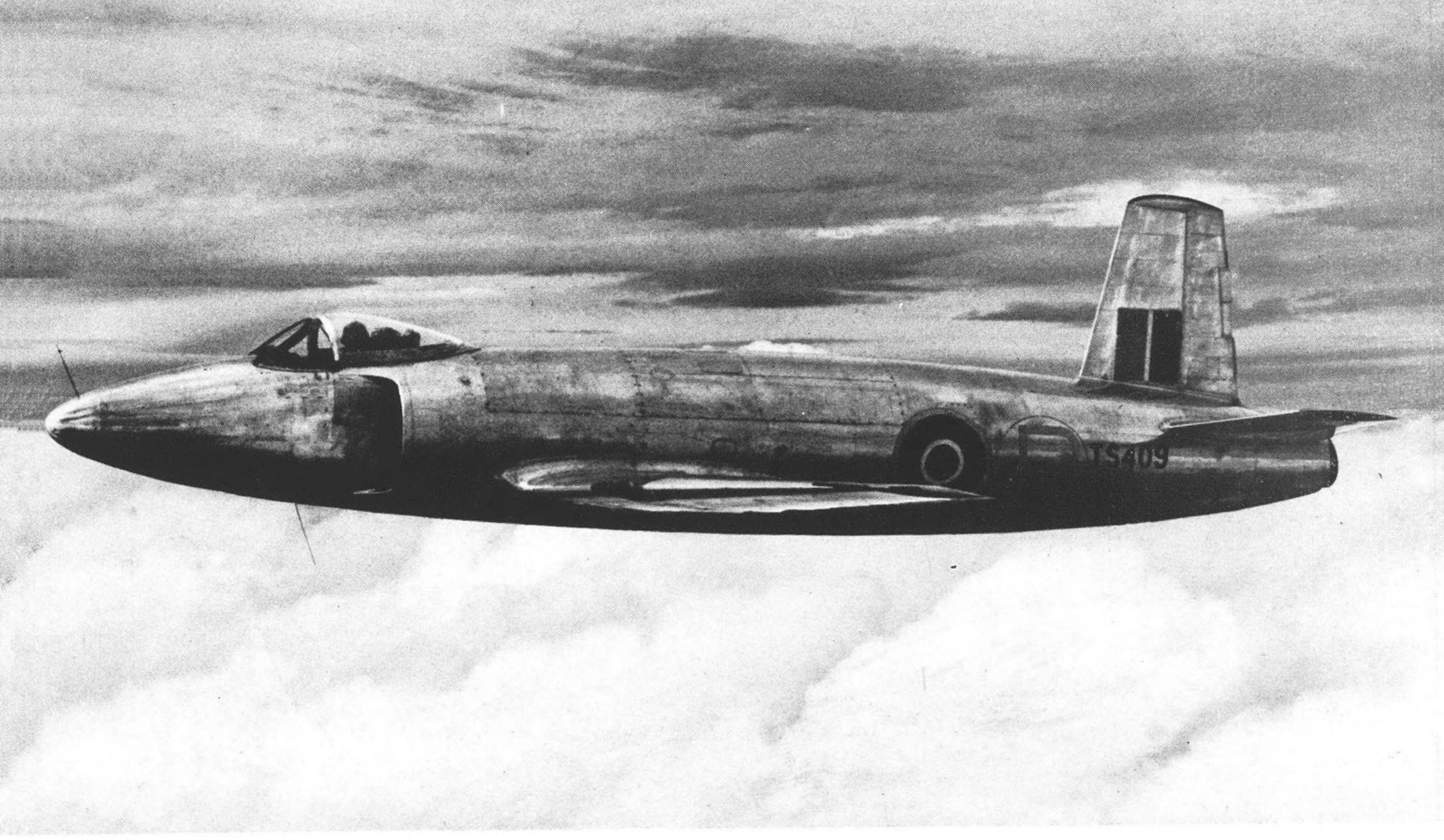
Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

SEPT. 30, 1946



Latest British Jet Fighter: *First flight photo of the Supermarine E 10-44, a jet fighter of new design built by Vickers Armstrong around the Rolls-Royce Nene I direct thrust jet engine. Using a laminar flow wing and a pressurized cockpit with ejector seat, the new British fighter is described as in the "better than 600 mph. class." (See story and additional photo on pages 17-18)*

THE AVIATION NEWS

Washington Observer

HEAT ON ARGENTINA—Negotiations on a bilateral air pact between the U. S. and Argentina now under way in Washington are expected to bear early fruit as a result of CAB Chairman James M. Landis's recent successes in Brazil and London. With Brazil committed to the five air freedoms and Great Britain now firmly bound to the Bermuda agreement, Argentina is left stranded as the sole major exponent on international air cartelization. Although the British pact with Argentina calls for a 50-50 split of air traffic it is now subject to revision as a contravention of the now binding Bermuda agreement.

* * *

SMOKE OR FIRE?—Despite repeated official denials by both parties stories of friction between Assistant Secretary of War for Air, W. Stuart Symington and top AAF generals persist. Latest angle is the Dayton Daily News story of a Symington spat with Gen. Spaatz over reduction of civilian personnel in Wright Field research sections. Symington has asked the Dayton paper for a retraction of its statement that "a rift had developed between Spaatz and Symington" and that Spaatz "personally dictated the personnel cut order while in a high dudgeon."

* * *

TRANSPORTATION TREND—Although little interest has been stirred in aviation circles in the Senate Small Business Committee's recent transportation report, recommending greater coordination among different modes of transport *(Aviation News,* Sept. 23), the report voices general Congressional opinion on most issues. It is a key to the type of basic transportation legislation which is to be expected in the new Congress. The over-all transportation report which House Interstate and Foreign Commerce Committee is slated to issue late this year or early next year as a forerunner to legislation will follow the general lines of the Senate Small Business study.

* * *

ROUGH WEATHER AHEAD—Look for a flurry of mergers, pooling of equipment and facilities and operational economies among the nonscheduled and contract airlines. Many companies are beginning to feel the pinch from lack of ready cash and are striving to keep their heads above water until the CAB decision on the airfreight case indicates their future prospects. The recent stock market break has made the once easy flotation of new stock issues difficult and only a few of the carriers have heavy enough backing to carry them through a succession of monthly operating deficits. Nevertheless there is a determined trend among most of the veteran manned airlines to hang on at all costs and stretch their shoestring as far as possible.

* * *

RACE FOR RECORD—It's the Navy's Truculent Turtle vs. the AAF's Dreamboat with the world long distance flight record at stake. Although the Navy trans-Pacific flight is not being billed as a record breaking attempt, the Turtle (a twin engine Lockheed Neptune) will have traveled 9,000 miles from Australia when it makes a landfall in the vicinity of Seattle and unofficially plans to continue on as far toward Washington, D. C. as the gas holds out. Meanwhile, cigar smoking Col. C. G. Irvine, pilot of the B-29 Dreamboat sitting on Oahu waiting for a break in the weather for a 10,000 mile flight over the pole to Cairo, indicated he won't stop at Cairo if the record is at stake and he has any gas left. Present record is 7,158 miles set by RAF from Ismaila, Egypt, to Darwin, Australia.

* * *

BRITISH INVASION—Government aviation officials last week were impressed upon seeing the British-built Bristol Freighter cargo plane at the Washington National Airport. While not a beautiful plane, the impressive thing about the freighter is that it is a cargo plane in being; it is being produced commercially; and it is in this country as a way station en route to show itself to Latin America—a rich cargo plane market. Both Fairchild's Packet and Northrop's Pioneer are expected to be cheaper to operate than the Freighter, but the Freighter is available now.

* * *

WRAPS OFF PREPAREDNESS—Plans for industrial preparedness apparently have reached such a stage that officials think it safe to begin talking aloud. Two recent speeches by AAF generals stressed the theme and included mention of "pilot" production lines such as exclusively reported in *Aviation News,* Aug. 19. Meanwhile, representatives of the industry met with Donald Nelson last week in an attempt to obtain clarification of his position in industrial preparedness.

* * *

IN RUSSIA TOO—The Soviet official paper Izvestia has launched a campaign to clean up the dingy civil airport terminals and improve service on Russian air transport lines. The Russian paper used its best invective describing the drab and inadequate terminal facilities and the lack of service dispensed by civil airline personnel. Usually a blast from Izvestia is a signal to Soviet bureaucrats for action—or else!

AVIATION NEWS

THE STAFF

ROBERT H. WOOD.....*Editor*
ROBERT B. HOTZ.....*News Editor*
MERLIN H. MICKEL.....*Transport Editor*
CHARLES L. ADAMS.....*Transport*
WILLIAM KROGER....*Special Assignments*
BLAINE STUBBLEFIELD.*Special Assignments*
SCHOLER BANGS.....*Pacific Coast Editor*
ALEX MCSURELY....*Private Flying Editor*
KATHERINE JOHNSEN.....*Congress*
RANDOLPH HAWTHORNE....*N. Y. Editor*
MARIE ADAMS.....*Editorial Assistant*
ROBERT W. BLINN.....*Art Director*

ROBERT F. BOGER.....*General Manager*
ROBERT W. MARTIN.....*Sales Manager*
DR. J. HUNSAKER....*Editorial Consultant*

CONTENTS

Editorial Headquarters
National Press Building
Washington 4, D. C.
Publication and Executive Offices,
330 W. 42nd St., N. Y. 18, N. Y.
Pacific Coast Office, 621 So. Hope St.,
Los Angeles

Published weekly by McGraw-Hill Publishing Co., Inc. Price 50c a copy. Allow ten days for change of address. Subscription rates—United States and possessions, $5 a year, $8 for two years, $10 for three years. Canada, $6 a year, $10 for two years, $12 for three years. Pan American countries $10 for one year, $16 for two years, $20 for three years. All other countries $20 a year, $30 for two years, $40 for three years. Entered as second-class matter July 31, 1943, at the Post Office at New York, New York, under the Act of March 3, 1879. Printed in U. S. A. Cable Address "McGrawhill, New York." Please indicate position and company connection on all subscription orders.

JAMES H. MCGRAW, Founder and Honorary Chairman; JAMES MCGRAW, Jr., President; CURTIS W. MCGRAW, Senior Vice-President and Treasurer; HOWARD EHRLICH, Vice-President and General Business Manager; EUGENE DUFFIELD, Editorial Assistant to the President; JOSEPH A. GERARDI, Secretary, and J. E. BLACKBURN, Jr., Vice-President (for Circulation operations), 330 West 42nd Street, New York 18, N. Y. Branch offices: Chicago, 520 North Michigan Ave.; San Francisco, 68 Post Street; Los Angeles, 621 So. Hope Street; Aldwych House, Aldwych, London, W. C. 2; Washington; Philadelphia; Cleveland; Detroit; St. Louis; Boston; Atlanta. Return Postage Guaranteed.

Volume 6, No. 14

Advertisers Index

News Digest

DOMESTIC

AAF network of 35 storm detection radar stations will be completed by the end of this year.

Major General Robert M. Webster has been appointed commandmanding general of Air Transport Command, succeeding Lt. Gen. Harold M. George who becomes AAF representative to the United Nations military staff committee. ATC, faced with a personnel cut to meet economy demands, last week suspended operations for 15 days following which all divisions will be cut about 25 percent. Continental and Atlantic divisions are being merged and elimination of the European division may be in the offing, leaving only the Continental and Pacific divisions.

Rear Admiral Luis de Florez, deputy chief of Naval research, and 1943 winner of the Robert J. Collier trophy for outstanding contributions to aeronautics, is returning to civilian life Oct. 1.

Douglas Aircraft Co. has delivered 81 converted C-54s, to airlines. Conversion of 46 C-54s, including 18 sleeper planes and two refrigerator cargo carriers, is under way at the plants at El Segundo and Santa Monica.

Stinson division of Consolidated Vultee expects to reach production of 13 Voyager 150s per day in October. A price reduction may be announced the end of the year.

FINANCIAL

Thompson Products Inc. reports a loss from operations of $7,094,631 for the 12 months ending May 31, 1946 after amortization of emergency facilities and reconversion charges. Tax credits and transfers from reserves, however, resulted in a profit for the period of $565,560.

FOREIGN

Inability of survivors in the recent crash of a Trans-Atlantic Sabena DC-4 near Gander, Newfoundland, to account in any way for the mishap, coupled with the death of all crew members, is hampering investigations now underway by Newfoundland authorities and officials of the Belgian airline. Fatalities rose to 27 last week, equaling in number the highest death toll of any commercial airline accident in history.

▶ Next American contender in jet competition for the world speed record will probably be the North American fighter being built for both the Navy and AAF. Its Navy version, the XFJ-1, was recently test flown in California and is supposed to do better than 630 mph. AAF model will be known as the XP-86. North American's jet bomber is nearing completion and is scheduled for initial test flights in mid-October.

▶ Howard Hughes' eight-engine flying boat will have its engines installed within three weeks and is expected to be completed by January when water taxi tests are scheduled to begin. Hughes still hopes to fly the giant on its initial test flight.

▶ Britain has abandoned plans to fly a piloted aircraft through the transonic range and will conduct all trans and supersonic experiments with pilotless, radio controlled models.

▶ Ryan will soon announce production for the Navy of ram jet engines and gas turbine engine "afterburners." The "afterburners" permit injection of fuel in the jet engine tailpipe for combustion with large quantities of oxygen unconsumed in the primary firing stage. In a conventional jet engine the "afterburners" will increase thrust as much as 50% over the power plant's rated output.

▶ Contrary to reports in some aviation magazines that Bell's Chief test pilot Alvin (Tex) Johnston would succeed the late Jack Woolams as pilot of the supersonic XS-1 it is Chalmers (Slick) Goodlin, also a Bell test pilot, who is being groomed for the initial rocket-powered flight of the XS-1. He is currently working out on a mockup that simulates the violent control pressure shifts he is likely to encounter in the transonic range.

▶ Reorganization of the Institute of Air Transportation, New York, association of contract and nonscheduled airlines, has resulted in appointment of Malcolm L. Eno of United States Aviation Corp., Long Beach, Cal., as executive vice-president succeeding S. O. Samuelsson, who recently resigned. Overtures to the west coast carriers, who have their own association, are reported bringing about a merger of the two groups under the Institute's name.

▶ Initial test flights of the Navy's "Flying Pancake" the radically designed XF5U-1 built by Chance Vought Aircraft division of United Aircraft Corp. have been postponed until early next year.

▶ Gander airport in Newfoundland, famous as a wartime ferrying and transport base, and the principal postwar jumpoff airport for Trans-Atlantic flights has finally become a commercial airport. Its commercial operation is a co-operative venture of the Newfoundland government and the eight international airlines now using the field.

▶ Final announcement of the Lockheed-Consolidated merger is not expected for several weeks pending completion of final details of the transaction. Convair president Harry Woodhead indicated that Convair was expanding from its postwar low of 13,000 employees with an increase to 32,000 scheduled before next May. More than 4,000 workers will be added at the Fort Worth plant.

▶ Merger of Mercury Transport Corp. with California Eastern Airways, Inc., Oakland, Cal., has been completed. Alvin P. Adams, Los Angeles aviation consultant who was instrumental in organizing Mercury, has been elected to California Eastern's board of directors. Officers of California Eastern, a contract cargo carrier operating C-54s remain unchanged.

▶ Reports of continued Russian-directed activity in German aircraft plants persist despite official Russian denials and the outlawing of such activity under the Potsdam agreement. Latest reports by reliable foreign observers note production of jet- and rocket-propelled aircraft at the Siebel Works in Halle; Junkers at Dessau and BMW near Magdeburg.

VOLUME 6 • • NUMBER 14

Aviation News

McGRAW-HILL PUBLISHING CO., INC.

September 30, 1946

Truman Establishes New Air Policy Group on Broader Basis

Clayton, Landis co-chairmen of permanent co-ordinating committee to provide civilian aviation direct liaison with White House.

Establishment of a permanent, Presidentially-sponsored Air Co-ordinating Committee will further draw the line between Government agencies working in the field of military and civil aviation and, for the first time, give civilian aviation interests a direct channel to the White House.

President Truman's Executive Order setting up the Committee emphasized that the organization should work with the U. S. representatives to the Provisional International Civil Aviation Organization and with the State Department in establishing policies.

While, presumably under the terms of the Executive Order, ACC will also study military aviation problems, background of the Committee points to intensification of activities in the civilian field, leaving matters of military policy to the Army-Navy Munitions Board. Only when military policies have a bearing upon foreign relations will ACC enter that area of activities.

