shipment by air when Eugene, Ore., lumber dealers sent two 16,000-lb. plane loads of plywood sheets and flooring from Eugene, Ore., to Salt Lake City. Air freight shipment of door and window sashes from Portland to Salt Lake City also was arranged.

was unaware of the fire and thus had made no effort to control it again illustrated the need for automatic fire detection equipment, CAB said. The Board noted that as a result of the Cheshire crash and other accidents involving fires in flight during the past year new fire prevention regulations for transport planes were promulgated last month (AVIATION NEWS, Sept. 30).

Indian Air Administration By Regional Control

Creation of two administrative regions by the Indian Civil Aviation Directorate, one at Karachi and the other at Dum Dum near Calcutta has the effect of dividing Indian air transport into an eastern and western system. Main trunkline traffic will go via those two points, but internal airways are expected to develop mainly on two north-south axes pivoting on the regional centers.

Bombay, Ahmedabad, Jacobabad (Sind), Lahore, Jodhpur and Delhi will be under the Karachi jurisdiction, and Calcutta, Cawnpore, Allahabad and Madras under Dum Dum.

Estimates are that by the end of the year 110 airports will have been taken over from the RAF by the newly-created Air Transport Licensing Board, which is charged with helping integrate India's airways system and upholding international conventions.

Wiggins Seeks Five 'Copter Routes Out of Boston

E. W. Wiggins Airways, Inc., Norwood, Mass., recently-certificated New England feederline, has asked CAB authorization to operate helicopters over five circular routes radiating from Logan International Airport, East Boston. Mail, passenger and cargo service to 53 eastern Massachusetts communities is contemplated in the application.

The move by Wiggins closely follows a CAB examiner's recommendation that Yellow Cab Co. be certificated for helicopter routes in the Cleveland area (AVIATION NEWS, Sept. 30) and new helicopter bids by Southwest Airways Co., west coast feederline. Southwest, which participated in the Los Angeles area helicopter hearing last month, recently applied for three more helicopter routes radiating from San Francisco Municipal airport to San Jose, San Rafael and Vallejo.

Auto Air Delivery

The British-built Bristol Freighter, on tour through 17 countries in North and South America, made the first air delivery of an automobile at Boston when the Austin sedan that had been carried in the ship's hold (AVIATION NEWS, Sept. 30) was unloaded there on consignment to a local company.

Northwest Mail Rate

Northwest Airlines has asked CAB for a temporary mail rate of 85 cents a ton mile on its new North Pacific route. The carrier flies one roundtrip daily between Seattle and Anchorage, Alaska, and intends to start New York-Chicago-Anchorage service via Edmonton, Canada, shortly. Operations to Japan, China and the Philippines are to begin early next year.

IATA Traffic Group Studies Rate Changes

Action at the organization meeting of the Western Traffic Conference of International Air Transport Assn. indicated a desire to predicate first recommendation of international air rates for the western hemisphere on actual airline operating costs.

At sessions held near Rio de Janeiro, the Conference set up a cost analysis committee and withheld any proposed changes on the existing rate structure on western hemisphere routes pending its studies.

The committee was one of six appointed. Others will deal with government forms; traffic forms and procedures; tariffs, rates and schedules and conditions of carriage, and reservations and agencies. Standard traffic forms tentatively drawn by IATA's Traffic

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AUTOMATIC APPROACH DEMONSTRATED:

United Air Lines, which is equipping its fleet with Sperry electronic gyropilots (AVIATION NEWS, Sept. 23) recently demonstrated automatic airport approaches which the device makes possible in the first such show by a commercial airline. Picture shows aviation writers grouped about a VHF glide path transmitter at MacArthur Field, Long Island,

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Committee for world-wide use were approved, and the same committee's recommendations on standards for tariffs, rates and schedules and conditions of carriage were adopted with some changes. Some discussion was given a standard international air transport agency agreement.

Conference chairman for the coming year is F. von Balluseck of KLM.