▸ **Truman Asks Panel**—The President instructed the Committee to set up an Aviation Industry Advisory Panel with membership drawn from all segments of the industry, both manufacturing and transport as well as private aviation. This panel assumes added importance due to the proviso in the Executive Order for ACC's recommendations, and problems on which the various government representatives cannot agree, to be referred directly to the White House for action.

This is seen as the first instance in peace of an industry's having a direct line to the White House on questions in dispute among government agencies.

The Air Coordinating Committee as established by President Truman Sept. 19, succeeds a body of the same name which was set up Mar. 27, 1945 by the Secretaries of War, Navy, State and Commerce. The new Committee will consist of representatives of those agencies and also of the Post Office and CAB. A Budget Bureau representative will be a non-voting member of the Committee. Truman named as ACC chairman William L. Clayton, Undersecretary of State and chairman of the old ACC.

▸ **Landis Co-Chairman**—A further indication of the strong civilian tinge of ACC is the appointment of CAB chairman James M. Landis as ACC co-chairman. CAB was represented on the old Committee only by an observer.

T. P. Wright, CAA administrator has been executive secretary of ACC, but this post will now be filled by a full-time permanent employee. The present ACC, on the operating level, is practically a one-man affair: Myron Tracy, secretary. The secretariat will now be greatly expanded. Tracy in all probability will remain with the organization, possibly as executive secretary.

With the first meeting of the new ACC scheduled shortly, no qualified person last week would speculate on its revised organizational structure. The industry is still studying the Executive Order and is not clear as to the composition nor the functions of the Advisory Panel.

▸ **Valuable for Transport**—Manufacturers, not particularly happy with the existing ACC, see in the new committee a possible alleviation of some of their problems,

NEW X-PLANE:

John Stack, chief of supersonic research of the National Advisory Committee for Aeronautics, holds a model of a new transonic aircraft which because of differences from the by now well-known lines of the Bell-built XS-1 (AVIATION NEWS, Aug. 19), is believed to be the plane being built by Douglas Aircraft for the Navy, a companion to the AAF's XS-3. Stack, whose Wright Brothers Memorial lecture on compressibility in 1944 focused attention on supersonic designs, will be a speaker at the Paris meeting of the Sixth International Congress for Applied Mechanics, Sept. 22-29. Later, he will tour research centers in Germany, Switzerland and England.

although they expect that in the main it will be more valuable for the transport part of aviation.

Manufacturers anticipate that in the future, as in the past, most of their work will be with the services through the Army-Navy Munitions Board. In the only instance recently where the manufacturers had occasion to call upon ACC for assistance—in the recent moves to alleviate the shortage of engineers due to draft regulations—the Committee was of no aid.

The transport part of the industry believes ACC will be of considerable assistance as it is called upon to work with the Post Office, CAA, CAB, State, as well as on occasion the Army and Navy.

▸**Concentrate on International**—The present ACC has been concentrating on international aviation developments. The instructions which the U. S. delegation took to the Bermuda conference with the British were formulated by the Air Coordinating Committee. The State Department has consistently relied upon ACC for advice on international aviation policy.

The precise definition of the Committee's functions, as outlined in the Executive Order, is: "The Committee shall examine aviation problems and developments affecting more than one participating agency; develop and recommend integrated policies to be carried out and actions to be taken by the participating agencies or by any other government agency charged with responsibility in the aviation field; and, to the extent permitted by law, coordinate the aviation activities of such agencies except activities relating to the exercises of quasi-judicial functions."

While the existing committee has been generally regarded as effective in international aviation policy, it had no binding authority and depended for its success upon cooperation among the agencies represented. In issuing the Executive Order, the President stated, "Only a policy-coordinating Committee representing the various aviation interests of the government and operating at a high level of authority can meet the needs of the time."

That statement is regarded as outlining the chief benefit to be expected from ACC. Instead of being a creature of Cabinet officers, it is now directly responsible to the President.

British Largest Buyers of Surplus Planes Abroad

The United Kingdom and British national purchased the majority of surplus U. S. aircraft sold overseas by the Foreign Liquidation Commission up to June 30, FLC reports. Total sales and leases were 4,206 aircraft, of which Britons acquired 1,387. Sales brought $46,304,545, and leases $4,184,714.

Most of the aircraft disposed of were two-engine transports 2,702, with personal types (liaison), next, numbering 848. Third were trainers, 391.

FLC points out that many foreign airlines which did not use American equipment before the war now have U. S. planes as the backbone of their operations. Among these are British Overseas Airways Corp. and Cruzeiro do Sul, a Brazilian line that before the war was Axis-owned.

Europe was the major market for the surplus craft, 58% being disposed of there, with England, France and Czechoslovakia being the major purchasers.

British Have Lead On Argentine Sales

British aircraft manufacturers have gotten a definite jump on the U. S. industry in the Argentine market, reports from that country indicate. As of Aug. 1, Argentina had placed orders with the British for more than 200 aircraft, while U. S. producers through June had commitments totaling about 150 aircraft.

Argentina has already accepted delivery on 53 British planes—50 Miles Magister trainers, and three Vickers Viking transports—while U. S. deliveries to that country total about 40.

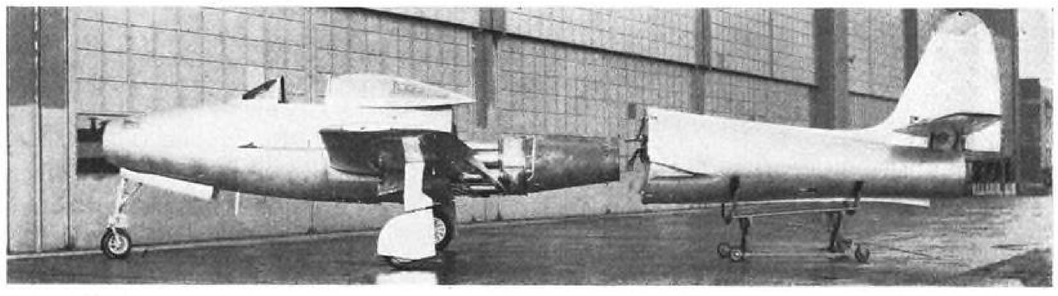
By far the largest proportion of the Argentine orders with British firms are for trainers or personal types. Miles alone has booked orders for 150 Magisters, the second 50 of which are to be delivered shortly. Other Argentine orders in Britain are for 20 Vikings, 15 Bristol Wayfarers, five Short Sandringhams, three Avro Tudor II, and three Avro Yorks.

On top of this, Argentines have placed the equivalent of $9,000,000 worth of orders with the British for personal planes.

Orders with U. S. firms and from surplus stocks are for about 100 personal planes, two BT13s, 40 Douglas DC3s and DC4s, one PBY5A and four Martin 202s.

L. T. Merchant Named To State Aviation Post

Livingston T. Merchant has been appointed chief of the Aviation Division of the State Department, filling the post from which Stokeley Morgan resigned several months ago. Joe D. Walstrom, who has been acting chief, is returning to foreign service and will assume



AAF MECHANICS' DELIGHT:

Republic's Thunderjet (P-84) recent addition to the AAF stable of jet fighters is bisected to show how the rear section of the fuselage is quickly removable to permit replacement of the General Electric TG-180 axial flow jet engine in 50 minutes. Thunderjet is currently the fastest plane in the AAF being officially clocked at 611 mph. with further speed tests scheduled in an attempt to break the world speed record.

BENDIX EXPERIMENTAL HELICOPTER:

The Bendix Model K, one-man experimental helicopter, shown in flight without body. The K has served as a test model for the four-place Model J planned for commercial use. The K has made flights up to 30 feet altitude and has a speed of 25 mph. It is powered by a 100 hp. Continental engine and features dual co-axially mounted rotors.

a foreign post probably in November.

Pending Walstrom's leaving, he will continue as associate chief of the division. John Bell remains as assistant chief in charge of air transport. John Paul Barringer has been named assistant chief in charge of a new function, Planning and Coordination. Two posts remain open, as heads of the facilities and of the technical sections.

The jobs formerly filled by Percy Warner, training and technical, and Frank Jarvis, surplus property disposal, will not be filled under the reorganization. Stephen Latchford remains with the Aviation Division as legal adviser.

Goodyear Buys Six K-type Blimps for Barnstorming

Six dismantled K-type Naval airships will be shipped to Wingfoot Lake at Akron following their purchase from the War Assets Administration by the Goodyear Tire and Rubber Company. Three of the ships are at Lakehurst, N. J., and three at Moffett Field, Calif.

Three times as large as the L-type ships operated by Goodyear from 1928 to the beginning of the war, the Ks require 456,000 cubic feet of helium lifting gas as compared with 123,000 in the L ships, which were used largely as training ships during the war. Each is 412 feet long and stands 80 feet high on its landing wheel.

Goodyear officials indicated that none of the K ships would be in operation before winter and perhaps not until next year. The first of the L-type ships previously acquired by Goodyear is now on a three-months barnstorming tour through the Middlewest, while a second is being re-assembled at Los Angeles for use on the west coast. A third will be based at Washington, D. C.

Star Guided Bombs

Self-navigating aerial weapons guided by the stars at 5,000-mile-an-hour speeds "are in the cards," according to Lawrence D. Bell, president of Bell Aircraft Corp. Mr. Bell told a meeting of Western New York bankers in Buffalo that such a missile conceivably may have a range of from 5,000 to 10,000 miles.

"The future will bring long-range guided missiles carrying devices inside which will provide their own astronomical navigation," he declared. "We don't know all the answers as yet but the pattern is there."

Navy Flight Tests Pressure Navigation

Lockheed Neptune will fly from Perth to U. S. to provide data for future operations.

Using a relatively new-type airplane, and a new system of navigation, the Navy will attempt to gather data on a number of conditions present during long-distance operations with a 9,000 mi. nonstop flight by a Lockheed P2V Neptune from Perth, Australia, to the United States.

Under examination specifically, will be methods to extend the radius of Navy patrol missions; the "single heading" pressure pattern system of navigation; and problems of fatigue and endurance. A by-product of the flight may be a new long-distance flight record. The Perth-U.S. distance is 9,000 mi. The P2V to be used has been stripped down and the entire useful load will be fuel.

▸**Record Race**—Navy omitted any mention of destination, but reports speculate that the plane may try to reach Washington, instead of landing on the West Coast. This would exceed the distance contemplated for the B-29 that last week still awaited at Guam for favorable weather for a flight to Cairo, 10,000 miles away.

All radar has been removed from the Navy plane, which is dubbed the "Truculent Turtle," and the route will be charted by celestial navigation and the pressure pattern method which is linked to what is termed a single heading course.

Pressure pattern flying has been under investigation by the Navy, Army, Pan American Airways and TWA since about 1943. In its essence, it is following the outer rims of low barometric pressure areas to take advantage of tail winds. The lows are predictable in advance by weather forecasters and the plane is navigated to reap the benefit of the following winds.

▸**Trial by Turtle**—From this, the Navy has developed the single heading system which will be given its first extensive trial by the "Truculent Turtle," under the most rigorous conditions. The barometric pressure will be taken at Perth and at a West Coast point. From this will be determined the best altitude for the plane to fly to take advantage of the tail winds present on the extremities of the low pressure areas along the route.

The location of the lows can be determined by weather forecaster accurately and their altitudes predicted within 150 feet. As long as the plane flies the prescribed altitude and hits the lows it will be on course. Thus it will fly a single heading the whole route. Reference to celestial navigation and compass readings will furnish a check.

The novelty about using this system on the Perth-U. S. flight is that the plane will be flying in the Southern Hemisphere, the Northern Hemisphere and through the "doldrums" along the Equator. In this area, not as much is known about low pressure areas as along other segments of the route.

▸ **Crew of Four**—The Neptune, a 58,000-lb. development of the Ventura, is powered by two Wright 3350 engines of 2,300 hp. each. It has a span of 100 ft. and a high speed of better than 300 mph. and an operational range with extra gas tanks in excess of 5,000 miles.

Normal crew of the Neptune is six, but the "Turtle" will carry four: Comdr. Thomas D. Davies, captain, Comdr. W. S. Reid, Lt. Comdr. R. H. Tabeling and Comdr. E. P. Rankin, all experienced patrol plane pilots. They will undergo physical examinations at Perth, and again upon landing. The records of these exams, together with evaluation of devices in the plane are expected to furnish further information on fatigue on long-distance flights.

Aircraft Pay Up

Hourly wage rates in aircraft assembly and parts plants in June were up an average 8.8 percent over last year, and rates in aircraft engine plants were up an average 3.7 percent, according to the Bureau of Labor Statistics.

During May, hourly scales increased an average 2.8 percent in aircraft and parts manufacturing plants and an average .40 percent in aircraft engine plants, bringing the average hourly wage rate in the aircraft assembly and parts industry to $1.304 in June, and the average hourly rate in aircraft engine plants to $1.342.

The shorter work weeks in effect last June, however, kept weekly "take home" pay in both aircraft assembly and parts and engine plants below last year's levels.

Weekly "take home" in aircraft assembly and parts plants averaged $52.96 during June, which was 6.6 percent lower than during June, 1945, when the work week was 14.1 percent longer.

Weekly "take home" in aircraft engine plants averaged $55.75 during June. This was 3.1 percent less than the "take home" average for June a year ago, when the work week was 6.5 percent longer.

SUCCESSOR TO DUCK:

Due to replace the Navy's J2F Duck utility amphibian is this XJL-1, built by Columbia Aircraft Corp., Valley Stream, Long Island, N. Y. Plane recently was test flown. Two new features for Navy amphibians, are the tricycle landing gear and the retracting of the main gear into the wings instead of into the hull. Plane is powered by a 1,425 hp. engine and is equipped with JATO. With a carrying capacity of greater than 2,000 lb., it can carry six as a personnel transport, or three litter and three ambulatory cases as an ambulance plane. (Navy photo)

RAAF Flies Four Million Miles Without Fatality

Flying an average of 5,258 hours a month, the Royal Australian Air Force has flown 4,250,000 miles in the past five months without a fatal accident. Operations during the period have been conducted with 28 different types of aircraft, including jet-propelled Gloster Meteors.

The start of the five-month period dates from the establishment of a Directorate of Flying Safety which, with the Department of Civil Aviation, has set up a system of regional flying control for both military and civil aircraft.

With C-47 transports alone, the RAAF since Dec., 1945, has flown 7,000,000 miles without a fatality or serious injury.

Wright Gets Medal

T. P. Wright, Administrator of Civil Aeronautics, has been awarded the Medal of Merit by President Truman for "exceptionally meritorious conduct in the performance of outstanding services to the United Nations since June, 1940," as a member of the National Defense Advisory Council, for work on WPB, CAA and the Strategic Bombing Survey.

FLC Will Sell Foreign Based Planes for Import

Because of the short supply of surplus transport aircraft in the U. S., State Department has authorized the Foreign Liquidation Commission to sell to U. S. citizens for importation to this country C-54s, C-47s and C-45s overseas.

There will be no immediate effect of the order insofar as C-54s and C-45s are concerned as FLC does not have those types available. However, it is receiving about 30 C-47s a month in England and is expecting to obtain some in Germany shortly.

The only C-54 FLC presently has for sale is located at Gander Airport, Newfoundland. This is a model E and is damaged. Until Oct. 8, it will be for sale to veterans. Price is $75,000, where and as is.

All C-47s which FLC can now sell for use in this country will be sold abroad.

Chute Sale

War Assets Administration is placing on sale shortly approximately 40,000 surplus parachutes at prices ranging from $49 to $115 used and $70 to $144 new.

Original manufacturers acting as WAA agents for sale of the chutes are: Eagle Parachute Corp., 42 North Queen Street, Lancaster, Pa.; Irving Air Chute Co., 1670 Jefferson Avenue, Buffalo, N. Y.; Pioneer Parachute Co., Forest Street, Manchester, Conn.; Switlik Parachute Co., Lalor & Hancock Streets, Trenton, N. J. In addition, there are seven distributors acting as WAA agents.

The parachutes, although certified as serviceable by the Army, must be inspected and repacked by a CAA-licensed parachute rigger before they can be used.

Northrop Unveils Trimotor Cargo Plane

High wing monoplane designed for use in South America on small fields; cruising speed 185 mph. with five-ton load.

Designed to extend advantages of air transport to the smallest airfields in the United States and to many isolated localities in South America and other countries, the Northrop Pioneer, new all-metal trimotored cargo airplane announced last week, is expected to take off with a five ton useful load in 700 ft. and land with an equivalent load in 750 ft.