FAMA Recruits Pilots

Several American and Canadian pilots have been recruited by Flota Aerea Mercante Argentina (FAMA) to operate the Argentine

Government-owned DC-4s recently acquired. The country has bought 22 of the craft. Six are in service and the remainder are being converted from military to civilian transport design. All FAMA chief pilots are either American or Canadian.

CAB ACTION

The Civil Aeronautics Board:
 • Denied petitions of American Airlines and Northwest Airlines for reopening, rehearing, reargument and reconsideration of West Coast area case (Docket 250 et al.); denied Pan American's petition for leave to intervene and for deferment of reargument and reconsideration of the case; and denied Pacific Air Lines' petition for leave to intervene, for consolidation of its application in the case and for reopening of the record.

• Granted temporary exemption (a) permitting Pan American to serve Shannon Airport, Eire, in lieu of Foynes; (b) permitting service between New York and Lisbon via Gander and Shannon; and (c) permitting service suspensions at Bolama, Portuguese Guinea; on that portion of its route between New York and Natal via San Juan, Port of Spain and Belem; that part between New York and Dakar via the Azores; and that part between New York and Lisbon via Bermuda and the Azores. Exemption terminates May 31, 1947.

• Consolidated applications of Standard Airlines (Docket 2458), National Skyway Freight Corp. (Docket 2467) and Vernon E. Anderson et al. (Docket 2490) in airfreight case (Docket 810 et al.); dismissed applications of Palmer Airlines (Docket 1405), Gilbertville Trucking Co. (Docket 1129) and Skyfreight Airlines (Docket 2422) from same proceeding at applicants' request; severed application of Easter Flying Freight (Docket 1569); and permitted eight chambers of commerce, Globe Freight Airlines, the State of Rhode Island and the Independent Airfreight Association to intervene.

• Consolidated in single proceeding applications of Pan American (Docket 2436), Chicago and Southern (Docket 2455) and Eastern Docket 2501) for service to Montego Bay, Jamaica.

• Approved interlocking relationships of R.E.S. Deichler as vice-president of American Airlines and director of American Overseas Airlines.

• Denied motion of Caribbean-Atlantic Airlines for consolidation of its three route applications (Dockets 2246, 2247 and 2248) for hearing and decision and dismissed at applicant's request Dockets 2247 and 2248.

• Denied requests of Pan American and American Overseas for immediate oral argument on the validity of temporary mail rates proposed by the Board for overseas operations.

CAB SCHEDULE

Oct. 14. Briefs due in Cincinnati-New York route case. Extended from Sept. 20. (Docket 221 et al.)
 Oct. 14. Exchange of rebuttal exhibits in Pan American Airways' domestic route case. (Docket 1803.)
 Oct. 14. Hearing on applications of Chicago & Southern and Pan American for service to Montego Bay, Jamaica. Postponed from Oct. 7. (Dockets 2436 and 2455.)

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Oct. 15. Prehearing conference on Caribbean-Atlantic Airlines' Christiansted-Curacao route application. (Docket 2246.)
 Oct. 17. Rebuttal exhibits due in TWA's Italian agreement case. Postponed from Sept. 26. (Docket 2337.)
 Oct. 17. Prehearing conference on applications of Slope Air Service, K. F. Hodson, Paul Bunyan Airlines, Bemidji Airlines and L. H. Rennewanz for additional service in the North and South Dakota area. (Dockets 1758, etc.)
 Oct. 21. Briefs due in Kansas City-Memphis-Florida route case. (Docket 1051 et al.)
 Oct. 21. Exchange of rebuttal exhibits in Continental Air Lines' San Antonio-Hobbs certificate amendment case. (Docket 2087.)
 Oct. 21. Oral argument on PCA-Northeast merger case. (Docket 2168.)
 Oct. 23. Hearing in Detroit-Washington route case. Postponed from Oct. 21. (Docket 679 et al.)
 Oct. 28. Briefs due in Arizona-New Mexico area route case. (Docket 968 et al.)
 Oct. 28. Exhibits due in Royal Dutch Air Lines' (KLM) application to serve Ciudad Trujillo, D. R. (Docket 2348.)
 Oct. 28. Hearing in Continental Air Lines' San Antonio-Hobbs certificate amendment case. (Docket 2087.)
 Oct. 30. Briefs due in Great Lakes area case. (Docket 555 et al.)
 Oct. 30. Hearing in Pan American Airways' domestic route case. Postponed from Oct. 29. (Docket 1803.)
 Nov. 1. Briefs due in Universal Air Travel plan case. (Docket 1939.)
 Nov. 2. Exchange of rebuttal exhibits in air freight case. Extended from Oct. 19. (Docket 810 et al.)
 Nov. 4. Hearing on Royal Dutch Air Lines' (KLM) application for service to Ciudad Trujillo, D. R. (Docket 2348.)

LEGAL NOTICE

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of Aviation News, published Weekly at New York, N. Y., for October 1, 1946.

State of New York } ss.
 County of New York }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared J. A. Gerardi, who, having been duly sworn according to law, deposes and says that he is the Secretary of the McGraw-Hill Publishing Company, Inc., publishers of Aviation News, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the name and address of the publisher, editor, and business manager is: Publisher, McGraw-Hill Publishing Company, Inc., 330 West 42nd St., New York 18, N. Y.; Editor, R. H. Wood, 330 West 42nd St., New York 18, N. Y.; Managing Editor, none; Business Manager, R. F. Boger, 330 West 42nd St., New York 18, N. Y.

2. That the owner is: McGraw-Hill Publishing Company, Inc., 330 West 42nd St., New York City. Stockholders holding 1% or more of stock: James H. McGraw, 330 West 42nd Street, New York City; James H. McGraw, Jr., 330 West 42nd St., New York City; James H. McGraw, Jr., Curtis W. McGraw, and Edwin S. Wiley, Trustees for: Harold W. McGraw, James H. McGraw, Jr., Donald C. McGraw, Curtis W. McGraw, all of 330 West 42nd St., New York City; Edwin S. Wiley and Curtis W. McGraw, Trustees for James H. McGraw, 3rd, Madison, New Jersey; Curtis W. McGraw, 330 West 42nd Street, New York City; Donald C. McGraw, 330 West 42nd Street, New York City; Mildred W. McGraw, Madison, New Jersey; Grace W. Mehron, 536 Arenas St., La Jolla, Calif.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements as to the embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is 12,232.

J. A. GERARDI, Secretary.
 MCGRAW-HILL PUBLISHING COMPANY, INC.
 Sworn to and subscribed before me this 24th day of September, 1946.

[SEAL] ELVA G. MASLIN.
 (My commission expires March 30, 1948.)

Nov. 12. Hearing in air freight case. Postponed from Oct. 28. (Docket 810 et al.)
 Nov. 15. Exchange of exhibits in freight forwarder case. (Docket 681 et al.)
 Dec. 20. Exchange of rebuttal exhibits in freight forwarder case. (Docket 681 et al.)
 Jan. 10. Hearing in freight forwarder case. (Docket 681 et al.)

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Arizona Helicopter Service, subsidiary of Southern Arizona Airlines, Inc., Tucson, plans to commence operations under its intrastate certificate Nov. 20. First service will be provided with one Bell Model 47 two-place helicopter.

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Russian Hail Over Scandinavia

THERE is nothing mythical about reports of Russian buzz bombs over Scandinavia except the claim that the missiles are meteorites. A week's intensive questioning in Denmark and Sweden justifies this conclusion.

Determined not to contribute to world unrest or "hysteria," the Scandinavians refuse to talk officially about the phenomenon, and have kept the lid on the subject to the extent of persuading press associations to stop dispatching reports which are not officially confirmed. The Swedes have confined one writer to an institution until he could "sober up" and cease talking on this unauthorized subject.

Talks with newspapermen, aviation officials, writers and other well informed citizens in Denmark and Sweden justify these statements—

The bombs are coming from the old German research center of Peenemunde, seized intact by the Russians, where scientific work is still underway.