Northrop Aircraft, Inc., last week exhibited a wooden full-scale mockup of the new cargo plane at the Hawthorne, Calif. plant and announced that the prototype airplane was scheduled for its maiden flight in November.

▸ Conventional gear—The Pioneer is a full-cantilever high-wing monoplane with 85 ft. wingspan, and 60 ft. 7 in. long fuselage. Fixed conventional landing gear, with 21 ft. 3 in. tread is attached to the outboard engine nacelles, and by struts to the bottom of the fuselage.

The Pioneer is designed for use of either 800 hp. Wright engines or 600 hp. Pratt and Whitney R-1340 engines. Retractable ailerons, and very large flaps, similar to those of the Northrop P-61 Black Widow night fighter, are used, permitting 62 mph. stall speed with full 25,000 lb. gross weight. Heavy-duty brakes are provided for short landing run. Brakes and wing controls are only hydraulic-operated equipment.

Other features include: cargo door, 72 in. by 70 in. at the same height as standard auto truck bed; nose hatch permits loading of length cargo up to 36 ft; angle of floor to ground is 6 degrees, about half that of usual conventional landing gear planes, for easier loading.

▸ Removable Seats — Removable seats are supplied for carrying 30 passengers or a combination of passengers and cargo, if desired. Maximum cruising speed is quoted at 185 mph. Service ceiling at 21,000 ft. and range at 1,750 miles. The plane is to have a 15,000 ft. ceiling with two engines. With less than maximum load (5,600 lb. useful weight) the Pioneer is expected to takeoff in 450 ft.

The trimotor installation, first in many years on an American plane, is designed primarily as a safeguard in rugged country, since the plane still has good performance with one engine out.

VISITING COMPETITOR:

Directed toward the South American market for cargo planes is the British-built Bristol Freighter, shown at LaGuardia Field, New York, with a holdful of British automotive vehicles. The Freighter is on a tour of the U. S. and Latin America. With a gross weight of 37,000 lb., it carries a payload of 9,270 lb. and is powered by two Hercules 1,675 hp. engines. (Martin & Kelman photo)

CAB Examiners Urge Copter Taxi Service

Yellow Cab Co. recommended for routes between Cleveland and airport; extensive feeder system favored.

One of the most significant milestones in CAB route case history was passed last week when for the first time Board examiners recommended certification of helicopter services.

In urging approval of Yellow Cab Co.'s applications for this type of passenger service in the Cleveland area, the Great Lakes Area report of Examiners William F. Cusick and Richard A. Walsh took note of rapidly moving developments in helicopter design, production and acceptance by CAA.

Yellow Cab, if certificated by CAB, proposes use of four-place Sikorsky helicopters over two routes between Cleveland airport and downtown sections of the city and between the airport and the suburb of Euclid, via Shaker Square.

Also favored in the report was establishment of an extensive feeder system extending from Pittsburgh on the east to St. Louis on the west, and from Chicago and Detroit on the north to Louisville and Memphis on the south. Operators recommended were Great Lakes Airlines, Inc., Columbus, O.; Parks Air Transport, Inc., East St. Louis, Ill.; Roscoe Turner Aeronautical Corp., Indianapolis; and Trans-Ohio Airlines, Inc., Bellefontaine, O.

Recommendations follow:

▸ **American**—New route between Cleveland and St. Louis, via Indianapolis, subject to restriction.

▸ **Chicago and Southern**—New route between Chicago and Detroit, via intermediate points, subject to restriction.

▸ **Eastern Air Lines**—Inclusion of Evansville and Terre Haute on AM 10, subject to restriction.

▸ **TWA**—Inclusion of Columbus on AM 58.

▸ **United**—Inclusion of Fort Wayne on AM 1.

▸ **Great Lakes Airlines**—Routes between Cleveland and Columbus,

THUNDERJET CHASING RECORD:

First flight photo of Republic's Thunderjet (P-84) currently engaged in trying to break the world speed record of 616 mph. in official speed runs over the AAF Muroc Lake course. Best official Thunderjet time to date has been 611 mph.

via intermediate points, and between Pittsburgh and St. Louis via intermediate points including Columbus.

▸ **Parks Air Transport**—Two routes between Chicago and St. Louis, via intermediate points.

▸ **Roscoe Turner Aeronautical Corp.**—Two routes between Chicago and Indianapolis and routes between Indianapolis and Memphis, Indianapolis and Louisville, and Indianapolis and Cincinnati, all via intermediate points.

▸ **Trans-Ohio Airlines, Inc.**—Routes between Detroit and Huntington, W. Va., and Toledo and Huntington, all via intermediate points.

▸ **Yellow Cab Co. of Cleveland, Inc.**—Helicopter routes between Cleveland Airport and downtown Cleveland and between Cleveland airport and the suburb of Euclid, via Shaker Square.

TWA Pilots Reject Pay Recommendation

Fact-finding board's pay formula turned down because of "ambiguities"; some carriers accept.

Rejection by TWA pilots and co-pilots of a fact-finding board's recommendations on pay for pilots of four-engine equipment immediately aroused speculation on the possibility of a strike, but there was no positive indication last week from the Air Line Pilots Association (AFL) whether such a step would occur.

ALPA threatened a strike in January and again in April (AVIATION NEWS, Jan. 21 and April 22) before negotiations began, but David L. Behncke, president of the union, had no comment on strike possibilities after announcement of the rejection except to say "that requires a lot of planning." Nevertheless, a strike seemed the only remaining recourse if the pilots were to insist on their demands.

Behncke, whose statement that the board's pay formula had been turned down by the pilots—although the airlines have accepted it—because of its ambiguities, said ALPA did not understand it, as no one else seemed to. "Not a word" came from the board, he added, despite the Association's request for clarification, and it was difficult to know "what we were rejecting or what we were accepting."

TWA, American and American Overseas have announced acceptance of the board's proposals, which included an increase of $750 on international runs over the previous base pay of $3,000 annually and adjustments in hourly and mileage rates for pilots in international service.

Other carriers reported to have gone along with the recommendations were Braniff, Chicago and Southern, Delta, Eastern, National, Northeast, PCA, United and Western.

Behncke said ALPA stood by its original contention that the board was dealing only with the TWA case, and expressed belief that acceptance of the formula by other airlines had no legal standing, and could be effective only if accepted by the companies and the pilots both and written into their contracts.

Accident Probed

Preliminary investigation of the non-fatal accident which severely damaged a Pan American Airways Constellation while taxiing at Shannon, Eire, airport last week indicated the mishap was not caused by any structural failure, PAA officials have announced.

The accident occurred when the two main wheels of the Constellation's landing gear gave way after the Shannon landing, dropping the plane on its tail and breaking the back of the fuselage. All passengers and crew members of the Lisbon-bound plane escaped serious injury.

Whether bumping caused failure of the landing gear or whether the gear lock had not taken hold properly will be established by CAA investigators who are also looking into the possibility that a member of the flight crew inadvertently operated the wheel-retracting mechanism.

Kellett Ending Its Commercial Output

Extreme shortage of materials, which has been a major problem throughout the aircraft manufacturing industry for months, last week caused Kellett Aircraft Corp. to withdraw from commercial production. Company will continue its work on helicopter development, President W. Wallace Kellett announced.

Backlog affected by the Kellett decision totals $6,000,000 for a variety of non-aviation products as well as subassemblies for other aircraft manufacturers. The situation at Kellett has been serious for months, with one report stating that the company has had items 98 percent completed in warehouses awaiting arrival of parts or materials.

In pushing to partial completion items for which it had orders, Kellett drained its working capital, hoping the material shortage would alleviate and make deliveries possible. A short time ago it applied to the Reconstruction Finance Corp. for a loan to enable a continuance of production operations. A loan in the amount of $200,000 has been approved, but for the present Kellett will limit its activities to development.

Company has underway work for the Army on three separate helicopter projects. Later, Kellett may consider a return to production.

Earlier this year, Kellett leased from War Assets Administration the war-built plant at North Wales, Pa. Kellett will continue occupying this facility.

★ ★

Miami Now Leading Air Gateway As Latin-American Trade Booms

Seven of eight largest air cargo ports handle business to South and Central America; nonscheduled carriers taking larger slice of traffic.

By CHARLES L. ADAMS

A booming business with Latin America in which uncertificated carriers are playing a role of growing importance has established Miami as the center of U.S. air export and import activity. From the standpoint of volume, half of this country's air express and airfreight exports and 53 percent of the imports funneled through the Florida city in June, latest month for which statistics are available.

Census Bureau reports show that of the eight top foreign air trade centers in the country, only La-Guardia Field, N. Y., does not owe its position primarily to commerce with the Caribbean area and Central and South America. During June, 970,000 lbs. of air exports valued at $5,340,000 passed through Miami, compared with 1,945,000 lb. worth $10,577,000 for the nation as a whole.

▸ **Ports Listed**—Other principal air export points for both certificated and uncertificated carriers during June: LaGuardia Field, 299,000 lb. worth $1,592,000; Brownsville, 203,000 lb. worth $1,604,000; St. Petersburg, Fla., 132,000 lb. worth $47,000; San Antonio, 45,000 lb. worth $371,000; West Palm Beach, Fla., 37,000 lb. worth $131,000; New Orleans, 33,000 lb. worth $139,000; and Fort Worth, 32,000 lb. worth $683,000.

Volume of all air imports during June totaled 589,000 lb. worth $6,048,000. Miami led with 312,000 lb. worth $1,547,000; followed by Bangor, Me.; LaGuardia Field, Tampa, San Juan, Boston and Brownsville. While third in weight, LaGuardia was first in value of imports—$3,440,000 for 67,000 lb.

Both air exports and imports were at new peaks during June. Overall exports were up 15 percent in value and nine percent in weight compared with May, while imports rose almost 60 percent in value and 80 percent in weight during the same period. New highs in air trade were registered in five of the first six months of the year.

▸ **Medicine Chief Export**—Major exports during June included medicinal preparations (shipped chiefly through Miami) valued at $1,900,000; jewelry worth $1,600,000; fabrics and clothing worth $1,200,000; and vehicles and machinery worth $1,100,000. Diamonds and semi-precious stones worth $1,700,000; furs and manufactures worth $1,200,000; and watches and watch parts worth $700,0000 led the nation's imports from the standpoint of value, with most of these items passing through LaGuardia Field. Miami was first in air imports of bulkier commodities such as meat and leather products, fish and fruit.

Example of the increasing participation of uncertificated air carriers in Latin American business is provided in a recent CAB registration by Skyways International, Inc., Miami International Airport. During the past 12 months the company has flown over 145 round-trip cargo flights and a few passenger trips to nearly all parts of Latin America.

▸ **Flies Both Coasts**—Skyways flies an east coast South American route including Miami-San Juan-Caracas-Georgetown-Belem-Natal Bahia-Rio de Janeiro-Sao Paulo-Montevideo-Buenos Aires, and a west coast route including Miami-Jamaica - Balboa - Barranquilla - Guayaquil - Lima - Arica - Santiago - Buenos Aires - Montevideo. Equipment on hand consists of three Lockheed Lodestars, three DC-3s and one Curtiss Commando C-46E.

During May and June the company flew 276,022 plane miles carrying 80,608 lb. of cargo 225,-275,000 pound miles and 435 passengers 795,000 passenger miles for total revenue of $155,478 and $18,-330 net profit. Employees numbered 125 at the end of June.

Future plans include extensions to India via Natal, Ascension, Dakar, Casablanca and other points and trips over the North Atlantic to Madrid. Company officers are Robert J. Bergeron, president; Joseph T. Kingsley, vice-president; James Byers, vice-president; George Chertkof, secretary; and C. J. Webber, treasurer.

Film Delivery

A one-man movie distribution enterprise was launched at Anchorage, Alaska, recently by Harry Hegdahl, who is flying film to remote points in the territory under the commercial trade name Skyway Theaters. A regular circuit is contemplated soon following purchase of a floatplane.

Southward Bound: *Rapidly expanding air commerce with points in the Caribbean area and Central and South America is attracting increasing numbers of nonscheduled and contract airlines. A Lockheed Lodestar owned by Skyways International, Inc., Miami, one of the larger uncertificated carriers operating to Latin America, is pictured above.*

Emergency Air Cargo Shipments Increasing

Maritime strike stirs cake shipments to Cuba by air at cost of $1,200 for cargo worth $87.50.

Like the coal shortage which forced restriction of nonessential rail shipments last May, the recent two-week-long maritime strike threw emergency business to the uncertificated airlines and further awakened U.S. industry to the value of nonscheduled and contract air services.

Prospects of more emergency airfreight tonnage, involving numerous shipments of goods not normally regarded as "air candidates" because of their low value/weight ratios, are extremely good, according to some industry observers. A continuance of unsettled labor relations affecting surface transportation, the shortage of box cars and freight cars, and the existence of low inventories in many lines of manufactured products are calculated to move considerable quantities of goods by air that would normally be trucked or shipped by rail.

The rush to get scarce consumer articles to market for the holiday trade is expected to account for considerable airfreight business in November and December.

Strangest of cargoes moved by air during the seaport tieup was a load of coke carried from Teterboro, N. J., to Camaguey, Cuba, by Willis Air Service, Inc., to keep the mills of the Francisco Sugar Co. in operation. Delivered in 50-lb. sacks to the Teterboro airport, the 7,000 lbs. of fuel cost $87.50. Air transportation to Cuba cost around $1,200.

Other industry developments:

Transair, Inc., New York (operating base Newark airport) flew 423,655 plane miles carrying 5,086 passengers 6,354,915 passenger miles for total revenue of $524,783 and net loss of $97,534 during the first six months of 1946. Company states the loss shown reflects an accelerated depreciation rate which was to be adjusted downward in August and that "this would lower the loss for the six-month period ended June 30 to $63,534." Transair operated from New York to Saratoga Springs during the racing season and recently has been offering New York to Los Angeles flights at $120 plus tax. Carrier began service Oct. 15, 1945, and had 75 employees on June 30. Officers include W. Deering Howe, president; Hugh Fenwick, vice-president; and H. S. Newman, secretary-treasurer.

Skyfreight Airlines, Inc., Dallas, flew 94,760 plane miles carrying 329,395 lb. of cargo between May 15 and July 31. Revenue for the period was $51,934, and loss was $55,439. Totals for July show 36,580 plane miles flown carrying 157,820 lb. of cargo for total revenue of $19,515 and loss of$27,864. Company operates five DC-3s on a contract basis.

International Air Freight, Inc., Lantana Airport, Lantana, Fla., during July and August carried 179,025 lb. of cargo and 48 passengers for total revenue of $115,688 and $17,250 net profit. Company flew 95,690 revenue plane miles with DC-3Cs during the period. Contract operations began in February, 1946, with service from New York to Barranquilla, Colombia, via West Palm Beach, Fla., and Kingston, Jamaica, averaging two round trips weekly. Flights have been operated as far north as Montreal and south to Belem, Brazil. Officers include Alexis Obolensky, president and treasurer; Lawrence Harrison, vice-president; and Cody Fowler, secretary. Employees numbered 21 Aug. 31.

Atlantic, Gulf and Midland Corp., Little Ferry, N. J., during July and August flew 14,925 revenue plane miles carrying 15,954 lb. of cargo 26,635,150 pound miles and 49 passengers 41,250 passenger miles for total revenue of $6,325 and $5,074 net loss. Company operates approximately one trip weekly between New York/Newark and Guatemala City and less regularly to other points in Central and South America and the Caribbean area. Equipment is one cargo/passenger DC-3C, and seven persons are employed. Operations commenced May 25, 1946. Officers are James T. Clark, III, president; Thomas C. Catchings, vice-president and treasurer; and August J. Fischer, secretary.

Airborne Freight and Passenger Service, Inc., New York City, (operating base Newark Airport(between May 1 and July 13 flew 25,000 plane miles carrying 275 passengers and 5,500 lb. of cargo for total revenue of $10,000 and $242 net loss. Wholly-owned by National Air Produce Corp., New York, company operates coast to coast and to South America with one C-47. Two C-47's and one C-54 are on order. Officers include John F. Baker, president; Rutledge Irvine, vice president; John T. icholson, treasurer; and Thomas A. Sully, secretary.

Ohio Intra-State Airlines intends to incorporate in Ohio and has asked CAB for a certificate to carry persons, property and mail between Cleveland and Columbus via Mansfield, Toledo, Lima, Springfied, Zaneville and Marion.

Columbia Airlines, Baltimore is reported to have withdrawn completely from scheduled intrastate air service.

Strange Cargo: *Closing of U. S. ports by shipping strikes during recent weeks was responsible for the shipment of 7,000 lb. of coke by air from Teterboro, N. J., to the Camaguey, Cuba, mills of the Francisco Sugar Co. The critically-needed fuel, loaded in 50-lb. sacks, was carried by Willis Air Service, Inc.*

Air Freight Issue Looms Before CAB

Right of the scheduled trunklines to carry airfreight under certificates issued years before the hauling of bulk cargo became a reality will be challenged in CAB's airfreight case, set for hearing Nov. 12.

Petition of the Independent Airfreight Association asking leave to intervene indicated the group would seek interpretation of the word "property" as contained in the airlines' grandfather certificates authorizing carriage of "persons, property and mail." The question whether "property" includes bulk freight will be brought into the hearing regardless of whether IAA is permitted to intervene, since four of its five members are already in the case.

One IAA member, U. S. Airlines, touched on the point in the Boston-New York-Atlanta-New Orleans route case and intends to present further argument on the subject in the airfreight hearing.

Air Taxi

Plans for early inauguration of an air taxi run from Pittsburgh's Point to City-County airport and for later service to Greater Pittsburgh airport are being developed by Guy Miller, who intends to operate six four-place Republic Seabees from a ramp on the Monongahela River at the Point. The service would be set up to cut surface times from hotel to airport by two-thirds.

AAXICO Petitions CAB for Exemption

Carrier seeks scheduled service pending decision on certificate; concerned over restrictions.

Apprehension over its nonscheduled status in the light of CAB's Trans-Marine and Page Airways decisions last June and in view of further restrictions proposed by the Board in Amendment No. 3, Section 292.1 of the Economic Regulations, has brought American Air Export and Import Co. to a crossroads where its future may be decided.

AAXICO has asked CAB for a temporary exemption authorizing scheduled passenger - mail - cargo operations over routes for which it has applications pending—Buffalo, N. Y., to Miami and Havana; and Quebec to Miami and Havana. Refusal of this request, President Charles A. Carroll indicated, may force it to discharge substantially all its 178 employees, dispose of most of its equipment (seven C-47s), and curtail operations to an uneconomic minimum.

AAXICO President: *As the newly-elected head of American Air Export and Import Co., Inc., Miami Springs, Fla., Charles A. Carroll is pondering the future of his firm in view of CAB restrictions on nonscheduled operations. Carroll is a graduate aeronautical engineer from Notre Dame, former manager of the Detroit School of Aviation and a former pilot with Pan American Airways. AAXICO is one of the largest nonscheduled passenger carriers in the country* (AVIATION NEWS, *Sept. 2*).

MUSIC IN THE AIR:

Two planeloads of pianos built by Lester Piano Manufacturing Co. were hauled recently from Philadelphia to Oakland, Cal., and Miami. Fla., in U. S. Airlines C-47s. Eighteen pianos aggregating about 7,000 lbs. were included in each shipment.

Advised by Counsel—The carrier told CAB it had been advised by its counsel that the Board's interpretation of the nonscheduled exemption in the Trans-Marine and Page Airways decisions — along with promulgation of Amendment No. 2 to the exemption—had raised the serious question of whether AAXICO itself had correctly interpreted the order.

Noting the further restrictions proposed in Amendment No. 3 to the exemption, AAXICO said it was reluctant to continue its operations, since by so doing it may become involved in lengthy and costly judicial proceedings and become liable to substantial penalties.

Operations Outlined—Describing its service since November, 1945, AAXICO stated it had flown more than 23,000 passengers 25,000,000 passenger-miles up to Sept. 15 and had also carried 50 tons of freight. From November to Apr. 1 it flew an average of 0.8 roundtrips daily between New York and Miami; and from May to Sept. 15 it operated an average of 1.92 roundtrips daily between New York and San Juan and 3.7 roundtrips daily between New York and Atlantic City.

Challenger Asks Route

Challenger Airlines, Salt Lake City, has asked CAB for feeder routes from that point to Phoenix, Ariz., and Cedar City, Utah, both via intermediate points. George W. Snyder, Jr., Challenger president, says the company will push the applications with the support of the Utah state legislature, Chambers of Commerce, and the Utah Municipal League.

Tiger Line Subsidiary

Starting with two DC-3's, the Flying Tiger Line, air cargo carrier, has launched a subsidiary, Flying Tiger Transport, devoted to transport service for organizations who wish to charter air transportation for groups of 22 or less.

Roosevelt to Empire

Elliott Roosevelt, son of the late President Roosevelt, has been elected president of Empire Airlines, Inc., New York intrastate carrier. Dean Alfange, founder of the company, has been named chairman of the board of directors and general counsel, according to Harry S. Brandt, chairman of Empire's executive committee.

Operating 13 daily schedules from LaGuardia Field to upstate points, Empire also has an application on file with CAB for a network of routes extending from Akron, Ohio, to Portland, Me., and from Pittsburgh to the Canadian border.

★ ★

British Air Show Opens Drive For $64,000,000 Export Trade

New military commercial and personal planes exhibited at first postwar industry demonstration at Radlett airfield in Hertfordshire.

By F. R. BREWSTER

LONDON—Setting its sights on an annual export sales target of $64,000,000 for each of the next three years, the British aircraft manufacturing industry put on an impressive sales demonstration before an invited audience which included 1,500 foreign visitors and potential customers for 20 countries, including 24 Russian officials, at Radlett Aerodrome, Hertfordshire.

Timed to coincide with the conference of the Provisional International Civil Aviation Organization, and to provide the agenda for the final day's meeting of the Federation Aeronautique Internationale, the aircraft show comprised an exhibit of 55 planes, and engines, accessories and components from 160 manufacturers. On the second day there was a flight demonstration of more than 50 of the aircraft.

Largest Show — This was the seventh and largest British aircraft show held under the sponsorship of the Society of British Aircraft Constructors.

Demonstrating the official backing of the manufacturers' ambitious export plans, the Government two days before the opening of the show announced its intention to appoint three more civil air attachés—one to cover Scandinavia, one for Paris and another at Buenos Aires.

Initial, but still fragmentary, reports of the amount of foreign business resulting from the show are notable. One plane manufacturer is known to have brought his orders for the next twelve months up to $10,000,000 on the basis of inquiries at the show. On the last day of the show, A. V. Roe announced it had recently obtained orders for an additional $8,000,000 worth of aircraft, including Tudors, which give this firm a backlog of more than $64,000,000.

Landis Attends — More business might easily have been transacted had there been less of the limitation summed up in the words of one Danish industrialist who could be considered typical of the foreign buyers present:

"We think the British planes are unsurpassable; the problem is to get our government to release the sterling to make it possible for us to buy them."

Prominent American figures who visited the show included James M. Landis, Chairman of the CAB; T. P. Wright, Administrator of CAA; and William A. M. Burden, assistant secretary of commerce for air.

Many of the planes on display were being seen by buyers for the first time. Chief interest centered around the new Vickers-Armstrong jet fighter, the Supermarine E 10/44. This is an entirely new design of a single-jet direct-thrust type, built around the Rolls-Royce Nene I 5,000-lb. thrust jet unit.

Pressure Cabin—The pilot, in a pressurized cockpit with ejector seat, sits well forward in the nose and has exceptionally fine visibility. The nose itself is of heavy construction to afford armor protection. Intakes to the Nene on each side of the cockpit scarcely break the slim lines of the fuselage. The plane has a laminar-flow wing similar to the Supermarine Spiteful but slightly greater (35 ft. 11 in.) in span. In flight, the new design gave impressive evidence that it will deserve to be included in the 600-mph. category.

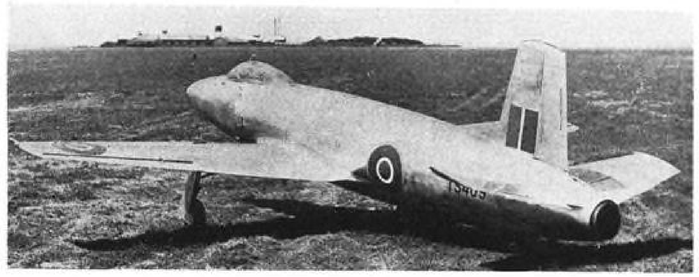
Novelty interest was captured by the Cierva W 9 jet helicopter, first of its kind, and built by Cunliffe-Owen. Because of its tubular-shaped fuselage and its "round-the-corner tail" by which jet torque is controlled, this design was inevitably dubbed "The Flying Drainpipe."

The latest version of Britain's transport aircraft commanded the primary attention of civil aviation prospects, and to the Ansons, Consuls, Doves, Haltons, Hermes, Lancastrians, Marathons, Tudors and Wayfarers on exhibit were added the five-passenger Percival Merganser and the Miles M 57 Aerovan, originally designed as an economical freight carrier but capable of carrying 10 passengers on case seats.

Models Shown—Among the personal planes, the Auster two-seater Arrow and three-seater Autocrat and the Percival Proctor four-seater Mark V all claimed their share of attention. Represented only by models were the Airspeed Ambassador, the Armstrong Whitworth A.W.55 (a Brabazon IIB type), the Bristol 167 (a Brabazon I design), General Aircraft's 90-passenger Universal, and Saunders-Roe's six-turbine flying boat.

Among the full complement of RAF and Fleet Air Arm planes, were the A. V. Roe Lincoln B Mk.II long-range bomber (3600 miles), the Blackburn Firebrand V single-set "strike" torpedo- and dive-bomber (342 mph. at 12,500 ft., without torpedo), the Bristol

Combination Power: *Exhibited at the British aircraft show was this Lancastrian (transport version of the bomber) with two Merlin reciprocating engines and, in outboard positions, two Rolls-Royce Nene jet engines. With all four engines operating, this aircraft attained more than 300 mph. With only the two jets furnishing power, it flew between 250 and 280 mph. (McGraw-Hill photo)*



New British Fighter: *Rear view of the new Vickers-Armstrong jet fighter, Supermarine E-10-44, showing the jet exhaust and the unusual empennage design. It is powered by the Rolls-Royce Nene I.*

Brigand TF Mk.I three-seat long-range fighter, torpedo- and dive-bomber, and mine-layer; trainer versions of the Spitfire and the Firefly, with an extra cockpit added for the instructor; the General Aircraft power - assisted Hamilcar transport glider; and the Short Sturgeon, a two-seater twin-Merlin - engined high - midwing fighter, said to be the first specifically designed to Navy specifications for carrier- or land-based operations.

Twin Jet Boat—One of the most interesting models of military planes was the Saunders-Roe twin-jet fighter with flying boat hull, fitted with two Metro-Vick F2/4 axial-flow turbine jets. Another was the Boulton Paul P.108, the first training plane to be designed with turbine propeller (either the new Armstrong Siddeley Mamba or the Rolls Royce Dart).

Assembled perhaps for the first time in one place, the complete line-up of Britain's latest piston- and jet-type engines was very impressive testimony to the British position in this aspect of aircraft building. The one new power unit that has not previously been described was the Armstrong Siddeley Mamba, a propeller gas-turbine design producing 1000 shaft hp. and yielding an additional 320 lb. of thrust from the jet. This engine is an axial-flow straight-through design, with six combustion chambers, and accomplishes a reduction in frontal area to 30 percent of that of an equivalent piston-type engine, with consequent reduction in drag.

Small Tachometer

An aircraft tachometer nearly one-third smaller in diameter than usual models is being produced in quantity by General Electric Co. for an undisclosed West Coast aircraft manufacturer. Indicating that the instruments are for a personal plane, announced purpose of design is to conserve panel space.

Electrical Union Signs Pact With Allis-Chalmers Plant

Foreshadowing a possible break in the six-months' strike at Allis-Chalmers Manufacturing Co. plants, the United Electrical Workers union has signed a contract with the Pittsburgh plant. The contract, which runs until April, 1948, provides for a 13½ cent an hour wage increase.

While this settlement leaves the Milwaukee plant, where work has been interrupted on a new jet engine, still closed, company believes the strike may end shortly.

Non-Metal Duct Developed

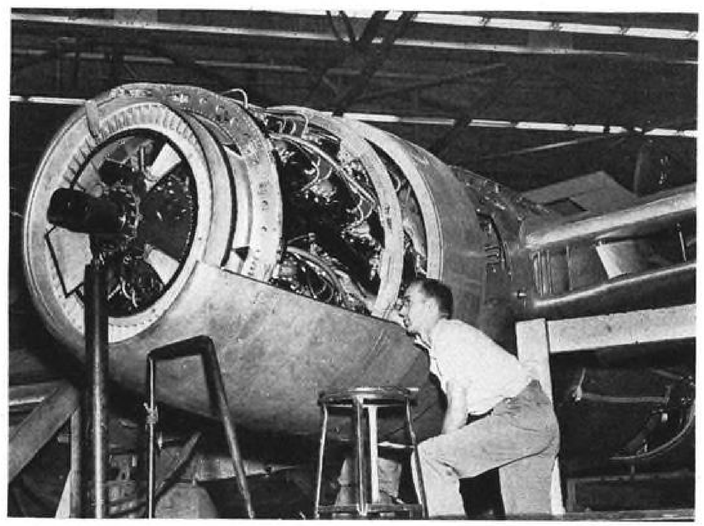
A non-metallic hot-air duct for aircraft has been developed by the United States Rubber Co. Made of glass fabric impregnated with heat-resistant rubber and plastics, it weighs less than one-half as much as aluminum tubing and will convey air as hot as 500 degrees Fahrenheit.

The duct, designed for thermal heating systems, is available either rigid or flexible and in diameters from one to six inches and lengths up to eight feet.

30,000 Engines

Continental Motors Corp. expects to have completed 30,000 engines for lightplanes in the fiscal year ending Oct. 31, president Clarence J. Reese has told stockholders. Next year, production goal is 75,000 engines.

With shipments of the parent company and its subsidiaries now totaling about $5,000,000 a month, Reese forecast that for this fiscal year Continental would gross $45,000,000. This would mean that in the first full postwar year, the company expects sales to be off nearly 80 percent from the fiscal 1945 figure of $205,952,443.



FAN COOLING:

A special fan in the forward section of the engine cowl helps cool the giant Pratt & Whitney Wasp Majors installed in the Republic XF-12 Rainbow photo plane. This type of cooling was tested first in Republic's P-47J, first conventionally-powered plane to attain 500 mph. in level flight. (Martin & Kelman photo)

Aircraft Industry Gross for Year Not Measuring Up to Expectations

Shortages of some materials easing but production delays to date create doubt that manufacturers can justify cautious optimism of investment surveys.

By WILLIAM KROGER

One of the most interesting, yet little-noticed aspects, of the first reports of the Lockheed-Consolidated Vultee merger was the absence of any apparent effect on the market prices of the stocks of the two companies. The obvious reason is that the report came when the market as a whole was off—sufficient reason to discourage trading.

But another of the reasons may be the fact that aircraft shares seemingly do not have strong appeal to the average investor—possibly an outgrowth of the industry's own dim view of the future at war's end, a view that has not been fully justified in the ensuing year (AVIATION NEWS, Sept. 2).

Apparently with the objective of overcoming this reluctance of the investor, a number of investment services recently have issued analyses of the aircraft industry which are generally cautiously optimistic in tone—although garnished with the customary "ifs." One of the most thorough of these has been prepared by George Bryant Woods of White, Weld & Co., 40 Wall Street, New York City. Woods estimates the 1946 gross business of principal manufacturers as:

Curtiss-Wright	$45,000,000
Douglas	100,000,000
United Aircraft	95,000,000
Consolidated Vultee	50,000,000
Lockheed	100,000,000
Boeing	40,000,000
Martin	35,000,000
North American	30,000,000
Grumman	40,000,000
Republic	42,000,000
Bell	10,000,000
Beech	18,000,000
Fairchild E & A	35,000,000
Northrop	25,000,000

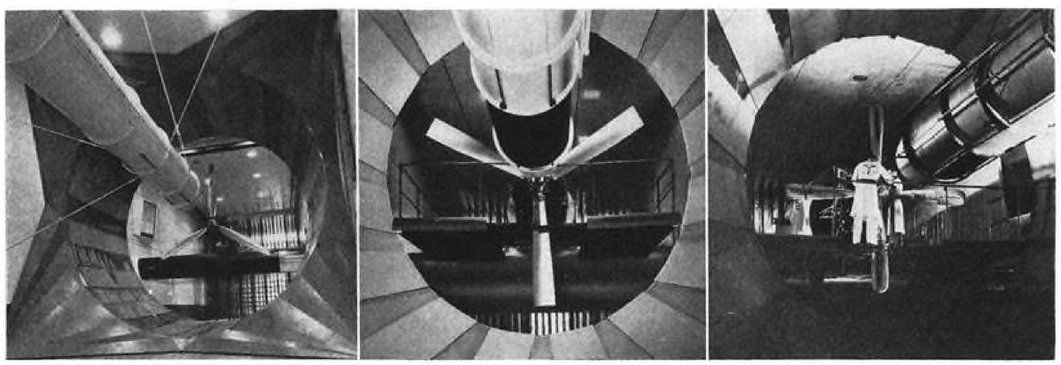
A group of industry executives, recently discussing the Woods survey, agreed that overall it was a good assessment of the industry's position and outlook, although representatives of the companies treated individually in the report each took issue with some of the statements concerning his company. This is natural, as Woods' analysis, as is the fashion, hedged in spots. The hedging now seems to be justified in examining the industry's present position.