The bombs are cigar-shaped, jet-type missiles smaller than the V-2. They had been developed by the Germans before Russian occupation but had not yet been used. They are projectiles without wings or tails, according to an eye-witness who watched one of the flame-spitting missiles for five minutes as it passed across the sky toward western Sweden about 2 o'clock one afternoon early in August.

Some are believed to be remote controlled, and have been seen changing their course and heading eastward again like mechanical boomerangs. Actually, it is believed the Russians had no intention of permitting any of their hail to fall in Scandinavia, preferring that the missiles land in their own area for more careful observations.

Estimates of the range of these new models run as high as 3,000 miles, with a more popular guess 2,000 miles. Numerous eye-witness reports have come from the extreme northern areas of Sweden.

The bombs have slacked off the past few weeks, perhaps coinciding with successful progress of the Swedish-Russian trade negotiations.

Hundreds of Swedes have seen the bombs, and reports from distant points have tallied perfectly as to description of appearance, time and trajectory. Time lag noted at progressive locations indicated clearly that the missiles were not meteorites.

About 10 missiles have been seen plainly over

Stockholm since June. Others have been reported over Sweden and Denmark. No reports have come from Finland, where strict censorship is imposed.

About a month ago a bomb fell in Denmark, killing several persons. No other deaths have been revealed. As in Sweden, the official Danish explanation of the accident was charged up to a meteorite.

One missile fell into a lake in Sweden. Government authorities quickly took over and dredged for the object, using some 600 military personnel. Witnesses said heavy material, well covered, was shipped out of the area during the night. Nothing has been heard of the matter since. Pointing out that August was the month of meteors, the government said the falling object probably was a natural phenomenon.

No evidence could be obtained that anything more than minute pieces of any bomb has been found. All of the objects which have fallen have disintegrated. One witness interviewed said these fragments were of magnesium—not the stuff of meteorites.

Although there is no censorship in Sweden, newsmen have been requested not to disseminate material abroad which would contribute to international hysteria. This appears to be another reason that the most recent press dispatches on the subject, still emphasizing the meteorite angle, have been coming from England instead of Scandinavia.

This writer sought an interview with one aviation writer said to be one of the best informed Swedes on the subject. A telephone call to his office revealed that he had just been sent to a sanitarium for alcoholism, after several indiscreet discussions of his experiences on field trips to study the missiles.

A co-worker, also known to be well informed, said he had been given strict instructions by the government to make no comments whatsoever. Several Foreign Office officials in both Sweden and Denmark refused to speak on the subject, except to stress the fact that no missile had been found. "Mass hysteria" is the favorite official reason put forth by the spokesmen for these little countries which yearn so much for a peaceful world.

ROBERT H. WOOD.



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Units of the compass-controlled directional gyro-scope system. Instruments in foreground are a remotely operated compass and a new-type small directional gyroscope. Mr. Lynch is pointing to a larger gyro-instrument now obsolete.

MORE FREEDOM IN FLIGHT

THESE three G-E aircraft-instrument engineers, Messrs. Savage, Lynch, and Princi, were prominent in the development of the new compass-controlled directional gyroscope shown in the foreground. This is the first directional gyro that functions as if it had universal freedom of motion. It is not disturbed by sharp dives, spins, rolls, or other acrobatics. Teamed with the compass it becomes part of an electric instrument system that gives an airplane sustained and accurate directional heading in auto-piloted flights. The system is so designed that errors usually occurring when compass and gyro are separate are automatically corrected. However, both can work separately if necessary.

In a plane, the compass is located near the wing tips and is electrically connected with the gyro which is considerably smaller than earlier models, and weighs less than the one now in general use. Unaffected by the earth's rotation, it points a steady hand to the set course, and frees the pilot from another routine task. Other electric instruments are being constantly designed by General Electric—including those for jet-propelled planes. Our engineers tackled many "can't-be-done" tasks during the war years. They'll be glad to help you with yours in the years to come. *Apparatus Dept., General Electric Company, Schenectady 5, N. Y.*



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