It is extremely doubtful that many of the companies listed above will achieve the sales figures estimated. The reason is simple: shortages of materials. There is still an outside chance that a last-quarter spurt can pull the 1946 sales up to expectations. Late developments furnish at least that hope.

Number one shortage all along has been in aluminum (which has been reported in full previously by AVIATION NEWS). Now, the bright spot is Henry Kaiser's plant at Spokane, Wash. During the war, this plant is reported to have had a capacity of 20,000,000 lb. per month. Since Kaiser leased the plant from the government, after a slow start, production has been pushed up to about 4,000,000 lb. per month. This is all sheet. Summing up markets, Kaiser reportedly has decided that the famished aircraft industry is the best bet and intends to concentrate on supplying its needs for alloys similar to 24S and 75S.

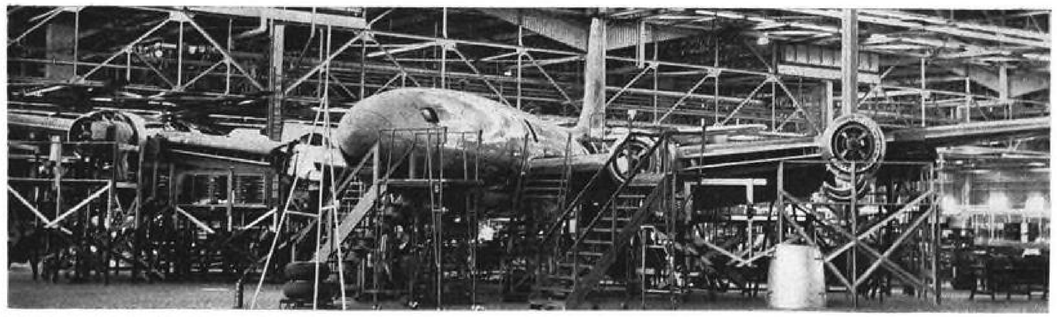
The industry's peacetime needs for this aluminum is estimated to be in the neighborhood of 10,000,000 lb. per month. On this basis, the Kaiser plant alone should be close to meeting aircraft needs by the end of the year. For another thing, the long-time bugaboo of the industry as far as aluminum is concerned—the demand for the metal in housing—is also clearing up. The Reynolds Metals Co. plant at Chicago has turned to supplying this market and is believed to have the requisite capacity to handle the job.

Offering hope of an eventual easement of another vexing, but less serious shortage—that of frac-



NEW PROPELLER TESTING FACILITIES:

Hamilton Standard division of United Aircraft Corp. has put into operation two new propeller test houses capable of holding props up to 30 ft. in diameter and utilizing for the first time adjustable air funnels to smooth the flow of air through test cells. Currently being tested in the new cells are three new types of Hydromatic props: left to right, largest Hamilton prop ever built, with blades 20 ft. in diameter; a square-tipped blade propeller; and a four-bladed Hydromatic for use on the Douglas DC-6 and which differs from the usual product in its wide, paddle-like tips. Left photo shows the adjustable air funnel which is here expanded to its full 30 ft. It can be constructed to a 15-ft. diameter. The long tube in the photos brings cooling air to the engine during the tests.



RAINBOW NUMBER TWO NEARS COMPLETION:

Production of the second XF-12 Rainbow long-range photo-reconnaissance plane for the AAF is well advanced at Republic Aircraft's plant at Farmingdale. The prototype has been flying for some time, and work on the commercial version of the Rainbow is scheduled to get under way shortly.

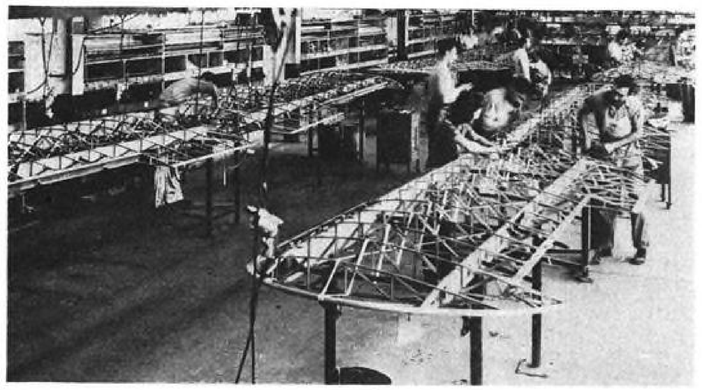
tional horsepower electric motors—is the adoption of new standards by the National Association of Electrical Manufacturers. The effect of this is more or less indirect on the aircraft industry as the standards being put into effect apply primarily to motors for household appliances. But by reducing the number of specialized types of electric motors, manufacturers will be able to attain mass production on a few types and be in a better position to serve the aircraft industry.

One segment of the industry has had little relief from shortages and, in fact, has had another lack injected into an already critical situation. This is the lightplane industry which is still being tormented by a short supply of fabric, in spite of an OPA-approved price increase. On top of that has been added Continental Motors Corp.'s difficulties with pistons (AVIATION NEWS, Sept. 2). Continental is the largest supplier of engines to the lightplane industry and presumably the task of replacing the pistons ordered removed by CAA has interfered with production schedules as there are reports from several manufacturers of airframes awaiting engines.

Shortages in the lightplane industry become even more significant in the face of the estimate in the White, Weld survey that there are now about 200 companies either in, or planning to enter, the lightplane field. That means cutting an already very small pie into mal-nutritious scrapings.

There is another, ever more serious, aspect to the shortages insofar as the smaller aircraft companies are concerned. The estimated working capital of the 14 large companies listed in the White, Weld survey is in excess of half a billion dollars. This, plus the military orders which all these companies hold, enables them to maintain practically full working staffs for a long period without danger, even though deliveries should be delayed because of shortages. But the smaller companies, with far less working capital, and now banking on sales to commercial outlets for future existence, have in some cases suffered dire hardship by delivery delays due to shortages.

Some of these companies have kept on full staffs with the hope—that has not yet been fulfilled—the shortages would clear up soon.



PIPER WINGS:

Wings for Cub trainers and supercruisers are all metal including spars except for wooden bows at tips. Ribs now riveted together from small pieces, later may be made in one-piece stampings.

British Are Building Big Research Center

An $80,000,000 aircraft research center which will include more than a dozen wind tunnels is under construction near Bedford, England. Plans call for part of the National Aeronautical Establishment to be in operation late in 1948. Most of the tunnels will not be ready until 1952.

The first tunnel expected to function will be a 3 ft. by 3 ft. supersonic tunnel able to simulate a speed of 1,500 mph. This tunnel will be built partly with captured German equipment. Another supersonic tunnel will have a working chamber 8 ft. by 8 ft.

Among other tunnels will be one producing low turbulence air flow for the testing of airfoil sections, and a spinning tunnel with a stream diameter of 15 feet.

The research center will also include an airfield taxiway-linked with two other nearby fields. There will be a laboratory for running structural tests on aircraft.

Heading the center will be W. G. Perring, at present a director of the Royal Aircraft Establishment. Personnel is expected to number about 5,000, 1,400 of which will be scientists and technicians.

★ ★

Waco Enters Postwar Plane Market With Aristocraft Pusher

Unusual design of four-place personal plane features two-control system, non-spinnable rig and 215 hp Franklin engine turning prop in tail by extention drive shaft.

By ALEXANDER McSURELY

The first two-control non-spinnable personal plane in the four-place class is being announced this week by Waco Aircraft Co., Troy, Ohio, as its postwar re-entry into the personal plane competition after a history of 25 years of airplane building, most of it until World War II in the deluxe personal plane category.

The new Waco, which has been christened the Aristocraft, is priced at $9,880 flyaway Troy. Most radical feature is placement of its propeller at the tail turned by an extension shaft running the length of the plane, from the 215 hp. Franklin six-cylinder air-cooled engine in the nose.

▸ **High-wing Monoplane**—Although tail propellers have been flown previously in the Douglas Mixmaster XB-42 bomber and in the the Lockheed Big Dipper two-place experimental plane, and are designed, reportedly, in a smaller Douglas executive transport and a Consolidated-Vultee experimental lightplane, the Waco Aristocraft is the first personal plane with a tail propeller definitely scheduled for mass production.

The plane is a high-wing monoplane, with a rectangular wing which resembles the Republic Seabee wing design, having single streamlined wing-struts as a brace. Wings, ailerons, horizontal stabilizer, twin rudders and fins are all-metal. The fuselage is of welded-steel tube construction, fabric-covered.

Top speed at sea level is estimated at 154 mph. while the plane is expected to cruise at 5,000 ft. at 152 mph. and to have a 55 mph. stall speed.

The tail-propeller is described by the manufacturer as one of the most practical advancements in personal plane design in more than a decade, because:

▸ Drag from the propeller slipstream, which detracts from efficiency of all conventional tractor-type airplanes is completely eliminated.

▸ The propeller location greatly reduces danger to the plane's occupants or to airport personnel.

▸ The elimination of slip stream blowing back on the plane's occupants, as they enter and leave the aircraft is an added convenience.

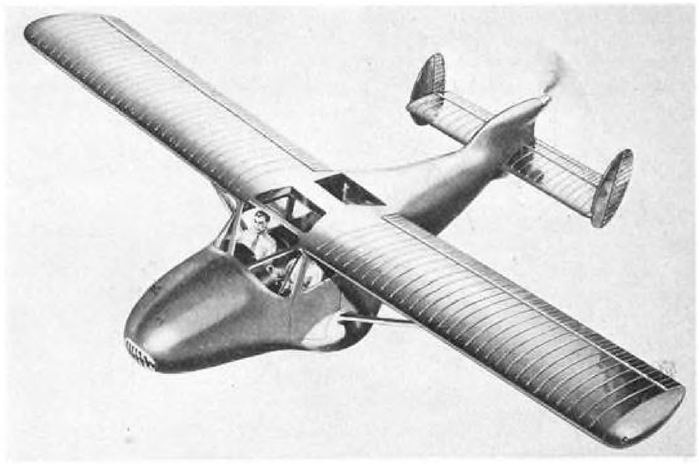
▸ Cabin noise is greatly lessened by remoteness of the propeller.

The company is obviously aiming the plane at the luxury class personal plane market, in which Waco was a formidable prewar competitor.

▸ **Equipment Listed** — Standard equipment includes a two-way radio, 84-in. diameter Hartzell controllable and reversible pitch propeller, air speed indicator, compass, sensitive altimeter, bank and turn indicator, rate of climb indicator, clock, tachometer, oil pressure and oil temperature gages, fuel pressure and fuel capacity gages, ammeter, manifold pressure gage, cylinder head temperature gage, ignition switch and lock, instrument spotlights, dome light. All four seats are easily reached through either of the two wide doors, and the cabin is roomy enough for pilot and passenger to change seats in flight without difficulty. A 16 cu. ft. luggage compartment with 120 lb. capacity, accessible from cabin in flight, or from outside door in fuselage, is another feature.

The cabin is fitted with dual control wheels, but rudder pedals have been eliminated. Rudders are coordinated with ailerons so that movement of the control wheel to right or left operates both control surfaces in a coordinated turn and bank, essentially similar in operation to the Ercoupe two-control system. Moving the wheel forward or back for descent or climb, and turning it to one side or the other, are the only control motions required. Non-spinnable characteristics of the plane are attributed to the general design, and to restricted movement of control surfaces.

▸ **Steerable Nosewheel**—The Aristocraft nosewheel is steerable for taxiing, from the control wheel. A foot brake with equal braking



Aristocraft in Flight: *Artist's drawing of the new four-place Waco Aristocraft as it will appear in flight, shows the unusual place of the propeller at the tail, excellent visibility characteristics, rectangular high wing with single strut-brace, attractive grill, for engine-cooling, at nose.*

on the two main wheels is located in the same relative position as an auto foot brake. Landing gear is a pre-assembled Firestone unit with low oscillation rate control and dampening characteristics for easy taxiing. The plane has a low center of gravity and a longer-than-usual wheel base due to the tail-propeller location and the nose-wheel arrangement. Both these are additional factors making for ease in ground handling. The manufacturer claims it is virtually impossible for the plane to nose over on the ground, and that the low center of gravity permits cross wind drift landings of considerable severity, with safety.

The gear retracts into safety wells, designed to make it possible for the aircraft to make a wheels-up landing and still use brakes and land without damage to plane or propeller.

▸**Easy to Service**—The engine is installed so that 11 parts requiring servicing including both spark plugs on each cylinder are readily reached for check or replacement. The cowling is hinged at the top like an auto hood, and is fastened by four external fastener clamps. It raises to an automatic locking position, held by braces. Two rubber-cell type fuel tanks are located in the wing roots, and feed by gravity to a fuel pump supplying the pressure carburetor. The pressure carburetor virtually eliminates the icing hazard common to most personal planes.

The Aristocraft prototype has not yet made its maiden flight but is expected to do so early in October. The company plans to start fly-away deliveries from the Troy plant in February or March, 1947, assuming that the plane completes its NC licensing requirements by that time.

Waco's prewar biplanes were marketed in many foreign countries as well as widely in this country, and had an excellent reputation for reliability and performance. Many of them are still in service. The company specialized on 4-5 place single-engine planes, many of them custom built. An ambulance plane, a military trainer for export to several South American countries, and one of the first tricycle gear planes, were among the last prewar Waco models.

The Model N tricycle gear plane was used by CAA in blind landing experiments at Indianapolis in 1940. The last prewar civilian Waco was a speedy retractable-landing gear five-place biplane, which had plywood wings and a 400 hp. Wright or Pratt & Whitney engine. It would cruise at 200 mph. and was said to be the fastest plane in the country in its power class.

At the beginning of the World War II, Waco took national leadership in the combat glider program, producing the eight-place CG-3, the 15-place CG-4 and CG-4A, the big 30-place tricycle gear CG-13 glider, and the smaller CG-15. All these were designs of C. Francis Arcier, vice-president in charge of engineering, and were first built at the Waco plant. Later the same gliders were built under license by a number of other manufacturers. The CG-4A was the first combat glider, and the most widely used in both European and Pacific theaters.

Arcier is one part of a long-associated triumvirate which operates the relatively small, conservative Waco company. The others are Clayton J. Bruckner, the president, and Hugh Perry, vice-president and general manager.

Waco 'Specs'

Specifications of the new four-place Waco Aristocraft include:

Wingspan	38 ft.
Length	25 ft. 8¾ in.
Height	7 ft. 8 in.
Weight empty	2046 lbs.
Max. gross wt.	3130 lbs.
Wing area	196.64 sq. ft.
Wing loading	15.25 lbs./sq. ft.
Top speed (sea level)	154 mph.
Cruise (sea level)	135 mph.
Cruise (5,000 ft.)	152 mph.
Stalling speed	55 mph.
Max. rate of climb	950 ft./min.
Service ceiling	17,500 ft.
Max. range	657 miles at 5,000 ft.

Unique Design: *Novel aspects of the design of the new Waco Aristocraft, shown in the above sketch, include tricycle landing gear which will function in landings even when retracted; propeller mounted at rear of twin tail, with vertical fin below the stabilizer; low step-up to door forward of strut-brace, easy access to engine through auto-type hood, outside door to fuselage luggage compartment.*

Survey Lists Florida Seaplane Facilities

Growth of private flyers' interest in seaplanes is indicated by a recent survey of the Florida State Improvement Commission showing location of 52 seaplane bases and anchorages in the state.

The survey points out that there are projects for installation of 21 additional Florida seaplane facilities, costing approximately $6,000 each, including the National Airport plan, to complete the network of seaplane bases in the state, while 15 other existing anchorages are to be improved under the federal plan.

With completion and improvement of the additional facilities it is estimated that seaplane pilots can fly almost any course they wish in the Florida area and be assured of adequate landing facilities. Of existing bases listed five are Navy and two are coast guard bases, available for civilian use only in emergencies.

The report concluded that the east coast of Florida now has a satisfactory network of seaplane bases and anchorages, as did central Florida as far north as Lake county, and the Florida west coast from Ft. Myers to the St. Petersburg-Tampa area. North Central and Northwest Florida still lack adequate facilities, which are to be supplied in the new program.

A directory of existing seaplane bases and anchorages, with facilities available, is provided to accompany the survey, data for which has been obtained by the commission's inspections and from CAA and the U. S. Coast and Geodetic Survey.

NACA Bares Wartime Research For Lightplane Manufacturers

Noise reduction data, jet propellers, cleaned up designs, high lift devices and icing studies urged to improve planes.

Important technical advances in American personal aircraft may be made possible through research data opened to personal plane manufacturers by the National Advisory Committee for Aeronautics if the industry follows up the various leads thrown out at a Langley Field (Va.), engineering conference last week.

Those industry representatives who came to the NACA Langley laboratory expecting to have a complete lightplane research and development program presented to them on a silver platter, were sadly disappointed. Actually what NACA offers is the by-product of its overall research program, the basic data that applies to the lightplane category of aircraft.

▸**Radical Change Possible**—However the by-product may be important enough to make radical changes in conventional present day airplanes if thoroughly applied. For the new NACA policy toward personal planes development has brought about compilation of an index of 600 NACA technical reports, covering virtually every phase of basic aviation research, which has application to light airplanes. Admittedly a sizable portion of the total mass of data is known already to the industry in one form or another, but a considerable number of the reports have been only recently declassified from military security and are available to industry for the first time.

Along with the index, and reports available to industry for the asking and with indications of a few minor specific programs which the federal aviation research organization is carrying on, or projecting the lightplane industry representatives were given frank notice by John Crowley, acting NACA research director, that only a minor portion of its time would be devoted specifically to personal plane projects. NACA commitments to high priority research projects for developing guided missiles and supersonic aircraft will come first. However Crowley pointed out that a large percentage of NACA's basic research would be generally applicable to lightplane design, as well as to larger aircraft.

In the specific personal aircraft projects, noise reduction, and jet propeller development seem to have first call.

These received probably most emphasis in a day of discussions which ranged from cleanup of engine cowlings and other components to consideration of high lift devices, unconventional aircraft configurations, spin and stall characteristics, icing, and many other design phase problems common to all aircraft.

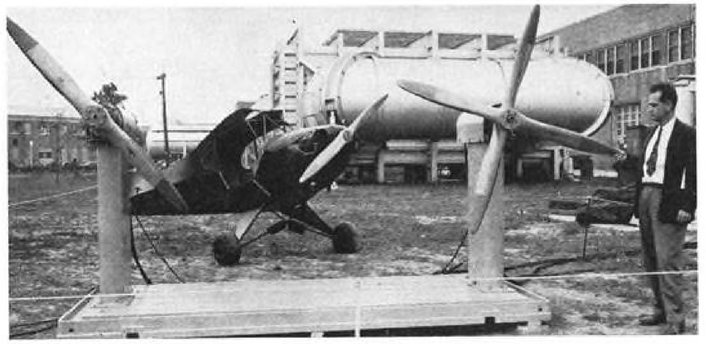
▸**Urges Jet Study**—John Sanders, NACA Cleveland engineer, told the group that two forms of jet propulsion warrant further study for possible future lightplane use: The jet-propeller which is driven by jets emitted from the blade tips, and the gas turbine driving a conventional propeller. Currently efficiency of the turbine-propeller stands at about 1.3 lb. fuel per horsepower per hour, but he believes this can be reduced to 0.8 lb. Efficiency for the jet propeller is estimated at about 3 lb.

However he pointed out that the jet propeller which is a self-contained complete power installation, has a considerable advantage in weight over either the turbine-propeller or the conventional power plant installation. The NACA has purchased components to make up one jet propeller, but has not yet test flown it, he said. A chart showed that the light weight of the jet propeller gave it an advantage for short flights over conventional power plants.

Administrator of Civil Aeronautics T. P. Wright, who is also vice-chairman of NACA, called upon the NACA engineers at the conference to continue their research on the jet power plants, as future personal plane prime movers, because of the simplicity and lightness of the engines under study.

▸**Prop Noise Reduced**—Propeller noise discussions included a statement by Arthur Regier that there was no reason why an airplane propeller could not be made as quiet as a helicopter rotor. He demonstrated the difference between sounds of a two-blade and an eight-blade propeller of the same diameter, by playing recordings. It was pointed out that reduction in diameter would not be feasible because of increased takeoff run.

A chart showed that an eight-blade fixed pitch propeller would require 8 percent more takeoff run, than a two-blade fixed pitch, but



Comparing Prop Noise: *Industry engineers listened last week at NACA's Langley laboratory to a comparison of noise made by a 70 in. two-blade propeller mounted on the nose of a 65 hp. Piper Cub fuselage (center), the same size propeller mounted on an electric motor (left), and two of the propellers in a tandem mounting which gave the effect of a four-blade propeller, also on an electric motor (right). The two-blader on the plane had a 100 Decibel sound rating, at 2160 rpm. with an 0.6 Mach number tip speed. Elimination of engine noise on the two-blader with equivalent electric power only dropped the noise level two decibels to 98. The four-blader however turned at only 1600 rpm. to absorb the same power, with an 0.45 Mach number tip speed and an 84 decibel noise level. (NACA photo)*

that if the propellers had variable pitch, the eight blader showed a 4 percent shorter takeoff distance than the two-blader in addition to the noise reduction. The most often voiced objection to the eight-blade propeller proposal for lightplanes, its weight and complexity, was countered by a statement that individual blades in the eight-blader could be lighter because of less individual stress, and that a two-position pitch eight-blade propeller would be relatively simple to design. Canvass of industry engineers after the NACA session however brought forth a consensus: "There must be some easier way to reduce propeller noise."

Demonstration of how the NACA had cleaned up 23 military planes by eliminating unnecessary drag items, was given to the conference, with the implication that many of the manufacturers could have considerably faster and more efficient personal planes if they would follow this procedure. One service airplane, NACA reported, showed an increase of 29 mph. in speed over its original 325 mph. as a result of this streamlining.

Warning on Ice—Pointing out that 195 forced landings in personal aircraft have been made in 1946 because of icing in induction systems, Wilson Hunter, of the Cleveland NACA staff, pointed out that there had been no such accidents among transport planes. He urged incorportion of pressure carburetors for small plane engines.

Other discussions centered around stability and control, seaplane hull design, design of control surfaces, safety and spinning, use of low-drag airfoils for personal planes, jet ejectors for exhausts and spinning investigations on typical lightplane configurations.

Harrison Chandler, Washington, who has been assigned as coordinator of lightplane research projects at NACA, was introduced and discussed briefly plans for future projects, virtually all of them further developments of subjects already mentioned.

Texas Air Day

Nearly 1,000 private flyers and their parties were among visitors at Harlingen, Tex. recently at the first Annual Texas Air Day. The program attracted 50,000 persons, included an air show, barbecue, dances, rodeo, beauty contests, addresses by civic and Army and Navy officials, and a show of 25 new civilian planes.

Briefing *For Private Flying*

WINDTUNNEL CLEANUP—NACA could probably make one of its quickest immediate contributions to improvement of personal planes, if it would take a few of the more promising existing planes, and submit them to full-scale wind tunnel testing to clean them up, aerodynamically speaking. Whether NACA can or will take time out from its higher-priority projects in guided missiles and supersonics, for this type of investigation appears doubtful. But if NACA can't do it, their need for full-scale tunnel testing and cleanup still exists and industry and government should work together to satisfy it some other way.

CONVAIR ROADABLE—The four-place roadable plane being developed by Ted Hall for Consolidated-Vultee, and previously mentioned in "Aviation News," is now flying, and is a strong possibility for mass production and sales. Tests on it are being pushed. The plane has detachable wings, motor and propeller. Tentative plans would set up Stinson division service centers at strategic locations where the operator of the basic automobile part of the combination plane could lease and substitute an airplane motor for his ground power plant, add wings and propeller, and fly away. Success of the plan appears dependent on the number of such centers which could be stocked with spare wings, etc.

METROPOLITAN AIR AUTHORITY—Cleveland Aviation Club is seeking establishment of a Cleveland Metropolitan Air Authority by state legislative action which could establish and operate airports in an area as far west as Toledo, as far south as Akron, Canton and Mansfield, Ohio, and as far east as the Pennsylvania state line. This would cut across local government boundaries of municipalities and counties, and could override objections of local governments to airport establishments. The project would include acquisition of existing airports in the area, to be linked into a chain of uniformly-operated fields connected by intercommunication system. The proposal is still in an early planning stage.

ENSENADA AIR TOUR—More than 1,000 flyers are expected to participate in the second annual Ensenada (Mexico) Air Tour, starting Oct. 5 from Vail Field, Los Angeles. Last year nearly 400 persons flew on a similar tour. Vail Field will be port of entry, with customs officials available to eliminate border stops, and is handling hotel reservations at Ensenada for the air tourists. An air show, tours of the city, barbecue and formal dance will be held at Ensenada. A navigation contest will be a feature of the flight to Ensenada.

BETTER BREAK—Miami Air Races, already making plans for next January's three-day show, is planning to give exhibition of personal planes a better break than they received at the recent Cleveland Races. Any manufacturer who wishes can exhibit as many different types of new planes as he chooses in the daily "flypast" without charge, as opposed to the $500 per plane fee charged manufacturers at Cleveland. Also space will be provided convenient to the grandstands, where the planes may be exhibited on the ground, and the spectators may inspect them more closely. Officials at Miami are hopeful they may have as many as 40 different planes entered and expect the personal plane show to be one of the biggest drawing cards at the Races.

LIGHTPLANE AEROBATICS OUT—Personal plane manufacturers who are members of the Personal Aircraft Council, have unanimously agreed that they will no longer sponsor "thrill" performances of personal aircraft in aerobatic demonstrations. Members decided that instead, they would concentrate on promotion of air tours and "flypasts" where the personal plane would be recognized as a means of transportation emphasizing comfort, convenience, safety, ease of operation and economy. Directly affected by the action will be the Piper Corporation which for a number of years has frequently sponsored Beverly (Bevo) Howard, one of the best known acrobatic flyers, in his precision acrobatic show with a clipped-wing Piper Cub. The Howard exhibition was one of the daily acts at the recent National Air Races at Cleveland, under Piper sponsorship.

—Alexander McSurely

Bendix Scraps Plans To Make Lightplanes

Bendix Aviation Corp. last week laid off most of the employees of its personal airplane experimental division, at Detroit, except for a few top executives who may be assigned to other divisions. The layoff resulted from a reported decision of the Bendix board of directors to discontinue the division, and abandoned the company's projected entrance into the personal plane competition.

The division which numbered about 50 engineers and approximately 125 shop workers, had already produced three complete planes resembling the low-wing tricycle gear three-place monoplane type depicted in recent Bendix advertisements. A four-place amphibian plane, almost completed, was to have flown in October. It was understood Bendix had expended approximately $2,000,000 in the division.

Two members of the board of directors have been designated to dispose of the division's equipment, either piecemeal or in a unit. It is not definitely known what disposition will be made of the company patents, covering the basic plane designs, but it is expected they will remain in the company.

The division had been a pet project of Ernest R. Breech, former Bendix president, who left the corporation to become executive vice-president of Ford Motor Company. His successor, Malcolm Ferguson, reportedly did not share Breech's enthusiasm for entering the personal plane market.

Other factors contributing to the decision were the fact that the division would place Bendix in competition with many other lightplane manufacturers who are customers of other Bendix divisions, and the fact that the corporation had been unable to locate a suitable manufacturing plant for the new division.

Mexican Lightplane Tour Is Postponed Until Oct. 12

Postponement of the Mexican Dias Patrios Air Tour for private flyers, until Oct. 12, has been announced by the Mexican government and the Rio Grande Valley committee at Brownsville, Texas, which has been handling arrangement for American pilots. The flight was scheduled to have been made Sept. 14-16, but was postponed "because of the large number of acceptances for the tour, which would make the facilities originally planned for the visiting flyers completely inadequate," Consul Rubio Rojo, in Brownsville, announced.

Government Controls Stir Private Flyers Protest

Private commercial aircraft operators are dissatisfied with the handling of civil aviation in South Africa by the civil aviation authorities. Inadequate staff is causing considerable delay in the issue of pilots and ground engineers licenses.

Operators also ask some form of appeal against Government decisions to refuse to issue or renew licenses. The licenses, operators contend, should be controlled by small boards on which pilots, ground engineers, and operating companies are represented through their respective organizations.

A conference of representatives of 26 air operating companies in Johannesburg recently complained about the lack of airfield and airport accommodation, and formed a sub-committee to consider a national campaign to encourage the provision of small airfields, and landing strips throughout Southern Africa. It also recommended the abolition of all landing fees for light and ultra-light aircraft at all, other than international, national and intermediate, airports.

Wasps Buzzing

More than a third of the 1,000 women flyers who were members of the WASP during World War II are now actively engaged in piloting, instructing and airport management, according to a survey recently conducted by the Order of Fifinella, alumnae organization of the service pilots.

The survey shows that 360 are now actively in the aviation business. Cited as one example is the airport which two former WASPs, Charlotte Niles, and Margaret Lowell-Wallace, have been operating since June 1944 at East Hampton, L. I. The field is doing a thriving, expanding business in flight instruction, charter and sightseeing flights. They are now projecting an air express service into New York City.

NAVION GETS NC:

Signifying receipt of the CAA airworthiness certificate for the four-place Navion personal plane, J. H. (Dutch) Kindleberger, North American Aviation, Inc., president, changes the NX number to an NC number on the first certified Navion, while George W. Haldeman, and M. L. Beutler, CAA sixth region officials watch the proceedings, at the Inglewood, Calif., plant.

CAB Approves North Atlantic Fare Reductions as Initial Cut

Recognition of IATA proposals indicate Board expects lower rates when airliners get full Constellation fleets.

By MERLIN MICKEL

The Civil Aeronautics Board last week approved reductions in air passenger rates across the Atlantic, but indicated strongly that it will expect fares to go still lower as soon as the airlines have their full fleets of Constellations back in service.

The Board implied that although cost estimates on which the rates were based contemplated use of Constellation transports, the proposed fares would still be considered too high if Constellations had been in continued service.

Financial Blow—It did this by recognition of the financial blow suffered by the recent grounding of these planes, and the finding that "consequently there exists no unreasonable relationship between the probable attainable operating costs of air carriers, and rates for the carriage of persons and property" established by the fare agreement. Nor was any other factor found indicating that the rates were otherwise economically unsound.

The Constellations were grounded July 11, and latest operating reports filed with the Board, covering July, showed a 38 percent decrease from June in revenue plane miles, a similar decrease in revenue ton miles, and a 40 percent decrease in revenue passenger miles.

Financial reports for July and immediately subsequent months the Board order stated, will show, as a result of the grounding, unit operating costs "substantially in excess of those which might otherwise have been attained."

Five Month Rate—Effect of the Board's approval of the rate resolutions, the order continued, "will be to validate, as to the United States air carriers, the rates established by those resolutions only during the brief period when the adverse effects of the aforementioned grounding order on unit operating costs will be most acute."

U. S. airlines who are voting members of the North Atlantic Traffic Conference are American Overseas, Pan American, and TWA. The Board action marks the first time it approved fares set by an International Air Transport Association traffic conference—in this case for the North Atlantic.

The resolutions filed with the Board, insofar as they set up the conference and its rate-making machinery, were approved in February. But in May the Board refused to sanction the conference's first rate proposal on the ground that insufficient supporting cost data was submitted.

The conference reconsidered the rates at its June meeting, and came back with the reductions now approved by the Board.

Only five months remain during which they may be effective, the expiration date for the Board's approval being Feb. 28, 1947. This coincides with the end of the term for which CAB approved the Traffic Conference setup. Thus reconsideration of fares will coincide with the Board's full review of the Conference and its operation.

Comparative one-way fares for North Atlantic passenger travel showing the new rates approved by CAB and the old, or existing tariffs, are:

New York to	New	Old
Amsterdam	$357	$399
Brussels	349	399
Copenhagen	386	465
Geneva	373	409
Lisbon	331	375
London	325	375
Madrid	375	419
Oslo	388	470
Paris	345	375
Rome	424	471
Shannon	292	334
Stockholm	405	495

Ryan to Speak

CAB Vice Chairman Oswald Ryan will speak on "Public Utility Problems in the Air Industry" Oct. 29 before the annual meeting of the American Bar Association in Atlantic City.

Other subjects and speakers of particular interest to airline attorneys: "Application of Anti-Trust Laws to Regulated Industries," by Elmer A. Smith, Chicago, senior attorney for the Illinois Central System, Oct. 28, and "Labor Disputes and Public Utilities," by Donald R. Richberg, Washington, nationally known attorney in the labor field.

NEW DC-4 LOADING METHOD:

American Airlines' new tail-down loading procedure for the DC-4, illustrated above, involves bringing the tail down until the rear skid is on the ground, then ballasting until the cargo door is about at truck level. The carrier's contract air cargo division has loaded tractors, automobile and other loads by this method, developed at division headquarters.

CAB Adds New Fire Safety Regulations

Promulgation of additional safety regulations to reduce the hazard of fires in flight on passenger-type transport aircraft has been announced by CAB. Effective Nov. 1, the revisions apply to all aircraft presently being designed and to all planes currently in passenger service which are powered with one or more engines rated at 600 hp. or over.

Specifying new fire safeguards for power plant installations, passenger and crew compartments, cargo and baggage compartments, and hydraulic fluid, the amended regulations (CAR 04-1, 04-4, 41-3, 42-2 and 61-2) are the result of extensive studies made by CAB's Safety Bureau with the aid of CAA, the aircraft industry and the airlines.

Changes in presently-operating transports will be made at the first major fuselage overhaul subsequent to Jan. 1, 1947, and not later than Jan. 1, 1948, and at the first major wing center section overhaul subsequent to Jan. 1, 1947, and not later than Sept. 1, 1947.

Post Office May Use Regular Mail Plane

One of three planes converted into aerial mail cars to celebrate tomorrow's inauguration of the 5 cent airmail postage rate may be kept in service as an air post office.

Postal officials disclosed last week that decision to do so will depend on information obtained in the demonstration, which involves American and TWA DC-4s and an Army C-82 Packet being flown by United.

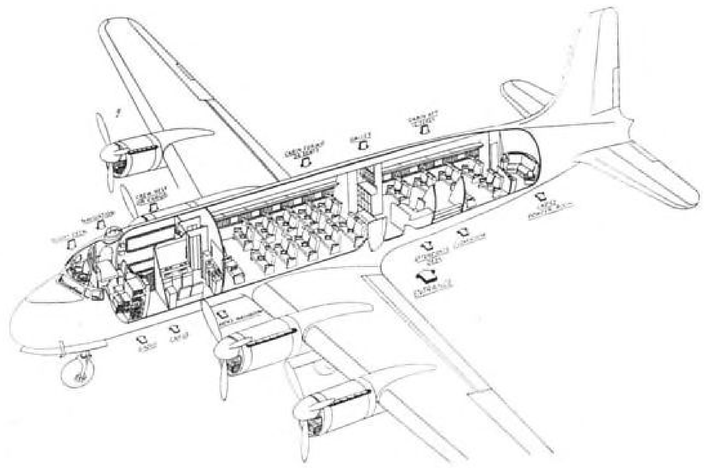
In addition to calling attention to the new airmail rate, the flights will provide a field day for the nation's philatelists, estimated at nearly 6,000,000 by Post Office spokesmen. Special "demonstration flight" cachets are a feature.

All three planes have been equipped with regular mail-handling equipment to permit cancellation and "working" of mail in the air. Which, if any, will continue in service has not been determined; United expects to turn the Packet back to the Army. TWA had announced that its DC-4 would be reconverted into a cargo ship as soon as the experiment was over (AVIATION NEWS, Sept. 23), but Post Office said last week that plan might change.

The schedule called for TWA's plane to leave Washington at 1 p. m. Wednesday Sept. 25 to go to Chicago via Dayton, flying east Thursday to New York via Pittsburgh. Gael Sullivan, second assistant Postmaster General, carried special albums of the new stamps for presentation to Orville Wright in Dayton and mayors of Chicago, Pittsburgh and New York.

American's special flight leaves Los Angeles at 12:01 a. m. Oct. 1 for New York via Tucson, El Paso, Fort Worth, Dallas, Little Rock, Memphis, Nashville, Washington, and Philadelphia. It terminates at Boston at 9:35 p. m.

United will leave New York at 9 a.m. tomorrow for San Francisco via Cleveland, Chicago, Omaha, Denver, Cheyenne and Salt Lake City, on AM 1, airmail route on which the Department began coast-to-coast air mail service in 1920. From San Francisco the Packet will fly to Seattle. The Packet has not yet seen commercial service.



DC-4 TRANS-CANADA STYLE:

Cutaway shows interior arrangement of the 40-passenger DC-4M transports, being built by Canadair Ltd. near Montreal for Trans-Canada Air Lines as designed by Douglas and TCA. Seats are in two sections, fore and aft of the entrance. Galley and attendant's desk are amidships. Interior fabric, selected with particular attention to sound absorption, is in color combinations described as "vital yet subdued." Powered by four Rolls-Royce Merlin engines, developing over 1,150 hp. at 23,000 ft., the craft will have a 325 mph. maximum cruising speed, nonstop range of 3,500 mi. and can fly as high as 28,000 ft. "No transport plane in service today will fly faster at high altitudes," says TCA. Prototype (AVIATION NEWS, *Aug. 5) made first flight across Canada this month, from Montreal to Vancouver.*

House Transport Probe Is Making Slow Progress

House Interstate and Foreign Commerce Committee's overall survey of the transportation field, being directed by Prof. John Frederick of the University of Maryland, is making slow progress.

With staff assistance, Frederick is now drawing up a report — based, in part, on studies submitted to the committee by various transport interests—which is slated to go to the committee's chairman, Rep. Clarence Lea (D., Calif.) immediately after the November elections for committee action.

Frederick has completed work on the first two of the nine major subjects—laid out in the investigation agenda widely distributed by Lea over a year ago—which are

to be covered in the committee's survey: (1) national transportation policy; and (2) transportation regulation, including the controversial issue whether there should be separate regulatory agencies for different modes of transportation.

Other major subjects to be covered: transportation financing; integration, or consolidations of ownership; taxation; federal aid to transportation; interstate barriers to commerce; the submarginal carrier; miscellaneous problems, such as action to promote technological progress in transport equipment, personnel relations, joint use of terminal facilities, etc.

The report, in the form finally approved by the Committee, presumably will be the basis for comprehensive transportation legislation to be initiated by House Interstate in the next Congress.

Admit Five Feederlines To Air Transport Group

Election of five feederlines to new membership in the Air Transport Association has brought the total membership of that trade organization to 30 regulars and three associates. The policy of admitting newly certificated scheduled airlines to membership is a new one.

Latest members are Empire Air Lines, Inc., Lewiston, Idaho; Florida (formerly Orlando) Airways, Inc., Orlando, Fla.; Monarch Air Lines, Inc., Denver; Southwest Airways Co., Los Angeles, and E. W. Wiggins Airways, Inc., Norwood, Mass.

The three Associate members of ATA are Trans-Canada Air Lines, Canadian Pacific Air Lines, and Panagra.

PREFAB FLOWN:

PCA recently carried this prefabricated house, complete with furnishings, from Boston to Dayton, where it was set up 37 min. after arrival as an exhibit at the Outdoor Writers Sports Show. The "Sportsman's Cabin" weighed 4,000 lb. with accessories, and consisted of one room and porch. E. F. Hodgson Co. of Dover, Mass., is the manufacturer.

U.S.-British Accord Binds Bermuda Pact

Five Air freedoms pledged in all future negotiations and opens restrictive bilateral agreements to renegotiation.

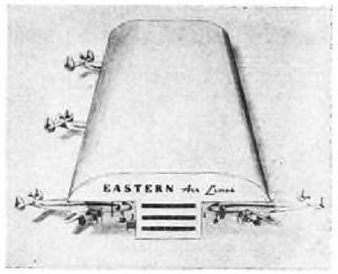
An accord on international civil aviation policies which may overshadow in practical importance the agreement reached by the U.S. and Great Britain at Bermuda last February has been announced by the two nations following the recent London visit of an American delegation headed by CAB Chairman James M. Landis.

Landis said the new understanding pledges England and the U.S. to follow the Bermuda principles of competition, unrestricted capacity, unlimited frequency and the right to Fifth Freedom traffic in negotiating all future air transport agreement with other countries. The Bermuda accord, Landis emphasized, had not bound either party to follow the principles there enunciated.

Back of the London discussions has been the tendency of Great Britain to negotiate bilaterals which included features of cartelization inconsistent with the Bermuda pact. The British-Argentine bilateral, which provided for a 50-50 division of traffic, was especially disturbing to the U.S., Landis indicated, adding that British pacts with Greece, France, Holland, Portugal and a half dozen other nations gave cause for concern.

The CAB chairman admitted the U.S. also had not followed scrupulously the Bermuda principles but had tended to press for agreements containing even more freedom of the air than contemplated at Bermuda. Both Great Britain and the U.S. have now agreed to re-examine wherever possible existing bilaterals which contravene the Bermuda accord.

Arrangements also have been completed for establishing the machinery envisaged in the Bermuda conversations for continuous consultation and exchange of views between the two countries on civil aviation problems. Laurence Vass has been appointed as CAB representative with the Ministry of Civil Aviation in London. Nigel Bicknell has been named Ministry of Civil Aviation representative with CAB in Washington.



EAL NOSE HANGAR:

The new $1,000,000 nose hangar sketched above will be built by Eastern Air Lines at Miami for the accommodation of eight four-engine or twelve twin-engine transports, as part of the carrier's expansion plan at the Miami airport. Of all-steel, hurricane-proof construction, the hangar will be three stories high, 430 ft. long and 180 ft. wide.

No Show Charge of 25% Voted for North Atlantic

Member airlines of the North Atlantic Traffic Conference of IATA have voted to impose a service fee on refunds for unused tickets not cancelled before takeoff. The "no show" charge would be 25 percent of the fare, with a $50 maximum, and will become effective 15 days after all governmental authorities concerned have approved.

The conference, at its three-day session in Montreal, also adopted a standard Great Circle mileage table for computing rates and tariffs and gave preliminary approval to a standard ticket and waybill for all companies.

CAB Reopens Case

CAB has reopened the West Coast route case on the existing record for further argument and reconsideration of the portion of its decision which denied Western Air Lines' application to operate between San Francisco and Seattle. All other requests for rehearing, reargument and reconsideration were denied.

Two 'Copter Routes Asked for Los Angeles

Sketching the outline of what probably will be the first certificated helicopter mail service in the country, the Post Office Department and two applicants, Los Angeles Airways, Inc., and Southwest Airways Co., presented evidence on proposed operations in the Los Angeles area at a recent CAB hearing.

Post Office Inspector Andrew E. Newton recommended that two circular routes based at the Los Angeles Municipal airport be set up along with a shuttle service between the airport and the Terminal Annex post office in downtown Los Angeles. Three flights daily—morning, noon and evening — would be operated on the circular routes, while hourly schedules would be maintained between the airport and the Terminal Annex.

The Post Office designated approximately 30 stops on the circular routes, but a total of 74 post offices would be served directly or indirectly.

Both Los Angeles Airways and Southwest proposed linear routes in their exhibits, basing their cost estimates on this type operation. The Post Offices' recommendation of circular routes will necessitate submission of supplemental exhibits by the two applicants this week, giving new cost data.

Active opposition to the helicopter experiment in the Los Angeles area failed to develop. However, Western Air Lines took the position that a certificated fixed wing operator such as Southwest, which has been granted feeder routes in California and Oregon, should not be permitted to operate helicopter service also.

Clarence Belinn, Los Angeles Airways president, told CAB Examiner Ferdinand Moran that his company would use one Sikorsky S-51 and six Bell Model 47s, while Vice President James G. Ray of Southwest proposed service with six S-51s. Both companies indicated they favored use of automatic pickup devices to avoid landings where possible and to expedite service. Belinn declared helicopter mail operations in Los Angeles may later be expanded to include distribution of air express, newspapers and merchandise.

Fuel Injection Boosts Constellation Payload

Increases in payload and cruising speed were seen as benefits from the increased efficiency of fuel injection engines as Pan American and TWA put Constellations with the improved power plants into service across the Atlantic.

Fuel saving was estimated at 5 to 6 percent, which was translated by Pan American to mean an increased payload of 900 lb. on long flights through decrease in fuel load, allowing room for four additional passengers across the Atlantic.

TWA said fuel injection, with a new supercharger, would increase cruising speed 20 mph., making it about 340 mph. when return of cabin pressurization the last of October or first of November means the Constellations again can fly at high altitudes.

Both carriers noted smoother engine performance, reductions in vibration, easier starting and a lowered noise level.

The first of TWA's Constellations modified in accordance with CAA requirements and also equipped with fuel injection engines flew to Paris late this month after proving runs. Pan American's also flew the Atlantic and plans were to put similar equipment across the Pacific to Honolulu.

PAA, which instituted its fuel injection program a year ago, had a conversion schedule on which the completion date, originally set for last July had been set back to October, 1946. Acceleration of the program means that additional fuel injection Constellations are entering scheduled operation each week.

TWA was to receive three more of the modified planes last week and expected another every four or five days. An additional 13 new ones from the Lockheed plant are expected early in October.

FRENCH TRANSPORT IN SERVICE:

The 33-seat French S. E. 161 Languedoc shown above in service with Air France is the first French transport type plane in production since the liberation. Construction is light alloy monocoque. All control surfaces are metal. Note twin rudders. Plane has four Gnome & Rhone 14 N 44 radial engines, 14 cylinders developing 1,020 hp. for takeoff. Span is 96 ft. 6 in.; length 79 ft. 7 in.; height 16 ft. 10 in., wing area 1,198 sq. ft. (British Combine photo)

Airline Service Suspension Is Approved by CAB

Suspension of airline service at Clarksburg and Morgantown, W. Va., by TWA, PCA and American Airlines has not been in violation of the Civil Aeronautics Act and was justified by safety considerations, CAB ruled last week. The Board's decision upheld recommendations made by a Board examiner early last spring.

CAB found that the marginal condition of the airports at Morgantown and Clarksburg, the existence of considerable turbulence and the land contour in the vicinity of the airports made the suspensions advisable from the safety standpoint. PCA is certificated to Clarksburg and Morgantown on AM 55, American to Clarksburg on AM 25, and TW to Morgantown on AM 61.

The Board temporarily authorized PCA to serve Elkins, W. Va., as an intermediate point between Clarksburg and Charlestown, W. Va., as long as conditions at Benedum airport prevent resumption of operations to Clarksburg.

New Coach Service

The Flxible Co., Loudonville, Ohio, reports that the next 90 days will find its 23-passenger Airporter Club Coach, (AVIATION NEWS, July 15) in operation at at least nine major airports, including Chicago, Los Angeles, Detroit, New York, Pittsburgh, Knoxville, Memphis, Atlanta and Miami. Others have ordered the coaches,

and the company believes that most larger centers will have some in service in the first quarter of next year.

Airlines Decide on Joint Terminal Facilities Firm

In deciding recently to form a corporation for joint operation of airline terminal facilities as an aftermath of the McGoldrick survey of ground operations at various sample airports throughout the country, the airlines are following a course recommended previously by Air Transport Association Committees.

The action was decided at an ATA membership meeting. Incorporation papers are to be filed soon in Delaware, and the subject will be discussed further in another meeting in about a week, at which a board will be selected and further plans discussed. Willow Run may be the first terminal selected for cooperation operations.

A similar proposal, an ATA official said, was made more than a year ago by the Airport Agreements committee, but was tabled for future consideration because it came during the war. The survey by Joseph D. McGoldrick, former New York City comptroller, and his staff was described as taking up where the Airports committee stopped. Another recommendation for consolidation of facilities and terminal equipment was made late last year by the Airline Finance and Accounting Conference.

Second Major Airport Urged for St. Louis

Aeronautical adviser to mayor cites need for freight terminal and expanded passenger facilities.

Speedy construction of a second major airport for St. Louis to handle anticipated increases in air traffic has been urged by Richard T. Carter, aeronautical advisor to Mayor John T. Connors of East St. Louis.

Carter cited the fact that more than 300,000 air passengers are expected to use Lambert-St. Louis Municipal Airport this year, compared with 52,000 in 1939. Something should also be done quickly, he said, to provide terminal facilities for air freight. He suggested that a new major airport, on which work may start within the next 12 mo., could take care of air freight and nonscheduled traffic exclusively, leaving passenger traffic to Lambert Field facilities.

Whenwhile, the city's sale of $5,000,000 of municipal airport bonds (AVIATION NEWS, Sept. 23) reflected unsettled bond market conditions. Interest rate of 1¼ percent is considerably above the ⅞ percent at which the last block of airport bonds sold July 11, 1944. Premium on the successful bid was $31,900.

Other airport developments elsewhere:

▸**New York**—Opening of Idlewild Airport to commercial flights will not occur before next spring, and then on a three-runway or 50 percent basis, Mayor William O'Dwyer reported. . . . Navy air squadrons moved from Floyd Bennett field to make room for some airline overflow from LaGuardia Field. Date for beginning of airline use has not been set. Naval reserve and some other units remain at the field.

▸**Newark**—Belief that Newark should receive $20,000,000 for its airport and seaport facilities, instead of the $9,180,000 offered by the Port of New York Authority, was expressed by Mayor Vincent Murphy.

▸**Buffalo, N. Y.**—Despite commercial traffic increases at Buffalo airport since Jan. 1, fiscal year ended June 30 showed an operating deficit of $42,004. Expenditures for the year, $128,774; revenues, $86,769 Transition from wartime operation, particularly termination of the city's contract with Curtiss-Wright Corp. for use of the field, was main factor in the deficit. . . . City Planning Association has recommended to the Common Council that the airport be conditioned to meet commercial plane needs, a site be obtained for a future "super port," and creation of an Airport Authority to map a plan for the entire Niagara Frontier.

▸**Watertown, N. Y.**—Airport commission has promulgated new municipal airport safety regulations. Rules are being given 90 day test.

▸**Pittsburgh**—Allegheny County Commissioners have approved recommendations of rights-of-way and interchanges for Greater Pittsburgh Airport.

▸**Harrisburg, Pa.**—Pennsylvania Aeronautical Commission predicts that more than $50,000,000 will be spent on airport building in Pennsylvania in the next few years.

▸**Louisville, Ky.**—The Kentucky Areonautics Commission has urged communities to submit ideas for inclusion in the state's master airport plan so they can share in $6,000,000 federal funds. The plan is to be drawn within the next two months.

▸**Columbus, Ohio**—City council is to act on a proposal that federal authorities be asked to make Port Columbus a U. S. immigration and customs port of entry.

▸**Miami**—Miami International airport reported an operating surplus of $85,000 for the first seven months.

Northwest Airlines Nets $988,851 for Fiscal Year

Northwest Airlines' net profit for the fiscal year ended June 30 was $988,851 after taxes and reserves, 36 percent above the preceding fiscal year. Earnings amounted to $1.82 for each of 543,870 shares of common capital stock outstanding when the year ended. Earned surplus June 30 was $2,422,855.

Major part of increases in operating revenues, which were up 52 percent, came from $13,371,074 in passenger revenue, 68 percent over the preceding year. Mail revenue was $1,455,166, a decrease of 10 percent.

Completion or curtailment of war contracts decreased fees for contract work by $598,025. These were not included in total operating revenues which without them produced $1 per revenue mile. Operating expenses were 42 percent higher than the preceding year. Total number of miles flown was up 64 percent.

AA Changes Plans

American Airlines plans to remove all 28-passenger DC-3s from the New York-Boston run by Jan. 1. Company official said passengers had been critical of the crowding caused by the extra seats.

CAB ACTION

The Civil Aeronautics Board:

● Permitted Empire Air Lines to serve Boise, Ida.; Ontario, Baker, La Grande and Pendleton, Ore.; Idaho Falls, Pocatello, Burley, Twin Falls and Gooding, Ida.; Walla Walla, Wash.; Lewiston - Clarkston, Pullman - Moscow and Coeur d'Alene, Ida.; and Spokane, Wash., on AM 78 through use of Cowen Field, municipal airports at Ontario, Baker, La Grande, Pendleton, Idaho Falls, Pocatello, Burley, Twin Falls, Gooding, Walla Walla and Lewiston, Pullman-Moscow Regional Airport, Coeur d'Alene Air Terminal and Geiger Field, respectively. Also permitted Empire to suspend all service temporarily at Burley, Twin Falls and Pullman-Moscow and to suspend service temporarily on trips requiring night operations at Lewiston-Clarkston.

● Dismissed Delta Air Lines' route application (Docket 975) at applicant's request.

● Denied Trans-Pacific Airlines' motion for immediate hearing on route application (Docket 2390).

CAB SCHEDULE

Sept. 30. Briefs due in Boston-New York-Atlanta-New Orleans route case. Extended from Sept. 16. (Docket 730 et al.)

Sept. 30. Exchange of exhibits in Continental Air Lines' San Antonio-Hobbs certificate amendment case. (Docket 2087.)

Sept. 30. Exchange of exhibits in Pan American Airways-Panagra charter agreement case. (Docket 2423.)

Sept. 30. Exchange of rebuttal exhibits in Waterman Steamship Corp.'s application for temporary New Orleans-San Juan route certificate. (Docket 2405.)

Oct. 3. Oral argument in Air Commuting route case. (Docket 1642.)

Oct. 3. Prehearing conference on traffic agency agreement between United States Lines Co. and Pan American. (Docket 2492.)

Oct. 4. Exhibits due on applications of Chicago & Southern and Pan American for service to Montego Bay, Jamaica. Postponed from Sept. 27. (Dockets 2436 and 2455.)

Oct. 7. Exhibits due in TWA's Italian agreement case. Postponed from Sept. 16. (Docket 2337.)

Oct. 7. Hearing in Pan American Airways-Panagra charter agreement case. (Docket 2423.)

Oct. 7. Hearing on Waterman Steamship Corp.'s application for temporary New Orleans-San Juan route certificate. (Docket 2405.)

Oct. 7. Reargument on portion of West Coast case. (Docket 250 et al.)

Oct. 8. Exchange of rebuttal exhibits in Detroit-Washington route case. Extended from Sept. 15. (Docket 679 et al.)

Oct. 8. Prehearing conference on Desert Airways' route application. (Docket 1308.)

Oct. 9. Prehearing conference in Florida area route applications of Southern Air Express, J. I. Leak, Florida Airlines, Clarence W. Ludwig, U. S. Flying Service, Plantation Air Lines, National Airlines and Florida Airways. (Dockets 997 etc.)

Oct. 10. Prehearing conference on National Airlines' application to include Key West on Havana route. (Docket 2356.)

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.)

Oct. 17. Rebuttal exhibits due in TWA's Italian agreement case. Postponed from Sept. 26. (Docket 2337.)

Oct. 19. Exchange of rebuttal exhibits in air freight case. Extended from Oct. 14. (Docket 810 et al.)

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. Hearing in Detroit-Washington route case. Postponed from Oct. 15. (Docket 679 et al.)

Oct. 21. Oral argument on PCA-Northeast merger case. (Docket 2168.)

Oct. 28. Briefs due in Arizona-New Mexico area route case. (Docket 968 et al.)

Oct. 28. Hearing in Continental Air Lines' San Antonio-Hobbs certificate amendment case. (Docket 2087.)

Oct. 30. Hearing in Pan American Airways' domestic route case. Postponed from Oct. 29. (Docket 1803.)

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.)

At the time when he normally would have written this editorial page, Robert H. Wood, the Editor of AVIATION NEWS, flew to Norway, Sweden, and Denmark as guest of Scandinavian Airlines to study air commerce developments in those countries. In his absence this issue's editorials were written by Scholer Bangs, Pacific Coast Editor.

Clearing the Decks

SINCE "THAT ARTICLE" APPEARED in *Fortune*—as violently provocative as that "thing" at Bikini—the nation's airlines have begun some vigorous housecleaning . . .

Few airline people have taken offense at the needling of this article which painted a dismal picture of air transportation of the moment. Most have evidenced relief at being forced, they feel, into doing something about it.

It is true that air terminals still are congested; that terminal airspace still, at times, resembles a rat race; that customers still are left standing at gates, still endure lost luggage, still smart under the inefficiences of green airlines personnel. But there is hope.

One major airline in two weeks has been able to review its backlog of reservations and clear more than a thousand names from a waiting list, apparently by the simple expedient of re-checking—to make certain just who, on the list, still want to go.

How the Public Chooses

WILL YOU FLY in a Constellation? The recent grounding of all Constellations brought up the question of whether some airline passengers might, after the Connies are back in service, turn to the airline which operates some other kind of airplane. A quick, if casual, check with airline passengers indicates: That the public memory is no longer than a headline; and that airline passengers are convinced no air carrier will operate other-than-safe equipment.

Bouquet

THEY DIDN'T HAVE THE FAINTEST IDEA of what it was all about; so they bought some surplus airplanes. They were in business. They had the unbusinesslike idea that they could go out on the highways and byways and pick up loads of things to fly from here to there.

Audacious little men; anyone with business experience could have told them that they'd lose their shirts. Some did, and still others probably will lose their garments. . . . But a few, learning the hard way the economies necessary in pioneering a new air venture, will survive.

They are beginning to enjoy the sight of their C-54s and C-47s bulging with things to be carried: Hard goods, bolts of cloth, dresses, cut flowers, perishable produce. They even are seeing their bookkeepers now and then push aside the red ink bottle and reach for the black. They literally are "forcing into being" this service of air freighting that promises to be tomorrow's "big business" of Aviation.

Thank heaven for the "little men" who didn't know any better.

Gentlemen, Please

WAY BACK WHEN, an interesting concept of U. S. air transport developed. The so-called "domestic" airlines would confine their operations within U. S. borders.

Pan American Airways System would function outside of, and up to, those borders.

It had all the earmarks of an unwritten agreement among gentlemen. All very well, as long as the applecart remained upright; but, today, with domestic companies world-routing; with Panam bombarding for domestic route certificates, one may wonder.

Is all this the result of a broadening vision of the opportunities of aviation? Or does it mean there are no gentlemen? We would prefer to believe that it simply means that the air transport industry is growing up—and realizing that competition begets, rather than stifles, new business.

Take it Easy, Mr. Air Carrier

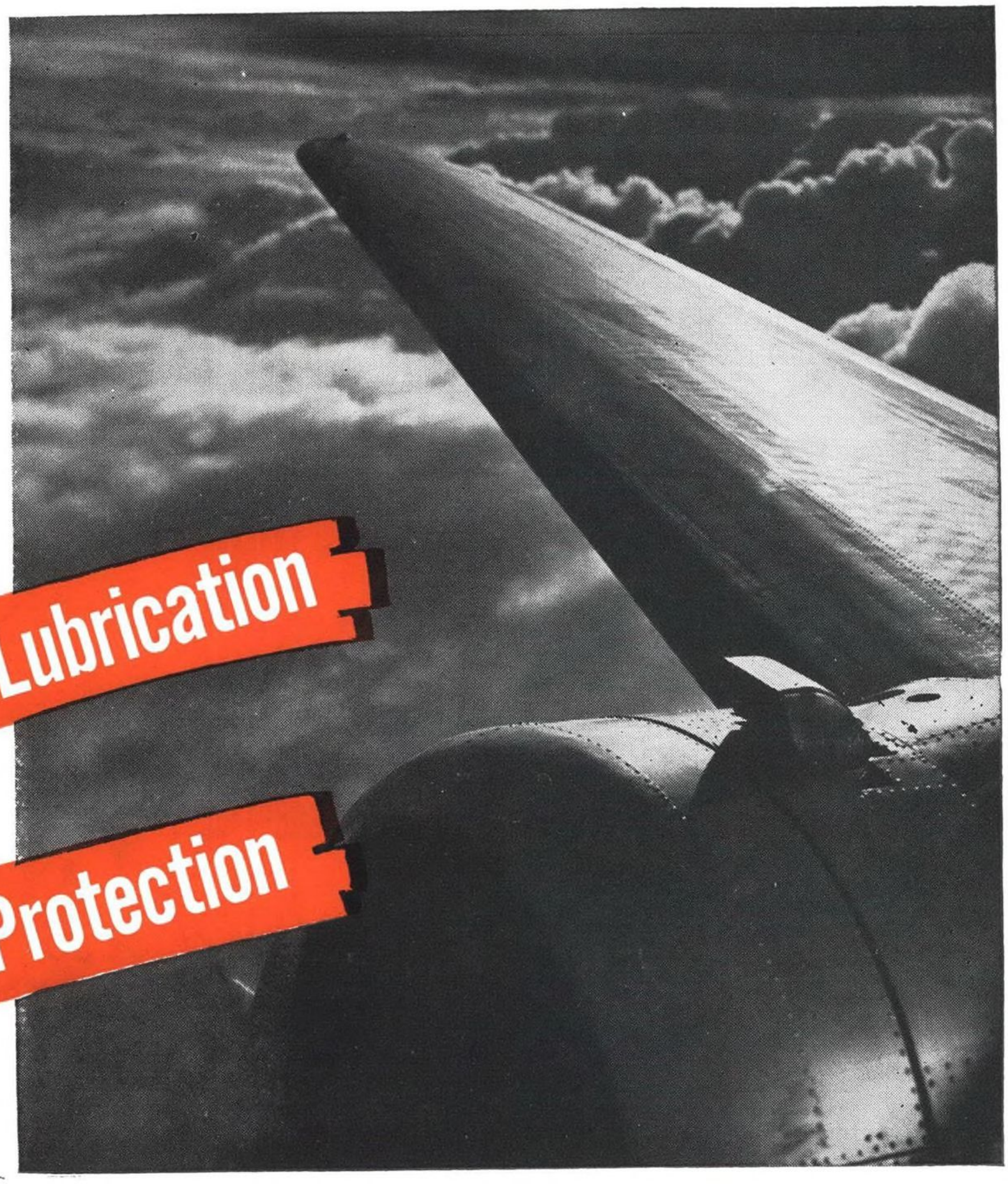
YES, TAKE IT EASY—a little less "service," a little more "safety," Mr. Air Carrier.

Never in peacetime history have you had the public clamor for what you have to sell—transportation—as in the months of the fall and winter already breathing down your neck.

Whether you are certificated and interested primarily in carrying passengers, or are a contract air freighter filling spare space with the overflow of people unable to buy scheduled airlines seats, the temptation will be strong to satisfy every demand made upon you by your cash customers.

Yet your ability to say "No"—to ground and hold flights even beyond the dictates of letter-of-the-law safety when confronted by this winter's combination of bad weather and crowded terminal airspace—will pay off if you can go through the season without "winter accidents."

Your travel-hungry public may damn you for a canceled flight. But it will crucify you for a crash.



. . . with this general-purpose grease

NOW . . . aircraft lubrication need no longer be complicated by the necessity for using different types of greases in propellers, landing gear, wheel bearings, magneto and control system bearings, and similar parts. Today, a *single* grease — *Texaco Regal Starfak Special* — effectively meets all these varied lubricating requirements.

Texaco Regal Starfak Special assures greater protection because it retains its superior lubricating qualities at all temperatures (range *at least* from —40°F to 250°F). It strongly resists oxidation, leakage and separation — maintains its stability, and provides thorough protection against washout.

Texaco Regal Starfak Special is approved against Specification AN-G-15, General Purpose Aircraft Grease, and provides a wide margin of safety over and above the very rigid requirements of this specification.

Texaco Regal Starfak Special is just one of a complete line of aviation products developed by Texaco research — lubricants and fuels whose outstanding quality has won them widespread preference. For example—

More revenue airline miles in the U. S. are flown with Texaco Aircraft Engine Oil than with any other brand.

For Texaco products and Lubrication Engineering Service, call the nearest of the more than 2300 Texaco distributing plants in the 48 States, or write:

The Texas Company, *Aviation Division,* 135 East 42nd Street, New York 17, N. Y.

TEXACO

TEXACO Lubricants and Fuels

FOR THE AVIATION INDUSTRY

Tune in . . . TEXACO STAR THEATRE presents the NEW EDDIE BRACKEN SHOW every Sunday night. See newspapers for time and station.